LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 30

2021

Bate Stamp Numbers
01061104 – 01063087

Prepared for

Department of the Army
Longhorn Army Ammunition Plant

1976–2021

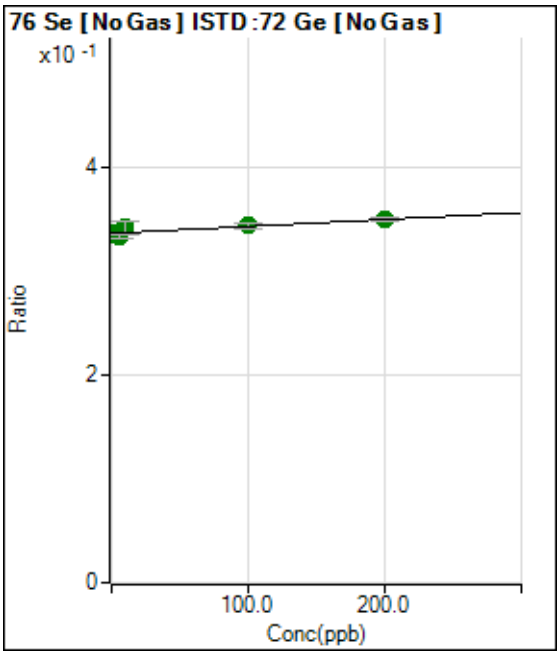
LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS
ADMINISTRATIVE RECORD – CHRONOLOGICAL INDEX

VOLUME 30

2021

A. Title: (Cont.) Report – Appendix F Level IV Labs to Quarterly Evaluation Report, 2nd Quarter (April–June) 2021, Groundwater Treatment Plant, Longhorn Army Ammunition Plant, Karnack, Texas, September 2021
Author(s): Bhate Environmental Associates, Inc.
Recipient: U.S. Army Corps of Engineers
Date: September 21, 2021
Bate Stamp: 01061104 – 01063087

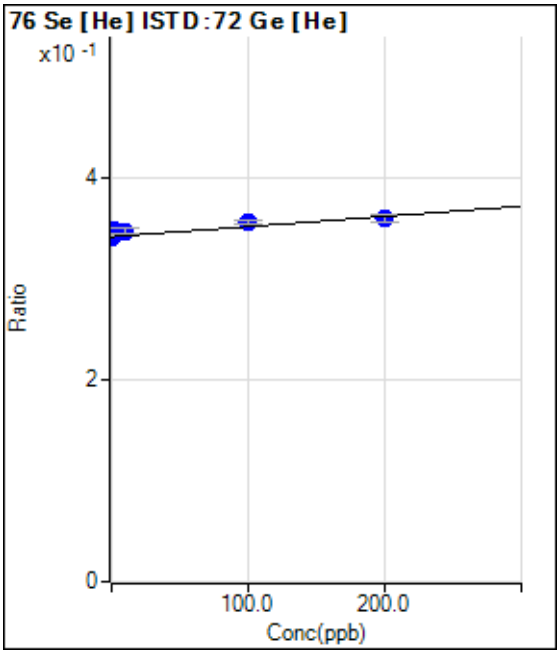
Calibration for 021_ICV.d



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1	☐	0.000	0.000	1201066.91	0.3366	A	1.5
2	☐	2.000	-20.177	1207675.53	0.3353	A	0.8
3	☐	5.000	-47.306	1201551.13	0.3335	A	1.1
4	☐	10.000	81.808	1214644.25	0.3421	A	3.5
5	☐	100.000	110.290	1239870.34	0.3440	A	1.4
6	☐	200.000	192.794	1233995.71	0.3495	A	1.2

y = 6.6900E-005 * x + 0.3366
R = 0.8922
DL = 233.2
BEC = 5032

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Min Conc: <None>

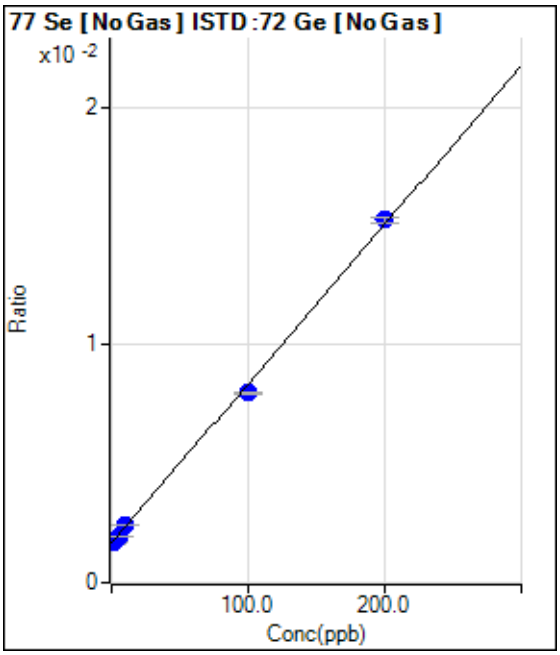


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1	☐	0.000	0.000	375176.44	0.3413	P	0.7
2	☐	2.000	73.102	378642.92	0.3487	P	0.9
3	☐	5.000	55.538	376808.51	0.3469	P	2.2
4	☐	10.000	56.675	376222.17	0.3470	P	1.9
5	☐	100.000	142.305	385444.46	0.3557	P	0.7
6	☐	200.000	174.539	374475.75	0.3589	P	2.3

y = 1.0101E-004 * x + 0.3413
R = 0.9059
DL = 68.15
BEC = 3379

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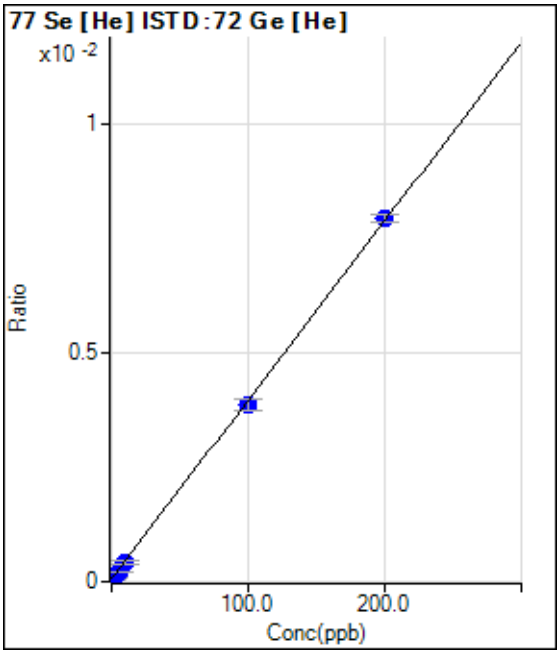
Calibration for 021_ICV.d



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1	☐	0.000	0.000	5978.08	0.0017	P	2.6
2	☐	2.000	0.572	6171.53	0.0017	P	1.7
3	☐	5.000	3.867	6968.59	0.0019	P	2.3
4	☐	10.000	10.985	8562.89	0.0024	P	1.8
5	☐	100.000	94.107	28737.62	0.0080	P	1.2
6	☐	200.000	202.940	53861.20	0.0153	P	1.7

y = 6.6925E-005 * x + 0.0017
R = 0.9994
DL = 1.978
BEC = 25.03

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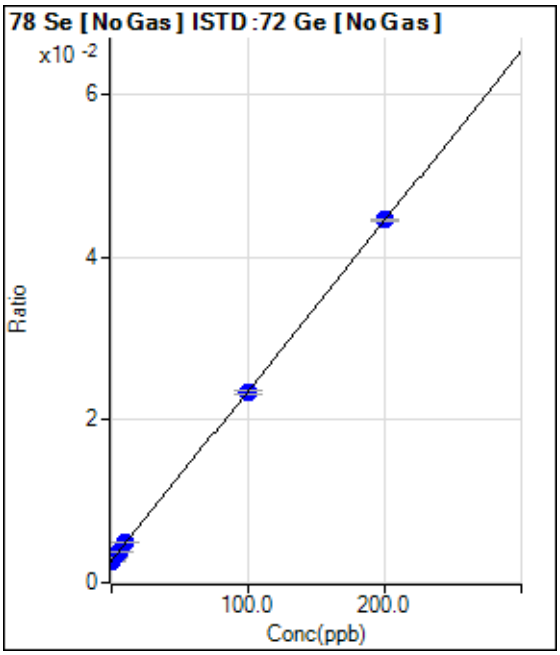


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3	☐	5.000	3.556	220.01	0.0002	P	12.8
4	☐	10.000	9.154	456.68	0.0004	P	18.8
5	☐	100.000	97.628	4194.06	0.0039	P	6.4
6	☐	200.000	201.275	8259.36	0.0079	P	2.1

y = 3.9015E-005 * x + 6.3664E-005
R = 0.9999
DL = 1.395
BEC = 1.632

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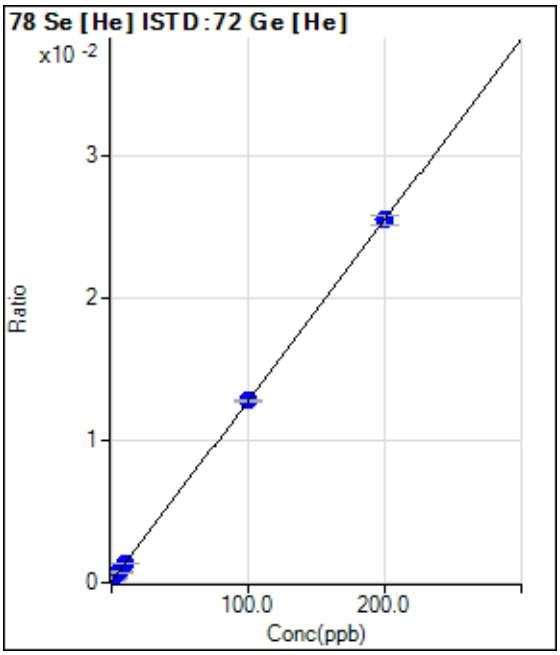
Calibration for 021_ICV.d



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3	☐	5.000	5.020	13533.66	0.0038	P	3.0
4	☐	10.000	10.673	17531.66	0.0049	P	1.6
5	☐	100.000	98.871	84128.64	0.0233	P	1.9
6	☐	200.000	200.536	157317.62	0.0446	P	0.8

y = 2.0870E-004 * x + 0.0027
R = 1.0000
DL = 1.698
BEC = 12.98

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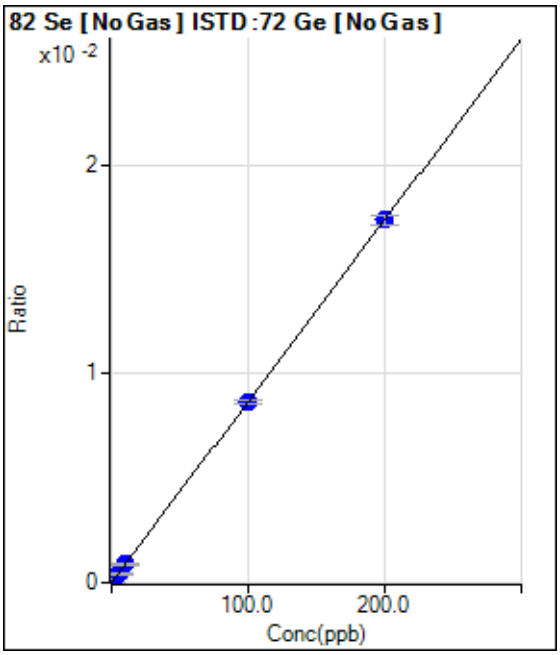


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1	☐	0.000	0.000	94.00	0.0001	P	2.0
2	☐	2.000	2.047	375.34	0.0003	P	10.2
3	☐	5.000	5.283	822.03	0.0008	P	5.6
4	☐	10.000	10.138	1488.09	0.0014	P	5.1
5	☐	100.000	99.917	13845.13	0.0128	P	1.2
6	☐	200.000	200.027	26594.17	0.0255	P	2.7

y = 1.2702E-004 * x + 8.5512E-005
R = 1.0000
DL = 0.04074
BEC = 0.6732

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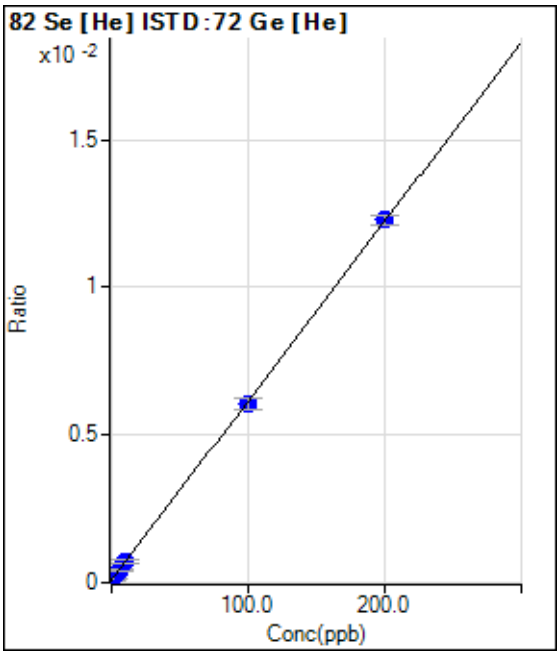
Calibration for 021_ICV.d



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1	☐	0.000	0.000	8.05	0.0000	P	1160.5
2	☐	2.000	1.956	617.81	0.0002	P	28.5
3	☐	5.000	4.980	1565.00	0.0004	P	12.7
4	☐	10.000	10.244	3161.60	0.0009	P	5.3
5	☐	100.000	99.588	31115.35	0.0086	P	2.3
6	☐	200.000	200.195	61253.18	0.0174	P	2.9

y = 8.6674E-005 * x + 2.0505E-006
R = 1.0000
DL = 0.8236
BEC = 0.02366

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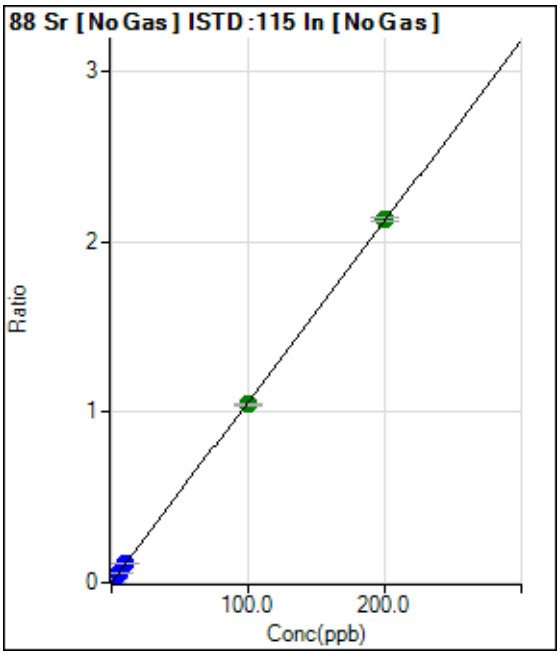


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
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2	☐	2.000	1.730	210.00	0.0002	P	49.0
3	☐	5.000	5.376	450.02	0.0004	P	6.4
4	☐	10.000	10.023	753.37	0.0007	P	16.8
5	☐	100.000	97.994	6538.35	0.0060	P	6.4
6	☐	200.000	200.995	12823.01	0.0123	P	2.5

y = 6.0711E-005 * x + 8.7945E-005
R = 0.9999
DL = 1.447
BEC = 1.449

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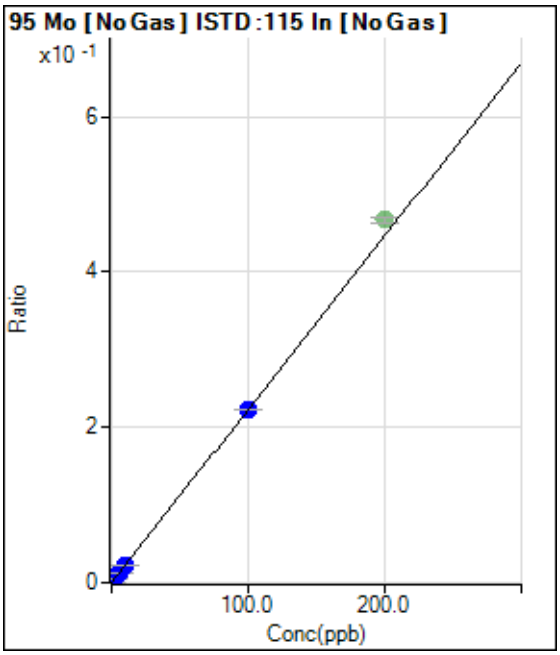
Calibration for 021_ICV.d



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1	☐	0.000	0.000	3827.30	0.0009	P	10.5
2	☐	2.000	2.012	98668.26	0.0222	P	2.2
3	☐	5.000	5.075	242129.21	0.0547	P	0.4
4	☐	10.000	10.242	486133.65	0.1095	P	0.5
5	☐	100.000	98.467	4608088.37	1.0453	A	1.4
6	☐	200.000	200.752	8973741.53	2.1302	A	1.2

y = 0.0106 * x + 8.6874E-004
R = 1.0000
DL = 0.02569
BEC = 0.0819

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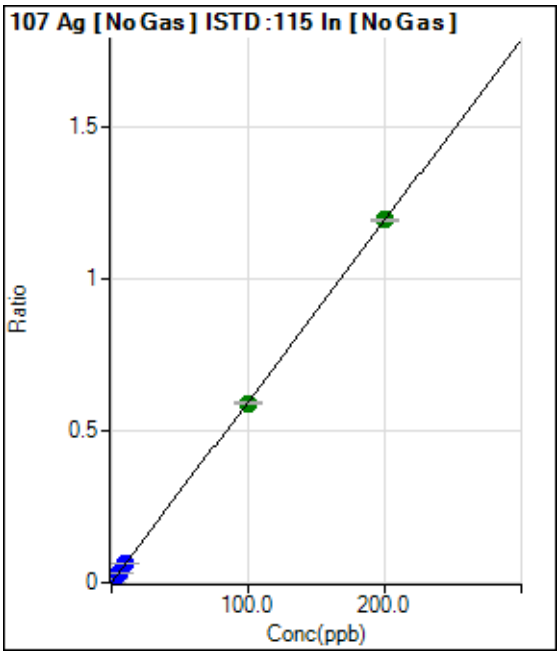


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2	☐	2.000	2.033	20399.28	0.0046	P	4.0
3	☐	5.000	5.120	50787.02	0.0115	P	0.7
4	☐	10.000	10.217	101387.78	0.0228	P	1.1
5	☐	100.000	99.972	982736.26	0.2229	P	0.2
6	☑	200.000		1967094.97	0.4670	A	1.7

y = 0.0022 * x + 6.1315E-005
R = 1.0000
DL = 0.008313
BEC = 0.02751

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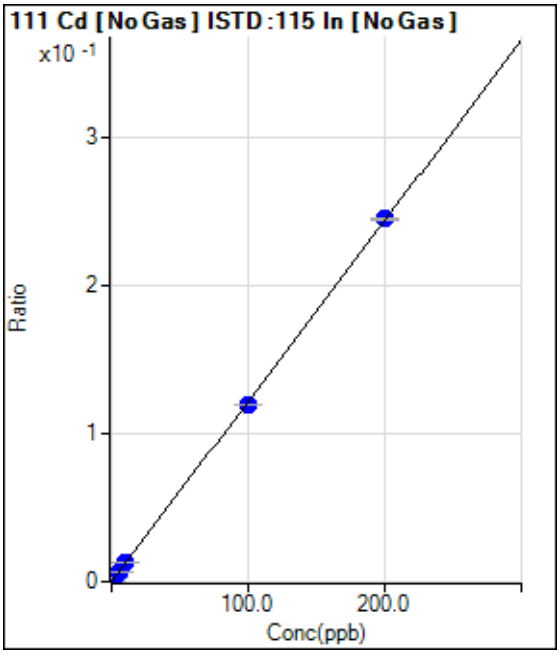
Calibration for 021_ICV.d



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2	☐	2.000	2.111	56427.03	0.0127	P	2.2
3	☐	5.000	5.191	137469.14	0.0311	P	2.1
4	☐	10.000	10.503	278400.59	0.0627	P	0.2
5	☐	100.000	99.189	2606315.53	0.5912	A	0.3
6	☐	200.000	200.374	5030908.36	1.1942	A	0.6

y = 0.0060 * x + 1.2566E-004
R = 1.0000
DL = 0.006897
BEC = 0.02109

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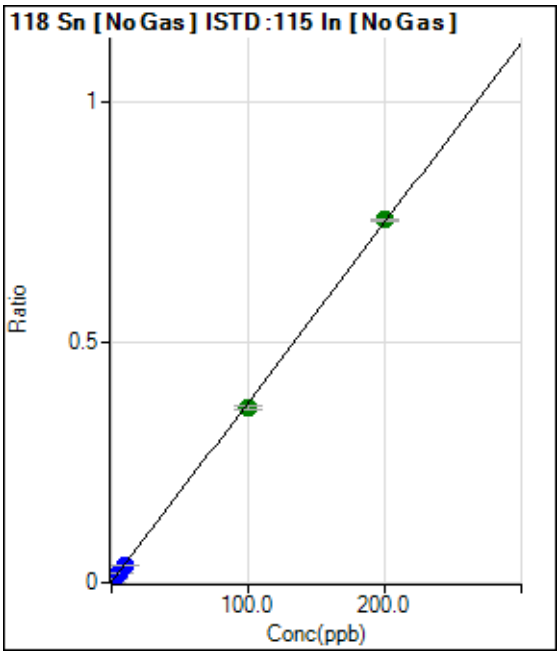


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2	☐	2.000	2.057	11118.20	0.0025	P	1.5
3	☐	5.000	5.040	27141.51	0.0061	P	2.8
4	☐	10.000	10.374	56029.04	0.0126	P	1.1
5	☐	100.000	97.872	524885.50	0.1191	P	0.4
6	☐	200.000	201.044	1030301.37	0.2446	P	0.8

y = 0.0012 * x + 7.5914E-007
R = 0.9999
DL = 0.003243
BEC = 0.000624

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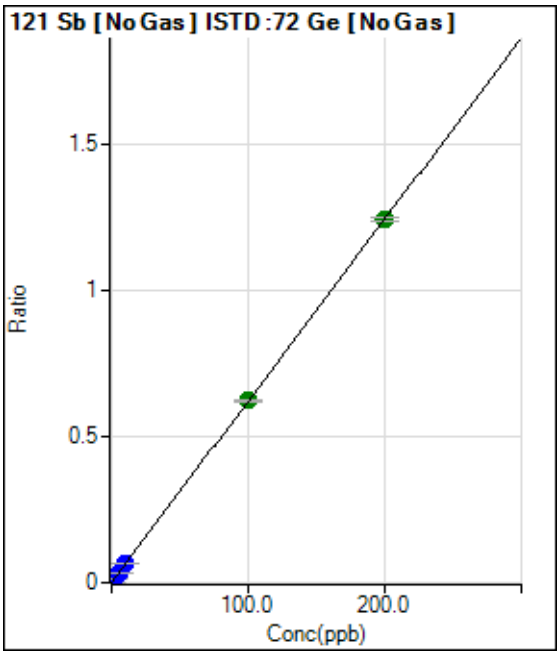
Calibration for 021_ICV.d



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1	☐	0.000	0.000	4310.80	0.0010	P	2.3
2	☐	2.000	1.947	36748.36	0.0083	P	3.8
3	☐	5.000	4.772	83464.48	0.0189	P	2.7
4	☐	10.000	9.802	167360.18	0.0377	P	1.6
5	☐	100.000	97.068	1607579.82	0.3646	A	1.8
6	☐	200.000	201.482	3184280.68	0.7558	A	0.7

y = 0.0037 * x + 9.7876E-004
R = 0.9999
DL = 0.01796
BEC = 0.2612

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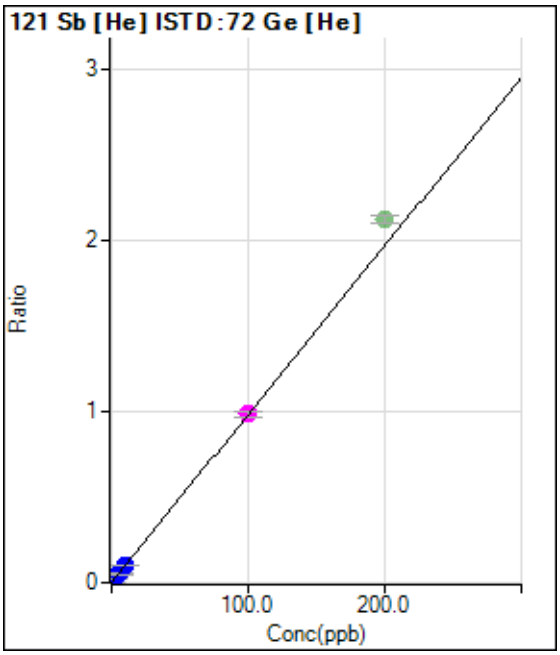


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1	☐	0.000	0.000	2356.92	0.0007	P	7.7
2	☐	2.000	2.044	48018.34	0.0133	P	1.3
3	☐	5.000	5.062	115465.80	0.0320	P	1.0
4	☐	10.000	10.455	232536.16	0.0655	P	1.8
5	☐	100.000	100.332	2244428.72	0.6227	A	0.9
6	☐	200.000	199.809	4375854.00	1.2395	A	1.1

y = 0.0062 * x + 6.6014E-004
R = 1.0000
DL = 0.02455
BEC = 0.1065

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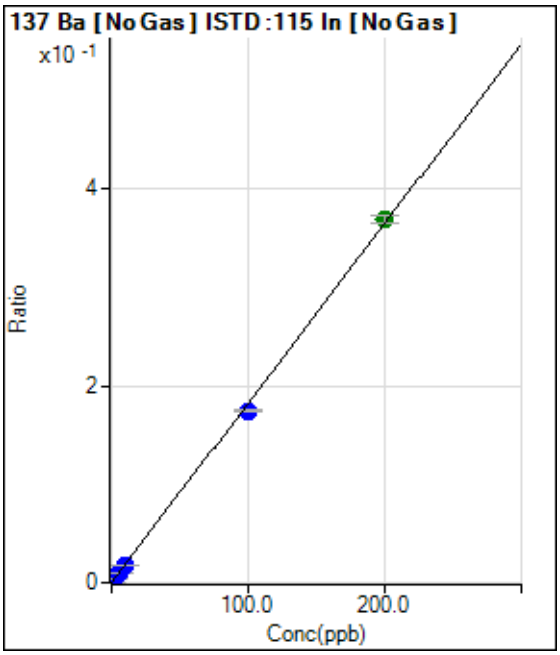
Calibration for 021_ICV.d



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2	☐	2.000	2.054	22906.95	0.0211	P	2.9
3	☐	5.000	5.118	55631.55	0.0512	P	2.7
4	☐	10.000	10.113	108761.82	0.1003	P	1.7
5	☐	100.000	99.982	1065948.26	0.9838	M	2.6
6	☑	200.000		2212022.57	2.1201	A	2.2

y = 0.0098 * x + 9.0061E-004
R = 1.0000
DL = 0.02973
BEC = 0.09161

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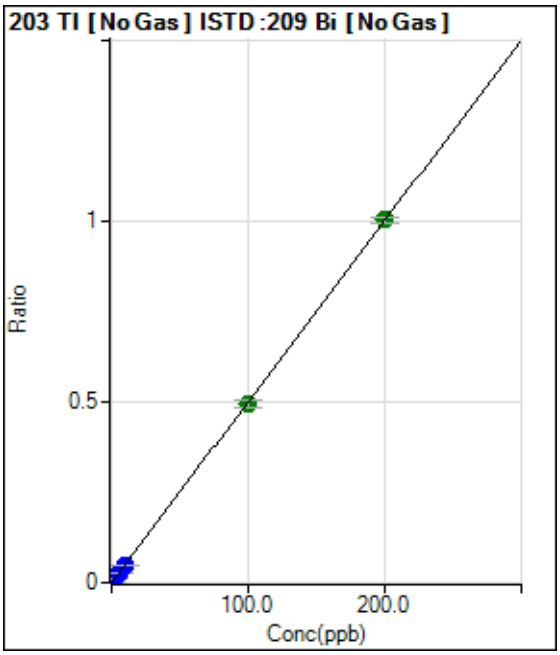


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2	☐	2.000	2.071	17492.28	0.0039	P	1.9
3	☐	5.000	4.827	39654.43	0.0090	P	1.0
4	☐	10.000	9.762	79700.64	0.0180	P	0.9
5	☐	100.000	95.677	769329.11	0.1745	P	1.5
6	☐	200.000	202.177	1552544.25	0.3686	A	2.2

y = 0.0018 * x + 1.6350E-004
R = 0.9997
DL = 0.01439
BEC = 0.08972

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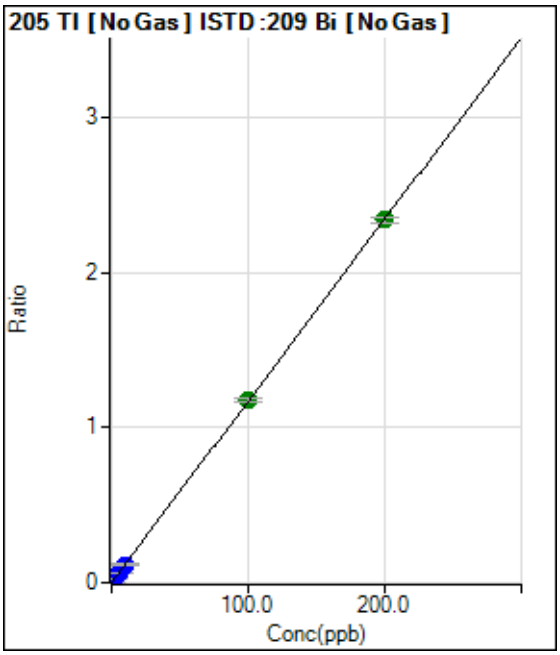
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
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2	☐	2.000	1.939	43305.44	0.0098	P	1.3
3	☐	5.000	4.920	107991.12	0.0247	P	2.2
4	☐	10.000	9.838	219174.49	0.0492	P	1.7
5	☐	100.000	98.729	2147794.71	0.4931	A	3.6
6	☐	200.000	200.646	4242833.17	1.0021	A	1.3

y = 0.0050 * x + 9.0255E-005
R = 1.0000
DL = 0.004032
BEC = 0.01807

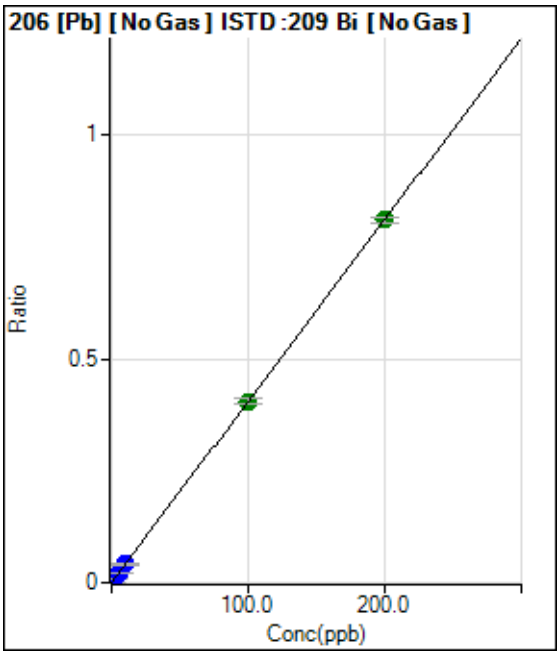
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2	☐	2.000	1.999	104768.38	0.0236	P	3.6
3	☐	5.000	5.096	262395.39	0.0599	P	1.7
4	☐	10.000	9.987	521905.85	0.1172	P	1.7
5	☐	100.000	100.390	5123650.13	1.1761	A	2.1
6	☐	200.000	199.803	9909455.48	2.3405	A	1.3

y = 0.0117 * x + 2.3167E-004
R = 1.0000
DL = 0.009364
BEC = 0.01978

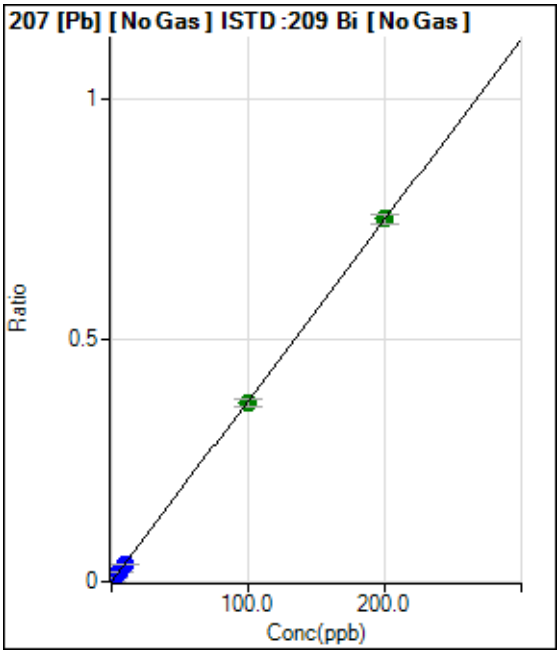
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2	☐	2.000	2.027	37122.37	0.0084	P	1.3
3	☐	5.000	5.105	91339.72	0.0209	P	2.0
4	☐	10.000	10.061	182383.82	0.0410	P	2.0
5	☐	100.000	99.908	1765488.67	0.4053	A	2.7
6	☐	200.000	200.040	3435663.07	0.8113	A	1.8

y = 0.0041 * x + 1.5871E-004
R = 1.0000
DL = 0.009334
BEC = 0.03914

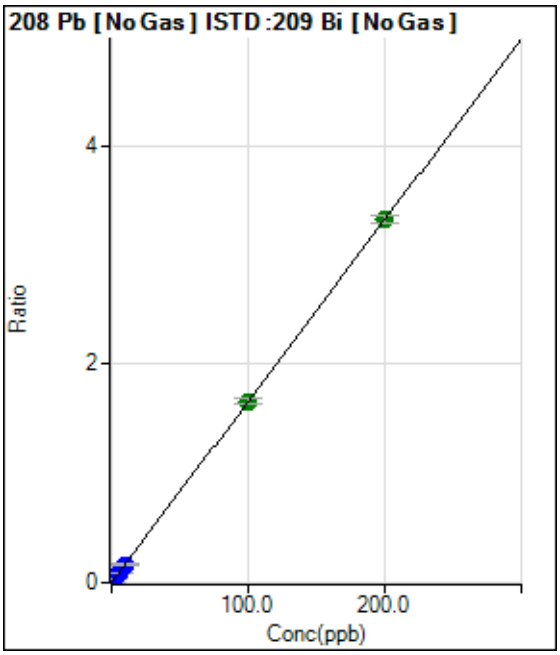
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.37	0.0002	P	14.9
2	☐	2.000	2.000	33846.23	0.0076	P	0.8
3	☐	5.000	5.018	82854.61	0.0189	P	3.9
4	☐	10.000	9.848	164707.55	0.0370	P	2.2
5	☐	100.000	98.751	1609213.99	0.3695	A	3.5
6	☐	200.000	200.632	3177365.99	0.7505	A	2.3

y = 0.0037 * x + 1.5869E-004
R = 1.0000
DL = 0.01894
BEC = 0.04243

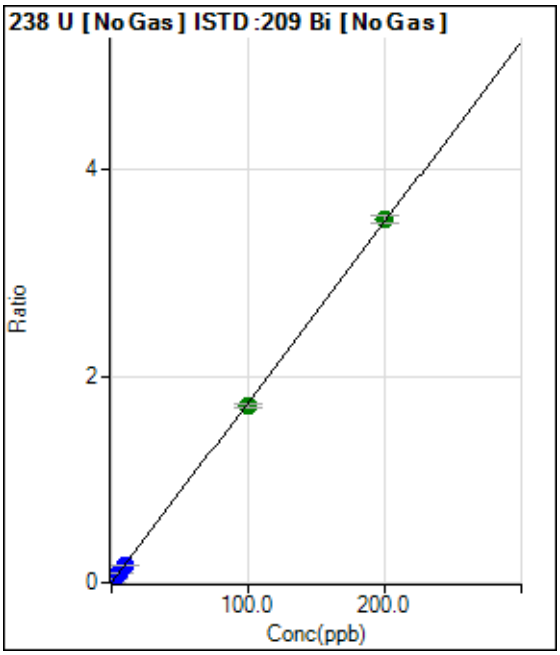
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3023.54	0.0007	P	8.5
2	☐	2.000	2.030	152222.81	0.0344	P	1.1
3	☐	5.000	5.061	370669.12	0.0847	P	2.4
4	☐	10.000	9.980	740377.11	0.1663	P	2.1
5	☐	100.000	99.742	7210883.43	1.6555	A	3.1
6	☐	200.000	200.128	14060332.29	3.3210	A	2.0

y = 0.0166 * x + 6.8225E-004
R = 1.0000
DL = 0.0105
BEC = 0.04112

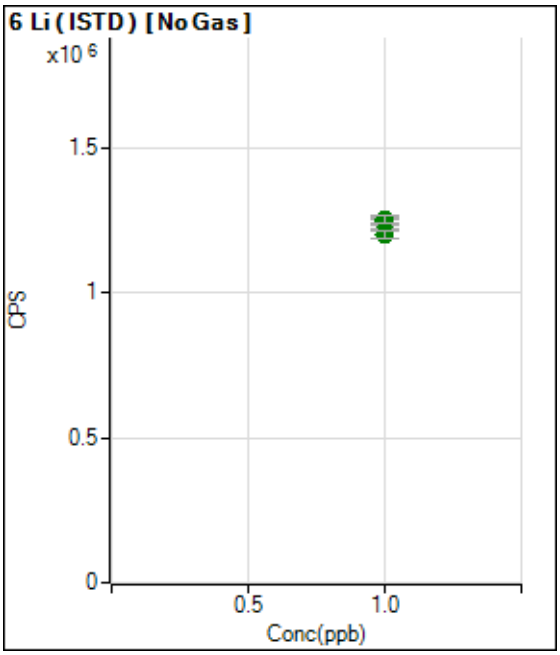
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Min Conc: <None>



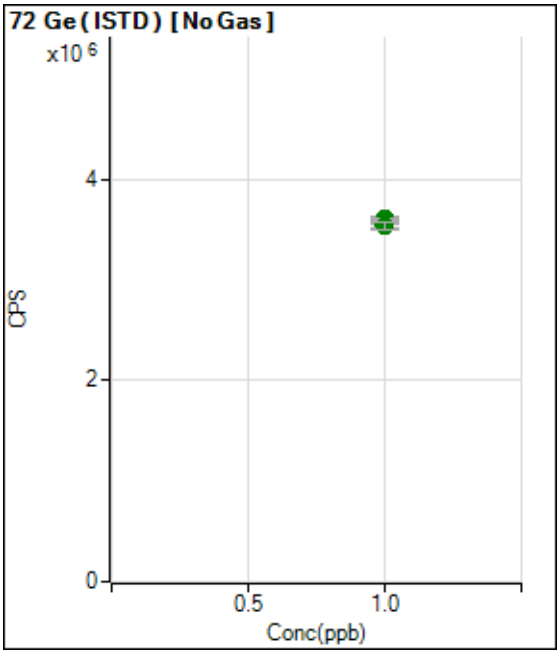
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	110.00	0.0000	P	24.0
2	☐	2.000	1.955	151608.23	0.0342	P	2.0
3	☐	5.000	4.915	376486.42	0.0860	P	3.0
4	☐	10.000	9.767	760834.44	0.1709	P	1.4
5	☐	100.000	97.802	7453227.18	1.7107	A	2.0
6	☐	200.000	201.113	14892446.03	3.5177	A	2.1

y = 0.0175 * x + 2.4816E-005
R = 0.9999
DL = 0.00102
BEC = 0.001419

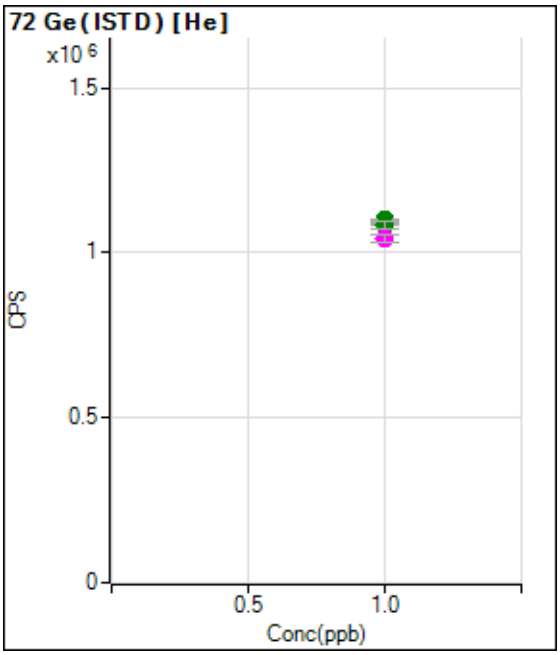
Weight: <None>
Min Conc: <None>



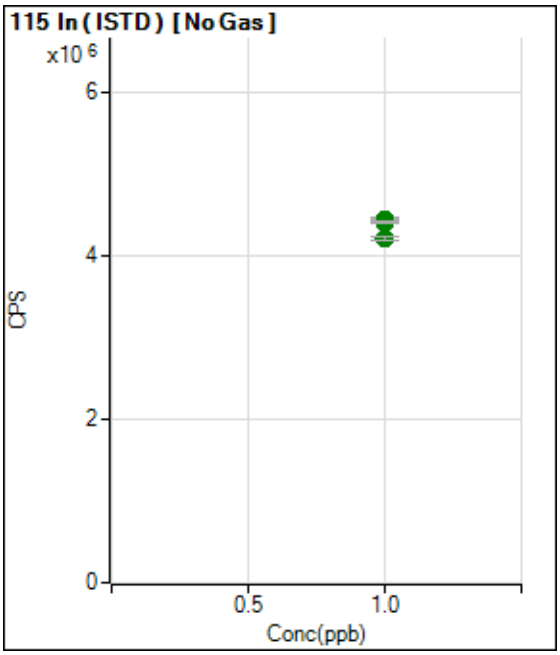
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1245422.74		A	1.1
2	☐	1.000		1219019.63		A	0.2
3	☐	1.000		1250998.65		A	2.0
4	☐	1.000		1243976.23		A	1.6
5	☐	1.000		1253379.39		A	2.2
6	☐	1.000		1202323.55		A	2.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3568143.49		A	1.3
2	☐	1.000		3601909.95		A	0.9
3	☐	1.000		3603413.90		A	1.7
4	☐	1.000		3551962.86		A	2.0
5	☐	1.000		3604269.22		A	0.7
6	☐	1.000		3530700.26		A	1.9

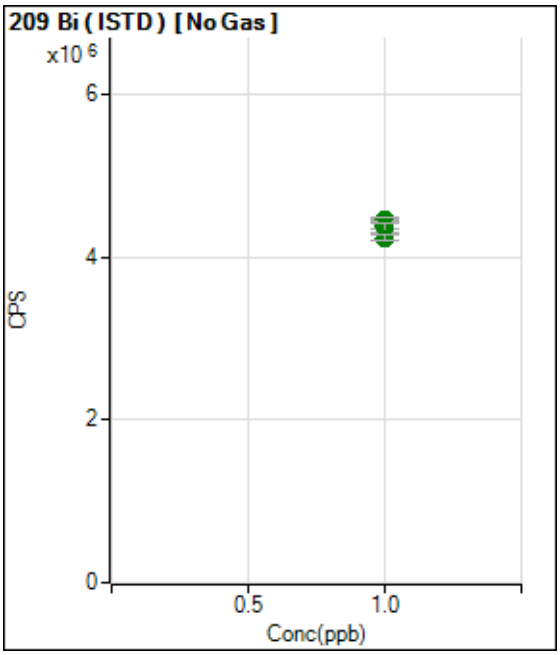


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1099243.94		A	0.3
2	☐	1.000		1085958.94		A	0.9
3	☐	1.000		1086538.42		A	2.4
4	☐	1.000		1084426.91		A	2.2
5	☐	1.000		1083757.98		A	1.6
6	☐	1.000		1043675.84		M	2.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4404541.04		A	0.3
2	☐	1.000		4442927.23		A	1.8
3	☐	1.000		4426408.10		A	0.5
4	☐	1.000		4439432.52		A	0.6
5	☐	1.000		4408508.81		A	0.4
6	☐	1.000		4213001.98		A	1.4

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4431936.50		A	0.1
2	☐	1.000		4431188.99		A	1.1
3	☐	1.000		4379992.85		A	1.8
4	☐	1.000		4453524.00		A	1.0
5	☐	1.000		4357869.94		A	2.4
6	☐	1.000		4234525.98		A	1.7

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	014CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:34:01-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	72732	0.00
Be	9	1	No Gas	3	5196.15
V	51	2	He	1206	0.37
Cr	52	2	He	2190	0.13
Fe	56	2	He	26125	0.00
Se	78	2	He	94	2.26
As	75	2	He	134	11.71
Ca	44	2	He	1823	0.31
Na	23	2	He	94441	0.00
Mg	24	2	He	1970	0.32
K	39	2	He	44693	0.00
Mn	55	2	He	9083	0.04
Co	59	2	He	67	56.62
Ni	60	2	He	993	1.41
Cu	63	2	He	5821	0.08
Zn	66	2	He	4161	0.27
Al	27	2	He	2940	0.26
B	11	1	No Gas	27929	0.01
Al	27	1	No Gas	133156	0.00
Si	28	1	No Gas	619853	0.00
Ag	107	1	No Gas	553	1.91
Cd	111	1	No Gas	3	5196.15
Sr	88	1	No Gas	3827	0.28
Mo	95	1	No Gas	270	3.63
Sn	118	1	No Gas	4311	0.05
Sb	121	1	No Gas	2357	0.38
Ba	137	1	No Gas	720	0.70
Tl	205	1	No Gas	1027	1.54
Tl	203	1	No Gas	400	1.88
Pb	208	1	No Gas	3024	0.28
U	238	1	No Gas	110	21.87
Ca	43	2	He	67	12.99
Sb	121	2	He	990	1.10
Ti	47	2	He	13	324.76
Cu	63	1	No Gas	14174	0.02

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD

Calibration Blank Report

Li	6	1	No Gas	1245423	1.12
Ge	72	2	He	1099244	0.30
Ge	72	1	No Gas	3568143	1.32
In	115	1	No Gas	4404541	0.35

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	4431936	0.12

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	015CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:35:59-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	8328	0.02
V	51	2	He	18795	0.00
Cr	52	2	He	23821	0.00
Fe	56	2	He	2079081	0.00
Se	78	2	He	375	2.88
As	75	2	He	3187	0.07
Ca	44	2	He	11909	0.02
Na	23	2	He	370183	0.00
Mg	24	2	He	169309	0.00
K	39	2	He	239134	0.00
Mn	55	2	He	23738	0.01
Co	59	2	He	32713	0.00
Ni	60	2	He	9247	0.06
Cu	63	2	He	28173	0.01
Zn	66	2	He	9030	0.01
Al	27	2	He	3470	0.16
B	11	1	No Gas	54318	0.00
Al	27	1	No Gas	159799	0.00
Si	28	1	No Gas	756528	0.00
Ag	107	1	No Gas	56427	0.00
Cd	111	1	No Gas	11118	0.01
Sr	88	1	No Gas	98668	0.00
Mo	95	1	No Gas	20399	0.01
Sn	118	1	No Gas	36748	0.01
Sb	121	1	No Gas	48018	0.00
Ba	137	1	No Gas	17492	0.02
Tl	205	1	No Gas	104768	0.00
Tl	203	1	No Gas	43305	0.00
Pb	208	1	No Gas	152223	0.00
U	238	1	No Gas	151608	0.00
Ca	43	2	He	667	2.16
Sb	121	2	He	22907	0.01
Cu	63	1	No Gas	54616	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1219020	0.22	1245423	97.88	70	120	
Ge	72	2	He	1085959	0.87	1099244	98.79	70	120	
Ge	72	1	No Gas	3601910	0.88	3568143	100.95	70	120	

Calibration Standard Report

In	115	1	No Gas	4442927	1.82	4404541	100.87	70	120	
Bi	209	1	No Gas	4431189	1.06	4431936	99.98	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	016CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:37:59-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	20545	0.00
V	51	2	He	44464	0.00
Cr	52	2	He	55459	0.00
Fe	56	2	He	4868709	0.00
Se	78	2	He	822	0.74
As	75	2	He	7449	0.04
Ca	44	2	He	27879	0.00
Na	23	2	He	752294	0.00
Mg	24	2	He	411843	0.00
K	39	2	He	516579	0.00
Mn	55	2	He	43289	0.01
Co	59	2	He	79826	0.00
Ni	60	2	He	20800	0.01
Cu	63	2	He	61475	0.00
Zn	66	2	He	14525	0.01
Al	27	2	He	5058	0.15
B	11	1	No Gas	93631	0.00
Al	27	1	No Gas	227782	0.00
Si	28	1	No Gas	896060	0.00
Ag	107	1	No Gas	137469	0.00
Cd	111	1	No Gas	27142	0.01
Sr	88	1	No Gas	242129	0.00
Mo	95	1	No Gas	50787	0.00
Sn	118	1	No Gas	83464	0.00
Sb	121	1	No Gas	115466	0.00
Ba	137	1	No Gas	39654	0.00
Tl	205	1	No Gas	262395	0.00
Tl	203	1	No Gas	107991	0.00
Pb	208	1	No Gas	370669	0.00
U	238	1	No Gas	376486	0.00
Ca	43	2	He	1647	0.20
Sb	121	2	He	55632	0.00
Cu	63	1	No Gas	113309	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1250999	2.03	1245423	100.45	70	120	
Ge	72	2	He	1086538	2.38	1099244	98.84	70	120	
Ge	72	1	No Gas	3603414	1.72	3568143	100.99	70	120	

Calibration Standard Report

In	115	1	No Gas	4426408	0.52	4404541	100.50	70	120	
Bi	209	1	No Gas	4379993	1.83	4431936	98.83	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	017CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:39:57-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	41785	0.00
V	51	2	He	89429	0.00
Cr	52	2	He	108941	0.00
Fe	56	2	He	9898746	0.00
Se	78	2	He	1488	0.23
As	75	2	He	15698	0.01
Ca	44	2	He	55003	0.00
Na	23	2	He	1451542	0.00
Mg	24	2	He	817754	0.00
K	39	2	He	1034801	0.00
Mn	55	2	He	79859	0.00
Co	59	2	He	163525	0.00
Ni	60	2	He	42396	0.00
Cu	63	2	He	118187	0.00
Zn	66	2	He	25304	0.01
Al	27	2	He	7799	0.02
B	11	1	No Gas	162889	0.00
Al	27	1	No Gas	358229	0.00
Si	28	1	No Gas	1110956	0.00
Ag	107	1	No Gas	278401	0.00
Cd	111	1	No Gas	56029	0.00
Sr	88	1	No Gas	486134	0.00
Mo	95	1	No Gas	101388	0.00
Sn	118	1	No Gas	167360	0.00
Sb	121	1	No Gas	232536	0.00
Ba	137	1	No Gas	79701	0.00
Tl	205	1	No Gas	521906	0.00
Tl	203	1	No Gas	219174	0.00
Pb	208	1	No Gas	740377	0.00
U	238	1	No Gas	760834	0.00
Ca	43	2	He	3357	0.10
Sb	121	2	He	108762	0.00
Cu	63	1	No Gas	214357	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1243976	1.62	1245423	99.88	70	120	
Ge	72	2	He	1084427	2.24	1099244	98.65	70	120	
Ge	72	1	No Gas	3551963	1.96	3568143	99.55	70	120	

Calibration Standard Report

In	115	1	No Gas	4439433	0.59	4404541	100.79	70	120	
Bi	209	1	No Gas	4453524	1.01	4431936	100.49	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	018CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:41:54-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	414436	0.00
V	51	2	He	859512	0.00
Cr	52	2	He	1033390	0.00
Fe	56	2	He	91244135	0.00
Se	78	2	He	13845	0.01
As	75	2	He	151632	0.00
Ca	44	2	He	499104	0.00
Na	23	2	He	12444841	0.00
Mg	24	2	He	7313132	0.00
K	39	2	He	8827503	0.00
Mn	55	2	He	770530	0.00
Co	59	2	He	1649046	0.00
Ni	60	2	He	394945	0.00
Cu	63	2	He	1105263	0.00
Zn	66	2	He	207434	0.00
Al	27	2	He	47548	0.00
B	11	1	No Gas	1324821	0.00
Al	27	1	No Gas	2133384	0.00
Si	28	1	No Gas	5349325	0.00
Ag	107	1	No Gas	2606316	0.00
Cd	111	1	No Gas	524886	0.00
Sr	88	1	No Gas	4608088	0.00
Mo	95	1	No Gas	982736	0.00
Sn	118	1	No Gas	1607580	0.00
Sb	121	1	No Gas	2244429	0.00
Ba	137	1	No Gas	769329	0.00
Tl	205	1	No Gas	5123650	0.00
Tl	203	1	No Gas	2147795	0.00
Pb	208	1	No Gas	7210883	0.00
U	238	1	No Gas	7453227	0.00
Ca	43	2	He	29355	0.00
Sb	121	2	He	1065948	0.00
Cu	63	1	No Gas	1945651	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1253379	2.23	1245423	100.64	70	120	
Ge	72	2	He	1083758	1.65	1099244	98.59	70	120	
Ge	72	1	No Gas	3604269	0.75	3568143	101.01	70	120	

Calibration Standard Report

In	115	1	No Gas	4408509	0.43	4404541	100.09	70	120	
Bi	209	1	No Gas	4357870	2.36	4431936	98.33	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	019CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:43:45-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	817948	0.00
V	51	2	He	1739397	0.00
Cr	52	2	He	2096273	0.00
Fe	56	2	He	187331857	0.00
Se	78	2	He	26594	0.00
As	75	2	He	298660	0.00
Ca	44	2	He	1042624	0.00
Na	23	2	He	25357754	0.00
Mg	24	2	He	15111806	0.00
K	39	2	He	18166007	0.00
Mn	55	2	He	1518001	0.00
Co	59	2	He	3073234	0.00
Ni	60	2	He	772251	0.00
Cu	63	2	He	2118563	0.00
Zn	66	2	He	400131	0.00
Al	27	2	He	91688	0.00
B	11	1	No Gas	2565502	0.00
Al	27	1	No Gas	3926155	0.00
Si	28	1	No Gas	9513529	0.00
Ag	107	1	No Gas	5030908	0.00
Cd	111	1	No Gas	1030301	0.00
Sr	88	1	No Gas	8973742	0.00
Mo	95	1	No Gas	1967095	0.00
Sn	118	1	No Gas	3184281	0.00
Sb	121	1	No Gas	4375854	0.00
Ba	137	1	No Gas	1552544	0.00
Tl	205	1	No Gas	9909455	0.00
Tl	203	1	No Gas	4242833	0.00
Pb	208	1	No Gas	14060332	0.00
U	238	1	No Gas	14892446	0.00
Ca	43	2	He	59301	0.00
Sb	121	2	He	2212023	0.00
Cu	63	1	No Gas	3693847	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1202324	2.25	1245423	96.54	70	120	
Ge	72	2	He	1043676	2.42	1099244	94.94	70	120	
Ge	72	1	No Gas	3530700	1.90	3568143	98.95	70	120	

Calibration Standard Report

In	115	1	No Gas	4213002	1.38	4404541	95.65	70	120	
Bi	209	1	No Gas	4234526	1.73	4431936	95.55	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	021_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:52:02-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	102.752	2.231	1673454	2.10	100	102.8	90	110	
Be	9	1	No Gas	102.884	1.173	414579	0.76	100	102.9	90	110	
V	51	2	He	98.316	2.752	877030	1.18	100	98.3	90	110	
Cr	52	2	He	98.514	3.191	1058957	2.19	100	98.5	90	110	
Fe	56	2	He	10055.596	1.871	96322722	0.37	10000	100.6	90	110	
Se	78	2	He	99.663	0.804	13768	1.46	100	99.7	90	110	
As	75	2	He	98.844	1.717	152189	0.70	100	98.8	90	110	
Ca	44	2	He	9922.301	3.084	527909	1.40	10000	99.2	90	110	
Na	23	2	He	10186.666	3.174	13258824	0.99	10000	101.9	90	110	
Mg	24	2	He	10276.480	2.040	7931215	0.35	10000	102.8	90	110	
K	39	2	He	10072.353	2.926	9367223	0.89	10000	100.7	90	110	
Mn	55	2	He	96.038	1.979	754672	0.59	100	96.0	90	110	
Co	59	2	He	101.978	2.427	1633196	0.98	100	102.0	90	110	
Ni	60	2	He	100.768	2.577	401985	0.45	100	100.8	90	110	
Cu	63	2	He	99.157	2.219	1090942	0.21	100	99.2	90	110	
Zn	66	2	He	99.393	1.917	207474	1.10	100	99.4	90	110	
Al	27	2	He	98.584	3.275	47953	1.08	100	98.6	90	110	
B	11	1	No Gas	504.094	2.999	1319093	2.54	500	100.8	90	110	
Al	27	1	No Gas	102.525	3.436	2126294	2.61	100	102.5	90	110	
Si	28	1	No Gas	523.395	1.225	5402906	0.47	500	104.7	90	110	
Ag	107	1	No Gas	101.036	1.407	2632634	0.93	100	101.0	90	110	
Cd	111	1	No Gas	99.610	1.248	529747	0.72	100	99.6	90	110	
Sr	88	1	No Gas	100.738	2.993	4674061	1.36	100	100.7	90	110	
Mo	95	1	No Gas	100.765	1.385	982249	0.86	100	100.8	90	110	
Sn	118	1	No Gas	100.269	0.096	1646747	1.75	100	100.3	90	110	
Sb	121	1	No Gas	102.888	1.600	2293728	1.04	100	102.9	90	110	
Ba	137	1	No Gas	97.980	1.499	781253	0.55	100	98.0	90	110	
Tl	205	1	No Gas	103.627	2.742	5286532	1.56	100	103.6	90	110	
Tl	203	1	No Gas	101.176	2.278	2200774	1.23	100	101.2	90	110	
Pb	208	1	No Gas	102.256	1.176	7391796	0.33	100	102.3	90	110	
U	238	1	No Gas	95.327	0.901	7262559	1.32	100	95.3	90	110	
Ca	43	2	He	10169.420	5.513	30952	4.05	10000	101.7	90	110	
Sb	121	2	He	104.526	1.428	1111061	1.79	100	104.5	90	110	
Ti	47	2	He	99.928	1.822	32378	1.67	100	99.9	90	110	
Cu	63	1	No Gas	103.078	0.997	1955490	1.30	100	103.1	90	110	
Se	82	1	No Gas	102.657	1.021	31967	0.49	100	102.7	90	110	

QC ISTD Table

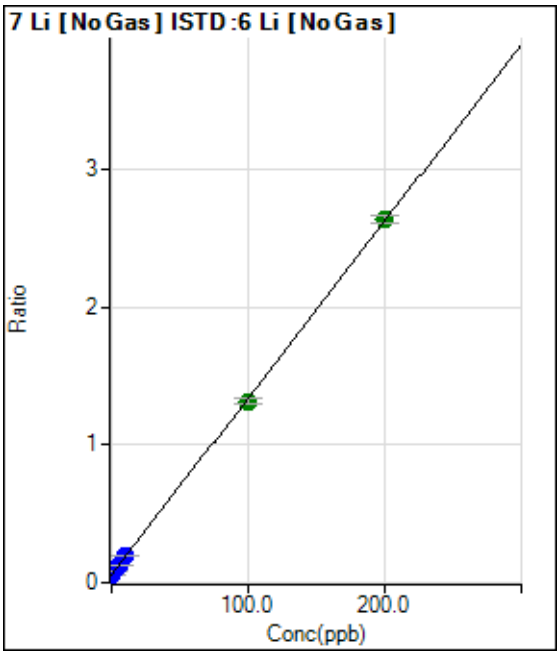
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1218169	0.43	1245423	97.81	70	120	
Ge	72	2	He	1080428	2.26	1099244	98.29	70	120	
Ge	72	1	No Gas	3592090	0.61	3568143	100.67	70	120	
In	115	1	No Gas	4372251	1.66	4404541	99.27	70	120	
Bi	209	1	No Gas	4355773	1.48	4431936	98.28	70	120	

Calibration for 021_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\060721A.b\
Analysis File: 060721A.batch.bin
DA Date-Time: 6/8/2021 8:07:01 AM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	014CALB.d	CAL BLK	6/7/2021 10:34:01 AM
2	015CALS.d	2/10/200	6/7/2021 10:35:59 AM
3	016CALS.d	5/25/500	6/7/2021 10:37:59 AM
4	017CALS.d	10/50/100	6/7/2021 10:39:57 AM
5	018CALS.d	100/500/10K	6/7/2021 10:41:54 AM
6	019CALS.d	200/1000/20K	6/7/2021 10:43:45 AM

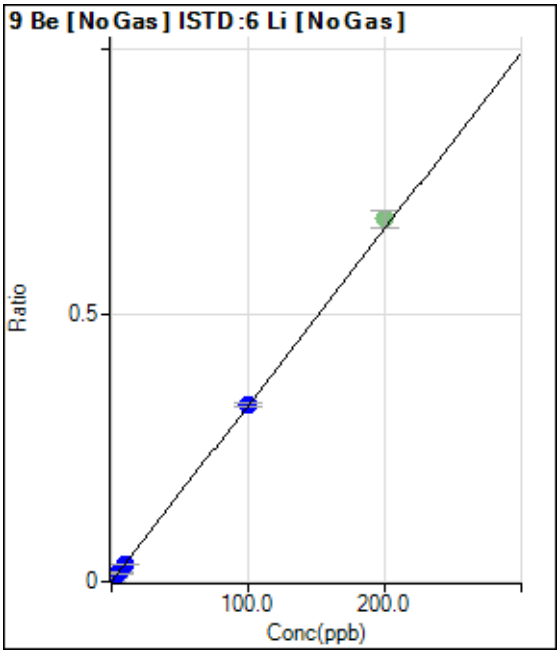
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72731.61	0.0584	P	0.6
2	☐	2.000	2.315	107311.68	0.0880	P	0.9
3	☐	5.000	5.219	156578.97	0.1252	P	2.9
4	☐	10.000	10.659	242313.77	0.1948	P	2.5
5	☐	100.000	98.201	1648242.94	1.3155	A	2.4
6	☐	200.000	200.858	3160660.37	2.6297	A	2.2

y = 0.0128 * x + 0.0584
R = 0.9999
DL = 0.08796
BEC = 4.562

Weight: <None>
Min Conc: <None>

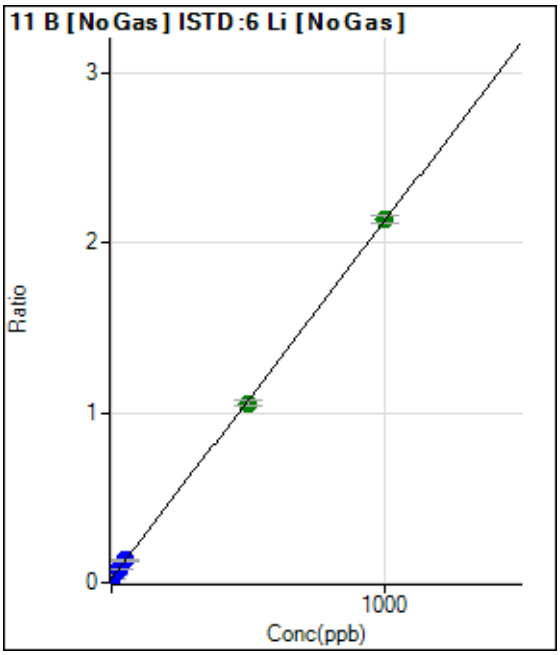


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	2.000	2.064	8327.52	0.0068	P	1.4
3	☐	5.000	4.966	20545.09	0.0164	P	2.5
4	☐	10.000	10.156	41785.29	0.0336	P	2.2
5	☐	100.000	99.985	414436.31	0.3307	P	1.9
6	☑	200.000		817948.35	0.6808	A	4.7

y = 0.0033 * x + 2.7009E-006
R = 1.0000
DL = 0.004243
BEC = 0.0008165

Weight: <None>
Min Conc: <None>

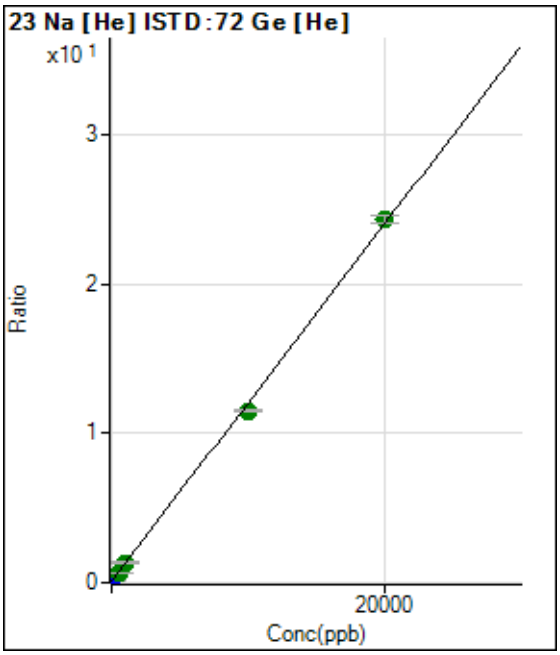
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27929.44	0.0224	P	2.5
2	☐	10.000	10.519	54317.73	0.0446	P	1.3
3	☐	25.000	24.927	93631.38	0.0749	P	2.5
4	☐	50.000	51.595	162888.53	0.1310	P	2.3
5	☐	500.000	491.999	1324821.00	1.0575	A	3.3
6	☐	1000.000	1003.917	2565502.30	2.1345	A	2.1

y = 0.0021 * x + 0.0224
R = 1.0000
DL = 0.7955
BEC = 10.66

Weight: <None>
Min Conc: <None>

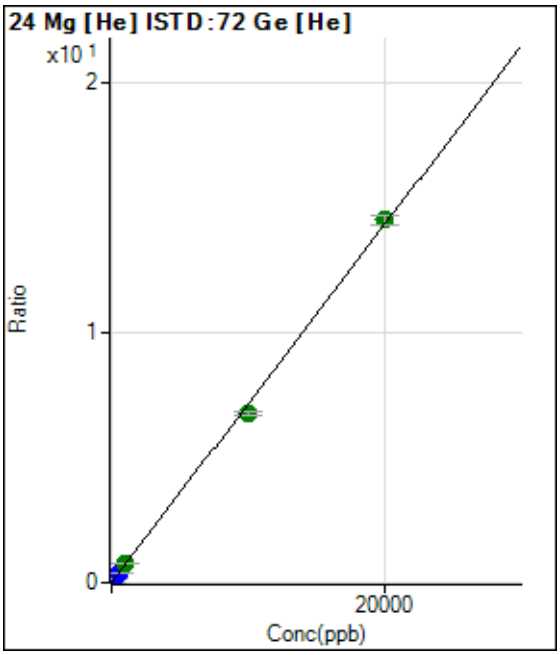


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94441.26	0.0859	P	1.0
2	☐	200.000	213.041	370183.13	0.3409	P	0.9
3	☐	500.000	506.931	752293.84	0.6926	A	2.3
4	☐	1000.000	1047.093	1451541.70	1.3391	A	3.0
5	☐	10000.00	9523.822	12444841.48	11.4843	A	1.0
6	☐	20000.00	20235.43	25357753.79	24.3042	A	2.2

y = 0.0012 * x + 0.0859
R = 0.9996
DL = 2.106
BEC = 71.79

Weight: <None>
Min Conc: <None>

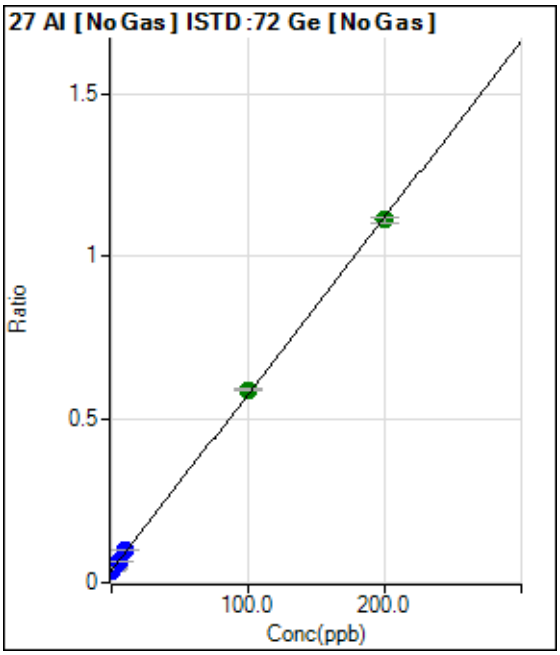
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1970.19	0.0018	P	6.7
2	☐	200.000	215.732	169309.19	0.1559	P	1.2
3	☐	500.000	528.212	411842.56	0.3791	P	1.6
4	☐	1000.000	1053.608	817753.77	0.7545	A	3.4
5	☐	10000.00	9444.694	7313132.39	6.7488	A	1.6
6	☐	20000.00	20274.11	15111806.02	14.4851	A	2.4

y = 7.1437E-004 * x + 0.0018
R = 0.9994
DL = 0.5013
BEC = 2.509

Weight: <None>
Min Conc: <None>

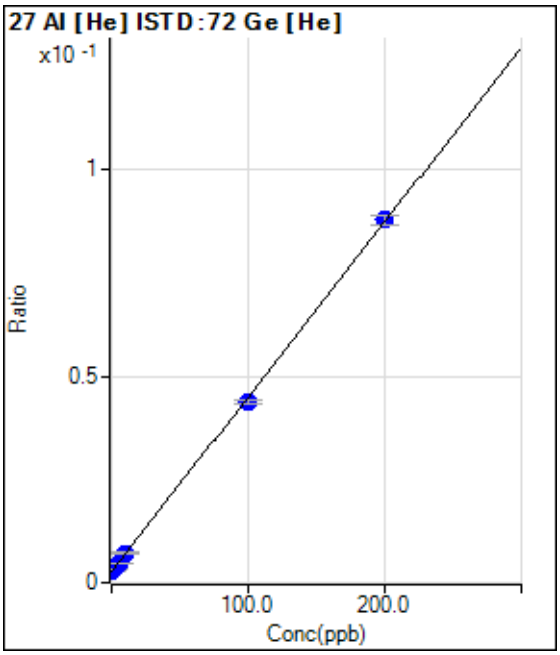


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	133156.24	0.0373	P	0.8
2	☐	2.000	1.302	159798.80	0.0444	P	1.0
3	☐	5.000	4.789	227782.29	0.0632	P	2.7
4	☐	10.000	11.748	358229.01	0.1009	P	2.0
5	☐	100.000	102.509	2133384.29	0.5919	A	1.3
6	☐	200.000	198.670	3926154.84	1.1122	A	1.7

y = 0.0054 * x + 0.0373
R = 0.9998
DL = 0.1584
BEC = 6.898

Weight: <None>
Min Conc: <None>

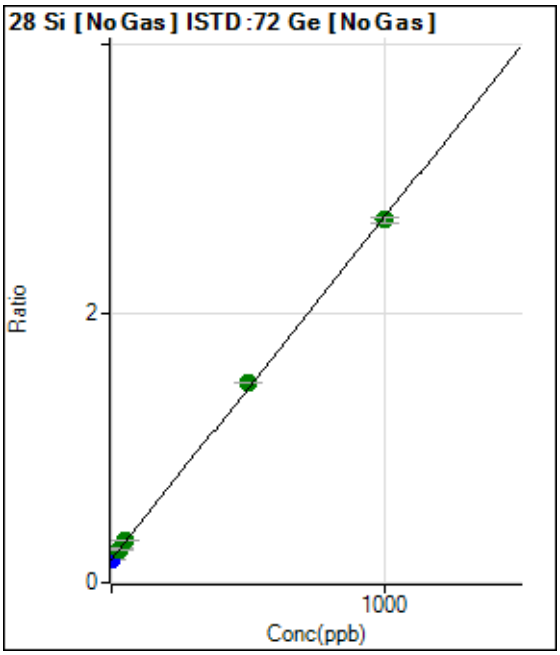
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2940.37	0.0027	P	7.6
2	☐	2.000	1.230	3470.49	0.0032	P	5.0
3	☐	5.000	4.693	5057.69	0.0047	P	9.5
4	☐	10.000	10.681	7799.02	0.0072	P	3.7
5	☐	100.000	97.348	47548.08	0.0439	P	2.6
6	☐	200.000	201.307	91688.25	0.0879	P	2.3

y = 4.2328E-004 * x + 0.0027
R = 0.9999
DL = 1.437
BEC = 6.319

Weight: <None>
Min Conc: <None>

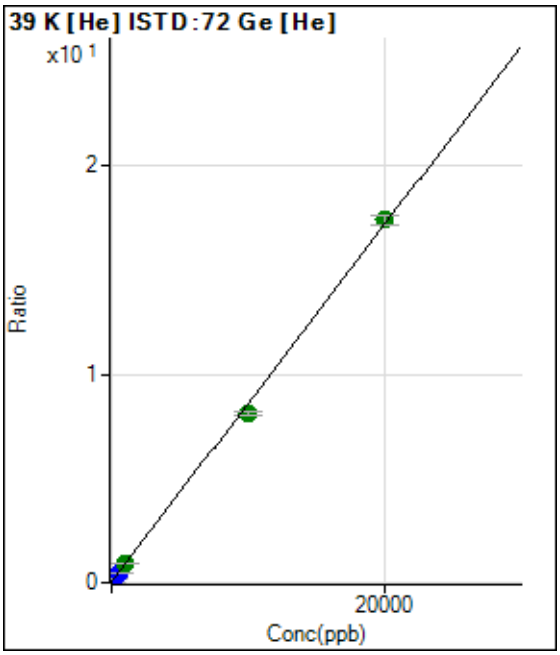


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	619853.28	0.1737	P	0.7
2	☐	10.000	14.286	756528.03	0.2100	P	0.9
3	☐	25.000	29.479	896060.28	0.2487	A	2.3
4	☐	50.000	54.729	1110956.36	0.3128	A	2.0
5	☐	500.000	515.516	5349325.34	1.4841	A	0.2
6	☐	1000.000	991.851	9513529.03	2.6950	A	1.6

y = 0.0025 * x + 0.1737
R = 0.9998
DL = 1.36
BEC = 68.34

Weight: <None>
Min Conc: <None>

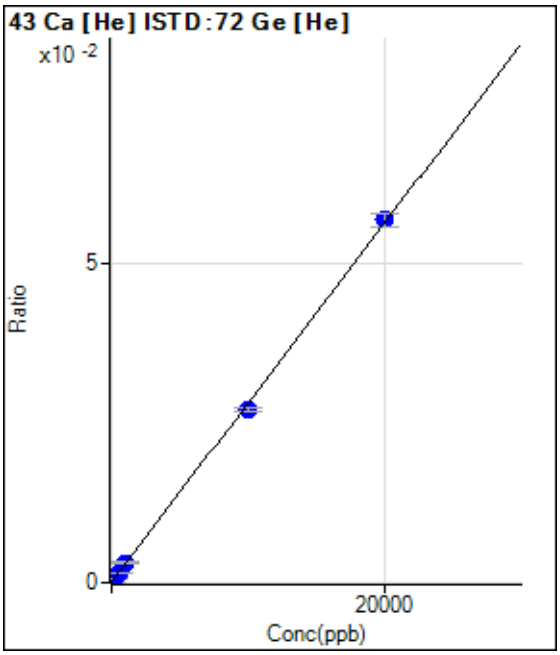
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44692.57	0.0407	P	2.0
2	☐	200.000	209.492	239134.12	0.2202	P	0.5
3	☐	500.000	507.508	516578.90	0.4756	P	2.7
4	☐	1000.000	1065.993	1034800.69	0.9543	A	0.9
5	☐	10000.00	9458.345	8827502.78	8.1474	A	2.3
6	☐	20000.00	20267.24	18166006.81	17.4116	A	2.4

y = 8.5710E-004 * x + 0.0407
R = 0.9995
DL = 2.86
BEC = 47.44

Weight: <None>
Min Conc: <None>

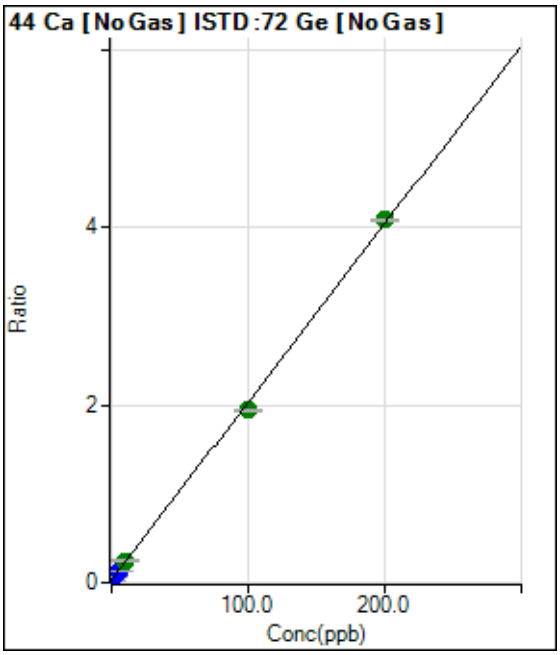


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	8.9
2	☐	200.000	196.717	666.70	0.0006	P	14.4
3	☐	500.000	517.176	1646.79	0.0015	P	1.0
4	☐	1000.000	1079.499	3357.14	0.0031	P	4.4
5	☐	10000.00	9610.195	29354.86	0.0271	P	2.3
6	☐	20000.00	20190.53	59301.23	0.0569	P	3.8

y = 2.8129E-006 * x + 6.0658E-005
R = 0.9997
DL = 5.769
BEC = 21.56

Weight: <None>
Min Conc: <None>

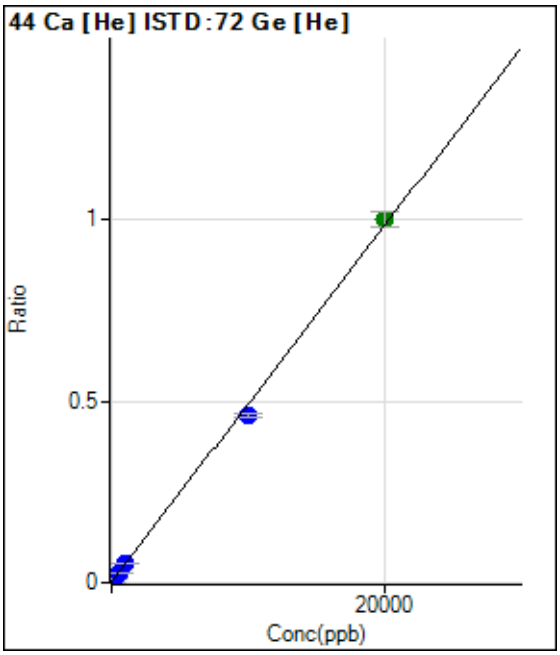
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106130.10	0.0297	P	0.7
2	☐	2.000	2.063	256101.77	0.0711	P	0.4
3	☐	5.000	5.215	483897.11	0.1343	P	1.0
4	☐	10.000	10.851	878123.63	0.2473	A	2.8
5	☐	100.000	95.298	6994221.98	1.9406	A	0.5
6	☐	200.000	202.302	14425699.37	4.0861	A	0.8

y = 0.0201 * x + 0.0297
R = 0.9996
DL = 0.02996
BEC = 1.483

Weight: <None>
Min Conc: <None>

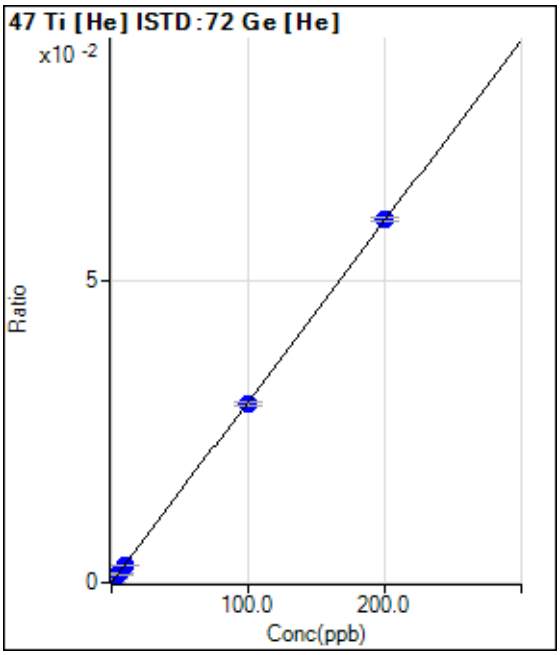


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1823.49	0.0017	P	5.7
2	☐	200.000	189.556	11908.69	0.0110	P	2.4
3	☐	500.000	488.967	27878.50	0.0257	P	1.9
4	☐	1000.000	999.339	55003.31	0.0507	P	1.1
5	☐	10000.00	9347.878	499103.71	0.4606	P	1.8
6	☐	20000.00	20326.47	1042623.89	0.9996	A	4.2

y = 4.9097E-005 * x + 0.0017
R = 0.9993
DL = 5.747
BEC = 33.79

Weight: <None>
Min Conc: <None>

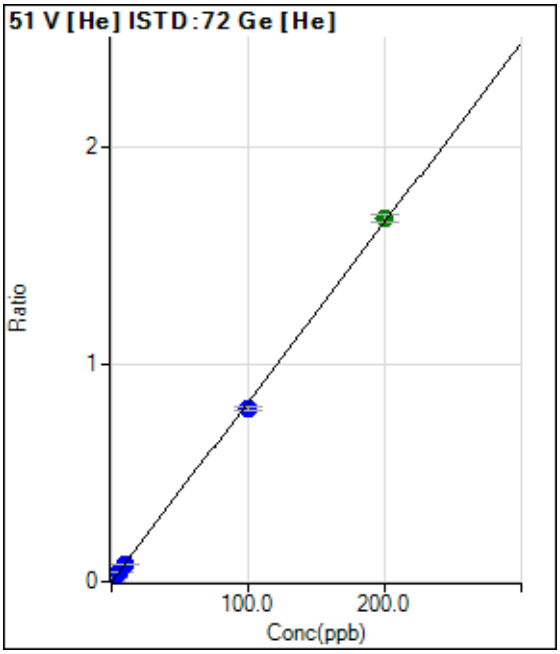
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	43.6
2	☐	2.000	2.190	726.70	0.0007	P	17.7
3	☐	5.000	4.851	1593.46	0.0015	P	4.4
4	☐	10.000	9.768	3187.10	0.0029	P	4.4
5	☐	100.000	98.766	32104.61	0.0296	P	2.3
6	☐	200.000	200.631	62793.57	0.0602	P	1.1

y = 2.9983E-004 * x + 1.2138E-005
R = 1.0000
DL = 0.05293
BEC = 0.04048

Weight: <None>
Min Conc: <None>

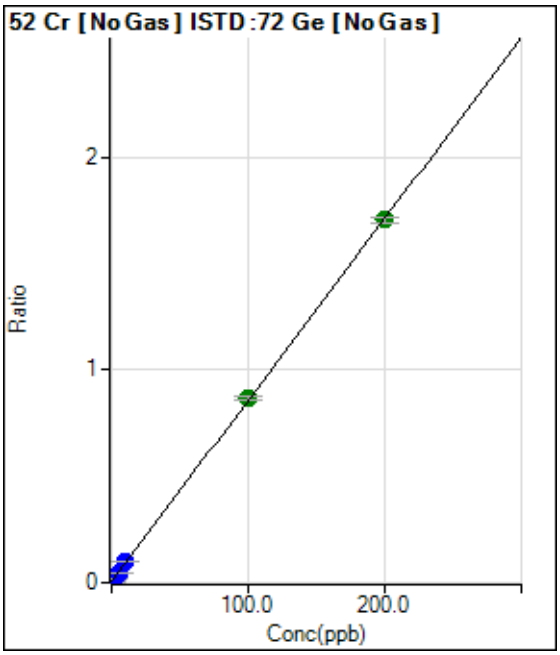


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1205.62	0.0011	P	4.3
2	☐	2.000	1.965	18795.16	0.0173	P	0.4
3	☐	5.000	4.830	44464.15	0.0409	P	3.2
4	☐	10.000	9.870	89429.45	0.0825	P	3.3
5	☐	100.000	96.041	859512.12	0.7933	P	2.3
6	☐	200.000	201.991	1739397.33	1.6672	A	2.3

y = 0.0082 * x + 0.0011
R = 0.9997
DL = 0.01723
BEC = 0.133

Weight: <None>
Min Conc: <None>

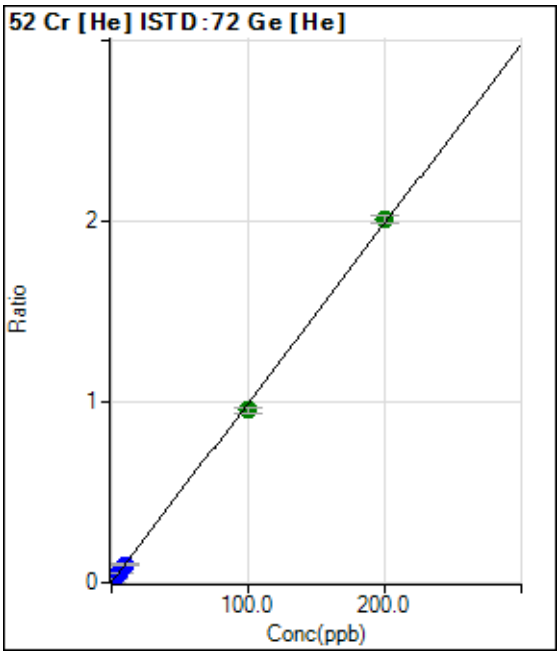
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16159.82	0.0045	P	3.5
2	☐	2.000	2.080	80221.24	0.0223	P	2.0
3	☐	5.000	5.130	173985.49	0.0483	P	0.6
4	☐	10.000	10.690	339942.47	0.0957	P	1.5
5	☐	100.000	100.992	3121308.18	0.8660	A	1.9
6	☐	200.000	199.465	6022344.08	1.7061	A	1.6

y = 0.0085 * x + 0.0045
R = 1.0000
DL = 0.05537
BEC = 0.531

Weight: <None>
Min Conc: <None>

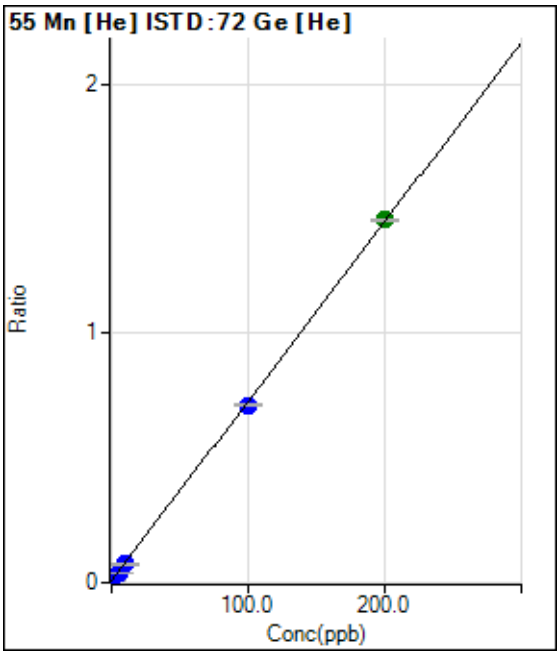


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2190.22	0.0020	P	2.8
2	☐	2.000	2.008	23820.97	0.0219	P	1.2
3	☐	5.000	4.940	55459.16	0.0511	P	2.4
4	☐	10.000	9.918	108940.96	0.1005	P	3.5
5	☐	100.000	95.834	1033390.25	0.9538	A	3.7
6	☐	200.000	202.088	2096273.46	2.0092	A	2.0

y = 0.0099 * x + 0.0020
R = 0.9997
DL = 0.01684
BEC = 0.2006

Weight: <None>
Min Conc: <None>

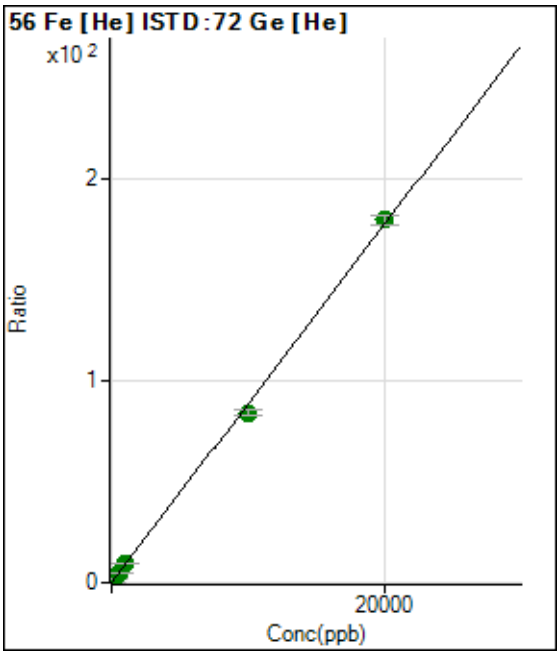
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9083.18	0.0083	P	3.4
2	☐	2.000	1.891	23737.67	0.0219	P	1.5
3	☐	5.000	4.395	43289.06	0.0399	P	3.5
4	☐	10.000	9.099	79859.17	0.0737	P	2.9
5	☐	100.000	97.763	770530.35	0.7111	P	1.4
6	☐	200.000	201.180	1518001.23	1.4546	A	0.6

y = 0.0072 * x + 0.0083
R = 0.9999
DL = 0.1173
BEC = 1.149

Weight: <None>
Min Conc: <None>

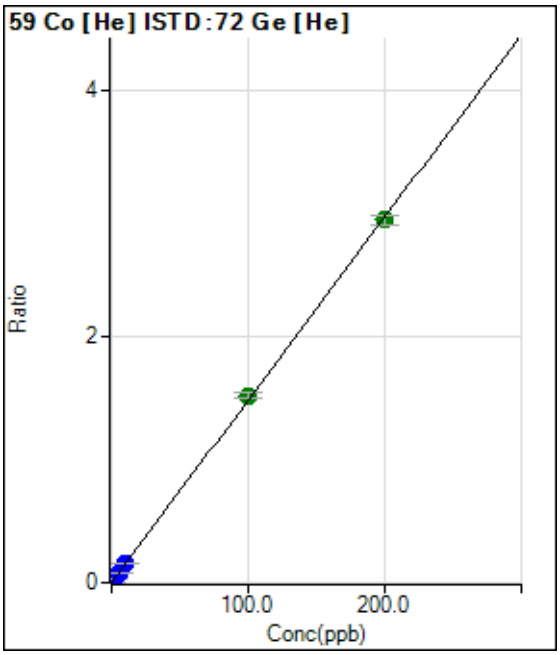


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	26125.46	0.0238	P	1.5
2	☐	200.000	213.258	2079081.43	1.9145	A	1.8
3	☐	500.000	502.836	4868709.09	4.4820	A	1.6
4	☐	1000.000	1027.043	9898746.10	9.1296	A	1.6
5	☐	10000.00	9496.043	91244135.31	84.2164	A	2.7
6	☐	20000.00	20250.42	187331857.2	179.565	A	2.5

y = 0.0089 * x + 0.0238
R = 0.9995
DL = 0.1193
BEC = 2.681

Weight: <None>
Min Conc: <None>

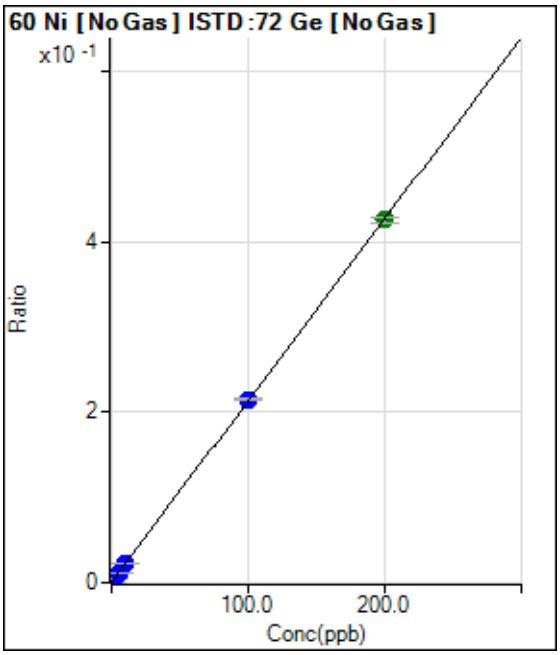
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	37.9
2	☐	2.000	2.028	32712.93	0.0301	P	1.2
3	☐	5.000	4.953	79826.48	0.0735	P	3.3
4	☐	10.000	10.169	163525.10	0.1508	P	2.2
5	☐	100.000	102.639	1649045.91	1.5219	A	2.6
6	☐	200.000	198.673	3073233.70	2.9458	A	2.8

y = 0.0148 * x + 6.0678E-005
R = 0.9999
DL = 0.004649
BEC = 0.004092

Weight: <None>
Min Conc: <None>

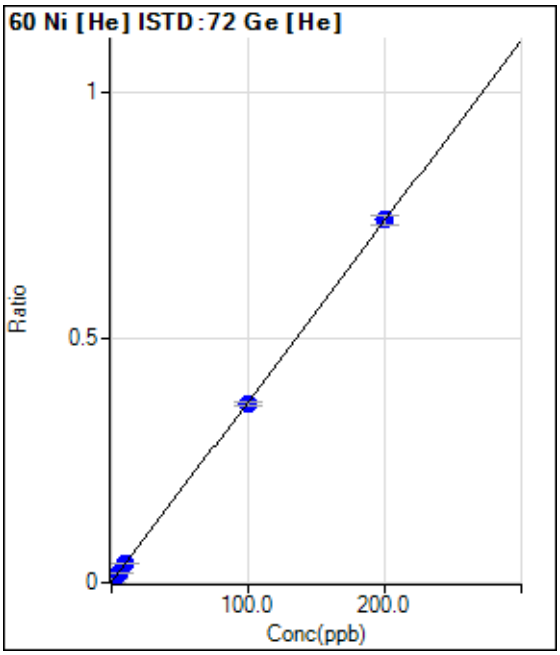


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2080.20	0.0006	P	10.6
2	☐	2.000	2.086	18078.95	0.0050	P	1.5
3	☐	5.000	5.015	40547.39	0.0113	P	0.4
4	☐	10.000	10.592	82099.86	0.0231	P	2.3
5	☐	100.000	100.665	773996.45	0.2148	P	1.1
6	☐	200.000	199.636	1501503.52	0.4253	A	1.8

y = 0.0021 * x + 5.8246E-004
R = 1.0000
DL = 0.0867
BEC = 0.2738

Weight: <None>
Min Conc: <None>

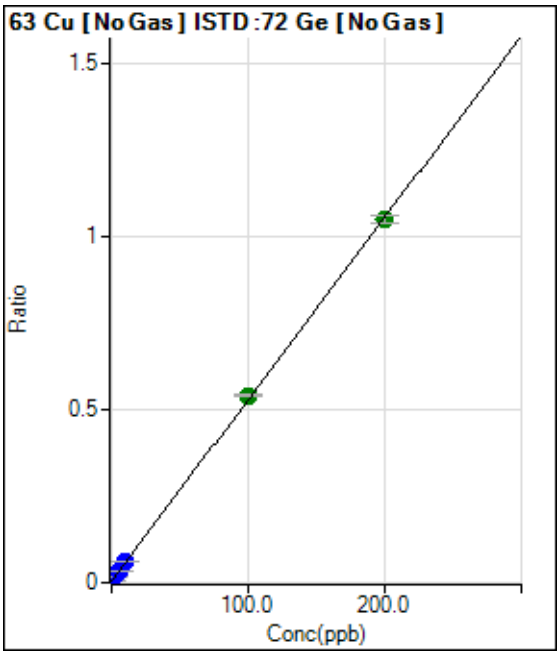
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	993.39	0.0009	P	13.8
2	☐	2.000	2.065	9246.65	0.0085	P	4.6
3	☐	5.000	4.951	20799.60	0.0191	P	1.7
4	☐	10.000	10.368	42396.08	0.0391	P	2.0
5	☐	100.000	98.682	394945.36	0.3645	P	2.5
6	☐	200.000	200.641	772251.24	0.7402	P	2.5

y = 0.0037 * x + 9.0355E-004
R = 1.0000
DL = 0.1015
BEC = 0.2452

Weight: <None>
Min Conc: <None>

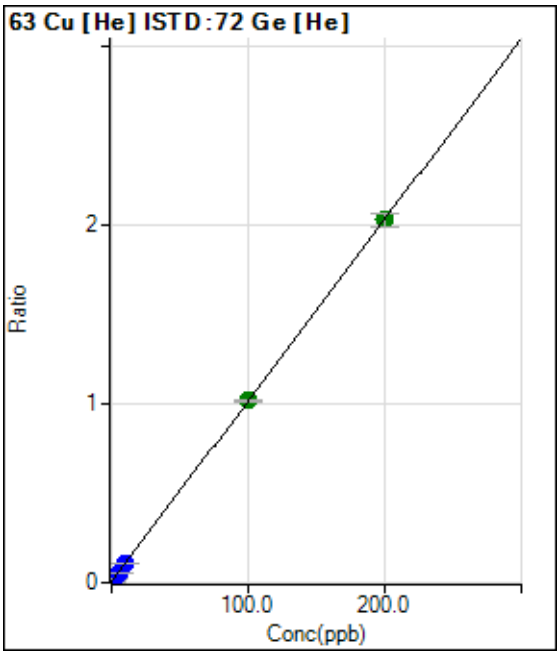


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14174.25	0.0040	P	1.8
2	☐	2.000	2.135	54616.41	0.0152	P	2.1
3	☐	5.000	5.240	113308.90	0.0314	P	1.2
4	☐	10.000	10.755	214356.53	0.0604	P	0.9
5	☐	100.000	102.214	1945650.80	0.5398	A	1.3
6	☐	200.000	198.848	3693846.82	1.0465	A	2.1

y = 0.0052 * x + 0.0040
R = 0.9999
DL = 0.04036
BEC = 0.7576

Weight: <None>
Min Conc: <None>

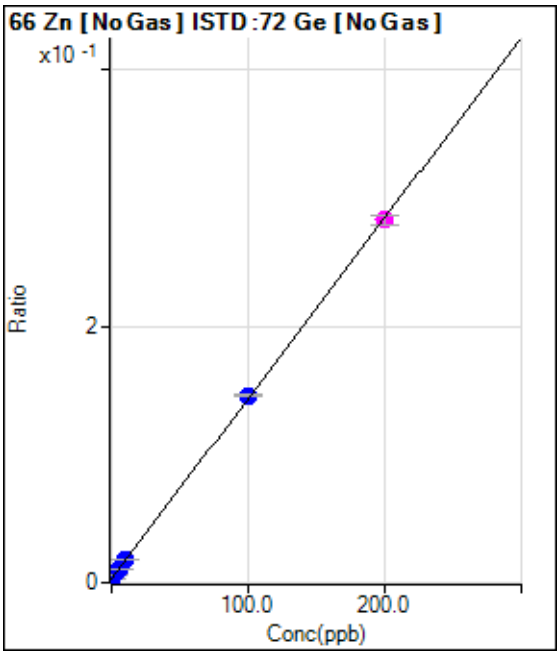
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5821.35	0.0053	P	4.6
2	☐	2.000	2.038	28172.79	0.0259	P	2.3
3	☐	5.000	5.064	61475.32	0.0566	P	3.7
4	☐	10.000	10.237	118187.20	0.1090	P	3.1
5	☐	100.000	100.125	1105263.34	1.0199	A	1.6
6	☐	200.000	199.923	2118562.62	2.0311	A	3.8

y = 0.0101 * x + 0.0053
R = 1.0000
DL = 0.07196
BEC = 0.5226

Weight: <None>
Min Conc: <None>

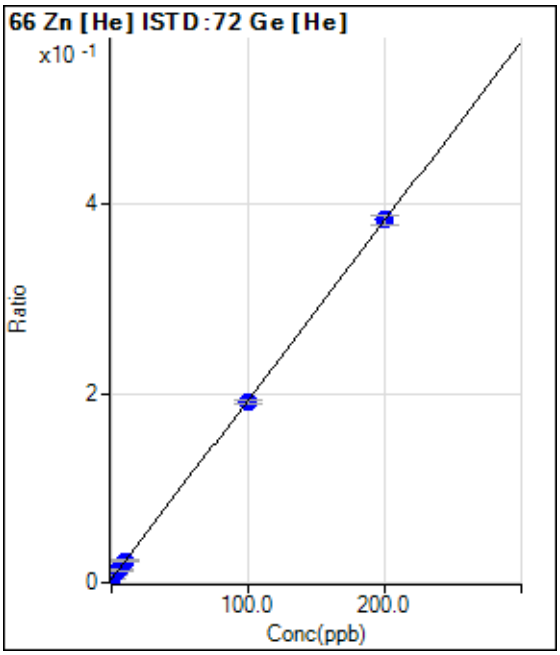


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10234.02	0.0029	P	3.8
2	☐	2.000	2.370	22348.90	0.0062	P	4.3
3	☐	5.000	5.236	36887.17	0.0102	P	2.4
4	☐	10.000	11.039	65380.73	0.0184	P	0.7
5	☐	100.000	101.697	526258.99	0.1460	P	1.4
6	☐	200.000	199.090	999280.56	0.2831	M	2.6

y = 0.0014 * x + 0.0029
R = 0.9999
DL = 0.2306
BEC = 2.038

Weight: <None>
Min Conc: <None>

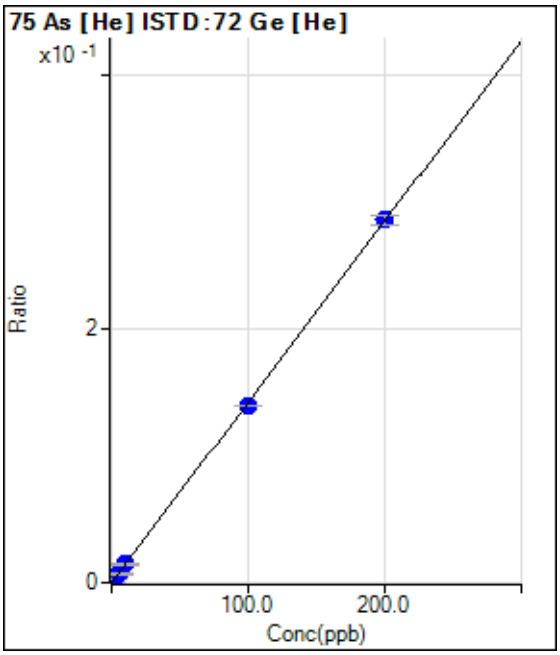
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4160.71	0.0038	P	11.5
2	☐	2.000	2.391	9029.83	0.0083	P	1.6
3	☐	5.000	5.062	14524.63	0.0134	P	4.0
4	☐	10.000	10.326	25303.94	0.0233	P	4.2
5	☐	100.000	99.062	207433.90	0.1914	P	2.5
6	☐	200.000	200.447	400130.76	0.3835	P	2.7

y = 0.0019 * x + 0.0038
R = 1.0000
DL = 0.6909
BEC = 1.998

Weight: <None>
Min Conc: <None>

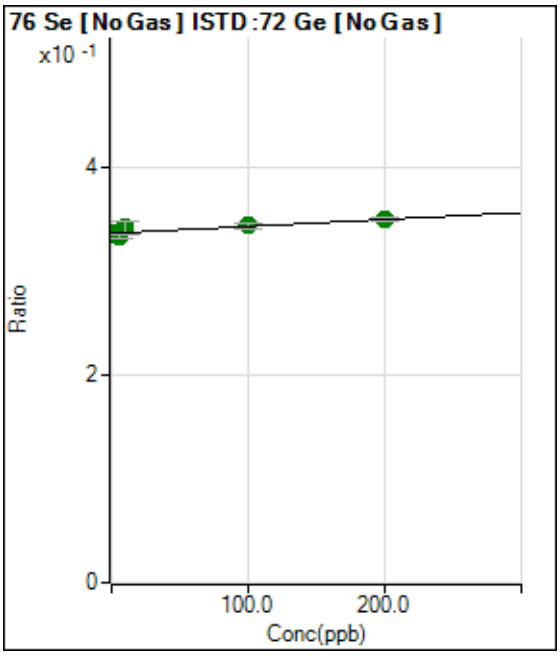


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	134.45	0.0001	P	16.0
2	☐	2.000	1.975	3187.06	0.0029	P	1.9
3	☐	5.000	4.732	7448.76	0.0069	P	5.2
4	☐	10.000	10.082	15698.04	0.0145	P	3.3
5	☐	100.000	98.159	151632.47	0.1399	P	0.4
6	☐	200.000	200.923	298660.02	0.2863	P	2.5

y = 0.0014 * x + 1.2234E-004
R = 0.9999
DL = 0.04121
BEC = 0.0859

Weight: <None>
Min Conc: <None>

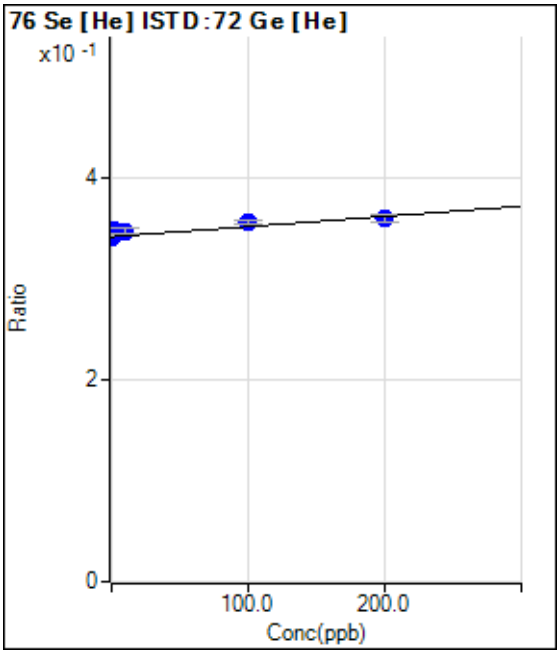
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1201066.91	0.3366	A	1.5
2	☐	2.000	-20.177	1207675.53	0.3353	A	0.8
3	☐	5.000	-47.306	1201551.13	0.3335	A	1.1
4	☐	10.000	81.808	1214644.25	0.3421	A	3.5
5	☐	100.000	110.290	1239870.34	0.3440	A	1.4
6	☐	200.000	192.794	1233995.71	0.3495	A	1.2

y = 6.6900E-005 * x + 0.3366
R = 0.8922
DL = 233.2
BEC = 5032

Weight: <None>
Min Conc: <None>

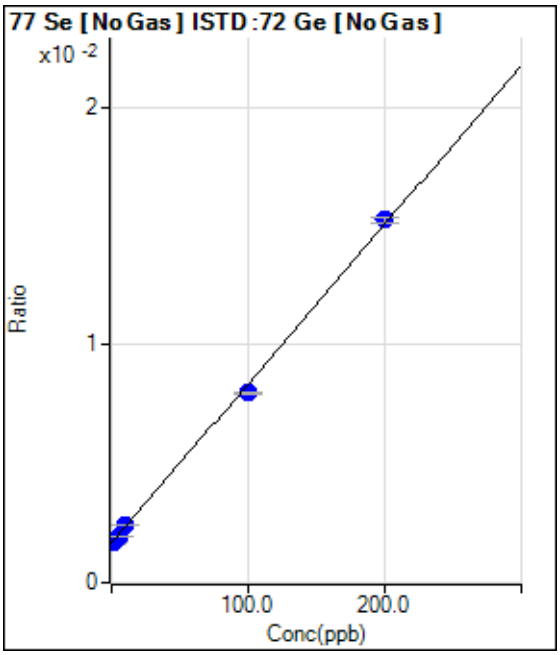


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	375176.44	0.3413	P	0.7
2	☐	2.000	73.102	378642.92	0.3487	P	0.9
3	☐	5.000	55.538	376808.51	0.3469	P	2.2
4	☐	10.000	56.675	376222.17	0.3470	P	1.9
5	☐	100.000	142.305	385444.46	0.3557	P	0.7
6	☐	200.000	174.539	374475.75	0.3589	P	2.3

y = 1.0101E-004 * x + 0.3413
R = 0.9059
DL = 68.15
BEC = 3379

Weight: <None>
Min Conc: <None>

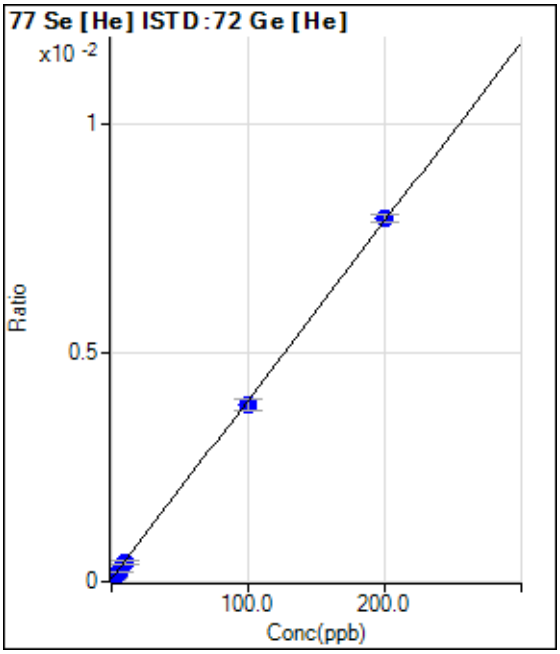
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5978.08	0.0017	P	2.6
2	☐	2.000	0.572	6171.53	0.0017	P	1.7
3	☐	5.000	3.867	6968.59	0.0019	P	2.3
4	☐	10.000	10.985	8562.89	0.0024	P	1.8
5	☐	100.000	94.107	28737.62	0.0080	P	1.2
6	☐	200.000	202.940	53861.20	0.0153	P	1.7

y = 6.6925E-005 * x + 0.0017
R = 0.9994
DL = 1.978
BEC = 25.03

Weight: <None>
Min Conc: <None>

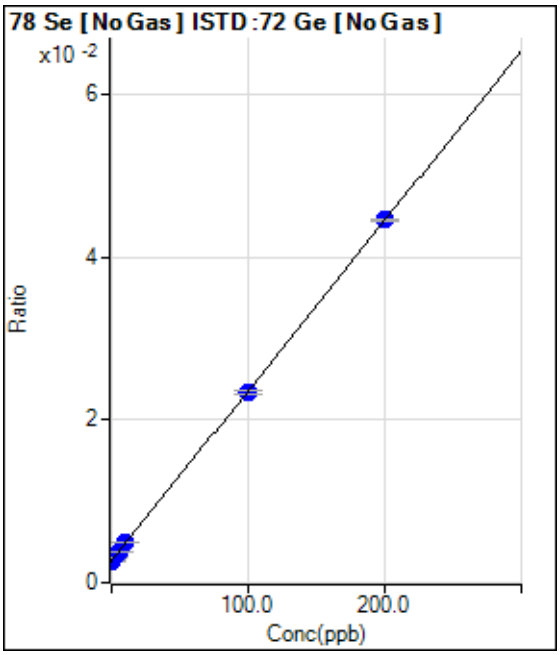


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0001	P	28.5
2	☐	2.000	0.964	110.00	0.0001	P	8.5
3	☐	5.000	3.556	220.01	0.0002	P	12.8
4	☐	10.000	9.154	456.68	0.0004	P	18.8
5	☐	100.000	97.628	4194.06	0.0039	P	6.4
6	☐	200.000	201.275	8259.36	0.0079	P	2.1

y = 3.9015E-005 * x + 6.3664E-005
R = 0.9999
DL = 1.395
BEC = 1.632

Weight: <None>
Min Conc: <None>

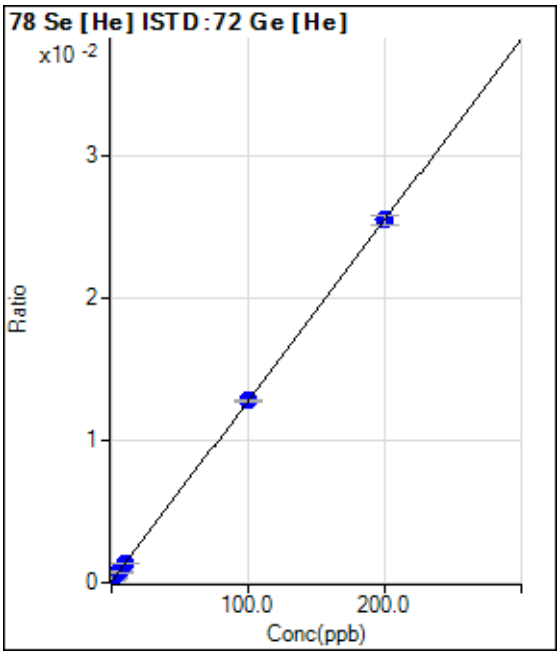
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9670.30	0.0027	P	4.4
2	☐	2.000	1.481	10871.21	0.0030	P	1.6
3	☐	5.000	5.020	13533.66	0.0038	P	3.0
4	☐	10.000	10.673	17531.66	0.0049	P	1.6
5	☐	100.000	98.871	84128.64	0.0233	P	1.9
6	☐	200.000	200.536	157317.62	0.0446	P	0.8

y = 2.0870E-004 * x + 0.0027
R = 1.0000
DL = 1.698
BEC = 12.98

Weight: <None>
Min Conc: <None>

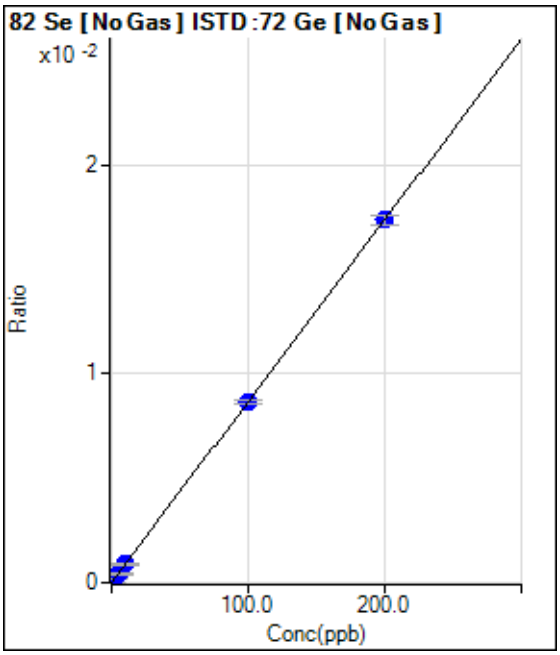


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.00	0.0001	P	2.0
2	☐	2.000	2.047	375.34	0.0003	P	10.2
3	☐	5.000	5.283	822.03	0.0008	P	5.6
4	☐	10.000	10.138	1488.09	0.0014	P	5.1
5	☐	100.000	99.917	13845.13	0.0128	P	1.2
6	☐	200.000	200.027	26594.17	0.0255	P	2.7

y = 1.2702E-004 * x + 8.5512E-005
R = 1.0000
DL = 0.04074
BEC = 0.6732

Weight: <None>
Min Conc: <None>

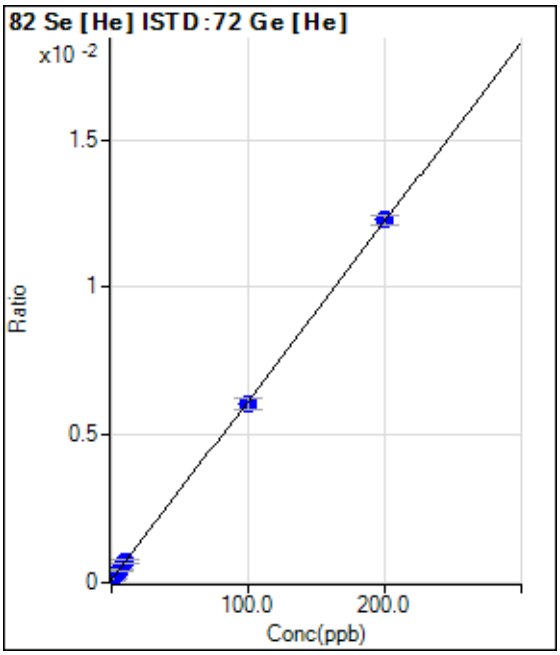
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8.05	0.0000	P	1160.5
2	☐	2.000	1.956	617.81	0.0002	P	28.5
3	☐	5.000	4.980	1565.00	0.0004	P	12.7
4	☐	10.000	10.244	3161.60	0.0009	P	5.3
5	☐	100.000	99.588	31115.35	0.0086	P	2.3
6	☐	200.000	200.195	61253.18	0.0174	P	2.9

y = 8.6674E-005 * x + 2.0505E-006
R = 1.0000
DL = 0.8236
BEC = 0.02366

Weight: <None>
Min Conc: <None>

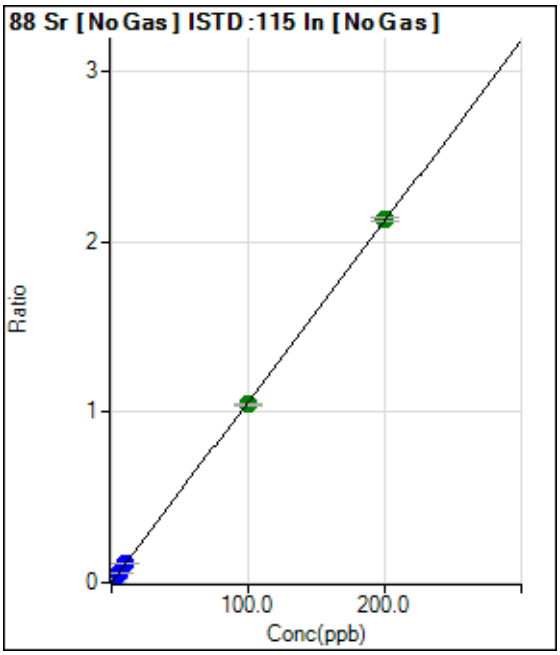


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	96.67	0.0001	P	33.3
2	☐	2.000	1.730	210.00	0.0002	P	49.0
3	☐	5.000	5.376	450.02	0.0004	P	6.4
4	☐	10.000	10.023	753.37	0.0007	P	16.8
5	☐	100.000	97.994	6538.35	0.0060	P	6.4
6	☐	200.000	200.995	12823.01	0.0123	P	2.5

y = 6.0711E-005 * x + 8.7945E-005
R = 0.9999
DL = 1.447
BEC = 1.449

Weight: <None>
Min Conc: <None>

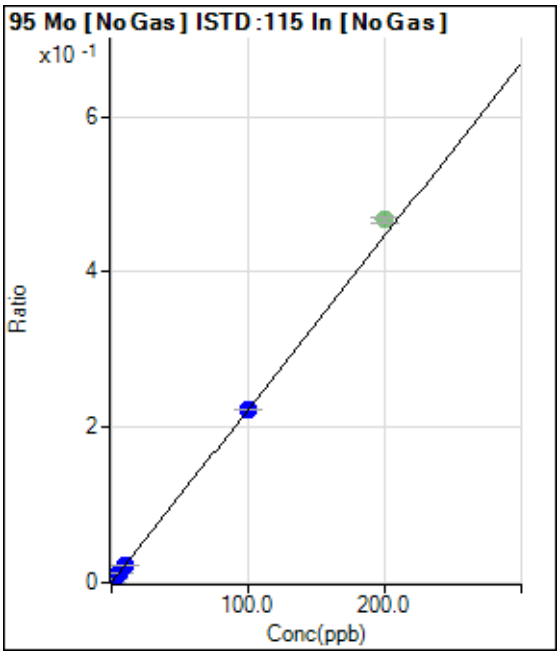
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3827.30	0.0009	P	10.5
2	☐	2.000	2.012	98668.26	0.0222	P	2.2
3	☐	5.000	5.075	242129.21	0.0547	P	0.4
4	☐	10.000	10.242	486133.65	0.1095	P	0.5
5	☐	100.000	98.467	4608088.37	1.0453	A	1.4
6	☐	200.000	200.752	8973741.53	2.1302	A	1.2

y = 0.0106 * x + 8.6874E-004
R = 1.0000
DL = 0.02569
BEC = 0.0819

Weight: <None>
Min Conc: <None>

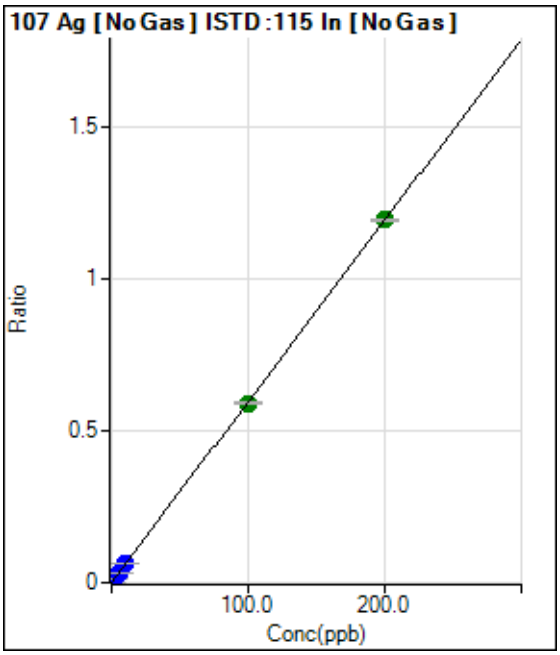


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	270.01	0.0001	P	10.1
2	☐	2.000	2.033	20399.28	0.0046	P	4.0
3	☐	5.000	5.120	50787.02	0.0115	P	0.7
4	☐	10.000	10.217	101387.78	0.0228	P	1.1
5	☐	100.000	99.972	982736.26	0.2229	P	0.2
6	☑	200.000		1967094.97	0.4670	A	1.7

y = 0.0022 * x + 6.1315E-005
R = 1.0000
DL = 0.008313
BEC = 0.02751

Weight: <None>
Min Conc: <None>

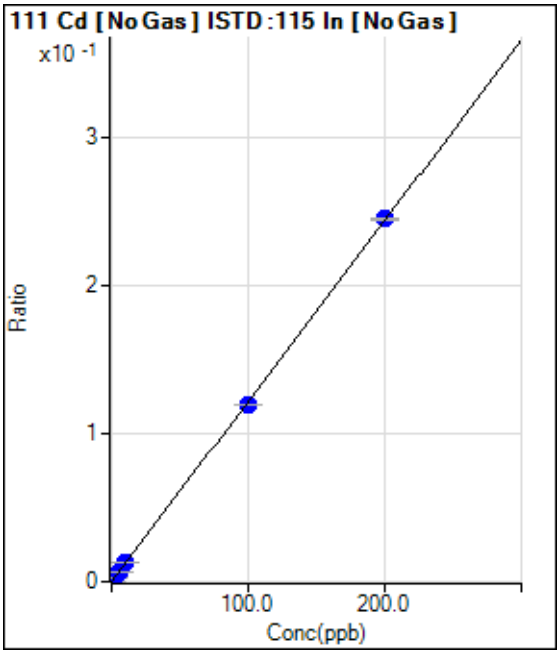
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	553.36	0.0001	P	10.9
2	☐	2.000	2.111	56427.03	0.0127	P	2.2
3	☐	5.000	5.191	137469.14	0.0311	P	2.1
4	☐	10.000	10.503	278400.59	0.0627	P	0.2
5	☐	100.000	99.189	2606315.53	0.5912	A	0.3
6	☐	200.000	200.374	5030908.36	1.1942	A	0.6

y = 0.0060 * x + 1.2566E-004
R = 1.0000
DL = 0.006897
BEC = 0.02109

Weight: <None>
Min Conc: <None>

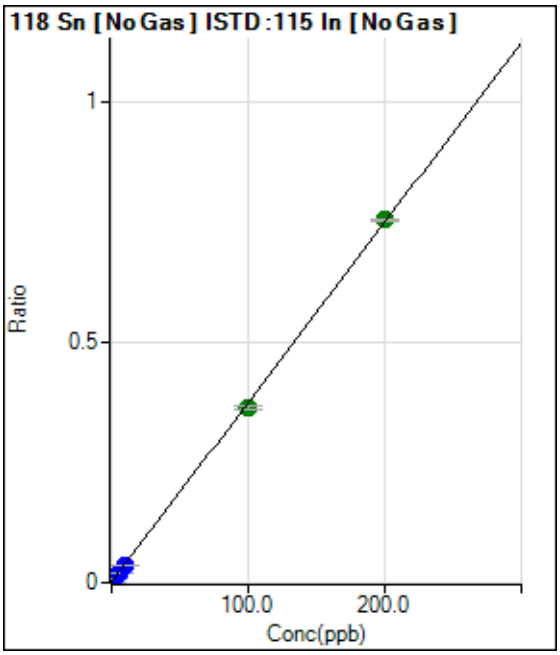


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	2.000	2.057	11118.20	0.0025	P	1.5
3	☐	5.000	5.040	27141.51	0.0061	P	2.8
4	☐	10.000	10.374	56029.04	0.0126	P	1.1
5	☐	100.000	97.872	524885.50	0.1191	P	0.4
6	☐	200.000	201.044	1030301.37	0.2446	P	0.8

y = 0.0012 * x + 7.5914E-007
R = 0.9999
DL = 0.003243
BEC = 0.000624

Weight: <None>
Min Conc: <None>

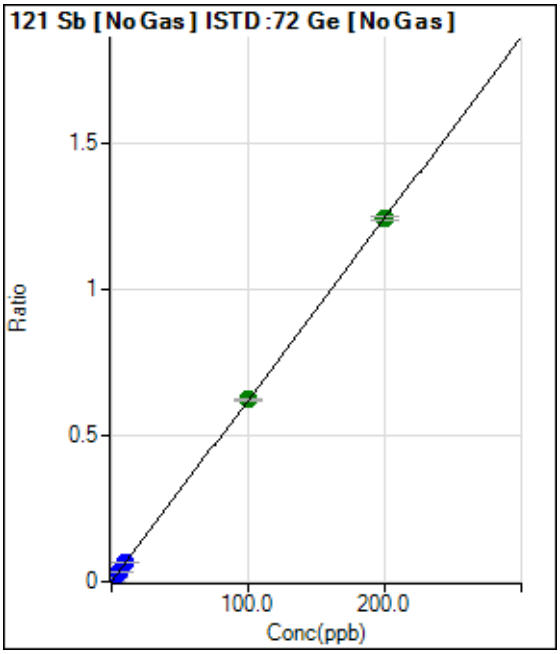
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4310.80	0.0010	P	2.3
2	☐	2.000	1.947	36748.36	0.0083	P	3.8
3	☐	5.000	4.772	83464.48	0.0189	P	2.7
4	☐	10.000	9.802	167360.18	0.0377	P	1.6
5	☐	100.000	97.068	1607579.82	0.3646	A	1.8
6	☐	200.000	201.482	3184280.68	0.7558	A	0.7

y = 0.0037 * x + 9.7876E-004
R = 0.9999
DL = 0.01796
BEC = 0.2612

Weight: <None>
Min Conc: <None>

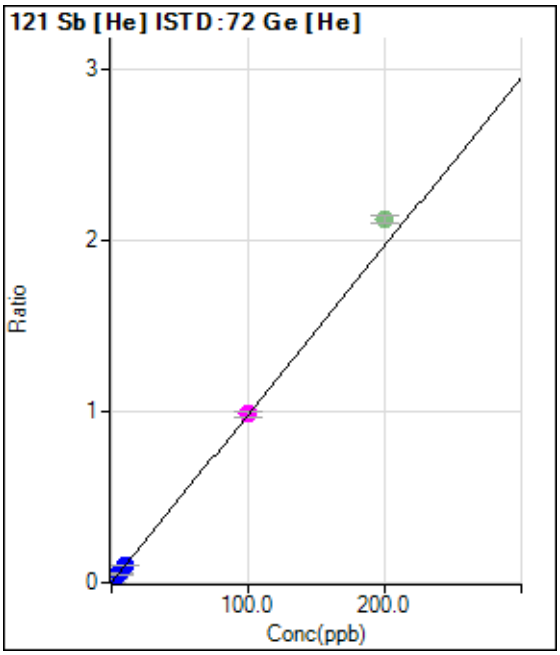


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2356.92	0.0007	P	7.7
2	☐	2.000	2.044	48018.34	0.0133	P	1.3
3	☐	5.000	5.062	115465.80	0.0320	P	1.0
4	☐	10.000	10.455	232536.16	0.0655	P	1.8
5	☐	100.000	100.332	2244428.72	0.6227	A	0.9
6	☐	200.000	199.809	4375854.00	1.2395	A	1.1

y = 0.0062 * x + 6.6014E-004
R = 1.0000
DL = 0.02455
BEC = 0.1065

Weight: <None>
Min Conc: <None>

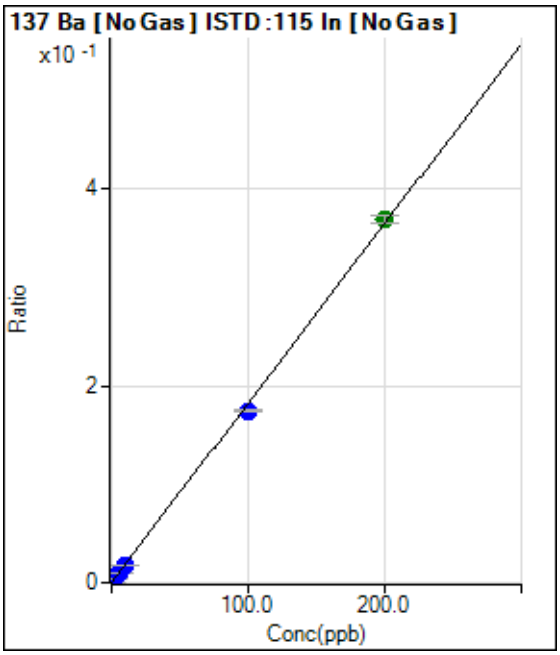
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	990.06	0.0009	P	10.8
2	☐	2.000	2.054	22906.95	0.0211	P	2.9
3	☐	5.000	5.118	55631.55	0.0512	P	2.7
4	☐	10.000	10.113	108761.82	0.1003	P	1.7
5	☐	100.000	99.982	1065948.26	0.9838	M	2.6
6	☑	200.000		2212022.57	2.1201	A	2.2

y = 0.0098 * x + 9.0061E-004
R = 1.0000
DL = 0.02973
BEC = 0.09161

Weight: <None>
Min Conc: <None>

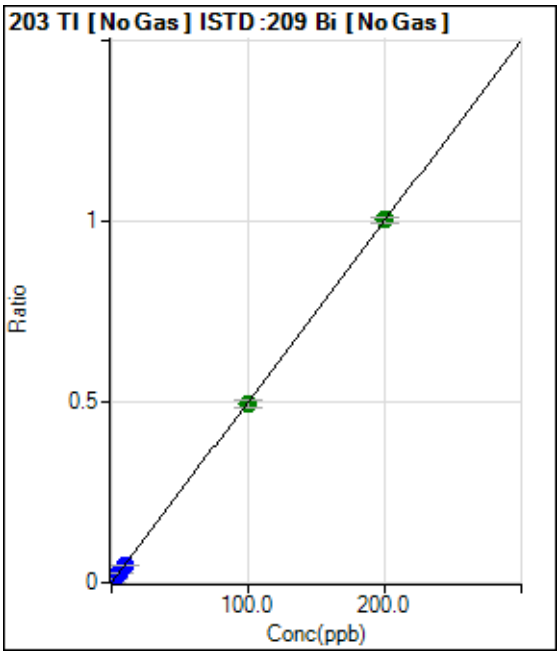


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	720.03	0.0002	P	5.3
2	☐	2.000	2.071	17492.28	0.0039	P	1.9
3	☐	5.000	4.827	39654.43	0.0090	P	1.0
4	☐	10.000	9.762	79700.64	0.0180	P	0.9
5	☐	100.000	95.677	769329.11	0.1745	P	1.5
6	☐	200.000	202.177	1552544.25	0.3686	A	2.2

y = 0.0018 * x + 1.6350E-004
R = 0.9997
DL = 0.01439
BEC = 0.08972

Weight: <None>
Min Conc: <None>

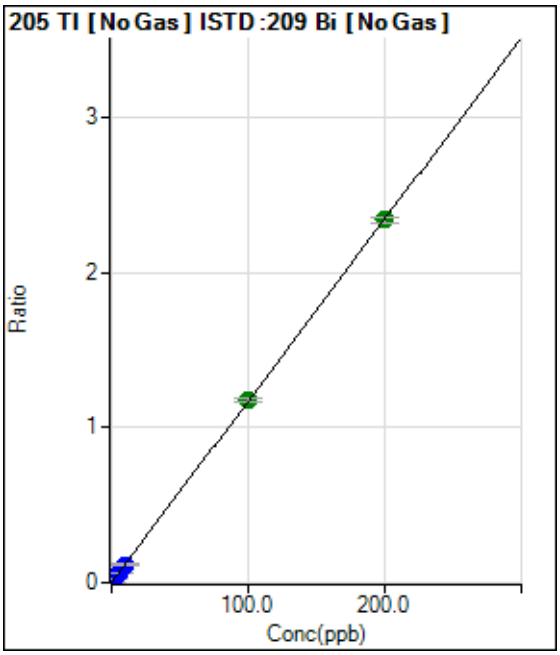
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	400.02	0.0001	P	7.4
2	☐	2.000	1.939	43305.44	0.0098	P	1.3
3	☐	5.000	4.920	107991.12	0.0247	P	2.2
4	☐	10.000	9.838	219174.49	0.0492	P	1.7
5	☐	100.000	98.729	2147794.71	0.4931	A	3.6
6	☐	200.000	200.646	4242833.17	1.0021	A	1.3

y = 0.0050 * x + 9.0255E-005
R = 1.0000
DL = 0.004032
BEC = 0.01807

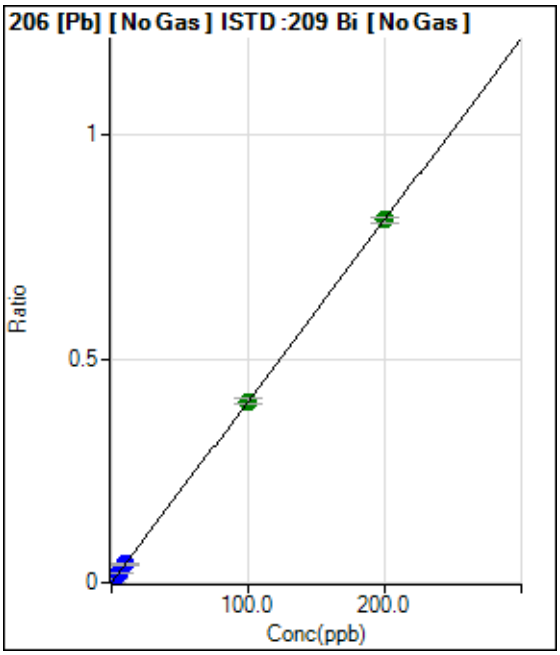
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1026.73	0.0002	P	15.8
2	☐	2.000	1.999	104768.38	0.0236	P	3.6
3	☐	5.000	5.096	262395.39	0.0599	P	1.7
4	☐	10.000	9.987	521905.85	0.1172	P	1.7
5	☐	100.000	100.390	5123650.13	1.1761	A	2.1
6	☐	200.000	199.803	9909455.48	2.3405	A	1.3

y = 0.0117 * x + 2.3167E-004
R = 1.0000
DL = 0.009364
BEC = 0.01978

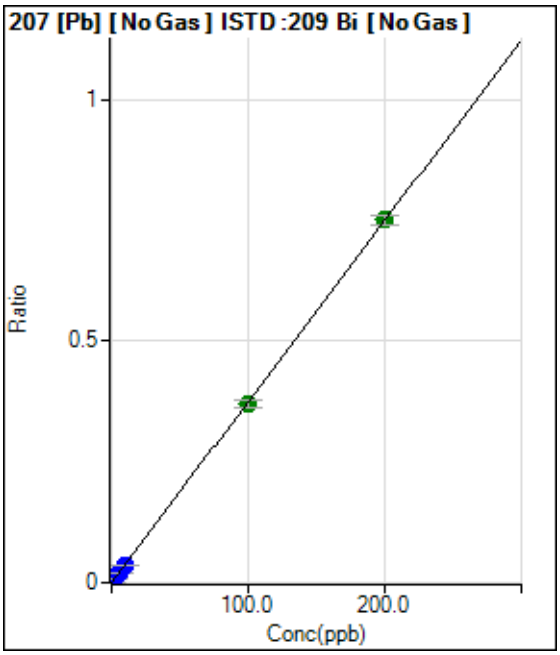
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.37	0.0002	P	7.9
2	☐	2.000	2.027	37122.37	0.0084	P	1.3
3	☐	5.000	5.105	91339.72	0.0209	P	2.0
4	☐	10.000	10.061	182383.82	0.0410	P	2.0
5	☐	100.000	99.908	1765488.67	0.4053	A	2.7
6	☐	200.000	200.040	3435663.07	0.8113	A	1.8

y = 0.0041 * x + 1.5871E-004
R = 1.0000
DL = 0.009334
BEC = 0.03914

Weight: <None>
Min Conc: <None>

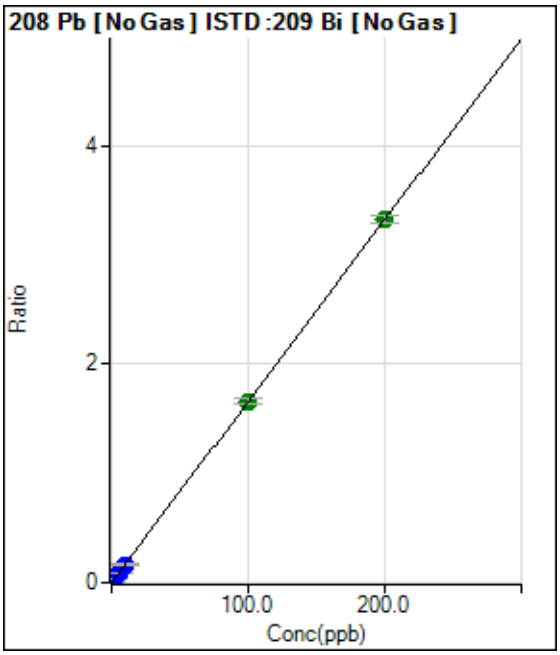


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.37	0.0002	P	14.9
2	☐	2.000	2.000	33846.23	0.0076	P	0.8
3	☐	5.000	5.018	82854.61	0.0189	P	3.9
4	☐	10.000	9.848	164707.55	0.0370	P	2.2
5	☐	100.000	98.751	1609213.99	0.3695	A	3.5
6	☐	200.000	200.632	3177365.99	0.7505	A	2.3

y = 0.0037 * x + 1.5869E-004
R = 1.0000
DL = 0.01894
BEC = 0.04243

Weight: <None>
Min Conc: <None>

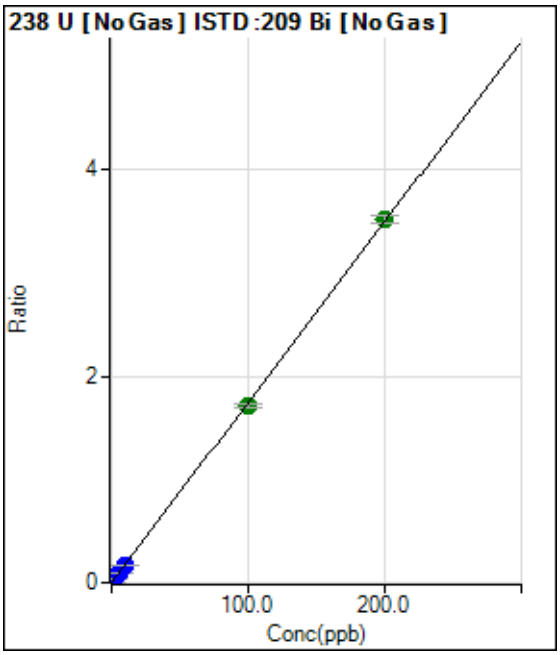
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3023.54	0.0007	P	8.5
2	☐	2.000	2.030	152222.81	0.0344	P	1.1
3	☐	5.000	5.061	370669.12	0.0847	P	2.4
4	☐	10.000	9.980	740377.11	0.1663	P	2.1
5	☐	100.000	99.742	7210883.43	1.6555	A	3.1
6	☐	200.000	200.128	14060332.29	3.3210	A	2.0

y = 0.0166 * x + 6.8225E-004
R = 1.0000
DL = 0.0105
BEC = 0.04112

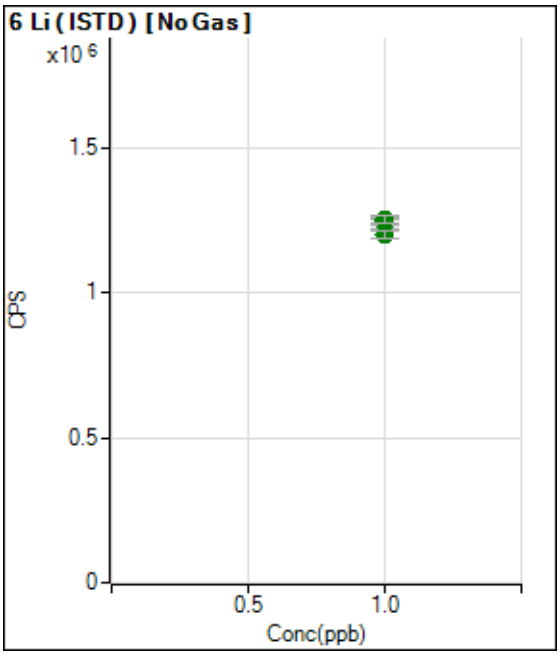
Weight: <None>
Min Conc: <None>



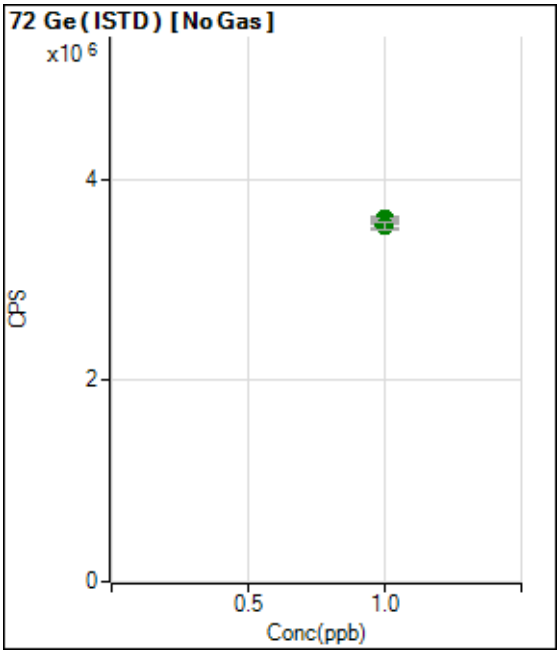
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	110.00	0.0000	P	24.0
2	☐	2.000	1.955	151608.23	0.0342	P	2.0
3	☐	5.000	4.915	376486.42	0.0860	P	3.0
4	☐	10.000	9.767	760834.44	0.1709	P	1.4
5	☐	100.000	97.802	7453227.18	1.7107	A	2.0
6	☐	200.000	201.113	14892446.03	3.5177	A	2.1

y = 0.0175 * x + 2.4816E-005
R = 0.9999
DL = 0.00102
BEC = 0.001419

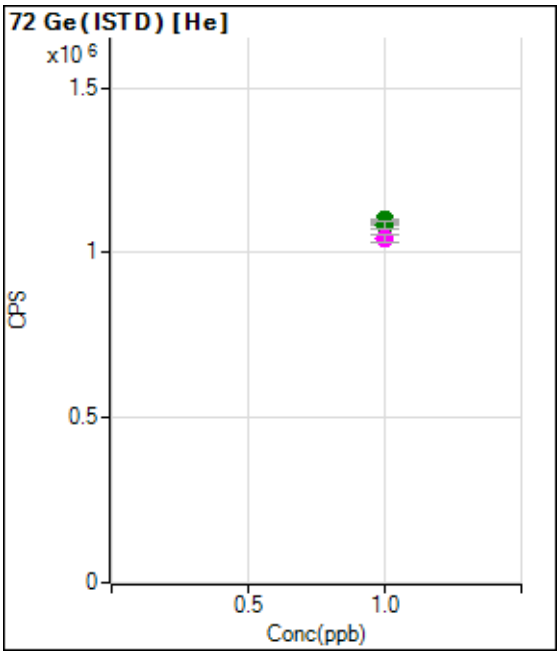
Weight: <None>
Min Conc: <None>



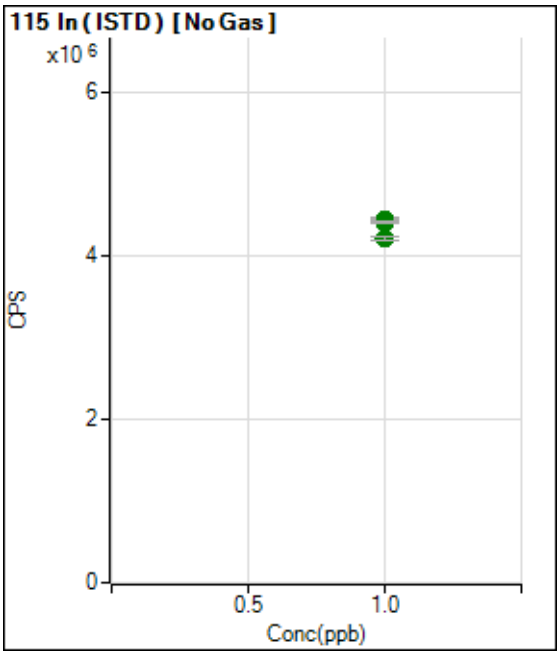
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1245422.74		A	1.1
2	☐	1.000		1219019.63		A	0.2
3	☐	1.000		1250998.65		A	2.0
4	☐	1.000		1243976.23		A	1.6
5	☐	1.000		1253379.39		A	2.2
6	☐	1.000		1202323.55		A	2.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3568143.49		A	1.3
2	☐	1.000		3601909.95		A	0.9
3	☐	1.000		3603413.90		A	1.7
4	☐	1.000		3551962.86		A	2.0
5	☐	1.000		3604269.22		A	0.7
6	☐	1.000		3530700.26		A	1.9

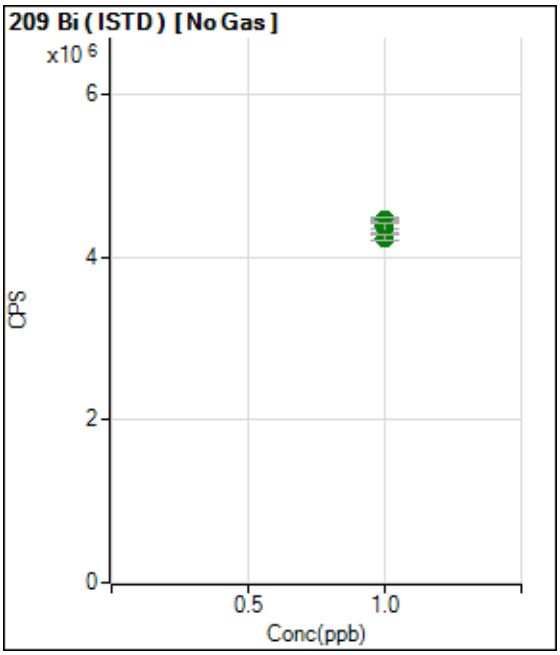


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1099243.94		A	0.3
2	☐	1.000		1085958.94		A	0.9
3	☐	1.000		1086538.42		A	2.4
4	☐	1.000		1084426.91		A	2.2
5	☐	1.000		1083757.98		A	1.6
6	☐	1.000		1043675.84		M	2.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4404541.04		A	0.3
2	☐	1.000		4442927.23		A	1.8
3	☐	1.000		4426408.10		A	0.5
4	☐	1.000		4439432.52		A	0.6
5	☐	1.000		4408508.81		A	0.4
6	☐	1.000		4213001.98		A	1.4

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4431936.50		A	0.1
2	☐	1.000		4431188.99		A	1.1
3	☐	1.000		4379992.85		A	1.8
4	☐	1.000		4453524.00		A	1.0
5	☐	1.000		4357869.94		A	2.4
6	☐	1.000		4234525.98		A	1.7

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	022_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:53:54-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	-0.033	-163.8	74827	1.5	0.5	
Be	9	1	No Gas	0.006	79.3	28	66.8	0.5	
V	51	2	He	-0.003	-295.5	1169	7.7	2.5	
Cr	52	2	He	-0.018	-39.1	1980	3.2	2.5	
Fe	56	2	He	-0.131	-114.8	24696	5.2	100	
Se	78	2	He	0.091	119.2	106	13.6	1	
As	75	2	He	0.012	144.1	152	18.2	2.5	
Ca	44	2	He	-14.524	-1.4	1033	1.1	100	
Na	23	2	He	-2.024	-18.3	91234	0.9	100	
Mg	24	2	He	-0.657	-24.4	1447	9.4	100	
K	39	2	He	3.167	30.2	47388	1.3	100	
Mn	55	2	He	-0.471	-3.1	5331	2.7	2.5	
Co	59	2	He	0.001	104.0	87	24.0	2.5	
Ni	60	2	He	0.140	32.5	1553	12.3	2.5	
Cu	63	2	He	-0.077	-3.4	4938	1.2	1	
Zn	66	2	He	0.465	20.2	5101	4.6	2.5	
Al	27	2	He	-3.131	-22.7	1473	21.8	5	
B	11	1	No Gas	13.815	18.6	66366	8.1	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-3.401	-1.1	67996	1.1	5	
Si	28	1	No Gas	1.445	35.7	637622	0.6	10	
Ag	107	1	No Gas	0.003	160.3	640	20.4	2.5	
Cd	111	1	No Gas	0.010	71.7	60	66.7	1	
Sr	88	1	No Gas	-0.050	-1.8	1530	4.0	2.5	
Mo	95	1	No Gas	0.154	43.3	1807	35.4	2.5	
Sn	118	1	No Gas	0.141	31.9	6739	9.8	5	
Sb	121	1	No Gas	0.127	11.0	5194	5.2	2.5	
Ba	137	1	No Gas	-0.050	-14.8	320	19.0	2.5	
Tl	205	1	No Gas	0.935	59.0	48335	58.5	1	
Tl	203	1	No Gas	0.916	58.5	20161	58.1	1	
Pb	208	1	No Gas	0.051	11.4	6571	6.8	2.5	
U	238	1	No Gas	0.017	43.7	1373	41.1	2.5	
Ca	43	2	He	-11.805	-55.3	30	66.7	100	
Sb	121	2	He	0.092	20.7	1967	9.9	2.5	
Ti	47	2	He	0.061	126.0	33	75.5	2.5	
Se	82	1	No Gas	-0.128	-295.8	-32	-361.9	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1290988	2.68	1245423	103.66	70	120	
Ge	72	2	He	1092705	0.77	1099244	99.41	70	120	
Ge	72	1	No Gas	3594429	1.16	3568143	100.74	70	120	
In	115	1	No Gas	4474356	1.37	4404541	101.59	70	120	
Bi	209	1	No Gas	4314405	1.18	4431936	97.35	70	120	

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	023LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:55:53-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	2.152	2.152	4.11	109031	0.00	2	
Be	9	1	No Gas	2.075	2.075	2.91	8713	0.02	2	
V	51	2	He	1.965	1.965	1.35	19241	0.01	2	
Cr	52	2	He	1.943	1.943	1.60	23681	0.01	2	
Fe	56	2	He	208.459	208.459	2.41	2081587	0.01	200	
Se	78	2	He	2.023	2.023	9.62	381	0.53	2	
As	75	2	He	1.974	1.974	3.57	3262	0.06	2	
Ca	44	2	He	196.926	196.926	1.38	12599	1.56	200	
Na	23	2	He	206.811	206.811	3.05	370770	0.06	200	
Mg	24	2	He	212.480	212.480	0.38	170806	0.12	200	
K	39	2	He	207.342	207.342	2.25	242826	0.09	200	
Mn	55	2	He	1.957	1.957	2.67	24836	0.01	2	
Co	59	2	He	2.023	2.023	2.33	33421	0.01	2	
Ni	60	2	He	2.068	2.068	0.87	9480	0.02	2	
Cu	63	2	He	1.917	1.917	3.91	27495	0.01	2	
Zn	66	2	He	2.027	2.027	8.37	8480	0.02	2	
Al	27	2	He	1.718	1.718	8.30	3784	0.05	2	
B	11	1	No Gas	14.656	14.656	0.95	67575	0.02	10	NewName Main CR1 Failed
Al	27	1	No Gas	1.358	1.358	6.83	161577	0.00	2	NewName Main CR1 Failed
Si	28	1	No Gas	16.379	16.379	8.29	778996	0.00	10	NewName Main CR1 Failed
Ag	107	1	No Gas	2.119	2.119	1.51	56183	0.00	2	
Cd	111	1	No Gas	2.043	2.043	4.32	10951	0.02	2	
Sr	88	1	No Gas	2.074	2.074	1.37	100707	0.00	2	
Mo	95	1	No Gas	2.093	2.093	1.55	20817	0.01	2	
Sn	118	1	No Gas	2.025	2.025	2.79	37721	0.01	2	
Sb	121	1	No Gas	2.106	2.106	3.36	49614	0.00	2	
Ba	137	1	No Gas	2.140	2.140	2.81	17896	0.01	2	
Tl	205	1	No Gas	2.022	2.022	4.25	105944	0.00	2	
Tl	203	1	No Gas	1.962	1.962	4.73	43804	0.00	2	
Pb	208	1	No Gas	2.032	2.032	3.06	152396	0.00	2	
U	238	1	No Gas	1.941	1.941	3.52	150525	0.00	2	
Ca	43	2	He	214.079	214.079	8.69	737	29.06	200	
Sb	121	2	He	2.095	2.095	1.17	23905	0.01	2	
Ti	47	2	He	1.840	1.840	7.78	627	0.29	200	
Cu	63	1	No Gas	2.002	2.002	3.21	52324	0.00	2	
Se	82	1	No Gas	1.464	1.464	13.83	467	0.31	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1268744	0.95	1245423	101.87	70	120	
Ge	72	2	He	1112180	1.33	1099244	101.18	70	120	
Ge	72	1	No Gas	3617727	1.61	3568143	101.39	70	120	
In	115	1	No Gas	4405039	1.02	4404541	100.01	70	120	
Bi	209	1	No Gas	4431479	1.56	4431936	99.99	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	024LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:57:52-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	5.300	5.300	1.68	158590	0.00	5	
Be	9	1	No Gas	5.016	5.016	2.11	20849	0.02	5	
V	51	2	He	4.814	4.814	1.14	45134	0.01	5	
Cr	52	2	He	4.968	4.968	0.98	56781	0.01	5	
Fe	56	2	He	506.355	506.355	1.06	4992157	0.01	500	
Se	78	2	He	5.259	5.259	2.01	833	0.63	5	
As	75	2	He	5.023	5.023	0.56	8049	0.06	5	
Ca	44	2	He	494.421	494.421	4.41	28674	1.72	500	
Na	23	2	He	502.794	502.794	1.17	760596	0.07	500	
Mg	24	2	He	522.343	522.343	2.02	414651	0.13	500	
K	39	2	He	506.024	506.024	2.05	524619	0.10	500	
Mn	55	2	He	4.397	4.397	3.88	44092	0.01	5	
Co	59	2	He	5.045	5.045	1.40	82797	0.01	5	
Ni	60	2	He	4.948	4.948	1.09	21163	0.02	5	
Cu	63	2	He	4.963	4.963	1.03	61486	0.01	5	
Zn	66	2	He	4.917	4.917	4.69	14498	0.03	5	
Al	27	2	He	4.747	4.747	1.31	5181	0.09	5	
B	11	1	No Gas	27.724	27.724	2.79	101435	0.03	25	
Al	27	1	No Gas	4.683	4.683	4.92	228142	0.00	5	
Si	28	1	No Gas	28.717	28.717	1.32	898499	0.00	25	
Ag	107	1	No Gas	5.159	5.159	0.52	139572	0.00	5	
Cd	111	1	No Gas	4.935	4.935	2.82	27152	0.02	5	
Sr	88	1	No Gas	5.052	5.052	1.34	246225	0.00	5	
Mo	95	1	No Gas	5.059	5.059	1.63	51269	0.01	5	
Sn	118	1	No Gas	4.782	4.782	2.47	85430	0.01	5	
Sb	121	1	No Gas	5.085	5.085	2.22	117186	0.00	5	
Ba	137	1	No Gas	4.752	4.752	1.65	39892	0.01	5	
Tl	205	1	No Gas	4.985	4.985	3.03	260573	0.00	5	
Tl	203	1	No Gas	4.879	4.879	2.31	108721	0.00	5	
Pb	208	1	No Gas	4.985	4.985	1.28	370774	0.00	5	
U	238	1	No Gas	4.840	4.840	2.82	376457	0.00	5	
Ca	43	2	He	483.934	483.934	4.02	1573	30.76	500	
Sb	121	2	He	4.964	4.964	0.68	54982	0.01	5	
Ti	47	2	He	5.047	5.047	3.51	1687	0.30	5	
Cu	63	1	No Gas	5.108	5.108	1.07	111972	0.00	5	
Se	82	1	No Gas	4.425	4.425	3.04	1404	0.32	5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1256340	1.56	1245423	100.88	70	120	
Ge	72	2	He	1106183	1.86	1099244	100.63	70	120	
Ge	72	1	No Gas	3641624	1.23	3568143	102.06	70	120	

Sample Report

In	115	1	No Gas	4521772	0.97	4404541	102.66	70	120	
Bi	209	1	No Gas	4446875	2.25	4431936	100.34	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	025ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:59:50-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.659	0.8	78757	1.0	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.006	69.0	27	60.3	0	ICSA Main CR1 Failed
V	51	2	He	0.042	23.6	1468	5.6	0	ICSA Main CR1 Failed
Cr	52	2	He	2.105	3.7	23313	2.8	0	ICSA Main CR1 Failed
Fe	56	2	He	101190.337	0.2	913592146	0.5	0	
Se	78	2	He	0.239	83.7	118	22.0	0	ICSA Main CR1 Failed
As	75	2	He	0.107	14.1	280	8.3	0	ICSA Main CR1 Failed
Ca	44	2	He	99112.919	2.2	4956514	1.7	0	
Na	23	2	He	102572.422	0.4	125095311	0.8	0	
Mg	24	2	He	101699.117	0.5	73981976	0.8	0	
K	39	2	He	104435.288	1.5	91184405	1.0	0	
Mn	55	2	He	12.183	2.0	97601	1.9	0	
Co	59	2	He	0.094	9.6	1487	9.7	0	ICSA Main CR1 Failed
Ni	60	2	He	-0.011	-265.3	877	12.6	0	ICSA Main CR1 Failed
Cu	63	2	He	0.029	73.9	5695	4.5	0	ICSA Main CR1 Failed
Zn	66	2	He	0.471	15.9	4764	3.2	0	ICSA Main CR1 Failed
Al	27	2	He	96300.271	0.2	41510136	0.5	0	
B	11	1	No Gas	3.079	20.7	34053	3.8	0	
Al	27	1	No Gas	95084.684	1.5	1772647920	1.1	0	
Si	28	1	No Gas	20.548	6.4	778706	2.6	0	
Ag	107	1	No Gas	0.283	2.4	7282	2.8	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	1.528	2.9	7466	3.4	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	1.226	1.4	55713	1.9	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	2079.352	0.4	18607747	0.4	0	
Sn	118	1	No Gas	0.118	5.9	5711	2.3	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.073	15.9	3837	5.6	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.469	3.9	4087	4.0	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.063	51.3	3847	39.7	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.061	62.0	1557	48.3	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.073	4.9	7494	2.9	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.005	26.0	450	19.8	0	ICSA Main CR1 Failed
Ca	43	2	He	100864.519	1.5	288953	0.9	0	
Sb	121	2	He	0.092	2.0	1837	1.1	0	ICSA Main CR1 Failed
Ti	47	2	He	2053.301	1.2	626896	0.7	0	
Se	82	1	No Gas	-0.268	-160.3	-72	-175.6	0	ICSA Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1178378	0.99	1245423	94.62	70	120	
Ge	72	2	He	1018292	0.58	1099244	92.64	70	120	
Ge	72	1	No Gas	3445964	1.65	3568143	96.58	70	120	
In	115	1	No Gas	4014401	0.73	4404541	91.14	70	120	
Bi	209	1	No Gas	3949650	0.59	4431936	89.12	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	026ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T11:01:53-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	105.021	2.272	1618774	1.97	100	105.0	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	104.820	2.447	400077	1.21	100	104.8	80	120	
V	51	2	He	102.312	1.913	863556	0.84	100	102.3	80	120	
Cr	52	2	He	105.399	1.899	1071911	1.28	100	105.4	80	120	
Fe	56	2	He	113981.491	1.995	1032772491	0.97	100	113981.5	80	120	ICSB Main CR1 Failed
Se	78	2	He	111.760	2.890	14593	1.72	100	111.8	80	120	
As	75	2	He	106.926	1.271	155759	0.57	100	106.9	80	120	
Ca	44	2	He	111057.256	2.112	5574430	1.98	100	111057.3	80	120	
Na	23	2	He	113914.598	1.294	139422615	0.25	100	113914.6	80	120	
Mg	24	2	He	112486.546	1.036	82128432	0.29	100	112486.5	80	120	
K	39	2	He	117697.308	2.029	103133112	0.99	100	117697.3	80	120	ICSB Main CR1 Failed
Mn	55	2	He	106.789	1.327	793054	0.59	100	106.8	80	120	
Co	59	2	He	102.821	2.077	1558066	0.96	100	102.8	80	120	
Ni	60	2	He	100.827	0.867	380630	0.52	100	100.8	80	120	
Cu	63	2	He	97.811	1.642	1018527	2.56	100	97.8	80	120	
Zn	66	2	He	102.902	1.355	203096	0.73	100	102.9	80	120	
Al	27	2	He	97448.831	2.229	42154935	1.01	100	97448.8	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	520.076	2.721	1288189	0.41	100	520.1	80	120	
Al	27	1	No Gas	98232.099	1.028	1801349200	1.57	100	98232.1	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	546.211	1.357	5294225	1.27	100	546.2	80	120	
Ag	107	1	No Gas	100.089	1.400	2437018	0.65	100	100.1	80	120	
Cd	111	1	No Gas	103.498	0.761	514372	0.83	100	103.5	80	120	
Sr	88	1	No Gas	108.243	2.510	4693220	1.03	100	108.2	80	120	
Mo	95	1	No Gas	2222.616	0.477	20243164	1.58	100	2222.6	80	120	ICSB Main CR1 Failed
Sn	118	1	No Gas	102.397	2.869	1570921	1.39	100	102.4	80	120	
Sb	121	1	No Gas	105.803	1.725	2225299	1.23	100	105.8	80	120	
Ba	137	1	No Gas	101.531	0.927	756525	0.78	100	101.5	80	120	
Tl	205	1	No Gas	106.289	2.153	4826377	1.57	100	106.3	80	120	
Tl	203	1	No Gas	105.433	1.177	2041298	0.59	100	105.4	80	120	
Pb	208	1	No Gas	107.446	1.181	6912631	0.68	100	107.4	80	120	
U	238	1	No Gas	106.661	1.117	7232166	1.37	100	106.7	80	120	
Ca	43	2	He	113268.030	0.985	325688	0.57	100	113268.0	80	120	ICSB Main CR1 Failed
Sb	121	2	He	106.360	1.735	1069711	2.50	100	106.4	80	120	
Ti	47	2	He	2192.126	1.170	671764	0.87	100	2192.1	80	120	ICSB Main CR1 Failed
Cu	63	1	No Gas	104.356	1.223	1867587	1.10	100	104.4	80	120	
Se	82	1	No Gas	107.819	2.010	31680	2.49	100	107.8	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1154181	2.26	1245423	92.67	70	120	
Ge	72	2	He	1022105	1.27	1099244	92.98	70	120	
Ge	72	1	No Gas	3389028	0.57	3568143	94.98	70	120	
In	115	1	No Gas	4085683	1.57	4404541	92.76	70	120	
Bi	209	1	No Gas	3876443	0.59	4431936	87.47	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	031_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T11:16:36-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	99.103	3.004	1608524	0.90	100	99.1	90	110	
Be	9	1	No Gas	98.882	1.693	396542	0.29	100	98.9	90	110	
V	51	2	He	93.885	2.544	862781	0.56	100	93.9	90	110	
Cr	52	2	He	96.020	2.073	1063428	1.70	100	96.0	90	110	
Fe	56	2	He	9279.982	2.297	91566802	0.55	10000	92.8	90	110	
Se	78	2	He	94.751	2.881	13484	1.01	100	94.8	90	110	
As	75	2	He	96.385	2.639	152851	0.22	100	96.4	90	110	
Ca	44	2	He	9078.379	2.826	497703	0.23	10000	90.8	90	110	
Na	23	2	He	9046.266	3.281	12139269	0.72	10000	90.5	90	110	
Mg	24	2	He	9074.050	3.179	7213046	0.94	10000	90.7	90	110	
K	39	2	He	9222.509	1.878	8840537	1.06	10000	92.2	90	110	
Mn	55	2	He	95.018	2.396	769185	0.47	100	95.0	90	110	
Co	59	2	He	98.682	3.892	1627559	1.50	100	98.7	90	110	
Ni	60	2	He	97.100	3.725	398969	1.00	100	97.1	90	110	
Cu	63	2	He	97.036	3.221	1099738	1.25	100	97.0	90	110	
Zn	66	2	He	95.674	4.006	205801	1.26	100	95.7	90	110	
Al	27	2	He	94.940	2.257	47689	0.90	100	94.9	90	110	
B	11	1	No Gas	485.833	1.319	1266746	3.22	500	97.2	90	110	
Al	27	1	No Gas	98.772	2.453	2073884	1.37	100	98.8	90	110	
Si	28	1	No Gas	502.349	1.535	5262674	0.17	5000	10.0	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	101.029	1.823	2648963	0.61	100	101.0	90	110	
Cd	111	1	No Gas	98.787	1.510	528682	0.50	100	98.8	90	110	
Sr	88	1	No Gas	98.530	1.763	4601761	1.69	100	98.5	90	110	
Mo	95	1	No Gas	100.592	1.415	986762	0.20	100	100.6	90	110	
Sn	118	1	No Gas	98.499	1.443	1627801	1.10	100	98.5	90	110	
Sb	121	1	No Gas	100.020	0.400	2252342	1.24	100	100.0	90	110	
Ba	137	1	No Gas	95.349	1.289	765140	1.00	100	95.3	90	110	
Tl	205	1	No Gas	99.550	2.088	5101589	0.78	100	99.6	90	110	
Tl	203	1	No Gas	99.305	2.128	2169715	0.63	100	99.3	90	110	
Pb	208	1	No Gas	100.924	1.625	7327983	0.73	100	100.9	90	110	
U	238	1	No Gas	96.225	3.116	7361392	0.81	100	96.2	90	110	
Ca	43	2	He	9353.196	3.273	29335	1.29	10000	93.5	90	110	
Sb	121	2	He	102.015	2.171	1116941	1.72	100	102.0	90	110	
Ti	47	2	He	94.835	3.232	31650	2.39	100	94.8	90	110	
Cu	63	1	No Gas	101.435	1.732	1943571	0.60	100	101.4	90	110	
Se	82	1	No Gas	98.557	3.614	30991	2.51	100	98.6	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1212562	1.97	1245423	97.36	70	120	
Ge	72	2	He	1113077	2.88	1099244	101.26	70	120	
Ge	72	1	No Gas	3628117	1.19	3568143	101.68	70	120	
In	115	1	No Gas	4399789	1.24	4404541	99.89	70	120	
Bi	209	1	No Gas	4375742	2.32	4431936	98.73	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	032_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T11:18:53-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.065	157.2	73542	1.1	0.5	
Be	9	1	No Gas	0.007	43.7	33	37.7	0.5	
V	51	2	He	0.017	27.8	1363	2.1	2.5	
Cr	52	2	He	-0.029	-48.0	1870	9.3	2.5	
Fe	56	2	He	0.147	80.4	27565	4.7	100	
Se	78	2	He	0.143	41.9	114	7.6	2	
As	75	2	He	0.011	46.2	152	6.3	2.5	
Ca	44	2	He	-10.924	-19.3	1233	8.2	100	
Na	23	2	He	-6.892	-7.5	85393	0.9	100	
Mg	24	2	He	-1.262	-2.4	980	3.1	100	
K	39	2	He	0.142	277.4	44840	2.1	100	
Mn	55	2	He	-0.470	-3.5	5368	3.2	2.5	
Co	59	2	He	0.002	39.8	103	14.8	2.5	
Ni	60	2	He	-0.118	-11.4	517	9.1	2.5	
Cu	63	2	He	-0.244	-11.5	3107	9.0	2	
Zn	66	2	He	-0.565	-22.5	2987	9.8	2.5	
Al	27	2	He	-2.468	-15.4	1793	10.8	5	
B	11	1	No Gas	10.308	11.1	54763	4.1	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-2.706	-3.5	82736	1.7	5	
Si	28	1	No Gas	-4.301	-11.8	593998	1.1	10	
Ag	107	1	No Gas	0.000	-1363.7	560	23.2	2.5	
Cd	111	1	No Gas	0.005	100.3	30	88.2	1	
Sr	88	1	No Gas	-0.030	-17.1	2487	10.6	2.5	
Mo	95	1	No Gas	0.168	41.3	1970	34.8	2.5	
Sn	118	1	No Gas	0.125	45.2	6555	14.1	5	
Sb	121	1	No Gas	0.218	17.0	7349	11.0	2.5	
Ba	137	1	No Gas	-0.048	-22.6	347	24.9	2.5	
Tl	205	1	No Gas	0.720	59.1	38887	59.2	1	
Tl	203	1	No Gas	0.693	60.1	15937	60.1	1	
Pb	208	1	No Gas	0.008	40.8	3640	8.6	2.5	
U	238	1	No Gas	0.014	47.2	1217	44.6	2.5	
Ca	43	2	He	-8.639	-36.6	40	25.0	100	
Sb	121	2	He	0.140	7.5	2504	5.2	2.5	
Ti	47	2	He	0.000	-26585.0	13	43.3	2.5	
Cu	63	1	No Gas	-0.344	-2.5	7916	1.7	2.5	
Se	82	1	No Gas	-0.188	-147.6	-52	-169.0	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1242004	1.78	1245423	99.73	70	120	
Ge	72	2	He	1099519	1.32	1099244	100.03	70	120	
Ge	72	1	No Gas	3648741	0.83	3568143	102.26	70	120	
In	115	1	No Gas	4527366	0.71	4404541	102.79	70	120	
Bi	209	1	No Gas	4470571	2.14	4431936	100.87	70	120	

Sample Report

Sample Table

Sample Name	HS21051153-03SD
Data File Name	034SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T11:23:54-05:00
Sample Type	Sample
Dilution	50
Comment	DOD TW 166391
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	1.516	75.797	10.94	96932	0.00	2000	
Be	9	1	No Gas	0.006	0.283	49.71	27	0.02	2000	
V	51	2	He	0.017	0.835	22.85	1376	0.00	2000	
Cr	52	2	He	0.007	0.347	284.68	2297	0.00	2000	
Fe	56	2	He	300.383	15019.170	0.54	2994333	0.01	200000	
Se	78	2	He	0.146	7.309	94.53	116	0.13	2000	
As	75	2	He	0.336	16.779	5.21	669	0.05	2000	
Ca	44	2	He	4039.822	201991.121	1.38	222873	1.81	200000	
Na	23	2	He	1322.742	66137.087	1.12	1859864	0.07	200000	
Mg	24	2	He	1028.513	51425.627	1.46	820766	0.13	200000	
K	39	2	He	302.970	15148.485	1.65	334673	0.09	200000	
Mn	55	2	He	6.321	316.026	2.47	59845	0.01	2000	
Co	59	2	He	0.012	0.612	16.85	270	0.00	2000	
Ni	60	2	He	-0.056	-2.805	-47.16	777	-0.01	2000	
Cu	63	2	He	-0.197	-9.875	-7.57	3671	-0.01	2000	
Zn	66	2	He	-0.882	-44.102	-9.35	2357	-0.04	2000	
Al	27	2	He	-1.400	-69.979	-37.32	2320	-0.06	2000	
B	11	1	No Gas	10.115	505.740	5.02	54457	0.02	2000	
Al	27	1	No Gas	-1.762	-88.086	-3.44	104315	0.00	2000	
Si	28	1	No Gas	311.811	15590.558	2.29	3627154	0.01	2000	
Ag	107	1	No Gas	-0.006	-0.307	-41.07	400	0.00	2000	
Cd	111	1	No Gas	0.007	0.334	26.01	40	0.02	2000	
Sr	88	1	No Gas	31.937	1596.874	1.59	1526670	0.00	2000	
Mo	95	1	No Gas	0.049	2.448	20.59	767	0.01	2000	
Sn	118	1	No Gas	-0.100	-5.011	-14.26	2714	0.00	2000	
Sb	121	1	No Gas	0.025	1.243	27.11	3057	0.00	2000	
Ba	137	1	No Gas	0.930	46.524	3.17	8356	0.01	2000	
Tl	205	1	No Gas	-0.003	-0.170	-52.17	863	0.00	2000	
Tl	203	1	No Gas	-0.003	-0.154	-92.06	337	0.00	2000	
Pb	208	1	No Gas	-0.007	-0.335	-56.55	2570	0.00	2000	
U	238	1	No Gas	0.033	1.669	6.22	2740	0.00	2000	
Ca	43	2	He	4237.083	211854.142	4.56	13350	31.74	200000	
Sb	121	2	He	0.045	2.236	11.04	1493	0.00	2000	
Ti	47	2	He	0.069	3.462	108.58	37	0.19	2000	
Cu	63	1	No Gas	-0.339	-16.927	-8.34	8249	0.00	2000	
Zn	66	1	No Gas	-0.841	-42.062	-1.31	6325	-0.01	2000	
Se	82	1	No Gas	-0.450	-22.521	-65.85	-139	0.33	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1246292	1.97	1245423	100.07	70	120	
Ge	72	2	He	1114373	0.26	1099244	101.38	70	120	
Ge	72	1	No Gas	3753865	0.79	3568143	105.20	70	120	
In	115	1	No Gas	4495785	1.32	4404541	102.07	70	120	

Sample Report

Bi	209	1	No Gas	4502243	1.04	4431936	101.59	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	043_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T11:42:17-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	100.060	1.514	1830492	0.95	100	100.1	90	110	
Be	9	1	No Gas	99.457	0.250	449689	0.57	100	99.5	90	110	
V	51	2	He	96.500	1.741	927348	0.99	100	96.5	90	110	
Cr	52	2	He	97.907	0.981	1133866	1.72	100	97.9	90	110	
Fe	56	2	He	9335.919	0.737	96335339	0.41	10000	93.4	90	110	
Se	78	2	He	100.124	1.697	14896	1.45	100	100.1	90	110	
As	75	2	He	97.393	0.382	161532	0.50	100	97.4	90	110	
Ca	44	2	He	9302.331	0.426	533335	0.32	10000	93.0	90	110	
Na	23	2	He	9522.475	1.056	13360456	1.07	10000	95.2	90	110	
Mg	24	2	He	9513.795	0.649	7909822	0.27	10000	95.1	90	110	
K	39	2	He	9566.762	0.616	9587728	0.24	10000	95.7	90	110	
Mn	55	2	He	97.201	0.948	822693	1.20	100	97.2	90	110	
Co	59	2	He	98.588	0.735	1700947	1.07	100	98.6	90	110	
Ni	60	2	He	96.394	0.793	414310	0.12	100	96.4	90	110	
Cu	63	2	He	95.172	0.821	1128238	0.33	100	95.2	90	110	
Zn	66	2	He	97.059	0.462	218346	0.95	100	97.1	90	110	
Al	27	2	He	98.217	0.113	51485	0.83	100	98.2	90	110	
B	11	1	No Gas	481.146	0.551	1414181	0.64	500	96.2	90	110	
Al	27	1	No Gas	104.320	2.896	2295881	1.65	100	104.3	90	110	
Si	28	1	No Gas	524.740	1.492	5752996	1.01	5000	10.5	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	102.846	1.451	2791417	1.13	100	102.8	90	110	
Cd	111	1	No Gas	99.128	0.815	549151	0.56	100	99.1	90	110	
Sr	88	1	No Gas	100.159	0.814	4841949	0.95	100	100.2	90	110	
Mo	95	1	No Gas	103.808	2.232	1054039	1.89	100	103.8	90	110	
Sn	118	1	No Gas	98.274	0.919	1681153	1.23	100	98.3	90	110	
Sb	121	1	No Gas	98.655	0.991	2336692	0.57	100	98.7	90	110	
Ba	137	1	No Gas	95.737	0.194	795220	0.16	100	95.7	90	110	
Tl	205	1	No Gas	99.914	1.784	5134068	1.11	100	99.9	90	110	
Tl	203	1	No Gas	99.677	1.575	2183790	0.94	100	99.7	90	110	
Pb	208	1	No Gas	100.735	0.666	7333973	0.08	100	100.7	90	110	
U	238	1	No Gas	96.837	3.341	7428858	2.60	100	96.8	90	110	
Ca	43	2	He	9492.249	1.608	31139	2.06	10000	94.9	90	110	
Sb	121	2	He	102.701	2.311	1175743	1.98	100	102.7	90	110	
Ti	47	2	He	96.108	2.104	33541	1.71	100	96.1	90	110	
Cu	63	1	No Gas	102.717	1.051	2070272	1.57	100	102.7	90	110	
Se	82	1	No Gas	101.500	1.800	33578	1.28	100	101.5	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1366820	0.51	1245423	109.75	70	120	
Ge	72	2	He	1163552	0.74	1099244	105.85	70	120	
Ge	72	1	No Gas	3816267	1.15	3568143	106.95	70	120	
In	115	1	No Gas	4553936	0.36	4404541	103.39	70	120	
Bi	209	1	No Gas	4386586	0.74	4431936	98.98	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	044_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T11:44:08-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.157	10.8	80227	0.9	0.5	
Be	9	1	No Gas	0.005	61.5	25	52.9	0.5	
V	51	2	He	0.060	22.9	1842	6.4	2.5	
Cr	52	2	He	-0.032	-45.9	1944	7.4	2.5	
Fe	56	2	He	-0.158	-71.6	25938	5.1	100	
Se	78	2	He	0.142	63.6	120	10.0	2	
As	75	2	He	0.019	93.4	173	17.6	2.5	
Ca	44	2	He	-14.482	-18.6	1100	15.0	100	
Na	23	2	He	46.738	0.3	164466	1.1	100	
Mg	24	2	He	-0.403	-53.5	1743	9.2	100	
K	39	2	He	1.767	105.8	48880	2.7	100	
Mn	55	2	He	-0.510	-2.9	5331	2.9	2.5	
Co	59	2	He	0.001	124.7	87	24.0	2.5	
Ni	60	2	He	-0.123	-3.0	520	1.9	2.5	
Cu	63	2	He	-0.310	-3.6	2497	6.3	2	
Zn	66	2	He	-0.694	-10.1	2864	4.4	2.5	
Al	27	2	He	-2.474	-12.9	1887	8.5	5	
B	11	1	No Gas	12.827	13.7	65636	7.9	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-2.617	-3.4	87545	2.3	5	
Si	28	1	No Gas	-2.566	-28.4	631979	1.2	10	
Ag	107	1	No Gas	-0.002	-140.0	537	10.3	2.5	
Cd	111	1	No Gas	0.004	58.0	23	49.5	1	
Sr	88	1	No Gas	-0.011	-51.9	3491	7.5	2.5	
Mo	95	1	No Gas	0.139	36.8	1720	31.7	2.5	
Sn	118	1	No Gas	0.136	36.3	6879	13.6	5	
Sb	121	1	No Gas	0.205	23.1	7309	15.1	2.5	
Ba	137	1	No Gas	-0.038	-26.6	433	19.9	2.5	
Tl	205	1	No Gas	0.744	61.5	39638	61.1	1	
Tl	203	1	No Gas	0.737	60.3	16711	60.1	1	
Pb	208	1	No Gas	0.003	225.2	3240	17.2	2.5	
U	238	1	No Gas	0.018	38.0	1513	36.6	2.5	
Ca	43	2	He	-8.374	-186.4	43	118.4	100	
Sb	121	2	He	0.118	9.5	2394	4.5	2.5	
Ti	47	2	He	0.084	53.9	43	35.3	2.5	
Cu	63	1	No Gas	-0.444	-1.2	6215	1.5	2.5	
Se	82	1	No Gas	-0.376	-69.8	-116	-74.4	2	

QC ISTD Table

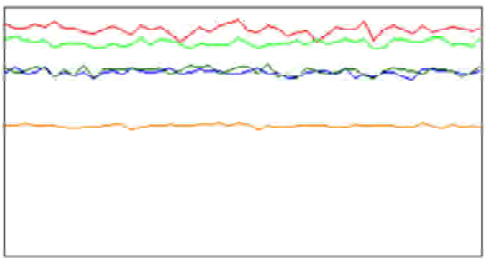
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1328016	0.53	1245423	106.63	70	120	
Ge	72	2	He	1159408	1.15	1099244	105.47	70	120	
Ge	72	1	No Gas	3779630	0.20	3568143	105.93	70	120	
In	115	1	No Gas	4614285	1.14	4404541	104.76	70	120	
Bi	209	1	No Gas	4407839	1.43	4431936	99.46	70	120	

Tune Check Report

Operator Name	ALSHS NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq. Date-Time	6/7/2021 9:18:27 AM
Report Comment	---
Instrument Name	G8421A SG18523544

[No Gas]

Sensitivity



Sampling Period [sec]	0.514
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
9	5000	4578	45780.16		
24	20000	17233	172327.37		
59	50000	36986	369855.90		
115	100000	52464	524638.88		
208	50000	37347	373472.19		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	2.171	5.000	
24	1.534	5.000	
59	1.594	5.000	
115	1.227	5.000	
208	1.954	5.000	

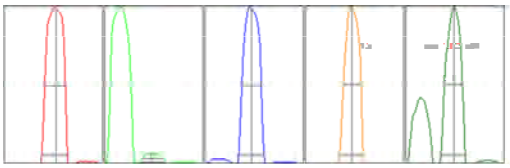
Mass	Background	Background (Required)	Background (Flag)
9	0.200		
24	0.000		
59	0.100		
115	0.400		
208	0.400		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.757 %
Doubly Charged	70 / 140 1.262 %

Tune Check Report

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	37.4
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	4498.05	9.10	8.90 - 9.10	
24	17302.56	23.95	23.90 - 24.10	
59	37041.39	58.95	58.90 - 59.10	
115	53191.60	114.95	114.90 - 115.10	
208	37102.81	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.64	0.781		
24	0.64	0.785		
59	0.60	0.775		
115	0.54	0.721		
208	0.57	0.736		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.47 L/min	Dilution Gas	0.55 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	14.0 V
Extract 2	-195.0 V	Cell Entrance	-30 V	Plate Bias	-45 V
Omega Bias	-90 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	135	Axis Gain	1.0003	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.12		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

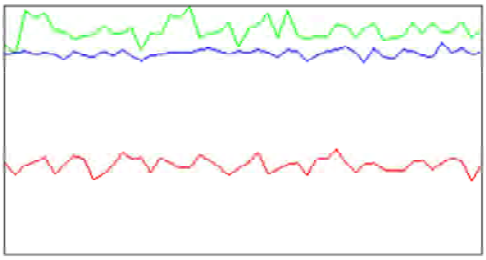
EM

Discriminator	4.5 mV	Analog HV	2542 V	Pulse HV	1305 V

[He]

Tune Check Report

Sensitivity



Sampling Period [sec]	0.306
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
9	500	179	1794.51		
24	1000	905	9046.12		
59	20000	16234	162335.36		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

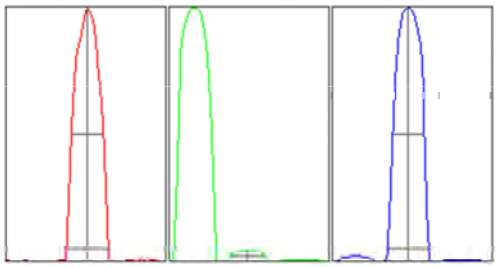
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	8.436	5.000	Fail
24	4.527	5.000	
59	1.842	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.000		
24	0.000		
59	0.300		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.422 %
Doubly Charged	70 / 140 0.923 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	192.52	9.05	8.90 - 9.10	
24	915.08	24.00	23.90 - 24.10	
59	16357.73	58.95	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.61	0.783		
24	0.65	0.785		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.60	0.775		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.47 L/min	Dilution Gas	0.55 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	0.2 V
Extract 2	-195.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-80 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	4.1 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	135	Axis Gain	1.0003	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.12		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

EM

Discriminator	4.5 mV	Analog HV	2542 V	Pulse HV	1305 V

HS21051312 Wet Chem Raw Data (COD)

ALS WO# HS21051312

ALS Laboratory Group **COD Analysis** **Logbook# 31508**

Method: HACH 8000 / EPA 410.4		Date: 5-27-21		Low COD–420nm		Analyst: TH	
SOP #: HS-WC025		Time: 13:00		High COD–620nm			
WO # / SX #	Bottle #	Init Sample Vol (mL)	Prep Final Volume (mL)	Dilution Factor	Init Conc. (mg/L)	Final Conc. (mg/L)	Comments
CCV50		2	2	1	50		
MBLK					0		
LCS					99		
LCSD					99		
HS21051294-01					30		
-01MS					78		
-01MSD					77		
-02					29		
HS21051323-01					18		
HS21051330-01				2	94		
LOQ-052721				1	15		
CCV100		2	2	1	97		
HS21051342-01					7		
HS21051352-01					30		
HS21051249-01					86		
HS21051260-02					55		
HS21051261-02					25		
HS21051262-02					91		
HS21051264-02					26		
HS21051265-02					55		
HS21051312-01					8		
HS21051314-01					7		
CCV50		2	2	1	50		

LCS ID #	CCV1 ID#	CCV2 ID#	Vial Lot#:	Reviewed By:
316.132.707	316.132.708	316.132.709	310.060.3912	RM
LCS Prep Date:	**Prep Date:**	**Prep Date:**	**MS ID:**	***Pipette ID:***
04-28-21			310.060-2311	WC4. COD
Digestor ID:	**Digestor *Temp* (°C):**	**Date/Time In Digestor:**	**Date/Time Off Digestor:**	**Batch ID:**
DRB 200	150°C	5-27-21 10:00	5-27-21 12:00	384513

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HS21051312 Wet Chem Raw Data (9056_anions_W)

ALS WO# HS21051312

Sequence: 060921
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method	Processing Method
	STD1		Calibration	BB1	1.00	1	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD2		Calibration	BB2	1.00	2	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD3		Calibration	BB3	1.00	3	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD4		Calibration	BB4	1.00	4	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD5		Calibration	BB5	1.00	5	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD6		Calibration	BB6	1.00	6	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	ICV		Unknown	BB7	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	ICB		Unknown	BB8	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R6	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	MBLK		Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	LCS		Unknown	R2	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R4	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21051312-01		Unknown	RD1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21051312-01DF20		Unknown	RD2	20.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R6	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21051314-01DF20		Unknown	RD4	20.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21051314-01MSDF20		Unknown	RD5	20.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21051314-01MSDDF20		Unknown	RD6	20.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R4	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO

Sequence: 060921
Last Update Operator: alshs.nouser

CD	Name	Volume	Status	Inject Time
	STD1	5.0	Finished	5/5/2021 6:12:32 PM -05:00
	STD2	5.0	Finished	5/5/2021 6:20:08 PM -05:00
	STD3	5.0	Finished	5/5/2021 6:27:33 PM -05:00
	STD4	5.0	Finished	5/5/2021 6:34:56 PM -05:00
	STD5	5.0	Finished	5/5/2021 6:42:20 PM -05:00
	STD6	5.0	Finished	5/5/2021 6:49:43 PM -05:00
	ICV	5.0	Finished	5/5/2021 6:57:07 PM -05:00
	ICB	5.0	Finished	5/5/2021 7:14:09 PM -05:00
	CCV1	5.0	Finished	6/9/2021 2:04:26 PM -05:00
	CCB	5.0	Finished	6/9/2021 2:11:49 PM -05:00
	MBLK	5.0	Finished	6/9/2021 2:19:13 PM -05:00
	LCS	5.0	Finished	6/9/2021 2:26:37 PM -05:00
	CCV	5.0	Finished	6/9/2021 3:33:09 PM -05:00
	CCB	5.0	Finished	6/9/2021 3:40:35 PM -05:00
	HS21051312-01	5.0	Finished	6/9/2021 4:39:44 PM -05:00
	HS21051312-01DF20	5.0	Finished	6/9/2021 4:47:07 PM -05:00
	CCV1	5.0	Finished	6/9/2021 5:01:56 PM -05:00
	CCB	5.0	Finished	6/9/2021 5:09:19 PM -05:00
	HS21051314-01DF20	5.0	Finished	6/9/2021 5:31:32 PM -05:00
	HS21051314-01MSDF20	5.0	Finished	6/9/2021 5:38:55 PM -05:00
	HS21051314-01MSDDF20	5.0	Finished	6/9/2021 5:46:17 PM -05:00
	CCV	5.0	Finished	6/9/2021 6:30:49 PM -05:00
	CCB	5.0	Finished	6/9/2021 6:38:13 PM -05:00

Sequence: 062221
Injection #6: STD6

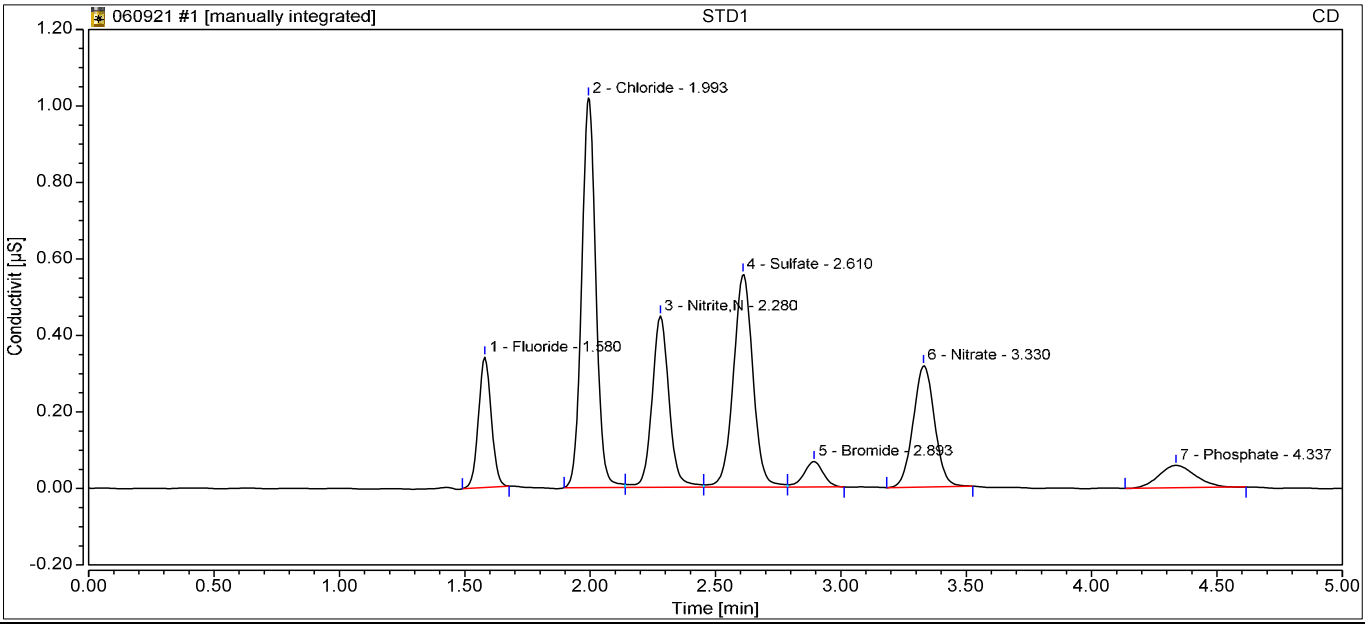
Calibration

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/*	*Area*	*6*	*26.4373*	*0.99601*	*0.0037*	*0.2049*	*0.0000*
2	Chloride	Lin, WithOffset, 1/	Area	6	0.6871	1.00000	-0.0005	0.1344	0.0000
3	Nitrite,N	Lin, WithOffset, 1/	Area	6	17.7767	0.99788	0.0149	0.2622	0.0000
4	Sulfate	Lin, WithOffset, 1/	Area	6	1.7139	0.99998	0.0010	0.0990	0.0000
5	Bromide	Lin, WithOffset, 1/	Area	6	3.9005	0.99992	0.0004	0.0565	0.0000
6	Nitrate	Lin, WithOffset, 1/	Area	6	4.7579	0.99988	-0.0013	0.3350	0.0000
7	Phosphate	Lin, WithOffset, 1/	Area	6	7.9708	0.99971	-0.0045	0.1295	0.0000
n.a.	Chlorate	Lin, WithOffset, 1/	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
Maximum					**26.4373**	1.00000			
Minimum					0.6871	**0.99601**			

1 STD1

Sample Name:	**STD1**	*Injection Volume:*	**5.00**
Vial Number:	**BB1**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:12**	*Sample Weight:*	**1.0000**

Run Time:



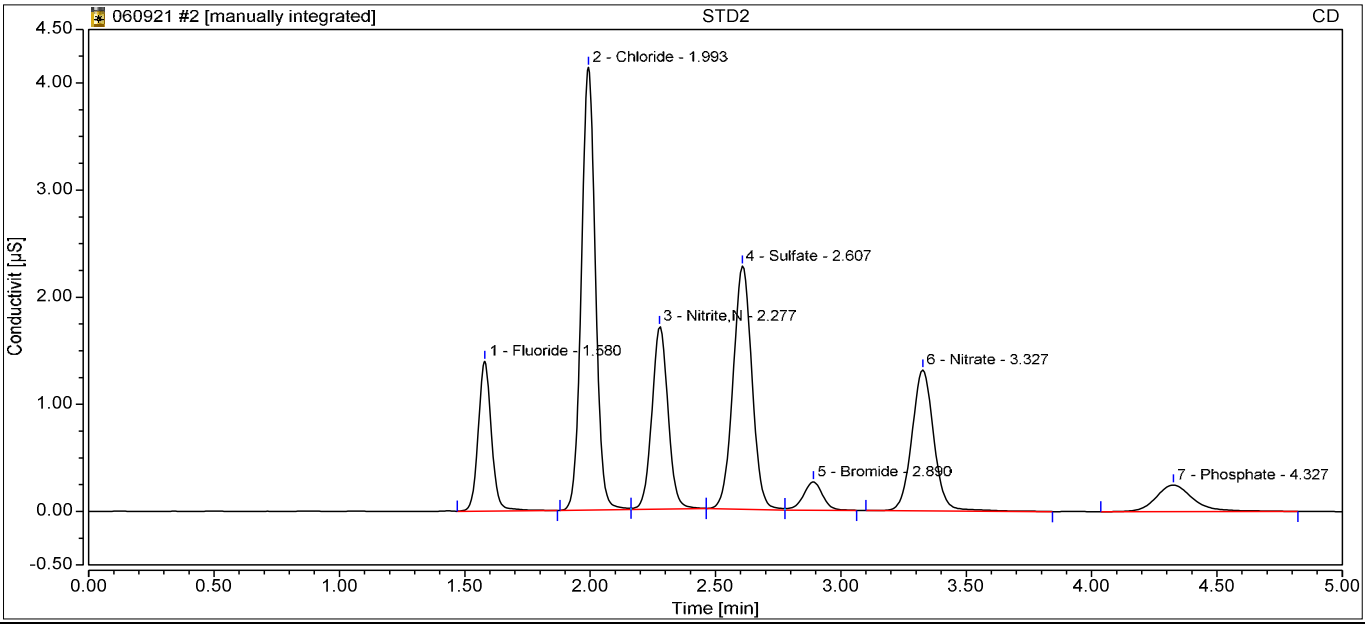
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB*	0.020	0.0804	0.0804	1.0000
2	1.99	Chloride	BM *	0.067	0.4989	0.4989	1.0000
3	2.28	Nitrite,N	M *	0.035	0.0767	0.0767	1.0000
4	2.61	Sulfate	M *	0.050	0.4965	0.4965	1.0000
5	2.89	Bromide	MB*	0.006	0.0985	0.0985	1.0000
6	3.33	Nitrate	BMB*	0.031	0.0974	0.0974	1.0000
7	4.34	Phosphate	BMB*	0.010	0.1110	0.1110	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.219**		**1.46**	

2 STD2

Sample Name:	**STD2**	*Injection Volume:*	**5.00**
Vial Number:	**BB2**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:20**	*Sample Weight:*	**1.0000**

Run Time:



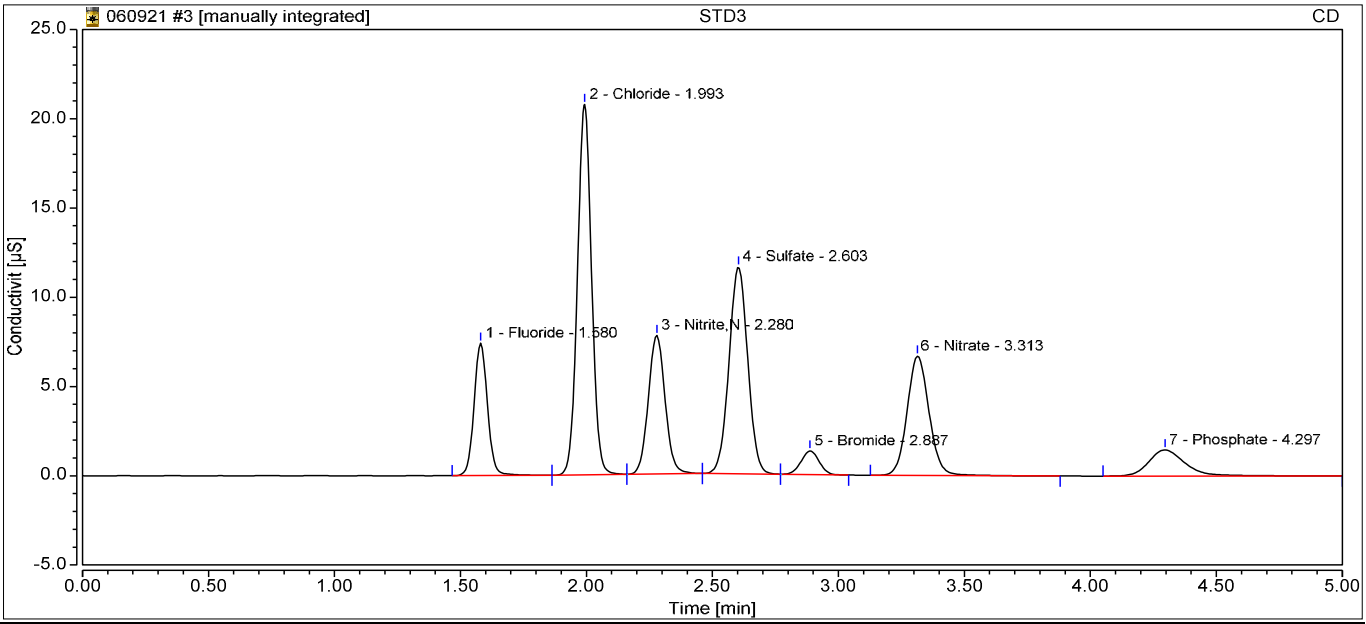
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.085	0.3985	0.3985	1.0000
2	1.99	Chloride	BM *	0.268	1.9973	1.9973	1.0000
3	2.28	Nitrite,N	Mb*	0.127	0.4273	0.4273	1.0000
4	2.61	Sulfate	bM *	0.198	1.9879	1.9879	1.0000
5	2.89	Bromide	MB*	0.024	0.4134	0.4134	1.0000
6	3.33	Nitrate	BMB	0.133	0.4017	0.4017	1.0000
7	4.33	Phosphate	BMB	0.043	0.3676	0.3676	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.878**		**5.99**	

3 STD3

Sample Name:	**STD3**	*Injection Volume:*	**5.00**
Vial Number:	**BB3**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:27**	*Sample Weight:*	**1.0000**

Run Time:



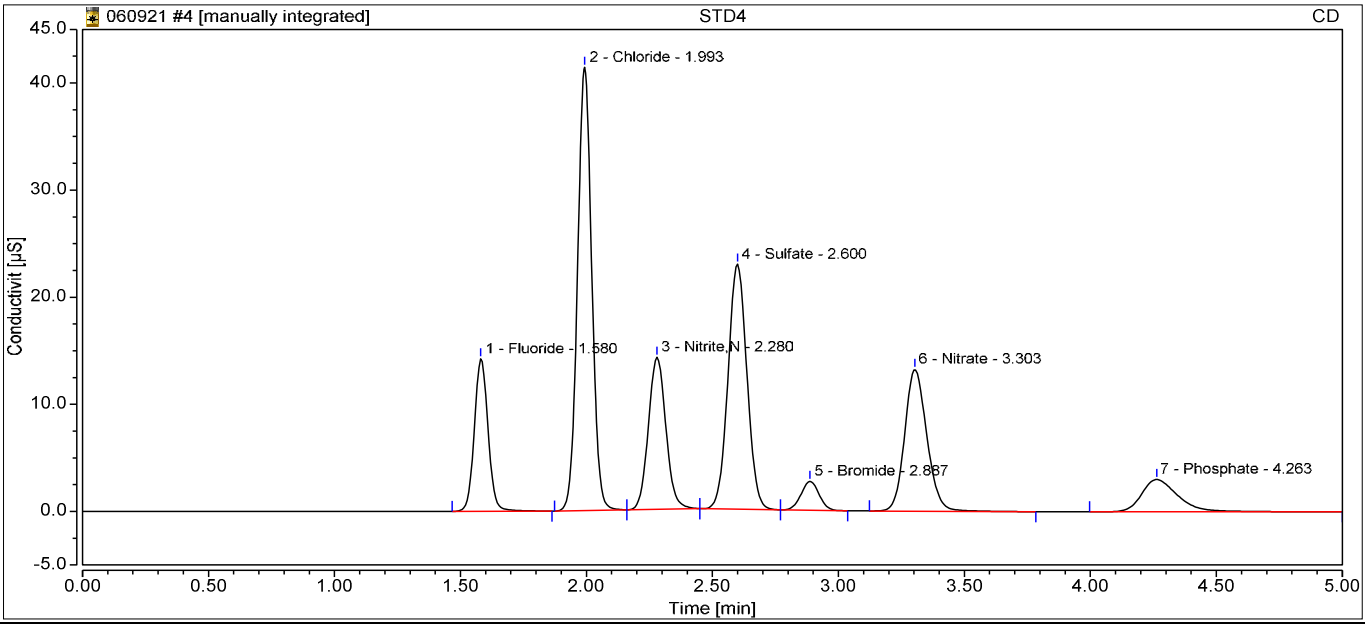
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMb*	0.459	2.2233	2.2233	1.0000
2	1.99	Chloride	bM *	1.346	10.0167	10.0167	1.0000
3	2.28	Nitrite,N	Mb*	0.600	2.2303	2.2303	1.0000
4	2.60	Sulfate	bM *	1.000	10.0941	10.0941	1.0000
5	2.89	Bromide	MB*	0.112	1.9684	1.9684	1.0000
6	3.31	Nitrate	BMB	0.675	2.0188	2.0188	1.0000
7	4.30	Phosphate	BMB	0.247	1.9396	1.9396	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**4.438**		**30.49**	

4 STD4

Sample Name:	**STD4**	*Injection Volume:*	**5.00**
Vial Number:	**BB4**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:34**	*Sample Weight:*	**1.0000**

Run Time:



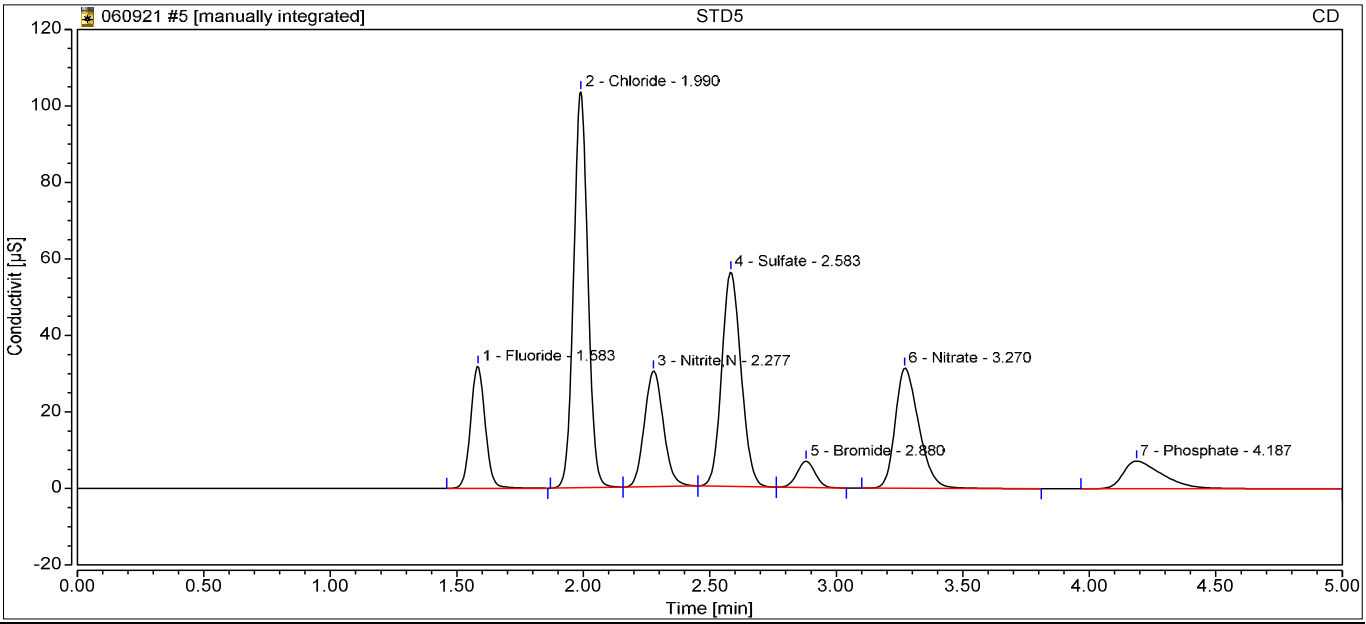
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.903	4.3869	4.3869	1.0000
2	1.99	Chloride	BM *	2.691	20.0267	20.0267	1.0000
3	2.28	Nitrite,N	Mb*	1.144	4.3066	4.3066	1.0000
4	2.60	Sulfate	bMB*	1.988	20.0727	20.0727	1.0000
5	2.89	Bromide	BMB	0.224	3.9555	3.9555	1.0000
6	3.30	Nitrate	BMB	1.350	4.0333	4.0333	1.0000
7	4.26	Phosphate	BMB	0.506	3.9429	3.9429	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.805**		**60.72**	

5 STD5

Sample Name:	**STD5**	*Injection Volume:*	**5.00**
Vial Number:	**BB5**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:42**	*Sample Weight:*	**1.0000**

Run Time:

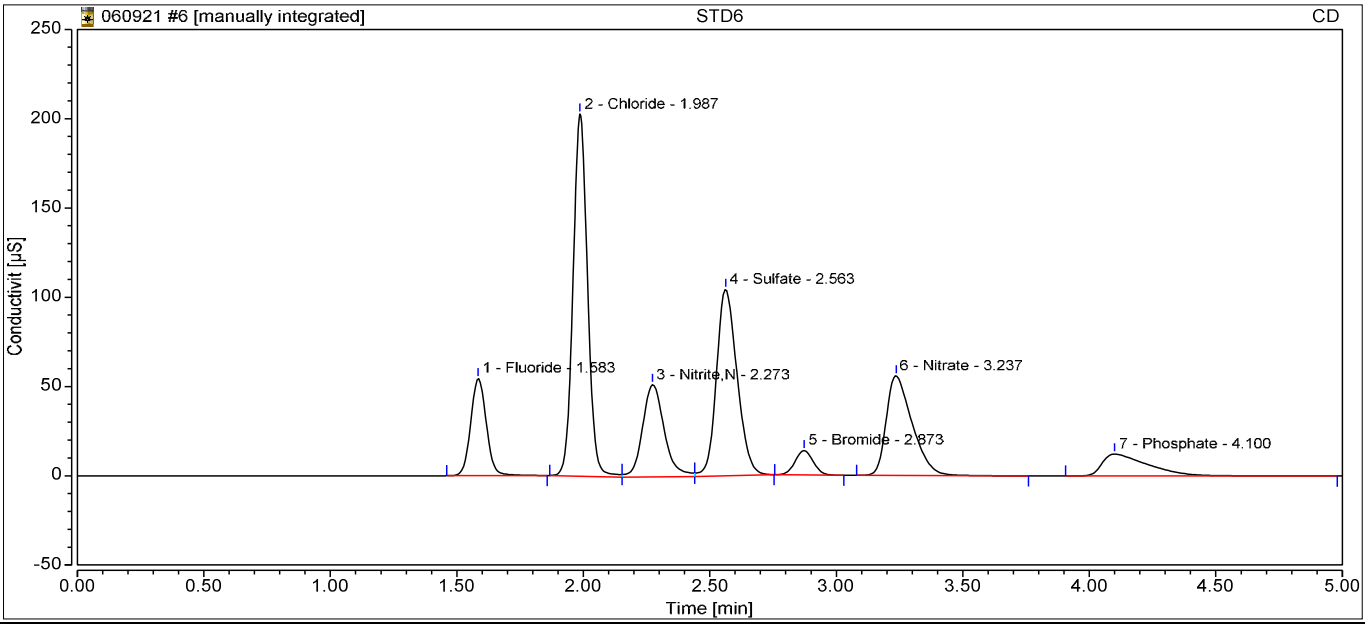


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	2.140	10.4243	10.4243	1.0000
2	1.99	Chloride	BMb*	6.732	50.0934	50.0934	1.0000
3	2.28	Nitrite,N	bMb*	2.637	9.9988	9.9988	1.0000
4	2.58	Sulfate	bMB*	4.966	50.1541	50.1541	1.0000
5	2.88	Bromide	BMB	0.571	10.1112	10.1112	1.0000
6	3.27	Nitrate	BMB	3.393	10.1328	10.1328	1.0000
7	4.19	Phosphate	BMB	1.313	10.1773	10.1773	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**21.751**		**151.09**	

6 STD6			
Sample Name:	**STD6**	*Injection Volume:*	**5.00**
Vial Number:	**BB6**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:49**	*Sample Weight:*	**1.0000**

Run Time:



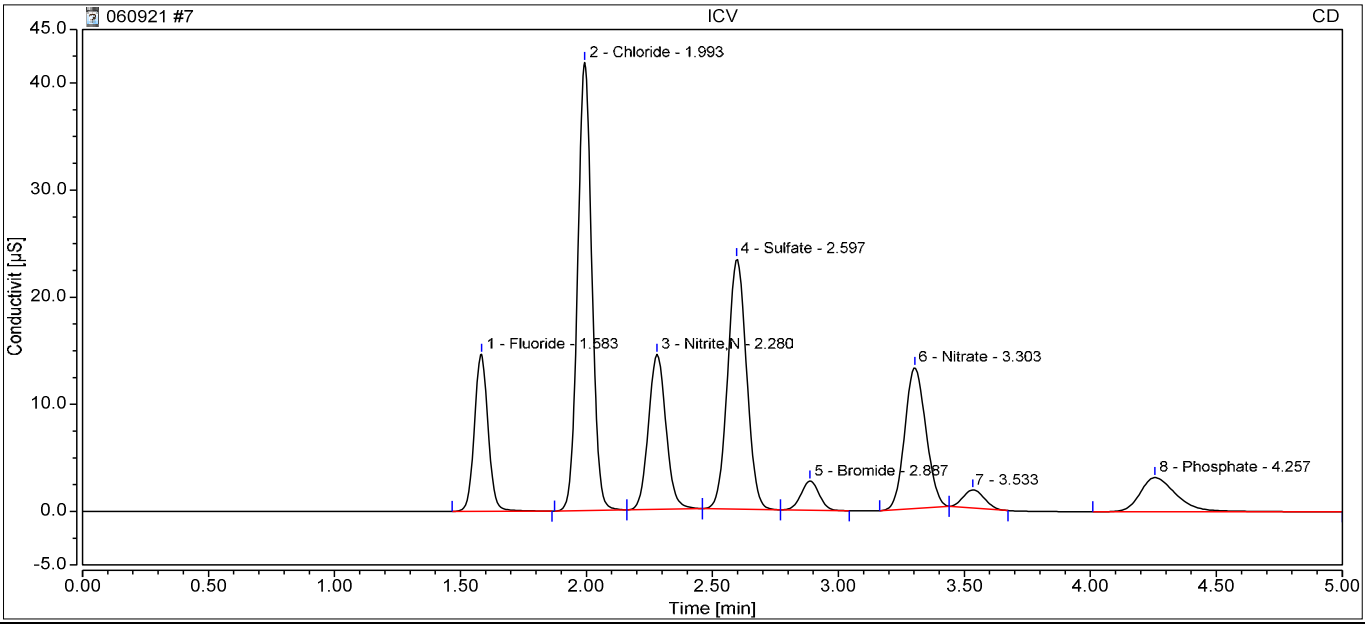
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	3.894	18.9867	18.9867	1.0000
2	1.99	Chloride	BM *	13.421	99.8669	99.8669	1.0000
3	2.27	Nitrite,N	M *	5.117	19.4604	19.4604	1.0000
4	2.56	Sulfate	MB*	9.870	99.6947	99.6947	1.0000
5	2.87	Bromide	BMB	1.127	19.9531	19.9531	1.0000
6	3.24	Nitrate	BMB	6.637	19.8160	19.8160	1.0000
7	4.10	Phosphate	BMB	2.580	19.9616	19.9616	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**42.646**		**297.74**	

7 ICV

Sample Name:	**ICV**	*Injection Volume:*	**5.00**
Vial Number:	**BB7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:57**	*Sample Weight:*	**1.0000**

Run Time:



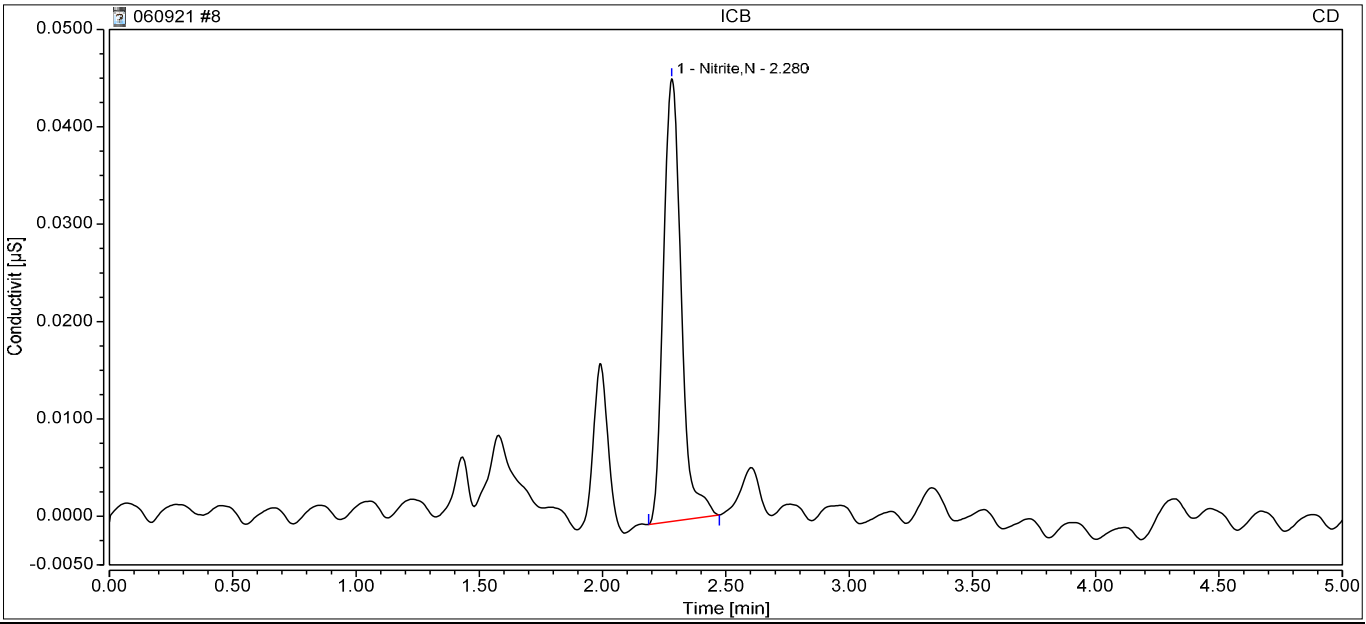
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.924	4.4936	4.4936	1.0000
2	1.99	Chloride	BMB	2.715	20.2077	20.2077	1.0000
3	2.28	Nitrite,N	BMB	1.168	4.3995	4.3995	1.0000
4	2.60	Sulfate	BMB	2.028	20.4771	20.4771	1.0000
5	2.89	Bromide	BMB	0.226	3.9960	3.9960	1.0000
6	3.30	Nitrate	BMB	1.281	3.8265	3.8265	1.0000
8	4.26	Phosphate	BMB	0.533	4.1549	4.1549	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.876**		**61.56**	

8 ICB

Sample Name:	**ICB**	*Injection Volume:*	**5.00**
Vial Number:	**BB8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 19:14**	*Sample Weight:*	**1.0000**

Run Time:



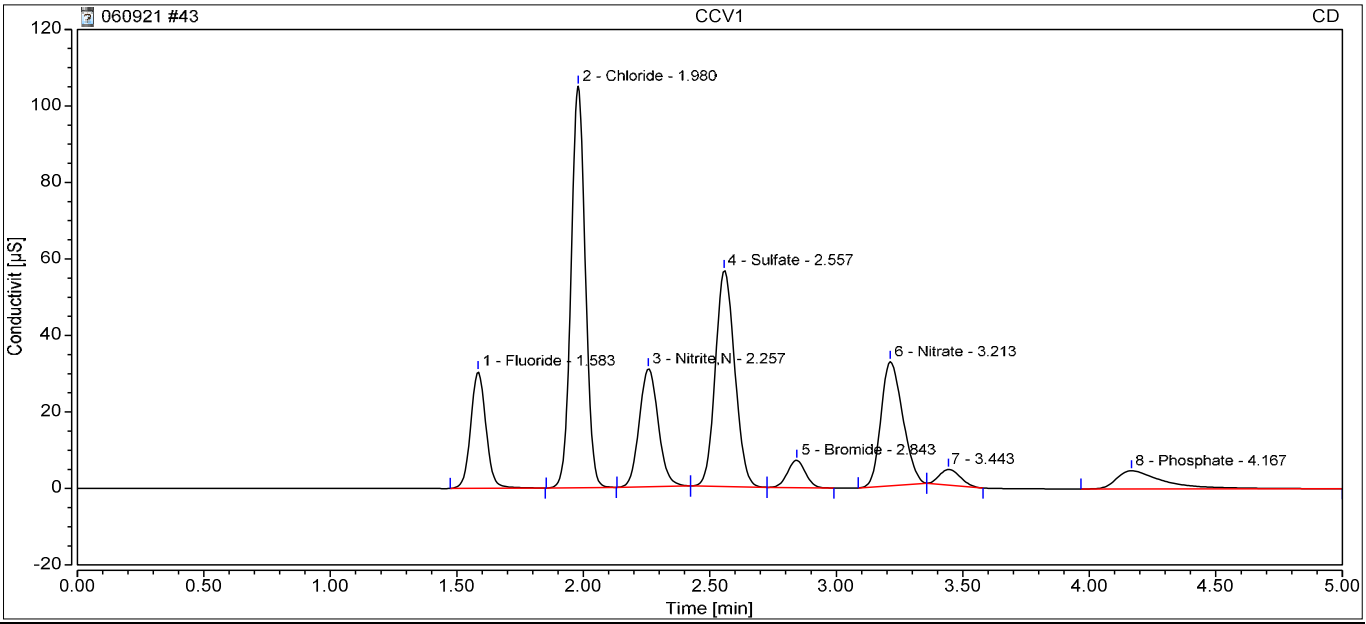
Integration Results

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
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.28	Nitrite,N	BMB	0.004	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.	Phosphate	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
Total:			**0.000**	**0.004**		**0.00**	

43 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 14:04**	*Sample Weight:*	**1.0000**

Run Time:



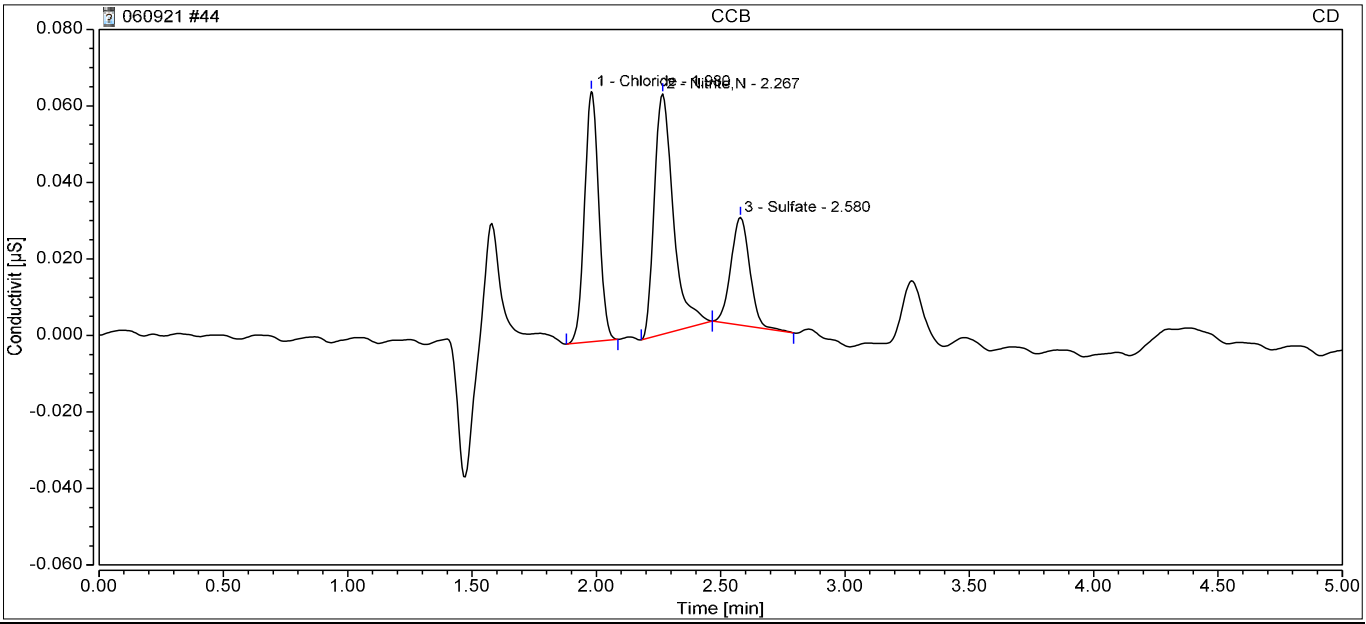
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	2.129	10.3741	10.3741	1.0000
2	1.98	Chloride	BMB	6.838	50.8863	50.8863	1.0000
3	2.26	Nitrite,N	BMB	2.680	10.1638	10.1638	1.0000
4	2.56	Sulfate	BMB	5.026	50.7631	50.7631	1.0000
5	2.84	Bromide	BMB	0.585	10.3546	10.3546	1.0000
6	3.21	Nitrate	BMB	3.239	9.6726	9.6726	1.0000
8	4.17	Phosphate	BMB	1.019	7.9063	7.9063	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**21.517**		**150.12**	

44 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 14:11**	*Sample Weight:*	**1.0000**

Run Time:



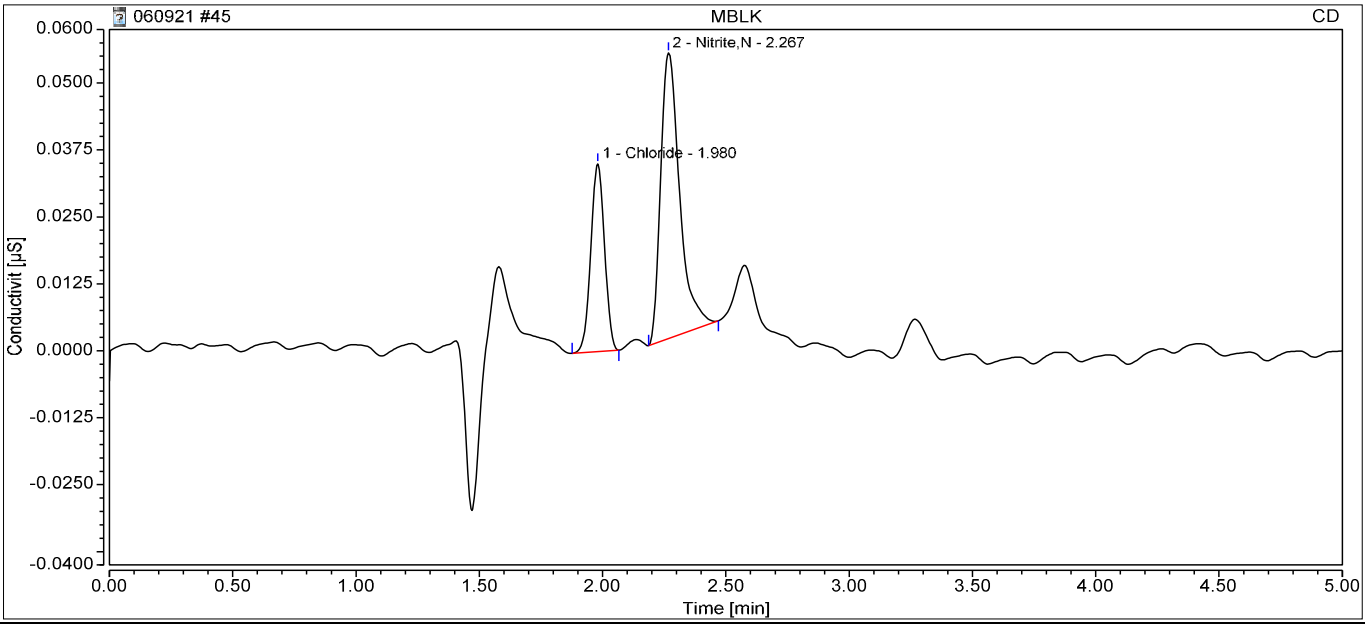
Integration Results

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
1	1.98	Chloride	BMB	0.004	0.0358	0.0358	1.0000
2	2.27	Nitrite,N	BMB	0.006	n.a.	n.a.	1.0000
3	2.58	Sulfate	BMB	0.002	0.0147	0.0147	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.	Phosphate	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
Total:			**0.000**	**0.012**		**0.05**	

45 MBLK

Sample Name:	**MBLK**	*Injection Volume:*	**5.00**
Vial Number:	**R5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 14:19**	*Sample Weight:*	**1.0000**

Run Time:



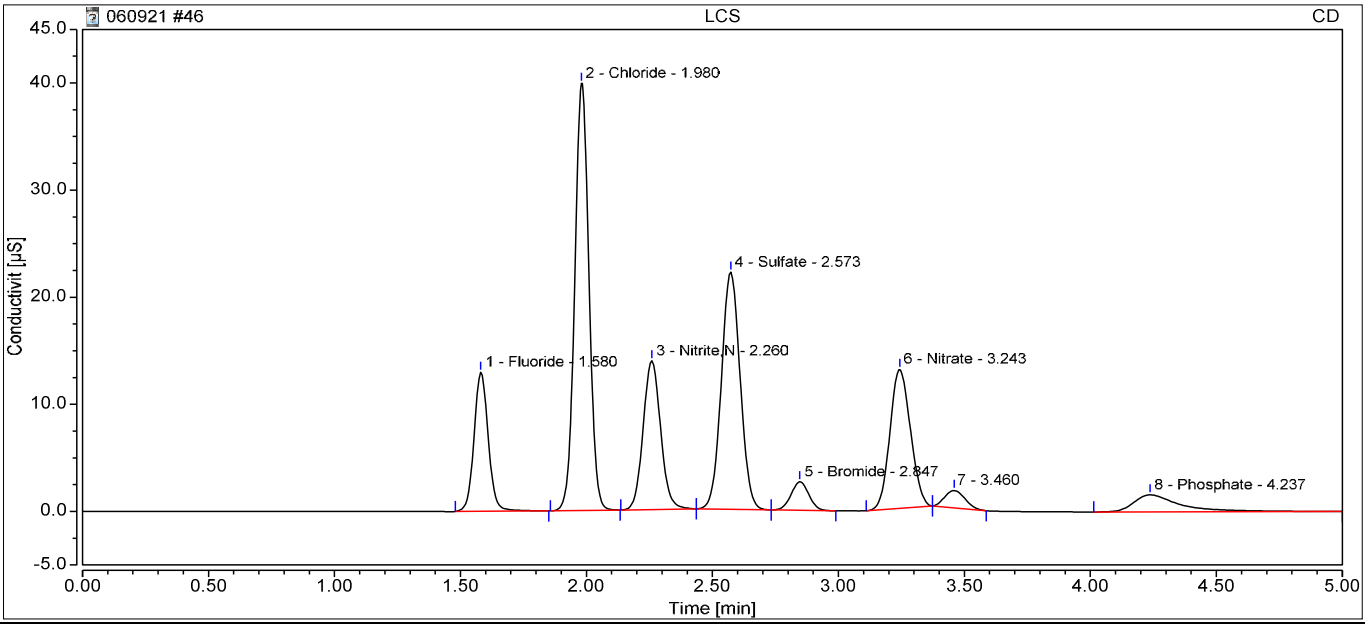
Integration Results

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
1	1.98	Chloride	BMB	0.002	0.0204	0.0204	1.0000
2	2.27	Nitrite,N	BMB	0.005	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.	Phosphate	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
Total:			**0.000**	**0.007**		**0.02**	

46 LCS

Sample Name:	**LCS**	*Injection Volume:*	**5.00**
Vial Number:	**R2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 14:26**	*Sample Weight:*	**1.0000**

Run Time:



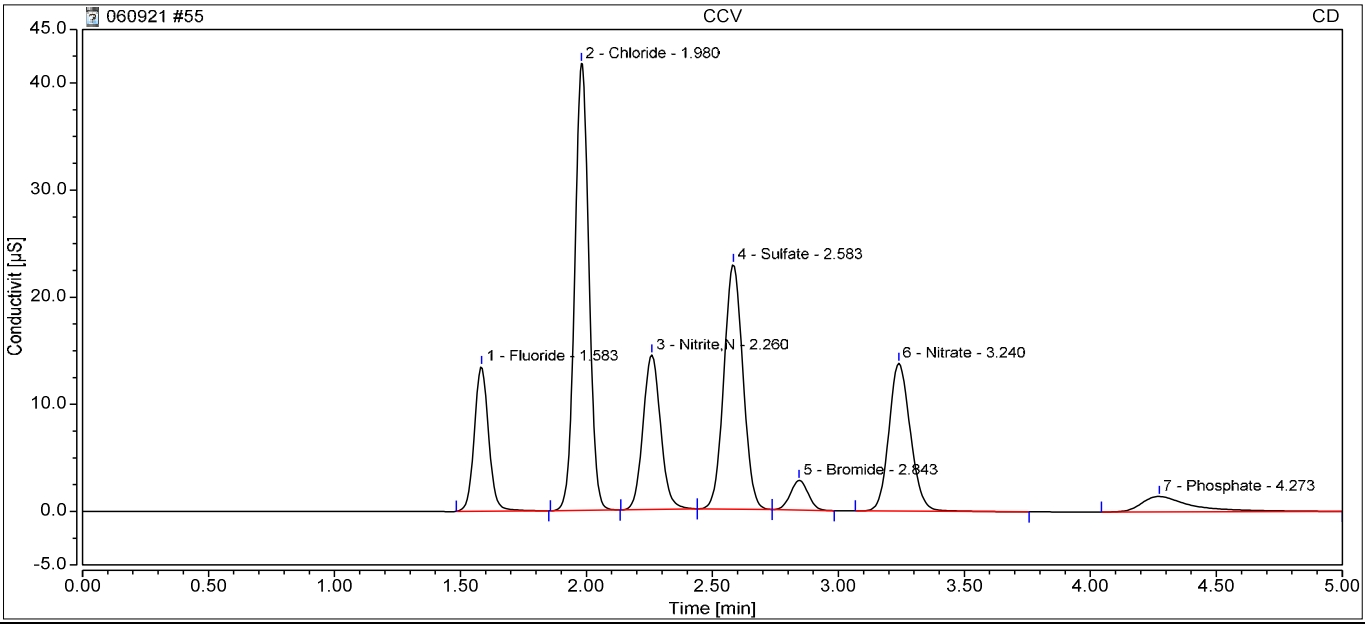
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.849	4.1261	4.1261	1.0000
2	1.98	Chloride	BMB	2.599	19.3458	19.3458	1.0000
3	2.26	Nitrite,N	BMB	1.117	4.2015	4.2015	1.0000
4	2.57	Sulfate	BMB	1.912	19.3061	19.3061	1.0000
5	2.85	Bromide	BMB	0.218	3.8500	3.8500	1.0000
6	3.24	Nitrate	BMB	1.228	3.6684	3.6684	1.0000
8	4.24	Phosphate	BMB	0.341	2.6711	2.6711	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.264**		**57.17**	

55 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 15:33**	*Sample Weight:*	**1.0000**

Run Time:



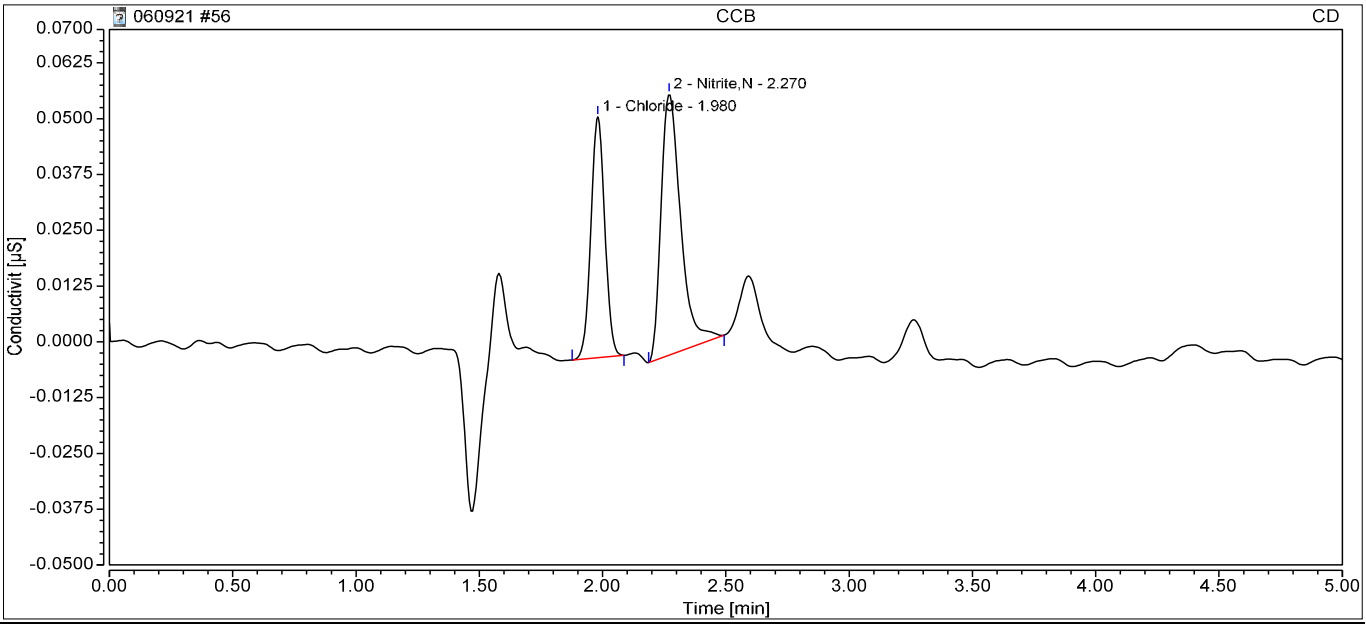
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.892	4.3360	4.3360	1.0000
2	1.98	Chloride	BMB	2.718	20.2279	20.2279	1.0000
3	2.26	Nitrite,N	BMB	1.168	4.3973	4.3973	1.0000
4	2.58	Sulfate	BMB	2.005	20.2416	20.2416	1.0000
5	2.84	Bromide	BMB	0.225	3.9804	3.9804	1.0000
6	3.24	Nitrate	BMB	1.366	4.0826	4.0826	1.0000
7	4.27	Phosphate	BMB	0.332	2.5960	2.5960	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.706**		**59.86**	

56 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 15:40**	*Sample Weight:*	**1.0000**

Run Time:



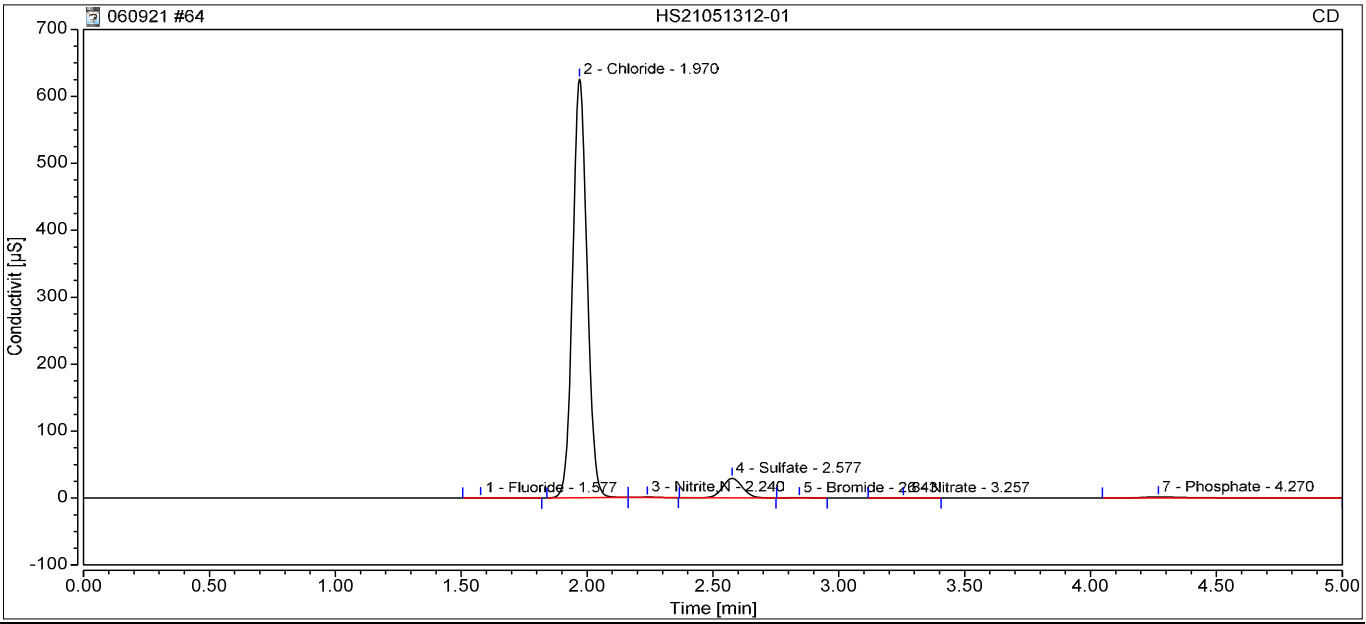
Integration Results

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
1	1.98	Chloride	BMB	0.004	0.0297	0.0297	1.0000
2	2.27	Nitrite,N	BMB	0.005	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.	Phosphate	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
Total:			**0.000**	**0.009**		**0.03**	

64 HS21051312-01

Sample Name:	**HS21051312-01**	*Injection Volume:*	**5.00**
Vial Number:	**RD1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 16:39**	*Sample Weight:*	**1.0000**

Run Time:



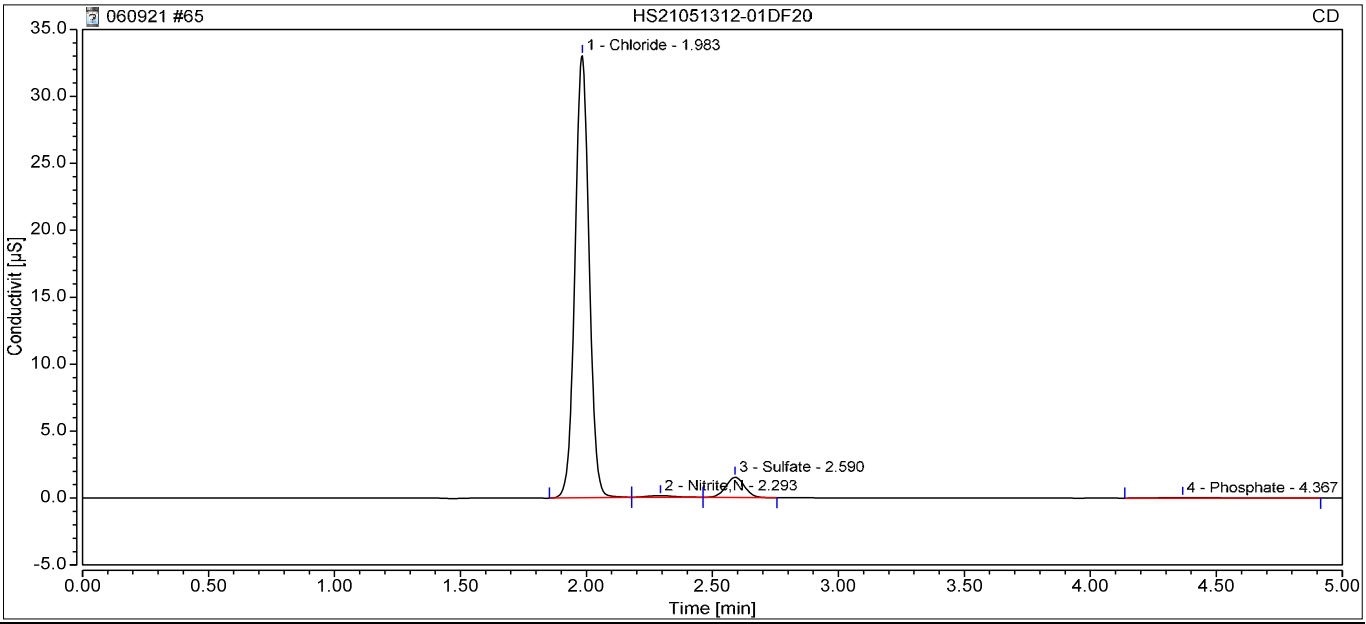
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.027	0.1122	0.1122	1.0000
2	1.97	Chloride	BMB	41.586	309.4454	309.4454	1.0000
3	2.24	Nitrite,N	BMB	0.060	0.1710	0.1710	1.0000
4	2.58	Sulfate	BMB	2.640	26.6563	26.6563	1.0000
5	2.84	Bromide	BMB	0.030	0.5323	0.5323	1.0000
6	3.26	Nitrate	BMB	0.014	0.0449	0.0449	1.0000
7	4.27	Phosphate	BMB	0.380	2.9706	2.9706	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**44.736**		**339.93**	

65 HS21051312-01DF20

Sample Name:	**HS21051312-01DF20**	*Injection Volume:*	**5.00**
Vial Number:	**RD2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**20.0000**
Recording Time:	**06/09/2021 16:47**	*Sample Weight:*	**1.0000**

Run Time:



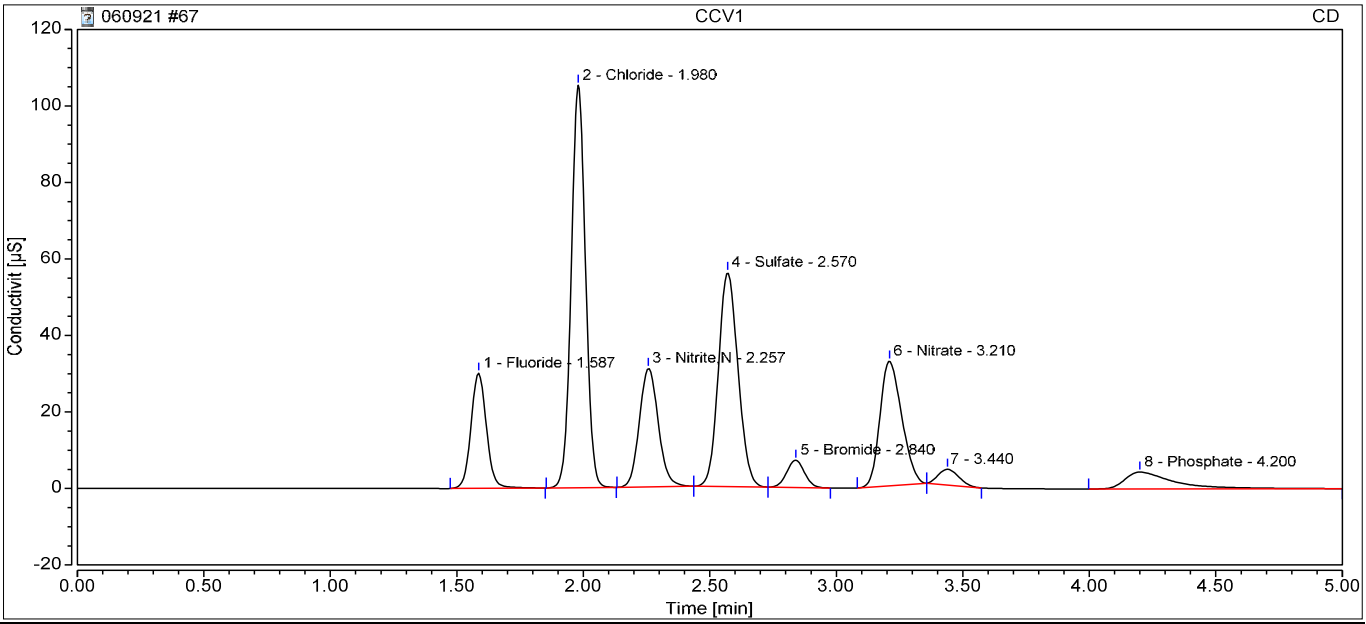
Integration Results

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.	20.0000
1	1.98	Chloride	BMB	2.150	15.9992	319.9847	20.0000
2	2.29	Nitrite,N	BMB	0.015	n.a.	n.a.	20.0000
3	2.59	Sulfate	BMB	0.130	1.3047	26.0938	20.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	20.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	20.0000
4	4.37	Phosphate	BMB	0.012	0.1309	2.6177	20.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	20.0000
Total:			**0.000**	**2.307**		**348.70**	

67 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 17:01**	*Sample Weight:*	**1.0000**

Run Time:



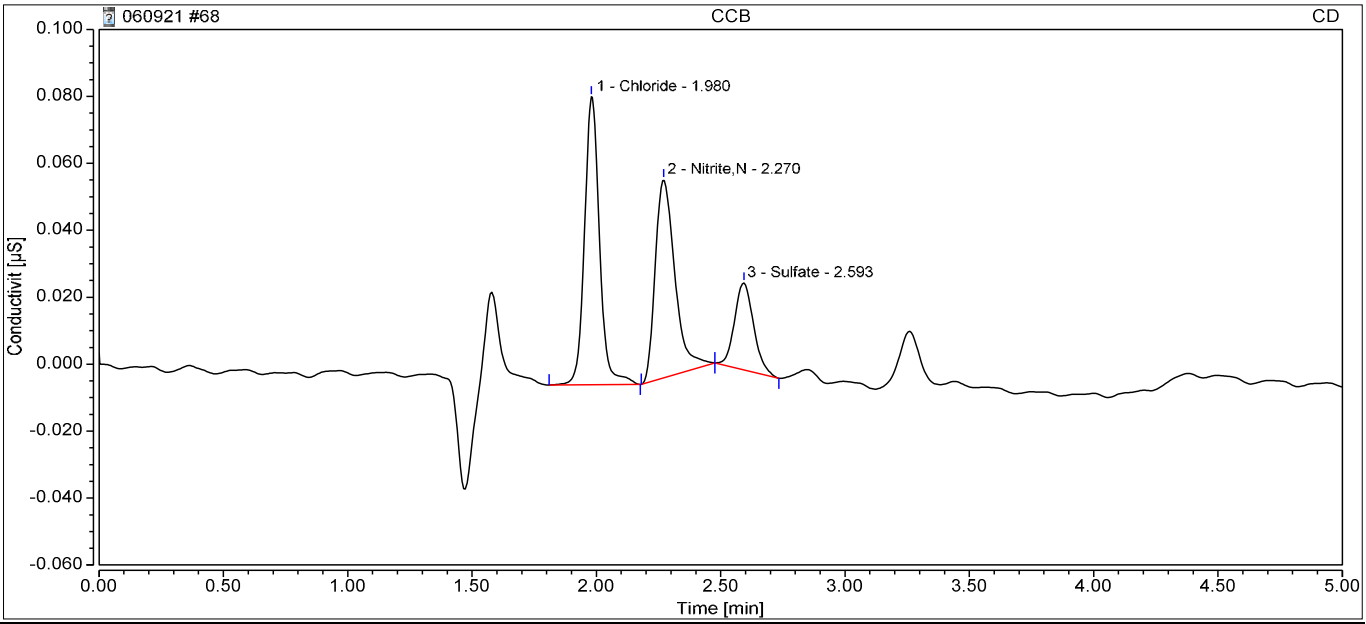
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.59	Fluoride	BMB	2.134	10.3942	10.3942	1.0000
2	1.98	Chloride	BMB	6.863	51.0682	51.0682	1.0000
3	2.26	Nitrite,N	BMB	2.686	10.1882	10.1882	1.0000
4	2.57	Sulfate	BMB	5.016	50.6581	50.6581	1.0000
5	2.84	Bromide	BMB	0.578	10.2292	10.2292	1.0000
6	3.21	Nitrate	BMB	3.240	9.6768	9.6768	1.0000
8	4.20	Phosphate	BMB	0.980	7.6056	7.6056	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**21.497**		**149.82**	

68 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 17:09**	*Sample Weight:*	**1.0000**

Run Time:



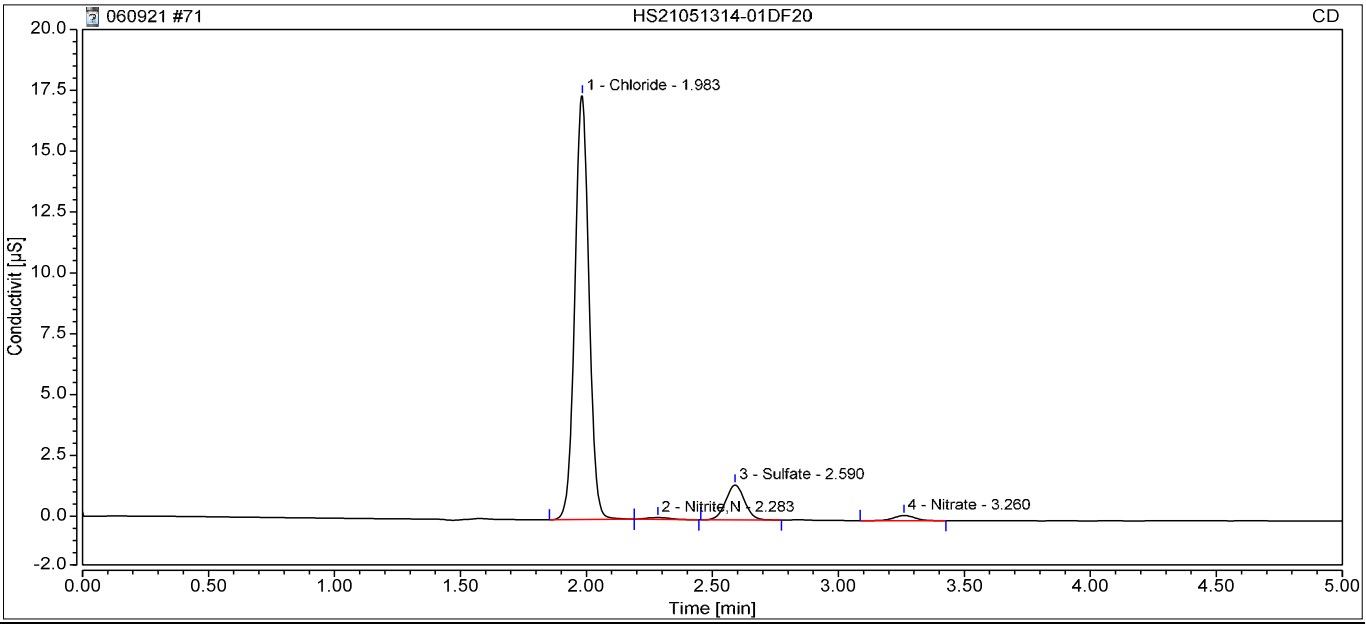
Integration Results

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
1	1.98	Chloride	BMB	0.006	0.0483	0.0483	1.0000
2	2.27	Nitrite,N	BMB	0.005	n.a.	n.a.	1.0000
3	2.59	Sulfate	BMB	0.002	0.0131	0.0131	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.	Phosphate	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
Total:			**0.000**	**0.014**		**0.06**	

71 HS21051314-01DF20

Sample Name:	**HS21051314-01DF20**	*Injection Volume:*	**5.00**
Vial Number:	**RD4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**20.0000**
Recording Time:	**06/09/2021 17:31**	*Sample Weight:*	**1.0000**

Run Time:

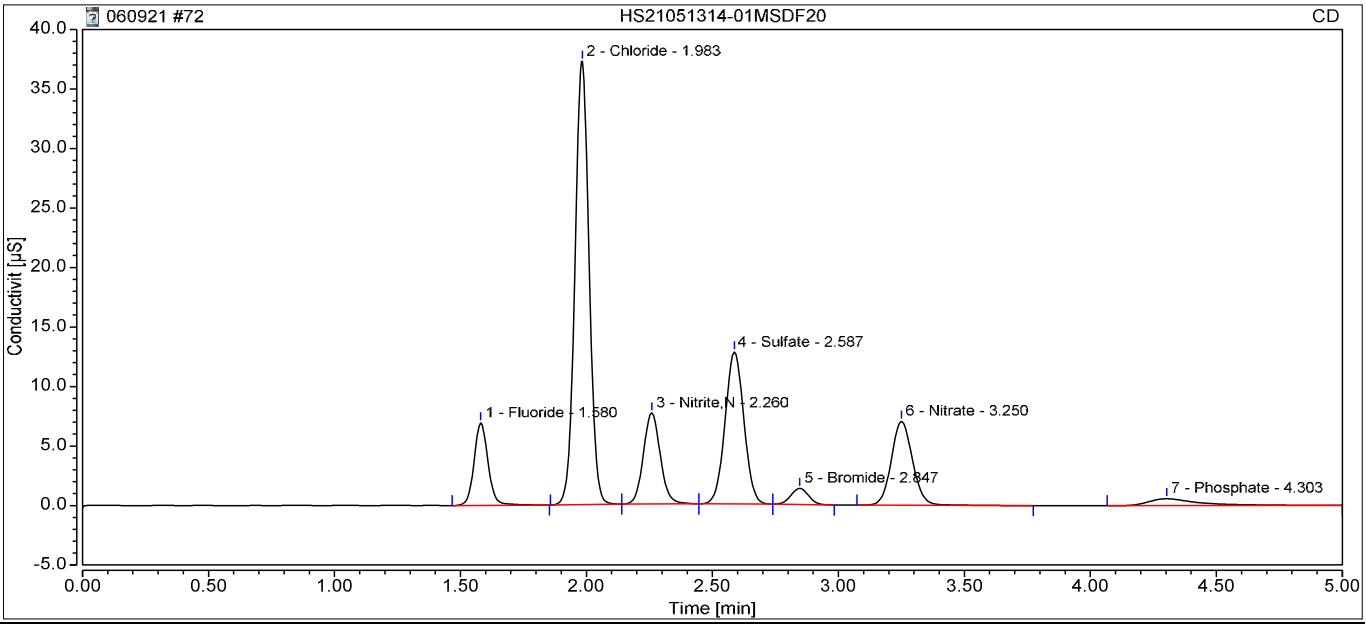


Integration Results

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.	20.0000
1	1.98	Chloride	BMB	1.134	8.4382	168.7638	20.0000
2	2.28	Nitrite,N	BMB	0.008	n.a.	n.a.	20.0000
3	2.59	Sulfate	BMB	0.125	1.2498	24.9960	20.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	20.0000
4	3.26	Nitrate	BMB	0.020	0.0647	1.2936	20.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	20.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	20.0000
Total:			**0.000**	**1.287**		**195.05**	

72	*HS21051314-01MSDF20*		
Sample Name:	**HS21051314-01MSDF20**	*Injection Volume:*	**5.00**
Vial Number:	**RD5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**20.0000**
Recording Time:	**06/09/2021 17:38**	*Sample Weight:*	**1.0000**

Run Time:



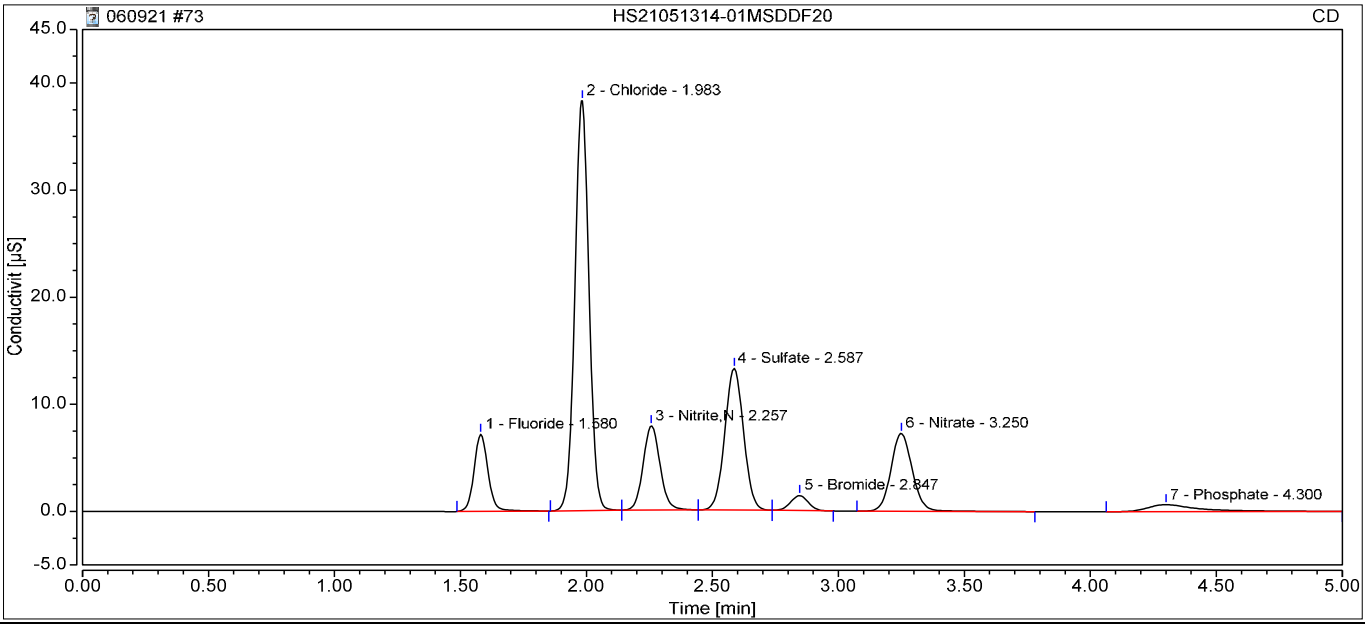
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.452	2.1856	43.7120	20.0000
2	1.98	Chloride	BMB	2.425	18.0452	360.9047	20.0000
3	2.26	Nitrite,N	BMB	0.596	2.2165	44.3297	20.0000
4	2.59	Sulfate	BMB	1.104	11.1461	222.9223	20.0000
5	2.85	Bromide	BMB	0.111	1.9499	38.9970	20.0000
6	3.25	Nitrate	BMB	0.690	2.0636	41.2712	20.0000
7	4.30	Phosphate	BMB	0.139	1.1070	22.1392	20.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	20.0000
Total:			**0.000**	**5.516**		**774.28**	

73 HS21051314-01MSDDF20

Sample Name:	**HS21051314-01MSDDF20**	*Injection Volume:*	**5.00**
Vial Number:	**RD6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**20.0000**
Recording Time:	**06/09/2021 17:46**	*Sample Weight:*	**1.0000**

Run Time:



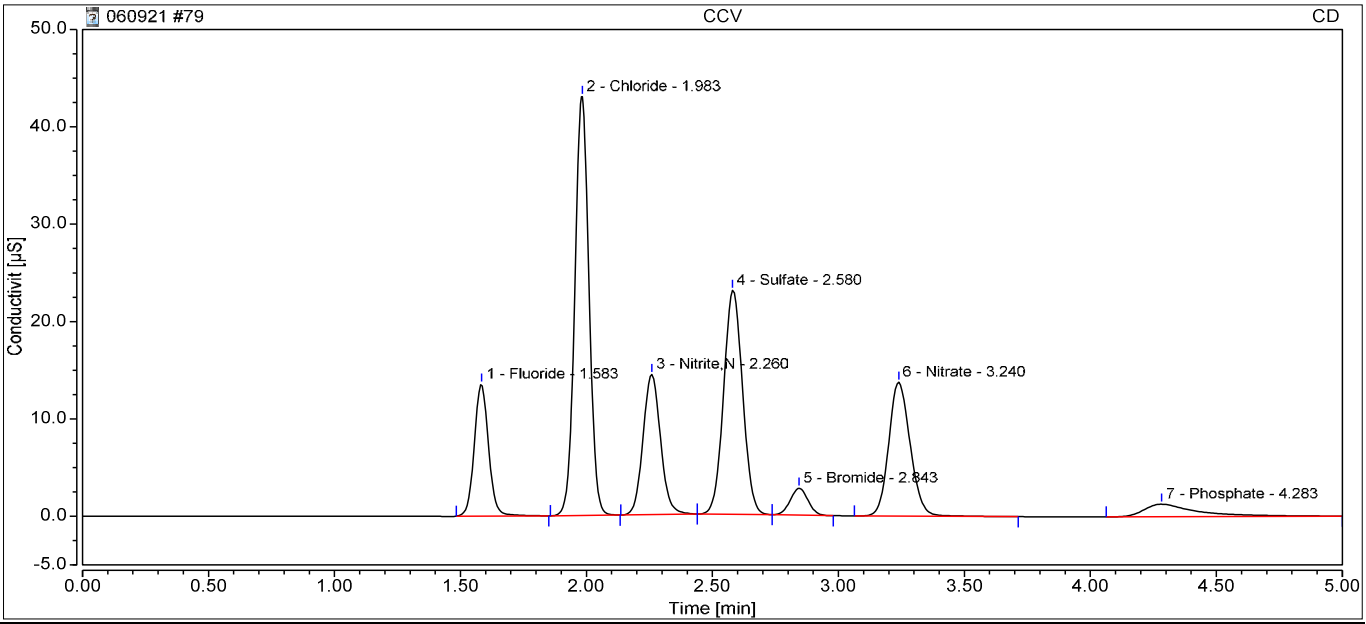
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.463	2.2416	44.8322	20.0000
2	1.98	Chloride	BMB	2.487	18.5084	370.1677	20.0000
3	2.26	Nitrite,N	BMB	0.613	2.2802	45.6034	20.0000
4	2.59	Sulfate	BMB	1.142	11.5283	230.5650	20.0000
5	2.85	Bromide	BMB	0.114	2.0076	40.1520	20.0000
6	3.25	Nitrate	BMB	0.712	2.1285	42.5696	20.0000
7	4.30	Phosphate	BMB	0.154	1.2207	24.4145	20.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	20.0000
Total:			**0.000**	**5.684**		**798.30**	

79 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 18:30**	*Sample Weight:*	**1.0000**

Run Time:



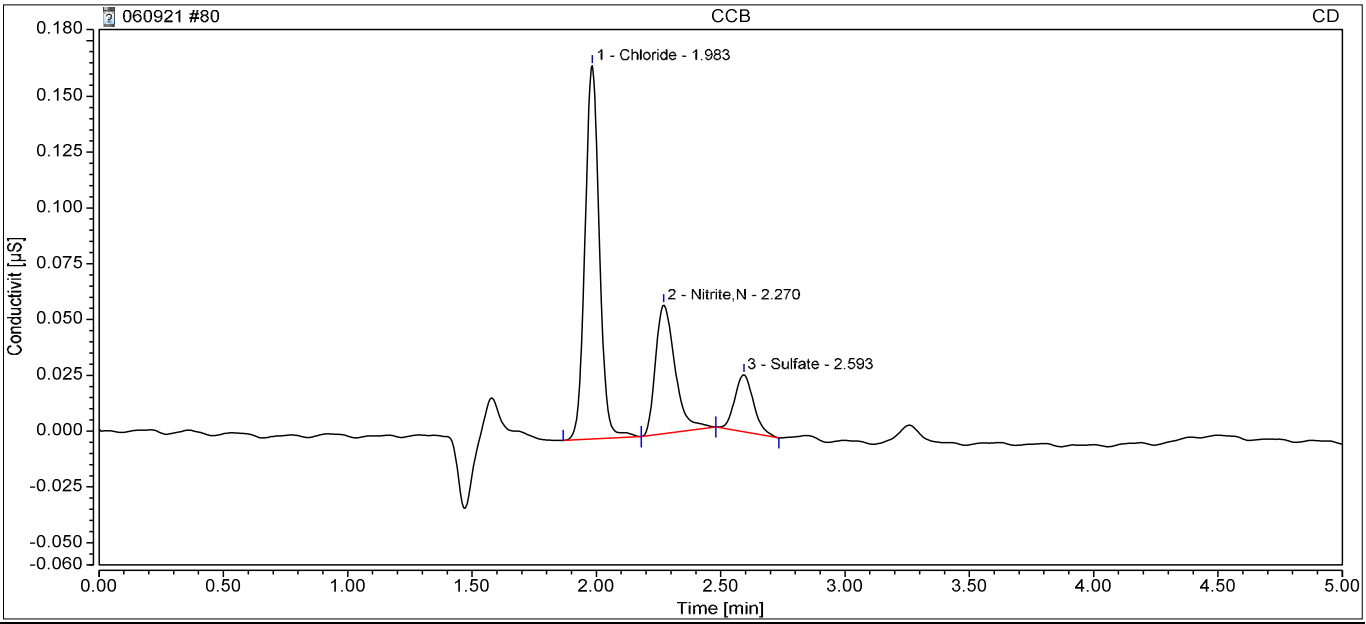
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.892	4.3331	4.3331	1.0000
2	1.98	Chloride	BMB	2.800	20.8367	20.8367	1.0000
3	2.26	Nitrite,N	BMB	1.161	4.3699	4.3699	1.0000
4	2.58	Sulfate	BMB	2.006	20.2557	20.2557	1.0000
5	2.84	Bromide	BMB	0.224	3.9611	3.9611	1.0000
6	3.24	Nitrate	BMB	1.360	4.0634	4.0634	1.0000
7	4.28	Phosphate	BMB	0.315	2.4702	2.4702	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.758**		**60.29**	

80 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 18:38**	*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
1	1.98	Chloride	BMB	0.011	0.0870	0.0870	1.0000
2	2.27	Nitrite,N	BMB	0.005	n.a.	n.a.	1.0000
3	2.59	Sulfate	BMB	0.002	0.0124	0.0124	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.	Phosphate	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
Total:			**0.000**	**0.019**		**0.10**	

HS21051312 Wet Chem Raw Data (O&G_1664_W_HS)

ALS WO# HS21051312

Method: O&G, HEM by EPA 1664A (SOP HS-WC036, Current Revision)

Analyst:	KAH
Review By:	
Batch ID:	
LCS/MS Spike ID:	3100604208
Hexane ID:	3100604320
Filter Lot:	3100602801
Silica Gel:	

Methanol ID:	3100601405	
1:1 HCl ID:	309116109	
Na2SO4 Cartridge ID:	3100603719	
Thermo HotBlock Setting (°C):		40
pH Paper ID:	300107019-06	
Pipette ID	TDS	

Temp Ranges (°C)
Pan Drying: 105-115
Hex Evap: 68-72
HotBlock: 35-50

	grams	mg	Accept.
Init 2.0 mg wt (1.8mg to 2.2mg required):	0.0020	2.0	Yes
Init 1000 mg wt (995mg to 1005mg required):	1.0000	1000	Yes
Final 2.0 mg wt (1.8mg to 2.2mg required):	0.0020	2.0	Yes
Final 1000 mg wt (995mg to 1005mg required):	1.0000	1000	Yes

Pan	Temp Deg C	Actual Deg C	Date	Time
Pan 1st In:	105-115	104	06/09/2021	8:40AM
Pan 1st Out:	105-115	104	06/09/2021	9:40AM
Pan 2nd In:	105-115	104	06/09/2021	10:20AM
Pan 2nd Out:	105-115	104	06/09/2021	10:40AM
Pan 3rd In:	105-115			
Pan 3rd Out:	105-115			
Oven ID:	WC Oven 4			
Balance ID:	WC Balance-03			

O&G	Temp Deg C	Actual Deg C	Date	Time
O&G 1st In:	68-72	68	06/09/2021	2:10PM
O&G 1st Out:	68-72	68	06/09/2021	2:20PM
O&G 2nd In:	68-72	68	06/09/2021	2:45PM
O&G 2nd Out:	68-72	68	06/09/2021	2:55PM
O&G 3rd In:	68-72			
O&G 3rd Out:	68-72			
Oven ID:	WC Oven 1A			
Balance ID:	WC Balance-03			

$$\text{O \& G (HEM), mg/L} = \frac{\text{Weight (HEM, mg)}}{\text{Volume (Sample Extracted, L)}}$$

Dish ID	Work Order #	Bottle Number	SGT	Sample Type	pH Check	1st Dry Pan Wt (g)	2nd Dry Pan Wt (g)	3rd Dry Pan Wt (g)	Passes Difference Criteria (Change is <0.0005 g)	Passes % Weight Criteria (Change is <4%)	Pan Weight (g)	Sample Vol (mL)	70 deg C O&G 1st dry Wt (g)	70 deg C O&G 2nd dry Wt (g)	70 deg C O&G 3rd dry Wt (g)	Passes Difference Criteria (Change is <0.0005 g)	Passes % Weight Criteria (Change is <4%)	O&G Weight (g)	O&G (mg/L)
1	WBLKW-060921	1 of 1		MBLK	<2	6.3413	6.3409		Yes	Yes	6.3409	1000	6.3410	6.3410		Yes	Yes	0.0001	0.1
2	WLCSW-060921	1 of 1		LCS	<2	6.3999	6.4003		Yes	Yes	6.4003	1000	6.4393	6.4390		Yes	Yes	0.0387	38.7
3	WLCSDW-060921	1 of 1		LCSD	<2	6.3110	6.3111		Yes	Yes	6.3111	1000	6.3501	6.3501		Yes	Yes	0.0390	39.0
4	HS21051265-01MS	2 of 2		MS	<2	6.3766	6.3770		Yes	Yes	6.3770	1000	6.4143	6.4144		Yes	Yes	0.0374	37.4
5	HS21051265-01	1 of 2		Sample	<2	6.3194	6.3194		Yes	Yes	6.3194	230	6.3207	6.3204		Yes	Yes	0.0010	4.3
6	HS21051268-01	1 of 2		Sample	<2	6.3885	6.3885		Yes	Yes	6.3885	225	6.3892	6.3892		Yes	Yes	0.0007	3.1
7	HS21051268-02	1 of 2		Sample	<2	6.3439	6.3441		Yes	Yes	6.3441	225	6.3451	6.3449		Yes	Yes	0.0008	3.6
8	HS21051390-01	1 of 2		Sample	<2	6.3193	6.3195		Yes	Yes	6.3195	231	6.3200	6.3199		Yes	Yes	0.0004	1.7
9	HS21060077-02	1 of 2		Sample	<2	6.3604	6.3600		Yes	Yes	6.3600	229	6.3610	6.3608		Yes	Yes	0.0008	3.5
10	HS21060083-01	1 of 2		Sample	<2	6.3272	6.3273		Yes	Yes	6.3273	234	6.3283	6.3280		Yes	Yes	0.0007	3.0
11	HS21060085-02	1 of 2		Sample	<2	6.2807	6.2808		Yes	Yes	6.2808	235	6.2807	6.2807		Yes	Yes	-0.0001	-0.4
12	HS21060095-01	1 of 2		Sample	<2	6.3468	6.3468		Yes	Yes	6.3468	235	6.3470	6.3468		Yes	Yes	0.0000	0.0
13	HS21060098-01	1 of 2		Sample	<2	6.3651	6.3653		Yes	Yes	6.3653	235	6.3667	6.3664		Yes	Yes	0.0011	4.7
14	HS21060114-01	1 of 2		Sample	<2	6.3005	6.3006		Yes	Yes	6.3006	235	6.3012	6.3009		Yes	Yes	0.0003	1.3
15	HS21060124-01	1 of 1		Sample	<2	6.3427	6.3425		Yes	Yes	6.3425	235	6.3433	6.3433		Yes	Yes	0.0008	3.4
16	HS21060124-02	1 of 1		Sample	<2	6.3277	6.3275		Yes	Yes	6.3275	235	6.3280	6.3278		Yes	Yes	0.0003	1.3
17	HS21060124-03	1 of 1		Sample	<2	6.3934	6.3935		Yes	Yes	6.3935	235	6.3942	6.3940		Yes	Yes	0.0005	2.1
18	HS21060124-04	1 of 1		Sample	<2	6.2657	6.2654		Yes	Yes	6.2654	235	6.2660	6.2659		Yes	Yes	0.0005	2.1
19	HS21060124-05	1 of 1		Sample	<2	6.3538	6.3539		Yes	Yes	6.3539	235	6.3544	6.3543		Yes	Yes	0.0004	1.7
20	HS21060124-06	1 of 1		Sample	<2	6.3823	6.3822		Yes	Yes	6.3822	235	6.3823	6.3823		Yes	Yes	0.0001	0.4
21	HS21060143-02	1 of 2		Sample	<2	6.3174	6.3176		Yes	Yes	6.3176	235	6.3177	6.3177		Yes	Yes	0.0001	0.4
22	HS21060189-02	1 of 1		Sample	<2	6.3263	6.3261		Yes	Yes	6.3261	235	6.3268	6.3264		Yes	Yes	0.0003	1.3
23	HS21051312-01	1 of 1		Sample	<2	6.3351	6.3350		Yes	Yes	6.3350	980	6.3358	6.3354		Yes	Yes	0.0004	0.4
24	HS21051314-01	1 of 1		Sample	<2	6.3047	6.3048		Yes	Yes	6.3048	980	6.3049	6.3049		Yes	Yes	0.0001	0.1

O&G	Temp Deg C	Actual Deg C	Date	Time
Silica Gel O&G 1st In:	68-72		05/04/2021	
Silica Gel O&G 1st Out:	68-72		05/04/2021	
Silica Gel O&G 2nd In:	68-72		05/04/2021	
Silica Gel O&G 2nd Out:	68-72		05/04/2021	
Silica Gel O&G 3rd In:	68-72			
Silica Gel O&G 3rd Out:	68-72			
Oven ID:				
Balance ID:				

$$\text{O \& G (SGT - HEM), mg/L} = \frac{\text{Weight (SGT - HEM, mg)}}{\text{Volume (Sample Extracted, L)}}$$

Dish ID	Work Order #	Silca Gel O&G 70 deg C 1st dry Wt (g)	Silca Gel O&G 70 deg C 2nd dry Wt (g)	Silca Gel O&G 70 deg C 3rd dry Wt (g)	Silica Gell Passes Difference Criteria	Silica Gell Passes % Weight Criteria	Silca Gel O&G Weight (g)	Silica Gel O&G (mg/L)
1	WBLKW-060921							#VALUE!
2	WLCSW-060921							#VALUE!
3	WLCSDW-060921							#VALUE!
4	HS21051265-01MS							#VALUE!
5	HS21051265-01							#VALUE!
6	HS21051268-01							#VALUE!
7	HS21051268-02							#VALUE!
8	HS21051390-01							#VALUE!
9	HS21060077-02							#VALUE!
10	HS21060083-01							#VALUE!
11	HS21060085-02							#VALUE!
12	HS21060095-01							#VALUE!
13	HS21060098-01							#VALUE!
14	HS21060114-01							#VALUE!
15	HS21060124-01							#VALUE!
16	HS21060124-02							#VALUE!
17	HS21060124-03							#VALUE!
18	HS21060124-04							#VALUE!
19	HS21060124-05							#VALUE!
20	HS21060124-06							#VALUE!
21	HS21060143-02							#VALUE!
22	HS21060189-02							#VALUE!
23	HS21051312-01							#VALUE!
24	HS21051314-01							#VALUE!

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WorkOrder: HS21051314

Groundwater Treatment Plant Quarterly Influent Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

10-Aug-2021

ALS Environmental
ALS Group USA, Corp
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Table of Contents

HS21051314 Cover Page
- CoverPage
- HS21051314 Groundwater Treatment Plant Quarterly Influent Samples Final
  - CoverLetter
  - Sample Summary
  - CaseNarrative
  - LH18/24-SP140_052521
  - Trip Blank
  - Weight/Volume Log
  - Dates Report
  - QC
  - Acronyms
  - Certifications
  - Sample Tracking Record
  - SampleReceiptCheckList
  - COC
  - HS21051314 - Sub Perch II (E2100591)
- HS21051314 8260_W_DOD Raw Data
- HS21051314 8270SIM_W Raw Data
- HS21051314 - ME - HG_W_DODICP_W_DOD
  - Form 11 - ICPMS06 Internal Standard Association
  - Form 12 - HG03_385226 Preparation Log

Table of Contents (continued)

Form 12 - ICPMS06_384999 Preparation Log

Form 13 - HG03_385226 Run Log

Form 13 - ICPMS06_384999 Run Log

Form 13 - ICPMS06_385065 Run Log

Form 2 - HG03_385226 CCV

Form 2 - ICPMS06_384999 CCV

Form 2 - ICPMS06_385065 CCV

Form 3 - HG03_385226 CCB

Form 3 - ICPMS06_384999 CCB

Form 3 - ICPMS06_385065 CCB

Form 4 - ICPMS06_384999 ICSA

Form 4 - ICPMS06_385065 ICSA

Form 5A - HG03_385226 MS

Form 5A - ICPMS06_384999 MS

Form 5B - ICPMS06_384999 PDS

Form 7 - HG03_385226 LCS

Form 7 - ICPMS06_384999 LCS

Form 8 - ICPMS06_384999 SD

Form 8 - ICPMS06_385065 SD

HS21051314 Wet Chem Raw Data (COD)

HS21051314 Wet Chem Raw Data (9056_anions_W)

HS21051314 Wet Chem Raw Data (O&G_1664_W_HS)

O&G Rev 7.0

HS21051314 Groundwater Treatment Plant Quarterly Influent Samples Final

ALS WO# HS21051314

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June 10, 2021

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS21051314**

Laboratory Results for: **Groundwater Treatment Plant Quarterly Influent Samples**

Dear Marcia Olive,

ALS Environmental received 2 sample(s) on May 26, 2021 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
RJ Modashia
Project Manager

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
Work Order: HS21051314

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21051314-01	LH18/24-SP140_052521	Water		25-May-2021 14:00	26-May-2021 10:25	☐
HS21051314-02	Trip Blank	Water	CG-031621-486	25-May-2021 00:00	26-May-2021 10:25	☐

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Groundwater Treatment Plant Quarterly Influent Samples
Work Order: HS21051314

Work Order Comments

• The analysis for Perchlorate was subcontracted to ALS Houston High-Res Lab. Final report attached.

GCMS Semivolatiles by Method SW8270SIM

Batch ID: 166286

Sample ID: LH18/24-SP140_052521 (HS21051314-01)

• The surrogate recoveries could not be determined due to dilution below the calibration range.

GCMS Volatiles by Method SW8260

Batch ID: R384680

Sample ID: CCV

• Hexachlorobutadiene exceeded %D limits for CCV. Samples are ND for this compound.

Sample ID: HS21051441-03MSD

• MSD is for an unrelated sample

Metals by Method SW7470A

Batch ID: 166687

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method SW6020A

Batch ID: 166391

Sample ID: HS21051153-03MS

• MS/MSD and DUPs are for an unrelated sample

WetChemistry by Method SW9056

Batch ID: R385334

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E1664A

Batch ID: R385268

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E410.4

Batch ID: R384513

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Groundwater Treatment Plant Quarterly Influent Samples WorkOrder:HS21051314
Sample ID: LH18/24-SP140_052521 Lab ID:HS21051314-01
Collection Date: 25-May-2021 14:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,1,2-Tetrachloroethane	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
1,1,1-Trichloroethane	5.0	U	2.0	5.0	10	ug/L	10	30-May-2021 15:53
1,1,2,2-Tetrachloroethane	10	U	5.0	10	10	ug/L	10	30-May-2021 15:53
1,1,2-Trichloroethane	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
1,1-Dichloroethane	**4.1**	J	**2.0**	**5.0**	**10**	**ug/L**	10	30-May-2021 15:53
1,1-Dichloroethene	**30**		**2.0**	**5.0**	**10**	**ug/L**	10	30-May-2021 15:53
1,1-Dichloropropene	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
1,2,3-Trichlorobenzene	10	U	4.0	10	10	ug/L	10	30-May-2021 15:53
1,2,3-Trichloropropane	10	U	5.0	10	10	ug/L	10	30-May-2021 15:53
1,2,4-Trichlorobenzene	10	U	5.0	10	10	ug/L	10	30-May-2021 15:53
1,2,4-Trimethylbenzene	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
1,2-Dibromo-3-chloropropane	5.0	U	2.0	5.0	10	ug/L	10	30-May-2021 15:53
1,2-Dibromoethane	5.0	U	2.0	5.0	10	ug/L	10	30-May-2021 15:53
1,2-Dichlorobenzene	10	U	5.0	10	10	ug/L	10	30-May-2021 15:53
1,2-Dichloroethane	**24**		**2.0**	**5.0**	**10**	**ug/L**	10	30-May-2021 15:53
1,2-Dichloropropane	10	U	5.0	10	10	ug/L	10	30-May-2021 15:53
1,3,5-Trimethylbenzene	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
1,3-Dichlorobenzene	10	U	4.0	10	10	ug/L	10	30-May-2021 15:53
1,3-Dichloropropane	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
1,4-Dichlorobenzene	10	U	4.0	10	10	ug/L	10	30-May-2021 15:53
2,2-Dichloropropane	5.0	U	2.0	5.0	10	ug/L	10	30-May-2021 15:53
2-Butanone	10	U	5.0	10	20	ug/L	10	30-May-2021 15:53
2-Chlorotoluene	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
2-Hexanone	20	U	10	20	20	ug/L	10	30-May-2021 15:53
4-Chlorotoluene	10	U	4.0	10	10	ug/L	10	30-May-2021 15:53
4-Isopropyltoluene	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
4-Methyl-2-pentanone	20	U	7.0	20	20	ug/L	10	30-May-2021 15:53
Acetone	20	U	4.0	20	20	ug/L	10	30-May-2021 15:53
Benzene	5.0	U	2.0	5.0	10	ug/L	10	30-May-2021 15:53
Bromobenzene	10	U	4.0	10	10	ug/L	10	30-May-2021 15:53
Bromochloromethane	5.0	U	2.0	5.0	10	ug/L	10	30-May-2021 15:53
Bromodichloromethane	5.0	U	2.0	5.0	10	ug/L	10	30-May-2021 15:53
Bromoform	10	U	4.0	10	10	ug/L	10	30-May-2021 15:53
Bromomethane	10	U	4.0	10	10	ug/L	10	30-May-2021 15:53
Carbon disulfide	20	U	6.0	20	20	ug/L	10	30-May-2021 15:53
Carbon tetrachloride	10	U	5.0	10	10	ug/L	10	30-May-2021 15:53
Chlorobenzene	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
Chloroethane	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
Chloroform	5.0	U	2.0	5.0	10	ug/L	10	30-May-2021 15:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Groundwater Treatment Plant Quarterly Influent Samples WorkOrder:HS21051314
Sample ID: LH18/24-SP140_052521 Lab ID:HS21051314-01
Collection Date: 25-May-2021 14:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	5.0	U	2.0	5.0	10	ug/L	10	30-May-2021 15:53
cis-1,2-Dichloroethene	**880**		**2.0**	**5.0**	**10**	**ug/L**	10	30-May-2021 15:53
cis-1,3-Dichloropropene	5.0	U	1.0	5.0	10	ug/L	10	30-May-2021 15:53
Dibromochloromethane	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
Dibromomethane	5.0	U	2.0	5.0	10	ug/L	10	30-May-2021 15:53
Dichlorodifluoromethane	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
Ethylbenzene	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
Hexachlorobutadiene	10	U	10	10	10	ug/L	10	30-May-2021 15:53
Isopropylbenzene	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
m,p-Xylene	10	U	5.0	10	20	ug/L	10	30-May-2021 15:53
Methylene chloride	**720**		**4.0**	**20**	**20**	**ug/L**	10	30-May-2021 15:53
n-Butylbenzene	10	U	4.0	10	10	ug/L	10	30-May-2021 15:53
n-Propylbenzene	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
Naphthalene	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
o-Xylene	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
sec-Butylbenzene	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
Styrene	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
tert-Butylbenzene	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
Tetrachloroethene	**23**		**3.0**	**10**	**10**	**ug/L**	10	30-May-2021 15:53
Toluene	5.0	U	2.0	5.0	10	ug/L	10	30-May-2021 15:53
trans-1,2-Dichloroethene	5.0	U	2.0	5.0	10	ug/L	10	30-May-2021 15:53
trans-1,3-Dichloropropene	5.0	U	2.0	5.0	10	ug/L	10	30-May-2021 15:53
Trichloroethene	**3,200**		**20**	**50**	**100**	**ug/L**	100	30-May-2021 16:56
Trichlorofluoromethane	10	U	3.0	10	10	ug/L	10	30-May-2021 15:53
Vinyl chloride	**33**		**2.0**	**5.0**	**10**	**ug/L**	10	30-May-2021 15:53
Surr: 1,2-Dichloroethane-d4	*89.4*			**0**	*81-118*	*%REC*	*10*	*30-May-2021 15:53*
Surr: 1,2-Dichloroethane-d4	*91.5*			**0**	*81-118*	*%REC*	*100*	*30-May-2021 16:56*
Surr: 4-Bromofluorobenzene	*96.5*			**0**	*85-114*	*%REC*	*10*	*30-May-2021 15:53*
Surr: 4-Bromofluorobenzene	*94.4*			**0**	*85-114*	*%REC*	*100*	*30-May-2021 16:56*
Surr: Dibromofluoromethane	*91.0*			**0**	*80-119*	*%REC*	*100*	*30-May-2021 16:56*
Surr: Dibromofluoromethane	*90.4*			**0**	*80-119*	*%REC*	*10*	*30-May-2021 15:53*
Surr: Toluene-d8	*104*			**0**	*89-112*	*%REC*	*10*	*30-May-2021 15:53*
Surr: Toluene-d8	*105*			**0**	*89-112*	*%REC*	*100*	*30-May-2021 16:56*
SEMIVOLATILES SIM	**Method:SW8270SIM**					Prep:SW3510 / 27-May-2021		Analyst: ACN
1,4-Dioxane	**0.15**		**0.010**	**0.010**	**0.010**	**ug/L**	1	09-Jun-2021 14:03
Surr: 2-Fluorobiphenyl	*0*	*S*		0	*40-140*	*%REC*	*1*	*09-Jun-2021 14:03*
Surr: 4-Terphenyl-d14	*0*	*S*		0	*40-140*	*%REC*	*1*	*09-Jun-2021 14:03*
Surr: Nitrobenzene-d5	*0*	*S*		0	*40-140*	*%REC*	*1*	*09-Jun-2021 14:03*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder:HS21051314
Sample ID: LH18/24-SP140_052521
Lab ID:HS21051314-01
Collection Date: 25-May-2021 14:00
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 01-Jun-2021		Analyst: JHD
Aluminum	**0.276**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	04-Jun-2021 16:01
Antimony	0.00100	U	0.000400	0.00100	0.00500	mg/L	1	04-Jun-2021 16:01
Arsenic	**0.000852**	J	**0.000400**	**0.00100**	**0.00500**	**mg/L**	1	04-Jun-2021 16:01
Barium	**0.312**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	04-Jun-2021 16:01
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	04-Jun-2021 16:01
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	04-Jun-2021 16:01
Calcium	**17.1**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	04-Jun-2021 16:01
Chromium	**0.00275**	J	**0.000400**	**0.00100**	**0.00500**	**mg/L**	1	04-Jun-2021 16:01
Cobalt	**0.00311**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	04-Jun-2021 16:01
Iron	**0.754**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	04-Jun-2021 16:01
Lead	0.00100	U	0.000600	0.00100	0.00500	mg/L	1	04-Jun-2021 16:01
Magnesium	**12.8**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	04-Jun-2021 16:01
Manganese	**0.183**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	04-Jun-2021 16:01
Nickel	**0.00822**		**0.000600**	**0.00100**	**0.00500**	**mg/L**	1	04-Jun-2021 16:01
Potassium	**0.988**		**0.0180**	**0.0500**	**0.200**	**mg/L**	1	04-Jun-2021 16:01
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	04-Jun-2021 16:01
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	04-Jun-2021 16:01
Sodium	**122**		**0.0140**	**0**	**0.200**	**mg/L**	1	04-Jun-2021 16:01
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	04-Jun-2021 16:01
Vanadium	**0.00102**	J	**0.000600**	**0.00100**	**0.00500**	**mg/L**	1	04-Jun-2021 16:01
Zinc	**0.0520**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	04-Jun-2021 16:01
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 09-Jun-2021		Analyst: MSC
Mercury	**0.0000450**	J	**0.0000300**	**0.000100**	**0.000200**	**mg/L**	1	09-Jun-2021 12:04
OIL & GREASE (HEM) BY E1664A		**Method:E1664A**						Analyst: KAH
Oil and Grease	1.00	U	0.610	1.00	2.00	mg/L	1	09-Jun-2021 14:10
CHEMICAL OXYGEN DEMAND BY E410.4		**Method:E410.4**						Analyst: TH
Chemical Oxygen Demand	**7.00**	J	**5.00**	**15.0**	**15.0**	**mg/L**	1	27-May-2021 13:00
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Chloride	**169**		**4.00**	**10.0**	**10.0**	**mg/L**	20	09-Jun-2021 17:31
Sulfate	**25.4**		**0.200**	**0.500**	**0.500**	**mg/L**	1	09-Jun-2021 16:54
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: GR
Subcontract Analysis	See Attached		0	0		NA	1	07-Jun-2021 17:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Groundwater Treatment Plant Quarterly Influent Samples WorkOrder:HS21051314
Sample ID: Trip Blank Lab ID:HS21051314-02
Collection Date: 25-May-2021 00:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,1,2-Tetrachloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
1,1,2,2-Tetrachloroethane	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 14:49
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
1,1-Dichloropropene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
1,2,3-Trichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 14:49
1,2,3-Trichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 14:49
1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 14:49
1,2,4-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
1,2-Dichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 14:49
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
1,2-Dichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 14:49
1,3,5-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
1,3-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 14:49
1,3-Dichloropropane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
1,4-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 14:49
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	30-May-2021 14:49
2-Chlorotoluene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
2-Hexanone	2.0	U	1.0	2.0	2.0	ug/L	1	30-May-2021 14:49
4-Chlorotoluene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 14:49
4-Isopropyltoluene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
4-Methyl-2-pentanone	2.0	U	0.70	2.0	2.0	ug/L	1	30-May-2021 14:49
Acetone	2.0	U	0.40	2.0	2.0	ug/L	1	30-May-2021 14:49
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
Bromobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 14:49
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
Bromoform	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 14:49
Bromomethane	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 14:49
Carbon disulfide	2.0	U	0.60	2.0	2.0	ug/L	1	30-May-2021 14:49
Carbon tetrachloride	1.0	U	0.50	1.0	1.0	ug/L	1	30-May-2021 14:49
Chlorobenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
Chloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Groundwater Treatment Plant Quarterly Influent Samples WorkOrder:HS21051314
Sample ID: Trip Blank Lab ID:HS21051314-02
Collection Date: 25-May-2021 00:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
cis-1,3-Dichloropropene	0.50	U	0.10	0.50	1.0	ug/L	1	30-May-2021 14:49
Dibromochloromethane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
Dichlorodifluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
Ethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
Hexachlorobutadiene	1.0	U	1.0	1.0	1.0	ug/L	1	30-May-2021 14:49
Isopropylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	30-May-2021 14:49
Methylene chloride	2.0	U	0.40	2.0	2.0	ug/L	1	30-May-2021 14:49
n-Butylbenzene	1.0	U	0.40	1.0	1.0	ug/L	1	30-May-2021 14:49
n-Propylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
Naphthalene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
o-Xylene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
sec-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
Styrene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
tert-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
Tetrachloroethene	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
Trichlorofluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	30-May-2021 14:49
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	30-May-2021 14:49
Surr: 1,2-Dichloroethane-d4	*90.6*			**0**	*81-118*	*%REC*	*1*	*30-May-2021 14:49*
Surr: 4-Bromofluorobenzene	*95.0*			**0**	*85-114*	*%REC*	*1*	*30-May-2021 14:49*
Surr: Dibromofluoromethane	*89.1*			**0**	*80-119*	*%REC*	*1*	*30-May-2021 14:49*
Surr: Toluene-d8	*105*			**0**	*89-112*	*%REC*	*1*	*30-May-2021 14:49*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

Batch ID: 166286 **Start Date:** 27 May 2021 07:40 **End Date:** 27 May 2021 13:00
Method: SV AQ SEP FUN EXTRACT-LOWLEV - 3510C **Prep Code:** 3510_B_SIM

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21051314-01	1	1000 (mL)	1 (mL)	0.001	1-liter amber glass, Neat

Batch ID: 166391 **Start Date:** 01 Jun 2021 09:30 **End Date:** 01 Jun 2021 14:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21051314-01		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 166687 **Start Date:** 09 Jun 2021 08:30 **End Date:** 09 Jun 2021 11:30
Method: MERCURY PREP BY 7470A- WATER **Prep Code:** HG_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21051314-01		10 (mL)	10 (mL)	1	120 plastic HNO3

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 166286 (0)	**Test Name :** SEMIVOLATILES SIM				**Matrix:** Water	
HS21051314-01	LH18/24-SP140_052521	25 May 2021 14:00		27 May 2021 07:40	09 Jun 2021 14:03	1
Batch ID: 166391 (0)	**Test Name :** METALS BY ICPMS BY SW6020A				**Matrix:** Water	
HS21051314-01	LH18/24-SP140_052521	25 May 2021 14:00		01 Jun 2021 14:00	04 Jun 2021 16:01	1
Batch ID: 166687 (0)	**Test Name :** MERCURY BY SW7470A				**Matrix:** Water	
HS21051314-01	LH18/24-SP140_052521	25 May 2021 14:00		09 Jun 2021 11:30	09 Jun 2021 12:04	1
Batch ID: R384513 (0)	**Test Name :** CHEMICAL OXYGEN DEMAND BY E410.4				**Matrix:** Water	
HS21051314-01	LH18/24-SP140_052521	25 May 2021 14:00			27 May 2021 13:00	1
Batch ID: R384680 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS21051314-01	LH18/24-SP140_052521	25 May 2021 14:00			30 May 2021 16:56	100
HS21051314-01	LH18/24-SP140_052521	25 May 2021 14:00			30 May 2021 15:53	10
HS21051314-02	Trip Blank	25 May 2021 00:00			30 May 2021 14:49	1
Batch ID: R385099 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Water	
HS21051314-01	LH18/24-SP140_052521	25 May 2021 14:00			07 Jun 2021 17:34	1
Batch ID: R385268 (0)	**Test Name :** OIL & GREASE (HEM) BY E1664A				**Matrix:** Water	
HS21051314-01	LH18/24-SP140_052521	25 May 2021 14:00			09 Jun 2021 14:10	1
Batch ID: R385334 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Water	
HS21051314-01	LH18/24-SP140_052521	25 May 2021 14:00			09 Jun 2021 17:31	20
HS21051314-01	LH18/24-SP140_052521	25 May 2021 14:00			09 Jun 2021 16:54	1

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: 166391 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MBLK Sample ID: **MBLK-166391** Units: **mg/L** Analysis Date: **04-Jun-2021 14:52**
Client ID: Run ID: **ICPMS06_384999** SeqNo: **6123447** PrepDate: **01-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.00500	0.0100								U
Antimony	0.00100	0.00500								U
Arsenic	0.00100	0.00500								U
Barium	0.00250	0.00500								U
Beryllium	0.000500	0.00200								U
Cadmium	0.000500	0.00200								U
Calcium	0.0500	0.500								U
Chromium	0.00100	0.00500								U
Cobalt	0.000500	0.00500								U
Iron	0.0500	0.200								U
Lead	0.00100	0.00500								U
Magnesium	0.0500	0.200								U
Manganese	0.00250	0.00500								U
Nickel	0.00100	0.00500								U
Potassium	0.0500	0.200								U
Selenium	0.00250	0.00500								U
Silver	0.000500	0.00500								U
Sodium	0	0.200								U
Thallium	0.000500	0.00200								U
Vanadium	0.00100	0.00500								U
Zinc	0.00250	0.00500								U

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: 166391 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

LCS Sample ID: **LCS-166391** Units: **mg/L** Analysis Date: **04-Jun-2021 14:54**
Client ID: Run ID: **ICPMS06_384999** SeqNo: **6123448** PrepDate: **01-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04951	0.0100	0.05	0	99.0	84 - 117				
Antimony	0.05078	0.00500	0.05	0	102	85 - 117				
Arsenic	0.04715	0.00500	0.05	0	94.3	84 - 116				
Barium	0.05022	0.00500	0.05	0	100	86 - 114				
Beryllium	0.04821	0.00200	0.05	0	96.4	83 - 121				
Cadmium	0.05171	0.00200	0.05	0	103	87 - 115				
Calcium	4.579	0.500	5	0	91.6	87 - 118				
Chromium	0.04841	0.00500	0.05	0	96.8	85 - 116				
Cobalt	0.04924	0.00500	0.05	0	98.5	86 - 115				
Iron	4.883	0.200	5	0	97.7	87 - 118				
Lead	0.04969	0.00500	0.05	0	99.4	88 - 115				
Magnesium	4.892	0.200	5	0	97.8	83 - 118				
Manganese	0.04563	0.00500	0.05	0	91.3	87 - 115				
Nickel	0.05102	0.00500	0.05	0	102	85 - 117				
Potassium	4.802	0.200	5	0	96.0	87 - 115				
Selenium	0.0487	0.00500	0.05	0	97.4	80 - 120				
Silver	0.05223	0.00500	0.05	0	104	85 - 116				
Sodium	4.823	0.200	5	0	96.5	85 - 117				
Thallium	0.05109	0.00200	0.05	0	102	82 - 116				
Vanadium	0.04776	0.00500	0.05	0	95.5	86 - 115				
Zinc	0.05115	0.00500	0.05	0	102	83 - 119				

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: 166391 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MS Sample ID: **HS21051153-03MS** Units: **mg/L** Analysis Date: **04-Jun-2021 15:04**
Client ID: Run ID: **ICPMS06_384999** SeqNo: **6123453** PrepDate: **01-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1031	0.0100	0.05	0.04787	110	84 - 117				
Antimony	0.05484	0.00500	0.05	0	110	85 - 117				
Arsenic	0.06829	0.00500	0.05	0.01718	102	84 - 116				
Barium	0.1019	0.00500	0.05	0.04688	110	86 - 114				
Beryllium	0.04969	0.00200	0.05	0	99.4	83 - 121				
Cadmium	0.05224	0.00200	0.05	0	104	87 - 115				
Calcium	189.1	0.500	5	182.4	134	87 - 118				SEO
Chromium	0.05233	0.00500	0.05	0.001758	101	85 - 116				
Cobalt	0.05135	0.00500	0.05	0.000681	101	86 - 115				
Iron	18.67	0.200	5	13.33	107	87 - 118				
Lead	0.0517	0.00500	0.05	0	103	88 - 115				
Magnesium	50.15	0.200	5	44.6	111	83 - 118				O
Manganese	0.3809	0.00500	0.05	0.323	116	87 - 115				SO
Nickel	0.05465	0.00500	0.05	0.003662	102	85 - 117				
Potassium	18.47	0.200	5	13.5	99.5	87 - 115				
Selenium	0.05212	0.00500	0.05	0	104	80 - 120				
Silver	0.05068	0.00500	0.05	0	101	85 - 116				
Sodium	65.33	0.200	5	59.23	122	85 - 117				SO
Thallium	0.05155	0.00200	0.05	0	103	82 - 116				
Vanadium	0.05199	0.00500	0.05	0.001058	102	86 - 115				
Zinc	0.05331	0.00500	0.05	0.002193	102	83 - 119				

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: 166391 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MSD Sample ID: **HS21051153-03MSD** Units: **mg/L** Analysis Date: **04-Jun-2021 15:06**
Client ID: Run ID: **ICPMS06_384999** SeqNo: **6123454** PrepDate: **01-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1015	0.0100	0.05	0.04787	107	84 - 117	0.1031	1.47	20	
Antimony	0.05538	0.00500	0.05	0	111	85 - 117	0.05484	0.976	20	
Arsenic	0.06783	0.00500	0.05	0.01718	101	84 - 116	0.06829	0.667	20	
Barium	0.1032	0.00500	0.05	0.04688	113	86 - 114	0.1019	1.3	20	
Beryllium	0.0496	0.00200	0.05	0	99.2	83 - 121	0.04969	0.183	20	
Cadmium	0.0529	0.00200	0.05	0	106	87 - 115	0.05224	1.26	20	
Calcium	191.3	0.500	5	182.4	178	87 - 118	189.1	1.15	20	SEO
Chromium	0.05188	0.00500	0.05	0.001758	100	85 - 116	0.05233	0.846	20	
Cobalt	0.05137	0.00500	0.05	0.000681	101	86 - 115	0.05135	0.037	20	
Iron	18.67	0.200	5	13.33	107	87 - 118	18.67	0	20	
Lead	0.05349	0.00500	0.05	0	107	88 - 115	0.0517	3.4	20	
Magnesium	51.09	0.200	5	44.6	130	83 - 118	50.15	1.85	20	SO
Manganese	0.384	0.00500	0.05	0.323	122	87 - 115	0.3809	0.802	20	SO
Nickel	0.05526	0.00500	0.05	0.003662	103	85 - 117	0.05465	1.12	20	
Potassium	18.72	0.200	5	13.5	104	87 - 115	18.47	1.34	20	
Selenium	0.05066	0.00500	0.05	0	101	80 - 120	0.05212	2.83	20	
Silver	0.05094	0.00500	0.05	0	102	85 - 116	0.05068	0.506	20	
Sodium	66.37	0.200	5	59.23	143	85 - 117	65.33	1.58	20	SO
Thallium	0.0549	0.00200	0.05	0	110	82 - 116	0.05155	6.29	20	
Vanadium	0.05177	0.00500	0.05	0.001058	101	86 - 115	0.05199	0.424	20	
Zinc	0.05227	0.00500	0.05	0.002193	100	83 - 119	0.05331	1.96	20	

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: 166391 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

PDS Sample ID: **HS21051153-03PDS** Units: **mg/L** Analysis Date: **04-Jun-2021 15:08**
Client ID: Run ID: **ICPMS06_384999** SeqNo: **6123455** PrepDate: **01-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1604	0.0100	0.1	0.04787	113	80 - 120				
Antimony	0.1189	0.00500	0.1	0.00004	119	80 - 120				
Arsenic	0.1292	0.00500	0.1	0.01718	112	80 - 120				
Barium	0.1666	0.00500	0.1	0.04688	120	80 - 120				
Beryllium	0.107	0.00200	0.1	0.000005	107	80 - 120				
Cadmium	0.1139	0.00200	0.1	0.000049	114	80 - 120				
Chromium	0.1137	0.00500	0.1	0.001758	112	80 - 120				
Cobalt	0.1122	0.00500	0.1	0.000681	112	80 - 120				
Iron	24.91	0.200	10	13.33	116	80 - 120				
Lead	0.1189	0.00500	0.1	0.000088	119	80 - 120				
Magnesium	56.64	0.200	10	44.6	120	80 - 120				SO
Nickel	0.1162	0.00500	0.1	0.003662	113	80 - 120				
Potassium	24.63	0.200	10	13.5	111	80 - 120				
Selenium	0.1139	0.00500	0.1	0.000293	114	80 - 120				
Silver	0.1066	0.00500	0.1	-0.000017	107	80 - 120				
Sodium	72.28	0.200	10	59.23	130	80 - 120				SO
Vanadium	0.1142	0.00500	0.1	0.001058	113	80 - 120				
Zinc	0.115	0.00500	0.1	0.002193	113	80 - 120				

PDS Sample ID: **HS21051153-03PDS** Units: **mg/L** Analysis Date: **04-Jun-2021 16:18**
Client ID: Run ID: **ICPMS06_384999** SeqNo: **6123585** PrepDate: **01-Jun-2021** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	276.7	5.00	100	182.5	94.3	80 - 120				
Manganese	1.273	0.0500	1	0.3244	94.8	80 - 120				

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: 166391 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

SD Sample ID: **HS21051153-03SD** Units: **mg/L** Analysis Date: **04-Jun-2021 15:02**
Client ID: Run ID: **ICPMS06_384999** SeqNo: **6123452** PrepDate: **01-Jun-2021** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Aluminum	0.0567	0.0500					0.04787	0	10	
Antimony	0.00500	0.0250					0.00004	0	10	U
Arsenic	0.01853	0.0250					0.01718	0	10	J
Barium	0.04954	0.0250					0.04688	5.68	10	
Beryllium	0.00250	0.0100					0.000005	0	10	U
Cadmium	0.00250	0.0100					0.000049	0	10	U
Chromium	0.00500	0.0250					0.001758	0	10	U
Cobalt	0.000721	0.0250					0.000681	0	10	J
Lead	0.00500	0.0250					0.000088	0	10	U
Magnesium	48.88	1.00					44.6	9.6	10	
Nickel	0.004353	0.0250					0.003662	0	10	J
Potassium	14.54	1.00					13.5	7.67	10	
Selenium	0.0125	0.0250					0.000293	0	10	U
Silver	0.00250	0.0250					-0.000017	0	10	U
Sodium	64.5	1.00					59.23	8.89	10	
Thallium	0.00250	0.0100					-0.000015	0	10	U
Vanadium	0.00500	0.0250					0.001058	0	10	U
Zinc	0.0125	0.0250					0.002193	0	10	U

SD Sample ID: **HS21051153-03SD** Units: **mg/L** Analysis Date: **04-Jun-2021 16:16**
Client ID: Run ID: **ICPMS06_384999** SeqNo: **6123584** PrepDate: **01-Jun-2021** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Calcium	183.3	25.0					182.5	0.465	10	

SD Sample ID: **HS21051153-03SD** Units: **mg/L** Analysis Date: **07-Jun-2021 11:23**
Client ID: Run ID: **ICPMS06_385065** SeqNo: **6124955** PrepDate: **01-Jun-2021** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Manganese	0.316	0.250					0.3244	2.57	10	

The following samples were analyzed in this batch: HS21051314-01

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: 166687 (0) **Instrument: HG03** **Method: MERCURY BY SW7470A**

MBLK Sample ID: **MBLK-166687** Units: **mg/L** Analysis Date: **09-Jun-2021 11:49**
Client ID: Run ID: **HG03_385226** SeqNo: **6129298** PrepDate: **09-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.000100	0.000200								U

LCS Sample ID: **LCS-166687** Units: **mg/L** Analysis Date: **09-Jun-2021 11:54**
Client ID: Run ID: **HG03_385226** SeqNo: **6129891** PrepDate: **09-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00490	0.000200	0.005	0	98.0	82 - 119				

MS Sample ID: **HS21051312-01MS** Units: **mg/L** Analysis Date: **09-Jun-2021 12:00**
Client ID: Run ID: **HG03_385226** SeqNo: **6129301** PrepDate: **09-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00549	0.000200	0.005	0.00004700	109	82 - 119				

MSD Sample ID: **HS21051312-01MSD** Units: **mg/L** Analysis Date: **09-Jun-2021 12:02**
Client ID: Run ID: **HG03_385226** SeqNo: **6129302** PrepDate: **09-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00540	0.000200	0.005	0.00004700	107	82 - 119	0.005490	1.65	20	

The following samples were analyzed in this batch: HS21051314-01

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: 166286 (0) **Instrument: SV-6** **Method: SEMIVOLATILES SIM**

MBLK Sample ID: **MBLK-166286** Units: **ug/L** Analysis Date: **09-Jun-2021 11:39**
Client ID: Run ID: **SV-6_385248** SeqNo: **6129735** PrepDate: **27-May-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.010	0.010								U
Surr: 2-Fluorobiphenyl	*0.04561*	*0*	*0.08*	*0*	*57.0*	*40 - 140*				
Surr: 4-Terphenyl-d14	*0.04726*	*0*	*0.08*	*0*	*59.1*	*40 - 140*				
Surr: Nitrobenzene-d5	*0.03525*	*0*	*0.08*	*0*	*44.1*	*40 - 140*				

LCS Sample ID: **LCS-166286** Units: **ug/L** Analysis Date: **09-Jun-2021 11:57**
Client ID: Run ID: **SV-6_385248** SeqNo: **6129736** PrepDate: **27-May-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.0903	0.010	0.08	0	113	40 - 140				
Surr: 2-Fluorobiphenyl	*0.0563*	*0*	*0.08*	*0*	*70.4*	*40 - 140*				
Surr: 4-Terphenyl-d14	*0.05508*	*0*	*0.08*	*0*	*68.9*	*40 - 140*				
Surr: Nitrobenzene-d5	*0.04176*	*0*	*0.08*	*0*	*52.2*	*40 - 140*				

LCSD Sample ID: **LCSD-166286** Units: **ug/L** Analysis Date: **09-Jun-2021 12:15**
Client ID: Run ID: **SV-6_385248** SeqNo: **6129737** PrepDate: **27-May-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.0884	0.010	0.08	0	111	40 - 140	0.0903	2.13	20	
Surr: 2-Fluorobiphenyl	*0.05657*	*0*	*0.08*	*0*	*70.7*	*40 - 140*	*0.0563*	*0.478*	*20*	
Surr: 4-Terphenyl-d14	*0.0575*	*0*	*0.08*	*0*	*71.9*	*40 - 140*	*0.05508*	*4.28*	*20*	
Surr: Nitrobenzene-d5	*0.04427*	*0*	*0.08*	*0*	*55.3*	*40 - 140*	*0.04176*	*5.85*	*20*	

The following samples were analyzed in this batch: HS21051314-01

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: R384680 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-210530** Units: **ug/L** Analysis Date: **30-May-2021 14:07**
Client ID: Run ID: **VOA6_384680** SeqNo: **6116800** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1.0	1.0								U
1,1,1-Trichloroethane	0.50	1.0								U
1,1,2,2-Tetrachloroethane	1.0	1.0								U
1,1,2-Trichloroethane	1.0	1.0								U
1,1-Dichloroethane	0.50	1.0								U
1,1-Dichloroethene	0.50	1.0								U
1,1-Dichloropropene	1.0	1.0								U
1,2,3-Trichlorobenzene	1.0	1.0								U
1,2,3-Trichloropropane	1.0	1.0								U
1,2,4-Trichlorobenzene	1.0	1.0								U
1,2,4-Trimethylbenzene	1.0	1.0								U
1,2-Dibromo-3-chloropropane	0.50	1.0								U
1,2-Dibromoethane	0.50	1.0								U
1,2-Dichlorobenzene	1.0	1.0								U
1,2-Dichloroethane	0.50	1.0								U
1,2-Dichloropropane	1.0	1.0								U
1,3,5-Trimethylbenzene	1.0	1.0								U
1,3-Dichlorobenzene	1.0	1.0								U
1,3-Dichloropropane	1.0	1.0								U
1,4-Dichlorobenzene	1.0	1.0								U
2,2-Dichloropropane	0.50	1.0								U
2-Butanone	1.0	2.0								U
2-Chlorotoluene	1.0	1.0								U
2-Hexanone	2.0	2.0								U
4-Chlorotoluene	1.0	1.0								U
4-Isopropyltoluene	1.0	1.0								U
4-Methyl-2-pentanone	2.0	2.0								U
Acetone	2.0	2.0								U
Benzene	0.50	1.0								U
Bromobenzene	1.0	1.0								U
Bromochloromethane	0.50	1.0								U
Bromodichloromethane	0.50	1.0								U
Bromoform	1.0	1.0								U
Bromomethane	1.0	1.0								U

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: R384680 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-210530** Units: **ug/L** Analysis Date: **30-May-2021 14:07**
Client ID: Run ID: **VOA6_384680** SeqNo: **6116800** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	2.0	2.0								U
Carbon tetrachloride	1.0	1.0								U
Chlorobenzene	1.0	1.0								U
Chloroethane	1.0	1.0								U
Chloroform	0.50	1.0								U
Chloromethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
cis-1,3-Dichloropropene	0.50	1.0								U
Dibromochloromethane	1.0	1.0								U
Dibromomethane	0.50	1.0								U
Dichlorodifluoromethane	1.0	1.0								U
Ethylbenzene	1.0	1.0								U
Hexachlorobutadiene	1.0	1.0								U
Isopropylbenzene	1.0	1.0								U
m,p-Xylene	1.0	2.0								U
Methylene chloride	2.0	2.0								U
Naphthalene	1.0	1.0								U
n-Butylbenzene	1.0	1.0								U
n-Propylbenzene	1.0	1.0								U
o-Xylene	1.0	1.0								U
sec-Butylbenzene	1.0	1.0								U
Styrene	1.0	1.0								U
tert-Butylbenzene	1.0	1.0								U
Tetrachloroethene	1.0	1.0								U
Toluene	0.50	1.0								U
trans-1,2-Dichloroethene	0.50	1.0								U
trans-1,3-Dichloropropene	0.50	1.0								U
Trichloroethene	0.50	1.0								U
Trichlorofluoromethane	1.0	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*47.54*	*1.0*	*50*	*0*	*95.1*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.46*	*1.0*	*50*	*0*	*96.9*	*85 - 114*				
Surr: Dibromofluoromethane	*45.25*	*1.0*	*50*	*0*	*90.5*	*80 - 119*				
Surr: Toluene-d8	*50.88*	*1.0*	*50*	*0*	*102*	*89 - 112*				

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: R384680 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-210530** Units: **ug/L** Analysis Date: **30-May-2021 13:04**
Client ID: Run ID: **VOA6_384680** SeqNo: **6116799** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.51	1.0	20	0	108	78 - 124				
1,1,1-Trichloroethane	18.81	1.0	20	0	94.0	74 - 131				
1,1,2,2-Tetrachloroethane	19.93	1.0	20	0	99.6	71 - 121				
1,1,2-Trichloroethane	20.07	1.0	20	0	100	80 - 119				
1,1-Dichloroethane	18.36	1.0	20	0	91.8	77 - 125				
1,1-Dichloroethene	18.53	1.0	20	0	92.6	71 - 131				
1,1-Dichloropropene	19.62	1.0	20	0	98.1	78 - 125				
1,2,3-Trichlorobenzene	19.04	1.0	20	0	95.2	69 - 129				
1,2,3-Trichloropropane	18.61	1.0	20	0	93.1	73 - 122				
1,2,4-Trichlorobenzene	22.07	1.0	20	0	110	69 - 130				
1,2,4-Trimethylbenzene	19.36	1.0	20	0	96.8	76 - 124				
1,2-Dibromo-3-chloropropane	19.19	1.0	20	0	95.9	62 - 128				
1,2-Dibromoethane	19.73	1.0	20	0	98.7	77 - 121				
1,2-Dichlorobenzene	19.68	1.0	20	0	98.4	80 - 119				
1,2-Dichloroethane	21.51	1.0	20	0	108	73 - 128				
1,2-Dichloropropane	19.86	1.0	20	0	99.3	78 - 122				
1,3,5-Trimethylbenzene	18.65	1.0	20	0	93.3	75 - 124				
1,3-Dichlorobenzene	20.4	1.0	20	0	102	80 - 119				
1,3-Dichloropropane	19.37	1.0	20	0	96.9	80 - 119				
1,4-Dichlorobenzene	20.27	1.0	20	0	101	79 - 118				
2,2-Dichloropropane	19.46	1.0	20	0	97.3	60 - 139				
2-Butanone	35.86	2.0	40	0	89.7	56 - 143				
2-Chlorotoluene	19.2	1.0	20	0	96.0	79 - 122				
2-Hexanone	37.21	2.0	40	0	93.0	57 - 139				
4-Chlorotoluene	18.91	1.0	20	0	94.6	78 - 122				
4-Isopropyltoluene	19	1.0	20	0	95.0	77 - 127				
4-Methyl-2-pentanone	35.67	2.0	40	0	89.2	67 - 130				
Acetone	39.2	2.0	40	0	98.0	39 - 160				
Benzene	20.11	1.0	20	0	101	79 - 120				
Bromobenzene	20.95	1.0	20	0	105	80 - 120				
Bromochloromethane	18.93	1.0	20	0	94.7	78 - 123				
Bromodichloromethane	20.68	1.0	20	0	103	79 - 125				
Bromoform	21.4	1.0	20	0	107	66 - 130				
Bromomethane	21.58	1.0	20	0	108	53 - 141				

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: R384680 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-210530** Units: **ug/L** Analysis Date: **30-May-2021 13:04**
Client ID: Run ID: **VOA6_384680** SeqNo: **6116799** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	36.05	2.0	40	0	90.1	64 - 133				
Carbon tetrachloride	19.76	1.0	20	0	98.8	72 - 136				
Chlorobenzene	19.49	1.0	20	0	97.5	82 - 118				
Chloroethane	18.38	1.0	20	0	91.9	60 - 138				
Chloroform	18.82	1.0	20	0	94.1	79 - 124				
Chloromethane	16.85	1.0	20	0	84.2	50 - 139				
cis-1,2-Dichloroethene	19.39	1.0	20	0	97.0	78 - 123				
cis-1,3-Dichloropropene	21.47	1.0	20	0	107	75 - 124				
Dibromochloromethane	21.43	1.0	20	0	107	74 - 126				
Dibromomethane	20.55	1.0	20	0	103	79 - 123				
Dichlorodifluoromethane	19.08	1.0	20	0	95.4	32 - 152				
Ethylbenzene	19.65	1.0	20	0	98.3	79 - 121				
Hexachlorobutadiene	26.13	1.0	20	0	131	66 - 134				
Isopropylbenzene	18.72	1.0	20	0	93.6	72 - 131				
m,p-Xylene	38.38	2.0	40	0	96.0	80 - 121				
Methylene chloride	20	2.0	20	0	100.0	74 - 124				
Naphthalene	18.07	1.0	20	0	90.3	61 - 128				
n-Butylbenzene	18.92	1.0	20	0	94.6	75 - 128				
n-Propylbenzene	18.35	1.0	20	0	91.7	76 - 126				
o-Xylene	19.3	1.0	20	0	96.5	78 - 122				
sec-Butylbenzene	18.29	1.0	20	0	91.4	77 - 126				
Styrene	20.46	1.0	20	0	102	78 - 123				
tert-Butylbenzene	18.21	1.0	20	0	91.0	78 - 124				
Tetrachloroethene	20.56	1.0	20	0	103	74 - 129				
Toluene	19.03	1.0	20	0	95.1	80 - 121				
trans-1,2-Dichloroethene	18.89	1.0	20	0	94.5	75 - 124				
trans-1,3-Dichloropropene	21.63	1.0	20	0	108	73 - 127				
Trichloroethene	21.3	1.0	20	0	107	79 - 123				
Trichlorofluoromethane	18.29	1.0	20	0	91.4	65 - 141				
Vinyl chloride	18.26	1.0	20	0	91.3	58 - 137				
Surr: 1,2-Dichloroethane-d4	*51.41*	*1.0*	*50*	*0*	*103*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.65*	*1.0*	*50*	*0*	*97.3*	*85 - 114*				
Surr: Dibromofluoromethane	*48.6*	*1.0*	*50*	*0*	*97.2*	*80 - 119*				
Surr: Toluene-d8	*47.89*	*1.0*	*50*	*0*	*95.8*	*89 - 112*				

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: R384680 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21051441-03MS** Units: **ug/L** Analysis Date: **30-May-2021 16:14**
Client ID: Run ID: **VOA6_384680** SeqNo: **6116806** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	20.1	1.0	20	0	101	78 - 124				
1,1,1-Trichloroethane	17.76	1.0	20	0	88.8	74 - 131				
1,1,2,2-Tetrachloroethane	18.58	1.0	20	0	92.9	71 - 121				
1,1,2-Trichloroethane	18.34	1.0	20	0	91.7	80 - 119				
1,1-Dichloroethane	15.44	1.0	20	0	77.2	77 - 125				
1,1-Dichloroethene	17.74	1.0	20	0.695	85.2	71 - 131				
1,1-Dichloropropene	20.25	1.0	20	0	101	78 - 125				
1,2,3-Trichlorobenzene	16.99	1.0	20	0	84.9	69 - 129				
1,2,3-Trichloropropane	17.28	1.0	20	0	86.4	73 - 122				
1,2,4-Trichlorobenzene	19.19	1.0	20	0	95.9	69 - 130				
1,2,4-Trimethylbenzene	19.32	1.0	20	0	96.6	76 - 124				
1,2-Dibromo-3-chloropropane	16.88	1.0	20	0	84.4	62 - 128				
1,2-Dibromoethane	18.47	1.0	20	0	92.3	77 - 121				
1,2-Dichlorobenzene	19.79	1.0	20	0.78	95.0	80 - 119				
1,2-Dichloroethane	18.53	1.0	20	0	92.6	73 - 128				
1,2-Dichloropropane	18.18	1.0	20	0	90.9	78 - 122				
1,3,5-Trimethylbenzene	19.37	1.0	20	0	96.9	75 - 124				
1,3-Dichlorobenzene	19.8	1.0	20	0	99.0	80 - 119				
1,3-Dichloropropane	18.28	1.0	20	0	91.4	80 - 119				
1,4-Dichlorobenzene	19.26	1.0	20	0	96.3	79 - 118				
2,2-Dichloropropane	17.65	1.0	20	0	88.3	60 - 139				
2-Butanone	27.24	2.0	40	0	68.1	56 - 143				
2-Chlorotoluene	19.11	1.0	20	0	95.6	79 - 122				
2-Hexanone	32.71	2.0	40	0	81.8	57 - 139				
4-Chlorotoluene	18.55	1.0	20	0	92.7	78 - 122				
4-Isopropyltoluene	20.4	1.0	20	0	102	77 - 127				
4-Methyl-2-pentanone	32.78	2.0	40	0	82.0	67 - 130				
Acetone	24.37	2.0	40	0	60.9	39 - 160				
Benzene	18.78	1.0	20	0	93.9	79 - 120				
Bromobenzene	19.75	1.0	20	0	98.7	80 - 120				
Bromochloromethane	16.18	1.0	20	0	80.9	78 - 123				
Bromodichloromethane	18.32	1.0	20	0	91.6	79 - 125				
Bromoform	19.2	1.0	20	0	96.0	66 - 130				
Bromomethane	18.49	1.0	20	0	92.5	53 - 141				

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: R384680 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21051441-03MS** Units: **ug/L** Analysis Date: **30-May-2021 16:14**
Client ID: Run ID: **VOA6_384680** SeqNo: **6116806** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	33.43	2.0	40	0	83.6	64 - 133				
Carbon tetrachloride	20.91	1.0	20	0	105	72 - 136				
Chlorobenzene	23.79	1.0	20	4.839	94.7	82 - 118				
Chloroethane	16	1.0	20	0	80.0	60 - 138				
Chloroform	16.31	1.0	20	0	81.6	79 - 124				
Chloromethane	12.12	1.0	20	0	60.6	50 - 139				
cis-1,2-Dichloroethene	87.32	1.0	20	67.77	97.7	78 - 123				
cis-1,3-Dichloropropene	18.97	1.0	20	0	94.8	75 - 124				
Dibromochloromethane	19.77	1.0	20	0	98.9	74 - 126				
Dibromomethane	17.98	1.0	20	0	89.9	79 - 123				
Dichlorodifluoromethane	11.55	1.0	20	0	57.8	32 - 152				
Ethylbenzene	20.33	1.0	20	0	102	79 - 121				
Hexachlorobutadiene	26.03	1.0	20	0	130	66 - 134				
Isopropylbenzene	20.38	1.0	20	0	102	72 - 131				
m,p-Xylene	39.79	2.0	40	0	99.5	80 - 121				
Methylene chloride	15.93	2.0	20	0	79.7	74 - 124				
Naphthalene	14.89	1.0	20	0	74.5	61 - 128				
n-Butylbenzene	20.03	1.0	20	0	100	75 - 128				
n-Propylbenzene	19.85	1.0	20	0	99.2	76 - 126				
o-Xylene	19.11	1.0	20	0	95.6	78 - 122				
sec-Butylbenzene	20.4	1.0	20	0	102	77 - 126				
Styrene	19.17	1.0	20	0	95.9	78 - 123				
tert-Butylbenzene	20.02	1.0	20	0	100	78 - 124				
Tetrachloroethene	22.68	1.0	20	0	113	74 - 129				
Toluene	18.73	1.0	20	0	93.6	80 - 121				
trans-1,2-Dichloroethene	16.8	1.0	20	0	84.0	75 - 124				
trans-1,3-Dichloropropene	18.55	1.0	20	0	92.7	73 - 127				
Trichloroethene	22.67	1.0	20	1.191	107	79 - 123				
Trichlorofluoromethane	17.5	1.0	20	0	87.5	65 - 141				
Vinyl chloride	18.22	1.0	20	3.223	75.0	58 - 137				
Surr: 1,2-Dichloroethane-d4	*45.58*	*1.0*	*50*	*0*	*91.2*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.76*	*1.0*	*50*	*0*	*97.5*	*85 - 114*				
Surr: Dibromofluoromethane	*45.18*	*1.0*	*50*	*0*	*90.4*	*80 - 119*				
Surr: Toluene-d8	*50.05*	*1.0*	*50*	*0*	*100*	*89 - 112*				

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: R384680 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS21051441-03MSD** Units: **ug/L** Analysis Date: **30-May-2021 16:35**
Client ID: Run ID: **VOA6_384680** SeqNo: **6116807** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	18.76	1.0	20	0	93.8	78 - 124	20.1	6.93	20	
1,1,1-Trichloroethane	16.05	1.0	20	0	80.2	74 - 131	17.76	10.1	20	
1,1,2,2-Tetrachloroethane	17.33	1.0	20	0	86.6	71 - 121	18.58	6.97	20	
1,1,2-Trichloroethane	17.25	1.0	20	0	86.2	80 - 119	18.34	6.15	20	
1,1-Dichloroethane	14.1	1.0	20	0	70.5	77 - 125	15.44	9.11	20	S
1,1-Dichloroethene	16.07	1.0	20	0.695	76.9	71 - 131	17.74	9.92	20	
1,1-Dichloropropene	18.46	1.0	20	0	92.3	78 - 125	20.25	9.29	20	
1,2,3-Trichlorobenzene	17.27	1.0	20	0	86.3	69 - 129	16.99	1.64	20	
1,2,3-Trichloropropane	16.71	1.0	20	0	83.5	73 - 122	17.28	3.36	20	
1,2,4-Trichlorobenzene	19.19	1.0	20	0	96.0	69 - 130	19.19	0.0363	20	
1,2,4-Trimethylbenzene	18.01	1.0	20	0	90.1	76 - 124	19.32	6.98	20	
1,2-Dibromo-3-chloropropane	17.75	1.0	20	0	88.8	62 - 128	16.88	5	20	
1,2-Dibromoethane	17.56	1.0	20	0	87.8	77 - 121	18.47	5.07	20	
1,2-Dichlorobenzene	18.35	1.0	20	0.78	87.8	80 - 119	19.79	7.57	20	
1,2-Dichloroethane	17.94	1.0	20	0	89.7	73 - 128	18.53	3.23	20	
1,2-Dichloropropane	17.4	1.0	20	0	87.0	78 - 122	18.18	4.38	20	
1,3,5-Trimethylbenzene	17.76	1.0	20	0	88.8	75 - 124	19.37	8.67	20	
1,3-Dichlorobenzene	18.07	1.0	20	0	90.4	80 - 119	19.8	9.14	20	
1,3-Dichloropropane	16.98	1.0	20	0	84.9	80 - 119	18.28	7.36	20	
1,4-Dichlorobenzene	18.36	1.0	20	0	91.8	79 - 118	19.26	4.8	20	
2,2-Dichloropropane	16.33	1.0	20	0	81.6	60 - 139	17.65	7.8	20	
2-Butanone	26.63	2.0	40	0	66.6	56 - 143	27.24	2.26	20	
2-Chlorotoluene	17.68	1.0	20	0	88.4	79 - 122	19.11	7.79	20	
2-Hexanone	31.88	2.0	40	0	79.7	57 - 139	32.71	2.59	20	
4-Chlorotoluene	17	1.0	20	0	85.0	78 - 122	18.55	8.69	20	
4-Isopropyltoluene	18.91	1.0	20	0	94.6	77 - 127	20.4	7.55	20	
4-Methyl-2-pentanone	31.43	2.0	40	0	78.6	67 - 130	32.78	4.22	20	
Acetone	23.78	2.0	40	0	59.4	39 - 160	24.37	2.46	20	
Benzene	17.61	1.0	20	0	88.0	79 - 120	18.78	6.46	20	
Bromobenzene	18.28	1.0	20	0	91.4	80 - 120	19.75	7.7	20	
Bromochloromethane	15.73	1.0	20	0	78.7	78 - 123	16.18	2.8	20	
Bromodichloromethane	17.36	1.0	20	0	86.8	79 - 125	18.32	5.38	20	
Bromoform	18.18	1.0	20	0	90.9	66 - 130	19.2	5.43	20	
Bromomethane	16.81	1.0	20	0	84.0	53 - 141	18.49	9.57	20	

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: R384680 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS21051441-03MSD** Units: **ug/L** Analysis Date: **30-May-2021 16:35**
Client ID: Run ID: **VOA6_384680** SeqNo: **6116807** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	30.37	2.0	40	0	75.9	64 - 133	33.43	9.61	20	
Carbon tetrachloride	19.21	1.0	20	0	96.0	72 - 136	20.91	8.5	20	
Chlorobenzene	21.74	1.0	20	4.839	84.5	82 - 118	23.79	9	20	
Chloroethane	20.95	1.0	20	0	105	60 - 138	16	26.8	20	R
Chloroform	15.05	1.0	20	0	75.2	79 - 124	16.31	8.08	20	S
Chloromethane	11.34	1.0	20	0	56.7	50 - 139	12.12	6.65	20	
cis-1,2-Dichloroethene	81.38	1.0	20	67.77	68.0	78 - 123	87.32	7.05	20	S
cis-1,3-Dichloropropene	17.56	1.0	20	0	87.8	75 - 124	18.97	7.72	20	
Dibromochloromethane	18.53	1.0	20	0	92.6	74 - 126	19.77	6.5	20	
Dibromomethane	17.15	1.0	20	0	85.8	79 - 123	17.98	4.7	20	
Dichlorodifluoromethane	10.63	1.0	20	0	53.2	32 - 152	11.55	8.3	20	
Ethylbenzene	18.58	1.0	20	0	92.9	79 - 121	20.33	9	20	
Hexachlorobutadiene	23.04	1.0	20	0	115	66 - 134	26.03	12.2	20	
Isopropylbenzene	18.84	1.0	20	0	94.2	72 - 131	20.38	7.84	20	
m,p-Xylene	36.36	2.0	40	0	90.9	80 - 121	39.79	8.99	20	
Methylene chloride	15.26	2.0	20	0	76.3	74 - 124	15.93	4.36	20	
Naphthalene	16.16	1.0	20	0	80.8	61 - 128	14.89	8.16	20	
n-Butylbenzene	18.7	1.0	20	0	93.5	75 - 128	20.03	6.88	20	
n-Propylbenzene	18.17	1.0	20	0	90.9	76 - 126	19.85	8.83	20	
o-Xylene	17.81	1.0	20	0	89.1	78 - 122	19.11	7.06	20	
sec-Butylbenzene	18.55	1.0	20	0	92.7	77 - 126	20.4	9.53	20	
Styrene	17.71	1.0	20	0	88.6	78 - 123	19.17	7.93	20	
tert-Butylbenzene	18.34	1.0	20	0	91.7	78 - 124	20.02	8.71	20	
Tetrachloroethene	21.11	1.0	20	0	106	74 - 129	22.68	7.16	20	
Toluene	17.29	1.0	20	0	86.4	80 - 121	18.73	8.02	20	
trans-1,2-Dichloroethene	15.5	1.0	20	0	77.5	75 - 124	16.8	8	20	
trans-1,3-Dichloropropene	17.82	1.0	20	0	89.1	73 - 127	18.55	3.98	20	
Trichloroethene	20.65	1.0	20	1.191	97.3	79 - 123	22.67	9.32	20	
Trichlorofluoromethane	15.77	1.0	20	0	78.8	65 - 141	17.5	10.4	20	
Vinyl chloride	16.66	1.0	20	3.223	67.2	58 - 137	18.22	8.99	20	
Surr: 1,2-Dichloroethane-d4	*44.07*	*1.0*	*50*	*0*	*88.1*	*81 - 118*	*45.58*	*3.36*	*20*	
Surr: 4-Bromofluorobenzene	*48.81*	*1.0*	*50*	*0*	*97.6*	*85 - 114*	*48.76*	*0.0914*	*20*	
Surr: Dibromofluoromethane	*44.86*	*1.0*	*50*	*0*	*89.7*	*80 - 119*	*45.18*	*0.702*	*20*	
Surr: Toluene-d8	*50.36*	*1.0*	*50*	*0*	*101*	*89 - 112*	*50.05*	*0.608*	*20*	

ALS Houston, US Date: 10-Jun-21

Client:	Bhate Environmental Associates, Inc.
Project:	Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder:	HS21051314

QC BATCH REPORT

Batch ID:	**R384680 (0)**	**Instrument:**	**VOA6**	**Method:**	**VOLATILES ORGANICS BY METHOD 8260C**

The following samples were analyzed in this batch: HS21051314-01 HS21051314-02

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: R384513 (0) **Instrument: WetChem_HS** **Method: CHEMICAL OXYGEN DEMAND BY E410.4**

MBLK Sample ID: **MBLK-R384513** Units: **mg/L** Analysis Date: **27-May-2021 13:00**
Client ID: Run ID: **WetChem_HS_384513** SeqNo: **6113391** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	15.0	15.0								U

LCS Sample ID: **LCS-R384513** Units: **mg/L** Analysis Date: **27-May-2021 13:00**
Client ID: Run ID: **WetChem_HS_384513** SeqNo: **6113390** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	99	15.0	100	0	99.0	85 - 115				

LCSD Sample ID: **LCSD-R384513** Units: **mg/L** Analysis Date: **27-May-2021 13:00**
Client ID: Run ID: **WetChem_HS_384513** SeqNo: **6113389** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	99	15.0	100	0	99.0	85 - 115	99	0	20	

MS Sample ID: **HS21051294-01MS** Units: **mg/L** Analysis Date: **27-May-2021 13:00**
Client ID: Run ID: **WetChem_HS_384513** SeqNo: **6113393** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	78	15.0	50	30	96.0	80 - 120				

MSD Sample ID: **HS21051294-01MSD** Units: **mg/L** Analysis Date: **27-May-2021 13:00**
Client ID: Run ID: **WetChem_HS_384513** SeqNo: **6113392** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chemical Oxygen Demand	77	15.0	50	30	94.0	80 - 120	78	1.29	20	

The following samples were analyzed in this batch: HS21051314-01

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: R385268 (0) **Instrument: Balance1** **Method: OIL & GREASE (HEM) BY E1664A**

MBLK Sample ID: **WBLKW-060921** Units: **mg/L** Analysis Date: **09-Jun-2021 14:10**
Client ID: Run ID: **Balance1_385268** SeqNo: **6130111** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oil and Grease	1.00	2.00								U

LCS Sample ID: **WLCSW-060921** Units: **mg/L** Analysis Date: **09-Jun-2021 14:10**
Client ID: Run ID: **Balance1_385268** SeqNo: **6130113** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oil and Grease	38.7	2.00	40	0	96.8	78 - 114				

LCSD Sample ID: **WLCSDW-060921** Units: **mg/L** Analysis Date: **09-Jun-2021 14:10**
Client ID: Run ID: **Balance1_385268** SeqNo: **6130112** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oil and Grease	39	2.00	40	0	97.5	78 - 114	38.7	0.772	18	

MS Sample ID: **HS21051265-01MS** Units: **mg/L** Analysis Date: **09-Jun-2021 14:10**
Client ID: Run ID: **Balance1_385268** SeqNo: **6130091** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Oil and Grease	37.4	2.00	40	4.348	82.6	78 - 114				

The following samples were analyzed in this batch: HS21051314-01

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

QC BATCH REPORT

Batch ID: R385334 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY SW9056A

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **09-Jun-2021 14:19**
Client ID: Run ID: **ICS-Integrion_385334** SeqNo: **6131583** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.500	0.500								U
Sulfate	0.500	0.500								U

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **09-Jun-2021 14:26**
Client ID: Run ID: **ICS-Integrion_385334** SeqNo: **6131584** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.35	0.500	20	0	96.7	80 - 120				
Sulfate	19.31	0.500	20	0	96.5	80 - 120				

MS Sample ID: **HS21051314-01MS** Units: **mg/L** Analysis Date: **09-Jun-2021 17:38**
Client ID: **LH18/24-SP140_052521** Run ID: **ICS-Integrion_385334** SeqNo: **6131593** PrepDate: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	360.9	10.0	200	168.8	96.1	80 - 120				
Sulfate	222.9	10.0	200	25	99.0	80 - 120				

MSD Sample ID: **HS21051314-01MSD** Units: **mg/L** Analysis Date: **09-Jun-2021 17:46**
Client ID: **LH18/24-SP140_052521** Run ID: **ICS-Integrion_385334** SeqNo: **6131594** PrepDate: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	370.2	10.0	200	168.8	101	80 - 120	360.9	2.53	20	
Sulfate	230.6	10.0	200	25	103	80 - 120	222.9	3.37	20	

The following samples were analyzed in this batch: HS21051314-01

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: **HS21051314**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2020-2021	30-Jun-2021
Louisiana	03087, 2021-2022	30-Jun-2022
North Carolina	624-2021	31-Dec-2021
Oklahoma	2020-165	31-Aug-2021
Texas	T104704231-21-27	30-Apr-2022
Utah	TX026932021-10	31-Jul-2021

ALS Houston, US Date: 10-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
Work Order: HS21051314

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS21051314-01	LH18/24-SP140_052521	Login	5/26/2021 12:54:52 PM	PMG	MET026
HS21051314-01	LH18/24-SP140_052521	Login	5/26/2021 12:54:52 PM	PMG	Sub
HS21051314-01	LH18/24-SP140_052521	Login	5/26/2021 12:54:52 PM	PMG	Disposed
HS21051314-01	LH18/24-SP140_052521	Login	5/26/2021 12:54:52 PM	PMG	EXT170
HS21051314-01	LH18/24-SP140_052521	Login	5/26/2021 12:54:52 PM	PMG	Disposed
HS21051314-01	LH18/24-SP140_052521	Login	5/26/2021 12:54:52 PM	PMG	Disposed
HS21051314-01	LH18/24-SP140_052521	Login	5/26/2021 12:54:52 PM	PMG	VOA087
HS21051314-02	Trip Blank	Login	5/26/2021 12:54:52 PM	PMG	VOA087

ALS Houston, US Date: 10-Jun-21

Sample Receipt Checklist

Work Order ID: HS21051314 **Date/Time Received:** **26-May-2021 10:25**

Client Name: Bhate Environmental **Received by:** **Paresh M. Giga**

Completed By:	/S/ Paresh M. Giga	26-May-2021 12:57	**Reviewed by:**	/S/ Ragen Giga	27-May-2021 13:03
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **Water** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:none
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	0.9C U/C	IR31
Cooler(s)/Kit(s):	46900	
Date/Time sample(s) sent to storage:	5/25/2021 13:10	

Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

HS21051314

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd., Suite 210 Houston, Tx. 77099 ATTN: RJ Modashia

Bhate Environmental Associates, Inc.
Groundwater Treatment Plant Quarterly Influent Sample

Project: BHATE
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No.
NWO1312.0150.0
16.0001

Job:
GROUNDWATER TREATMENT PLANT QUARTERLY INFLUENT SAMPLES

Prepared By:
Scott Beesinger

P. O. Number

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	ROD Volatiles	Total Metals	Oil & Grease	Chemical Oxygen Demand	Chloride & Sulfate	1, 4 - DIOXANE	Perchlorate				Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP140_052521	Water	05/25/21 / 14:00		4	3		1								HCL	
LH18/24-SP140_052521	Water	05/25/21 / 14:00		1		1									HNO3	
LH18/24-SP140_052521	Water	05/25/21 / 14:00		2					1	1					NONE	
LH18/24-SP140_052521	Water	05/25/21 / 14:00		1				1							H2SO4	
LH18/24-SP140_052521	Water	05/25/21 / 14:00		1							1				NONE	
Trip Blank	Water	05/25/21		2	2										HCL	

Additional Remarks: **STANDARD TURN AROUND TIME**

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	05/25/21	14:30									

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition
	5/26/21	10:25							

Remarks:

46900 VIC. 0.90

+31

(Word) S:\l-ces\Forms\Chain of Custody - BiWeekly

ALS
10450 Stanciiff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

46180

CUSTODY SEAL

Date: 5/25/21 Time: 430

Name: [illegible]

Company: [illegible]

Seal Broken By:

5/26/21

FedEx
TRK# 0221 9473 0841 7395

WED - 26 MAY AA
PRIORITY OVERNIGHT

AB SGRA

46900

77099
TX-US
IAH

June 07, 2021 Service Request No:E2100591

Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099

Laboratory Results for: HS21051314

Dear Ragen,

Enclosed are the results of the sample(s) submitted to our laboratory May 26, 2021
For your reference, these analyses have been assigned our service request number **E2100591.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



Corey Grandits
Project Manager

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Houston	**Service Request No.:**	E2100591
Project:	HS21051314	**Date Received:**	05/26/21
Sample Matrix:	W		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 05/26/21.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2100327: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in addition to a MS/MSD for this extraction batch. The batch precision (MS/DMS) measurements were determined on another order in the extraction batch. The MS/DMS results are not included in this report. The LCS/DLCS recoveries are within QC limits.

DoD certification is held for the method/matrix/analytes provided in this report.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2100591
Project: HS21051314

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100591-001	LH18/24-SP140_052521	5/25/2021	1400

Service Request Summary

Folder #: **E2100591**
Client Name: ALS Environmental - US
Project Name: HS21051314
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/26/21
Internal Due Date: 6/10/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21051314
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8E
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100591-001	LH18/24-SP140_052521	Water	05/25/21 1400	**IV**

Service Request Summary

Folder #: **E2100591**
Client Name: ALS Environmental - US
Project Name: HS21051314
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 05/26/21
Internal Due Date: 6/10/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21051314
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8E
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	1	Level II due 6/10,IV due 6/17

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	Internal standard not within the specified limits. See case narrative.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.
M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.

Data Qualifiers

Lab Standard

O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

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State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-2020	6/30/2021
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352-2020	7/31/2021
Louisiana Department of Environmental Quality	03087-2020	6/30/2021
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Maryland Department of the Environment	343-2020	6/30/2021
Minnesota Department of Health	2021671	12/31/2021
Nevada Department of Concervation and Natural Resources	TX026932021-4	7/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
New Jersey Department of Environmental Protection	TX008	6/30/2021
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	014	6/30/2021
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022
Utah Department of Health Environmental Laboratory Certification	TX026932021-10	7/31/2021

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

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Houston, TX 77099
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F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: **Colorado** **COC ID:** **16192**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	RJ Modashia
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RJ.Modashia@alsglobal.com
Alternate Contact:	
Email:	

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS21051314
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21051314-01**	**LH18/24-SP140_052521**	**Water**	**25 May 2021 14:00**
	SUB_Perch-6850			10 Jun 2021

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: 5/26/21 1433

Cooler ID(s): _____ Temperature(s): _____

Cooler Receipt Form

ALS Environmental

Project Chemist: CG

Client/Project: ALS-H

Thermometer ID: IR31

Date/Time Received: 5/26/21 Initials: CG Date/Time Logged in: 5/26/21 Initials: CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ◉ ALS Courier ○ Client

2. Samples received in: ◉ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ◉ No
   Were they intact? ○ Yes ○ No ◉ N/A
   Were they signed and dated? ○ Yes ○ No ◉ N/A
   If yes, how many and where?

4. Packing Material: ○ Inserts ◉ Baggies ○ Bubble Wrap ○ Gel Packs ◉ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
N/A		5/26/21	1933	CG	4.2	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ◉ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ◉ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ◉ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ◉ Yes ○ No
10. Did sample labels and tags agree with custody documents? ◉ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

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Houston, TX 77099
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SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
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Phone (713)266-1599 Fax (713)266-0130
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Preparation Information Benchsheet

Prep Run#: 380303 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 5/27/21 13:04

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100577-001	LH18/24-SP650_051821_BIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2100590-001	LHSMW01-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2100590-002	LHSMW01-210524-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2100590-003	04WW04-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
5	E2100590-004	04WW08-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2100590-005	04WW02-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2100590-006	04WW06-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2100590-007	LHSMW02-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2100590-008	04WW11-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2100590-009	04WW01-210524	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2100590-010	04WW07-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
12	E2100590-011	04WW07-210525-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
13	E2100590-012	04WW09-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
14	E2100590-013	04WW05-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
15	E2100590-014	04WW10-210525	.01	6850/ClO4 DOD			Ground Water	10mL	
16	E2100591-001	LH18/24-SP140_052521	.01	6850/ClO4 DOD			Water	10mL	
17	E2100592-001	LH18/24-SP650_052521_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
18	E2100593-001	LH18/24-SP650_052521_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
19	EQ2100327-01	MB		6850/ClO4 DOD			Liquid	10mL	
20	EQ2100327-02	LCS		6850/ClO4 DOD			Liquid	10mL	
21	EQ2100327-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
22	EQ2100327-04	04WW10-210525 MS	.01	6850/ClO4 DOD			Liquid	10mL	
23	EQ2100327-05	04WW10-210525 DMS	.01	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Sodium Perchlorate 1 ug/mL (IS) (18-O) as CLO4 Inventory ID 214765 Logbook Ref: Sodium Perchlorate Expires On: 12/11/2022

E2100577-001	100.00µL	E2100590-001	100.00µL	E2100590-002	100.00µL	E2100590-003	100.00µL	E2100590-004	100.00µL	E2100590-005	100.00µL
E2100590-006	100.00µL	E2100590-007	100.00µL	E2100590-008	100.00µL	E2100590-009	100.00µL	E2100590-010	100.00µL	E2100590-011	100.00µL
E2100590-012	100.00µL	E2100590-013	100.00µL	E2100590-014	100.00µL	E2100591-001	100.00µL	E2100592-001	100.00µL	E2100593-001	100.00µL
EQ2100327-01	100.00µL	EQ2100327-02	100.00µL	EQ2100327-03	100.00µL	EQ2100327-04	100.00µL	EQ2100327-05	100.00µL		

Name: Perchlorate Intermediate Stock1 Inventory ID 217422 Logbook Ref: Perchlorate Expires On: 11/26/2021

EQ2100327-02	1.00µL	EQ2100327-03	1.00µL	EQ2100327-04	1.00µL	EQ2100327-05	1.00µL

Preparation Information Benchsheet

Prep Run#: 380303 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 5/27/21 13:04

Preparation Steps

Step: Preparation
Started: 5/27/21 13:04
Finished: 5/27/21 13:30
By: GRIVERA
Comments

Comments: _____

Reviewed By: GR Date: 5/27/21

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100591
Project:	HS21051314	**Date Collected:**	5/25/21 1400
Sample Matrix:	Water	**Date Received:**	5/26/21
Sample Name:	LH18/24-SP140_052521	**Units:**	µg/L
Lab Code:	E2100591-001	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**6010**		20.0	10.0	5.00	200	5/27/21	6/2/21 13:02	380303	725907	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100591
Project:	HS21051314	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100327-01	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	5/27/21	5/28/21 12:53	380303	725747	

Accuracy & Precision

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21051314
Sample Matrix: Water

Service Request: E2100591
Date Analyzed: 5/28/21

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: As Received

Extraction Lot: 380303

	Lab Control Sample EQ2100327-02			Duplicate Lab Control Sample EQ2100327-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.101	0.100	101	0.0878	0.100	88	84 - 119	14	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100591
Project:	HS21051314	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100327-02	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.101**		0.100	0.0500	0.0250	1	5/27/21	5/28/21 13:02	380303	725747	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100591
Project:	HS21051314	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100327-03	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0878**	J	0.100	0.0500	0.0250	1	5/27/21	5/28/21 15:59	380303	725747	

HS21051314 8260_W_DOD Raw Data

ALS WO# HS21051314

MSVOA06 -Logbook

Batch: 44971 **Analyst:** Presenta Cabascango

Date: 05-26-2021 **Reviewer:**

Method: 8260 **Laboratory:** Houston

Comments:

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	05-26-2021 12:13 pm	1.00	50 mL	50 mL	X052601.D	Liquid	Y	NA
2	VSTD000.25	ICAL1	05-26-2021 12:34 pm	1.00	50 mL	50 mL	X052602.D	Liquid	Y	NA
3	VSTD000.5	ICAL2	05-26-2021 12:55 pm	1.00	50 mL	50 mL	X052603.D	Liquid	Y	NA
4	VSTD001	ICAL3	05-26-2021 01:37 pm	1.00	50 mL	50 mL	X052604.D	Liquid	Y	NA
5	VSTD002	ICAL4	05-26-2021 01:58 pm	1.00	50 mL	50 mL	X052605.D	Liquid	Y	NA
6	VSTD005	ICAL5	05-26-2021 02:19 pm	1.00	50 mL	50 mL	X052606.D	Liquid	Y	NA
7	VSTD020	ICAL6	05-26-2021 02:40 pm	1.00	50 mL	50 mL	X052607.D	Liquid	Y	NA
8	VSTD050	ICAL7	05-26-2021 03:01 pm	1.00	50 mL	50 mL	X052608.D	Liquid	Y	NA
9	VSTD100	ICAL8	05-26-2021 03:22 pm	1.00	50 mL	50 mL	X052609.D	Liquid	Y	NA
10	VSTD150	ICAL9	05-26-2021 03:43 pm	1.00	50 mL	50 mL	X052610.D	Liquid	Y	NA
11	VSTD200	ICAL	05-26-2021 04:04 pm	1.00	50 mL	50 mL	X052611.D	Liquid	Y	NA
12	BLANK	SAMP	05-26-2021 04:25 pm	1.00	50 mL	50 mL	X052612.D	Liquid	Y	NA
13	BLANK	SAMP	05-26-2021 04:46 pm	1.00	50 mL	50 mL	X052613.D	Liquid	Y	NA
14	CCV	CCV	05-26-2021 05:07 pm	1.00	50 mL	50 mL	X052614.D	Liquid	Y	NA
15	BLANK	SAMP	05-26-2021 05:28 pm	1.00	50 mL	50 mL	X052615.D	Liquid	Y	NA
16	VLCSW-210526	LCS	05-26-2021 05:49 pm	1.00	50 mL	50 mL	X052616.D	Liquid	Y	NA
17	BLANK	SAMP	05-26-2021 06:10 pm	1.00	50 mL	50 mL	X052617.D	Liquid	Y	NA
18	VBLKW-210526	MBLK	05-26-2021 06:31 pm	1.00	50 mL	50 mL	X052618.D	Liquid	Y	NA
19	HS21051001-12	SAMP	05-26-2021 06:52 pm	1.00	50 mL	50 mL	X052619.D	Liquid	Y	NA
20	HS21051001-13	SAMP	05-26-2021 07:13 pm	1.00	50 mL	50 mL	X052620.D	Liquid	Y	NA
21	HS21051002-10	SAMP	05-26-2021 07:34 pm	1.00	50 mL	50 mL	X052621.D	Liquid	Y	NA
22	HS21051002-10MS	MS	05-26-2021 07:55 pm	1.00	50 mL	50 mL	X052622.D	Liquid	Y	NA
23	HS21051002-10MSD	MSD	05-26-2021 08:16 pm	1.00	50 mL	50 mL	X052623.D	Liquid	Y	NA
24	HS21051001-03	SAMP	05-26-2021 08:37 pm	10.00	5 mL	50 mL	X052624.D	Liquid	Y	NA
25	HS21051002-11	SAMP	05-26-2021 08:58 pm	1.00	50 mL	50 mL	X052625.D	Liquid	Y	NA
26	HS21051002-12	SAMP	05-26-2021 09:19 pm	1.00	50 mL	50 mL	X052626.D	Liquid	Y	NA
27	HS21051001-07	SAMP	05-26-2021 09:40 pm	5.00	10 mL	50 mL	X052627.D	Liquid	Y	NA
28	HS21051001-07	SAMP	05-26-2021 10:01 pm	25.00	2 mL	50 mL	X052628.D	Liquid	Y	NA
29	HS21051001-14	SAMP	05-26-2021 10:22 pm	50.00	1 mL	50 mL	X052629.D	Liquid	Y	NA
30	HS21051001-14	SAMP	05-26-2021 10:43 pm	1000.0	50 µL	50 mL	X052630.D	Liquid	Y	NA
31	CCV-END	CCV	05-26-2021 11:04 pm	1.00	50 mL	50 mL	X052631.D	Liquid	Y	NA
32	BLANK	SAMP	05-26-2021 11:25 pm	1.00	50 mL	50 mL	X052632.D	Liquid	Y	NA

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
cis-1,3-Dichloropropene	50.00	49.32	99	80-120
trans-1,3-Dichloroprope	50.00	49.93	100	80-120
1,3-Dichlorobenzene	50.00	48.33	97	80-120
2,2-Dichloropropane	50.00	46.54	93	80-120
1,1-Dichloropropene	50.00	47.74	95	80-120
Dibromomethane	50.00	47.09	94	80-120
1,2-Dibromoethane	50.00	46.02	92	80-120
trans-1,2-Dichloroethen	50.00	45.39	91	80-120
1,1,1,2-Tetrachloroetha	50.00	49.25	98	80-120
1,1,1-Trichloroethane	50.00	45.35	91	80-120
1,1,2,2-Tetrachloroetha	50.00	48.29	96	80-120
1,1,2-Trichloroethane	50.00	46.80	94	80-120
1,1-Dichloroethane	50.00	43.31	87	80-120
1,1-Dichloroethene	50.00	47.05	94	80-120
Trichloroethene	50.00	49.64	99	80-120
1,2,3-Trichlorobenzene	50.00	54.27	108	80-120
Trichlorofluoromethane	50.00	49.37	99	80-120
1,2,4-Trichlorobenzene	50.00	54.38	109	80-120
1,2,4-Trimethylbenzene	50.00	47.26	94	80-120
Tetrachloroethene	50.00	51.72	103	80-120
1,2-Dichlorobenzene	50.00	48.14	96	80-120
1,2-Dichloroethane	50.00	48.52	97	80-120
1,2-Dichloropropane	50.00	47.14	94	80-120
1,3,5-Trimethylbenzene	50.00	48.76	98	80-120
1,3-Dichloropropane	50.00	45.62	91	80-120
1,4-Dichlorobenzene	50.00	47.04	94	80-120
Toluene	50.00	45.98	92	80-120
2-Butanone	100.00	88.97	89	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
2-Chlorotoluene	50.00	46.15	92	80-120
2-Hexanone	100.00	93.39	93	80-120
4-Chlorotoluene	50.00	47.27	94	80-120
tert-Butylbenzene	50.00	48.13	96	80-120
4-Methyl-2-Pentanone	100.00	86.96	87	80-120
Acetone	100.00	105.10	105	80-120
Benzene	50.00	47.37	95	80-120
Bromobenzene	50.00	48.43	97	80-120
Bromochloromethane	50.00	45.06	90	80-120
Bromodichloromethane	50.00	46.92	94	80-120
Bromoform	50.00	50.57	101	80-120
Bromomethane	50.00	55.55	111	80-120
Carbon Disulfide	100.00	90.27	90	80-120
Carbon Tetrachloride	50.00	48.83	98	80-120
Chlorobenzene	50.00	46.21	92	80-120
Chloroethane	50.00	50.92	102	80-120
Chloroform	50.00	44.19	88	80-120
Chloromethane	50.00	51.24	102	80-120
cis-1,2-Dichloroethene	50.00	46.52	93	80-120
Dibromochloromethane	50.00	47.87	96	80-120
Dichlorodifluoromethane	50.00	51.43	103	80-120
Ethylbenzene	50.00	50.46	101	80-120
Hexachlorobutadiene	50.00	59.59	119	80-120
Isopropylbenzene	50.00	50.27	100	80-120
m,p-Xylenes	100.00	98.28	98	80-120
Methylene Chloride	50.00	47.68	95	80-120
n-Butylbenzene	50.00	51.17	102	80-120
n-Propylbenzene	50.00	47.26	94	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM III VOA

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
Naphthalene	50.00	52.05	104	80-120
o-Xylene	50.00	48.77	98	80-120
sec-Butylbenzene	50.00	47.77	96	80-120
Styrene	50.00	50.71	101	80-120
Vinyl Chloride	50.00	47.03	94	80-120
1,2,3-Trichloropropane	50.00	59.56	119	80-120
p-Isopropyltoluene	50.00	49.53	99	80-120
1,2-Dibromo-3-Chloropro	50.00	51.36	103	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM III VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Lab File ID: X052601 BFB Injection Date: 05/26/21

Instrument ID: VOA6 BFB Injection Time: 1213

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	47.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	1.2 (1.6)1
174	Greater than 50.0% of mass 95	73.7
175	5.0 - 9.0% of mass 174	5.5 (7.5)1
176	95.0 - 101.0% of mass 174	71.7 (97.3)1
177	5.0 - 9.0% of mass 176	5.8 (8.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD000.25	VSTD000.25	X052602	05/26/21	1234
02	VSTD000.5	VSTD000.5	X052603	05/26/21	1255
03	VSTD001	VSTD001	X052604	05/26/21	1337
04	VSTD002	VSTD002	X052605	05/26/21	1358
05	VSTD005	VSTD005	X052606	05/26/21	1419
06	VSTD020	VSTD020	X052607	05/26/21	1440
07	VSTD050	VSTD050	X052608	05/26/21	1501
08	VSTD100	VSTD100	X052609	05/26/21	1522
09	VSTD150	VSTD150	X052610	05/26/21	1543
10	VSTD200	VSTD200	X052611	05/26/21	1604
11	ICV	ICV	X052614	05/26/21	1707
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

LAB FILE ID: RF0.25: X052602 RF0.5: X052603 RF1: X052604
RF2: X052605 RF5: X052606 RF20: X052607

COMPOUND	RF0.25	RF0.5	RF1	RF2	RF5	RF20
cis-1,3-Dichloropropene		0.563	0.482	0.444	0.530	0.514
trans-1,3-Dichloropropene		0.459	0.430	0.391	0.438	0.433
1,3-Dichlorobenzene		1.679	1.474	1.452	1.411	1.338
2,2-Dichloropropane		0.729	0.753	0.719	0.743	0.655
1,1-Dichloropropene		0.430	0.438	0.392	0.370	0.369
Dibromomethane		0.247	0.229	0.195	0.240	0.226
1,2-Dibromoethane		0.438	0.372	0.348	0.382	0.354
trans-1,2-Dichloroethene		0.556	0.483	0.471	0.493	0.442
1,1,1,2-Tetrachloroethane		0.429	0.362	0.340	0.364	0.354
1,1,1-Trichloroethane		0.869	0.768	0.758	0.755	0.696
1,1,2,2-Tetrachloroethane		2582	4348	9638	24326	94744
1,1,2-Trichloroethane		0.288	0.267	0.276	0.308	0.262
1,1-Dichloroethane		0.943	0.782	0.838	0.854	0.788
1,1-Dichloroethene		0.564	0.533	0.567	0.525	0.492
Trichloroethene		0.403	0.316	0.338	0.346	0.338
1,2,3-Trichlorobenzene		0.283	0.329	0.316	0.285	0.294
Trichlorofluoromethane		0.970	0.796	1.036	0.976	0.871
1,2,4-Trichlorobenzene		0.471	0.460	0.455	0.471	0.497
1,2,4-Trimethylbenzene		2.805	2.419	2.374	2.134	2.172
Tetrachloroethene		0.340	0.285	0.310	0.288	0.279
1,2-Dichlorobenzene		1.530	1.282	1.414	1.353	1.296
1,2-Dichloroethane		0.458	0.385	0.386	0.421	0.392
1,2-Dichloropropane		0.341	0.282	0.302	0.315	0.285
1,3,5-Trimethylbenzene		2.808	2.273	2.406	2.134	2.139
1,3-Dichloropropane		0.640	0.561	0.508	0.574	0.527
1,4-Dichlorobenzene		1.766	1.630	1.520	1.456	1.390
Toluene		1.818	1.510	1.502	1.457	1.334
2-Butanone		0.176	0.151	0.149	0.151	0.148
2-Chlorotoluene		2.084	2.024	2.165	1.975	1.822
2-Hexanone		0.202	0.181	0.159	0.197	0.181
4-Chlorotoluene		2.618	2.412	2.415	2.145	2.100
tert-Butylbenzene		2.327	1.957	2.145	1.845	1.855
4-Methyl-2-Pentanone		0.338	0.320	0.271	0.292	0.269
Acetone		5938	6356	9004	15534	45478
Benzene		1.346	1.154	1.195	1.196	1.116
Bromobenzene		0.907	0.845	0.895	0.828	0.820
Bromochloromethane		0.324	0.327	0.293	0.333	0.304
Bromodichloromethane		0.478	0.441	0.440	0.454	0.419
Bromoform		0.270	0.286	0.249	0.247	0.258
Bromomethane		2714	5134	10705	24597	81986
Carbon Disulfide		1.596	1.170	1.322	1.248	1.165
Carbon Tetrachloride		0.452	0.426	0.444	0.402	0.386
Chlorobenzene		1.360	1.043	1.008	1.031	0.964
Chloroethane		1981	3557	6715	15071	58283

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105131

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

LAB FILE ID: RF0.25: X052602 RF0.5: X052603 RF1: X052604
RF2: X052605 RF5: X052606 RF20: X052607

COMPOUND	RF0.25	RF0.5	RF1	RF2	RF5	RF20
Chloroform		1.051	0.854	0.901	0.981	0.851
Chloromethane		2318	4657	9388	23565	83965
cis-1,2-Dichloroethene		0.434	0.571	0.579	0.574	0.536
Dibromochloromethane		0.477	0.388	0.368	0.408	0.398
Dichlorodifluoromethane		2066	3382	8466	18295	78750
Ethylbenzene		0.530	0.453	0.476	0.484	0.469
Hexachlorobutadiene		1178	1684	3790	8556	34297
Isopropylbenzene		1.794	1.329	1.481	1.308	1.350
m,p-Xylenes		0.748	0.576	0.610	0.589	0.586
Methylene Chloride		3718	5537	9737	21744	78742
n-Butylbenzene		2.088	1.860	1.974	1.724	1.817
n-Propylbenzene		3.822	3.401	3.438	2.900	2.957
Naphthalene		0.732	0.741	0.714	0.673	0.734
o-Xylene		0.712	0.592	0.576	0.596	0.571
sec-Butylbenzene		3.355	2.559	2.858	2.427	2.460
Styrene		1.143	0.928	0.885	0.945	0.954
Vinyl Chloride		0.488	0.725	0.692	0.637	0.574
1,2,3-Trichloropropane		0.744	0.649	0.642	0.654	0.633
p-Isopropyltoluene		2.903	2.250	2.461	2.047	2.138
1,2-Dibromo-3-Chloropropane		75	420	630	2323	9854
1,2-Dichloroethane-d4		2577	4768	8542	21575	79438
Dibromofluoromethane		2388	4774	8033	21089	83421
Toluene-d8		1.572	1.496	1.177	1.238	1.162
4-Bromofluorobenzene		3467	6016	10368	25524	97463

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105131

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

LAB FILE ID: RF50: X052608 RF100: X052609 RF150: X052610
RF200: X052611

COMPOUND	RF50	RF100	RF150	RF200
cis-1,3-Dichloropropene	0.503	0.509	0.502	0.512
trans-1,3-Dichloropropene	0.431	0.448	0.444	0.458
1,3-Dichlorobenzene	1.264	1.366	1.320	1.389
2,2-Dichloropropane	0.630	0.646	0.622	0.659
1,1-Dichloropropene	0.341	0.377	0.354	0.374
Dibromomethane	0.213	0.216	0.210	0.213
1,2-Dibromoethane	0.352	0.359	0.349	0.358
trans-1,2-Dichloroethene	0.443	0.444	0.425	0.445
1,1,1,2-Tetrachloroethane	0.352	0.375	0.367	0.384
1,1,1-Trichloroethane	0.673	0.710	0.688	0.733
1,1,2,2-Tetrachloroethane	241138	539471	832157	1217789
1,1,2-Trichloroethane	0.257	0.260	0.256	0.263
1,1-Dichloroethane	0.746	0.727	0.699	0.736
1,1-Dichloroethene	0.466	0.492	0.481	0.515
Trichloroethene	0.332	0.345	0.328	0.343
1,2,3-Trichlorobenzene	0.281	0.298	0.309	0.329
Trichlorofluoromethane	0.817	0.903	0.857	0.896
1,2,4-Trichlorobenzene	0.472	0.524	0.533	0.564
1,2,4-Trimethylbenzene	2.004	2.223	2.158	2.235
Tetrachloroethene	0.268	0.331	0.323	0.345
1,2-Dichlorobenzene	1.250	1.367	1.343	1.372
1,2-Dichloroethane	0.383	0.384	0.380	0.396
1,2-Dichloropropane	0.280	0.283	0.276	0.286
1,3,5-Trimethylbenzene	1.957	2.236	2.185	2.288
1,3-Dichloropropane	0.505	0.513	0.502	0.518
1,4-Dichlorobenzene	1.310	1.404	1.357	1.411
Toluene	1.302	1.393	1.361	1.459
2-Butanone	0.155	0.153	0.140	0.145
2-Chlorotoluene	1.630	1.741	1.680	1.723
2-Hexanone	0.175	0.193	0.186	0.196
4-Chlorotoluene	1.957	2.131	2.093	2.186
tert-Butylbenzene	1.600	1.949	1.866	1.966
4-Methyl-2-Pentanone	0.260	0.279	0.275	0.287
Acetone	109289	231561	361295	519345
Benzene	1.090	1.098	1.059	1.083
Bromobenzene	0.755	0.805	0.796	0.816
Bromochloromethane	0.294	0.284	0.277	0.285
Bromodichloromethane	0.409	0.408	0.406	0.413
Bromoform	0.276	0.304	0.304	0.314
Bromomethane	208957	464431	786302	
Carbon Disulfide	1.136	1.147	1.072	1.137
Carbon Tetrachloride	0.366	0.424	0.405	0.425
Chlorobenzene	0.930	1.002	0.987	1.042
Chloroethane	169882	322237	494207	731139

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105131

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

LAB FILE ID: RF50: X052608 RF100: X052609 RF150: X052610
RF200: X052611

COMPOUND	RF50	RF100	RF150	RF200
Chloroform	0.830	0.818	0.796	0.831
Chloromethane	214824	427715	633860	908675
cis-1,2-Dichloroethene	0.516	0.508	0.488	0.510
Dibromochloromethane	0.401	0.420	0.413	0.431
Dichlorodifluoromethane	189027	442975	654875	978413
Ethylbenzene	0.442	0.494	0.472	0.502
Hexachlorobutadiene	87915	268099	433230	655226
Isopropylbenzene	1.289	1.551	1.510	1.593
m,p-Xylenes	0.565	0.650	0.634	0.674
Methylene Chloride	199728	421178	646121	946394
n-Butylbenzene	1.665	2.125	2.071	2.181
n-Propylbenzene	2.652	3.027	2.828	3.045
Naphthalene	0.682	0.703	0.703	0.749
o-Xylene	0.556	0.621	0.618	0.651
sec-Butylbenzene	2.130	2.640	2.537	2.663
Styrene	0.978	1.102	1.092	1.152
Vinyl Chloride	0.550	0.558	0.537	0.564
1,2,3-Trichloropropane	0.581	0.580	0.556	0.570
p-Isopropyltoluene	1.968	2.363	2.285	2.392
1,2-Dibromo-3-Chloropropane	26546	62281	97075	144783
1,2-Dichloroethane-d4	202707	450261	696836	998694
Dibromofluoromethane	198305	469782	715769	1043408
Toluene-d8	1.035	1.206	1.127	1.195
4-Bromofluorobenzene	243279	606080	931244	1352939

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105131

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

COMPOUND	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
cis-1,3-Dichloropropene	AVRG		0.50650854		6.388	15.000
trans-1,3-Dichloropropene	AVRG		0.43694869		4.647	15.000
1,3-Dichlorobenzene	AVRG		1.41029902		8.507	15.000
2,2-Dichloropropane	AVRG		0.68406039		7.525	15.000
1,1-Dichloropropene	AVRG		0.38294444		8.481	15.000
Dibromomethane	AVRG		0.22118034		7.360	15.000
1,2-Dibromoethane	AVRG		0.36812214		7.741	15.000
trans-1,2-Dichloroethene	AVRG		0.46686379		8.551	15.000
1,1,1,2-Tetrachloroethane	AVRG		0.36976577		6.936	15.000
1,1,1-Trichloroethane	AVRG		0.73890640		8.017	15.000
1,1,2,2-Tetrachloroethane	LINR	-2.39e-002	1.48234879		0.9995765	0.9900000
1,1,2-Trichloroethane	AVRG		0.27085272		6.305	15.000
1,1-Dichloroethane	AVRG		0.79045824		9.700	15.000
1,1-Dichloroethene	AVRG		0.51503132		6.878	15.000
Trichloroethene	AVRG		0.34316996		7.076	15.000
1,2,3-Trichlorobenzene	AVRG		0.30268951		6.244	15.000
Trichlorofluoromethane	AVRG		0.90253943		8.713	15.000
1,2,4-Trichlorobenzene	AVRG		0.49434198		7.710	15.000
1,2,4-Trimethylbenzene	AVRG		2.28052238		10.202	15.000
Tetrachloroethene	AVRG		0.30780299		9.261	15.000
1,2-Dichlorobenzene	AVRG		1.35618432		6.087	15.000
1,2-Dichloroethane	AVRG		0.39838777		6.393	15.000
1,2-Dichloropropane	AVRG		0.29431649		7.228	15.000
1,3,5-Trimethylbenzene	AVRG		2.26957979		10.449	15.000
1,3-Dichloropropane	AVRG		0.53857857		8.492	15.000
1,4-Dichlorobenzene	AVRG		1.47165689		9.862	15.000
Toluene	AVRG		1.45969768		10.489	15.000
2-Butanone	AVRG		0.15212279		6.497	15.000
2-Chlorotoluene	AVRG		1.87147769		10.382	15.000
2-Hexanone	AVRG		0.18573488		7.212	15.000
4-Chlorotoluene	AVRG		2.22871518		9.348	15.000
tert-Butylbenzene	AVRG		1.94574941		10.438	15.000
4-Methyl-2-Pentanone	AVRG		0.28792795		8.880	15.000
Acetone	LINR	-0.1192488	8.29690774		0.9998328	0.9900000
Benzene	AVRG		1.14864603		7.713	15.000
Bromobenzene	AVRG		0.82956540		5.737	15.000
Bromochloromethane	AVRG		0.30233090		6.875	15.000
Bromodichloromethane	AVRG		0.42984419		5.798	15.000
Bromoform	AVRG		0.27881115		8.919	15.000
Bromomethane	LINR	3.056e-003	1.93039335		0.9986047	0.9900000
Carbon Disulfide	AVRG		1.22136627		12.937	15.000
Carbon Tetrachloride	AVRG		0.41448436		6.639	15.000
Chlorobenzene	AVRG		1.04086521		12.054	15.000
Chloroethane	LINR	-2.83e-002	2.93277028		0.9979846	0.9900000

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105131

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

COMPOUND	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
Chloroform	AVRG		0.87928016		9.604	15.000
Chloromethane	LINR	-5.49e-002	2.33480241		0.9978695	0.9900000
cis-1,2-Dichloroethene	AVRG		0.52406781		8.954	15.000
Dibromochloromethane	AVRG		0.41152986		7.456	15.000
Dichlorodifluoromethane	LINR	-4.2e-003	2.18637335		0.9985940	0.9900000
Ethylbenzene	AVRG		0.48019388		5.533	15.000
Hexachlorobutadiene	2ORDR	1.978e-002	3.30529341	-0.4157995	0.9978942	0.9900000
Isopropylbenzene	AVRG		1.46719468		11.350	15.000
m,p-Xylenes	AVRG		0.62598444		9.328	15.000
Methylene Chloride	LINR	-2.66e-002	2.26403519		0.9993950	0.9900000
n-Butylbenzene	AVRG		1.94513549		9.549	15.000
n-Propylbenzene	AVRG		3.11891495		11.698	15.000
Naphthalene	AVRG		0.71451827		3.699	15.000
o-Xylene	AVRG		0.61039840		7.858	15.000
sec-Butylbenzene	AVRG		2.62550633		12.857	15.000
Styrene	AVRG		1.01998348		9.987	15.000
Vinyl Chloride	AVRG		0.59185680		13.042	15.000
1,2,3-Trichloropropane	AVRG		0.62337735		9.428	15.000
p-Isopropyltoluene	AVRG		2.31190973		11.883	15.000
1,2-Dibromo-3-Chloropropane	LINR	1.025e-002	12.4779790		0.9993248	0.9900000
1,2-Dichloroethane-d4	LINR	-1.39e-002	2.12273607		0.9998254	0.9900000
Dibromofluoromethane	LINR	-3.3e-003	2.03856572		0.9993599	0.9900000
Toluene-d8	AVRG		1.24546498		14.000	15.000
4-Bromofluorobenzene	LINR	1.501e-002	2.24316621		0.9989319	0.9900000

FORM VI VOA

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052601.D

Date : 26-MAY-2021 12:13

Client ID: BFB

Instrument: voa6.i

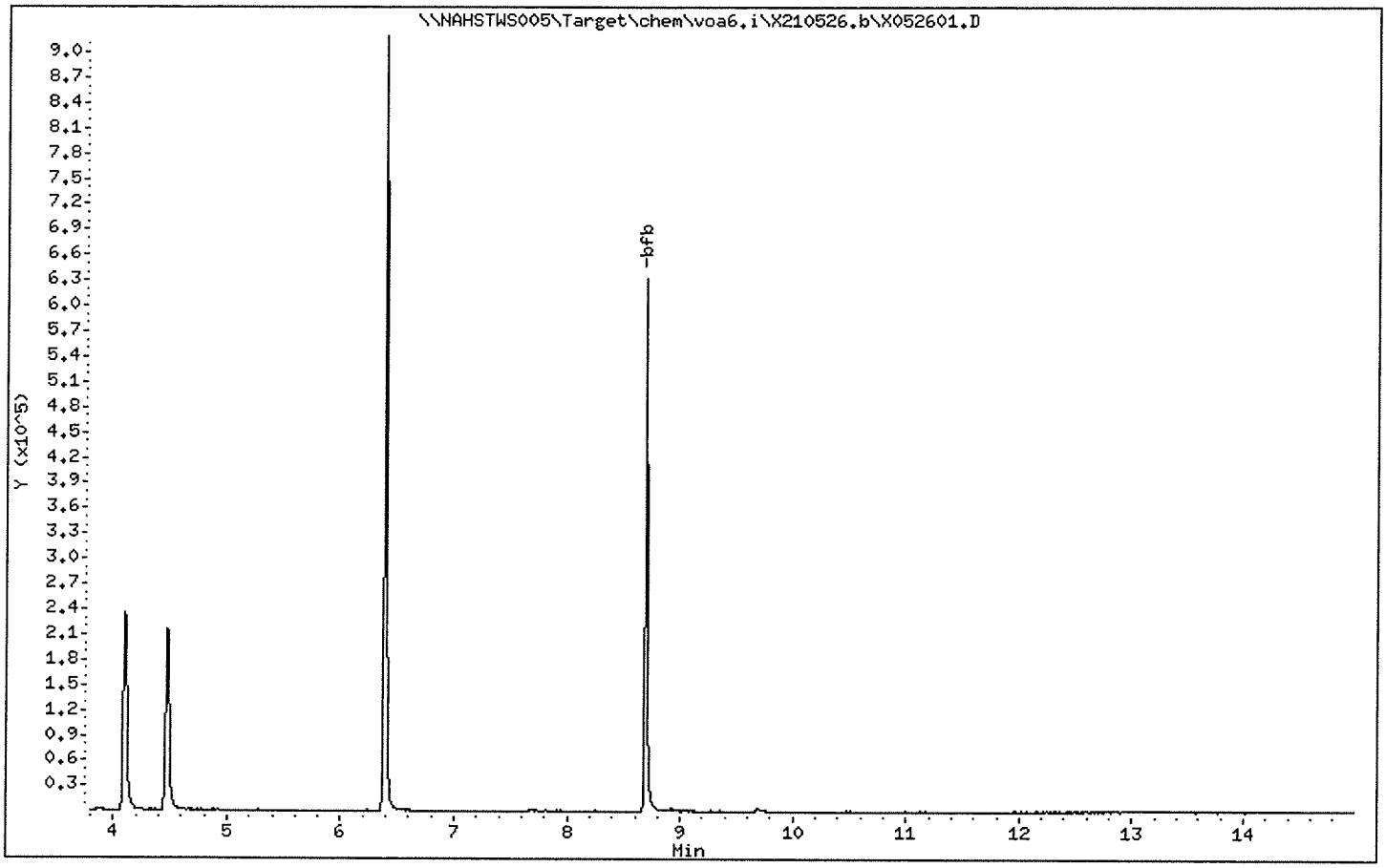
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052601.D

Date : 26-MAY-2021 12:13

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

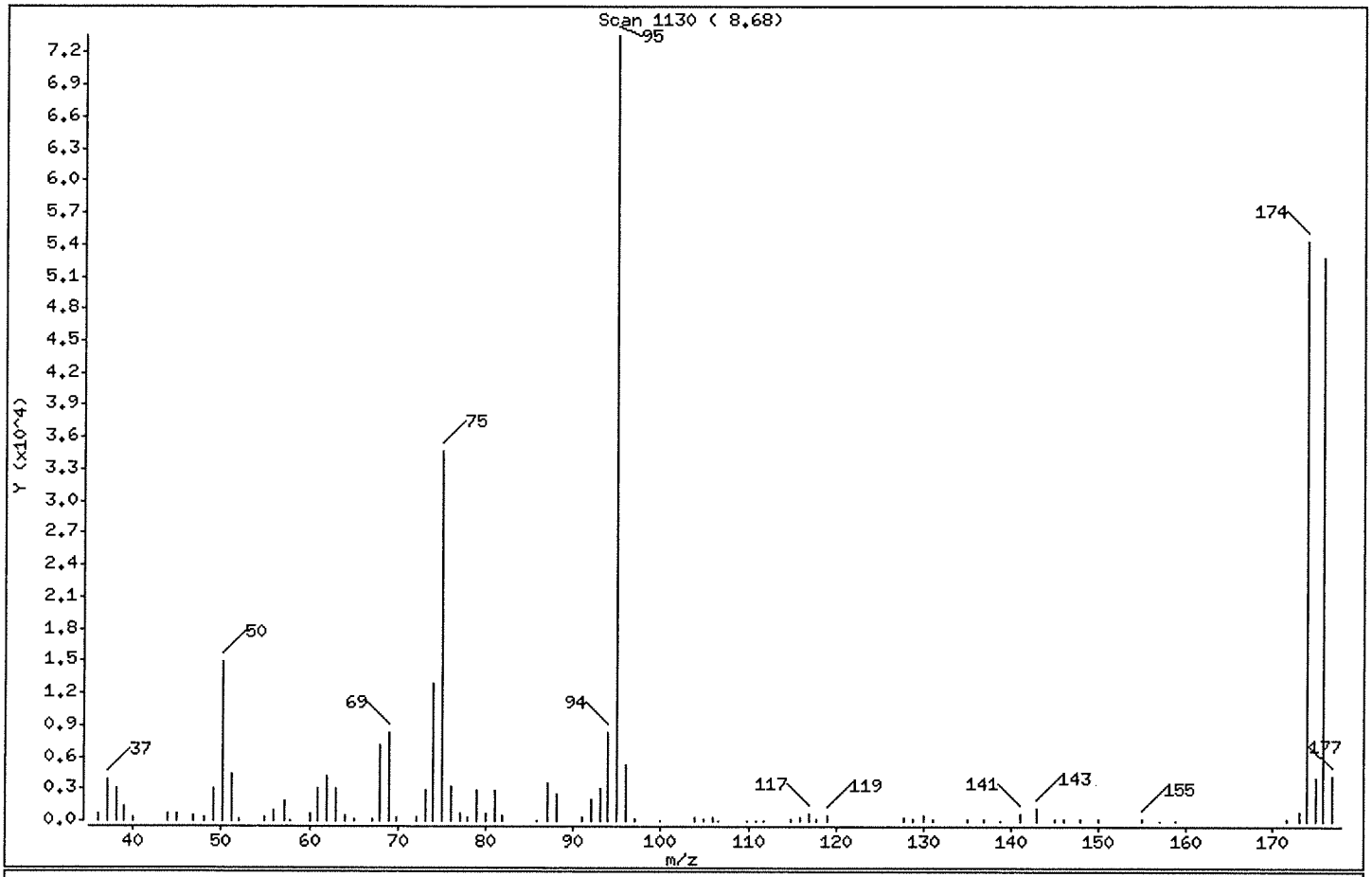
Volume Injected (uL): 2.0

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	20.27
75	30.00 - 60.00% of mass 95	47.11
96	5.00 - 9.00% of mass 95	7.09
173	Less than 2.00% of mass 174	1.21 (1.65)
174	Greater than 50.00% of mass 95	73.71
175	5.00 - 9.00% of mass 174	5.53 (7.50)
176	95.00 - 101.00% of mass 174	71.72 (97.30)
177	5.00 - 9.00% of mass 176	5.80 (8.08)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052601.D

Date : 26-MAY-2021 12:13

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: X052601.D
Spectrum: Scan 1130 (8.68)
Location of Maximum: 95.00
Number of points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	701	64.00	450	92.00	1948	129.90	446
37.10	3860	65.10	94	93.00	3086	131.00	138
38.10	2991	67.10	200	94.00	8371	134.90	242
39.00	1380	68.00	7129	95.00	73600	136.80	249
40.00	299	69.00	8375	96.00	5216	138.80	68
44.00	654	69.90	378	97.00	210	141.00	700
45.00	741	72.10	268	99.90	64	142.90	1171
46.90	575	73.10	2836	103.90	279	144.90	108
48.00	378	74.00	12821	104.90	92	145.90	193
49.00	3035	75.00	34672	106.00	316	147.90	184
50.10	14921	76.00	3178	106.60	79	149.80	96
51.10	4354	77.00	694	109.80	50	154.80	188
52.00	245	78.00	394	111.00	55	157.00	80
54.90	255	78.90	2868	111.80	65	158.80	78
56.00	937	80.00	698	114.90	144	171.70	159
57.10	1853	81.00	2937	115.90	277	173.10	893
57.90	83	81.90	478	117.00	604	173.90	54248
60.00	725	85.90	55	117.80	207	175.00	4070
61.00	3025	87.00	3593	119.00	429	175.90	52784
62.00	4311	88.00	2599	127.80	262	176.90	4266
63.00	3050	90.90	275	128.70	107		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052602.D Page 1
Report Date: 30-Jun-2021 18:30

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052602.D
Lab Smp Id: VSTD000.25 Client Smp ID: VSTD000.25
Inj Date : 26-MAY-2021 12:34
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.25;VSTD000.25;1;1;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 16:04 Cal File: X052611.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	426285	50.0000	
*	36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	674139	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	610874	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	290894	50.0000	
$	30 Dibromofluoromethane	113	4.110	4.110	(0.983)	1296	0.25000	0.14(a)
$	35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	1637	0.25000	(Ta)
$	48 Toluene-d8	98	6.395	6.395	(0.834)	5966	0.25000	0.39(Ta)
$	69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	3329	0.25000	1.36(a)
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	990	0.25000	0.21(a)
	31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	1336	0.25000	0.21(a)
	68 1,1,2,2-Tetrachloroethane	83	8.845	8.845	(0.915)	1214	0.25000	(aM)
	53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	753	0.25000	0.22(a)
	22 1,1-Dichloroethane	63	2.929	2.929	(0.700)	2164	0.25000	0.32(Ta)
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	1029	0.25000	0.23(aM)
	32 1,1-Dichloropropene	75	4.290	4.290	(0.863)	1659	0.25000	0.32(a)
	93 1,2,3-Trichlorobenzene	180	11.768	11.768	(1.218)	157	0.25000	0.08(aM)
	71 1,2,3-Trichloropropane	75	8.874	8.874	(0.918)	805	0.25000	0.22(a)
	90 1,2,4-Trichlorobenzene	180	11.381	11.381	(1.178)	419	0.25000	0.14(aM)
	79 1,2,4-Trimethylbenzene	105	9.390	9.390	(0.972)	3370	0.25000	0.25(a)
	57 1,2-Dibromoethane	107	7.269	7.269	(0.948)	996	0.25000	0.22(a)
	88 1,2-Dichlorobenzene	146	9.998	9.998	(1.035)	1981	0.25000	0.25(a)
	33 1,2-Dichloroethane	62	4.562	4.562	(0.918)	1320	0.25000	0.24(a)

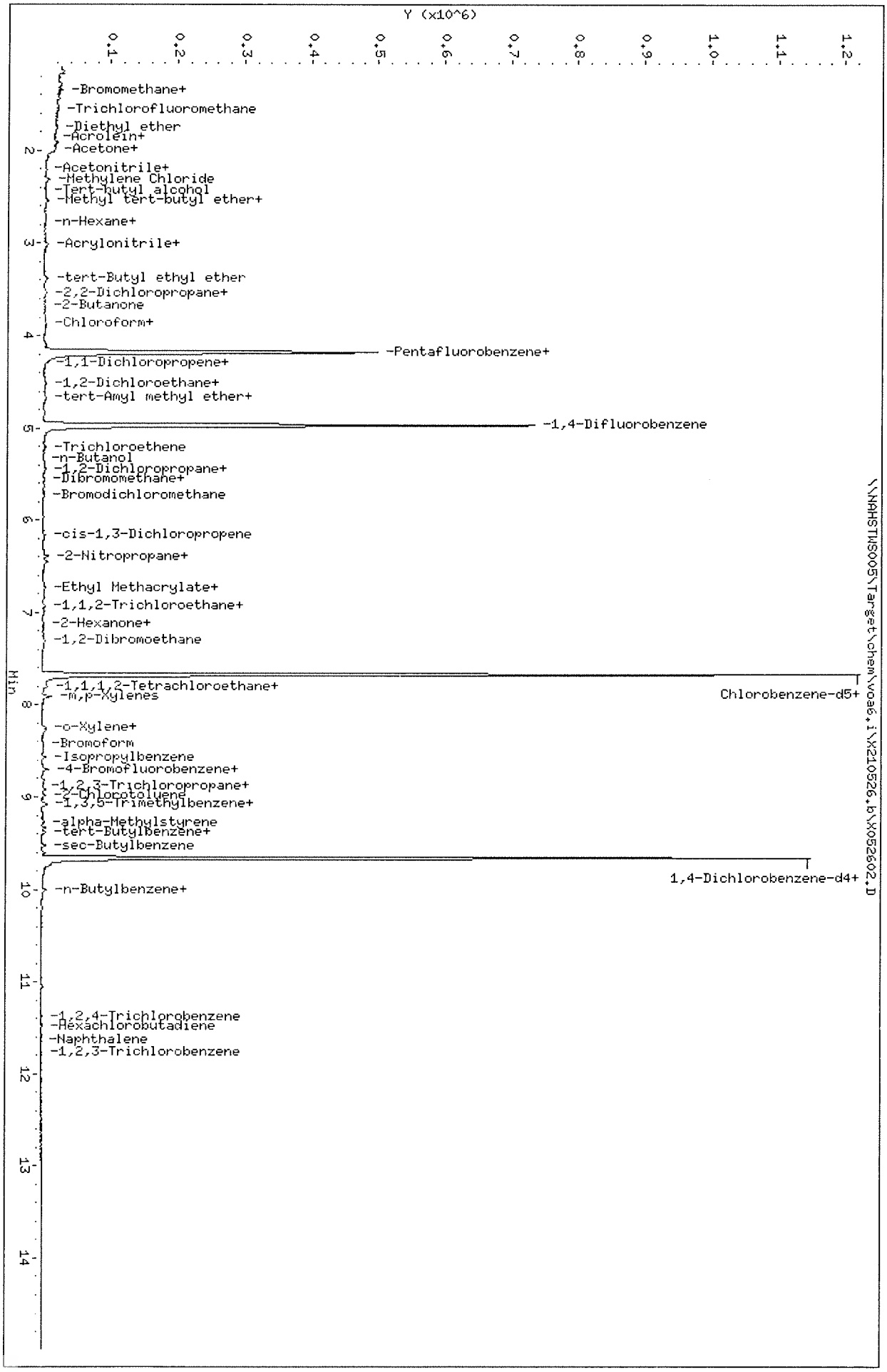
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
42	1,2-Dichloropropane	63	5.436	5.436	(1.094)	942	0.25000	0.23(aM)
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	3546	0.25000	0.26(a)
83	1,3-Dichlorobenzene	146	9.612	9.612	(0.995)	2271	0.25000	0.27(a)
54	1,3-Dichloropropane	76	6.990	6.990	(0.911)	1601	0.25000	0.24(a)
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	2474	0.25000	0.28(a)
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	1764	0.25000	0.30(aM)
24	2-Butanone	43	3.638	3.638	(0.870)	822	0.50000	0.63(aM)
76	2-Chlorotoluene	91	8.981	8.981	(0.930)	3256	0.25000	0.29(a)
52	2-Hexanone	43	7.119	7.119	(0.928)	1338	0.50000	0.58(a)
77	4-Chlorotoluene	91	9.082	9.082	(0.940)	3012	0.25000	0.23(a)
82	p-Isopropyltoluene	119	9.655	9.655	(0.999)	3422	0.25000	0.25(a)
45	4-Methyl-2-Pentanone	43	6.345	6.345	(0.827)	1681	0.50000	0.47(aM)
10	Acetone	43	1.983	1.983	(0.474)	4618	0.50000	(a)
37	Benzene	78	4.519	4.519	(0.909)	4046	0.25000	0.26(a)
74	Bromobenzene	156	8.817	8.817	(0.913)	1145	0.25000	0.23(a)
29	Bromochloromethane	128	3.802	3.802	(0.909)	767	0.25000	0.29(a)
39	Bromodichloromethane	83	5.736	5.736	(1.154)	1481	0.25000	0.25(aM)
66	Bromoform	173	8.415	8.415	(1.097)	607	0.25000	0.17(aM)
6	Bromomethane	94	1.345	1.345	(0.322)	1260	0.25000	0.43(aM)
19	Carbon Disulfide	76	2.069	2.069	(0.495)	5419	0.50000	0.52(a)
34	Carbon Tetrachloride	117	4.268	4.268	(0.859)	1221	0.25000	0.21(aM)
59	Chlorobenzene	112	7.692	7.692	(1.003)	3251	0.25000	0.25(a)
7	Chloroethane	64	1.403	1.403	(0.336)	1049	0.25000	(aM)
28	Chloroform	83	3.910	3.910	(0.935)	1985	0.25000	0.26(a)
3	Chloromethane	50	1.080	1.080	(0.258)	1611	0.25000	(aM)
27	cis-1,2-Dichloroethene	96	3.545	3.545	(0.848)	1299	0.25000	0.29(aM)
46	cis-1,3-Dichloropropene	75	6.166	6.166	(1.241)	1589	0.25000	0.23(a)
55	Dibromochloromethane	129	7.183	7.183	(0.937)	1077	0.25000	0.21(a)
44	Dibromomethane	93	5.557	5.557	(1.118)	652	0.25000	0.21(a)
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	693	0.25000	(aM)
61	Ethylbenzene	106	7.807	7.807	(1.018)	1393	0.25000	0.23(a)
91	Hexachlorobutadiene	225	11.488	11.488	(1.189)	410	0.25000	1.22(aM)
67	Isopropylbenzene	105	8.566	8.566	(1.117)	3777	0.25000	0.21(a)
62	m,p-Xylenes	106	7.907	7.907	(1.031)	4222	0.50000	0.55(a)
17	Methylene Chloride	84	2.305	2.305	(0.551)	2986	0.25000	(aM)
87	n-Butylbenzene	91	10.006	10.006	(1.036)	1824	0.25000	0.16(a)
73	n-Propylbenzene	91	8.917	8.917	(0.923)	4411	0.25000	0.24(a)
92	Naphthalene	128	11.632	11.632	(1.204)	659	0.25000	0.15(a)
63	o-Xylene	106	8.258	8.258	(1.077)	1806	0.25000	0.24(a)
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	3696	0.25000	0.24(a)
64	Styrene	104	8.272	8.272	(1.078)	1997	0.25000	0.16(a)
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	2503	0.25000	0.22(a)
56	Tetrachloroethene	164	6.933	6.933	(0.904)	834	0.25000	0.22(a)
50	Toluene	91	6.453	6.453	(0.841)	5337	0.25000	0.29(aM)
20	trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	1028	0.25000	0.25(a)
51	trans-1,3-Dichloropropene	75	6.696	6.696	(1.347)	1582	0.25000	0.26(a)
38	Trichloroethene	130	5.214	5.214	(1.049)	1200	0.25000	0.25(aM)
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	1786	0.25000	0.23(a)
5	Vinyl Chloride	62	1.138	1.138	(0.272)	1365	0.25000	0.27(aM)

QC Flag Legend

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

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052602.D
Date : 26-MAY-2021 12:34
Client ID: VSTD000.25
Sample Info: VSTD000.25;VSTD000.25;1;1;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052603.D
Lab Smp Id: VSTD000.5 Client Smp ID: VSTD000.5
Inj Date : 26-MAY-2021 12:55
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.5;VSTD000.5;1;2;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 12:34 Cal File: X052602.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

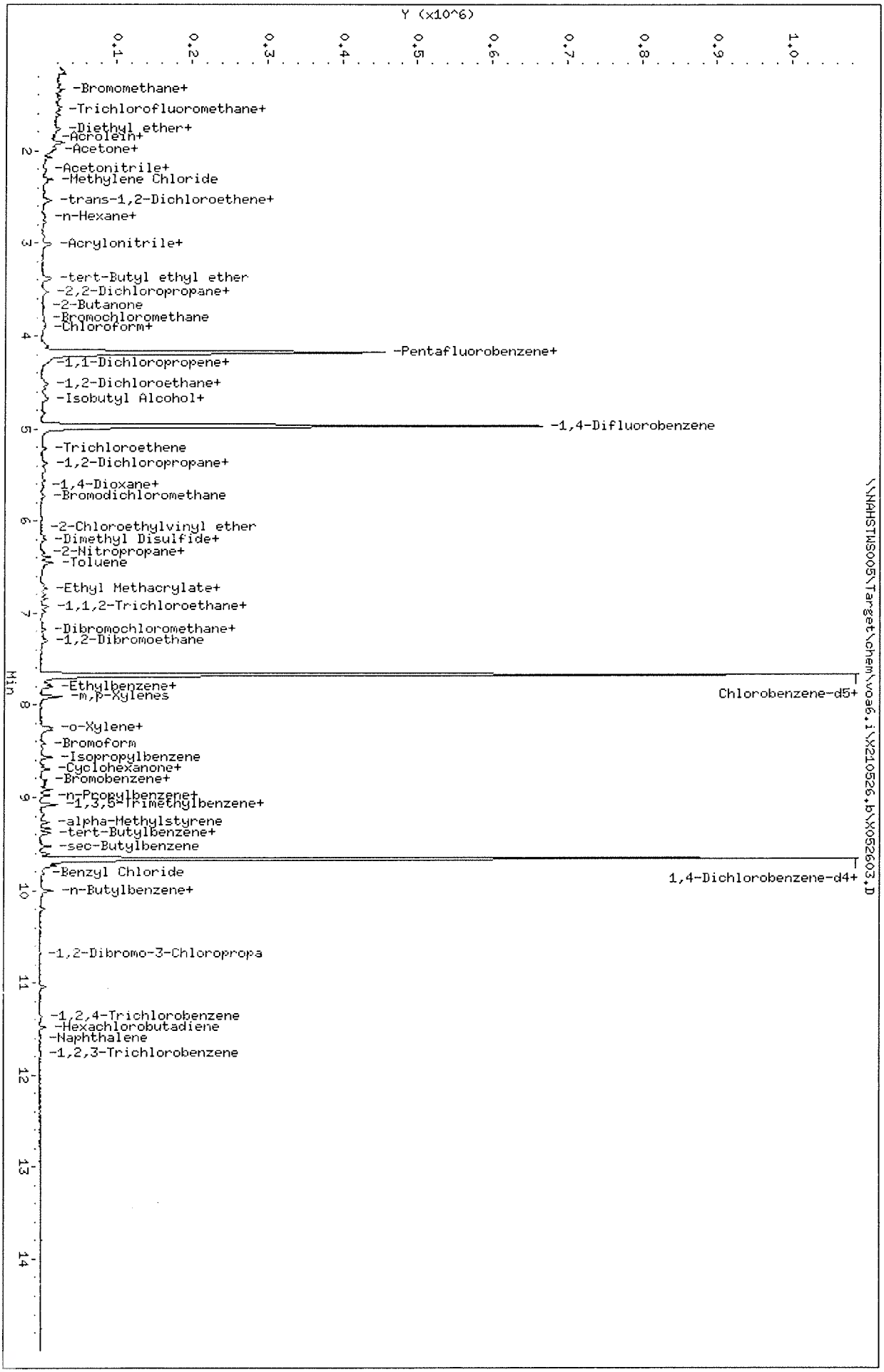
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	388108	50.0000	
*	36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	614574	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	542822	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	263849	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	2388	0.50000	0.46(a)
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	2577	0.50000	0.01(Ta)
$	48 Toluene-d8	98	6.395	6.395	(0.834)	8531	0.50000	0.63(a)
$	69 4-Bromofluorobenzene	95	8.702	8.702	(1.134)	3467	0.50000	1.46(aM)
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	2329	0.50000	0.58(aM)
	31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	3372	0.50000	0.58(a)
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	2582	0.50000	(aM)
	53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	1564	0.50000	0.53(a)
	22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	3660	0.50000	0.59(TaM)
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	2187	0.50000	0.54(aM)
	32 1,1-Dichloropropene	75	4.289	4.289	(0.863)	2646	0.50000	0.56(aM)
	93 1,2,3-Trichlorobenzene	180	11.761	11.761	(1.217)	747	0.50000	0.46(aM)
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	1963	0.50000	0.59(aM)
	90 1,2,4-Trichlorobenzene	180	11.374	11.374	(1.177)	1242	0.50000	0.47(aM)
	79 1,2,4-Trimethylbenzene	105	9.382	9.382	(0.971)	7401	0.50000	0.61(aM)
	89 1,2-Dibromo-3-Chloropropane	155	10.686	10.686	(1.106)	75	0.50000	0.68(aM)
	57 1,2-Dibromoethane	107	7.269	7.269	(0.948)	2378	0.50000	0.59(a)
	88 1,2-Dichlorobenzene	146	10.006	10.006	(1.036)	4037	0.50000	0.56(aM)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.562	4.562	(0.918)	2812	0.50000	0.57(a)
42	1,2-Dichloropropane	63	5.436	5.436	(1.094)	2095	0.50000	0.57(aM)
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	7408	0.50000	0.61(a)
83	1,3-Dichlorobenzene	146	9.612	9.612	(0.995)	4429	0.50000	0.59(a)
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	3475	0.50000	0.59(a)
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	4661	0.50000	0.60(aM)
26	2,2-Dichloropropane	77	3.516	3.516	(0.841)	2828	0.50000	0.53(aM)
24	2-Butanone	43	3.623	3.623	(0.866)	1364	1.00000	1.15(aH)
76	2-Chlorotoluene	91	8.981	8.981	(0.930)	5500	0.50000	0.55(aM)
52	2-Hexanone	43	7.105	7.105	(0.926)	2198	1.00000	1.09(aM)
77	4-Chlorotoluene	91	9.074	9.074	(0.939)	6909	0.50000	0.58(aM)
82	p-Isopropyltoluene	119	9.655	9.655	(0.999)	7659	0.50000	0.62(a)
45	4-Methyl-2-Pentanone	43	6.338	6.338	(0.826)	3675	1.00000	1.17(a)
10	Acetone	43	1.983	1.983	(0.474)	5938	1.00000	0.38(a)
37	Benzene	78	4.519	4.519	(0.909)	8273	0.50000	0.58(aM)
74	Bromobenzene	156	8.817	8.817	(0.913)	2394	0.50000	0.54(a)
29	Bromochloromethane	128	3.810	3.810	(0.911)	1259	0.50000	0.53(a)
39	Bromodichloromethane	83	5.729	5.729	(1.153)	2938	0.50000	0.55(aM)
66	Bromoform	173	8.415	8.415	(1.097)	1467	0.50000	0.48(aM)
6	Bromomethane	94	1.338	1.338	(0.320)	2714	0.50000	0.82(aM)
19	Carbon Disulfide	76	2.069	2.069	(0.495)	12392	1.00000	1.30(a)
34	Carbon Tetrachloride	117	4.261	4.261	(0.857)	2781	0.50000	0.54(aH)
59	Chlorobenzene	112	7.699	7.699	(1.004)	7385	0.50000	0.65(a)
7	Chloroethane	64	1.410	1.410	(0.337)	1981	0.50000	(aM)
28	Chloroform	83	3.910	3.910	(0.935)	4079	0.50000	0.59(a)
3	Chloromethane	50	1.080	1.080	(0.258)	2318	0.50000	(aM)
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	1686	0.50000	0.41(aM)
46	cis-1,3-Dichloropropene	75	6.159	6.159	(1.239)	3459	0.50000	0.55(aM)
55	Dibromochloromethane	129	7.176	7.176	(0.936)	2590	0.50000	0.57(a)
44	Dibromomethane	93	5.565	5.565	(1.120)	1521	0.50000	0.55(aM)
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	2066	0.50000	0.37(aM)
61	Ethylbenzene	106	7.807	7.807	(1.018)	2880	0.50000	0.55(a)
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	1178	0.50000	1.72(aM)
67	Isopropylbenzene	105	8.566	8.566	(1.117)	9741	0.50000	0.61(aM)
62	m,p-Xylenes	106	7.907	7.907	(1.031)	8123	1.00000	1.19(a)
17	Methylene Chloride	84	2.305	2.305	(0.551)	3718	0.50000	(a)
87	n-Butylbenzene	91	9.998	9.998	(1.035)	5510	0.50000	0.53(aM)
73	n-Propylbenzene	91	8.917	8.917	(0.923)	10083	0.50000	0.61(aM)
92	Naphthalene	128	11.603	11.603	(1.201)	1931	0.50000	0.51(a)
63	o-Xylene	106	8.243	8.243	(1.075)	3864	0.50000	0.58(a)
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	8852	0.50000	0.63(aM)
64	Styrene	104	8.272	8.272	(1.078)	6206	0.50000	0.56(a)
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	6141	0.50000	0.59(aM)
56	Tetrachloroethene	164	6.933	6.933	(0.904)	1845	0.50000	0.55(aM)
50	Toluene	91	6.453	6.453	(0.841)	9870	0.50000	0.62(aM)
20	trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	2156	0.50000	0.59(a)
51	trans-1,3-Dichloropropene	75	6.696	6.696	(1.347)	2821	0.50000	0.52(a)
38	Trichloroethene	130	5.206	5.206	(1.048)	2475	0.50000	0.58(a)
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	3764	0.50000	0.53(a)
5	Vinyl Chloride	62	1.138	1.138	(0.272)	1895	0.50000	0.41(aM)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



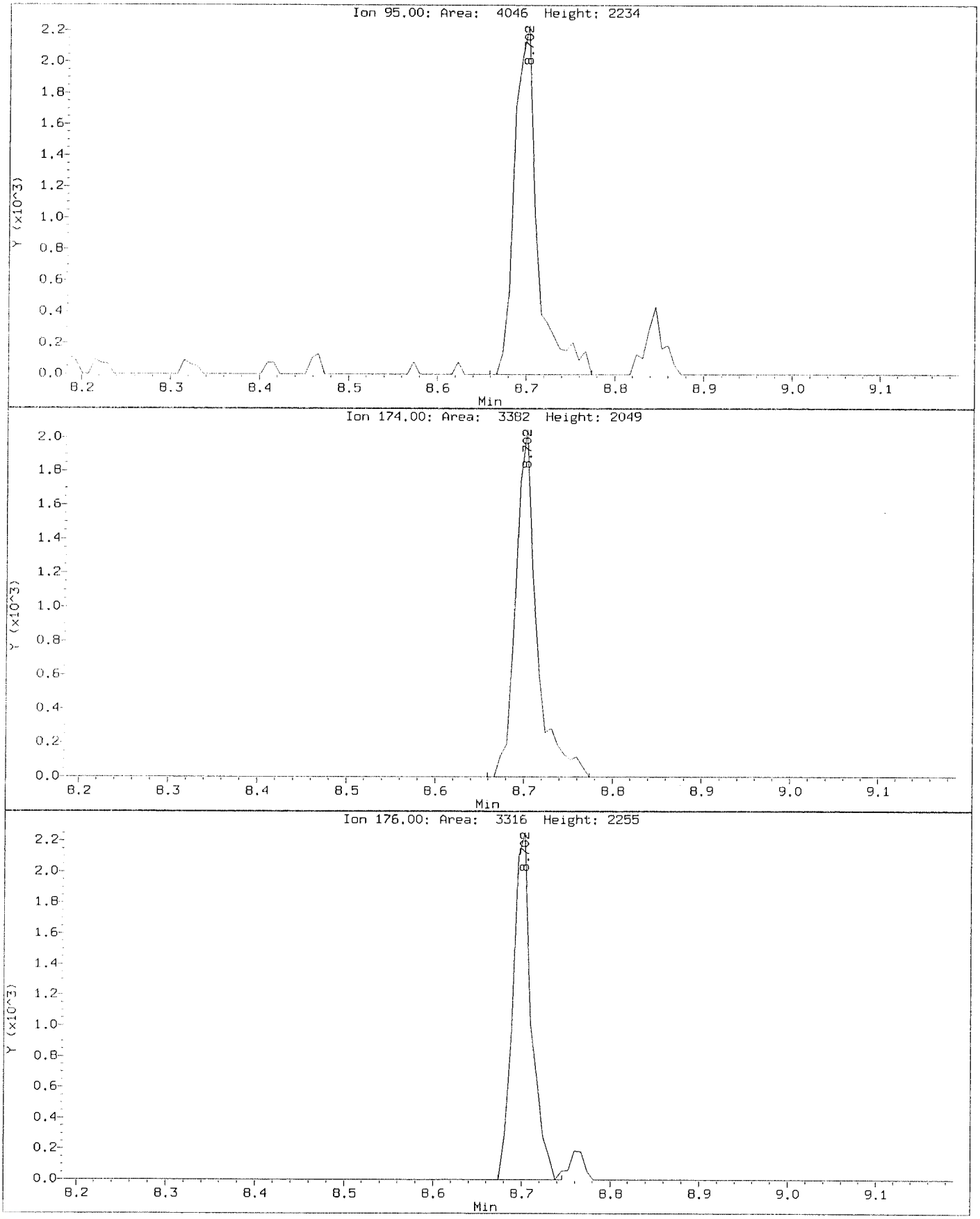
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Sample Info: VSTD000.5;VSTD000.5;1;2;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

\\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052603.D

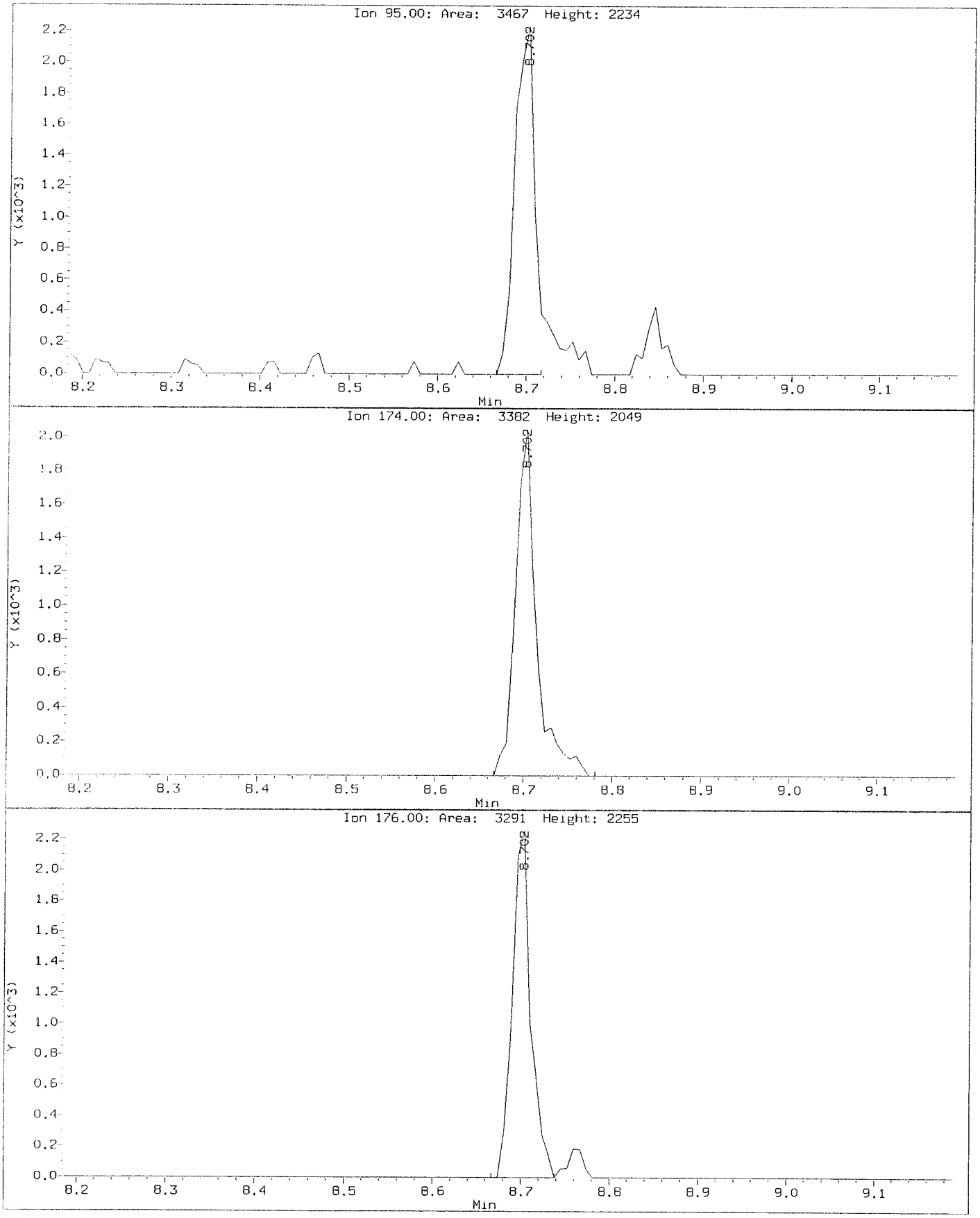
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Client Sample ID: VSTD000.5

Compound: 4-Bromofluorobenzene
CAS Number: 460-00-4



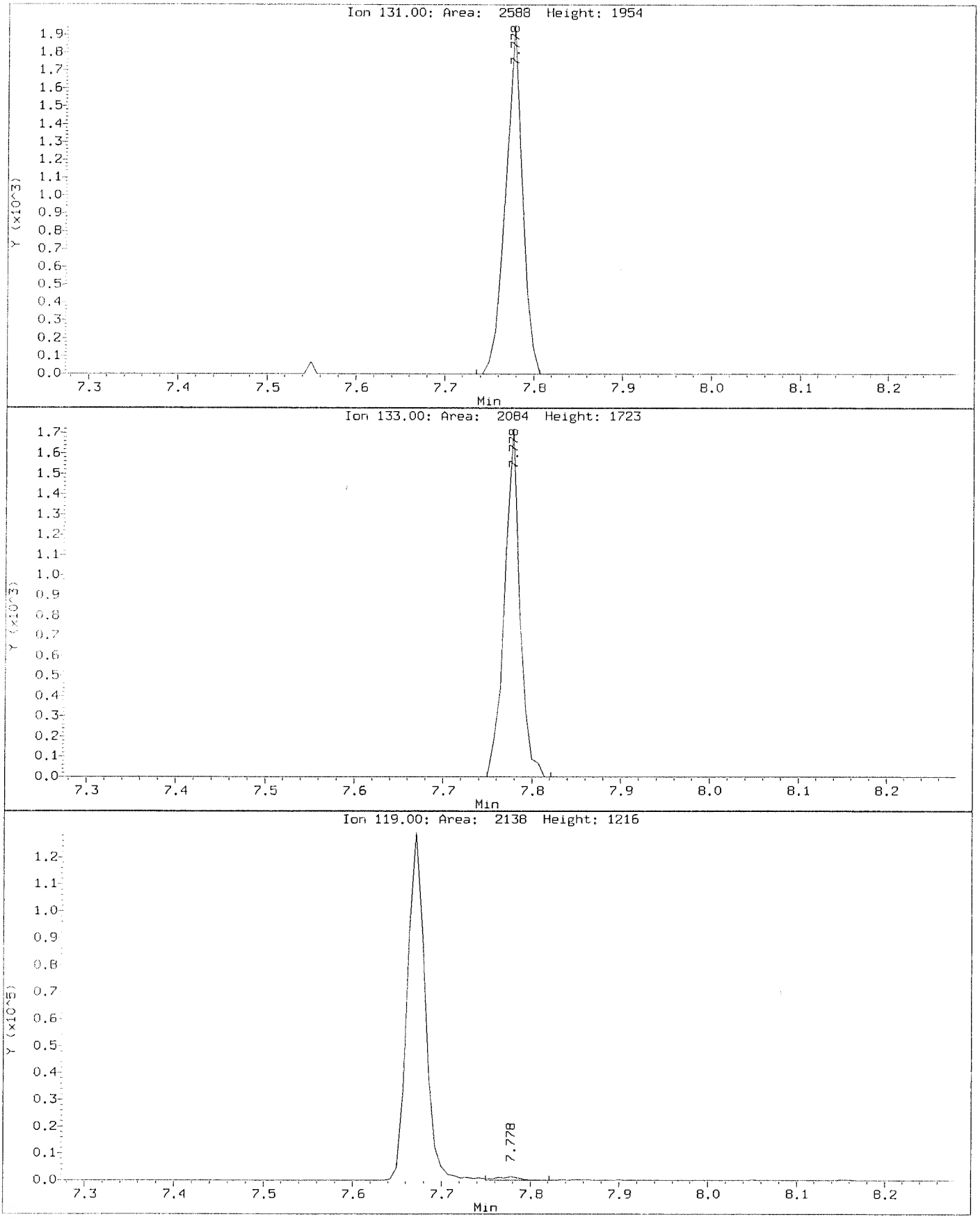
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Client Sample ID: VSTD000.5

Compound: 4-Bromofluorobenzene
CAS Number: 460-00-4



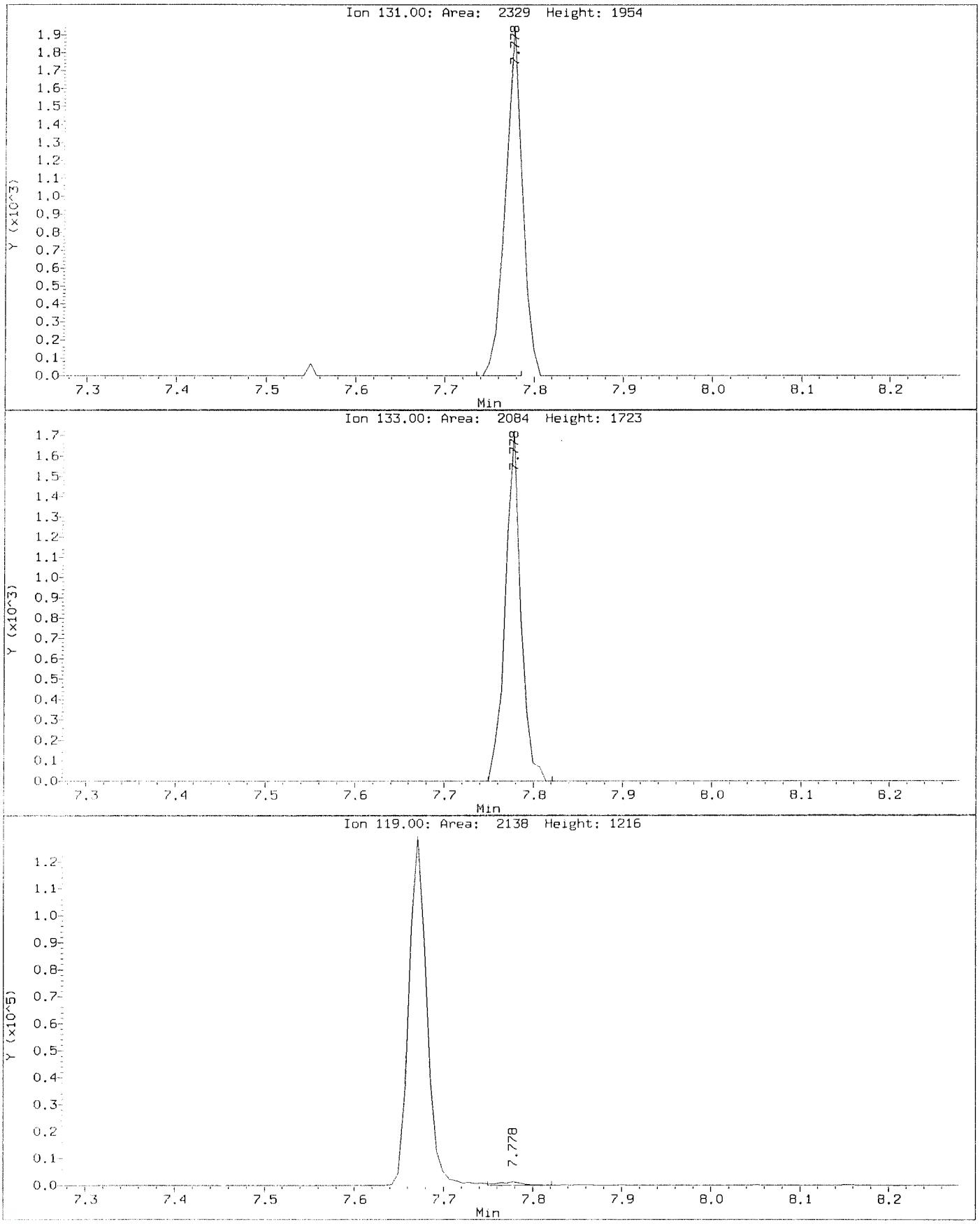
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1,1,2-Tetrachloroethane
CAS Number: 630-20-6



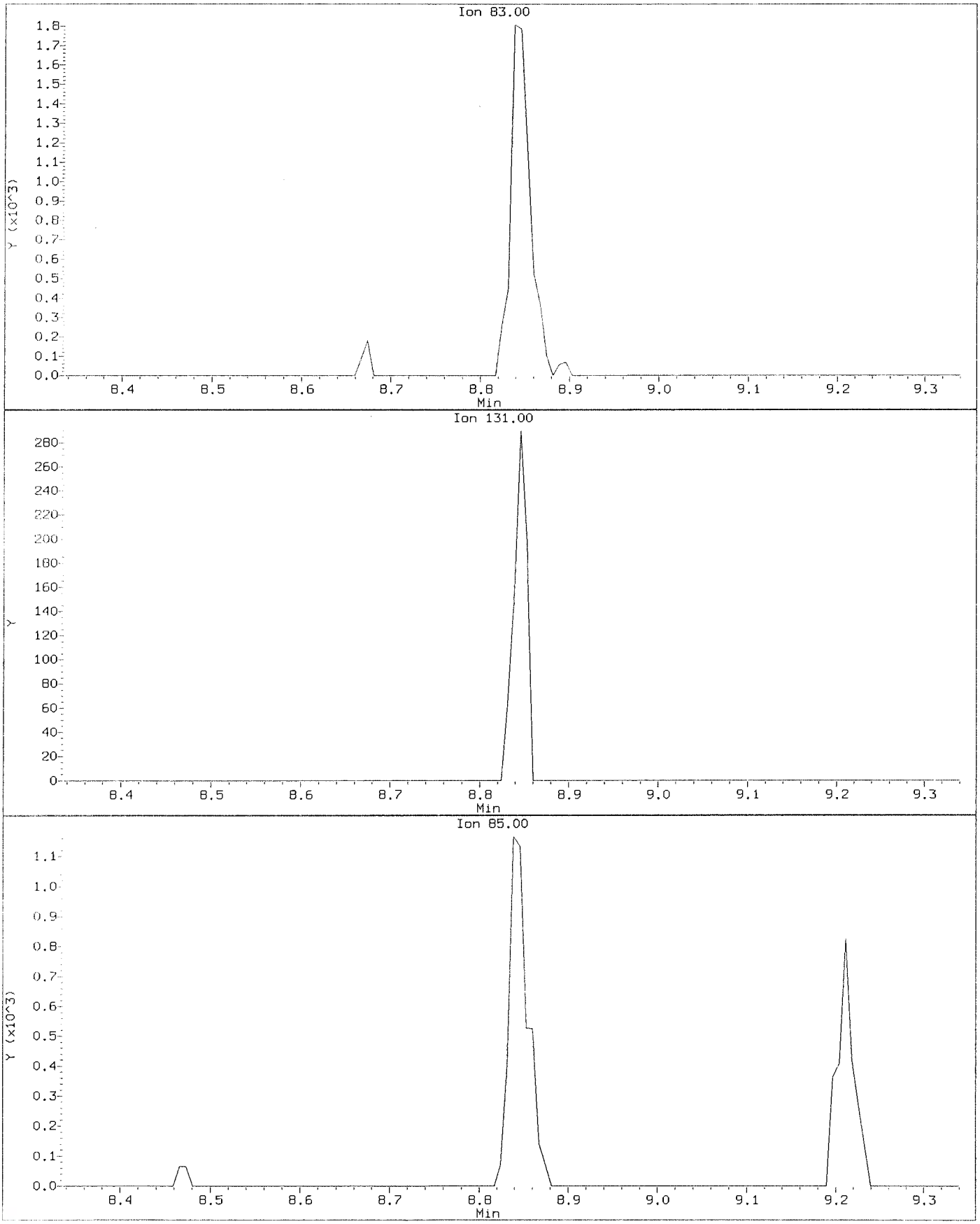
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1,1,2-Tetrachloroethane
CAS Number: 630-20-6



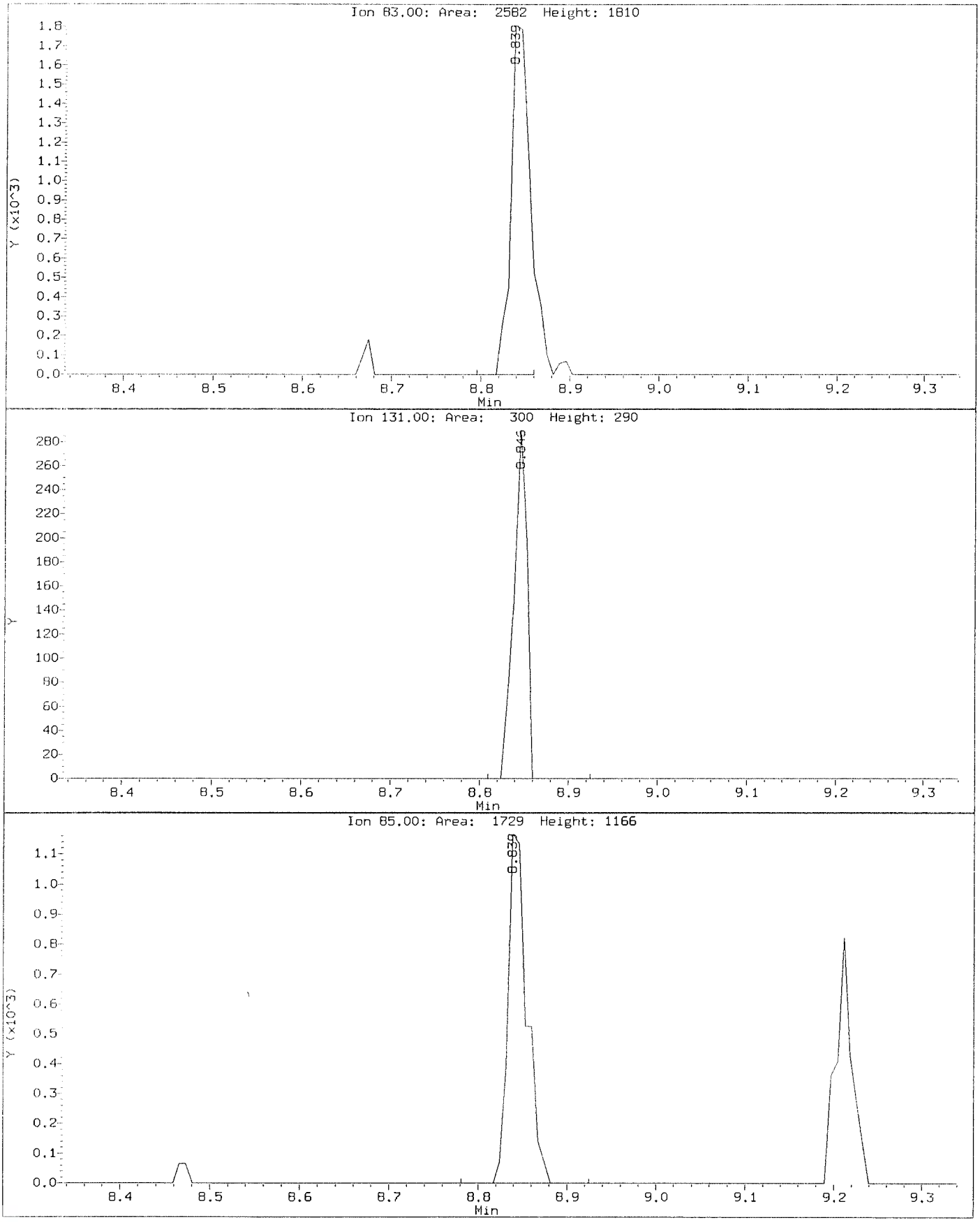
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



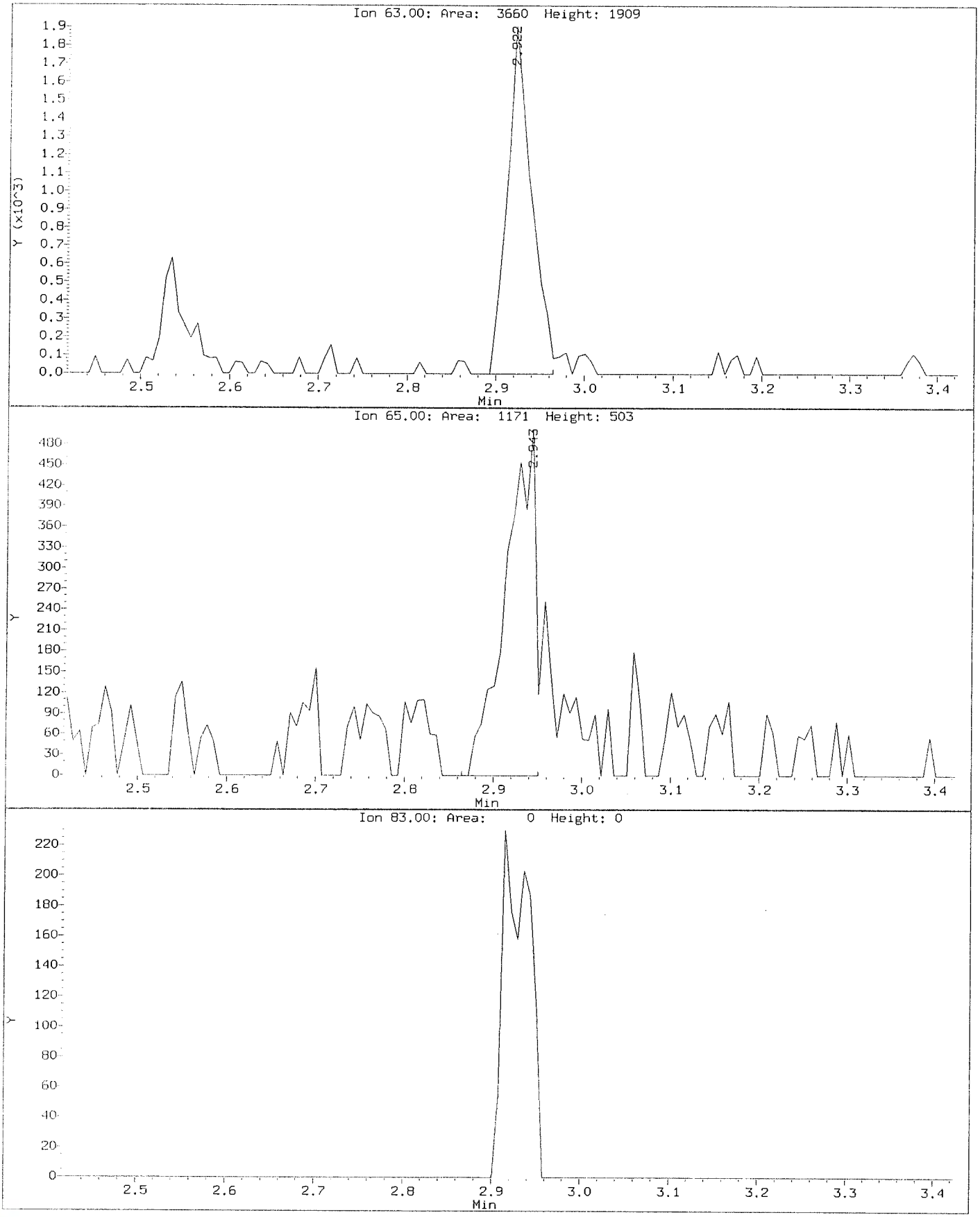
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Client Sample ID: VSTD000.5

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



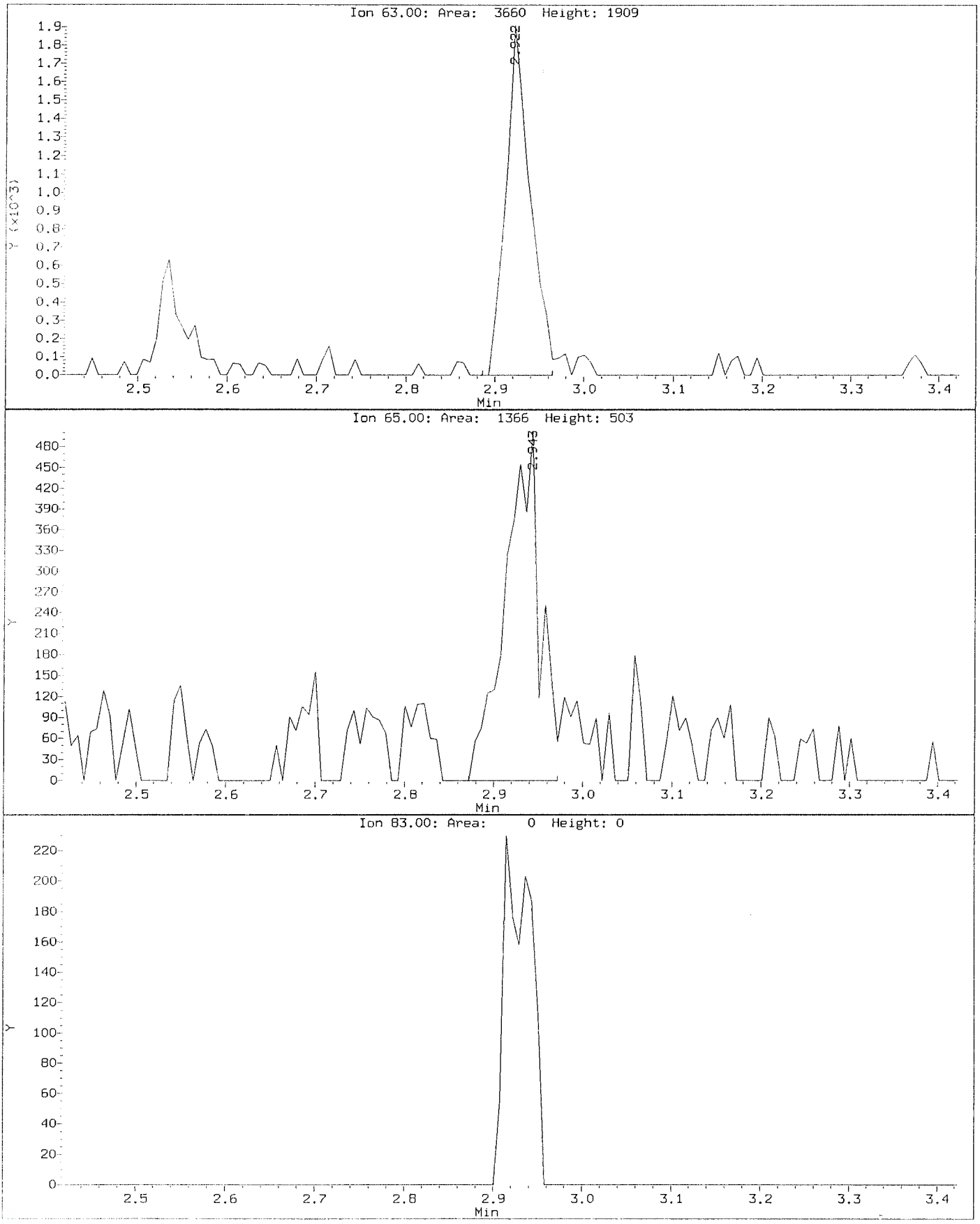
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Client Sample ID: VSTD000.5

Compound: 1,1-Dichloroethane
CAS Number: 75-34-3



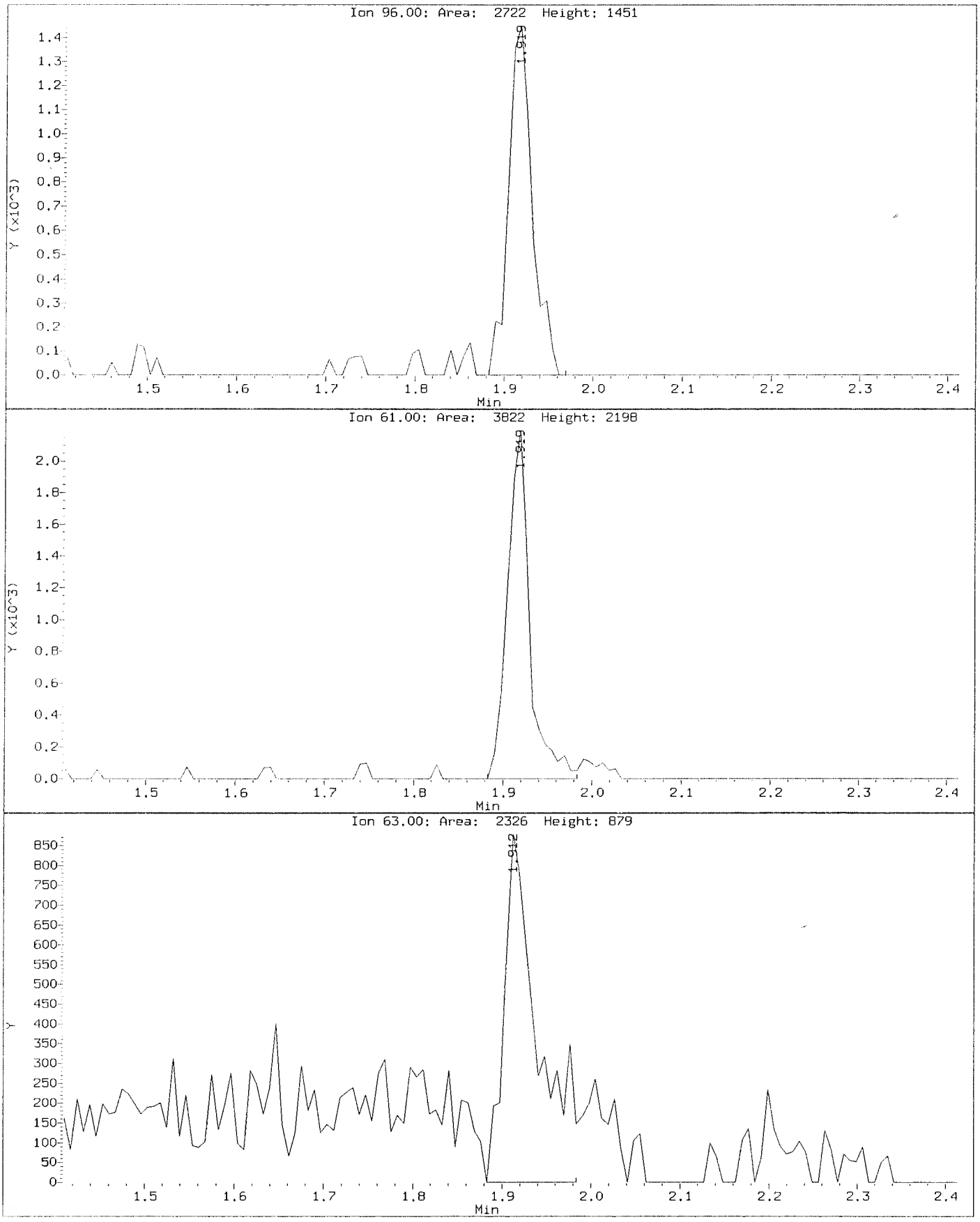
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Compound: 1,1-Dichloroethane
CAS Number: 75-34-3



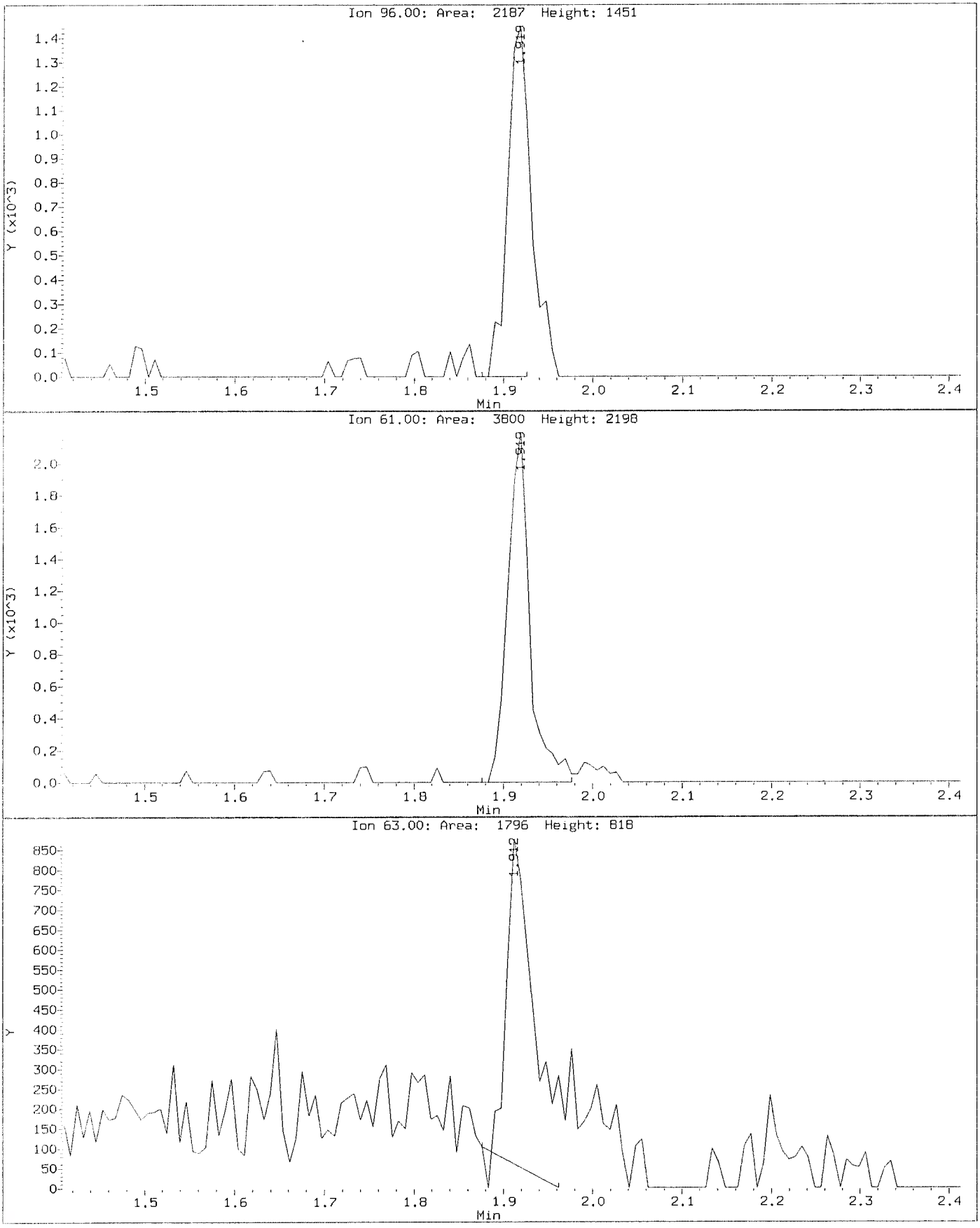
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1-Dichloroethene
CAS Number: 75-35-4



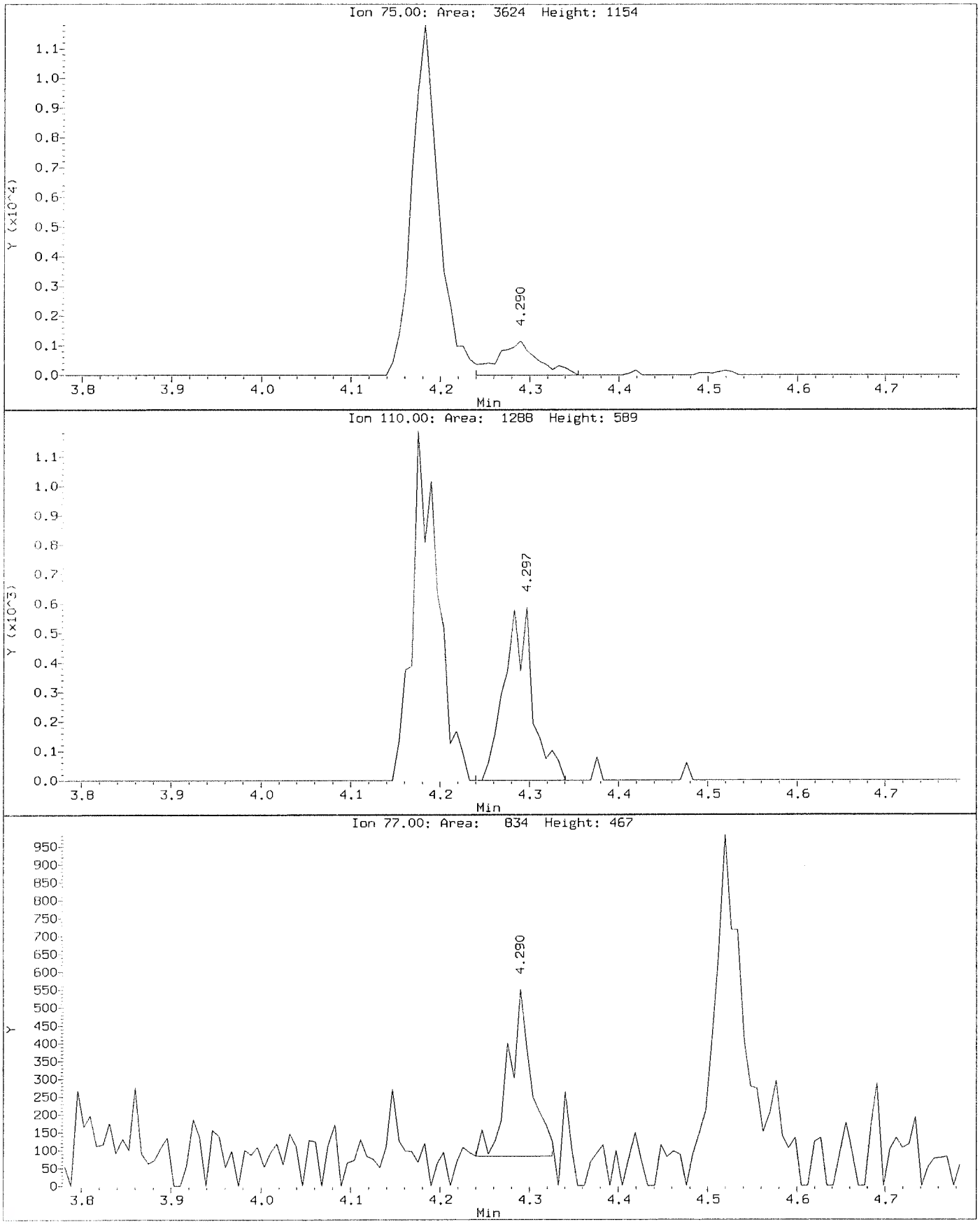
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Compound: 1,1-Dichloroethene
CAS Number: 75-35-4



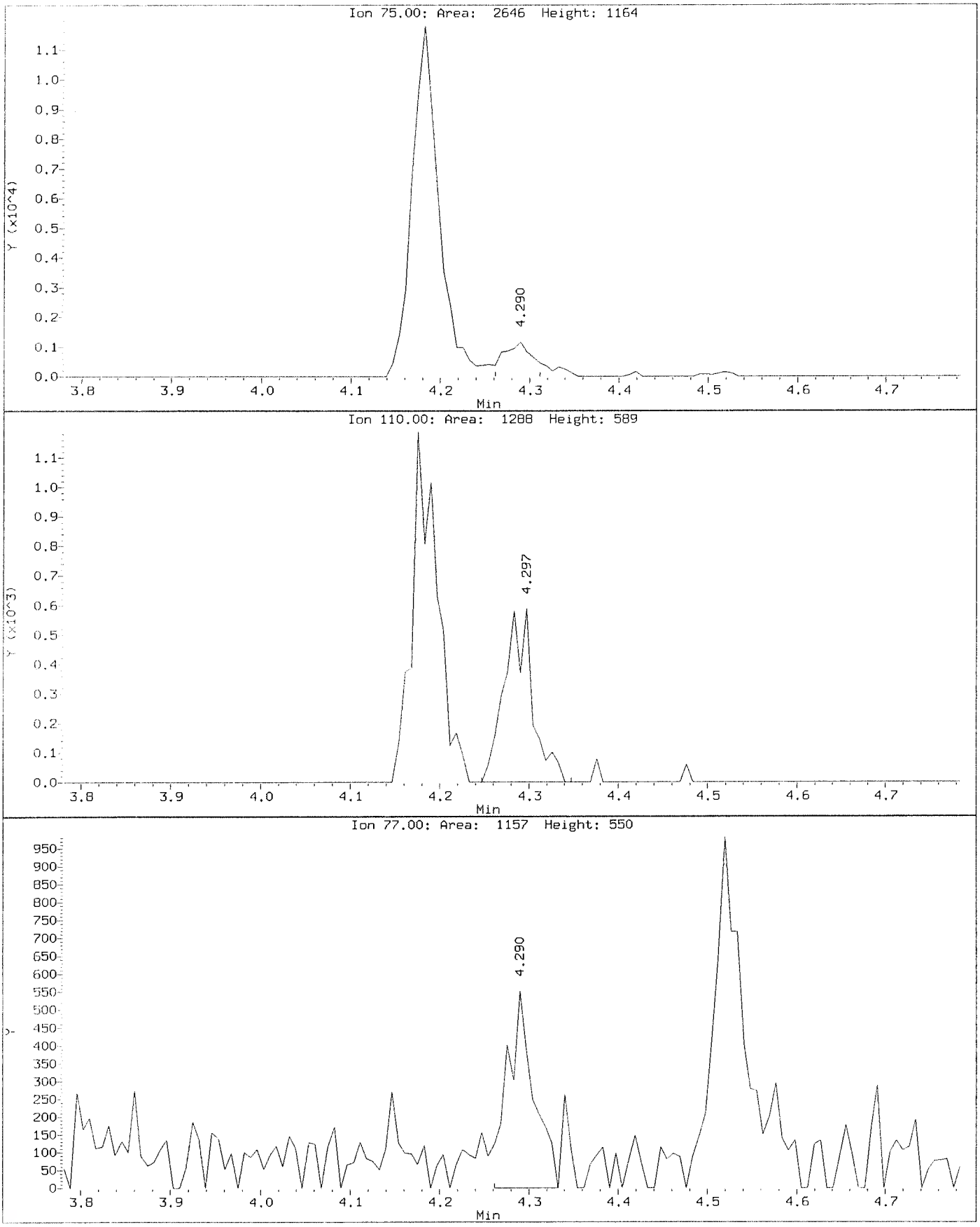
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Client Sample ID: VSTD000.5

Compound: 1,1-Dichloropropene
CAS Number: 563-58-6



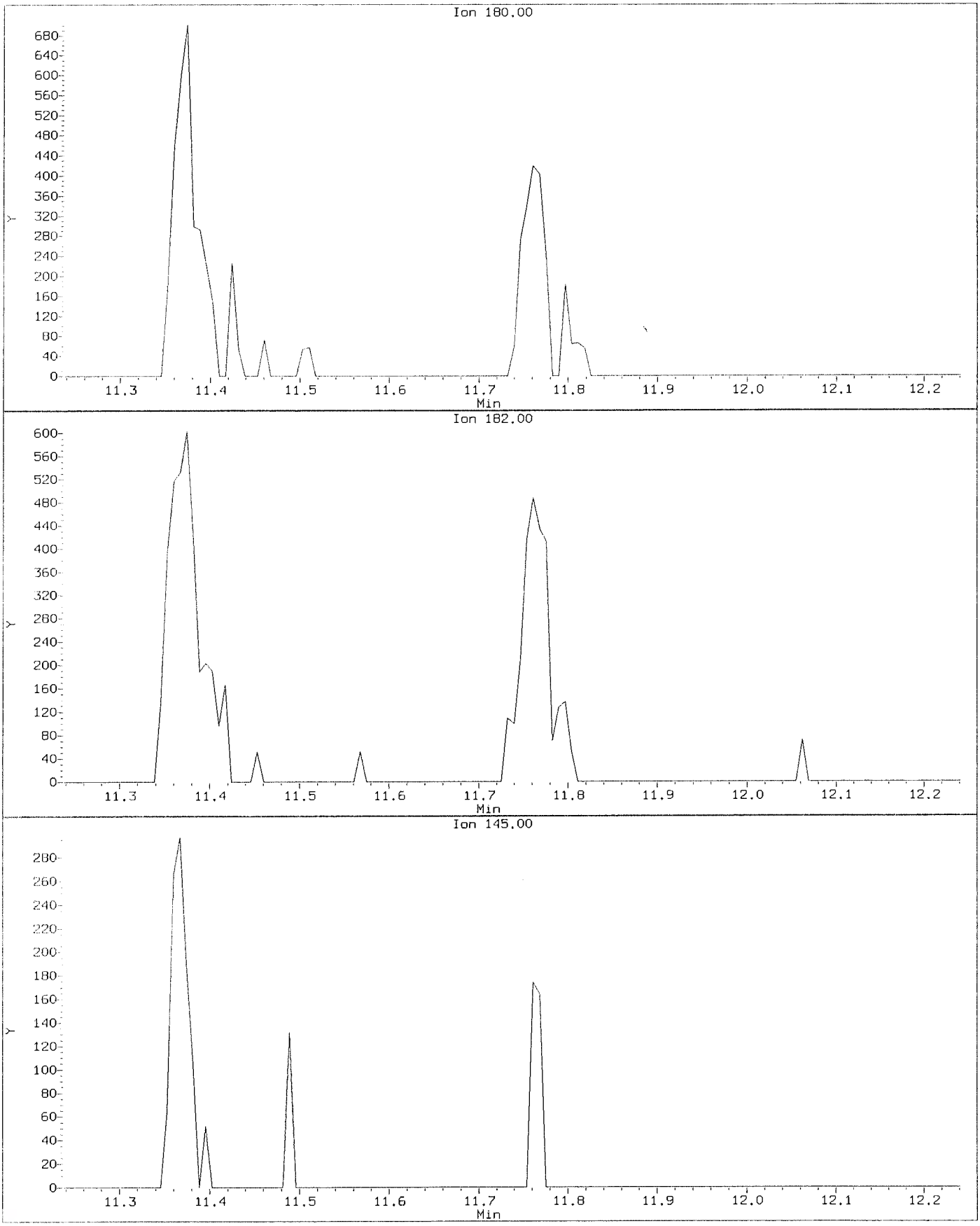
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Compound: 1,1-Dichloropropene
CAS Number: 563-58-6



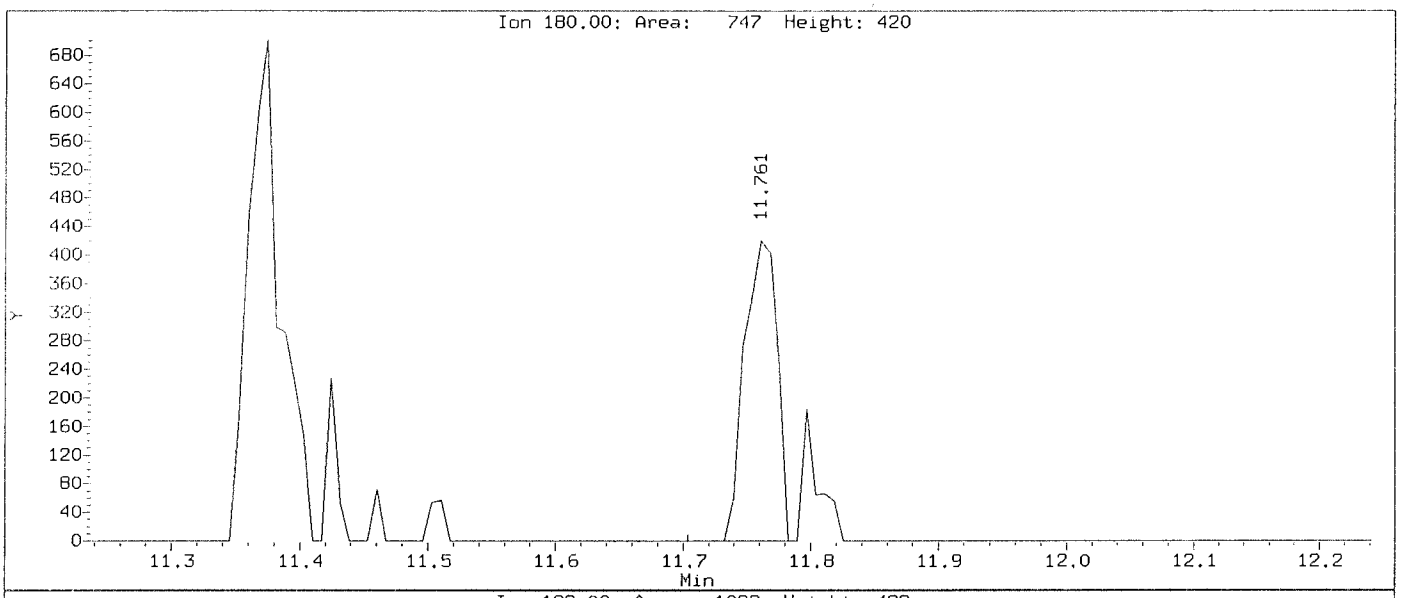
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Client Sample ID: VSTD000.5

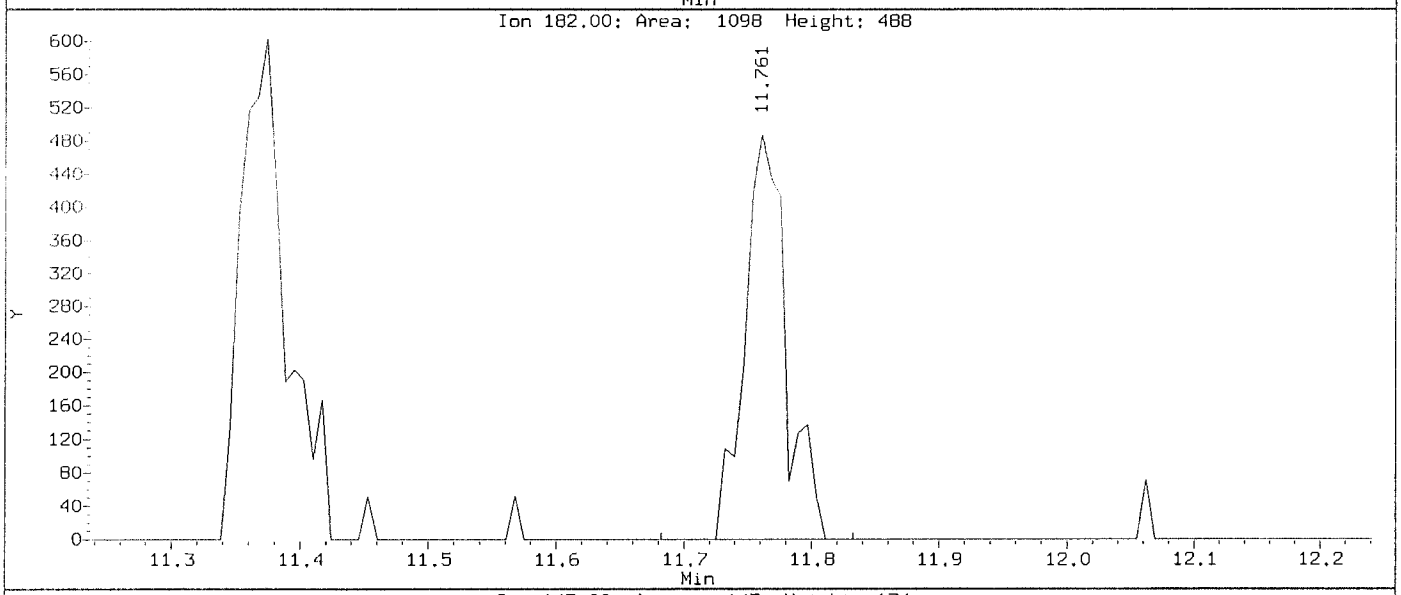
Compound: 1,2,3-Trichlorobenzene
CAS Number: 87-61-6

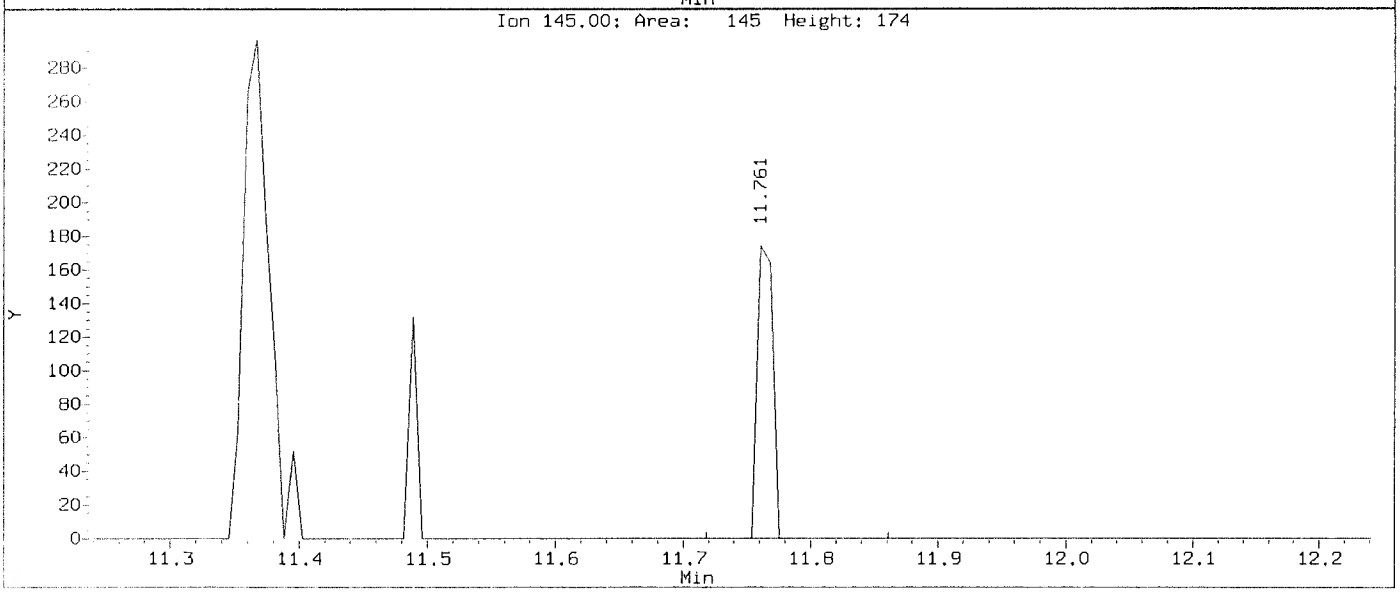


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Client Sample ID: VSTD000.5

Compound: 1,2,3-Trichlorobenzene
CAS Number: 87-61-6

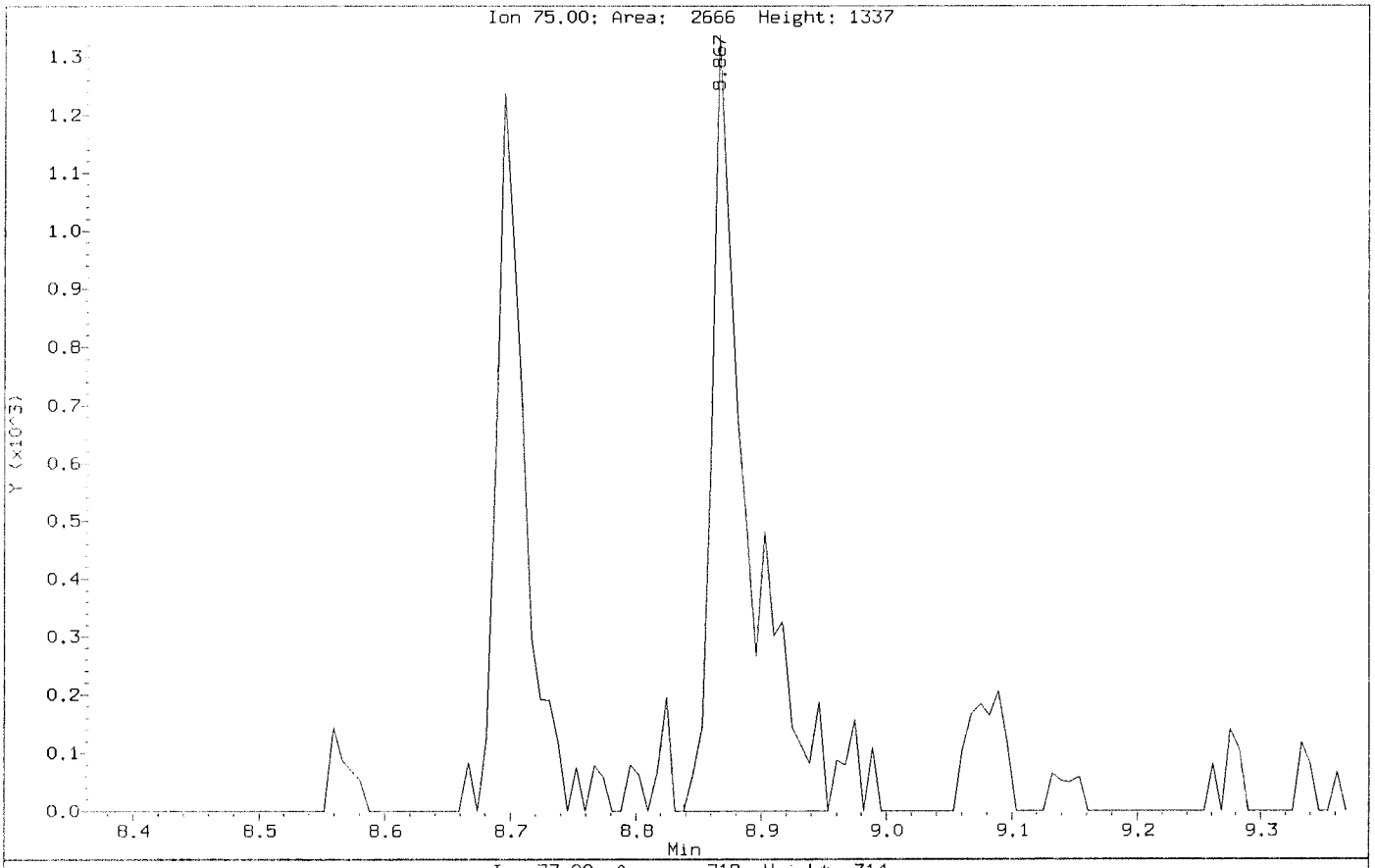


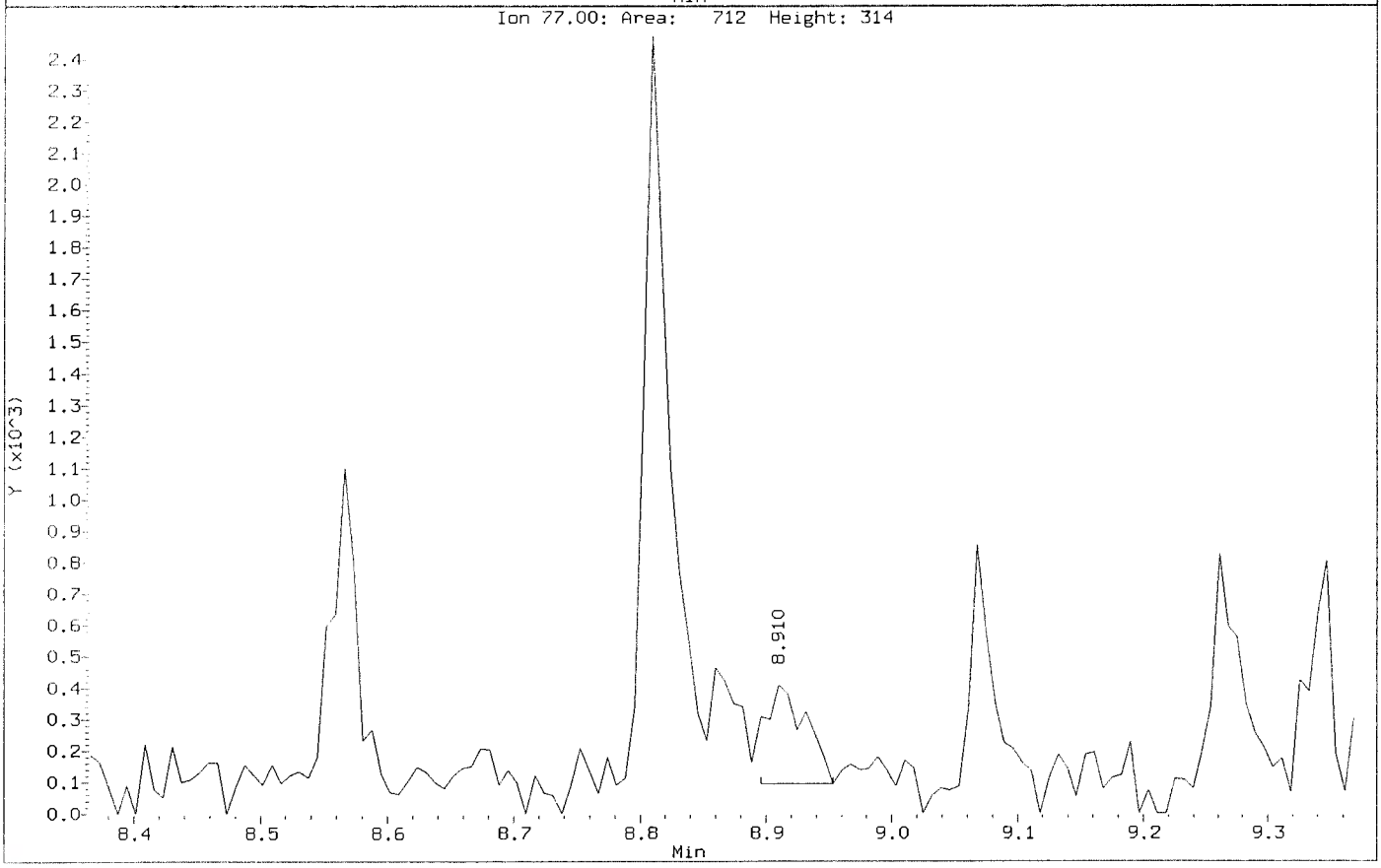




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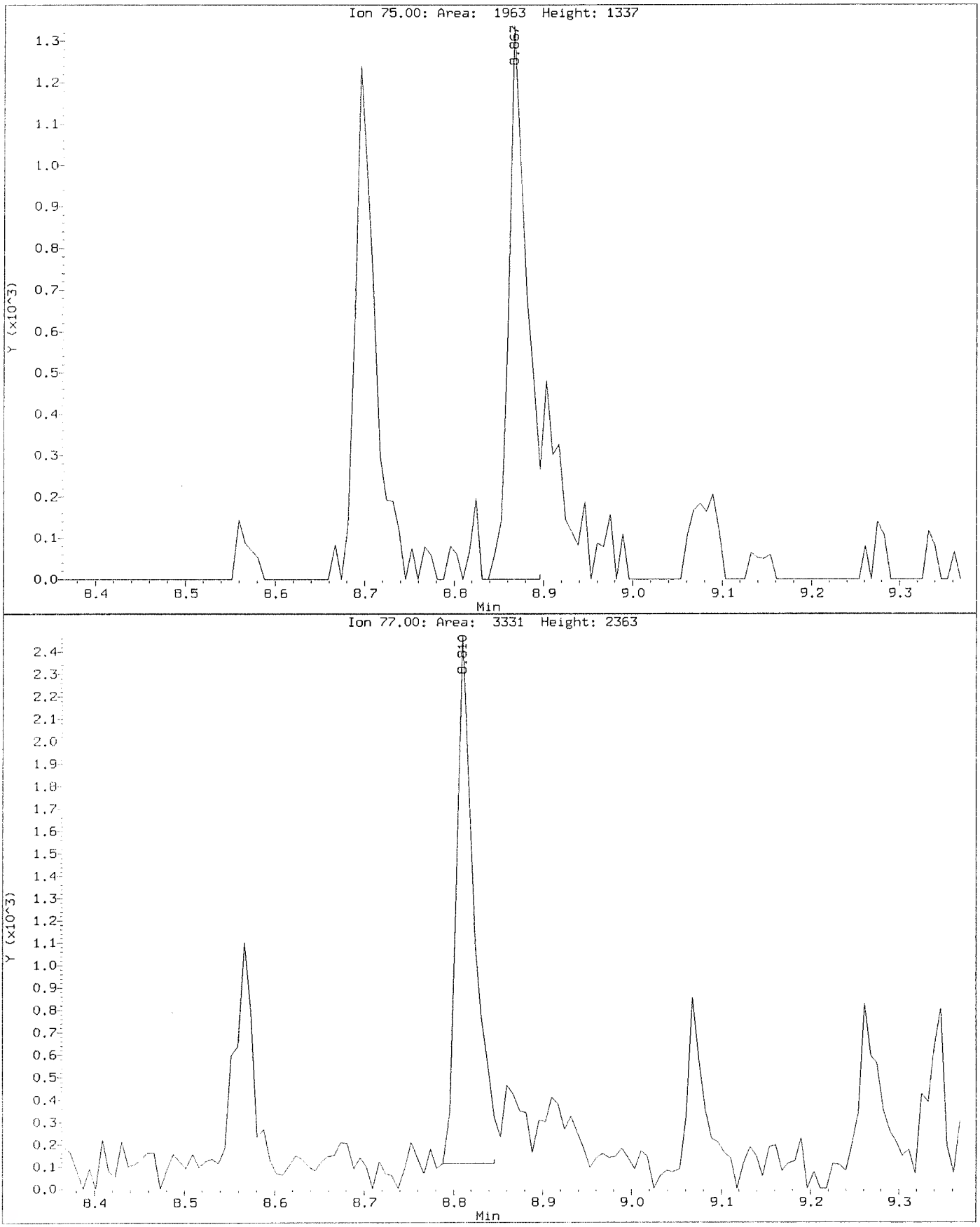
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





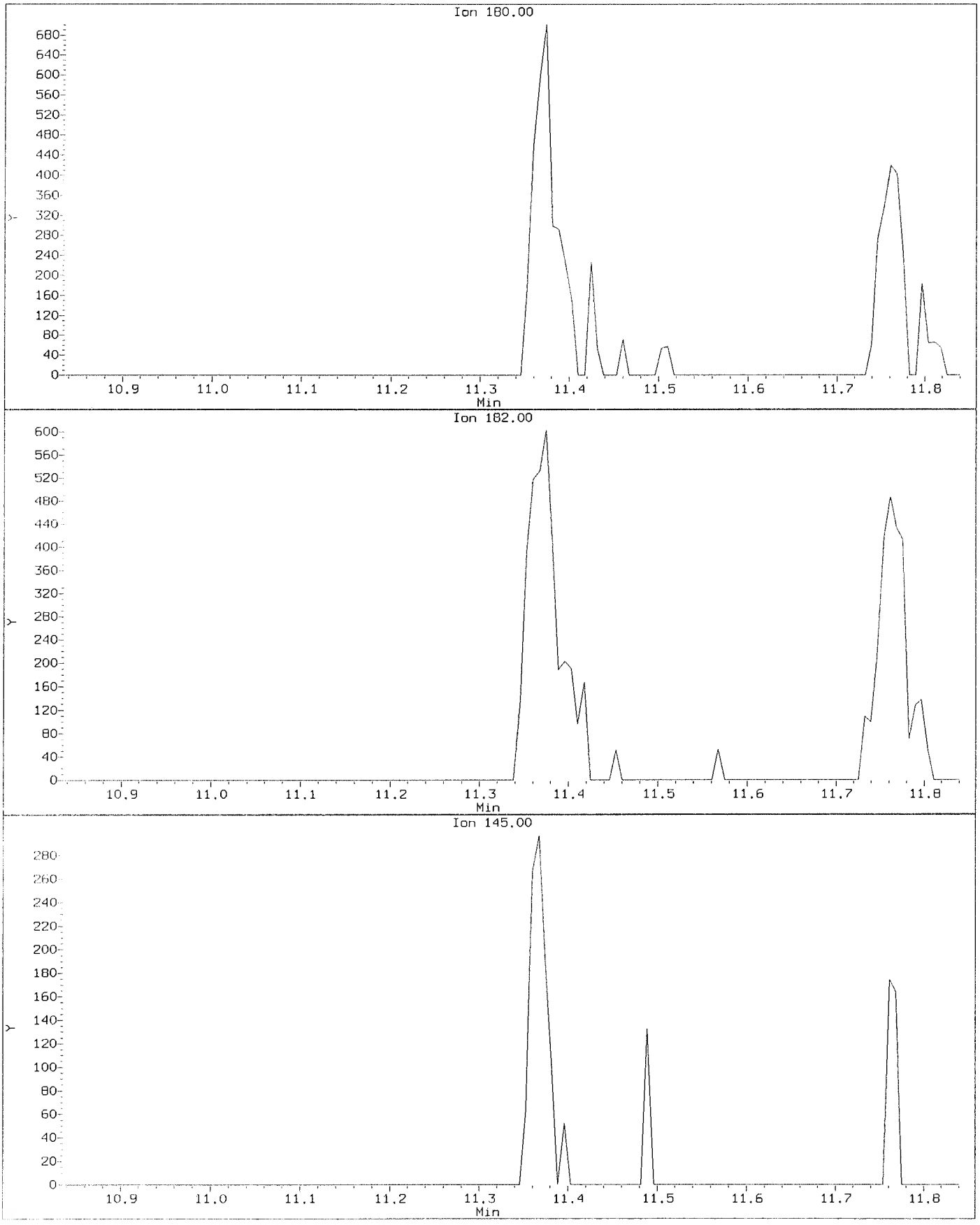
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



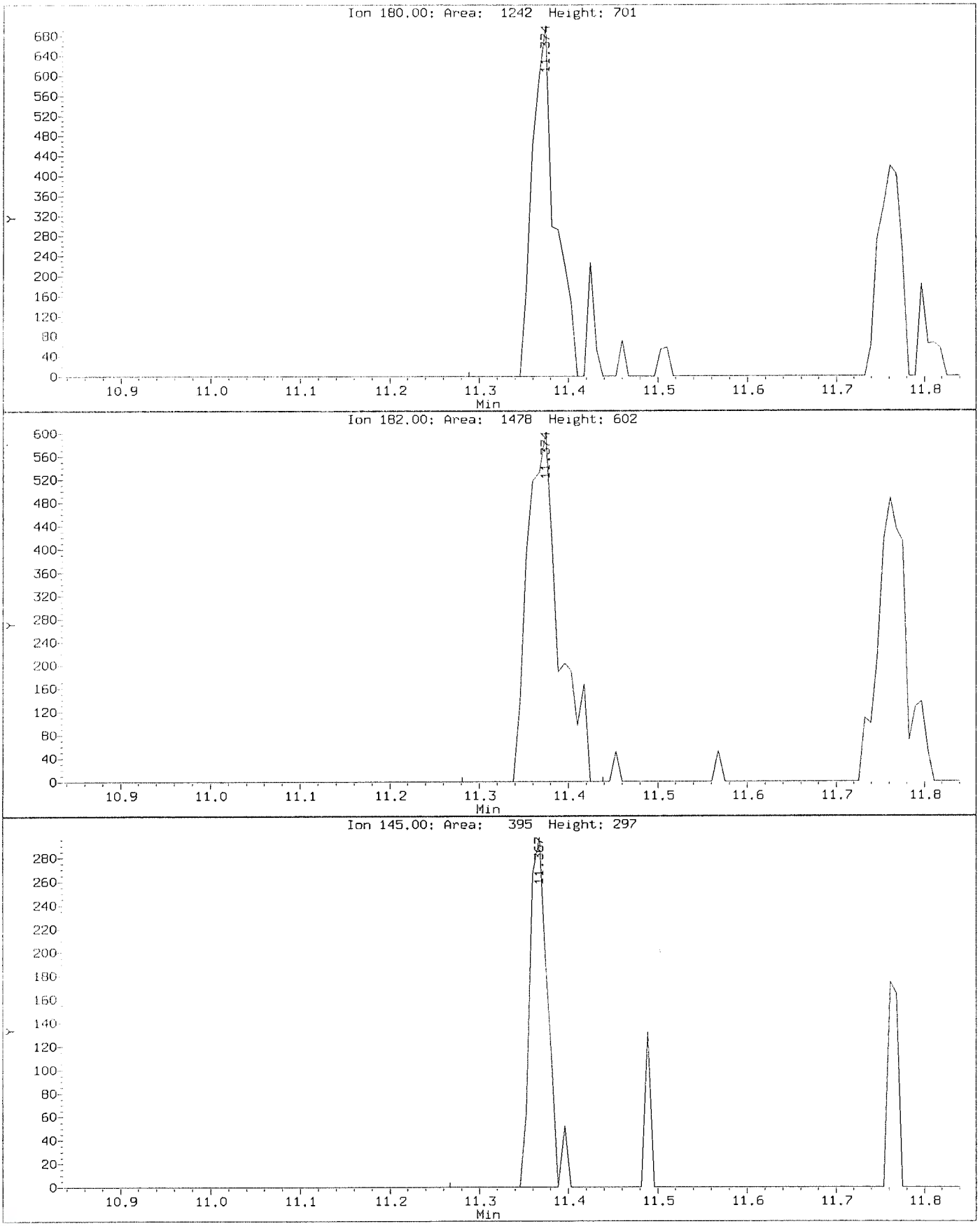
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2,4-Trichlorobenzene
CAS Number: 120-82-1



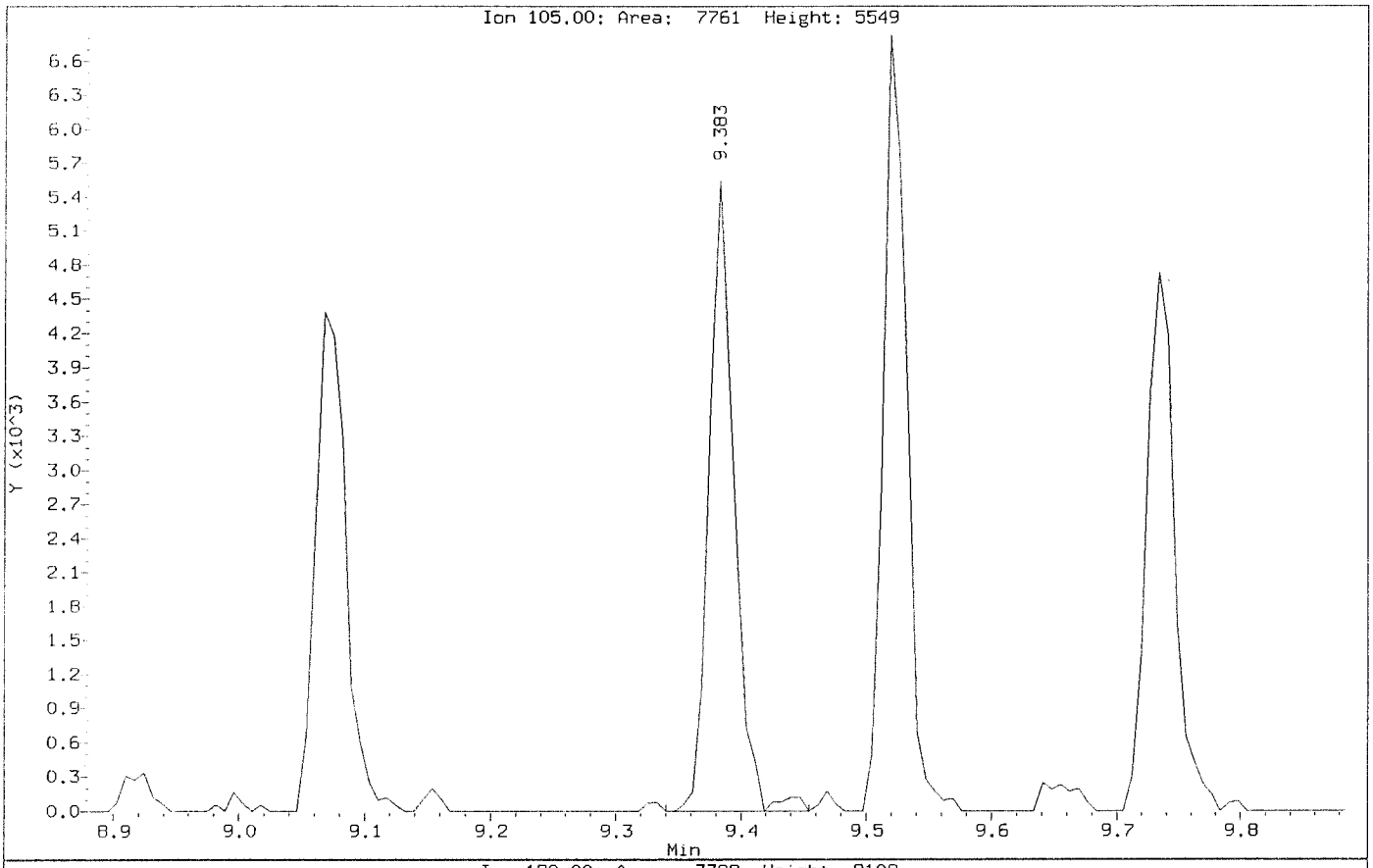
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Client Sample ID: VSTD000.5

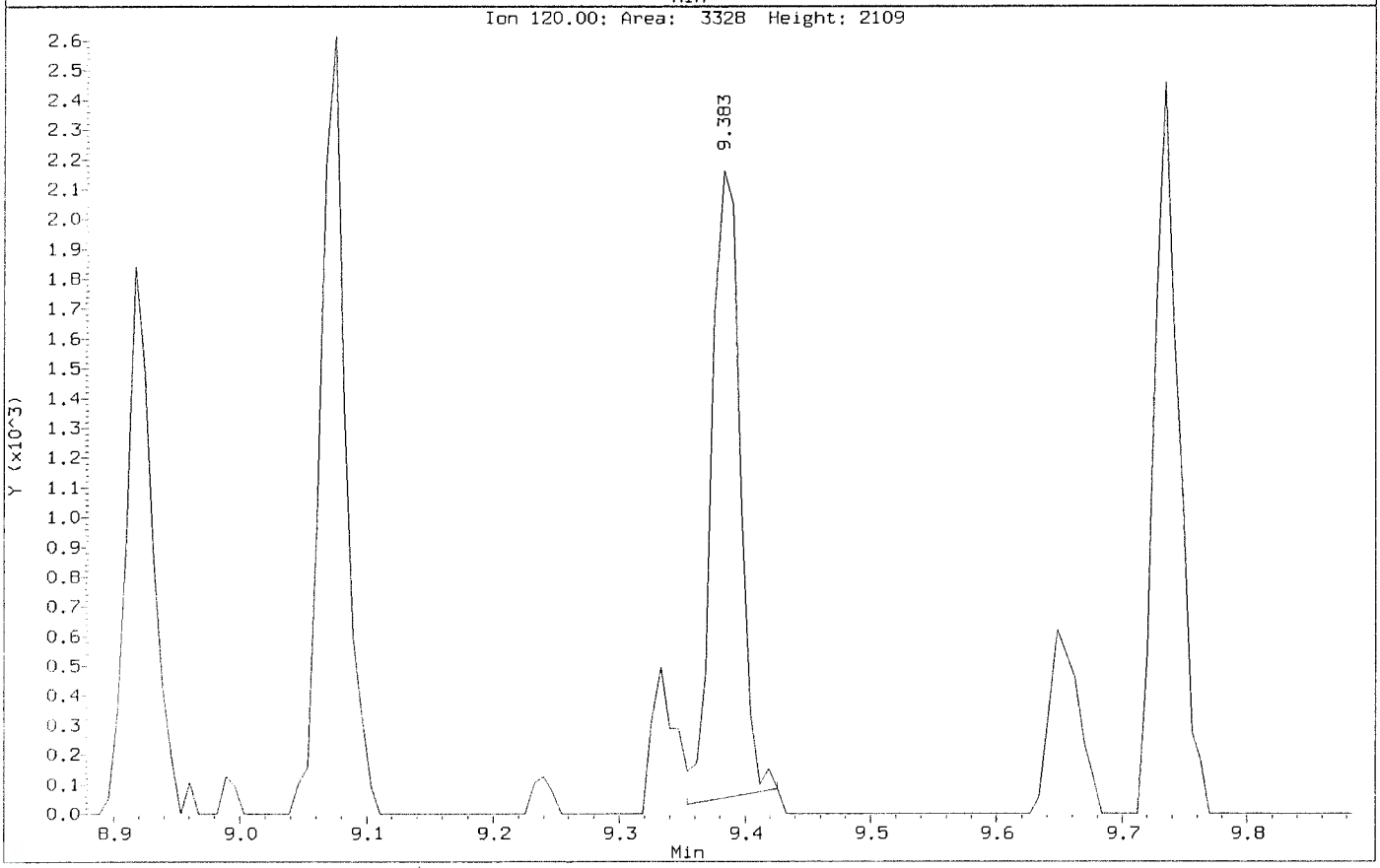
Compound: 1,2,4-Trichlorobenzene
CAS Number: 120-82-1



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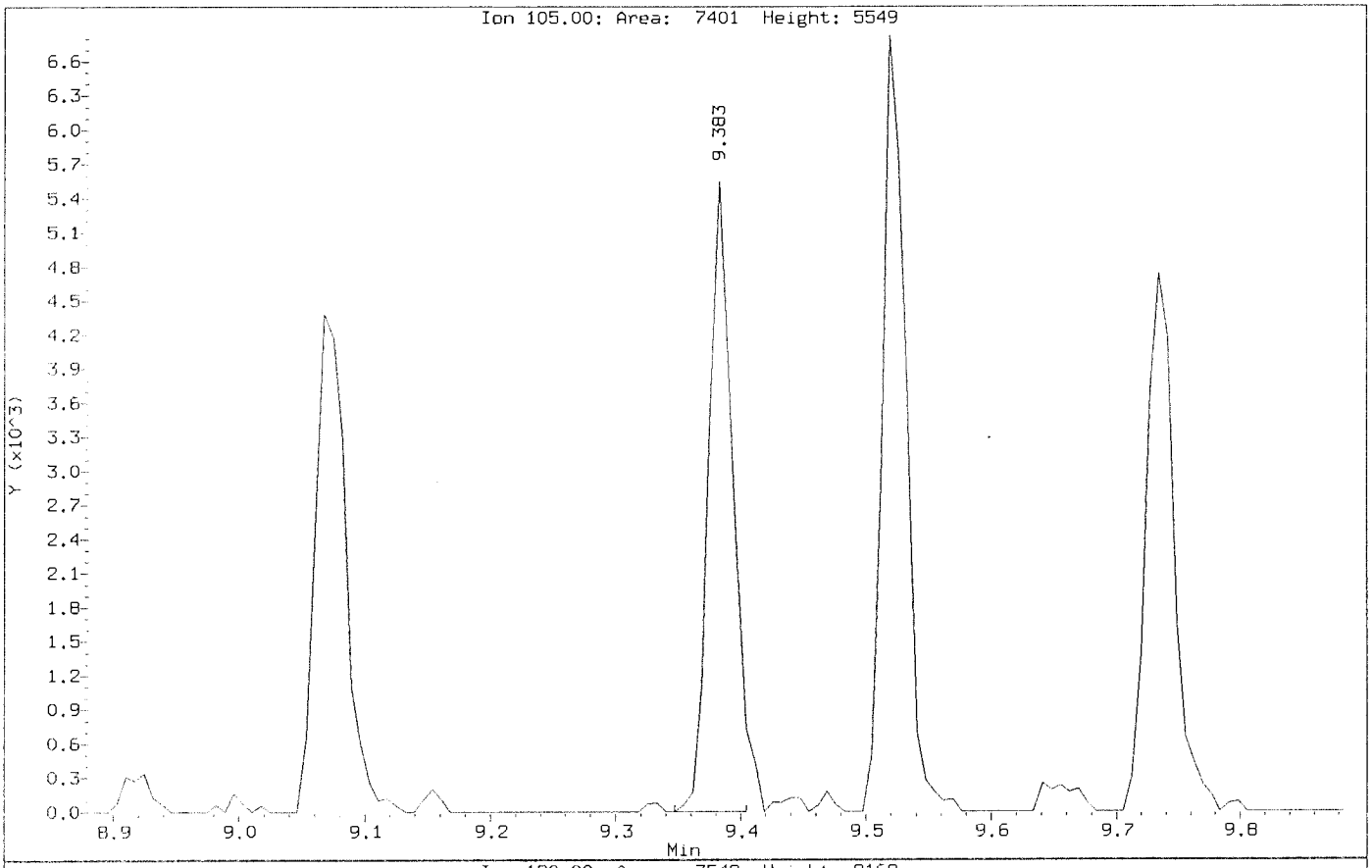
Compound: 1,2,4-Trimethylbenzene
CAS Number: 95-63-6

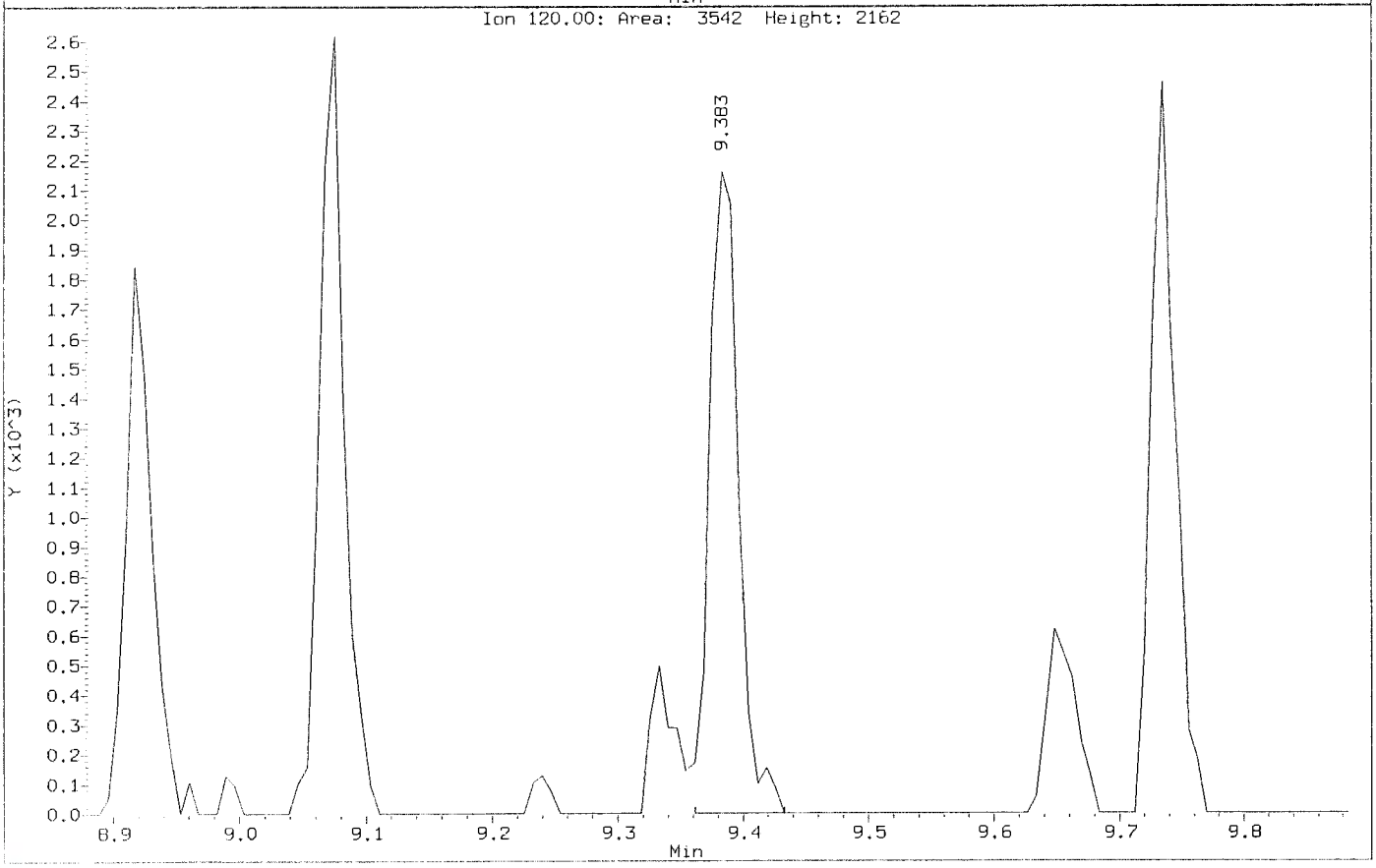




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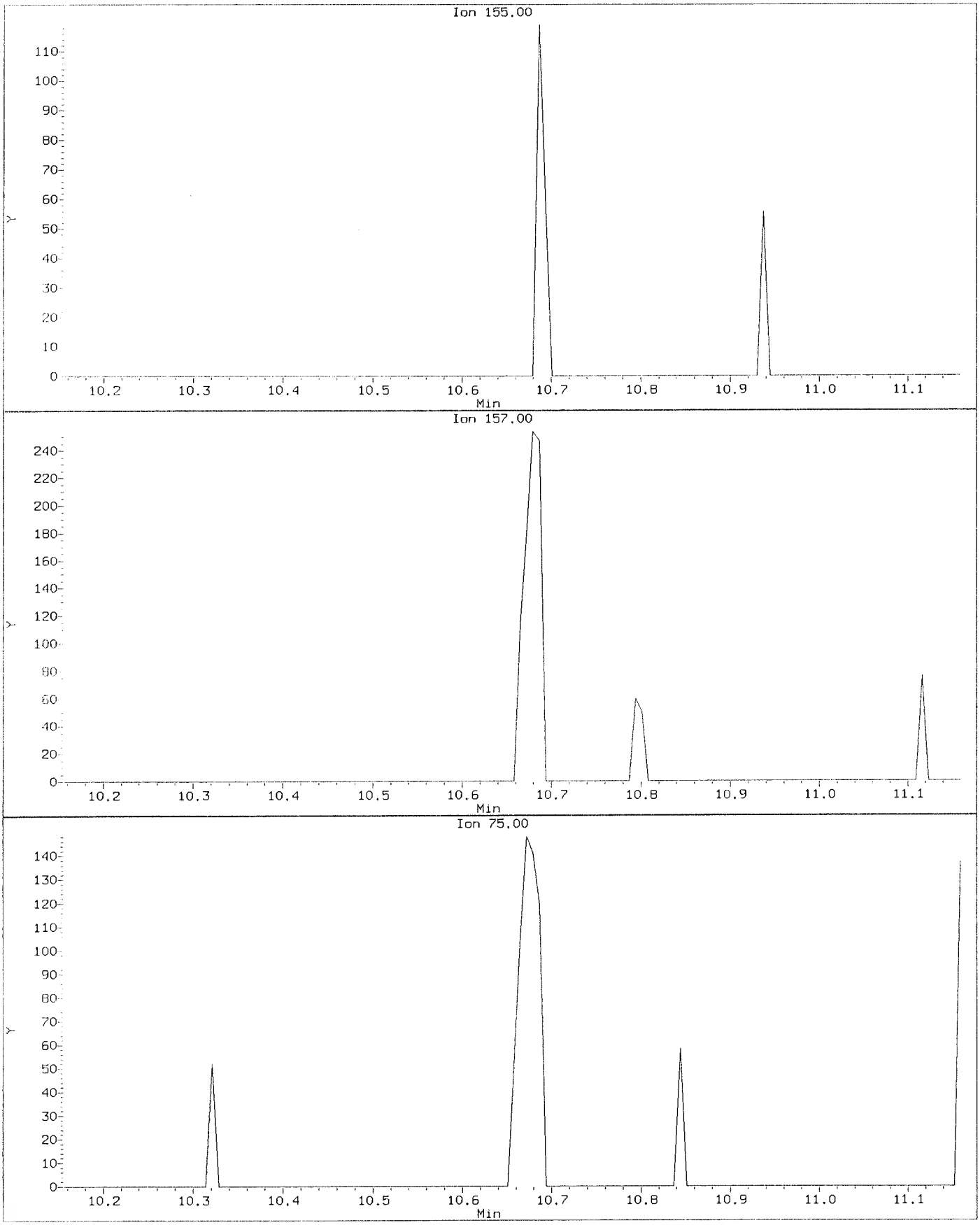
Compound: 1,2,4-Trimethylbenzene
CAS Number: 95-63-6





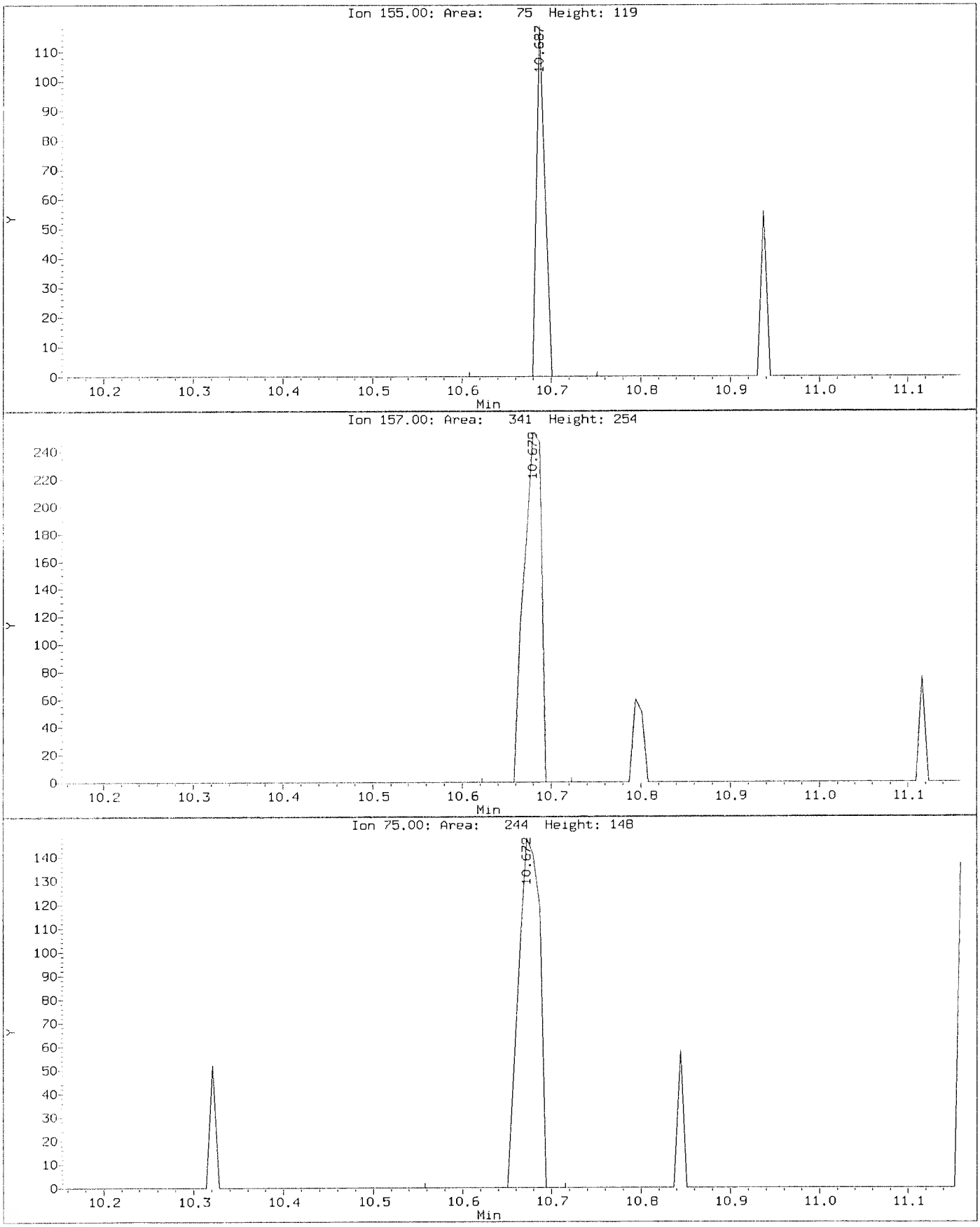
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8



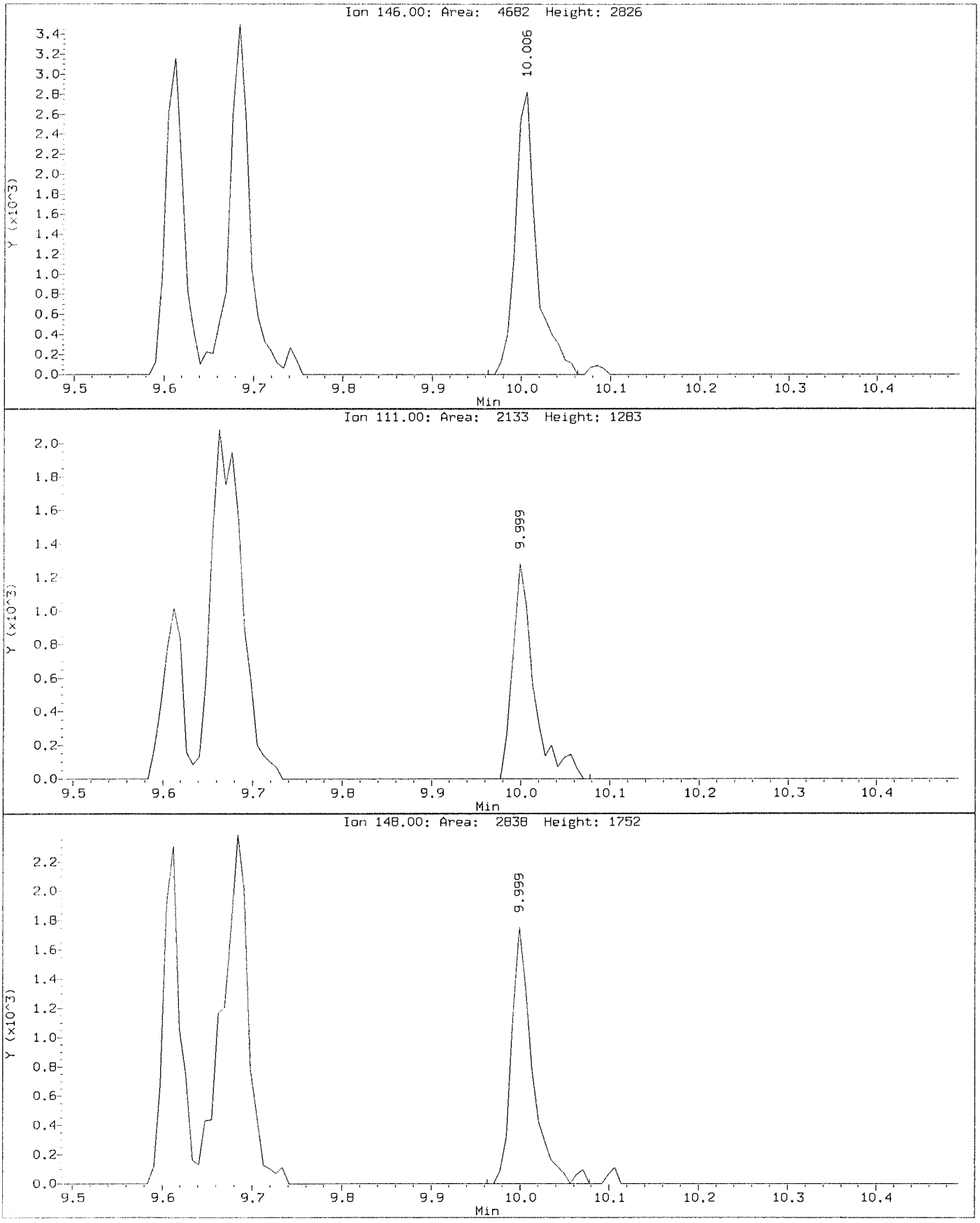
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Client Sample ID: VSTD000.5

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8



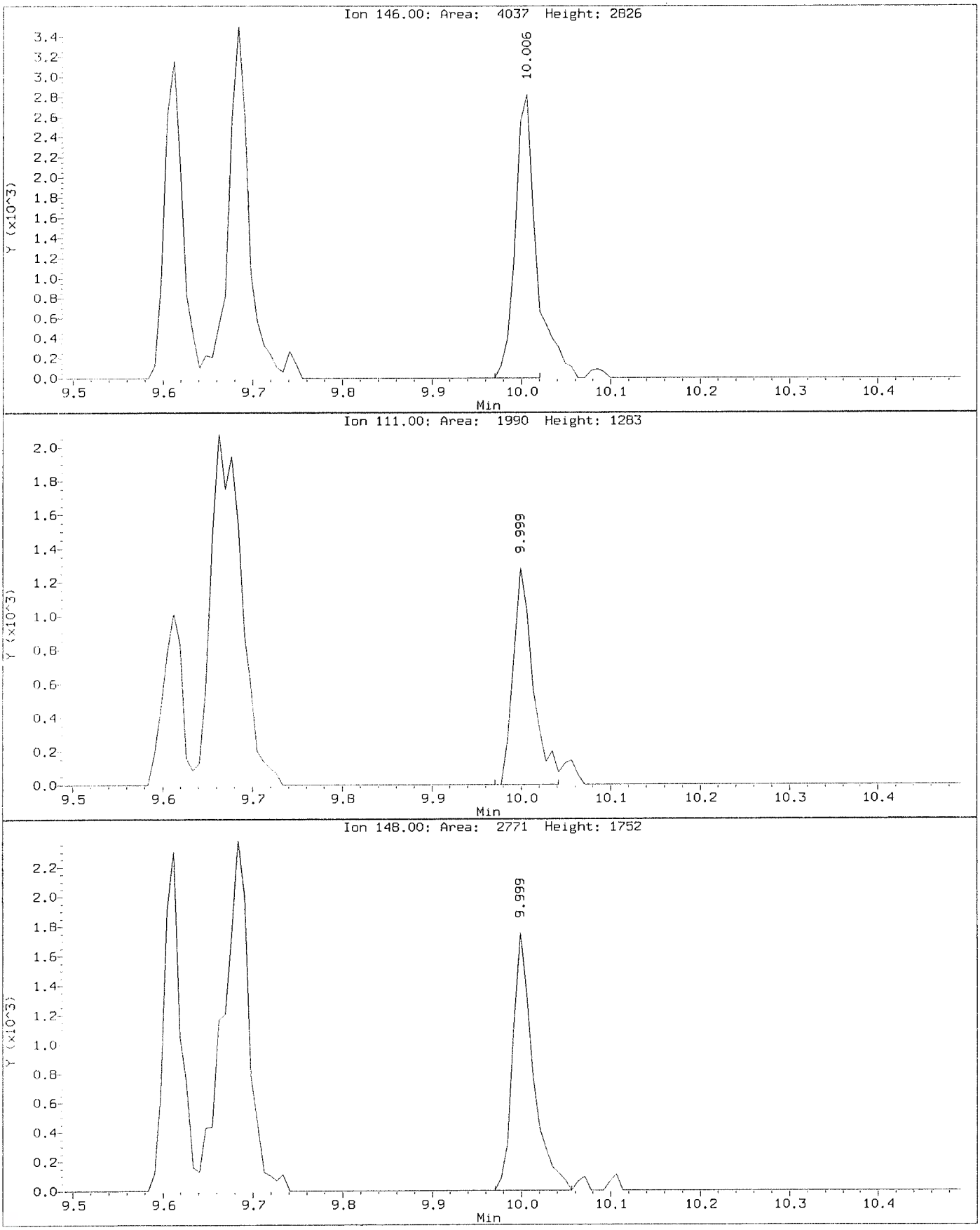
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1.2-Dichlorobenzene
CAS Number: 95-50-1



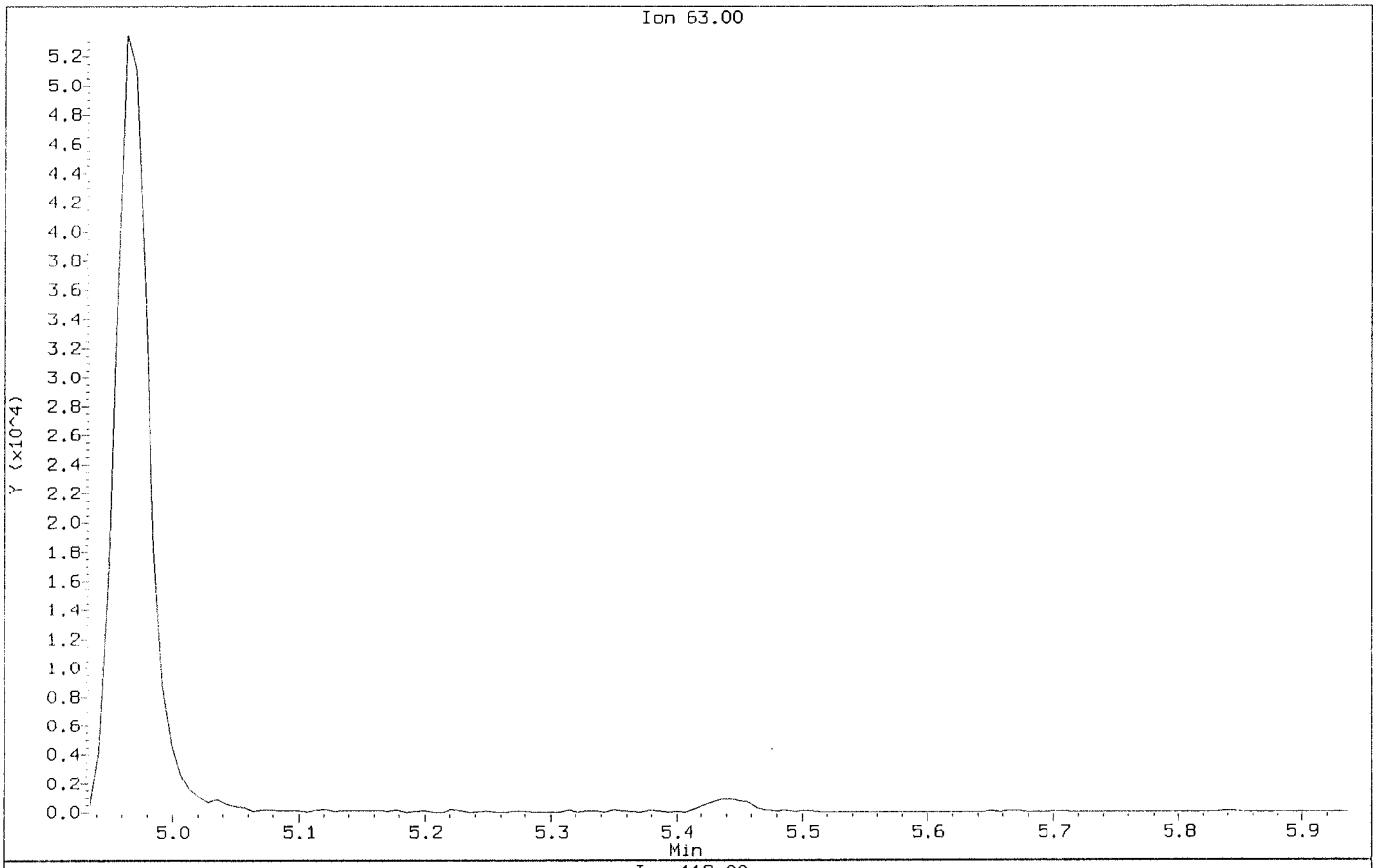
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Client Sample ID: VSTD000.5

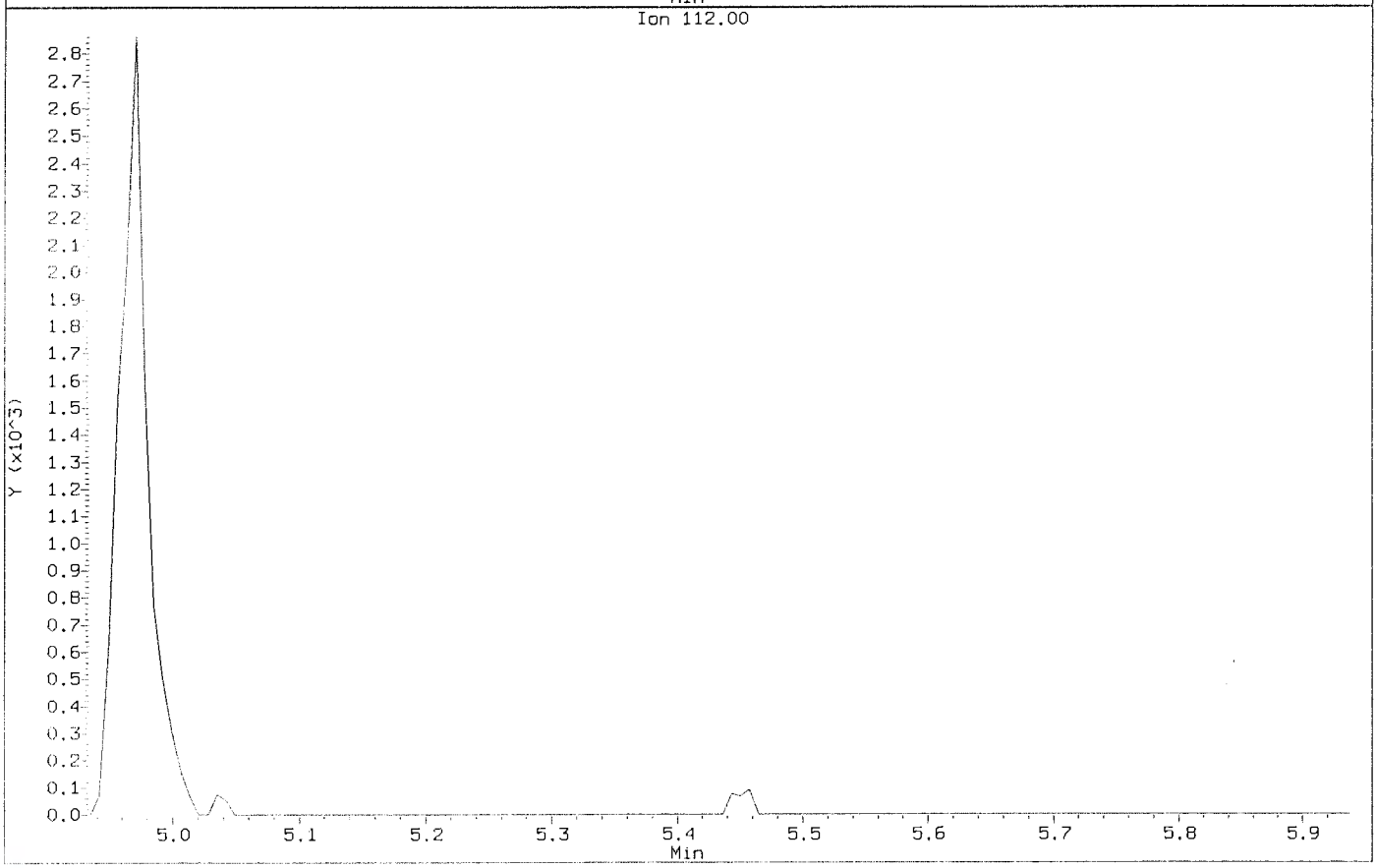
Compound: 1,2-Dichlorobenzene
CAS Number: 95-50-1



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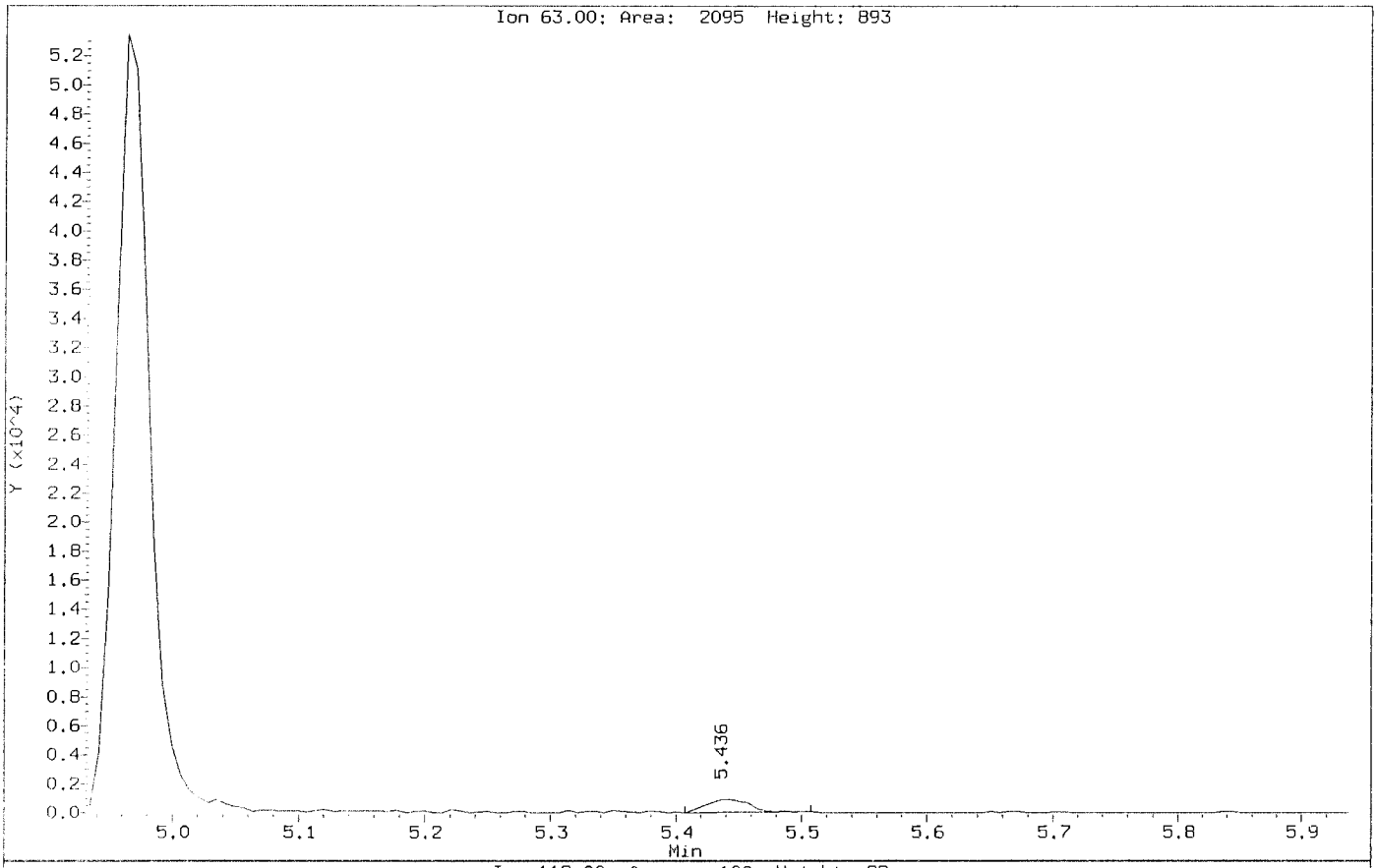
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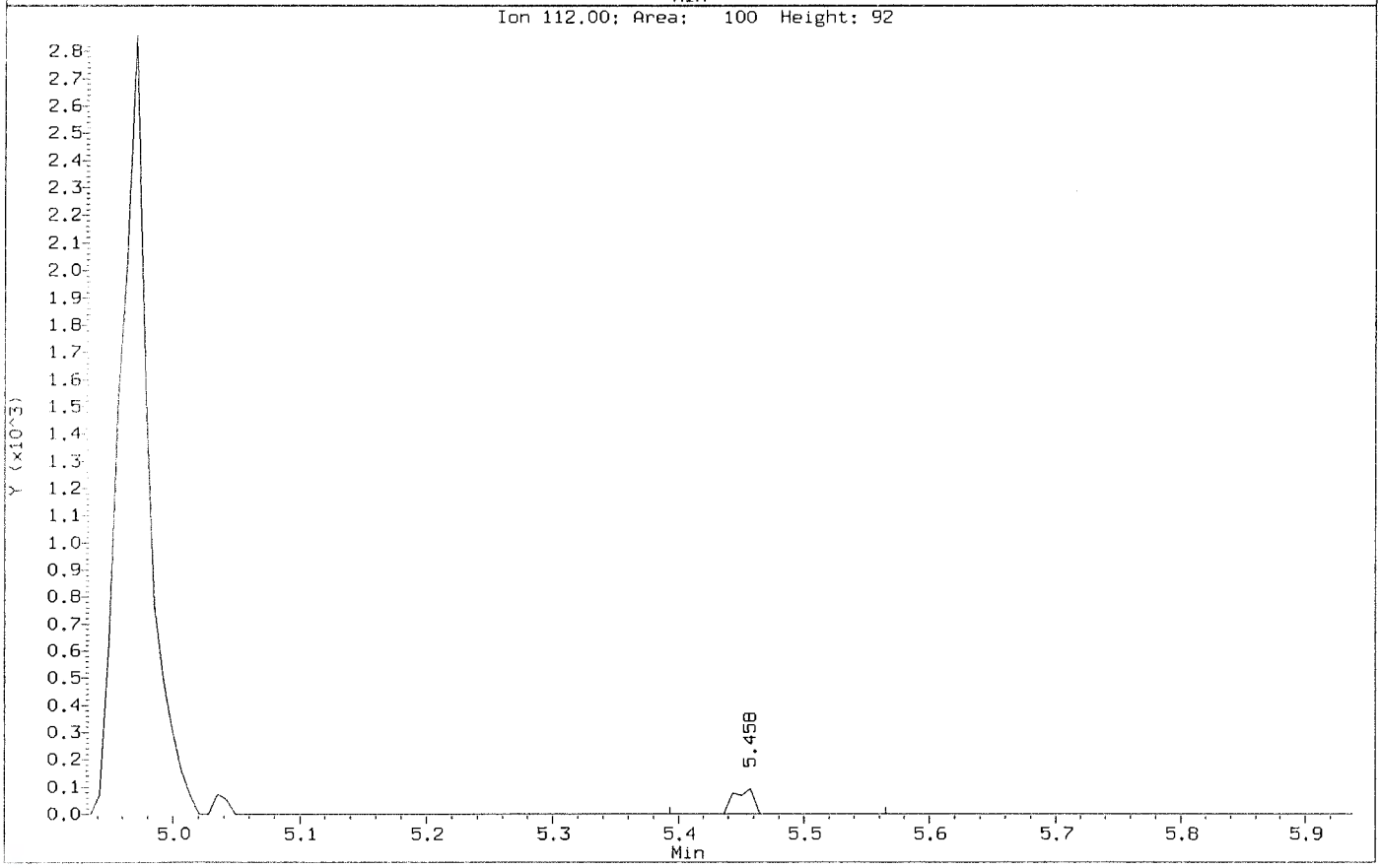




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Instrument: voa6.i
Client Sample ID: VSTD000.5

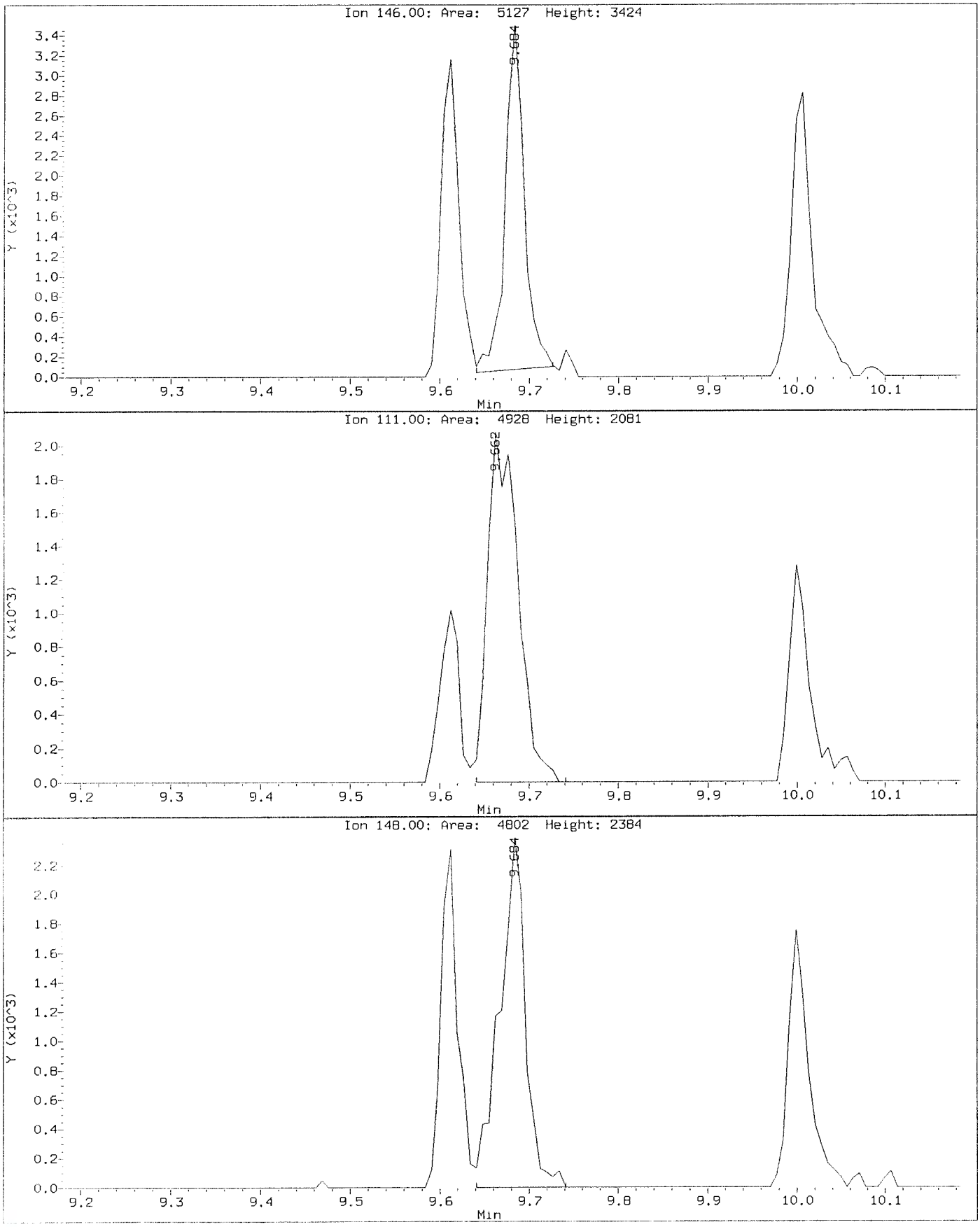
Compound: 1,2-Dichloropropane
CAS Number: 78-87-5





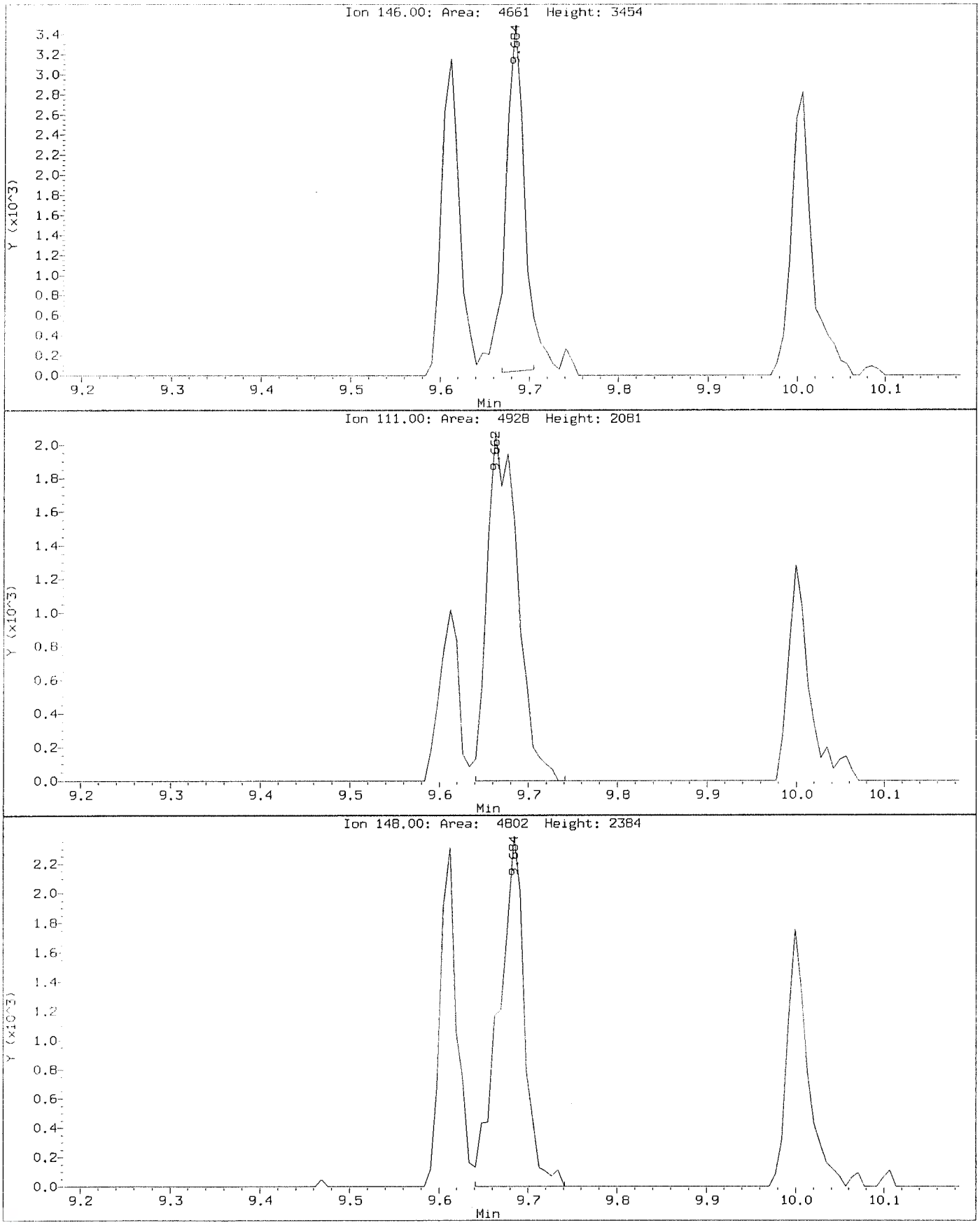
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,4-Dichlorobenzene
CAS Number: 106-46-7



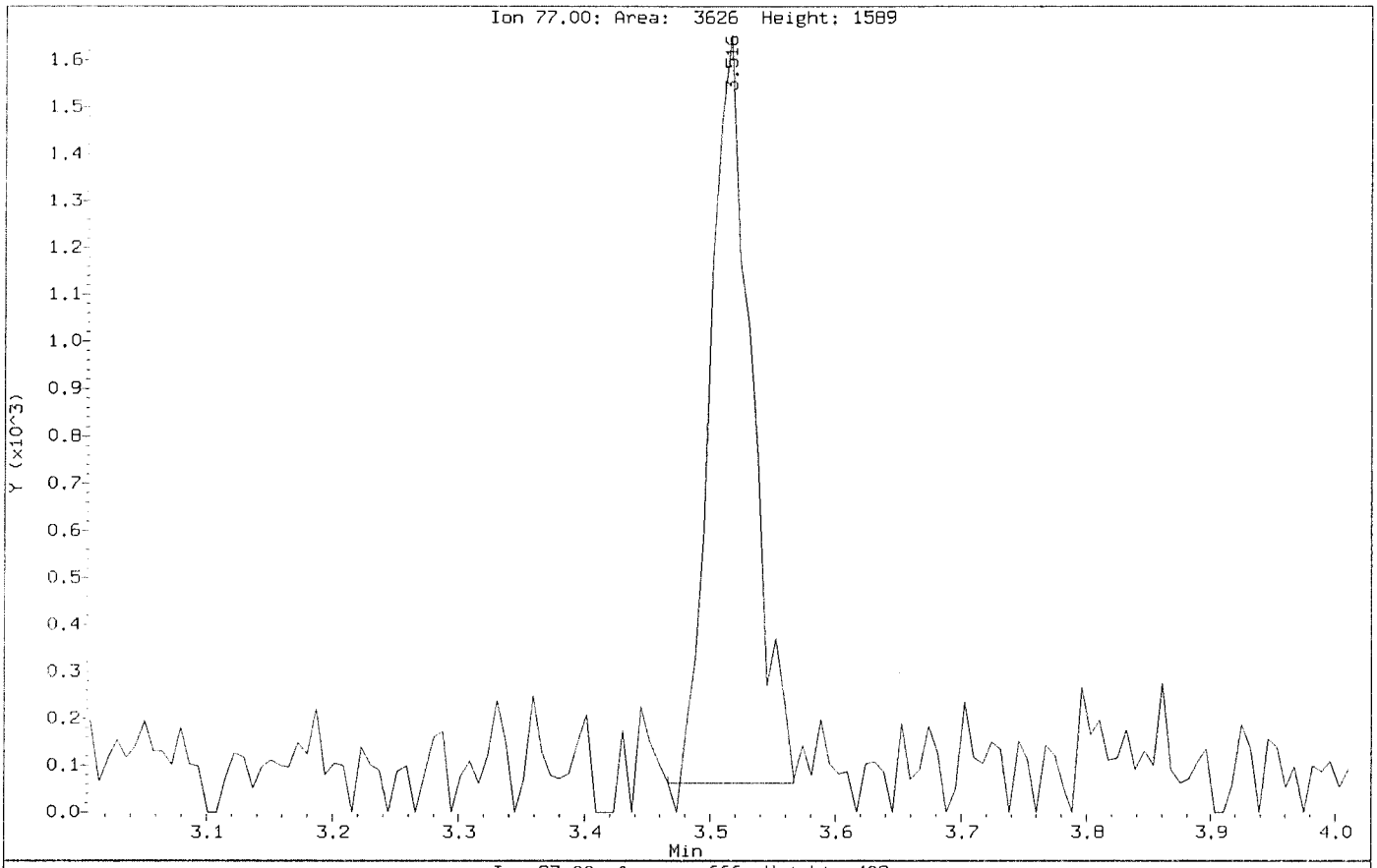
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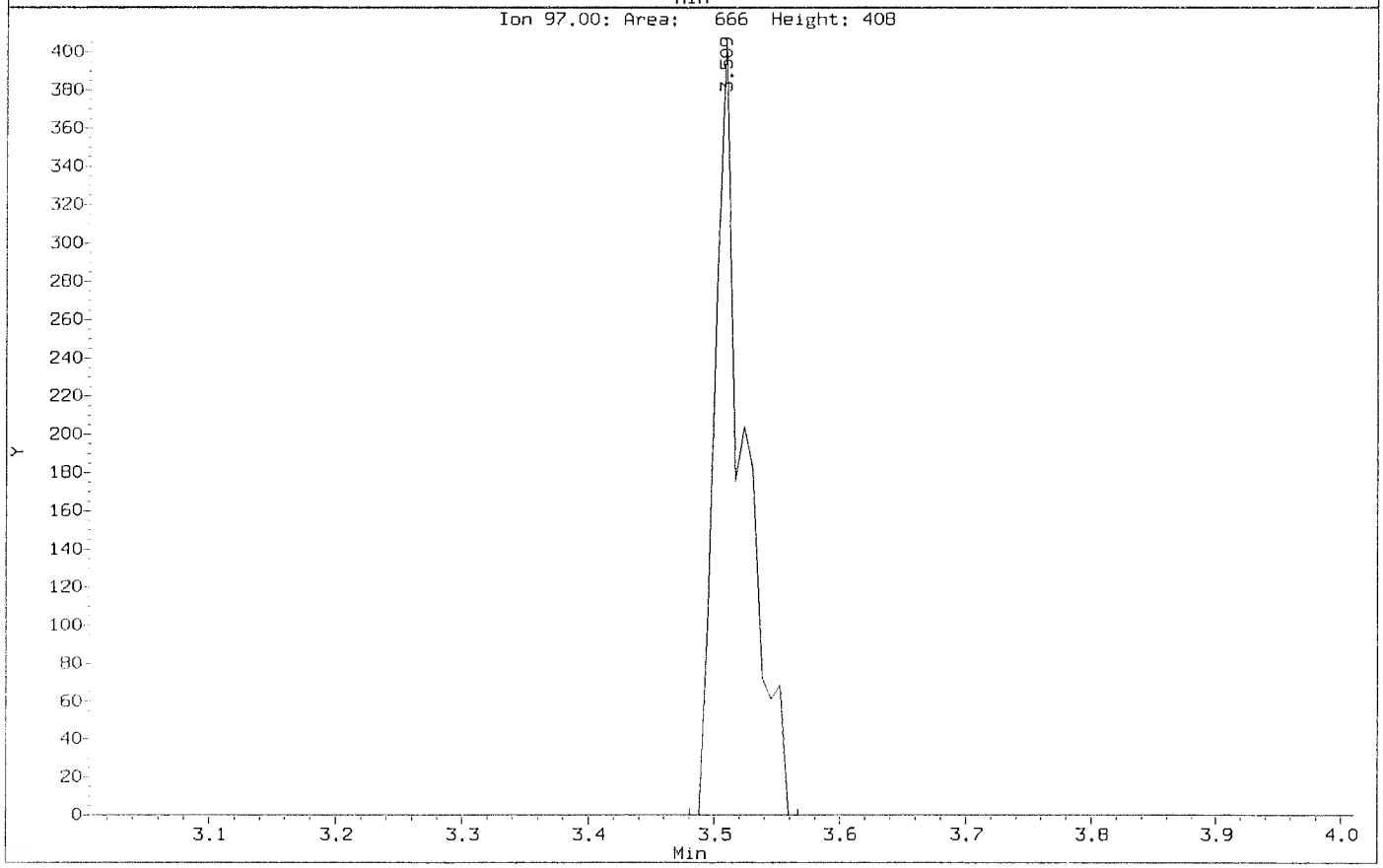
Compound: 1,4-Dichlorobenzene
CAS Number: 106-46-7



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Instrument: voa6.i
Client Sample ID: VSTD000.5

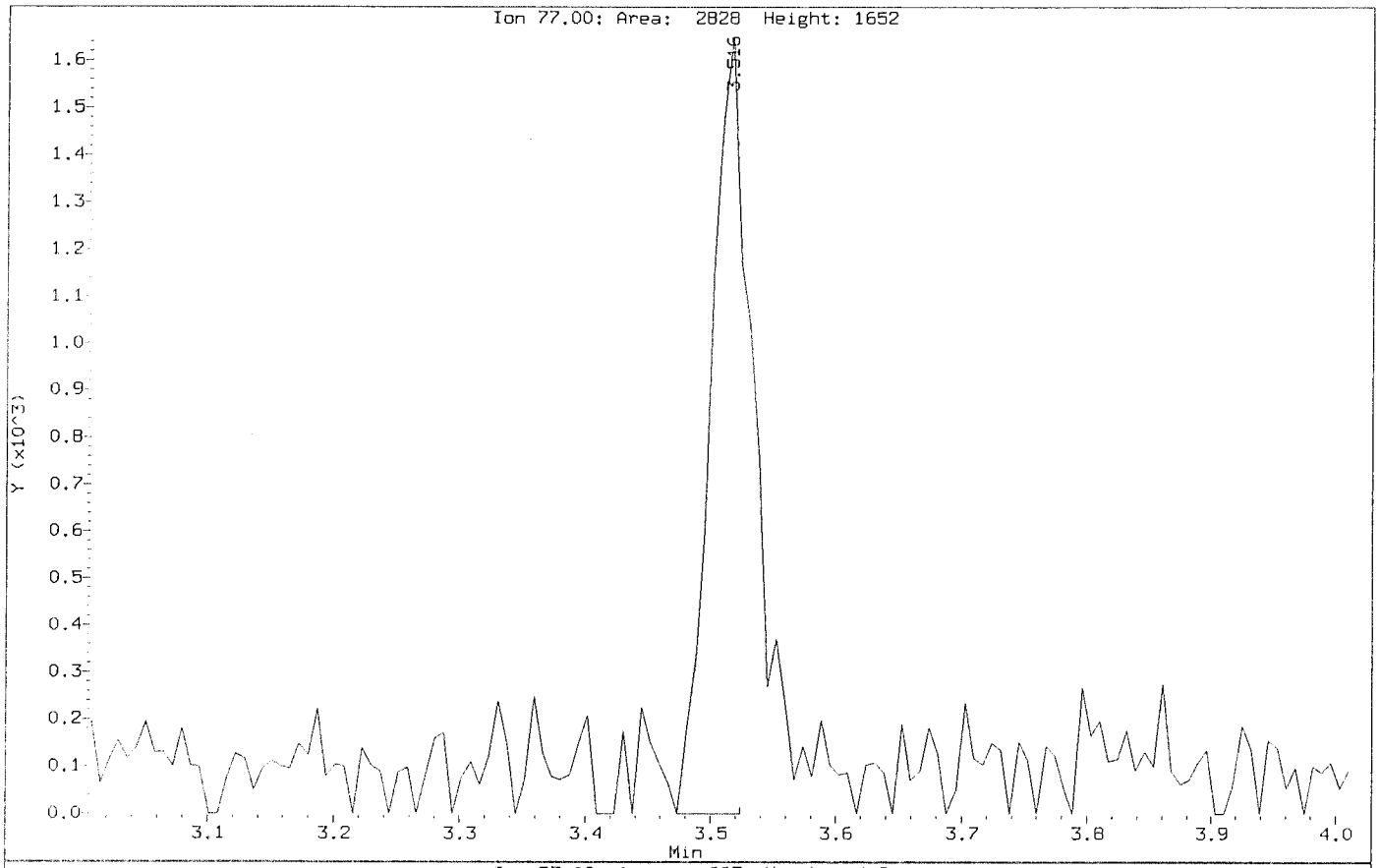
Compound: 2,2-Dichloropropane
CAS Number: 594-20-7

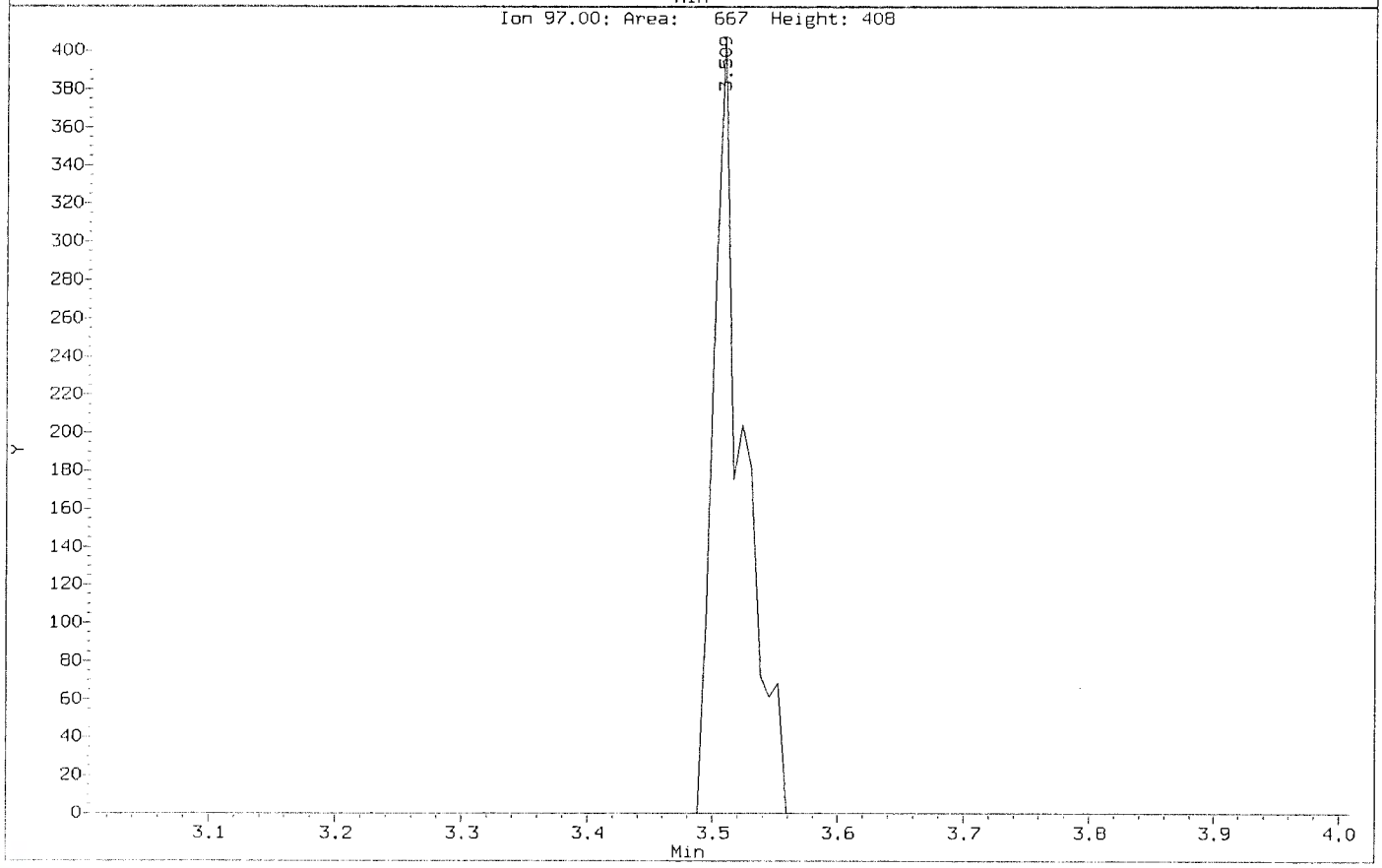




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Instrument: voa6.i
Client Sample ID: VSTD000.5

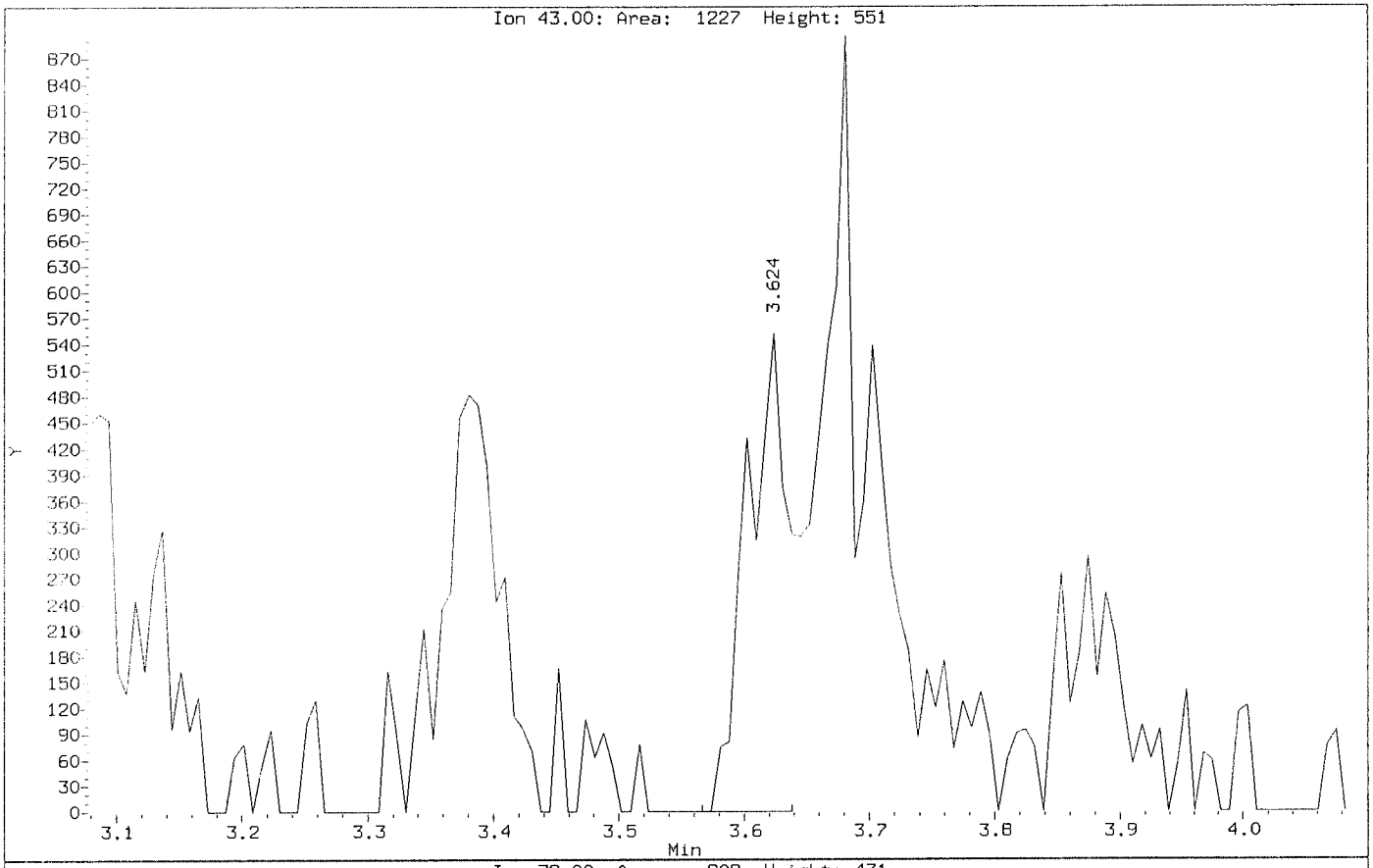
Compound: 2,2-Dichloropropane
CAS Number: 594-20-7

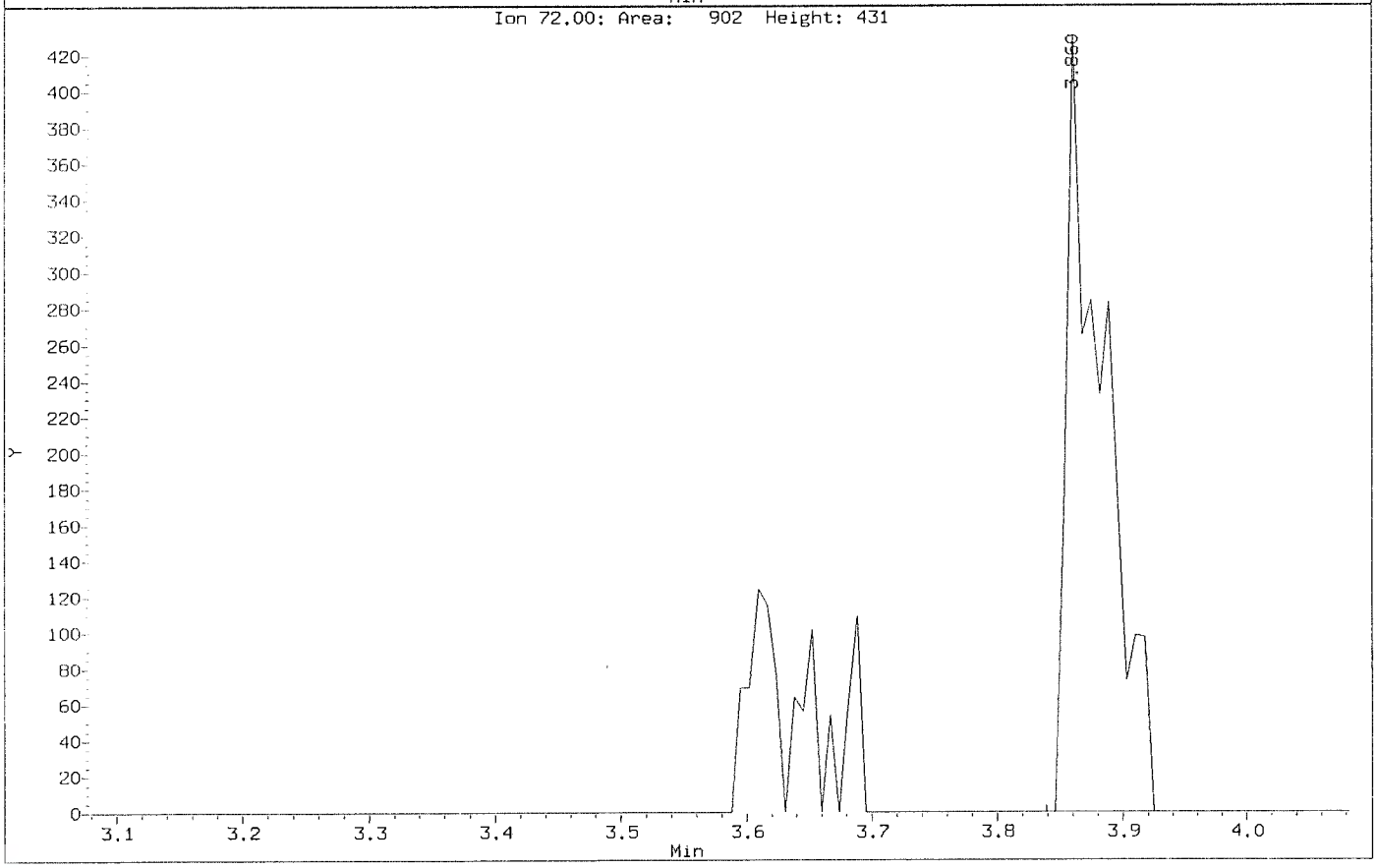




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Instrument: voa6.i
Client Sample ID: VSTD000.5

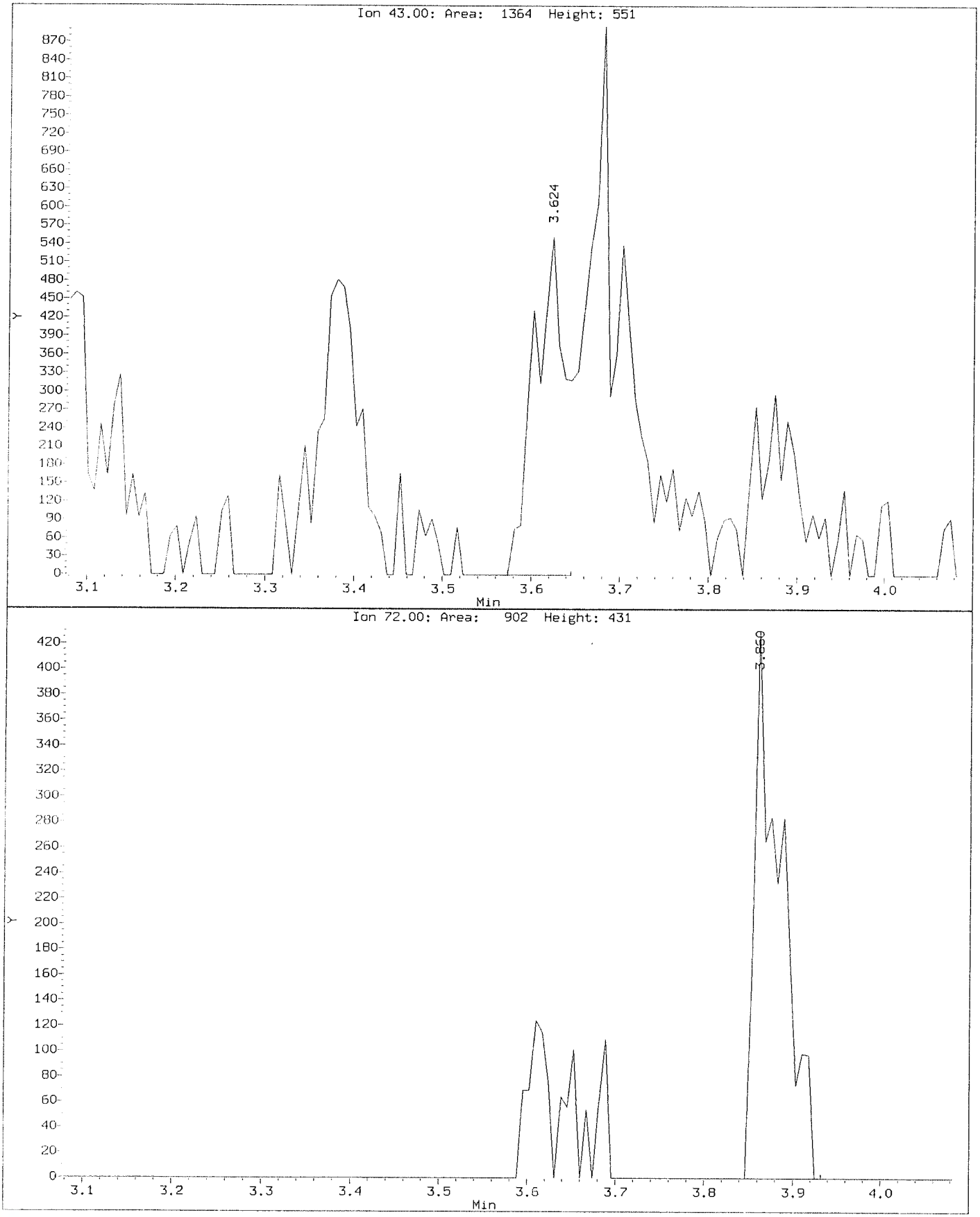
Compound: 2-Butanone
CAS Number: 78-93-3





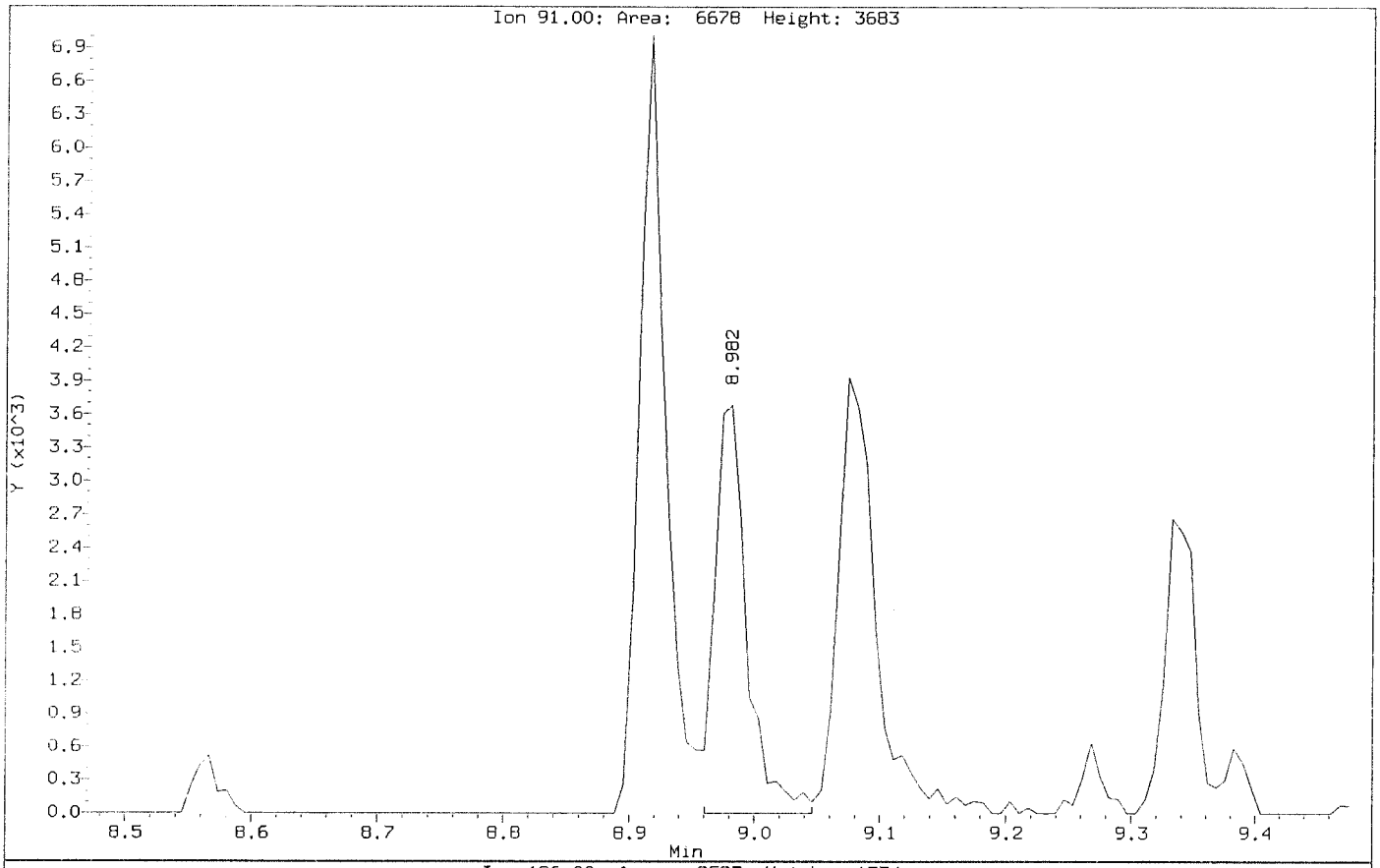
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Client Sample ID: VSTD000.5

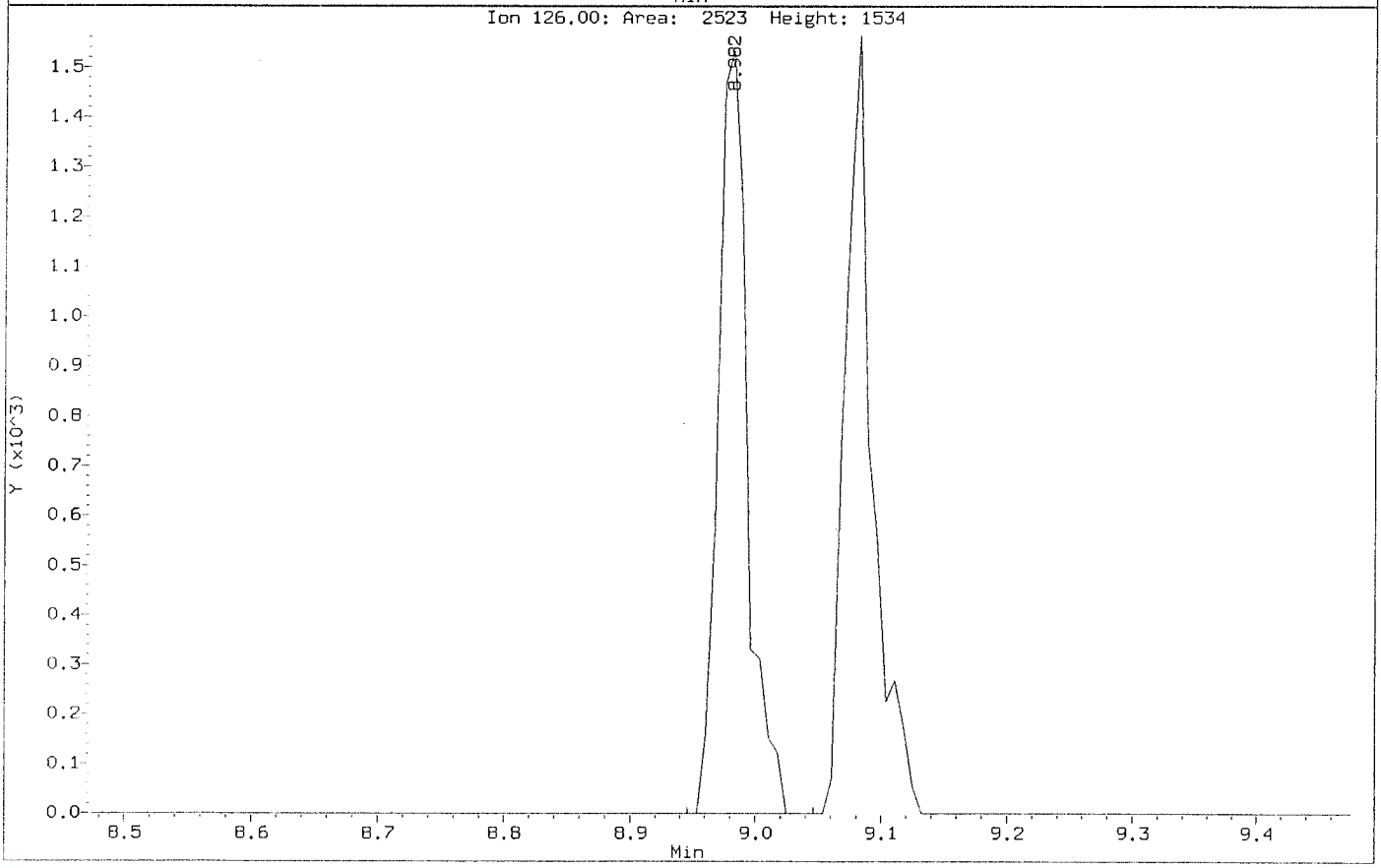
Compound: 2-Butanone
CAS Number: 78-93-3



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Client Sample ID: VSTD000.5

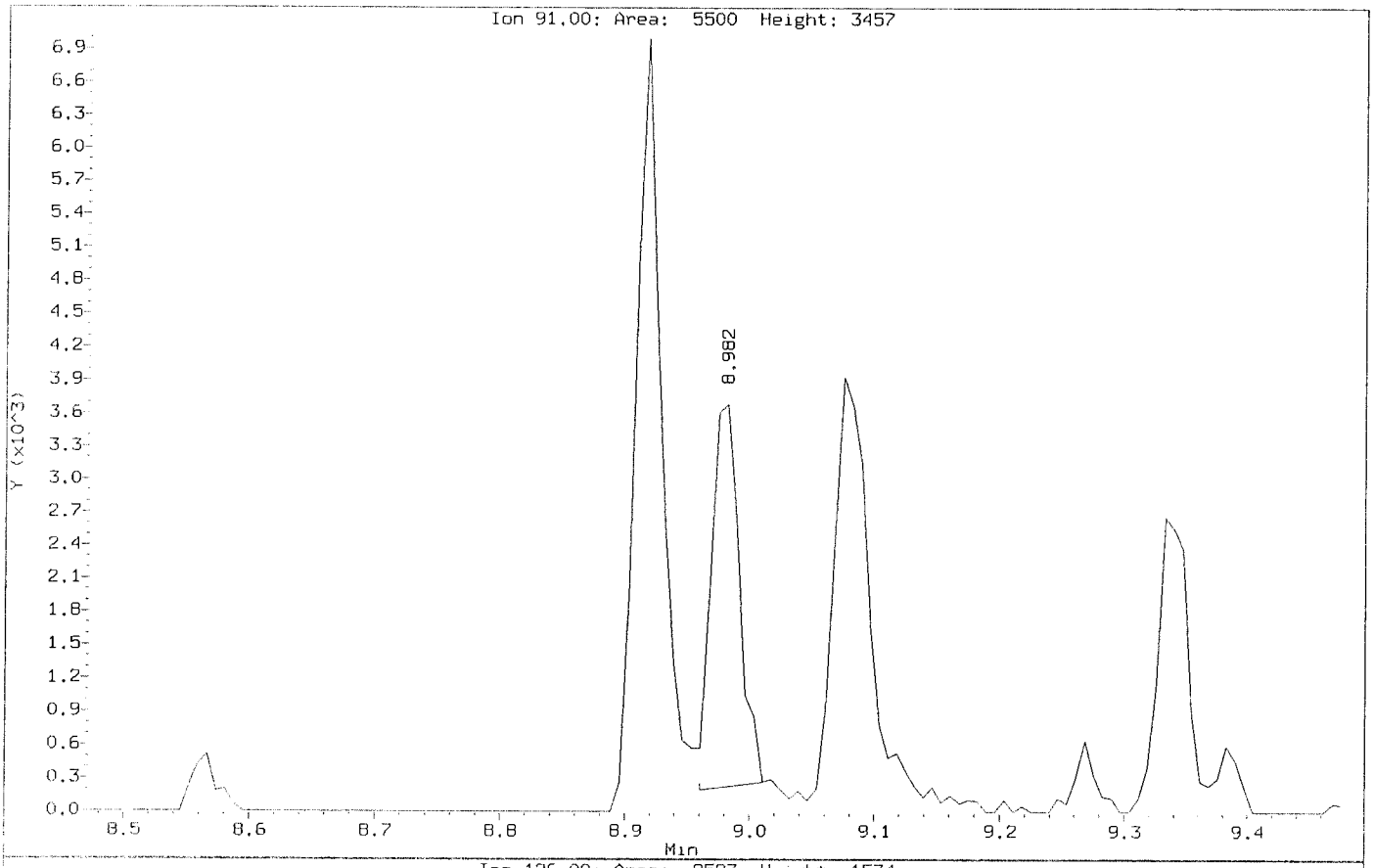
Compound: 2-Chlorotoluene
CAS Number: 95-49-8

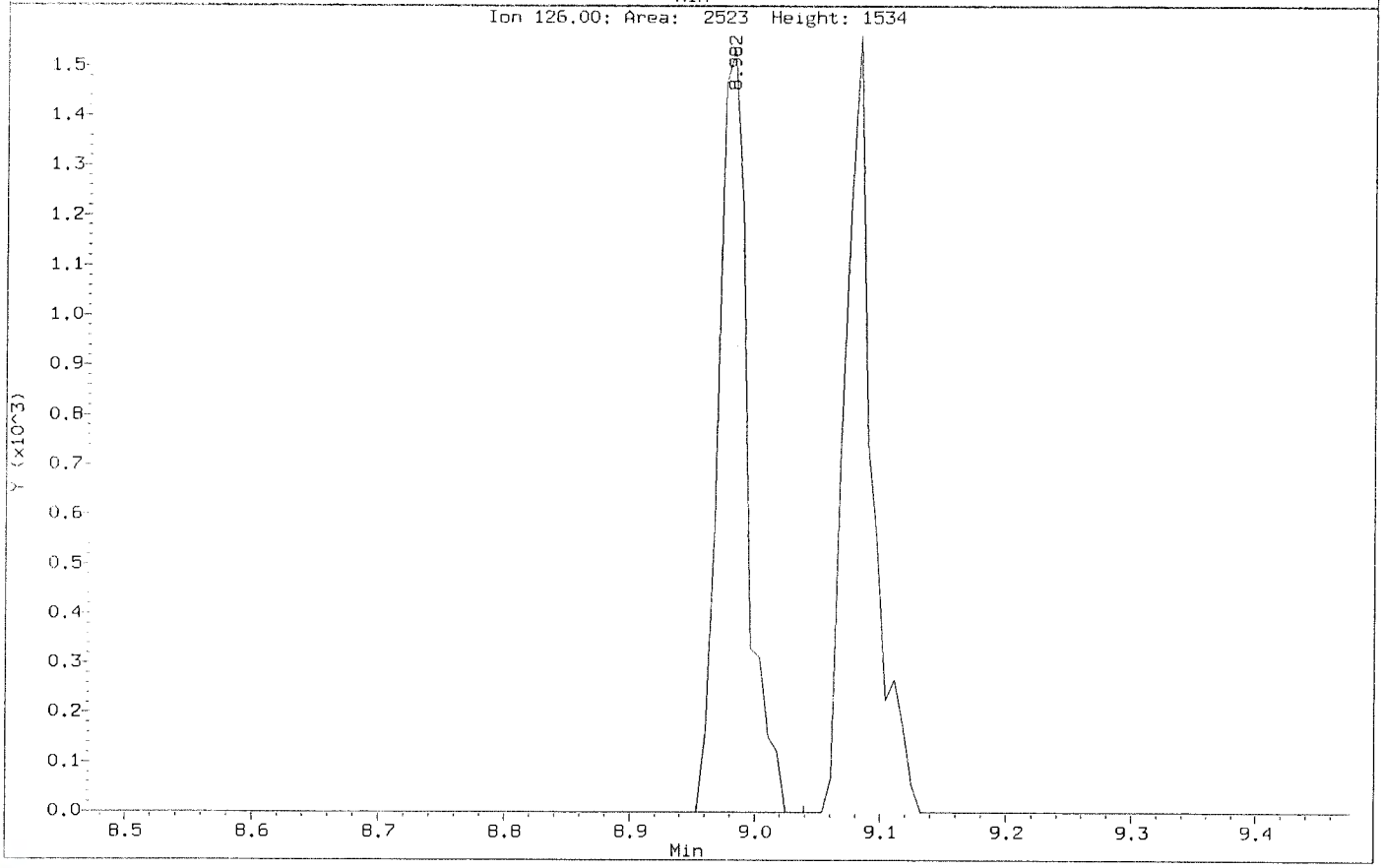




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Client Sample ID: VSTD000.5

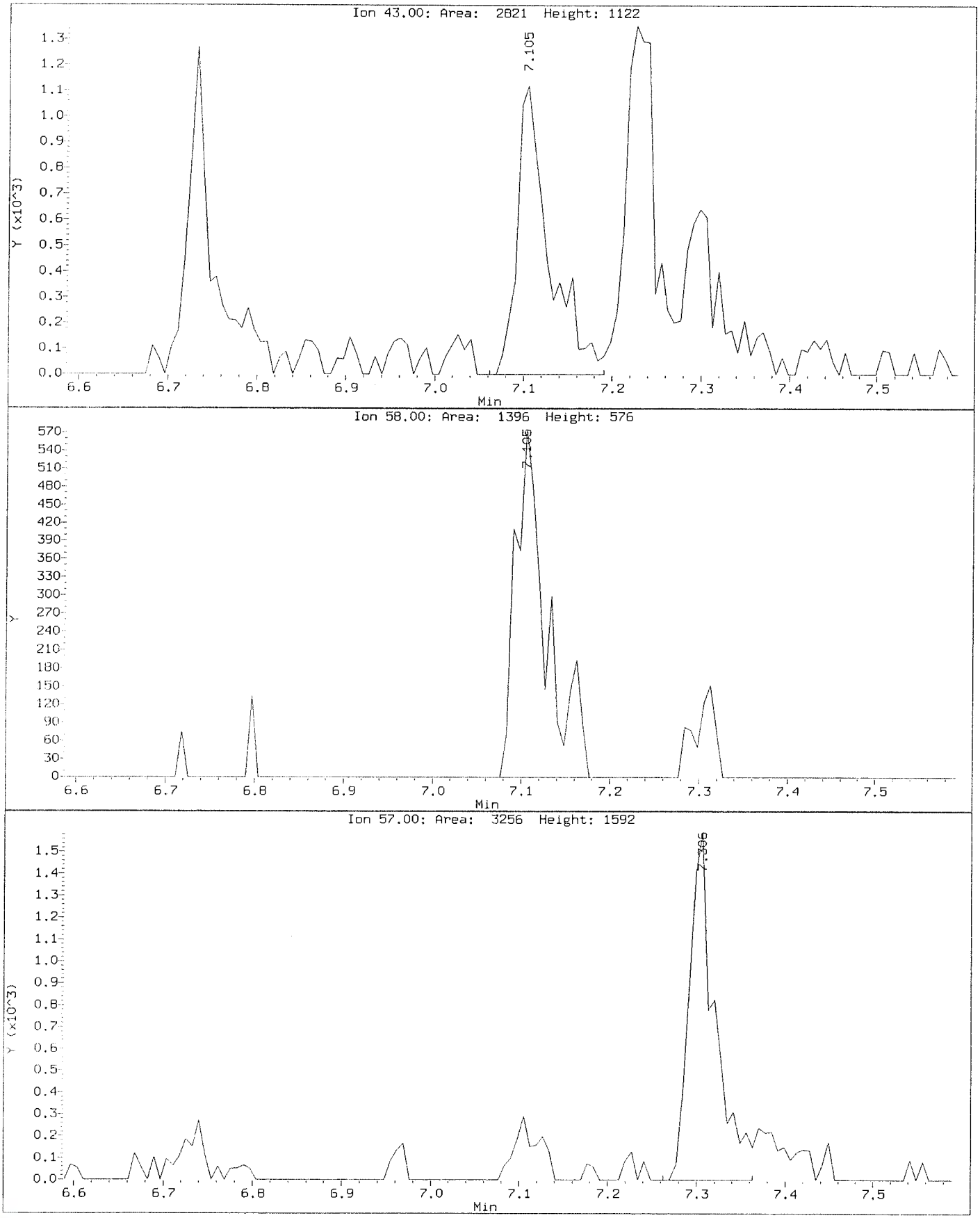
Compound: 2-Chlorotoluene
CAS Number: 95-49-8





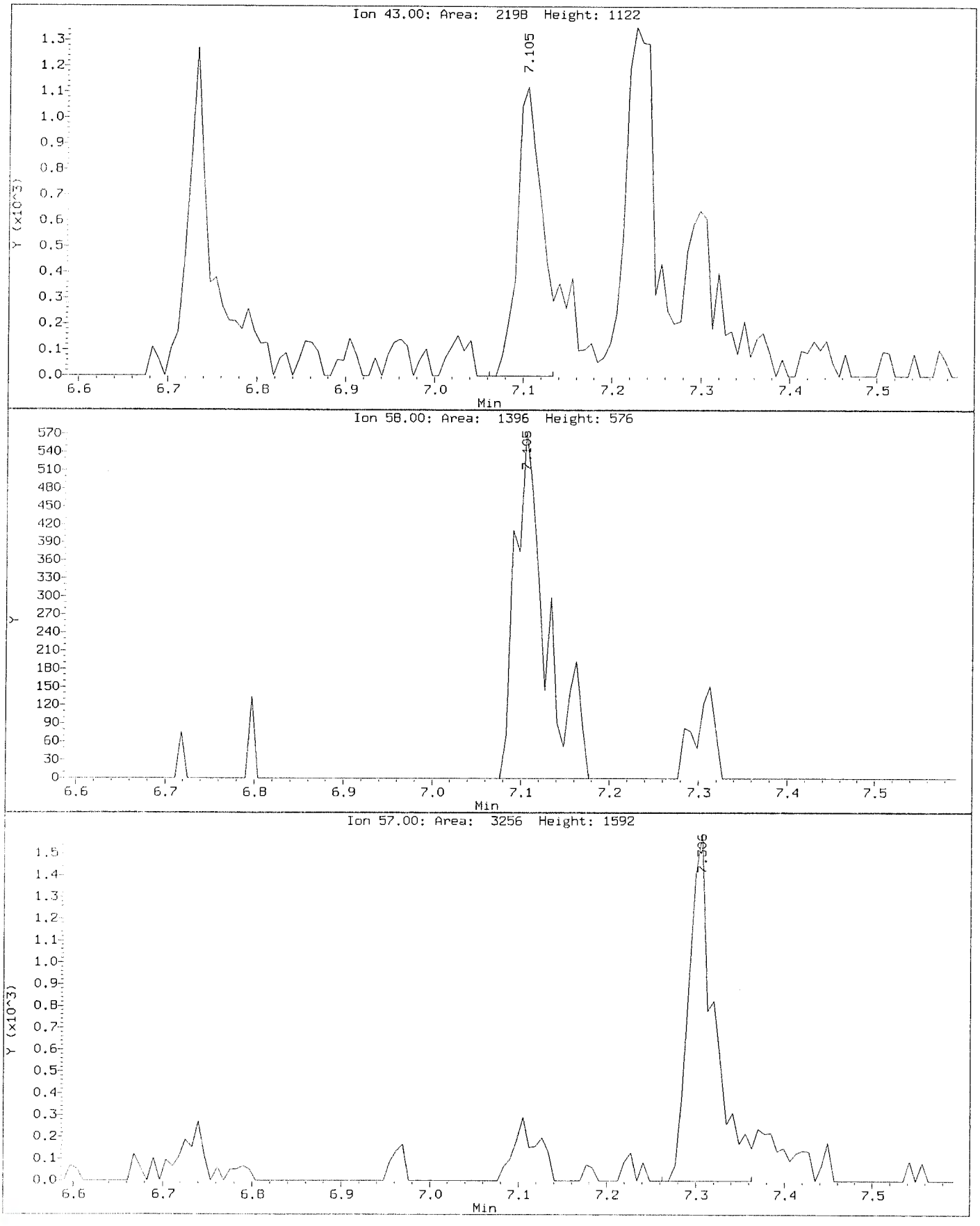
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 2-Hexanone
CAS Number: 591-78-6



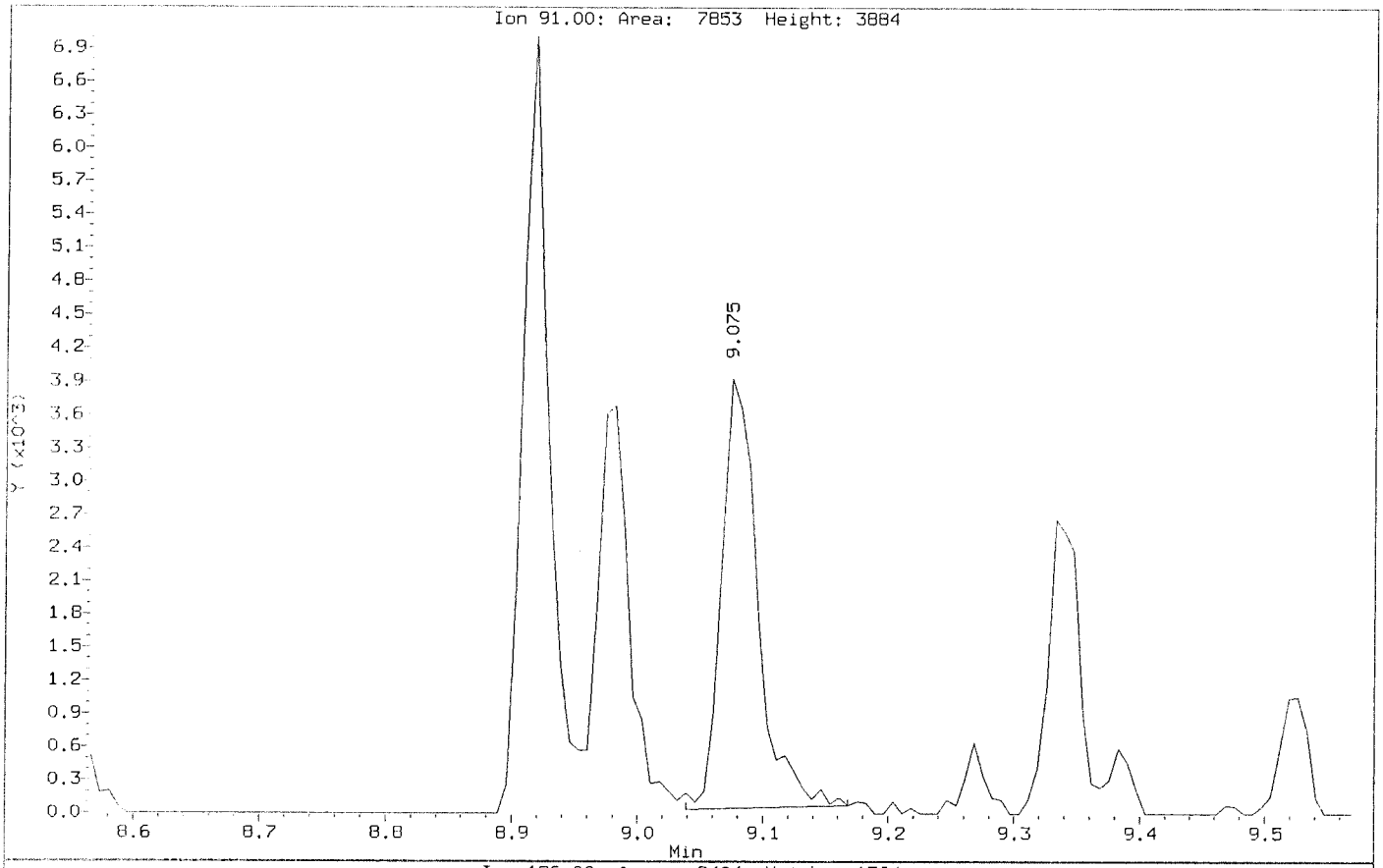
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Client Sample ID: VSTD000.5

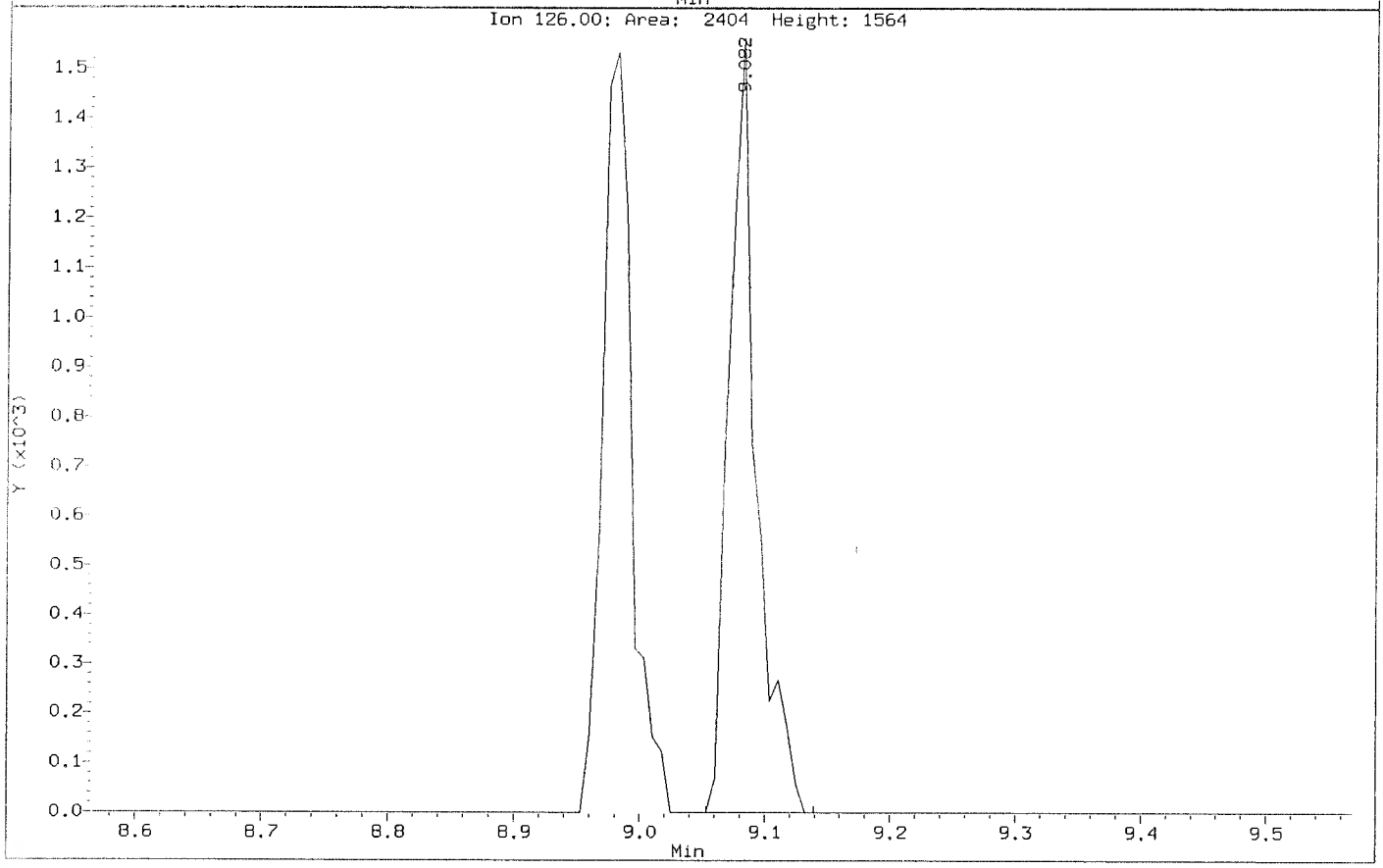
Compound: 2-Hexanone
CAS Number: 591-78-6



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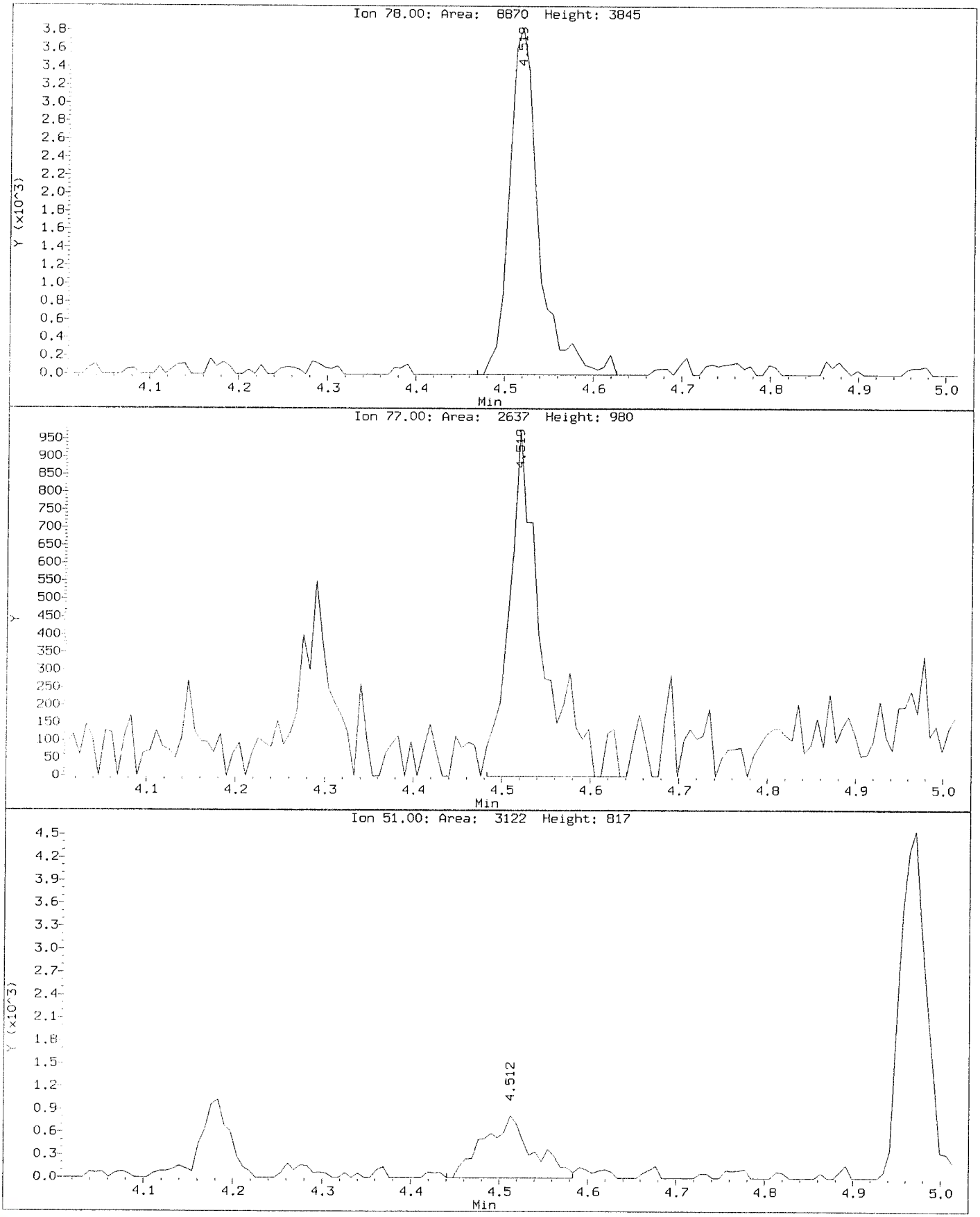
Compound: 4-Chlorotoluene
CAS Number: 106-43-4





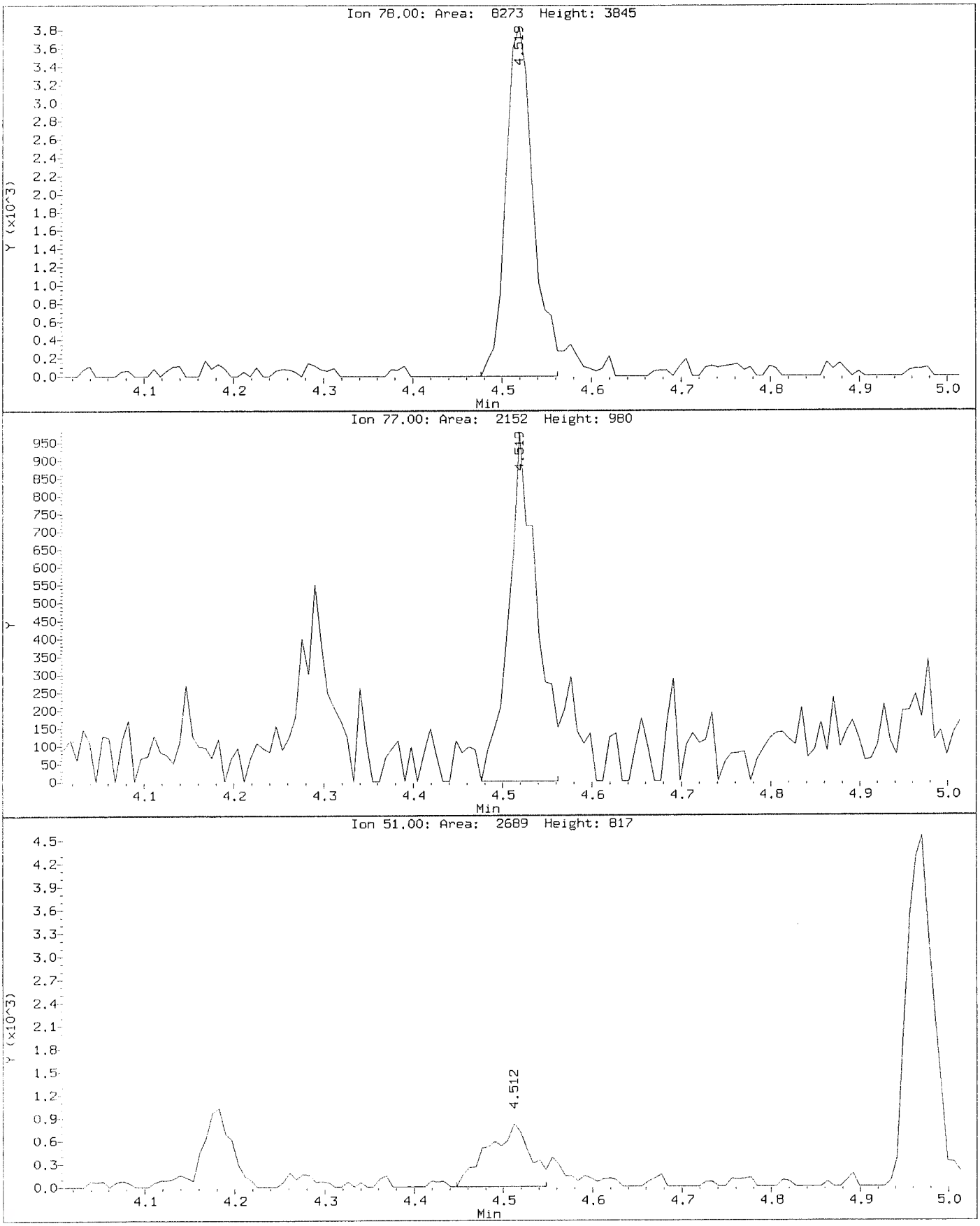
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Benzene
CAS Number: 71-43-2



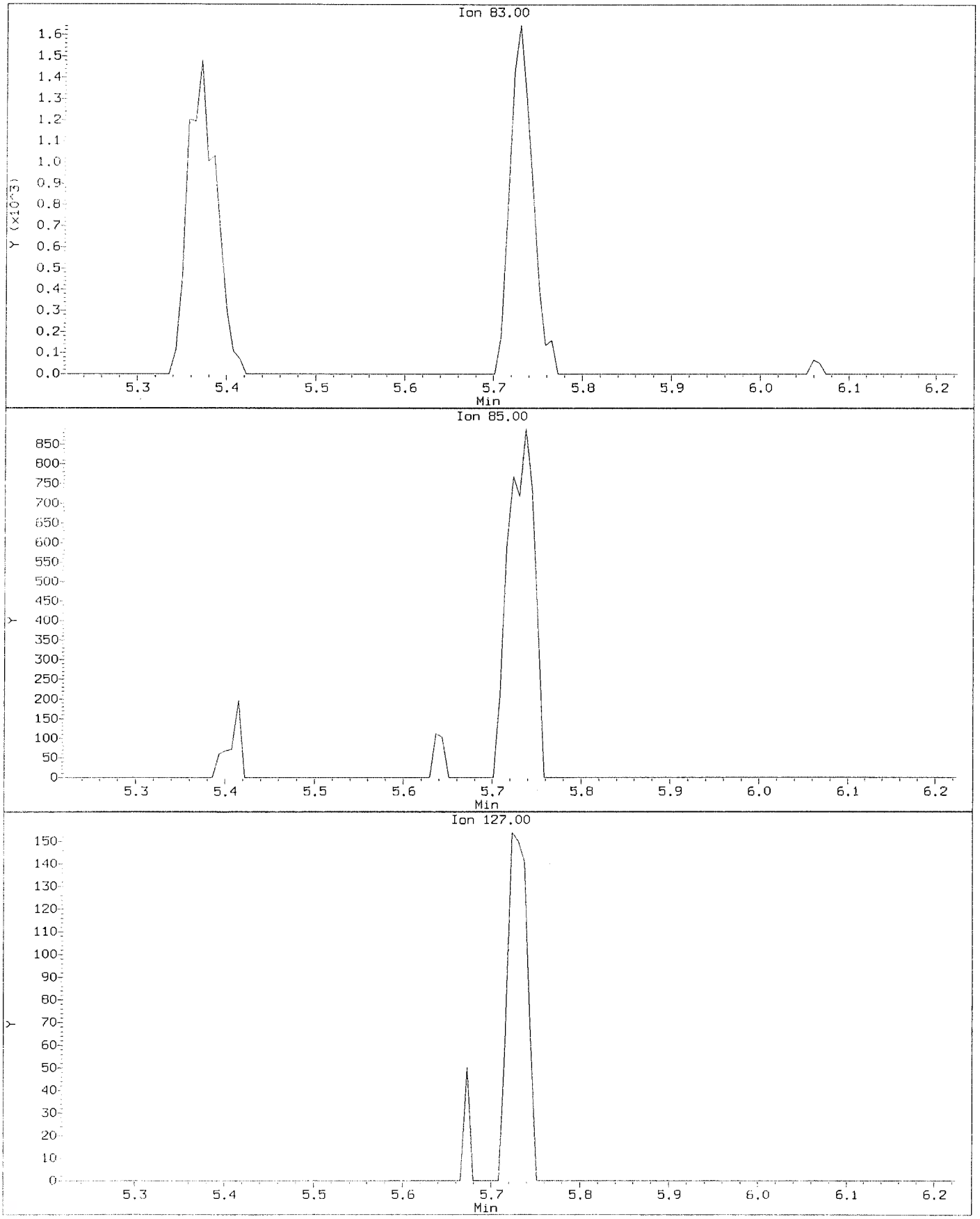
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Benzene
CAS Number: 71-43-2



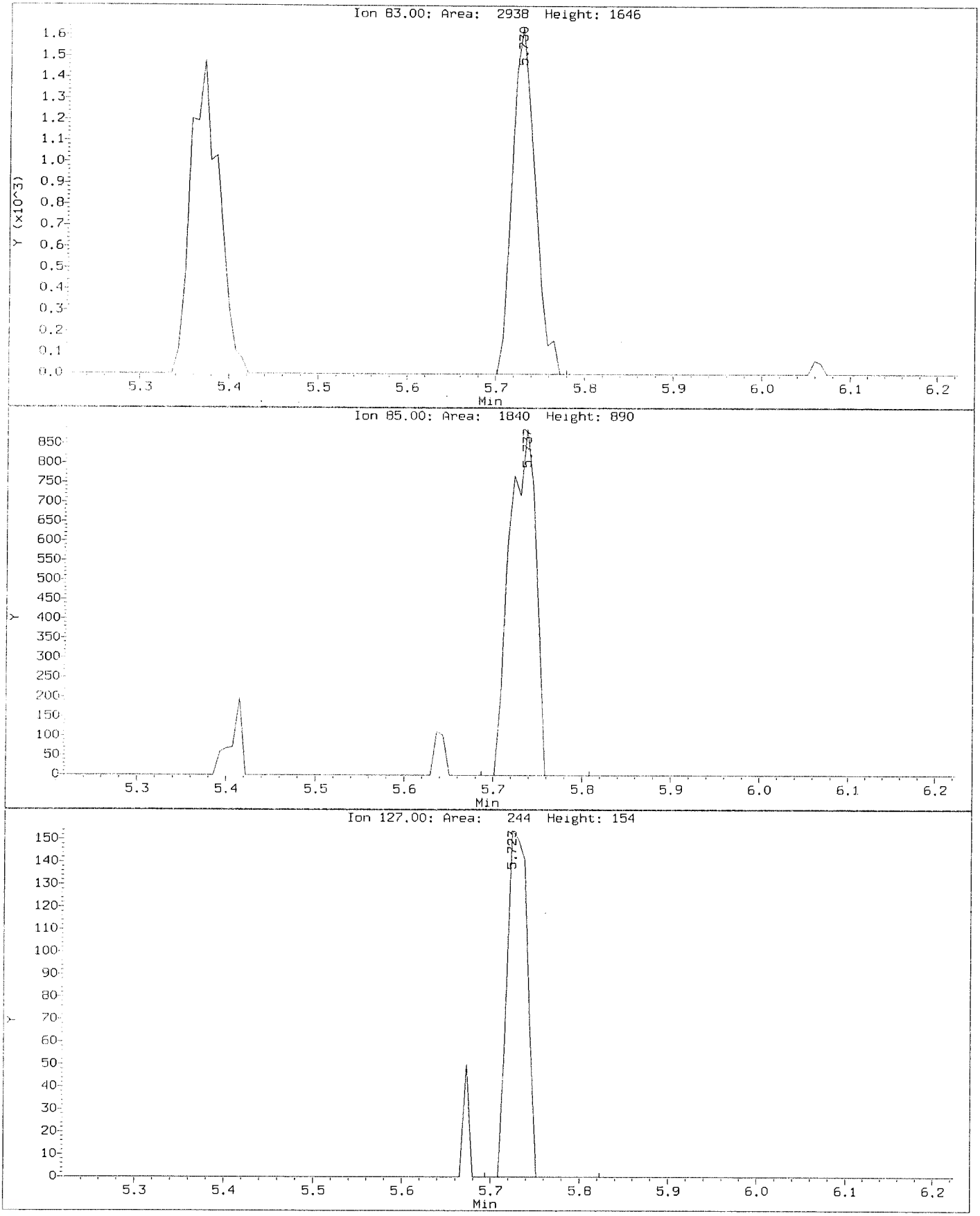
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Bromodichloromethane
CAS Number: 75-27-4



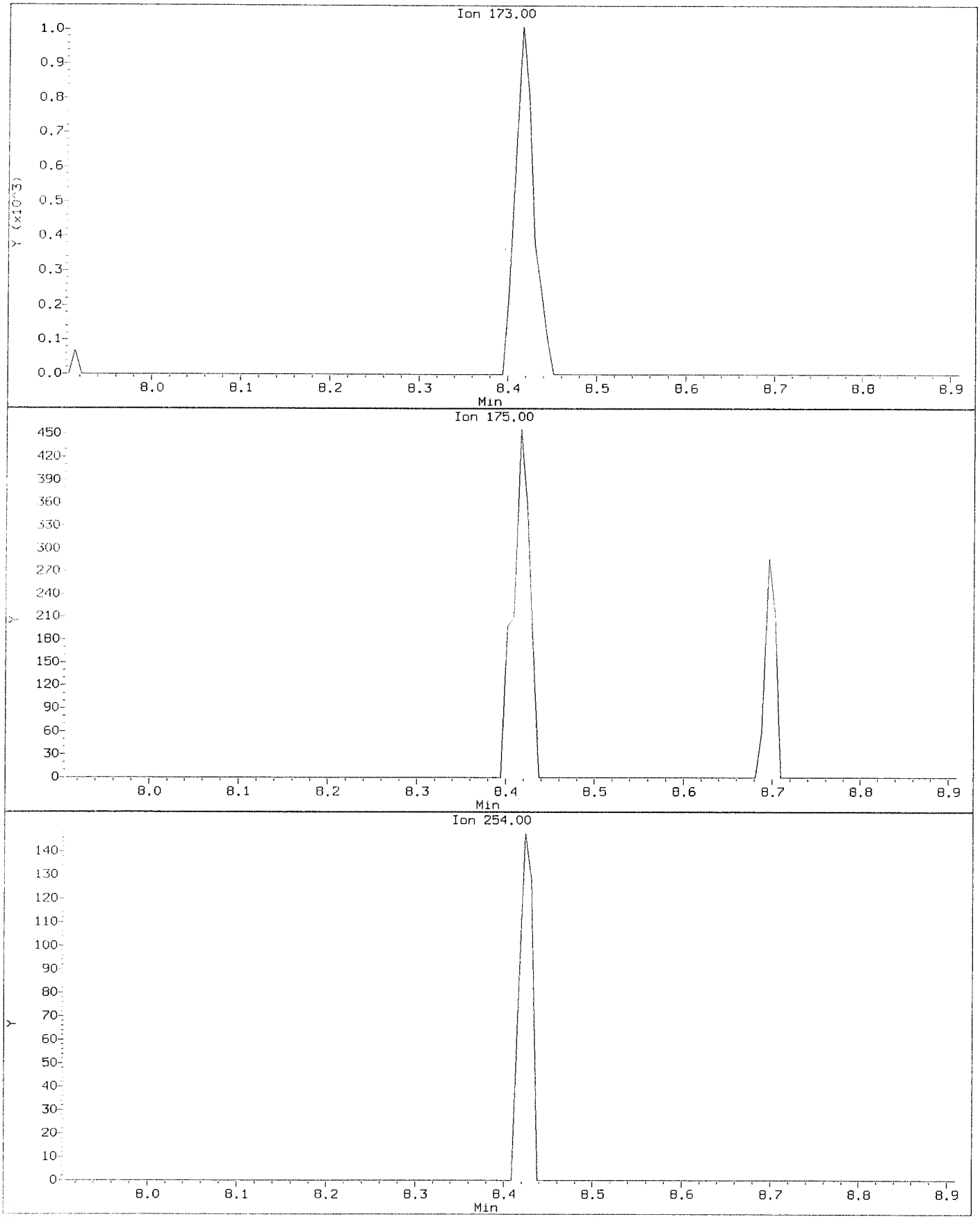
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Bromodichloromethane
CAS Number: 75-27-4



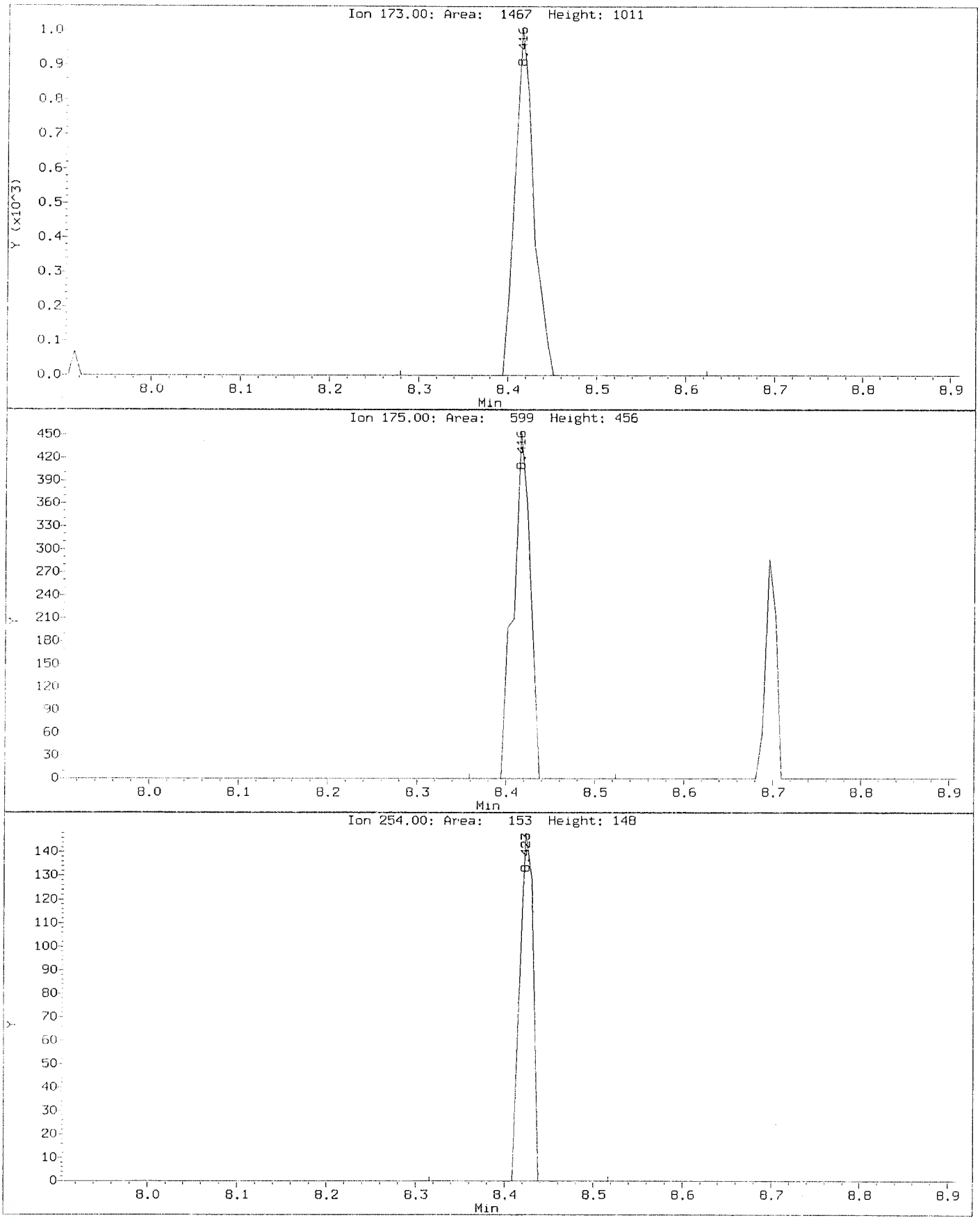
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Bromoform
CAS Number: 75-25-2



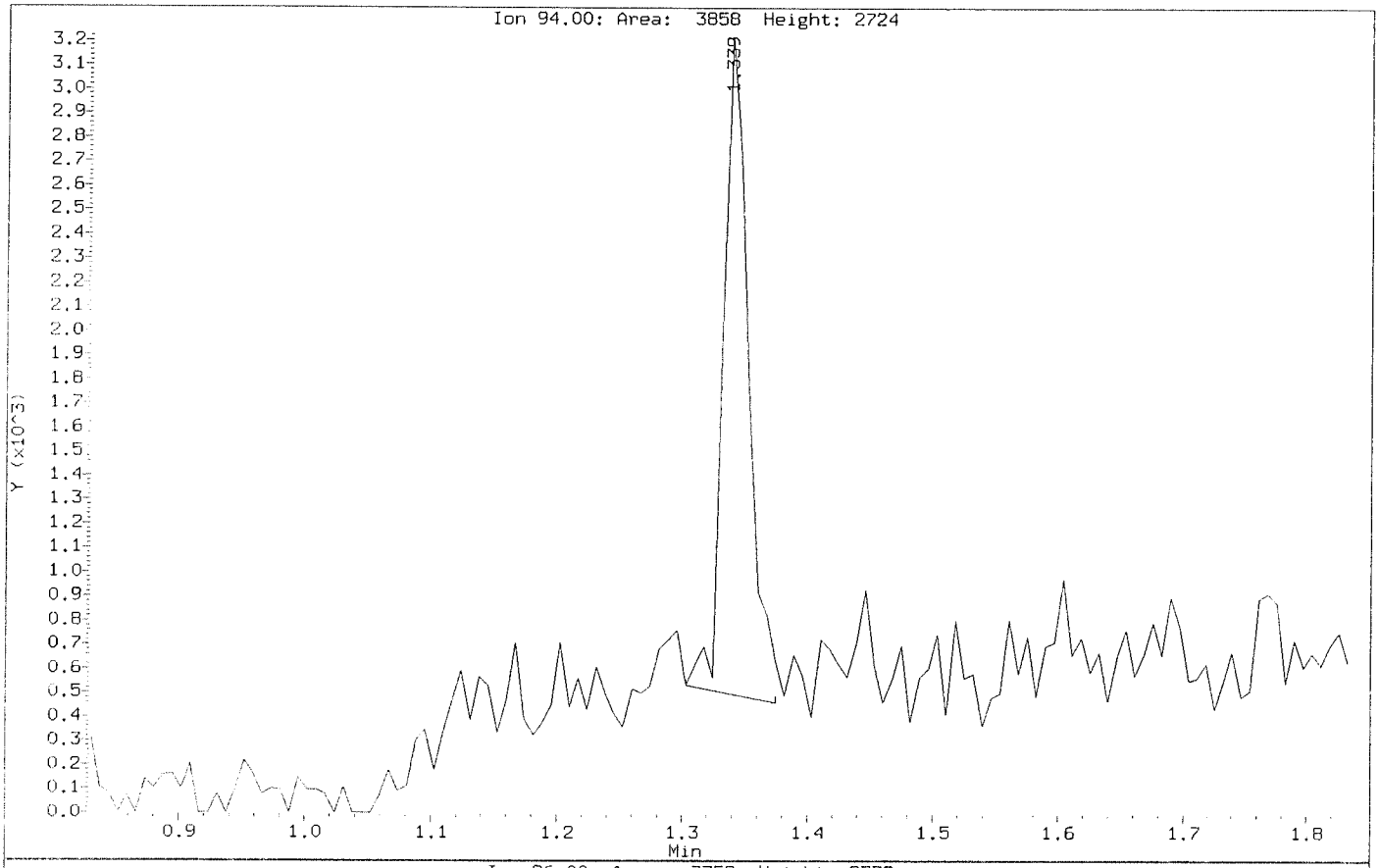
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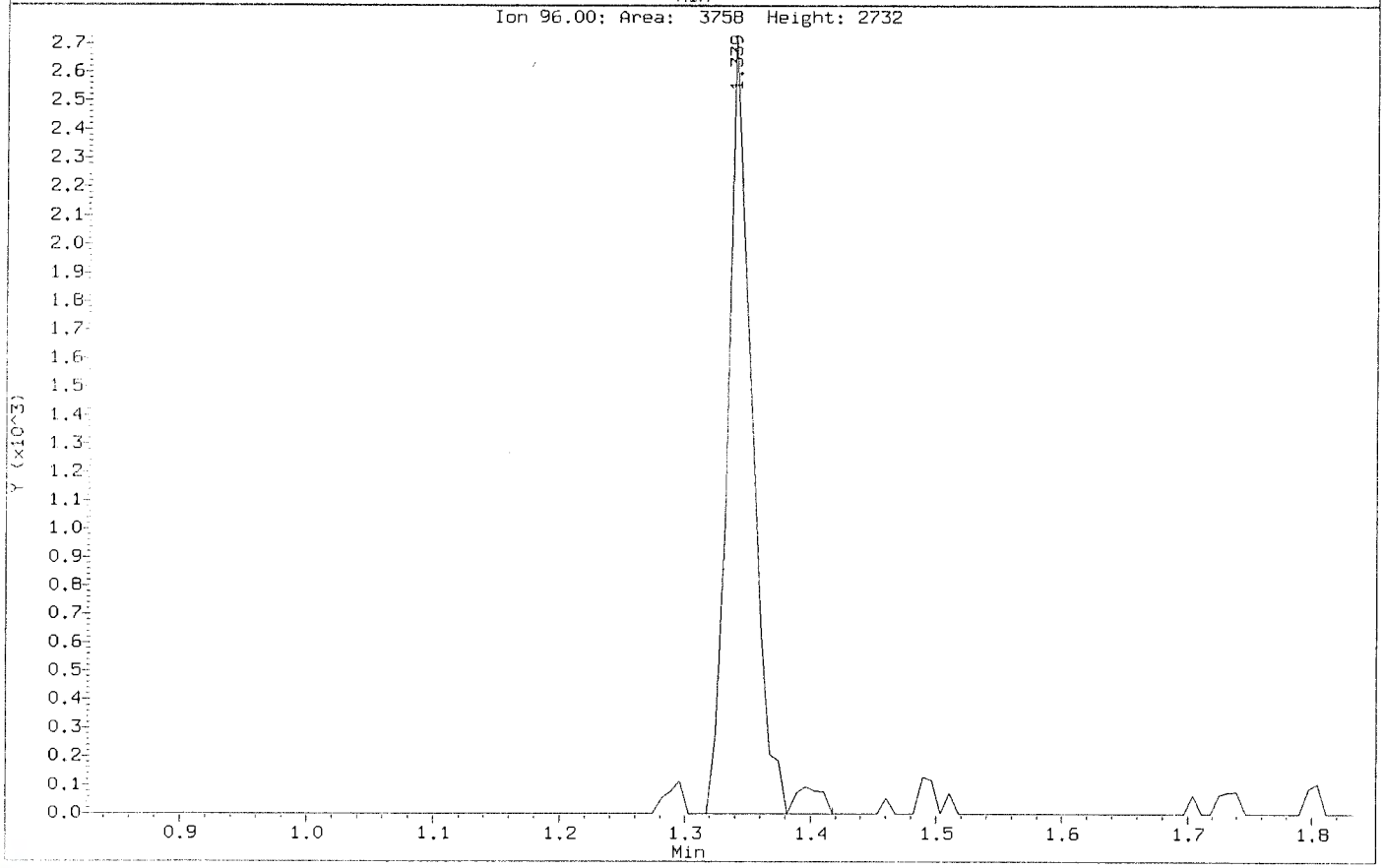
Compound: Bromoform
CAS Number: 75-25-2



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Instrument: voa6.i
Client Sample ID: VSTD000.5

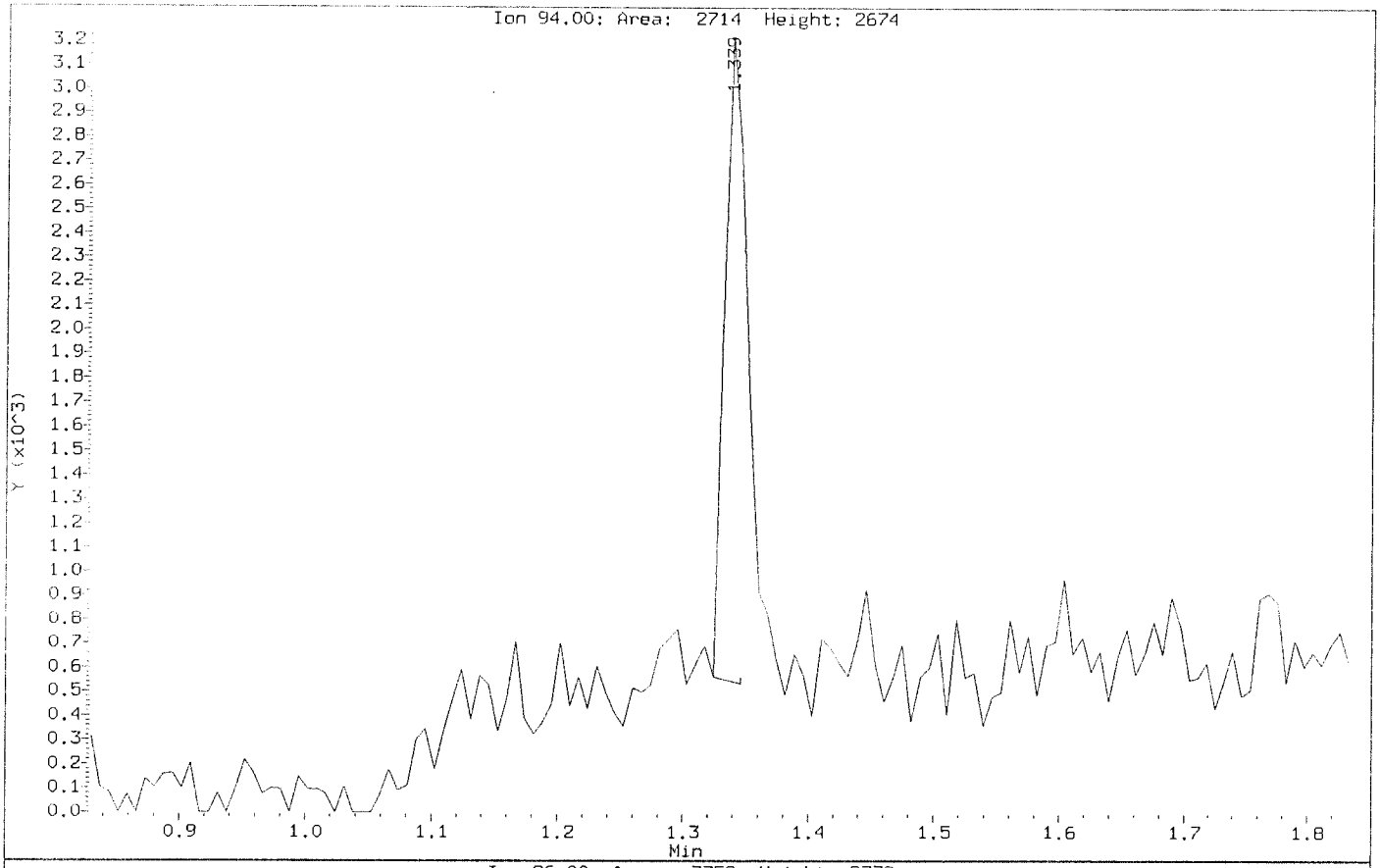
Compound: Bromomethane
CAS Number: 74-83-9

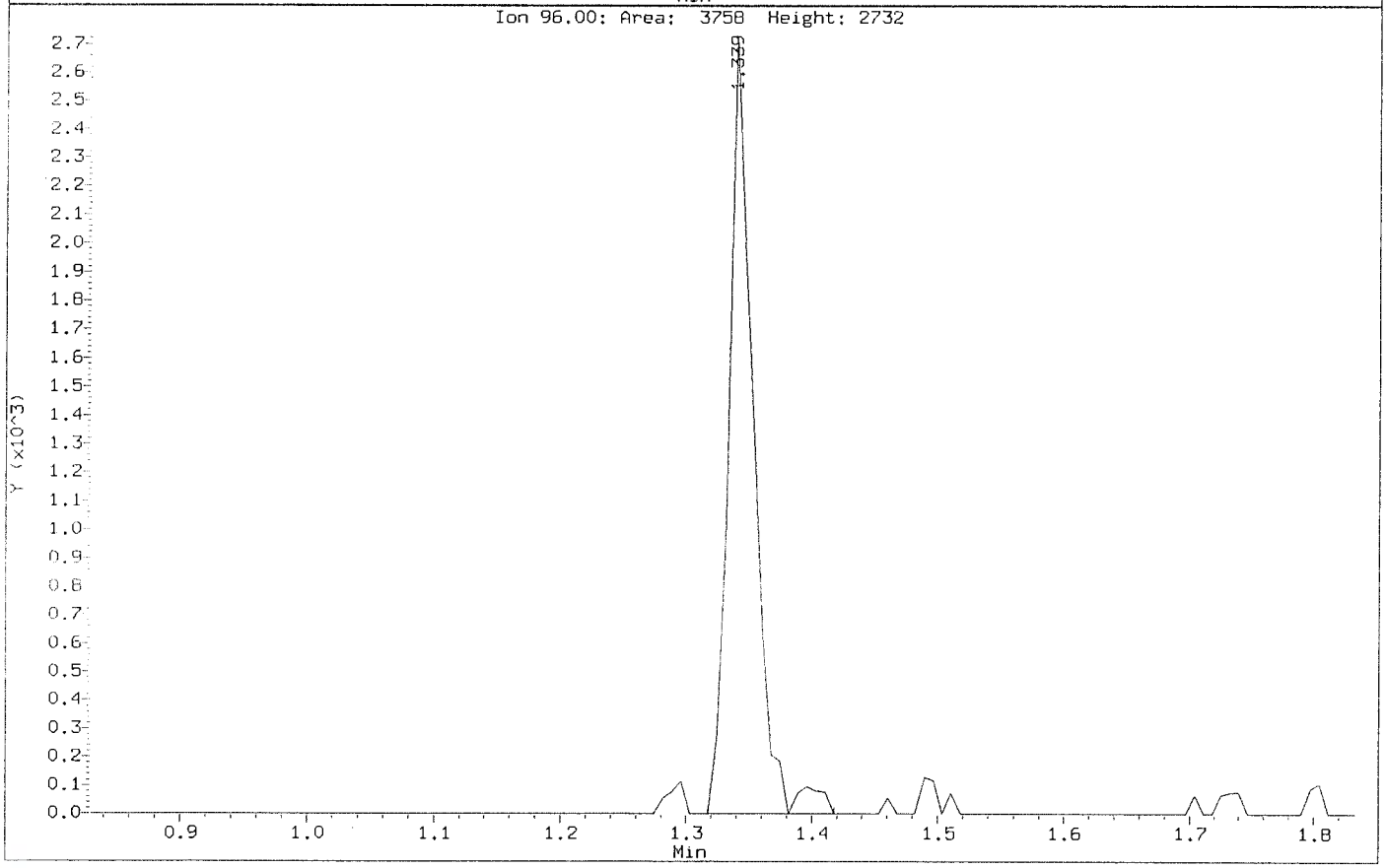




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Client Sample ID: VSTD000.5

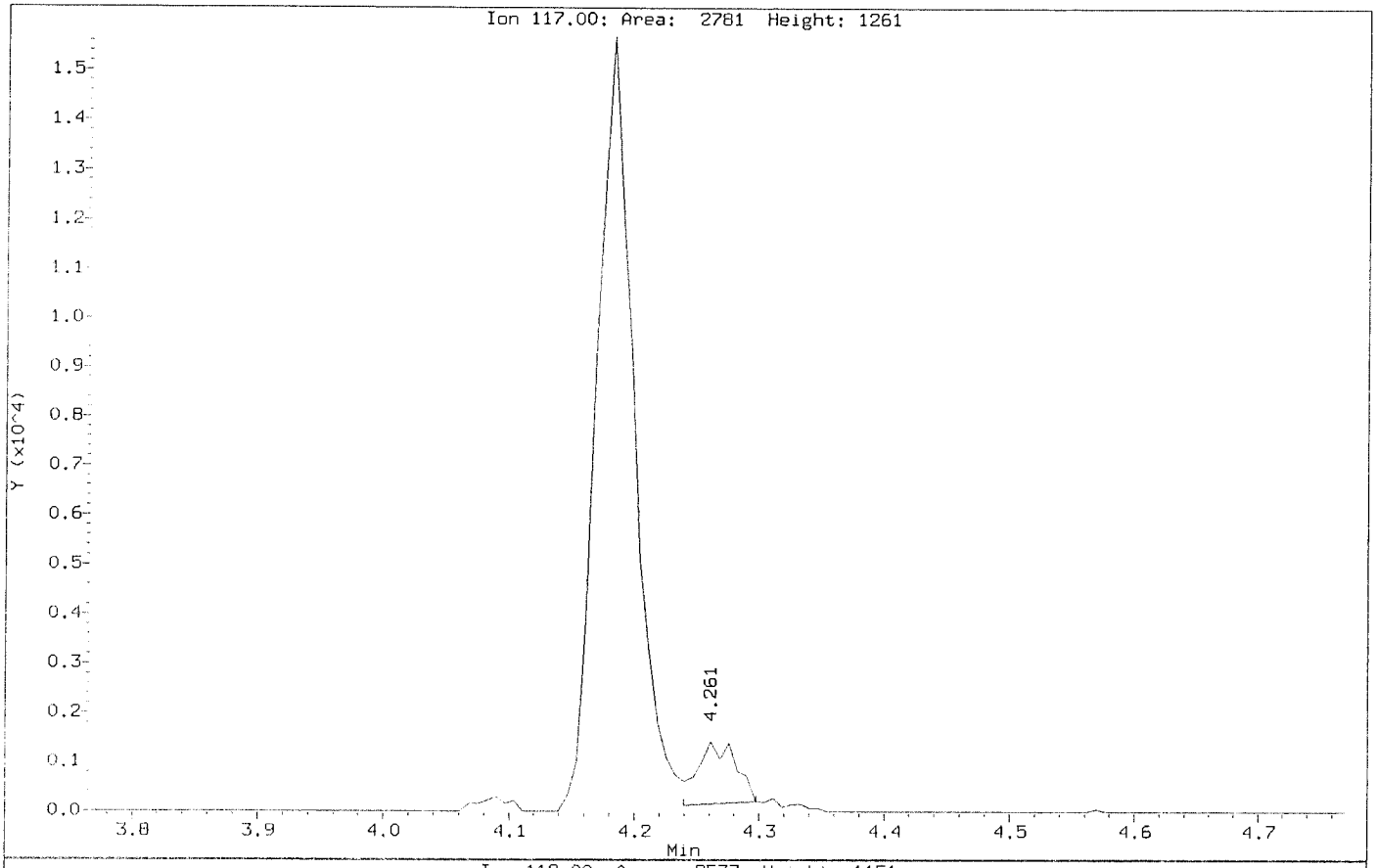
Compound: Bromomethane
CAS Number: 74-83-9

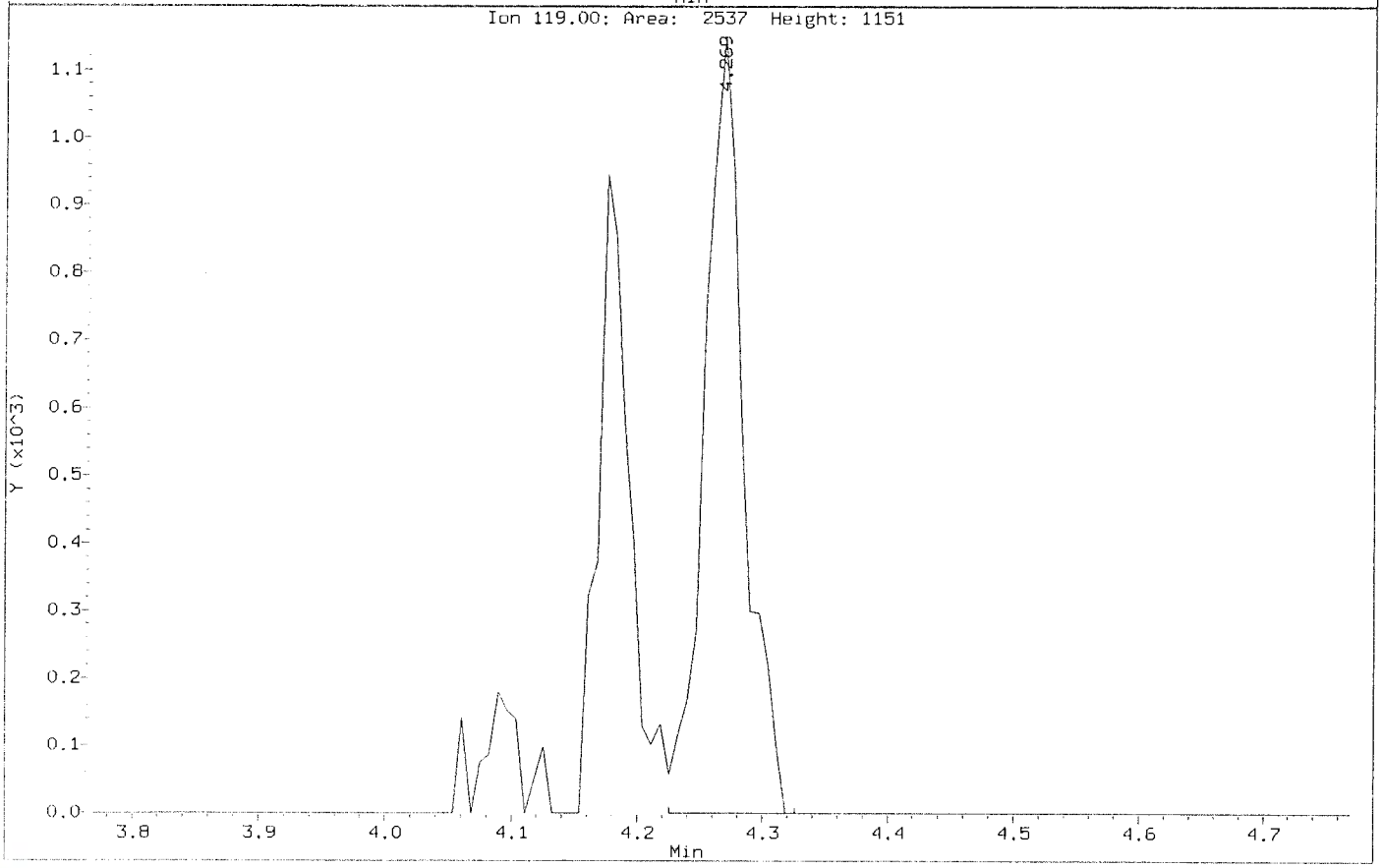




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Instrument: voa6.i
Client Sample ID: VSTD000.5

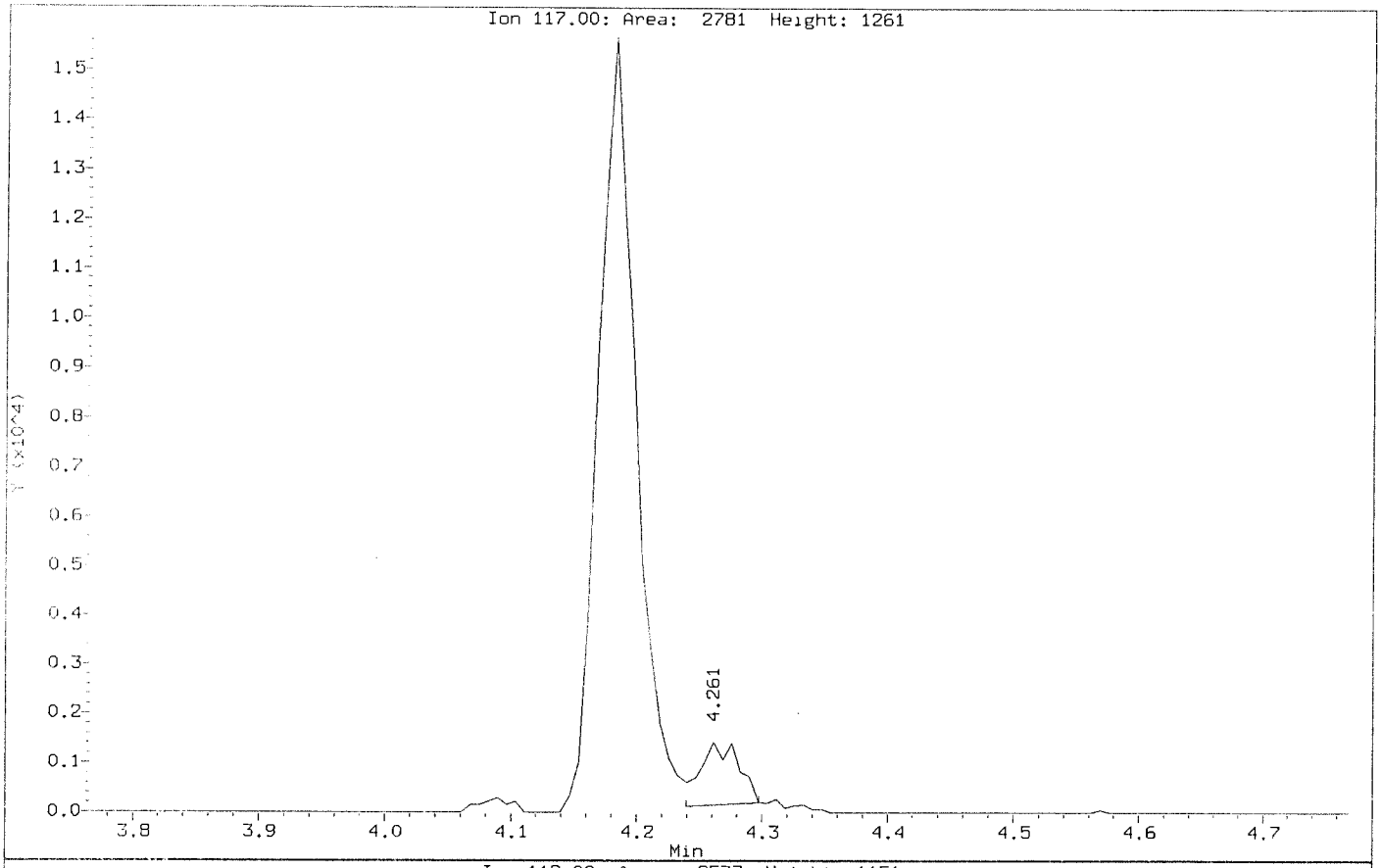
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

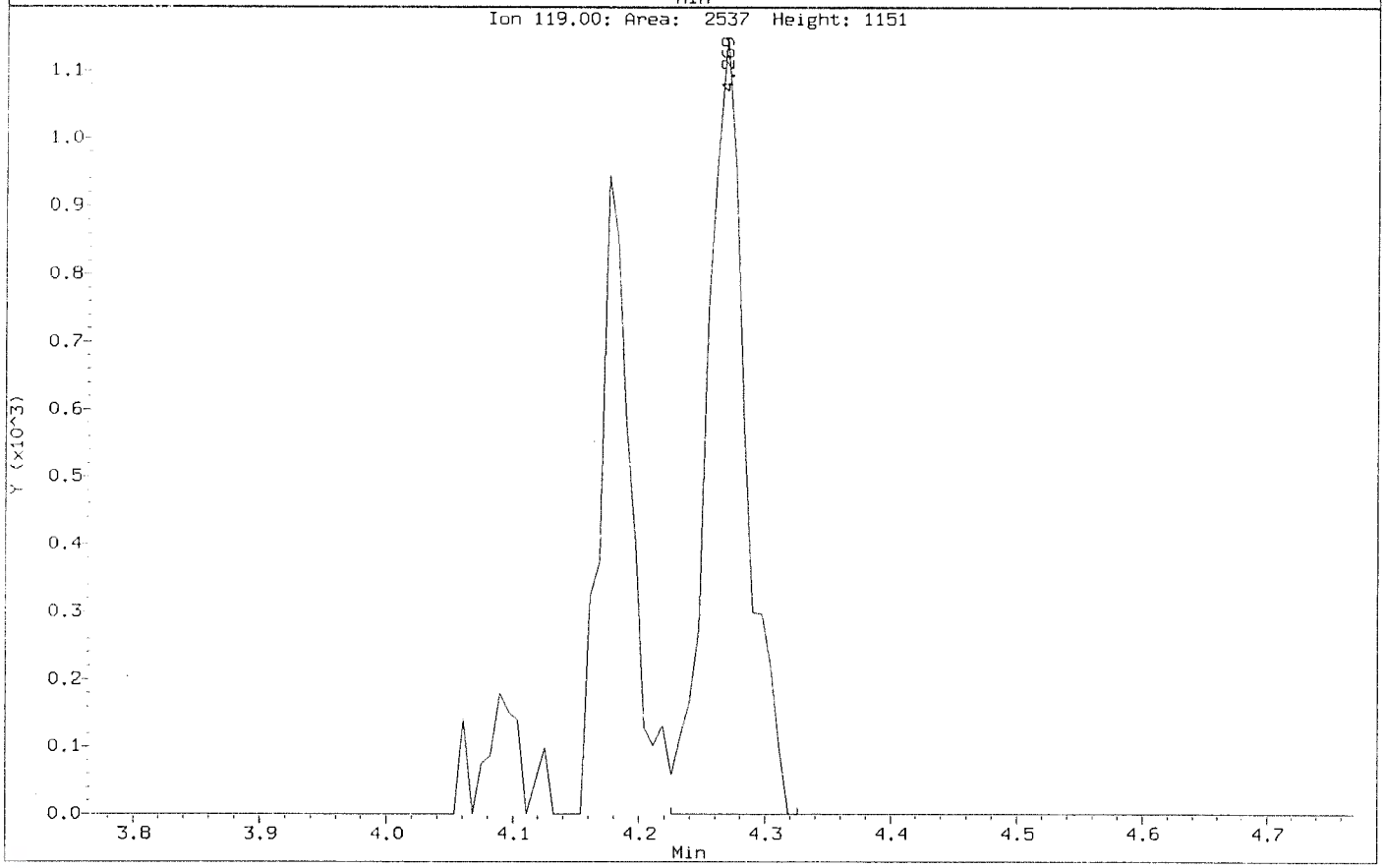




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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

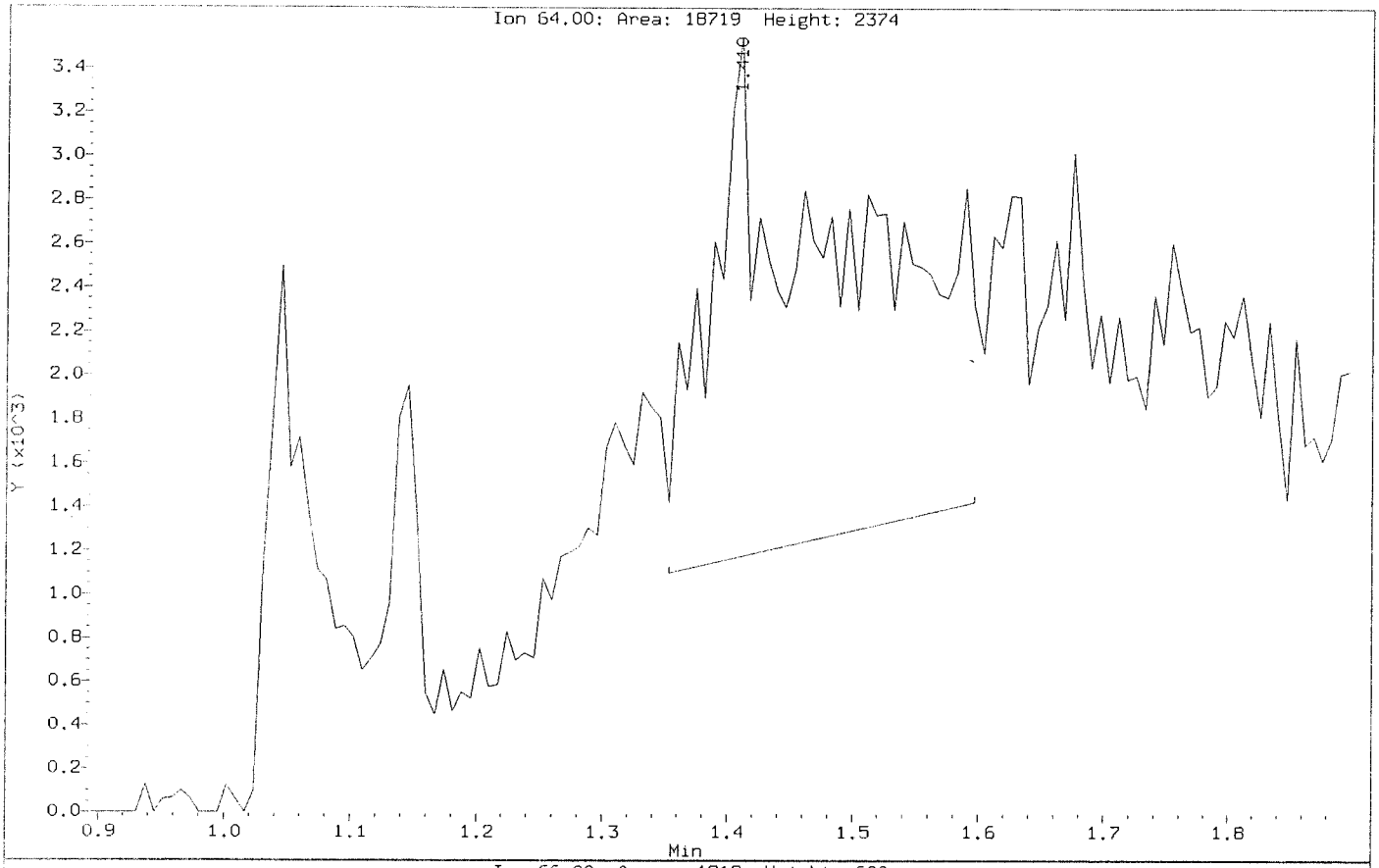
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

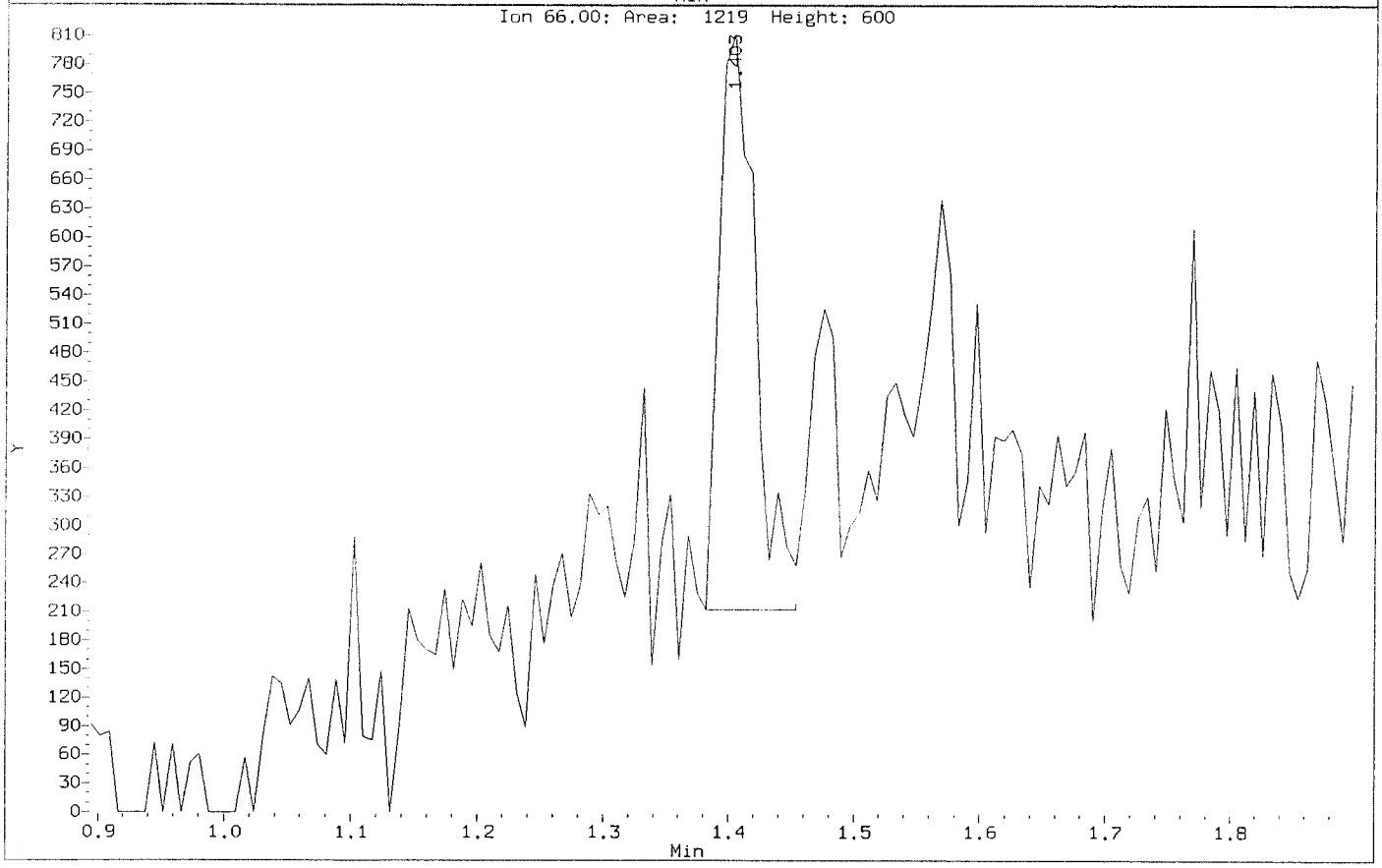




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Instrument: voa6.i
Client Sample ID: VSTD000.5

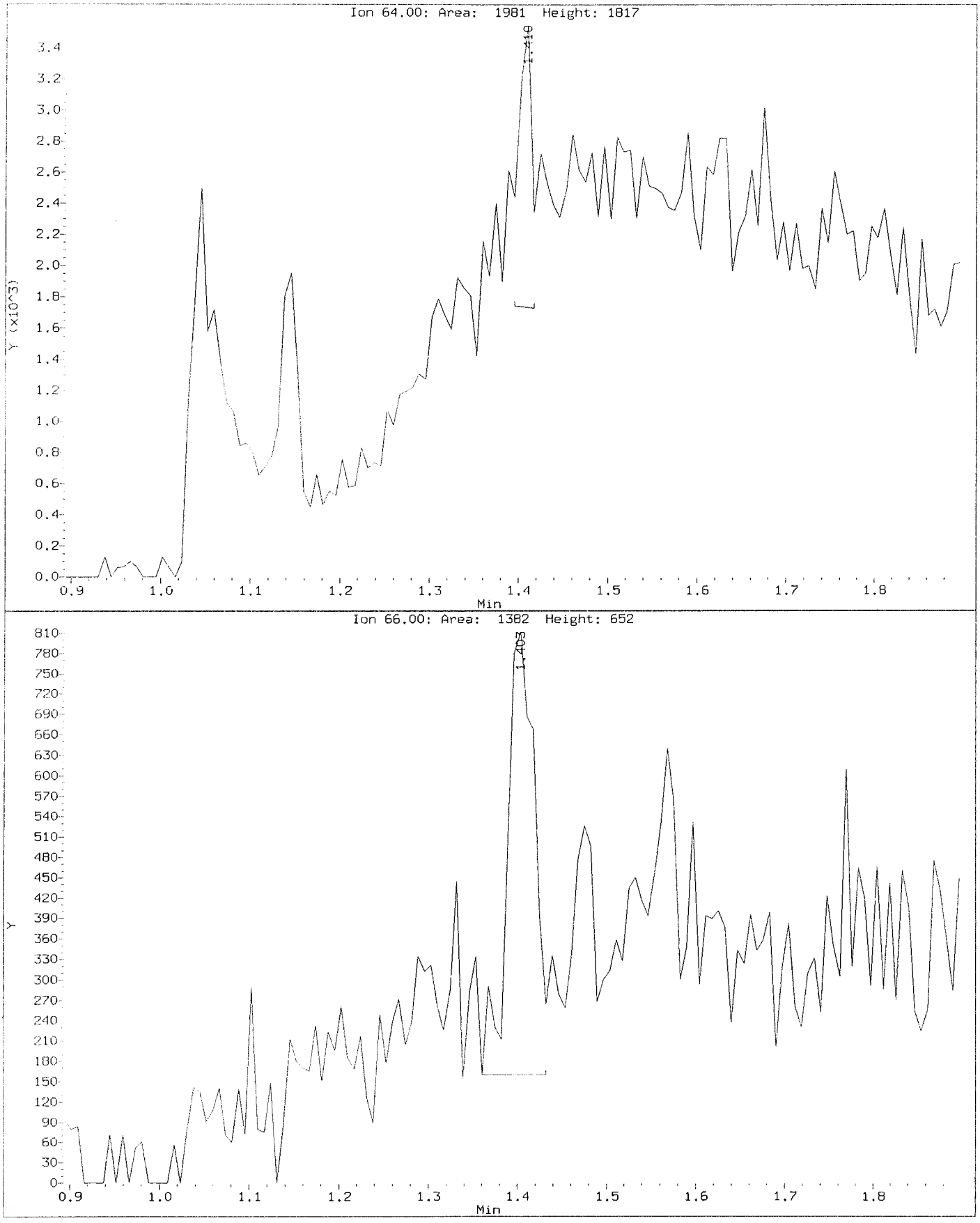
Compound: Chloroethane
CAS Number: 75-00-3





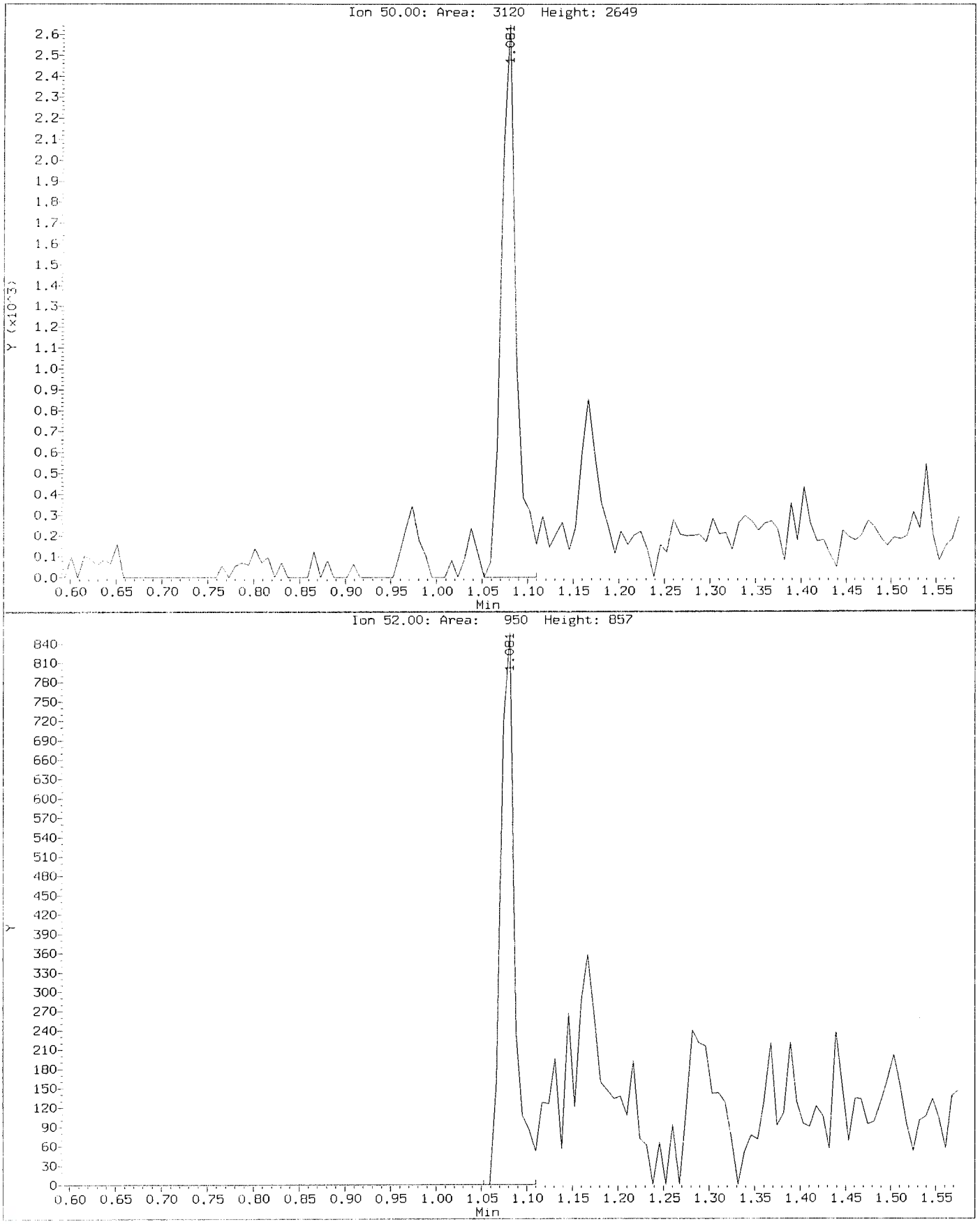
Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052603.D
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Chloroethane
CAS Number: 75-00-3



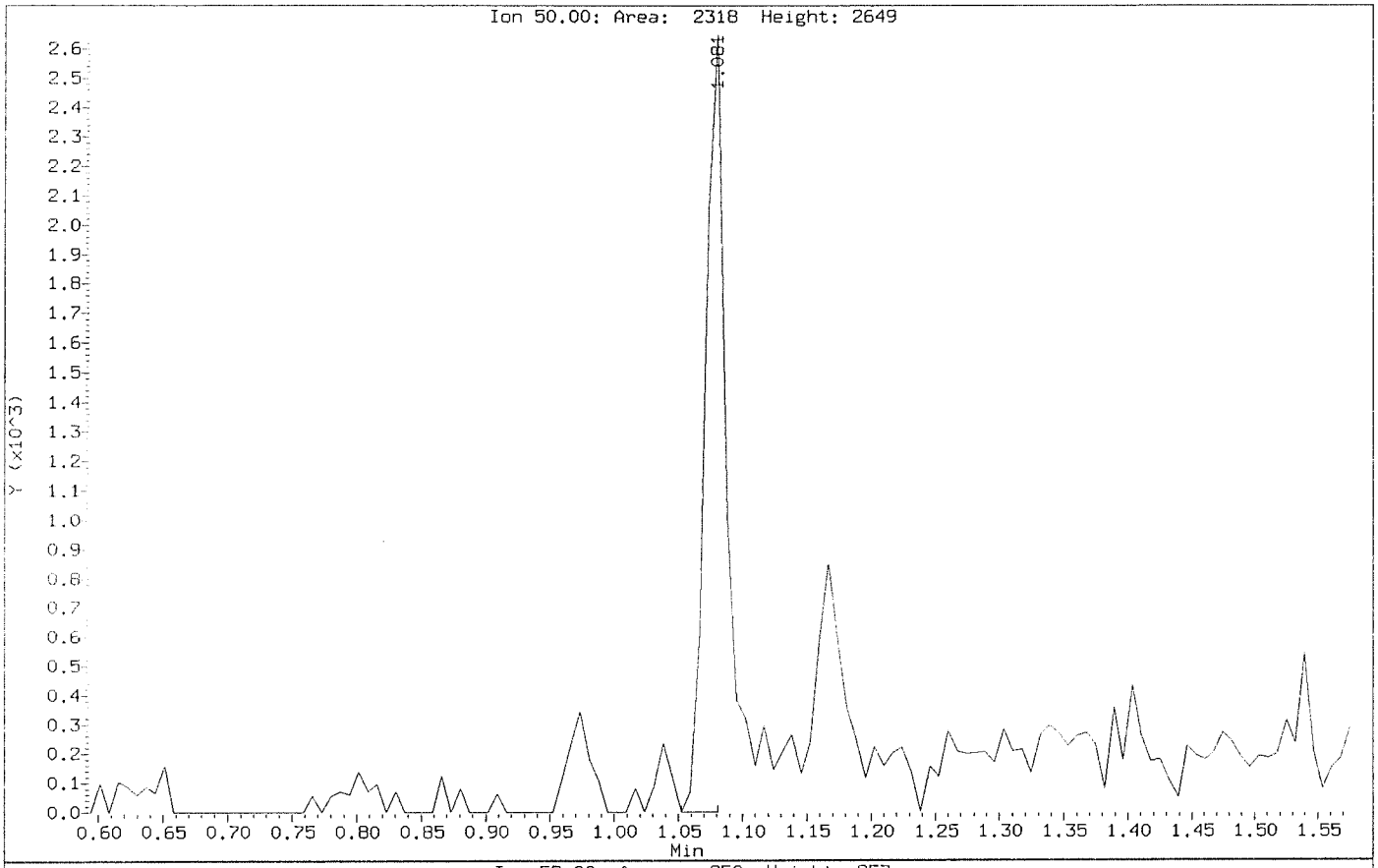
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Instrument: voa6.i
Client Sample ID: VSTD000.5

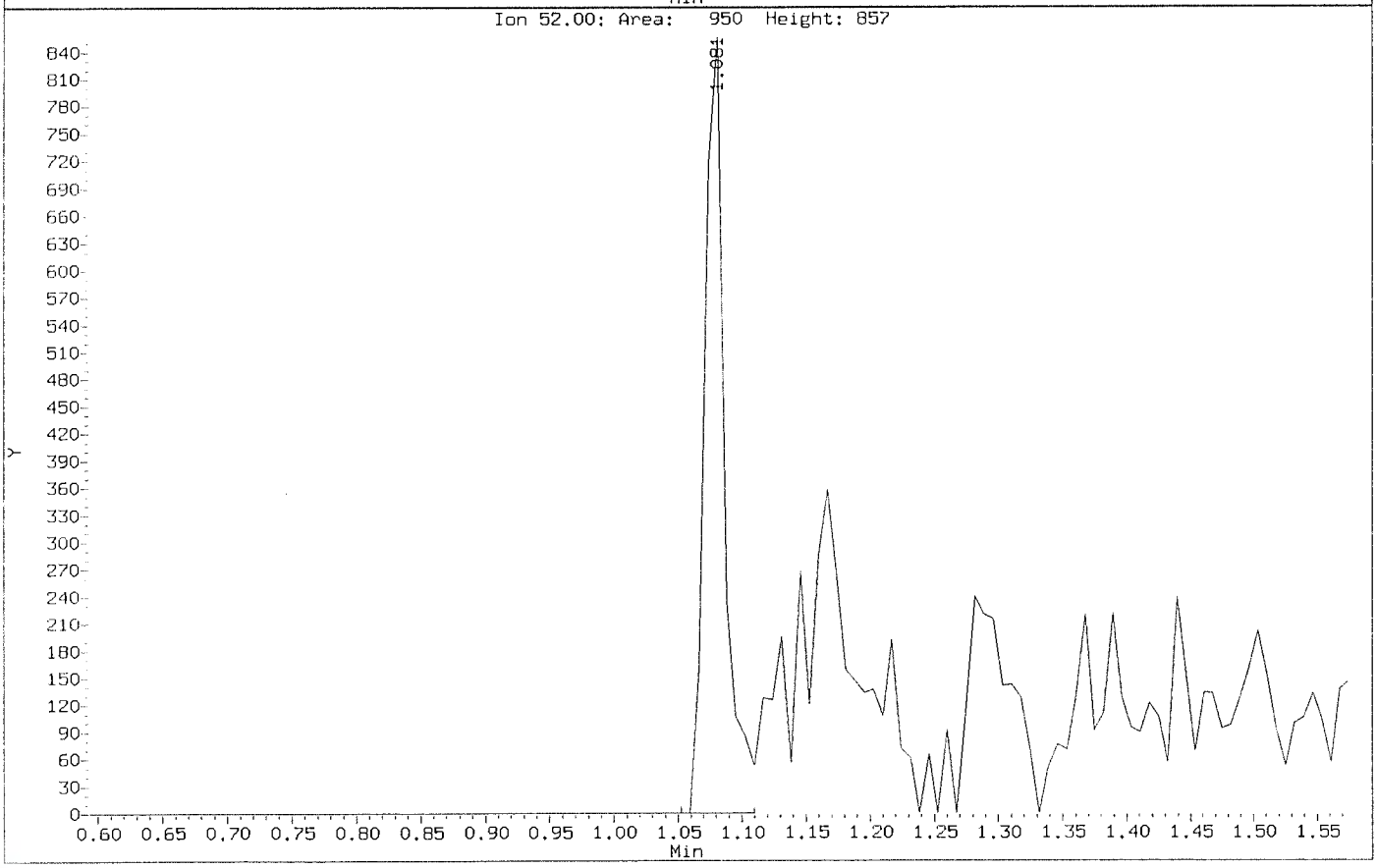
Compound: Chloromethane
CAS Number: 74-87-3



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052603.D
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Instrument: voa6.i
Client Sample ID: VSTD000.5

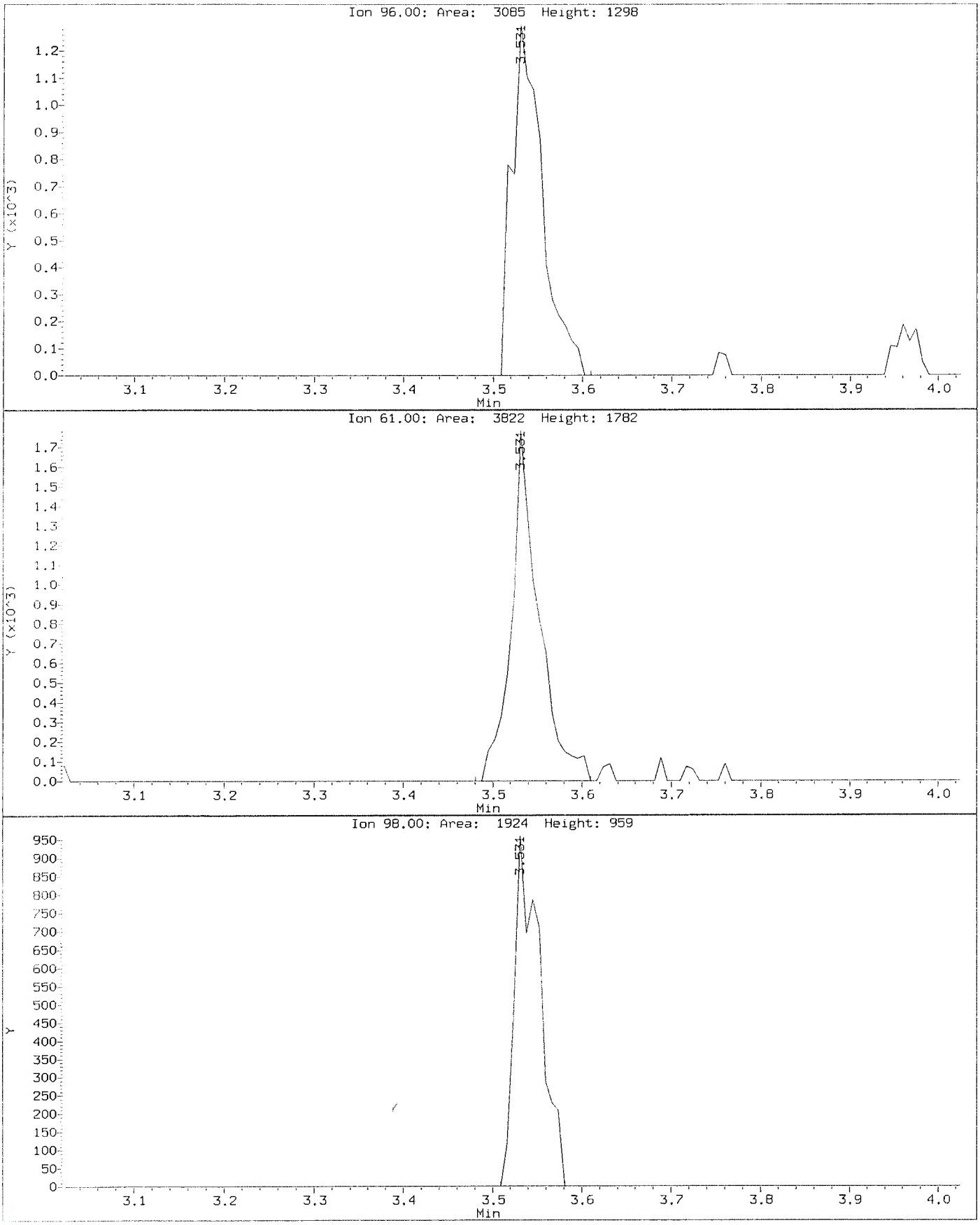
Compound: Chloromethane
CAS Number: 74-87-3





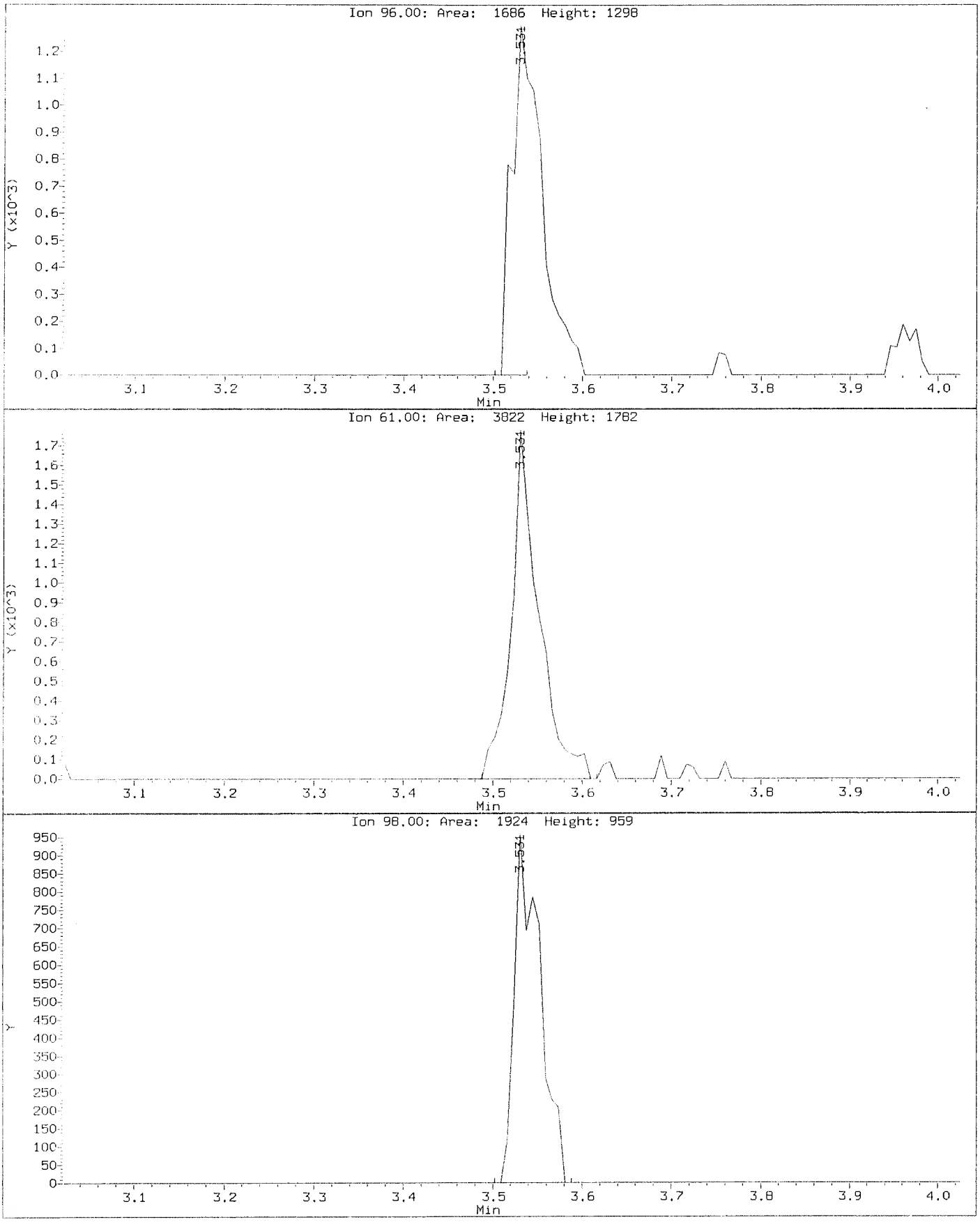
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: cis-1,2-Dichloroethene
CAS Number: 156-59-2



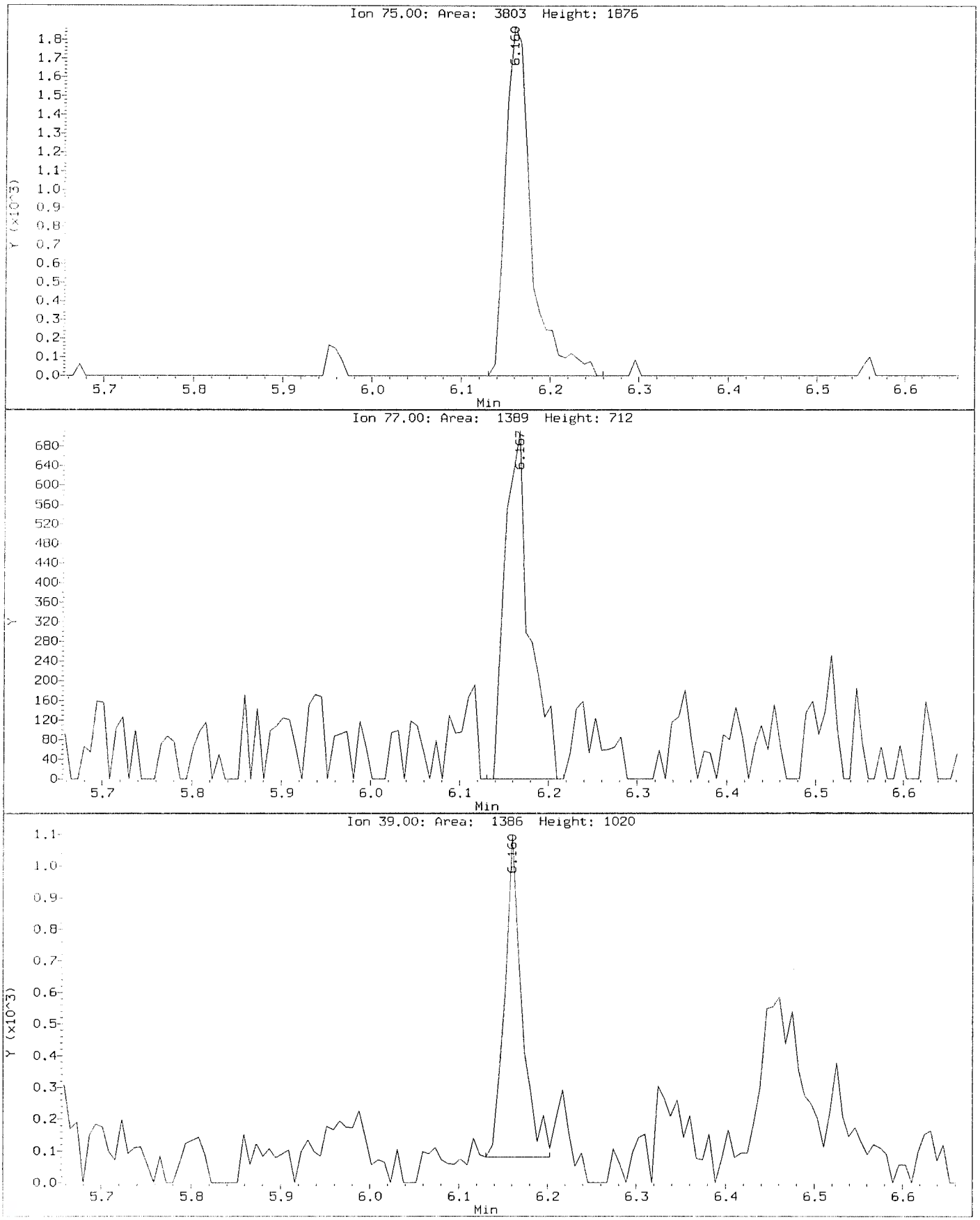
Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052603.D
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: cis-1,2-Dichloroethene
CAS Number: 156-59-2



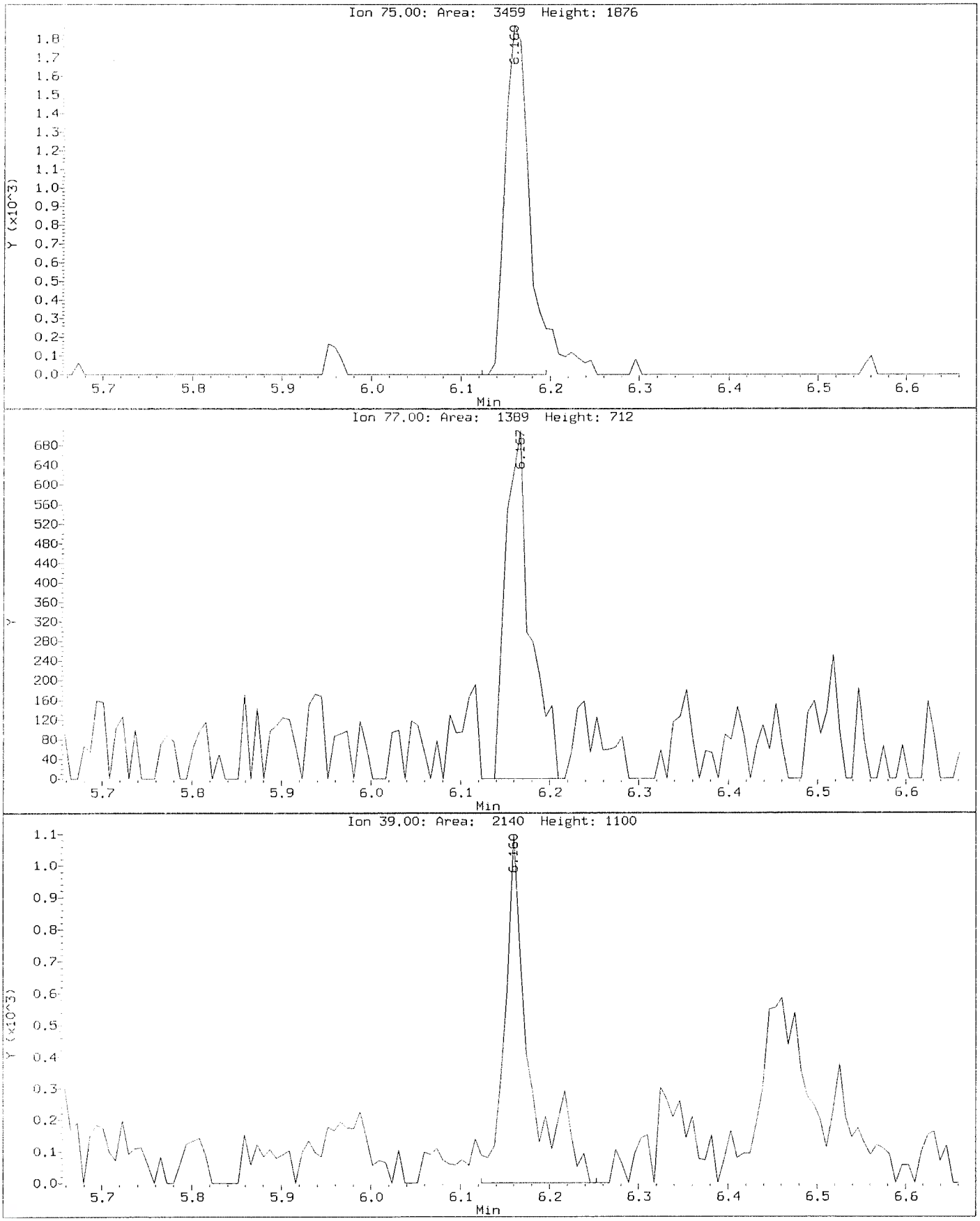
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: cis-1,3-Dichloropropene
CAS Number: 10061-01-5



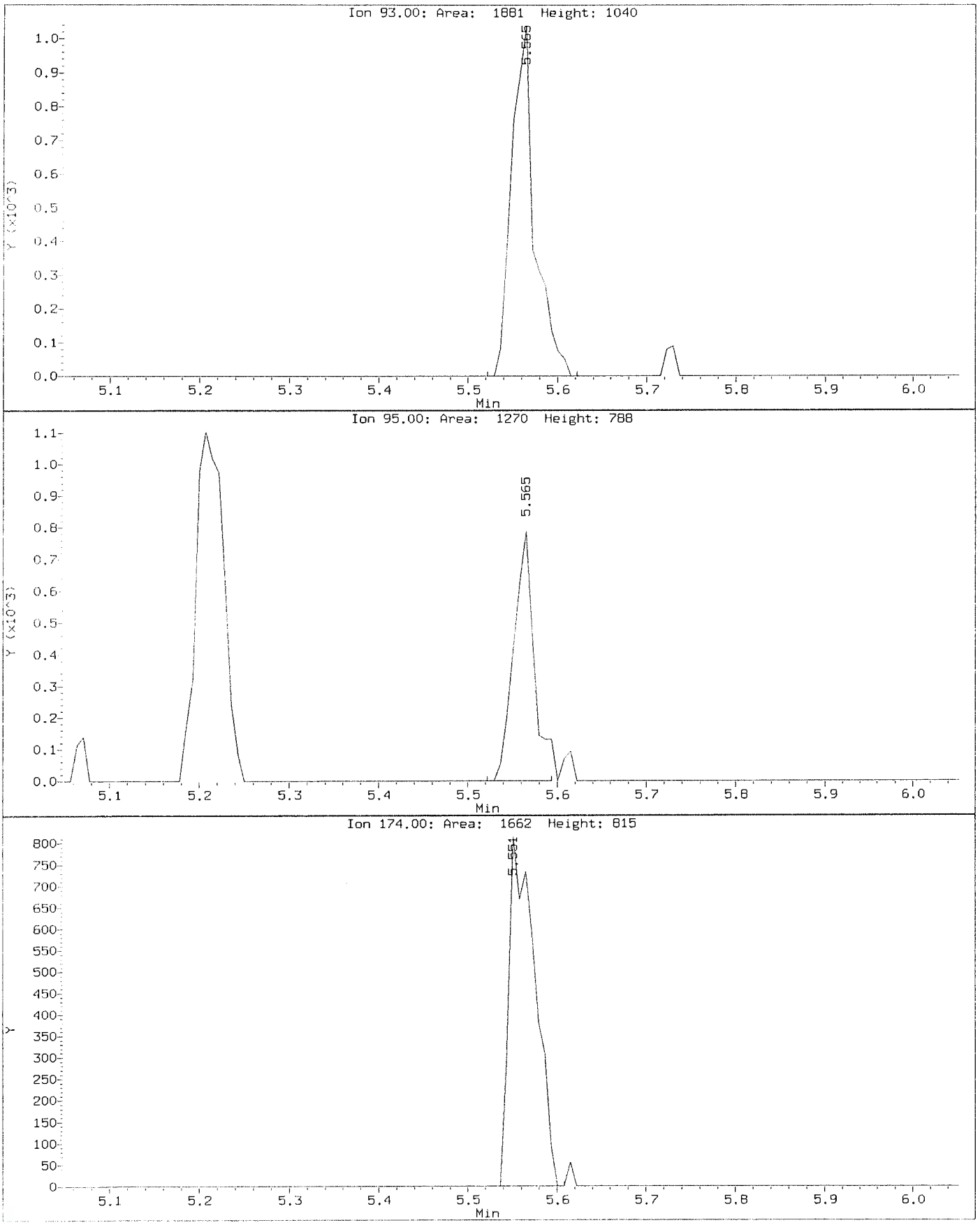
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: cis-1,3-Dichloropropene
CAS Number: 10061-01-5



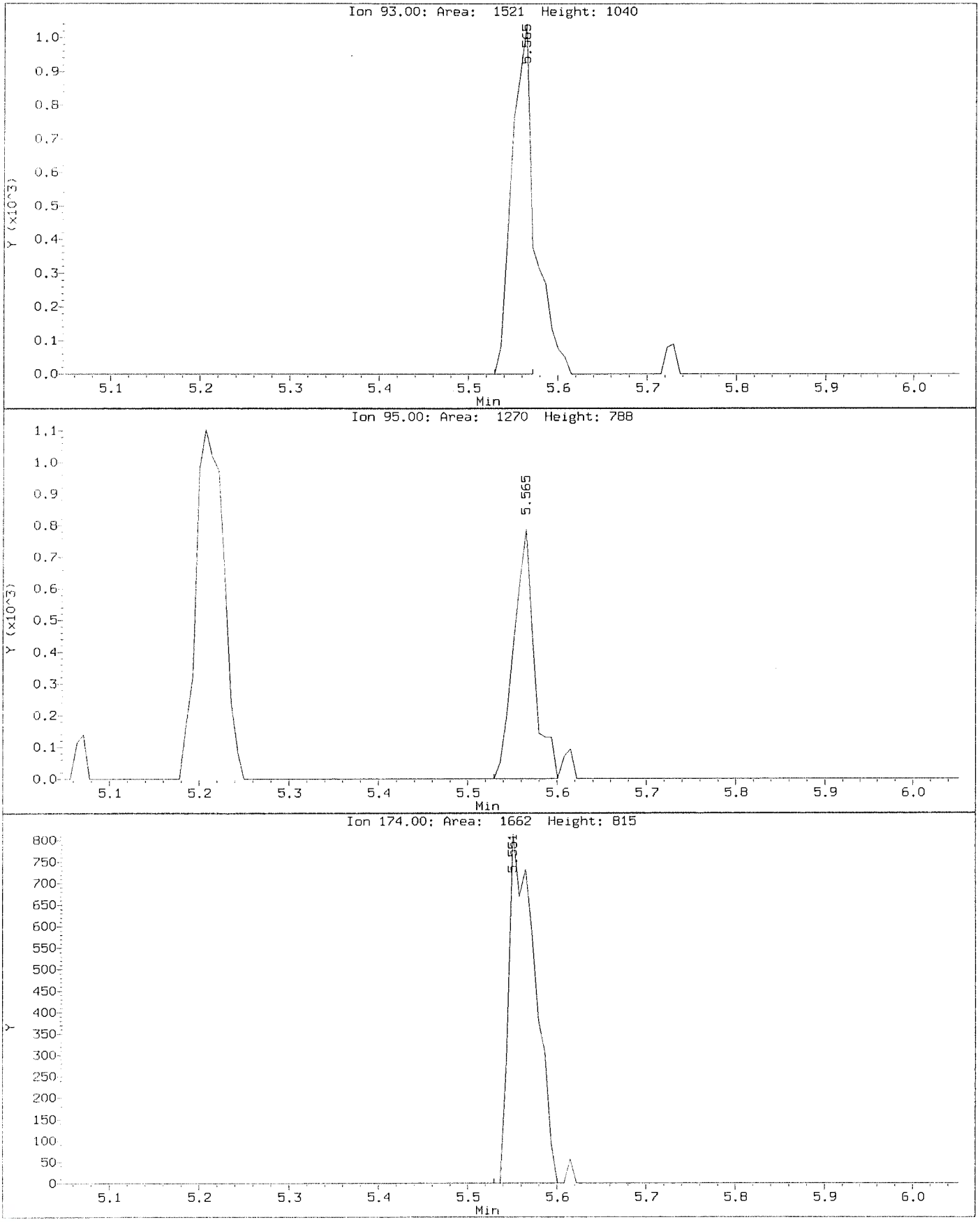
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Dibromomethane
CAS Number: 74-95-3



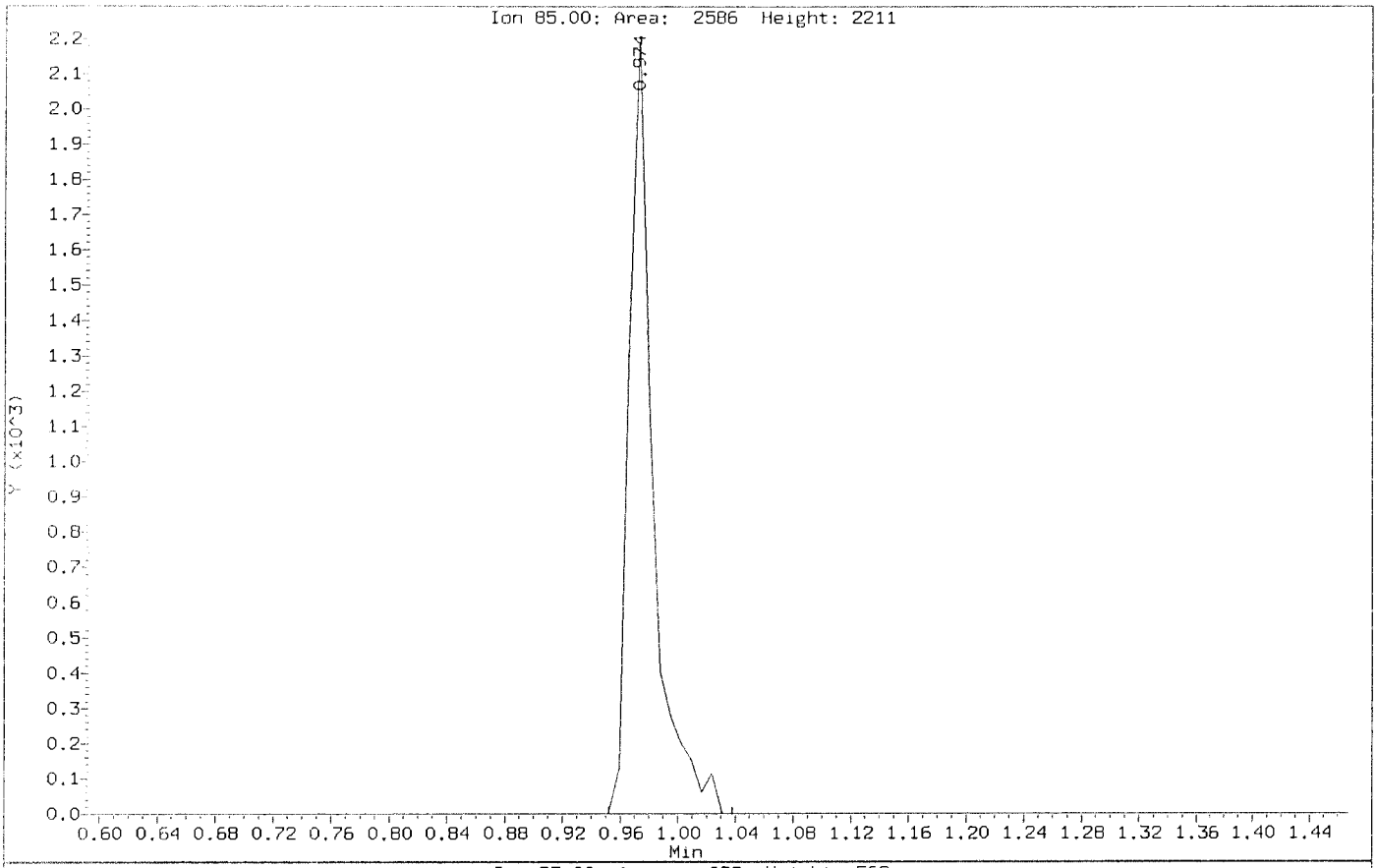
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Client Sample ID: VSTD000.5

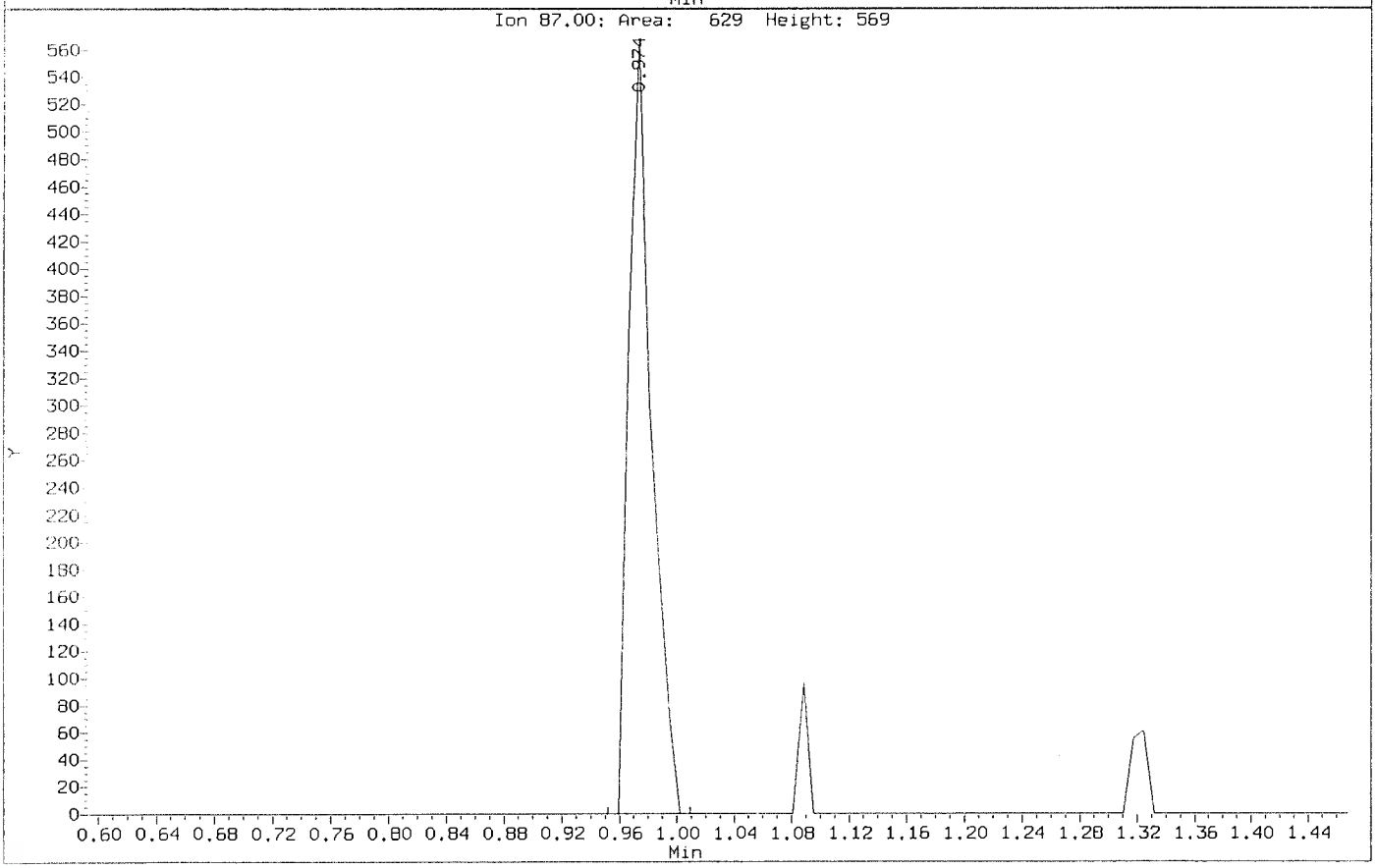
Compound: Dibromomethane
CAS Number: 74-95-3



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Instrument: voa6.i
Client Sample ID: VSTD000.5

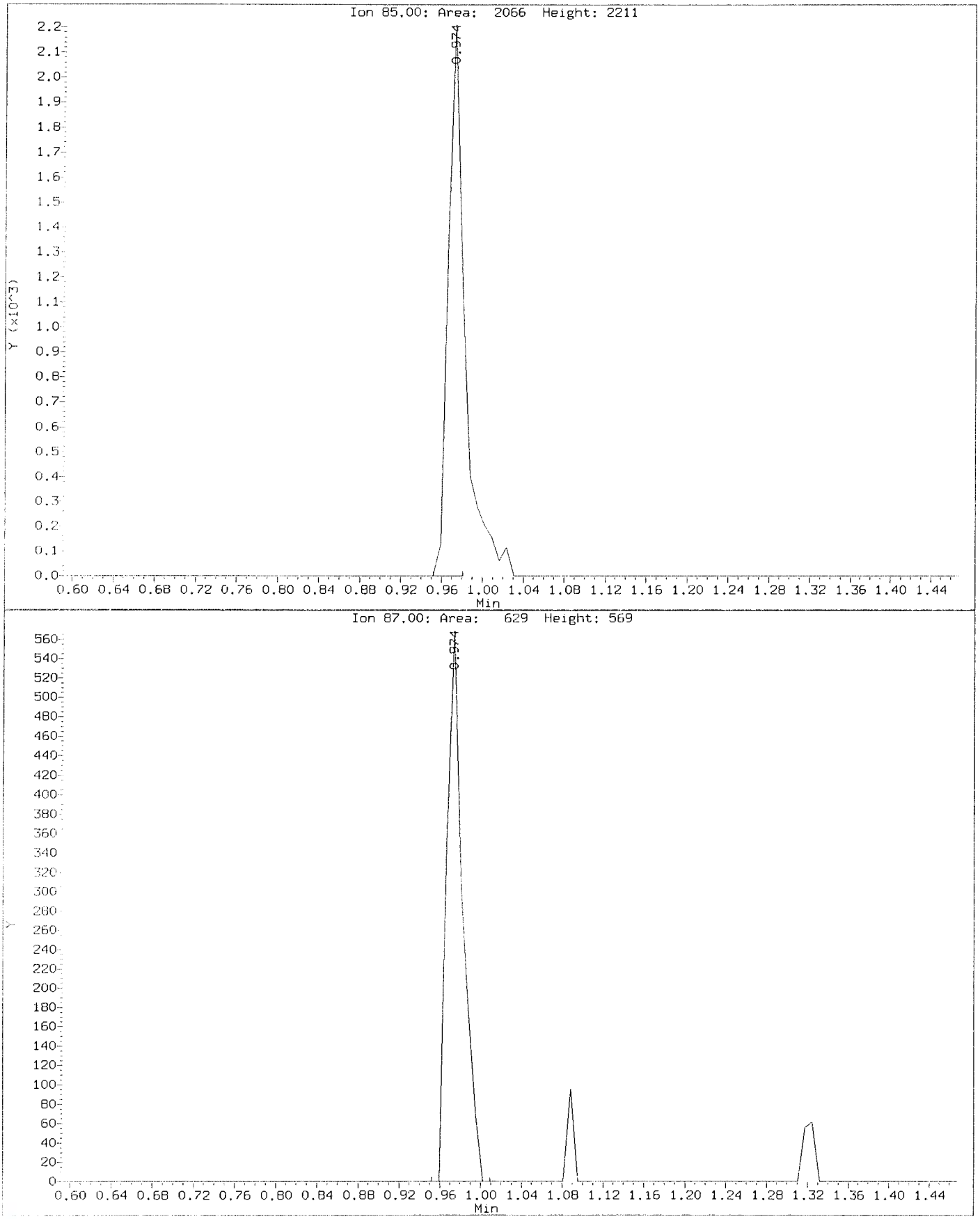
Compound: Dichlorodifluoromethane
CAS Number: 75-71-8





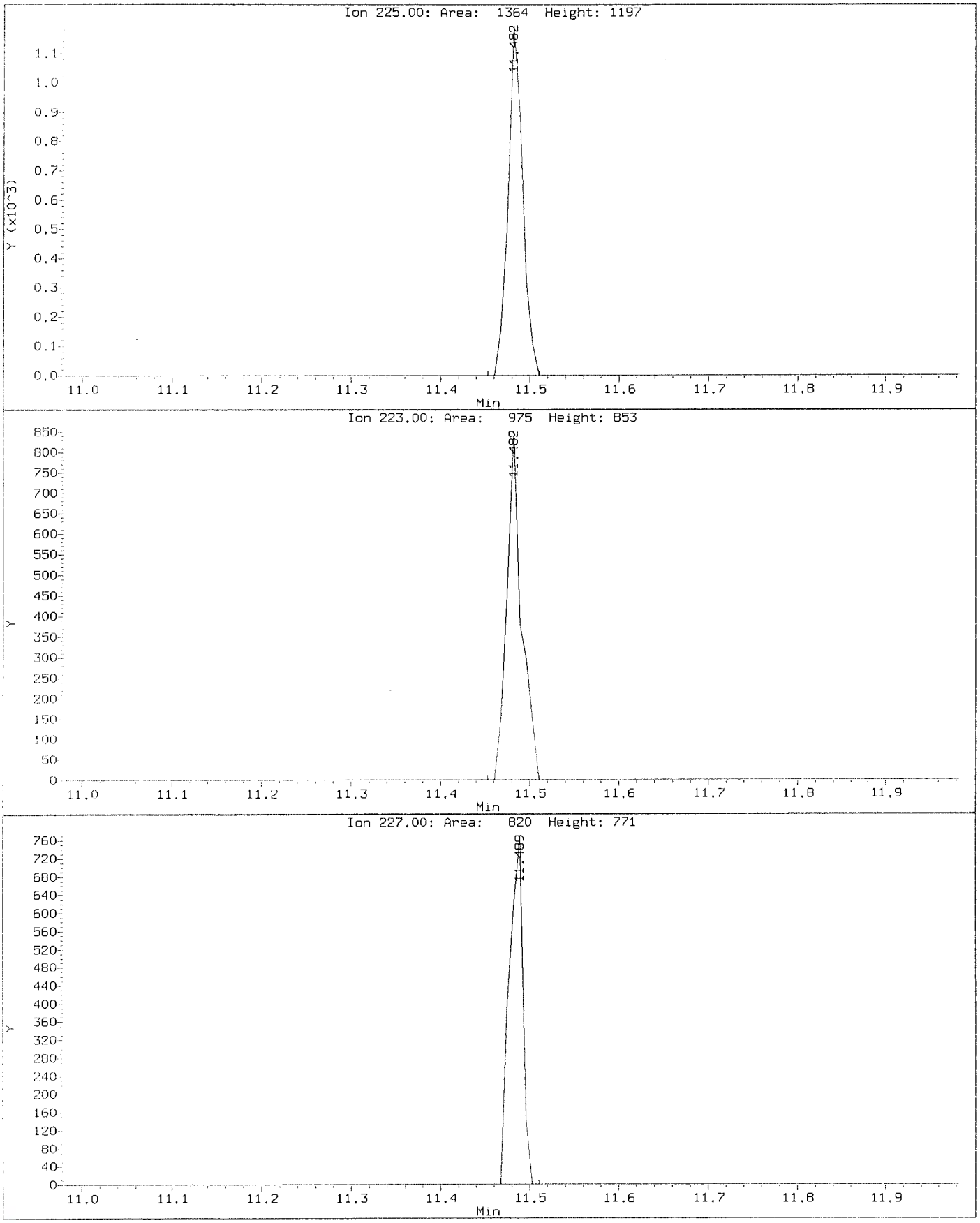
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Dichlorodifluoromethane
CAS Number: 75-71-8



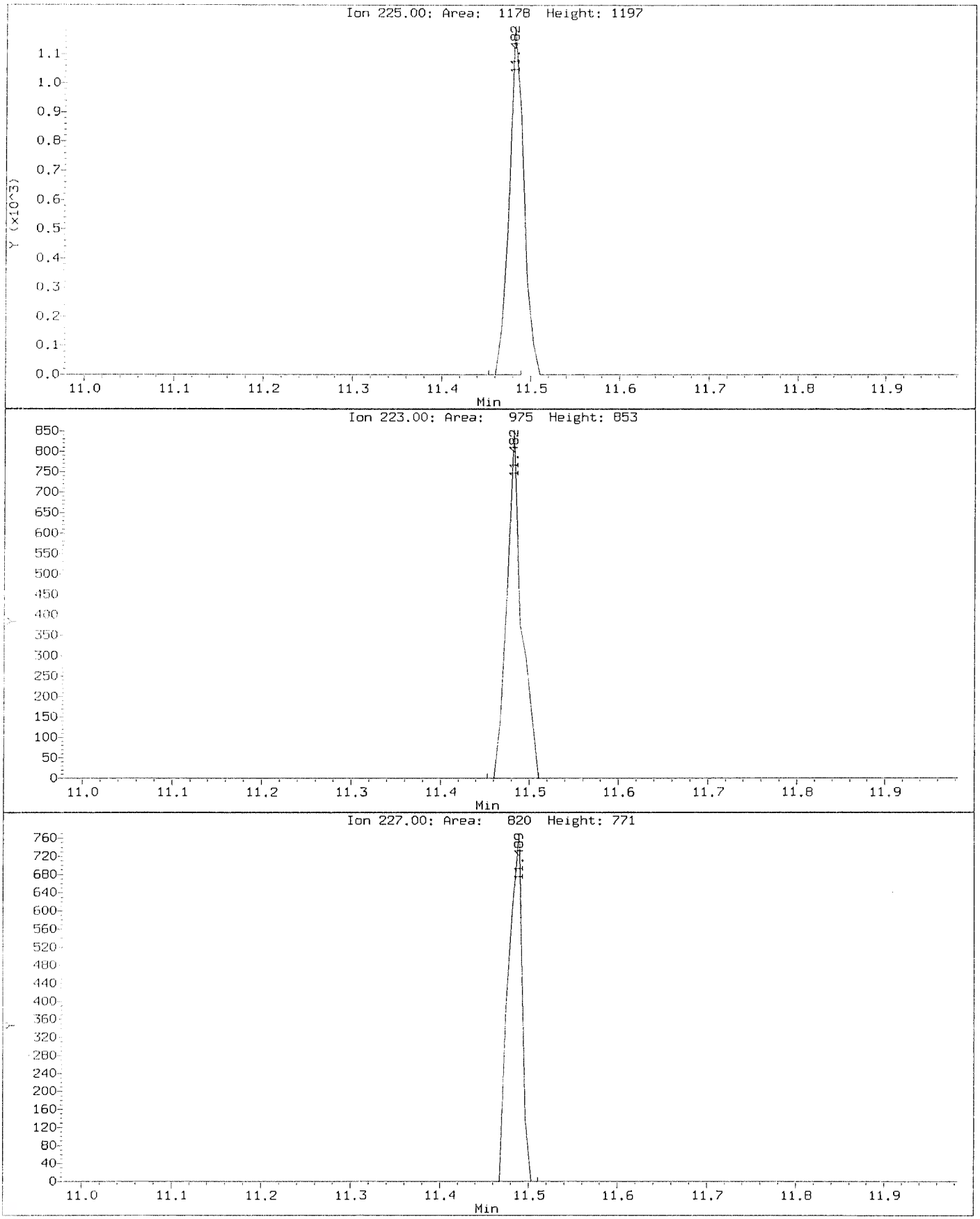
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



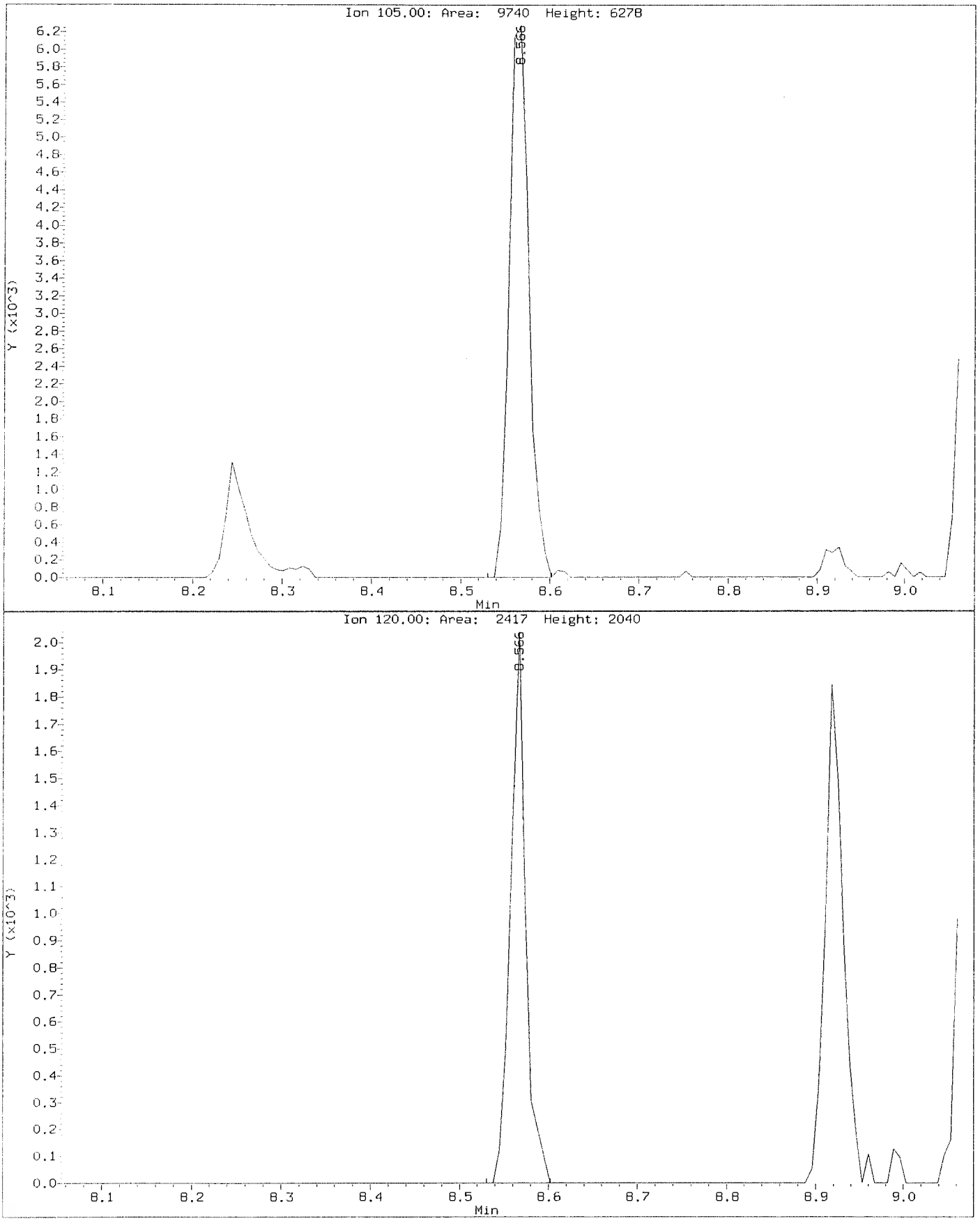
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Client Sample ID: VSTD000.5

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



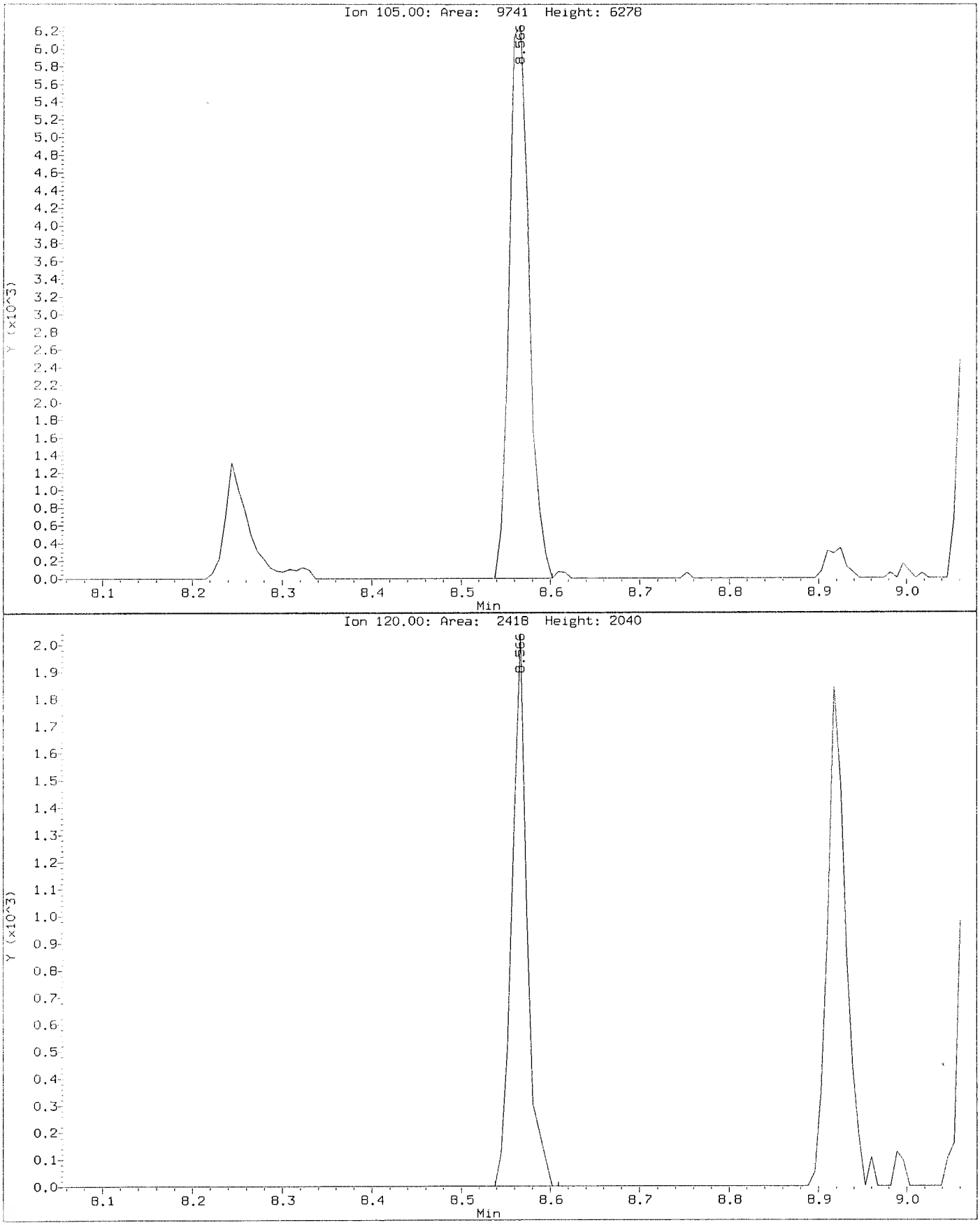
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Isopropylbenzene
CAS Number: 98-82-8



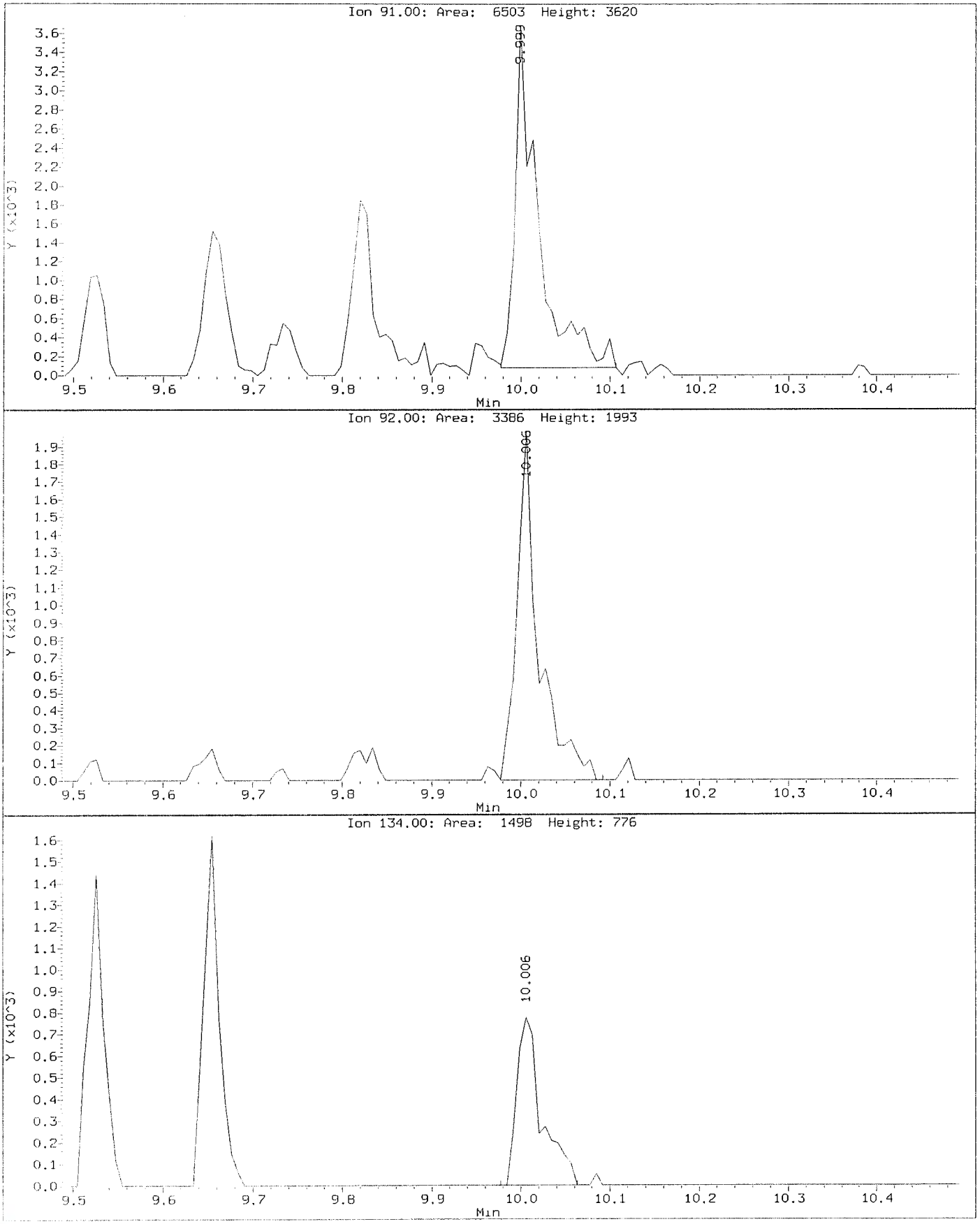
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Client Sample ID: VSTD000.5

Compound: Isopropylbenzene
CAS Number: 98-82-8



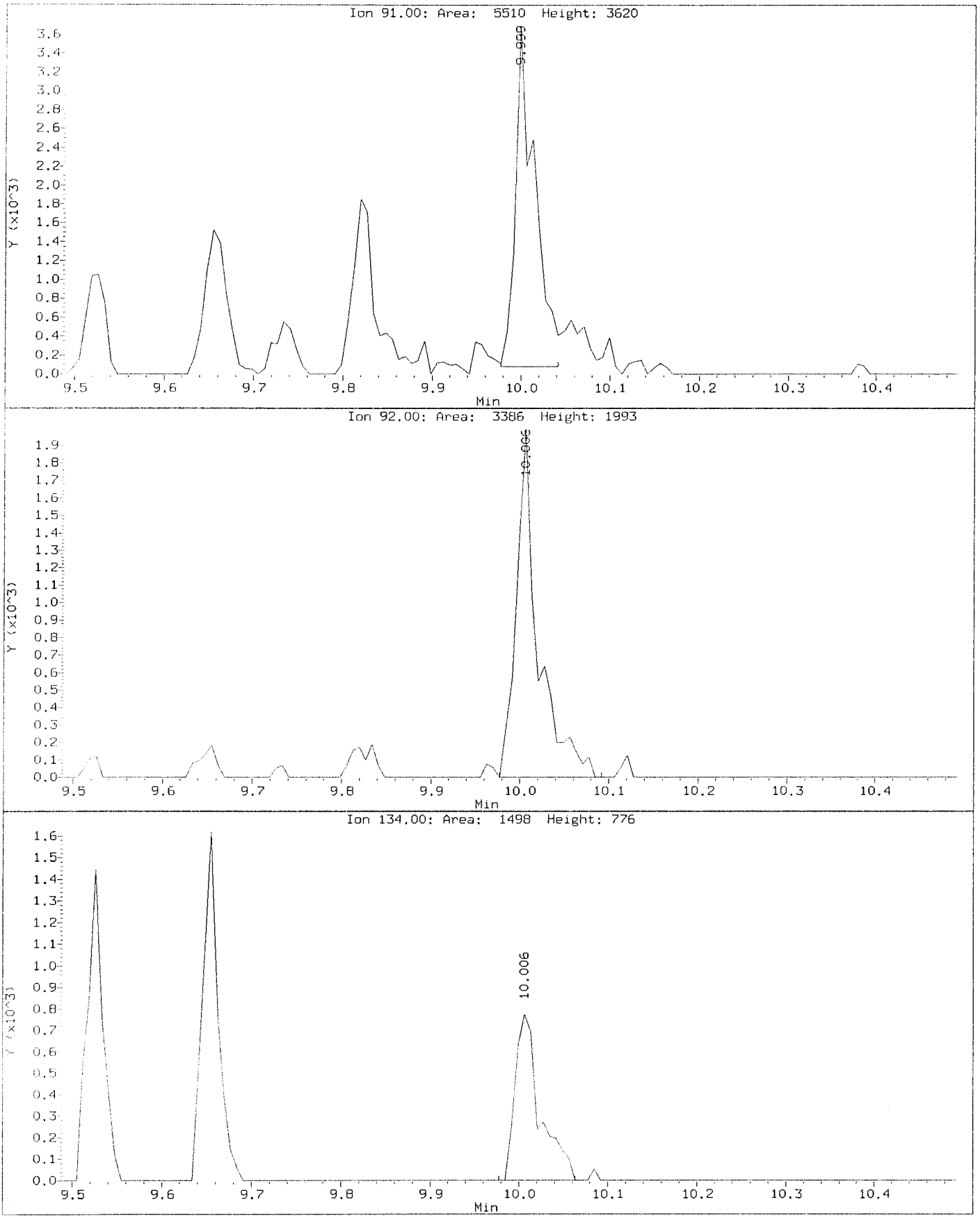
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: n-Butylbenzene
CAS Number: 104-51-8



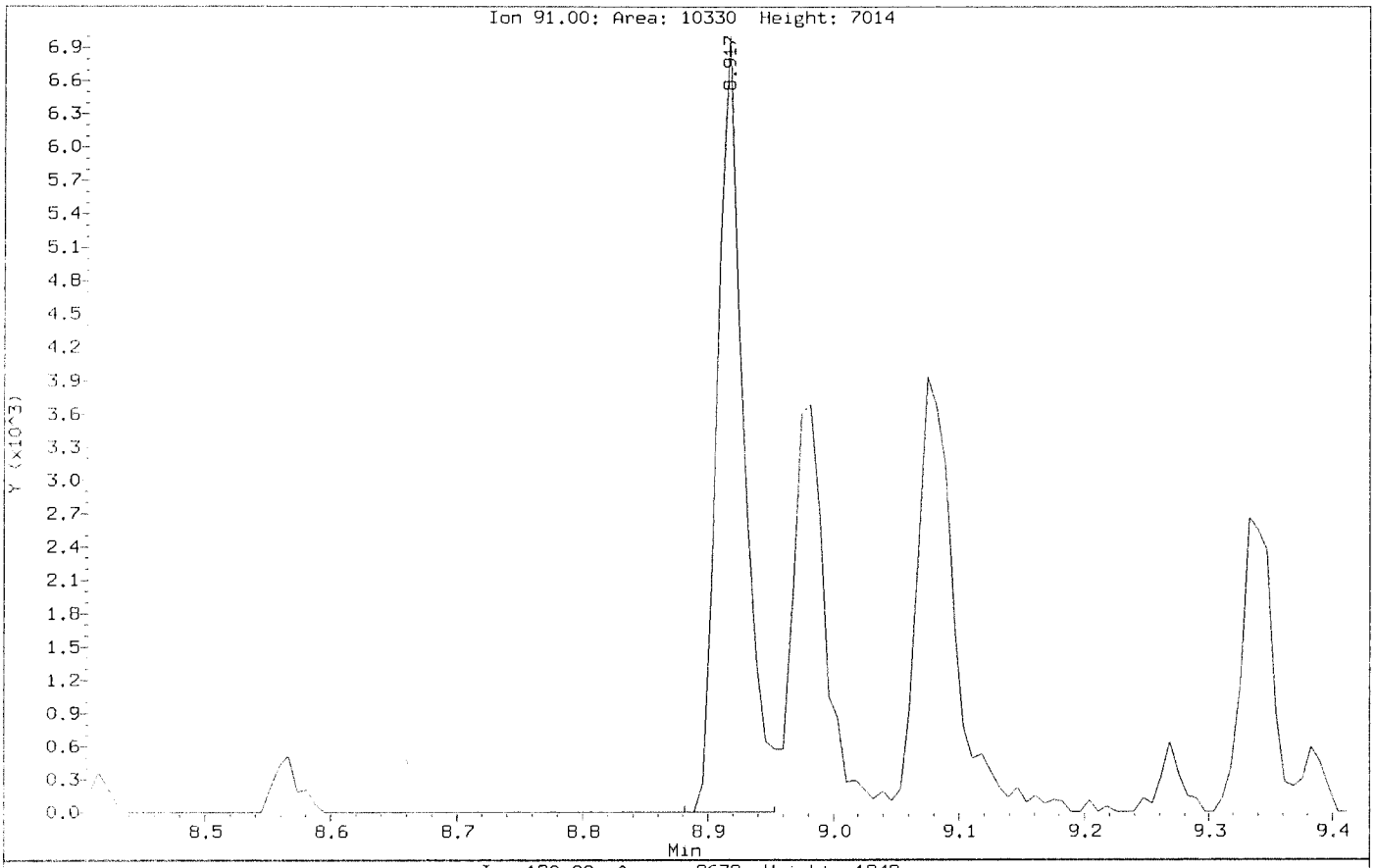
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Client Sample ID: VSTD000.5

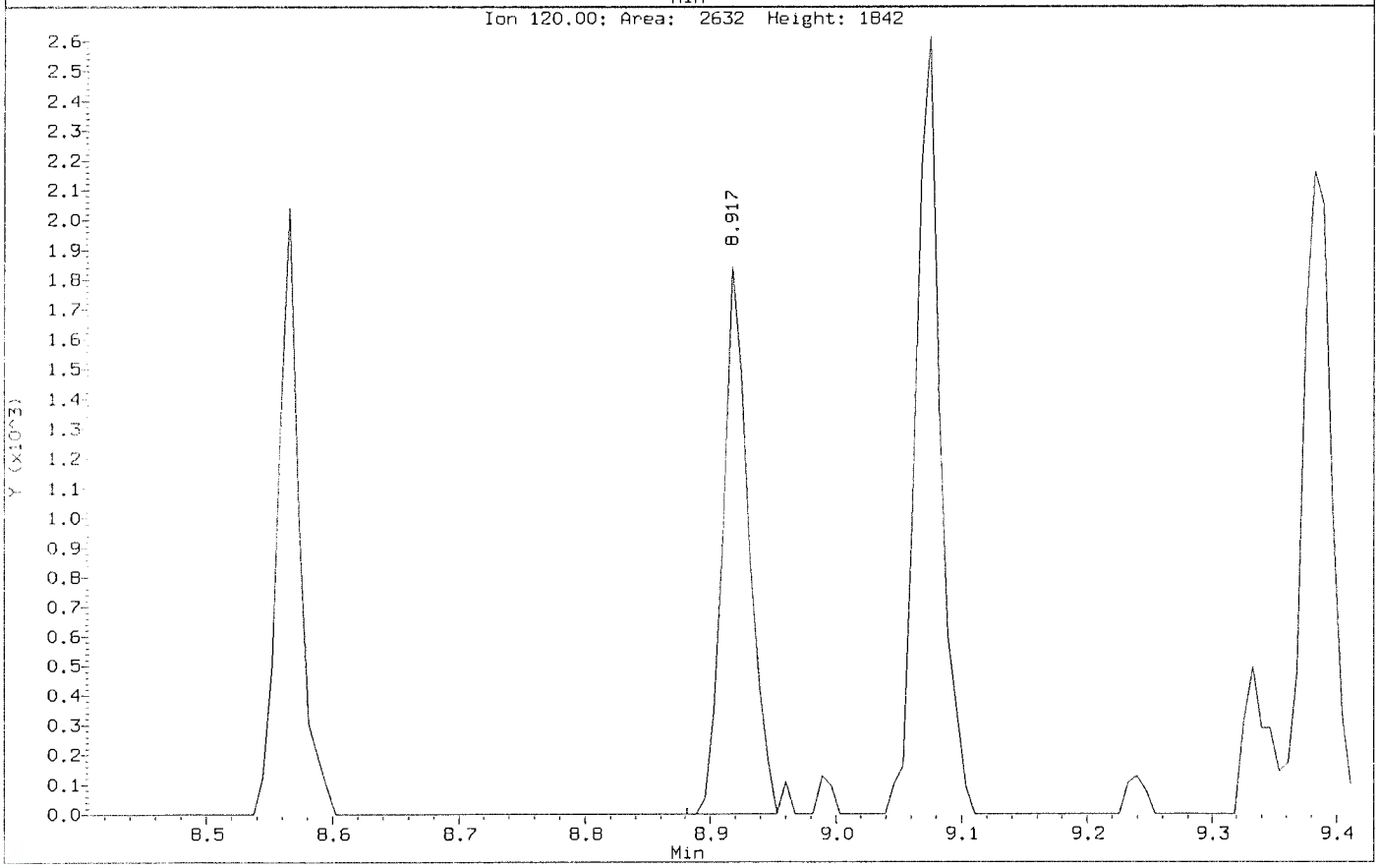
Compound: n-Butylbenzene
CAS Number: 104-51-8



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Instrument: voa6.i
Client Sample ID: VSTD000.5

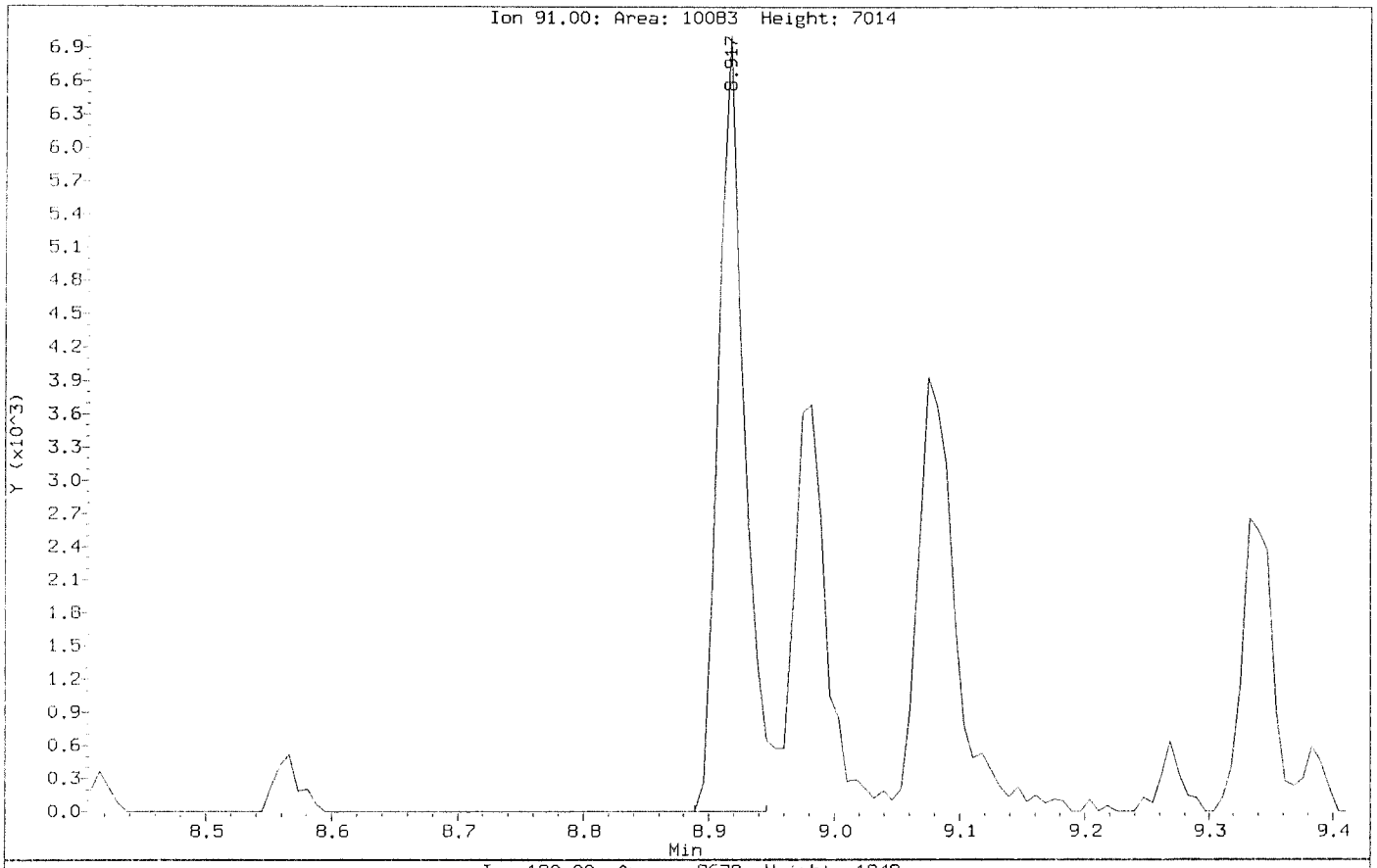
Compound: n-Propylbenzene
CAS Number: 106-65-1

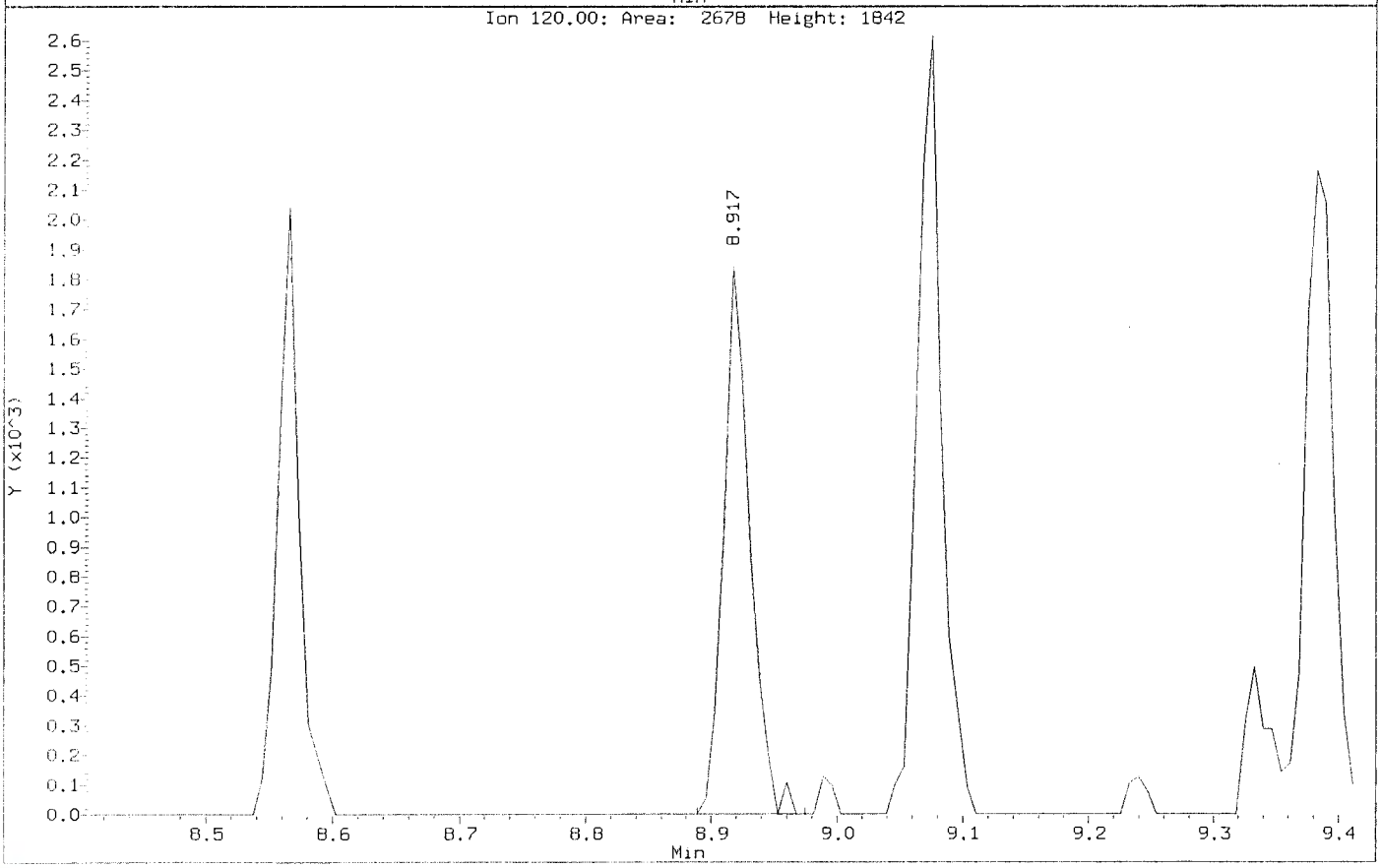




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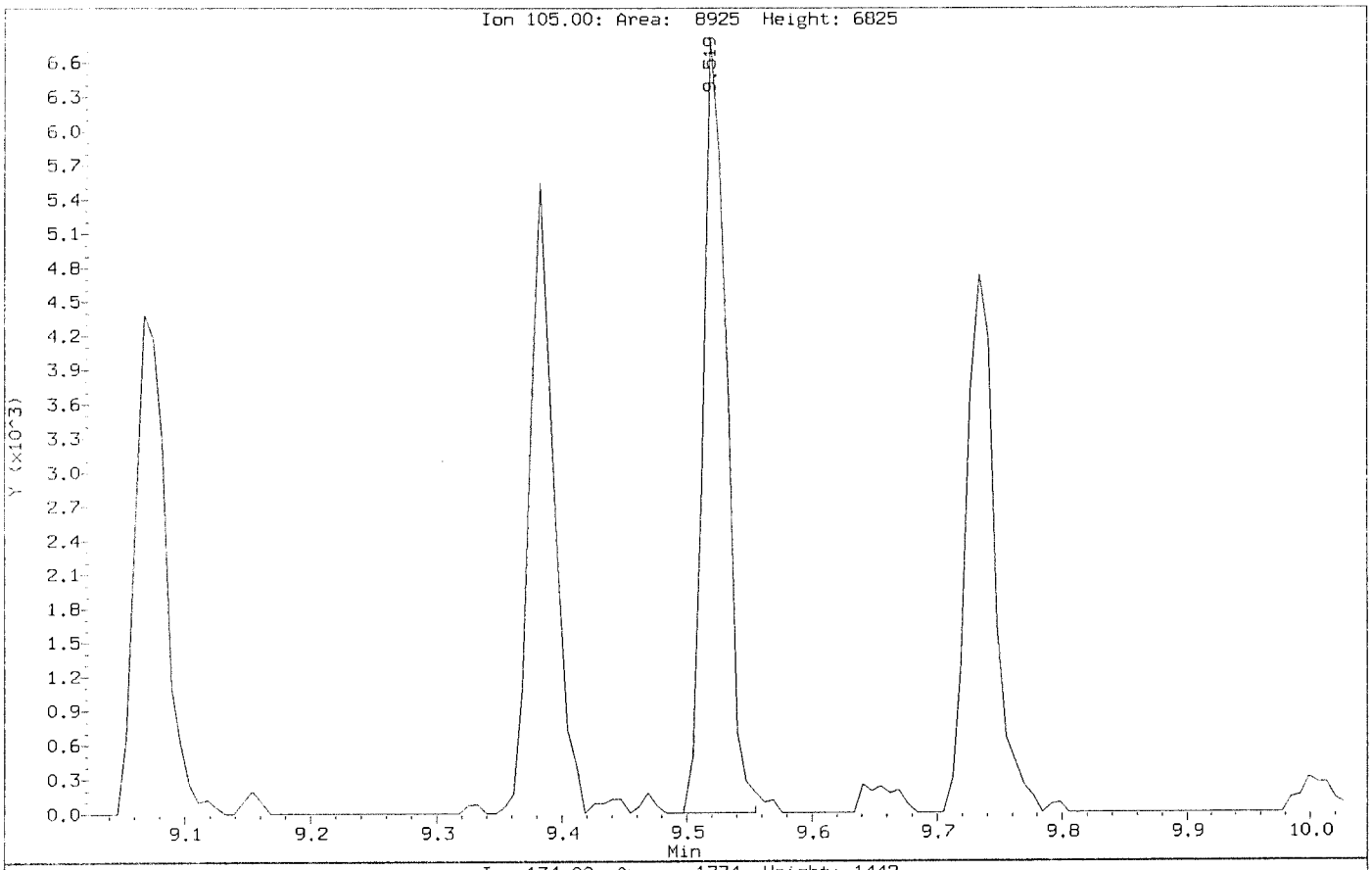
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CAS Number: 106-65-1

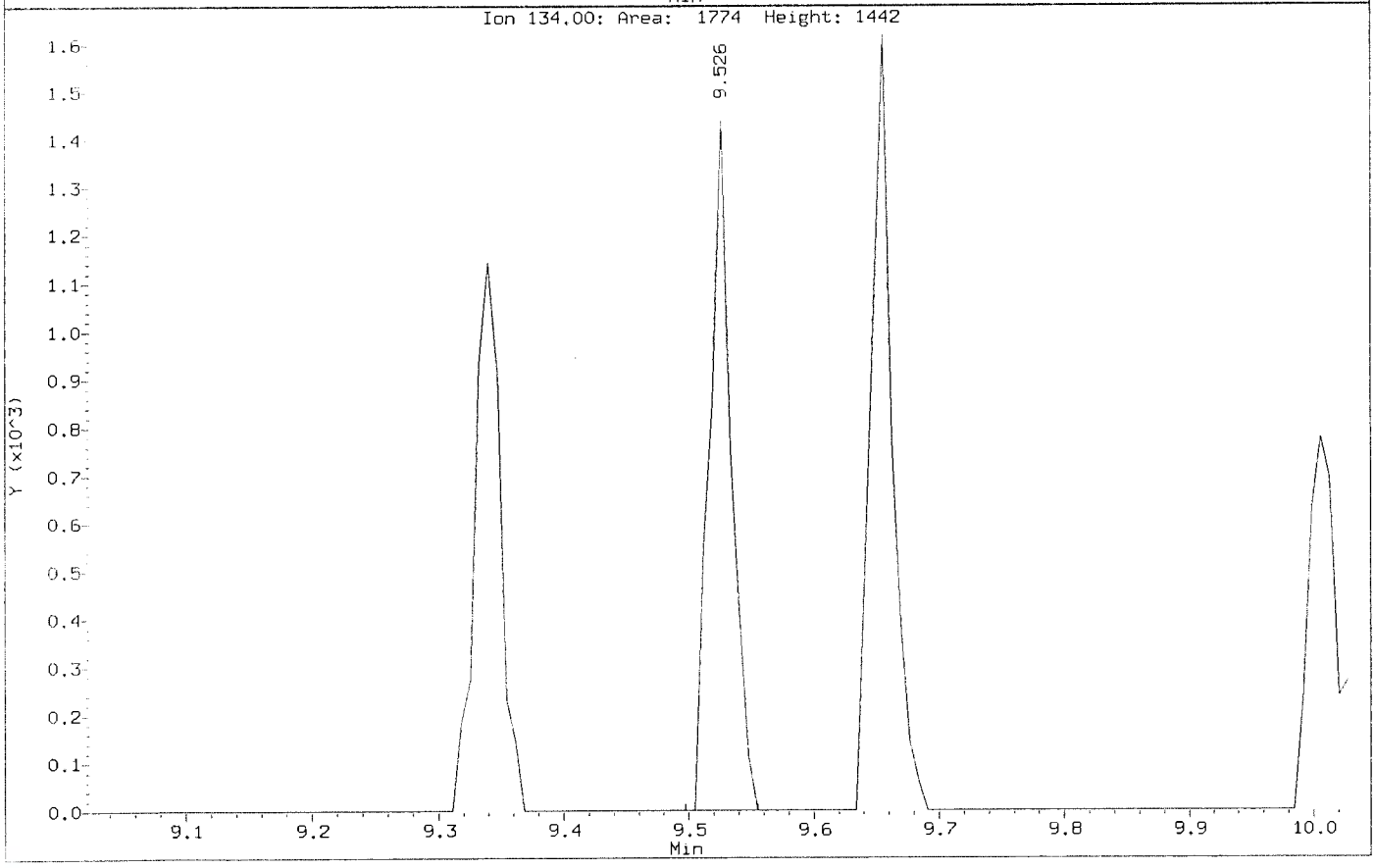




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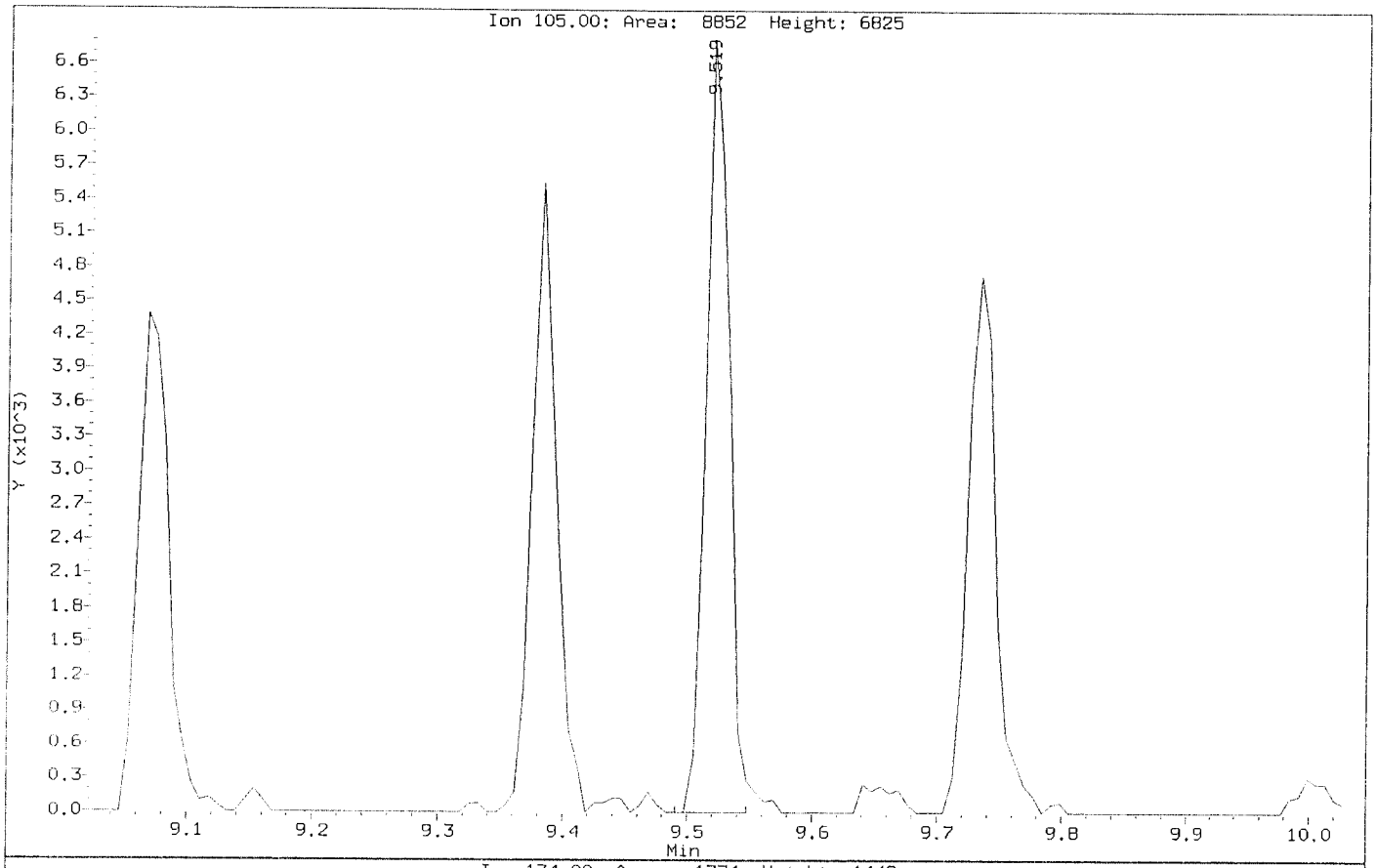
Compound: sec-Butylbenzene
CAS Number: 135-98-8

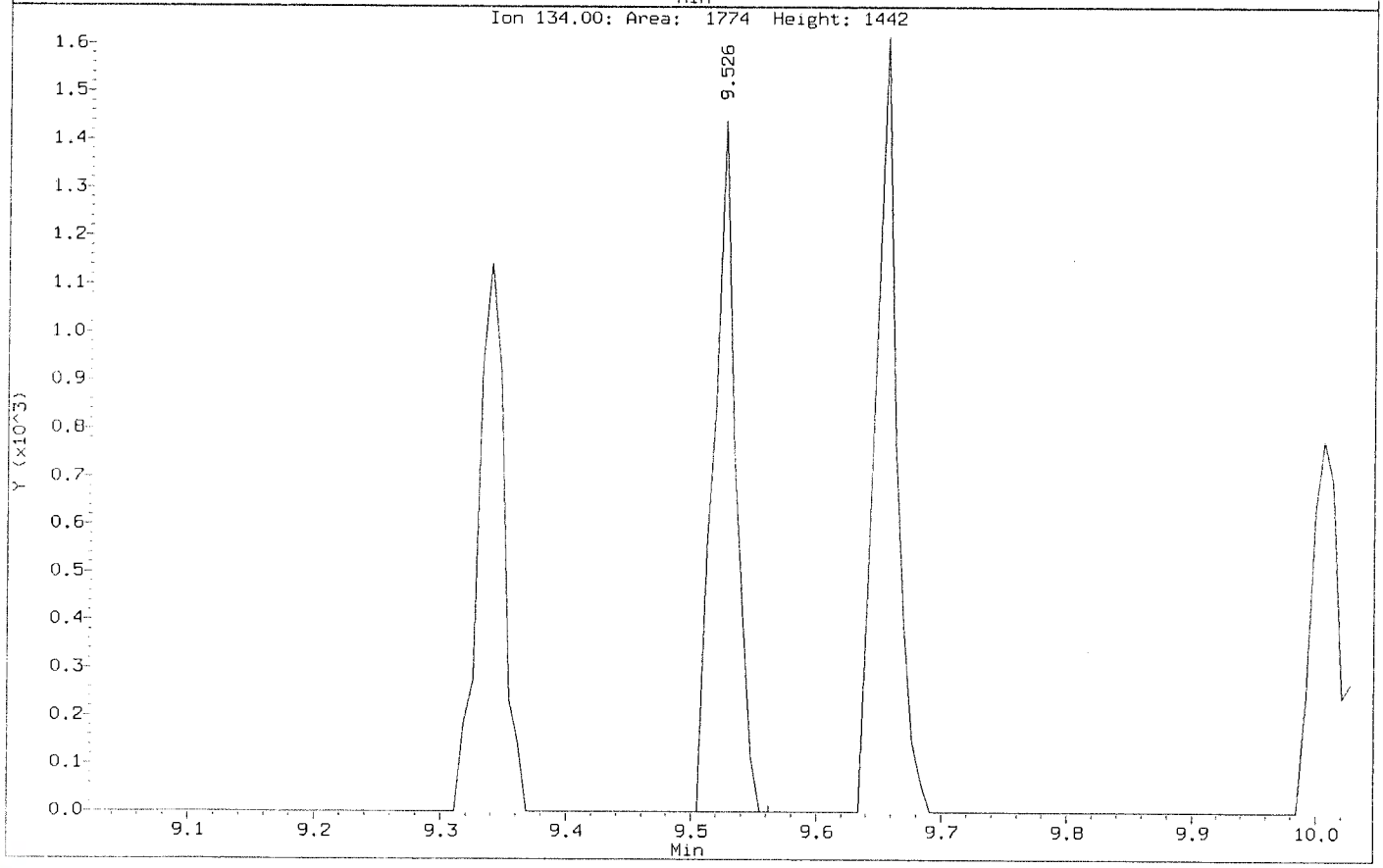




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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

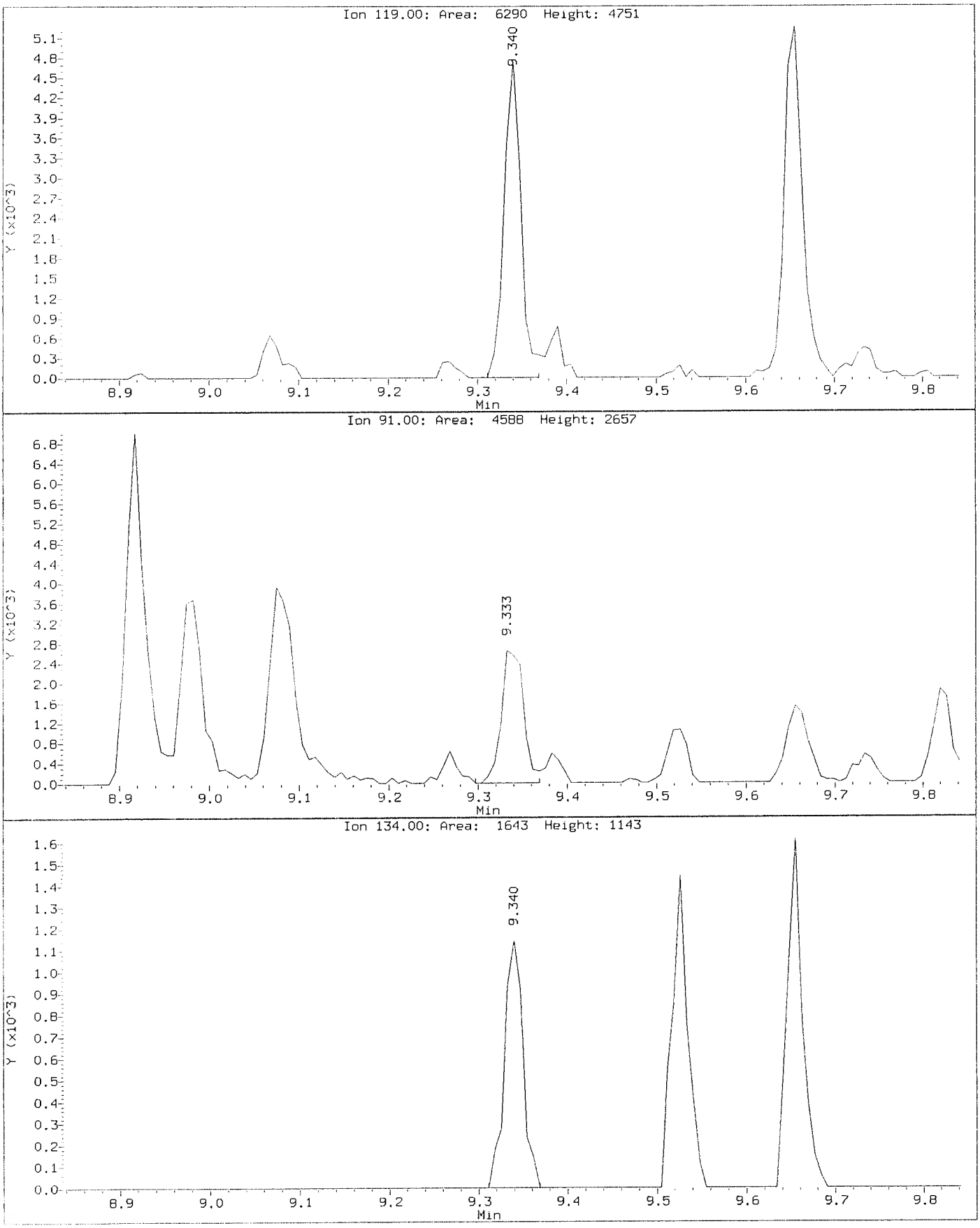
Compound: sec-Butylbenzene
CAS Number: 135-98-8





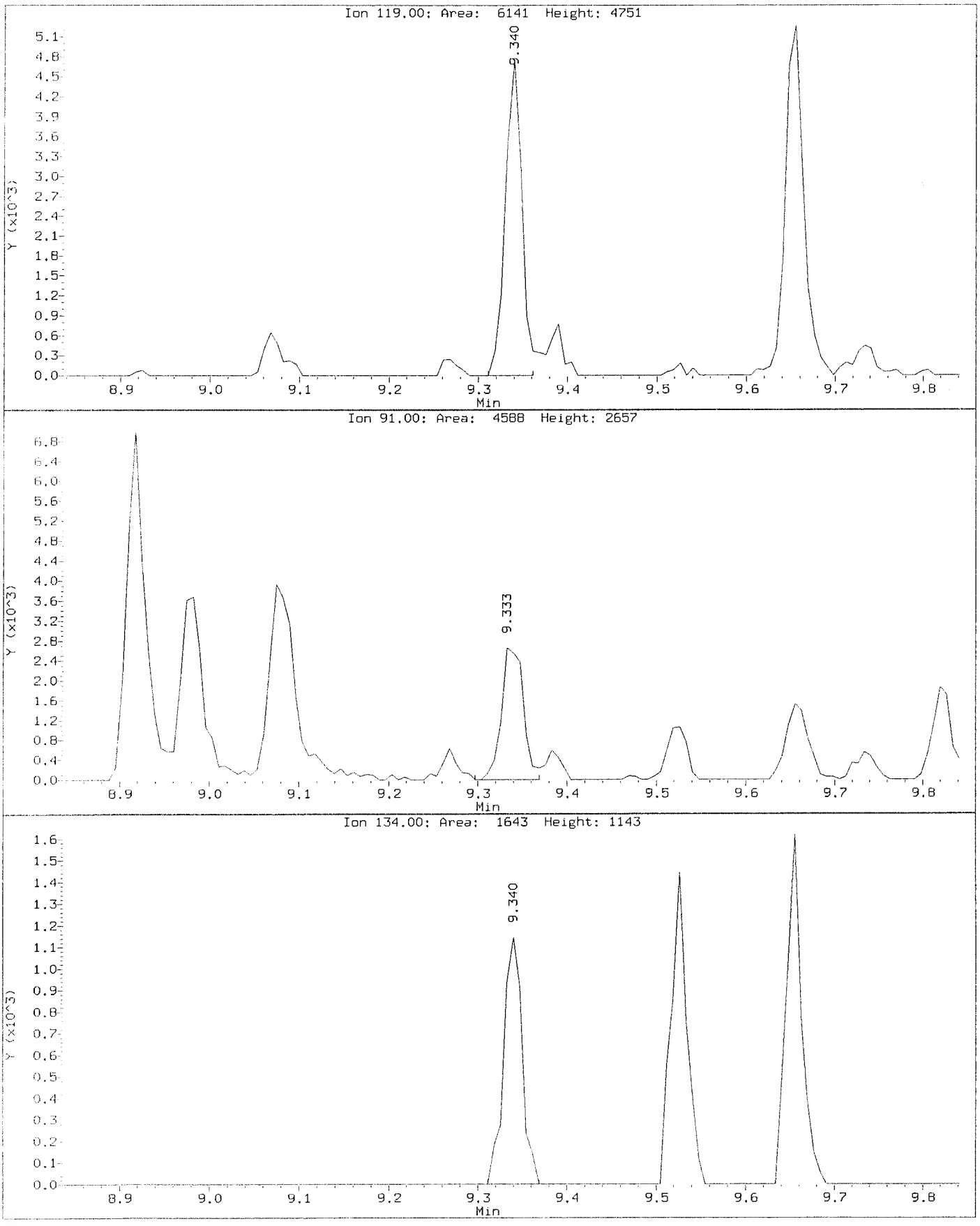
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: tert-Butylbenzene
CAS Number: 98-06-6



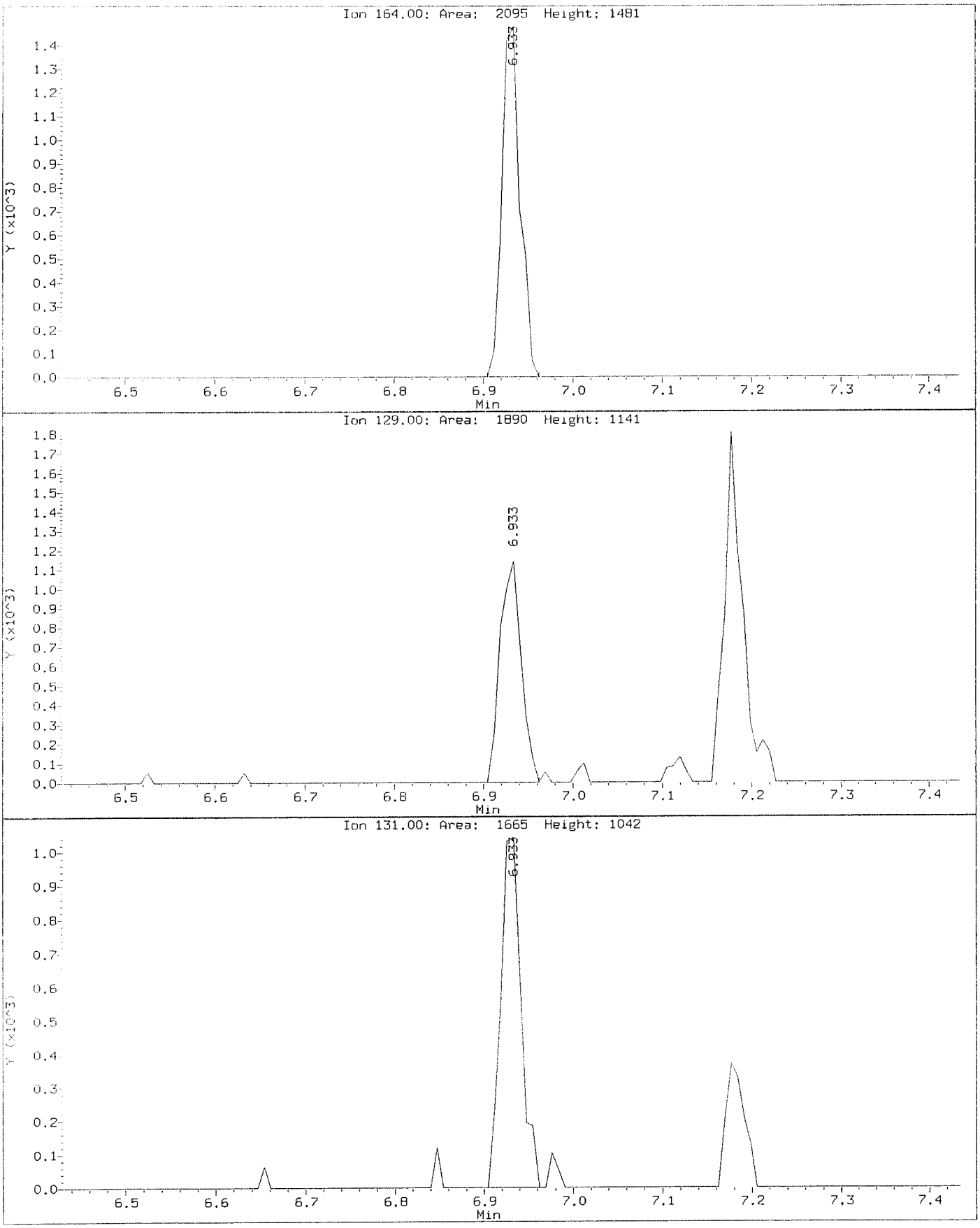
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: tert-Butylbenzene
CAS Number: 98-06-6



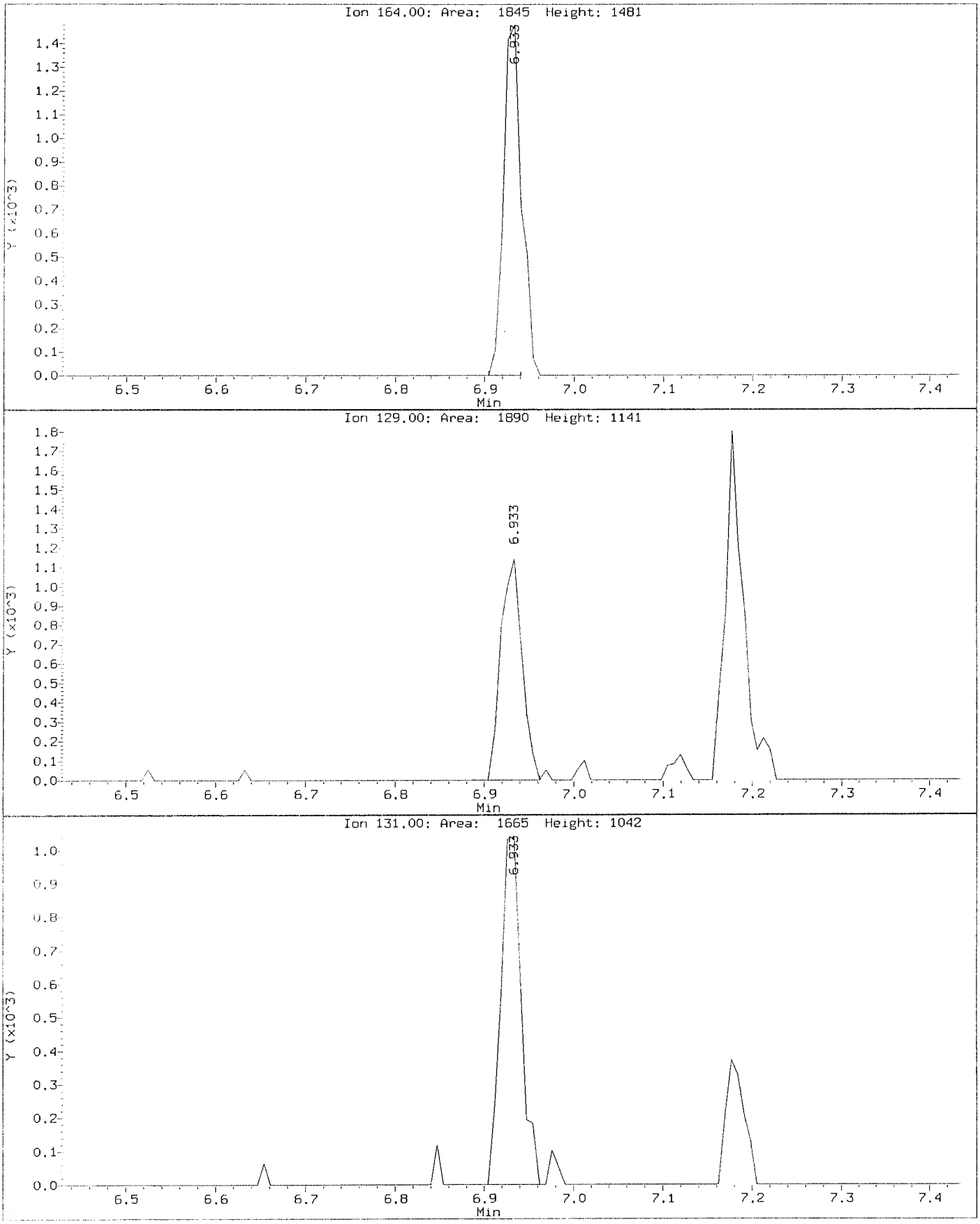
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Tetrachloroethene
CAS Number: 127-18-4



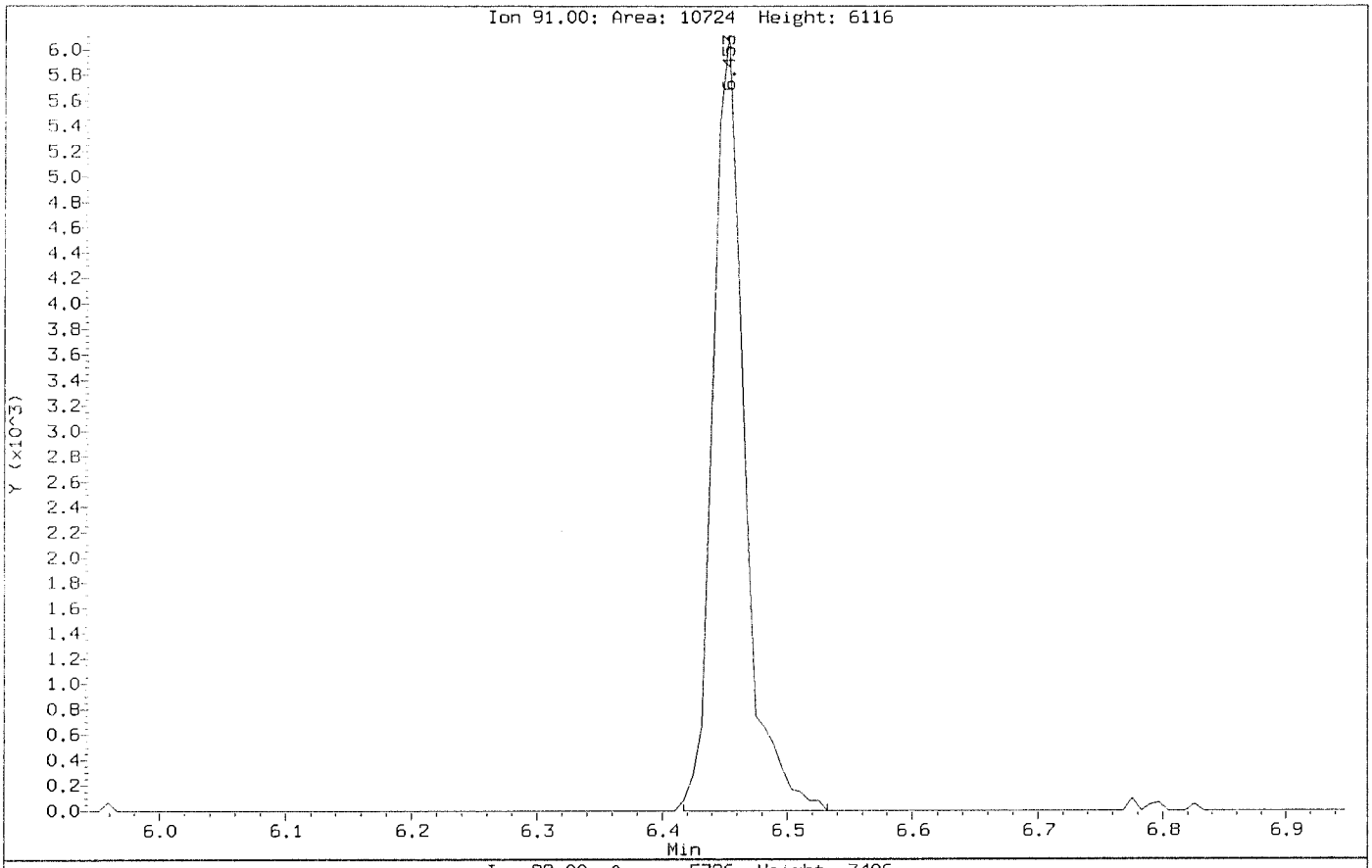
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Instrument: voa6.i
Client Sample ID: VSTD000.5

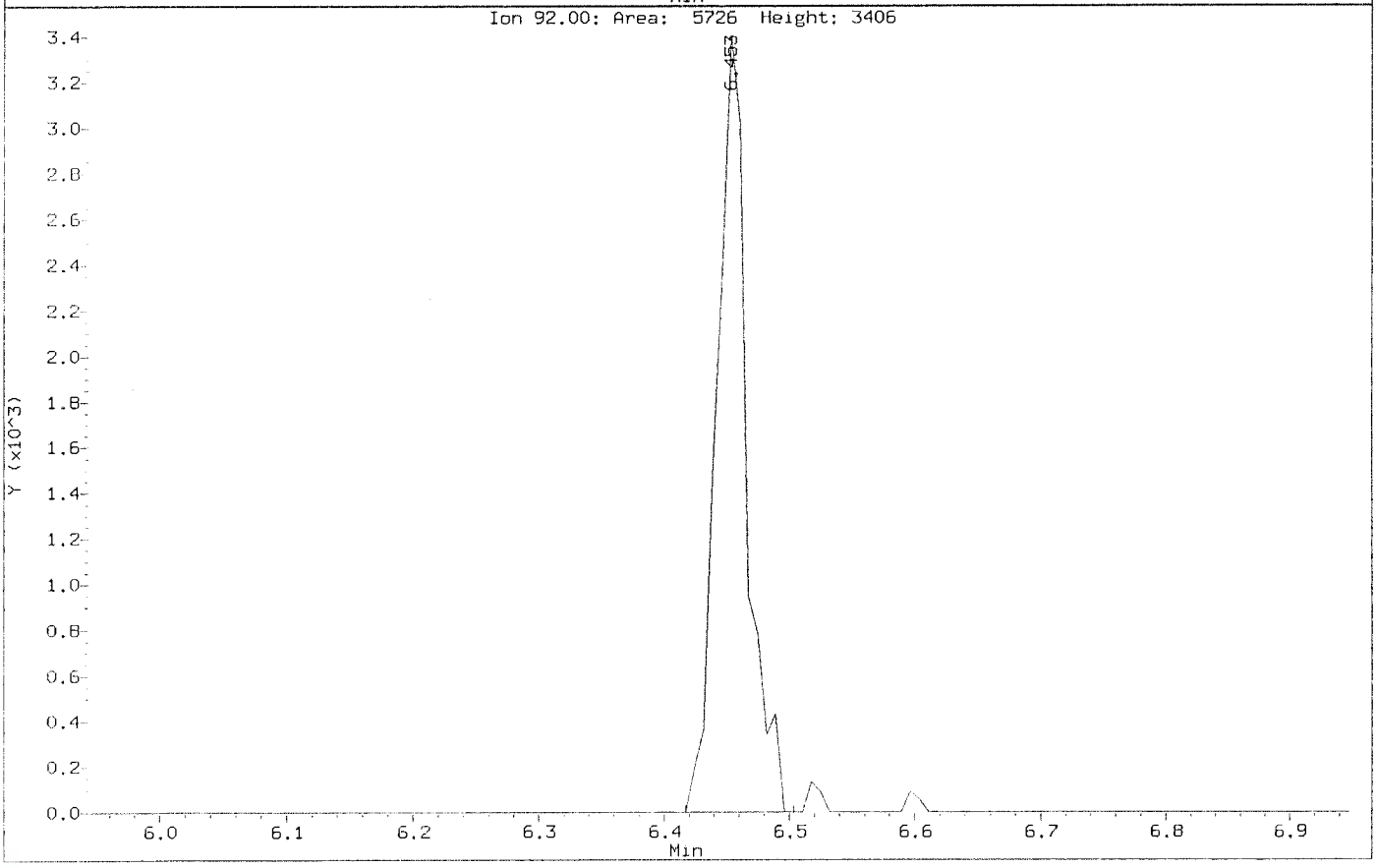
Compound: Tetrachloroethene
CAS Number: 127-18-4



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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

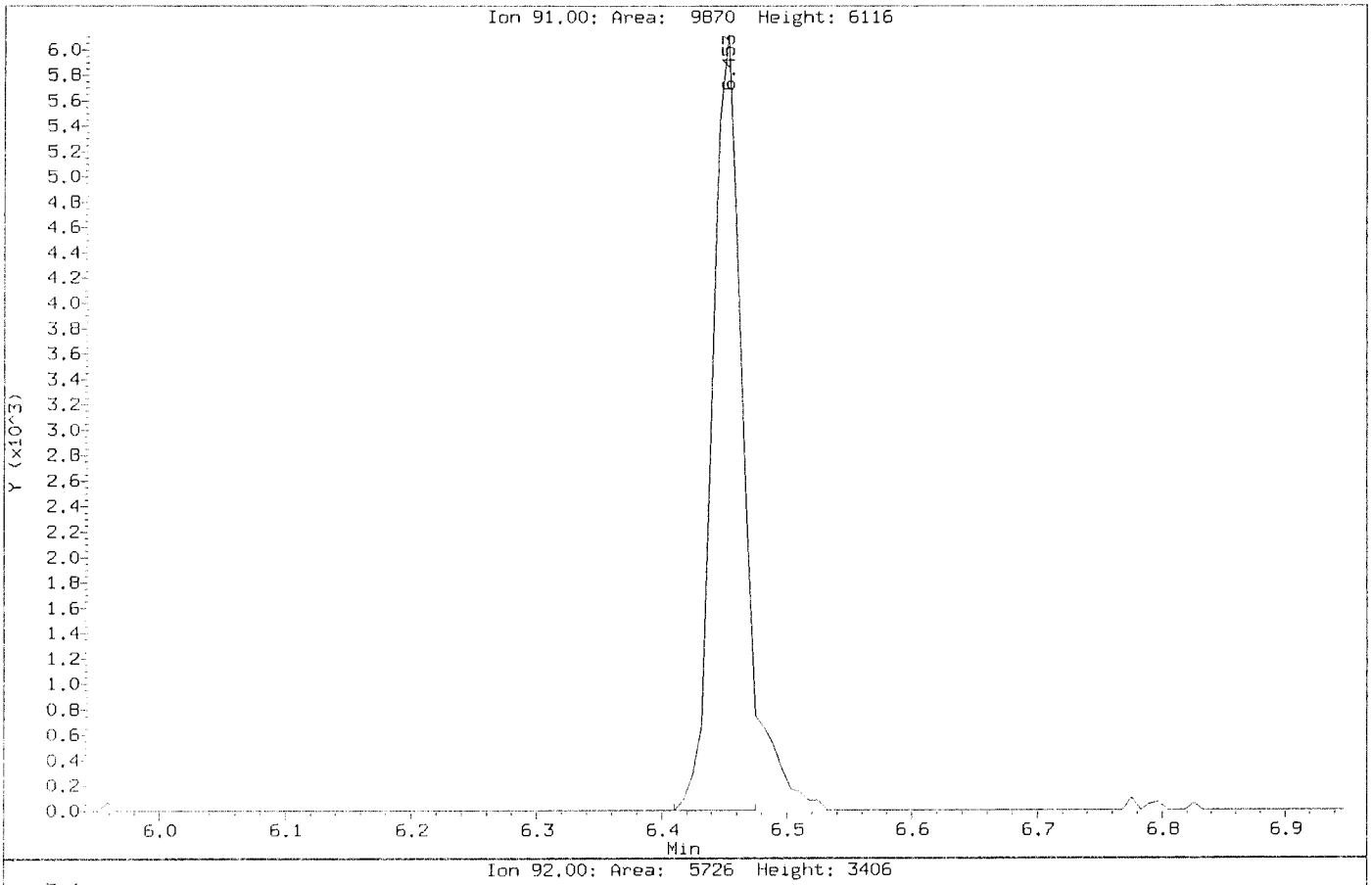
Compound: Toluene
CAS Number: 108-88-3

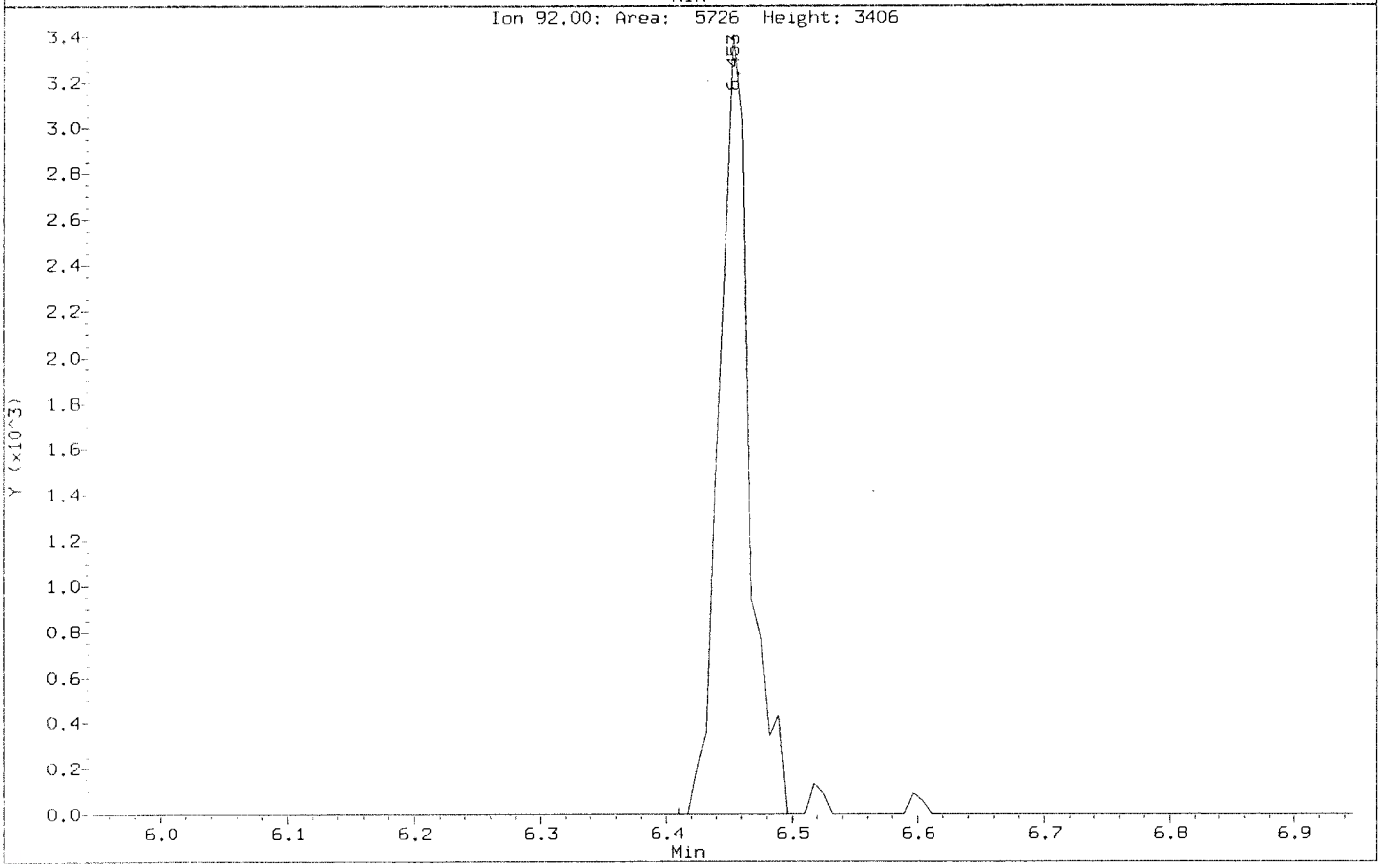




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Client Sample ID: VSTD000.5

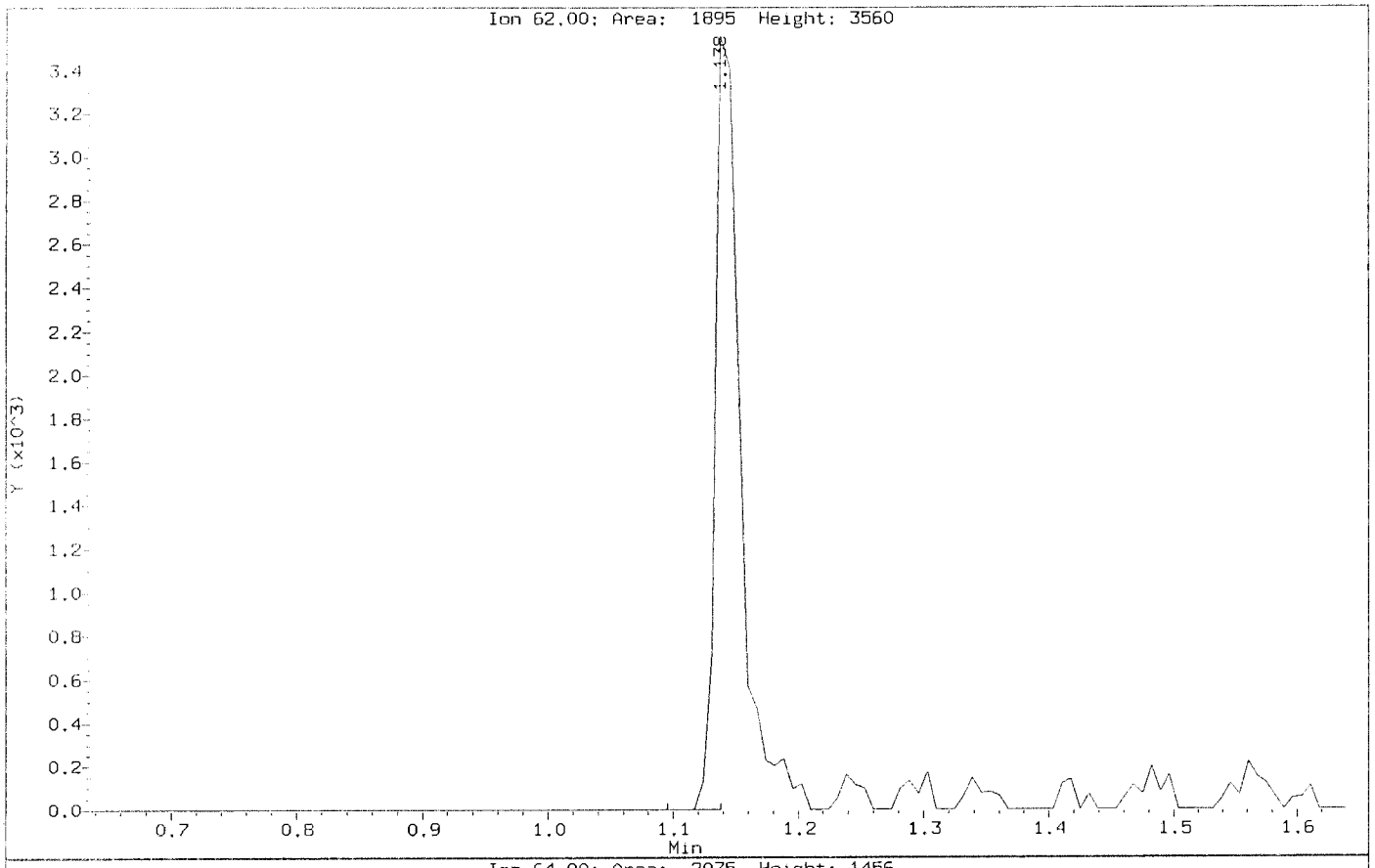
Compound: Toluene
CAS Number: 108-88-3

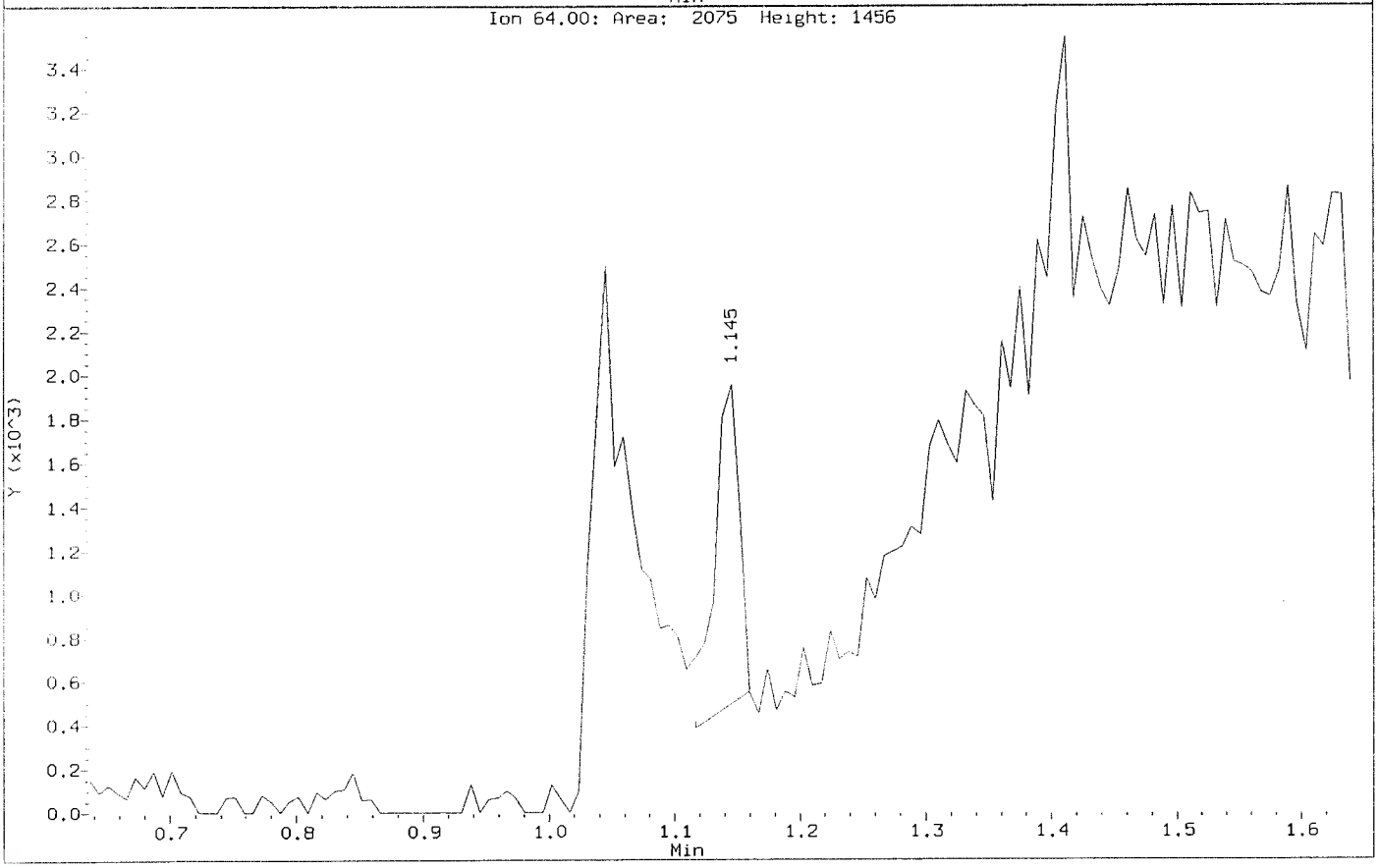




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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Vinyl Chloride
CAS Number: 75-01-4





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052604.D
Lab Smp Id: VSTD001 Client Smp ID: VSTD001
Inj Date : 26-MAY-2021 13:37
Operator : PC Inst ID: voa6.i
Smp Info : VSTD001;VSTD001;1;3;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 13:16 Cal File: X052689.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

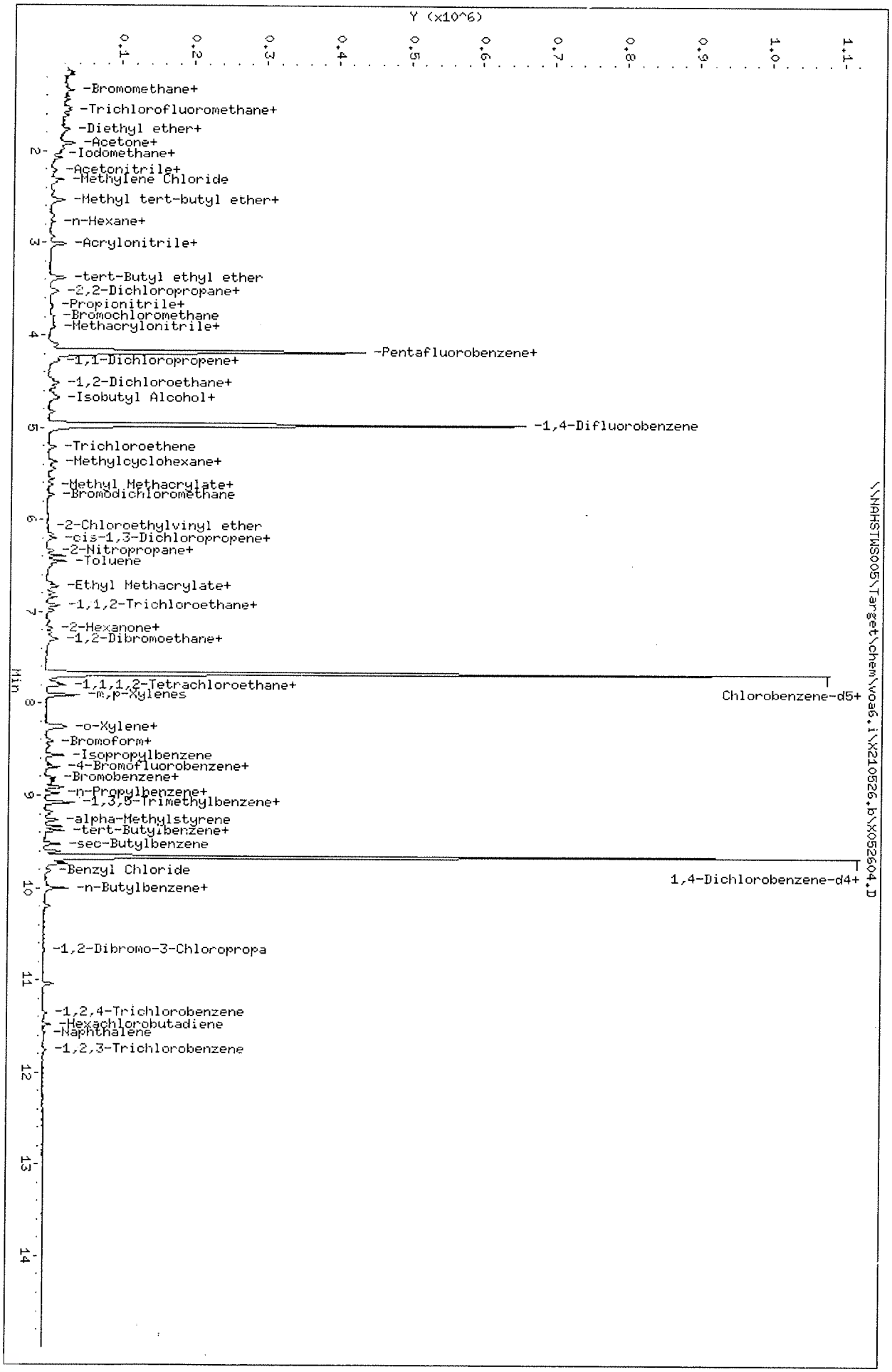
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	374662	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	596470	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	539050	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	263816	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	4774	1.00000	1.13(a)
$	35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	4768	1.00000	0.65(a)
$	46 Toluene-d8	98	6.388	6.388	(0.833)	16130	1.00000	1.20(a)
$	69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	6016	1.00000	2.00(a)
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	3901	1.00000	0.97(a)
	31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	5755	1.00000	1.03(a)
	68 1,1,2,2-Tetrachloroethane	83	8.845	8.845	(0.915)	4348	1.00000	0.02(aM)
	53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	2883	1.00000	0.98(a)
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	5856	1.00000	0.98(a)
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	3995	1.00000	1.03(a)
	32 1,1-Dichloropropene	75	4.283	4.283	(0.863)	5224	1.00000	1.14(a)
	93 1,2,3-Trichlorobenzene	180	11.754	11.754	(1.216)	1736	1.00000	1.08(a)
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	3425	1.00000	1.04(aM)
	90 1,2,4-Trichlorobenzene	180	11.352	11.352	(1.175)	2427	1.00000	0.93(a)
	79 1,2,4-Trimethylbenzene	105	9.383	9.383	(0.971)	12763	1.00000	1.06(a)
	89 1,2-Dibromo-3-Chloropropane	155	10.665	10.665	(1.104)	420	1.00000	1.50(aM)
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	4007	1.00000	1.00(a)
	88 1,2-Dichlorobenzene	146	9.999	9.999	(1.035)	6762	1.00000	0.94(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	4589	1.00000	0.96(a)
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	3370	1.00000	0.95(aM)
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	11991	1.00000	1.00(a)
83 1,3-Dichlorobenzene	146	9.612	9.612	(0.995)	7778	1.00000	1.04(a)
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	6044	1.00000	1.04(a)
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	8598	1.00000	1.10(a)
26 2,2-Dichloropropane	77	3.502	3.502	(0.837)	5645	1.00000	1.10(a)
24 2-Butanone	43	3.609	3.609	(0.863)	2263	2.00000	1.98(aH)
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	10677	1.00000	1.08(a)
52 2-Hexanone	43	7.105	7.105	(0.926)	3902	2.00000	1.94(a)
77 4-Chlorotoluene	91	9.075	9.075	(0.939)	12726	1.00000	1.08(a)
82 p-Isopropyltoluene	119	9.655	9.655	(0.999)	11873	1.00000	0.97(a)
45 4-Methyl-2-Pentanone	43	6.338	6.338	(0.826)	6892	2.00000	2.22(a)
10 Acetone	43	1.976	1.976	(0.473)	6356	2.00000	1.07(a)
37 Benzene	78	4.512	4.512	(0.909)	13768	1.00000	1.00(a)
74 Bromobenzene	156	8.810	8.810	(0.912)	4457	1.00000	1.01(a)
29 Bromochloromethane	128	3.795	3.795	(0.908)	2448	1.00000	1.08(a)
39 Bromodichloromethane	83	5.729	5.729	(1.154)	5258	1.00000	1.02(aM)
66 Bromoform	173	8.416	8.416	(1.097)	3086	1.00000	1.02(Ta)
6 Bromomethane	94	1.338	1.338	(0.320)	5134	1.00000	1.47(aM)
19 Carbon Disulfide	76	2.069	2.069	(0.495)	17528	2.00000	1.91(a)
34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	5081	1.00000	1.02(aH)
59 Chlorobenzene	112	7.692	7.692	(1.003)	11243	1.00000	1.00(a)
7 Chloroethane	64	1.403	1.403	(0.336)	3557	1.00000	(aM)
28 Chloroform	83	3.910	3.910	(0.935)	6401	1.00000	0.97(a)
3 Chloromethane	50	1.081	1.081	(0.258)	4657	1.00000	(aM)
27 cis-1,2-Dichloroethene	96	3.538	3.538	(0.846)	4276	1.00000	1.08(a)
46 cis-1,3-Dichloropropene	75	6.159	6.159	(1.241)	5752	1.00000	0.95(a)
55 Dibromochloromethane	129	7.184	7.184	(0.937)	4180	1.00000	0.94(a)
44 Dibromomethane	93	5.558	5.558	(1.120)	2737	1.00000	1.03(a)
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	3382	1.00000	0.77(a)
61 Ethylbenzene	106	7.800	7.800	(1.017)	4880	1.00000	0.94(a)
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	1684	1.00000	2.04(a)
67 Isopropylbenzene	105	8.566	8.566	(1.117)	14326	1.00000	0.90(a)
62 m,p-Xylenes	106	7.907	7.907	(1.031)	12425	2.00000	1.84(a)
17 Methylene Chloride	84	2.306	2.306	(0.551)	5537	1.00000	0.34(a)
87 n-Butylbenzene	91	9.999	9.999	(1.035)	9814	1.00000	0.95(a)
73 n-Propylbenzene	91	8.917	8.917	(0.923)	17945	1.00000	1.09(a)
92 Naphthalene	128	11.567	11.567	(1.197)	3910	1.00000	1.03(a)
63 o-Xylene	106	8.244	8.244	(1.075)	6381	1.00000	0.96(a)
81 sec-Butylbenzene	105	9.526	9.526	(0.986)	13504	1.00000	0.97(a)
64 Styrene	104	8.265	8.265	(1.078)	10006	1.00000	0.90(a)
78 tert-Butylbenzene	119	9.340	9.340	(0.967)	10328	1.00000	1.00(a)
56 Tetrachloroethene	164	6.933	6.933	(0.904)	3075	1.00000	0.92(a)
50 Toluene	91	6.453	6.453	(0.841)	16276	1.00000	1.03(a)
20 trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	3617	1.00000	1.03(a)
51 trans-1,3-Dichloropropene	75	6.689	6.689	(1.348)	5128	1.00000	0.98(a)
38 Trichloroethene	130	5.214	5.214	(1.051)	3767	1.00000	0.92(a)
8 Trichlorofluoromethane	101	1.561	1.561	(0.373)	5964	1.00000	0.88(a)
5 Vinyl Chloride	62	1.138	1.138	(0.272)	5435	1.00000	1.22(aM)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

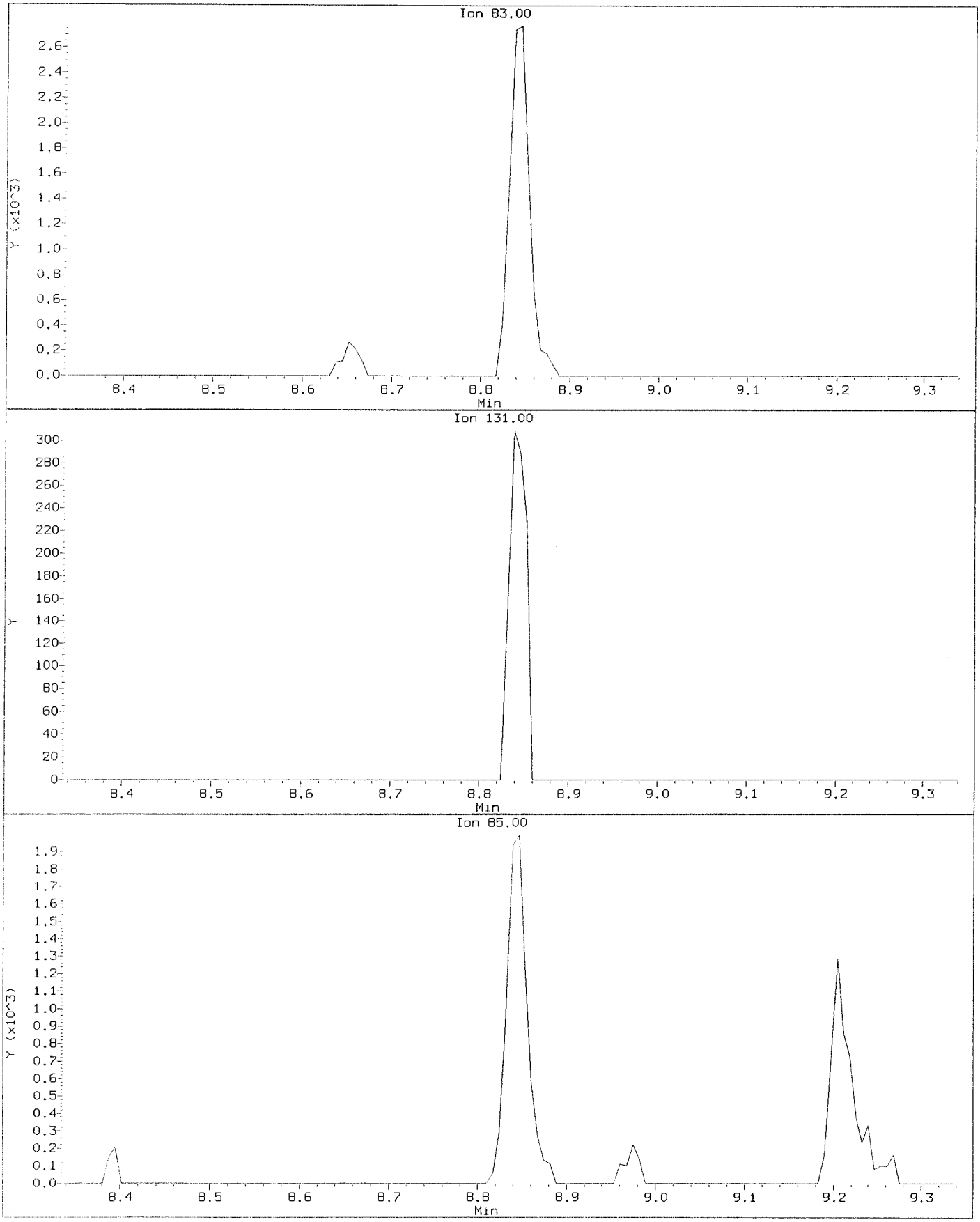


Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052604.D
Date : 26-MAY-2021 13:37
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

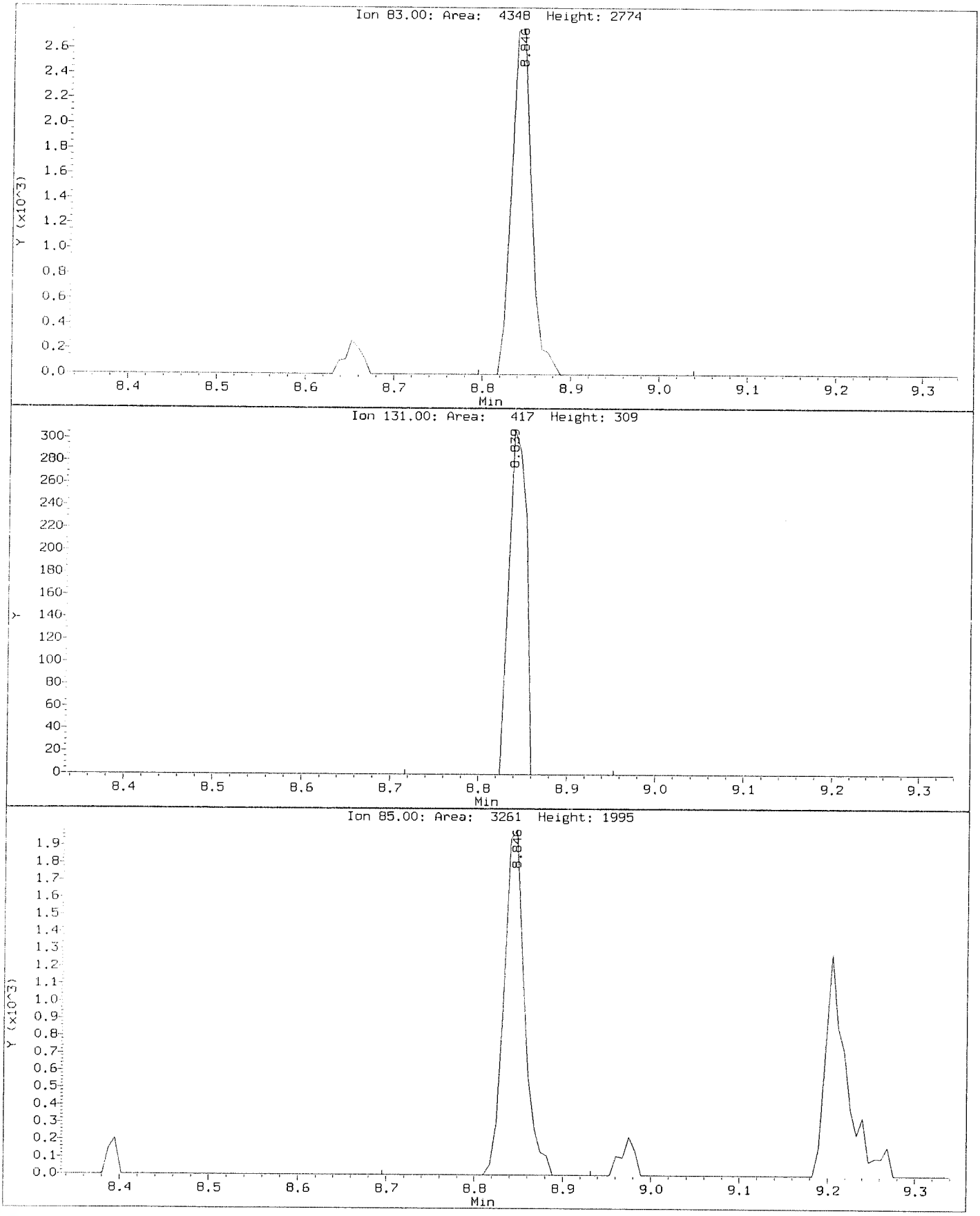
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Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



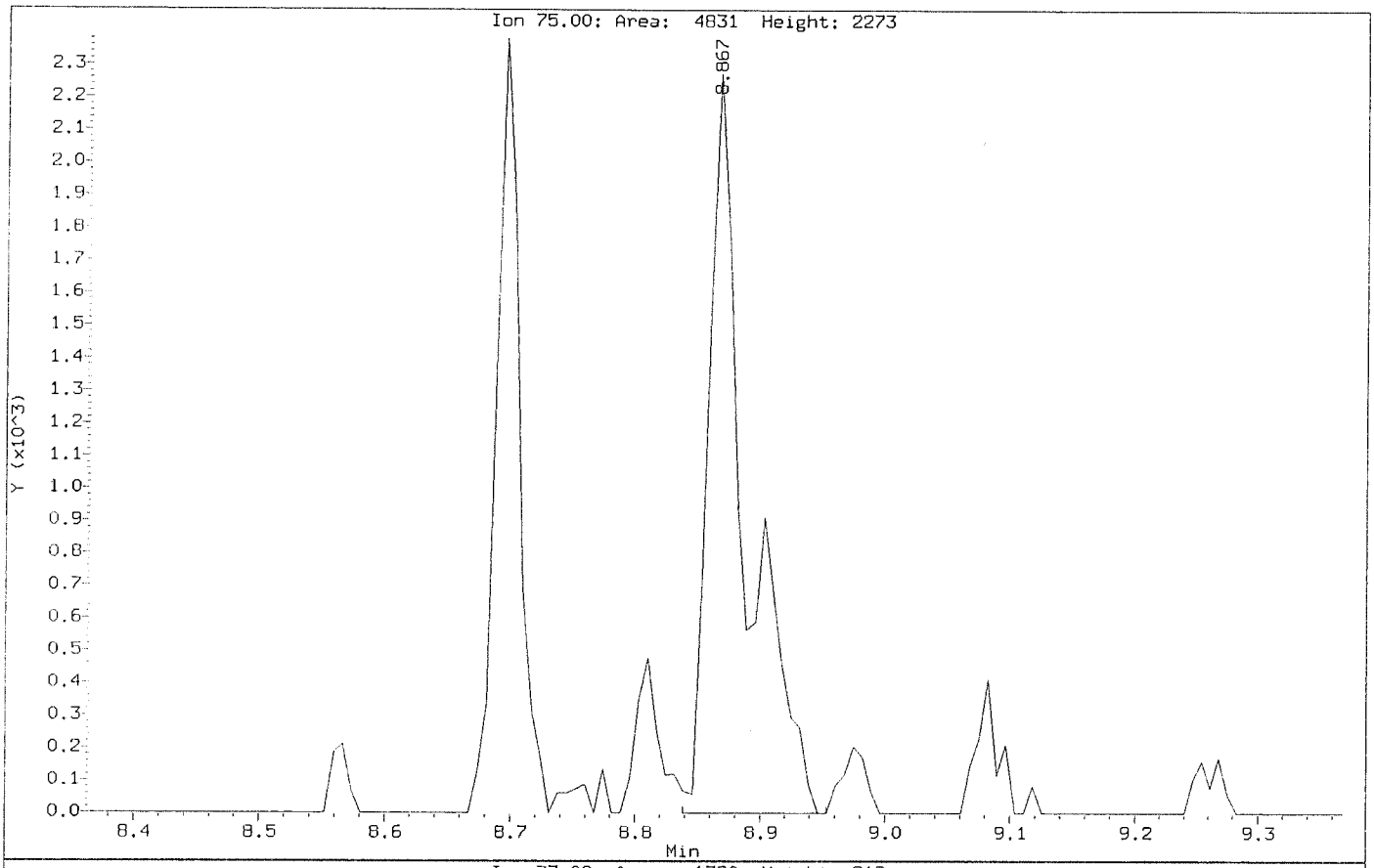
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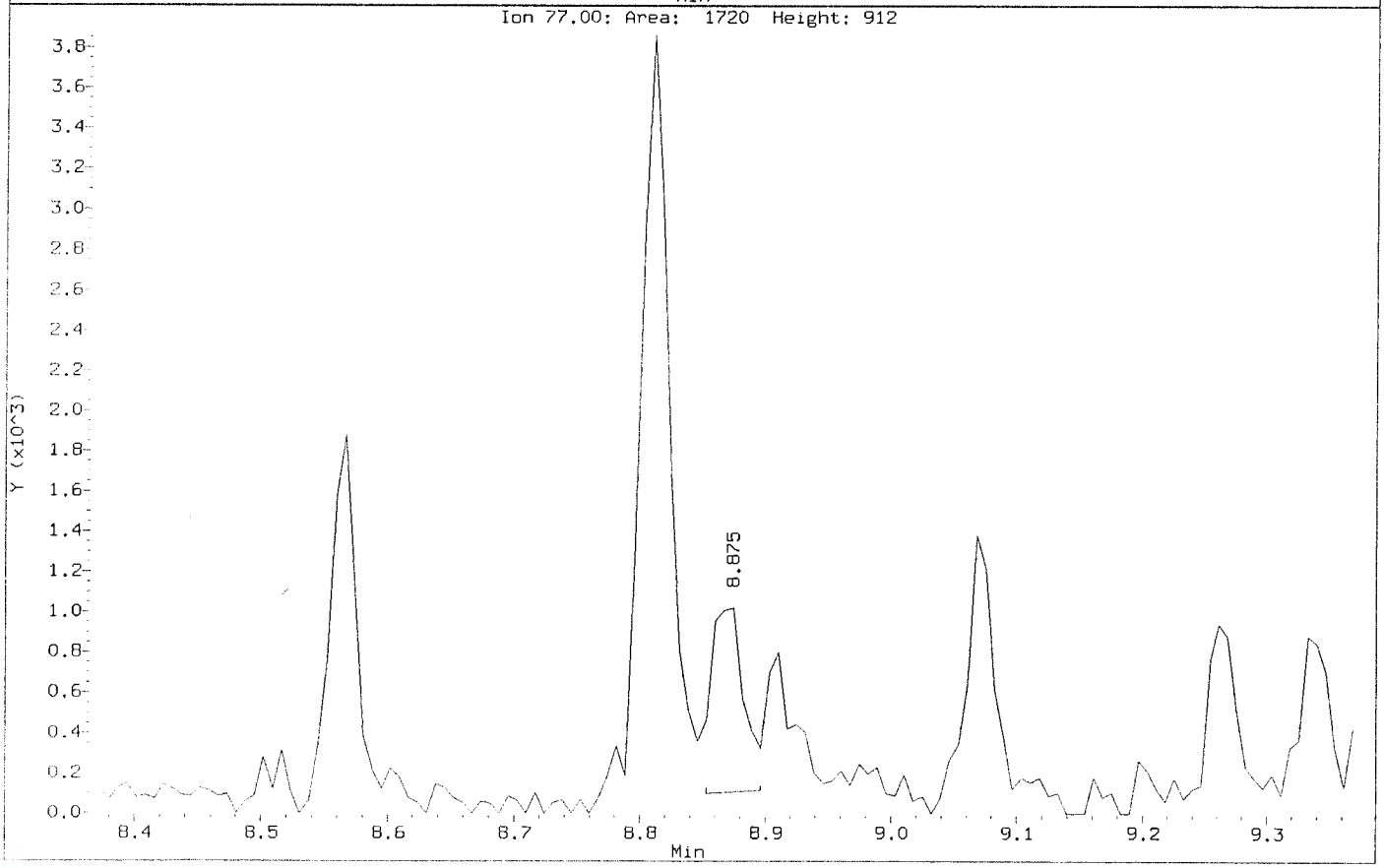
Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



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Instrument: voa6.i
Client Sample ID: VSTD001

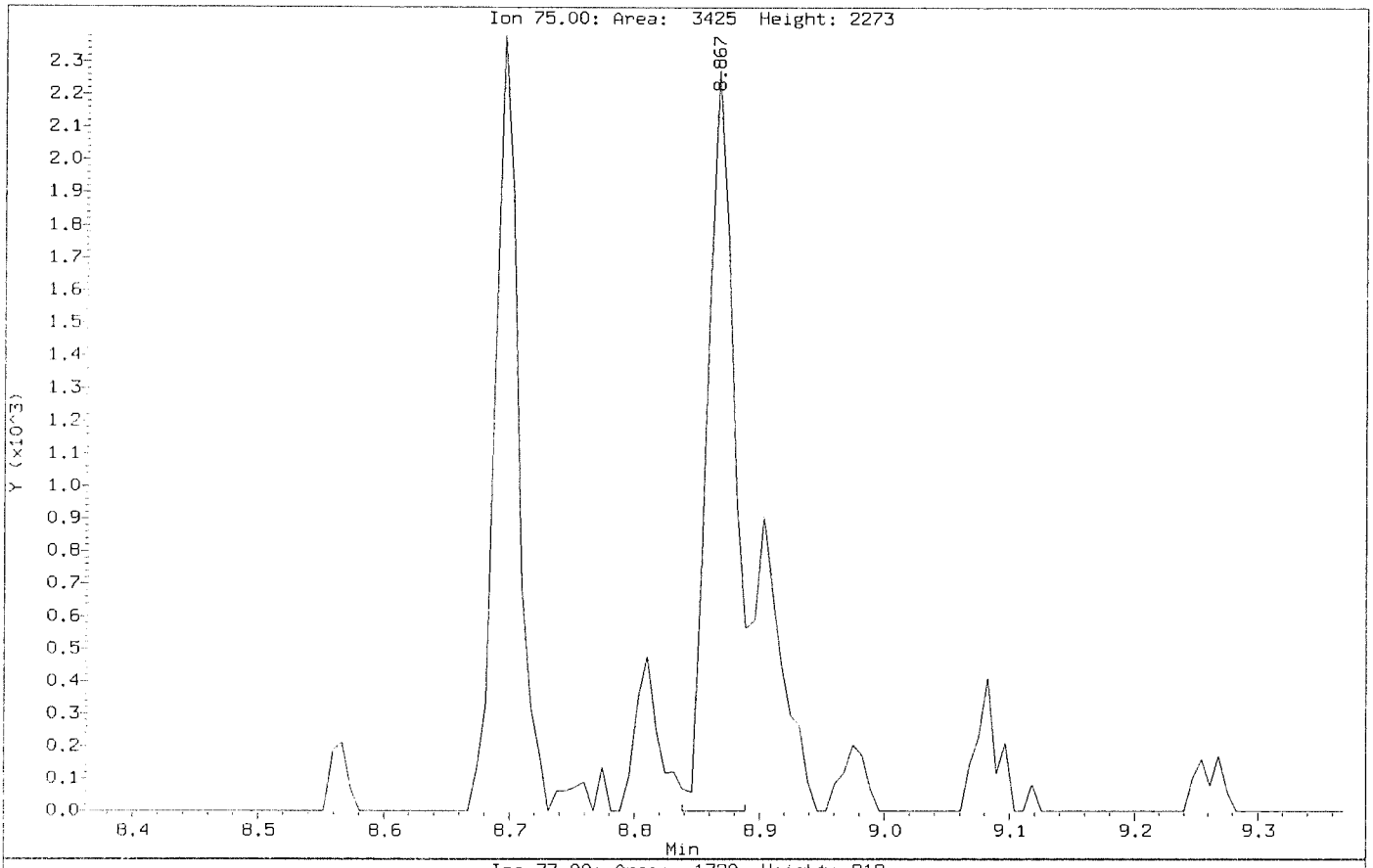
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

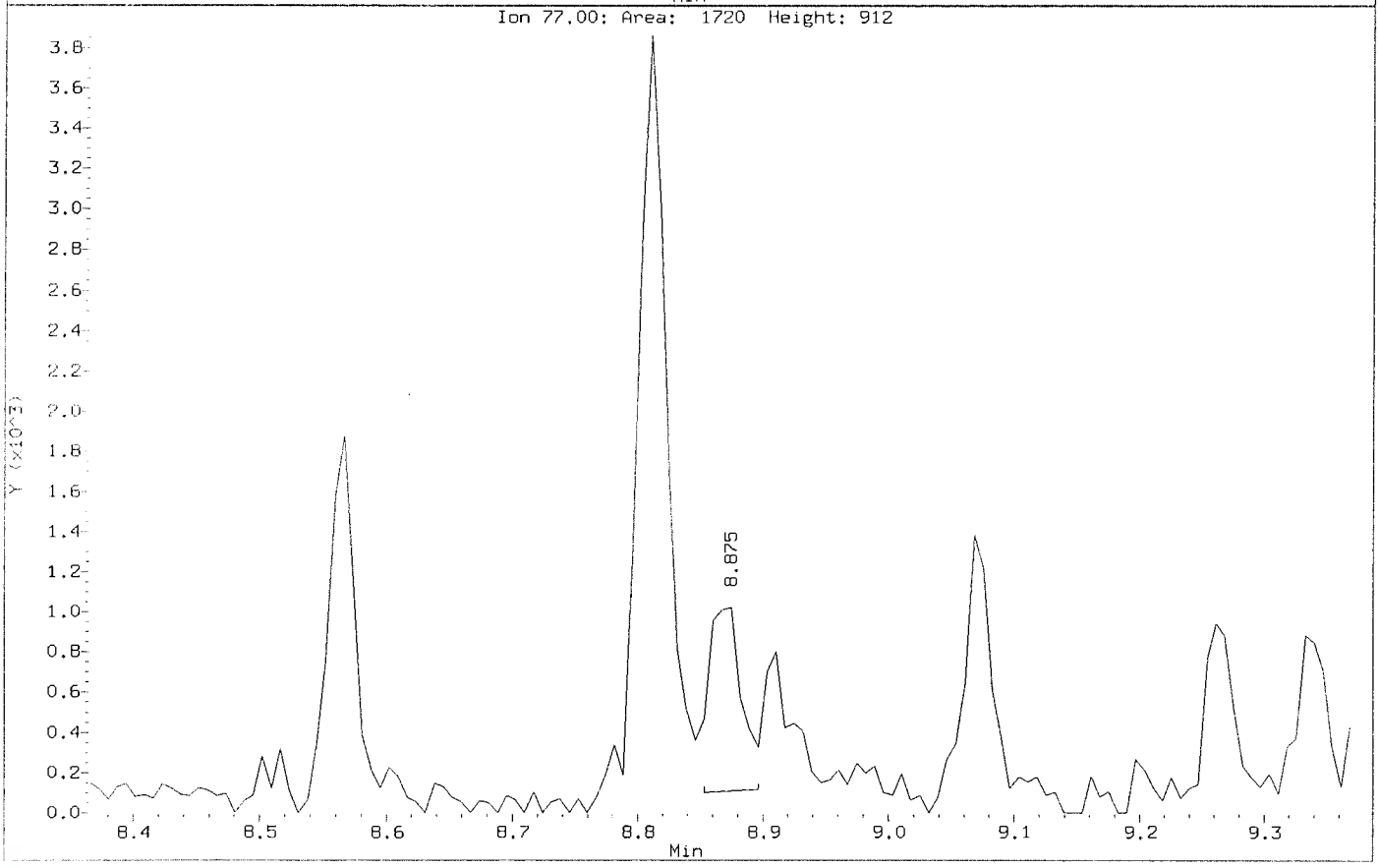




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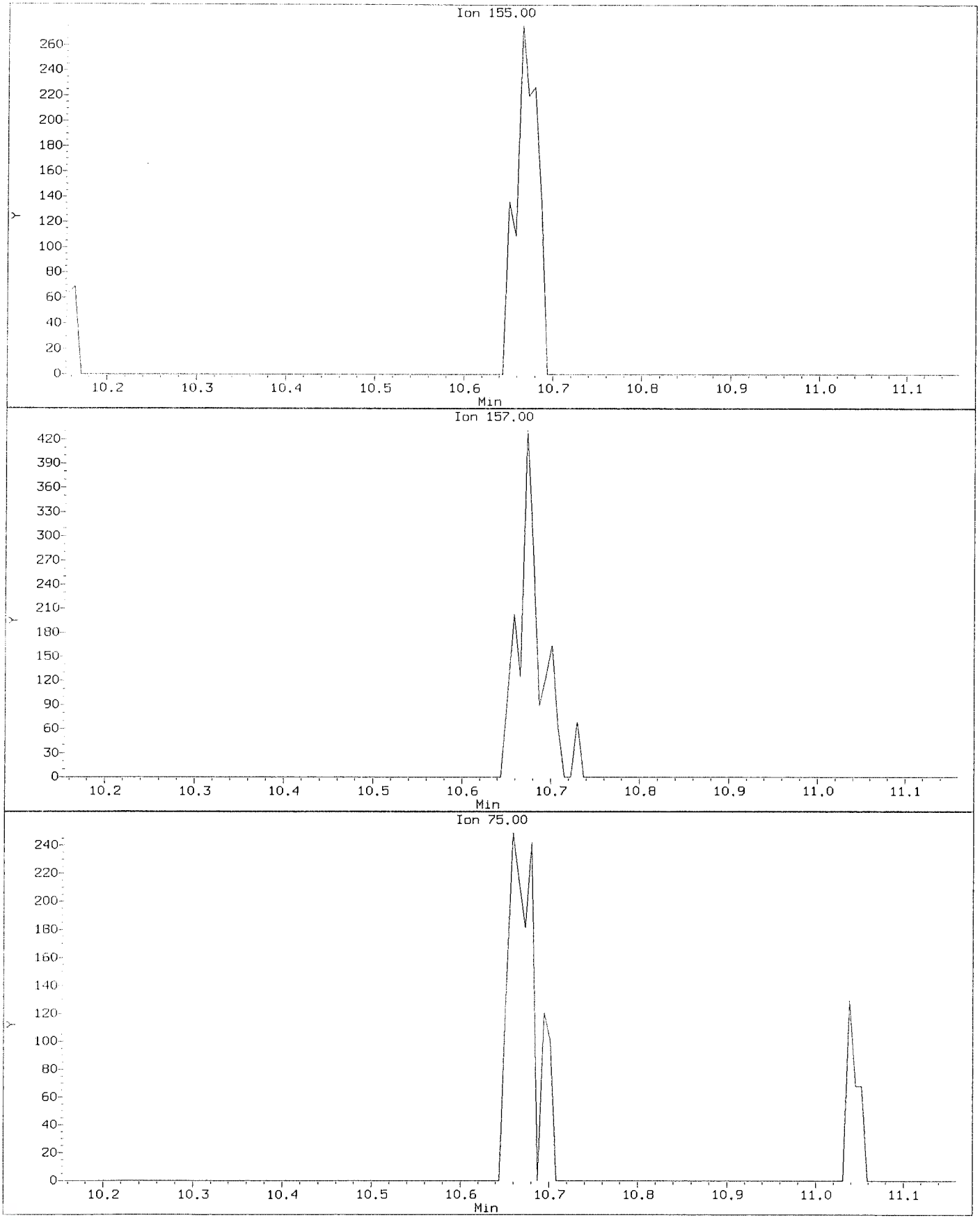
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





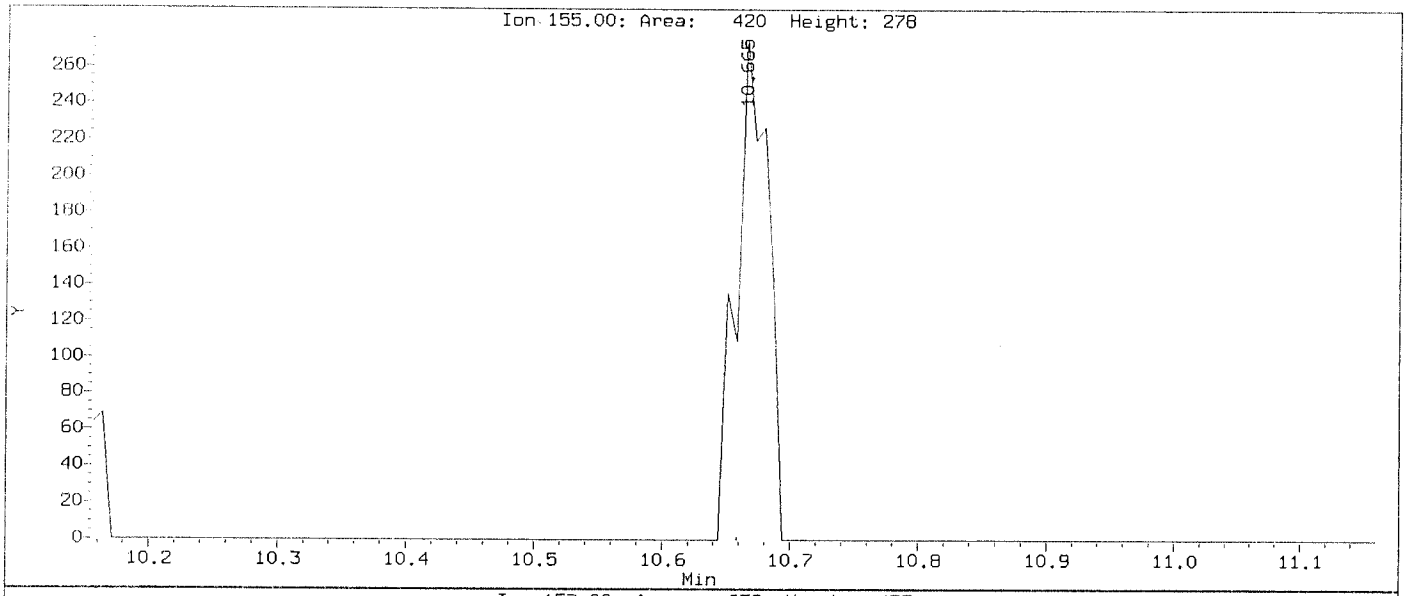
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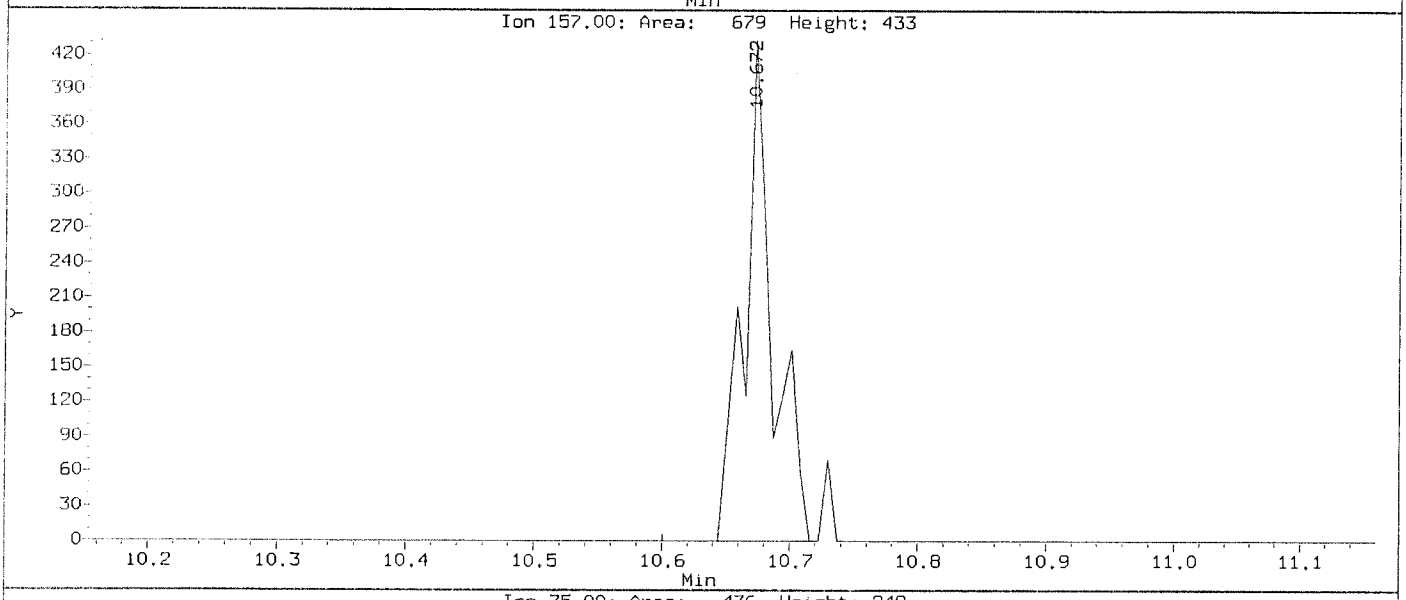
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CAS Number: 96-12-8

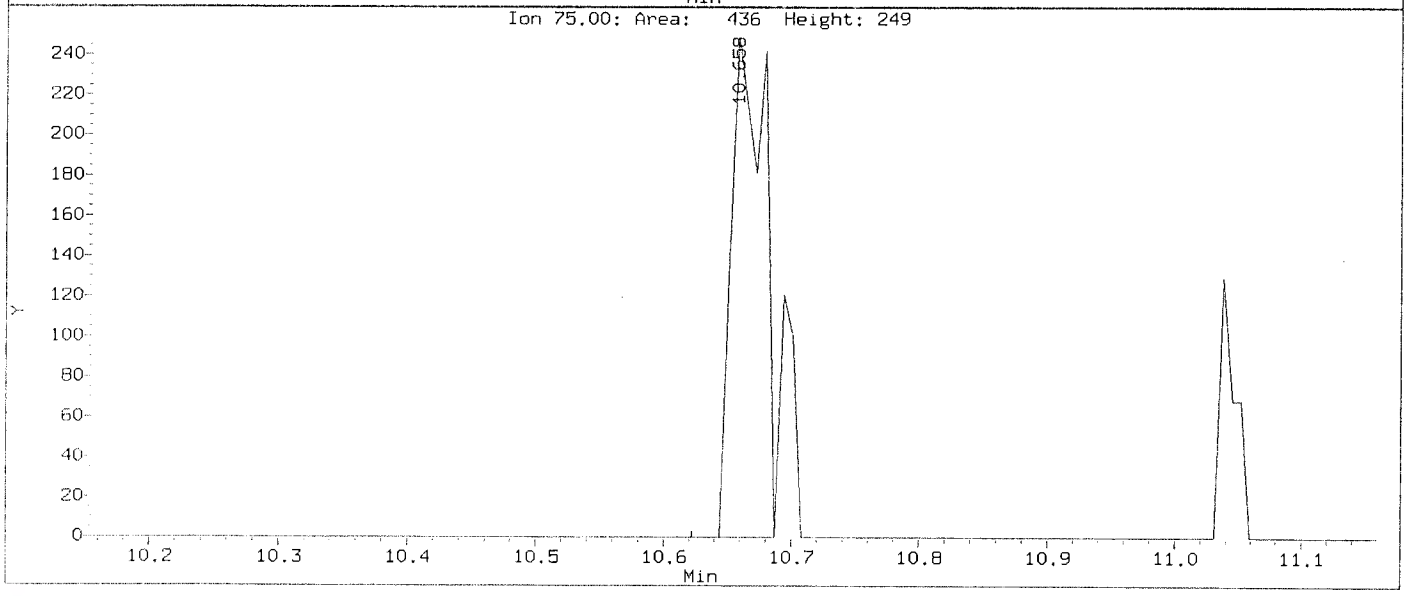


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Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8

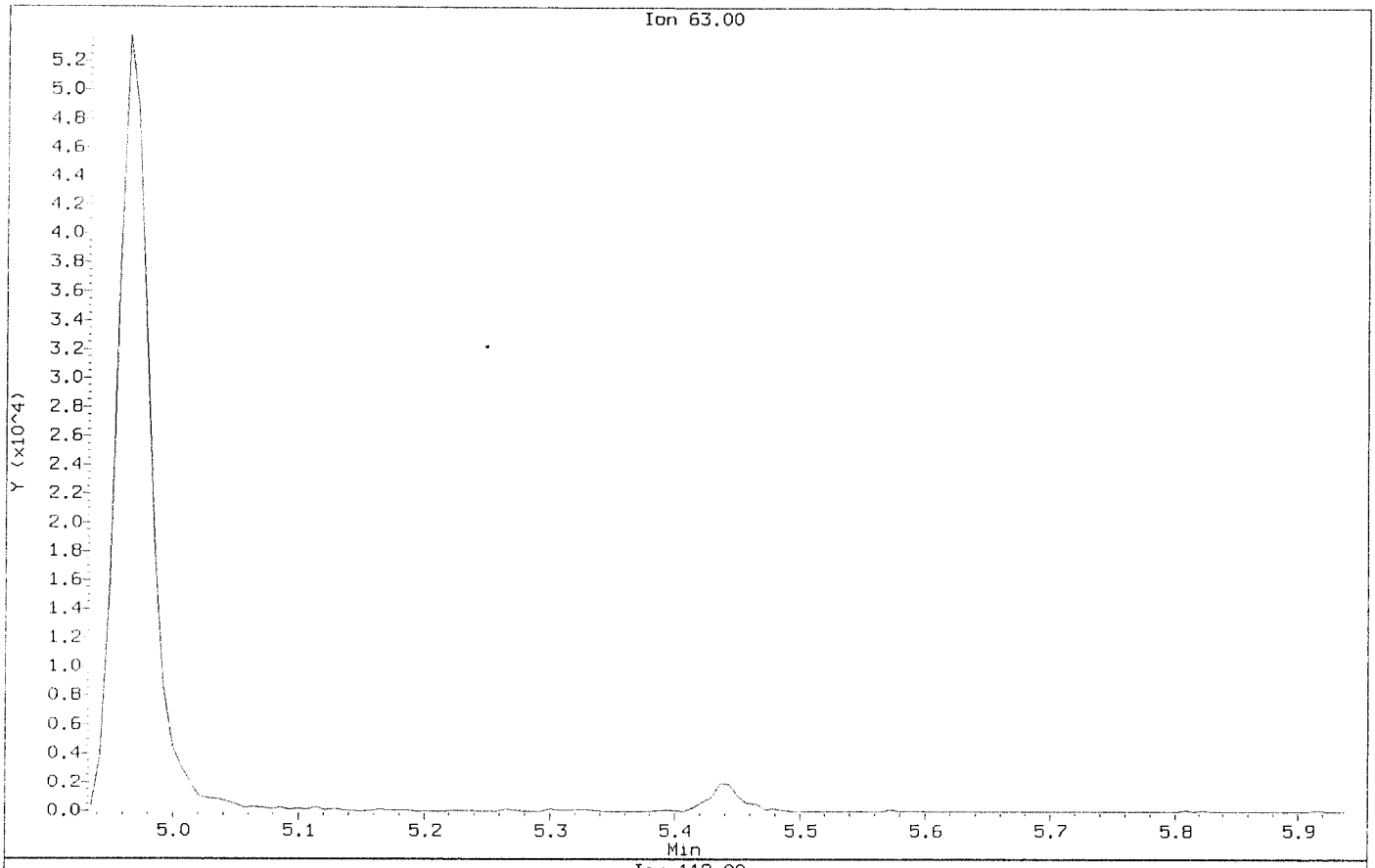


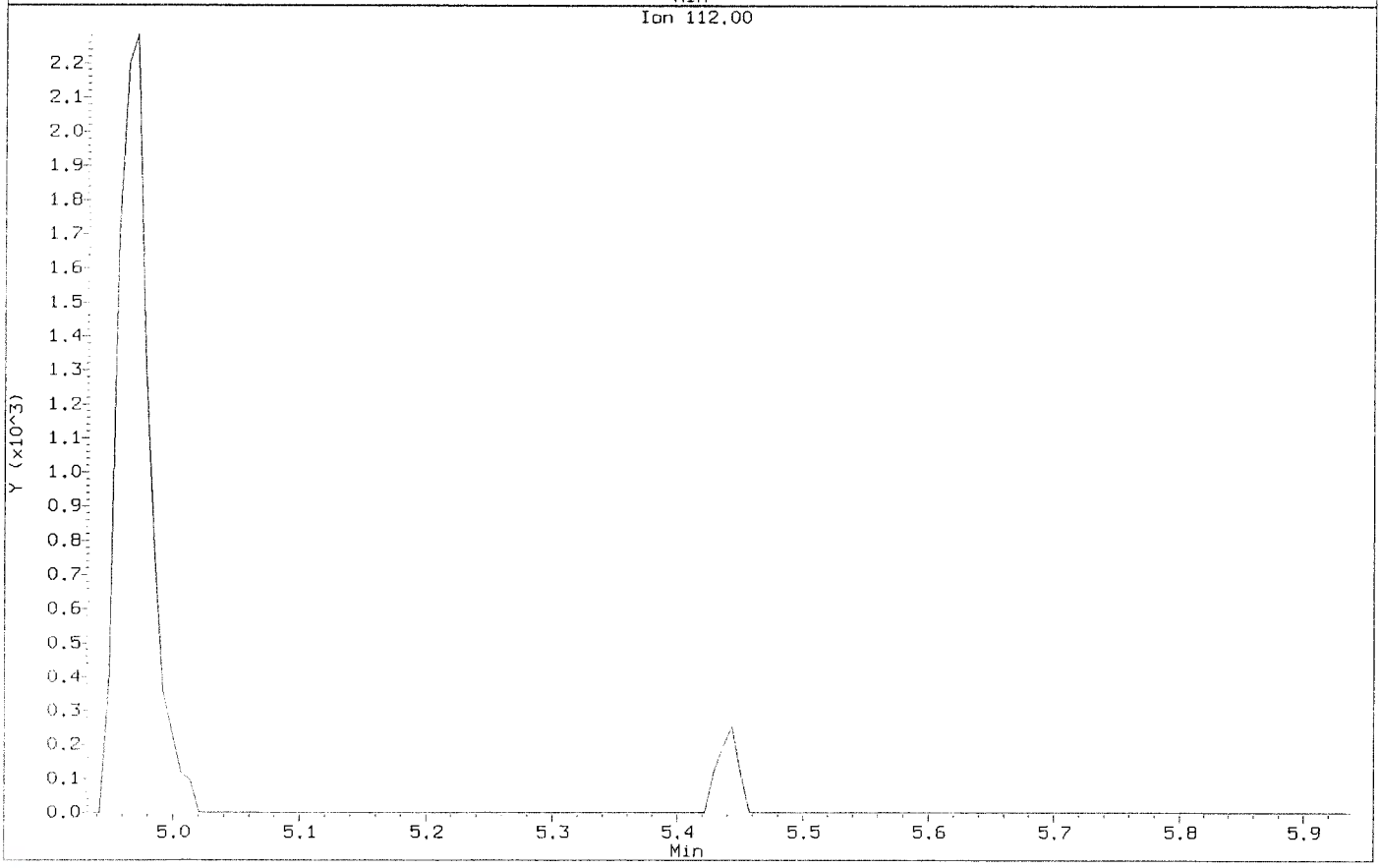




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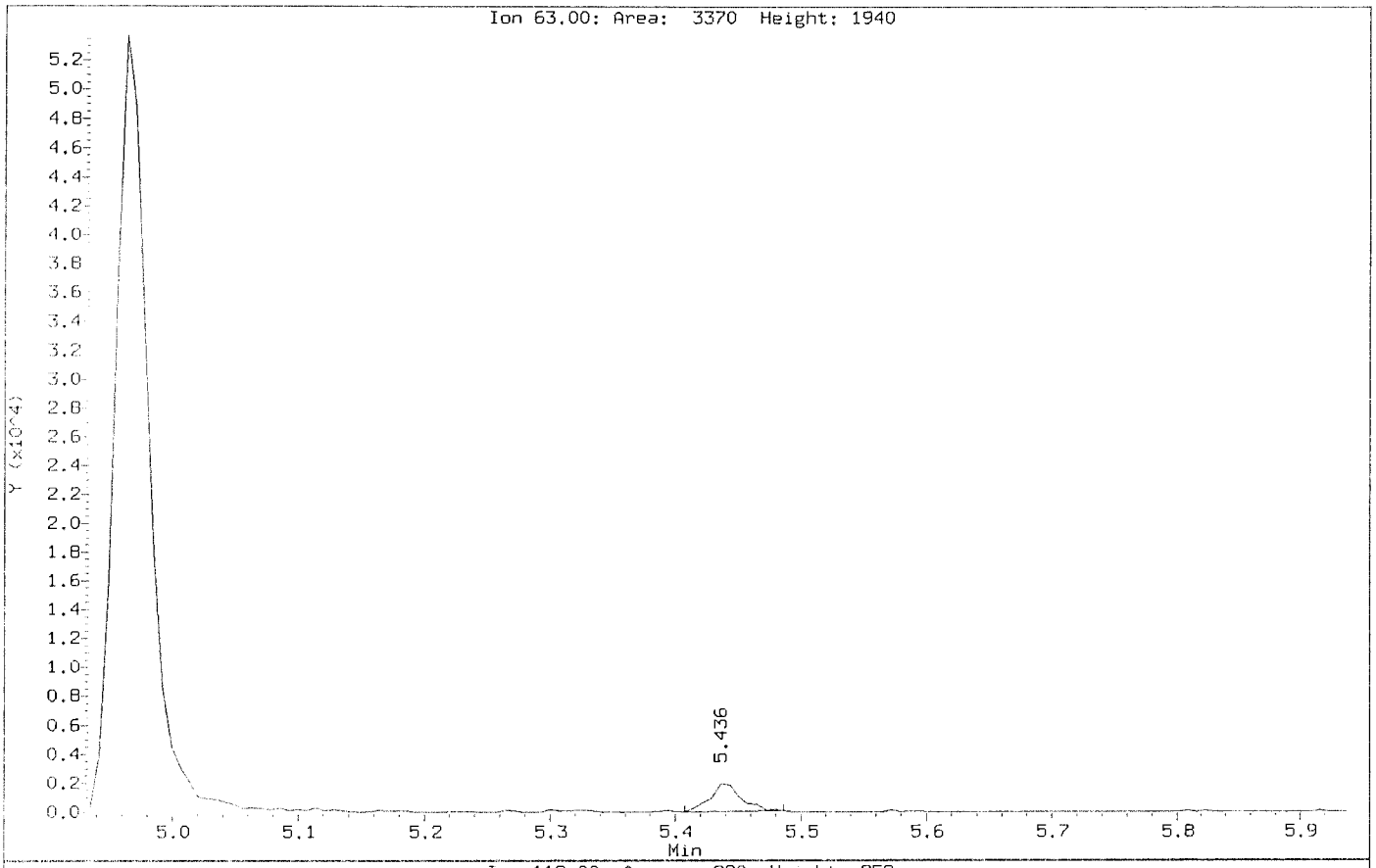
Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

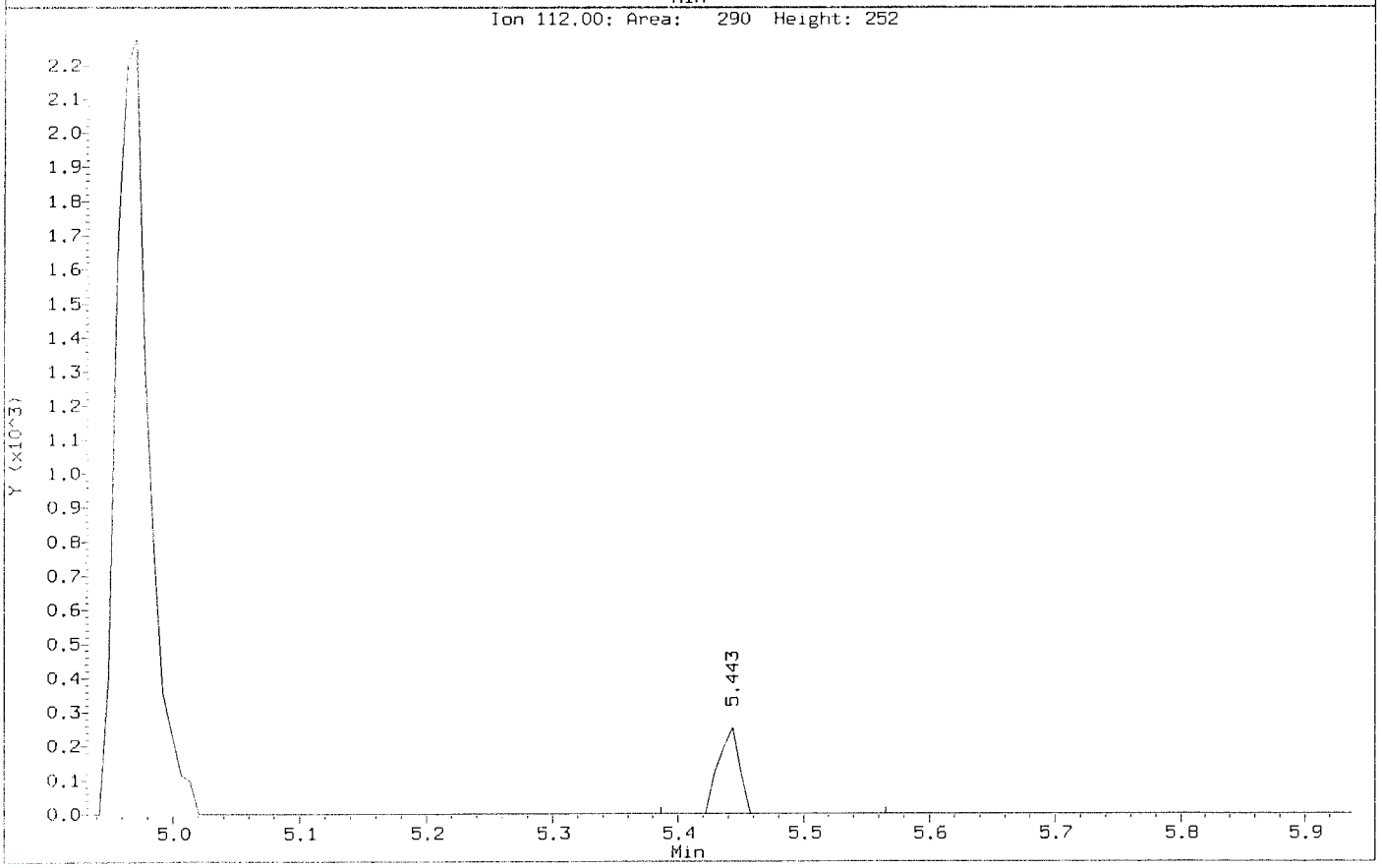




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Instrument: voa6.i
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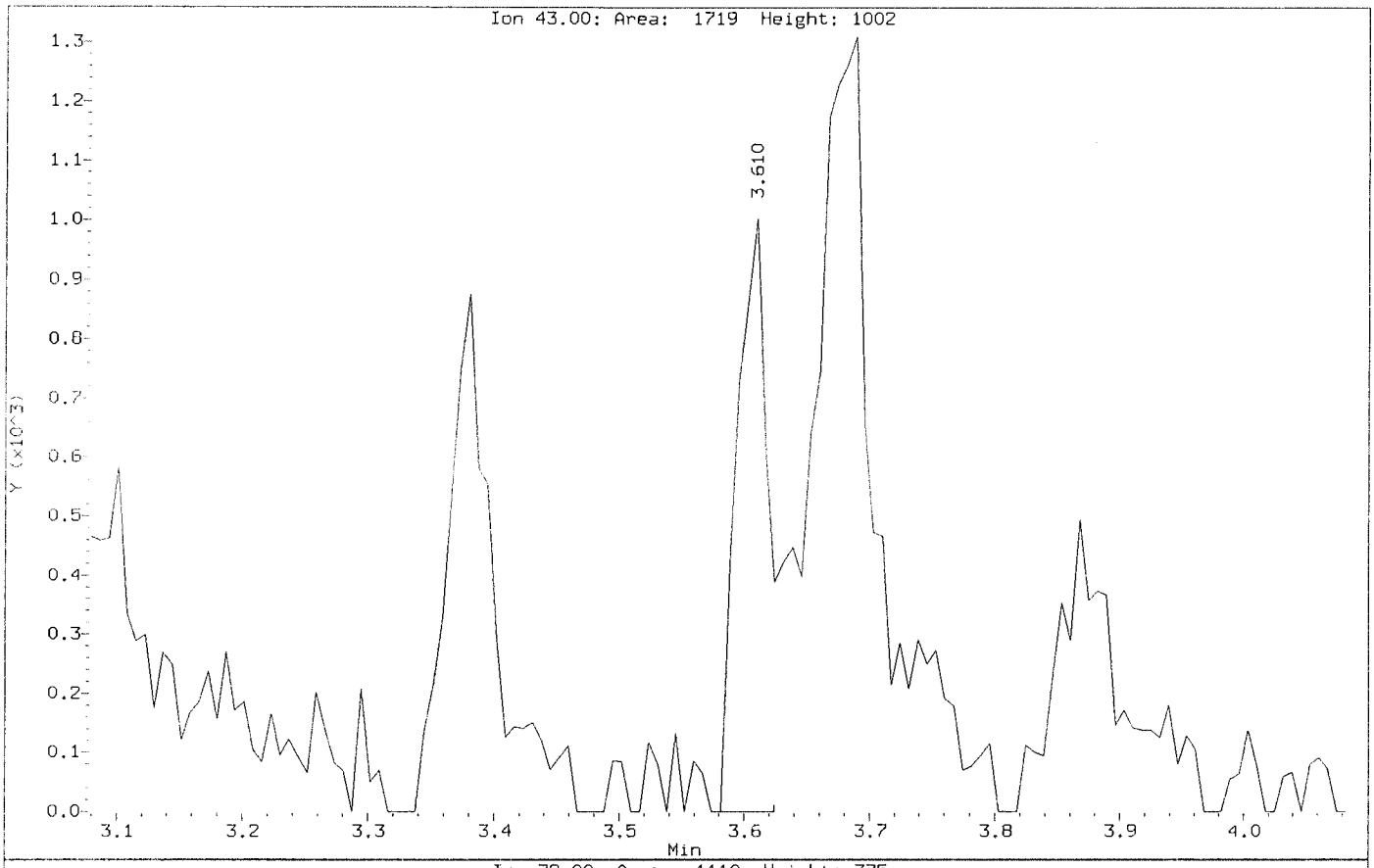
Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

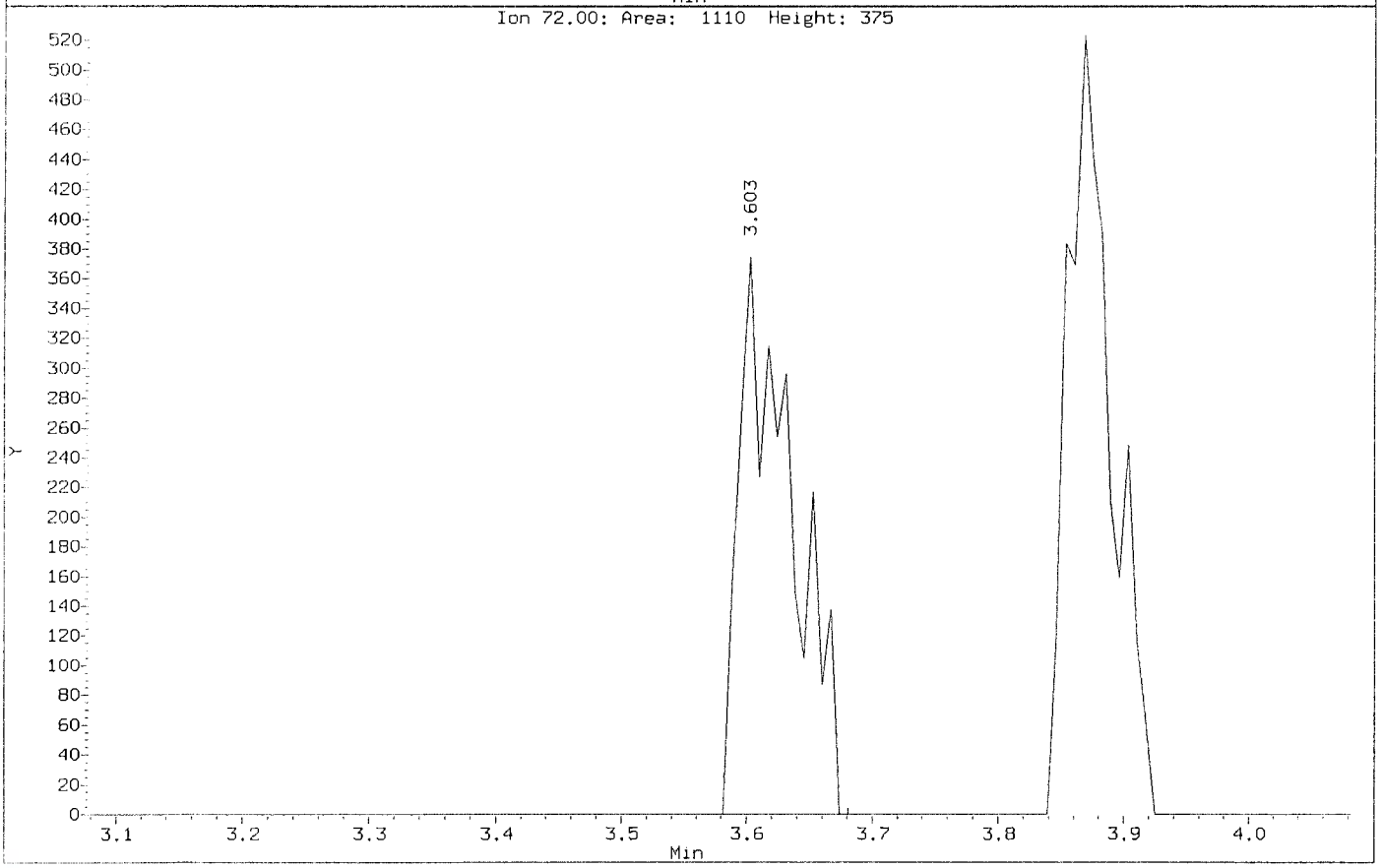




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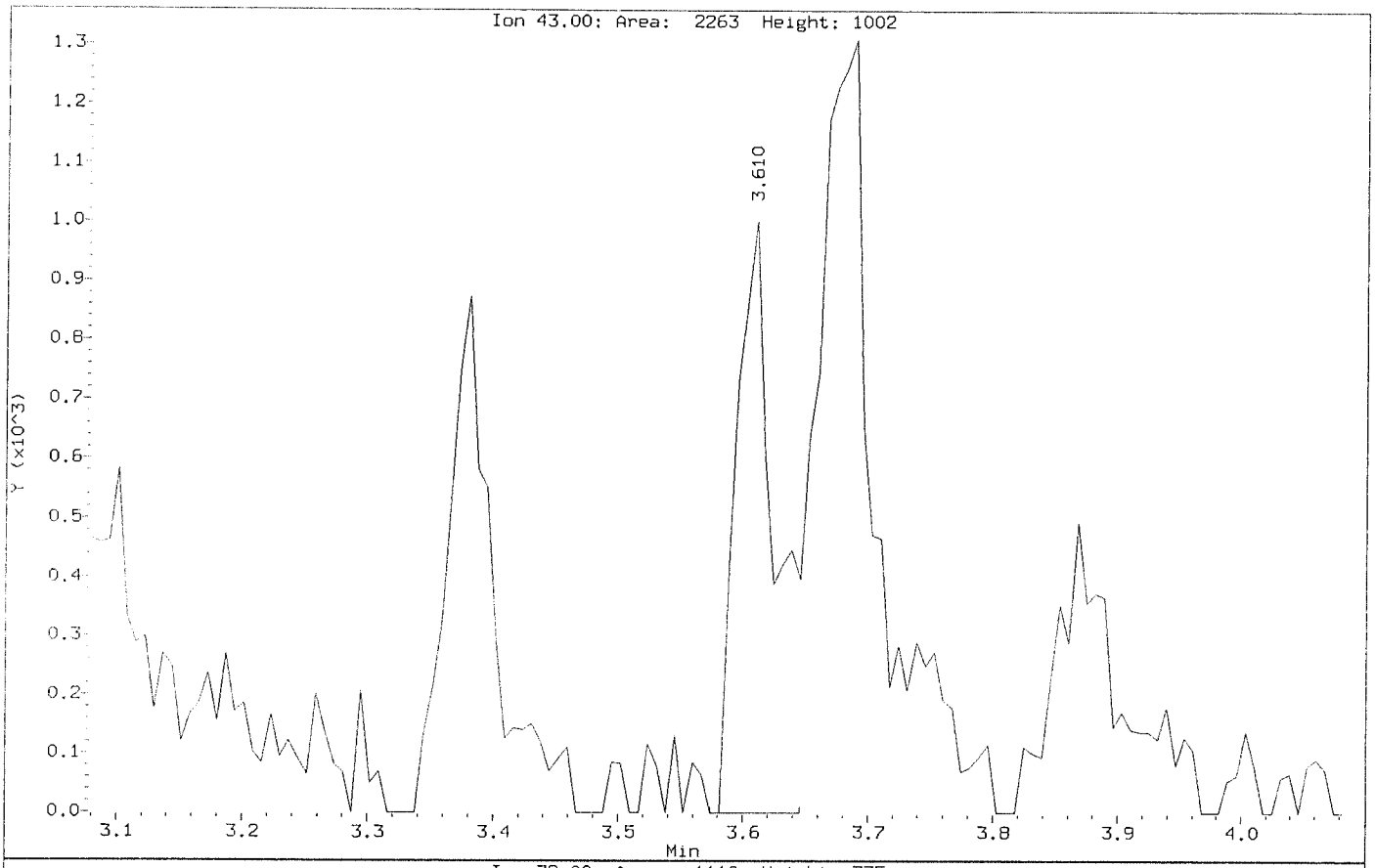
Compound: 2-Butanone
CAS Number: 78-93-3

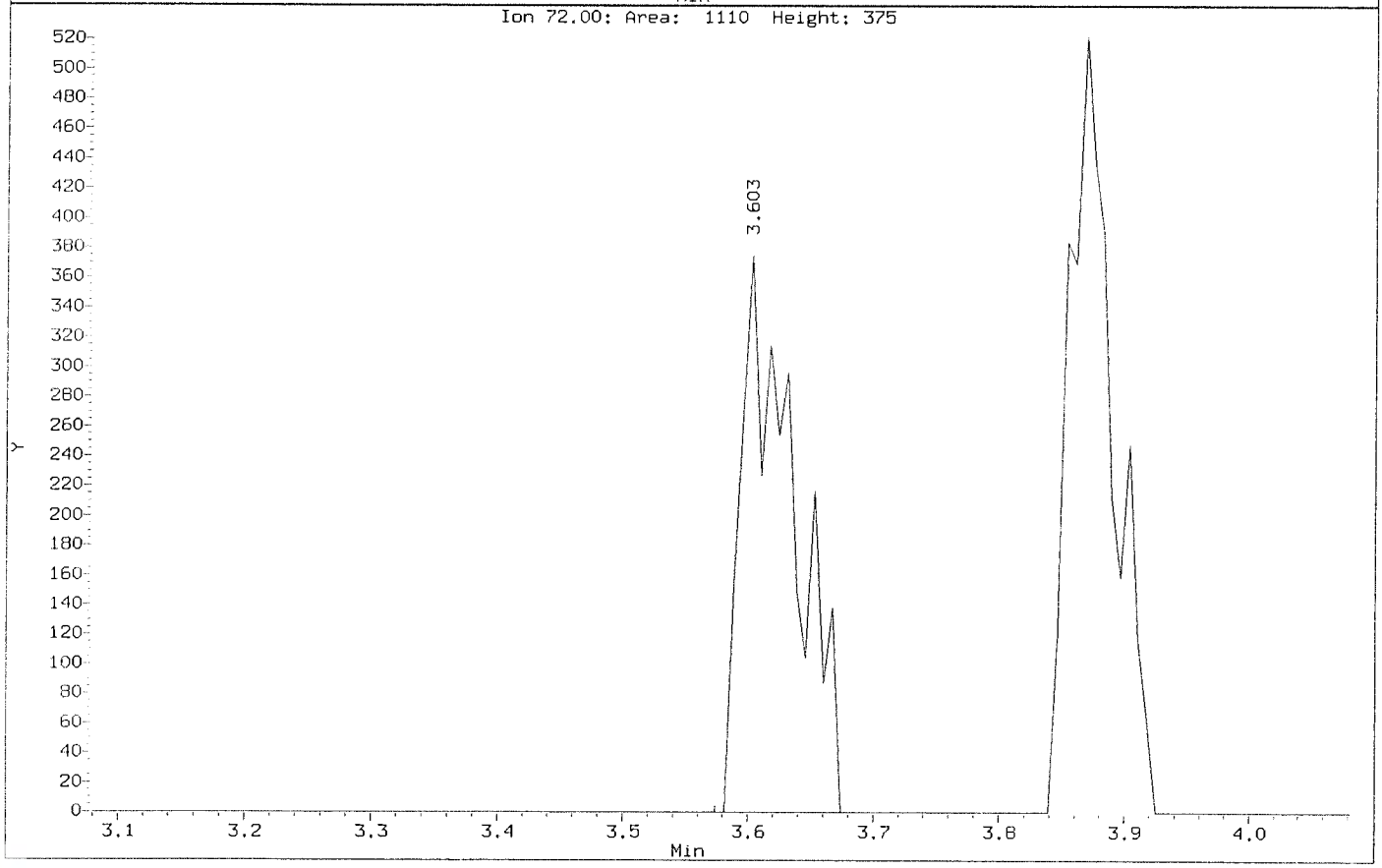




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Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

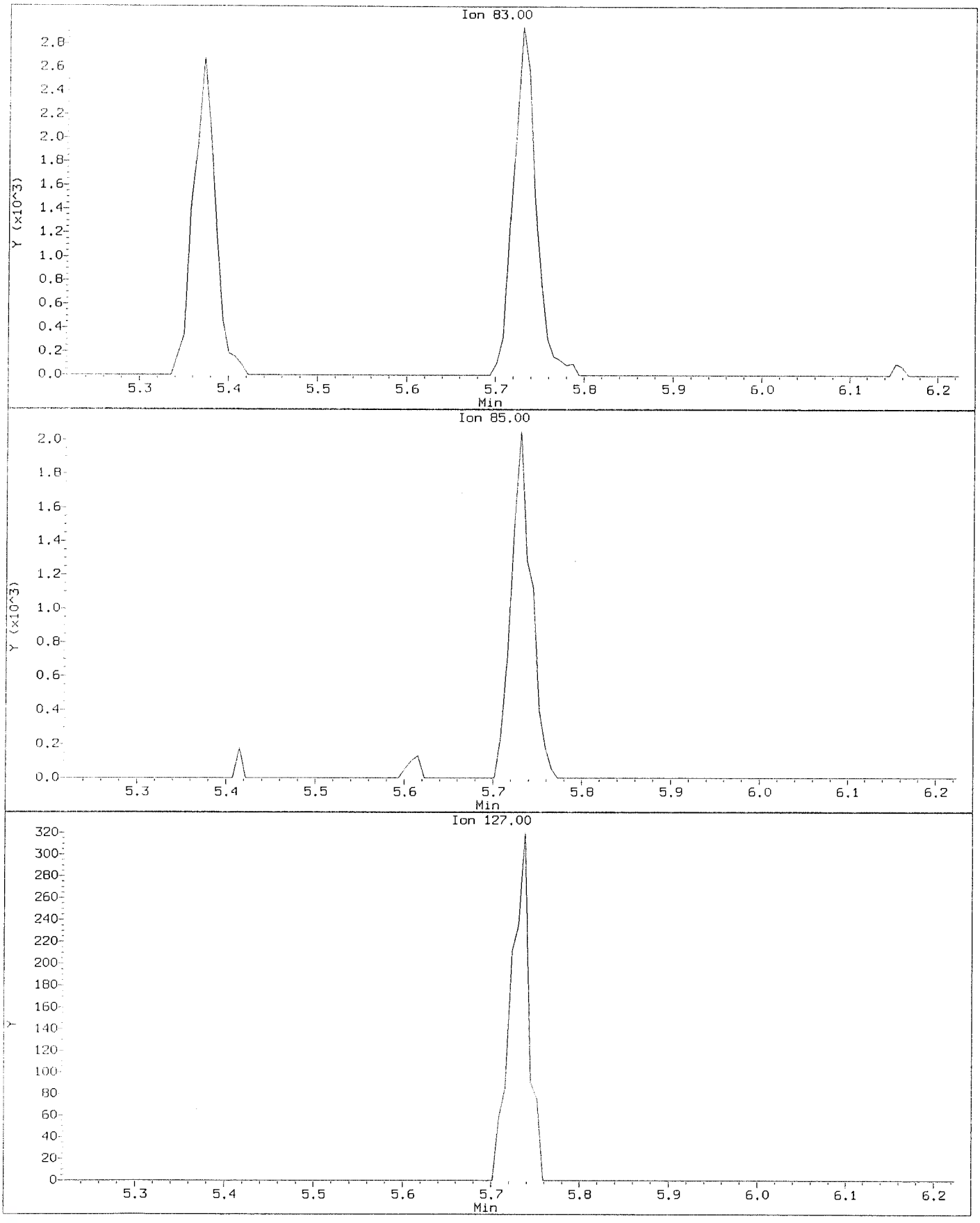
Compound: 2-Butanone
CAS Number: 78-93-3





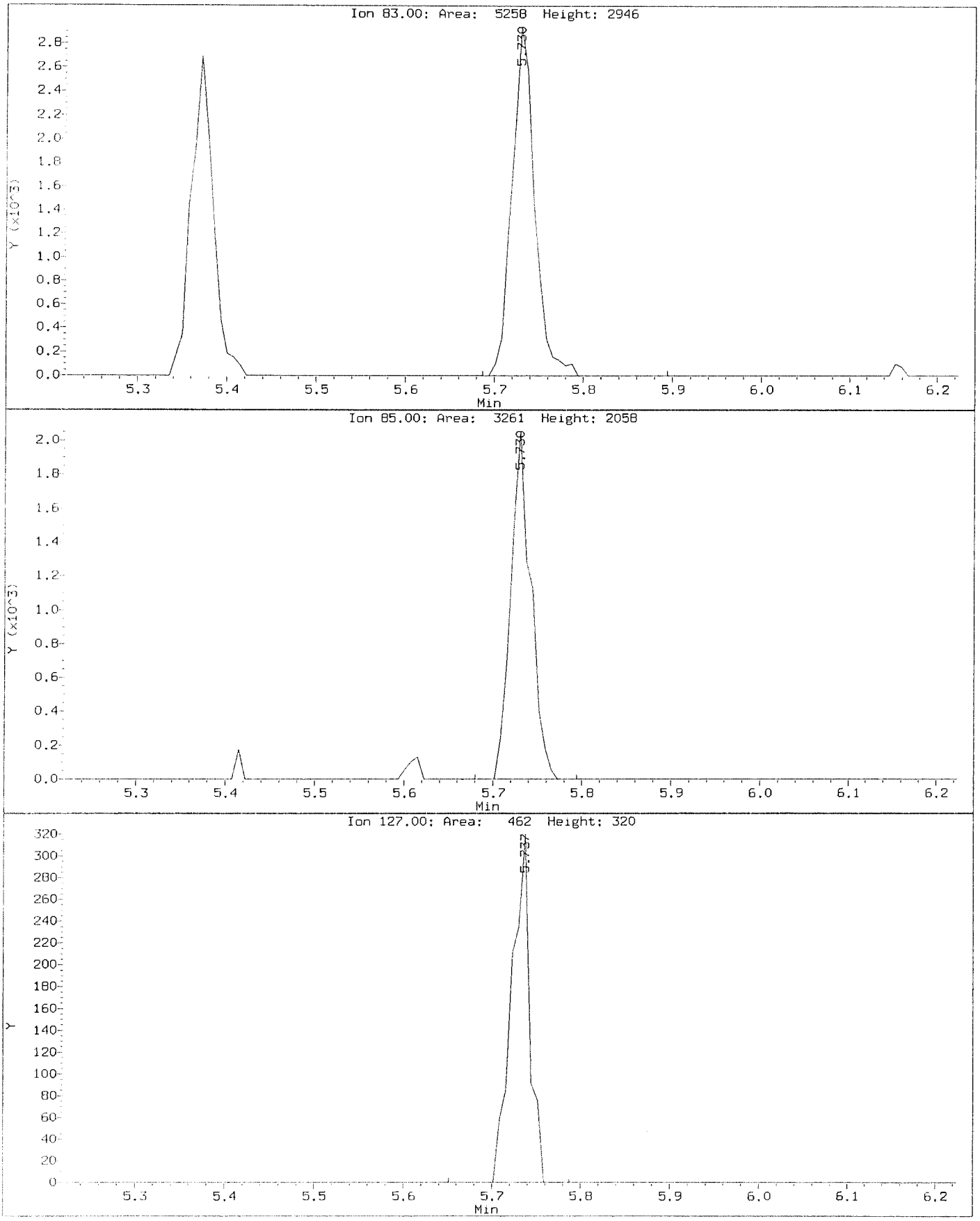
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Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Bromodichloromethane
CAS Number: 75-27-4



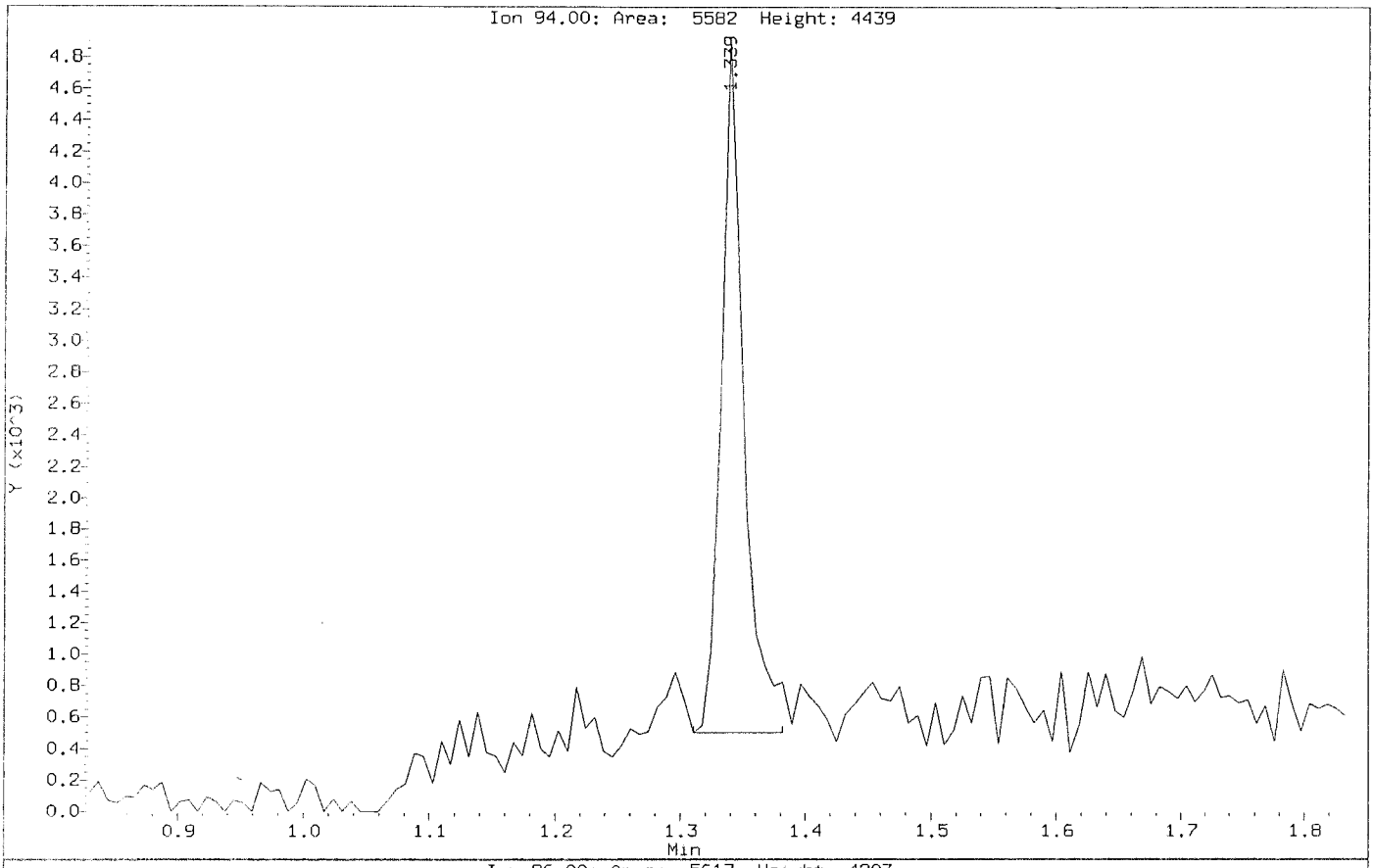
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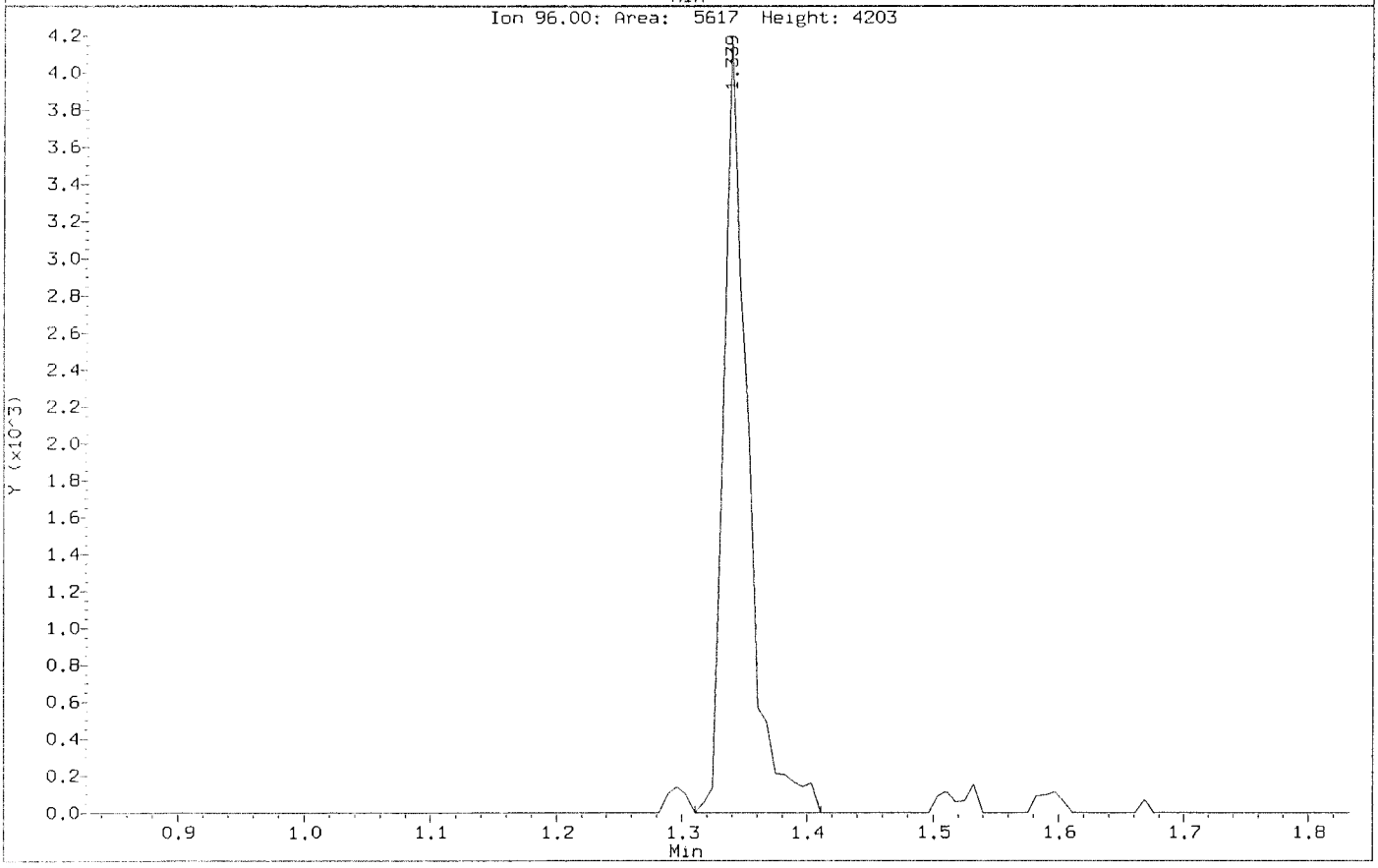
Compound: Bromodichloromethane
CAS Number: 75-27-4



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052604.D
Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

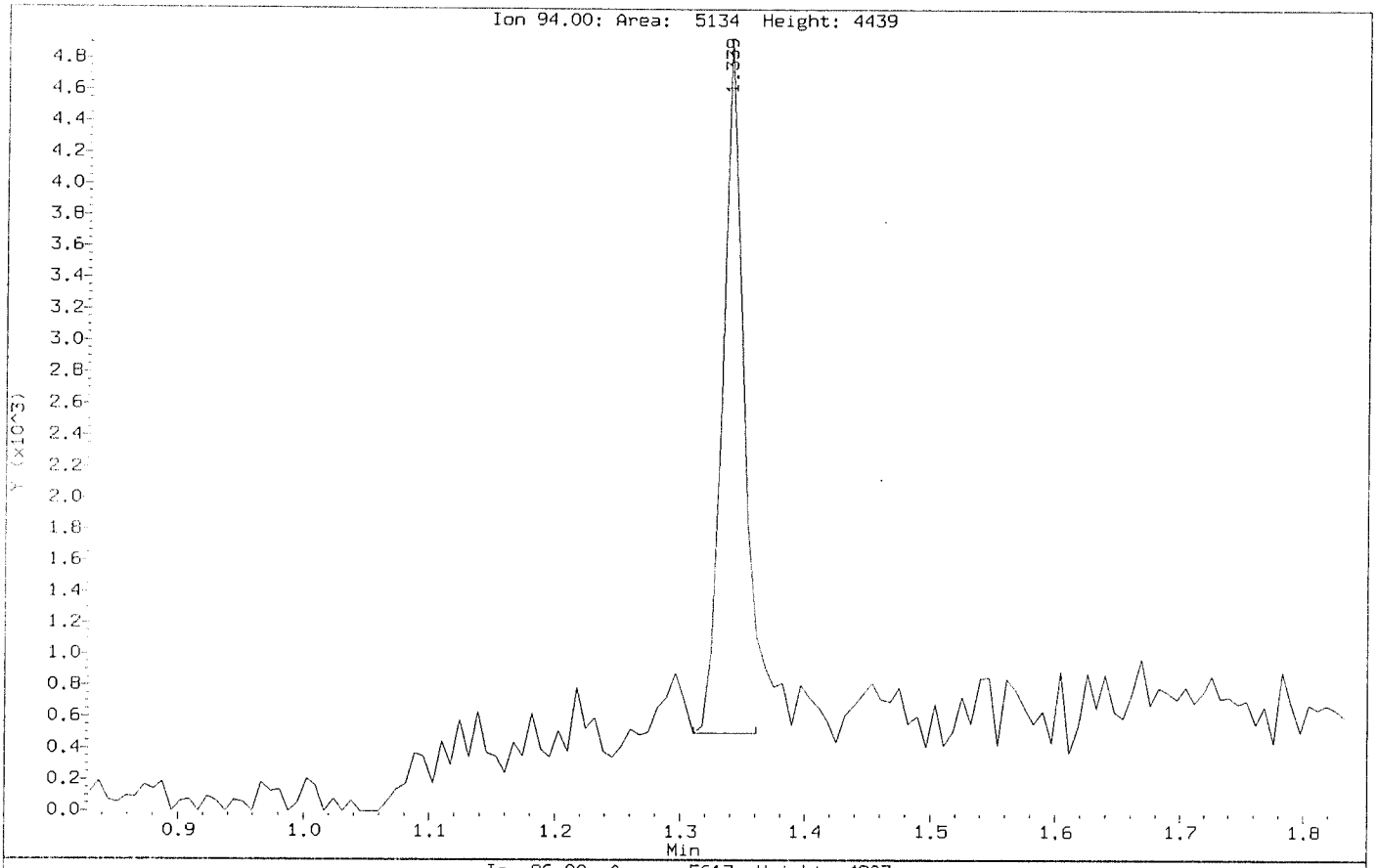
Compound: Bromomethane
CAS Number: 74-83-9

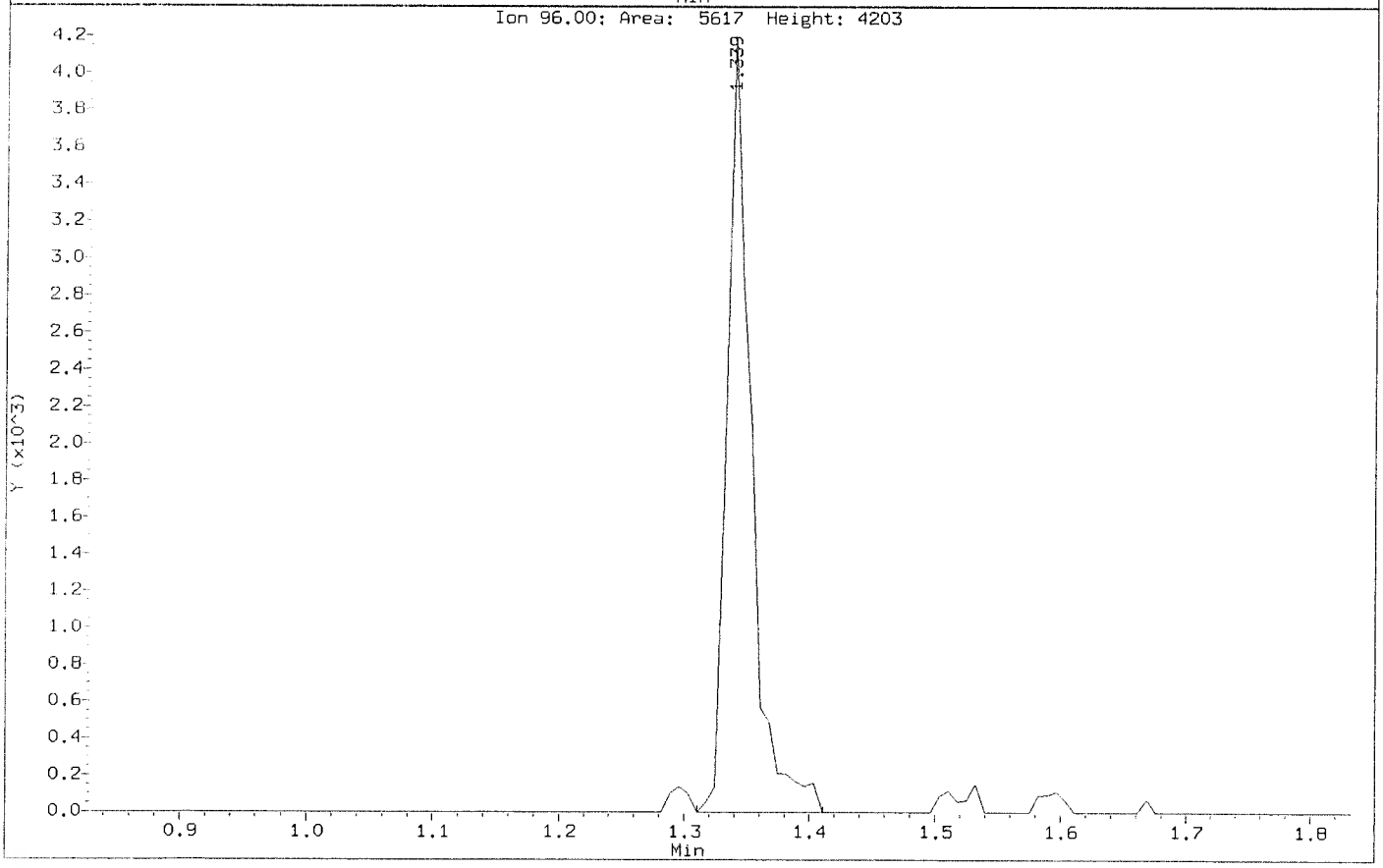




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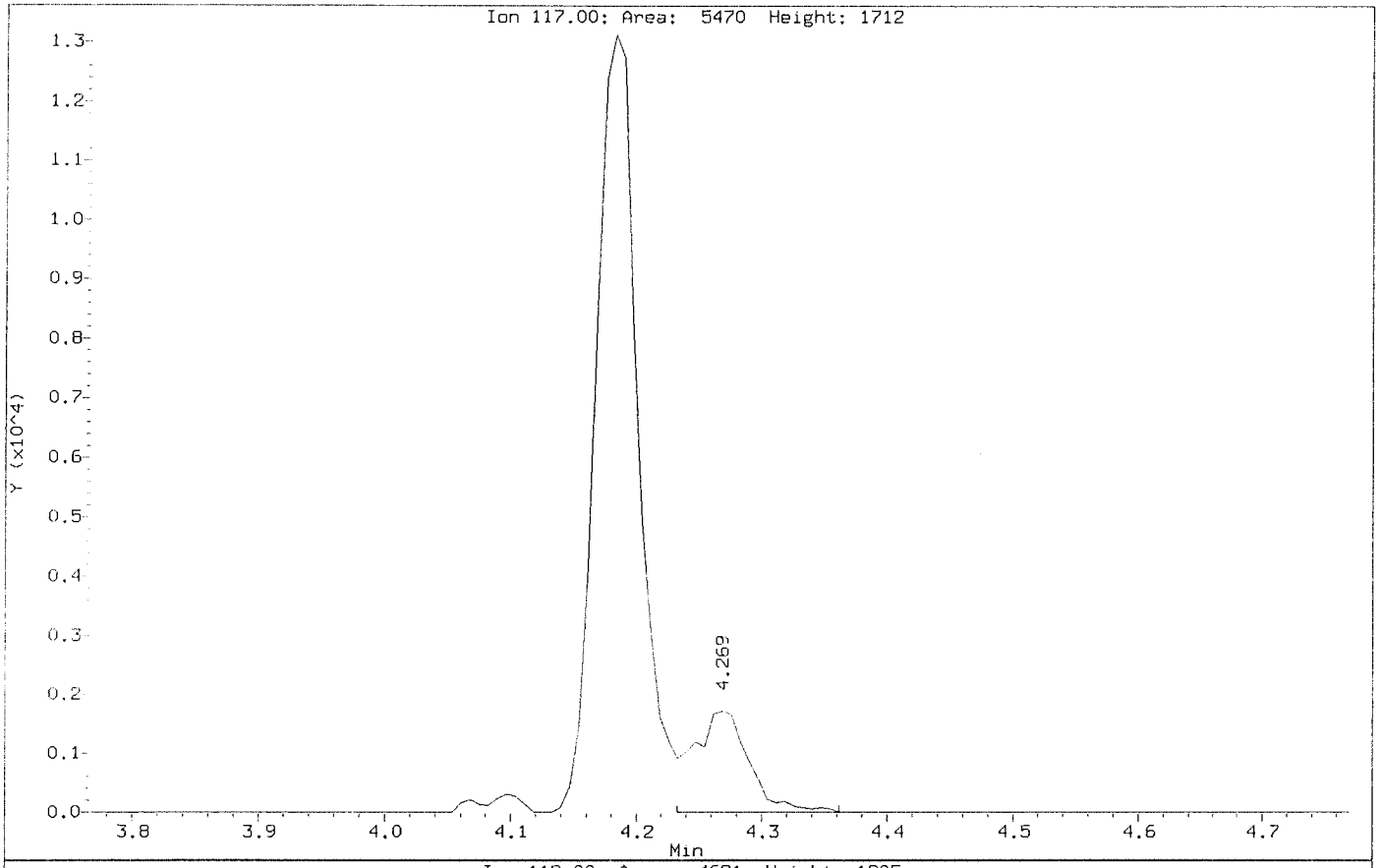
Compound: Bromomethane
CAS Number: 74-83-9

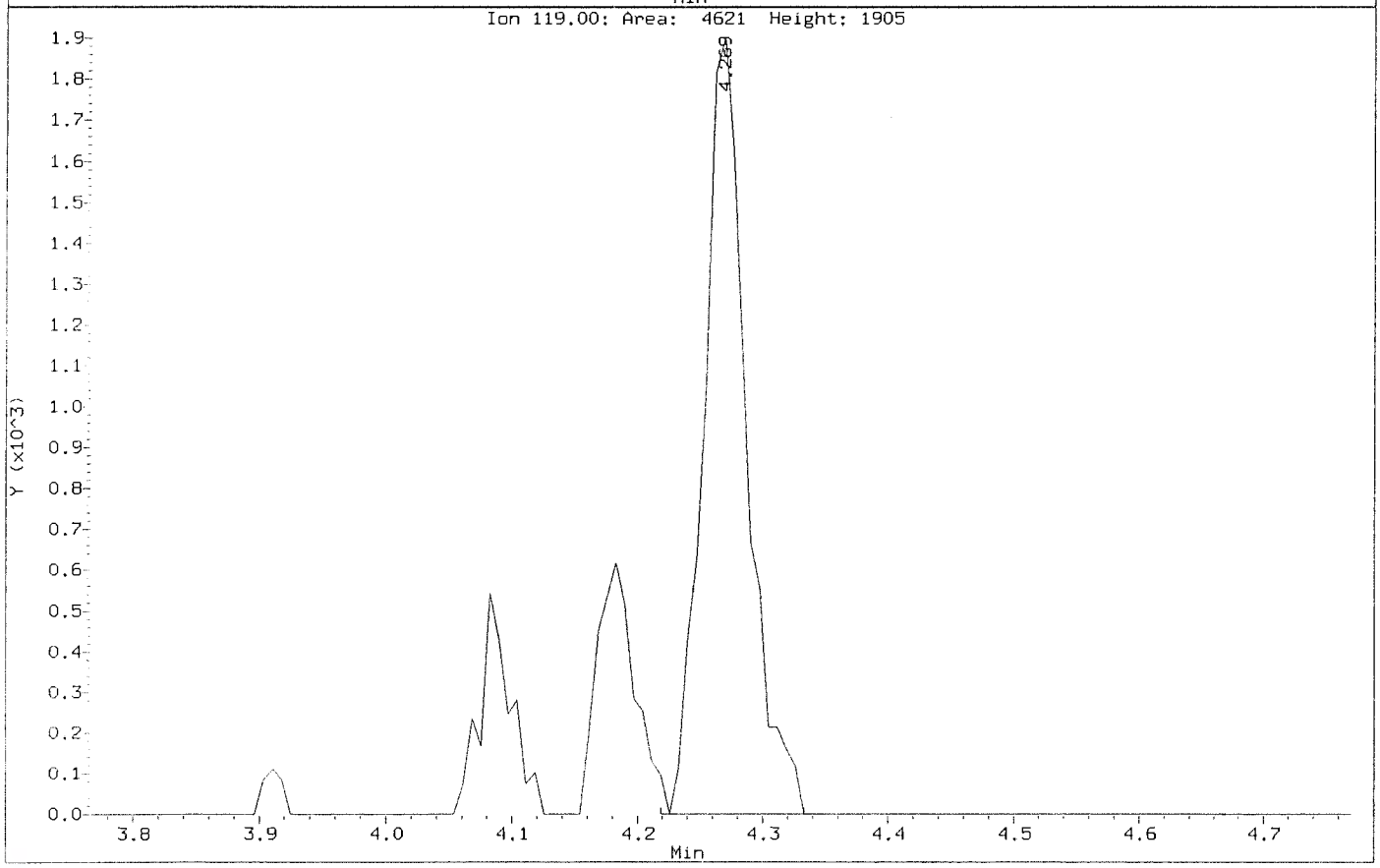




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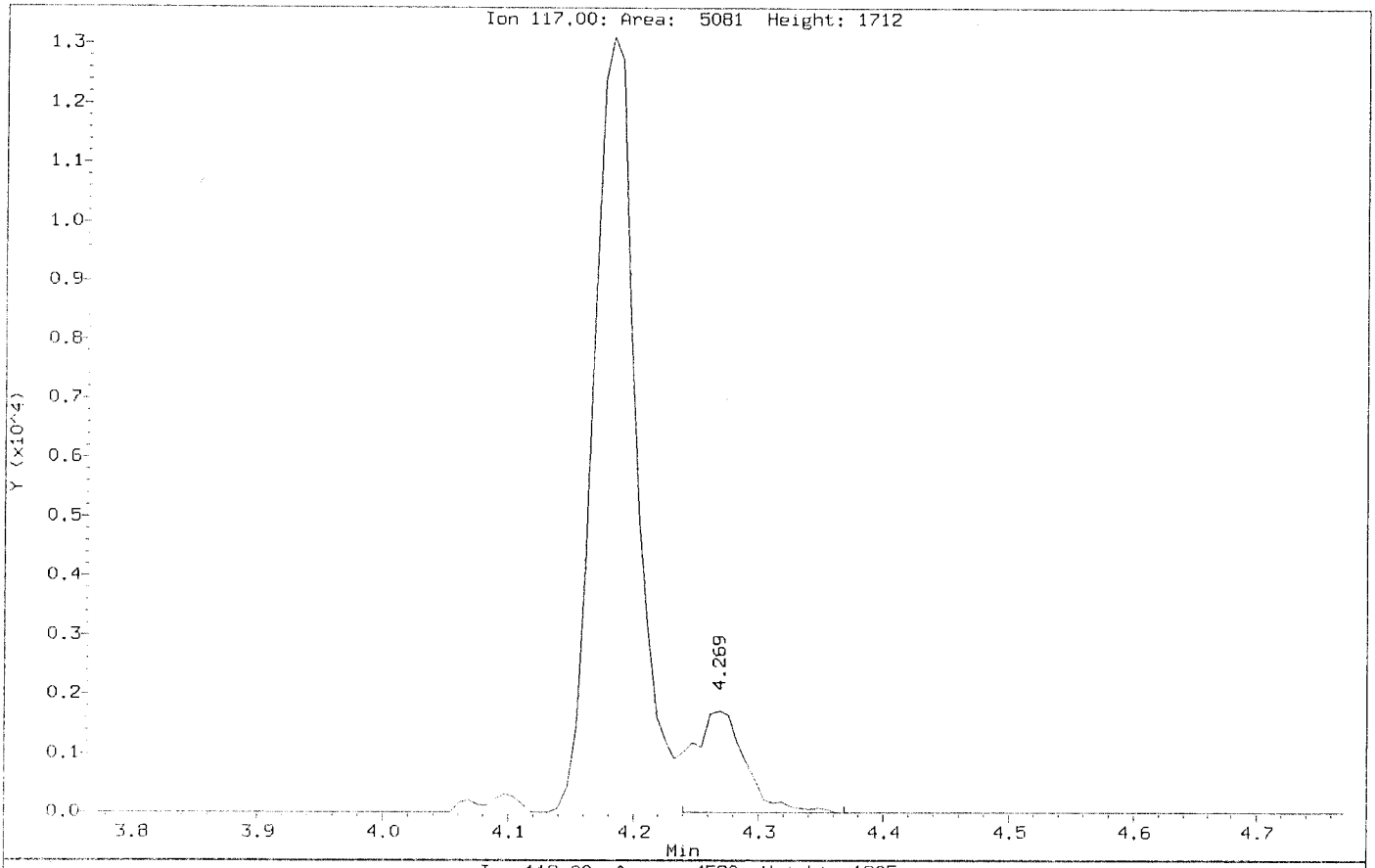
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

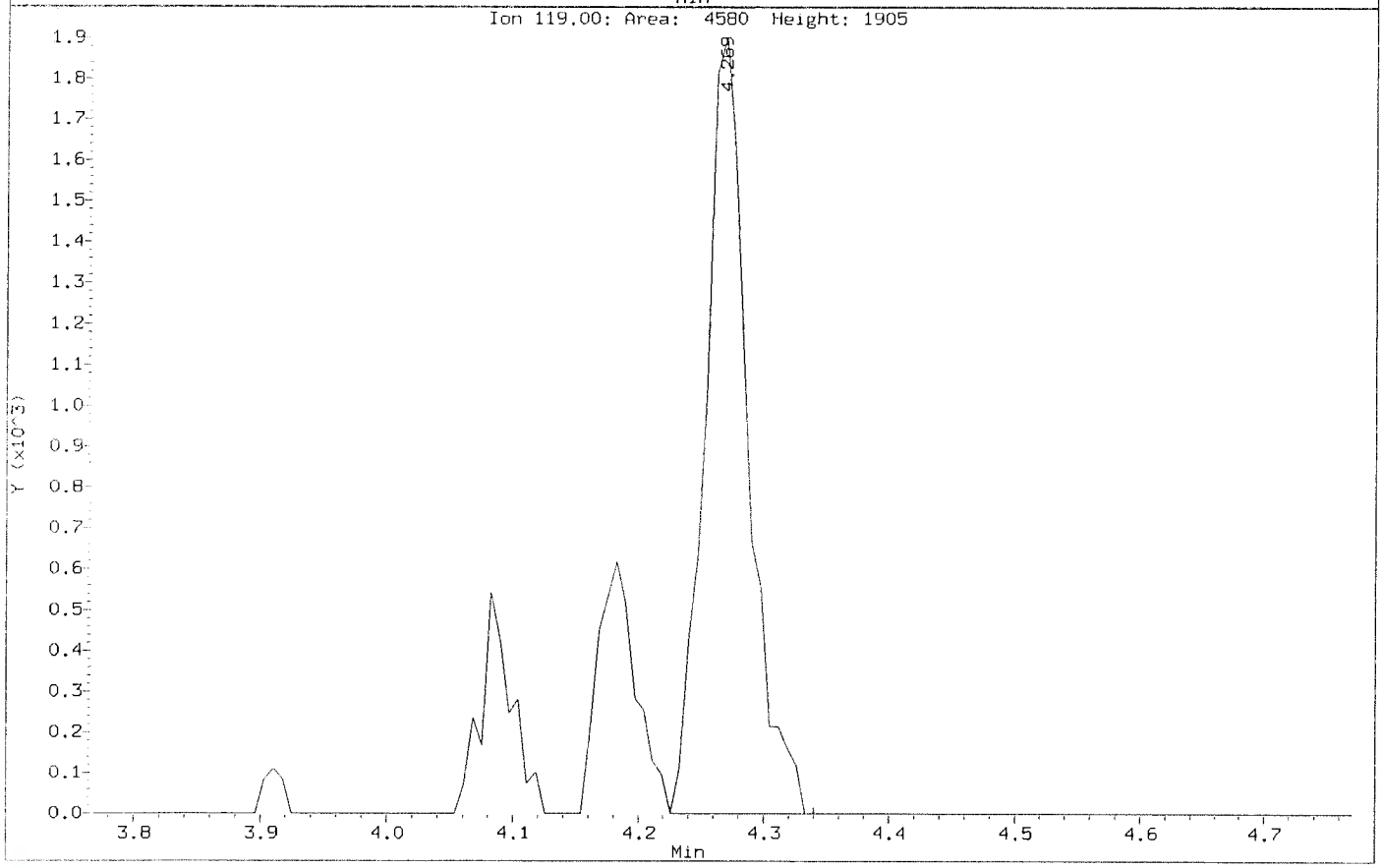




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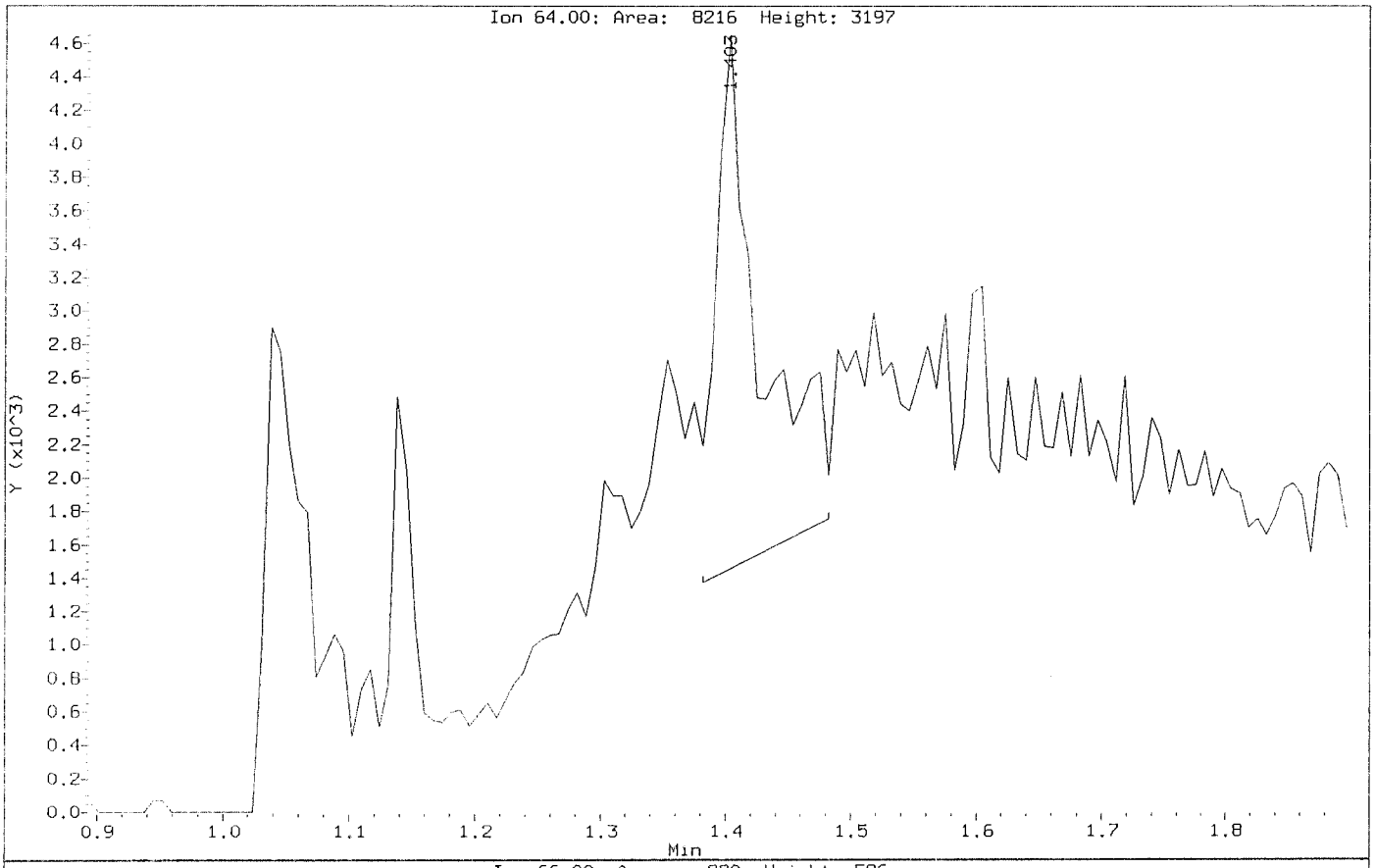
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

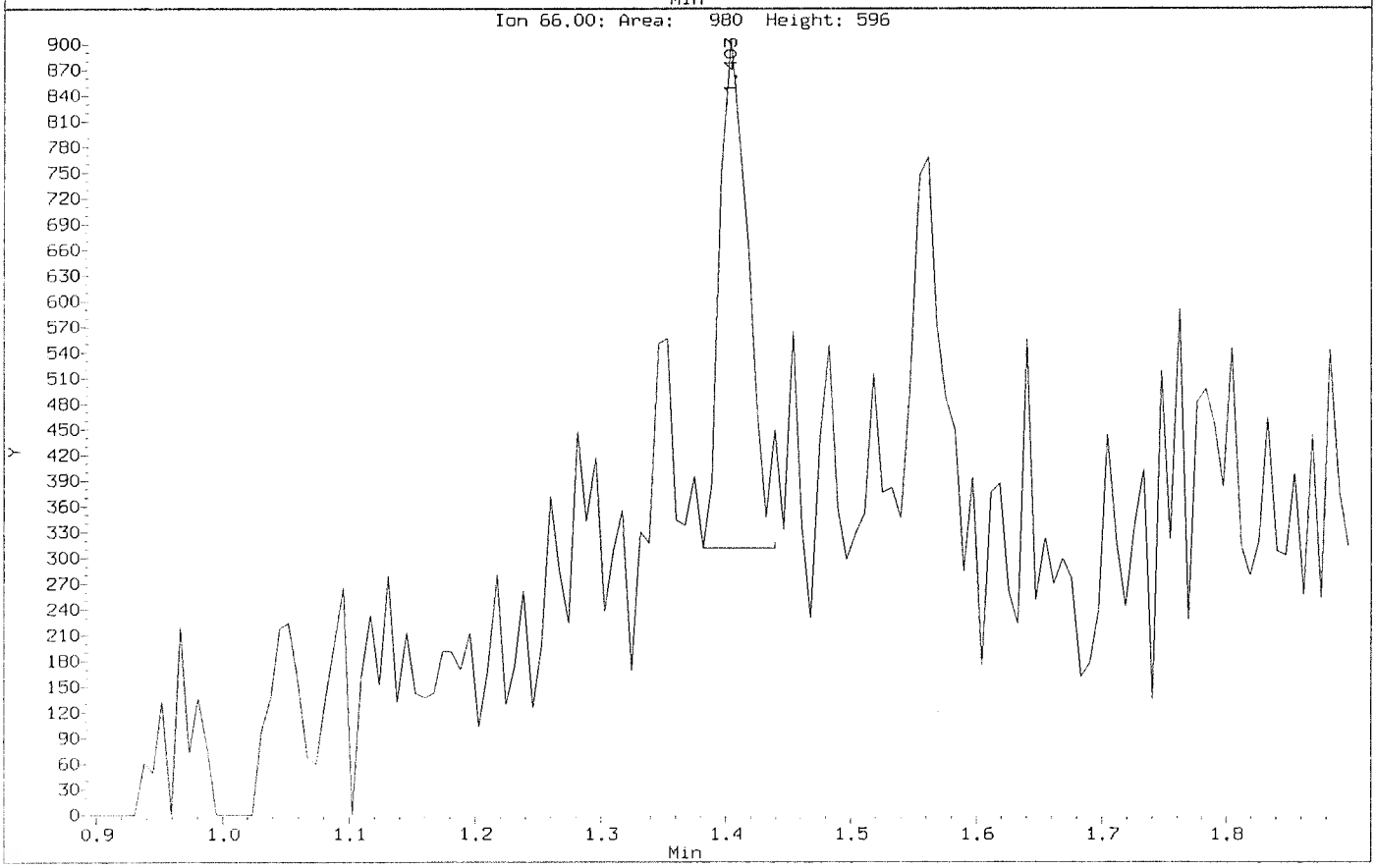




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Instrument: voa6.i
Client Sample ID: VSTD001

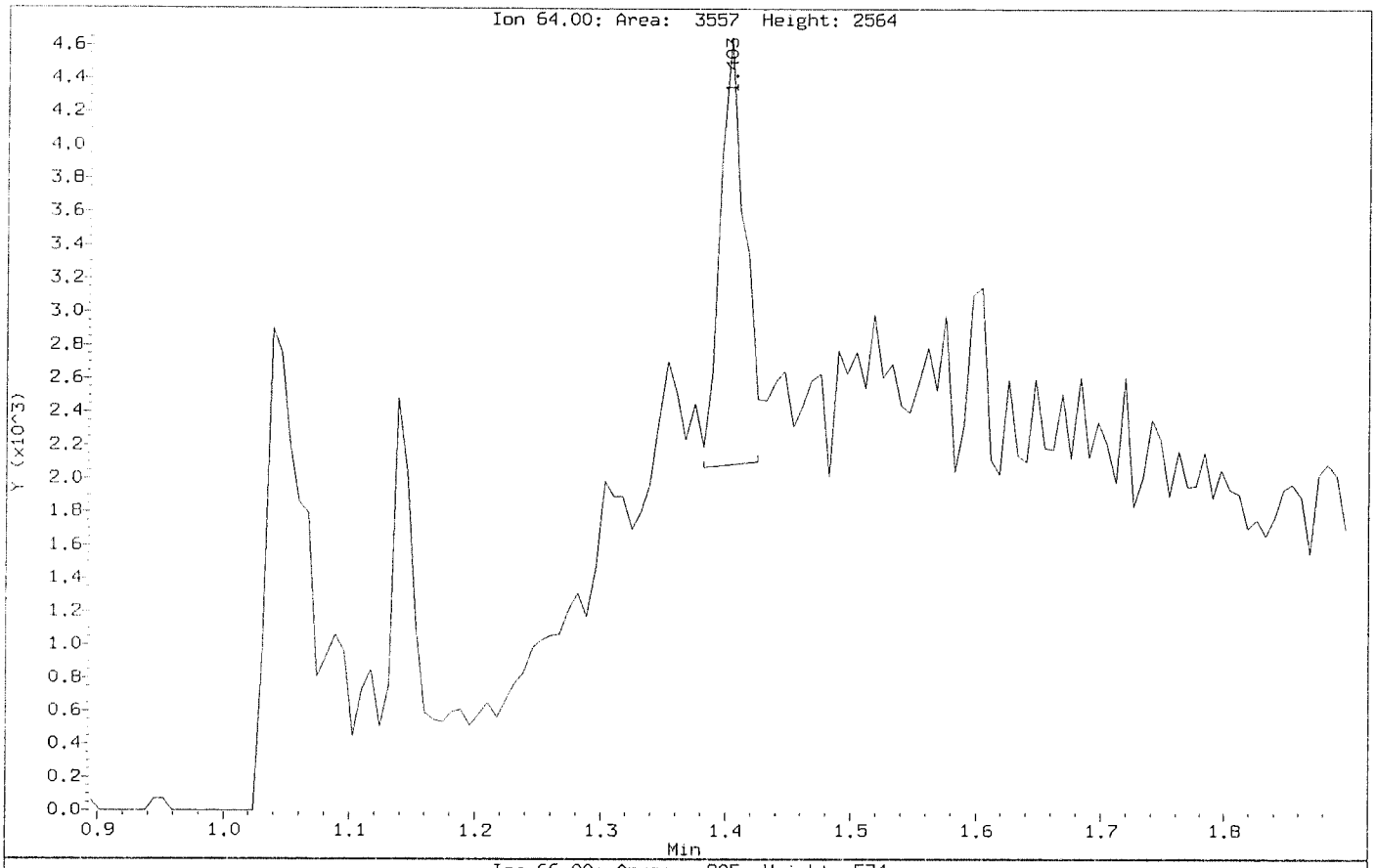
Compound: Chloroethane
CAS Number: 75-00-3

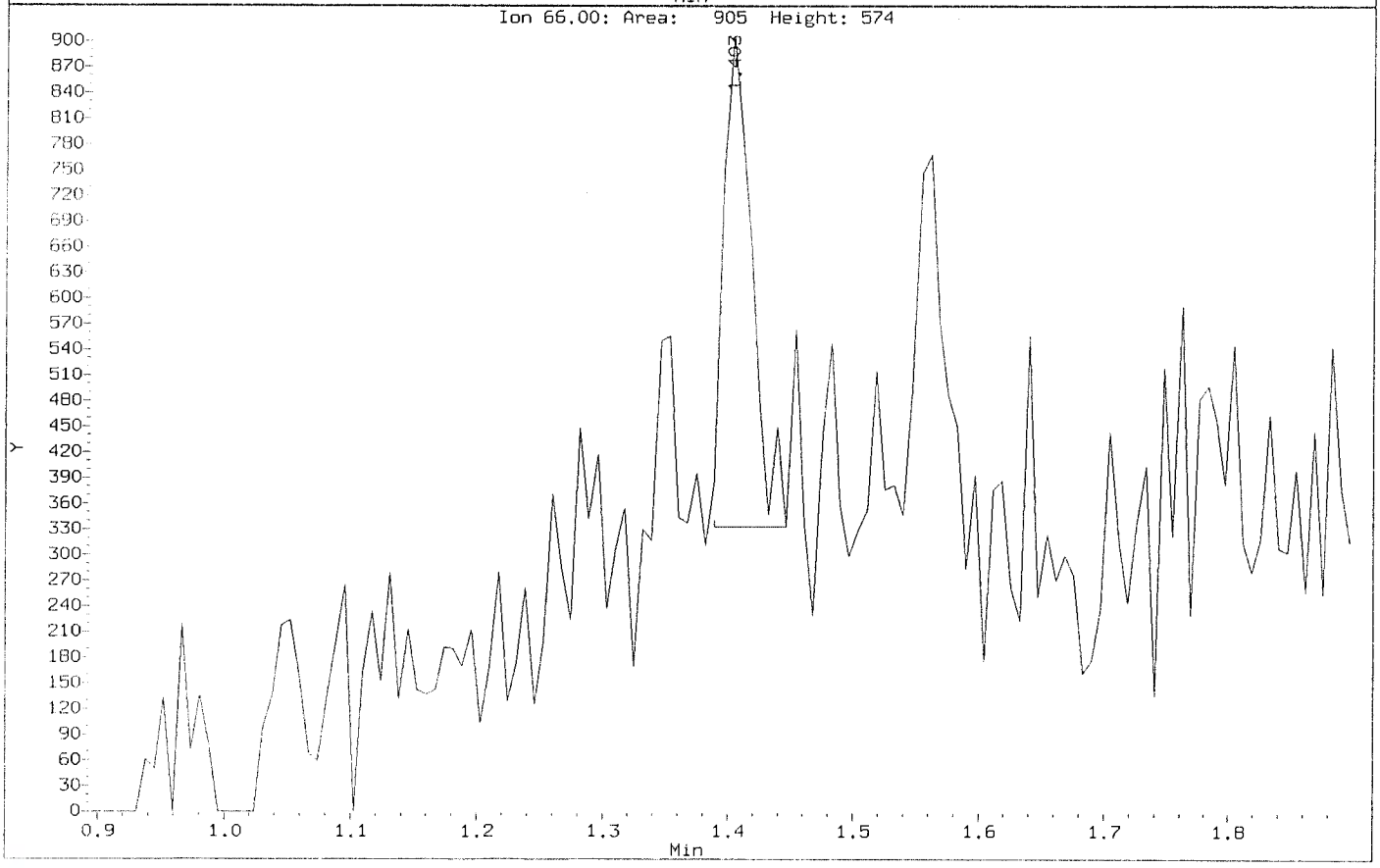




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Instrument: voa6.i
Client Sample ID: VSTD001

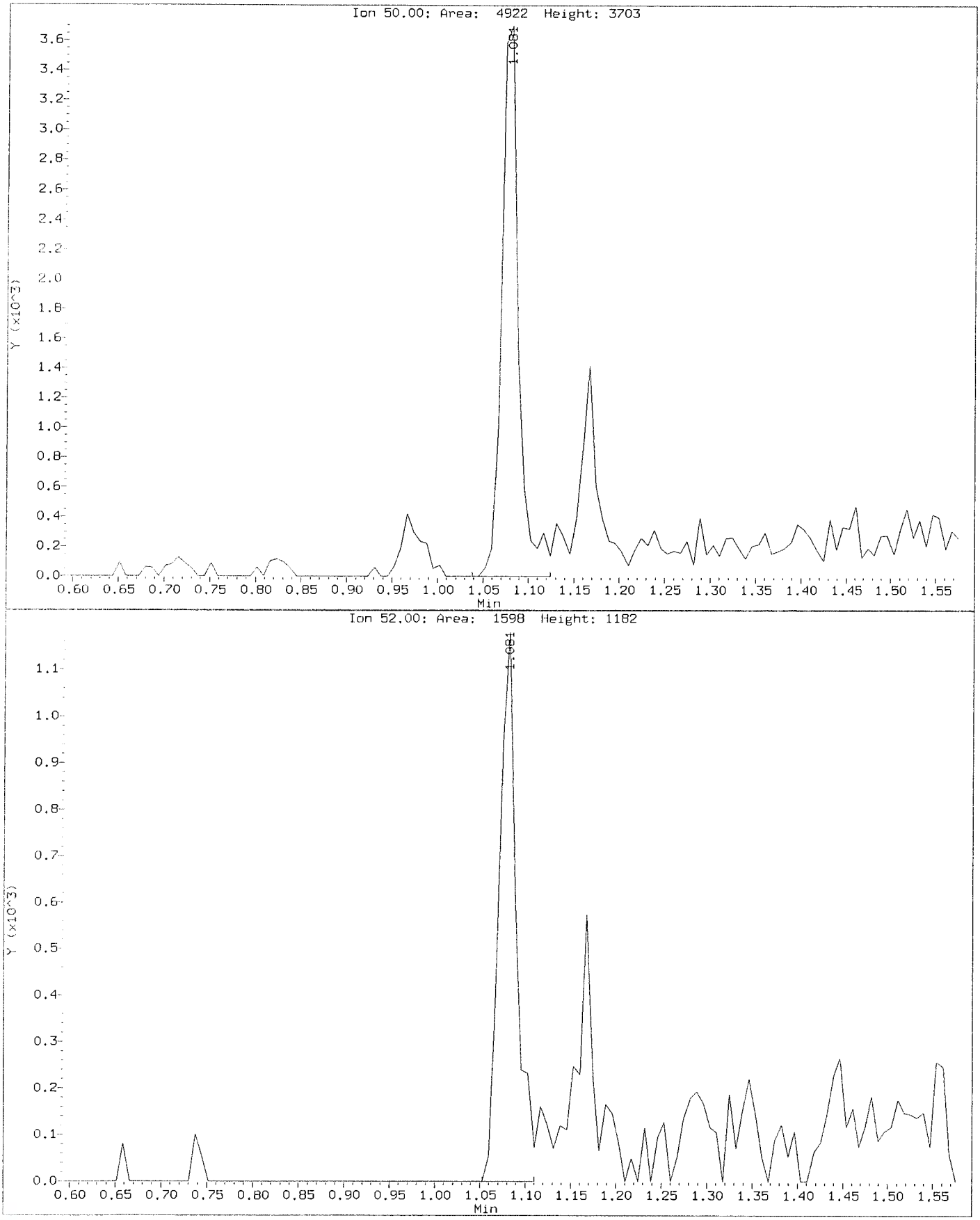
Compound: Chloroethane
CAS Number: 75-00-3





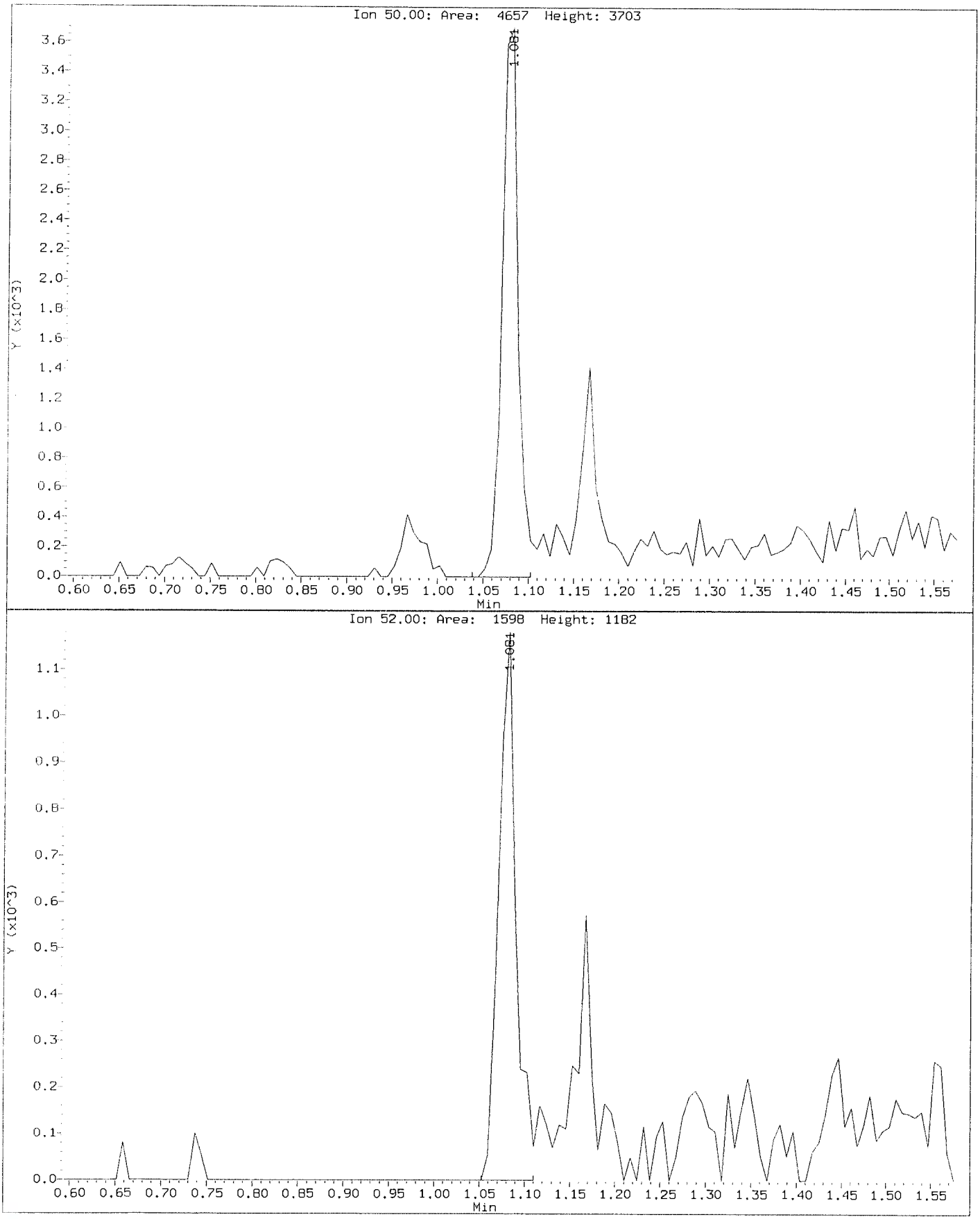
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Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Chloromethane
CAS Number: 74-87-3



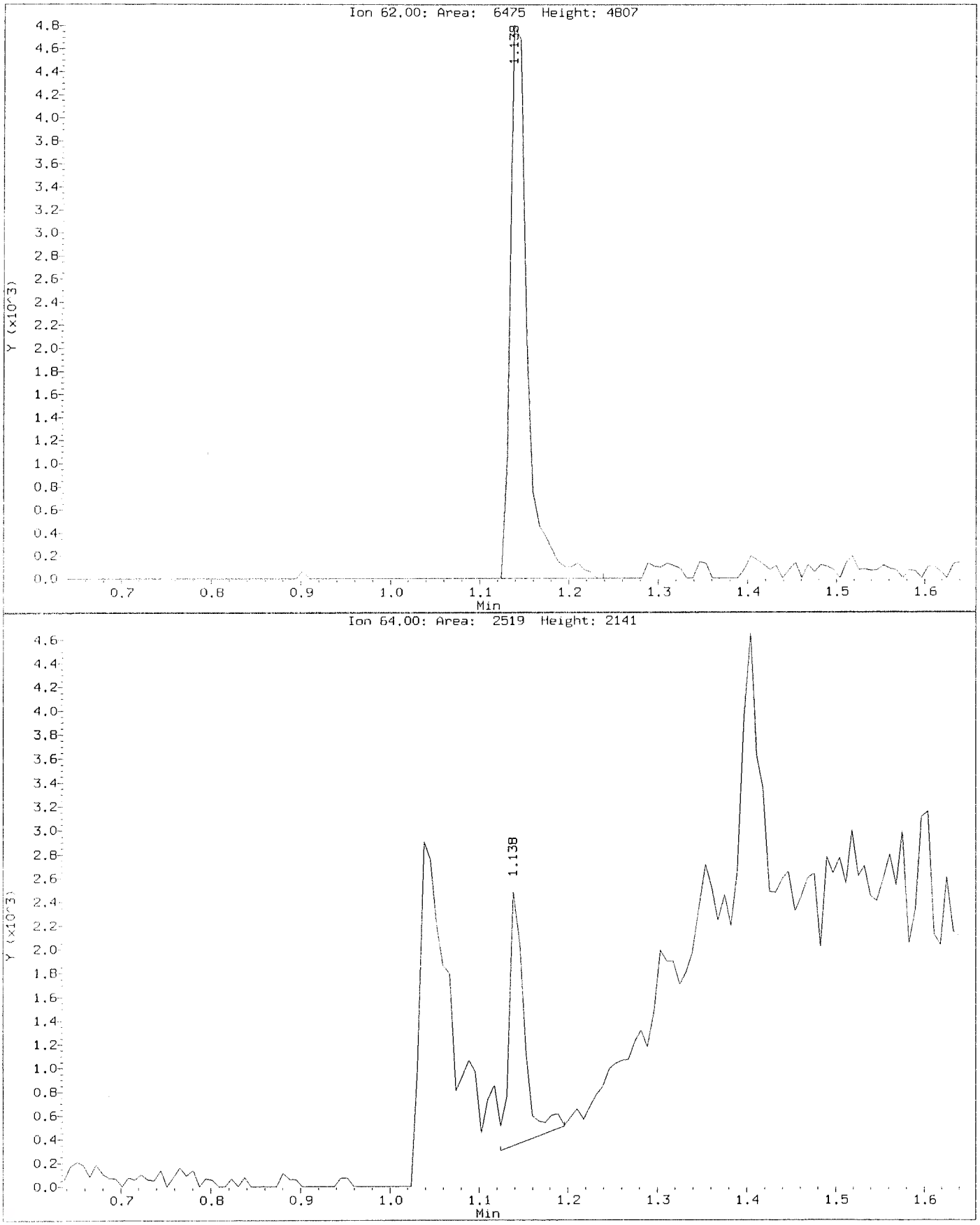
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Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Chloromethane
CAS Number: 74-87-3



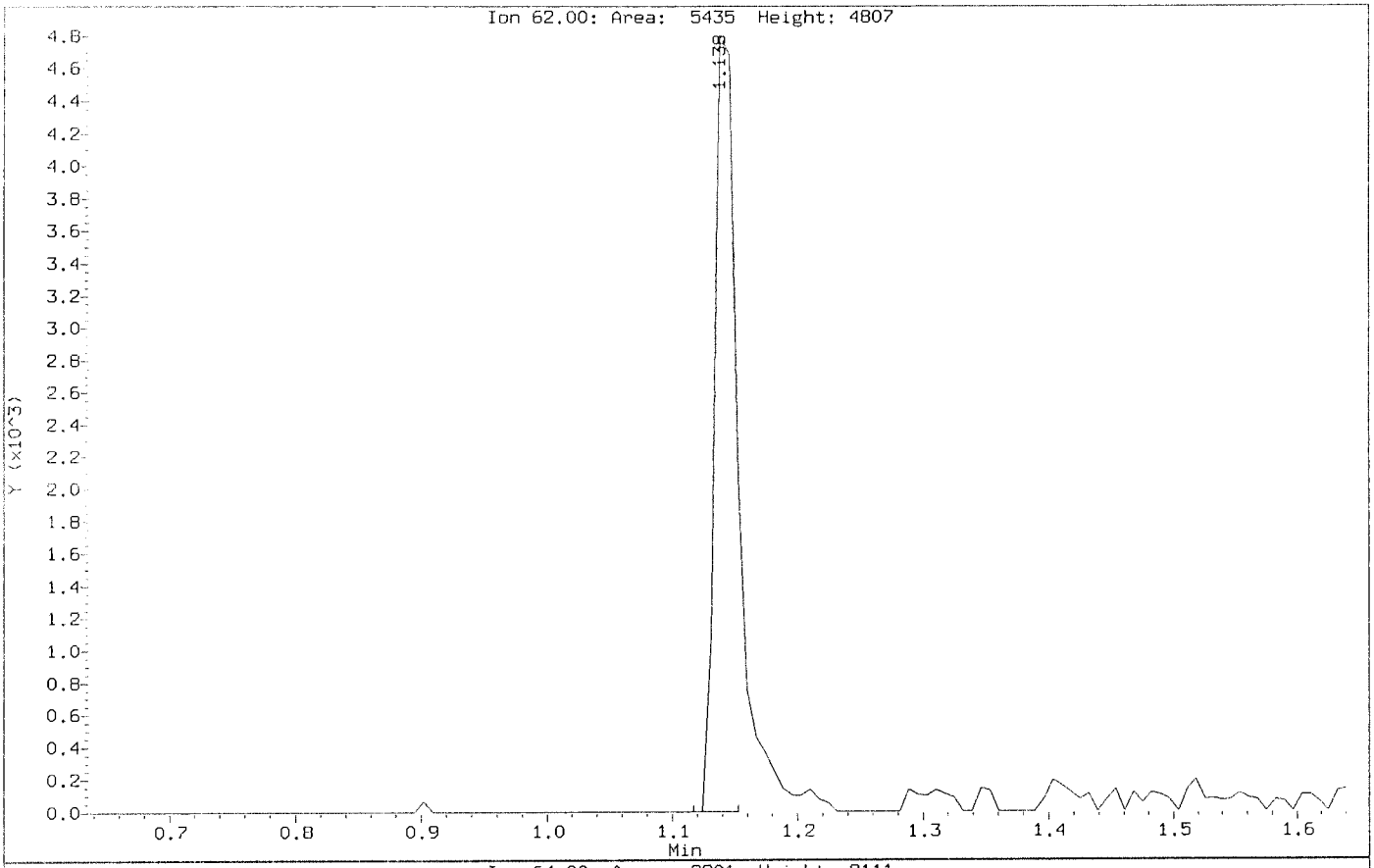
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Client Sample ID: VSTD001

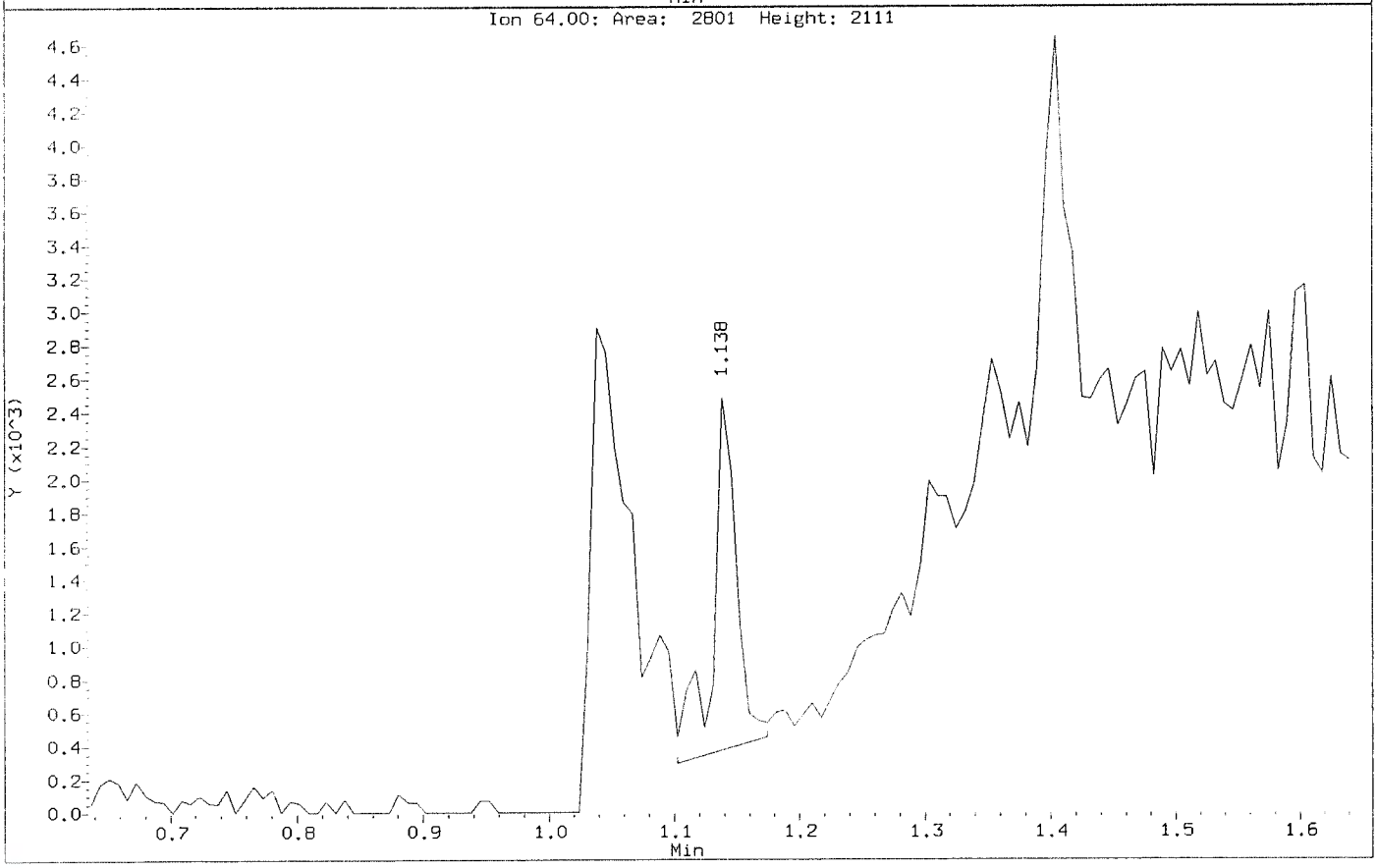
Compound: Vinyl Chloride
CAS Number: 75-01-4



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052604.D
Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Vinyl Chloride
CAS Number: 75-01-4





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052605.D
Lab Smp Id: VSTD002 Client Smp ID: VSTD002
Inj Date : 26-MAY-2021 13:58
Operator : PC Inst ID: voa6.i
Smp Info : VSTD002;VSTD002;1;4;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 13:37 Cal File: X052604.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

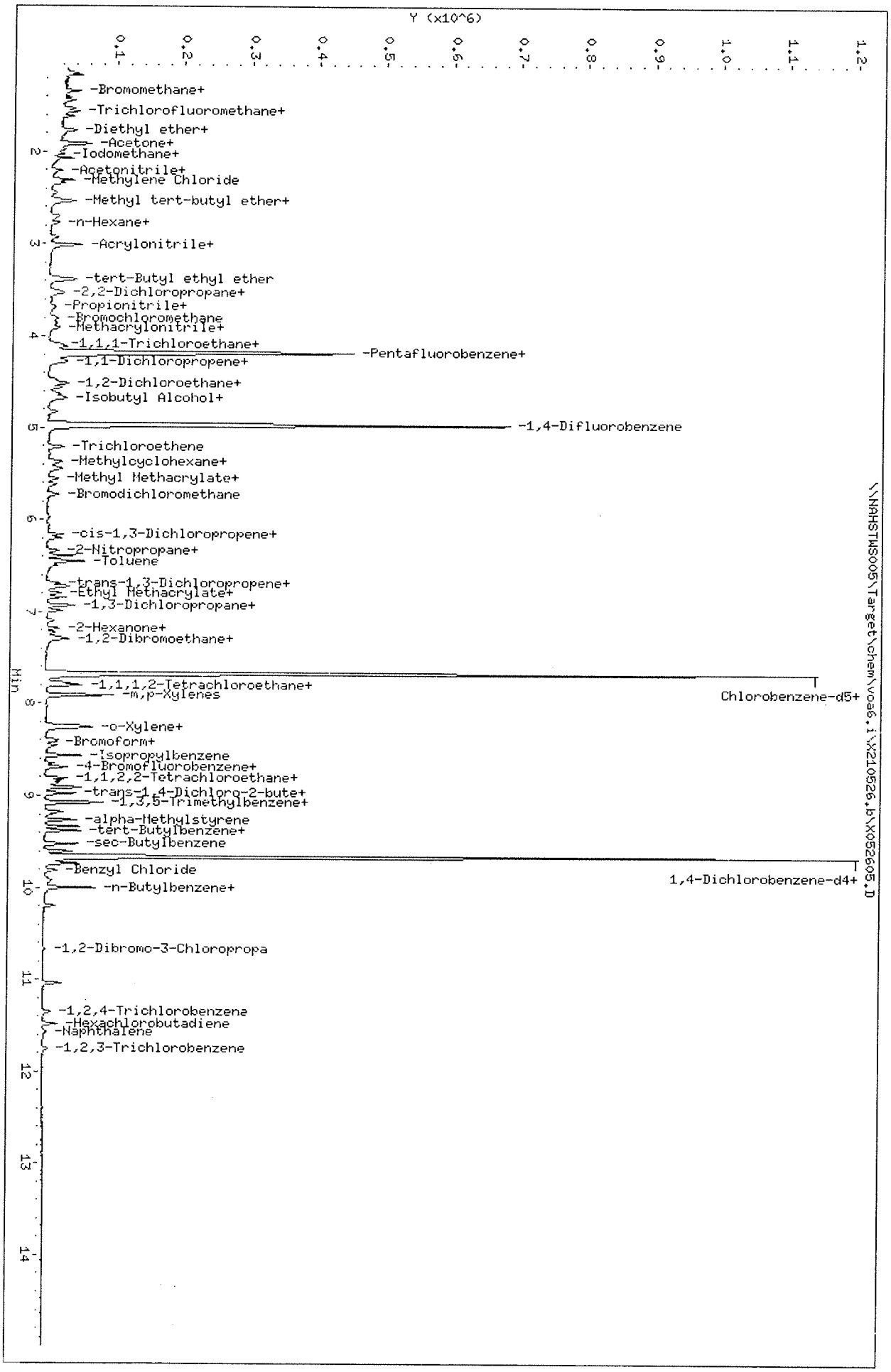
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT STG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	387304	50.0000	
*	36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	629894	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	565577	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	269984	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	8033	2.00000	1.94(a)
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	8542	2.00000	1.64(a)
$	48 Toluene-d8	98	6.388	6.388	(0.833)	26638	2.00000	1.89(a)
$	69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	10368	2.00000	2.80(a)
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	7699	2.00000	1.84(a)
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	11748	2.00000	2.05(a)
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	9638	2.00000	1.44(a)
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	6242	2.00000	2.03(a)
	22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	12991	2.00000	2.12(a)
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	8783	2.00000	2.20(a)
	32 1,1-Dichloropropene	75	4.282	4.282	(0.862)	9888	2.00000	2.04(a)
	93 1,2,3-Trichlorobenzene	180	11.753	11.753	(1.216)	3409	2.00000	2.08(a)
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	6933	2.00000	2.05(aM)
	90 1,2,4-Trichlorobenzene	180	11.352	11.352	(1.175)	4917	2.00000	1.84(a)
	79 1,2,4-Trimethylbenzene	105	9.382	9.382	(0.971)	25642	2.00000	2.08(a)
	89 1,2-Dibromo-3-Chloropropane	155	10.657	10.657	(1.103)	630	2.00000	1.96(a)
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	7883	2.00000	1.89(a)
	88 1,2-Dichlorobenzene	146	9.998	9.998	(1.035)	15268	2.00000	2.08(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.562	4.562	(0.918)	9733	2.00000	1.93(a)
42	1,2-Dichloropropane	63	5.436	5.436	(1.094)	7597	2.00000	2.04(aM)
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	25985	2.00000	2.12(a)
83	1,3-Dichlorobenzene	146	9.612	9.612	(0.995)	15680	2.00000	2.05(a)
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	11498	2.00000	1.88(a)
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	16413	2.00000	2.06(a)
26	2,2-Dichloropropane	77	3.516	3.516	(0.841)	11139	2.00000	2.10(a)
24	2-Butanone	43	3.595	3.595	(0.860)	4608	4.00000	3.91(aH)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	23380	2.00000	2.31(a)
52	2-Hexanone	43	7.097	7.097	(0.925)	7204	4.00000	3.42(a)
77	4-Chlorotoluene	91	9.074	9.074	(0.939)	26083	2.00000	2.16(a)
82	p-Isopropyltoluene	119	9.655	9.655	(0.999)	26579	2.00000	2.12(a)
45	4-Methyl-2-Pentanone	43	6.331	6.331	(0.825)	12267	4.00000	3.76(a)
10	Acetone	43	1.976	1.976	(0.473)	9004	4.00000	3.68(a)
37	Benzene	78	4.512	4.512	(0.908)	30110	2.00000	2.08(a)
74	Bromobenzene	156	8.809	8.809	(0.912)	9664	2.00000	2.15(a)
29	Bromochloromethane	128	3.802	3.802	(0.909)	4539	2.00000	1.93(a)
39	Bromodichloromethane	83	5.729	5.729	(1.153)	11090	2.00000	2.04(a)
66	Bromoform	173	8.415	8.415	(1.097)	5644	2.00000	1.78(Ta)
6	Bromomethane	94	1.338	1.338	(0.320)	10705	2.00000	2.82(a)
19	Carbon Disulfide	76	2.069	2.069	(0.495)	40958	4.00000	4.32(a)
34	Carbon Tetrachloride	117	4.268	4.268	(0.859)	11201	2.00000	2.14(aH)
59	Chlorobenzene	112	7.692	7.692	(1.003)	22805	2.00000	1.93(a)
7	Chloroethane	64	1.403	1.403	(0.336)	6715	2.00000	1.12(aM)
28	Chloroform	83	3.910	3.910	(0.935)	13954	2.00000	2.04(a)
3	Chloromethane	50	1.073	1.073	(0.257)	9388	2.00000	0.08(a)
27	cis-1,2-Dichloroethene	96	3.537	3.537	(0.846)	8971	2.00000	2.20(a)
46	cis-1,3-Dichloropropene	75	6.159	6.159	(1.239)	11180	2.00000	1.75(a)
55	Dibromochloromethane	129	7.176	7.176	(0.936)	8317	2.00000	1.78(a)
44	Dibromomethane	93	5.557	5.557	(1.118)	4906	2.00000	1.76(a)
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	8466	2.00000	2.17(aM)
61	Ethylbenzene	106	7.799	7.799	(1.017)	10776	2.00000	1.98(a)
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	3790	2.00000	3.30(a)
67	Isopropylbenzene	105	8.566	8.566	(1.117)	33508	2.00000	2.01(a)
62	m,p-Xylenes	106	7.907	7.907	(1.031)	27594	4.00000	3.89(a)
17	Methylene Chloride	84	2.305	2.305	(0.551)	9737	2.00000	1.51(a)
87	n-Butylbenzene	91	9.998	9.998	(1.035)	21318	2.00000	2.02(a)
73	n-Propylbenzene	91	8.917	8.917	(0.923)	37124	2.00000	2.20(a)
92	Naphthalene	128	11.560	11.560	(1.196)	7708	2.00000	1.99(aM)
63	o-Xylene	106	8.243	8.243	(1.075)	13034	2.00000	1.88(a)
81	sec-Butylbenzene	105	9.526	9.526	(0.986)	30860	2.00000	2.17(a)
64	Styrene	104	8.265	8.265	(1.078)	20015	2.00000	1.73(a)
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	23163	2.00000	2.20(a)
56	Tetrachloroethene	164	6.925	6.925	(0.903)	7019	2.00000	2.01(a)
50	Toluene	91	6.446	6.446	(0.840)	33990	2.00000	2.05(a)
20	trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	7304	2.00000	2.01(a)
51	trans-1,3-Dichloropropene	75	6.689	6.689	(1.346)	9851	2.00000	1.78(a)
38	Trichloroethene	130	5.206	5.206	(1.048)	8523	2.00000	1.97(a)
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	16056	2.00000	2.29(a)
5	Vinyl Chloride	62	1.145	1.145	(0.274)	10726	2.00000	2.33(aM)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

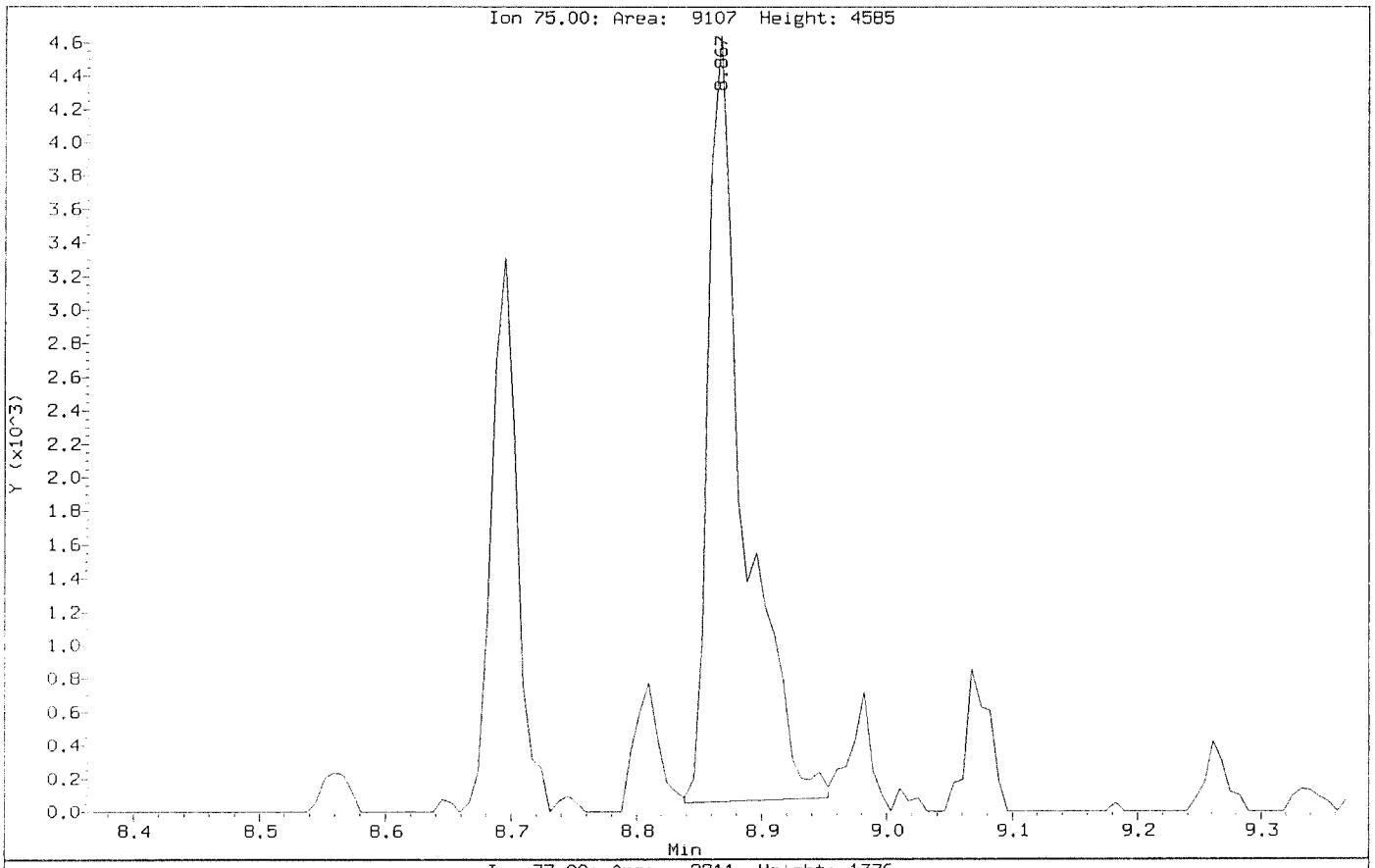


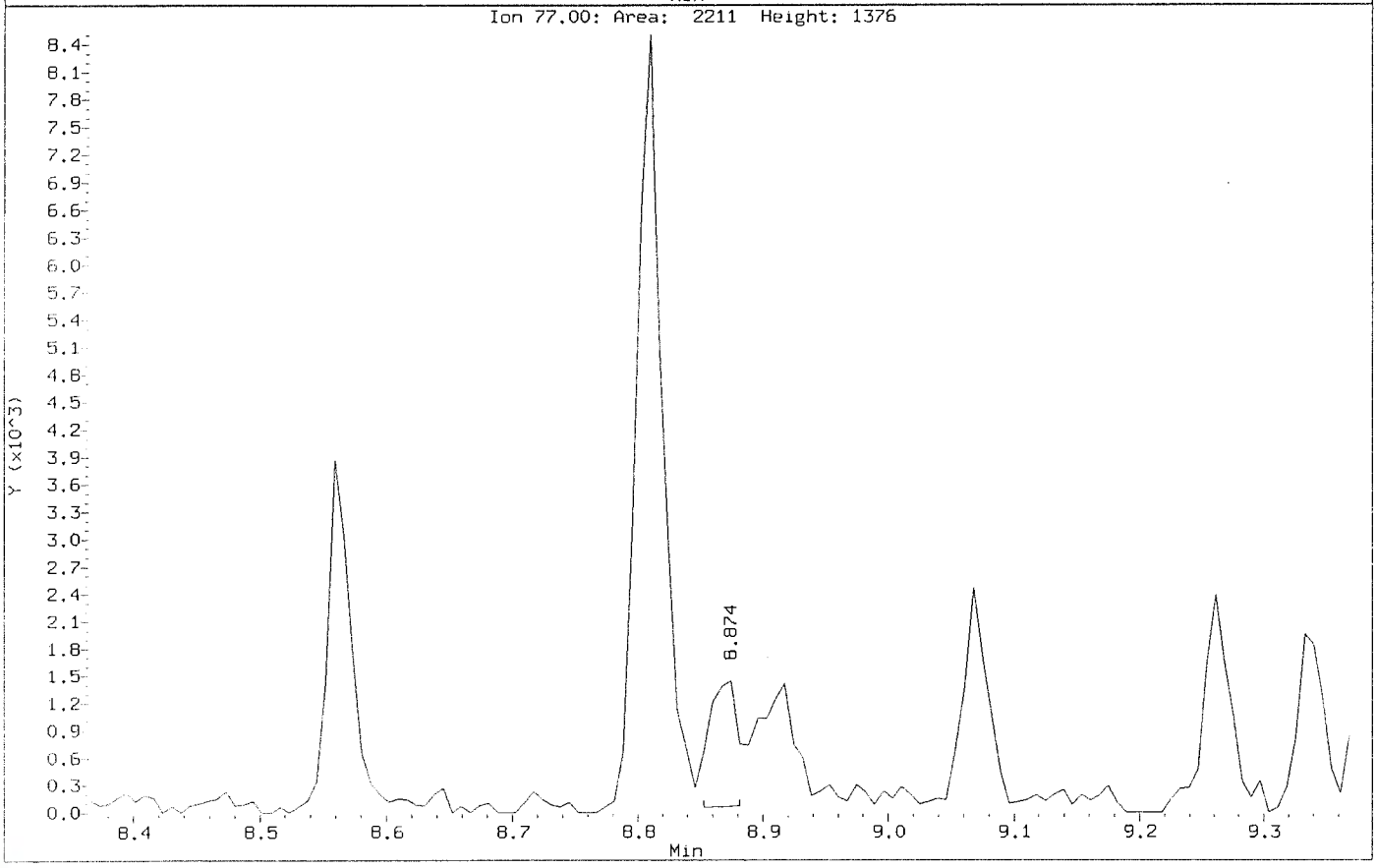
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Client ID: VSTD002
Sample Info: VSTD002;VSTD002;1;4;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052605.D
Injection Date: 26-MAY-2021 13:58
Instrument: voa6.i
Client Sample ID: VSTD002

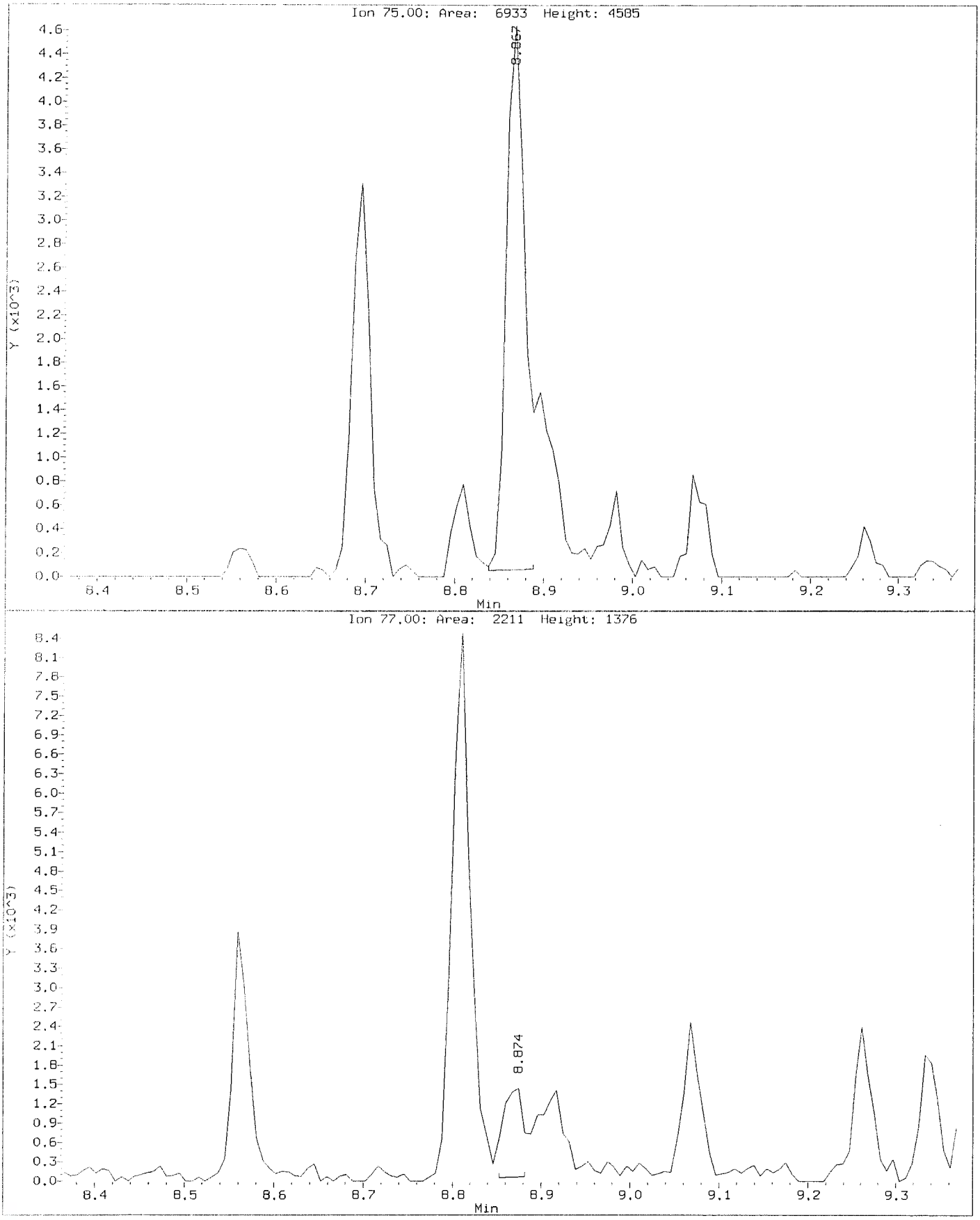
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





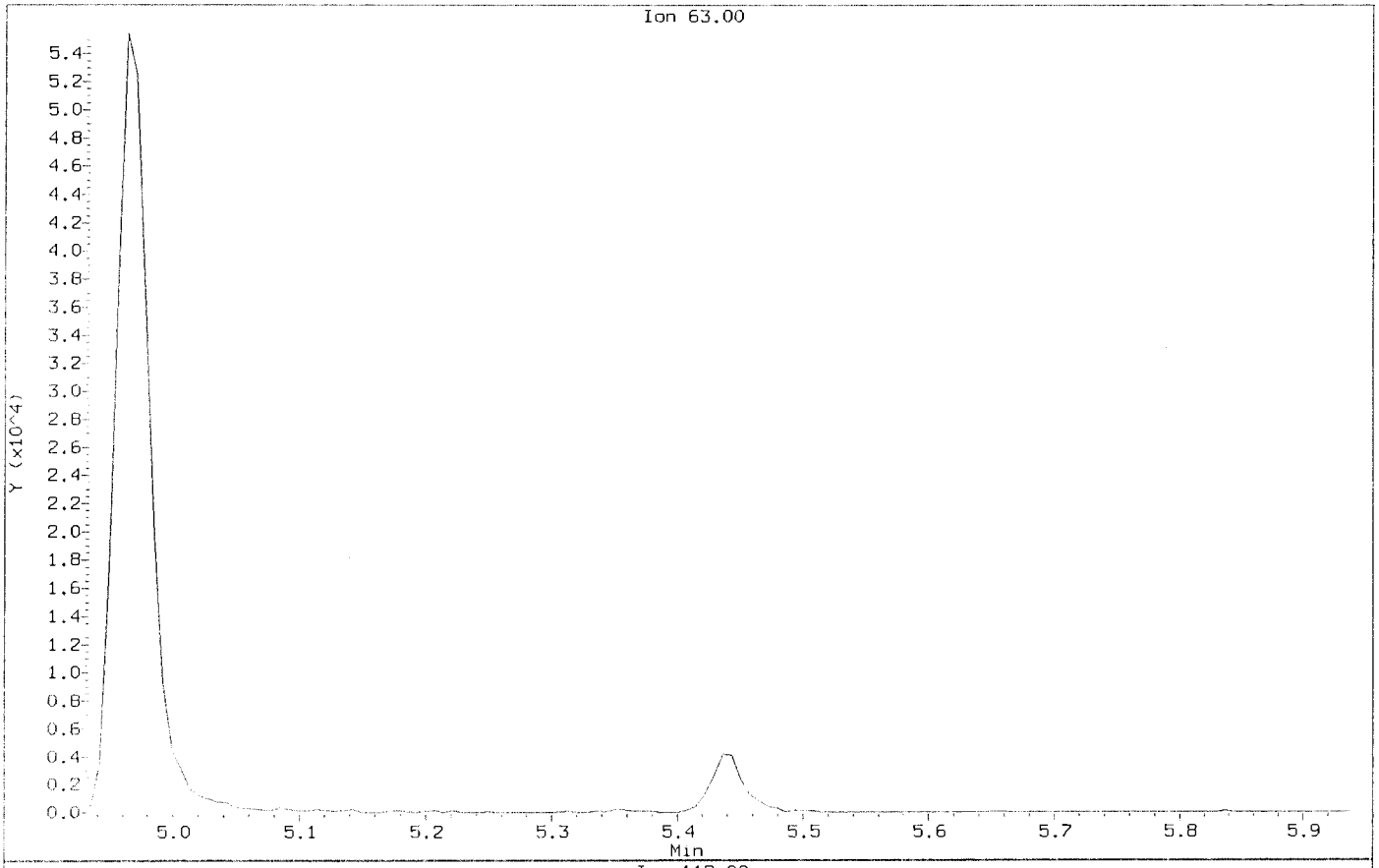
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Client Sample ID: VSTD002

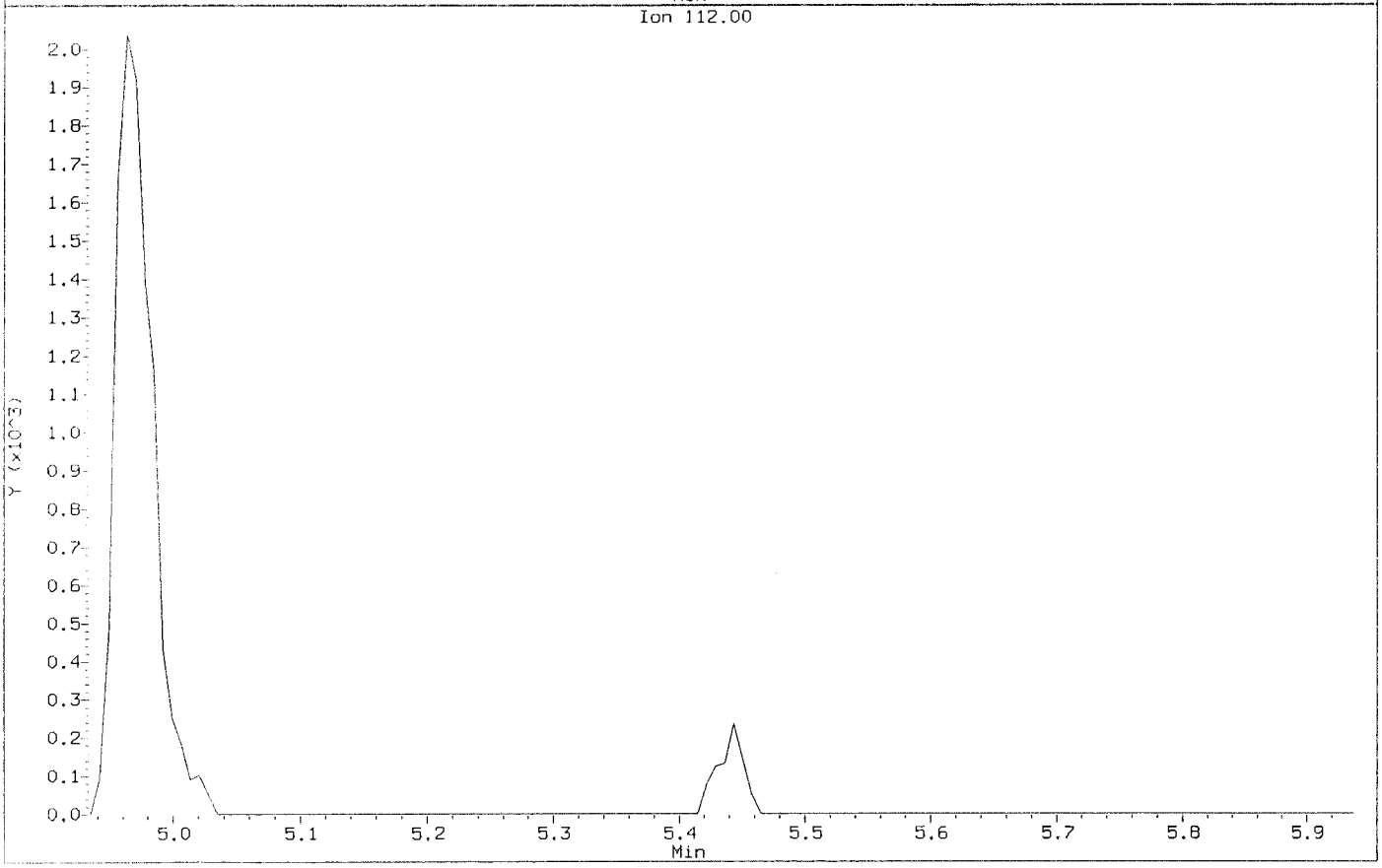
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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Instrument: voa6.i
Client Sample ID: VSTD002

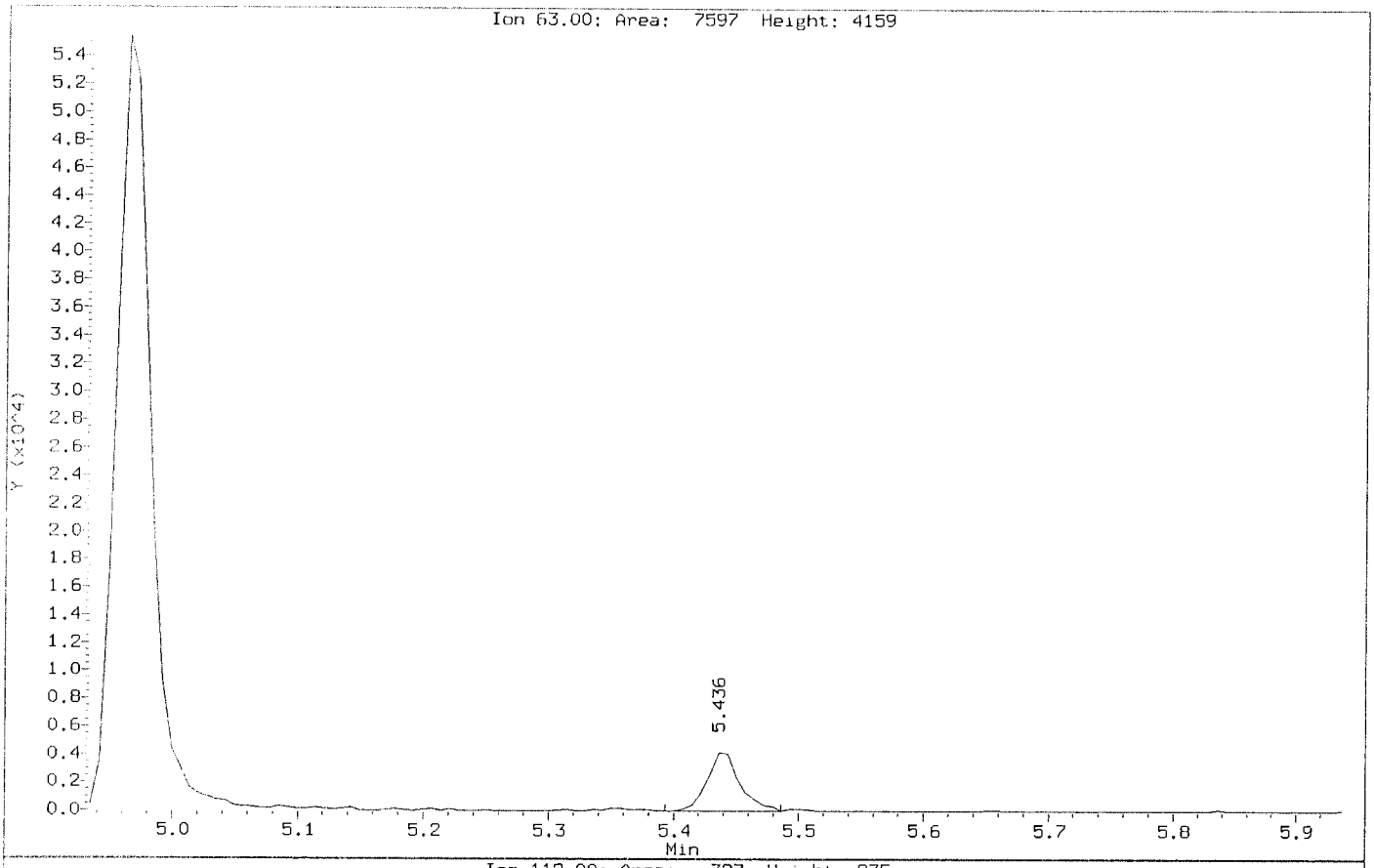
Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

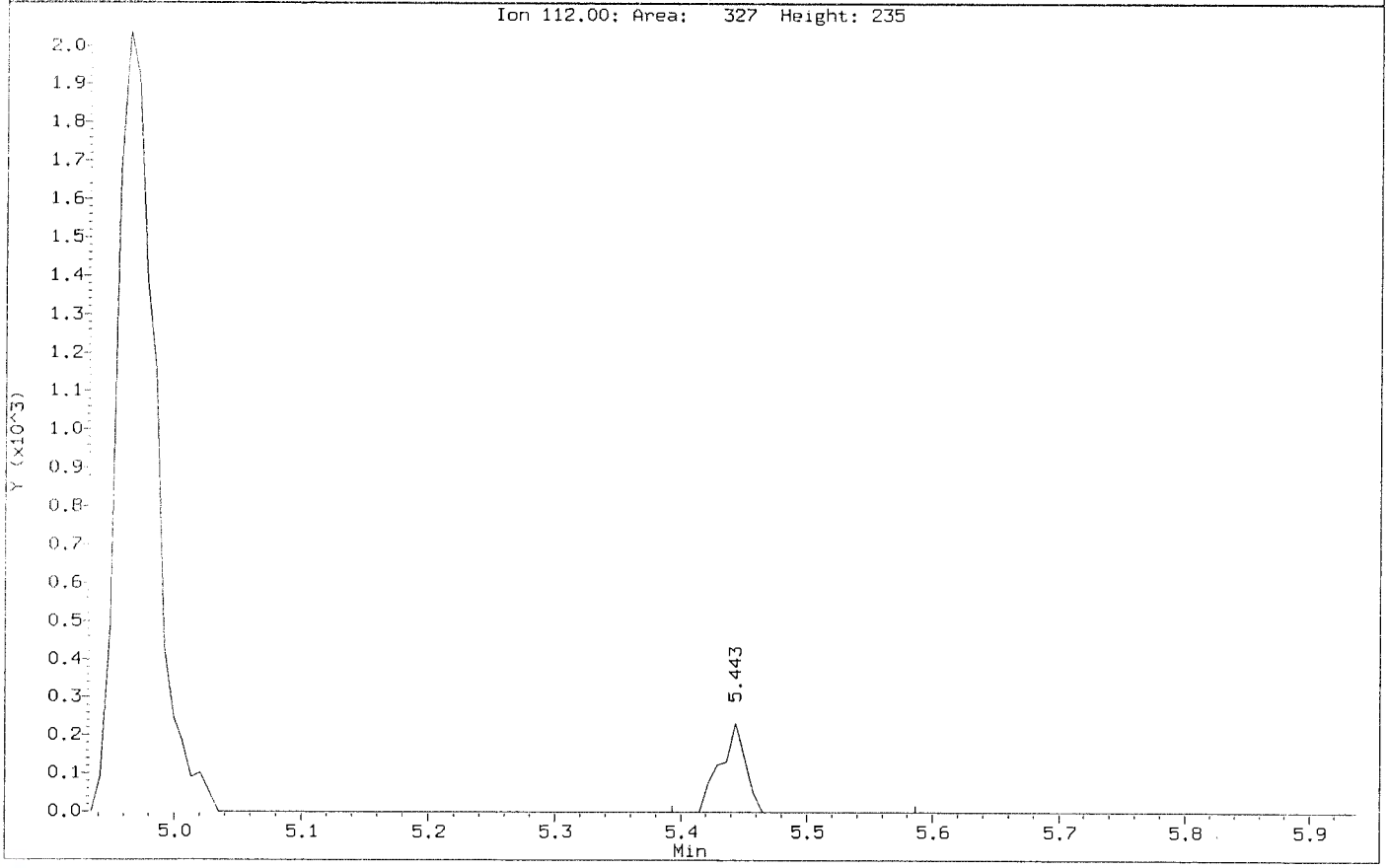




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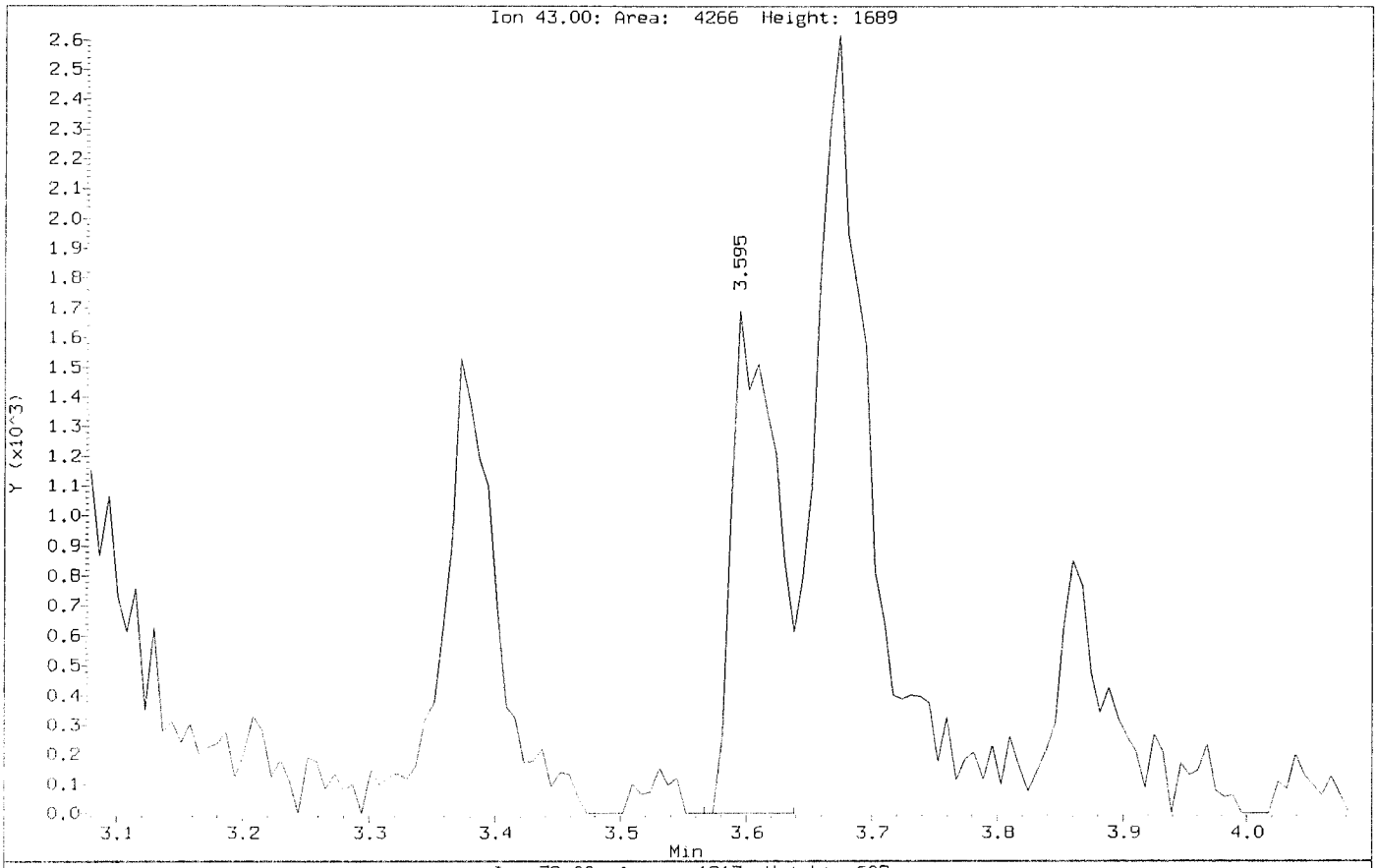
Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

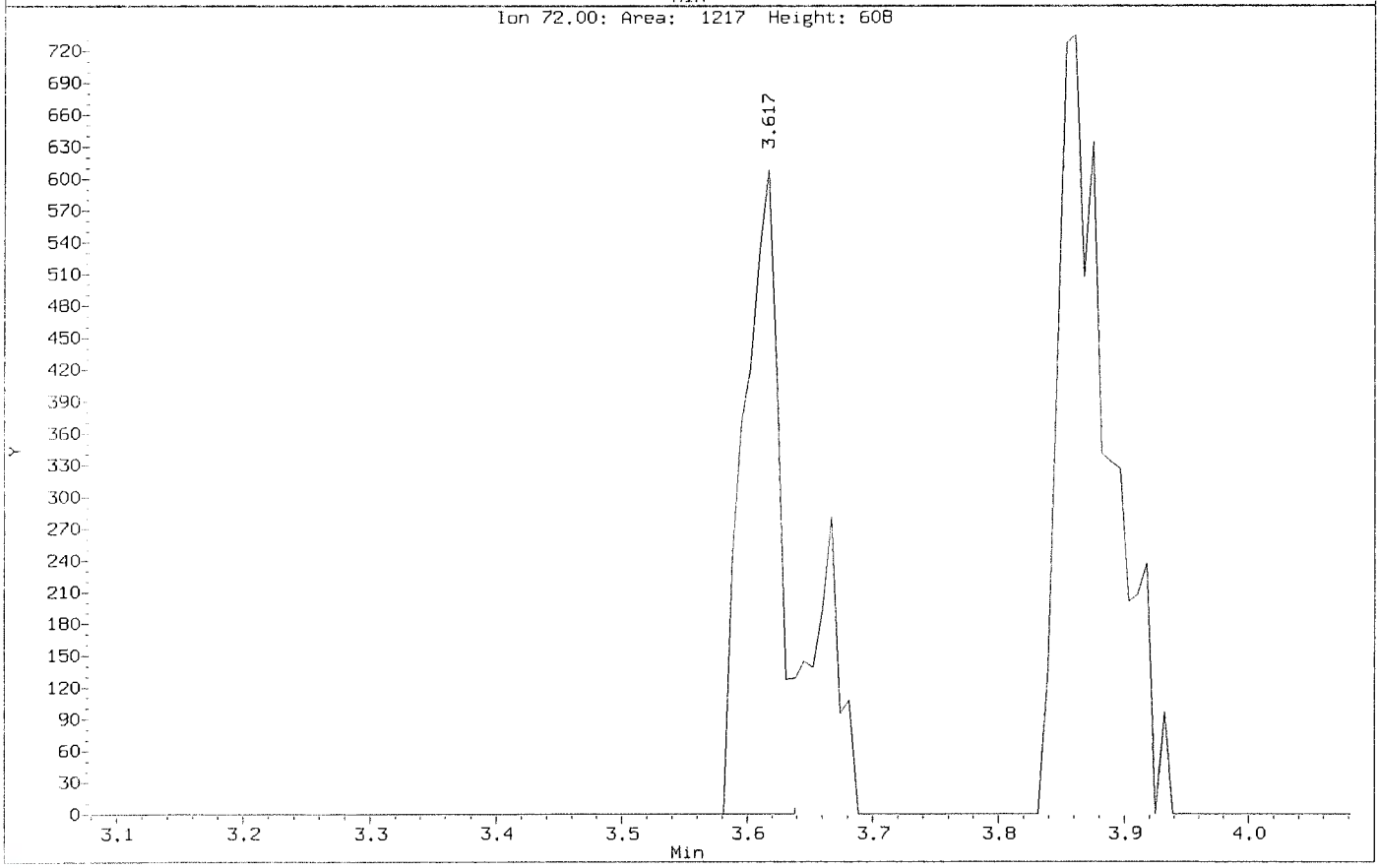




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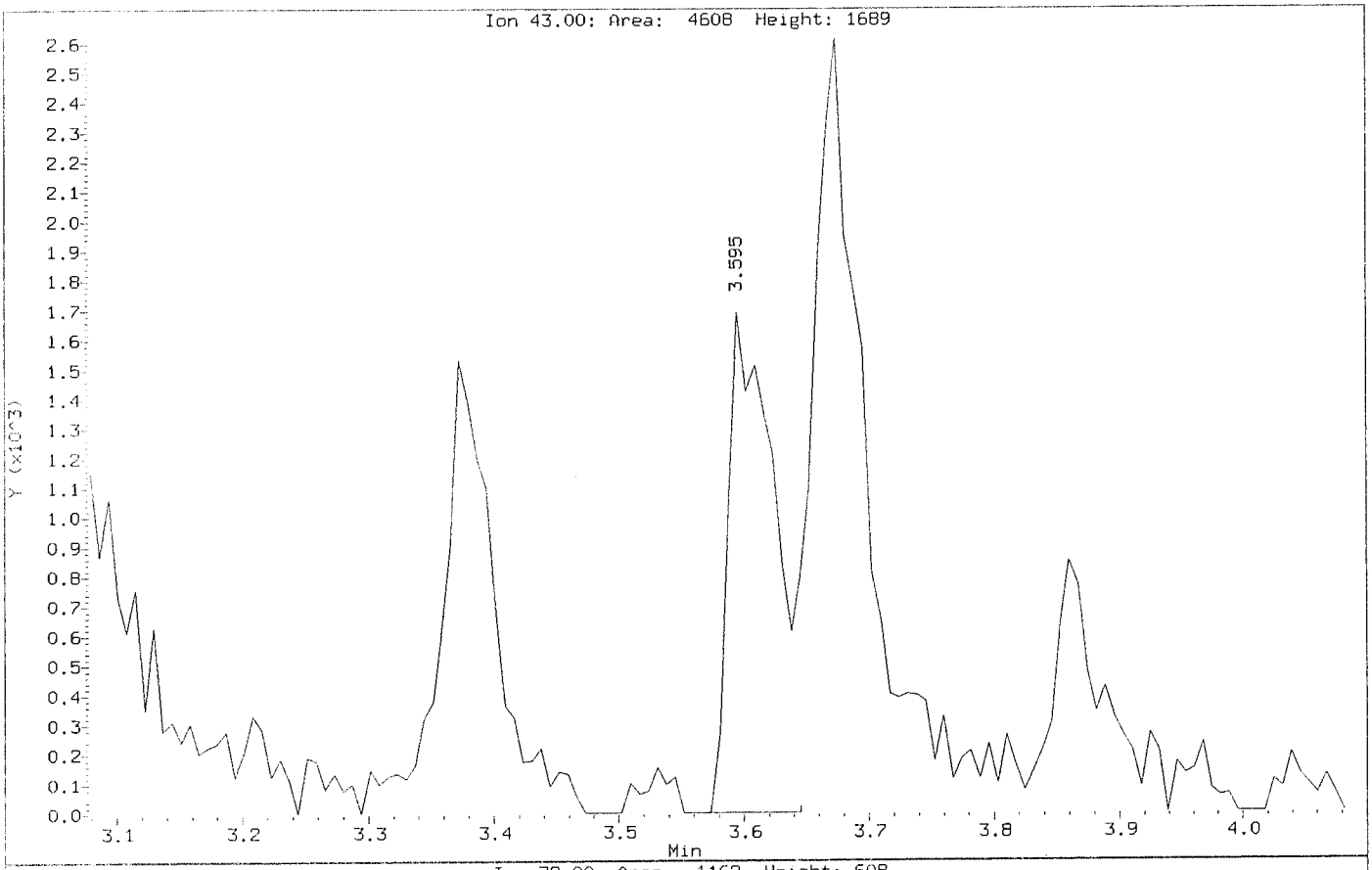
Compound: 2-Butanone
CAS Number: 78-93-3

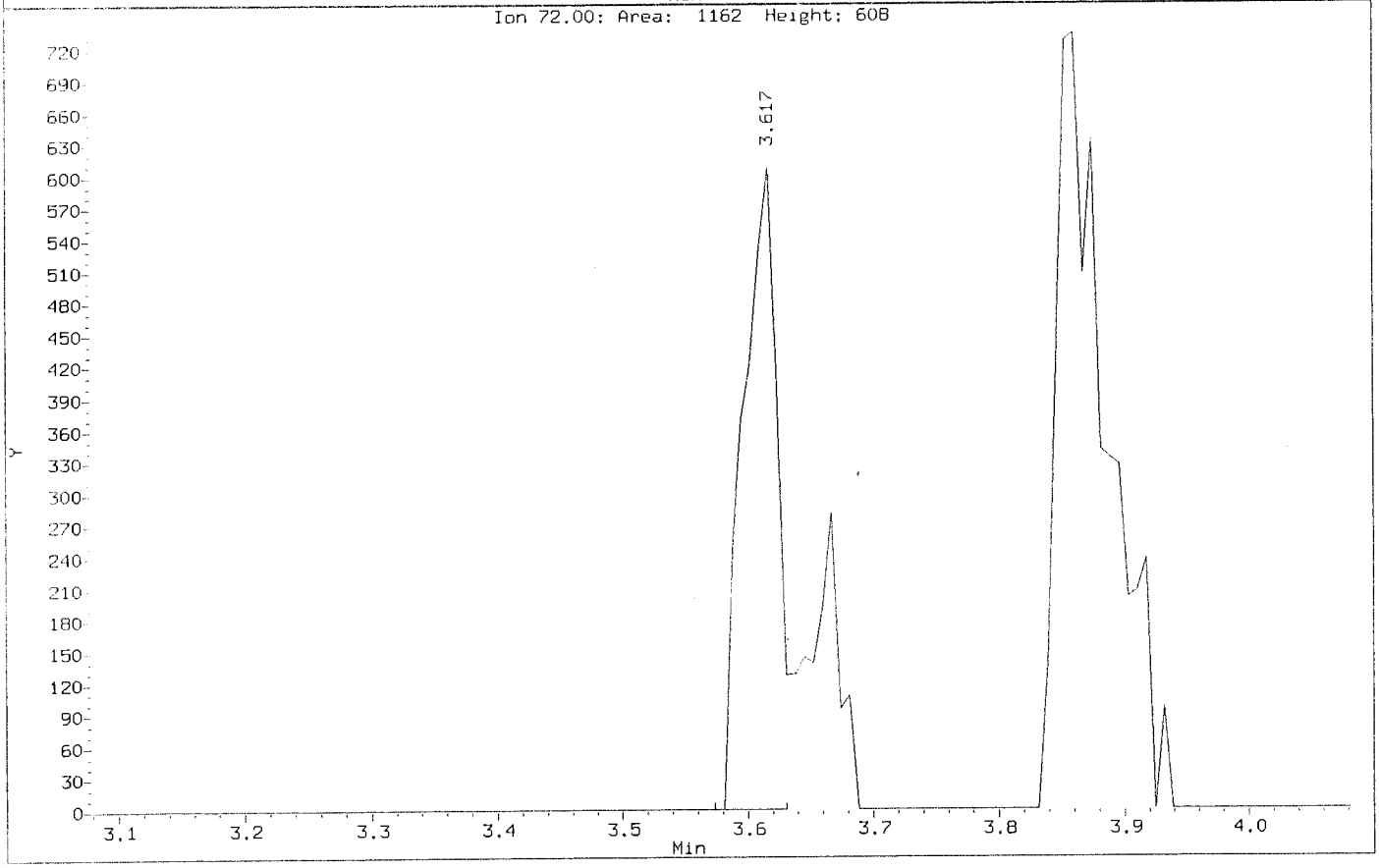




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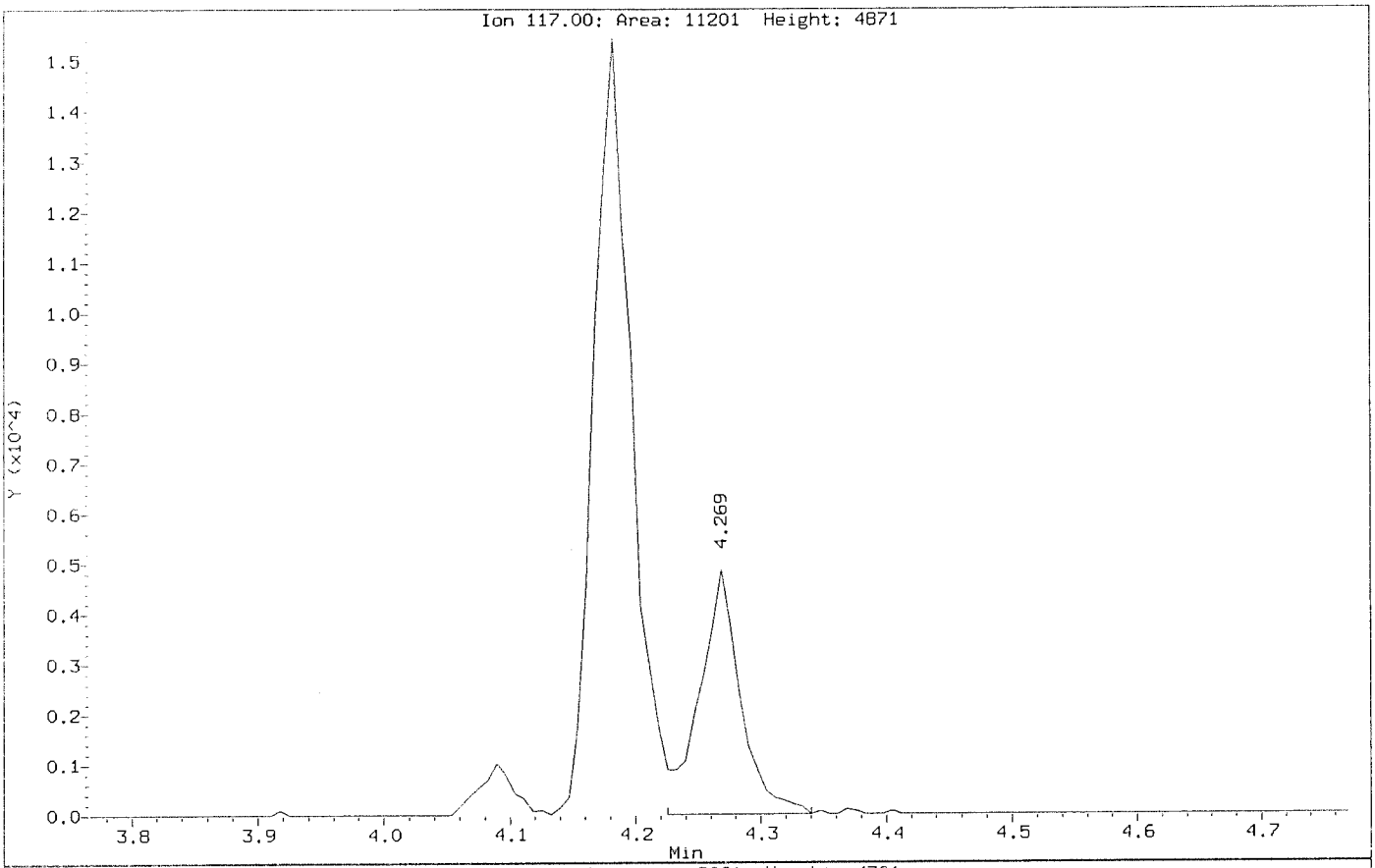
Compound: 2-Butanone
CAS Number: 78-93-3

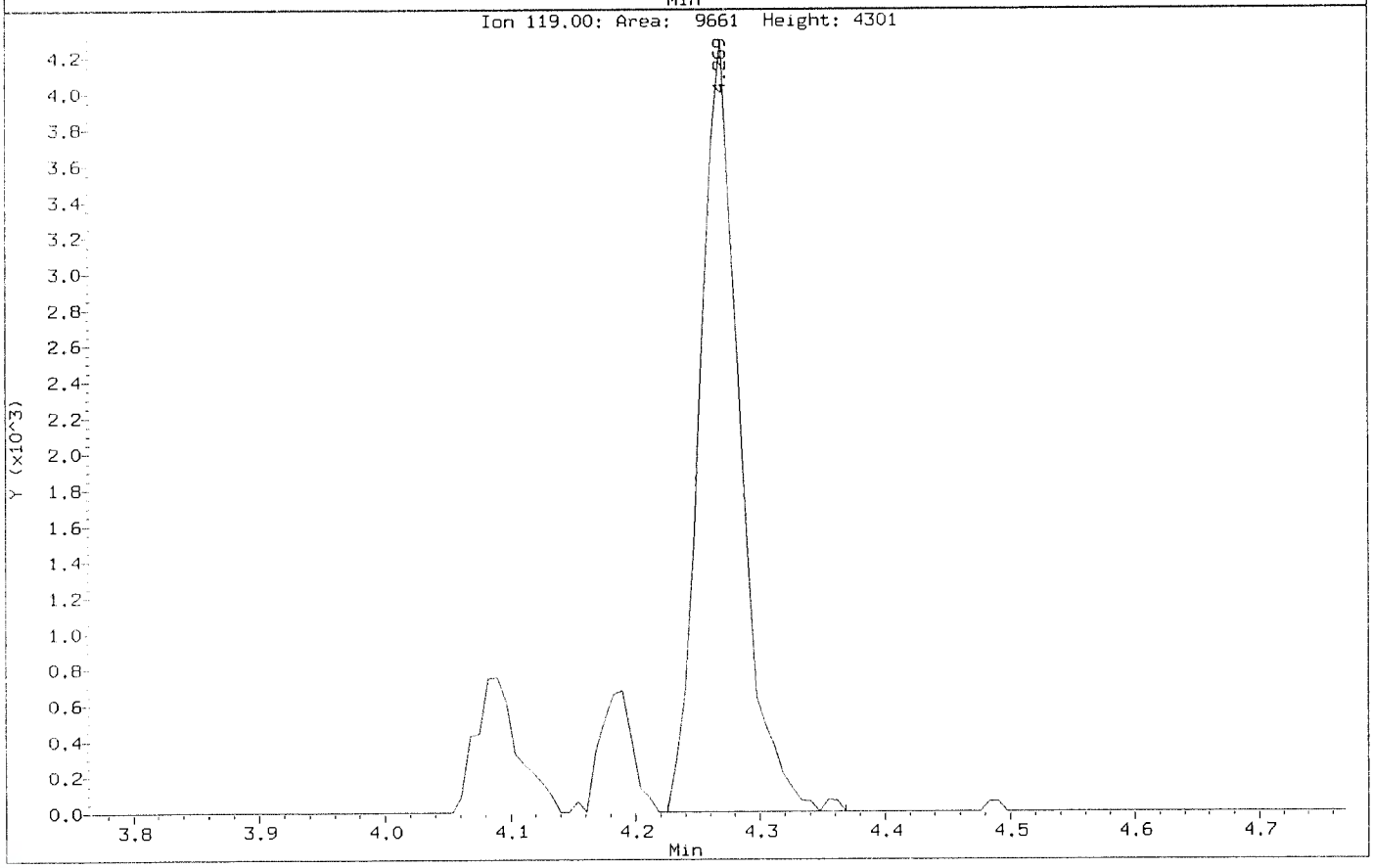




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Client Sample ID: VSTD002

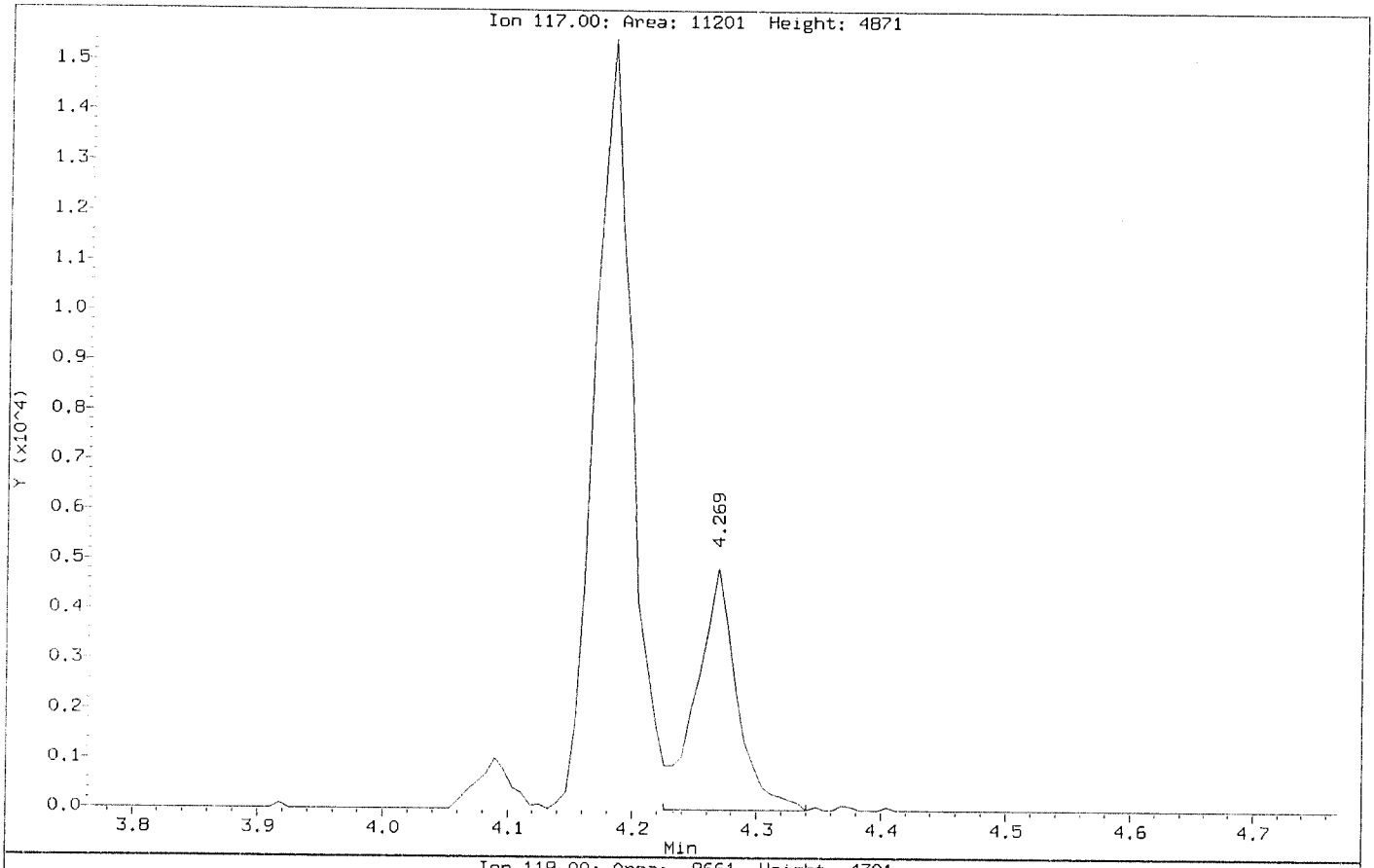
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

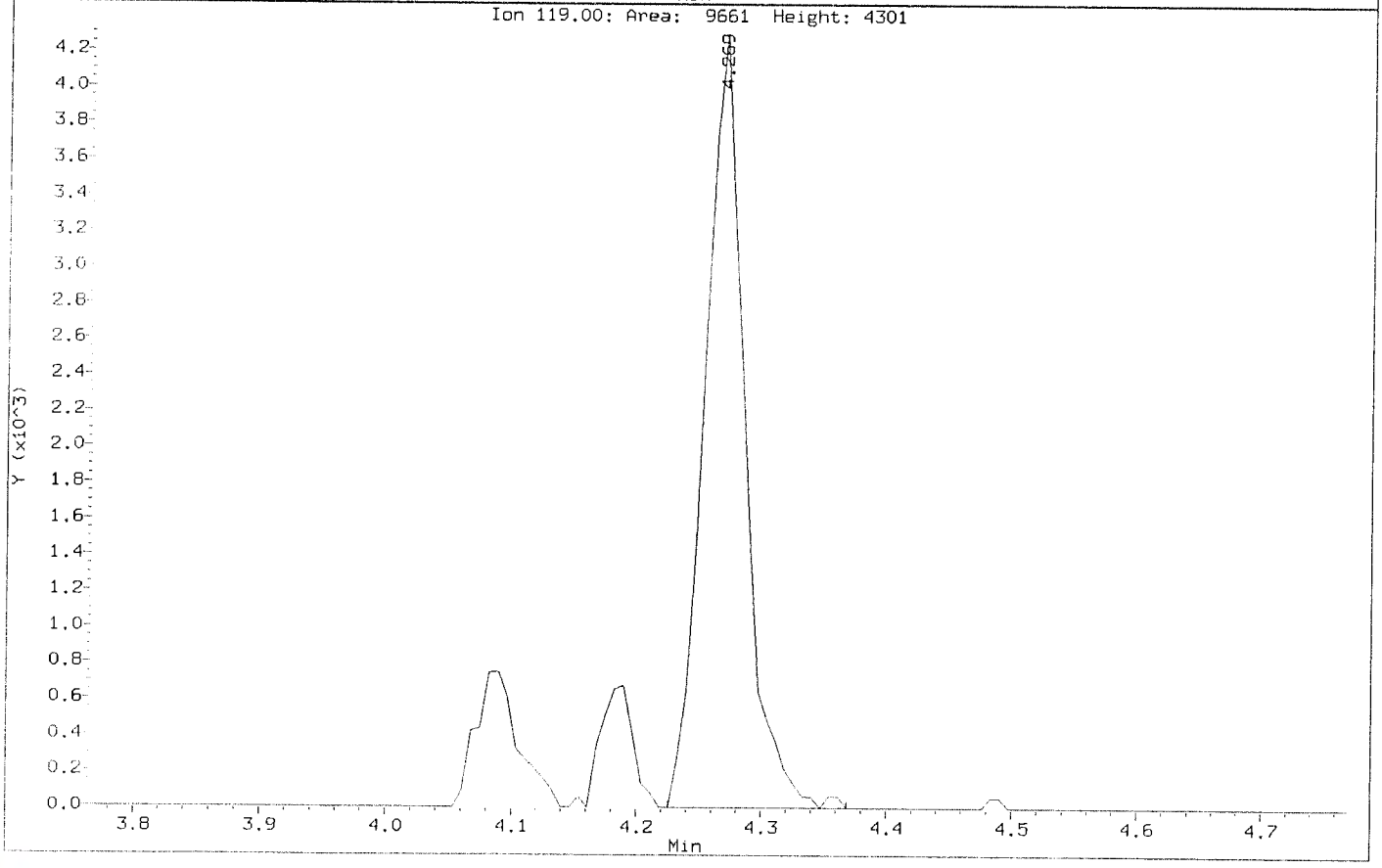




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Instrument: voa6.i
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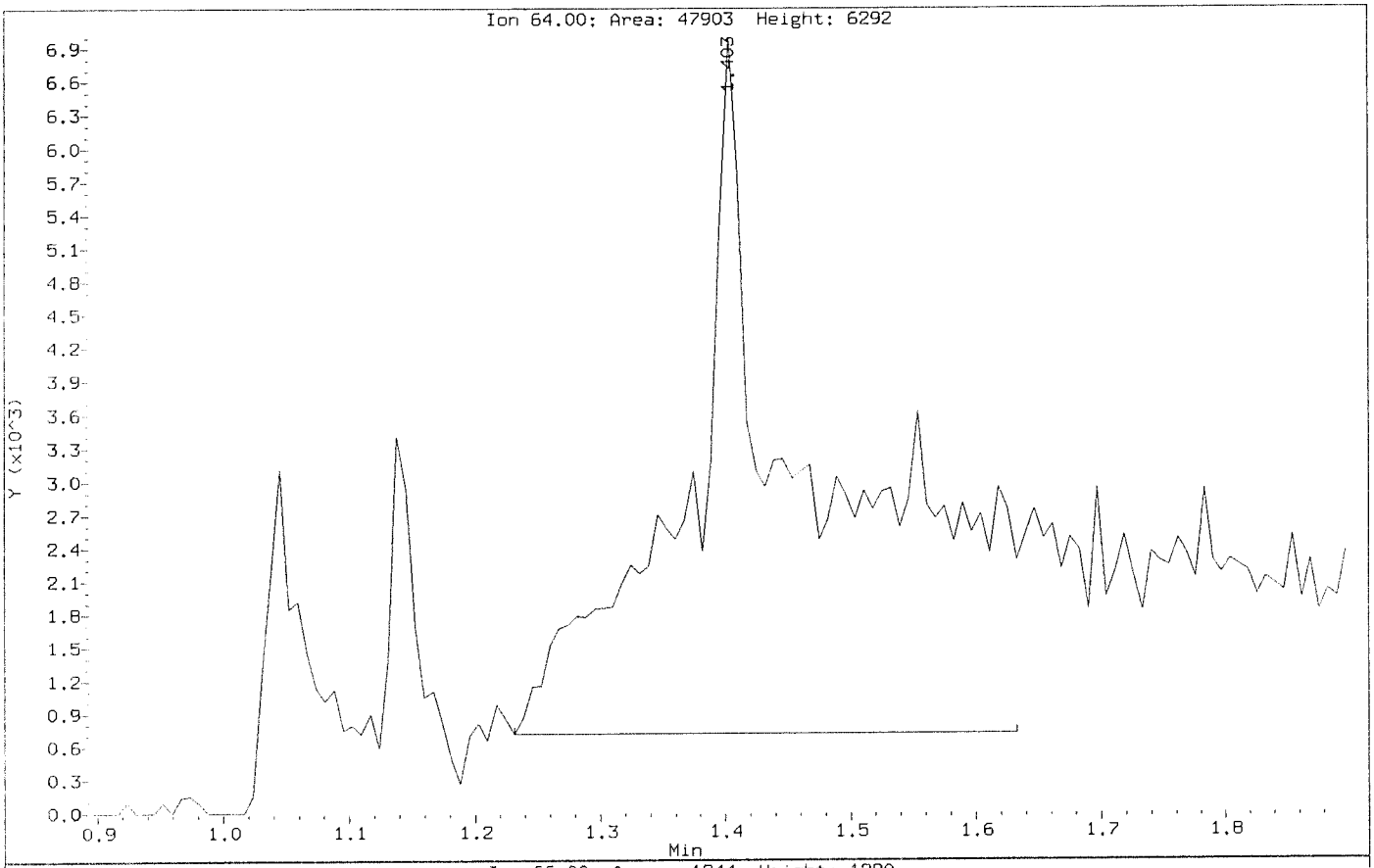
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

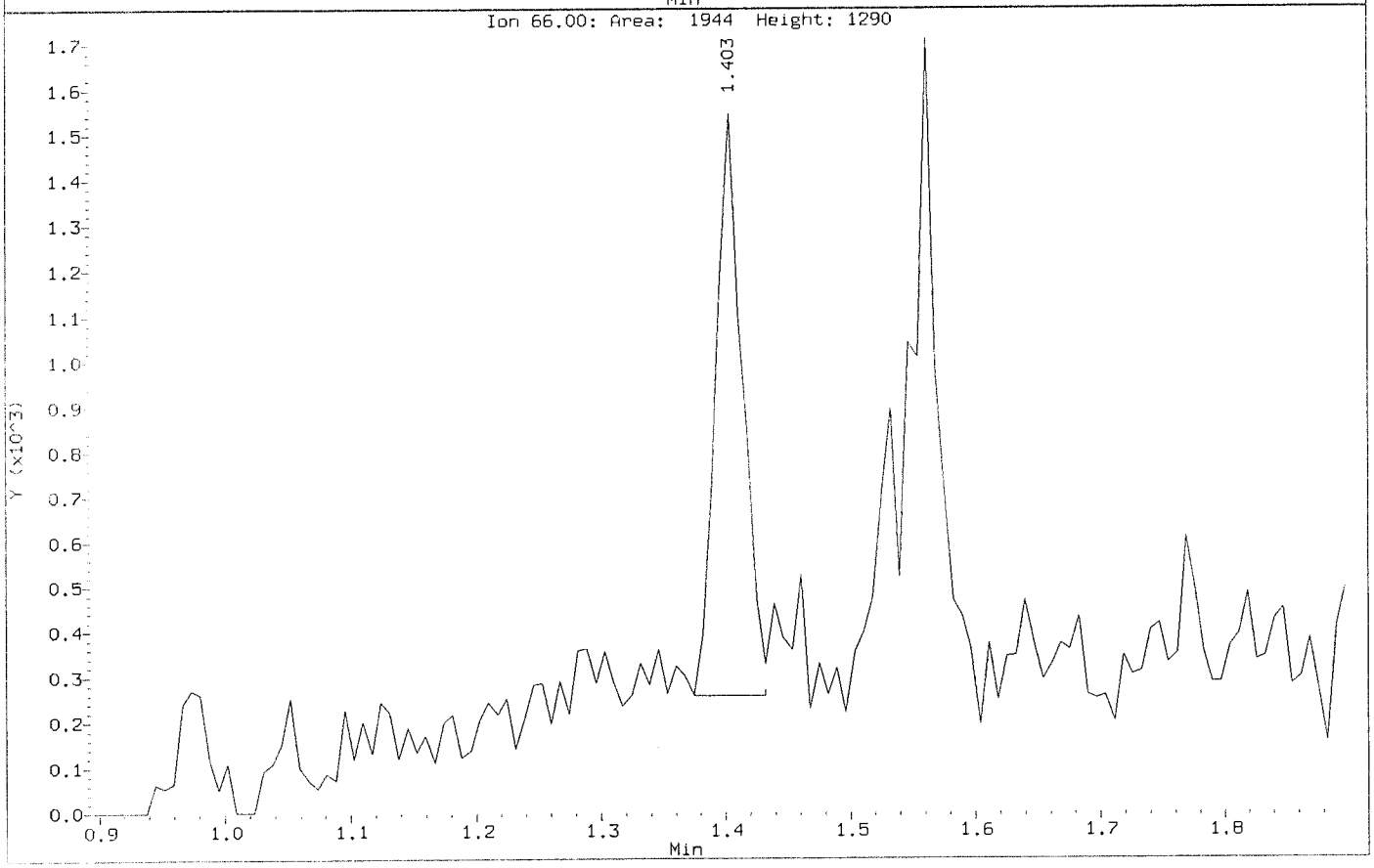




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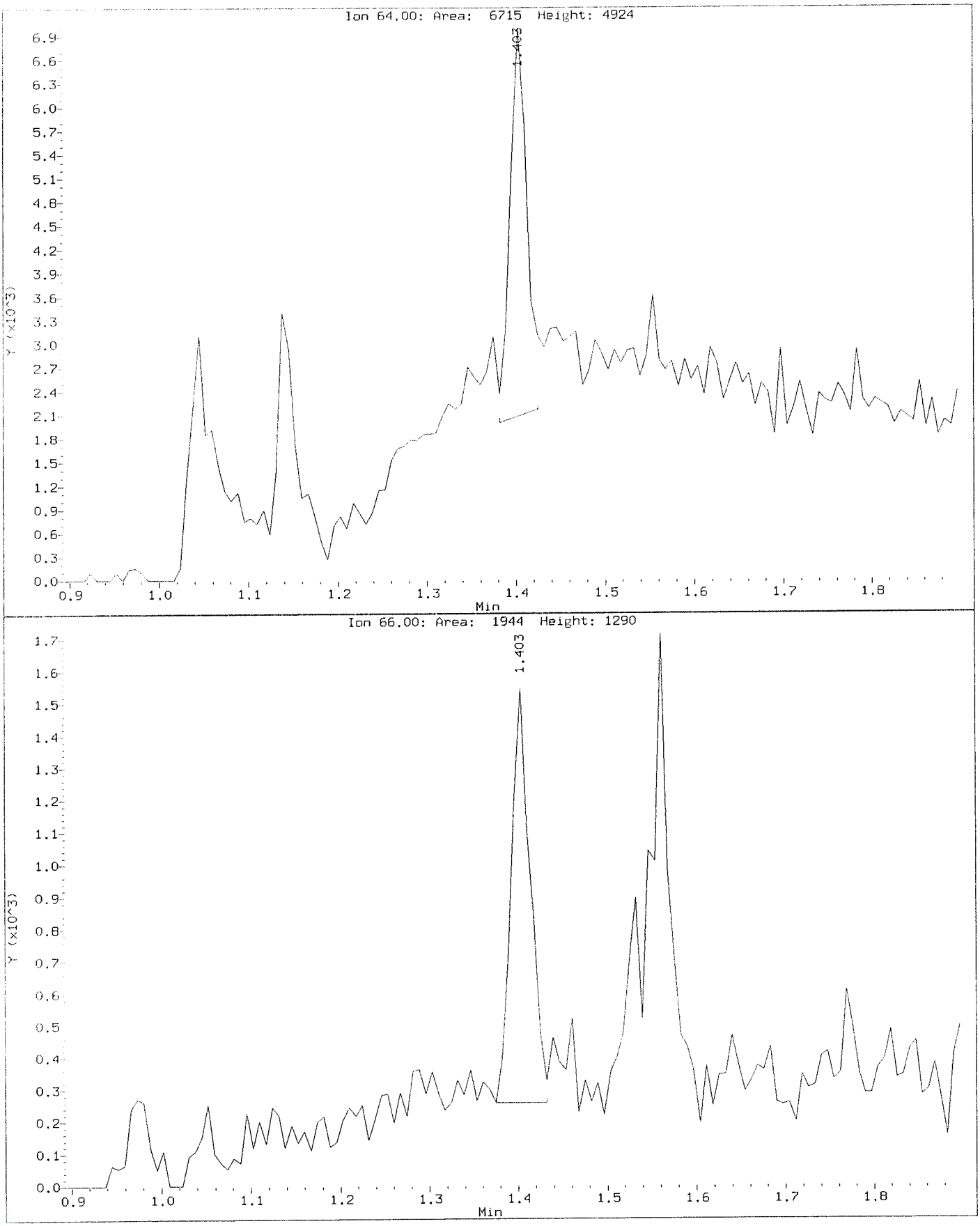
Compound: Chloroethane
CAS Number: 75-00-3





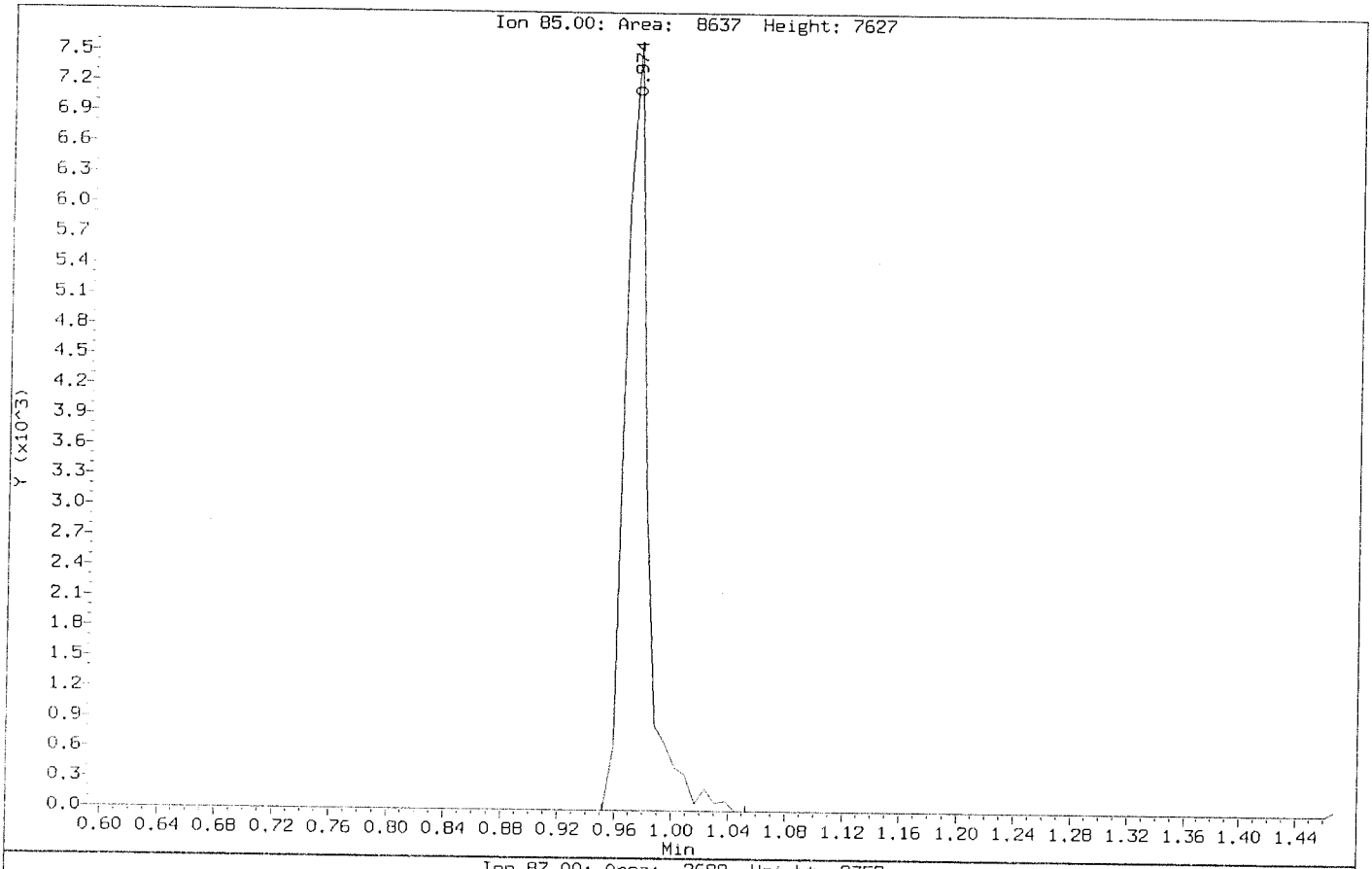
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Injection Date: 26-MAY-2021 13:58
Instrument: voa6.i
Client Sample ID: VSTD002

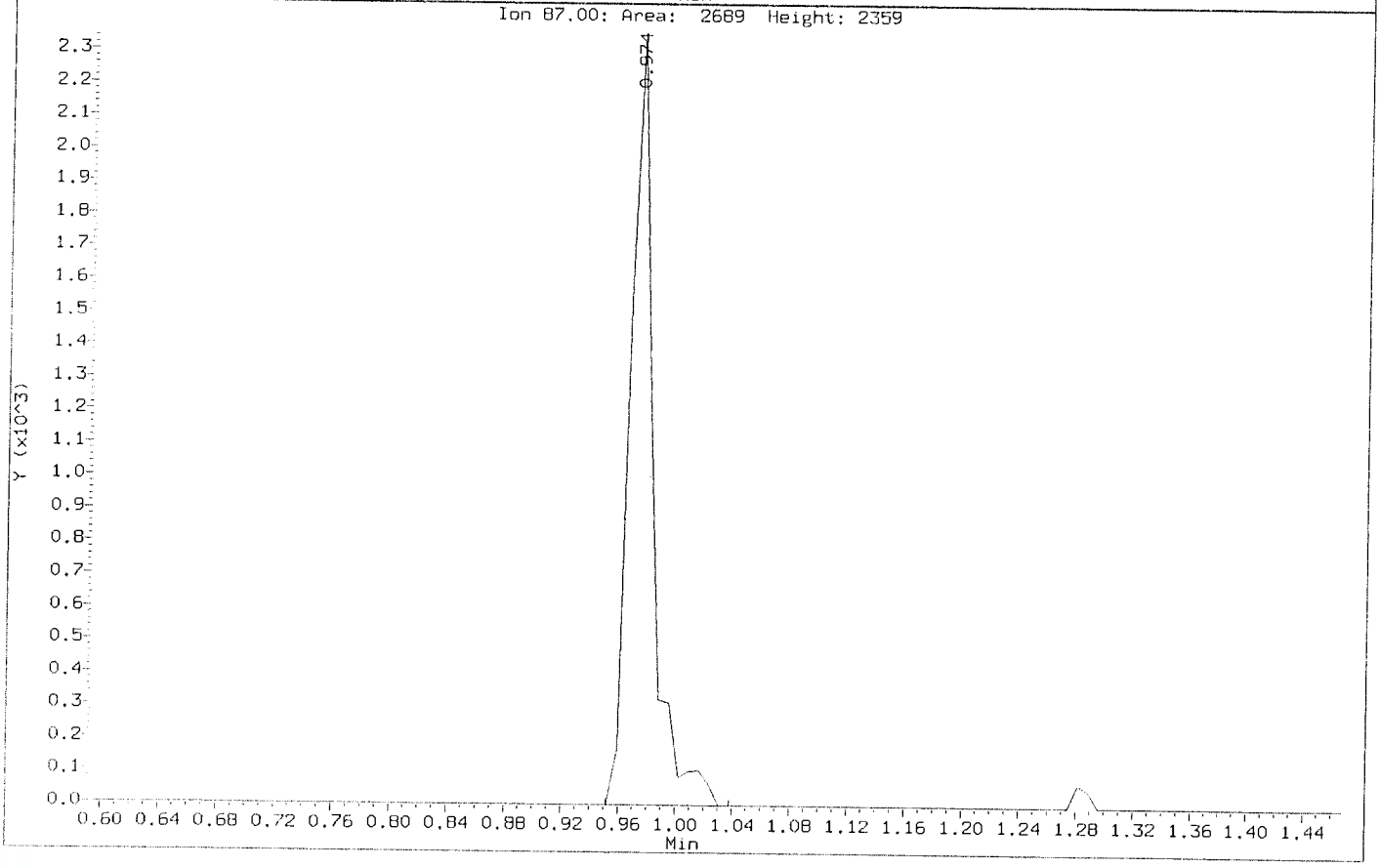
Compound: Chloroethane
CAS Number: 75-00-3



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052605.D
Injection Date: 26-MAY-2021 13:58
Instrument: voa6.i
Client Sample ID: VSTD002

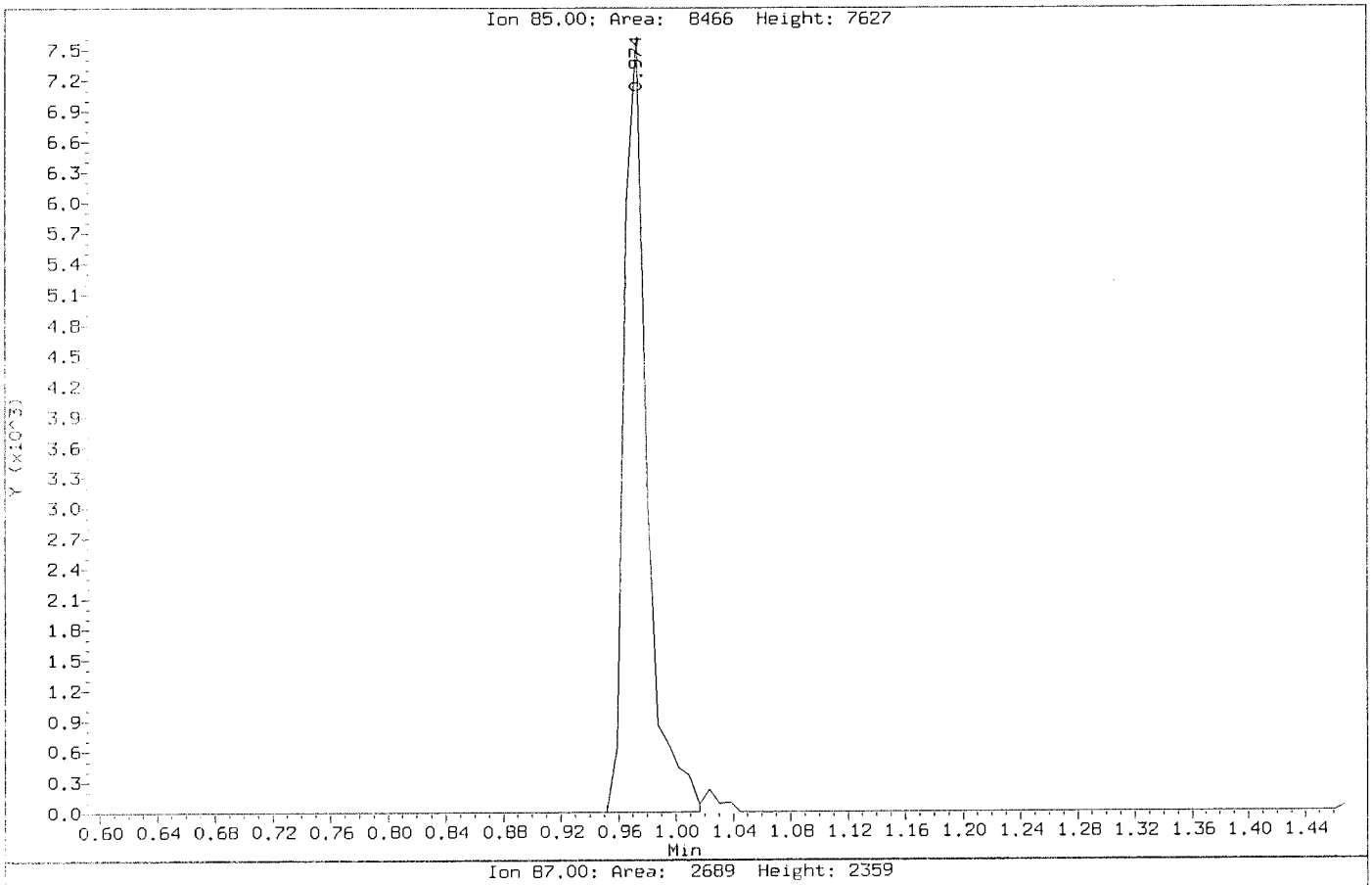
Compound: Dichlorodifluoromethane
CAS Number: 75-71-8

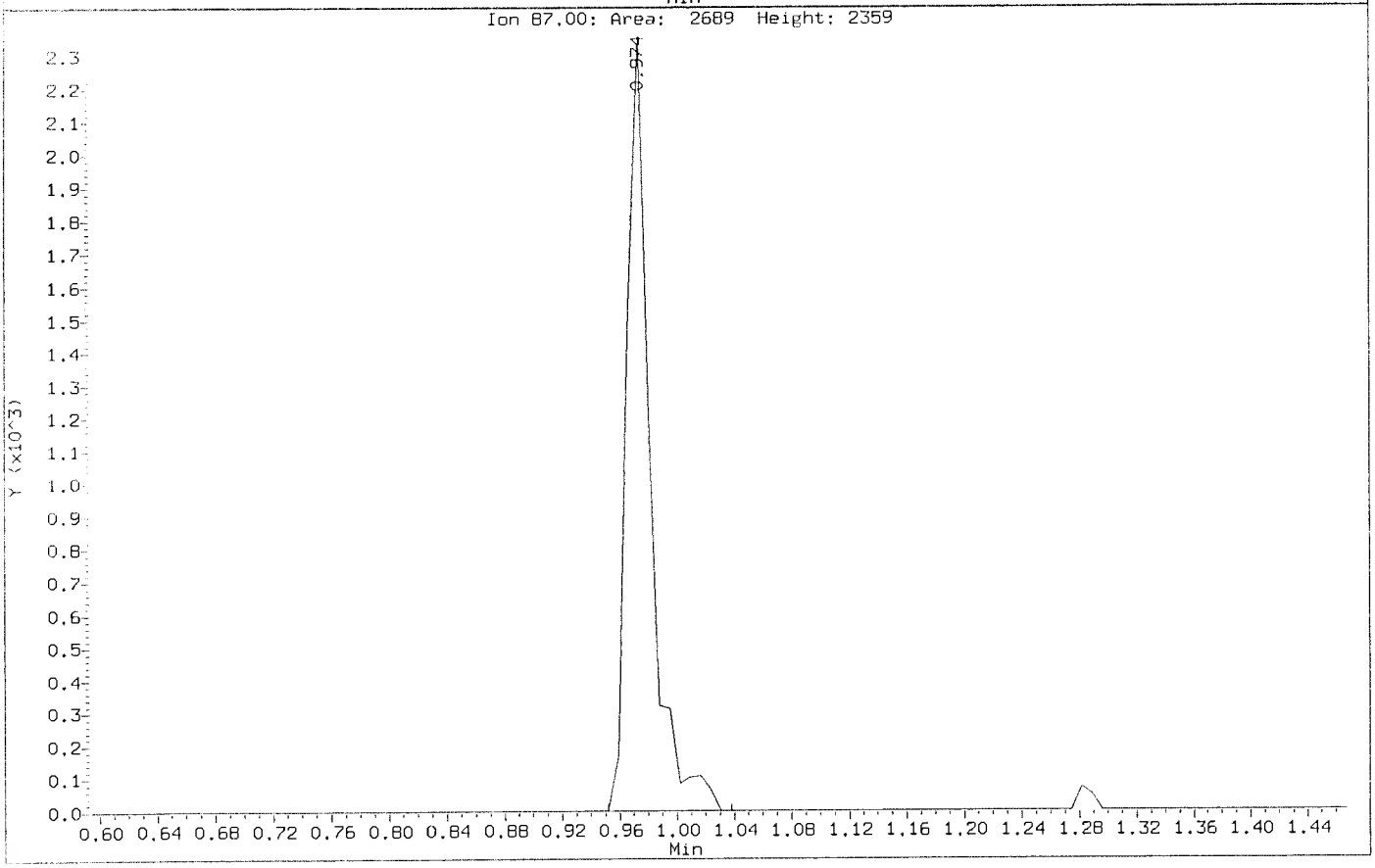




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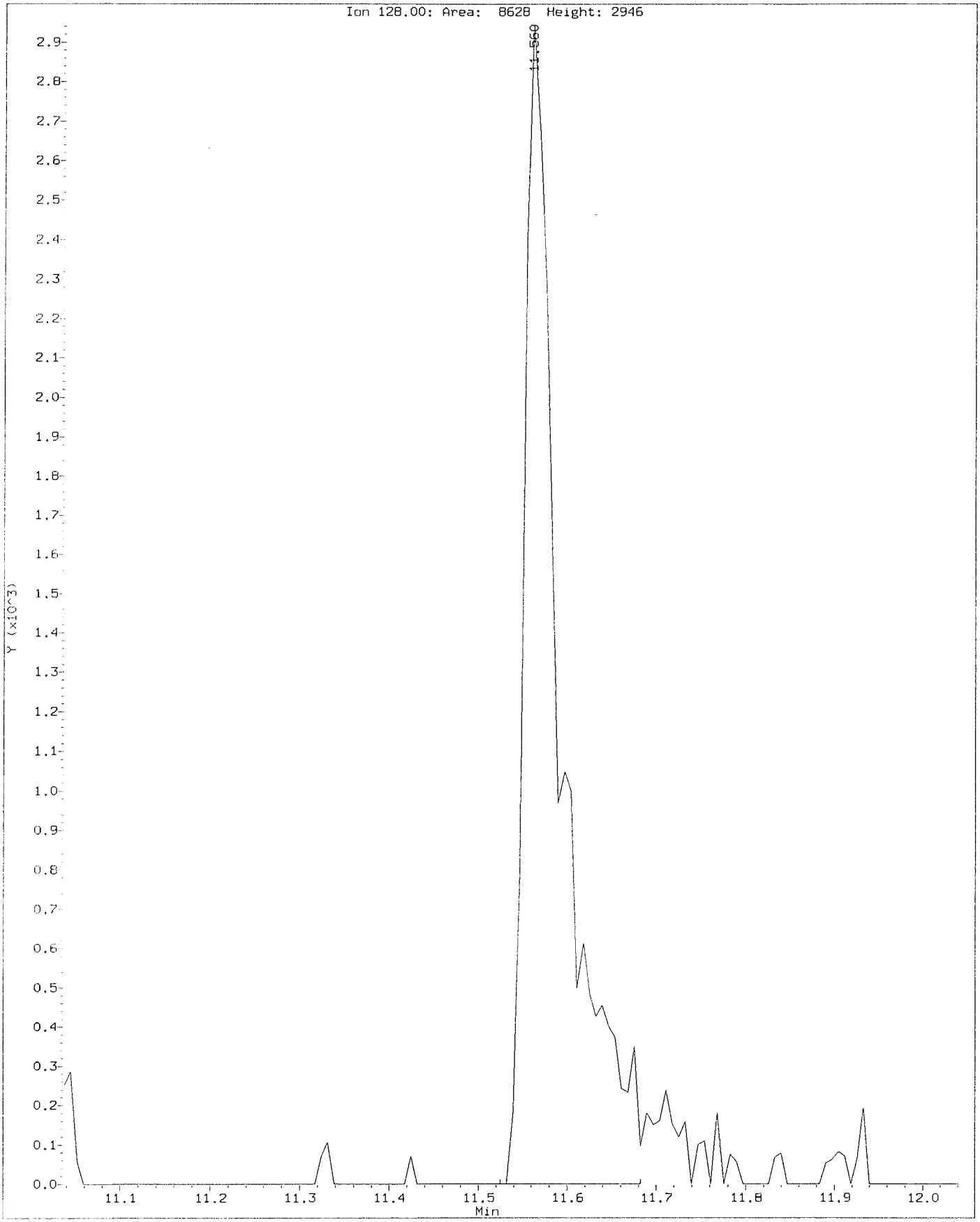
Compound: Dichlorodifluoromethane
CAS Number: 75-71-8





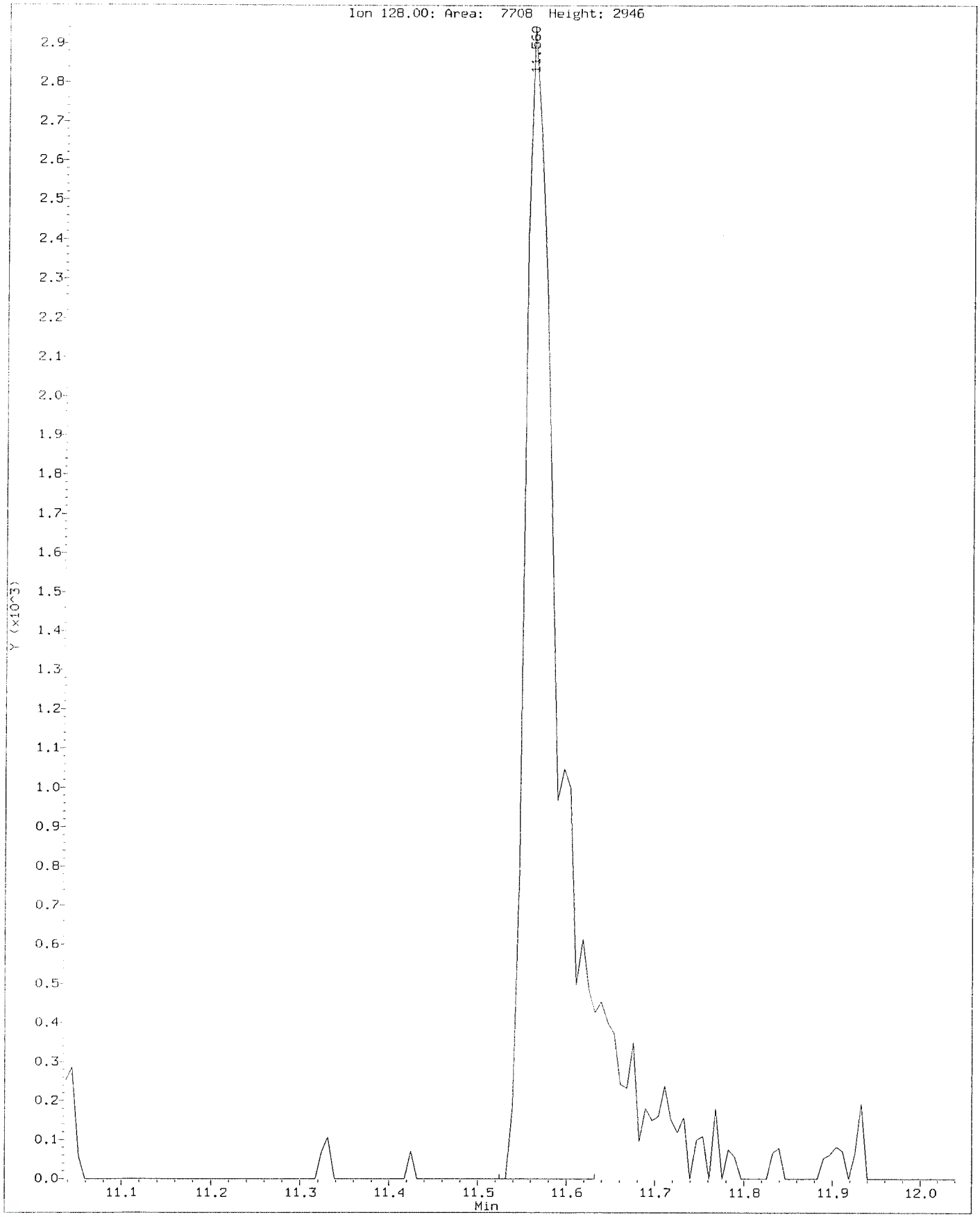
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Client Sample ID: VSTD002

Compound: Naphthalene
CAS Number: 91-20-3



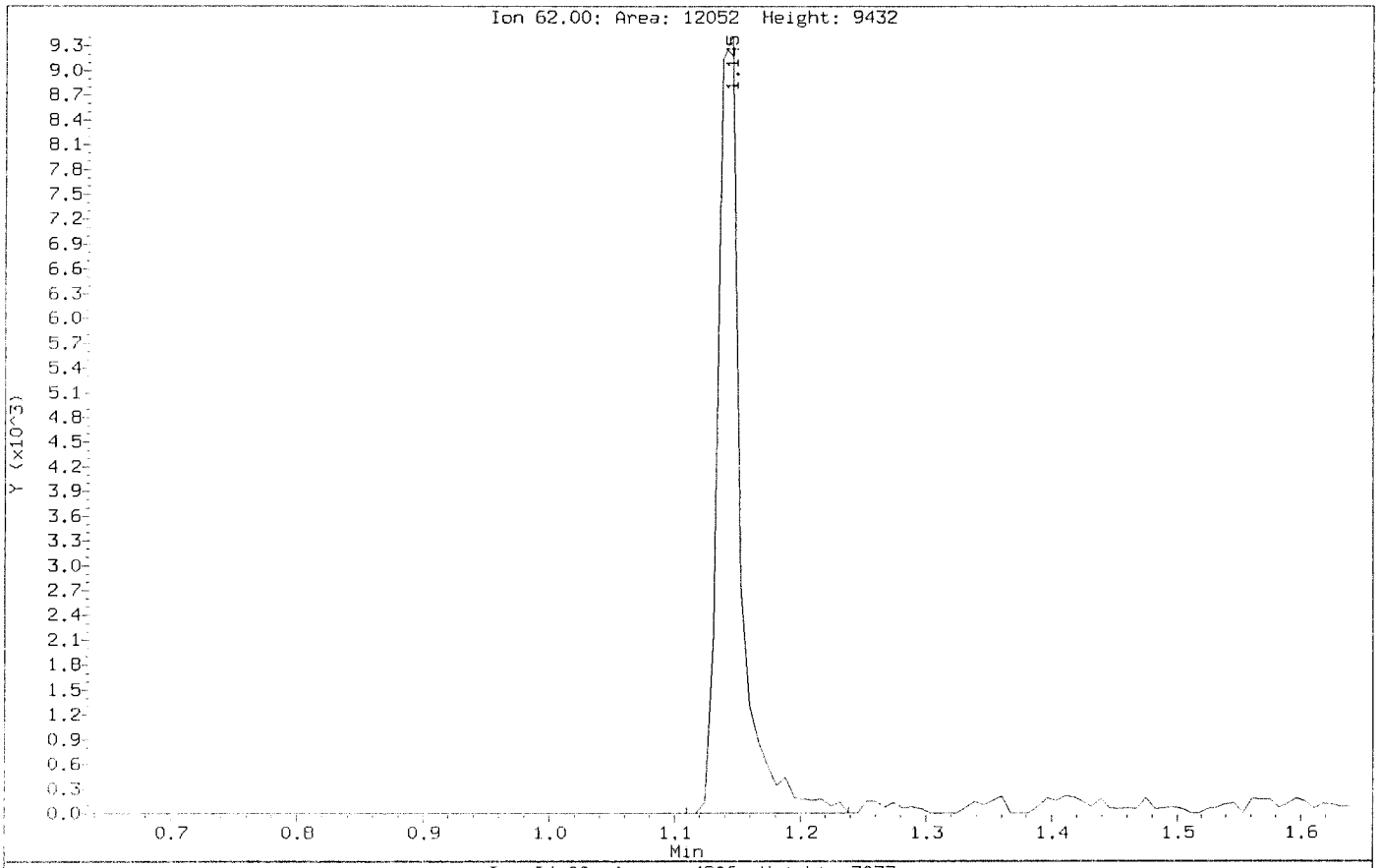
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Client Sample ID: VSTD002

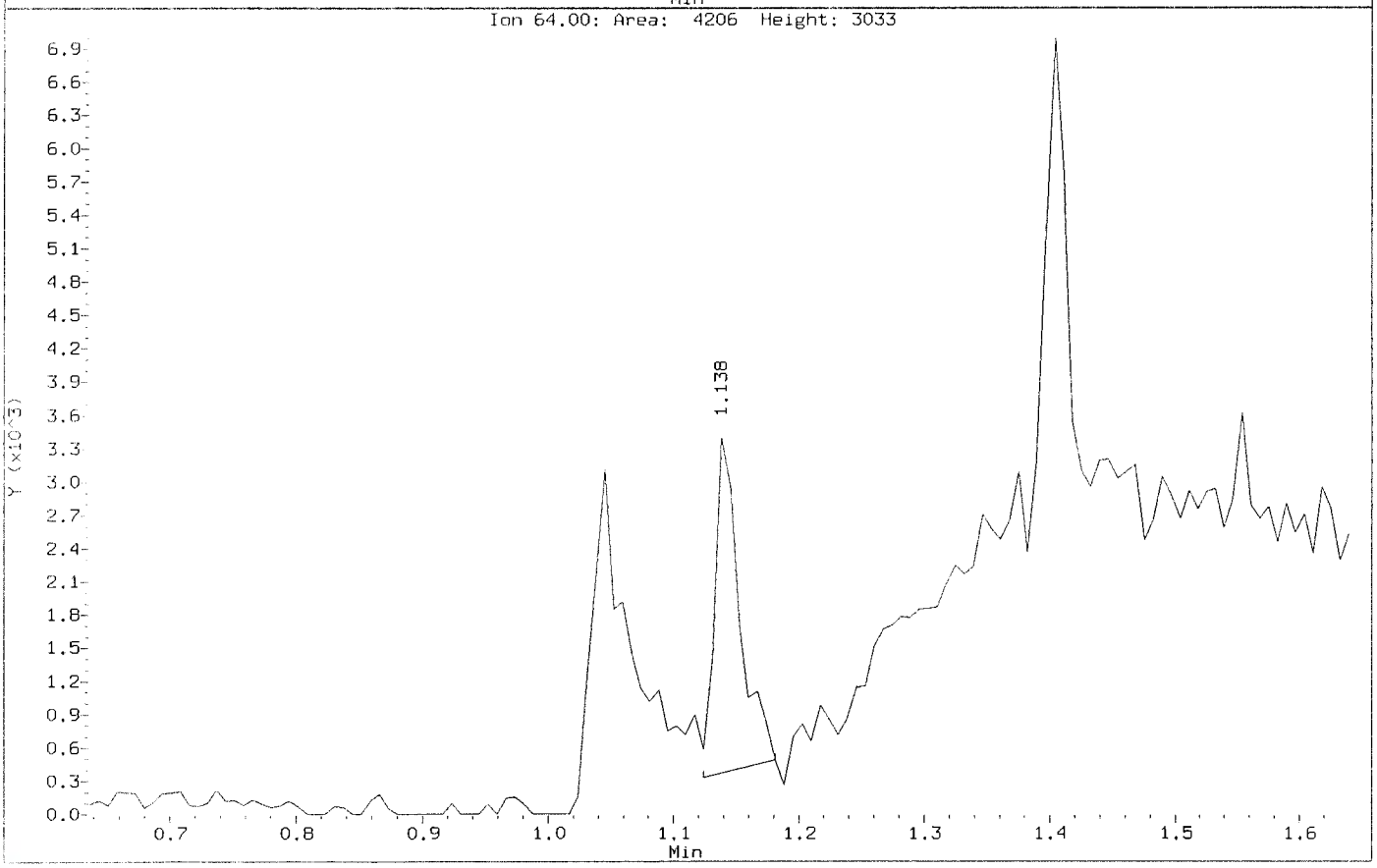
Compound: Naphthalene
CAS Number: 91-20-3



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Instrument: voa6.i
Client Sample ID: VSTD002

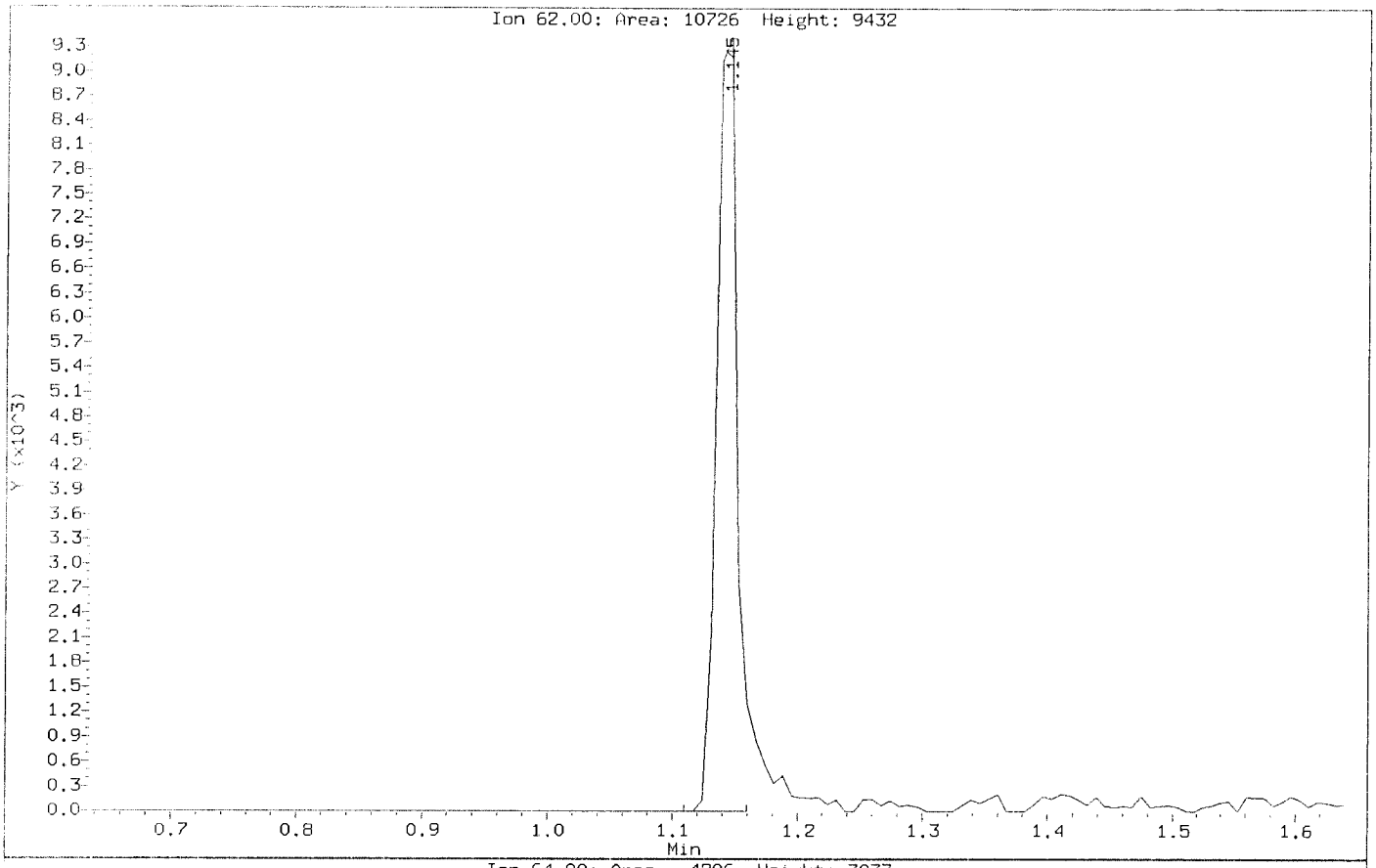
Compound: Vinyl Chloride
CAS Number: 75-01-4

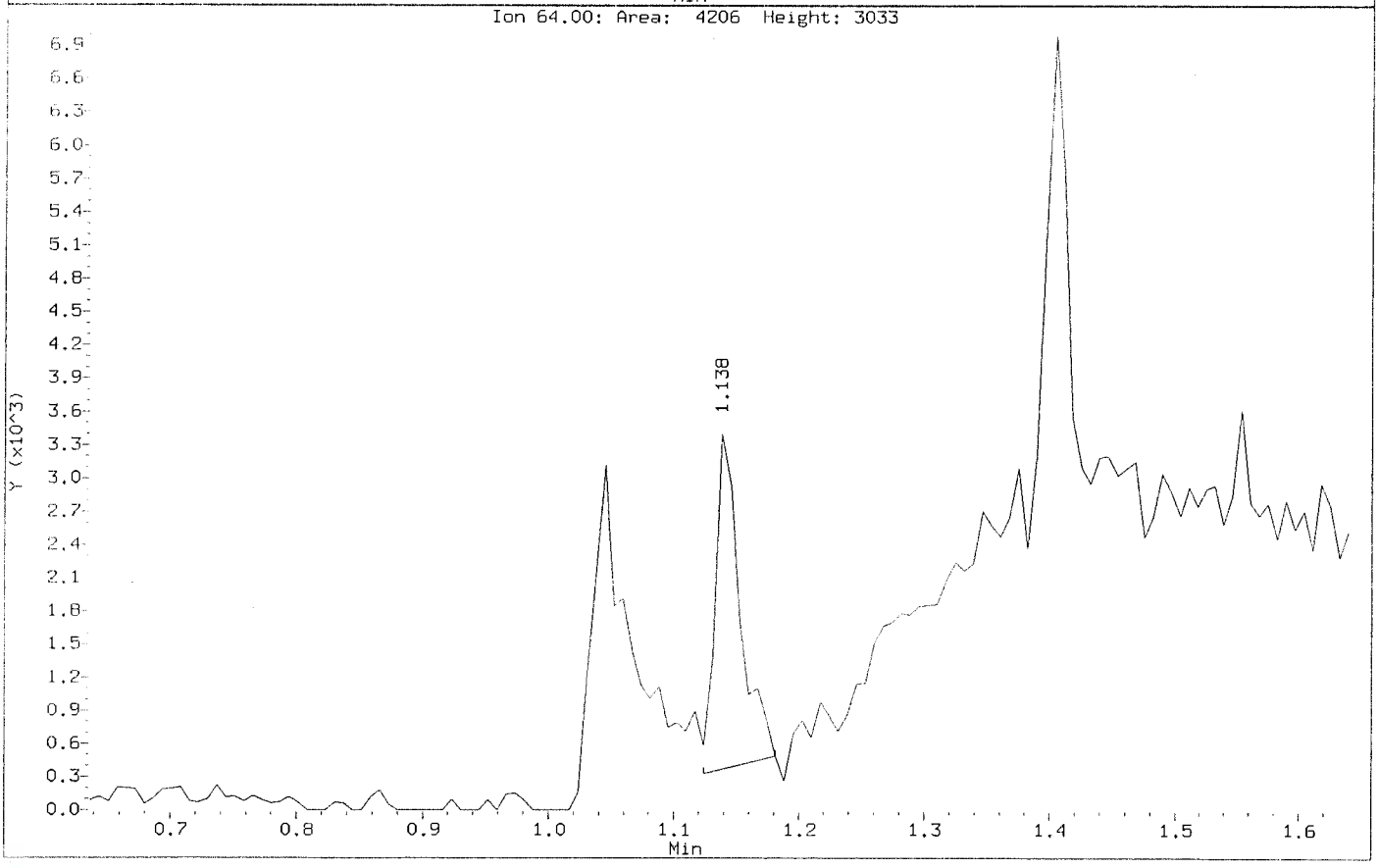




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Injection Date: 26-MAY-2021 13:58
Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Vinyl Chloride
CAS Number: 75-01-4





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052606.D
Lab Smp Id: VSTD005 Client Smp ID: VSTD005
Inj Date : 26-MAY-2021 14:19
Operator : PC Inst ID: voa6.i
Smp Info : VSTD005;VSTD005;1;5;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 13:58 Cal File: X052605.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

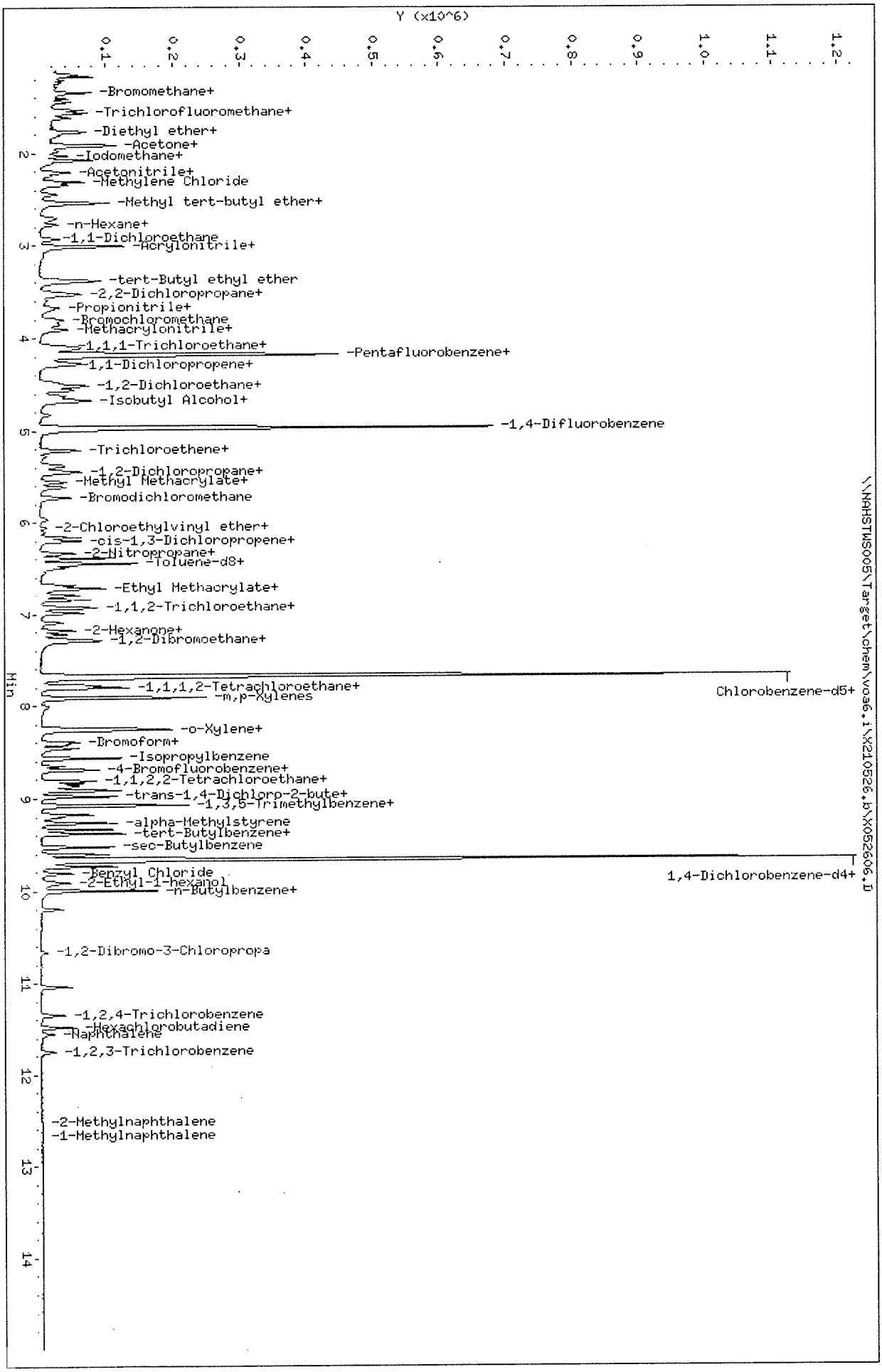
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	375848	50.0000	
*	36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	599369	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	554828	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	272673	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	21089	5.00000	5.55
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	21575	5.00000	5.39
$	48 Toluene-d8	98	6.388	6.388	(0.833)	68712	5.00000	4.97(a)
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	25524	5.00000	5.91
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	20225	5.00000	4.92(a)
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	28395	5.00000	5.11
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	24326	5.00000	5.41
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	17061	5.00000	5.67
	22 1,1-Dichloroethane	63	2.929	2.929	(0.700)	32111	5.00000	5.40
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	19736	5.00000	5.09
	32 1,1-Dichloropropene	75	4.290	4.290	(0.863)	22162	5.00000	4.82(a)
	93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	7772	5.00000	4.70(a)
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	17848	5.00000	5.25(M)
	90 1,2,4-Trichlorobenzene	180	11.345	11.345	(1.174)	12851	5.00000	4.76(a)
	79 1,2,4-Trimethylbenzene	105	9.382	9.382	(0.971)	58187	5.00000	4.67(a)
	89 1,2-Dibromo-3-Chloropropane	155	10.657	10.657	(1.103)	2323	5.00000	5.82
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	21217	5.00000	5.19
	88 1,2-Dichlorobenzene	146	9.998	9.998	(1.035)	36886	5.00000	4.98(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.562	4.562	(0.918)	25252	5.00000	5.28
42	1,2-Dichloropropane	63	5.436	5.436	(1.094)	18865	5.00000	5.34
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	58197	5.00000	4.70(a)
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	38487	5.00000	5.00
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	31865	5.00000	5.33
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	39709	5.00000	4.94(a)
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	27936	5.00000	5.43
24	2-Butanone	43	3.588	3.588	(0.858)	11362	10.0000	9.93(H)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	53843	5.00000	5.27
52	2-Hexanone	43	7.090	7.090	(0.924)	21892	10.0000	10.62
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	58486	5.00000	4.81(a)
82	p-Isopropyltoluene	119	9.647	9.647	(0.999)	55825	5.00000	4.42(a)
45	4-Methyl-2-Pentanone	43	6.331	6.331	(0.825)	32371	10.0000	10.13
10	Acetone	43	1.976	1.976	(0.473)	15534	10.0000	11.18
37	Benzene	78	4.512	4.512	(0.908)	71697	5.00000	5.20
74	Bromobenzene	156	8.809	8.809	(0.912)	22574	5.00000	4.98(a)
29	Bromochloromethane	128	3.802	3.802	(0.909)	12517	5.00000	5.50
39	Bromodichloromethane	83	5.722	5.722	(1.151)	27200	5.00000	5.27
66	Bromoform	173	8.408	8.408	(1.096)	13722	5.00000	4.43(a)
6	Bromomethane	94	1.338	1.338	(0.320)	24597	5.00000	6.46
19	Carbon Disulfide	76	2.069	2.069	(0.495)	93831	10.0000	10.22
34	Carbon Tetrachloride	117	4.268	4.268	(0.859)	24074	5.00000	4.84(aH)
59	Chlorobenzene	112	7.692	7.692	(1.003)	57208	5.00000	4.95(a)
7	Chloroethane	64	1.403	1.403	(0.336)	15071	5.00000	4.46(aM)
28	Chloroform	83	3.910	3.910	(0.935)	36863	5.00000	5.57
3	Chloromethane	50	1.080	1.080	(0.258)	23565	5.00000	4.57(a)
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	21562	5.00000	5.47
46	cis-1,3-Dichloropropene	75	6.159	6.159	(1.239)	31771	5.00000	5.23
55	Dibromochloromethane	129	7.176	7.176	(0.936)	22651	5.00000	4.96(a)
44	Dibromomethane	93	5.557	5.557	(1.118)	14381	5.00000	5.42
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	18295	5.00000	5.11
61	Ethylbenzene	106	7.799	7.799	(1.017)	26847	5.00000	5.03
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	8556	5.00000	6.15
67	Isopropylbenzene	105	8.566	8.566	(1.117)	72549	5.00000	4.45(a)
62	m,p-Xylenes	106	7.907	7.907	(1.031)	65384	10.0000	9.41
17	Methylene Chloride	84	2.305	2.305	(0.551)	21744	5.00000	5.22
87	n-Butylbenzene	91	9.998	9.998	(1.035)	47016	5.00000	4.43(a)
73	n-Propylbenzene	91	8.910	8.910	(0.922)	79074	5.00000	4.64(a)
92	Naphthalene	128	11.553	11.553	(1.196)	18362	5.00000	4.71(a)
63	o-Xylene	106	8.244	8.244	(1.075)	33045	5.00000	4.87(a)
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	66177	5.00000	4.62(a)
64	Styrene	104	8.258	8.258	(1.077)	52432	5.00000	4.63(a)
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	50317	5.00000	4.74(a)
56	Tetrachloroethene	164	6.933	6.933	(0.904)	16008	5.00000	4.68(a)
50	Toluene	91	6.446	6.446	(0.840)	80843	5.00000	4.99(a)
20	trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	18528	5.00000	5.27
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.344)	26258	5.00000	5.01
38	Trichloroethene	130	5.206	5.206	(1.048)	20721	5.00000	5.03
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	36670	5.00000	5.40
5	Vinyl Chloride	62	1.145	1.145	(0.274)	23945	5.00000	5.38(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

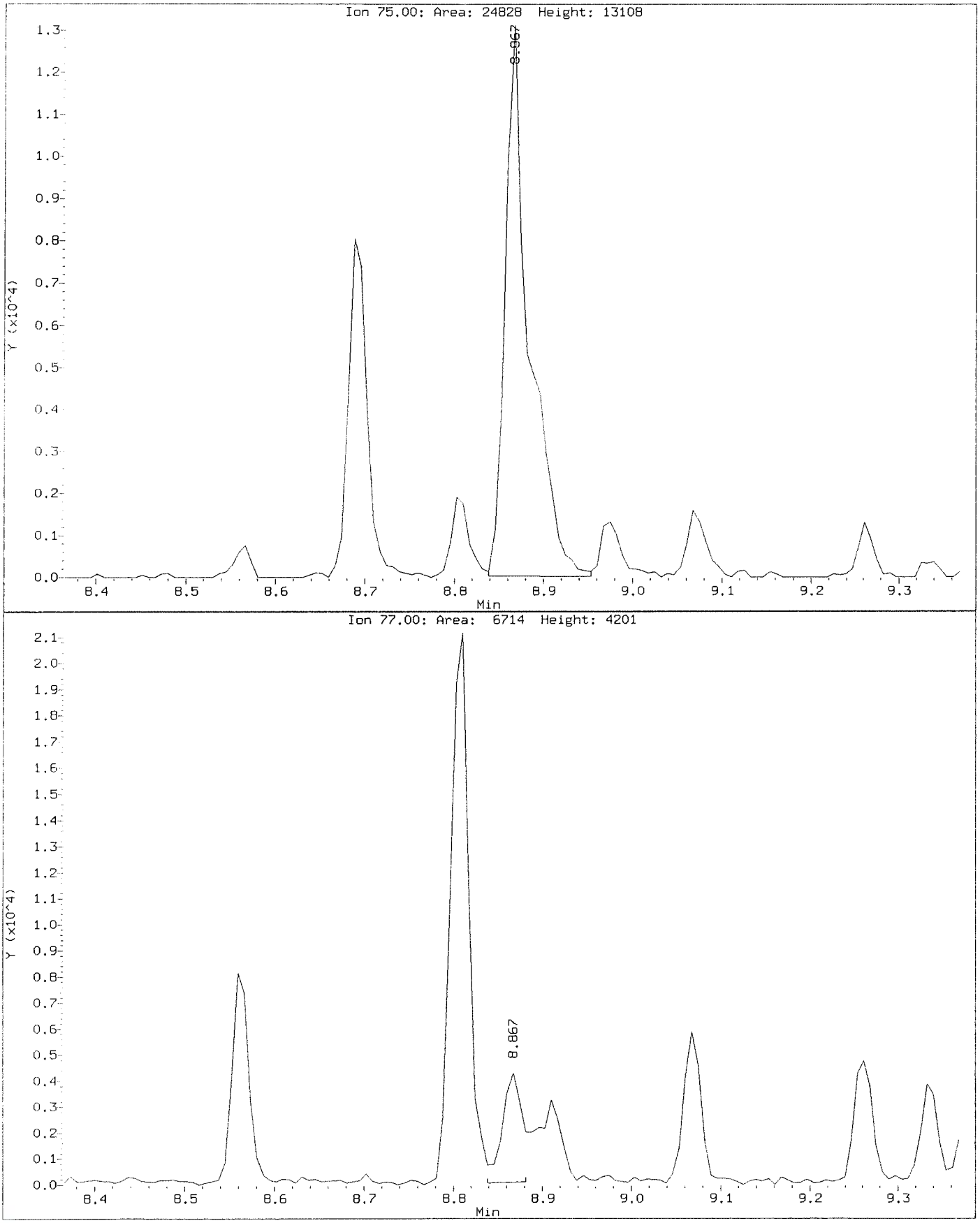


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Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

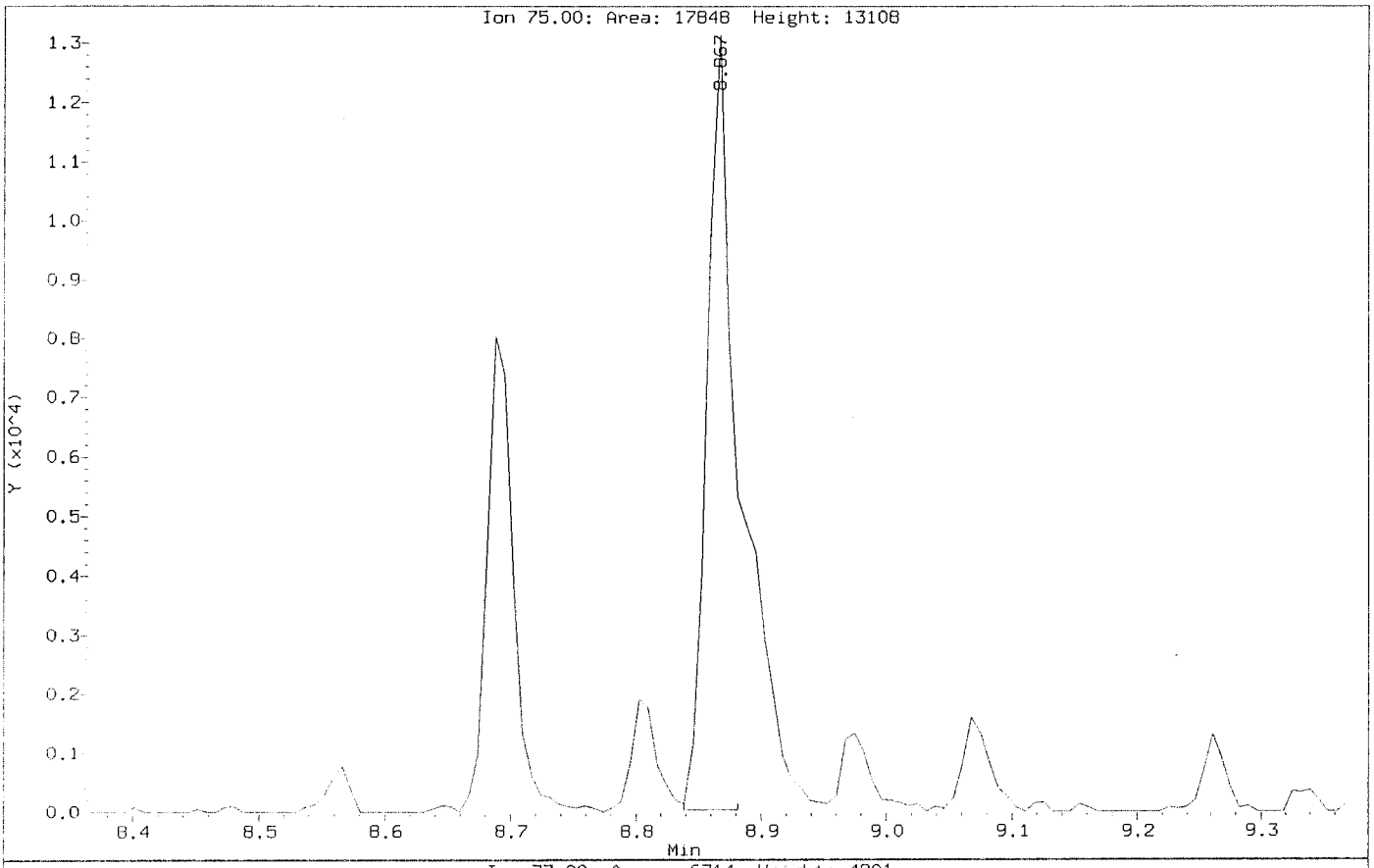
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Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

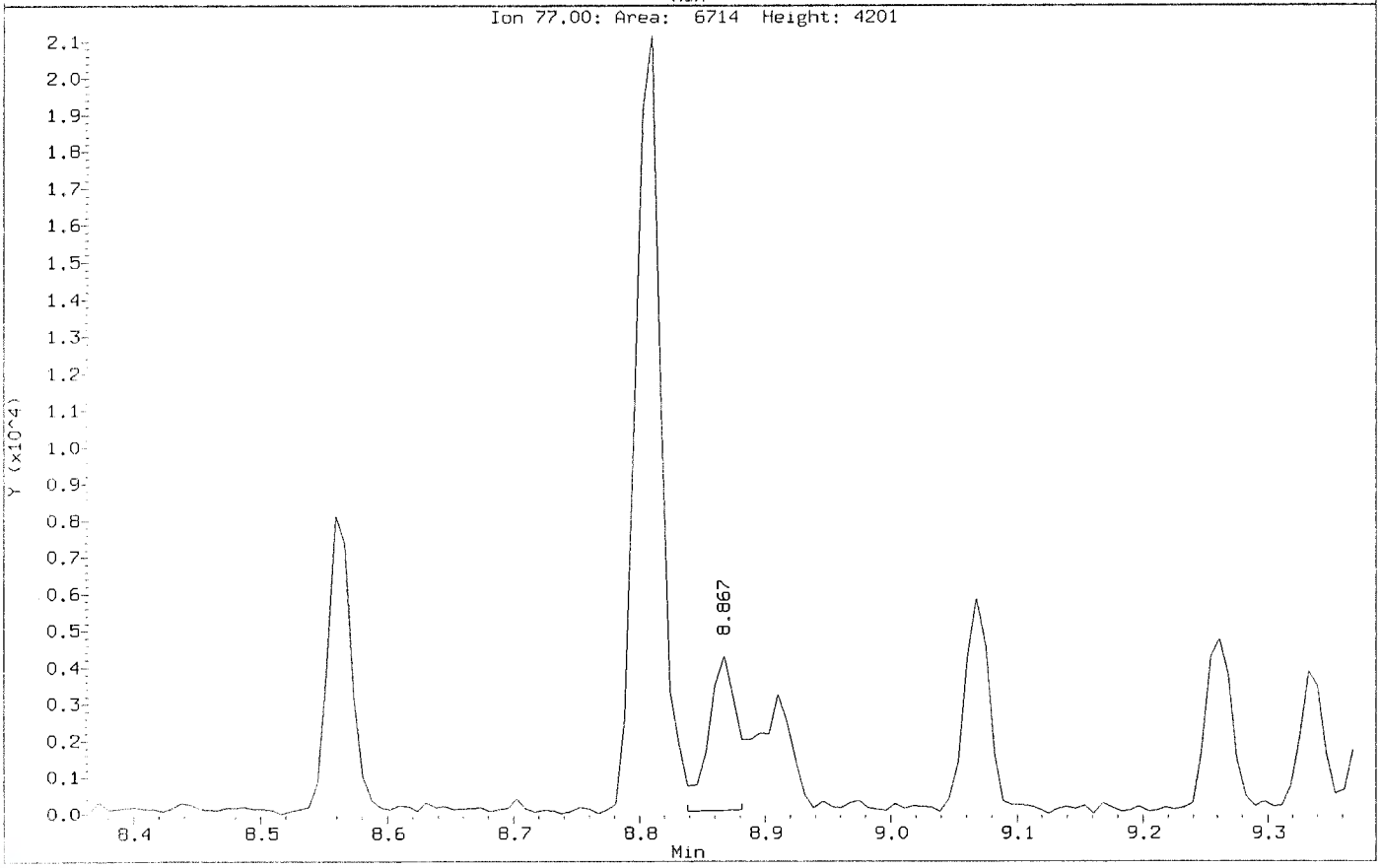
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

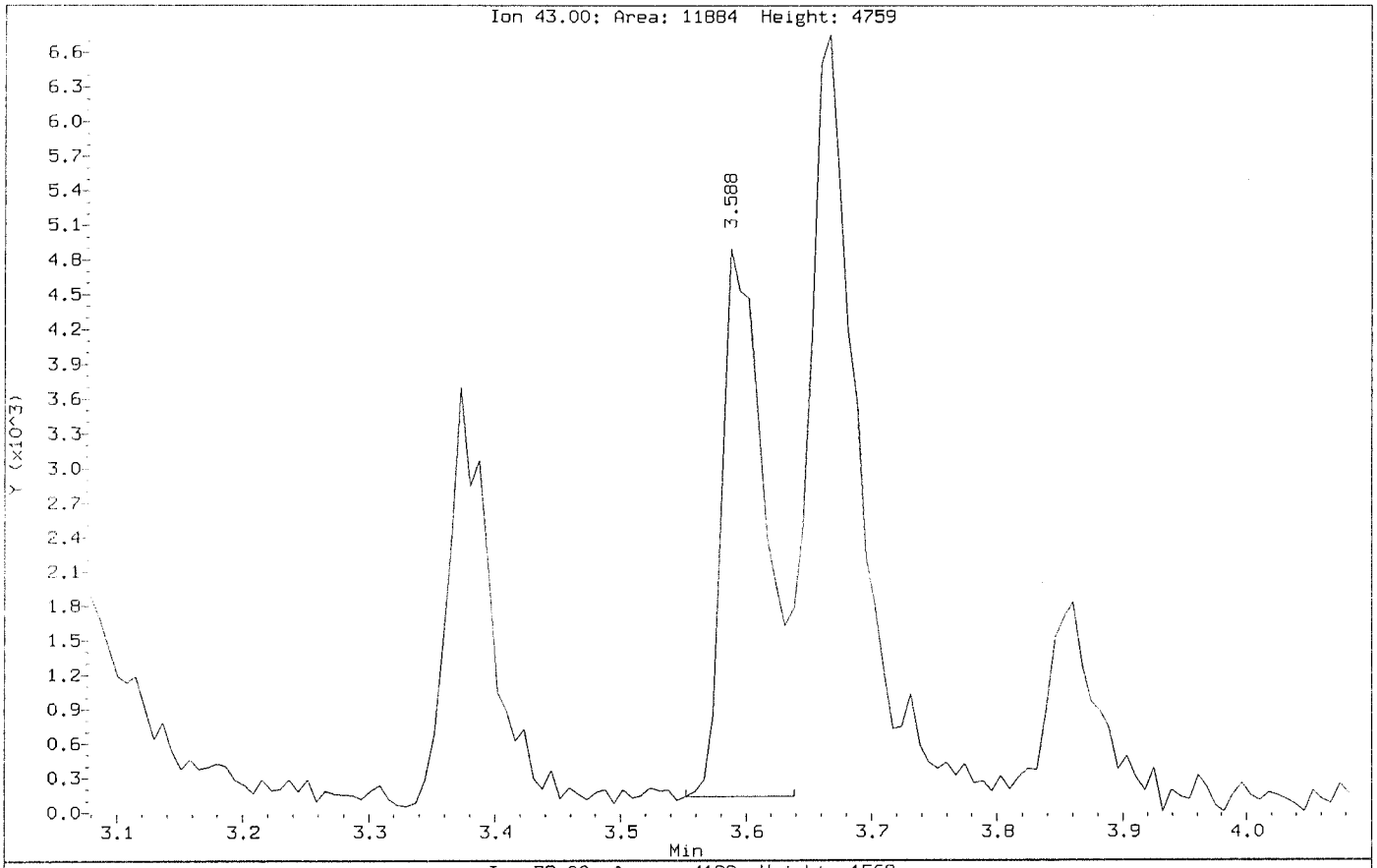
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

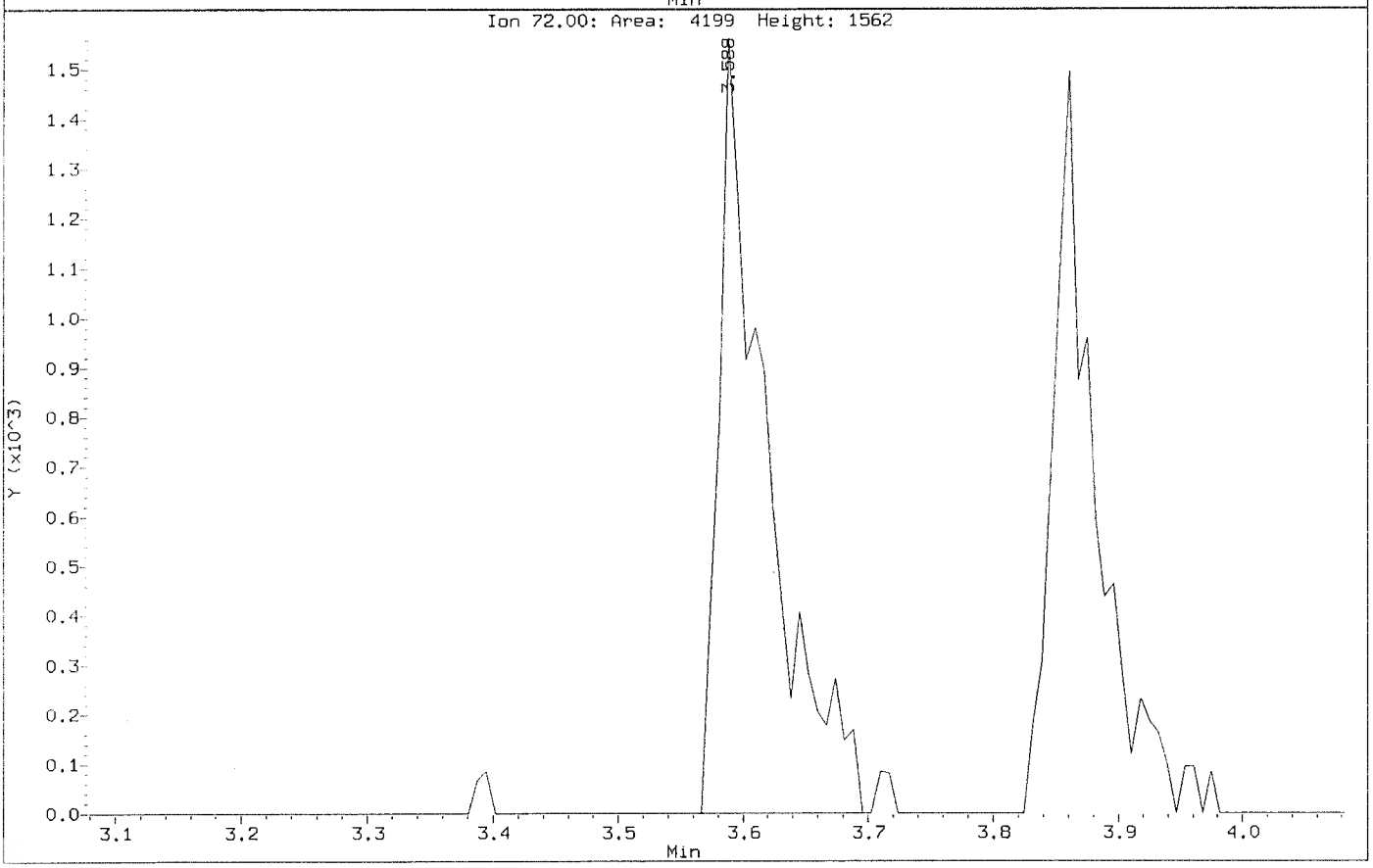




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Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

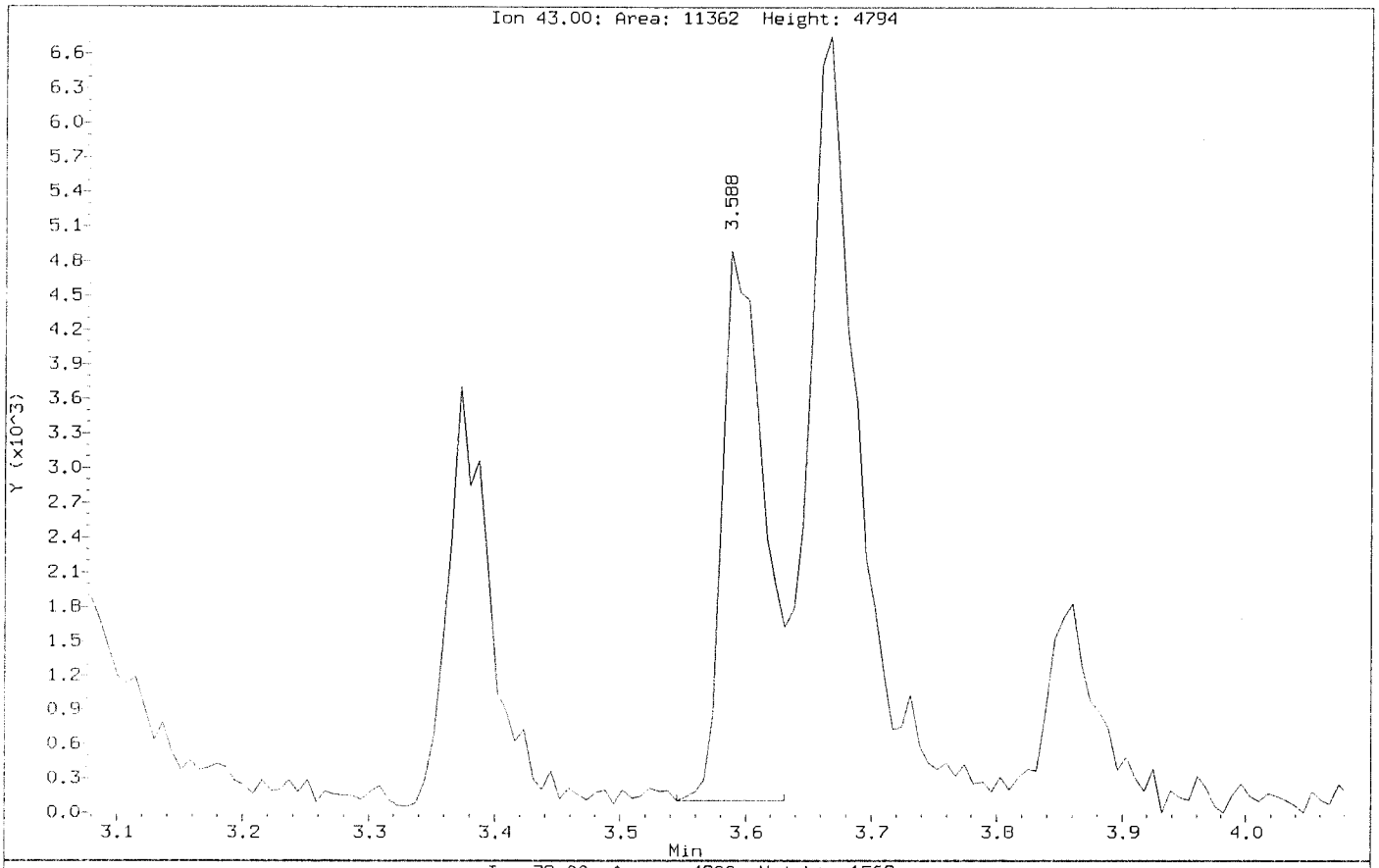
Compound: 2-Butanone
CAS Number: 78-93-3

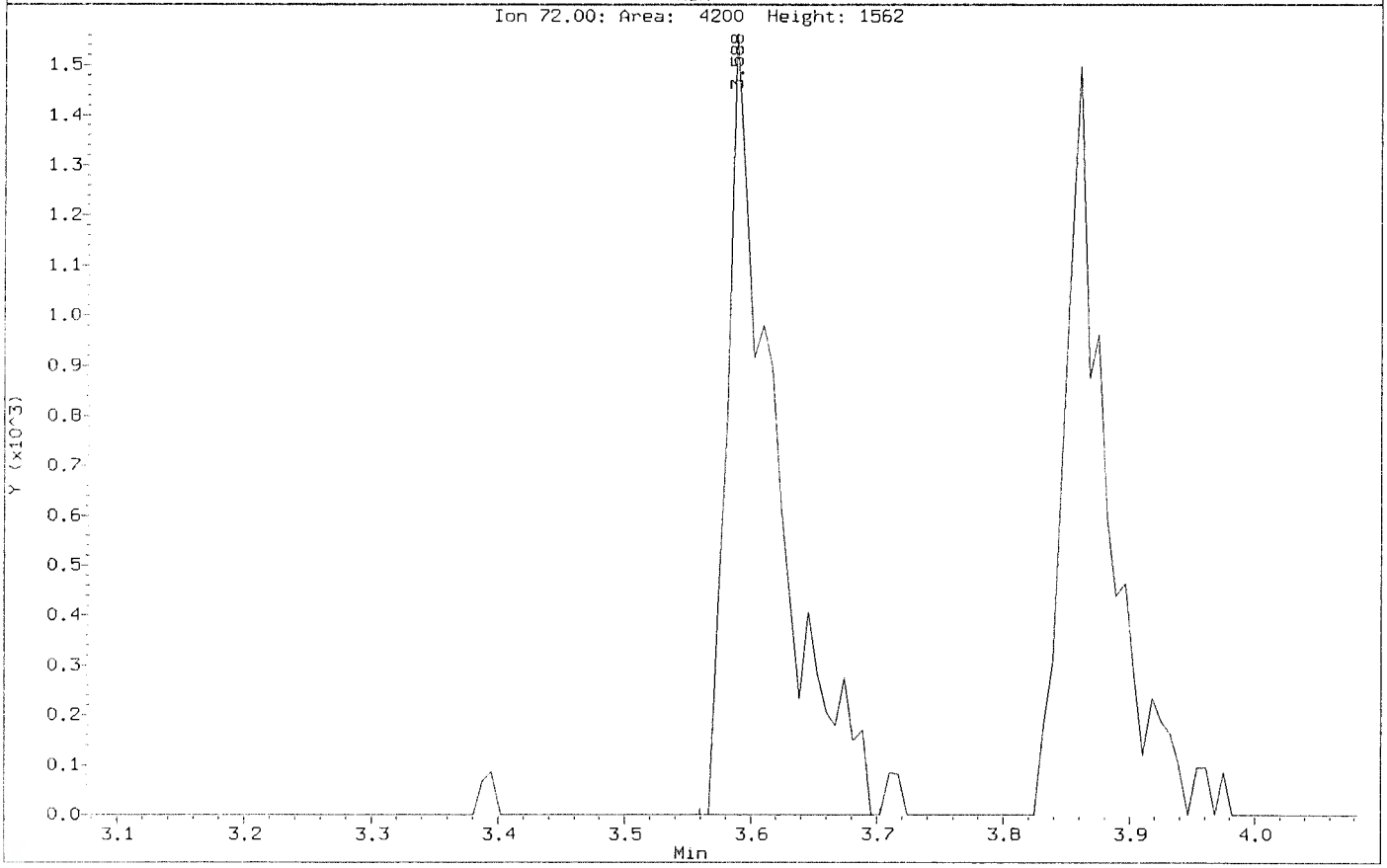




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Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

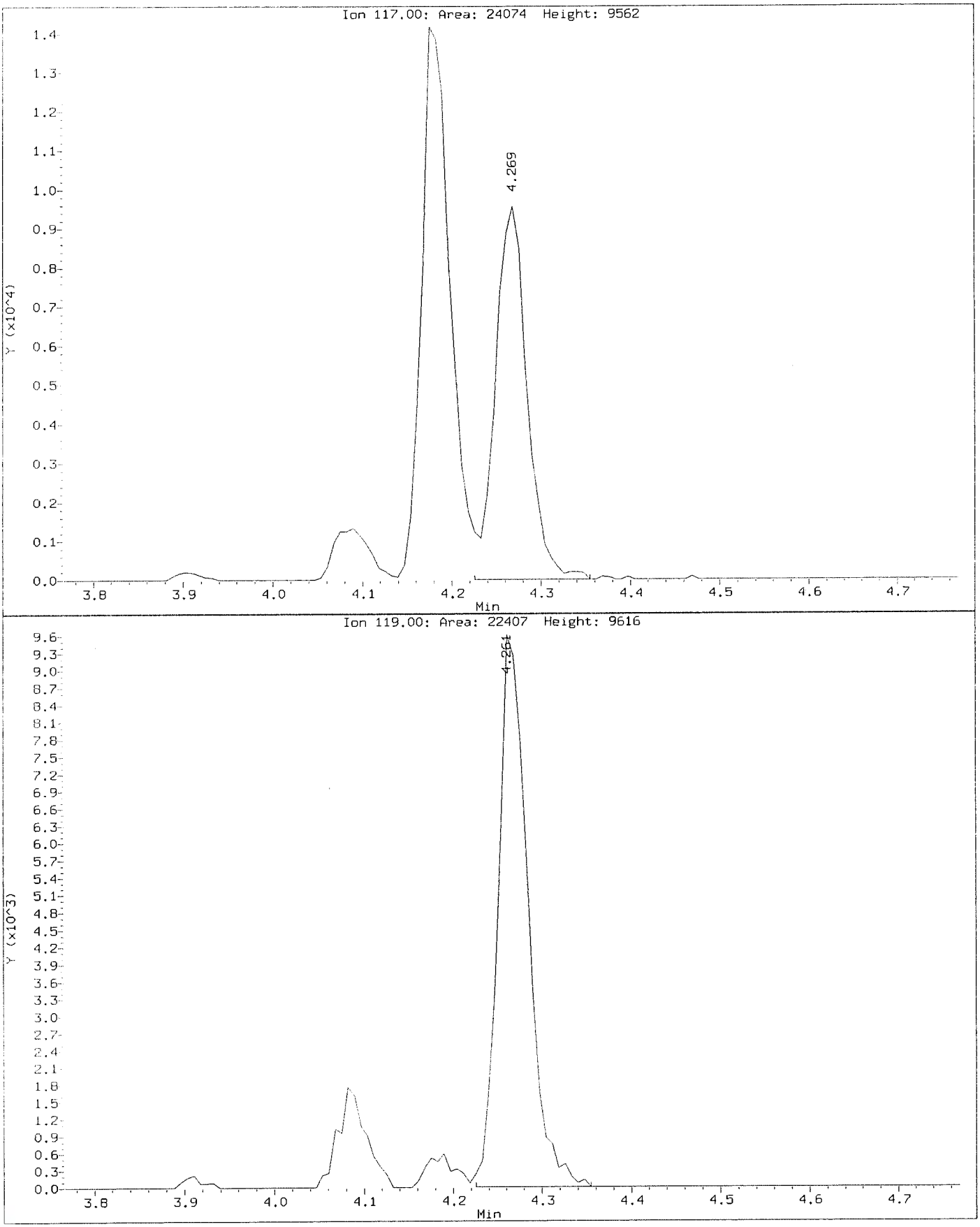
Compound: 2-Butanone
CAS Number: 78-93-3





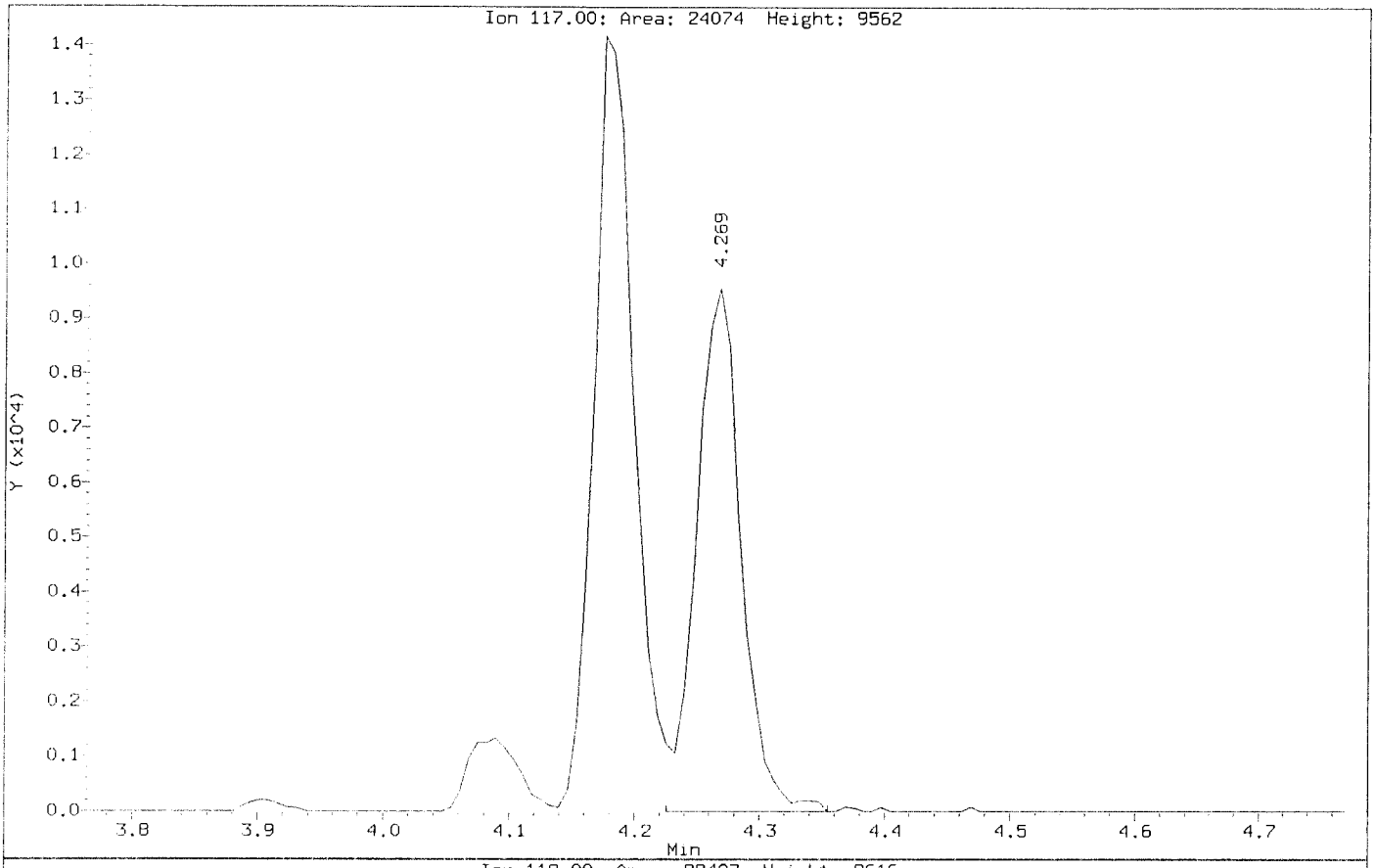
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Client Sample ID: VSTD005

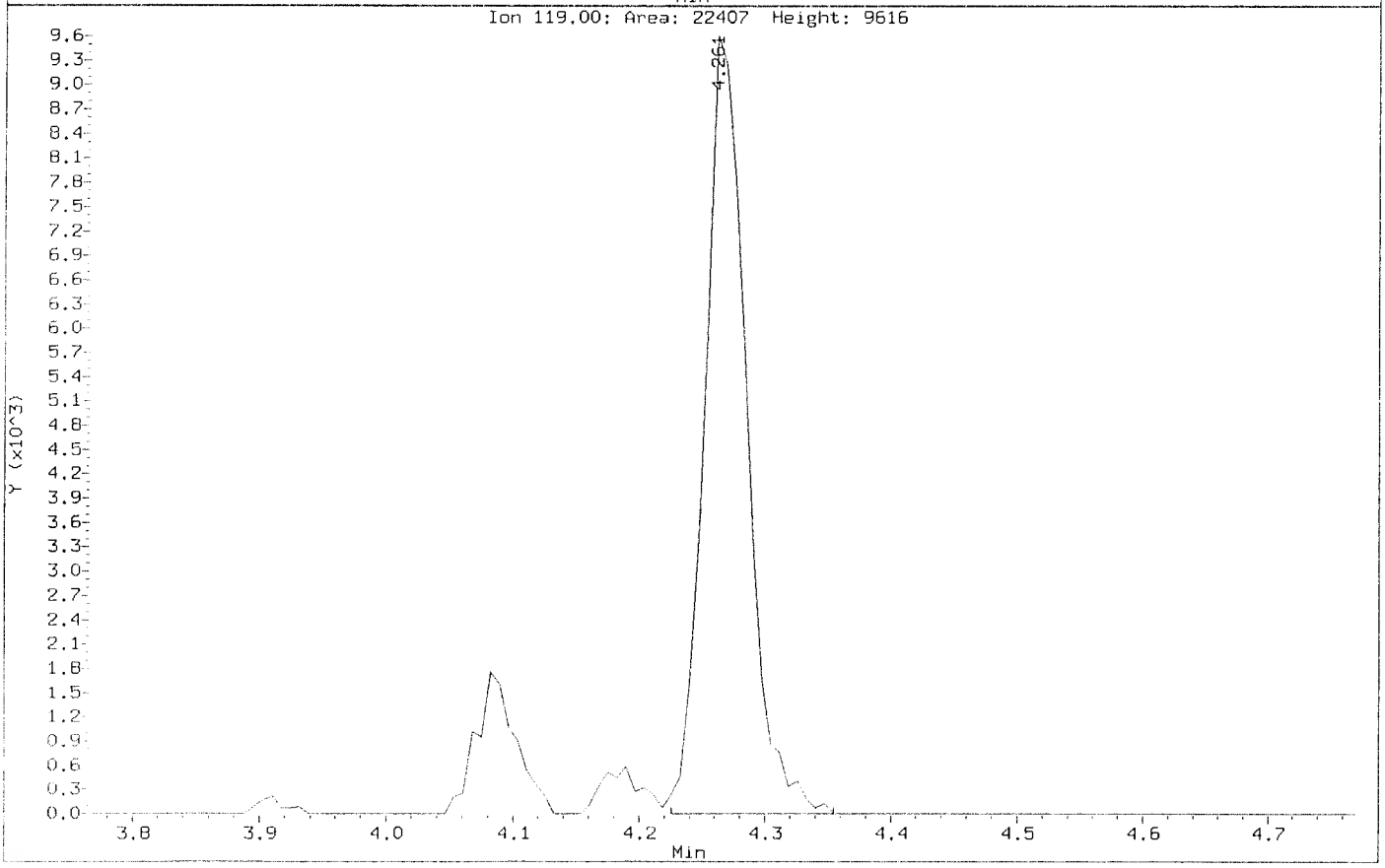
Compound: Carbon Tetrachloride
CAS Number: 56-23-5



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Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

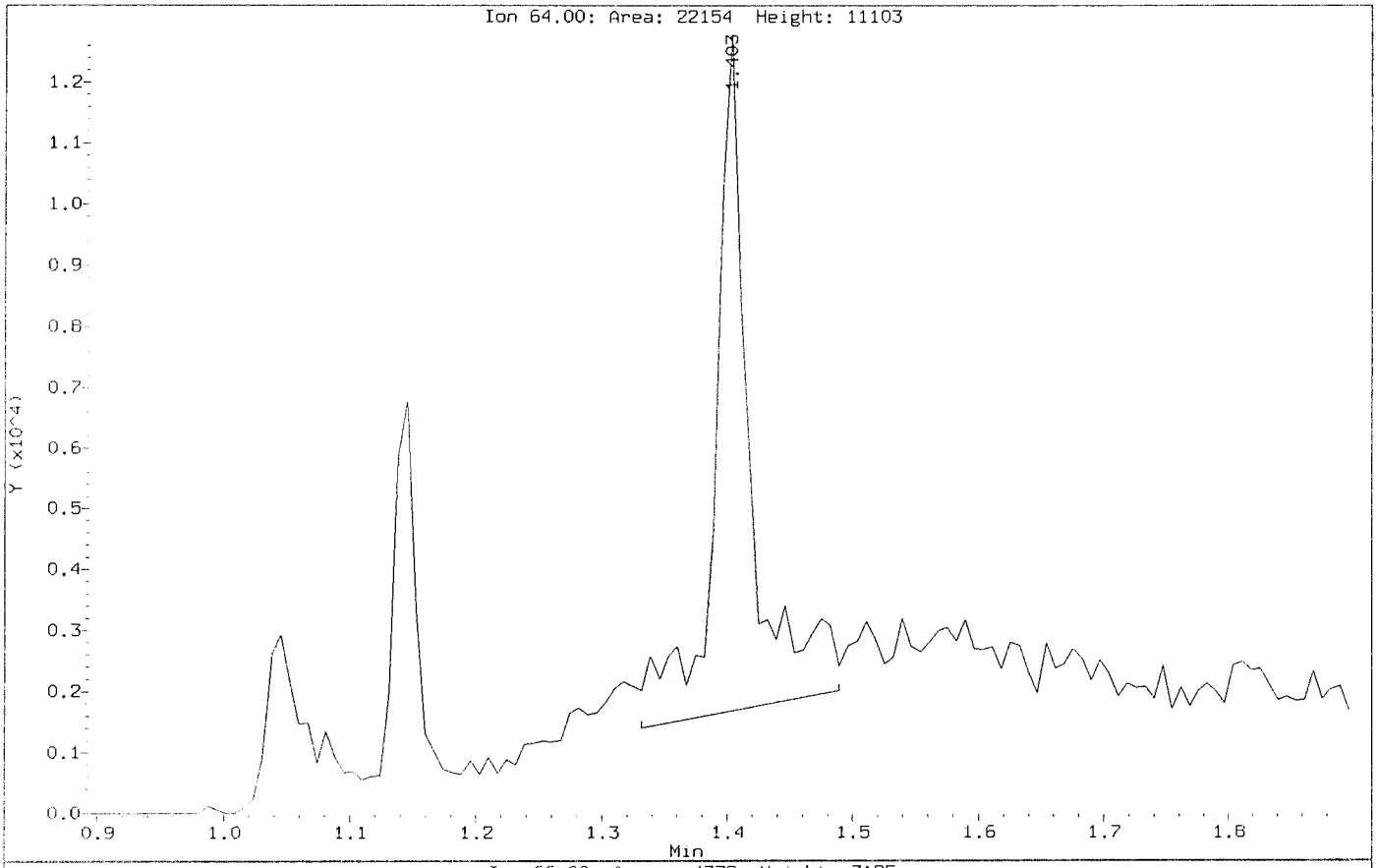
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

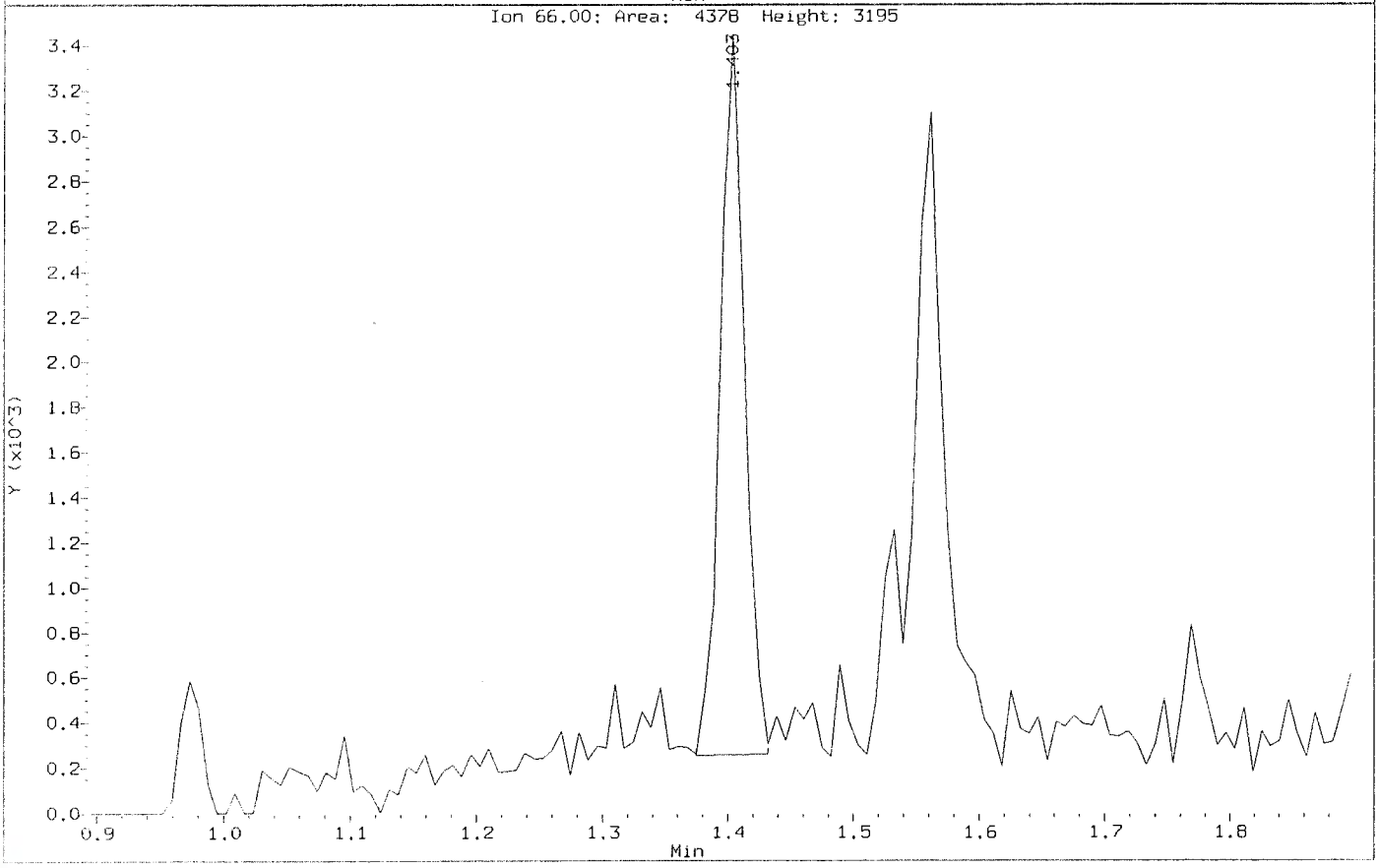




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Client Sample ID: VSTD005

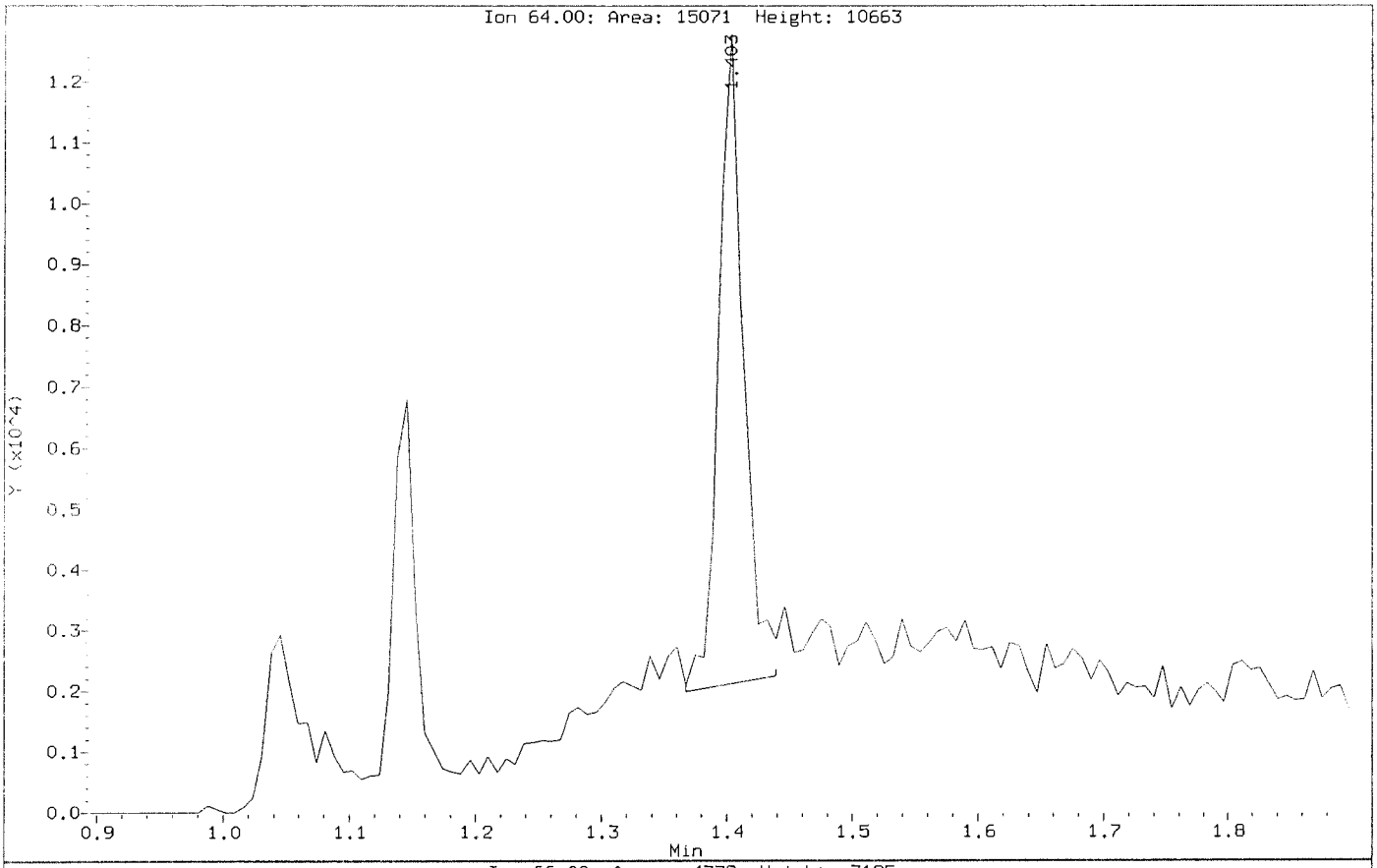
Compound: Chloroethane
CAS Number: 75-00-3

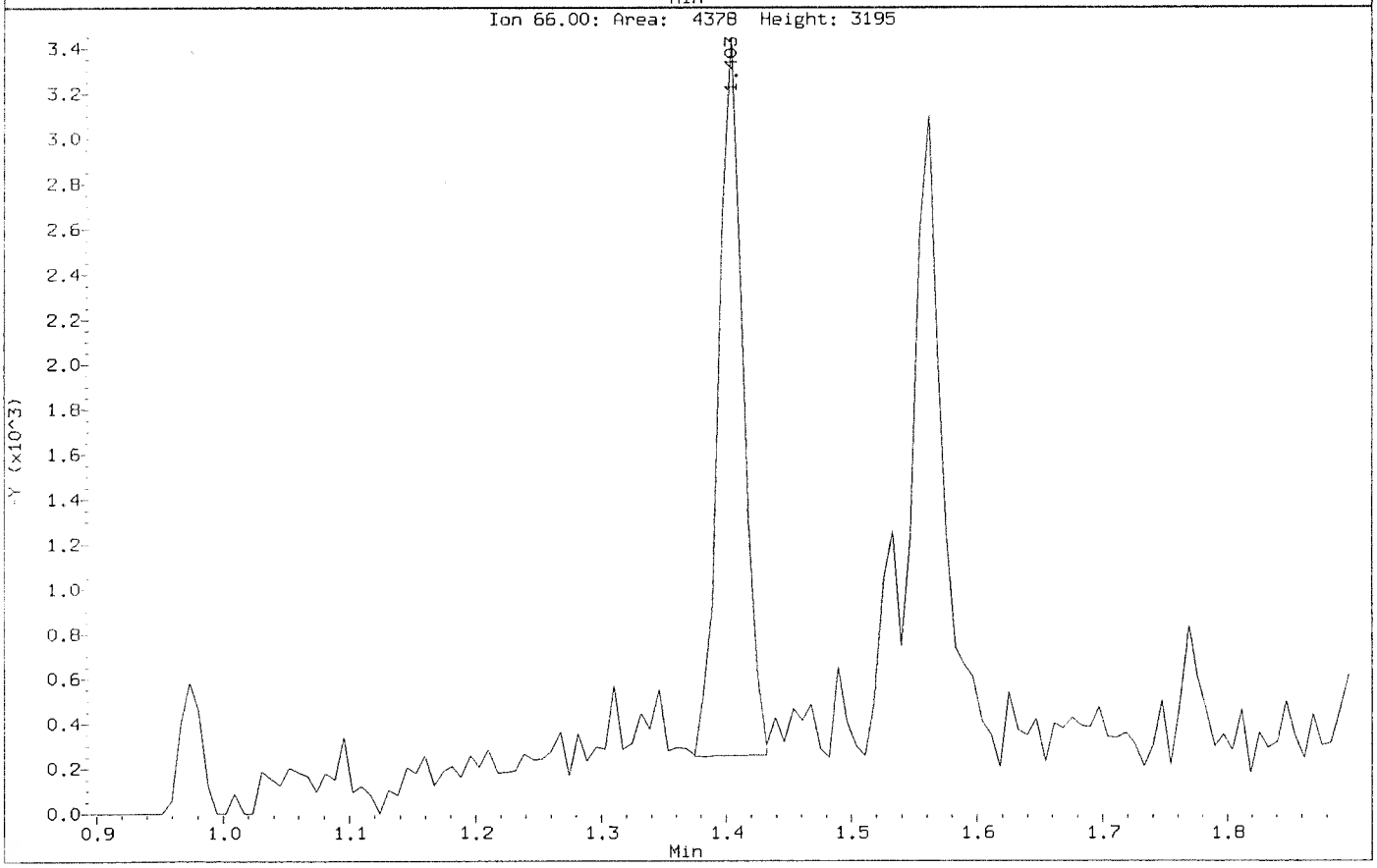




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Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

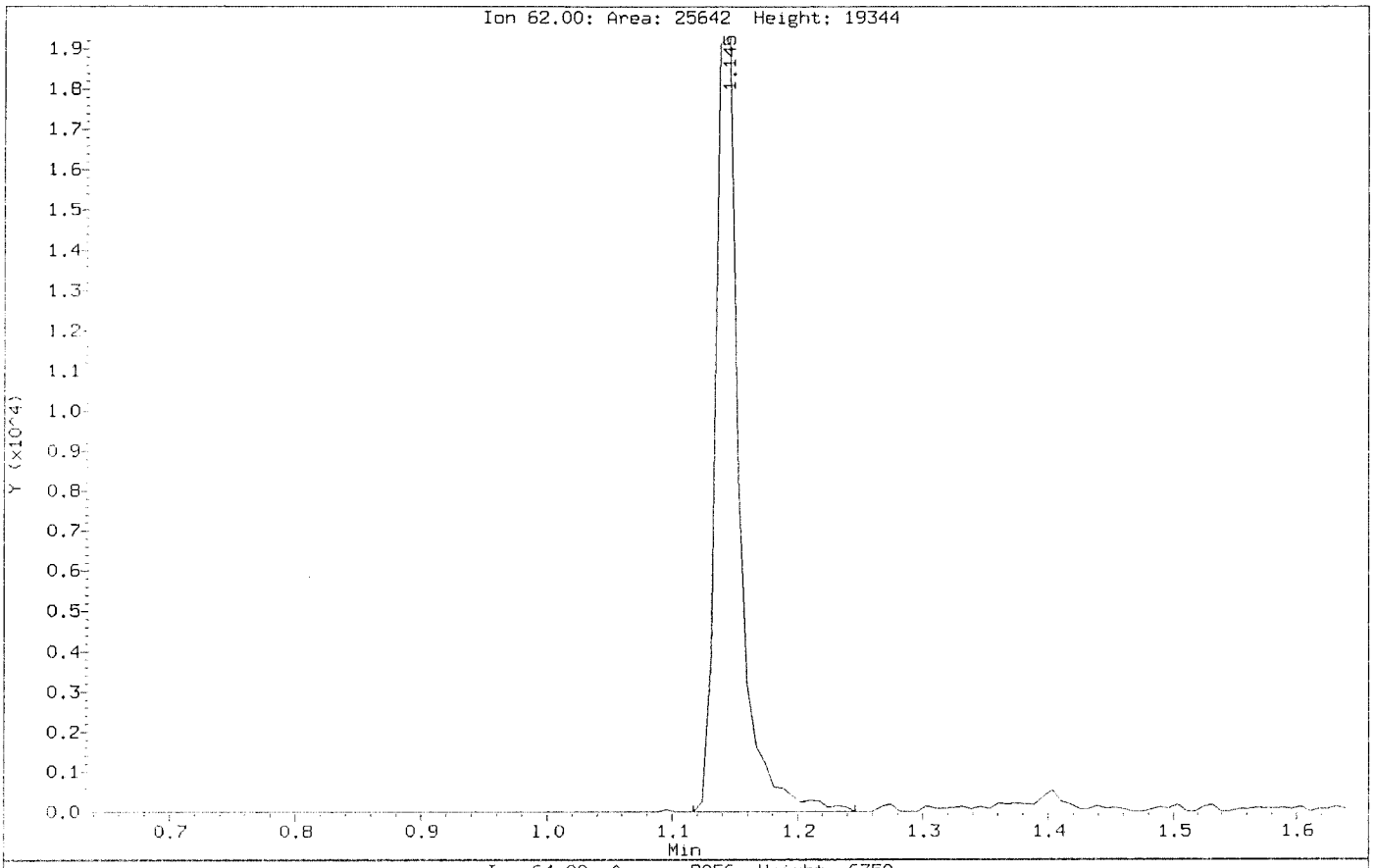
Compound: Chloroethane
CAS Number: 75-00-3

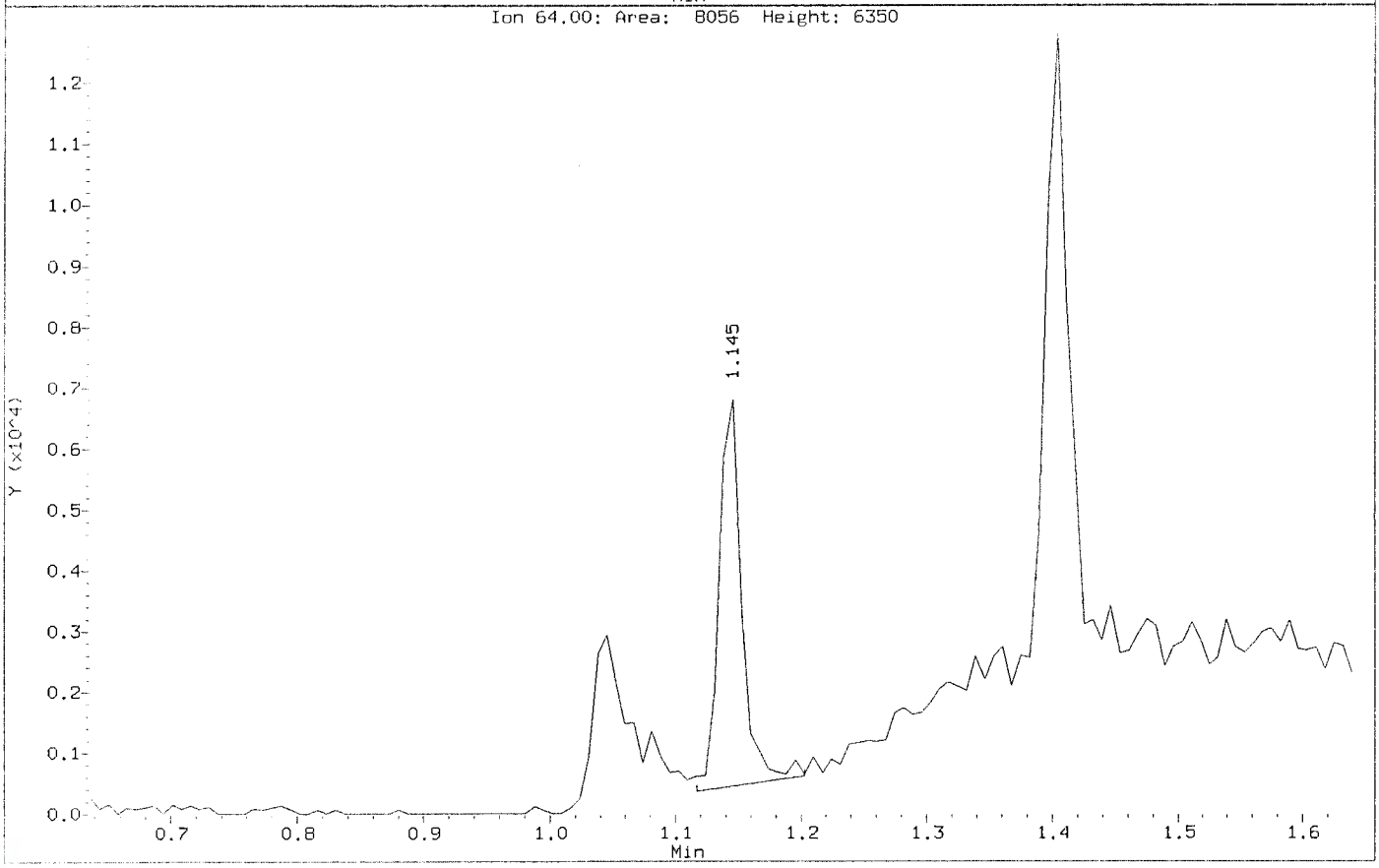




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Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

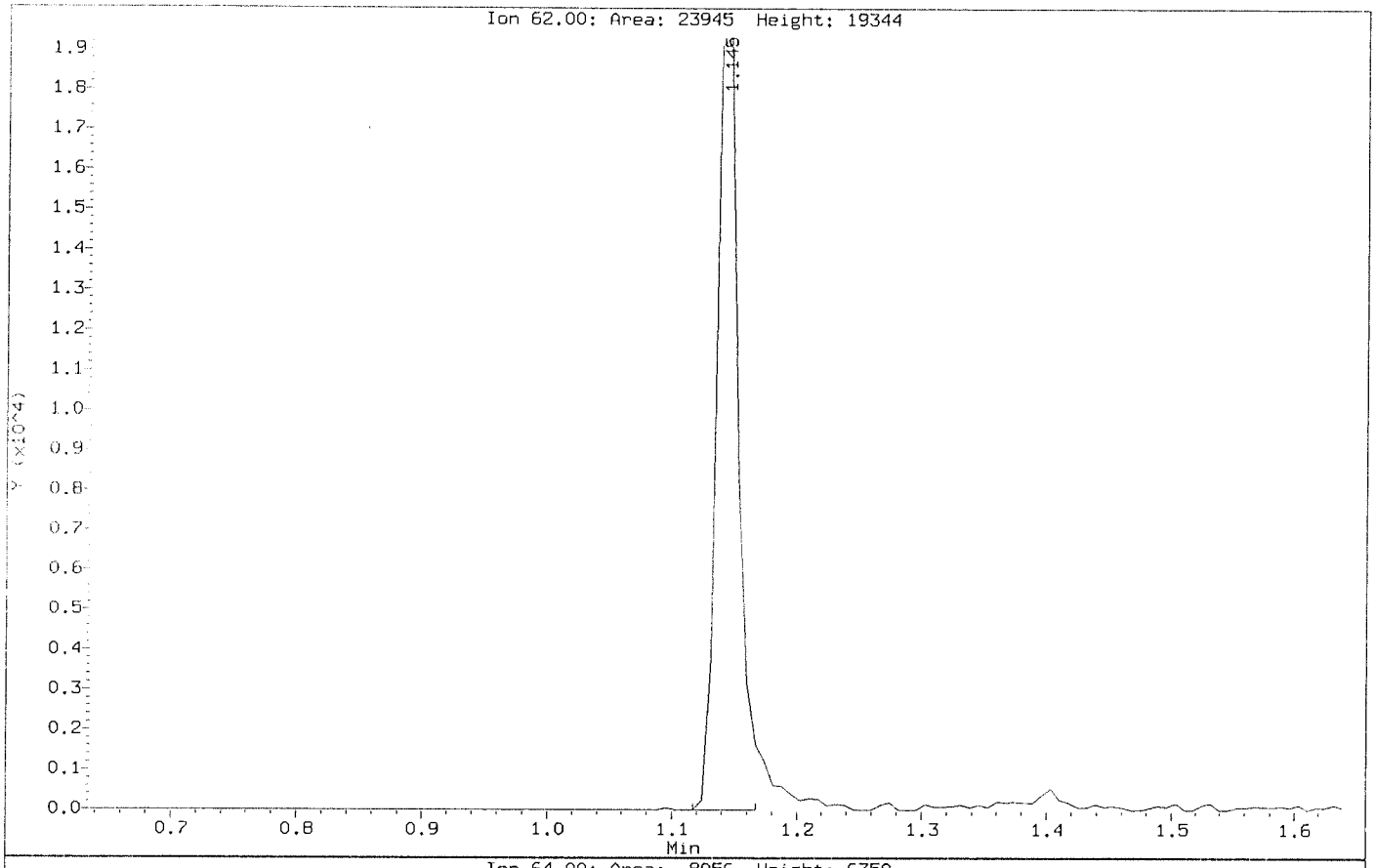
Compound: Vinyl Chloride
CAS Number: 75-01-4

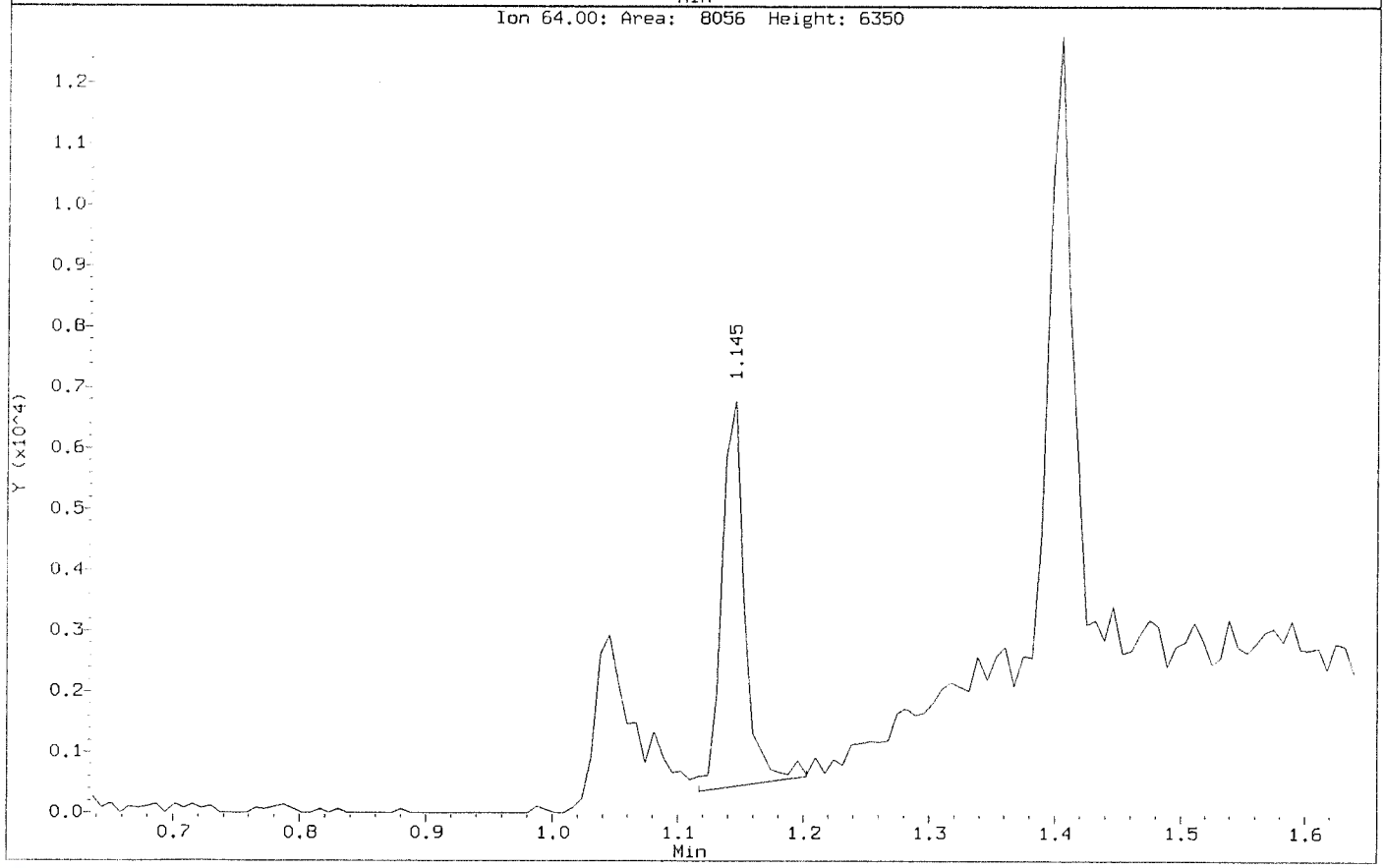




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Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: Vinyl Chloride
CAS Number: 75-01-4





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Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052607.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 26-MAY-2021 14:40
Operator : PC Inst ID: voa6.i
Smp Info : VSTD020;VSTD020;1;6;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 14:19 Cal File: X052606.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

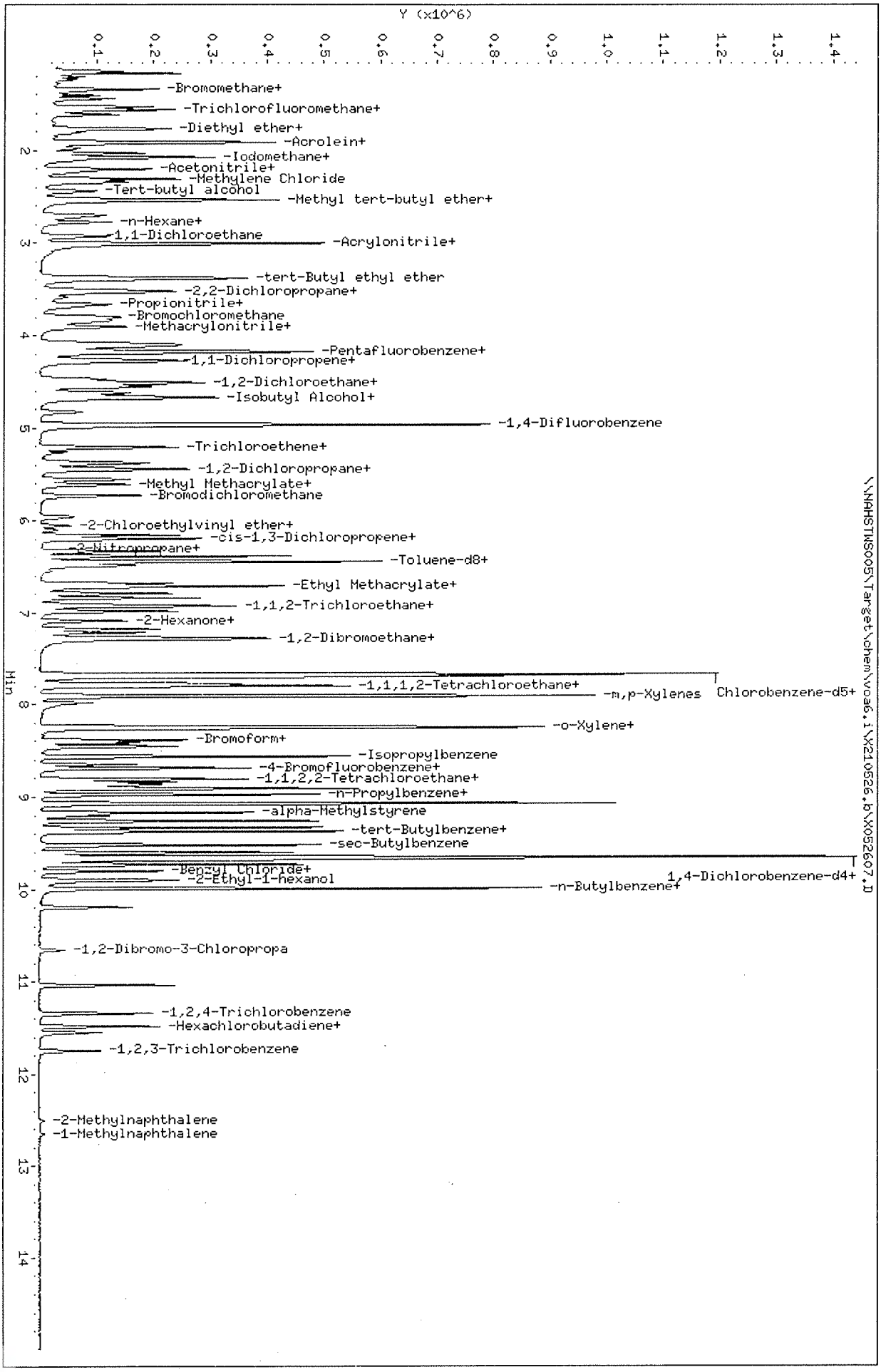
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	399349	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	620725	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	575687	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	297335	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	83421	20.0000	21.12
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	79438	20.0000	20.41
$	48 Toluene-d8	98	6.388	6.388	(0.833)	267583	20.0000	18.65
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	97463	20.0000	19.73
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	81457	20.0000	19.13
	31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	111104	20.0000	18.82
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	94744	20.0000	22.42
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	60385	20.0000	19.36
	22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	135905	20.0000	19.94
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	78545	20.0000	19.09
	32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	91604	20.0000	19.26
	93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	34932	20.0000	19.40
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	75324	20.0000	20.31(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	59165	20.0000	20.12
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	258314	20.0000	19.04
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	9854	20.0000	21.18
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	81626	20.0000	19.25
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	154085	20.0000	19.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	97430	20.0000	19.69
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	70678	20.0000	19.34
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	254418	20.0000	18.85
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	159109	20.0000	18.97
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	121266	20.0000	19.55
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	165351	20.0000	18.89
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	104699	20.0000	19.16
24	2-Butanone	43	3.580	3.580	(0.856)	47300	40.0000	38.92(H)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	216732	20.0000	19.47
52	2-Hexanone	43	7.090	7.090	(0.924)	83319	40.0000	38.96
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	249789	20.0000	18.84
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	254273	20.0000	18.49
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	124052	40.0000	37.41
10	Acetone	43	1.976	1.976	(0.473)	45478	40.0000	41.28
37	Benzene	78	4.512	4.512	(0.909)	277041	20.0000	19.42
74	Bromobenzene	156	8.802	8.802	(0.911)	97493	20.0000	19.76
29	Bromochloromethane	128	3.795	3.795	(0.908)	48508	20.0000	20.08
39	Bromodichloromethane	83	5.729	5.729	(1.154)	104002	20.0000	19.48
66	Bromoform	173	8.408	8.408	(1.096)	59434	20.0000	18.51
6	Bromomethane	94	1.338	1.338	(0.320)	81986	20.0000	19.96
19	Carbon Disulfide	76	2.069	2.069	(0.495)	372089	40.0000	38.14
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	95975	20.0000	18.65(H)
59	Chlorobenzene	112	7.692	7.692	(1.003)	222059	20.0000	18.52
7	Chloroethane	64	1.403	1.403	(0.336)	58283	20.0000	19.98
28	Chloroform	83	3.910	3.910	(0.935)	135997	20.0000	19.36
3	Chloromethane	50	1.073	1.073	(0.257)	83965	20.0000	21.80
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	85550	20.0000	20.43
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	127546	20.0000	20.28
55	Dibromochloromethane	129	7.176	7.176	(0.936)	91711	20.0000	19.35
44	Dibromomethane	93	5.550	5.550	(1.118)	56237	20.0000	20.48
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	78750	20.0000	21.34
61	Ethylbenzene	106	7.799	7.799	(1.017)	107937	20.0000	19.52
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	34297	20.0000	19.77
67	Isopropylbenzene	105	8.559	8.559	(1.116)	310873	20.0000	18.40
62	m,p-Xylenes	106	7.907	7.907	(1.031)	270046	40.0000	37.46
17	Methylene Chloride	84	2.305	2.305	(0.551)	78742	20.0000	20.99
87	n-Butylbenzene	91	9.991	9.991	(1.034)	216151	20.0000	18.68
73	n-Propylbenzene	91	8.910	8.910	(0.922)	351677	20.0000	18.96
92	Naphthalene	128	11.546	11.546	(1.195)	87321	20.0000	20.55
63	o-Xylene	106	8.244	8.244	(1.075)	131590	20.0000	18.72
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	292609	20.0000	18.74
64	Styrene	104	8.258	8.258	(1.077)	219724	20.0000	18.70
78	tert-Butylbenzene	119	9.332	9.332	(0.966)	220623	20.0000	19.06
56	Tetrachloroethene	164	6.926	6.926	(0.903)	64343	20.0000	18.15
50	Toluene	91	6.446	6.446	(0.840)	307300	20.0000	18.28
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	70656	20.0000	18.94
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	107611	20.0000	19.83
38	Trichloroethene	130	5.206	5.206	(1.049)	83800	20.0000	19.67
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	139135	20.0000	19.30
5	Vinyl Chloride	62	1.138	1.138	(0.272)	91766	20.0000	19.41

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

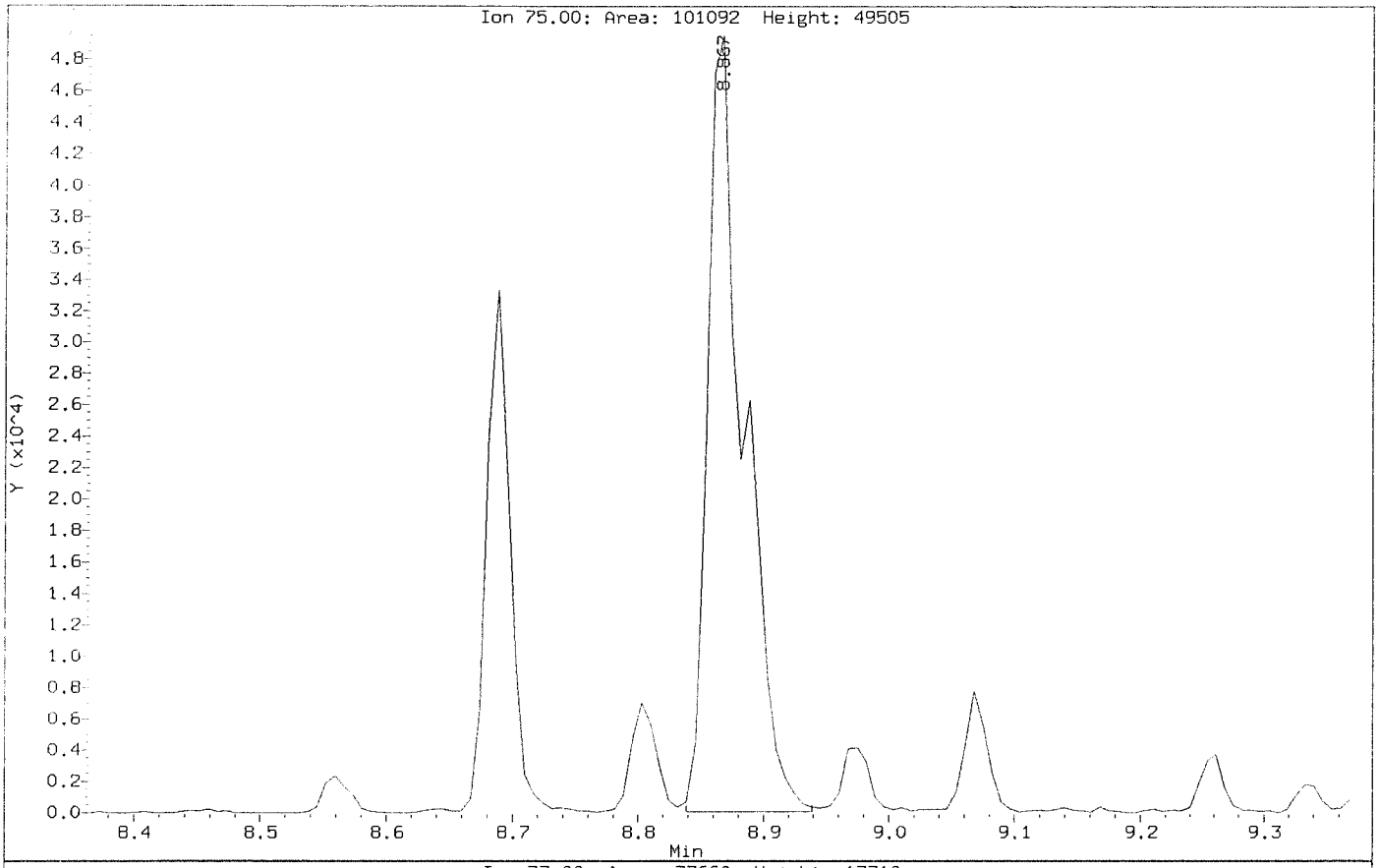


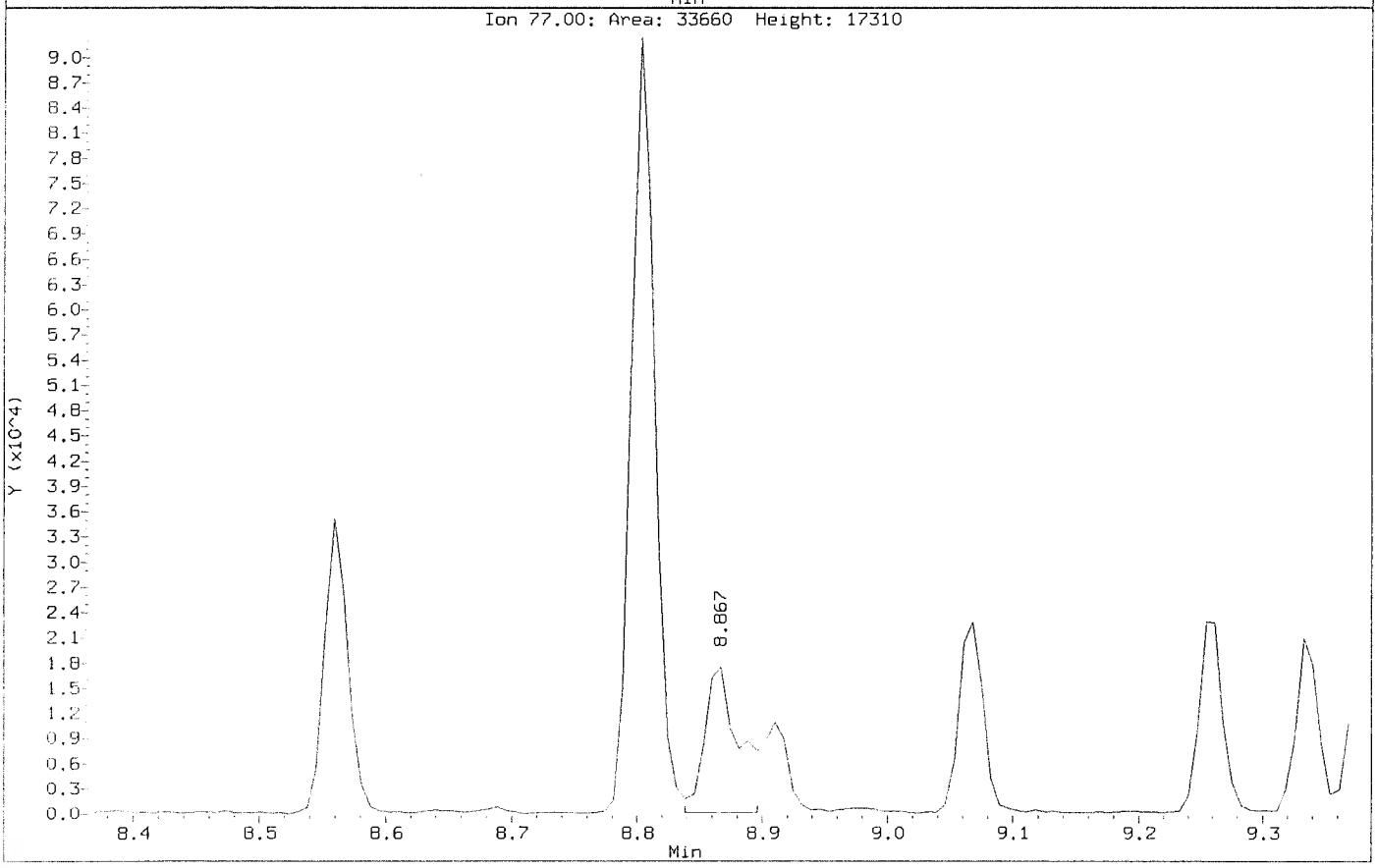
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Client ID: VSTD020
Sample Info: VSTD020;VSTD020;1;6;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052607.D
Injection Date: 26-MAY-2021 14:40
Instrument: voa6.i
Client Sample ID: VSTD020

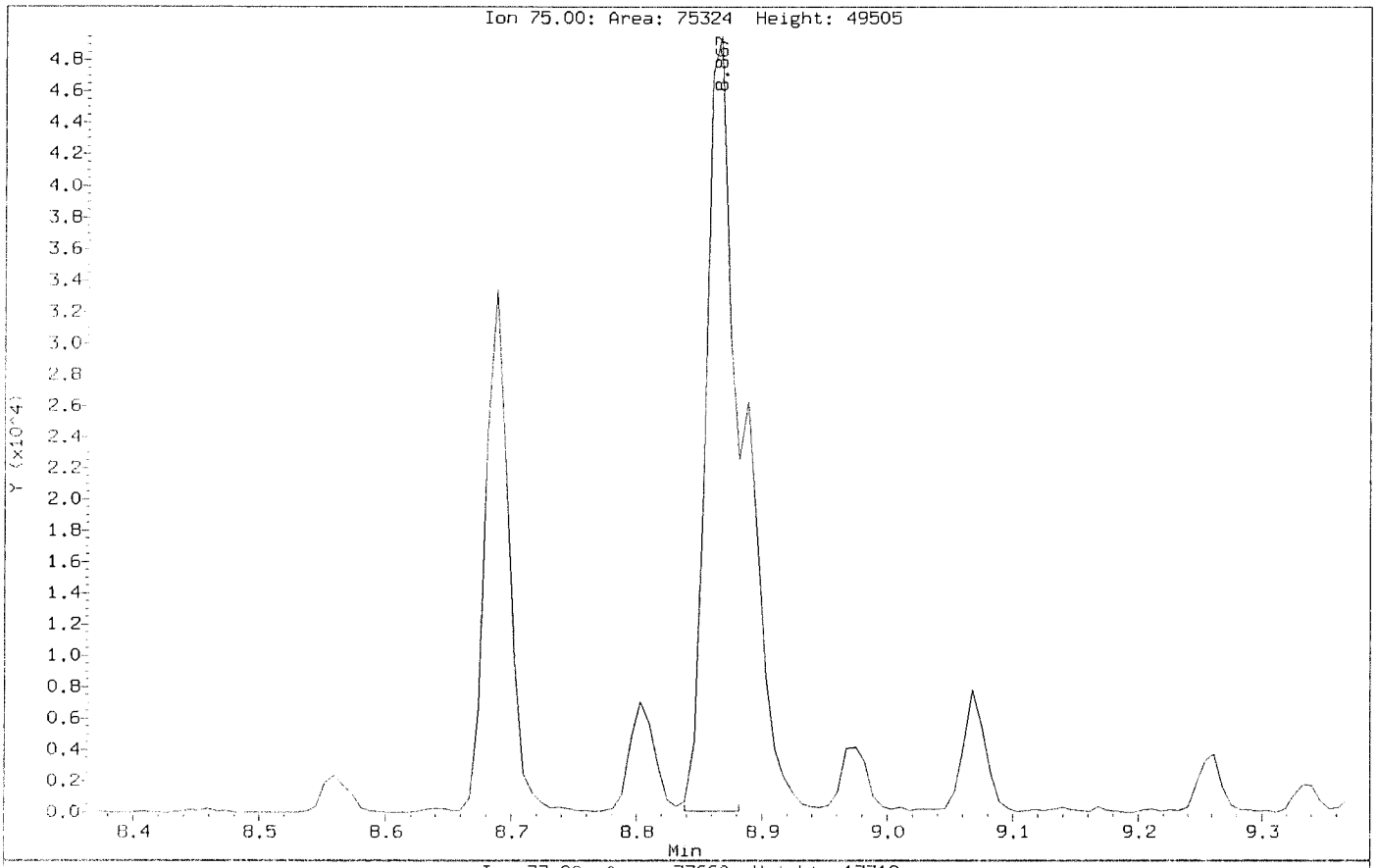
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

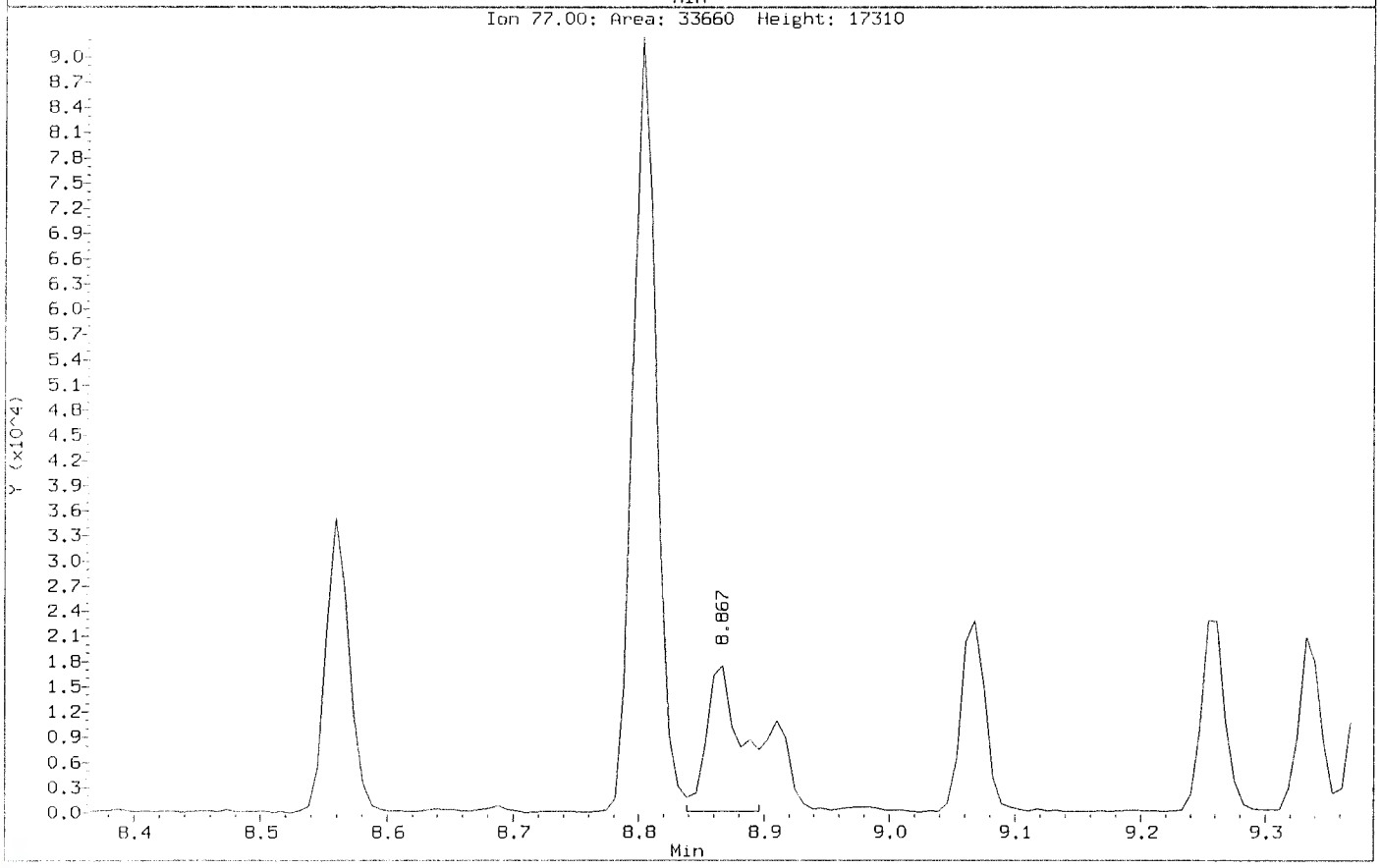




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Instrument: voa6.i
Client Sample ID: VSTD020

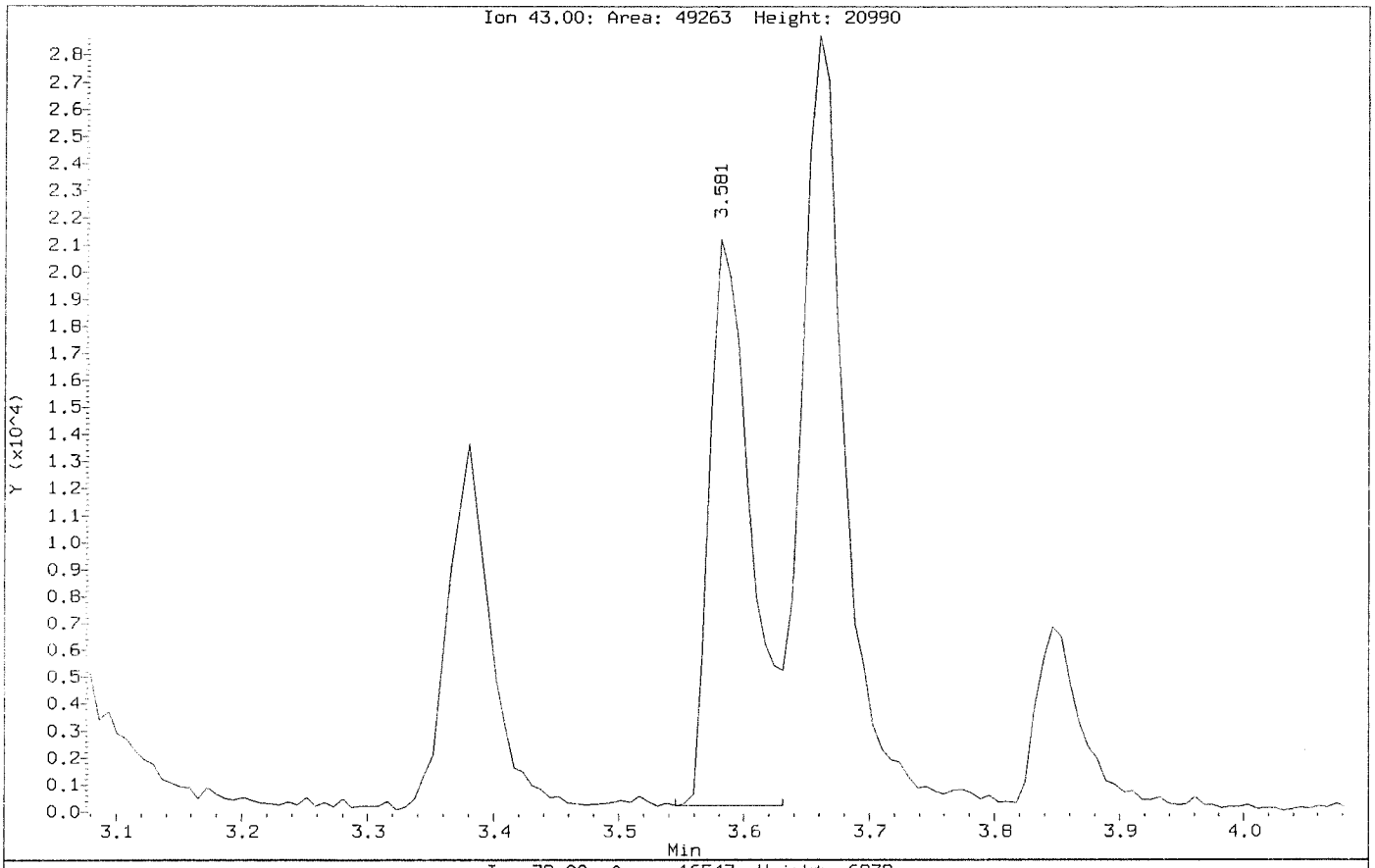
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

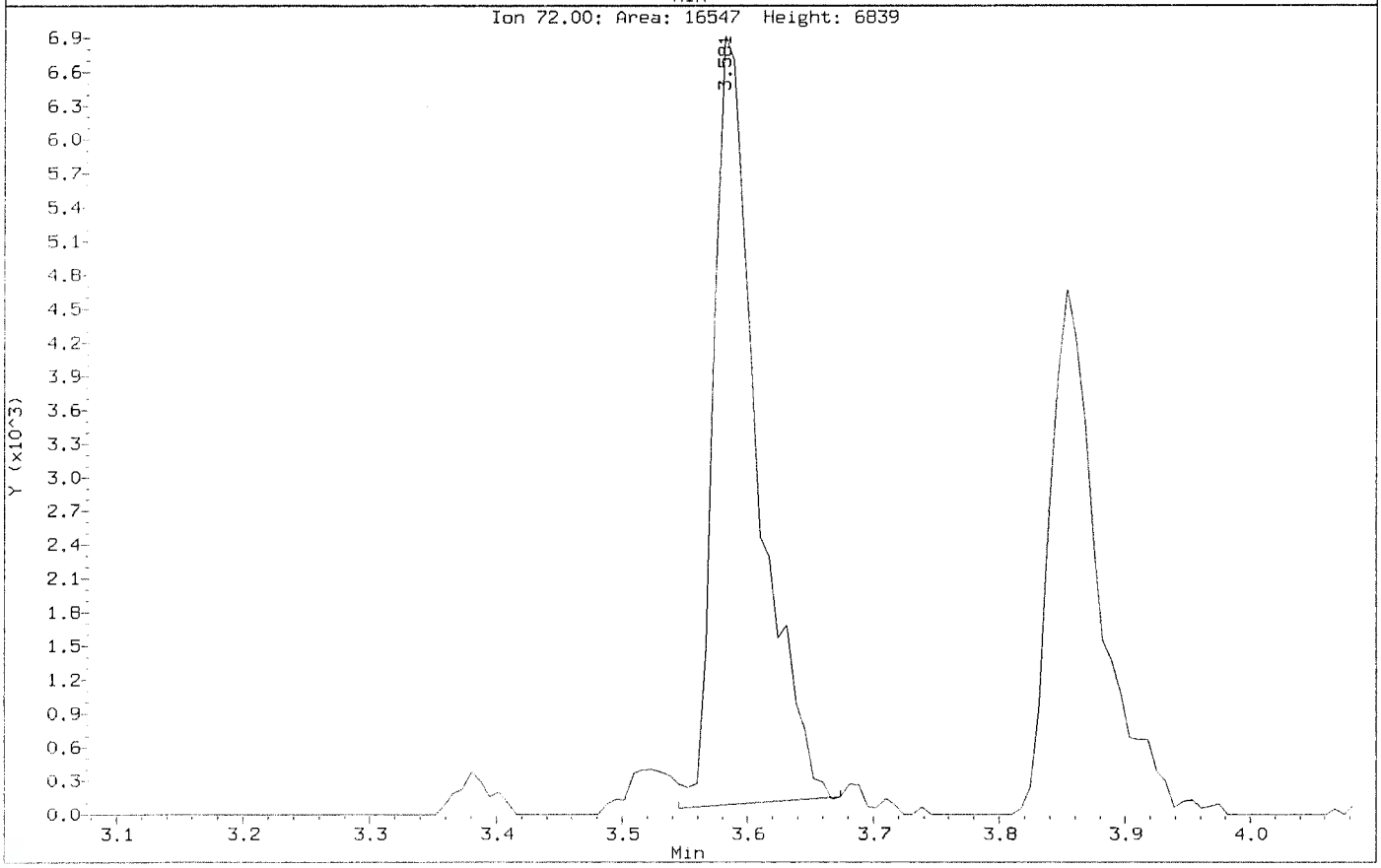




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Instrument: voa6.i
Client Sample ID: VSTD020

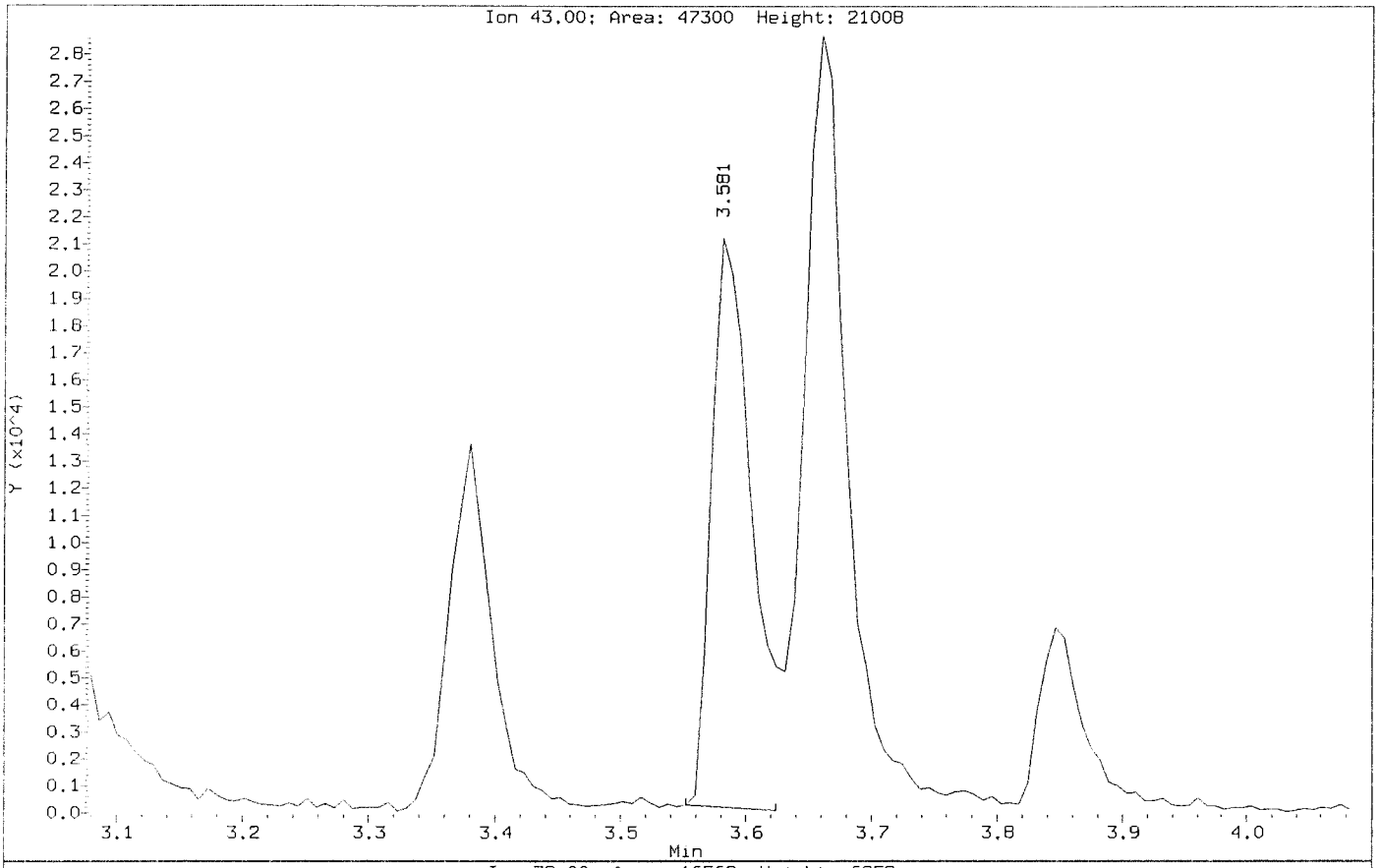
Compound: 2-Butanone
CAS Number: 78-93-3

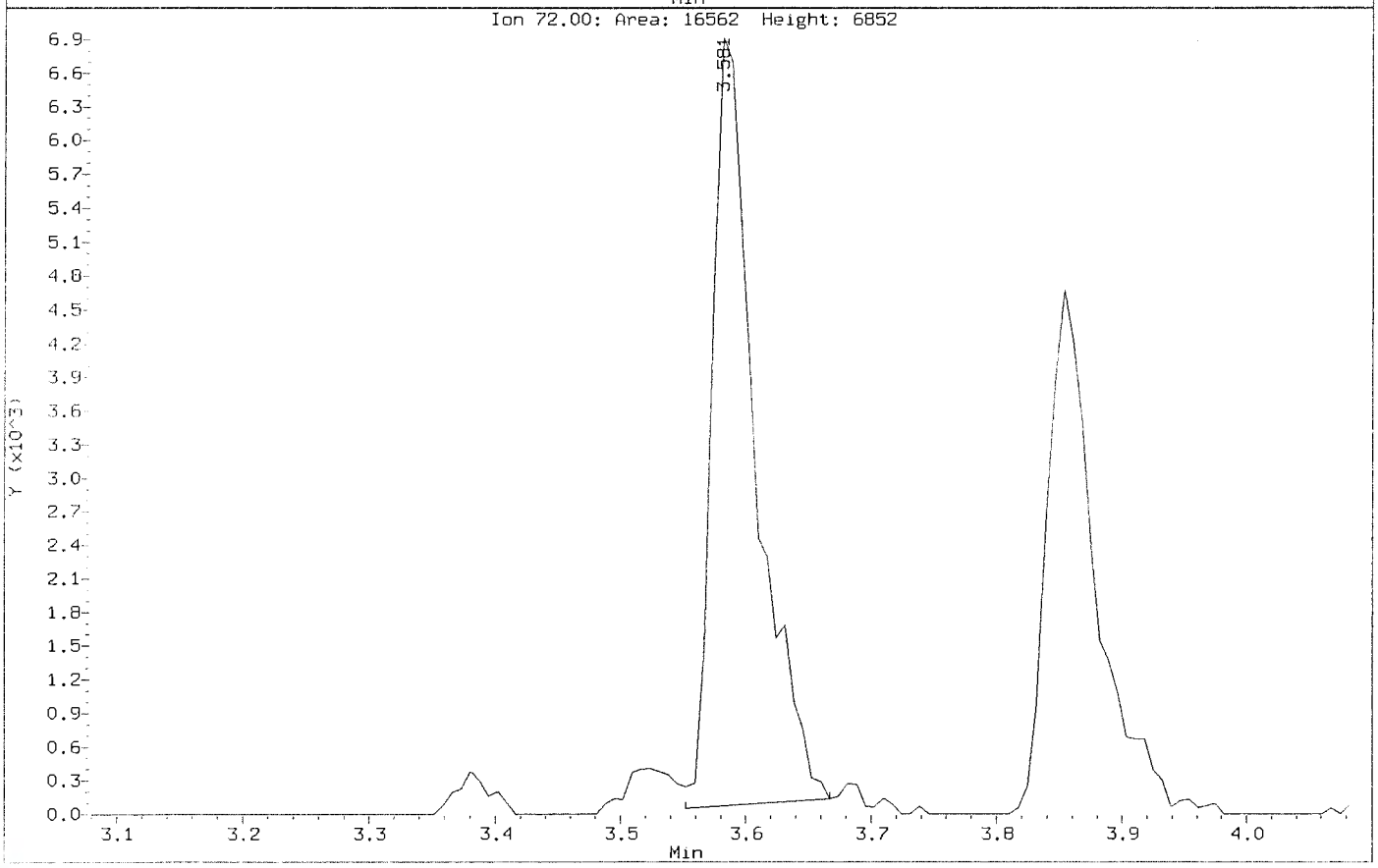




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Injection Date: 26-MAY-2021 14:40
Instrument: voa6.i
Client Sample ID: VSTD020

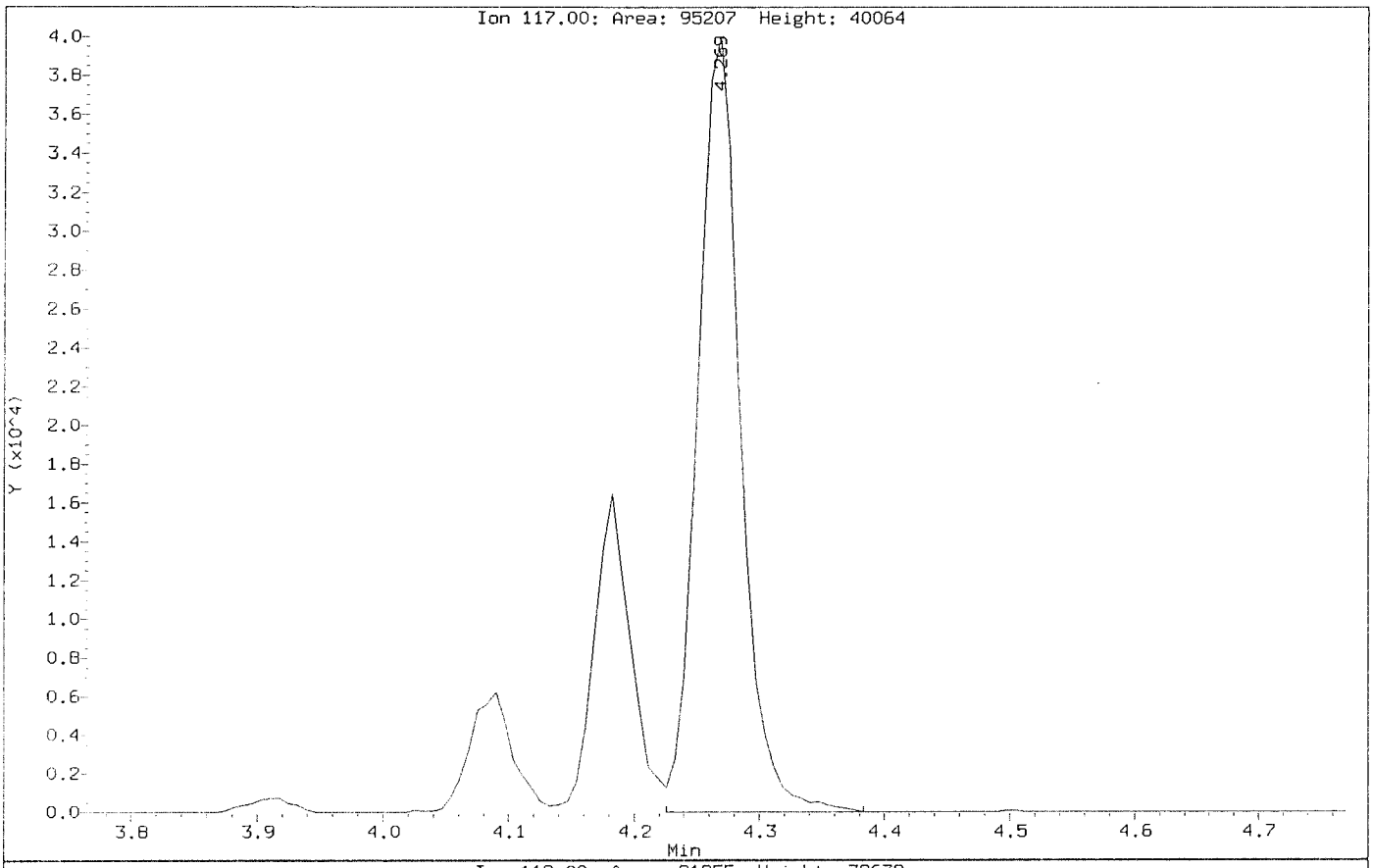
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CAS Number: 78-93-3

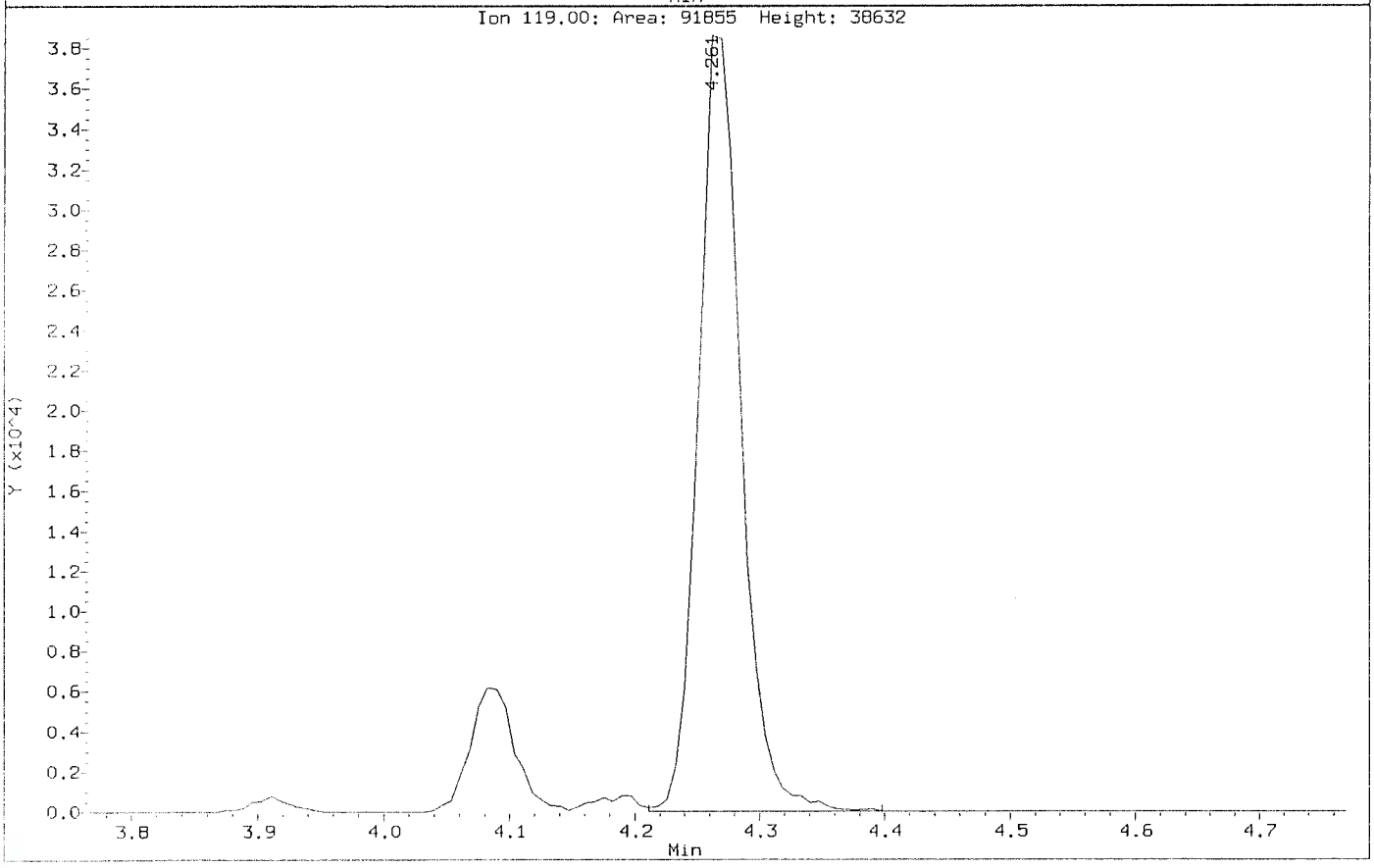




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Instrument: voa6.i
Client Sample ID: VSTD020

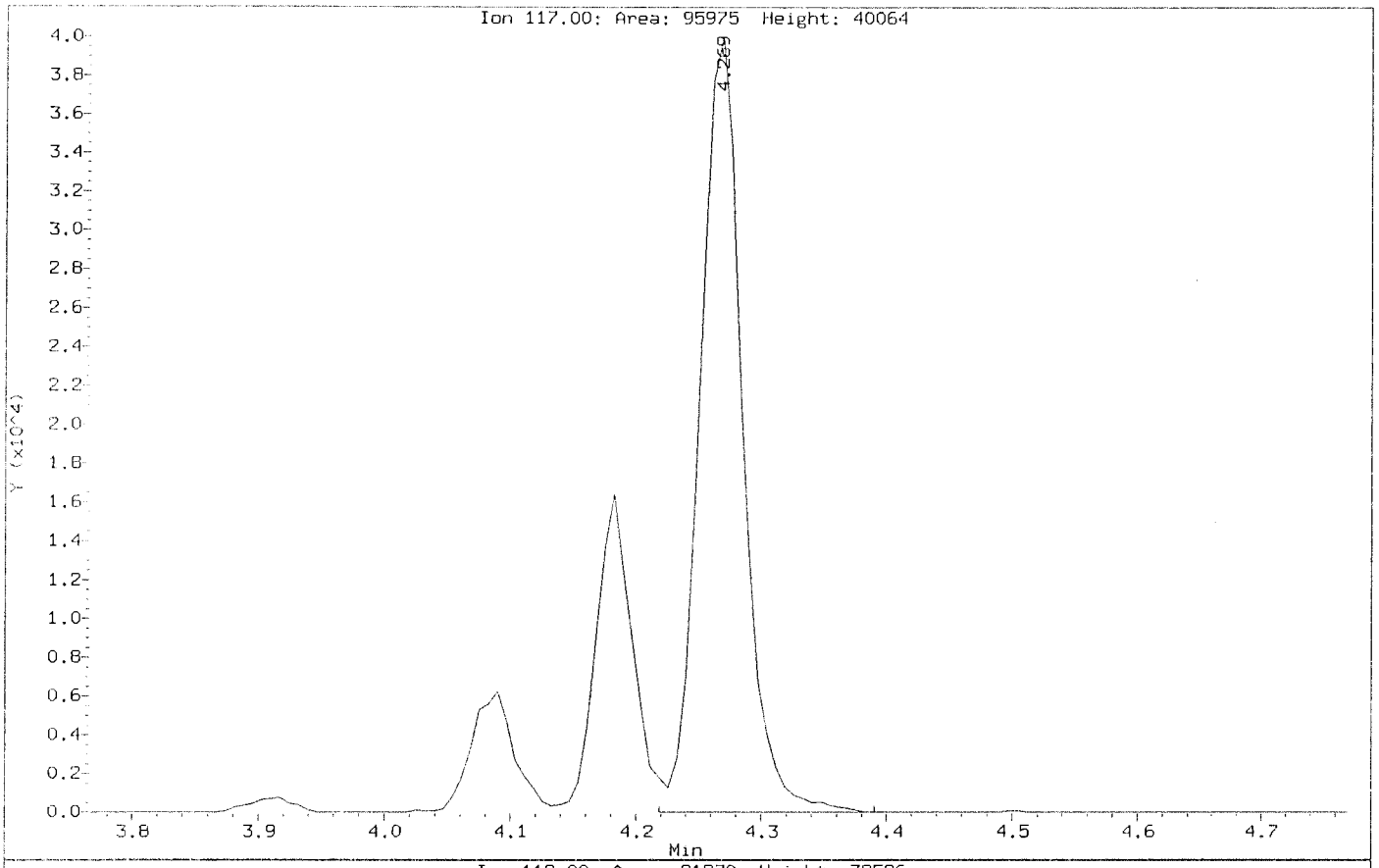
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

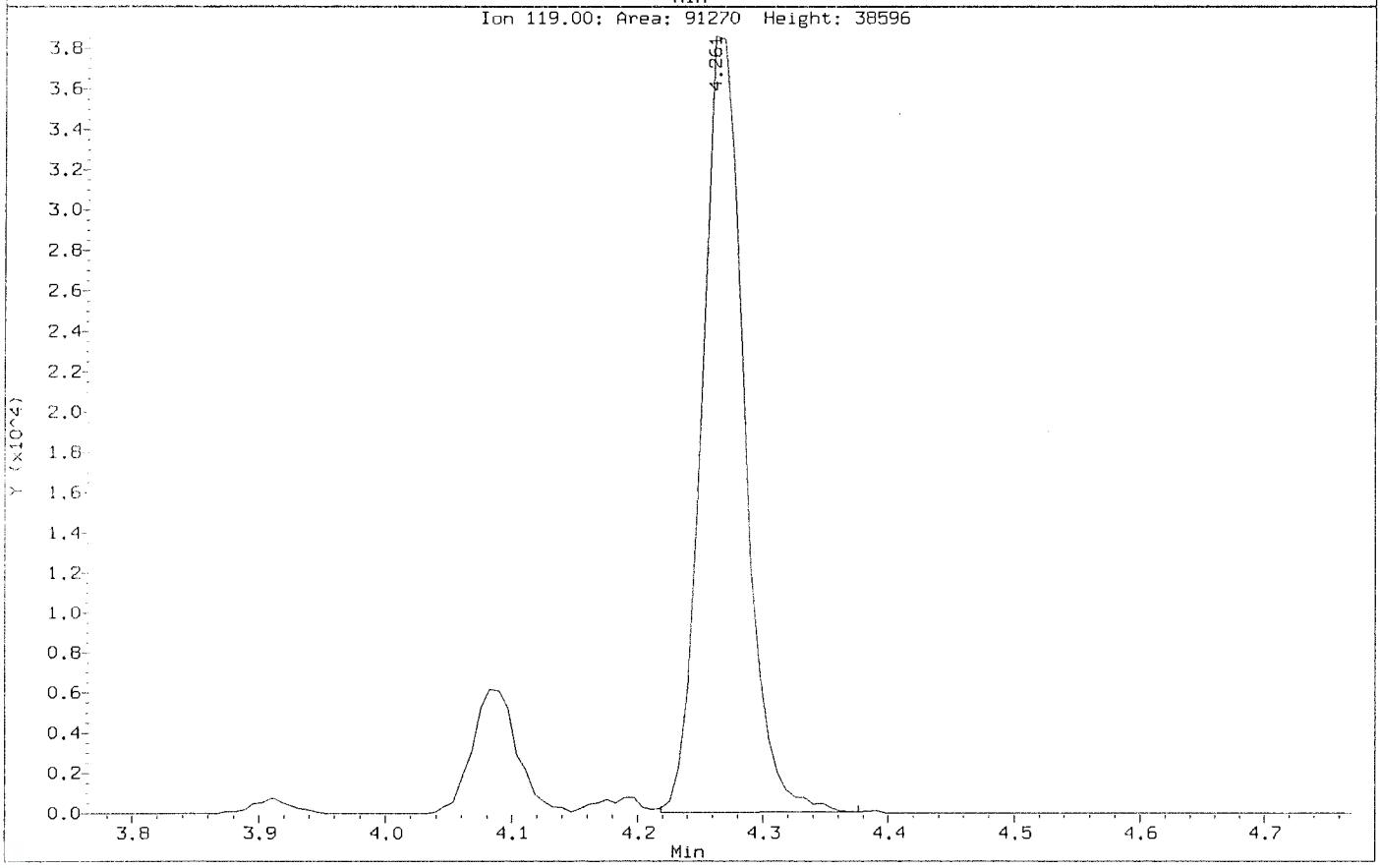




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052607.D
Injection Date: 26-MAY-2021 14:40
Instrument: voa6.i
Client Sample ID: VSTD020

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052608.D
Lab Smp Id: VSTD050 Client Smp ID: VSTD050
Inj Date : 26-MAY-2021 15:01
Operator : PC Inst ID: voa6.i
Smp Info : VSTD050;VSTD050;1;7;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 14:40 Cal File: X052607.D
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

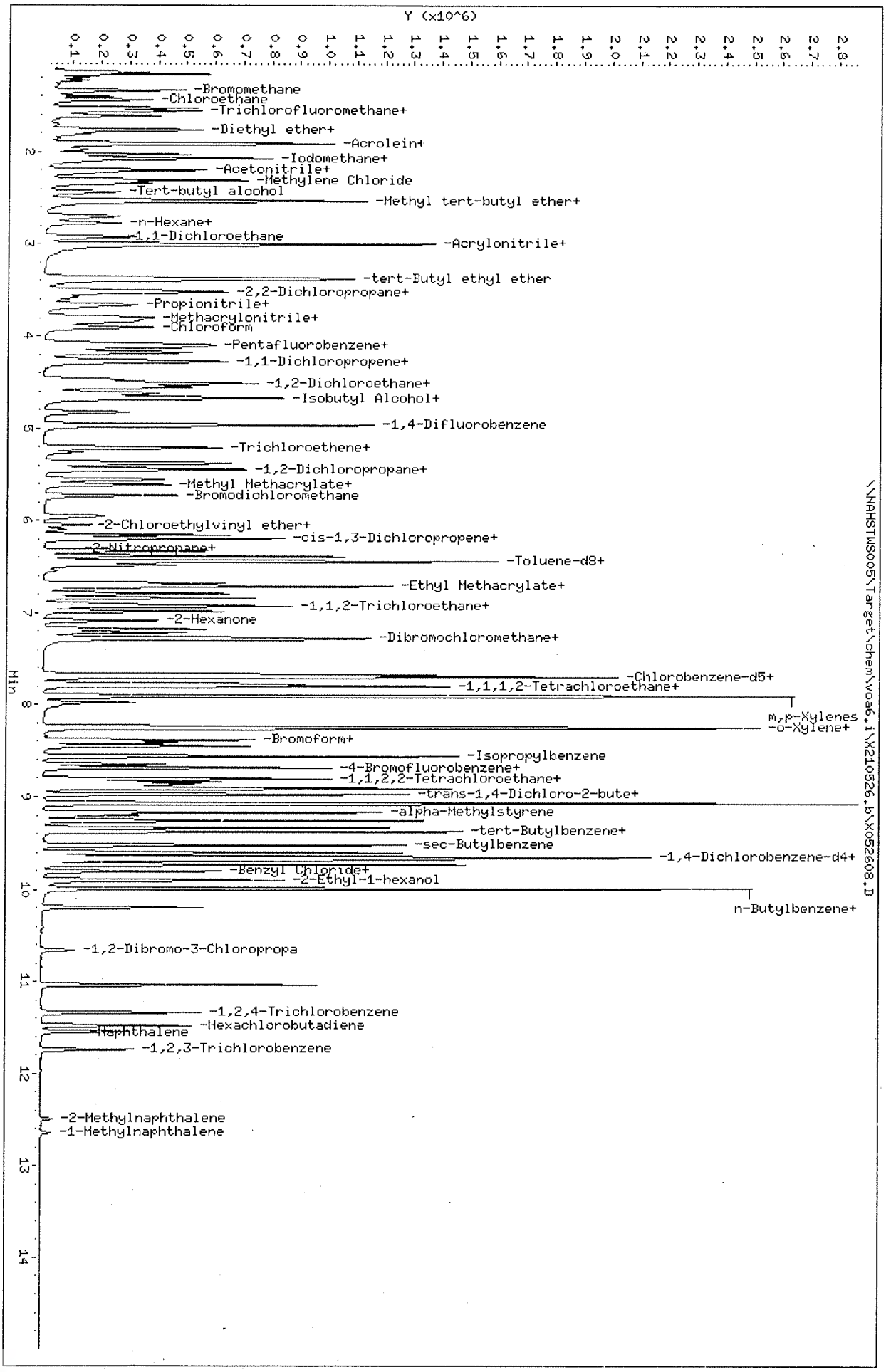
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	424959	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	666769	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	619576	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	345661	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	198305	50.0000	47.39
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	202707	50.0000	49.93
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	641202	50.0000	41.54
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	243279	50.0000	44.79
60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	218401	50.0000	47.66
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	286118	50.0000	45.55
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	241138	50.0000	50.50
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	159364	50.0000	47.48
22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	316911	50.0000	47.17
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	198252	50.0000	45.29
32 1,1-Dichloropropene	75	4.283	4.283	(0.863)	227298	50.0000	44.50
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	97298	50.0000	46.49
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	200716	50.0000	46.57(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	163230	50.0000	47.76
79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	692725	50.0000	43.93
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	26546	50.0000	48.42
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	218312	50.0000	47.85
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	432173	50.0000	46.09

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	255497	50.0000	48.09
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	186813	50.0000	47.59
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	676389	50.0000	43.10
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	436776	50.0000	44.79
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	312775	50.0000	46.86
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	452783	50.0000	44.50
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	267855	50.0000	46.07
24	2-Butanone	43	3.581	3.581	(0.856)	132056	100.000	102.13(H)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	563374	50.0000	43.54
52	2-Hexanone	43	7.090	7.090	(0.924)	217409	100.000	94.46
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	676517	50.0000	43.90
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	680168	50.0000	42.55
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	322230	100.000	90.31
10	Acetone	43	1.976	1.976	(0.473)	109289	100.000	100.72
37	Benzene	78	4.512	4.512	(0.909)	726648	50.0000	47.43
74	Bromobenzene	156	8.802	8.802	(0.911)	261051	50.0000	45.51
29	Bromochloromethane	128	3.795	3.795	(0.908)	125003	50.0000	48.64
39	Bromodichloromethane	83	5.722	5.722	(1.153)	272973	50.0000	47.62
66	Bromoform	173	8.408	8.408	(1.096)	170774	50.0000	49.42
6	Bromomethane	94	1.339	1.339	(0.320)	208957	50.0000	47.61
19	Carbon Disulfide	76	2.069	2.069	(0.495)	965194	100.000	92.98
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	244057	50.0000	44.15(H)
59	Chlorobenzene	112	7.692	7.692	(1.003)	575989	50.0000	44.65
7	Chloroethane	64	1.403	1.403	(0.336)	169882	50.0000	57.20
28	Chloroform	83	3.910	3.910	(0.935)	352687	50.0000	47.19
3	Chloromethane	50	1.073	1.073	(0.257)	214824	50.0000	56.27
27	cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	219469	50.0000	49.27
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	335383	50.0000	49.65
55	Dibromochloromethane	129	7.176	7.176	(0.936)	248499	50.0000	48.73
44	Dibromomethane	93	5.550	5.550	(1.118)	141864	50.0000	48.09
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	189027	50.0000	48.41
61	Ethylbenzene	106	7.800	7.800	(1.017)	273828	50.0000	46.01
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	87915	50.0000	41.67
67	Isopropylbenzene	105	8.559	8.559	(1.116)	798894	50.0000	43.94
62	m,p-Xylenes	106	7.907	7.907	(1.031)	700454	100.000	90.30
17	Methylene Chloride	84	2.306	2.306	(0.551)	199728	50.0000	51.87
87	n-Butylbenzene	91	9.991	9.991	(1.034)	575579	50.0000	42.80
73	n-Propylbenzene	91	8.910	8.910	(0.922)	916886	50.0000	42.52
92	Naphthalene	128	11.539	11.539	(1.194)	235637	50.0000	47.70
63	o-Xylene	106	8.244	8.244	(1.075)	344243	50.0000	45.51
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	736380	50.0000	40.57
64	Styrene	104	8.258	8.258	(1.077)	606041	50.0000	47.94
78	tert-Butylbenzene	119	9.340	9.340	(0.967)	553101	50.0000	41.11
56	Tetrachloroethene	164	6.926	6.926	(0.903)	165887	50.0000	43.49
50	Toluene	91	6.446	6.446	(0.840)	806999	50.0000	44.61
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	188221	50.0000	47.43
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	287700	50.0000	49.37
38	Trichloroethene	130	5.207	5.207	(1.049)	221368	50.0000	48.37
8	Trichlorofluoromethane	101	1.561	1.561	(0.373)	347393	50.0000	45.28
5	Vinyl Chloride	62	1.138	1.138	(0.272)	233856	50.0000	46.48

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

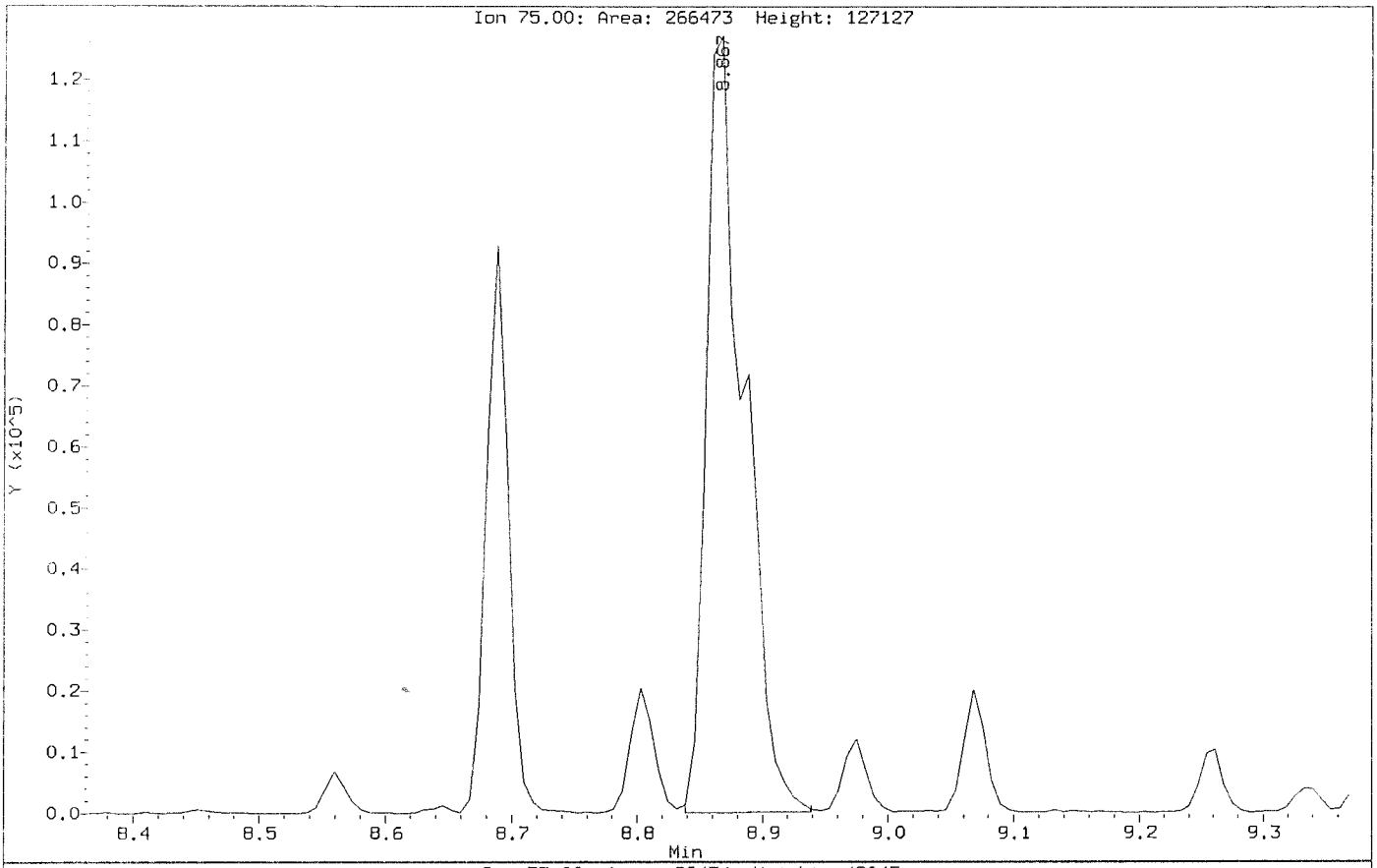


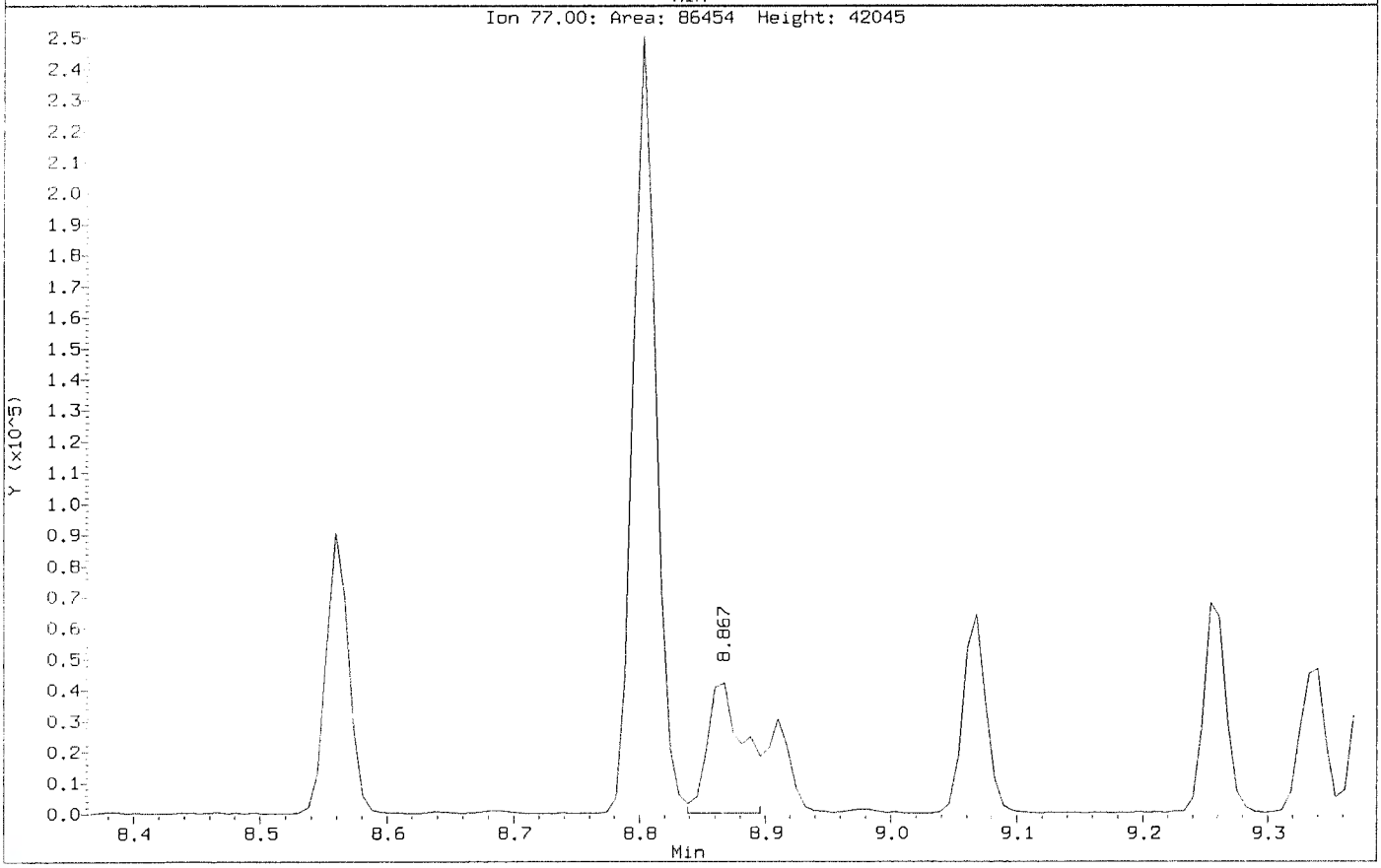
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Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052608.D
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Instrument: voa6.i
Client Sample ID: VSTD050

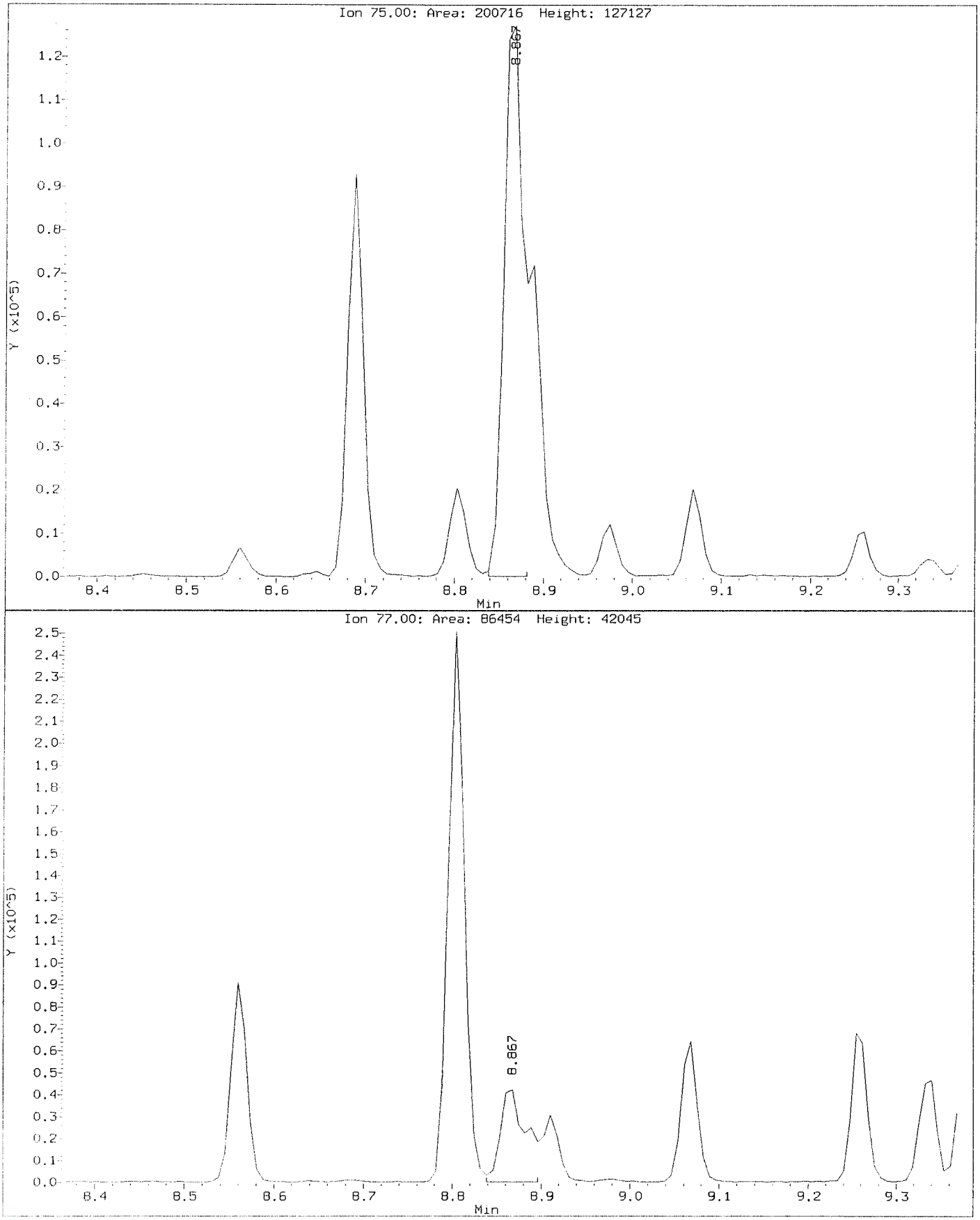
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





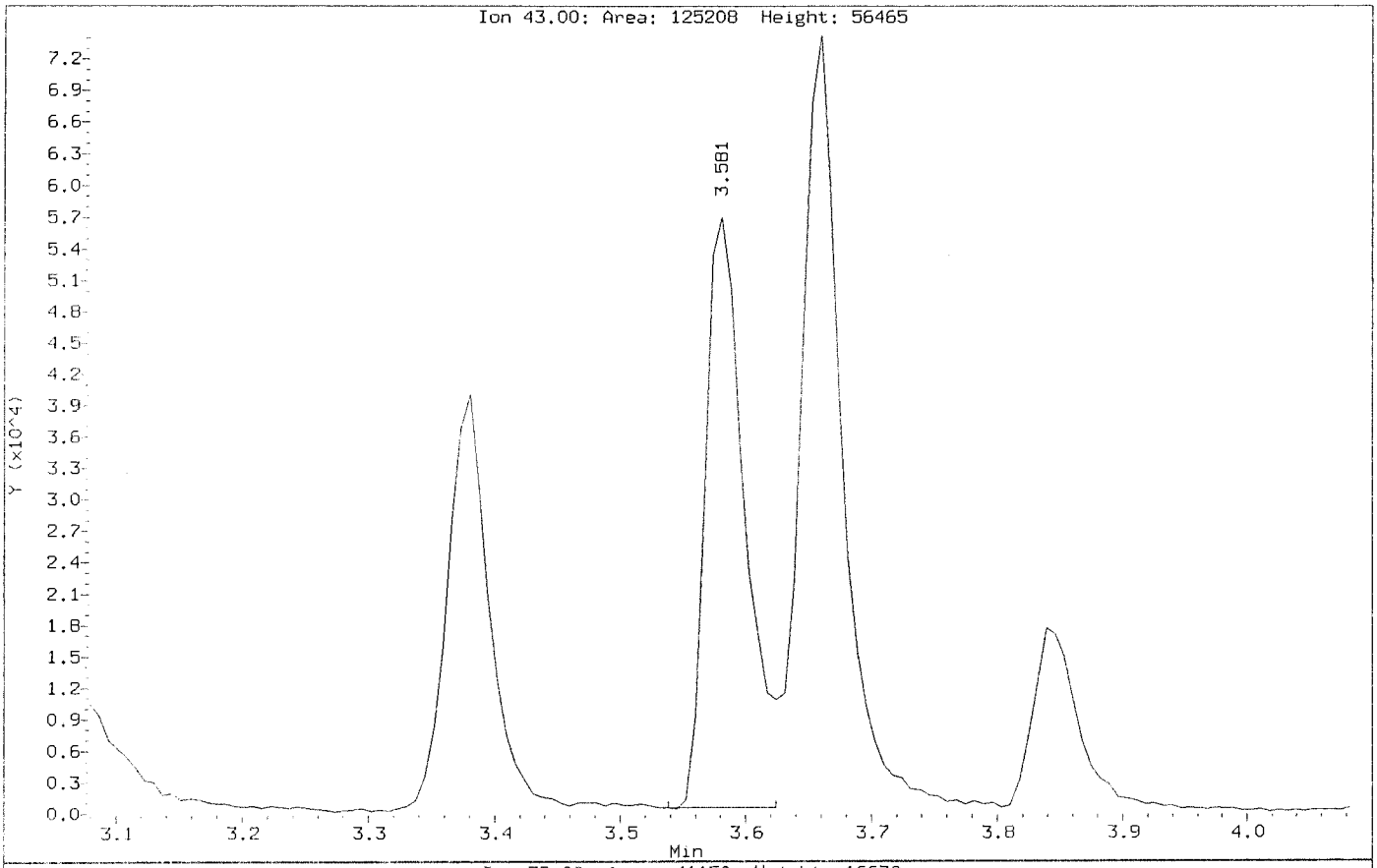
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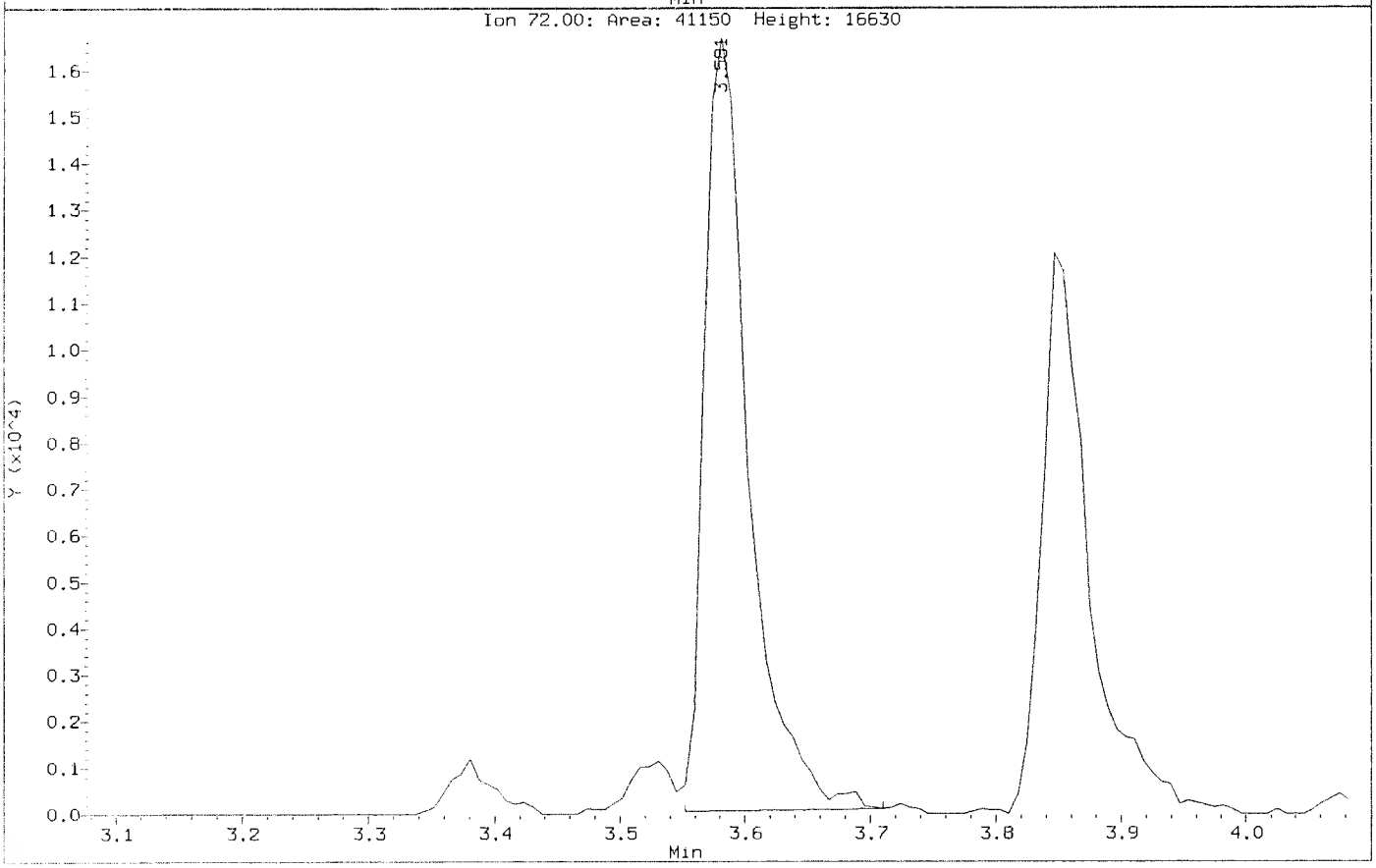
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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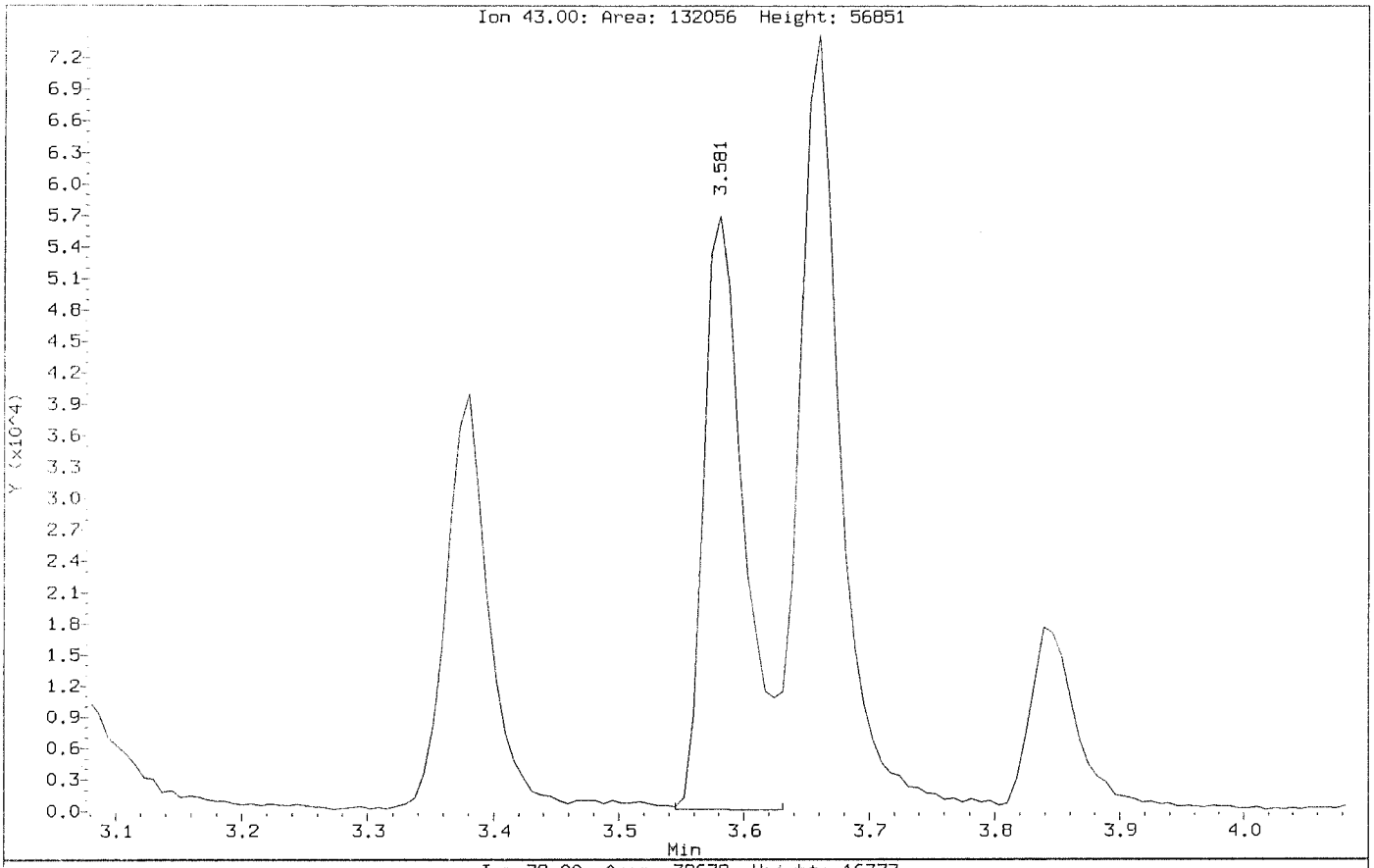
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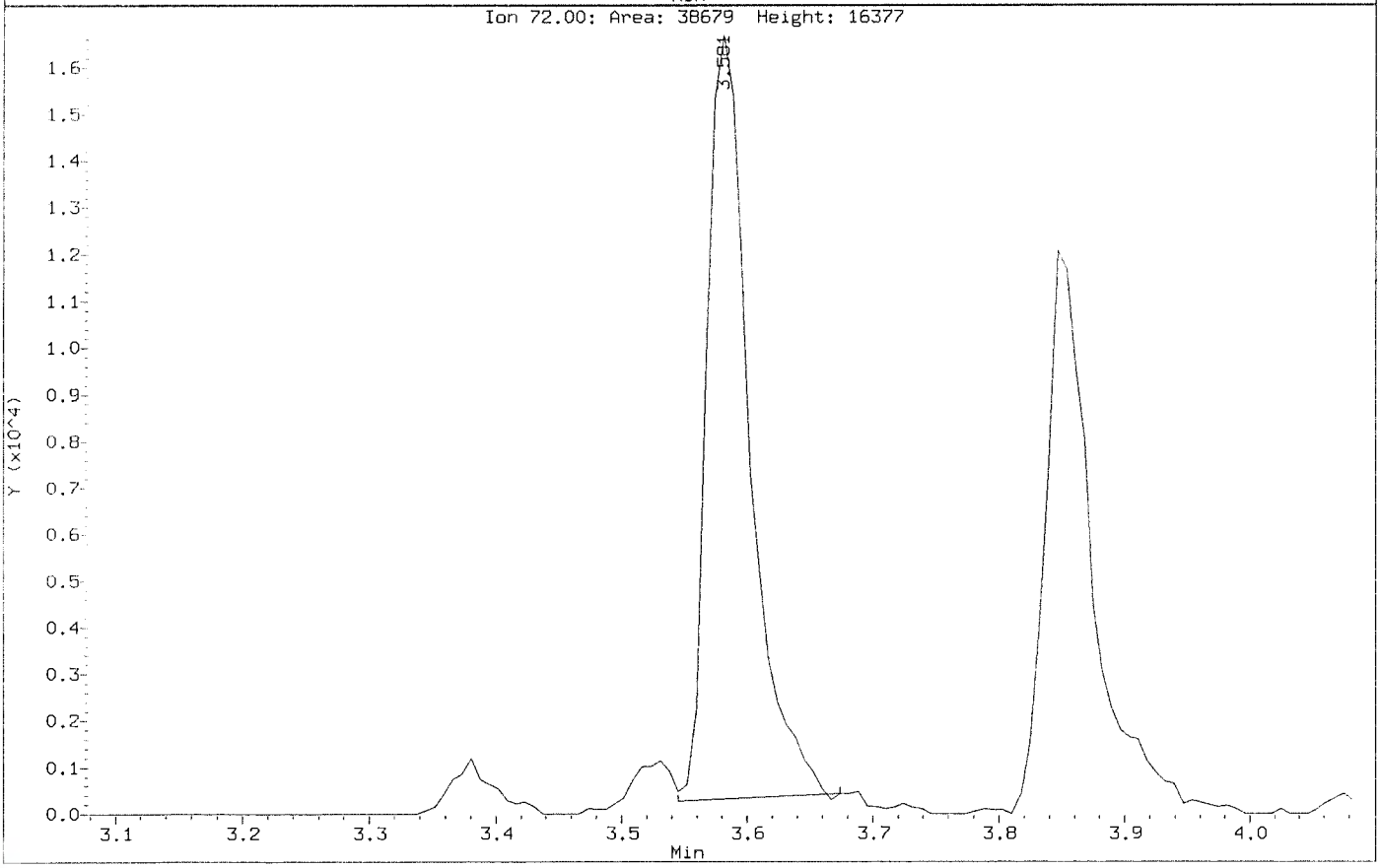




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Client Sample ID: VSTD050

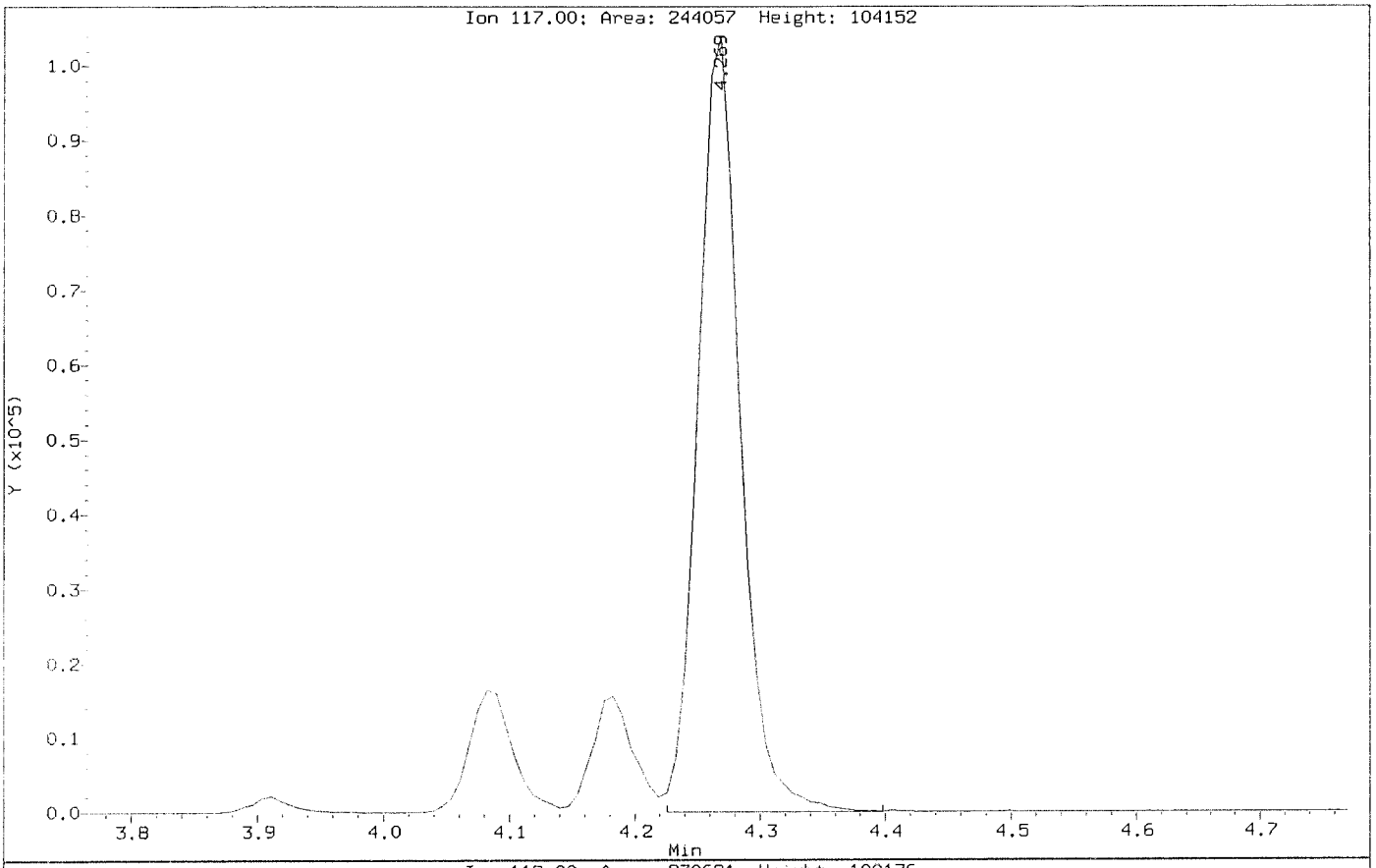
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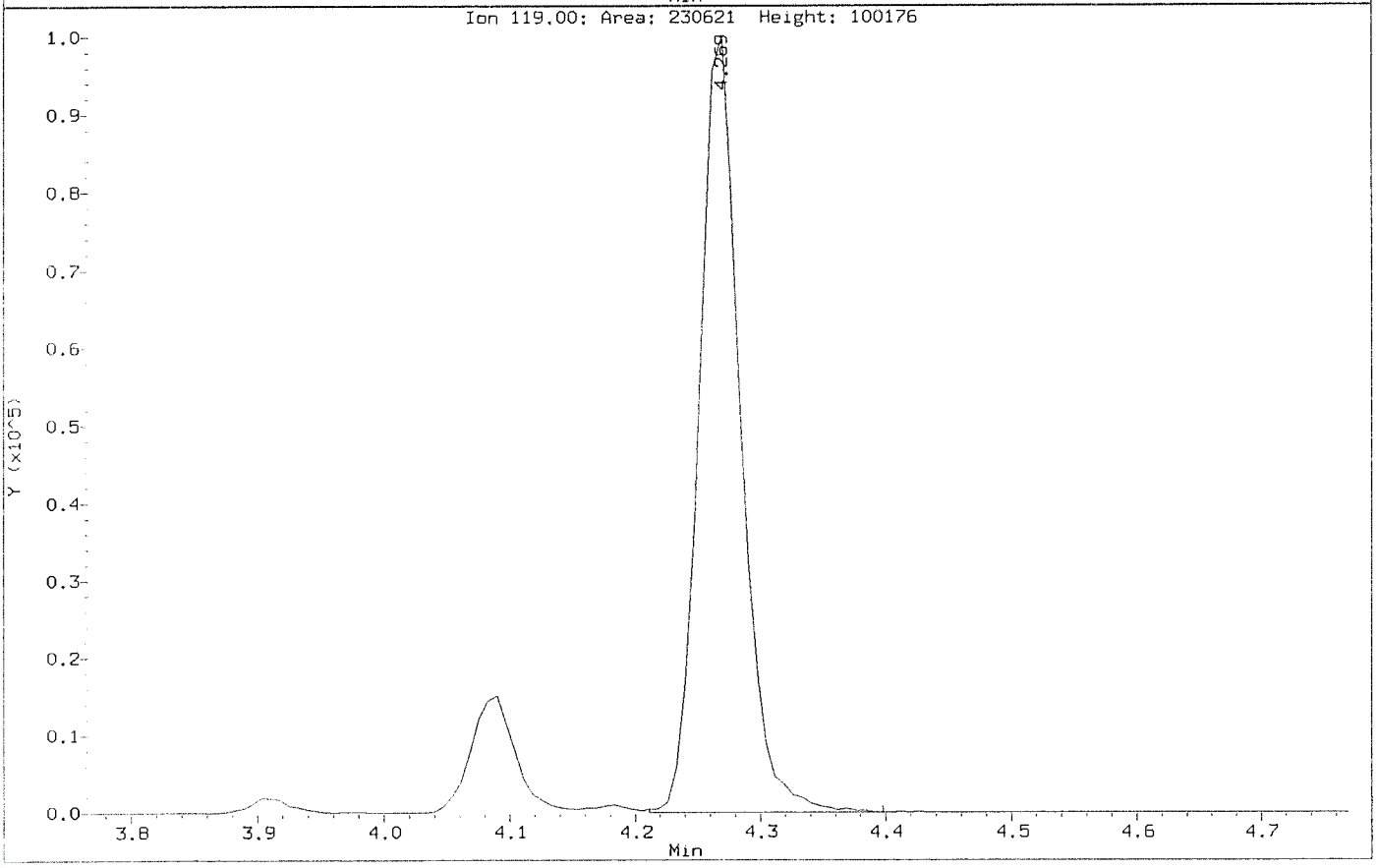




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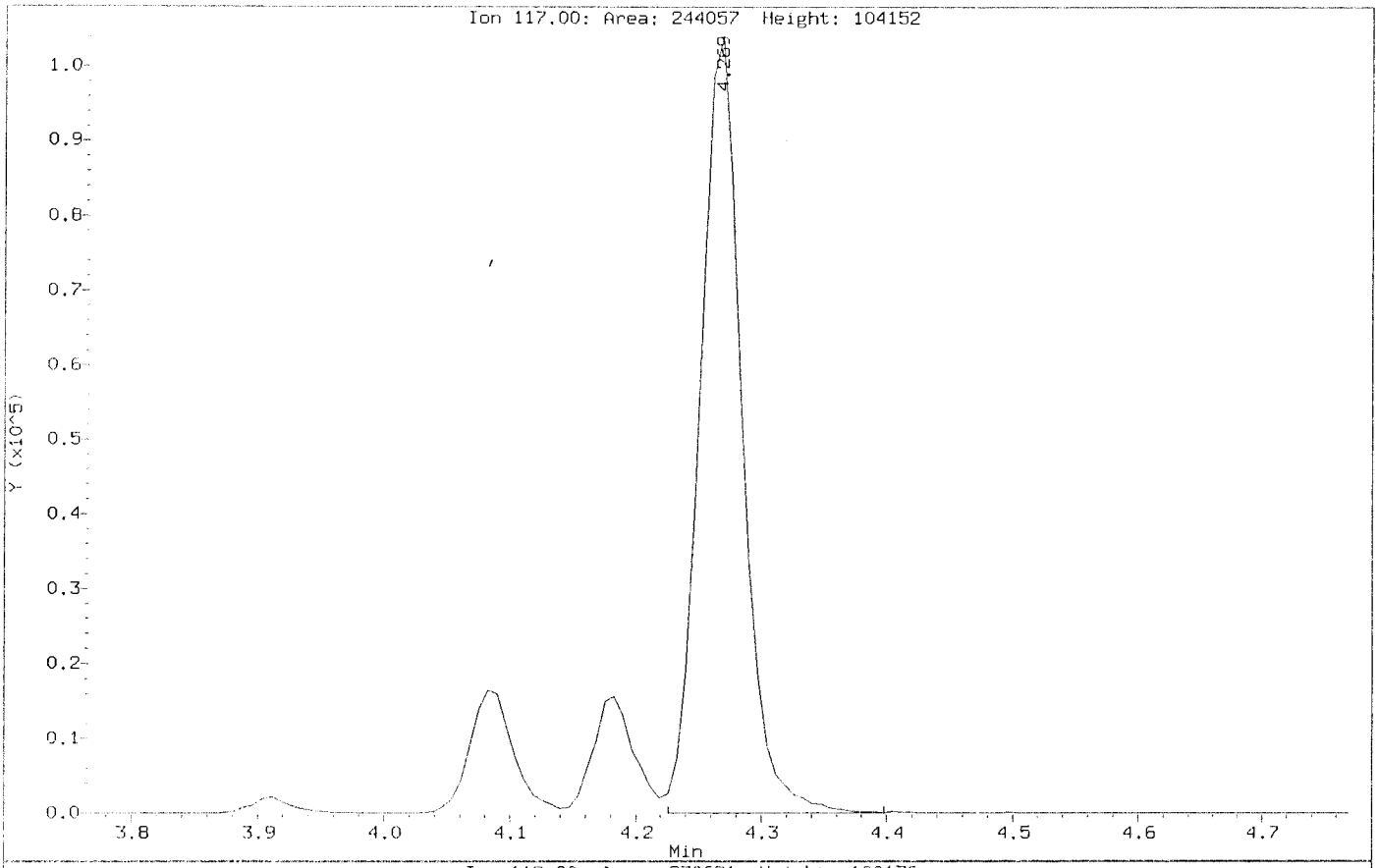
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

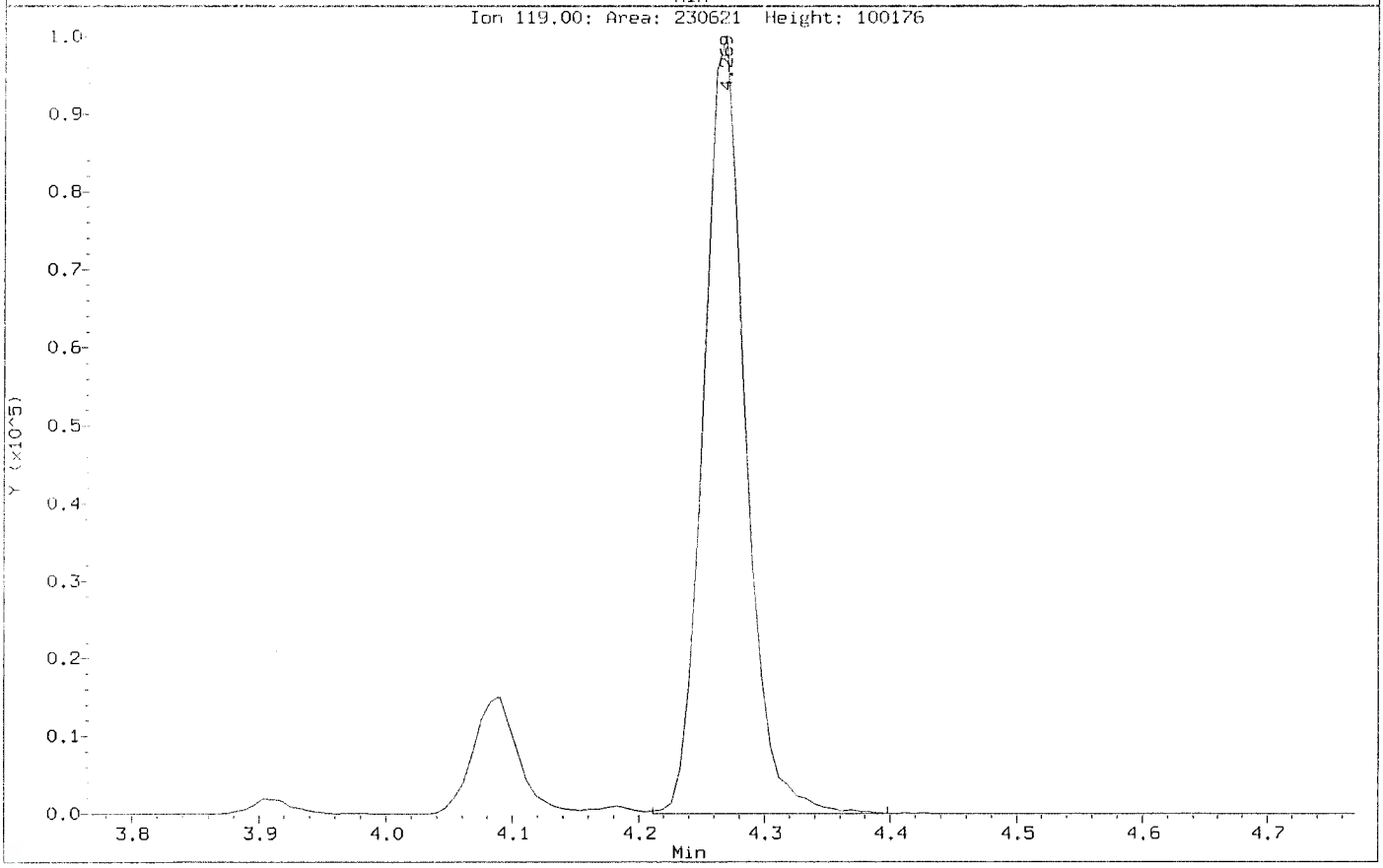




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Injection Date: 26-MAY-2021 15:01
Instrument: voa6.i
Client Sample ID: VSTD050

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052609.D
Lab Smp Id: VSTD100 Client Smp ID: VSTD100
Inj Date : 26-MAY-2021 15:22
Operator : PC Inst ID: voa6.i
Smp Info : VSTD100;VSTD100;1;8;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

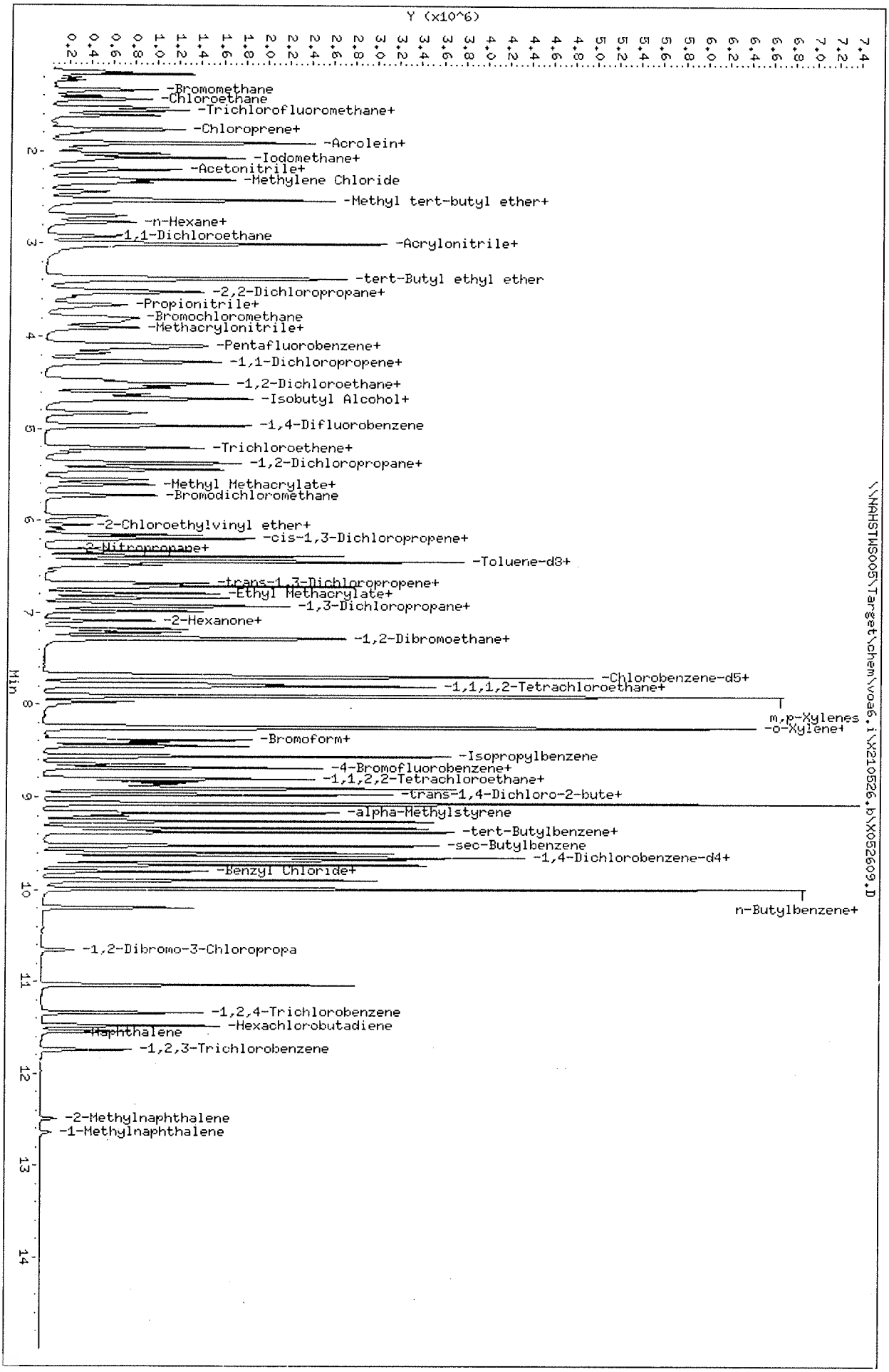
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	465829	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	710792	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	666442	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	392601	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	469782	100.000	102.62
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	450261	100.000	101.89
$	48 Toluene-d8	98	6.388	6.388	(0.833)	1608002	100.000	96.86
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	606080	100.000	102.75
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	499295	100.000	101.30
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	661548	100.000	96.09
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	539471	100.000	100.64
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	346404	100.000	95.95
	22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	677723	100.000	92.02
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	458831	100.000	95.62
	32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	536358	100.000	98.52
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	234050	100.000	98.47
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	455527	100.000	93.06(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	411722	100.000	106.07
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	1745248	100.000	97.46
	89 1,2-Dibromo-3-Chloropropane	155	10.657	10.657	(1.103)	62281	100.000	99.48
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	478499	100.000	97.52
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	1073113	100.000	100.77

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052609.D Page 2
Report Date: 30-Jun-2021 18:30

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	546071	100.000	96.42
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	402126	100.000	96.11
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	1755512	100.000	98.50
83 1,3-Dichlorobenzene	146	9.604	9.604	(0.994)	1072305	100.000	96.83
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	683449	100.000	95.20
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	1102148	100.000	95.37
26 2,2-Dichloropropane	77	3.509	3.509	(0.839)	601433	100.000	94.37
24 2-Butanone	43	3.580	3.580	(0.856)	285717	200.000	201.59(AH)
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	1366733	100.000	93.00
52 2-Hexanone	43	7.090	7.090	(0.924)	514396	200.000	207.78(A)
77 4-Chlorotoluene	91	9.067	9.067	(0.938)	1673614	100.000	95.63
82 p-Isopropyltoluene	119	9.647	9.647	(0.999)	1855232	100.000	102.19
45 4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	743310	200.000	193.68
10 Acetone	43	1.976	1.976	(0.473)	231561	200.000	200.25(A)
37 Benzene	78	4.512	4.512	(0.909)	1561197	100.000	95.60
74 Bromobenzene	156	8.802	8.802	(0.911)	631992	100.000	97.02
29 Bromochloromethane	128	3.795	3.795	(0.908)	264940	100.000	94.06
39 Bromodichloromethane	83	5.729	5.729	(1.154)	580394	100.000	94.98
66 Bromoform	173	8.408	8.408	(1.096)	405148	100.000	109.02
6 Bromomethane	94	1.338	1.338	(0.320)	464431	100.000	96.38
19 Carbon Disulfide	76	2.069	2.069	(0.495)	2136484	200.000	187.75
34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	602380	100.000	102.23(H)
59 Chlorobenzene	112	7.692	7.692	(1.003)	1335922	100.000	96.29
7 Chloroethane	64	1.403	1.403	(0.336)	322237	100.000	100.02
28 Chloroform	83	3.910	3.910	(0.935)	762402	100.000	93.06
3 Chloromethane	50	1.073	1.073	(0.257)	427715	100.000	104.44
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	473541	100.000	96.98
46 cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	723500	100.000	100.47
55 Dibromochloromethane	129	7.176	7.176	(0.936)	559785	100.000	102.05
44 Dibromomethane	93	5.550	5.550	(1.118)	307713	100.000	97.86
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	442975	100.000	103.74
61 Ethylbenzene	106	7.799	7.799	(1.017)	658754	100.000	102.92
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	268099	100.000	104.15
67 Isopropylbenzene	105	8.559	8.559	(1.116)	2067374	100.000	105.71
62 m,p-Xylenes	106	7.907	7.907	(1.031)	1732036	200.000	207.58(A)
17 Methylene Chloride	84	2.305	2.305	(0.551)	421178	100.000	101.02
87 n-Butylbenzene	91	9.991	9.991	(1.034)	1668557	100.000	109.24
73 n-Propylbenzene	91	8.910	8.910	(0.922)	2376997	100.000	97.06
92 Naphthalene	128	11.538	11.538	(1.194)	552247	100.000	98.43
63 o-Xylene	106	8.243	8.243	(1.075)	828253	100.000	101.80
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	2073082	100.000	100.55
64 Styrene	104	8.258	8.258	(1.077)	1469045	100.000	108.05
78 tert-Butylbenzene	119	9.339	9.339	(0.967)	1530236	100.000	100.15
56 Tetrachloroethene	164	6.925	6.925	(0.903)	441656	100.000	107.65
50 Toluene	91	6.446	6.446	(0.840)	1856343	100.000	95.41
20 trans-1,2-Dichloroethene	96	2.527	2.527	(0.604)	413319	100.000	95.02
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	636938	100.000	102.54
38 Trichloroethene	130	5.206	5.206	(1.049)	490520	100.000	100.54
8 Trichlorofluoromethane	101	1.560	1.560	(0.373)	841243	100.000	100.04
5 Vinyl Chloride	62	1.138	1.138	(0.272)	519936	100.000	94.29

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

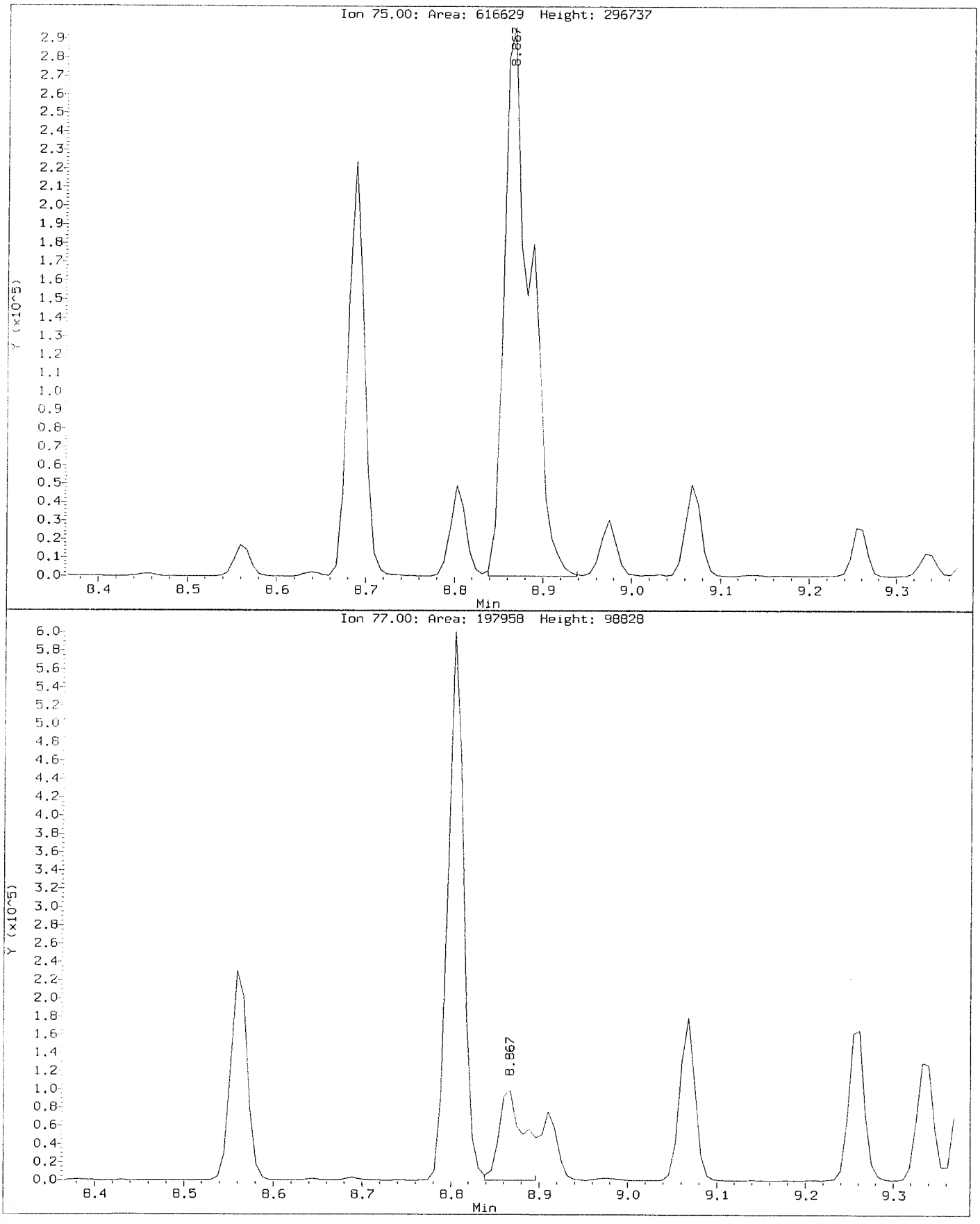


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Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

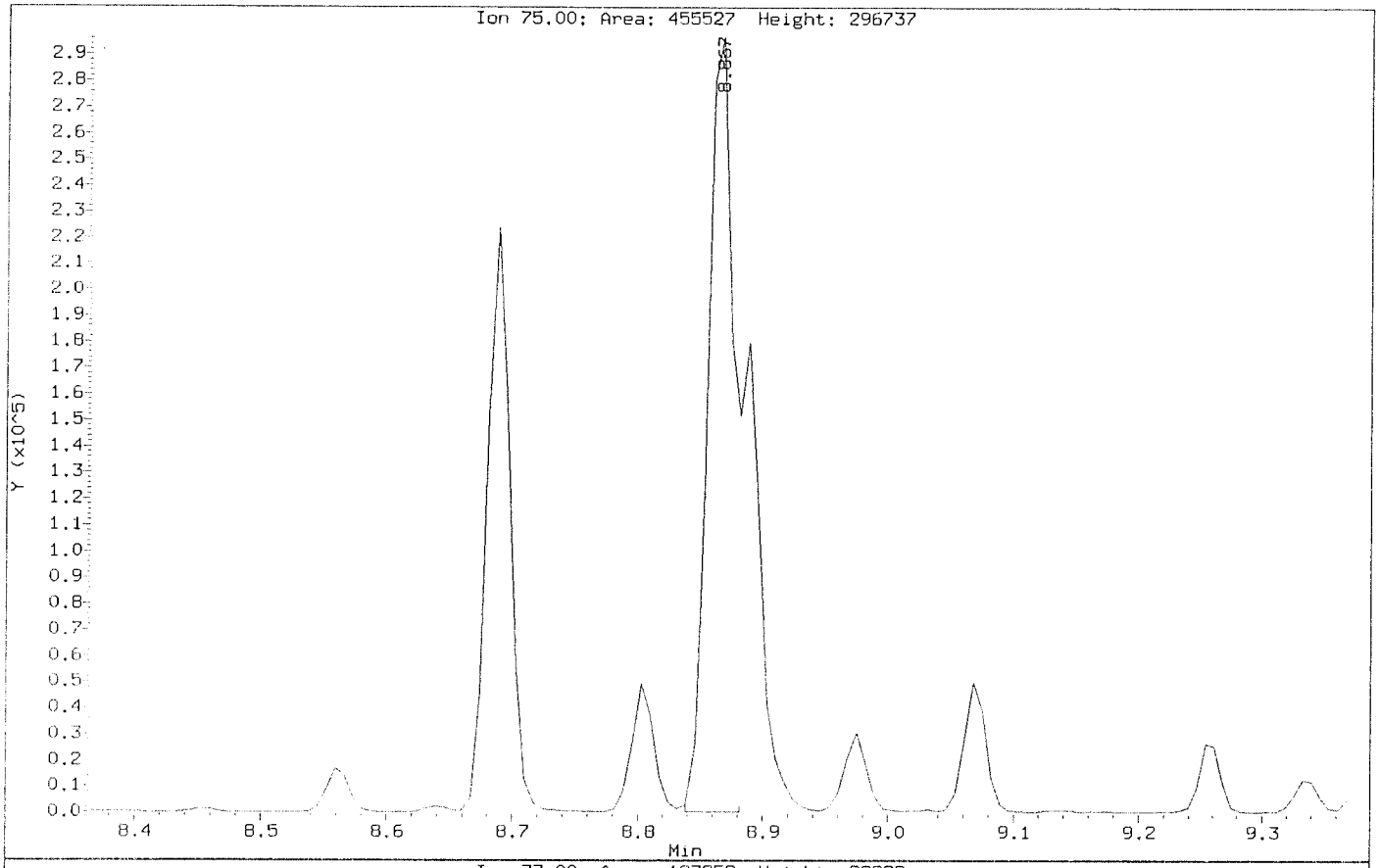
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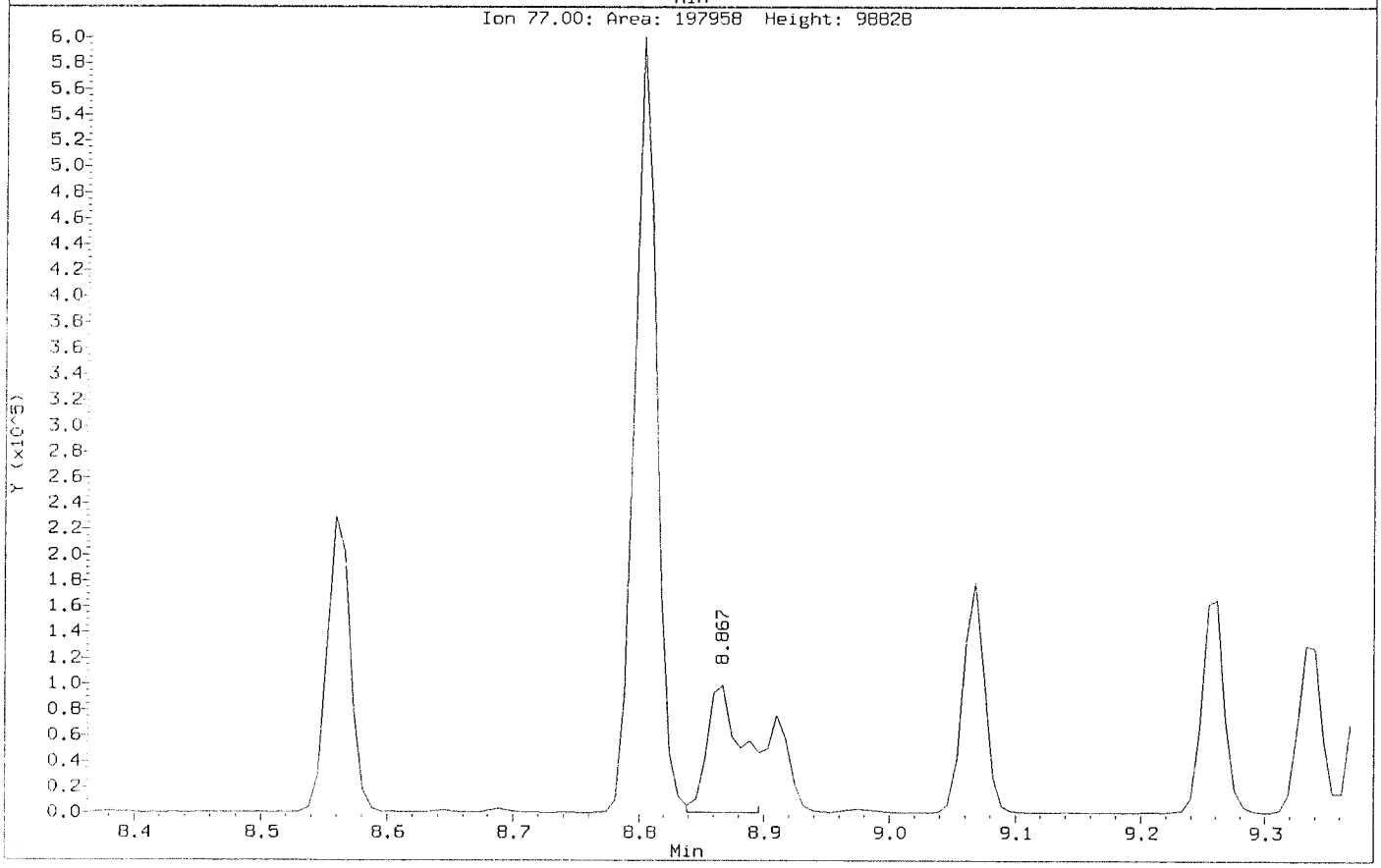
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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Injection Date: 26-MAY-2021 15:22
Instrument: voa6.i
Client Sample ID: VSTD100

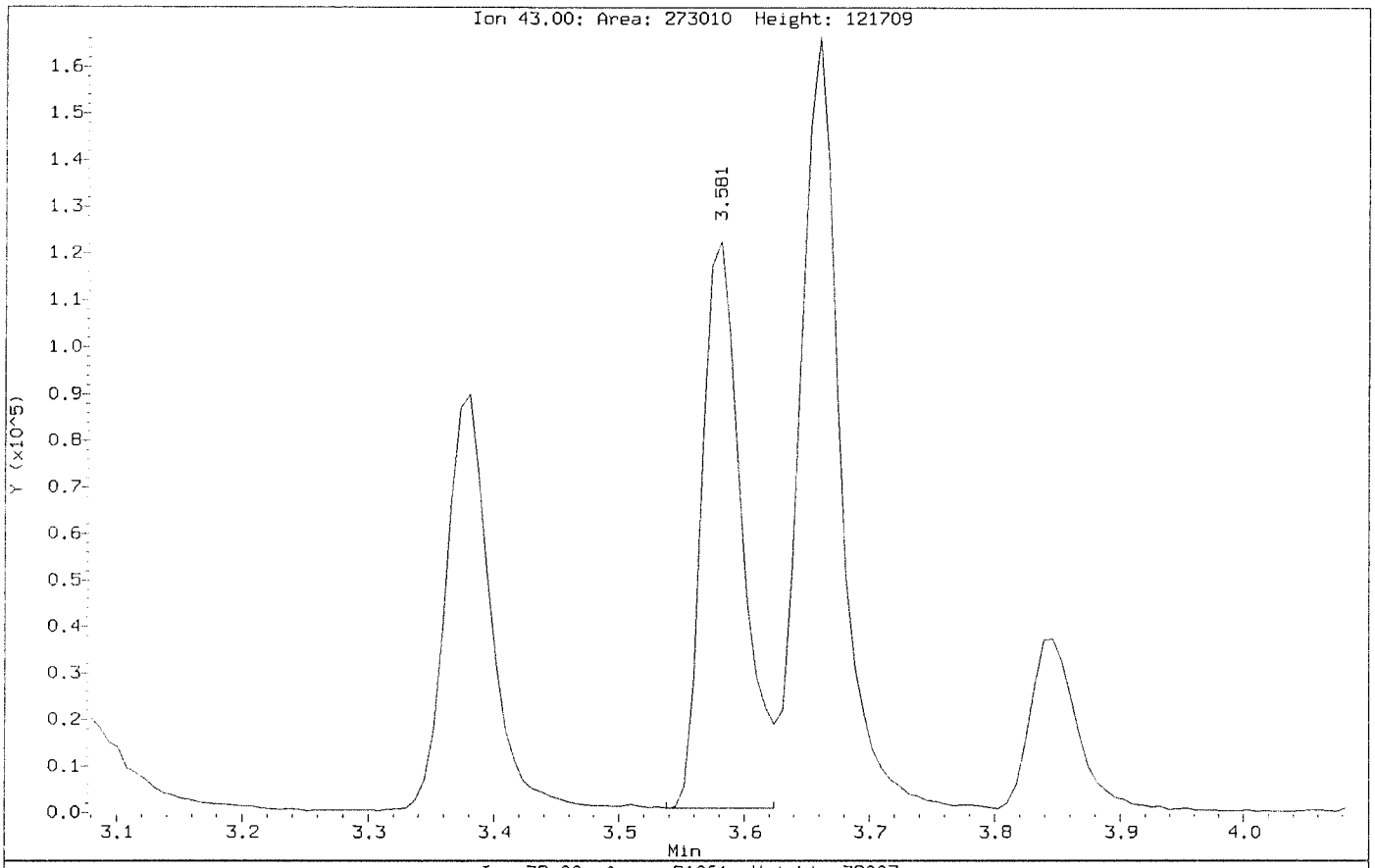
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

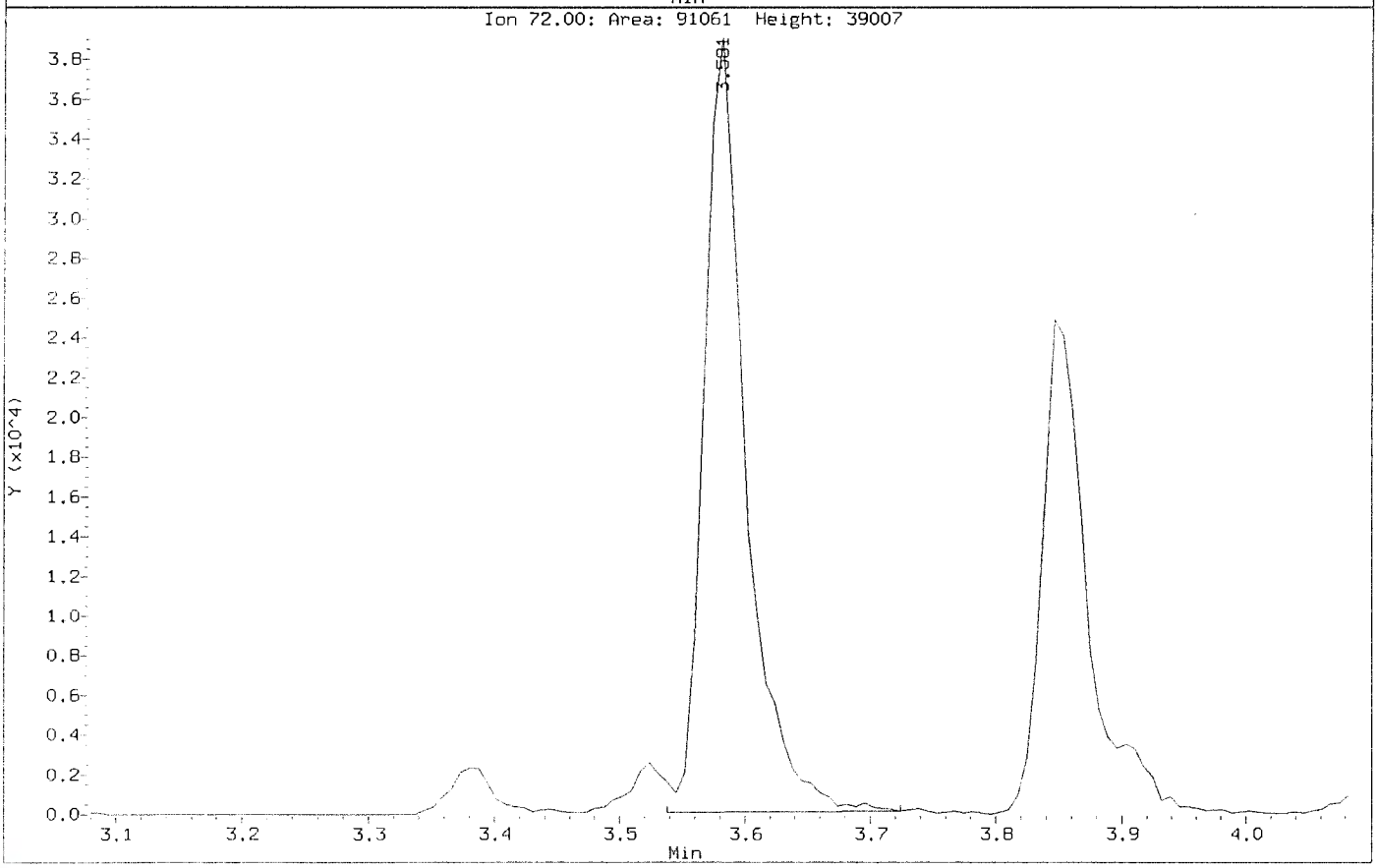




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Instrument: voa6.i
Client Sample ID: VSTD100

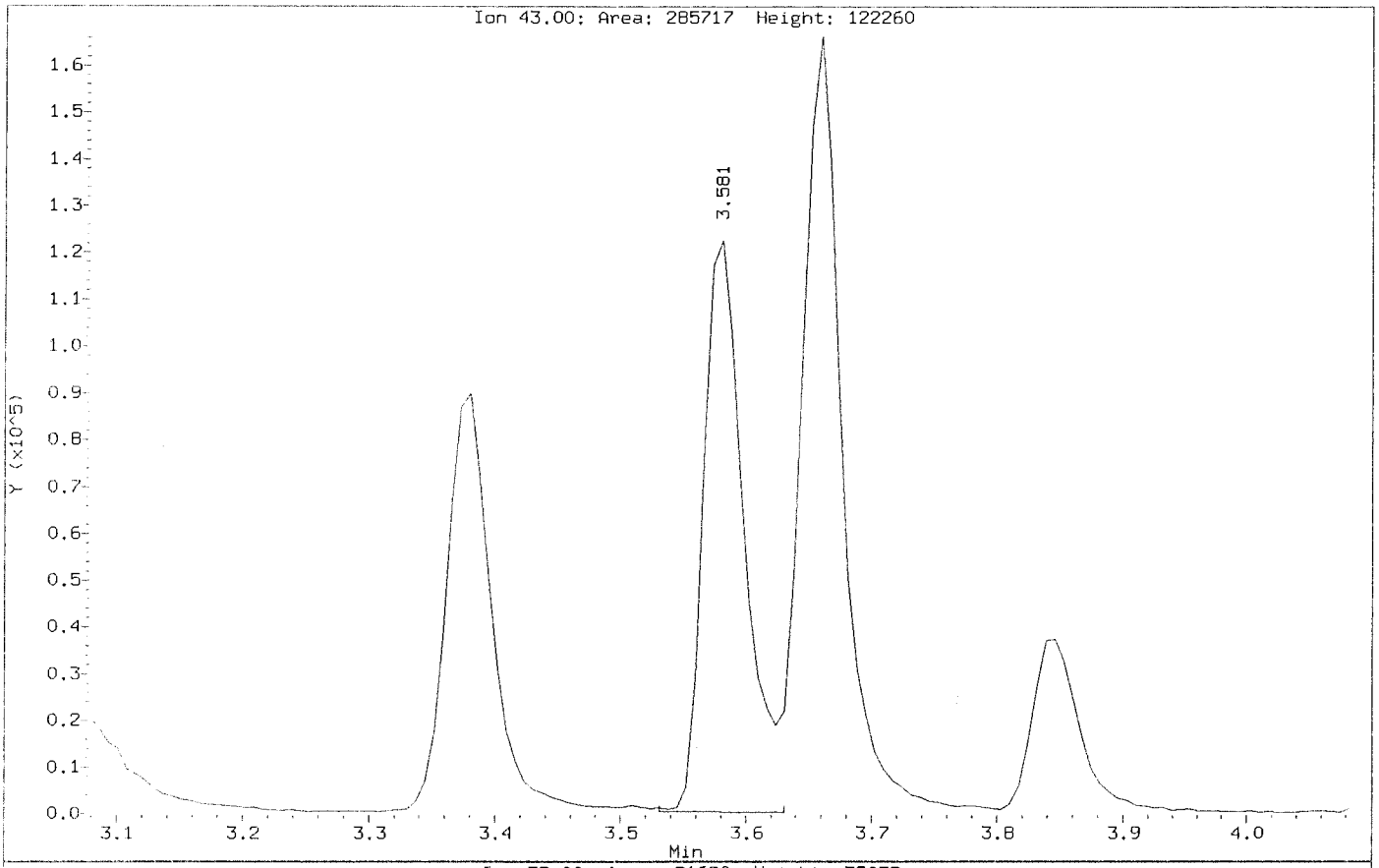
Compound: 2-Butanone
CAS Number: 78-93-3

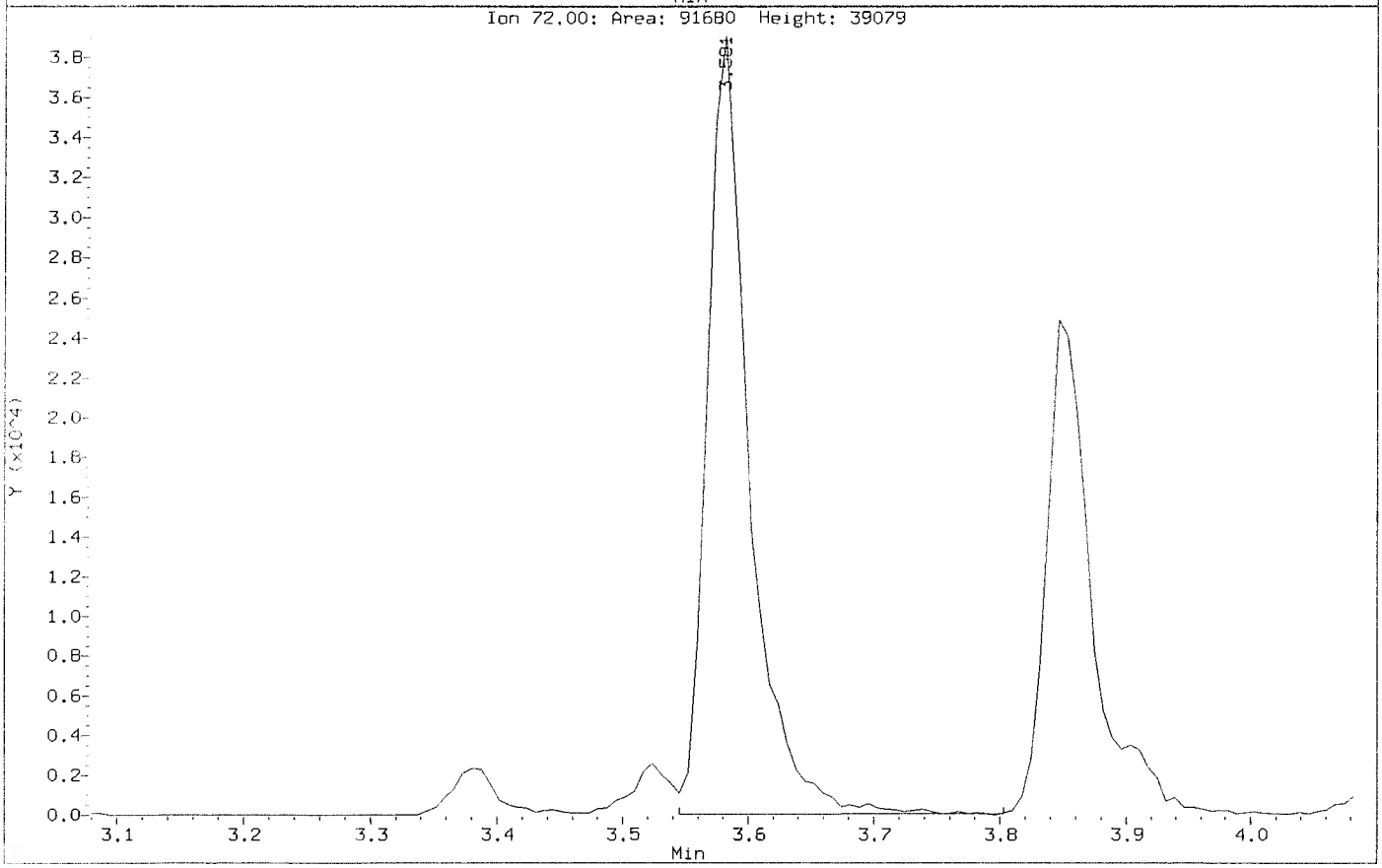




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Instrument: voa6.i
Client Sample ID: VSTD100

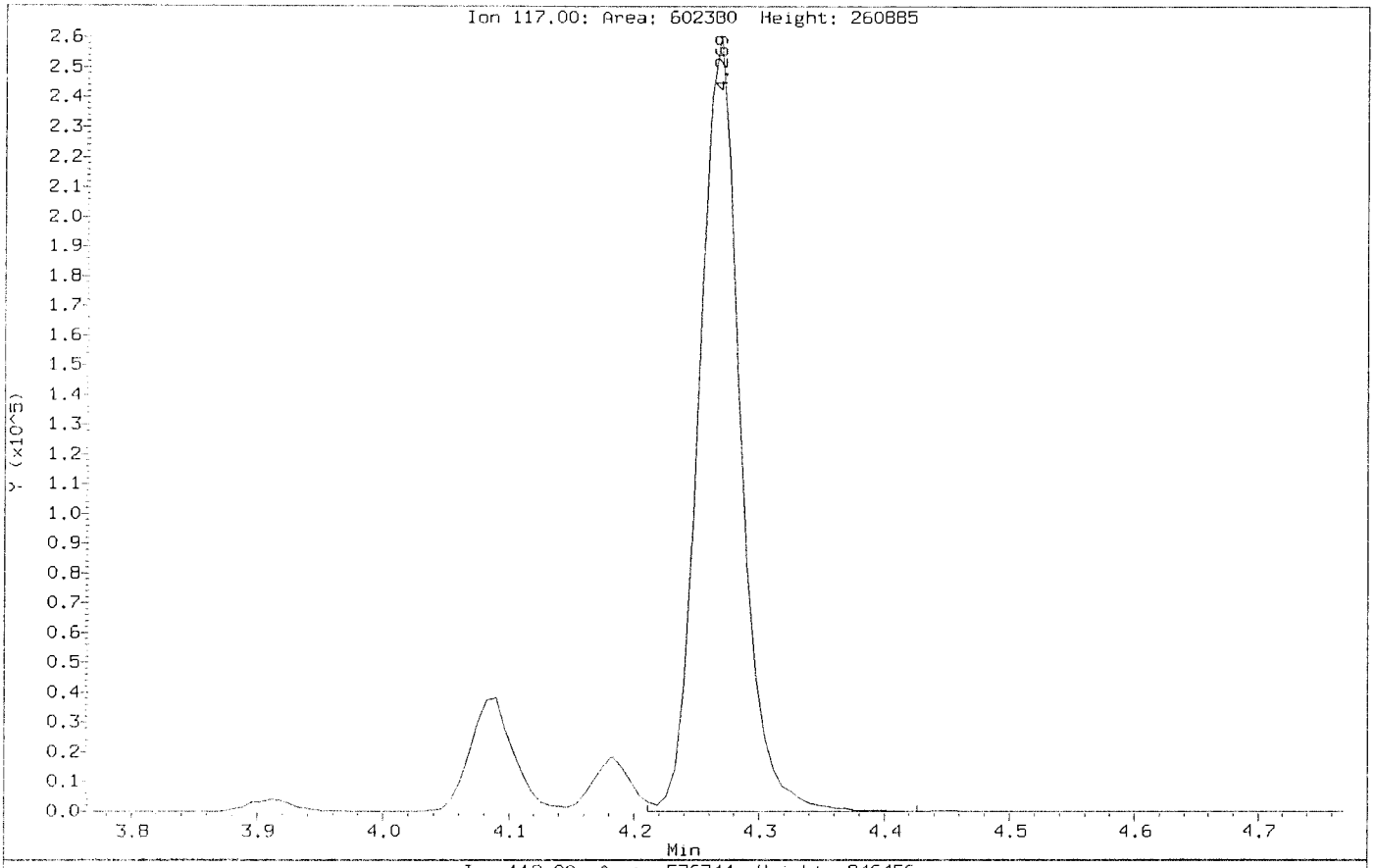
Compound: 2-Butanone
CAS Number: 78-93-3

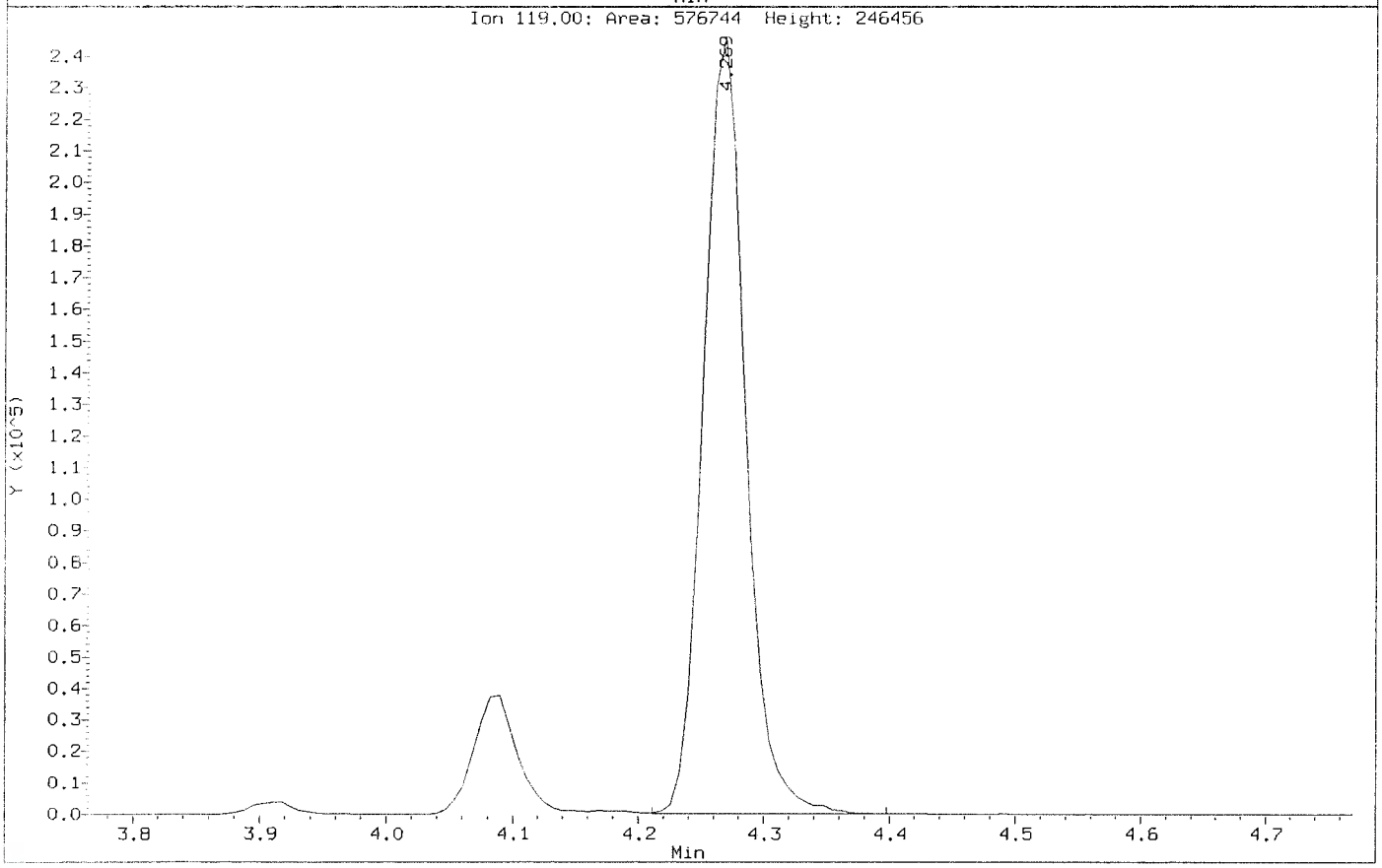




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Instrument: voa6.i
Client Sample ID: VSTD100

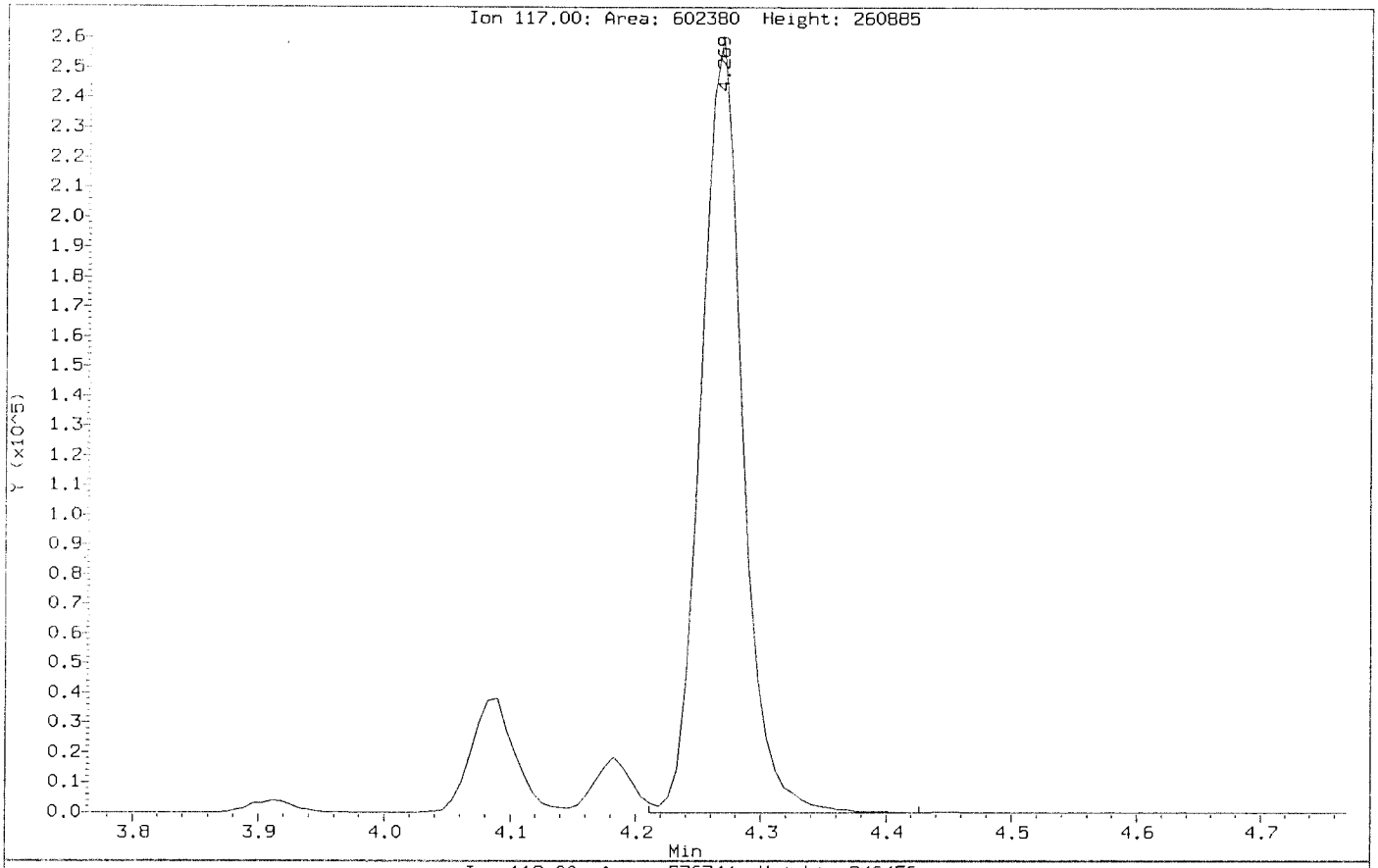
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

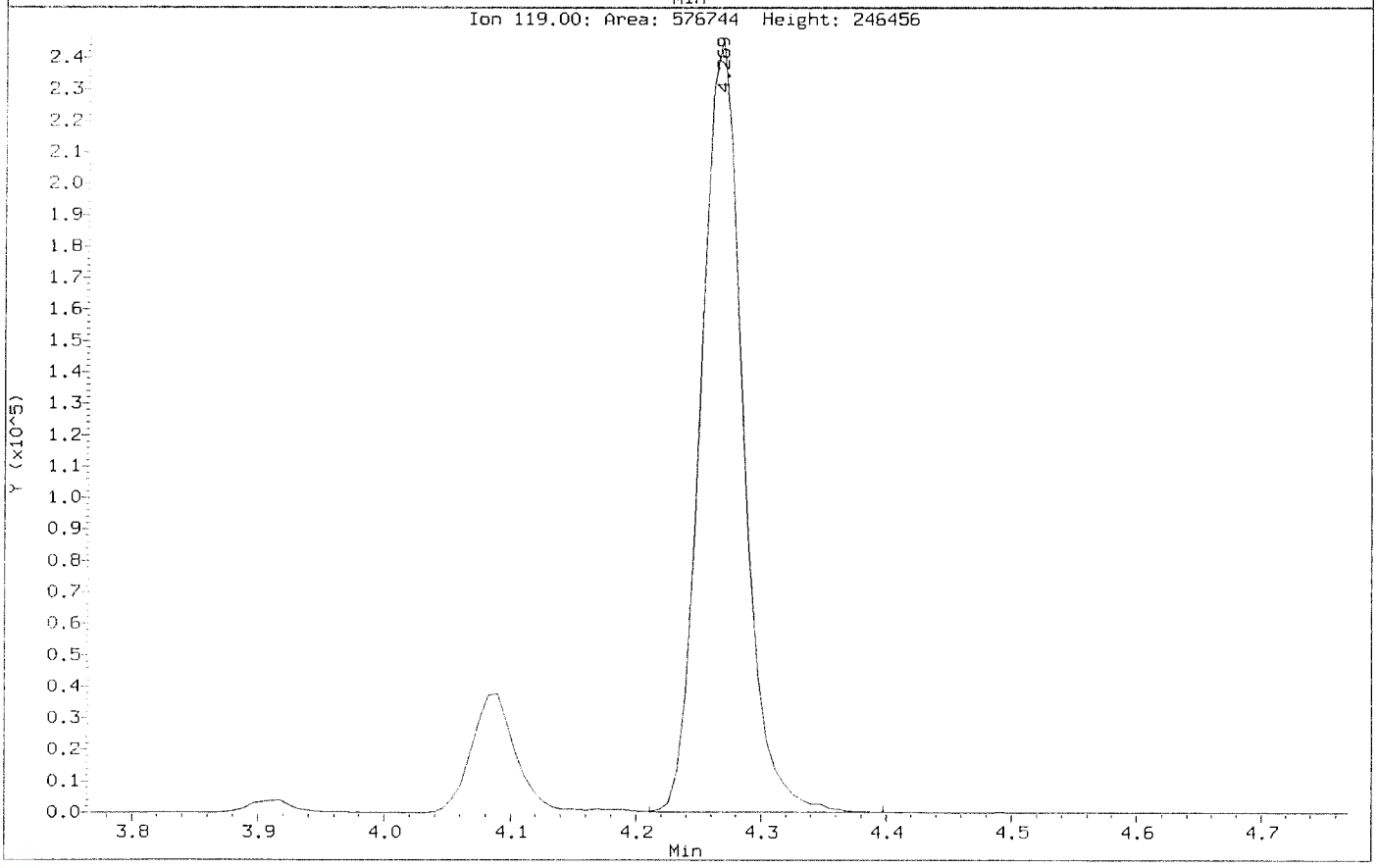




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052609.D
Injection Date: 26-MAY-2021 15:22
Instrument: voa6.i
Client Sample ID: VSTD100

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052610.D
Lab Smp Id: VSTD150 Client Smp ID: VSTD150
Inj Date : 26-MAY-2021 15:43
Operator : PC Inst ID: voa6.i
Smp Info : VSTD150;VSTD150;1;9;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:22 Cal File: X052609.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

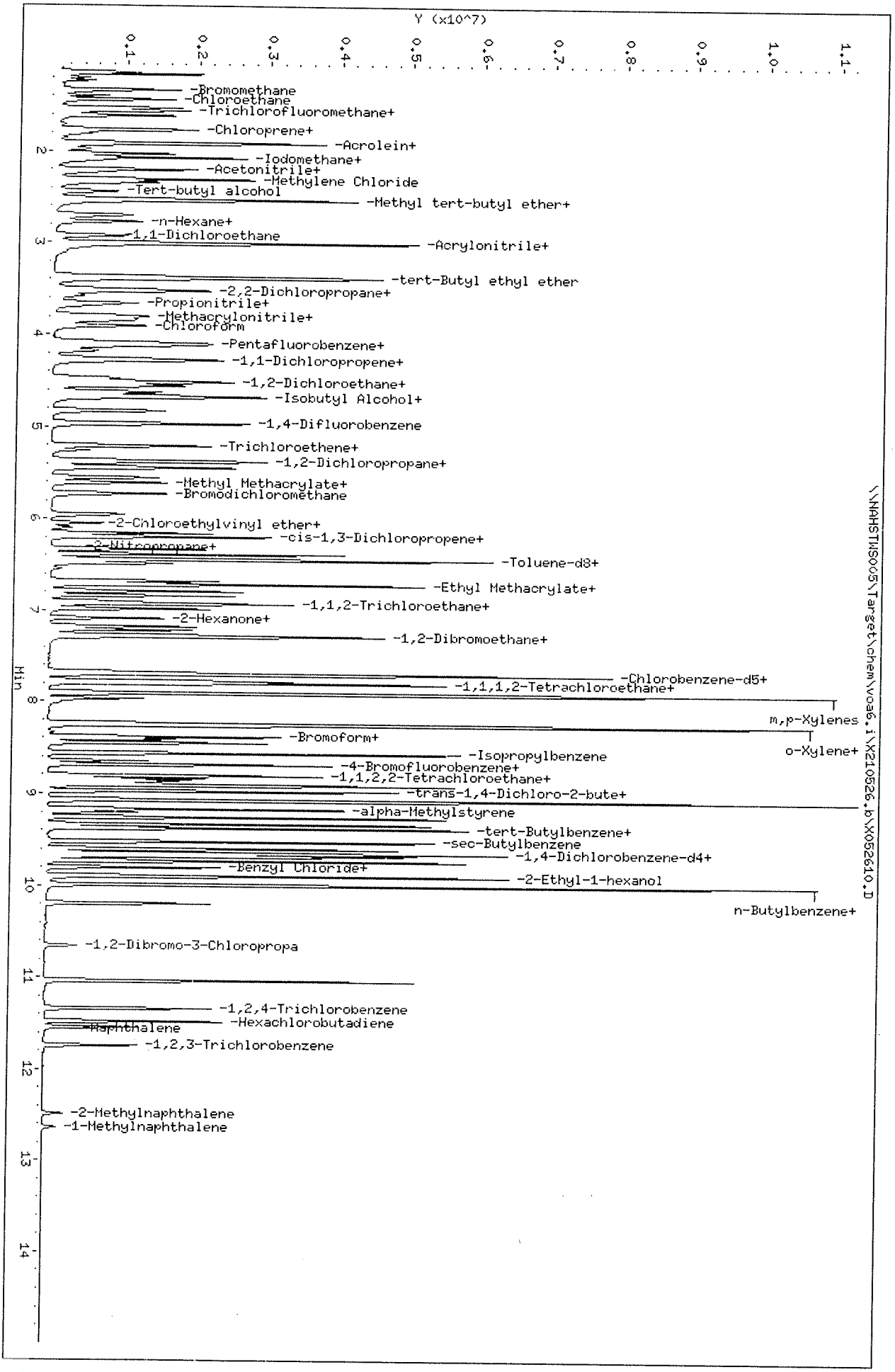
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	496717	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	755988	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	712100	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	415744	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	715769	150.000	146.71
$ 35 1,2-Dichloroethane-d4	65	4.468	4.468	(1.069)	696836	150.000	148.20
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	2408134	150.000	135.76
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	931244	150.000	147.42
60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	784505	150.000	148.96
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	1024526	150.000	139.57
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	832157	150.000	147.15
53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	547310	150.000	141.88
22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	1041496	150.000	132.62
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	716685	150.000	140.07
32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	803649	150.000	138.79
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	385015	150.000	152.97
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	694082	150.000	133.90(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	655214	150.000	161.83
79 1,2,4-Trimethylbenzene	105	9.382	9.382	(0.971)	2691902	150.000	141.96
89 1,2-Dibromo-3-Chloropropane	155	10.657	10.657	(1.103)	97075	150.000	146.19
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	745007	150.000	142.10
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	1675583	150.000	148.59

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.554	4.554	(0.918)	860786	150.000	142.90
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	625353	150.000	140.52
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	2725713	150.000	144.43
83	1,3-Dichlorobenzene	146	9.604	9.604	(0.994)	1646410	150.000	140.40
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	1072067	150.000	139.76
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	1693050	150.000	138.35
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	926747	150.000	136.37
24	2-Butanone	43	3.580	3.580	(0.856)	418873	300.000	277.17(AH)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	2094808	150.000	134.61
52	2-Hexanone	43	7.090	7.090	(0.924)	794291	300.000	300.27(A)
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	2610637	150.000	140.87
82	p-Isopropyltoluene	119	9.647	9.647	(0.999)	2849522	150.000	148.23
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	1175728	300.000	286.71(A)
10	Acetone	43	1.976	1.976	(0.473)	361295	300.000	295.78(A)
37	Benzene	78	4.511	4.511	(0.909)	2402438	150.000	138.33
74	Bromobenzene	156	8.802	8.802	(0.911)	992332	150.000	143.86
29	Bromochloromethane	128	3.795	3.795	(0.909)	412667	150.000	137.39
39	Bromodichloromethane	83	5.722	5.722	(1.153)	921182	150.000	141.73
66	Bromoform	173	8.408	8.408	(1.096)	649384	150.000	163.53
6	Bromomethane	94	1.331	1.331	(0.318)	786302	150.000	152.94
19	Carbon Disulfide	76	2.069	2.069	(0.495)	3195658	300.000	263.37(A)
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	917973	150.000	146.47(H)
59	Chlorobenzene	112	7.692	7.692	(1.003)	2108986	150.000	142.26
7	Chloroethane	64	1.396	1.396	(0.334)	494207	150.000	144.48
28	Chloroform	83	3.910	3.910	(0.935)	1186262	150.000	135.80
3	Chloromethane	50	1.073	1.073	(0.257)	633860	150.000	146.22
27	cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	727278	150.000	139.69
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	1139309	150.000	148.76
55	Dibromochloromethane	129	7.176	7.176	(0.936)	882492	150.000	150.57
44	Dibromomethane	93	5.550	5.550	(1.118)	476483	150.000	142.48
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	654875	150.000	143.91
61	Ethylbenzene	106	7.799	7.799	(1.017)	1007746	150.000	147.35
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	433230	150.000	150.62
67	Isopropylbenzene	105	8.559	8.559	(1.116)	3224819	150.000	154.32
62	m,p-Xylenes	106	7.907	7.907	(1.031)	2710635	300.000	304.04(A)
17	Methylene Chloride	84	2.305	2.305	(0.551)	646121	150.000	145.92
87	n-Butylbenzene	91	9.991	9.991	(1.034)	2582559	150.000	159.67
73	n-Propylbenzene	91	8.910	8.910	(0.922)	3527326	150.000	136.01
92	Naphthalene	128	11.538	11.538	(1.194)	876476	150.000	147.52
63	o-Xylene	106	8.243	8.243	(1.075)	1321003	150.000	151.95
81	sec-Butylbenzene	105	9.518	9.518	(0.985)	3164362	150.000	144.94
64	Styrene	104	8.258	8.258	(1.077)	2333940	150.000	160.66
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	2327731	150.000	143.87
56	Tetrachloroethene	164	6.925	6.925	(0.903)	689168	150.000	157.21
50	Toluene	91	6.445	6.445	(0.840)	2907224	150.000	139.84
20	trans-1,2-Dichloroethene	96	2.527	2.527	(0.604)	633195	150.000	136.52
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	1006695	150.000	152.37
38	Trichloroethene	130	5.206	5.206	(1.049)	743912	150.000	143.37
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	1277632	150.000	142.49
5	Vinyl Chloride	62	1.138	1.138	(0.272)	799846	150.000	136.03

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

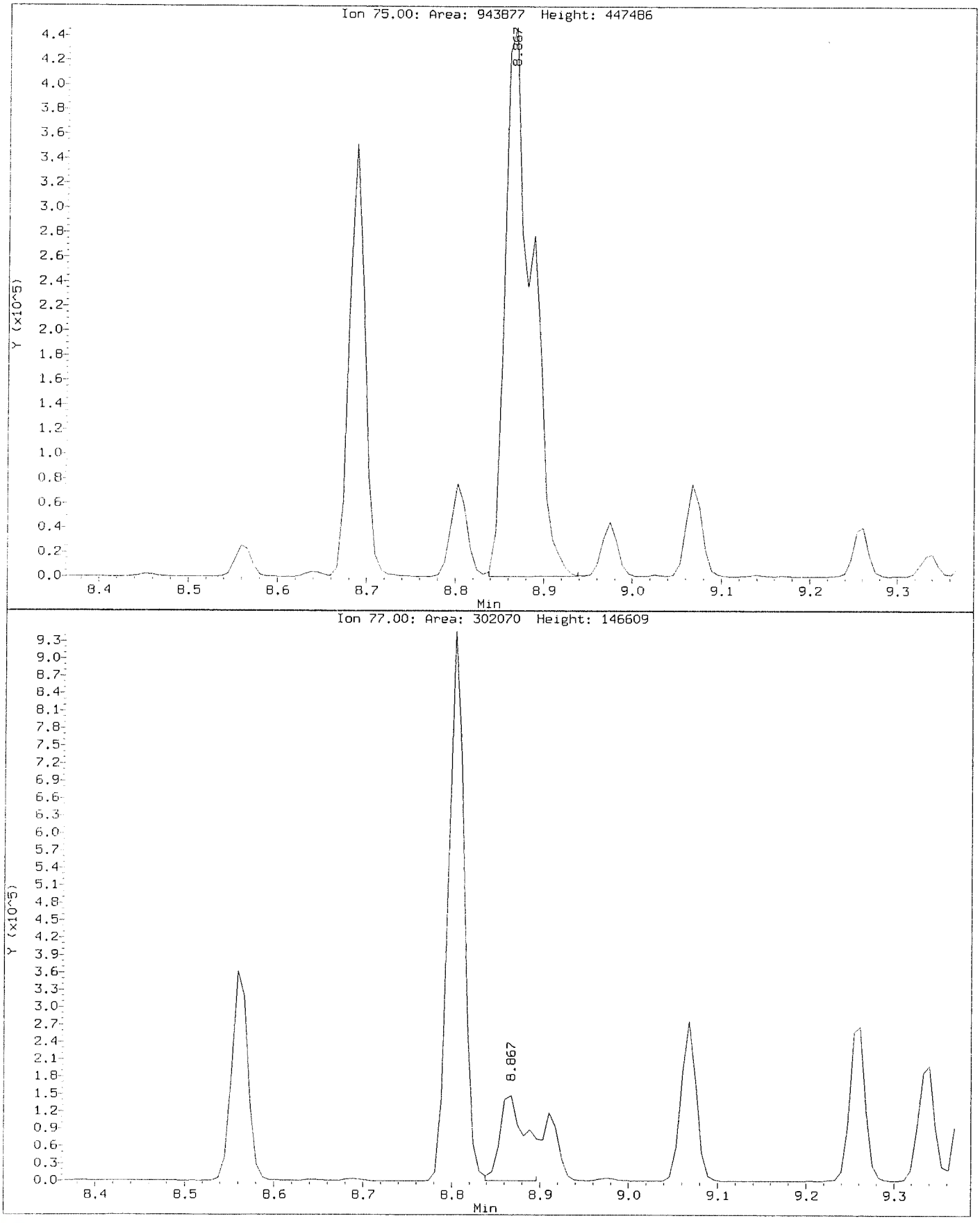


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Date : 26-MAY-2021 15:43
Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;9;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

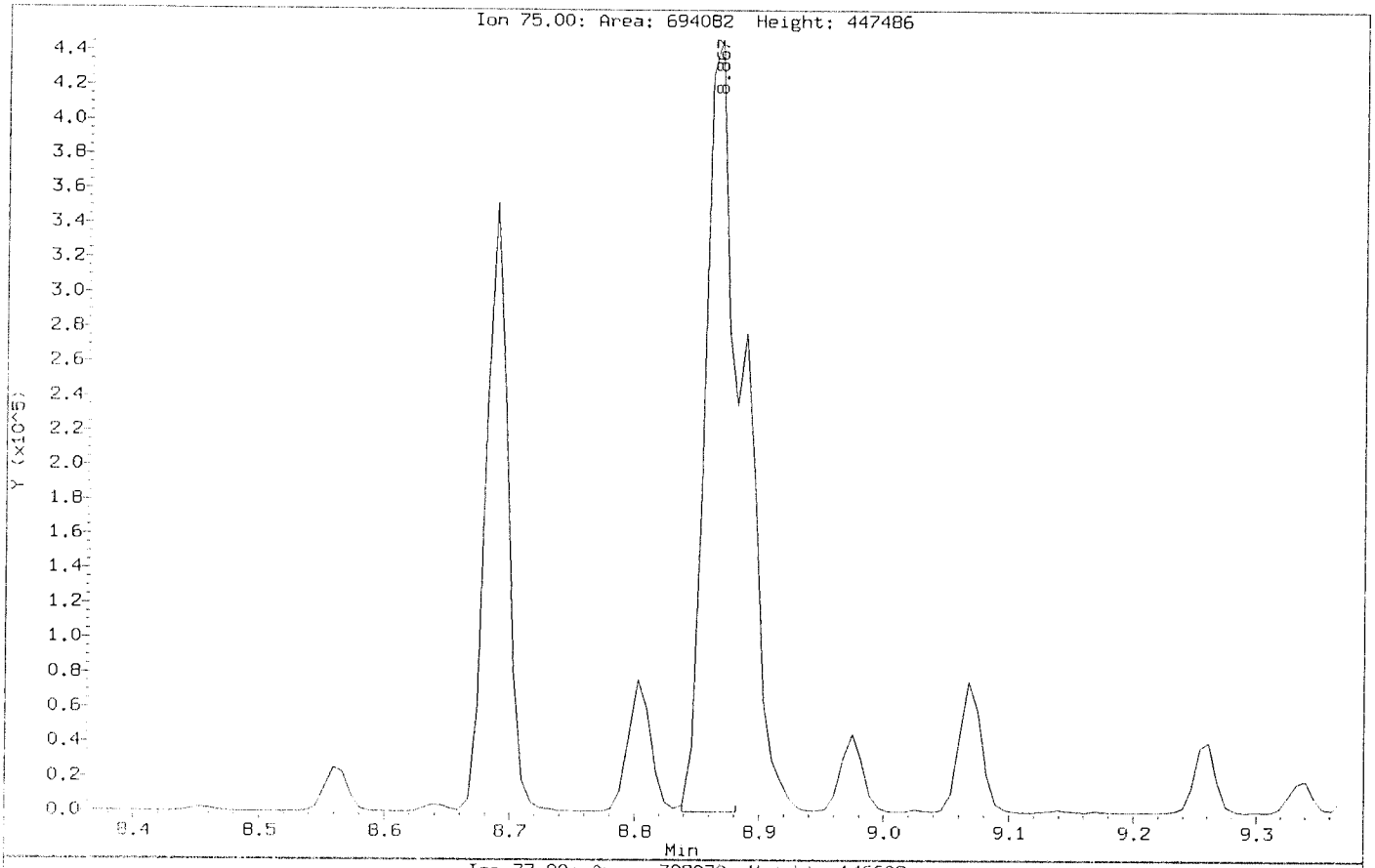
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Instrument: voa6.i
Client Sample ID: VSTD150

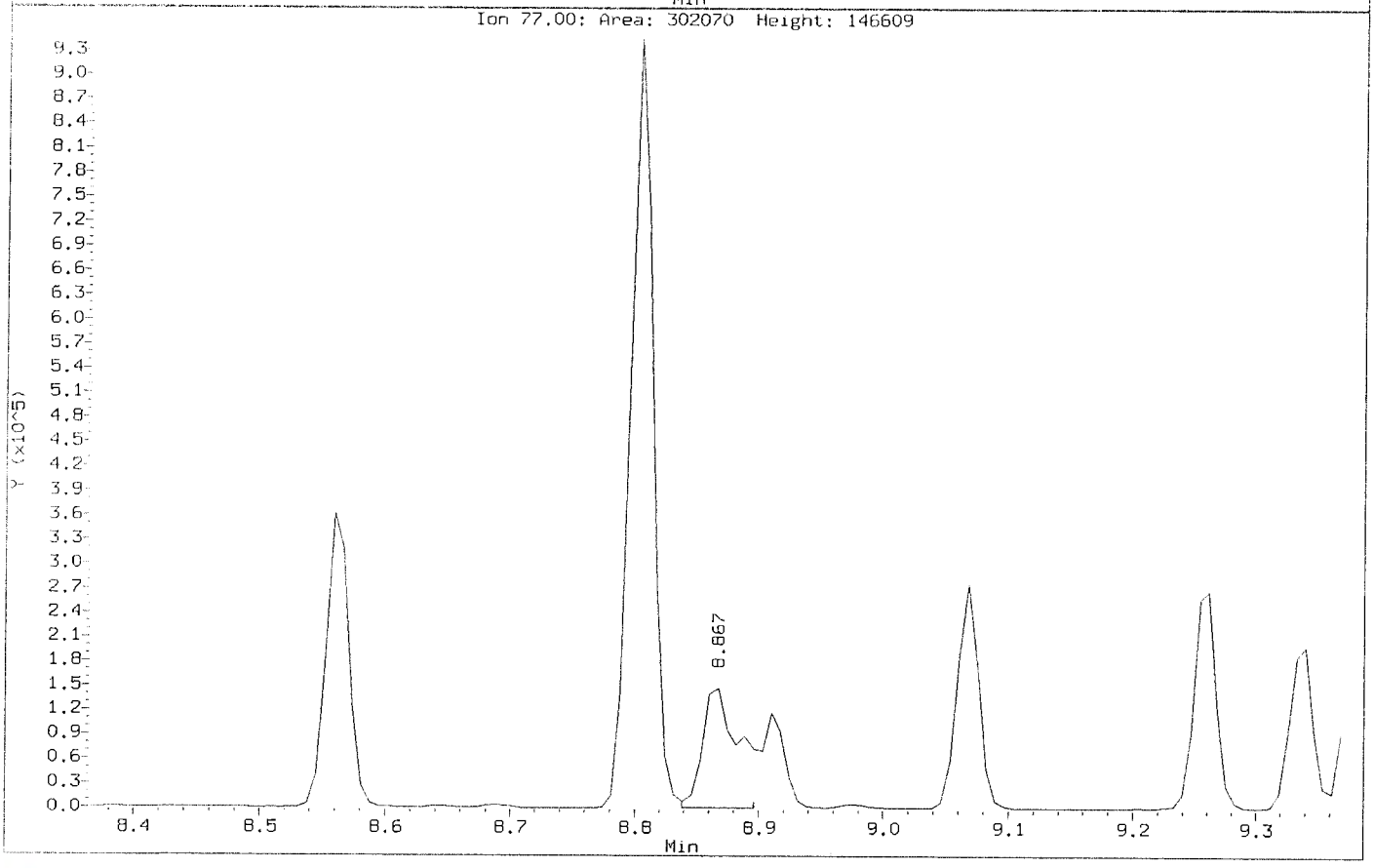
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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Injection Date: 26-MAY-2021 15:43
Instrument: voa6.i
Client Sample ID: VSTD150

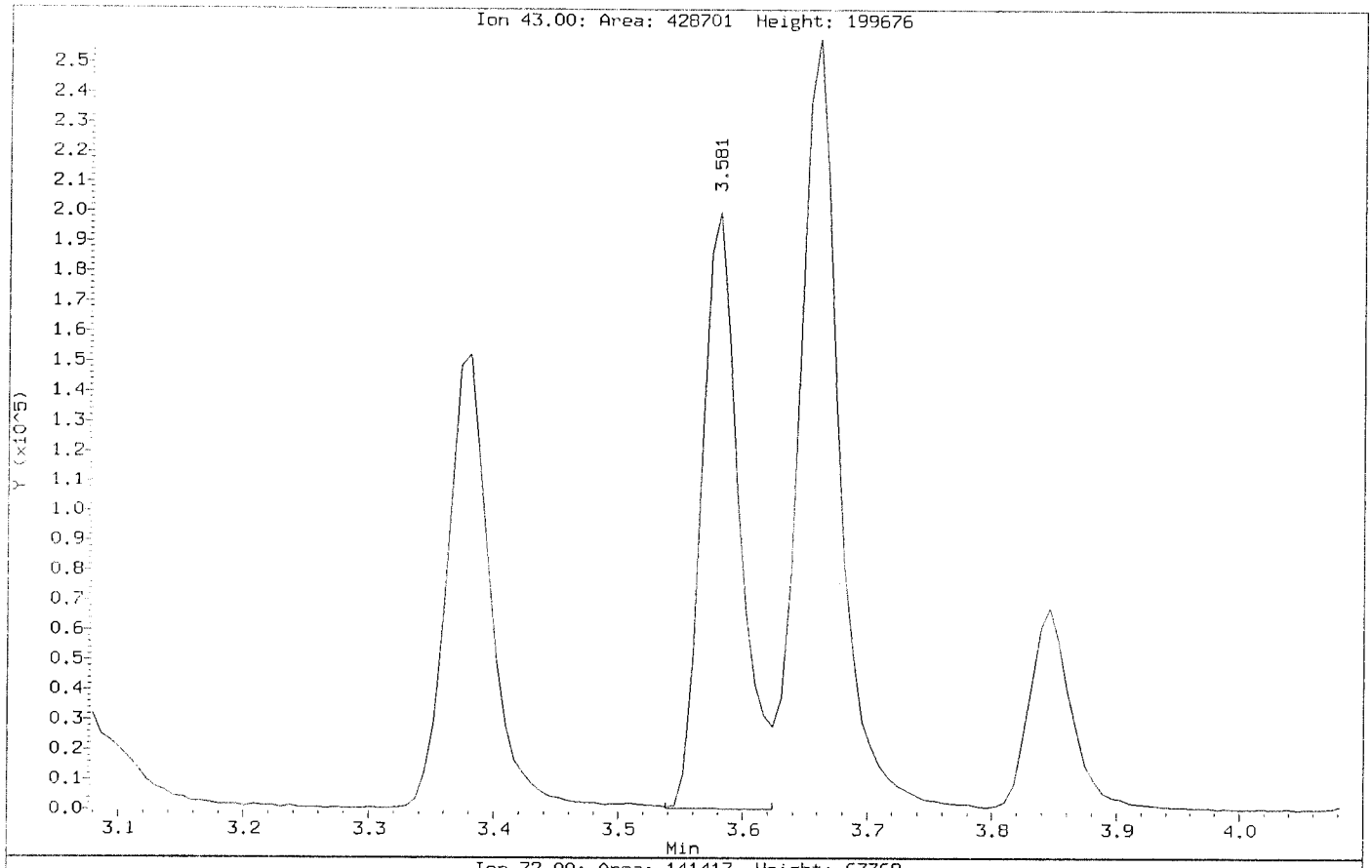
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

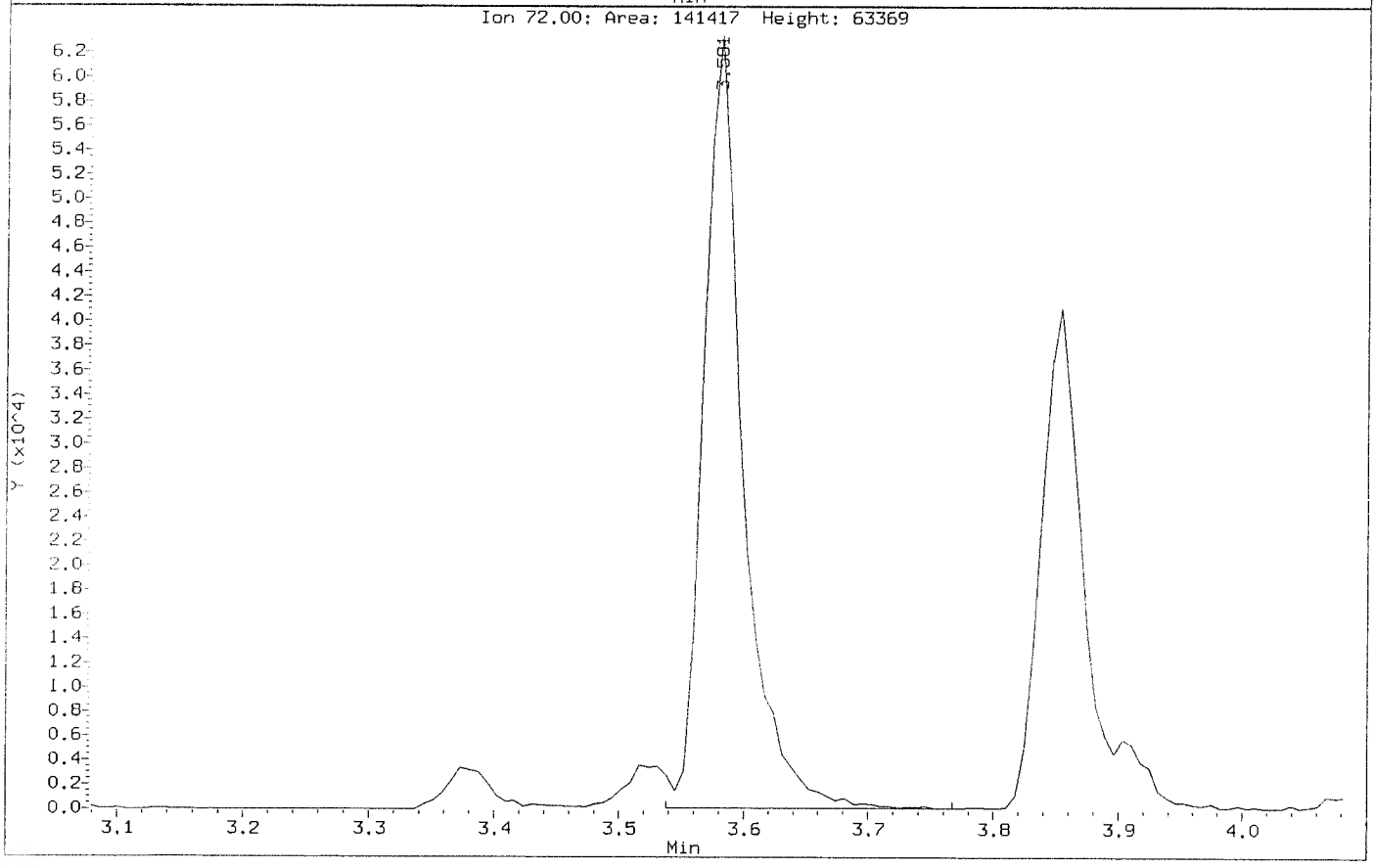




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052610.D
Injection Date: 26-MAY-2021 15:43
Instrument: voa6.i
Client Sample ID: VSTD150

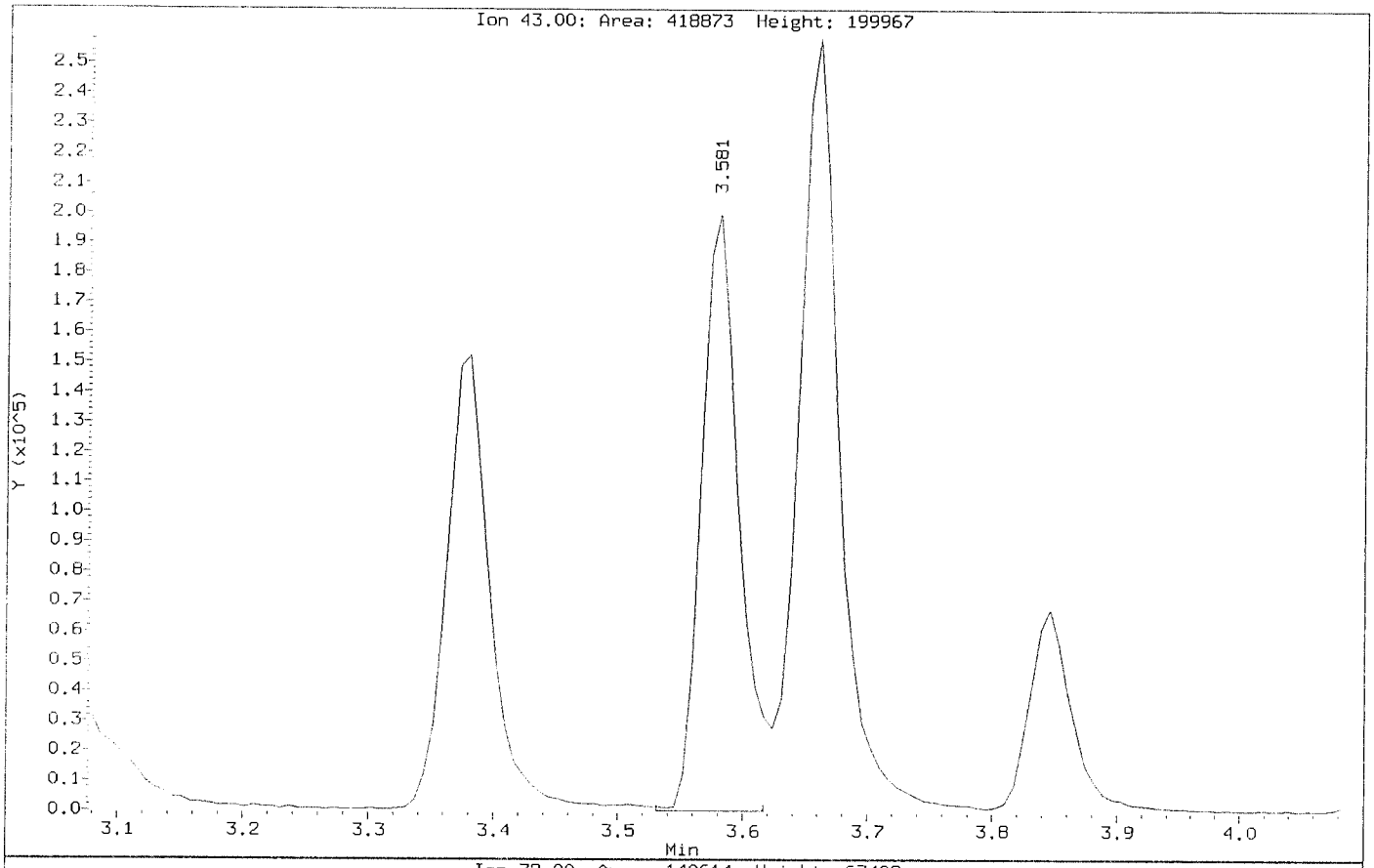
Compound: 2-Butanone
CAS Number: 78-93-3

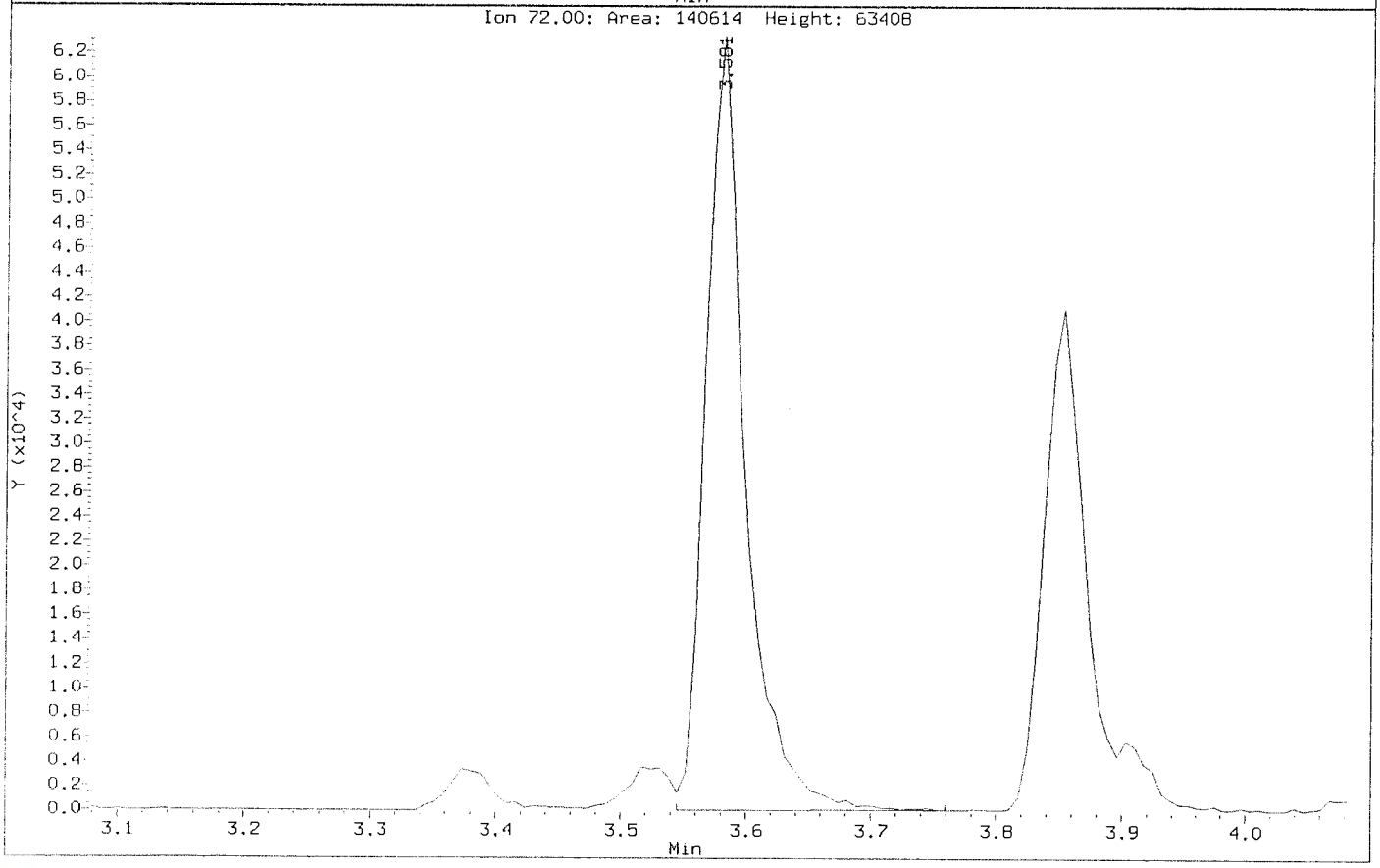




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052610.D
Injection Date: 26-MAY-2021 15:43
Instrument: voa6.i
Client Sample ID: VSTD150

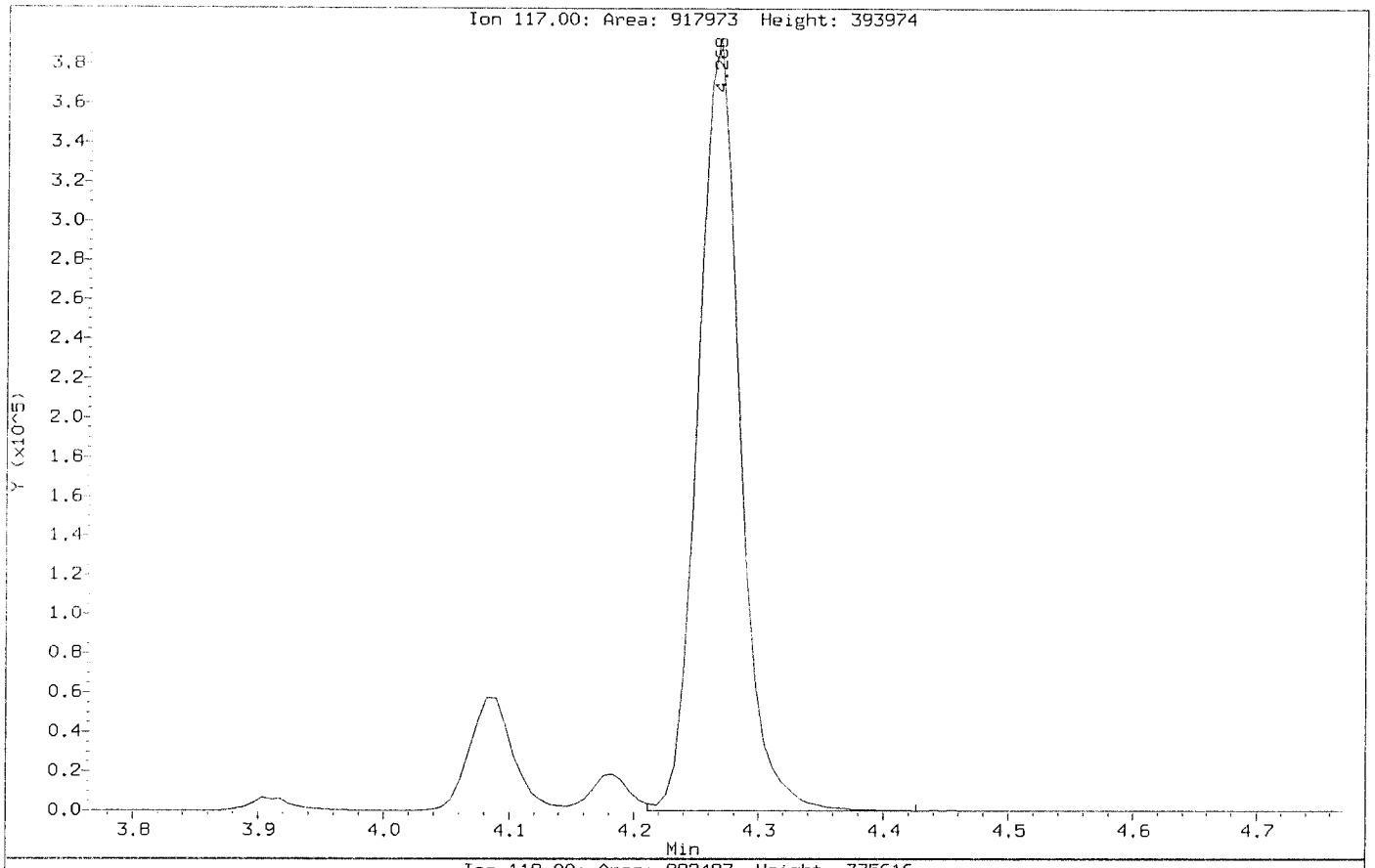
Compound: 2-Butanone
CAS Number: 78-93-3

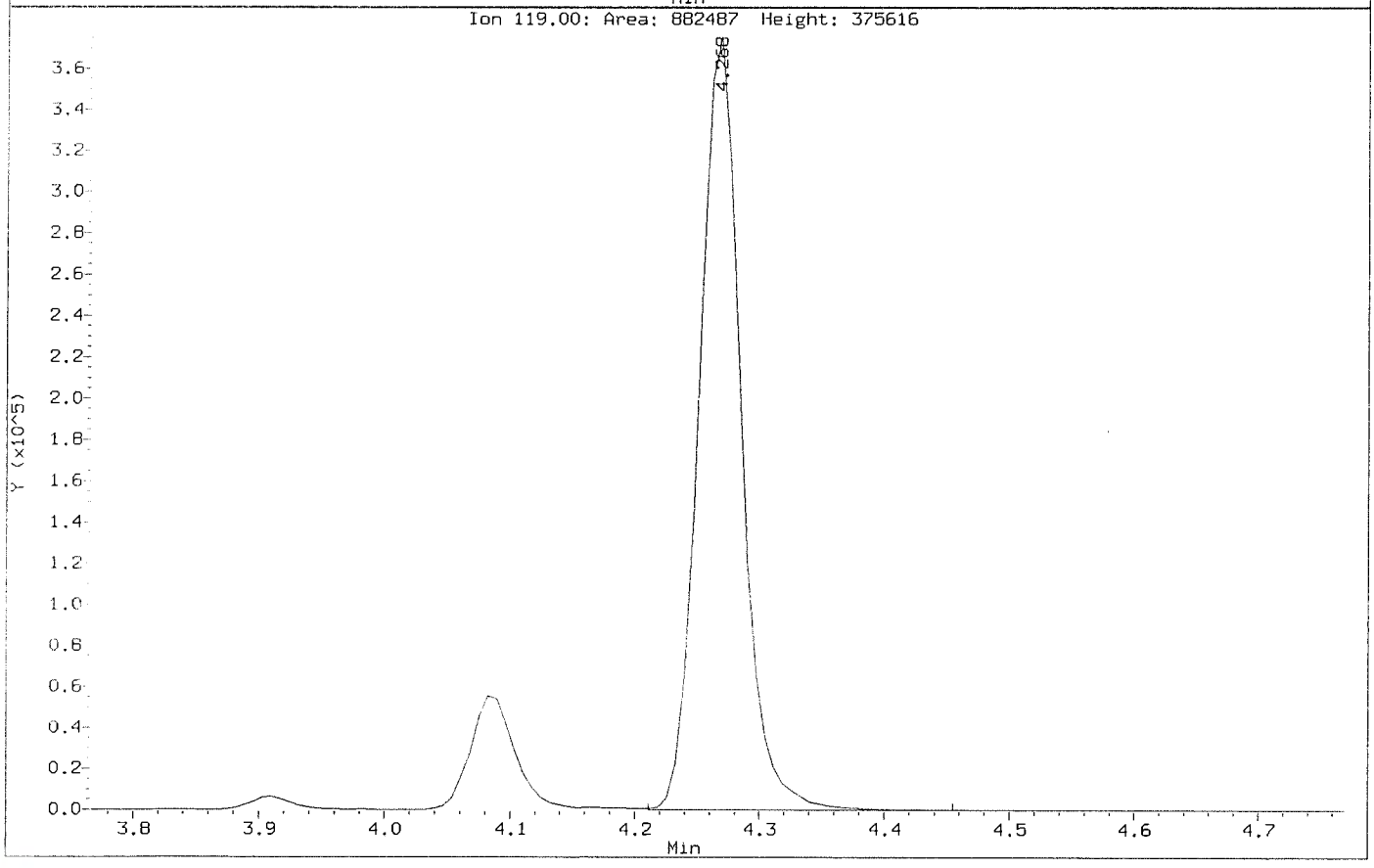




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Injection Date: 26-MAY-2021 15:43
Instrument: voa6.i
Client Sample ID: VSTD150

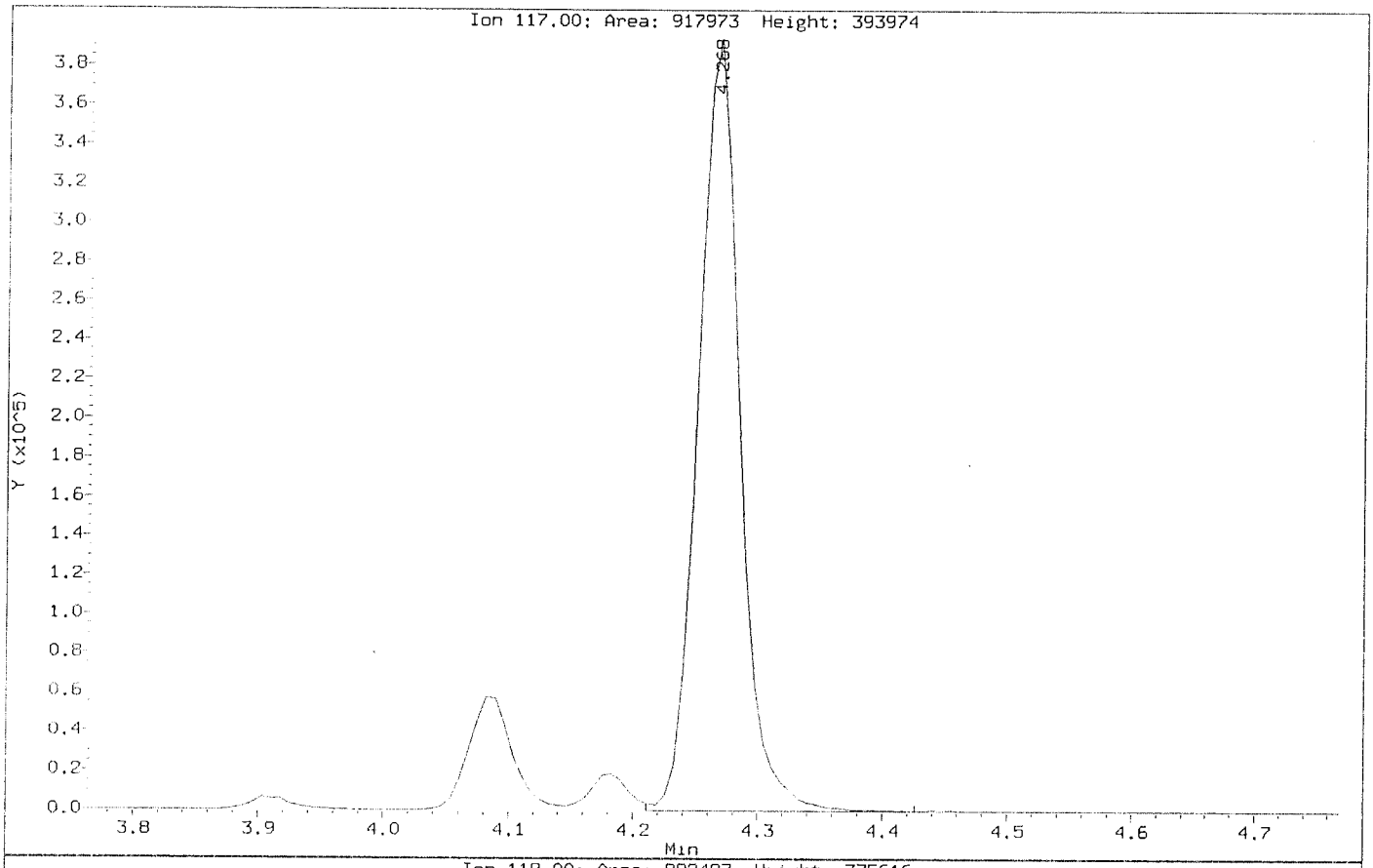
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

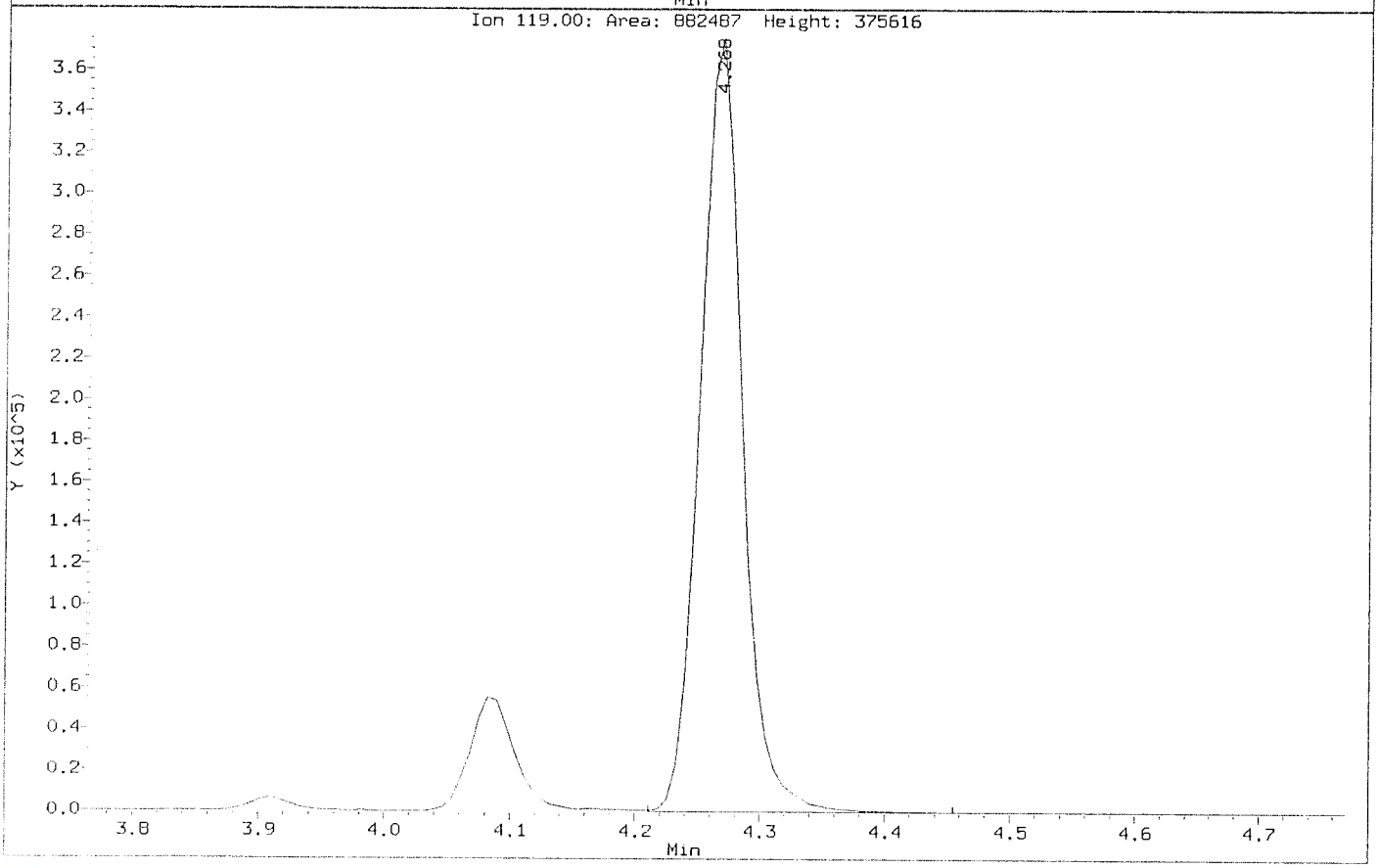




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052610.D
Injection Date: 26-MAY-2021 15:43
Instrument: voa6.i
Client Sample ID: VSTD150

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052611.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 26-MAY-2021 16:04
Operator : PC Inst ID: voa6.i
Smp Info : VSTD200;VSTD200;1;10;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:43 Cal File: X052610.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

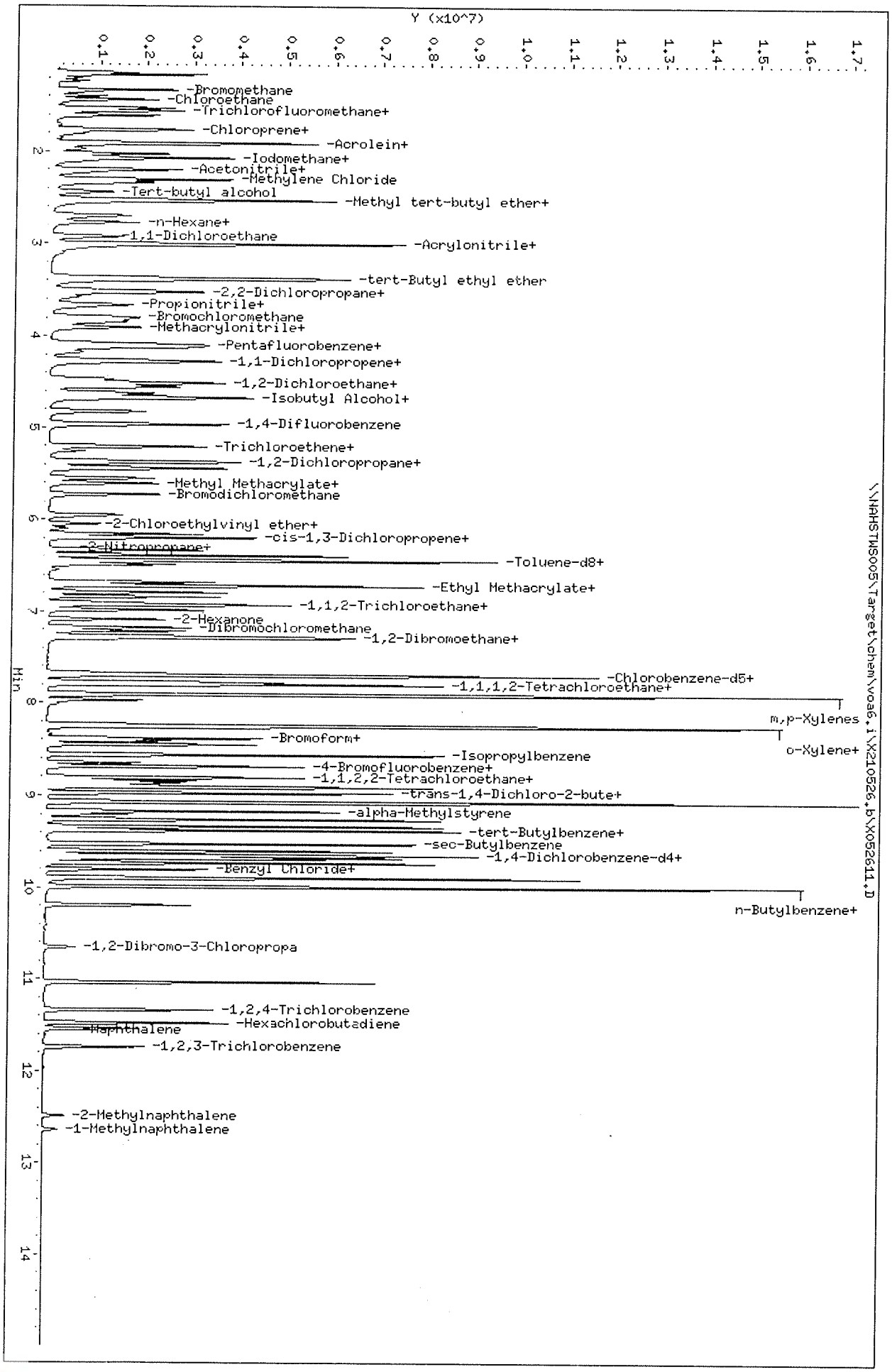
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	527290	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	811816	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	755473	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	445629	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	1043408	200.000	201.53(A)
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	998694	200.000	200.33(A)
$	48 Toluene-d8	98	6.388	6.388	(0.833)	3611012	200.000	191.88
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	1352939	200.000	201.60(A)
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	1160674	200.000	207.74(A)
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	1546157	200.000	198.41
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	1217789	200.000	201.34(A)
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	795336	200.000	194.34
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	1553138	200.000	186.31
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	1086071	200.000	199.96
	32 1,1-Dichloropropene	75	4.283	4.283	(0.863)	1215669	200.000	195.52
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	587179	200.000	217.65(A)
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	1016225	200.000	182.90(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	1006020	200.000	228.33(A)
	79 1,2,4-Trimethylbenzene	105	9.383	9.383	(0.971)	3984770	200.000	196.04
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	144783	200.000	203.21(A)
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	1081620	200.000	194.46
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	2444820	200.000	202.26(A)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052611.D Page 2
Report Date: 30-Jun-2021 18:30

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	1287189	200.000	198.99
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	927936	200.000	194.18
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	4079042	200.000	201.65(A)
83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	2476726	200.000	197.04
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	1564813	200.000	192.29
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	2515937	200.000	191.81
26 2,2-Dichloropropane	77	3.509	3.509	(0.839)	1390015	200.000	192.68
24 2-Butanone	43	3.581	3.581	(0.856)	612469	400.000	381.77(AH)
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	3071832	200.000	184.16
52 2-Hexanone	43	7.090	7.090	(0.924)	1187324	400.000	423.08(A)
77 4-Chlorotoluene	91	9.067	9.067	(0.938)	3896306	200.000	196.15
82 p-Isopropyltoluene	119	9.648	9.648	(0.999)	4264800	200.000	206.97(A)
45 4-Methyl-2-Pentanone	43	6.331	6.331	(0.825)	1734309	400.000	398.65(A)
10 Acetone	43	1.976	1.976	(0.473)	519345	400.000	402.63(A)
37 Benzene	78	4.512	4.512	(0.909)	3517442	200.000	188.60
74 Bromobenzene	156	8.810	8.810	(0.912)	1454241	200.000	196.69
29 Bromochloromethane	128	3.795	3.795	(0.908)	600567	200.000	188.36
39 Bromodichloromethane	83	5.722	5.722	(1.153)	1341462	200.000	192.21
66 Bromoform	173	8.408	8.408	(1.096)	949877	200.000	225.48(A)
6 Bromomethane	94	1.331	1.331	(0.318)	1239498	200.000	227.04(A)
19 Carbon Disulfide	76	2.069	2.069	(0.495)	4795917	400.000	372.34(A)
34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	1378935	200.000	204.90(AH)
59 Chlorobenzene	112	7.692	7.692	(1.003)	3148357	200.000	200.18(A)
7 Chloroethane	64	1.396	1.396	(0.334)	731139	200.000	201.91(A)
28 Chloroform	83	3.910	3.910	(0.935)	1752890	200.000	189.03
3 Chloromethane	50	1.073	1.073	(0.257)	908675	200.000	198.43
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	1076621	200.000	194.80
46 cis-1,3-Dichloropropene	75	6.159	6.159	(1.241)	1661934	200.000	202.08(A)
55 Dibromochloromethane	129	7.176	7.176	(0.936)	1301247	200.000	209.27(A)
44 Dibromomethane	93	5.550	5.550	(1.118)	692444	200.000	192.81
2 Dichlorodifluoromethane	85	0.966	0.966	(0.231)	978413	200.000	202.63(A)
61 Ethylbenzene	106	7.800	7.800	(1.017)	1516023	200.000	208.94(A)
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	655226	200.000	199.03
67 Isopropylbenzene	105	8.559	8.559	(1.116)	4812871	200.000	217.10(A)
62 m,p-Xylenes	106	7.907	7.907	(1.031)	4076675	400.000	431.01(A)
17 Methylene Chloride	84	2.298	2.298	(0.550)	946394	200.000	201.84(A)
87 n-Butylbenzene	91	9.991	9.991	(1.034)	3888439	200.000	224.29(A)
73 n-Propylbenzene	91	8.910	8.910	(0.922)	5428268	200.000	195.27
92 Naphthalene	128	11.539	11.539	(1.194)	1334488	200.000	209.55(A)
63 o Xylene	106	8.244	8.244	(1.075)	1968239	200.000	213.41(A)
81 sec-Butylbenzene	105	9.526	9.526	(0.986)	4746456	200.000	202.83(A)
64 Styrene	104	8.258	8.258	(1.077)	3480363	200.000	225.83(A)
78 tert-Butylbenzene	119	9.340	9.340	(0.967)	3505119	200.000	202.12(A)
56 Tetrachloroethene	164	6.933	6.933	(0.904)	1043185	200.000	224.30(A)
50 Toluene	91	6.446	6.446	(0.840)	4409516	200.000	195.93
20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	939280	200.000	190.77
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	1486499	200.000	209.53(A)
38 Trichloroethene	130	5.207	5.207	(1.049)	1115378	200.000	200.18(A)
8 Trichlorofluoromethane	101	1.553	1.553	(0.372)	1890285	200.000	198.60
5 Vinyl Chloride	62	1.138	1.138	(0.272)	1189726	200.000	190.61

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

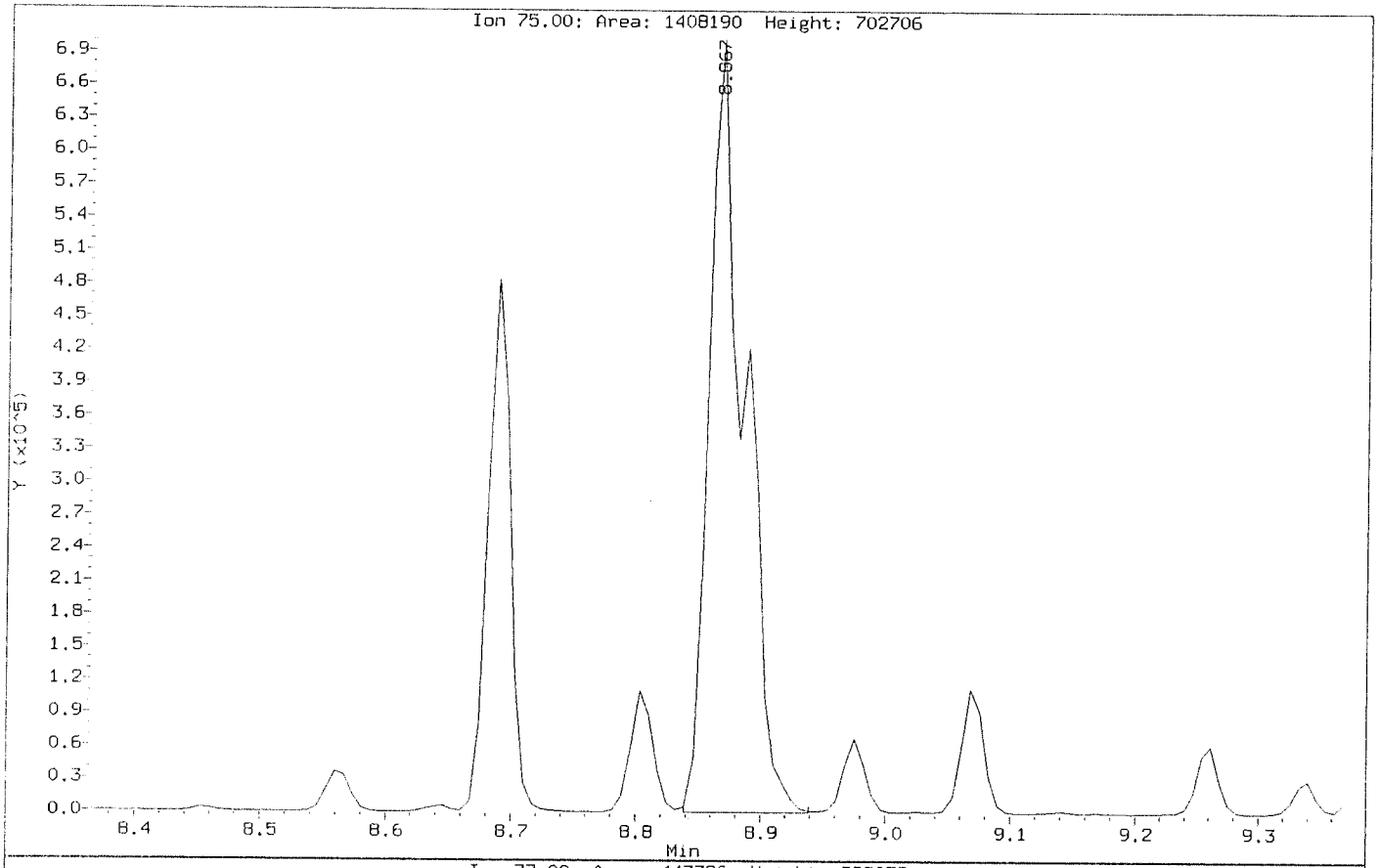


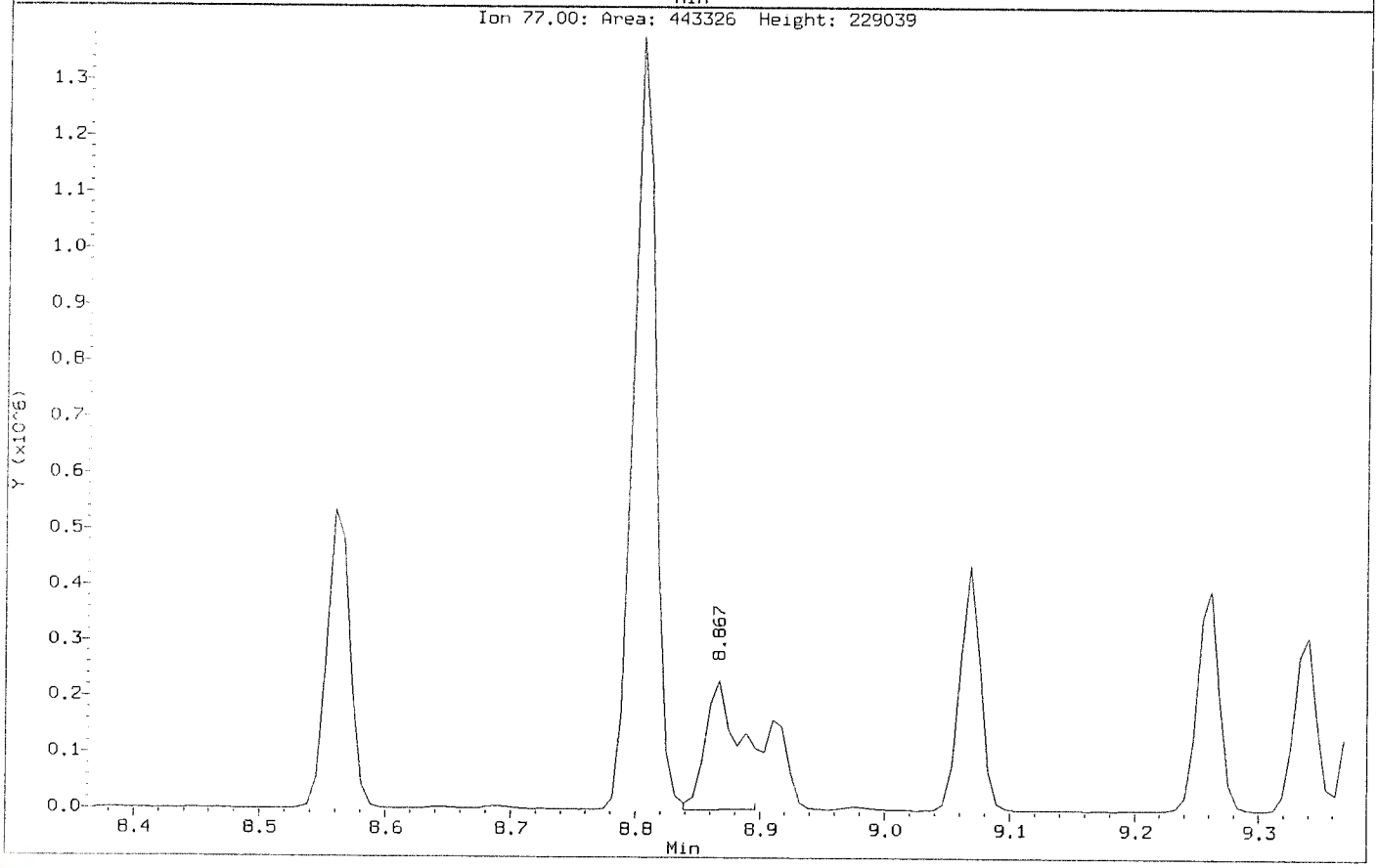
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Sample Info: VSTD200;VSTD200;1;10;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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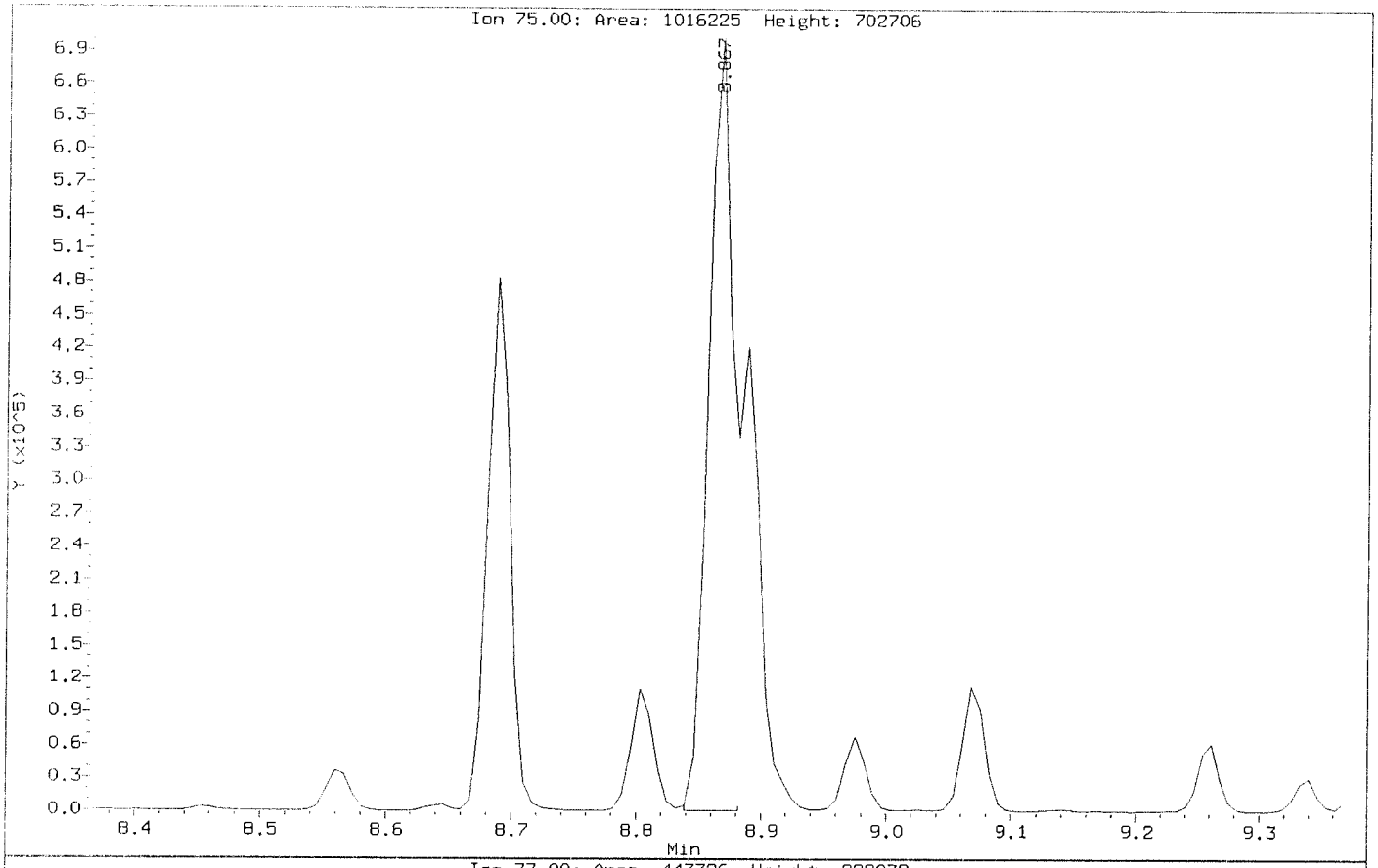
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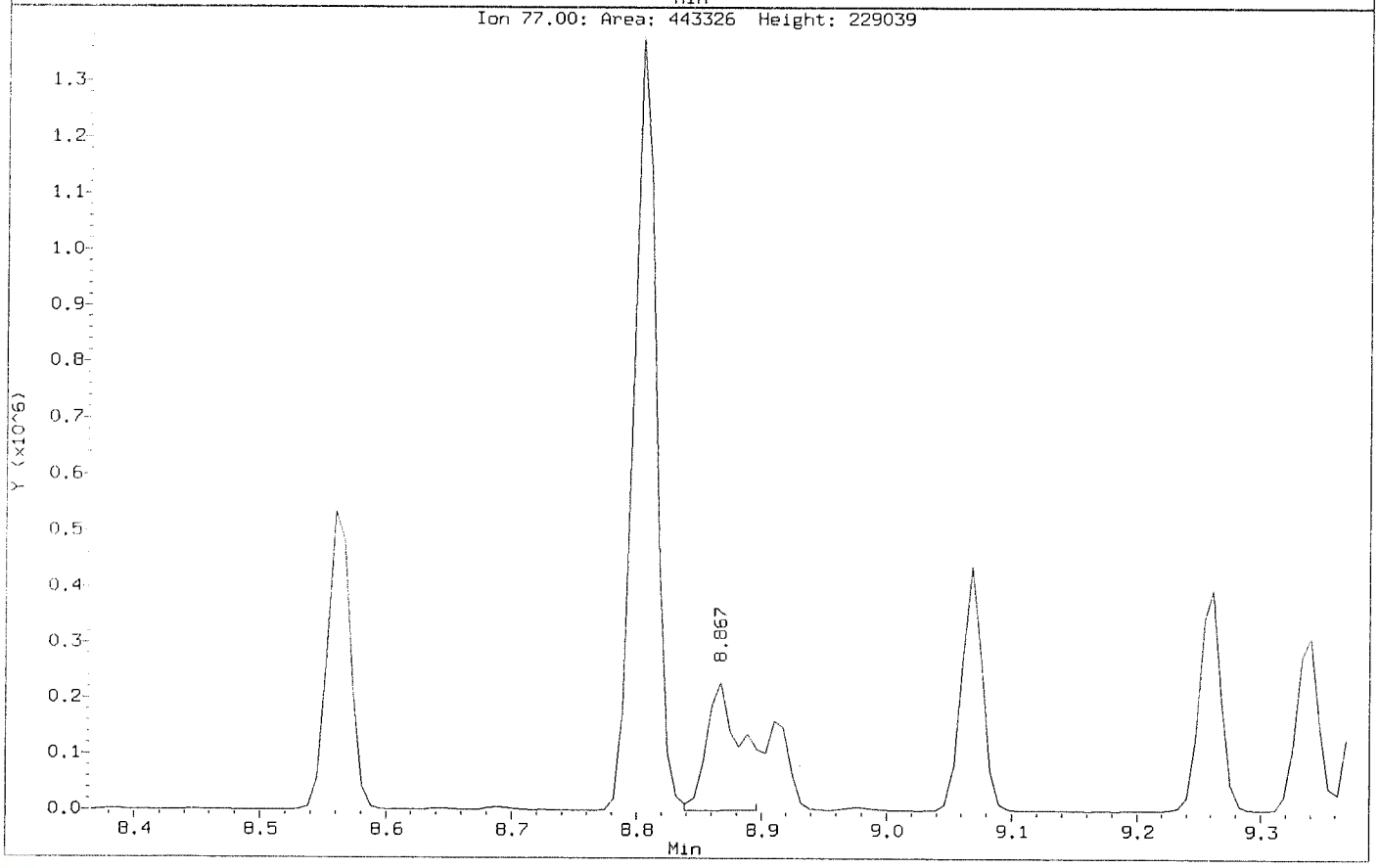




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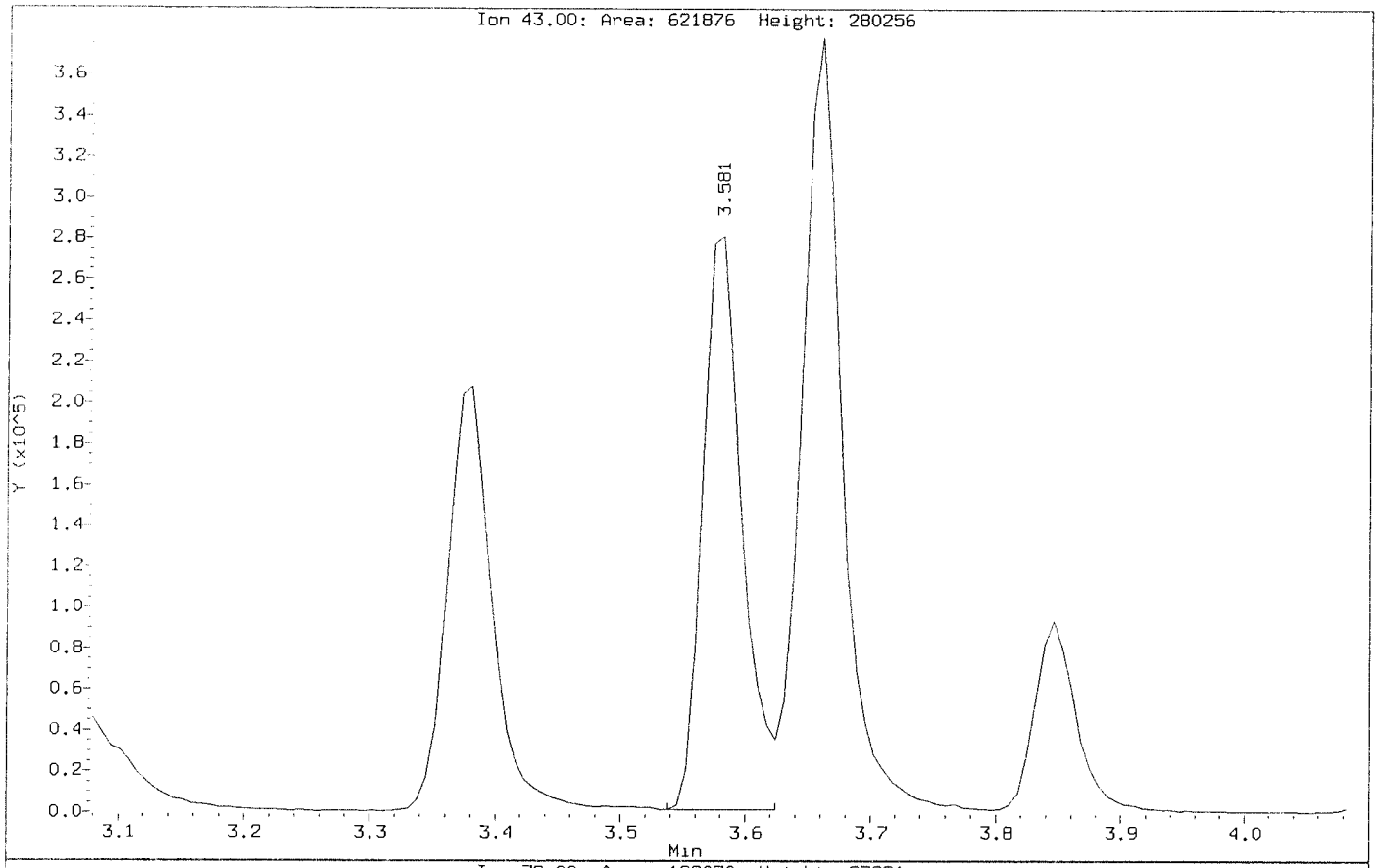
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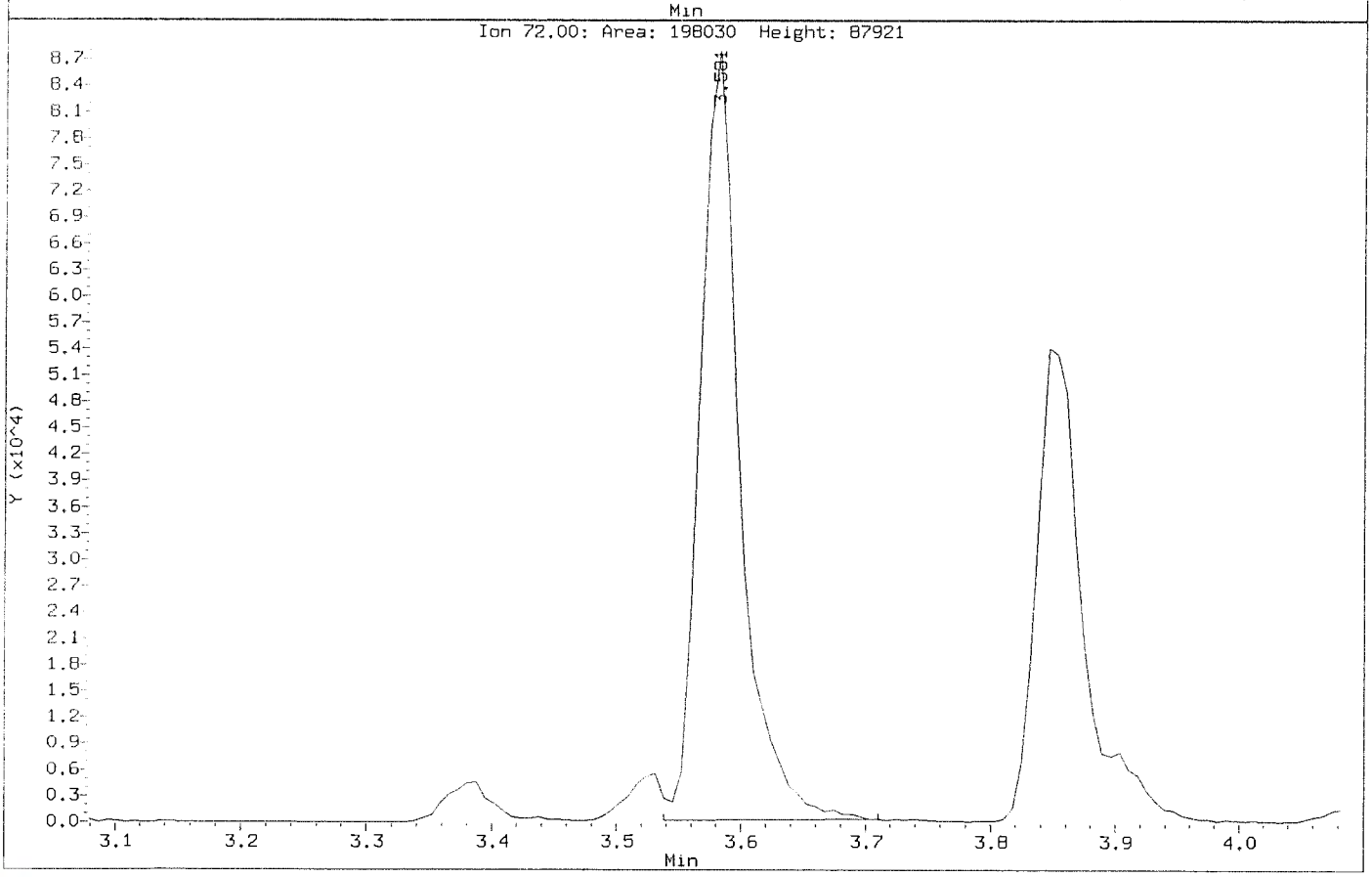




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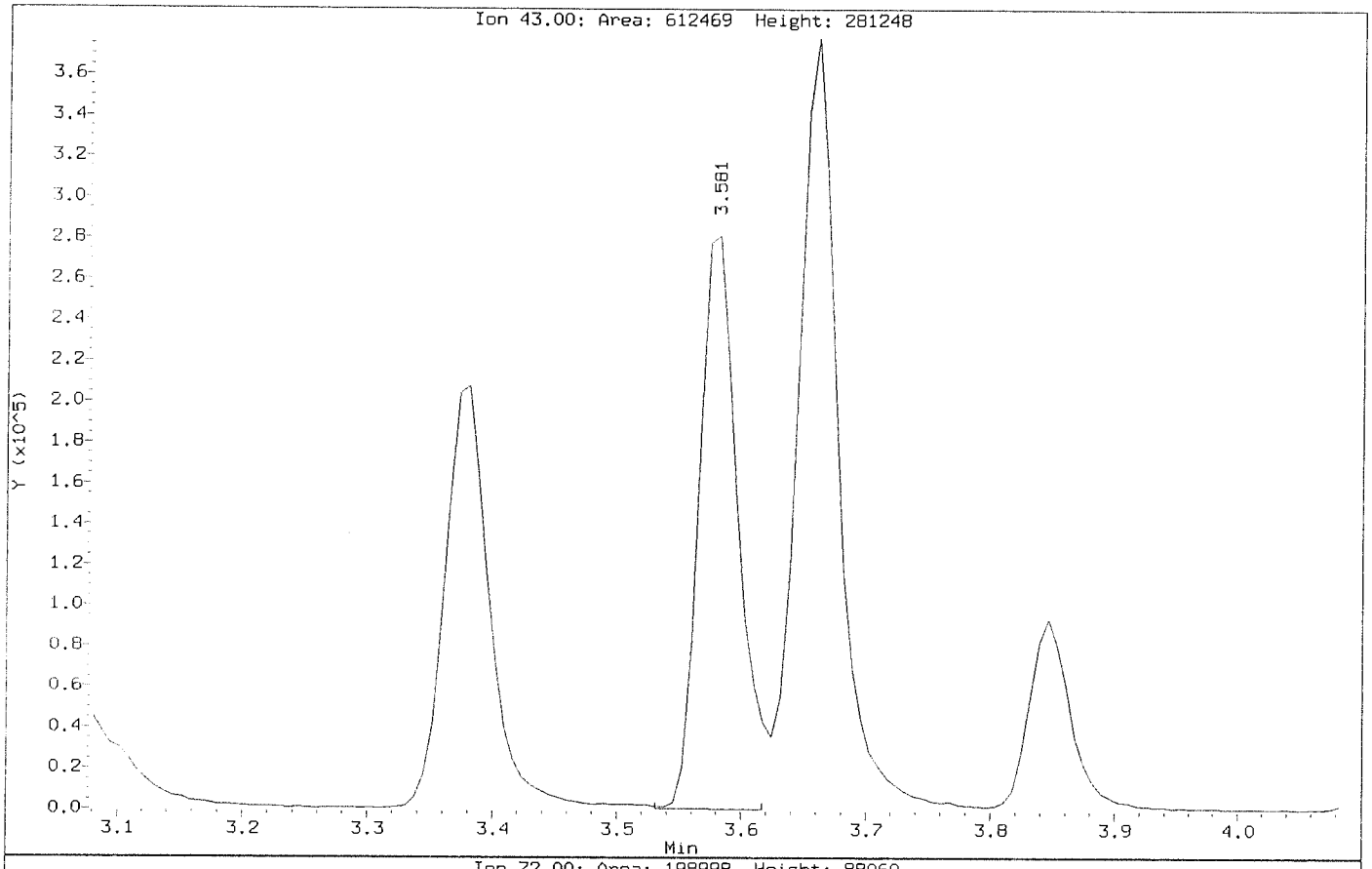
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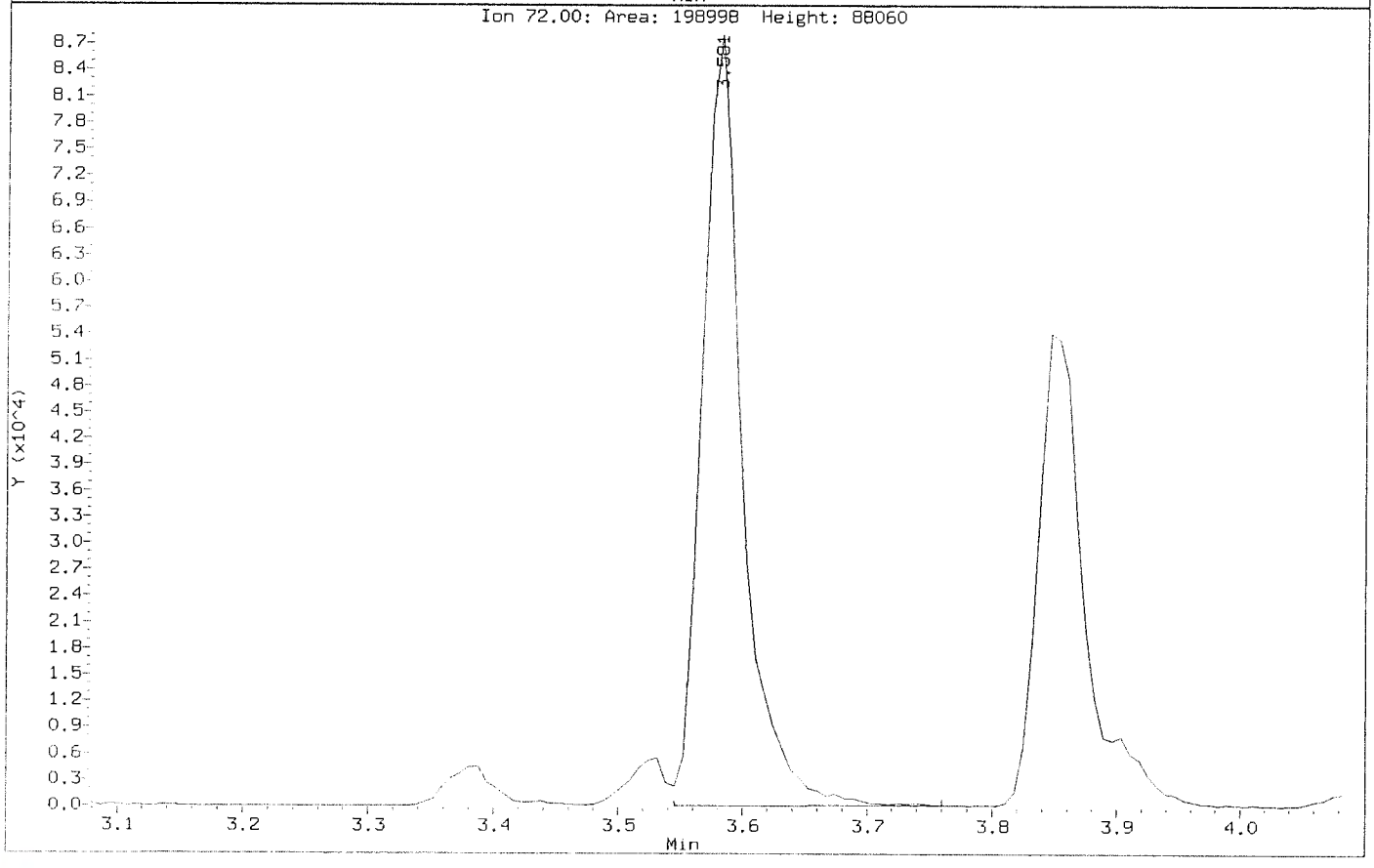




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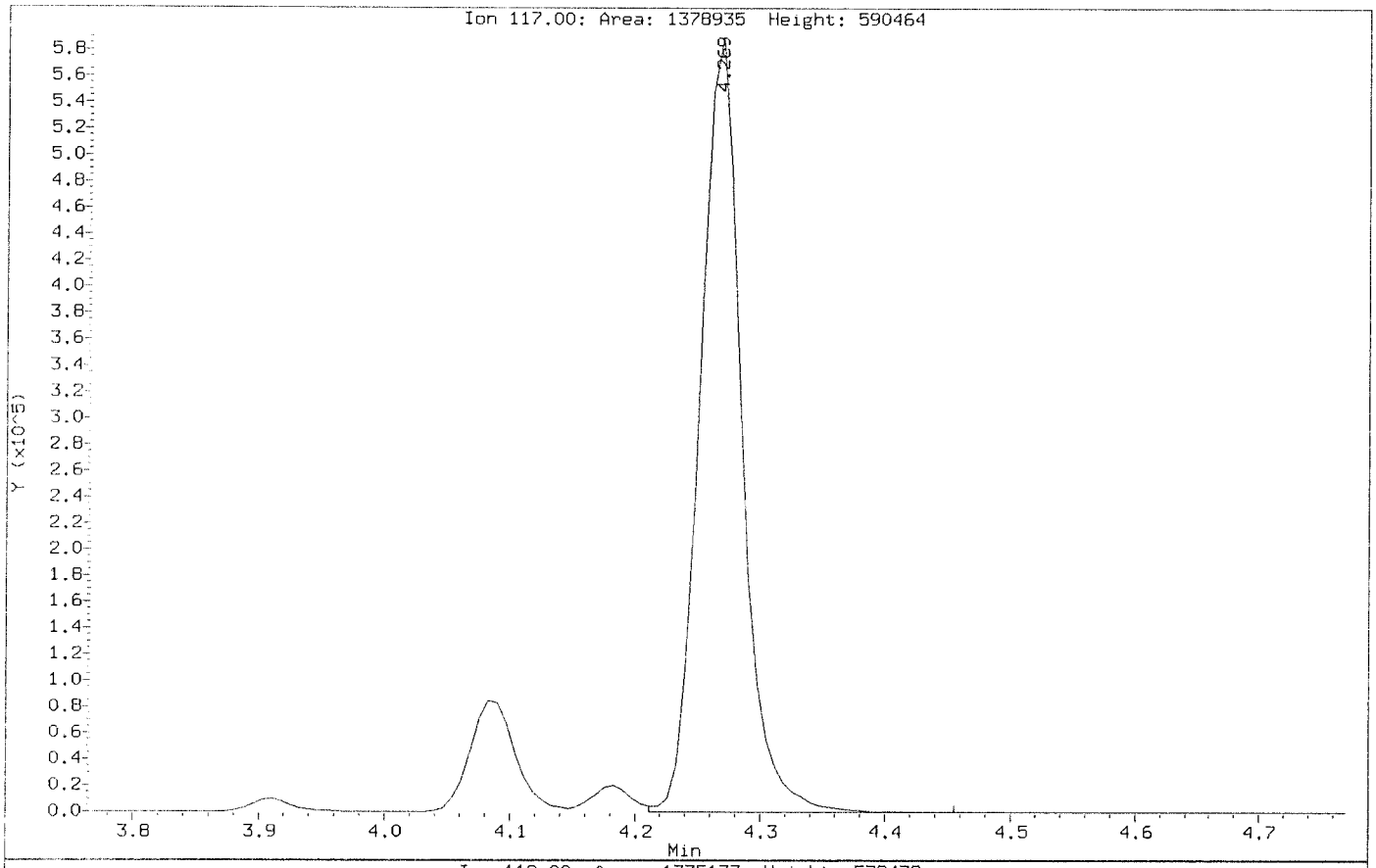
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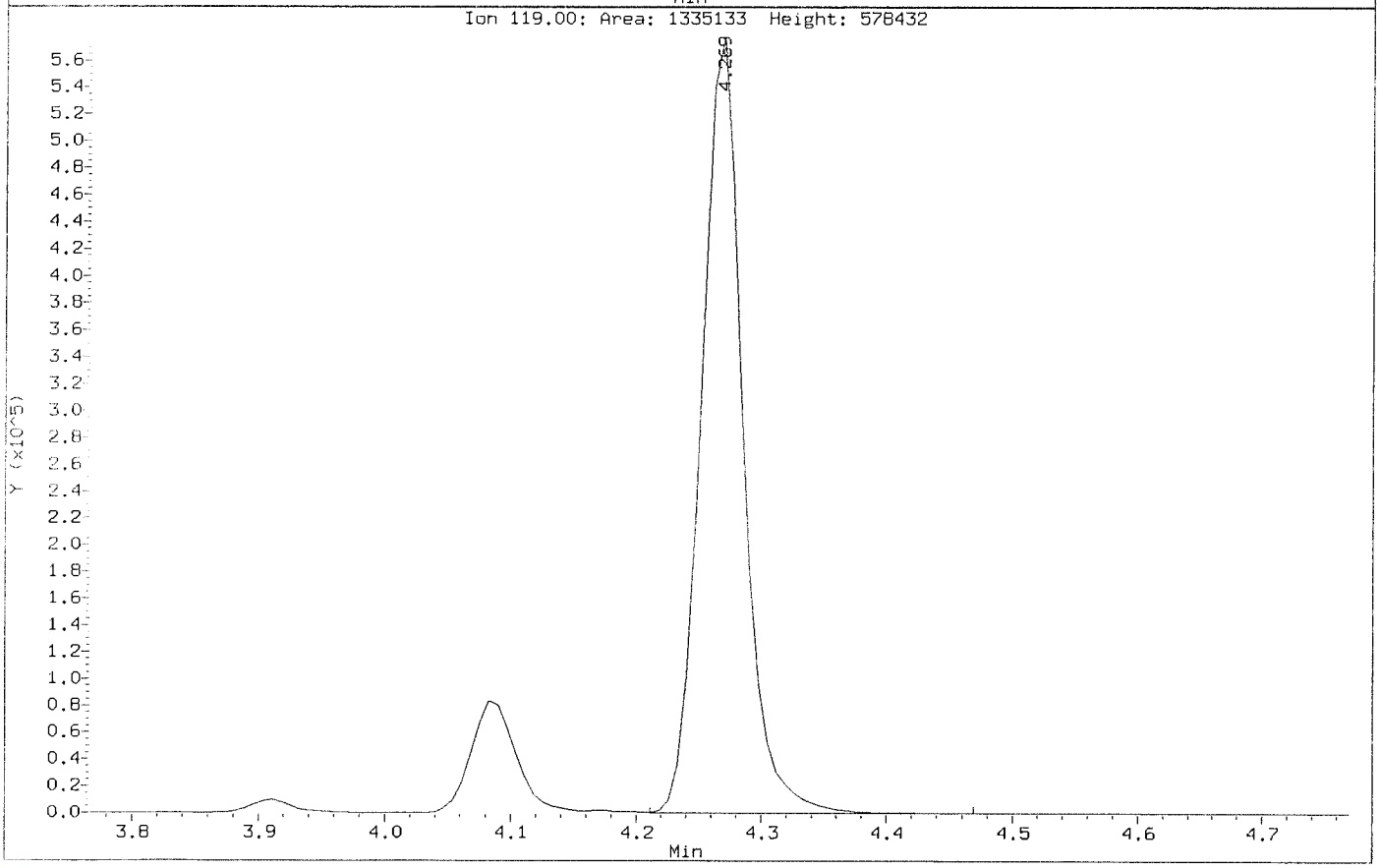




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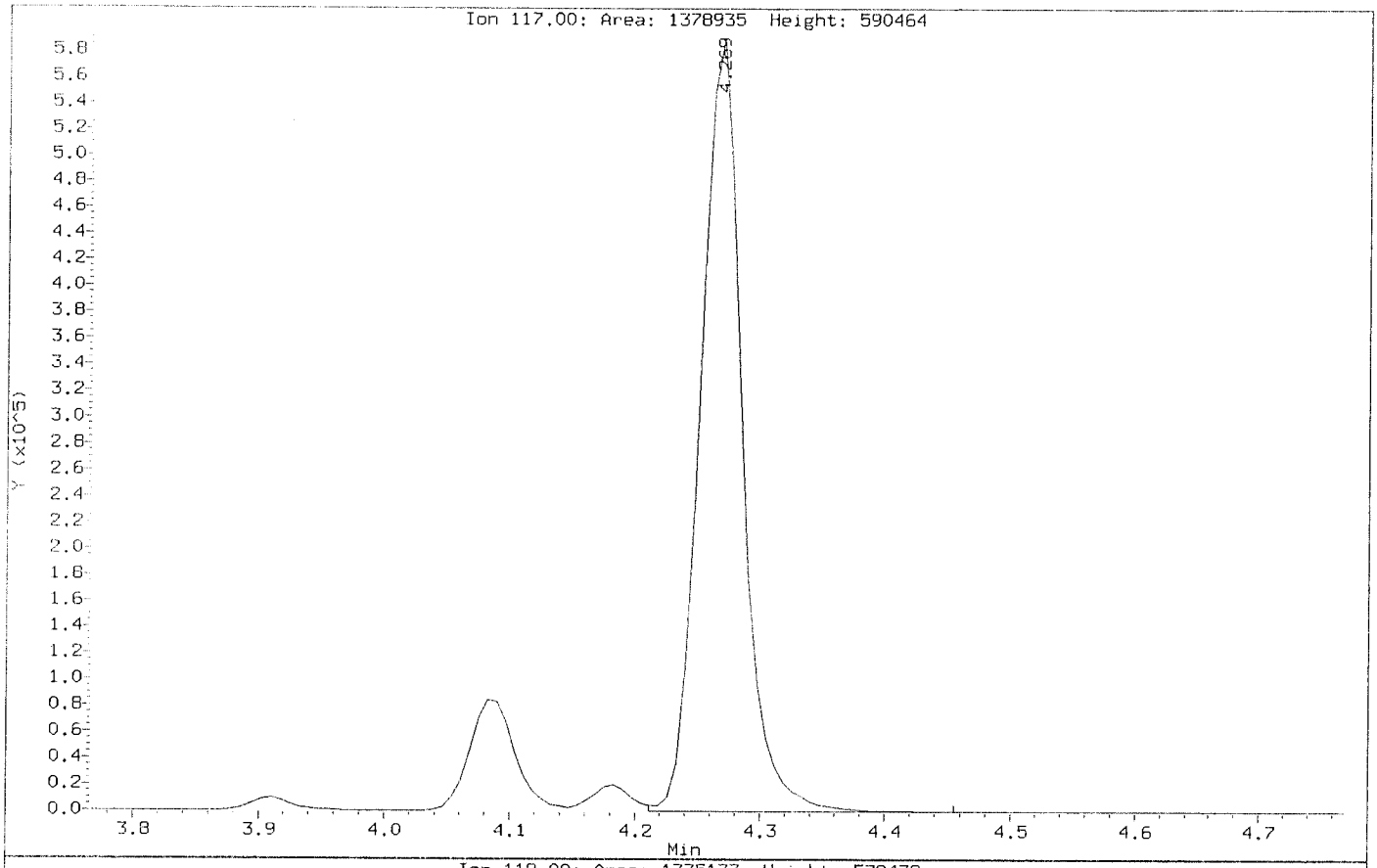
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CAS Number: 56-23-5

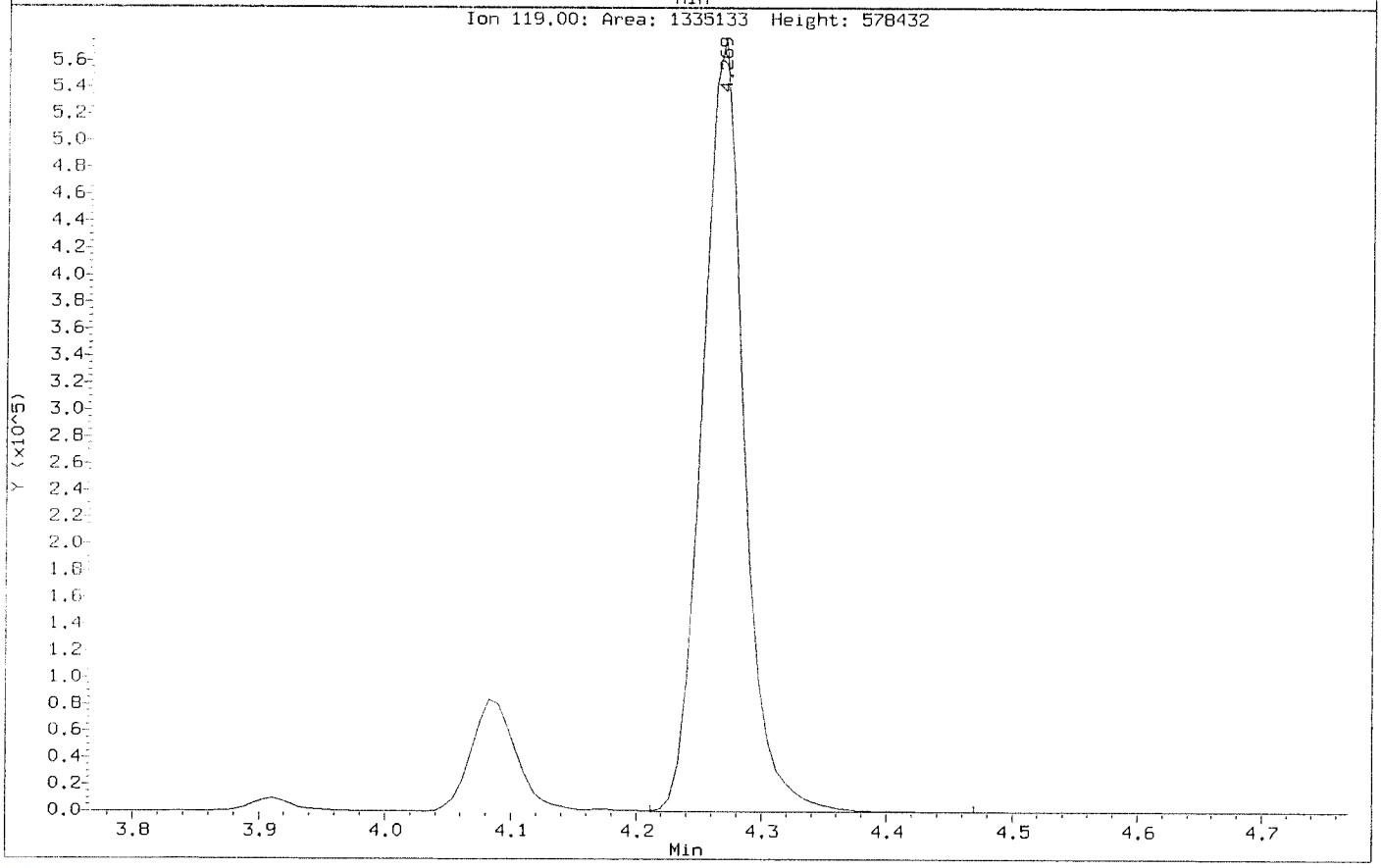




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Client Sample ID: VSTD200

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





ALS Laboratory Group

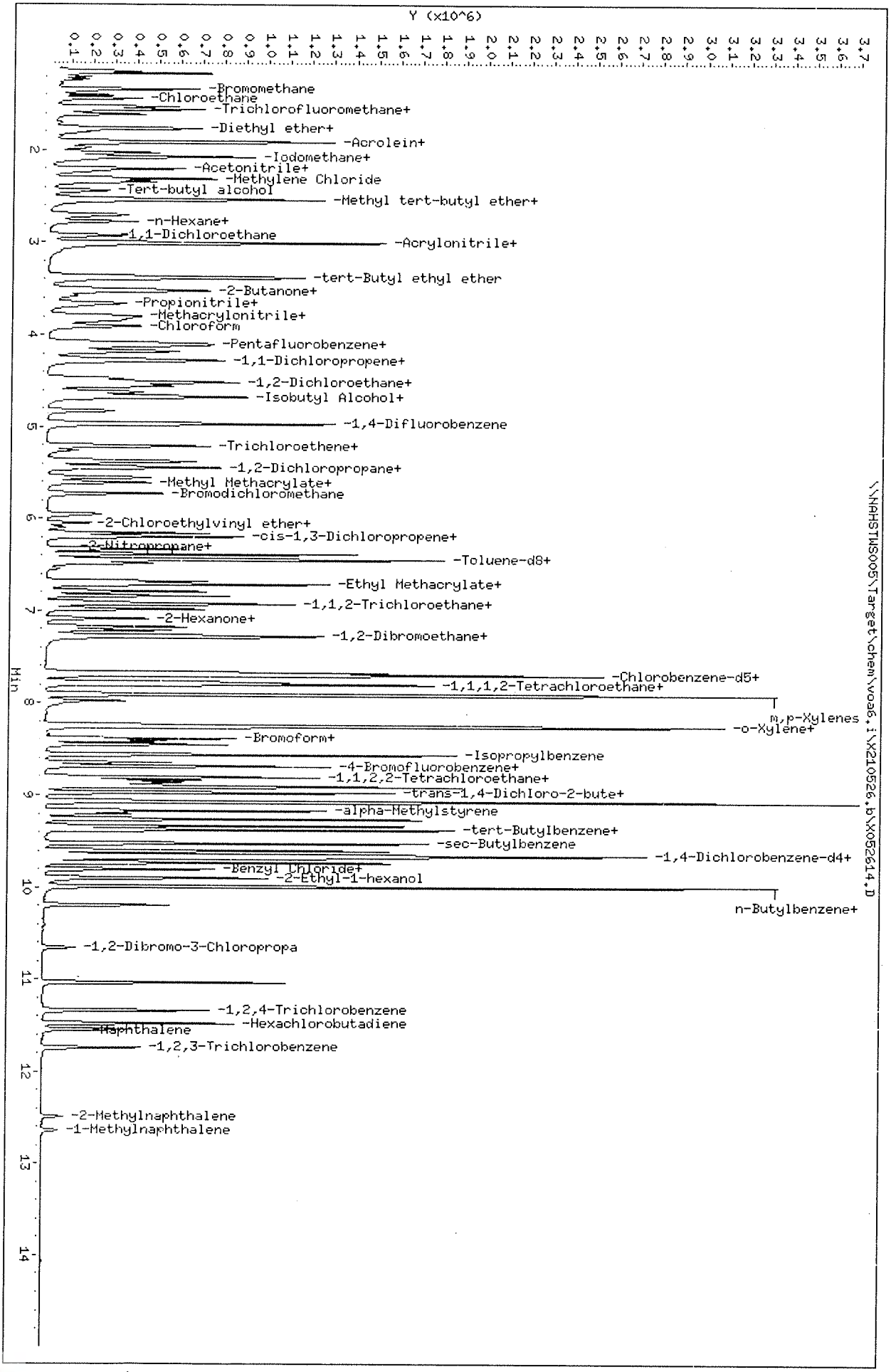
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Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;ICV
Misc Info : HS18090001;WATER;0;1;
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Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 16:04 Cal File: X052611.D
Als bottle: 15 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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 MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	506914	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	749401	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	706349	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	404605	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.096	(0.981)	247247	49.5505	49.55
$	35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	239842	49.5243	49.52
$	48 Toluene-d8	98	6.388	6.388	(0.833)	833853	47.3924	47.39
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	315807	50.8964	50.89
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	257281	49.2529	49.25
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	339781	45.3571	45.35
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	270178	48.2956	48.29
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	179104	46.8083	46.80
	22 1,1-Dichloroethane	63	2.921	2.922	(0.699)	347110	43.3136	43.31
	11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	245712	47.0575	47.05
	32 1,1-Dichloropropene	75	4.282	4.283	(0.863)	274032	47.7443	47.74
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	132944	54.2763	54.27
	71 1,2,3-Trichloropropane	75	8.860	8.867	(0.917)	300466	59.5639	59.56
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	217548	54.3834	54.38
	79 1,2,4-Trimethylbenzene	105	9.375	9.383	(0.970)	872205	47.2632	47.26
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	32977	51.3630	51.36
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	239375	46.0296	46.02
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	528355	48.1444	48.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	289734	48.5232	48.52
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	207974	47.1466	47.14
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	895653	48.7678	48.76
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	551654	48.3386	48.33
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	347121	45.6229	45.62
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	560227	47.0431	47.04
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	322832	46.5498	46.54
24	2-Butanone	43	3.580	3.581	(0.856)	137219	88.9725	88.97
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	698906	46.1501	46.15
52	2-Hexanone	43	7.090	7.090	(0.924)	245058	93.3955	93.39
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	852569	47.2731	47.27
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	926735	49.5363	49.53
45	4-Methyl-2-Pentanone	43	6.324	6.331	(0.824)	353755	86.9700	86.96
10	Acetone	43	1.976	1.976	(0.473)	135713	105.102	105.10
37	Benzene	78	4.512	4.512	(0.909)	815678	47.3793	47.37
74	Bromobenzene	156	8.802	8.810	(0.911)	325168	48.4391	48.43
29	Bromochloromethane	128	3.795	3.795	(0.908)	138143	45.0694	45.06
39	Bromodichloromethane	83	5.722	5.722	(1.153)	302319	46.9256	46.92
66	Bromoform	173	8.408	8.408	(1.096)	199211	50.5771	50.57
6	Bromomethane	94	1.338	1.331	(0.320)	290943	55.5502	55.55
19	Carbon Disulfide	76	2.069	2.069	(0.495)	1117790	90.2714	90.27
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	303364	48.8328	48.83
59	Chlorobenzene	112	7.692	7.692	(1.003)	679625	46.2195	46.21
7	Chloroethane	64	1.403	1.396	(0.336)	180947	50.9274	50.92
28	Chloroform	83	3.910	3.910	(0.935)	393929	44.1902	44.19
3	Chloromethane	50	1.073	1.073	(0.257)	234438	51.2462	51.24
27	cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	247214	46.5287	46.52
46	cis-1,3-Dichloropropene	75	6.152	6.159	(1.240)	374428	49.3216	49.32
55	Dibromochloromethane	129	7.176	7.176	(0.936)	278310	47.8716	47.87
44	Dibromomethane	93	5.550	5.550	(1.118)	156126	47.0960	47.09
2	Dichlorodifluoromethane	85	0.973	0.966	(0.233)	239483	51.4356	51.43
61	Ethylbenzene	106	7.800	7.800	(1.017)	342336	50.4646	50.46
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	150526	59.5954	59.59
67	Isopropylbenzene	105	8.559	8.559	(1.116)	1042060	50.2754	50.27
62	m,p-Xylenes	106	7.907	7.907	(1.031)	869159	98.2848	98.28
17	Methylene Chloride	84	2.305	2.298	(0.551)	219481	47.6850	47.68
87	n-Butylbenzene	91	9.991	9.991	(1.034)	805502	51.1747	51.17
73	n-Propylbenzene	91	8.910	8.910	(0.922)	1192846	47.2628	47.26
92	Naphthalene	128	11.546	11.539	(1.195)	300951	52.0501	52.05
63	o-Xylene	106	8.244	8.244	(1.075)	420555	48.7708	48.77
81	sec-Butylbenzene	105	9.519	9.526	(0.985)	1015061	47.7769	47.77
64	Styrene	104	8.258	8.258	(1.077)	730776	50.7156	50.71
78	tert-Butylbenzene	119	9.340	9.340	(0.967)	757897	48.1351	48.13
56	Tetrachloroethene	164	6.926	6.933	(0.903)	224904	51.7220	51.72
50	Toluene	91	6.446	6.446	(0.840)	948186	45.9813	45.98
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	214846	45.3913	45.39
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	327047	49.9385	49.93
38	Trichloroethene	130	5.206	5.207	(1.049)	255360	49.6477	49.64
8	Trichlorofluoromethane	101	1.560	1.553	(0.373)	451809	49.3770	49.37
5	Vinyl Chloride	62	1.138	1.138	(0.272)	282225	47.0343	47.03



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052614.D
Date : 26-MAY-2021 17:07
Client ID: ICV
Sample Info: CCV;CCV;2;ICV
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

MSVOA06 -Logbook

Batch: 45005
Date: 05-30-2021
Method: 8260
Comments:

Analyst: Presenta Cabascango
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	05-30-2021 11:40 am	1.00	50 mL	50 mL	X053001.D	Liquid	Y	NA
2	CCV	CCV	05-30-2021 12:01 pm	1.00	50 mL	50 mL	X053002a.D	Liquid	Y	NA
3	CCV	CCV	05-30-2021 12:22 pm	1.00	50 mL	50 mL	X053003.D	Liquid	Y	NA
4	CCB	SAMP	05-30-2021 12:43 pm	1.00	50 mL	50 mL	X053004.D	Liquid	Y	NA
5	VLCSW-210530	LCS	05-30-2021 01:04 pm	1.00	50 mL	50 mL	X053005.D	Liquid	Y	NA
6	BLANK	SAMP	05-30-2021 01:25 pm	1.00	50 mL	50 mL	X053006.D	Liquid	Y	NA
7	BLANK	SAMP	05-30-2021 01:46 pm	1.00	50 mL	50 mL	X053007.D	Liquid	Y	NA
8	VBLKW-210530	MBLK	05-30-2021 02:07 pm	1.00	50 mL	50 mL	X053008.D	Liquid	Y	NA
9	HS21051312-03	SAMP	05-30-2021 02:28 pm	1.00	50 mL	50 mL	X053009.D	Liquid	Y	NA
10	HS21051314-02	SAMP	05-30-2021 02:49 pm	1.00	50 mL	50 mL	X053010.D	Liquid	Y	NA
11	HS21051312-01	SAMP	05-30-2021 03:10 pm	1.00	50 mL	50 mL	X053011.D	Liquid	Y	NA
12	HS21051441-03	SAMP	05-30-2021 03:32 pm	1.00	50 mL	50 mL	X053012.D	Liquid	Y	NA
13	HS21051314-01	SAMP	05-30-2021 03:53 pm	10.00	5 mL	50 mL	X053013.D	Liquid	Y	NA
14	HS21051441-03MS	MS	05-30-2021 04:14 pm	1.00	50 mL	50 mL	X053014.D	Liquid	Y	NA
15	HS21051441-03MSD	MSD	05-30-2021 04:35 pm	1.00	50 mL	50 mL	X053015.D	Liquid	Y	NA
16	HS21051314-01	SAMP	05-30-2021 04:56 pm	100.0(	500 µL	50 mL	X053016.D	Liquid	Y	NA
17	HS21051153-06	SAMP	05-30-2021 05:17 pm	10.00	5 mL	50 mL	X053017.D	Liquid	Y	NA
18	HS21051153-10	SAMP	05-30-2021 05:38 pm	10.00	5 mL	50 mL	X053018.D	Liquid	Y	NA
19	HS21051153-11	SAMP	05-30-2021 05:59 pm	10.00	5 mL	50 mL	X053019.D	Liquid	Y	NA
20	HS21051153-12	SAMP	05-30-2021 06:20 pm	10.00	5 mL	50 mL	X053020.D	Liquid	Y	NA
21	HS21051153-13	SAMP	05-30-2021 06:41 pm	5.00	10 mL	50 mL	X053021.D	Liquid	Y	NA
22	HS21051153-14	SAMP	05-30-2021 07:02 pm	5.00	10 mL	50 mL	X053022.D	Liquid	Y	NA
23	HS21051441-01	SAMP	05-30-2021 07:23 pm	1.00	50 mL	50 mL	X053023.D	Liquid	Y	NA
24	MBLK-166312	MBLK	05-30-2021 07:44 pm	20.00	2.5 mL	50 mL	X053024.D	Liquid	Y	NA
25	HS21051140-01	SAMP	05-30-2021 08:05 pm	20.00	2.5 mL	50 mL	X053025.D	Liquid	Y	NA
26	HS21051418-01	SAMP	05-30-2021 08:26 pm	20.00	2.5 mL	50 mL	X053026.D	Liquid	Y	NA
27	HS21051418-03	SAMP	05-30-2021 08:47 pm	20.00	2.5 mL	50 mL	X053027.D	Liquid	Y	NA
28	HS21051418-04	SAMP	05-30-2021 09:08 pm	20.00	2.5 mL	50 mL	X053028.D	Liquid	Y	NA
29	HS21051418-05	SAMP	05-30-2021 09:30 pm	20.00	2.5 mL	50 mL	X053029.D	Liquid	Y	NA
30	HS21051418-07	SAMP	05-30-2021 09:51 pm	20.00	2.5 mL	50 mL	X053030.D	Liquid	Y	NA
31	HS21051418-08	SAMP	05-30-2021 10:12 pm	20.00	2.5 mL	50 mL	X053031.D	Liquid	Y	NA
32	CCV-END	CCV	05-30-2021 10:33 pm	1.00	50 mL	50 mL	X053032.D	Liquid	Y	NA
33	BFB	TUNE	05-30-2021 10:54 pm	1.00	50 mL	50 mL	Y053001.D	Liquid	Y	NA
34	CCV	CCV	05-30-2021 11:14 pm	1.00	50 mL	50 mL	Y053002a.D	Liquid	Y	NA
35	CCV	CCV	05-30-2021 11:35 pm	1.00	50 mL	50 mL	Y053003.D	Liquid	Y	NA
36	CCB	SAMP	05-30-2021 11:56 pm	1.00	50 mL	50 mL	Y053004.D	Liquid	Y	NA
37	VLCSW-210530	LCS	05-31-2021 12:17 am	1.00	50 mL	50 mL	Y053005.D	Liquid	Y	NA
38	BLANK	SAMP	05-31-2021 12:39 am	1.00	50 mL	50 mL	Y053006.D	Liquid	Y	NA
39	VBLKW-210530	MBLK	05-31-2021 01:00 am	1.00	50 mL	50 mL	Y053007.D	Liquid	Y	NA
40	HS21051043-01	SAMP	05-31-2021 01:21 am	1.00	50 mL	50 mL	Y053008.D	Liquid	Y	NA
41	HS21051043-01MS	MS	05-31-2021 01:42 am	1.00	50 mL	50 mL	Y053009.D	Liquid	Y	NA

MSVOA06 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
42	HS21051043-01MSD	MSD	05-31-2021 02:03 am	1.00	50 mL	50 mL	Y053010.D	Liquid	Y	NA
43	HS21051282-01	SAMP	05-31-2021 02:24 am	1.00	50 mL	50 mL	Y053011.D	Liquid	Y	NA
44	HS21051282-02	SAMP	05-31-2021 02:45 am	1.00	50 mL	50 mL	Y053012.D	Liquid	Y	NA
45	HS21051282-03	SAMP	05-31-2021 03:06 am	1.00	50 mL	50 mL	Y053013.D	Liquid	Y	NA
46	HS21051282-04	SAMP	05-31-2021 03:27 am	1.00	50 mL	50 mL	Y053014.D	Liquid	Y	NA
47	HS21051282-05	SAMP	05-31-2021 03:48 am	1.00	50 mL	50 mL	Y053015.D	Liquid	Y	NA
48	HS21051282-06	SAMP	05-31-2021 04:09 am	1.00	50 mL	50 mL	Y053016.D	Liquid	Y	NA
49	HS21051282-07	SAMP	05-31-2021 04:30 am	1.00	50 mL	50 mL	Y053017.D	Liquid	Y	NA
50	HS21051282-08	SAMP	05-31-2021 04:51 am	1.00	50 mL	50 mL	Y053018.D	Liquid	Y	NA
51	HS21051282-09	SAMP	05-31-2021 05:12 am	1.00	50 mL	50 mL	Y053019.D	Liquid	Y	NA
52	HS21051130-01	SAMP	05-31-2021 05:34 am	1.00	50 mL	50 mL	Y053020.D	Liquid	Y	NA
53	HS21051130-02	SAMP	05-31-2021 05:55 am	1.00	50 mL	50 mL	Y053021.D	Liquid	Y	NA
54	HS21051130-03	SAMP	05-31-2021 06:16 am	1.00	50 mL	50 mL	Y053022.D	Liquid	Y	NA
55	HS21051130-04	SAMP	05-31-2021 06:37 am	1.00	50 mL	50 mL	Y053023.D	Liquid	Y	NA
56	HS21051130-05	SAMP	05-31-2021 06:58 am	1.00	50 mL	50 mL	Y053024.D	Liquid	Y	NA
57	HS21051130-06	SAMP	05-31-2021 07:19 am	1.00	50 mL	50 mL	Y053025.D	Liquid	Y	NA
58	HS21051130-07	SAMP	05-31-2021 07:40 am	1.00	50 mL	50 mL	Y053026.D	Liquid	Y	NA
59	HS21051130-08	SAMP	05-31-2021 08:01 am	1.00	50 mL	50 mL	Y053027.D	Liquid	Y	NA
60	HS21051130-09	SAMP	05-31-2021 08:22 am	1.00	50 mL	50 mL	Y053028.D	Liquid	Y	NA
61	HS21051130-10	SAMP	05-31-2021 08:43 am	1.00	50 mL	50 mL	Y053029.D	Liquid	Y	NA
62	BLANK	SAMP	05-31-2021 09:04 am	1.00	50 mL	50 mL	Y053030.D	Liquid	Y	NA

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

	CLIENT SAMPLE NO.	SMC1 (DCE)#	SMC2 #	SMC3 (TOL)#	OTHER #	TOT OUT
01	VLCSW-210530	103	97	96	97	0
02	VBLKW-210530	95	90	102	97	0
03	HS21051314-02	90	89	105	95	0
04	HS21051314-01	89	90	104	96	0
05	HS21051441-03MS	91	90	100	98	0
06	HS21051441-03MSD	88	90	101	98	0
07	HS21051314-01	91	91	105	94	0
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		QC LIMITS
SMC1 (DCE)	= 1,2-Dichloroethane-d4	(0-130)
SMC2	= Dibromofluoromethane	(0-130)
SMC3 (TOL)	= Toluene-d8	(0-130)
OTHER	= 4-Bromofluorobenzene	(0-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

VBLKW-210530

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Lab File ID: X053008 Lab Sample ID: VBLKW-210530

Date Analyzed: 05/30/21 Time Analyzed: 1407

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSW-210530	VLCSW-210530	X053005	1304
02	HS21051314-02	HS21051314-02	X053010	1449
03	HS21051314-01	HS21051314-01	X053013	1553
04	HS21051441-03MS	HS21051441-03MS	X053014	1614
05	HS21051441-03MSD	HS21051441-03MSD	X053015	1635
06	HS21051314-01	HS21051314-01	X053016	1656
07				
08				
09				
10				
11				
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COMMENTS:

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Lab File ID: X053001 BFB Injection Date: 05/30/21

Instrument ID: VOA6 BFB Injection Time: 1140

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.8
75	30.0 - 60.0% of mass 95	47.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.8 (1.0)1
174	Greater than 50.0% of mass 95	79.7
175	5.0 - 9.0% of mass 174	6.2 (7.8)1
176	95.0 - 101.0% of mass 174	78.1 (98.0)1
177	5.0 - 9.0% of mass 176	5.1 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	X053003	05/30/21	1222
02	VLCSW-210530	VLCSW-210530	X053005	05/30/21	1304
03	VBLKW-210530	VBLKW-210530	X053008	05/30/21	1407
04	HS21051314-02	HS21051314-02	X053010	05/30/21	1449
05	HS21051314-01	HS21051314-01	X053013	05/30/21	1553
06	HS21051441-03MS	HS21051441-03MS	X053014	05/30/21	1614
07	HS21051441-03MSD	HS21051441-03MSD	X053015	05/30/21	1635
08	HS21051314-01	HS21051314-01	X053016	05/30/21	1656
09	CCV-END	CCV-END	X053032	05/30/21	2233
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Instrument ID: VOA6 Calibration Date: 05/30/21 Time: 1222

Lab File ID: X053003 Init. Calib. Date(s): 05/26/21 05/26/21

Init. Calib. Times: 1234 1604

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
cis-1,3-Dichloropropene	0.5060000	0.5124695	0.5124695	0.2	-1.28	20.00	AVRG
trans-1,3-Dichloropropene	0.4370000	0.4494963	0.4494963	0.1	-2.86	20.00	AVRG
1,3-Dichlorobenzene	1.4100000	1.4045751	1.4045751	0.6	0.38	20.00	AVRG
2,2-Dichloropropane	0.6840000	0.6459384	0.6459384	0.1	5.56	20.00	AVRG
1,1-Dichloropropene	0.3830000	0.3858224	0.3858224	0.1	-0.74	20.00	AVRG
Dibromomethane	0.2210000	0.2119382	0.2119382	0.1	4.10	20.00	AVRG
1,2-Dibromoethane	0.3680000	0.3394983	0.3394983	0.1	7.74	20.00	AVRG
trans-1,2-Dichloroethene	0.4670000	0.4083585	0.4083585	0.1	12.56	20.00	AVRG
1,1,1,2-Tetrachloroethane	0.3700000	0.3814254	0.3814254	0.1	-3.09	20.00	AVRG
1,1,1-Trichloroethane	0.7390000	0.6699560	0.6699560	0.1	9.34	20.00	AVRG
1,1,2,2-Tetrachloroethane	46.867114	50.000000	0.6484811	0.3	6.26	20.00	LINR
1,1,2-Trichloroethane	0.2710000	0.2532319	0.2532319	0.1	6.56	20.00	AVRG
1,1-Dichloroethane	0.7900000	0.6851315	0.6851315	0.2	13.27	20.00	AVRG
1,1-Dichloroethene	0.5150000	0.4483587	0.4483587	0.1	12.94	20.00	AVRG
Trichloroethene	0.3430000	0.3580496	0.3580496	0.2	-4.39	20.00	AVRG
1,2,3-Trichlorobenzene	0.3030000	0.2771394	0.2771394	0.01	8.53	20.00	AVRG
Trichlorofluoromethane	0.9020000	0.8082567	0.8082567	0.1	10.39	20.00	AVRG
1,2,4-Trichlorobenzene	0.4940000	0.4948873	0.4948873	0.1	-0.18	20.00	AVRG
1,2,4-Trimethylbenzene	2.2800000	2.2357466	2.2357466	0.1	1.94	20.00	AVRG
Tetrachloroethene	0.3080000	0.3381025	0.3381025	0.2	-9.77	20.00	AVRG
1,2-Dichlorobenzene	1.3560000	1.3147375	1.3147375	0.4	3.04	20.00	AVRG
1,2-Dichloroethane	0.3980000	0.3881381	0.3881381	0.1	2.48	20.00	AVRG
1,2-Dichloropropane	0.2940000	0.2805030	0.2805030	0.1	4.59	20.00	AVRG
1,3,5-Trimethylbenzene	2.2700000	2.2300091	2.2300091	0.1	1.76	20.00	AVRG
1,3-Dichloropropane	0.5390000	0.4977000	0.4977000	0.1	7.66	20.00	AVRG
1,4-Dichlorobenzene	1.4720000	1.4128974	1.4128974	0.4	4.02	20.00	AVRG
Toluene	1.4600000	1.3762571	1.3762571	0.4	5.74	20.00	AVRG
2-Butanone	0.1520000	0.1222297	0.1222297	0.1	19.58	20.00	AVRG
2-Chlorotoluene	1.8720000	1.7943017	1.7943017	0.1	4.15	20.00	AVRG
2-Hexanone	0.1860000	0.1590807	0.1590807	0.1	14.47	20.00	AVRG
4-Chlorotoluene	2.2280000	2.1445340	2.1445340	0.1	3.75	20.00	AVRG
tert-Butylbenzene	1.9460000	1.9362577	1.9362577	0.1	0.50	20.00	AVRG
4-Methyl-2-Pentanone	0.2880000	0.2338241	0.2338241	0.1	18.81	20.00	AVRG
Acetone	84.623406	100.00000	0.1091803	0.1	15.38	20.00	LINR
Benzene	1.1480000	1.1058573	1.1058573	0.5	3.67	20.00	AVRG
Bromobenzene	0.8300000	0.8446496	0.8446496	0.1	-1.76	20.00	AVRG
Bromochloromethane	0.3020000	0.2766784	0.2766784	0.1	8.38	20.00	AVRG
Bromodichloromethane	0.4300000	0.4186886	0.4186886	0.2	2.63	20.00	AVRG
Bromoform	0.2790000	0.2903224	0.2903224	0.1	-4.06	20.00	AVRG
Bromomethane	43.981584	50.000000	0.4540917	0.1	12.04	20.00	LINR
Carbon Disulfide	1.2210000	1.0654961	1.0654961	0.1	12.74	20.00	AVRG
Carbon Tetrachloride	0.4140000	0.4348273	0.4348273	0.1	-5.03	20.00	AVRG

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105131

Instrument ID: VOA6 Calibration Date: 05/30/21 Time: 1222

Lab File ID: X053003 Init. Calib. Date(s): 05/26/21 05/26/21

Init. Calib. Times: 1234 1604

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Chlorobenzene	1.0410000	0.9875999	0.9875999	0.5	5.13	20.00	AVRG	
Chloroethane	45.145865	50.000000	0.3175311	0.1	9.71	20.00	LINR	
Chloroform	0.8790000	0.7671344	0.7671344	0.2	12.73	20.00	AVRG	
Chloromethane	44.149791	50.000000	0.4016924	0.1	11.70	20.00	LINR	
cis-1,2-Dichloroethene	0.5240000	0.4694021	0.4694021	0.1	10.42	20.00	AVRG	
Dibromochloromethane	0.4120000	0.4200611	0.4200611	0.1	-1.96	20.00	AVRG	
Dichlorodifluoromethane	46.996755	50.000000	0.4318282	0.1	6.01	20.00	LINR	
Ethylbenzene	0.4800000	0.4925264	0.4925264	0.1	-2.61	20.00	AVRG	
Hexachlorobutadiene	60.451131	50.000000	0.3777492	0.1	-20.90	20.00	2RDR	<-
Isopropylbenzene	1.4670000	1.5321059	1.5321059	0.1	-4.44	20.00	AVRG	
m,p-Xylenes	0.6260000	0.6361318	0.6361318	0.1	-1.62	20.00	AVRG	
Methylene Chloride	46.243534	50.000000	0.4202413	0.1	7.51	20.00	LINR	
n-Butylbenzene	1.9450000	2.0343734	2.0343734	0.5	-4.60	20.00	AVRG	
n-Propylbenzene	3.1190000	3.0797540	3.0797540	0.1	1.26	20.00	AVRG	
Naphthalene	0.7140000	0.5898876	0.5898876	0.2	17.38	20.00	AVRG	
o-Xylene	0.6100000	0.6138729	0.6138729	0.3	-0.63	20.00	AVRG	
sec-Butylbenzene	2.6250000	2.6716402	2.6716402	0.1	-1.78	20.00	AVRG	
Styrene	1.0200000	1.0592351	1.0592351	0.3	-3.85	20.00	AVRG	
Vinyl Chloride	0.5920000	0.5161979	0.5161979	0.1	12.80	20.00	AVRG	
1,2,3-Trichloropropane	0.6230000	0.5518265	0.5518265	0.1	11.42	20.00	AVRG	
p-Isopropyltoluene	2.3120000	2.3895149	2.3895149	0.1	-3.35	20.00	AVRG	
1,2-Dibromo-3-Chloropropane	45.446036	50.000000	7.2e-002	0.05	9.11	20.00	LINR	
1,2-Dichloroethane-d4	47.783154	50.000000	0.4567368	0.1	4.43	20.00	LINR	
Dibromofluoromethane	47.970717	50.000000	0.4722502	0.1	4.06	20.00	LINR	
Toluene-d8	1.2450000	1.1781719	1.1781719	0.1	5.37	20.00	AVRG	
4-Bromofluorobenzene	51.230689	50.000000	0.4500785	0.1	-2.46	20.00	LINR	

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Instrument ID: VOA6 Calibration Date: 05/30/21 Time: 2233

Lab File ID: X053032 Init. Calib. Date(s): 05/26/21 05/26/21

Init. Calib. Times: 1234 1604

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
cis-1,3-Dichloropropene	0.5060000	0.4644789	0.4644789	0.2	8.20	50.00	AVRG	
trans-1,3-Dichloropropene	0.4370000	0.4011570	0.4011570	0.1	8.20	50.00	AVRG	
1,3-Dichlorobenzene	1.4100000	1.2890871	1.2890871	0.6	8.58	50.00	AVRG	
2,2-Dichloropropane	0.6840000	0.5288840	0.5288840	0.1	22.68	50.00	AVRG	
1,1-Dichloropropene	0.3830000	0.3438499	0.3438499	0.1	10.22	50.00	AVRG	
Dibromomethane	0.2210000	0.2022468	0.2022468	0.1	8.48	50.00	AVRG	
1,2-Dibromoethane	0.3680000	0.3215991	0.3215991	0.1	12.61	50.00	AVRG	
trans-1,2-Dichloroethene	0.4670000	0.3941670	0.3941670	0.1	15.60	50.00	AVRG	
1,1,1,2-Tetrachloroethane	0.3700000	0.3575117	0.3575117	0.1	3.38	50.00	AVRG	
1,1,1-Trichloroethane	0.7390000	0.6457267	0.6457267	0.1	12.62	50.00	AVRG	
1,1,2,2-Tetrachloroethane	44.436821	50.000000	0.6156913	0.3	11.13	50.00	LINR	
1,1,2-Trichloroethane	0.2710000	0.2388729	0.2388729	0.1	11.86	50.00	AVRG	
1,1-Dichloroethane	0.7900000	0.6506625	0.6506625	0.2	17.64	50.00	AVRG	
1,1-Dichloroethene	0.5150000	0.4251807	0.4251807	0.1	17.44	50.00	AVRG	
Trichloroethene	0.3430000	0.3358920	0.3358920	0.2	2.07	50.00	AVRG	
1,2,3-Trichlorobenzene	0.3030000	0.1572928	0.1572928	0.01	48.09	50.00	AVRG	
Trichlorofluoromethane	0.9020000	0.7627482	0.7627482	0.1	15.44	50.00	AVRG	
1,2,4-Trichlorobenzene	0.4940000	0.3189883	0.3189883	0.1	35.43	50.00	AVRG	
1,2,4-Trimethylbenzene	2.2800000	2.1095738	2.1095738	0.1	7.47	50.00	AVRG	
Tetrachloroethene	0.3080000	0.2984602	0.2984602	0.2	3.10	50.00	AVRG	
1,2-Dichlorobenzene	1.3560000	1.1904528	1.1904528	0.4	12.21	50.00	AVRG	
1,2-Dichloroethane	0.3980000	0.3760895	0.3760895	0.1	5.50	50.00	AVRG	
1,2-Dichloropropane	0.2940000	0.2640387	0.2640387	0.1	10.19	50.00	AVRG	
1,3,5-Trimethylbenzene	2.2700000	2.0251717	2.0251717	0.1	10.78	50.00	AVRG	
1,3-Dichloropropane	0.5390000	0.4700222	0.4700222	0.1	12.80	50.00	AVRG	
1,4-Dichlorobenzene	1.4720000	1.3131749	1.3131749	0.4	10.79	50.00	AVRG	
Toluene	1.4600000	1.2864460	1.2864460	0.4	11.89	50.00	AVRG	
2-Butanone	0.1520000	0.1185181	0.1185181	0.1	22.03	50.00	AVRG	
2-Chlorotoluene	1.8720000	1.6689041	1.6689041	0.1	10.85	50.00	AVRG	
2-Hexanone	0.1860000	0.1487137	0.1487137	0.1	20.05	50.00	AVRG	
4-Chlorotoluene	2.2280000	1.9698632	1.9698632	0.1	11.59	50.00	AVRG	
tert-Butylbenzene	1.9460000	1.7632413	1.7632413	0.1	9.39	50.00	AVRG	
4-Methyl-2-Pentanone	0.2880000	0.2220834	0.2220834	0.1	22.89	50.00	AVRG	
Acetone	73.765966	100.00000	9.61e-002	0.1	26.23	50.00	LINR	<-
Benzene	1.1480000	1.0481882	1.0481882	0.5	8.69	50.00	AVRG	
Bromobenzene	0.8300000	0.7921308	0.7921308	0.1	4.56	50.00	AVRG	
Bromochloromethane	0.3020000	0.2725451	0.2725451	0.1	9.75	50.00	AVRG	
Bromodichloromethane	0.4300000	0.3946065	0.3946065	0.2	8.23	50.00	AVRG	
Bromoform	0.2790000	0.2640894	0.2640894	0.1	5.34	50.00	AVRG	
Bromomethane	41.604701	50.000000	0.4294659	0.1	16.79	50.00	LINR	
Carbon Disulfide	1.2210000	0.9732282	0.9732282	0.1	20.29	50.00	AVRG	
Carbon Tetrachloride	0.4140000	0.3934922	0.3934922	0.1	4.95	50.00	AVRG	

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105131

Instrument ID: VOA6 Calibration Date: 05/30/21 Time: 2233

Lab File ID: X053032 Init. Calib. Date(s): 05/26/21 05/26/21

Init. Calib. Times: 1234 1604

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Chlorobenzene	1.0410000	0.9320661	0.9320661	0.5	10.46	50.00	AVRG
Chloroethane	46.797502	50.000000	0.3287944	0.1	6.40	50.00	LINR
Chloroform	0.8790000	0.7617750	0.7617750	0.2	13.34	50.00	AVRG
Chloromethane	42.371890	50.000000	0.3864629	0.1	15.26	50.00	LINR
cis-1,2-Dichloroethene	0.5240000	0.4594290	0.4594290	0.1	12.32	50.00	AVRG
Dibromochloromethane	0.4120000	0.3905470	0.3905470	0.1	5.21	50.00	AVRG
Dichlorodifluoromethane	44.585647	50.000000	0.4097724	0.1	10.83	50.00	LINR
Ethylbenzene	0.4800000	0.4595672	0.4595672	0.1	4.26	50.00	AVRG
Hexachlorobutadiene	43.229668	50.000000	0.2643865	0.1	13.54	50.00	2RDR
Isopropylbenzene	1.4670000	1.3732297	1.3732297	0.1	6.39	50.00	AVRG
m,p-Xylenes	0.6260000	0.5760380	0.5760380	0.1	7.98	50.00	AVRG
Methylene Chloride	44.179227	50.000000	0.4020057	0.1	11.64	50.00	LINR
n-Butylbenzene	1.9450000	1.6703412	1.6703412	0.5	14.12	50.00	AVRG
n-Propylbenzene	3.1190000	2.7429939	2.7429939	0.1	12.06	50.00	AVRG
Naphthalene	0.7140000	0.3934242	0.3934242	0.2	44.90	50.00	AVRG
o-Xylene	0.6100000	0.5703537	0.5703537	0.3	6.50	50.00	AVRG
sec-Butylbenzene	2.6250000	2.3283971	2.3283971	0.1	11.30	50.00	AVRG
Styrene	1.0200000	0.9893682	0.9893682	0.3	3.00	50.00	AVRG
Vinyl Chloride	0.5920000	0.4862994	0.4862994	0.1	17.85	50.00	AVRG
1,2,3-Trichloropropane	0.6230000	0.5147187	0.5147187	0.1	17.38	50.00	AVRG
p-Isopropyltoluene	2.3120000	2.0807156	2.0807156	0.1	10.00	50.00	AVRG
1,2-Dibromo-3-Chloropropane	36.418401	50.000000	5.76e-002	0.05	27.16	50.00	LINR
1,2-Dichloroethane-d4	47.271152	50.000000	0.4519129	0.1	5.46	50.00	LINR
Dibromofluoromethane	48.086555	50.000000	0.4733867	0.1	3.83	50.00	LINR
Toluene-d8	1.2450000	1.1450528	1.1450528	0.1	8.03	50.00	AVRG
4-Bromofluorobenzene	48.847100	50.000000	0.4288265	0.1	2.30	50.00	LINR

FORM VII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Lab File ID (Standard): X053003 Date Analyzed: 05/30/21

Instrument ID: VOA6 Time Analyzed: 1222

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1(CBZ) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	756528	7.67	804961	4.96	429809	9.66
	UPPER LIMIT	1513056	8.17	1609922	5.46	859618	10.16
	LOWER LIMIT	378264	7.17	402481	4.46	214905	9.16
	CLIENT SAMPLE NO.						
01	VLCSW-210530	704506	7.67	749233	4.96	385381	9.66
02	VBLKW-210530	758478	7.67	844380	4.97	380991	9.66
03	HS21051314-02	725826	7.67	828617	4.96	372134	9.66
04	HS21051314-01	720929	7.67	818158	4.96	363883	9.66
05	HS21051441-03MS	748268	7.67	825942	4.96	410658	9.66
06	HS21051441-03MSD	788220	7.67	856793	4.96	434422	9.66
07	HS21051314-01	704249	7.67	808780	4.96	343503	9.66
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Lab File ID (Standard): X053003 Date Analyzed: 05/30/21

Instrument ID: VOA6 Time Analyzed: 1222

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	571248	4.18				
	UPPER LIMIT	1142496	4.68				
	LOWER LIMIT	285624	3.68				
	CLIENT SAMPLE NO.						
01	VLCSW-210530	524742	4.18				
02	VBLKW-210530	615444	4.18				
03	HS21051314-02	613950	4.18				
04	HS21051314-01	604067	4.18				
05	HS21051441-03MS	615043	4.18				
06	HS21051441-03MSD	639703	4.18				
07	HS21051314-01	598056	4.18				
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS4 = Pentafluorobenzene

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

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053001.D

Date : 30-MAY-2021 11:40

Client ID: BFB

Instrument: voa6.i

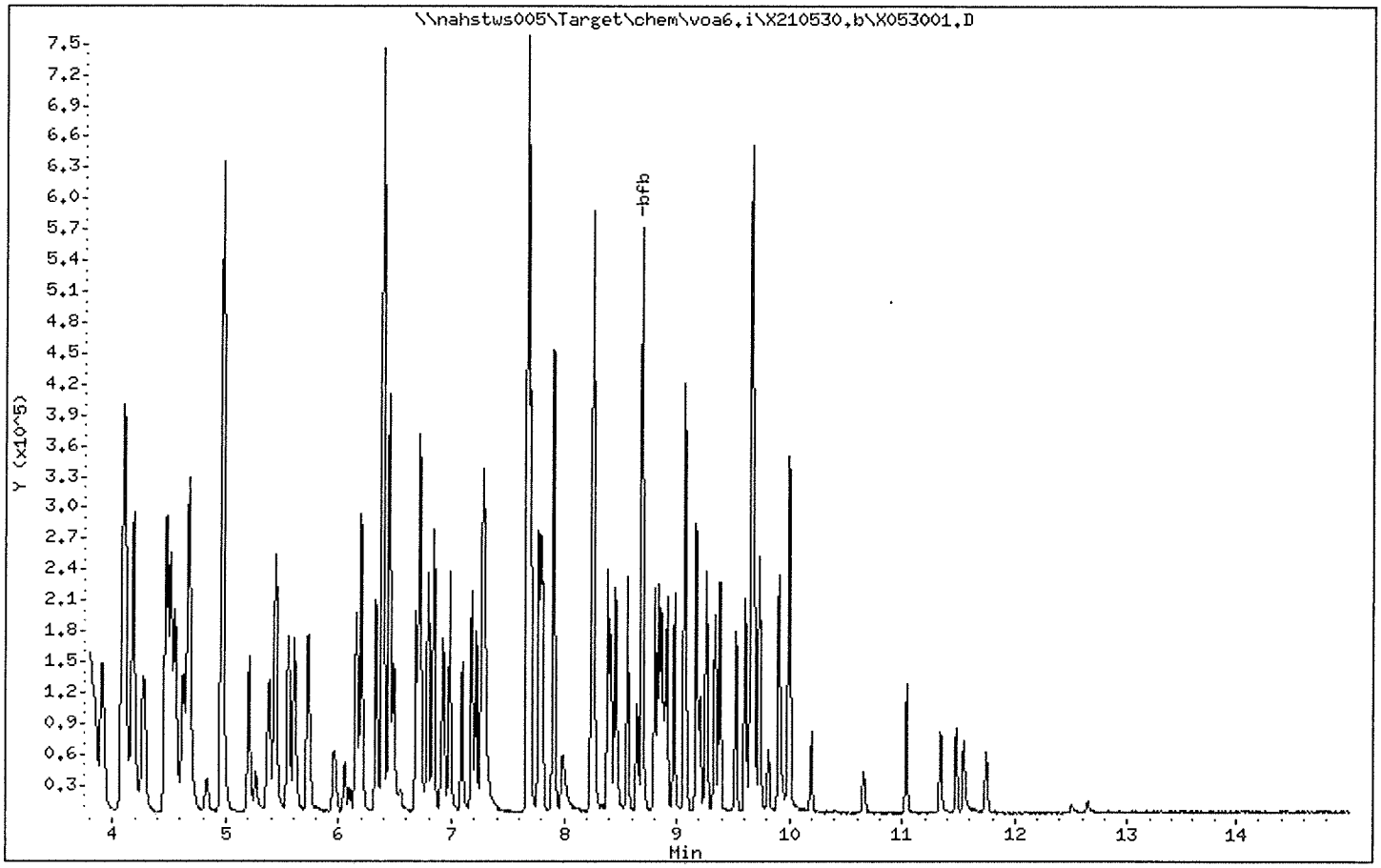
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053001.D

Date : 30-MAY-2021 11:40

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

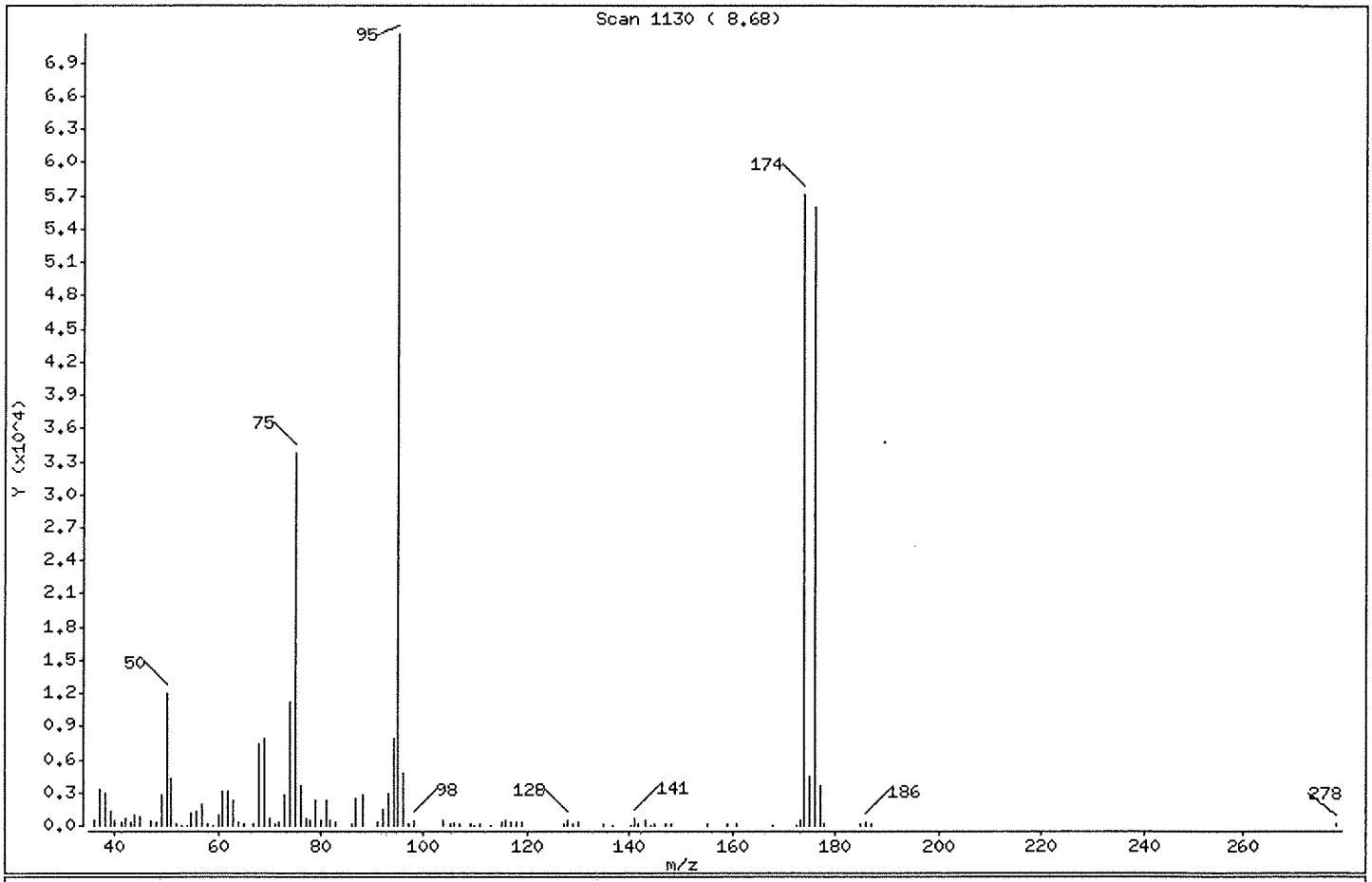
Volume Injected (uL): 2.0

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	16.81
75	30.00 - 60.00% of mass 95	47.20
96	5.00 - 9.00% of mass 95	6.77
173	Less than 2.00% of mass 174	0.78 (0.97)
174	Greater than 50.00% of mass 95	79.72
175	5.00 - 9.00% of mass 174	6.22 (7.81)
176	95.00 - 101.00% of mass 174	78.15 (98.02)
177	5.00 - 9.00% of mass 176	5.13 (6.57)

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053001.D

Date : 30-MAY-2021 11:40

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: X053001.D
Spectrum: Scan 1130 (8.68)
Location of Maximum: 95.00
Number of points: 99

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	533	62.10	3137	92.00	1504	136.80	65
37.10	3343	63.00	2246	93.00	3009	140.10	62
38.10	2908	64.10	304	94.00	7918	140.80	645
39.10	1354	65.00	234	95.00	71600	141.70	142
40.00	450	67.00	185	96.00	4850	142.90	452
41.20	347	68.00	7338	97.00	128	144.00	51
42.10	617	69.00	7894	98.00	560	144.80	106
43.00	321	70.00	631	103.90	508	147.00	85
44.00	1054	71.10	132	105.20	110	147.90	199
45.00	839	71.90	394	105.90	371	155.00	222
47.00	479	73.00	2853	107.00	113	159.00	138
48.00	367	74.00	11220	109.00	113	160.90	113
49.10	2819	75.00	33792	109.90	73	167.90	60
50.10	12038	76.00	3550	110.90	93	172.30	70
51.10	4201	77.00	698	112.90	80	173.00	555
52.10	225	78.00	455	114.90	376	173.90	57080
53.00	60	78.90	2338	115.80	487	174.90	4457
54.30	78	79.90	572	116.90	343	175.90	55952
55.00	1114	80.90	2302	117.90	281	176.90	3674
56.00	1255	81.80	444	118.80	333	177.90	189
57.00	2055	83.00	302	127.00	138	184.80	94
58.00	126	86.10	169	127.90	462	186.00	290
59.10	55	86.90	2540	128.90	235	186.90	97
60.00	980	88.00	2830	129.90	370	278.10	99
61.00	3167	90.90	256	134.90	168		

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053003.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 30-MAY-2021 12:22
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:45 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.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

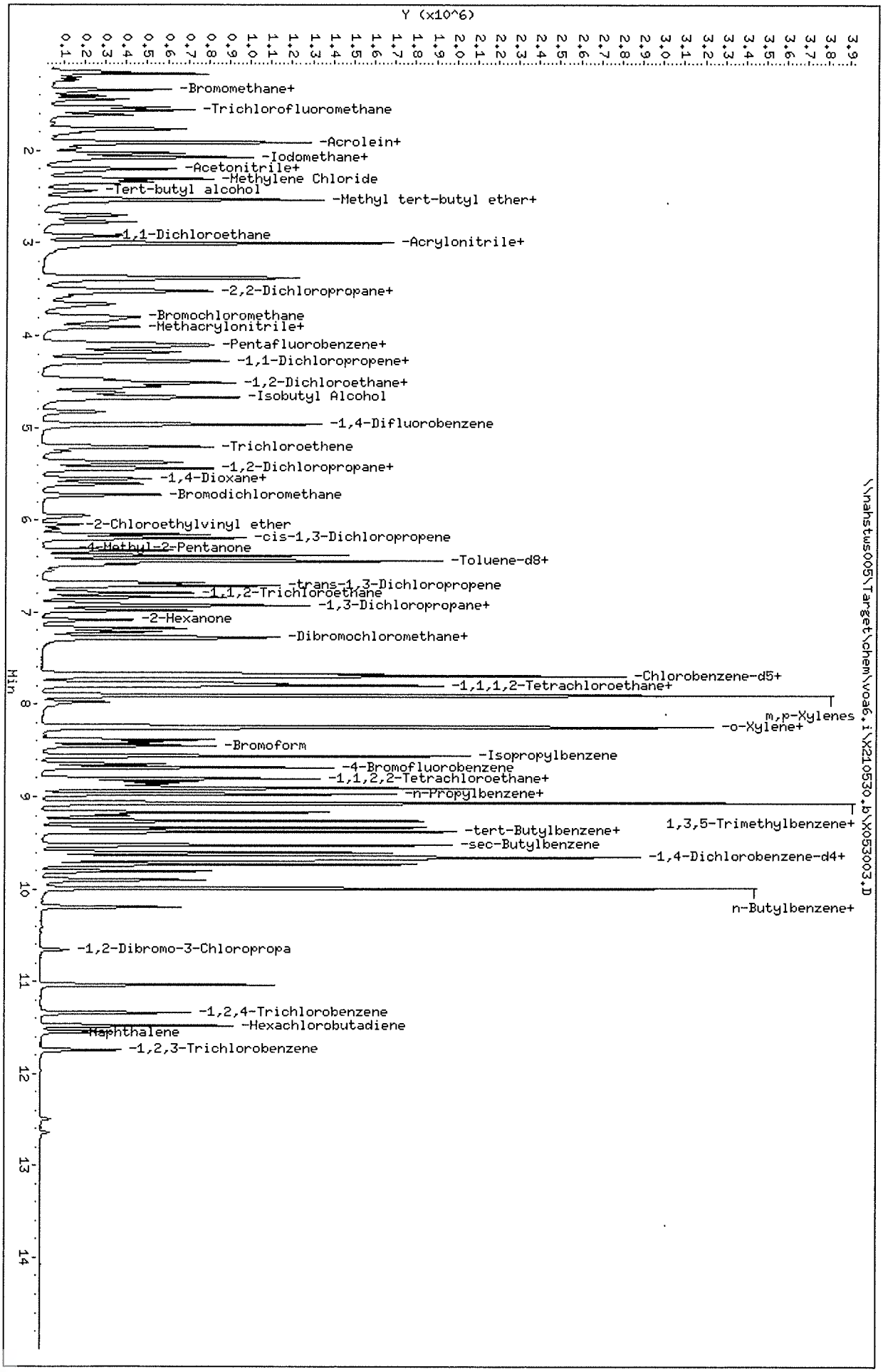
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	571248	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	804961	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	756528	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	429809	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	269772	50.0000	47.97
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	260910	50.0000	47.78
$	48 Toluene-d8	98	6.388	6.388	(0.833)	891320	50.0000	47.29
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	340497	50.0000	51.23
	60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	288559	50.0000	51.57
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	382711	50.0000	45.33
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	278723	50.0000	46.86
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	191577	50.0000	46.74
	22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	391380	50.0000	43.33
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	256124	50.0000	43.52
	32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	310572	50.0000	50.37
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	119117	50.0000	45.77
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	237180	50.0000	44.26(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	212707	50.0000	50.05
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	960944	50.0000	49.01
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	30955	50.0000	45.44
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	256840	50.0000	46.11
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	565086	50.0000	48.47

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053003.D Page 2
Report Date: 05-Aug-2021 14:45

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	312436	50.0000	48.71
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	225794	50.0000	47.65
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	958478	50.0000	49.12
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	603699	50.0000	49.79
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	376524	50.0000	46.20
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	607276	50.0000	48.00
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	368991	50.0000	47.21
24	2-Butanone	43	3.580	3.580	(0.856)	139647	100.000	80.34 (M)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	771207	50.0000	47.93
52	2-Hexanone	43	7.083	7.083	(0.923)	240698	100.000	85.64
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	921740	50.0000	48.11
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	1027035	50.0000	51.67
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	353789	100.000	81.20
10	Acetone	43	1.976	1.976	(0.473)	124738	100.000	84.62
37	Benzene	78	4.512	4.512	(0.909)	890172	50.0000	48.13
74	Bromobenzene	156	8.802	8.802	(0.911)	363038	50.0000	50.90
29	Bromochloromethane	128	3.795	3.795	(0.908)	158052	50.0000	45.75
39	Bromodichloromethane	83	5.722	5.722	(1.153)	337028	50.0000	48.70
66	Bromoform	173	8.408	8.408	(1.096)	219637	50.0000	52.06
6	Bromomethane	94	1.338	1.338	(0.320)	259399	50.0000	43.98
19	Carbon Disulfide	76	2.069	2.069	(0.495)	1217325	100.000	87.23
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	350019	50.0000	52.45
59	Chlorobenzene	112	7.692	7.692	(1.003)	747147	50.0000	47.44
7	Chloroethane	64	1.403	1.403	(0.336)	181389	50.0000	45.14
28	Chloroform	83	3.910	3.910	(0.935)	438224	50.0000	43.62
3	Chloromethane	50	1.073	1.073	(0.257)	229466	50.0000	44.14
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	268145	50.0000	44.78
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	412518	50.0000	50.58
55	Dibromochloromethane	129	7.176	7.176	(0.936)	317788	50.0000	51.03
44	Dibromomethane	93	5.550	5.550	(1.118)	170602	50.0000	47.91
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	246681	50.0000	46.99
61	Ethylbenzene	106	7.800	7.800	(1.017)	372610	50.0000	51.28
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	162360	50.0000	60.45
67	Isopropylbenzene	105	8.559	8.559	(1.116)	1159081	50.0000	52.21
62	m,p-Xylenes	106	7.900	7.900	(1.030)	962503	100.000	101.62
17	Methylene Chloride	84	2.305	2.305	(0.551)	240062	50.0000	46.24
87	n-Butylbenzene	91	9.991	9.991	(1.034)	874392	50.0000	52.29
73	n-Propylbenzene	91	8.910	8.910	(0.922)	1323706	50.0000	49.37
92	Naphthalene	128	11.539	11.539	(1.194)	253539	50.0000	41.27
63	o-Xylene	106	8.244	8.244	(1.075)	464412	50.0000	50.28
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	1148295	50.0000	50.87
64	Styrene	104	8.258	8.258	(1.077)	801341	50.0000	51.92
78	tert-Butylbenzene	119	9.332	9.332	(0.966)	832221	50.0000	49.75
56	Tetrachloroethene	164	6.926	6.926	(0.903)	255784	50.0000	54.92
50	Toluene	91	6.446	6.446	(0.840)	1041177	50.0000	47.14
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	233274	50.0000	43.73
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	361827	50.0000	51.43
38	Trichloroethene	130	5.206	5.206	(1.049)	288216	50.0000	52.16
8	Trichlorofluoromethane	101	1.561	1.561	(0.373)	461715	50.0000	44.77
5	Vinyl Chloride	62	1.145	1.145	(0.274)	294877	50.0000	43.60

QC Flag Legend

M - Compound response manually integrated.

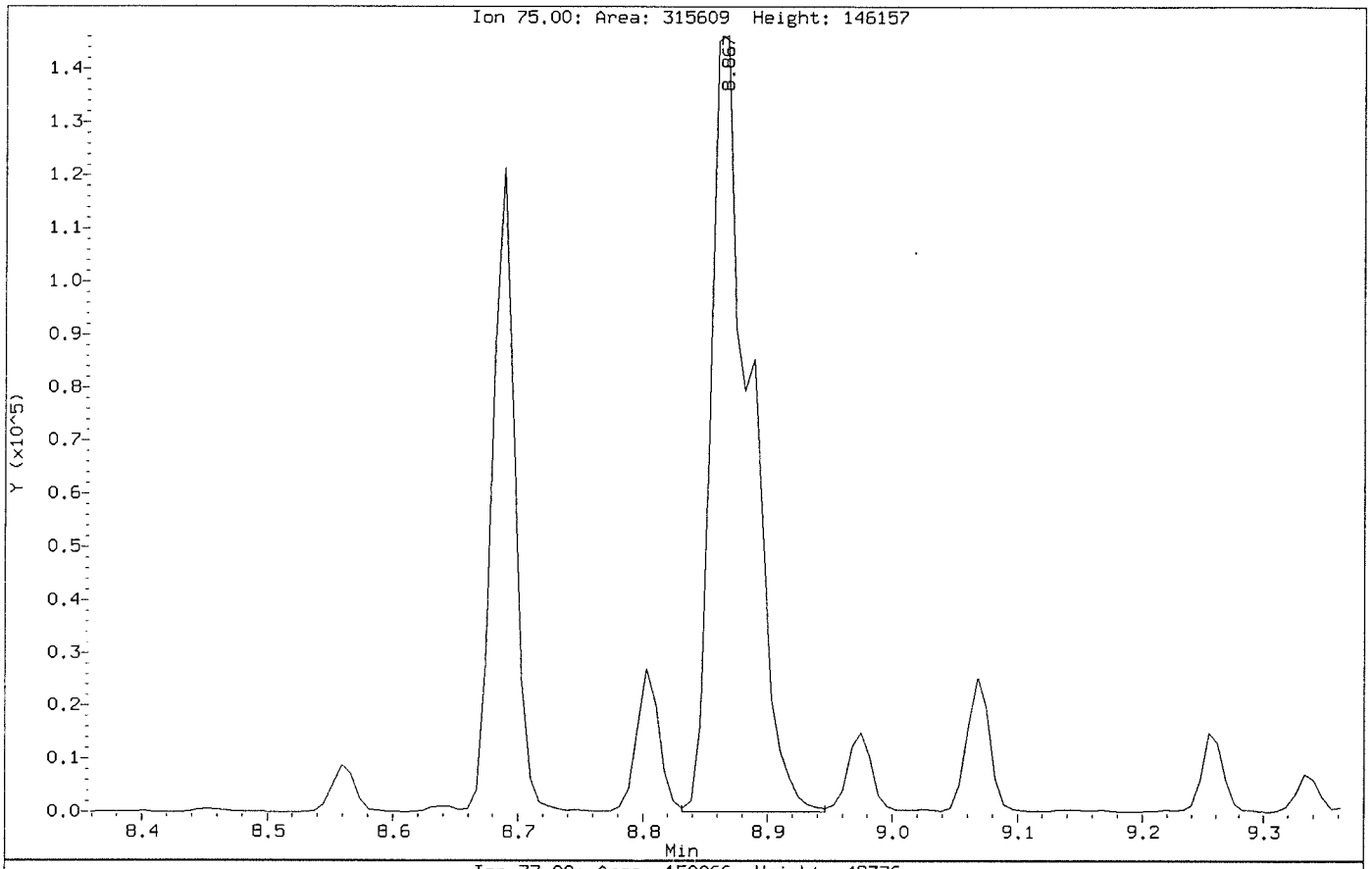


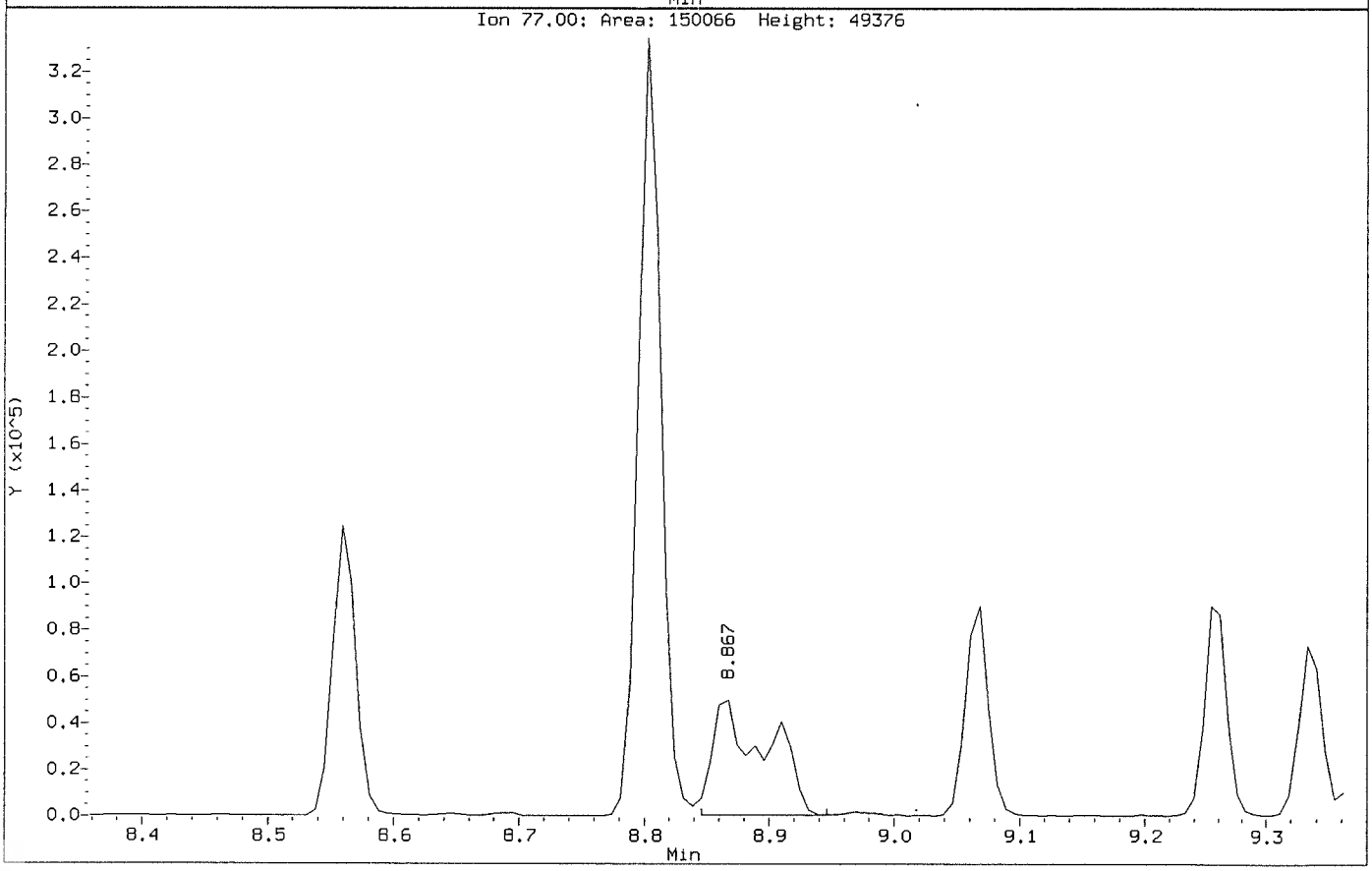
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Client ID: CCV
Sample Info: CCV;CCV;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6,i
Operator: PC
Column diameter: 0.18

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\Before\X053003.D
Injection Date: 30-MAY-2021 12:22
Instrument: voa6.i
Client Sample ID: CCV

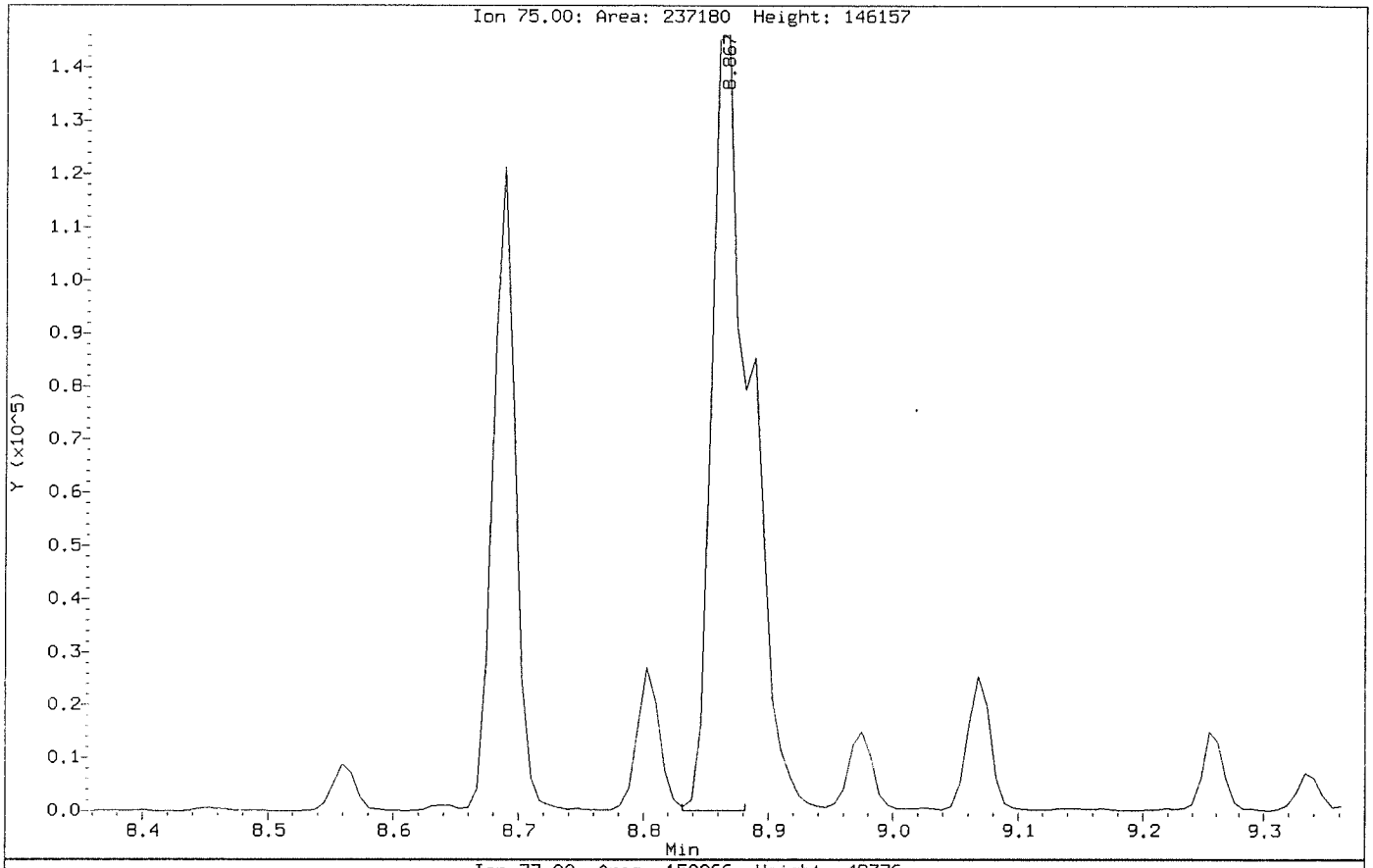
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CAS Number: 96-18-4

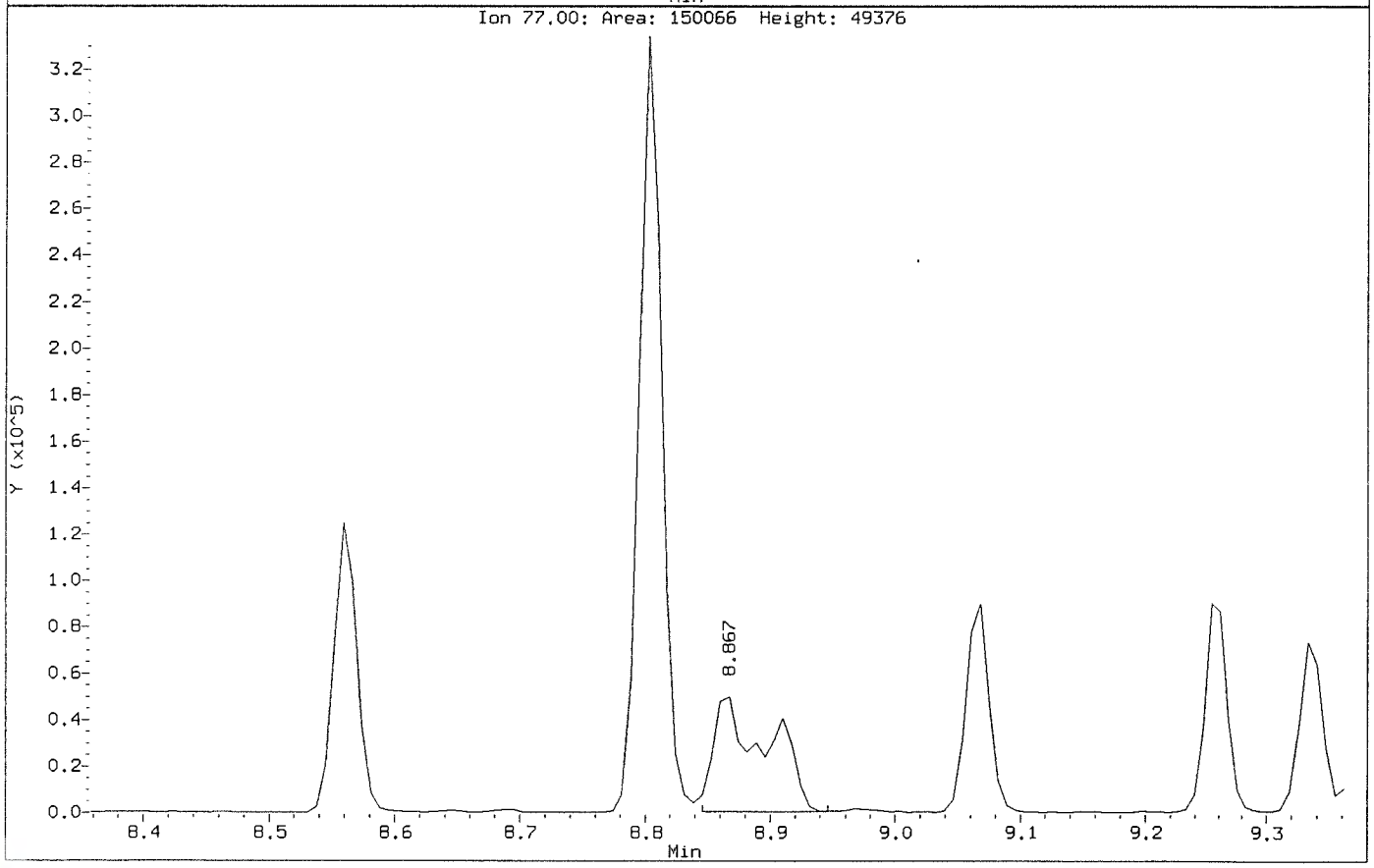




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Instrument: voa6.i
Client Sample ID: CCV

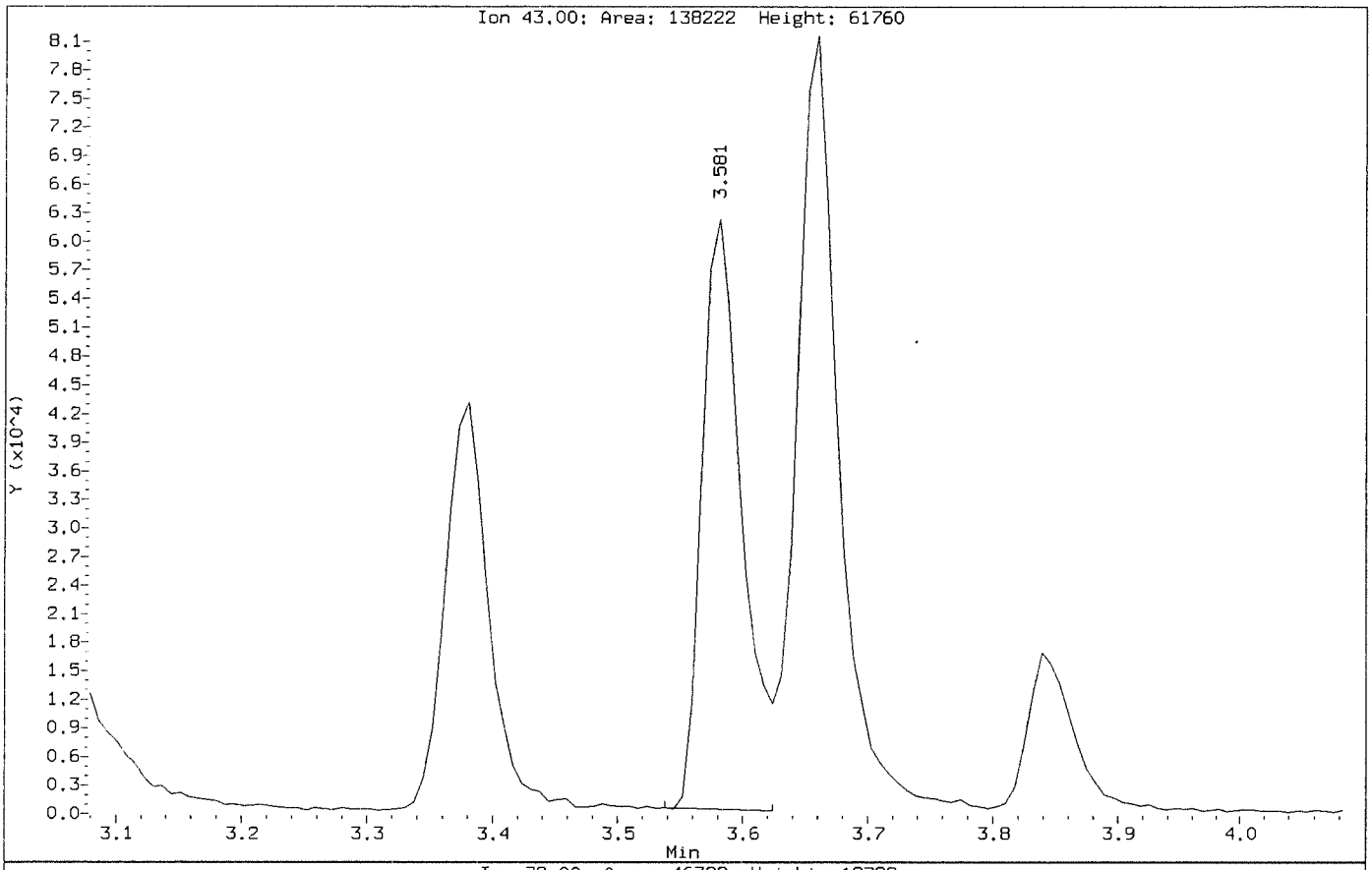
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CAS Number: 96-18-4

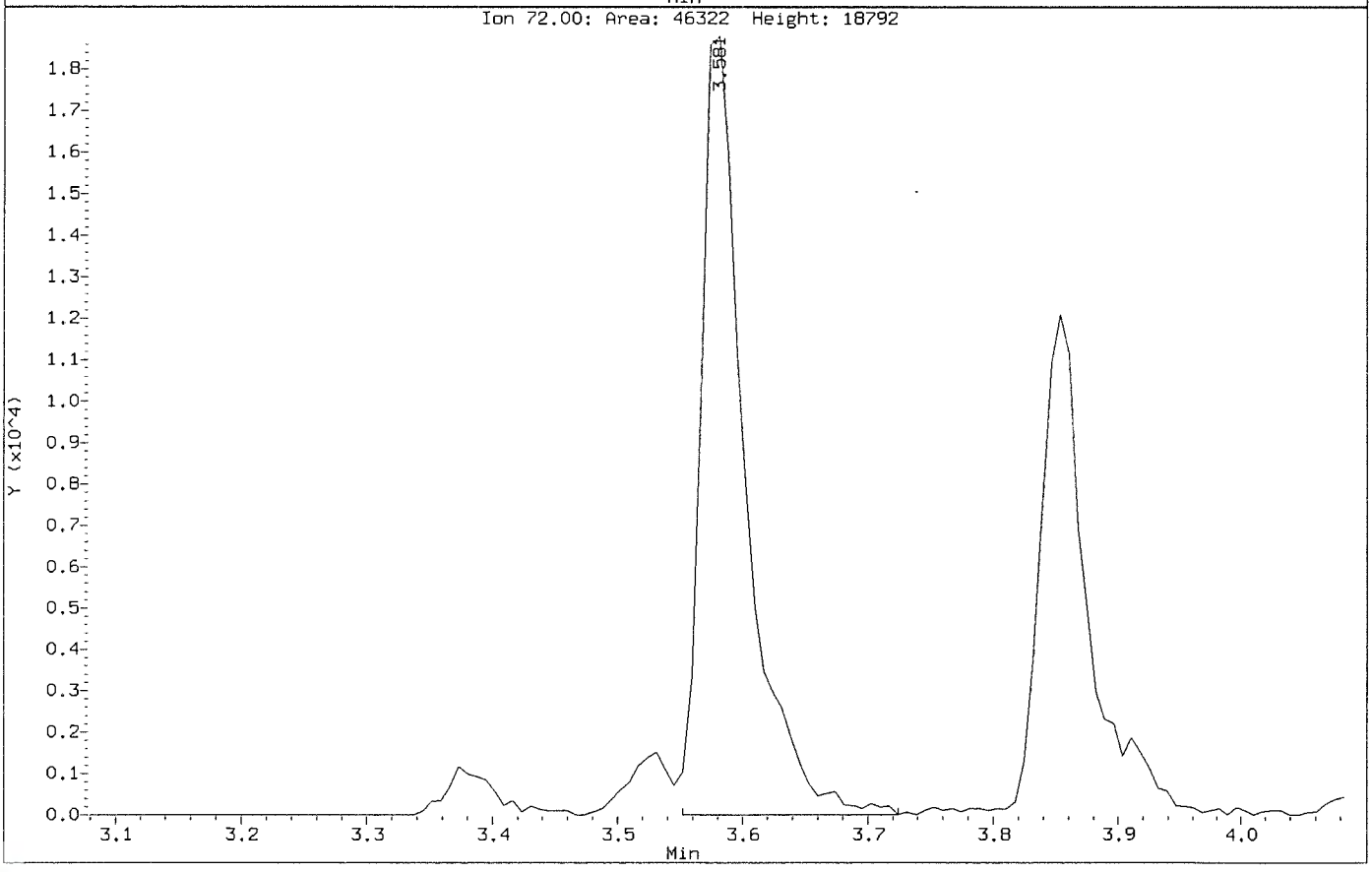




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Instrument: voa6.i
Client Sample ID: CCV

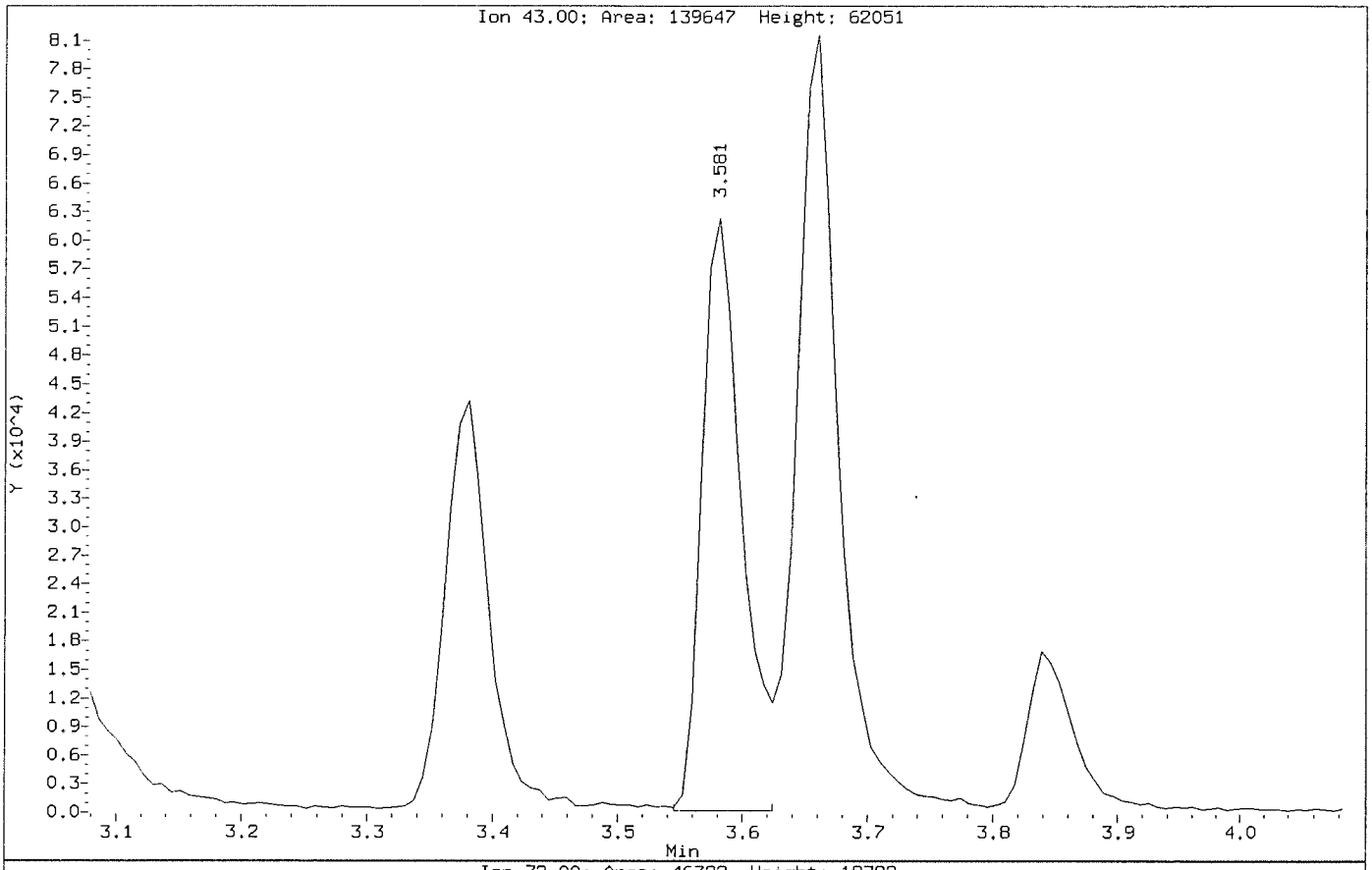
Compound: 2-Butanone
CAS Number: 78-93-3

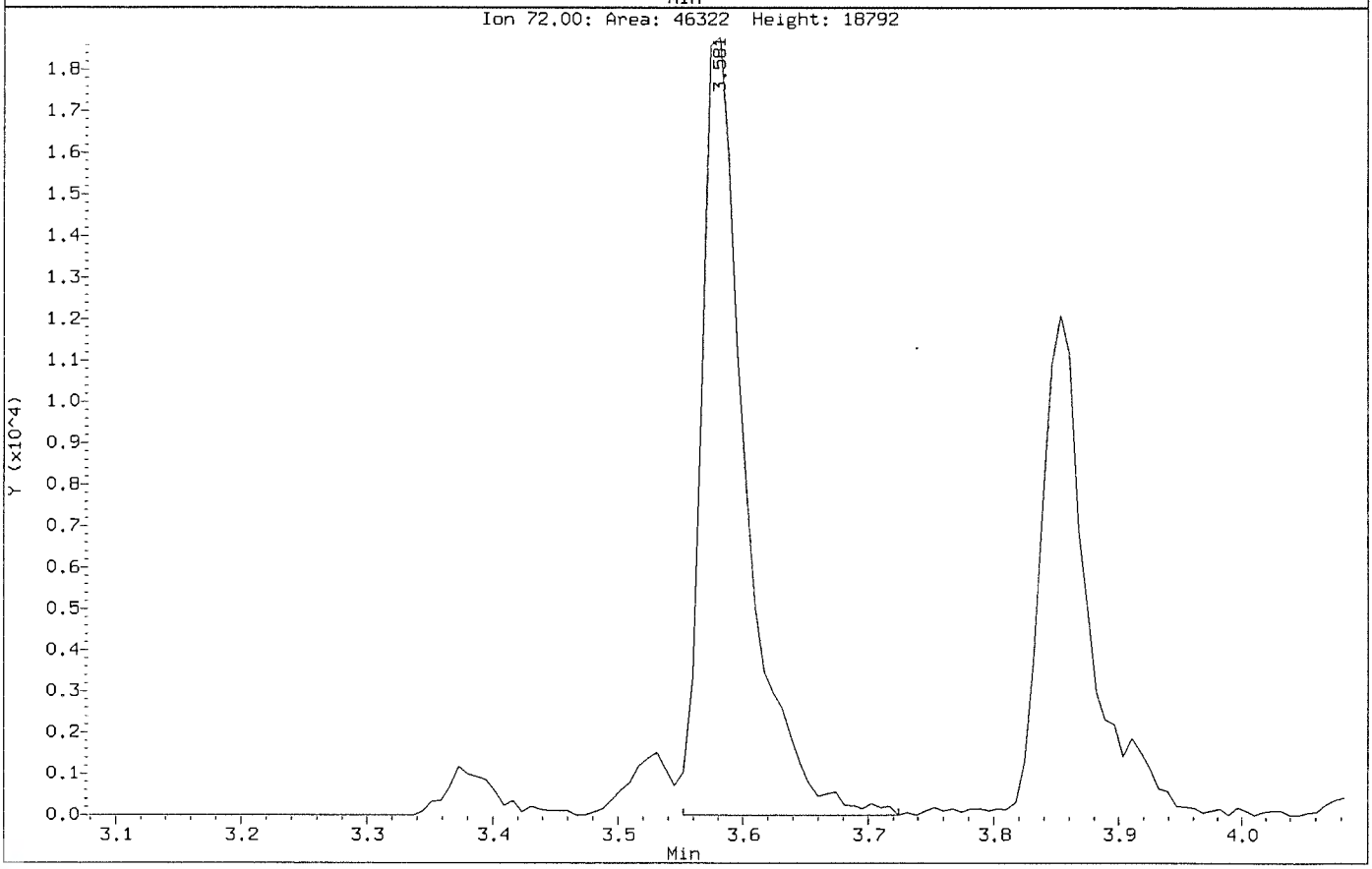




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Injection Date: 30-MAY-2021 12:22
Instrument: voa6.i
Client Sample ID: CCV

Compound: 2-Butanone
CAS Number: 78-93-3





ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053005.D
Lab Smp Id: VLCSW-210530 Client Smp ID: VLCSW-210530
Inj Date : 30-MAY-2021 13:04
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-210530;VLCSW-210530;3;;LCS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:45 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

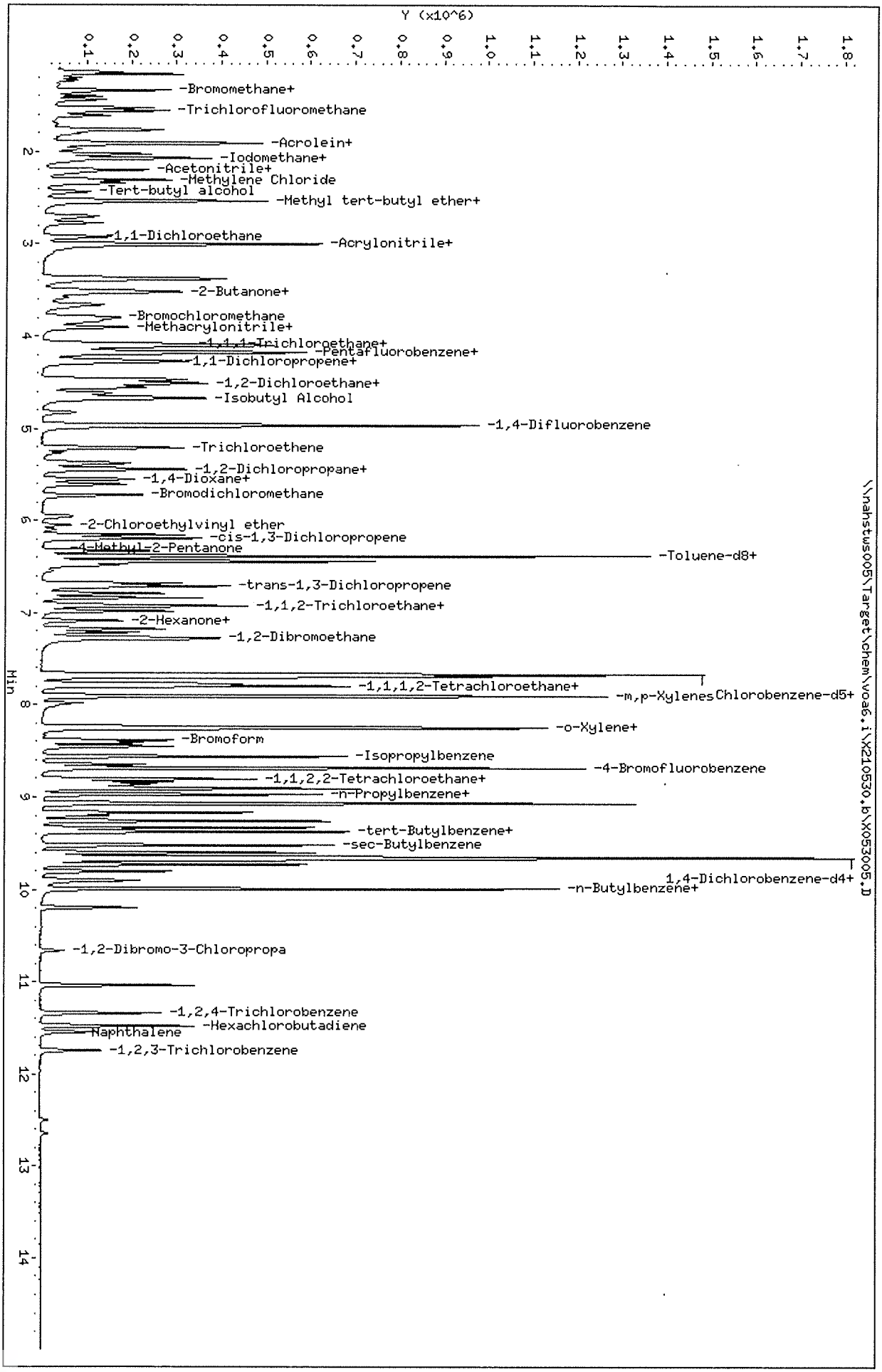
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	524742	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	749233	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	704506	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	385381	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	251068	48.6037	48.60
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	257612	51.4124	51.41
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	840410	47.8900	47.89
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	300873	48.6500	48.65
60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	112085	21.5133	21.51
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	145846	18.8074	18.80
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	109830	19.9261	19.92
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	76599	20.0713	20.07
22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	152336	18.3632	18.36
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	100157	18.5298	18.52
32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	112569	19.6172	19.61
93 1,2,3-Trichlorobenzene	180	11.746	11.739	(1.216)	44412	19.0363	19.03
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	89431	18.6130	18.61(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	84075	22.0658	22.06
79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	340306	19.3604	19.36
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	11536	19.1884	19.18
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	102355	19.7334	19.73
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	205686	19.6773	19.67

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	128430	21.5136	21.51
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	87595	19.8618	19.86
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	326275	18.6517	18.65
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	221711	20.3965	20.39
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	147014	19.3729	19.37
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	229907	20.2687	20.26
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	139700	19.4593	19.45
24	2-Butanone	43	3.580	3.580	(0.856)	57253	35.8615	35.86
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	276952	19.1999	19.19
52	2-Hexanone	43	7.090	7.083	(0.924)	97387	37.2128	37.21
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	324878	18.9123	18.91
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	338583	19.0009	19.00
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	144714	35.6707	35.67
10	Acetone	43	1.976	1.976	(0.473)	57122	39.1965	39.19
37	Benzene	78	4.512	4.512	(0.909)	346178	20.1125	20.11
74	Bromobenzene	156	8.802	8.802	(0.911)	133981	20.9543	20.95
29	Bromochloromethane	128	3.795	3.795	(0.908)	60075	18.9337	18.93
39	Bromodichloromethane	83	5.722	5.722	(1.153)	133207	20.6809	20.68
66	Bromoform	173	8.408	8.408	(1.096)	84063	21.3983	21.39
6	Bromomethane	94	1.338	1.338	(0.320)	116494	21.5804	21.58
19	Carbon Disulfide	76	2.069	2.069	(0.495)	462084	36.0495	36.04
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	122750	19.7636	19.76
59	Chlorobenzene	112	7.692	7.692	(1.003)	285855	19.4911	19.49
7	Chloroethane	64	1.403	1.403	(0.336)	70826	18.3758	18.37
28	Chloroform	83	3.910	3.910	(0.935)	173686	18.8218	18.82
3	Chloromethane	50	1.081	1.073	(0.258)	88063	16.8477	16.84
27	cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	106670	19.3945	19.39
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	162934	21.4673	21.46
55	Dibromochloromethane	129	7.176	7.176	(0.936)	124265	21.4305	21.43
44	Dibromomethane	93	5.550	5.550	(1.118)	68114	20.5515	20.55
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	92587	19.0784	19.07
61	Ethylbenzene	106	7.800	7.800	(1.017)	132969	19.6526	19.65
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	59792	26.1296	26.12
67	Isopropylbenzene	105	8.559	8.559	(1.116)	386957	18.7180	18.71
62	m,p-Xylenes	106	7.907	7.900	(1.031)	338554	38.3840	38.38
17	Methylene Chloride	84	2.305	2.305	(0.551)	98847	19.9956	19.99
87	n-Butylbenzene	91	9.991	9.991	(1.034)	283650	18.9196	18.91
73	n-Propylbenzene	91	8.910	8.910	(0.922)	441066	18.3476	18.34
92	Naphthalene	128	11.546	11.539	(1.195)	99515	18.0699	18.06
63	o-Xylene	106	8.244	8.244	(1.075)	166007	19.3018	19.30
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	370034	18.2856	18.28
64	Styrene	104	8.258	8.258	(1.077)	294050	20.4604	20.46
78	tert-Butylbenzene	119	9.340	9.332	(0.967)	273065	18.2079	18.20
56	Tetrachloroethene	164	6.926	6.926	(0.903)	89181	20.5629	20.56
50	Toluene	91	6.446	6.446	(0.840)	391315	19.0261	19.02
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	92570	18.8931	18.89
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	141614	21.6286	21.62
38	Trichloroethene	130	5.207	5.206	(1.049)	109538	21.3014	21.30
8	Trichlorofluoromethane	101	1.561	1.561	(0.373)	173214	18.2869	18.28
5	Vinyl Chloride	62	1.145	1.145	(0.274)	113441	18.2632	18.26

QC Flag Legend

M - Compound response manually integrated.

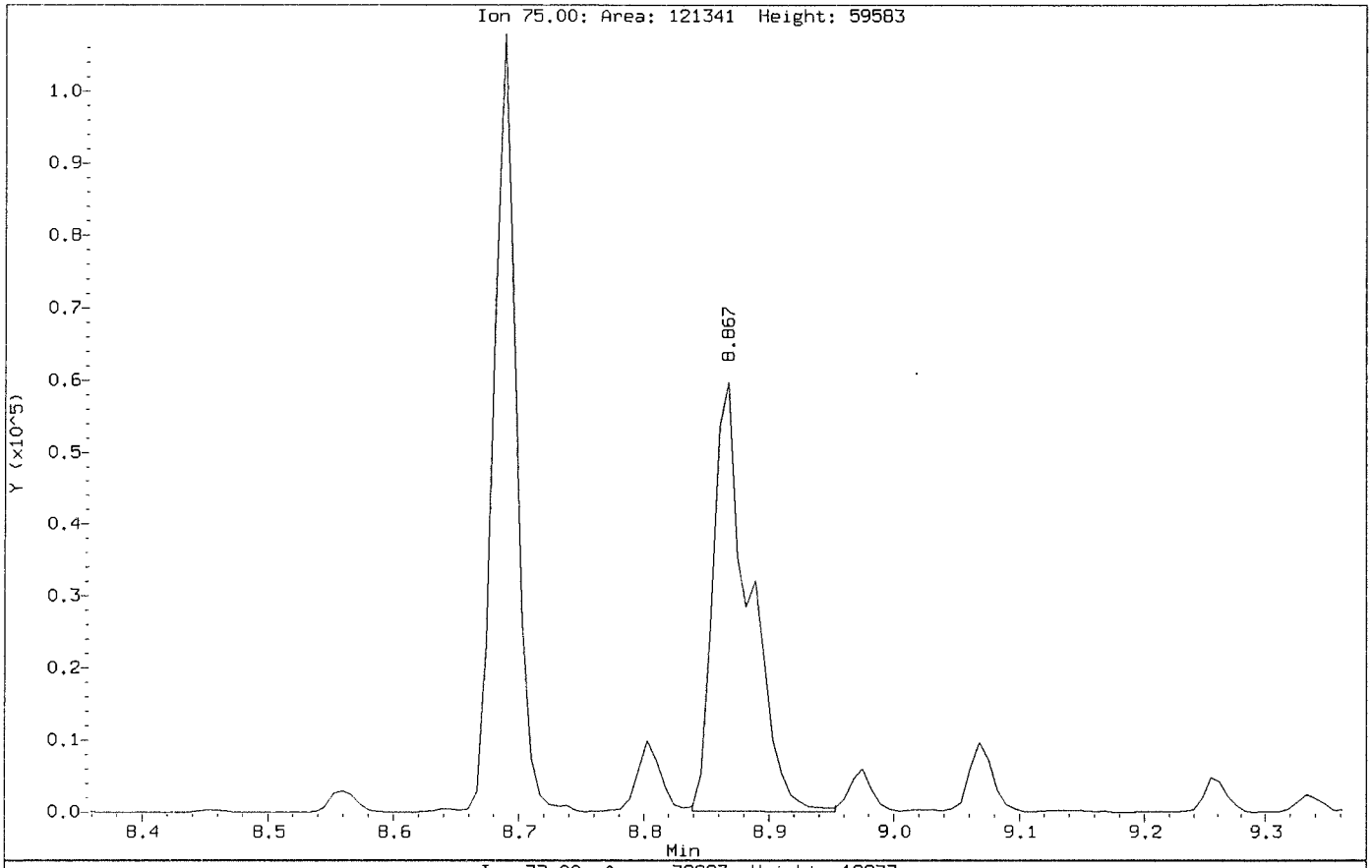


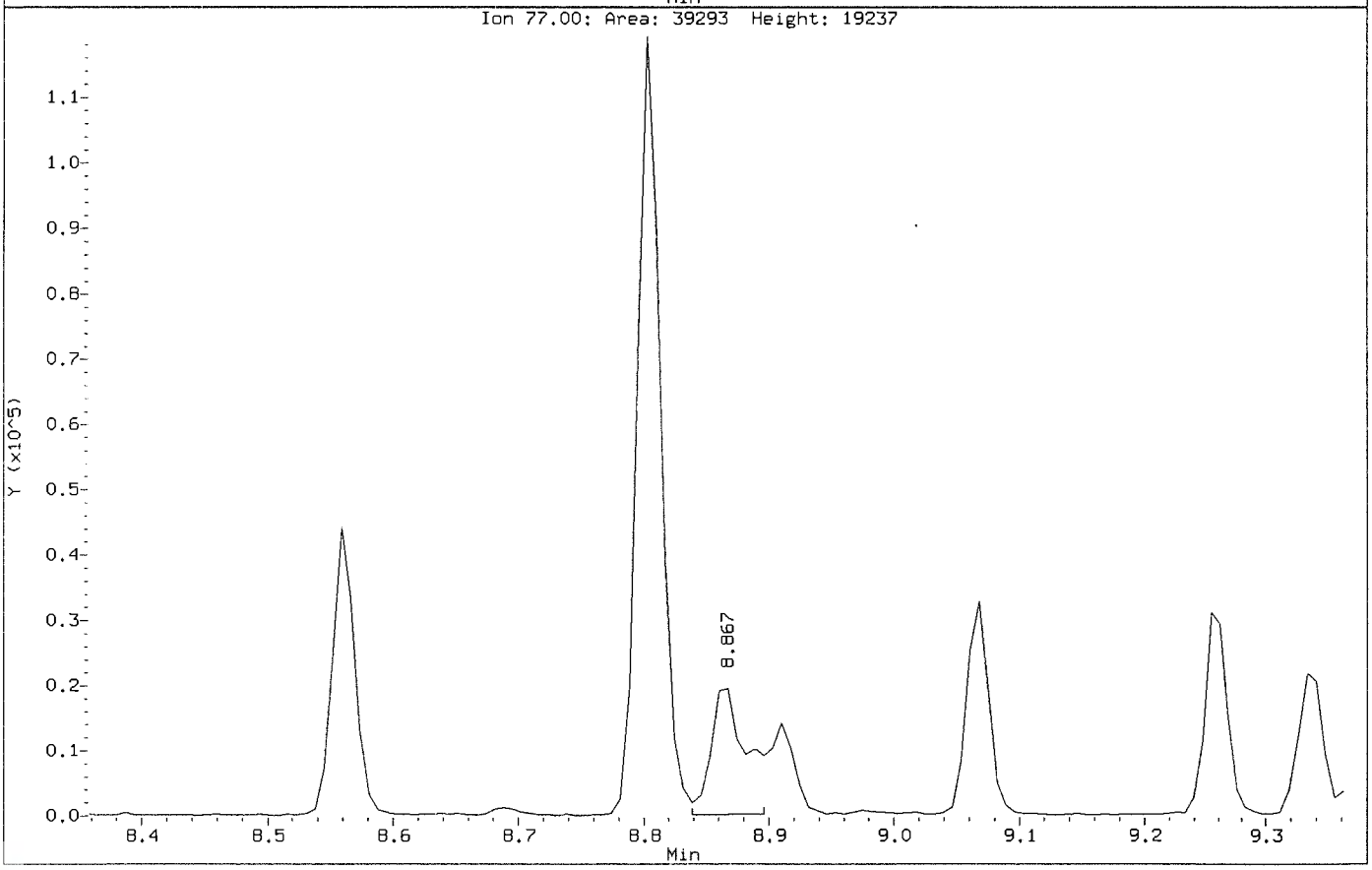
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Sample Info: WLCSW-210530;WLCSW-210530;3;;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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Injection Date: 30-MAY-2021 13:04
Instrument: voa6.i
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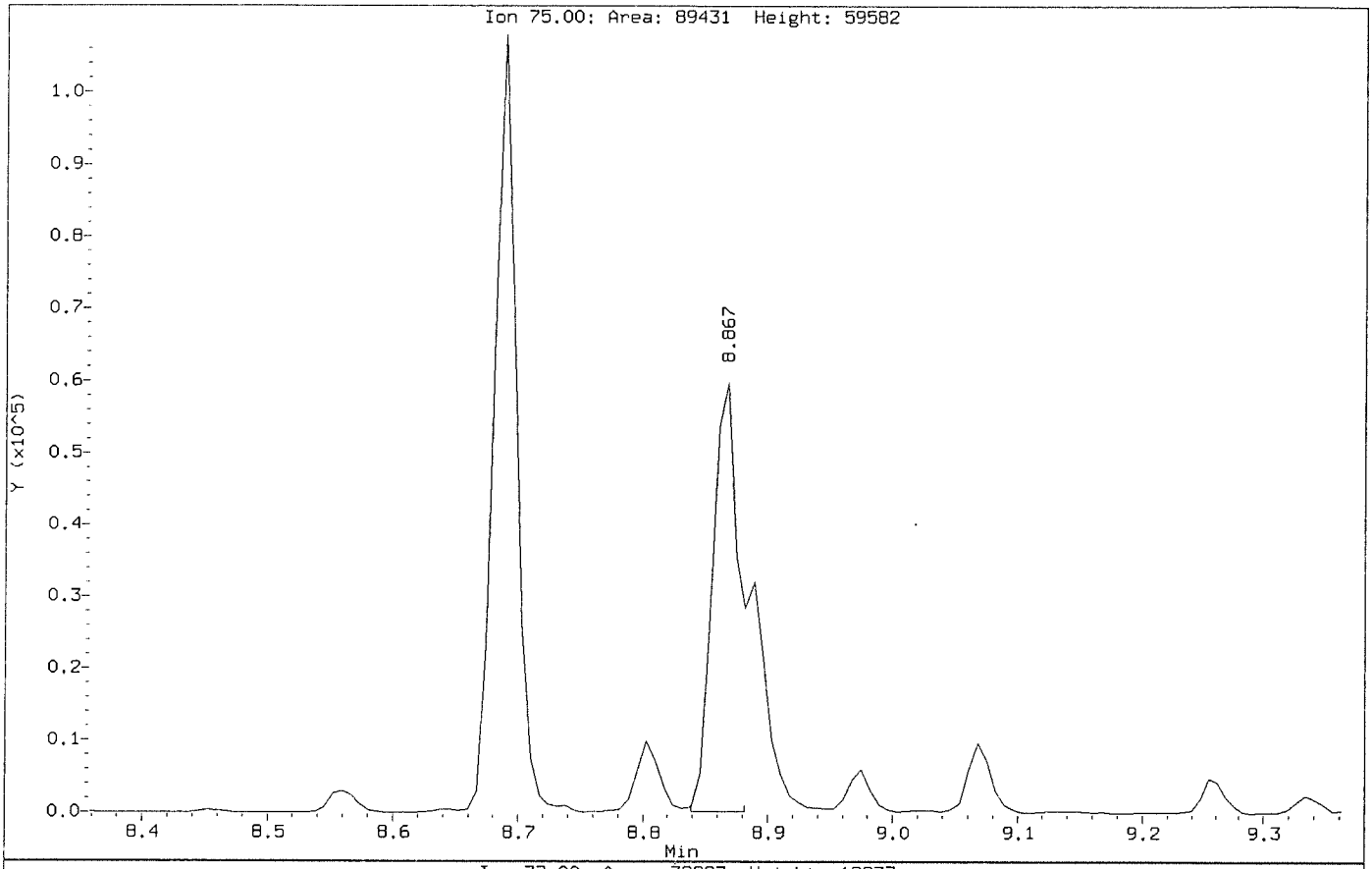
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

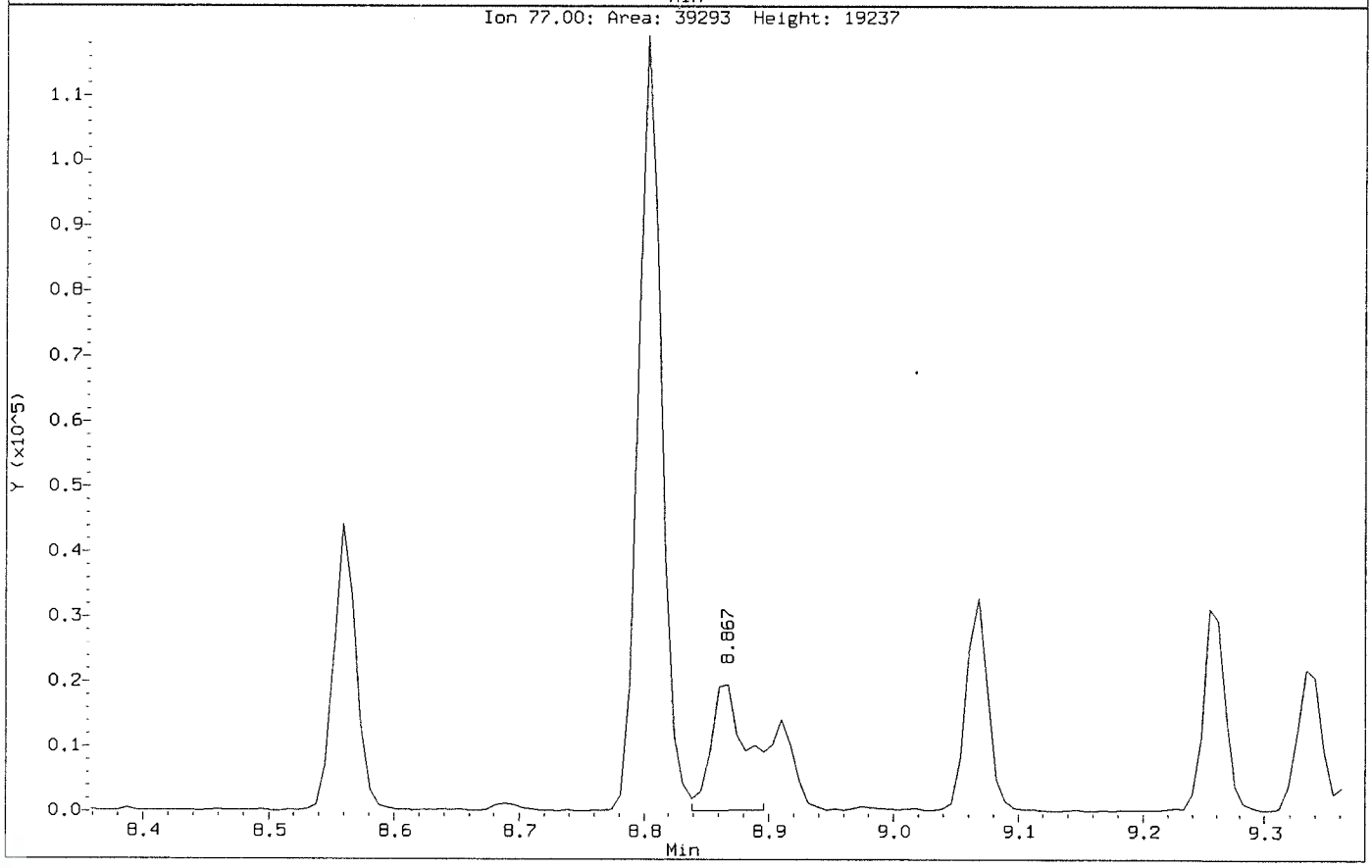




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Injection Date: 30-MAY-2021 13:04
Instrument: voa6.i
Client Sample ID: VLCSW-210530

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053008.D
Lab Smp Id: VBLKW-210530 Client Smp ID: VBLKW-210530
Inj Date : 30-MAY-2021 14:07
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-210530;VBLKW-210530;3;;BLANK
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:45 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.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 MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	615444	50.0000	
* 36 1,4-Difluorobenzene	114	4.970	4.963	(1.000)	844380	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	758478	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	380991	50.0000	
$ 30 Dibromofluoromethane	113	4.104	4.096	(0.981)	274229	45.2522	45.25
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	279686	47.5400	47.54
$ 48 Toluene-d8	98	6.389	6.388	(0.833)	961241	50.8777	50.87
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	322604	48.4550	48.45

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053008.D

Date : 30-MAY-2021 14:07

Client ID: VBLKW-210530

Sample Info: VBLKW-210530;VBLKW-210530;3;;BLANK

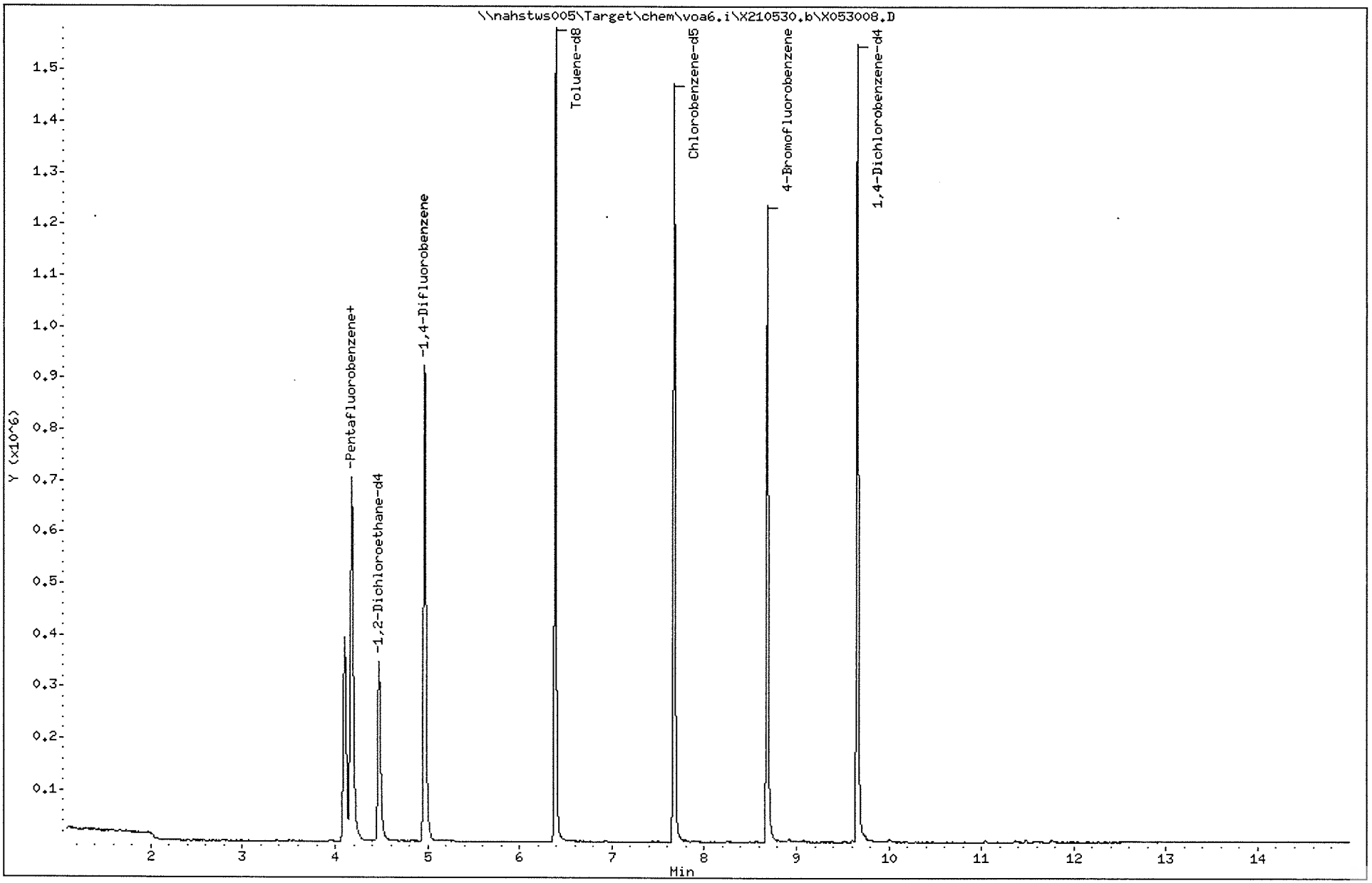
Purge Volume: 5.0

Column phase: DB624

Instrument: voa6.i

Operator: PC

Column diameter: 0.18



ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053010.D
Lab Smp Id: HS21051314-02 Client Smp ID: HS21051314-02
Inj Date : 30-MAY-2021 14:49
Operator : PC Inst ID: voa6.i
Smp Info : HS21051314-02;HS21051314-02;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:37 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7056

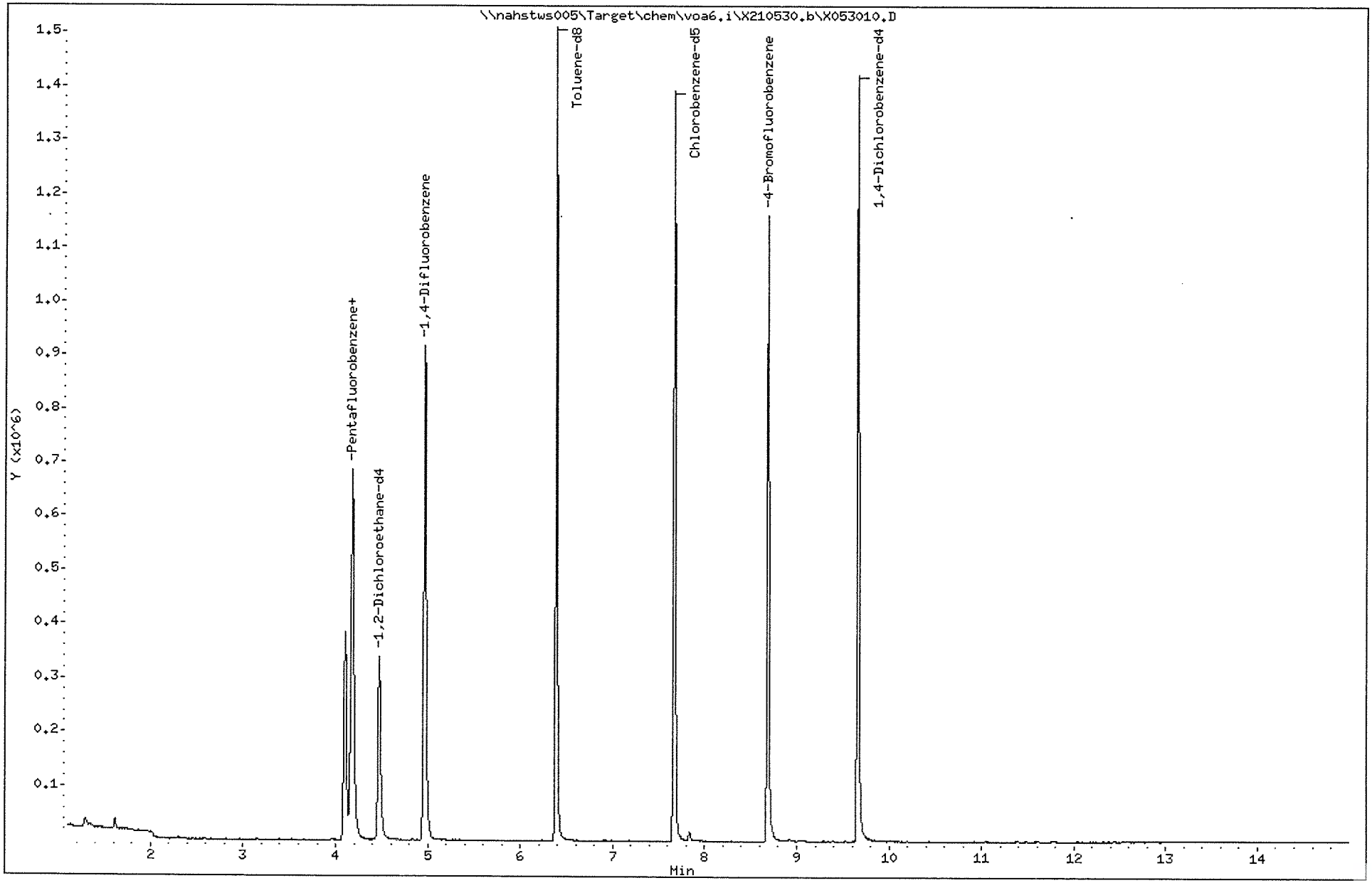
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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 MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	613950	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	828617	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	725826	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	372134	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	269310	44.5460	44.54
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	266003	45.2919	45.29
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	947744	52.4200	52.42
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	302566	47.5047	47.50

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053010.D
Date : 30-MAY-2021 14:49
Client ID: HS21051314-02
Sample Info: HS21051314-02;HS21051314-02;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053013.D
Lab Smp Id: HS21051314-01 Client Smp ID: HS21051314-01
Inj Date : 30-MAY-2021 15:53
Operator : PC Inst ID: voa6.i
Smp Info : HS21051314-01;HS21051314-01;;;
Misc Info : HS18090001;WATER;0;10;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:37 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 13
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: bhate.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

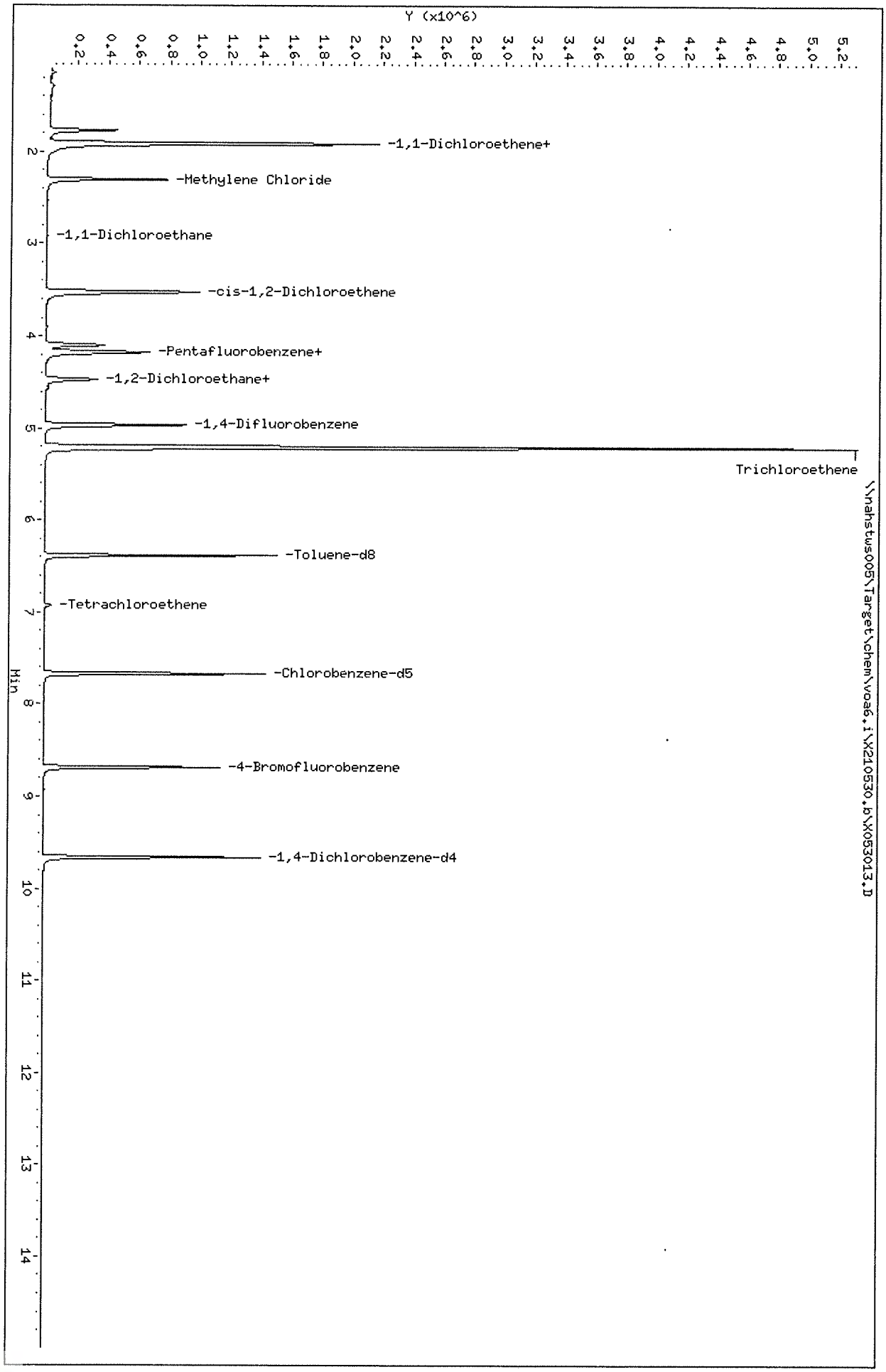
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	604067	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	818158	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	720929	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	363883	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	268892	45.2070	45.20
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	258401	44.7086	44.70
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	934767	52.0534	52.05
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	305457	48.2720	48.27
22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	3935	0.41205	4.12(a)
11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	18612	2.99119	29.91(a)
33 1,2-Dichloroethane	62	4.562	4.555	(0.919)	15834	2.42894	24.28(a)
27 cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	559846	88.4232	884.23
17 Methylene Chloride	84	2.305	2.305	(0.551)	389939	71.7458	717.45
56 Tetrachloroethene	164	6.933	6.926	(0.904)	10063	2.26742	22.67(a)
38 Trichloroethene	130	5.206	5.206	(1.049)	1803537	321.180	3211.80(A)
5 Vinyl Chloride	62	1.145	1.145	(0.274)	23685	3.31239	33.12(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: \\nahstws005\Target\chem\voa6.i\X210530.b\X053013.D
Date : 30-MAY-2021 15:53
Client ID: HS21051314-01
Sample Info: HS21051314-01;HS21051314-01;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053013.D

Date : 30-MAY-2021 15:53

Client ID: HS21051314-01

Instrument: voa6.i

Sample Info: HS21051314-01;HS21051314-01;;;

Purge Volume: 5.0

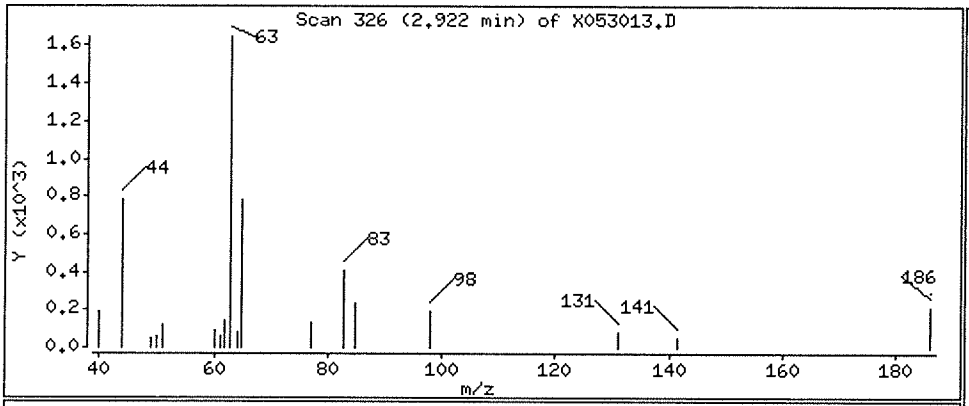
Operator: PC

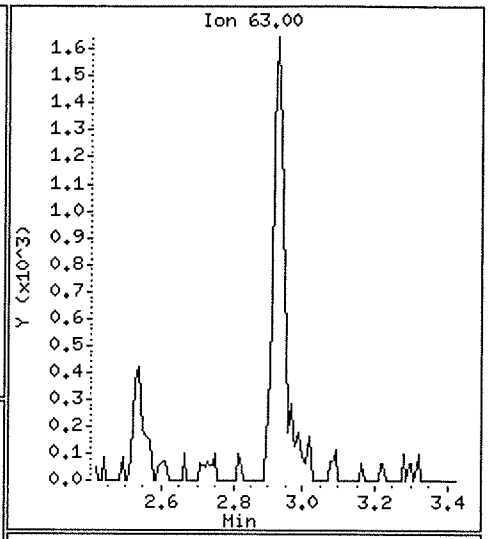
Column phase: DB624

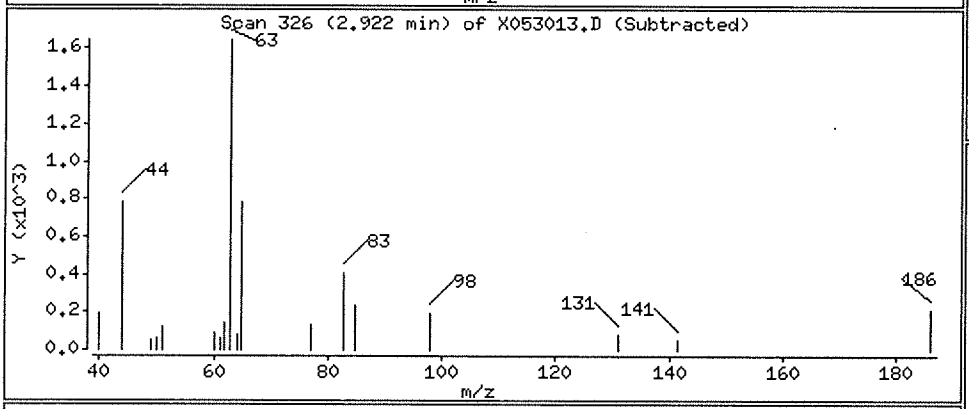
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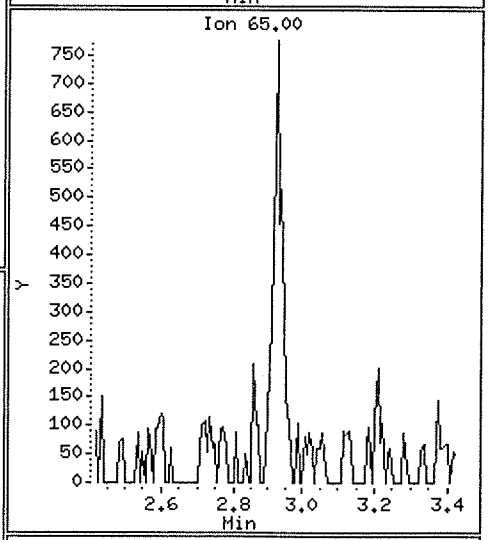
22 1,1-Dichloroethane

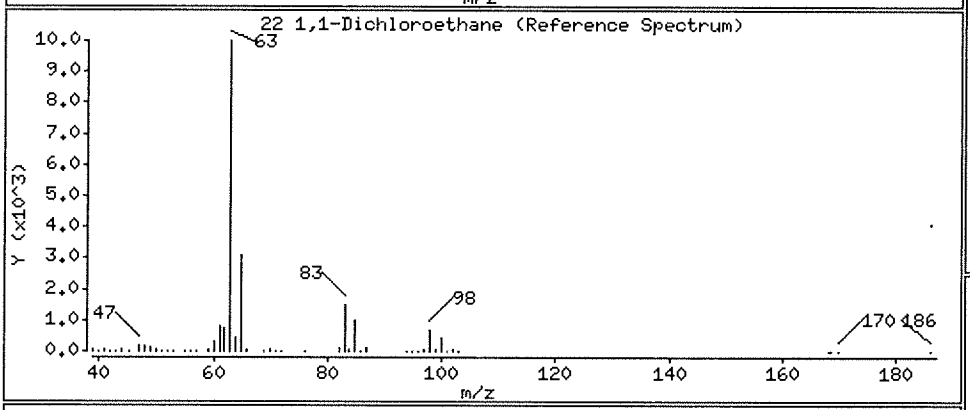
Concentration: 4.12 ug/l

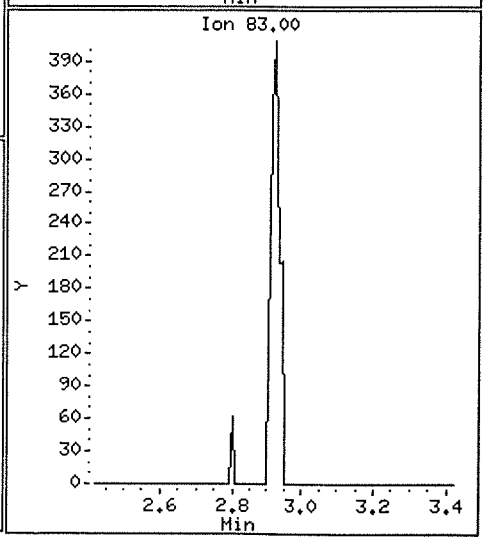


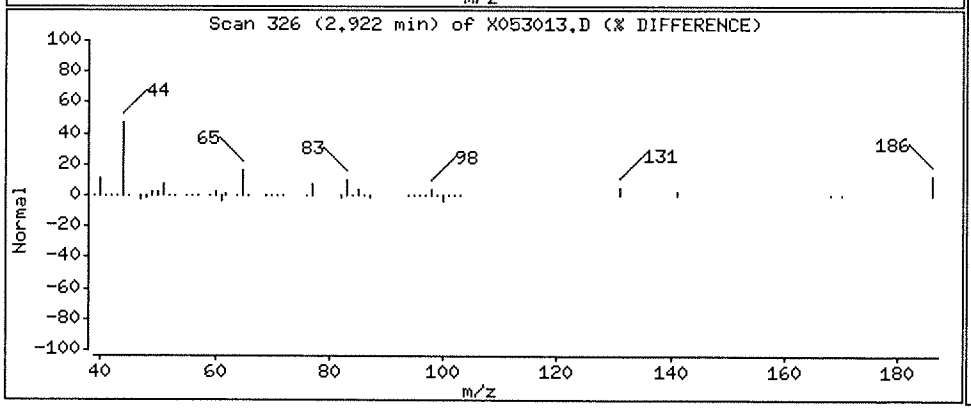












Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053013.D

Date : 30-MAY-2021 15:53

Client ID: HS21051314-01

Instrument: voa6.i

Sample Info: HS21051314-01;HS21051314-01;;;

Purge Volume: 5.0

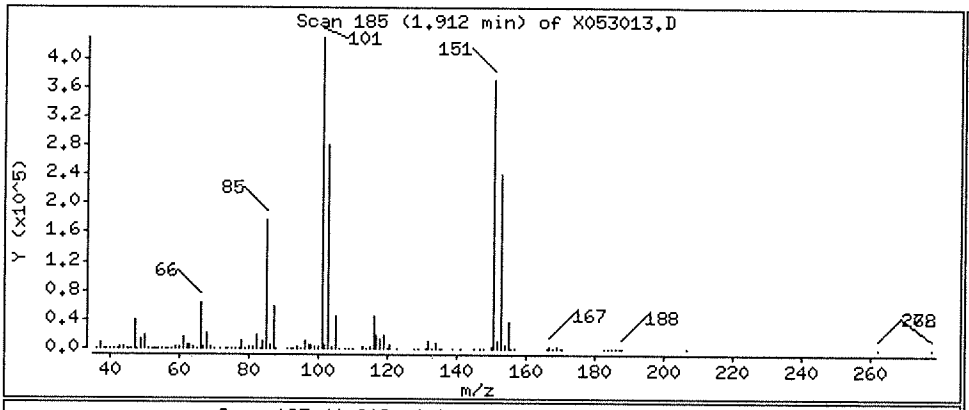
Operator: PC

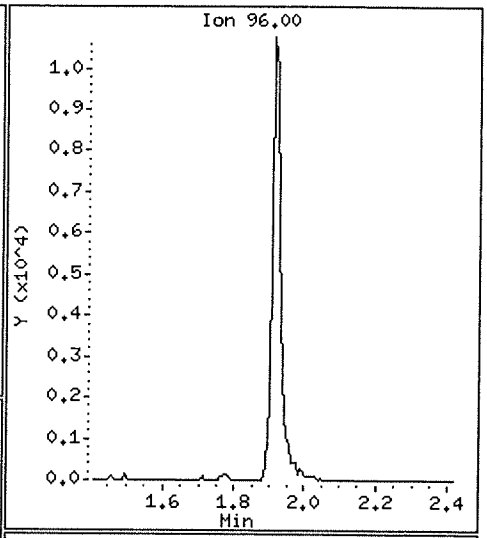
Column phase: DB624

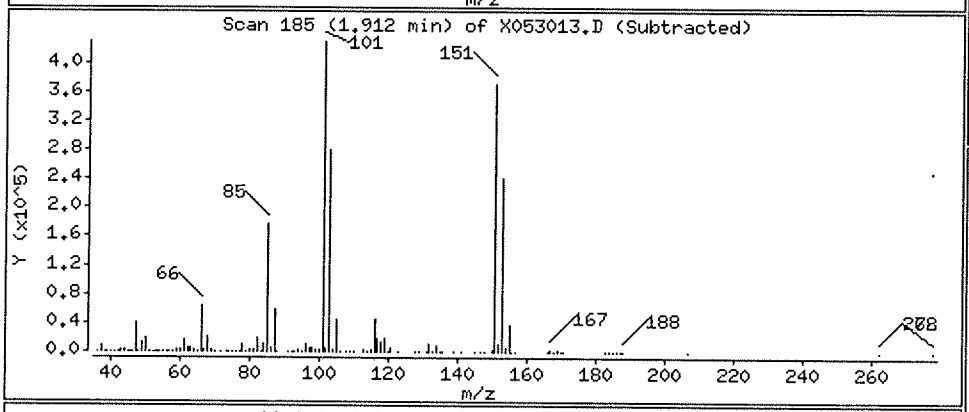
Column diameter: 0.18

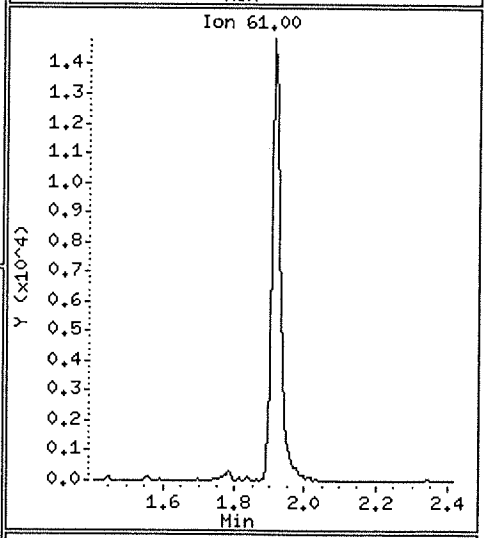
11 1,1-Dichloroethene

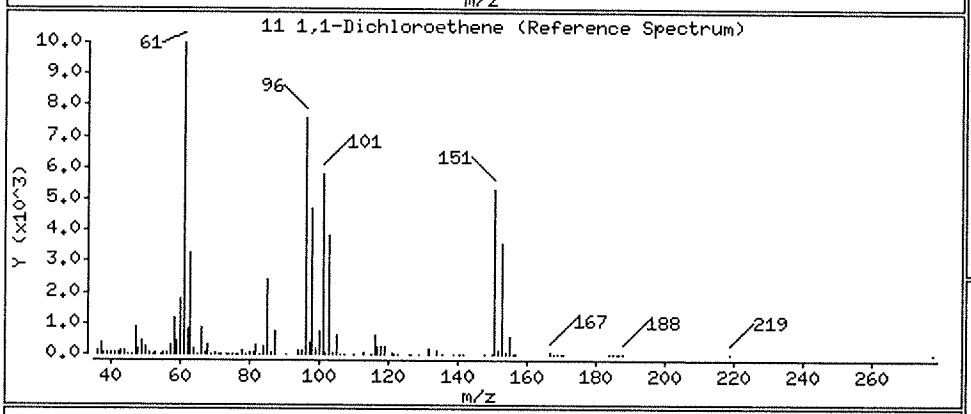
Concentration: 29.91 ug/l

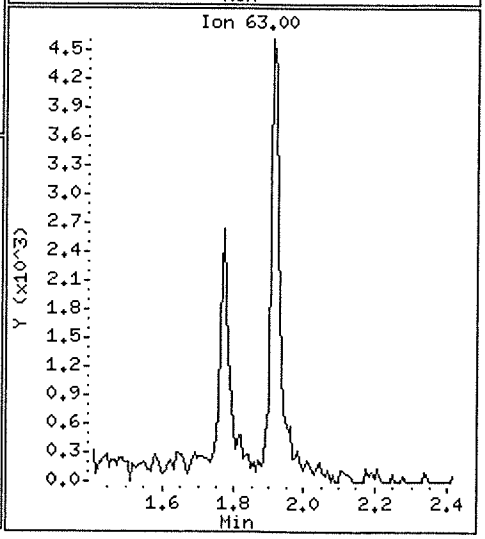


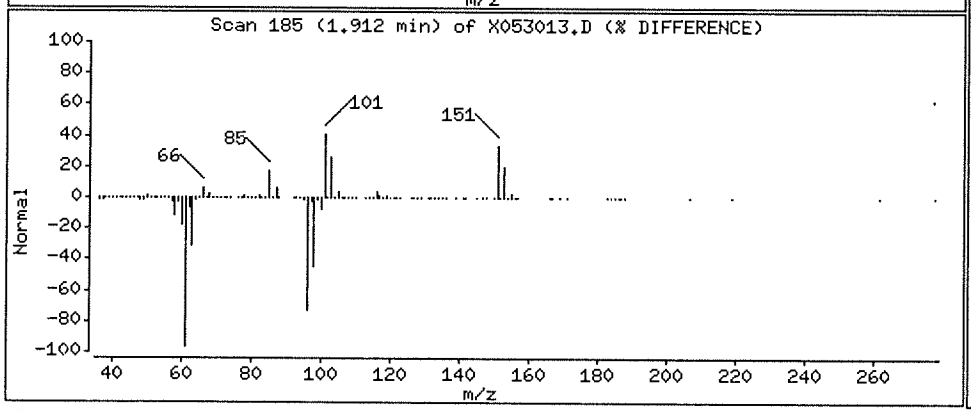












Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053013.D

Date : 30-MAY-2021 15:53

Client ID: HS21051314-01

Instrument: voa6.i

Sample Info: HS21051314-01;HS21051314-01;;;

Purge Volume: 5.0

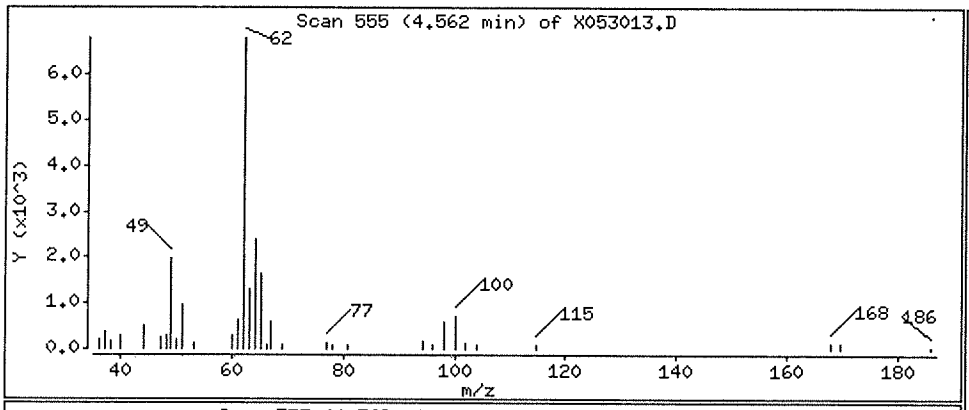
Operator: PC

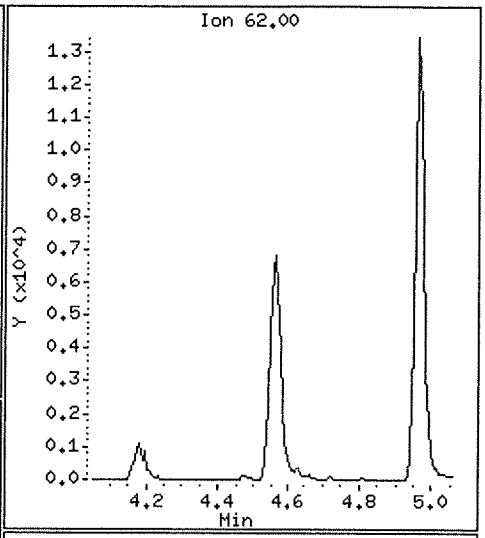
Column phase: DB624

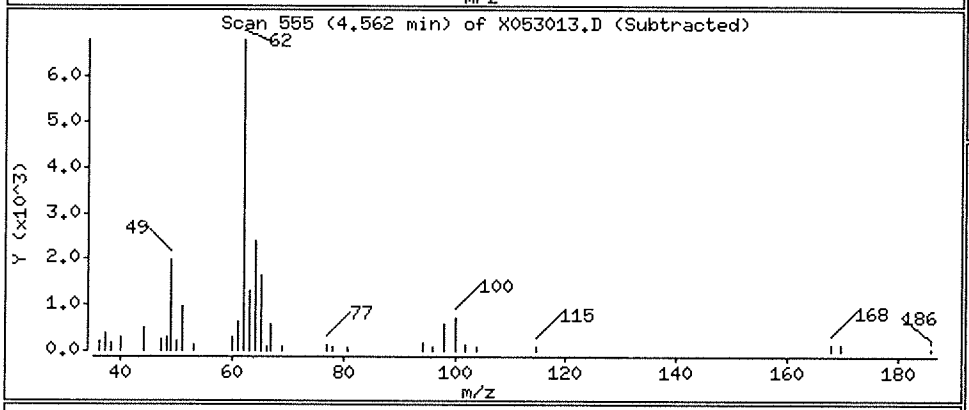
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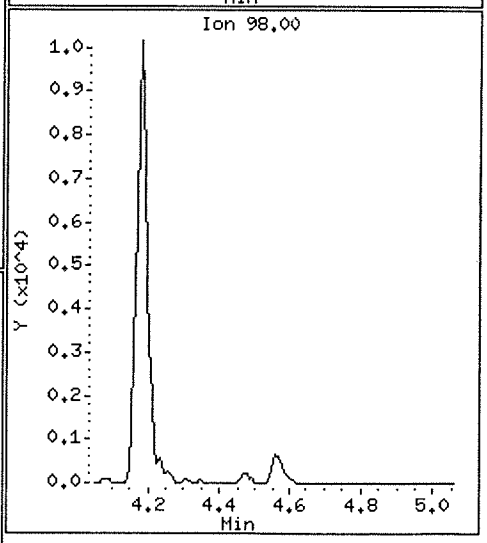
33 1,2-Dichloroethane

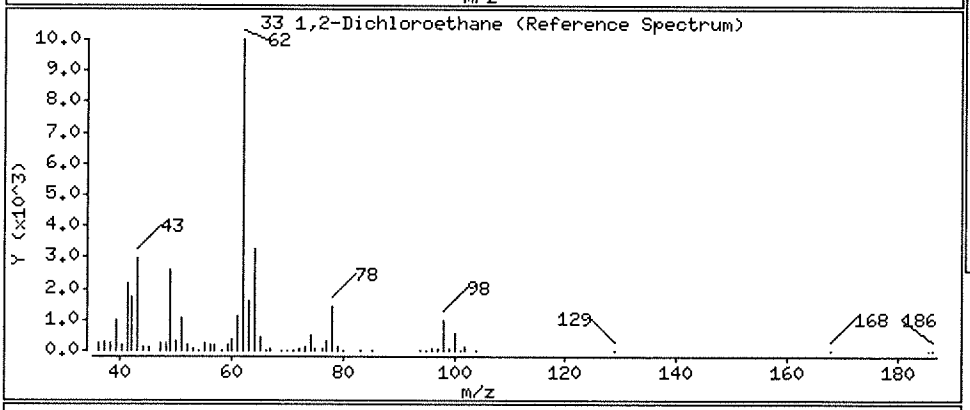
Concentration: 24.28 ug/l

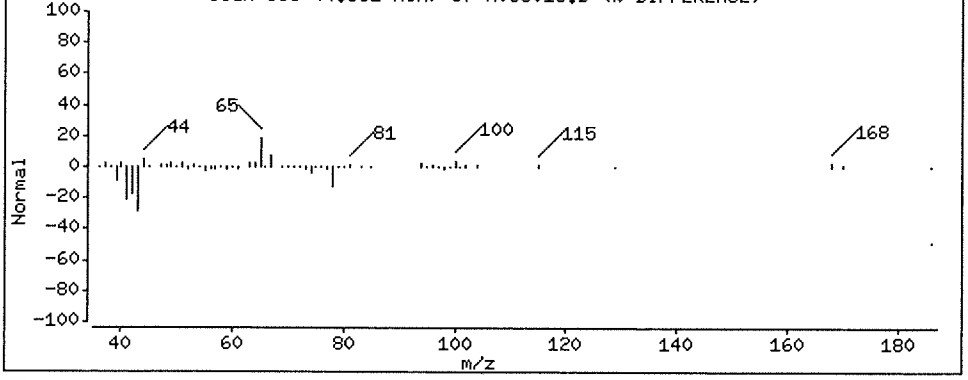












Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053013.D

Date : 30-MAY-2021 15:53

Client ID: HS21051314-01

Instrument: voa6.i

Sample Info: HS21051314-01;HS21051314-01;;;

Purge Volume: 5.0

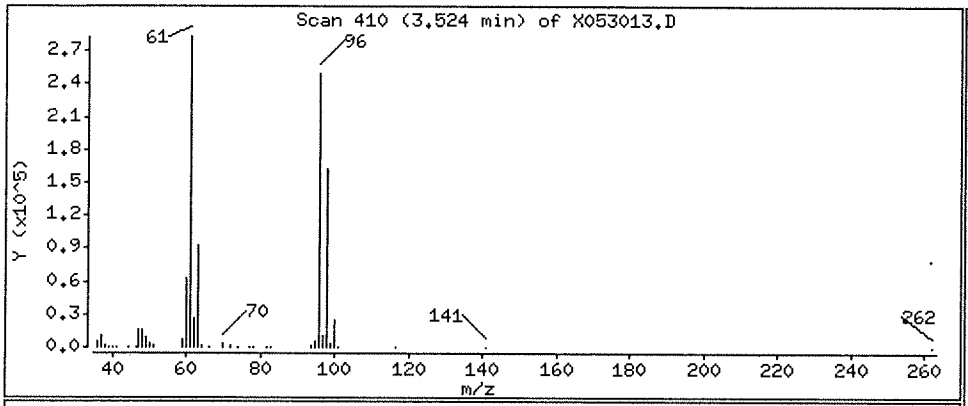
Operator: PC

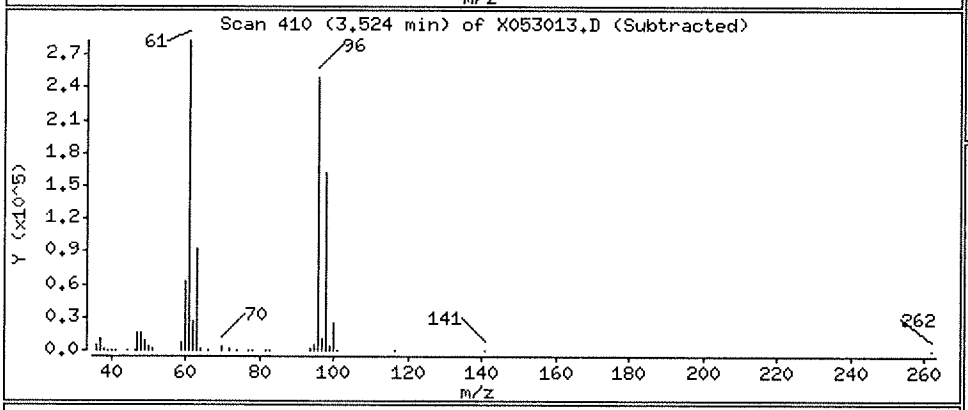
Column phase: DB624

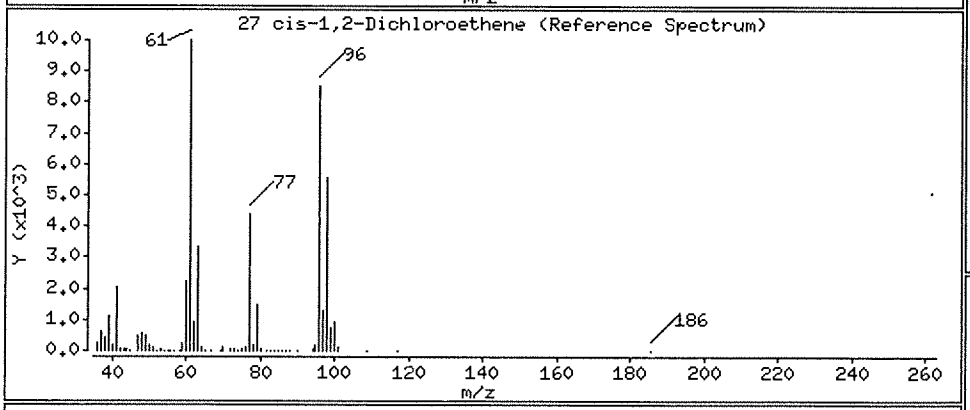
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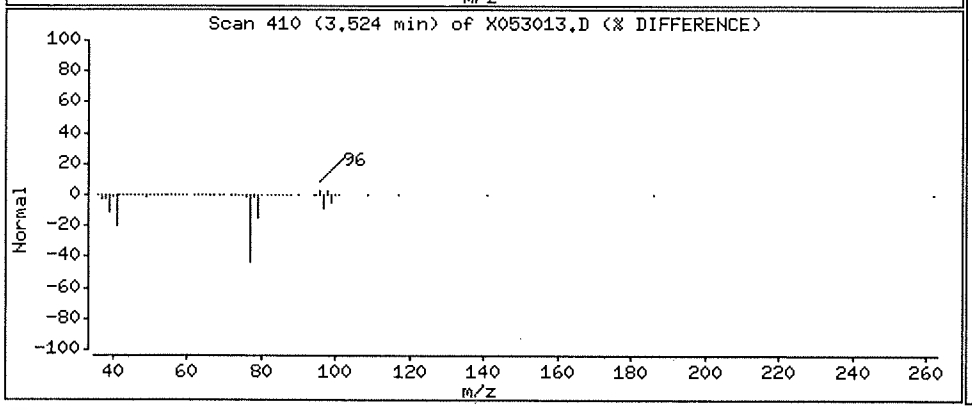
27 cis-1,2-Dichloroethene

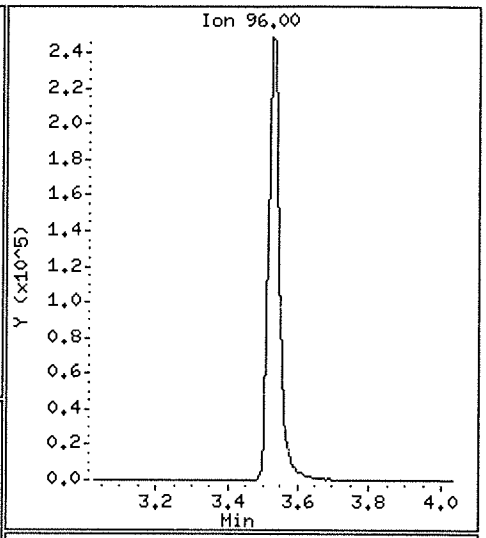
Concentration: 884.23 ug/l

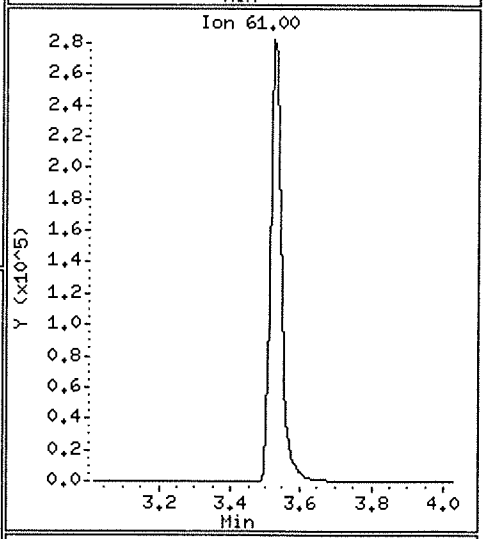


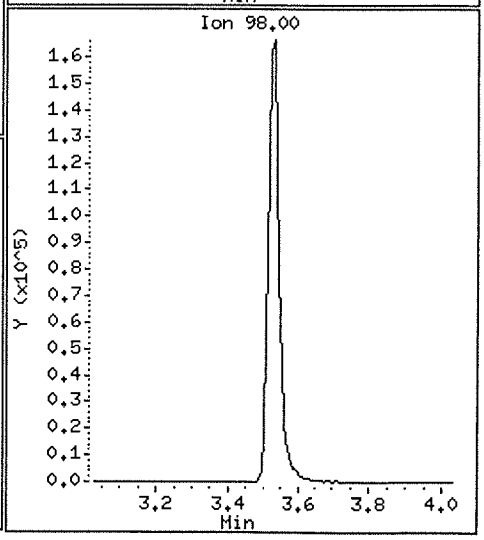












Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053013.D

Date : 30-MAY-2021 15:53

Client ID: HS21051314-01

Instrument: voa6.i

Sample Info: HS21051314-01;HS21051314-01;;;

Purge Volume: 5.0

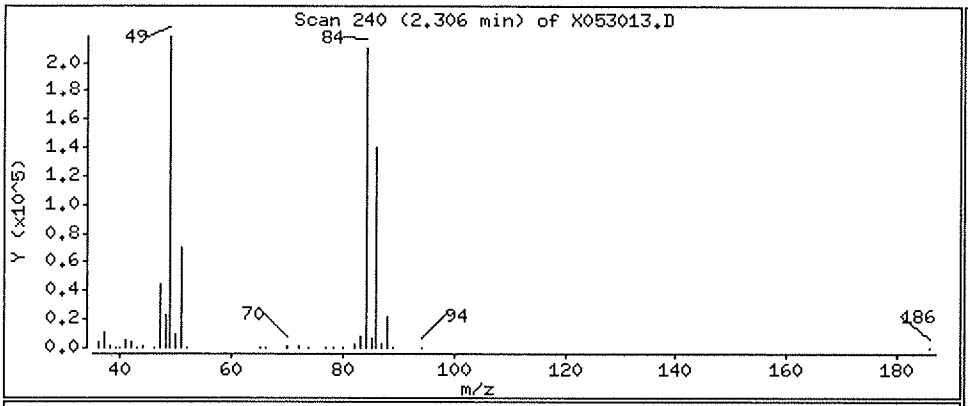
Operator: PC

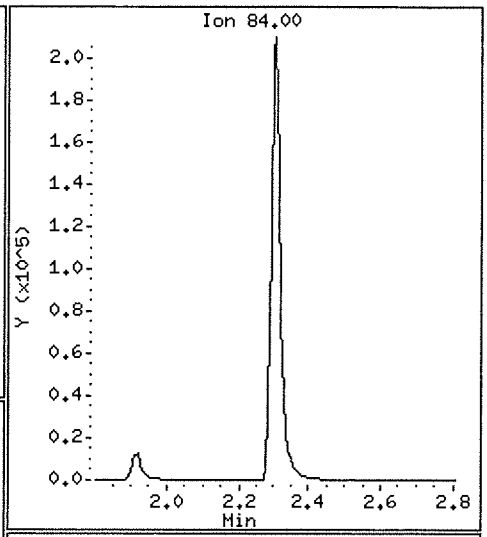
Column phase: DB624

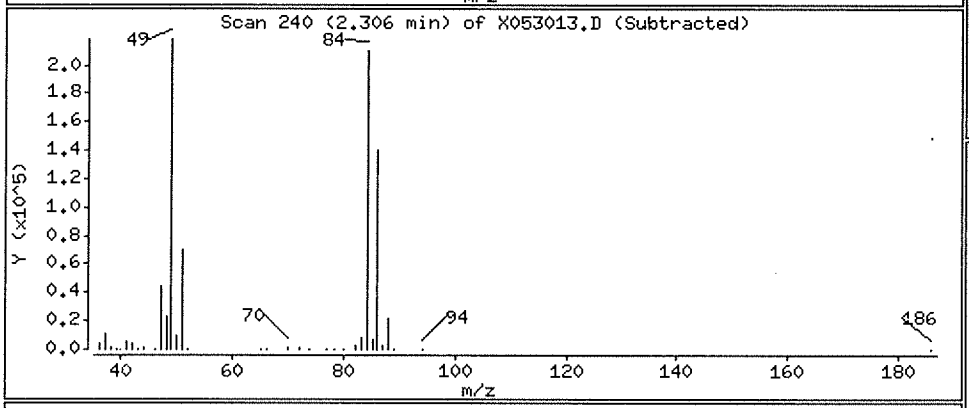
Column diameter: 0.18

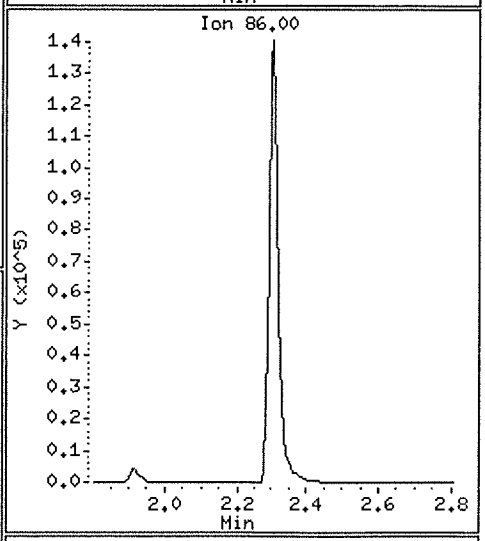
17 Methylene Chloride

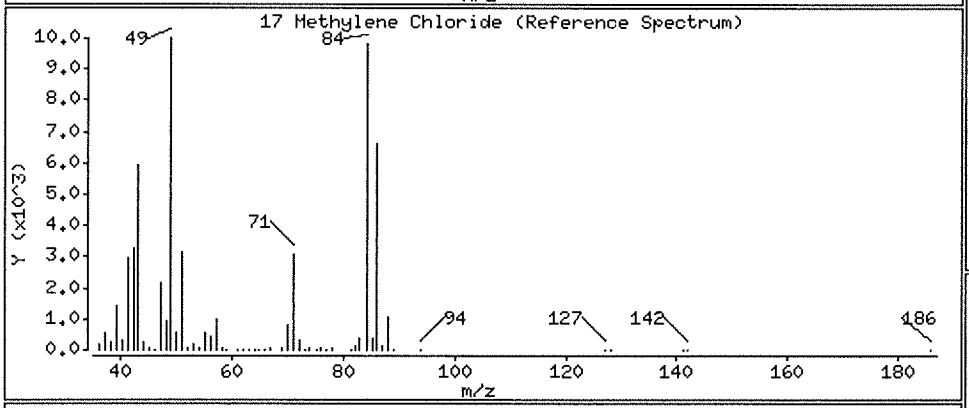
Concentration: 717.45 ug/l

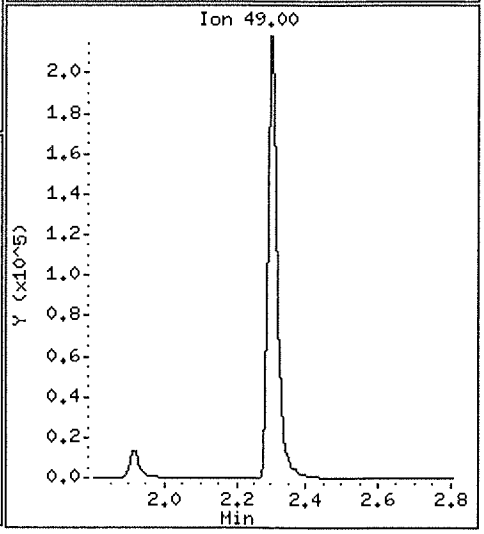


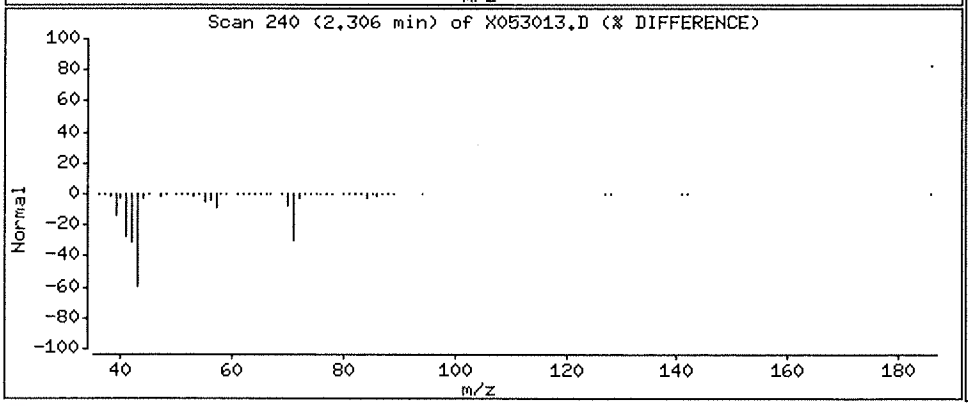












Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053013.D

Date : 30-MAY-2021 15:53

Client ID: HS21051314-01

Instrument: voa6.i

Sample Info: HS21051314-01;HS21051314-01;;;

Purge Volume: 5.0

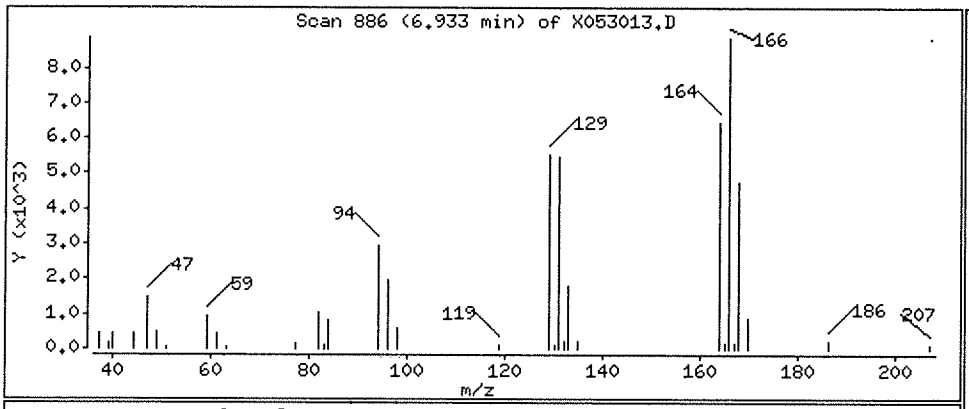
Operator: PC

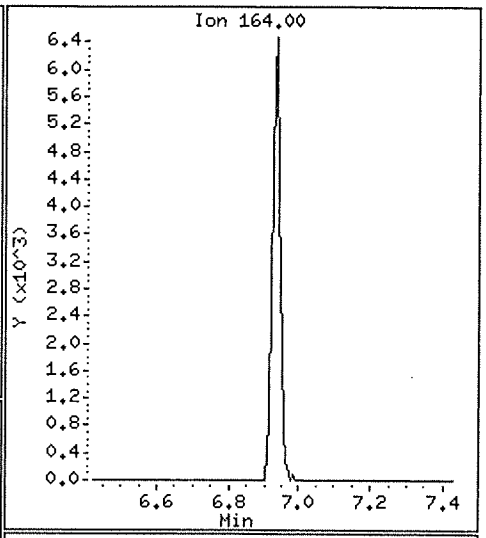
Column phase: DB624

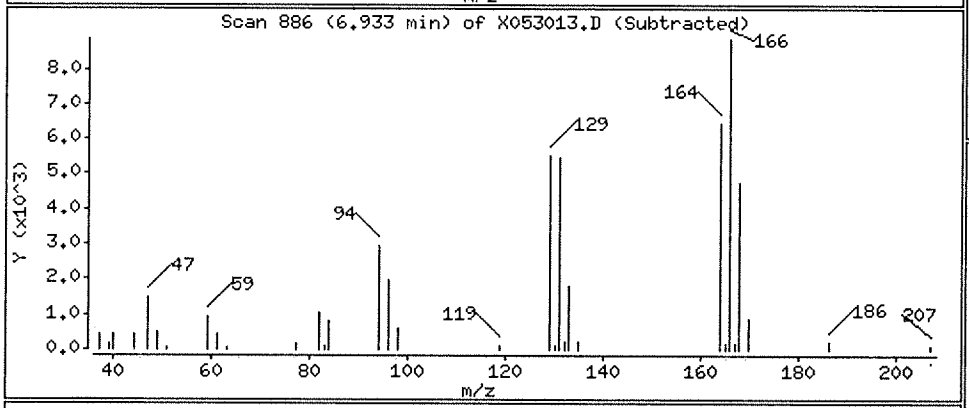
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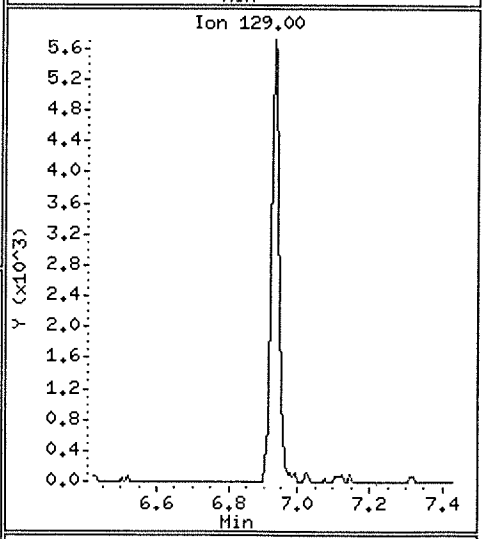
56 Tetrachloroethene

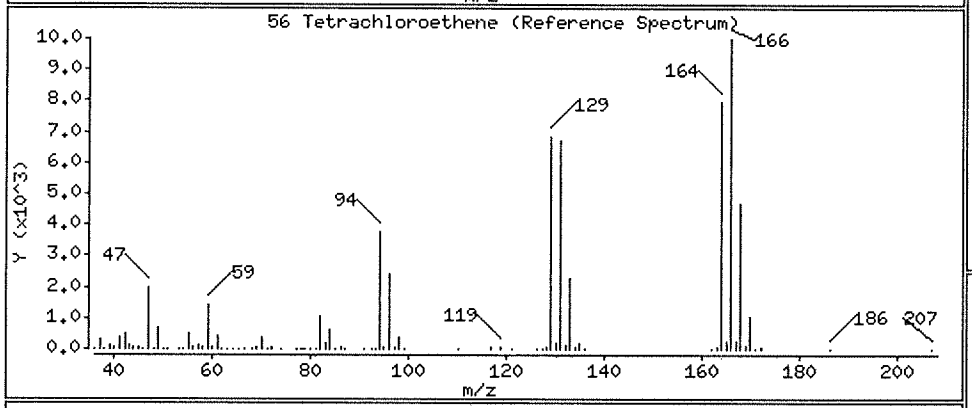
Concentration: 22.67 ug/l

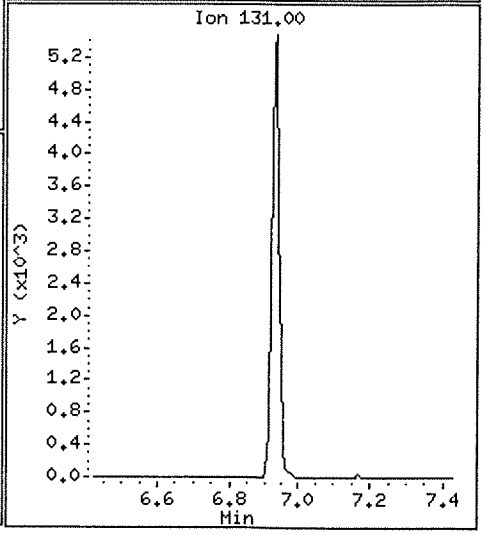


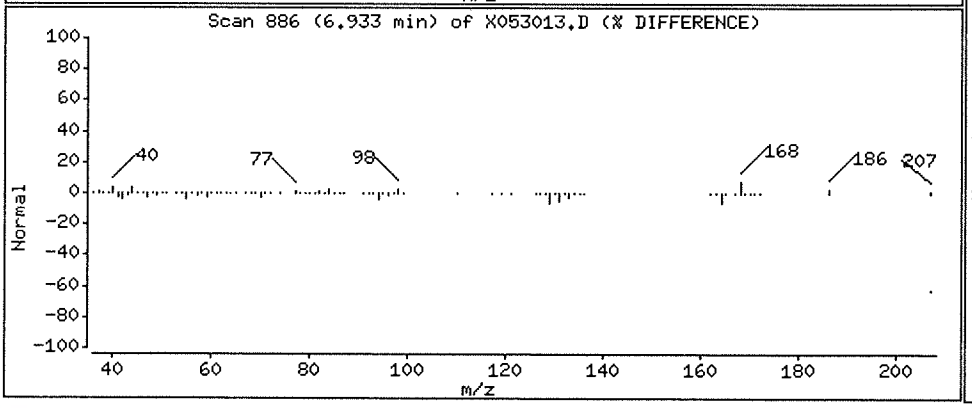












Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053013.D

Date : 30-MAY-2021 15:53

Client ID: HS21051314-01

Instrument: voa6.i

Sample Info: HS21051314-01;HS21051314-01;;;

Purge Volume: 5.0

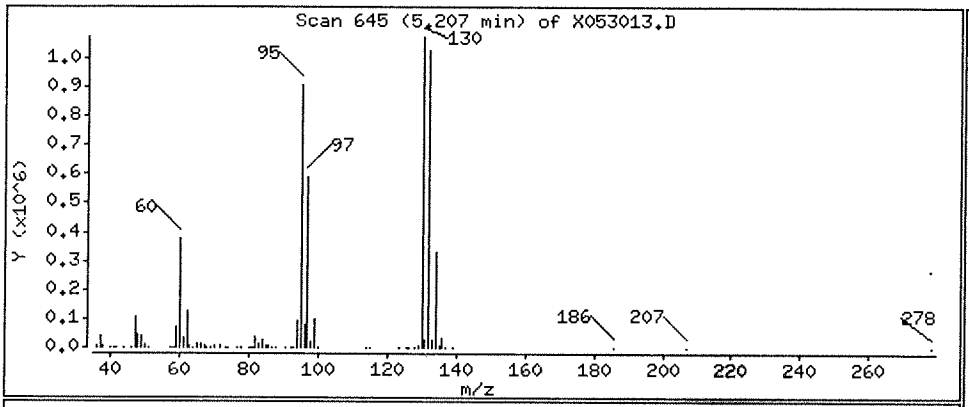
Operator: PC

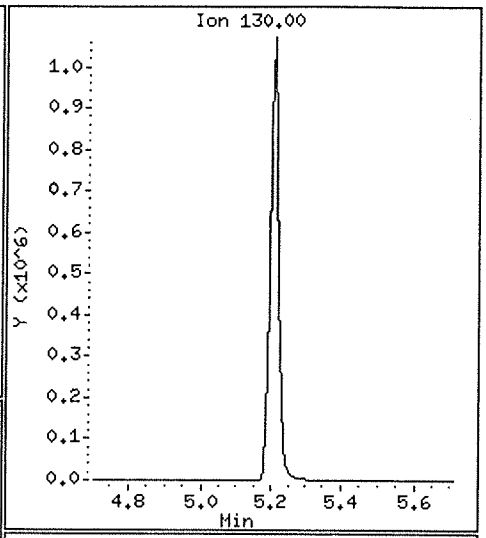
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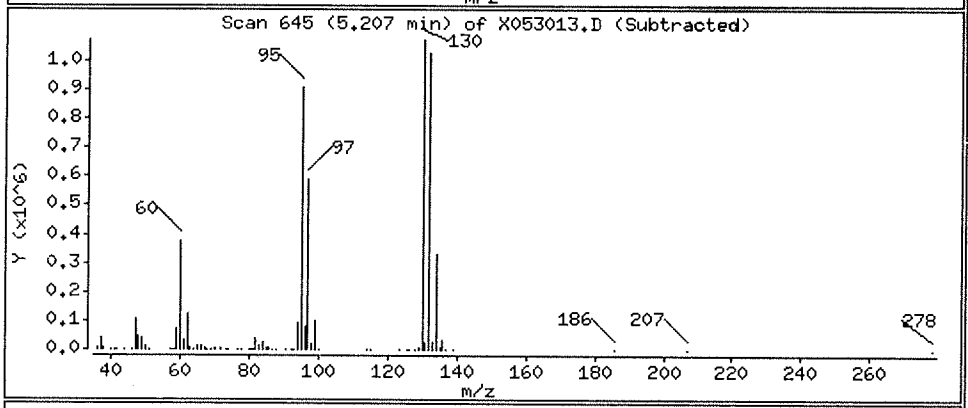
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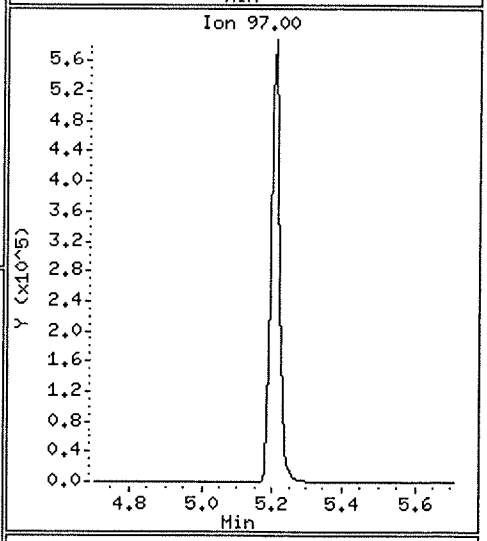
38 Trichloroethene

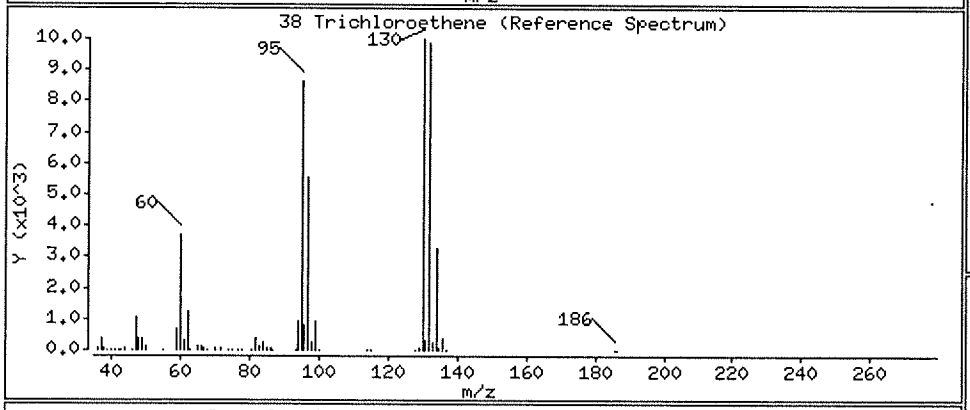
Concentration: 3211.80 ug/l

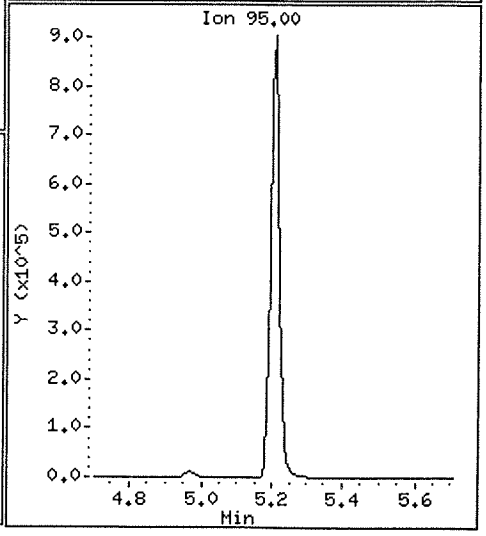


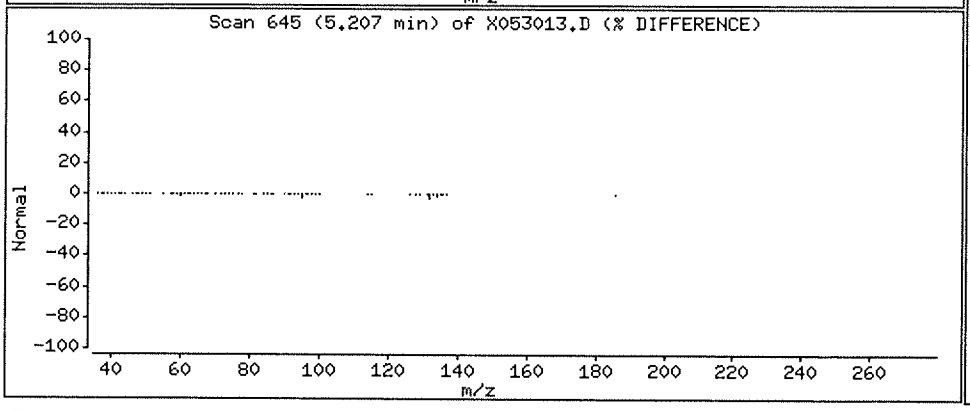












Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053013.D

Date : 30-MAY-2021 15:53

Client ID: HS21051314-01

Instrument: voa6.i

Sample Info: HS21051314-01;HS21051314-01;;;

Purge Volume: 5.0

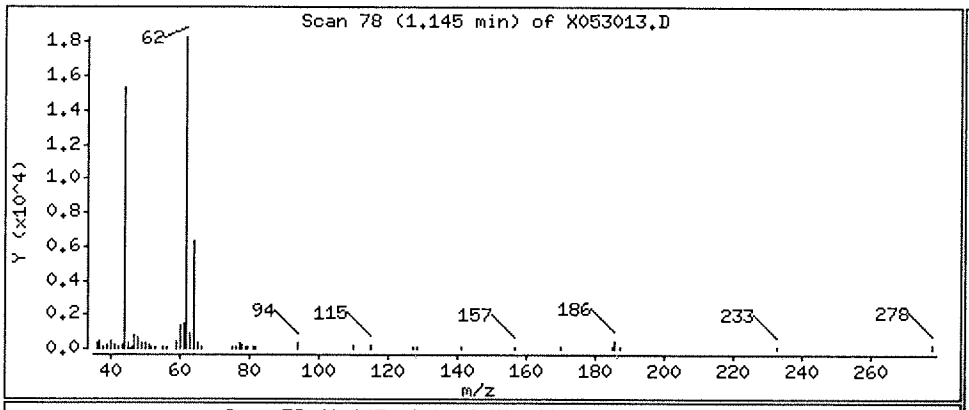
Operator: PC

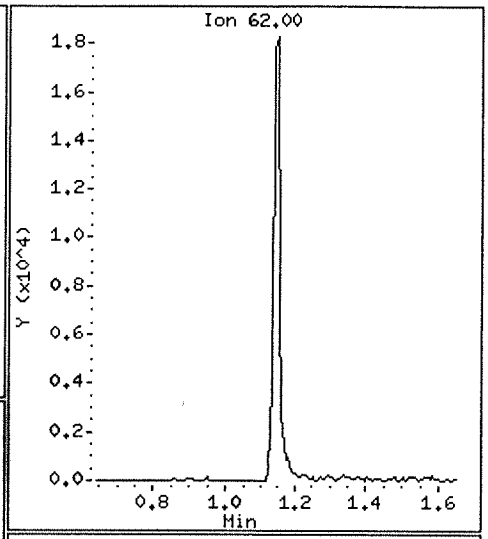
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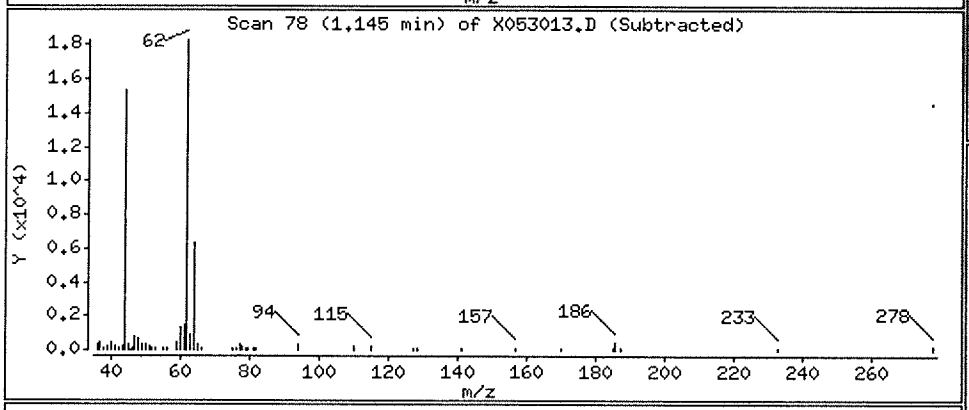
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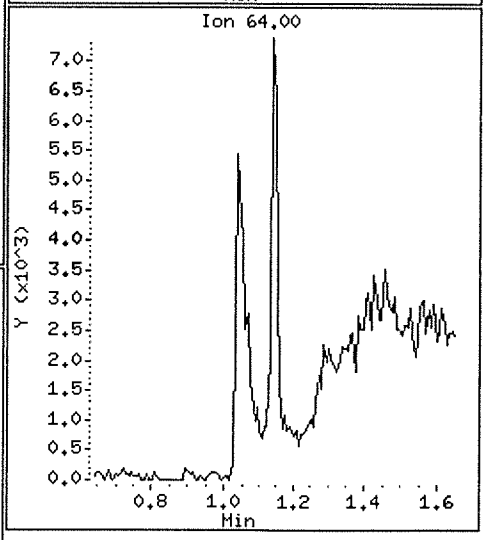
5 Vinyl Chloride

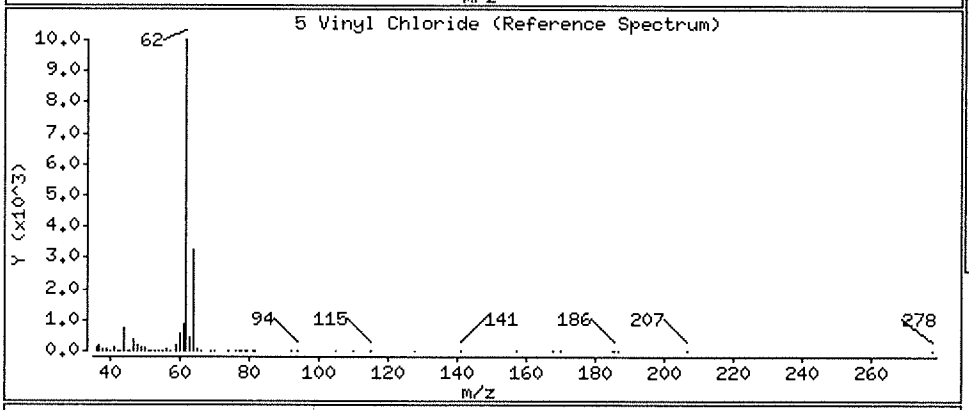
Concentration: 33.12 ug/l

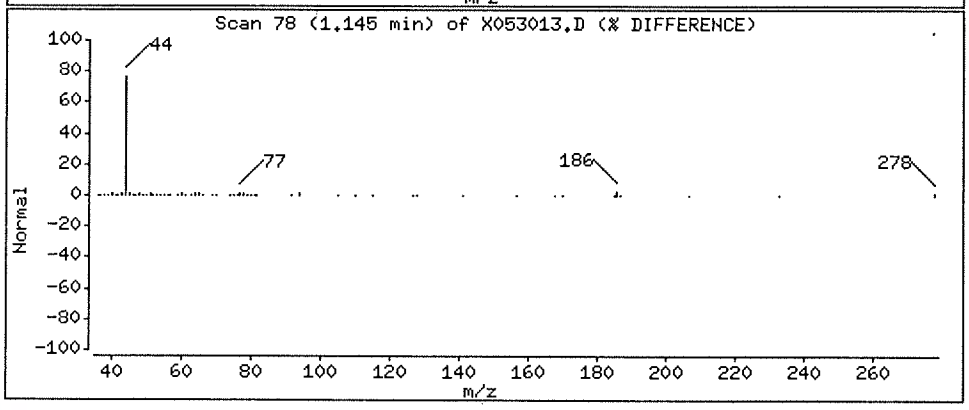












ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053014.D
Lab Smp Id: HS21051441-03MS Client Smp ID: HS21051441-03MS
Inj Date : 30-MAY-2021 16:14
Operator : PC Inst ID: voa6.i
Smp Info : HS21051441-03MS;HS21051441-03MS;3;;MS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:45 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 14 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

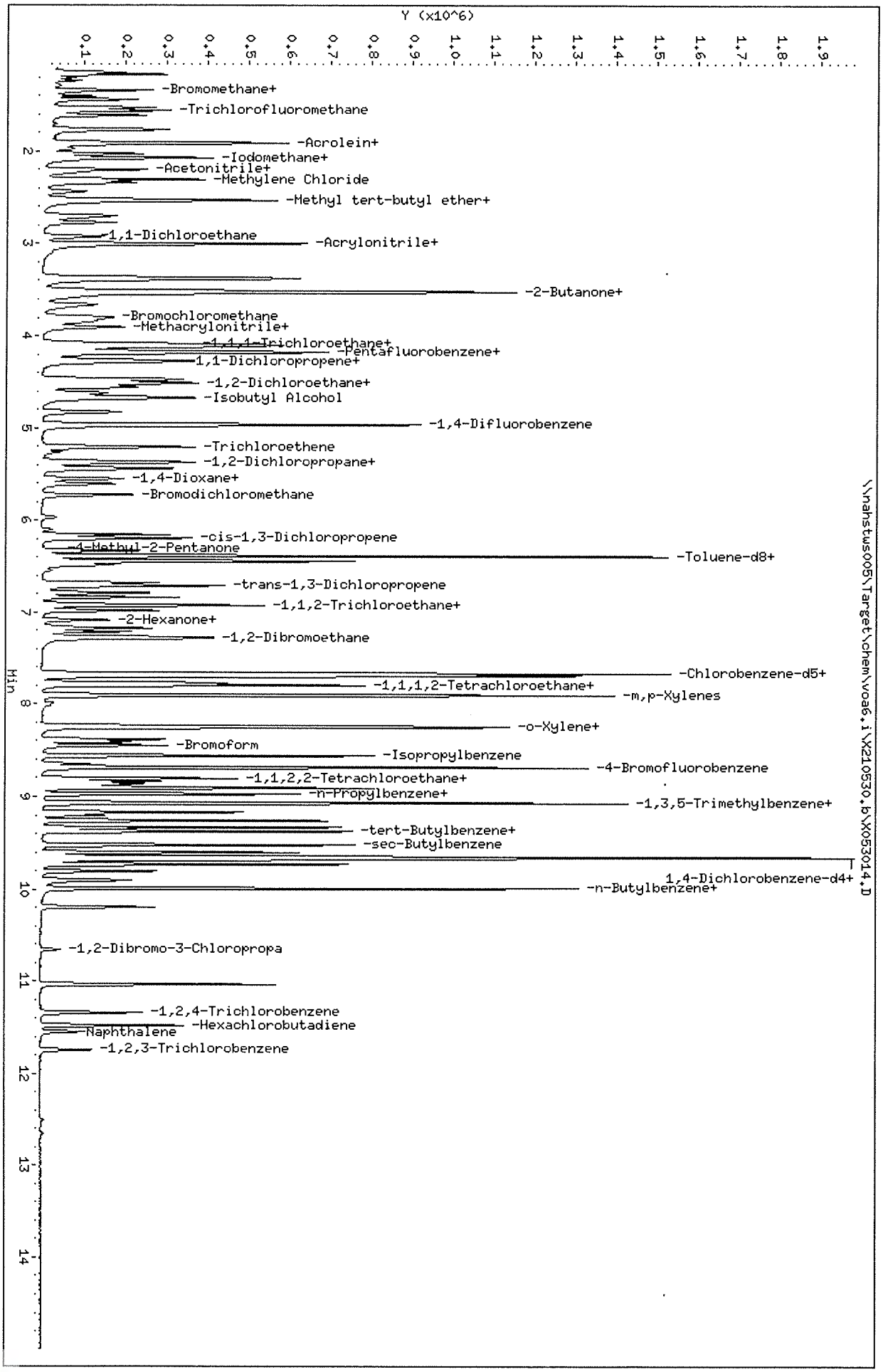
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	615043	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	825942	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	748268	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	410658	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	273585	45.1751	45.17
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	268133	45.5778	45.57
$	48 Toluene-d8	98	6.388	6.388	(0.833)	932908	50.0518	50.05
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	320318	48.7633	48.76
	60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	111247	20.1036	20.10
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	161436	17.7613	17.76
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	109562	18.5776	18.57
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	74351	18.3428	18.34
	22 1,1-Dichloroethane	63	2.922	2.921	(0.699)	150170	15.4443	15.44
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	112404	17.7424	17.74
	32 1,1-Dichloropropene	75	4.283	4.282	(0.863)	128128	20.2548	20.25
	93 1,2,3-Trichlorobenzene	180	11.746	11.739	(1.216)	42227	16.9857	16.98
	71 1,2,3-Trichloropropane	75	8.860	8.867	(0.917)	88466	17.2789	17.27(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	77903	19.1874	19.18
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	361782	19.3153	19.31
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	10776	16.8842	16.88
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	101747	18.4690	18.46
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	220424	19.7893	19.78

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	121914	18.5254	18.52
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	88395	18.1817	18.18
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	361090	19.3713	19.37
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	229387	19.8037	19.80
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	147356	18.2823	18.28
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	232802	19.2606	19.26
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	148524	17.6509	17.65
24	2-Butanone	43	3.581	3.580	(0.856)	50970	27.2386	27.23
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	293740	19.1103	19.11
52	2-Hexanone	43	7.090	7.083	(0.924)	90932	32.7142	32.71
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	339526	18.5485	18.54
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	387285	20.3962	20.39
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	141250	32.7806	32.78
10	Acetone	43	1.976	1.976	(0.473)	44968	24.3684	24.36
37	Benzene	78	4.512	4.512	(0.909)	356337	18.7800	18.77
74	Bromobenzene	156	8.802	8.802	(0.911)	134552	19.7483	19.74
29	Bromochloromethane	128	3.795	3.795	(0.908)	60161	16.1770	16.17
39	Bromodichloromethane	83	5.722	5.722	(1.153)	130098	18.3223	18.32
66	Bromoform	173	8.408	8.408	(1.096)	80096	19.1961	19.19
6	Bromomethane	94	1.339	1.338	(0.320)	116879	18.4948	18.49
19	Carbon Disulfide	76	2.069	2.069	(0.495)	502253	33.4304	33.43
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	143186	20.9128	20.91
59	Chlorobenzene	112	7.692	7.692	(1.003)	370528	23.7870	23.78
7	Chloroethane	64	1.403	1.403	(0.336)	73065	16.0037	16.00
28	Chloroform	83	3.910	3.910	(0.935)	176452	16.3141	16.31
3	Chloromethane	50	1.073	1.073	(0.257)	78316	12.1212	12.12
27	cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	562893	87.3178	87.31
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	158686	18.9658	18.96
55	Dibromochloromethane	129	7.176	7.176	(0.936)	121761	19.7706	19.77
44	Dibromomethane	93	5.550	5.550	(1.118)	65675	17.9752	17.97
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	66169	11.5508	11.55
61	Ethylbenzene	106	7.800	7.800	(1.017)	146099	20.3303	20.33
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	63451	26.0280	26.02
67	Isopropylbenzene	105	8.559	8.559	(1.116)	447409	20.3765	20.37
62	m,p-Xylenes	106	7.900	7.900	(1.030)	372729	39.7871	39.78
17	Methylene Chloride	84	2.306	2.305	(0.551)	93793	15.9346	15.93
87	n-Butylbenzene	91	9.991	9.991	(1.034)	320047	20.0334	20.03
73	n-Propylbenzene	91	8.910	8.910	(0.922)	508478	19.8499	19.84
92	Naphthalene	128	11.546	11.539	(1.195)	87393	14.8920	14.89
63	o-Xylene	106	8.244	8.244	(1.075)	174601	19.1138	19.11
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	439955	20.4026	20.40
64	Styrene	104	8.258	8.258	(1.077)	292691	19.1747	19.17
78	tert-Butylbenzene	119	9.332	9.332	(0.966)	319857	20.0151	20.01
56	Tetrachloroethene	164	6.926	6.926	(0.903)	104477	22.6809	22.68
50	Toluene	91	6.446	6.446	(0.840)	409150	18.7298	18.72
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	96456	16.7959	16.79
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	133857	18.5452	18.54
38	Trichloroethene	130	5.207	5.206	(1.049)	128483	22.6651	22.66
8	Trichlorofluoromethane	101	1.561	1.561	(0.373)	194336	17.5046	17.50
5	Vinyl Chloride	62	1.145	1.145	(0.274)	132681	18.2245	18.22

QC Flag Legend

M - Compound response manually integrated.

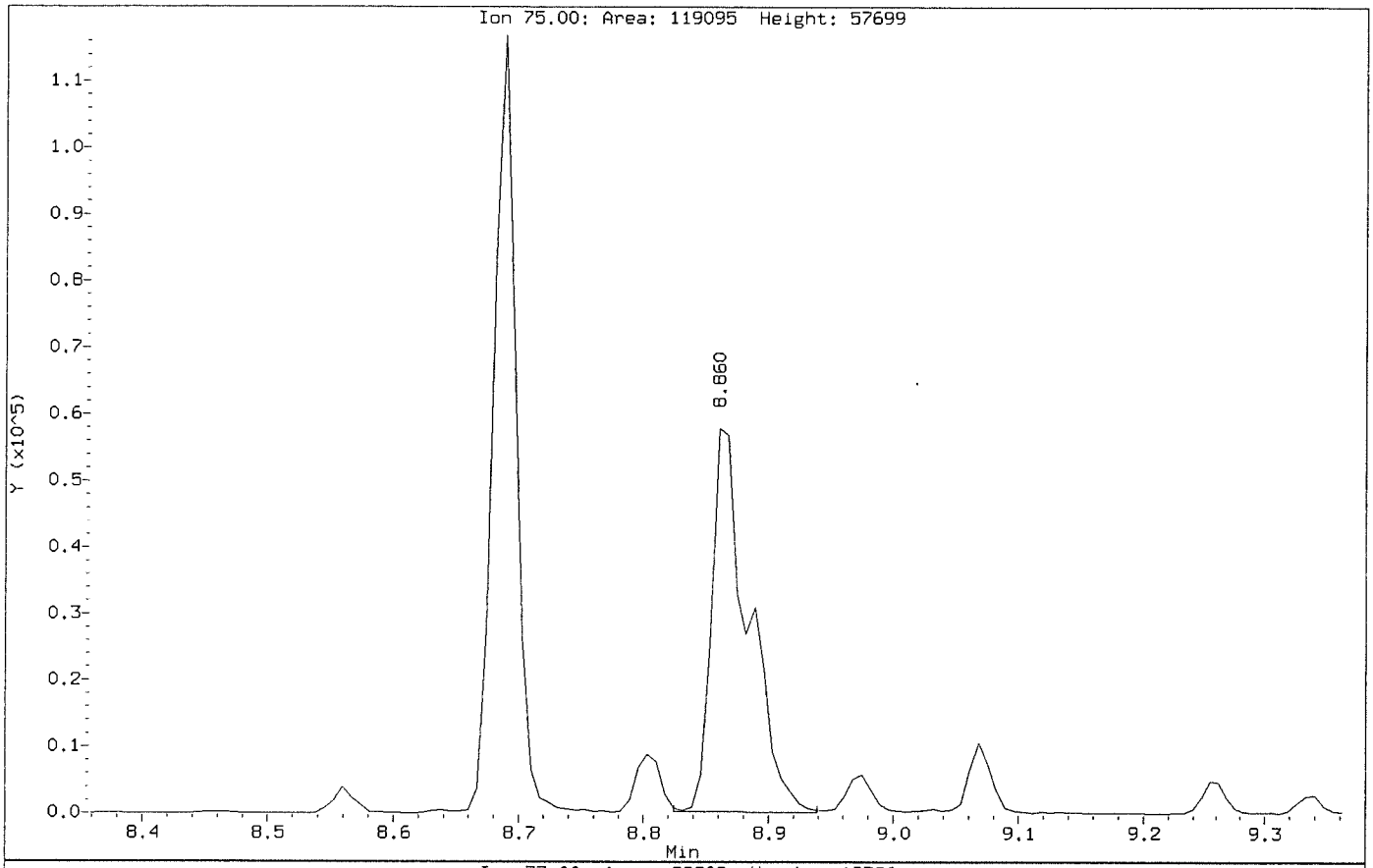


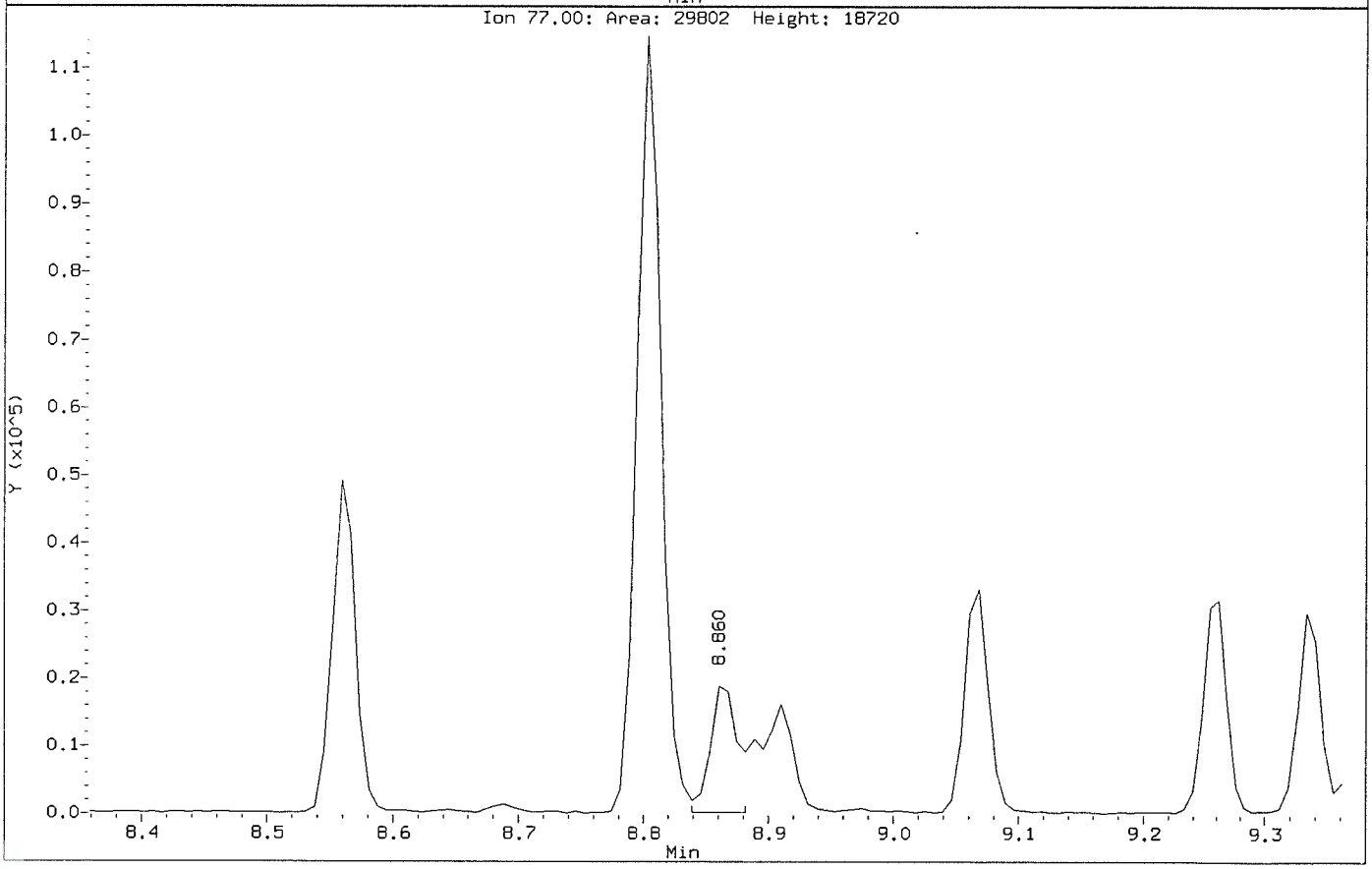
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Sample Info: HS21051441-03MS;HS21051441-03MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\Before\X053014.D
Injection Date: 30-MAY-2021 16:14
Instrument: voa6.i
Client Sample ID: HS21051441-03MS

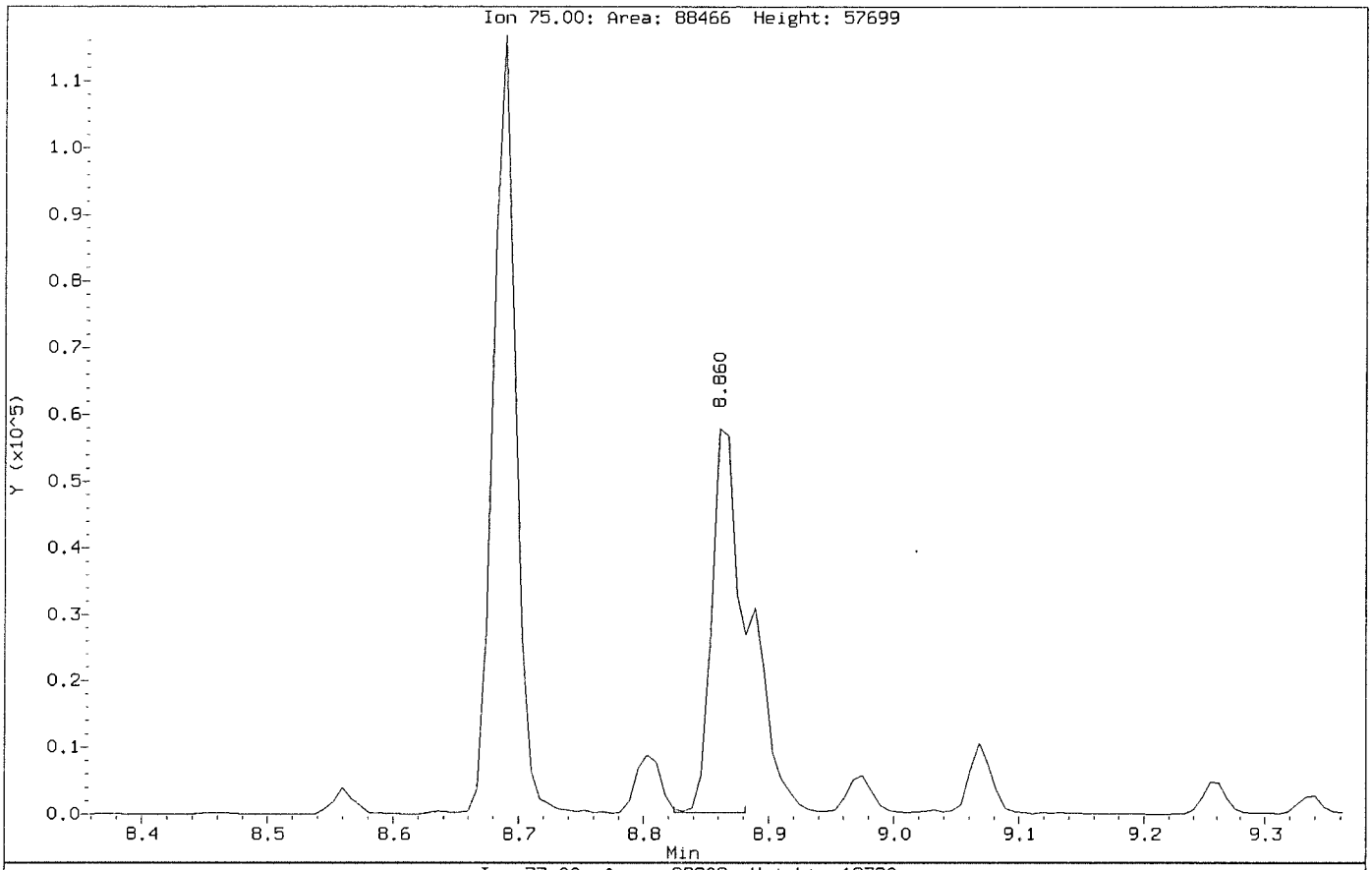
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

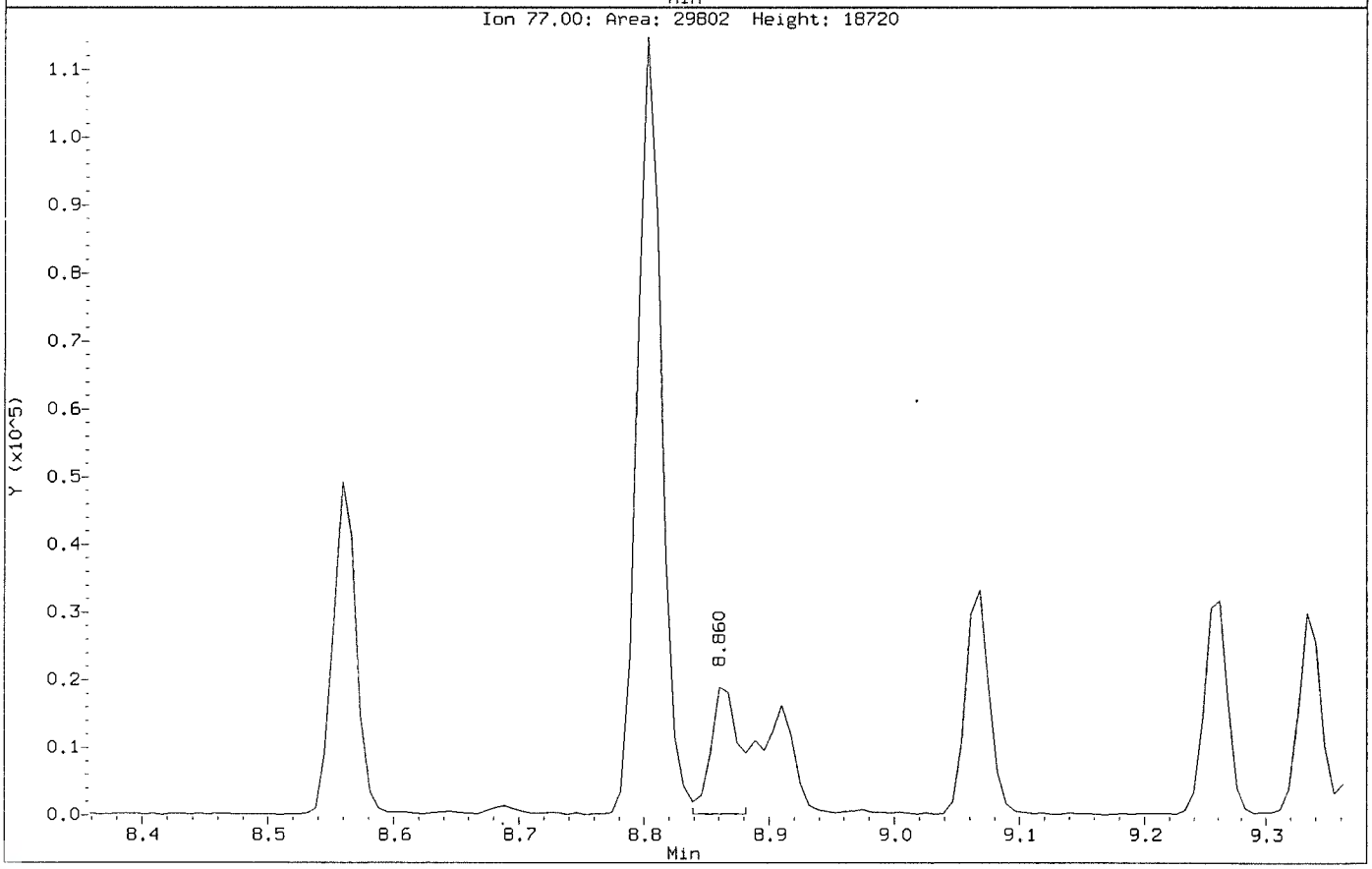




Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053014.D
Injection Date: 30-MAY-2021 16:14
Instrument: voa6.i
Client Sample ID: HS21051441-03MS

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053015.D
Lab Smp Id: HS21051441-03MSD Client Smp ID: HS21051441-03MSD
Inj Date : 30-MAY-2021 16:35
Operator : PC Inst ID: voa6.i
Smp Info : HS21051441-03MSD;HS21051441-03MSD;3;;MSD
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:45 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 14 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

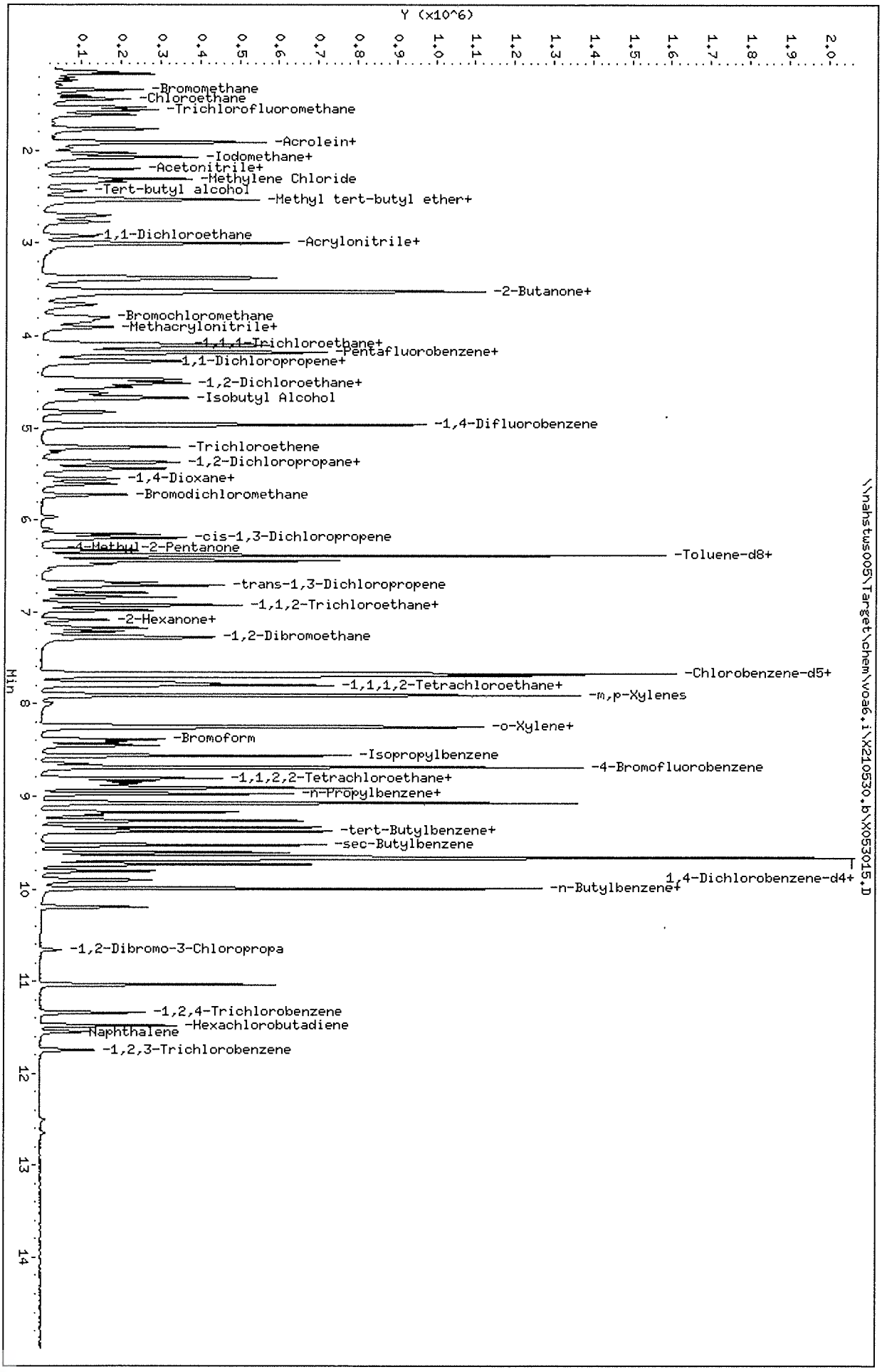
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	639703	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	856793	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	788220	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	434422	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.096	(0.981)	282570	44.8589	44.85
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	269819	44.0738	44.07
$	48 Toluene-d8	98	6.388	6.388	(0.833)	988709	50.3570	50.35
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	337734	48.8079	48.80
	60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	109339	18.7573	18.75
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	151708	16.0476	16.04
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	108573	17.3272	17.32
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	73649	17.2487	17.24
	22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	142575	14.0980	14.09
	11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	105862	16.0656	16.06
	32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	121111	18.4562	18.45
	93 1,2,3-Trichlorobenzene	180	11.746	11.739	(1.216)	45409	17.2664	17.26
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	90496	16.7085	16.70(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	82441	19.1944	19.19
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	356908	18.0128	18.01
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	12003	17.7508	17.75
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	101884	17.5564	17.55
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	216162	18.3450	18.34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	122451	17.9370	17.93
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	87764	17.4019	17.40
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	350232	17.7610	17.76
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	221446	18.0724	18.07
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	144208	16.9849	16.98
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	234739	18.3585	18.35
26	2,2-Dichloropropane	77	3.516	3.509	(0.841)	142883	16.3259	16.32
24	2-Butanone	43	3.580	3.580	(0.856)	51830	26.6305	26.63
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	287451	17.6782	17.67
52	2-Hexanone	43	7.090	7.083	(0.924)	93339	31.8781	31.87
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	329268	17.0041	17.00
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	379888	18.9122	18.91
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	142643	31.4260	31.42
10	Acetone	43	1.976	1.976	(0.473)	45856	23.7750	23.77
37	Benzene	78	4.512	4.512	(0.909)	346530	17.6055	17.60
74	Bromobenzene	156	8.802	8.802	(0.911)	131788	18.2845	18.28
29	Bromochloromethane	128	3.795	3.795	(0.908)	60848	15.7310	15.73
39	Bromodichloromethane	83	5.722	5.722	(1.153)	127884	17.3620	17.36
66	Bromoform	173	8.408	8.408	(1.096)	79916	18.1822	18.18
6	Bromomethane	94	1.338	1.338	(0.320)	110372	16.8059	16.80
19	Carbon Disulfide	76	2.069	2.069	(0.495)	474492	30.3651	30.36
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	136422	19.2075	19.20
59	Chlorobenzene	112	7.692	7.692	(1.003)	356701	21.7386	21.73
7	Chloroethane	64	1.403	1.403	(0.336)	97579	20.9515	20.95
28	Chloroform	83	3.910	3.910	(0.935)	169275	15.0473	15.04
3	Chloromethane	50	1.073	1.073	(0.257)	77181	11.3410	11.34
27	cis-1,2-Dichloroethene	96	3.523	3.530	(0.842)	545616	81.3750	81.37
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	152385	17.5570	17.55
55	Dibromochloromethane	129	7.176	7.176	(0.936)	120187	18.5259	18.52
44	Dibromomethane	93	5.550	5.550	(1.118)	65002	17.1504	17.15
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	63438	10.6308	10.63
61	Ethylbenzene	106	7.799	7.800	(1.017)	140649	18.5799	18.57
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	58959	23.0356	23.03
67	Isopropylbenzene	105	8.559	8.559	(1.116)	435748	18.8395	18.83
62	m,p-Xylenes	106	7.900	7.900	(1.030)	358842	36.3632	36.36
17	Methylene Chloride	84	2.305	2.305	(0.551)	93714	15.2551	15.25
87	n-Butylbenzene	91	9.991	9.991	(1.034)	316034	18.7000	18.70
73	n-Propylbenzene	91	8.910	8.910	(0.922)	492430	18.1719	18.17
92	Naphthalene	128	11.546	11.539	(1.195)	100314	16.1587	16.15
63	o-Xylene	106	8.244	8.244	(1.075)	171388	17.8111	17.81
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	423087	18.5470	18.54
64	Styrene	104	8.258	8.258	(1.077)	284794	17.7117	17.71
78	tert-Butylbenzene	119	9.332	9.332	(0.966)	310118	18.3442	18.34
56	Tetrachloroethene	164	6.926	6.926	(0.903)	102451	21.1138	21.11
50	Toluene	91	6.446	6.446	(0.840)	397750	17.2850	17.28
20	trans-1,2-Dichloroethene	96	2.527	2.528	(0.604)	92610	15.5046	15.50
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	133435	17.8211	17.82
38	Trichloroethene	130	5.206	5.206	(1.049)	121409	20.6460	20.64
8	Trichlorofluoromethane	101	1.560	1.561	(0.373)	182069	15.7674	15.76
5	Vinyl Chloride	62	1.145	1.145	(0.274)	126132	16.6571	16.65

QC Flag Legend

M - Compound response manually integrated.

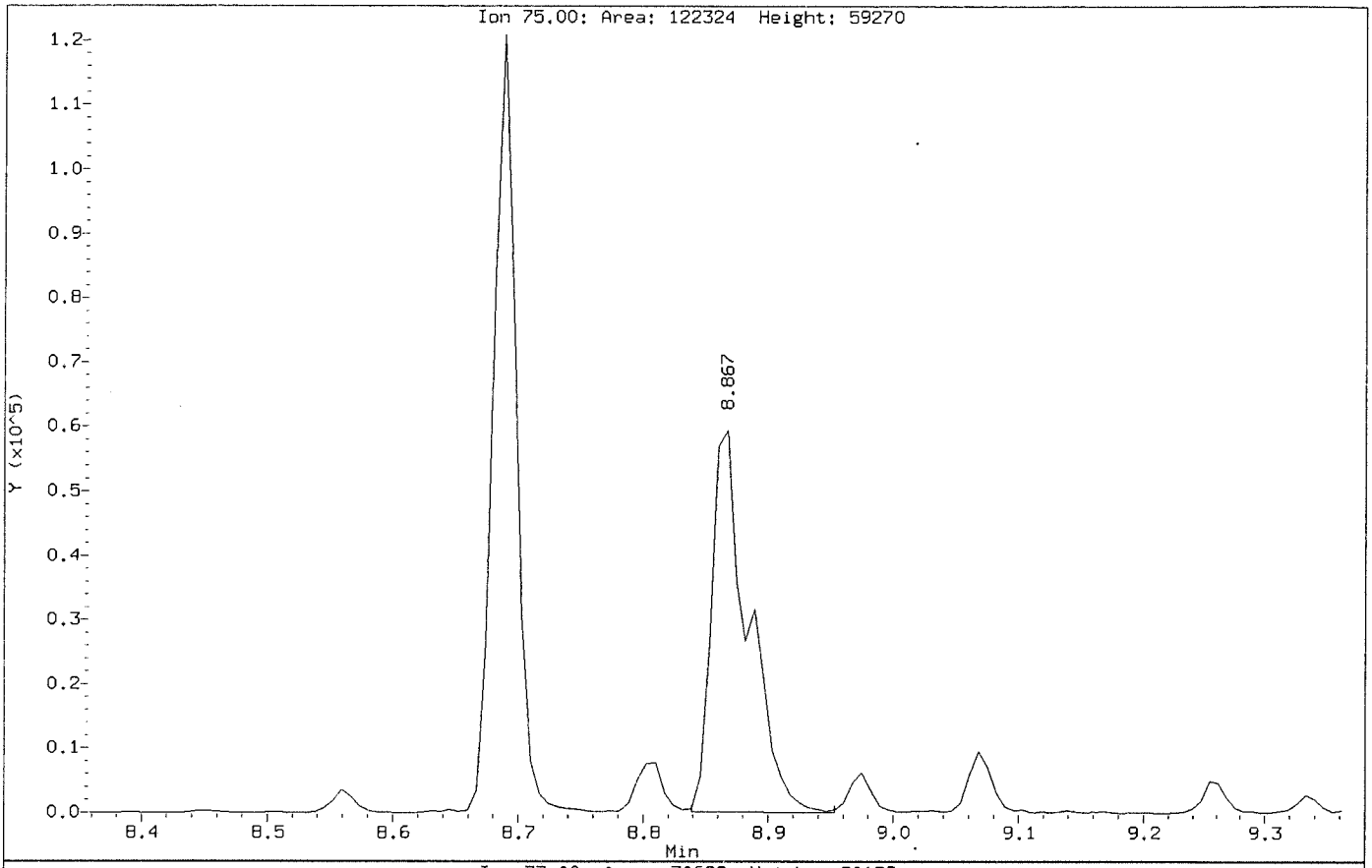


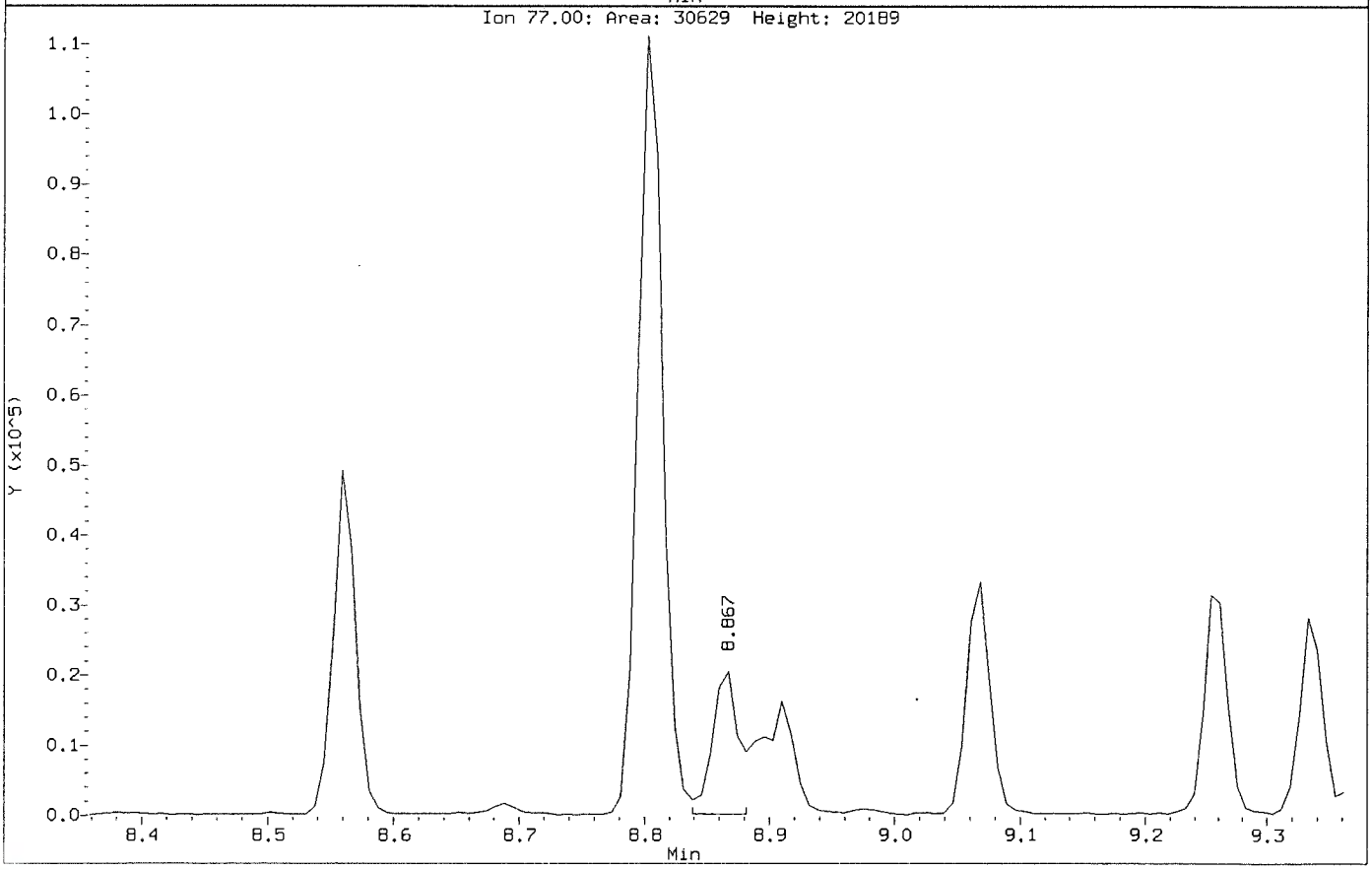
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Date : 30-MAY-2021 16:35
Client ID: HS21051441-03HSD
Sample Info: HS21051441-03HSD;HS21051441-03HSD;3;;HSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\Before\X053015.D
Injection Date: 30-MAY-2021 16:35
Instrument: voa6.i
Client Sample ID: HS21051441-03MSD

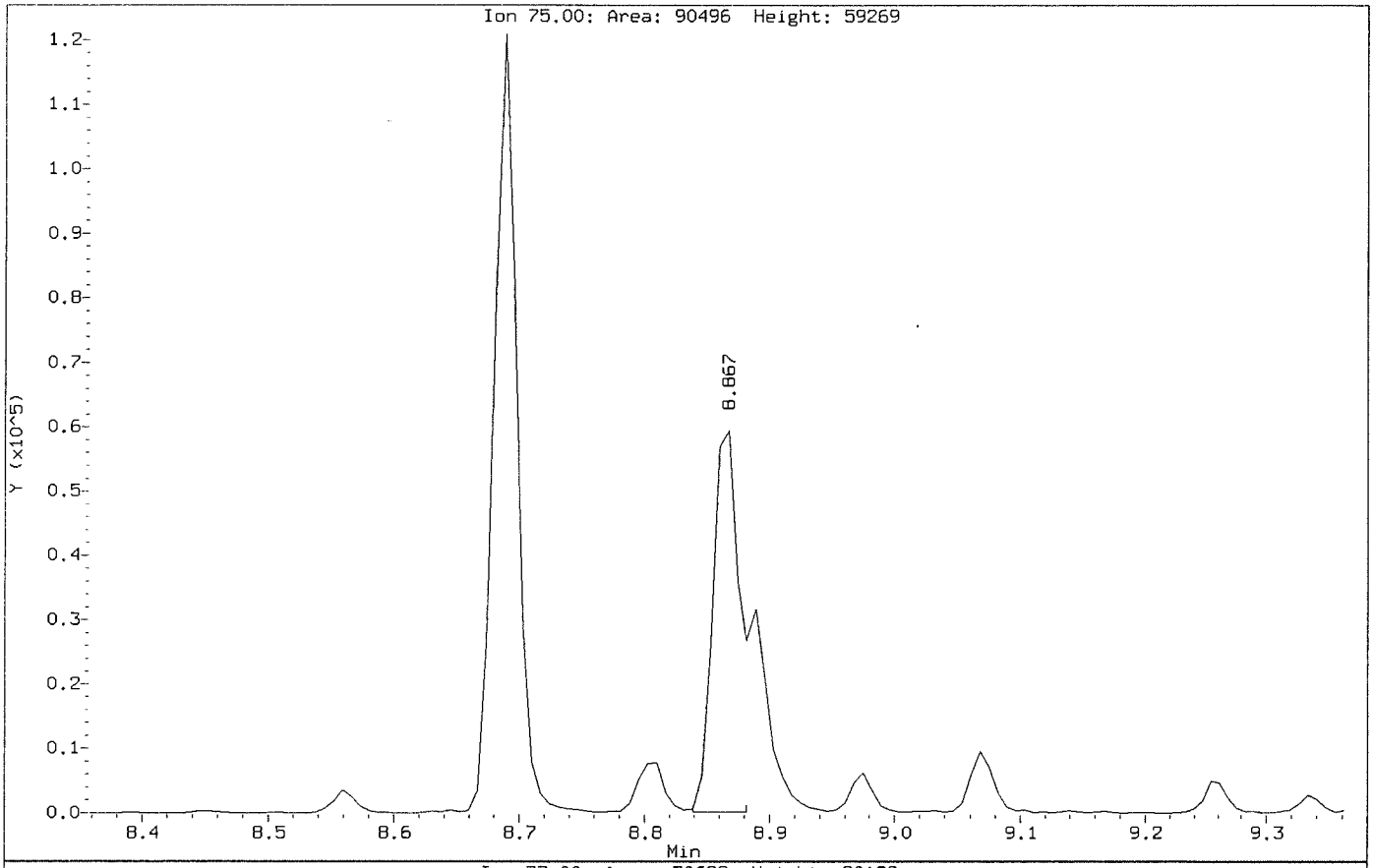
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

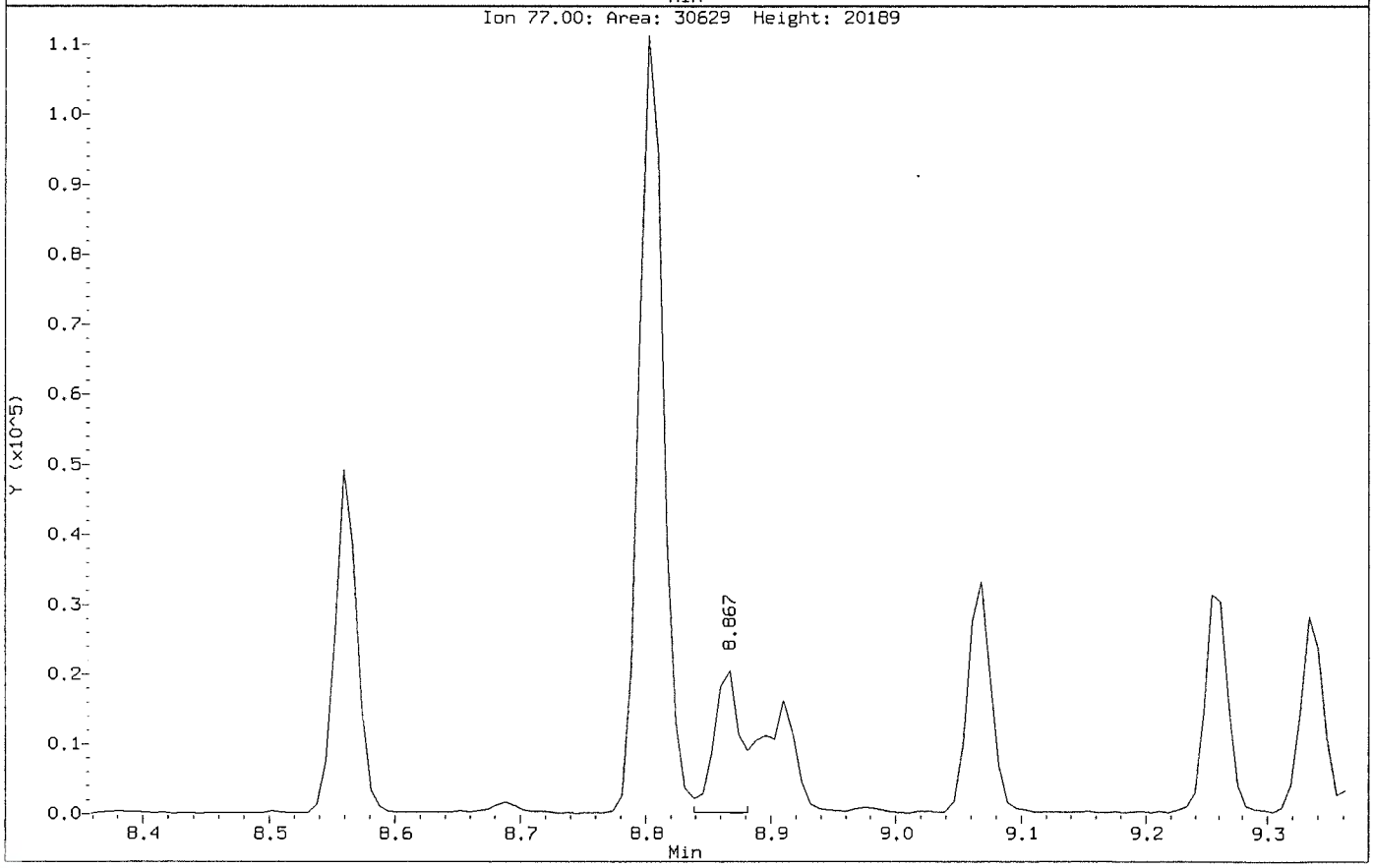




Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053015.D
Injection Date: 30-MAY-2021 16:35
Instrument: voa6.i
Client Sample ID: HS21051441-03MSD

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053016.D
Lab Smp Id: HS21051314-01 Client Smp ID: HS21051314-01
Inj Date : 30-MAY-2021 16:56
Operator : PC Inst ID: voa6.i
Smp Info : HS21051314-01;HS21051314-01;;;
Misc Info : HS18090001;WATER;0;100;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:50 devak.giga Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 15
Dil Factor: 100.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

Name	Value	Description
DF	100.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

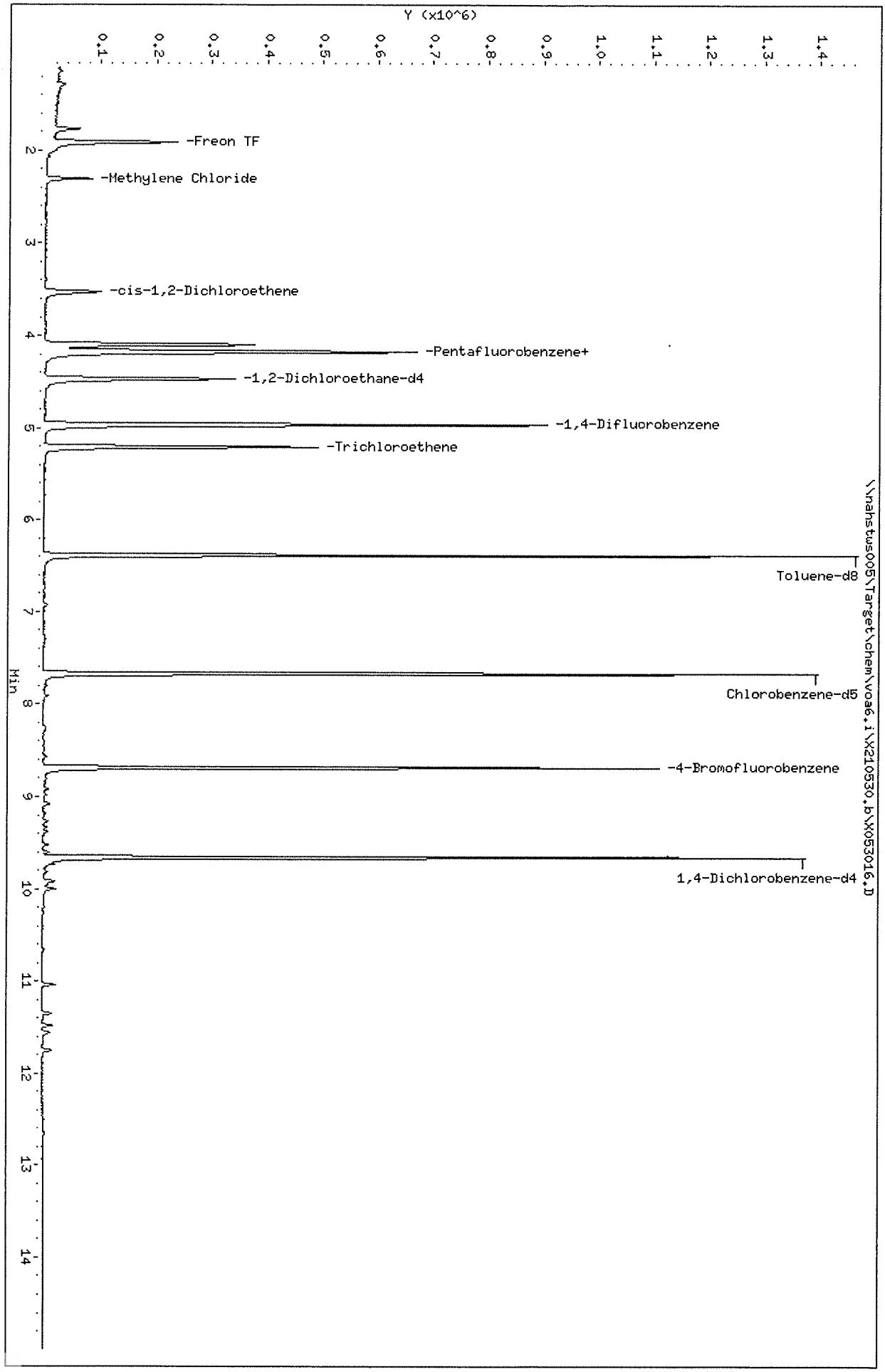
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	598056	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	808780	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	704249	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	343503	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.103	(0.979)	267796	45.4762	45.47
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	261614	45.7351	45.73
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	919501	52.4161	52.41
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	291695	47.2058	47.20
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	57353	9.14949	914.94
17 Methylene Chloride	84	2.305	2.306	(0.551)	38850	6.02512	602.51
38 Trichloroethene	130	5.206	5.207	(1.049)	174880	31.5043	3150.43
5 Vinyl Chloride	62	1.138	1.145	(0.272)	3411	0.48183	48.18(a)

QC Flag Legend

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

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053016.D
Date : 30-MAY-2021 16:56
Client ID: HS21051314-01
Sample Info: HS21051314-01;HS21051314-01;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053016.D

Date : 30-MAY-2021 16:56

Client ID: HS21051314-01

Instrument: voa6.i

Sample Info: HS21051314-01;HS21051314-01;;;

Purge Volume: 5.0

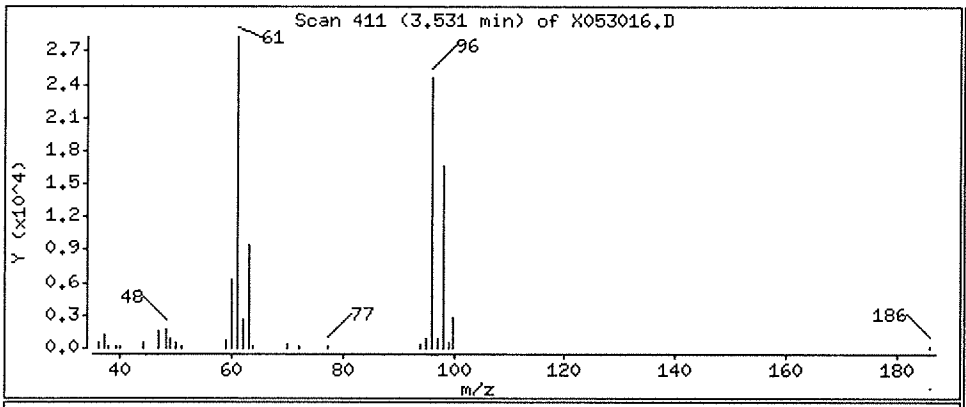
Operator: PC

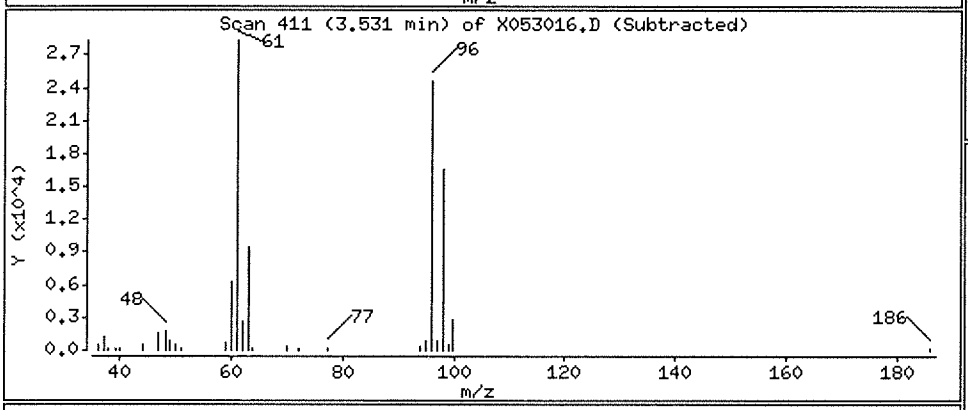
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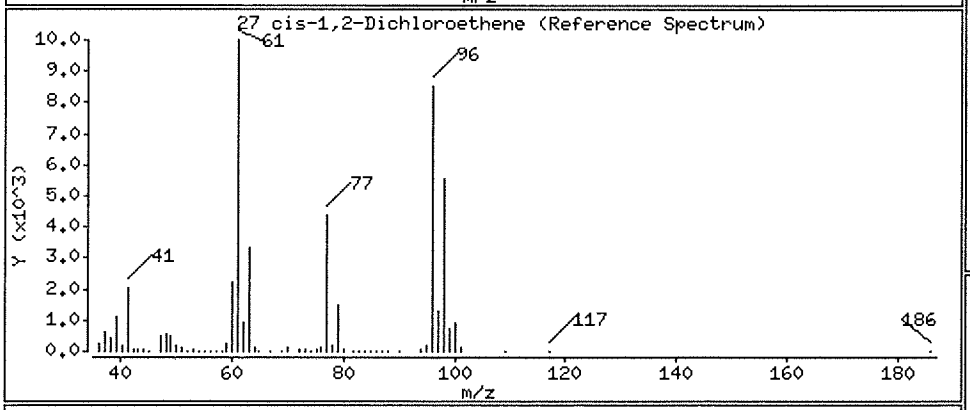
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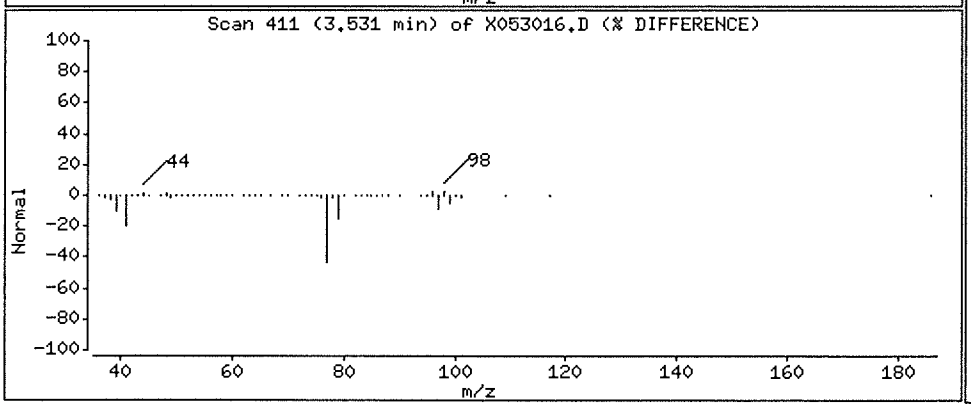
27 cis-1,2-Dichloroethene

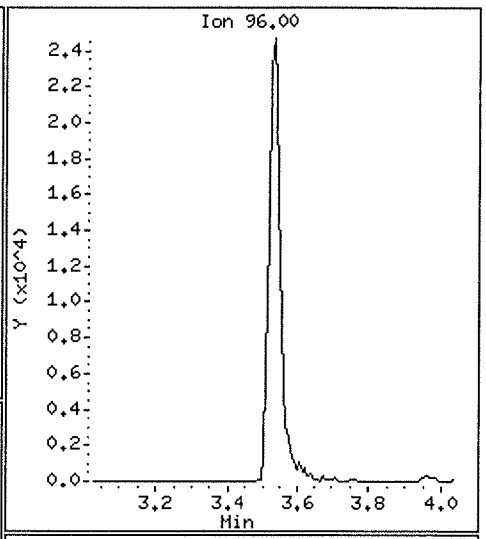
Concentration: 914.94 ug/l

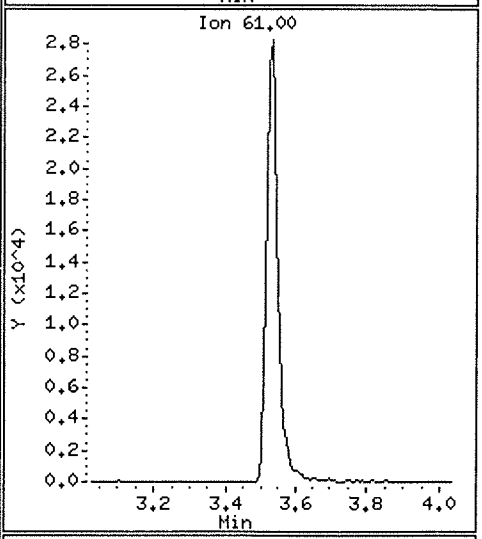


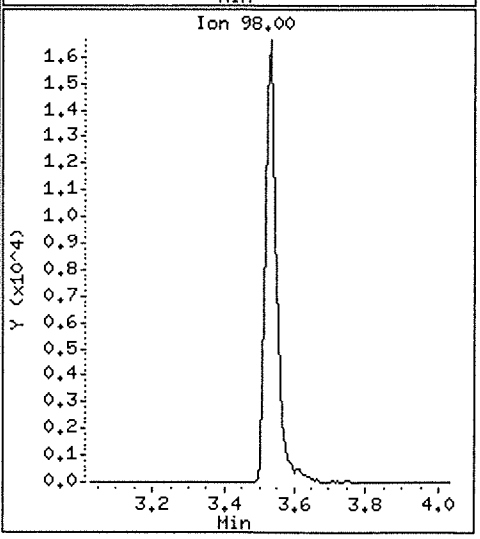












Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053016.D

Date : 30-MAY-2021 16:56

Client ID: HS21051314-01

Instrument: voa6.i

Sample Info: HS21051314-01;HS21051314-01;;;

Purge Volume: 5.0

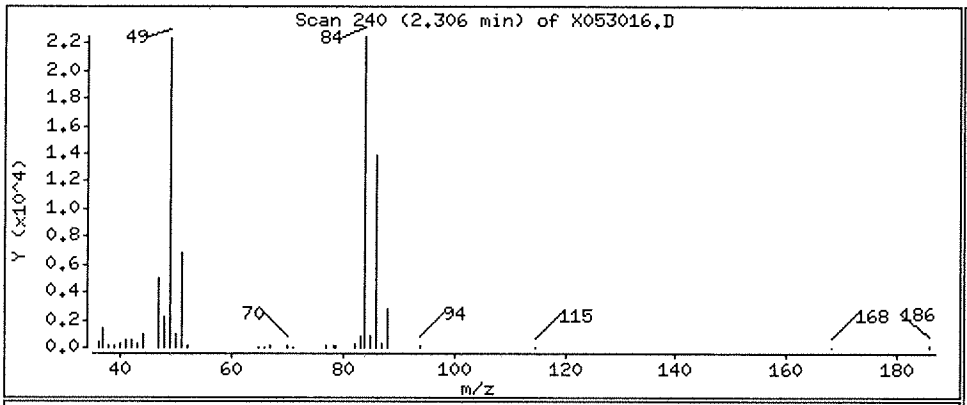
Operator: PC

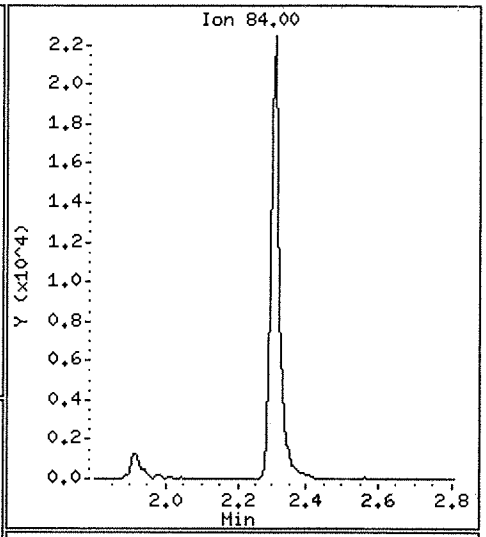
Column phase: DB624

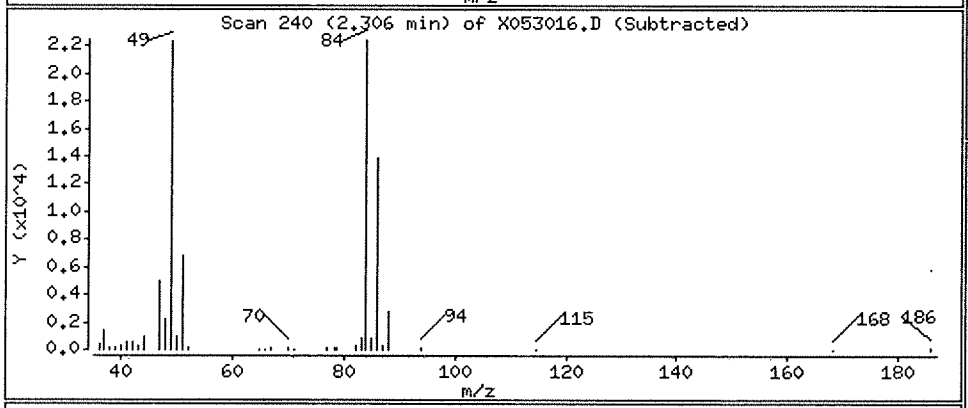
Column diameter: 0.18

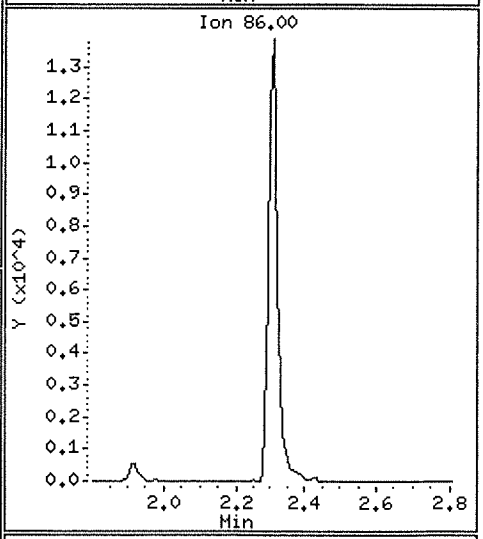
17 Methylene Chloride

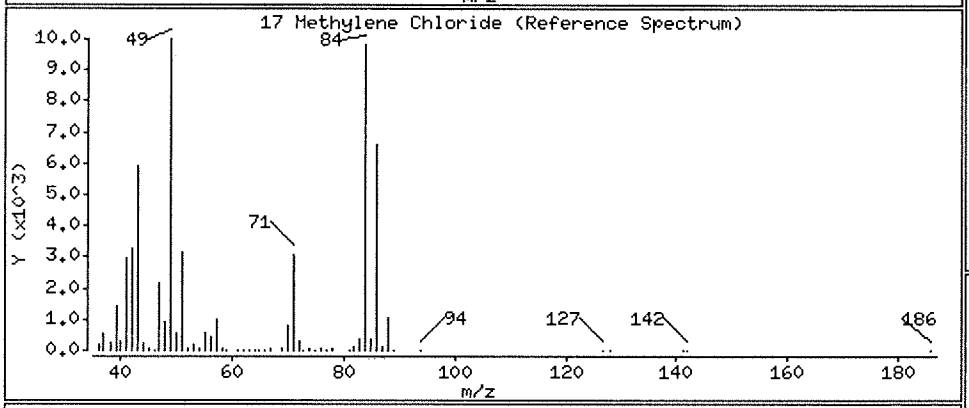
Concentration: 602.51 ug/l

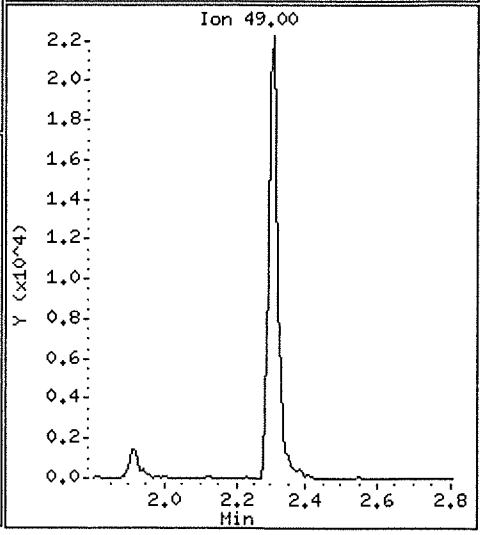


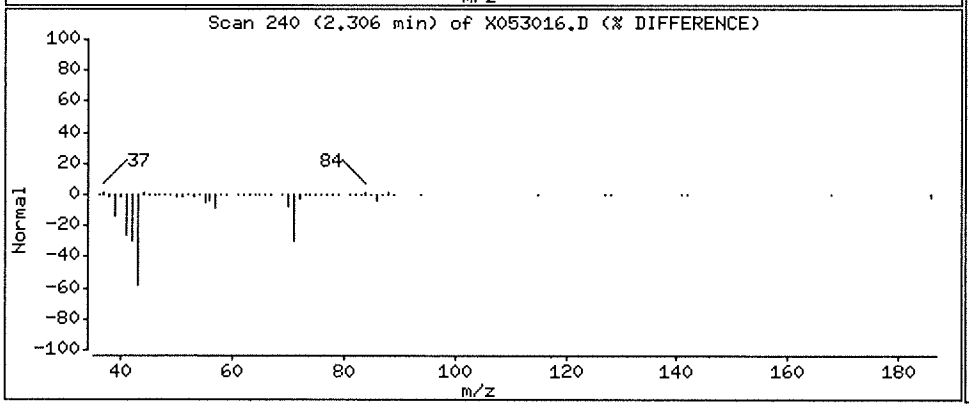












Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053016.D

Date : 30-MAY-2021 16:56

Client ID: HS21051314-01

Instrument: voa6.i

Sample Info: HS21051314-01;HS21051314-01;;;

Purge Volume: 5.0

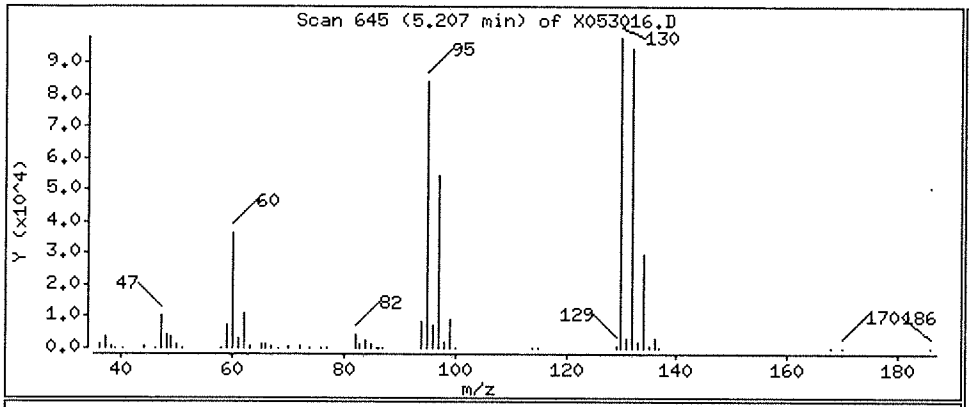
Operator: PC

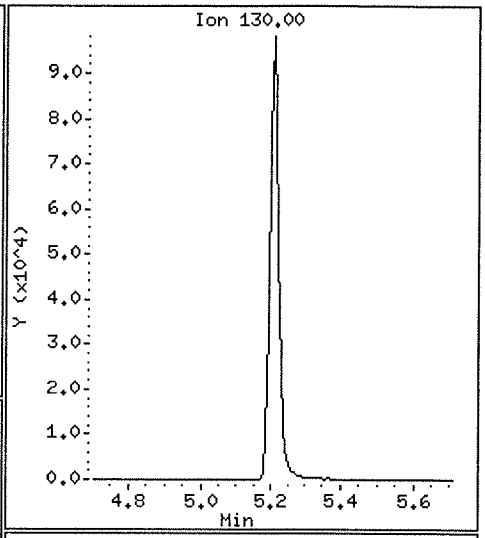
Column phase: DB624

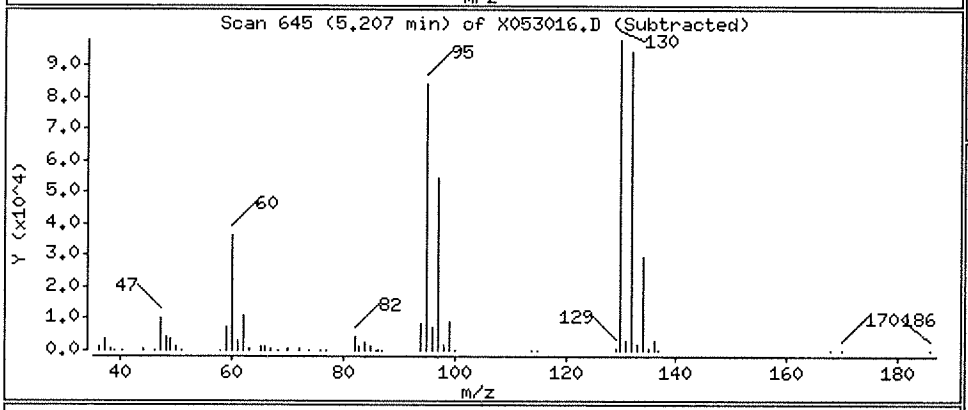
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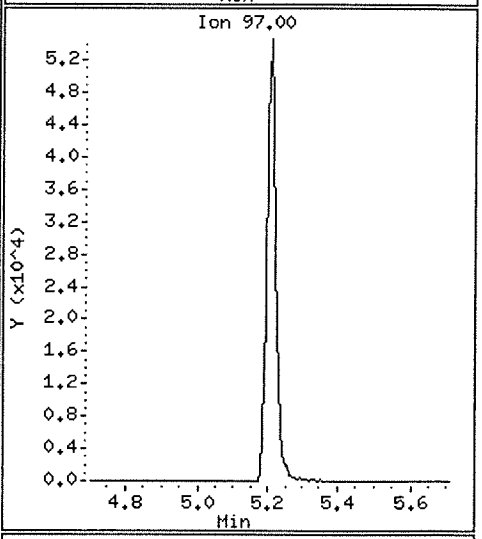
38 Trichloroethene

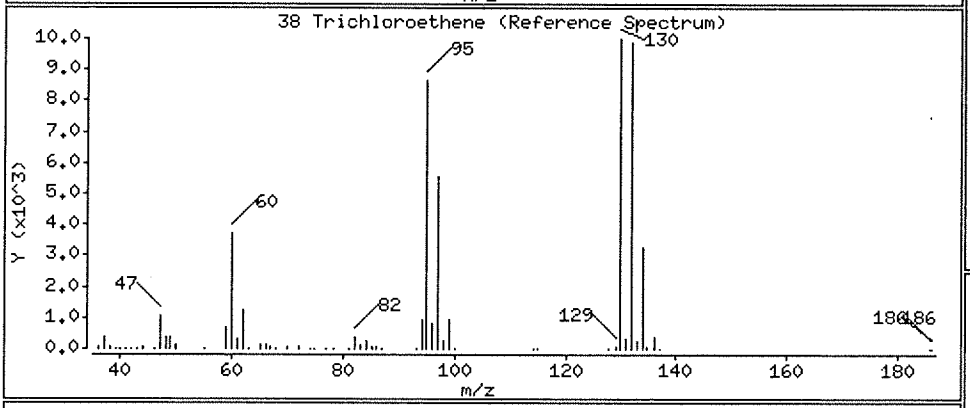
Concentration: 3150.43 ug/l

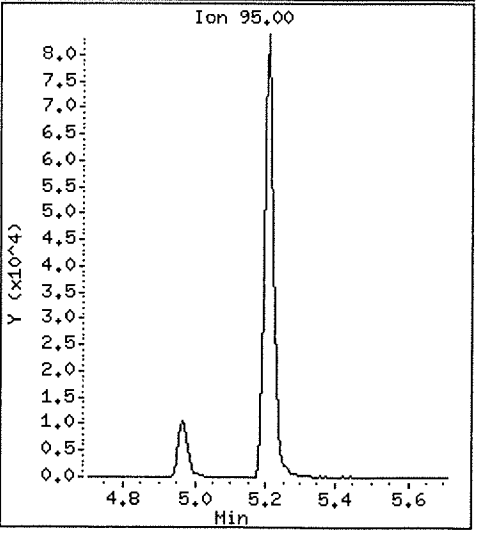


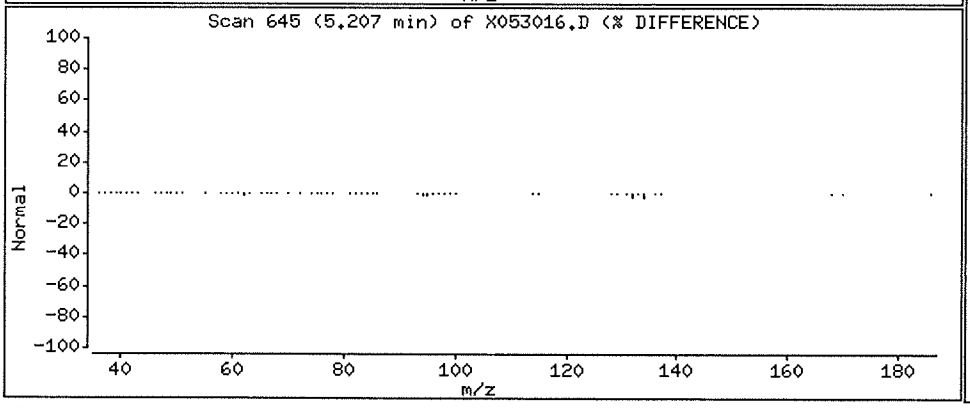












Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053016.D

Date : 30-MAY-2021 16:56

Client ID: HS21051314-01

Instrument: voa6.i

Sample Info: HS21051314-01;HS21051314-01;;;

Purge Volume: 5.0

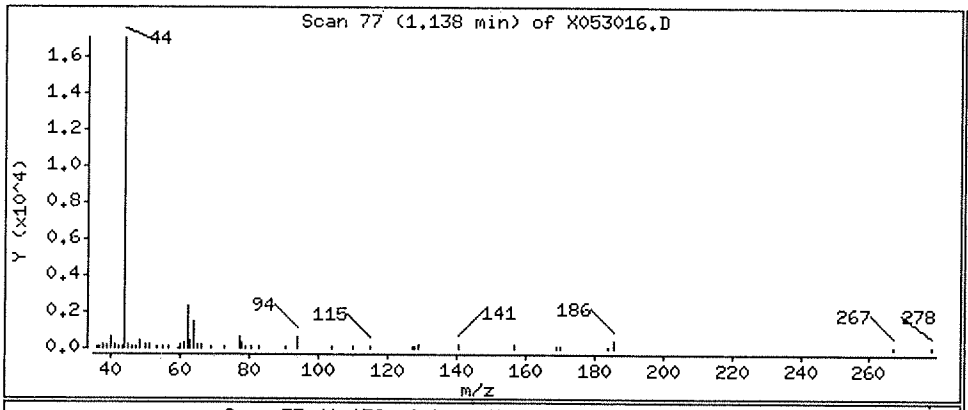
Operator: PC

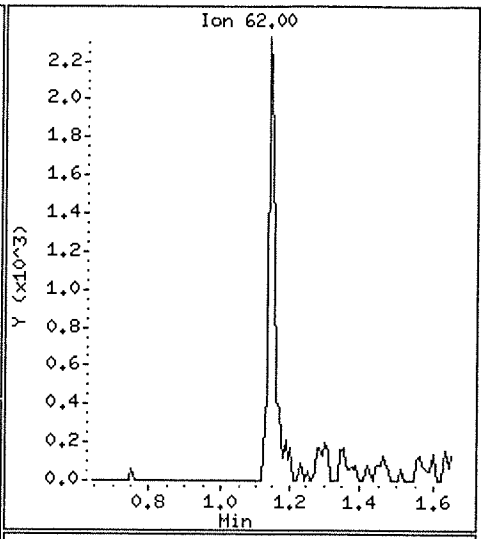
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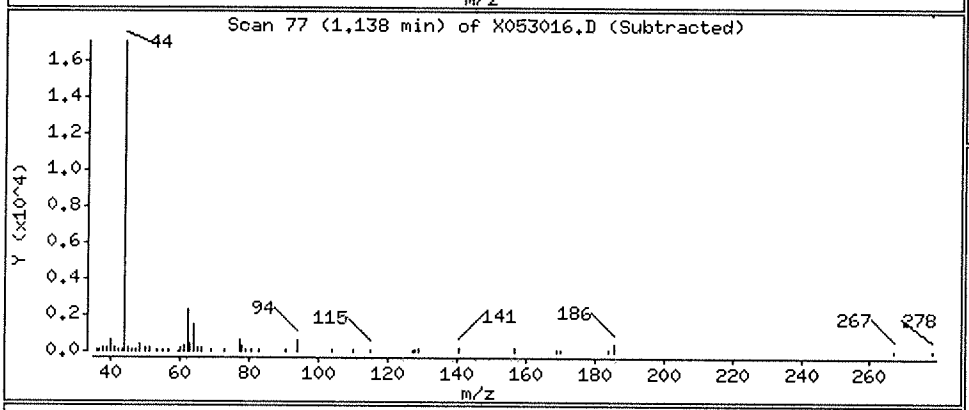
Column diameter: 0.18

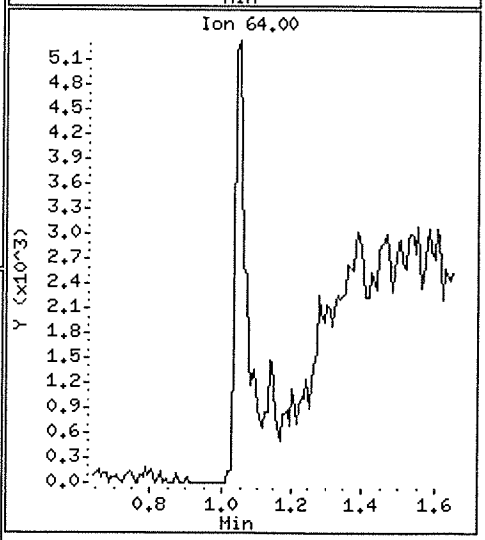
5 Vinyl Chloride

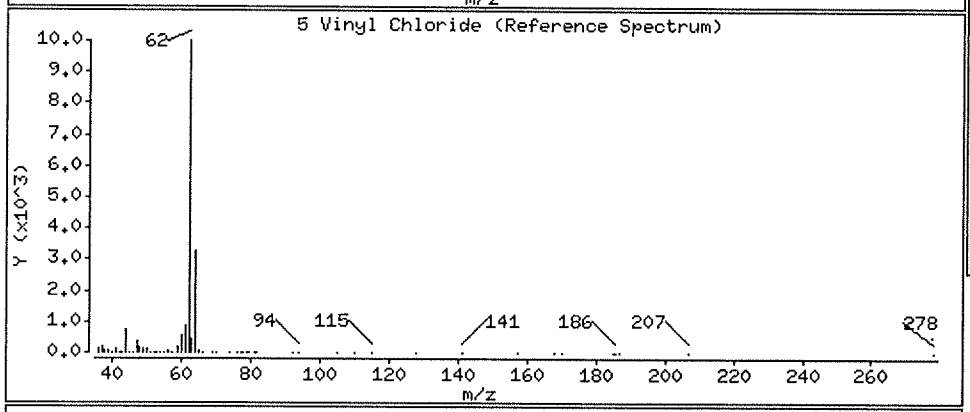
Concentration: 48.18 ug/l

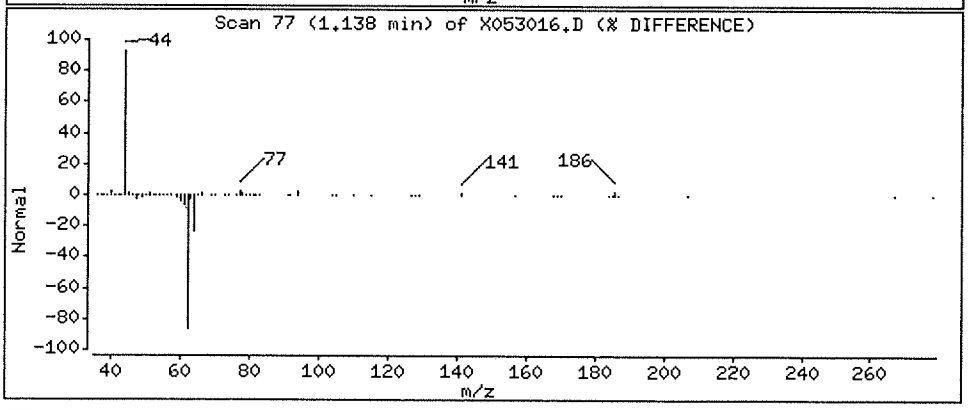












ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210530.b\X053032.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 30-MAY-2021 22:33
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210530.b\8260W.m
Meth Date : 05-Aug-2021 14:45 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

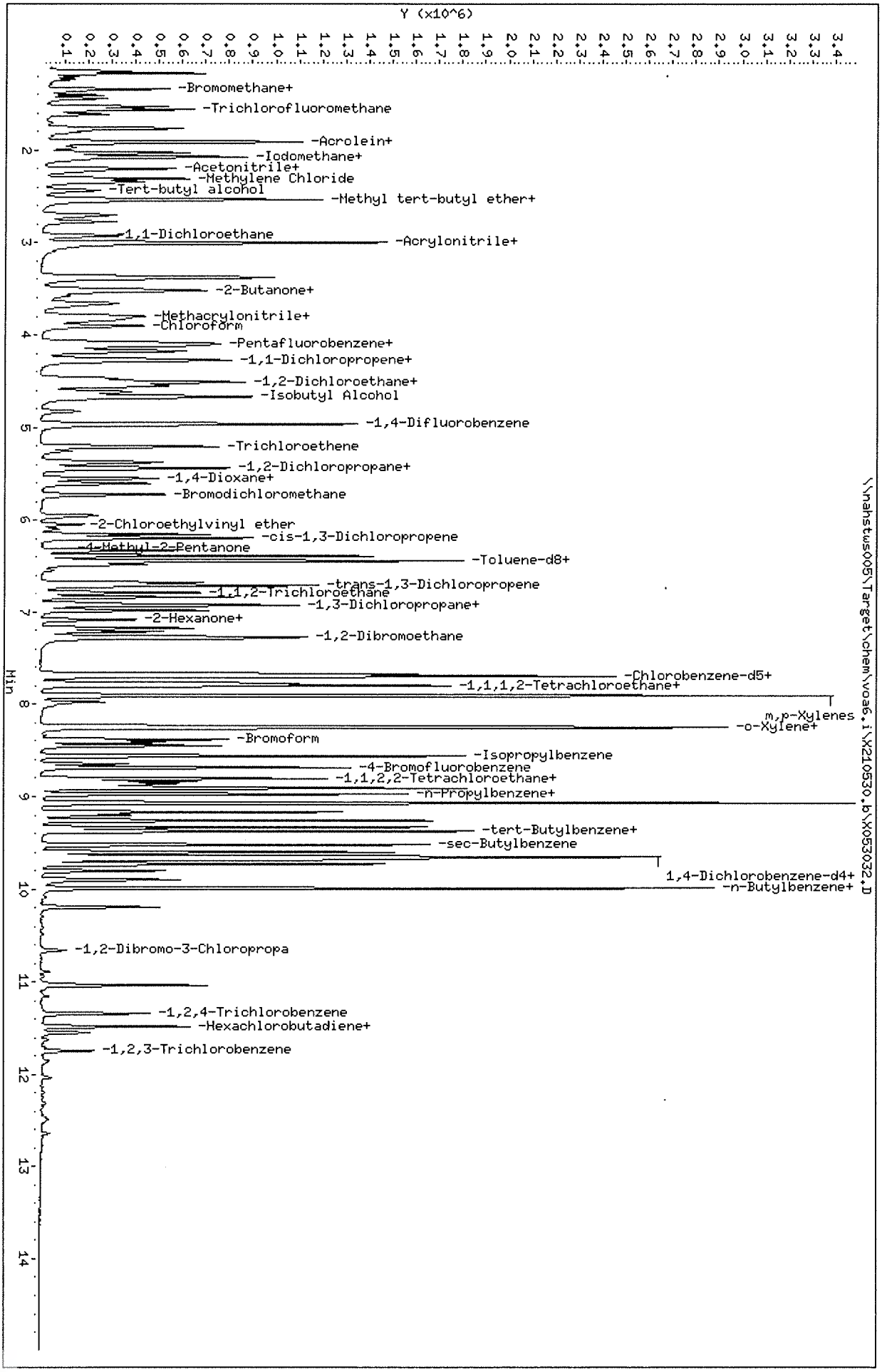
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	542567	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	791543	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	746535	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	416103	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	256844	50.0000	48.08
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	245193	50.0000	47.27
$	48 Toluene-d8	98	6.388	6.388	(0.833)	854822	50.0000	45.96
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	320134	50.0000	48.84
	60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	266895	50.0000	48.34
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	350350	50.0000	43.69
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	256191	50.0000	44.43
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	178327	50.0000	44.09
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	353028	50.0000	41.15
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	230689	50.0000	41.27
	32 1,1-Dichloropropene	75	4.283	4.283	(0.863)	272172	50.0000	44.89
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	65450	50.0000	25.98
	71 1,2,3-Trichloropropane	75	8.860	8.860	(0.917)	214176	50.0000	41.28(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	132732	50.0000	32.26
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	877800	50.0000	46.25
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	23947	50.0000	36.41
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	240085	50.0000	43.68
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	495351	50.0000	43.88

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	297691	50.0000	47.20
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	208998	50.0000	44.85
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	842680	50.0000	44.61
83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	536393	50.0000	45.70
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	350888	50.0000	43.63
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	546416	50.0000	44.61
26 2,2-Dichloropropane	77	3.509	3.509	(0.839)	286955	50.0000	38.65
24 2-Butanone	43	3.581	3.581	(0.856)	128608	100.000	77.90
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	694436	50.0000	44.58
52 2-Hexanone	43	7.083	7.083	(0.923)	222040	100.000	80.06
77 4-Chlorotoluene	91	9.067	9.067	(0.938)	819666	50.0000	44.19
82 p-Isopropyltoluene	119	9.648	9.648	(0.999)	865792	50.0000	44.99
45 4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	331586	100.000	77.13
10 Acetone	43	1.976	1.976	(0.473)	104275	100.000	73.76
37 Benzene	78	4.512	4.512	(0.909)	829686	50.0000	45.62
74 Bromobenzene	156	8.802	8.802	(0.911)	329608	50.0000	47.74
29 Bromochloromethane	128	3.795	3.795	(0.908)	147874	50.0000	45.07
39 Bromodichloromethane	83	5.722	5.722	(1.153)	312348	50.0000	45.90
66 Bromoform	173	8.408	8.408	(1.096)	197152	50.0000	47.35
6 Bromomethane	94	1.339	1.339	(0.320)	233014	50.0000	41.60
19 Carbon Disulfide	76	2.069	2.069	(0.495)	1056083	100.000	79.68
34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	311466	50.0000	47.46
59 Chlorobenzene	112	7.692	7.692	(1.003)	695820	50.0000	44.77
7 Chloroethane	64	1.403	1.403	(0.336)	178393	50.0000	46.79
28 Chloroform	83	3.910	3.910	(0.935)	413314	50.0000	43.31
3 Chloromethane	50	1.081	1.081	(0.258)	209682	50.0000	42.37
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	249271	50.0000	43.83
46 cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	367655	50.0000	45.85
55 Dibromochloromethane	129	7.176	7.176	(0.936)	291557	50.0000	47.45
44 Dibromomethane	93	5.550	5.550	(1.118)	160087	50.0000	45.71
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	222329	50.0000	44.58
61 Ethylbenzene	106	7.800	7.800	(1.017)	343083	50.0000	47.85
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	110012	50.0000	43.22
67 Isopropylbenzene	105	8.559	8.559	(1.116)	1025164	50.0000	46.79
62 m,p-Xylenes	106	7.900	7.900	(1.030)	860065	100.000	92.02
17 Methylene Chloride	84	2.306	2.306	(0.551)	218115	50.0000	44.17
87 n-Butylbenzene	91	9.991	9.991	(1.034)	695034	50.0000	42.93
73 n-Propylbenzene	91	8.910	8.910	(0.922)	1141368	50.0000	43.97
92 Naphthalene	128	11.539	11.539	(1.194)	163705	50.0000	27.53
63 o-Xylene	106	8.244	8.244	(1.075)	425789	50.0000	46.71
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	968853	50.0000	44.34
64 Styrene	104	8.258	8.258	(1.077)	738598	50.0000	48.49
78 tert-Butylbenzene	119	9.332	9.332	(0.966)	733690	50.0000	45.31
56 Tetrachloroethene	164	6.926	6.926	(0.903)	222811	50.0000	48.48
50 Toluene	91	6.446	6.446	(0.840)	960377	50.0000	44.06
20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	213862	50.0000	42.21
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	317533	50.0000	45.90
38 Trichloroethene	130	5.207	5.207	(1.049)	265873	50.0000	48.93
8 Trichlorofluoromethane	101	1.561	1.561	(0.373)	413842	50.0000	42.25
5 Vinyl Chloride	62	1.145	1.145	(0.274)	263850	50.0000	41.08

QC Flag Legend

M - Compound response manually integrated.

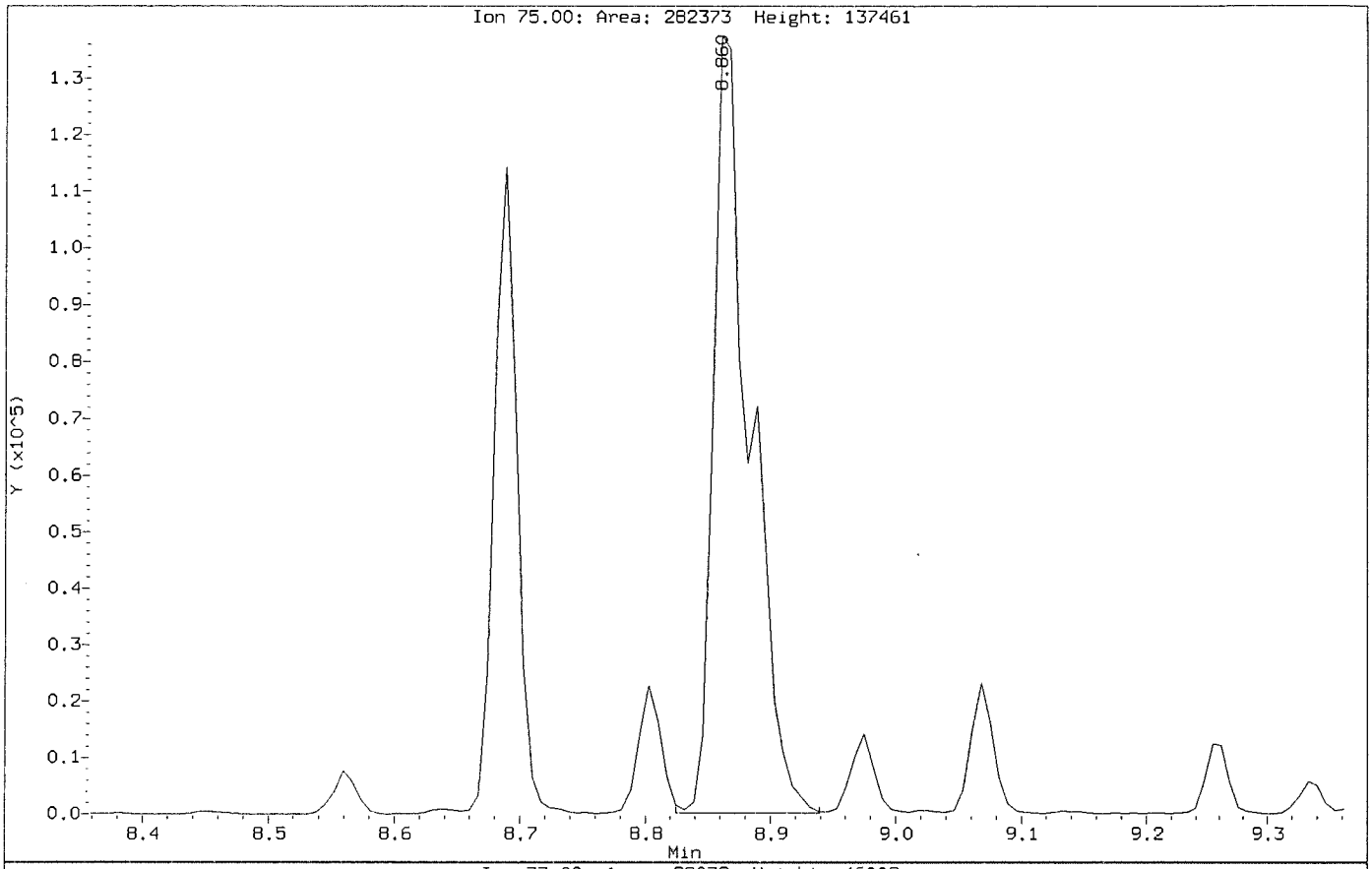


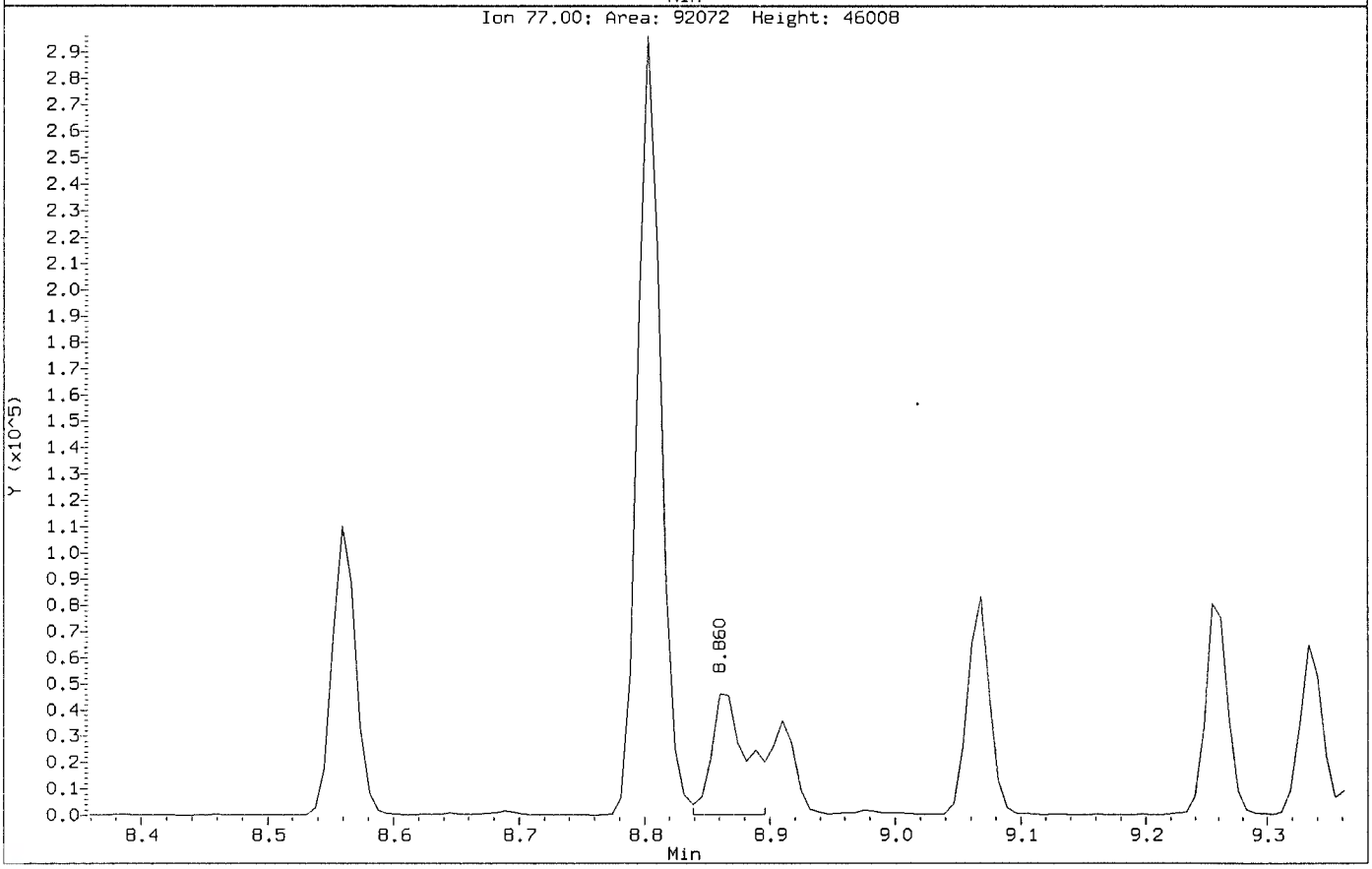
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Date : 30-MAY-2021 22:33
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\Before\X053032.D
Injection Date: 30-MAY-2021 22:33
Instrument: voa6.i
Client Sample ID: CCV-END

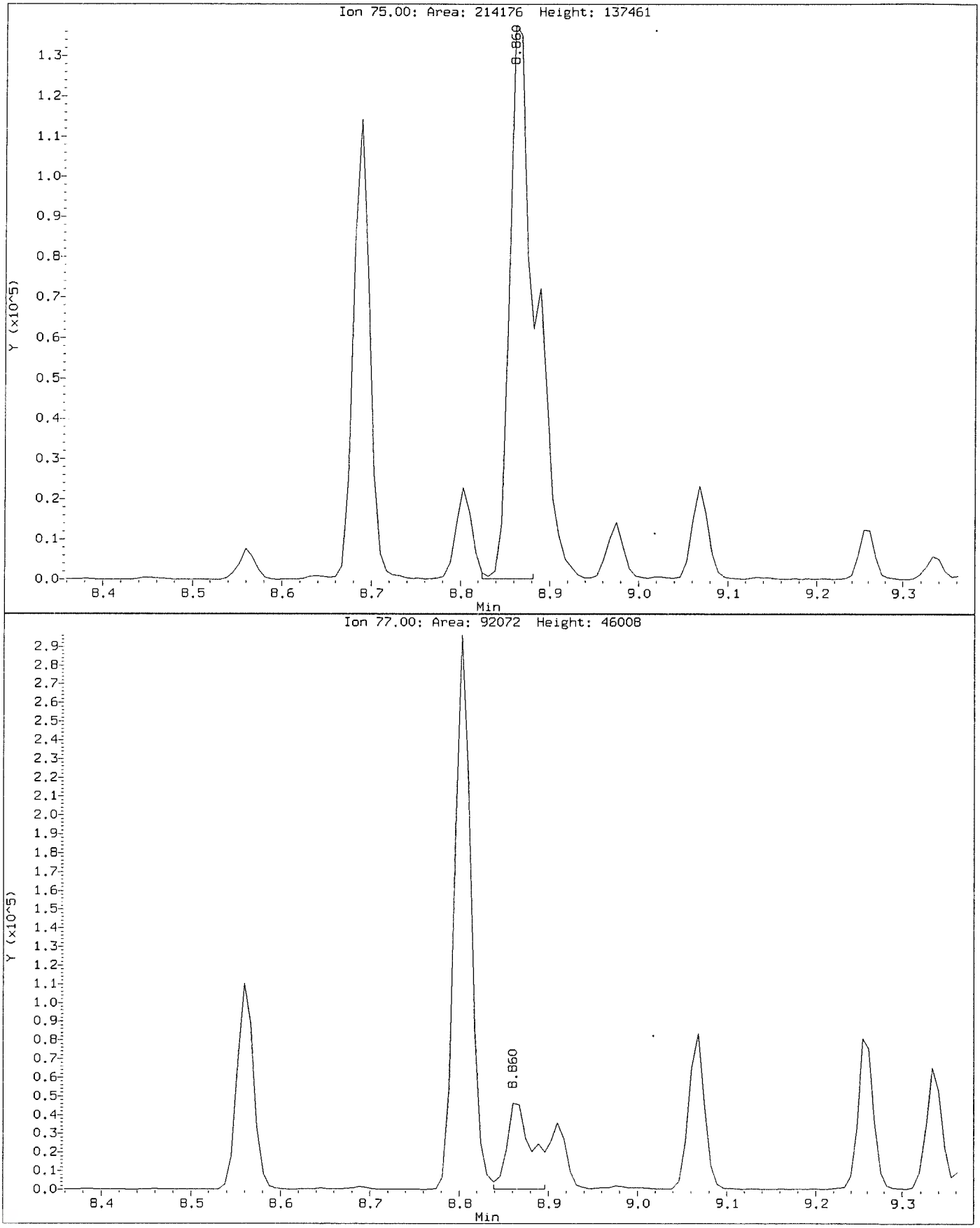
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





Data File: \\nahstws005\Target\chem\voa6.i\X210530.b\X053032.D
Injection Date: 30-MAY-2021 22:33
Instrument: voa6.i
Client Sample ID: CCV-END

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



HS21051314 8270SIM_W Raw Data

ALS WO# HS21051314

Prep Batch Report

Batch ID: 166286
Prep Code: 3510_B_SIM
Start Date: 27 May 2021 07:40 AM
End Date: 27 May 2021 01:00 PM
Technician: Todi Lala

Init Sample Weight / Volume: 1000
Final Sample Volume: 1
Original Factor: 0.001
Prep Unit Factor: 1
Prep Unit: mL

Sample ID	Fraction	Matrix	pH	Initial Weight / Volume	Final Volume	Prep Factor	Spike Factor	Fail Safe	Due Date	Comments
HS21051312-01	E	Water	9	1000	1	0.001	1	08 Jun 2021	10 Jun 2021	ph adj 1/13
HS21051314-01	E	Water	7	1000	1	0.001	1	08 Jun 2021	10 Jun 2021	ph adj 1/13
LCS-166286	A		5	1000	1	0.001	1			ph adj 1/13
LCSD-166286	A		5	1000	1	0.001	1			ph adj 1/13
MBLK-166286	A		5	1000	1	0.001	1			ph adj 1/13

SV06 -Logbook

Batch: 45062 **Analyst:** Andrew Neir

Date: 06-07-2021 **Reviewer:**

Method: 8270DSIM **Laboratory:** Houston

Comments: MSSV003

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	DFTPP	TUNE	06-07-2021 10:54 am	1.00			001.D	Liquid	Y	NA
2	SLSTD-2.5	SAMP	06-07-2021 11:05 am	1.00			002.D	Liquid	Y	NA
3	DXSIM-0.08	SAMP	06-07-2021 11:25 am	1.00			003.D	Liquid	Y	NA
4	DXSIM-0.01	SAMP	06-07-2021 11:43 am	1.00			004.D	Liquid	Y	NA
5	DXSIM-0.03	SAMP	06-07-2021 12:01 pm	1.00			005.D	Liquid	Y	NA
6	DXSIM-0.05	SAMP	06-07-2021 12:19 pm	1.00			006.D	Liquid	Y	NA
7	DXSIM-0.1	SAMP	06-07-2021 12:43 pm	1.00			007.D	Liquid	Y	NA
8	DXSIM-0.15	SAMP	06-07-2021 01:01 pm	1.00			008.D	Liquid	Y	NA
9	DXSIM-0.2	SAMP	06-07-2021 01:19 pm	1.00			009.D	Liquid	Y	NA
10	DXSIM-0.5	SAMP	06-07-2021 01:37 pm	1.00			010.D	Liquid	Y	NA
11	DXSIM-ICV	SAMP	06-07-2021 01:55 pm	1.00			011.D	Liquid	Y	NA

Chemical	Value
IS ID	3141114-01
CAL STD ID	3141106-05/ 3141114-07
DFTPP ID	31411105-05
PCP Tailing	1.19
Benz. Tailing	1.16
Routine SOP Maintenance	ACN

FORM 3
WATER SEMIVOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Matrix Spike - Sample No.: DXSIM-ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	% REC #	QC. LIMITS REC.
1,4-Dioxane	0.08000	0.08066	101	40-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

COMMENTS: _____

_____

FORM III SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Lab File ID: 001 DFTPP Injection Date: 06/07/21

Instrument ID: SV6 DFTPP Injection Time: 1054

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	
68	Less than 2.0% of mass 69	( )1
69	Mass 69 relative abundance	
70	Less than 2.0% of mass 69	( )1
127	10.0 - 80.0% of mass 198	
197	Less than 2.0% of mass 198	
198	Base Peak, 100% relative abundance	
199	5.0 to 9.0% of mass 198	
275	10.0 - 60.0% of mass 198	
365	1.0 - 100.0% of mass 198	
441	Present, but less than mass 443	
442	50.0 - 150.0% of mass 198	
443	15.0 - 24.0% of mass 442	( )2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	DXSIM-0.08	DXSIM-0.08	003	06/07/21	1125
02	DXSIM-0.01	DXSIM-0.01	004	06/07/21	1143
03	DXSIM-0.03	DXSIM-0.03	005	06/07/21	1201
04	DXSIM-0.05	DXSIM-0.05	006	06/07/21	1219
05	DXSIM-0.1	DXSIM-0.1	007	06/07/21	1243
06	DXSIM-0.15	DXSIM-0.15	008	06/07/21	1301
07	DXSIM-0.2	DXSIM-0.2	009	06/07/21	1319
08	DXSIM-0.5	DXSIM-0.5	010	06/07/21	1337
09	DXSIM-ICV	DXSIM-ICV	011	06/07/21	1355
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Instrument ID: SV6 Calibration Date(s): 06/07/21 06/07/21

Column: RTX-5SIL MS ID: 0.28 (mm) Calibration Time(s): 1125 1337

LAB FILE ID: RF0.01: 004 RF0.03: 005 RF0.05: 006
RF0.08: 003 RF0.1: 007 RF0.15: 008

COMPOUND	RF0.01	RF0.03	RF0.05	RF0.08	RF0.1	RF0.15
1,4-Dioxane	0.045	0.050	0.050	0.050	0.052	0.050
Nitrobenzene-d5	0.627	0.342	0.307	0.275	0.249	0.236
4-Terphenyl-d14	0.872	0.984	0.900	0.878	0.885	0.882
2-Fluorobiphenyl	1.469	1.506	1.386	1.139	1.282	1.246

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2105131

Instrument ID: SV6 Calibration Date(s): 06/07/21 06/07/21

Column: RTX-5SIL MS ID: 0.28 (mm) Calibration Time(s): 1125 1337

LAB FILE ID: RF0.2: 009 RF0.5: 010

COMPOUND	RF0.2	RF0.5	CURVE	COEFFICENT A1	%RSD OR R^2	MAX %RSD OR R^2
1,4-Dioxane	0.053	0.062	AVRG	5.153e-002	9.321	20.000
Nitrobenzene-d5	0.225	0.186	AVRG	0.30626740	45.228	20.000
4-Terphenyl-d14	0.916	0.902	AVRG	0.90228060	3.988	20.000
2-Fluorobiphenyl	1.279	1.369	AVRG	1.33461899	9.099	20.000

FORM VI SV

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\001.D

Date : 07-JUN-2021 10:54

Client ID: DFTPP

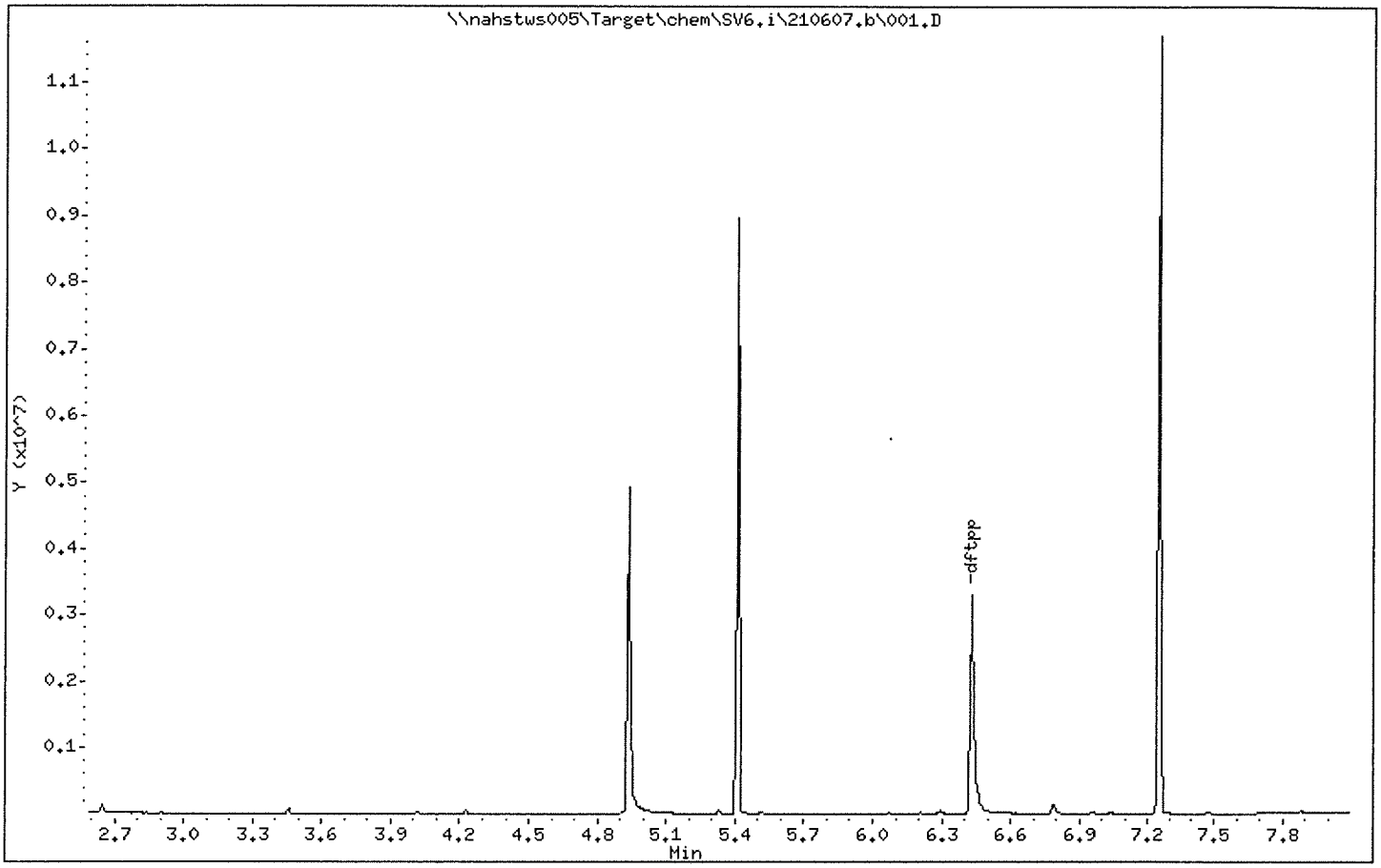
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25



Data File: \\nahstws005\Target\chem\SV6.i\210607.b\001.D

Date : 07-JUN-2021 10:54

Client ID: DFTPP

Instrument: SV6.i

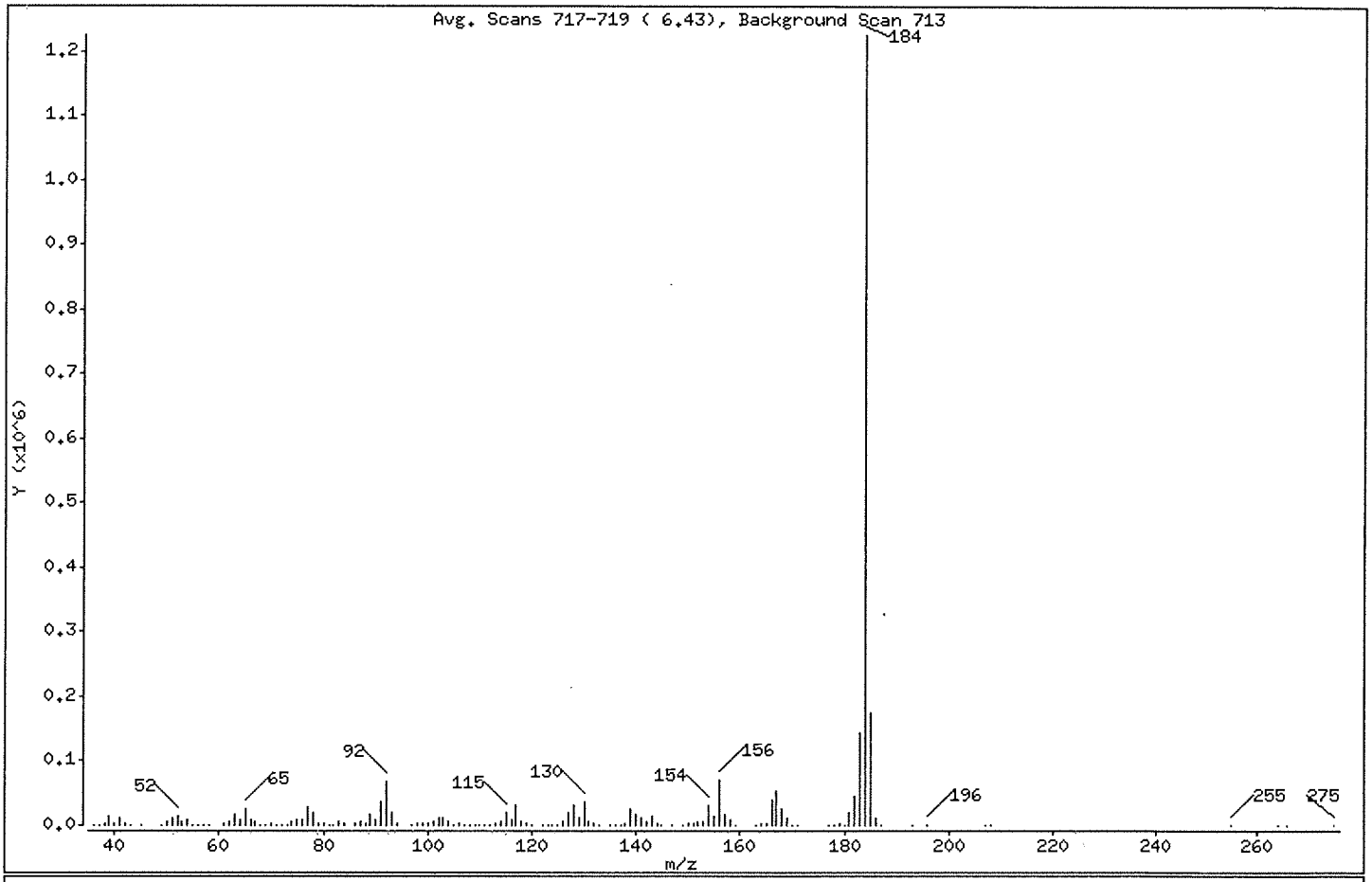
Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	0.00 *
51	10.00 - 80.00% of mass 198	0.00 *
68	Less than 2.00% of mass 69	0.00 (30.70) *
69	Mass 69 relative abundance	0.00
70	Less than 2.00% of mass 69	0.00 (204.88) *
127	10.00 - 80.00% of mass 198	0.00 *
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	0.00 *
275	10.00 - 60.00% of mass 198	0.00 *
365	1.00 - 100.00% of mass 198	0.00 *
441	Present, but less than mass 443	0.00 *
442	50.00 - 150.00% of mass 198	0.00 *
443	15.00 - 24.00% of mass 442	0.00 (0.00) *

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\001.D

Date : 07-JUN-2021 10:54

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 001.D
Spectrum: Avg. Scans 717-719 (6.43), Background Scan 713
Location of Maximum: 184.00
Number of points: 139

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	66	77.00	27208	115.00	19616	154.00	29696
37.00	723	78.00	19160	116.00	9496	155.00	12787
38.00	3683	79.00	3350	117.00	30536	156.00	69376
39.00	13742	80.00	2589	118.00	5356	157.00	15760
40.00	3525	81.00	230	119.00	1708	158.00	7780
41.00	10079	82.00	1042	120.00	126	159.00	776
42.00	3486	83.00	6926	122.00	276	163.00	79
43.00	875	84.00	1455	123.00	258	164.00	2662
45.00	238	86.00	3038	124.00	326	165.00	3079
49.00	233	87.00	4401	125.00	1314	166.00	40184
50.00	6456	88.00	3236	126.00	6081	167.00	54176
51.00	11712	89.00	15500	127.00	20088	168.00	24096
52.00	15222	90.00	8725	128.00	31512	169.00	10592
53.00	5566	91.00	37064	129.00	11325	170.00	1087
54.00	7961	92.00	66480	130.00	36480	171.00	54
55.00	390	93.00	19560	131.00	6337	177.00	113
56.00	338	94.00	1587	132.00	1987	178.00	169
57.00	666	97.00	260	133.00	409	179.00	2045
58.00	619	98.00	1967	135.00	123	180.00	1060
61.00	2122	99.00	2035	136.00	50	181.00	19496
62.00	6707	100.00	2741	137.00	1118	182.00	43872
63.00	16304	101.00	6710	138.00	2080	183.00	142720
64.00	8906	102.00	12364	139.00	25104	184.00	1225216
65.00	24136	103.00	9893	140.00	16085	185.00	174720
66.00	8364	104.00	5923	141.00	11903	186.00	11359
67.00	4338	105.00	1075	142.00	5267	187.00	391
68.00	428	106.00	3889	143.00	12736	193.00	59
69.00	1394	107.00	604	144.00	2562	196.00	156
70.00	2856	108.00	107	145.00	1121	207.00	79
71.00	577	109.00	169	147.00	120	208.00	121
72.00	108	110.00	687	149.00	192	255.00	155
73.00	566	111.00	931	150.00	1409	264.00	60
74.00	6794	112.00	581	151.00	3569	266.00	12
75.00	9480	113.00	4145	152.00	4655	275.00	224
76.00	9507	114.00	4690	153.00	4974		

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\001.D

Date : 07-JUN-2021 10:54

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 001.D
Spectrum: Avg. Scans 717-719 (6.43), Background Scan 713
Location of Maximum: 184.00
Number of points: 139

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

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\003.D
Lab Smp Id: DXSIM-0.08 Client Smp ID: DXSIM-0.08
Inj Date : 07-JUN-2021 11:25 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.08;DXSIM-0.08
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 3 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

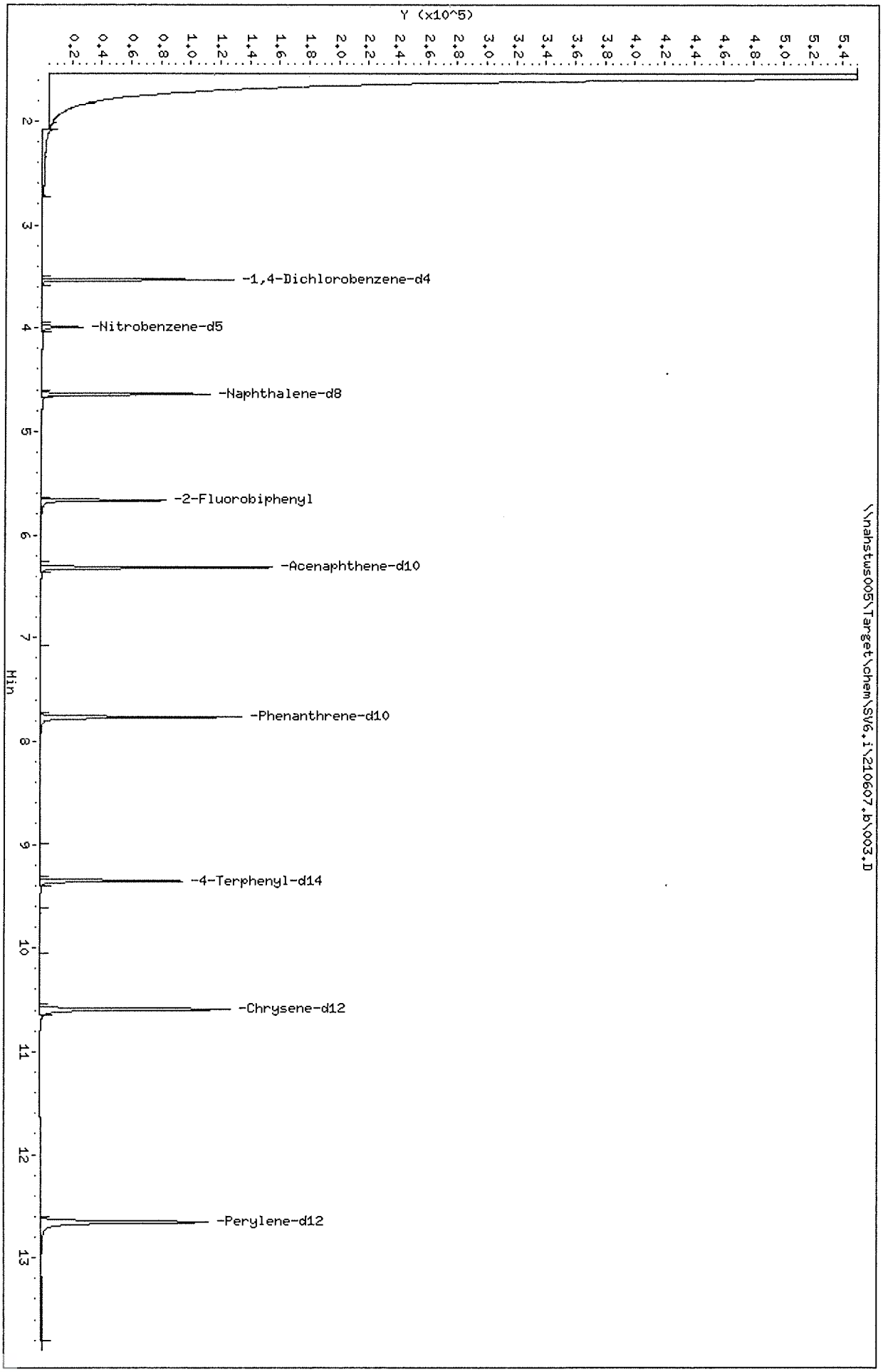
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	37444	0.10000	(a)
* 45 Naphthalene-d8	136	4.641	4.641	(1.000)	127295	0.10000	
$ 33 Nitrobenzene-d5	82	3.993	3.993	(0.860)	28048	0.08000	0.07194(Q)
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	78359	0.10000	(Q)
$ 69 2-Fluorobiphenyl	172	5.666	5.666	(0.896)	71387	0.08000	0.06826(Q)
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	161444	0.10000	
* 182 Chrysene-d12	240	10.594	10.594	(1.000)	161496	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	113379	0.08000	0.07781(M)
* 198 Perylene-d12	264	12.657	12.657	(1.000)	163563	0.10000	
1 1,4-Dioxane	58	1.833	1.833	(0.518)	1504	0.08000	0.07795(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.



Data File: \\nahstws005\Target\chem\SV6.i\210607.b\003.D
Date : 07-JUN-2021 11:25
Client ID: DXSIM-0.08
Sample Info: DXSIM-0.08;DXSIM-0.08
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\004.D
Lab Smp Id: DXSIM-0.01 Client Smp ID: DXSIM-0.01
Inj Date : 07-JUN-2021 11:43 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.01;DXSIM-0.01
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 11:25 Cal File: 003.D
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

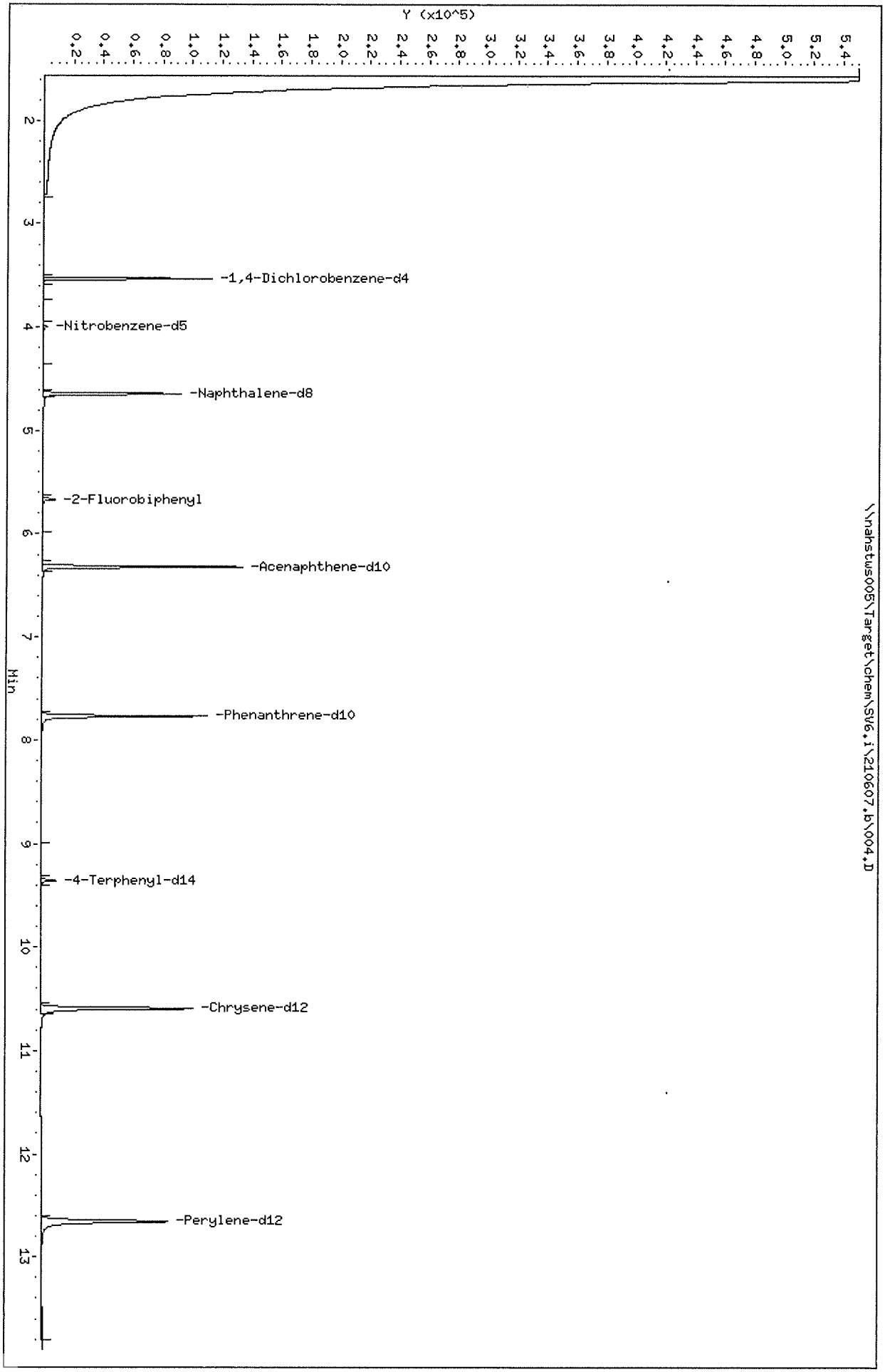
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.532	3.532	(1.000)	32441	0.10000		(a)
* 45 Naphthalene-d8	136	4.645	4.645	(1.000)	108743	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.993	3.993	(1.000)	6821	0.01000	0.02048	
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	69538	0.10000		(M)
$ 69 2-Fluorobiphenyl	172	5.670	5.670	(0.897)	10217	0.01000	0.01101	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	139165	0.10000		
* 182 Chrysene-d12	240	10.594	10.594	(1.000)	139300	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	12143	0.01000	0.009661	(M)
* 198 Perylene-d12	264	12.657	12.657	(1.000)	136463	0.10000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\nahstws005\Target\chem\SV6,i\210607,b\004,D
Date : 07-JUN-2021 11:43
Client ID: DXSIM-0,01
Sample Info: DXSIM-0,01;DXSIM-0,01
Purge Volume: 1000,0
Column phase: RTX-5SIL MS

Instrument: SV6,i
Operator: LG
Column diameter: 0,28

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\005.D
Lab Smp Id: DXSIM-0.03 Client Smp ID: DXSIM-0.03
Inj Date : 07-JUN-2021 12:01 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.03;DXSIM-0.03
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 11:43 Cal File: 004.D
Als bottle: 5 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

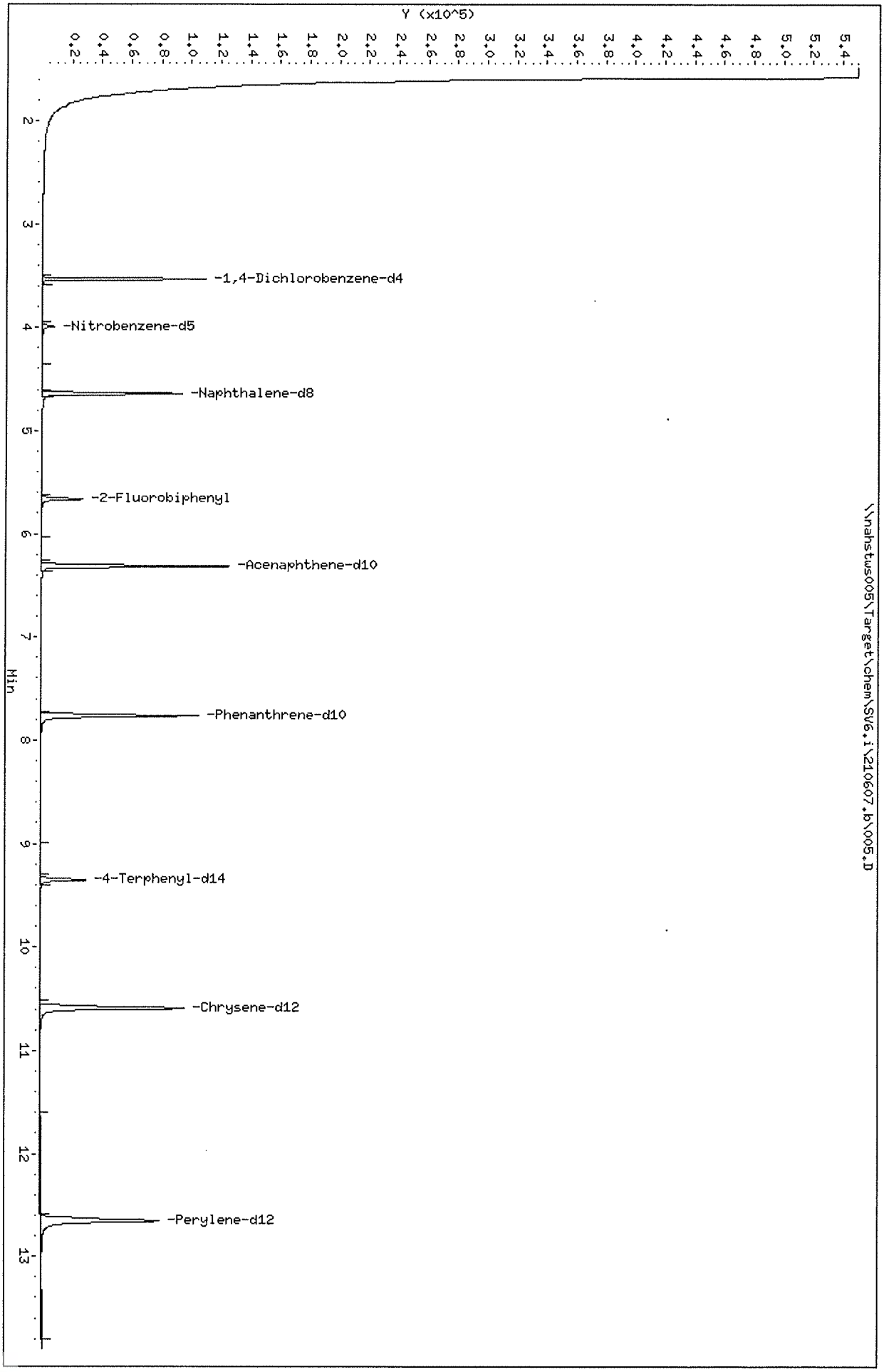
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	38001	0.10000		(a)
* 45 Naphthalene-d8	136	4.641	4.641	(1.000)	129653	0.10000		
$ 33 Nitrobenzene-d5	82	3.993	3.993	(0.860)	13323	0.03000	0.03355	
* 86 Acenaphthene-d10	164	6.320	6.320	(1.000)	79894	0.10000		
$ 69 2-Fluorobiphenyl	172	5.666	5.666	(0.896)	36092	0.03000	0.03385	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	165510	0.10000		
* 182 Chrysene-d12	240	10.594	10.594	(1.000)	166418	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	49106	0.03000	0.03270	(M)
* 198 Perylene-d12	264	12.657	12.657	(1.000)	160787	0.10000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\nahstws005\Target\chem\SV6.i\210607.b\005.D
Date : 07-JUN-2021 12:01
Client ID: DXSIM-0.03
Sample Info: DXSIM-0.03;DXSIM-0.03
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\006.D
Lab Smp Id: DXSIM-0.05 Client Smp ID: DXSIM-0.05
Inj Date : 07-JUN-2021 12:19 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.05;DXSIM-0.05
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 12:01 Cal File: 005.D
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

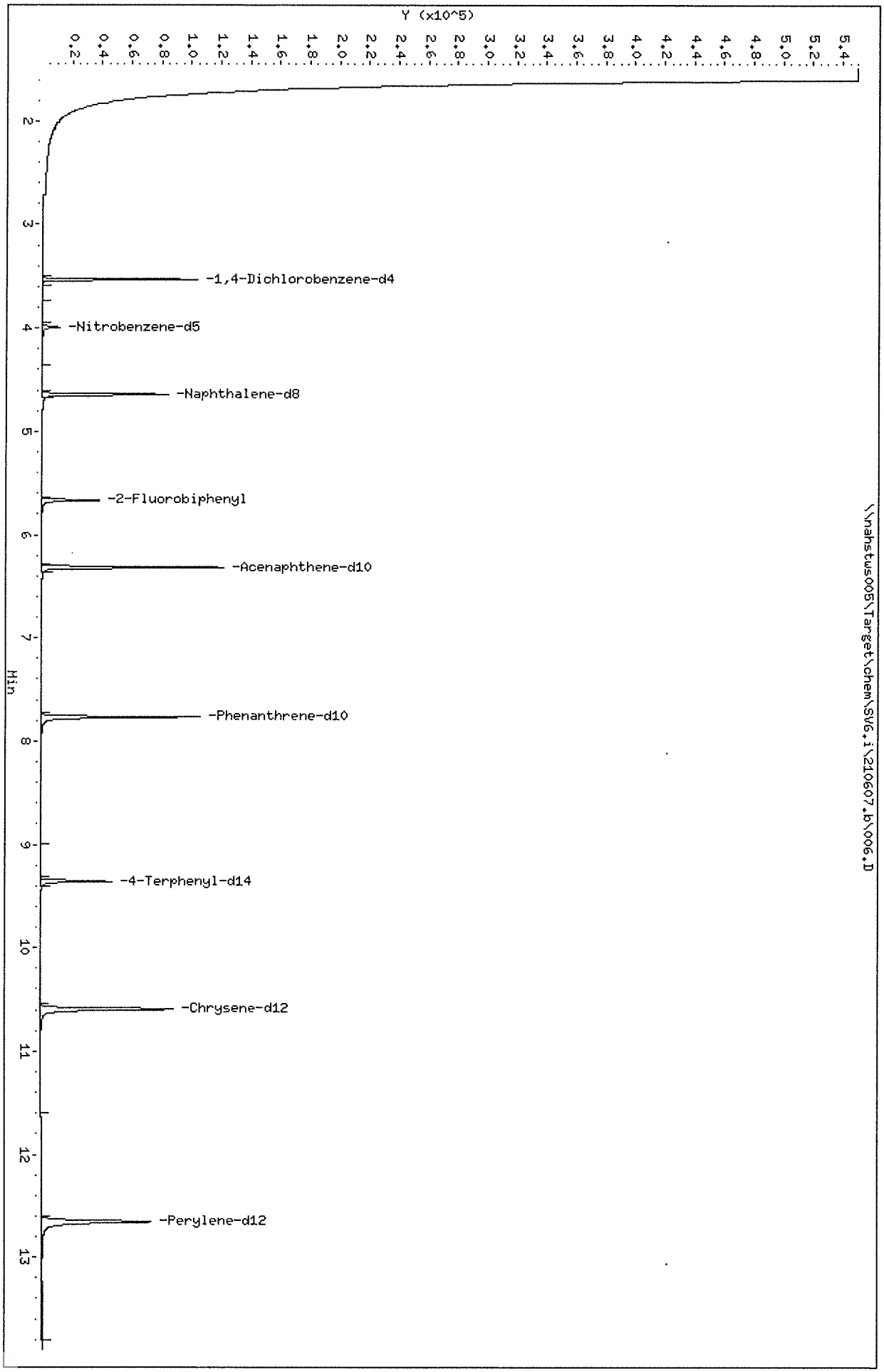
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.531	3.531	(1.000)	30540	0.10000		(a)
* 45 Naphthalene-d8	136	4.641	4.641	(1.000)	102937	0.10000		
$ 33 Nitrobenzene-d5	82	3.993	3.993	(0.860)	15816	0.05000	0.05017	
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	62420	0.10000		(Q)
$ 69 2-Fluorobiphenyl	172	5.670	5.670	(0.897)	43274	0.05000	0.05194	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	129763	0.10000		
* 182 Chrysene-d12	240	10.594	10.594	(1.000)	129060	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	58071	0.05000	0.04987	(M)
* 198 Perylene-d12	264	12.657	12.657	(1.000)	123621	0.10000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\006.D
Date : 07-JUN-2021 12:19
Client ID: DXSIM-0.05
Sample Info: DXSIM-0.05;DXSIM-0.05
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\007.D
Lab Smp Id: DXSIM-0.1 Client Smp ID: DXSIM-0.1
Inj Date : 07-JUN-2021 12:43 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.1;DXSIM-0.1
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 12:19 Cal File: 006.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

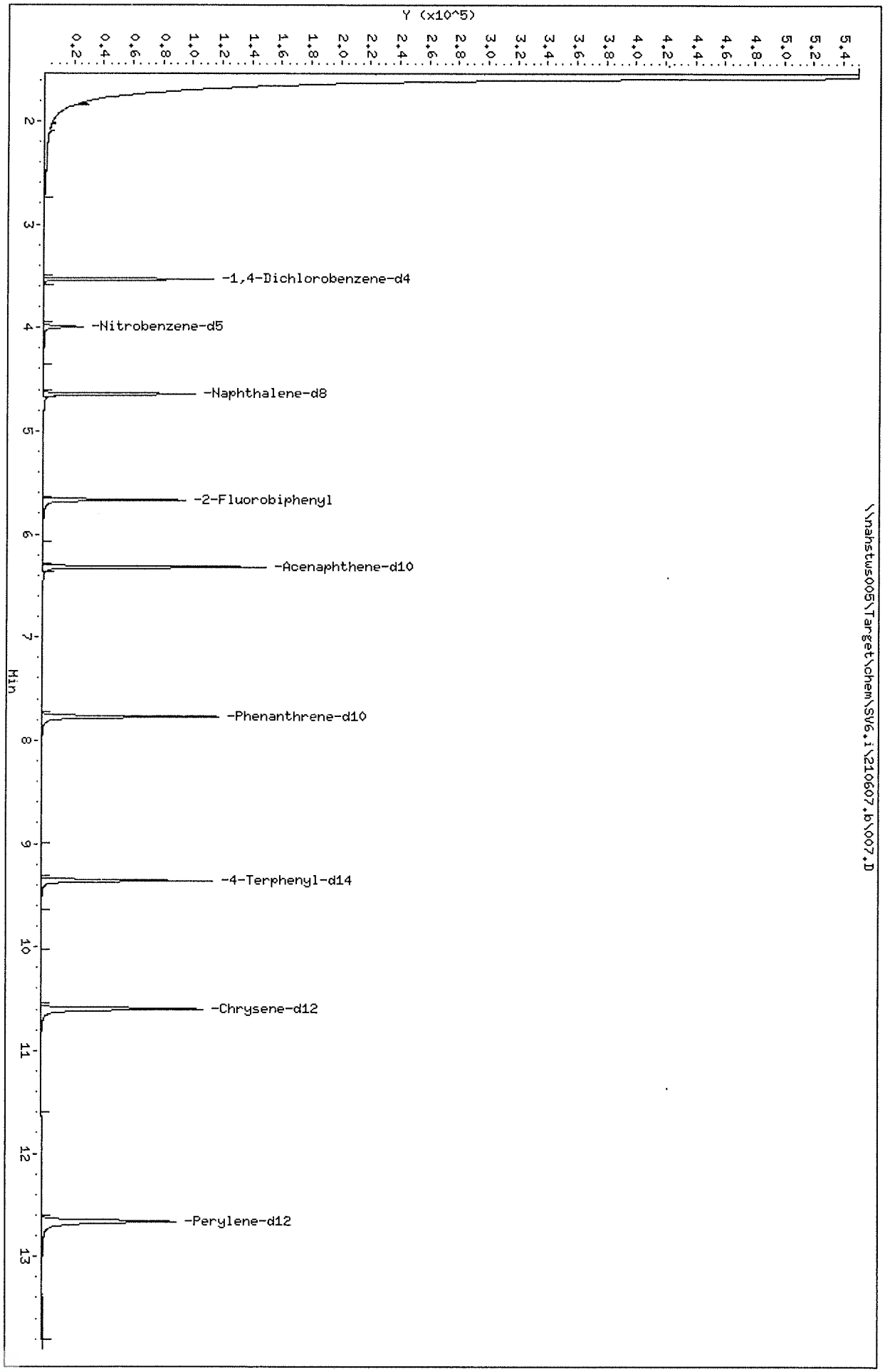
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	36721	0.10000		(a)
* 45 Naphthalene-d8	136	4.644	4.644	(1.000)	125484	0.10000		
$ 33 Nitrobenzene-d5	82	3.998	3.998	(0.861)	31308	0.10000	0.08146	
* 86 Acenaphthene-d10	164	6.320	6.320	(1.000)	79287	0.10000		(QM)
$ 69 2-Fluorobiphenyl	172	5.669	5.669	(0.936)	101666	0.10000	0.09608	
* 126 Phenanthrene-d10	188	7.776	7.776	(1.000)	157971	0.10000		
* 182 Chrysene-d12	240	10.600	10.600	(1.000)	160256	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.362	9.362	(0.883)	141769	0.10000	0.09804	(M)
* 198 Perylene-d12	264	12.662	12.662	(1.000)	155555	0.10000		
1 1,4-Dioxane	58	1.836	1.836	(0.519)	1898	0.10000	0.1003	(aQM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\007.D
Date : 07-JUN-2021 12:43
Client ID: DXSIM-0.1
Sample Info: DXSIM-0.1;DXSIM-0.1
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\008.D
Lab Smp Id: DXSIM-0.15 Client Smp ID: DXSIM-0.15
Inj Date : 07-JUN-2021 13:01 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.15;DXSIM-0.15
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 12:43 Cal File: 007.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

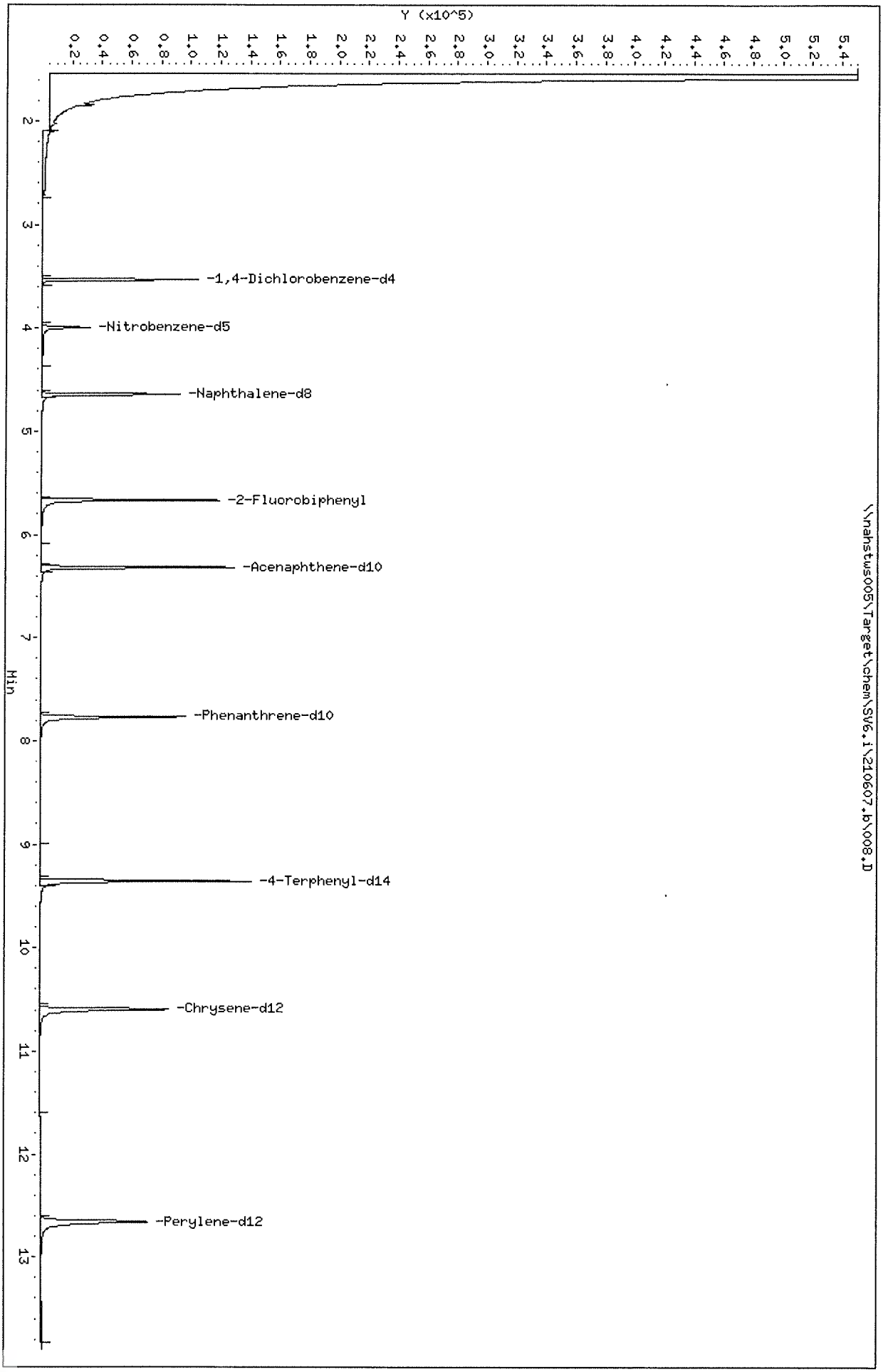
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	31974	0.10000		(a)
* 45 Naphthalene-d8	136	4.644	4.644	(1.000)	106586	0.10000		
$ 33 Nitrobenzene-d5	82	3.998	3.998	(0.861)	37770	0.15000	0.1157	
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	68282	0.10000		(M)
$ 69 2-Fluorobiphenyl	172	5.670	5.670	(0.932)	127675	0.15000	0.1401	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	133068	0.10000		
* 182 Chrysene-d12	240	10.594	10.594	(1.000)	136695	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	180944	0.15000	0.1467	(M)
* 198 Perylene-d12	264	12.662	12.662	(1.000)	128306	0.10000		
1 1,4-Dioxane	58	1.847	1.847	(0.522)	2410	0.15000	0.1463	(aQM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\008.D
Date : 07-JUN-2021 13:01
Client ID: DXSIM-0.15
Sample Info: DXSIM-0.15;DXSIM-0.15
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\009.D
Lab Smp Id: DXSIM-0.2 Client Smp ID: DXSIM-0.2
Inj Date : 07-JUN-2021 13:19 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.2;DXSIM-0.2
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:01 Cal File: 008.D
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

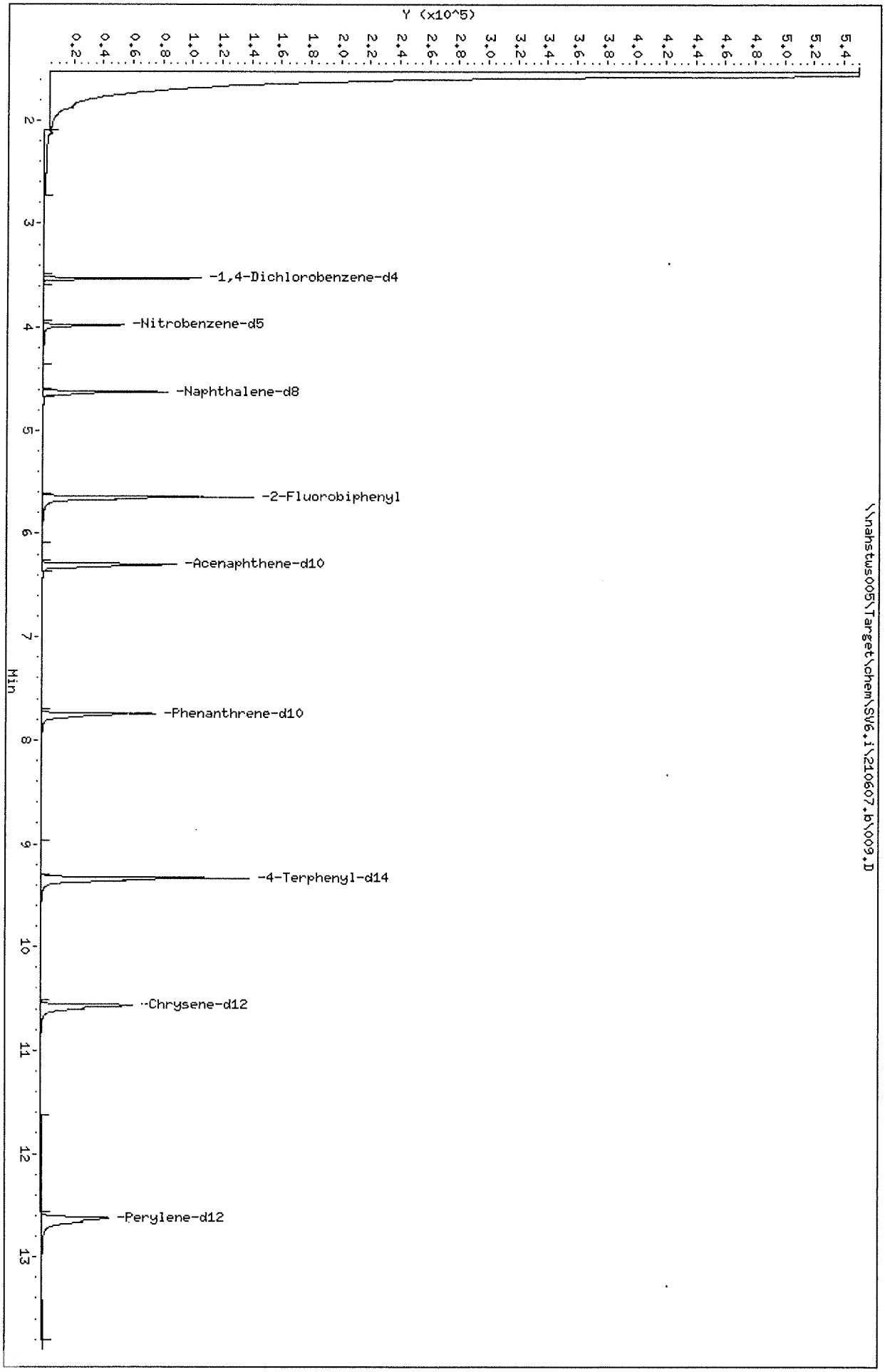
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.532	3.532	(1.000)	32671	0.10000		(a)
* 45 Naphthalene-d8	136	4.626	4.626	(1.000)	113469	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.982	3.982	(0.917)	51149	0.20000	0.1472	
* 86 Acenaphthene-d10	164	6.299	6.299	(1.000)	68302	0.10000		(M)
$ 69 2-Fluorobiphenyl	172	5.648	5.648	(1.000)	174723	0.20000	0.1917	(A)
* 126 Phenanthrene-d10	188	7.749	7.749	(1.000)	141566	0.10000		
* 182 Chrysene-d12	240	10.562	10.562	(1.000)	134180	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.330	9.330	(0.883)	245911	0.20000	0.2031	(AM)
* 198 Perylene-d12	264	12.625	12.625	(1.000)	125962	0.10000		(M)
1 1,4-Dioxane	58	1.881	1.881	(0.533)	3443	0.20000	0.2045	(QM)

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.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\009.D
Date : 07-JUN-2021 13:19
Client ID: DXSIM-0.2
Sample Info: DXSIM-0.2;DXSIM-0.2
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



Data File: \\nahstws005\Target\chem\SV6.i\210607.b\010.D Page 1
Report Date: 06-Aug-2021 13:31

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\010.D
Lab Smp Id: DXSIM-0.5 Client Smp ID: DXSIM-0.5
Inj Date : 07-JUN-2021 13:37 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.5;DXSIM-0.5
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:19 Cal File: 009.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

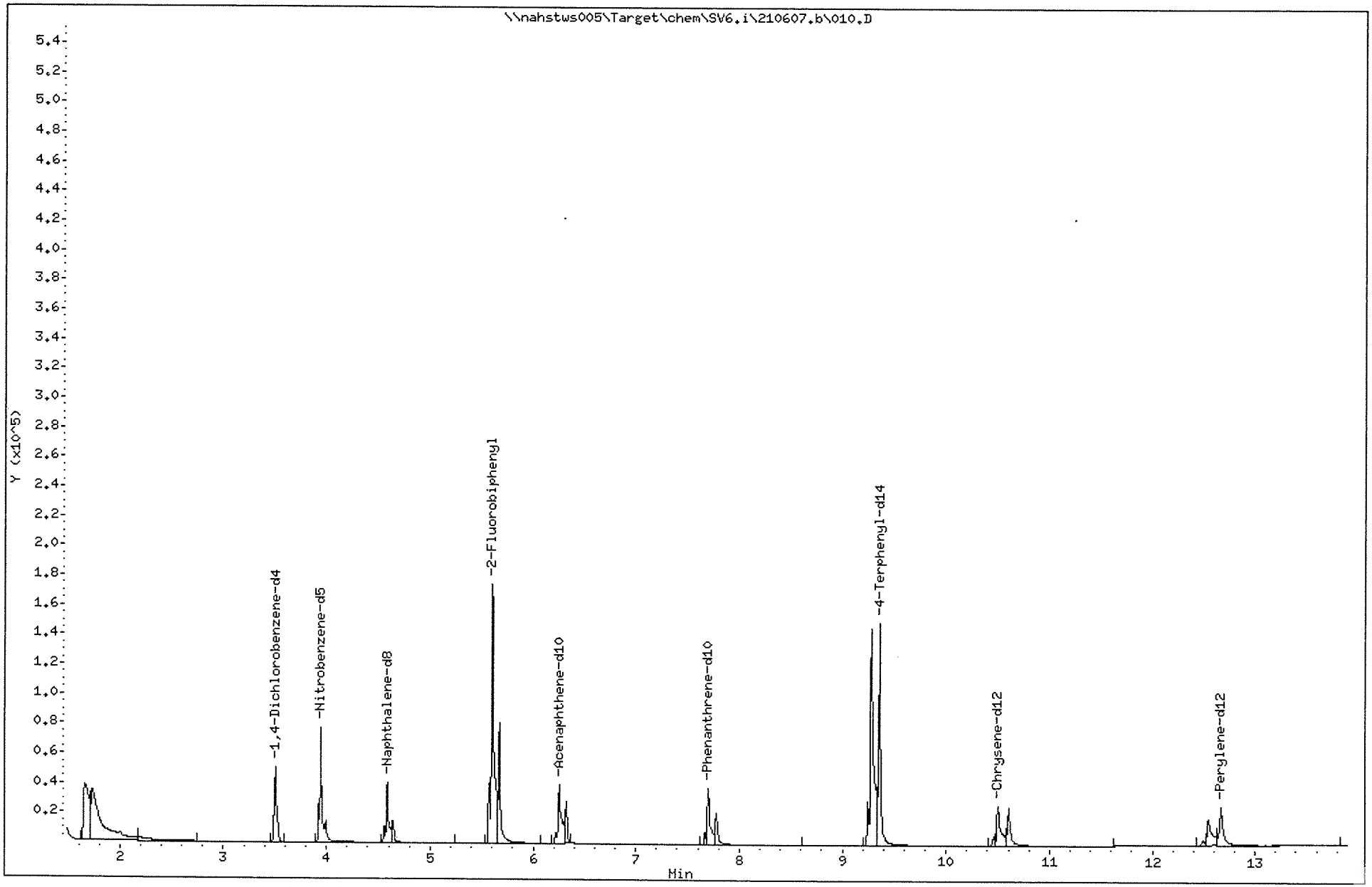
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.505	3.505	(1.000)	28197	0.10000		(a)
* 45 Naphthalene-d8	136	4.585	4.585	(1.000)	86691	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.945	3.945	(0.860)	80842	0.50000	0.3045	(AQM)
* 86 Acenaphthene-d10	164	6.251	6.251	(1.000)	49687	0.10000		(QM)
$ 69 2-Fluorobiphenyl	172	5.600	5.600	(0.896)	340029	0.50000	0.5128	(AM)
* 126 Phenanthrene-d10	188	7.700	7.700	(1.000)	111127	0.10000		(M)
* 182 Chrysene-d12	240	10.503	10.503	(1.000)	104718	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.362	9.362	(0.891)	472282	0.50000	0.4998	(AM)
* 198 Perylene-d12	264	12.668	12.668	(1.000)	98459	0.10000		(M)
1 1,4-Dioxane	58	2.006	2.006	(0.572)	8747	0.50000	0.6020	(AQM)

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.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\010.D
Date : 07-JUN-2021 13:37
Client ID: DXSIM-0.5
Sample Info: DXSIM-0.5;DXSIM-0.5
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210607.b\011.D
Lab Smp Id: DXSIM-ICV Client Smp ID: DXSIM-ICV
Inj Date : 07-JUN-2021 13:55 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-ICV;DXSIM-ICV
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 06-Aug-2021 13:31 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 11 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

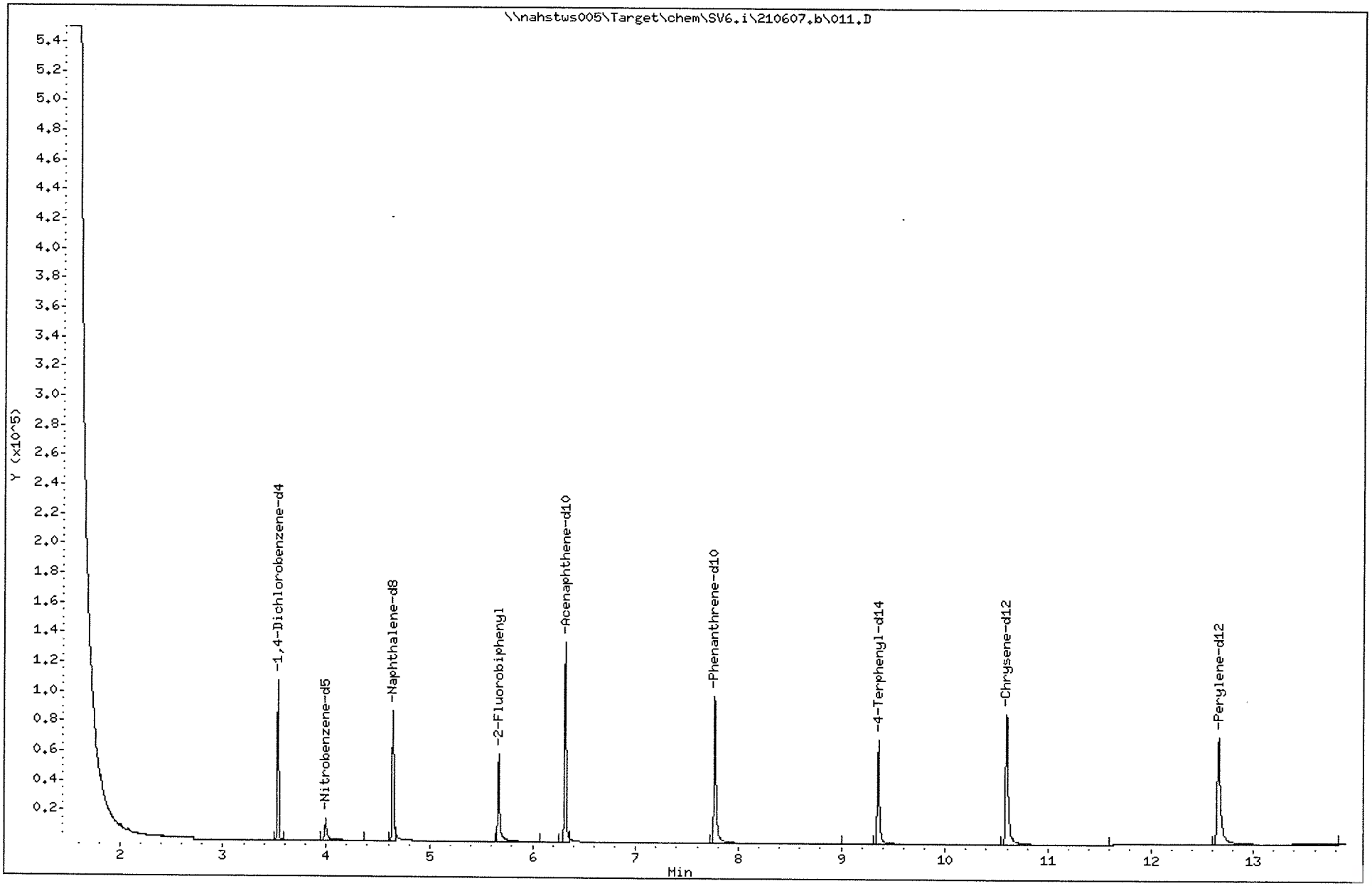
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	3.532	3.505	(1.000)	31156	0.10000		(a)
* 45 Naphthalene-d8	136	4.645	4.585	(1.000)	105707	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.998	3.945	(0.921)	20403	0.06302	0.06302	
* 86 Acenaphthene-d10	164	6.321	6.251	(1.000)	68049	0.10000		(QM)
$ 69 2-Fluorobiphenyl	172	5.670	5.600	(1.000)	66382	0.07309	0.07309	
* 126 Phenanthrene-d10	188	7.770	7.700	(1.000)	137852	0.10000		(M)
* 182 Chrysene-d12	240	10.594	10.503	(1.000)	131692	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.362	(0.883)	93833	0.07897	0.07897	(M)
* 198 Perylene-d12	264	12.662	12.668	(1.000)	121944	0.10000		
1 1,4-Dioxane	58	1.818	2.006	(0.515)	1295	0.08066	0.08066	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\SV6.i\210607.b\011.D
Date : 07-JUN-2021 13:55
Client ID: DXSIM-ICV
Sample Info: DXSIM-ICV;DXSIM-ICV
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



SV06 -Logbook

Batch: 45070 **Analyst:** Andrew Neir

Date: 06-09-2021 **Reviewer:**

Method: 8270DSIM **Laboratory:** Houston

Comments: MSSV003

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	DFTPP	TUNE	06-09-2021 10:14 am	1.00			001.D		Y	NA
2	SLSTD-2.5	SAMP	06-09-2021 10:26 am	1.00			002.D		Y	NA
3	DXSIM-0.08	CCV	06-09-2021 10:45 am	1.00			003.D		Y	NA
4	CCB	SAMP	06-09-2021 11:21 am	1.00			004.D		Y	NA
5	MBLK-166286	MBLK	06-09-2021 11:39 am	1.00	1000.00 mL	1.00 mL	005.D	Liquid	Y	NA
6	LCS-166286	LCS	06-09-2021 11:57 am	1.00	1000.00 mL	1.00 mL	006.D	Liquid	Y	NA
7	LCSD-166286	LCSD	06-09-2021 12:15 pm	1.00	1000.00 mL	1.00 mL	007.D	Liquid	Y	NA
8	HS210501312-01	SAMP	06-09-2021 12:33 pm	1.00	1000.00 mL	1.00 mL	008.D	Liquid	Y	NA
9	HS210501314-01	SAMP	06-09-2021 12:51 pm	1.00	1000.00 mL	1.00 mL	009.D	Liquid	Y	NA
10	HS21051312-01	SAMP	06-09-2021 01:45 pm	1.00	1000.00 mL	1.00 mL	010.D	Liquid	Y	NA
11	HS21051314-01	SAMP	06-09-2021 02:03 pm	1.00	1000.00 mL	1.00 mL	011.D	Liquid	Y	NA
12	DXSIM-0.08	SAMP	06-09-2021 02:28 pm	1.00			012.D		Y	NA

Chemical	Value
IS ID	3141114-01
CAL STD ID	3141106-05/ 3141114-07
DFTPP ID	31411105-05
PCP Tailing	1.21
Benz. Tailing	1.15
Routine SOP Maintenance	ACN

FORM 2
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

	CLIENT SAMPLE NO.	S1 (NBZ)#	S2 #	S3 (FBP)#	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	MBLK-166286	44	59	57						0
02	LCS-166286	52	69	70						0
03	LCSD-166286	55	72	71						0
04	HS21051314-01	0D	0D	0D						0
05										
06										
07										
08										
09										
10										
11										
12										
13										
14										
15										
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17										
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21										
22										
23										
24										
25										
26										
27										
28										

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(40-140)
S2 = 4-Terphenyl-d14	(40-140)
S3 (FBP) = 2-Fluorobiphenyl	(40-140)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

MBLK-166286

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Lab File ID: 005 Lab Sample ID: MBLK-166286

Instrument ID: SV6 Date Extracted:

Matrix: (soil/water) WATER Date Analyzed: 06/09/21

Level:(low/med) LOW Time Analyzed: 1139

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	LCS-166286	LCS-166286	006	06/09/21
02	LCSD-166286	LCSD-166286	007	06/09/21
03	HS21051314-01	HS21051314-01	011	06/09/21
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
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29				
30				

COMMENTS:

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Lab File ID: 001 DFTPP Injection Date: 06/09/21

Instrument ID: SV6 DFTPP Injection Time: 1014

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	23.7
68	Less than 2.0% of mass 69	0.4 (1.6)1
69	Mass 69 relative abundance	25.6
70	Less than 2.0% of mass 69	0.1 (0.5)1
127	10.0 - 80.0% of mass 198	34.2
197	Less than 2.0% of mass 198	0.6
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	24.9
365	1.0 - 100.0% of mass 198	2.9
441	Present, but less than mass 443	11.3
442	50.0 - 150.0% of mass 198	76.2
443	15.0 - 24.0% of mass 442	15.3 (20.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	DXSIM-0.08	DXSIM-0.08	003	06/09/21	1045
02	MBLK-166286	MBLK-166286	005	06/09/21	1139
03	LCS-166286	LCS-166286	006	06/09/21	1157
04	LCSD-166286	LCSD-166286	007	06/09/21	1215
05	HS21051314-01	HS21051314-01	011	06/09/21	1403
06	DXSIM-0.08	DXSIM-0.08	012	06/09/21	1428
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Instrument ID: SV6 Calibration Date: 06/09/21 Time: 1045

Lab File ID: 003 Init. Calib. Date(s): 06/07/21 06/07/21

Init. Calib. Times: 1125 1337

GC Column: RTX-5SIL MS ID: 0.28 (mm)

COMPOUND	RRF OR AMOUNT	RRF8e-002 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
1,4-Dioxane	5.2e-002	5.2e-002	0.01	0.00	20.00	AVRG
Nitrobenzene-d5	0.3060000	0.2502310	0.01	-18.22	20.00	AVRG
4-Terphenyl-d14	0.9020000	0.8835439	0.01	-2.05	20.00	AVRG
2-Fluorobiphenyl	1.3340000	1.1732143	0.01	-12.05	20.00	AVRG

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Instrument ID: SV6 Calibration Date: 06/09/21 Time: 1428

Lab File ID: 012 Init. Calib. Date(s): 06/07/21 06/07/21

Init. Calib. Times: 1125 1337

GC Column: RTX-5SIL MS ID: 0.28 (mm)

COMPOUND	RRF OR AMOUNT	RRF8e-002 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
1,4-Dioxane	5.2e-002	4.35e-002	0.01	-16.35	50.00	AVRG
Nitrobenzene-d5	0.3060000	0.3013025	0.01	-1.54	50.00	AVRG
4-Terphenyl-d14	0.9020000	0.8691192	0.01	-3.64	50.00	AVRG
2-Fluorobiphenyl	1.3340000	1.3393753	0.01	0.40	50.00	AVRG

FORM VII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Lab File ID (Standard): 003 Date Analyzed: 06/09/21

Instrument ID: SV6 Time Analyzed: 1045

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	35807	3.54	122292	4.65	80614	6.32
	UPPER LIMIT	71614	4.04	244584	5.15	161228	6.82
	LOWER LIMIT	17904	3.04	61146	4.15	40307	5.82
	CLIENT SAMPLE NO.						
01	MBLK-166286	41567	3.54	145993	4.64	88919	6.32
02	LCS-166286	34564	3.54	115479	4.65	72423	6.32
03	LCSD-166286	32922	3.54	114339	4.65	68759	6.32
04	HS21051314-01	37555	3.54	128362	4.64	81232	6.32
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21051314

Lab File ID (Standard): 003 Date Analyzed: 06/09/21

Instrument ID: SV6 Time Analyzed: 1045

		IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	162540	7.77	157628	10.60	146107	12.66
	UPPER LIMIT	325080	8.27	315256	11.10	292214	13.16
	LOWER LIMIT	81270	7.27	78814	10.10	73054	12.16
	CLIENT SAMPLE NO.						
01	MBLK-166286	183706	7.77	177881	10.59	165194	12.66
02	LCS-166286	150704	7.77	147544	10.59	133220	12.66
03	LCSD-166286	143008	7.77	140633	10.59	124602	12.66
04	HS21051314-01	168643	7.77	175685	10.59	176801	12.66
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\001.D

Date : 09-JUN-2021 10:14

Client ID: DFTPP

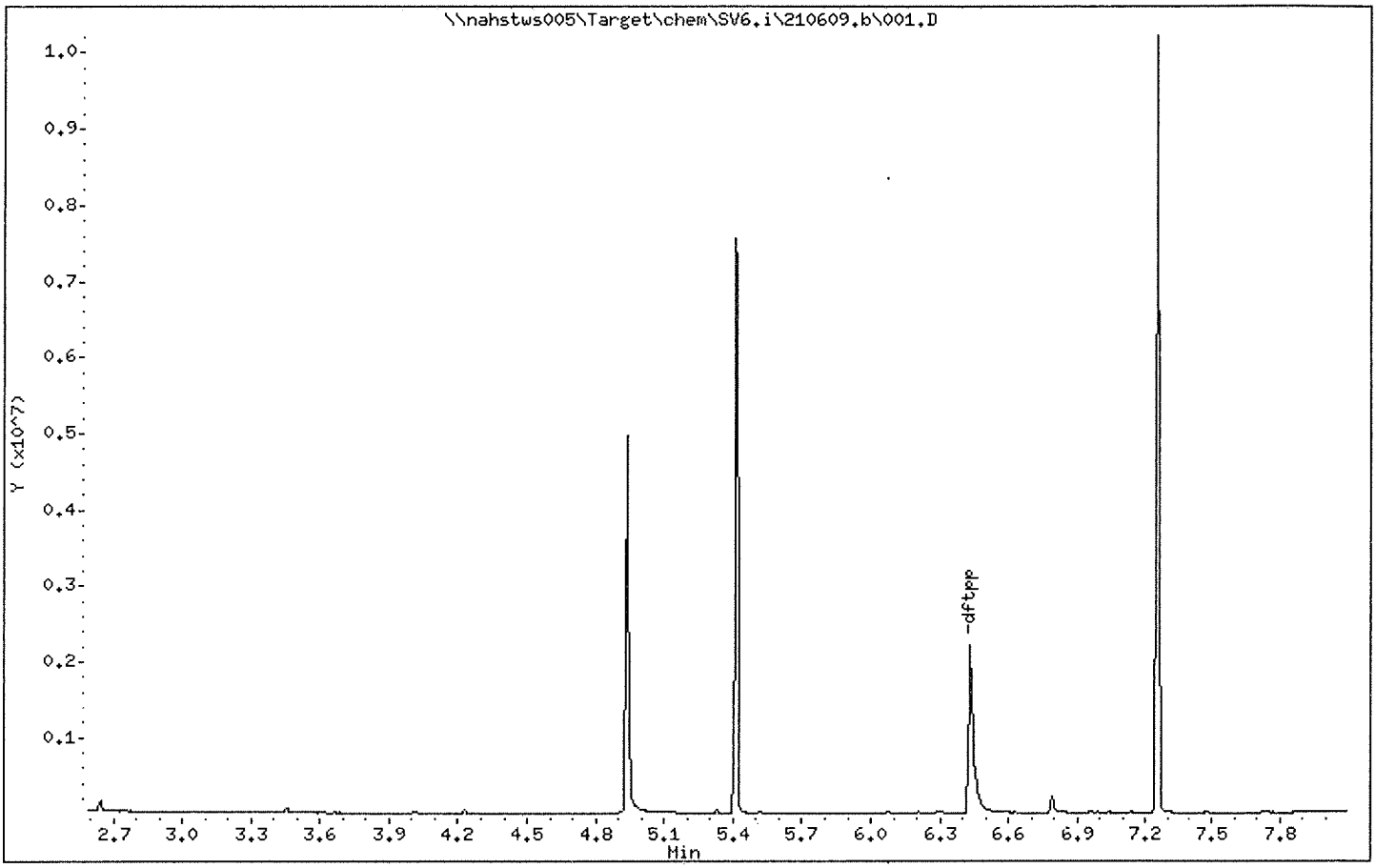
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25



Data File: \\nahstws005\Target\chem\SV6.i\210609.b\001.D

Date : 09-JUN-2021 10:14

Client ID: DFTPP

Instrument: SV6.i

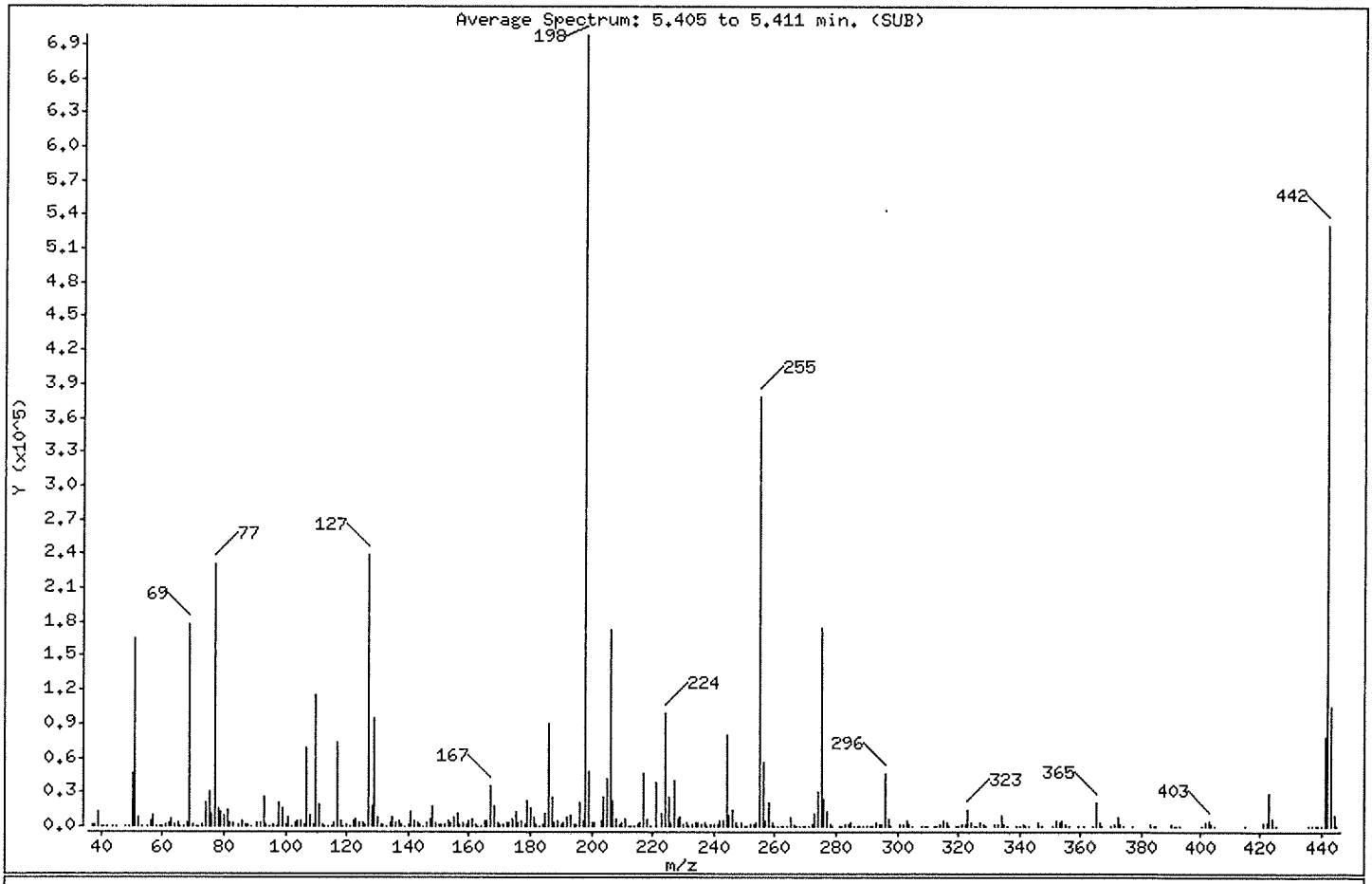
Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	23.69
68	Less than 2.00% of mass 69	0.41 (1.62)
69	Mass 69 relative abundance	25.57
70	Less than 2.00% of mass 69	0.12 (0.47)
127	10.00 - 80.00% of mass 198	34.22
197	Less than 2.00% of mass 198	0.60
199	5.00 - 9.00% of mass 198	6.94
275	10.00 - 60.00% of mass 198	24.95
365	1.00 - 100.00% of mass 198	2.89
441	Present, but less than mass 443	11.26
442	50.00 - 150.00% of mass 198	76.20
443	15.00 - 24.00% of mass 442	15.25 (20.02)

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\001.D

Date : 09-JUN-2021 10:14

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 001.D
Spectrum: Average Spectrum: 5.405 to 5.411 min. (SUB)
Location of Maximum: 198.00
Number of points: 335

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	843	127.00	238720	212.00	429	301.00	871
38.00	2286	128.00	17488	213.00	489	302.00	823
39.00	12513	129.00	95368	214.00	163	303.00	5368
40.00	516	130.00	7852	215.00	1940	304.00	1347
41.00	166	131.00	1573	216.00	3988	305.00	144
42.00	77	132.00	938	217.00	46224	308.00	731
44.00	23	133.00	366	218.00	6032	309.00	354
45.00	318	134.00	2671	219.00	621	310.00	670
48.00	6	135.00	8409	221.00	39024	312.00	175
49.00	582	136.00	3039	223.00	10875	313.00	241
50.00	47296	137.00	4141	224.00	99464	314.00	2346
51.00	165248	138.00	857	225.00	25048	315.00	5146
52.00	8159	139.00	692	226.00	2816	316.00	3108
53.00	412	140.00	1264	227.00	40504	317.00	579
55.00	772	141.00	13041	228.00	5875	319.00	80
56.00	4069	142.00	4280	229.00	8517	320.00	182
57.00	9741	143.00	3088	230.00	1119	321.00	1537
58.00	381	144.00	869	231.00	3415	322.00	811
59.00	89	145.00	732	232.00	778	323.00	15104
60.00	84	146.00	2430	233.00	862	324.00	2840
61.00	1784	147.00	7117	234.00	2513	325.00	193
62.00	2456	148.00	18192	235.00	2947	326.00	306
63.00	6108	149.00	3314	236.00	2005	327.00	2929
64.00	1041	150.00	1007	237.00	3287	328.00	1572
65.00	3052	151.00	1944	238.00	417	329.00	218
66.00	224	152.00	1055	239.00	1548	332.00	1215
67.00	285	153.00	4369	240.00	1167	333.00	1414
68.00	2893	154.00	3004	241.00	2184	334.00	9770
69.00	178432	155.00	7836	242.00	5311	335.00	2279
70.00	839	156.00	11217	243.00	5557	336.00	306
71.00	84	157.00	2133	244.00	80280	339.00	152
72.00	96	158.00	2532	245.00	10320	340.00	138
73.00	1551	159.00	2236	246.00	13863	341.00	1633
74.00	20992	160.00	4343	247.00	2749	342.00	577
75.00	29928	161.00	6345	248.00	622	343.00	117

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\001.D

Date : 09-JUN-2021 10:14

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 001.D
Spectrum: Average Spectrum: 5.405 to 5.411 min. (SUB)
Location of Maximum: 198.00
Number of points: 335

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	11800	162.00	2063	249.00	2658	346.00	3176
77.00	230400	163.00	729	250.00	517	347.00	681
78.00	15304	164.00	762	251.00	744	351.00	189
79.00	13175	165.00	4636	252.00	867	352.00	4623
80.00	9918	166.00	4219	253.00	1931	353.00	3020
81.00	14745	167.00	35112	254.00	2968	354.00	4503
82.00	3616	168.00	17336	255.00	379264	355.00	925
83.00	3370	169.00	2719	256.00	56752	356.00	95
85.00	2373	170.00	1171	257.00	4263	359.00	417
86.00	4510	171.00	1294	258.00	20984	361.00	75
87.00	2064	172.00	2418	259.00	3244	364.00	138
88.00	828	173.00	3410	260.00	552	365.00	20144
89.00	352	174.00	6619	261.00	675	366.00	2906
91.00	3181	175.00	12838	262.00	87	367.00	203
92.00	3715	176.00	3505	263.00	169	370.00	410
93.00	25752	177.00	5400	264.00	663	371.00	1257
94.00	1764	178.00	1787	265.00	8708	372.00	7958
95.00	383	179.00	23088	266.00	1438	373.00	1864
96.00	1215	180.00	16271	267.00	119	374.00	178
97.00	300	181.00	7564	268.00	193	377.00	139
98.00	21504	182.00	1254	269.00	106	383.00	2143
99.00	15621	183.00	785	270.00	507	384.00	569
100.00	1277	184.00	1935	271.00	743	385.00	150
101.00	8112	185.00	11187	272.00	978	390.00	1102
102.00	440	186.00	89224	273.00	11619	391.00	628
103.00	2658	187.00	24984	274.00	30720	392.00	573
104.00	5286	188.00	2589	275.00	174080	393.00	75
105.00	5043	189.00	5149	276.00	23544	401.00	503
106.00	1742	190.00	990	277.00	13583	402.00	3154
107.00	69200	191.00	2894	278.00	2137	403.00	4581
108.00	10075	192.00	8052	279.00	503	404.00	1561
109.00	1851	193.00	8859	281.00	103	405.00	210
110.00	116256	194.00	1827	282.00	217	415.00	206
111.00	18576	195.00	1294	283.00	1642	421.00	3967
112.00	2306	196.00	20376	284.00	1189	422.00	3287

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\001.D

Date : 09-JUN-2021 10:14

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 001.D
Spectrum: Average Spectrum: 5.405 to 5.411 min. (SUB)
Location of Maximum: 198.00
Number of points: 335

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	751	197.00	4197	285.00	2448	423.00	28984
114.00	160	198.00	697728	286.00	504	424.00	6192
115.00	148	199.00	48400	287.00	75	425.00	709
116.00	3484	200.00	3490	288.00	133	436.00	207
117.00	74472	201.00	3334	289.00	559	437.00	283
118.00	5581	203.00	4608	290.00	520	438.00	280
119.00	485	204.00	26048	291.00	392	439.00	370
120.00	905	205.00	41608	292.00	671	440.00	690
121.00	324	206.00	173248	293.00	3057	441.00	78584
122.00	4724	207.00	23048	294.00	907	442.00	531712
123.00	6973	208.00	5786	295.00	1094	443.00	106432
124.00	3365	209.00	1874	296.00	46208	444.00	9878
125.00	3215	210.00	3064	297.00	6780	445.00	500
126.00	1346	211.00	7022	298.00	521		

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210609.b\003.D
Lab Smp Id: DXSIM-0.08 Client Smp ID: DXSIM-0.08
Inj Date : 09-JUN-2021 10:45 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.08;DXSIM-0.08
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210609.b\DXSIM.m
Meth Date : 06-Aug-2021 13:10 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

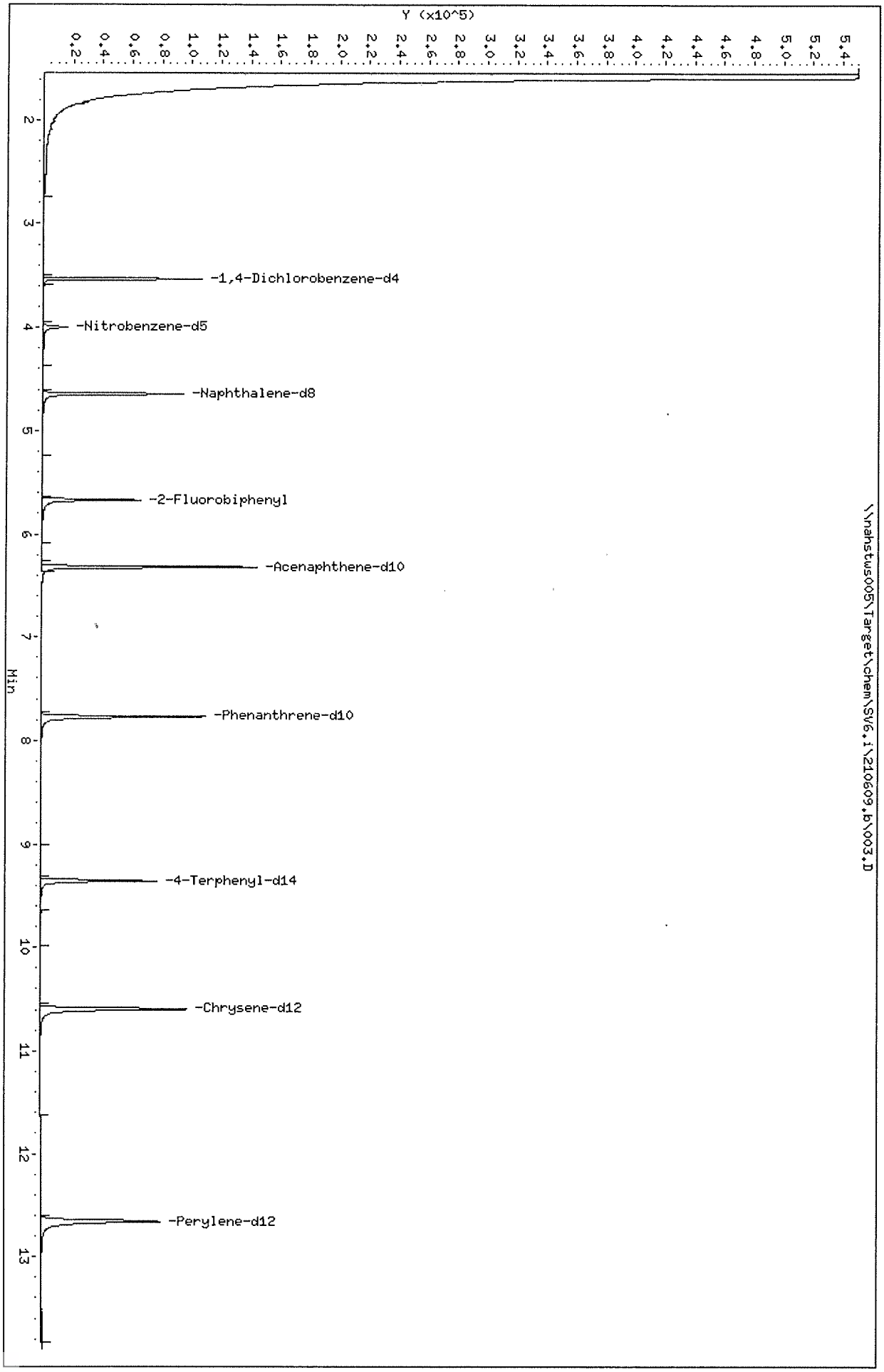
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	35807	0.10000	(a)
* 45 Naphthalene-d8	136	4.645	4.645	(1.000)	122292	0.10000	
$ 33 Nitrobenzene-d5	82	3.998	3.998	(0.861)	24481	0.08000	0.06536(Q)
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	80614	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.670	5.670	(1.000)	75662	0.08000	0.07032
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	162540	0.10000	
* 182 Chrysene-d12	240	10.600	10.600	(1.000)	157628	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	111417	0.08000	0.07834(M)
* 198 Perylene-d12	264	12.662	12.662	(1.000)	146107	0.10000	
1 1,4-Dioxane	58	1.833	1.833	(0.518)	1489	0.08000	0.08070(aQ)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.



Data File: \\nahstws005\Target\chem\SV6.i\210609.b\003.D
Date : 09-JUN-2021 10:45
Client ID: DXSIM-0.08
Sample Info: DXSIM-0.08;DXSIM-0.08
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\005.D Page 1
Report Date: 06-Aug-2021 13:11

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210609.b\005.D
Lab Smp Id: MBLK-166286 Client Smp ID: MBLK-166286
Inj Date : 09-JUN-2021 11:39 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : MBLK-166286;MBLK-166286;3;;BLANK
Misc Info : HS21051312;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210609.b\DXSIM.m
Meth Date : 06-Aug-2021 13:10 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

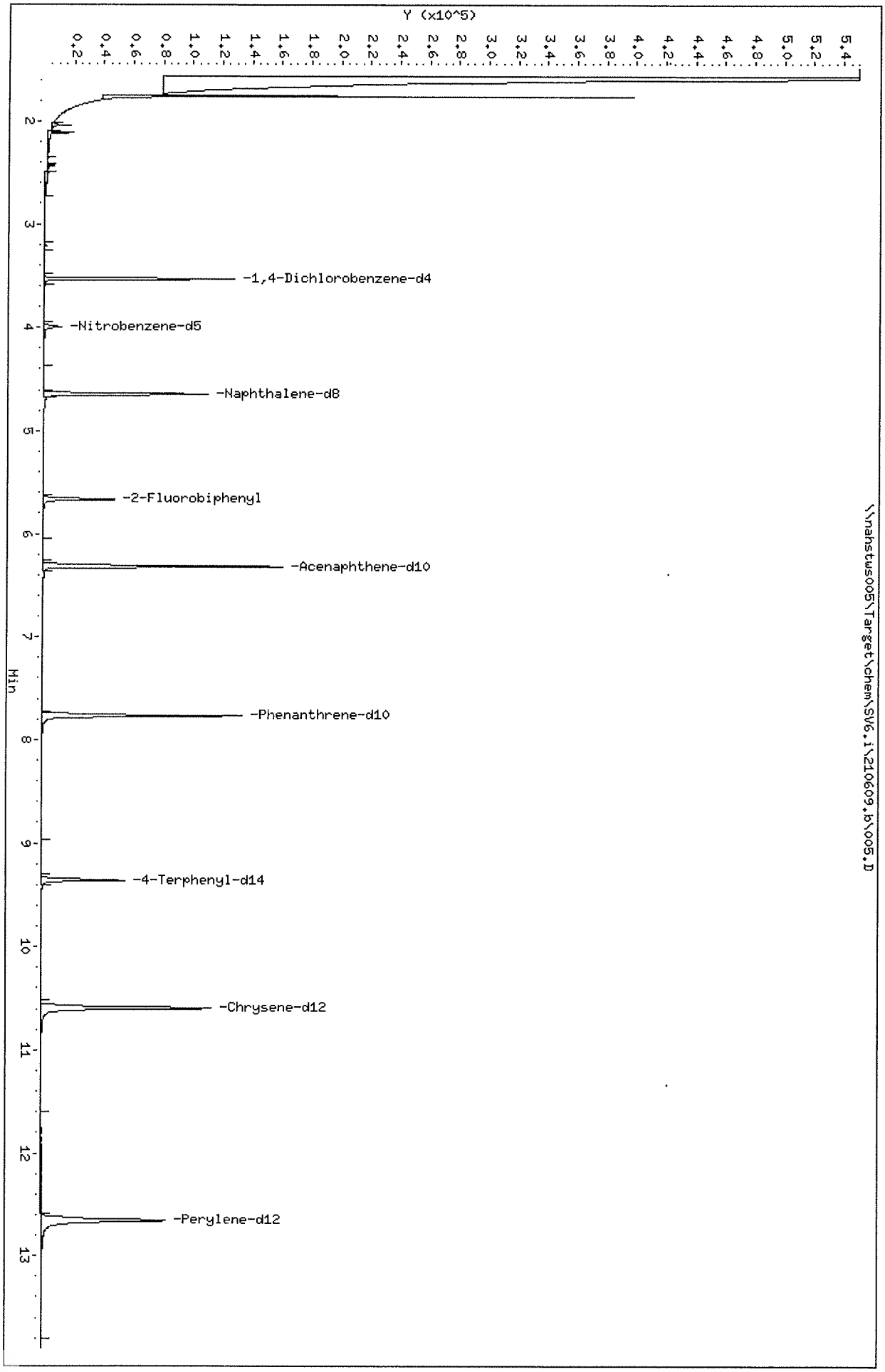
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	41567	0.10000		(a)
* 45 Naphthalene-d8	136	4.644	4.645	(1.000)	145993	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.998	3.998	(0.906)	15762	0.03525	0.03525	(Q)
* 86 Acenaphthene-d10	164	6.320	6.321	(1.000)	88919	0.10000		
$ 69 2-Fluorobiphenyl	172	5.669	5.670	(0.897)	54129	0.04561	0.04561	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	183706	0.10000		
* 182 Chrysene-d12	240	10.594	10.600	(1.000)	177881	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	75853	0.04726	0.04726	(M)
* 198 Perylene-d12	264	12.657	12.662	(1.000)	165194	0.10000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\005.D
Date : 09-JUN-2021 11:39
Client ID: MBLK-166286
Sample Info: MBLK-166286;MBLK-166286;3;;BLANK
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



Data File: \\nahstws005\Target\chem\SV6.i\210609.b\006.D Page 1
Report Date: 06-Aug-2021 13:11

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210609.b\006.D
Lab Smp Id: LCS-166286 Client Smp ID: LCS-166286
Inj Date : 09-JUN-2021 11:57 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : LCS-166286;LCS-166286;3;;LCS
Misc Info : HS21051312;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210609.b\DXSIM.m
Meth Date : 06-Aug-2021 13:10 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

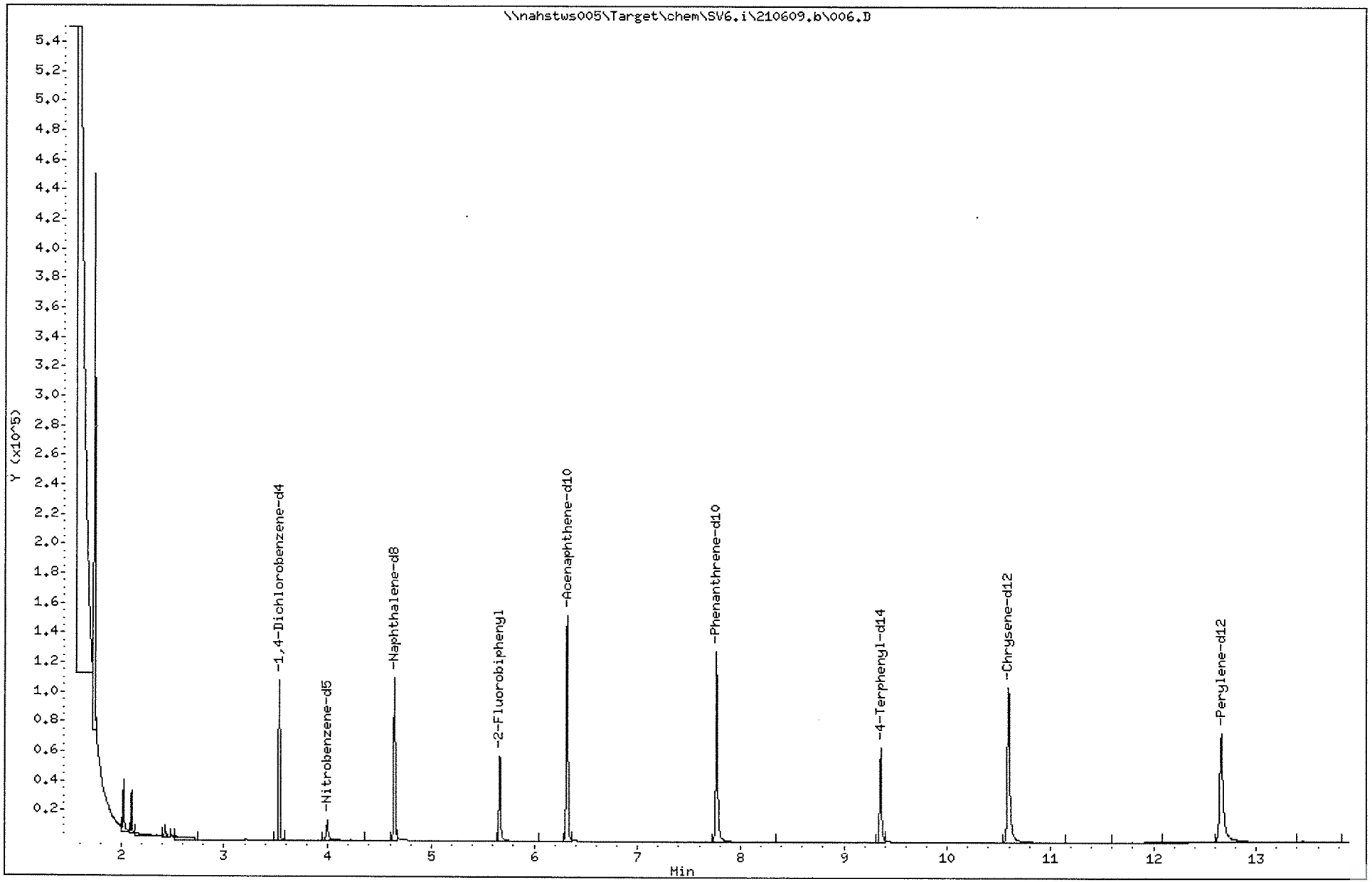
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	34564	0.10000		(a)
* 45 Naphthalene-d8	136	4.645	4.645	(1.000)	115479	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.998	3.998	(0.886)	14769	0.04176	0.04176	(Q)
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	72423	0.10000		
$ 69 2-Fluorobiphenyl	172	5.670	5.670	(0.897)	54422	0.05630	0.05630	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	150704	0.10000		
* 182 Chrysene-d12	240	10.594	10.600	(1.000)	147544	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	73331	0.05508	0.05508	(M)
* 198 Perylene-d12	264	12.662	12.662	(1.000)	133220	0.10000		
1 1,4-Dioxane	58	1.792	1.833	(0.507)	1609	0.09034	0.09034	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\006.D
Date : 09-JUN-2021 11:57
Client ID: LCS-166286
Sample Info: LCS-166286;LCS-166286;3;;LCS
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



Data File: \\nahstws005\Target\chem\SV6.i\210609.b\007.D Page 1
Report Date: 06-Aug-2021 13:11

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210609.b\007.D
Lab Smp Id: LCSD-166286 Client Smp ID: LCSD-166286
Inj Date : 09-JUN-2021 12:15 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : LCSD-166286;LCSD-166286;3;;LCSD
Misc Info : HS21051312;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210609.b\DXSIM.m
Meth Date : 06-Aug-2021 13:10 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 7 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

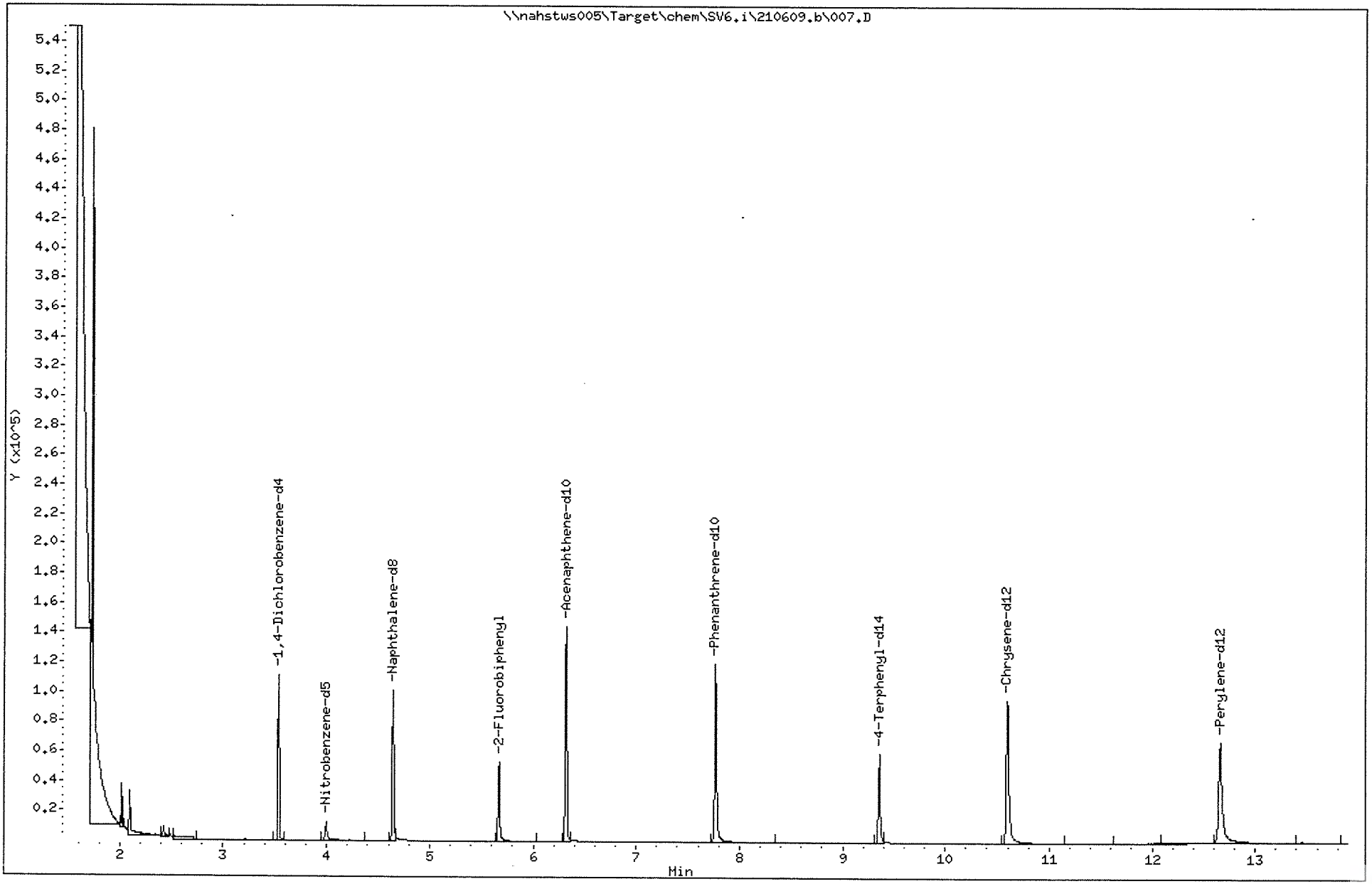
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	32922	0.10000	(a)
* 45 Naphthalene-d8	136	4.645	4.645	(1.000)	114339	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.998	3.998	(0.902)	15504	0.04427	0.04427(Q)
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	68759	0.10000	
$ 69 2-Fluorobiphenyl	172	5.670	5.670	(0.897)	51916	0.05657	0.05657
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	143008	0.10000	
* 182 Chrysene-d12	240	10.594	10.600	(1.000)	140633	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	72957	0.05750	0.05750(M)
* 198 Perylene-d12	264	12.662	12.662	(1.000)	124602	0.10000	
1 1,4-Dioxane	58	1.785	1.833	(0.505)	1500	0.08842	0.08842(aMH)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\007.D
Date : 09-JUN-2021 12:15
Client ID: LCSD-166286
Sample Info: LCSD-166286;LCSD-166286;3;;LCSD
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210609.b\011.D
Lab Smp Id: HS21051314-01 Client Smp ID: HS21051314-01
Inj Date : 09-JUN-2021 14:03 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : HS210501314-01;HS21051314-01
Misc Info : HS21051312;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210609.b\DXSIM.m
Meth Date : 06-Aug-2021 13:08 devak.giga Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

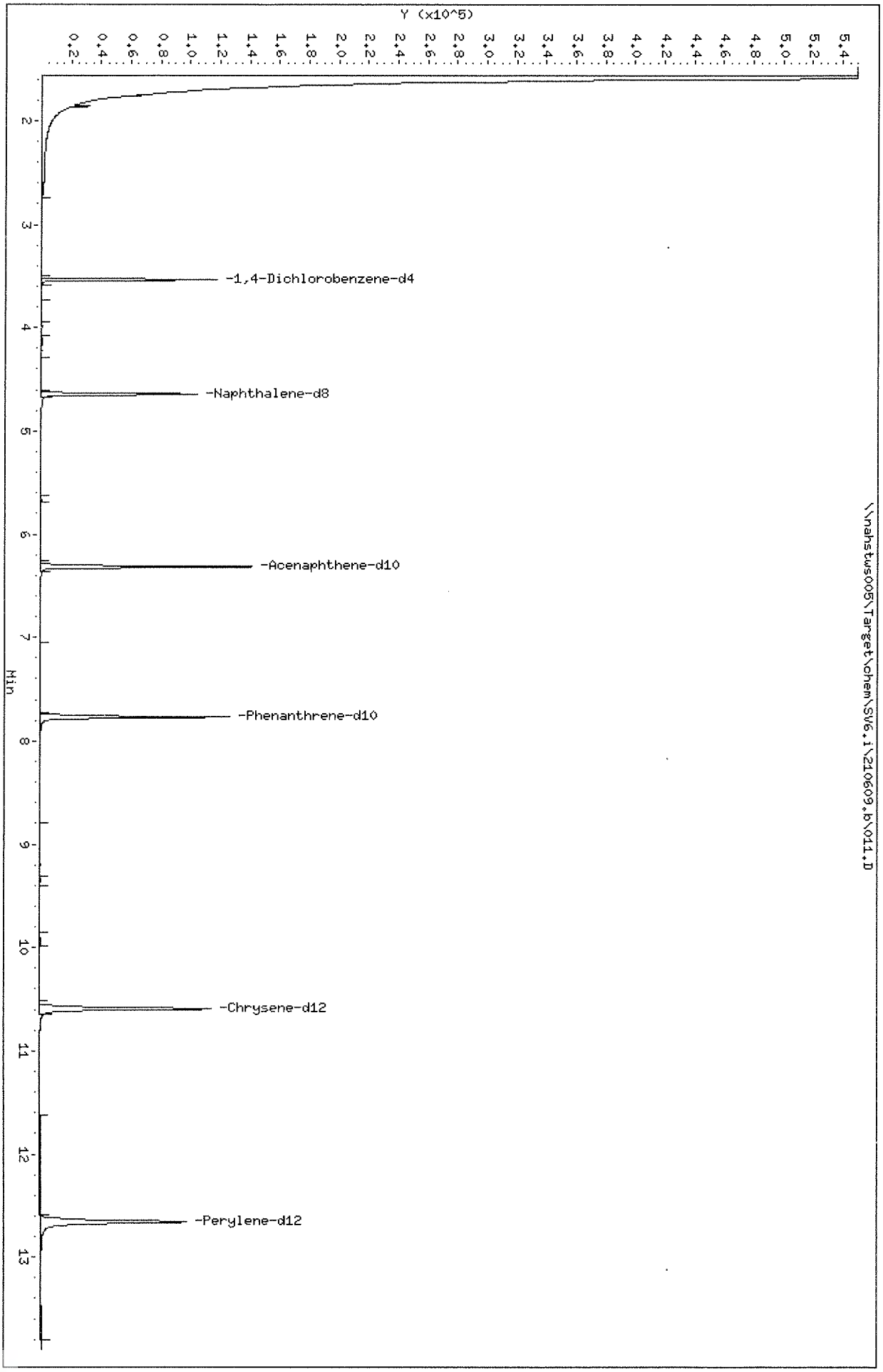
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	37555	0.10000		(a)
* 45 Naphthalene-d8	136	4.644	4.645	(1.000)	128362	0.10000		(M)
* 86 Acenaphthene-d10	164	6.320	6.321	(1.000)	81232	0.10000		
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	168643	0.10000		
* 182 Chrysene-d12	240	10.594	10.600	(1.000)	175685	0.10000		(M)
* 198 Perylene-d12	264	12.657	12.662	(1.000)	176801	0.10000		
1 1,4-Dioxane	58	1.862	1.833	(0.527)	2919	0.15084	0.1508	(aQ)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.



Data File: \\nahstws005\Target\chem\SV6.i\210609.b\011.D
Date : 09-JUN-2021 14:03
Client ID: HS21051314-01
Sample Info: HS21050131 4-01;HS21051314-01
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\011.D

Date : 09-JUN-2021 14:03

Client ID: HS21051314-01

Instrument: SV6.i

Sample Info: HS210501314-01;HS21051314-01

Purge Volume: 1000.0

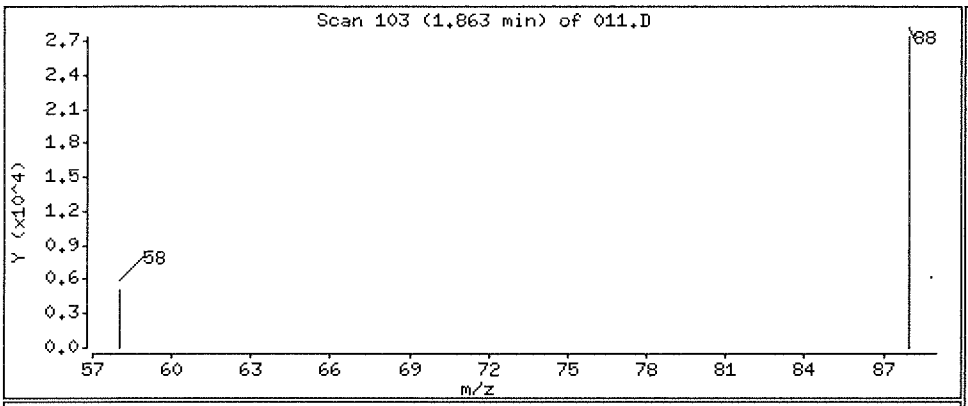
Operator: LG

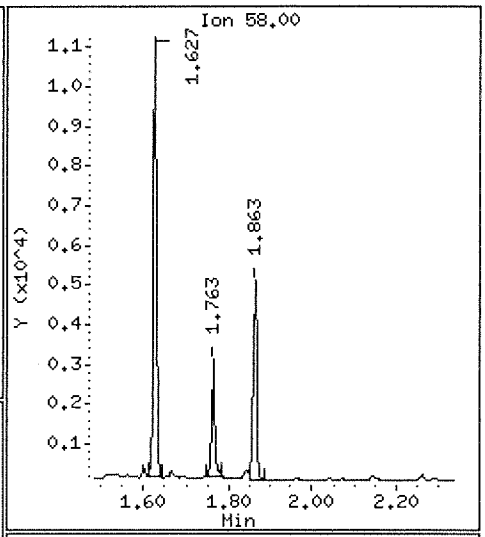
Column phase: RTX-5SIL MS

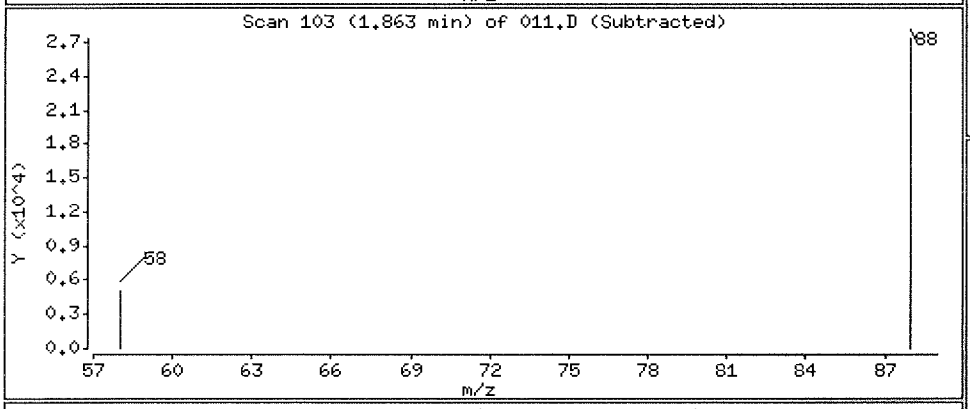
Column diameter: 0.28

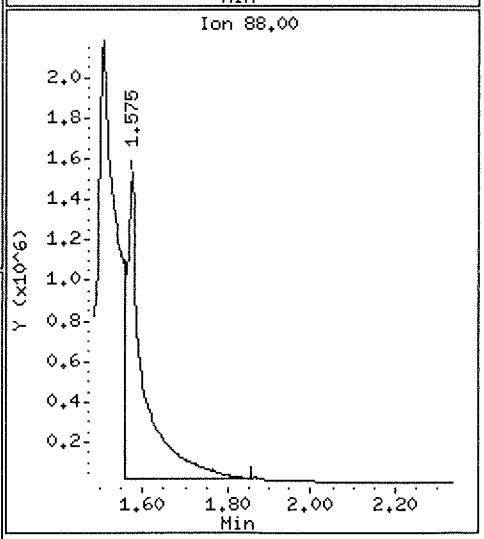
1 1,4-Dioxane

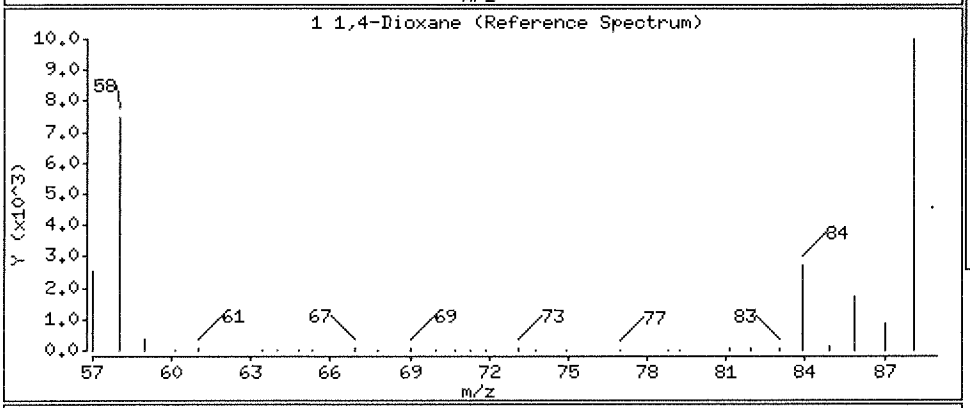
Concentration: 0.1508 ug/L

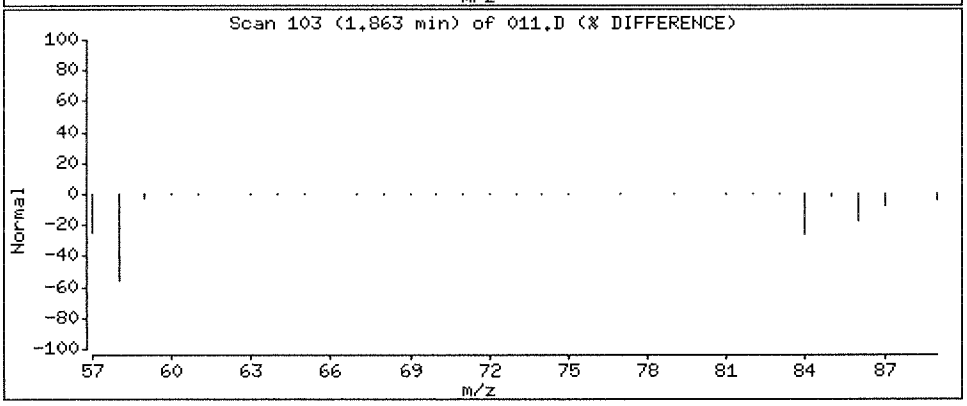












ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\210609.b\012.D
Lab Smp Id: DXSIM-0.08 Client Smp ID: DXSIM-0.08
Inj Date : 09-JUN-2021 14:28 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.08;DXSIM-0.08
Misc Info : ;1;0;1
Comment :
Method : \\nahstws005\Target\chem\SV6.i\210609.b\DXSIMEND.m
Meth Date : 06-Aug-2021 13:11 devak.giga Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 12 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

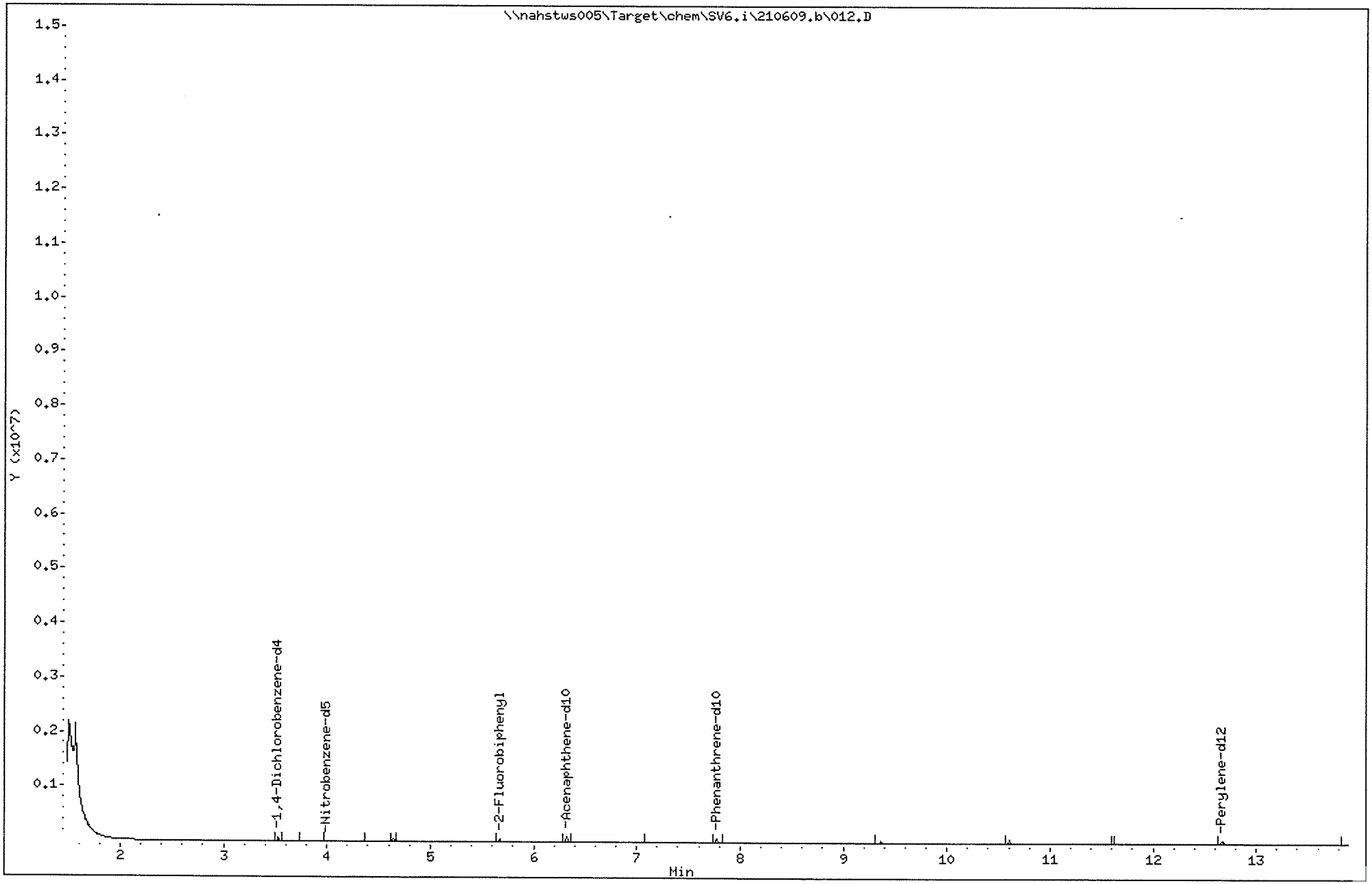
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	3.526	3.505	(1.000)	17813	0.10000		(a)
$ 33 Nitrobenzene-d5	82	3.993	3.945	(1.000)	16683			(R)
* 86 Acenaphthene-d10	164	6.084	6.251	(1.000)	887	0.10000		(Q)
$ 69 2-Fluorobiphenyl	172	5.673	5.600	(0.932)	37642	3.17974	3.180	(AR)
* 126 Phenanthrene-d10	188	7.776	7.700	(1.000)	74076	0.10000		
* 198 Perylene-d12	264	12.673	12.668	(1.000)	76772	0.10000		
1 1,4-Dioxane	58	1.770	2.007	(0.502)	620	0.06754	0.06754	(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.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: \\nahstws005\Target\chem\SV6.i\210609.b\012.D
Date : 09-JUN-2021 14:28
Client ID: DXSIM-0.08
Sample Info: DXSIM-0.08;DXSIM-0.08
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LC
Column diameter: 0.28



HS21051314 - ME - HG_W_DODICP_W_DOD

ALS WO# HS21051314

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

Instrument:ICPMS06

Mass	Analyte	Assoc Int Standard 1	Assoc Int Standard 2	Mode
9	Beryllium	Lithium		Ar
11	Boron	Lithium		Ar
23	Sodium	Germanium		ArHe
24	Magnesium	Germanium		ArHe
27	Aluminum	Germanium		ArHe
39	Potassium	Germanium		ArHe
44	Calcium	Germanium		Ar
47	Titanium	Germanium		Ar
51	Vanadium	Germanium		ArHe
52	Chromium	Germanium		ArHe
55	Manganese	Germanium		ArHe
56	Iron	Germanium		ArHe
59	Cobalt	Germanium		ArHe
60	Nickel	Germanium		ArHe
63	Copper	Germanium		ArHe
66	Zinc	Germanium		ArHe
75	Arsenic	Germanium		ArHe
82	Selenium	Germanium		Ar
88	Strontium	Indium		Ar
95	Molybdenum	Indium		Ar
105	Palladium	Germanium		Ar
107	Silver	Indium		Ar
114	Cadmium	Indium		Ar
118	Tin	Indium		Ar
121	Antimony	Germanium		ArHe
137	Barium	Indium		Ar
205	Thallium	Bismuth		Ar
208	Lead	Bismuth		Ar

FORM 12 - PREPARATION LOG

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314
Start Date: 09-Jun-2021 08:30 End Date: 09-Jun-2021 11:30

Batch ID: 166687
Prep Code: Hg_WPr
Method: SW7470A
Technician:

SampID	ClientID	Matrix	Init Wt	Init Vol	FinalVol (mL)	PrepFac
HS21051312-01MS				10	10	1
HS21051312-01MSD				10	10	1
HS21051314-01	LH18/24-SP140_052521	Water		10	10	1
LCS-166687				10	10	1
MBLK-166687				10	10	1

FORM 12 - PREPARATION LOG

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314
Start Date: 01-Jun-2021 09:30 End Date: 01-Jun-2021 14:00

Batch ID: 166391
Prep Code: 3010A
Method: SW3010A
Technician:

SampID	ClientID	Matrix	Init Wt	Init Vol	FinalVol (mL)	PrepFac
HS21051153-03MS				10	10	1
HS21051153-03MSD				10	10	1
HS21051153-03PDS				10	10	1
HS21051153-03SD				10	10	1
HS21051314-01	LH18/24-SP140_052521	Water		10	10	1
LCS-166391				10	10	1
MBLK-166391				10	10	1

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.

Project: Groundwater Treatment Plant Quarterly Influent Samples

WorkOrder: HS21051314

Start Date: 09-Jun-2021 End Date: 09-Jun-2021

Run ID:HG03_385226

Instrument:HG03

Method:SW7470A

Sample No.	D/F	Time	FileID	Analytes
ICCV 1	1	09-Jun-2021 11:11	HG03_385226 Raw Data_6129178	HG
ICV	1	09-Jun-2021 11:16	_6129179	HG
ICB	1	09-Jun-2021 11:18	_6129180	HG
CRA	1	09-Jun-2021 11:20	_6129181	HG
MBLK-166687	1	09-Jun-2021 11:49	_6129298	HG
LCS-166687	1	09-Jun-2021 11:54	_6129891	HG
ZZZZZZMS	1	09-Jun-2021 12:00	_6129301	HG
ZZZZZZMSD	1	09-Jun-2021 12:02	_6129302	HG
LH18/24-SP140_052521	1	09-Jun-2021 12:04	_6129303	HG
CCV 2	1	09-Jun-2021 12:14	_6129581	HG
CCB 1	1	09-Jun-2021 12:15	_6129582	HG
CCV 3	1	09-Jun-2021 12:39	_6129593	HG
CCB 2	1	09-Jun-2021 12:41	_6129594	HG
CCV 4	1	09-Jun-2021 13:09	_6129575	HG
CCB 3	1	09-Jun-2021 13:11	_6129576	HG
CCV 5	1	09-Jun-2021 13:35	_6129691	HG
CCB 4	1	09-Jun-2021 13:37	_6129692	HG
CCV 6	1	09-Jun-2021 14:15	_6129837	HG
CCB 5	1	09-Jun-2021 14:16	_6129838	HG
CCV 7	1	09-Jun-2021 14:36	_6129849	HG
CCB 6	1	09-Jun-2021 14:37	_6129850	HG
CCV 8	1	09-Jun-2021 15:08	_6129895	HG
CCB 7	1	09-Jun-2021 15:10	_6129896	HG

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314
Start Date: 04-Jun-2021 End Date: 05-Jun-2021

Run ID:ICPMS06_384999
Instrument:ICPMS06
Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS06_384999_Tune	1	04-Jun-2021 00:00	ICPMS06_384999_Tune_1	
CAL BLK	1	04-Jun-2021 10:59	008CALB.d_6123427	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
2/10/200	1	04-Jun-2021 11:01	009CALS.d_6123428	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
5/25/500	1	04-Jun-2021 11:03	010CALS.d_6123429	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
10/50/100	1	04-Jun-2021 11:05	011CALS.d_6123430	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
100/500/10K	1	04-Jun-2021 11:07	012CALS.d_6123431	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
200/1000/20K	1	04-Jun-2021 11:09	013CALS.d_6123432	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ICV	1	04-Jun-2021 11:13	015_ICV.d_6123434	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
LLICV2	1	04-Jun-2021 11:16	017LCV2.d_6123436	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
LLICV5	1	04-Jun-2021 11:18	018LCV5.d_6123437	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ICB	1	04-Jun-2021 11:31	020_ICB.d_6123439	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ICSA	1	04-Jun-2021 11:33	021ICSA.d_6123440	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ICSAB	1	04-Jun-2021 11:35	022ICSB.d_6123441	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCV 1	1	04-Jun-2021 14:47	110_CCV.d_6123445	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCB 1	1	04-Jun-2021 14:49	111_CCB.d_6123446	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
MBLK-166391	1	04-Jun-2021 14:52	112SMPL.d_6123447	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
LCS-166391	1	04-Jun-2021 14:54	113SMPL.d_6123448	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ZZZZZZSD	5	04-Jun-2021 15:02	117SMPL.d_6123452	AG AL AS BA BE CD CO CR K MG NA NI PB SB SE TL V ZN
ZZZZZZMS	1	04-Jun-2021 15:04	118SMPL.d_6123453	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ZZZZZZMSD	1	04-Jun-2021 15:06	119SMPL.d_6123454	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ZZZZZZPDS	1	04-Jun-2021 15:08	120SMPL.d_6123455	AG AL AS BA BE CD CO CR FE K MG NA NI PB SB SE V ZN
CCV 2	1	04-Jun-2021 15:15	122_CCV.d_6123457	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCB 2	1	04-Jun-2021 15:17	123_CCB.d_6123458	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCV 3	1	04-Jun-2021 15:43	134_CCV.d_6123469	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCB 3	1	04-Jun-2021 15:45	135_CCB.d_6123470	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCV 4	1	04-Jun-2021 15:49	137_CCV.d_6123472	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCB 4	1	04-Jun-2021 15:51	138_CCB.d_6123473	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
LH18/24-SP140_052521	1	04-Jun-2021 16:01	142SMPL.d_6123477	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ZZZZZZSD	50	04-Jun-2021 16:16	146SMPL.d_6123584	CA
ZZZZZZPDS	10	04-Jun-2021 16:18	147SMPL.d_6123585	CA MN
CCV 5	1	04-Jun-2021 16:25	149_CCV.d_6123587	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCB 5	1	04-Jun-2021 16:27	150_CCB.d_6123588	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
CCV 6	1	05-Jun-2021 00:06	306_CCV.d_6124198	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.

Project: Groundwater Treatment Plant Quarterly Influent Samples

WorkOrder: HS21051314

Start Date: 04-Jun-2021 End Date: 05-Jun-2021

Run ID:ICPMS06_384999

Instrument:ICPMS06

Method:

Sample No.	D/F	Time	FileID	Analytes
CCB 6	1	05-Jun-2021 00:08	307_CCB.d_6124199	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
LLCCV2	1	05-Jun-2021 00:12	309LCV2.d_6124201	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
LLCCV5	1	05-Jun-2021 00:14	310LCV5.d_6124202	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ICSA	1	05-Jun-2021 00:16	311ICSA.d_6124203	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ICSAB	1	05-Jun-2021 00:18	312ICSB.d_6124204	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.

Project: Groundwater Treatment Plant Quarterly Influent Samples

WorkOrder: HS21051314

Start Date: 07-Jun-2021 End Date: 07-Jun-2021

Run ID:ICPMS06_385065

Instrument:ICPMS06

Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS06_385065_Tune	1	07-Jun-2021 00:00	ICPMS06_385065_Tune_1	
CAL BLK	1	07-Jun-2021 10:34	014CALB.d_6124901	MN
2/10/200	1	07-Jun-2021 10:35	015CALS.d_6124902	MN
5/25/500	1	07-Jun-2021 10:37	016CALS.d_6124903	MN
10/50/100	1	07-Jun-2021 10:39	017CALS.d_6124904	MN
100/500/10K	1	07-Jun-2021 10:41	018CALS.d_6124905	MN
200/1000/20K	1	07-Jun-2021 10:43	019CALS.d_6124906	MN
ICV	1	07-Jun-2021 10:52	021_ICV.d_6124908	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
ICB	1	07-Jun-2021 10:53	022_ICB.d_6124909	AG AL AS BA BE CA CD CO CR FE K MG MN NA NI PB SB SE TL V ZN
LLICV2	1	07-Jun-2021 10:55	023LCV2.d_6124910	MN
LLICV5	1	07-Jun-2021 10:57	024LCV5.d_6124911	MN
ICSA	1	07-Jun-2021 10:59	025ICSA.d_6124912	MN
ICSAB	1	07-Jun-2021 11:01	026ICSB.d_6124913	MN
CCV 1	1	07-Jun-2021 11:16	031_CCV.d_6124953	MN
CCB 1	1	07-Jun-2021 11:18	032_CCB.d_6124954	MN
ZZZZZZSD	50	07-Jun-2021 11:23	034SMPL.d_6124955	MN
CCV 2	1	07-Jun-2021 11:42	043_CCV.d_6124957	MN
CCB 2	1	07-Jun-2021 11:44	044_CCB.d_6124958	MN

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc. Run ID: HG03_385226

Project: Groundwater Treatment Plant Quarterly Influent Samples Instrument: HG03

WorkOrder: HS21051314 Method: SW7470A

ICCV1 Date: 09-Jun-2021 11:11 Seq: 6129178 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.14	103	90-110	

ICV Date: 09-Jun-2021 11:16 Seq: 6129179 ICV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5	100	90-110	

CCV2 Date: 09-Jun-2021 12:14 Seq: 6129581 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.08	102	90-110	

CCV3 Date: 09-Jun-2021 12:39 Seq: 6129593 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	4.96	99	90-110	

CCV4 Date: 09-Jun-2021 13:09 Seq: 6129575 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.03	101	90-110	

CCV5 Date: 09-Jun-2021 13:35 Seq: 6129691 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.02	100	90-110	

CCV6 Date: 09-Jun-2021 14:15 Seq: 6129837 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.09	102	90-110	

CCV7 Date: 09-Jun-2021 14:36 Seq: 6129849 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.08	102	90-110	

CCV8 Date: 09-Jun-2021 15:08 Seq: 6129895 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	4.95	99	90-110	

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc. Run ID: ICPMS06_384999

Project: Groundwater Treatment Plant Quarterly Influent Samples Instrument: ICPMS06

WorkOrder: HS21051314 Method: SW6020A

ICV	Date: 04-Jun-2021 11:13		Seq: 6123434	ICV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Aluminum	100	94.242	94	90-110	
Antimony	100	100.225	100	90-110	
Arsenic	100	97.117	97	90-110	
Barium	100	99.073	99	90-110	
Beryllium	100	100.35	100	90-110	
Cadmium	100	99.553	100	90-110	
Calcium	10000	9648.242	97	90-110	
Chromium	100	99.072	99	90-110	
Cobalt	100	101.703	102	90-110	
Iron	10000	9946.558	100	90-110	
Lead	100	102.287	102	90-110	
Magnesium	10000	9898.879	99	90-110	
Manganese	100	94.914	95	90-110	
Nickel	100	99.576	100	90-110	
Potassium	10000	9800.68	98	90-110	
Selenium	100	97.127	97	90-110	
Silver	100	100.952	101	90-110	
Sodium	10000	9722.018	97	90-110	
Thallium	100	102.99	103	90-110	
Vanadium	100	96.132	96	90-110	
Zinc	100	99.788	100	90-110	

CCV1	Date: 04-Jun-2021 14:47		Seq: 6123445	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Aluminum	100	97.208	97	90-110	
Antimony	100	101.603	102	90-110	
Arsenic	100	98.524	99	90-110	
Barium	100	100.396	100	90-110	
Beryllium	100	97.923	98	90-110	
Cadmium	100	101.861	102	90-110	
Calcium	10000	9056.659	91	90-110	
Chromium	100	98.527	99	90-110	
Cobalt	100	102.26	102	90-110	
Iron	10000	9639.831	96	90-110	
Lead	100	103.067	103	90-110	
Magnesium	10000	9398.499	94	90-110	
Manganese	100	100.142	100	90-110	
Nickel	100	99.641	100	90-110	
Potassium	10000	9357.578	94	90-110	
Selenium	100	97.456	98	90-110	
Silver	100	102.629	103	90-110	
Sodium	10000	9476.727	95	90-110	
Thallium	100	103.439	103	90-110	
Vanadium	100	96.16	96	90-110	
Zinc	100	100.336	100	90-110	

CCV2	Date: 04-Jun-2021 15:15		Seq: 6123457	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Aluminum	100	92.676	93	90-110	
Antimony	100	106.204	106	90-110	
Arsenic	100	99.611	100	90-110	
Barium	100	99.719	100	90-110	
Beryllium	100	96.507	97	90-110	
Cadmium	100	100.297	100	90-110	
Calcium	10000	9312.494	93	90-110	

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc. Run ID: ICPMS06_384999

Project: Groundwater Treatment Plant Quarterly Influent Samples Instrument: ICPMS06

WorkOrder: HS21051314 Method: SW6020A

CCV2	Date: 04-Jun-2021 15:15		Seq: 6123457	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Chromium	100	99.837	100	90-110	
Cobalt	100	105.024	105	90-110	
Iron	10000	9942.036	99	90-110	
Lead	100	103.623	104	90-110	
Magnesium	10000	9733.272	97	90-110	
Manganese	100	99.522	100	90-110	
Nickel	100	103.198	103	90-110	
Potassium	10000	9548.507	96	90-110	
Selenium	100	96.932	97	90-110	
Silver	100	100.303	100	90-110	
Sodium	10000	9636.785	96	90-110	
Thallium	100	103.424	103	90-110	
Vanadium	100	97.378	97	90-110	
Zinc	100	103.243	103	90-110	

CCV3	Date: 04-Jun-2021 15:43		Seq: 6123469	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Aluminum	100	91.033	91	90-110	
Antimony	100	103.927	104	90-110	
Arsenic	100	98.057	98	90-110	
Barium	100	99.994	100	90-110	
Beryllium	100	99.524	100	90-110	
Cadmium	100	100.915	101	90-110	
Calcium	10000	8993.639	90	90-110	S
Chromium	100	97.232	97	90-110	
Cobalt	100	102.13	102	90-110	
Iron	10000	9686.715	97	90-110	
Lead	100	102.192	102	90-110	
Magnesium	10000	9401.241	94	90-110	
Manganese	100	96.948	97	90-110	
Nickel	100	99.622	100	90-110	
Potassium	10000	9176.402	92	90-110	
Selenium	100	96.698	97	90-110	
Silver	100	99.935	100	90-110	
Sodium	10000	9320.091	93	90-110	
Thallium	100	102.268	102	90-110	
Vanadium	100	94.89	95	90-110	
Zinc	100	99.604	100	90-110	

CCV4	Date: 04-Jun-2021 15:49		Seq: 6123472	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Aluminum	100	92.261	92	90-110	
Antimony	100	105.385	105	90-110	
Arsenic	100	99.277	99	90-110	
Barium	100	99.317	99	90-110	
Beryllium	100	99.126	99	90-110	
Cadmium	100	100.99	101	90-110	
Calcium	10000	9122.097	91	90-110	
Chromium	100	98.634	99	90-110	
Cobalt	100	102.463	102	90-110	
Iron	10000	9701.853	97	90-110	
Lead	100	104.36	104	90-110	
Magnesium	10000	9288.71	93	90-110	
Manganese	100	98.103	98	90-110	
Nickel	100	100.38	100	90-110	

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

Run ID: ICPMS06_384999
Instrument: ICPMS06
Method: SW6020A

CCV4 Date: 04-Jun-2021 15:49 Seq: 6123472 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Potassium	10000	9221.503	92	90-110	
Selenium	100	97.811	98	90-110	
Silver	100	101.255	101	90-110	
Sodium	10000	9381.723	94	90-110	
Thallium	100	104.394	104	90-110	
Vanadium	100	95.664	96	90-110	
Zinc	100	101.721	102	90-110	

CCV5 Date: 04-Jun-2021 16:25 Seq: 6123587 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	93.635	94	90-110	
Antimony	100	105.854	106	90-110	
Arsenic	100	99.401	99	90-110	
Barium	100	98.032	98	90-110	
Beryllium	100	97.524	98	90-110	
Cadmium	100	99.18	99	90-110	
Calcium	10000	9181.177	92	90-110	
Chromium	100	98.95	99	90-110	
Cobalt	100	105.551	106	90-110	
Iron	10000	9834.676	98	90-110	
Lead	100	102.014	102	90-110	
Magnesium	10000	9559.113	96	90-110	
Manganese	100	98.881	99	90-110	
Nickel	100	101.312	101	90-110	
Potassium	10000	9344.765	93	90-110	
Selenium	100	98.267	98	90-110	
Silver	100	99.513	100	90-110	
Sodium	10000	9418.966	94	90-110	
Thallium	100	102.052	102	90-110	
Vanadium	100	96.87	97	90-110	
Zinc	100	102.69	103	90-110	

CCV6 Date: 05-Jun-2021 00:06 Seq: 6124198 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	100.591	101	90-110	
Antimony	100	98.924	99	90-110	
Arsenic	100	100.738	101	90-110	
Barium	100	103.776	104	90-110	
Beryllium	100	101.846	102	90-110	
Cadmium	100	102.347	102	90-110	
Calcium	10000	9660.301	97	90-110	
Chromium	100	99.544	100	90-110	
Cobalt	100	102.825	103	90-110	
Iron	10000	9904.165	99	90-110	
Lead	100	101.132	101	90-110	
Magnesium	10000	9468.889	95	90-110	
Manganese	100	100.757	101	90-110	
Nickel	100	104.046	104	90-110	
Potassium	10000	9740.564	97	90-110	
Selenium	100	102.505	103	90-110	
Silver	100	105.877	106	90-110	
Sodium	10000	9393.511	94	90-110	
Thallium	100	104.319	104	90-110	
Vanadium	100	99.445	99	90-110	
Zinc	100	101.75	102	90-110	

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

Run ID: ICPMS06_385065
Instrument: ICPMS06
Method: SW6020A

ICV	Date: 07-Jun-2021 10:52		Seq: 6124908	ICV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Manganese	100	96.038	96	90-110	

CCV1	Date: 07-Jun-2021 11:16		Seq: 6124953	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Manganese	100	95.018	95	90-110	

CCV2	Date: 07-Jun-2021 11:42		Seq: 6124957	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Manganese	100	97.201	97	90-110	

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

Run ID: HG03_385226
Instrument: HG03
Method: SW7470A

ICB	Date: 09-Jun-2021 11:18		Seq: 6129180	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

MBLK-166687	Date: 09-Jun-2021 11:49		Seq: 6129298	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

CCB1	Date: 09-Jun-2021 12:15		Seq: 6129582	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

CCB2	Date: 09-Jun-2021 12:41		Seq: 6129594	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

CCB3	Date: 09-Jun-2021 13:11		Seq: 6129576	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

CCB4	Date: 09-Jun-2021 13:37		Seq: 6129692	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

CCB5	Date: 09-Jun-2021 14:16		Seq: 6129838	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

CCB6	Date: 09-Jun-2021 14:37		Seq: 6129850	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

CCB7	Date: 09-Jun-2021 15:10		Seq: 6129896	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

Run ID: ICPMS06_384999
Instrument: ICPMS06
Method: SW6020A

ICB	Date: 04-Jun-2021 11:31		Seq: 6123439	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	2.49	1.8	10	J	
Antimony	5	0.4	5	U	
Arsenic	5	0.4	5	U	
Barium	5	1.9	5	U	
Beryllium	2	0.2	2	U	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	
Chromium	5	0.4	5	U	
Cobalt	5	0.1	5	U	
Iron	200	12	200	U	
Lead	5	0.6	5	U	
Magnesium	200	10	200	U	
Manganese	5	0.7	5	U	
Nickel	5	0.6	5	U	
Potassium	200	18	200	U	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	
Sodium	200	14	200	U	
Thallium	2	0.2	2	U	
Vanadium	5	0.6	5	U	
Zinc	5	2	5	U	

CCB1	Date: 04-Jun-2021 14:49		Seq: 6123446	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	10	1.8	10	U	
Antimony	2	0.4	2	U	
Arsenic	2	0.4	2	U	
Barium	4	1.9	4	U	
Beryllium	2	0.2	2	U	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	
Chromium	4	0.4	4	U	
Cobalt	5	0.2	5	U	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	0.703	0.7	5	J	
Nickel	2	0.6	2	U	
Potassium	200	18	200	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
Sodium	23.6	14	200	J	
Thallium	0.872	0.2	2	J	
Vanadium	5	0.6	5	U	
Zinc	4	2	4	U	

MBLK-166391	Date: 04-Jun-2021 14:52		Seq: 6123447	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	10	1.8	10	U	
Antimony	5	0.4	5	U	
Arsenic	5	0.4	5	U	
Barium	5	1.9	5	U	
Beryllium	2	0.2	2	U	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

Run ID: ICPMS06_384999
Instrument: ICPMS06
Method: SW6020A

MBLK-166391 Date: 04-Jun-2021 14:52 Seq: 6123447 MBLK Units: ug/L

Analyte	Result	MDL	Report Limit	Qual
Chromium	5	0.4	5	U
Cobalt	5	0.1	5	U
Iron	200	12	200	U
Lead	5	0.6	5	U
Magnesium	200	10	200	U
Manganese	5	0.7	5	U
Nickel	5	0.6	5	U
Potassium	200	18	200	U
Selenium	5	1.1	5	U
Silver	5	0.2	5	U
Sodium	200	14	200	U
Thallium	2	0.2	2	U
Vanadium	5	0.6	5	U
Zinc	5	2	5	U

CCB2 Date: 04-Jun-2021 15:17 Seq: 6123458 CCB Units: ug/L

Analyte	Result	MDL	Report Limit	Qual
Aluminum	-1.893	1.8	10	J
Antimony	2	0.4	2	U
Arsenic	2	0.4	2	U
Barium	4	1.9	4	U
Beryllium	2	0.2	2	U
Cadmium	2	0.2	2	U
Calcium	500	34	500	U
Chromium	4	0.4	4	U
Cobalt	5	0.2	5	U
Iron	200	12	200	U
Lead	2	0.6	2	U
Magnesium	200	10	200	U
Manganese	0.801	0.7	5	J
Nickel	2	0.6	2	U
Potassium	200	18	200	U
Selenium	2	1.1	2	U
Silver	2	0.2	2	U
Sodium	31.68	14	200	J
Thallium	0.905	0.2	2	J
Vanadium	5	0.6	5	U
Zinc	4	2	4	U

CCB3 Date: 04-Jun-2021 15:45 Seq: 6123470 CCB Units: ug/L

Analyte	Result	MDL	Report Limit	Qual
Aluminum	-1.82	1.8	10	J
Antimony	2	0.4	2	U
Arsenic	2	0.4	2	U
Barium	4	1.9	4	U
Beryllium	2	0.2	2	U
Cadmium	2	0.2	2	U
Calcium	500	34	500	U
Chromium	4	0.4	4	U
Cobalt	5	0.2	5	U
Iron	200	12	200	U
Lead	2	0.6	2	U
Magnesium	200	10	200	U
Manganese	0.705	0.7	5	J
Nickel	2	0.6	2	U

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

Run ID: ICPMS06_384999
Instrument: ICPMS06
Method: SW6020A

CCB3	Date: 04-Jun-2021 15:45		Seq: 6123470	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Potassium	200	18	200	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
Sodium	200	14	200	U	
Thallium	0.859	0.2	2	J	
Vanadium	5	0.6	5	U	
Zinc	4	2	4	U	

CCB4	Date: 04-Jun-2021 15:51		Seq: 6123473	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	-1.848	1.8	10	J	
Antimony	2	0.4	2	U	
Arsenic	2	0.4	2	U	
Barium	4	1.9	4	U	
Beryllium	2	0.2	2	U	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	
Chromium	4	0.4	4	U	
Cobalt	5	0.2	5	U	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	0.7	0.7	5		
Nickel	2	0.6	2	U	
Potassium	200	18	200	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
Sodium	200	14	200	U	
Thallium	0.846	0.2	2	J	
Vanadium	5	0.6	5	U	
Zinc	4	2	4	U	

CCB5	Date: 04-Jun-2021 16:27		Seq: 6123588	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	10	1.8	10	U	
Antimony	2	0.4	2	U	
Arsenic	2	0.4	2	U	
Barium	4	1.9	4	U	
Beryllium	2	0.2	2	U	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	
Chromium	4	0.4	4	U	
Cobalt	5	0.2	5	U	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	0.765	0.7	5	J	
Nickel	2	0.6	2	U	
Potassium	200	18	200	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
Sodium	19.52	14	200	J	
Thallium	0.887	0.2	2	J	
Vanadium	5	0.6	5	U	
Zinc	4	2	4	U	

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

Run ID: ICPMS06_384999
Instrument: ICPMS06
Method: SW6020A

CCB6 Date: 05-Jun-2021 00:08 Seq: 6124199 CCB Units: ug/L

Analyte	Result	MDL	Report Limit	Qual
Aluminum	2.777	1.8	10	J
Antimony	2	0.4	2	U
Arsenic	2	0.4	2	U
Barium	4	1.9	4	U
Beryllium	2	0.2	2	U
Cadmium	2	0.2	2	U
Calcium	500	34	500	U
Chromium	4	0.4	4	U
Cobalt	5	0.2	5	U
Iron	200	12	200	U
Lead	2	0.6	2	U
Magnesium	200	10	200	U
Manganese	1.007	0.7	5	J
Nickel	2	0.6	2	U
Potassium	200	18	200	U
Selenium	2	1.1	2	U
Silver	2	0.2	2	U
Sodium	-29.71	14	200	J
Thallium	0.92	0.2	2	J
Vanadium	5	0.6	5	U
Zinc	4	2	4	U

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

Run ID: ICPMS06_385065
Instrument: ICPMS06
Method: SW6020A

ICB	Date: 07-Jun-2021 10:53		Seq: 6124909	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Manganese	5	0.7	5	U	

CCB1	Date: 07-Jun-2021 11:18		Seq: 6124954	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Manganese	5	0.7	5	U	

CCB2	Date: 07-Jun-2021 11:44		Seq: 6124958	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Manganese	5	0.7	5	U	

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc. Run ID:ICPMS06_384999

Project: Groundwater Treatment Plant Quarterly Influent Samples Instrument:ICPMS06

WorkOrder: HS21051314 Method:SW6020A

ICSA	Date: 04-Jun-2021 11:33	Seq: 6123440	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Aluminum	100000	94950	95.0	
Antimony		-0.004	0	
Arsenic		0.082	0	
Barium		0.459	0	
Beryllium		0.001	0	
Cadmium		1.237	0	
Calcium	100000	99210	99.2	
Chromium		2.041	0	
Cobalt		0.085	0	
Iron	100000	102000	102	
Lead		0.071	0	
Magnesium	100000	103600	104	
Manganese		12.45	0	
Nickel		0.074	0	
Potassium	100000	102700	103	
Selenium		0.728	0	
Silver		0.269	0	
Sodium	100000	103500	103	
Thallium		0.001	0	
Vanadium		0.077	0	
Zinc		0.912	0	

ICSAB	Date: 04-Jun-2021 11:35	Seq: 6123441	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Aluminum	100500	93630	93.2	
Antimony	100	103.4	103	
Arsenic	100	103.9	104	
Barium	100	100.3	100	
Beryllium	100	99.93	99.9	
Cadmium	100	100.2	100	
Calcium	110000	109500	99.5	
Chromium	100	100.9	101	
Cobalt	100	98.5	98.5	
Iron	110000	111500	101	
Lead	100	104.3	104	
Magnesium	110000	113600	103	
Manganese	100	104.5	105	
Nickel	100	98.7	98.7	
Potassium	110000	112500	102	
Selenium	100	103.9	104	
Silver	100	97.03	97.0	
Sodium	110000	112500	102	
Thallium	100	103.2	103	
Vanadium	100	99.01	99.0	
Zinc	100	100.7	101	

ICSA	Date: 05-Jun-2021 00:16	Seq: 6124203	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Aluminum	100000	91460	91.5	
Antimony		-0.038	0	
Arsenic		0.043	0	
Barium		0.493	0	
Beryllium		0.006	0	
Cadmium		0.883	0	

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc. Run ID:ICPMS06_384999

Project: Groundwater Treatment Plant Quarterly Influent Samples Instrument:ICPMS06

WorkOrder: HS21051314 Method:SW6020A

ICSA	Date: 05-Jun-2021 00:16	Seq: 6124203	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Calcium	100000	100700	101	
Chromium		1.93	0	
Cobalt		0.069	0	
Iron	100000	98560	98.6	
Lead		0.084	0	
Magnesium	100000	97550	97.5	
Manganese		12.08	0	
Nickel		0.044	0	
Potassium	100000	101600	102	
Selenium		0.695	0	
Silver		0.29	0	
Sodium	100000	97510	97.5	
Thallium		0.078	0	
Vanadium		-0.09	0	
Zinc		0.938	0	

ICSAB	Date: 05-Jun-2021 00:18	Seq: 6124204	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Aluminum	100500	89920	89.5	
Antimony	100	96.24	96.2	
Arsenic	100	98.56	98.6	
Barium	100	102.4	102	
Beryllium	100	99.93	99.9	
Cadmium	100	98.85	98.9	
Calcium	110000	110400	100	
Chromium	100	97.87	97.9	
Cobalt	100	96.06	96.1	
Iron	110000	107100	97.4	
Lead	100	100.7	101	
Magnesium	110000	106300	96.6	
Manganese	100	100.9	101	
Nickel	100	98.5	98.5	
Potassium	110000	109500	99.5	
Selenium	100	99.67	99.7	
Silver	100	99.29	99.3	
Sodium	110000	106900	97.2	
Thallium	100	102.5	103	
Vanadium	100	98.37	98.4	
Zinc	100	97.75	97.8	

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

Run ID: ICPMS06_385065
Instrument: ICPMS06
Method: SW6020A

ICSA	Date: 07-Jun-2021 10:59	Seq: 6124912	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Manganese		12.18	0	

ICSAB	Date: 07-Jun-2021 11:01	Seq: 6124913	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Manganese	100	106.8	107	

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

Date Analyzed: 09-Jun-2021 12:02
Date Extracted: 09-Jun-2021 11:30
Units: ug/L

Matrix Spike: HS21051312-01MS
Client Sample ID:

Analysis Method: SW7470A

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Mercury	0.04700	5.490	5.000	109	5.400	5.000	107	82-119	1.65	20

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.

Project: Groundwater Treatment Plant Quarterly Influent Samples

WorkOrder: HS21051314

Date Analyzed: 04-Jun-2021 15:06

Date Extracted: 01-Jun-2021 13:30

Units: ug/L

Matrix Spike: HS21051153-03MS

Analysis Method: SW6020A

Client Sample ID:

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aluminum	47.87	103.1	50.00	110	101.5	50.00	107	84-117	1.47	20
Antimony	5.000	54.84	50.00	110	55.38	50.00	111	85-117	0.976	20
Arsenic	17.18	68.29	50.00	102	67.83	50.00	101	84-116	0.667	20
Barium	46.88	101.9	50.00	110	103.2	50.00	113	86-114	1.30	20
Beryllium	2.000	49.69	50.00	99.4	49.60	50.00	99.2	83-121	0.183	20
Cadmium	2.000	52.24	50.00	104	52.90	50.00	106	87-115	1.26	20
Calcium	182400	189100	5000	134	191300	5000	178	87-118	1.15	20
Chromium	1.758	52.33	50.00	101	51.88	50.00	100	85-116	0.846	20
Cobalt	0.6810	51.35	50.00	101	51.37	50.00	101	86-115	0.0370	20
Iron	13330	18670	5000	107	18670	5000	107	87-118	0.000787	20
Lead	5.000	51.70	50.00	103	53.49	50.00	107	88-115	3.40	20
Magnesium	44600	50150	5000	111	51090	5000	130	83-118	1.85	20
Manganese	323.0	380.9	50.00	116	384.0	50.00	122	87-115	0.802	20
Nickel	3.662	54.65	50.00	102	55.26	50.00	103	85-117	1.12	20
Potassium	13500	18470	5000	99.5	18720	5000	104	87-115	1.34	20
Selenium	5.000	52.12	50.00	104	50.66	50.00	101	80-120	2.83	20
Silver	5.000	50.68	50.00	101	50.94	50.00	102	85-116	0.506	20
Sodium	59230	65330	5000	122	66370	5000	143	85-117	1.58	20
Thallium	2.000	51.56	50.00	103	54.90	50.00	110	82-116	6.29	20
Vanadium	1.058	51.99	50.00	102	51.77	50.00	101	86-115	0.424	20
Zinc	2.193	53.31	50.00	102	52.27	50.00	100	83-119	1.96	20

Form 5B - Post Digest Sample Recovery

Client: Bhate Environmental Associates, Inc.

Project: Groundwater Treatment Plant Quarterly Influent Samples

WorkOrder: HS21051314

Date Analyzed: 04-Jun-2021 15:08

Date Extracted: 01-Jun-2021 13:30

Units: ug/L

Lab Sample ID: HS21051153-03PDS

Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	PDS Result	Spike Amount	% Rec	% Rec Limits
Aluminum	47.87	160.4	100	113	80-120
Antimony	0	118.9	100	119	80-120
Arsenic	17.18	129.2	100	112	80-120
Barium	46.88	166.6	100	120	80-120
Beryllium	0	107	100	107	80-120
Cadmium	0	113.9	100	114	80-120
Chromium	1.758	113.7	100	112	80-120
Cobalt	0.681	112.2	100	112	80-120
Iron	13330	24910	10000	116	80-120
Lead	0	118.9	100	119	80-120
Magnesium	44600	56640	10000	120	80-120
Nickel	3.662	116.2	100	113	80-120
Potassium	13500	24630	10000	111	80-120
Selenium	0	113.9	100	114	80-120
Silver	0	106.6	100	107	80-120
Sodium	59230	72280	10000	130	80-120
Vanadium	1.058	114.2	100	113	80-120
Zinc	2.193	115	100	113	80-120
Calcium	182500	276700	100000	94	80-120
Manganese	324.4	1273	1000	95	80-120

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.

Project: Groundwater Treatment Plant Quarterly Influent Samples

WorkOrder: HS21051314

Date Analyzed: 09-Jun-2021 11:54

Date Extracted: 09-Jun-2021 11:30

Units: ug/L

Lab Sample ID: LCS-166687

Analysis Method: SW7470A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Mercury	5	4.9	98	82-119

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

Date Analyzed: 04-Jun-2021 14:54
Date Extracted: 01-Jun-2021 13:30
Units: ug/L

Lab Sample ID: LCS-166391 Analysis Method: SW6020A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Aluminum	50	49.51	99	84-117
Antimony	50	50.78	102	85-117
Arsenic	50	47.15	94	84-116
Barium	50	50.22	100	86-114
Beryllium	50	48.21	96	83-121
Cadmium	50	51.71	103	87-115
Calcium	5000	4579	92	87-118
Chromium	50	48.41	97	85-116
Cobalt	50	49.24	99	86-115
Iron	5000	4883	98	87-118
Lead	50	49.69	99	88-115
Magnesium	5000	4892	98	83-118
Manganese	50	45.63	91	87-115
Nickel	50	51.02	102	85-117
Potassium	5000	4802	96	87-115
Selenium	50	48.7	97	80-120
Silver	50	52.23	104	85-116
Sodium	5000	4823	97	85-117
Thallium	50	51.09	102	82-116
Vanadium	50	47.76	96	86-115
Zinc	50	51.15	102	83-119

Form 8 - ICP Serial Dilutions

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

Date Analyzed: 04-Jun-2021 15:02
Date Extracted: 01-Jun-2021 13:30
Units: ug/L

Lab Sample ID: HS21051153-03SD
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	C	SD Result	C	RPD	Q
Aluminum	47.87		56.7		18	
Antimony	0	U	0	U	0	
Arsenic	17.18		18.53	J	8	
Barium	46.88		49.54		6	
Beryllium	0	U	0	U	0	
Cadmium	0	U	0	U	0	
Chromium	1.758	J	0	U	0	
Cobalt	0.681	J	0.721	J	6	
Lead	0	U	0	U	0	
Magnesium	44600		48880		10	
Nickel	3.662	J	4.353	J	19	
Potassium	13500		14540		8	
Selenium	0	U	0	U	0	
Silver	0	U	0	U	0	
Sodium	59230		64500		9	
Thallium	0	U	0	U	0	
Vanadium	1.058	J	0	U	0	
Zinc	2.193	J	0	U	0	
Calcium	182500		183300		0	

Form 8 - ICP Serial Dilutions

Client: Bhate Environmental Associates, Inc.
Project: Groundwater Treatment Plant Quarterly Influent Samples
WorkOrder: HS21051314

Date Analyzed: 07-Jun-2021 11:23
Date Extracted: 01-Jun-2021 13:30
Units: ug/L

Lab Sample ID: HS21051153-03SD
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	C	SD Result	C	RPD	Q
Manganese	324.4		316		3	

Report Generated By Teledyne Leeman QuickTrace

Analyst: ALSHS.NoUser

Worksheet file: C:\Users\Public\Documents\Teledyne CETAC\QuickTrace\Worksheets\06092021AW.wszf

Creation Date: 6/9/2021 10:09:28 AM

Comment:

Results

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
Calibration Blank					STD	06/09/21 10:48:28 am	0.000	7	182.78	0.00	
Replicates	12.2	-12.1	16.2	11.9							
Standard #1 (0.2 ppb)					STD	06/09/21 10:53:49 am	0.200	923	3.71	12.46	
Replicates	876.8	917.4	952.0	945.5							
Standard #2 (0.5 ppb)					STD	06/09/21 10:59:47 am	0.500	2339	0.77	40.86	
Replicates	2315.3	2346.5	2335.0	2357.5							
Standard #3 (2.0 ppb)					STD	06/09/21 11:01:30 am	2.000	8963	1.54	77.68	
Replicates	8786.6	8924.2	9047.2	9095.8							
Standard #4 (5.0 ppb)					STD	06/09/21 11:03:12 am	5.000	22208	0.84	150.11	
Replicates	21942.7	22215.5	22317.0	22356.5							
Standard #5 (10.0 ppb)					STD	06/09/21 11:08:48 am	10.000	42714	1.08	-92.88	
Replicates	42085.6	42674.2	42950.4	43146.6							

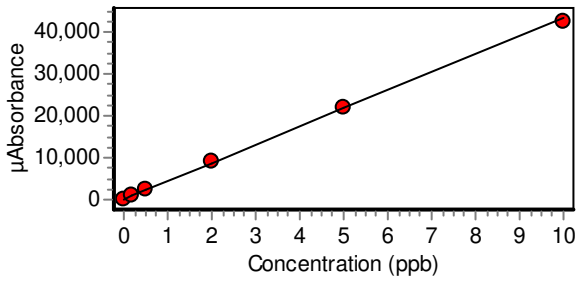
Calibration

Equation: Abs = 4310.751x + 7.073

R2: 0.99940

SEE: 491.6282

Flags:



ICCV					UNK	06/09/21 11:11:58 am	5.140	22393	0.77		
Replicates	22147.6	22413.9	22476.4	22536.1							
ICV					UNK	06/09/21 11:16:59 am	5.000	21816	1.94		
Replicates	21264.6	21726.9	22036.5	22235.7							
ICB					UNK	06/09/21 11:18:41 am	-0.007	-23	45.90		
Replicates	-23.5	-41.1	-18.8	-8.1							
CRA					UNK	06/09/21 11:20:22 am	0.203	891	5.00		
Replicates	853.4	869.1	888.8	953.9							
MBLK-166687					UNK	06/09/21 11:49:11 am	0.010	50	28.81		s
Replicates	67.7	38.8	50.0	44.8							
LCS-16687					UNK	06/09/21 11:54:14 am	4.900	21380	1.03		
Replicates	21073.9	21373.3	21508.6	21564.6							
HS21051312-01					UNK	06/09/21 11:55:56 am	0.047	212	9.95		s
Replicates	181.7	224.8	218.2	223.2							

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
HS21051312-01MS				UNK	06/09/21 12:00:45 pm	5.490	23936	2.09		
Replicates	23332.8	23802.4	24082.2	24525.9						
HS21051312-01MSD				UNK	06/09/21 12:02:27 pm	5.400	23539	0.86		
Replicates	23262.2	23521.0	23651.8	23721.3						
HS21051314-01				UNK	06/09/21 12:04:09 pm	0.044	201	6.82		s
Replicates	187.0	212.4	192.1	211.9						
MBLK-166688				UNK	06/09/21 12:05:51 pm	0.031	143	6.63		s
Replicates	154.4	133.4	144.2	138.7						
LCS-16688				UNK	06/09/21 12:09:10 pm	5.190	22630	1.59		
Replicates	22154.2	22571.0	22814.0	22979.5						
HS21060247-01				UNK	06/09/21 12:10:51 pm	0.063	280	8.45		s
Replicates	270.4	266.0	267.9	314.0						
HS21060247-01MS				UNK	06/09/21 12:12:32 pm	6.590	28724	2.40		
Replicates	27874.6	28539.6	28978.5	29504.5						
CCV				UNK	06/09/21 12:14:15 pm	5.080	22154	1.06		
Replicates	21818.2	22164.4	22314.0	22319.9						
CCB				UNK	06/09/21 12:15:58 pm	-0.009	-30	58.72		
Replicates	-16.1	-10.6	-59.3	-35.9						
HS21060247-01MSD				UNK	06/09/21 12:18:10 pm	6.550	28571	2.47		
Replicates	27692.1	28381.1	28867.2	29343.7						
HS21060290-01				UNK	06/09/21 12:21:37 pm	0.069	310	5.63		s
Replicates	317.3	327.3	287.7	305.8						
HS21060290-02				UNK	06/09/21 12:23:19 pm	0.078	346	6.79		s
Replicates	321.7	346.6	377.1	339.9						
HS21060290-03				UNK	06/09/21 12:25:01 pm	0.066	296	3.04		
Replicates	303.0	295.4	301.9	283.9						
HS21060290-04				UNK	06/09/21 12:26:42 pm	0.044	198	14.73		s
Replicates	200.1	213.5	158.3	221.8						
HS21060315-01				UNK	06/09/21 12:29:37 pm	0.074	331	4.56		
Replicates	322.6	316.8	350.3	333.9						
HS21060413-01				UNK	06/09/21 12:31:20 pm	0.048	217	14.78		s
Replicates	251.7	219.0	219.2	176.2						
MBLK-166364				UNK	06/09/21 12:33:02 pm	0.024	113	15.58		s
Replicates	118.8	123.8	88.3	120.5						
LCS-166364				UNK	06/09/21 12:36:11 pm	5.330	23256	1.29		
Replicates	22871.5	23212.5	23350.9	23589.0						
HS21060238-01				UNK	06/09/21 12:37:54 pm	0.970	4235	0.51		
Replicates	4206.1	4232.0	4253.5	4250.0						

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
CCV					UNK	06/09/21 12:39:37 pm	4.960	21637	1.74		
	Replicates	21148.3	21549.2	21850.8	22000.2						
CCB					UNK	06/09/21 12:41:20 pm	-0.001	1	316.99		
	Replicates	9.8	21.7	-20.1	-6.3						
HS21060238-01MS					UNK	06/09/21 12:49:46 pm	5.120	22302	2.09		
	Replicates	21734.2	22155.3	22491.3	22825.8						
HS21060238-01MSD					UNK	06/09/21 12:51:27 pm	5.270	22992	1.71		
	Replicates	22517.5	22883.2	23121.2	23447.4						
HS21060239-01					UNK	06/09/21 12:53:08 pm	0.151	666	4.71		
	Replicates	634.6	656.7	663.7	708.5						
HS21060275-01					UNK	06/09/21 12:54:49 pm	0.048	215	10.17		s
	Replicates	206.4	235.1	230.3	189.8						
HS21060305-01					UNK	06/09/21 12:56:31 pm	0.060	268	9.19		s
	Replicates	261.8	303.1	249.9	256.7						
HS21060335-01					UNK	06/09/21 12:58:13 pm	0.036	165	13.81		s
	Replicates	156.3	142.3	166.3	193.8						
HS21060433-01					UNK	06/09/21 12:59:55 pm	0.035	160	6.65		s
	Replicates	154.0	151.6	174.3	159.3						
HS21060434-01					UNK	06/09/21 01:01:37 pm	0.054	242	9.36		s
	Replicates	233.7	215.3	260.3	260.4						
MBLK-166691					UNK	06/09/21 01:06:13 pm	0.033	151	14.50		s
	Replicates	157.6	157.4	169.5	121.2						
MBLKF1-166691					UNK	06/09/21 01:07:56 pm	0.031	141	5.57		s
	Replicates	139.0	146.9	130.9	146.1						
CCV					UNK	06/09/21 01:09:39 pm	5.030	21937	1.47		
	Replicates	21504.9	21892.4	22111.1	22240.9						
CCB					UNK	06/09/21 01:11:22 pm	-0.009	-32	18.37		
	Replicates	-24.3	-27.8	-34.3	-40.3						
LCS-166691					UNK	06/09/21 01:16:15 pm	6.210	27066	0.85		
	Replicates	26787.5	27010.2	27128.4	27339.7						
LCS-166691					UNK	06/09/21 01:20:26 pm	4.960	21636	0.99		
	Replicates	21361.2	21583.1	21750.0	21851.5						
HS21060324-07					UNK	06/09/21 01:22:09 pm	0.029	134	10.37		s
	Replicates	125.3	146.9	143.9	120.6						
HS21060324-07MS					UNK	06/09/21 01:23:50 pm	5.570	24303	2.27		
	Replicates	23662.9	24092.8	24508.7	24947.2						
HS21060324-07MSD					UNK	06/09/21 01:25:32 pm	5.670	24730	2.12		
	Replicates	24125.8	24547.4	24881.4	25364.8						

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
HS21060228-01					UNK	06/09/21 01:27:13 pm	0.033	149	16.22		s
	Replicates	146.3	179.4	123.6	146.2						
HS21060324-09					UNK	06/09/21 01:28:54 pm	0.025	117	35.87		s
	Replicates	88.2	141.4	78.6	158.7						
HS21060324-17					UNK	06/09/21 01:30:36 pm	0.035	160	10.09		s
	Replicates	142.1	153.2	176.4	169.0						
HS21060324-18					UNK	06/09/21 01:32:17 pm	0.606	2647	1.32		
	Replicates	2688.3	2652.1	2645.4	2603.4						
HS21060324-19					UNK	06/09/21 01:33:59 pm	0.130	573	2.05		
	Replicates	583.0	582.7	566.9	559.9						
CCV					UNK	06/09/21 01:35:42 pm	5.020	21906	1.09		
	Replicates	21575.3	21894.1	22037.9	22117.6						
CCB					UNK	06/09/21 01:37:25 pm	-0.006	-17	88.22		
	Replicates	-27.2	-31.2	14.8	-26.3						
HS21060369-01					UNK	06/09/21 01:53:24 pm	0.017	80	17.94		s
	Replicates	75.7	78.9	97.7	66.7						
MBLK-166689					UNK	06/09/21 01:55:06 pm	0.029	135	12.01		s
	Replicates	157.5	132.2	123.7	126.8						
LCS-166689					UNK	06/09/21 02:01:26 pm	4.690	20459	2.01		
	Replicates	19967.0	20310.9	20637.0	20919.2						
HS21051446-01					UNK	06/09/21 02:03:09 pm	0.052	235	8.20		s
	Replicates	242.4	238.1	207.9	250.7						
HS21051446-01MS					UNK	06/09/21 02:04:51 pm	5.220	22744	1.99		
	Replicates	22170.1	22622.0	22972.5	23209.6						
HS21051446-01MSD					UNK	06/09/21 02:06:32 pm	5.250	22873	0.73		
	Replicates	22648.5	22847.4	22985.9	23009.5						
HS21051446-02					UNK	06/09/21 02:08:14 pm	-0.007	-26	30.57		
	Replicates	-38.0	-25.8	-13.7	-24.7						
HS21051446-03					UNK	06/09/21 02:09:55 pm	0.046	207	19.05		s
	Replicates	169.2	190.7	210.7	258.5						
HS21051446-04					UNK	06/09/21 02:11:37 pm	0.026	121	11.94		s
	Replicates	120.6	139.8	110.8	111.3						
HS21051446-05					UNK	06/09/21 02:13:19 pm	0.015	72	15.31		s
	Replicates	68.2	62.2	71.1	85.6						
CCV					UNK	06/09/21 02:15:01 pm	5.090	22173	1.08		
	Replicates	21826.8	22210.2	22367.4	22286.7						
CCB					UNK	06/09/21 02:16:45 pm	-0.009	-33	19.14		
	Replicates	-41.8	-29.9	-24.1	-36.3						

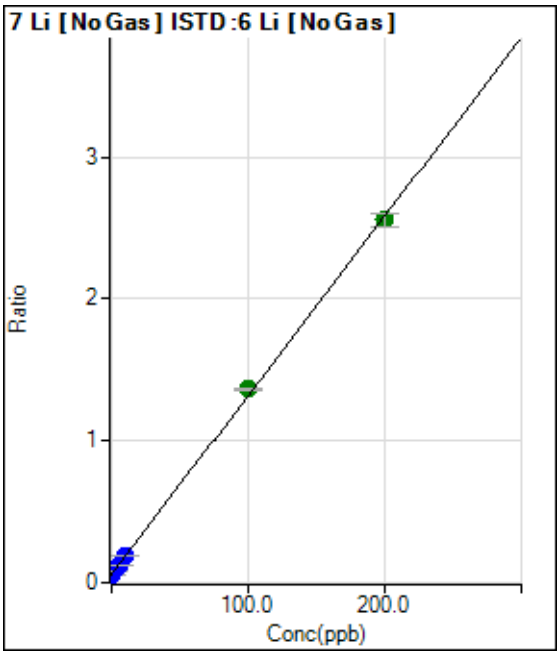
Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
HS21051446-06				UNK	06/09/21 02:19:10 pm	0.021	98	22.39		s
Replicates	73.7	109.5	89.0	118.8						
HS21051446-07				UNK	06/09/21 02:20:52 pm	0.020	93	28.74		s
Replicates	81.0	83.4	77.3	129.6						
HS21051446-08				UNK	06/09/21 02:22:34 pm	0.030	139	14.58		s
Replicates	119.7	165.0	140.7	131.2						
HS21051446-09				UNK	06/09/21 02:24:16 pm	0.020	96	19.59		s
Replicates	71.0	96.4	108.9	106.6						
HS21051446-10				UNK	06/09/21 02:25:58 pm	0.014	68	22.87		s
Replicates	57.5	88.5	60.6	66.1						
HS21051446-11				UNK	06/09/21 02:27:41 pm	0.033	150	17.31		s
Replicates	126.3	134.8	156.0	181.6						
HS21051446-12				UNK	06/09/21 02:29:23 pm	0.022	101	18.65		s
Replicates	84.7	109.2	88.9	122.1						
HS21051446-13				UNK	06/09/21 02:31:05 pm	0.017	80	47.32		s
Replicates	42.3	60.7	117.3	99.2						
HS21051446-14				UNK	06/09/21 02:32:47 pm	0.013	63	28.14		s
Replicates	48.6	73.3	51.1	80.3						
HS21051446-15				UNK	06/09/21 02:34:29 pm	0.014	67	9.14		s
Replicates	74.9	62.9	63.7	68.2						
CCV				UNK	06/09/21 02:36:11 pm	5.080	22156	0.63		
Replicates	21947.5	22245.4	22229.1	22202.4						
CCB				UNK	06/09/21 02:37:55 pm	0.018	84	63.02		s
Replicates	96.9	146.3	54.1	38.3						
HS21051512-01				UNK	06/09/21 02:43:55 pm	0.043	194	6.63		s
Replicates	175.6	198.3	202.8	199.1						
HS21051512-02				UNK	06/09/21 02:45:37 pm	0.038	171	11.79		s
Replicates	150.5	191.9	182.4	159.4						
HS21051512-04				UNK	06/09/21 02:47:19 pm	0.025	116	22.15		s
Replicates	95.6	142.0	95.4	131.2						
HS21051512-05				UNK	06/09/21 02:49:01 pm	0.057	254	3.63		
Replicates	245.5	247.5	257.1	264.8						
HS21051512-06				UNK	06/09/21 02:50:43 pm	0.043	196	16.46		s
Replicates	193.8	153.5	209.9	225.9						
CCV				UNK	06/09/21 03:08:40 pm	4.950	21572	1.68		
Replicates	21108.2	21480.5	21765.0	21933.7						
CCB				UNK	06/09/21 03:10:23 pm	-0.009	-34	58.60		
Replicates	-49.0	-59.2	-14.5	-12.2						

Calibration for 203_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\060421A.b\
Analysis File: 060421A.batch.bin
DA Date-Time: 6/4/2021 8:38:03 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	196CALB.d	CAL BLK	6/4/2021 8:23:44 PM
2	197CALS.d	2/10/200	6/4/2021 8:25:43 PM
3	198CALS.d	5/25/500	6/4/2021 8:27:41 PM
4	199CALS.d	10/50/100	6/4/2021 8:29:40 PM
5	200CALS.d	100/500/10K	6/4/2021 8:31:39 PM
6	201CALS.d	200/1000/20K	6/4/2021 8:33:32 PM

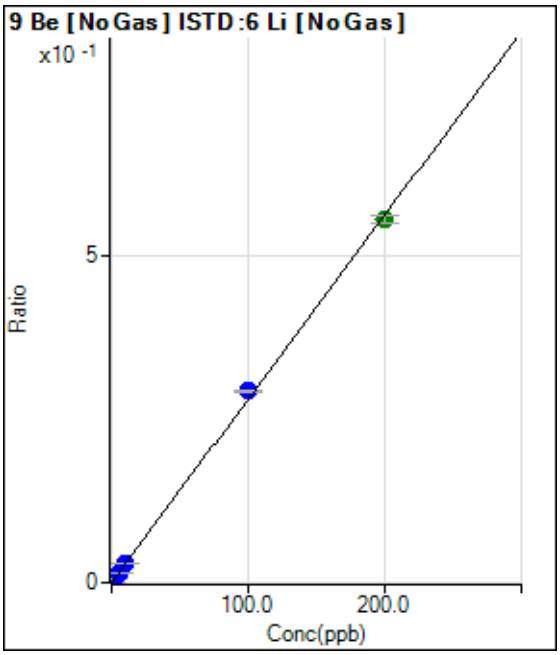
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	84375.70	0.0579	P	2.5
2	☐	2.000	2.139	121473.56	0.0849	P	1.2
3	☐	5.000	5.243	174916.12	0.1240	P	2.4
4	☐	10.000	10.365	266250.98	0.1886	P	2.9
5	☐	100.000	103.703	1875962.99	1.3653	A	1.1
6	☐	200.000	198.123	3374239.12	2.5556	A	3.4

y = 0.0126 * x + 0.0579
R = 0.9998
DL = 0.3377
BEC = 4.593

Weight: <None>
Min Conc: <None>

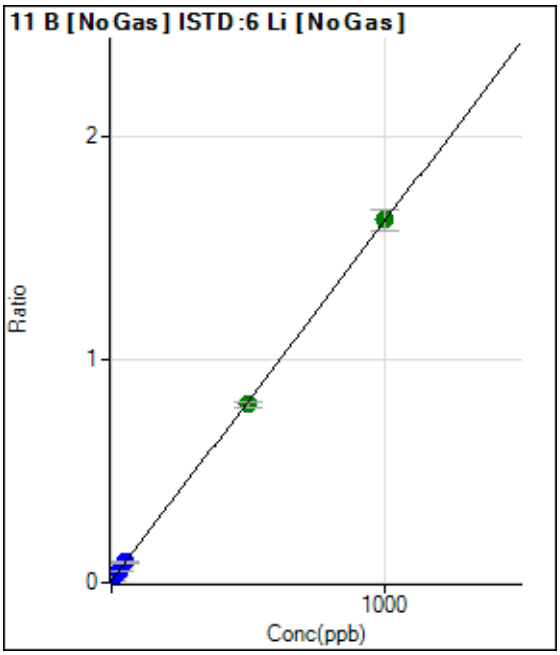


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.67	0.0000	P	63.9
2	☐	2.000	2.018	8134.08	0.0057	P	1.2
3	☐	5.000	5.199	20636.90	0.0146	P	4.1
4	☐	10.000	10.308	40947.76	0.0290	P	3.2
5	☐	100.000	104.662	404478.97	0.2944	P	1.1
6	☐	200.000	197.648	734148.01	0.5559	A	2.3

y = 0.0028 * x + 7.9379E-006
R = 0.9996
DL = 0.00541
BEC = 0.002822

Weight: <None>
Min Conc: <None>

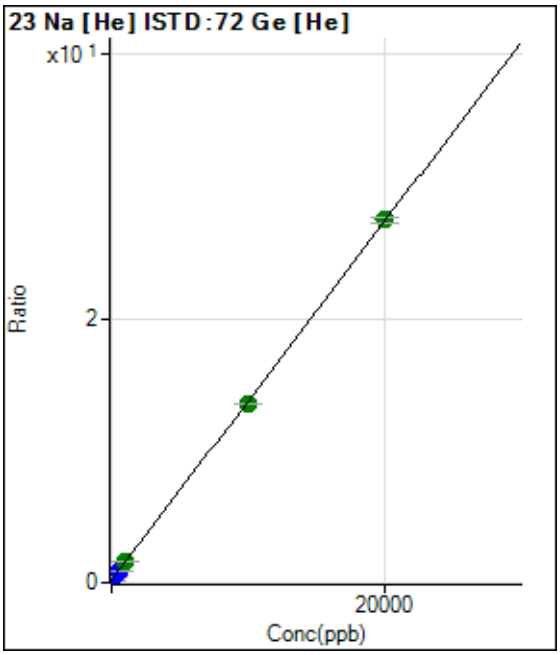
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12490.63	0.0086	P	6.3
2	☐	10.000	10.311	36069.70	0.0252	P	2.6
3	☐	25.000	25.225	69475.72	0.0492	P	2.7
4	☐	50.000	51.676	129723.77	0.0919	P	4.4
5	☐	500.000	490.778	1098981.52	0.7999	A	3.2
6	☐	1000.000	1004.518	2148977.00	1.6283	A	5.6

y = 0.0016 * x + 0.0086
R = 0.9999
DL = 1.012
BEC = 5.318

Weight: <None>
Min Conc: <None>

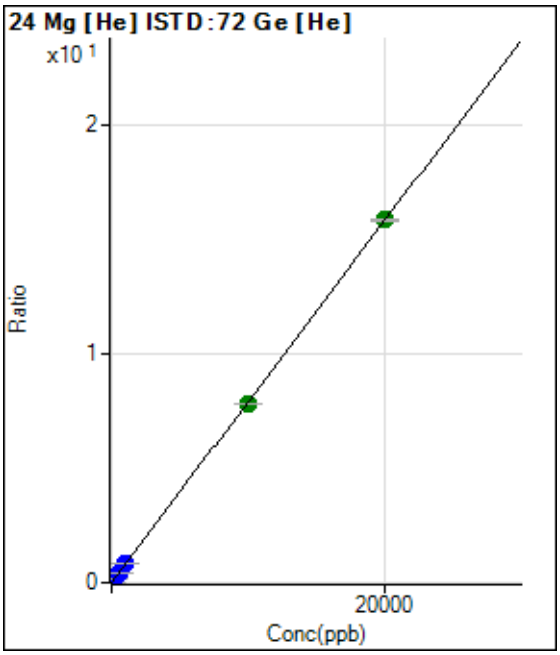


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	151525.38	0.1846	P	1.3
2	☐	200.000	202.870	377950.72	0.4600	P	0.3
3	☐	500.000	507.277	718648.19	0.8733	P	2.3
4	☐	1000.000	1007.604	1259896.78	1.5526	A	1.1
5	☐	10000.000	9816.949	10833043.59	13.5128	A	0.3
6	☐	20000.000	20090.935	21274444.27	27.4616	A	1.7

y = 0.0014 * x + 0.1846
R = 0.9999
DL = 5.461
BEC = 135.9

Weight: <None>
Min Conc: <None>

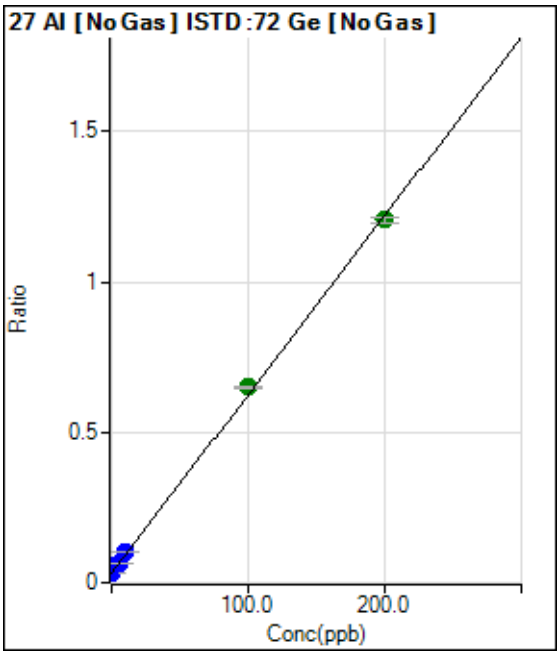
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1610.12	0.0020	P	2.0
2	☐	200.000	213.330	139923.21	0.1703	P	1.0
3	☐	500.000	528.951	345095.76	0.4194	P	2.1
4	☐	1000.000	1057.029	678446.26	0.8361	P	1.0
5	☐	10000.000	9876.372	6249325.74	7.7953	A	0.9
6	☐	20000.000	20058.106	12262893.99	15.8296	A	0.7

y = 7.8909E-004 * x + 0.0020
R = 1.0000
DL = 0.1502
BEC = 2.485

Weight: <None>
Min Conc: <None>

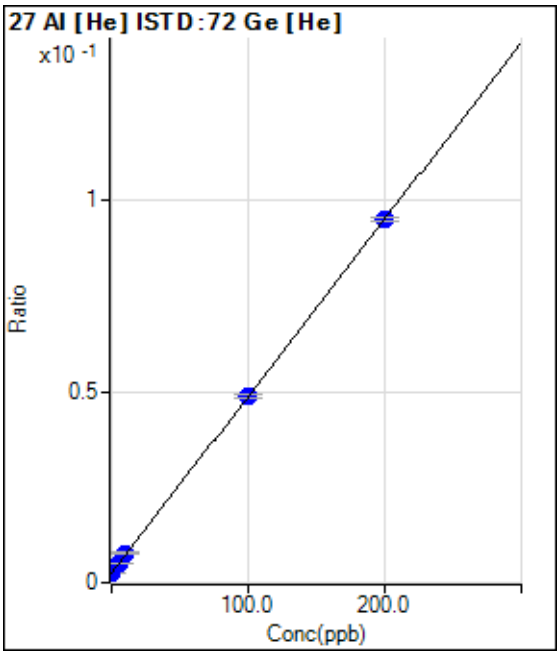


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	91771.54	0.0314	P	0.8
2	☐	2.000	4.349	166952.11	0.0572	P	0.6
3	☐	5.000	5.844	189321.03	0.0661	P	2.8
4	☐	10.000	11.559	287241.86	0.1000	P	1.5
5	☐	100.000	104.154	1846229.14	0.6500	A	1.4
6	☐	200.000	197.800	3269190.78	1.2063	A	1.9

y = 0.0059 * x + 0.0314
R = 0.9997
DL = 0.1273
BEC = 5.284

Weight: <None>
Min Conc: <None>

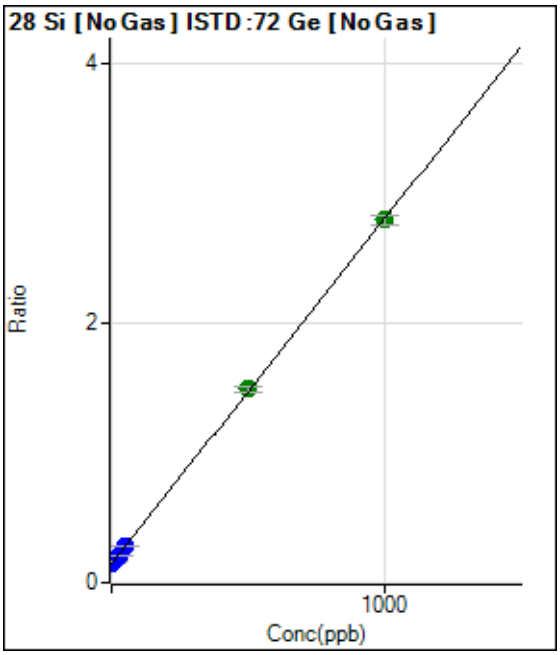
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2036.85	0.0025	P	1.8
2	☐	2.000	3.726	3453.81	0.0042	P	2.9
3	☐	5.000	5.529	4144.03	0.0050	P	6.1
4	☐	10.000	11.223	6224.83	0.0077	P	3.7
5	☐	100.000	100.289	39162.05	0.0489	P	1.7
6	☐	200.000	199.764	73480.29	0.0948	P	0.9

y = 4.6239E-004 * x + 0.0025
R = 1.0000
DL = 0.2877
BEC = 5.365

Weight: <None>
Min Conc: <None>

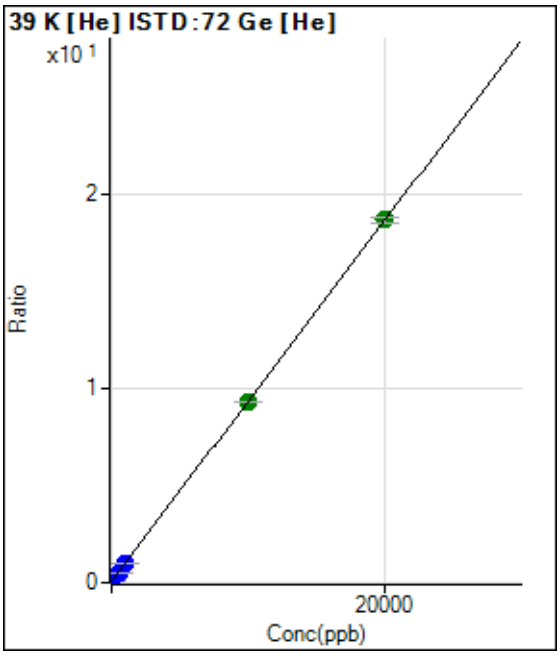


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	423471.92	0.1448	P	0.6
2	☐	10.000	8.809	490768.61	0.1682	P	3.3
3	☐	25.000	24.957	604682.45	0.2111	P	2.6
4	☐	50.000	51.153	805977.43	0.2807	P	1.1
5	☐	500.000	506.016	4228020.56	1.4889	A	2.6
6	☐	1000.000	996.947	7568598.84	2.7929	A	2.4

y = 0.0027 * x + 0.1448
R = 1.0000
DL = 0.9592
BEC = 54.53

Weight: <None>
Min Conc: <None>

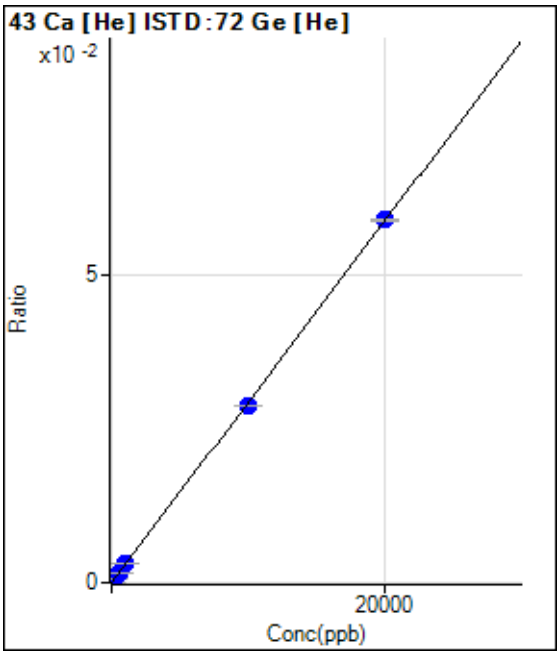
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53225.91	0.0648	P	1.8
2	☐	200.000	208.622	212181.32	0.2582	P	0.4
3	☐	500.000	510.347	442735.79	0.5380	P	1.3
4	☐	1000.000	1034.212	830641.06	1.0236	P	1.4
5	☐	10000.000	9922.438	7426627.60	9.2636	A	0.5
6	☐	20000.000	20036.725	14440812.29	18.6402	A	1.3

y = 9.2706E-004 * x + 0.0648
R = 1.0000
DL = 3.754
BEC = 69.93

Weight: <None>
Min Conc: <None>

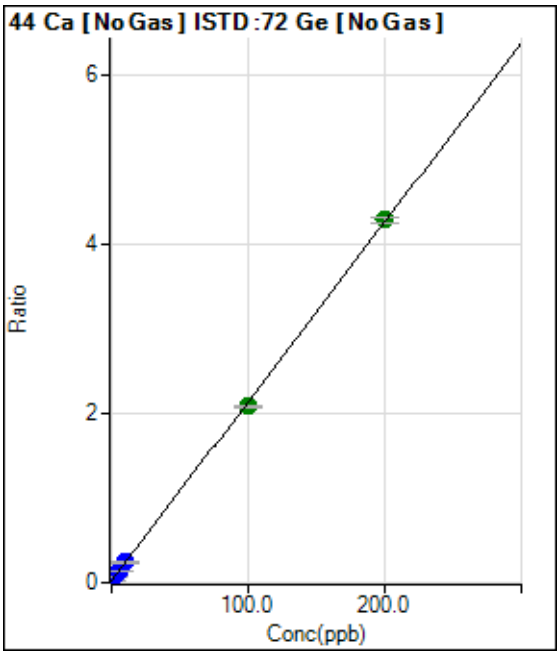


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	89.3
2	☐	200.000	209.520	526.69	0.0006	P	3.1
3	☐	500.000	544.579	1333.43	0.0016	P	3.8
4	☐	1000.000	1080.572	2586.96	0.0032	P	4.6
5	☐	10000.000	9799.013	22989.46	0.0287	P	0.7
6	☐	20000.000	20095.255	45535.45	0.0588	P	0.7

y = 2.9235E-006 * x + 2.8493E-005
R = 0.9999
DL = 26.1
BEC = 9.746

Weight: <None>
Min Conc: <None>

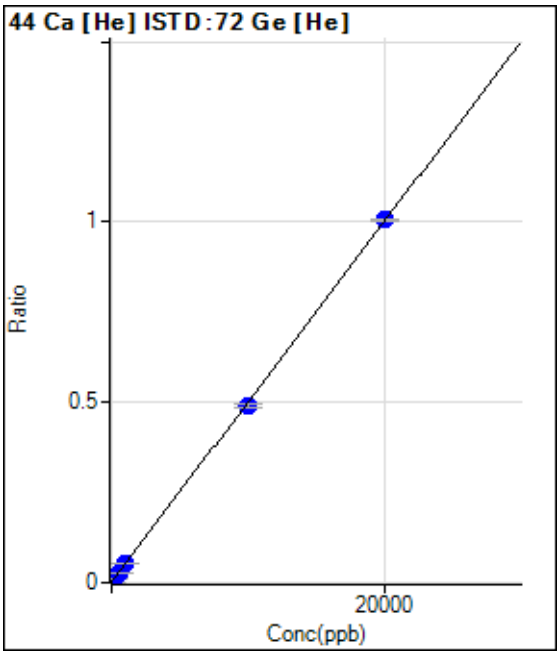
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61761.70	0.0211	P	1.5
2	☐	2.000	2.107	191693.42	0.0657	P	0.9
3	☐	5.000	5.125	371108.13	0.1296	P	2.2
4	☐	10.000	10.310	686966.94	0.2392	P	1.2
5	☐	100.000	97.194	5900869.29	2.0774	A	0.9
6	☐	200.000	201.383	11604186.50	4.2818	A	1.9

y = 0.0212 * x + 0.0211
R = 0.9999
DL = 0.04609
BEC = 0.9984

Weight: <None>
Min Conc: <None>

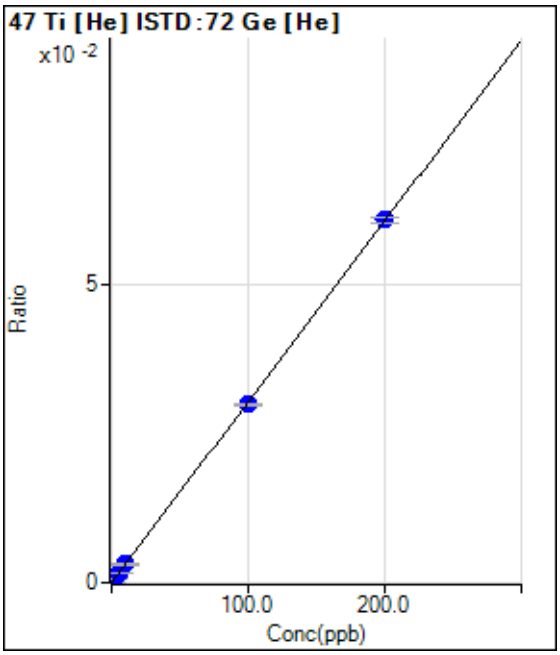


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1163.40	0.0014	P	8.0
2	☐	200.000	207.264	9673.56	0.0118	P	6.5
3	☐	500.000	497.354	21613.91	0.0263	P	3.5
4	☐	1000.000	1019.920	42502.61	0.0524	P	0.4
5	☐	10000.000	9803.290	393766.26	0.4912	P	1.6
6	☐	20000.000	20097.352	778975.20	1.0055	P	0.8

y = 4.9963E-005 * x + 0.0014
R = 0.9999
DL = 6.81
BEC = 28.36

Weight: <None>
Min Conc: <None>

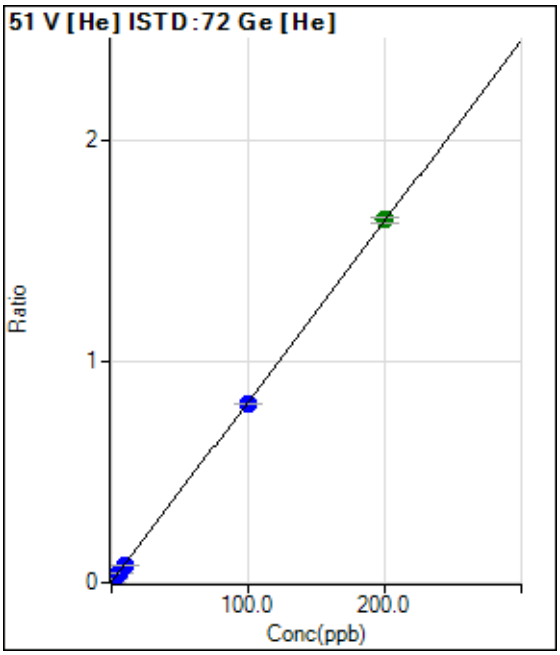
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	2.000	1.888	473.35	0.0006	P	7.5
3	☐	5.000	5.361	1340.09	0.0016	P	3.2
4	☐	10.000	10.261	2526.94	0.0031	P	4.6
5	☐	100.000	98.488	23927.85	0.0299	P	2.0
6	☐	200.000	200.735	47131.05	0.0608	P	1.7

y = 3.0305E-004 * x + 4.0412E-006
R = 1.0000
DL = 0.06929
BEC = 0.01334

Weight: <None>
Min Conc: <None>

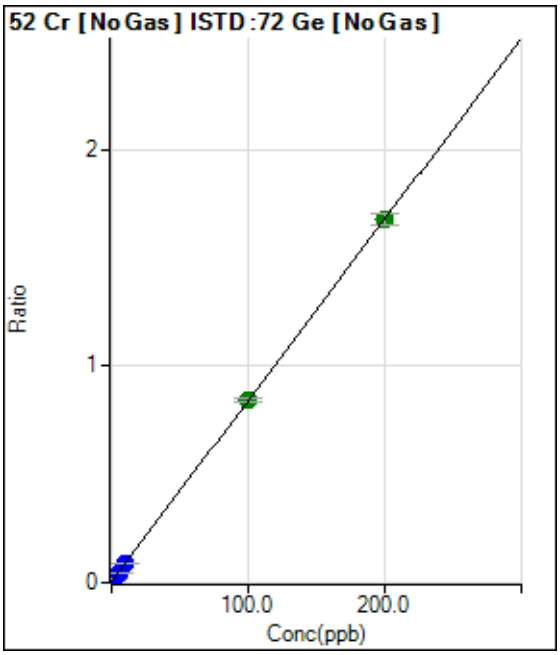


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1642.33	0.0020	P	6.5
2	☐	2.000	1.955	14765.76	0.0180	P	1.9
3	☐	5.000	4.808	33975.33	0.0413	P	1.1
4	☐	10.000	9.805	66623.15	0.0821	P	0.6
5	☐	100.000	98.630	647520.56	0.8077	P	0.7
6	☐	200.000	200.700	1271679.95	1.6416	A	1.3

y = 0.0082 * x + 0.0020
R = 1.0000
DL = 0.04763
BEC = 0.2449

Weight: <None>
Min Conc: <None>

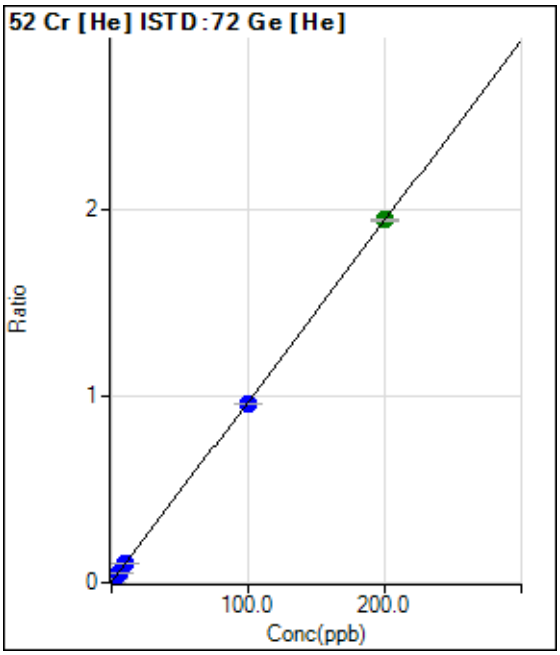
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14791.58	0.0051	P	4.4
2	☐	2.000	2.030	64254.02	0.0220	P	1.2
3	☐	5.000	5.124	137141.27	0.0479	P	2.1
4	☐	10.000	10.171	258572.15	0.0901	P	1.9
5	☐	100.000	100.325	2395164.24	0.8435	A	2.5
6	☐	200.000	199.825	4538687.12	1.6750	A	3.1

y = 0.0084 * x + 0.0051
R = 1.0000
DL = 0.08045
BEC = 0.6053

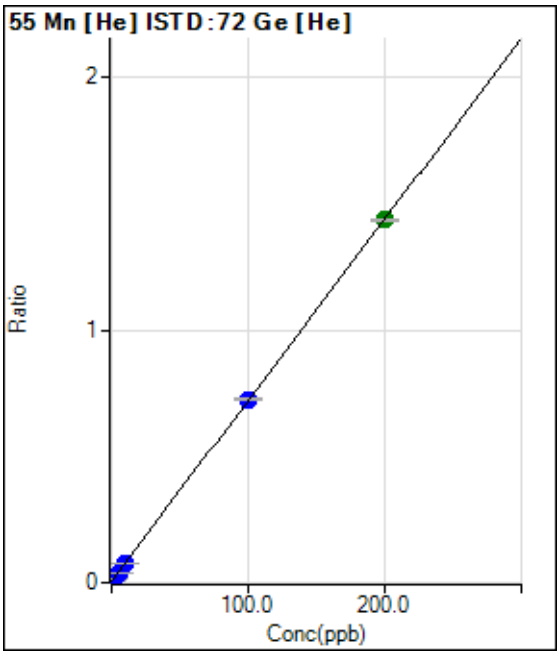
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1863.49	0.0023	P	7.3
2	☐	2.000	1.956	17418.03	0.0212	P	2.2
3	☐	5.000	4.910	40974.96	0.0498	P	1.8
4	☐	10.000	10.060	80837.99	0.0996	P	2.2
5	☐	100.000	98.898	769056.06	0.9593	P	0.4
6	☐	200.000	200.551	1505228.47	1.9430	A	0.5

y = 0.0097 * x + 0.0023
R = 1.0000
DL = 0.05118
BEC = 0.2345

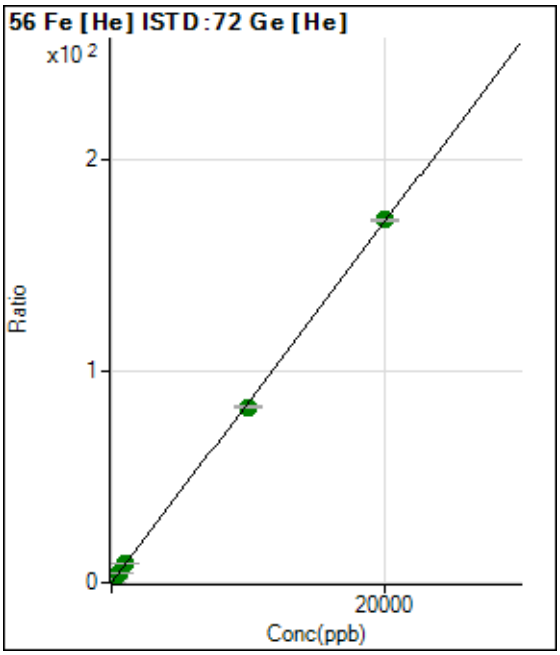
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4477.48	0.0055	P	5.3
2	☐	2.000	1.403	12746.11	0.0155	P	0.8
3	☐	5.000	4.281	29749.39	0.0361	P	1.7
4	☐	10.000	9.514	59770.95	0.0737	P	1.8
5	☐	100.000	100.581	582356.45	0.7265	P	1.5
6	☐	200.000	199.758	1113564.33	1.4374	A	0.8

y = 0.0072 * x + 0.0055
R = 1.0000
DL = 0.122
BEC = 0.7609

Weight: <None>
Min Conc: <None>

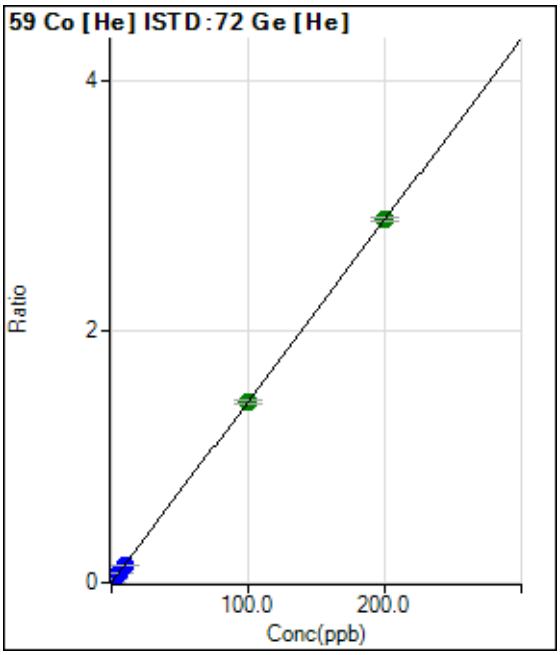


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14754.87	0.0180	P	2.9
2	☐	200.000	209.934	1485020.34	1.8074	A	1.0
3	☐	500.000	505.949	3563648.80	4.3305	A	2.1
4	☐	1000.000	1017.694	7053875.10	8.6923	A	0.3
5	☐	10000.000	9753.407	66657824.01	83.1516	A	1.0
6	☐	20000.000	20122.164	132885121.35	171.5302	A	0.7

y = 0.0085 * x + 0.0180
R = 0.9999
DL = 0.1859
BEC = 2.109

Weight: <None>
Min Conc: <None>

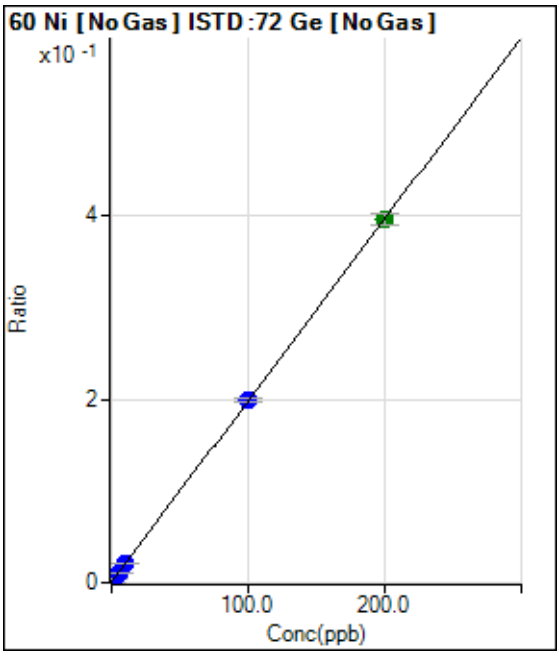
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.67	0.0001	P	27.1
2	☐	2.000	2.009	23861.18	0.0290	P	2.2
3	☐	5.000	4.886	58043.53	0.0705	P	2.7
4	☐	10.000	9.899	115909.58	0.1428	P	1.7
5	☐	100.000	99.796	1153810.79	1.4394	A	1.6
6	☐	200.000	200.110	2235804.45	2.8861	A	1.1

y = 0.0144 * x + 6.9032E-005
R = 1.0000
DL = 0.003891
BEC = 0.004786

Weight: <None>
Min Conc: <None>

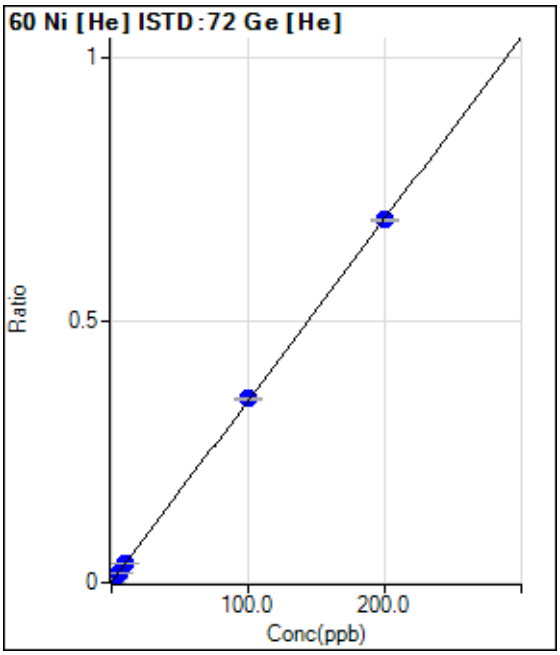


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1686.81	0.0006	P	7.3
2	☐	2.000	1.964	13019.76	0.0045	P	3.1
3	☐	5.000	5.119	30661.46	0.0107	P	2.5
4	☐	10.000	10.180	59493.24	0.0207	P	1.2
5	☐	100.000	100.703	567481.61	0.1998	P	2.1
6	☐	200.000	199.637	1071947.17	0.3956	A	3.0

y = 0.0020 * x + 5.7701E-004
R = 1.0000
DL = 0.0641
BEC = 0.2916

Weight: <None>
Min Conc: <None>

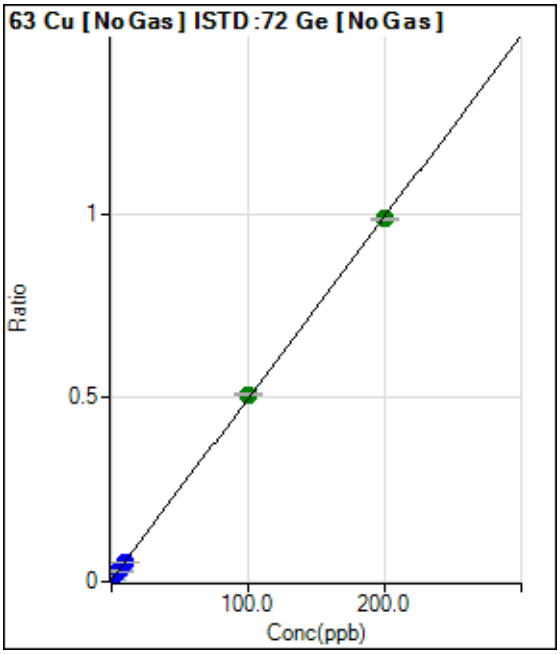
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	533.35	0.0006	P	3.5
2	☐	2.000	2.037	6324.90	0.0077	P	1.6
3	☐	5.000	5.156	15215.44	0.0185	P	3.9
4	☐	10.000	10.056	28767.46	0.0354	P	2.4
5	☐	100.000	100.916	280475.37	0.3499	P	1.7
6	☐	200.000	199.535	535409.20	0.6911	P	0.7

y = 0.0035 * x + 6.4956E-004
R = 1.0000
DL = 0.01976
BEC = 0.1877

Weight: <None>
Min Conc: <None>

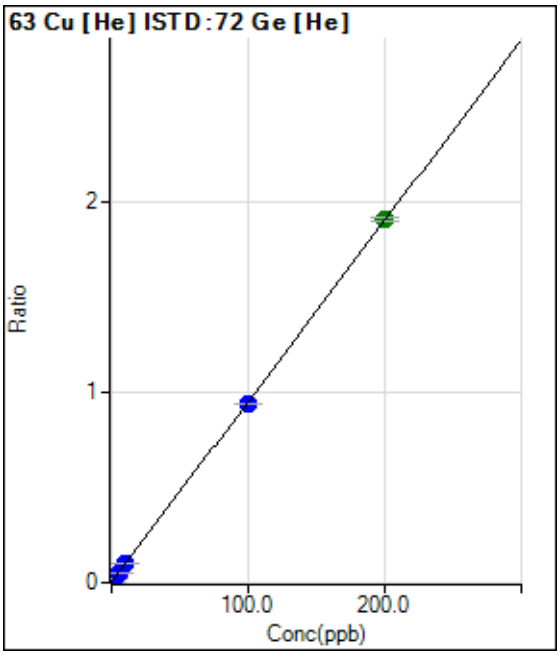


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14591.40	0.0050	P	4.4
2	☐	2.000	1.896	41874.77	0.0144	P	2.5
3	☐	5.000	4.890	83441.77	0.0291	P	3.8
4	☐	10.000	9.916	154914.34	0.0540	P	3.2
5	☐	100.000	102.242	1448139.04	0.5099	A	1.8
6	☐	200.000	198.887	2676274.18	0.9872	A	0.8

y = 0.0049 * x + 0.0050
R = 0.9999
DL = 0.1343
BEC = 1.01

Weight: <None>
Min Conc: <None>

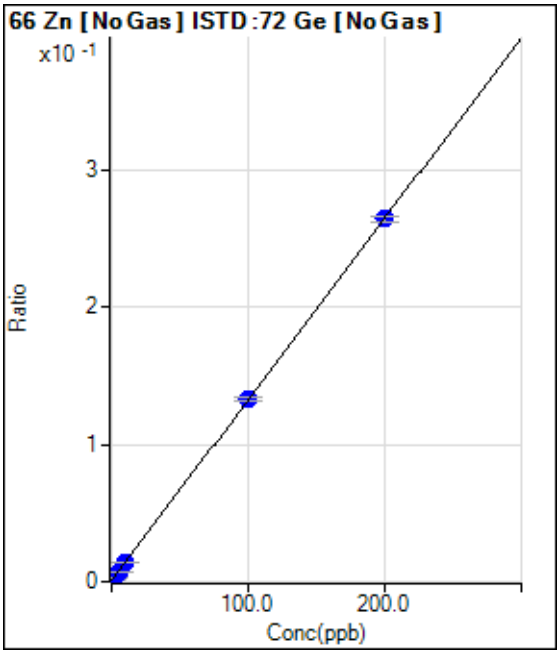
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1476.77	0.0018	P	9.3
2	☐	2.000	2.056	17491.55	0.0213	P	0.6
3	☐	5.000	5.075	41082.35	0.0499	P	0.9
4	☐	10.000	10.054	78811.36	0.0971	P	0.4
5	☐	100.000	98.981	753783.04	0.9402	P	0.4
6	☐	200.000	200.505	1474034.46	1.9028	A	1.0

y = 0.0095 * x + 0.0018
R = 1.0000
DL = 0.05311
BEC = 0.1898

Weight: <None>
Min Conc: <None>

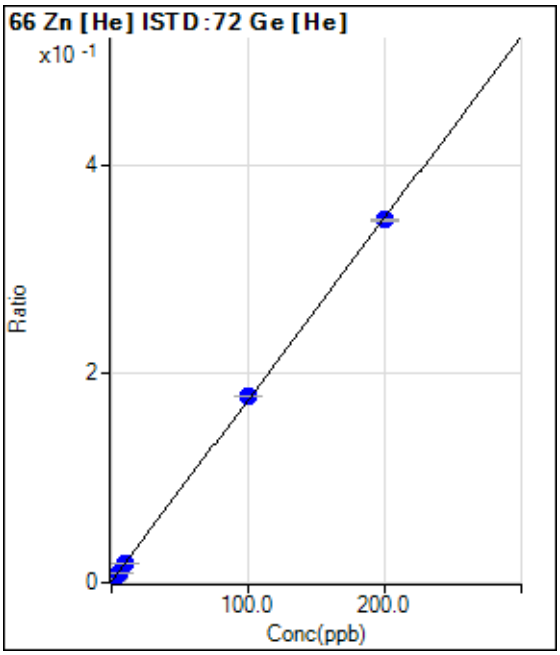


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2320.24	0.0008	P	11.1
2	☐	2.000	1.882	9543.55	0.0033	P	1.7
3	☐	5.000	5.122	21590.86	0.0075	P	1.5
4	☐	10.000	10.271	41089.15	0.0143	P	1.1
5	☐	100.000	100.095	376308.64	0.1325	P	2.6
6	☐	200.000	199.937	715249.68	0.2639	P	1.7

y = 0.0013 * x + 7.9372E-004
R = 1.0000
DL = 0.2
BEC = 0.6031

Weight: <None>
Min Conc: <None>

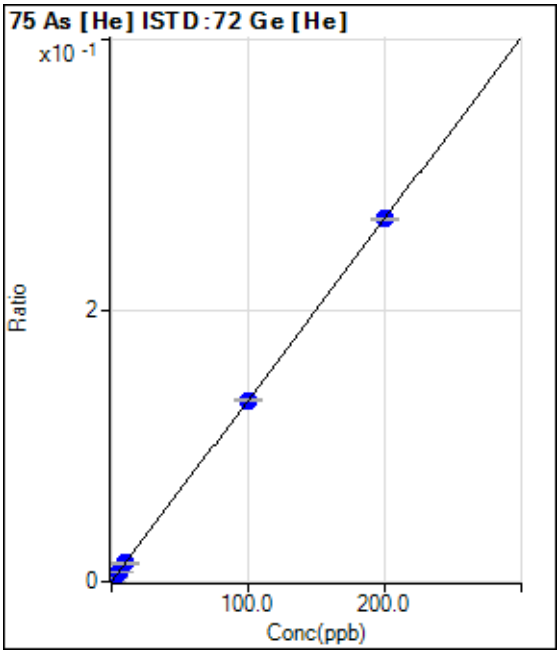
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	990.06	0.0012	P	13.8
2	☐	2.000	1.712	3440.50	0.0042	P	2.0
3	☐	5.000	5.015	8185.94	0.0099	P	3.8
4	☐	10.000	10.058	15195.42	0.0187	P	2.5
5	☐	100.000	102.060	143461.99	0.1790	P	0.5
6	☐	200.000	198.970	269384.36	0.3477	P	0.2

y = 0.0017 * x + 0.0012
R = 0.9999
DL = 0.2859
BEC = 0.6927

Weight: <None>
Min Conc: <None>

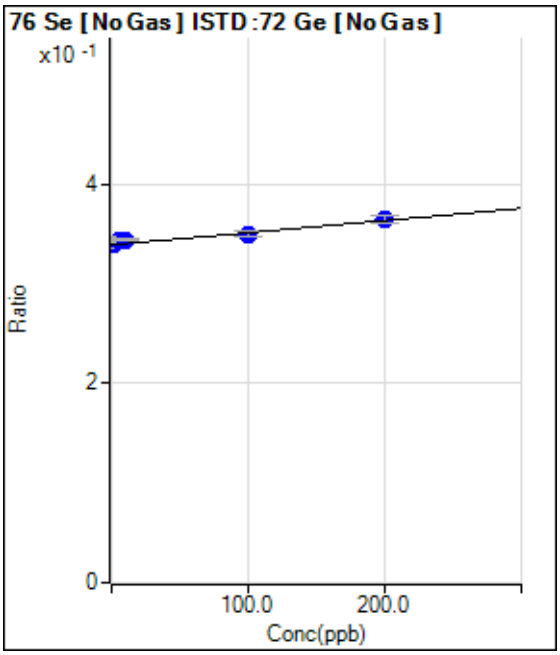


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	104.44	0.0001	P	12.8
2	☐	2.000	2.065	2370.22	0.0029	P	4.6
3	☐	5.000	4.888	5476.69	0.0067	P	2.0
4	☐	10.000	10.001	10942.26	0.0135	P	2.3
5	☐	100.000	99.996	107163.75	0.1337	P	1.2
6	☐	200.000	200.004	207038.26	0.2673	P	0.5

y = 0.0013 * x + 1.2716E-004
R = 1.0000
DL = 0.03668
BEC = 0.09521

Weight: <None>
Min Conc: <None>

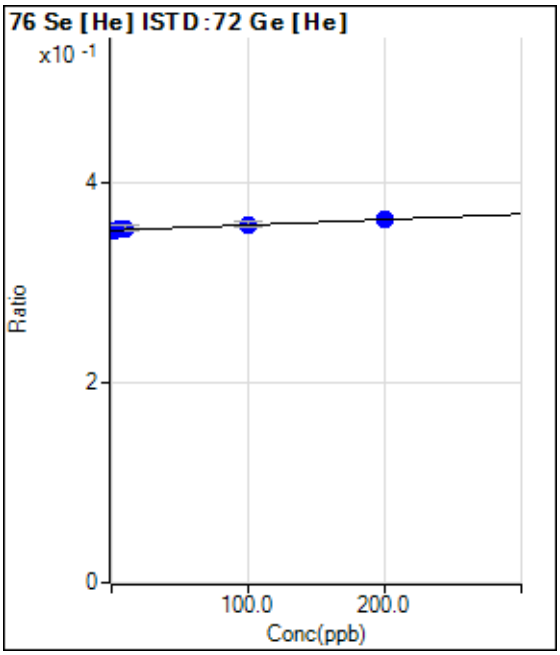
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	992266.44	0.3394	P	0.6
2	☐	2.000	0.922	990458.71	0.3395	P	1.7
3	☐	5.000	43.893	987433.65	0.3447	P	2.2
4	☐	10.000	42.379	989320.69	0.3445	P	1.0
5	☐	100.000	85.769	993602.41	0.3499	P	1.6
6	☐	200.000	204.535	987552.95	0.3644	P	2.0

y = 1.2243E-004 * x + 0.3394
R = 0.9674
DL = 48.02
BEC = 2772

Weight: <None>
Min Conc: <None>

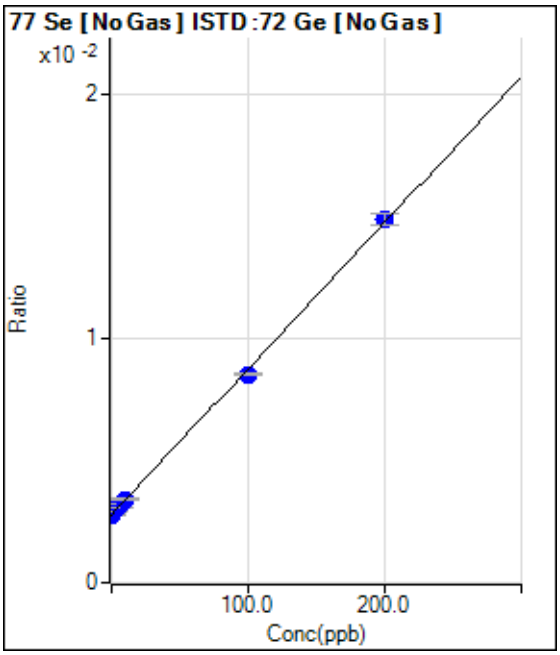


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	289779.94	0.3530	P	1.3
2	☐	2.000	1.720	290083.86	0.3530	P	0.7
3	☐	5.000	34.622	292027.02	0.3548	P	1.5
4	☐	10.000	43.822	288362.26	0.3553	P	1.2
5	☐	100.000	111.001	287771.38	0.3590	P	2.0
6	☐	200.000	192.071	281531.18	0.3634	P	0.1

y = 5.4438E-005 * x + 0.3530
R = 0.9799
DL = 252
BEC = 6484

Weight: <None>
Min Conc: <None>

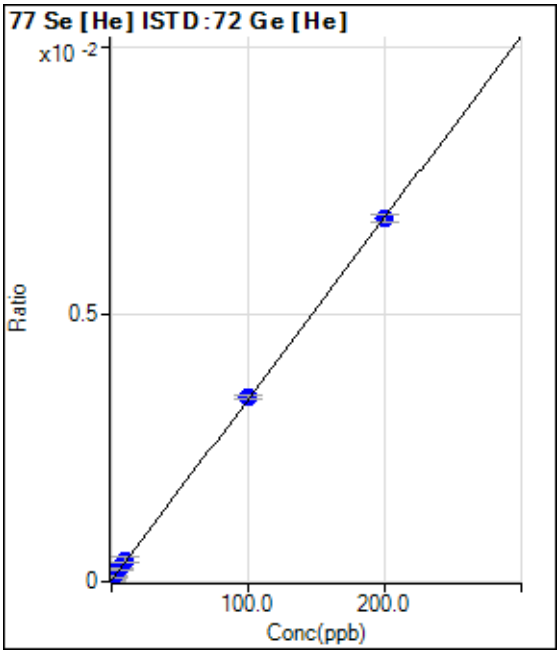
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8155.98	0.0028	P	3.6
2	☐	2.000	2.263	8532.83	0.0029	P	1.5
3	☐	5.000	6.577	9113.22	0.0032	P	5.4
4	☐	10.000	10.508	9813.71	0.0034	P	3.4
5	☐	100.000	96.214	24295.47	0.0086	P	0.4
6	☐	200.000	201.825	40317.13	0.0149	P	3.1

y = 5.9902E-005 * x + 0.0028
R = 0.9997
DL = 4.988
BEC = 46.56

Weight: <None>
Min Conc: <None>

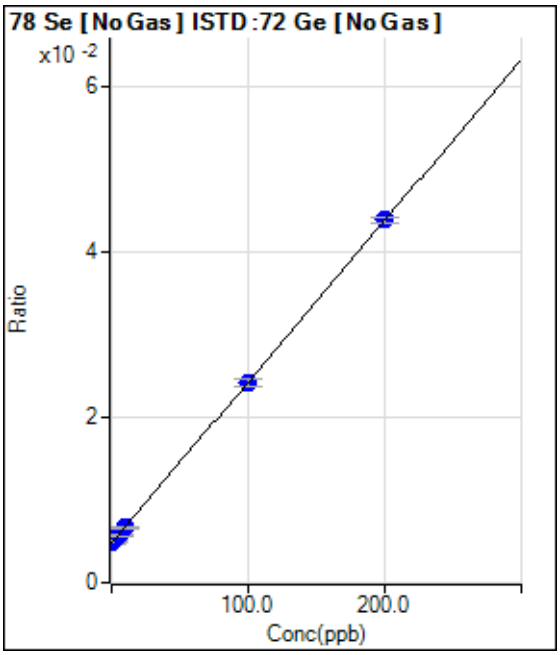


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	124.8
2	☐	2.000	2.389	83.33	0.0001	P	34.5
3	☐	5.000	6.341	193.34	0.0002	P	21.0
4	☐	10.000	11.276	326.68	0.0004	P	30.0
5	☐	100.000	101.149	2767.00	0.0035	P	1.5
6	☐	200.000	199.324	5254.45	0.0068	P	2.1

y = 3.3925E-005 * x + 2.0326E-005
R = 1.0000
DL = 2.243
BEC = 0.5991

Weight: <None>
Min Conc: <None>

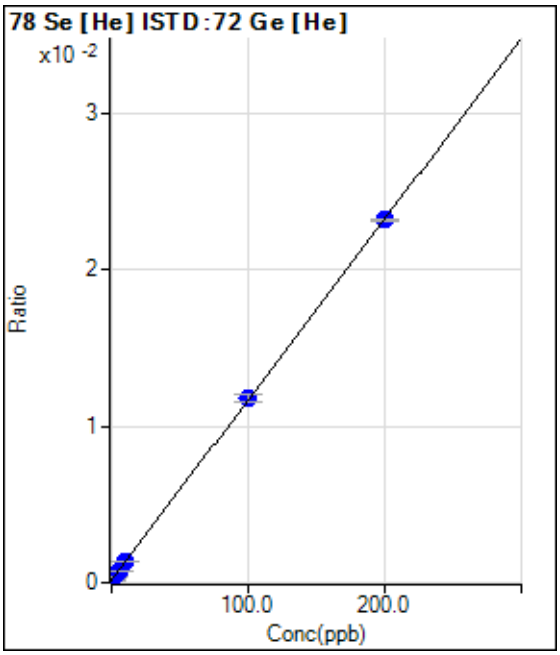
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14020.82	0.0048	P	1.8
2	☐	2.000	1.511	14848.40	0.0051	P	3.4
3	☐	5.000	4.692	16356.81	0.0057	P	3.0
4	☐	10.000	9.486	19093.79	0.0066	P	3.2
5	☐	100.000	99.188	68607.93	0.0242	P	3.7
6	☐	200.000	200.445	119086.72	0.0439	P	1.7

y = 1.9529E-004 * x + 0.0048
R = 1.0000
DL = 1.323
BEC = 24.55

Weight: <None>
Min Conc: <None>

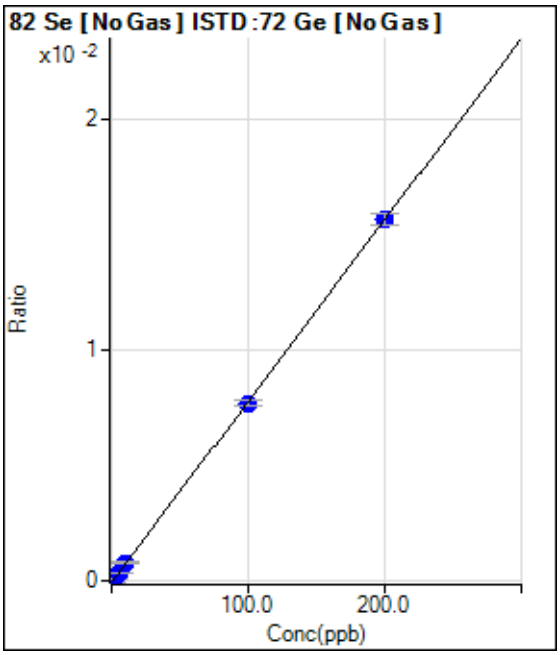


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	145.33	0.0002	P	10.1
2	☐	2.000	1.832	318.67	0.0004	P	8.4
3	☐	5.000	4.961	615.35	0.0007	P	6.2
4	☐	10.000	9.926	1070.71	0.0013	P	2.6
5	☐	100.000	100.820	9442.66	0.0118	P	3.4
6	☐	200.000	199.596	17933.92	0.0231	P	0.6

y = 1.1509E-004 * x + 1.7697E-004
R = 1.0000
DL = 0.464
BEC = 1.538

Weight: <None>
Min Conc: <None>

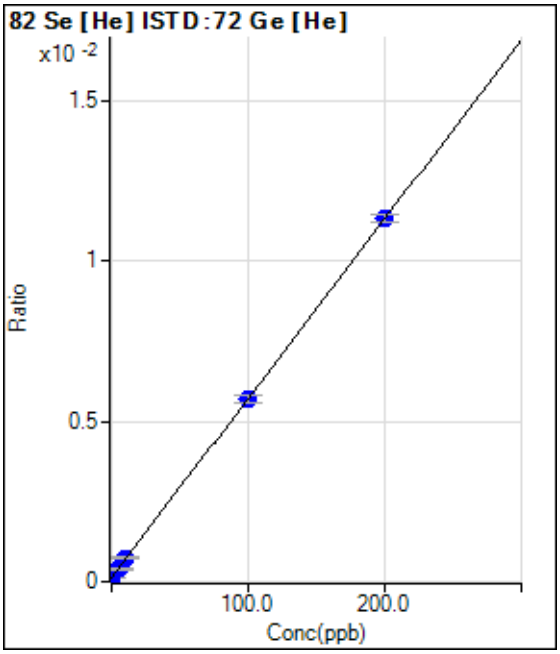
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-256.28	-0.0001	P	-6.2
2	☐	2.000	2.489	314.44	0.0001	P	42.3
3	☐	5.000	4.926	857.59	0.0003	P	2.2
4	☐	10.000	10.867	2201.69	0.0008	P	14.1
5	☐	100.000	98.988	21829.61	0.0077	P	2.7
6	☐	200.000	200.459	42423.72	0.0157	P	2.9

y = 7.8531E-005 * x - 8.7633E-005
R = 1.0000
DL = 0.2073
BEC = -1.116

Weight: <None>
Min Conc: <None>

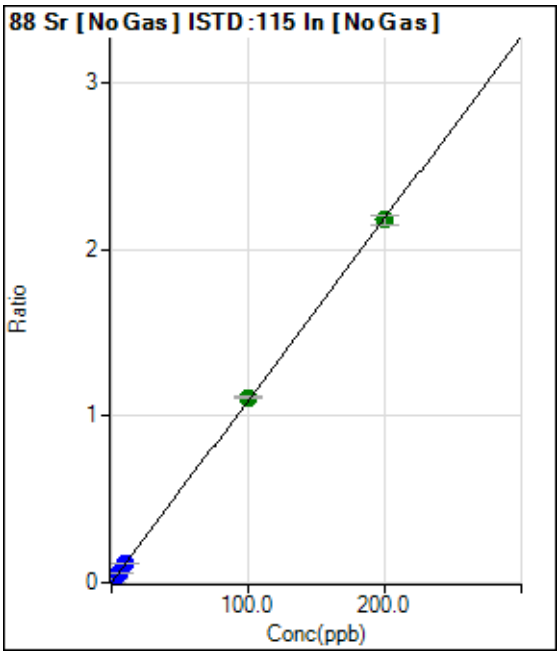


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0001	P	19.9
2	☐	2.000	2.906	240.01	0.0003	P	0.2
3	☐	5.000	4.792	326.68	0.0004	P	13.5
4	☐	10.000	10.994	603.36	0.0007	P	6.5
5	☐	100.000	99.520	4554.20	0.0057	P	4.7
6	☐	200.000	200.186	8753.00	0.0113	P	2.1

y = 5.5790E-005 * x + 1.2999E-004
R = 1.0000
DL = 1.393
BEC = 2.33

Weight: <None>
Min Conc: <None>

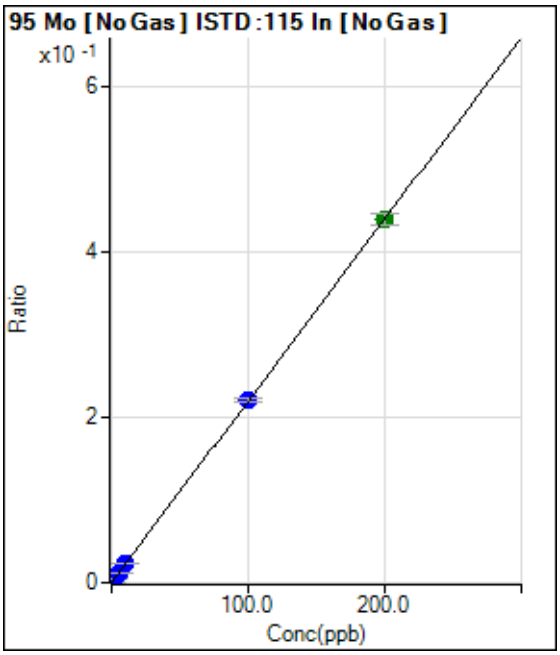
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2400.26	0.0007	P	12.2
2	☐	2.000	2.049	81591.32	0.0231	P	0.5
3	☐	5.000	4.982	194892.69	0.0552	P	0.6
4	☐	10.000	10.163	387645.96	0.1119	P	0.8
5	☐	100.000	101.500	3782803.80	1.1111	A	1.2
6	☐	200.000	199.242	7256540.52	2.1805	A	2.7

y = 0.0109 * x + 6.8518E-004
R = 1.0000
DL = 0.02295
BEC = 0.06263

Weight: <None>
Min Conc: <None>

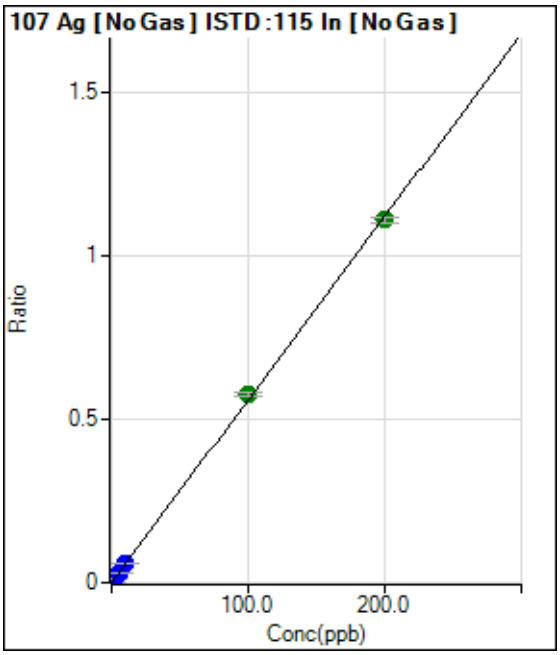


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0000	P	22.1
2	☐	2.000	1.980	15395.85	0.0044	P	6.1
3	☐	5.000	4.949	38412.47	0.0109	P	0.8
4	☐	10.000	10.159	77310.27	0.0223	P	2.0
5	☐	100.000	100.585	751558.61	0.2208	P	1.6
6	☐	200.000	199.701	1458570.65	0.4383	A	3.3

y = 0.0022 * x + 1.5234E-005
R = 1.0000
DL = 0.004603
BEC = 0.006941

Weight: <None>
Min Conc: <None>

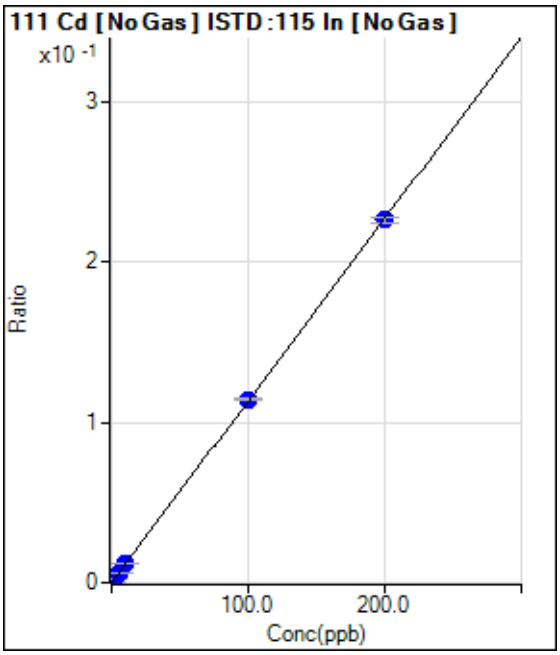
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	466.69	0.0001	P	3.8
2	☐	2.000	2.078	41592.36	0.0118	P	1.2
3	☐	5.000	5.078	100949.87	0.0286	P	1.8
4	☐	10.000	10.353	201476.72	0.0581	P	1.5
5	☐	100.000	103.232	1969494.71	0.5786	A	2.6
6	☐	200.000	198.364	3700244.22	1.1117	A	1.7

y = 0.0056 * x + 1.3322E-004
R = 0.9998
DL = 0.002688
BEC = 0.02377

Weight: <None>
Min Conc: <None>

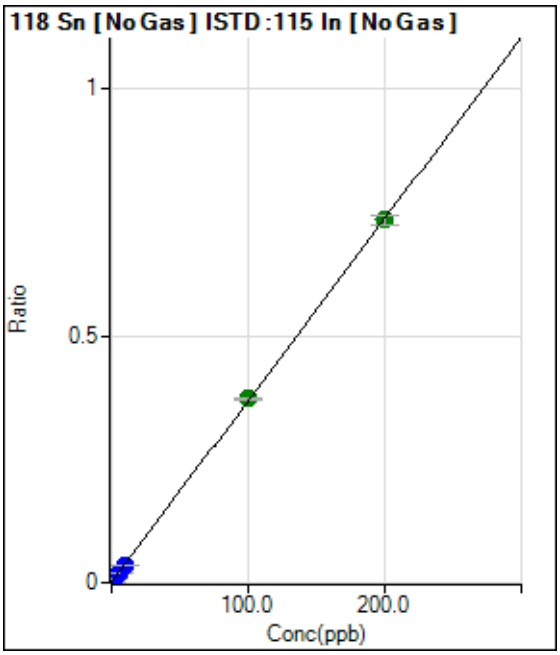


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	173.2
2	☐	2.000	2.035	8156.00	0.0023	P	2.3
3	☐	5.000	4.981	19958.69	0.0057	P	2.1
4	☐	10.000	10.137	39847.11	0.0115	P	1.4
5	☐	100.000	100.910	389619.77	0.1145	P	1.6
6	☐	200.000	199.538	753260.20	0.2263	P	1.9

y = 0.0011 * x + 1.8910E-006
R = 1.0000
DL = 0.008663
BEC = 0.001667

Weight: <None>
Min Conc: <None>

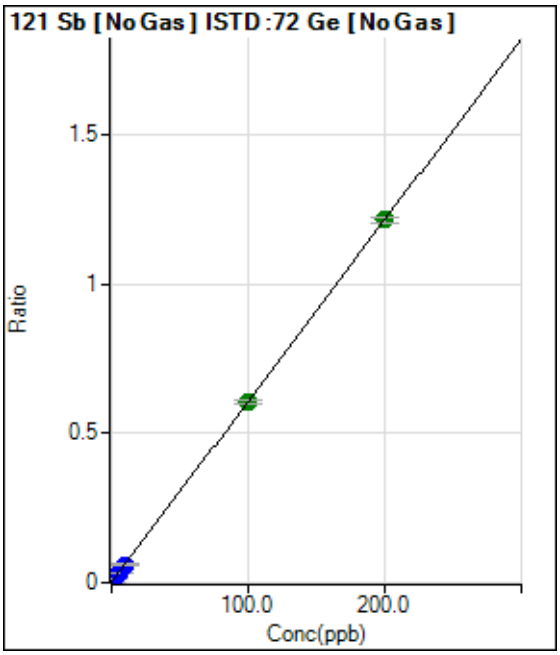
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2616.98	0.0007	P	3.3
2	☐	2.000	1.946	27893.29	0.0079	P	2.5
3	☐	5.000	4.654	63034.57	0.0179	P	1.1
4	☐	10.000	9.688	125969.32	0.0364	P	1.3
5	☐	100.000	100.935	1265350.58	0.3717	A	1.8
6	☐	200.000	199.558	2443437.57	0.7342	A	2.4

y = 0.0037 * x + 7.4689E-004
R = 1.0000
DL = 0.02028
BEC = 0.2032

Weight: <None>
Min Conc: <None>

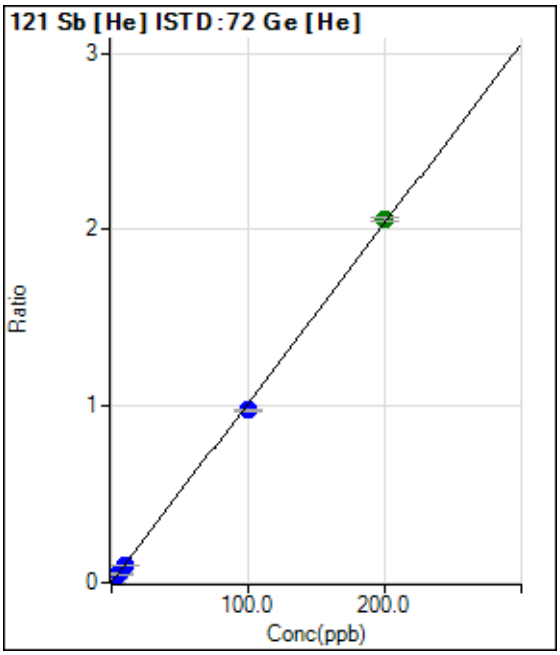


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3257.13	0.0011	P	2.1
2	☐	2.000	2.019	38978.26	0.0134	P	3.3
3	☐	5.000	4.907	88463.97	0.0309	P	1.7
4	☐	10.000	9.847	174705.57	0.0608	P	1.6
5	☐	100.000	99.589	1718577.16	0.6052	A	2.7
6	☐	200.000	200.215	3294997.03	1.2156	A	1.4

y = 0.0061 * x + 0.0011
R = 1.0000
DL = 0.0116
BEC = 0.1836

Weight: <None>
Min Conc: <None>

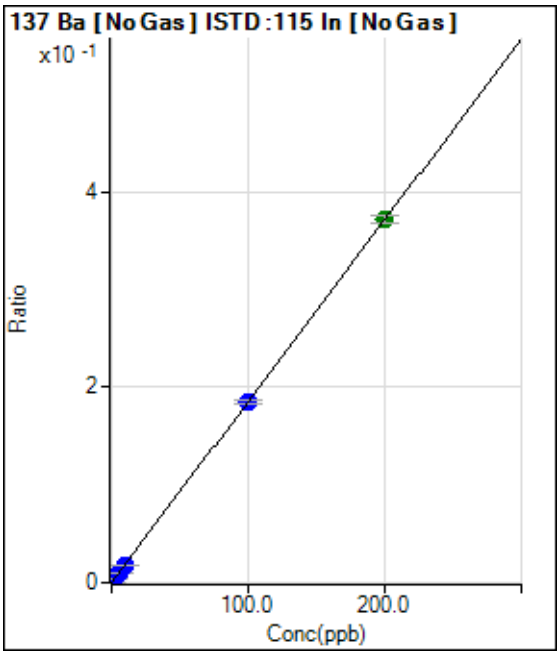
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1550.12	0.0019	P	3.7
2	☐	2.000	1.949	17829.10	0.0217	P	1.6
3	☐	5.000	4.725	41064.48	0.0499	P	3.7
4	☐	10.000	9.640	81043.44	0.0999	P	0.6
5	☐	100.000	96.094	784477.90	0.9786	P	1.2
6	☐	200.000	201.979	1591876.23	2.0548	A	1.0

y = 0.0102 * x + 0.0019
R = 0.9997
DL = 0.02072
BEC = 0.1858

Weight: <None>
Min Conc: <None>

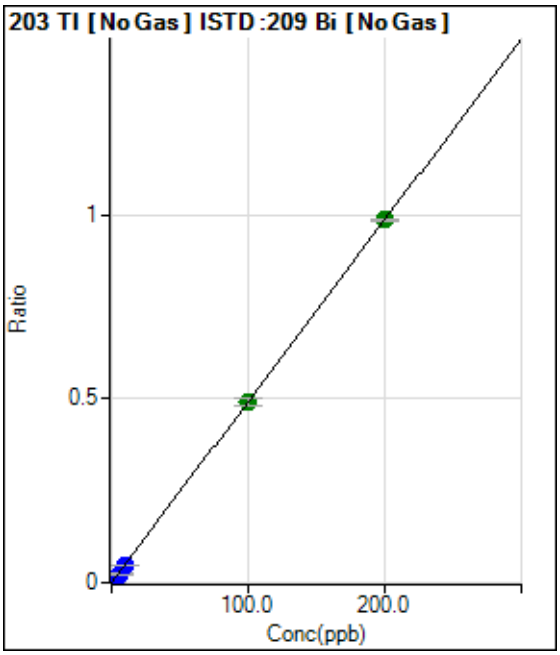


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	466.69	0.0001	P	6.8
2	☐	2.000	2.544	17124.86	0.0048	P	4.6
3	☐	5.000	4.945	32845.11	0.0093	P	1.4
4	☐	10.000	9.842	63682.83	0.0184	P	2.5
5	☐	100.000	99.653	629348.77	0.1849	P	2.1
6	☐	200.000	200.177	1235626.44	0.3712	A	2.1

y = 0.0019 * x + 1.3319E-004
R = 1.0000
DL = 0.01456
BEC = 0.07184

Weight: <None>
Min Conc: <None>

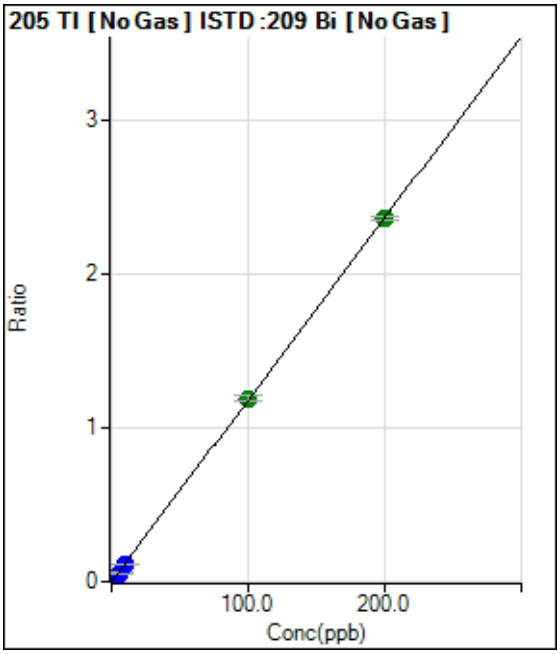
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	160.00	0.0000	P	19.5
2	☐	2.000	1.893	31941.12	0.0094	P	2.0
3	☐	5.000	4.744	80344.44	0.0234	P	3.1
4	☐	10.000	9.629	161618.25	0.0475	P	3.0
5	☐	100.000	99.681	1635680.44	0.4916	A	3.4
6	☐	200.000	200.185	3182349.85	0.9873	A	0.6

y = 0.0049 * x + 4.7003E-005
R = 1.0000
DL = 0.005568
BEC = 0.009531

Weight: <None>
Min Conc: <None>

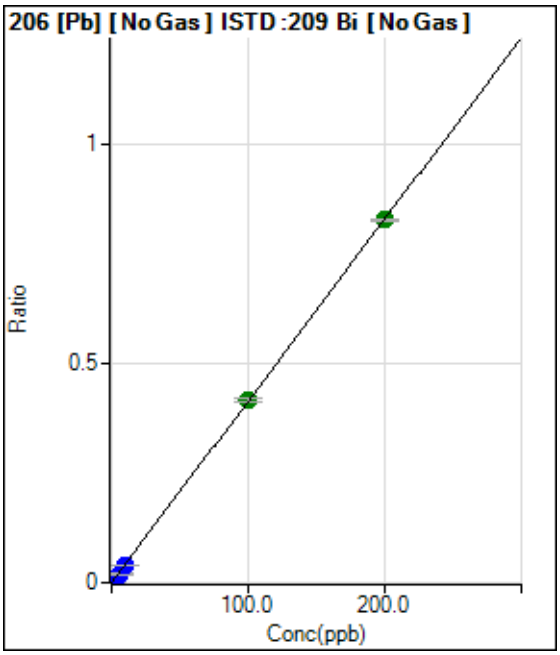


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	286.68	0.0001	P	19.2
2	☐	2.000	1.919	77382.75	0.0227	P	5.0
3	☐	5.000	4.752	192589.91	0.0562	P	3.1
4	☐	10.000	9.731	390879.08	0.1150	P	3.0
5	☐	100.000	100.747	3957588.79	1.1895	A	2.9
6	☐	200.000	199.647	7597378.84	2.3571	A	1.1

y = 0.0118 * x + 8.4116E-005
R = 1.0000
DL = 0.004107
BEC = 0.007125

Weight: <None>
Min Conc: <None>

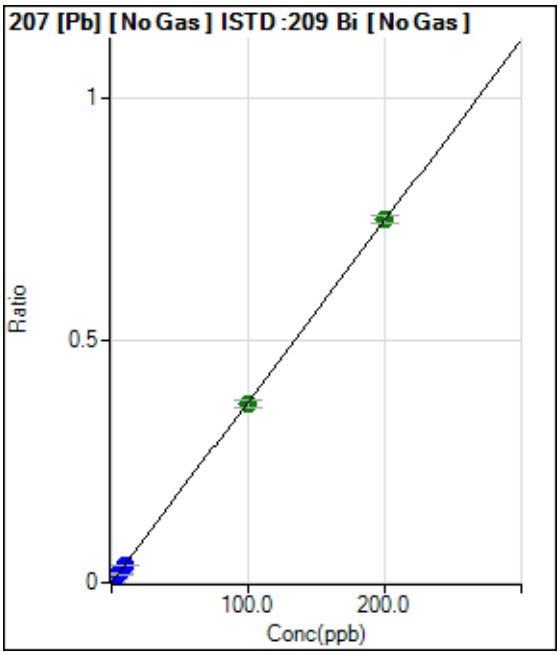
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	406.68	0.0001	P	4.0
2	☐	2.000	1.917	27373.76	0.0080	P	3.9
3	☐	5.000	4.724	67345.28	0.0196	P	3.3
4	☐	10.000	9.596	135251.06	0.0398	P	3.3
5	☐	100.000	100.513	1382729.41	0.4156	A	2.7
6	☐	200.000	199.771	2662168.09	0.8259	A	0.5

y = 0.0041 * x + 1.1929E-004
R = 1.0000
DL = 0.003483
BEC = 0.02886

Weight: <None>
Min Conc: <None>

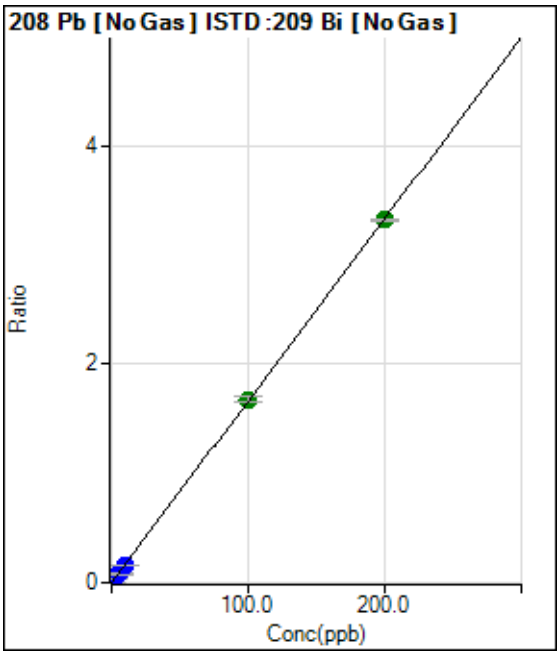


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	366.68	0.0001	P	22.2
2	☐	2.000	1.913	24681.58	0.0073	P	3.9
3	☐	5.000	4.785	61602.08	0.0180	P	4.4
4	☐	10.000	9.552	121663.18	0.0358	P	2.3
5	☐	100.000	99.053	1230775.63	0.3700	A	4.6
6	☐	200.000	200.502	2413692.72	0.7489	A	2.0

y = 0.0037 * x + 1.0778E-004
R = 1.0000
DL = 0.01918
BEC = 0.02886

Weight: <None>
Min Conc: <None>

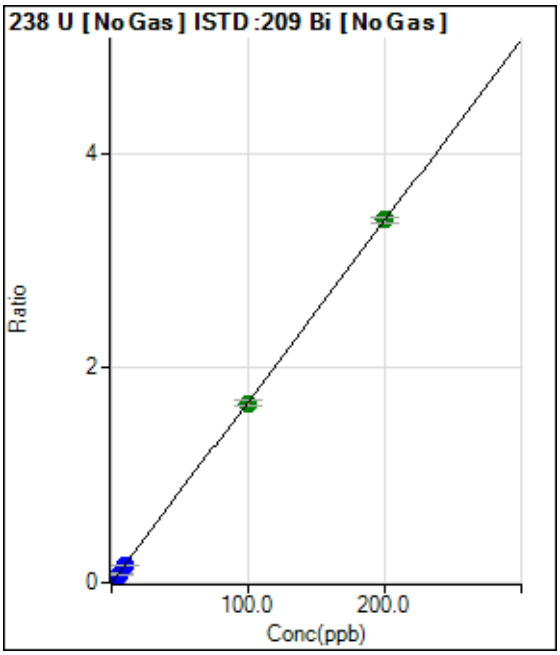
Calibration for 203_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1700.08	0.0005	P	4.8
2	☐	2.000	1.950	112093.81	0.0329	P	2.8
3	☐	5.000	4.780	274278.45	0.0800	P	3.5
4	☐	10.000	9.654	547854.80	0.1611	P	1.8
5	☐	100.000	100.833	5582281.25	1.6780	A	3.5
6	☐	200.000	199.607	10705528.23	3.3213	A	0.7

y = 0.0166 * x + 4.9889E-004
R = 1.0000
DL = 0.004331
BEC = 0.02999

Weight: <None>
Min Conc: <None>

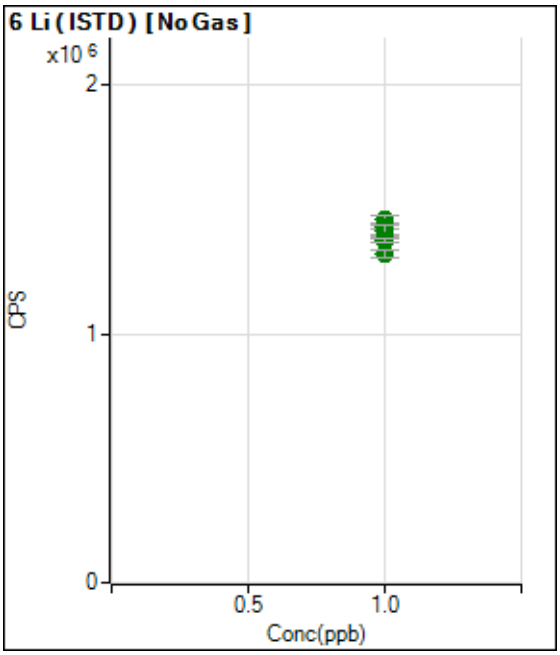


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40.00	0.0000	P	64.6
2	☐	2.000	1.900	109032.69	0.0320	P	2.2
3	☐	5.000	4.719	272620.99	0.0795	P	3.4
4	☐	10.000	9.569	548260.68	0.1613	P	3.0
5	☐	100.000	99.175	5560030.34	1.6712	A	3.3
6	☐	200.000	200.442	10887064.42	3.3777	A	1.6

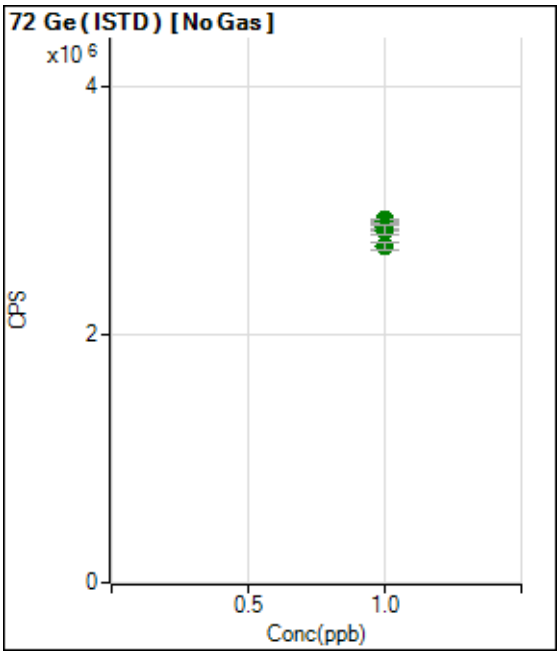
y = 0.0169 * x + 1.1659E-005
R = 1.0000
DL = 0.001342
BEC = 0.0006918

Weight: <None>
Min Conc: <None>

Calibration for 203_ICV.d

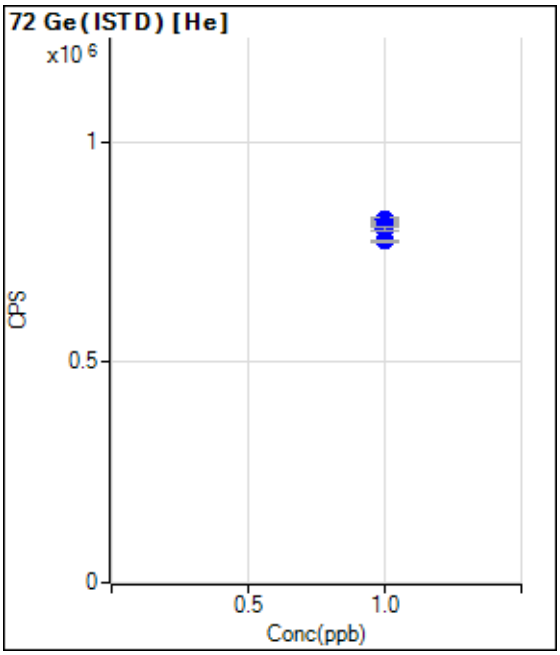


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1457720.65		A	2.1
2	☐	1.000		1431463.91		A	1.0
3	☐	1.000		1411048.46		A	1.6
4	☐	1.000		1412796.90		A	2.9
5	☐	1.000		1374056.89		A	0.9
6	☐	1.000		1321116.42		A	2.8

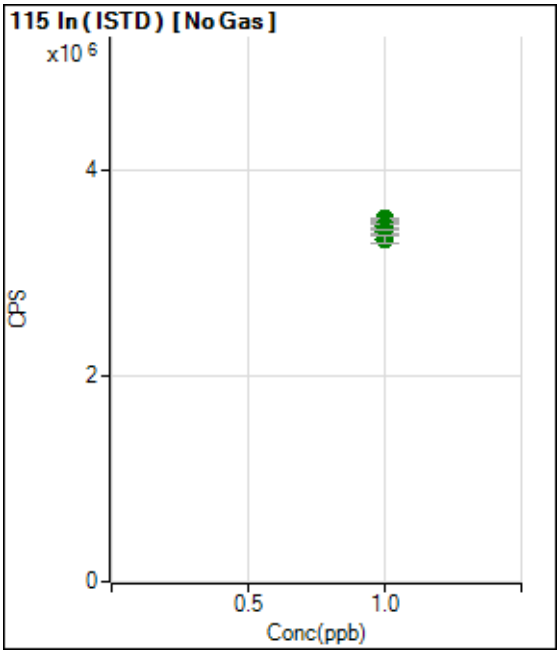


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2924007.35		A	0.5
2	☐	1.000		2918024.02		A	1.3
3	☐	1.000		2865266.63		A	2.2
4	☐	1.000		2871614.02		A	1.4
5	☐	1.000		2840792.14		A	2.5
6	☐	1.000		2710783.19		A	1.9

Calibration for 203_ICV.d

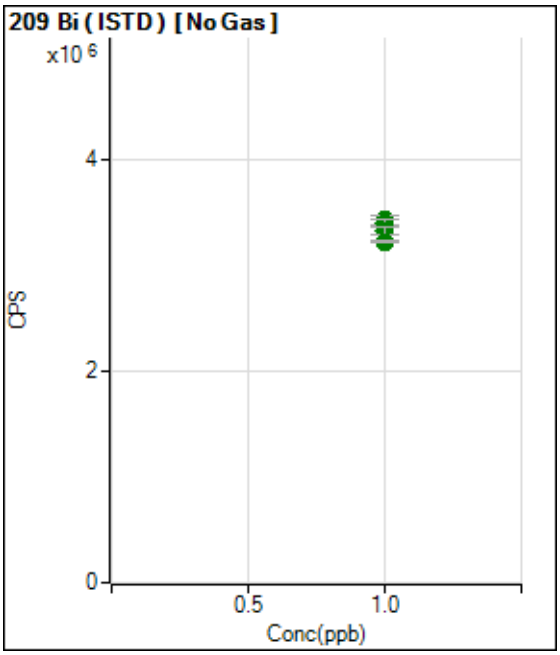


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		821026.21		P	0.4
2	☐	1.000		821646.97		P	0.2
3	☐	1.000		823120.95		P	1.7
4	☐	1.000		811509.36		P	0.4
5	☐	1.000		801691.58		P	0.9
6	☐	1.000		774691.27		P	0.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3503685.71		A	0.5
2	☐	1.000		3532107.15		A	0.9
3	☐	1.000		3531449.03		A	0.7
4	☐	1.000		3465397.94		A	0.9
5	☐	1.000		3404799.31		A	1.5
6	☐	1.000		3329489.01		A	2.5

Calibration for 203_ICV.d



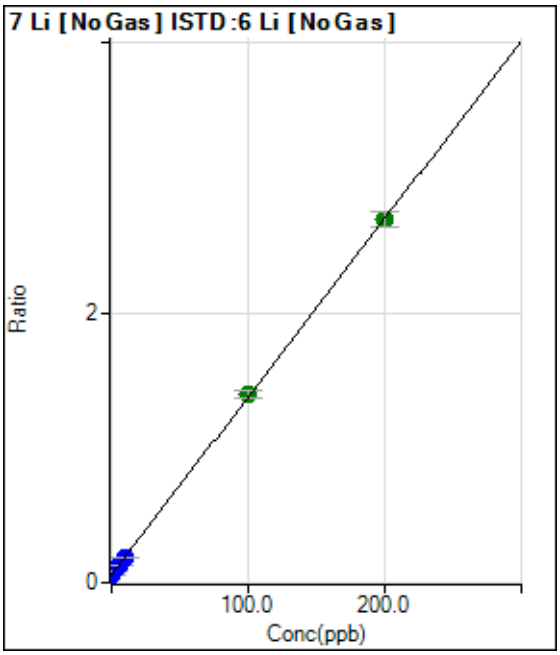
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3408283.28		A	1.6
2	☐	1.000		3404718.49		A	1.9
3	☐	1.000		3429517.87		A	2.9
4	☐	1.000		3401536.62		A	2.3
5	☐	1.000		3328746.20		A	2.6
6	☐	1.000		3223436.72		A	0.8

Calibration for 015_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\060421A.b\
Analysis File: 060421A.batch.bin
DA Date-Time: 6/4/2021 4:05:17 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	008CALB.d	CAL BLK	6/4/2021 10:59:35 AM
2	009CALS.d	2/10/200	6/4/2021 11:01:34 AM
3	010CALS.d	5/25/500	6/4/2021 11:03:33 AM
4	011CALS.d	10/50/100	6/4/2021 11:05:31 AM
5	012CALS.d	100/500/10K	6/4/2021 11:07:28 AM
6	013CALS.d	200/1000/20K	6/4/2021 11:09:20 AM

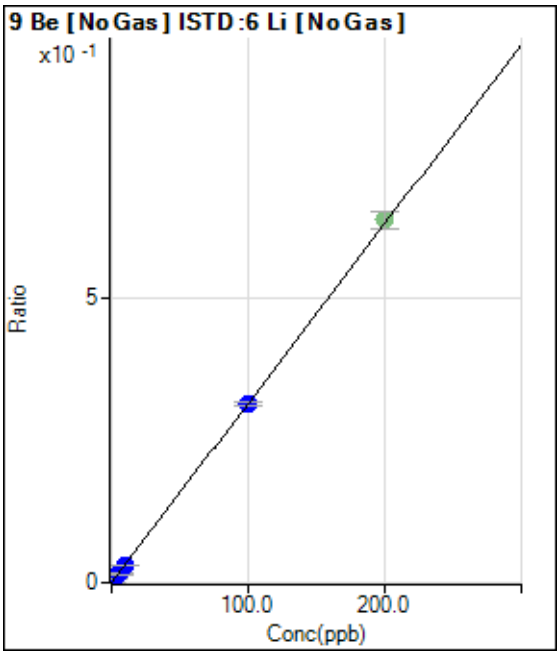
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	108504.16	0.0588	P	2.0
2	☐	2.000	1.980	157714.23	0.0849	P	0.2
3	☐	5.000	5.089	229098.14	0.1258	P	1.4
4	☐	10.000	9.901	346343.26	0.1892	P	2.2
5	☐	100.000	101.081	2449446.63	1.3900	A	4.0
6	☐	200.000	199.463	4550861.91	2.6857	A	4.1

y = 0.0132 * x + 0.0588
R = 1.0000
DL = 0.2697
BEC = 4.466

Weight: <None>
Min Conc: <None>

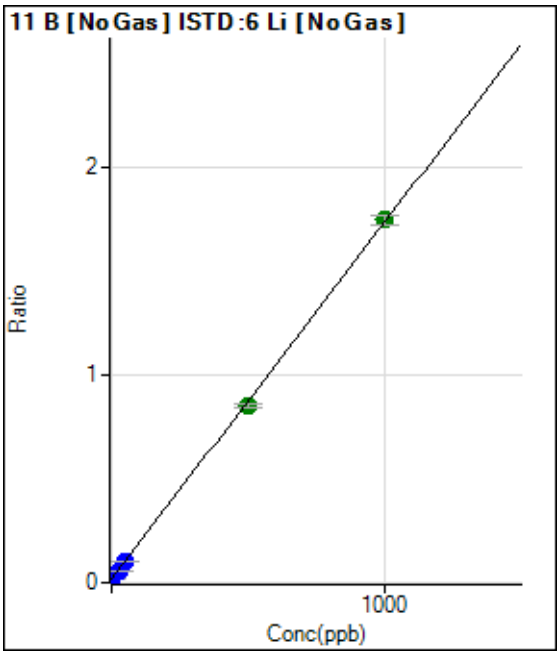


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	61.6
2	☐	2.000	1.907	11219.51	0.0060	P	3.3
3	☐	5.000	4.846	27897.74	0.0153	P	2.5
4	☐	10.000	9.605	55557.59	0.0304	P	2.3
5	☐	100.000	100.049	557075.07	0.3160	P	1.7
6	☑	200.000		1082986.60	0.6391	A	4.6

y = 0.0032 * x + 1.3644E-005
R = 1.0000
DL = 0.007982
BEC = 0.004319

Weight: <None>
Min Conc: <None>

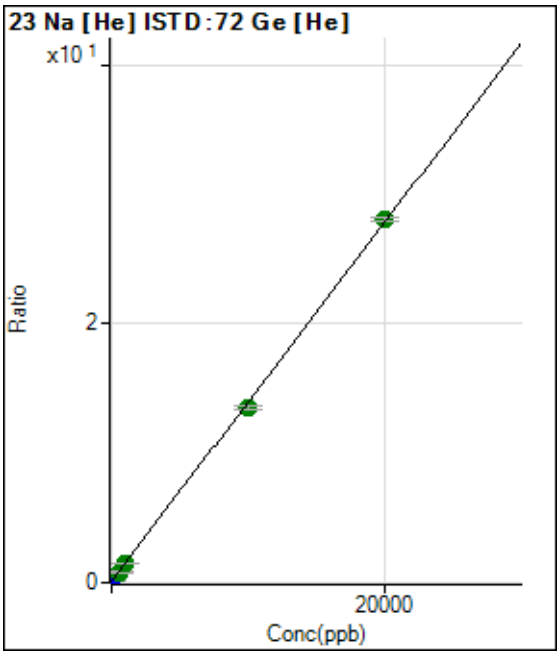
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33025.51	0.0179	P	3.2
2	☐	10.000	8.929	61728.19	0.0332	P	0.7
3	☐	25.000	24.060	107774.89	0.0592	P	0.8
4	☐	50.000	48.424	184884.12	0.1010	P	1.8
5	☐	500.000	486.089	1502218.00	0.8520	A	2.6
6	☐	1000.000	1007.069	2959436.94	1.7460	A	2.6

y = 0.0017 * x + 0.0179
R = 0.9999
DL = 1.005
BEC = 10.43

Weight: <None>
Min Conc: <None>

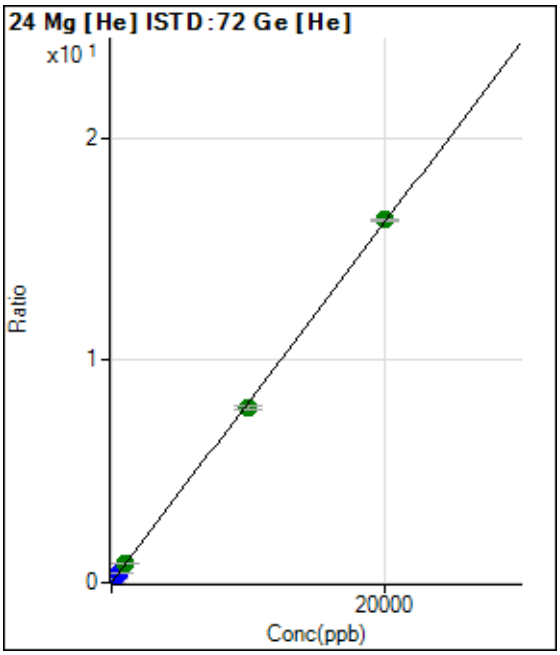


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	125173.96	0.1157	P	2.6
2	☐	200.000	209.189	431130.41	0.4054	P	1.0
3	☐	500.000	503.172	869707.15	0.8125	A	1.4
4	☐	1000.000	1022.007	1603916.33	1.5309	A	1.2
5	☐	10000.000	9697.080	14269972.71	13.5435	A	2.3
6	☐	20000.000	20150.189	28026345.42	28.0182	A	1.1

y = 0.0014 * x + 0.1157
R = 0.9998
DL = 6.5
BEC = 83.57

Weight: <None>
Min Conc: <None>

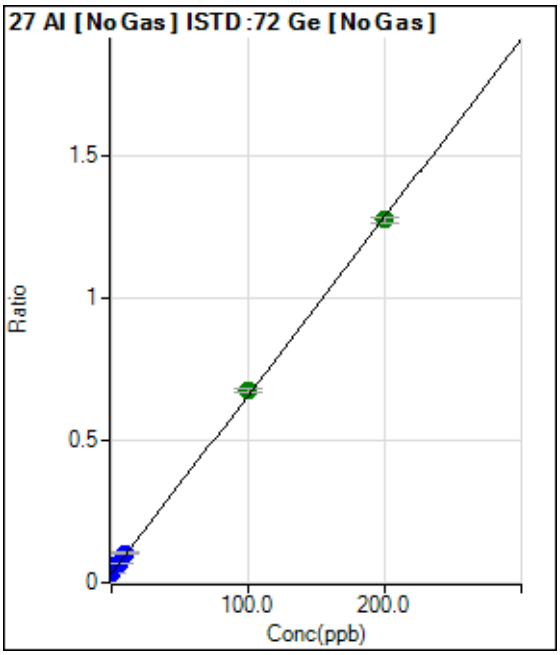
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1963.51	0.0018	P	2.6
2	☐	200.000	211.050	183842.95	0.1729	P	1.8
3	☐	500.000	511.855	445941.67	0.4167	P	2.5
4	☐	1000.000	1024.797	872112.93	0.8324	A	1.2
5	☐	10000.000	9698.659	8283697.79	7.8626	A	2.9
6	☐	20000.000	20149.024	16337398.51	16.3326	A	0.7

y = 8.1050E-004 * x + 0.0018
R = 0.9998
DL = 0.1728
BEC = 2.238

Weight: <None>
Min Conc: <None>

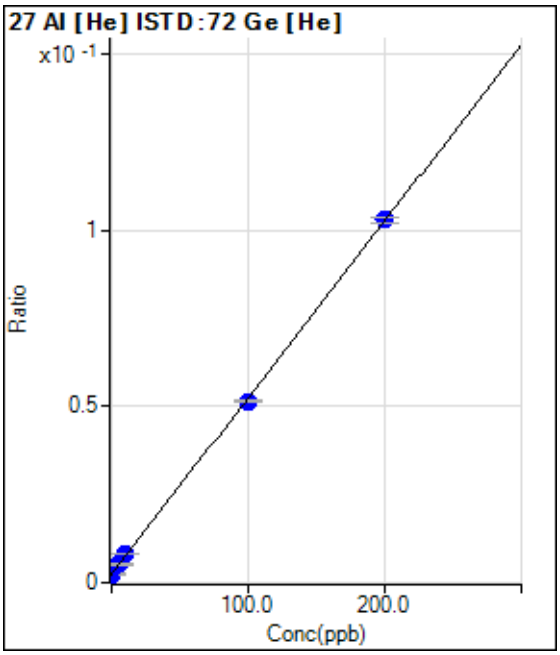


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	114095.73	0.0323	P	3.6
2	☐	2.000	4.229	209316.38	0.0589	P	1.1
3	☐	5.000	5.801	240912.83	0.0687	P	1.6
4	☐	10.000	11.540	365946.83	0.1047	P	0.6
5	☐	100.000	102.815	2330675.70	0.6774	A	1.7
6	☐	200.000	198.473	4282438.48	1.2775	A	1.6

y = 0.0063 * x + 0.0323
R = 0.9999
DL = 0.5615
BEC = 5.155

Weight: <None>
Min Conc: <None>

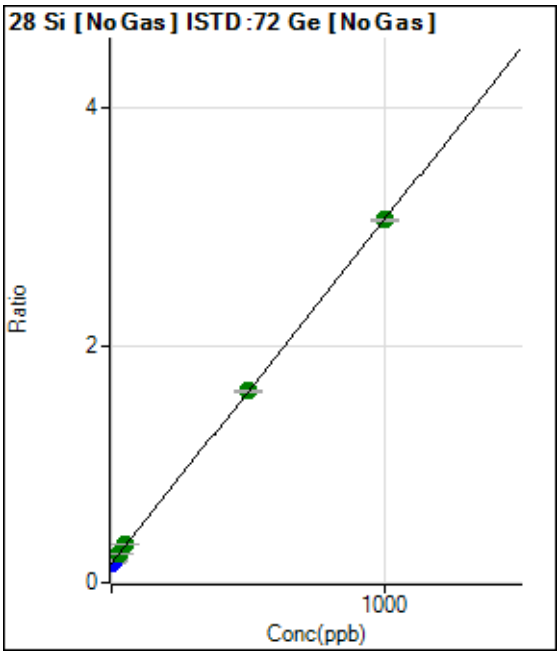
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2626.96	0.0024	P	4.3
2	☐	2.000	4.393	4920.94	0.0046	P	3.6
3	☐	5.000	5.677	5644.60	0.0053	P	5.2
4	☐	10.000	11.440	8542.75	0.0082	P	3.1
5	☐	100.000	98.123	54312.90	0.0515	P	1.4
6	☐	200.000	200.826	102978.95	0.1029	P	1.5

y = 5.0052E-004 * x + 0.0024
R = 0.9999
DL = 0.6234
BEC = 4.853

Weight: <None>
Min Conc: <None>

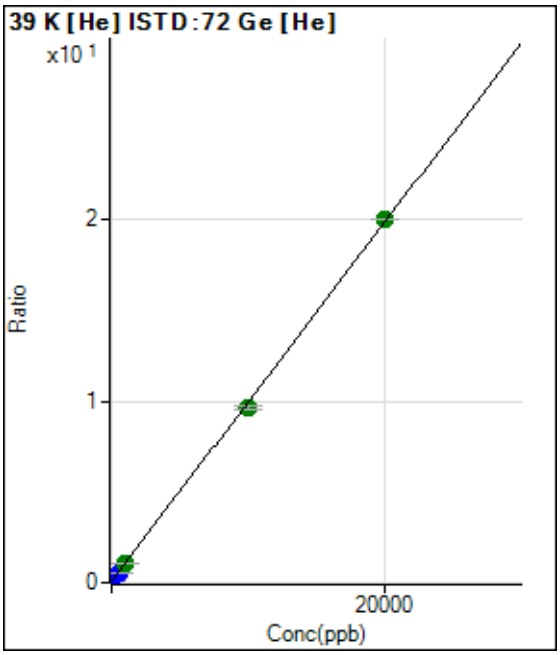


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	575676.37	0.1632	P	2.4
2	☐	10.000	7.741	659759.83	0.1856	P	1.0
3	☐	25.000	26.282	838681.86	0.2393	A	1.2
4	☐	50.000	53.505	1111423.86	0.3181	A	0.8
5	☐	500.000	501.829	5561426.59	1.6163	A	0.9
6	☐	1000.000	998.901	10244676.72	3.0558	A	0.2

y = 0.0029 * x + 0.1632
R = 1.0000
DL = 4.087
BEC = 56.35

Weight: <None>
Min Conc: <None>

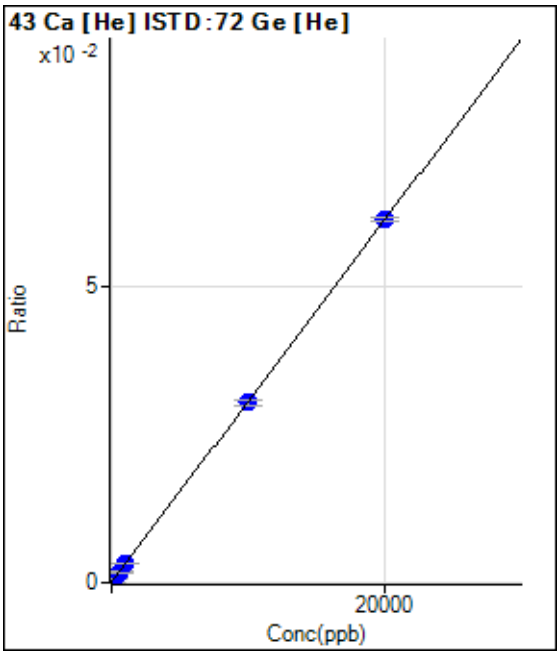
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	84728.73	0.0783	P	1.4
2	☐	200.000	204.771	298481.56	0.2807	P	0.5
3	☐	500.000	495.974	608337.65	0.5684	P	2.6
4	☐	1000.000	1032.811	1151158.29	1.0989	A	2.2
5	☐	10000.000	9705.936	10187139.22	9.6690	A	2.6
6	☐	20000.000	20145.444	19990532.20	19.9846	A	0.1

y = 9.8813E-004 * x + 0.0783
R = 0.9998
DL = 3.432
BEC = 79.25

Weight: <None>
Min Conc: <None>

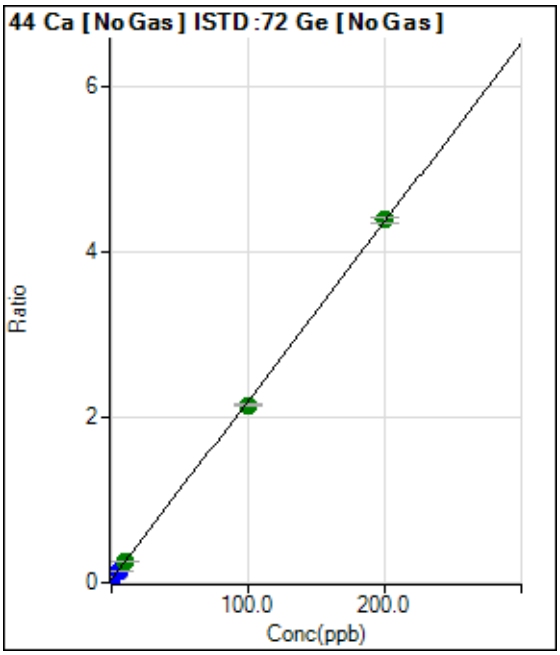


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	10.0
2	☐	200.000	218.132	773.37	0.0007	P	6.3
3	☐	500.000	541.982	1833.49	0.0017	P	8.9
4	☐	1000.000	1047.533	3410.49	0.0033	P	5.7
5	☐	10000.000	9942.544	32007.65	0.0304	P	3.4
6	☐	20000.000	20025.121	61149.11	0.0611	P	1.2

y = 3.0496E-006 * x + 6.1676E-005
R = 1.0000
DL = 6.097
BEC = 20.22

Weight: <None>
Min Conc: <None>

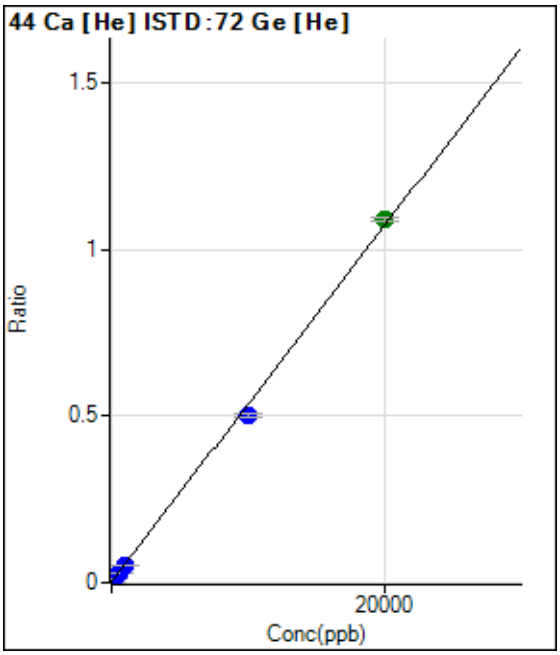
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	133741.15	0.0379	P	3.1
2	☐	2.000	2.025	290635.97	0.0818	P	1.2
3	☐	5.000	5.080	518321.96	0.1479	P	1.1
4	☐	10.000	10.544	929868.11	0.2661	A	1.1
5	☐	100.000	97.710	7408412.39	2.1531	A	1.6
6	☐	200.000	201.115	14721544.36	4.3915	A	1.9

y = 0.0216 * x + 0.0379
R = 0.9999
DL = 0.1651
BEC = 1.751

Weight: <None>
Min Conc: <None>

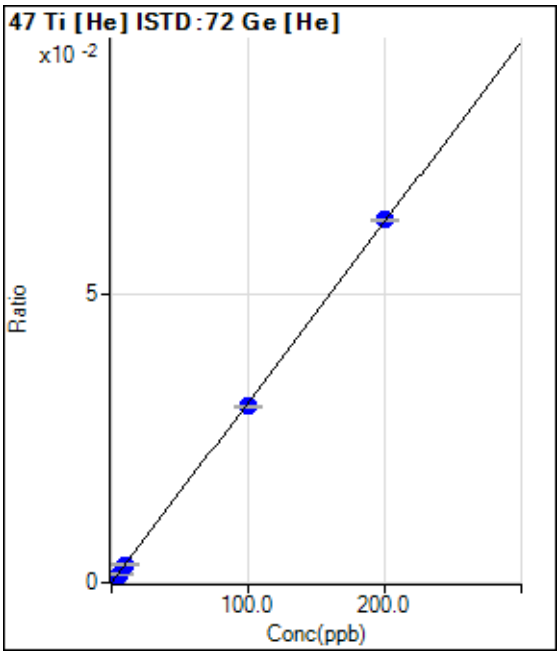


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2050.19	0.0019	P	3.6
2	☐	200.000	193.660	13016.37	0.0122	P	1.3
3	☐	500.000	484.090	29689.12	0.0278	P	5.4
4	☐	1000.000	964.752	55970.57	0.0534	P	1.7
5	☐	10000.000	9347.153	528038.87	0.5012	P	2.1
6	☐	20000.000	20328.647	1088007.72	1.0877	A	1.1

y = 5.3413E-005 * x + 0.0019
R = 0.9993
DL = 3.832
BEC = 35.48

Weight: <None>
Min Conc: <None>

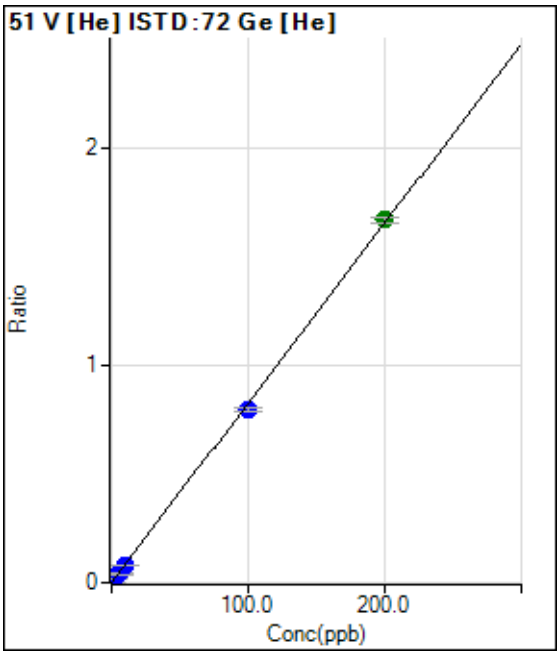
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	48.8
2	☐	2.000	2.025	696.70	0.0007	P	6.2
3	☐	5.000	4.726	1606.80	0.0015	P	6.4
4	☐	10.000	9.868	3257.11	0.0031	P	7.0
5	☐	100.000	97.747	32241.57	0.0306	P	1.5
6	☐	200.000	201.140	62957.90	0.0629	P	0.3

y = 3.1281E-004 * x + 2.1480E-005
R = 0.9999
DL = 0.1006
BEC = 0.06867

Weight: <None>
Min Conc: <None>

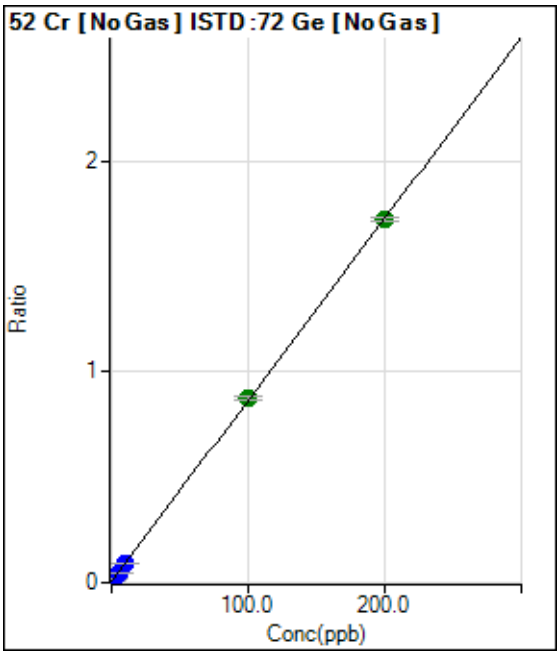


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1173.39	0.0011	P	8.7
2	☐	2.000	1.923	18024.08	0.0169	P	1.0
3	☐	5.000	4.756	43146.52	0.0403	P	2.8
4	☐	10.000	9.792	85753.97	0.0818	P	1.0
5	☐	100.000	95.971	835168.28	0.7927	P	2.5
6	☐	200.000	202.032	1667995.25	1.6675	A	1.5

y = 0.0082 * x + 0.0011
R = 0.9997
DL = 0.03421
BEC = 0.1316

Weight: <None>
Min Conc: <None>

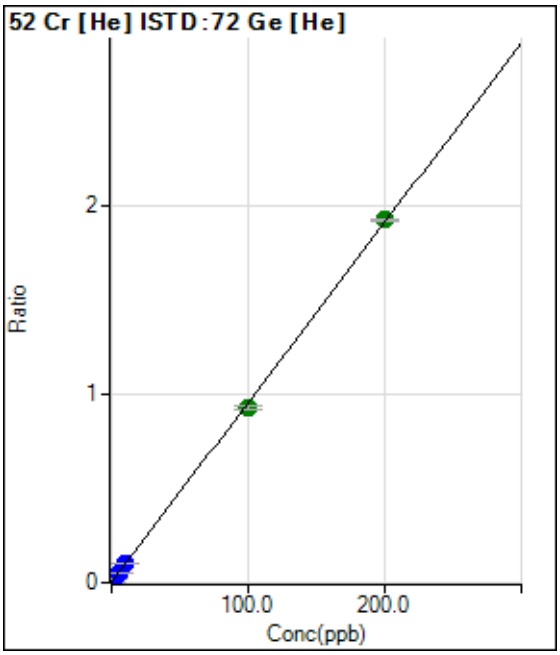
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17421.26	0.0049	P	2.9
2	☐	2.000	2.032	79774.97	0.0224	P	2.4
3	☐	5.000	5.106	171412.12	0.0489	P	2.4
4	☐	10.000	10.183	323626.57	0.0926	P	0.9
5	☐	100.000	101.140	3013706.93	0.8759	A	1.8
6	☐	200.000	199.418	5773704.29	1.7222	A	0.9

y = 0.0086 * x + 0.0049
R = 1.0000
DL = 0.04976
BEC = 0.5734

Weight: <None>
Min Conc: <None>

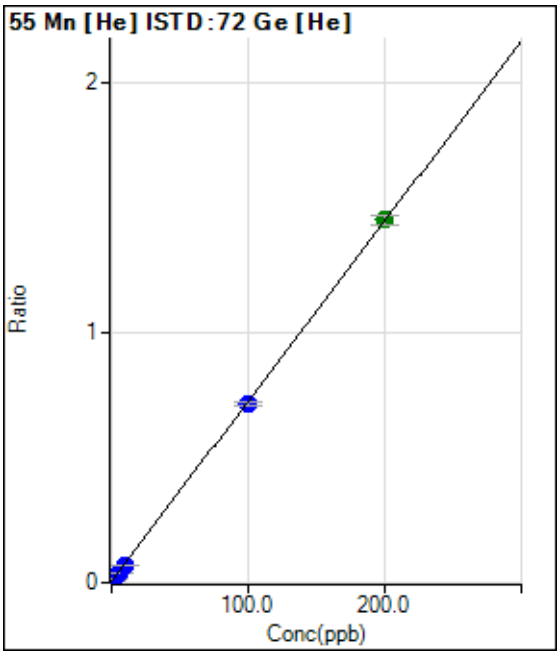


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2353.58	0.0022	P	8.5
2	☐	2.000	2.027	22906.11	0.0215	P	2.5
3	☐	5.000	4.903	52440.72	0.0490	P	3.6
4	☐	10.000	10.083	103187.00	0.0985	P	1.3
5	☐	100.000	96.832	977024.10	0.9271	A	2.6
6	☐	200.000	201.582	1928188.36	1.9276	A	0.5

y = 0.0096 * x + 0.0022
R = 0.9998
DL = 0.05789
BEC = 0.2276

Weight: <None>
Min Conc: <None>

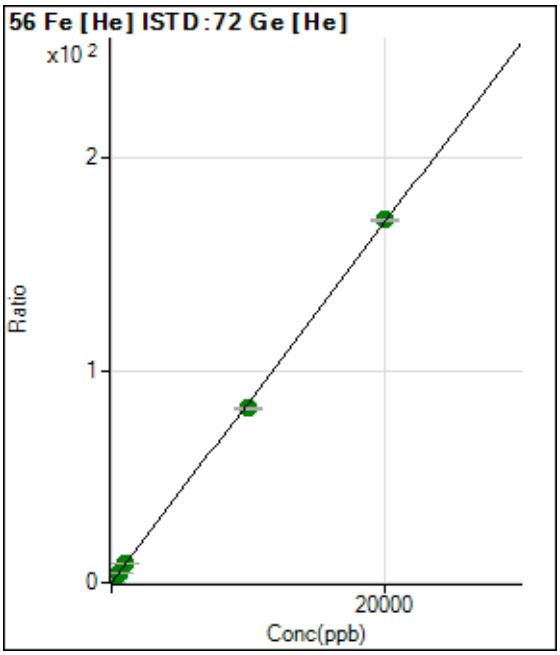
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6291.57	0.0058	P	5.3
2	☐	2.000	1.311	16229.86	0.0153	P	2.0
3	☐	5.000	4.209	38685.18	0.0361	P	1.2
4	☐	10.000	9.173	75333.88	0.0719	P	2.7
5	☐	100.000	98.619	754897.85	0.7164	P	1.8
6	☐	200.000	200.758	1452768.89	1.4524	A	2.3

y = 0.0072 * x + 0.0058
R = 1.0000
DL = 0.1279
BEC = 0.8068

Weight: <None>
Min Conc: <None>

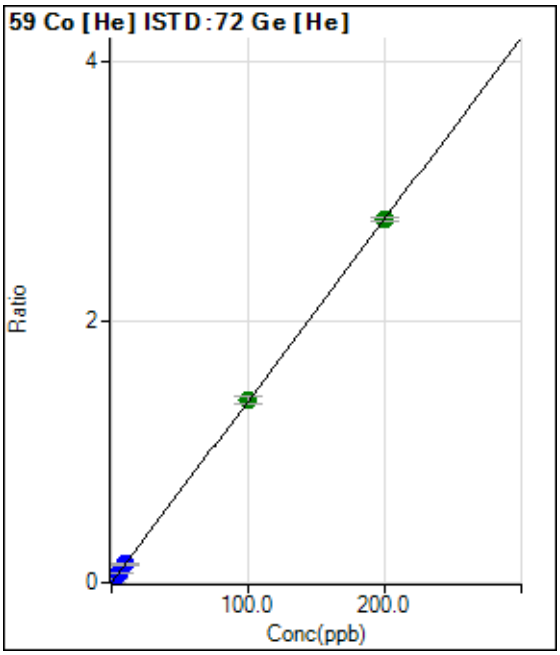


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20322.05	0.0188	P	0.8
2	☐	200.000	211.154	1923593.93	1.8086	A	0.6
3	☐	500.000	504.118	4592542.33	4.2918	A	3.7
4	☐	1000.000	1022.100	9096099.65	8.6823	A	1.6
5	☐	10000.000	9674.526	86432778.71	82.0223	A	1.3
6	☐	20000.000	20161.417	170960904.12	170.9116	A	0.5

y = 0.0085 * x + 0.0188
R = 0.9998
DL = 0.056
BEC = 2.216

Weight: <None>
Min Conc: <None>

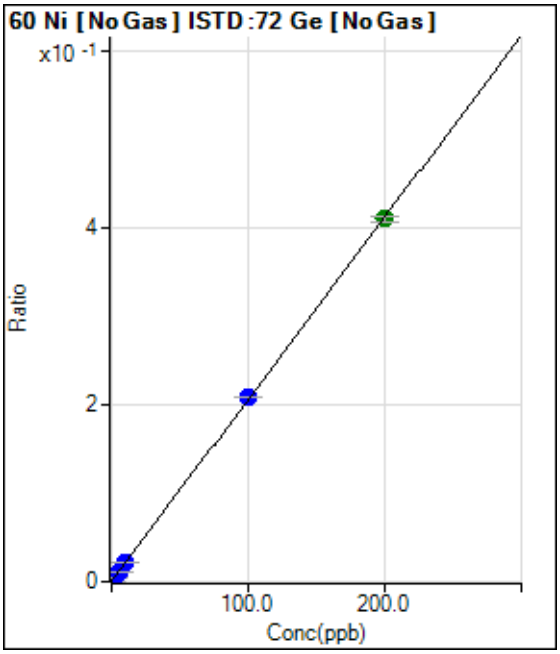
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0001	P	39.2
2	☐	2.000	2.028	30093.66	0.0283	P	1.3
3	☐	5.000	4.960	73964.07	0.0691	P	3.0
4	☐	10.000	10.087	147168.25	0.1405	P	1.8
5	☐	100.000	100.633	1475794.51	1.4009	A	3.6
6	☐	200.000	199.680	2780514.44	2.7797	A	1.1

y = 0.0139 * x + 6.4935E-005
R = 1.0000
DL = 0.005491
BEC = 0.004665

Weight: <None>
Min Conc: <None>

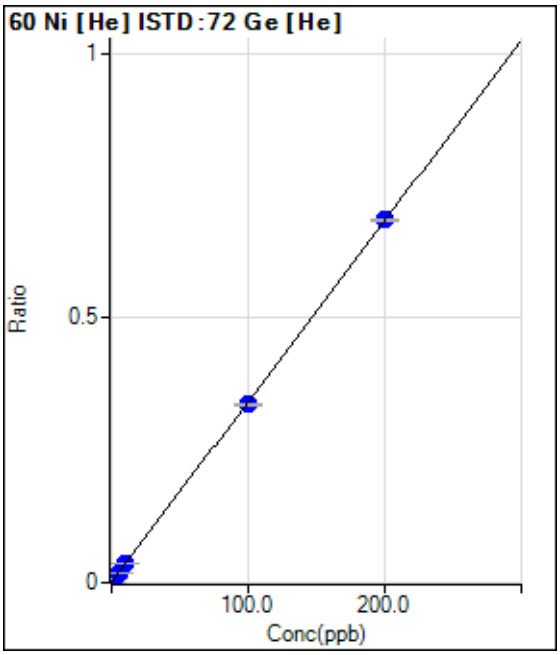


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1436.77	0.0004	P	8.9
2	☐	2.000	1.935	15619.18	0.0044	P	3.4
3	☐	5.000	5.067	38006.69	0.0108	P	2.2
4	☐	10.000	10.298	75535.63	0.0216	P	1.1
5	☐	100.000	101.441	720332.64	0.2093	P	0.5
6	☐	200.000	199.263	1377267.32	0.4108	A	1.3

y = 0.0021 * x + 4.0757E-004
R = 1.0000
DL = 0.05285
BEC = 0.1979

Weight: <None>
Min Conc: <None>

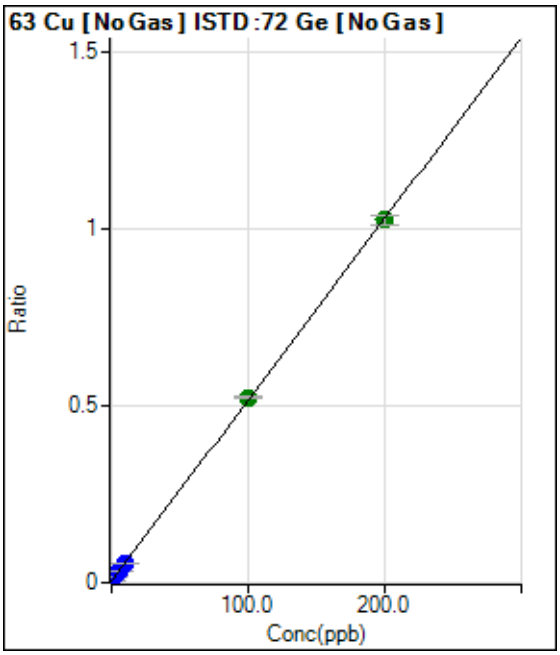
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	630.03	0.0006	P	11.6
2	☐	2.000	1.921	7595.58	0.0071	P	4.3
3	☐	5.000	5.045	19073.58	0.0178	P	3.9
4	☐	10.000	10.374	37722.51	0.0360	P	3.1
5	☐	100.000	98.619	355542.81	0.3374	P	1.0
6	☐	200.000	200.672	686126.66	0.6859	P	0.4

y = 0.0034 * x + 5.8256E-004
R = 1.0000
DL = 0.05937
BEC = 0.1706

Weight: <None>
Min Conc: <None>

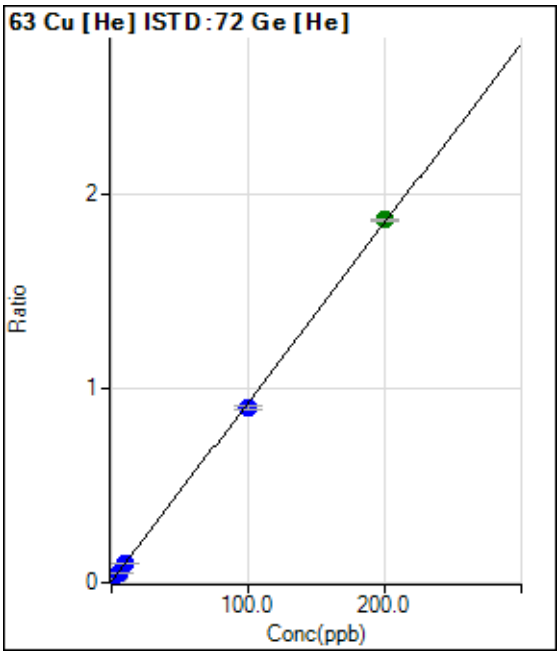


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15692.58	0.0044	P	4.3
2	☐	2.000	1.994	52136.76	0.0147	P	0.7
3	☐	5.000	5.104	107274.39	0.0306	P	0.4
4	☐	10.000	10.127	196866.07	0.0563	P	0.8
5	☐	100.000	101.136	1798780.39	0.5228	A	1.0
6	☐	200.000	199.423	3440739.01	1.0265	A	2.7

y = 0.0051 * x + 0.0044
R = 1.0000
DL = 0.1112
BEC = 0.8675

Weight: <None>
Min Conc: <None>

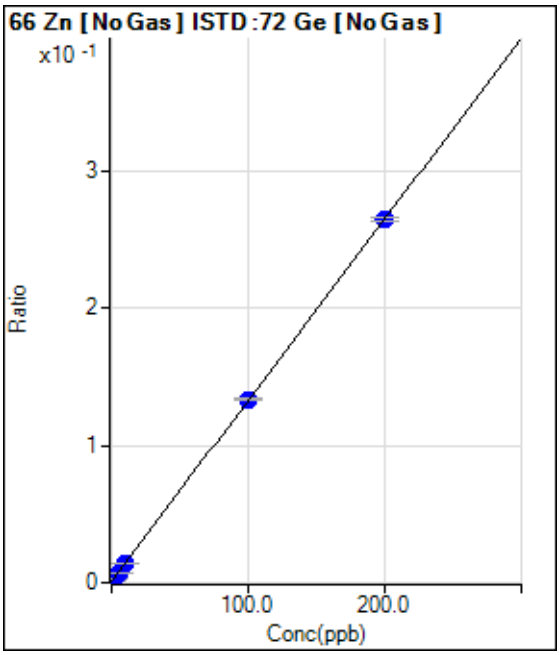
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6431.62	0.0059	P	2.7
2	☐	2.000	2.040	26369.23	0.0248	P	1.8
3	☐	5.000	5.013	55931.82	0.0523	P	2.5
4	☐	10.000	10.012	103143.03	0.0984	P	0.5
5	☐	100.000	96.502	945697.09	0.8975	P	2.2
6	☐	200.000	201.747	1870483.62	1.8699	A	0.9

y = 0.0092 * x + 0.0059
R = 0.9998
DL = 0.0513
BEC = 0.6434

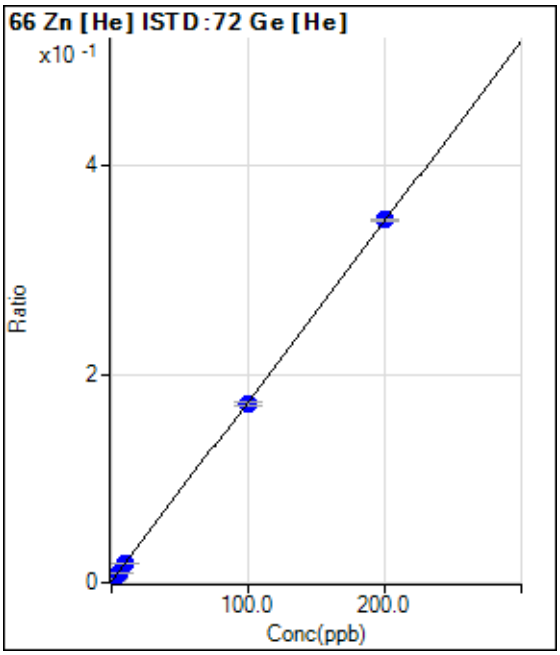
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2977.05	0.0008	P	5.3
2	☐	2.000	1.805	11475.06	0.0032	P	3.6
3	☐	5.000	5.056	26365.91	0.0075	P	3.3
4	☐	10.000	10.120	49657.69	0.0142	P	1.8
5	☐	100.000	100.624	460299.80	0.1338	P	0.5
6	☐	200.000	199.683	887145.35	0.2646	P	1.2

y = 0.0013 * x + 8.4414E-004
R = 1.0000
DL = 0.1025
BEC = 0.639

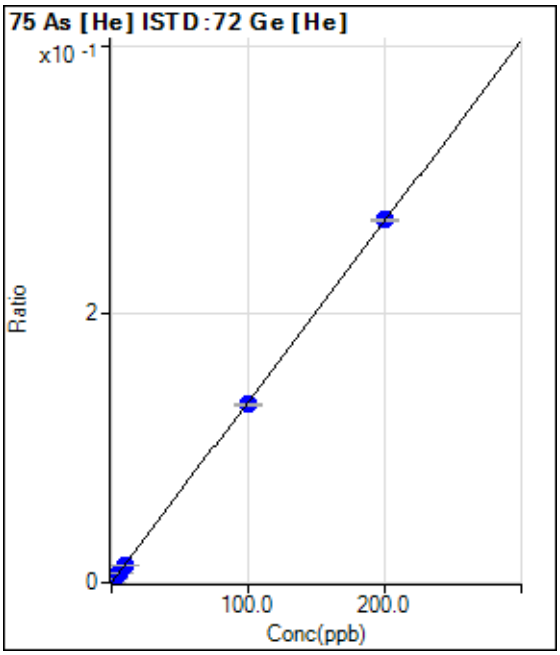
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1146.74	0.0011	P	6.7
2	☐	2.000	1.836	4504.16	0.0042	P	1.6
3	☐	5.000	4.978	10354.13	0.0097	P	2.5
4	☐	10.000	10.001	19237.27	0.0184	P	2.5
5	☐	100.000	98.479	180588.42	0.1714	P	2.0
6	☐	200.000	200.763	348403.35	0.3483	P	0.3

y = 0.0017 * x + 0.0011
R = 1.0000
DL = 0.124
BEC = 0.6131

Weight: <None>
Min Conc: <None>

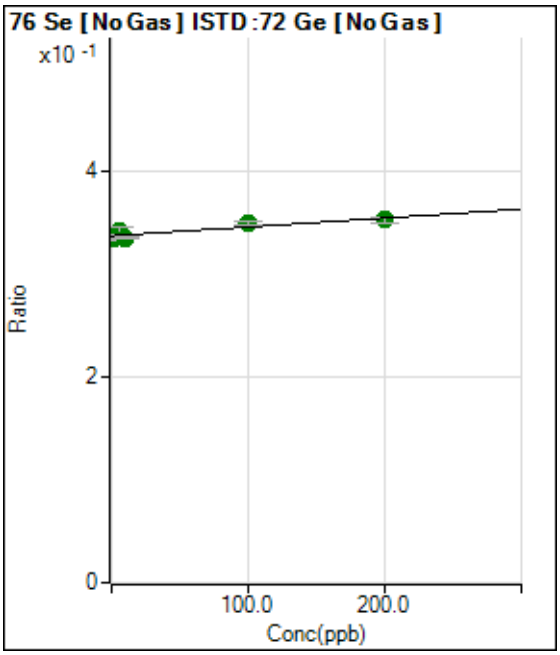


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	120.00	0.0001	P	15.7
2	☐	2.000	2.050	3052.59	0.0029	P	4.5
3	☐	5.000	5.000	7322.02	0.0068	P	2.2
4	☐	10.000	9.977	14186.38	0.0135	P	1.0
5	☐	100.000	98.513	139839.87	0.1327	P	1.8
6	☐	200.000	200.744	270401.53	0.2703	P	0.5

y = 0.0013 * x + 1.1076E-004
R = 1.0000
DL = 0.03883
BEC = 0.08229

Weight: <None>
Min Conc: <None>

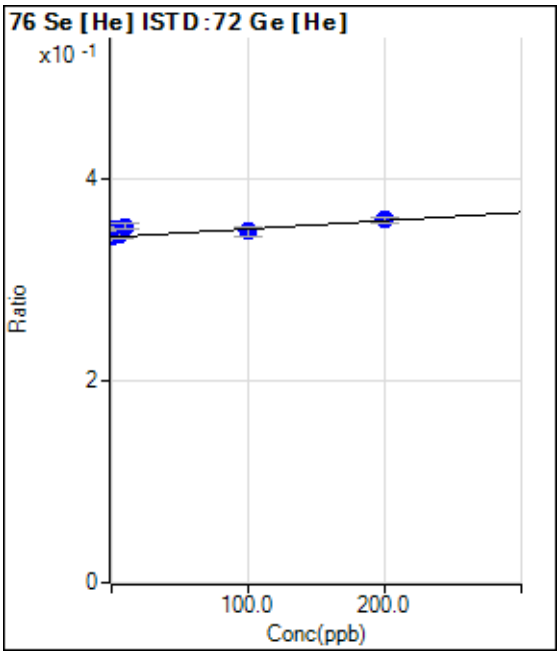
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1192343.37	0.3379	A	0.9
2	☐	2.000	-25.916	1193297.66	0.3356	A	1.1
3	☐	5.000	59.303	1202157.64	0.3430	A	2.6
4	☐	10.000	-24.271	1173155.71	0.3358	A	0.7
5	☐	100.000	144.499	1205644.56	0.3504	A	1.2
6	☐	200.000	178.385	1184498.13	0.3533	A	1.5

y = 8.6649E-005 * x + 0.3379
R = 0.9019
DL = 105.2
BEC = 3899

Weight: <None>
Min Conc: <None>

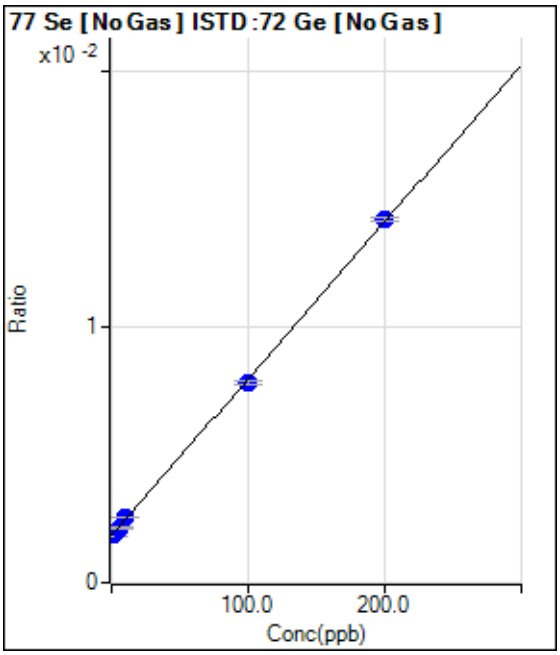


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	369756.70	0.3418	P	1.5
2	☐	2.000	89.092	371261.65	0.3491	P	1.2
3	☐	5.000	36.311	369002.78	0.3448	P	2.0
4	☐	10.000	133.868	369571.54	0.3528	P	1.2
5	☐	100.000	67.568	365951.12	0.3473	P	2.3
6	☐	200.000	208.369	358959.36	0.3589	P	1.6

y = 8.1972E-005 * x + 0.3418
R = 0.7223
DL = 184.2
BEC = 4169

Weight: <None>
Min Conc: <None>

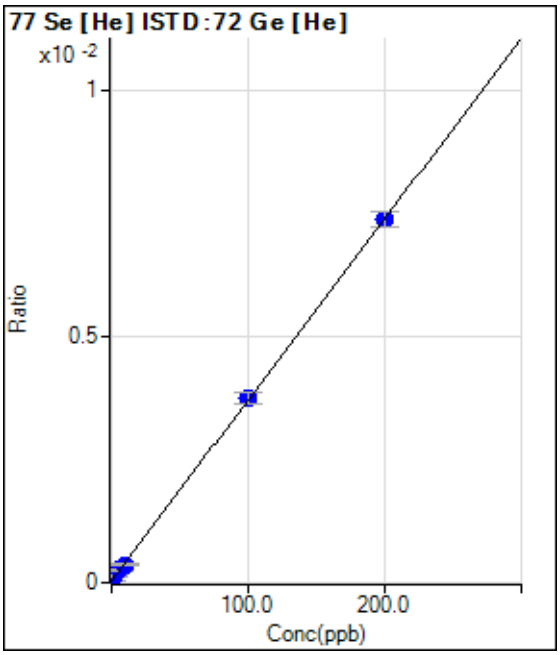
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6518.38	0.0018	P	3.2
2	☐	2.000	0.570	6688.43	0.0019	P	6.3
3	☐	5.000	4.457	7432.18	0.0021	P	2.9
4	☐	10.000	11.469	8913.11	0.0026	P	1.6
5	☐	100.000	97.444	26947.17	0.0078	P	1.1
6	☐	200.000	201.232	47624.64	0.0142	P	1.1

y = 6.1420E-005 * x + 0.0018
R = 0.9998
DL = 2.915
BEC = 30.07

Weight: <None>
Min Conc: <None>

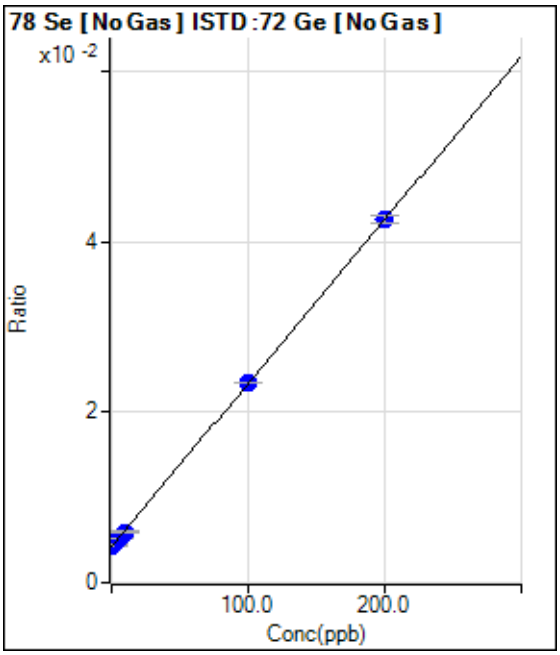


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43.33	0.0000	P	79.9
2	☐	2.000	2.588	143.34	0.0001	P	40.7
3	☐	5.000	5.967	276.68	0.0003	P	7.0
4	☐	10.000	8.902	383.35	0.0004	P	15.9
5	☐	100.000	100.815	3937.30	0.0037	P	5.7
6	☐	200.000	199.617	7365.47	0.0074	P	4.4

y = 3.6687E-005 * x + 3.9717E-005
R = 1.0000
DL = 2.596
BEC = 1.083

Weight: <None>
Min Conc: <None>

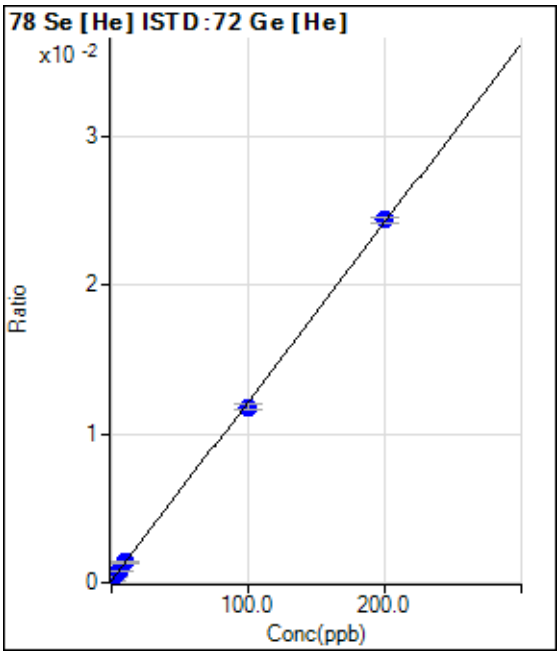
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14888.48	0.0042	P	1.8
2	☐	2.000	1.446	15983.00	0.0045	P	4.4
3	☐	5.000	5.304	18346.07	0.0052	P	1.2
4	☐	10.000	9.154	20866.41	0.0060	P	0.8
5	☐	100.000	100.201	80600.19	0.0234	P	0.6
6	☐	200.000	199.940	142612.46	0.0425	P	2.0

y = 1.9169E-004 * x + 0.0042
R = 1.0000
DL = 1.203
BEC = 22

Weight: <None>
Min Conc: <None>

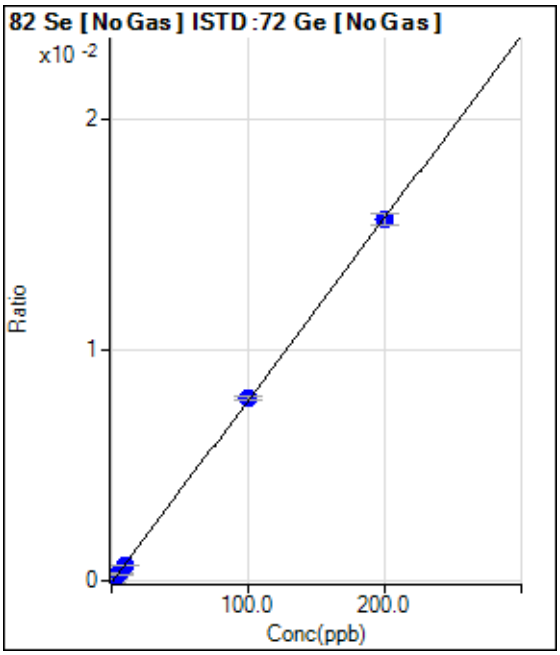


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	152.00	0.0001	P	7.1
2	☐	2.000	2.204	431.34	0.0004	P	3.6
3	☐	5.000	5.334	837.36	0.0008	P	0.7
4	☐	10.000	10.116	1421.41	0.0014	P	3.9
5	☐	100.000	96.870	12420.39	0.0118	P	3.0
6	☐	200.000	201.549	24384.69	0.0244	P	1.4

y = 1.2025E-004 * x + 1.4058E-004
R = 0.9998
DL = 0.2488
BEC = 1.169

Weight: <None>
Min Conc: <None>

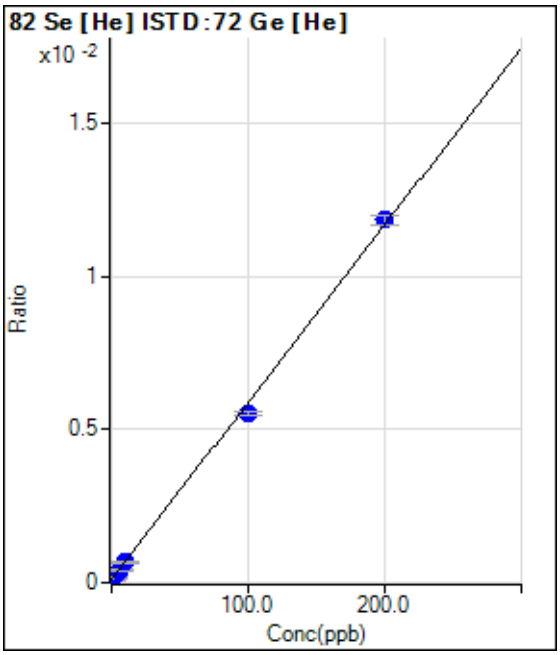
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-237.21	-0.0001	P	-39.7
2	☐	2.000	2.055	336.79	0.0001	P	51.5
3	☐	5.000	5.136	1183.93	0.0003	P	23.5
4	☐	10.000	9.714	2440.49	0.0007	P	6.4
5	☐	100.000	101.404	27289.61	0.0079	P	1.8
6	☐	200.000	199.309	52462.74	0.0157	P	3.2

y = 7.8872E-005 * x - 6.7533E-005
R = 1.0000
DL = 1.019
BEC = -0.8562

Weight: <None>
Min Conc: <None>

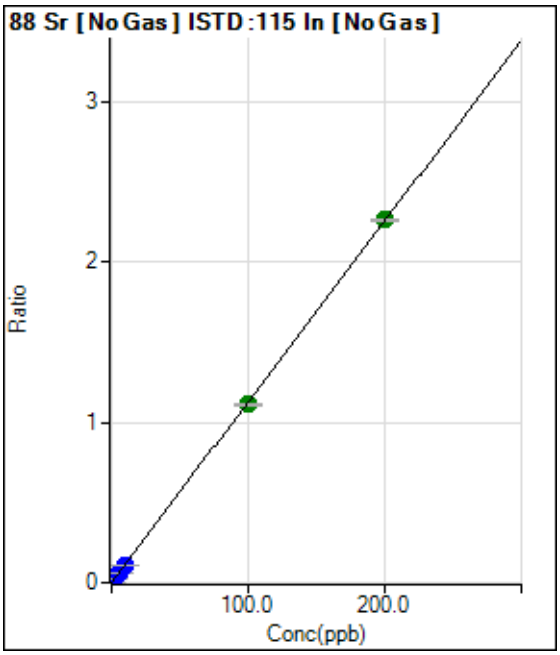


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0001	P	20.6
2	☐	2.000	0.953	170.00	0.0002	P	12.7
3	☐	5.000	5.087	426.68	0.0004	P	19.5
4	☐	10.000	9.841	706.70	0.0007	P	5.1
5	☐	100.000	93.993	5848.03	0.0055	P	2.0
6	☐	200.000	203.020	11865.46	0.0119	P	2.7

y = 5.7910E-005 * x + 1.0479E-004
R = 0.9994
DL = 1.121
BEC = 1.81

Weight: <None>
Min Conc: <None>

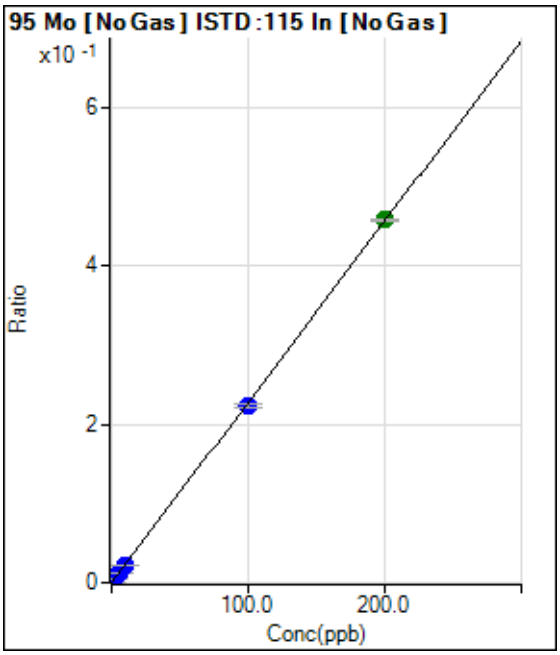
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3023.73	0.0008	P	9.9
2	☐	2.000	1.999	94424.99	0.0233	P	3.2
3	☐	5.000	4.915	228622.86	0.0561	P	1.3
4	☐	10.000	9.859	448383.51	0.1118	P	1.3
5	☐	100.000	98.511	4397374.20	1.1106	A	1.7
6	☐	200.000	200.754	8652127.37	2.2624	A	0.8

y = 0.0113 * x + 7.5304E-004
R = 1.0000
DL = 0.01989
BEC = 0.06684

Weight: <None>
Min Conc: <None>

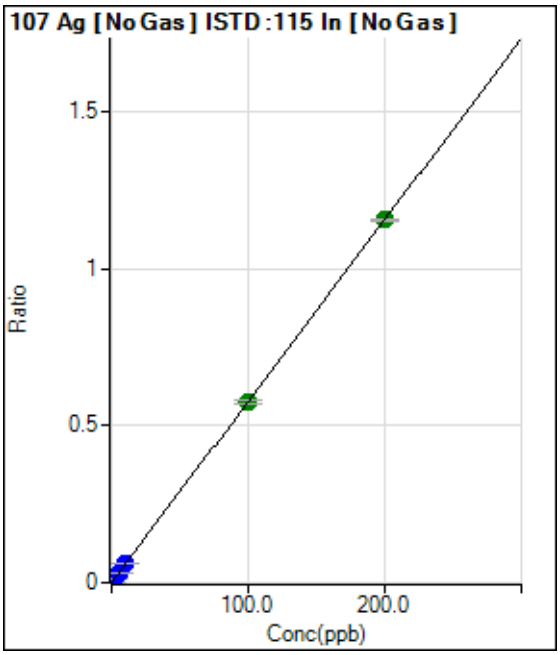


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	223.34	0.0001	P	21.7
2	☐	2.000	1.938	18132.61	0.0045	P	5.4
3	☐	5.000	4.904	45735.30	0.0112	P	0.8
4	☐	10.000	9.877	90459.08	0.0226	P	1.4
5	☐	100.000	98.117	885383.50	0.2236	P	1.6
6	☐	200.000	200.951	1751129.50	0.4579	A	0.3

y = 0.0023 * x + 5.5578E-005
R = 0.9999
DL = 0.01584
BEC = 0.02439

Weight: <None>
Min Conc: <None>

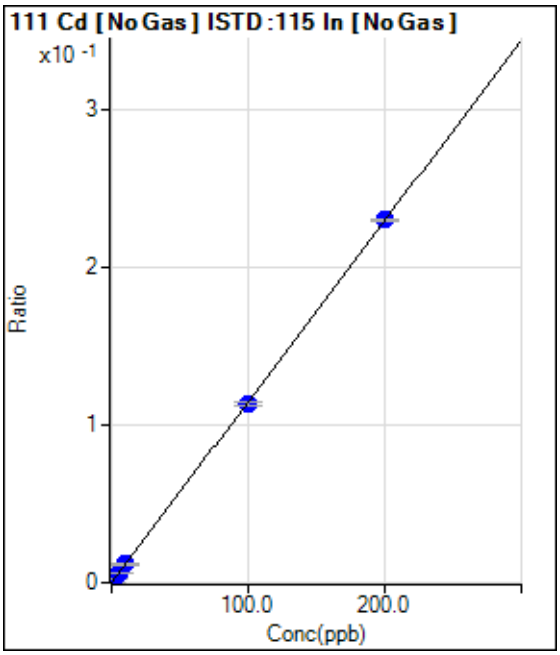
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	820.04	0.0002	P	10.6
2	☐	2.000	2.017	48097.67	0.0119	P	4.6
3	☐	5.000	5.027	119150.05	0.0293	P	1.2
4	☐	10.000	10.147	235970.07	0.0588	P	0.9
5	☐	100.000	99.823	2284891.63	0.5771	A	2.4
6	☐	200.000	200.080	4422624.62	1.1565	A	0.4

y = 0.0058 * x + 2.0418E-004
R = 1.0000
DL = 0.01119
BEC = 0.03533

Weight: <None>
Min Conc: <None>

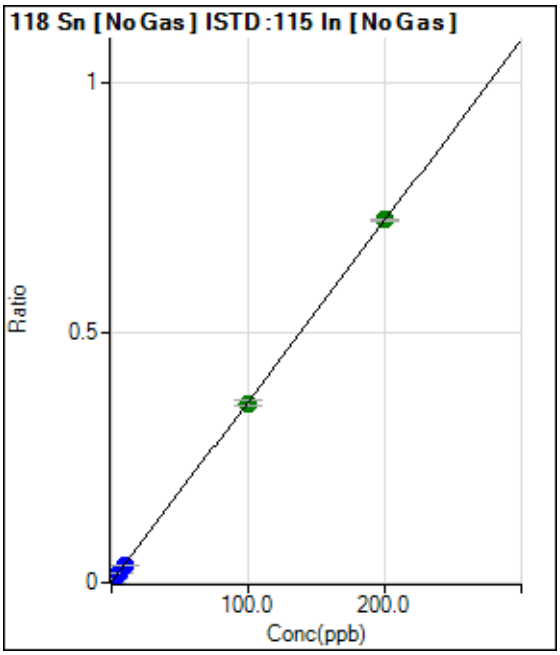


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	124.9
2	☐	2.000	1.986	9256.77	0.0023	P	6.6
3	☐	5.000	4.859	22729.76	0.0056	P	0.7
4	☐	10.000	10.153	46736.33	0.0117	P	1.6
5	☐	100.000	98.663	448338.52	0.1132	P	1.8
6	☐	200.000	200.665	880693.01	0.2303	P	0.2

y = 0.0011 * x + 4.1579E-006
R = 1.0000
DL = 0.01357
BEC = 0.003623

Weight: <None>
Min Conc: <None>

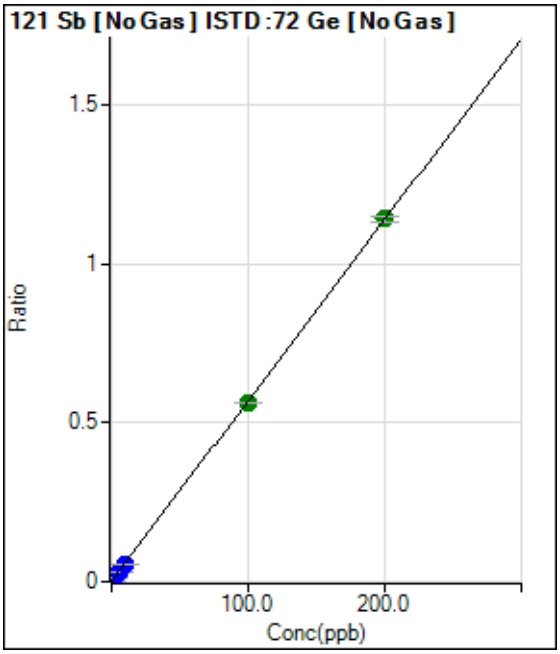
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3317.16	0.0008	P	3.1
2	☐	2.000	1.910	31384.36	0.0077	P	2.3
3	☐	5.000	4.808	74222.45	0.0182	P	1.7
4	☐	10.000	9.628	142988.95	0.0357	P	2.0
5	☐	100.000	99.192	1424470.97	0.3597	A	3.1
6	☐	200.000	200.429	2776211.84	0.7260	A	0.7

y = 0.0036 * x + 8.2600E-004
R = 1.0000
DL = 0.02125
BEC = 0.2283

Weight: <None>
Min Conc: <None>

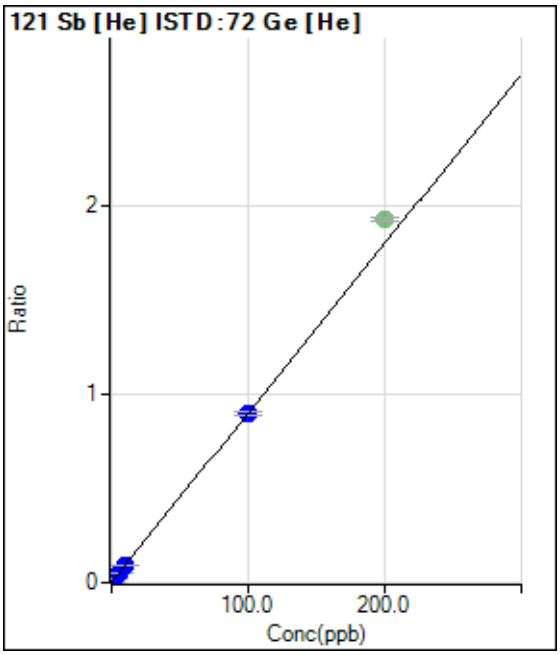


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5744.70	0.0016	P	1.7
2	☐	2.000	1.981	45823.78	0.0129	P	1.3
3	☐	5.000	4.863	102612.56	0.0293	P	1.0
4	☐	10.000	9.770	199746.07	0.0572	P	0.5
5	☐	100.000	98.749	1937352.16	0.5630	A	0.8
6	☐	200.000	200.640	3830002.96	1.1423	A	1.4

y = 0.0057 * x + 0.0016
R = 1.0000
DL = 0.01468
BEC = 0.2862

Weight: <None>
Min Conc: <None>

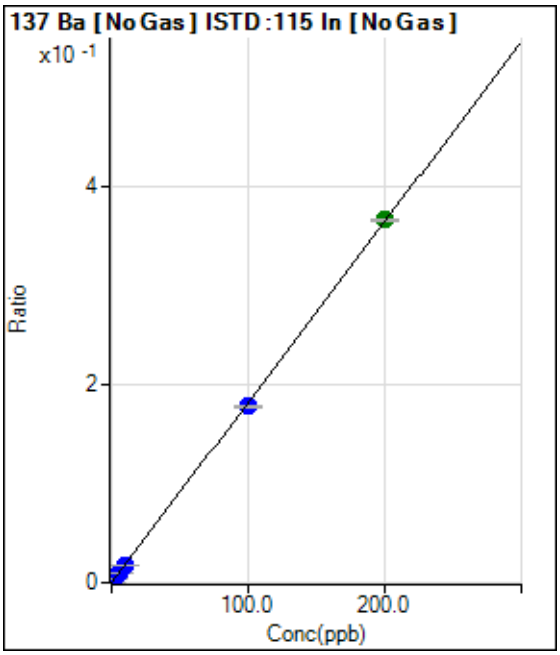
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2940.39	0.0027	P	5.1
2	☐	2.000	2.056	22556.36	0.0212	P	2.6
3	☐	5.000	5.008	51130.01	0.0478	P	2.2
4	☐	10.000	10.182	98810.88	0.0943	P	1.2
5	☐	100.000	99.980	950448.71	0.9021	P	2.5
6	☑	200.000		1928731.64	1.9282	A	1.2

y = 0.0090 * x + 0.0027
R = 1.0000
DL = 0.04623
BEC = 0.3021

Weight: <None>
Min Conc: <None>

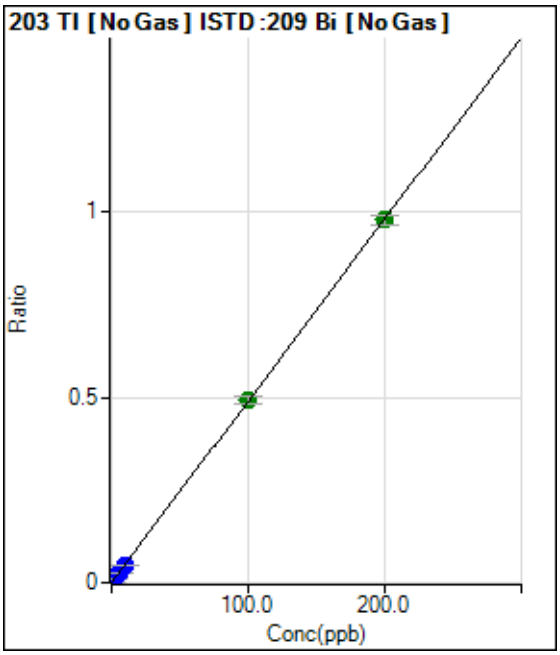


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	443.35	0.0001	P	25.1
2	☐	2.000	2.545	19221.12	0.0047	P	2.5
3	☐	5.000	4.879	36575.15	0.0090	P	0.7
4	☐	10.000	9.919	72743.40	0.0181	P	2.4
5	☐	100.000	97.725	703913.77	0.1778	P	1.2
6	☐	200.000	201.139	1398741.70	0.3658	A	0.8

y = 0.0018 * x + 1.1044E-004
R = 0.9999
DL = 0.04577
BEC = 0.06075

Weight: <None>
Min Conc: <None>

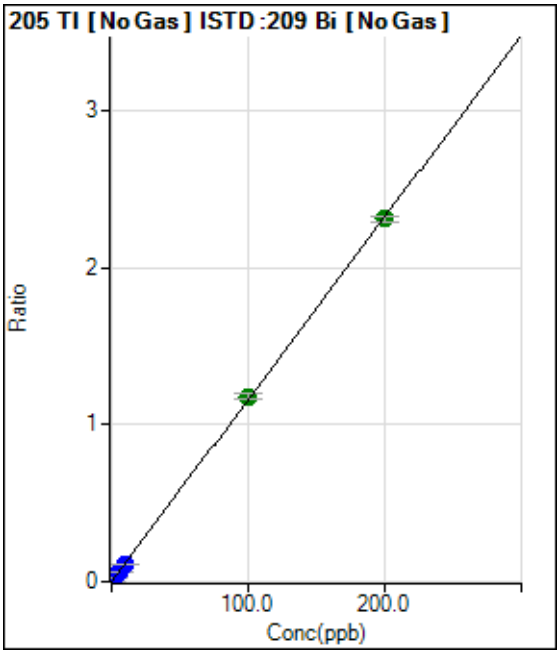
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	426.68	0.0001	P	22.8
2	☐	2.000	1.941	34792.08	0.0096	P	5.4
3	☐	5.000	4.812	86555.60	0.0237	P	2.6
4	☐	10.000	9.535	172776.42	0.0469	P	2.7
5	☐	100.000	100.522	1773883.98	0.4929	A	4.0
6	☐	200.000	199.768	3495434.32	0.9795	A	2.3

y = 0.0049 * x + 1.1833E-004
R = 1.0000
DL = 0.01648
BEC = 0.02414

Weight: <None>
Min Conc: <None>

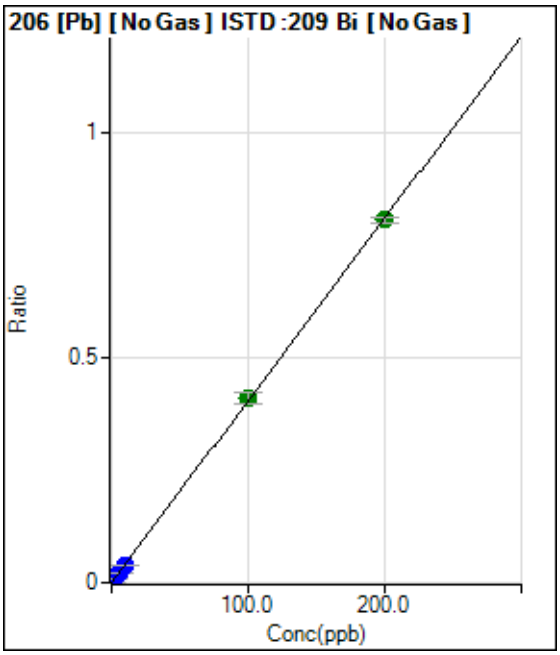


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1120.07	0.0003	P	11.9
2	☐	2.000	1.996	84717.02	0.0235	P	3.7
3	☐	5.000	4.866	207186.20	0.0567	P	1.7
4	☐	10.000	9.716	416657.91	0.1130	P	1.4
5	☐	100.000	101.703	4246780.25	1.1799	A	3.1
6	☐	200.000	199.166	8244475.29	2.3102	A	1.7

y = 0.0116 * x + 3.1084E-004
R = 0.9999
DL = 0.009554
BEC = 0.0268

Weight: <None>
Min Conc: <None>

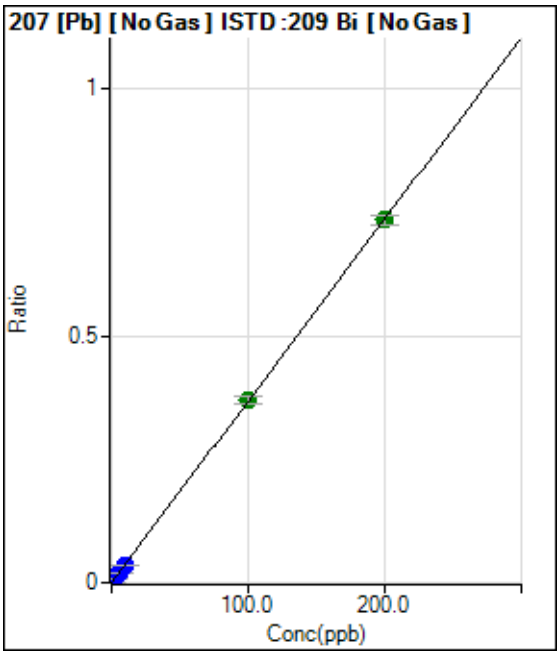
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	560.03	0.0002	P	14.4
2	☐	2.000	1.980	29451.90	0.0082	P	2.3
3	☐	5.000	4.902	72859.17	0.0200	P	2.1
4	☐	10.000	9.755	145859.57	0.0396	P	2.3
5	☐	100.000	101.466	1475024.51	0.4100	A	5.5
6	☐	200.000	199.282	2873055.79	0.8051	A	1.9

y = 0.0040 * x + 1.5565E-004
R = 1.0000
DL = 0.0166
BEC = 0.03854

Weight: <None>
Min Conc: <None>

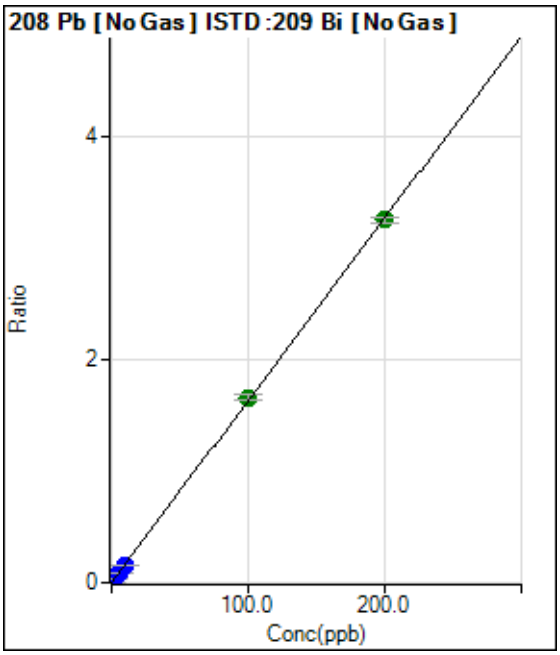


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	553.36	0.0002	P	12.8
2	☐	2.000	1.948	26421.64	0.0073	P	2.6
3	☐	5.000	4.838	65508.57	0.0179	P	1.7
4	☐	10.000	9.718	132297.63	0.0359	P	3.0
5	☐	100.000	100.581	1331944.49	0.3700	A	3.3
6	☐	200.000	199.728	2621461.52	0.7346	A	2.8

y = 0.0037 * x + 1.5356E-004
R = 1.0000
DL = 0.01608
BEC = 0.04176

Weight: <None>
Min Conc: <None>

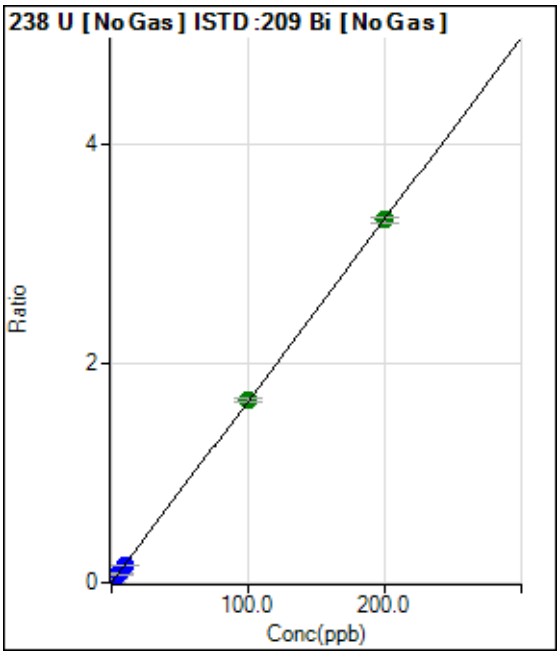
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2400.14	0.0007	P	0.7
2	☐	2.000	1.989	119485.93	0.0331	P	2.9
3	☐	5.000	4.887	293278.99	0.0803	P	1.5
4	☐	10.000	9.792	590894.29	0.1603	P	2.5
5	☐	100.000	101.575	5961660.20	1.6564	A	3.3
6	☐	200.000	199.226	11591494.52	3.2481	A	1.3

y = 0.0163 * x + 6.6648E-004
R = 1.0000
DL = 0.0009123
BEC = 0.04089

Weight: <None>
Min Conc: <None>

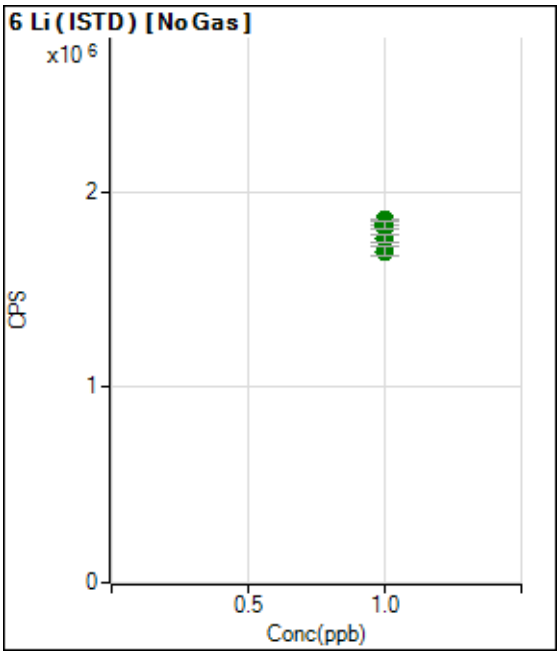


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.00	0.0000	P	23.8
2	☐	2.000	1.942	116437.11	0.0322	P	2.3
3	☐	5.000	4.820	291903.71	0.0800	P	2.9
4	☐	10.000	9.565	584845.86	0.1586	P	2.7
5	☐	100.000	100.556	6001852.00	1.6674	A	2.8
6	☐	200.000	199.749	11819957.32	3.3122	A	1.5

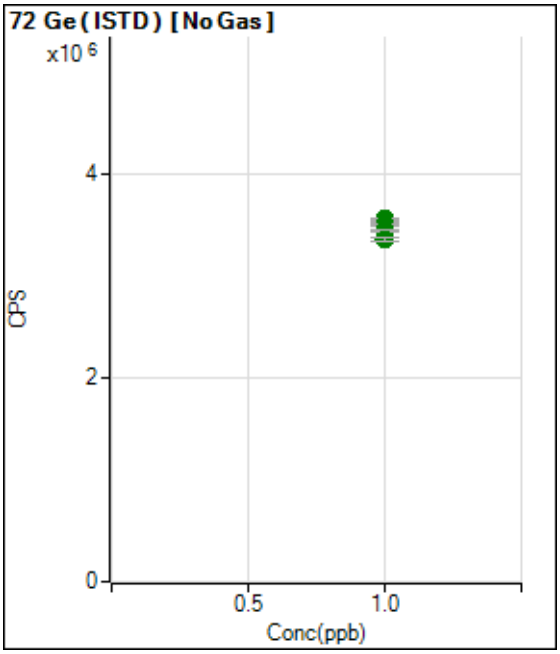
y = 0.0166 * x + 3.8826E-005
R = 1.0000
DL = 0.001673
BEC = 0.002342

Weight: <None>
Min Conc: <None>

Calibration for 015_ICV.d

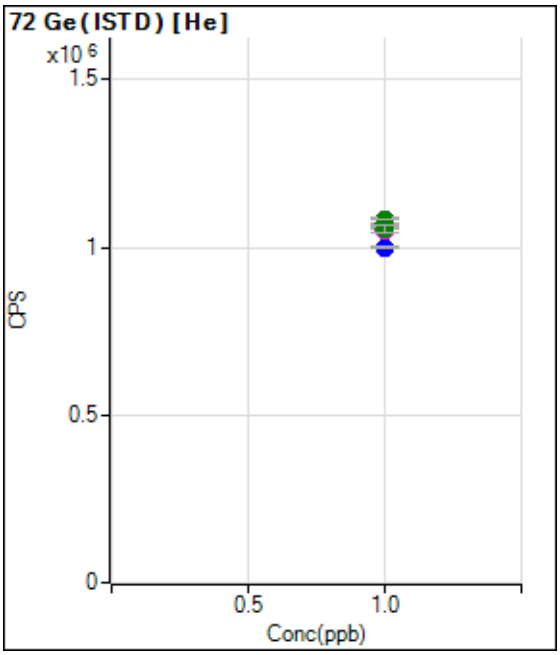


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1845435.82		A	1.9
2	☐	1.000		1857954.58		A	0.5
3	☐	1.000		1820914.24		A	1.0
4	☐	1.000		1830966.28		A	1.9
5	☐	1.000		1763063.66		A	1.9
6	☐	1.000		1695773.28		A	2.8

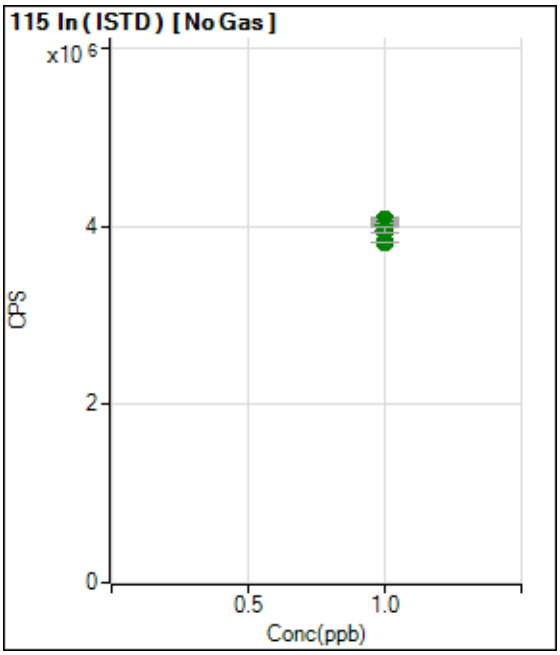


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3529374.43		A	2.1
2	☐	1.000		3555305.47		A	0.7
3	☐	1.000		3505254.22		A	1.1
4	☐	1.000		3493937.14		A	0.6
5	☐	1.000		3440894.32		A	0.8
6	☐	1.000		3352551.93		A	1.2

Calibration for 015_ICV.d

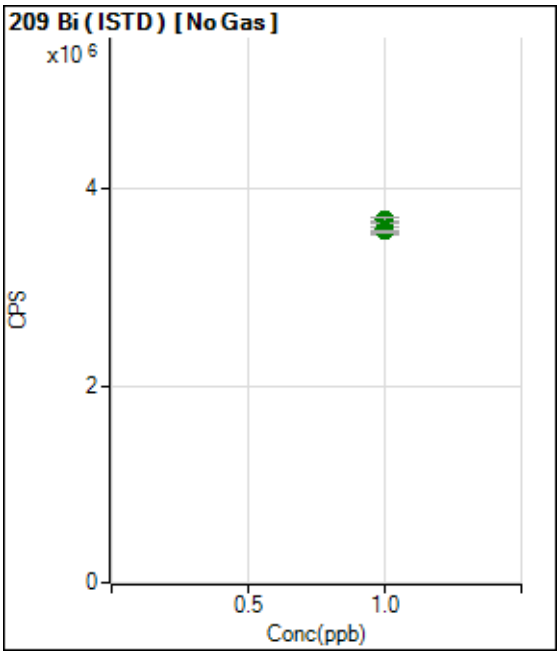


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1081993.24		A	1.6
2	☐	1.000		1063560.61		A	0.9
3	☐	1.000		1070622.98		A	2.1
4	☐	1.000		1047766.49		M	1.2
5	☐	1.000		1053938.60		A	1.9
6	☐	1.000		1000295.09		P	0.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4016066.83		A	0.4
2	☐	1.000		4058930.25		A	2.5
3	☐	1.000		4073237.28		A	0.9
4	☐	1.000		4010249.86		A	1.1
5	☐	1.000		3960129.01		A	1.4
6	☐	1.000		3824234.95		A	0.4

Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3601111.82		A	0.9
2	☐	1.000		3613074.11		A	1.9
3	☐	1.000		3651945.99		A	1.7
4	☐	1.000		3687668.80		A	1.7
5	☐	1.000		3601582.13		A	3.0
6	☐	1.000		3568942.87		A	0.9

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	008CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T10:59:35-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	108504	0.00
Be	9	1	No Gas	25	240.00
V	51	2	He	1173	0.61
Cr	52	2	He	2354	0.40
Fe	56	2	He	20322	0.00
Se	78	2	He	152	3.77
As	75	2	He	120	14.08
Ca	44	2	He	2050	0.18
Na	23	2	He	125174	0.00
Mg	24	2	He	1964	0.21
K	39	2	He	84729	0.00
Mn	55	2	He	6292	0.10
Co	59	2	He	70	53.99
Ni	60	2	He	630	1.76
Cu	63	2	He	6432	0.04
Zn	66	2	He	1147	0.49
Al	27	2	He	2627	0.11
B	11	1	No Gas	33026	0.00
Al	27	1	No Gas	114096	0.00
Si	28	1	No Gas	575676	0.00
Ag	107	1	No Gas	820	1.30
Cd	111	1	No Gas	17	749.40
Sr	88	1	No Gas	3024	0.32
Mo	95	1	No Gas	223	9.89
Sn	118	1	No Gas	3317	0.09
Sb	121	1	No Gas	5745	0.07
Ba	137	1	No Gas	443	5.60
Tl	205	1	No Gas	1120	1.13
Tl	203	1	No Gas	427	5.53
Pb	208	1	No Gas	2400	0.06
U	238	1	No Gas	140	17.68
Ca	43	2	He	67	12.99
Sb	121	2	He	2940	0.19
Ti	47	2	He	23	212.09
Cu	63	1	No Gas	15693	0.03

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD

Calibration Blank Report

Li	6	1	No Gas	1845436	1.89
Ge	72	2	He	1081993	1.58
Ge	72	1	No Gas	3529374	2.09
In	115	1	No Gas	4016067	0.41

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	3601112	0.92

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	009CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:01:34-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	11220	0.03
V	51	2	He	18024	0.01
Cr	52	2	He	22906	0.01
Fe	56	2	He	1923594	0.00
Se	78	2	He	431	0.70
As	75	2	He	3053	0.15
Ca	44	2	He	13016	0.01
Na	23	2	He	431130	0.00
Mg	24	2	He	183843	0.00
K	39	2	He	298482	0.00
Mn	55	2	He	16230	0.02
Co	59	2	He	30094	0.01
Ni	60	2	He	7596	0.05
Cu	63	2	He	26369	0.00
Zn	66	2	He	4504	0.03
Al	27	2	He	4921	0.06
B	11	1	No Gas	61728	0.00
Al	27	1	No Gas	209316	0.00
Si	28	1	No Gas	659760	0.00
Ag	107	1	No Gas	48098	0.01
Cd	111	1	No Gas	9257	0.05
Sr	88	1	No Gas	94425	0.00
Mo	95	1	No Gas	18133	0.02
Sn	118	1	No Gas	31384	0.00
Sb	121	1	No Gas	45824	0.00
Ba	137	1	No Gas	19221	0.01
Tl	205	1	No Gas	84717	0.00
Tl	203	1	No Gas	34792	0.01
Pb	208	1	No Gas	119486	0.00
U	238	1	No Gas	116437	0.00
Ca	43	2	He	773	0.92
Sb	121	2	He	22556	0.01
Cu	63	1	No Gas	52137	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1857955	0.49	1845436	100.68	70	120	
Ge	72	2	He	1063561	0.90	1081993	98.30	70	120	
Ge	72	1	No Gas	3555305	0.69	3529374	100.73	70	120	

Calibration Standard Report

In	115	1	No Gas	4058930	2.46	4016067	101.07	70	120	
Bi	209	1	No Gas	3613074	1.91	3601112	100.33	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	010CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:03:33-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	27898	0.01
V	51	2	He	43147	0.00
Cr	52	2	He	52441	0.00
Fe	56	2	He	4592542	0.00
Se	78	2	He	837	0.33
As	75	2	He	7322	0.01
Ca	44	2	He	29689	0.01
Na	23	2	He	869707	0.00
Mg	24	2	He	445942	0.00
K	39	2	He	608338	0.00
Mn	55	2	He	38685	0.00
Co	59	2	He	73964	0.00
Ni	60	2	He	19074	0.03
Cu	63	2	He	55932	0.00
Zn	66	2	He	10354	0.03
Al	27	2	He	5645	0.11
B	11	1	No Gas	107775	0.00
Al	27	1	No Gas	240913	0.00
Si	28	1	No Gas	838682	0.00
Ag	107	1	No Gas	119150	0.00
Cd	111	1	No Gas	22730	0.01
Sr	88	1	No Gas	228623	0.00
Mo	95	1	No Gas	45735	0.00
Sn	118	1	No Gas	74222	0.00
Sb	121	1	No Gas	102613	0.00
Ba	137	1	No Gas	36575	0.00
Tl	205	1	No Gas	207186	0.00
Tl	203	1	No Gas	86556	0.00
Pb	208	1	No Gas	293279	0.00
U	238	1	No Gas	291904	0.00
Ca	43	2	He	1833	0.38
Sb	121	2	He	51130	0.00
Cu	63	1	No Gas	107274	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1820914	0.97	1845436	98.67	70	120	
Ge	72	2	He	1070623	2.08	1081993	98.95	70	120	
Ge	72	1	No Gas	3505254	1.09	3529374	99.32	70	120	

Calibration Standard Report

In	115	1	No Gas	4073237	0.85	4016067	101.42	70	120	
Bi	209	1	No Gas	3651946	1.69	3601112	101.41	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	011CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:05:31-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	55558	0.00
V	51	2	He	85754	0.00
Cr	52	2	He	103187	0.00
Fe	56	2	He	9096100	0.00
Se	78	2	He	1421	0.20
As	75	2	He	14186	0.00
Ca	44	2	He	55971	0.00
Na	23	2	He	1603916	0.00
Mg	24	2	He	872113	0.00
K	39	2	He	1151158	0.00
Mn	55	2	He	75334	0.00
Co	59	2	He	147168	0.00
Ni	60	2	He	37723	0.01
Cu	63	2	He	103143	0.00
Zn	66	2	He	19237	0.02
Al	27	2	He	8543	0.03
B	11	1	No Gas	184884	0.00
Al	27	1	No Gas	365947	0.00
Si	28	1	No Gas	1111424	0.00
Ag	107	1	No Gas	235970	0.00
Cd	111	1	No Gas	46736	0.00
Sr	88	1	No Gas	448384	0.00
Mo	95	1	No Gas	90459	0.00
Sn	118	1	No Gas	142989	0.00
Sb	121	1	No Gas	199746	0.00
Ba	137	1	No Gas	72743	0.00
Tl	205	1	No Gas	416658	0.00
Tl	203	1	No Gas	172776	0.00
Pb	208	1	No Gas	590894	0.00
U	238	1	No Gas	584846	0.00
Ca	43	2	He	3410	0.14
Sb	121	2	He	98811	0.00
Cu	63	1	No Gas	196866	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1830966	1.85	1845436	99.22	70	120	
Ge	72	2	He	1047766	1.16	1081993	96.84	70	120	
Ge	72	1	No Gas	3493937	0.58	3529374	99.00	70	120	

Calibration Standard Report

In	115	1	No Gas	4010250	1.10	4016067	99.86	70	120	
Bi	209	1	No Gas	3687669	1.74	3601112	102.40	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	012CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:07:28-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	557075	0.00
V	51	2	He	835168	0.00
Cr	52	2	He	977024	0.00
Fe	56	2	He	86432779	0.00
Se	78	2	He	12420	0.01
As	75	2	He	139840	0.00
Ca	44	2	He	528039	0.00
Na	23	2	He	14269973	0.00
Mg	24	2	He	8283698	0.00
K	39	2	He	10187139	0.00
Mn	55	2	He	754898	0.00
Co	59	2	He	1475795	0.00
Ni	60	2	He	355543	0.00
Cu	63	2	He	945697	0.00
Zn	66	2	He	180588	0.00
Al	27	2	He	54313	0.00
B	11	1	No Gas	1502218	0.00
Al	27	1	No Gas	2330676	0.00
Si	28	1	No Gas	5561427	0.00
Ag	107	1	No Gas	2284892	0.00
Cd	111	1	No Gas	448339	0.00
Sr	88	1	No Gas	4397374	0.00
Mo	95	1	No Gas	885384	0.00
Sn	118	1	No Gas	1424471	0.00
Sb	121	1	No Gas	1937352	0.00
Ba	137	1	No Gas	703914	0.00
Tl	205	1	No Gas	4246780	0.00
Tl	203	1	No Gas	1773884	0.00
Pb	208	1	No Gas	5961660	0.00
U	238	1	No Gas	6001852	0.00
Ca	43	2	He	32008	0.01
Sb	121	2	He	950449	0.00
Cu	63	1	No Gas	1798780	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1763064	1.95	1845436	95.54	70	120	
Ge	72	2	He	1053939	1.94	1081993	97.41	70	120	
Ge	72	1	No Gas	3440894	0.80	3529374	97.49	70	120	

Calibration Standard Report

In	115	1	No Gas	3960129	1.41	4016067	98.61	70	120	
Bi	209	1	No Gas	3601582	3.05	3601112	100.01	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	013CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:09:20-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	1082987	0.00
V	51	2	He	1667995	0.00
Cr	52	2	He	1928188	0.00
Fe	56	2	He	170960904	0.00
Se	78	2	He	24385	0.01
As	75	2	He	270402	0.00
Ca	44	2	He	1088008	0.00
Na	23	2	He	28026345	0.00
Mg	24	2	He	16337399	0.00
K	39	2	He	19990532	0.00
Mn	55	2	He	1452769	0.00
Co	59	2	He	2780514	0.00
Ni	60	2	He	686127	0.00
Cu	63	2	He	1870484	0.00
Zn	66	2	He	348403	0.00
Al	27	2	He	102979	0.00
B	11	1	No Gas	2959437	0.00
Al	27	1	No Gas	4282438	0.00
Si	28	1	No Gas	10244677	0.00
Ag	107	1	No Gas	4422625	0.00
Cd	111	1	No Gas	880693	0.00
Sr	88	1	No Gas	8652127	0.00
Mo	95	1	No Gas	1751130	0.00
Sn	118	1	No Gas	2776212	0.00
Sb	121	1	No Gas	3830003	0.00
Ba	137	1	No Gas	1398742	0.00
Tl	205	1	No Gas	8244475	0.00
Tl	203	1	No Gas	3495434	0.00
Pb	208	1	No Gas	11591495	0.00
U	238	1	No Gas	11819957	0.00
Ca	43	2	He	61149	0.00
Sb	121	2	He	1928732	0.00
Cu	63	1	No Gas	3440739	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1695773	2.85	1845436	91.89	70	120	
Ge	72	2	He	1000295	0.20	1081993	92.45	70	120	
Ge	72	1	No Gas	3352552	1.20	3529374	94.99	70	120	

Calibration Standard Report

In	115	1	No Gas	3824235	0.36	4016067	95.22	70	120	
Bi	209	1	No Gas	3568943	0.87	3601112	99.11	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	015_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:13:08-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	99.811	0.959	2375068	1.49	100	99.8	90	110	
Be	9	1	No Gas	99.423	0.282	548201	0.56	100	99.4	90	110	
V	51	2	He	96.132	0.020	838227	0.39	100	96.1	90	110	
Cr	52	2	He	99.072	0.984	1001331	1.33	100	99.1	90	110	
Fe	56	2	He	9946.558	1.025	89026302	1.29	10000	99.5	90	110	
Se	78	2	He	97.127	1.894	12478	1.84	100	97.1	90	110	
As	75	2	He	97.117	0.583	138120	0.43	100	97.1	90	110	
Ca	44	2	He	9648.242	0.234	546044	0.60	10000	96.5	90	110	
Na	23	2	He	9722.018	0.501	14334141	0.23	10000	97.2	90	110	
Mg	24	2	He	9898.879	1.154	8471569	0.81	10000	99.0	90	110	
K	39	2	He	9800.680	1.387	10306062	1.04	10000	98.0	90	110	
Mn	55	2	He	94.914	0.836	728137	1.04	100	94.9	90	110	
Co	59	2	He	101.703	1.130	1494632	0.95	100	101.7	90	110	
Ni	60	2	He	99.576	1.686	359626	1.61	100	99.6	90	110	
Cu	63	2	He	97.501	1.265	957259	1.24	100	97.5	90	110	
Zn	66	2	He	99.788	0.594	183325	0.46	100	99.8	90	110	
Al	27	2	He	94.242	0.722	52362	0.84	100	94.2	90	110	
B	11	1	No Gas	498.322	1.088	1509871	1.74	500	99.7	90	110	
Al	27	1	No Gas	100.938	1.857	2254810	0.89	100	100.9	90	110	
Si	28	1	No Gas	507.372	2.321	5529799	1.08	500	101.5	90	110	
Ag	107	1	No Gas	100.952	1.726	2323270	0.86	100	101.0	90	110	
Cd	111	1	No Gas	99.553	1.268	454833	0.34	100	99.6	90	110	
Sr	88	1	No Gas	99.473	0.731	4464523	0.81	100	99.5	90	110	
Mo	95	1	No Gas	97.070	1.058	880685	0.57	100	97.1	90	110	
Sn	118	1	No Gas	99.514	0.656	1436638	0.86	100	99.5	90	110	
Sb	121	1	No Gas	102.086	2.378	1971489	1.30	100	102.1	90	110	
Ba	137	1	No Gas	99.073	1.150	717437	0.24	100	99.1	90	110	
Tl	205	1	No Gas	102.990	3.938	4316068	2.02	100	103.0	90	110	
Tl	203	1	No Gas	101.280	2.292	1794456	0.34	100	101.3	90	110	
Pb	208	1	No Gas	102.287	2.284	6026681	0.33	100	102.3	90	110	
U	238	1	No Gas	98.099	2.842	5877038	1.09	100	98.1	90	110	
Ca	43	2	He	10130.335	0.909	32679	1.00	10000	101.3	90	110	
Sb	121	2	He	94.907	0.252	954659	0.18	100	94.9	90	110	
Ti	47	2	He	97.804	1.465	32322	1.83	100	97.8	90	110	
Cu	63	1	No Gas	100.939	0.931	1767789	1.77	100	100.9	90	110	
Se	82	1	No Gas	101.021	2.324	26765	2.45	100	101.0	90	110	

QC ISTD Table

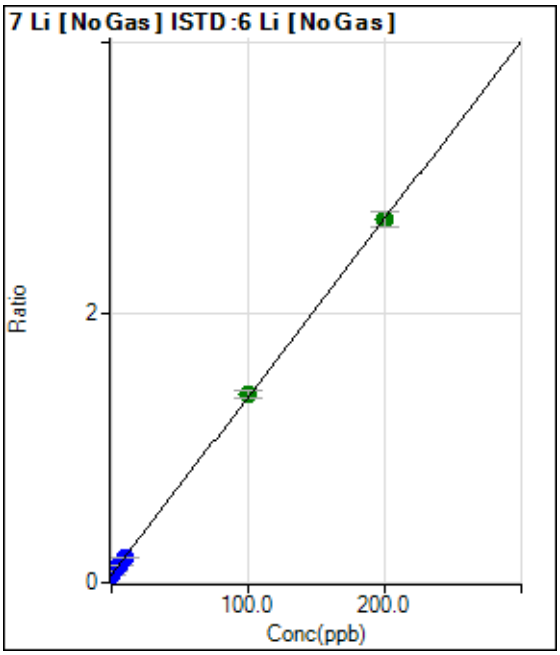
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1729416	0.74	1845436	93.71	70	120	
Ge	72	2	He	1055696	0.37	1081993	97.57	70	120	
Ge	72	1	No Gas	3388029	1.08	3529374	96.00	70	120	
In	115	1	No Gas	3981239	0.93	4016067	99.13	70	120	
Bi	209	1	No Gas	3614255	1.97	3601112	100.36	70	120	

Calibration for 015_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\060421A.b\
Analysis File: 060421A.batch.bin
DA Date-Time: 6/4/2021 4:05:17 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	008CALB.d	CAL BLK	6/4/2021 10:59:35 AM
2	009CALS.d	2/10/200	6/4/2021 11:01:34 AM
3	010CALS.d	5/25/500	6/4/2021 11:03:33 AM
4	011CALS.d	10/50/100	6/4/2021 11:05:31 AM
5	012CALS.d	100/500/10K	6/4/2021 11:07:28 AM
6	013CALS.d	200/1000/20K	6/4/2021 11:09:20 AM

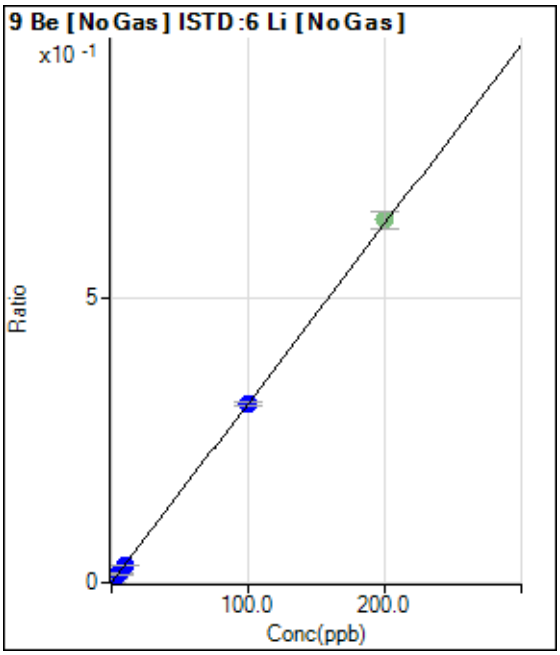
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	108504.16	0.0588	P	2.0
2	☐	2.000	1.980	157714.23	0.0849	P	0.2
3	☐	5.000	5.089	229098.14	0.1258	P	1.4
4	☐	10.000	9.901	346343.26	0.1892	P	2.2
5	☐	100.000	101.081	2449446.63	1.3900	A	4.0
6	☐	200.000	199.463	4550861.91	2.6857	A	4.1

y = 0.0132 * x + 0.0588
R = 1.0000
DL = 0.2697
BEC = 4.466

Weight: <None>
Min Conc: <None>

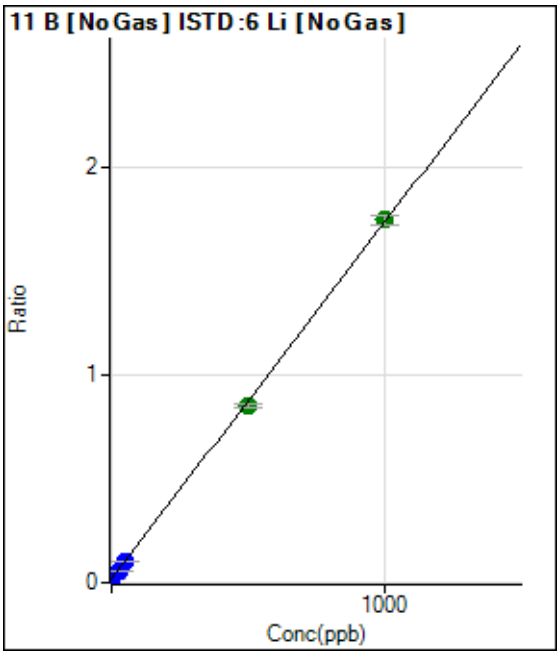


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	61.6
2	☐	2.000	1.907	11219.51	0.0060	P	3.3
3	☐	5.000	4.846	27897.74	0.0153	P	2.5
4	☐	10.000	9.605	55557.59	0.0304	P	2.3
5	☐	100.000	100.049	557075.07	0.3160	P	1.7
6	☑	200.000		1082986.60	0.6391	A	4.6

y = 0.0032 * x + 1.3644E-005
R = 1.0000
DL = 0.007982
BEC = 0.004319

Weight: <None>
Min Conc: <None>

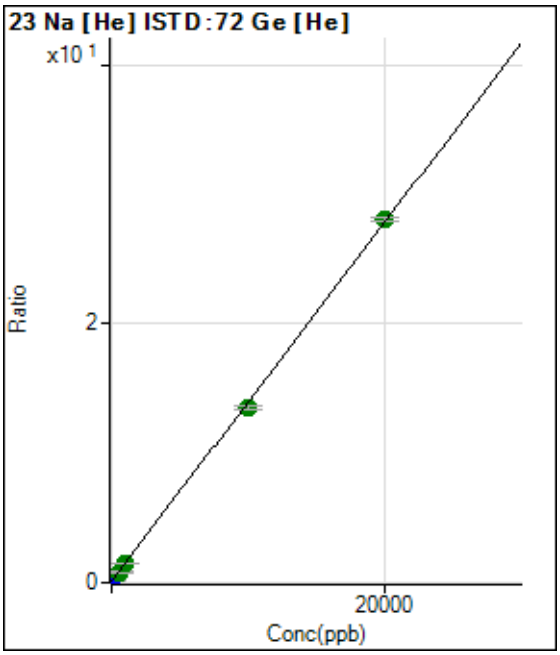
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33025.51	0.0179	P	3.2
2	☐	10.000	8.929	61728.19	0.0332	P	0.7
3	☐	25.000	24.060	107774.89	0.0592	P	0.8
4	☐	50.000	48.424	184884.12	0.1010	P	1.8
5	☐	500.000	486.089	1502218.00	0.8520	A	2.6
6	☐	1000.000	1007.069	2959436.94	1.7460	A	2.6

y = 0.0017 * x + 0.0179
R = 0.9999
DL = 1.005
BEC = 10.43

Weight: <None>
Min Conc: <None>

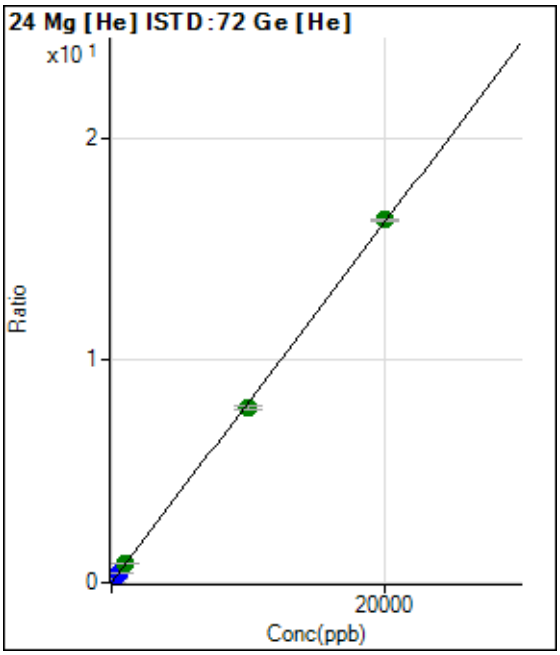


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	125173.96	0.1157	P	2.6
2	☐	200.000	209.189	431130.41	0.4054	P	1.0
3	☐	500.000	503.172	869707.15	0.8125	A	1.4
4	☐	1000.000	1022.007	1603916.33	1.5309	A	1.2
5	☐	10000.000	9697.080	14269972.71	13.5435	A	2.3
6	☐	20000.000	20150.189	28026345.42	28.0182	A	1.1

y = 0.0014 * x + 0.1157
R = 0.9998
DL = 6.5
BEC = 83.57

Weight: <None>
Min Conc: <None>

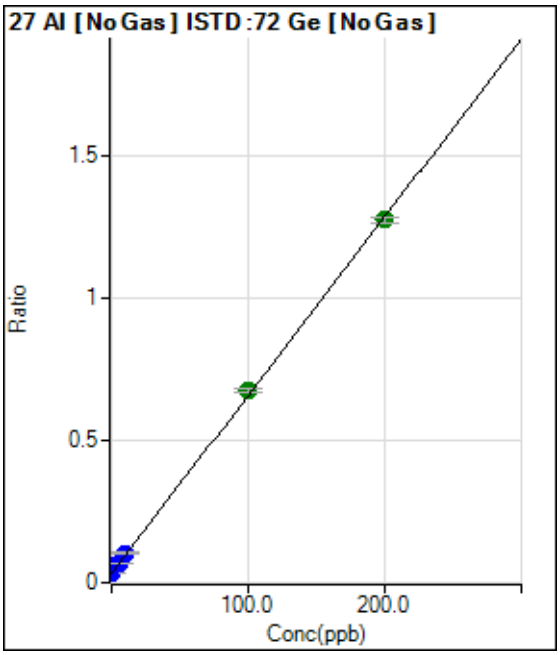
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1963.51	0.0018	P	2.6
2	☐	200.000	211.050	183842.95	0.1729	P	1.8
3	☐	500.000	511.855	445941.67	0.4167	P	2.5
4	☐	1000.000	1024.797	872112.93	0.8324	A	1.2
5	☐	10000.000	9698.659	8283697.79	7.8626	A	2.9
6	☐	20000.000	20149.024	16337398.51	16.3326	A	0.7

y = 8.1050E-004 * x + 0.0018
R = 0.9998
DL = 0.1728
BEC = 2.238

Weight: <None>
Min Conc: <None>

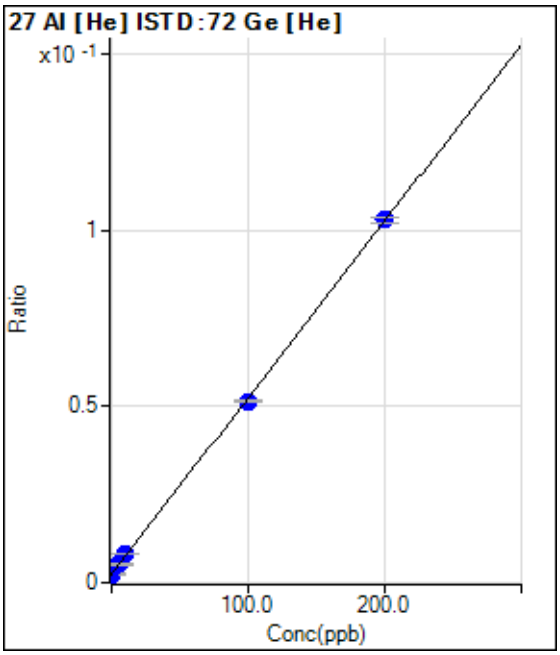


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	114095.73	0.0323	P	3.6
2	☐	2.000	4.229	209316.38	0.0589	P	1.1
3	☐	5.000	5.801	240912.83	0.0687	P	1.6
4	☐	10.000	11.540	365946.83	0.1047	P	0.6
5	☐	100.000	102.815	2330675.70	0.6774	A	1.7
6	☐	200.000	198.473	4282438.48	1.2775	A	1.6

y = 0.0063 * x + 0.0323
R = 0.9999
DL = 0.5615
BEC = 5.155

Weight: <None>
Min Conc: <None>

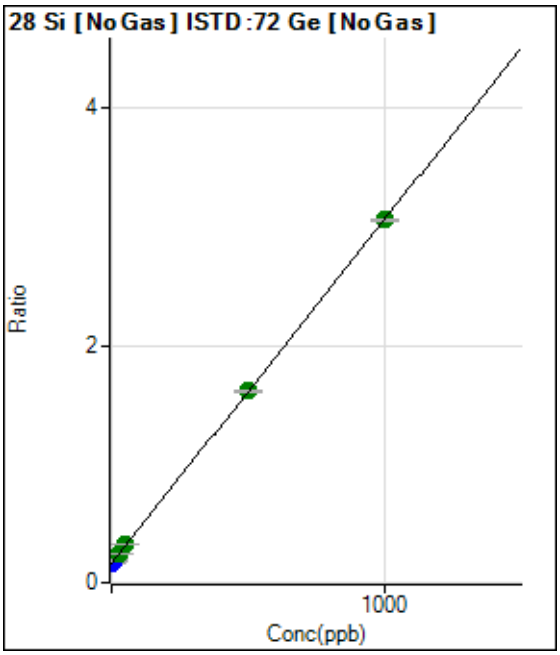
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2626.96	0.0024	P	4.3
2	☐	2.000	4.393	4920.94	0.0046	P	3.6
3	☐	5.000	5.677	5644.60	0.0053	P	5.2
4	☐	10.000	11.440	8542.75	0.0082	P	3.1
5	☐	100.000	98.123	54312.90	0.0515	P	1.4
6	☐	200.000	200.826	102978.95	0.1029	P	1.5

y = 5.0052E-004 * x + 0.0024
R = 0.9999
DL = 0.6234
BEC = 4.853

Weight: <None>
Min Conc: <None>

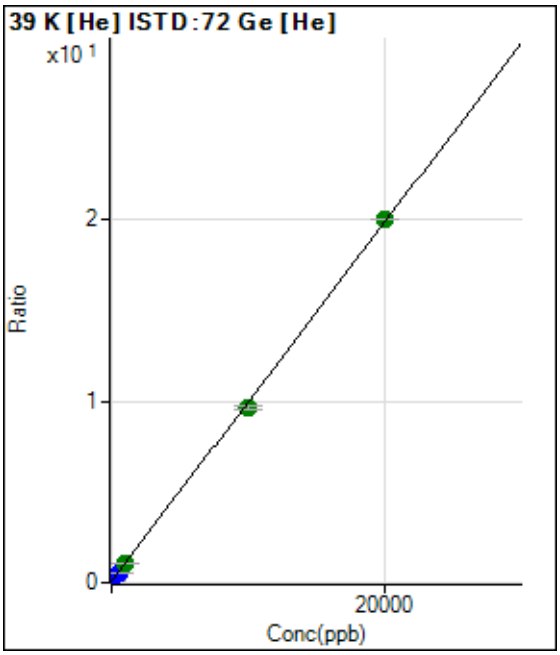


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	575676.37	0.1632	P	2.4
2	☐	10.000	7.741	659759.83	0.1856	P	1.0
3	☐	25.000	26.282	838681.86	0.2393	A	1.2
4	☐	50.000	53.505	1111423.86	0.3181	A	0.8
5	☐	500.000	501.829	5561426.59	1.6163	A	0.9
6	☐	1000.000	998.901	10244676.72	3.0558	A	0.2

y = 0.0029 * x + 0.1632
R = 1.0000
DL = 4.087
BEC = 56.35

Weight: <None>
Min Conc: <None>

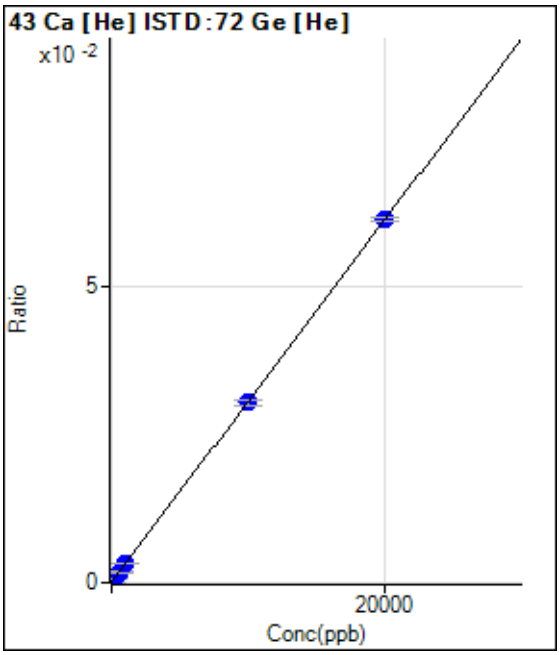
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	84728.73	0.0783	P	1.4
2	☐	200.000	204.771	298481.56	0.2807	P	0.5
3	☐	500.000	495.974	608337.65	0.5684	P	2.6
4	☐	1000.000	1032.811	1151158.29	1.0989	A	2.2
5	☐	10000.000	9705.936	10187139.22	9.6690	A	2.6
6	☐	20000.000	20145.444	19990532.20	19.9846	A	0.1

y = 9.8813E-004 * x + 0.0783
R = 0.9998
DL = 3.432
BEC = 79.25

Weight: <None>
Min Conc: <None>

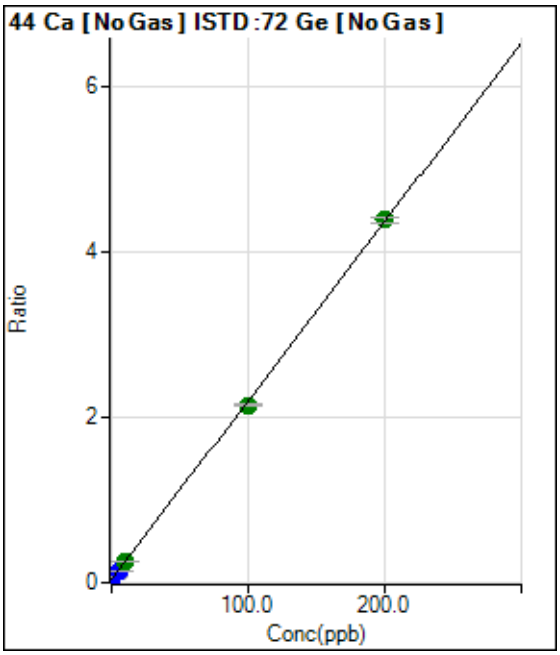


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	10.0
2	☐	200.000	218.132	773.37	0.0007	P	6.3
3	☐	500.000	541.982	1833.49	0.0017	P	8.9
4	☐	1000.000	1047.533	3410.49	0.0033	P	5.7
5	☐	10000.000	9942.544	32007.65	0.0304	P	3.4
6	☐	20000.000	20025.121	61149.11	0.0611	P	1.2

y = 3.0496E-006 * x + 6.1676E-005
R = 1.0000
DL = 6.097
BEC = 20.22

Weight: <None>
Min Conc: <None>

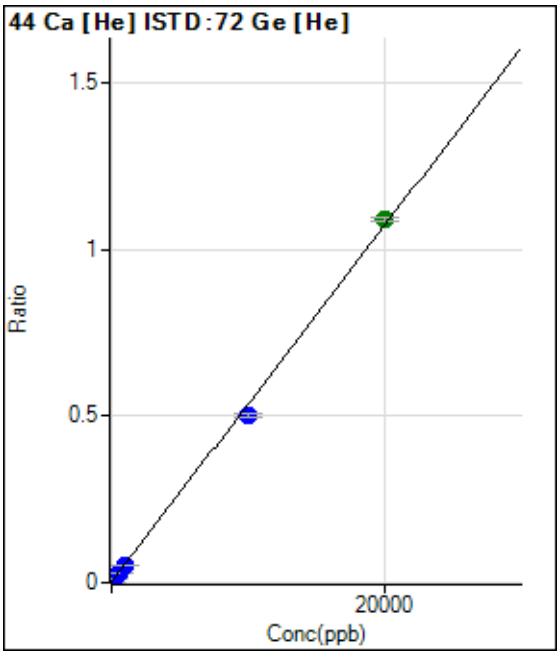
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	133741.15	0.0379	P	3.1
2	☐	2.000	2.025	290635.97	0.0818	P	1.2
3	☐	5.000	5.080	518321.96	0.1479	P	1.1
4	☐	10.000	10.544	929868.11	0.2661	A	1.1
5	☐	100.000	97.710	7408412.39	2.1531	A	1.6
6	☐	200.000	201.115	14721544.36	4.3915	A	1.9

y = 0.0216 * x + 0.0379
R = 0.9999
DL = 0.1651
BEC = 1.751

Weight: <None>
Min Conc: <None>

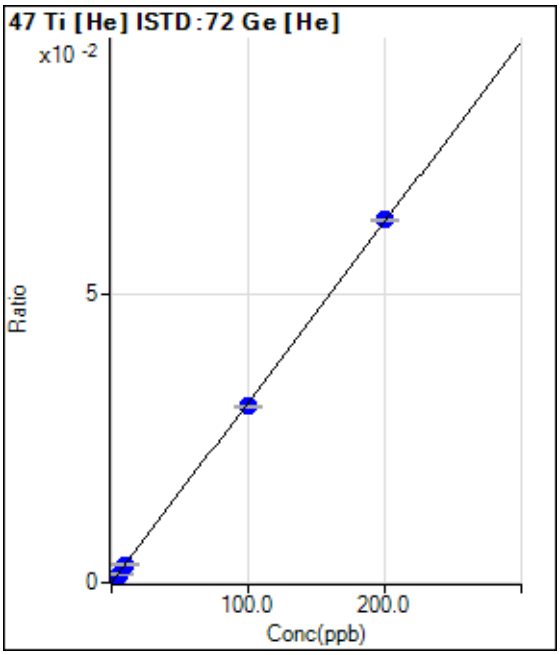


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2050.19	0.0019	P	3.6
2	☐	200.000	193.660	13016.37	0.0122	P	1.3
3	☐	500.000	484.090	29689.12	0.0278	P	5.4
4	☐	1000.000	964.752	55970.57	0.0534	P	1.7
5	☐	10000.000	9347.153	528038.87	0.5012	P	2.1
6	☐	20000.000	20328.647	1088007.72	1.0877	A	1.1

y = 5.3413E-005 * x + 0.0019
R = 0.9993
DL = 3.832
BEC = 35.48

Weight: <None>
Min Conc: <None>

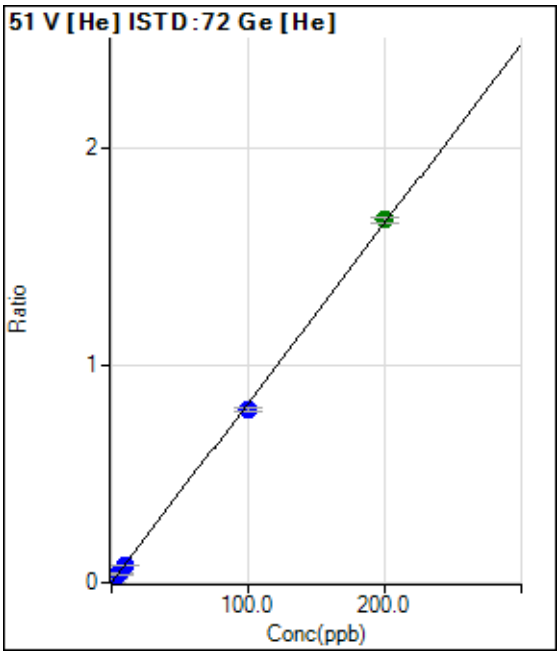
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	48.8
2	☐	2.000	2.025	696.70	0.0007	P	6.2
3	☐	5.000	4.726	1606.80	0.0015	P	6.4
4	☐	10.000	9.868	3257.11	0.0031	P	7.0
5	☐	100.000	97.747	32241.57	0.0306	P	1.5
6	☐	200.000	201.140	62957.90	0.0629	P	0.3

y = 3.1281E-004 * x + 2.1480E-005
R = 0.9999
DL = 0.1006
BEC = 0.06867

Weight: <None>
Min Conc: <None>

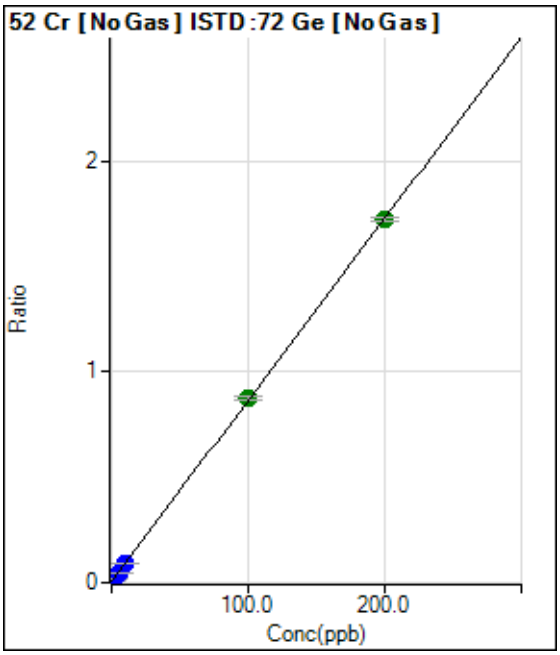


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1173.39	0.0011	P	8.7
2	☐	2.000	1.923	18024.08	0.0169	P	1.0
3	☐	5.000	4.756	43146.52	0.0403	P	2.8
4	☐	10.000	9.792	85753.97	0.0818	P	1.0
5	☐	100.000	95.971	835168.28	0.7927	P	2.5
6	☐	200.000	202.032	1667995.25	1.6675	A	1.5

y = 0.0082 * x + 0.0011
R = 0.9997
DL = 0.03421
BEC = 0.1316

Weight: <None>
Min Conc: <None>

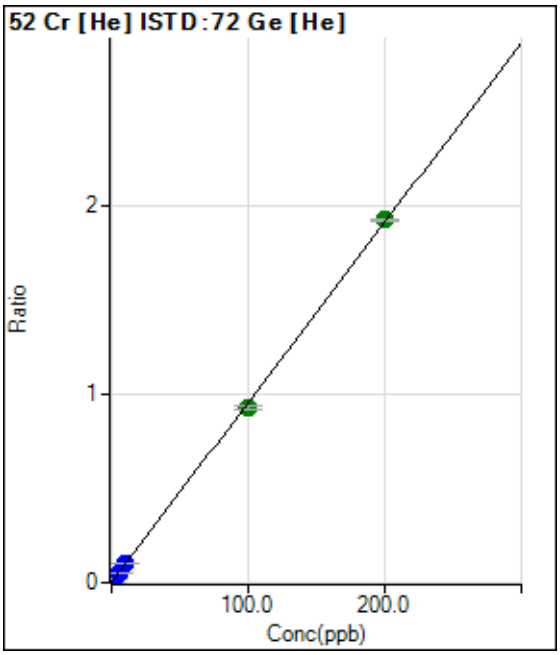
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17421.26	0.0049	P	2.9
2	☐	2.000	2.032	79774.97	0.0224	P	2.4
3	☐	5.000	5.106	171412.12	0.0489	P	2.4
4	☐	10.000	10.183	323626.57	0.0926	P	0.9
5	☐	100.000	101.140	3013706.93	0.8759	A	1.8
6	☐	200.000	199.418	5773704.29	1.7222	A	0.9

y = 0.0086 * x + 0.0049
R = 1.0000
DL = 0.04976
BEC = 0.5734

Weight: <None>
Min Conc: <None>

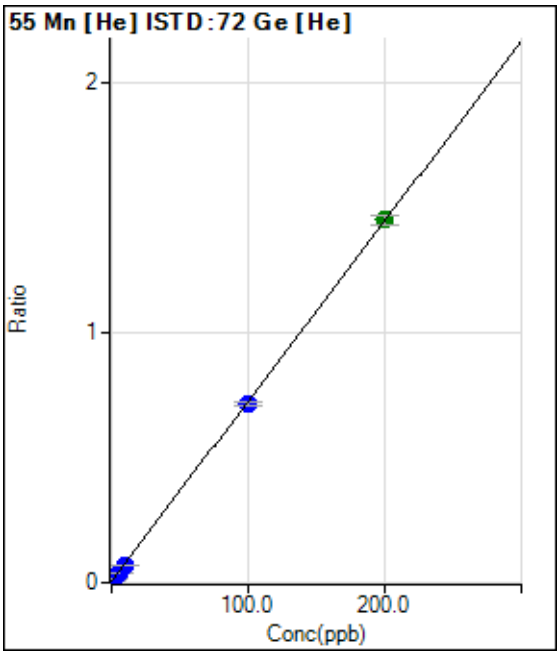


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2353.58	0.0022	P	8.5
2	☐	2.000	2.027	22906.11	0.0215	P	2.5
3	☐	5.000	4.903	52440.72	0.0490	P	3.6
4	☐	10.000	10.083	103187.00	0.0985	P	1.3
5	☐	100.000	96.832	977024.10	0.9271	A	2.6
6	☐	200.000	201.582	1928188.36	1.9276	A	0.5

y = 0.0096 * x + 0.0022
R = 0.9998
DL = 0.05789
BEC = 0.2276

Weight: <None>
Min Conc: <None>

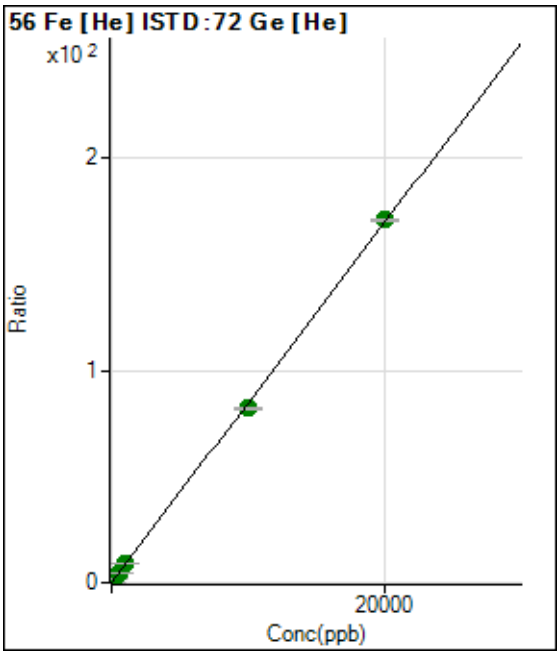
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6291.57	0.0058	P	5.3
2	☐	2.000	1.311	16229.86	0.0153	P	2.0
3	☐	5.000	4.209	38685.18	0.0361	P	1.2
4	☐	10.000	9.173	75333.88	0.0719	P	2.7
5	☐	100.000	98.619	754897.85	0.7164	P	1.8
6	☐	200.000	200.758	1452768.89	1.4524	A	2.3

y = 0.0072 * x + 0.0058
R = 1.0000
DL = 0.1279
BEC = 0.8068

Weight: <None>
Min Conc: <None>

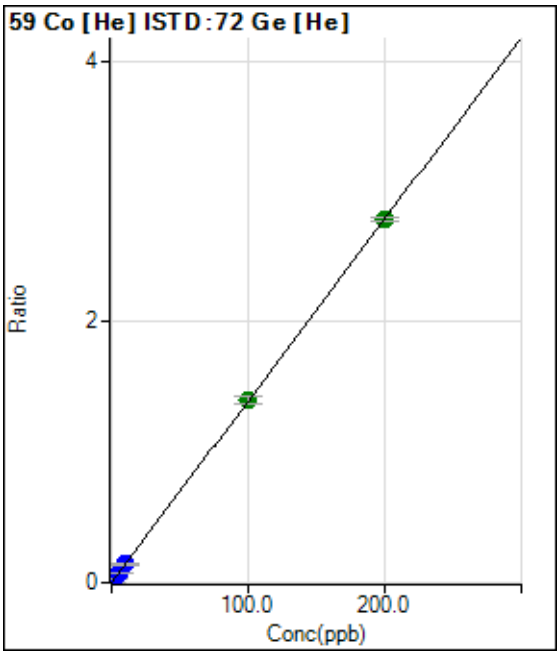


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20322.05	0.0188	P	0.8
2	☐	200.000	211.154	1923593.93	1.8086	A	0.6
3	☐	500.000	504.118	4592542.33	4.2918	A	3.7
4	☐	1000.000	1022.100	9096099.65	8.6823	A	1.6
5	☐	10000.000	9674.526	86432778.71	82.0223	A	1.3
6	☐	20000.000	20161.417	170960904.12	170.9116	A	0.5

y = 0.0085 * x + 0.0188
R = 0.9998
DL = 0.056
BEC = 2.216

Weight: <None>
Min Conc: <None>

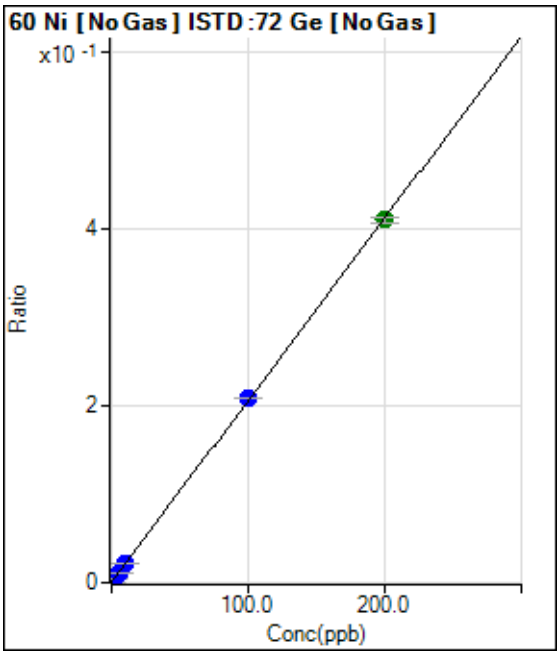
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0001	P	39.2
2	☐	2.000	2.028	30093.66	0.0283	P	1.3
3	☐	5.000	4.960	73964.07	0.0691	P	3.0
4	☐	10.000	10.087	147168.25	0.1405	P	1.8
5	☐	100.000	100.633	1475794.51	1.4009	A	3.6
6	☐	200.000	199.680	2780514.44	2.7797	A	1.1

y = 0.0139 * x + 6.4935E-005
R = 1.0000
DL = 0.005491
BEC = 0.004665

Weight: <None>
Min Conc: <None>

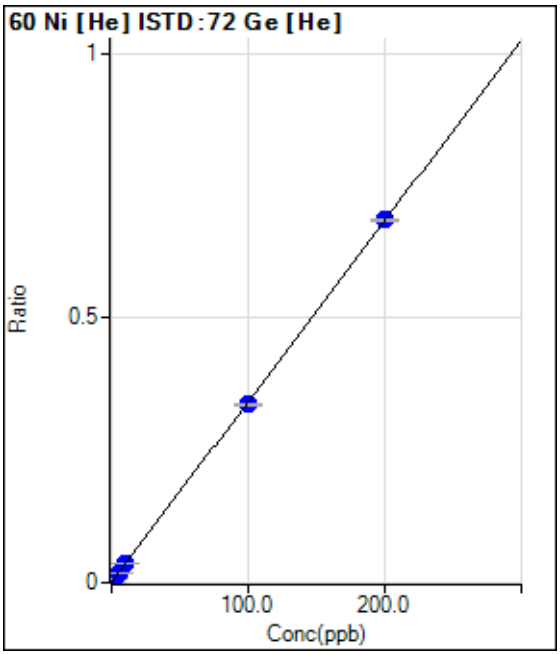


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1436.77	0.0004	P	8.9
2	☐	2.000	1.935	15619.18	0.0044	P	3.4
3	☐	5.000	5.067	38006.69	0.0108	P	2.2
4	☐	10.000	10.298	75535.63	0.0216	P	1.1
5	☐	100.000	101.441	720332.64	0.2093	P	0.5
6	☐	200.000	199.263	1377267.32	0.4108	A	1.3

y = 0.0021 * x + 4.0757E-004
R = 1.0000
DL = 0.05285
BEC = 0.1979

Weight: <None>
Min Conc: <None>

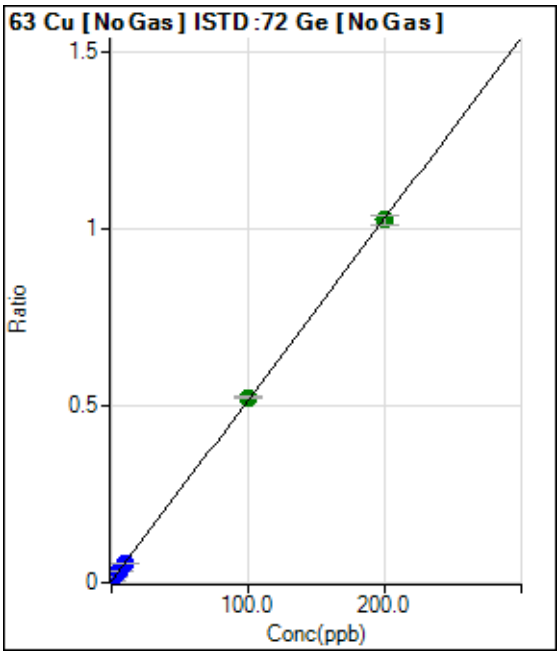
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	630.03	0.0006	P	11.6
2	☐	2.000	1.921	7595.58	0.0071	P	4.3
3	☐	5.000	5.045	19073.58	0.0178	P	3.9
4	☐	10.000	10.374	37722.51	0.0360	P	3.1
5	☐	100.000	98.619	355542.81	0.3374	P	1.0
6	☐	200.000	200.672	686126.66	0.6859	P	0.4

y = 0.0034 * x + 5.8256E-004
R = 1.0000
DL = 0.05937
BEC = 0.1706

Weight: <None>
Min Conc: <None>

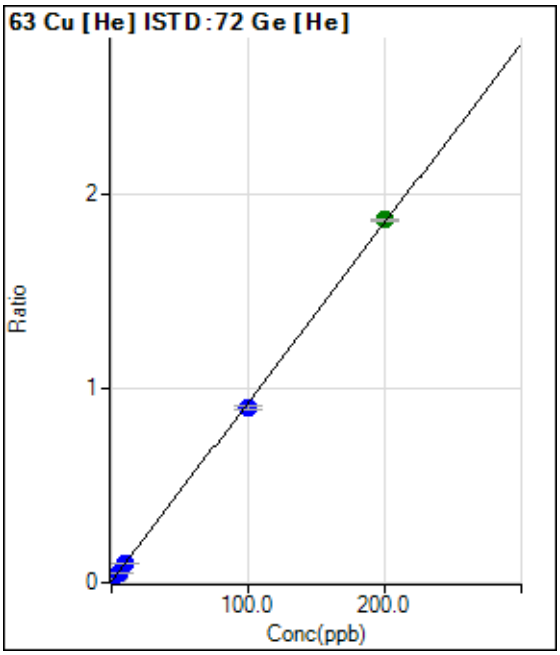


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15692.58	0.0044	P	4.3
2	☐	2.000	1.994	52136.76	0.0147	P	0.7
3	☐	5.000	5.104	107274.39	0.0306	P	0.4
4	☐	10.000	10.127	196866.07	0.0563	P	0.8
5	☐	100.000	101.136	1798780.39	0.5228	A	1.0
6	☐	200.000	199.423	3440739.01	1.0265	A	2.7

y = 0.0051 * x + 0.0044
R = 1.0000
DL = 0.1112
BEC = 0.8675

Weight: <None>
Min Conc: <None>

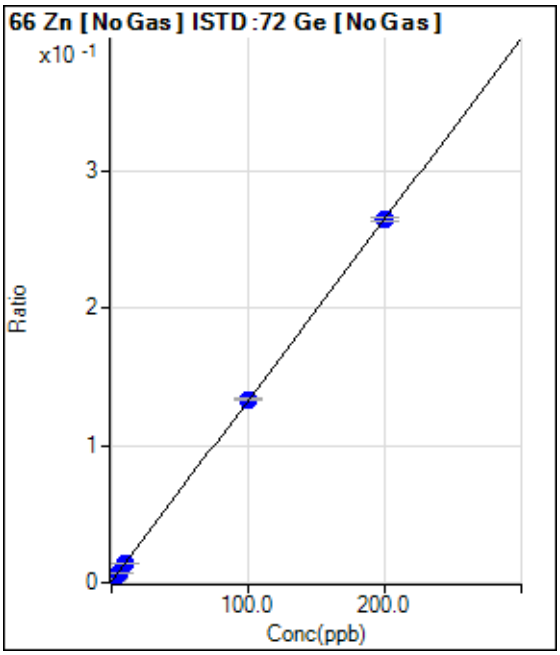
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6431.62	0.0059	P	2.7
2	☐	2.000	2.040	26369.23	0.0248	P	1.8
3	☐	5.000	5.013	55931.82	0.0523	P	2.5
4	☐	10.000	10.012	103143.03	0.0984	P	0.5
5	☐	100.000	96.502	945697.09	0.8975	P	2.2
6	☐	200.000	201.747	1870483.62	1.8699	A	0.9

y = 0.0092 * x + 0.0059
R = 0.9998
DL = 0.0513
BEC = 0.6434

Weight: <None>
Min Conc: <None>

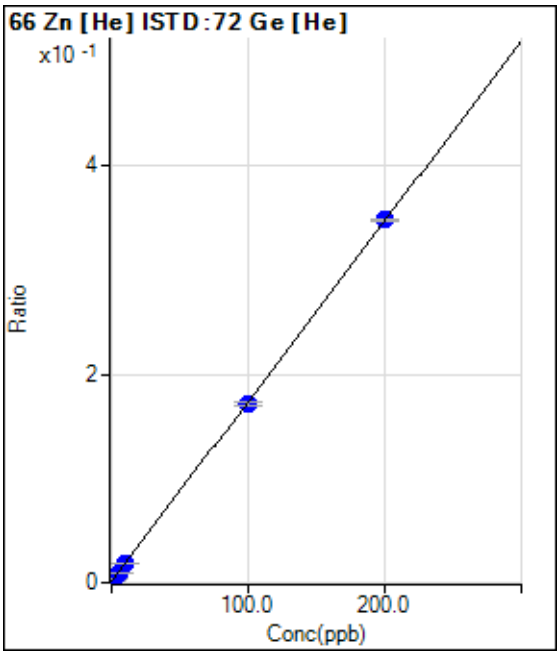


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2977.05	0.0008	P	5.3
2	☐	2.000	1.805	11475.06	0.0032	P	3.6
3	☐	5.000	5.056	26365.91	0.0075	P	3.3
4	☐	10.000	10.120	49657.69	0.0142	P	1.8
5	☐	100.000	100.624	460299.80	0.1338	P	0.5
6	☐	200.000	199.683	887145.35	0.2646	P	1.2

y = 0.0013 * x + 8.4414E-004
R = 1.0000
DL = 0.1025
BEC = 0.639

Weight: <None>
Min Conc: <None>

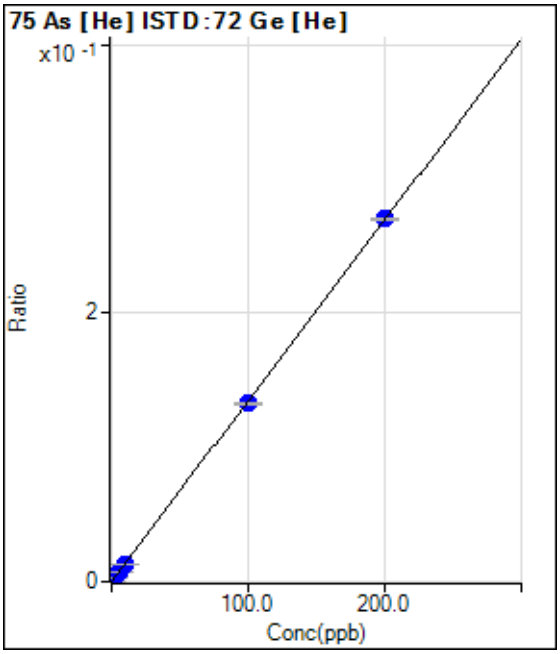
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1146.74	0.0011	P	6.7
2	☐	2.000	1.836	4504.16	0.0042	P	1.6
3	☐	5.000	4.978	10354.13	0.0097	P	2.5
4	☐	10.000	10.001	19237.27	0.0184	P	2.5
5	☐	100.000	98.479	180588.42	0.1714	P	2.0
6	☐	200.000	200.763	348403.35	0.3483	P	0.3

y = 0.0017 * x + 0.0011
R = 1.0000
DL = 0.124
BEC = 0.6131

Weight: <None>
Min Conc: <None>

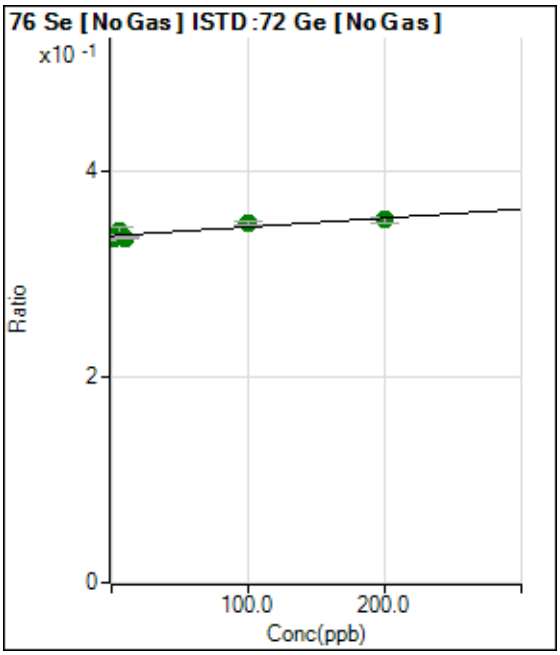


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	120.00	0.0001	P	15.7
2	☐	2.000	2.050	3052.59	0.0029	P	4.5
3	☐	5.000	5.000	7322.02	0.0068	P	2.2
4	☐	10.000	9.977	14186.38	0.0135	P	1.0
5	☐	100.000	98.513	139839.87	0.1327	P	1.8
6	☐	200.000	200.744	270401.53	0.2703	P	0.5

y = 0.0013 * x + 1.1076E-004
R = 1.0000
DL = 0.03883
BEC = 0.08229

Weight: <None>
Min Conc: <None>

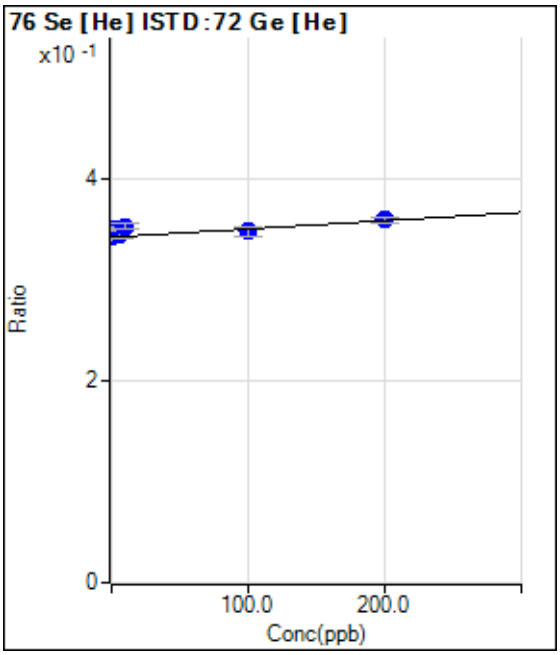
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1192343.37	0.3379	A	0.9
2	☐	2.000	-25.916	1193297.66	0.3356	A	1.1
3	☐	5.000	59.303	1202157.64	0.3430	A	2.6
4	☐	10.000	-24.271	1173155.71	0.3358	A	0.7
5	☐	100.000	144.499	1205644.56	0.3504	A	1.2
6	☐	200.000	178.385	1184498.13	0.3533	A	1.5

y = 8.6649E-005 * x + 0.3379
R = 0.9019
DL = 105.2
BEC = 3899

Weight: <None>
Min Conc: <None>

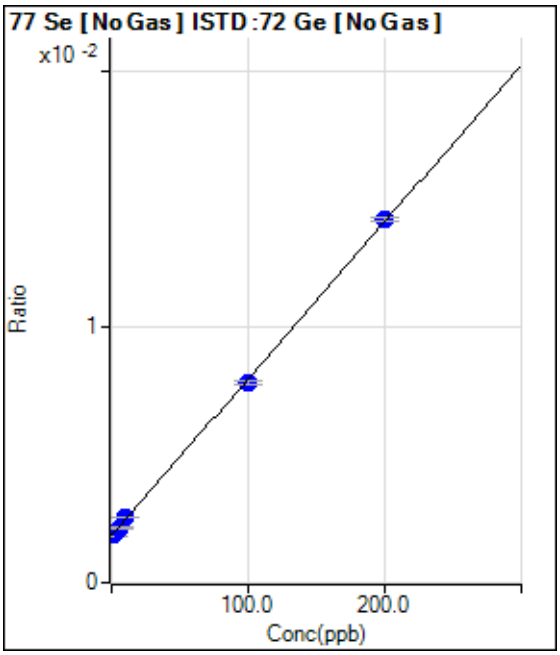


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	369756.70	0.3418	P	1.5
2	☐	2.000	89.092	371261.65	0.3491	P	1.2
3	☐	5.000	36.311	369002.78	0.3448	P	2.0
4	☐	10.000	133.868	369571.54	0.3528	P	1.2
5	☐	100.000	67.568	365951.12	0.3473	P	2.3
6	☐	200.000	208.369	358959.36	0.3589	P	1.6

y = 8.1972E-005 * x + 0.3418
R = 0.7223
DL = 184.2
BEC = 4169

Weight: <None>
Min Conc: <None>

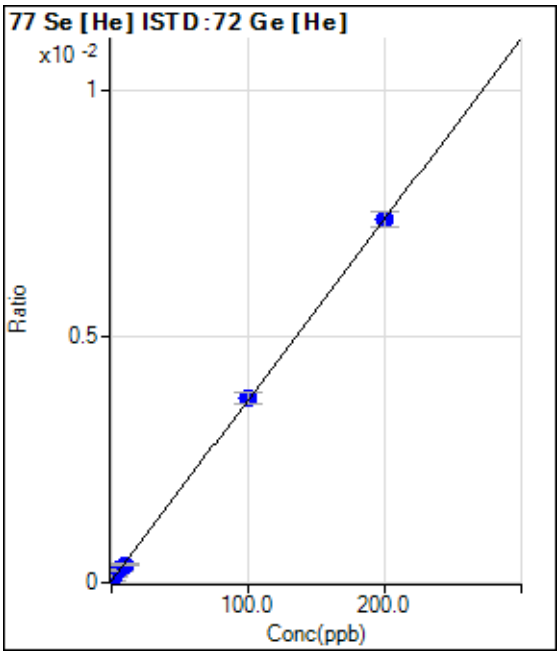
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6518.38	0.0018	P	3.2
2	☐	2.000	0.570	6688.43	0.0019	P	6.3
3	☐	5.000	4.457	7432.18	0.0021	P	2.9
4	☐	10.000	11.469	8913.11	0.0026	P	1.6
5	☐	100.000	97.444	26947.17	0.0078	P	1.1
6	☐	200.000	201.232	47624.64	0.0142	P	1.1

y = 6.1420E-005 * x + 0.0018
R = 0.9998
DL = 2.915
BEC = 30.07

Weight: <None>
Min Conc: <None>

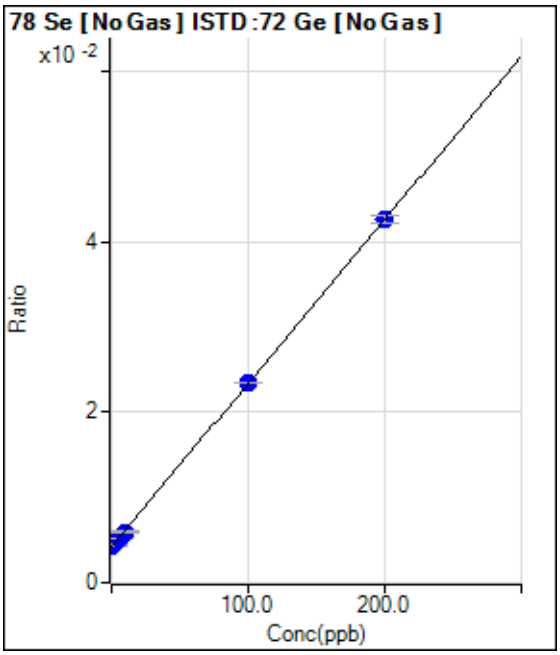


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43.33	0.0000	P	79.9
2	☐	2.000	2.588	143.34	0.0001	P	40.7
3	☐	5.000	5.967	276.68	0.0003	P	7.0
4	☐	10.000	8.902	383.35	0.0004	P	15.9
5	☐	100.000	100.815	3937.30	0.0037	P	5.7
6	☐	200.000	199.617	7365.47	0.0074	P	4.4

y = 3.6687E-005 * x + 3.9717E-005
R = 1.0000
DL = 2.596
BEC = 1.083

Weight: <None>
Min Conc: <None>

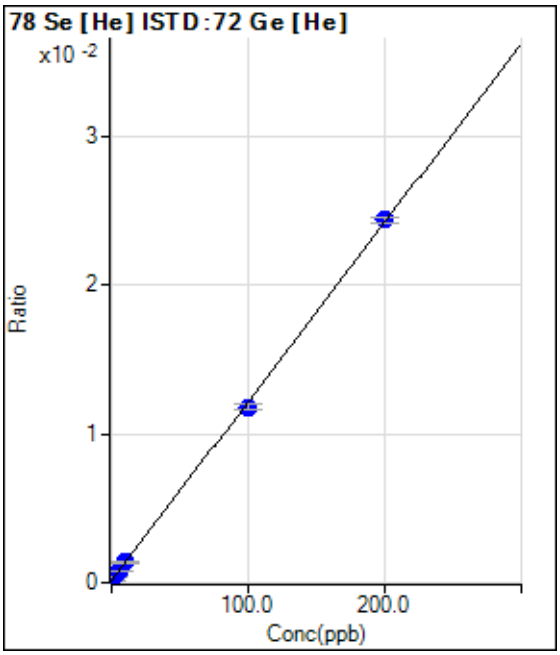
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14888.48	0.0042	P	1.8
2	☐	2.000	1.446	15983.00	0.0045	P	4.4
3	☐	5.000	5.304	18346.07	0.0052	P	1.2
4	☐	10.000	9.154	20866.41	0.0060	P	0.8
5	☐	100.000	100.201	80600.19	0.0234	P	0.6
6	☐	200.000	199.940	142612.46	0.0425	P	2.0

y = 1.9169E-004 * x + 0.0042
R = 1.0000
DL = 1.203
BEC = 22

Weight: <None>
Min Conc: <None>

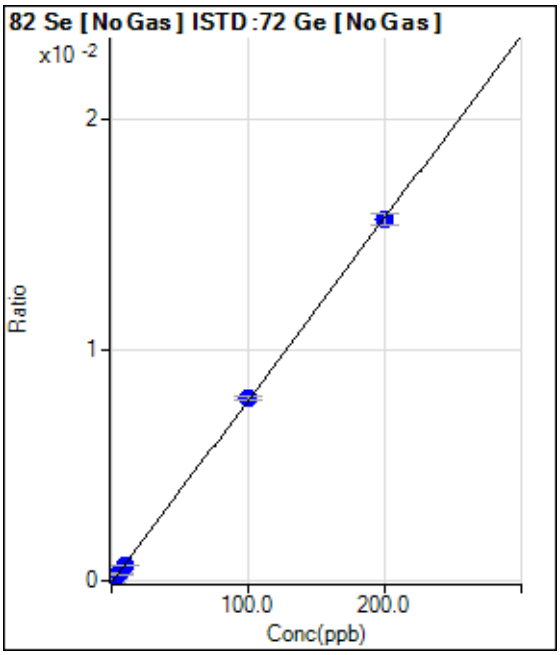


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	152.00	0.0001	P	7.1
2	☐	2.000	2.204	431.34	0.0004	P	3.6
3	☐	5.000	5.334	837.36	0.0008	P	0.7
4	☐	10.000	10.116	1421.41	0.0014	P	3.9
5	☐	100.000	96.870	12420.39	0.0118	P	3.0
6	☐	200.000	201.549	24384.69	0.0244	P	1.4

y = 1.2025E-004 * x + 1.4058E-004
R = 0.9998
DL = 0.2488
BEC = 1.169

Weight: <None>
Min Conc: <None>

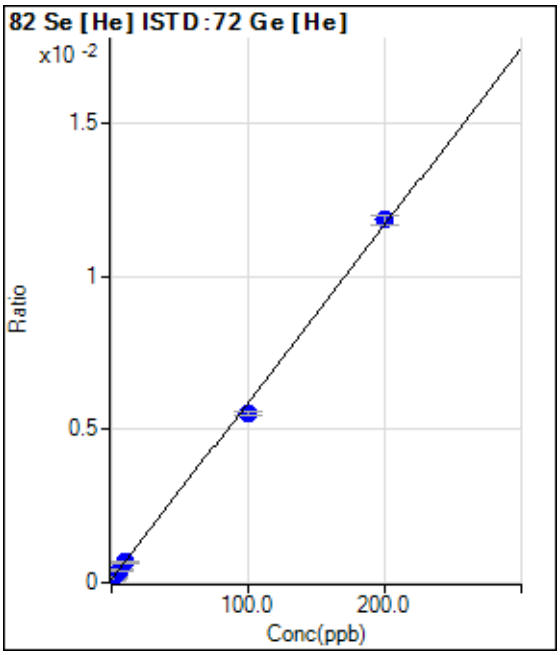
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-237.21	-0.0001	P	-39.7
2	☐	2.000	2.055	336.79	0.0001	P	51.5
3	☐	5.000	5.136	1183.93	0.0003	P	23.5
4	☐	10.000	9.714	2440.49	0.0007	P	6.4
5	☐	100.000	101.404	27289.61	0.0079	P	1.8
6	☐	200.000	199.309	52462.74	0.0157	P	3.2

y = 7.8872E-005 * x - 6.7533E-005
R = 1.0000
DL = 1.019
BEC = -0.8562

Weight: <None>
Min Conc: <None>

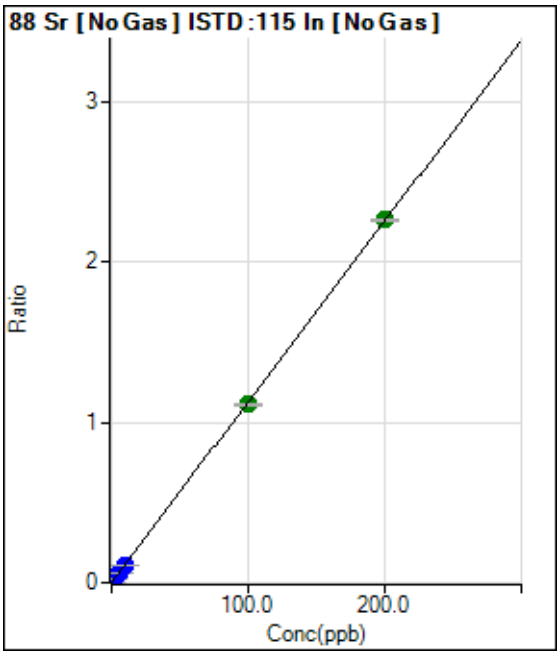


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0001	P	20.6
2	☐	2.000	0.953	170.00	0.0002	P	12.7
3	☐	5.000	5.087	426.68	0.0004	P	19.5
4	☐	10.000	9.841	706.70	0.0007	P	5.1
5	☐	100.000	93.993	5848.03	0.0055	P	2.0
6	☐	200.000	203.020	11865.46	0.0119	P	2.7

y = 5.7910E-005 * x + 1.0479E-004
R = 0.9994
DL = 1.121
BEC = 1.81

Weight: <None>
Min Conc: <None>

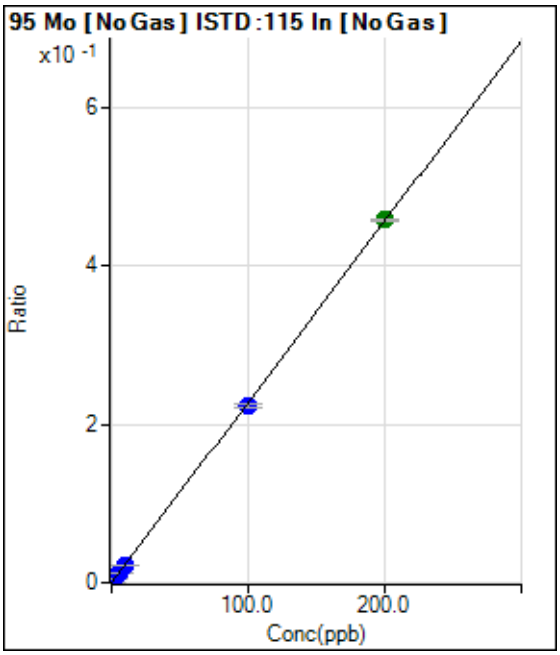
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3023.73	0.0008	P	9.9
2	☐	2.000	1.999	94424.99	0.0233	P	3.2
3	☐	5.000	4.915	228622.86	0.0561	P	1.3
4	☐	10.000	9.859	448383.51	0.1118	P	1.3
5	☐	100.000	98.511	4397374.20	1.1106	A	1.7
6	☐	200.000	200.754	8652127.37	2.2624	A	0.8

y = 0.0113 * x + 7.5304E-004
R = 1.0000
DL = 0.01989
BEC = 0.06684

Weight: <None>
Min Conc: <None>

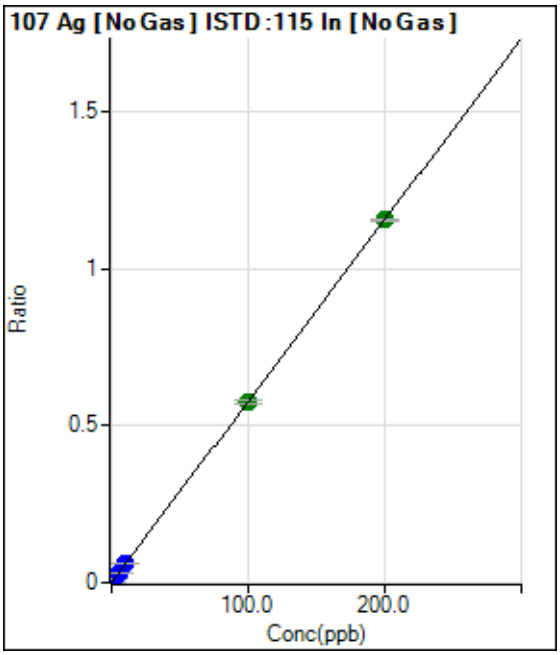


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	223.34	0.0001	P	21.7
2	☐	2.000	1.938	18132.61	0.0045	P	5.4
3	☐	5.000	4.904	45735.30	0.0112	P	0.8
4	☐	10.000	9.877	90459.08	0.0226	P	1.4
5	☐	100.000	98.117	885383.50	0.2236	P	1.6
6	☐	200.000	200.951	1751129.50	0.4579	A	0.3

y = 0.0023 * x + 5.5578E-005
R = 0.9999
DL = 0.01584
BEC = 0.02439

Weight: <None>
Min Conc: <None>

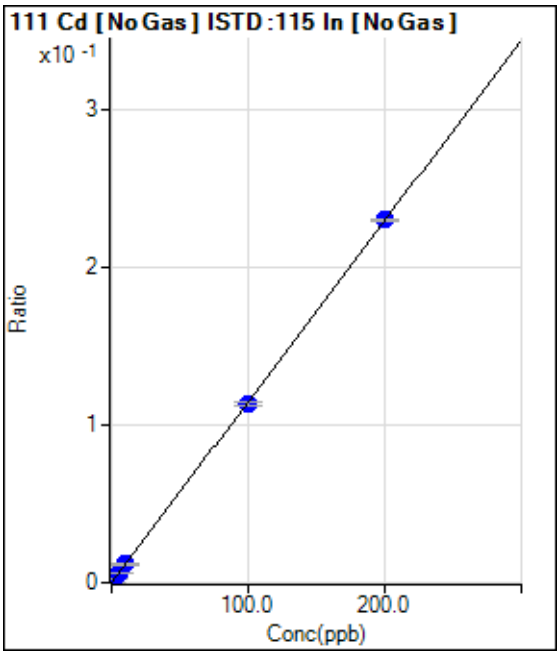
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	820.04	0.0002	P	10.6
2	☐	2.000	2.017	48097.67	0.0119	P	4.6
3	☐	5.000	5.027	119150.05	0.0293	P	1.2
4	☐	10.000	10.147	235970.07	0.0588	P	0.9
5	☐	100.000	99.823	2284891.63	0.5771	A	2.4
6	☐	200.000	200.080	4422624.62	1.1565	A	0.4

y = 0.0058 * x + 2.0418E-004
R = 1.0000
DL = 0.01119
BEC = 0.03533

Weight: <None>
Min Conc: <None>

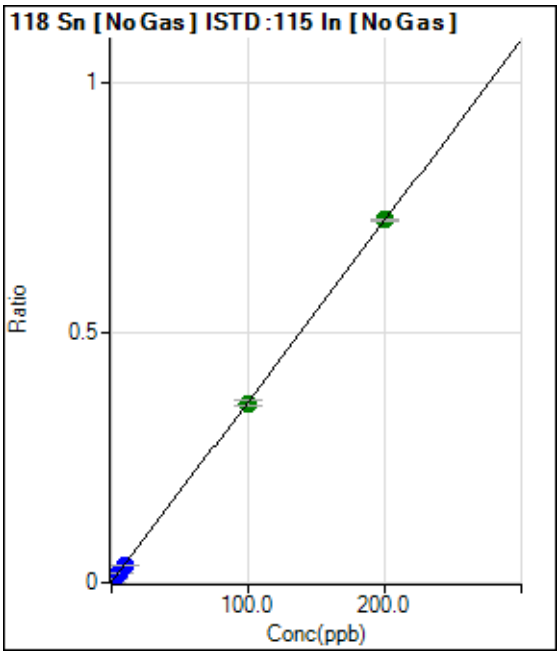


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	124.9
2	☐	2.000	1.986	9256.77	0.0023	P	6.6
3	☐	5.000	4.859	22729.76	0.0056	P	0.7
4	☐	10.000	10.153	46736.33	0.0117	P	1.6
5	☐	100.000	98.663	448338.52	0.1132	P	1.8
6	☐	200.000	200.665	880693.01	0.2303	P	0.2

y = 0.0011 * x + 4.1579E-006
R = 1.0000
DL = 0.01357
BEC = 0.003623

Weight: <None>
Min Conc: <None>

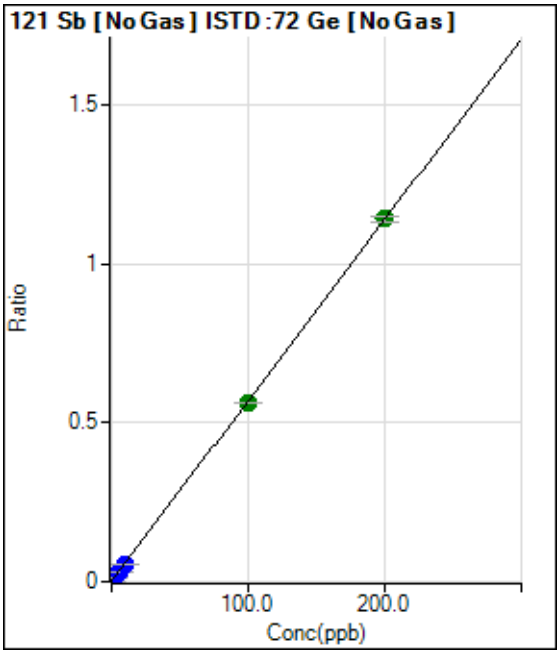
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3317.16	0.0008	P	3.1
2	☐	2.000	1.910	31384.36	0.0077	P	2.3
3	☐	5.000	4.808	74222.45	0.0182	P	1.7
4	☐	10.000	9.628	142988.95	0.0357	P	2.0
5	☐	100.000	99.192	1424470.97	0.3597	A	3.1
6	☐	200.000	200.429	2776211.84	0.7260	A	0.7

y = 0.0036 * x + 8.2600E-004
R = 1.0000
DL = 0.02125
BEC = 0.2283

Weight: <None>
Min Conc: <None>

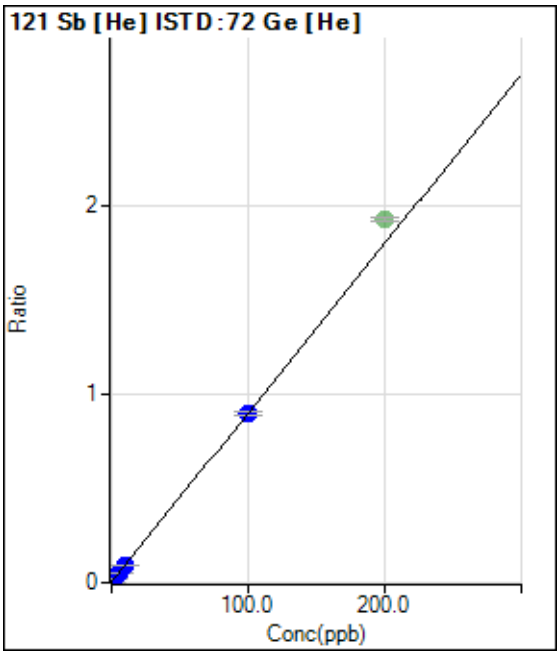


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5744.70	0.0016	P	1.7
2	☐	2.000	1.981	45823.78	0.0129	P	1.3
3	☐	5.000	4.863	102612.56	0.0293	P	1.0
4	☐	10.000	9.770	199746.07	0.0572	P	0.5
5	☐	100.000	98.749	1937352.16	0.5630	A	0.8
6	☐	200.000	200.640	3830002.96	1.1423	A	1.4

y = 0.0057 * x + 0.0016
R = 1.0000
DL = 0.01468
BEC = 0.2862

Weight: <None>
Min Conc: <None>

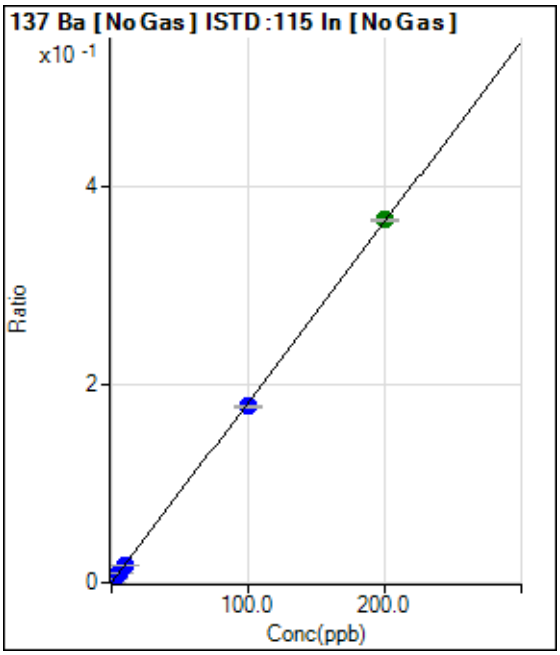
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2940.39	0.0027	P	5.1
2	☐	2.000	2.056	22556.36	0.0212	P	2.6
3	☐	5.000	5.008	51130.01	0.0478	P	2.2
4	☐	10.000	10.182	98810.88	0.0943	P	1.2
5	☐	100.000	99.980	950448.71	0.9021	P	2.5
6	☑	200.000		1928731.64	1.9282	A	1.2

y = 0.0090 * x + 0.0027
R = 1.0000
DL = 0.04623
BEC = 0.3021

Weight: <None>
Min Conc: <None>

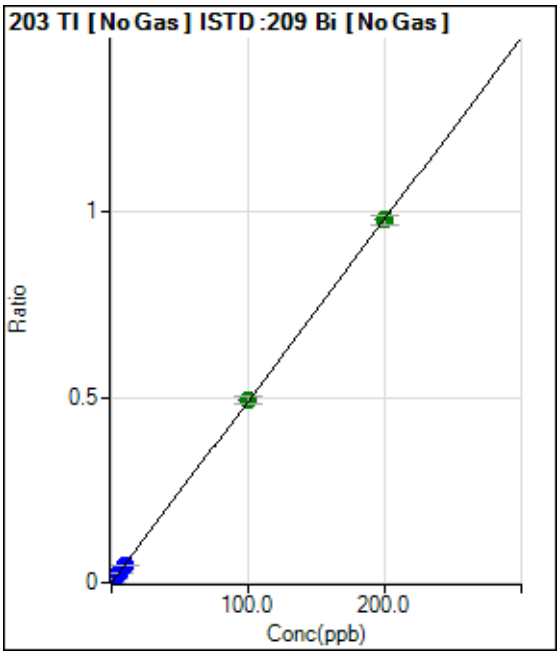


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	443.35	0.0001	P	25.1
2	☐	2.000	2.545	19221.12	0.0047	P	2.5
3	☐	5.000	4.879	36575.15	0.0090	P	0.7
4	☐	10.000	9.919	72743.40	0.0181	P	2.4
5	☐	100.000	97.725	703913.77	0.1778	P	1.2
6	☐	200.000	201.139	1398741.70	0.3658	A	0.8

y = 0.0018 * x + 1.1044E-004
R = 0.9999
DL = 0.04577
BEC = 0.06075

Weight: <None>
Min Conc: <None>

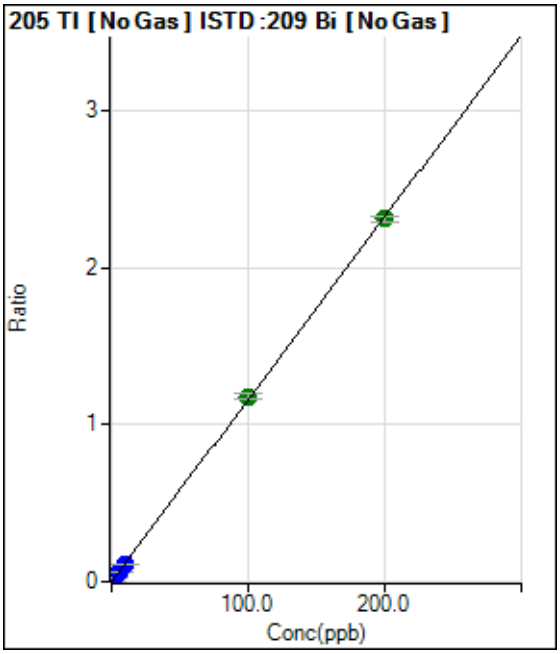
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	426.68	0.0001	P	22.8
2	☐	2.000	1.941	34792.08	0.0096	P	5.4
3	☐	5.000	4.812	86555.60	0.0237	P	2.6
4	☐	10.000	9.535	172776.42	0.0469	P	2.7
5	☐	100.000	100.522	1773883.98	0.4929	A	4.0
6	☐	200.000	199.768	3495434.32	0.9795	A	2.3

y = 0.0049 * x + 1.1833E-004
R = 1.0000
DL = 0.01648
BEC = 0.02414

Weight: <None>
Min Conc: <None>

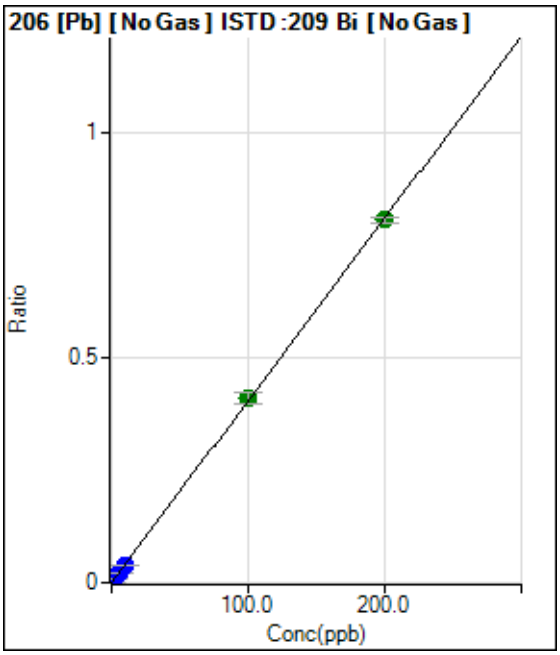


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1120.07	0.0003	P	11.9
2	☐	2.000	1.996	84717.02	0.0235	P	3.7
3	☐	5.000	4.866	207186.20	0.0567	P	1.7
4	☐	10.000	9.716	416657.91	0.1130	P	1.4
5	☐	100.000	101.703	4246780.25	1.1799	A	3.1
6	☐	200.000	199.166	8244475.29	2.3102	A	1.7

y = 0.0116 * x + 3.1084E-004
R = 0.9999
DL = 0.009554
BEC = 0.0268

Weight: <None>
Min Conc: <None>

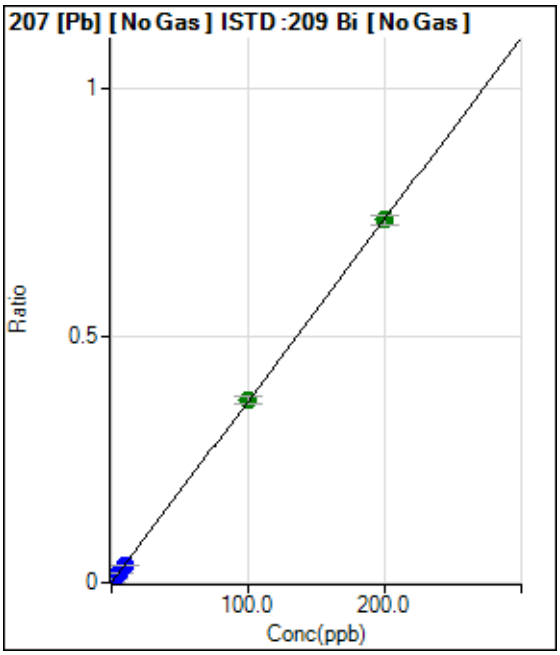
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	560.03	0.0002	P	14.4
2	☐	2.000	1.980	29451.90	0.0082	P	2.3
3	☐	5.000	4.902	72859.17	0.0200	P	2.1
4	☐	10.000	9.755	145859.57	0.0396	P	2.3
5	☐	100.000	101.466	1475024.51	0.4100	A	5.5
6	☐	200.000	199.282	2873055.79	0.8051	A	1.9

y = 0.0040 * x + 1.5565E-004
R = 1.0000
DL = 0.0166
BEC = 0.03854

Weight: <None>
Min Conc: <None>

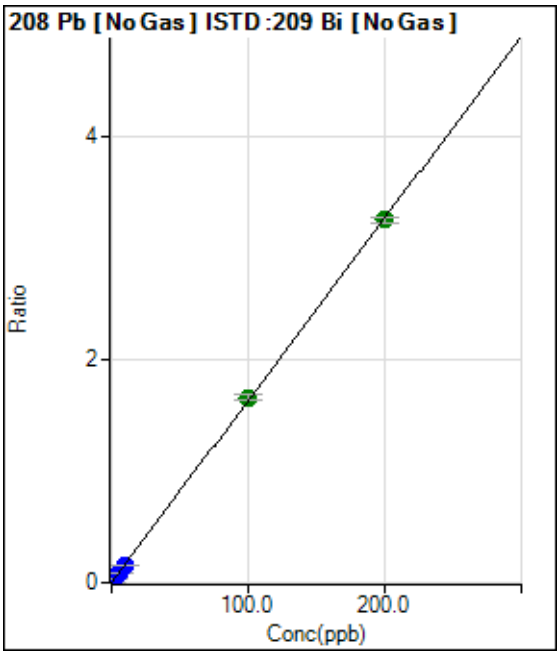


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	553.36	0.0002	P	12.8
2	☐	2.000	1.948	26421.64	0.0073	P	2.6
3	☐	5.000	4.838	65508.57	0.0179	P	1.7
4	☐	10.000	9.718	132297.63	0.0359	P	3.0
5	☐	100.000	100.581	1331944.49	0.3700	A	3.3
6	☐	200.000	199.728	2621461.52	0.7346	A	2.8

y = 0.0037 * x + 1.5356E-004
R = 1.0000
DL = 0.01608
BEC = 0.04176

Weight: <None>
Min Conc: <None>

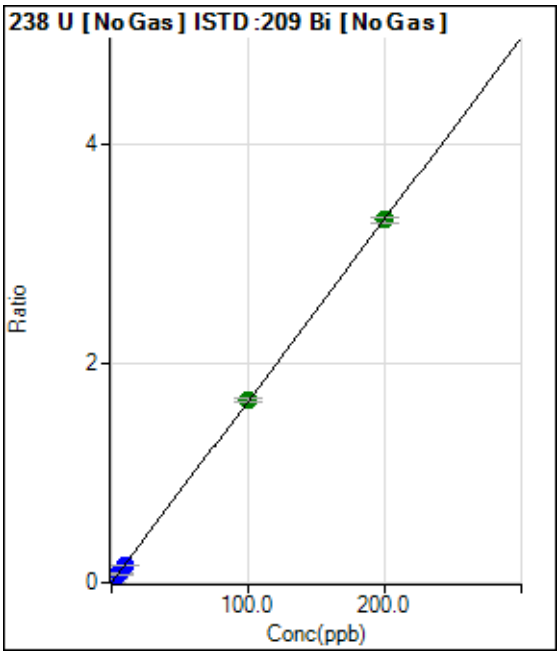
Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2400.14	0.0007	P	0.7
2	☐	2.000	1.989	119485.93	0.0331	P	2.9
3	☐	5.000	4.887	293278.99	0.0803	P	1.5
4	☐	10.000	9.792	590894.29	0.1603	P	2.5
5	☐	100.000	101.575	5961660.20	1.6564	A	3.3
6	☐	200.000	199.226	11591494.52	3.2481	A	1.3

y = 0.0163 * x + 6.6648E-004
R = 1.0000
DL = 0.0009123
BEC = 0.04089

Weight: <None>
Min Conc: <None>

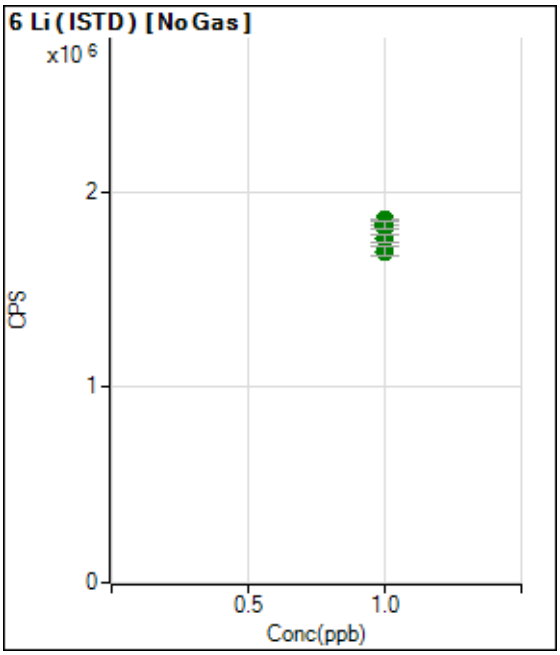


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.00	0.0000	P	23.8
2	☐	2.000	1.942	116437.11	0.0322	P	2.3
3	☐	5.000	4.820	291903.71	0.0800	P	2.9
4	☐	10.000	9.565	584845.86	0.1586	P	2.7
5	☐	100.000	100.556	6001852.00	1.6674	A	2.8
6	☐	200.000	199.749	11819957.32	3.3122	A	1.5

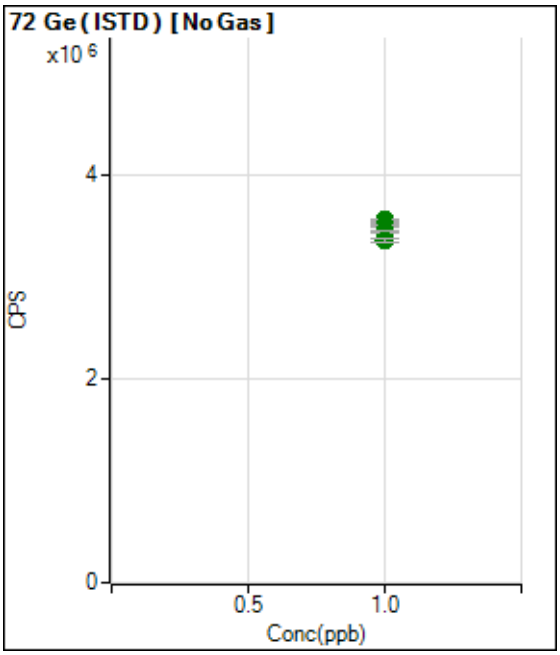
y = 0.0166 * x + 3.8826E-005
R = 1.0000
DL = 0.001673
BEC = 0.002342

Weight: <None>
Min Conc: <None>

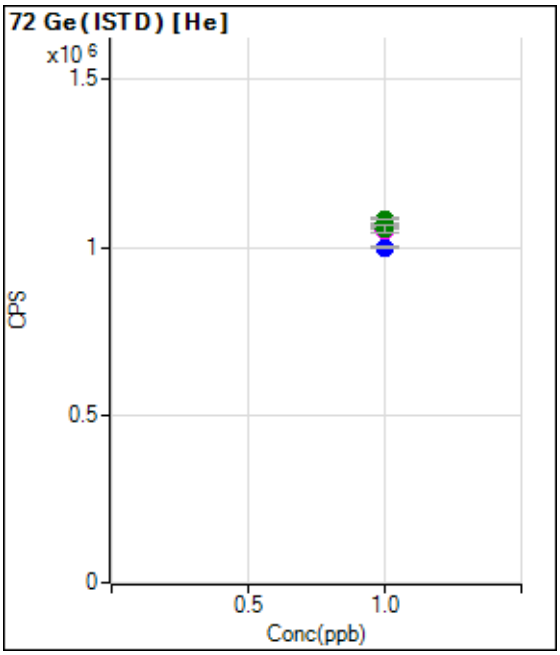
Calibration for 015_ICV.d



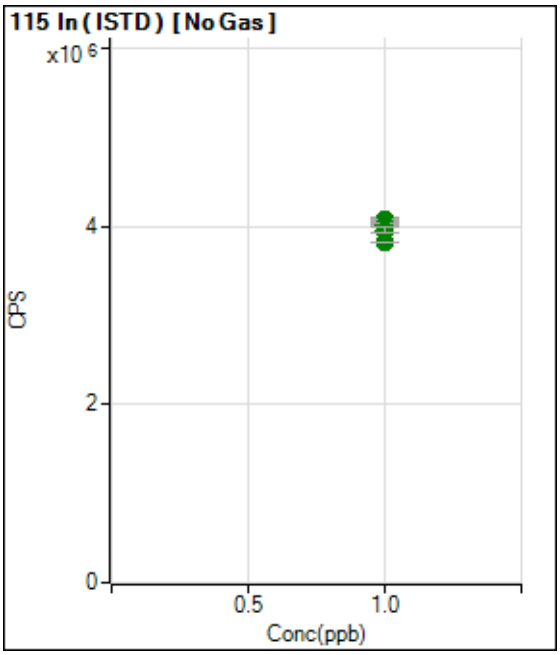
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1845435.82		A	1.9
2	☐	1.000		1857954.58		A	0.5
3	☐	1.000		1820914.24		A	1.0
4	☐	1.000		1830966.28		A	1.9
5	☐	1.000		1763063.66		A	1.9
6	☐	1.000		1695773.28		A	2.8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3529374.43		A	2.1
2	☐	1.000		3555305.47		A	0.7
3	☐	1.000		3505254.22		A	1.1
4	☐	1.000		3493937.14		A	0.6
5	☐	1.000		3440894.32		A	0.8
6	☐	1.000		3352551.93		A	1.2

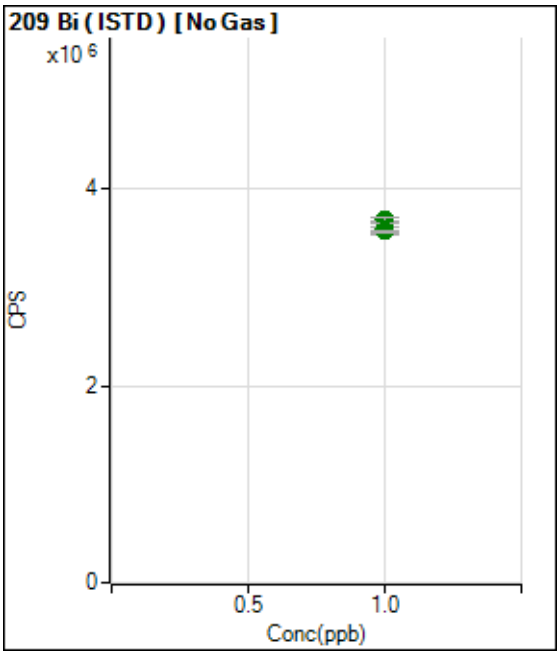


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1081993.24		A	1.6
2	☐	1.000		1063560.61		A	0.9
3	☐	1.000		1070622.98		A	2.1
4	☐	1.000		1047766.49		M	1.2
5	☐	1.000		1053938.60		A	1.9
6	☐	1.000		1000295.09		P	0.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4016066.83		A	0.4
2	☐	1.000		4058930.25		A	2.5
3	☐	1.000		4073237.28		A	0.9
4	☐	1.000		4010249.86		A	1.1
5	☐	1.000		3960129.01		A	1.4
6	☐	1.000		3824234.95		A	0.4

Calibration for 015_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3601111.82		A	0.9
2	☐	1.000		3613074.11		A	1.9
3	☐	1.000		3651945.99		A	1.7
4	☐	1.000		3687668.80		A	1.7
5	☐	1.000		3601582.13		A	3.0
6	☐	1.000		3568942.87		A	0.9

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	017LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:16:59-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	1.993	1.993	5.87	154578	0.00	2	
Be	9	1	No Gas	1.916	1.916	2.30	11124	0.02	2	
V	51	2	He	1.937	1.937	2.24	17788	0.01	2	
Cr	52	2	He	1.955	1.955	0.90	21734	0.01	2	
Fe	56	2	He	210.461	210.461	2.93	1878953	0.01	200	
Se	78	2	He	2.192	2.192	2.65	421	0.52	2	
As	75	2	He	2.003	2.003	5.31	2925	0.07	2	
Ca	44	2	He	202.166	202.166	3.43	13233	1.53	200	
Na	23	2	He	205.906	205.906	0.92	417861	0.05	200	
Mg	24	2	He	208.397	208.397	0.66	177967	0.12	200	
K	39	2	He	190.913	190.913	2.50	278279	0.07	200	
Mn	55	2	He	1.355	1.355	5.56	16237	0.01	2	NewName Main CR1 Failed
Co	59	2	He	2.031	2.031	2.08	29532	0.01	2	
Ni	60	2	He	1.841	1.841	8.22	7159	0.03	2	
Cu	63	2	He	1.868	1.868	1.85	24195	0.01	2	
Zn	66	2	He	1.876	1.876	2.88	4487	0.04	2	
Al	27	2	He	4.212	4.212	3.97	4731	0.09	2	NewName Main CR1 Failed
B	11	1	No Gas	16.137	16.137	6.03	82844	0.02	10	NewName Main CR1 Failed
Al	27	1	No Gas	4.321	4.321	1.06	206050	0.00	2	NewName Main CR1 Failed
Si	28	1	No Gas	7.840	7.840	4.23	644181	0.00	10	
Ag	107	1	No Gas	2.038	2.038	1.83	47824	0.00	2	
Cd	111	1	No Gas	2.030	2.030	2.34	9313	0.02	2	
Sr	88	1	No Gas	2.025	2.025	1.80	94056	0.00	2	
Mo	95	1	No Gas	1.964	1.964	0.59	18079	0.01	2	
Sn	118	1	No Gas	1.986	1.986	2.62	31973	0.01	2	
Sb	121	1	No Gas	1.916	1.916	4.38	43389	0.00	2	
Ba	137	1	No Gas	2.625	2.625	1.76	19488	0.01	2	NewName Main CR1 Failed
Tl	205	1	No Gas	1.979	1.979	4.35	85066	0.00	2	
Tl	203	1	No Gas	1.951	1.951	6.03	35387	0.01	2	
Pb	208	1	No Gas	1.976	1.976	3.52	120257	0.00	2	
U	238	1	No Gas	1.938	1.938	3.97	117675	0.00	2	
Ca	43	2	He	231.950	231.950	28.71	803	28.87	200	
Sb	121	2	He	1.909	1.909	1.65	21745	0.01	2	
Ti	47	2	He	1.876	1.876	24.09	633	0.30	200	
Cu	63	1	No Gas	1.768	1.768	3.86	46824	0.00	2	
Se	82	1	No Gas	2.076	2.076	25.34	334	0.62	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1817753	1.80	1845436	98.50	70	120	
Ge	72	2	He	1042508	1.29	1081993	96.35	70	120	
Ge	72	1	No Gas	3465871	0.60	3529374	98.20	70	120	
In	115	1	No Gas	3991095	1.07	4016067	99.38	70	120	
Bi	209	1	No Gas	3660705	4.18	3601112	101.65	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	018LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:18:58-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	4.902	4.902	2.38	224765	0.00	5	
Be	9	1	No Gas	4.743	4.743	1.13	27577	0.02	5	
V	51	2	He	4.818	4.818	1.25	42569	0.01	5	
Cr	52	2	He	4.883	4.883	0.31	50905	0.01	5	
Fe	56	2	He	507.359	507.359	0.85	4504152	0.01	500	
Se	78	2	He	5.285	5.285	1.86	809	0.65	5	
As	75	2	He	4.942	4.942	2.66	7052	0.07	5	
Ca	44	2	He	484.271	484.271	1.72	28951	1.67	500	
Na	23	2	He	507.891	507.891	0.59	854060	0.06	500	
Mg	24	2	He	518.403	518.403	0.57	440046	0.12	500	
K	39	2	He	494.240	494.240	0.52	590940	0.08	500	
Mn	55	2	He	4.241	4.241	2.72	37933	0.01	5	
Co	59	2	He	5.051	5.051	1.69	73387	0.01	5	
Ni	60	2	He	5.041	5.041	4.65	18556	0.03	5	
Cu	63	2	He	4.853	4.853	1.48	52957	0.01	5	
Zn	66	2	He	5.007	5.007	6.21	10134	0.05	5	
Al	27	2	He	5.125	5.125	4.48	5208	0.10	5	
B	11	1	No Gas	27.176	27.176	2.17	117571	0.02	25	
Al	27	1	No Gas	5.874	5.874	2.12	238010	0.00	5	
Si	28	1	No Gas	23.193	23.193	3.27	792254	0.00	25	
Ag	107	1	No Gas	4.932	4.932	1.72	114711	0.00	5	
Cd	111	1	No Gas	5.025	5.025	2.44	23057	0.02	5	
Sr	88	1	No Gas	4.897	4.897	1.64	223439	0.00	5	
Mo	95	1	No Gas	4.902	4.902	2.72	44856	0.01	5	
Sn	118	1	No Gas	4.802	4.802	1.11	72731	0.01	5	
Sb	121	1	No Gas	4.890	4.890	0.50	101236	0.00	5	
Ba	137	1	No Gas	4.887	4.887	1.54	35937	0.01	5	
Tl	205	1	No Gas	4.814	4.814	2.80	206642	0.00	5	
Tl	203	1	No Gas	4.745	4.745	2.24	86062	0.01	5	
Pb	208	1	No Gas	4.874	4.874	3.14	294843	0.00	5	
U	238	1	No Gas	4.771	4.771	2.66	291287	0.00	5	
Ca	43	2	He	540.530	540.530	7.26	1783	30.31	500	
Sb	121	2	He	4.670	4.670	2.21	49089	0.01	5	
Ti	47	2	He	4.947	4.947	13.97	1637	0.30	5	
Cu	63	1	No Gas	4.853	4.853	0.74	100852	0.00	5	
Se	82	1	No Gas	4.960	4.960	22.22	1113	0.45	5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1822080	1.49	1845436	98.73	70	120	
Ge	72	2	He	1042792	0.59	1081993	96.38	70	120	
Ge	72	1	No Gas	3439969	1.17	3529374	97.47	70	120	

Sample Report

In	115	1	No Gas	3996140	1.51	4016067	99.50	70	120	
Bi	209	1	No Gas	3682125	2.40	3601112	102.25	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	020_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:31:46-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.014	897.4	108302	1.8	0.5	
Be	9	1	No Gas	-0.001	-230.6	22	35.3	0.5	
V	51	2	He	-0.015	-12.4	1027	2.5	2.5	
Cr	52	2	He	-0.036	-52.0	1960	10.5	2.5	
Fe	56	2	He	-0.158	-40.5	18673	2.9	100	
Se	78	2	He	0.168	82.6	172	9.1	1	
As	75	2	He	0.011	209.7	134	23.4	2.5	
Ca	44	2	He	-9.397	-37.1	1493	14.8	100	
Na	23	2	He	-1.203	-186.6	122059	0.9	100	
Mg	24	2	He	7.514	2.0	8463	3.1	100	
K	39	2	He	-7.461	-18.8	75931	1.6	100	
Mn	55	2	He	-0.667	-3.5	1073	15.6	2.5	
Co	59	2	He	0.000	-840.9	67	34.6	2.5	
Ni	60	2	He	-0.090	-6.8	293	8.6	2.5	
Cu	63	2	He	-0.120	-2.0	5181	2.1	1	
Zn	66	2	He	-0.055	-181.2	1033	18.7	2.5	
Al	27	2	He	2.490	23.2	3937	9.4	5	
B	11	1	No Gas	-1.955	-8.9	26712	2.3	0.5	
Al	27	1	No Gas	2.572	3.4	168159	1.1	5	
Si	28	1	No Gas	41.373	2.1	981495	0.8	10	ICB Main CR1 Failed
Ag	107	1	No Gas	-0.011	-14.4	570	4.6	2.5	
Cd	111	1	No Gas	-0.003	-42.0	3	173.2	1	
Sr	88	1	No Gas	-0.015	-9.7	2347	1.1	2.5	
Mo	95	1	No Gas	-0.009	-6.0	137	4.2	2.5	
Sn	118	1	No Gas	-0.073	-12.5	2267	7.6	5	
Sb	121	1	No Gas	-0.135	-5.3	2984	4.7	2.5	
Ba	137	1	No Gas	0.061	31.8	890	14.7	2.5	
Tl	205	1	No Gas	-0.007	-7.7	843	4.9	1	
Tl	203	1	No Gas	-0.005	-49.1	353	11.8	1	
Pb	208	1	No Gas	-0.011	-10.6	1817	1.8	2.5	
U	238	1	No Gas	-0.001	-35.3	90	19.2	2.5	
Ca	43	2	He	-7.004	-108.7	43	58.1	100	
Sb	121	2	He	-0.146	-6.0	1503	4.8	2.5	
Ti	47	2	He	-0.019	-95.1	17	34.6	2.5	
Se	82	1	No Gas	0.160	116.5	-190	-26.7	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1836116	1.02	1845436	99.49	70	120	
Ge	72	2	He	1070560	1.86	1081993	98.94	70	120	
Ge	72	1	No Gas	3468587	0.43	3529374	98.28	70	120	
In	115	1	No Gas	4026587	1.82	4016067	100.26	70	120	
Bi	209	1	No Gas	3709232	2.10	3601112	103.00	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	021ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:33:45-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.456	11.7	109253	0.6	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.001	190.2	30	44.1	0	ICSA Main CR1 Failed
V	51	2	He	0.077	26.5	1620	9.5	0	ICSA Main CR1 Failed
Cr	52	2	He	2.041	3.0	20442	2.4	0	ICSA Main CR1 Failed
Fe	56	2	He	102016.178	2.3	815620895	1.5	0	
Se	78	2	He	0.728	56.6	215	22.3	0	ICSA Main CR1 Failed
As	75	2	He	0.082	23.8	209	12.9	0	ICSA Main CR1 Failed
Ca	44	2	He	99211.239	1.8	5000324	1.5	0	
Na	23	2	He	103478.091	0.8	135275771	1.0	0	
Mg	24	2	He	103554.151	1.3	79170729	0.7	0	
K	39	2	He	102656.466	0.9	95759439	0.7	0	
Mn	55	2	He	12.453	1.7	90119	1.0	0	
Co	59	2	He	0.085	18.8	1183	18.4	0	ICSA Main CR1 Failed
Ni	60	2	He	0.074	33.3	787	8.9	0	ICSA Main CR1 Failed
Cu	63	2	He	-0.047	-54.9	5194	3.4	0	ICSA Main CR1 Failed
Zn	66	2	He	0.912	16.3	2487	8.7	0	ICSA Main CR1 Failed
Al	27	2	He	94952.185	1.5	44830409	0.4	0	
B	11	1	No Gas	-0.244	-92.5	29474	2.9	0	ICSA Main CR1 Failed
Al	27	1	No Gas	95852.254	1.0	1865231226	1.2	0	
Si	28	1	No Gas	19.415	4.8	680398	0.3	0	ICSA Main CR1 Failed
Ag	107	1	No Gas	0.269	2.9	6315	1.0	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	1.237	3.4	5114	1.8	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	1.181	2.0	50496	1.7	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1963.166	3.0	16066499	1.1	0	
Sn	118	1	No Gas	0.093	18.5	4177	5.4	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.025	11.0	5481	0.7	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.459	1.4	3394	0.9	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.001	513.4	1043	14.7	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.003	156.6	430	14.5	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.071	6.5	5917	2.6	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.002	54.8	247	24.8	0	ICSA Main CR1 Failed
Ca	43	2	He	100919.063	1.9	290376	2.0	0	
Sb	121	2	He	-0.004	-719.8	2530	11.1	0	ICSA Main CR1 Failed
Ti	47	2	He	2032.858	0.7	599897	1.5	0	
Se	82	1	No Gas	0.256	227.0	-147	-97.3	0	ICSA Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1685658	0.73	1845436	91.34	70	120	
Ge	72	2	He	943343	1.13	1081993	87.19	70	120	
Ge	72	1	No Gas	3101666	1.09	3529374	87.88	70	120	
In	115	1	No Gas	3593322	1.92	4016067	89.47	70	120	
Bi	209	1	No Gas	3254884	2.39	3601112	90.39	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	022ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T11:35:48-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	101.959	1.054	2241028	0.54	100	102.0	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	99.929	1.078	504723	0.82	100	99.9	80	120	
V	51	2	He	99.011	1.893	771103	0.34	100	99.0	80	120	
Cr	52	2	He	100.930	1.379	911170	0.69	100	100.9	80	120	
Fe	56	2	He	111467.180	2.202	890933720	1.02	100	111467.2	80	120	
Se	78	2	He	103.901	1.120	11915	0.77	100	103.9	80	120	
As	75	2	He	103.890	1.306	131978	0.67	100	103.9	80	120	
Ca	44	2	He	109476.288	1.507	5516019	0.88	100	109476.3	80	120	
Na	23	2	He	112493.374	2.000	147002224	1.32	100	112493.4	80	120	
Mg	24	2	He	113564.109	3.262	86783169	1.80	100	113564.1	80	120	
K	39	2	He	112543.132	2.840	104925652	1.14	100	112543.1	80	120	
Mn	55	2	He	104.514	1.161	715658	0.63	100	104.5	80	120	
Co	59	2	He	98.501	0.566	1293219	1.33	100	98.5	80	120	
Ni	60	2	He	98.698	0.693	318442	1.08	100	98.7	80	120	
Cu	63	2	He	95.157	1.114	834707	0.89	100	95.2	80	120	
Zn	66	2	He	100.709	1.906	165257	1.05	100	100.7	80	120	
Al	27	2	He	93631.321	2.505	44190531	0.80	100	93631.3	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	517.481	2.428	1448723	3.27	100	517.5	80	120	
Al	27	1	No Gas	93053.857	2.183	1835882479	2.11	100	93053.9	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	534.836	2.550	5383247	2.19	100	534.8	80	120	
Ag	107	1	No Gas	97.030	0.587	2020235	1.89	100	97.0	80	120	
Cd	111	1	No Gas	100.226	1.873	414179	0.70	100	100.2	80	120	
Sr	88	1	No Gas	104.580	2.010	4244984	0.51	100	104.6	80	120	
Mo	95	1	No Gas	2064.066	0.932	16935082	0.69	100	2064.1	80	120	
Sn	118	1	No Gas	103.442	1.543	1350670	1.68	100	103.4	80	120	
Sb	121	1	No Gas	101.727	1.440	1823749	1.56	100	101.7	80	120	
Ba	137	1	No Gas	100.313	1.995	657037	1.15	100	100.3	80	120	
Tl	205	1	No Gas	103.194	2.104	3874301	1.39	100	103.2	80	120	
Tl	203	1	No Gas	101.759	3.549	1614599	2.30	100	101.8	80	120	
Pb	208	1	No Gas	104.278	2.047	5502790	0.66	100	104.3	80	120	
U	238	1	No Gas	105.617	1.925	5668158	1.84	100	105.6	80	120	
Ca	43	2	He	109495.814	1.740	314933	0.14	100	109495.8	80	120	
Sb	121	2	He	103.416	1.883	879804	0.94	100	103.4	80	120	
Ti	47	2	He	2111.064	1.118	622786	1.24	100	2111.1	80	120	ICSB Main CR1 Failed
Cu	63	1	No Gas	97.675	0.391	1588129	0.61	100	97.7	80	120	
Se	82	1	No Gas	105.223	1.697	25886	2.06	100	105.2	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1599061	1.33	1845436	86.65	70	120	
Ge	72	2	He	943165	1.77	1081993	87.17	70	120	
Ge	72	1	No Gas	3144622	0.35	3529374	89.10	70	120	
In	115	1	No Gas	3601367	1.53	4016067	89.67	70	120	
Bi	209	1	No Gas	3236755	1.45	3601112	89.88	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	110_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T14:47:52-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	99.081	1.952	2421591	1.29	100	99.1	90	110	
Be	9	1	No Gas	97.923	2.064	549248	0.31	100	97.9	90	110	
V	51	2	He	96.160	0.736	866184	0.13	100	96.2	90	110	
Cr	52	2	He	98.527	2.952	1028651	2.47	100	98.5	90	110	
Fe	56	2	He	9639.831	1.393	89132885	1.33	10000	96.4	90	110	
Se	78	2	He	97.456	0.956	12934	0.65	100	97.5	90	110	
As	75	2	He	98.524	1.297	144748	0.66	100	98.5	90	110	
Ca	44	2	He	9056.659	0.812	529635	0.73	10000	90.6	90	110	
Na	23	2	He	9476.727	0.868	14437545	0.16	10000	94.8	90	110	
Mg	24	2	He	9398.499	0.597	8309657	0.62	10000	94.0	90	110	
K	39	2	He	9357.578	1.551	10169134	0.85	10000	93.6	90	110	
Mn	55	2	He	100.142	1.352	793290	1.25	100	100.1	90	110	
Co	59	2	He	102.260	1.495	1552514	1.27	100	102.3	90	110	
Ni	60	2	He	99.641	0.591	371761	0.11	100	99.6	90	110	
Cu	63	2	He	97.389	1.341	987777	1.09	100	97.4	90	110	
Zn	66	2	He	100.336	1.836	190412	1.27	100	100.3	90	110	
Al	27	2	He	97.208	3.141	55706	2.31	100	97.2	90	110	
B	11	1	No Gas	518.756	4.026	1611998	1.91	500	103.8	90	110	
Al	27	1	No Gas	103.779	1.461	2497692	1.29	100	103.8	90	110	
Si	28	1	No Gas	506.862	0.943	5960517	0.77	5000	10.1	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	102.629	1.406	2498556	1.59	100	102.6	90	110	
Cd	111	1	No Gas	101.861	0.251	492293	0.22	100	101.9	90	110	
Sr	88	1	No Gas	99.771	0.143	4736652	0.48	100	99.8	90	110	
Mo	95	1	No Gas	100.456	1.053	964062	0.72	100	100.5	90	110	
Sn	118	1	No Gas	100.830	0.353	1539702	0.62	100	100.8	90	110	
Sb	121	1	No Gas	101.988	1.892	2125060	2.12	100	102.0	90	110	
Ba	137	1	No Gas	100.396	1.924	769033	1.66	100	100.4	90	110	
Tl	205	1	No Gas	103.439	2.119	4666743	0.09	100	103.4	90	110	
Tl	203	1	No Gas	102.149	2.471	1947927	0.82	100	102.1	90	110	
Pb	208	1	No Gas	103.067	2.169	6536102	0.39	100	103.1	90	110	
U	238	1	No Gas	100.272	2.870	6465776	1.41	100	100.3	90	110	
Ca	43	2	He	9368.730	2.694	31226	2.48	10000	93.7	90	110	
Sb	121	2	He	101.603	0.098	999776	0.79	100	101.6	90	110	
Ti	47	2	He	93.600	1.176	31954	0.70	100	93.6	90	110	
Cu	63	1	No Gas	100.145	1.739	1891972	1.67	100	100.1	90	110	
Se	82	1	No Gas	100.334	3.385	28676	3.58	100	100.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1776142	2.07	1845436	96.25	70	120	
Ge	72	2	He	1090625	0.70	1081993	100.80	70	120	
Ge	72	1	No Gas	3654719	0.25	3529374	103.55	70	120	
In	115	1	No Gas	4211203	0.47	4016067	104.86	70	120	
Bi	209	1	No Gas	3890087	2.06	3601112	108.02	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	111_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T14:49:44-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	-0.016	-723.4	105300	1.0	0.5	
Be	9	1	No Gas	0.006	46.9	57	27.0	0.5	
V	51	2	He	0.046	37.0	1610	9.0	2.5	
Cr	52	2	He	-0.083	-17.2	1523	10.0	2.5	
Fe	56	2	He	1.525	9.7	34942	4.1	100	
Se	78	2	He	-0.002	-2603.6	155	4.2	2	
As	75	2	He	0.040	73.5	181	23.4	2.5	
Ca	44	2	He	-15.311	-7.8	1187	5.5	100	
Na	23	2	He	23.597	7.3	163511	1.1	100	
Mg	24	2	He	-0.033	-358.7	1970	5.7	100	
K	39	2	He	-16.796	-0.7	68004	0.4	100	
Mn	55	2	He	0.703	2.3	11992	1.6	2.5	
Co	59	2	He	0.001	56.3	90	11.1	2.5	
Ni	60	2	He	0.162	17.8	1250	9.0	2.5	
Cu	63	2	He	-0.442	-3.0	2050	6.4	2	
Zn	66	2	He	0.104	22.9	1367	2.8	2.5	
Al	27	2	He	-1.529	-10.8	1833	5.5	5	
B	11	1	No Gas	11.568	23.8	67818	11.8	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.864	-3.5	76407	0.8	5	
Si	28	1	No Gas	-7.493	-8.1	523518	0.1	10	
Ag	107	1	No Gas	-0.010	-19.9	617	8.0	2.5	
Cd	111	1	No Gas	0.003	161.5	33	75.5	1	
Sr	88	1	No Gas	-0.031	-7.8	1747	6.3	2.5	
Mo	95	1	No Gas	0.214	44.9	2317	39.8	2.5	
Sn	118	1	No Gas	0.204	25.9	6675	11.7	5	
Sb	121	1	No Gas	0.043	78.7	6925	9.1	2.5	
Ba	137	1	No Gas	-0.013	-54.4	373	13.7	2.5	
Tl	205	1	No Gas	0.872	59.7	41093	59.2	1	
Tl	203	1	No Gas	0.882	59.8	17516	59.5	1	
Pb	208	1	No Gas	0.016	28.0	3634	8.4	2.5	
U	238	1	No Gas	0.023	48.1	1630	44.9	2.5	
Ca	43	2	He	3.574	80.7	80	12.5	100	
Sb	121	2	He	-0.031	-47.4	2690	4.9	2.5	
Ti	47	2	He	0.009	189.8	27	21.7	2.5	
Cu	63	1	No Gas	-0.285	-8.9	11055	5.5	2.5	
Se	82	1	No Gas	-0.023	-1674.4	-257	-44.4	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1797387	1.64	1845436	97.40	70	120	
Ge	72	2	He	1101935	0.54	1081993	101.84	70	120	
Ge	72	1	No Gas	3701050	1.30	3529374	104.86	70	120	
In	115	1	No Gas	4269174	0.50	4016067	106.30	70	120	
Bi	209	1	No Gas	3925689	1.25	3601112	109.01	70	120	

Sample Report

Sample Table

Sample Name	MBLK-166391
Data File Name	112SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T14:52:37-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	0.110	0.110	38.73	104961	0.00	2000	
Be	9	1	No Gas	0.000	0.000	-372.78	22	0.00	2000	
V	51	2	He	0.059	0.059	23.66	1708	0.00	2000	
Cr	52	2	He	-0.062	-0.062	-26.35	1713	0.00	2000	
Fe	56	2	He	0.783	0.783	2.44	27561	0.00	200000	
Se	78	2	He	0.165	0.165	28.05	174	0.09	2000	
As	75	2	He	0.026	0.026	116.75	158	0.02	2000	
Ca	44	2	He	-14.464	-14.464	-12.38	1217	-1.19	200000	
Na	23	2	He	13.396	13.396	7.42	145586	0.01	200000	
Mg	24	2	He	1.916	1.916	9.79	3651	0.05	200000	
K	39	2	He	-16.535	-16.535	-11.90	67187	-0.02	200000	
Mn	55	2	He	0.584	0.584	9.53	10868	0.01	2000	
Co	59	2	He	0.000	0.000	-219.51	63	0.00	2000	
Ni	60	2	He	0.336	0.336	2.60	1877	0.02	2000	
Cu	63	2	He	-0.428	-0.428	-3.27	2154	-0.02	2000	
Zn	66	2	He	0.381	0.381	10.77	1863	0.02	2000	
Al	27	2	He	-0.848	-0.848	-47.03	2174	-0.04	2000	
B	11	1	No Gas	0.704	0.704	81.73	33286	0.00	2000	
Al	27	1	No Gas	-0.749	-0.749	-6.09	99504	0.00	2000	
Si	28	1	No Gas	4.005	4.005	11.64	628996	0.00	2000	
Ag	107	1	No Gas	-0.018	-0.018	-12.24	433	0.00	2000	
Cd	111	1	No Gas	-0.001	-0.001	-337.25	13	-0.01	2000	
Sr	88	1	No Gas	-0.027	-0.027	-6.12	1934	0.00	2000	
Mo	95	1	No Gas	0.020	0.020	37.32	433	0.00	2000	
Sn	118	1	No Gas	0.025	0.025	98.97	3927	0.00	2000	
Sb	121	1	No Gas	-0.141	-0.141	-3.81	2967	0.00	2000	
Ba	137	1	No Gas	-0.001	-0.001	-2661.31	467	0.00	2000	
Tl	205	1	No Gas	-0.010	-0.010	-45.89	793	0.00	2000	
Tl	203	1	No Gas	-0.006	-0.006	-54.37	360	0.00	2000	
Pb	208	1	No Gas	-0.005	-0.005	-34.54	2380	0.00	2000	
U	238	1	No Gas	0.000	0.000	697.57	163	0.00	2000	
Ca	43	2	He	-15.176	-15.176	-11.70	17	-91.05	200000	
Sb	121	2	He	-0.157	-0.157	-4.27	1413	-0.01	2000	
Ti	47	2	He	0.000	0.000	-29940.46	23	0.00	2000	
Cu	63	1	No Gas	-0.494	-0.494	-7.41	6892	-0.01	2000	
Zn	66	1	No Gas	0.429	0.429	9.43	5078	0.01	2000	
Se	82	1	No Gas	0.269	0.269	165.68	-166	-0.16	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1741968	0.44	1845436	94.39	70	120	
Ge	72	2	He	1084320	0.73	1081993	100.22	70	120	
Ge	72	1	No Gas	3599275	0.63	3529374	101.98	70	120	
In	115	1	No Gas	4277662	1.68	4016067	106.51	70	120	

Sample Report

Bi	209	1	No Gas	4025094	1.79	3601112	111.77	70	120	

Sample Report

Sample Table

Sample Name	LCS-166391
Data File Name	113SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T14:54:37-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	0.003	0.003	720.25	108729	0.00	2000	
Be	9	1	No Gas	48.207	48.207	0.87	281326	0.02	2000	
V	51	2	He	47.761	47.761	1.67	441126	0.01	2000	
Cr	52	2	He	48.410	48.410	0.92	518803	0.01	2000	
Fe	56	2	He	4883.184	4883.184	0.66	46244761	0.01	200000	
Se	78	2	He	48.697	48.697	2.58	6696	0.73	2000	
As	75	2	He	47.151	47.151	0.98	71001	0.07	2000	
Ca	44	2	He	4579.097	4579.097	0.81	275250	1.66	200000	
Na	23	2	He	4823.474	4823.474	2.27	7587431	0.06	200000	
Mg	24	2	He	4891.516	4891.516	1.46	4429465	0.11	200000	
K	39	2	He	4802.148	4802.148	0.59	5386609	0.09	200000	
Mn	55	2	He	45.628	45.628	1.40	373637	0.01	2000	
Co	59	2	He	49.245	49.245	0.66	765608	0.01	2000	
Ni	60	2	He	51.020	51.020	0.38	195244	0.03	2000	
Cu	63	2	He	49.296	49.296	1.71	515225	0.01	2000	
Zn	66	2	He	51.148	51.148	0.26	99983	0.05	2000	
Al	27	2	He	49.509	49.509	2.27	30384	0.16	2000	
B	11	1	No Gas	-2.454	-2.454	-5.67	25293	-0.01	2000	
Al	27	1	No Gas	54.700	54.700	3.03	1390860	0.00	2000	
Si	28	1	No Gas	84.775	84.775	0.90	1513536	0.01	2000	
Ag	107	1	No Gas	52.227	52.227	1.04	1298442	0.00	2000	
Cd	111	1	No Gas	51.709	51.709	1.11	255133	0.02	2000	
Sr	88	1	No Gas	0.048	0.048	16.14	5555	0.00	2000	
Mo	95	1	No Gas	49.049	49.049	1.11	480675	0.01	2000	
Sn	118	1	No Gas	-0.082	-0.082	-7.69	2274	0.00	2000	
Sb	121	1	No Gas	50.446	50.446	1.48	1068189	0.00	2000	
Ba	137	1	No Gas	50.216	50.216	0.66	392938	0.01	2000	
Tl	205	1	No Gas	51.087	51.087	3.87	2377459	0.00	2000	
Tl	203	1	No Gas	47.834	47.834	2.43	941171	0.01	2000	
Pb	208	1	No Gas	49.687	49.687	2.26	3251640	0.00	2000	
U	238	1	No Gas	-0.001	-0.001	-37.76	97	0.00	2000	
Ca	43	2	He	4631.337	4631.337	5.62	15843	29.23	200000	
Sb	121	2	He	50.775	50.775	1.90	513073	0.01	2000	
Ti	47	2	He	47.237	47.237	5.14	16520	0.29	2000	
Cu	63	1	No Gas	49.887	49.887	1.26	963366	0.01	2000	
Zn	66	1	No Gas	52.836	52.836	0.69	261643	0.02	2000	
Se	82	1	No Gas	52.375	52.375	4.80	15049	0.35	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1847415	0.75	1845436	100.11	70	120	
Ge	72	2	He	1116795	0.98	1081993	103.22	70	120	
Ge	72	1	No Gas	3703786	0.60	3529374	104.94	70	120	
In	115	1	No Gas	4299381	1.10	4016067	107.05	70	120	

Sample Report

Bi	209	1	No Gas	4012957	2.48	3601112	111.44	70	120	

Sample Report

Sample Table

Sample Name	HS21051153-03SD
Data File Name	117SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:02:33-05:00
Sample Type	Sample
Dilution	5
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	15.299	76.494	2.26	424362	0.00	2000	
Be	9	1	No Gas	0.001	0.006	126.23	28	0.00	2000	
V	51	2	He	0.316	1.580	8.51	3658	0.01	2000	
Cr	52	2	He	0.302	1.511	8.43	5014	0.01	2000	
Fe	56	2	He	2936.808	14684.039	0.76	24684295	0.01	200000	
Se	78	2	He	0.163	0.816	79.94	159	0.10	2000	
As	75	2	He	3.706	18.528	0.86	5052	0.07	2000	
Ca	44	2	He	40001.952	200009.762	1.63	2118773	1.89	200000	
Na	23	2	He	12899.564	64497.818	2.16	17812485	0.07	200000	
Mg	24	2	He	9775.929	48879.646	2.28	7851660	0.12	200000	
K	39	2	He	2907.101	14535.507	2.08	2923855	0.10	200000	
Mn	55	2	He	69.749	348.745	1.20	503710	0.01	2000	
Co	59	2	He	0.144	0.721	10.98	2054	0.01	2000	
Ni	60	2	He	0.871	4.353	11.01	3524	0.02	2000	
Cu	63	2	He	-0.217	-1.083	-6.57	3907	-0.01	2000	
Zn	66	2	He	0.560	2.799	3.14	2010	0.03	2000	
Al	27	2	He	11.339	56.695	27.58	8023	0.14	2000	
B	11	1	No Gas	127.635	638.176	3.93	386138	0.03	2000	
Al	27	1	No Gas	10.419	52.096	21.39	333220	0.00	2000	
Si	28	1	No Gas	3112.223	15561.117	0.34	31289930	0.01	2000	>LDR
Ag	107	1	No Gas	-0.022	-0.112	-5.61	297	-0.01	2000	
Cd	111	1	No Gas	0.010	0.052	24.99	63	0.02	2000	
Sr	88	1	No Gas	305.902	1529.512	1.21	13626763	0.00	2000	
Mo	95	1	No Gas	0.383	1.915	6.32	3671	0.01	2000	
Sn	118	1	No Gas	-0.047	-0.235	-32.67	2594	0.00	2000	
Sb	121	1	No Gas	-0.106	-0.531	-10.91	3491	0.00	2000	
Ba	137	1	No Gas	9.908	49.540	0.94	71641	0.01	2000	
Tl	205	1	No Gas	-0.018	-0.092	-14.89	360	-0.01	2000	
Tl	203	1	No Gas	-0.015	-0.073	-4.51	170	-0.01	2000	
Pb	208	1	No Gas	0.012	0.062	25.97	3180	0.00	2000	
U	238	1	No Gas	0.354	1.771	2.11	21616	0.00	2000	
Ca	43	2	He	40447.560	202237.802	1.75	122276	33.08	200000	
Sb	121	2	He	-0.112	-0.558	-15.51	1697	-0.01	2000	
Ti	47	2	He	0.125	0.626	112.39	60	0.21	2000	
Cu	63	1	No Gas	-0.312	-1.558	-11.98	9717	0.00	2000	
Zn	66	1	No Gas	0.538	2.689	6.64	5301	0.01	2000	
Se	82	1	No Gas	0.423	2.115	90.07	-116	-0.36	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1630826	2.58	1845436	88.37	70	120	
Ge	72	2	He	990877	1.07	1081993	91.58	70	120	
Ge	72	1	No Gas	3410171	0.19	3529374	96.62	70	120	
In	115	1	No Gas	3953294	0.42	4016067	98.44	70	120	

Sample Report

Bi	209	1	No Gas	3656517	2.34	3601112	101.54	70	120	

Sample Report

Sample Table

Sample Name	HS21051153-03MS
Data File Name	118SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:04:32-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	72.906	72.906	2.27	1587187	0.00	2000	
Be	9	1	No Gas	49.689	49.689	1.36	244493	0.02	2000	
V	51	2	He	51.994	51.994	0.19	406688	0.01	2000	
Cr	52	2	He	52.326	52.326	0.51	474824	0.01	2000	
Fe	56	2	He	18669.955	18669.955	0.23	149710514	0.01	200000	
Se	78	2	He	52.117	52.117	2.57	6062	0.86	2000	
As	75	2	He	68.286	68.286	0.84	87052	0.08	2000	
Ca	44	2	He	189109.733	189109.733	0.64	9555996	1.98	200000	>LDR
Na	23	2	He	65330.650	65330.650	0.23	85681859	0.08	200000	
Mg	24	2	He	50153.672	50153.672	0.47	38453221	0.13	200000	
K	39	2	He	18474.974	18474.974	1.47	17340723	0.11	200000	
Mn	55	2	He	380.926	380.926	0.19	2601851	0.01	2000	
Co	59	2	He	51.349	51.349	0.88	676193	0.01	2000	
Ni	60	2	He	54.651	54.651	0.80	177093	0.03	2000	
Cu	63	2	He	49.947	49.947	0.87	442130	0.01	2000	
Zn	66	2	He	53.311	53.311	1.51	88215	0.06	2000	
Al	27	2	He	103.052	103.052	0.82	51086	0.20	2000	
B	11	1	No Gas	488.065	488.065	0.76	1332419	0.04	2000	
Al	27	1	No Gas	108.294	108.294	2.15	2323217	0.00	2000	
Si	28	1	No Gas	14968.034	14968.034	0.49	142014078	0.01	2000	>LDR
Ag	107	1	No Gas	50.681	50.681	1.58	1108686	0.00	2000	
Cd	111	1	No Gas	52.236	52.236	1.38	226784	0.02	2000	
Sr	88	1	No Gas	1476.682	1476.682	2.61	62931216	0.00	2000	
Mo	95	1	No Gas	53.727	53.727	0.93	463279	0.01	2000	
Sn	118	1	No Gas	-0.091	-0.091	-6.51	1880	0.00	2000	
Sb	121	1	No Gas	53.250	53.250	0.87	993464	0.01	2000	
Ba	137	1	No Gas	101.898	101.898	1.87	701128	0.01	2000	
Tl	205	1	No Gas	51.555	51.555	4.15	2113034	0.00	2000	
Tl	203	1	No Gas	48.539	48.539	3.56	840993	0.01	2000	
Pb	208	1	No Gas	51.703	51.703	2.42	2979876	0.00	2000	
U	238	1	No Gas	1.680	1.680	3.03	98546	0.00	2000	
Ca	43	2	He	195430.906	195430.906	1.04	563772	34.66	200000	>LDR
Sb	121	2	He	54.840	54.840	0.29	469203	0.01	2000	
Ti	47	2	He	51.733	51.733	1.50	15329	0.34	2000	
Cu	63	1	No Gas	48.832	48.832	0.48	831389	0.01	2000	
Zn	66	1	No Gas	53.575	53.575	0.59	233777	0.02	2000	
Se	82	1	No Gas	55.789	55.789	1.90	14142	0.39	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1557642	0.17	1845436	84.41	70	120	
Ge	72	2	He	945919	1.09	1081993	87.42	70	120	
Ge	72	1	No Gas	3264141	0.24	3529374	92.48	70	120	
In	115	1	No Gas	3783020	0.75	4016067	94.20	70	120	
Bi	209	1	No Gas	3534040	2.05	3601112	98.14	70	120	

Sample Report

Sample Table

Sample Name	HS21051153-03MSD
Data File Name	119SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:06:32-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	71.852	71.852	0.73	1468690	0.00	2000	
Be	9	1	No Gas	49.598	49.598	1.45	228952	0.02	2000	
V	51	2	He	51.774	51.774	0.75	363907	0.01	2000	
Cr	52	2	He	51.885	51.885	1.75	423066	0.01	2000	
Fe	56	2	He	18670.102	18670.102	1.69	134520258	0.01	200000	
Se	78	2	He	50.663	50.663	1.63	5298	0.96	2000	
As	75	2	He	67.832	67.832	0.62	77703	0.09	2000	
Ca	44	2	He	191294.713	191294.713	0.39	8686638	2.20	200000	>LDR
Na	23	2	He	66371.822	66371.822	1.40	78214666	0.08	200000	
Mg	24	2	He	51092.687	51092.687	1.17	35199034	0.15	200000	
K	39	2	He	18723.801	18723.801	0.77	15793081	0.12	200000	
Mn	55	2	He	383.995	383.995	0.93	2357030	0.02	2000	
Co	59	2	He	51.368	51.368	1.87	607803	0.01	2000	
Ni	60	2	He	55.264	55.264	2.53	160902	0.03	2000	
Cu	63	2	He	50.614	50.614	0.68	402533	0.01	2000	
Zn	66	2	He	52.274	52.274	1.46	77755	0.07	2000	
Al	27	2	He	101.544	101.544	0.17	45268	0.22	2000	
B	11	1	No Gas	483.632	483.632	1.54	1238894	0.04	2000	
Al	27	1	No Gas	107.345	107.345	3.58	2157836	0.00	2000	
Si	28	1	No Gas	15155.434	15155.434	0.56	134571238	0.01	2000	>LDR
Ag	107	1	No Gas	50.938	50.938	2.70	1045883	0.00	2000	
Cd	111	1	No Gas	52.899	52.899	1.70	215574	0.02	2000	
Sr	88	1	No Gas	1480.711	1480.711	2.37	59231926	0.00	2000	
Mo	95	1	No Gas	54.607	54.607	2.29	441935	0.01	2000	
Sn	118	1	No Gas	-0.096	-0.096	-12.67	1700	-0.01	2000	
Sb	121	1	No Gas	53.880	53.880	1.54	940552	0.01	2000	
Ba	137	1	No Gas	103.234	103.234	1.72	666739	0.02	2000	
Tl	205	1	No Gas	54.902	54.902	1.14	2089767	0.00	2000	
Tl	203	1	No Gas	51.840	51.840	1.15	834046	0.01	2000	
Pb	208	1	No Gas	53.492	53.492	1.19	2862424	0.00	2000	
U	238	1	No Gas	1.728	1.728	0.63	94127	0.00	2000	
Ca	43	2	He	198167.662	198167.662	0.79	513732	38.57	200000	>LDR
Sb	121	2	He	55.378	55.378	1.01	425727	0.01	2000	
Ti	47	2	He	50.814	50.814	2.95	13527	0.38	2000	
Cu	63	1	No Gas	49.398	49.398	0.98	786912	0.01	2000	
Zn	66	1	No Gas	54.157	54.157	0.46	221158	0.02	2000	
Se	82	1	No Gas	54.833	54.833	2.58	13008	0.42	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1461197	1.36	1845436	79.18	70	120	
Ge	72	2	He	850033	1.04	1081993	78.56	70	120	
Ge	72	1	No Gas	3055276	2.94	3529374	86.57	70	120	
In	115	1	No Gas	3550920	1.14	4016067	88.42	70	120	
Bi	209	1	No Gas	3280722	1.91	3601112	91.10	70	120	

Sample Report

Sample Table

Sample Name	HS21051153-03PDS
Data File Name	120SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:08:32-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	69.905	69.905	2.37	1418236	0.00	2000	
Be	9	1	No Gas	107.033	107.033	1.49	489569	0.02	2000	
V	51	2	He	114.243	114.243	0.98	793292	0.01	2000	
Cr	52	2	He	113.720	113.720	1.05	915214	0.01	2000	
Fe	56	2	He	24913.763	24913.763	0.45	177589924	0.01	200000	
Se	78	2	He	113.878	113.878	1.95	11633	0.98	2000	
As	75	2	He	129.189	129.189	0.53	146319	0.09	2000	
Ca	44	2	He	198804.955	198804.955	0.17	8930637	2.23	200000	>LDR
Na	23	2	He	72278.093	72278.093	0.52	84257820	0.09	200000	
Mg	24	2	He	56644.390	56644.390	1.22	38607771	0.15	200000	
K	39	2	He	24629.883	24629.883	1.18	20530755	0.12	200000	
Mn	55	2	He	445.574	445.574	0.93	2704596	0.02	2000	
Co	59	2	He	112.217	112.217	0.74	1313619	0.01	2000	
Ni	60	2	He	116.185	116.185	0.25	334151	0.03	2000	
Cu	63	2	He	110.852	110.852	0.84	866197	0.01	2000	
Zn	66	2	He	115.014	115.014	0.58	168169	0.07	2000	
Al	27	2	He	160.382	160.382	2.68	69538	0.23	2000	
B	11	1	No Gas	480.057	480.057	0.90	1218898	0.04	2000	
Al	27	1	No Gas	173.158	173.158	11.44	3324211	0.01	2000	
Si	28	1	No Gas	14827.647	14827.647	0.55	127937911	0.01	2000	>LDR
Ag	107	1	No Gas	106.553	106.553	2.51	2143751	0.00	2000	
Cd	111	1	No Gas	113.948	113.948	1.32	455172	0.03	2000	
Sr	88	1	No Gas	1472.037	1472.037	0.99	57725907	0.00	2000	
Mo	95	1	No Gas	117.168	117.168	1.57	929331	0.01	2000	
Sn	118	1	No Gas	-0.035	-0.035	-35.05	2430	0.00	2000	
Sb	121	1	No Gas	118.044	118.044	0.22	1996933	0.01	2000	
Ba	137	1	No Gas	166.613	166.613	0.64	1054676	0.02	2000	
Tl	205	1	No Gas	124.201	124.201	3.49	4639036	0.00	2000	
Tl	203	1	No Gas	120.879	120.879	3.07	1908759	0.01	2000	
Pb	208	1	No Gas	118.914	118.914	4.55	6240383	0.00	2000	
U	238	1	No Gas	1.713	1.713	4.52	91537	0.00	2000	
Ca	43	2	He	202482.770	202482.770	0.08	519285	38.99	200000	>LDR
Sb	121	2	He	118.860	118.860	0.45	901351	0.01	2000	
Ti	47	2	He	111.089	111.089	0.71	29238	0.38	2000	
Cu	63	1	No Gas	110.016	110.016	0.78	1686891	0.01	2000	
Zn	66	1	No Gas	115.880	115.880	1.12	456891	0.03	2000	
Se	82	1	No Gas	119.003	119.003	0.58	27661	0.43	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1448122	0.80	1845436	78.47	70	120	
Ge	72	2	He	840875	0.57	1081993	77.72	70	120	
Ge	72	1	No Gas	2968488	1.49	3529374	84.11	70	120	
In	115	1	No Gas	3480986	1.40	4016067	86.68	70	120	
Bi	209	1	No Gas	3222267	4.02	3601112	89.48	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	122_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:15:30-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	98.697	0.870	2134520	2.15	100	98.7	90	110	
Be	9	1	No Gas	96.507	0.837	478885	0.73	100	96.5	90	110	
V	51	2	He	97.378	0.696	767430	0.50	100	97.4	90	110	
Cr	52	2	He	99.837	0.679	912011	0.84	100	99.8	90	110	
Fe	56	2	He	9942.036	1.216	80425979	0.78	10000	99.4	90	110	
Se	78	2	He	96.932	1.037	11256	0.59	100	96.9	90	110	
As	75	2	He	99.611	0.350	128046	0.70	100	99.6	90	110	
Ca	44	2	He	9312.494	0.250	476428	0.41	10000	93.1	90	110	
Na	23	2	He	9636.785	0.900	12843387	0.88	10000	96.4	90	110	
Mg	24	2	He	9733.272	1.011	7529018	0.74	10000	97.3	90	110	
K	39	2	He	9548.507	1.379	9077351	0.98	10000	95.5	90	110	
Mn	55	2	He	99.522	1.079	689815	1.27	100	99.5	90	110	
Co	59	2	He	105.024	1.210	1395013	0.77	100	105.0	90	110	
Ni	60	2	He	103.198	0.392	336857	0.63	100	103.2	90	110	
Cu	63	2	He	101.242	0.445	898213	0.60	100	101.2	90	110	
Zn	66	2	He	103.243	0.744	171402	0.85	100	103.2	90	110	
Al	27	2	He	92.676	1.336	46579	1.07	100	92.7	90	110	
B	11	1	No Gas	509.581	0.591	1401817	1.33	500	101.9	90	110	
Al	27	1	No Gas	99.856	1.542	2168646	0.27	100	99.9	90	110	
Si	28	1	No Gas	498.801	0.450	5292299	1.06	5000	10.0	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	100.303	2.573	2243678	2.27	100	100.3	90	110	
Cd	111	1	No Gas	100.297	0.561	445416	0.61	100	100.3	90	110	
Sr	88	1	No Gas	99.847	1.482	4355808	1.72	100	99.8	90	110	
Mo	95	1	No Gas	97.732	0.625	861846	0.35	100	97.7	90	110	
Sn	118	1	No Gas	100.409	1.491	1408895	1.53	100	100.4	90	110	
Sb	121	1	No Gas	103.320	1.606	1938867	0.42	100	103.3	90	110	
Ba	137	1	No Gas	99.719	0.532	701899	0.24	100	99.7	90	110	
Tl	205	1	No Gas	103.424	2.105	4343831	1.55	100	103.4	90	110	
Tl	203	1	No Gas	103.240	2.559	1832574	0.60	100	103.2	90	110	
Pb	208	1	No Gas	103.623	1.880	6117403	0.75	100	103.6	90	110	
U	238	1	No Gas	100.178	1.230	6014402	1.27	100	100.2	90	110	
Ca	43	2	He	9474.999	2.881	27628	2.49	10000	94.7	90	110	
Sb	121	2	He	106.204	0.918	914182	0.69	100	106.2	90	110	
Ti	47	2	He	94.377	1.018	28189	0.75	100	94.4	90	110	
Cu	63	1	No Gas	99.428	1.608	1692051	1.20	100	99.4	90	110	
Se	82	1	No Gas	100.850	1.138	25967	2.39	100	100.8	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1570985	1.39	1845436	85.13	70	120	
Ge	72	2	He	954194	0.44	1081993	88.19	70	120	
Ge	72	1	No Gas	3292158	1.25	3529374	93.28	70	120	
In	115	1	No Gas	3869557	0.33	4016067	96.35	70	120	
Bi	209	1	No Gas	3621111	1.99	3601112	100.56	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	123_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:17:23-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	-0.045	-99.4	92859	0.8	0.5	
Be	9	1	No Gas	0.011	13.5	77	10.0	0.5	
V	51	2	He	0.002	94.1	1064	1.7	2.5	
Cr	52	2	He	-0.081	-20.7	1350	11.2	2.5	
Fe	56	2	He	2.448	11.6	38077	5.9	100	
Se	78	2	He	-0.018	-567.4	133	9.2	2	
As	75	2	He	0.023	39.2	137	8.8	2.5	
Ca	44	2	He	-12.411	-16.7	1187	8.9	100	
Na	23	2	He	31.676	0.9	153729	0.0	100	
Mg	24	2	He	0.780	22.6	2357	5.8	100	
K	39	2	He	-11.722	-14.3	64280	2.4	100	
Mn	55	2	He	0.801	9.2	11161	4.6	2.5	
Co	59	2	He	0.005	35.9	133	18.9	2.5	
Ni	60	2	He	0.122	17.6	963	7.5	2.5	
Cu	63	2	He	-0.440	-1.5	1813	3.4	2	
Zn	66	2	He	0.329	23.3	1570	8.3	2.5	
Al	27	2	He	-1.893	-12.3	1427	7.7	5	
B	11	1	No Gas	19.354	14.3	81519	9.3	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.873	-2.6	68669	0.8	5	
Si	28	1	No Gas	-2.124	-36.7	523615	0.5	10	
Ag	107	1	No Gas	-0.010	-27.0	570	9.8	2.5	
Cd	111	1	No Gas	0.008	62.1	53	43.3	1	
Sr	88	1	No Gas	-0.016	-30.6	2240	8.5	2.5	
Mo	95	1	No Gas	0.206	27.8	2077	26.0	2.5	
Sn	118	1	No Gas	0.183	17.4	5875	9.1	5	
Sb	121	1	No Gas	0.137	24.0	8019	8.2	2.5	
Ba	137	1	No Gas	0.010	160.4	507	21.1	2.5	
Tl	205	1	No Gas	0.905	58.7	39844	58.7	1	
Tl	203	1	No Gas	0.910	57.3	16888	57.4	1	
Pb	208	1	No Gas	0.020	41.3	3670	14.5	2.5	
U	238	1	No Gas	0.027	24.1	1767	23.5	2.5	
Ca	43	2	He	-0.933	-1053.7	57	50.9	100	
Sb	121	2	He	0.077	17.0	3284	3.6	2.5	
Ti	47	2	He	-0.024	-77.9	13	43.3	2.5	
Cu	63	1	No Gas	-0.457	-5.2	7012	5.0	2.5	
Se	82	1	No Gas	0.417	78.8	-116	-75.0	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1594894	0.46	1845436	86.42	70	120	
Ge	72	2	He	963327	0.22	1081993	89.03	70	120	
Ge	72	1	No Gas	3335163	0.99	3529374	94.50	70	120	
In	115	1	No Gas	3949470	1.47	4016067	98.34	70	120	
Bi	209	1	No Gas	3666041	1.63	3601112	101.80	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	134_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:43:53-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	100.505	1.301	2337469	0.53	100	100.5	90	110	
Be	9	1	No Gas	99.524	1.148	531569	0.50	100	99.5	90	110	
V	51	2	He	94.890	1.494	837845	1.20	100	94.9	90	110	
Cr	52	2	He	97.232	3.009	995137	2.87	100	97.2	90	110	
Fe	56	2	He	9686.715	0.672	87798932	1.33	10000	96.9	90	110	
Se	78	2	He	96.698	0.375	12581	0.63	100	96.7	90	110	
As	75	2	He	98.057	0.092	141222	0.79	100	98.1	90	110	
Ca	44	2	He	8993.639	1.246	515565	1.33	10000	89.9	90	110	CCV Main CR1-2 Failed
Na	23	2	He	9320.091	0.511	13920353	0.36	10000	93.2	90	110	
Mg	24	2	He	9401.241	0.960	8147917	1.39	10000	94.0	90	110	
K	39	2	He	9176.402	0.883	9777840	1.70	10000	91.8	90	110	
Mn	55	2	He	96.948	0.876	753014	1.18	100	96.9	90	110	
Co	59	2	He	102.130	1.248	1520023	2.02	100	102.1	90	110	
Ni	60	2	He	99.622	0.270	364350	0.80	100	99.6	90	110	
Cu	63	2	He	96.900	0.762	963434	0.91	100	96.9	90	110	
Zn	66	2	He	99.604	0.582	185301	0.28	100	99.6	90	110	
Al	27	2	He	91.033	0.393	51308	1.09	100	91.0	90	110	
B	11	1	No Gas	531.236	1.114	1571669	0.99	500	106.2	90	110	
Al	27	1	No Gas	98.429	1.717	2349024	0.60	100	98.4	90	110	
Si	28	1	No Gas	498.166	1.751	5804283	0.79	5000	10.0	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	99.935	1.091	2487055	0.69	100	99.9	90	110	
Cd	111	1	No Gas	100.915	0.442	498581	0.31	100	100.9	90	110	
Sr	88	1	No Gas	98.118	0.158	4761974	0.60	100	98.1	90	110	
Mo	95	1	No Gas	96.649	1.123	948184	0.47	100	96.6	90	110	
Sn	118	1	No Gas	99.300	1.131	1550082	0.39	100	99.3	90	110	
Sb	121	1	No Gas	103.881	0.638	2140776	0.73	100	103.9	90	110	
Ba	137	1	No Gas	99.994	0.909	783031	0.80	100	100.0	90	110	
Tl	205	1	No Gas	102.268	2.821	4850268	1.09	100	102.3	90	110	
Tl	203	1	No Gas	102.181	1.527	2048742	0.57	100	102.2	90	110	
Pb	208	1	No Gas	102.192	2.937	6812466	1.05	100	102.2	90	110	
U	238	1	No Gas	99.934	1.810	6775267	0.18	100	99.9	90	110	
Ca	43	2	He	9384.330	3.024	30658	2.66	10000	93.8	90	110	
Sb	121	2	He	103.927	0.199	1002344	0.73	100	103.9	90	110	
Ti	47	2	He	92.886	1.233	31086	1.67	100	92.9	90	110	
Cu	63	1	No Gas	97.336	1.831	1819225	1.06	100	97.3	90	110	
Se	82	1	No Gas	102.295	2.300	28919	1.64	100	102.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1690962	1.04	1845436	91.63	70	120	
Ge	72	2	He	1069059	0.85	1081993	98.80	70	120	
Ge	72	1	No Gas	3615070	1.05	3529374	102.43	70	120	
In	115	1	No Gas	4305034	0.75	4016067	107.20	70	120	
Bi	209	1	No Gas	4089597	1.91	3601112	113.56	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	135_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:45:46-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	-0.042	-239.9	102904	0.7	0.5	
Be	9	1	No Gas	0.006	59.7	57	33.4	0.5	
V	51	2	He	0.076	19.9	1886	6.6	2.5	
Cr	52	2	He	-0.089	-15.7	1453	9.7	2.5	
Fe	56	2	He	1.800	13.3	37465	4.9	100	
Se	78	2	He	-0.046	-205.0	149	7.4	2	
As	75	2	He	0.034	78.7	172	22.9	2.5	
Ca	44	2	He	-11.620	-10.3	1403	6.0	100	
Na	23	2	He	9.799	6.9	142340	0.4	100	
Mg	24	2	He	0.394	100.7	2347	14.1	100	
K	39	2	He	-16.478	-7.5	68285	1.3	100	
Mn	55	2	He	0.705	1.6	11992	0.4	2.5	
Co	59	2	He	0.006	17.7	160	10.8	2.5	
Ni	60	2	He	0.156	15.6	1230	8.6	2.5	
Cu	63	2	He	-0.451	-3.5	1957	9.3	2	
Zn	66	2	He	0.257	12.3	1657	3.3	2.5	
Al	27	2	He	-1.820	-13.0	1670	6.8	5	
B	11	1	No Gas	18.187	17.0	86670	9.1	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.712	-11.5	79731	6.0	5	
Si	28	1	No Gas	-1.917	-27.7	581657	0.6	10	
Ag	107	1	No Gas	-0.011	-16.3	617	6.6	2.5	
Cd	111	1	No Gas	0.002	86.7	30	33.3	1	
Sr	88	1	No Gas	-0.016	-34.1	2494	10.2	2.5	
Mo	95	1	No Gas	0.180	49.8	2034	42.9	2.5	
Sn	118	1	No Gas	0.190	18.7	6632	7.7	5	
Sb	121	1	No Gas	-0.007	-352.9	5855	8.9	2.5	
Ba	137	1	No Gas	-0.014	-81.9	373	24.9	2.5	
Tl	205	1	No Gas	0.859	58.1	43285	58.3	1	
Tl	203	1	No Gas	0.849	56.2	18040	56.7	1	
Pb	208	1	No Gas	0.008	29.2	3310	6.4	2.5	
U	238	1	No Gas	0.024	47.8	1857	45.7	2.5	
Ca	43	2	He	-1.373	-446.5	63	32.9	100	
Sb	121	2	He	-0.072	-10.3	2280	2.7	2.5	
Ti	47	2	He	-0.030	-54.2	13	43.3	2.5	
Cu	63	1	No Gas	-0.601	-1.8	5034	4.2	2.5	
Se	82	1	No Gas	0.239	138.9	-180	-53.8	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1766885	1.87	1845436	95.74	70	120	
Ge	72	2	He	1101004	1.11	1081993	101.76	70	120	
Ge	72	1	No Gas	3690550	0.44	3529374	104.57	70	120	
In	115	1	No Gas	4385428	0.85	4016067	109.20	70	120	
Bi	209	1	No Gas	4182911	2.08	3601112	116.16	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	137_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:49:48-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	99.510	0.195	2352098	0.73	100	99.5	90	110	
Be	9	1	No Gas	99.126	1.352	537820	0.83	100	99.1	90	110	
V	51	2	He	95.664	1.065	855683	0.55	100	95.7	90	110	
Cr	52	2	He	98.634	2.142	1022561	1.45	100	98.6	90	110	
Fe	56	2	He	9701.853	1.013	89075899	0.15	10000	97.0	90	110	
Se	78	2	He	97.811	0.467	12890	0.69	100	97.8	90	110	
As	75	2	He	99.277	1.557	144829	0.50	100	99.3	90	110	
Ca	44	2	He	9122.097	1.146	529716	1.16	10000	91.2	90	110	
Na	23	2	He	9381.723	2.531	14192773	1.73	10000	93.8	90	110	
Mg	24	2	He	9288.710	1.368	8154814	0.87	10000	92.9	90	110	
K	39	2	He	9221.503	0.502	9953151	1.00	10000	92.2	90	110	
Mn	55	2	He	98.103	0.964	771819	0.75	100	98.1	90	110	
Co	59	2	He	102.463	0.243	1544827	1.33	100	102.5	90	110	
Ni	60	2	He	100.380	1.188	371880	0.28	100	100.4	90	110	
Cu	63	2	He	98.399	1.454	990921	0.36	100	98.4	90	110	
Zn	66	2	He	101.721	0.930	191679	0.36	100	101.7	90	110	
Al	27	2	He	92.261	0.850	52643	1.31	100	92.3	90	110	
B	11	1	No Gas	521.185	1.364	1566853	0.58	500	104.2	90	110	
Al	27	1	No Gas	100.252	2.417	2403685	2.16	100	100.3	90	110	
Si	28	1	No Gas	487.133	1.069	5720482	0.78	5000	9.7	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	101.255	0.952	2561690	1.08	100	101.3	90	110	
Cd	111	1	No Gas	100.990	0.644	507216	0.83	100	101.0	90	110	
Sr	88	1	No Gas	97.219	1.285	4796381	1.17	100	97.2	90	110	
Mo	95	1	No Gas	96.556	1.130	962967	1.04	100	96.6	90	110	
Sn	118	1	No Gas	99.007	0.498	1571160	0.51	100	99.0	90	110	
Sb	121	1	No Gas	106.917	1.300	2215268	1.01	100	106.9	90	110	
Ba	137	1	No Gas	99.317	0.843	790608	0.94	100	99.3	90	110	
Tl	205	1	No Gas	104.394	3.704	4890746	2.09	100	104.4	90	110	
Tl	203	1	No Gas	102.153	2.439	2023139	0.10	100	102.2	90	110	
Pb	208	1	No Gas	104.360	2.796	6872727	0.47	100	104.4	90	110	
U	238	1	No Gas	102.183	1.637	6845152	2.23	100	102.2	90	110	
Ca	43	2	He	9394.153	0.664	31092	0.47	10000	93.9	90	110	
Sb	121	2	He	105.385	0.752	1029588	0.47	100	105.4	90	110	
Ti	47	2	He	93.987	2.811	31861	2.52	100	94.0	90	110	
Cu	63	1	No Gas	99.998	1.885	1878923	1.57	100	100.0	90	110	
Se	82	1	No Gas	105.531	0.166	30010	0.52	100	105.5	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1717698	0.77	1845436	93.08	70	120	
Ge	72	2	He	1083019	1.12	1081993	100.09	70	120	
Ge	72	1	No Gas	3634899	0.36	3529374	102.99	70	120	
In	115	1	No Gas	4376210	0.29	4016067	108.97	70	120	
Bi	209	1	No Gas	4040413	2.45	3601112	112.20	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	138_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T15:51:40-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.002	3218.0	103258	0.2	0.5	
Be	9	1	No Gas	0.012	41.0	88	29.0	0.5	
V	51	2	He	0.043	20.1	1590	3.8	2.5	
Cr	52	2	He	-0.091	-12.4	1440	7.0	2.5	
Fe	56	2	He	1.829	2.4	37829	2.7	100	
Se	78	2	He	0.103	126.5	169	9.0	2	
As	75	2	He	0.025	22.8	159	6.4	2.5	
Ca	44	2	He	-12.159	-16.4	1373	7.6	100	
Na	23	2	He	11.432	96.9	145096	11.4	100	
Mg	24	2	He	0.420	72.5	2380	13.1	100	
K	39	2	He	-17.416	-4.1	67404	0.7	100	
Mn	55	2	He	0.700	10.2	11979	4.4	2.5	
Co	59	2	He	0.006	27.5	160	16.5	2.5	
Ni	60	2	He	0.144	11.9	1183	3.8	2.5	
Cu	63	2	He	-0.465	-3.7	1813	9.5	2	
Zn	66	2	He	0.363	26.9	1860	8.8	2.5	
Al	27	2	He	-1.848	-9.6	1660	7.5	5	
B	11	1	No Gas	16.530	14.5	81209	8.9	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.888	-2.6	76270	0.8	5	
Si	28	1	No Gas	-4.622	-15.5	557253	0.3	10	
Ag	107	1	No Gas	-0.013	-31.3	557	18.1	2.5	
Cd	111	1	No Gas	0.008	40.1	57	27.0	1	
Sr	88	1	No Gas	-0.024	-22.7	2124	12.4	2.5	
Mo	95	1	No Gas	0.190	37.5	2134	33.8	2.5	
Sn	118	1	No Gas	0.267	18.9	7811	10.1	5	
Sb	121	1	No Gas	0.028	112.0	6655	11.3	2.5	
Ba	137	1	No Gas	-0.014	-14.9	373	4.1	2.5	
Tl	205	1	No Gas	0.846	57.0	41634	57.6	1	
Tl	203	1	No Gas	0.847	59.2	17583	60.0	1	
Pb	208	1	No Gas	0.014	37.2	3637	10.3	2.5	
U	238	1	No Gas	0.024	34.9	1780	34.5	2.5	
Ca	43	2	He	-2.369	-132.2	60	16.7	100	
Sb	121	2	He	-0.046	-35.3	2544	7.1	2.5	
Ti	47	2	He	-0.011	-280.0	20	50.0	2.5	
Cu	63	1	No Gas	-0.591	-0.7	5281	0.7	2.5	
Se	82	1	No Gas	0.359	180.2	-146	-131.1	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1755320	1.19	1845436	95.12	70	120	
Ge	72	2	He	1103282	1.64	1081993	101.97	70	120	
Ge	72	1	No Gas	3721037	1.51	3529374	105.43	70	120	
In	115	1	No Gas	4358847	0.65	4016067	108.54	70	120	
Bi	209	1	No Gas	4085879	3.00	3601112	113.46	70	120	

Sample Report

Sample Table

Sample Name	HS21051312-01
Data File Name	142SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T16:01:39-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	11.969	11.969	1.59	323250	0.00	2000	
Be	9	1	No Gas	0.111	0.111	10.69	545	0.02	2000	
V	51	2	He	1.023	1.023	6.67	7880	0.01	2000	
Cr	52	2	He	2.750	2.750	3.17	23551	0.01	2000	
Fe	56	2	He	753.647	753.647	0.94	5303379	0.01	200000	
Se	78	2	He	0.579	0.579	32.33	174	0.33	2000	
As	75	2	He	0.852	0.852	1.54	1041	0.08	2000	
Ca	44	2	He	17126.154	17126.154	0.34	758799	2.26	200000	
Na	23	2	He	121534.496	121534.496	0.19	139410998	0.09	200000	
Mg	24	2	He	12790.766	12790.766	1.04	8582431	0.15	200000	
K	39	2	He	987.774	987.774	1.40	872696	0.11	200000	
Mn	55	2	He	182.817	182.817	2.74	1095080	0.02	2000	
Co	59	2	He	3.106	3.106	1.47	35854	0.01	2000	
Ni	60	2	He	8.215	8.215	1.43	23708	0.03	2000	
Cu	63	2	He	5.316	5.316	1.22	45577	0.01	2000	
Zn	66	2	He	51.988	51.988	1.11	75325	0.07	2000	
Al	27	2	He	276.106	276.106	2.33	116418	0.24	2000	
B	11	1	No Gas	58.586	58.586	2.42	176979	0.03	2000	
Al	27	1	No Gas	292.386	292.386	7.71	5712213	0.01	2000	
Si	28	1	No Gas	15220.285	15220.285	1.60	135289261	0.01	2000	>LDR
Ag	107	1	No Gas	-0.022	-0.022	-12.62	280	-0.01	2000	
Cd	111	1	No Gas	0.117	0.117	18.88	507	0.02	2000	
Sr	88	1	No Gas	343.056	343.056	1.40	14133823	0.00	2000	
Mo	95	1	No Gas	0.724	0.724	5.70	6232	0.01	2000	
Sn	118	1	No Gas	-0.047	-0.047	-23.34	2397	0.00	2000	
Sb	121	1	No Gas	0.087	0.087	18.99	6478	0.00	2000	
Ba	137	1	No Gas	311.896	311.896	1.61	2073264	0.02	2000	
Tl	205	1	No Gas	-0.011	-0.011	-10.62	650	0.00	2000	
Tl	203	1	No Gas	-0.008	-0.008	-43.87	263	0.00	2000	
Pb	208	1	No Gas	0.369	0.369	4.41	23022	0.00	2000	
U	238	1	No Gas	0.381	0.381	3.01	21933	0.00	2000	
Ca	43	2	He	18196.260	18196.260	0.35	45990	39.57	200000	
Sb	121	2	He	0.071	0.071	32.89	2777	0.00	2000	
Ti	47	2	He	9.392	9.392	50.30	2457	0.38	2000	
Cu	63	1	No Gas	5.457	5.457	2.02	99110	0.01	2000	
Zn	66	1	No Gas	52.644	52.644	0.39	215247	0.02	2000	
Se	82	1	No Gas	0.871	0.871	16.66	4	22.97	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1493760	2.80	1845436	80.94	70	120	
Ge	72	2	He	827831	1.90	1081993	76.51	70	120	
Ge	72	1	No Gas	3058002	1.38	3529374	86.64	70	120	
In	115	1	No Gas	3656285	1.17	4016067	91.04	70	120	
Bi	209	1	No Gas	3448533	2.91	3601112	95.76	70	120	

Sample Report

Sample Table

Sample Name	HS21051153-03SD
Data File Name	146SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T16:16:16-05:00
Sample Type	Sample
Dilution	50
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	1.339	66.958	7.06	122650	0.00	2000	
Be	9	1	No Gas	-0.004	-0.183	-15.57	3	-0.11	2000	
V	51	2	He	0.173	8.649	8.77	2382	0.01	2000	
Cr	52	2	He	-0.044	-2.184	-25.15	1667	0.00	2000	
Fe	56	2	He	283.404	14170.213	0.81	2296229	0.01	200000	
Se	78	2	He	0.245	12.259	84.17	161	0.15	2000	
As	75	2	He	0.361	18.074	10.74	567	0.06	2000	
Ca	44	2	He	3666.393	183319.627	0.48	187542	1.95	200000	
Na	23	2	He	1299.114	64955.687	1.34	1815986	0.07	200000	
Mg	24	2	He	976.164	48808.224	0.48	752139	0.13	200000	
K	39	2	He	262.116	13105.809	0.63	319938	0.08	200000	
Mn	55	2	He	7.392	369.583	2.34	56032	0.01	2000	
Co	59	2	He	0.011	0.549	7.38	207	0.01	2000	
Ni	60	2	He	0.057	2.843	16.42	737	0.01	2000	
Cu	63	2	He	-0.460	-23.024	-3.94	1603	-0.03	2000	
Zn	66	2	He	0.177	8.859	38.46	1297	0.01	2000	
Al	27	2	He	-0.422	-21.111	-43.94	2104	-0.02	2000	
B	11	1	No Gas	11.834	591.688	2.19	61313	0.02	2000	
Al	27	1	No Gas	-0.316	-15.787	-48.11	99840	0.00	2000	
Si	28	1	No Gas	286.162	14308.079	2.69	3260607	0.01	2000	
Ag	107	1	No Gas	-0.018	-0.905	-16.59	390	0.00	2000	
Cd	111	1	No Gas	-0.002	-0.107	-59.90	7	-0.03	2000	
Sr	88	1	No Gas	29.304	1465.208	3.42	1296050	0.00	2000	
Mo	95	1	No Gas	0.024	1.192	44.70	430	0.01	2000	
Sn	118	1	No Gas	-0.013	-0.661	-121.86	3047	0.00	2000	
Sb	121	1	No Gas	-0.129	-6.461	-6.04	2934	0.00	2000	
Ba	137	1	No Gas	0.931	46.548	1.97	7062	0.01	2000	
Tl	205	1	No Gas	-0.020	-1.006	-8.03	290	-0.01	2000	
Tl	203	1	No Gas	-0.017	-0.834	-5.07	137	-0.01	2000	
Pb	208	1	No Gas	-0.010	-0.507	-6.78	1873	0.00	2000	
U	238	1	No Gas	0.031	1.561	2.86	2080	0.00	2000	
Ca	43	2	He	3813.461	190673.031	3.35	11088	34.39	200000	
Sb	121	2	He	-0.141	-7.054	-12.07	1373	-0.01	2000	
Ti	47	2	He	-0.024	-1.182	-218.25	13	-0.18	2000	
Cu	63	1	No Gas	-0.581	-29.026	-3.14	4834	-0.01	2000	
Zn	66	1	No Gas	0.141	7.051	24.34	3387	0.00	2000	
Se	82	1	No Gas	0.567	28.371	73.83	-76	-0.75	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1604697	1.87	1845436	86.95	70	120	
Ge	72	2	He	948490	0.40	1081993	87.66	70	120	
Ge	72	1	No Gas	3287631	0.95	3529374	93.15	70	120	
In	115	1	No Gas	3917589	0.88	4016067	97.55	70	120	

Sample Report

Bi	209	1	No Gas	3738568	0.59	3601112	103.82	70	120	

Sample Report

Sample Table

Sample Name	HS21051153-03PDS
Data File Name	147SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T16:18:16-05:00
Sample Type	Sample
Dilution	10
Comment	DOD TW 166391
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	6.990	69.904	3.55	233213	0.00	2000	
Be	9	1	No Gas	96.157	961.573	1.63	469546	0.02	2000	
V	51	2	He	98.921	989.212	0.66	764170	0.01	2000	
Cr	52	2	He	98.793	987.930	0.76	884635	0.01	2000	
Fe	56	2	He	11382.401	113824.012	1.11	90255915	0.01	200000	
Se	78	2	He	97.215	972.147	1.20	11066	0.88	2000	
As	75	2	He	97.778	977.778	0.38	123205	0.08	2000	
Ca	44	2	He	27674.082	276740.817	2.65	1384227	2.00	200000	
Na	23	2	He	15794.453	157944.530	0.87	20564153	0.08	200000	
Mg	24	2	He	14274.672	142746.719	0.94	10823010	0.13	200000	
K	39	2	He	11043.711	110437.113	0.53	10280128	0.11	200000	
Mn	55	2	He	127.271	1272.709	0.49	863163	0.01	2000	
Co	59	2	He	103.486	1034.856	1.11	1347473	0.01	2000	
Ni	60	2	He	102.315	1023.153	0.53	327374	0.03	2000	
Cu	63	2	He	98.093	980.934	0.15	853233	0.01	2000	
Zn	66	2	He	102.657	1026.573	0.13	167064	0.06	2000	
Al	27	2	He	91.067	910.666	1.53	44906	0.20	2000	
B	11	1	No Gas	46.288	462.876	0.75	150476	0.03	2000	
Al	27	1	No Gas	96.299	962.993	1.12	2016276	0.00	2000	
Si	28	1	No Gas	1431.872	14318.723	0.31	13651971	0.01	2000	
Ag	107	1	No Gas	95.701	957.012	2.08	2125098	0.00	2000	
Cd	111	1	No Gas	99.809	998.091	1.34	439989	0.02	2000	
Sr	88	1	No Gas	135.233	1352.332	1.87	5854819	0.00	2000	
Mo	95	1	No Gas	98.755	987.555	1.30	864482	0.01	2000	
Sn	118	1	No Gas	-0.034	-0.335	-18.18	2707	0.00	2000	
Sb	121	1	No Gas	106.099	1060.990	2.51	1915837	0.01	2000	
Ba	137	1	No Gas	106.126	1061.255	1.16	741490	0.01	2000	
Tl	205	1	No Gas	103.672	1036.719	2.41	4420665	0.00	2000	
Tl	203	1	No Gas	103.119	1031.190	2.41	1858589	0.01	2000	
Pb	208	1	No Gas	100.751	1007.511	3.41	6037431	0.00	2000	
U	238	1	No Gas	0.150	1.498	3.67	9274	0.00	2000	
Ca	43	2	He	27289.455	272894.554	1.11	77897	35.03	200000	
Sb	121	2	He	104.422	1044.217	0.95	881113	0.01	2000	
Ti	47	2	He	97.528	975.280	2.35	28553	0.34	2000	
Cu	63	1	No Gas	95.904	959.039	2.33	1571003	0.01	2000	
Zn	66	1	No Gas	102.406	1024.057	0.73	431232	0.02	2000	
Se	82	1	No Gas	106.678	1066.785	2.41	26442	0.40	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1546091	1.46	1845436	83.78	70	120	
Ge	72	2	He	935316	0.44	1081993	86.44	70	120	
Ge	72	1	No Gas	3167867	0.42	3529374	89.76	70	120	
In	115	1	No Gas	3841420	0.93	4016067	95.65	70	120	

Sample Report

Bi	209	1	No Gas	3677511	3.29	3601112	102.12	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	149_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T16:25:08-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	100.217	2.487	2140937	2.08	100	100.2	90	110	
Be	9	1	No Gas	97.524	1.143	478408	0.29	100	97.5	90	110	
V	51	2	He	96.870	0.902	770018	0.88	100	96.9	90	110	
Cr	52	2	He	98.950	1.425	911759	1.88	100	98.9	90	110	
Fe	56	2	He	9834.676	2.550	80231267	0.95	10000	98.3	90	110	
Se	78	2	He	98.267	1.365	11508	0.98	100	98.3	90	110	
As	75	2	He	99.401	1.248	128876	1.15	100	99.4	90	110	
Ca	44	2	He	9181.177	0.971	473795	1.22	10000	91.8	90	110	
Na	23	2	He	9418.966	1.195	12664112	1.37	10000	94.2	90	110	
Mg	24	2	He	9559.113	0.876	7459033	2.00	10000	95.6	90	110	
K	39	2	He	9344.765	0.736	8962310	0.98	10000	93.4	90	110	
Mn	55	2	He	98.881	1.096	691292	0.71	100	98.9	90	110	
Co	59	2	He	105.551	2.060	1413975	0.74	100	105.6	90	110	
Ni	60	2	He	101.312	1.056	333553	0.58	100	101.3	90	110	
Cu	63	2	He	100.050	1.133	895324	0.54	100	100.0	90	110	
Zn	66	2	He	102.690	1.815	171953	1.48	100	102.7	90	110	
Al	27	2	He	93.635	0.622	47448	1.89	100	93.6	90	110	
B	11	1	No Gas	500.601	3.525	1361834	3.33	500	100.1	90	110	
Al	27	1	No Gas	98.064	1.396	2136568	1.70	100	98.1	90	110	
Si	28	1	No Gas	473.449	1.363	5061738	1.52	5000	9.5	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	99.513	1.842	2279924	0.75	100	99.5	90	110	
Cd	111	1	No Gas	99.180	1.762	451099	0.56	100	99.2	90	110	
Sr	88	1	No Gas	97.360	1.931	4350055	1.39	100	97.4	90	110	
Mo	95	1	No Gas	96.479	2.116	871344	0.81	100	96.5	90	110	
Sn	118	1	No Gas	98.701	2.300	1418383	1.13	100	98.7	90	110	
Sb	121	1	No Gas	104.495	0.515	1965345	0.55	100	104.5	90	110	
Ba	137	1	No Gas	98.032	1.395	706751	0.95	100	98.0	90	110	
Tl	205	1	No Gas	102.052	1.352	4415878	0.82	100	102.1	90	110	
Tl	203	1	No Gas	101.095	0.636	1849139	0.89	100	101.1	90	110	
Pb	208	1	No Gas	102.014	1.752	6204460	0.36	100	102.0	90	110	
U	238	1	No Gas	100.502	1.702	6215601	0.41	100	100.5	90	110	
Ca	43	2	He	9429.122	1.428	27738	2.62	10000	94.3	90	110	
Sb	121	2	He	105.854	0.848	919058	1.04	100	105.9	90	110	
Ti	47	2	He	94.654	0.820	28520	2.10	100	94.7	90	110	
Cu	63	1	No Gas	98.437	0.378	1679115	0.63	100	98.4	90	110	
Se	82	1	No Gas	101.851	2.364	26281	2.55	100	101.9	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1553046	0.86	1845436	84.16	70	120	
Ge	72	2	He	962506	1.64	1081993	88.96	70	120	
Ge	72	1	No Gas	3299273	0.39	3529374	93.48	70	120	
In	115	1	No Gas	3963650	1.30	4016067	98.69	70	120	
Bi	209	1	No Gas	3730302	1.42	3601112	103.59	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	150_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-04T16:27:02-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	008CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	-0.064	-157.3	93760	1.2	0.5	
Be	9	1	No Gas	0.008	86.0	63	56.0	0.5	
V	51	2	He	0.046	10.5	1406	3.3	2.5	
Cr	52	2	He	-0.085	-13.9	1310	8.7	2.5	
Fe	56	2	He	1.947	12.0	33896	4.9	100	
Se	78	2	He	0.268	19.2	166	3.2	2	
As	75	2	He	0.019	119.8	131	23.1	2.5	
Ca	44	2	He	-14.696	-11.4	1067	8.4	100	
Na	23	2	He	19.524	4.2	137172	1.4	100	
Mg	24	2	He	0.737	30.8	2317	7.7	100	
K	39	2	He	-14.165	-7.7	61791	0.9	100	
Mn	55	2	He	0.765	3.2	10885	1.9	2.5	
Co	59	2	He	0.004	53.4	120	25.0	2.5	
Ni	60	2	He	0.134	30.0	1000	12.5	2.5	
Cu	63	2	He	-0.453	-7.1	1687	16.2	2	
Zn	66	2	He	0.436	6.7	1743	2.9	2.5	
Al	27	2	He	-0.850	-185.4	1921	38.5	5	
B	11	1	No Gas	13.257	22.0	65689	11.1	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.886	-6.1	67940	3.4	5	
Si	28	1	No Gas	-5.179	-5.9	490721	0.3	10	
Ag	107	1	No Gas	-0.004	-99.3	710	13.4	2.5	
Cd	111	1	No Gas	0.012	47.3	70	37.8	1	
Sr	88	1	No Gas	-0.023	-4.0	1980	2.8	2.5	
Mo	95	1	No Gas	0.188	48.7	1924	42.4	2.5	
Sn	118	1	No Gas	0.305	48.4	7653	26.6	5	
Sb	121	1	No Gas	0.141	23.0	8043	8.4	2.5	
Ba	137	1	No Gas	-0.009	-110.2	373	19.0	2.5	
Tl	205	1	No Gas	0.887	59.7	40574	59.6	1	
Tl	203	1	No Gas	0.891	61.0	17179	61.0	1	
Pb	208	1	No Gas	0.014	11.2	3410	4.3	2.5	
U	238	1	No Gas	0.026	41.9	1787	40.2	2.5	
Ca	43	2	He	-8.835	-80.5	33	62.4	100	
Sb	121	2	He	0.039	31.8	2947	3.9	2.5	
Ti	47	2	He	0.009	758.5	23	89.2	2.5	
Cu	63	1	No Gas	-0.522	-4.2	5855	5.7	2.5	
Se	82	1	No Gas	0.526	96.1	-86	-153.2	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1617592	1.25	1845436	87.65	70	120	
Ge	72	2	He	960866	0.76	1081993	88.81	70	120	
Ge	72	1	No Gas	3312096	0.80	3529374	93.84	70	120	
In	115	1	No Gas	3974276	1.54	4016067	98.96	70	120	
Bi	209	1	No Gas	3804328	1.68	3601112	105.64	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	306_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-05T00:06:43-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	196CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	100.676	2.856	1545734	1.82	100	100.7	90	110	
Be	9	1	No Gas	101.846	2.186	333655	0.31	100	101.8	90	110	
V	51	2	He	99.445	0.791	590161	0.57	100	99.4	90	110	
Cr	52	2	He	99.544	1.174	699714	0.96	100	99.5	90	110	
Fe	56	2	He	9904.165	1.193	61191406	1.56	10000	99.0	90	110	
Se	78	2	He	102.505	2.463	8677	2.12	100	102.5	90	110	
As	75	2	He	100.738	0.364	97594	0.54	100	100.7	90	110	
Ca	44	2	He	9660.301	0.594	350794	0.27	10000	96.6	90	110	
Na	23	2	He	9393.511	0.274	9375883	0.45	10000	93.9	90	110	
Mg	24	2	He	9468.889	0.492	5416170	0.84	10000	94.7	90	110	
K	39	2	He	9740.564	0.360	6590969	0.58	10000	97.4	90	110	
Mn	55	2	He	100.757	0.658	527370	0.28	100	100.8	90	110	
Co	59	2	He	102.825	1.202	1074722	1.16	100	102.8	90	110	
Ni	60	2	He	104.046	1.360	261396	1.72	100	104.0	90	110	
Cu	63	2	He	102.197	0.711	703464	0.53	100	102.2	90	110	
Zn	66	2	He	101.750	0.593	129295	0.91	100	101.7	90	110	
Al	27	2	He	100.591	2.486	35502	2.00	100	100.6	90	110	
B	11	1	No Gas	518.235	2.218	983268	0.95	500	103.6	90	110	
Al	27	1	No Gas	104.906	2.260	1702324	0.88	100	104.9	90	110	
Si	28	1	No Gas	509.495	2.962	3896414	1.45	5000	10.2	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	105.877	1.178	1835625	0.32	100	105.9	90	110	
Cd	111	1	No Gas	102.347	0.886	359080	0.31	100	102.3	90	110	
Sr	88	1	No Gas	107.412	1.448	3637091	0.47	100	107.4	90	110	
Mo	95	1	No Gas	103.943	0.876	705807	2.00	100	103.9	90	110	
Sn	118	1	No Gas	103.608	0.932	1180252	1.28	100	103.6	90	110	
Sb	121	1	No Gas	100.555	1.464	1589542	0.67	100	100.6	90	110	
Ba	137	1	No Gas	103.776	0.980	595551	0.70	100	103.8	90	110	
Tl	205	1	No Gas	104.319	1.992	3757969	0.45	100	104.3	90	110	
Tl	203	1	No Gas	104.394	3.693	1570556	1.42	100	104.4	90	110	
Pb	208	1	No Gas	101.132	2.546	5134678	0.47	100	101.1	90	110	
U	238	1	No Gas	102.221	1.725	5256153	0.85	100	102.2	90	110	
Ca	43	2	He	9704.977	1.150	20582	1.40	10000	97.0	90	110	
Sb	121	2	He	98.924	0.357	730016	0.51	100	98.9	90	110	
Ti	47	2	He	103.830	2.047	22806	2.25	100	103.8	90	110	
Cu	63	1	No Gas	102.755	2.708	1332774	1.43	100	102.8	90	110	
Se	82	1	No Gas	101.309	3.690	20464	3.06	100	101.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1165109	2.34	1457721	79.93	70	120	
Ge	72	2	He	724682	0.37	821026	88.27	70	120	
Ge	72	1	No Gas	2601420	1.28	2924007	88.97	70	120	
In	115	1	No Gas	3093584	1.19	3503686	88.30	70	120	
Bi	209	1	No Gas	3052116	2.32	3408283	89.55	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	307_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-05T00:08:37-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	196CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.510	9.2	77476	1.4	0.5	CCB Main CR1 Failed
Be	9	1	No Gas	0.026	31.3	97	29.9	0.5	
V	51	2	He	-0.112	-5.6	789	5.5	2.5	
Cr	52	2	He	-0.091	-7.7	1007	5.7	2.5	
Fe	56	2	He	8.212	8.3	63761	6.4	100	
Se	78	2	He	0.325	20.5	155	2.7	2	
As	75	2	He	0.012	59.9	103	5.6	2.5	
Ca	44	2	He	6.727	60.7	1270	10.8	100	
Na	23	2	He	-29.707	-6.7	104539	1.3	100	
Mg	24	2	He	1.258	29.7	2140	9.2	100	
K	39	2	He	1.843	83.0	48228	1.2	100	
Mn	55	2	He	1.007	4.7	9187	3.5	2.5	
Co	59	2	He	0.014	47.3	197	35.7	2.5	
Ni	60	2	He	0.066	52.8	637	14.1	2.5	
Cu	63	2	He	0.028	51.4	1497	7.1	2	
Zn	66	2	He	0.350	13.7	1317	5.1	2.5	
Al	27	2	He	2.777	46.2	2727	14.9	5	
B	11	1	No Gas	43.640	9.7	95099	9.1	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	1.958	15.6	112636	2.8	5	
Si	28	1	No Gas	1.710	170.5	391063	3.7	10	
Ag	107	1	No Gas	0.008	12.9	567	1.0	2.5	
Cd	111	1	No Gas	0.023	35.3	87	35.3	1	
Sr	88	1	No Gas	0.057	2.8	4121	1.1	2.5	
Mo	95	1	No Gas	0.261	32.2	1850	33.8	2.5	
Sn	118	1	No Gas	0.261	22.3	5355	14.3	5	
Sb	121	1	No Gas	0.182	24.4	5808	11.1	2.5	
Ba	137	1	No Gas	0.028	34.5	580	12.1	2.5	
Tl	205	1	No Gas	0.920	58.6	32832	59.8	1	
Tl	203	1	No Gas	0.898	56.4	13423	57.5	1	
Pb	208	1	No Gas	0.053	17.2	4147	12.8	2.5	
U	238	1	No Gas	0.037	45.5	1884	46.4	2.5	
Ca	43	2	He	21.640	65.5	67	45.8	100	
Sb	121	2	He	0.078	10.6	1944	3.5	2.5	
Ti	47	2	He	1.277	9.0	283	8.9	2.5	
Cu	63	1	No Gas	-0.366	-14.3	8333	8.5	2.5	
Se	82	1	No Gas	0.503	34.5	-126	-28.4	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1204658	2.25	1457721	82.64	70	120	
Ge	72	2	He	724892	0.88	821026	88.29	70	120	
Ge	72	1	No Gas	2619449	1.50	2924007	89.58	70	120	
In	115	1	No Gas	3136825	2.43	3503686	89.53	70	120	
Bi	209	1	No Gas	2983306	1.76	3408283	87.53	70	120	

Sample Report

Sample Table

Sample Name	LLCCV2
Data File Name	309LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-05T00:12:35-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	196CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	2.409	2.409	6.59	106288	0.00	2	
Be	9	1	No Gas	1.986	1.986	2.46	6738	0.03	2	
V	51	2	He	1.857	1.857	2.15	12663	0.01	2	
Cr	52	2	He	1.904	1.904	2.55	15255	0.01	2	
Fe	56	2	He	209.109	209.109	1.79	1327342	0.02	200	
Se	78	2	He	2.336	2.336	8.66	329	0.71	2	
As	75	2	He	1.983	1.983	3.33	2047	0.10	2	
Ca	44	2	He	193.308	193.308	5.80	8166	2.37	200	
Na	23	2	He	157.800	157.800	1.20	294036	0.05	200	
Mg	24	2	He	200.511	200.511	0.87	118104	0.17	200	
K	39	2	He	197.543	197.543	0.99	182824	0.11	200	
Mn	55	2	He	1.331	1.331	7.07	11055	0.01	2	NewName Main CR1 Failed
Co	59	2	He	1.922	1.922	0.94	20492	0.01	2	
Ni	60	2	He	1.981	1.981	5.04	5535	0.04	2	
Cu	63	2	He	2.101	2.101	2.73	16016	0.01	2	
Zn	66	2	He	1.769	1.769	6.09	3160	0.06	2	
Al	27	2	He	4.363	4.363	40.13	3317	0.13	2	NewName Main CR1 Failed
B	11	1	No Gas	27.540	27.540	4.79	63789	0.04	10	NewName Main CR1 Failed
Al	27	1	No Gas	4.262	4.262	9.98	150892	0.00	2	NewName Main CR1 Failed
Si	28	1	No Gas	10.423	10.423	6.78	458953	0.00	10	
Ag	107	1	No Gas	1.994	1.994	1.76	36838	0.01	2	
Cd	111	1	No Gas	2.043	2.043	5.42	7552	0.03	2	
Sr	88	1	No Gas	2.043	2.043	2.25	75053	0.00	2	
Mo	95	1	No Gas	1.970	1.970	3.20	14138	0.01	2	
Sn	118	1	No Gas	1.908	1.908	2.01	25288	0.01	2	
Sb	121	1	No Gas	1.848	1.848	1.47	32795	0.01	2	
Ba	137	1	No Gas	2.618	2.618	1.87	16247	0.02	2	NewName Main CR1 Failed
Tl	205	1	No Gas	1.876	1.876	1.94	69272	0.00	2	
Tl	203	1	No Gas	1.886	1.886	4.82	29114	0.01	2	
Pb	208	1	No Gas	1.929	1.929	1.43	101547	0.00	2	
U	238	1	No Gas	1.889	1.889	2.68	99200	0.00	2	
Ca	43	2	He	253.080	253.080	30.58	567	44.66	200	
Sb	121	2	He	1.786	1.786	1.96	14779	0.01	2	
Ti	47	2	He	2.523	2.523	12.72	567	0.45	200	
Cu	63	1	No Gas	1.600	1.600	11.18	34277	0.00	2	
Se	82	1	No Gas	2.296	2.296	22.89	248	0.93	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1204424	1.63	1457721	82.62	70	120	
Ge	72	2	He	737305	0.31	821026	89.80	70	120	
Ge	72	1	No Gas	2660604	1.23	2924007	90.99	70	120	
In	115	1	No Gas	3259007	2.39	3503686	93.02	70	120	
Bi	209	1	No Gas	3116651	2.21	3408283	91.44	70	120	

Sample Report

Sample Table

Sample Name	LLCCV5
Data File Name	310LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-05T00:14:33-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	196CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	5.321	5.321	2.79	152716	0.00	5	
Be	9	1	No Gas	4.971	4.971	1.65	17095	0.03	5	
V	51	2	He	4.659	4.659	0.97	29753	0.02	5	
Cr	52	2	He	4.812	4.812	1.44	36272	0.01	5	
Fe	56	2	He	495.528	495.528	1.04	3149979	0.02	500	
Se	78	2	He	4.866	4.866	6.39	547	0.89	5	
As	75	2	He	4.775	4.775	3.97	4831	0.10	5	
Ca	44	2	He	487.874	487.874	3.18	19154	2.55	500	
Na	23	2	He	449.030	449.030	1.54	589814	0.08	500	
Mg	24	2	He	492.555	492.555	1.26	290107	0.17	500	
K	39	2	He	492.940	492.940	0.79	387532	0.13	500	
Mn	55	2	He	4.073	4.073	4.04	25734	0.02	5	
Co	59	2	He	4.876	4.876	1.84	52274	0.01	5	
Ni	60	2	He	4.947	4.947	3.95	13193	0.04	5	
Cu	63	2	He	5.145	5.145	2.59	37562	0.01	5	
Zn	66	2	He	4.770	4.770	4.28	7065	0.07	5	
Al	27	2	He	4.787	4.787	22.08	3487	0.14	5	
B	11	1	No Gas	37.150	37.150	2.48	83672	0.04	25	NewName2 Main CR1 Failed
Al	27	1	No Gas	11.547	11.547	70.82	263819	0.00	5	NewName2 Main CR1 Failed
Si	28	1	No Gas	130.431	130.431	93.63	1296637	0.01	25	NewName2 Main CR1 Failed
Ag	107	1	No Gas	5.128	5.128	2.94	92512	0.01	5	
Cd	111	1	No Gas	5.057	5.057	0.72	18390	0.03	5	
Sr	88	1	No Gas	5.036	5.036	1.64	178766	0.00	5	
Mo	95	1	No Gas	4.874	4.874	1.19	34335	0.01	5	
Sn	118	1	No Gas	4.815	4.815	2.36	59099	0.01	5	
Sb	121	1	No Gas	4.768	4.768	0.40	79088	0.01	5	
Ba	137	1	No Gas	5.057	5.057	2.44	30473	0.02	5	
Tl	205	1	No Gas	4.834	4.834	2.52	174251	0.00	5	
Tl	203	1	No Gas	4.809	4.809	3.14	72443	0.01	5	
Pb	208	1	No Gas	4.863	4.863	1.72	248212	0.00	5	
U	238	1	No Gas	4.782	4.782	2.09	245753	0.00	5	
Ca	43	2	He	483.070	483.070	6.72	1070	45.14	500	
Sb	121	2	He	4.637	4.637	1.02	36401	0.01	5	
Ti	47	2	He	5.572	5.572	7.29	1257	0.44	5	
Cu	63	1	No Gas	4.663	4.663	3.29	73749	0.01	5	
Se	82	1	No Gas	4.537	4.537	12.32	707	0.64	5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1222068	1.33	1457721	83.83	70	120	
Ge	72	2	He	742650	0.38	821026	90.45	70	120	
Ge	72	1	No Gas	2632705	1.20	2924007	90.04	70	120	
In	115	1	No Gas	3205415	1.42	3503686	91.49	70	120	
Bi	209	1	No Gas	3049557	1.35	3408283	89.47	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	311ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-05T00:16:33-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	196CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.876	8.6	80505	1.1	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.006	91.9	28	62.0	0	ICSA Main CR1 Failed
V	51	2	He	-0.090	-6.3	890	3.9	0	ICSA Main CR1 Failed
Cr	52	2	He	1.930	2.8	14731	2.9	0	ICSA Main CR1 Failed
Fe	56	2	He	98561.516	0.8	590740178	0.8	0	
Se	78	2	He	0.695	28.7	181	8.9	0	ICSA Main CR1 Failed
As	75	2	He	0.043	29.3	130	8.9	0	ICSA Main CR1 Failed
Ca	44	2	He	100692.506	1.4	3538488	1.1	0	
Na	23	2	He	97514.411	1.4	93224172	1.4	0	
Mg	24	2	He	97545.980	0.3	54126198	0.2	0	
K	39	2	He	101614.149	1.2	66284719	0.8	0	
Mn	55	2	He	12.084	1.5	64750	1.5	0	
Co	59	2	He	0.069	14.6	747	13.7	0	ICSA Main CR1 Failed
Ni	60	2	He	0.044	31.3	563	6.2	0	ICSA Main CR1 Failed
Cu	63	2	He	0.163	12.4	2350	6.1	0	ICSA Main CR1 Failed
Zn	66	2	He	0.938	8.0	1997	4.2	0	ICSA Main CR1 Failed
Al	27	2	He	91455.573	0.9	29737642	0.9	0	
B	11	1	No Gas	17.000	4.9	42021	3.8	0	
Al	27	1	No Gas	91035.531	0.2	1370790486	0.2	0	
Si	28	1	No Gas	17.883	3.8	487534	0.8	0	ICSA Main CR1 Failed
Ag	107	1	No Gas	0.290	10.9	5308	9.5	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	0.883	2.1	3027	2.5	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	1.230	4.0	42665	3.2	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1966.500	1.6	13024844	0.9	0	
Sn	118	1	No Gas	0.143	17.6	3837	7.7	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	-0.027	-27.0	2404	4.8	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.493	4.0	3160	3.6	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.078	53.6	2804	49.9	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.071	39.5	1110	35.8	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.084	0.9	5307	1.4	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.006	35.9	300	32.8	0	ICSA Main CR1 Failed
Ca	43	2	He	97874.737	0.8	201224	0.5	0	
Sb	121	2	He	-0.038	-51.3	1060	13.4	0	ICSA Main CR1 Failed
Ti	47	2	He	1974.859	1.8	420815	1.5	0	
Se	82	1	No Gas	0.467	109.6	-129	-78.8	0	ICSA Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1167684	0.28	1457721	80.10	70	120	
Ge	72	2	He	703176	0.44	821026	85.65	70	120	
Ge	72	1	No Gas	2534935	0.12	2924007	86.69	70	120	
In	115	1	No Gas	3018122	0.71	3503686	86.14	70	120	
Bi	209	1	No Gas	2797300	1.03	3408283	82.07	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	312ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq Date Time	2021-06-05T00:18:34-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	196CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	100.366	3.436	1500612	0.37	100	100.4	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	99.927	2.425	318816	0.87	100	99.9	80	120	
V	51	2	He	98.374	1.046	560713	0.40	100	98.4	80	120	
Cr	52	2	He	97.870	0.733	660757	0.03	100	97.9	80	120	
Fe	56	2	He	107086.933	1.117	635284937	0.64	100	107086.9	80	120	
Se	78	2	He	99.671	1.548	8107	0.85	100	99.7	80	120	
As	75	2	He	98.557	1.775	91700	1.23	100	98.6	80	120	
Ca	44	2	He	110436.547	0.429	3841446	0.86	100	110436.5	80	120	
Na	23	2	He	106910.011	0.358	101156215	0.90	100	106910.0	80	120	
Mg	24	2	He	106282.872	0.698	58375817	1.29	100	106282.9	80	120	
K	39	2	He	109494.197	1.377	70693411	0.95	100	109494.2	80	120	ICSB Main CR1 Failed
Mn	55	2	He	100.877	0.759	507105	0.58	100	100.9	80	120	
Co	59	2	He	96.061	0.724	964300	0.44	100	96.1	80	120	
Ni	60	2	He	98.504	0.811	237697	0.75	100	98.5	80	120	
Cu	63	2	He	95.155	0.393	629167	0.37	100	95.2	80	120	
Zn	66	2	He	97.754	1.030	119331	0.31	100	97.8	80	120	
Al	27	2	He	89924.887	0.405	28942953	1.00	100	89924.9	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	528.007	1.505	975769	2.74	100	528.0	80	120	
Al	27	1	No Gas	92165.429	1.275	1346195873	0.67	100	92165.4	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	512.915	3.478	3705643	2.11	100	512.9	80	120	
Ag	107	1	No Gas	99.294	2.311	1633027	1.35	100	99.3	80	120	
Cd	111	1	No Gas	98.852	1.711	328992	0.37	100	98.9	80	120	
Sr	88	1	No Gas	107.194	1.531	3443385	0.57	100	107.2	80	120	
Mo	95	1	No Gas	2102.400	2.441	13538940	1.29	100	2102.4	80	120	ICSB Main CR1 Failed
Sn	118	1	No Gas	101.381	2.244	1095627	2.32	100	101.4	80	120	
Sb	121	1	No Gas	99.363	1.259	1484878	0.88	100	99.4	80	120	
Ba	137	1	No Gas	102.407	1.294	557519	0.66	100	102.4	80	120	
Tl	205	1	No Gas	102.524	3.017	3343762	0.69	100	102.5	80	120	
Tl	203	1	No Gas	101.455	2.129	1382464	0.46	100	101.5	80	120	
Pb	208	1	No Gas	100.747	2.840	4631528	0.51	100	100.7	80	120	
U	238	1	No Gas	104.440	2.808	4861918	0.53	100	104.4	80	120	
Ca	43	2	He	107289.265	0.827	218329	0.21	100	107289.3	80	120	
Sb	121	2	He	96.237	0.817	682116	0.50	100	96.2	80	120	
Ti	47	2	He	2075.394	1.252	437737	0.76	100	2075.4	80	120	
Cu	63	1	No Gas	98.418	0.215	1207568	1.71	100	98.4	80	120	
Se	82	1	No Gas	102.333	2.418	19546	2.54	100	102.3	80	120	

QC ISTD Table

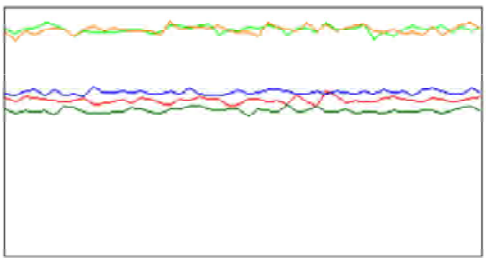
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1134801	2.89	1457721	77.85	70	120	
Ge	72	2	He	696023	0.76	821026	84.77	70	120	
Ge	72	1	No Gas	2459218	1.50	2924007	84.10	70	120	
In	115	1	No Gas	2934833	1.37	3503686	83.76	70	120	
Bi	209	1	No Gas	2763721	2.34	3408283	81.09	70	120	

Tune Check Report

Operator Name	ALSHS NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\060421A.b
Acq. Date-Time	6/4/2021 10:04:32 AM
Report Comment	---
Instrument Name	G8421A SG18523544

[No Gas]

Sensitivity



Sampling Period [sec]	0.514
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
9	10000	6285	62847.51		
24	20000	18321	183206.35		
59	50000	33087	330873.39		
115	50000	45743	457433.02		
208	50000	29369	293686.70		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	1.986	5.000	
24	1.622	5.000	
59	1.375	5.000	
115	1.787	5.000	
208	1.623	5.000	

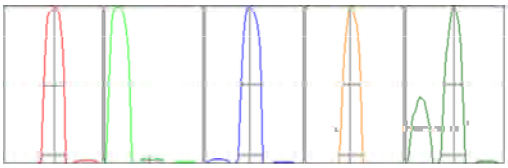
Mass	Background	Background (Required)	Background (Flag)
9	0.300		
24	0.600		
59	0.300		
115	0.200		
208	0.800		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.582 %
Doubly Charged	70 / 140 0.872 %

Tune Check Report

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	37.4
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	6268.85	9.05	8.90 - 9.10	
24	18450.21	23.90	23.90 - 24.10	
59	33225.49	58.90	58.90 - 59.10	
115	47656.14	114.90	114.90 - 115.10	
208	29067.90	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.63	0.741		
24	0.67	0.746		
59	0.61	0.740		
115	0.54	0.723		
208	0.57	0.738		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.47 L/min	Dilution Gas	0.55 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	14.0 V
Extract 2	-195.0 V	Cell Entrance	-30 V	Plate Bias	-45 V
Omega Bias	-90 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	135	Axis Gain	1.0004	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.10		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

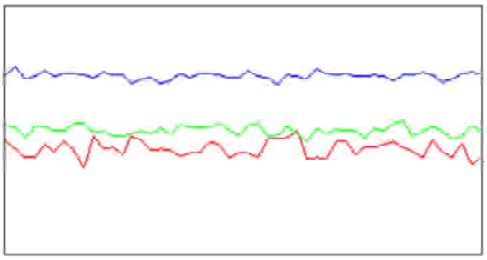
EM

Discriminator	4.5 mV	Analog HV	2542 V	Pulse HV	1305 V

[He]

Tune Check Report

Sensitivity



Sampling Period [sec]	0.306
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
9	500	211	2113.96		
24	2000	997	9974.14		
59	20000	14390	143896.17		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

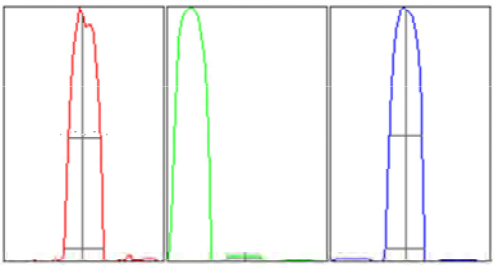
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	7.619	5.000	Fail
24	3.801	5.000	
59	1.940	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.200		
24	0.000		
59	0.100		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.364 %
Doubly Charged	70 / 140 0.899 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	217.27	9.00	8.90 - 9.10	
24	986.40	24.00	23.90 - 24.10	
59	14345.13	58.95	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.61	0.741		
24	0.67	0.743		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.61	0.739		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.47 L/min	Dilution Gas	0.55 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	0.2 V
Extract 2	-195.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-80 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	4.1 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	135	Axis Gain	1.0004	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.10		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

EM

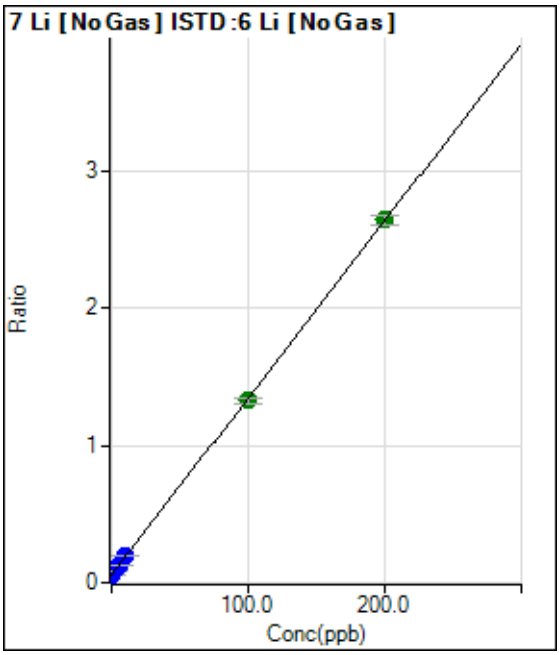
Discriminator	4.5 mV	Analog HV	2542 V	Pulse HV	1305 V

Calibration for 250_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\060721A.b\
Analysis File: 060721A.batch.bin
DA Date-Time: 6/8/2021 8:07:01 AM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	243CALB.d	CAL BLK	6/7/2021 11:30:00 PM
2	244CALS.d	2/10/200	6/7/2021 11:32:00 PM
3	245CALS.d	5/25/500	6/7/2021 11:33:59 PM
4	246CALS.d	10/50/100	6/7/2021 11:35:58 PM
5	247CALS.d	100/500/10K	6/7/2021 11:37:57 PM
6	248CALS.d	200/1000/20K	6/7/2021 11:39:50 PM

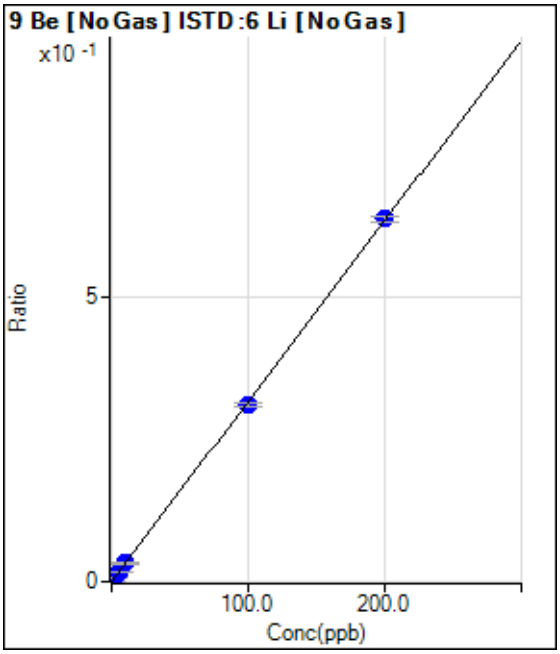
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	60469.04	0.0575	P	2.4
2	☐	2.000	2.145	88247.48	0.0851	P	2.0
3	☐	5.000	5.190	128291.60	0.1243	P	3.4
4	☐	10.000	10.669	195018.75	0.1948	P	2.5
5	☐	100.000	98.523	1314034.77	1.3249	A	2.7
6	☐	200.000	200.699	2516357.20	2.6394	A	2.9

y = 0.0129 * x + 0.0575
R = 1.0000
DL = 0.3241
BEC = 4.471

Weight: <None>
Min Conc: <None>

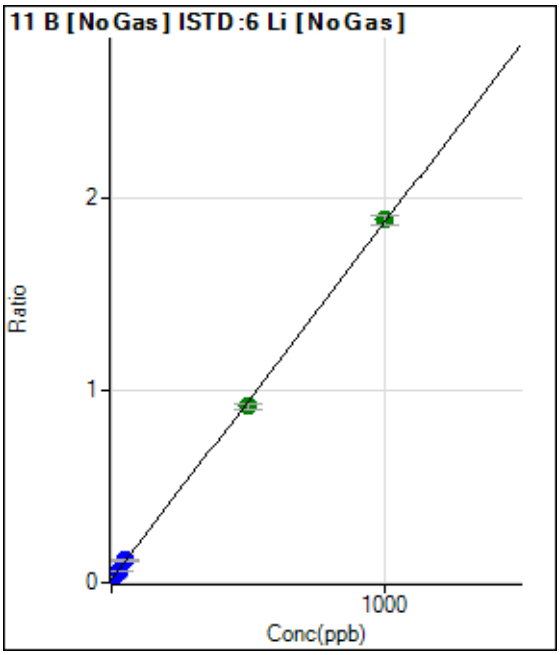


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	86.6
2	☐	2.000	2.055	6753.34	0.0065	P	1.4
3	☐	5.000	4.898	16027.55	0.0155	P	1.4
4	☐	10.000	10.220	32427.35	0.0324	P	1.9
5	☐	100.000	97.770	307190.40	0.3097	P	2.4
6	☐	200.000	201.106	607462.93	0.6371	P	1.6

y = 0.0032 * x + 3.2072E-006
R = 0.9999
DL = 0.002631
BEC = 0.001012

Weight: <None>
Min Conc: <None>

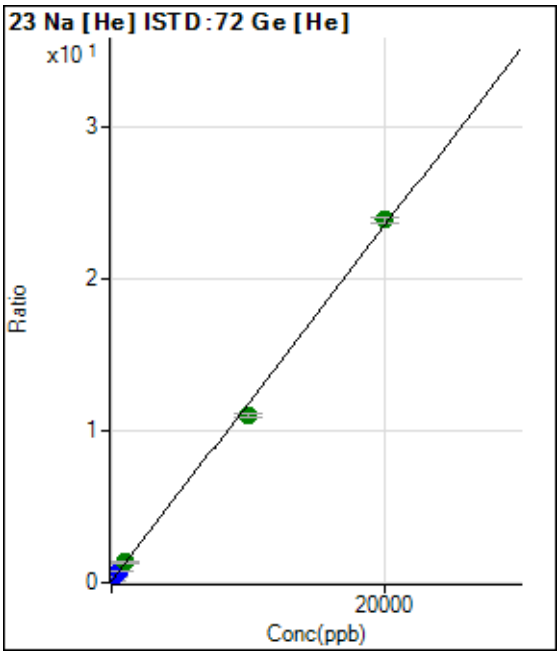
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17801.35	0.0169	P	1.0
2	☐	10.000	9.703	36260.02	0.0350	P	2.2
3	☐	25.000	24.868	65195.37	0.0632	P	3.8
4	☐	50.000	52.876	115326.03	0.1152	P	5.1
5	☐	500.000	484.656	910387.41	0.9180	A	3.2
6	☐	1000.000	1007.535	1802168.36	1.8902	A	2.4

y = 0.0019 * x + 0.0169
R = 0.9998
DL = 0.2836
BEC = 9.104

Weight: <None>
Min Conc: <None>

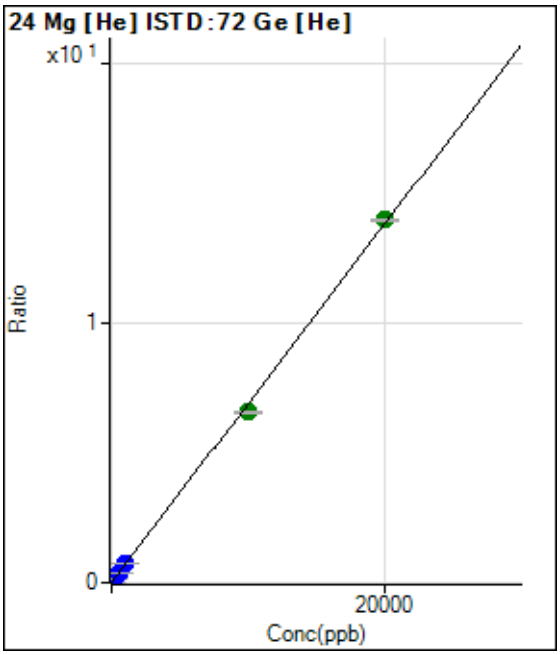


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	92766.88	0.1100	P	0.8
2	☐	200.000	219.105	305903.54	0.3663	P	0.9
3	☐	500.000	529.473	604905.73	0.7293	P	0.5
4	☐	1000.000	1051.923	1102244.73	1.3403	A	1.7
5	☐	10000.00	9326.350	9020049.03	11.0173	A	1.9
6	☐	20000.00	20333.30	19124674.30	23.8899	A	1.9

y = 0.0012 * x + 0.1100
R = 0.9992
DL = 2.286
BEC = 94.09

Weight: <None>
Min Conc: <None>

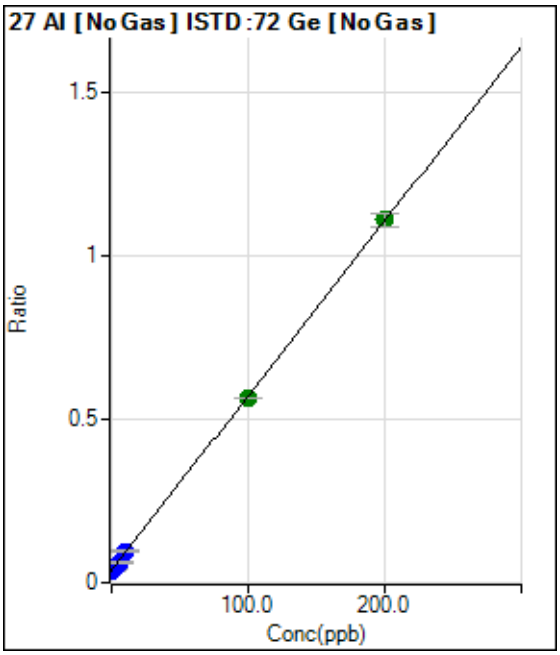
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1516.77	0.0018	P	4.0
2	☐	200.000	222.260	129762.65	0.1554	P	1.4
3	☐	500.000	544.140	313359.34	0.3778	P	1.5
4	☐	1000.000	1097.780	625323.60	0.7603	P	1.3
5	☐	10000.00	9497.213	5374032.63	6.5642	A	0.3
6	☐	20000.00	20245.17	11201121.50	13.9908	A	0.8

y = 6.9098E-004 * x + 0.0018
R = 0.9995
DL = 0.31
BEC = 2.604

Weight: <None>
Min Conc: <None>

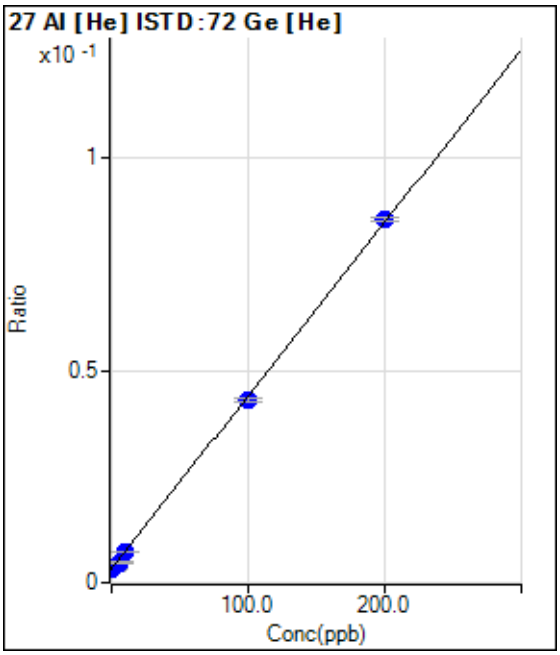


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	109251.13	0.0382	P	5.9
2	☐	2.000	0.935	124461.37	0.0432	P	1.3
3	☐	5.000	4.377	175443.55	0.0615	P	2.0
4	☐	10.000	10.950	273158.84	0.0966	P	2.7
5	☐	100.000	98.434	1569382.74	0.5638	A	0.5
6	☐	200.000	200.762	3011930.69	1.1102	A	3.8

y = 0.0053 * x + 0.0382
R = 0.9999
DL = 1.265
BEC = 7.148

Weight: <None>
Min Conc: <None>

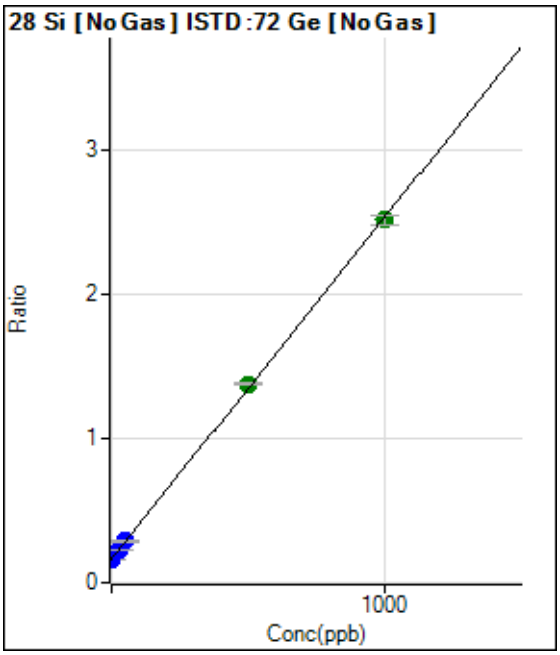
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2770.51	0.0033	P	22.5
2	☐	2.000	0.345	2860.34	0.0034	P	6.1
3	☐	5.000	3.273	3830.60	0.0046	P	6.8
4	☐	10.000	9.744	5968.05	0.0073	P	5.7
5	☐	100.000	96.989	35054.36	0.0428	P	2.2
6	☐	200.000	201.578	68411.80	0.0854	P	1.0

y = 4.0760E-004 * x + 0.0033
R = 0.9998
DL = 5.434
BEC = 8.058

Weight: <None>
Min Conc: <None>

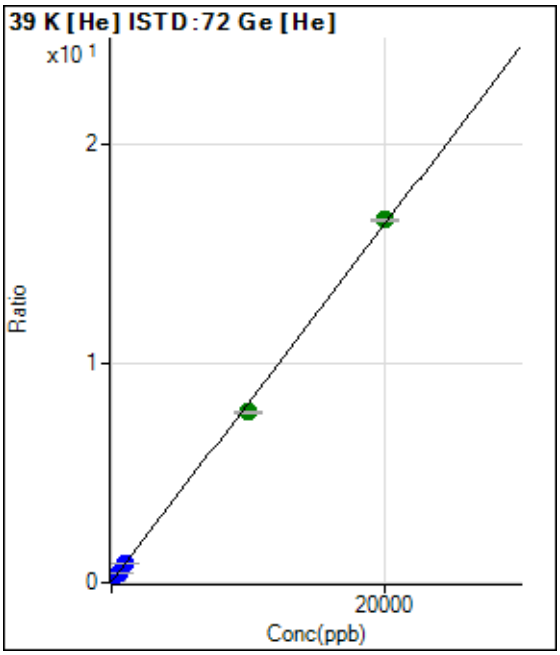


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	470785.39	0.1644	P	0.8
2	☐	10.000	13.184	564085.79	0.1956	P	0.9
3	☐	25.000	27.052	651129.38	0.2284	P	1.1
4	☐	50.000	52.207	813782.05	0.2879	P	1.3
5	☐	500.000	513.351	3836577.13	1.3782	A	0.4
6	☐	1000.000	993.131	6817613.65	2.5126	A	2.6

y = 0.0024 * x + 0.1644
R = 0.9999
DL = 1.723
BEC = 69.54

Weight: <None>
Min Conc: <None>

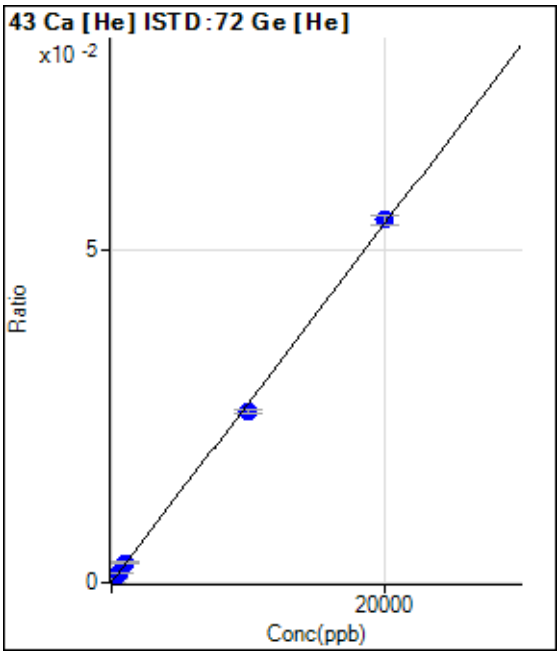
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38594.27	0.0458	P	1.5
2	☐	200.000	217.509	186466.04	0.2233	P	1.7
3	☐	500.000	525.478	393650.94	0.4746	P	1.0
4	☐	1000.000	1054.567	745431.26	0.9063	P	0.7
5	☐	10000.00	9480.040	6370800.74	7.7818	A	1.6
6	☐	20000.00	20256.44	13270587.72	16.5758	A	0.2

y = 8.1604E-004 * x + 0.0458
R = 0.9995
DL = 2.526
BEC = 56.1

Weight: <None>
Min Conc: <None>

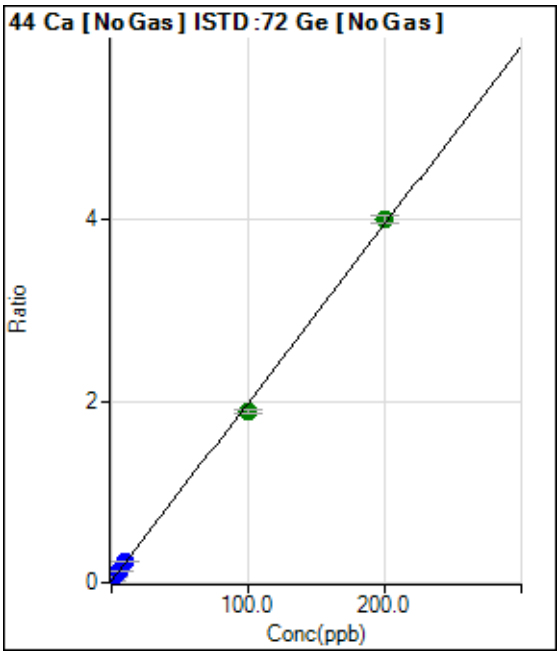


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43.33	0.0001	P	35.4
2	☐	200.000	228.978	556.69	0.0007	P	14.9
3	☐	500.000	529.803	1223.42	0.0015	P	4.1
4	☐	1000.000	1078.226	2423.59	0.0029	P	6.6
5	☐	10000.00	9521.761	20982.92	0.0256	P	1.4
6	☐	20000.00	20234.17	43552.57	0.0544	P	2.5

y = 2.6863E-006 * x + 5.1419E-005
R = 0.9996
DL = 20.3
BEC = 19.14

Weight: <None>
Min Conc: <None>

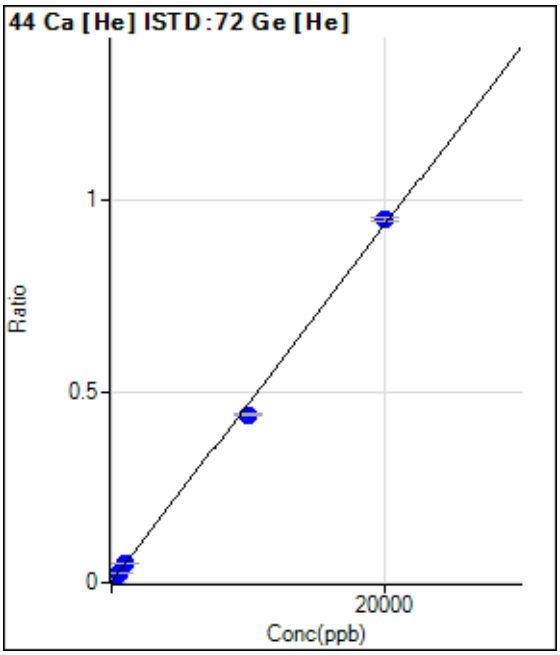
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	55026.70	0.0192	P	1.1
2	☐	2.000	2.047	171284.62	0.0594	P	0.6
3	☐	5.000	5.241	347989.27	0.1221	P	0.7
4	☐	10.000	10.597	642150.78	0.2271	P	1.0
5	☐	100.000	94.820	5232355.44	1.8798	A	1.8
6	☐	200.000	202.554	10837649.42	3.9937	A	2.0

y = 0.0196 * x + 0.0192
R = 0.9995
DL = 0.03214
BEC = 0.9795

Weight: <None>
Min Conc: <None>

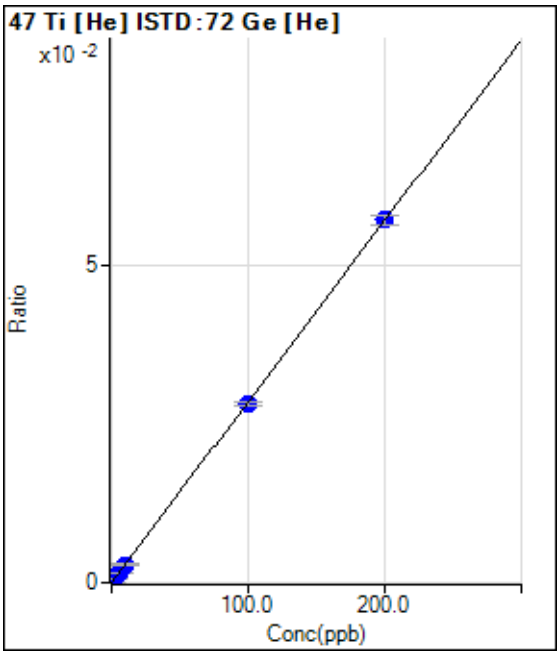


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1310.09	0.0016	P	5.6
2	☐	200.000	195.942	8936.41	0.0107	P	4.8
3	☐	500.000	502.044	20725.90	0.0250	P	3.8
4	☐	1000.000	1022.883	40553.21	0.0493	P	0.6
5	☐	10000.00	9383.527	359909.37	0.4396	P	0.6
6	☐	20000.00	20307.08	760198.66	0.9496	P	0.9

y = 4.6684E-005 * x + 0.0016
R = 0.9993
DL = 5.582
BEC = 33.28

Weight: <None>
Min Conc: <None>

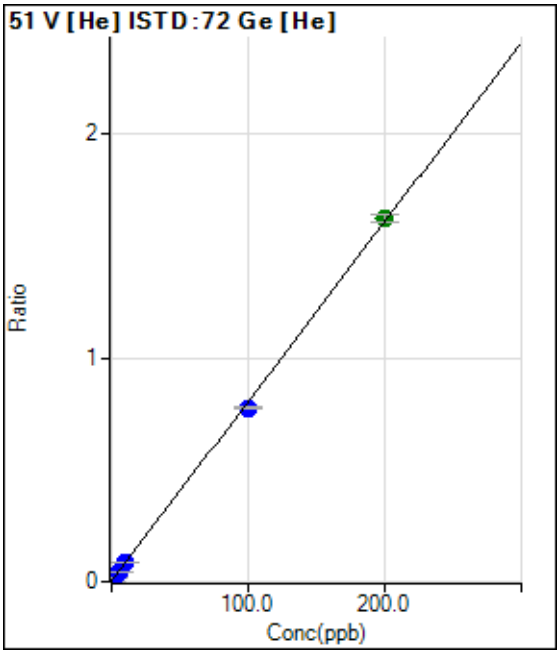
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	86.6
2	☐	2.000	2.027	490.02	0.0006	P	14.7
3	☐	5.000	5.053	1203.41	0.0015	P	0.7
4	☐	10.000	10.060	2370.24	0.0029	P	7.6
5	☐	100.000	98.840	23113.07	0.0282	P	3.2
6	☐	200.000	200.575	45856.69	0.0573	P	2.6

y = 2.8555E-004 * x + 7.9059E-006
R = 1.0000
DL = 0.07193
BEC = 0.02769

Weight: <None>
Min Conc: <None>

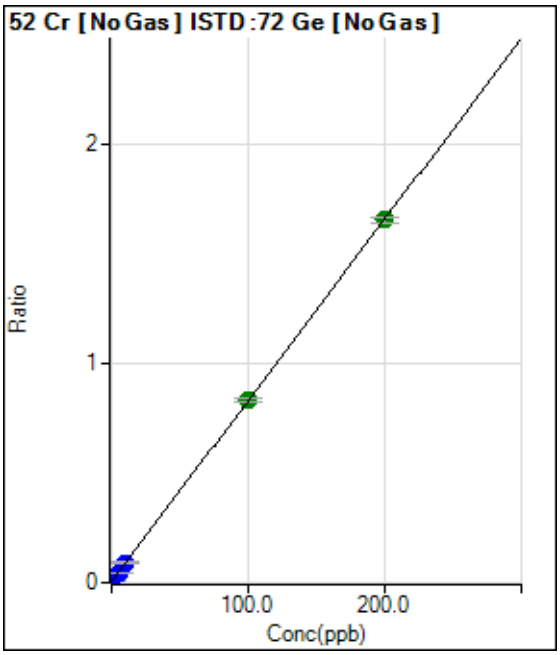


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2398.01	0.0028	P	4.0
2	☐	2.000	2.071	16261.91	0.0195	P	0.9
3	☐	5.000	4.945	35286.36	0.0425	P	1.7
4	☐	10.000	10.053	68713.33	0.0835	P	0.7
5	☐	100.000	96.496	636473.97	0.7774	P	0.4
6	☐	200.000	201.750	1298696.51	1.6223	A	2.3

y = 0.0080 * x + 0.0028
R = 0.9998
DL = 0.04261
BEC = 0.3543

Weight: <None>
Min Conc: <None>

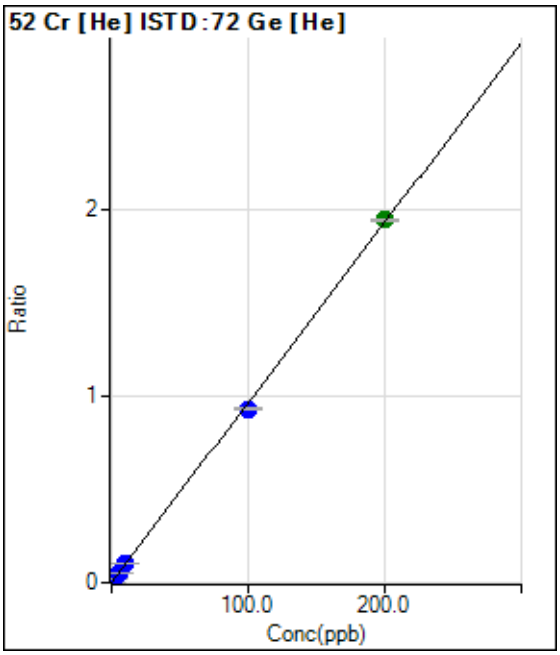
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13820.53	0.0048	P	4.5
2	☐	2.000	2.087	63597.80	0.0221	P	0.5
3	☐	5.000	5.144	134808.30	0.0473	P	1.7
4	☐	10.000	10.522	259140.84	0.0917	P	2.1
5	☐	100.000	100.292	2317569.39	0.8326	A	2.5
6	☐	200.000	199.823	4488733.58	1.6542	A	1.9

y = 0.0083 * x + 0.0048
R = 1.0000
DL = 0.07977
BEC = 0.585

Weight: <None>
Min Conc: <None>

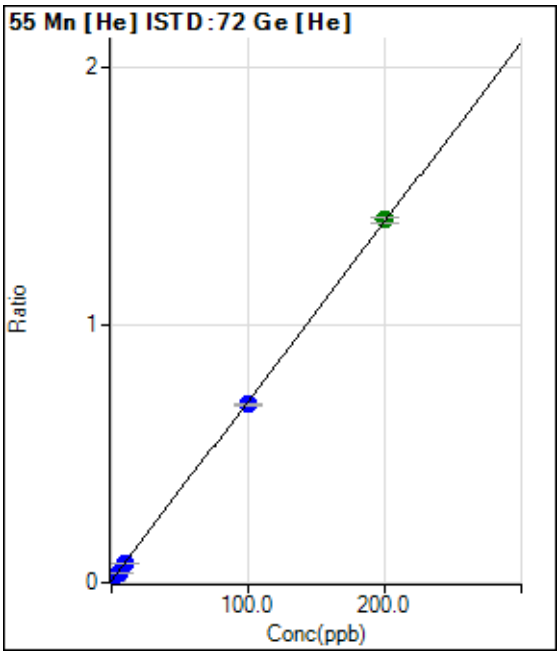


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1346.76	0.0016	P	10.1
2	☐	2.000	2.054	17891.92	0.0214	P	1.4
3	☐	5.000	5.029	41593.29	0.0501	P	2.6
4	☐	10.000	10.299	83081.67	0.1010	P	1.4
5	☐	100.000	96.613	764876.44	0.9343	P	0.6
6	☐	200.000	201.678	1559967.69	1.9485	A	0.2

y = 0.0097 * x + 0.0016
R = 0.9998
DL = 0.05034
BEC = 0.1654

Weight: <None>
Min Conc: <None>

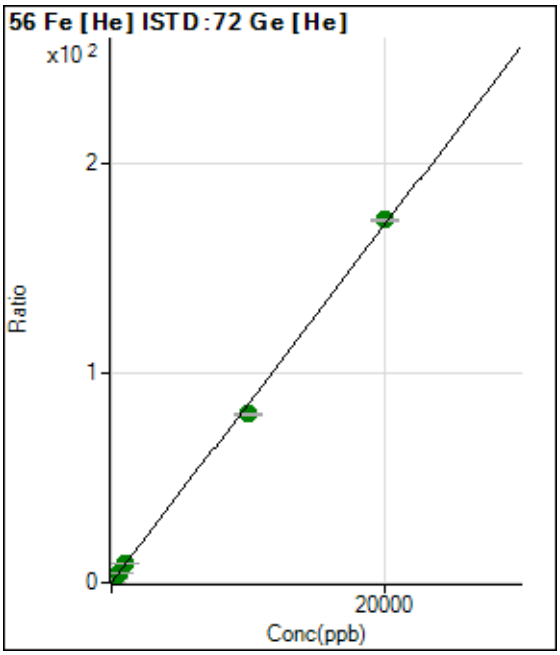
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7292.08	0.0086	P	3.0
2	☐	2.000	1.957	18596.22	0.0223	P	1.8
3	☐	5.000	4.460	32910.07	0.0397	P	1.8
4	☐	10.000	9.066	58994.05	0.0717	P	1.6
5	☐	100.000	97.971	565173.89	0.6903	P	0.8
6	☐	200.000	201.075	1127009.90	1.4077	A	1.9

y = 0.0070 * x + 0.0086
R = 0.9999
DL = 0.1118
BEC = 1.243

Weight: <None>
Min Conc: <None>

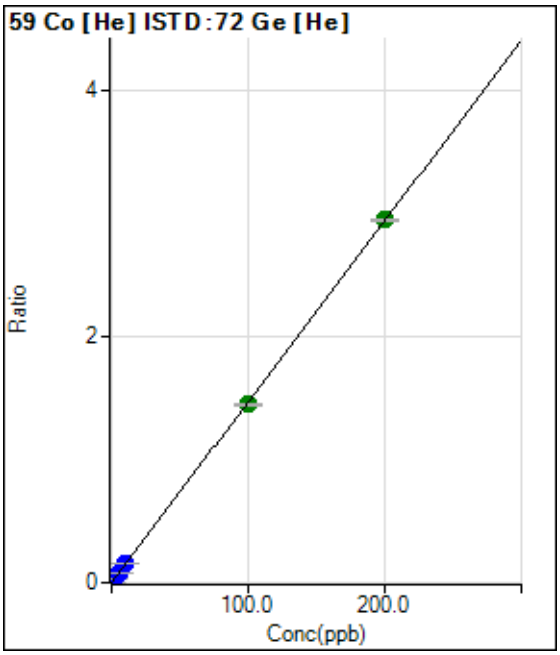


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	21287.17	0.0252	P	6.4
2	☐	200.000	221.774	1600482.11	1.9163	A	0.5
3	☐	500.000	533.079	3791400.15	4.5709	A	1.8
4	☐	1000.000	1049.309	7379759.06	8.9728	A	0.7
5	☐	10000.00	9412.316	65729357.35	80.2852	A	0.3
6	☐	20000.00	20290.33	138536784.6	173.043	A	0.7

y = 0.0085 * x + 0.0252
R = 0.9994
DL = 0.5658
BEC = 2.961

Weight: <None>
Min Conc: <None>

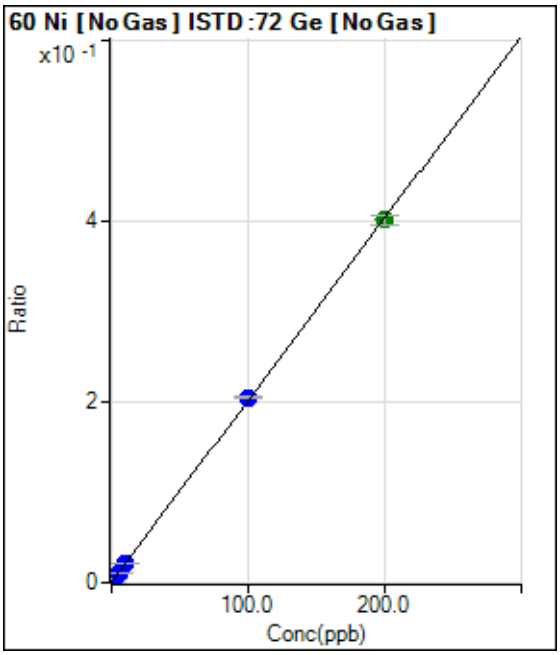
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.67	0.0001	P	44.6
2	☐	2.000	2.071	25434.02	0.0305	P	4.6
3	☐	5.000	5.060	61642.77	0.0743	P	2.0
4	☐	10.000	10.276	124055.19	0.1508	P	1.2
5	☐	100.000	98.560	1183958.26	1.4462	A	0.8
6	☐	200.000	200.704	2357641.16	2.9449	A	0.6

y = 0.0147 * x + 6.7238E-005
R = 1.0000
DL = 0.00613
BEC = 0.004583

Weight: <None>
Min Conc: <None>

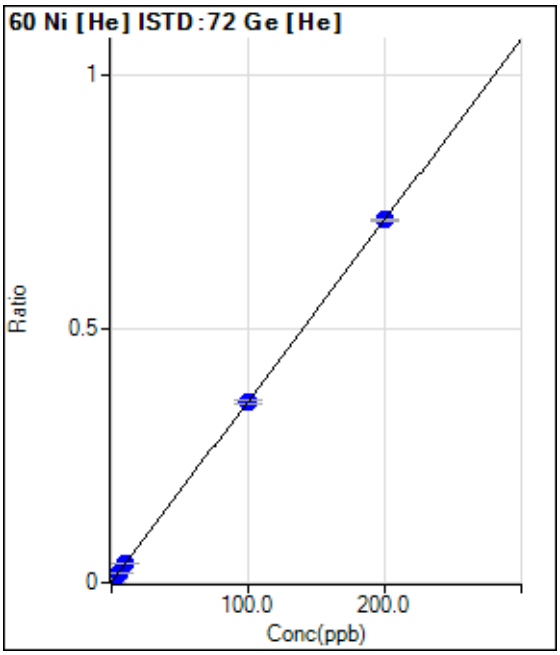


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1533.46	0.0005	P	10.3
2	☐	2.000	2.195	14261.09	0.0049	P	4.8
3	☐	5.000	5.111	30808.55	0.0108	P	2.7
4	☐	10.000	10.638	61944.10	0.0219	P	1.9
5	☐	100.000	101.568	569629.22	0.2046	P	1.2
6	☐	200.000	199.179	1087506.21	0.4008	A	2.4

y = 0.0020 * x + 5.3523E-004
R = 1.0000
DL = 0.08238
BEC = 0.2663

Weight: <None>
Min Conc: <None>

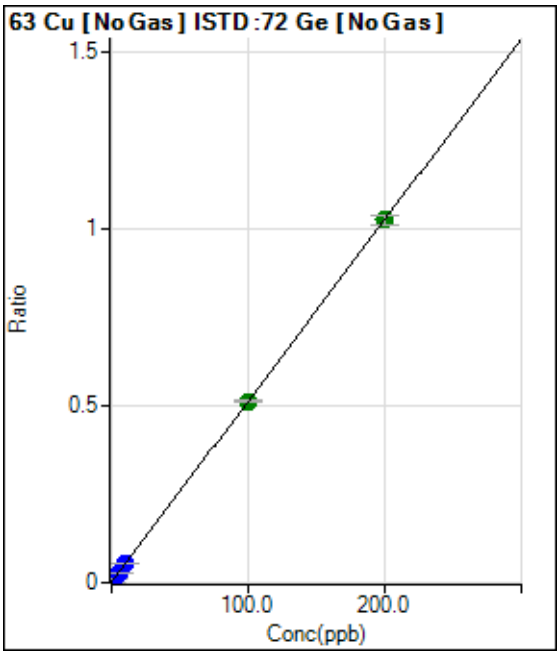
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	830.04	0.0010	P	14.4
2	☐	2.000	2.058	6941.87	0.0083	P	3.2
3	☐	5.000	4.883	15235.45	0.0184	P	3.8
4	☐	10.000	10.498	31546.80	0.0384	P	2.7
5	☐	100.000	99.768	291603.95	0.3562	P	1.7
6	☐	200.000	200.094	571112.07	0.7134	P	0.8

y = 0.0036 * x + 9.8435E-004
R = 1.0000
DL = 0.1198
BEC = 0.2765

Weight: <None>
Min Conc: <None>

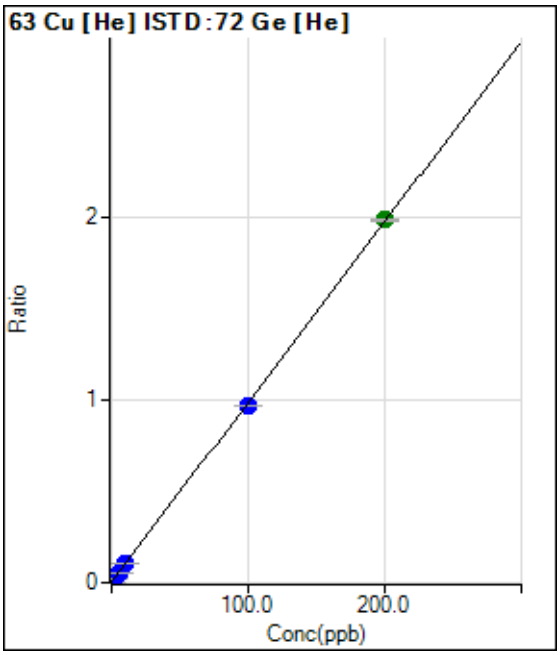


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3100.41	0.0011	P	6.6
2	☐	2.000	2.122	34460.64	0.0119	P	3.3
3	☐	5.000	5.234	79515.32	0.0279	P	1.0
4	☐	10.000	10.476	154742.62	0.0547	P	1.1
5	☐	100.000	99.840	1426404.87	0.5124	A	0.9
6	☐	200.000	200.049	2783230.06	1.0257	A	2.9

y = 0.0051 * x + 0.0011
R = 1.0000
DL = 0.04172
BEC = 0.2114

Weight: <None>
Min Conc: <None>

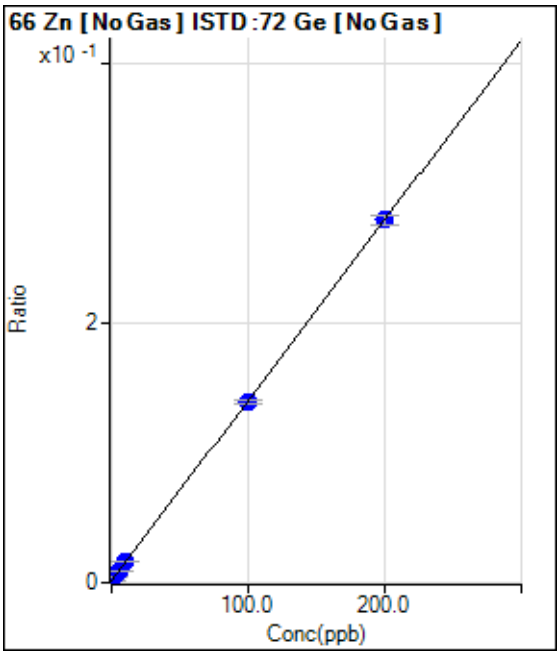
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1626.79	0.0019	P	5.3
2	☐	2.000	2.167	19490.93	0.0233	P	4.0
3	☐	5.000	5.185	44085.01	0.0532	P	3.1
4	☐	10.000	10.430	86336.38	0.1050	P	1.5
5	☐	100.000	97.863	793101.79	0.9687	P	0.9
6	☐	200.000	201.040	1591634.25	1.9881	A	0.3

y = 0.0099 * x + 0.0019
R = 0.9999
DL = 0.03093
BEC = 0.1953

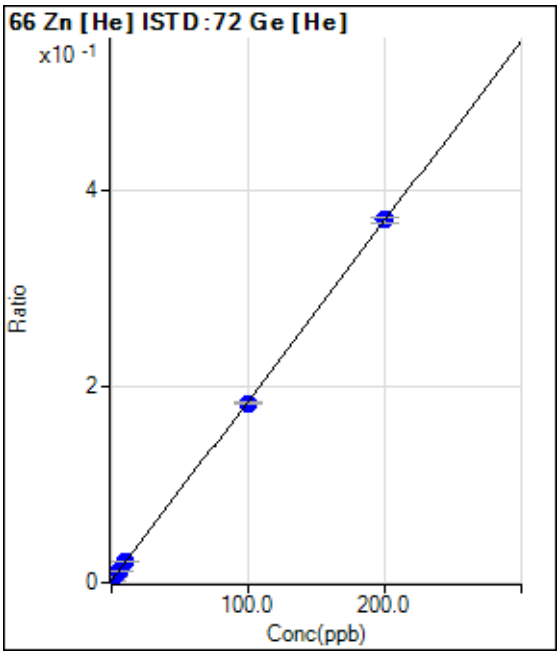
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3953.97	0.0014	P	9.3
2	☐	2.000	2.444	13760.53	0.0048	P	0.2
3	☐	5.000	5.209	24539.22	0.0086	P	0.6
4	☐	10.000	10.562	45329.14	0.0160	P	1.3
5	☐	100.000	99.385	387591.77	0.1392	P	1.8
6	☐	200.000	200.270	757527.64	0.2792	P	2.6

y = 0.0014 * x + 0.0014
R = 1.0000
DL = 0.2783
BEC = 0.9961

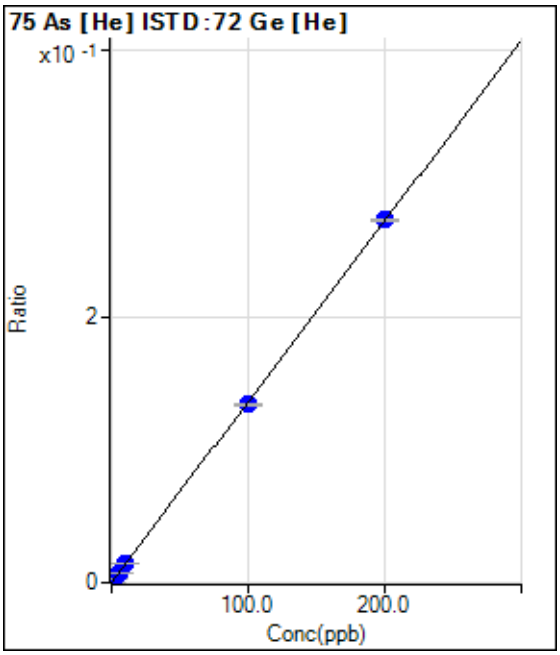
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1600.12	0.0019	P	10.0
2	☐	2.000	2.441	5334.49	0.0064	P	6.9
3	☐	5.000	5.166	9456.81	0.0114	P	1.6
4	☐	10.000	10.413	17317.98	0.0211	P	3.3
5	☐	100.000	98.804	150345.38	0.1836	P	0.4
6	☐	200.000	200.569	296886.30	0.3708	P	1.6

y = 0.0018 * x + 0.0019
R = 1.0000
DL = 0.3088
BEC = 1.032

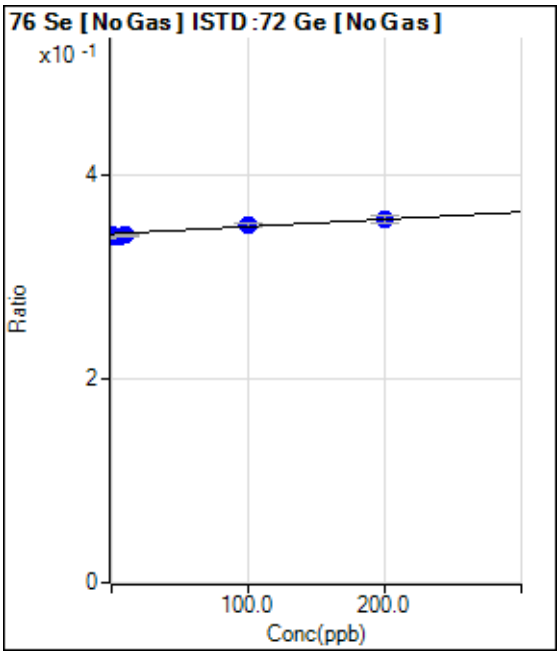
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	127.78	0.0002	P	14.3
2	☐	2.000	2.038	2439.12	0.0029	P	1.5
3	☐	5.000	4.933	5685.67	0.0069	P	1.5
4	☐	10.000	10.302	11637.27	0.0141	P	1.1
5	☐	100.000	98.488	109675.78	0.1340	P	0.9
6	☐	200.000	200.742	218478.19	0.2729	P	0.5

y = 0.0014 * x + 1.5155E-004
R = 1.0000
DL = 0.04773
BEC = 0.1115

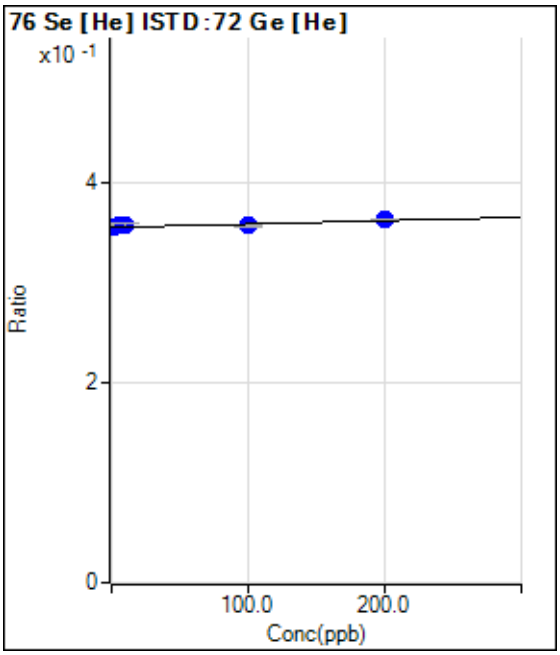
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	979099.57	0.3420	P	0.8
2	☐	2.000	-50.747	975748.08	0.3383	P	0.9
3	☐	5.000	-41.703	966439.75	0.3390	P	0.9
4	☐	10.000	-18.197	963125.22	0.3407	P	0.5
5	☐	100.000	124.588	976658.76	0.3509	P	1.3
6	☐	200.000	190.811	964924.18	0.3556	P	2.0

y = 7.1400E-005 * x + 0.3420
R = 0.9662
DL = 109.5
BEC = 4790

Weight: <None>
Min Conc: <None>

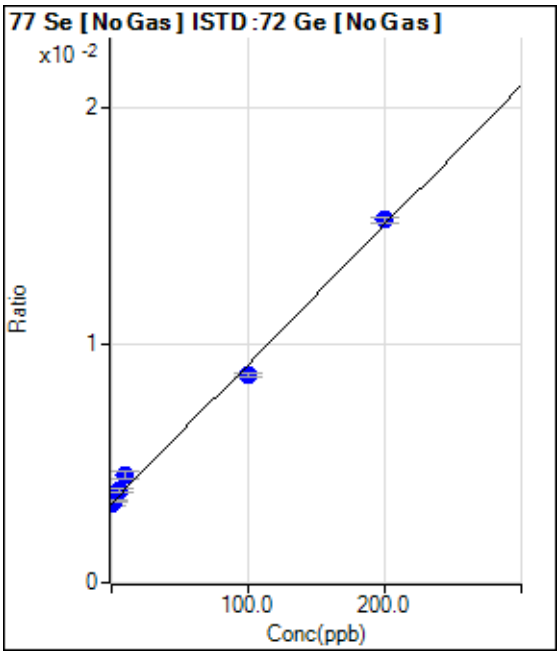


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	299902.99	0.3557	P	0.2
2	☐	2.000	-16.499	296638.93	0.3552	P	0.9
3	☐	5.000	53.133	296541.63	0.3575	P	0.7
4	☐	10.000	49.304	293922.29	0.3574	P	1.0
5	☐	100.000	51.808	292653.03	0.3575	P	0.5
6	☐	200.000	221.112	290730.48	0.3631	P	0.2

y = 3.3543E-005 * x + 0.3557
R = 0.9037
DL = 59.87
BEC = 1.061E+04

Weight: <None>
Min Conc: <None>

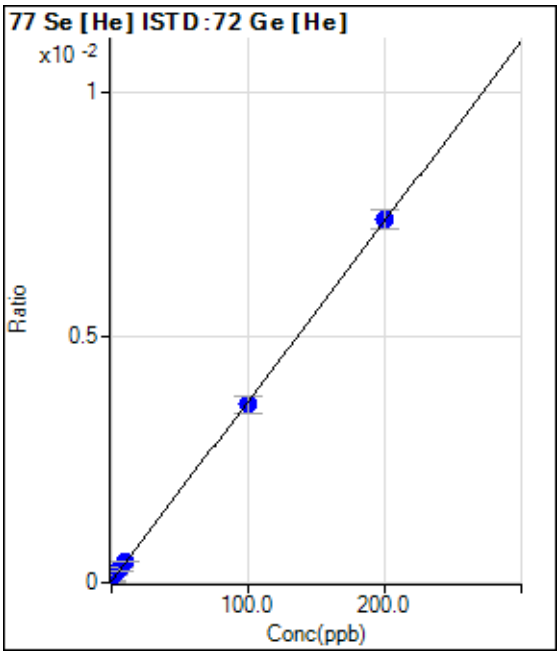
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9556.90	0.0033	P	4.7
2	☐	2.000	1.608	9900.50	0.0034	P	1.2
3	☐	5.000	9.055	11031.38	0.0039	P	3.8
4	☐	10.000	20.080	12759.59	0.0045	P	6.9
5	☐	100.000	92.021	24298.79	0.0087	P	2.5
6	☐	200.000	203.388	41397.22	0.0153	P	1.7

y = 5.8583E-005 * x + 0.0033
R = 0.9974
DL = 8.11
BEC = 56.99

Weight: <None>
Min Conc: <None>

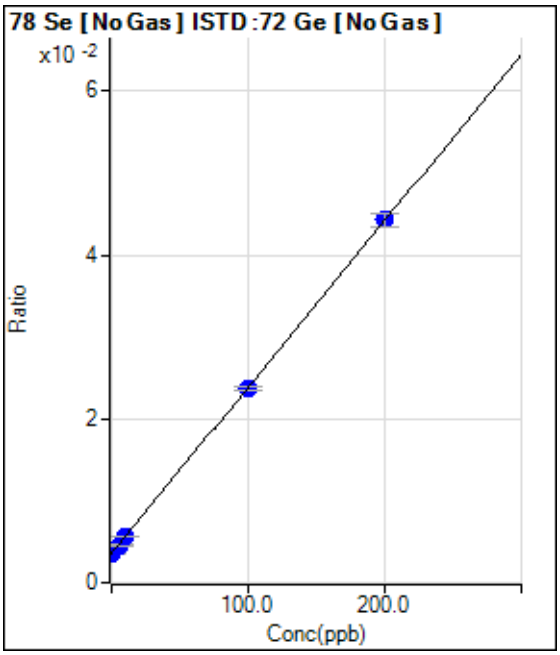


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	89.1
2	☐	2.000	3.495	130.00	0.0002	P	23.5
3	☐	5.000	6.715	226.67	0.0003	P	35.0
4	☐	10.000	11.077	356.68	0.0004	P	4.2
5	☐	100.000	98.244	2970.38	0.0036	P	9.2
6	☐	200.000	200.766	5914.75	0.0074	P	5.3

y = 3.6653E-005 * x + 2.7656E-005
R = 0.9999
DL = 2.016
BEC = 0.7545

Weight: <None>
Min Conc: <None>

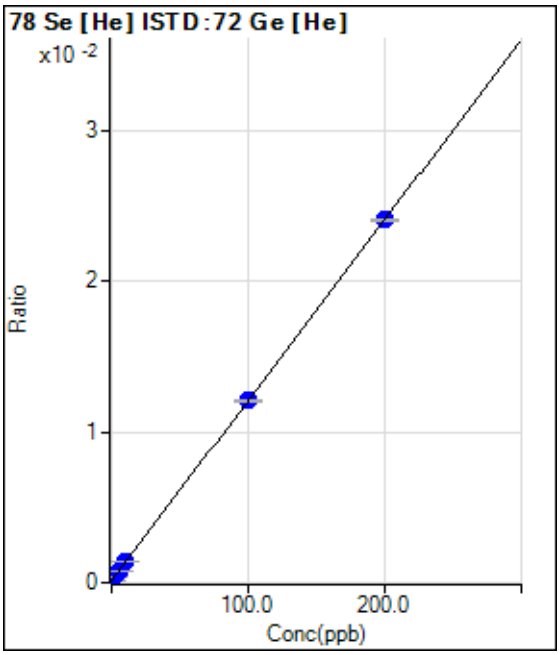
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10270.74	0.0036	P	0.8
2	☐	2.000	1.647	11308.26	0.0039	P	2.2
3	☐	5.000	4.513	12836.34	0.0045	P	3.4
4	☐	10.000	9.892	15812.83	0.0056	P	1.5
5	☐	100.000	98.927	65837.31	0.0237	P	1.7
6	☐	200.000	200.557	120081.51	0.0443	P	3.9

y = 2.0282E-004 * x + 0.0036
R = 1.0000
DL = 0.4414
BEC = 17.69

Weight: <None>
Min Conc: <None>

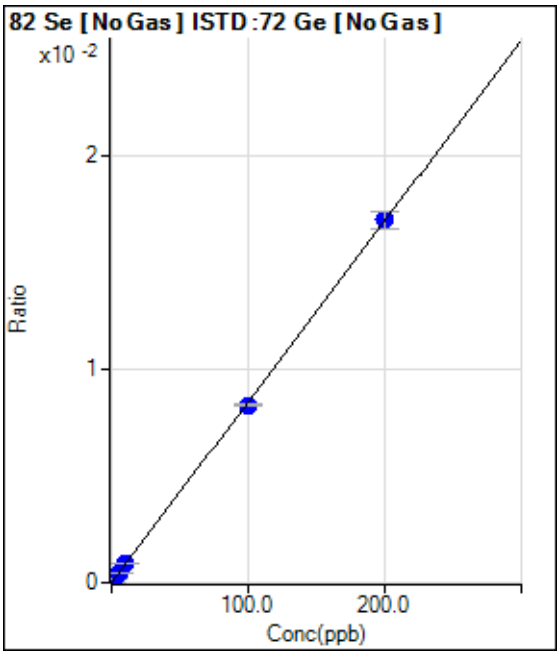


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	109.33	0.0001	P	6.7
2	☐	2.000	1.876	296.00	0.0004	P	8.0
3	☐	5.000	5.129	617.35	0.0007	P	6.3
4	☐	10.000	10.575	1148.72	0.0014	P	1.3
5	☐	100.000	99.937	9907.65	0.0121	P	1.2
6	☐	200.000	200.001	19285.11	0.0241	P	0.8

y = 1.1980E-004 * x + 1.2970E-004
R = 1.0000
DL = 0.2164
BEC = 1.083

Weight: <None>
Min Conc: <None>

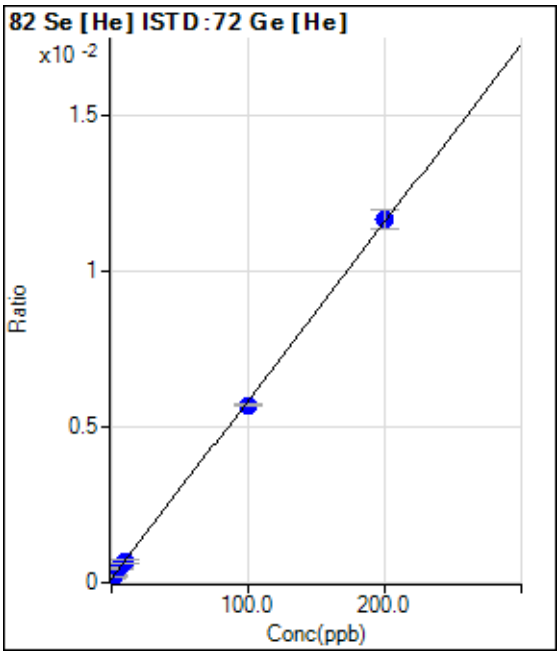
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-68.41	0.0000	P	-66.8
2	☐	2.000	1.948	408.26	0.0001	P	17.2
3	☐	5.000	5.233	1199.02	0.0004	P	6.4
4	☐	10.000	10.379	2425.20	0.0009	P	2.6
5	☐	100.000	98.321	23179.42	0.0083	P	1.9
6	☐	200.000	200.815	46206.02	0.0170	P	4.6

y = 8.4934E-005 * x - 2.3926E-005
R = 0.9999
DL = 0.5646
BEC = -0.2817

Weight: <None>
Min Conc: <None>

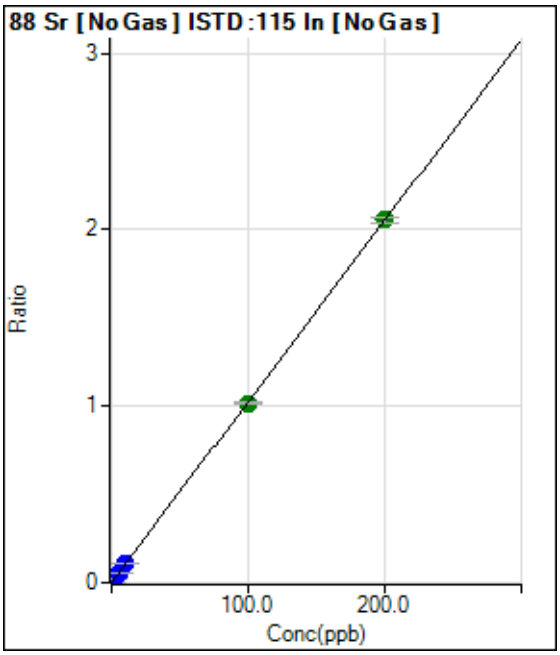


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0001	P	31.1
2	☐	2.000	1.349	176.67	0.0002	P	12.2
3	☐	5.000	5.941	393.35	0.0005	P	5.6
4	☐	10.000	9.555	560.02	0.0007	P	14.8
5	☐	100.000	97.256	4660.89	0.0057	P	1.6
6	☐	200.000	201.377	9320.09	0.0116	P	5.4

y = 5.7154E-005 * x + 1.3448E-004
R = 0.9998
DL = 2.197
BEC = 2.353

Weight: <None>
Min Conc: <None>

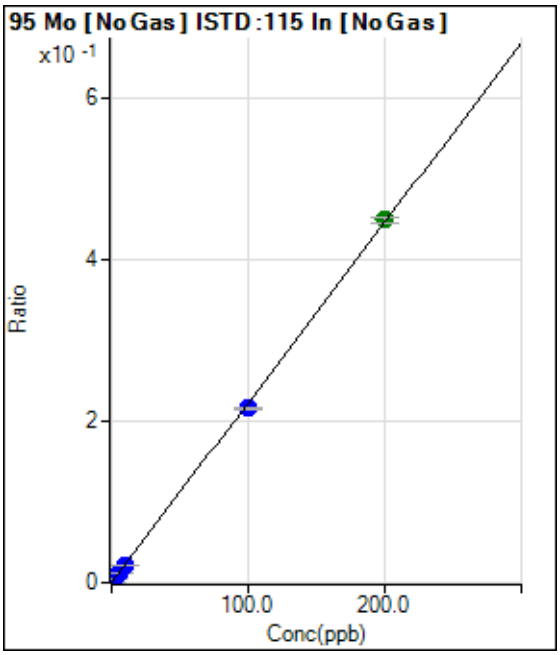
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3113.76	0.0009	P	2.4
2	☐	2.000	2.026	79270.55	0.0216	P	1.6
3	☐	5.000	5.075	194018.25	0.0529	P	2.7
4	☐	10.000	10.322	387062.57	0.1066	P	0.6
5	☐	100.000	98.963	3599123.49	1.0149	A	0.9
6	☐	200.000	200.500	7072481.14	2.0553	A	1.6

y = 0.0102 * x + 8.5048E-004
R = 1.0000
DL = 0.005983
BEC = 0.083

Weight: <None>
Min Conc: <None>

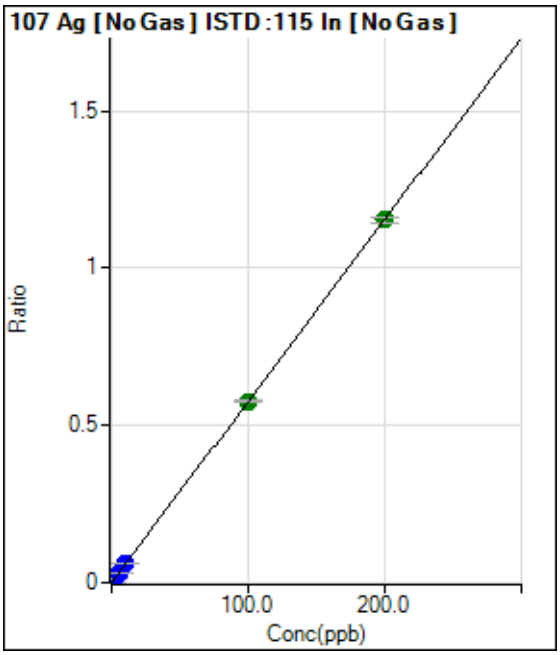


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	213.34	0.0001	P	14.6
2	☐	2.000	1.988	16433.72	0.0045	P	1.5
3	☐	5.000	4.925	40434.95	0.0110	P	2.6
4	☐	10.000	9.878	79992.31	0.0220	P	2.7
5	☐	100.000	96.769	763580.43	0.2153	P	1.0
6	☐	200.000	201.623	1543688.20	0.4486	A	1.7

y = 0.0022 * x + 5.8248E-005
R = 0.9998
DL = 0.01148
BEC = 0.02618

Weight: <None>
Min Conc: <None>

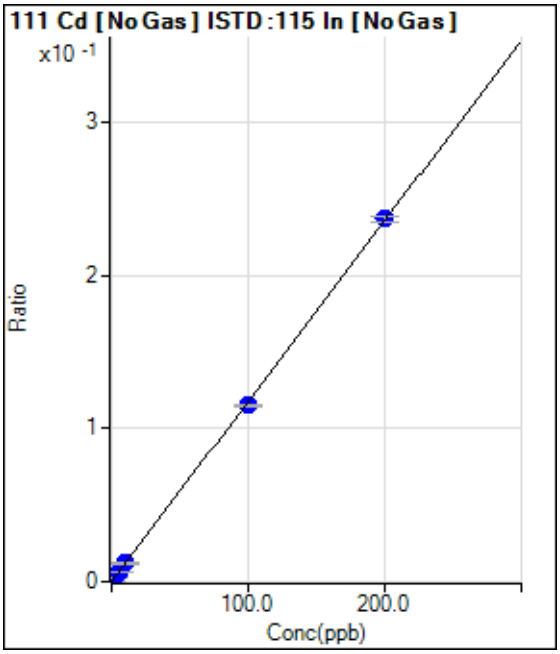
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	323.34	0.0001	P	20.8
2	☐	2.000	2.094	44612.09	0.0122	P	1.3
3	☐	5.000	5.157	109456.58	0.0298	P	2.4
4	☐	10.000	10.511	220304.74	0.0607	P	0.3
5	☐	100.000	99.899	2042426.22	0.5760	A	1.4
6	☐	200.000	200.020	3967919.00	1.1531	A	1.4

y = 0.0058 * x + 8.8344E-005
R = 1.0000
DL = 0.009572
BEC = 0.01533

Weight: <None>
Min Conc: <None>

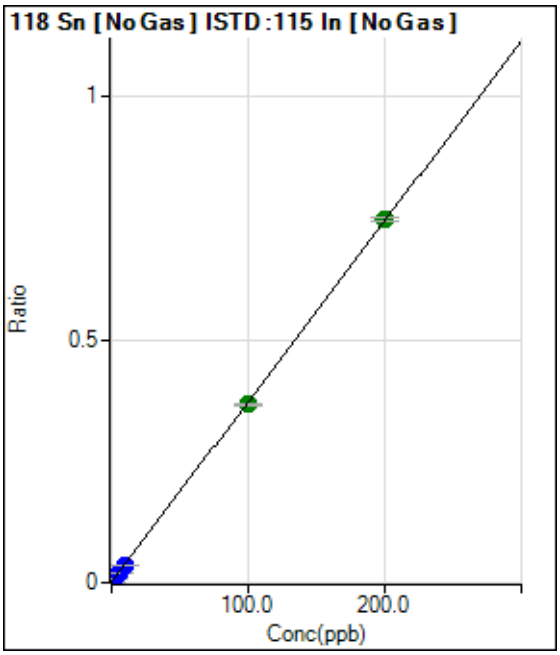


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	86.6
2	☐	2.000	2.053	8866.46	0.0024	P	2.9
3	☐	5.000	5.077	21945.17	0.0060	P	3.4
4	☐	10.000	10.143	43334.72	0.0119	P	1.2
5	☐	100.000	97.835	408236.71	0.1151	P	1.0
6	☐	200.000	201.073	814147.51	0.2366	P	1.3

y = 0.0012 * x + 1.8186E-006
R = 0.9999
DL = 0.004016
BEC = 0.001546

Weight: <None>
Min Conc: <None>

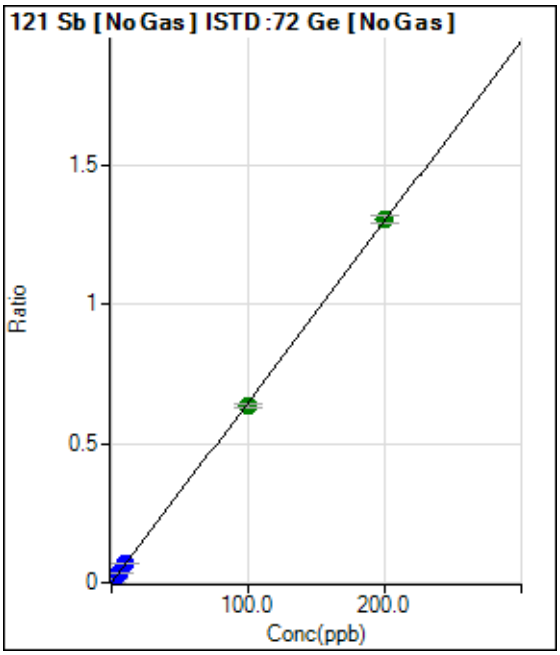
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3730.61	0.0010	P	1.2
2	☐	2.000	1.997	30954.98	0.0084	P	6.0
3	☐	5.000	4.758	68629.42	0.0187	P	2.2
4	☐	10.000	9.736	135022.27	0.0372	P	0.3
5	☐	100.000	98.409	1300315.89	0.3666	A	0.8
6	☐	200.000	200.815	2570793.14	0.7471	A	1.0

y = 0.0037 * x + 0.0010
R = 1.0000
DL = 0.009774
BEC = 0.2743

Weight: <None>
Min Conc: <None>

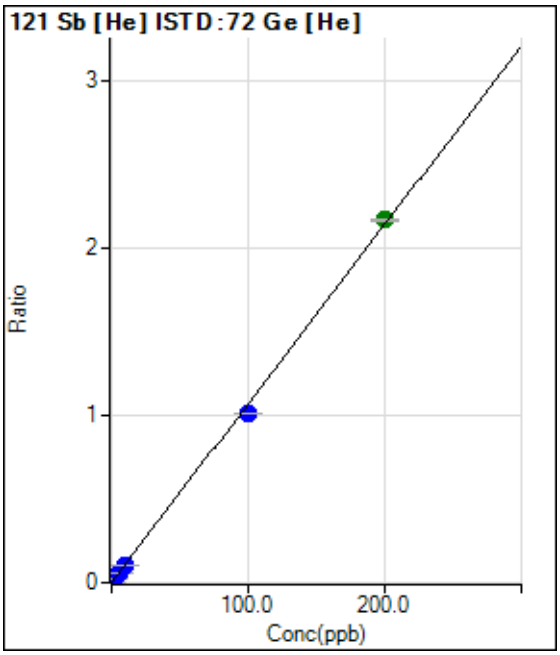


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2343.58	0.0008	P	3.2
2	☐	2.000	1.956	38948.13	0.0135	P	0.8
3	☐	5.000	4.976	94341.02	0.0331	P	0.7
4	☐	10.000	10.089	187306.30	0.0663	P	1.0
5	☐	100.000	98.068	1772741.59	0.6369	A	2.2
6	☐	200.000	200.963	3539095.99	1.3042	A	2.2

y = 0.0065 * x + 8.1845E-004
R = 0.9999
DL = 0.01225
BEC = 0.1262

Weight: <None>
Min Conc: <None>

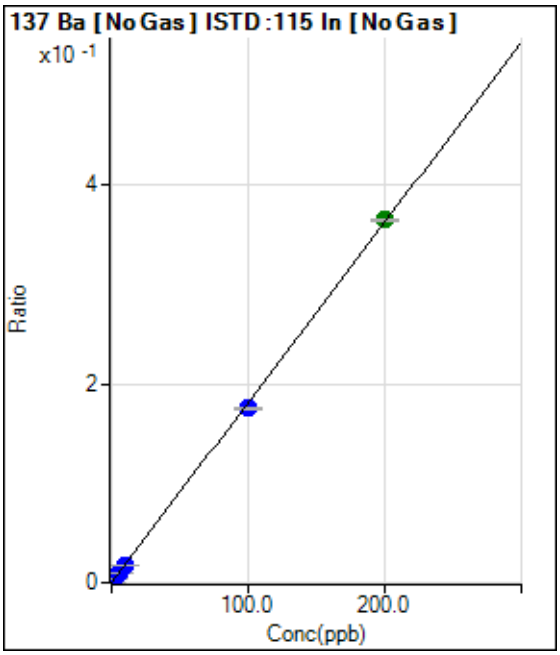
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1176.74	0.0014	P	5.5
2	☐	2.000	1.921	18303.04	0.0219	P	5.3
3	☐	5.000	4.920	44753.38	0.0540	P	3.2
4	☐	10.000	9.833	87561.34	0.1065	P	1.3
5	☐	100.000	94.470	827493.97	1.0107	P	1.0
6	☐	200.000	202.776	1735567.58	2.1679	A	0.8

y = 0.0107 * x + 0.0014
R = 0.9995
DL = 0.02141
BEC = 0.1307

Weight: <None>
Min Conc: <None>

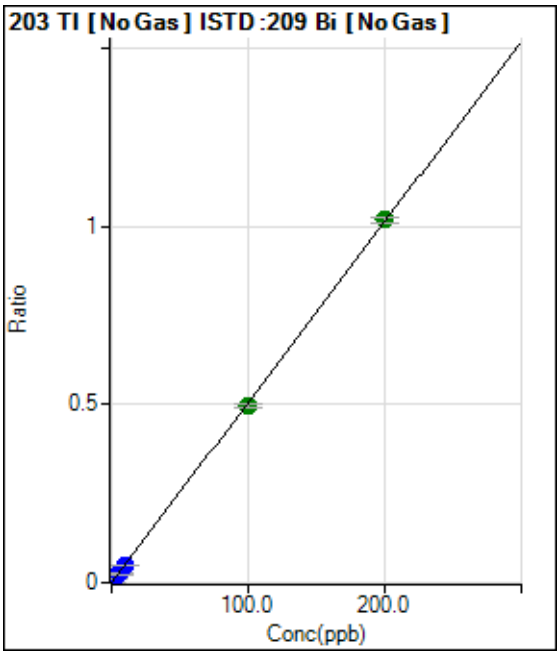


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	590.02	0.0002	P	21.0
2	☐	2.000	2.034	14111.24	0.0038	P	1.7
3	☐	5.000	4.831	32728.18	0.0089	P	1.0
4	☐	10.000	9.879	65575.66	0.0181	P	1.8
5	☐	100.000	97.054	624255.99	0.1760	P	1.1
6	☐	200.000	201.483	1256978.57	0.3653	A	0.6

y = 0.0018 * x + 1.6120E-004
R = 0.9998
DL = 0.05612
BEC = 0.08896

Weight: <None>
Min Conc: <None>

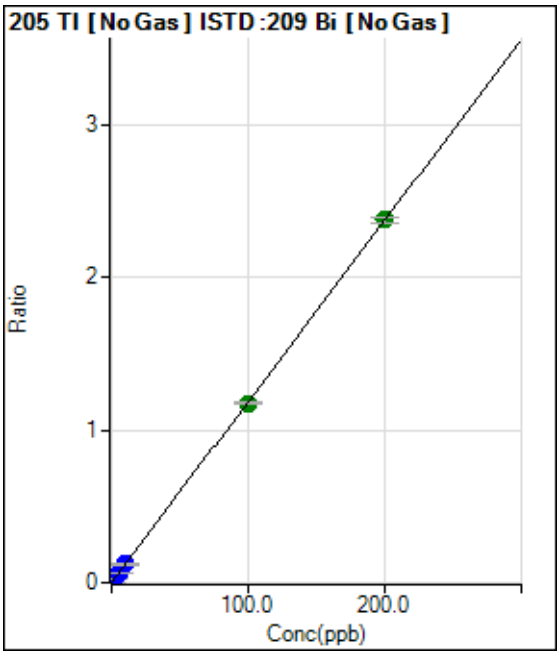
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0000	P	17.9
2	☐	2.000	1.907	35835.21	0.0097	P	3.6
3	☐	5.000	4.801	90876.08	0.0243	P	1.9
4	☐	10.000	9.865	185502.64	0.0500	P	2.6
5	☐	100.000	97.887	1811599.50	0.4956	A	1.4
6	☐	200.000	201.069	3616689.63	1.0179	A	1.9

y = 0.0051 * x + 4.5102E-005
R = 0.9999
DL = 0.004777
BEC = 0.008909

Weight: <None>
Min Conc: <None>

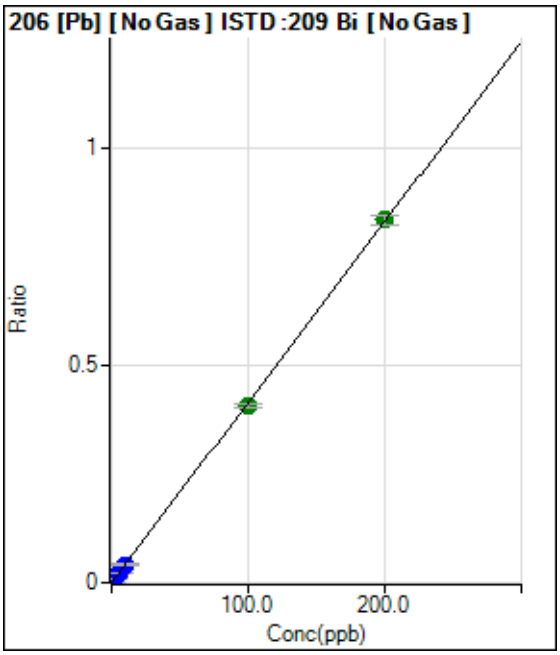


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	260.01	0.0001	P	12.5
2	☐	2.000	2.017	88606.78	0.0240	P	1.9
3	☐	5.000	4.922	217994.35	0.0584	P	2.3
4	☐	10.000	10.144	446419.28	0.1203	P	3.1
5	☐	100.000	99.179	4297520.35	1.1756	A	0.8
6	☐	200.000	200.405	8440127.16	2.3754	A	1.9

y = 0.0119 * x + 7.0316E-005
R = 1.0000
DL = 0.00222
BEC = 0.005932

Weight: <None>
Min Conc: <None>

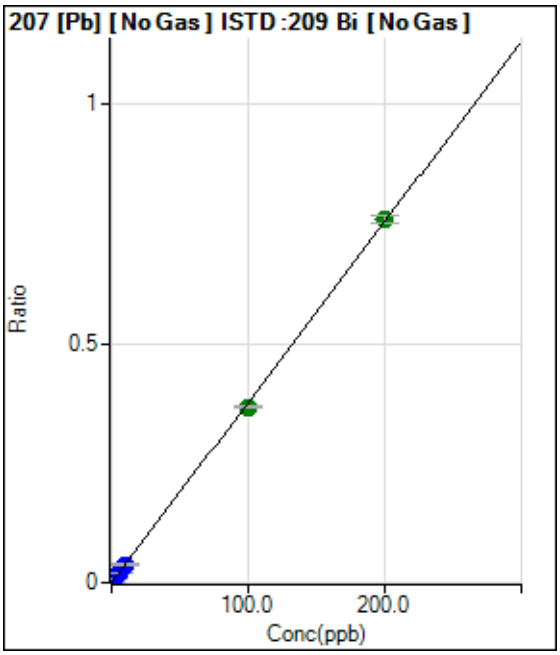
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	526.69	0.0001	P	9.8
2	☐	2.000	2.040	31757.32	0.0086	P	1.2
3	☐	5.000	4.956	77161.82	0.0207	P	2.0
4	☐	10.000	10.018	154525.73	0.0416	P	2.8
5	☐	100.000	97.799	1481401.96	0.4053	A	1.6
6	☐	200.000	201.100	2960114.75	0.8332	A	2.4

y = 0.0041 * x + 1.4248E-004
R = 0.9999
DL = 0.01008
BEC = 0.0344

Weight: <None>
Min Conc: <None>

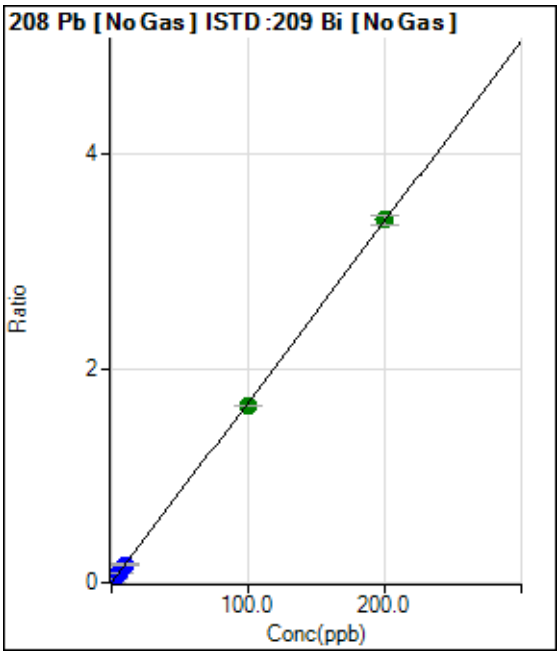


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	436.68	0.0001	P	6.6
2	☐	2.000	2.000	28255.66	0.0076	P	2.4
3	☐	5.000	4.892	69185.00	0.0185	P	0.9
4	☐	10.000	10.016	140320.94	0.0378	P	4.4
5	☐	100.000	97.465	1341611.80	0.3670	A	1.2
6	☐	200.000	201.269	2692274.75	0.7577	A	2.2

y = 0.0038 * x + 1.1829E-004
R = 0.9999
DL = 0.006249
BEC = 0.03143

Weight: <None>
Min Conc: <None>

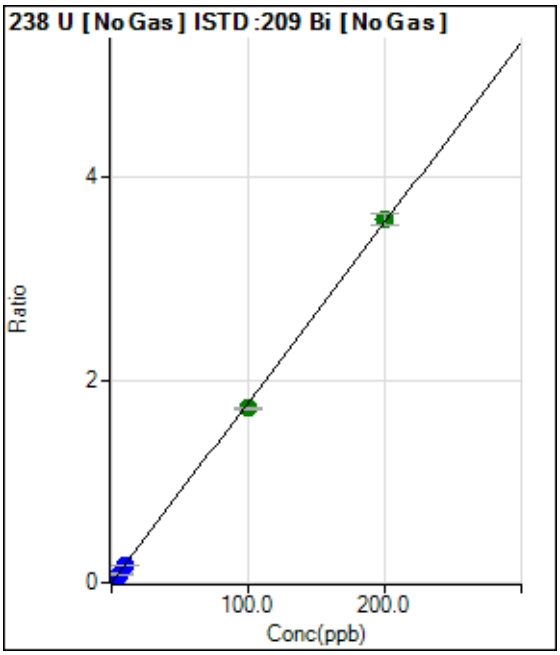
Calibration for 250_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1943.43	0.0005	P	10.7
2	☐	2.000	2.034	128631.93	0.0348	P	1.5
3	☐	5.000	4.902	310309.98	0.0831	P	1.5
4	☐	10.000	10.004	627595.85	0.1691	P	2.8
5	☐	100.000	98.081	6044327.26	1.6535	A	0.8
6	☐	200.000	200.962	12034742.53	3.3873	A	2.4

y = 0.0169 * x + 5.2615E-004
R = 0.9999
DL = 0.01
BEC = 0.03122

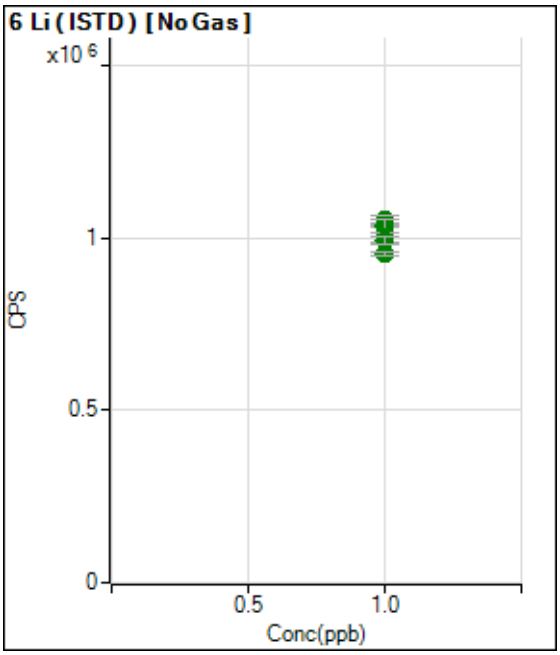
Weight: <None>
Min Conc: <None>



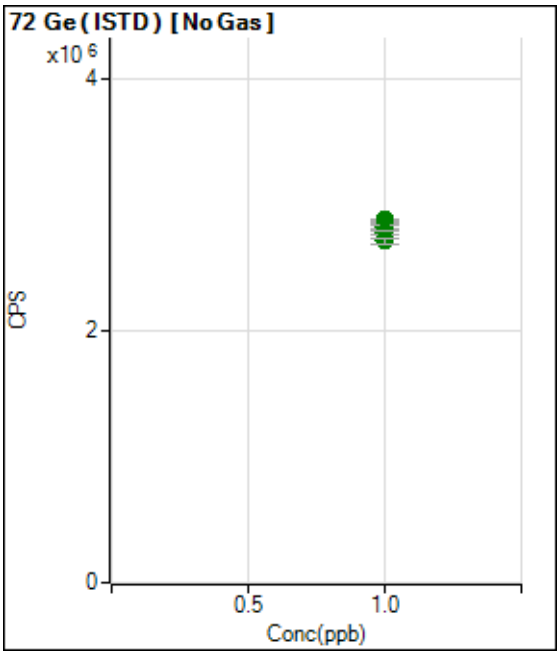
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.67	0.0000	P	48.7
2	☐	2.000	1.950	128149.21	0.0347	P	1.2
3	☐	5.000	4.780	317306.34	0.0850	P	1.1
4	☐	10.000	9.770	644722.57	0.1737	P	1.8
5	☐	100.000	96.995	6304060.33	1.7245	A	0.9
6	☐	200.000	201.520	12728705.23	3.5829	A	3.0

y = 0.0178 * x + 1.2581E-005
R = 0.9998
DL = 0.001035
BEC = 0.0007076

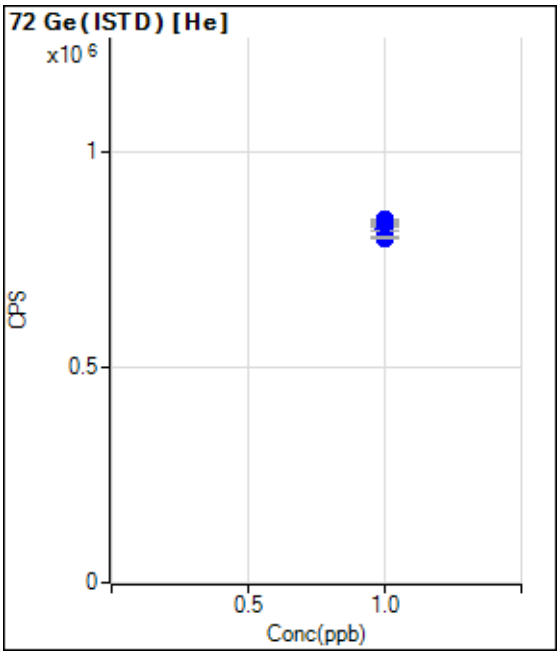
Weight: <None>
Min Conc: <None>



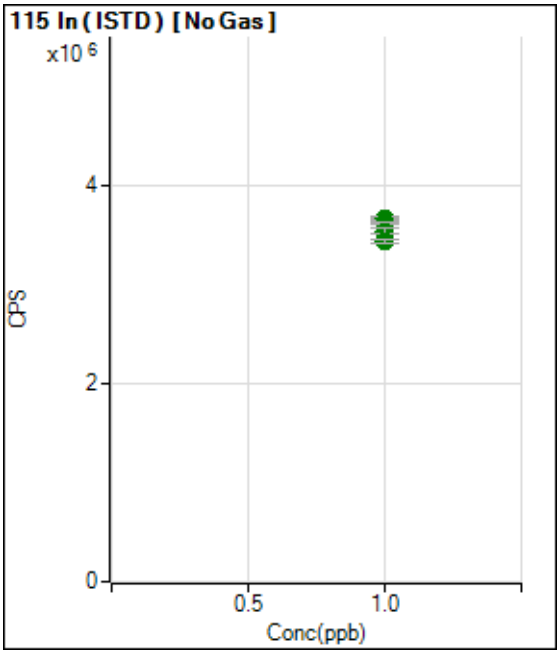
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1051870.23		A	2.6
2	☐	1.000		1037136.66		A	1.5
3	☐	1.000		1033121.52		A	3.6
4	☐	1.000		1001849.52		A	3.1
5	☐	1.000		992073.72		A	2.1
6	☐	1.000		953530.32		A	0.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2863232.04		A	1.0
2	☐	1.000		2883934.44		A	0.3
3	☐	1.000		2850944.44		A	0.1
4	☐	1.000		2827283.19		A	1.4
5	☐	1.000		2783725.69		A	0.7
6	☐	1.000		2714285.48		A	2.1

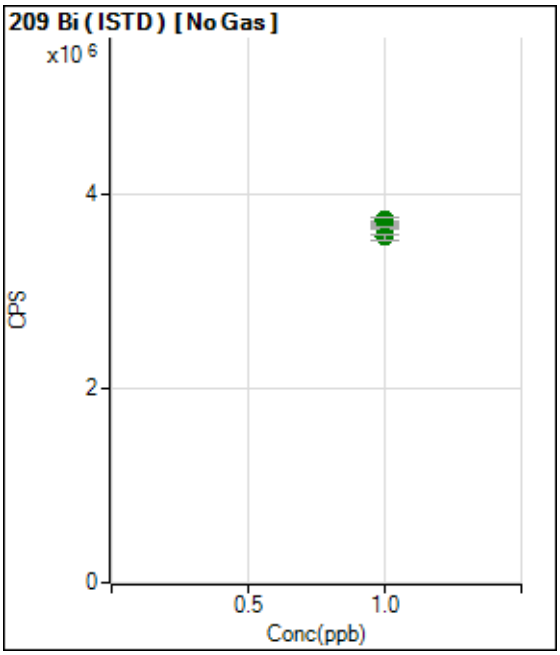


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		843078.01		P	0.4
2	☐	1.000		835187.83		P	0.5
3	☐	1.000		829507.30		P	0.9
4	☐	1.000		822490.77		P	0.9
5	☐	1.000		818695.04		P	0.2
6	☐	1.000		800595.25		P	0.6



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3661099.80		A	0.4
2	☐	1.000		3668720.22		A	1.3
3	☐	1.000		3671599.13		A	1.3
4	☐	1.000		3630609.11		A	0.4
5	☐	1.000		3546483.86		A	1.4
6	☐	1.000		3441296.34		A	0.9

Calibration for 250_ICV.d



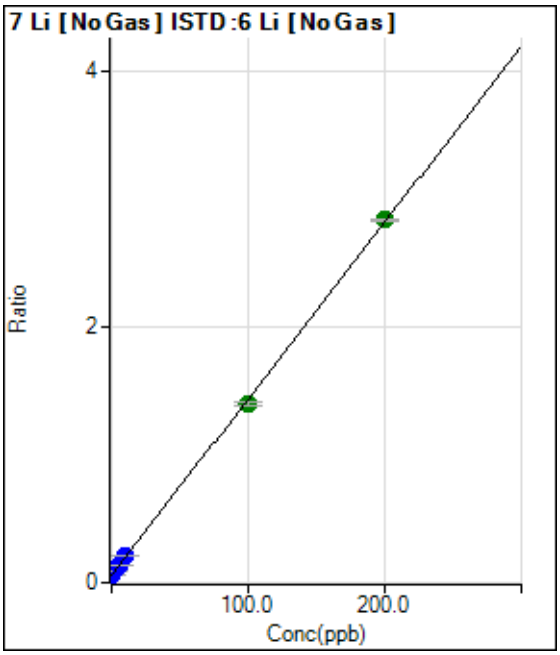
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3693234.01		A	1.5
2	☐	1.000		3695465.15		A	0.5
3	☐	1.000		3733095.36		A	1.2
4	☐	1.000		3712445.05		A	2.3
5	☐	1.000		3655626.09		A	0.3
6	☐	1.000		3553936.62		A	1.9

Calibration for 197_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\060721A.b\
Analysis File: 060721A.batch.bin
DA Date-Time: 6/8/2021 8:07:01 AM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	190CALB.d	CAL BLK	6/7/2021 9:42:35 PM
2	191CALS.d	2/10/200	6/7/2021 9:44:34 PM
3	192CALS.d	5/25/500	6/7/2021 9:46:34 PM
4	193CALS.d	10/50/100	6/7/2021 9:48:33 PM
5	194CALS.d	100/500/10K	6/7/2021 9:50:32 PM
6	195CALS.d	200/1000/20K	6/7/2021 9:52:25 PM

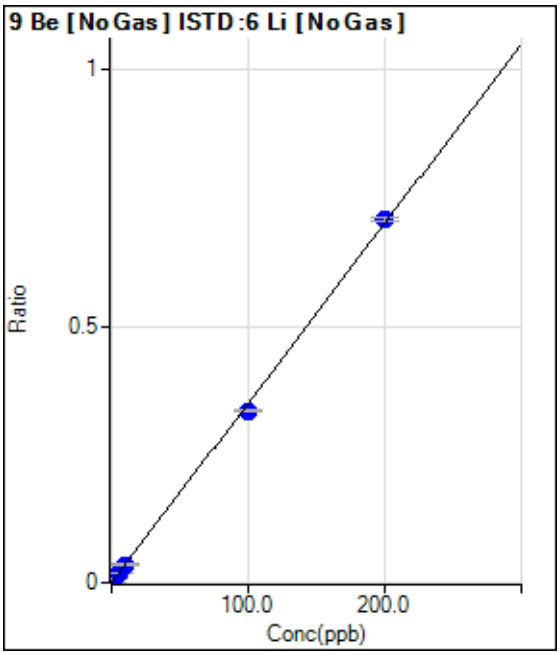
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56611.60	0.0583	P	3.2
2	☐	2.000	2.148	86235.25	0.0879	P	1.7
3	☐	5.000	5.320	129875.86	0.1317	P	2.0
4	☐	10.000	10.909	201028.84	0.2089	P	4.2
5	☐	100.000	96.848	1361698.42	1.3960	A	2.5
6	☐	200.000	201.521	2578738.24	2.8418	A	0.6

y = 0.0138 * x + 0.0583
R = 0.9998
DL = 0.4056
BEC = 4.218

Weight: <None>
Min Conc: <None>

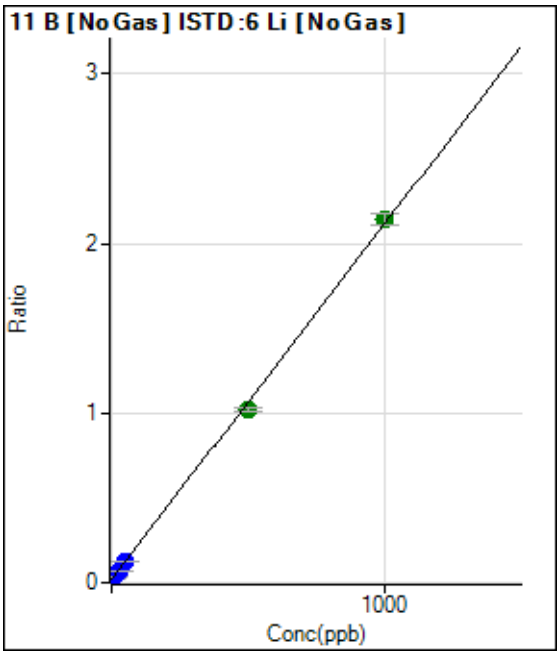


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.67	0.0000	P	64.8
2	☐	2.000	2.015	6931.77	0.0071	P	1.2
3	☐	5.000	5.050	17447.60	0.0177	P	0.8
4	☐	10.000	10.094	33999.41	0.0353	P	5.3
5	☐	100.000	95.721	326905.09	0.3351	P	1.4
6	☐	200.000	202.133	642102.11	0.7076	P	1.0

y = 0.0035 * x + 1.2001E-005
R = 0.9997
DL = 0.006669
BEC = 0.003428

Weight: <None>
Min Conc: <None>

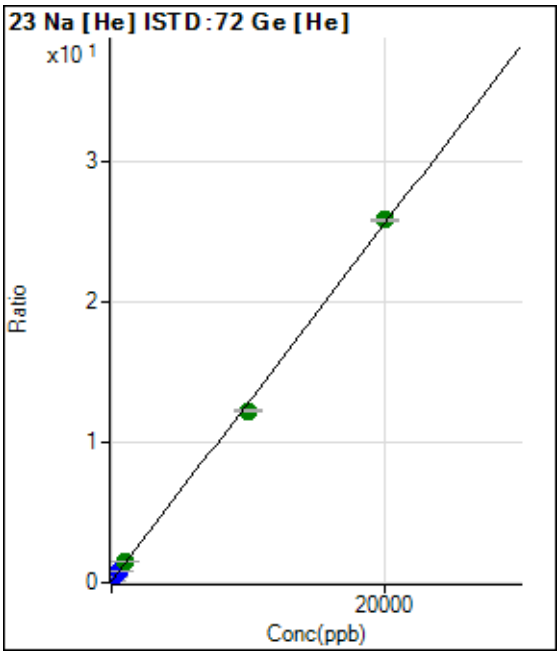
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17854.75	0.0184	P	0.9
2	☐	10.000	9.533	37610.27	0.0383	P	0.9
3	☐	25.000	24.082	67858.02	0.0688	P	2.8
4	☐	50.000	51.342	121174.30	0.1260	P	5.1
5	☐	500.000	476.970	993049.72	1.0180	A	1.9
6	☐	1000.000	1011.475	1939879.03	2.1382	A	3.2

y = 0.0021 * x + 0.0184
R = 0.9996
DL = 0.2275
BEC = 8.765

Weight: <None>
Min Conc: <None>

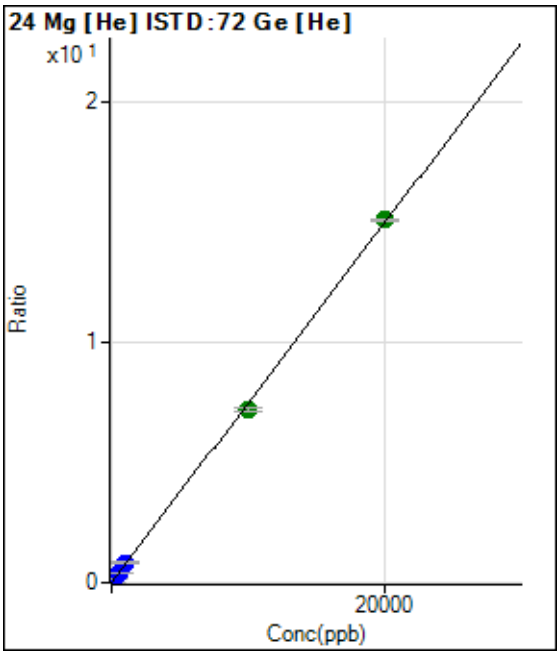


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	81101.37	0.1028	P	0.6
2	☐	200.000	219.974	303481.23	0.3826	P	0.9
3	☐	500.000	536.607	624973.05	0.7855	P	0.3
4	☐	1000.000	1072.078	1161468.34	1.4667	A	1.1
5	☐	10000.00	9534.963	9714023.61	12.2332	A	1.4
6	☐	20000.00	20227.80	19823938.87	25.8367	A	0.6

y = 0.0013 * x + 0.1028
R = 0.9996
DL = 1.343
BEC = 80.79

Weight: <None>
Min Conc: <None>

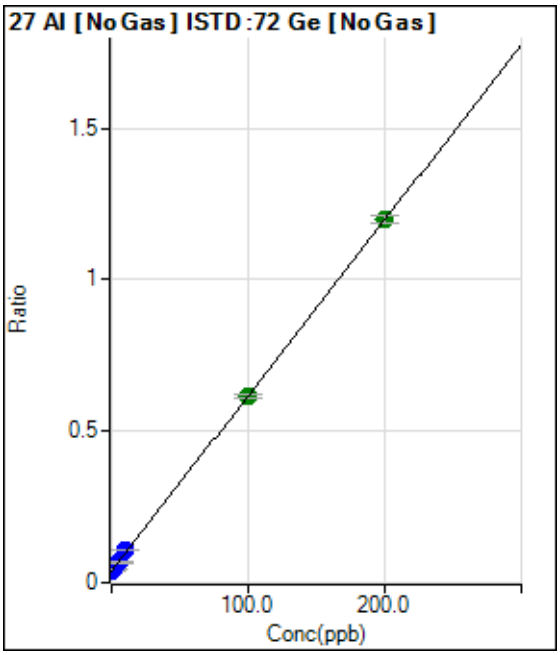
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1643.46	0.0021	P	2.8
2	☐	200.000	227.221	136580.37	0.1722	P	0.8
3	☐	500.000	555.516	332588.78	0.4180	P	1.0
4	☐	1000.000	1116.120	663349.76	0.8377	P	1.3
5	☐	10000.00	9638.039	5731599.50	7.2178	A	1.7
6	☐	20000.00	20173.51	11590235.66	15.1055	A	0.6

y = 7.4867E-004 * x + 0.0021
R = 0.9997
DL = 0.2298
BEC = 2.782

Weight: <None>
Min Conc: <None>

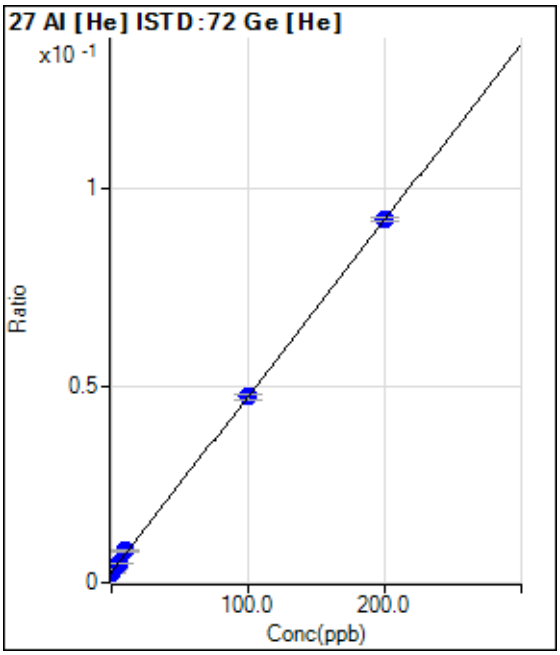


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	104749.54	0.0387	P	1.1
2	☐	2.000	1.267	125387.40	0.0460	P	2.0
3	☐	5.000	4.949	180381.61	0.0673	P	2.5
4	☐	10.000	11.701	284973.47	0.1064	P	2.2
5	☐	100.000	99.477	1657909.71	0.6147	A	2.2
6	☐	200.000	200.185	3141579.33	1.1978	A	2.2

y = 0.0058 * x + 0.0387
R = 0.9999
DL = 0.2124
BEC = 6.68

Weight: <None>
Min Conc: <None>

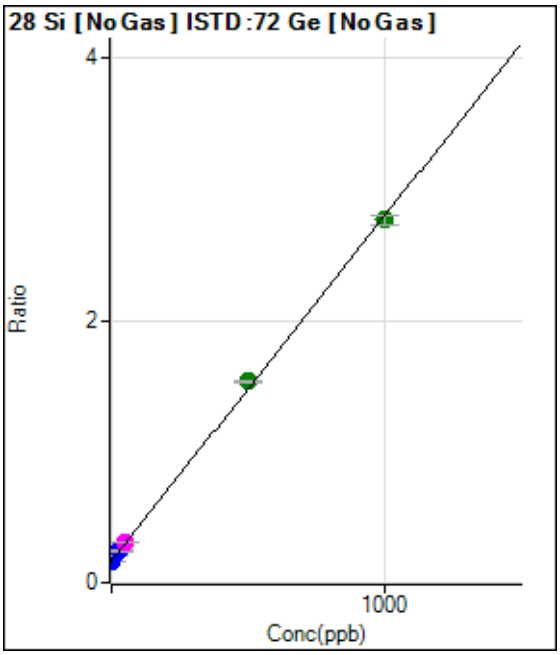
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2093.54	0.0027	P	17.4
2	☐	2.000	2.207	2887.02	0.0036	P	7.1
3	☐	5.000	5.165	3947.31	0.0050	P	1.4
4	☐	10.000	12.301	6451.60	0.0081	P	4.6
5	☐	100.000	99.490	37407.34	0.0471	P	2.3
6	☐	200.000	200.134	70652.45	0.0921	P	1.0

y = 4.4682E-004 * x + 0.0027
R = 0.9999
DL = 3.104
BEC = 5.938

Weight: <None>
Min Conc: <None>

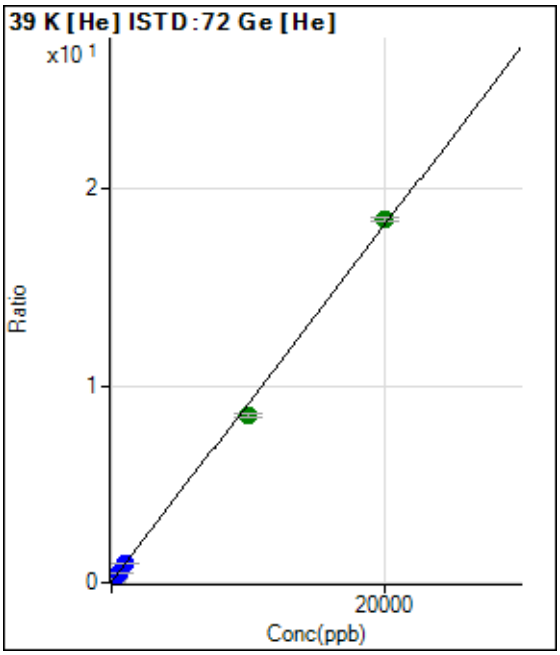


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	447886.92	0.1654	P	2.2
2	☐	10.000	15.534	561964.64	0.2062	P	2.4
3	☐	25.000	29.545	651212.06	0.2431	P	2.3
4	☐	50.000	55.160	831212.31	0.3104	M	2.6
5	☐	500.000	521.457	4145005.98	1.5366	A	1.1
6	☐	1000.000	988.844	7253784.48	2.7656	A	2.5

y = 0.0026 * x + 0.1654
R = 0.9997
DL = 4.116
BEC = 62.9

Weight: <None>
Min Conc: <None>

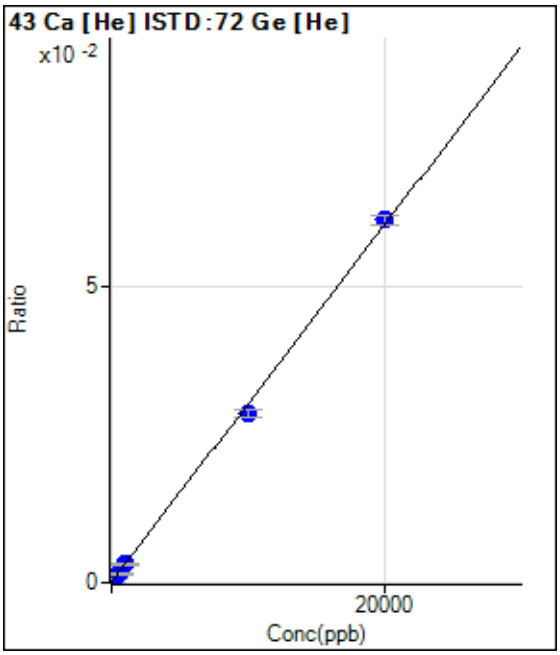
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38269.87	0.0485	P	2.8
2	☐	200.000	214.834	192538.77	0.2428	P	1.5
3	☐	500.000	522.689	414639.31	0.5211	P	1.6
4	☐	1000.000	1058.274	796174.28	1.0054	P	1.3
5	☐	10000.00	9382.359	6774967.40	8.5323	A	2.3
6	☐	20000.00	20305.19	14124221.87	18.4090	A	1.0

y = 9.0423E-004 * x + 0.0485
R = 0.9993
DL = 4.518
BEC = 53.63

Weight: <None>
Min Conc: <None>

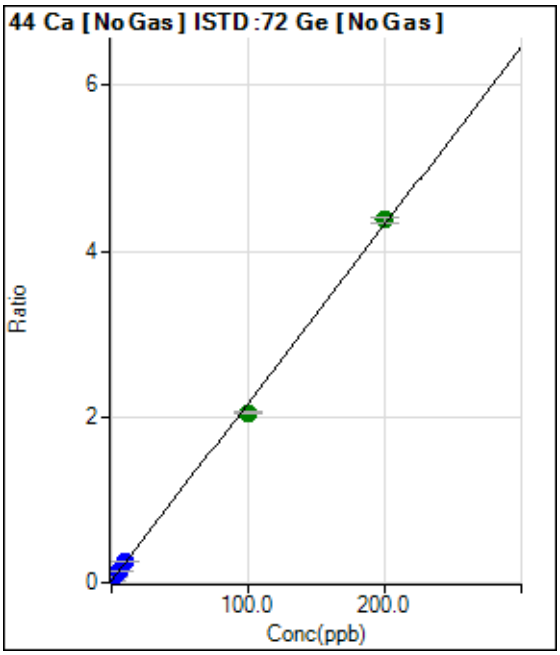


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0001	P	25.0
2	☐	200.000	191.044	536.69	0.0007	P	16.5
3	☐	500.000	454.242	1170.07	0.0015	P	7.2
4	☐	1000.000	999.053	2463.61	0.0031	P	6.0
5	☐	10000.00	9424.838	22628.90	0.0285	P	3.9
6	☐	20000.00	20288.86	46983.85	0.0612	P	2.4

y = 3.0134E-006 * x + 1.0138E-004
R = 0.9994
DL = 25.25
BEC = 33.64

Weight: <None>
Min Conc: <None>

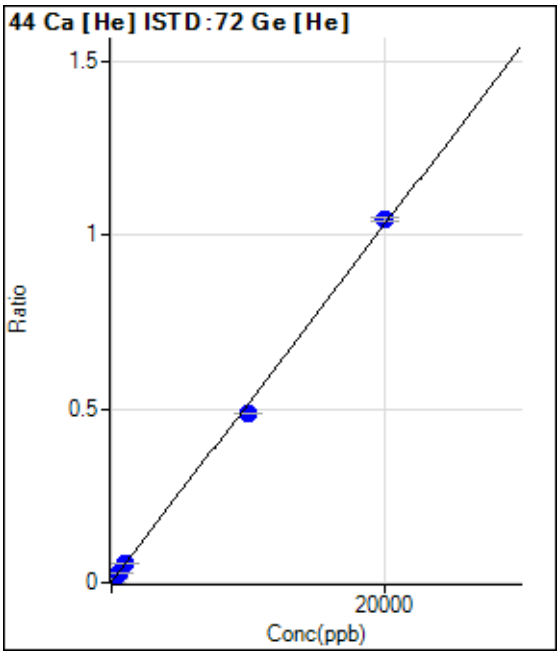
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	59287.67	0.0219	P	2.8
2	☐	2.000	2.055	179926.79	0.0660	P	1.5
3	☐	5.000	5.364	367243.64	0.1371	P	2.1
4	☐	10.000	10.795	679312.10	0.2537	P	1.9
5	☐	100.000	94.266	5519235.75	2.0461	A	1.2
6	☐	200.000	202.817	11481061.50	4.3770	A	1.5

y = 0.0215 * x + 0.0219
R = 0.9994
DL = 0.085
BEC = 1.02

Weight: <None>
Min Conc: <None>

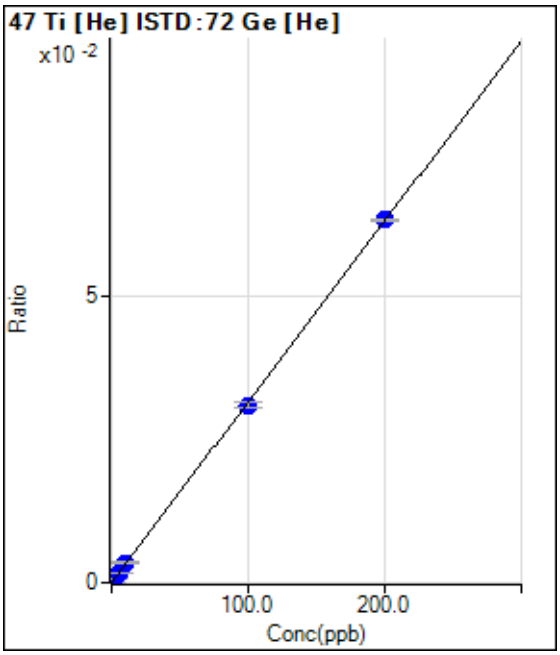


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1306.75	0.0017	P	3.1
2	☐	200.000	199.724	9450.10	0.0119	P	2.8
3	☐	500.000	505.803	21987.85	0.0276	P	1.7
4	☐	1000.000	1035.663	43425.52	0.0548	P	2.6
5	☐	10000.00	9443.055	386425.92	0.4866	P	1.0
6	☐	20000.00	20276.54	800216.55	1.0430	P	1.1

y = 5.1356E-005 * x + 0.0017
R = 0.9994
DL = 3.014
BEC = 32.25

Weight: <None>
Min Conc: <None>

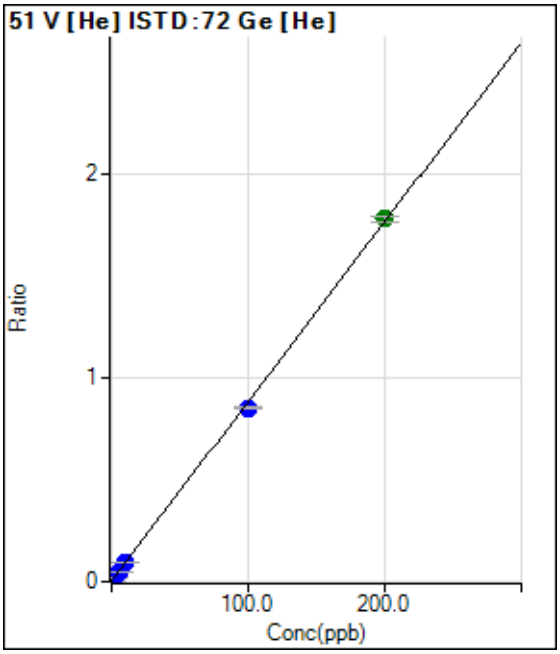
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	91.7
2	☐	2.000	1.853	480.02	0.0006	P	5.0
3	☐	5.000	5.477	1390.10	0.0017	P	8.3
4	☐	10.000	10.877	2730.32	0.0034	P	4.6
5	☐	100.000	98.279	24602.36	0.0310	P	3.8
6	☐	200.000	200.806	48559.31	0.0633	P	0.2

y = 3.1506E-004 * x + 2.1121E-005
R = 0.9999
DL = 0.1843
BEC = 0.06704

Weight: <None>
Min Conc: <None>

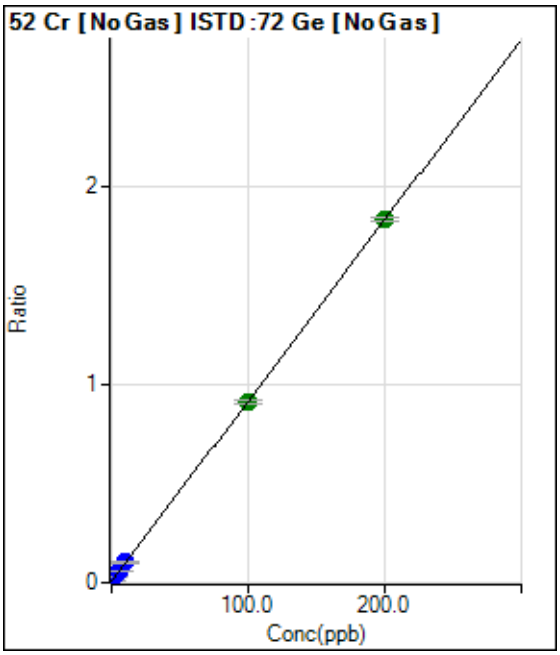


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2556.92	0.0032	P	3.3
2	☐	2.000	2.040	16803.68	0.0212	P	0.9
3	☐	5.000	4.949	37224.86	0.0468	P	1.1
4	☐	10.000	10.120	73066.65	0.0923	P	2.1
5	☐	100.000	96.427	676253.10	0.8516	P	1.0
6	☐	200.000	201.781	1364758.66	1.7785	A	1.5

y = 0.0088 * x + 0.0032
R = 0.9998
DL = 0.03622
BEC = 0.3683

Weight: <None>
Min Conc: <None>

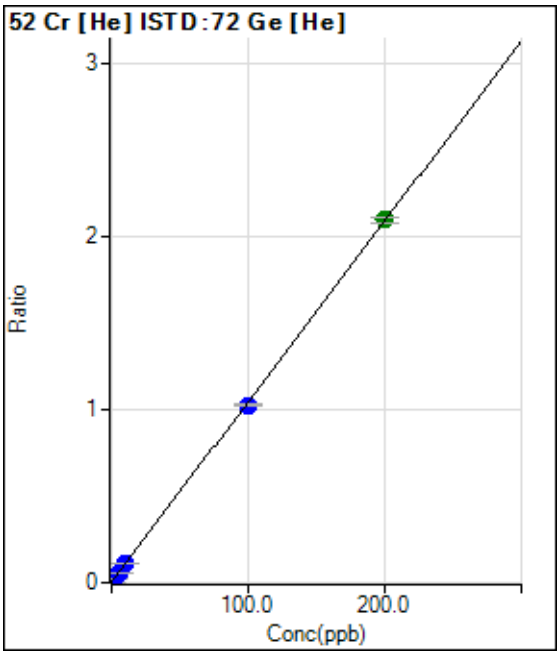
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16550.26	0.0061	P	2.9
2	☐	2.000	2.138	69767.63	0.0256	P	2.0
3	☐	5.000	5.300	145827.21	0.0544	P	2.4
4	☐	10.000	10.630	275878.18	0.1030	P	2.2
5	☐	100.000	99.403	2461146.47	0.9124	A	2.1
6	☐	200.000	200.258	4805858.26	1.8320	A	0.9

y = 0.0091 * x + 0.0061
R = 1.0000
DL = 0.05828
BEC = 0.6702

Weight: <None>
Min Conc: <None>

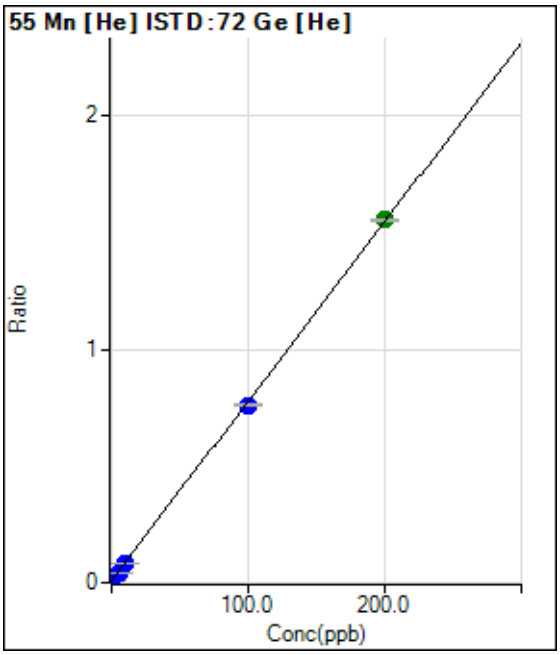


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1713.47	0.0022	P	4.7
2	☐	2.000	2.091	19003.50	0.0240	P	3.2
3	☐	5.000	5.140	44332.09	0.0557	P	2.7
4	☐	10.000	10.210	85951.91	0.1085	P	2.2
5	☐	100.000	98.194	814102.04	1.0252	P	1.2
6	☐	200.000	200.888	1607738.00	2.0951	A	1.7

y = 0.0104 * x + 0.0022
R = 0.9999
DL = 0.02948
BEC = 0.2084

Weight: <None>
Min Conc: <None>

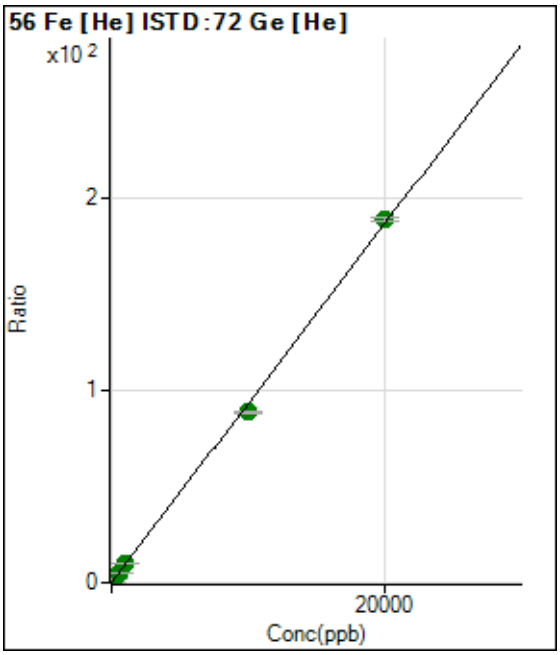
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7442.14	0.0094	P	3.7
2	☐	2.000	1.918	19160.36	0.0242	P	2.7
3	☐	5.000	4.443	34651.03	0.0435	P	1.1
4	☐	10.000	9.188	63339.75	0.0800	P	1.1
5	☐	100.000	97.737	603465.11	0.7600	P	1.6
6	☐	200.000	201.187	1192679.72	1.5544	A	0.8

y = 0.0077 * x + 0.0094
R = 0.9999
DL = 0.1381
BEC = 1.228

Weight: <None>
Min Conc: <None>

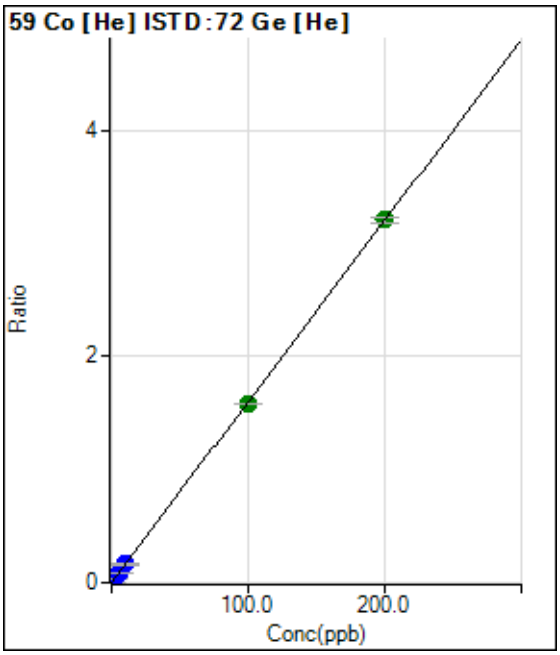


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	21113.39	0.0268	P	1.6
2	☐	200.000	219.940	1648832.84	2.0787	A	0.8
3	☐	500.000	530.658	3960702.54	4.9776	A	0.6
4	☐	1000.000	1050.095	7778774.26	9.8238	A	2.1
5	☐	10000.00	9523.129	70573377.28	88.8741	A	1.3
6	☐	20000.00	20234.96	144879694.5	188.811	A	1.1

y = 0.0093 * x + 0.0268
R = 0.9996
DL = 0.1355
BEC = 2.868

Weight: <None>
Min Conc: <None>

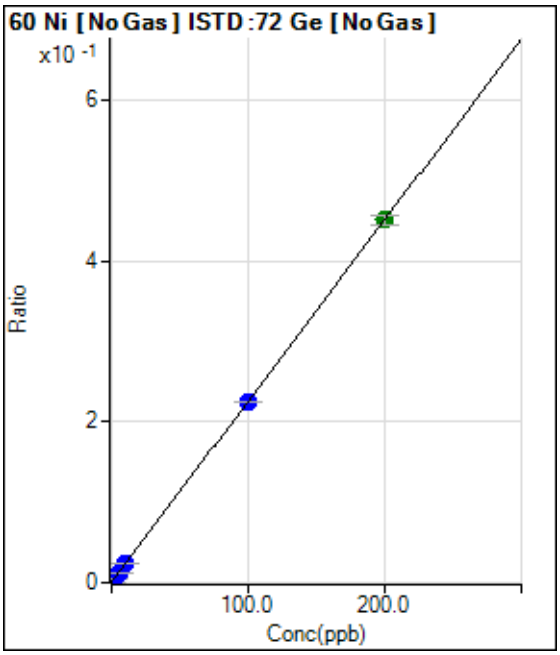
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.67	0.0001	P	12.4
2	☐	2.000	2.052	26075.22	0.0329	P	1.5
3	☐	5.000	5.056	64395.59	0.0809	P	1.6
4	☐	10.000	10.128	128312.60	0.1620	P	2.1
5	☐	100.000	99.028	1257785.01	1.5839	A	0.5
6	☐	200.000	200.478	2460316.37	3.2064	A	1.6

y = 0.0160 * x + 5.9139E-005
R = 1.0000
DL = 0.001372
BEC = 0.003698

Weight: <None>
Min Conc: <None>

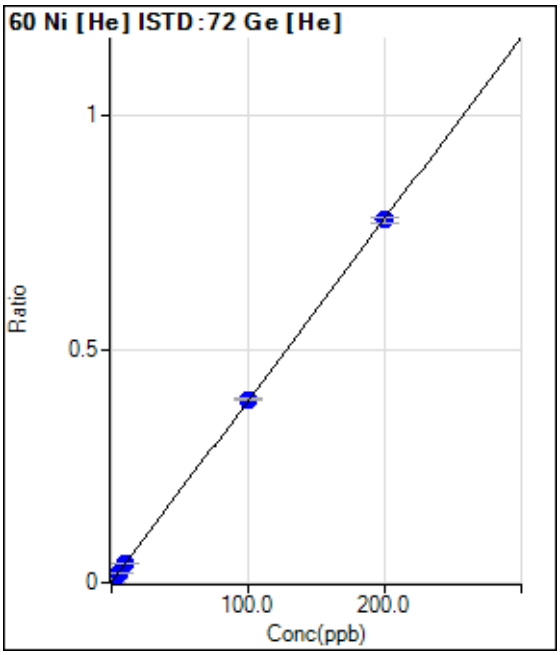


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1670.13	0.0006	P	6.0
2	☐	2.000	2.034	14150.89	0.0052	P	4.3
3	☐	5.000	5.085	32318.61	0.0121	P	1.1
4	☐	10.000	10.539	65169.16	0.0243	P	1.2
5	☐	100.000	99.604	606397.43	0.2248	P	1.0
6	☐	200.000	200.168	1183259.64	0.4511	A	2.4

y = 0.0023 * x + 6.1631E-004
R = 1.0000
DL = 0.04925
BEC = 0.2738

Weight: <None>
Min Conc: <None>

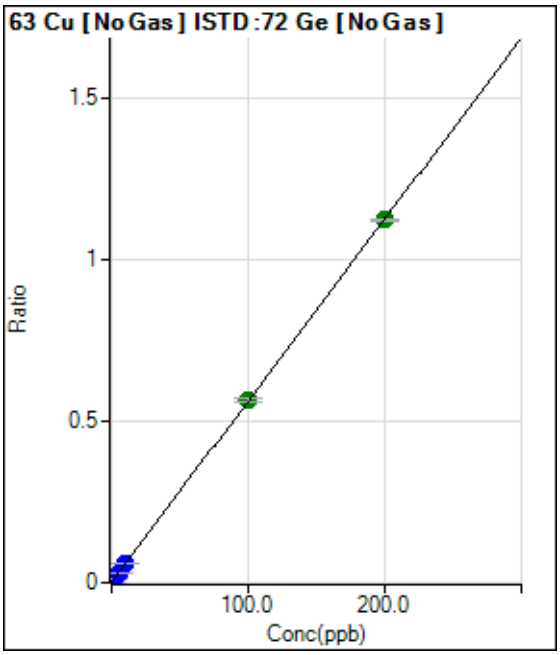
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	793.38	0.0010	P	23.1
2	☐	2.000	2.209	7608.90	0.0096	P	3.7
3	☐	5.000	5.185	16837.33	0.0212	P	5.1
4	☐	10.000	10.736	33845.62	0.0427	P	1.5
5	☐	100.000	100.864	312171.84	0.3931	P	0.5
6	☐	200.000	199.524	595881.97	0.7766	P	1.3

y = 0.0039 * x + 0.0010
R = 1.0000
DL = 0.1792
BEC = 0.2586

Weight: <None>
Min Conc: <None>

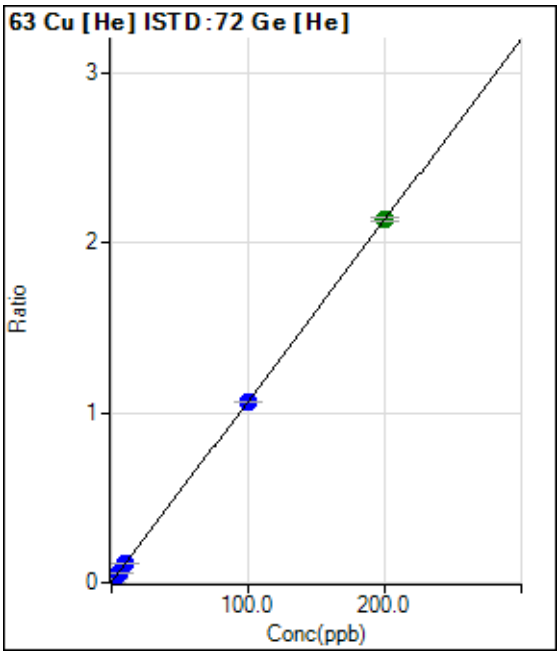


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3217.11	0.0012	P	4.6
2	☐	2.000	2.110	35520.14	0.0130	P	4.1
3	☐	5.000	5.298	82881.74	0.0309	P	3.1
4	☐	10.000	10.651	163348.54	0.0610	P	2.1
5	☐	100.000	100.364	1523837.32	0.5648	A	1.6
6	☐	200.000	199.777	2946485.89	1.1231	A	0.7

y = 0.0056 * x + 0.0012
R = 1.0000
DL = 0.02903
BEC = 0.2115

Weight: <None>
Min Conc: <None>

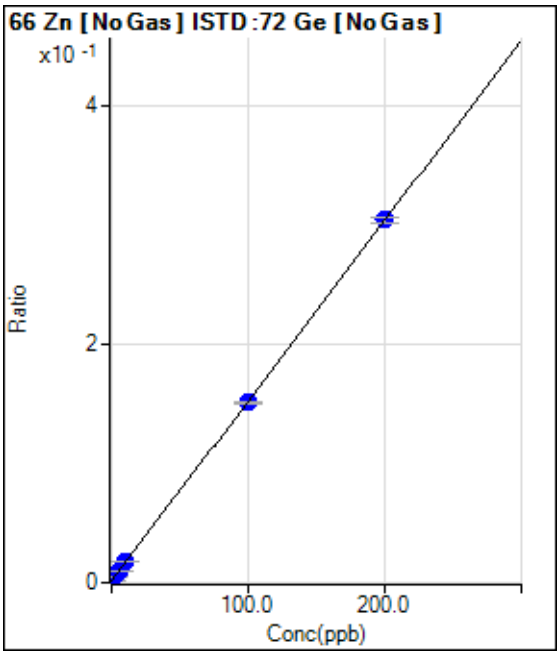
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1623.46	0.0021	P	7.8
2	☐	2.000	2.135	19681.15	0.0248	P	2.8
3	☐	5.000	5.267	46319.33	0.0582	P	1.5
4	☐	10.000	10.368	89178.32	0.1126	P	0.5
5	☐	100.000	99.776	846412.23	1.0658	P	0.4
6	☐	200.000	200.086	1638315.76	2.1353	A	1.0

y = 0.0107 * x + 0.0021
R = 1.0000
DL = 0.04498
BEC = 0.193

Weight: <None>
Min Conc: <None>

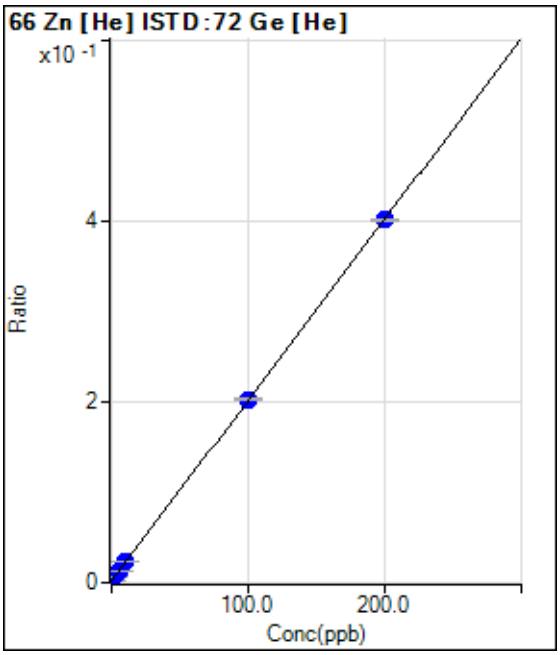


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3787.26	0.0014	P	5.8
2	☐	2.000	2.626	14638.11	0.0054	P	3.8
3	☐	5.000	5.298	25233.72	0.0094	P	0.6
4	☐	10.000	10.783	47432.77	0.0177	P	2.7
5	☐	100.000	99.078	408194.88	0.1513	P	1.7
6	☐	200.000	200.408	799158.27	0.3047	P	1.7

y = 0.0015 * x + 0.0014
R = 1.0000
DL = 0.1621
BEC = 0.9242

Weight: <None>
Min Conc: <None>

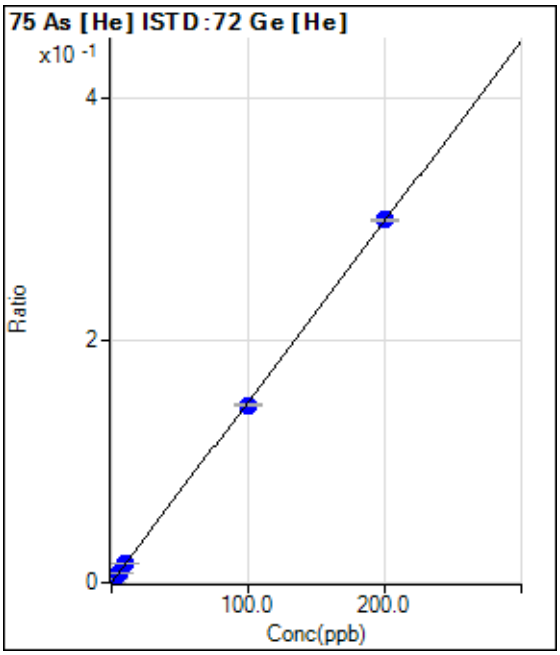
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1606.79	0.0020	P	9.8
2	☐	2.000	2.551	5657.94	0.0071	P	6.8
3	☐	5.000	5.223	9927.15	0.0125	P	3.6
4	☐	10.000	10.700	18549.73	0.0234	P	1.6
5	☐	100.000	100.475	161095.08	0.2029	P	1.8
6	☐	200.000	199.716	307881.75	0.4013	P	0.3

y = 0.0020 * x + 0.0020
R = 1.0000
DL = 0.2982
BEC = 1.019

Weight: <None>
Min Conc: <None>

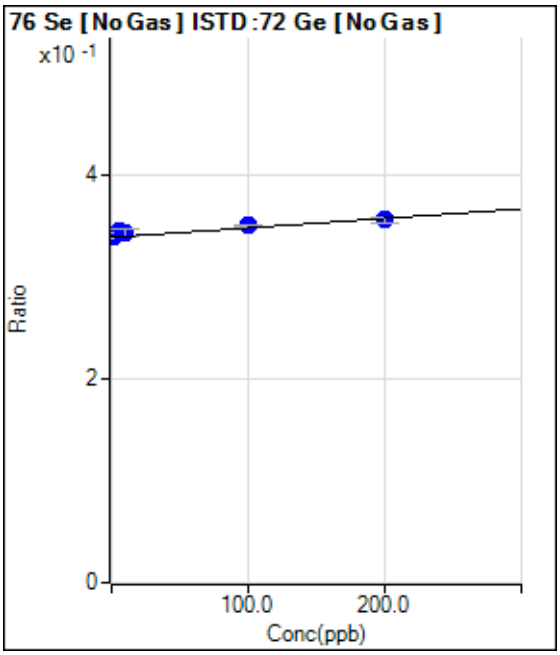


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	173.34	0.0002	P	5.1
2	☐	2.000	2.101	2660.28	0.0034	P	1.4
3	☐	5.000	4.910	6003.59	0.0075	P	1.9
4	☐	10.000	10.418	12485.82	0.0158	P	1.8
5	☐	100.000	98.320	116658.18	0.1469	P	1.2
6	☐	200.000	200.820	230052.05	0.2998	P	0.6

y = 0.0015 * x + 2.1966E-004
R = 0.9999
DL = 0.02242
BEC = 0.1472

Weight: <None>
Min Conc: <None>

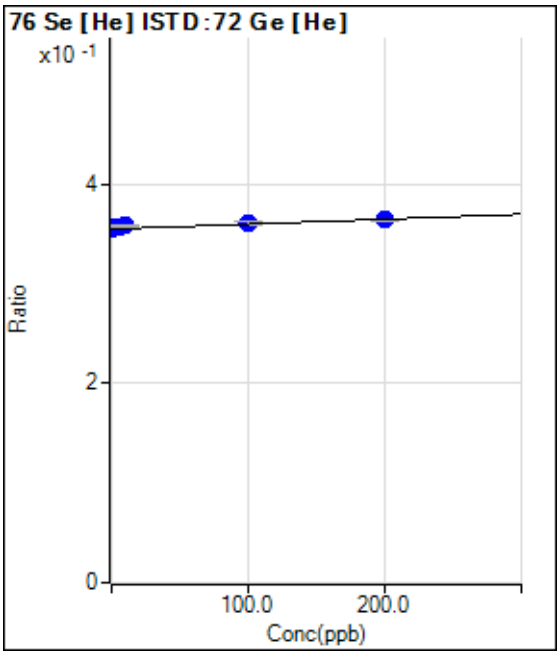
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	917081.36	0.3386	P	1.3
2	☐	2.000	2.554	923452.23	0.3389	P	1.3
3	☐	5.000	71.522	925231.50	0.3453	P	0.9
4	☐	10.000	55.110	920428.21	0.3438	P	2.2
5	☐	100.000	125.045	944916.73	0.3503	P	0.7
6	☐	200.000	183.554	933074.13	0.3557	P	1.5

y = 9.3105E-005 * x + 0.3386
R = 0.9246
DL = 143.2
BEC = 3637

Weight: <None>
Min Conc: <None>

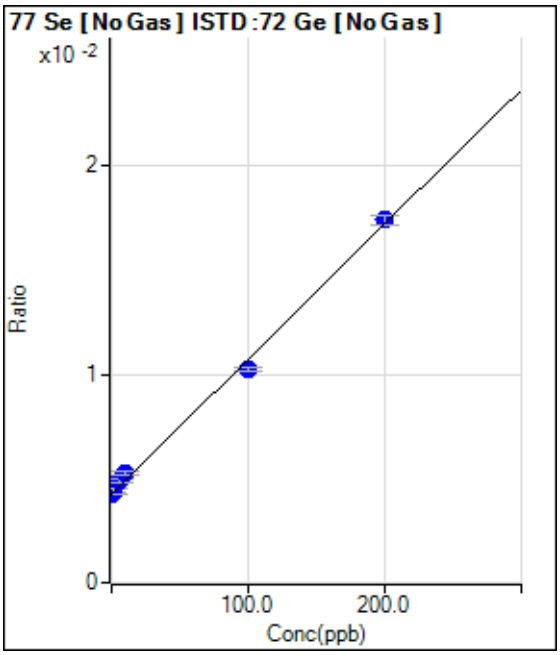


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	279949.40	0.3548	P	0.4
2	☐	2.000	43.802	283108.83	0.3569	P	1.2
3	☐	5.000	23.917	283236.84	0.3560	P	0.4
4	☐	10.000	69.865	283699.61	0.3582	P	0.7
5	☐	100.000	123.741	286600.68	0.3609	P	1.4
6	☐	200.000	184.245	279240.00	0.3639	P	0.2

y = 4.9710E-005 * x + 0.3548
R = 0.9485
DL = 88.29
BEC = 7137

Weight: <None>
Min Conc: <None>

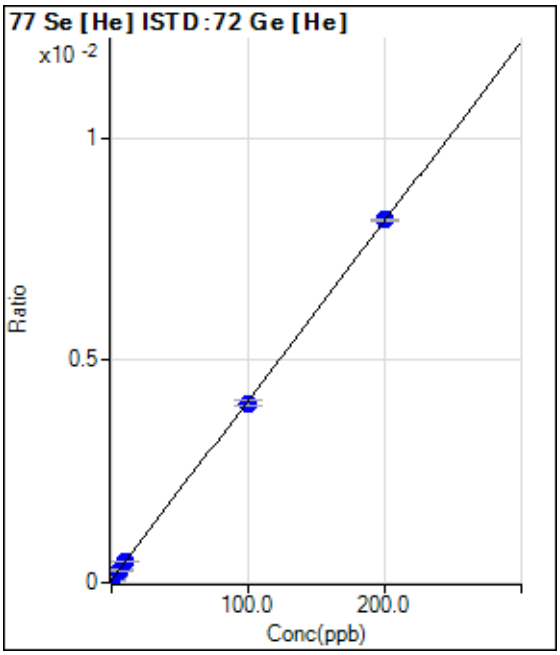
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11565.17	0.0043	P	2.0
2	☐	2.000	1.416	11882.12	0.0044	P	5.7
3	☐	5.000	9.760	13129.93	0.0049	P	3.3
4	☐	10.000	15.376	14094.28	0.0053	P	3.4
5	☐	100.000	92.810	27708.84	0.0103	P	1.9
6	☐	200.000	203.213	45661.07	0.0174	P	2.9

y = 6.4648E-005 * x + 0.0043
R = 0.9984
DL = 3.974
BEC = 66.06

Weight: <None>
Min Conc: <None>

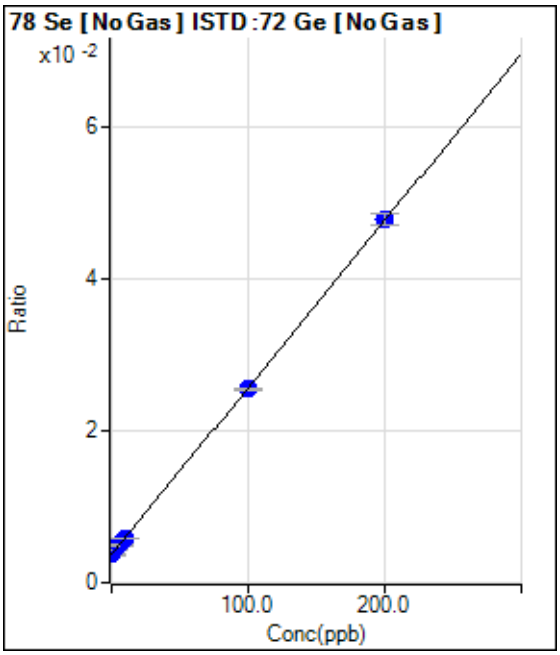


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0001	P	34.6
2	☐	2.000	2.183	120.00	0.0002	P	22.3
3	☐	5.000	5.396	223.34	0.0003	P	27.8
4	☐	10.000	10.327	380.01	0.0005	P	6.3
5	☐	100.000	98.494	3203.77	0.0040	P	2.7
6	☐	200.000	200.725	6258.21	0.0082	P	0.2

y = 4.0318E-005 * x + 6.3360E-005
R = 1.0000
DL = 1.632
BEC = 1.572

Weight: <None>
Min Conc: <None>

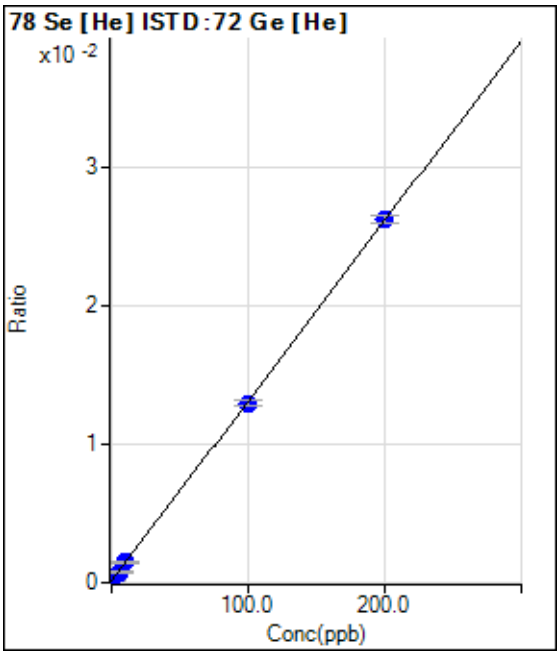
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10080.63	0.0037	P	2.5
2	☐	2.000	2.277	11508.41	0.0042	P	0.4
3	☐	5.000	5.600	13270.07	0.0050	P	3.5
4	☐	10.000	10.042	15886.27	0.0059	P	0.9
5	☐	100.000	98.973	68798.89	0.0255	P	1.3
6	☐	200.000	200.493	125493.51	0.0478	P	3.2

y = 2.2010E-004 * x + 0.0037
R = 1.0000
DL = 1.245
BEC = 16.91

Weight: <None>
Min Conc: <None>

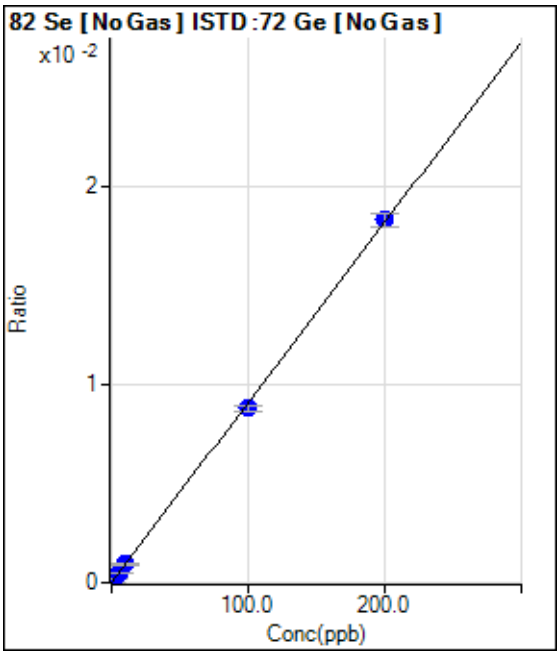


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	97.33	0.0001	P	18.4
2	☐	2.000	2.160	320.67	0.0004	P	2.5
3	☐	5.000	4.898	604.68	0.0008	P	6.8
4	☐	10.000	10.311	1158.72	0.0015	P	8.9
5	☐	100.000	98.844	10302.62	0.0130	P	2.6
6	☐	200.000	200.563	20101.64	0.0262	P	2.3

y = 1.3002E-004 * x + 1.2334E-004
R = 1.0000
DL = 0.5234
BEC = 0.9487

Weight: <None>
Min Conc: <None>

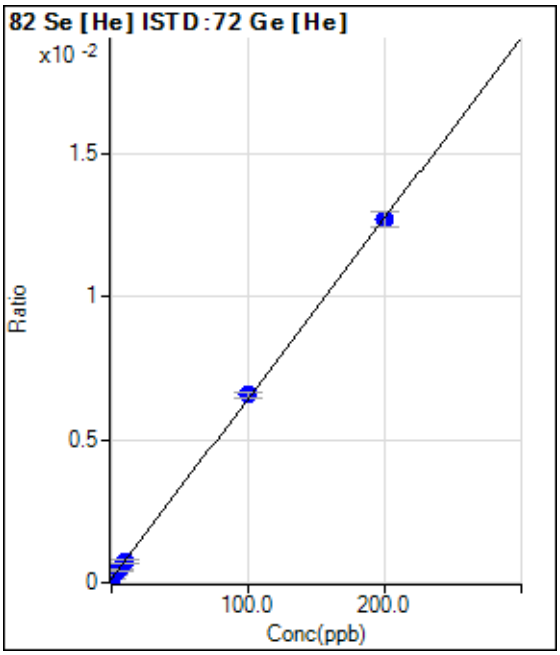
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-121.81	0.0000	P	-57.4
2	☐	2.000	1.737	308.01	0.0001	P	18.3
3	☐	5.000	5.169	1140.94	0.0004	P	3.7
4	☐	10.000	10.232	2372.28	0.0009	P	8.9
5	☐	100.000	96.668	23629.96	0.0088	P	2.6
6	☐	200.000	201.653	48052.91	0.0183	P	3.6

y = 9.1086E-005 * x - 4.5181E-005
R = 0.9998
DL = 0.8548
BEC = -0.496

Weight: <None>
Min Conc: <None>

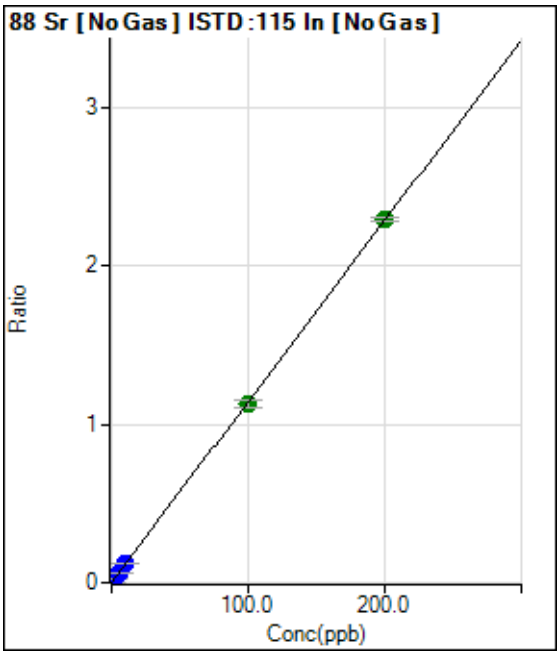


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0001	P	10.2
2	☐	2.000	2.126	220.01	0.0003	P	21.1
3	☐	5.000	4.706	350.01	0.0004	P	16.0
4	☐	10.000	9.494	586.69	0.0007	P	14.0
5	☐	100.000	101.963	5211.11	0.0066	P	3.4
6	☐	200.000	199.050	9723.65	0.0127	P	4.1

y = 6.2962E-005 * x + 1.4363E-004
R = 0.9999
DL = 0.6987
BEC = 2.281

Weight: <None>
Min Conc: <None>

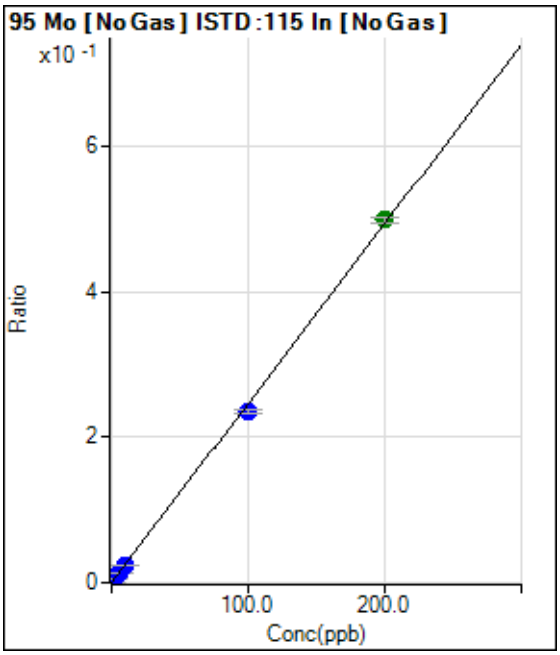
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3330.48	0.0010	P	11.7
2	☐	2.000	2.071	83365.71	0.0246	P	0.4
3	☐	5.000	5.096	202199.26	0.0591	P	2.6
4	☐	10.000	10.471	403922.78	0.1204	P	1.3
5	☐	100.000	98.796	3816929.73	1.1274	A	3.4
6	☐	200.000	200.575	7394420.51	2.2878	A	1.2

y = 0.0114 * x + 9.9442E-004
R = 1.0000
DL = 0.03072
BEC = 0.08722

Weight: <None>
Min Conc: <None>

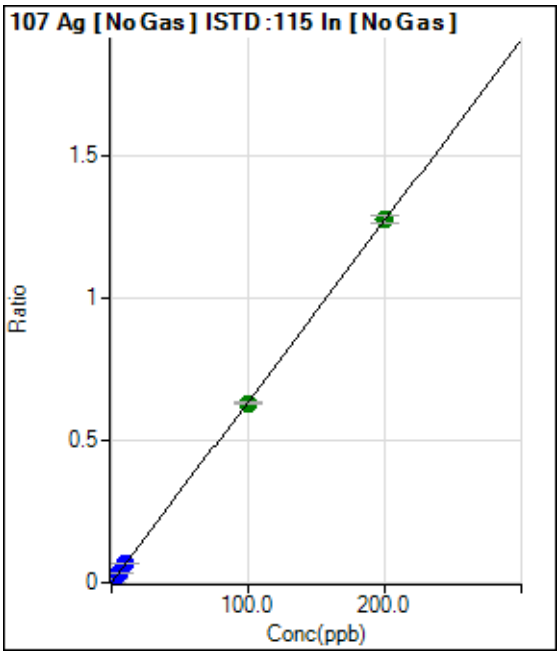


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	200.01	0.0001	P	45.9
2	☐	2.000	1.992	16814.18	0.0050	P	4.1
3	☐	5.000	4.970	42103.44	0.0123	P	1.5
4	☐	10.000	10.029	83075.29	0.0248	P	2.0
5	☐	100.000	95.345	795371.58	0.2349	P	2.8
6	☐	200.000	202.327	1610988.31	0.4984	A	1.5

y = 0.0025 * x + 5.9915E-005
R = 0.9996
DL = 0.0335
BEC = 0.02432

Weight: <None>
Min Conc: <None>

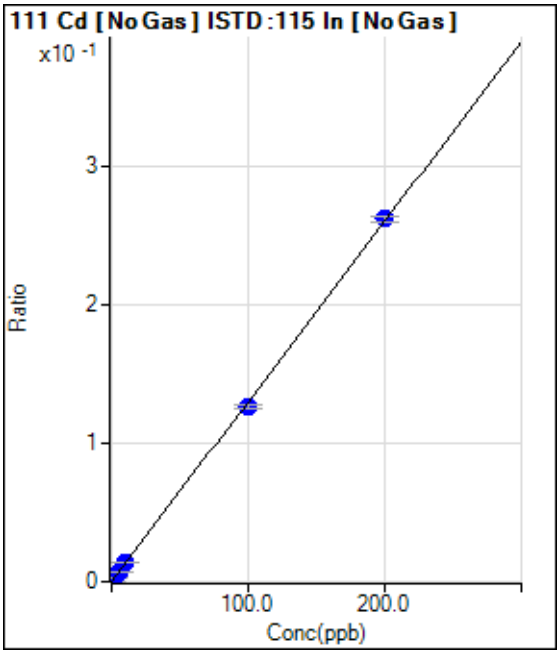
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	463.35	0.0001	P	23.9
2	☐	2.000	2.128	46381.61	0.0137	P	0.9
3	☐	5.000	5.093	111513.78	0.0326	P	0.8
4	☐	10.000	10.522	225349.96	0.0672	P	1.9
5	☐	100.000	99.016	2136661.42	0.6309	A	1.2
6	☐	200.000	200.462	4127751.50	1.2772	A	2.1

y = 0.0064 * x + 1.3864E-004
R = 1.0000
DL = 0.01559
BEC = 0.02176

Weight: <None>
Min Conc: <None>

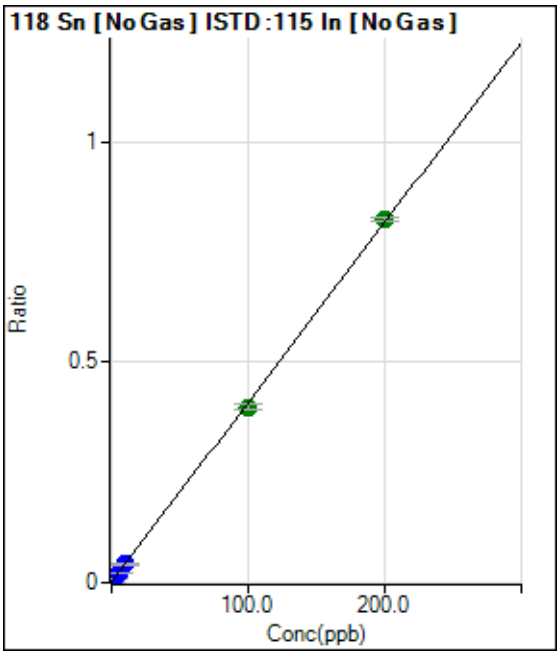


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	86.6
2	☐	2.000	2.054	9043.25	0.0027	P	3.0
3	☐	5.000	5.052	22459.35	0.0066	P	2.2
4	☐	10.000	10.410	45374.98	0.0135	P	0.6
5	☐	100.000	96.836	425879.52	0.1258	P	2.2
6	☐	200.000	201.559	846074.78	0.2618	P	1.5

y = 0.0013 * x + 2.0025E-006
R = 0.9998
DL = 0.004006
BEC = 0.001542

Weight: <None>
Min Conc: <None>

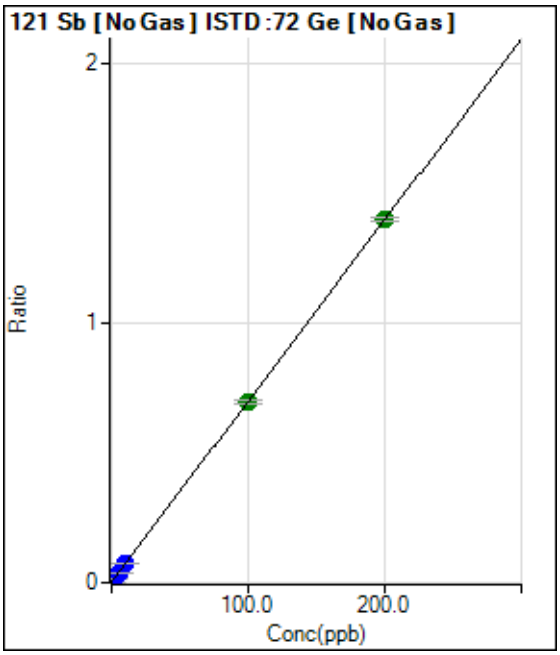
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4090.70	0.0012	P	5.3
2	☐	2.000	1.933	30846.60	0.0091	P	0.6
3	☐	5.000	4.770	70753.70	0.0207	P	2.7
4	☐	10.000	9.923	139865.58	0.0417	P	2.6
5	☐	100.000	97.104	1344851.96	0.3972	A	3.4
6	☐	200.000	201.459	2659382.36	0.8228	A	1.1

y = 0.0041 * x + 0.0012
R = 0.9999
DL = 0.04727
BEC = 0.2999

Weight: <None>
Min Conc: <None>

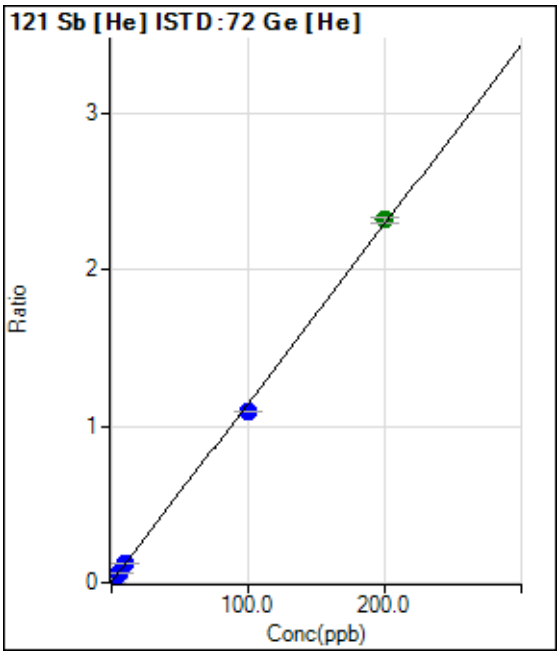


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4584.21	0.0017	P	4.7
2	☐	2.000	2.036	43291.80	0.0159	P	3.8
3	☐	5.000	5.117	100116.57	0.0374	P	2.8
4	☐	10.000	10.227	195460.01	0.0730	P	1.9
5	☐	100.000	99.636	1878312.42	0.6964	A	2.6
6	☐	200.000	200.167	3665479.95	1.3974	A	1.1

y = 0.0070 * x + 0.0017
R = 1.0000
DL = 0.03426
BEC = 0.2428

Weight: <None>
Min Conc: <None>

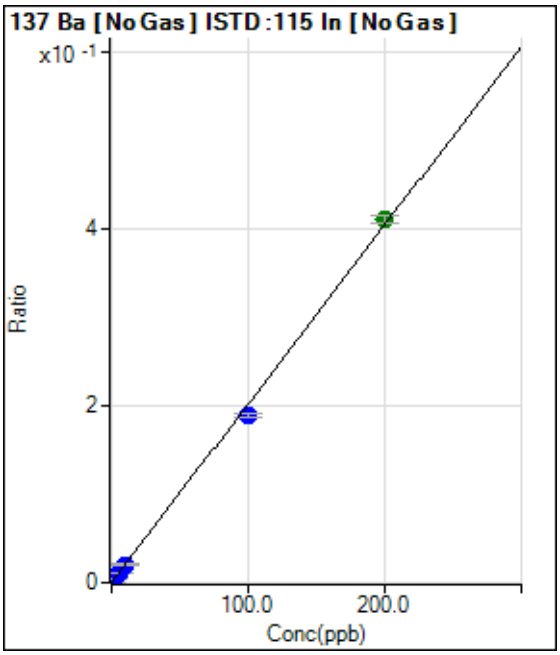
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2076.87	0.0026	P	7.8
2	☐	2.000	2.028	20466.31	0.0258	P	2.4
3	☐	5.000	4.923	46860.75	0.0589	P	1.4
4	☐	10.000	10.077	93287.05	0.1178	P	1.9
5	☐	100.000	95.141	865512.33	1.0899	P	0.3
6	☐	200.000	202.427	1776881.17	2.3159	A	1.4

y = 0.0114 * x + 0.0026
R = 0.9996
DL = 0.05365
BEC = 0.2303

Weight: <None>
Min Conc: <None>

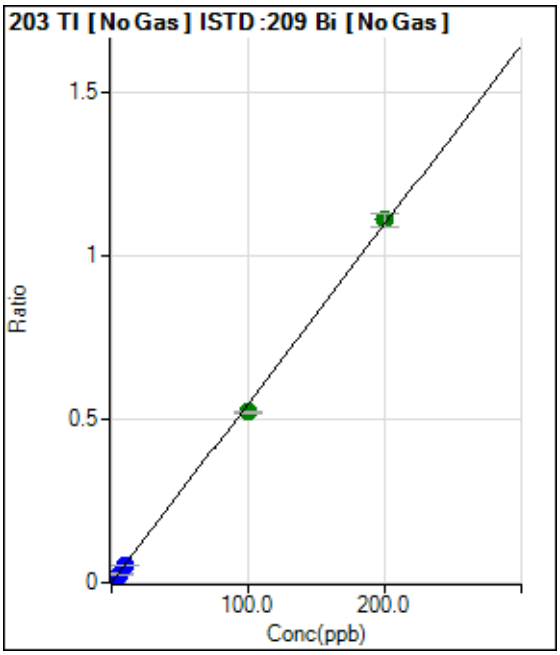


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	630.03	0.0002	P	16.7
2	☐	2.000	2.042	14601.78	0.0043	P	3.0
3	☐	5.000	4.800	33814.43	0.0099	P	1.0
4	☐	10.000	10.000	68363.46	0.0204	P	2.8
5	☐	100.000	93.910	642709.44	0.1898	P	1.9
6	☐	200.000	203.050	1325592.77	0.4102	A	2.3

y = 0.0020 * x + 1.8845E-004
R = 0.9994
DL = 0.04689
BEC = 0.09334

Weight: <None>
Min Conc: <None>

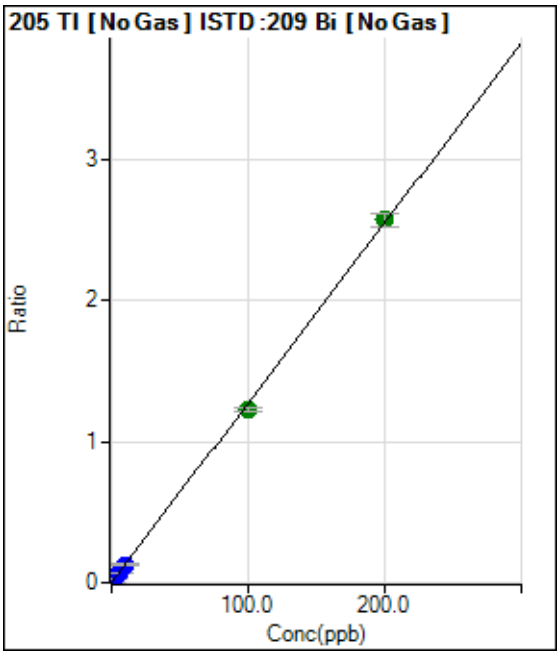
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	180.01	0.0001	P	27.9
2	☐	2.000	1.938	36911.67	0.0107	P	3.2
3	☐	5.000	4.807	93025.06	0.0264	P	2.5
4	☐	10.000	9.808	187442.09	0.0539	P	4.2
5	☐	100.000	95.027	1826914.30	0.5213	A	2.2
6	☐	200.000	202.502	3713699.42	1.1107	A	3.9

y = 0.0055 * x + 5.2327E-005
R = 0.9996
DL = 0.007996
BEC = 0.00954

Weight: <None>
Min Conc: <None>

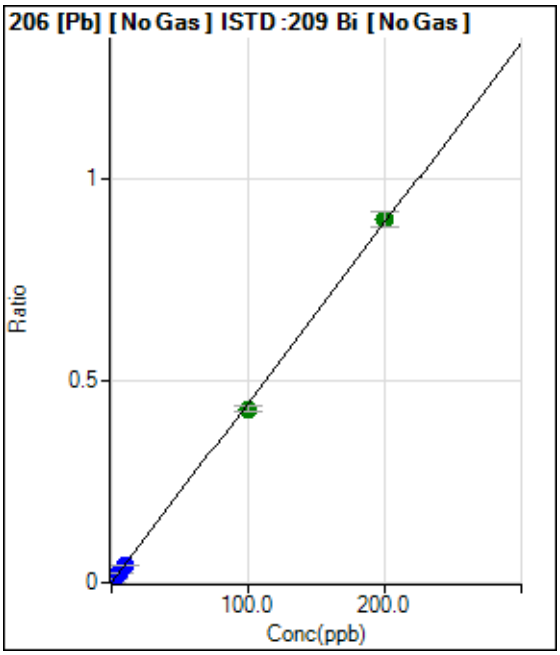


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	446.68	0.0001	P	16.7
2	☐	2.000	2.008	89002.76	0.0258	P	2.7
3	☐	5.000	4.924	221807.87	0.0630	P	2.5
4	☐	10.000	10.051	447148.58	0.1284	P	3.0
5	☐	100.000	96.479	4317210.35	1.2317	A	1.6
6	☐	200.000	201.760	8611572.79	2.5756	A	3.9

y = 0.0128 * x + 1.2982E-004
R = 0.9998
DL = 0.005087
BEC = 0.01017

Weight: <None>
Min Conc: <None>

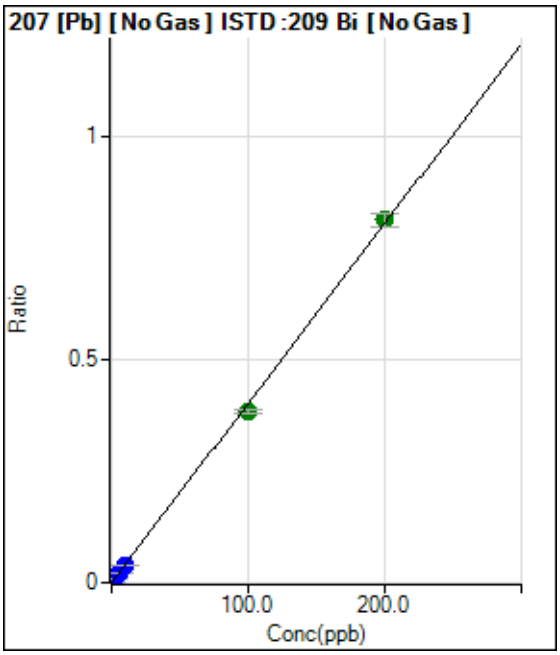
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	553.36	0.0002	P	10.8
2	☐	2.000	2.027	31673.97	0.0092	P	3.8
3	☐	5.000	4.984	78543.14	0.0223	P	3.9
4	☐	10.000	9.969	154822.93	0.0445	P	2.4
5	☐	100.000	96.650	1505916.75	0.4297	A	2.5
6	☐	200.000	201.677	2996897.14	0.8964	A	4.3

y = 0.0044 * x + 1.6087E-004
R = 0.9998
DL = 0.01174
BEC = 0.0362

Weight: <None>
Min Conc: <None>

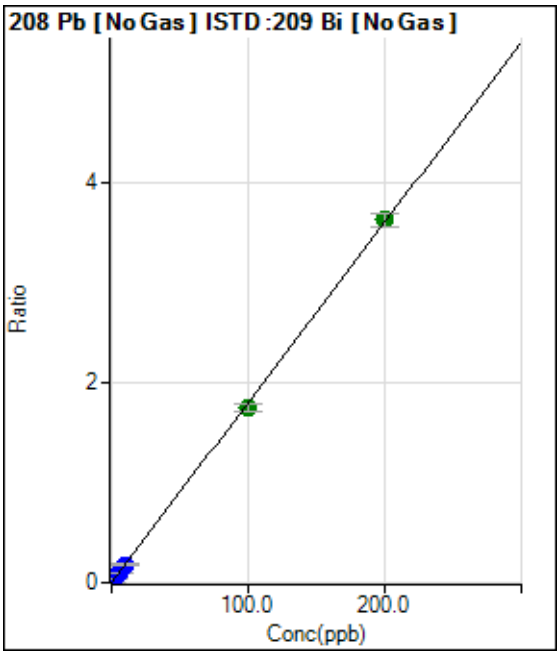


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	420.02	0.0001	P	5.7
2	☐	2.000	2.069	29224.70	0.0085	P	2.5
3	☐	5.000	4.946	70592.93	0.0200	P	2.6
4	☐	10.000	9.966	140223.61	0.0403	P	2.9
5	☐	100.000	95.590	1350050.60	0.3852	A	2.7
6	☐	200.000	202.207	2724178.40	0.8148	A	3.8

y = 0.0040 * x + 1.2205E-004
R = 0.9997
DL = 0.005172
BEC = 0.03029

Weight: <None>
Min Conc: <None>

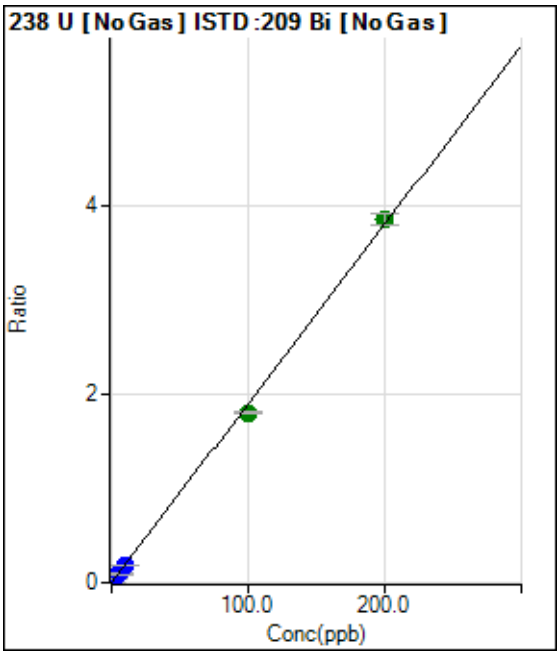
Calibration for 197_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2083.44	0.0006	P	1.6
2	☐	2.000	2.057	129966.48	0.0376	P	2.0
3	☐	5.000	4.969	316976.63	0.0900	P	3.2
4	☐	10.000	10.037	630988.99	0.1812	P	2.4
5	☐	100.000	97.102	6125112.41	1.7480	A	3.7
6	☐	200.000	201.447	12122509.20	3.6257	A	3.9

y = 0.0180 * x + 6.0562E-004
R = 0.9999
DL = 0.001606
BEC = 0.03365

Weight: <None>
Min Conc: <None>

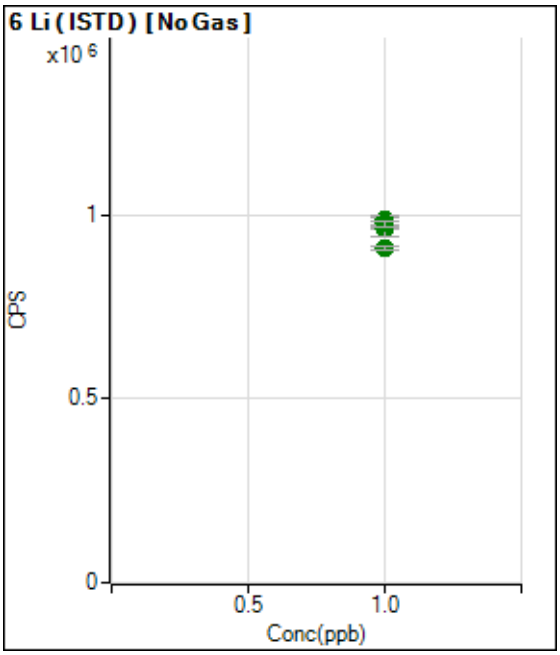


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	60.00	0.0000	P	51.0
2	☐	2.000	1.980	129860.99	0.0376	P	2.0
3	☐	5.000	4.883	326265.77	0.0927	P	2.6
4	☐	10.000	9.884	652926.01	0.1875	P	3.3
5	☐	100.000	94.793	6303830.33	1.7985	A	1.7
6	☐	200.000	202.612	12855138.56	3.8441	A	3.3

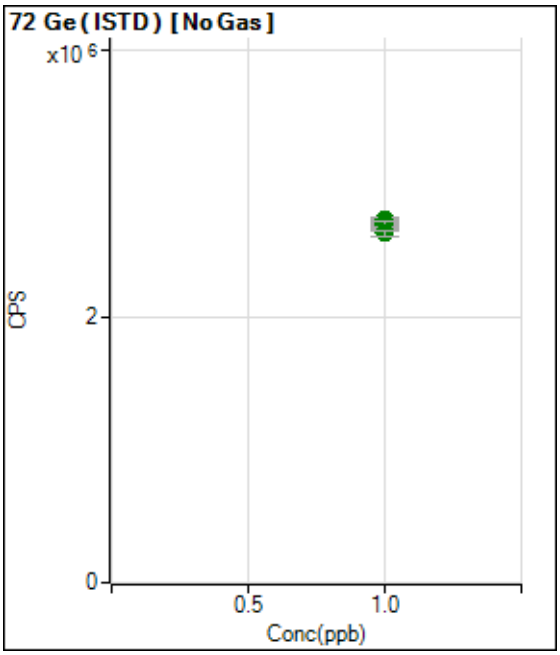
y = 0.0190 * x + 1.7533E-005
R = 0.9995
DL = 0.001415
BEC = 0.0009241

Weight: <None>
Min Conc: <None>

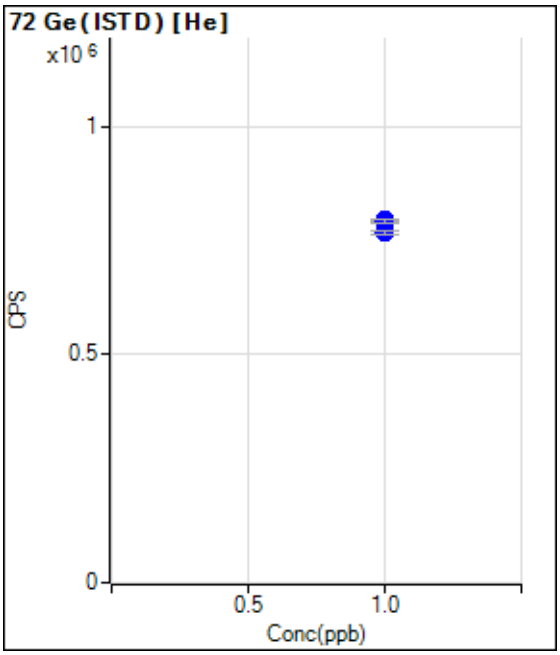
Calibration for 197_ICV.d



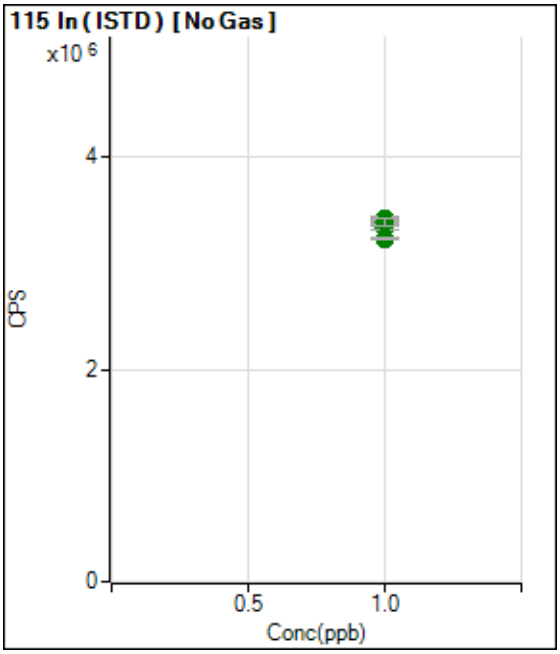
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		972019.60		A	1.8
2	☐	1.000		980849.56		A	2.0
3	☐	1.000		986111.34		A	2.3
4	☐	1.000		963239.03		A	4.2
5	☐	1.000		975650.08		A	1.3
6	☐	1.000		907477.08		A	1.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2708534.75		A	1.4
2	☐	1.000		2725452.56		A	1.5
3	☐	1.000		2679840.48		A	2.1
4	☐	1.000		2678297.25		A	2.0
5	☐	1.000		2697810.06		A	1.5
6	☐	1.000		2623395.69		A	1.3

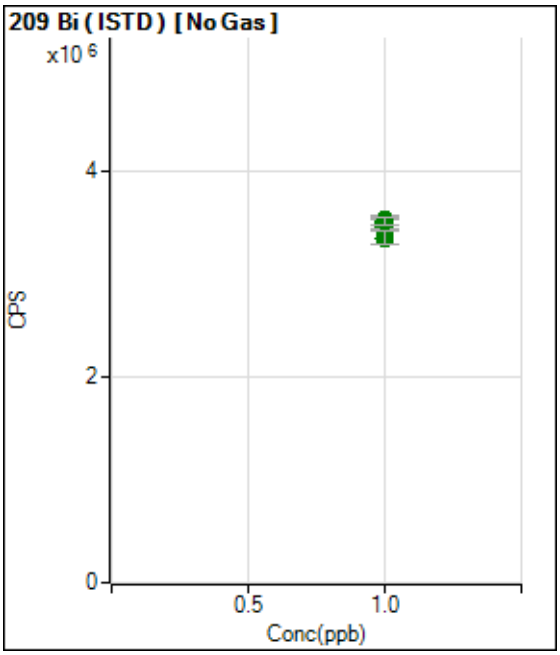


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		789102.05		P	0.0
2	☐	1.000		793177.96		P	0.6
3	☐	1.000		795692.49		P	0.5
4	☐	1.000		791959.26		P	1.2
5	☐	1.000		794152.44		P	1.1
6	☐	1.000		767293.77		P	1.0



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3346309.03		A	1.2
2	☐	1.000		3387257.78		A	1.1
3	☐	1.000		3422483.04		A	1.3
4	☐	1.000		3355826.83		A	1.8
5	☐	1.000		3387157.02		A	1.9
6	☐	1.000		3232282.45		A	0.8

Calibration for 197_ICV.d



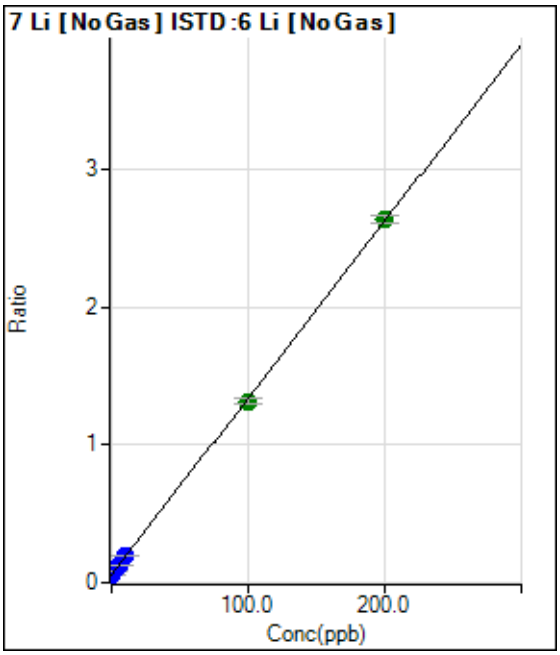
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3439629.22		A	1.6
2	☐	1.000		3455482.24		A	1.1
3	☐	1.000		3522765.78		A	2.7
4	☐	1.000		3483462.24		A	2.7
5	☐	1.000		3505819.53		A	1.9
6	☐	1.000		3346976.20		A	4.1

Calibration for 021_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\060721A.b\
Analysis File: 060721A.batch.bin
DA Date-Time: 6/8/2021 8:07:01 AM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	014CALB.d	CAL BLK	6/7/2021 10:34:01 AM
2	015CALS.d	2/10/200	6/7/2021 10:35:59 AM
3	016CALS.d	5/25/500	6/7/2021 10:37:59 AM
4	017CALS.d	10/50/100	6/7/2021 10:39:57 AM
5	018CALS.d	100/500/10K	6/7/2021 10:41:54 AM
6	019CALS.d	200/1000/20K	6/7/2021 10:43:45 AM

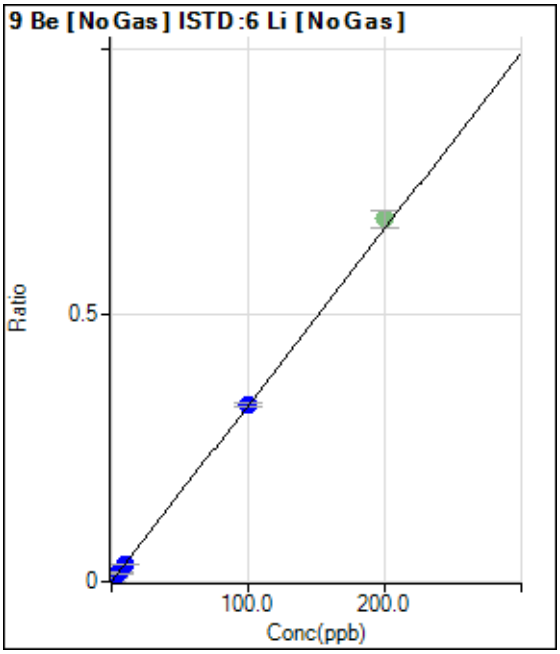
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72731.61	0.0584	P	0.6
2	☐	2.000	2.315	107311.68	0.0880	P	0.9
3	☐	5.000	5.219	156578.97	0.1252	P	2.9
4	☐	10.000	10.659	242313.77	0.1948	P	2.5
5	☐	100.000	98.201	1648242.94	1.3155	A	2.4
6	☐	200.000	200.858	3160660.37	2.6297	A	2.2

y = 0.0128 * x + 0.0584
R = 0.9999
DL = 0.08796
BEC = 4.562

Weight: <None>
Min Conc: <None>

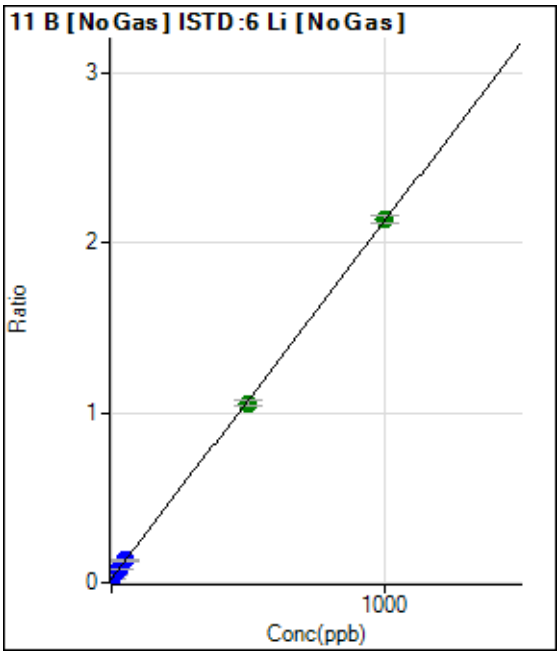


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	2.000	2.064	8327.52	0.0068	P	1.4
3	☐	5.000	4.966	20545.09	0.0164	P	2.5
4	☐	10.000	10.156	41785.29	0.0336	P	2.2
5	☐	100.000	99.985	414436.31	0.3307	P	1.9
6	☑	200.000		817948.35	0.6808	A	4.7

y = 0.0033 * x + 2.7009E-006
R = 1.0000
DL = 0.004243
BEC = 0.0008165

Weight: <None>
Min Conc: <None>

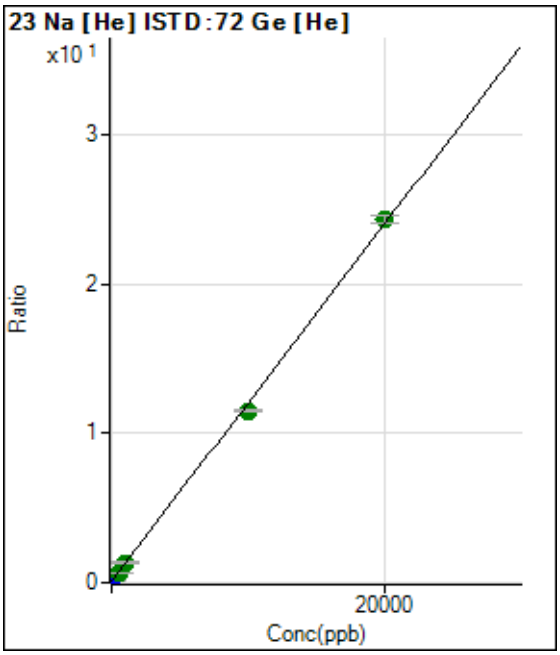
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27929.44	0.0224	P	2.5
2	☐	10.000	10.519	54317.73	0.0446	P	1.3
3	☐	25.000	24.927	93631.38	0.0749	P	2.5
4	☐	50.000	51.595	162888.53	0.1310	P	2.3
5	☐	500.000	491.999	1324821.00	1.0575	A	3.3
6	☐	1000.000	1003.917	2565502.30	2.1345	A	2.1

y = 0.0021 * x + 0.0224
R = 1.0000
DL = 0.7955
BEC = 10.66

Weight: <None>
Min Conc: <None>

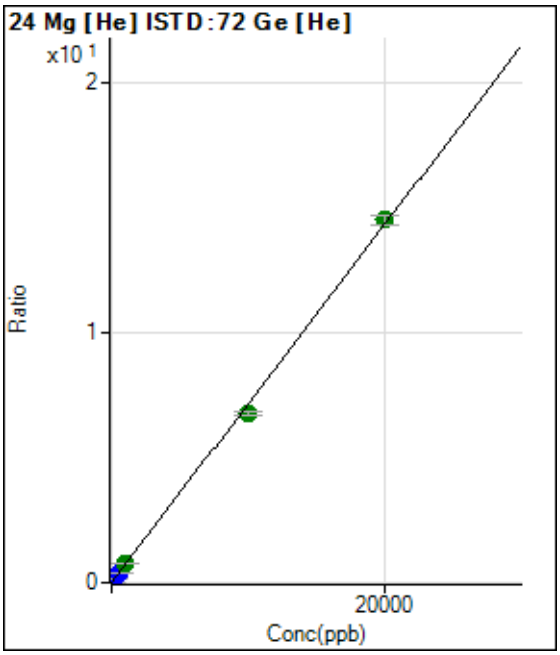


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94441.26	0.0859	P	1.0
2	☐	200.000	213.041	370183.13	0.3409	P	0.9
3	☐	500.000	506.931	752293.84	0.6926	A	2.3
4	☐	1000.000	1047.093	1451541.70	1.3391	A	3.0
5	☐	10000.00	9523.822	12444841.48	11.4843	A	1.0
6	☐	20000.00	20235.43	25357753.79	24.3042	A	2.2

y = 0.0012 * x + 0.0859
R = 0.9996
DL = 2.106
BEC = 71.79

Weight: <None>
Min Conc: <None>

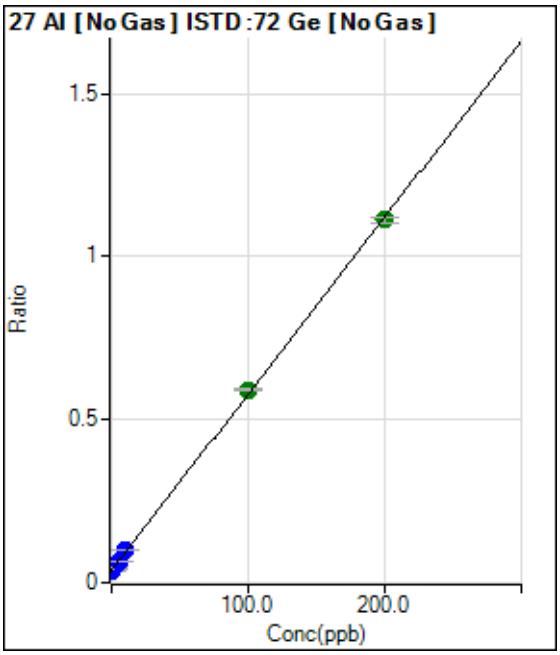
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1970.19	0.0018	P	6.7
2	☐	200.000	215.732	169309.19	0.1559	P	1.2
3	☐	500.000	528.212	411842.56	0.3791	P	1.6
4	☐	1000.000	1053.608	817753.77	0.7545	A	3.4
5	☐	10000.00	9444.694	7313132.39	6.7488	A	1.6
6	☐	20000.00	20274.11	15111806.02	14.4851	A	2.4

y = 7.1437E-004 * x + 0.0018
R = 0.9994
DL = 0.5013
BEC = 2.509

Weight: <None>
Min Conc: <None>

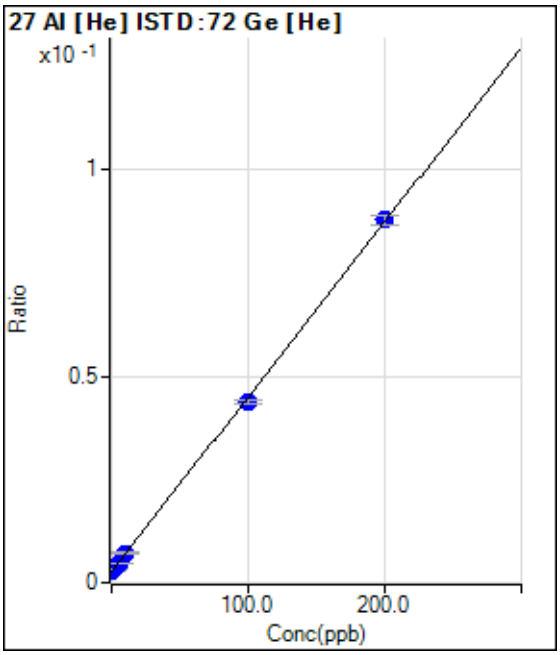


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	133156.24	0.0373	P	0.8
2	☐	2.000	1.302	159798.80	0.0444	P	1.0
3	☐	5.000	4.789	227782.29	0.0632	P	2.7
4	☐	10.000	11.748	358229.01	0.1009	P	2.0
5	☐	100.000	102.509	2133384.29	0.5919	A	1.3
6	☐	200.000	198.670	3926154.84	1.1122	A	1.7

y = 0.0054 * x + 0.0373
R = 0.9998
DL = 0.1584
BEC = 6.898

Weight: <None>
Min Conc: <None>

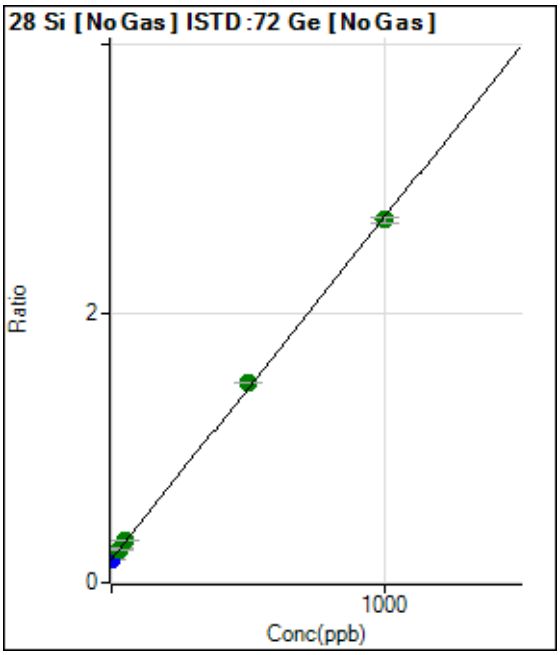
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2940.37	0.0027	P	7.6
2	☐	2.000	1.230	3470.49	0.0032	P	5.0
3	☐	5.000	4.693	5057.69	0.0047	P	9.5
4	☐	10.000	10.681	7799.02	0.0072	P	3.7
5	☐	100.000	97.348	47548.08	0.0439	P	2.6
6	☐	200.000	201.307	91688.25	0.0879	P	2.3

y = 4.2328E-004 * x + 0.0027
R = 0.9999
DL = 1.437
BEC = 6.319

Weight: <None>
Min Conc: <None>

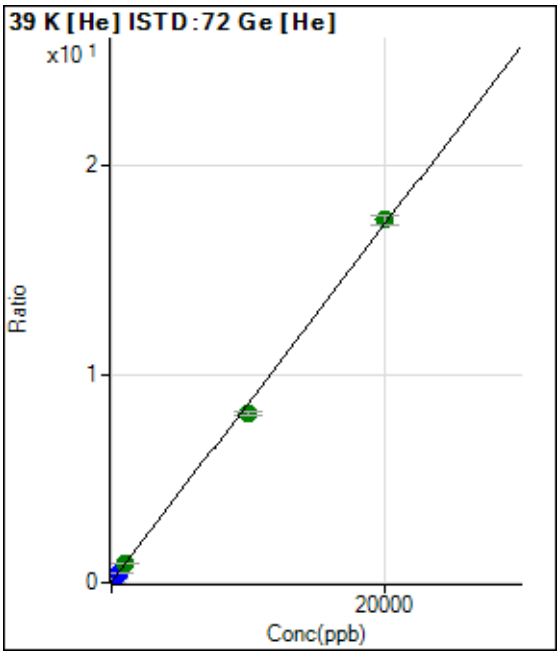


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	619853.28	0.1737	P	0.7
2	☐	10.000	14.286	756528.03	0.2100	P	0.9
3	☐	25.000	29.479	896060.28	0.2487	A	2.3
4	☐	50.000	54.729	1110956.36	0.3128	A	2.0
5	☐	500.000	515.516	5349325.34	1.4841	A	0.2
6	☐	1000.000	991.851	9513529.03	2.6950	A	1.6

y = 0.0025 * x + 0.1737
R = 0.9998
DL = 1.36
BEC = 68.34

Weight: <None>
Min Conc: <None>

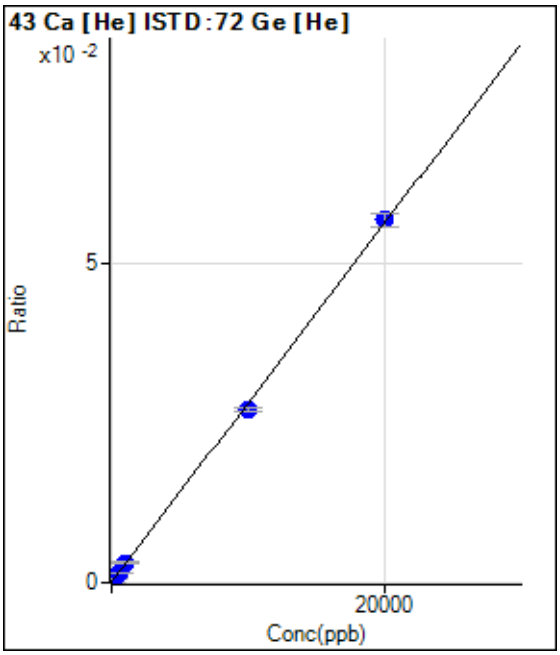
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44692.57	0.0407	P	2.0
2	☐	200.000	209.492	239134.12	0.2202	P	0.5
3	☐	500.000	507.508	516578.90	0.4756	P	2.7
4	☐	1000.000	1065.993	1034800.69	0.9543	A	0.9
5	☐	10000.00	9458.345	8827502.78	8.1474	A	2.3
6	☐	20000.00	20267.24	18166006.81	17.4116	A	2.4

y = 8.5710E-004 * x + 0.0407
R = 0.9995
DL = 2.86
BEC = 47.44

Weight: <None>
Min Conc: <None>

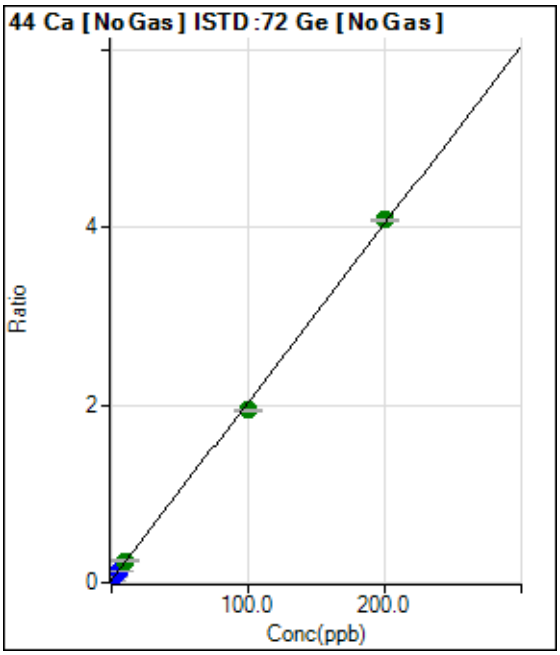


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	8.9
2	☐	200.000	196.717	666.70	0.0006	P	14.4
3	☐	500.000	517.176	1646.79	0.0015	P	1.0
4	☐	1000.000	1079.499	3357.14	0.0031	P	4.4
5	☐	10000.00	9610.195	29354.86	0.0271	P	2.3
6	☐	20000.00	20190.53	59301.23	0.0569	P	3.8

y = 2.8129E-006 * x + 6.0658E-005
R = 0.9997
DL = 5.769
BEC = 21.56

Weight: <None>
Min Conc: <None>

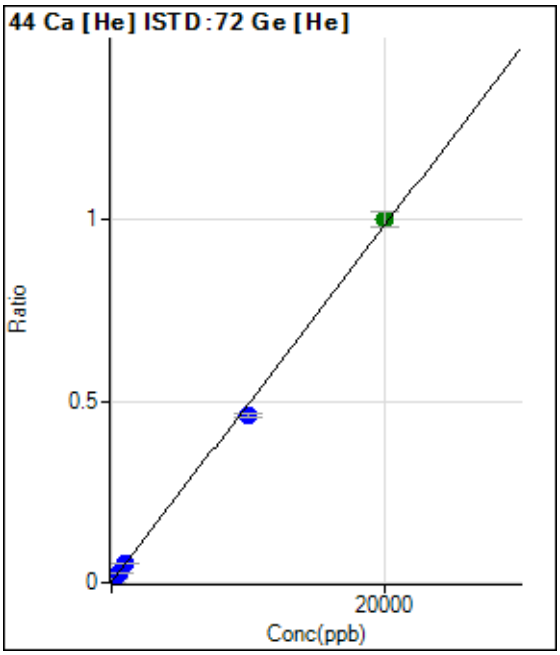
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106130.10	0.0297	P	0.7
2	☐	2.000	2.063	256101.77	0.0711	P	0.4
3	☐	5.000	5.215	483897.11	0.1343	P	1.0
4	☐	10.000	10.851	878123.63	0.2473	A	2.8
5	☐	100.000	95.298	6994221.98	1.9406	A	0.5
6	☐	200.000	202.302	14425699.37	4.0861	A	0.8

y = 0.0201 * x + 0.0297
R = 0.9996
DL = 0.02996
BEC = 1.483

Weight: <None>
Min Conc: <None>

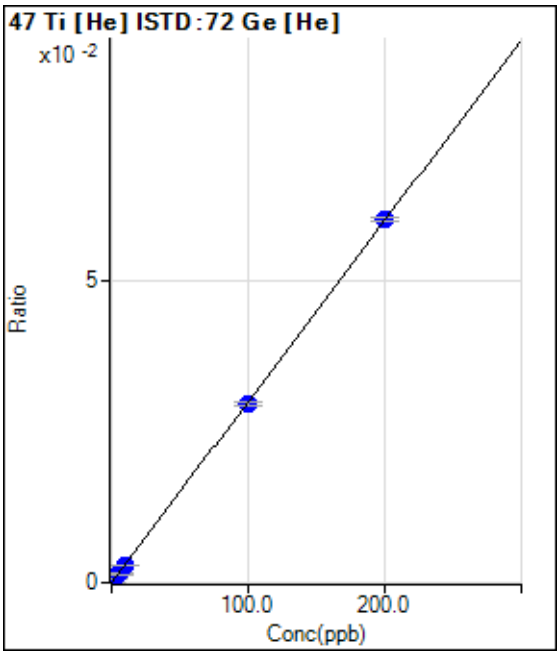


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1823.49	0.0017	P	5.7
2	☐	200.000	189.556	11908.69	0.0110	P	2.4
3	☐	500.000	488.967	27878.50	0.0257	P	1.9
4	☐	1000.000	999.339	55003.31	0.0507	P	1.1
5	☐	10000.00	9347.878	499103.71	0.4606	P	1.8
6	☐	20000.00	20326.47	1042623.89	0.9996	A	4.2

y = 4.9097E-005 * x + 0.0017
R = 0.9993
DL = 5.747
BEC = 33.79

Weight: <None>
Min Conc: <None>

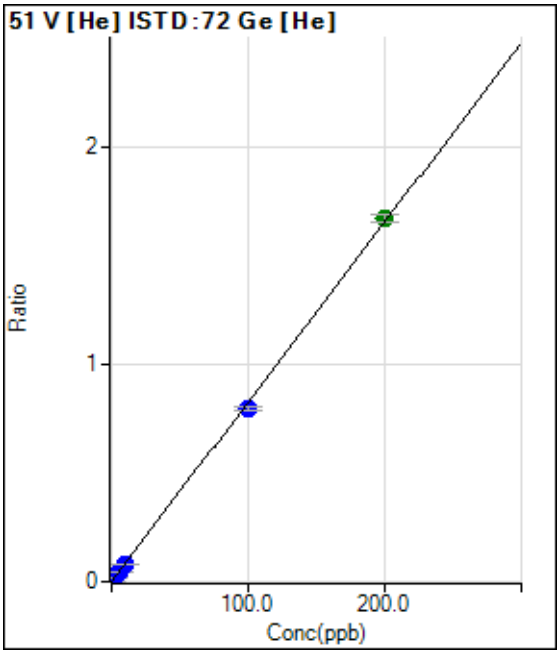
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	43.6
2	☐	2.000	2.190	726.70	0.0007	P	17.7
3	☐	5.000	4.851	1593.46	0.0015	P	4.4
4	☐	10.000	9.768	3187.10	0.0029	P	4.4
5	☐	100.000	98.766	32104.61	0.0296	P	2.3
6	☐	200.000	200.631	62793.57	0.0602	P	1.1

y = 2.9983E-004 * x + 1.2138E-005
R = 1.0000
DL = 0.05293
BEC = 0.04048

Weight: <None>
Min Conc: <None>

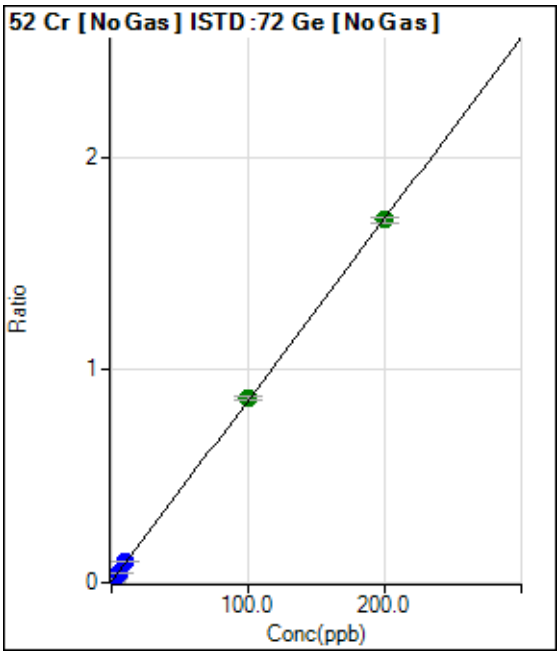


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1205.62	0.0011	P	4.3
2	☐	2.000	1.965	18795.16	0.0173	P	0.4
3	☐	5.000	4.830	44464.15	0.0409	P	3.2
4	☐	10.000	9.870	89429.45	0.0825	P	3.3
5	☐	100.000	96.041	859512.12	0.7933	P	2.3
6	☐	200.000	201.991	1739397.33	1.6672	A	2.3

y = 0.0082 * x + 0.0011
R = 0.9997
DL = 0.01723
BEC = 0.133

Weight: <None>
Min Conc: <None>

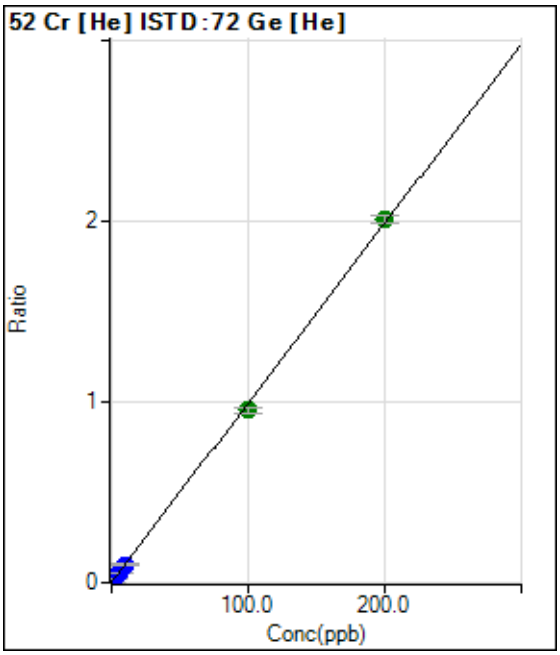
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16159.82	0.0045	P	3.5
2	☐	2.000	2.080	80221.24	0.0223	P	2.0
3	☐	5.000	5.130	173985.49	0.0483	P	0.6
4	☐	10.000	10.690	339942.47	0.0957	P	1.5
5	☐	100.000	100.992	3121308.18	0.8660	A	1.9
6	☐	200.000	199.465	6022344.08	1.7061	A	1.6

y = 0.0085 * x + 0.0045
R = 1.0000
DL = 0.05537
BEC = 0.531

Weight: <None>
Min Conc: <None>

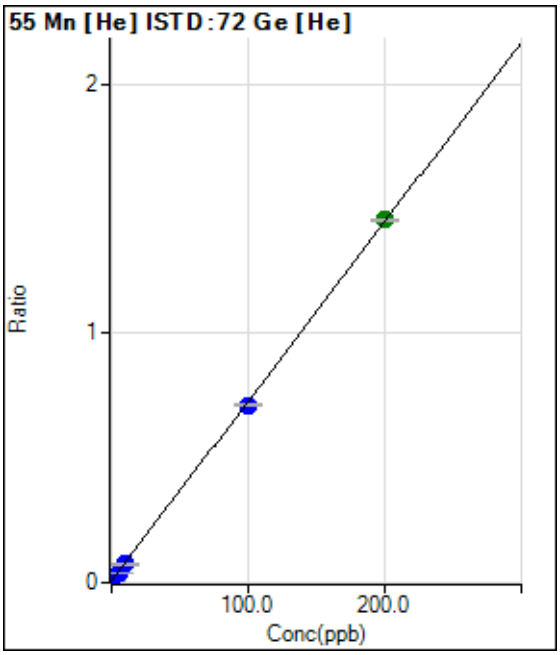


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2190.22	0.0020	P	2.8
2	☐	2.000	2.008	23820.97	0.0219	P	1.2
3	☐	5.000	4.940	55459.16	0.0511	P	2.4
4	☐	10.000	9.918	108940.96	0.1005	P	3.5
5	☐	100.000	95.834	1033390.25	0.9538	A	3.7
6	☐	200.000	202.088	2096273.46	2.0092	A	2.0

y = 0.0099 * x + 0.0020
R = 0.9997
DL = 0.01684
BEC = 0.2006

Weight: <None>
Min Conc: <None>

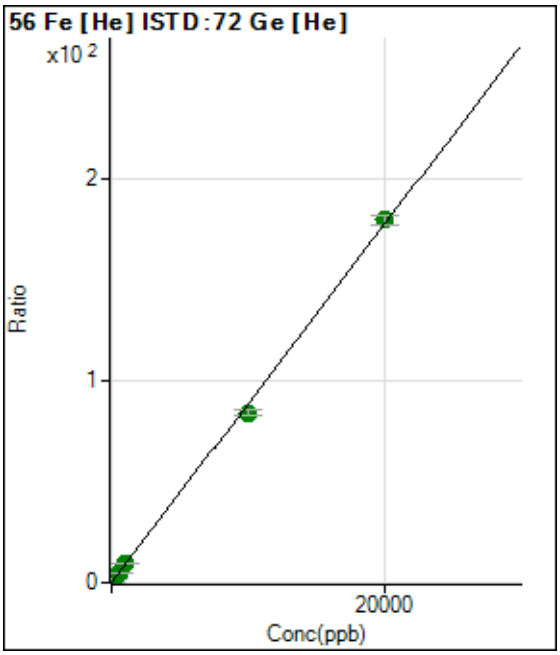
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9083.18	0.0083	P	3.4
2	☐	2.000	1.891	23737.67	0.0219	P	1.5
3	☐	5.000	4.395	43289.06	0.0399	P	3.5
4	☐	10.000	9.099	79859.17	0.0737	P	2.9
5	☐	100.000	97.763	770530.35	0.7111	P	1.4
6	☐	200.000	201.180	1518001.23	1.4546	A	0.6

y = 0.0072 * x + 0.0083
R = 0.9999
DL = 0.1173
BEC = 1.149

Weight: <None>
Min Conc: <None>

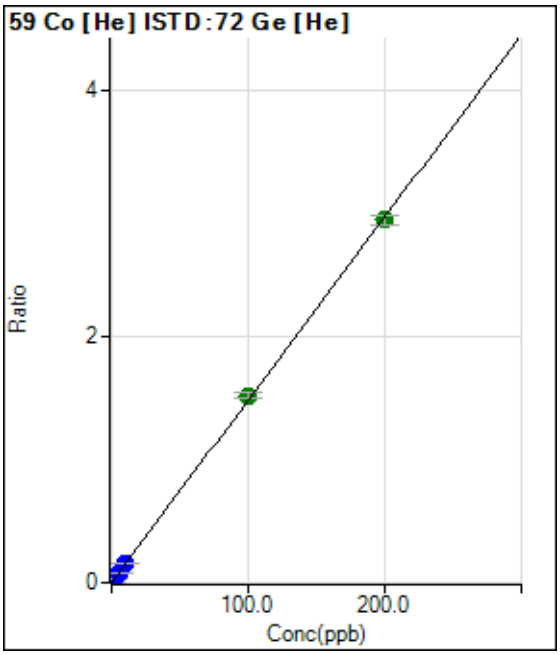


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	26125.46	0.0238	P	1.5
2	☐	200.000	213.258	2079081.43	1.9145	A	1.8
3	☐	500.000	502.836	4868709.09	4.4820	A	1.6
4	☐	1000.000	1027.043	9898746.10	9.1296	A	1.6
5	☐	10000.00	9496.043	91244135.31	84.2164	A	2.7
6	☐	20000.00	20250.42	187331857.2	179.565	A	2.5

y = 0.0089 * x + 0.0238
R = 0.9995
DL = 0.1193
BEC = 2.681

Weight: <None>
Min Conc: <None>

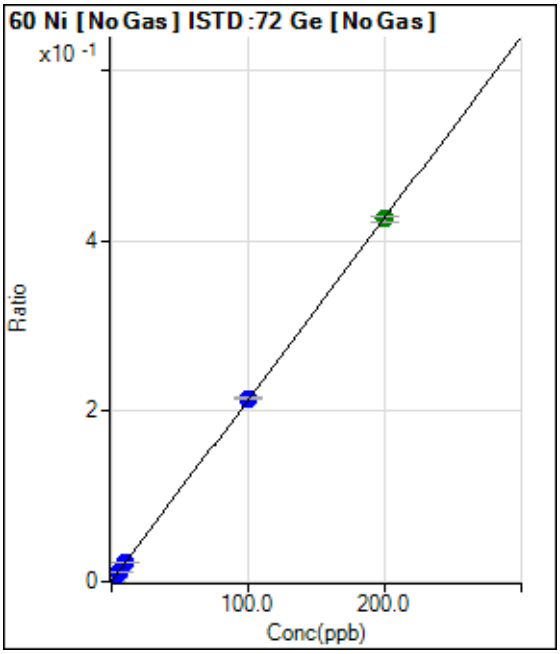
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	37.9
2	☐	2.000	2.028	32712.93	0.0301	P	1.2
3	☐	5.000	4.953	79826.48	0.0735	P	3.3
4	☐	10.000	10.169	163525.10	0.1508	P	2.2
5	☐	100.000	102.639	1649045.91	1.5219	A	2.6
6	☐	200.000	198.673	3073233.70	2.9458	A	2.8

y = 0.0148 * x + 6.0678E-005
R = 0.9999
DL = 0.004649
BEC = 0.004092

Weight: <None>
Min Conc: <None>

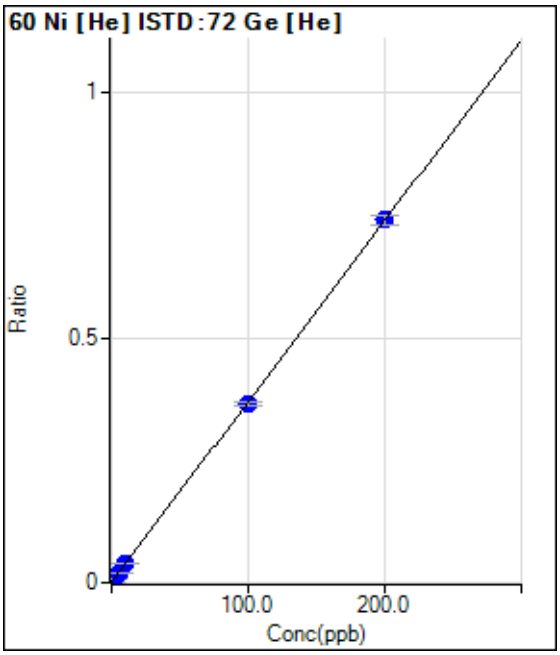


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2080.20	0.0006	P	10.6
2	☐	2.000	2.086	18078.95	0.0050	P	1.5
3	☐	5.000	5.015	40547.39	0.0113	P	0.4
4	☐	10.000	10.592	82099.86	0.0231	P	2.3
5	☐	100.000	100.665	773996.45	0.2148	P	1.1
6	☐	200.000	199.636	1501503.52	0.4253	A	1.8

y = 0.0021 * x + 5.8246E-004
R = 1.0000
DL = 0.0867
BEC = 0.2738

Weight: <None>
Min Conc: <None>

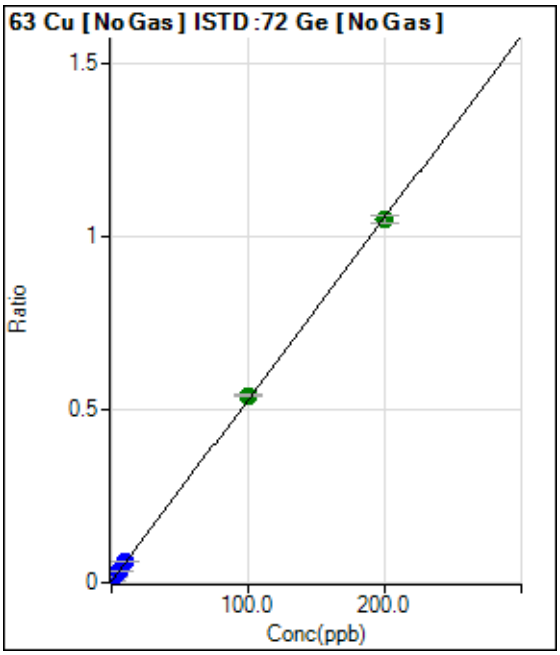
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	993.39	0.0009	P	13.8
2	☐	2.000	2.065	9246.65	0.0085	P	4.6
3	☐	5.000	4.951	20799.60	0.0191	P	1.7
4	☐	10.000	10.368	42396.08	0.0391	P	2.0
5	☐	100.000	98.682	394945.36	0.3645	P	2.5
6	☐	200.000	200.641	772251.24	0.7402	P	2.5

y = 0.0037 * x + 9.0355E-004
R = 1.0000
DL = 0.1015
BEC = 0.2452

Weight: <None>
Min Conc: <None>

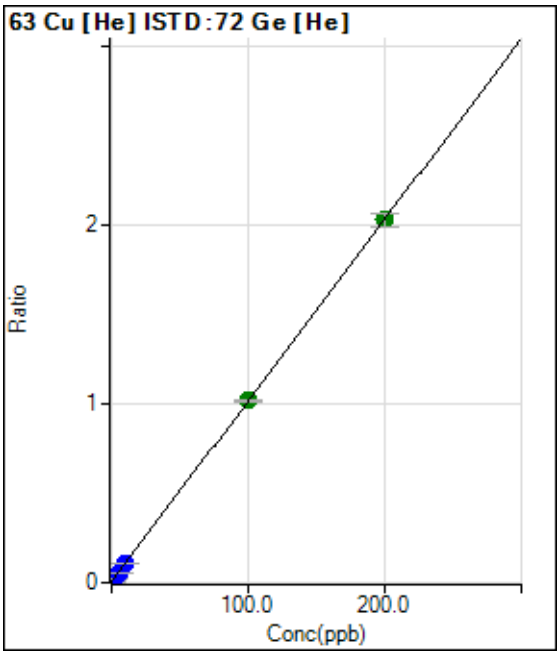


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14174.25	0.0040	P	1.8
2	☐	2.000	2.135	54616.41	0.0152	P	2.1
3	☐	5.000	5.240	113308.90	0.0314	P	1.2
4	☐	10.000	10.755	214356.53	0.0604	P	0.9
5	☐	100.000	102.214	1945650.80	0.5398	A	1.3
6	☐	200.000	198.848	3693846.82	1.0465	A	2.1

y = 0.0052 * x + 0.0040
R = 0.9999
DL = 0.04036
BEC = 0.7576

Weight: <None>
Min Conc: <None>

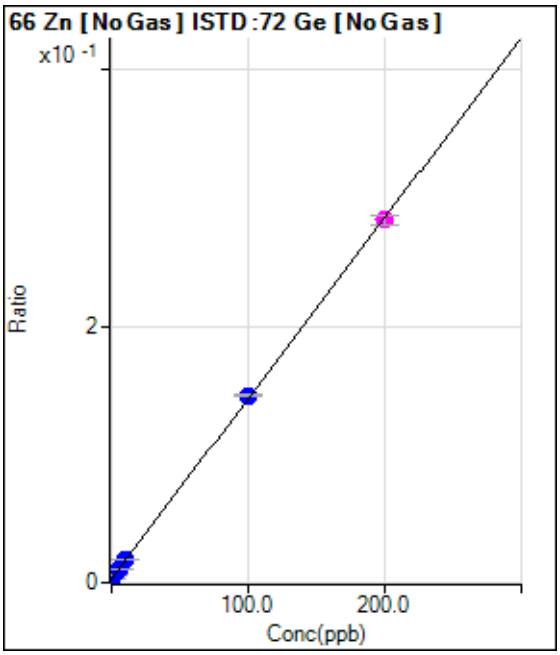
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5821.35	0.0053	P	4.6
2	☐	2.000	2.038	28172.79	0.0259	P	2.3
3	☐	5.000	5.064	61475.32	0.0566	P	3.7
4	☐	10.000	10.237	118187.20	0.1090	P	3.1
5	☐	100.000	100.125	1105263.34	1.0199	A	1.6
6	☐	200.000	199.923	2118562.62	2.0311	A	3.8

y = 0.0101 * x + 0.0053
R = 1.0000
DL = 0.07196
BEC = 0.5226

Weight: <None>
Min Conc: <None>

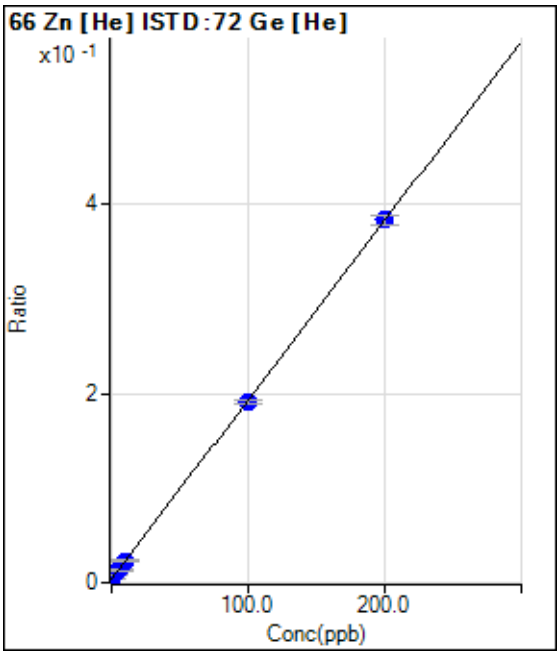


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10234.02	0.0029	P	3.8
2	☐	2.000	2.370	22348.90	0.0062	P	4.3
3	☐	5.000	5.236	36887.17	0.0102	P	2.4
4	☐	10.000	11.039	65380.73	0.0184	P	0.7
5	☐	100.000	101.697	526258.99	0.1460	P	1.4
6	☐	200.000	199.090	999280.56	0.2831	M	2.6

y = 0.0014 * x + 0.0029
R = 0.9999
DL = 0.2306
BEC = 2.038

Weight: <None>
Min Conc: <None>

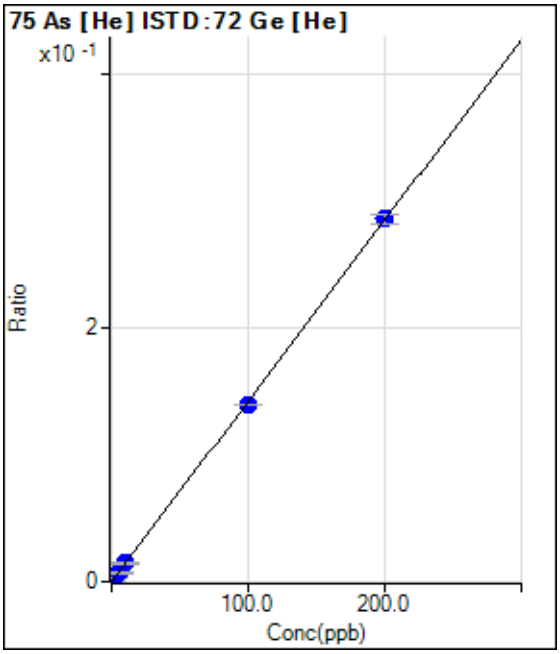
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4160.71	0.0038	P	11.5
2	☐	2.000	2.391	9029.83	0.0083	P	1.6
3	☐	5.000	5.062	14524.63	0.0134	P	4.0
4	☐	10.000	10.326	25303.94	0.0233	P	4.2
5	☐	100.000	99.062	207433.90	0.1914	P	2.5
6	☐	200.000	200.447	400130.76	0.3835	P	2.7

y = 0.0019 * x + 0.0038
R = 1.0000
DL = 0.6909
BEC = 1.998

Weight: <None>
Min Conc: <None>

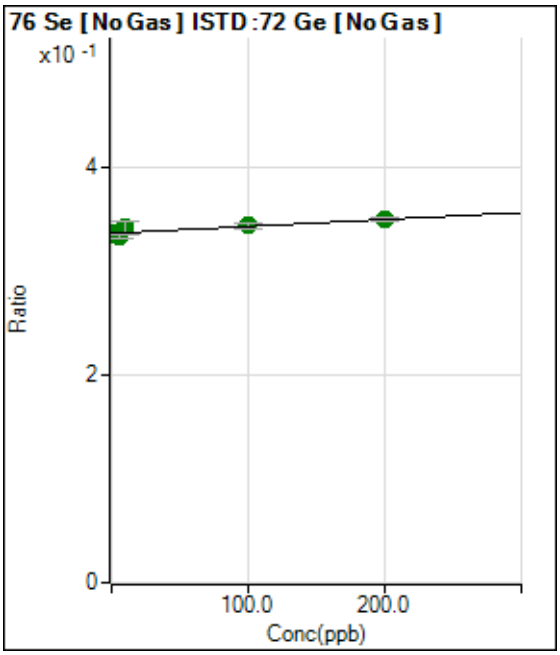


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	134.45	0.0001	P	16.0
2	☐	2.000	1.975	3187.06	0.0029	P	1.9
3	☐	5.000	4.732	7448.76	0.0069	P	5.2
4	☐	10.000	10.082	15698.04	0.0145	P	3.3
5	☐	100.000	98.159	151632.47	0.1399	P	0.4
6	☐	200.000	200.923	298660.02	0.2863	P	2.5

y = 0.0014 * x + 1.2234E-004
R = 0.9999
DL = 0.04121
BEC = 0.0859

Weight: <None>
Min Conc: <None>

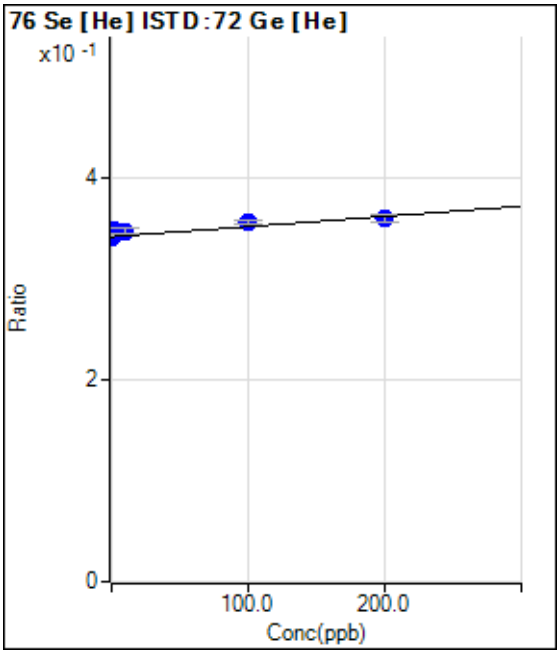
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1201066.91	0.3366	A	1.5
2	☐	2.000	-20.177	1207675.53	0.3353	A	0.8
3	☐	5.000	-47.306	1201551.13	0.3335	A	1.1
4	☐	10.000	81.808	1214644.25	0.3421	A	3.5
5	☐	100.000	110.290	1239870.34	0.3440	A	1.4
6	☐	200.000	192.794	1233995.71	0.3495	A	1.2

y = 6.6900E-005 * x + 0.3366
R = 0.8922
DL = 233.2
BEC = 5032

Weight: <None>
Min Conc: <None>

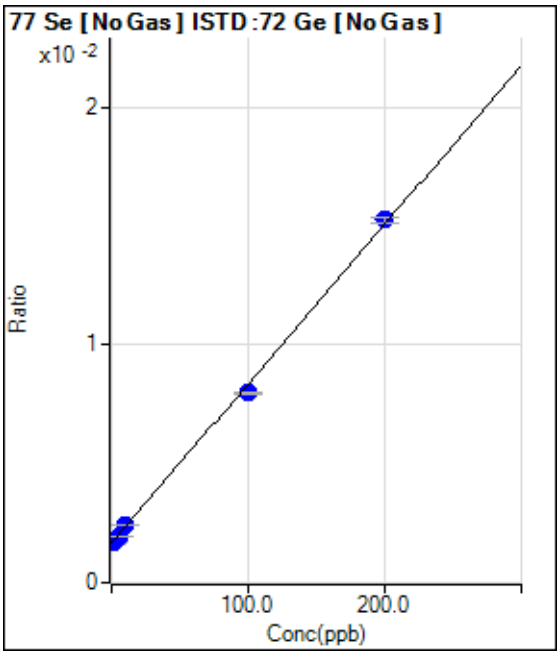


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	375176.44	0.3413	P	0.7
2	☐	2.000	73.102	378642.92	0.3487	P	0.9
3	☐	5.000	55.538	376808.51	0.3469	P	2.2
4	☐	10.000	56.675	376222.17	0.3470	P	1.9
5	☐	100.000	142.305	385444.46	0.3557	P	0.7
6	☐	200.000	174.539	374475.75	0.3589	P	2.3

y = 1.0101E-004 * x + 0.3413
R = 0.9059
DL = 68.15
BEC = 3379

Weight: <None>
Min Conc: <None>

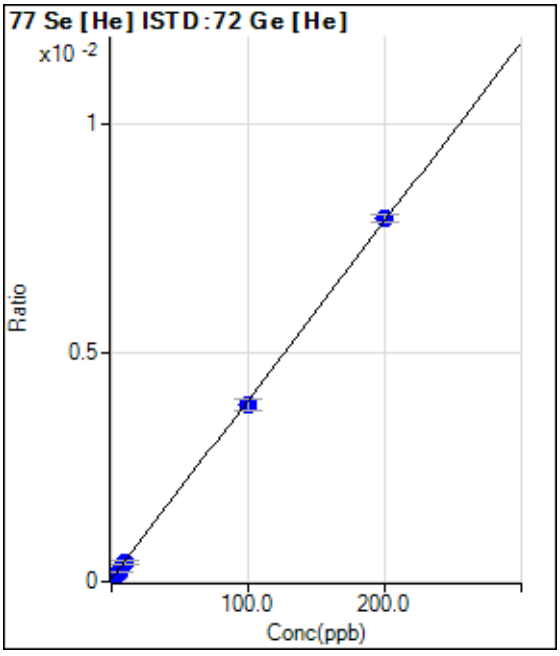
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5978.08	0.0017	P	2.6
2	☐	2.000	0.572	6171.53	0.0017	P	1.7
3	☐	5.000	3.867	6968.59	0.0019	P	2.3
4	☐	10.000	10.985	8562.89	0.0024	P	1.8
5	☐	100.000	94.107	28737.62	0.0080	P	1.2
6	☐	200.000	202.940	53861.20	0.0153	P	1.7

y = 6.6925E-005 * x + 0.0017
R = 0.9994
DL = 1.978
BEC = 25.03

Weight: <None>
Min Conc: <None>

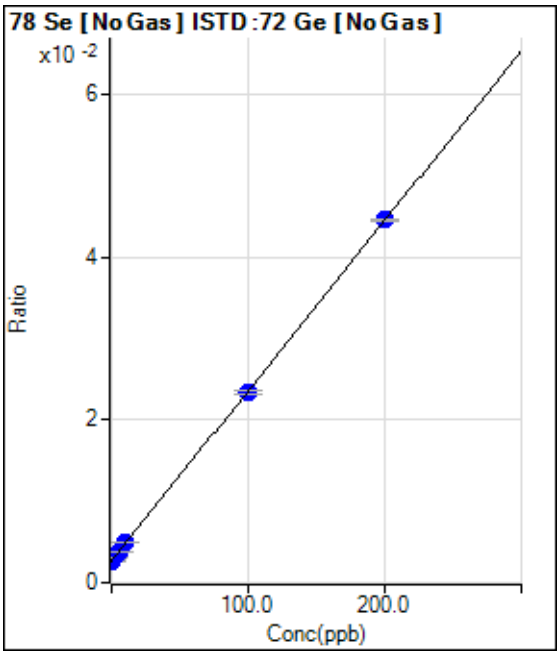


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0001	P	28.5
2	☐	2.000	0.964	110.00	0.0001	P	8.5
3	☐	5.000	3.556	220.01	0.0002	P	12.8
4	☐	10.000	9.154	456.68	0.0004	P	18.8
5	☐	100.000	97.628	4194.06	0.0039	P	6.4
6	☐	200.000	201.275	8259.36	0.0079	P	2.1

y = 3.9015E-005 * x + 6.3664E-005
R = 0.9999
DL = 1.395
BEC = 1.632

Weight: <None>
Min Conc: <None>

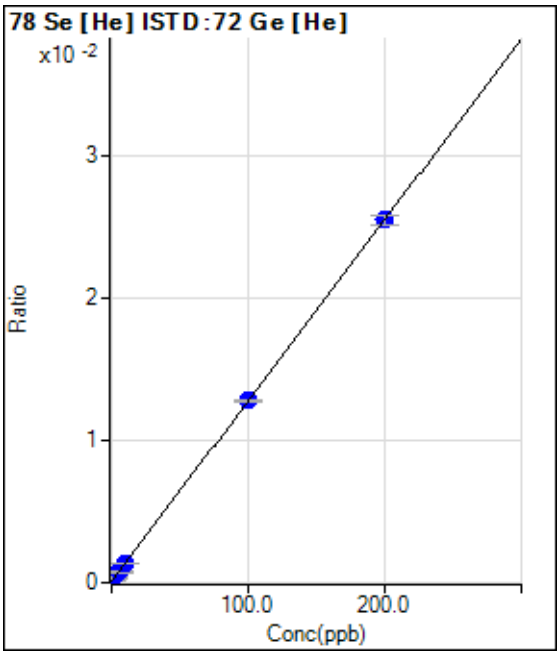
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9670.30	0.0027	P	4.4
2	☐	2.000	1.481	10871.21	0.0030	P	1.6
3	☐	5.000	5.020	13533.66	0.0038	P	3.0
4	☐	10.000	10.673	17531.66	0.0049	P	1.6
5	☐	100.000	98.871	84128.64	0.0233	P	1.9
6	☐	200.000	200.536	157317.62	0.0446	P	0.8

y = 2.0870E-004 * x + 0.0027
R = 1.0000
DL = 1.698
BEC = 12.98

Weight: <None>
Min Conc: <None>

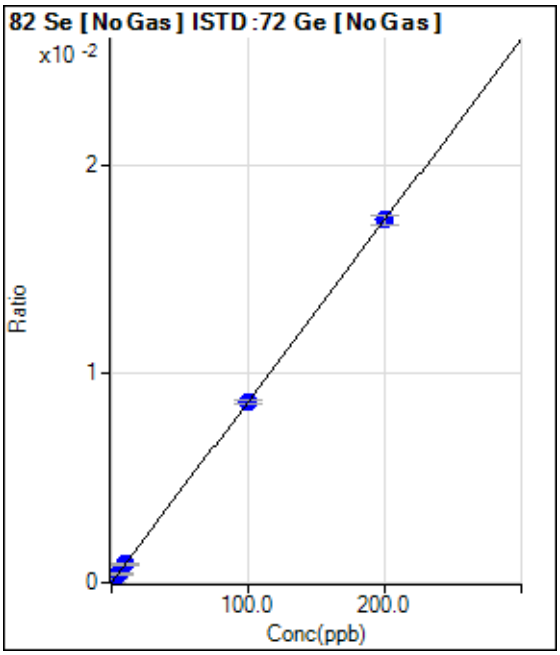


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.00	0.0001	P	2.0
2	☐	2.000	2.047	375.34	0.0003	P	10.2
3	☐	5.000	5.283	822.03	0.0008	P	5.6
4	☐	10.000	10.138	1488.09	0.0014	P	5.1
5	☐	100.000	99.917	13845.13	0.0128	P	1.2
6	☐	200.000	200.027	26594.17	0.0255	P	2.7

y = 1.2702E-004 * x + 8.5512E-005
R = 1.0000
DL = 0.04074
BEC = 0.6732

Weight: <None>
Min Conc: <None>

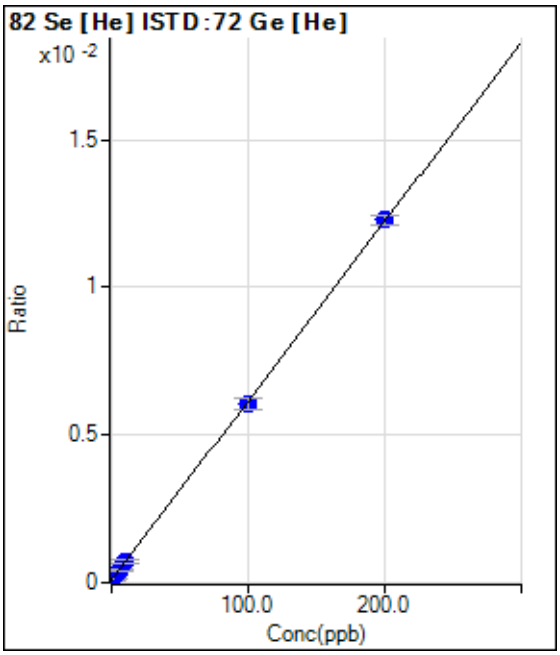
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8.05	0.0000	P	1160.5
2	☐	2.000	1.956	617.81	0.0002	P	28.5
3	☐	5.000	4.980	1565.00	0.0004	P	12.7
4	☐	10.000	10.244	3161.60	0.0009	P	5.3
5	☐	100.000	99.588	31115.35	0.0086	P	2.3
6	☐	200.000	200.195	61253.18	0.0174	P	2.9

y = 8.6674E-005 * x + 2.0505E-006
R = 1.0000
DL = 0.8236
BEC = 0.02366

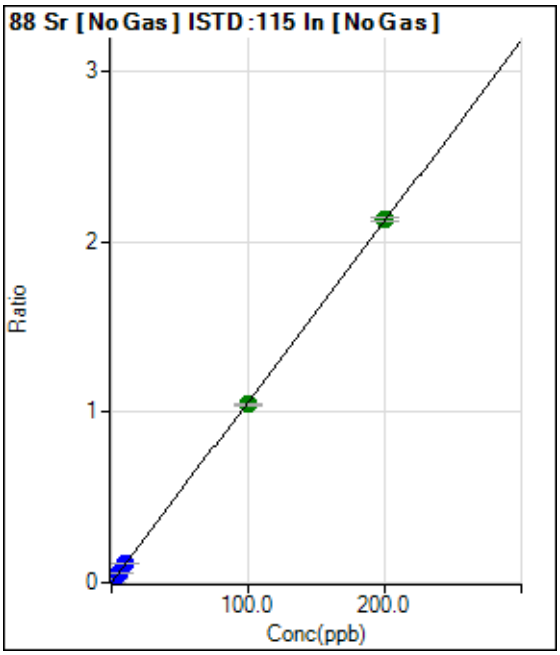
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	96.67	0.0001	P	33.3
2	☐	2.000	1.730	210.00	0.0002	P	49.0
3	☐	5.000	5.376	450.02	0.0004	P	6.4
4	☐	10.000	10.023	753.37	0.0007	P	16.8
5	☐	100.000	97.994	6538.35	0.0060	P	6.4
6	☐	200.000	200.995	12823.01	0.0123	P	2.5

y = 6.0711E-005 * x + 8.7945E-005
R = 0.9999
DL = 1.447
BEC = 1.449

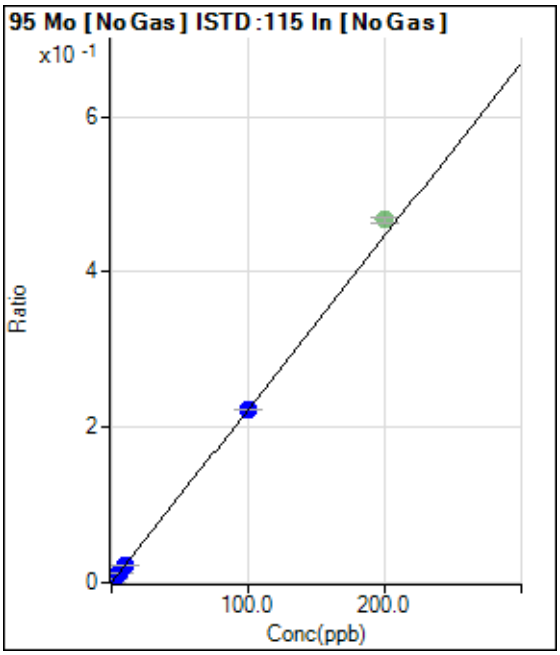
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3827.30	0.0009	P	10.5
2	☐	2.000	2.012	98668.26	0.0222	P	2.2
3	☐	5.000	5.075	242129.21	0.0547	P	0.4
4	☐	10.000	10.242	486133.65	0.1095	P	0.5
5	☐	100.000	98.467	4608088.37	1.0453	A	1.4
6	☐	200.000	200.752	8973741.53	2.1302	A	1.2

y = 0.0106 * x + 8.6874E-004
R = 1.0000
DL = 0.02569
BEC = 0.0819

Weight: <None>
Min Conc: <None>

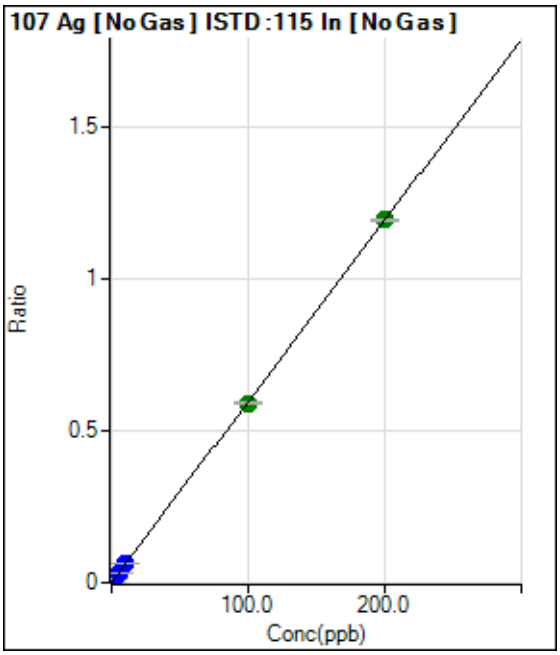


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	270.01	0.0001	P	10.1
2	☐	2.000	2.033	20399.28	0.0046	P	4.0
3	☐	5.000	5.120	50787.02	0.0115	P	0.7
4	☐	10.000	10.217	101387.78	0.0228	P	1.1
5	☐	100.000	99.972	982736.26	0.2229	P	0.2
6	☑	200.000		1967094.97	0.4670	A	1.7

y = 0.0022 * x + 6.1315E-005
R = 1.0000
DL = 0.008313
BEC = 0.02751

Weight: <None>
Min Conc: <None>

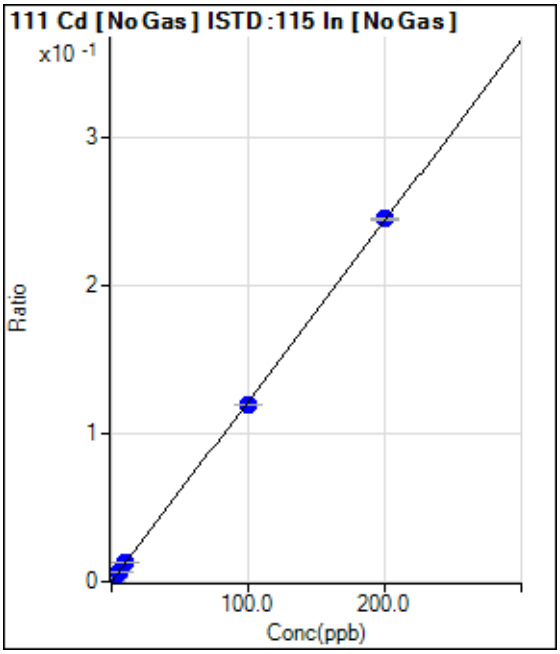
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	553.36	0.0001	P	10.9
2	☐	2.000	2.111	56427.03	0.0127	P	2.2
3	☐	5.000	5.191	137469.14	0.0311	P	2.1
4	☐	10.000	10.503	278400.59	0.0627	P	0.2
5	☐	100.000	99.189	2606315.53	0.5912	A	0.3
6	☐	200.000	200.374	5030908.36	1.1942	A	0.6

y = 0.0060 * x + 1.2566E-004
R = 1.0000
DL = 0.006897
BEC = 0.02109

Weight: <None>
Min Conc: <None>

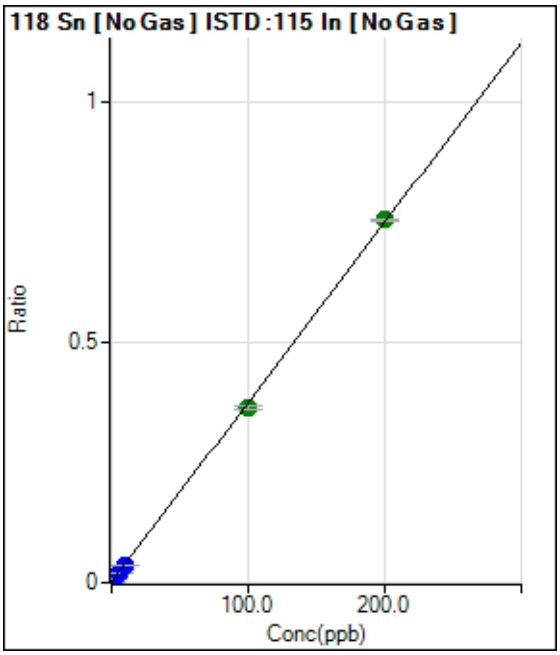


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	2.000	2.057	11118.20	0.0025	P	1.5
3	☐	5.000	5.040	27141.51	0.0061	P	2.8
4	☐	10.000	10.374	56029.04	0.0126	P	1.1
5	☐	100.000	97.872	524885.50	0.1191	P	0.4
6	☐	200.000	201.044	1030301.37	0.2446	P	0.8

y = 0.0012 * x + 7.5914E-007
R = 0.9999
DL = 0.003243
BEC = 0.000624

Weight: <None>
Min Conc: <None>

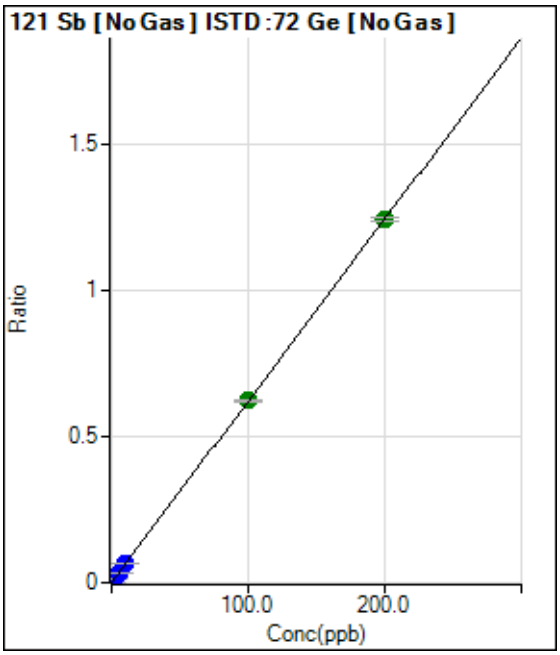
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4310.80	0.0010	P	2.3
2	☐	2.000	1.947	36748.36	0.0083	P	3.8
3	☐	5.000	4.772	83464.48	0.0189	P	2.7
4	☐	10.000	9.802	167360.18	0.0377	P	1.6
5	☐	100.000	97.068	1607579.82	0.3646	A	1.8
6	☐	200.000	201.482	3184280.68	0.7558	A	0.7

y = 0.0037 * x + 9.7876E-004
R = 0.9999
DL = 0.01796
BEC = 0.2612

Weight: <None>
Min Conc: <None>

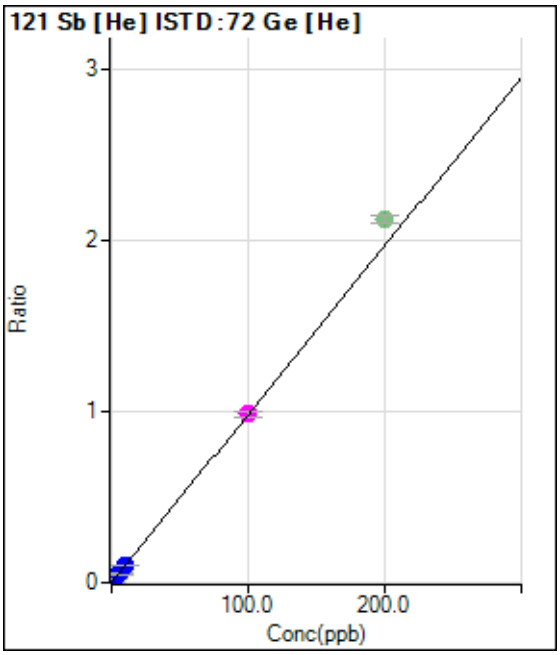


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2356.92	0.0007	P	7.7
2	☐	2.000	2.044	48018.34	0.0133	P	1.3
3	☐	5.000	5.062	115465.80	0.0320	P	1.0
4	☐	10.000	10.455	232536.16	0.0655	P	1.8
5	☐	100.000	100.332	2244428.72	0.6227	A	0.9
6	☐	200.000	199.809	4375854.00	1.2395	A	1.1

y = 0.0062 * x + 6.6014E-004
R = 1.0000
DL = 0.02455
BEC = 0.1065

Weight: <None>
Min Conc: <None>

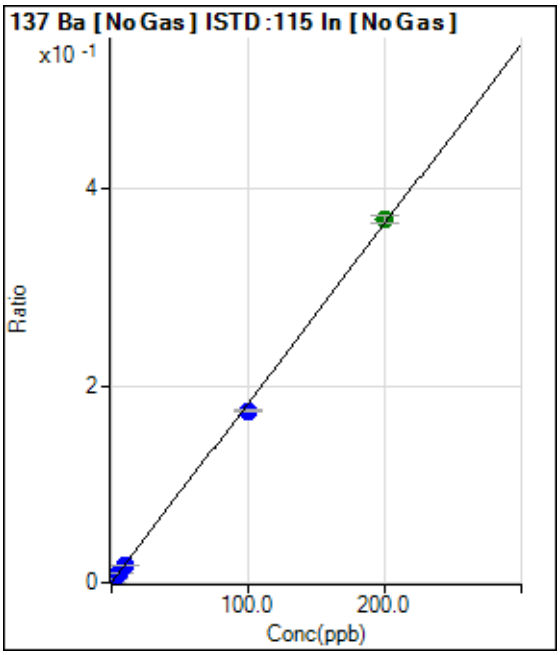
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	990.06	0.0009	P	10.8
2	☐	2.000	2.054	22906.95	0.0211	P	2.9
3	☐	5.000	5.118	55631.55	0.0512	P	2.7
4	☐	10.000	10.113	108761.82	0.1003	P	1.7
5	☐	100.000	99.982	1065948.26	0.9838	M	2.6
6	☑	200.000		2212022.57	2.1201	A	2.2

y = 0.0098 * x + 9.0061E-004
R = 1.0000
DL = 0.02973
BEC = 0.09161

Weight: <None>
Min Conc: <None>

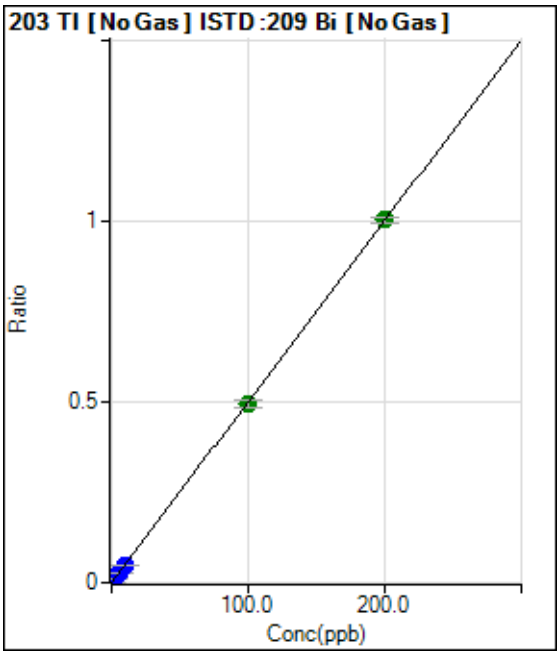


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	720.03	0.0002	P	5.3
2	☐	2.000	2.071	17492.28	0.0039	P	1.9
3	☐	5.000	4.827	39654.43	0.0090	P	1.0
4	☐	10.000	9.762	79700.64	0.0180	P	0.9
5	☐	100.000	95.677	769329.11	0.1745	P	1.5
6	☐	200.000	202.177	1552544.25	0.3686	A	2.2

y = 0.0018 * x + 1.6350E-004
R = 0.9997
DL = 0.01439
BEC = 0.08972

Weight: <None>
Min Conc: <None>

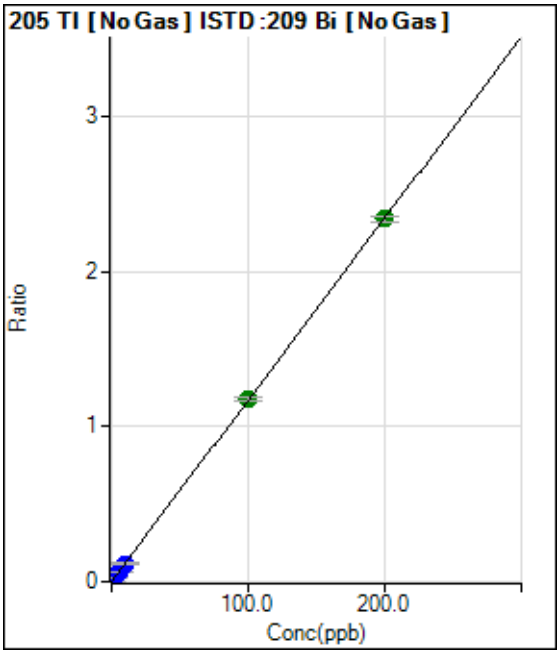
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	400.02	0.0001	P	7.4
2	☐	2.000	1.939	43305.44	0.0098	P	1.3
3	☐	5.000	4.920	107991.12	0.0247	P	2.2
4	☐	10.000	9.838	219174.49	0.0492	P	1.7
5	☐	100.000	98.729	2147794.71	0.4931	A	3.6
6	☐	200.000	200.646	4242833.17	1.0021	A	1.3

y = 0.0050 * x + 9.0255E-005
R = 1.0000
DL = 0.004032
BEC = 0.01807

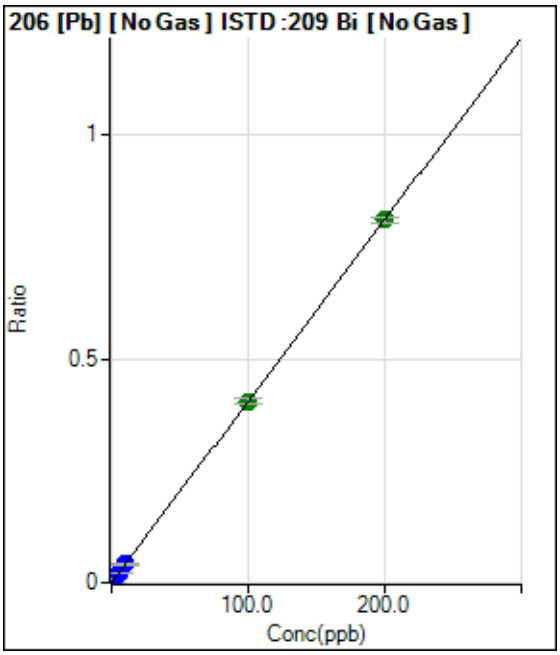
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1026.73	0.0002	P	15.8
2	☐	2.000	1.999	104768.38	0.0236	P	3.6
3	☐	5.000	5.096	262395.39	0.0599	P	1.7
4	☐	10.000	9.987	521905.85	0.1172	P	1.7
5	☐	100.000	100.390	5123650.13	1.1761	A	2.1
6	☐	200.000	199.803	9909455.48	2.3405	A	1.3

y = 0.0117 * x + 2.3167E-004
R = 1.0000
DL = 0.009364
BEC = 0.01978

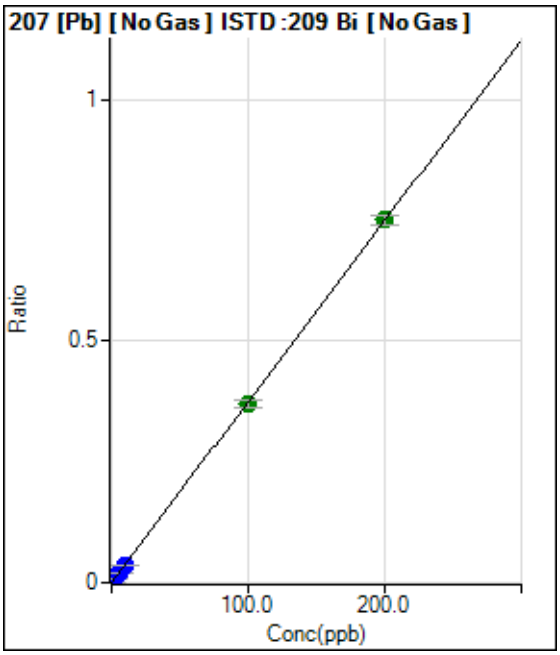
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.37	0.0002	P	7.9
2	☐	2.000	2.027	37122.37	0.0084	P	1.3
3	☐	5.000	5.105	91339.72	0.0209	P	2.0
4	☐	10.000	10.061	182383.82	0.0410	P	2.0
5	☐	100.000	99.908	1765488.67	0.4053	A	2.7
6	☐	200.000	200.040	3435663.07	0.8113	A	1.8

y = 0.0041 * x + 1.5871E-004
R = 1.0000
DL = 0.009334
BEC = 0.03914

Weight: <None>
Min Conc: <None>

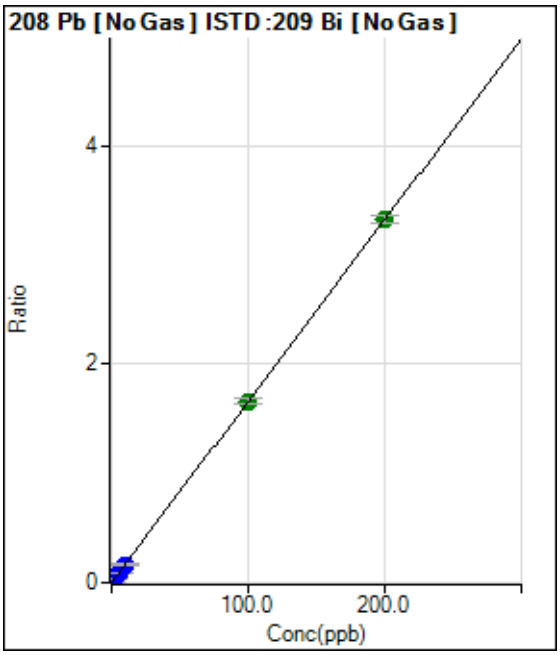


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.37	0.0002	P	14.9
2	☐	2.000	2.000	33846.23	0.0076	P	0.8
3	☐	5.000	5.018	82854.61	0.0189	P	3.9
4	☐	10.000	9.848	164707.55	0.0370	P	2.2
5	☐	100.000	98.751	1609213.99	0.3695	A	3.5
6	☐	200.000	200.632	3177365.99	0.7505	A	2.3

y = 0.0037 * x + 1.5869E-004
R = 1.0000
DL = 0.01894
BEC = 0.04243

Weight: <None>
Min Conc: <None>

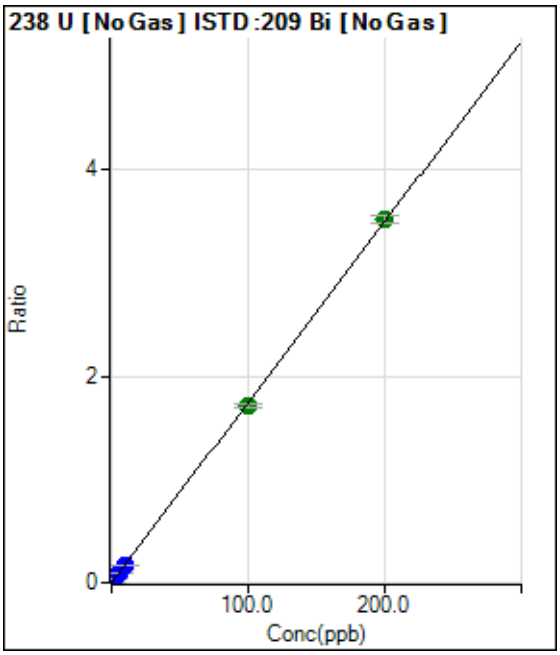
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3023.54	0.0007	P	8.5
2	☐	2.000	2.030	152222.81	0.0344	P	1.1
3	☐	5.000	5.061	370669.12	0.0847	P	2.4
4	☐	10.000	9.980	740377.11	0.1663	P	2.1
5	☐	100.000	99.742	7210883.43	1.6555	A	3.1
6	☐	200.000	200.128	14060332.29	3.3210	A	2.0

y = 0.0166 * x + 6.8225E-004
R = 1.0000
DL = 0.0105
BEC = 0.04112

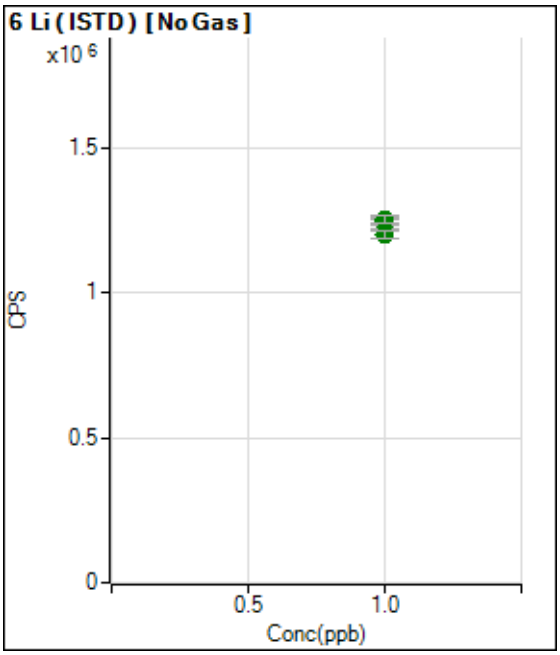
Weight: <None>
Min Conc: <None>



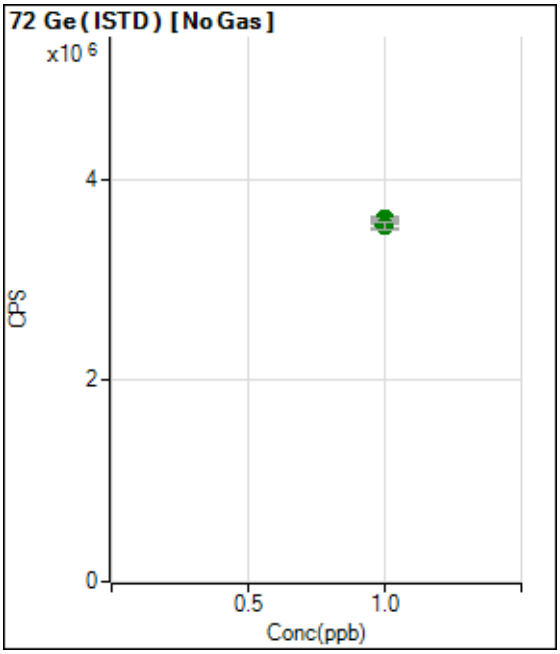
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	110.00	0.0000	P	24.0
2	☐	2.000	1.955	151608.23	0.0342	P	2.0
3	☐	5.000	4.915	376486.42	0.0860	P	3.0
4	☐	10.000	9.767	760834.44	0.1709	P	1.4
5	☐	100.000	97.802	7453227.18	1.7107	A	2.0
6	☐	200.000	201.113	14892446.03	3.5177	A	2.1

y = 0.0175 * x + 2.4816E-005
R = 0.9999
DL = 0.00102
BEC = 0.001419

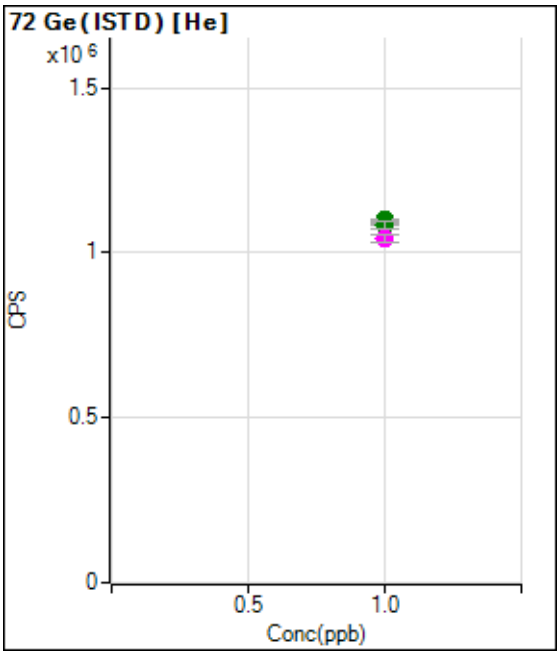
Weight: <None>
Min Conc: <None>



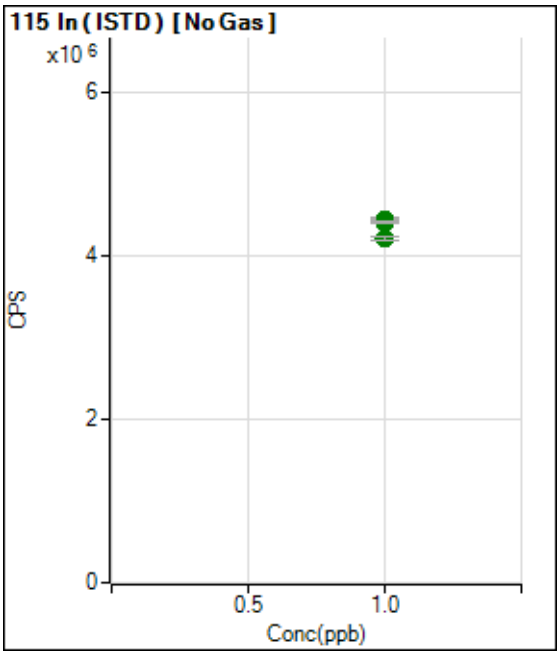
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1245422.74		A	1.1
2	☐	1.000		1219019.63		A	0.2
3	☐	1.000		1250998.65		A	2.0
4	☐	1.000		1243976.23		A	1.6
5	☐	1.000		1253379.39		A	2.2
6	☐	1.000		1202323.55		A	2.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3568143.49		A	1.3
2	☐	1.000		3601909.95		A	0.9
3	☐	1.000		3603413.90		A	1.7
4	☐	1.000		3551962.86		A	2.0
5	☐	1.000		3604269.22		A	0.7
6	☐	1.000		3530700.26		A	1.9

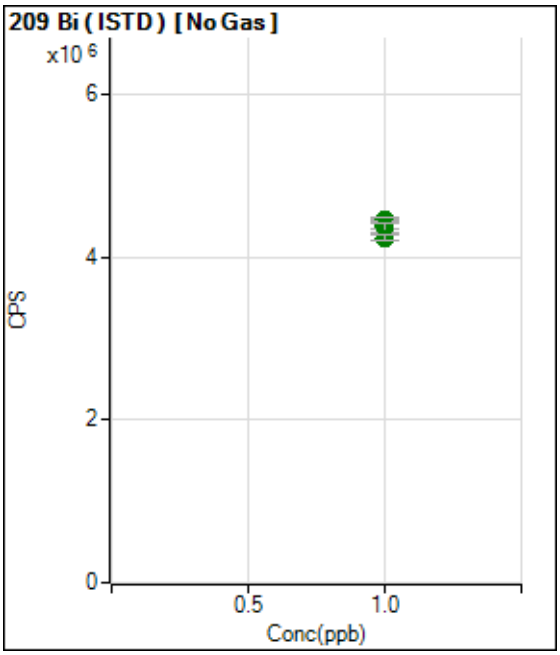


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1099243.94		A	0.3
2	☐	1.000		1085958.94		A	0.9
3	☐	1.000		1086538.42		A	2.4
4	☐	1.000		1084426.91		A	2.2
5	☐	1.000		1083757.98		A	1.6
6	☐	1.000		1043675.84		M	2.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4404541.04		A	0.3
2	☐	1.000		4442927.23		A	1.8
3	☐	1.000		4426408.10		A	0.5
4	☐	1.000		4439432.52		A	0.6
5	☐	1.000		4408508.81		A	0.4
6	☐	1.000		4213001.98		A	1.4

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4431936.50		A	0.1
2	☐	1.000		4431188.99		A	1.1
3	☐	1.000		4379992.85		A	1.8
4	☐	1.000		4453524.00		A	1.0
5	☐	1.000		4357869.94		A	2.4
6	☐	1.000		4234525.98		A	1.7

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	014CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:34:01-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	72732	0.00
Be	9	1	No Gas	3	5196.15
V	51	2	He	1206	0.37
Cr	52	2	He	2190	0.13
Fe	56	2	He	26125	0.00
Se	78	2	He	94	2.26
As	75	2	He	134	11.71
Ca	44	2	He	1823	0.31
Na	23	2	He	94441	0.00
Mg	24	2	He	1970	0.32
K	39	2	He	44693	0.00
Mn	55	2	He	9083	0.04
Co	59	2	He	67	56.62
Ni	60	2	He	993	1.41
Cu	63	2	He	5821	0.08
Zn	66	2	He	4161	0.27
Al	27	2	He	2940	0.26
B	11	1	No Gas	27929	0.01
Al	27	1	No Gas	133156	0.00
Si	28	1	No Gas	619853	0.00
Ag	107	1	No Gas	553	1.91
Cd	111	1	No Gas	3	5196.15
Sr	88	1	No Gas	3827	0.28
Mo	95	1	No Gas	270	3.63
Sn	118	1	No Gas	4311	0.05
Sb	121	1	No Gas	2357	0.38
Ba	137	1	No Gas	720	0.70
Tl	205	1	No Gas	1027	1.54
Tl	203	1	No Gas	400	1.88
Pb	208	1	No Gas	3024	0.28
U	238	1	No Gas	110	21.87
Ca	43	2	He	67	12.99
Sb	121	2	He	990	1.10
Ti	47	2	He	13	324.76
Cu	63	1	No Gas	14174	0.02

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD

Calibration Blank Report

Li	6	1	No Gas	1245423	1.12
Ge	72	2	He	1099244	0.30
Ge	72	1	No Gas	3568143	1.32
In	115	1	No Gas	4404541	0.35

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	4431936	0.12

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	015CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:35:59-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	8328	0.02
V	51	2	He	18795	0.00
Cr	52	2	He	23821	0.00
Fe	56	2	He	2079081	0.00
Se	78	2	He	375	2.88
As	75	2	He	3187	0.07
Ca	44	2	He	11909	0.02
Na	23	2	He	370183	0.00
Mg	24	2	He	169309	0.00
K	39	2	He	239134	0.00
Mn	55	2	He	23738	0.01
Co	59	2	He	32713	0.00
Ni	60	2	He	9247	0.06
Cu	63	2	He	28173	0.01
Zn	66	2	He	9030	0.01
Al	27	2	He	3470	0.16
B	11	1	No Gas	54318	0.00
Al	27	1	No Gas	159799	0.00
Si	28	1	No Gas	756528	0.00
Ag	107	1	No Gas	56427	0.00
Cd	111	1	No Gas	11118	0.01
Sr	88	1	No Gas	98668	0.00
Mo	95	1	No Gas	20399	0.01
Sn	118	1	No Gas	36748	0.01
Sb	121	1	No Gas	48018	0.00
Ba	137	1	No Gas	17492	0.02
Tl	205	1	No Gas	104768	0.00
Tl	203	1	No Gas	43305	0.00
Pb	208	1	No Gas	152223	0.00
U	238	1	No Gas	151608	0.00
Ca	43	2	He	667	2.16
Sb	121	2	He	22907	0.01
Cu	63	1	No Gas	54616	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1219020	0.22	1245423	97.88	70	120	
Ge	72	2	He	1085959	0.87	1099244	98.79	70	120	
Ge	72	1	No Gas	3601910	0.88	3568143	100.95	70	120	

Calibration Standard Report

In	115	1	No Gas	4442927	1.82	4404541	100.87	70	120	
Bi	209	1	No Gas	4431189	1.06	4431936	99.98	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	016CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:37:59-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	20545	0.00
V	51	2	He	44464	0.00
Cr	52	2	He	55459	0.00
Fe	56	2	He	4868709	0.00
Se	78	2	He	822	0.74
As	75	2	He	7449	0.04
Ca	44	2	He	27879	0.00
Na	23	2	He	752294	0.00
Mg	24	2	He	411843	0.00
K	39	2	He	516579	0.00
Mn	55	2	He	43289	0.01
Co	59	2	He	79826	0.00
Ni	60	2	He	20800	0.01
Cu	63	2	He	61475	0.00
Zn	66	2	He	14525	0.01
Al	27	2	He	5058	0.15
B	11	1	No Gas	93631	0.00
Al	27	1	No Gas	227782	0.00
Si	28	1	No Gas	896060	0.00
Ag	107	1	No Gas	137469	0.00
Cd	111	1	No Gas	27142	0.01
Sr	88	1	No Gas	242129	0.00
Mo	95	1	No Gas	50787	0.00
Sn	118	1	No Gas	83464	0.00
Sb	121	1	No Gas	115466	0.00
Ba	137	1	No Gas	39654	0.00
Tl	205	1	No Gas	262395	0.00
Tl	203	1	No Gas	107991	0.00
Pb	208	1	No Gas	370669	0.00
U	238	1	No Gas	376486	0.00
Ca	43	2	He	1647	0.20
Sb	121	2	He	55632	0.00
Cu	63	1	No Gas	113309	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1250999	2.03	1245423	100.45	70	120	
Ge	72	2	He	1086538	2.38	1099244	98.84	70	120	
Ge	72	1	No Gas	3603414	1.72	3568143	100.99	70	120	

Calibration Standard Report

In	115	1	No Gas	4426408	0.52	4404541	100.50	70	120	
Bi	209	1	No Gas	4379993	1.83	4431936	98.83	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	017CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:39:57-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	41785	0.00
V	51	2	He	89429	0.00
Cr	52	2	He	108941	0.00
Fe	56	2	He	9898746	0.00
Se	78	2	He	1488	0.23
As	75	2	He	15698	0.01
Ca	44	2	He	55003	0.00
Na	23	2	He	1451542	0.00
Mg	24	2	He	817754	0.00
K	39	2	He	1034801	0.00
Mn	55	2	He	79859	0.00
Co	59	2	He	163525	0.00
Ni	60	2	He	42396	0.00
Cu	63	2	He	118187	0.00
Zn	66	2	He	25304	0.01
Al	27	2	He	7799	0.02
B	11	1	No Gas	162889	0.00
Al	27	1	No Gas	358229	0.00
Si	28	1	No Gas	1110956	0.00
Ag	107	1	No Gas	278401	0.00
Cd	111	1	No Gas	56029	0.00
Sr	88	1	No Gas	486134	0.00
Mo	95	1	No Gas	101388	0.00
Sn	118	1	No Gas	167360	0.00
Sb	121	1	No Gas	232536	0.00
Ba	137	1	No Gas	79701	0.00
Tl	205	1	No Gas	521906	0.00
Tl	203	1	No Gas	219174	0.00
Pb	208	1	No Gas	740377	0.00
U	238	1	No Gas	760834	0.00
Ca	43	2	He	3357	0.10
Sb	121	2	He	108762	0.00
Cu	63	1	No Gas	214357	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1243976	1.62	1245423	99.88	70	120	
Ge	72	2	He	1084427	2.24	1099244	98.65	70	120	
Ge	72	1	No Gas	3551963	1.96	3568143	99.55	70	120	

Calibration Standard Report

In	115	1	No Gas	4439433	0.59	4404541	100.79	70	120	
Bi	209	1	No Gas	4453524	1.01	4431936	100.49	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	018CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:41:54-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	414436	0.00
V	51	2	He	859512	0.00
Cr	52	2	He	1033390	0.00
Fe	56	2	He	91244135	0.00
Se	78	2	He	13845	0.01
As	75	2	He	151632	0.00
Ca	44	2	He	499104	0.00
Na	23	2	He	12444841	0.00
Mg	24	2	He	7313132	0.00
K	39	2	He	8827503	0.00
Mn	55	2	He	770530	0.00
Co	59	2	He	1649046	0.00
Ni	60	2	He	394945	0.00
Cu	63	2	He	1105263	0.00
Zn	66	2	He	207434	0.00
Al	27	2	He	47548	0.00
B	11	1	No Gas	1324821	0.00
Al	27	1	No Gas	2133384	0.00
Si	28	1	No Gas	5349325	0.00
Ag	107	1	No Gas	2606316	0.00
Cd	111	1	No Gas	524886	0.00
Sr	88	1	No Gas	4608088	0.00
Mo	95	1	No Gas	982736	0.00
Sn	118	1	No Gas	1607580	0.00
Sb	121	1	No Gas	2244429	0.00
Ba	137	1	No Gas	769329	0.00
Tl	205	1	No Gas	5123650	0.00
Tl	203	1	No Gas	2147795	0.00
Pb	208	1	No Gas	7210883	0.00
U	238	1	No Gas	7453227	0.00
Ca	43	2	He	29355	0.00
Sb	121	2	He	1065948	0.00
Cu	63	1	No Gas	1945651	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1253379	2.23	1245423	100.64	70	120	
Ge	72	2	He	1083758	1.65	1099244	98.59	70	120	
Ge	72	1	No Gas	3604269	0.75	3568143	101.01	70	120	

Calibration Standard Report

In	115	1	No Gas	4408509	0.43	4404541	100.09	70	120	
Bi	209	1	No Gas	4357870	2.36	4431936	98.33	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	019CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:43:45-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	817948	0.00
V	51	2	He	1739397	0.00
Cr	52	2	He	2096273	0.00
Fe	56	2	He	187331857	0.00
Se	78	2	He	26594	0.00
As	75	2	He	298660	0.00
Ca	44	2	He	1042624	0.00
Na	23	2	He	25357754	0.00
Mg	24	2	He	15111806	0.00
K	39	2	He	18166007	0.00
Mn	55	2	He	1518001	0.00
Co	59	2	He	3073234	0.00
Ni	60	2	He	772251	0.00
Cu	63	2	He	2118563	0.00
Zn	66	2	He	400131	0.00
Al	27	2	He	91688	0.00
B	11	1	No Gas	2565502	0.00
Al	27	1	No Gas	3926155	0.00
Si	28	1	No Gas	9513529	0.00
Ag	107	1	No Gas	5030908	0.00
Cd	111	1	No Gas	1030301	0.00
Sr	88	1	No Gas	8973742	0.00
Mo	95	1	No Gas	1967095	0.00
Sn	118	1	No Gas	3184281	0.00
Sb	121	1	No Gas	4375854	0.00
Ba	137	1	No Gas	1552544	0.00
Tl	205	1	No Gas	9909455	0.00
Tl	203	1	No Gas	4242833	0.00
Pb	208	1	No Gas	14060332	0.00
U	238	1	No Gas	14892446	0.00
Ca	43	2	He	59301	0.00
Sb	121	2	He	2212023	0.00
Cu	63	1	No Gas	3693847	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1202324	2.25	1245423	96.54	70	120	
Ge	72	2	He	1043676	2.42	1099244	94.94	70	120	
Ge	72	1	No Gas	3530700	1.90	3568143	98.95	70	120	

Calibration Standard Report

In	115	1	No Gas	4213002	1.38	4404541	95.65	70	120	
Bi	209	1	No Gas	4234526	1.73	4431936	95.55	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	021_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:52:02-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	102.752	2.231	1673454	2.10	100	102.8	90	110	
Be	9	1	No Gas	102.884	1.173	414579	0.76	100	102.9	90	110	
V	51	2	He	98.316	2.752	877030	1.18	100	98.3	90	110	
Cr	52	2	He	98.514	3.191	1058957	2.19	100	98.5	90	110	
Fe	56	2	He	10055.596	1.871	96322722	0.37	10000	100.6	90	110	
Se	78	2	He	99.663	0.804	13768	1.46	100	99.7	90	110	
As	75	2	He	98.844	1.717	152189	0.70	100	98.8	90	110	
Ca	44	2	He	9922.301	3.084	527909	1.40	10000	99.2	90	110	
Na	23	2	He	10186.666	3.174	13258824	0.99	10000	101.9	90	110	
Mg	24	2	He	10276.480	2.040	7931215	0.35	10000	102.8	90	110	
K	39	2	He	10072.353	2.926	9367223	0.89	10000	100.7	90	110	
Mn	55	2	He	96.038	1.979	754672	0.59	100	96.0	90	110	
Co	59	2	He	101.978	2.427	1633196	0.98	100	102.0	90	110	
Ni	60	2	He	100.768	2.577	401985	0.45	100	100.8	90	110	
Cu	63	2	He	99.157	2.219	1090942	0.21	100	99.2	90	110	
Zn	66	2	He	99.393	1.917	207474	1.10	100	99.4	90	110	
Al	27	2	He	98.584	3.275	47953	1.08	100	98.6	90	110	
B	11	1	No Gas	504.094	2.999	1319093	2.54	500	100.8	90	110	
Al	27	1	No Gas	102.525	3.436	2126294	2.61	100	102.5	90	110	
Si	28	1	No Gas	523.395	1.225	5402906	0.47	500	104.7	90	110	
Ag	107	1	No Gas	101.036	1.407	2632634	0.93	100	101.0	90	110	
Cd	111	1	No Gas	99.610	1.248	529747	0.72	100	99.6	90	110	
Sr	88	1	No Gas	100.738	2.993	4674061	1.36	100	100.7	90	110	
Mo	95	1	No Gas	100.765	1.385	982249	0.86	100	100.8	90	110	
Sn	118	1	No Gas	100.269	0.096	1646747	1.75	100	100.3	90	110	
Sb	121	1	No Gas	102.888	1.600	2293728	1.04	100	102.9	90	110	
Ba	137	1	No Gas	97.980	1.499	781253	0.55	100	98.0	90	110	
Tl	205	1	No Gas	103.627	2.742	5286532	1.56	100	103.6	90	110	
Tl	203	1	No Gas	101.176	2.278	2200774	1.23	100	101.2	90	110	
Pb	208	1	No Gas	102.256	1.176	7391796	0.33	100	102.3	90	110	
U	238	1	No Gas	95.327	0.901	7262559	1.32	100	95.3	90	110	
Ca	43	2	He	10169.420	5.513	30952	4.05	10000	101.7	90	110	
Sb	121	2	He	104.526	1.428	1111061	1.79	100	104.5	90	110	
Ti	47	2	He	99.928	1.822	32378	1.67	100	99.9	90	110	
Cu	63	1	No Gas	103.078	0.997	1955490	1.30	100	103.1	90	110	
Se	82	1	No Gas	102.657	1.021	31967	0.49	100	102.7	90	110	

QC ISTD Table

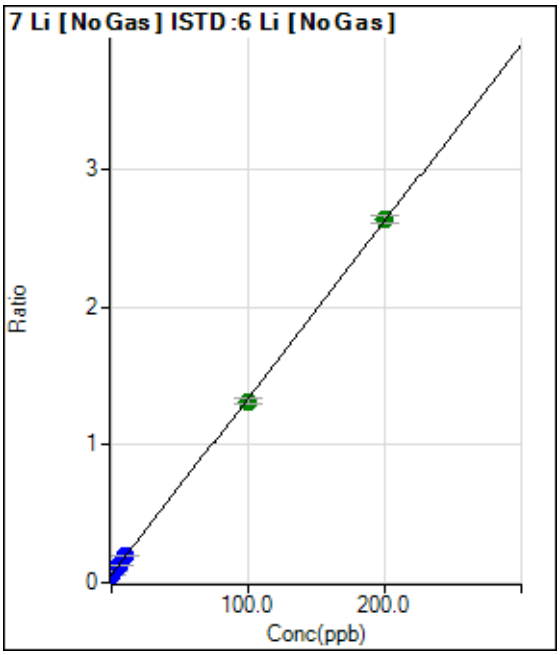
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1218169	0.43	1245423	97.81	70	120	
Ge	72	2	He	1080428	2.26	1099244	98.29	70	120	
Ge	72	1	No Gas	3592090	0.61	3568143	100.67	70	120	
In	115	1	No Gas	4372251	1.66	4404541	99.27	70	120	
Bi	209	1	No Gas	4355773	1.48	4431936	98.28	70	120	

Calibration for 021_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\060721A.b\
Analysis File: 060721A.batch.bin
DA Date-Time: 6/8/2021 8:07:01 AM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	014CALB.d	CAL BLK	6/7/2021 10:34:01 AM
2	015CALS.d	2/10/200	6/7/2021 10:35:59 AM
3	016CALS.d	5/25/500	6/7/2021 10:37:59 AM
4	017CALS.d	10/50/100	6/7/2021 10:39:57 AM
5	018CALS.d	100/500/10K	6/7/2021 10:41:54 AM
6	019CALS.d	200/1000/20K	6/7/2021 10:43:45 AM

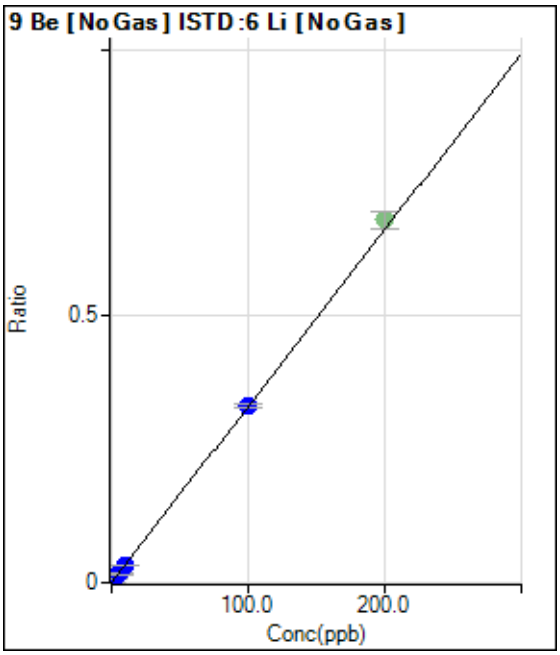
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72731.61	0.0584	P	0.6
2	☐	2.000	2.315	107311.68	0.0880	P	0.9
3	☐	5.000	5.219	156578.97	0.1252	P	2.9
4	☐	10.000	10.659	242313.77	0.1948	P	2.5
5	☐	100.000	98.201	1648242.94	1.3155	A	2.4
6	☐	200.000	200.858	3160660.37	2.6297	A	2.2

y = 0.0128 * x + 0.0584
R = 0.9999
DL = 0.08796
BEC = 4.562

Weight: <None>
Min Conc: <None>

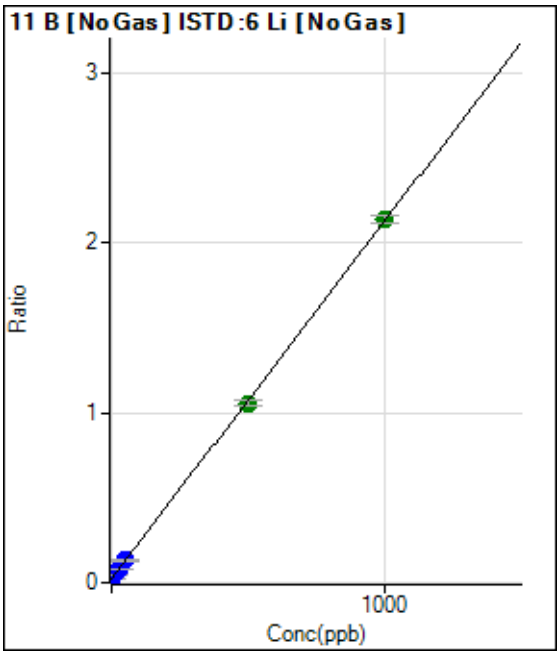


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	2.000	2.064	8327.52	0.0068	P	1.4
3	☐	5.000	4.966	20545.09	0.0164	P	2.5
4	☐	10.000	10.156	41785.29	0.0336	P	2.2
5	☐	100.000	99.985	414436.31	0.3307	P	1.9
6	☑	200.000		817948.35	0.6808	A	4.7

y = 0.0033 * x + 2.7009E-006
R = 1.0000
DL = 0.004243
BEC = 0.0008165

Weight: <None>
Min Conc: <None>

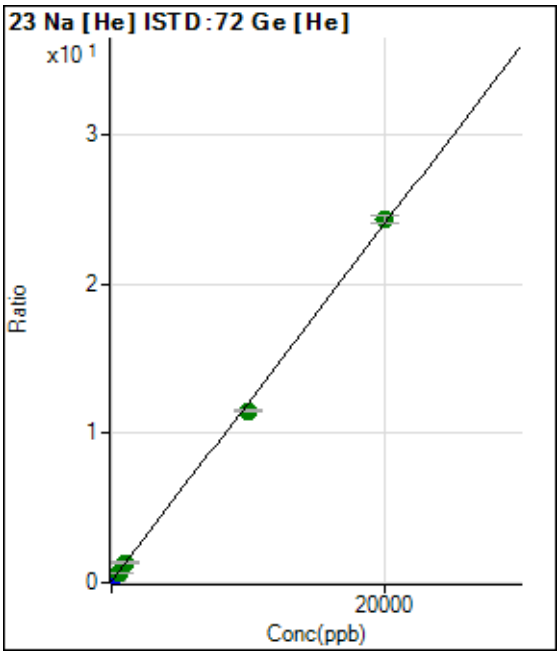
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27929.44	0.0224	P	2.5
2	☐	10.000	10.519	54317.73	0.0446	P	1.3
3	☐	25.000	24.927	93631.38	0.0749	P	2.5
4	☐	50.000	51.595	162888.53	0.1310	P	2.3
5	☐	500.000	491.999	1324821.00	1.0575	A	3.3
6	☐	1000.000	1003.917	2565502.30	2.1345	A	2.1

y = 0.0021 * x + 0.0224
R = 1.0000
DL = 0.7955
BEC = 10.66

Weight: <None>
Min Conc: <None>

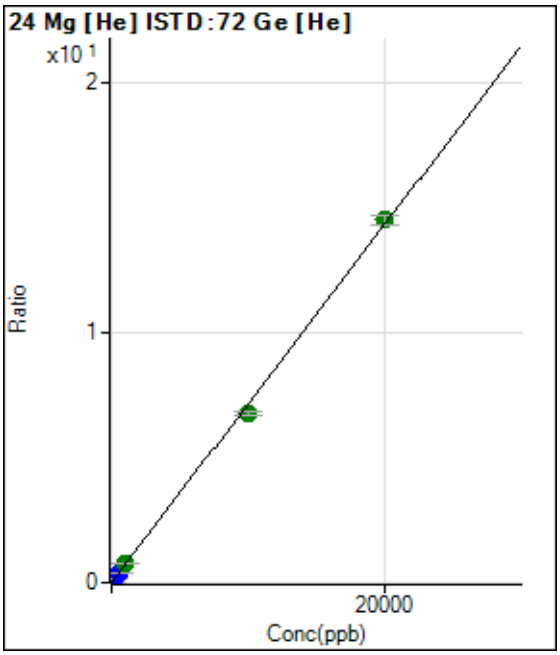


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94441.26	0.0859	P	1.0
2	☐	200.000	213.041	370183.13	0.3409	P	0.9
3	☐	500.000	506.931	752293.84	0.6926	A	2.3
4	☐	1000.000	1047.093	1451541.70	1.3391	A	3.0
5	☐	10000.00	9523.822	12444841.48	11.4843	A	1.0
6	☐	20000.00	20235.43	25357753.79	24.3042	A	2.2

y = 0.0012 * x + 0.0859
R = 0.9996
DL = 2.106
BEC = 71.79

Weight: <None>
Min Conc: <None>

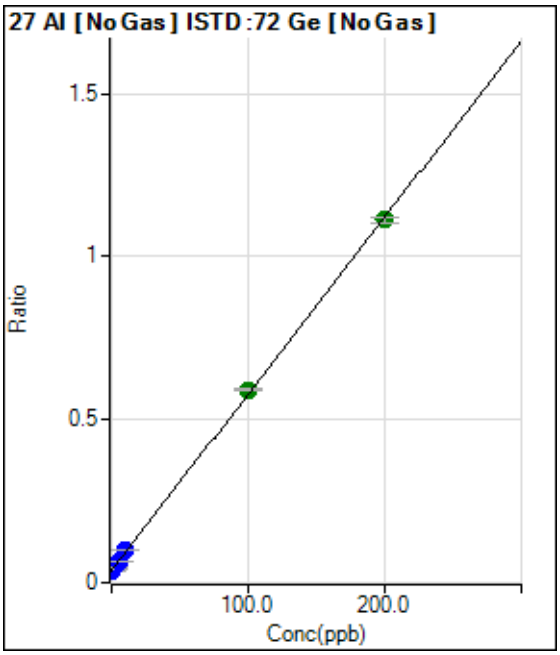
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1970.19	0.0018	P	6.7
2	☐	200.000	215.732	169309.19	0.1559	P	1.2
3	☐	500.000	528.212	411842.56	0.3791	P	1.6
4	☐	1000.000	1053.608	817753.77	0.7545	A	3.4
5	☐	10000.00	9444.694	7313132.39	6.7488	A	1.6
6	☐	20000.00	20274.11	15111806.02	14.4851	A	2.4

y = 7.1437E-004 * x + 0.0018
R = 0.9994
DL = 0.5013
BEC = 2.509

Weight: <None>
Min Conc: <None>

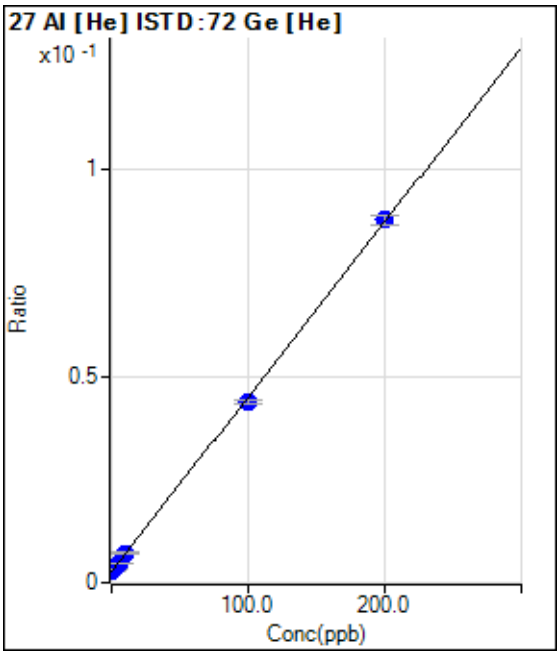


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	133156.24	0.0373	P	0.8
2	☐	2.000	1.302	159798.80	0.0444	P	1.0
3	☐	5.000	4.789	227782.29	0.0632	P	2.7
4	☐	10.000	11.748	358229.01	0.1009	P	2.0
5	☐	100.000	102.509	2133384.29	0.5919	A	1.3
6	☐	200.000	198.670	3926154.84	1.1122	A	1.7

y = 0.0054 * x + 0.0373
R = 0.9998
DL = 0.1584
BEC = 6.898

Weight: <None>
Min Conc: <None>

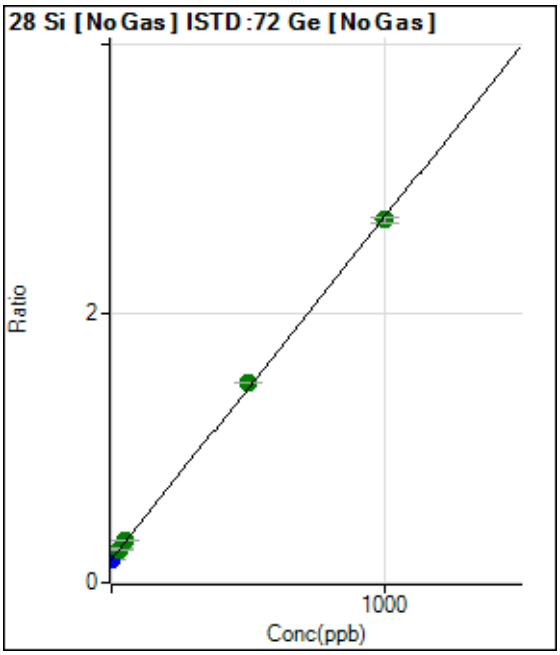
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2940.37	0.0027	P	7.6
2	☐	2.000	1.230	3470.49	0.0032	P	5.0
3	☐	5.000	4.693	5057.69	0.0047	P	9.5
4	☐	10.000	10.681	7799.02	0.0072	P	3.7
5	☐	100.000	97.348	47548.08	0.0439	P	2.6
6	☐	200.000	201.307	91688.25	0.0879	P	2.3

y = 4.2328E-004 * x + 0.0027
R = 0.9999
DL = 1.437
BEC = 6.319

Weight: <None>
Min Conc: <None>

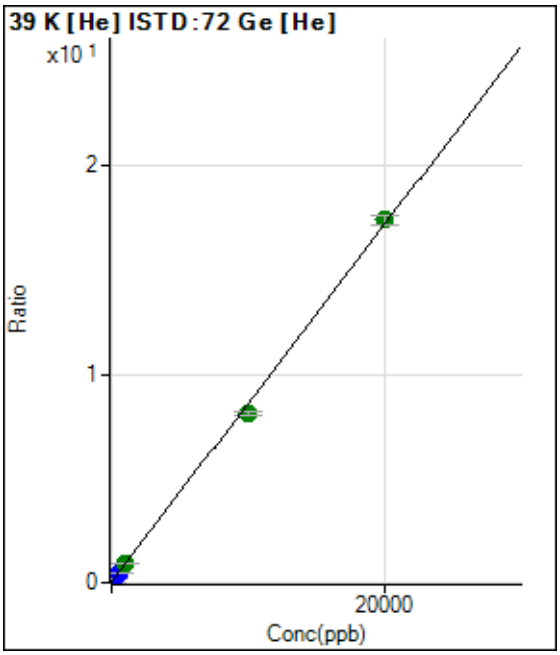


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	619853.28	0.1737	P	0.7
2	☐	10.000	14.286	756528.03	0.2100	P	0.9
3	☐	25.000	29.479	896060.28	0.2487	A	2.3
4	☐	50.000	54.729	1110956.36	0.3128	A	2.0
5	☐	500.000	515.516	5349325.34	1.4841	A	0.2
6	☐	1000.000	991.851	9513529.03	2.6950	A	1.6

y = 0.0025 * x + 0.1737
R = 0.9998
DL = 1.36
BEC = 68.34

Weight: <None>
Min Conc: <None>

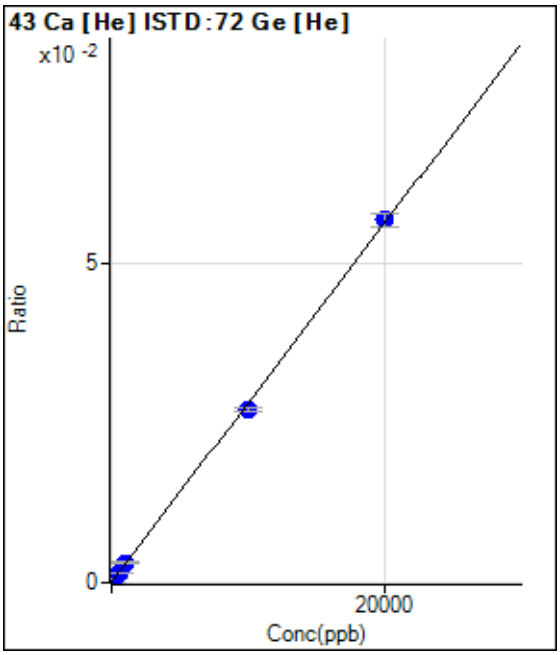
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44692.57	0.0407	P	2.0
2	☐	200.000	209.492	239134.12	0.2202	P	0.5
3	☐	500.000	507.508	516578.90	0.4756	P	2.7
4	☐	1000.000	1065.993	1034800.69	0.9543	A	0.9
5	☐	10000.00	9458.345	8827502.78	8.1474	A	2.3
6	☐	20000.00	20267.24	18166006.81	17.4116	A	2.4

y = 8.5710E-004 * x + 0.0407
R = 0.9995
DL = 2.86
BEC = 47.44

Weight: <None>
Min Conc: <None>

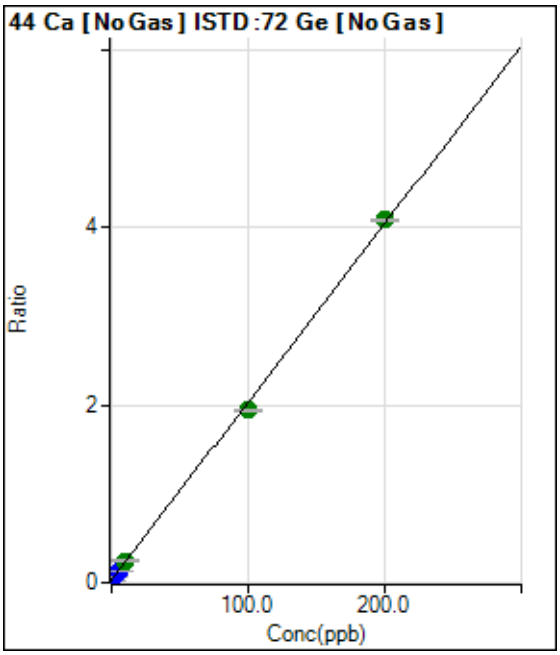


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	8.9
2	☐	200.000	196.717	666.70	0.0006	P	14.4
3	☐	500.000	517.176	1646.79	0.0015	P	1.0
4	☐	1000.000	1079.499	3357.14	0.0031	P	4.4
5	☐	10000.00	9610.195	29354.86	0.0271	P	2.3
6	☐	20000.00	20190.53	59301.23	0.0569	P	3.8

y = 2.8129E-006 * x + 6.0658E-005
R = 0.9997
DL = 5.769
BEC = 21.56

Weight: <None>
Min Conc: <None>

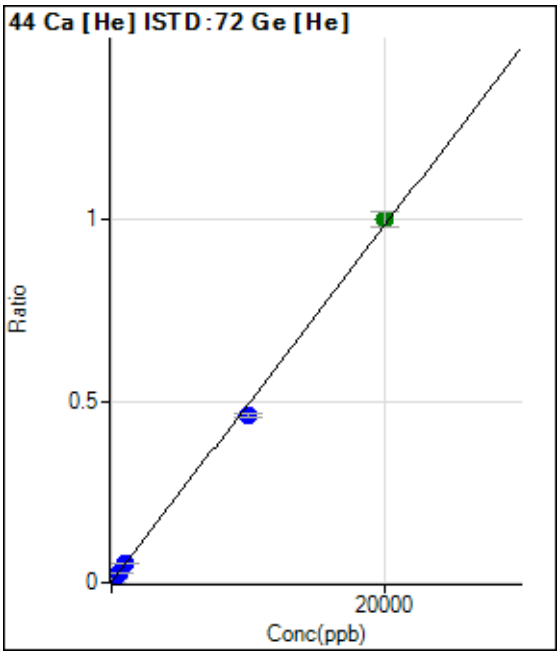
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106130.10	0.0297	P	0.7
2	☐	2.000	2.063	256101.77	0.0711	P	0.4
3	☐	5.000	5.215	483897.11	0.1343	P	1.0
4	☐	10.000	10.851	878123.63	0.2473	A	2.8
5	☐	100.000	95.298	6994221.98	1.9406	A	0.5
6	☐	200.000	202.302	14425699.37	4.0861	A	0.8

y = 0.0201 * x + 0.0297
R = 0.9996
DL = 0.02996
BEC = 1.483

Weight: <None>
Min Conc: <None>

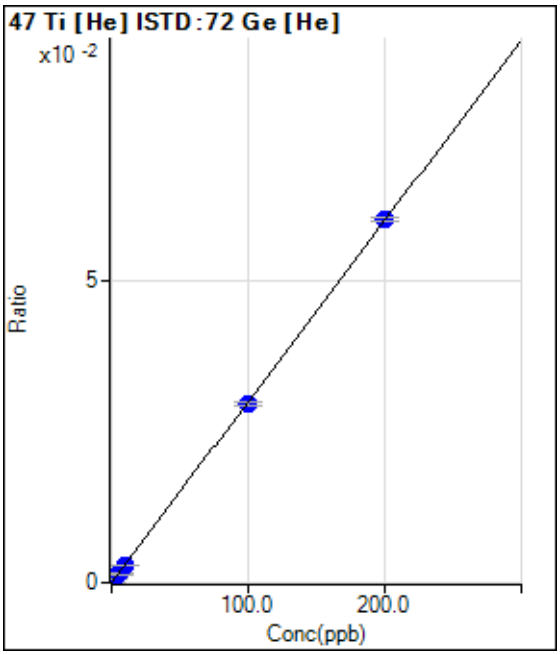


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1823.49	0.0017	P	5.7
2	☐	200.000	189.556	11908.69	0.0110	P	2.4
3	☐	500.000	488.967	27878.50	0.0257	P	1.9
4	☐	1000.000	999.339	55003.31	0.0507	P	1.1
5	☐	10000.00	9347.878	499103.71	0.4606	P	1.8
6	☐	20000.00	20326.47	1042623.89	0.9996	A	4.2

y = 4.9097E-005 * x + 0.0017
R = 0.9993
DL = 5.747
BEC = 33.79

Weight: <None>
Min Conc: <None>

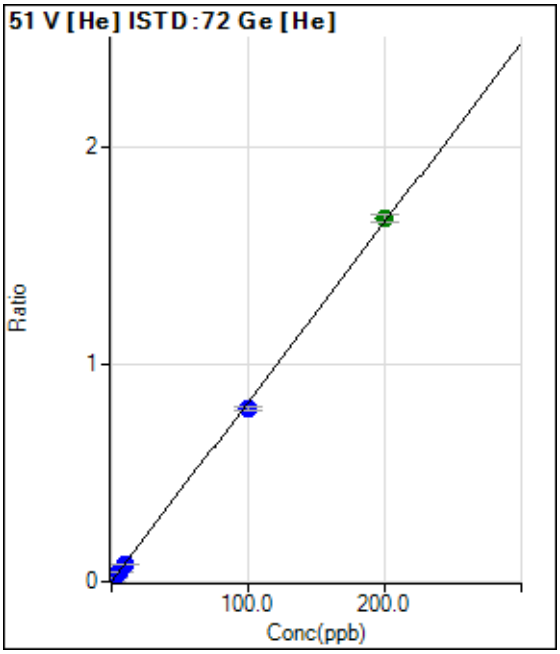
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	43.6
2	☐	2.000	2.190	726.70	0.0007	P	17.7
3	☐	5.000	4.851	1593.46	0.0015	P	4.4
4	☐	10.000	9.768	3187.10	0.0029	P	4.4
5	☐	100.000	98.766	32104.61	0.0296	P	2.3
6	☐	200.000	200.631	62793.57	0.0602	P	1.1

y = 2.9983E-004 * x + 1.2138E-005
R = 1.0000
DL = 0.05293
BEC = 0.04048

Weight: <None>
Min Conc: <None>

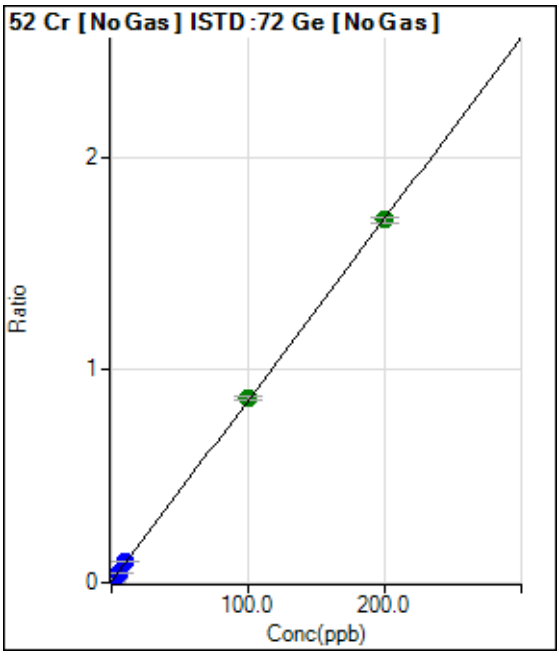


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1205.62	0.0011	P	4.3
2	☐	2.000	1.965	18795.16	0.0173	P	0.4
3	☐	5.000	4.830	44464.15	0.0409	P	3.2
4	☐	10.000	9.870	89429.45	0.0825	P	3.3
5	☐	100.000	96.041	859512.12	0.7933	P	2.3
6	☐	200.000	201.991	1739397.33	1.6672	A	2.3

y = 0.0082 * x + 0.0011
R = 0.9997
DL = 0.01723
BEC = 0.133

Weight: <None>
Min Conc: <None>

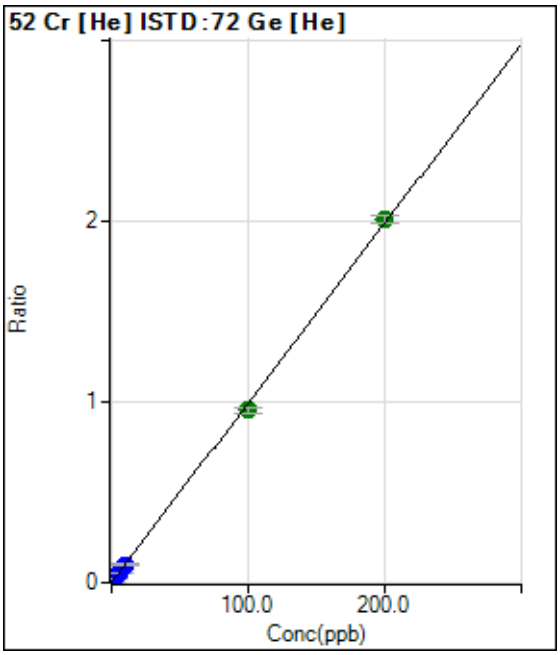
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16159.82	0.0045	P	3.5
2	☐	2.000	2.080	80221.24	0.0223	P	2.0
3	☐	5.000	5.130	173985.49	0.0483	P	0.6
4	☐	10.000	10.690	339942.47	0.0957	P	1.5
5	☐	100.000	100.992	3121308.18	0.8660	A	1.9
6	☐	200.000	199.465	6022344.08	1.7061	A	1.6

y = 0.0085 * x + 0.0045
R = 1.0000
DL = 0.05537
BEC = 0.531

Weight: <None>
Min Conc: <None>

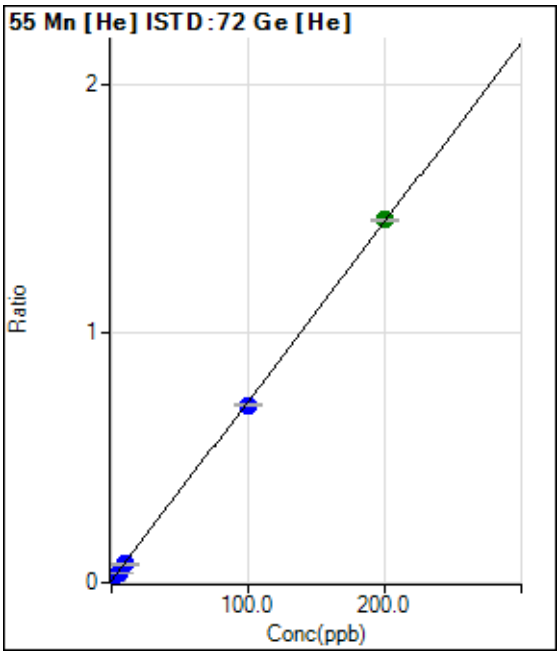


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2190.22	0.0020	P	2.8
2	☐	2.000	2.008	23820.97	0.0219	P	1.2
3	☐	5.000	4.940	55459.16	0.0511	P	2.4
4	☐	10.000	9.918	108940.96	0.1005	P	3.5
5	☐	100.000	95.834	1033390.25	0.9538	A	3.7
6	☐	200.000	202.088	2096273.46	2.0092	A	2.0

y = 0.0099 * x + 0.0020
R = 0.9997
DL = 0.01684
BEC = 0.2006

Weight: <None>
Min Conc: <None>

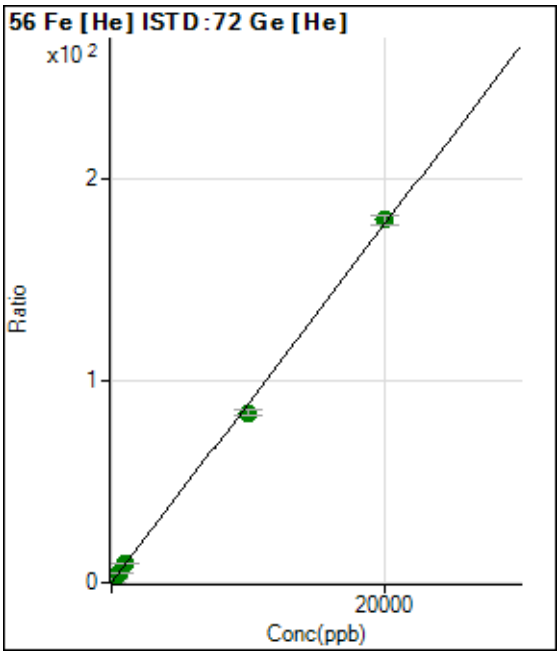
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9083.18	0.0083	P	3.4
2	☐	2.000	1.891	23737.67	0.0219	P	1.5
3	☐	5.000	4.395	43289.06	0.0399	P	3.5
4	☐	10.000	9.099	79859.17	0.0737	P	2.9
5	☐	100.000	97.763	770530.35	0.7111	P	1.4
6	☐	200.000	201.180	1518001.23	1.4546	A	0.6

y = 0.0072 * x + 0.0083
R = 0.9999
DL = 0.1173
BEC = 1.149

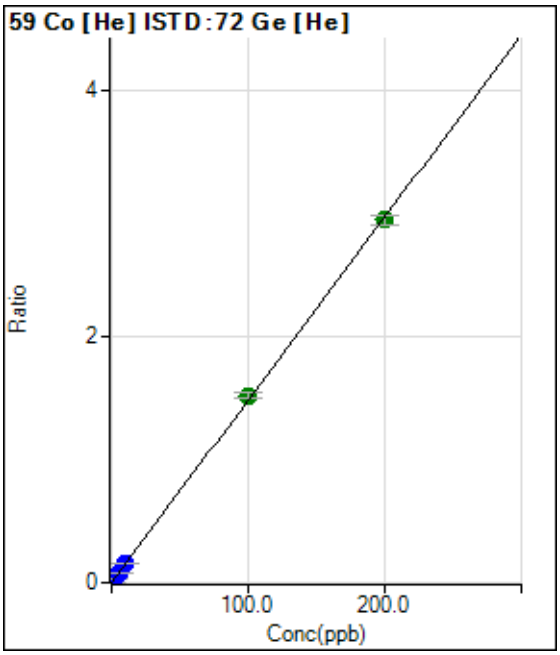
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	26125.46	0.0238	P	1.5
2	☐	200.000	213.258	2079081.43	1.9145	A	1.8
3	☐	500.000	502.836	4868709.09	4.4820	A	1.6
4	☐	1000.000	1027.043	9898746.10	9.1296	A	1.6
5	☐	10000.00	9496.043	91244135.31	84.2164	A	2.7
6	☐	20000.00	20250.42	187331857.2	179.565	A	2.5

y = 0.0089 * x + 0.0238
R = 0.9995
DL = 0.1193
BEC = 2.681

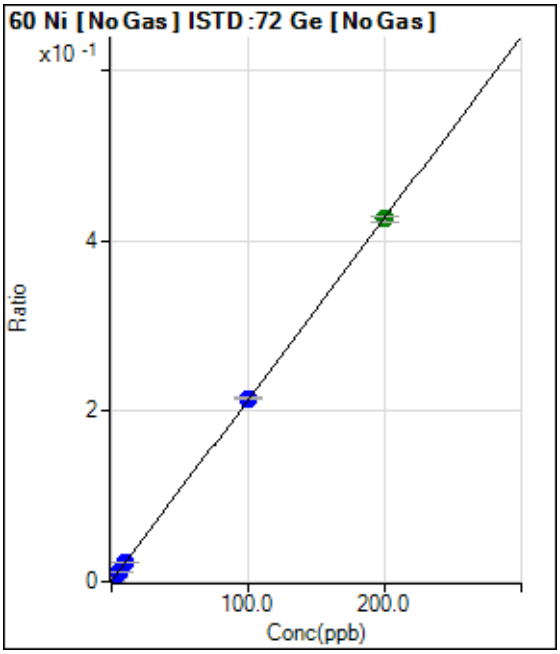
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	37.9
2	☐	2.000	2.028	32712.93	0.0301	P	1.2
3	☐	5.000	4.953	79826.48	0.0735	P	3.3
4	☐	10.000	10.169	163525.10	0.1508	P	2.2
5	☐	100.000	102.639	1649045.91	1.5219	A	2.6
6	☐	200.000	198.673	3073233.70	2.9458	A	2.8

y = 0.0148 * x + 6.0678E-005
R = 0.9999
DL = 0.004649
BEC = 0.004092

Weight: <None>
Min Conc: <None>

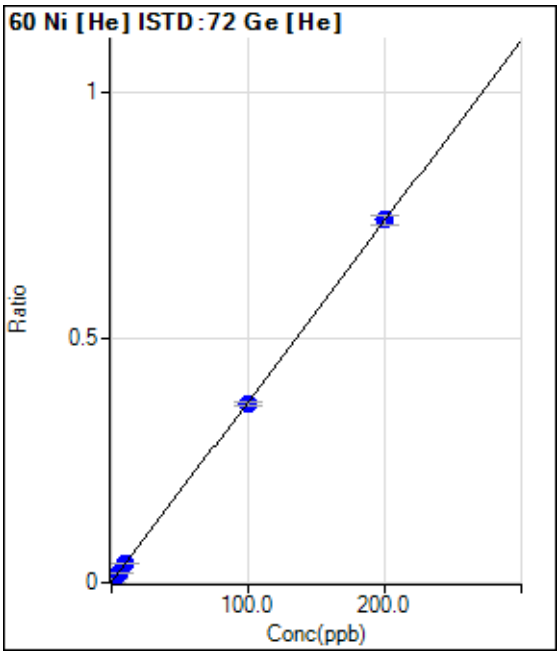


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2080.20	0.0006	P	10.6
2	☐	2.000	2.086	18078.95	0.0050	P	1.5
3	☐	5.000	5.015	40547.39	0.0113	P	0.4
4	☐	10.000	10.592	82099.86	0.0231	P	2.3
5	☐	100.000	100.665	773996.45	0.2148	P	1.1
6	☐	200.000	199.636	1501503.52	0.4253	A	1.8

y = 0.0021 * x + 5.8246E-004
R = 1.0000
DL = 0.0867
BEC = 0.2738

Weight: <None>
Min Conc: <None>

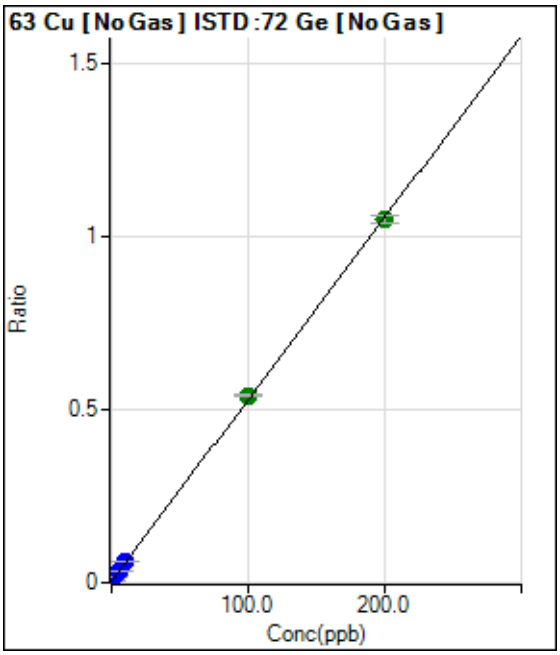
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	993.39	0.0009	P	13.8
2	☐	2.000	2.065	9246.65	0.0085	P	4.6
3	☐	5.000	4.951	20799.60	0.0191	P	1.7
4	☐	10.000	10.368	42396.08	0.0391	P	2.0
5	☐	100.000	98.682	394945.36	0.3645	P	2.5
6	☐	200.000	200.641	772251.24	0.7402	P	2.5

y = 0.0037 * x + 9.0355E-004
R = 1.0000
DL = 0.1015
BEC = 0.2452

Weight: <None>
Min Conc: <None>

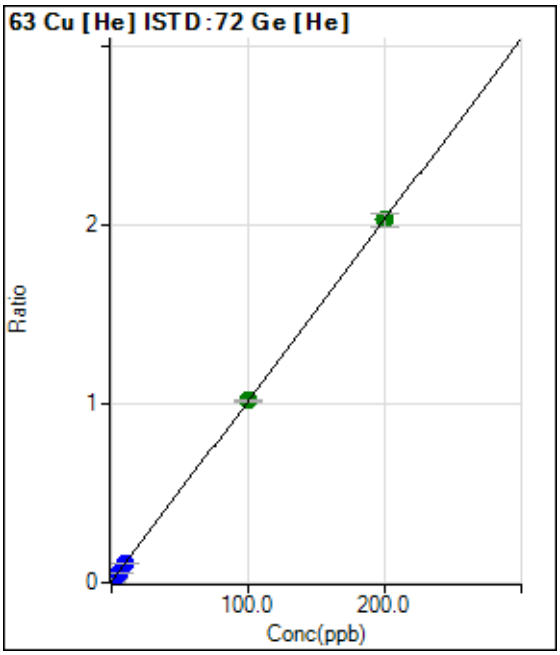


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14174.25	0.0040	P	1.8
2	☐	2.000	2.135	54616.41	0.0152	P	2.1
3	☐	5.000	5.240	113308.90	0.0314	P	1.2
4	☐	10.000	10.755	214356.53	0.0604	P	0.9
5	☐	100.000	102.214	1945650.80	0.5398	A	1.3
6	☐	200.000	198.848	3693846.82	1.0465	A	2.1

y = 0.0052 * x + 0.0040
R = 0.9999
DL = 0.04036
BEC = 0.7576

Weight: <None>
Min Conc: <None>

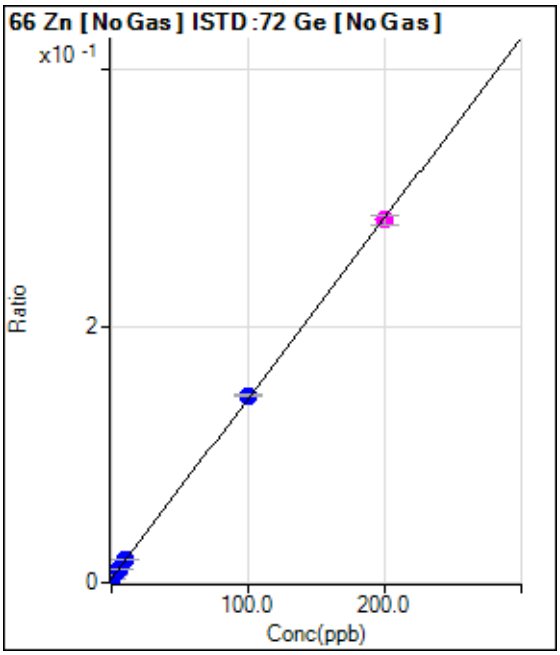
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5821.35	0.0053	P	4.6
2	☐	2.000	2.038	28172.79	0.0259	P	2.3
3	☐	5.000	5.064	61475.32	0.0566	P	3.7
4	☐	10.000	10.237	118187.20	0.1090	P	3.1
5	☐	100.000	100.125	1105263.34	1.0199	A	1.6
6	☐	200.000	199.923	2118562.62	2.0311	A	3.8

y = 0.0101 * x + 0.0053
R = 1.0000
DL = 0.07196
BEC = 0.5226

Weight: <None>
Min Conc: <None>

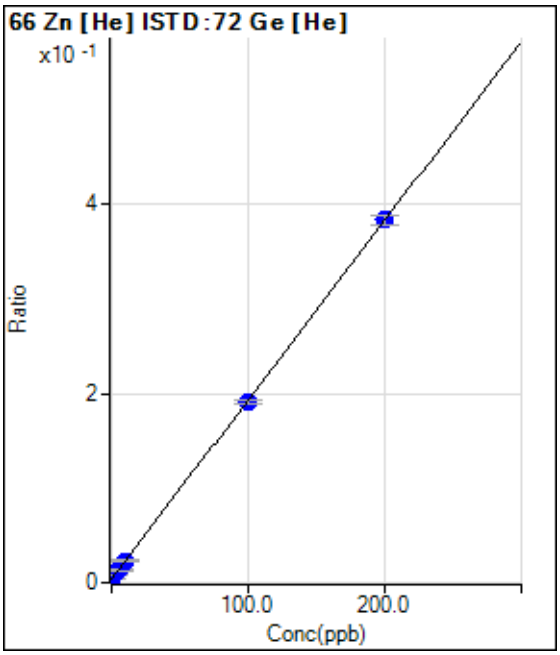


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10234.02	0.0029	P	3.8
2	☐	2.000	2.370	22348.90	0.0062	P	4.3
3	☐	5.000	5.236	36887.17	0.0102	P	2.4
4	☐	10.000	11.039	65380.73	0.0184	P	0.7
5	☐	100.000	101.697	526258.99	0.1460	P	1.4
6	☐	200.000	199.090	999280.56	0.2831	M	2.6

y = 0.0014 * x + 0.0029
R = 0.9999
DL = 0.2306
BEC = 2.038

Weight: <None>
Min Conc: <None>

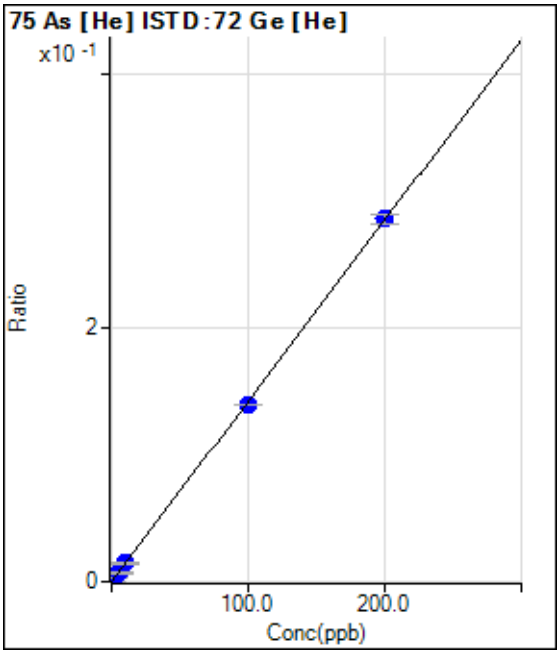
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4160.71	0.0038	P	11.5
2	☐	2.000	2.391	9029.83	0.0083	P	1.6
3	☐	5.000	5.062	14524.63	0.0134	P	4.0
4	☐	10.000	10.326	25303.94	0.0233	P	4.2
5	☐	100.000	99.062	207433.90	0.1914	P	2.5
6	☐	200.000	200.447	400130.76	0.3835	P	2.7

y = 0.0019 * x + 0.0038
R = 1.0000
DL = 0.6909
BEC = 1.998

Weight: <None>
Min Conc: <None>

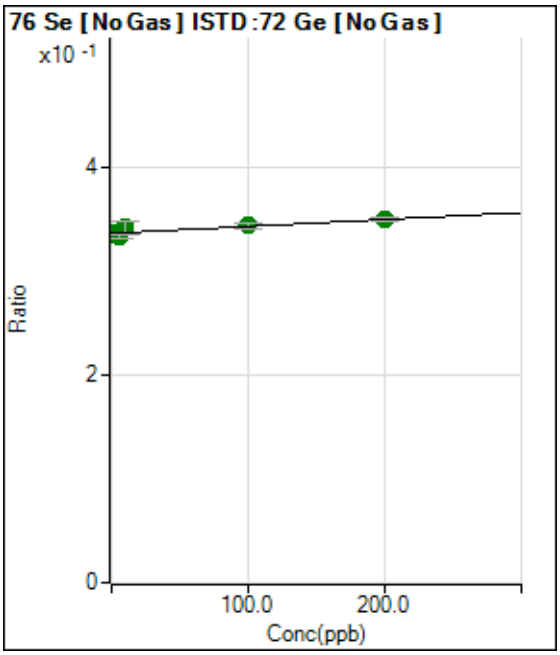


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	134.45	0.0001	P	16.0
2	☐	2.000	1.975	3187.06	0.0029	P	1.9
3	☐	5.000	4.732	7448.76	0.0069	P	5.2
4	☐	10.000	10.082	15698.04	0.0145	P	3.3
5	☐	100.000	98.159	151632.47	0.1399	P	0.4
6	☐	200.000	200.923	298660.02	0.2863	P	2.5

y = 0.0014 * x + 1.2234E-004
R = 0.9999
DL = 0.04121
BEC = 0.0859

Weight: <None>
Min Conc: <None>

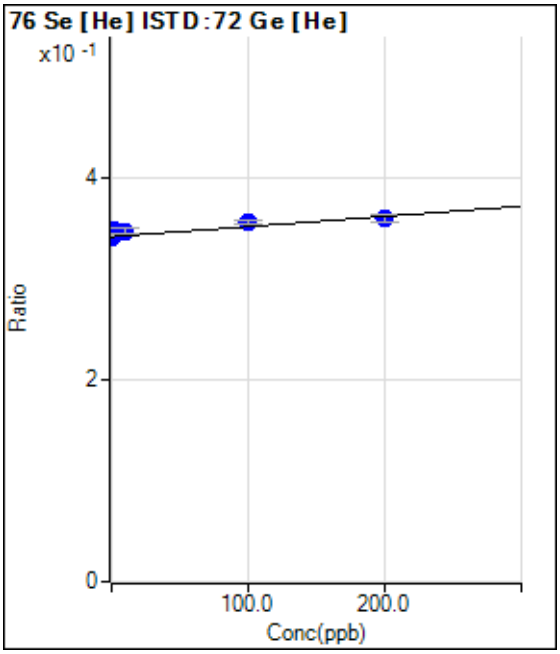
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1201066.91	0.3366	A	1.5
2	☐	2.000	-20.177	1207675.53	0.3353	A	0.8
3	☐	5.000	-47.306	1201551.13	0.3335	A	1.1
4	☐	10.000	81.808	1214644.25	0.3421	A	3.5
5	☐	100.000	110.290	1239870.34	0.3440	A	1.4
6	☐	200.000	192.794	1233995.71	0.3495	A	1.2

y = 6.6900E-005 * x + 0.3366
R = 0.8922
DL = 233.2
BEC = 5032

Weight: <None>
Min Conc: <None>

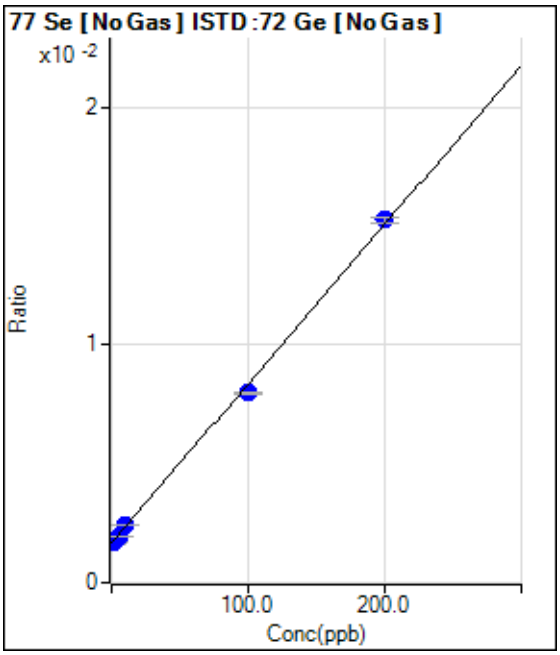


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	375176.44	0.3413	P	0.7
2	☐	2.000	73.102	378642.92	0.3487	P	0.9
3	☐	5.000	55.538	376808.51	0.3469	P	2.2
4	☐	10.000	56.675	376222.17	0.3470	P	1.9
5	☐	100.000	142.305	385444.46	0.3557	P	0.7
6	☐	200.000	174.539	374475.75	0.3589	P	2.3

y = 1.0101E-004 * x + 0.3413
R = 0.9059
DL = 68.15
BEC = 3379

Weight: <None>
Min Conc: <None>

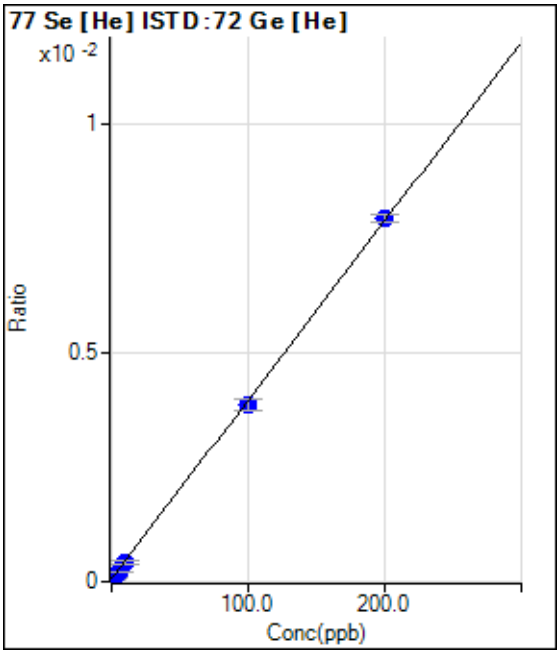
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5978.08	0.0017	P	2.6
2	☐	2.000	0.572	6171.53	0.0017	P	1.7
3	☐	5.000	3.867	6968.59	0.0019	P	2.3
4	☐	10.000	10.985	8562.89	0.0024	P	1.8
5	☐	100.000	94.107	28737.62	0.0080	P	1.2
6	☐	200.000	202.940	53861.20	0.0153	P	1.7

y = 6.6925E-005 * x + 0.0017
R = 0.9994
DL = 1.978
BEC = 25.03

Weight: <None>
Min Conc: <None>

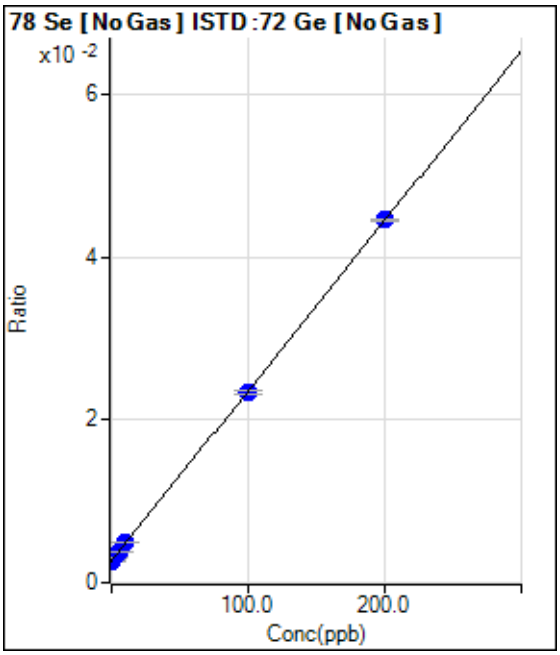


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0001	P	28.5
2	☐	2.000	0.964	110.00	0.0001	P	8.5
3	☐	5.000	3.556	220.01	0.0002	P	12.8
4	☐	10.000	9.154	456.68	0.0004	P	18.8
5	☐	100.000	97.628	4194.06	0.0039	P	6.4
6	☐	200.000	201.275	8259.36	0.0079	P	2.1

y = 3.9015E-005 * x + 6.3664E-005
R = 0.9999
DL = 1.395
BEC = 1.632

Weight: <None>
Min Conc: <None>

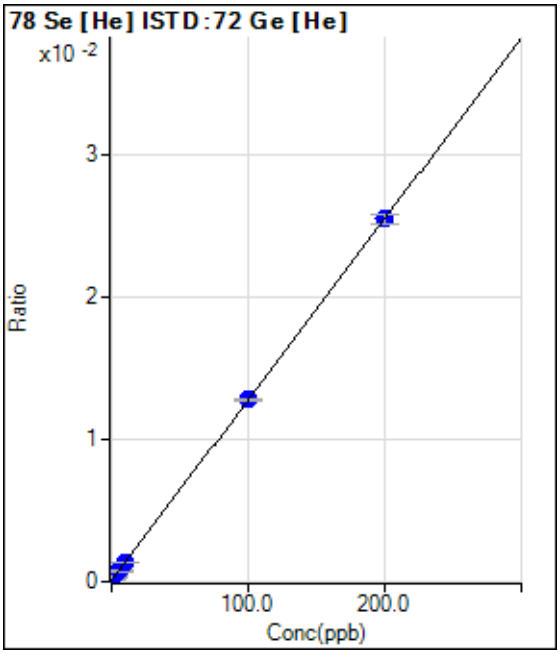
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9670.30	0.0027	P	4.4
2	☐	2.000	1.481	10871.21	0.0030	P	1.6
3	☐	5.000	5.020	13533.66	0.0038	P	3.0
4	☐	10.000	10.673	17531.66	0.0049	P	1.6
5	☐	100.000	98.871	84128.64	0.0233	P	1.9
6	☐	200.000	200.536	157317.62	0.0446	P	0.8

y = 2.0870E-004 * x + 0.0027
R = 1.0000
DL = 1.698
BEC = 12.98

Weight: <None>
Min Conc: <None>

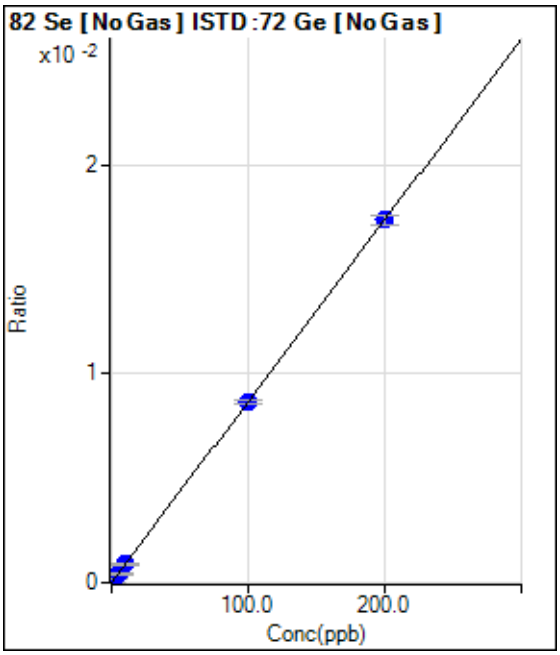


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.00	0.0001	P	2.0
2	☐	2.000	2.047	375.34	0.0003	P	10.2
3	☐	5.000	5.283	822.03	0.0008	P	5.6
4	☐	10.000	10.138	1488.09	0.0014	P	5.1
5	☐	100.000	99.917	13845.13	0.0128	P	1.2
6	☐	200.000	200.027	26594.17	0.0255	P	2.7

y = 1.2702E-004 * x + 8.5512E-005
R = 1.0000
DL = 0.04074
BEC = 0.6732

Weight: <None>
Min Conc: <None>

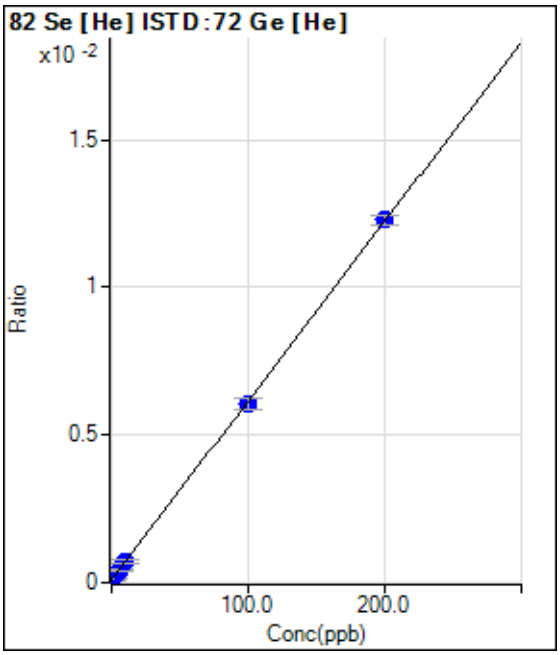
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8.05	0.0000	P	1160.5
2	☐	2.000	1.956	617.81	0.0002	P	28.5
3	☐	5.000	4.980	1565.00	0.0004	P	12.7
4	☐	10.000	10.244	3161.60	0.0009	P	5.3
5	☐	100.000	99.588	31115.35	0.0086	P	2.3
6	☐	200.000	200.195	61253.18	0.0174	P	2.9

y = 8.6674E-005 * x + 2.0505E-006
R = 1.0000
DL = 0.8236
BEC = 0.02366

Weight: <None>
Min Conc: <None>

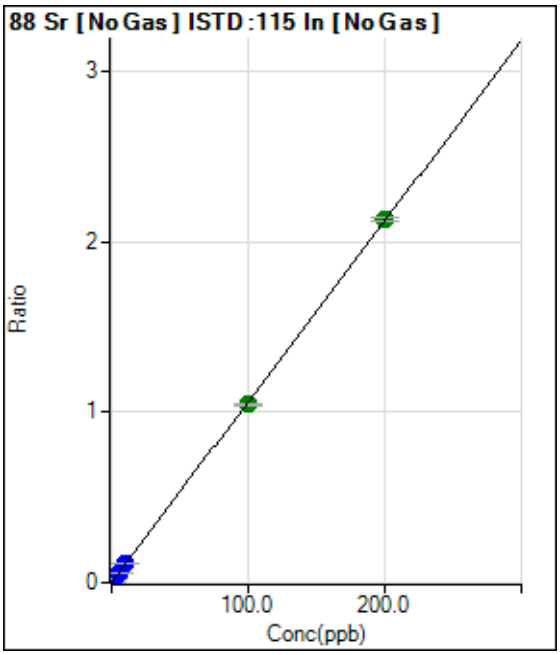


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	96.67	0.0001	P	33.3
2	☐	2.000	1.730	210.00	0.0002	P	49.0
3	☐	5.000	5.376	450.02	0.0004	P	6.4
4	☐	10.000	10.023	753.37	0.0007	P	16.8
5	☐	100.000	97.994	6538.35	0.0060	P	6.4
6	☐	200.000	200.995	12823.01	0.0123	P	2.5

y = 6.0711E-005 * x + 8.7945E-005
R = 0.9999
DL = 1.447
BEC = 1.449

Weight: <None>
Min Conc: <None>

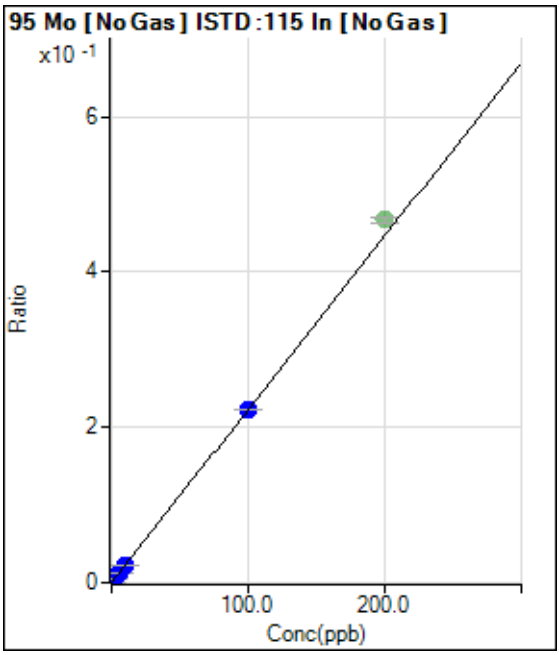
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3827.30	0.0009	P	10.5
2	☐	2.000	2.012	98668.26	0.0222	P	2.2
3	☐	5.000	5.075	242129.21	0.0547	P	0.4
4	☐	10.000	10.242	486133.65	0.1095	P	0.5
5	☐	100.000	98.467	4608088.37	1.0453	A	1.4
6	☐	200.000	200.752	8973741.53	2.1302	A	1.2

y = 0.0106 * x + 8.6874E-004
R = 1.0000
DL = 0.02569
BEC = 0.0819

Weight: <None>
Min Conc: <None>

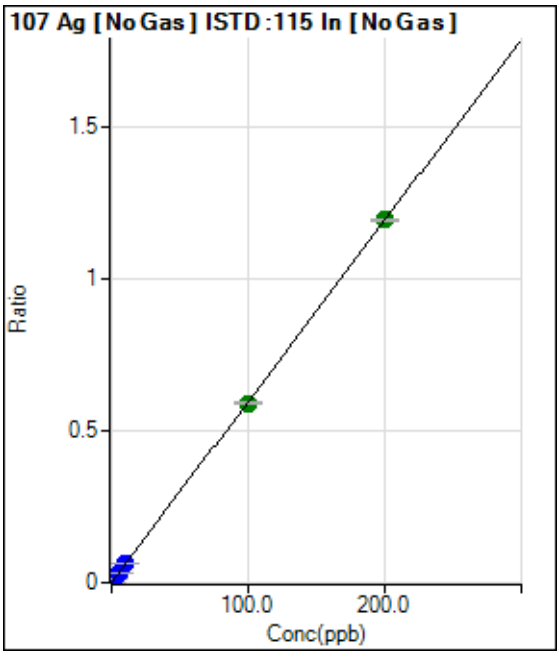


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	270.01	0.0001	P	10.1
2	☐	2.000	2.033	20399.28	0.0046	P	4.0
3	☐	5.000	5.120	50787.02	0.0115	P	0.7
4	☐	10.000	10.217	101387.78	0.0228	P	1.1
5	☐	100.000	99.972	982736.26	0.2229	P	0.2
6	☑	200.000		1967094.97	0.4670	A	1.7

y = 0.0022 * x + 6.1315E-005
R = 1.0000
DL = 0.008313
BEC = 0.02751

Weight: <None>
Min Conc: <None>

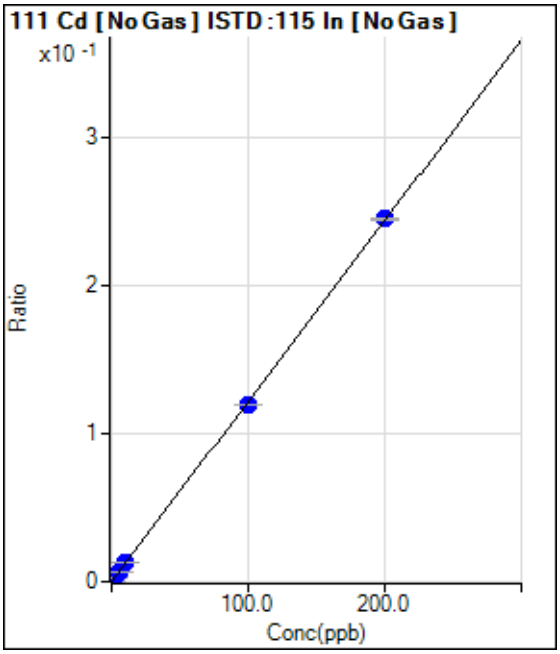
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	553.36	0.0001	P	10.9
2	☐	2.000	2.111	56427.03	0.0127	P	2.2
3	☐	5.000	5.191	137469.14	0.0311	P	2.1
4	☐	10.000	10.503	278400.59	0.0627	P	0.2
5	☐	100.000	99.189	2606315.53	0.5912	A	0.3
6	☐	200.000	200.374	5030908.36	1.1942	A	0.6

y = 0.0060 * x + 1.2566E-004
R = 1.0000
DL = 0.006897
BEC = 0.02109

Weight: <None>
Min Conc: <None>

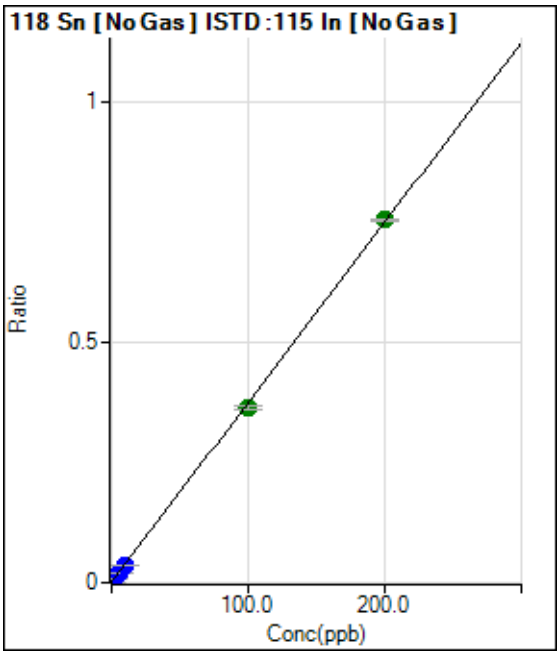


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	173.2
2	☐	2.000	2.057	11118.20	0.0025	P	1.5
3	☐	5.000	5.040	27141.51	0.0061	P	2.8
4	☐	10.000	10.374	56029.04	0.0126	P	1.1
5	☐	100.000	97.872	524885.50	0.1191	P	0.4
6	☐	200.000	201.044	1030301.37	0.2446	P	0.8

y = 0.0012 * x + 7.5914E-007
R = 0.9999
DL = 0.003243
BEC = 0.000624

Weight: <None>
Min Conc: <None>

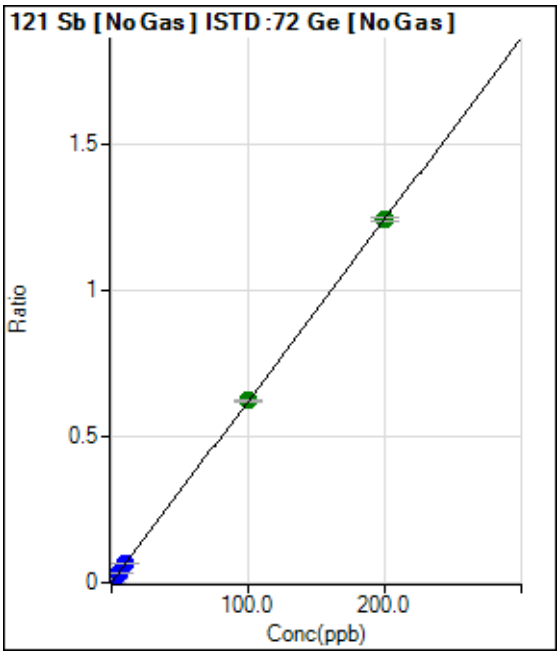
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4310.80	0.0010	P	2.3
2	☐	2.000	1.947	36748.36	0.0083	P	3.8
3	☐	5.000	4.772	83464.48	0.0189	P	2.7
4	☐	10.000	9.802	167360.18	0.0377	P	1.6
5	☐	100.000	97.068	1607579.82	0.3646	A	1.8
6	☐	200.000	201.482	3184280.68	0.7558	A	0.7

y = 0.0037 * x + 9.7876E-004
R = 0.9999
DL = 0.01796
BEC = 0.2612

Weight: <None>
Min Conc: <None>

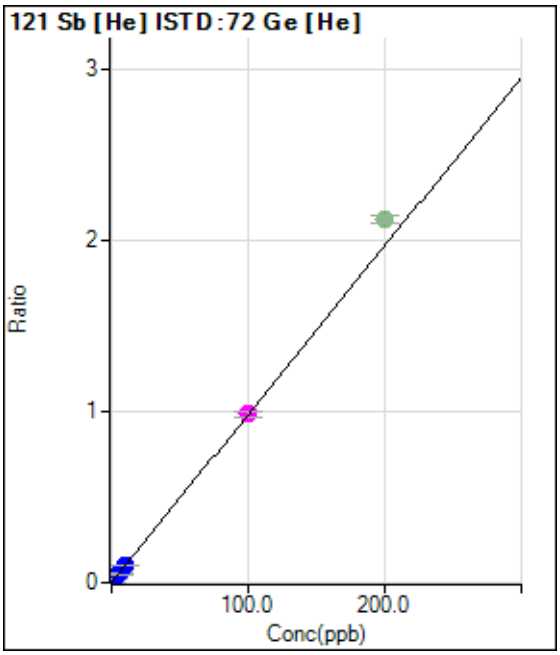


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2356.92	0.0007	P	7.7
2	☐	2.000	2.044	48018.34	0.0133	P	1.3
3	☐	5.000	5.062	115465.80	0.0320	P	1.0
4	☐	10.000	10.455	232536.16	0.0655	P	1.8
5	☐	100.000	100.332	2244428.72	0.6227	A	0.9
6	☐	200.000	199.809	4375854.00	1.2395	A	1.1

y = 0.0062 * x + 6.6014E-004
R = 1.0000
DL = 0.02455
BEC = 0.1065

Weight: <None>
Min Conc: <None>

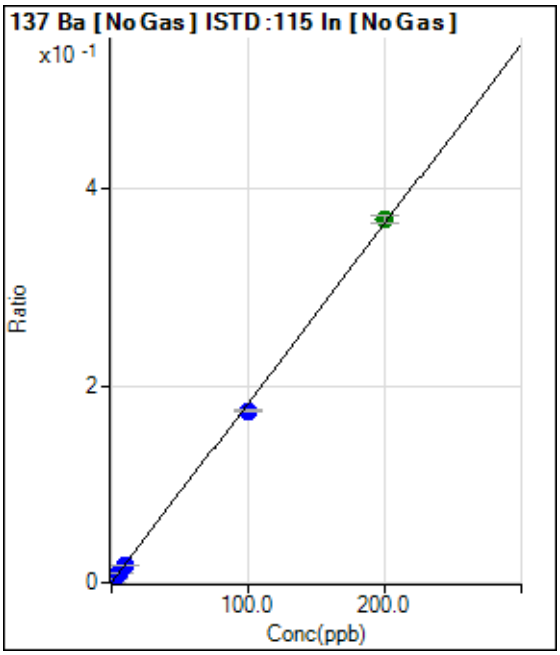
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	990.06	0.0009	P	10.8
2	☐	2.000	2.054	22906.95	0.0211	P	2.9
3	☐	5.000	5.118	55631.55	0.0512	P	2.7
4	☐	10.000	10.113	108761.82	0.1003	P	1.7
5	☐	100.000	99.982	1065948.26	0.9838	M	2.6
6	☑	200.000		2212022.57	2.1201	A	2.2

y = 0.0098 * x + 9.0061E-004
R = 1.0000
DL = 0.02973
BEC = 0.09161

Weight: <None>
Min Conc: <None>

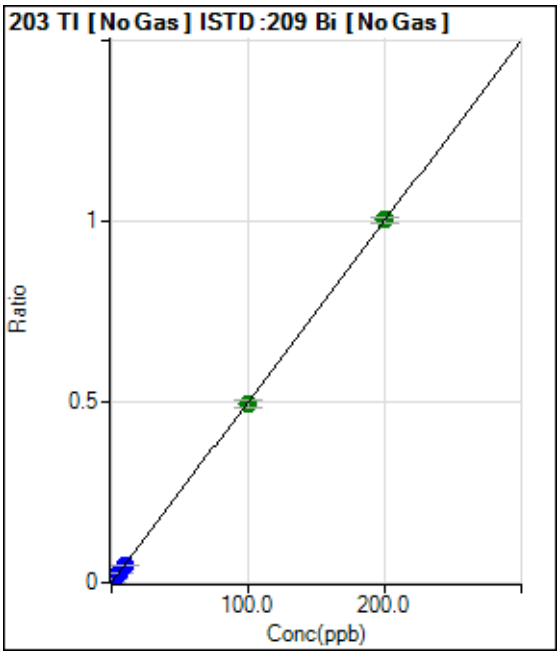


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	720.03	0.0002	P	5.3
2	☐	2.000	2.071	17492.28	0.0039	P	1.9
3	☐	5.000	4.827	39654.43	0.0090	P	1.0
4	☐	10.000	9.762	79700.64	0.0180	P	0.9
5	☐	100.000	95.677	769329.11	0.1745	P	1.5
6	☐	200.000	202.177	1552544.25	0.3686	A	2.2

y = 0.0018 * x + 1.6350E-004
R = 0.9997
DL = 0.01439
BEC = 0.08972

Weight: <None>
Min Conc: <None>

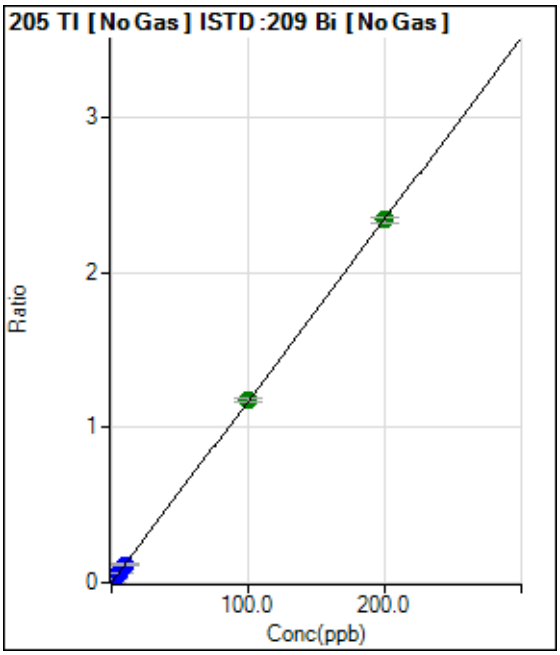
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	400.02	0.0001	P	7.4
2	☐	2.000	1.939	43305.44	0.0098	P	1.3
3	☐	5.000	4.920	107991.12	0.0247	P	2.2
4	☐	10.000	9.838	219174.49	0.0492	P	1.7
5	☐	100.000	98.729	2147794.71	0.4931	A	3.6
6	☐	200.000	200.646	4242833.17	1.0021	A	1.3

y = 0.0050 * x + 9.0255E-005
R = 1.0000
DL = 0.004032
BEC = 0.01807

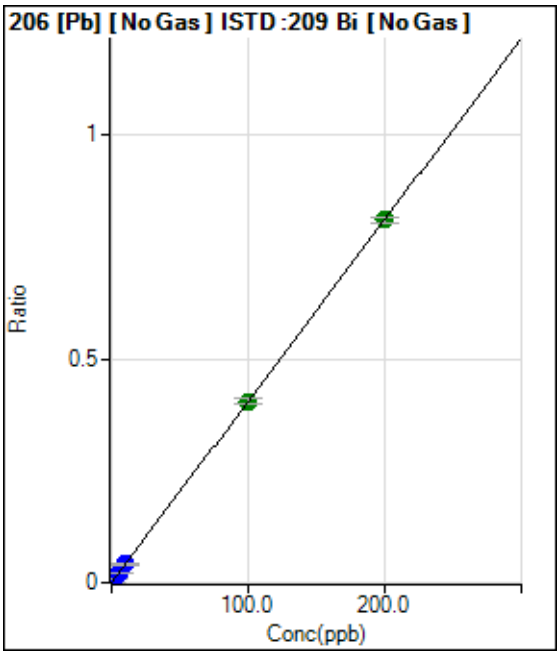
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1026.73	0.0002	P	15.8
2	☐	2.000	1.999	104768.38	0.0236	P	3.6
3	☐	5.000	5.096	262395.39	0.0599	P	1.7
4	☐	10.000	9.987	521905.85	0.1172	P	1.7
5	☐	100.000	100.390	5123650.13	1.1761	A	2.1
6	☐	200.000	199.803	9909455.48	2.3405	A	1.3

y = 0.0117 * x + 2.3167E-004
R = 1.0000
DL = 0.009364
BEC = 0.01978

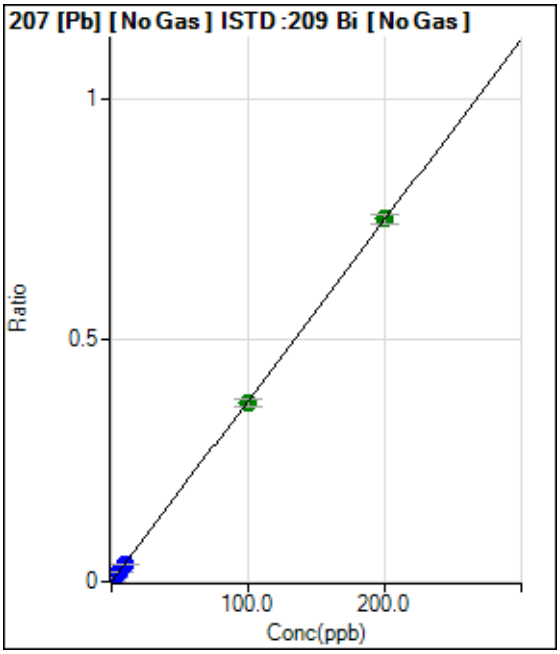
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.37	0.0002	P	7.9
2	☐	2.000	2.027	37122.37	0.0084	P	1.3
3	☐	5.000	5.105	91339.72	0.0209	P	2.0
4	☐	10.000	10.061	182383.82	0.0410	P	2.0
5	☐	100.000	99.908	1765488.67	0.4053	A	2.7
6	☐	200.000	200.040	3435663.07	0.8113	A	1.8

y = 0.0041 * x + 1.5871E-004
R = 1.0000
DL = 0.009334
BEC = 0.03914

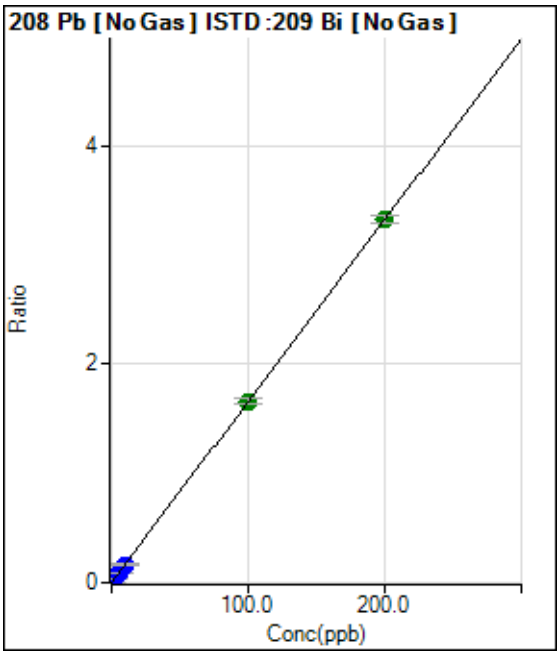
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.37	0.0002	P	14.9
2	☐	2.000	2.000	33846.23	0.0076	P	0.8
3	☐	5.000	5.018	82854.61	0.0189	P	3.9
4	☐	10.000	9.848	164707.55	0.0370	P	2.2
5	☐	100.000	98.751	1609213.99	0.3695	A	3.5
6	☐	200.000	200.632	3177365.99	0.7505	A	2.3

y = 0.0037 * x + 1.5869E-004
R = 1.0000
DL = 0.01894
BEC = 0.04243

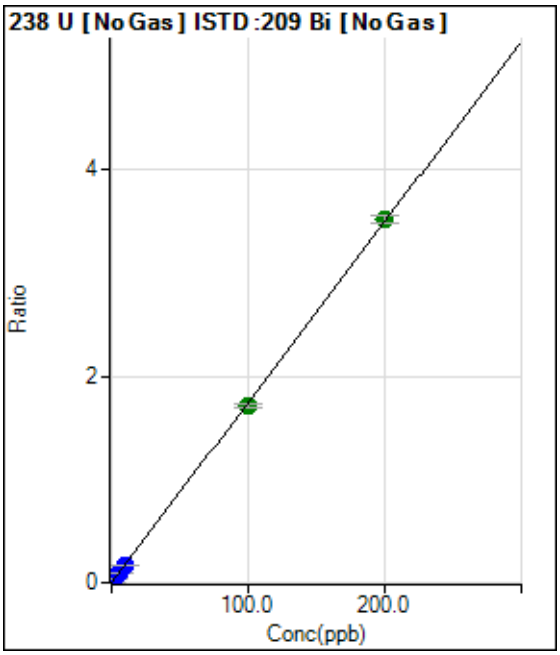
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3023.54	0.0007	P	8.5
2	☐	2.000	2.030	152222.81	0.0344	P	1.1
3	☐	5.000	5.061	370669.12	0.0847	P	2.4
4	☐	10.000	9.980	740377.11	0.1663	P	2.1
5	☐	100.000	99.742	7210883.43	1.6555	A	3.1
6	☐	200.000	200.128	14060332.29	3.3210	A	2.0

y = 0.0166 * x + 6.8225E-004
R = 1.0000
DL = 0.0105
BEC = 0.04112

Weight: <None>
Min Conc: <None>

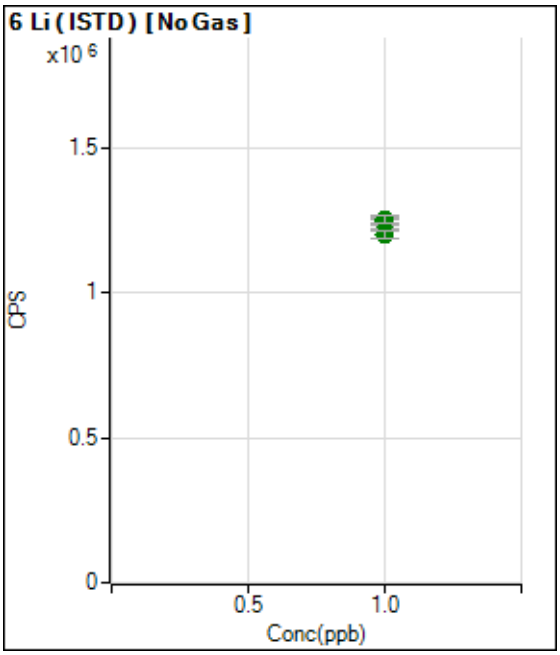


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	110.00	0.0000	P	24.0
2	☐	2.000	1.955	151608.23	0.0342	P	2.0
3	☐	5.000	4.915	376486.42	0.0860	P	3.0
4	☐	10.000	9.767	760834.44	0.1709	P	1.4
5	☐	100.000	97.802	7453227.18	1.7107	A	2.0
6	☐	200.000	201.113	14892446.03	3.5177	A	2.1

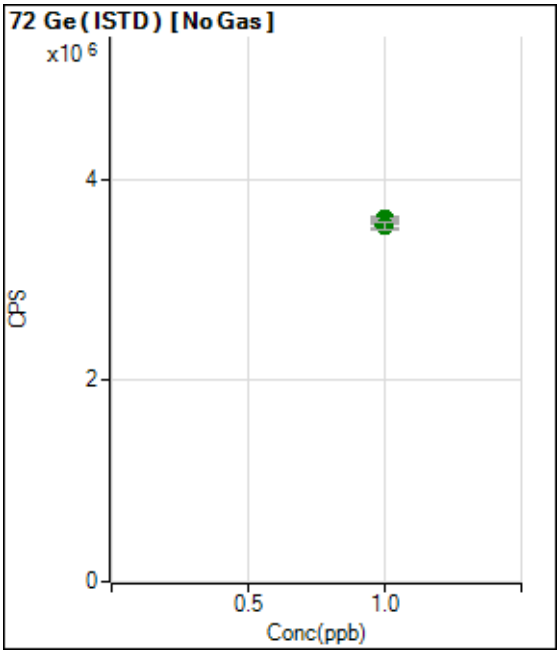
y = 0.0175 * x + 2.4816E-005
R = 0.9999
DL = 0.00102
BEC = 0.001419

Weight: <None>
Min Conc: <None>

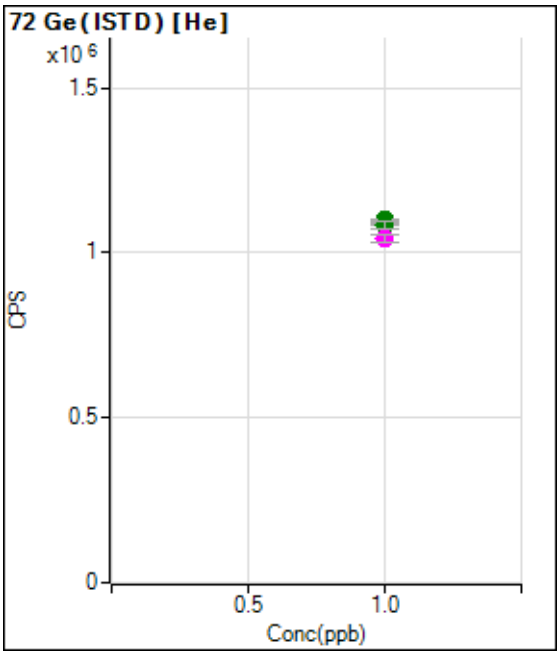
Calibration for 021_ICV.d



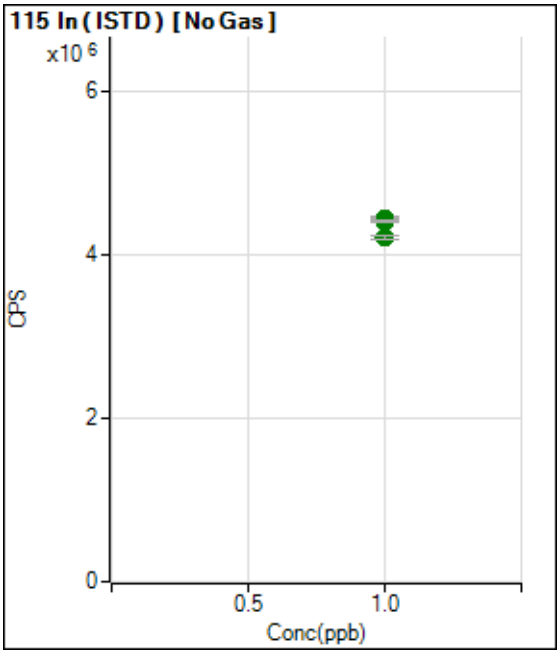
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1245422.74		A	1.1
2	☐	1.000		1219019.63		A	0.2
3	☐	1.000		1250998.65		A	2.0
4	☐	1.000		1243976.23		A	1.6
5	☐	1.000		1253379.39		A	2.2
6	☐	1.000		1202323.55		A	2.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3568143.49		A	1.3
2	☐	1.000		3601909.95		A	0.9
3	☐	1.000		3603413.90		A	1.7
4	☐	1.000		3551962.86		A	2.0
5	☐	1.000		3604269.22		A	0.7
6	☐	1.000		3530700.26		A	1.9

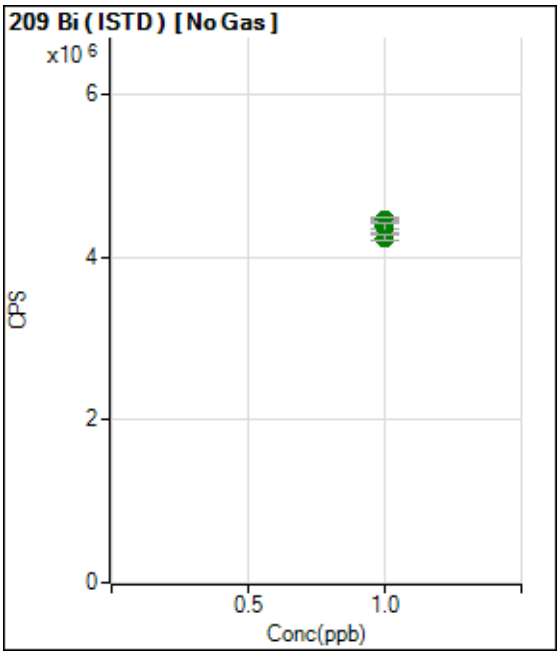


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1099243.94		A	0.3
2	☐	1.000		1085958.94		A	0.9
3	☐	1.000		1086538.42		A	2.4
4	☐	1.000		1084426.91		A	2.2
5	☐	1.000		1083757.98		A	1.6
6	☐	1.000		1043675.84		M	2.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4404541.04		A	0.3
2	☐	1.000		4442927.23		A	1.8
3	☐	1.000		4426408.10		A	0.5
4	☐	1.000		4439432.52		A	0.6
5	☐	1.000		4408508.81		A	0.4
6	☐	1.000		4213001.98		A	1.4

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4431936.50		A	0.1
2	☐	1.000		4431188.99		A	1.1
3	☐	1.000		4379992.85		A	1.8
4	☐	1.000		4453524.00		A	1.0
5	☐	1.000		4357869.94		A	2.4
6	☐	1.000		4234525.98		A	1.7

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	022_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:53:54-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	-0.033	-163.8	74827	1.5	0.5	
Be	9	1	No Gas	0.006	79.3	28	66.8	0.5	
V	51	2	He	-0.003	-295.5	1169	7.7	2.5	
Cr	52	2	He	-0.018	-39.1	1980	3.2	2.5	
Fe	56	2	He	-0.131	-114.8	24696	5.2	100	
Se	78	2	He	0.091	119.2	106	13.6	1	
As	75	2	He	0.012	144.1	152	18.2	2.5	
Ca	44	2	He	-14.524	-1.4	1033	1.1	100	
Na	23	2	He	-2.024	-18.3	91234	0.9	100	
Mg	24	2	He	-0.657	-24.4	1447	9.4	100	
K	39	2	He	3.167	30.2	47388	1.3	100	
Mn	55	2	He	-0.471	-3.1	5331	2.7	2.5	
Co	59	2	He	0.001	104.0	87	24.0	2.5	
Ni	60	2	He	0.140	32.5	1553	12.3	2.5	
Cu	63	2	He	-0.077	-3.4	4938	1.2	1	
Zn	66	2	He	0.465	20.2	5101	4.6	2.5	
Al	27	2	He	-3.131	-22.7	1473	21.8	5	
B	11	1	No Gas	13.815	18.6	66366	8.1	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-3.401	-1.1	67996	1.1	5	
Si	28	1	No Gas	1.445	35.7	637622	0.6	10	
Ag	107	1	No Gas	0.003	160.3	640	20.4	2.5	
Cd	111	1	No Gas	0.010	71.7	60	66.7	1	
Sr	88	1	No Gas	-0.050	-1.8	1530	4.0	2.5	
Mo	95	1	No Gas	0.154	43.3	1807	35.4	2.5	
Sn	118	1	No Gas	0.141	31.9	6739	9.8	5	
Sb	121	1	No Gas	0.127	11.0	5194	5.2	2.5	
Ba	137	1	No Gas	-0.050	-14.8	320	19.0	2.5	
Tl	205	1	No Gas	0.935	59.0	48335	58.5	1	
Tl	203	1	No Gas	0.916	58.5	20161	58.1	1	
Pb	208	1	No Gas	0.051	11.4	6571	6.8	2.5	
U	238	1	No Gas	0.017	43.7	1373	41.1	2.5	
Ca	43	2	He	-11.805	-55.3	30	66.7	100	
Sb	121	2	He	0.092	20.7	1967	9.9	2.5	
Ti	47	2	He	0.061	126.0	33	75.5	2.5	
Se	82	1	No Gas	-0.128	-295.8	-32	-361.9	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1290988	2.68	1245423	103.66	70	120	
Ge	72	2	He	1092705	0.77	1099244	99.41	70	120	
Ge	72	1	No Gas	3594429	1.16	3568143	100.74	70	120	
In	115	1	No Gas	4474356	1.37	4404541	101.59	70	120	
Bi	209	1	No Gas	4314405	1.18	4431936	97.35	70	120	

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	023LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:55:53-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	2.152	2.152	4.11	109031	0.00	2	
Be	9	1	No Gas	2.075	2.075	2.91	8713	0.02	2	
V	51	2	He	1.965	1.965	1.35	19241	0.01	2	
Cr	52	2	He	1.943	1.943	1.60	23681	0.01	2	
Fe	56	2	He	208.459	208.459	2.41	2081587	0.01	200	
Se	78	2	He	2.023	2.023	9.62	381	0.53	2	
As	75	2	He	1.974	1.974	3.57	3262	0.06	2	
Ca	44	2	He	196.926	196.926	1.38	12599	1.56	200	
Na	23	2	He	206.811	206.811	3.05	370770	0.06	200	
Mg	24	2	He	212.480	212.480	0.38	170806	0.12	200	
K	39	2	He	207.342	207.342	2.25	242826	0.09	200	
Mn	55	2	He	1.957	1.957	2.67	24836	0.01	2	
Co	59	2	He	2.023	2.023	2.33	33421	0.01	2	
Ni	60	2	He	2.068	2.068	0.87	9480	0.02	2	
Cu	63	2	He	1.917	1.917	3.91	27495	0.01	2	
Zn	66	2	He	2.027	2.027	8.37	8480	0.02	2	
Al	27	2	He	1.718	1.718	8.30	3784	0.05	2	
B	11	1	No Gas	14.656	14.656	0.95	67575	0.02	10	NewName Main CR1 Failed
Al	27	1	No Gas	1.358	1.358	6.83	161577	0.00	2	NewName Main CR1 Failed
Si	28	1	No Gas	16.379	16.379	8.29	778996	0.00	10	NewName Main CR1 Failed
Ag	107	1	No Gas	2.119	2.119	1.51	56183	0.00	2	
Cd	111	1	No Gas	2.043	2.043	4.32	10951	0.02	2	
Sr	88	1	No Gas	2.074	2.074	1.37	100707	0.00	2	
Mo	95	1	No Gas	2.093	2.093	1.55	20817	0.01	2	
Sn	118	1	No Gas	2.025	2.025	2.79	37721	0.01	2	
Sb	121	1	No Gas	2.106	2.106	3.36	49614	0.00	2	
Ba	137	1	No Gas	2.140	2.140	2.81	17896	0.01	2	
Tl	205	1	No Gas	2.022	2.022	4.25	105944	0.00	2	
Tl	203	1	No Gas	1.962	1.962	4.73	43804	0.00	2	
Pb	208	1	No Gas	2.032	2.032	3.06	152396	0.00	2	
U	238	1	No Gas	1.941	1.941	3.52	150525	0.00	2	
Ca	43	2	He	214.079	214.079	8.69	737	29.06	200	
Sb	121	2	He	2.095	2.095	1.17	23905	0.01	2	
Ti	47	2	He	1.840	1.840	7.78	627	0.29	200	
Cu	63	1	No Gas	2.002	2.002	3.21	52324	0.00	2	
Se	82	1	No Gas	1.464	1.464	13.83	467	0.31	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1268744	0.95	1245423	101.87	70	120	
Ge	72	2	He	1112180	1.33	1099244	101.18	70	120	
Ge	72	1	No Gas	3617727	1.61	3568143	101.39	70	120	
In	115	1	No Gas	4405039	1.02	4404541	100.01	70	120	
Bi	209	1	No Gas	4431479	1.56	4431936	99.99	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	024LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:57:52-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	5.300	5.300	1.68	158590	0.00	5	
Be	9	1	No Gas	5.016	5.016	2.11	20849	0.02	5	
V	51	2	He	4.814	4.814	1.14	45134	0.01	5	
Cr	52	2	He	4.968	4.968	0.98	56781	0.01	5	
Fe	56	2	He	506.355	506.355	1.06	4992157	0.01	500	
Se	78	2	He	5.259	5.259	2.01	833	0.63	5	
As	75	2	He	5.023	5.023	0.56	8049	0.06	5	
Ca	44	2	He	494.421	494.421	4.41	28674	1.72	500	
Na	23	2	He	502.794	502.794	1.17	760596	0.07	500	
Mg	24	2	He	522.343	522.343	2.02	414651	0.13	500	
K	39	2	He	506.024	506.024	2.05	524619	0.10	500	
Mn	55	2	He	4.397	4.397	3.88	44092	0.01	5	
Co	59	2	He	5.045	5.045	1.40	82797	0.01	5	
Ni	60	2	He	4.948	4.948	1.09	21163	0.02	5	
Cu	63	2	He	4.963	4.963	1.03	61486	0.01	5	
Zn	66	2	He	4.917	4.917	4.69	14498	0.03	5	
Al	27	2	He	4.747	4.747	1.31	5181	0.09	5	
B	11	1	No Gas	27.724	27.724	2.79	101435	0.03	25	
Al	27	1	No Gas	4.683	4.683	4.92	228142	0.00	5	
Si	28	1	No Gas	28.717	28.717	1.32	898499	0.00	25	
Ag	107	1	No Gas	5.159	5.159	0.52	139572	0.00	5	
Cd	111	1	No Gas	4.935	4.935	2.82	27152	0.02	5	
Sr	88	1	No Gas	5.052	5.052	1.34	246225	0.00	5	
Mo	95	1	No Gas	5.059	5.059	1.63	51269	0.01	5	
Sn	118	1	No Gas	4.782	4.782	2.47	85430	0.01	5	
Sb	121	1	No Gas	5.085	5.085	2.22	117186	0.00	5	
Ba	137	1	No Gas	4.752	4.752	1.65	39892	0.01	5	
Tl	205	1	No Gas	4.985	4.985	3.03	260573	0.00	5	
Tl	203	1	No Gas	4.879	4.879	2.31	108721	0.00	5	
Pb	208	1	No Gas	4.985	4.985	1.28	370774	0.00	5	
U	238	1	No Gas	4.840	4.840	2.82	376457	0.00	5	
Ca	43	2	He	483.934	483.934	4.02	1573	30.76	500	
Sb	121	2	He	4.964	4.964	0.68	54982	0.01	5	
Ti	47	2	He	5.047	5.047	3.51	1687	0.30	5	
Cu	63	1	No Gas	5.108	5.108	1.07	111972	0.00	5	
Se	82	1	No Gas	4.425	4.425	3.04	1404	0.32	5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1256340	1.56	1245423	100.88	70	120	
Ge	72	2	He	1106183	1.86	1099244	100.63	70	120	
Ge	72	1	No Gas	3641624	1.23	3568143	102.06	70	120	

Sample Report

In	115	1	No Gas	4521772	0.97	4404541	102.66	70	120	
Bi	209	1	No Gas	4446875	2.25	4431936	100.34	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	025ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T10:59:50-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.659	0.8	78757	1.0	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.006	69.0	27	60.3	0	ICSA Main CR1 Failed
V	51	2	He	0.042	23.6	1468	5.6	0	ICSA Main CR1 Failed
Cr	52	2	He	2.105	3.7	23313	2.8	0	ICSA Main CR1 Failed
Fe	56	2	He	101190.337	0.2	913592146	0.5	0	
Se	78	2	He	0.239	83.7	118	22.0	0	ICSA Main CR1 Failed
As	75	2	He	0.107	14.1	280	8.3	0	ICSA Main CR1 Failed
Ca	44	2	He	99112.919	2.2	4956514	1.7	0	
Na	23	2	He	102572.422	0.4	125095311	0.8	0	
Mg	24	2	He	101699.117	0.5	73981976	0.8	0	
K	39	2	He	104435.288	1.5	91184405	1.0	0	
Mn	55	2	He	12.183	2.0	97601	1.9	0	
Co	59	2	He	0.094	9.6	1487	9.7	0	ICSA Main CR1 Failed
Ni	60	2	He	-0.011	-265.3	877	12.6	0	ICSA Main CR1 Failed
Cu	63	2	He	0.029	73.9	5695	4.5	0	ICSA Main CR1 Failed
Zn	66	2	He	0.471	15.9	4764	3.2	0	ICSA Main CR1 Failed
Al	27	2	He	96300.271	0.2	41510136	0.5	0	
B	11	1	No Gas	3.079	20.7	34053	3.8	0	
Al	27	1	No Gas	95084.684	1.5	1772647920	1.1	0	
Si	28	1	No Gas	20.548	6.4	778706	2.6	0	
Ag	107	1	No Gas	0.283	2.4	7282	2.8	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	1.528	2.9	7466	3.4	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	1.226	1.4	55713	1.9	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	2079.352	0.4	18607747	0.4	0	
Sn	118	1	No Gas	0.118	5.9	5711	2.3	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.073	15.9	3837	5.6	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.469	3.9	4087	4.0	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.063	51.3	3847	39.7	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.061	62.0	1557	48.3	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.073	4.9	7494	2.9	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.005	26.0	450	19.8	0	ICSA Main CR1 Failed
Ca	43	2	He	100864.519	1.5	288953	0.9	0	
Sb	121	2	He	0.092	2.0	1837	1.1	0	ICSA Main CR1 Failed
Ti	47	2	He	2053.301	1.2	626896	0.7	0	
Se	82	1	No Gas	-0.268	-160.3	-72	-175.6	0	ICSA Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1178378	0.99	1245423	94.62	70	120	
Ge	72	2	He	1018292	0.58	1099244	92.64	70	120	
Ge	72	1	No Gas	3445964	1.65	3568143	96.58	70	120	
In	115	1	No Gas	4014401	0.73	4404541	91.14	70	120	
Bi	209	1	No Gas	3949650	0.59	4431936	89.12	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	026ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T11:01:53-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	105.021	2.272	1618774	1.97	100	105.0	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	104.820	2.447	400077	1.21	100	104.8	80	120	
V	51	2	He	102.312	1.913	863556	0.84	100	102.3	80	120	
Cr	52	2	He	105.399	1.899	1071911	1.28	100	105.4	80	120	
Fe	56	2	He	113981.491	1.995	1032772491	0.97	100	113981.5	80	120	ICSB Main CR1 Failed
Se	78	2	He	111.760	2.890	14593	1.72	100	111.8	80	120	
As	75	2	He	106.926	1.271	155759	0.57	100	106.9	80	120	
Ca	44	2	He	111057.256	2.112	5574430	1.98	100	111057.3	80	120	
Na	23	2	He	113914.598	1.294	139422615	0.25	100	113914.6	80	120	
Mg	24	2	He	112486.546	1.036	82128432	0.29	100	112486.5	80	120	
K	39	2	He	117697.308	2.029	103133112	0.99	100	117697.3	80	120	ICSB Main CR1 Failed
Mn	55	2	He	106.789	1.327	793054	0.59	100	106.8	80	120	
Co	59	2	He	102.821	2.077	1558066	0.96	100	102.8	80	120	
Ni	60	2	He	100.827	0.867	380630	0.52	100	100.8	80	120	
Cu	63	2	He	97.811	1.642	1018527	2.56	100	97.8	80	120	
Zn	66	2	He	102.902	1.355	203096	0.73	100	102.9	80	120	
Al	27	2	He	97448.831	2.229	42154935	1.01	100	97448.8	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	520.076	2.721	1288189	0.41	100	520.1	80	120	
Al	27	1	No Gas	98232.099	1.028	1801349200	1.57	100	98232.1	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	546.211	1.357	5294225	1.27	100	546.2	80	120	
Ag	107	1	No Gas	100.089	1.400	2437018	0.65	100	100.1	80	120	
Cd	111	1	No Gas	103.498	0.761	514372	0.83	100	103.5	80	120	
Sr	88	1	No Gas	108.243	2.510	4693220	1.03	100	108.2	80	120	
Mo	95	1	No Gas	2222.616	0.477	20243164	1.58	100	2222.6	80	120	ICSB Main CR1 Failed
Sn	118	1	No Gas	102.397	2.869	1570921	1.39	100	102.4	80	120	
Sb	121	1	No Gas	105.803	1.725	2225299	1.23	100	105.8	80	120	
Ba	137	1	No Gas	101.531	0.927	756525	0.78	100	101.5	80	120	
Tl	205	1	No Gas	106.289	2.153	4826377	1.57	100	106.3	80	120	
Tl	203	1	No Gas	105.433	1.177	2041298	0.59	100	105.4	80	120	
Pb	208	1	No Gas	107.446	1.181	6912631	0.68	100	107.4	80	120	
U	238	1	No Gas	106.661	1.117	7232166	1.37	100	106.7	80	120	
Ca	43	2	He	113268.030	0.985	325688	0.57	100	113268.0	80	120	ICSB Main CR1 Failed
Sb	121	2	He	106.360	1.735	1069711	2.50	100	106.4	80	120	
Ti	47	2	He	2192.126	1.170	671764	0.87	100	2192.1	80	120	ICSB Main CR1 Failed
Cu	63	1	No Gas	104.356	1.223	1867587	1.10	100	104.4	80	120	
Se	82	1	No Gas	107.819	2.010	31680	2.49	100	107.8	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1154181	2.26	1245423	92.67	70	120	
Ge	72	2	He	1022105	1.27	1099244	92.98	70	120	
Ge	72	1	No Gas	3389028	0.57	3568143	94.98	70	120	
In	115	1	No Gas	4085683	1.57	4404541	92.76	70	120	
Bi	209	1	No Gas	3876443	0.59	4431936	87.47	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	031_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T11:16:36-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	99.103	3.004	1608524	0.90	100	99.1	90	110	
Be	9	1	No Gas	98.882	1.693	396542	0.29	100	98.9	90	110	
V	51	2	He	93.885	2.544	862781	0.56	100	93.9	90	110	
Cr	52	2	He	96.020	2.073	1063428	1.70	100	96.0	90	110	
Fe	56	2	He	9279.982	2.297	91566802	0.55	10000	92.8	90	110	
Se	78	2	He	94.751	2.881	13484	1.01	100	94.8	90	110	
As	75	2	He	96.385	2.639	152851	0.22	100	96.4	90	110	
Ca	44	2	He	9078.379	2.826	497703	0.23	10000	90.8	90	110	
Na	23	2	He	9046.266	3.281	12139269	0.72	10000	90.5	90	110	
Mg	24	2	He	9074.050	3.179	7213046	0.94	10000	90.7	90	110	
K	39	2	He	9222.509	1.878	8840537	1.06	10000	92.2	90	110	
Mn	55	2	He	95.018	2.396	769185	0.47	100	95.0	90	110	
Co	59	2	He	98.682	3.892	1627559	1.50	100	98.7	90	110	
Ni	60	2	He	97.100	3.725	398969	1.00	100	97.1	90	110	
Cu	63	2	He	97.036	3.221	1099738	1.25	100	97.0	90	110	
Zn	66	2	He	95.674	4.006	205801	1.26	100	95.7	90	110	
Al	27	2	He	94.940	2.257	47689	0.90	100	94.9	90	110	
B	11	1	No Gas	485.833	1.319	1266746	3.22	500	97.2	90	110	
Al	27	1	No Gas	98.772	2.453	2073884	1.37	100	98.8	90	110	
Si	28	1	No Gas	502.349	1.535	5262674	0.17	5000	10.0	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	101.029	1.823	2648963	0.61	100	101.0	90	110	
Cd	111	1	No Gas	98.787	1.510	528682	0.50	100	98.8	90	110	
Sr	88	1	No Gas	98.530	1.763	4601761	1.69	100	98.5	90	110	
Mo	95	1	No Gas	100.592	1.415	986762	0.20	100	100.6	90	110	
Sn	118	1	No Gas	98.499	1.443	1627801	1.10	100	98.5	90	110	
Sb	121	1	No Gas	100.020	0.400	2252342	1.24	100	100.0	90	110	
Ba	137	1	No Gas	95.349	1.289	765140	1.00	100	95.3	90	110	
Tl	205	1	No Gas	99.550	2.088	5101589	0.78	100	99.6	90	110	
Tl	203	1	No Gas	99.305	2.128	2169715	0.63	100	99.3	90	110	
Pb	208	1	No Gas	100.924	1.625	7327983	0.73	100	100.9	90	110	
U	238	1	No Gas	96.225	3.116	7361392	0.81	100	96.2	90	110	
Ca	43	2	He	9353.196	3.273	29335	1.29	10000	93.5	90	110	
Sb	121	2	He	102.015	2.171	1116941	1.72	100	102.0	90	110	
Ti	47	2	He	94.835	3.232	31650	2.39	100	94.8	90	110	
Cu	63	1	No Gas	101.435	1.732	1943571	0.60	100	101.4	90	110	
Se	82	1	No Gas	98.557	3.614	30991	2.51	100	98.6	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1212562	1.97	1245423	97.36	70	120	
Ge	72	2	He	1113077	2.88	1099244	101.26	70	120	
Ge	72	1	No Gas	3628117	1.19	3568143	101.68	70	120	
In	115	1	No Gas	4399789	1.24	4404541	99.89	70	120	
Bi	209	1	No Gas	4375742	2.32	4431936	98.73	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	032_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T11:18:53-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.065	157.2	73542	1.1	0.5	
Be	9	1	No Gas	0.007	43.7	33	37.7	0.5	
V	51	2	He	0.017	27.8	1363	2.1	2.5	
Cr	52	2	He	-0.029	-48.0	1870	9.3	2.5	
Fe	56	2	He	0.147	80.4	27565	4.7	100	
Se	78	2	He	0.143	41.9	114	7.6	2	
As	75	2	He	0.011	46.2	152	6.3	2.5	
Ca	44	2	He	-10.924	-19.3	1233	8.2	100	
Na	23	2	He	-6.892	-7.5	85393	0.9	100	
Mg	24	2	He	-1.262	-2.4	980	3.1	100	
K	39	2	He	0.142	277.4	44840	2.1	100	
Mn	55	2	He	-0.470	-3.5	5368	3.2	2.5	
Co	59	2	He	0.002	39.8	103	14.8	2.5	
Ni	60	2	He	-0.118	-11.4	517	9.1	2.5	
Cu	63	2	He	-0.244	-11.5	3107	9.0	2	
Zn	66	2	He	-0.565	-22.5	2987	9.8	2.5	
Al	27	2	He	-2.468	-15.4	1793	10.8	5	
B	11	1	No Gas	10.308	11.1	54763	4.1	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-2.706	-3.5	82736	1.7	5	
Si	28	1	No Gas	-4.301	-11.8	593998	1.1	10	
Ag	107	1	No Gas	0.000	-1363.7	560	23.2	2.5	
Cd	111	1	No Gas	0.005	100.3	30	88.2	1	
Sr	88	1	No Gas	-0.030	-17.1	2487	10.6	2.5	
Mo	95	1	No Gas	0.168	41.3	1970	34.8	2.5	
Sn	118	1	No Gas	0.125	45.2	6555	14.1	5	
Sb	121	1	No Gas	0.218	17.0	7349	11.0	2.5	
Ba	137	1	No Gas	-0.048	-22.6	347	24.9	2.5	
Tl	205	1	No Gas	0.720	59.1	38887	59.2	1	
Tl	203	1	No Gas	0.693	60.1	15937	60.1	1	
Pb	208	1	No Gas	0.008	40.8	3640	8.6	2.5	
U	238	1	No Gas	0.014	47.2	1217	44.6	2.5	
Ca	43	2	He	-8.639	-36.6	40	25.0	100	
Sb	121	2	He	0.140	7.5	2504	5.2	2.5	
Ti	47	2	He	0.000	-26585.0	13	43.3	2.5	
Cu	63	1	No Gas	-0.344	-2.5	7916	1.7	2.5	
Se	82	1	No Gas	-0.188	-147.6	-52	-169.0	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1242004	1.78	1245423	99.73	70	120	
Ge	72	2	He	1099519	1.32	1099244	100.03	70	120	
Ge	72	1	No Gas	3648741	0.83	3568143	102.26	70	120	
In	115	1	No Gas	4527366	0.71	4404541	102.79	70	120	
Bi	209	1	No Gas	4470571	2.14	4431936	100.87	70	120	

Sample Report

Sample Table

Sample Name	HS21051153-03SD
Data File Name	034SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T11:23:54-05:00
Sample Type	Sample
Dilution	50
Comment	DOD TW 166391
ISTD Ref FileName	014CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	1.516	75.797	10.94	96932	0.00	2000	
Be	9	1	No Gas	0.006	0.283	49.71	27	0.02	2000	
V	51	2	He	0.017	0.835	22.85	1376	0.00	2000	
Cr	52	2	He	0.007	0.347	284.68	2297	0.00	2000	
Fe	56	2	He	300.383	15019.170	0.54	2994333	0.01	200000	
Se	78	2	He	0.146	7.309	94.53	116	0.13	2000	
As	75	2	He	0.336	16.779	5.21	669	0.05	2000	
Ca	44	2	He	4039.822	201991.121	1.38	222873	1.81	200000	
Na	23	2	He	1322.742	66137.087	1.12	1859864	0.07	200000	
Mg	24	2	He	1028.513	51425.627	1.46	820766	0.13	200000	
K	39	2	He	302.970	15148.485	1.65	334673	0.09	200000	
Mn	55	2	He	6.321	316.026	2.47	59845	0.01	2000	
Co	59	2	He	0.012	0.612	16.85	270	0.00	2000	
Ni	60	2	He	-0.056	-2.805	-47.16	777	-0.01	2000	
Cu	63	2	He	-0.197	-9.875	-7.57	3671	-0.01	2000	
Zn	66	2	He	-0.882	-44.102	-9.35	2357	-0.04	2000	
Al	27	2	He	-1.400	-69.979	-37.32	2320	-0.06	2000	
B	11	1	No Gas	10.115	505.740	5.02	54457	0.02	2000	
Al	27	1	No Gas	-1.762	-88.086	-3.44	104315	0.00	2000	
Si	28	1	No Gas	311.811	15590.558	2.29	3627154	0.01	2000	
Ag	107	1	No Gas	-0.006	-0.307	-41.07	400	0.00	2000	
Cd	111	1	No Gas	0.007	0.334	26.01	40	0.02	2000	
Sr	88	1	No Gas	31.937	1596.874	1.59	1526670	0.00	2000	
Mo	95	1	No Gas	0.049	2.448	20.59	767	0.01	2000	
Sn	118	1	No Gas	-0.100	-5.011	-14.26	2714	0.00	2000	
Sb	121	1	No Gas	0.025	1.243	27.11	3057	0.00	2000	
Ba	137	1	No Gas	0.930	46.524	3.17	8356	0.01	2000	
Tl	205	1	No Gas	-0.003	-0.170	-52.17	863	0.00	2000	
Tl	203	1	No Gas	-0.003	-0.154	-92.06	337	0.00	2000	
Pb	208	1	No Gas	-0.007	-0.335	-56.55	2570	0.00	2000	
U	238	1	No Gas	0.033	1.669	6.22	2740	0.00	2000	
Ca	43	2	He	4237.083	211854.142	4.56	13350	31.74	200000	
Sb	121	2	He	0.045	2.236	11.04	1493	0.00	2000	
Ti	47	2	He	0.069	3.462	108.58	37	0.19	2000	
Cu	63	1	No Gas	-0.339	-16.927	-8.34	8249	0.00	2000	
Zn	66	1	No Gas	-0.841	-42.062	-1.31	6325	-0.01	2000	
Se	82	1	No Gas	-0.450	-22.521	-65.85	-139	0.33	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1246292	1.97	1245423	100.07	70	120	
Ge	72	2	He	1114373	0.26	1099244	101.38	70	120	
Ge	72	1	No Gas	3753865	0.79	3568143	105.20	70	120	
In	115	1	No Gas	4495785	1.32	4404541	102.07	70	120	

Sample Report

Bi	209	1	No Gas	4502243	1.04	4431936	101.59	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	043_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T11:42:17-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	100.060	1.514	1830492	0.95	100	100.1	90	110	
Be	9	1	No Gas	99.457	0.250	449689	0.57	100	99.5	90	110	
V	51	2	He	96.500	1.741	927348	0.99	100	96.5	90	110	
Cr	52	2	He	97.907	0.981	1133866	1.72	100	97.9	90	110	
Fe	56	2	He	9335.919	0.737	96335339	0.41	10000	93.4	90	110	
Se	78	2	He	100.124	1.697	14896	1.45	100	100.1	90	110	
As	75	2	He	97.393	0.382	161532	0.50	100	97.4	90	110	
Ca	44	2	He	9302.331	0.426	533335	0.32	10000	93.0	90	110	
Na	23	2	He	9522.475	1.056	13360456	1.07	10000	95.2	90	110	
Mg	24	2	He	9513.795	0.649	7909822	0.27	10000	95.1	90	110	
K	39	2	He	9566.762	0.616	9587728	0.24	10000	95.7	90	110	
Mn	55	2	He	97.201	0.948	822693	1.20	100	97.2	90	110	
Co	59	2	He	98.588	0.735	1700947	1.07	100	98.6	90	110	
Ni	60	2	He	96.394	0.793	414310	0.12	100	96.4	90	110	
Cu	63	2	He	95.172	0.821	1128238	0.33	100	95.2	90	110	
Zn	66	2	He	97.059	0.462	218346	0.95	100	97.1	90	110	
Al	27	2	He	98.217	0.113	51485	0.83	100	98.2	90	110	
B	11	1	No Gas	481.146	0.551	1414181	0.64	500	96.2	90	110	
Al	27	1	No Gas	104.320	2.896	2295881	1.65	100	104.3	90	110	
Si	28	1	No Gas	524.740	1.492	5752996	1.01	5000	10.5	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	102.846	1.451	2791417	1.13	100	102.8	90	110	
Cd	111	1	No Gas	99.128	0.815	549151	0.56	100	99.1	90	110	
Sr	88	1	No Gas	100.159	0.814	4841949	0.95	100	100.2	90	110	
Mo	95	1	No Gas	103.808	2.232	1054039	1.89	100	103.8	90	110	
Sn	118	1	No Gas	98.274	0.919	1681153	1.23	100	98.3	90	110	
Sb	121	1	No Gas	98.655	0.991	2336692	0.57	100	98.7	90	110	
Ba	137	1	No Gas	95.737	0.194	795220	0.16	100	95.7	90	110	
Tl	205	1	No Gas	99.914	1.784	5134068	1.11	100	99.9	90	110	
Tl	203	1	No Gas	99.677	1.575	2183790	0.94	100	99.7	90	110	
Pb	208	1	No Gas	100.735	0.666	7333973	0.08	100	100.7	90	110	
U	238	1	No Gas	96.837	3.341	7428858	2.60	100	96.8	90	110	
Ca	43	2	He	9492.249	1.608	31139	2.06	10000	94.9	90	110	
Sb	121	2	He	102.701	2.311	1175743	1.98	100	102.7	90	110	
Ti	47	2	He	96.108	2.104	33541	1.71	100	96.1	90	110	
Cu	63	1	No Gas	102.717	1.051	2070272	1.57	100	102.7	90	110	
Se	82	1	No Gas	101.500	1.800	33578	1.28	100	101.5	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1366820	0.51	1245423	109.75	70	120	
Ge	72	2	He	1163552	0.74	1099244	105.85	70	120	
Ge	72	1	No Gas	3816267	1.15	3568143	106.95	70	120	
In	115	1	No Gas	4553936	0.36	4404541	103.39	70	120	
Bi	209	1	No Gas	4386586	0.74	4431936	98.98	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	044_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq Date Time	2021-06-07T11:44:08-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.157	10.8	80227	0.9	0.5	
Be	9	1	No Gas	0.005	61.5	25	52.9	0.5	
V	51	2	He	0.060	22.9	1842	6.4	2.5	
Cr	52	2	He	-0.032	-45.9	1944	7.4	2.5	
Fe	56	2	He	-0.158	-71.6	25938	5.1	100	
Se	78	2	He	0.142	63.6	120	10.0	2	
As	75	2	He	0.019	93.4	173	17.6	2.5	
Ca	44	2	He	-14.482	-18.6	1100	15.0	100	
Na	23	2	He	46.738	0.3	164466	1.1	100	
Mg	24	2	He	-0.403	-53.5	1743	9.2	100	
K	39	2	He	1.767	105.8	48880	2.7	100	
Mn	55	2	He	-0.510	-2.9	5331	2.9	2.5	
Co	59	2	He	0.001	124.7	87	24.0	2.5	
Ni	60	2	He	-0.123	-3.0	520	1.9	2.5	
Cu	63	2	He	-0.310	-3.6	2497	6.3	2	
Zn	66	2	He	-0.694	-10.1	2864	4.4	2.5	
Al	27	2	He	-2.474	-12.9	1887	8.5	5	
B	11	1	No Gas	12.827	13.7	65636	7.9	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-2.617	-3.4	87545	2.3	5	
Si	28	1	No Gas	-2.566	-28.4	631979	1.2	10	
Ag	107	1	No Gas	-0.002	-140.0	537	10.3	2.5	
Cd	111	1	No Gas	0.004	58.0	23	49.5	1	
Sr	88	1	No Gas	-0.011	-51.9	3491	7.5	2.5	
Mo	95	1	No Gas	0.139	36.8	1720	31.7	2.5	
Sn	118	1	No Gas	0.136	36.3	6879	13.6	5	
Sb	121	1	No Gas	0.205	23.1	7309	15.1	2.5	
Ba	137	1	No Gas	-0.038	-26.6	433	19.9	2.5	
Tl	205	1	No Gas	0.744	61.5	39638	61.1	1	
Tl	203	1	No Gas	0.737	60.3	16711	60.1	1	
Pb	208	1	No Gas	0.003	225.2	3240	17.2	2.5	
U	238	1	No Gas	0.018	38.0	1513	36.6	2.5	
Ca	43	2	He	-8.374	-186.4	43	118.4	100	
Sb	121	2	He	0.118	9.5	2394	4.5	2.5	
Ti	47	2	He	0.084	53.9	43	35.3	2.5	
Cu	63	1	No Gas	-0.444	-1.2	6215	1.5	2.5	
Se	82	1	No Gas	-0.376	-69.8	-116	-74.4	2	

QC ISTD Table

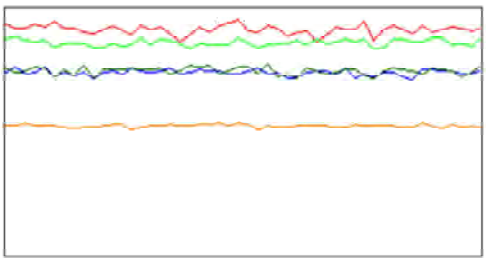
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1328016	0.53	1245423	106.63	70	120	
Ge	72	2	He	1159408	1.15	1099244	105.47	70	120	
Ge	72	1	No Gas	3779630	0.20	3568143	105.93	70	120	
In	115	1	No Gas	4614285	1.14	4404541	104.76	70	120	
Bi	209	1	No Gas	4407839	1.43	4431936	99.46	70	120	

Tune Check Report

Operator Name	ALSHS NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\060721A.b
Acq. Date-Time	6/7/2021 9:18:27 AM
Report Comment	---
Instrument Name	G8421A SG18523544

[No Gas]

Sensitivity



Sampling Period [sec]	0.514
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
9	5000	4578	45780.16		
24	20000	17233	172327.37		
59	50000	36986	369855.90		
115	100000	52464	524638.88		
208	50000	37347	373472.19		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	2.171	5.000	
24	1.534	5.000	
59	1.594	5.000	
115	1.227	5.000	
208	1.954	5.000	

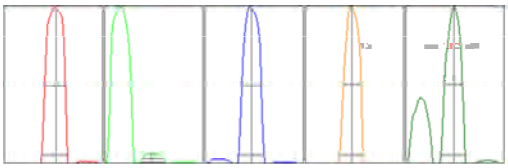
Mass	Background	Background (Required)	Background (Flag)
9	0.200		
24	0.000		
59	0.100		
115	0.400		
208	0.400		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.757 %
Doubly Charged	70 / 140 1.262 %

Tune Check Report

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	37.4
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	4498.05	9.10	8.90 - 9.10	
24	17302.56	23.95	23.90 - 24.10	
59	37041.39	58.95	58.90 - 59.10	
115	53191.60	114.95	114.90 - 115.10	
208	37102.81	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.64	0.781		
24	0.64	0.785		
59	0.60	0.775		
115	0.54	0.721		
208	0.57	0.736		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.47 L/min	Dilution Gas	0.55 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	14.0 V
Extract 2	-195.0 V	Cell Entrance	-30 V	Plate Bias	-45 V
Omega Bias	-90 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	135	Axis Gain	1.0003	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.12		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

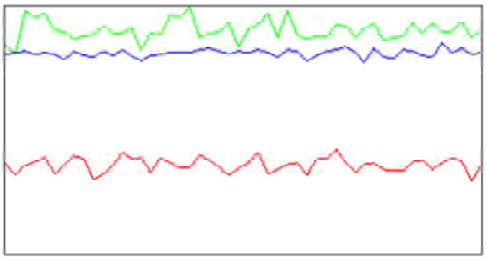
EM

Discriminator	4.5 mV	Analog HV	2542 V	Pulse HV	1305 V

[He]

Tune Check Report

Sensitivity



Sampling Period [sec]	0.306
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
9	500	179	1794.51		
24	1000	905	9046.12		
59	20000	16234	162335.36		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

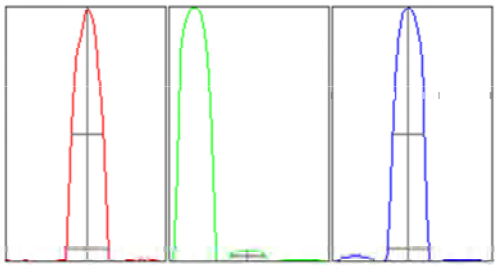
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	8.436	5.000	Fail
24	4.527	5.000	
59	1.842	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.000		
24	0.000		
59	0.300		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.422 %
Doubly Charged	70 / 140 0.923 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	192.52	9.05	8.90 - 9.10	
24	915.08	24.00	23.90 - 24.10	
59	16357.73	58.95	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.61	0.783		
24	0.65	0.785		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.60	0.775		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.47 L/min	Dilution Gas	0.55 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	0.2 V
Extract 2	-195.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-80 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	4.1 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	135	Axis Gain	1.0003	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.12		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

EM

Discriminator	4.5 mV	Analog HV	2542 V	Pulse HV	1305 V

HS21051314 Wet Chem Raw Data (COD)

ALS WO# HS21051314

ALS Laboratory Group — **COD Analysis** — **Logbook# 31508**

Method: HACH 8000 / EPA 410.4	Date: 5-27-21	Low COD–420nm	*Analyst:*
SOP #: HS-WC025	Time: 13:00	High COD–620nm	TH

WO # / SX #	Bottle #	Init Sample Vol (mL)	Prep Final Volume (mL)	Dilution Factor	Init Conc. (mg/L)	Final Conc. (mg/L)	Comments
CCV50		2	2	1	50		
MBLK					0		
LCS					99		
LCSD					99		
HS2105129H-01					30		
-01MS					78		
-01MSD					77		
-02					29		
HS2105132B-01					18		
HS2105133D-01				2	94		
LOQ-052721				1	15		
CCV100		2	2	1	97		
HS2105134Z-01					7		
HS2105135Z-01					30		
HS2105124H-01					86		
HS2105126D-02					55		
HS2105126I-02					25		
HS2105126Z-02					41		
HS2105126H-02					26		
HS2105126F-02					55		
HS2105131Z-01					8		
HS2105131H-01					7		
CCV50		2	2	1	50		

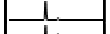
LCS ID #	CCV1 ID#	CCV2 ID#	Vial Lot#:	Reviewed By:
316.132.707	316.132.708	316.132.709	310.060.3912	RM
LCS Prep Date:	**Prep Date:**	**Prep Date:**	**MS ID:**	***Pipette ID:***
04-28-21			310.060.2311	WC4. COD
Digestor ID:	**Digestor *Temp* (°C):**	**Date/Time In Digestor:**	**Date/Time Off Digestor:**	**Batch ID:**
DRB 200	150°C	5-27-21 10:00	5-27-21 12:00	384513

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HS21051314 Wet Chem Raw Data (9056_anions_W)

ALS WO# HS21051314

Sequence: 060921
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method	Processing Method
	STD1		Calibration	BB1	1.00	1	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD2		Calibration	BB2	1.00	2	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD3		Calibration	BB3	1.00	3	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD4		Calibration	BB4	1.00	4	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD5		Calibration	BB5	1.00	5	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	STD6		Calibration	BB6	1.00	6	Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	ICV		Unknown	BB7	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	ICB		Unknown	BB8	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R6	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	MBLK		Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	LCS		Unknown	R2	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R4	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21051314-01		Unknown	RD3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R6	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21051314-01DF20		Unknown	RD4	20.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21051314-01MSDF20		Unknown	RD5	20.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21051314-01MSDDF20		Unknown	RD6	20.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R4	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO

Sequence: 060921
Last Update Operator: alshs.nouser

CD	Name	me	Status	Inject Time
	STD1	5.0	Finished	5/5/2021 6:12:32 PM -05:00
	STD2	5.0	Finished	5/5/2021 6:20:08 PM -05:00
	STD3	5.0	Finished	5/5/2021 6:27:33 PM -05:00
	STD4	5.0	Finished	5/5/2021 6:34:56 PM -05:00
	STD5	5.0	Finished	5/5/2021 6:42:20 PM -05:00
	STD6	5.0	Finished	5/5/2021 6:49:43 PM -05:00
	ICV	5.0	Finished	5/5/2021 6:57:07 PM -05:00
	ICB	5.0	Finished	5/5/2021 7:14:09 PM -05:00
	CCV1	5.0	Finished	6/9/2021 2:04:26 PM -05:00
	CCB	5.0	Finished	6/9/2021 2:11:49 PM -05:00
	MBLK	5.0	Finished	6/9/2021 2:19:13 PM -05:00
	LCS	5.0	Finished	6/9/2021 2:26:37 PM -05:00
	CCV	5.0	Finished	6/9/2021 3:33:09 PM -05:00
	CCB	5.0	Finished	6/9/2021 3:40:35 PM -05:00
	HS21051314-01	5.0	Finished	6/9/2021 4:54:31 PM -05:00
	CCV1	5.0	Finished	6/9/2021 5:01:56 PM -05:00
	CCB	5.0	Finished	6/9/2021 5:09:19 PM -05:00
	HS21051314-01DF20	5.0	Finished	6/9/2021 5:31:32 PM -05:00
	HS21051314-01MSDF20	5.0	Finished	6/9/2021 5:38:55 PM -05:00
	HS21051314-01MSDDF20	5.0	Finished	6/9/2021 5:46:17 PM -05:00
	CCV	5.0	Finished	6/9/2021 6:30:49 PM -05:00
	CCB	5.0	Finished	6/9/2021 6:38:13 PM -05:00

Sequence: 062221
Injection #6: STD6

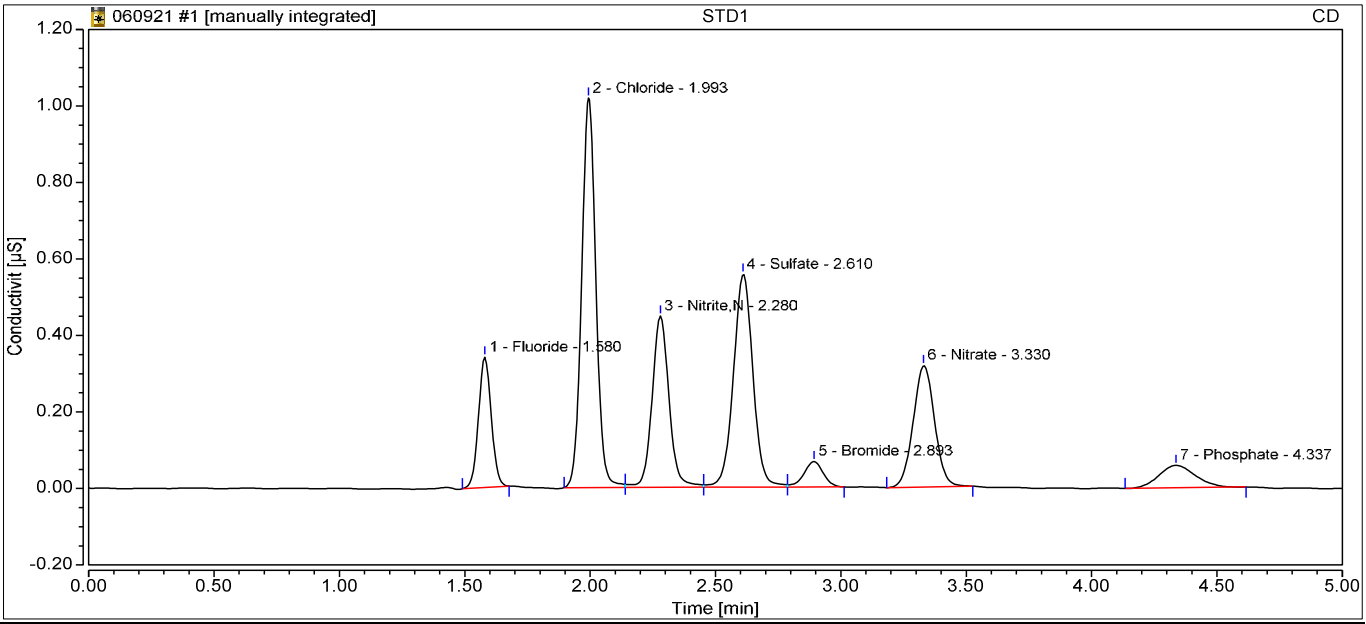
Calibration

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/*	*Area*	*6*	*26.4373*	*0.99601*	*0.0037*	*0.2049*	*0.0000*
2	Chloride	Lin, WithOffset, 1/	Area	6	0.6871	1.00000	-0.0005	0.1344	0.0000
3	Nitrite,N	Lin, WithOffset, 1/	Area	6	17.7767	0.99788	0.0149	0.2622	0.0000
4	Sulfate	Lin, WithOffset, 1/	Area	6	1.7139	0.99998	0.0010	0.0990	0.0000
5	Bromide	Lin, WithOffset, 1/	Area	6	3.9005	0.99992	0.0004	0.0565	0.0000
6	Nitrate	Lin, WithOffset, 1/	Area	6	4.7579	0.99988	-0.0013	0.3350	0.0000
7	Phosphate	Lin, WithOffset, 1/	Area	6	7.9708	0.99971	-0.0045	0.1295	0.0000
n.a.	Chlorate	Lin, WithOffset, 1/	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
Maximum					**26.4373**	1.00000			
Minimum					0.6871	**0.99601**			

1 STD1

Sample Name:	**STD1**	*Injection Volume:*	**5.00**
Vial Number:	**BB1**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:12**	*Sample Weight:*	**1.0000**

Run Time:



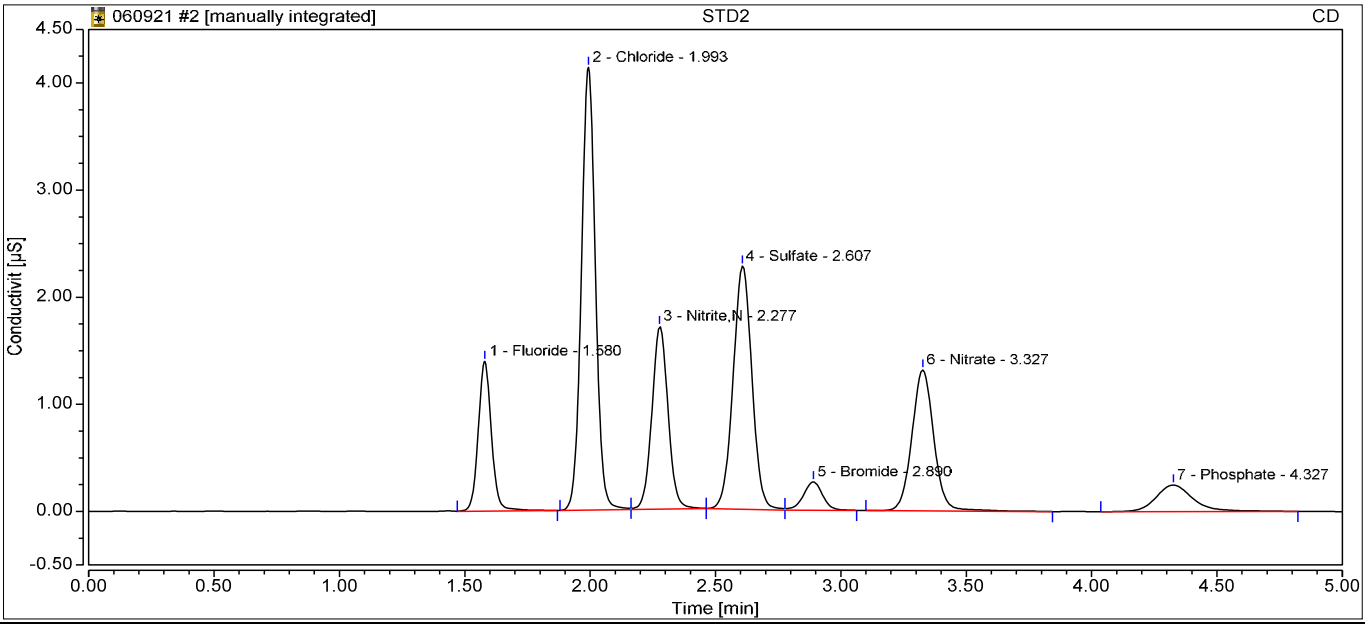
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB*	0.020	0.0804	0.0804	1.0000
2	1.99	Chloride	BM *	0.067	0.4989	0.4989	1.0000
3	2.28	Nitrite,N	M *	0.035	0.0767	0.0767	1.0000
4	2.61	Sulfate	M *	0.050	0.4965	0.4965	1.0000
5	2.89	Bromide	MB*	0.006	0.0985	0.0985	1.0000
6	3.33	Nitrate	BMB*	0.031	0.0974	0.0974	1.0000
7	4.34	Phosphate	BMB*	0.010	0.1110	0.1110	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.219**		**1.46**	

2 STD2

Sample Name:	**STD2**	*Injection Volume:*	**5.00**
Vial Number:	**BB2**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:20**	*Sample Weight:*	**1.0000**

Run Time:



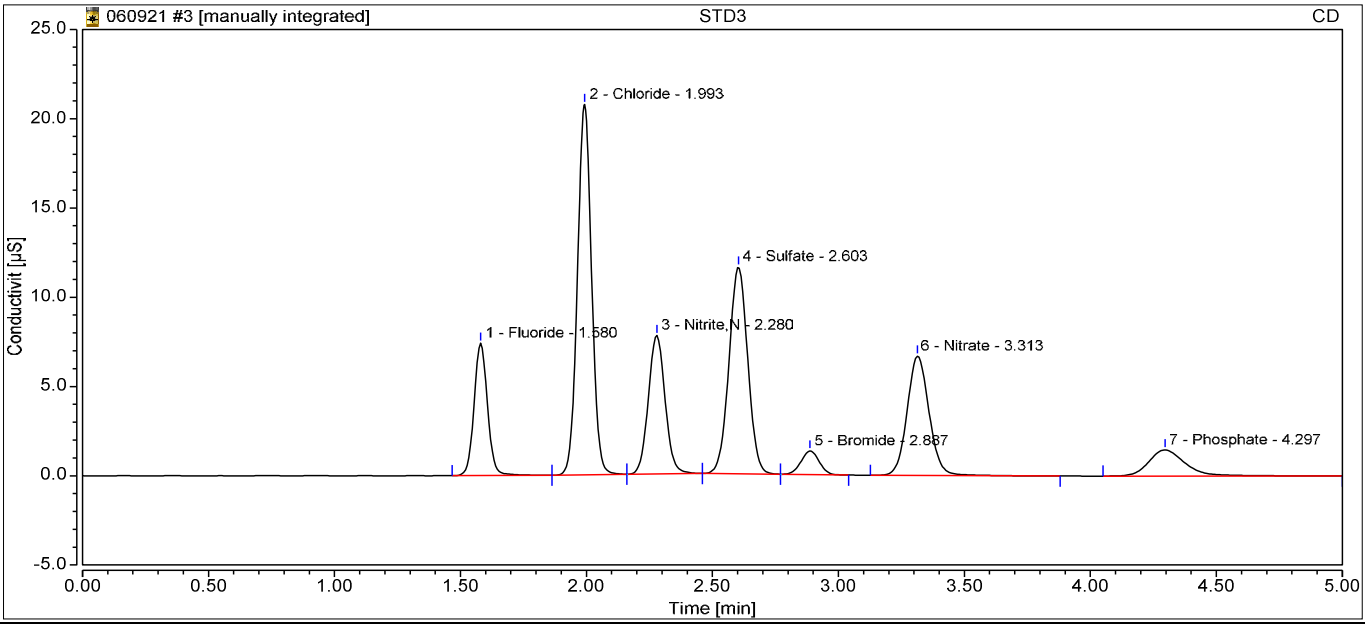
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.085	0.3985	0.3985	1.0000
2	1.99	Chloride	BM *	0.268	1.9973	1.9973	1.0000
3	2.28	Nitrite,N	Mb*	0.127	0.4273	0.4273	1.0000
4	2.61	Sulfate	bM *	0.198	1.9879	1.9879	1.0000
5	2.89	Bromide	MB*	0.024	0.4134	0.4134	1.0000
6	3.33	Nitrate	BMB	0.133	0.4017	0.4017	1.0000
7	4.33	Phosphate	BMB	0.043	0.3676	0.3676	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**0.878**		**5.99**	

3 STD3

Sample Name:	**STD3**	*Injection Volume:*	**5.00**
Vial Number:	**BB3**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:27**	*Sample Weight:*	**1.0000**

Run Time:



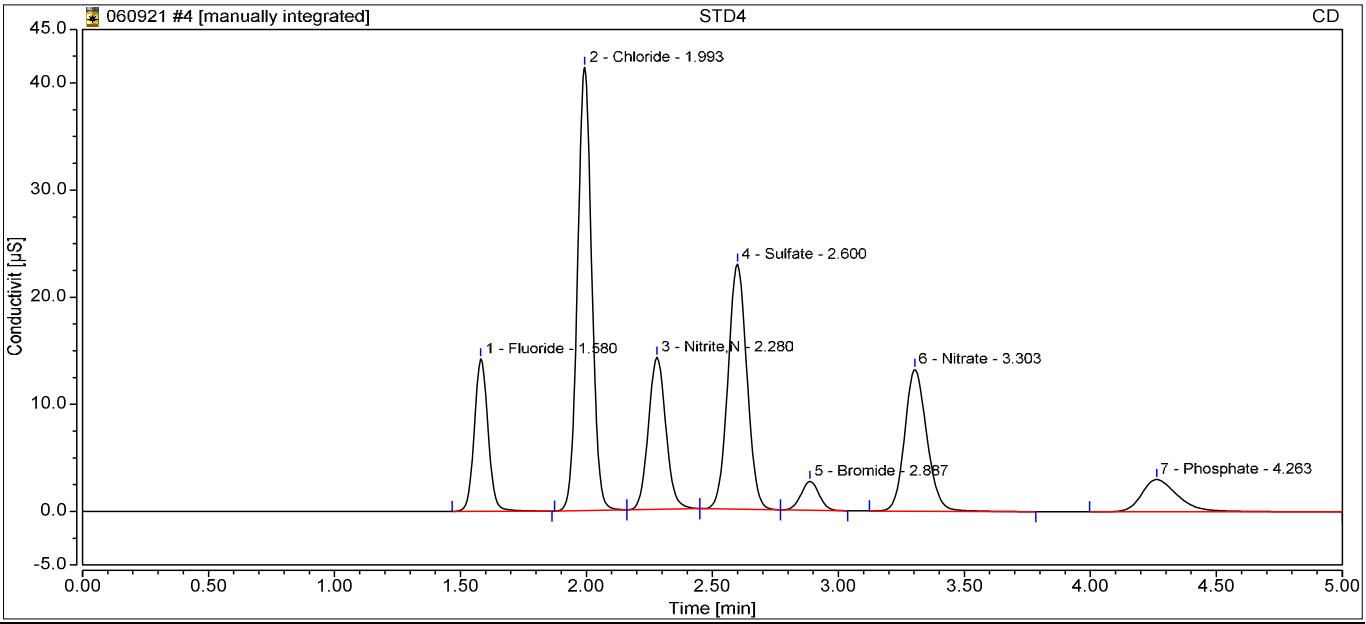
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMb*	0.459	2.2233	2.2233	1.0000
2	1.99	Chloride	bM *	1.346	10.0167	10.0167	1.0000
3	2.28	Nitrite,N	Mb*	0.600	2.2303	2.2303	1.0000
4	2.60	Sulfate	bM *	1.000	10.0941	10.0941	1.0000
5	2.89	Bromide	MB*	0.112	1.9684	1.9684	1.0000
6	3.31	Nitrate	BMB	0.675	2.0188	2.0188	1.0000
7	4.30	Phosphate	BMB	0.247	1.9396	1.9396	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**4.438**		**30.49**	

4 STD4

Sample Name:	**STD4**	*Injection Volume:*	**5.00**
Vial Number:	**BB4**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:34**	*Sample Weight:*	**1.0000**

Run Time:



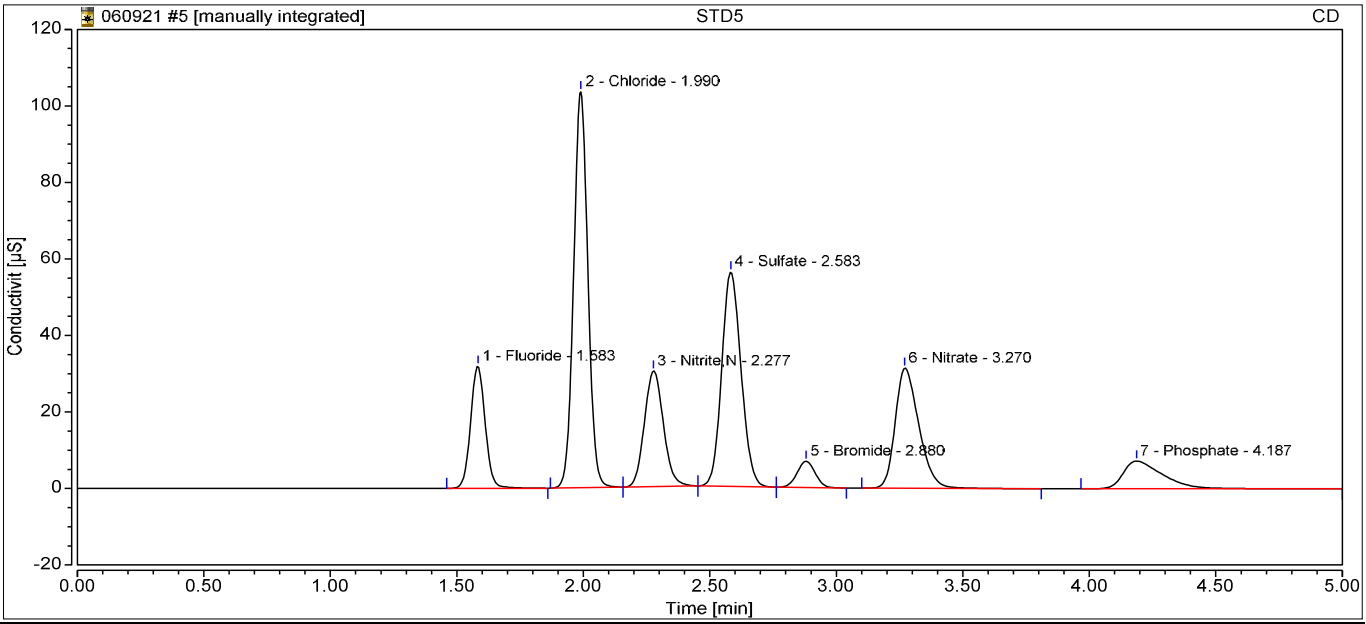
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.903	4.3869	4.3869	1.0000
2	1.99	Chloride	BM *	2.691	20.0267	20.0267	1.0000
3	2.28	Nitrite,N	Mb*	1.144	4.3066	4.3066	1.0000
4	2.60	Sulfate	bMB*	1.988	20.0727	20.0727	1.0000
5	2.89	Bromide	BMB	0.224	3.9555	3.9555	1.0000
6	3.30	Nitrate	BMB	1.350	4.0333	4.0333	1.0000
7	4.26	Phosphate	BMB	0.506	3.9429	3.9429	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.805**		**60.72**	

5 STD5

Sample Name:	**STD5**	*Injection Volume:*	**5.00**
Vial Number:	**BB5**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:42**	*Sample Weight:*	**1.0000**

Run Time:

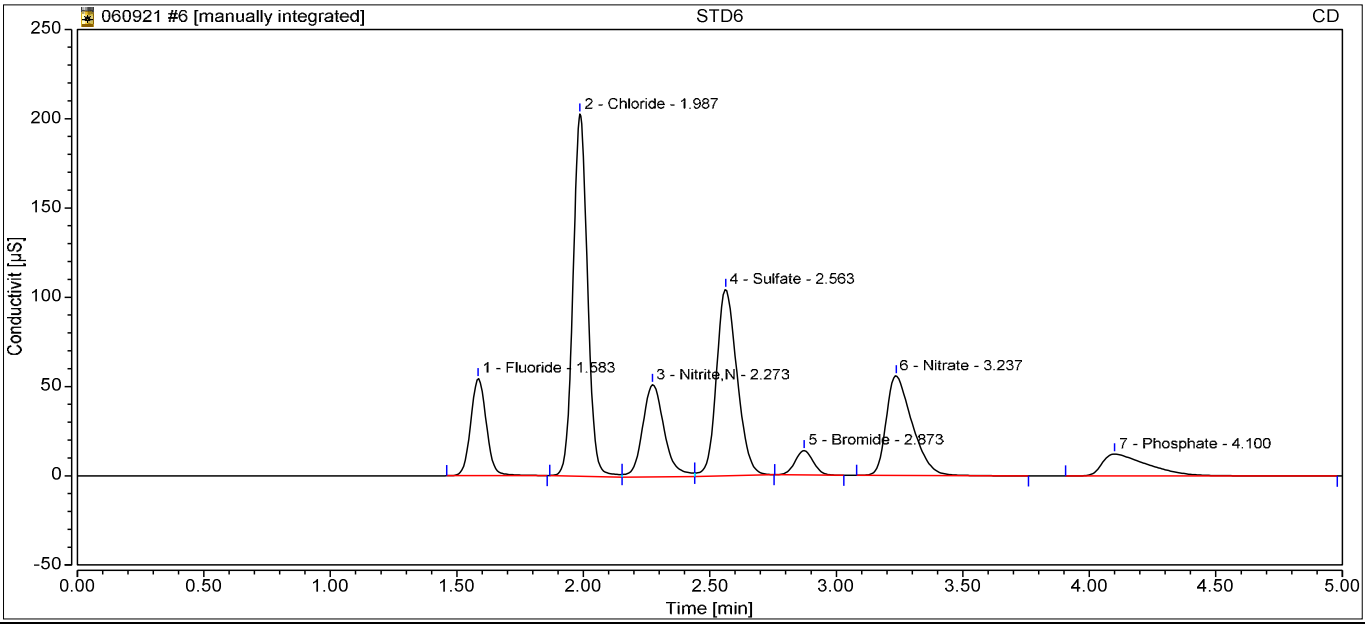


Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	2.140	10.4243	10.4243	1.0000
2	1.99	Chloride	BMb*	6.732	50.0934	50.0934	1.0000
3	2.28	Nitrite,N	bMb*	2.637	9.9988	9.9988	1.0000
4	2.58	Sulfate	bMB*	4.966	50.1541	50.1541	1.0000
5	2.88	Bromide	BMB	0.571	10.1112	10.1112	1.0000
6	3.27	Nitrate	BMB	3.393	10.1328	10.1328	1.0000
7	4.19	Phosphate	BMB	1.313	10.1773	10.1773	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**21.751**		**151.09**	

6 STD6			
Sample Name:	**STD6**	*Injection Volume:*	**5.00**
Vial Number:	**BB6**	*Channel:*	**CD**
Sample Type:	**Calibration Standard**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:49**	*Sample Weight:*	**1.0000**

Run Time:



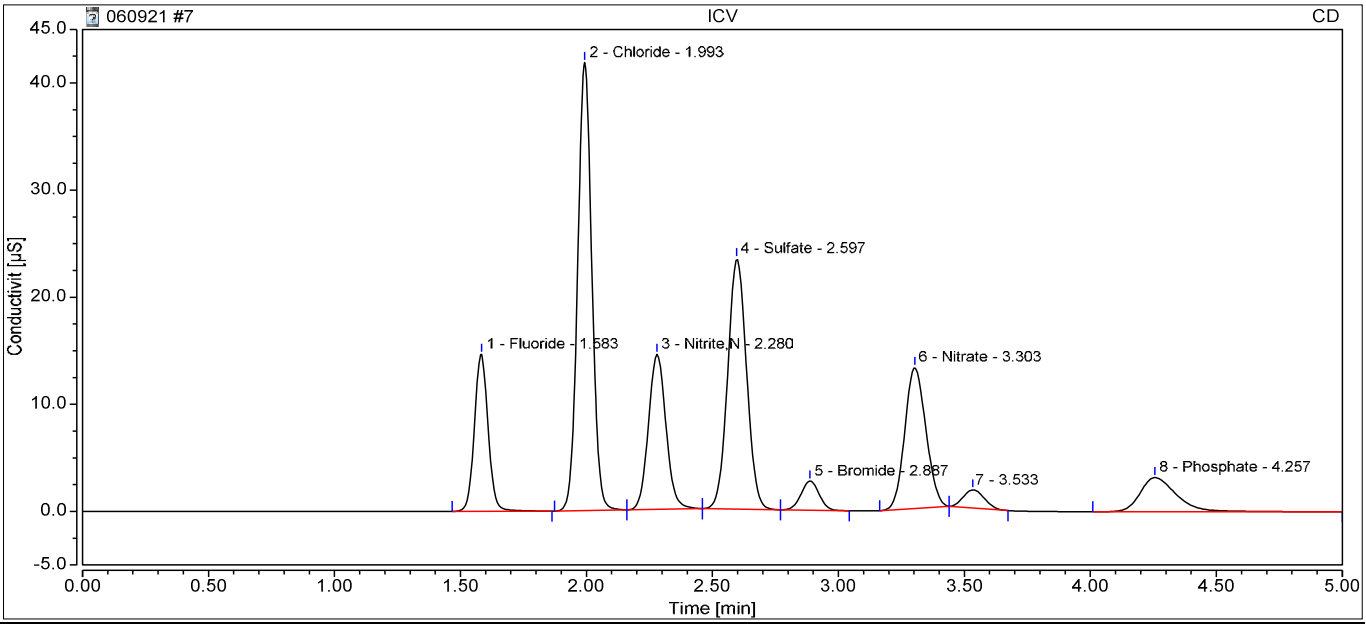
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	3.894	18.9867	18.9867	1.0000
2	1.99	Chloride	BM *	13.421	99.8669	99.8669	1.0000
3	2.27	Nitrite,N	M *	5.117	19.4604	19.4604	1.0000
4	2.56	Sulfate	MB*	9.870	99.6947	99.6947	1.0000
5	2.87	Bromide	BMB	1.127	19.9531	19.9531	1.0000
6	3.24	Nitrate	BMB	6.637	19.8160	19.8160	1.0000
7	4.10	Phosphate	BMB	2.580	19.9616	19.9616	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**42.646**		**297.74**	

7 ICV

Sample Name:	**ICV**	*Injection Volume:*	**5.00**
Vial Number:	**BB7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 18:57**	*Sample Weight:*	**1.0000**

Run Time:



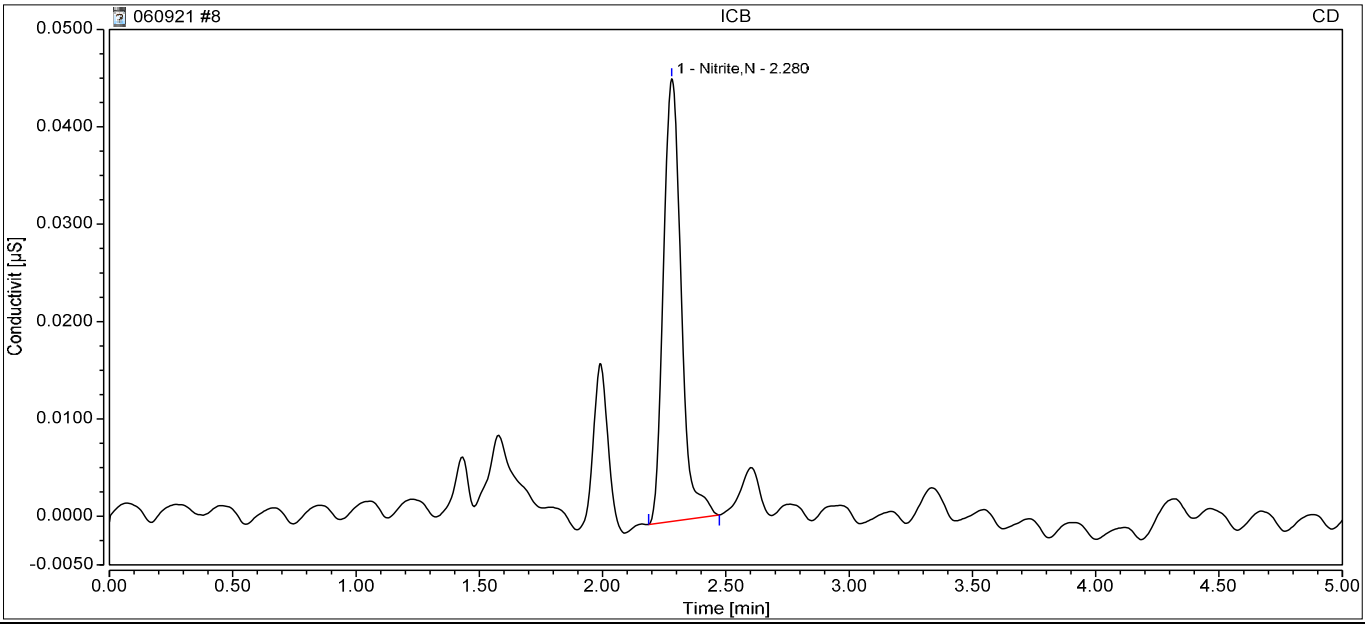
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.924	4.4936	4.4936	1.0000
2	1.99	Chloride	BMB	2.715	20.2077	20.2077	1.0000
3	2.28	Nitrite,N	BMB	1.168	4.3995	4.3995	1.0000
4	2.60	Sulfate	BMB	2.028	20.4771	20.4771	1.0000
5	2.89	Bromide	BMB	0.226	3.9960	3.9960	1.0000
6	3.30	Nitrate	BMB	1.281	3.8265	3.8265	1.0000
8	4.26	Phosphate	BMB	0.533	4.1549	4.1549	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.876**		**61.56**	

8 ICB

Sample Name:	**ICB**	*Injection Volume:*	**5.00**
Vial Number:	**BB8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**05/05/2021 19:14**	*Sample Weight:*	**1.0000**

Run Time:



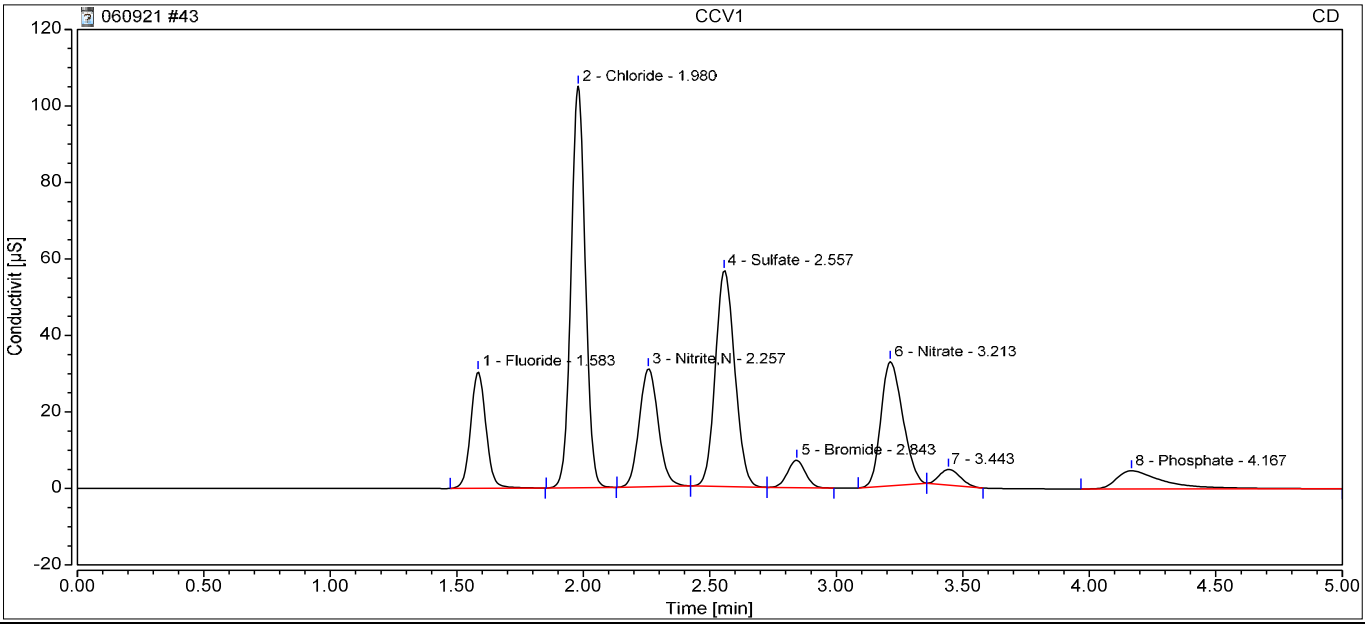
Integration Results

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
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.28	Nitrite,N	BMB	0.004	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.	Phosphate	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
Total:			**0.000**	**0.004**		**0.00**	

43 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 14:04**	*Sample Weight:*	**1.0000**

Run Time:



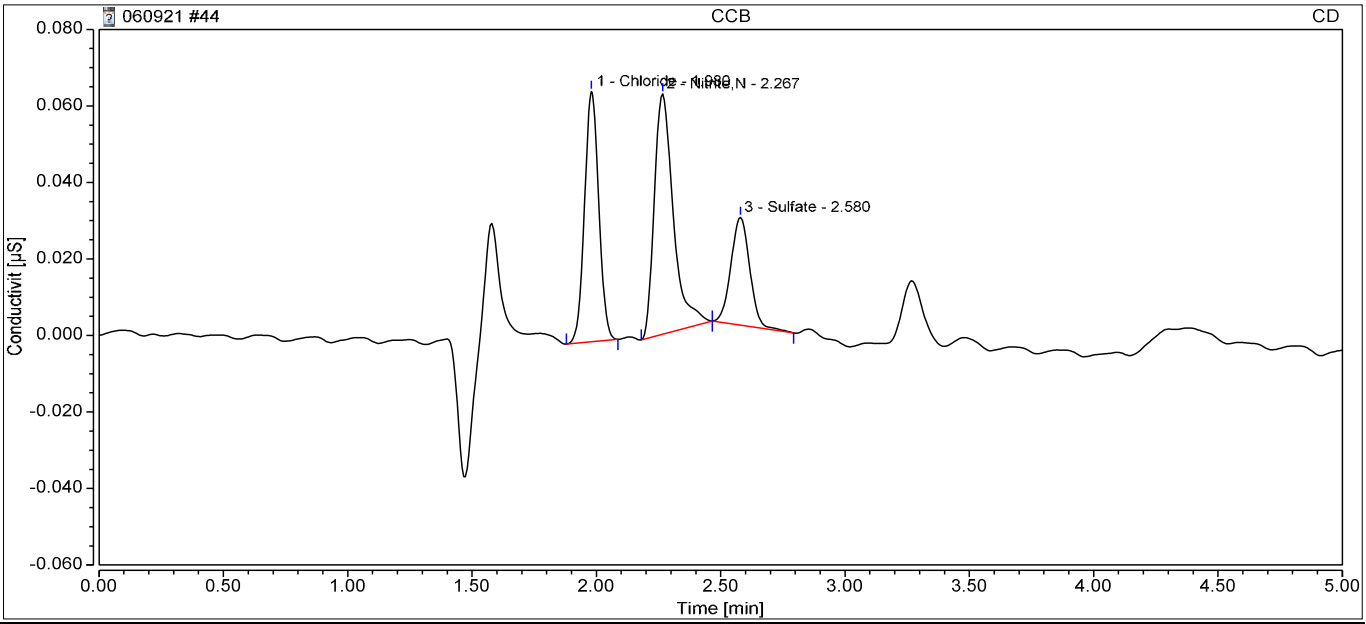
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	2.129	10.3741	10.3741	1.0000
2	1.98	Chloride	BMB	6.838	50.8863	50.8863	1.0000
3	2.26	Nitrite,N	BMB	2.680	10.1638	10.1638	1.0000
4	2.56	Sulfate	BMB	5.026	50.7631	50.7631	1.0000
5	2.84	Bromide	BMB	0.585	10.3546	10.3546	1.0000
6	3.21	Nitrate	BMB	3.239	9.6726	9.6726	1.0000
8	4.17	Phosphate	BMB	1.019	7.9063	7.9063	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**21.517**		**150.12**	

44 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 14:11**	*Sample Weight:*	**1.0000**

Run Time:



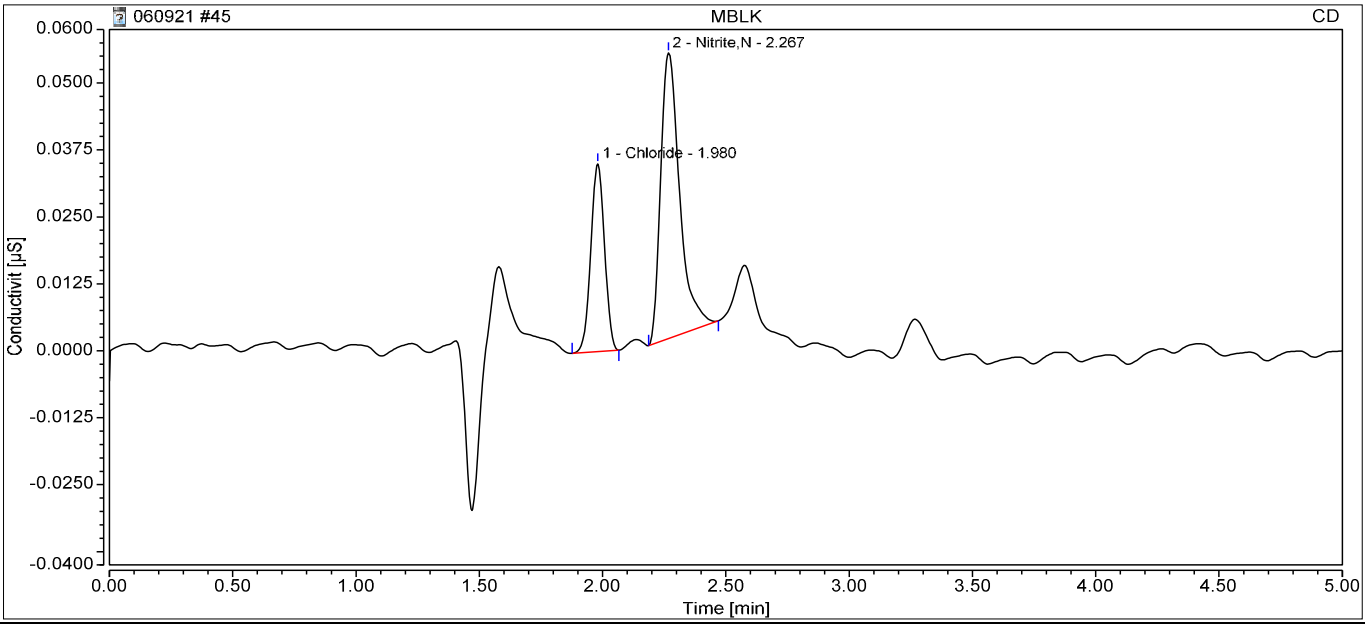
Integration Results

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
1	1.98	Chloride	BMB	0.004	0.0358	0.0358	1.0000
2	2.27	Nitrite,N	BMB	0.006	n.a.	n.a.	1.0000
3	2.58	Sulfate	BMB	0.002	0.0147	0.0147	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.	Phosphate	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
Total:			**0.000**	**0.012**		**0.05**	

45 MBLK

Sample Name:	**MBLK**	*Injection Volume:*	**5.00**
Vial Number:	**R5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 14:19**	*Sample Weight:*	**1.0000**

Run Time:



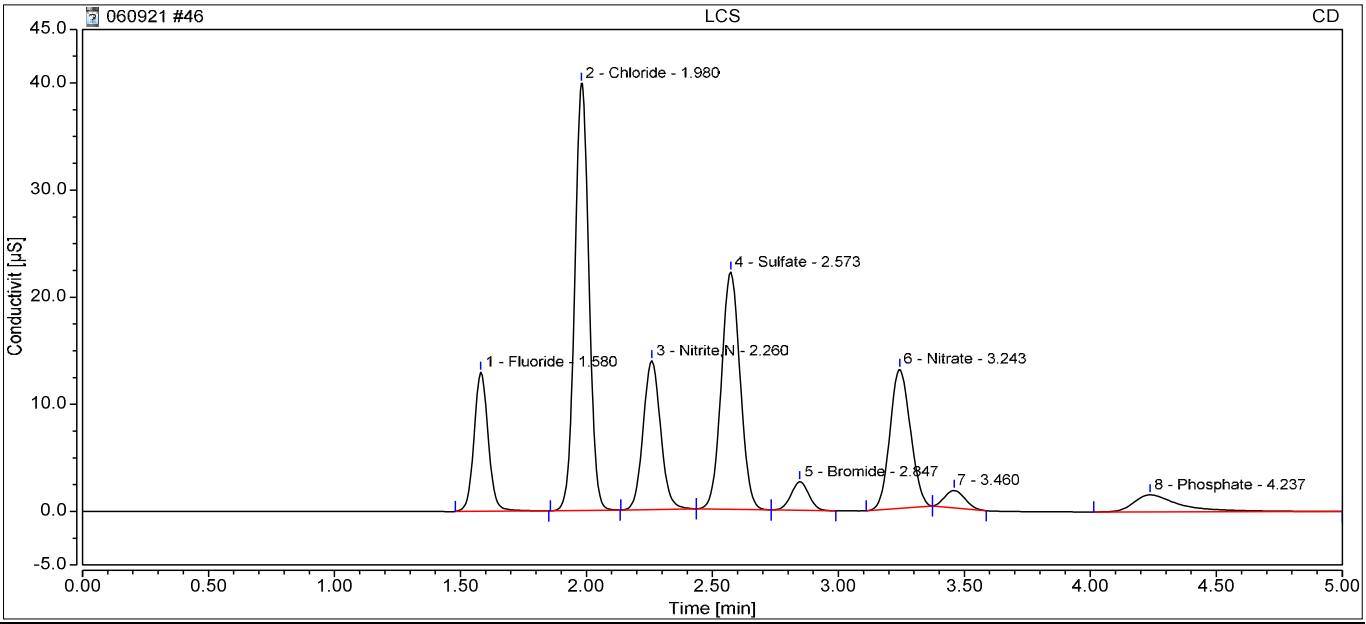
Integration Results

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
1	1.98	Chloride	BMB	0.002	0.0204	0.0204	1.0000
2	2.27	Nitrite,N	BMB	0.005	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.	Phosphate	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
Total:			**0.000**	**0.007**		**0.02**	

46 LCS

Sample Name:	**LCS**	*Injection Volume:*	**5.00**
Vial Number:	**R2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 14:26**	*Sample Weight:*	**1.0000**

Run Time:



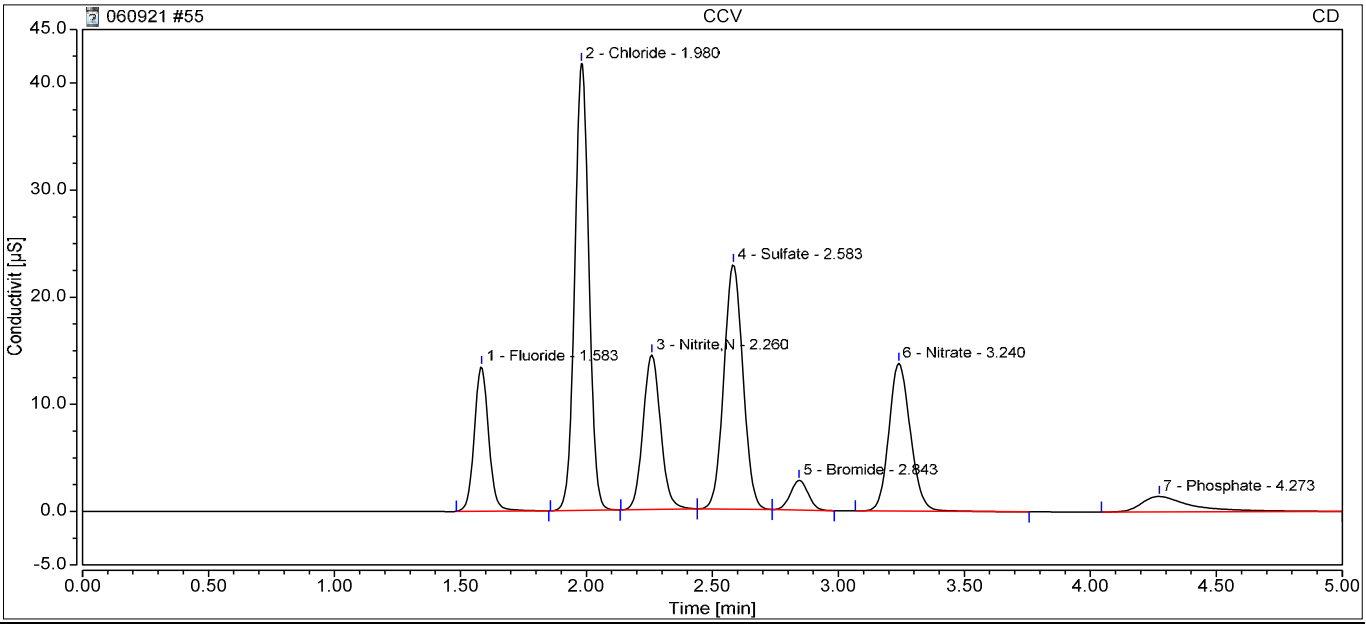
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.849	4.1261	4.1261	1.0000
2	1.98	Chloride	BMB	2.599	19.3458	19.3458	1.0000
3	2.26	Nitrite,N	BMB	1.117	4.2015	4.2015	1.0000
4	2.57	Sulfate	BMB	1.912	19.3061	19.3061	1.0000
5	2.85	Bromide	BMB	0.218	3.8500	3.8500	1.0000
6	3.24	Nitrate	BMB	1.228	3.6684	3.6684	1.0000
8	4.24	Phosphate	BMB	0.341	2.6711	2.6711	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.264**		**57.17**	

55 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 15:33**	*Sample Weight:*	**1.0000**

Run Time:



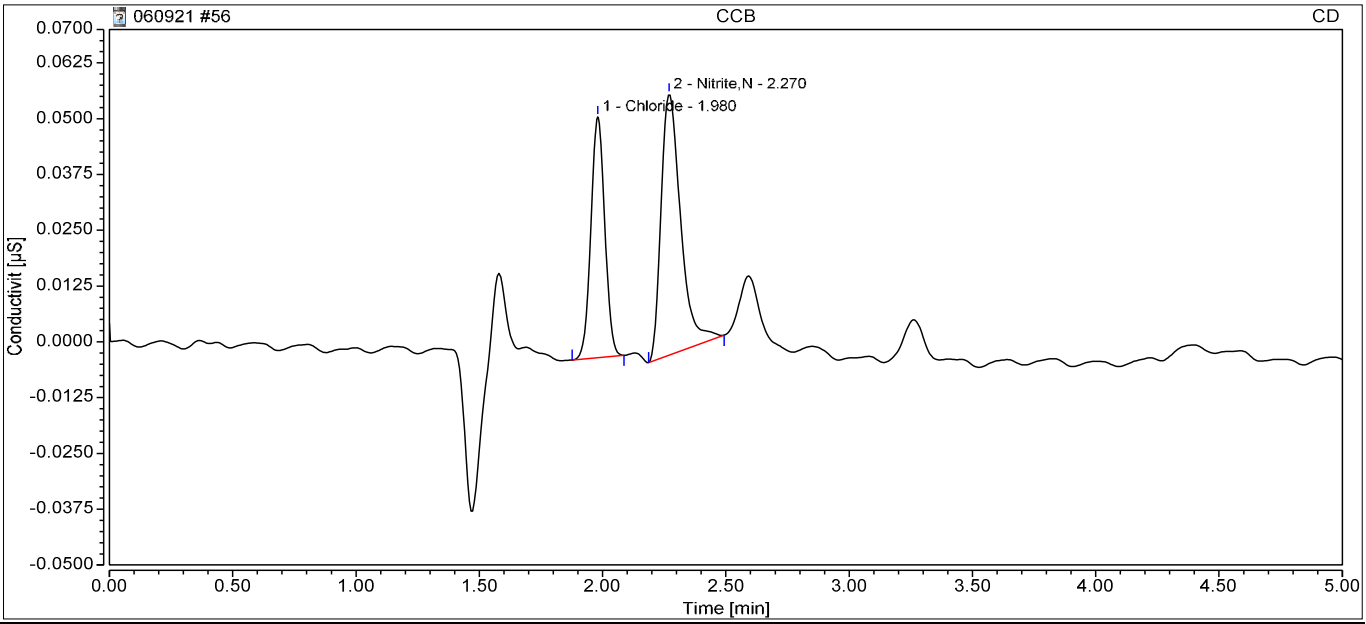
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.892	4.3360	4.3360	1.0000
2	1.98	Chloride	BMB	2.718	20.2279	20.2279	1.0000
3	2.26	Nitrite,N	BMB	1.168	4.3973	4.3973	1.0000
4	2.58	Sulfate	BMB	2.005	20.2416	20.2416	1.0000
5	2.84	Bromide	BMB	0.225	3.9804	3.9804	1.0000
6	3.24	Nitrate	BMB	1.366	4.0826	4.0826	1.0000
7	4.27	Phosphate	BMB	0.332	2.5960	2.5960	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.706**		**59.86**	

56 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 15:40**	*Sample Weight:*	**1.0000**

Run Time:



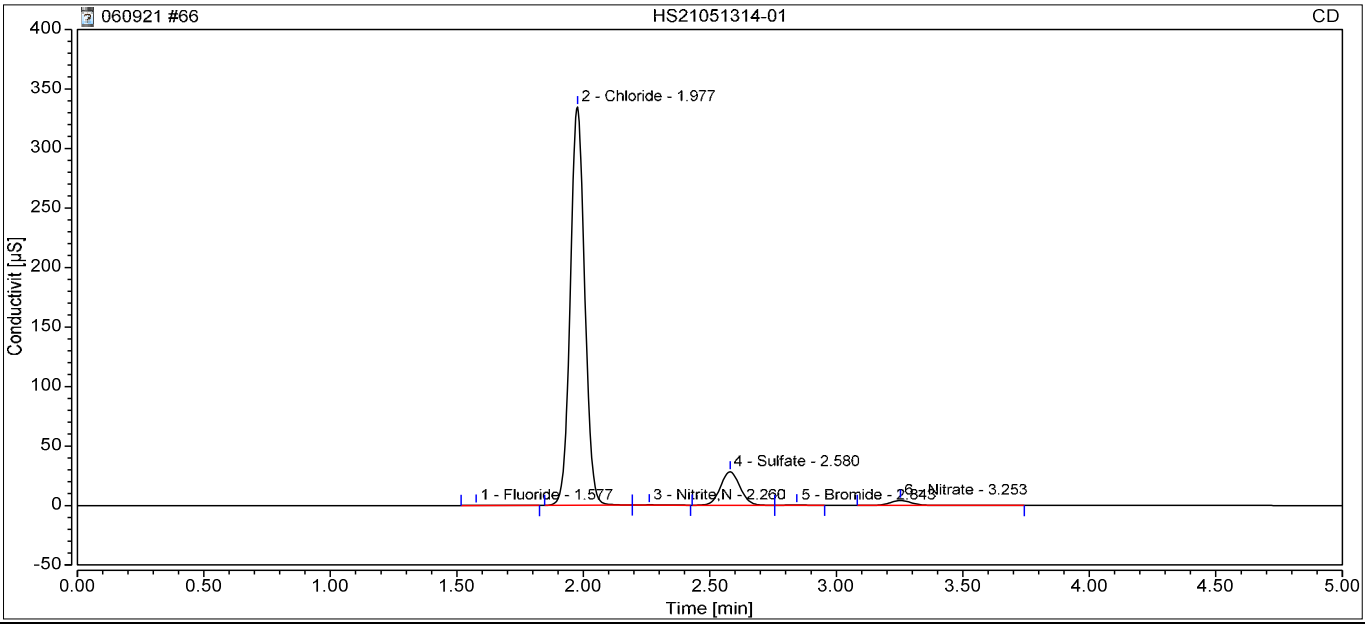
Integration Results

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
1	1.98	Chloride	BMB	0.004	0.0297	0.0297	1.0000
2	2.27	Nitrite,N	BMB	0.005	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.	Phosphate	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
Total:			**0.000**	**0.009**		**0.03**	

66 HS21051314-01

Sample Name:	**HS21051314-01**	*Injection Volume:*	**5.00**
Vial Number:	**RD3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 16:54**	*Sample Weight:*	**1.0000**

Run Time:



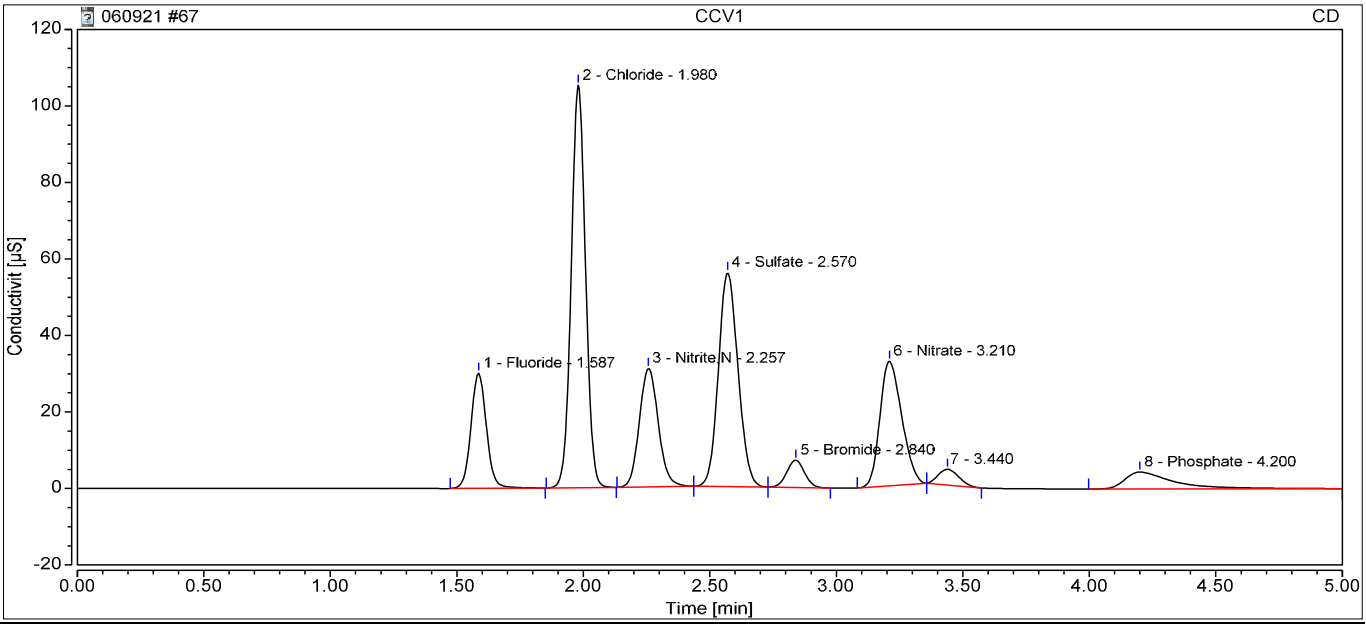
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.020	0.0776	0.0776	1.0000
2	1.98	Chloride	BMB	22.088	164.3619	164.3619	1.0000
3	2.26	Nitrite,N	BMB	0.023	0.0317	0.0317	1.0000
4	2.58	Sulfate	BMB	2.517	25.4141	25.4141	1.0000
5	2.84	Bromide	BMB	0.025	0.4355	0.4355	1.0000
6	3.25	Nitrate	BMB	0.410	1.2280	1.2280	1.0000
n.a.	n.a.	Phosphate	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
Total:			**0.000**	**25.083**		**191.55**	

67 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 17:01**	*Sample Weight:*	**1.0000**

Run Time:



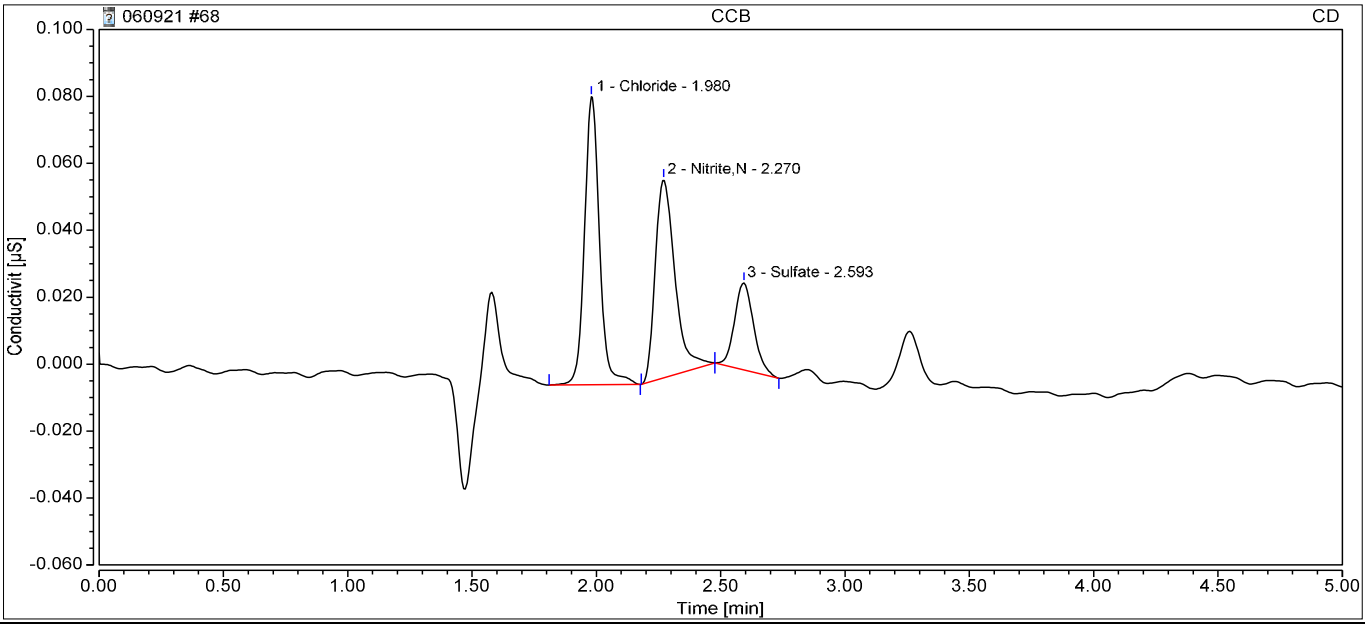
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.59	Fluoride	BMB	2.134	10.3942	10.3942	1.0000
2	1.98	Chloride	BMB	6.863	51.0682	51.0682	1.0000
3	2.26	Nitrite,N	BMB	2.686	10.1882	10.1882	1.0000
4	2.57	Sulfate	BMB	5.016	50.6581	50.6581	1.0000
5	2.84	Bromide	BMB	0.578	10.2292	10.2292	1.0000
6	3.21	Nitrate	BMB	3.240	9.6768	9.6768	1.0000
8	4.20	Phosphate	BMB	0.980	7.6056	7.6056	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**21.497**		**149.82**	

68 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 17:09**	*Sample Weight:*	**1.0000**

Run Time:



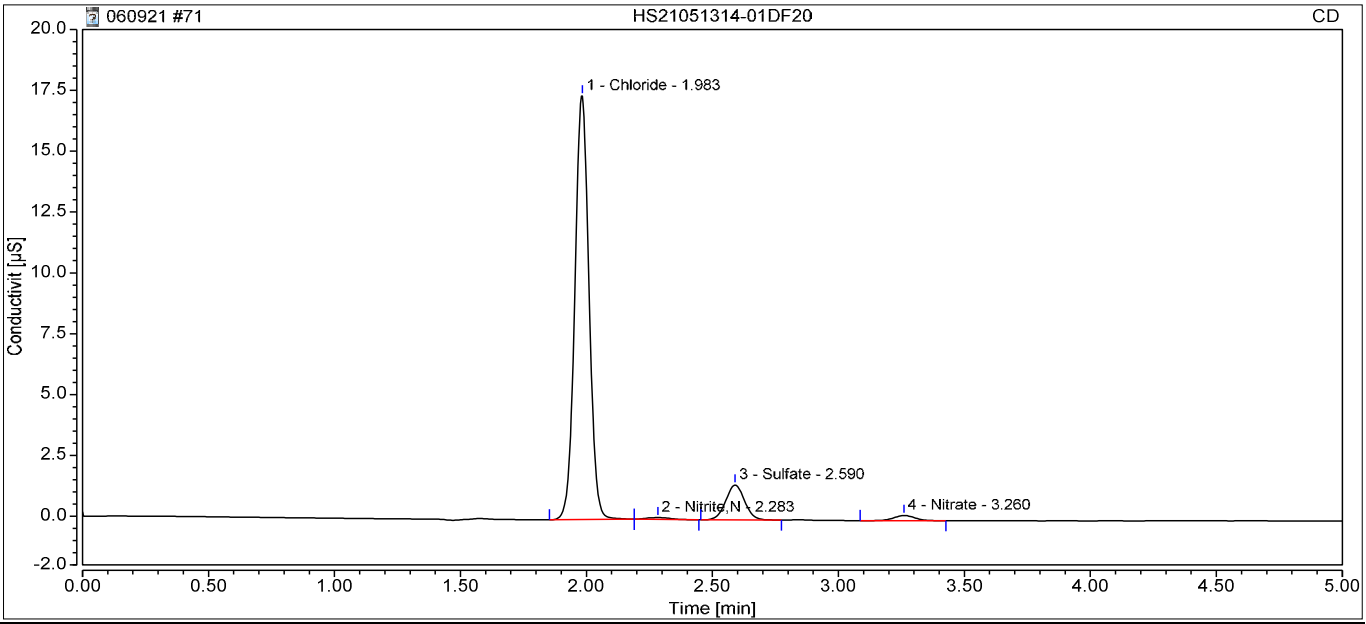
Integration Results

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
1	1.98	Chloride	BMB	0.006	0.0483	0.0483	1.0000
2	2.27	Nitrite,N	BMB	0.005	n.a.	n.a.	1.0000
3	2.59	Sulfate	BMB	0.002	0.0131	0.0131	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.	Phosphate	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
Total:			**0.000**	**0.014**		**0.06**	

71 HS21051314-01DF20

Sample Name:	**HS21051314-01DF20**	*Injection Volume:*	**5.00**
Vial Number:	**RD4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**20.0000**
Recording Time:	**06/09/2021 17:31**	*Sample Weight:*	**1.0000**

Run Time:



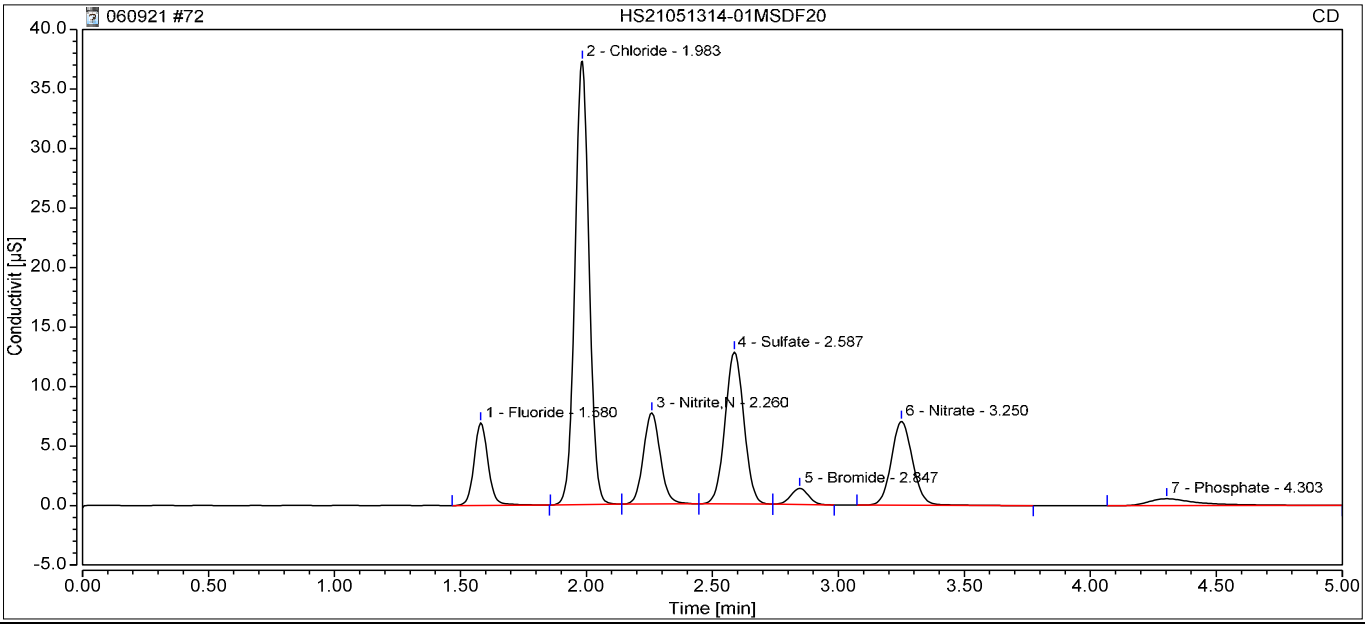
Integration Results

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.	20.0000
1	1.98	Chloride	BMB	1.134	8.4382	168.7638	20.0000
2	2.28	Nitrite,N	BMB	0.008	n.a.	n.a.	20.0000
3	2.59	Sulfate	BMB	0.125	1.2498	24.9960	20.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	20.0000
4	3.26	Nitrate	BMB	0.020	0.0647	1.2936	20.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	20.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	20.0000
Total:			**0.000**	**1.287**		**195.05**	

72 HS21051314-01MSDF20

Sample Name:	**HS21051314-01MSDF20**	*Injection Volume:*	**5.00**
Vial Number:	**RD5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**20.0000**
Recording Time:	**06/09/2021 17:38**	*Sample Weight:*	**1.0000**

Run Time:



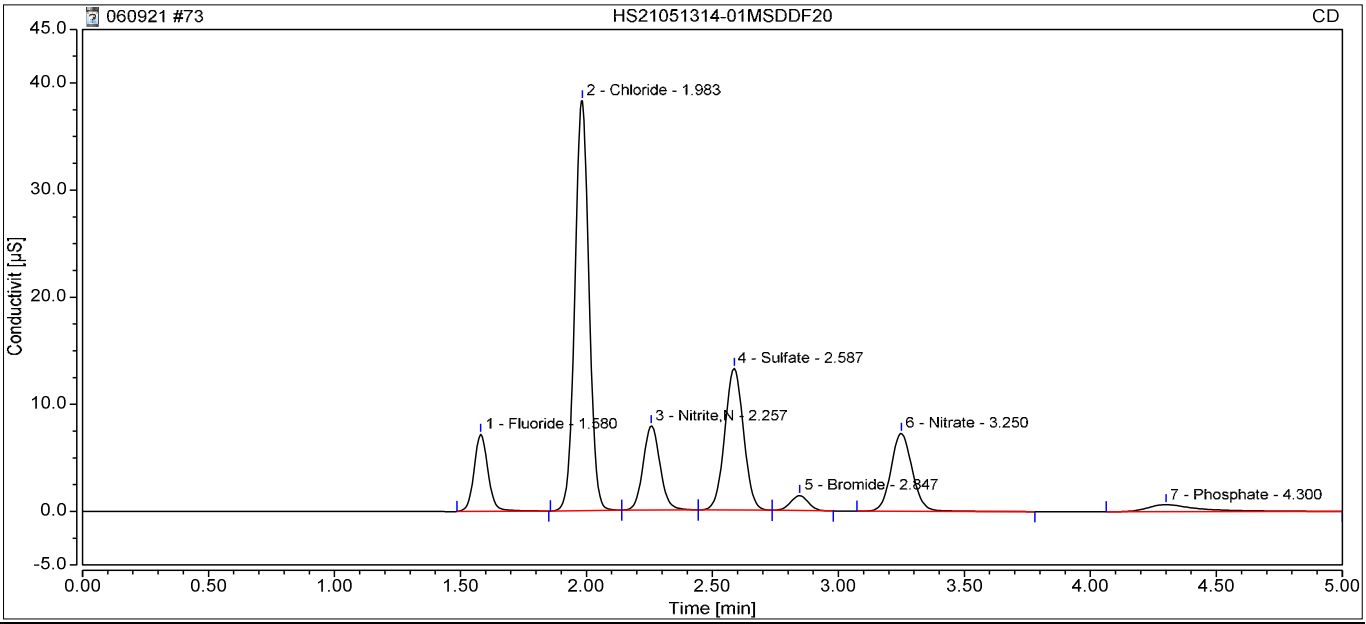
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.452	2.1856	43.7120	20.0000
2	1.98	Chloride	BMB	2.425	18.0452	360.9047	20.0000
3	2.26	Nitrite,N	BMB	0.596	2.2165	44.3297	20.0000
4	2.59	Sulfate	BMB	1.104	11.1461	222.9223	20.0000
5	2.85	Bromide	BMB	0.111	1.9499	38.9970	20.0000
6	3.25	Nitrate	BMB	0.690	2.0636	41.2712	20.0000
7	4.30	Phosphate	BMB	0.139	1.1070	22.1392	20.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	20.0000
Total:			**0.000**	**5.516**		**774.28**	

73 HS21051314-01MSDDF20

Sample Name:	**HS21051314-01MSDDF20**	*Injection Volume:*	**5.00**
Vial Number:	**RD6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**20.0000**
Recording Time:	**06/09/2021 17:46**	*Sample Weight:*	**1.0000**

Run Time:



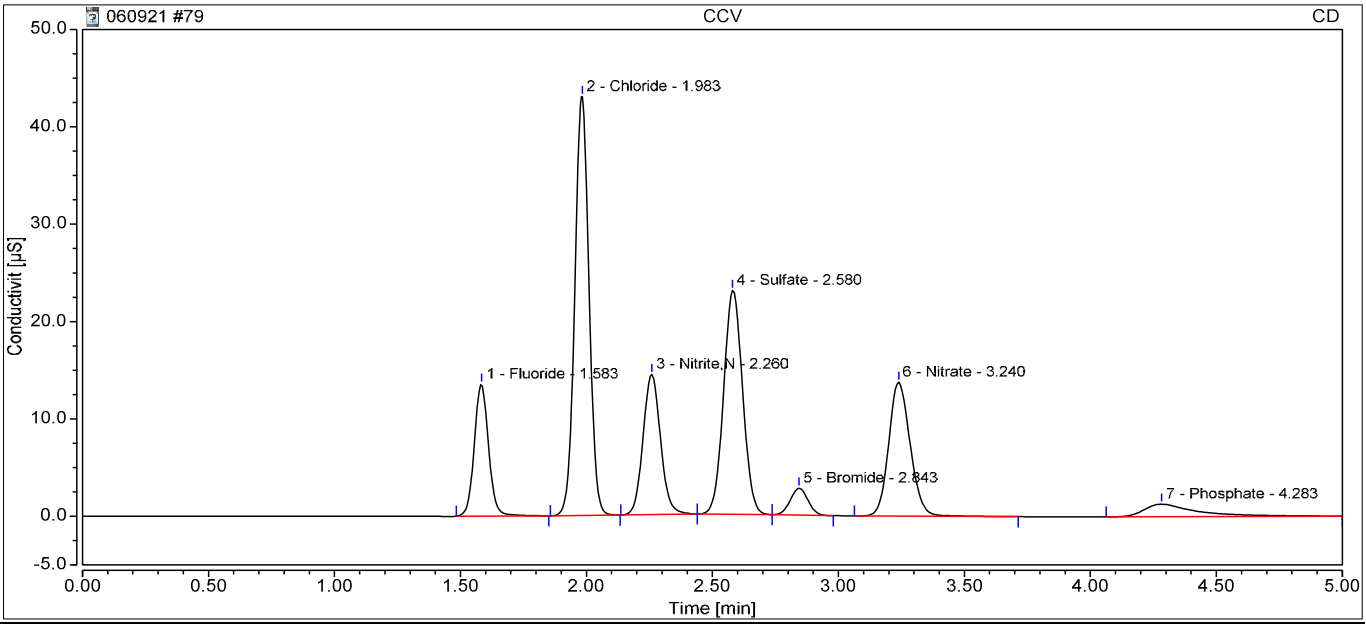
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.463	2.2416	44.8322	20.0000
2	1.98	Chloride	BMB	2.487	18.5084	370.1677	20.0000
3	2.26	Nitrite,N	BMB	0.613	2.2802	45.6034	20.0000
4	2.59	Sulfate	BMB	1.142	11.5283	230.5650	20.0000
5	2.85	Bromide	BMB	0.114	2.0076	40.1520	20.0000
6	3.25	Nitrate	BMB	0.712	2.1285	42.5696	20.0000
7	4.30	Phosphate	BMB	0.154	1.2207	24.4145	20.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	20.0000
Total:			**0.000**	**5.684**		**798.30**	

79 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 18:30**	*Sample Weight:*	**1.0000**

Run Time:



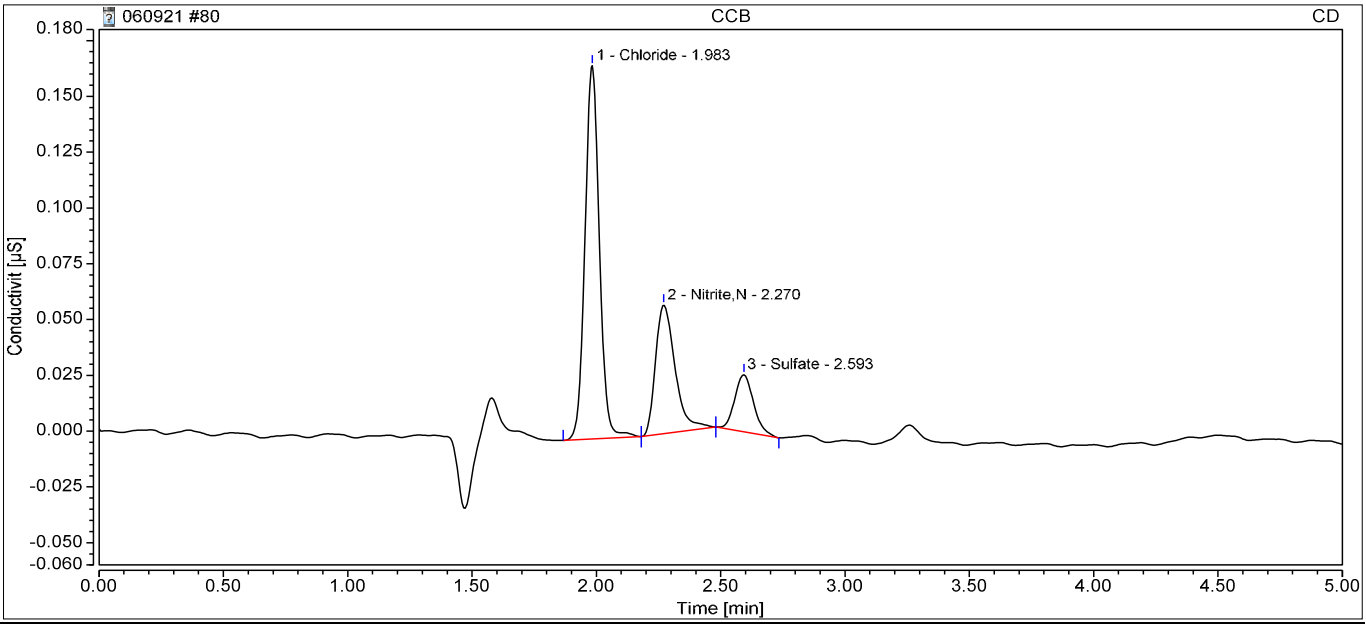
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.892	4.3331	4.3331	1.0000
2	1.98	Chloride	BMB	2.800	20.8367	20.8367	1.0000
3	2.26	Nitrite,N	BMB	1.161	4.3699	4.3699	1.0000
4	2.58	Sulfate	BMB	2.006	20.2557	20.2557	1.0000
5	2.84	Bromide	BMB	0.224	3.9611	3.9611	1.0000
6	3.24	Nitrate	BMB	1.360	4.0634	4.0634	1.0000
7	4.28	Phosphate	BMB	0.315	2.4702	2.4702	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			**0.000**	**8.758**		**60.29**	

80 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/09/2021 18:38**	*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
1	1.98	Chloride	BMB	0.011	0.0870	0.0870	1.0000
2	2.27	Nitrite,N	BMB	0.005	n.a.	n.a.	1.0000
3	2.59	Sulfate	BMB	0.002	0.0124	0.0124	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.	Phosphate	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
Total:			**0.000**	**0.019**		**0.10**	

HS21051314 Wet Chem Raw Data (O&G_1664_W_HS)

ALS WO# HS21051314

Method: O&G, HEM by EPA 1664A (SOP HS-WC036, Current Revision)

Analyst:	KAH
Review By:	
Batch ID:	
LCS/MS Spike ID:	3100604208
Hexane ID:	3100604320
Filter Lot:	3100602801
Silica Gel:	

Methanol ID:	3100601405	
1:1 HCl ID:	309116109	
Na2SO4 Cartridge ID:	3100603719	
Thermo HotBlock Setting (°C):		40
pH Paper ID:	300107019-06	
Pipette ID	TDS	

Temp Ranges (°C)
Pan Drying: 105-115
Hex Evap: 68-72
HotBlock: 35-50

	grams	mg	Accept.
Init 2.0 mg wt (1.8mg to 2.2mg required):	0.0020	2.0	Yes
Init 1000 mg wt (995mg to 1005mg required):	1.0000	1000	Yes
Final 2.0 mg wt (1.8mg to 2.2mg required):	0.0020	2.0	Yes
Final 1000 mg wt (995mg to 1005mg required):	1.0000	1000	Yes

Pan	Temp Deg C	Actual Deg C	Date	Time
Pan 1st In:	105-115	104	06/09/2021	8:40AM
Pan 1st Out:	105-115	104	06/09/2021	9:40AM
Pan 2nd In:	105-115	104	06/09/2021	10:20AM
Pan 2nd Out:	105-115	104	06/09/2021	10:40AM
Pan 3rd In:	105-115			
Pan 3rd Out:	105-115			
Oven ID:	WC Oven 4			
Balance ID:	WC Balance-03			

O&G	Temp Deg C	Actual Deg C	Date	Time
O&G 1st In:	68-72	68	06/09/2021	2:10PM
O&G 1st Out:	68-72	68	06/09/2021	2:20PM
O&G 2nd In:	68-72	68	06/09/2021	2:45PM
O&G 2nd Out:	68-72	68	06/09/2021	2:55PM
O&G 3rd In:	68-72			
O&G 3rd Out:	68-72			
Oven ID:	WC Oven 1A			
Balance ID:	WC Balance-03			

$$\text{O \& G (HEM), mg/L} = \frac{\text{Weight}_{\text{(HEM, mg)}}}{\text{Volume}_{\text{(Sample Extracted, L)}}}$$

Dish ID	Work Order #	Bottle Number	SGT	Sample Type	pH Check	1st Dry Pan Wt (g)	2nd Dry Pan Wt (g)	3rd Dry Pan Wt (g)	Passes Difference Criteria (Change is <0.0005 g)	Passes % Weight Criteria (Change is <4%)	Pan Weight (g)	Sample Vol (mL)	70 deg C O&G 1st dry Wt (g)	70 deg C O&G 2nd dry Wt (g)	70 deg C O&G 3rd dry Wt (g)	Passes Difference Criteria (Change is <0.0005 g)	Passes % Weight Criteria (Change is <4%)	O&G Weight (g)	O&G (mg/L)
1	WBLKW-060921	1 of 1		MBLK	<2	6.3413	6.3409		Yes	Yes	6.3409	1000	6.3410	6.3410		Yes	Yes	0.0001	0.1
2	WLCSW-060921	1 of 1		LCS	<2	6.3999	6.4003		Yes	Yes	6.4003	1000	6.4393	6.4390		Yes	Yes	0.0387	38.7
3	WLCSDW-060921	1 of 1		LCSD	<2	6.3110	6.3111		Yes	Yes	6.3111	1000	6.3501	6.3501		Yes	Yes	0.0390	39.0
4	HS21051265-01MS	2 of 2		MS	<2	6.3766	6.3770		Yes	Yes	6.3770	1000	6.4143	6.4144		Yes	Yes	0.0374	37.4
5	HS21051265-01	1 of 2		Sample	<2	6.3194	6.3194		Yes	Yes	6.3194	230	6.3207	6.3204		Yes	Yes	0.0010	4.3
6	HS21051268-01	1 of 2		Sample	<2	6.3885	6.3885		Yes	Yes	6.3885	225	6.3892	6.3892		Yes	Yes	0.0007	3.1
7	HS21051268-02	1 of 2		Sample	<2	6.3439	6.3441		Yes	Yes	6.3441	225	6.3451	6.3449		Yes	Yes	0.0008	3.6
8	HS21051390-01	1 of 2		Sample	<2	6.3193	6.3195		Yes	Yes	6.3195	231	6.3200	6.3199		Yes	Yes	0.0004	1.7
9	HS21060077-02	1 of 2		Sample	<2	6.3604	6.3600		Yes	Yes	6.3600	229	6.3610	6.3608		Yes	Yes	0.0008	3.5
10	HS21060083-01	1 of 2		Sample	<2	6.3272	6.3273		Yes	Yes	6.3273	234	6.3283	6.3280		Yes	Yes	0.0007	3.0
11	HS21060085-02	1 of 2		Sample	<2	6.2807	6.2808		Yes	Yes	6.2808	235	6.2807	6.2807		Yes	Yes	-0.0001	-0.4
12	HS21060095-01	1 of 2		Sample	<2	6.3468	6.3468		Yes	Yes	6.3468	235	6.3470	6.3468		Yes	Yes	0.0000	0.0
13	HS21060098-01	1 of 2		Sample	<2	6.3651	6.3653		Yes	Yes	6.3653	235	6.3667	6.3664		Yes	Yes	0.0011	4.7
14	HS21060114-01	1 of 2		Sample	<2	6.3005	6.3006		Yes	Yes	6.3006	235	6.3012	6.3009		Yes	Yes	0.0003	1.3
15	HS21060124-01	1 of 1		Sample	<2	6.3427	6.3425		Yes	Yes	6.3425	235	6.3433	6.3433		Yes	Yes	0.0008	3.4
16	HS21060124-02	1 of 1		Sample	<2	6.3277	6.3275		Yes	Yes	6.3275	235	6.3280	6.3278		Yes	Yes	0.0003	1.3
17	HS21060124-03	1 of 1		Sample	<2	6.3934	6.3935		Yes	Yes	6.3935	235	6.3942	6.3940		Yes	Yes	0.0005	2.1
18	HS21060124-04	1 of 1		Sample	<2	6.2657	6.2654		Yes	Yes	6.2654	235	6.2660	6.2659		Yes	Yes	0.0005	2.1
19	HS21060124-05	1 of 1		Sample	<2	6.3538	6.3539		Yes	Yes	6.3539	235	6.3544	6.3543		Yes	Yes	0.0004	1.7
20	HS21060124-06	1 of 1		Sample	<2	6.3823	6.3822		Yes	Yes	6.3822	235	6.3823	6.3823		Yes	Yes	0.0001	0.4
21	HS21060143-02	1 of 2		Sample	<2	6.3174	6.3176		Yes	Yes	6.3176	235	6.3177	6.3177		Yes	Yes	0.0001	0.4
22	HS21060189-02	1 of 1		Sample	<2	6.3263	6.3261		Yes	Yes	6.3261	235	6.3268	6.3264		Yes	Yes	0.0003	1.3
23	HS21051312-01	1 of 1		Sample	<2	6.3351	6.3350		Yes	Yes	6.3350	980	6.3358	6.3354		Yes	Yes	0.0004	0.4
24	HS21051314-01	1 of 1		Sample	<2	6.3047	6.3048		Yes	Yes	6.3048	980	6.3049	6.3049		Yes	Yes	0.0001	0.1

O&G	Temp Deg C	Actual Deg C	Date	Time
Silica Gel O&G 1st In:	68-72		05/04/2021	
Silica Gel O&G 1st Out:	68-72		05/04/2021	
Silica Gel O&G 2nd In:	68-72		05/04/2021	
Silica Gel O&G 2nd Out:	68-72		05/04/2021	
Silica Gel O&G 3rd In:	68-72			
Silica Gel O&G 3rd Out:	68-72			
Oven ID:				
Balance ID:				

$$\text{O \& G (SGT - HEM), mg/L} = \frac{\text{Weight (SGT - HEM, mg)}}{\text{Volume (Sample Extracted, L)}}$$

Dish ID	Work Order #	Silca Gel O&G 70 deg C 1st dry Wt (g)	Silca Gel O&G 70 deg C 2nd dry Wt (g)	Silca Gel O&G 70 deg C 3rd dry Wt (g)	Silica Gell Passes Difference Criteria	Silica Gell Passes % Weight Criteria	Silca Gel O&G Weight (g)	Silica Gel O&G (mg/L)
1	WBLKW-060921							#VALUE!
2	WLCSW-060921							#VALUE!
3	WLCSDW-060921							#VALUE!
4	HS21051265-01MS							#VALUE!
5	HS21051265-01							#VALUE!
6	HS21051268-01							#VALUE!
7	HS21051268-02							#VALUE!
8	HS21051390-01							#VALUE!
9	HS21060077-02							#VALUE!
10	HS21060083-01							#VALUE!
11	HS21060085-02							#VALUE!
12	HS21060095-01							#VALUE!
13	HS21060098-01							#VALUE!
14	HS21060114-01							#VALUE!
15	HS21060124-01							#VALUE!
16	HS21060124-02							#VALUE!
17	HS21060124-03							#VALUE!
18	HS21060124-04							#VALUE!
19	HS21060124-05							#VALUE!
20	HS21060124-06							#VALUE!
21	HS21060143-02							#VALUE!
22	HS21060189-02							#VALUE!
23	HS21051312-01							#VALUE!
24	HS21051314-01							#VALUE!

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WorkOrder: HS21060148

Longhorn GW Treatment Plant Weekly Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

29-Jun-2021

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Table of Contents

HS21060148 Cover Page
- CoverPage
- HS21060148 Longhorn GW Treatment Plant Weekly Samples Final
  - CoverLetter
  - Sample Summary
  - CaseNarrative
  - LH18/24-SP650_060221
  - LH18/24-SP650_060221_BIX
  - Dates Report
  - QC
  - Acronyms
  - Certifications
  - Sample Tracking Record
  - SampleReceiptCheckList
  - COC
  - HS21060148 - Sub Perch II (E2100608)
- HS21060148 Wet Chem Raw Data (NIT-AMM_W- E350.3 - ISE)
- HS21060148 Wet Chem Raw Data (P-ORTHO)
- HS21060148 Wet Chem Raw Data (TOC_W)
- HS21060148 - Sub Perch IV (E2100608)
  - CoverLetter
  - Certificate of Analysis

Table of Contents (continued)

Chain of Custody
Preparation Sheets
Analytical Results
Accuracy and Precision
Initial Calibration
Chromatogram

HS21060148 Longhorn GW Treatment Plant Weekly Samples Final

ALS WO# HS21060148

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
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June 18, 2021

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS21060148**

Laboratory Results for: **Longhorn GW Treatment Plant Weekly Samples**

Dear Marcia Olive,

ALS Environmental received 2 sample(s) on Jun 03, 2021 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,



Generated By: JUMOKE.LAWAL
Ragen Giga
Project Manager

ALS Houston, US Date: 18-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS21060148

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21060148-01	LH18/24-SP650_060221	Water		02-Jun-2021 14:00	03-Jun-2021 10:30	☐
HS21060148-02	LH18/24-SP650_060221_BIX	Water		02-Jun-2021 14:00	03-Jun-2021 10:30	☐

ALS Houston, US Date: 18-Jun-21

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS21060148

Work Order Comments

• The analysis for Perchlorate was subcontracted to ALS Specialty Lab in Houston, TX. Final report attached.

WetChemistry by Method E350.3

Batch ID: R385760

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E415.1

Batch ID: R385047

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E365.3

Batch ID: R384962

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 18-Jun-21

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder:HS21060148
Sample ID: LH18/24-SP650_060221
Lab ID:HS21060148-01
Collection Date: 02-Jun-2021 14:00
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
AMMONIA AS N BY E350.3(ISE)		**Method:E350.3**						Analyst: KVL
Nitrogen, Ammonia (As N)	**13**	a	**0.10**	**0.20**	**0.20**	**mg/L**	1	17-Jun-2021 14:30
ORTHO PHOSPHATE (PO4) AS P BY E365.3		**Method:E365.3**						Analyst: KVL
Phosphorus, Total Orthophosphate (As P)	**4.24**	a	**0.100**	**0.250**	**0.250**	**mg/L**	10	04-Jun-2021 11:23
TOTAL ORGANIC CARBON BY E415.1		**Method:E415.1**						Analyst: JAC
Organic Carbon, Total	**2.39**	a	**0.500**	**0.500**	**1.00**	**mg/L**	1	05-Jun-2021 00:21

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 18-Jun-21

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder:HS21060148
Sample ID: LH18/24-SP650_060221_BIX
Lab ID:HS21060148-02
Collection Date: 02-Jun-2021 14:00
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	18-Jun-2021 15:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 18-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS21060148

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R384962 (0)	**Test Name :** ORTHO PHOSPHATE (PO4) AS P BY E365.3				**Matrix:** Water	
HS21060148-01	LH18/24-SP650_060221	02 Jun 2021 14:00			04 Jun 2021 11:23	10
Batch ID: R385047 (0)	**Test Name :** TOTAL ORGANIC CARBON BY E415.1				**Matrix:** Water	
HS21060148-01	LH18/24-SP650_060221	02 Jun 2021 14:00			05 Jun 2021 00:21	1
Batch ID: R385760 (0)	**Test Name :** AMMONIA AS N BY E350.3(ISE)				**Matrix:** Water	
HS21060148-01	LH18/24-SP650_060221	02 Jun 2021 14:00			17 Jun 2021 14:30	1
Batch ID: R385849 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Water	
HS21060148-02	LH18/24-SP650_060221_BIX	02 Jun 2021 14:00			18 Jun 2021 15:29	1

ALS Houston, US Date: 18-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS21060148

QC BATCH REPORT

Batch ID: R384962 (0) **Instrument:** UV-2450 **Method:** ORTHO PHOSPHATE (PO4) AS P BY E365.3

MBLK Sample ID: **MBLK-R384962** Units: **mg/L** Analysis Date: **04-Jun-2021 11:15**
Client ID: Run ID: **UV-2450_384962** SeqNo: **6122731** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.0250	0.0250								U

LCS Sample ID: **LCS-R384962** Units: **mg/L** Analysis Date: **04-Jun-2021 11:15**
Client ID: Run ID: **UV-2450_384962** SeqNo: **6122730** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.263	0.0250	0.25	0	105	85 - 115				

MS Sample ID: **HS21060148-01MS** Units: **mg/L** Analysis Date: **04-Jun-2021 11:24**
Client ID: **LH18/24-SP650_060221** Run ID: **UV-2450_384962** SeqNo: **6122733** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	6.99	0.250	2.5	4.24	110	80 - 120				

MSD Sample ID: **HS21060148-01MSD** Units: **mg/L** Analysis Date: **04-Jun-2021 11:24**
Client ID: **LH18/24-SP650_060221** Run ID: **UV-2450_384962** SeqNo: **6122732** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	6.88	0.250	2.5	4.24	106	80 - 120	6.99	1.59	20	

The following samples were analyzed in this batch: HS21060148-01

ALS Houston, US Date: 18-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS21060148

QC BATCH REPORT

Batch ID: R385047 (0) **Instrument: TOC_04** **Method: TOTAL ORGANIC CARBON BY E415.1**

MBLK Sample ID: **MBLK2-06042021** Units: **mg/L** Analysis Date: **04-Jun-2021 21:37**
Client ID: Run ID: **TOC_04_385047** SeqNo: **6124546** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	0.500	1.00								U

LCS Sample ID: **LCS2-06042021** Units: **mg/L** Analysis Date: **04-Jun-2021 21:48**
Client ID: Run ID: **TOC_04_385047** SeqNo: **6124547** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.85	1.00	10	0	108	85 - 115				

LCSD Sample ID: **LCSD2-06042021** Units: **mg/L** Analysis Date: **04-Jun-2021 22:00**
Client ID: Run ID: **TOC_04_385047** SeqNo: **6124548** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.67	1.00	10	0	107	85 - 115	10.85	1.67	20	

MS Sample ID: **HS21060177-18MS** Units: **mg/L** Analysis Date: **04-Jun-2021 22:24**
Client ID: Run ID: **TOC_04_385047** SeqNo: **6124550** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.56	1.00	10	13.77	118	80 - 120				

The following samples were analyzed in this batch: HS21060148-01

ALS Houston, US Date: 18-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS21060148

QC BATCH REPORT

Batch ID: R385760 (0) **Instrument: WetChem_HS** **Method: AMMONIA AS N BY E350.3(ISE)**

MBLK Sample ID: **MBLK-R385760** Units: **mg/L** Analysis Date: **17-Jun-2021 14:30**
Client ID: Run ID: **WetChem_HS_385760** SeqNo: **6141458** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.20	0.20								U

LCS Sample ID: **LCS-R385760** Units: **mg/L** Analysis Date: **17-Jun-2021 14:30**
Client ID: Run ID: **WetChem_HS_385760** SeqNo: **6141457** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	11.01	0.20	10	0	110	80 - 120				

MS Sample ID: **HS21060490-03MS** Units: **mg/L** Analysis Date: **17-Jun-2021 14:30**
Client ID: Run ID: **WetChem_HS_385760** SeqNo: **6141460** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	10.31	0.20	10	0.013	103	80 - 120				

MSD Sample ID: **HS21060490-03MSD** Units: **mg/L** Analysis Date: **17-Jun-2021 14:30**
Client ID: Run ID: **WetChem_HS_385760** SeqNo: **6141459** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	10.52	0.20	10	0.013	105	80 - 120	10.31	2.02	20	

The following samples were analyzed in this batch: HS21060148-01

ALS Houston, US Date: 18-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: **HS21060148**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2020-2021	30-Jun-2021
Louisiana	03087, 2021-2022	30-Jun-2022
North Carolina	624-2021	31-Dec-2021
Oklahoma	2020-165	31-Aug-2021
Texas	T104704231-21-27	30-Apr-2022
Utah	TX026932021-10	31-Jul-2021

ALS Houston, US Date: 18-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS21060148

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS21060148-01	LH18/24-SP650_060221	Login	6/3/2021 11:57:17 AM	PJM	WET067
HS21060148-01	LH18/24-SP650_060221	Login	6/3/2021 11:57:17 AM	PJM	WET067
HS21060148-01	LH18/24-SP650_060221	Login	6/3/2021 11:57:17 AM	PJM	WET067
HS21060148-02	LH18/24-SP650_060221_BIX	Login	6/3/2021 11:57:17 AM	PJM	Sub

ALS Houston, US Date: 18-Jun-21

Sample Receipt Checklist

Work Order ID: HS21060148 **Date/Time Received:** 03-Jun-2021 10:30

Client Name: Bhate Environmental **Received by:** Jared R. Makan

Completed By:	/S/ Pablo Marinez	03-Jun-2021 11:58	**Reviewed by:**	/S/ Corey Grandits	03-Jun-2021 14:21
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **WATER** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:CLIENT
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	0.7°C UC/C	IR 31
Cooler(s)/Kit(s):	46474	
Date/Time sample(s) sent to storage:	6/3/21 12:05	

Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Ragen Gigi

Project: BHATE
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No. NWO1312.0150.0 16.0001

Job: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES

Prepared By: Scott Beesinger

P.O. Number

HS21060148

Bhate Environmental Associates, Inc.
Longhorn GW Treatment Plant Weekly Samples

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	Analyses: AMMONIA-N	TOTAL ORGANIC CARBON	ORTHO-PHOSPHATE	PERCHLORATE	Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_060221	Water	06/02/21 / 14:00		3	X	X			H2SO4	
LH18/24-SP650_060221	Water	06/02/21 / 14:00		1			X		NONE	
LH18/24-SP650_060221_BIX	Water	06/02/21 / 14:00		1				X	NONE	

Additional Remarks: **Standard TAT on all parameters**

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	06/02/21	14:30	JM	6-7-21	10:30						

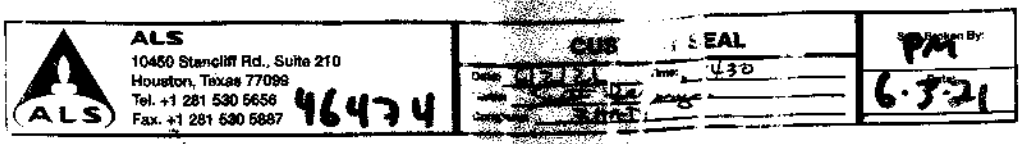
For Lab Use Only

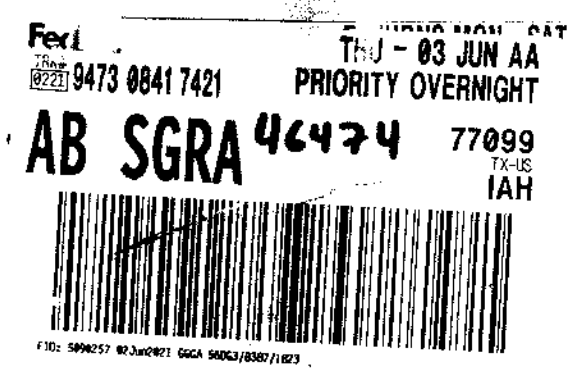
Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:

46474 0.7C
IR3 OFO

(Word) S:\Users\Forms\Chain of Custody - BiWeekly


ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887
46474
CUS
SEAL
PM
6.3.21


FedEx
TRK# 0221 9473 0841 7421
THU - 03 JUN AA
PRIORITY OVERNIGHT
AB SGRA 46474
77099
TX-US
IAH

June 18, 2021 Service Request No:E2100608

RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS21060148

Dear RJ,

Enclosed are the results of the sample(s) submitted to our laboratory June 03, 2021
For your reference, these analyses have been assigned our service request number **E2100608.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



Corey Grandits
Project Manager

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Houston	**Service Request No.:**	E2100608
Project:	HS21060148	**Date Received:**	06/03/21
Sample Matrix:	W		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 06/03/21.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2100354: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch. The LCS and DLCS recoveries are within QC limits.

DoD certification is held for the method/matrix/analytes provided in this report.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2100608
Project: HS21060148

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100608-001	LH18/24-SP650_060221_BIX	6/2/2021	1205

Service Request Summary

Folder #: **E2100608**
Client Name: ALS Environmental - US
Project Name: HS21060148
Project Number:

Report To: RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: rj.modashia@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/03/21
Internal Due Date: 6/17/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21060148
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8B
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100608-001	LH18/24-SP650_060221_BIX	Ground Water	06/02/21 1205	**IV**

Service Request Summary

Folder #: **E2100608**
Client Name: ALS Environmental - US
Project Name: HS21060148
Project Number:

Report To: RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: rj.modashia@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/03/21
Internal Due Date: 6/17/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21060148
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8B
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	1	Level II due 6/17,IV due 6/24

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	Internal standard not within the specified limits. See case narrative.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.
M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.

Data Qualifiers

Lab Standard

O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

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State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-2020	6/30/2021
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352-2020	7/31/2021
Louisiana Department of Environmental Quality	03087-2021	6/30/2022
Louisiana Department of Environmental Quality	03087-2020	6/30/2021
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Maryland Department of the Environment	343-2020	6/30/2021
Minnesota Department of Health	2021671	12/31/2021
Nevada Department of Concervation and Natural Resources	TX026932021-4	7/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
New Jersey Department of Environmental Protection	TX008	6/30/2021
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	014	6/30/2021
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022
Utah Department of Health Environmental Laboratory Certification	TX026932021-10	7/31/2021

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

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:** **16230**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Ragen Giga
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RagenP.Giga@ALSGlobal.com
Alternate Contact:	
Email:	

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS21060148
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21060148-02**	**LH18/24-SP650_060221_BIX**	**Water**	**02 Jun 2021 14:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			17 Jun 2021

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: Patti Manis Date/Time: 6.3.21 12:05

Received By: LORETA Date/Time: 6/3/21 1205

Cooler ID(s): Temperature(s):

Cooler Receipt Form

ALS Environmental

Project Chemist CH

Client/Project ALS-HI

Thermometer ID IR21

Date/Time Received: 6/3/21 Initials: CH Date/Time Logged in: 6/3/21 Initials CH

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ◉ ALS Courier ○ Client

2. Samples received in: ◉ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ◉ No If yes, how many and where?

Were they intact? ○ Yes ○ No ◉ N/A

Were they signed and dated? ○ Yes ○ No ◉ N/A

4. Packing Material: ○ Inserts ◉ Baggies ○ Bubble Wrap ○ Gel Packs ◉ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		6/3/21	1205	CH	1.0	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ◉ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ◉ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ◉ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ◉ Yes ○ No

10. Did sample labels and tags agree with custody documents? ◉ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 381265 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 6/14/21 09:59

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100608-001	LH18/24-SP650_060221_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2100629-001	LH18/24-SP650_060821_BIX	.01	6850/ClO4 DOD			Water	10mL	
3	E2100630-001	LH18/24-SP650_060821_BIX	.01	6850/ClO4 DOD			Water	10mL	
4	E2100631-001	LH18/24-SP140_060821	.01	6850/ClO4 DOD			Water	10mL	
5	E2100632-001	126_060821	.01	6850/ClO4 DOD			Water	10mL	
6	E2100632-002	102_060821	.01	6850/ClO4 DOD			Water	10mL	
7	E2100632-003	18CPTMW03SW_060821	.01	6850/ClO4 DOD			Water	10mL	
8	E2100632-004	18CPTMW22DW_060821	.01	6850/ClO4 DOD			Water	10mL	
9	E2100632-005	18CPTMW22R_060821	.01	6850/ClO4 DOD			Water	10mL	
10	E2100632-006	18CPTMW22SW_060821	.01	6850/ClO4 DOD			Water	10mL	
11	E2100632-007	MW20_060821	.01	6850/ClO4 DOD			Water	10mL	
12	EQ2100354-01	MB		6850/ClO4 DOD			Liquid	10mL	
13	EQ2100354-02	LCS		6850/ClO4 DOD			Liquid	10mL	
14	EQ2100354-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
15	EQ2100354-04	MW20_060821 MS	.01	6850/ClO4 DOD			Liquid	10mL	
16	EQ2100354-05	MW20_060821 DMS	.01	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Sodium Perchlorate 1 ug/mL (IS) (18-O) as CLO4 Inventory ID 214765 Logbook Ref: Sodium Perchlorate Expires On: 12/11/2022

E2100608-001	100.00µL	E2100629-001	100.00µL	E2100630-001	100.00µL	E2100631-001	100.00µL	E2100632-001	100.00µL	E2100632-002	100.00µL
E2100632-003	100.00µL	E2100632-004	100.00µL	E2100632-005	100.00µL	E2100632-006	100.00µL	E2100632-007	100.00µL	EQ2100354-01	100.00µL
EQ2100354-02	100.00µL	EQ2100354-03	100.00µL	EQ2100354-04	100.00µL	EQ2100354-05	100.00µL				

Name: Perchlorate Intermediate Stock1 Inventory ID 217422 Logbook Ref: Perchlorate Expires On: 11/26/2021

EQ2100354-02	1.00µL	EQ2100354-03	1.00µL	EQ2100354-04	1.00µL	EQ2100354-05	1.00µL

Preparation Steps

Step: Preparation
Started: 6/14/21 09:59
Finished: 6/14/21 11:00
By: GRIVERA
Comments

Preparation Information Benchsheet

Prep Run#: 381265
Team: Semivoa GCMS/GRIVERA

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 6/14/21 09:59

Comments: _____

Reviewed By: GR Date: 6/14/21

Chain of Custody

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Extracts Examined
Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Collected:**	6/ 2/21 1205
Sample Matrix:	Ground Water	**Date Received:**	6/ 3/21
Sample Name:	LH18/24-SP650_060221_BIX	**Units:**	µg/L
Lab Code:	E2100608-001	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**1470**		10.0	5.00	2.50	100	6/14/21	6/15/21 18:26	381265	727655	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100354-01	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/14/21	6/15/21 17:52	381265	727655	

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148
Sample Matrix: Ground Water

Service Request: E2100608
Date Analyzed: 6/15/21

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: As Received

Extraction Lot: 381265

	Lab Control Sample EQ2100354-02			Duplicate Lab Control Sample EQ2100354-03				
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.117	0.100	117	0.119	0.100	119	84 - 119	2	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100354-02	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.117**		0.100	0.0500	0.0250	1	6/14/21	6/15/21 18:00	381265	727655	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100354-03	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.119**		0.100	0.0500	0.0250	1	6/14/21	6/15/21 18:09	381265	727655	

Initial Calibration

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20210615

1st Review: Grivera
2nd Review: Kneir

ALS Environmental

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210615_007	Perchlorate6850c.lcm	1x	☒	3100810-05	6/15/2021 15:32
2	PERCHLORATE2		20210615_008	Perchlorate6850c.lcm	1x	☒	3100810-06	6/15/2021 15:41
3	PERCHLORATE3		20210615_009	Perchlorate6850c.lcm	1x	☒	3100810-07	6/15/2021 15:49
4	PERCHLORATE4		20210615_010	Perchlorate6850c.lcm	1x	☒	3100810-08	6/15/2021 15:58
5	PERCHLORATE5		20210615_011	Perchlorate6850c.lcm	1x	☒	3100810-09	6/15/2021 16:07
6	PERCHLORATE6		20210615_012	Perchlorate6850c.lcm	1x	☒	3100811-01	6/15/2021 16:15
7	PERCHLORATE7		20210615_013	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 16:24
8	PERCHLORATE8		20210615_014	Perchlorate6850c.lcm	1x	☒	3100811-03	6/15/2021 16:32
9	PERCHLORATE9		20210615_015	Perchlorate6850c.lcm	1x	☒	3100811-04	6/15/2021 16:41
10	PERCHLORATE10		20210615_016	Perchlorate6850c.lcm	1x	☒	3100811-05	6/15/2021 16:49
11	PERCHLORATEICV		20210615_017	Perchlorate6850c.lcm	1x	☒	3100811-06	6/15/2021 16:58
12	ICS		20210615_018	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:06
13	LODV		20210615_019	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:15
14	PERCHLORATE7		20210615_020	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 17:23
15	EQ2100354-01		20210615_021	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:52
16	EQ2100354-02		20210615_022	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:00
17	EQ2100354-03		20210615_023	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:09
18	E2100631-001X100		20210615_024	Perchlorate6850c.lcm	100x	☒	DNU-over calibration range	6/15/2021 18:17
19	E2100608-001X100		20210615_025	Perchlorate6850c.lcm	100x	☒		6/15/2021 18:26
20	E2100629-001X10		20210615_026	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:34
21	E2100630-001X10		20210615_027	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:43
22	E2100632-006X100		20210615_028	Perchlorate6850c.lcm	100x	☒	DNU-INST low	6/15/2021 18:52
23	EQ2100357-04X100		20210615_029	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:00
24	EQ2100357-05X100		20210615_030	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:09
25	PERCHLORATE7		20210615_031	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 19:17
26	E2100644-001X1000		20210615_032	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:26
27	E2100644-002X100		20210615_033	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:34
28	E2100644-003X1000		20210615_034	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:43
29	E2100644-004X1000		20210615_035	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:51
30	E2100644-005X100		20210615_036	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:00
31	E2100644-006X100		20210615_037	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:09
32	E2100644-008X10		20210615_038	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 20:17
33	E2100645-001X100		20210615_039	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:26
34	E2100645-002X100		20210615_040	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:34
35	E2100645-003X10		20210615_041	Perchlorate6850c.lcm	10x	☒		6/15/2021 20:43
36	PERCHLORATE7		20210615_042	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 20:51
37	E2100645-006X10		20210615_043	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 21:00
38	E2100645-007X1000		20210615_044	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:08
39	E2100645-008X1000		20210615_045	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:17
40	PERCHLORATE7		20210615_046	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 21:25
41	EQ2100354-04		20210615_047	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:34
42	EQ2100354-05		20210615_048	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:42
43	E2100632-001		20210615_049	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:51
44	E2100632-002		20210615_050	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:59
45	E2100632-003		20210615_051	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:08
46	E2100632-004		20210615_052	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:17
47	PERCHLORATE7		20210615_053	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 22:25
48	E2100632-005		20210615_054	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:34
49	E2100632-007		20210615_055	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:42
50	EQ2100357-01		20210615_056	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:51
51	EQ2100357-02		20210615_057	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:59
52	EQ2100357-03		20210615_058	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:08
53	E2100644-007		20210615_059	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:16
54	E2100644-009		20210615_060	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:25
55	E2100645-004		20210615_061	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:33
56	E2100645-005		20210615_062	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:42
57	PERCHLORATE7		20210615_063	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 23:50
58	EQ2100358-01		20210615_064	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:59
59	EQ2100358-02		20210615_065	Perchlorate6850c.lcm	1x	☒		6/16/2021 0:08
60	EQ2100358-03		20210615_066	Perchlorate6850c.lcm	1x	☒	Reanalyze	6/16/2021 0:16
61	E2100645-017		20210615_067	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:25
62	E2100645-019		20210615_068	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:33
63	E2100645-022		20210615_069	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:42
64	E2100645-023		20210615_070	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:50

20210615

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
65	PERCHLORATE7		20210615_071	Perchlorate6850c.lcm	1x	☒	3100811-02	6/16/2021 0:59

Initial Calibration - Detailed Report

Calibration ID: EC2100038 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2100038-01	PERCHLORATE1	20210615_007	06/15/2021 15:32
02	EC2100038-02	PERCHLORATE2	20210615_008	06/15/2021 15:41
03	EC2100038-03	PERCHLORATE3	20210615_009	06/15/2021 15:49
04	EC2100038-04	PERCHLORATE4	20210615_010	06/15/2021 15:58
05	EC2100038-05	PERCHLORATE5	20210615_011	06/15/2021 16:07
06	EC2100038-06	PERCHLORATE6	20210615_012	06/15/2021 16:15
07	EC2100038-07	PERCHLORATE7	20210615_013	06/15/2021 16:24
08	EC2100038-08	PERCHLORATE8	20210615_014	06/15/2021 16:32
09	EC2100038-09	PERCHLORATE9	20210615_015	06/15/2021 16:41
10	EC2100038-10	PERCHLORATE10	20210615_016	06/15/2021 16:49

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 12.07** **Average RF = 0.1057**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1311	02	0.5000	0.1058	03	0.7000	0.1084	04	1.0000	0.1195
05	2.0000	0.1126	06	5.0000	0.1042	07	10.0000	0.09375	08	20.0000	0.09679
09	30.0000	0.0936	10	50.0000	0.09139						

Analyte

Perchlorate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.124	24.0	02	0.5000	0.501	0.1	03	0.7000	0.718	2.5
04	1.0000	1.13	13.1	05	2.0000	2.13	6.6	06	5.0000	4.93	-1.4
07	10.0000	8.87	-11.3	08	20.0000	18.3	-8.4	09	30.0000	26.6	-11.5
10	50.0000	43.2	-13.6								

Initial Calibration Verification Summary Report

Calibration ID:	EC2100038	**Instrument ID:**	E-LCMS-01
Datafile ID:	20210615_017	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2100038-11	T	Average RF	10	9.463	ng/mL	-5.4	<= 15

Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
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www.alsglobal.com

20210615

ALS Environmental

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210615_007	Perchlorate6850c.lcm	1x	☒	3100810-05	6/15/2021 15:32
2	PERCHLORATE2		20210615_008	Perchlorate6850c.lcm	1x	☒	3100810-06	6/15/2021 15:41
3	PERCHLORATE3		20210615_009	Perchlorate6850c.lcm	1x	☒	3100810-07	6/15/2021 15:49
4	PERCHLORATE4		20210615_010	Perchlorate6850c.lcm	1x	☒	3100810-08	6/15/2021 15:58
5	PERCHLORATE5		20210615_011	Perchlorate6850c.lcm	1x	☒	3100810-09	6/15/2021 16:07
6	PERCHLORATE6		20210615_012	Perchlorate6850c.lcm	1x	☒	3100811-01	6/15/2021 16:15
7	PERCHLORATE7		20210615_013	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 16:24
8	PERCHLORATE8		20210615_014	Perchlorate6850c.lcm	1x	☒	3100811-03	6/15/2021 16:32
9	PERCHLORATE9		20210615_015	Perchlorate6850c.lcm	1x	☒	3100811-04	6/15/2021 16:41
10	PERCHLORATE10		20210615_016	Perchlorate6850c.lcm	1x	☒	3100811-05	6/15/2021 16:49
11	PERCHLORATEICV		20210615_017	Perchlorate6850c.lcm	1x	☒	3100811-06	6/15/2021 16:58
12	ICS		20210615_018	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:06
13	LODV		20210615_019	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:15
14	PERCHLORATE7		20210615_020	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 17:23
15	EQ2100354-01		20210615_021	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:52
16	EQ2100354-02		20210615_022	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:00
17	EQ2100354-03		20210615_023	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:09
18	E2100631-001X100		20210615_024	Perchlorate6850c.lcm	100x	☒	DNU-over calibration range	6/15/2021 18:17
19	E2100608-001X100		20210615_025	Perchlorate6850c.lcm	100x	☒		6/15/2021 18:26
20	E2100629-001X10		20210615_026	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:34
21	E2100630-001X10		20210615_027	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:43
22	E2100632-006X100		20210615_028	Perchlorate6850c.lcm	100x	☒	DNU-INST low	6/15/2021 18:52
23	EQ2100357-04X100		20210615_029	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:00
24	EQ2100357-05X100		20210615_030	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:09
25	PERCHLORATE7		20210615_031	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 19:17
26	E2100644-001X1000		20210615_032	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:26
27	E2100644-002X100		20210615_033	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:34
28	E2100644-003X1000		20210615_034	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:43
29	E2100644-004X1000		20210615_035	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:51
30	E2100644-005X100		20210615_036	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:00
31	E2100644-006X100		20210615_037	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:09
32	E2100644-008X10		20210615_038	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 20:17
33	E2100645-001X100		20210615_039	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:26
34	E2100645-002X100		20210615_040	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:34
35	E2100645-003X10		20210615_041	Perchlorate6850c.lcm	10x	☒		6/15/2021 20:43
36	PERCHLORATE7		20210615_042	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 20:51
37	E2100645-006X10		20210615_043	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 21:00
38	E2100645-007X1000		20210615_044	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:08
39	E2100645-008X1000		20210615_045	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:17
40	PERCHLORATE7		20210615_046	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 21:25
41	EQ2100354-04		20210615_047	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:34
42	EQ2100354-05		20210615_048	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:42
43	E2100632-001		20210615_049	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:51
44	E2100632-002		20210615_050	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:59
45	E2100632-003		20210615_051	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:08
46	E2100632-004		20210615_052	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:17
47	PERCHLORATE7		20210615_053	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 22:25
48	E2100632-005		20210615_054	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:34
49	E2100632-007		20210615_055	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:42
50	EQ2100357-01		20210615_056	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:51
51	EQ2100357-02		20210615_057	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:59
52	EQ2100357-03		20210615_058	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:08
53	E2100644-007		20210615_059	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:16
54	E2100644-009		20210615_060	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:25
55	E2100645-004		20210615_061	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:33
56	E2100645-005		20210615_062	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:42
57	PERCHLORATE7		20210615_063	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 23:50
58	EQ2100358-01		20210615_064	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:59
59	EQ2100358-02		20210615_065	Perchlorate6850c.lcm	1x	☒		6/16/2021 0:08
60	EQ2100358-03		20210615_066	Perchlorate6850c.lcm	1x	☒	Reanalyze	6/16/2021 0:16
61	E2100645-017		20210615_067	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:25
62	E2100645-019		20210615_068	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:33
63	E2100645-022		20210615_069	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:42
64	E2100645-023		20210615_070	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:50

20210615

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
65	PERCHLORATE7		20210615_071	Perchlorate6850c.lcm	1x	☒	3100811-02	6/16/2021 0:59

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_020

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.14	0.1057	0.09659	-8.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_031

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.15	0.1057	0.09669	-8.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_042

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.09	0.1057	0.09609	-9.1	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	6/15/21
File ID:	I:\LCMS01\DATA\20210615\20210615_046	**Calibration ID:**	EC2100038
		Analysis Lot:	727655
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.03	0.1057	0.09546	-9.7	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_053

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	8.82	0.1057	0.09319	-11.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_063

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.34	0.1057	0.09869	-6.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/16/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_071

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.17	0.1057	0.09692	-8.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 17:23

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_020	**Lab Code:**	EQ2100361-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-01	91,410	2.80
Method Blank	EQ2100354-01	132,232	2.80
Lab Control Sample	EQ2100354-02	127,528	2.78
Duplicate Lab Control Sample	EQ2100354-03	129,149	2.78
LH18/24-SP650_060221_BIX	E2100608-001	57,612	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 19:17

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_031	**Lab Code:**	EQ2100361-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-02	98,763	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 20:51

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_042	**Lab Code:**	EQ2100361-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-03	96,816	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 21:25

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_046	**Lab Code:**	EQ2100361-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-04	94,189	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 22:25

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_053	**Lab Code:**	EQ2100361-05
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-05	61,947	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 23:50

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_063	**Lab Code:**	EQ2100361-06
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-06	55,999	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/16/21 00:59

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_071	**Lab Code:**	EQ2100361-07
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-07	51,074	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

HS21060148 Wet Chem Raw Data (NIT-AMM_W- E350.3 - ISE)

ALS WO# HS21060148

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Logbook 3170

Ion Selective Electrode Logbook

Analyst: KL				Date: 06/17/21 1:30 pm	
Method: SM4500NH3-D/EPA 350.3 or SM4500 NH3 B-F					
Probe Calibration Date: 6/17/21		Cal Std ID: 3161361 (05-09)		Probe ID: 271 - 10076	
Std Level		mV	Conc., mg/L:	Sodium Thiosulfate ID: 3100604012	
STD 1 (mg/L): 0.2	0.2	132.3	0.2	Std Level	mV	Conc., mg/L:
STD 2 (mg/L):	1.0	91.7	0.999	STD 4 (mg/L): 10	33.4	10.002
STD 3 (mg/L):	5.0	57.5	4.995	STD 5 (mg/L): 50	-6.3	49.978
LSC / MS Spike ID: 3100603921				ICAL Date & Slope: 97.7 w. 1.57.6		
ICV Cal STD ID: 3161361 04						
DPD Reagent ID: 3100603920						

WO # / SX #	Bottle #	Initial g or ml	Final Vol. ml	Dilution Factor	Initial Conc. mg/L	Final Conc. mg/L	Chlorine Check (+/–)	Comments
ICV		50ml	50ml		9.769			
CCB					0.015			
MBLK					0.015			
LCS					11.0110			
MS2106014B-01					13.499			
490-01					0.011			
490-02					0.015			
490-03					0.015			
490-05mg					10309			
490-BRMS					10.519			
490-04		1	50ml	50X	3.999			
490-05		50ml			0.023			
CCV					9.665			
CCB					0.012			
490-04		5	50ml	10X	20.064			
467-01		50ml			19.252			
785-01					0.181			+VE
CCV					9.481			
CCB					0.015			

Batch ID: 385760	Reported By KL	Reviewed By:

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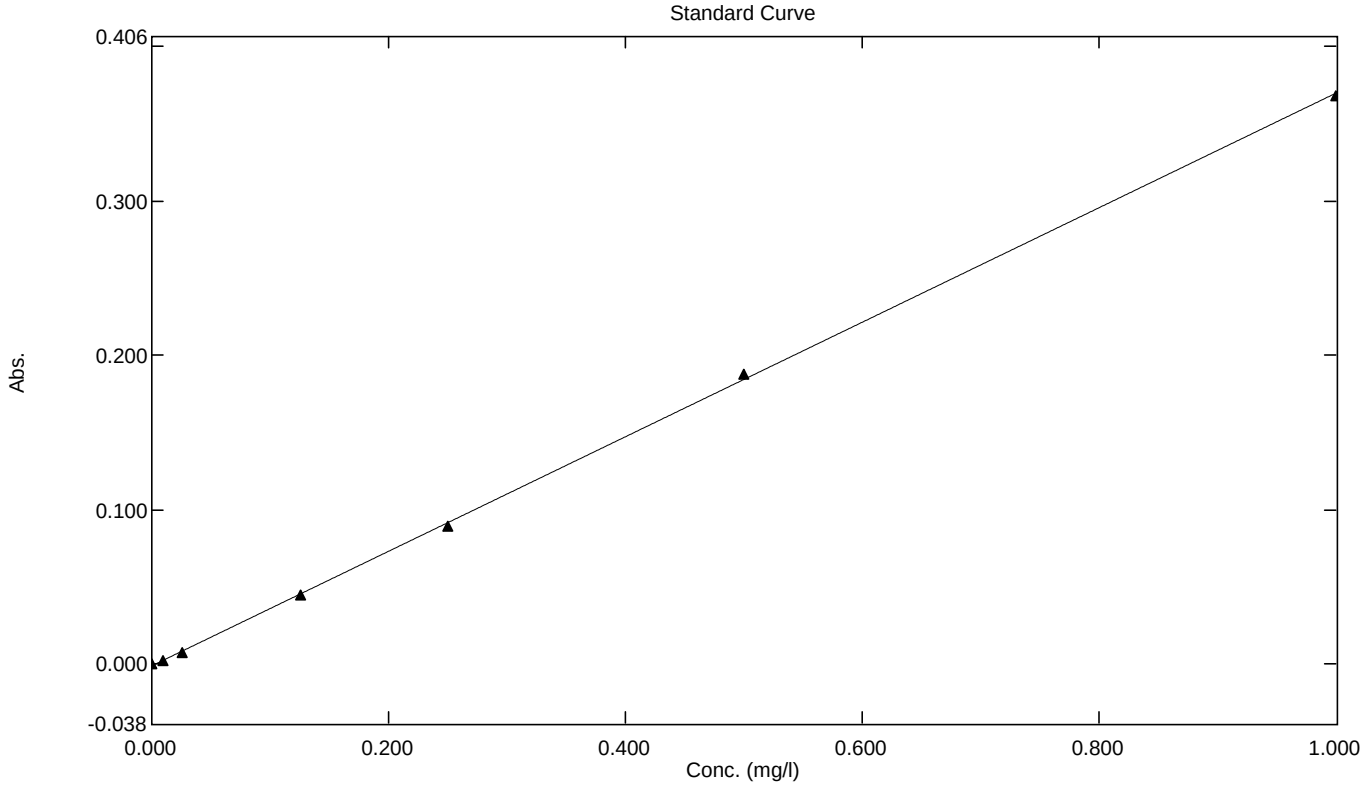
HS21060148 Wet Chem Raw Data (P-ORTHO)

ALS WO# HS21060148

Standard Table Report

06/29/2021 06:01:32 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\O_PO4_UNKNOWN\2021\06042021_P_ORTHO_Wp



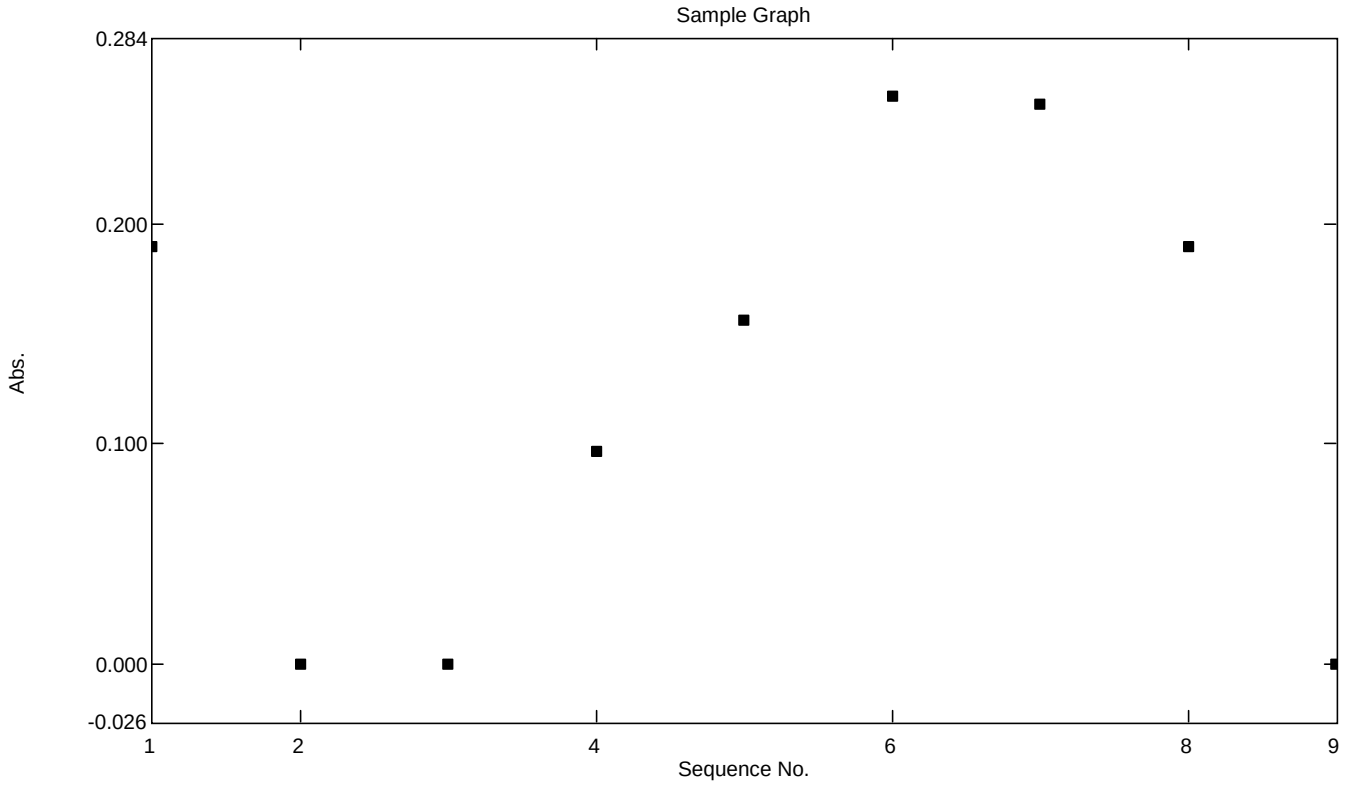
Standard Table

	Sample ID	Type	Ex	Conc	WL650.0	Wgt.Factor	Comments
1	STD1	Standard		0.000	-0.000	1.000	
2	STD2	Standard		0.010	0.002	1.000	
3	STD3	Standard		0.025	0.007	1.000	
4	STD4	Standard		0.125	0.044	1.000	
5	STD5	Standard		0.250	0.089	1.000	
6	STD6	Standard		0.500	0.188	1.000	
7	STD7	Standard		1.000	0.368	1.000	
8							

Sample Table Report

06/29/2021 06:02:16 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\O_PO4_UNKNOWN\2021\06042021_P_ORTHO_W



Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL650.	Comments
1	CCV	Unknown		06/04/2021	11:21:23 AM	0.514	0.190	316133106 WC-14
2	CCB	Unknown		06/04/2021	11:21:36 AM	0.003	-0.000	316135002 UV-11
3	MBLK	Unknown		06/04/2021	11:21:46 AM	0.003	-0.000	
4	LCS	Unknown		06/04/2021	11:22:40 AM	0.263	0.096	316133107 WC-14
5	HS21060148.01	Unknown		06/04/2021	11:23:31 AM	0.424	0.156	PF-10X
6	HS21060148.01MS	Unknown		06/04/2021	11:24:06 AM	0.699	0.258	PF-10X
7	HS21060148.01MS D	Unknown		06/04/2021	11:24:50 AM	0.688	0.254	PF-10X
8	CCV2	Unknown		06/04/2021	11:25:08 AM	0.514	0.190	
9	CCB2	Unknown		06/04/2021	11:25:19 AM	0.003	0.000	
10								

HS21060148 Wet Chem Raw Data (TOC_W)

ALS WO# HS21060148

	Type	Analysis	Sample Name	Sample ID	Origin	Result
1	Standard	NPOC	CAL	3150171(01-07)	02_25_2021_CAL.2021_02_	
2	Unknown	NPOC	ICV	315017108	02_25_2021_CAL.cal	NPOC:10.14mg/L
3	Unknown	NPOC	ICB		02_25_2021_CAL.cal	NPOC:-0.1140mg/L
4	Unknown	NPOC	CCV	315017106	02_25_2021_CAL.cal	NPOC:25.02mg/L
5	Unknown	NPOC	CCB		02_25_2021_CAL.cal	NPOC:-0.07587mg/L
6	Unknown	NPOC	MBLK-02252021		02_25_2021_CAL.cal	NPOC:-0.1214mg/L
7	Unknown	NPOC	LCS-02252021		02_25_2021_CAL.cal	NPOC:10.15mg/L
8	Unknown	NPOC	LCSD02252021		02_25_2021_CAL.cal	NPOC:10.16mg/L
9	Unknown	NPOC	HS21020689-01		02_25_2021_CAL.cal	NPOC:22.48mg/L
10	Unknown	NPOC	HS21020689-02		02_25_2021_CAL.cal	NPOC:17.34mg/L
11	Unknown	NPOC	HS21020689-02MS		02_25_2021_CAL.cal	NPOC:28.25mg/L
12	Unknown	NPOC	HS21020689-03		02_25_2021_CAL.cal	NPOC:10.22mg/L
13	Unknown	NPOC	HS21020538-01		02_25_2021_CAL.cal	NPOC:20.36mg/L
14	Unknown	NPOC	HS21020538-02		02_25_2021_CAL.cal	NPOC:4.452mg/L
15	Unknown	NPOC	HS21020793-02DF10		02_25_2021_CAL.cal	NPOC:17.50mg/L
16	Unknown	NPOC	CCV		02_25_2021_CAL.cal	NPOC:25.46mg/L
17	Unknown	NPOC	CCB		02_25_2021_CAL.cal	NPOC:0.08018mg/L

	Notes	Status	Date / Time	Vial
1		Completed	2/25/2021 1	1, 2, 3, 4, 5,
2		Completed	2/25/2021 1	8
3		Completed	2/25/2021 1	9
4		Completed	2/25/2021 1	10
5		Completed	2/25/2021 1	11
6		Completed	2/25/2021 1	12
7		Completed	2/25/2021 1	13
8		Completed	2/25/2021 1:	14
9		Completed	2/25/2021 1:	15
10		Completed	2/25/2021 1:	16
11		Completed	2/25/2021 1:	17
12		Completed	2/25/2021 2:	18
13		Completed	2/25/2021 2:	19
14		Completed	2/25/2021 2:	20
15		Completed	2/25/2021 2:	21
16		Completed	2/25/2021 3:	22
17		Completed	2/25/2021 3:	23

TOC-Control L Report

2021_02_25_001.tlx

Instr.Information

Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Cal. Curve

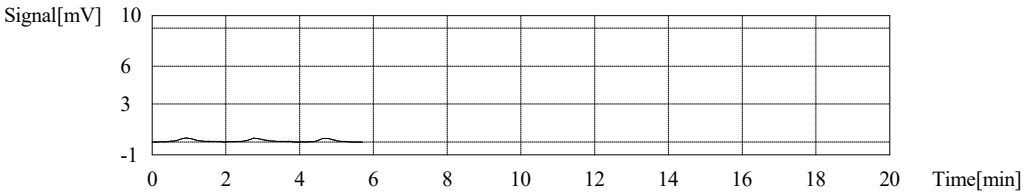
Sample Name:	CAL
Sample ID:	3150171(01-07)
Cal. Curve:	02_25_2021_CAL.2021_02_25_09_13_02.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.7577	50uL	1.000	*******		2/25/2021 9:21:39 AM
2	0.6368	50uL	1.000	*******		2/25/2021 9:23:47 AM
3	0.6500	50uL	1.000	*******		2/25/2021 9:25:55 AM

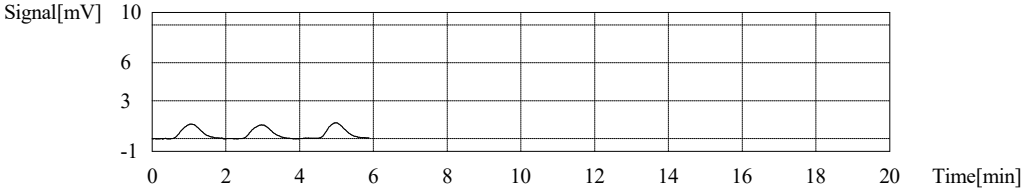
Acid Add.	0.000%
Sparge Gas Flow	80mL/min
Sp. Time	180.0sec
Mean Area	0.6815



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.063	50uL	1.000	*******		2/25/2021 9:34:44 AM
2	3.946	50uL	1.000	*******		2/25/2021 9:37:02 AM
3	3.886	50uL	1.000	*******		2/25/2021 9:39:10 AM

Acid Add.	0.000%
Sparge Gas Flow	80mL/min
Sp. Time	180.0sec
Mean Area	3.965

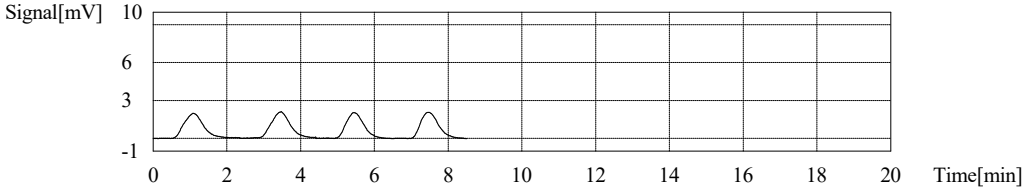


Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.014	50uL	1.000	*******		2/25/2021 9:48:25 AM
2	6.976	50uL	1.000	*******		2/25/2021 9:50:44 AM
3	6.738	50uL	1.000	*******	E	2/25/2021 9:53:02 AM
4	6.989	50uL	1.000	*******		2/25/2021 9:55:18 AM

TOC-Control L Report

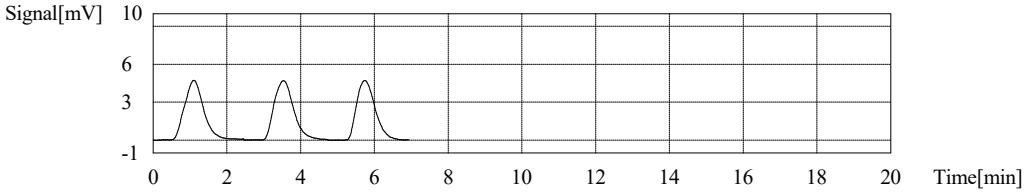
Acid Add. 0.000%
Sparge Gas Flow 80mL/min
Sp. Time 180.0sec
Mean Area 6.993



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	16.70	50uL	1.000	*******		2/25/2021 10:04:35 AM
2	16.99	50uL	1.000	*******		2/25/2021 10:07:06 AM
3	16.40	50uL	1.000	*******		2/25/2021 10:09:32 AM

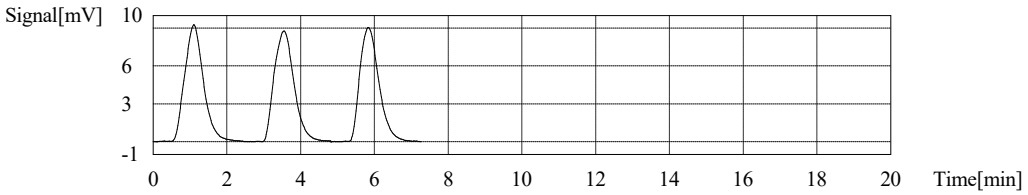
Acid Add. 0.000%
Sparge Gas Flow 80mL/min
Sp. Time 180.0sec
Mean Area 16.70



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	32.33	50uL	1.000	*******		2/25/2021 10:18:54 AM
2	32.41	50uL	1.000	*******		2/25/2021 10:21:29 AM
3	32.27	50uL	1.000	*******		2/25/2021 10:24:10 AM

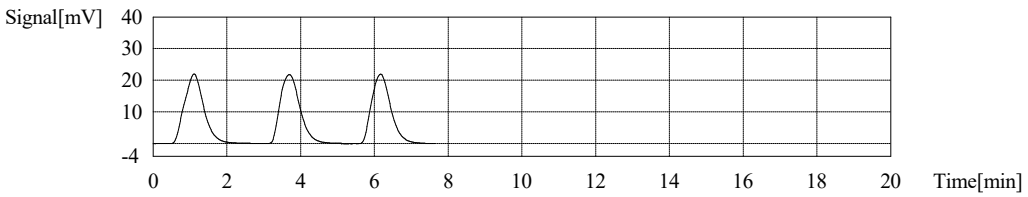
Acid Add. 0.000%
Sparge Gas Flow 80mL/min
Sp. Time 180.0sec
Mean Area 32.34



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	79.83	50uL	1.000	*******		2/25/2021 10:33:42 AM
2	80.51	50uL	1.000	*******		2/25/2021 10:36:25 AM
3	79.09	50uL	1.000	*******		2/25/2021 10:39:12 AM

Acid Add. 0.000%
Sparge Gas Flow 80mL/min
Sp. Time 180.0sec
Mean Area 79.81



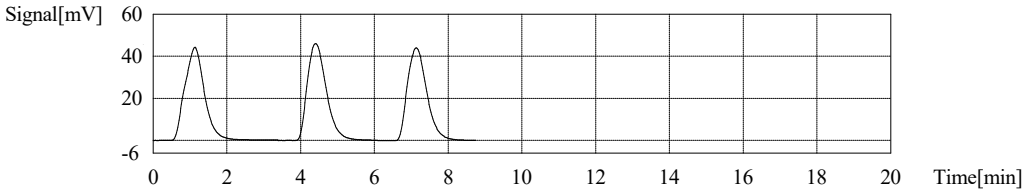
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	162.4	50uL	1.000	*******		2/25/2021 10:49:29 AM
2	163.8	50uL	1.000	*******		2/25/2021 10:52:26 AM
3	159.9	50uL	1.000	*******		2/25/2021 10:55:21 AM

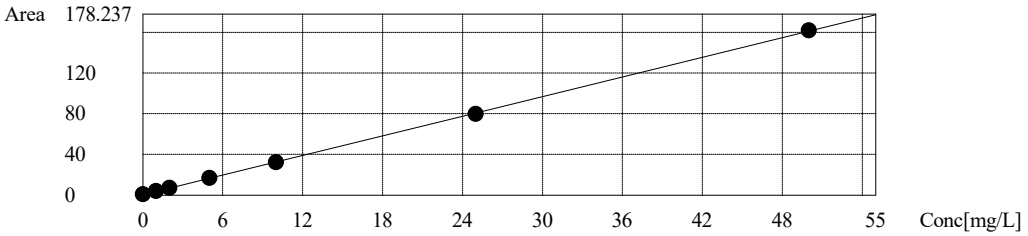
TOC-Control L Report

2021_02_25_001.tlx

Acid Add.	0.000%
Sparge Gas Flow	80mL/min
Sp. Time	180.0sec
Mean Area	162.0



Slope:	3.220
Intercept	0.4365
r^2	0.9999
r	1.0000
RSE(%)	N/A
Zero Shift	No



Sample

Sample Name:	ICV
Sample ID:	315017108
Origin:	02_25_2021_CAL.cal
Status	Completed
Chk. Result	

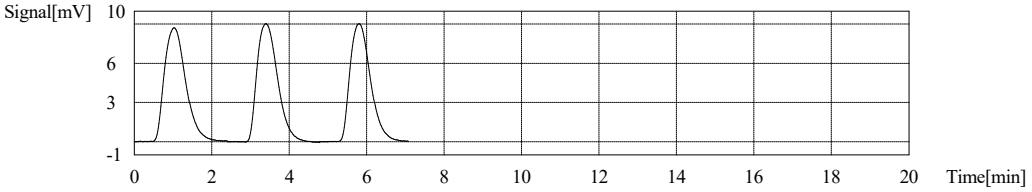
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.14mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	33.04	10.13mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:32:06 AM
2	33.24	10.19mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:34:44 AM
3	32.98	10.11mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:37:17 AM

Mean Area	33.09
Mean Conc.	10.14mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	02_25_2021_CAL.cal
Status	Completed
Chk. Result	

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.1140mg/L

1. Det

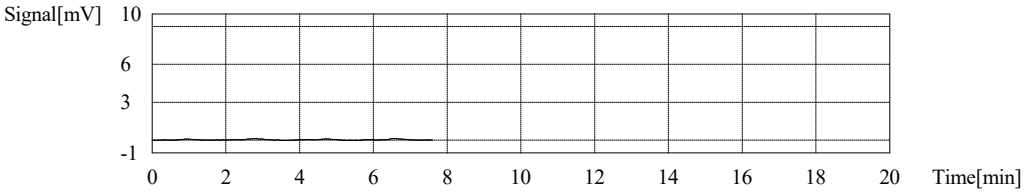
TOC-Control L Report

2021_02_25_001.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1356mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:46:05 AM
2	0.2080	-0.07096mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:48:13 AM
3	0.000	-0.1356mg/L	50uL	1.000		02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:50:20 AM
4	0.2102	-0.07028mg/L	50uL	1.000	E	02_25_2021_CAL.2021_02_25_09_13_02.cal	2/25/2021 11:52:27 AM

Mean Area 0.06933
Mean Conc. -0.1140mg/L



	Type	Analysis	Sample Name	Sample ID	Origin	Result	Notes	Status
1	Unknown	NPOC	CCV	316134906	05_10_2021	NPOC:24.82mg/L		Completed
2	Unknown	NPOC	CCB		05_10_2021	NPOC:0.1304mg/L		Completed
3	Unknown	NPOC	MBLK-06042021	TOC_W 531	05_10_2021	NPOC:0.07979mg/L		Completed
4	Unknown	NPOC	LCS-06042021		05_10_2021	NPOC:10.94mg/L		Completed
5	Unknown	NPOC	LCSD-06042021		05_10_2021	NPOC:10.88mg/L		Completed
6	Unknown	NPOC	HS21060040-01		05_10_2021	NPOC:11.65mg/L		Completed
7	Unknown	NPOC	HS21060044-01		05_10_2021	NPOC:9.635mg/L		Completed
8	Unknown	NPOC	HS21060085-01		05_10_2021	NPOC:17.92mg/L		Completed
9	Unknown	NPOC	HS21060177-02		05_10_2021	NPOC:3.764mg/L		Completed
10	Unknown	NPOC	HS21060177-02MS		05_10_2021	NPOC:15.03mg/L		Completed
11	Unknown	NPOC	HS21060177-06		05_10_2021	NPOC:43.82mg/L		Completed
12	Unknown	NPOC	HS21060177-08		05_10_2021	NPOC:8.202mg/L		Completed
13	Unknown	NPOC	CCV	316134906	05_10_2021	NPOC:25.44mg/L		Completed
14	Unknown	NPOC	CCB		05_10_2021	NPOC:0.2355mg/L		Completed
15	Unknown	NPOC	HS21060177-11		05_10_2021	NPOC:6.845mg/L		Completed
16	Unknown	NPOC	HS21060177-12		05_10_2021	NPOC:3.453mg/L		Completed
17	Unknown	NPOC	HS21060177-14		05_10_2021	NPOC:4.111mg/L		Completed
18	Unknown	NPOC	HS21060177-16		05_10_2021	NPOC:15.29mg/L		Completed
19	Unknown	NPOC	CCV	316134906	05_10_2021	NPOC:25.22mg/L		Completed
20	Unknown	NPOC	CCB	TOC_W	05_10_2021	NPOC:0.1394mg/L		Completed
21	Unknown	NPOC	MBLK2-06042021	TOC_W 531	05_10_2021	NPOC:0.09554mg/L		Completed
22	Unknown	NPOC	LCS2-06042021		05_10_2021	NPOC:10.85mg/L		Completed
23	Unknown	NPOC	LCSD2-06042021		05_10_2021	NPOC:10.67mg/L		Completed
24	Unknown	NPOC	HS21060177-18		05_10_2021	NPOC:13.77mg/L		Completed
25	Unknown	NPOC	HS21060177-18MS		05_10_2021	NPOC:25.56mg/L		Completed
26	Unknown	NPOC	HS21060177-20		05_10_2021	NPOC:15.75mg/L		Completed
27	Unknown	NPOC	HS21060177-22		05_10_2021	NPOC:14.75mg/L		Completed
28	Unknown	NPOC	HS21060177-24		05_10_2021	NPOC:17.64mg/L		Completed
29	Unknown	NPOC	HS21060229-01		05_10_2021	NPOC:0.1852mg/L		Completed
30	Unknown	NPOC	HS21060246-01		05_10_2021	NPOC:12.47mg/L		Completed
31	Unknown	NPOC	CCV	316134906	05_10_2021	NPOC:25.50mg/L		Completed
32	Unknown	NPOC	CCB		05_10_2021	NPOC:0.1686mg/L		Completed
33	Unknown	NPOC	HS21060039-01		05_10_2021	NPOC:11.30mg/L		Completed
34	Unknown	NPOC	HS21060148-01		05_10_2021	NPOC:2.389mg/L		Completed
35	Unknown	NPOC	HS21060156-01		05_10_2021	NPOC:5.592mg/L		Completed
36	Unknown	NPOC	HS21060156-02		05_10_2021	NPOC:12.17mg/L		Completed
37	Unknown	NPOC	CCV	316134906	05_10_2021	NPOC:25.35mg/L		Completed
38	Unknown	NPOC	CCB	TOC_W	05_10_2021	NPOC:0.2093mg/L		Completed
39	Unknown	NPOC	MBLK3-06042021	TOC_W 531	05_10_2021	NPOC:0.09650mg/L		Completed
40	Unknown	NPOC	LCS3-06042021		05_10_2021	NPOC:10.96mg/L		Completed
41	Unknown	NPOC	LCSD3-06042021		05_10_2021	NPOC:10.84mg/L		Completed
42	Unknown	NPOC	HS21060181-12		05_10_2021	NPOC:7.497mg/L		Completed
43	Unknown	NPOC	HS21060181-12MS		05_10_2021	NPOC:19.24mg/L		Completed
44	Unknown	NPOC	HS21060181-13		05_10_2021	NPOC:7.683mg/L		Completed
45	Unknown	NPOC	HS21060181-14		05_10_2021	NPOC:109.6mg/L		Completed
46	Unknown	NPOC	HS21060181-15		05_10_2021	NPOC:119.4mg/L		Completed
47	Unknown	NPOC	HS21060181-16		05_10_2021	NPOC:11.02mg/L		Completed
48	Unknown	NPOC	HS21060181-17		05_10_2021	NPOC:7.943mg/L		Completed
49	Unknown	NPOC	CCV	316134906	05_10_2021	NPOC:26.05mg/L		Completed
50	Unknown	NPOC	CCB		05_10_2021	NPOC:0.3369mg/L		Completed
51	Unknown	NPOC	HS21060226-01		05_10_2021	NPOC:2.383mg/L		Completed
52	Unknown	NPOC	HS21060226-02		05_10_2021	NPOC:19.68mg/L		Completed
53	Unknown	NPOC	HS21060226-03		05_10_2021	NPOC:20.49mg/L		Completed

	Date / Time	Vial
1	6/4/2021 5:24:39 P	1
2	6/4/2021 5:38:52 P	2
3	6/4/2021 5:53:05 P	3
4	6/4/2021 6:04:52 P	4
5	6/4/2021 6:16:47 P	5
6	6/4/2021 6:28:14 P	6
7	6/4/2021 6:39:38 P	7
8	6/4/2021 6:51:13 P	8
9	6/4/2021 7:05:51 P	9
10	6/4/2021 7:17:48 P	10
11	6/4/2021 7:29:37 P	11
12	6/4/2021 7:44:14 P	12
13	6/4/2021 7:56:34 P	1
14	6/4/2021 8:10:43 P	2
15	6/4/2021 8:22:25 P	13
16	6/4/2021 8:36:47 P	14
17	6/4/2021 8:48:16 P	15
18	6/4/2021 9:02:53 P	16
19	6/4/2021 9:15:07 P	1
20	6/4/2021 9:26:16 P	2
21	6/4/2021 9:37:14 P	3
22	6/4/2021 9:48:48 P	4
23	6/4/2021 10:00:49	5
24	6/4/2021 10:12:39	17
25	6/4/2021 10:24:46	18
26	6/4/2021 10:36:28	19
27	6/4/2021 10:48:22	20
28	6/4/2021 11:00:17	21
29	6/4/2021 11:14:27	22
30	6/4/2021 11:29:06	23
31	6/4/2021 11:41:05	24
32	6/4/2021 11:55:11	25
33	6/5/2021 12:06:51	26
34	6/5/2021 12:21:05	27
35	6/5/2021 12:35:47	28
36	6/5/2021 12:47:36	29
37	6/5/2021 12:59:53	24
38	6/5/2021 1:10:58 A	25
39	6/5/2021 1:21:58 A	3
40	6/5/2021 1:33:34 A	4
41	6/5/2021 1:45:21 A	5
42	6/5/2021 1:57:35 A	30
43	6/5/2021 2:12:15 A	31
44	6/5/2021 2:26:59 A	32
45	6/5/2021 2:39:02 A	33
46	6/5/2021 2:53:52 A	34
47	6/5/2021 3:08:40 A	35
48	6/5/2021 3:23:20 A	36
49	6/5/2021 3:35:25 A	24
50	6/5/2021 3:49:31 A	25
51	6/5/2021 4:01:07 A	37
52	6/5/2021 4:15:43 A	38
53	6/5/2021 4:30:38 A	39

	Type	Analysis	Sample Name	Sample ID	Origin	Result	Notes	Status
54	Unknown	NPOC	HS21060226-05		05_10_2021	NPOC:14.36mg/L		Completed
55	Unknown	NPOC	CCV	316134906	05_10_2021	NPOC:25.82mg/L		Completed
56	Unknown	NPOC	CCB		05_10_2021	NPOC:0.3519mg/L		Completed

	Date / Time	Vial
54	6/5/2021 4:45:22 A	40
55	6/5/2021 5:00:12 A	24
56	6/5/2021 5:14:25 A	25

TOC-Control L Report

2021_06_04_001.tlx

Instr.Information

Instrument Options TOC/ASI/IC Unit/
Catalyst Regular Sensitivity

Sample

Sample Name: CCV
Sample ID: 316134906
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

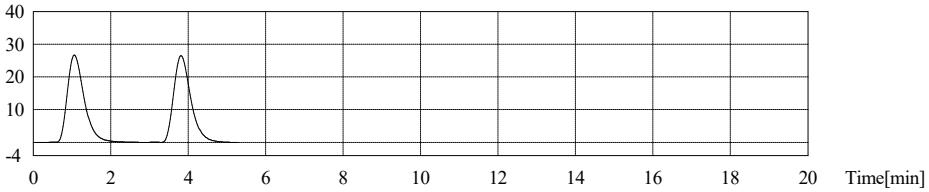
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.82mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.97	24.64mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 5:21:50 PM
2	83.23	25.01mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 5:24:39 PM

Mean Area 82.60
Mean Conc. 24.82mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1304mg/L

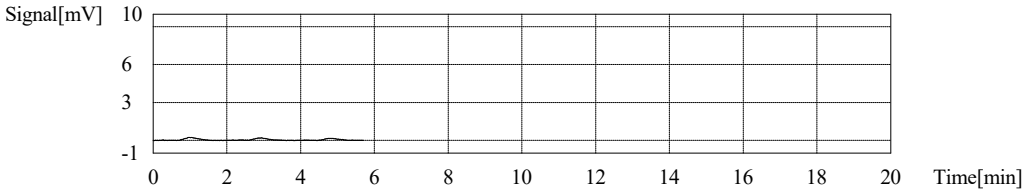
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5963	0.1792mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 5:32:52 PM
2	0.4348	0.1307mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 5:35:52 PM
3	0.4331	0.1302mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 5:38:52 PM

TOC-Control L Report

Mean Area 0.4340
Mean Conc. 0.1304mg/L



Sample

Sample Name: MBLK-06042021
Sample ID: TOC_W 5310B
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

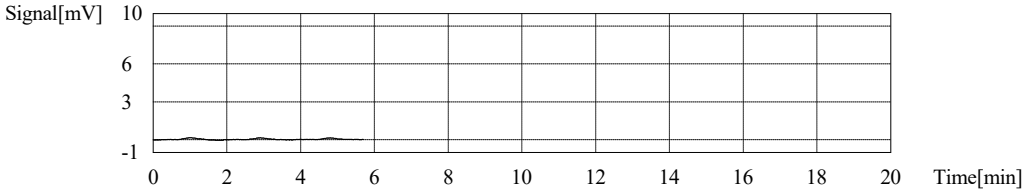
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.07979mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4856	0.1459mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 5:47:05 PM
2	0.3209	0.09644mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 5:50:05 PM
3	0.2101	0.06314mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 5:53:05 PM

Mean Area 0.2655
Mean Conc. 0.07979mg/L



Sample

Sample Name: LCS-06042021
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.94mg/L

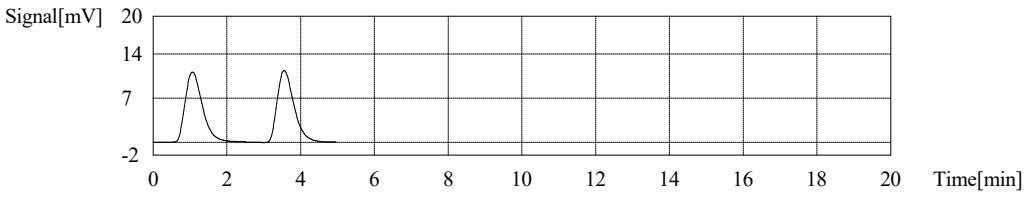
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	36.30	10.91mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 6:01:54 PM
2	36.53	10.98mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 6:04:52 PM

TOC-Control L Report

Mean Area 36.42
Mean Conc. 10.94mg/L



Sample

Sample Name: LCSD-06042021
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

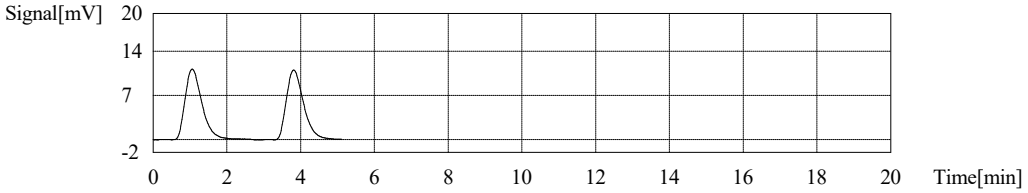
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.88mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	36.20	10.88mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 6:14:08 PM
2	36.20	10.88mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 6:16:47 PM

Mean Area 36.20
Mean Conc. 10.88mg/L



Sample

Sample Name: HS21060177-02
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.764mg/L

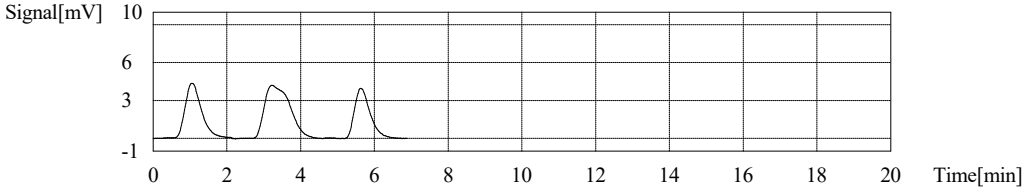
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.24	3.979mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 6:59:43 PM
2	20.42	6.137mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 7:03:04 PM
3	11.81	3.549mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 7:05:51 PM

TOC-Control L Report

Mean Area 12.53
Mean Conc. 3.764mg/L



Sample

Sample Name: HS21060177-02MS
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

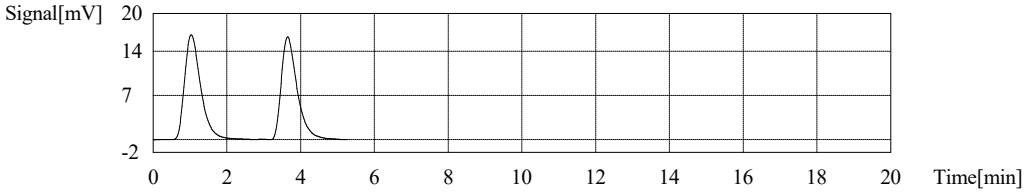
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.03mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	50.62	15.21mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 7:14:47 PM
2	49.39	14.84mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 7:17:48 PM

Mean Area 50.01
Mean Conc. 15.03mg/L



Sample

Sample Name: CCV
Sample ID: 316134906
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.44mg/L

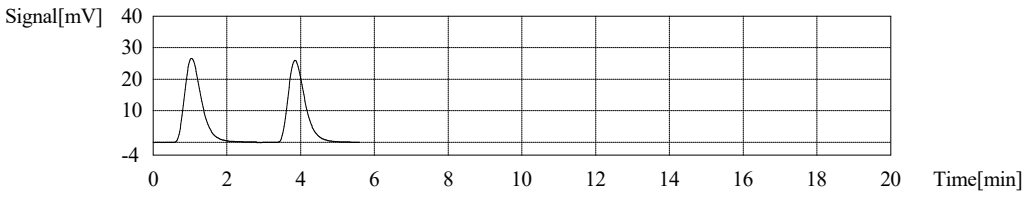
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	85.63	25.74mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 7:53:31 PM
2	83.69	25.15mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 7:56:34 PM

TOC-Control L Report

Mean Area 84.66
Mean Conc. 25.44mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

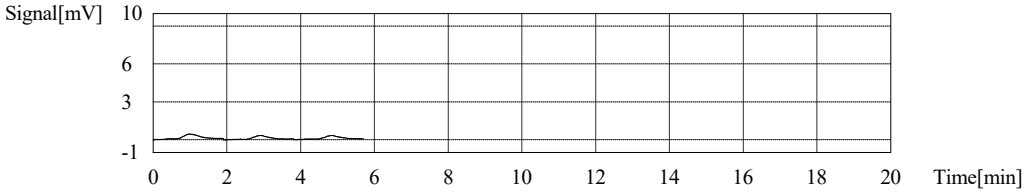
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2355mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9730	0.2924mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 8:04:43 PM
2	0.7937	0.2385mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 8:07:43 PM
3	0.7735	0.2325mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 8:10:43 PM

Mean Area 0.7836
Mean Conc. 0.2355mg/L



Sample

Sample Name: CCV
Sample ID: 316134906
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.50mg/L

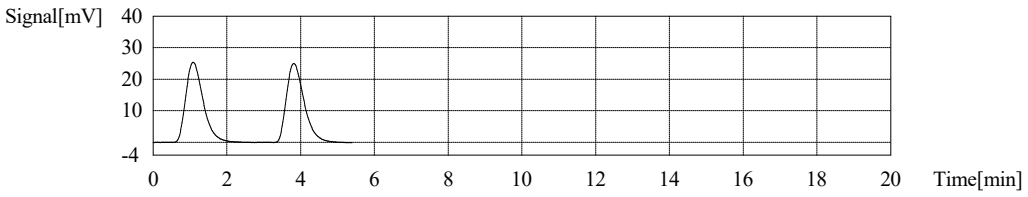
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	84.77	25.48mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 11:38:09 PM
2	84.95	25.53mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 11:41:05 PM

TOC-Control L Report

Mean Area 84.86
Mean Conc. 25.50mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

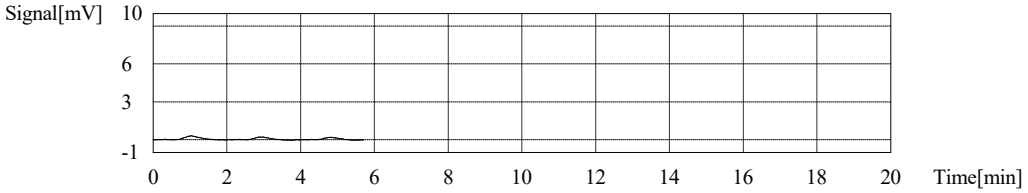
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1686mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8286	0.2490mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 11:49:11 PM
2	0.6133	0.1843mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 11:52:11 PM
3	0.5084	0.1528mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/4/2021 11:55:11 PM

Mean Area 0.5609
Mean Conc. 0.1686mg/L



Sample

Sample Name: HS21060148-01
Sample ID:
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.389mg/L

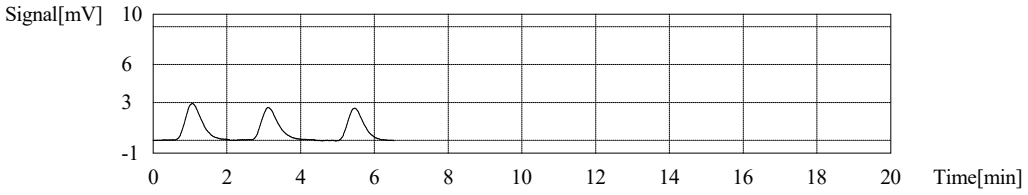
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.936	2.686mg/L	50uL	1.000	E	05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/5/2021 12:15:00 AM
2	7.993	2.402mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/5/2021 12:18:15 AM
3	7.905	2.376mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/5/2021 12:21:05 AM

TOC-Control L Report

Mean Area 7.949
Mean Conc. 2.389mg/L



Sample

Sample Name: CCV
Sample ID: 316134906
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

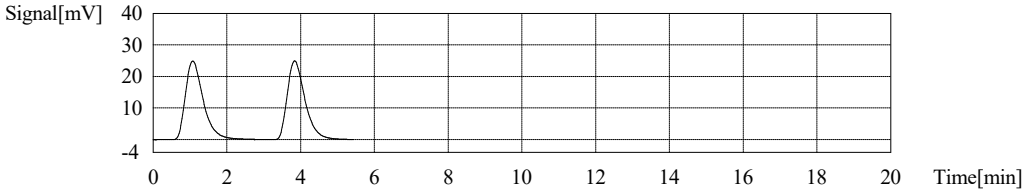
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.35mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	84.27	25.33mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/5/2021 12:56:57 AM
2	84.45	25.38mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/5/2021 12:59:53 AM

Mean Area 84.36
Mean Conc. 25.35mg/L



Sample

Sample Name: CCB
Sample ID: TOC_W
Origin: 05_10_2021A_CAL.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2093mg/L

1. Det

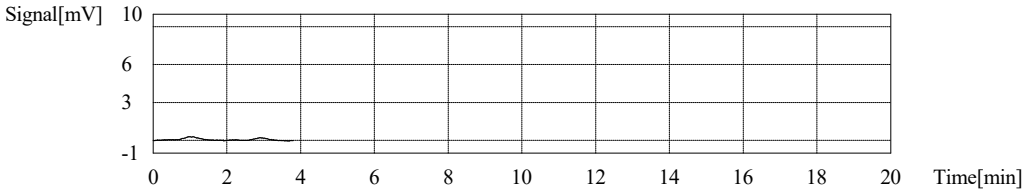
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6671	0.2005mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/5/2021 1:07:58 AM
2	0.7259	0.2182mg/L	50uL	1.000		05_10_2021A_CAL.2021_05_10_17_37_49.cal	6/5/2021 1:10:58 AM

TOC-Control L Report

2021_06_04_001.tlx

Mean Area	0.6965
Mean Conc.	0.2093mg/L



HS21060148 - Sub Perch IV (E2100608)

ALS WO# HS21060148

June 18, 2021 Service Request No:E2100608

RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS21060148

Dear RJ,

Enclosed are the results of the sample(s) submitted to our laboratory June 03, 2021
For your reference, these analyses have been assigned our service request number **E2100608.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



Corey Grandits
Project Manager

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Houston	**Service Request No.:**	E2100608
Project:	HS21060148	**Date Received:**	06/03/21
Sample Matrix:	W		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 06/03/21.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2100354: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch. The LCS and DLCS recoveries are within QC limits.

DoD certification is held for the method/matrix/analytes provided in this report.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2100608
Project: HS21060148

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100608-001	LH18/24-SP650_060221_BIX	6/2/2021	1205

Service Request Summary

Folder #: **E2100608**
Client Name: ALS Environmental - US
Project Name: HS21060148
Project Number:

Report To: RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: rj.modashia@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/03/21
Internal Due Date: 6/17/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21060148
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8B
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100608-001	LH18/24-SP650_060221_BIX	Ground Water	06/02/21 1205	**IV**

Service Request Summary

Folder #: **E2100608**
Client Name: ALS Environmental - US
Project Name: HS21060148
Project Number:

Report To: RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: rj.modashia@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/03/21
Internal Due Date: 6/17/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21060148
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8B
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	1	Level II due 6/17,IV due 6/24

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	Internal standard not within the specified limits. See case narrative.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.
M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.

Data Qualifiers

Lab Standard

O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

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ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-2020	6/30/2021
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352-2020	7/31/2021
Louisiana Department of Environmental Quality	03087-2021	6/30/2022
Louisiana Department of Environmental Quality	03087-2020	6/30/2021
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Maryland Department of the Environment	343-2020	6/30/2021
Minnesota Department of Health	2021671	12/31/2021
Nevada Department of Concervation and Natural Resources	TX026932021-4	7/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
New Jersey Department of Environmental Protection	TX008	6/30/2021
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	014	6/30/2021
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022
Utah Department of Health Environmental Laboratory Certification	TX026932021-10	7/31/2021

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
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www.alsglobal.com

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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:** **16230**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Ragen Giga
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RagenP.Giga@ALSGlobal.com
Alternate Contact:	
Email:	

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS21060148
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21060148-02**	**LH18/24-SP650_060221_BIX**	**Water**	**02 Jun 2021 14:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			17 Jun 2021

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: Patti Manis Date/Time: 6.3.21 12:05

Received By: LORET A Date/Time: 6/3/21 1205

Cooler ID(s): Temperature(s):

Cooler Receipt Form

ALS Environmental

Project Chemist CH

Client/Project ALS-HI

Thermometer ID IR21

Date/Time Received: 6/3/21 Initials: CH Date/Time Logged in: 6/3/21 Initials CH

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ⊘ ALS Courier ○ Client

2. Samples received in: ⊘ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ⊘ No
   Were they intact? ○ Yes ○ No ⊘ N/A
   Were they signed and dated? ○ Yes ○ No ⊘ N/A
   If yes, how many and where?

4. Packing Material: ○ Inserts ⊘ Baggies ○ Bubble Wrap ○ Gel Packs ⊘ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		6/3/21	1205	CH	1.0	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ⊘ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ⊘ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ⊘ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ⊘ Yes ○ No
10. Did sample labels and tags agree with custody documents? ⊘ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 381265 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 6/14/21 09:59

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100608-001	LH18/24-SP650_060221_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2100629-001	LH18/24-SP650_060821_BIX	.01	6850/ClO4 DOD			Water	10mL	
3	E2100630-001	LH18/24-SP650_060821_BIX	.01	6850/ClO4 DOD			Water	10mL	
4	E2100631-001	LH18/24-SP140_060821	.01	6850/ClO4 DOD			Water	10mL	
5	E2100632-001	126_060821	.01	6850/ClO4 DOD			Water	10mL	
6	E2100632-002	102_060821	.01	6850/ClO4 DOD			Water	10mL	
7	E2100632-003	18CPTMW03SW_060821	.01	6850/ClO4 DOD			Water	10mL	
8	E2100632-004	18CPTMW22DW_060821	.01	6850/ClO4 DOD			Water	10mL	
9	E2100632-005	18CPTMW22R_060821	.01	6850/ClO4 DOD			Water	10mL	
10	E2100632-006	18CPTMW22SW_060821	.01	6850/ClO4 DOD			Water	10mL	
11	E2100632-007	MW20_060821	.01	6850/ClO4 DOD			Water	10mL	
12	EQ2100354-01	MB		6850/ClO4 DOD			Liquid	10mL	
13	EQ2100354-02	LCS		6850/ClO4 DOD			Liquid	10mL	
14	EQ2100354-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
15	EQ2100354-04	MW20_060821 MS	.01	6850/ClO4 DOD			Liquid	10mL	
16	EQ2100354-05	MW20_060821 DMS	.01	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Sodium Perchlorate 1 ug/mL (IS) (18-O) as CLO4 Inventory ID 214765 Logbook Ref: Sodium Perchlorate Expires On: 12/11/2022

E2100608-001	100.00µL	E2100629-001	100.00µL	E2100630-001	100.00µL	E2100631-001	100.00µL	E2100632-001	100.00µL	E2100632-002	100.00µL
E2100632-003	100.00µL	E2100632-004	100.00µL	E2100632-005	100.00µL	E2100632-006	100.00µL	E2100632-007	100.00µL	EQ2100354-01	100.00µL
EQ2100354-02	100.00µL	EQ2100354-03	100.00µL	EQ2100354-04	100.00µL	EQ2100354-05	100.00µL				

Name: Perchlorate Intermediate Stock1 Inventory ID 217422 Logbook Ref: Perchlorate Expires On: 11/26/2021

EQ2100354-02	1.00µL	EQ2100354-03	1.00µL	EQ2100354-04	1.00µL	EQ2100354-05	1.00µL

Preparation Steps

Step: Preparation
Started: 6/14/21 09:59
Finished: 6/14/21 11:00
By: GRIVERA
Comments

Preparation Information Benchsheet

Prep Run#: 381265
Team: Semivoa GCMS/GRIVERA

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 6/14/21 09:59

Comments: _____

Reviewed By: GR Date: 6/14/21

Chain of Custody

Relinquished By:		Date:		Extracts Examined
Received By:		Date:		Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Collected:**	6/ 2/21 1205
Sample Matrix:	Ground Water	**Date Received:**	6/ 3/21
Sample Name:	LH18/24-SP650_060221_BIX	**Units:**	µg/L
Lab Code:	E2100608-001	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**1470**		10.0	5.00	2.50	100	6/14/21	6/15/21 18:26	381265	727655	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100354-01	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/14/21	6/15/21 17:52	381265	727655	

Accuracy & Precision

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148
Sample Matrix: Ground Water

Service Request: E2100608
Date Analyzed: 6/15/21

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: As Received

Extraction Lot: 381265

	Lab Control Sample EQ2100354-02			Duplicate Lab Control Sample EQ2100354-03				
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.117	0.100	117	0.119	0.100	119	84 - 119	2	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100354-02	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.117**		0.100	0.0500	0.0250	1	6/14/21	6/15/21 18:00	381265	727655	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100354-03	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.119**		0.100	0.0500	0.0250	1	6/14/21	6/15/21 18:09	381265	727655	

Initial Calibration

ALS Environmental - Houston HRMS
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20210615

1st Review: Grivera
2nd Review: Kneir

ALS Environmental

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210615_007	Perchlorate6850c.lcm	1x	☒	3100810-05	6/15/2021 15:32
2	PERCHLORATE2		20210615_008	Perchlorate6850c.lcm	1x	☒	3100810-06	6/15/2021 15:41
3	PERCHLORATE3		20210615_009	Perchlorate6850c.lcm	1x	☒	3100810-07	6/15/2021 15:49
4	PERCHLORATE4		20210615_010	Perchlorate6850c.lcm	1x	☒	3100810-08	6/15/2021 15:58
5	PERCHLORATE5		20210615_011	Perchlorate6850c.lcm	1x	☒	3100810-09	6/15/2021 16:07
6	PERCHLORATE6		20210615_012	Perchlorate6850c.lcm	1x	☒	3100811-01	6/15/2021 16:15
7	PERCHLORATE7		20210615_013	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 16:24
8	PERCHLORATE8		20210615_014	Perchlorate6850c.lcm	1x	☒	3100811-03	6/15/2021 16:32
9	PERCHLORATE9		20210615_015	Perchlorate6850c.lcm	1x	☒	3100811-04	6/15/2021 16:41
10	PERCHLORATE10		20210615_016	Perchlorate6850c.lcm	1x	☒	3100811-05	6/15/2021 16:49
11	PERCHLORATEICV		20210615_017	Perchlorate6850c.lcm	1x	☒	3100811-06	6/15/2021 16:58
12	ICS		20210615_018	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:06
13	LODV		20210615_019	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:15
14	PERCHLORATE7		20210615_020	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 17:23
15	EQ2100354-01		20210615_021	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:52
16	EQ2100354-02		20210615_022	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:00
17	EQ2100354-03		20210615_023	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:09
18	E2100631-001X100		20210615_024	Perchlorate6850c.lcm	100x	☒	DNU-over calibration range	6/15/2021 18:17
19	E2100608-001X100		20210615_025	Perchlorate6850c.lcm	100x	☒		6/15/2021 18:26
20	E2100629-001X10		20210615_026	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:34
21	E2100630-001X10		20210615_027	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:43
22	E2100632-006X100		20210615_028	Perchlorate6850c.lcm	100x	☒	DNU-INST low	6/15/2021 18:52
23	EQ2100357-04X100		20210615_029	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:00
24	EQ2100357-05X100		20210615_030	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:09
25	PERCHLORATE7		20210615_031	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 19:17
26	E2100644-001X1000		20210615_032	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:26
27	E2100644-002X100		20210615_033	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:34
28	E2100644-003X1000		20210615_034	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:43
29	E2100644-004X1000		20210615_035	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:51
30	E2100644-005X100		20210615_036	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:00
31	E2100644-006X100		20210615_037	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:09
32	E2100644-008X10		20210615_038	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 20:17
33	E2100645-001X100		20210615_039	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:26
34	E2100645-002X100		20210615_040	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:34
35	E2100645-003X10		20210615_041	Perchlorate6850c.lcm	10x	☒		6/15/2021 20:43
36	PERCHLORATE7		20210615_042	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 20:51
37	E2100645-006X10		20210615_043	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 21:00
38	E2100645-007X1000		20210615_044	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:08
39	E2100645-008X1000		20210615_045	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:17
40	PERCHLORATE7		20210615_046	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 21:25
41	EQ2100354-04		20210615_047	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:34
42	EQ2100354-05		20210615_048	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:42
43	E2100632-001		20210615_049	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:51
44	E2100632-002		20210615_050	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:59
45	E2100632-003		20210615_051	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:08
46	E2100632-004		20210615_052	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:17
47	PERCHLORATE7		20210615_053	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 22:25
48	E2100632-005		20210615_054	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:34
49	E2100632-007		20210615_055	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:42
50	EQ2100357-01		20210615_056	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:51
51	EQ2100357-02		20210615_057	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:59
52	EQ2100357-03		20210615_058	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:08
53	E2100644-007		20210615_059	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:16
54	E2100644-009		20210615_060	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:25
55	E2100645-004		20210615_061	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:33
56	E2100645-005		20210615_062	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:42
57	PERCHLORATE7		20210615_063	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 23:50
58	EQ2100358-01		20210615_064	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:59
59	EQ2100358-02		20210615_065	Perchlorate6850c.lcm	1x	☒		6/16/2021 0:08
60	EQ2100358-03		20210615_066	Perchlorate6850c.lcm	1x	☒	Reanalyze	6/16/2021 0:16
61	E2100645-017		20210615_067	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:25
62	E2100645-019		20210615_068	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:33
63	E2100645-022		20210615_069	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:42
64	E2100645-023		20210615_070	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:50

20210615

1st Review: Grivera
2nd Review: Kneir

ALS Environmental

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
65	PERCHLORATE7		20210615_071	Perchlorate6850c.lcm	1x	☒	3100811-02	6/16/2021 0:59

Initial Calibration - Detailed Report

Calibration ID: EC2100038 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2100038-01	PERCHLORATE1	20210615_007	06/15/2021 15:32
02	EC2100038-02	PERCHLORATE2	20210615_008	06/15/2021 15:41
03	EC2100038-03	PERCHLORATE3	20210615_009	06/15/2021 15:49
04	EC2100038-04	PERCHLORATE4	20210615_010	06/15/2021 15:58
05	EC2100038-05	PERCHLORATE5	20210615_011	06/15/2021 16:07
06	EC2100038-06	PERCHLORATE6	20210615_012	06/15/2021 16:15
07	EC2100038-07	PERCHLORATE7	20210615_013	06/15/2021 16:24
08	EC2100038-08	PERCHLORATE8	20210615_014	06/15/2021 16:32
09	EC2100038-09	PERCHLORATE9	20210615_015	06/15/2021 16:41
10	EC2100038-10	PERCHLORATE10	20210615_016	06/15/2021 16:49

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 12.07** **Average RF = 0.1057**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1311	02	0.5000	0.1058	03	0.7000	0.1084	04	1.0000	0.1195
05	2.0000	0.1126	06	5.0000	0.1042	07	10.0000	0.09375	08	20.0000	0.09679
09	30.0000	0.0936	10	50.0000	0.09139						

Analyte

Perchlorate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.124	24.0	02	0.5000	0.501	0.1	03	0.7000	0.718	2.5
04	1.0000	1.13	13.1	05	2.0000	2.13	6.6	06	5.0000	4.93	-1.4
07	10.0000	8.87	-11.3	08	20.0000	18.3	-8.4	09	30.0000	26.6	-11.5
10	50.0000	43.2	-13.6								

Initial Calibration Verification Summary Report

Calibration ID:	EC2100038	**Instrument ID:**	E-LCMS-01
Datafile ID:	20210615_017	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2100038-11	T	Average RF	10	9.463	ng/mL	-5.4	<= 15

Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
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20210615

1st Review: Grivera
2nd Review: Kneir

ALS Environmental

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210615_007	Perchlorate6850c.lcm	1x	☒	3100810-05	6/15/2021 15:32
2	PERCHLORATE2		20210615_008	Perchlorate6850c.lcm	1x	☒	3100810-06	6/15/2021 15:41
3	PERCHLORATE3		20210615_009	Perchlorate6850c.lcm	1x	☒	3100810-07	6/15/2021 15:49
4	PERCHLORATE4		20210615_010	Perchlorate6850c.lcm	1x	☒	3100810-08	6/15/2021 15:58
5	PERCHLORATE5		20210615_011	Perchlorate6850c.lcm	1x	☒	3100810-09	6/15/2021 16:07
6	PERCHLORATE6		20210615_012	Perchlorate6850c.lcm	1x	☒	3100811-01	6/15/2021 16:15
7	PERCHLORATE7		20210615_013	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 16:24
8	PERCHLORATE8		20210615_014	Perchlorate6850c.lcm	1x	☒	3100811-03	6/15/2021 16:32
9	PERCHLORATE9		20210615_015	Perchlorate6850c.lcm	1x	☒	3100811-04	6/15/2021 16:41
10	PERCHLORATE10		20210615_016	Perchlorate6850c.lcm	1x	☒	3100811-05	6/15/2021 16:49
11	PERCHLORATEICV		20210615_017	Perchlorate6850c.lcm	1x	☒	3100811-06	6/15/2021 16:58
12	ICS		20210615_018	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:06
13	LODV		20210615_019	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:15
14	PERCHLORATE7		20210615_020	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 17:23
15	EQ2100354-01		20210615_021	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:52
16	EQ2100354-02		20210615_022	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:00
17	EQ2100354-03		20210615_023	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:09
18	E2100631-001X100		20210615_024	Perchlorate6850c.lcm	100x	☒	DNU-over calibration range	6/15/2021 18:17
19	E2100608-001X100		20210615_025	Perchlorate6850c.lcm	100x	☒		6/15/2021 18:26
20	E2100629-001X10		20210615_026	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:34
21	E2100630-001X10		20210615_027	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:43
22	E2100632-006X100		20210615_028	Perchlorate6850c.lcm	100x	☒	DNU-INST low	6/15/2021 18:52
23	EQ2100357-04X100		20210615_029	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:00
24	EQ2100357-05X100		20210615_030	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:09
25	PERCHLORATE7		20210615_031	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 19:17
26	E2100644-001X1000		20210615_032	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:26
27	E2100644-002X100		20210615_033	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:34
28	E2100644-003X1000		20210615_034	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:43
29	E2100644-004X1000		20210615_035	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:51
30	E2100644-005X100		20210615_036	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:00
31	E2100644-006X100		20210615_037	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:09
32	E2100644-008X10		20210615_038	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 20:17
33	E2100645-001X100		20210615_039	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:26
34	E2100645-002X100		20210615_040	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:34
35	E2100645-003X10		20210615_041	Perchlorate6850c.lcm	10x	☒		6/15/2021 20:43
36	PERCHLORATE7		20210615_042	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 20:51
37	E2100645-006X10		20210615_043	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 21:00
38	E2100645-007X1000		20210615_044	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:08
39	E2100645-008X1000		20210615_045	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:17
40	PERCHLORATE7		20210615_046	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 21:25
41	EQ2100354-04		20210615_047	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:34
42	EQ2100354-05		20210615_048	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:42
43	E2100632-001		20210615_049	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:51
44	E2100632-002		20210615_050	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:59
45	E2100632-003		20210615_051	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:08
46	E2100632-004		20210615_052	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:17
47	PERCHLORATE7		20210615_053	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 22:25
48	E2100632-005		20210615_054	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:34
49	E2100632-007		20210615_055	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:42
50	EQ2100357-01		20210615_056	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:51
51	EQ2100357-02		20210615_057	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:59
52	EQ2100357-03		20210615_058	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:08
53	E2100644-007		20210615_059	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:16
54	E2100644-009		20210615_060	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:25
55	E2100645-004		20210615_061	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:33
56	E2100645-005		20210615_062	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:42
57	PERCHLORATE7		20210615_063	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 23:50
58	EQ2100358-01		20210615_064	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:59
59	EQ2100358-02		20210615_065	Perchlorate6850c.lcm	1x	☒		6/16/2021 0:08
60	EQ2100358-03		20210615_066	Perchlorate6850c.lcm	1x	☒	Reanalyze	6/16/2021 0:16
61	E2100645-017		20210615_067	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:25
62	E2100645-019		20210615_068	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:33
63	E2100645-022		20210615_069	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:42
64	E2100645-023		20210615_070	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:50

20210615

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
65	PERCHLORATE7		20210615_071	Perchlorate6850c.lcm	1x	☒	3100811-02	6/16/2021 0:59

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_020

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.14	0.1057	0.09659	-8.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_031

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.15	0.1057	0.09669	-8.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_042

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.09	0.1057	0.09609	-9.1	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_046

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.03	0.1057	0.09546	-9.7	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_053

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	8.82	0.1057	0.09319	-11.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_063

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.34	0.1057	0.09869	-6.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/16/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_071

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.17	0.1057	0.09692	-8.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 17:23

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_020	**Lab Code:**	EQ2100361-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-01	91,410	2.80
Method Blank	EQ2100354-01	132,232	2.80
Lab Control Sample	EQ2100354-02	127,528	2.78
Duplicate Lab Control Sample	EQ2100354-03	129,149	2.78
LH18/24-SP650_060221_BIX	E2100608-001	57,612	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 19:17

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_031	**Lab Code:**	EQ2100361-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-02	98,763	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 20:51

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_042	**Lab Code:**	EQ2100361-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-03	96,816	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 21:25

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_046	**Lab Code:**	EQ2100361-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-04	94,189	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 22:25

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_053	**Lab Code:**	EQ2100361-05
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-05	61,947	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 23:50

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_063	**Lab Code:**	EQ2100361-06
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-06	55,999	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/16/21 00:59

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_071	**Lab Code:**	EQ2100361-07
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-07	51,074	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

Initial Calibration

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20210615

1st Review: Grivera
2nd Review: Kneir

ALS Environmental

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210615_007	Perchlorate6850c.lcm	1x	☒	3100810-05	6/15/2021 15:32
2	PERCHLORATE2		20210615_008	Perchlorate6850c.lcm	1x	☒	3100810-06	6/15/2021 15:41
3	PERCHLORATE3		20210615_009	Perchlorate6850c.lcm	1x	☒	3100810-07	6/15/2021 15:49
4	PERCHLORATE4		20210615_010	Perchlorate6850c.lcm	1x	☒	3100810-08	6/15/2021 15:58
5	PERCHLORATE5		20210615_011	Perchlorate6850c.lcm	1x	☒	3100810-09	6/15/2021 16:07
6	PERCHLORATE6		20210615_012	Perchlorate6850c.lcm	1x	☒	3100811-01	6/15/2021 16:15
7	PERCHLORATE7		20210615_013	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 16:24
8	PERCHLORATE8		20210615_014	Perchlorate6850c.lcm	1x	☒	3100811-03	6/15/2021 16:32
9	PERCHLORATE9		20210615_015	Perchlorate6850c.lcm	1x	☒	3100811-04	6/15/2021 16:41
10	PERCHLORATE10		20210615_016	Perchlorate6850c.lcm	1x	☒	3100811-05	6/15/2021 16:49
11	PERCHLORATEICV		20210615_017	Perchlorate6850c.lcm	1x	☒	3100811-06	6/15/2021 16:58
12	ICS		20210615_018	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:06
13	LODV		20210615_019	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:15
14	PERCHLORATE7		20210615_020	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 17:23
15	EQ2100354-01		20210615_021	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:52
16	EQ2100354-02		20210615_022	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:00
17	EQ2100354-03		20210615_023	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:09
18	E2100631-001X100		20210615_024	Perchlorate6850c.lcm	100x	☒	DNU-over calibration range	6/15/2021 18:17
19	E2100608-001X100		20210615_025	Perchlorate6850c.lcm	100x	☒		6/15/2021 18:26
20	E2100629-001X10		20210615_026	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:34
21	E2100630-001X10		20210615_027	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:43
22	E2100632-006X100		20210615_028	Perchlorate6850c.lcm	100x	☒	DNU-INST low	6/15/2021 18:52
23	EQ2100357-04X100		20210615_029	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:00
24	EQ2100357-05X100		20210615_030	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:09
25	PERCHLORATE7		20210615_031	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 19:17
26	E2100644-001X1000		20210615_032	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:26
27	E2100644-002X100		20210615_033	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:34
28	E2100644-003X1000		20210615_034	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:43
29	E2100644-004X1000		20210615_035	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:51
30	E2100644-005X100		20210615_036	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:00
31	E2100644-006X100		20210615_037	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:09
32	E2100644-008X10		20210615_038	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 20:17
33	E2100645-001X100		20210615_039	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:26
34	E2100645-002X100		20210615_040	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:34
35	E2100645-003X10		20210615_041	Perchlorate6850c.lcm	10x	☒		6/15/2021 20:43
36	PERCHLORATE7		20210615_042	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 20:51
37	E2100645-006X10		20210615_043	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 21:00
38	E2100645-007X1000		20210615_044	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:08
39	E2100645-008X1000		20210615_045	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:17
40	PERCHLORATE7		20210615_046	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 21:25
41	EQ2100354-04		20210615_047	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:34
42	EQ2100354-05		20210615_048	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:42
43	E2100632-001		20210615_049	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:51
44	E2100632-002		20210615_050	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:59
45	E2100632-003		20210615_051	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:08
46	E2100632-004		20210615_052	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:17
47	PERCHLORATE7		20210615_053	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 22:25
48	E2100632-005		20210615_054	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:34
49	E2100632-007		20210615_055	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:42
50	EQ2100357-01		20210615_056	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:51
51	EQ2100357-02		20210615_057	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:59
52	EQ2100357-03		20210615_058	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:08
53	E2100644-007		20210615_059	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:16
54	E2100644-009		20210615_060	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:25
55	E2100645-004		20210615_061	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:33
56	E2100645-005		20210615_062	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:42
57	PERCHLORATE7		20210615_063	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 23:50
58	EQ2100358-01		20210615_064	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:59
59	EQ2100358-02		20210615_065	Perchlorate6850c.lcm	1x	☒		6/16/2021 0:08
60	EQ2100358-03		20210615_066	Perchlorate6850c.lcm	1x	☒	Reanalyze	6/16/2021 0:16
61	E2100645-017		20210615_067	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:25
62	E2100645-019		20210615_068	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:33
63	E2100645-022		20210615_069	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:42
64	E2100645-023		20210615_070	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:50

20210615

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
65	PERCHLORATE7		20210615_071	Perchlorate6850c.lcm	1x	☒	3100811-02	6/16/2021 0:59

Initial Calibration - Detailed Report

Calibration ID: EC2100038 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2100038-01	PERCHLORATE1	20210615_007	06/15/2021 15:32
02	EC2100038-02	PERCHLORATE2	20210615_008	06/15/2021 15:41
03	EC2100038-03	PERCHLORATE3	20210615_009	06/15/2021 15:49
04	EC2100038-04	PERCHLORATE4	20210615_010	06/15/2021 15:58
05	EC2100038-05	PERCHLORATE5	20210615_011	06/15/2021 16:07
06	EC2100038-06	PERCHLORATE6	20210615_012	06/15/2021 16:15
07	EC2100038-07	PERCHLORATE7	20210615_013	06/15/2021 16:24
08	EC2100038-08	PERCHLORATE8	20210615_014	06/15/2021 16:32
09	EC2100038-09	PERCHLORATE9	20210615_015	06/15/2021 16:41
10	EC2100038-10	PERCHLORATE10	20210615_016	06/15/2021 16:49

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 12.07** **Average RF = 0.1057**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1311	02	0.5000	0.1058	03	0.7000	0.1084	04	1.0000	0.1195
05	2.0000	0.1126	06	5.0000	0.1042	07	10.0000	0.09375	08	20.0000	0.09679
09	30.0000	0.0936	10	50.0000	0.09139						

Analyte

Perchlorate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.124	24.0	02	0.5000	0.501	0.1	03	0.7000	0.718	2.5
04	1.0000	1.13	13.1	05	2.0000	2.13	6.6	06	5.0000	4.93	-1.4
07	10.0000	8.87	-11.3	08	20.0000	18.3	-8.4	09	30.0000	26.6	-11.5
10	50.0000	43.2	-13.6								

Initial Calibration Verification Summary Report

Calibration ID:	EC2100038	**Instrument ID:**	E-LCMS-01
Datafile ID:	20210615_017	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2100038-11	T	Average RF	10	9.463	ng/mL	-5.4	<= 15

Insight Report

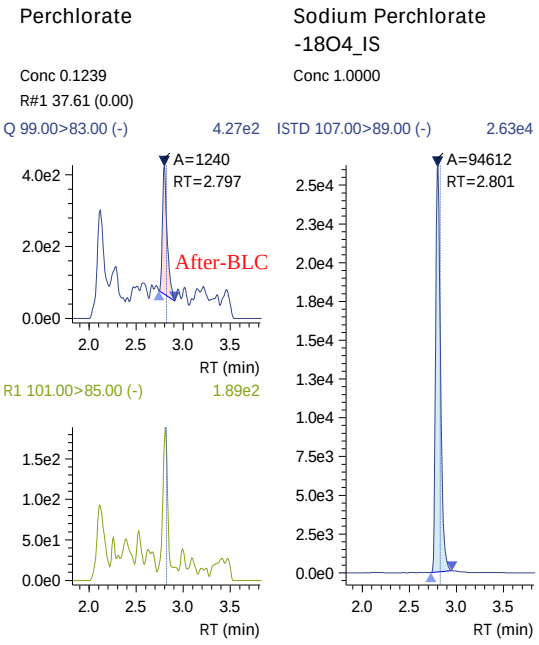
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Method File: I:\LCMS01\DATA\20210615\20210615.lcm
Project File: I:\LCMS01\DATA\20210615\20210615.damlp

20210615_007

Sample ID: PERCHLORATE1
Date Acquired: 6/15/2021 3:32:48 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_007.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.797	1240	94612	1	0.1239	ng/mL	0.1000	37.61
Sodium Perchlorate-18O4 _IS	Auto	2.801	94612	94612	1	1.0000	ng/mL	1.0000	----



Before

Insight Report

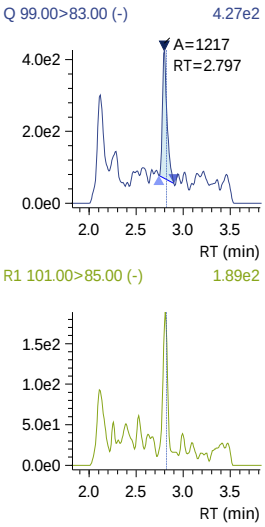
Method File: I:\LCMS01\DATA\20210615\20210615.lcm

20210615_007

Sample ID: PERCHLORATE1
Date Acquired: 6/15/2021 3:32:48 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_007.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

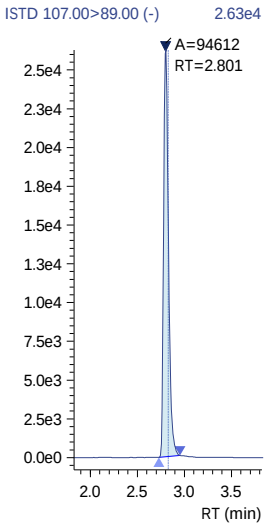
Perchlorate

Conc 0.1239
R#1 37.94 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



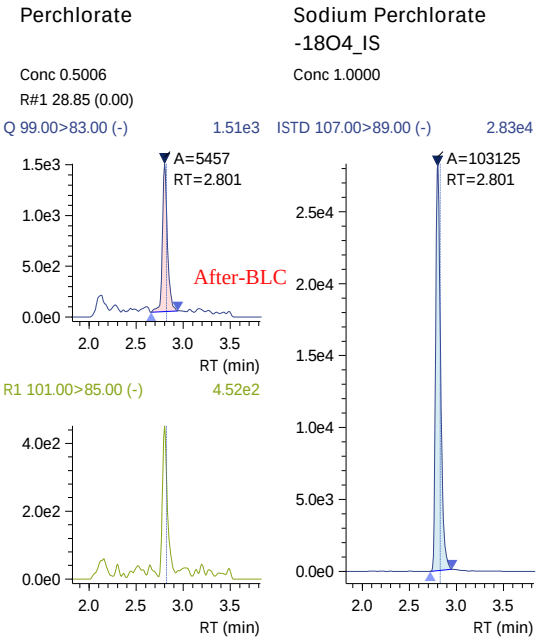
Insight Report

Printed at 6/17/2021 1:58:19 PM

20210615_008

Sample ID: PERCHLORATE2
Date Acquired: 6/15/2021 3:41:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_008.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.801	5457	103125	1	0.5006	ng/mL	0.5000	28.85
Sodium Perchlorate-18O4 _IS	Auto	2.801	1031 25	103125	1	1.0000	ng/mL	1.0000	----



Before

Insight Report

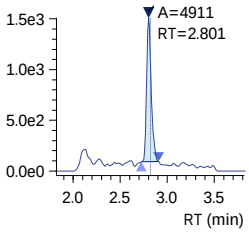
20210615_008

Sample ID: PERCHLORATE2
Date Acquired: 6/15/2021 3:41:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_008.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

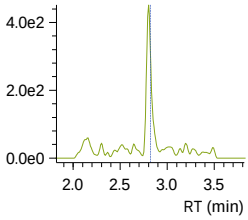
Perchlorate

Conc 0.4590
R#1 30.76 (0.00)

Q 99.00>83.00 (-) 1.51e3



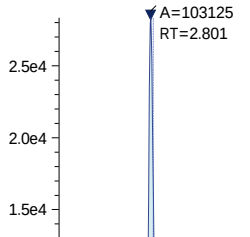
R1 101.00>85.00 (-) 4.52e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.83e4



Insight Report

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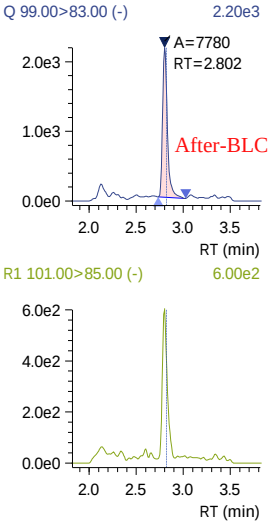
20210615_009

Sample ID: PERCHLORATE3
Date Acquired: 6/15/2021 3:49:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_009.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.802	7780	102556	1	0.7176	ng/mL	0.7000	26.99
Sodium Perchlorate-18O4_IS	Auto	2.800	1025 56	102556	1	1.0000	ng/mL	1.0000	----

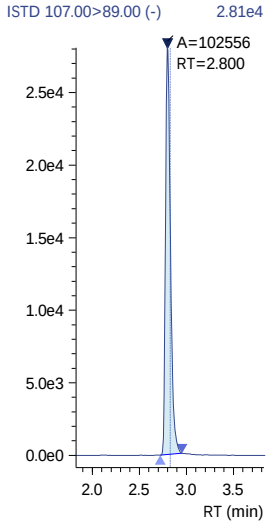
Perchlorate

Conc 0.7176
R#1 26.99 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

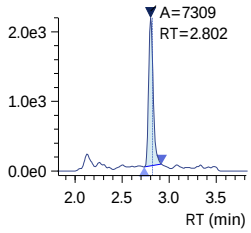
20210615_009

Sample ID: PERCHLORATE3
Date Acquired: 6/15/2021 3:49:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_009.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

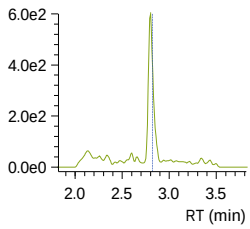
Perchlorate

Conc 0.6869
R#1 27.36 (0.00)

Q 99.00>83.00 (-) 2.20e3



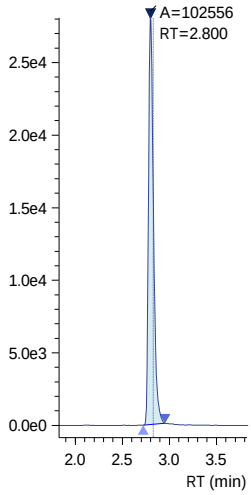
R1 101.00>85.00 (-) 6.00e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.81e4



Insight Report

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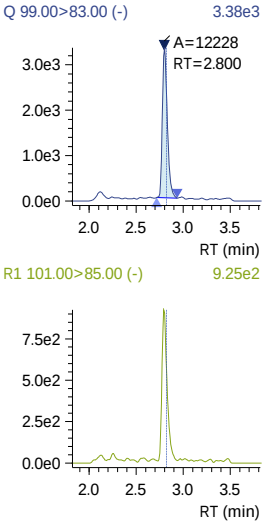
20210615_010

Sample ID: PERCHLORATE4
Date Acquired: 6/15/2021 3:58:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_010.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.800	12228	102296	1	1.1308	ng/mL	1.0000	29.18
Sodium Perchlorate-18O4 _IS	Auto	2.799	1022 96	102296	1	1.0000	ng/mL	1.0000	----

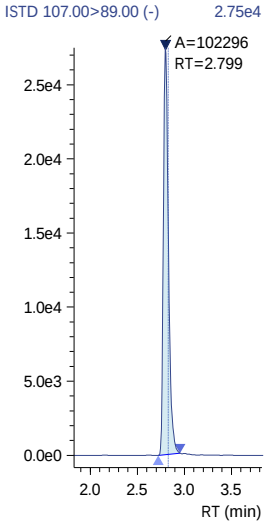
Perchlorate

Conc 1.1308
R#1 29.18 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

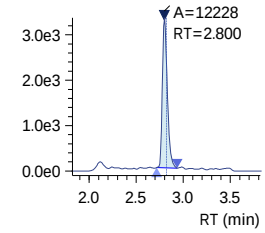
20210615_010

Sample ID: PERCHLORATE4
Date Acquired: 6/15/2021 3:58:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_010.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

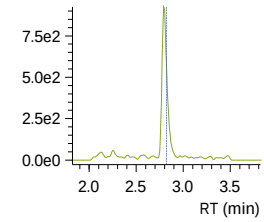
Perchlorate

Conc 1.1521
R#1 29.18 (0.00)

Q 99.00>83.00 (-) 3.38e3



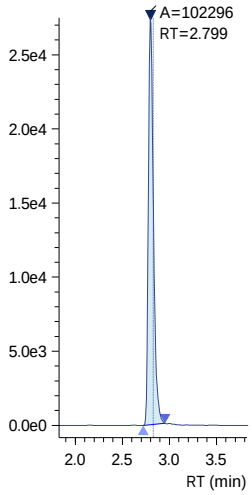
R1 101.00>85.00 (-) 9.25e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.75e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

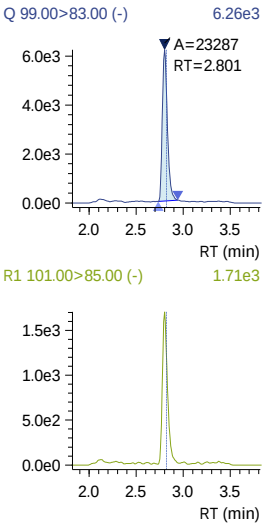
20210615_011

Sample ID: PERCHLORATE5
Date Acquired: 6/15/2021 4:07:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_011.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.801	23287	103365	1	2.1312	ng/mL	2.0000	27.30
Sodium Perchlorate-18O4_IS	Auto	2.800	1033 65	103365	1	1.0000	ng/mL	1.0000	----

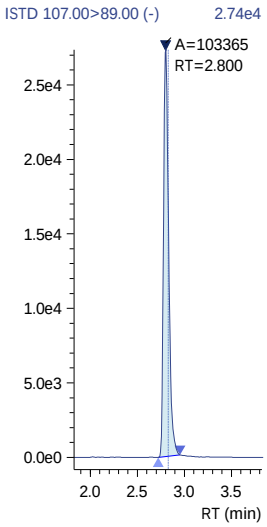
Perchlorate

Conc 2.1312
R#1 27.30 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

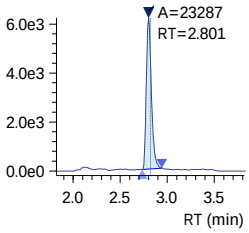
20210615_011

Sample ID: PERCHLORATE5
Date Acquired: 6/15/2021 4:07:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_011.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

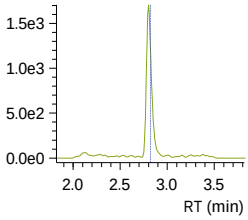
Perchlorate

Conc 2.1714
R#1 27.30 (0.00)

Q 99.00>83.00 (-) 6.26e3



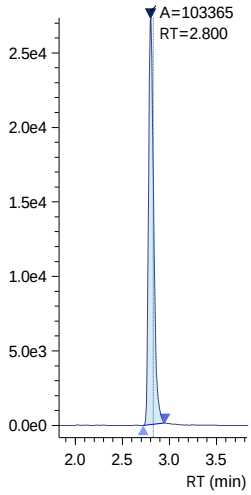
R1 101.00>85.00 (-) 1.71e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.74e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

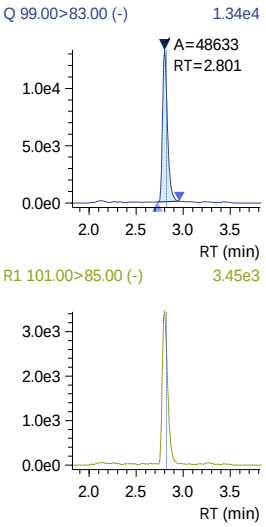
20210615_012

Sample ID: PERCHLORATE6
Date Acquired: 6/15/2021 4:15:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_012.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.801	48633	93357	1	4.9280	ng/mL	5.0000	25.88
Sodium Perchlorate-18O4 _IS	Auto	2.801	93357	93357	1	1.0000	ng/mL	1.0000	----

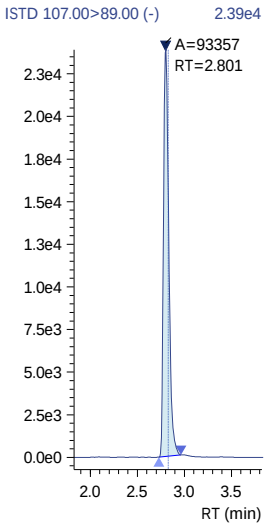
Perchlorate

Conc 4.9280
R#1 25.88 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

Printed at 6/17/2021 2:00:46 PM

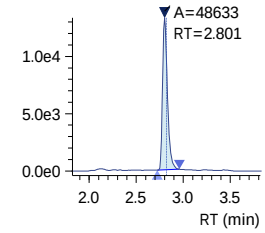
20210615_012

Sample ID: PERCHLORATE6
Date Acquired: 6/15/2021 4:15:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_012.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

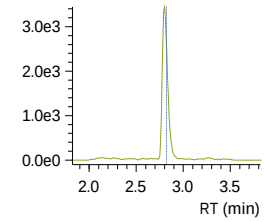
Perchlorate

Conc 5.0209
R#1 25.88 (0.00)

Q 99.00>83.00 (-) 1.34e4



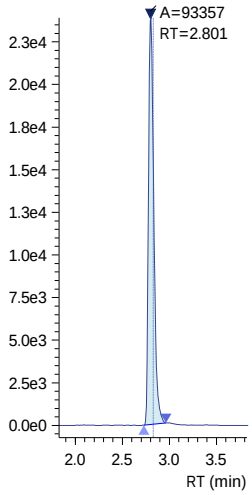
R1 101.00>85.00 (-) 3.45e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.39e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

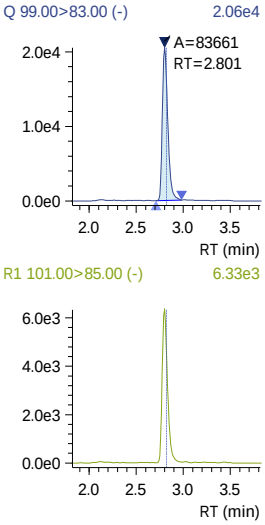
20210615_013

Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 4:24:05 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_013.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.801	83661	89240	1	8.8684	ng/mL	10.0000	30.81
Sodium Perchlorate-18O4 _IS	Auto	2.800	89240	89240	1	1.0000	ng/mL	1.0000	----

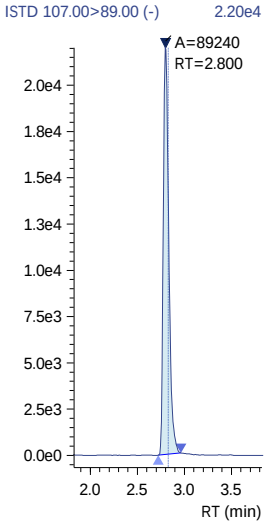
Perchlorate

Conc 8.8684
R#1 30.81 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

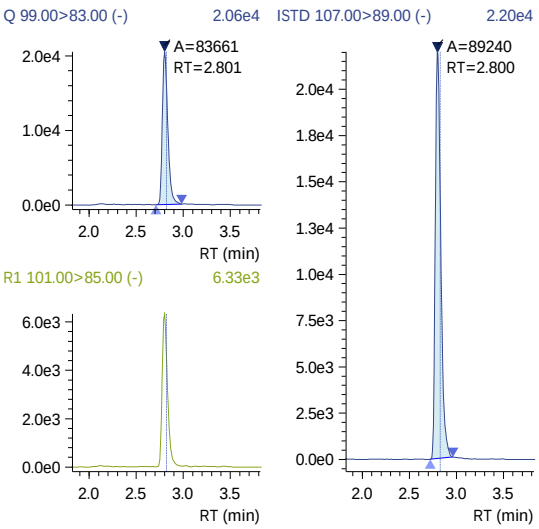
Insight Report

20210615_013

Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 4:24:05 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_013.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Perchlorate

Conc 9.0357
R#1 30.81 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000

Insight Report

Printed at 6/17/2021 1:58:19 PM

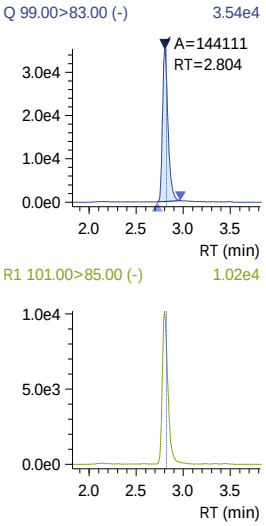
20210615_014

Sample ID: PERCHLORATE8
Date Acquired: 6/15/2021 4:32:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_014.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.804	144111	74442	1	18.3131	ng/mL	20.0000	28.75
Sodium Perchlorate-18O4_IS	Auto	2.802	74442	74442	1	1.0000	ng/mL	1.0000	----

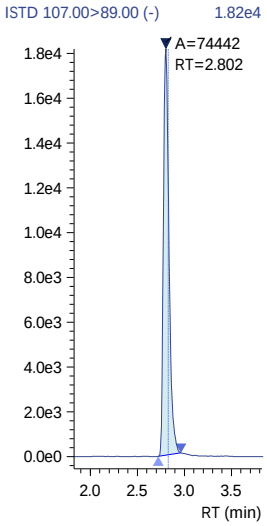
Perchlorate

Conc 18.3131
R#1 28.75 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

Printed at 6/17/2021 2:00:46 PM

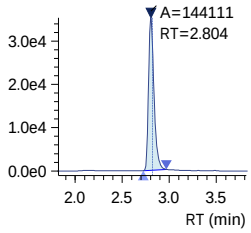
20210615_014

Sample ID: PERCHLORATE8
Date Acquired: 6/15/2021 4:32:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_014.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

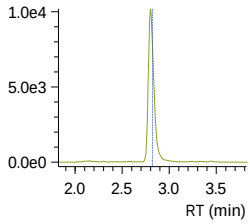
Perchlorate

Conc 18.6585
R#1 28.75 (0.00)

Q 99.00>83.00 (-) 3.54e4



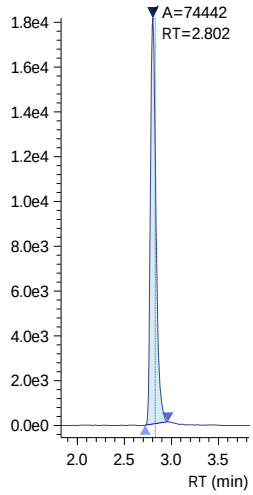
R1 101.00>85.00 (-) 1.02e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.82e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

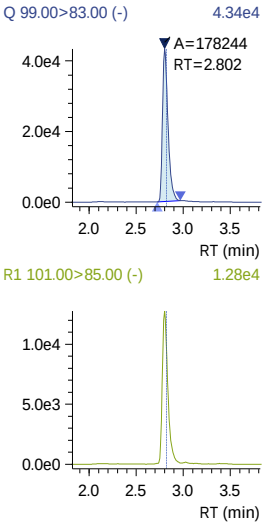
20210615_015

Sample ID: PERCHLORATE9
Date Acquired: 6/15/2021 4:41:08 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_015.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.802	178244	63474	1	26.5645	ng/mL	30.0000	29.37
Sodium Perchlorate-18O4_IS	Auto	2.802	63474	63474	1	1.0000	ng/mL	1.0000	----

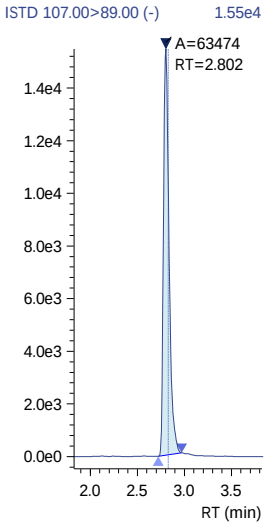
Perchlorate

Conc 26.5645
R#1 29.37 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

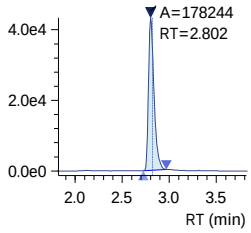
20210615_015

Sample ID: PERCHLORATE9
Date Acquired: 6/15/2021 4:41:08 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_015.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

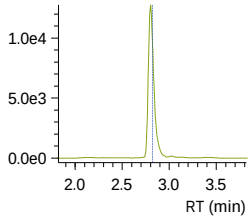
Perchlorate

Conc 27.0656
R#1 29.37 (0.00)

Q 99.00>83.00 (-) 4.34e4



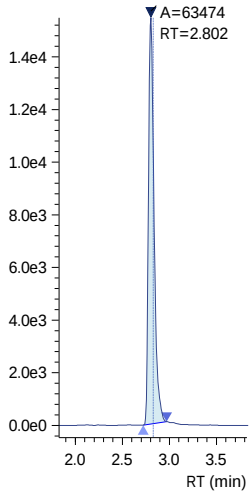
R1 101.00>85.00 (-) 1.28e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.55e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

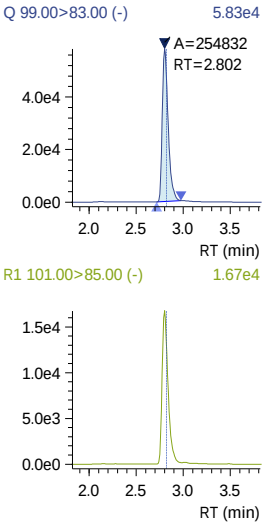
20210615_016

Sample ID: PERCHLORATE10
Date Acquired: 6/15/2021 4:49:43 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_016.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.802	254832	55769	1	43.2260	ng/mL	50.0000	28.69
Sodium Perchlorate-18O4_IS	Auto	2.801	55769	55769	1	1.0000	ng/mL	1.0000	----

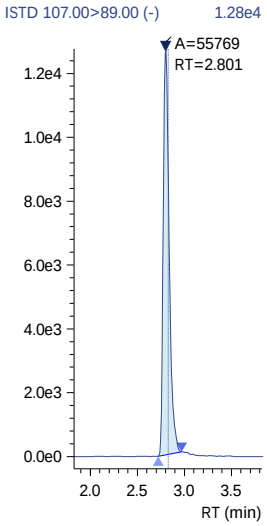
Perchlorate

Conc 43.2260
R#1 28.69 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

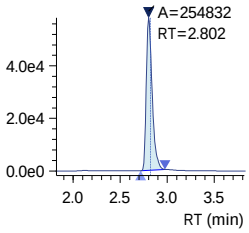
20210615_016

Sample ID: PERCHLORATE10
Date Acquired: 6/15/2021 4:49:43 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_016.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

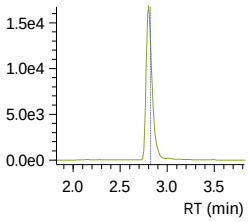
Perchlorate

Conc 44.0414
R#1 28.69 (0.00)

Q 99.00>83.00 (-) 5.83e4



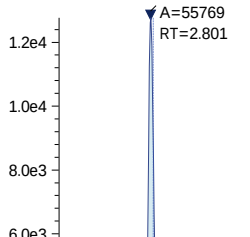
R1 101.00>85.00 (-) 1.67e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.28e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

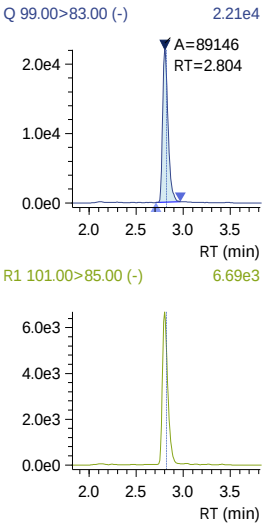
20210615_017

Sample ID: PERCHLORATEICV
Date Acquired: 6/15/2021 4:58:17 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_017.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.804	89146	89108	1	9.4639	ng/mL	10.0000	30.30
Sodium Perchlorate-18O4 _IS	Auto	2.802	89108	89108	1	1.0000	ng/mL	1.0000	----

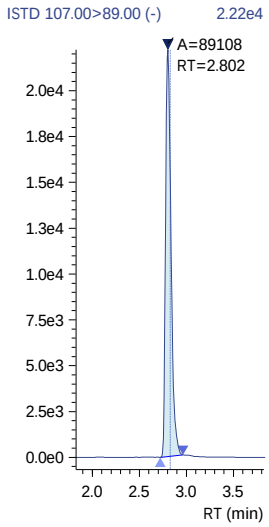
Perchlorate

Conc 9.4639
R#1 30.30 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



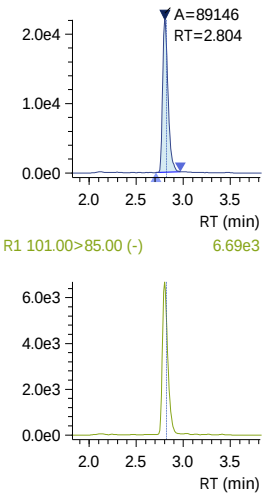
Insight Report

20210615_017

Sample ID: PERCHLORATEICV
Date Acquired: 6/15/2021 4:58:17 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_017.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

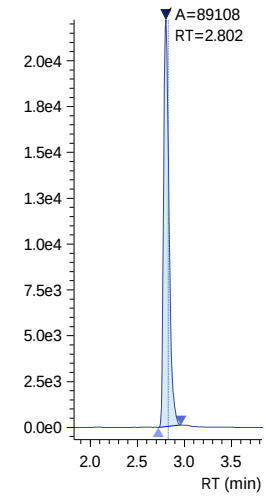
Perchlorate

Conc 9.6424
R#1 30.30 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20210615

ALS Environmental

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210615_007	Perchlorate6850c.lcm	1x	☒	3100810-05	6/15/2021 15:32
2	PERCHLORATE2		20210615_008	Perchlorate6850c.lcm	1x	☒	3100810-06	6/15/2021 15:41
3	PERCHLORATE3		20210615_009	Perchlorate6850c.lcm	1x	☒	3100810-07	6/15/2021 15:49
4	PERCHLORATE4		20210615_010	Perchlorate6850c.lcm	1x	☒	3100810-08	6/15/2021 15:58
5	PERCHLORATE5		20210615_011	Perchlorate6850c.lcm	1x	☒	3100810-09	6/15/2021 16:07
6	PERCHLORATE6		20210615_012	Perchlorate6850c.lcm	1x	☒	3100811-01	6/15/2021 16:15
7	PERCHLORATE7		20210615_013	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 16:24
8	PERCHLORATE8		20210615_014	Perchlorate6850c.lcm	1x	☒	3100811-03	6/15/2021 16:32
9	PERCHLORATE9		20210615_015	Perchlorate6850c.lcm	1x	☒	3100811-04	6/15/2021 16:41
10	PERCHLORATE10		20210615_016	Perchlorate6850c.lcm	1x	☒	3100811-05	6/15/2021 16:49
11	PERCHLORATEICV		20210615_017	Perchlorate6850c.lcm	1x	☒	3100811-06	6/15/2021 16:58
12	ICS		20210615_018	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:06
13	LODV		20210615_019	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:15
14	PERCHLORATE7		20210615_020	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 17:23
15	EQ2100354-01		20210615_021	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:52
16	EQ2100354-02		20210615_022	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:00
17	EQ2100354-03		20210615_023	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:09
18	E2100631-001X100		20210615_024	Perchlorate6850c.lcm	100x	☒	DNU-over calibration range	6/15/2021 18:17
19	E2100608-001X100		20210615_025	Perchlorate6850c.lcm	100x	☒		6/15/2021 18:26
20	E2100629-001X10		20210615_026	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:34
21	E2100630-001X10		20210615_027	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:43
22	E2100632-006X100		20210615_028	Perchlorate6850c.lcm	100x	☒	DNU-INST low	6/15/2021 18:52
23	EQ2100357-04X100		20210615_029	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:00
24	EQ2100357-05X100		20210615_030	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:09
25	PERCHLORATE7		20210615_031	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 19:17
26	E2100644-001X1000		20210615_032	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:26
27	E2100644-002X100		20210615_033	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:34
28	E2100644-003X1000		20210615_034	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:43
29	E2100644-004X1000		20210615_035	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:51
30	E2100644-005X100		20210615_036	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:00
31	E2100644-006X100		20210615_037	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:09
32	E2100644-008X10		20210615_038	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 20:17
33	E2100645-001X100		20210615_039	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:26
34	E2100645-002X100		20210615_040	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:34
35	E2100645-003X10		20210615_041	Perchlorate6850c.lcm	10x	☒		6/15/2021 20:43
36	PERCHLORATE7		20210615_042	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 20:51
37	E2100645-006X10		20210615_043	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 21:00
38	E2100645-007X1000		20210615_044	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:08
39	E2100645-008X1000		20210615_045	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:17
40	PERCHLORATE7		20210615_046	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 21:25
41	EQ2100354-04		20210615_047	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:34
42	EQ2100354-05		20210615_048	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:42
43	E2100632-001		20210615_049	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:51
44	E2100632-002		20210615_050	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:59
45	E2100632-003		20210615_051	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:08
46	E2100632-004		20210615_052	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:17
47	PERCHLORATE7		20210615_053	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 22:25
48	E2100632-005		20210615_054	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:34
49	E2100632-007		20210615_055	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:42
50	EQ2100357-01		20210615_056	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:51
51	EQ2100357-02		20210615_057	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:59
52	EQ2100357-03		20210615_058	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:08
53	E2100644-007		20210615_059	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:16
54	E2100644-009		20210615_060	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:25
55	E2100645-004		20210615_061	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:33
56	E2100645-005		20210615_062	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:42
57	PERCHLORATE7		20210615_063	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 23:50
58	EQ2100358-01		20210615_064	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:59
59	EQ2100358-02		20210615_065	Perchlorate6850c.lcm	1x	☒		6/16/2021 0:08
60	EQ2100358-03		20210615_066	Perchlorate6850c.lcm	1x	☒	Reanalyze	6/16/2021 0:16
61	E2100645-017		20210615_067	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:25
62	E2100645-019		20210615_068	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:33
63	E2100645-022		20210615_069	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:42
64	E2100645-023		20210615_070	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:50

20210615

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
65	PERCHLORATE7		20210615_071	Perchlorate6850c.lcm	1x	☒	3100811-02	6/16/2021 0:59

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_020

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.14	0.1057	0.09659	-8.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_031

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.15	0.1057	0.09669	-8.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_042

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.09	0.1057	0.09609	-9.1	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_046

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.03	0.1057	0.09546	-9.7	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_053

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	8.82	0.1057	0.09319	-11.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_063

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.34	0.1057	0.09869	-6.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060148

Service Request: E2100608
Date Analyzed: 6/16/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_071

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.17	0.1057	0.09692	-8.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 17:23

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_020	**Lab Code:**	EQ2100361-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-01	91,410	2.80
Method Blank	EQ2100354-01	132,232	2.80
Lab Control Sample	EQ2100354-02	127,528	2.78
Duplicate Lab Control Sample	EQ2100354-03	129,149	2.78
LH18/24-SP650_060221_BIX	E2100608-001	57,612	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 19:17

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_031	**Lab Code:**	EQ2100361-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-02	98,763	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 20:51

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_042	**Lab Code:**	EQ2100361-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-03	96,816	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 21:25

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_046	**Lab Code:**	EQ2100361-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-04	94,189	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 22:25

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_053	**Lab Code:**	EQ2100361-05
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-05	61,947	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/15/21 23:50

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_063	**Lab Code:**	EQ2100361-06
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-06	55,999	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100608
Project:	HS21060148	**Date Analyzed:**	6/16/21 00:59

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_071	**Lab Code:**	EQ2100361-07
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-07	51,074	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

Insight Report

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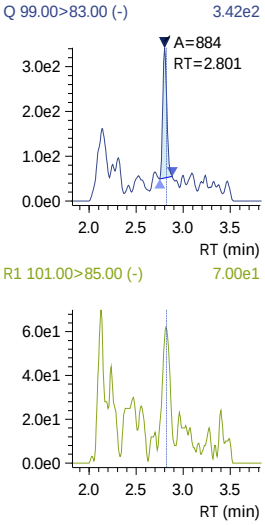
20210615_019

Sample ID: LODV
Date Acquired: 6/15/2021 5:15:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_019.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.801	884	129435	1	0.0646	ng/mL	----	13.59
Sodium Perchlorate-18O4 _IS	Auto	2.803	1294 35	129435	1	1.0000	ng/mL	----	----

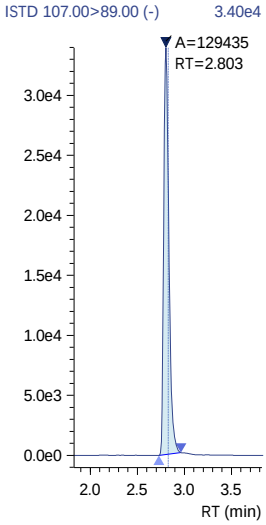
Perchlorate

Conc 0.0646
R#1 13.59 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

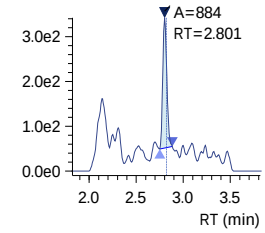
20210615_019

Sample ID: LODV
Date Acquired: 6/15/2021 5:15:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_019.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

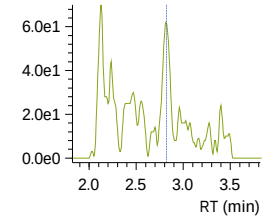
Perchlorate

Conc 0.0658
R#1 13.59 (0.00)

Q 99.00>83.00 (-) 3.42e2



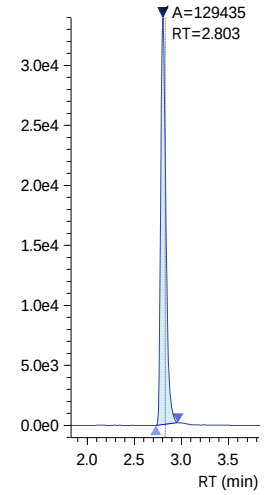
R1 101.00>85.00 (-) 7.00e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.40e4



Insight Report

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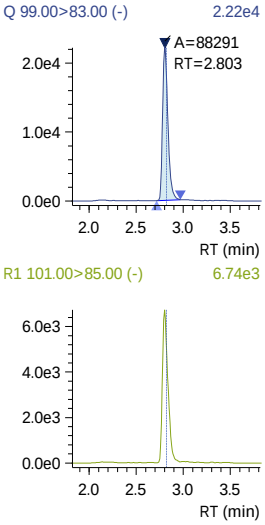
20210615_020

Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 5:23:58 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_020.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.803	88291	91410	1	9.1371	ng/mL	10.0000	30.31
Sodium Perchlorate-18O4 _IS	Auto	2.802	91410	91410	1	1.0000	ng/mL	1.0000	----

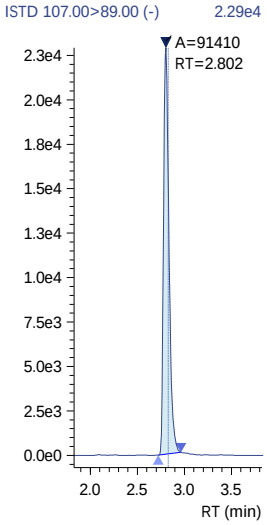
Perchlorate

Conc 9.1371
R#1 30.31 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

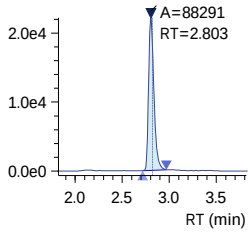
20210615_020

Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 5:23:58 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_020.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

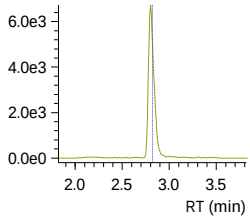
Perchlorate

Conc 9.3094
R#1 30.31 (0.00)

Q 99.00>83.00 (-) 2.22e4



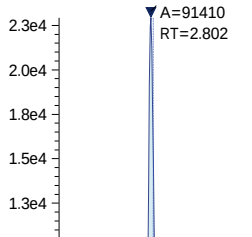
R1 101.00>85.00 (-) 6.74e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.29e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

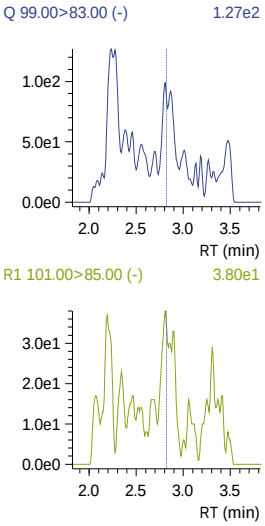
20210615_021

Sample ID: EQ2100354-01
Date Acquired: 6/15/2021 5:52:16 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_021.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	ND(W/B)	----	----	132232	1	----	ng/mL	----	----
Sodium Perchlorate-18O4_IS	M	2.799	132232	132232	1	1.0000	ng/mL	----	----

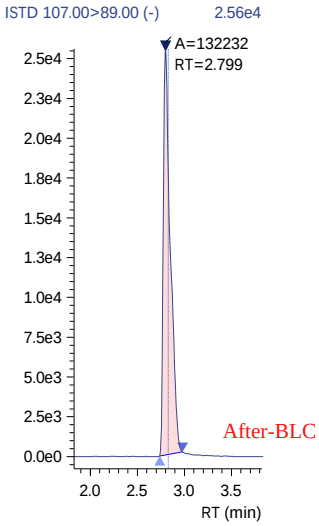
Perchlorate

Conc ----
R#1 ---- (0.00)



Sodium Perchlorate-18O4_IS

Conc 1.0000



After-BLC

Before

Insight Report

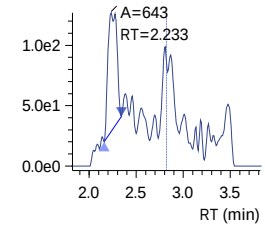
20210615_021

Sample ID: EQ2100354-01
Date Acquired: 6/15/2021 5:52:16 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_021.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 2

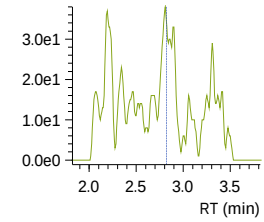
Perchlorate

Conc ----
R#1 ---- (0.00)

Q 99.00>83.00 (-) 1.27e2



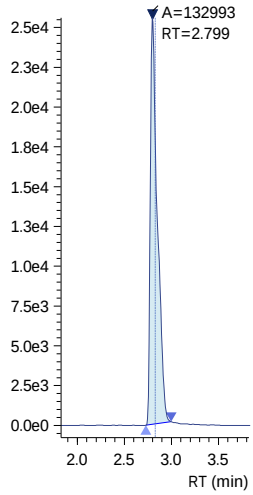
R1 101.00>85.00 (-) 3.80e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.56e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

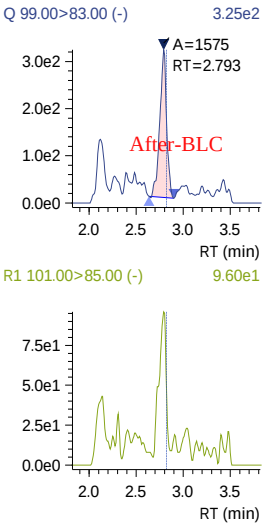
20210615_022

Sample ID: EQ2100354-02
Date Acquired: 6/15/2021 6:00:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_022.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.793	1575	127528	1	0.1168	ng/mL	----	26.05
Sodium Perchlorate-18O4 _IS	M	2.781	1275 28	127528	1	1.0000	ng/mL	----	----

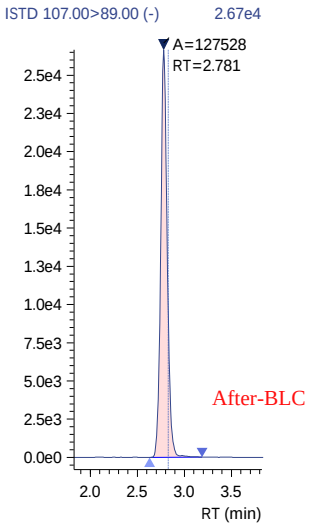
Perchlorate

Conc 0.1168
R#1 26.05 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

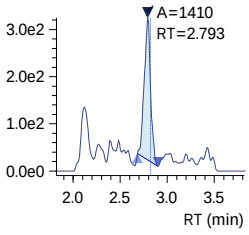
20210615_022

Sample ID: EQ2100354-02
Date Acquired: 6/15/2021 6:00:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_022.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 2

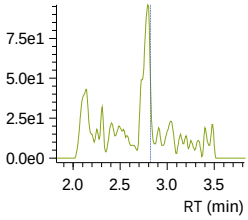
Perchlorate

Conc 0.1080
R#1 28.19 (0.00)

Q 99.00>83.00 (-) 3.25e2



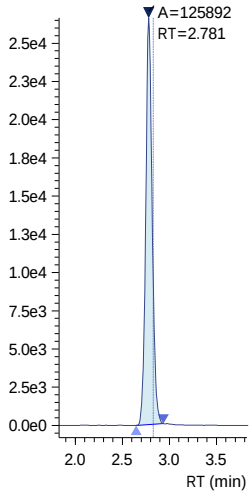
R1 101.00>85.00 (-) 9.60e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.67e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

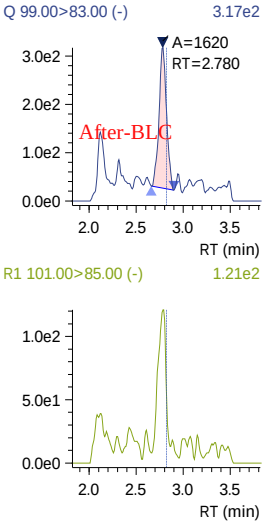
20210615_023

Sample ID: EQ2100354-03
Date Acquired: 6/15/2021 6:09:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_023.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.780	1620	129149	1	0.1187	ng/mL	----	37.63
Sodium Perchlorate-18O4 _IS	M	2.780	1291 49	129149	1	1.0000	ng/mL	----	----

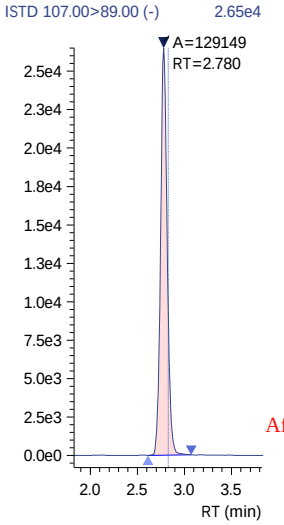
Perchlorate

Conc 0.1187
R#1 37.63 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



After-BLC

Insight Report

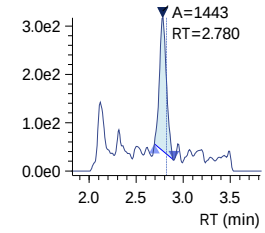
20210615_023

Sample ID: EQ2100354-03
Date Acquired: 6/15/2021 6:09:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_023.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 2

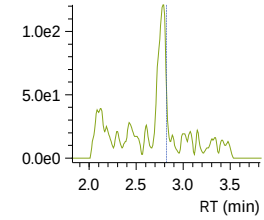
Perchlorate

Conc 0.1090
R#1 37.13 (0.00)

Q 99.00>83.00 (-) 3.17e2



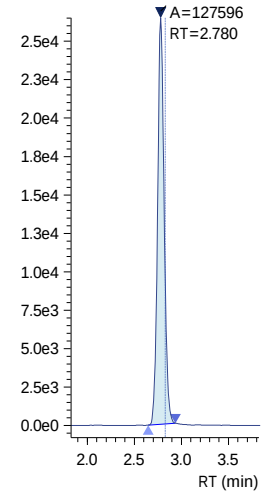
R1 101.00>85.00 (-) 1.21e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.65e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

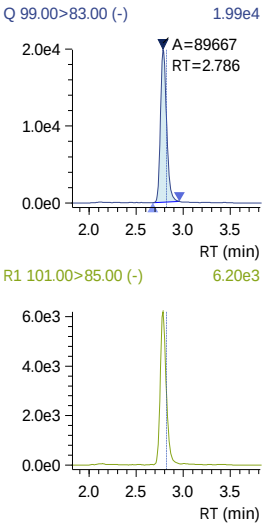
20210615_025

Sample ID: E2100608-001X100
Date Acquired: 6/15/2021 6:26:26 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_025.lcd
Vial: 32 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.786	89667	57612	1	14.7234	ng/mL	----	31.11
Sodium Perchlorate-18O4 _IS	Auto	2.785	57612	57612	1	1.0000	ng/mL	----	----

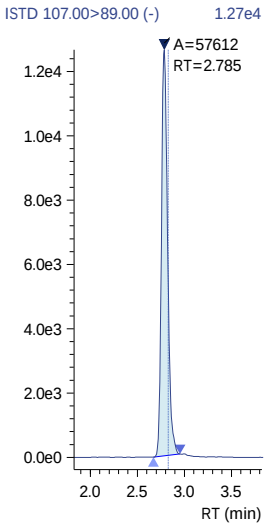
Perchlorate

Conc 14.7234
R#1 31.11 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

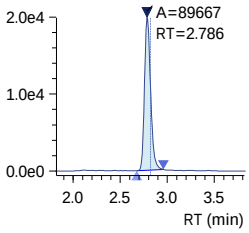
20210615_025

Sample ID: E2100608-001X100
Date Acquired: 6/15/2021 6:26:26 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_025.lcd
Vial: 32 | Inj. Volume: 25.0000uL | Tray: 2

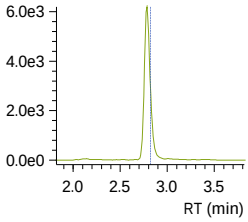
Perchlorate

Conc 15.0012
R#1 31.11 (0.00)

Q 99.00>83.00 (-) 1.99e4



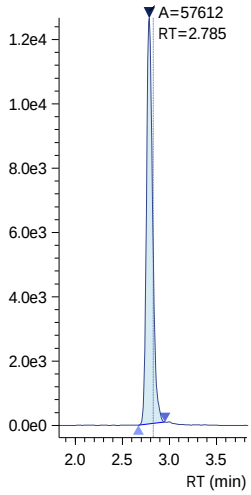
R1 101.00>85.00 (-) 6.20e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.27e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

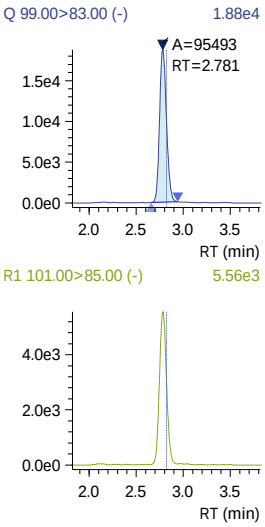
20210615_031

Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 7:17:47 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_031.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.781	95493	98763	1	9.1466	ng/mL	10.0000	29.24
Sodium Perchlorate-18O4 _IS	Auto	2.781	98763	98763	1	1.0000	ng/mL	1.0000	----

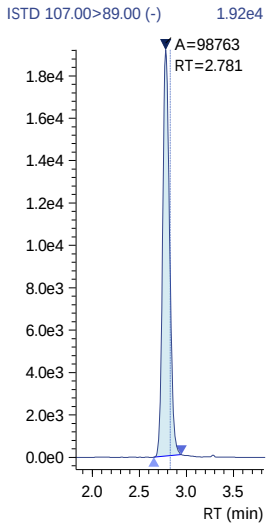
Perchlorate

Conc 9.1466
R#1 29.24 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

Printed at 6/17/2021 2:00:46 PM

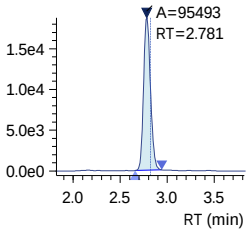
20210615_031

Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 7:17:47 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_031.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

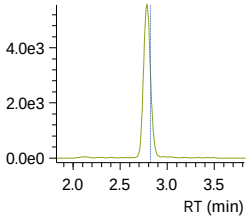
Perchlorate

Conc 9.3192
R#1 29.24 (0.00)

Q 99.00>83.00 (-) 1.88e4



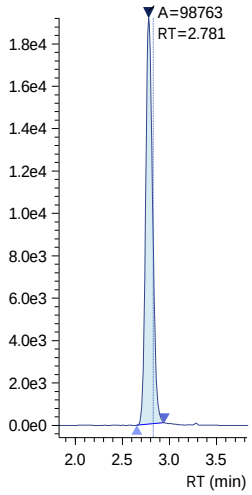
R1 101.00>85.00 (-) 5.56e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.92e4



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WorkOrder: HS21060186

Longhorn GW Treatment Plant Bi Weekly Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

30-Jul-2021

ALS Environmental
ALS Group USA, Corp
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Table of Contents

HS21060186 Cover Page
- CoverPage
- HS21060186 Longhorn GW Treatment Plant Bi Weekly Samples Final
  - CoverLetter
  - Sample Summary
  - CaseNarrative
  - LH18/24-SP650_060221
  - Trip Blank
  - Dates Report
  - QC
  - Acronyms
  - Certifications
  - Sample Tracking Record
  - SampleReceiptCheckList
  - COC
- HS21060186 8260_W_DOD Raw Data
- HS21060186 Wet Chem Raw Data (9056_anions_W)

HS21060186 Longhorn GW Treatment Plant Bi Weekly Samples Final

ALS WO# HS21060186

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June 14, 2021

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS21060186**

Laboratory Results for: **Longhorn GW Treatment Plant Bi Weekly Samples**

Dear Marcia Olive,

ALS Environmental received 2 sample(s) on Jun 03, 2021 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,



Generated By: JUMOKE.LAWAL
Ragen Giga
Project Manager

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
Work Order: HS21060186

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21060186-01	LH18/24-SP650_060221	Water		02-Jun-2021 14:00	03-Jun-2021 10:30	☐
HS21060186-02	Trip Blank	Water	CG-051121-35	02-Jun-2021 00:00	03-Jun-2021 10:30	☐

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
Work Order: HS21060186

CASE NARRATIVE

GCMS Volatiles by Method SW8260

Batch ID: R385452

Sample ID: HS21060181-06MS

- MS and MSD are for an unrelated sample

WetChemistry by Method SW9056

Batch ID: R385513

Sample ID: HS21060266-02MS

- MS and MSD are for an unrelated sample

Sample ID: HS21060705-01MS

- MS and MSD are for an unrelated sample

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Longhorn GW Treatment Plant Bi Weekly Samples WorkOrder:HS21060186
Sample ID: LH18/24-SP650_060221 Lab ID:HS21060186-01
Collection Date: 02-Jun-2021 14:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,1,2-Tetrachloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:51
1,1,2,2-Tetrachloroethane	1.0	U	0.50	1.0	1.0	ug/L	1	11-Jun-2021 16:51
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:51
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:51
1,1-Dichloropropene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
1,2,3-Trichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	11-Jun-2021 16:51
1,2,3-Trichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	11-Jun-2021 16:51
1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	11-Jun-2021 16:51
1,2,4-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:51
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:51
1,2-Dichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	11-Jun-2021 16:51
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:51
1,2-Dichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	11-Jun-2021 16:51
1,3,5-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
1,3-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	11-Jun-2021 16:51
1,3-Dichloropropane	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
1,4-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	11-Jun-2021 16:51
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:51
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	11-Jun-2021 16:51
2-Chlorotoluene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
2-Hexanone	2.0	U	1.0	2.0	2.0	ug/L	1	11-Jun-2021 16:51
4-Chlorotoluene	1.0	U	0.40	1.0	1.0	ug/L	1	11-Jun-2021 16:51
4-Isopropyltoluene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
4-Methyl-2-pentanone	2.0	U	0.70	2.0	2.0	ug/L	1	11-Jun-2021 16:51
Acetone	2.0	U	0.40	2.0	2.0	ug/L	1	11-Jun-2021 16:51
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:51
Bromobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	11-Jun-2021 16:51
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:51
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:51
Bromoform	1.0	U	0.40	1.0	1.0	ug/L	1	11-Jun-2021 16:51
Bromomethane	1.0	U	0.40	1.0	1.0	ug/L	1	11-Jun-2021 16:51
Carbon disulfide	2.0	U	0.60	2.0	2.0	ug/L	1	11-Jun-2021 16:51
Carbon tetrachloride	1.0	U	0.50	1.0	1.0	ug/L	1	11-Jun-2021 16:51
Chlorobenzene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
Chloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Bi Weekly Samples WorkOrder:HS21060186
Sample ID: LH18/24-SP650_060221 Lab ID:HS21060186-01
Collection Date: 02-Jun-2021 14:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:51
cis-1,2-Dichloroethene	**8.9**		**0.20**	**0.50**	**1.0**	**ug/L**	1	11-Jun-2021 16:51
cis-1,3-Dichloropropene	0.50	U	0.10	0.50	1.0	ug/L	1	11-Jun-2021 16:51
Dibromochloromethane	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:51
Dichlorodifluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
Ethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
Hexachlorobutadiene	1.0	U	1.0	1.0	1.0	ug/L	1	11-Jun-2021 16:51
Isopropylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	11-Jun-2021 16:51
Methylene chloride	2.0	U	0.40	2.0	2.0	ug/L	1	11-Jun-2021 16:51
n-Butylbenzene	1.0	U	0.40	1.0	1.0	ug/L	1	11-Jun-2021 16:51
n-Propylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
Naphthalene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
o-Xylene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
sec-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
Styrene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
tert-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
Tetrachloroethene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:51
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:51
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:51
Trichloroethene	**3.5**		**0.20**	**0.50**	**1.0**	**ug/L**	1	11-Jun-2021 16:51
Trichlorofluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:51
Vinyl chloride	**0.75**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	11-Jun-2021 16:51
Surr: 1,2-Dichloroethane-d4	*93.9*			**0**	*81-118*	*%REC*	*1*	*11-Jun-2021 16:51*
Surr: 4-Bromofluorobenzene	*99.5*			**0**	*85-114*	*%REC*	*1*	*11-Jun-2021 16:51*
Surr: Dibromofluoromethane	*91.2*			**0**	*80-119*	*%REC*	*1*	*11-Jun-2021 16:51*
Surr: Toluene-d8	*102*			**0**	*89-112*	*%REC*	*1*	*11-Jun-2021 16:51*
ANIONS BY SW9056A		**Method:SW9056**						Analyst: YP
Chloride	**237**		**4.00**	**10.0**	**10.0**	**mg/L**	20	12-Jun-2021 01:34
Sulfate	**26.0**		**0.200**	**0.500**	**0.500**	**mg/L**	1	12-Jun-2021 01:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Longhorn GW Treatment Plant Bi Weekly Samples WorkOrder:HS21060186
Sample ID: Trip Blank Lab ID:HS21060186-02
Collection Date: 02-Jun-2021 00:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,1,2-Tetrachloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
1,1,2,2-Tetrachloroethane	1.0	U	0.50	1.0	1.0	ug/L	1	11-Jun-2021 16:30
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
1,1-Dichloropropene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
1,2,3-Trichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	11-Jun-2021 16:30
1,2,3-Trichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	11-Jun-2021 16:30
1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	11-Jun-2021 16:30
1,2,4-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
1,2-Dichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	11-Jun-2021 16:30
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
1,2-Dichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	11-Jun-2021 16:30
1,3,5-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
1,3-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	11-Jun-2021 16:30
1,3-Dichloropropane	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
1,4-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	11-Jun-2021 16:30
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	11-Jun-2021 16:30
2-Chlorotoluene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
2-Hexanone	2.0	U	1.0	2.0	2.0	ug/L	1	11-Jun-2021 16:30
4-Chlorotoluene	1.0	U	0.40	1.0	1.0	ug/L	1	11-Jun-2021 16:30
4-Isopropyltoluene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
4-Methyl-2-pentanone	2.0	U	0.70	2.0	2.0	ug/L	1	11-Jun-2021 16:30
Acetone	2.0	U	0.40	2.0	2.0	ug/L	1	11-Jun-2021 16:30
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
Bromobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	11-Jun-2021 16:30
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
Bromoform	1.0	U	0.40	1.0	1.0	ug/L	1	11-Jun-2021 16:30
Bromomethane	1.0	U	0.40	1.0	1.0	ug/L	1	11-Jun-2021 16:30
Carbon disulfide	2.0	U	0.60	2.0	2.0	ug/L	1	11-Jun-2021 16:30
Carbon tetrachloride	1.0	U	0.50	1.0	1.0	ug/L	1	11-Jun-2021 16:30
Chlorobenzene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
Chloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Longhorn GW Treatment Plant Bi Weekly Samples WorkOrder:HS21060186
Sample ID: Trip Blank Lab ID:HS21060186-02
Collection Date: 02-Jun-2021 00:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
cis-1,3-Dichloropropene	0.50	U	0.10	0.50	1.0	ug/L	1	11-Jun-2021 16:30
Dibromochloromethane	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
Dichlorodifluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
Ethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
Hexachlorobutadiene	1.0	U	1.0	1.0	1.0	ug/L	1	11-Jun-2021 16:30
Isopropylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	11-Jun-2021 16:30
Methylene chloride	2.0	U	0.40	2.0	2.0	ug/L	1	11-Jun-2021 16:30
n-Butylbenzene	1.0	U	0.40	1.0	1.0	ug/L	1	11-Jun-2021 16:30
n-Propylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
Naphthalene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
o-Xylene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
sec-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
Styrene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
tert-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
Tetrachloroethene	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
Trichlorofluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	11-Jun-2021 16:30
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	11-Jun-2021 16:30
Surr: 1,2-Dichloroethane-d4	*92.2*			**0**	*81-118*	*%REC*	*1*	*11-Jun-2021 16:30*
Surr: 4-Bromofluorobenzene	*98.1*			**0**	*85-114*	*%REC*	*1*	*11-Jun-2021 16:30*
Surr: Dibromofluoromethane	*90.0*			**0**	*80-119*	*%REC*	*1*	*11-Jun-2021 16:30*
Surr: Toluene-d8	*103*			**0**	*89-112*	*%REC*	*1*	*11-Jun-2021 16:30*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21060186

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R385452 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS21060186-01	LH18/24-SP650_060221	02 Jun 2021 14:00			11 Jun 2021 16:51	1
HS21060186-02	Trip Blank	02 Jun 2021 00:00			11 Jun 2021 16:30	1
Batch ID: R385513 (0)	**Test Name :** ANIONS BY SW9056A				**Matrix:** Water	
HS21060186-01	LH18/24-SP650_060221	02 Jun 2021 14:00			12 Jun 2021 01:34	20
HS21060186-01	LH18/24-SP650_060221	02 Jun 2021 14:00			12 Jun 2021 01:26	1

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21060186

QC BATCH REPORT

Batch ID: R385452 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-210611** Units: **ug/L** Analysis Date: **11-Jun-2021 13:20**
Client ID: Run ID: **VOA6_385452** SeqNo: **6134131** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1.0	1.0								U
1,1,1-Trichloroethane	0.50	1.0								U
1,1,2,2-Tetrachloroethane	1.0	1.0								U
1,1,2-Trichloroethane	1.0	1.0								U
1,1-Dichloroethane	0.50	1.0								U
1,1-Dichloroethene	0.50	1.0								U
1,1-Dichloropropene	1.0	1.0								U
1,2,3-Trichlorobenzene	1.0	1.0								U
1,2,3-Trichloropropane	1.0	1.0								U
1,2,4-Trichlorobenzene	1.0	1.0								U
1,2,4-Trimethylbenzene	1.0	1.0								U
1,2-Dibromo-3-chloropropane	0.50	1.0								U
1,2-Dibromoethane	0.50	1.0								U
1,2-Dichlorobenzene	1.0	1.0								U
1,2-Dichloroethane	0.50	1.0								U
1,2-Dichloropropane	1.0	1.0								U
1,3,5-Trimethylbenzene	1.0	1.0								U
1,3-Dichlorobenzene	1.0	1.0								U
1,3-Dichloropropane	1.0	1.0								U
1,4-Dichlorobenzene	1.0	1.0								U
2,2-Dichloropropane	0.50	1.0								U
2-Butanone	1.0	2.0								U
2-Chlorotoluene	1.0	1.0								U
2-Hexanone	2.0	2.0								U
4-Chlorotoluene	1.0	1.0								U
4-Isopropyltoluene	1.0	1.0								U
4-Methyl-2-pentanone	2.0	2.0								U
Acetone	2.0	2.0								U
Benzene	0.50	1.0								U
Bromobenzene	1.0	1.0								U
Bromochloromethane	0.50	1.0								U
Bromodichloromethane	0.50	1.0								U
Bromoform	1.0	1.0								U
Bromomethane	1.0	1.0								U

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21060186

QC BATCH REPORT

Batch ID: R385452 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-210611** Units: **ug/L** Analysis Date: **11-Jun-2021 13:20**
Client ID: Run ID: **VOA6_385452** SeqNo: **6134131** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	2.0	2.0								U
Carbon tetrachloride	1.0	1.0								U
Chlorobenzene	1.0	1.0								U
Chloroethane	1.0	1.0								U
Chloroform	0.50	1.0								U
Chloromethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
cis-1,3-Dichloropropene	0.50	1.0								U
Dibromochloromethane	1.0	1.0								U
Dibromomethane	0.50	1.0								U
Dichlorodifluoromethane	1.0	1.0								U
Ethylbenzene	1.0	1.0								U
Hexachlorobutadiene	1.0	1.0								U
Isopropylbenzene	1.0	1.0								U
m,p-Xylene	1.0	2.0								U
Methylene chloride	2.0	2.0								U
Naphthalene	1.0	1.0								U
n-Butylbenzene	1.0	1.0								U
n-Propylbenzene	1.0	1.0								U
o-Xylene	1.0	1.0								U
sec-Butylbenzene	1.0	1.0								U
Styrene	1.0	1.0								U
tert-Butylbenzene	1.0	1.0								U
Tetrachloroethene	1.0	1.0								U
Toluene	0.50	1.0								U
trans-1,2-Dichloroethene	0.50	1.0								U
trans-1,3-Dichloropropene	0.50	1.0								U
Trichloroethene	0.50	1.0								U
Trichlorofluoromethane	1.0	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*45.71*	*1.0*	*50*	*0*	*91.4*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*47.77*	*1.0*	*50*	*0*	*95.5*	*85 - 114*				
Surr: Dibromofluoromethane	*44.37*	*1.0*	*50*	*0*	*88.7*	*80 - 119*				
Surr: Toluene-d8	*52.28*	*1.0*	*50*	*0*	*105*	*89 - 112*				

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21060186

QC BATCH REPORT

Batch ID: R385452 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-210611** Units: **ug/L** Analysis Date: **11-Jun-2021 12:38**
Client ID: Run ID: **VOA6_385452** SeqNo: **6134130** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	19.62	1.0	20	0	98.1	78 - 124				
1,1,1-Trichloroethane	17.19	1.0	20	0	86.0	74 - 131				
1,1,2,2-Tetrachloroethane	21.35	1.0	20	0	107	71 - 121				
1,1,2-Trichloroethane	19.35	1.0	20	0	96.7	80 - 119				
1,1-Dichloroethane	17.42	1.0	20	0	87.1	77 - 125				
1,1-Dichloroethene	15.79	1.0	20	0	79.0	71 - 131				
1,1-Dichloropropene	18.4	1.0	20	0	92.0	78 - 125				
1,2,3-Trichlorobenzene	24.78	1.0	20	0	124	69 - 129				
1,2,3-Trichloropropane	19.25	1.0	20	0	96.2	73 - 122				
1,2,4-Trichlorobenzene	24.54	1.0	20	0	123	69 - 130				
1,2,4-Trimethylbenzene	19.06	1.0	20	0	95.3	76 - 124				
1,2-Dibromo-3-chloropropane	22.73	1.0	20	0	114	62 - 128				
1,2-Dibromoethane	19.82	1.0	20	0	99.1	77 - 121				
1,2-Dichlorobenzene	19.59	1.0	20	0	98.0	80 - 119				
1,2-Dichloroethane	20.36	1.0	20	0	102	73 - 128				
1,2-Dichloropropane	19.14	1.0	20	0	95.7	78 - 122				
1,3,5-Trimethylbenzene	18.36	1.0	20	0	91.8	75 - 124				
1,3-Dichlorobenzene	19.85	1.0	20	0	99.2	80 - 119				
1,3-Dichloropropane	19.66	1.0	20	0	98.3	80 - 119				
1,4-Dichlorobenzene	19.18	1.0	20	0	95.9	79 - 118				
2,2-Dichloropropane	17.98	1.0	20	0	89.9	60 - 139				
2-Butanone	37.73	2.0	40	0	94.3	56 - 143				
2-Chlorotoluene	19.09	1.0	20	0	95.5	79 - 122				
2-Hexanone	39.3	2.0	40	0	98.3	57 - 139				
4-Chlorotoluene	18.58	1.0	20	0	92.9	78 - 122				
4-Isopropyltoluene	18.23	1.0	20	0	91.2	77 - 127				
4-Methyl-2-pentanone	37.67	2.0	40	0	94.2	67 - 130				
Acetone	34.2	2.0	40	0	85.5	39 - 160				
Benzene	19.31	1.0	20	0	96.6	79 - 120				
Bromobenzene	20.12	1.0	20	0	101	80 - 120				
Bromochloromethane	18.52	1.0	20	0	92.6	78 - 123				
Bromodichloromethane	19.27	1.0	20	0	96.3	79 - 125				
Bromoform	20.22	1.0	20	0	101	66 - 130				
Bromomethane	19.51	1.0	20	0	97.5	53 - 141				

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21060186

QC BATCH REPORT

Batch ID: R385452 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-210611** Units: **ug/L** Analysis Date: **11-Jun-2021 12:38**
Client ID: Run ID: **VOA6_385452** SeqNo: **6134130** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	32.75	2.0	40	0	81.9	64 - 133				
Carbon tetrachloride	17.83	1.0	20	0	89.1	72 - 136				
Chlorobenzene	18	1.0	20	0	90.0	82 - 118				
Chloroethane	21.47	1.0	20	0	107	60 - 138				
Chloroform	17.85	1.0	20	0	89.2	79 - 124				
Chloromethane	16.94	1.0	20	0	84.7	50 - 139				
cis-1,2-Dichloroethene	18.59	1.0	20	0	93.0	78 - 123				
cis-1,3-Dichloropropene	20.3	1.0	20	0	102	75 - 124				
Dibromochloromethane	20.21	1.0	20	0	101	74 - 126				
Dibromomethane	19.91	1.0	20	0	99.6	79 - 123				
Dichlorodifluoromethane	17.73	1.0	20	0	88.7	32 - 152				
Ethylbenzene	19.79	1.0	20	0	98.9	79 - 121				
Hexachlorobutadiene	24.14	1.0	20	0	121	66 - 134				
Isopropylbenzene	18.19	1.0	20	0	90.9	72 - 131				
m,p-Xylene	37.46	2.0	40	0	93.7	80 - 121				
Methylene chloride	18.95	2.0	20	0	94.8	74 - 124				
Naphthalene	22.28	1.0	20	0	111	61 - 128				
n-Butylbenzene	18.07	1.0	20	0	90.3	75 - 128				
n-Propylbenzene	18.17	1.0	20	0	90.8	76 - 126				
o-Xylene	19.17	1.0	20	0	95.8	78 - 122				
sec-Butylbenzene	17.36	1.0	20	0	86.8	77 - 126				
Styrene	19.33	1.0	20	0	96.7	78 - 123				
tert-Butylbenzene	17.82	1.0	20	0	89.1	78 - 124				
Tetrachloroethene	19.11	1.0	20	0	95.5	74 - 129				
Toluene	18.09	1.0	20	0	90.5	80 - 121				
trans-1,2-Dichloroethene	17.22	1.0	20	0	86.1	75 - 124				
trans-1,3-Dichloropropene	20.22	1.0	20	0	101	73 - 127				
Trichloroethene	19.82	1.0	20	0	99.1	79 - 123				
Trichlorofluoromethane	15.32	1.0	20	0	76.6	65 - 141				
Vinyl chloride	16.4	1.0	20	0	82.0	58 - 137				
Surr: 1,2-Dichloroethane-d4	*50.92*	*1.0*	*50*	*0*	*102*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*49.28*	*1.0*	*50*	*0*	*98.6*	*85 - 114*				
Surr: Dibromofluoromethane	*48.34*	*1.0*	*50*	*0*	*96.7*	*80 - 119*				
Surr: Toluene-d8	*46.79*	*1.0*	*50*	*0*	*93.6*	*89 - 112*				

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21060186

QC BATCH REPORT

Batch ID: R385452 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21060181-06MS** Units: **ug/L** Analysis Date: **11-Jun-2021 15:06**
Client ID: Run ID: **VOA6_385452** SeqNo: **6134136** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	18.86	1.0	20	0	94.3	78 - 124				
1,1,1-Trichloroethane	16.78	1.0	20	0	83.9	74 - 131				
1,1,2,2-Tetrachloroethane	19.99	1.0	20	0	99.9	71 - 121				
1,1,2-Trichloroethane	18.33	1.0	20	0	91.6	80 - 119				
1,1-Dichloroethane	16.09	1.0	20	0.4628	78.1	77 - 125				
1,1-Dichloroethene	15.81	1.0	20	0	79.0	71 - 131				
1,1-Dichloropropene	18.91	1.0	20	0	94.6	78 - 125				
1,2,3-Trichlorobenzene	21.94	1.0	20	0	110	69 - 129				
1,2,3-Trichloropropane	18.52	1.0	20	0	92.6	73 - 122				
1,2,4-Trichlorobenzene	22.2	1.0	20	0	111	69 - 130				
1,2,4-Trimethylbenzene	18.73	1.0	20	0	93.7	76 - 124				
1,2-Dibromo-3-chloropropane	21.39	1.0	20	0	107	62 - 128				
1,2-Dibromoethane	18.18	1.0	20	0	90.9	77 - 121				
1,2-Dichlorobenzene	18.44	1.0	20	0	92.2	80 - 119				
1,2-Dichloroethane	17.91	1.0	20	0	89.5	73 - 128				
1,2-Dichloropropane	17.69	1.0	20	0	88.4	78 - 122				
1,3,5-Trimethylbenzene	19.14	1.0	20	0	95.7	75 - 124				
1,3-Dichlorobenzene	19.04	1.0	20	0	95.2	80 - 119				
1,3-Dichloropropane	18.31	1.0	20	0	91.6	80 - 119				
1,4-Dichlorobenzene	18.42	1.0	20	0	92.1	79 - 118				
2,2-Dichloropropane	16.91	1.0	20	0	84.6	60 - 139				
2-Butanone	31.43	2.0	40	0	78.6	56 - 143				
2-Chlorotoluene	19.2	1.0	20	0	96.0	79 - 122				
2-Hexanone	39.18	2.0	40	0	98.0	57 - 139				
4-Chlorotoluene	18.46	1.0	20	0	92.3	78 - 122				
4-Isopropyltoluene	19.84	1.0	20	0	99.2	77 - 127				
4-Methyl-2-pentanone	37.09	2.0	40	0	92.7	67 - 130				
Acetone	27.14	2.0	40	0	67.9	39 - 160				
Benzene	17.84	1.0	20	0	89.2	79 - 120				
Bromobenzene	19.52	1.0	20	0	97.6	80 - 120				
Bromochloromethane	16	1.0	20	0	80.0	78 - 123				
Bromodichloromethane	17.55	1.0	20	0	87.8	79 - 125				
Bromoform	18.88	1.0	20	0	94.4	66 - 130				
Bromomethane	16.43	1.0	20	0	82.1	53 - 141				

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21060186

QC BATCH REPORT

Batch ID: R385452 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21060181-06MS** Units: **ug/L** Analysis Date: **11-Jun-2021 15:06**
Client ID: Run ID: **VOA6_385452** SeqNo: **6134136** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	29.31	2.0	40	0	73.3	64 - 133				
Carbon tetrachloride	19.99	1.0	20	0	99.9	72 - 136				
Chlorobenzene	17.7	1.0	20	0	88.5	82 - 118				
Chloroethane	19.34	1.0	20	0	96.7	60 - 138				
Chloroform	15.59	1.0	20	0	77.9	79 - 124				S
Chloromethane	10.21	1.0	20	0	51.1	50 - 139				
cis-1,2-Dichloroethene	16.23	1.0	20	0	81.1	78 - 123				
cis-1,3-Dichloropropene	18.26	1.0	20	0	91.3	75 - 124				
Dibromochloromethane	18.63	1.0	20	0	93.1	74 - 126				
Dibromomethane	17.26	1.0	20	0	86.3	79 - 123				
Dichlorodifluoromethane	10.45	1.0	20	0	52.2	32 - 152				
Ethylbenzene	20	1.0	20	0	100	79 - 121				
Hexachlorobutadiene	23.92	1.0	20	0	120	66 - 134				
Isopropylbenzene	19.77	1.0	20	0	98.9	72 - 131				
m,p-Xylene	37.79	2.0	40	0	94.5	80 - 121				
Methylene chloride	15.4	2.0	20	0	77.0	74 - 124				
Naphthalene	20.42	1.0	20	0	102	61 - 128				
n-Butylbenzene	19.81	1.0	20	0	99.1	75 - 128				
n-Propylbenzene	19.68	1.0	20	0	98.4	76 - 126				
o-Xylene	18.54	1.0	20	0	92.7	78 - 122				
sec-Butylbenzene	20.05	1.0	20	0	100	77 - 126				
Styrene	18.39	1.0	20	0	91.9	78 - 123				
tert-Butylbenzene	19.47	1.0	20	0	97.4	78 - 124				
Tetrachloroethene	21.42	1.0	20	0	107	74 - 129				
Toluene	17.91	1.0	20	0	89.6	80 - 121				
trans-1,2-Dichloroethene	15.55	1.0	20	0	77.7	75 - 124				
trans-1,3-Dichloropropene	18.52	1.0	20	0	92.6	73 - 127				
Trichloroethene	19.89	1.0	20	0	99.4	79 - 123				
Trichlorofluoromethane	15.45	1.0	20	0	77.2	65 - 141				
Vinyl chloride	13.89	1.0	20	0	69.4	58 - 137				
Surr: 1,2-Dichloroethane-d4	*46.25*	*1.0*	*50*	*0*	*92.5*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*50.1*	*1.0*	*50*	*0*	*100*	*85 - 114*				
Surr: Dibromofluoromethane	*45.04*	*1.0*	*50*	*0*	*90.1*	*80 - 119*				
Surr: Toluene-d8	*50.2*	*1.0*	*50*	*0*	*100*	*89 - 112*				

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21060186

QC BATCH REPORT

Batch ID: R385452 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS21060181-06MSD** Units: **ug/L** Analysis Date: **11-Jun-2021 15:27**
Client ID: Run ID: **VOA6_385452** SeqNo: **6134137** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	18.4	1.0	20	0	92.0	78 - 124	18.86	2.49	20	
1,1,1-Trichloroethane	16.42	1.0	20	0	82.1	74 - 131	16.78	2.19	20	
1,1,2,2-Tetrachloroethane	21.73	1.0	20	0	109	71 - 121	19.99	8.34	20	
1,1,2-Trichloroethane	18.6	1.0	20	0	93.0	80 - 119	18.33	1.49	20	
1,1-Dichloroethane	15.96	1.0	20	0.4628	77.5	77 - 125	16.09	0.834	20	
1,1-Dichloroethene	15.13	1.0	20	0	75.6	71 - 131	15.81	4.41	20	
1,1-Dichloropropene	18.55	1.0	20	0	92.7	78 - 125	18.91	1.94	20	
1,2,3-Trichlorobenzene	25.65	1.0	20	0	128	69 - 129	21.94	15.6	20	
1,2,3-Trichloropropane	20.51	1.0	20	0	103	73 - 122	18.52	10.2	20	
1,2,4-Trichlorobenzene	25.16	1.0	20	0	126	69 - 130	22.2	12.5	20	
1,2,4-Trimethylbenzene	19.94	1.0	20	0	99.7	76 - 124	18.73	6.26	20	
1,2-Dibromo-3-chloropropane	24.36	1.0	20	0	122	62 - 128	21.39	13	20	
1,2-Dibromoethane	18.88	1.0	20	0	94.4	77 - 121	18.18	3.78	20	
1,2-Dichlorobenzene	20.23	1.0	20	0	101	80 - 119	18.44	9.27	20	
1,2-Dichloroethane	17.85	1.0	20	0	89.2	73 - 128	17.91	0.321	20	
1,2-Dichloropropane	17.25	1.0	20	0	86.2	78 - 122	17.69	2.52	20	
1,3,5-Trimethylbenzene	20.2	1.0	20	0	101	75 - 124	19.14	5.41	20	
1,3-Dichlorobenzene	20.44	1.0	20	0	102	80 - 119	19.04	7.05	20	
1,3-Dichloropropane	18.51	1.0	20	0	92.6	80 - 119	18.31	1.09	20	
1,4-Dichlorobenzene	19.9	1.0	20	0	99.5	79 - 118	18.42	7.73	20	
2,2-Dichloropropane	16.49	1.0	20	0	82.5	60 - 139	16.91	2.5	20	
2-Butanone	31.29	2.0	40	0	78.2	56 - 143	31.43	0.441	20	
2-Chlorotoluene	20.32	1.0	20	0	102	79 - 122	19.2	5.64	20	
2-Hexanone	41.57	2.0	40	0	104	57 - 139	39.18	5.92	20	
4-Chlorotoluene	19.67	1.0	20	0	98.3	78 - 122	18.46	6.33	20	
4-Isopropyltoluene	21.2	1.0	20	0	106	77 - 127	19.84	6.65	20	
4-Methyl-2-pentanone	39.32	2.0	40	0	98.3	67 - 130	37.09	5.82	20	
Acetone	27.2	2.0	40	0	68.0	39 - 160	27.14	0.194	20	
Benzene	17.42	1.0	20	0	87.1	79 - 120	17.84	2.44	20	
Bromobenzene	20.44	1.0	20	0	102	80 - 120	19.52	4.62	20	
Bromochloromethane	15.93	1.0	20	0	79.6	78 - 123	16	0.475	20	
Bromodichloromethane	17.22	1.0	20	0	86.1	79 - 125	17.55	1.93	20	
Bromoform	19.32	1.0	20	0	96.6	66 - 130	18.88	2.31	20	
Bromomethane	15.41	1.0	20	0	77.1	53 - 141	16.43	6.4	20	

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21060186

QC BATCH REPORT

Batch ID: R385452 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS21060181-06MSD** Units: **ug/L** Analysis Date: **11-Jun-2021 15:27**
Client ID: Run ID: **VOA6_385452** SeqNo: **6134137** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	28.87	2.0	40	0	72.2	64 - 133	29.31	1.51	20	
Carbon tetrachloride	19.1	1.0	20	0	95.5	72 - 136	19.99	4.52	20	
Chlorobenzene	17.83	1.0	20	0	89.2	82 - 118	17.7	0.739	20	
Chloroethane	19.85	1.0	20	0	99.2	60 - 138	19.34	2.56	20	
Chloroform	15.51	1.0	20	0	77.5	79 - 124	15.59	0.535	20	S
Chloromethane	10.3	1.0	20	0	51.5	50 - 139	10.21	0.805	20	
cis-1,2-Dichloroethene	15.86	1.0	20	0	79.3	78 - 123	16.23	2.27	20	
cis-1,3-Dichloropropene	18.01	1.0	20	0	90.0	75 - 124	18.26	1.4	20	
Dibromochloromethane	19.08	1.0	20	0	95.4	74 - 126	18.63	2.41	20	
Dibromomethane	17.8	1.0	20	0	89.0	79 - 123	17.26	3.06	20	
Dichlorodifluoromethane	9.969	1.0	20	0	49.8	32 - 152	10.45	4.69	20	
Ethylbenzene	19.52	1.0	20	0	97.6	79 - 121	20	2.44	20	
Hexachlorobutadiene	25.68	1.0	20	0	128	66 - 134	23.92	7.12	20	
Isopropylbenzene	19.65	1.0	20	0	98.2	72 - 131	19.77	0.614	20	
m,p-Xylene	37.83	2.0	40	0	94.6	80 - 121	37.79	0.114	20	
Methylene chloride	15.4	2.0	20	0	77.0	74 - 124	15.4	0.0377	20	
Naphthalene	25.54	1.0	20	0	128	61 - 128	20.42	22.3	20	R
n-Butylbenzene	21.41	1.0	20	0	107	75 - 128	19.81	7.76	20	
n-Propylbenzene	20.55	1.0	20	0	103	76 - 126	19.68	4.3	20	
o-Xylene	18.51	1.0	20	0	92.5	78 - 122	18.54	0.138	20	
sec-Butylbenzene	21.2	1.0	20	0	106	77 - 126	20.05	5.57	20	
Styrene	18.66	1.0	20	0	93.3	78 - 123	18.39	1.46	20	
tert-Butylbenzene	20.89	1.0	20	0	104	78 - 124	19.47	7.02	20	
Tetrachloroethene	21.29	1.0	20	0	106	74 - 129	21.42	0.591	20	
Toluene	17.92	1.0	20	0	89.6	80 - 121	17.91	0.0683	20	
trans-1,2-Dichloroethene	15.16	1.0	20	0	75.8	75 - 124	15.55	2.51	20	
trans-1,3-Dichloropropene	18.37	1.0	20	0	91.8	73 - 127	18.52	0.798	20	
Trichloroethene	19.44	1.0	20	0	97.2	79 - 123	19.89	2.26	20	
Trichlorofluoromethane	14.69	1.0	20	0	73.5	65 - 141	15.45	4.98	20	
Vinyl chloride	13.1	1.0	20	0	65.5	58 - 137	13.89	5.83	20	
Surr: 1,2-Dichloroethane-d4	*45.56*	*1.0*	*50*	*0*	*91.1*	*81 - 118*	*46.25*	*1.5*	*20*	
Surr: 4-Bromofluorobenzene	*48.67*	*1.0*	*50*	*0*	*97.3*	*85 - 114*	*50.1*	*2.9*	*20*	
Surr: Dibromofluoromethane	*45.03*	*1.0*	*50*	*0*	*90.1*	*80 - 119*	*45.04*	*0.0349*	*20*	
Surr: Toluene-d8	*50.9*	*1.0*	*50*	*0*	*102*	*89 - 112*	*50.2*	*1.37*	*20*	

ALS Houston, US Date: 14-Jun-21

Client:	Bhate Environmental Associates, Inc.
Project:	Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder:	HS21060186

QC BATCH REPORT

Batch ID:	**R385452 (0)**	**Instrument:**	**VOA6**	**Method:**	**VOLATILES ORGANICS BY METHOD 8260C**

The following samples were analyzed in this batch: HS21060186-01 HS21060186-02

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21060186

QC BATCH REPORT

Batch ID: R385513 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **11-Jun-2021 13:26**
Client ID: Run ID: **ICS-Integrion_385513** SeqNo: **6135511** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.500	0.500								U
Sulfate	0.500	0.500								U

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **11-Jun-2021 13:33**
Client ID: Run ID: **ICS-Integrion_385513** SeqNo: **6135512** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.25	0.500	20	0	101	80 - 120				
Sulfate	20.19	0.500	20	0	101	80 - 120				

MS Sample ID: **HS21060705-01MS** Units: **mg/L** Analysis Date: **12-Jun-2021 12:07**
Client ID: Run ID: **ICS-Integrion_385513** SeqNo: **6135551** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	34.02	0.500	10	25.25	87.8	80 - 120				
Sulfate	47.08	0.500	10	39.68	74.1	80 - 120				S

MS Sample ID: **HS21060266-02MS** Units: **mg/L** Analysis Date: **11-Jun-2021 22:36**
Client ID: Run ID: **ICS-Integrion_385513** SeqNo: **6135527** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	5812	5.00	100	6003	-191	80 - 120				SEO
Sulfate	102.6	5.00	100	4.642	97.9	80 - 120				

MSD Sample ID: **HS21060705-01MSD** Units: **mg/L** Analysis Date: **12-Jun-2021 12:14**
Client ID: Run ID: **ICS-Integrion_385513** SeqNo: **6135552** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	34.89	0.500	10	25.25	96.4	80 - 120	34.02	2.52	20	
Sulfate	48.73	0.500	10	39.68	90.5	80 - 120	47.08	3.43	20	

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: HS21060186

QC BATCH REPORT

Batch ID: R385513 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY SW9056A**

MSD Sample ID: **HS21060266-02MSD** Units: **mg/L** Analysis Date: **11-Jun-2021 22:44**
Client ID: Run ID: **ICS-Integrion_385513** SeqNo: **6135528** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	5663	5.00	100	6003	-340	80 - 120	5812	2.59	20	SEO
Sulfate	100	5.00	100	4.642	95.4	80 - 120	102.6	2.49	20	

The following samples were analyzed in this batch: HS21060186-01

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
WorkOrder: **HS21060186**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2020-2021	30-Jun-2021
Louisiana	03087, 2021-2022	30-Jun-2022
North Carolina	624-2021	31-Dec-2021
Oklahoma	2020-165	31-Aug-2021
Texas	T104704231-21-27	30-Apr-2022
Utah	TX026932021-10	31-Jul-2021

ALS Houston, US Date: 14-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Bi Weekly Samples
Work Order: HS21060186

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS21060186-01	LH18/24-SP650_060221	Login	6/3/2021 6:43:51 PM	PJM	WET019
HS21060186-01	LH18/24-SP650_060221	Login	6/3/2021 6:43:51 PM	PJM	VOA019
HS21060186-02	Trip Blank	Login	6/3/2021 6:43:51 PM	PJM	VOA019

ALS Houston, US Date: 14-Jun-21

Sample Receipt Checklist

Work Order ID: HS21060186 **Date/Time Received:** 03-Jun-2021 10:30

Client Name: Bhate Environmental **Received by:** Jared R. Makan

Completed By:	/S/ Pablo Marinez	03-Jun-2021 18:44	**Reviewed by:**	/S/ Corey Grandits	04-Jun-2021 14:30
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **WATER** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes	☑	No	☐	Not Present	☐
Custody seals intact on shipping container/cooler?	Yes	☑	No	☐	Not Present	☐
Custody seals intact on sample bottles?	Yes	☐	No	☐	Not Present	☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes	☐	No	☐	Not Present	☑
Chain of custody present?	Yes	☑	No	☐	1 Page(s)	
Chain of custody signed when relinquished and received?	Yes	☑	No	☐	COC IDs:CLIENT	
Samplers name present on COC?	Yes	☑	No	☐		
Chain of custody agrees with sample labels?	Yes	☑	No	☐		
Samples in proper container/bottle?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		
All samples received within holding time?	Yes	☑	No	☐		
Container/Temp Blank temperature in compliance?	Yes	☑	No	☐		

Temperature(s)/Thermometer(s):	0.7°C UC/C	IR 31
Cooler(s)/Kit(s):	46474	
Date/Time sample(s) sent to storage:	6/3/21 18:50	

Water - VOA vials have zero headspace?	Yes	☑	No	☐	No VOA vials submitted	☐
Water - pH acceptable upon receipt?	Yes	☑	No	☐	N/A	☐
pH adjusted?	Yes	☐	No	☑	N/A	☐
pH adjusted by:						

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210, Houston, Tx. 77099 ATTN: Ragen Gigi

Page 1 of 1

Project: BHATE
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No. NWO1312.0150.0 16.0001

Job:
GROUNDWATER TREATMENT PLANT BI-WEEKLY SAMPLES

Prepared By: Scott Beesinger

P.O Number

HS21060186

Bhate Environmental Associates, Inc.
Longhorn GW Treatment Plant Bi Weekly Samples

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	Analyses: VOC	Analyses: CHLORIDE, SULFATE	Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_060221	Water	06/02/21 / 14:00		3	3		HCL	
LH18/24-SP650_060221	Water	06/02/21 / 14:00		1		1	NONE	
Trip Blank	Water	06/02/21		2	2		HCL	

Additional Remarks: **Standard TAT on other parameters**

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
	06/02/21	14:30		6/2/21	1630						

9For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks

(Word) S:\M-ces\Forms\Chain of Custody - BiWeekly

96474 07C
IR31 CPO

ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

96493

CUSTODY SEAL

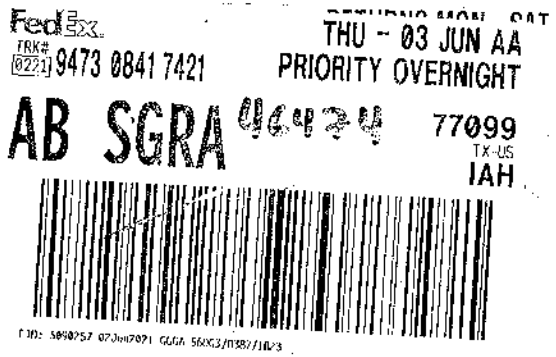
Date: 6/2/21 Time: 1430

Name: Scott Klausner

Company: BHTS

Seal Broken By:

Date: 6-3-21



HS21060186 8260_W_DOD Raw Data

ALS WO# HS21060186

MSVOA06 -Logbook

Batch: 44971 **Analyst:** Presenta Cabascango

Date: 05-26-2021 **Reviewer:**

Method: 8260 **Laboratory:** Houston

Comments:

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	05-26-2021 12:13 pm	1.00	50 mL	50 mL	X052601.D	Liquid	Y	NA
2	VSTD000.25	ICAL1	05-26-2021 12:34 pm	1.00	50 mL	50 mL	X052602.D	Liquid	Y	NA
3	VSTD000.5	ICAL2	05-26-2021 12:55 pm	1.00	50 mL	50 mL	X052603.D	Liquid	Y	NA
4	VSTD001	ICAL3	05-26-2021 01:37 pm	1.00	50 mL	50 mL	X052604.D	Liquid	Y	NA
5	VSTD002	ICAL4	05-26-2021 01:58 pm	1.00	50 mL	50 mL	X052605.D	Liquid	Y	NA
6	VSTD005	ICAL5	05-26-2021 02:19 pm	1.00	50 mL	50 mL	X052606.D	Liquid	Y	NA
7	VSTD020	ICAL6	05-26-2021 02:40 pm	1.00	50 mL	50 mL	X052607.D	Liquid	Y	NA
8	VSTD050	ICAL7	05-26-2021 03:01 pm	1.00	50 mL	50 mL	X052608.D	Liquid	Y	NA
9	VSTD100	ICAL8	05-26-2021 03:22 pm	1.00	50 mL	50 mL	X052609.D	Liquid	Y	NA
10	VSTD150	ICAL9	05-26-2021 03:43 pm	1.00	50 mL	50 mL	X052610.D	Liquid	Y	NA
11	VSTD200	ICAL	05-26-2021 04:04 pm	1.00	50 mL	50 mL	X052611.D	Liquid	Y	NA
12	BLANK	SAMP	05-26-2021 04:25 pm	1.00	50 mL	50 mL	X052612.D	Liquid	Y	NA
13	BLANK	SAMP	05-26-2021 04:46 pm	1.00	50 mL	50 mL	X052613.D	Liquid	Y	NA
14	CCV	CCV	05-26-2021 05:07 pm	1.00	50 mL	50 mL	X052614.D	Liquid	Y	NA
15	BLANK	SAMP	05-26-2021 05:28 pm	1.00	50 mL	50 mL	X052615.D	Liquid	Y	NA
16	VLCSW-210526	LCS	05-26-2021 05:49 pm	1.00	50 mL	50 mL	X052616.D	Liquid	Y	NA
17	BLANK	SAMP	05-26-2021 06:10 pm	1.00	50 mL	50 mL	X052617.D	Liquid	Y	NA
18	VBLKW-210526	MBLK	05-26-2021 06:31 pm	1.00	50 mL	50 mL	X052618.D	Liquid	Y	NA
19	HS21051001-12	SAMP	05-26-2021 06:52 pm	1.00	50 mL	50 mL	X052619.D	Liquid	Y	NA
20	HS21051001-13	SAMP	05-26-2021 07:13 pm	1.00	50 mL	50 mL	X052620.D	Liquid	Y	NA
21	HS21051002-10	SAMP	05-26-2021 07:34 pm	1.00	50 mL	50 mL	X052621.D	Liquid	Y	NA
22	HS21051002-10MS	MS	05-26-2021 07:55 pm	1.00	50 mL	50 mL	X052622.D	Liquid	Y	NA
23	HS21051002-10MSD	MSD	05-26-2021 08:16 pm	1.00	50 mL	50 mL	X052623.D	Liquid	Y	NA
24	HS21051001-03	SAMP	05-26-2021 08:37 pm	10.00	5 mL	50 mL	X052624.D	Liquid	Y	NA
25	HS21051002-11	SAMP	05-26-2021 08:58 pm	1.00	50 mL	50 mL	X052625.D	Liquid	Y	NA
26	HS21051002-12	SAMP	05-26-2021 09:19 pm	1.00	50 mL	50 mL	X052626.D	Liquid	Y	NA
27	HS21051001-07	SAMP	05-26-2021 09:40 pm	5.00	10 mL	50 mL	X052627.D	Liquid	Y	NA
28	HS21051001-07	SAMP	05-26-2021 10:01 pm	25.00	2 mL	50 mL	X052628.D	Liquid	Y	NA
29	HS21051001-14	SAMP	05-26-2021 10:22 pm	50.00	1 mL	50 mL	X052629.D	Liquid	Y	NA
30	HS21051001-14	SAMP	05-26-2021 10:43 pm	1000.0	50 µL	50 mL	X052630.D	Liquid	Y	NA
31	CCV-END	CCV	05-26-2021 11:04 pm	1.00	50 mL	50 mL	X052631.D	Liquid	Y	NA
32	BLANK	SAMP	05-26-2021 11:25 pm	1.00	50 mL	50 mL	X052632.D	Liquid	Y	NA

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060186

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
cis-1,3-Dichloropropene	50.00	49.32	99	80-120
trans-1,3-Dichloroprope	50.00	49.93	100	80-120
1,3-Dichlorobenzene	50.00	48.33	97	80-120
2,2-Dichloropropane	50.00	46.54	93	80-120
1,1-Dichloropropene	50.00	47.74	95	80-120
Dibromomethane	50.00	47.09	94	80-120
1,2-Dibromoethane	50.00	46.02	92	80-120
trans-1,2-Dichloroethen	50.00	45.39	91	80-120
1,1,1,2-Tetrachloroetha	50.00	49.25	98	80-120
1,1,1-Trichloroethane	50.00	45.35	91	80-120
1,1,2,2-Tetrachloroetha	50.00	48.29	96	80-120
1,1,2-Trichloroethane	50.00	46.80	94	80-120
1,1-Dichloroethane	50.00	43.31	87	80-120
1,1-Dichloroethene	50.00	47.05	94	80-120
Trichloroethene	50.00	49.64	99	80-120
1,2,3-Trichlorobenzene	50.00	54.27	108	80-120
Trichlorofluoromethane	50.00	49.37	99	80-120
1,2,4-Trichlorobenzene	50.00	54.38	109	80-120
1,2,4-Trimethylbenzene	50.00	47.26	94	80-120
Tetrachloroethene	50.00	51.72	103	80-120
1,2-Dichlorobenzene	50.00	48.14	96	80-120
1,2-Dichloroethane	50.00	48.52	97	80-120
1,2-Dichloropropane	50.00	47.14	94	80-120
1,3,5-Trimethylbenzene	50.00	48.76	98	80-120
1,3-Dichloropropane	50.00	45.62	91	80-120
1,4-Dichlorobenzene	50.00	47.04	94	80-120
Toluene	50.00	45.98	92	80-120
2-Butanone	100.00	88.97	89	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM III VOA

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060186

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
2-Chlorotoluene	50.00	46.15	92	80-120
2-Hexanone	100.00	93.39	93	80-120
4-Chlorotoluene	50.00	47.27	94	80-120
tert-Butylbenzene	50.00	48.13	96	80-120
4-Methyl-2-Pentanone	100.00	86.96	87	80-120
Acetone	100.00	105.10	105	80-120
Benzene	50.00	47.37	95	80-120
Bromobenzene	50.00	48.43	97	80-120
Bromochloromethane	50.00	45.06	90	80-120
Bromodichloromethane	50.00	46.92	94	80-120
Bromoform	50.00	50.57	101	80-120
Bromomethane	50.00	55.55	111	80-120
Carbon Disulfide	100.00	90.27	90	80-120
Carbon Tetrachloride	50.00	48.83	98	80-120
Chlorobenzene	50.00	46.21	92	80-120
Chloroethane	50.00	50.92	102	80-120
Chloroform	50.00	44.19	88	80-120
Chloromethane	50.00	51.24	102	80-120
cis-1,2-Dichloroethene	50.00	46.52	93	80-120
Dibromochloromethane	50.00	47.87	96	80-120
Dichlorodifluoromethane	50.00	51.43	103	80-120
Ethylbenzene	50.00	50.46	101	80-120
Hexachlorobutadiene	50.00	59.59	119	80-120
Isopropylbenzene	50.00	50.27	100	80-120
m,p-Xylenes	100.00	98.28	98	80-120
Methylene Chloride	50.00	47.68	95	80-120
n-Butylbenzene	50.00	51.17	102	80-120
n-Propylbenzene	50.00	47.26	94	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060186

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
Naphthalene	50.00	52.05	104	80-120
o-Xylene	50.00	48.77	98	80-120
sec-Butylbenzene	50.00	47.77	96	80-120
Styrene	50.00	50.71	101	80-120
Vinyl Chloride	50.00	47.03	94	80-120
1,2,3-Trichloropropane	50.00	59.56	119	80-120
p-Isopropyltoluene	50.00	49.53	99	80-120
1,2-Dibromo-3-Chloropro	50.00	51.36	103	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM III VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060186

Lab File ID: X052601 BFB Injection Date: 05/26/21

Instrument ID: VOA6 BFB Injection Time: 1213

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	47.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	1.2 (1.6)1
174	Greater than 50.0% of mass 95	73.7
175	5.0 - 9.0% of mass 174	5.5 (7.5)1
176	95.0 - 101.0% of mass 174	71.7 (97.3)1
177	5.0 - 9.0% of mass 176	5.8 (8.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD000.25	VSTD000.25	X052602	05/26/21	1234
02	VSTD000.5	VSTD000.5	X052603	05/26/21	1255
03	VSTD001	VSTD001	X052604	05/26/21	1337
04	VSTD002	VSTD002	X052605	05/26/21	1358
05	VSTD005	VSTD005	X052606	05/26/21	1419
06	VSTD020	VSTD020	X052607	05/26/21	1440
07	VSTD050	VSTD050	X052608	05/26/21	1501
08	VSTD100	VSTD100	X052609	05/26/21	1522
09	VSTD150	VSTD150	X052610	05/26/21	1543
10	VSTD200	VSTD200	X052611	05/26/21	1604
11	ICV	ICV	X052614	05/26/21	1707
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060186

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

LAB FILE ID: RF0.25: X052602 RF0.5: X052603 RF1: X052604
RF2: X052605 RF5: X052606 RF20: X052607

COMPOUND	RF0.25	RF0.5	RF1	RF2	RF5	RF20
cis-1,3-Dichloropropene		0.563	0.482	0.444	0.530	0.514
trans-1,3-Dichloropropene		0.459	0.430	0.391	0.438	0.433
1,3-Dichlorobenzene		1.679	1.474	1.452	1.411	1.338
2,2-Dichloropropane		0.729	0.753	0.719	0.743	0.655
1,1-Dichloropropene		0.430	0.438	0.392	0.370	0.369
Dibromomethane		0.247	0.229	0.195	0.240	0.226
1,2-Dibromoethane		0.438	0.372	0.348	0.382	0.354
trans-1,2-Dichloroethene		0.556	0.483	0.471	0.493	0.442
1,1,1,2-Tetrachloroethane		0.429	0.362	0.340	0.364	0.354
1,1,1-Trichloroethane		0.869	0.768	0.758	0.755	0.696
1,1,2,2-Tetrachloroethane		2582	4348	9638	24326	94744
1,1,2-Trichloroethane		0.288	0.267	0.276	0.308	0.262
1,1-Dichloroethane		0.943	0.782	0.838	0.854	0.788
1,1-Dichloroethene		0.564	0.533	0.567	0.525	0.492
Trichloroethene		0.403	0.316	0.338	0.346	0.338
1,2,3-Trichlorobenzene		0.283	0.329	0.316	0.285	0.294
Trichlorofluoromethane		0.970	0.796	1.036	0.976	0.871
1,2,4-Trichlorobenzene		0.471	0.460	0.455	0.471	0.497
1,2,4-Trimethylbenzene		2.805	2.419	2.374	2.134	2.172
Tetrachloroethene		0.340	0.285	0.310	0.288	0.279
1,2-Dichlorobenzene		1.530	1.282	1.414	1.353	1.296
1,2-Dichloroethane		0.458	0.385	0.386	0.421	0.392
1,2-Dichloropropane		0.341	0.282	0.302	0.315	0.285
1,3,5-Trimethylbenzene		2.808	2.273	2.406	2.134	2.139
1,3-Dichloropropane		0.640	0.561	0.508	0.574	0.527
1,4-Dichlorobenzene		1.766	1.630	1.520	1.456	1.390
Toluene		1.818	1.510	1.502	1.457	1.334
2-Butanone		0.176	0.151	0.149	0.151	0.148
2-Chlorotoluene		2.084	2.024	2.165	1.975	1.822
2-Hexanone		0.202	0.181	0.159	0.197	0.181
4-Chlorotoluene		2.618	2.412	2.415	2.145	2.100
tert-Butylbenzene		2.327	1.957	2.145	1.845	1.855
4-Methyl-2-Pentanone		0.338	0.320	0.271	0.292	0.269
Acetone		5938	6356	9004	15534	45478
Benzene		1.346	1.154	1.195	1.196	1.116
Bromobenzene		0.907	0.845	0.895	0.828	0.820
Bromochloromethane		0.324	0.327	0.293	0.333	0.304
Bromodichloromethane		0.478	0.441	0.440	0.454	0.419
Bromoform		0.270	0.286	0.249	0.247	0.258
Bromomethane		2714	5134	10705	24597	81986
Carbon Disulfide		1.596	1.170	1.322	1.248	1.165
Carbon Tetrachloride		0.452	0.426	0.444	0.402	0.386
Chlorobenzene		1.360	1.043	1.008	1.031	0.964
Chloroethane		1981	3557	6715	15071	58283

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2106018

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

LAB FILE ID: RF0.25: X052602 RF0.5: X052603 RF1: X052604
RF2: X052605 RF5: X052606 RF20: X052607

COMPOUND	RF0.25	RF0.5	RF1	RF2	RF5	RF20
Chloroform		1.051	0.854	0.901	0.981	0.851
Chloromethane		2318	4657	9388	23565	83965
cis-1,2-Dichloroethene		0.434	0.571	0.579	0.574	0.536
Dibromochloromethane		0.477	0.388	0.368	0.408	0.398
Dichlorodifluoromethane		2066	3382	8466	18295	78750
Ethylbenzene		0.530	0.453	0.476	0.484	0.469
Hexachlorobutadiene		1178	1684	3790	8556	34297
Isopropylbenzene		1.794	1.329	1.481	1.308	1.350
m,p-Xylenes		0.748	0.576	0.610	0.589	0.586
Methylene Chloride		3718	5537	9737	21744	78742
n-Butylbenzene		2.088	1.860	1.974	1.724	1.817
n-Propylbenzene		3.822	3.401	3.438	2.900	2.957
Naphthalene		0.732	0.741	0.714	0.673	0.734
o-Xylene		0.712	0.592	0.576	0.596	0.571
sec-Butylbenzene		3.355	2.559	2.858	2.427	2.460
Styrene		1.143	0.928	0.885	0.945	0.954
Vinyl Chloride		0.488	0.725	0.692	0.637	0.574
1,2,3-Trichloropropane		0.744	0.649	0.642	0.654	0.633
p-Isopropyltoluene		2.903	2.250	2.461	2.047	2.138
1,2-Dibromo-3-Chloropropane		75	420	630	2323	9854
1,2-Dichloroethane-d4		2577	4768	8542	21575	79438
Dibromofluoromethane		2388	4774	8033	21089	83421
Toluene-d8		1.572	1.496	1.177	1.238	1.162
4-Bromofluorobenzene		3467	6016	10368	25524	97463

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2106018

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

LAB FILE ID: RF50: X052608 RF100: X052609 RF150: X052610
RF200: X052611

COMPOUND	RF50	RF100	RF150	RF200
cis-1,3-Dichloropropene	0.503	0.509	0.502	0.512
trans-1,3-Dichloropropene	0.431	0.448	0.444	0.458
1,3-Dichlorobenzene	1.264	1.366	1.320	1.389
2,2-Dichloropropane	0.630	0.646	0.622	0.659
1,1-Dichloropropene	0.341	0.377	0.354	0.374
Dibromomethane	0.213	0.216	0.210	0.213
1,2-Dibromoethane	0.352	0.359	0.349	0.358
trans-1,2-Dichloroethene	0.443	0.444	0.425	0.445
1,1,1,2-Tetrachloroethane	0.352	0.375	0.367	0.384
1,1,1-Trichloroethane	0.673	0.710	0.688	0.733
1,1,2,2-Tetrachloroethane	241138	539471	832157	1217789
1,1,2-Trichloroethane	0.257	0.260	0.256	0.263
1,1-Dichloroethane	0.746	0.727	0.699	0.736
1,1-Dichloroethene	0.466	0.492	0.481	0.515
Trichloroethene	0.332	0.345	0.328	0.343
1,2,3-Trichlorobenzene	0.281	0.298	0.309	0.329
Trichlorofluoromethane	0.817	0.903	0.857	0.896
1,2,4-Trichlorobenzene	0.472	0.524	0.533	0.564
1,2,4-Trimethylbenzene	2.004	2.223	2.158	2.235
Tetrachloroethene	0.268	0.331	0.323	0.345
1,2-Dichlorobenzene	1.250	1.367	1.343	1.372
1,2-Dichloroethane	0.383	0.384	0.380	0.396
1,2-Dichloropropane	0.280	0.283	0.276	0.286
1,3,5-Trimethylbenzene	1.957	2.236	2.185	2.288
1,3-Dichloropropane	0.505	0.513	0.502	0.518
1,4-Dichlorobenzene	1.310	1.404	1.357	1.411
Toluene	1.302	1.393	1.361	1.459
2-Butanone	0.155	0.153	0.140	0.145
2-Chlorotoluene	1.630	1.741	1.680	1.723
2-Hexanone	0.175	0.193	0.186	0.196
4-Chlorotoluene	1.957	2.131	2.093	2.186
tert-Butylbenzene	1.600	1.949	1.866	1.966
4-Methyl-2-Pentanone	0.260	0.279	0.275	0.287
Acetone	109289	231561	361295	519345
Benzene	1.090	1.098	1.059	1.083
Bromobenzene	0.755	0.805	0.796	0.816
Bromochloromethane	0.294	0.284	0.277	0.285
Bromodichloromethane	0.409	0.408	0.406	0.413
Bromoform	0.276	0.304	0.304	0.314
Bromomethane	208957	464431	786302	
Carbon Disulfide	1.136	1.147	1.072	1.137
Carbon Tetrachloride	0.366	0.424	0.405	0.425
Chlorobenzene	0.930	1.002	0.987	1.042
Chloroethane	169882	322237	494207	731139

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2106018

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

LAB FILE ID: RF50: X052608 RF100: X052609 RF150: X052610
RF200: X052611

COMPOUND	RF50	RF100	RF150	RF200
Chloroform	0.830	0.818	0.796	0.831
Chloromethane	214824	427715	633860	908675
cis-1,2-Dichloroethene	0.516	0.508	0.488	0.510
Dibromochloromethane	0.401	0.420	0.413	0.431
Dichlorodifluoromethane	189027	442975	654875	978413
Ethylbenzene	0.442	0.494	0.472	0.502
Hexachlorobutadiene	87915	268099	433230	655226
Isopropylbenzene	1.289	1.551	1.510	1.593
m,p-Xylenes	0.565	0.650	0.634	0.674
Methylene Chloride	199728	421178	646121	946394
n-Butylbenzene	1.665	2.125	2.071	2.181
n-Propylbenzene	2.652	3.027	2.828	3.045
Naphthalene	0.682	0.703	0.703	0.749
o-Xylene	0.556	0.621	0.618	0.651
sec-Butylbenzene	2.130	2.640	2.537	2.663
Styrene	0.978	1.102	1.092	1.152
Vinyl Chloride	0.550	0.558	0.537	0.564
1,2,3-Trichloropropane	0.581	0.580	0.556	0.570
p-Isopropyltoluene	1.968	2.363	2.285	2.392
1,2-Dibromo-3-Chloropropane	26546	62281	97075	144783
1,2-Dichloroethane-d4	202707	450261	696836	998694
Dibromofluoromethane	198305	469782	715769	1043408
Toluene-d8	1.035	1.206	1.127	1.195
4-Bromofluorobenzene	243279	606080	931244	1352939

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2106018

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

COMPOUND	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
cis-1,3-Dichloropropene	AVRG		0.50650854		6.388	15.000
trans-1,3-Dichloropropene	AVRG		0.43694869		4.647	15.000
1,3-Dichlorobenzene	AVRG		1.41029902		8.507	15.000
2,2-Dichloropropane	AVRG		0.68406039		7.525	15.000
1,1-Dichloropropene	AVRG		0.38294444		8.481	15.000
Dibromomethane	AVRG		0.22118034		7.360	15.000
1,2-Dibromoethane	AVRG		0.36812214		7.741	15.000
trans-1,2-Dichloroethene	AVRG		0.46686379		8.551	15.000
1,1,1,2-Tetrachloroethane	AVRG		0.36976577		6.936	15.000
1,1,1-Trichloroethane	AVRG		0.73890640		8.017	15.000
1,1,2,2-Tetrachloroethane	LINR	-2.39e-002	1.48234879		0.9995765	0.9900000
1,1,2-Trichloroethane	AVRG		0.27085272		6.305	15.000
1,1-Dichloroethane	AVRG		0.79045824		9.700	15.000
1,1-Dichloroethene	AVRG		0.51503132		6.878	15.000
Trichloroethene	AVRG		0.34316996		7.076	15.000
1,2,3-Trichlorobenzene	AVRG		0.30268951		6.244	15.000
Trichlorofluoromethane	AVRG		0.90253943		8.713	15.000
1,2,4-Trichlorobenzene	AVRG		0.49434198		7.710	15.000
1,2,4-Trimethylbenzene	AVRG		2.28052238		10.202	15.000
Tetrachloroethene	AVRG		0.30780299		9.261	15.000
1,2-Dichlorobenzene	AVRG		1.35618432		6.087	15.000
1,2-Dichloroethane	AVRG		0.39838777		6.393	15.000
1,2-Dichloropropane	AVRG		0.29431649		7.228	15.000
1,3,5-Trimethylbenzene	AVRG		2.26957979		10.449	15.000
1,3-Dichloropropane	AVRG		0.53857857		8.492	15.000
1,4-Dichlorobenzene	AVRG		1.47165689		9.862	15.000
Toluene	AVRG		1.45969768		10.489	15.000
2-Butanone	AVRG		0.15212279		6.497	15.000
2-Chlorotoluene	AVRG		1.87147769		10.382	15.000
2-Hexanone	AVRG		0.18573488		7.212	15.000
4-Chlorotoluene	AVRG		2.22871518		9.348	15.000
tert-Butylbenzene	AVRG		1.94574941		10.438	15.000
4-Methyl-2-Pentanone	AVRG		0.28792795		8.880	15.000
Acetone	LINR	-0.1192488	8.29690774		0.9998328	0.9900000
Benzene	AVRG		1.14864603		7.713	15.000
Bromobenzene	AVRG		0.82956540		5.737	15.000
Bromochloromethane	AVRG		0.30233090		6.875	15.000
Bromodichloromethane	AVRG		0.42984419		5.798	15.000
Bromoform	AVRG		0.27881115		8.919	15.000
Bromomethane	LINR	3.056e-003	1.93039335		0.9986047	0.9900000
Carbon Disulfide	AVRG		1.22136627		12.937	15.000
Carbon Tetrachloride	AVRG		0.41448436		6.639	15.000
Chlorobenzene	AVRG		1.04086521		12.054	15.000
Chloroethane	LINR	-2.83e-002	2.93277028		0.9979846	0.9900000

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2106018

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

COMPOUND	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
Chloroform	AVRG		0.87928016		9.604	15.000
Chloromethane	LINR	-5.49e-002	2.33480241		0.9978695	0.9900000
cis-1,2-Dichloroethene	AVRG		0.52406781		8.954	15.000
Dibromochloromethane	AVRG		0.41152986		7.456	15.000
Dichlorodifluoromethane	LINR	-4.2e-003	2.18637335		0.9985940	0.9900000
Ethylbenzene	AVRG		0.48019388		5.533	15.000
Hexachlorobutadiene	2ORDR	1.978e-002	3.30529341	-0.4157995	0.9978942	0.9900000
Isopropylbenzene	AVRG		1.46719468		11.350	15.000
m,p-Xylenes	AVRG		0.62598444		9.328	15.000
Methylene Chloride	LINR	-2.66e-002	2.26403519		0.9993950	0.9900000
n-Butylbenzene	AVRG		1.94513549		9.549	15.000
n-Propylbenzene	AVRG		3.11891495		11.698	15.000
Naphthalene	AVRG		0.71451827		3.699	15.000
o-Xylene	AVRG		0.61039840		7.858	15.000
sec-Butylbenzene	AVRG		2.62550633		12.857	15.000
Styrene	AVRG		1.01998348		9.987	15.000
Vinyl Chloride	AVRG		0.59185680		13.042	15.000
1,2,3-Trichloropropane	AVRG		0.62337735		9.428	15.000
p-Isopropyltoluene	AVRG		2.31190973		11.883	15.000
1,2-Dibromo-3-Chloropropane	LINR	1.025e-002	12.4779790		0.9993248	0.9900000
1,2-Dichloroethane-d4	LINR	-1.39e-002	2.12273607		0.9998254	0.9900000
Dibromofluoromethane	LINR	-3.3e-003	2.03856572		0.9993599	0.9900000
Toluene-d8	AVRG		1.24546498		14.000	15.000
4-Bromofluorobenzene	LINR	1.501e-002	2.24316621		0.9989319	0.9900000

FORM VI VOA

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052601.D

Date : 26-MAY-2021 12:13

Client ID: BFB

Instrument: voa6.i

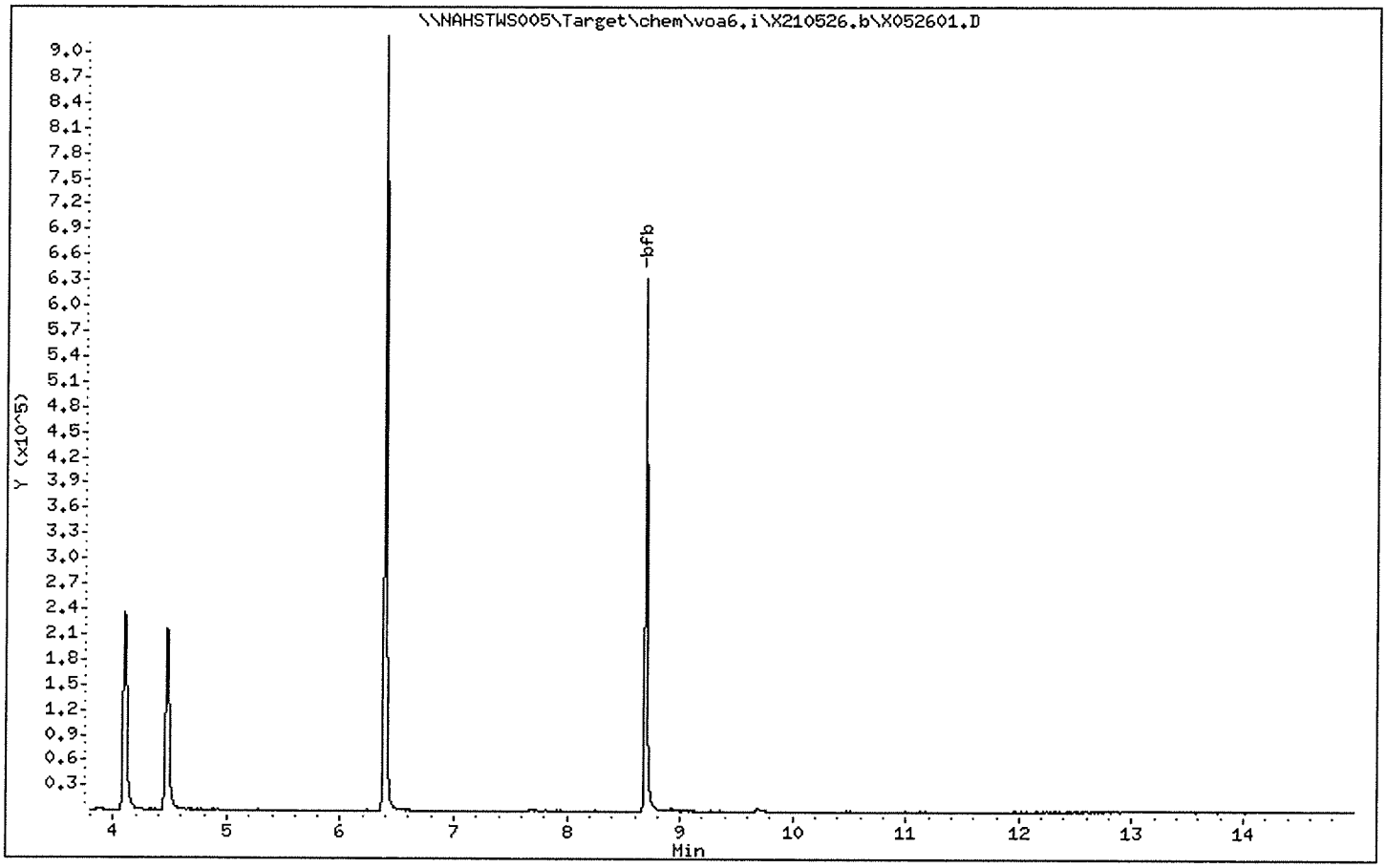
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052601.D

Date : 26-MAY-2021 12:13

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

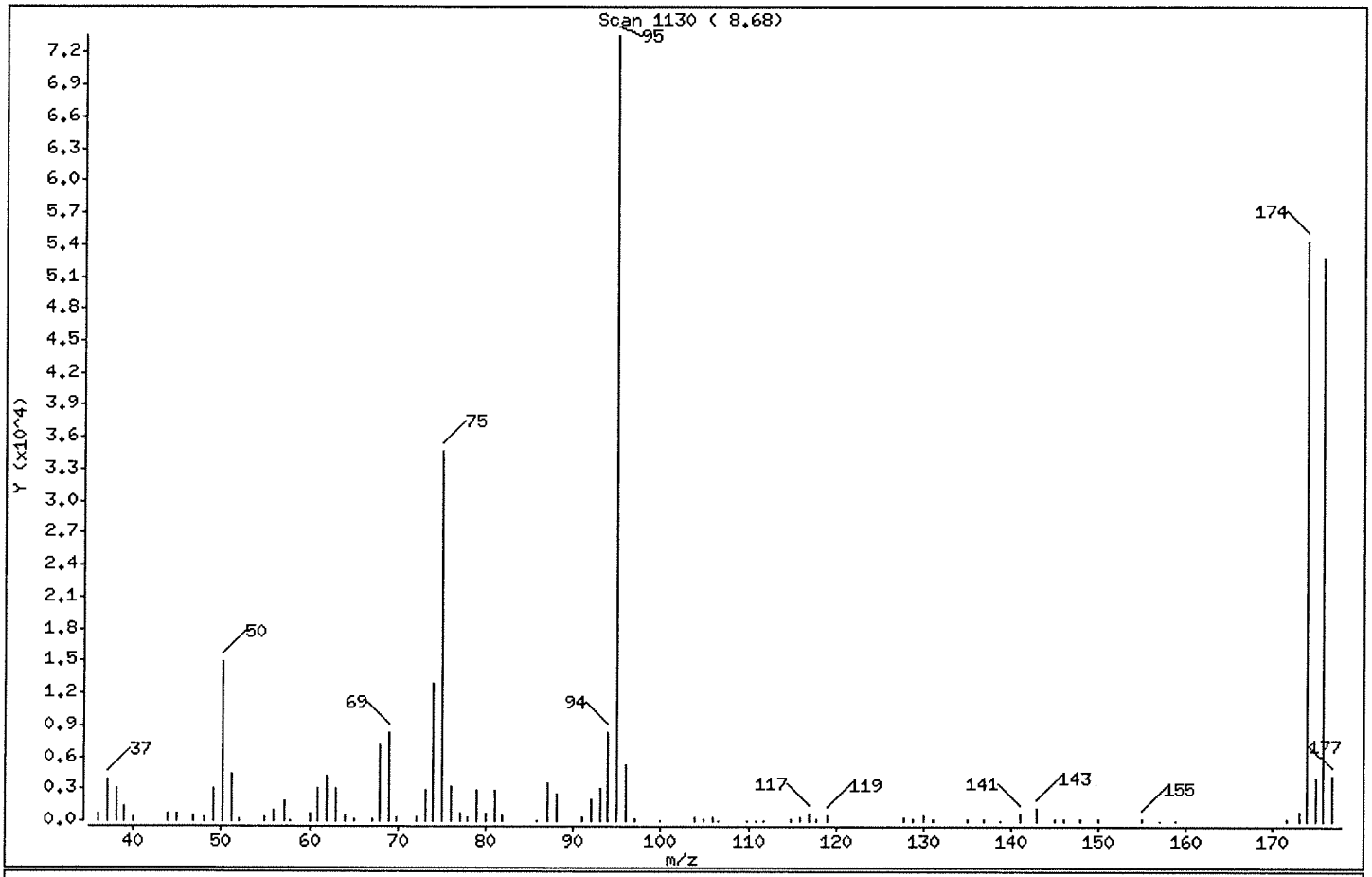
Volume Injected (uL): 2.0

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	20.27
75	30.00 - 60.00% of mass 95	47.11
96	5.00 - 9.00% of mass 95	7.09
173	Less than 2.00% of mass 174	1.21 (1.65)
174	Greater than 50.00% of mass 95	73.71
175	5.00 - 9.00% of mass 174	5.53 (7.50)
176	95.00 - 101.00% of mass 174	71.72 (97.30)
177	5.00 - 9.00% of mass 176	5.80 (8.08)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052601.D

Date : 26-MAY-2021 12:13

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: X052601.D
Spectrum: Scan 1130 (8.68)
Location of Maximum: 95.00
Number of points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	701	64.00	450	92.00	1948	129.90	446
37.10	3860	65.10	94	93.00	3086	131.00	138
38.10	2991	67.10	200	94.00	8371	134.90	242
39.00	1380	68.00	7129	95.00	73600	136.80	249
40.00	299	69.00	8375	96.00	5216	138.80	68
44.00	654	69.90	378	97.00	210	141.00	700
45.00	741	72.10	268	99.90	64	142.90	1171
46.90	575	73.10	2836	103.90	279	144.90	108
48.00	378	74.00	12821	104.90	92	145.90	193
49.00	3035	75.00	34672	106.00	316	147.90	184
50.10	14921	76.00	3178	106.60	79	149.80	96
51.10	4354	77.00	694	109.80	50	154.80	188
52.00	245	78.00	394	111.00	55	157.00	80
54.90	255	78.90	2868	111.80	65	158.80	78
56.00	937	80.00	698	114.90	144	171.70	159
57.10	1853	81.00	2937	115.90	277	173.10	893
57.90	83	81.90	478	117.00	604	173.90	54248
60.00	725	85.90	55	117.80	207	175.00	4070
61.00	3025	87.00	3593	119.00	429	175.90	52784
62.00	4311	88.00	2599	127.80	262	176.90	4266
63.00	3050	90.90	275	128.70	107		

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052602.D
Lab Smp Id: VSTD000.25 Client Smp ID: VSTD000.25
Inj Date : 26-MAY-2021 12:34
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.25;VSTD000.25;1;1;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 16:04 Cal File: X052611.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	426285	50.0000	
*	36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	674139	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	610874	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	290894	50.0000	
$	30 Dibromofluoromethane	113	4.110	4.110	(0.983)	1296	0.25000	0.14(a)
$	35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	1637	0.25000	(Ta)
$	48 Toluene-d8	98	6.395	6.395	(0.834)	5966	0.25000	0.39(Ta)
$	69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	3329	0.25000	1.36(a)
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	990	0.25000	0.21(a)
	31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	1336	0.25000	0.21(a)
	68 1,1,2,2-Tetrachloroethane	83	8.845	8.845	(0.915)	1214	0.25000	(aM)
	53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	753	0.25000	0.22(a)
	22 1,1-Dichloroethane	63	2.929	2.929	(0.700)	2164	0.25000	0.32(Ta)
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	1029	0.25000	0.23(aM)
	32 1,1-Dichloropropene	75	4.290	4.290	(0.863)	1659	0.25000	0.32(a)
	93 1,2,3-Trichlorobenzene	180	11.768	11.768	(1.218)	157	0.25000	0.08(aM)
	71 1,2,3-Trichloropropane	75	8.874	8.874	(0.918)	805	0.25000	0.22(a)
	90 1,2,4-Trichlorobenzene	180	11.381	11.381	(1.178)	419	0.25000	0.14(aM)
	79 1,2,4-Trimethylbenzene	105	9.390	9.390	(0.972)	3370	0.25000	0.25(a)
	57 1,2-Dibromoethane	107	7.269	7.269	(0.948)	996	0.25000	0.22(a)
	88 1,2-Dichlorobenzene	146	9.998	9.998	(1.035)	1981	0.25000	0.25(a)
	33 1,2-Dichloroethane	62	4.562	4.562	(0.918)	1320	0.25000	0.24(a)

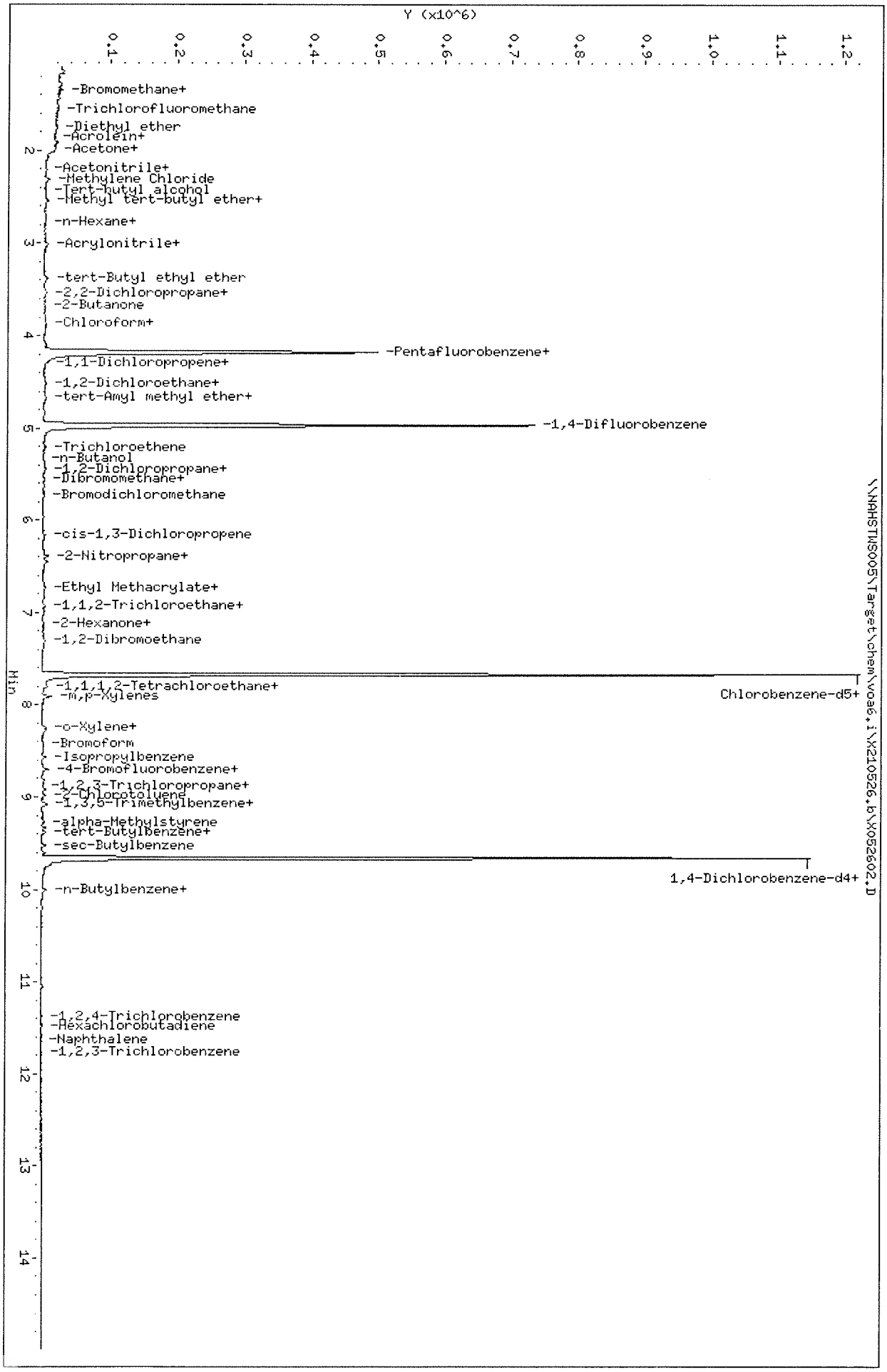
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
42	1,2-Dichloropropane	63	5.436	5.436	(1.094)	942	0.25000	0.23(aM)
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	3546	0.25000	0.26(a)
83	1,3-Dichlorobenzene	146	9.612	9.612	(0.995)	2271	0.25000	0.27(a)
54	1,3-Dichloropropane	76	6.990	6.990	(0.911)	1601	0.25000	0.24(a)
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	2474	0.25000	0.28(a)
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	1764	0.25000	0.30(aM)
24	2-Butanone	43	3.638	3.638	(0.870)	822	0.50000	0.63(aM)
76	2-Chlorotoluene	91	8.981	8.981	(0.930)	3256	0.25000	0.29(a)
52	2-Hexanone	43	7.119	7.119	(0.928)	1338	0.50000	0.58(a)
77	4-Chlorotoluene	91	9.082	9.082	(0.940)	3012	0.25000	0.23(a)
82	p-Isopropyltoluene	119	9.655	9.655	(0.999)	3422	0.25000	0.25(a)
45	4-Methyl-2-Pentanone	43	6.345	6.345	(0.827)	1681	0.50000	0.47(aM)
10	Acetone	43	1.983	1.983	(0.474)	4618	0.50000	(a)
37	Benzene	78	4.519	4.519	(0.909)	4046	0.25000	0.26(a)
74	Bromobenzene	156	8.817	8.817	(0.913)	1145	0.25000	0.23(a)
29	Bromochloromethane	128	3.802	3.802	(0.909)	767	0.25000	0.29(a)
39	Bromodichloromethane	83	5.736	5.736	(1.154)	1481	0.25000	0.25(aM)
66	Bromoform	173	8.415	8.415	(1.097)	607	0.25000	0.17(aM)
6	Bromomethane	94	1.345	1.345	(0.322)	1260	0.25000	0.43(aM)
19	Carbon Disulfide	76	2.069	2.069	(0.495)	5419	0.50000	0.52(a)
34	Carbon Tetrachloride	117	4.268	4.268	(0.859)	1221	0.25000	0.21(aM)
59	Chlorobenzene	112	7.692	7.692	(1.003)	3251	0.25000	0.25(a)
7	Chloroethane	64	1.403	1.403	(0.336)	1049	0.25000	(aM)
28	Chloroform	83	3.910	3.910	(0.935)	1985	0.25000	0.26(a)
3	Chloromethane	50	1.080	1.080	(0.258)	1611	0.25000	(aM)
27	cis-1,2-Dichloroethene	96	3.545	3.545	(0.848)	1299	0.25000	0.29(aM)
46	cis-1,3-Dichloropropene	75	6.166	6.166	(1.241)	1589	0.25000	0.23(a)
55	Dibromochloromethane	129	7.183	7.183	(0.937)	1077	0.25000	0.21(a)
44	Dibromomethane	93	5.557	5.557	(1.118)	652	0.25000	0.21(a)
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	693	0.25000	(aM)
61	Ethylbenzene	106	7.807	7.807	(1.018)	1393	0.25000	0.23(a)
91	Hexachlorobutadiene	225	11.488	11.488	(1.189)	410	0.25000	1.22(aM)
67	Isopropylbenzene	105	8.566	8.566	(1.117)	3777	0.25000	0.21(a)
62	m,p-Xylenes	106	7.907	7.907	(1.031)	4222	0.50000	0.55(a)
17	Methylene Chloride	84	2.305	2.305	(0.551)	2986	0.25000	(aM)
87	n-Butylbenzene	91	10.006	10.006	(1.036)	1824	0.25000	0.16(a)
73	n-Propylbenzene	91	8.917	8.917	(0.923)	4411	0.25000	0.24(a)
92	Naphthalene	128	11.632	11.632	(1.204)	659	0.25000	0.15(a)
63	o-Xylene	106	8.258	8.258	(1.077)	1806	0.25000	0.24(a)
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	3696	0.25000	0.24(a)
64	Styrene	104	8.272	8.272	(1.078)	1997	0.25000	0.16(a)
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	2503	0.25000	0.22(a)
56	Tetrachloroethene	164	6.933	6.933	(0.904)	834	0.25000	0.22(a)
50	Toluene	91	6.453	6.453	(0.841)	5337	0.25000	0.29(aM)
20	trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	1028	0.25000	0.25(a)
51	trans-1,3-Dichloropropene	75	6.696	6.696	(1.347)	1582	0.25000	0.26(a)
38	Trichloroethene	130	5.214	5.214	(1.049)	1200	0.25000	0.25(aM)
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	1786	0.25000	0.23(a)
5	Vinyl Chloride	62	1.138	1.138	(0.272)	1365	0.25000	0.27(aM)

QC Flag Legend

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

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052602.D
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Sample Info: VSTD000.25;VSTD000.25;1;1;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052603.D
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Inj Date : 26-MAY-2021 12:55
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.5;VSTD000.5;1;2;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 12:34 Cal File: X052602.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

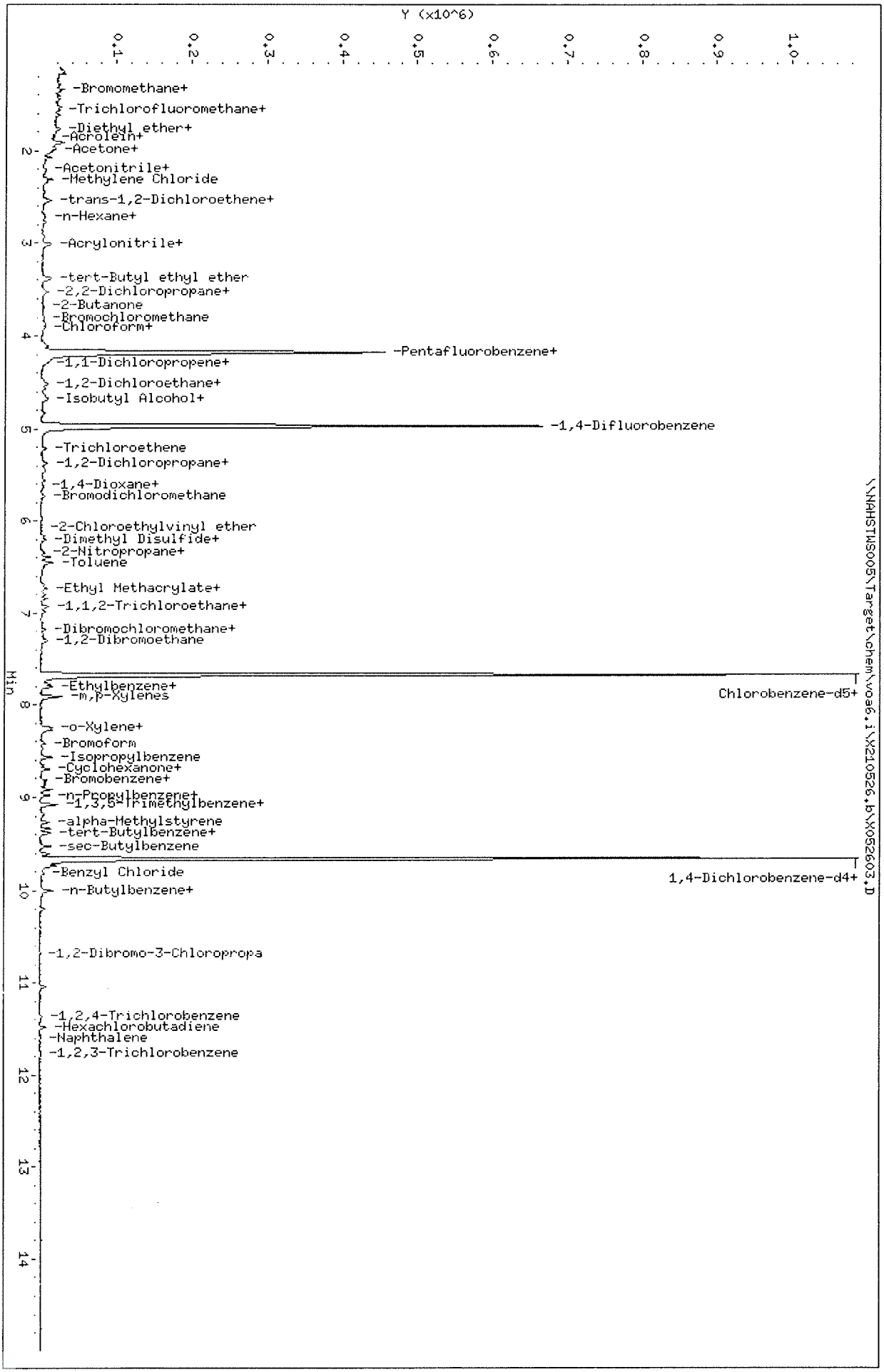
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	388108	50.0000	
*	36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	614574	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	542822	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	263849	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	2388	0.50000	0.46(a)
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	2577	0.50000	0.01(Ta)
$	48 Toluene-d8	98	6.395	6.395	(0.834)	8531	0.50000	0.63(a)
$	69 4-Bromofluorobenzene	95	8.702	8.702	(1.134)	3467	0.50000	1.46(aM)
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	2329	0.50000	0.58(aM)
	31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	3372	0.50000	0.58(a)
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	2582	0.50000	(aM)
	53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	1564	0.50000	0.53(a)
	22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	3660	0.50000	0.59(TaM)
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	2187	0.50000	0.54(aM)
	32 1,1-Dichloropropene	75	4.289	4.289	(0.863)	2646	0.50000	0.56(aM)
	93 1,2,3-Trichlorobenzene	180	11.761	11.761	(1.217)	747	0.50000	0.46(aM)
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	1963	0.50000	0.59(aM)
	90 1,2,4-Trichlorobenzene	180	11.374	11.374	(1.177)	1242	0.50000	0.47(aM)
	79 1,2,4-Trimethylbenzene	105	9.382	9.382	(0.971)	7401	0.50000	0.61(aM)
	89 1,2-Dibromo-3-Chloropropane	155	10.686	10.686	(1.106)	75	0.50000	0.68(aM)
	57 1,2-Dibromoethane	107	7.269	7.269	(0.948)	2378	0.50000	0.59(a)
	88 1,2-Dichlorobenzene	146	10.006	10.006	(1.036)	4037	0.50000	0.56(aM)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33 1,2-Dichloroethane	62	4.562	4.562	(0.918)	2812	0.50000	0.57(a)
42 1,2-Dichloropropane	63	5.436	5.436	(1.094)	2095	0.50000	0.57(aM)
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	7408	0.50000	0.61(a)
83 1,3-Dichlorobenzene	146	9.612	9.612	(0.995)	4429	0.50000	0.59(a)
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	3475	0.50000	0.59(a)
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	4661	0.50000	0.60(aM)
26 2,2-Dichloropropane	77	3.516	3.516	(0.841)	2828	0.50000	0.53(aM)
24 2-Butanone	43	3.623	3.623	(0.866)	1364	1.00000	1.15(aH)
76 2-Chlorotoluene	91	8.981	8.981	(0.930)	5500	0.50000	0.55(aM)
52 2-Hexanone	43	7.105	7.105	(0.926)	2198	1.00000	1.09(aM)
77 4-Chlorotoluene	91	9.074	9.074	(0.939)	6909	0.50000	0.58(aM)
82 p-Isopropyltoluene	119	9.655	9.655	(0.999)	7659	0.50000	0.62(a)
45 4-Methyl-2-Pentanone	43	6.338	6.338	(0.826)	3675	1.00000	1.17(a)
10 Acetone	43	1.983	1.983	(0.474)	5938	1.00000	0.38(a)
37 Benzene	78	4.519	4.519	(0.909)	8273	0.50000	0.58(aM)
74 Bromobenzene	156	8.817	8.817	(0.913)	2394	0.50000	0.54(a)
29 Bromochloromethane	128	3.810	3.810	(0.911)	1259	0.50000	0.53(a)
39 Bromodichloromethane	83	5.729	5.729	(1.153)	2938	0.50000	0.55(aM)
66 Bromoform	173	8.415	8.415	(1.097)	1467	0.50000	0.48(aM)
6 Bromomethane	94	1.338	1.338	(0.320)	2714	0.50000	0.82(aM)
19 Carbon Disulfide	76	2.069	2.069	(0.495)	12392	1.00000	1.30(a)
34 Carbon Tetrachloride	117	4.261	4.261	(0.857)	2781	0.50000	0.54(aH)
59 Chlorobenzene	112	7.699	7.699	(1.004)	7385	0.50000	0.65(a)
7 Chloroethane	64	1.410	1.410	(0.337)	1981	0.50000	(aM)
28 Chloroform	83	3.910	3.910	(0.935)	4079	0.50000	0.59(a)
3 Chloromethane	50	1.080	1.080	(0.258)	2318	0.50000	(aM)
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	1686	0.50000	0.41(aM)
46 cis-1,3-Dichloropropene	75	6.159	6.159	(1.239)	3459	0.50000	0.55(aM)
55 Dibromochloromethane	129	7.176	7.176	(0.936)	2590	0.50000	0.57(a)
44 Dibromomethane	93	5.565	5.565	(1.120)	1521	0.50000	0.55(aM)
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	2066	0.50000	0.37(aM)
61 Ethylbenzene	106	7.807	7.807	(1.018)	2880	0.50000	0.55(a)
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	1178	0.50000	1.72(aM)
67 Isopropylbenzene	105	8.566	8.566	(1.117)	9741	0.50000	0.61(aM)
62 m,p-Xylenes	106	7.907	7.907	(1.031)	8123	1.00000	1.19(a)
17 Methylene Chloride	84	2.305	2.305	(0.551)	3718	0.50000	(a)
87 n-Butylbenzene	91	9.998	9.998	(1.035)	5510	0.50000	0.53(aM)
73 n-Propylbenzene	91	8.917	8.917	(0.923)	10083	0.50000	0.61(aM)
92 Naphthalene	128	11.603	11.603	(1.201)	1931	0.50000	0.51(a)
63 o-Xylene	106	8.243	8.243	(1.075)	3864	0.50000	0.58(a)
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	8852	0.50000	0.63(aM)
64 Styrene	104	8.272	8.272	(1.078)	6206	0.50000	0.56(a)
78 tert-Butylbenzene	119	9.339	9.339	(0.967)	6141	0.50000	0.59(aM)
56 Tetrachloroethene	164	6.933	6.933	(0.904)	1845	0.50000	0.55(aM)
50 Toluene	91	6.453	6.453	(0.841)	9870	0.50000	0.62(aM)
20 trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	2156	0.50000	0.59(a)
51 trans-1,3-Dichloropropene	75	6.696	6.696	(1.347)	2821	0.50000	0.52(a)
38 Trichloroethene	130	5.206	5.206	(1.048)	2475	0.50000	0.58(a)
8 Trichlorofluoromethane	101	1.560	1.560	(0.373)	3764	0.50000	0.53(a)
5 Vinyl Chloride	62	1.138	1.138	(0.272)	1895	0.50000	0.41(aM)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



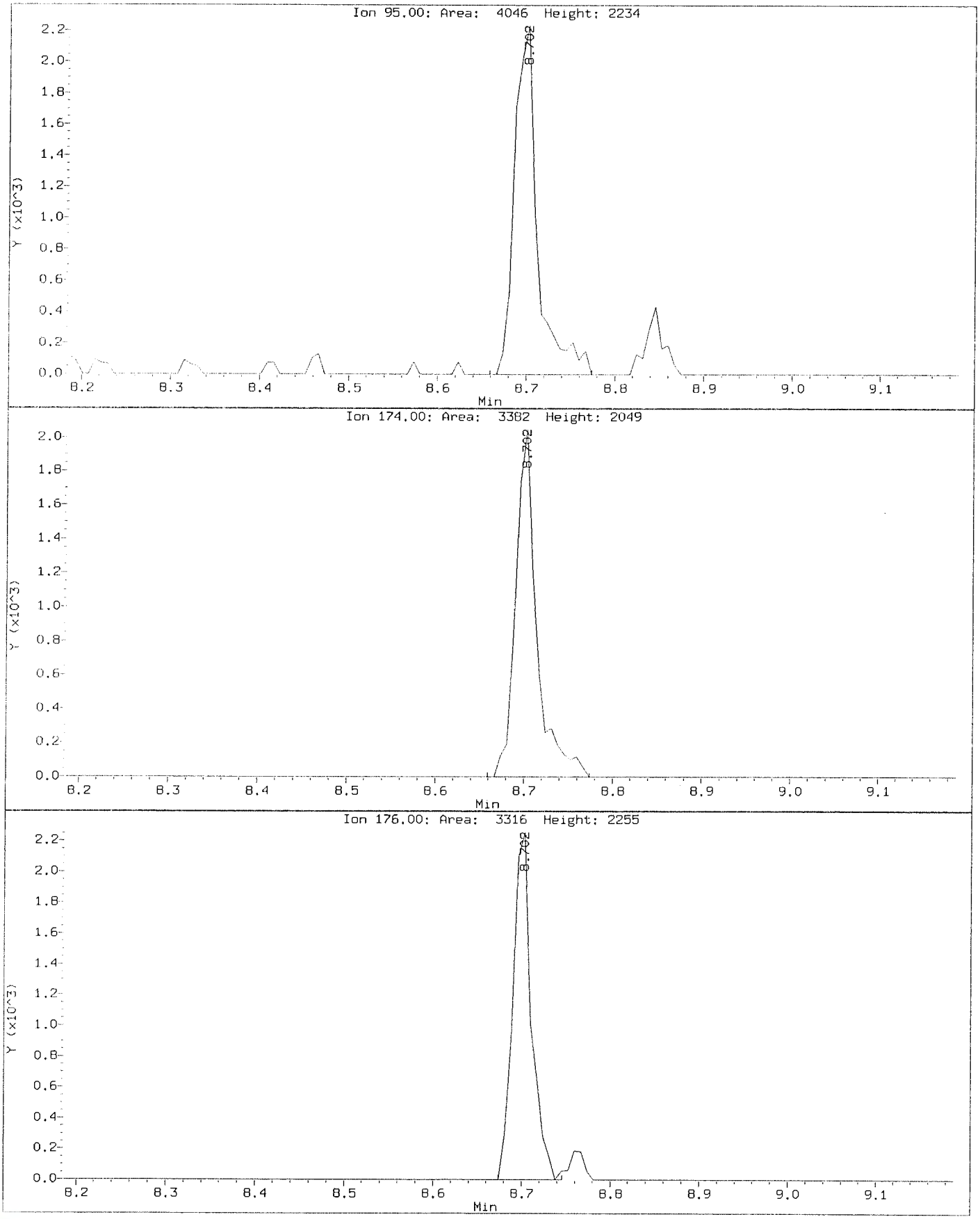
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Sample Info: VSTD000.5;VSTD000.5;1;2;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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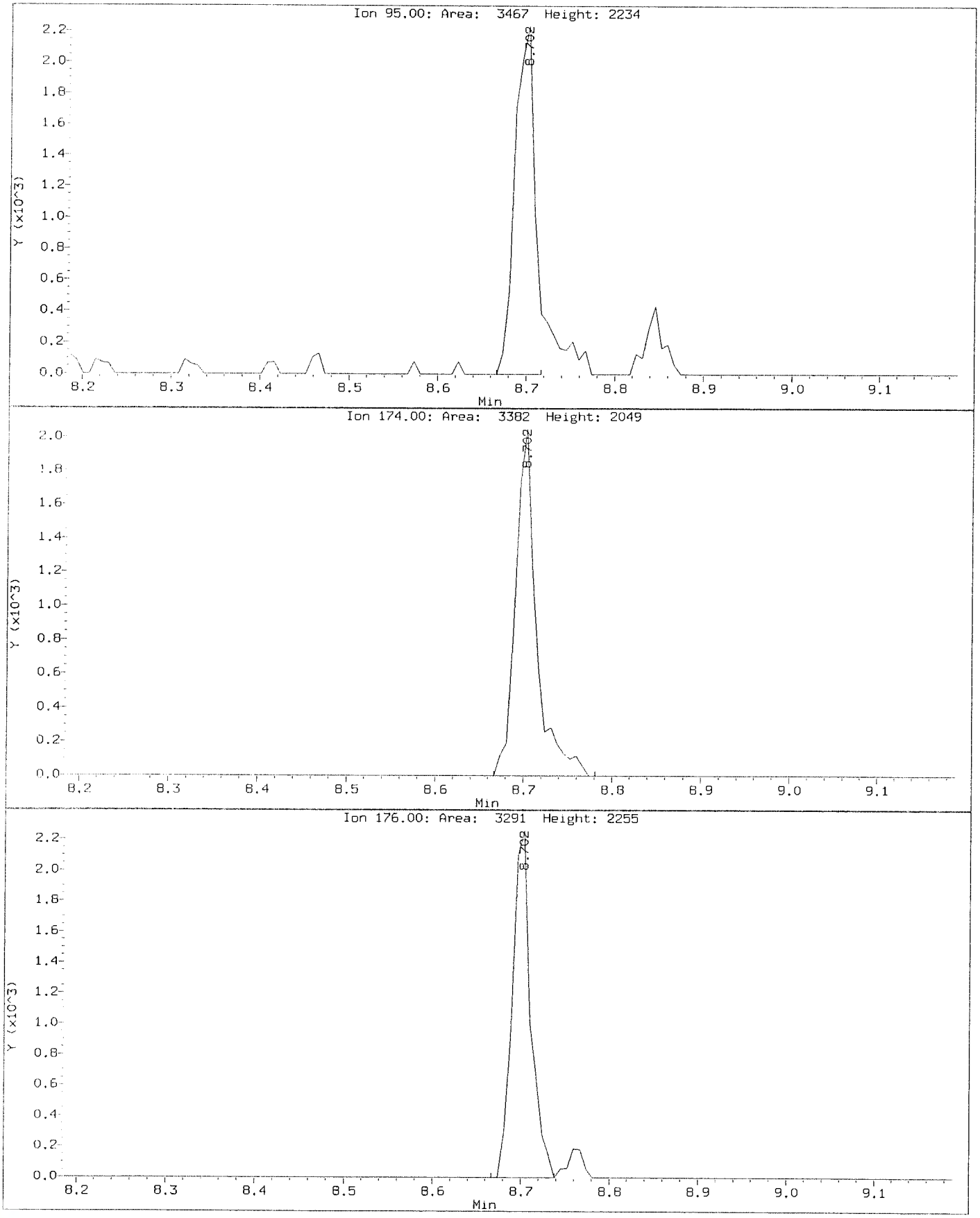
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 4-Bromofluorobenzene
CAS Number: 460-00-4



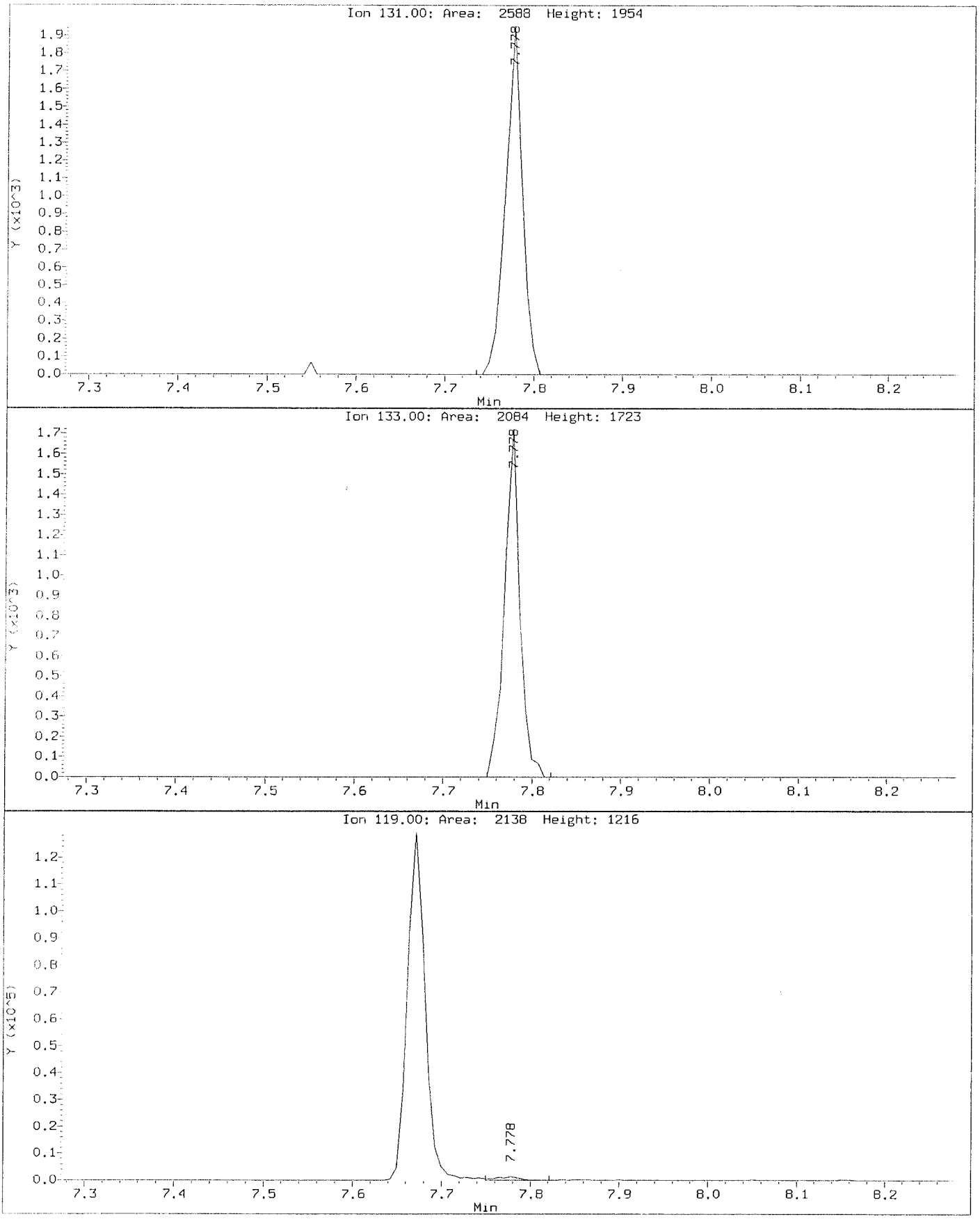
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 4-Bromofluorobenzene
CAS Number: 460-00-4



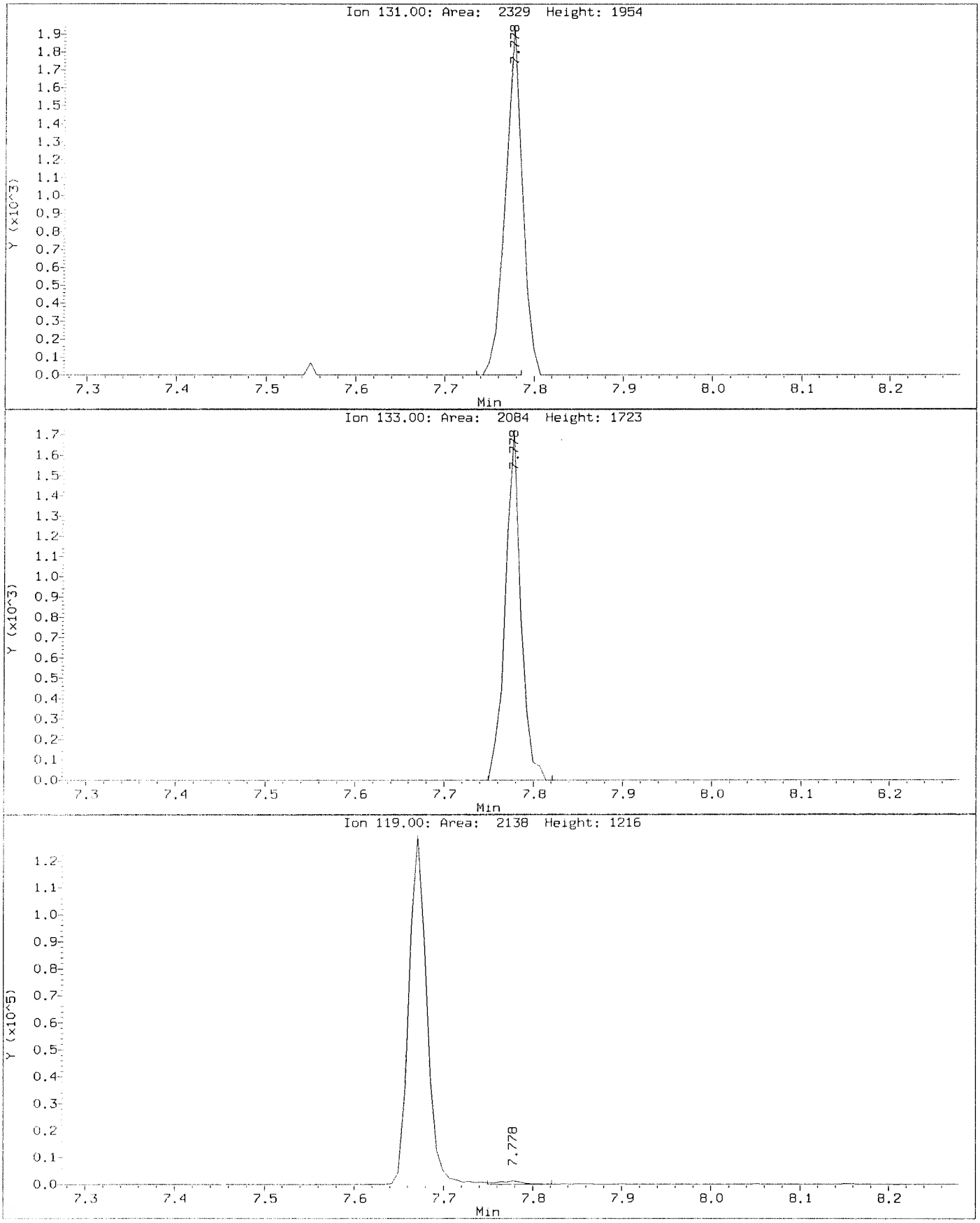
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1,1,2-Tetrachloroethane
CAS Number: 630-20-6



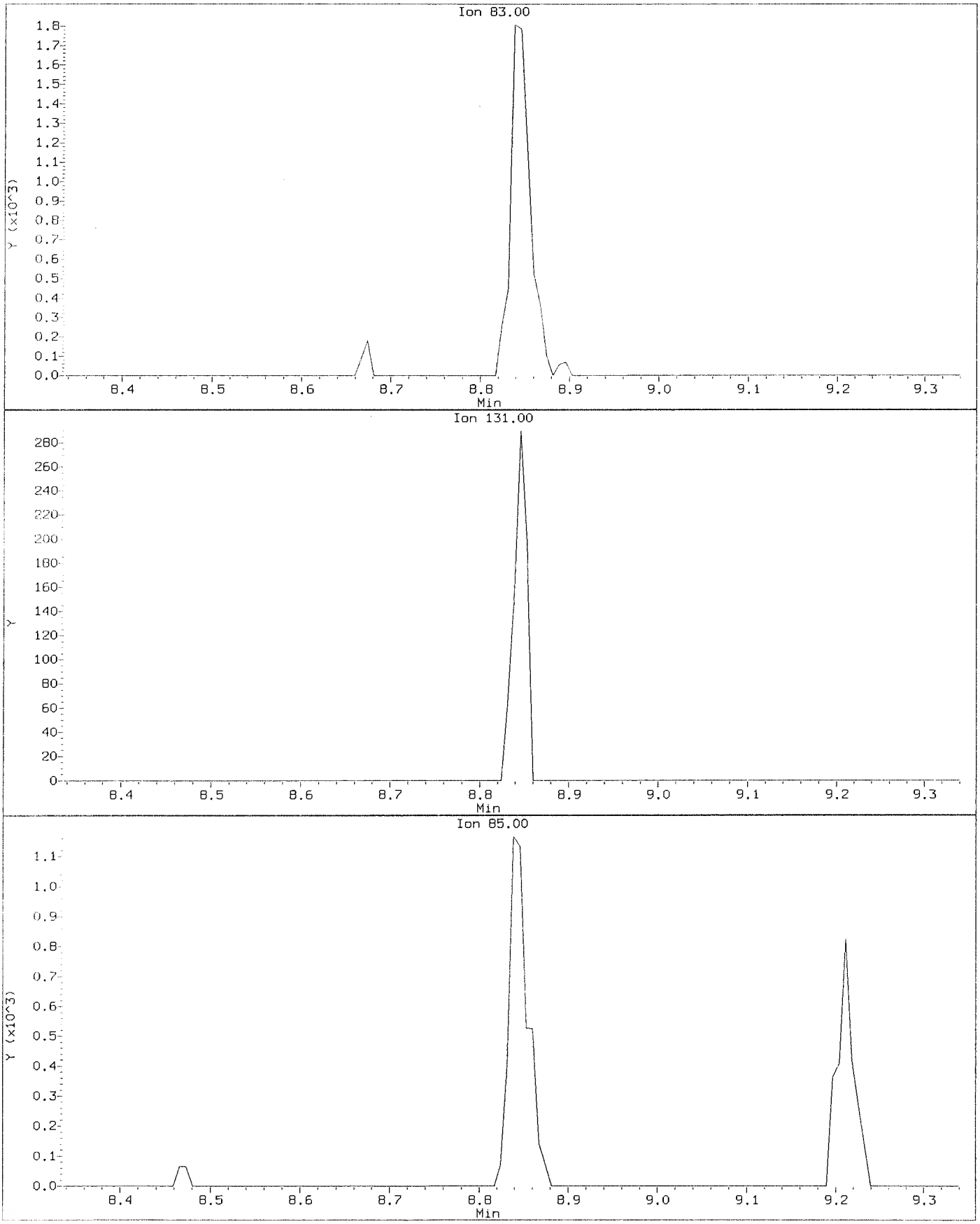
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Client Sample ID: VSTD000.5

Compound: 1,1,1,2-Tetrachloroethane
CAS Number: 630-20-6



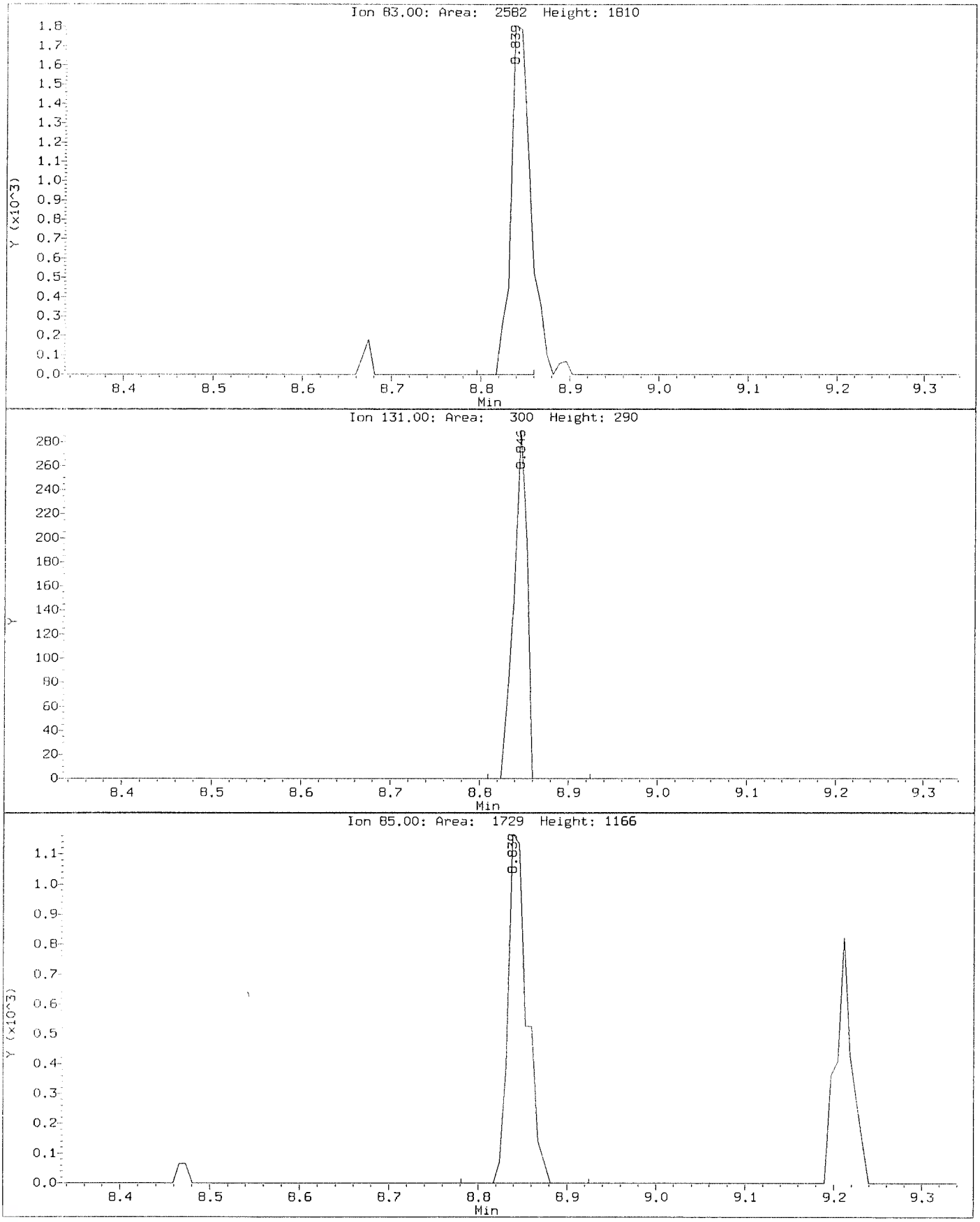
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



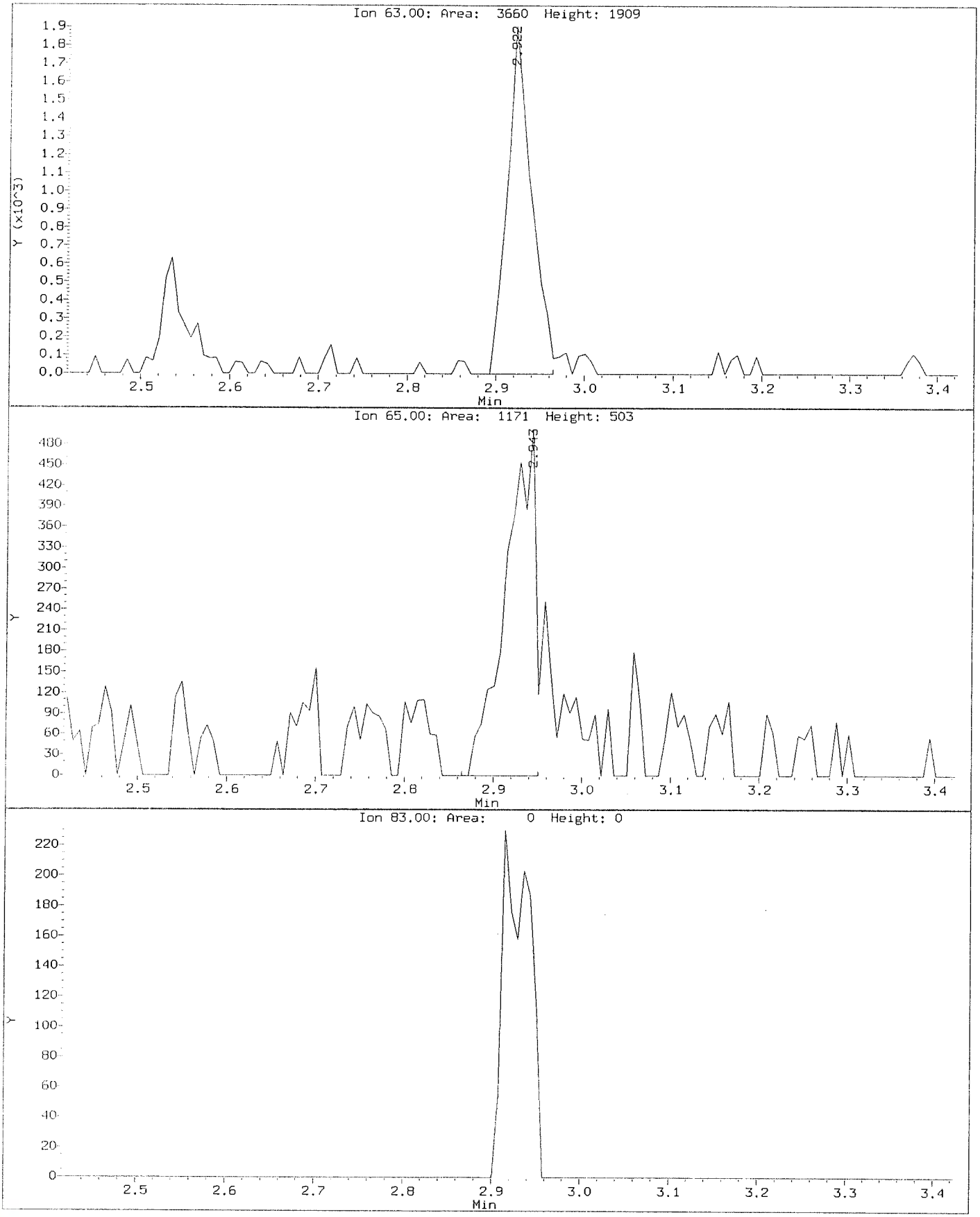
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Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



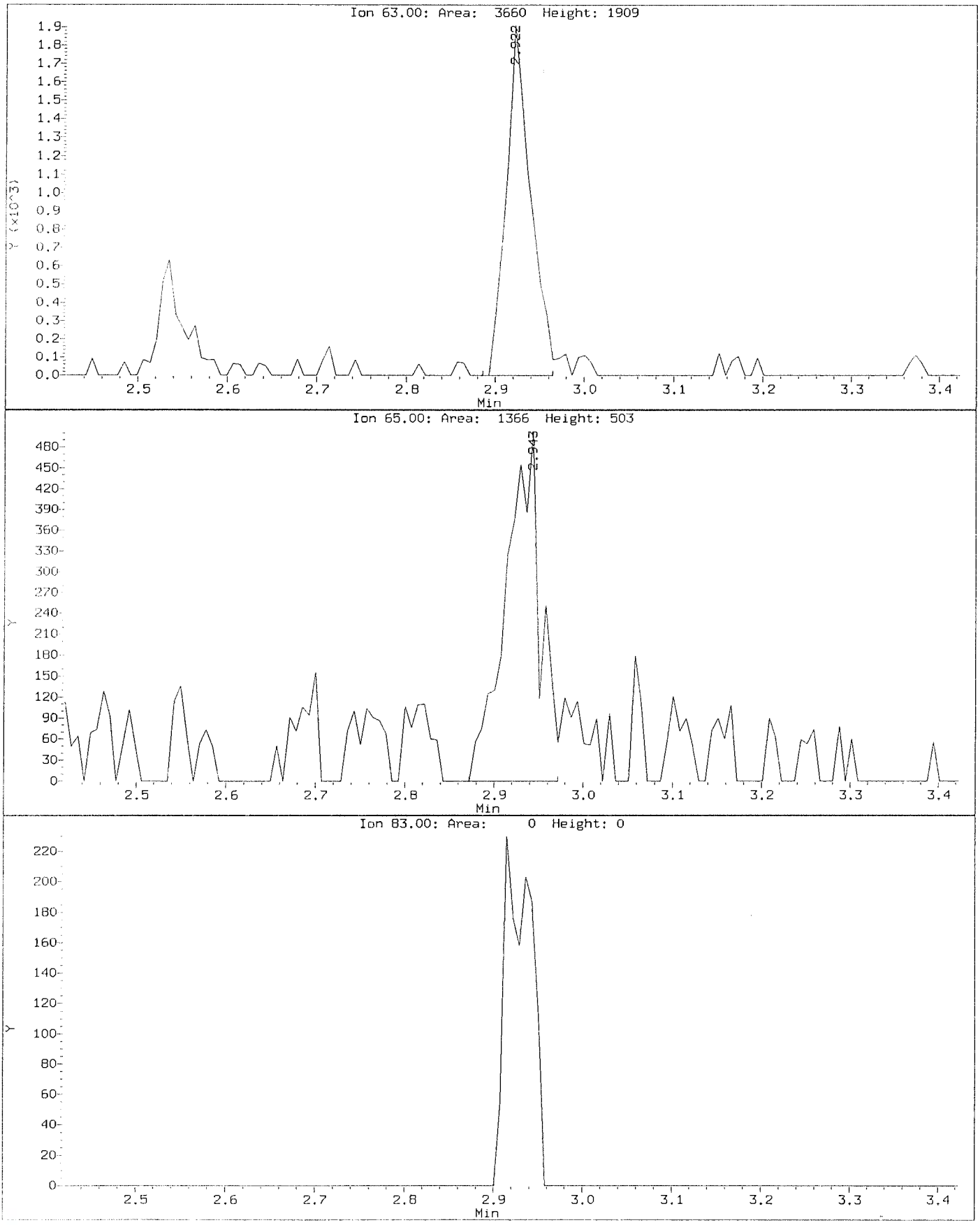
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1-Dichloroethane
CAS Number: 75-34-3



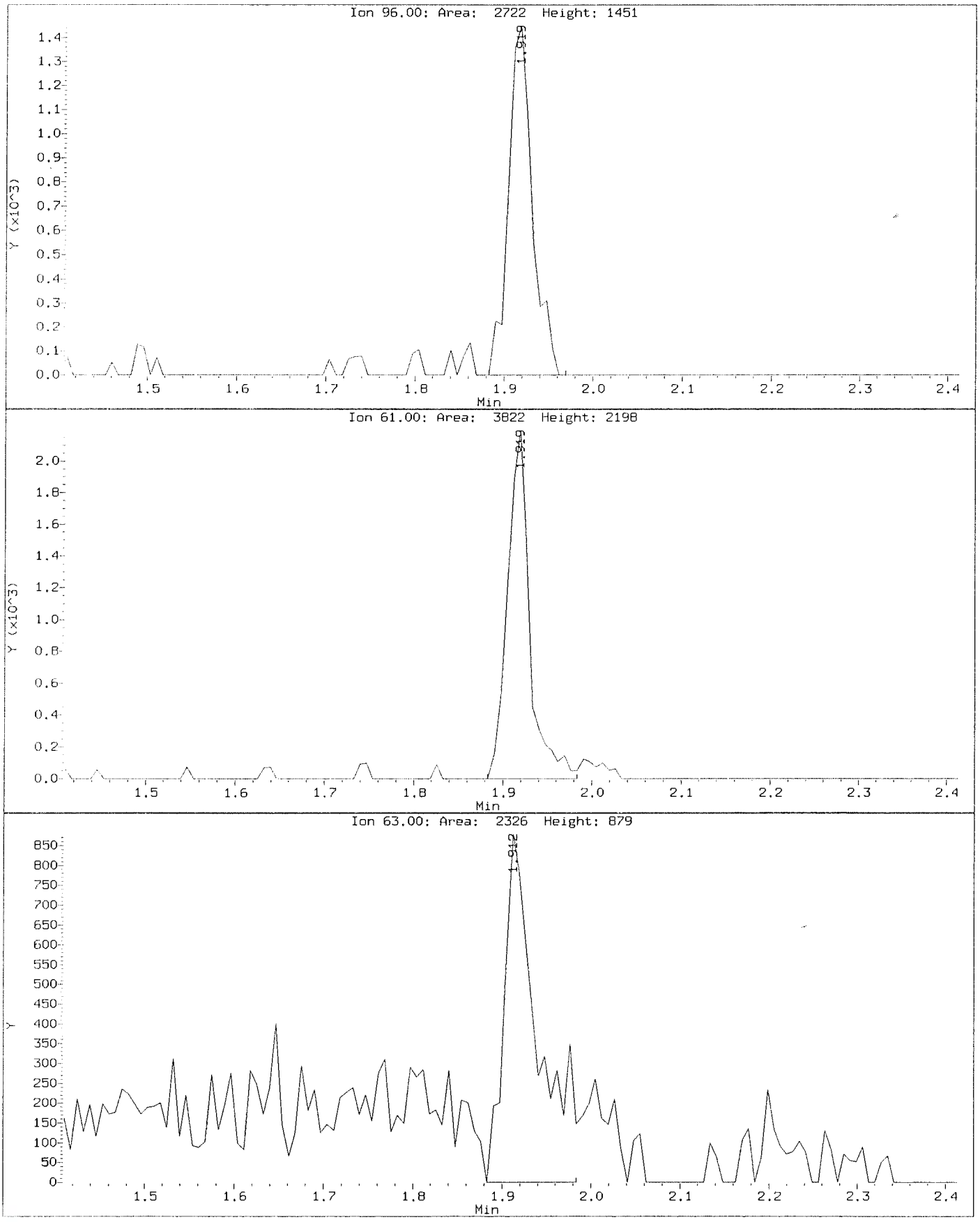
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1-Dichloroethane
CAS Number: 75-34-3



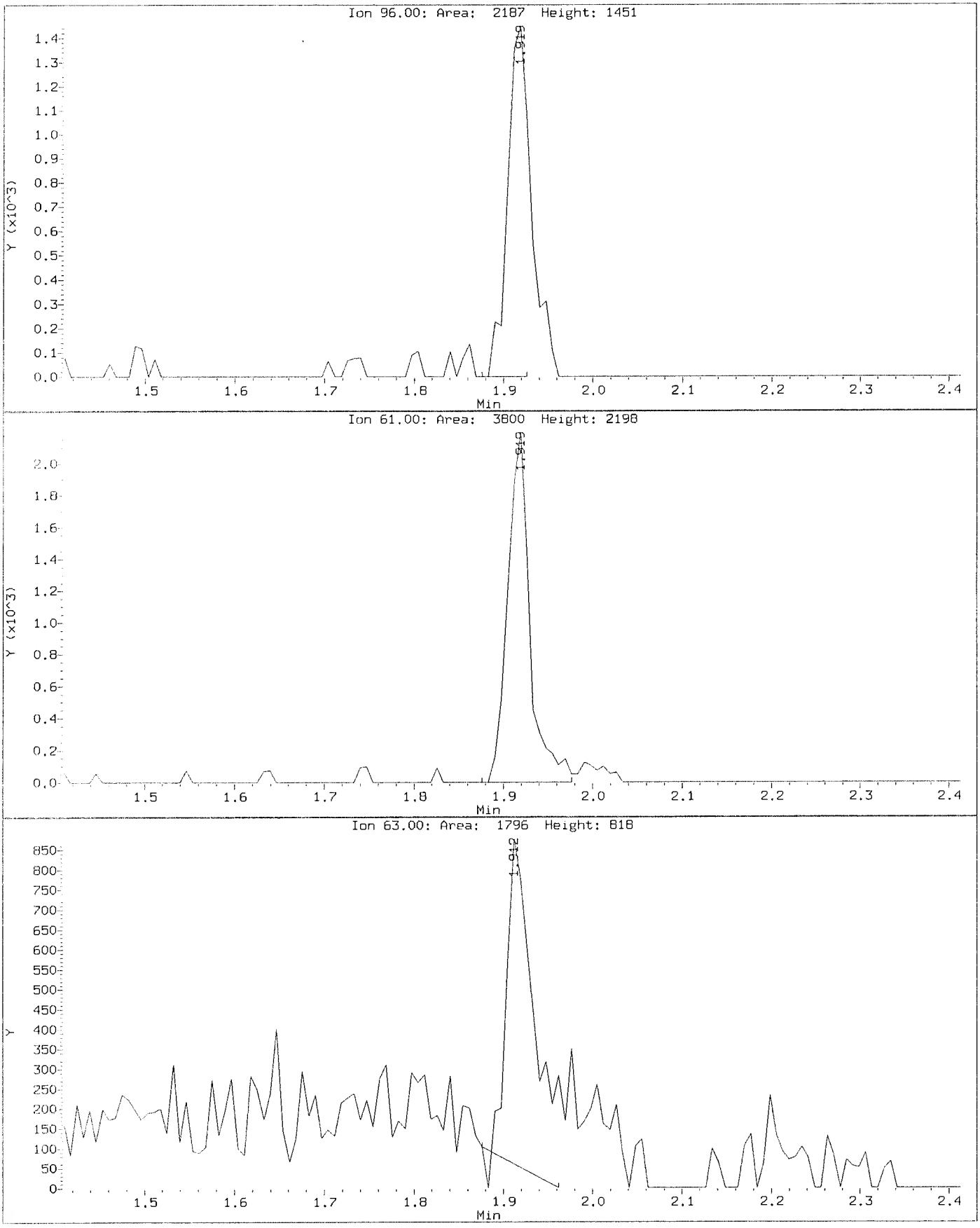
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1-Dichloroethene
CAS Number: 75-35-4



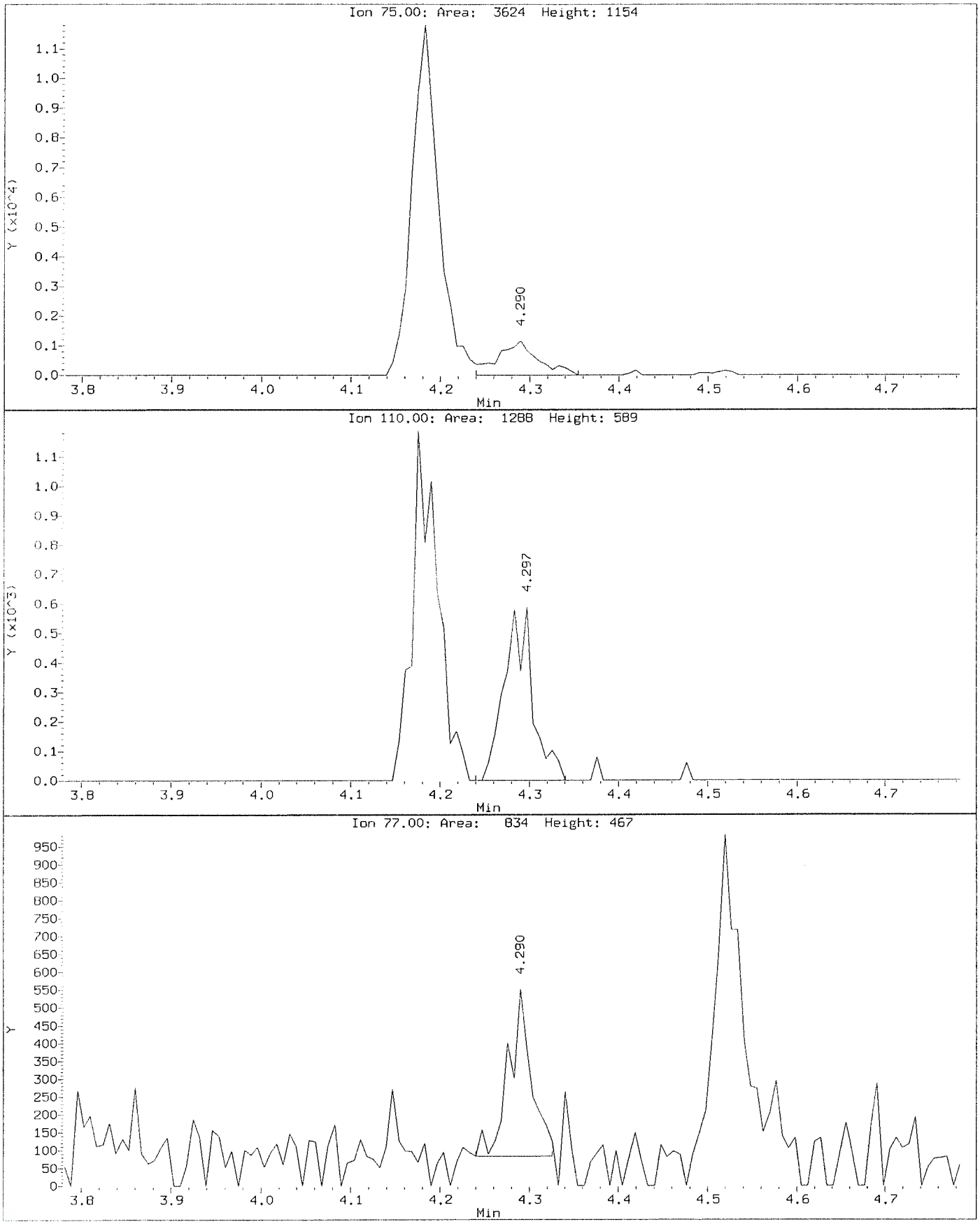
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1-Dichloroethene
CAS Number: 75-35-4



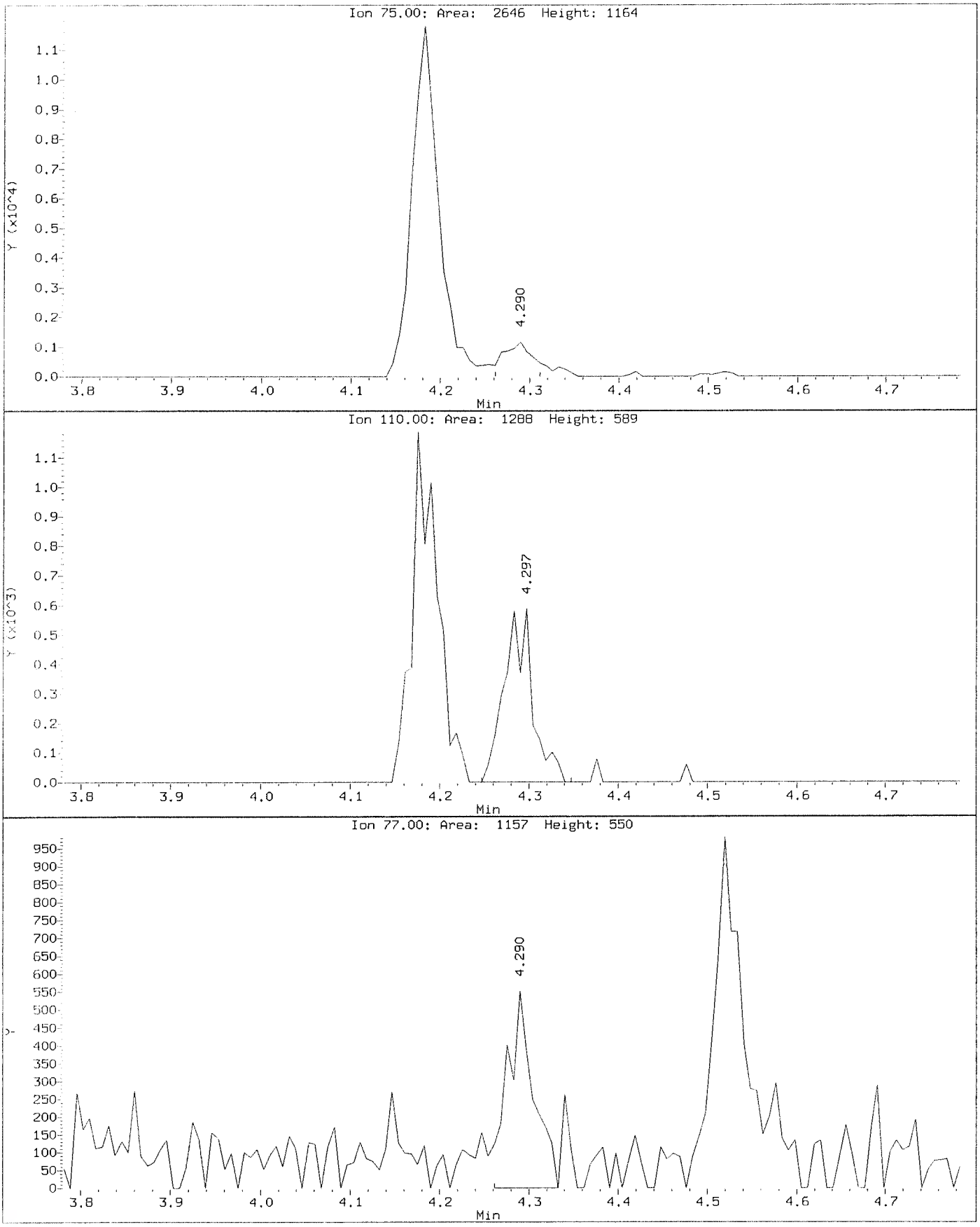
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1-Dichloropropene
CAS Number: 563-58-6



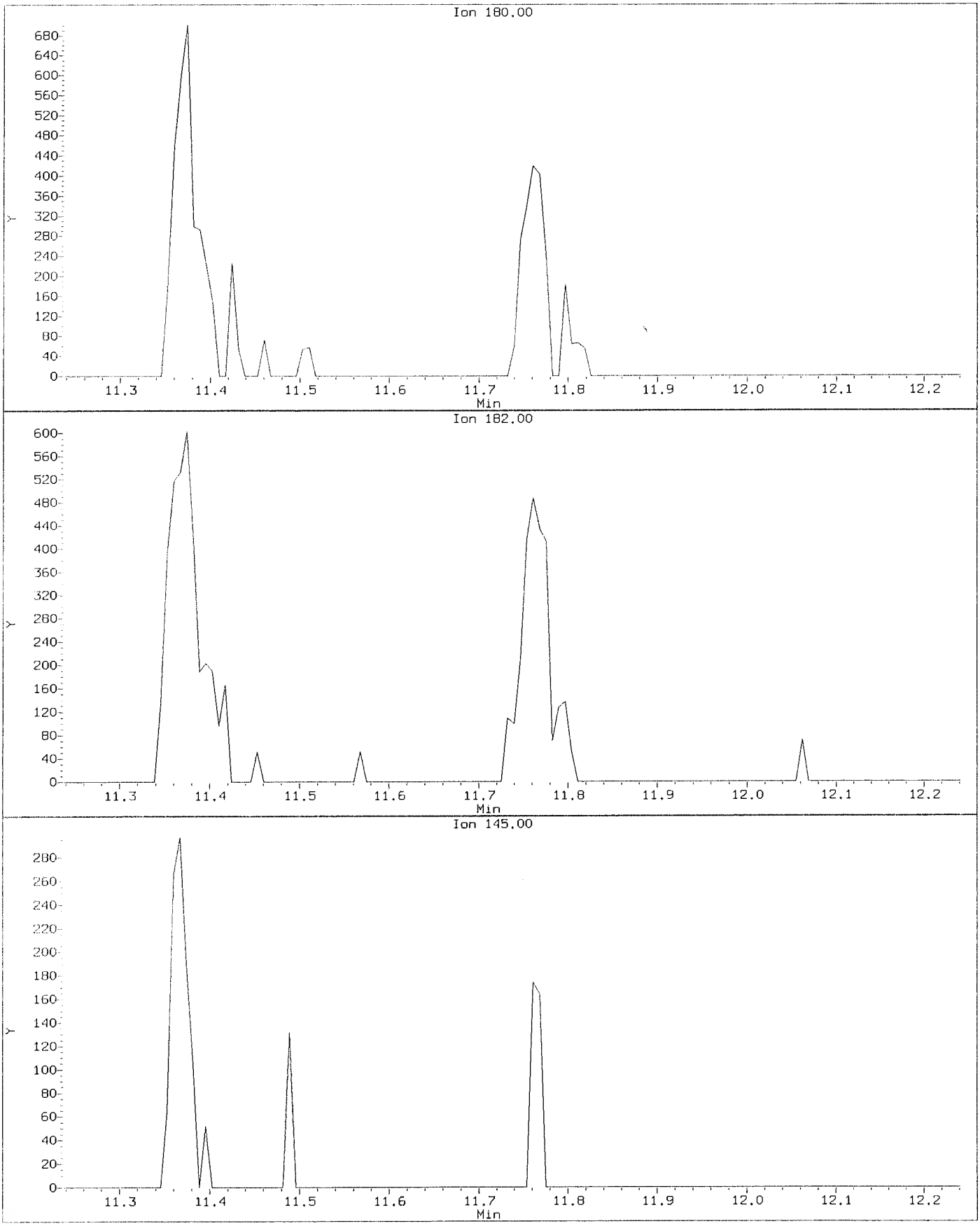
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,1-Dichloropropene
CAS Number: 563-58-6



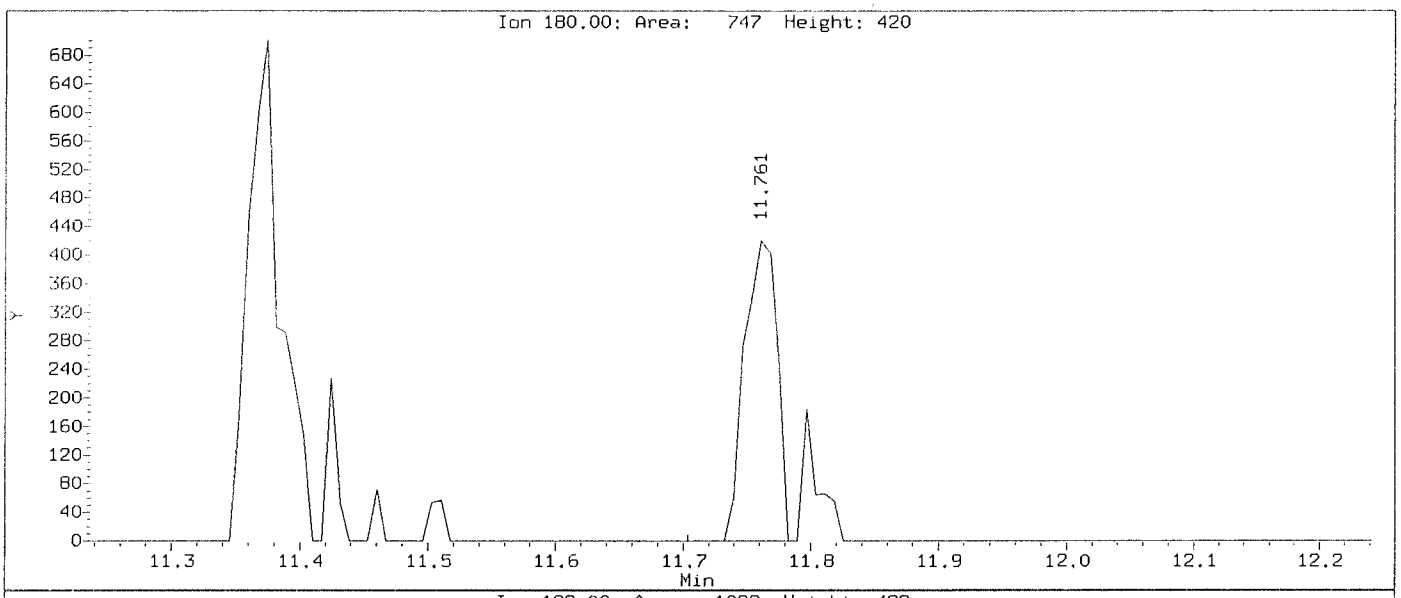
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Instrument: voa6.i
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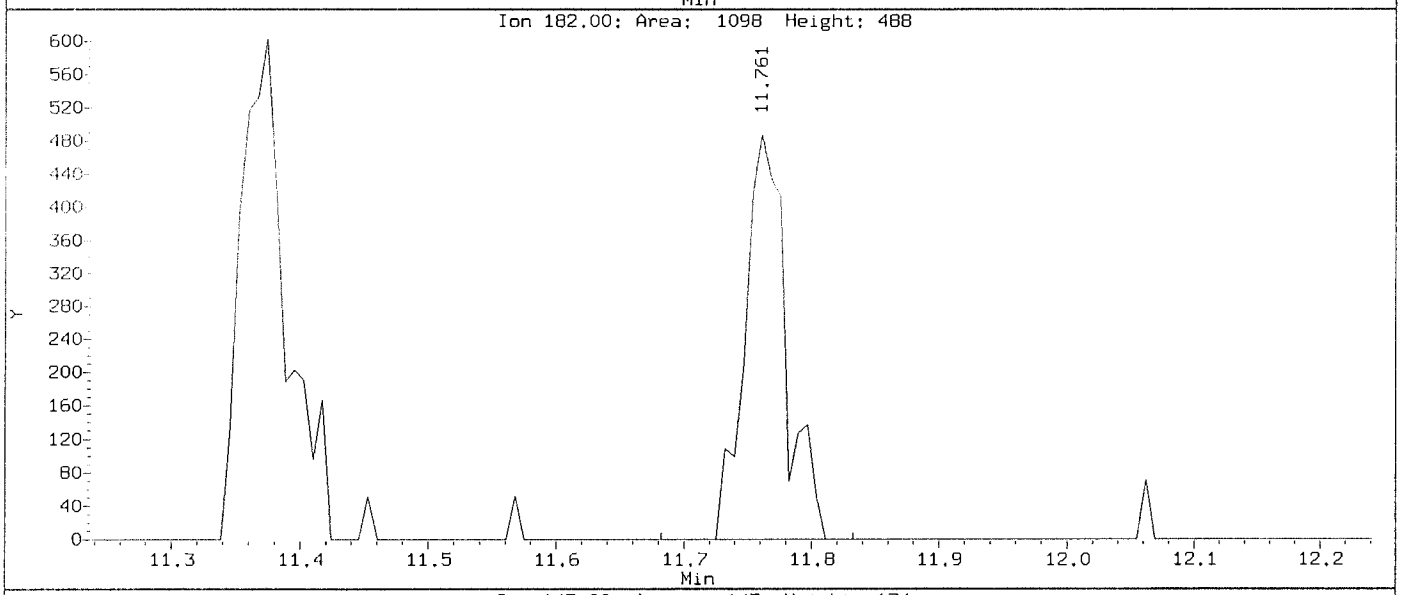
Compound: 1,2,3-Trichlorobenzene
CAS Number: 87-61-6

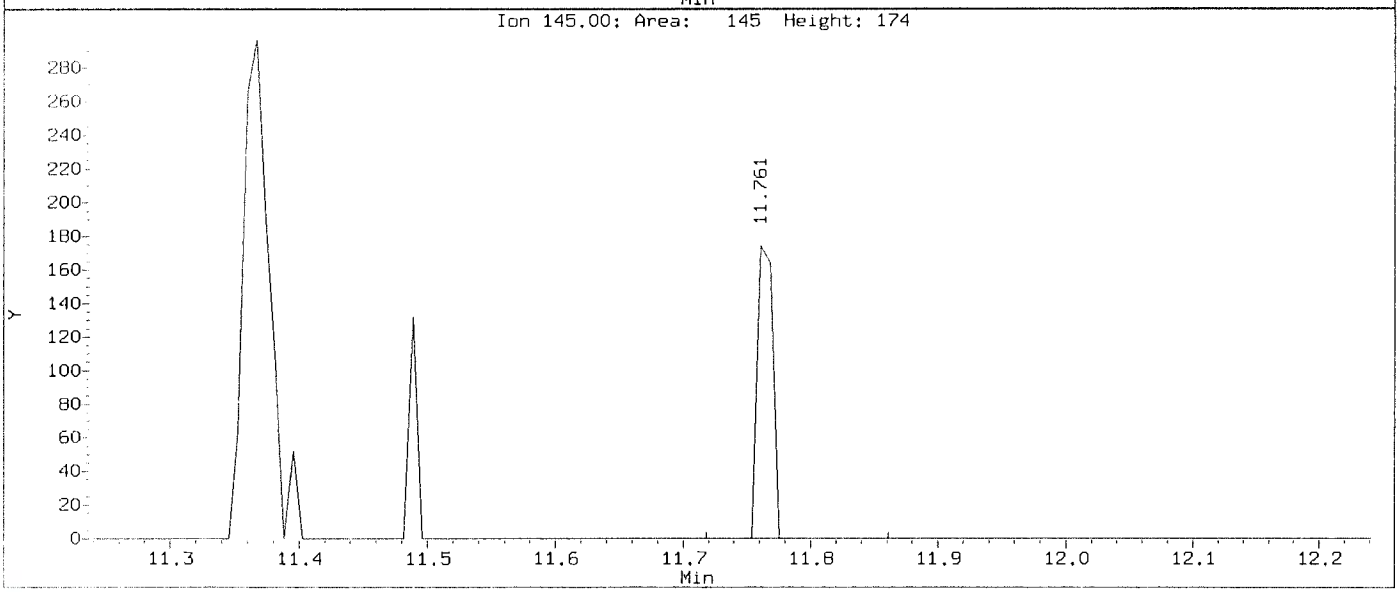


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Client Sample ID: VSTD000.5

Compound: 1,2,3-Trichlorobenzene
CAS Number: 87-61-6

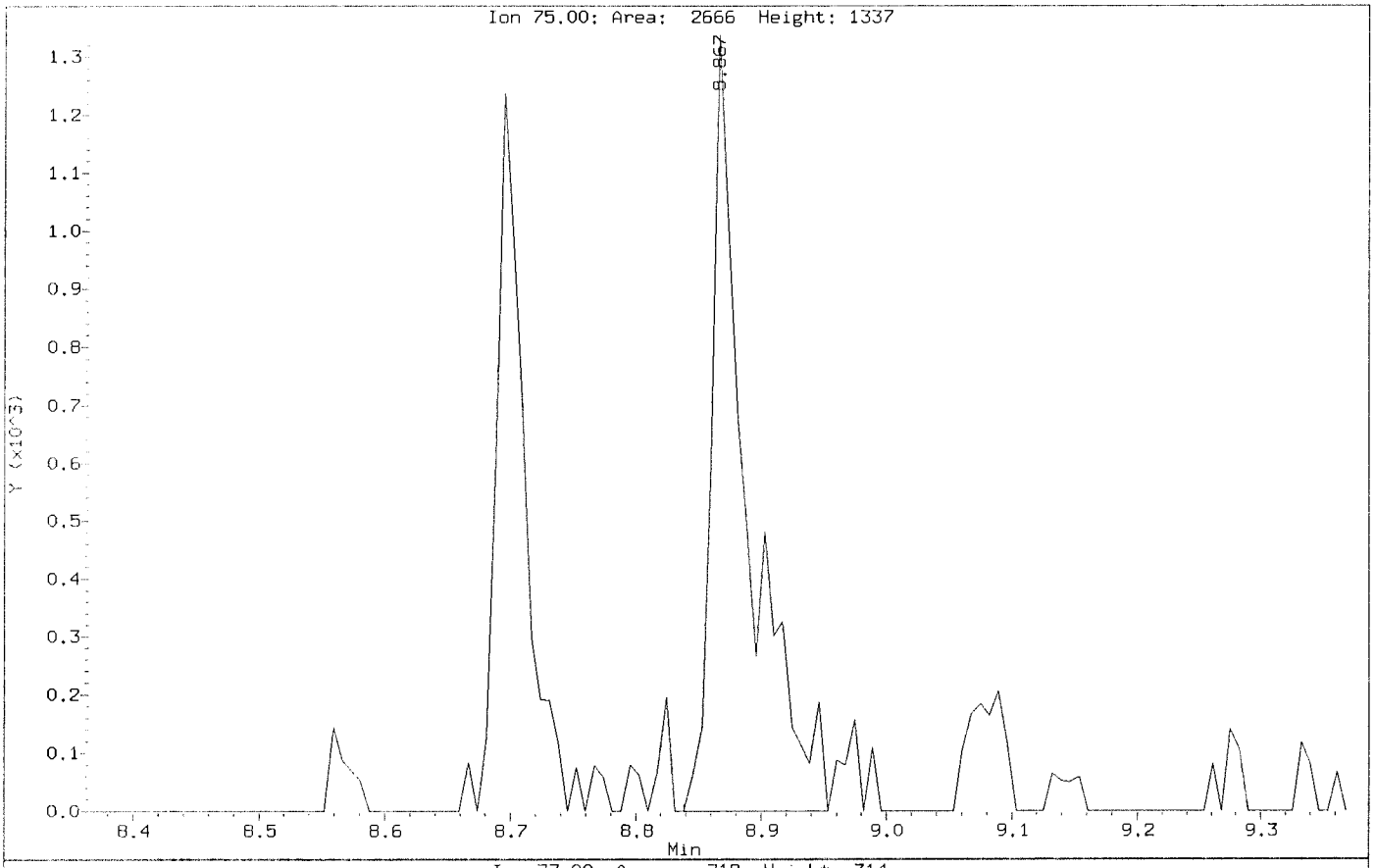


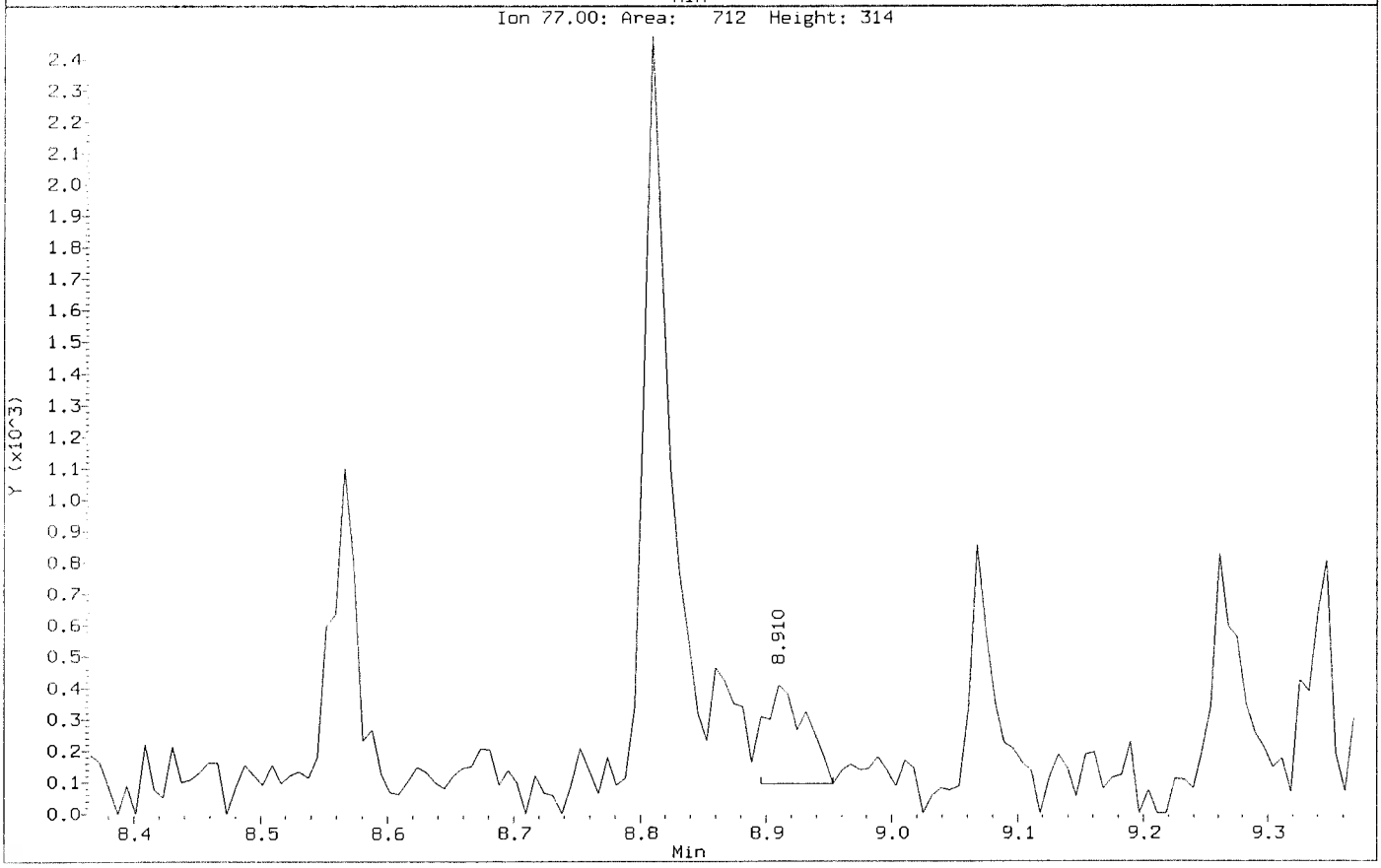




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Client Sample ID: VSTD000.5

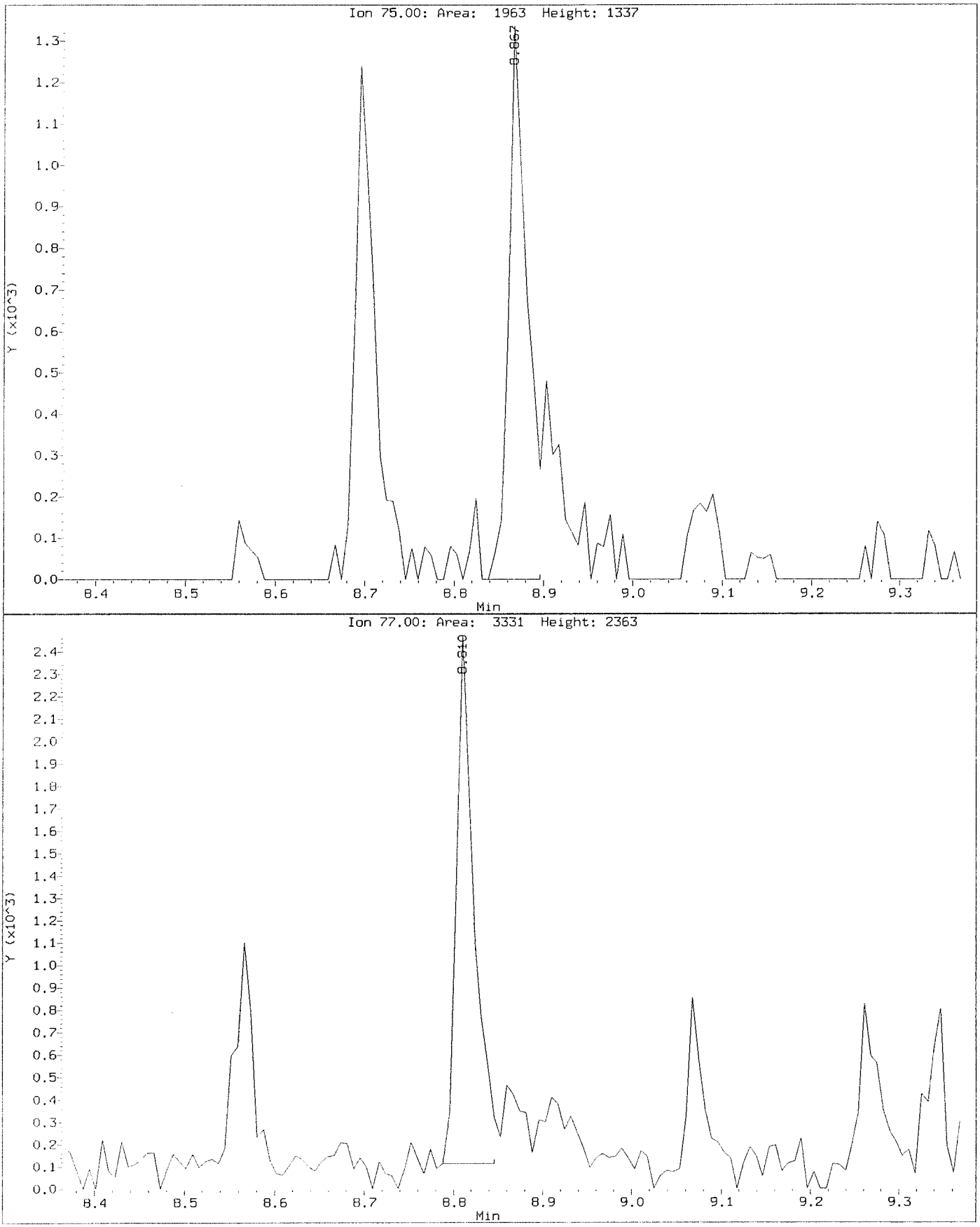
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





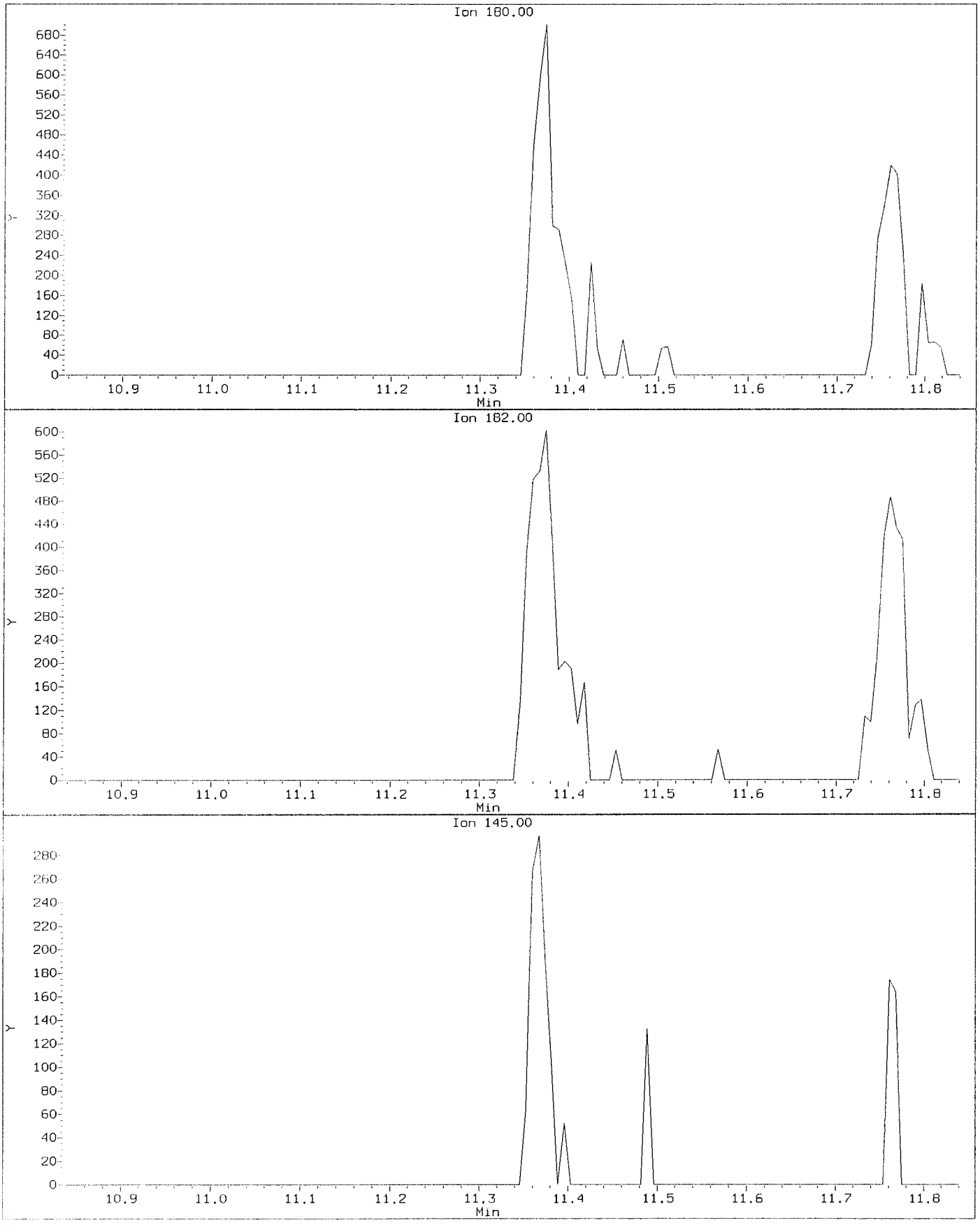
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Client Sample ID: VSTD000.5

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



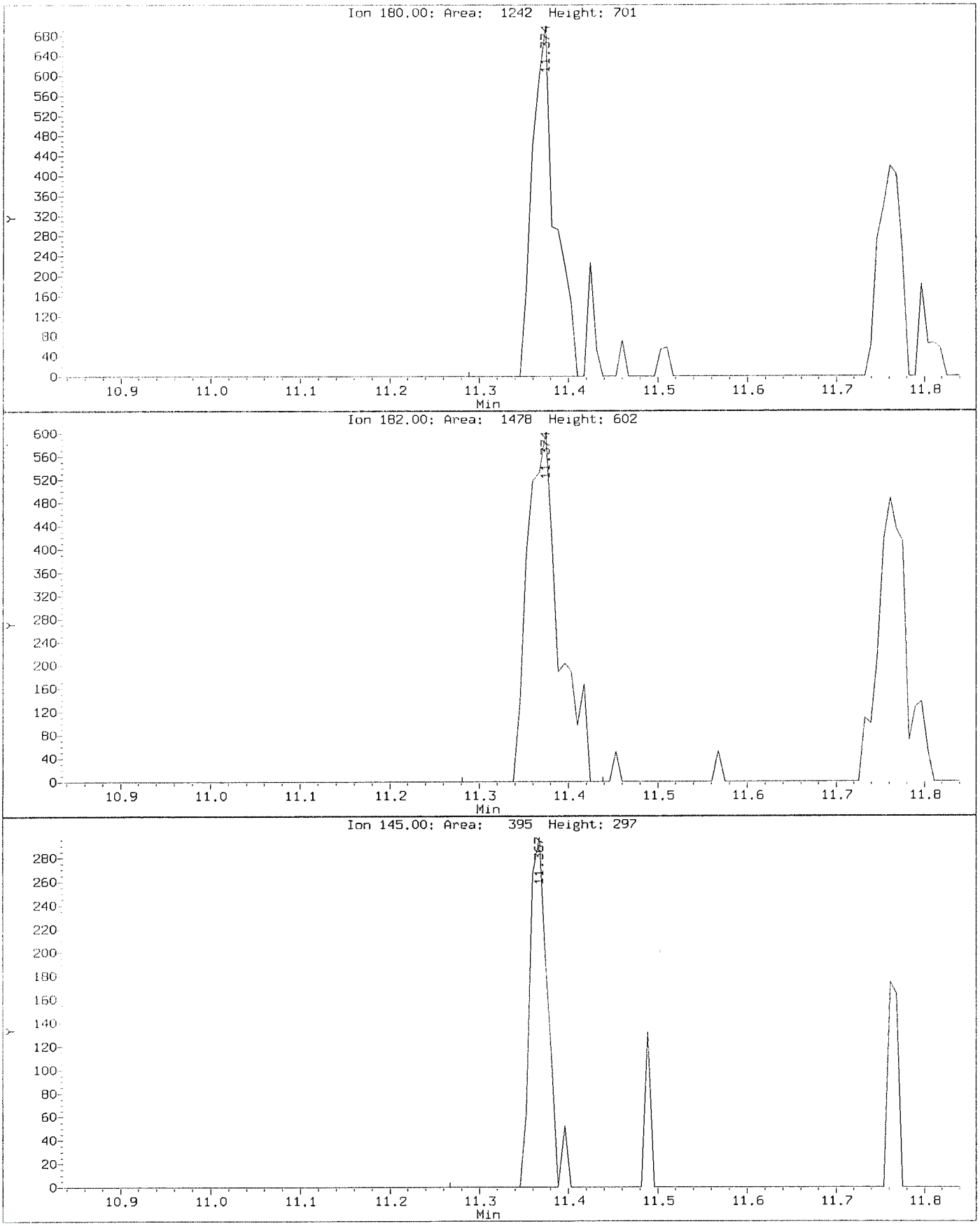
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2,4-Trichlorobenzene
CAS Number: 120-82-1



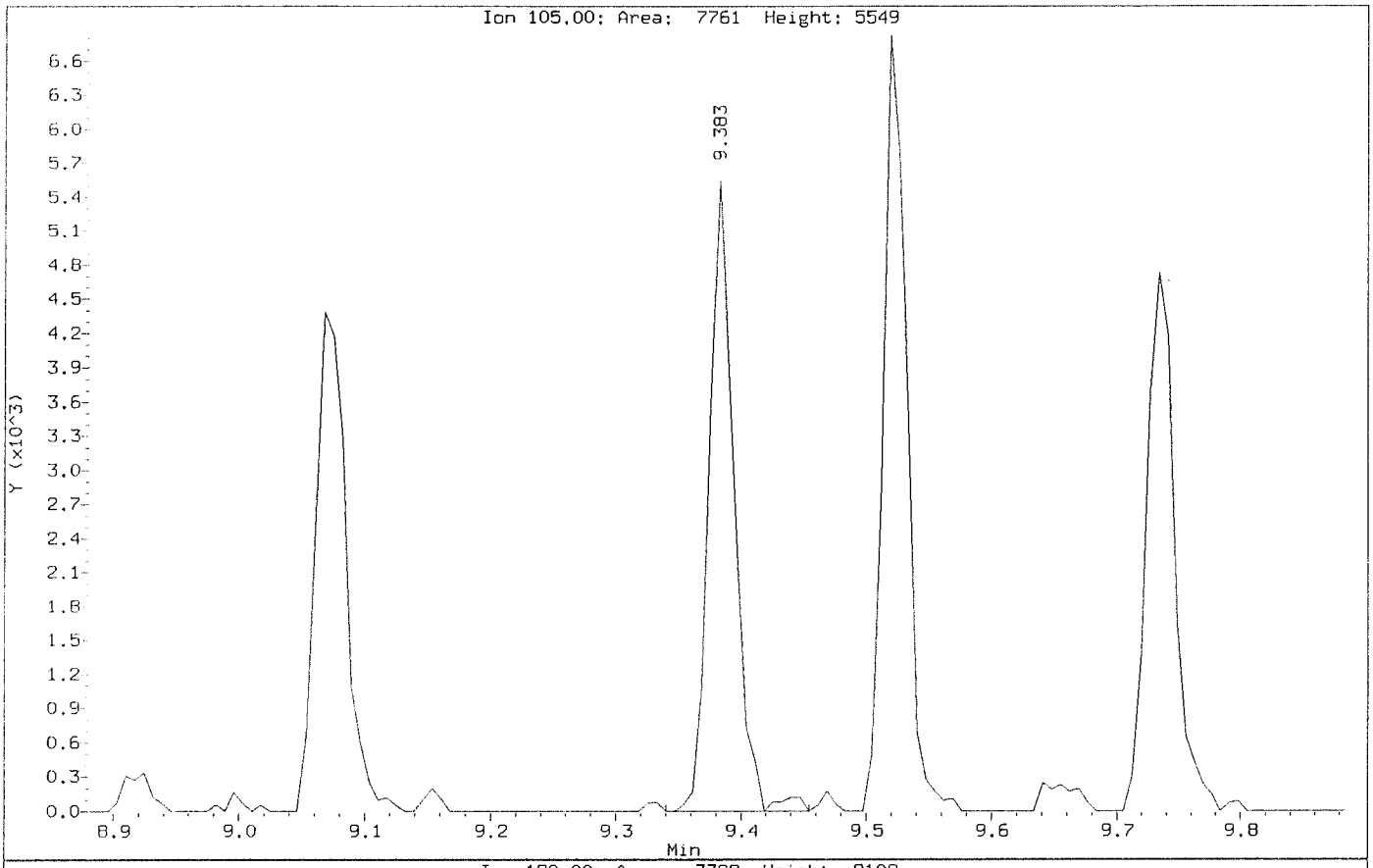
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Client Sample ID: VSTD000.5

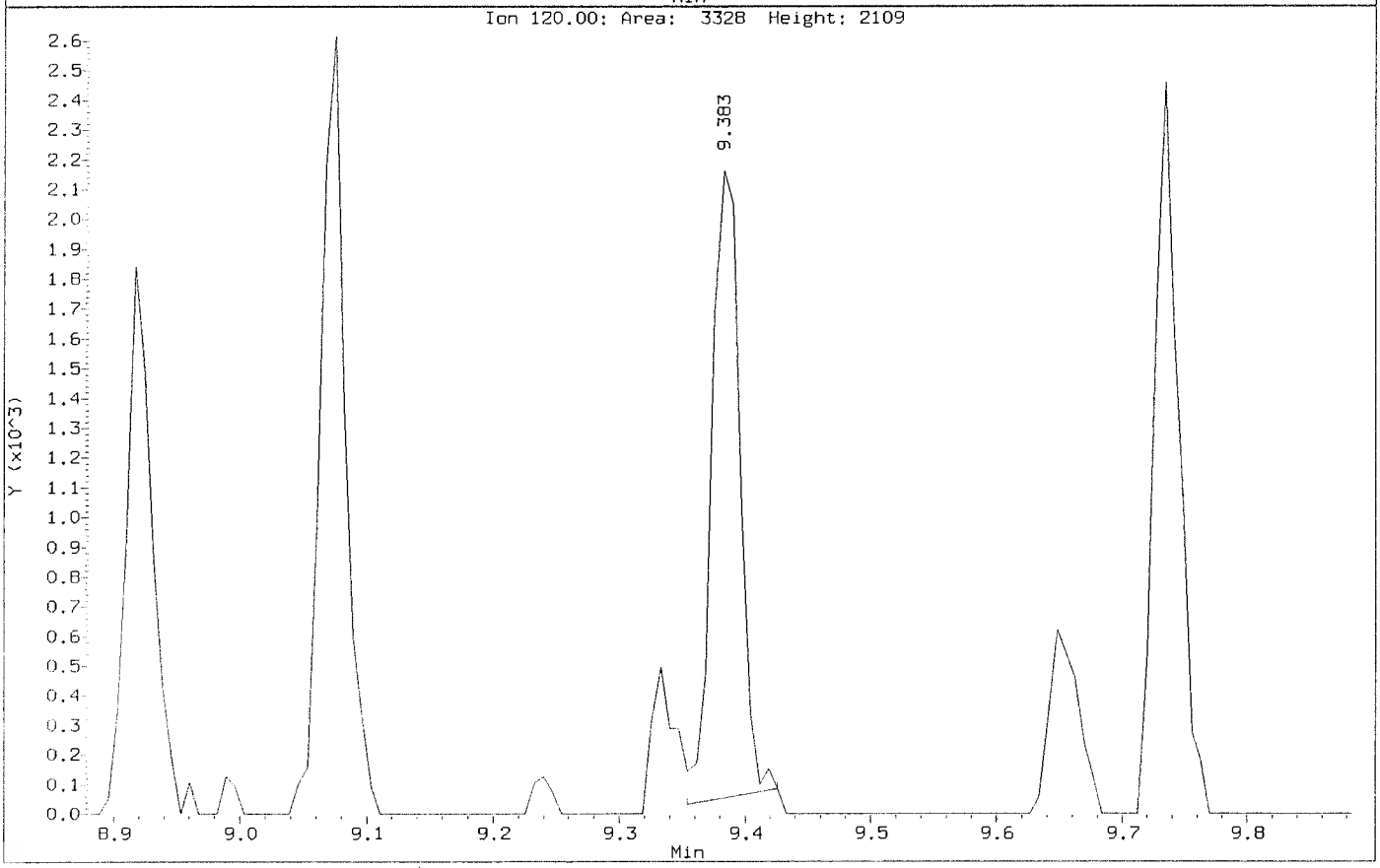
Compound: 1,2,4-Trichlorobenzene
CAS Number: 120-82-1



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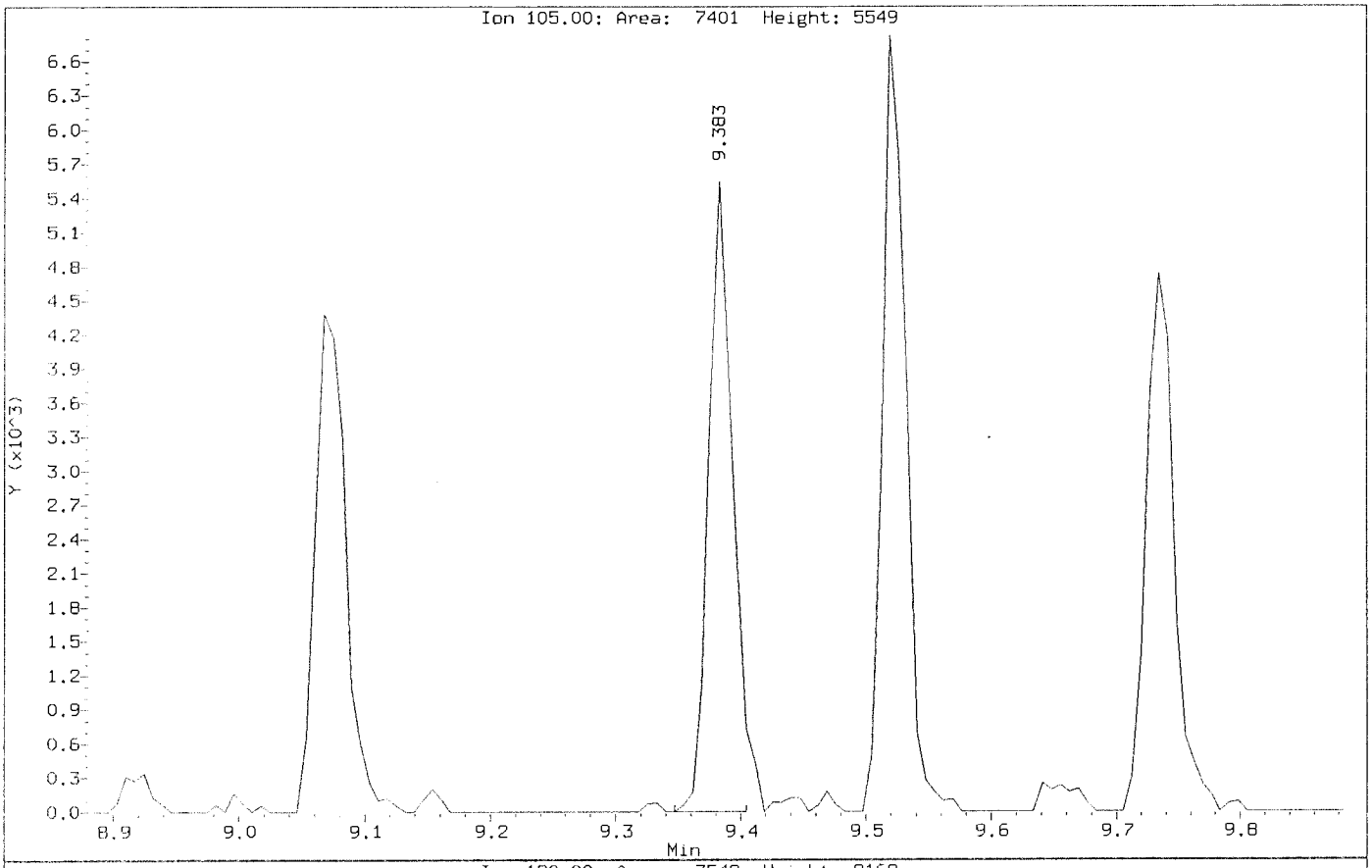
Compound: 1,2,4-Trimethylbenzene
CAS Number: 95-63-6

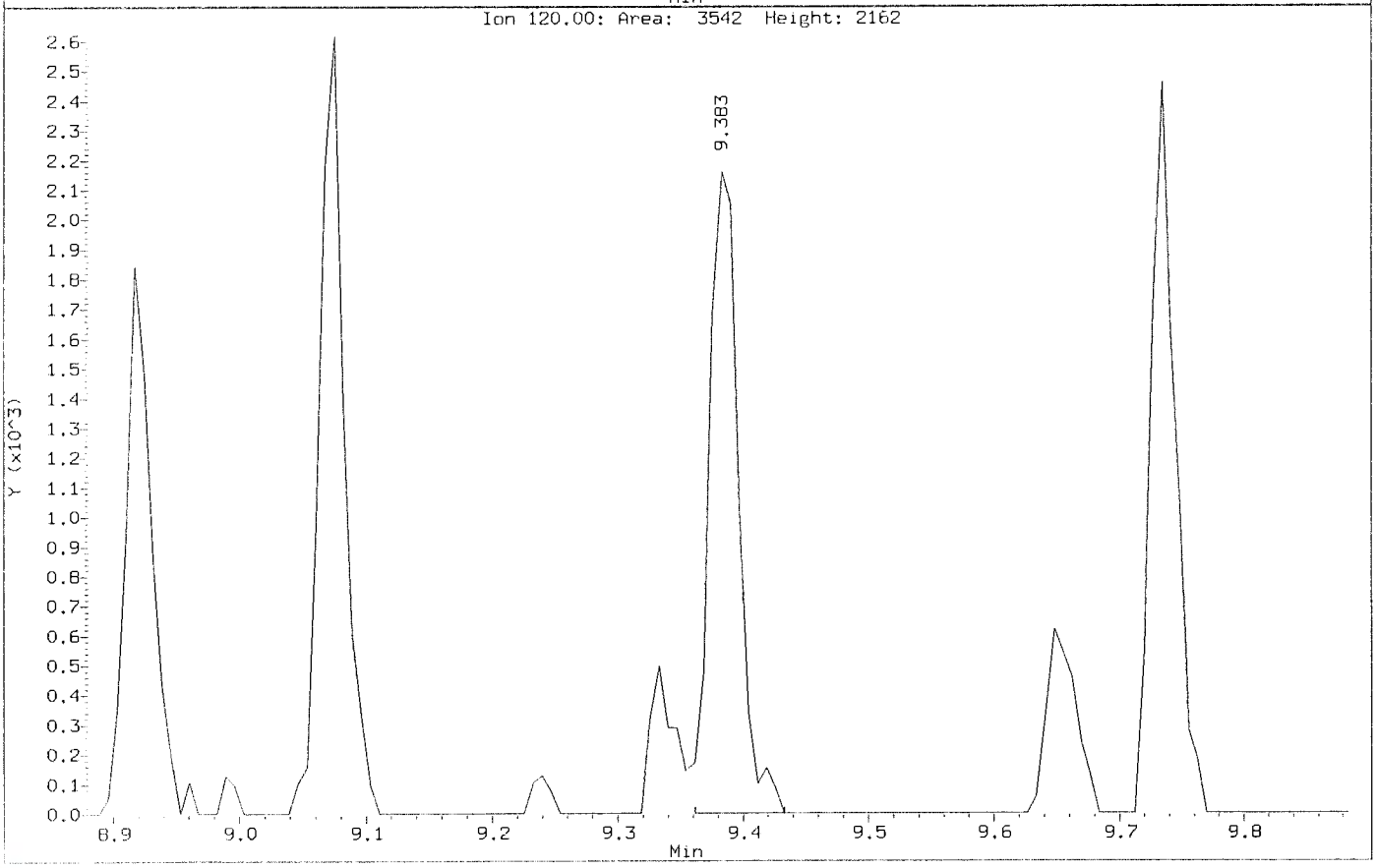




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Client Sample ID: VSTD000.5

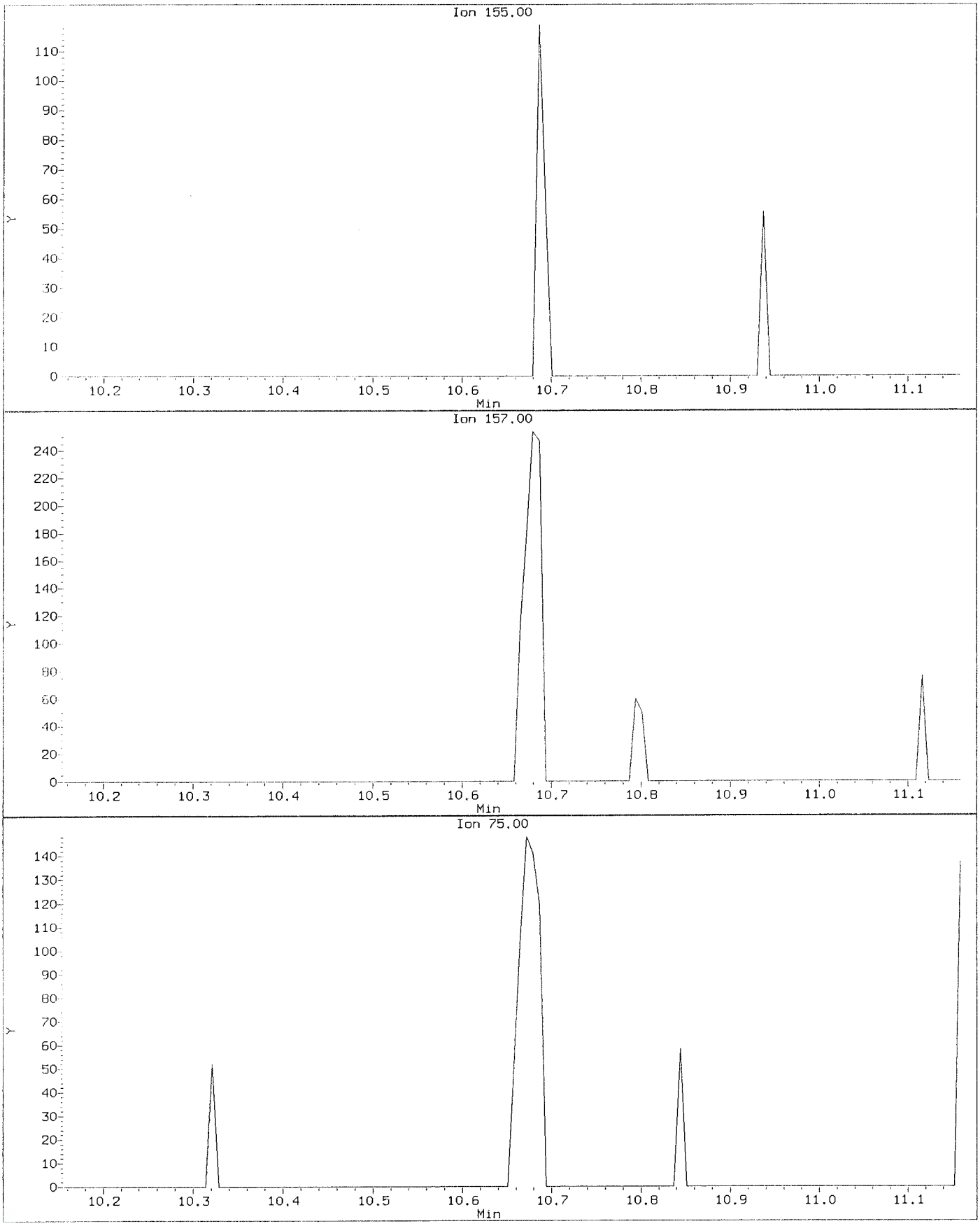
Compound: 1,2,4-Trimethylbenzene
CAS Number: 95-63-6





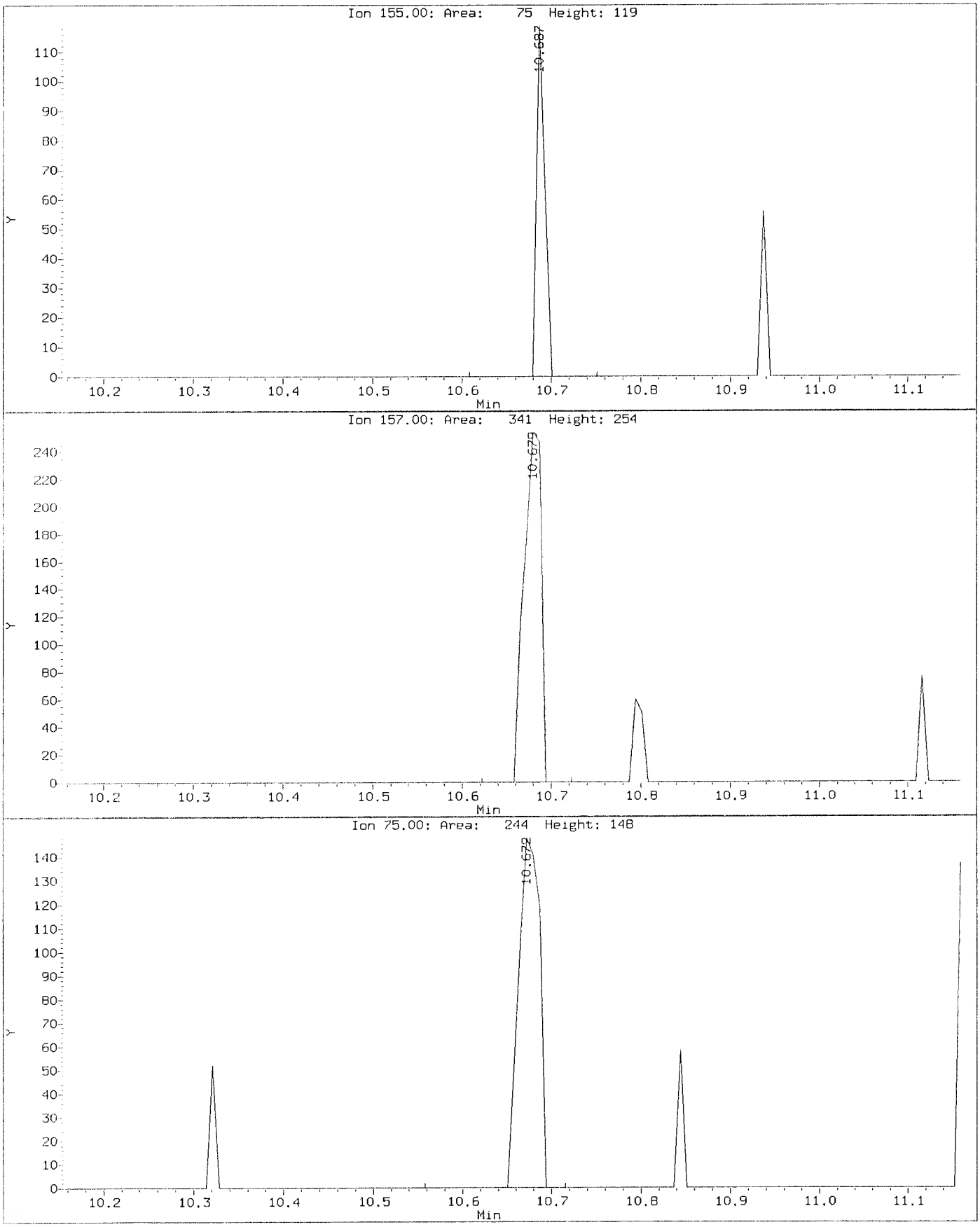
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8



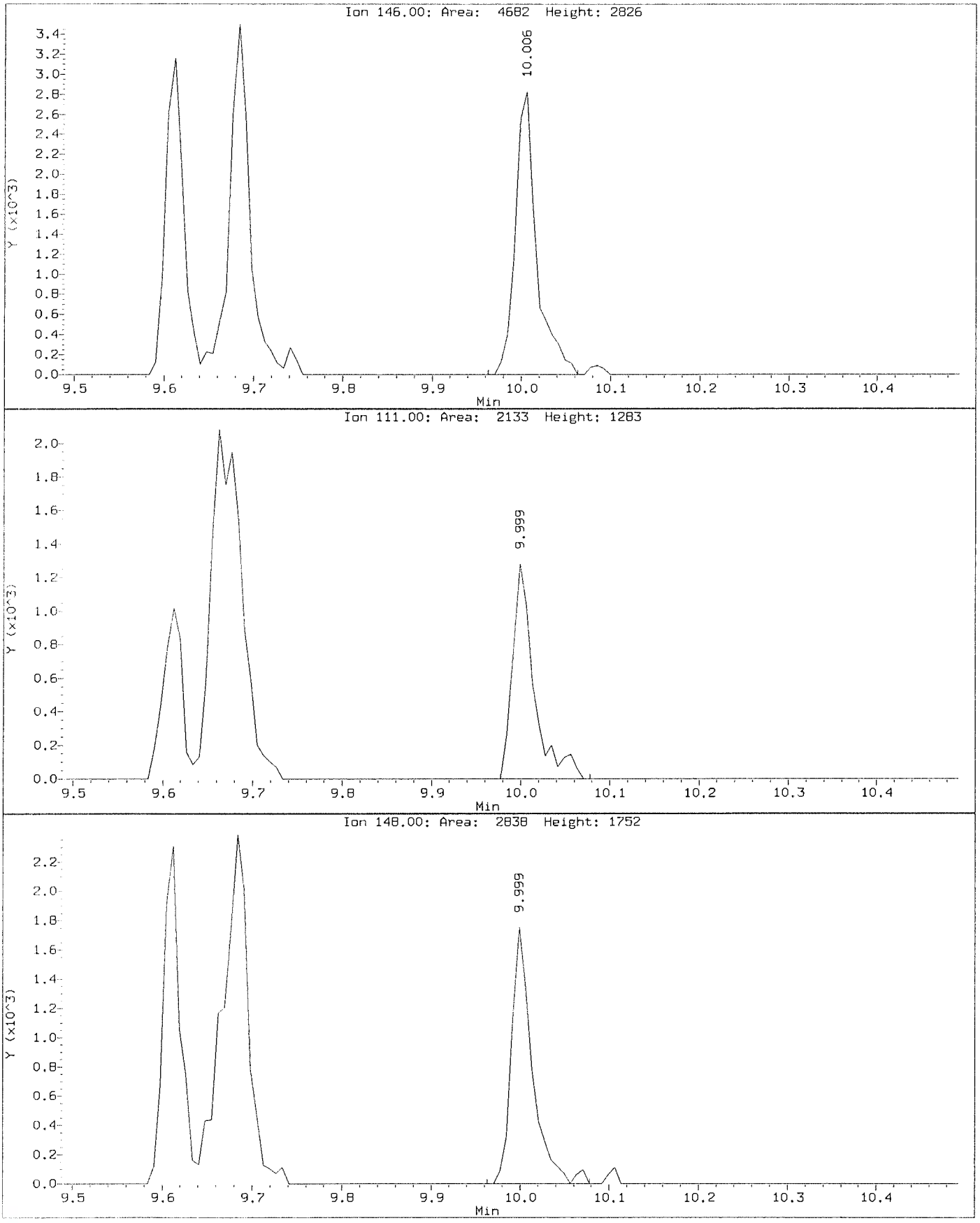
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Client Sample ID: VSTD000.5

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8



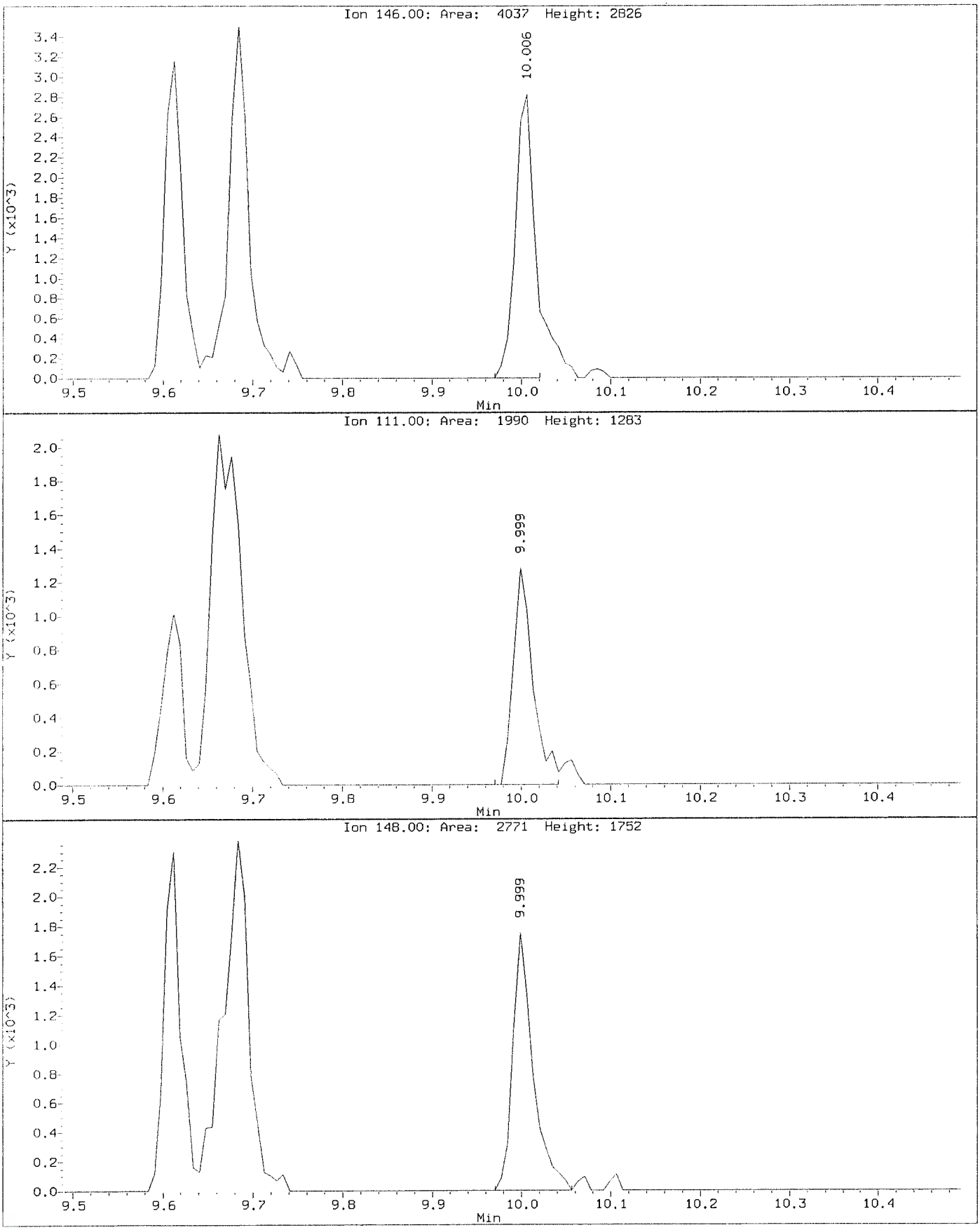
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1.2-Dichlorobenzene
CAS Number: 95-50-1



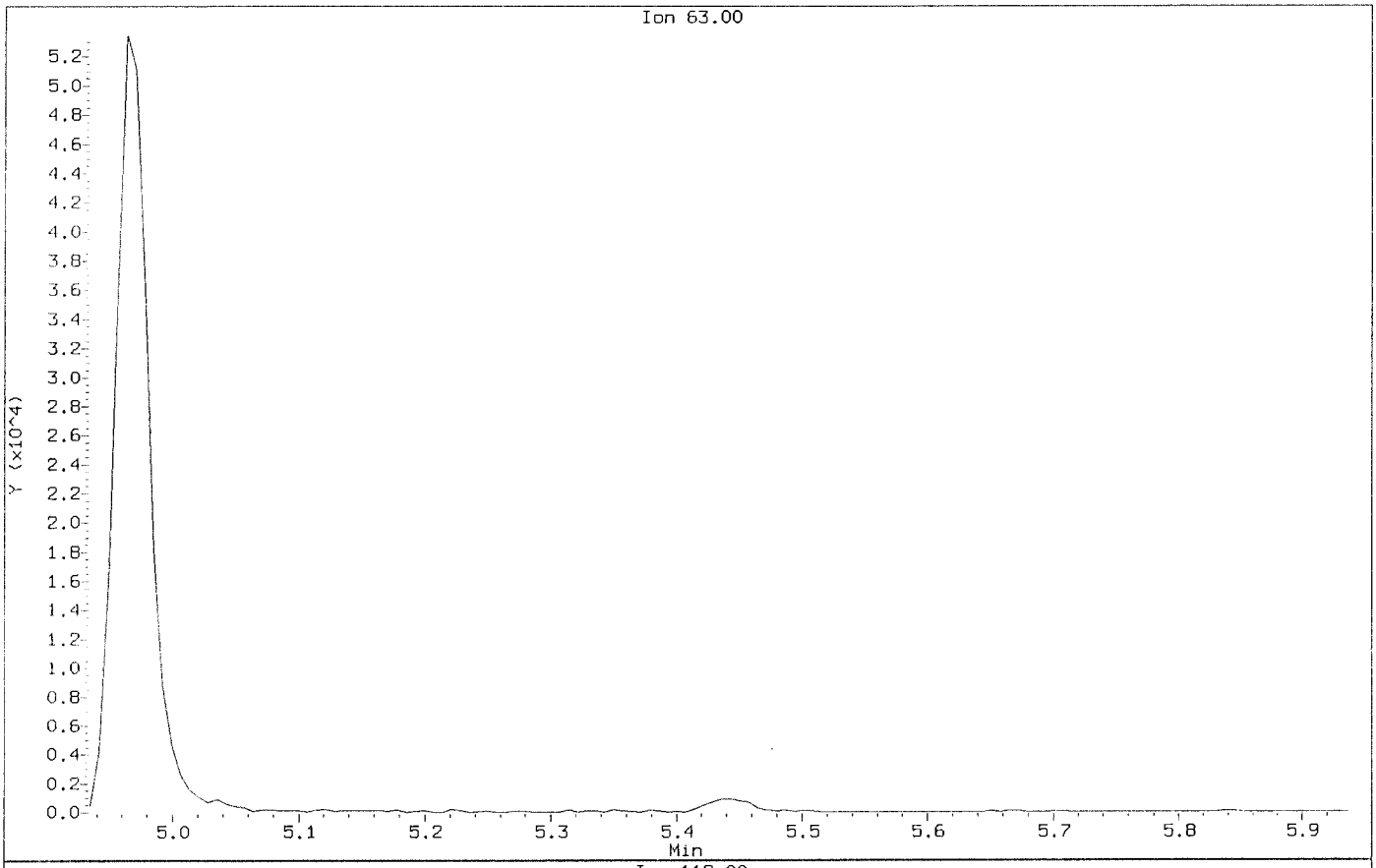
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Client Sample ID: VSTD000.5

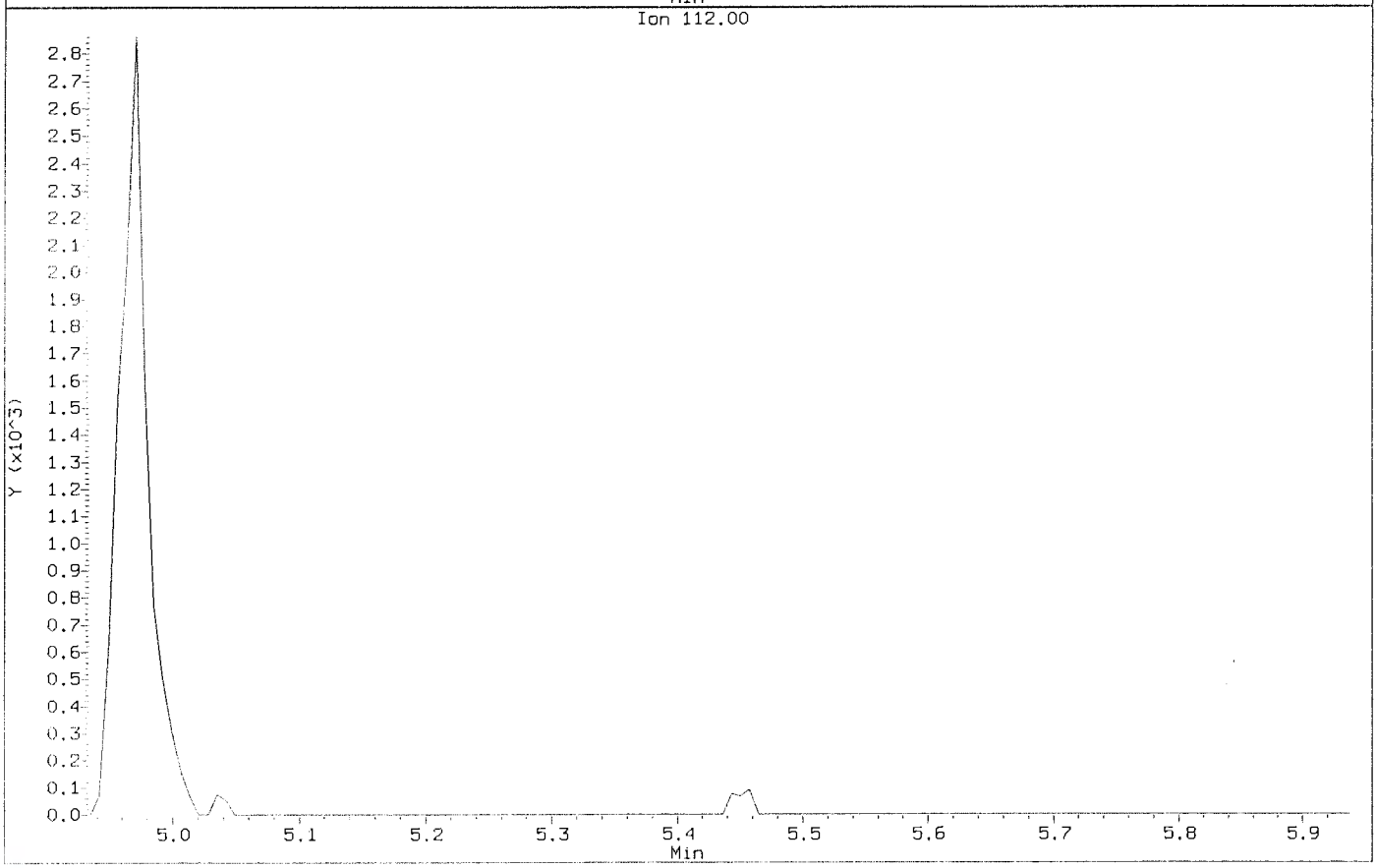
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CAS Number: 95-50-1



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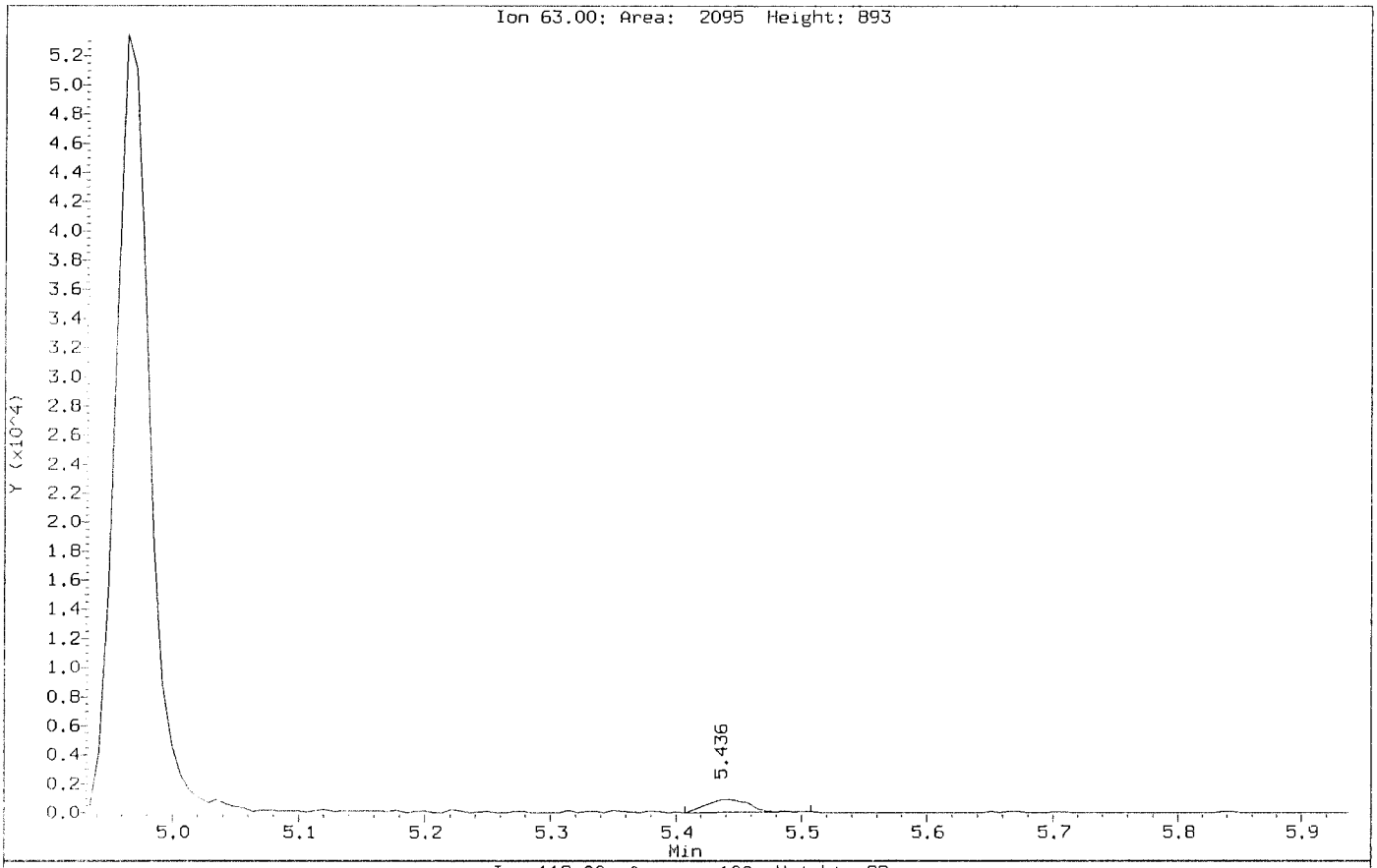
Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

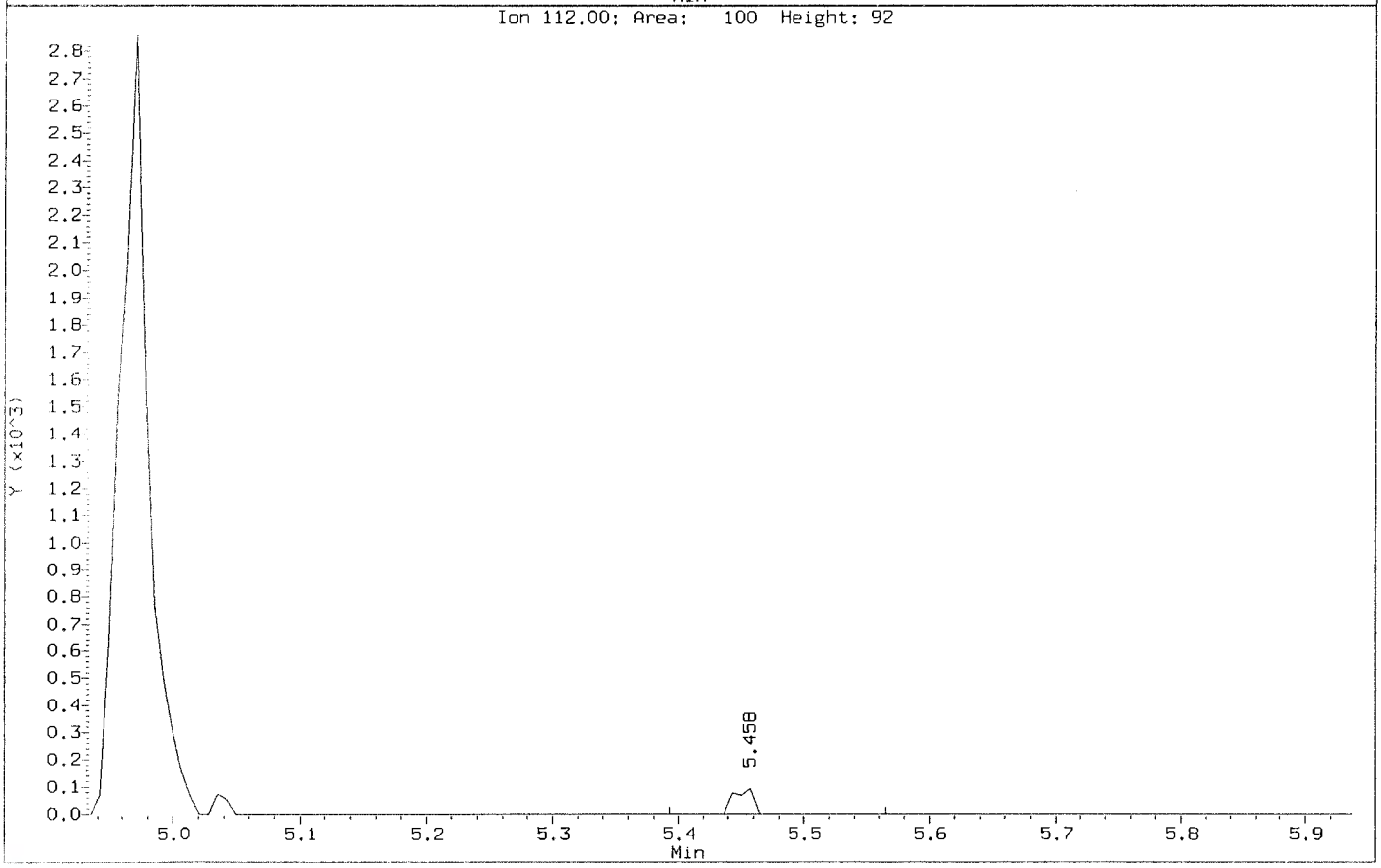




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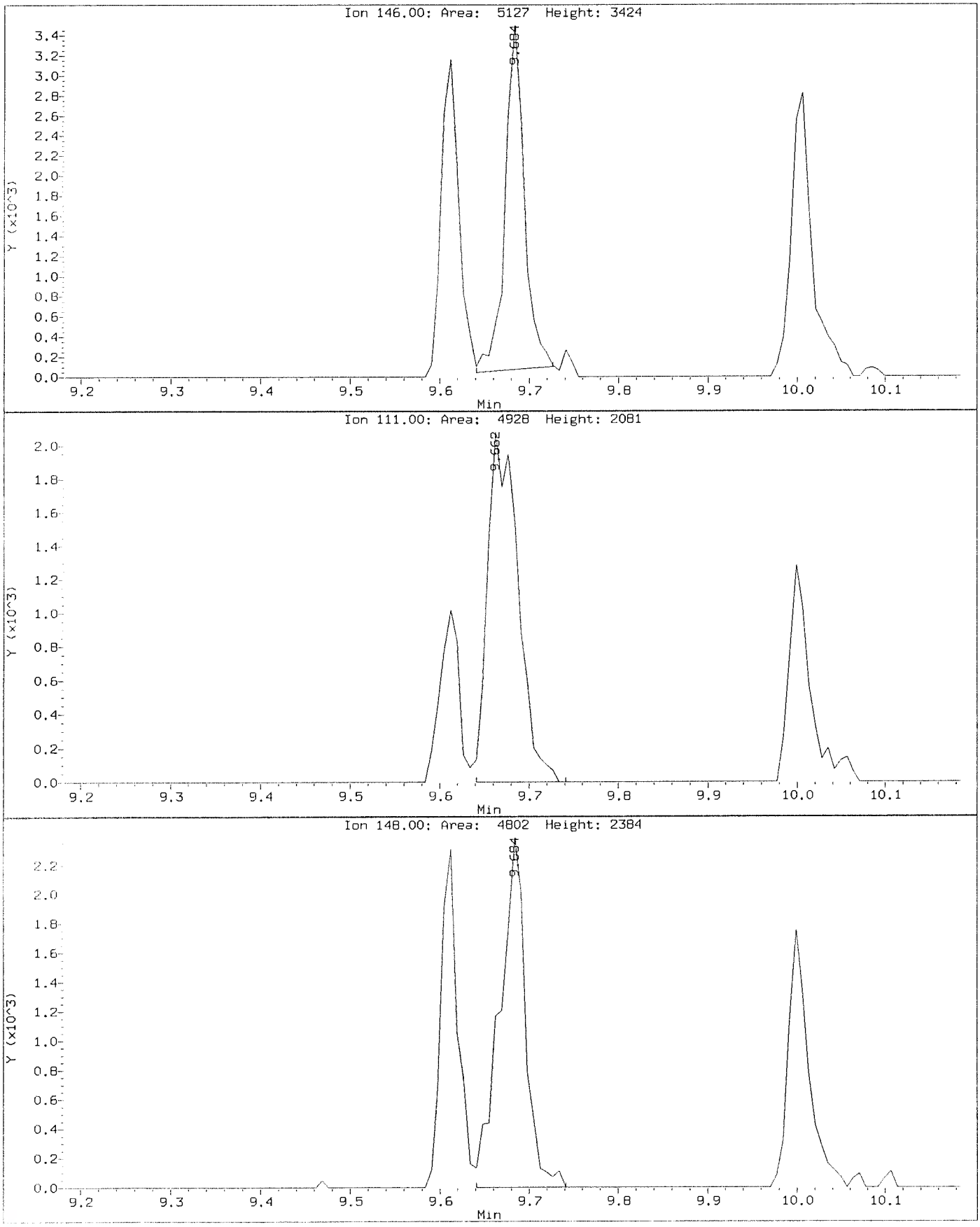
Compound: 1,2-Dichloropropane
CAS Number: 78-87-5





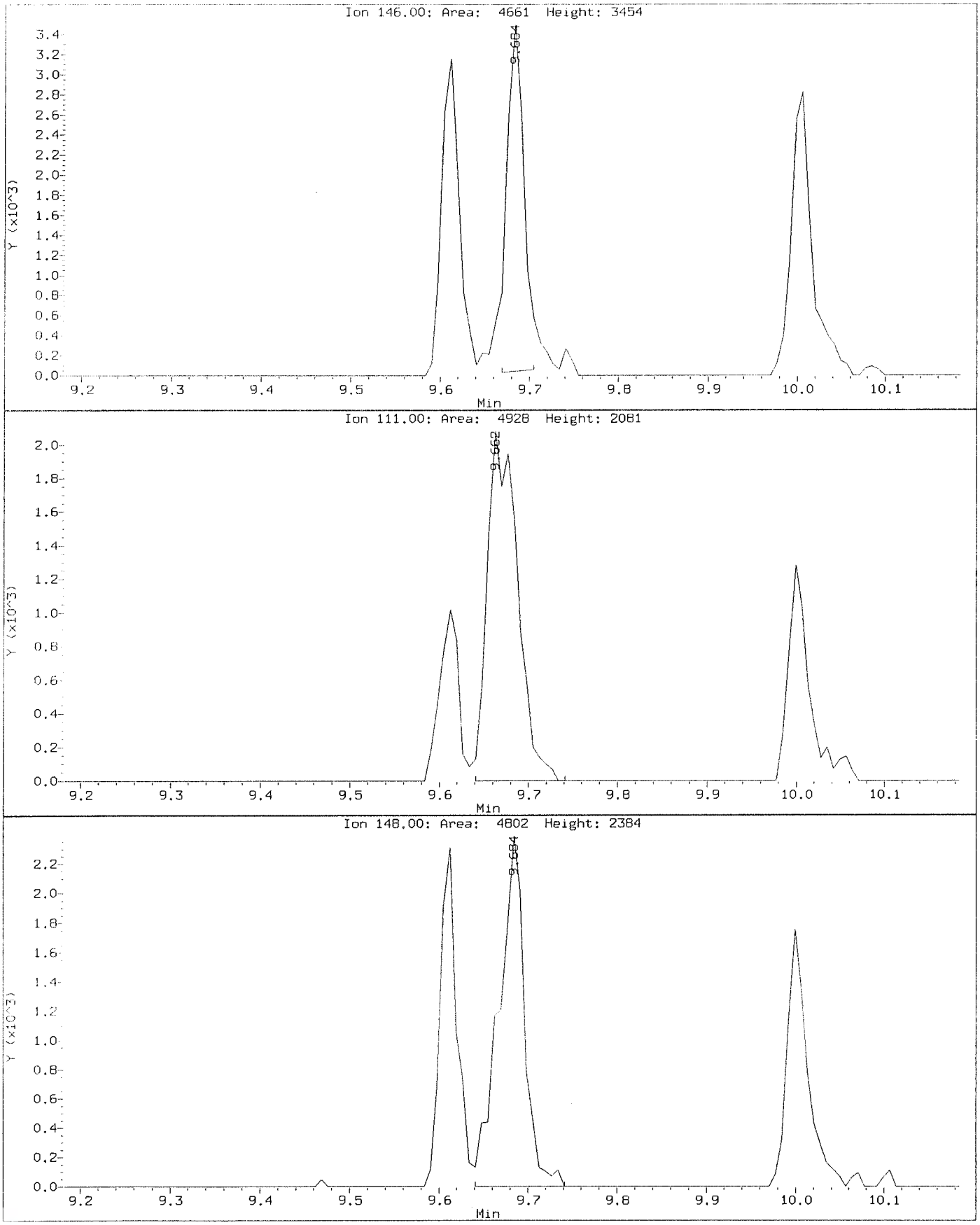
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 1,4-Dichlorobenzene
CAS Number: 106-46-7



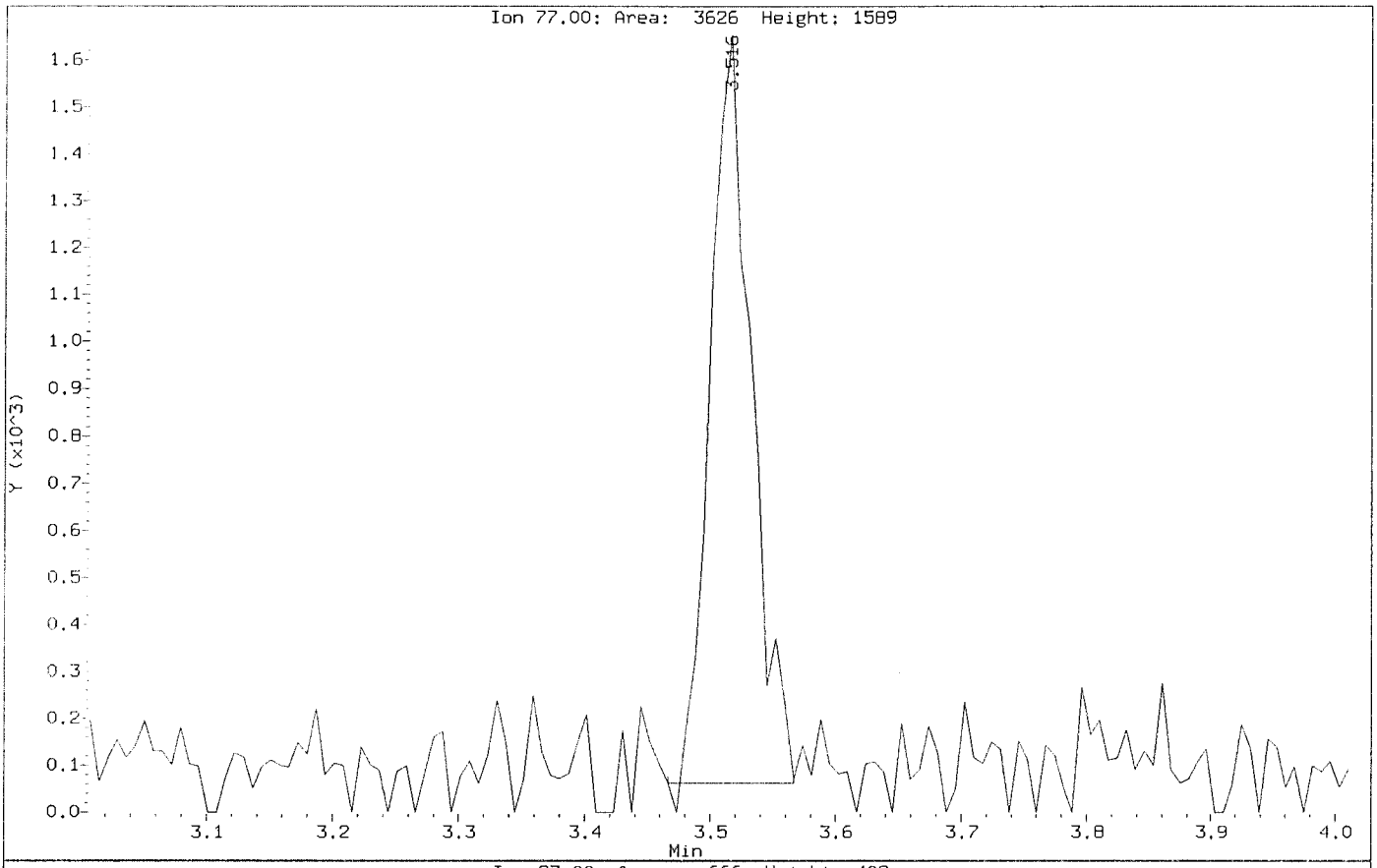
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Client Sample ID: VSTD000.5

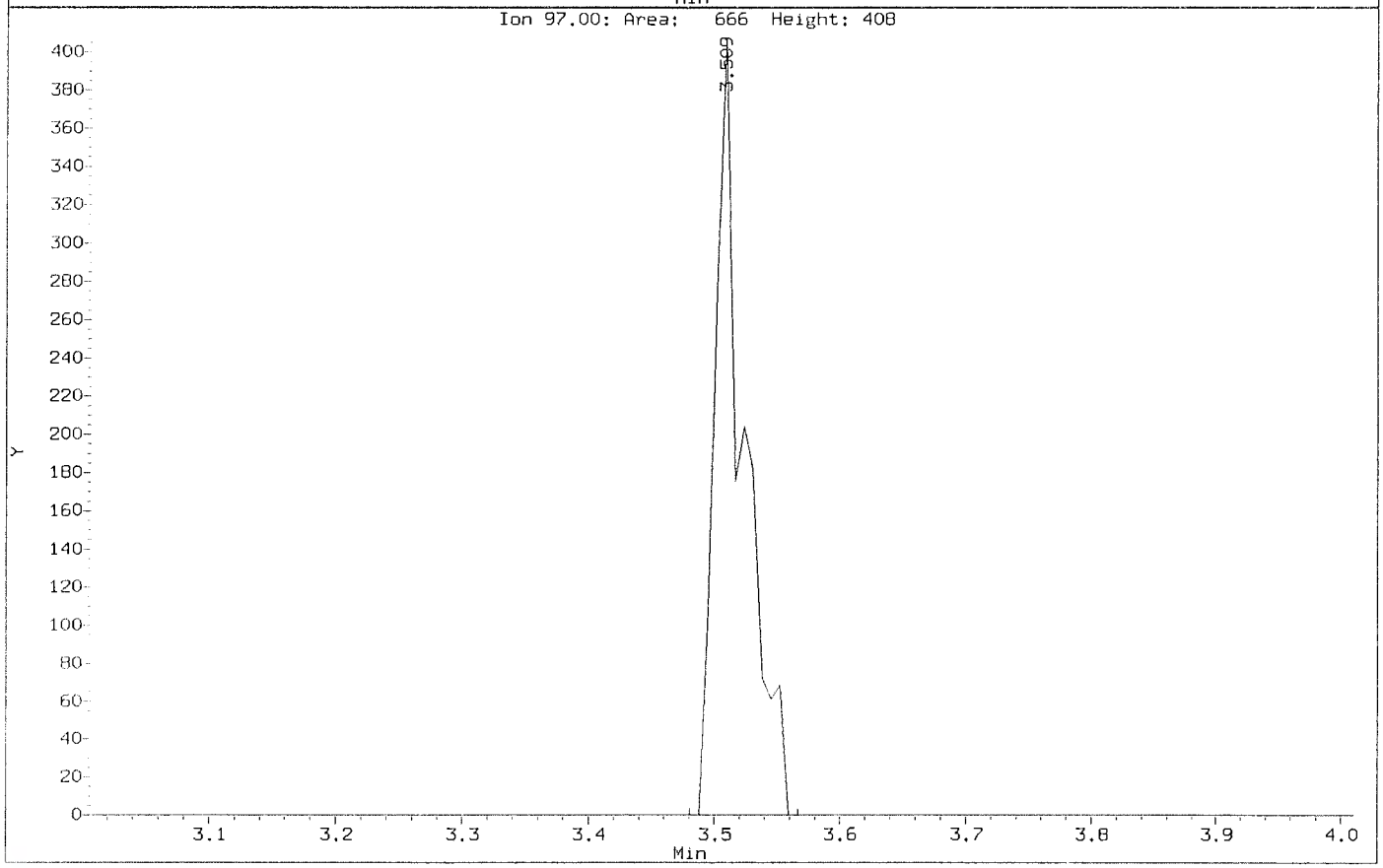
Compound: 1,4-Dichlorobenzene
CAS Number: 106-46-7



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Client Sample ID: VSTD000.5

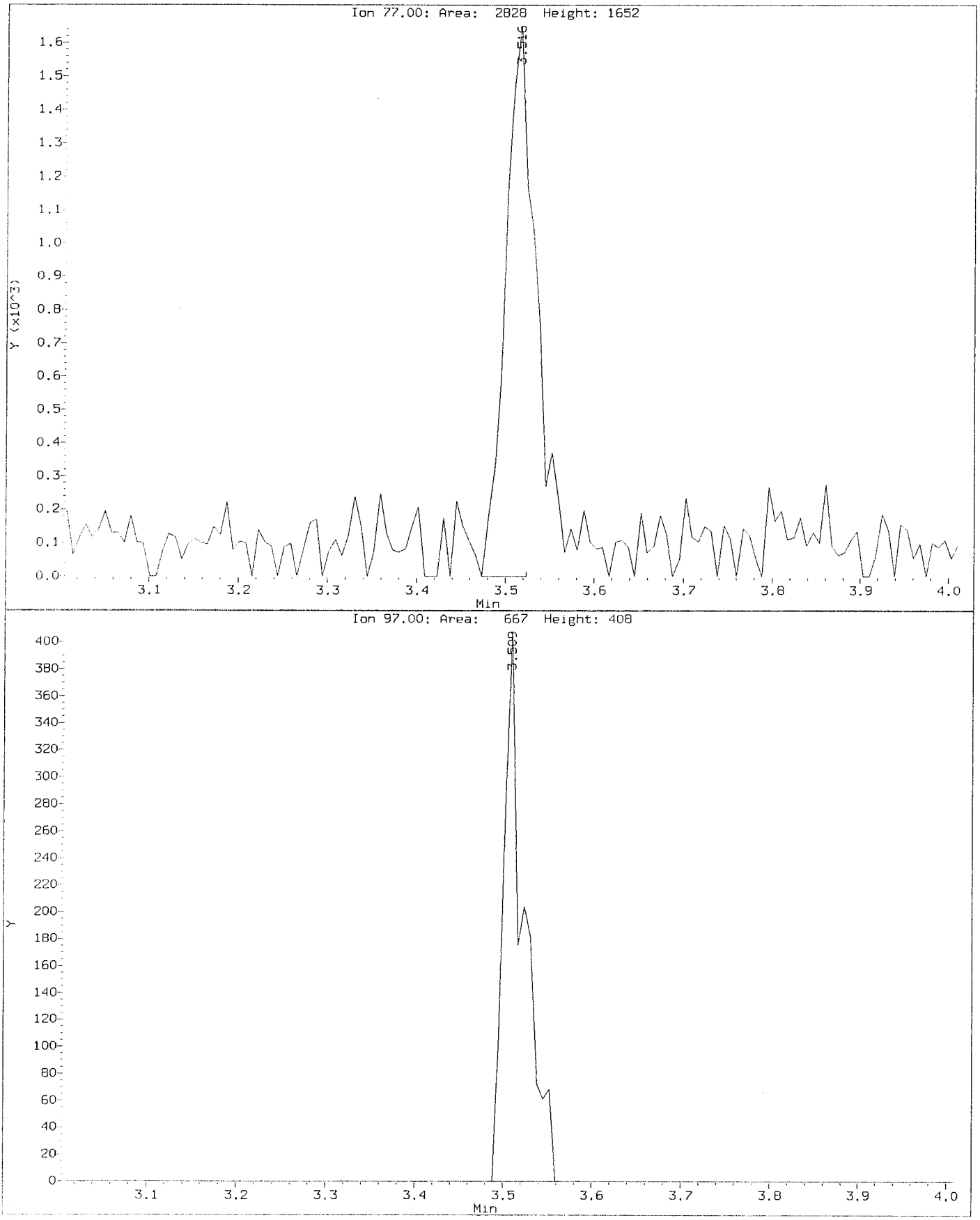
Compound: 2,2-Dichloropropane
CAS Number: 594-20-7





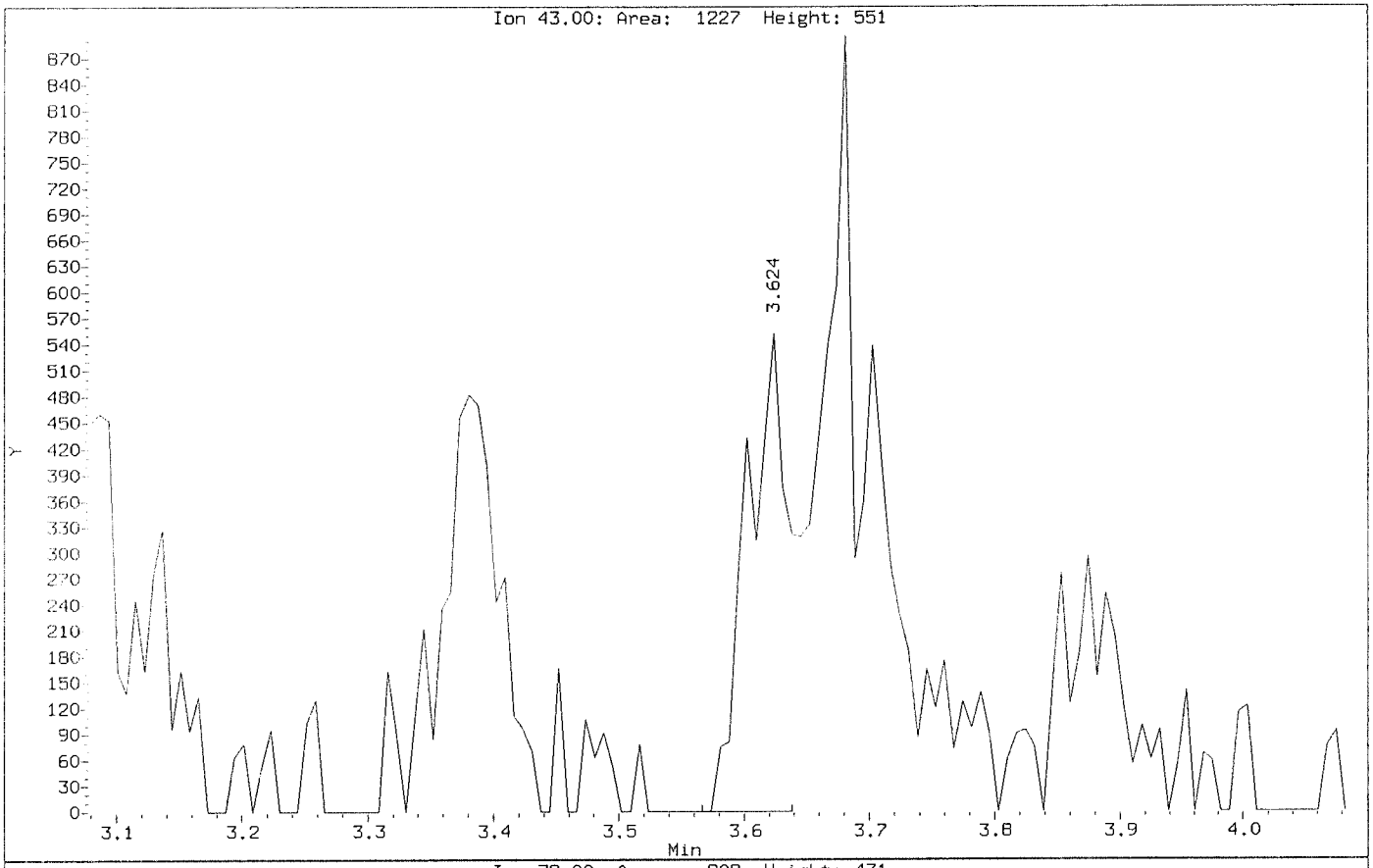
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Instrument: voa6.i
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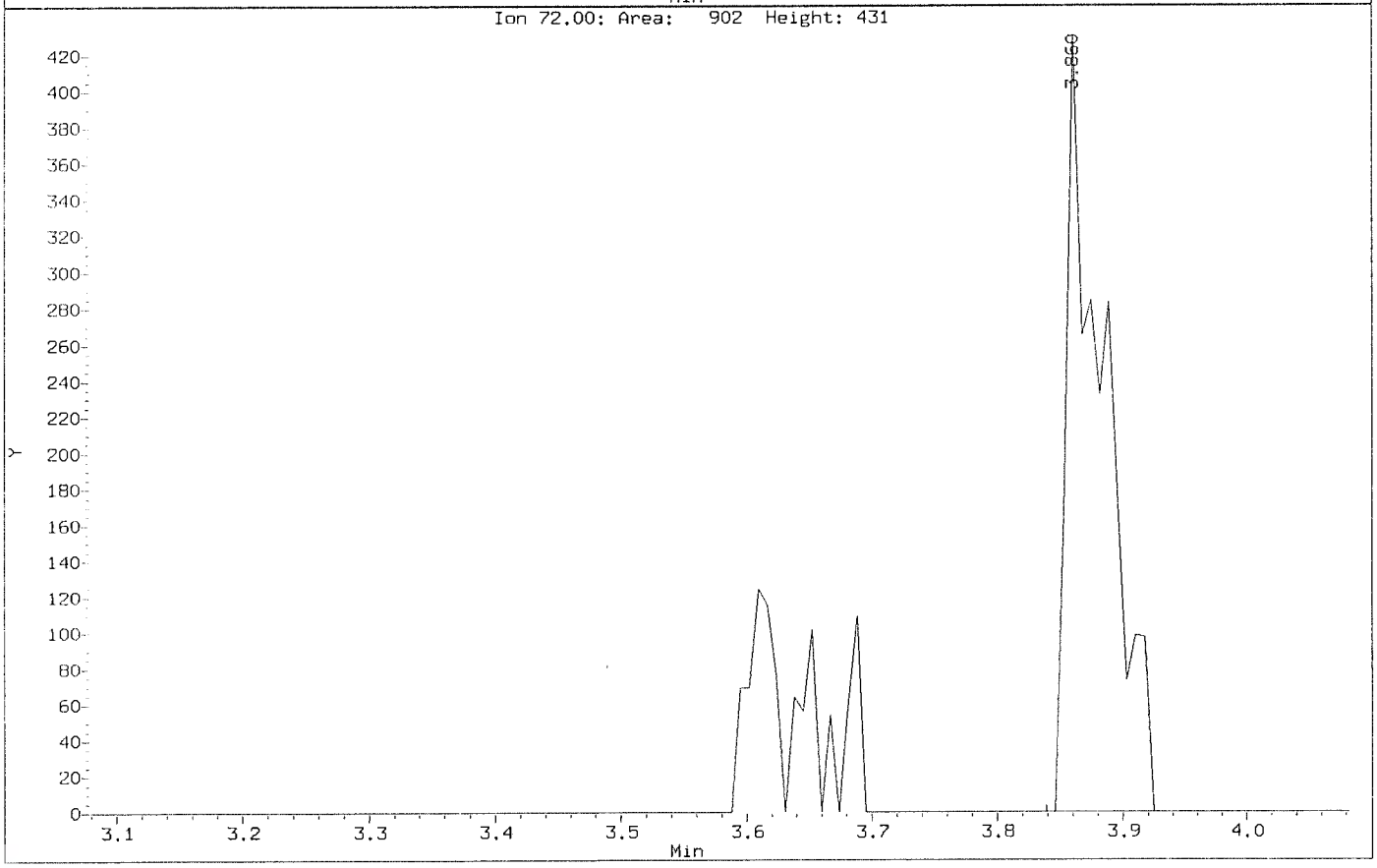
Compound: 2,2-Dichloropropane
CAS Number: 594-20-7



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052603.D
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Instrument: voa6.i
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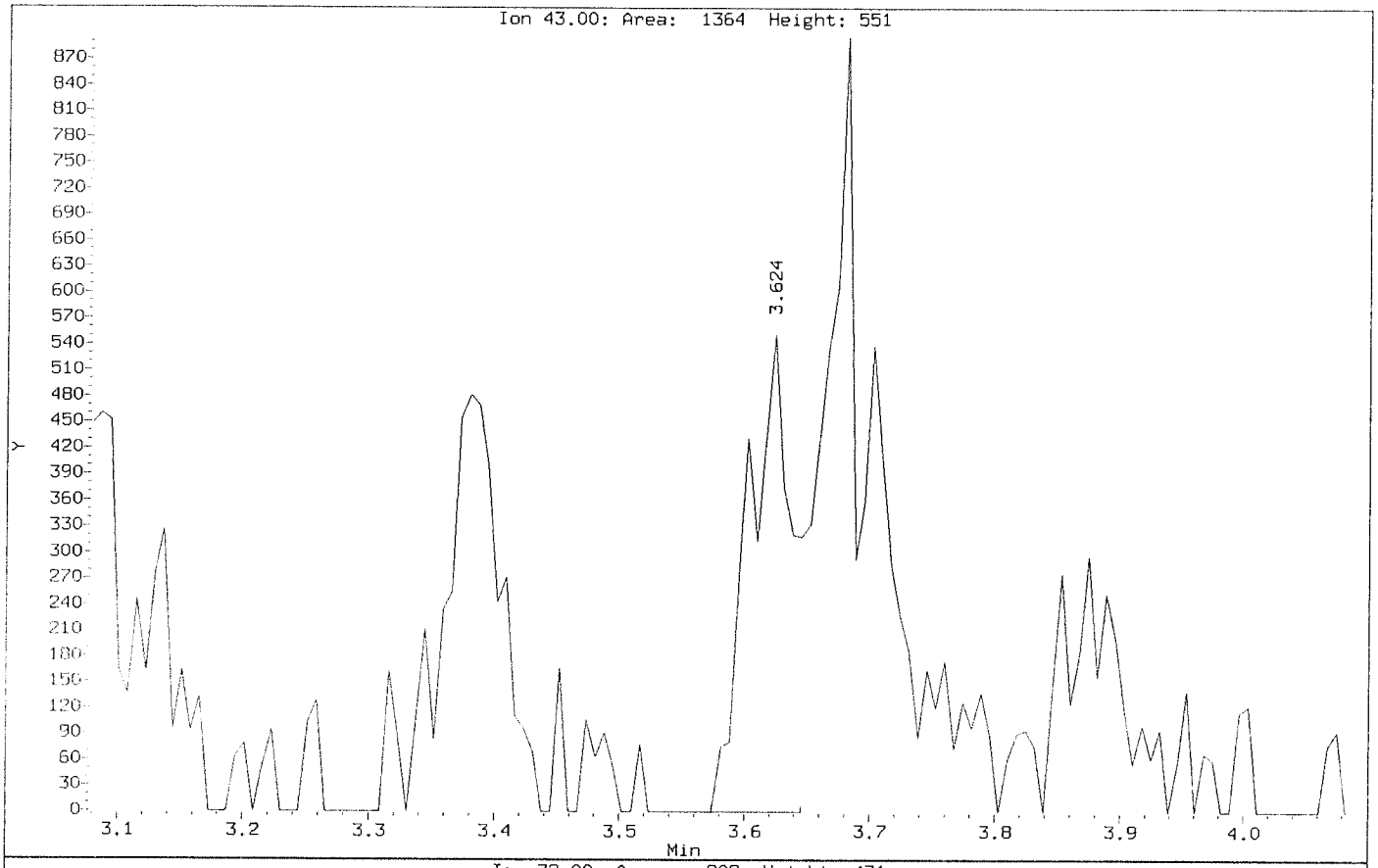
Compound: 2-Butanone
CAS Number: 78-93-3

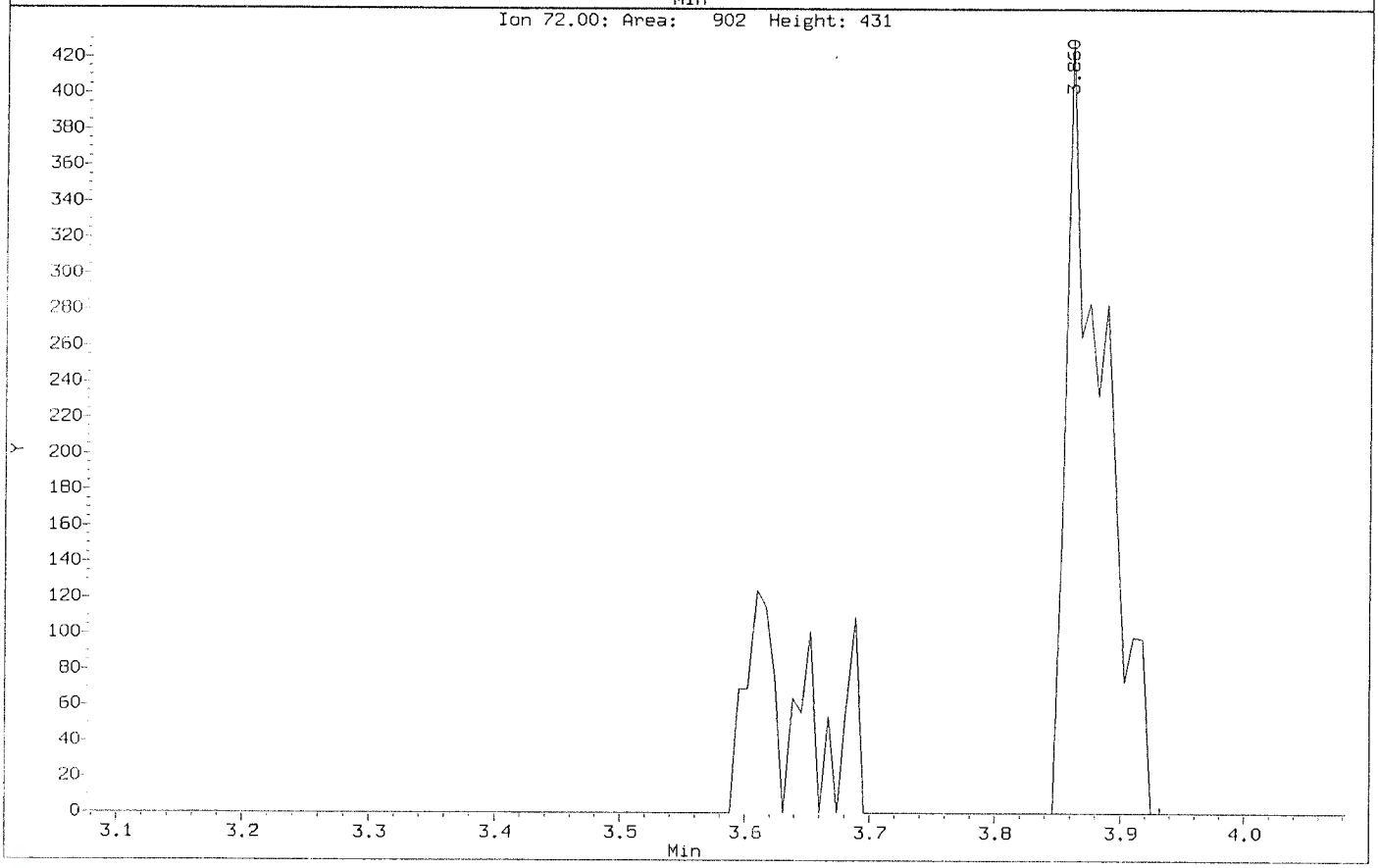




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Client Sample ID: VSTD000.5

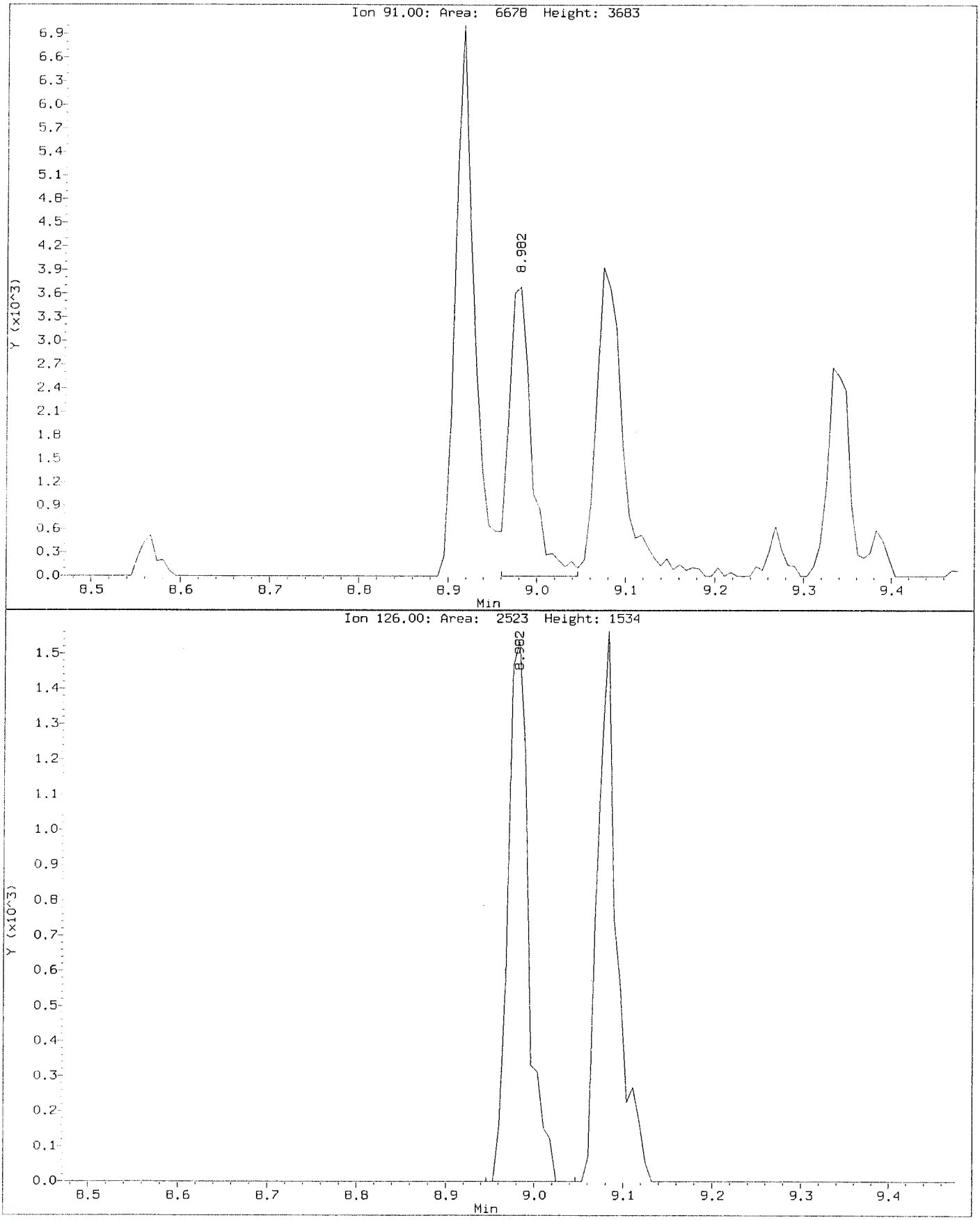
Compound: 2-Butanone
CAS Number: 78-93-3





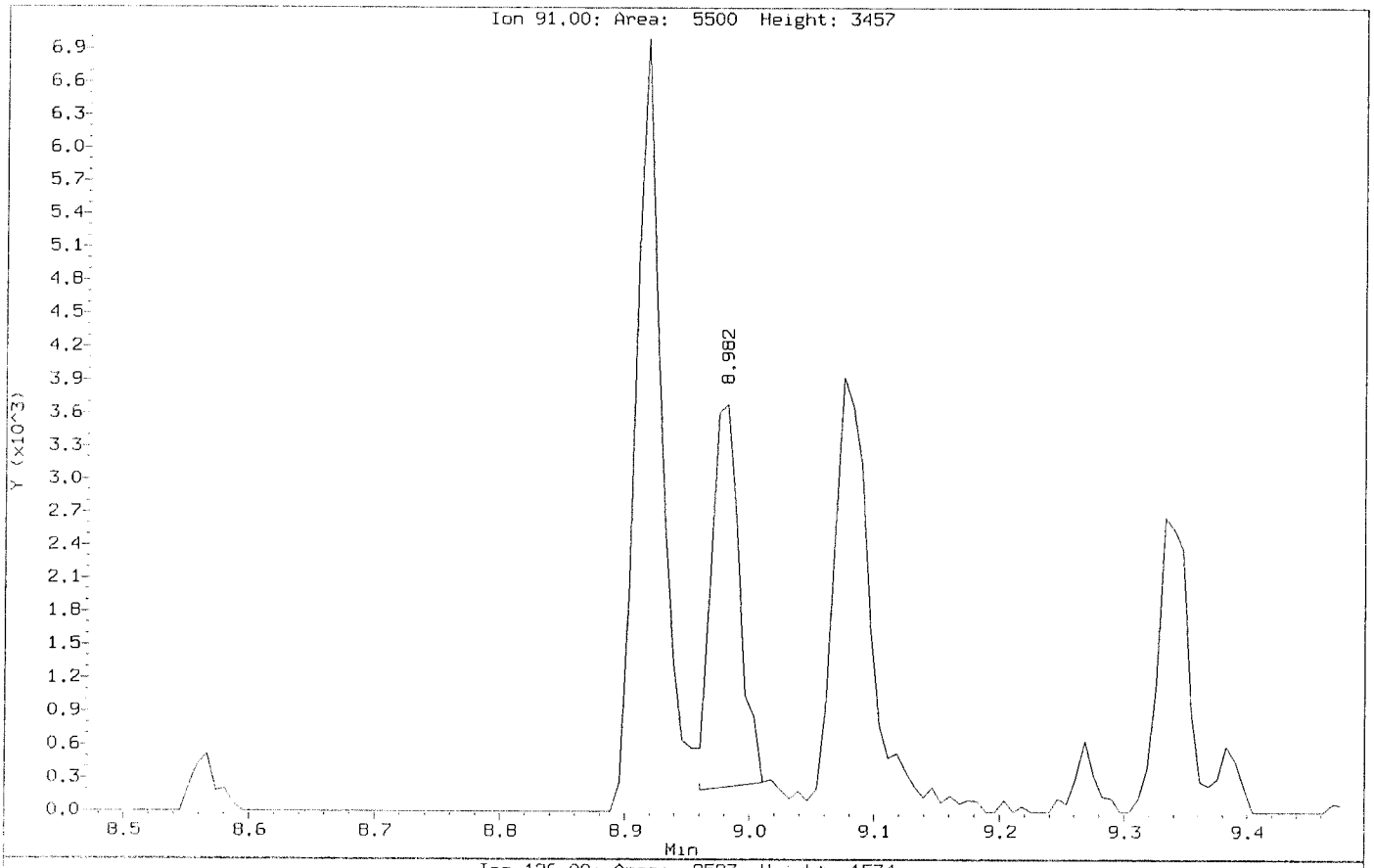
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Instrument: voa6.i
Client Sample ID: VSTD000.5

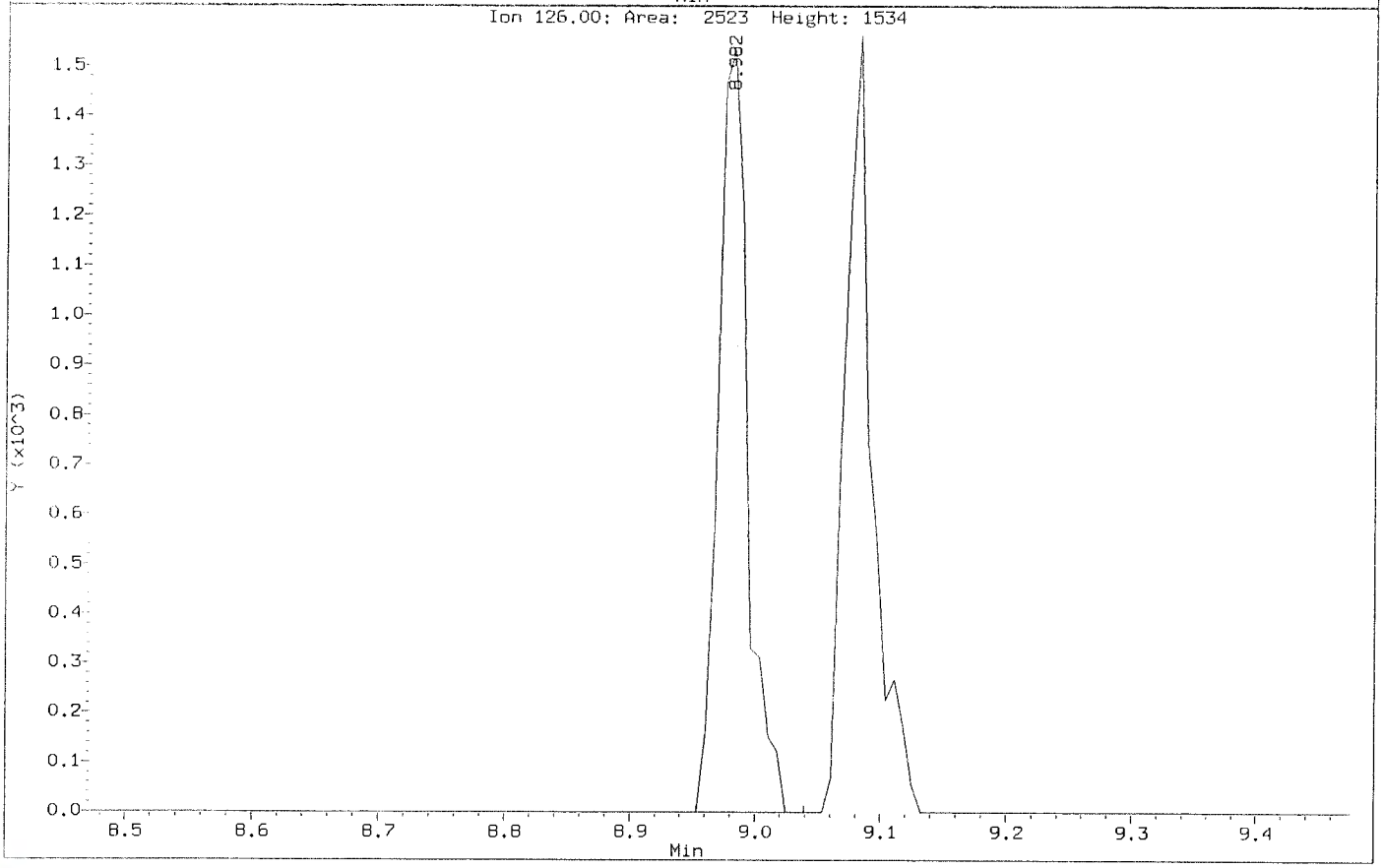
Compound: 2-Chlorotoluene
CAS Number: 95-49-8



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052603.D
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Instrument: voa6.i
Client Sample ID: VSTD000.5

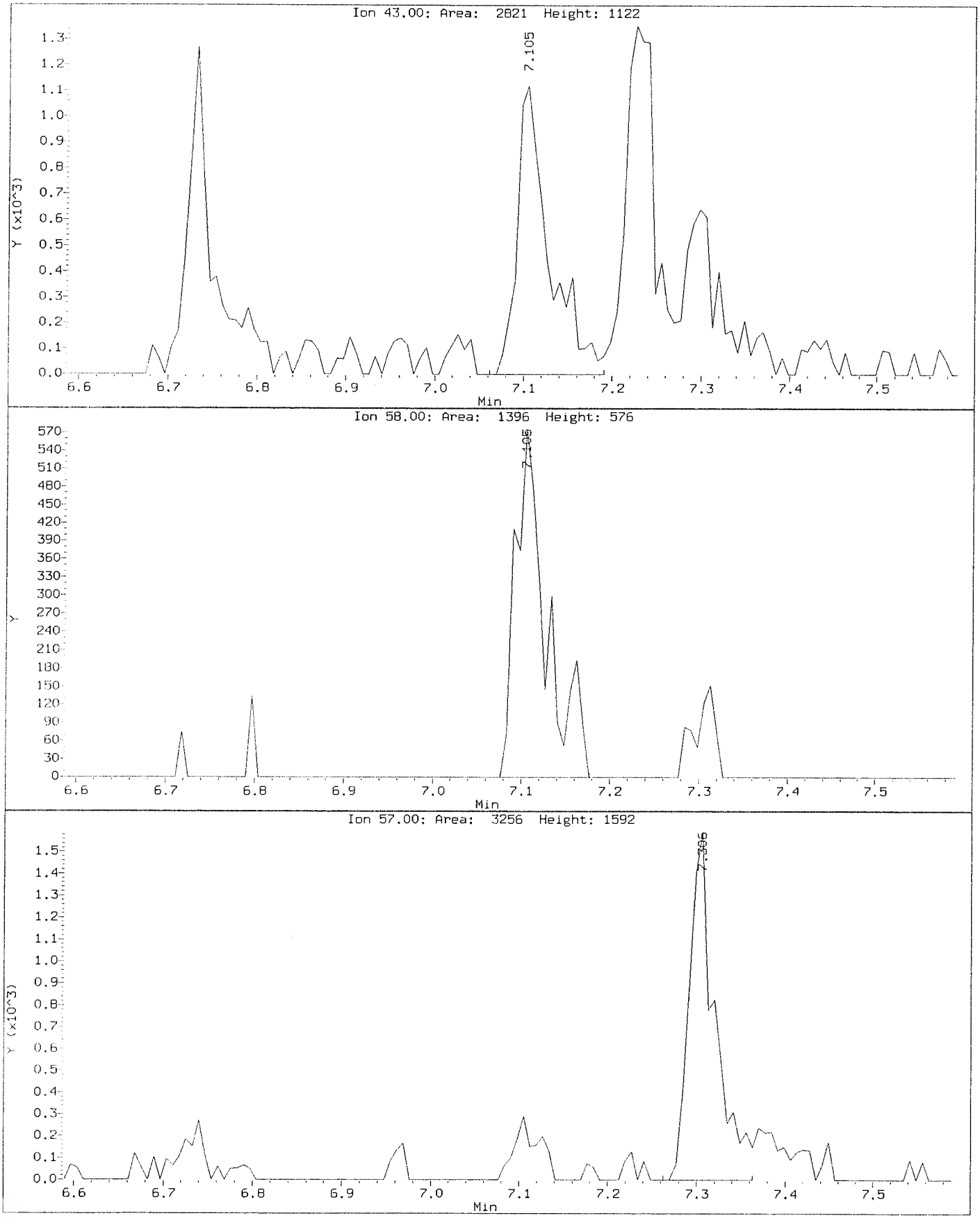
Compound: 2-Chlorotoluene
CAS Number: 95-49-8





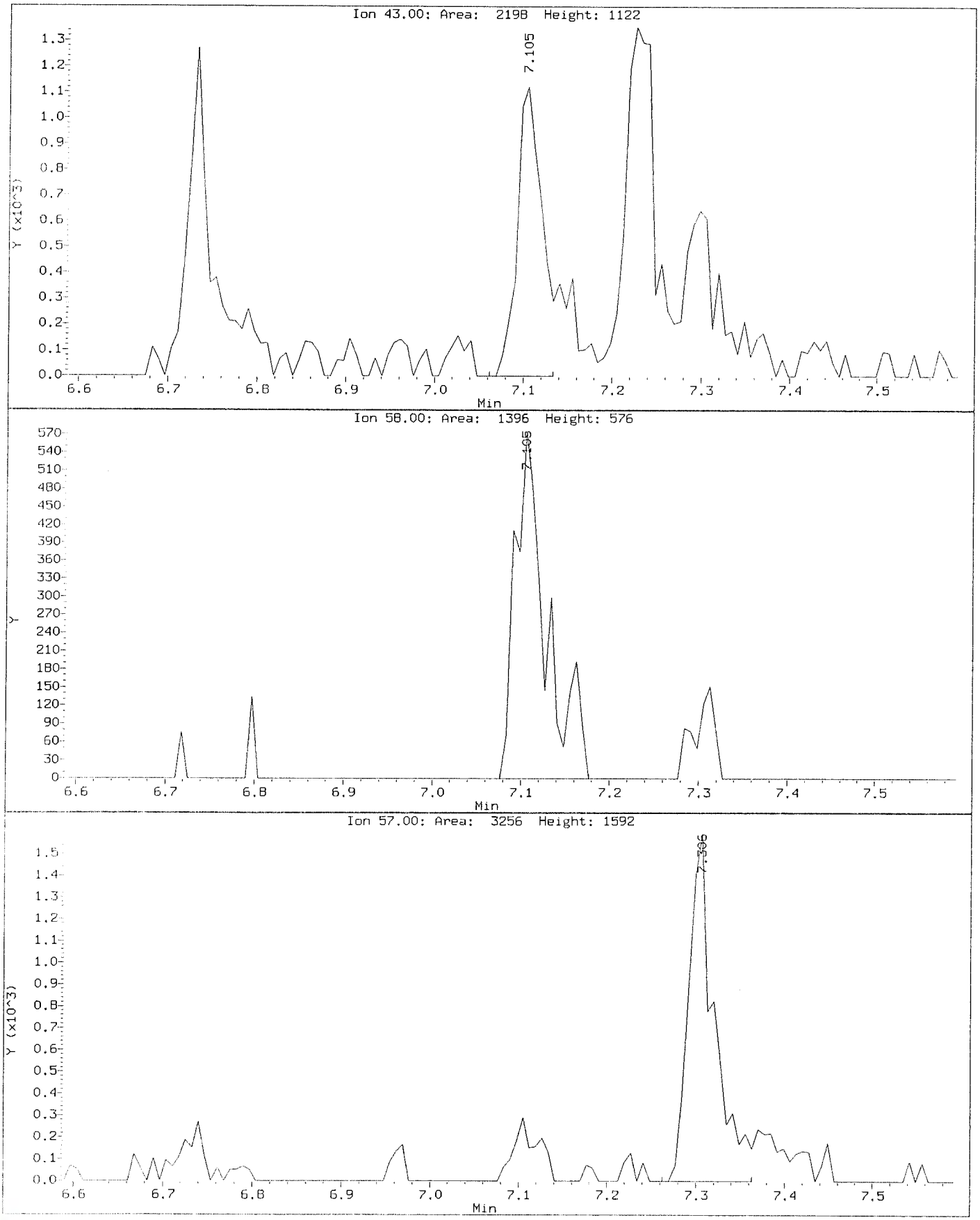
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: 2-Hexanone
CAS Number: 591-78-6



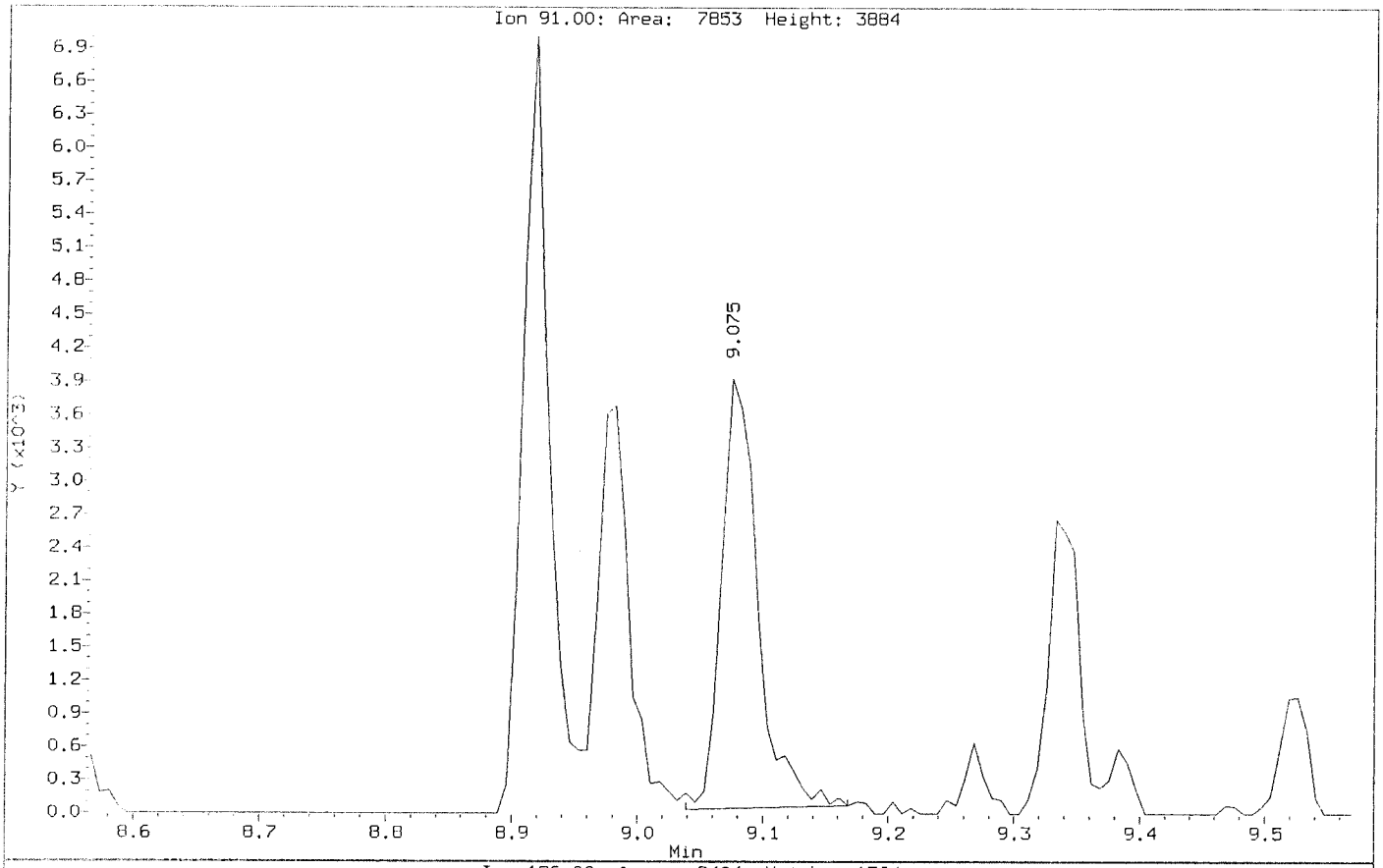
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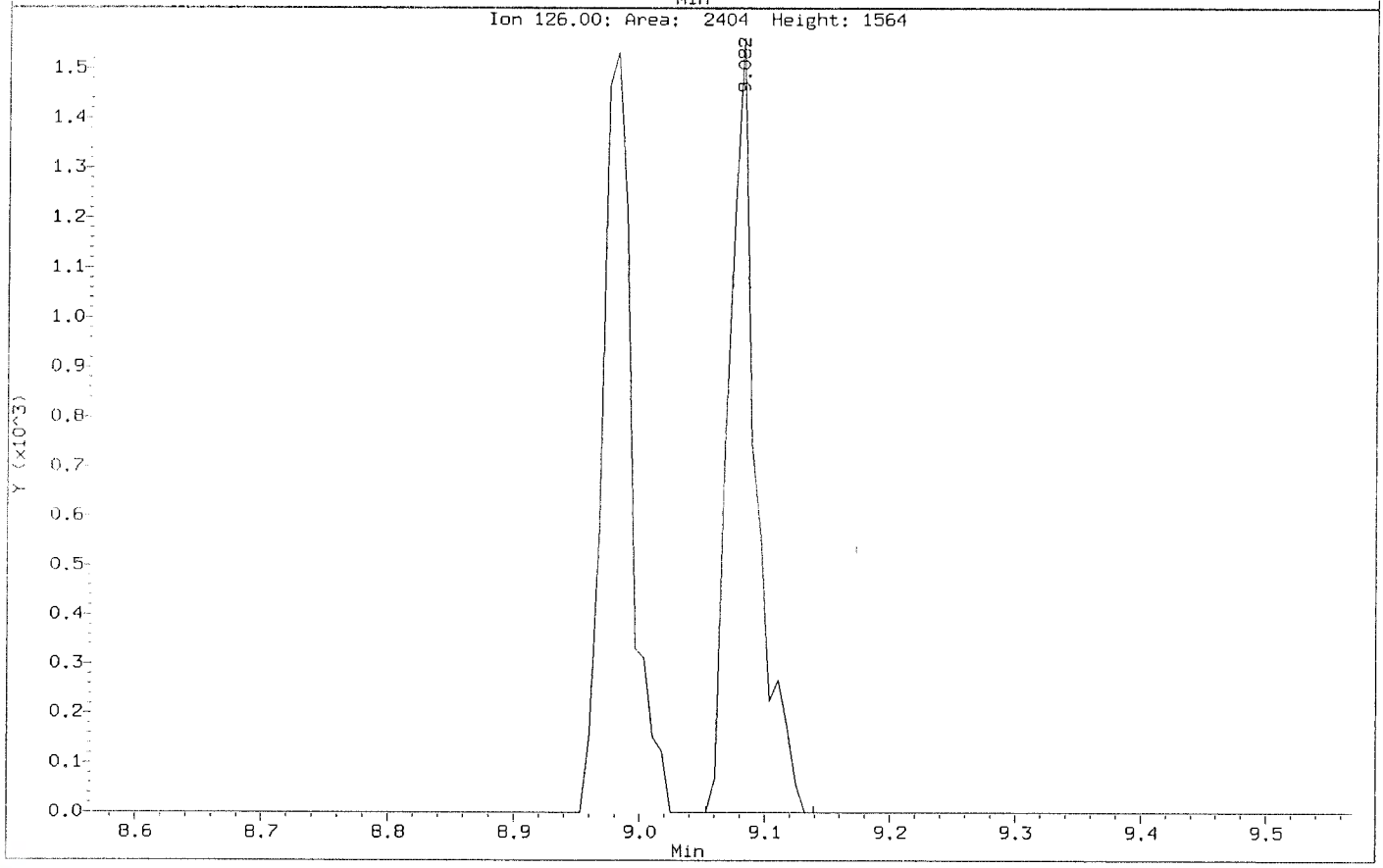
Compound: 2-Hexanone
CAS Number: 591-78-6



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052603.D
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

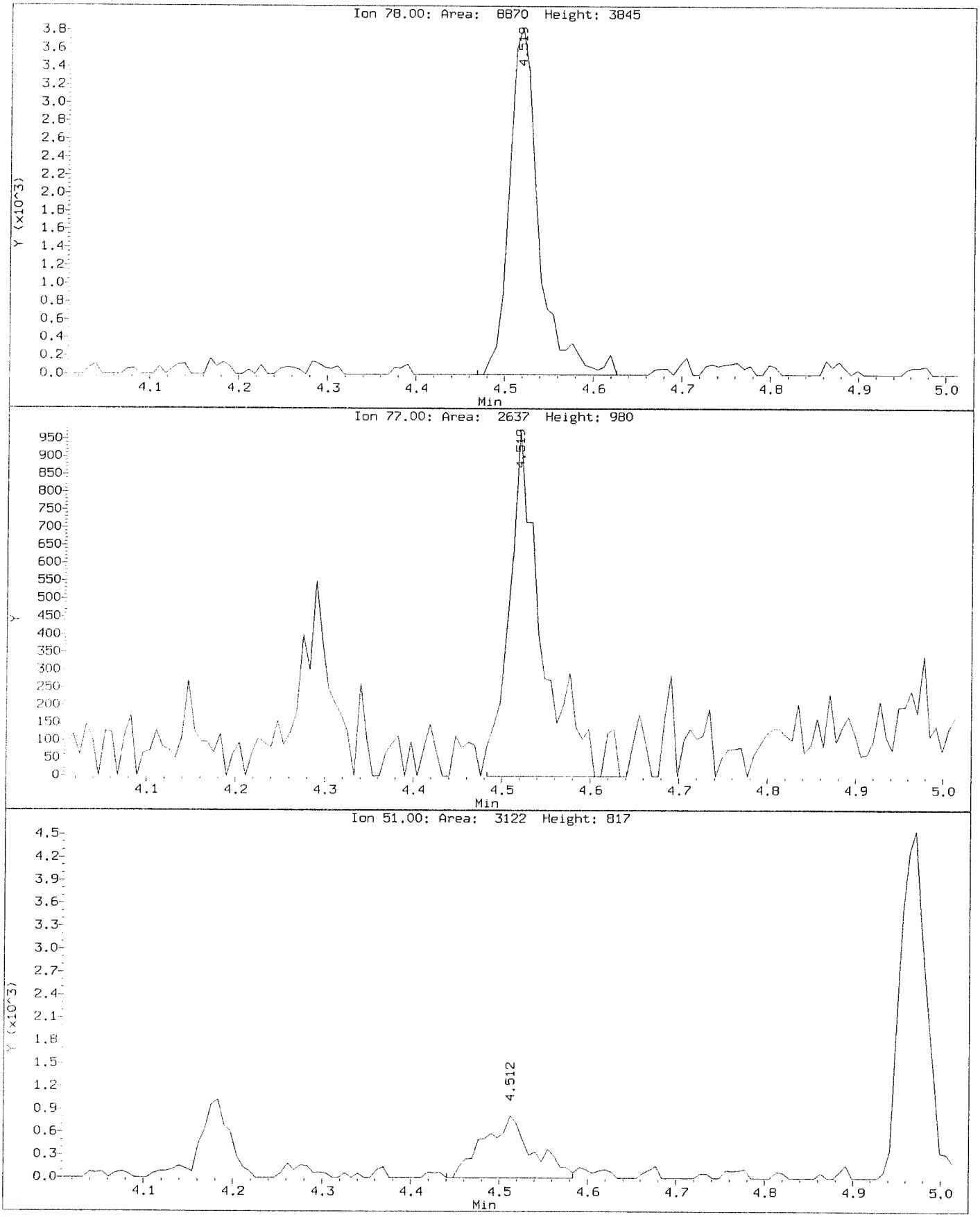
Compound: 4-Chlorotoluene
CAS Number: 106-43-4





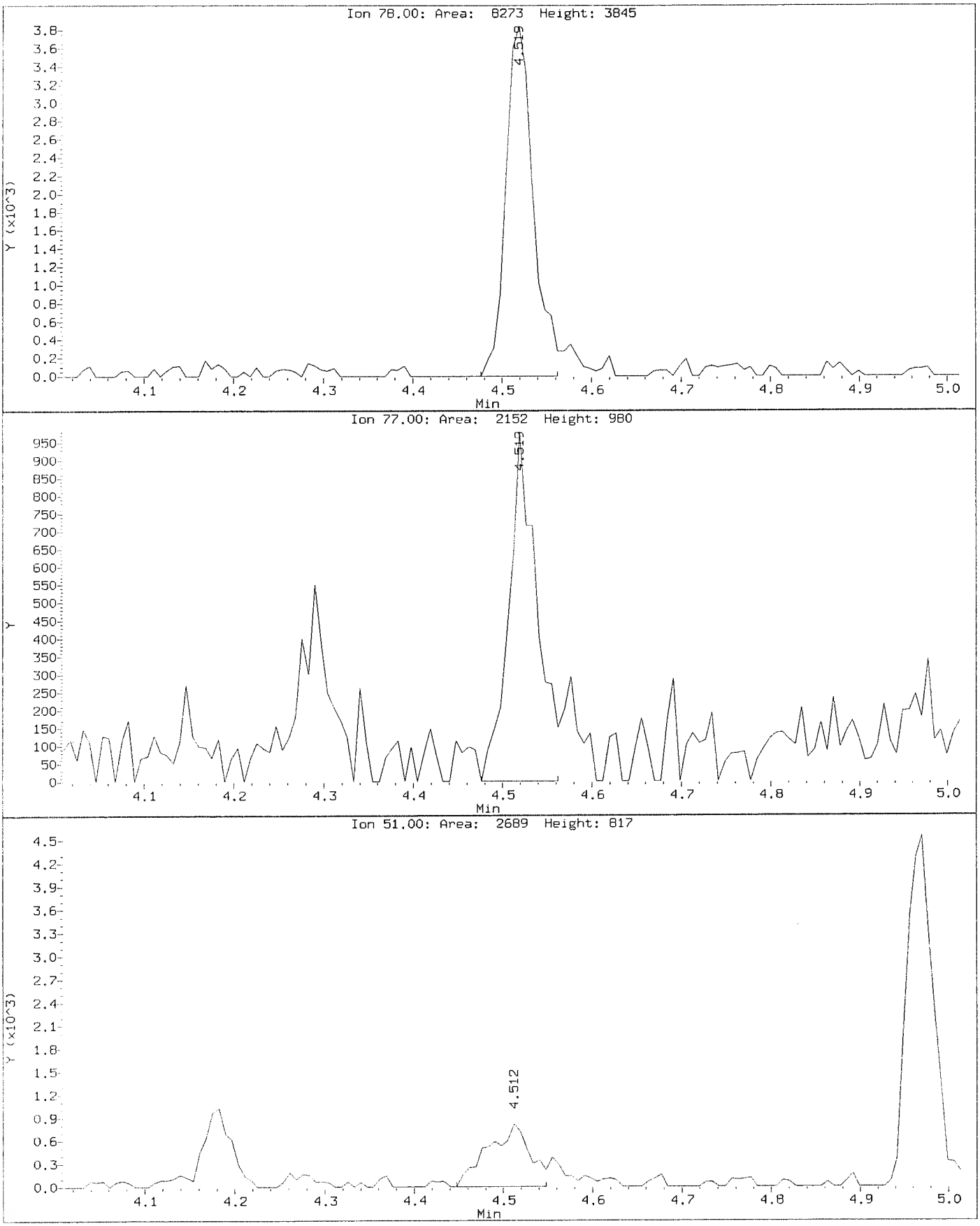
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Benzene
CAS Number: 71-43-2



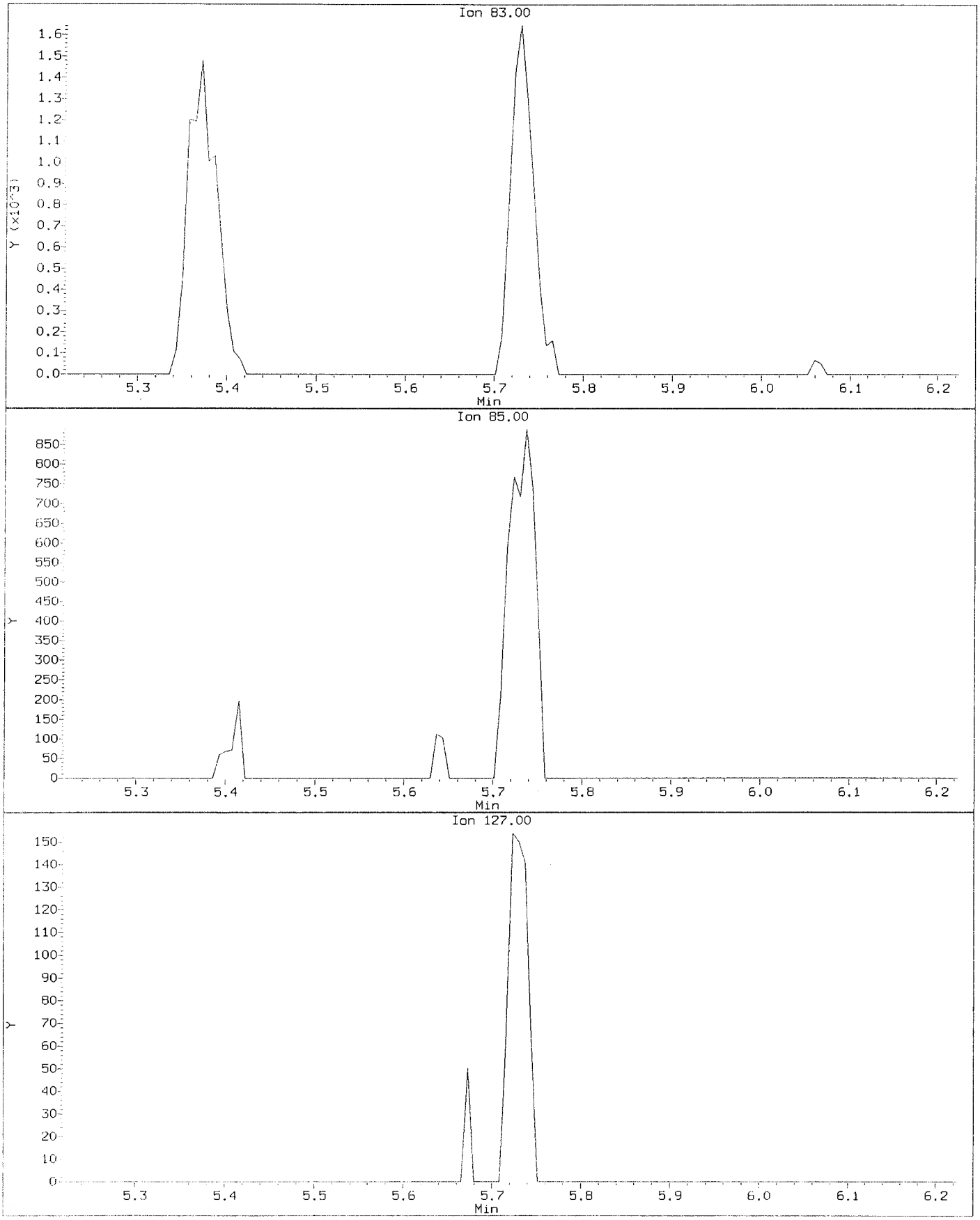
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Benzene
CAS Number: 71-43-2



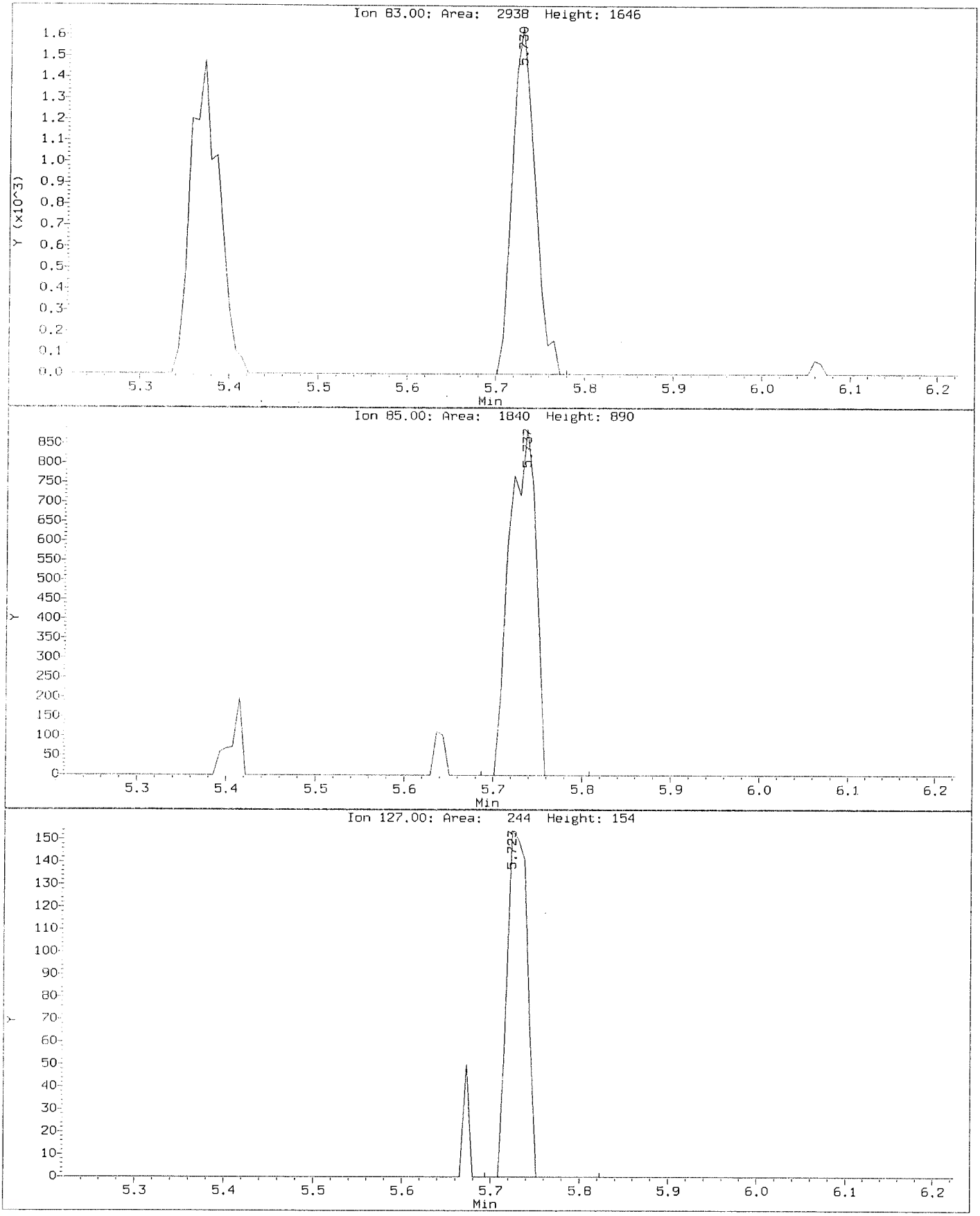
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Bromodichloromethane
CAS Number: 75-27-4



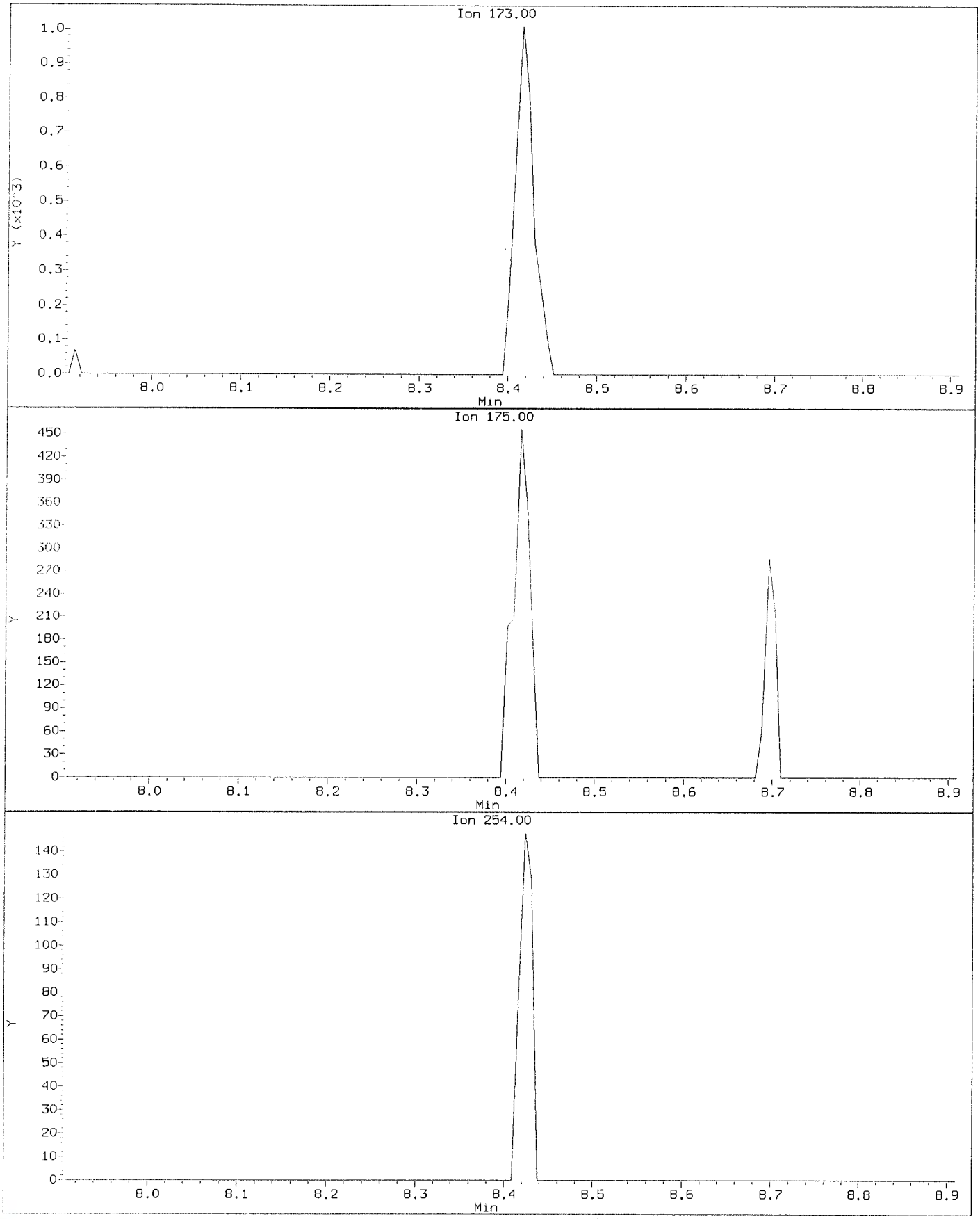
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Bromodichloromethane
CAS Number: 75-27-4



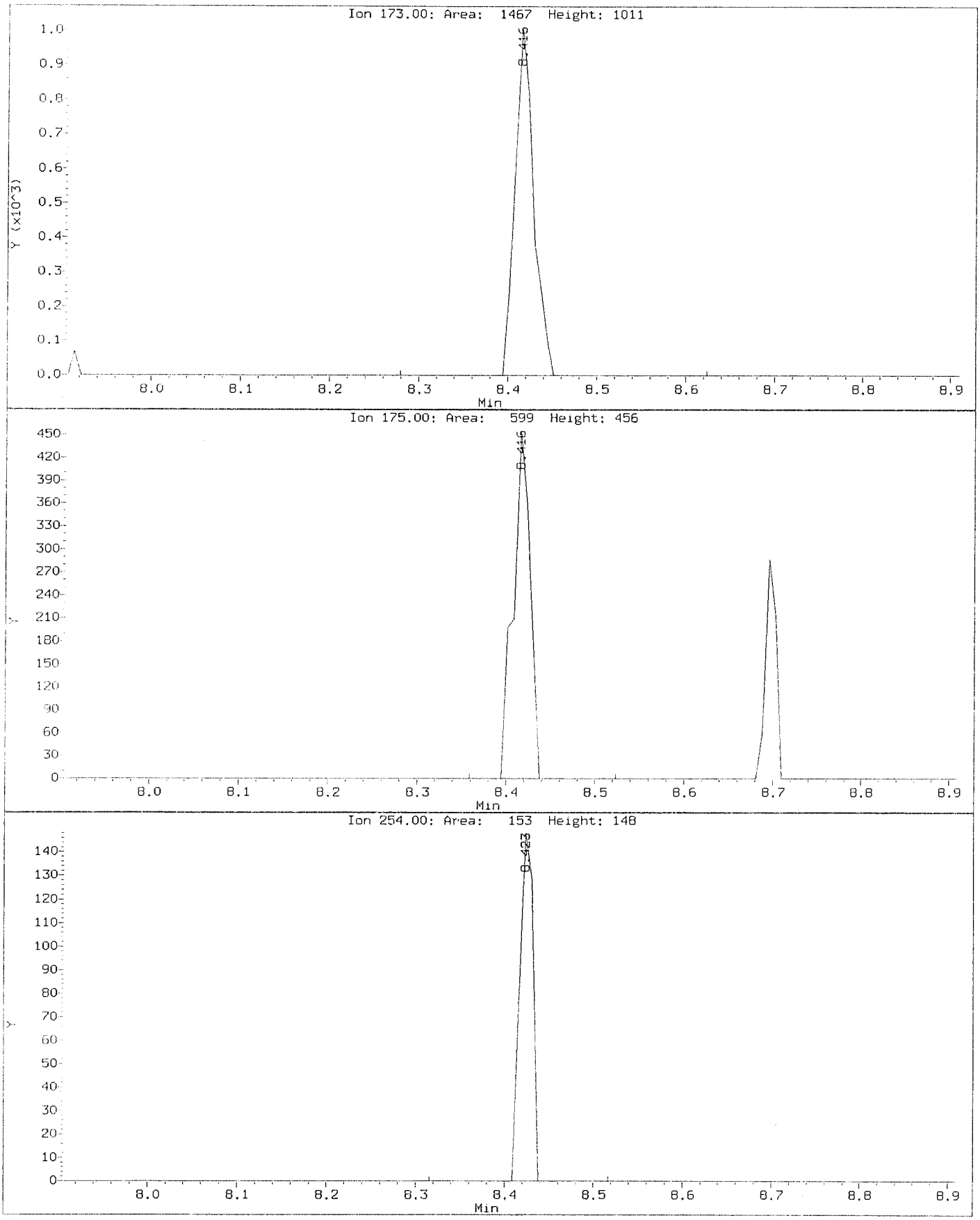
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Bromoform
CAS Number: 75-25-2



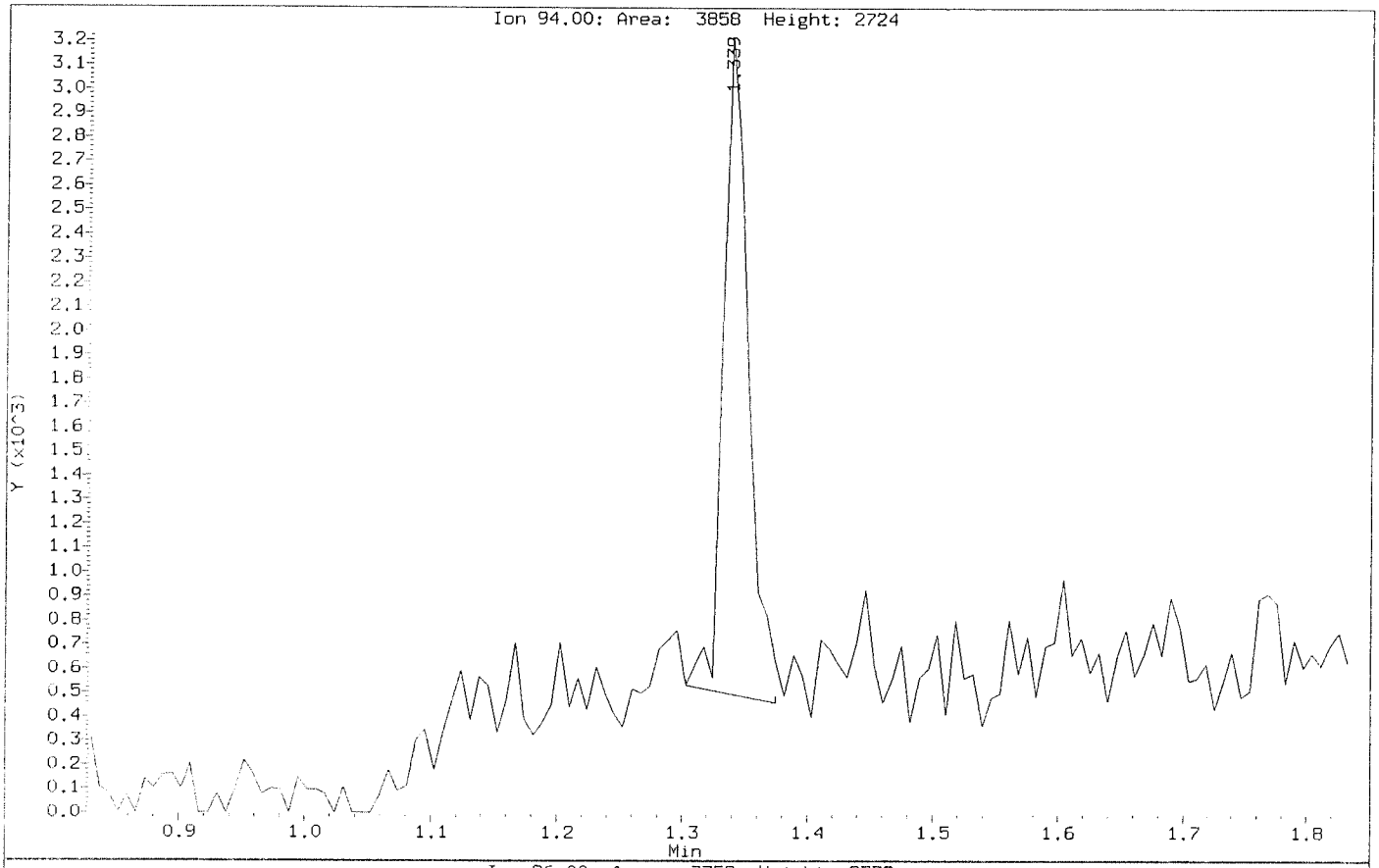
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Client Sample ID: VSTD000.5

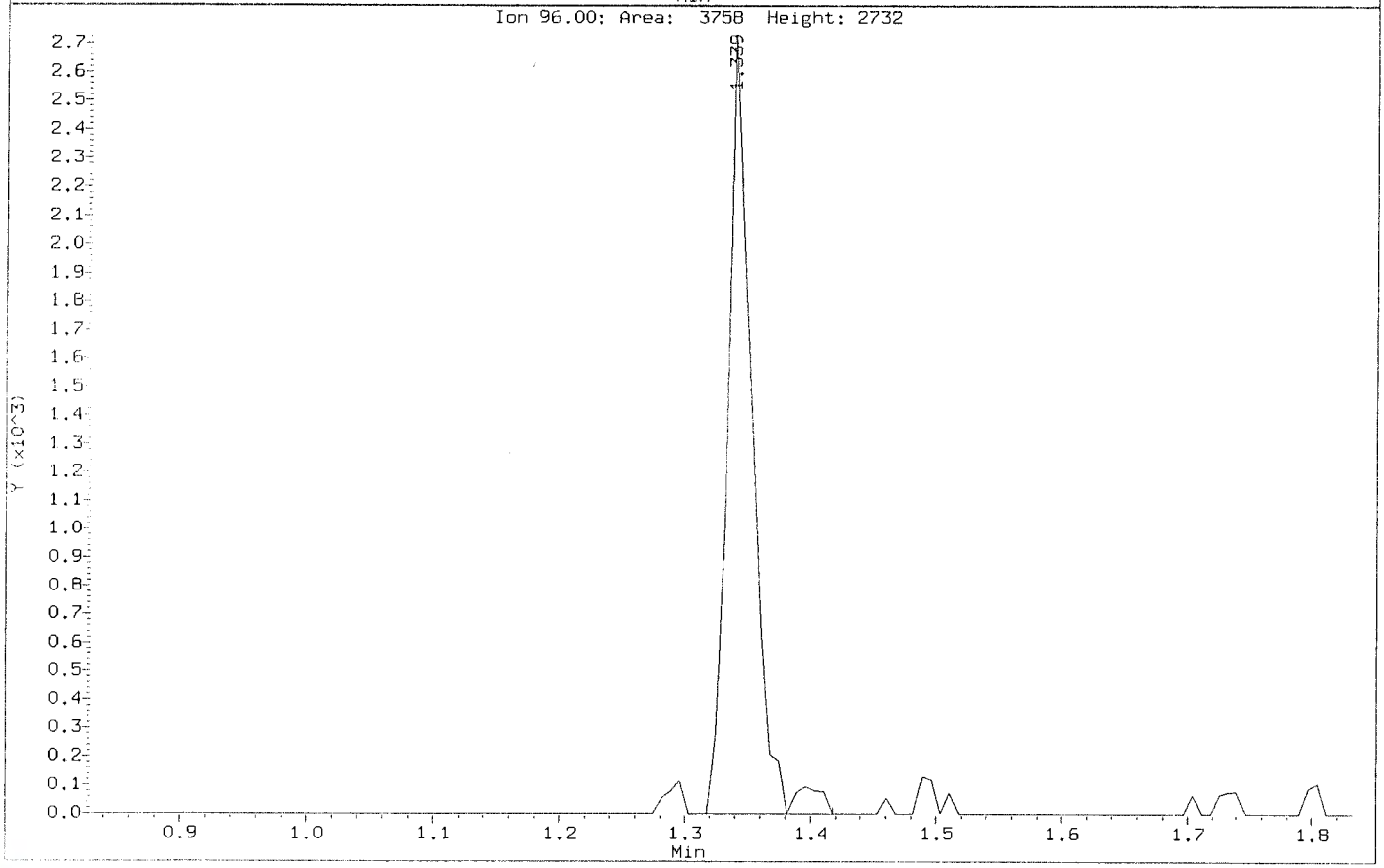
Compound: Bromoform
CAS Number: 75-25-2



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Instrument: voa6.i
Client Sample ID: VSTD000.5

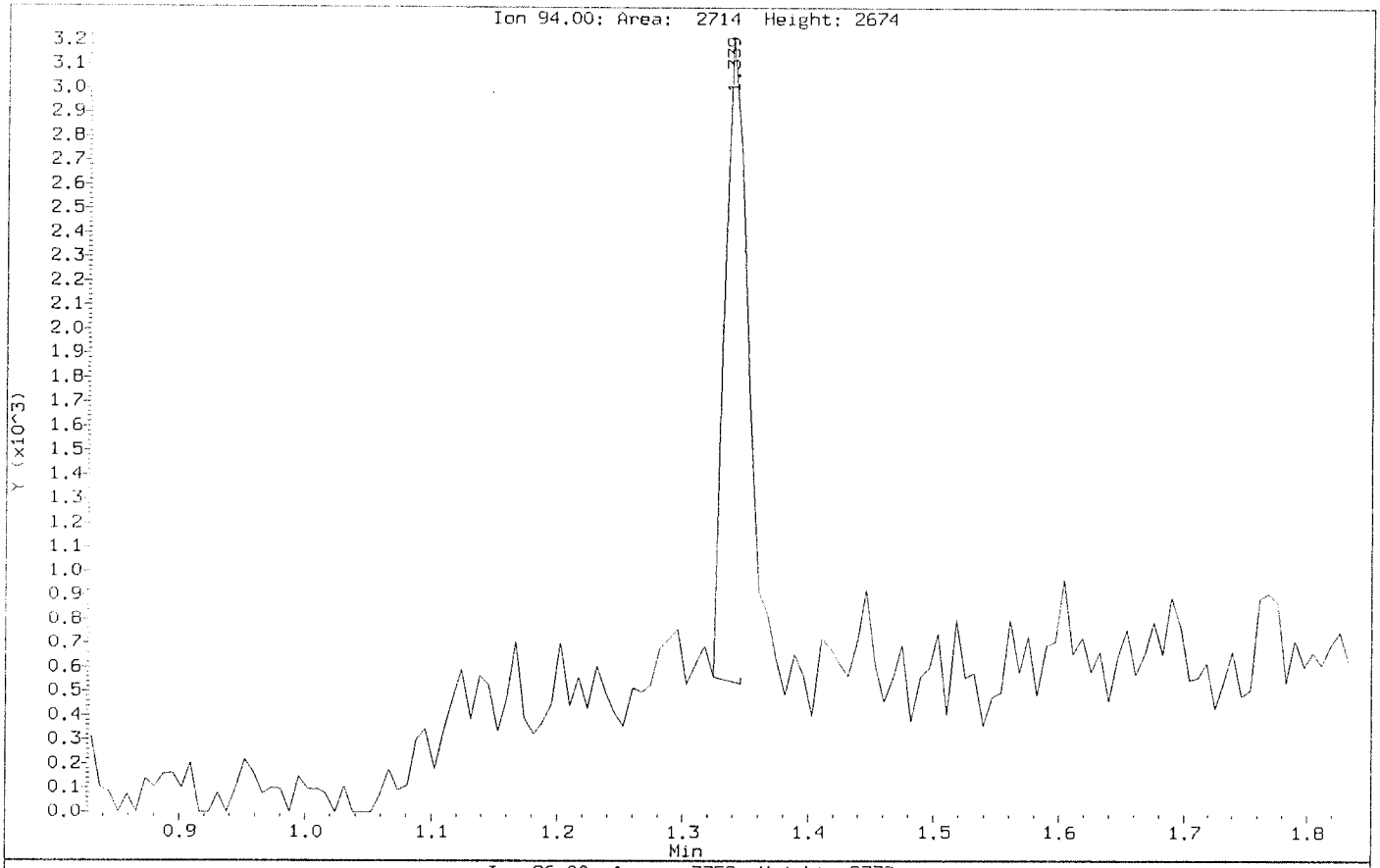
Compound: Bromomethane
CAS Number: 74-83-9

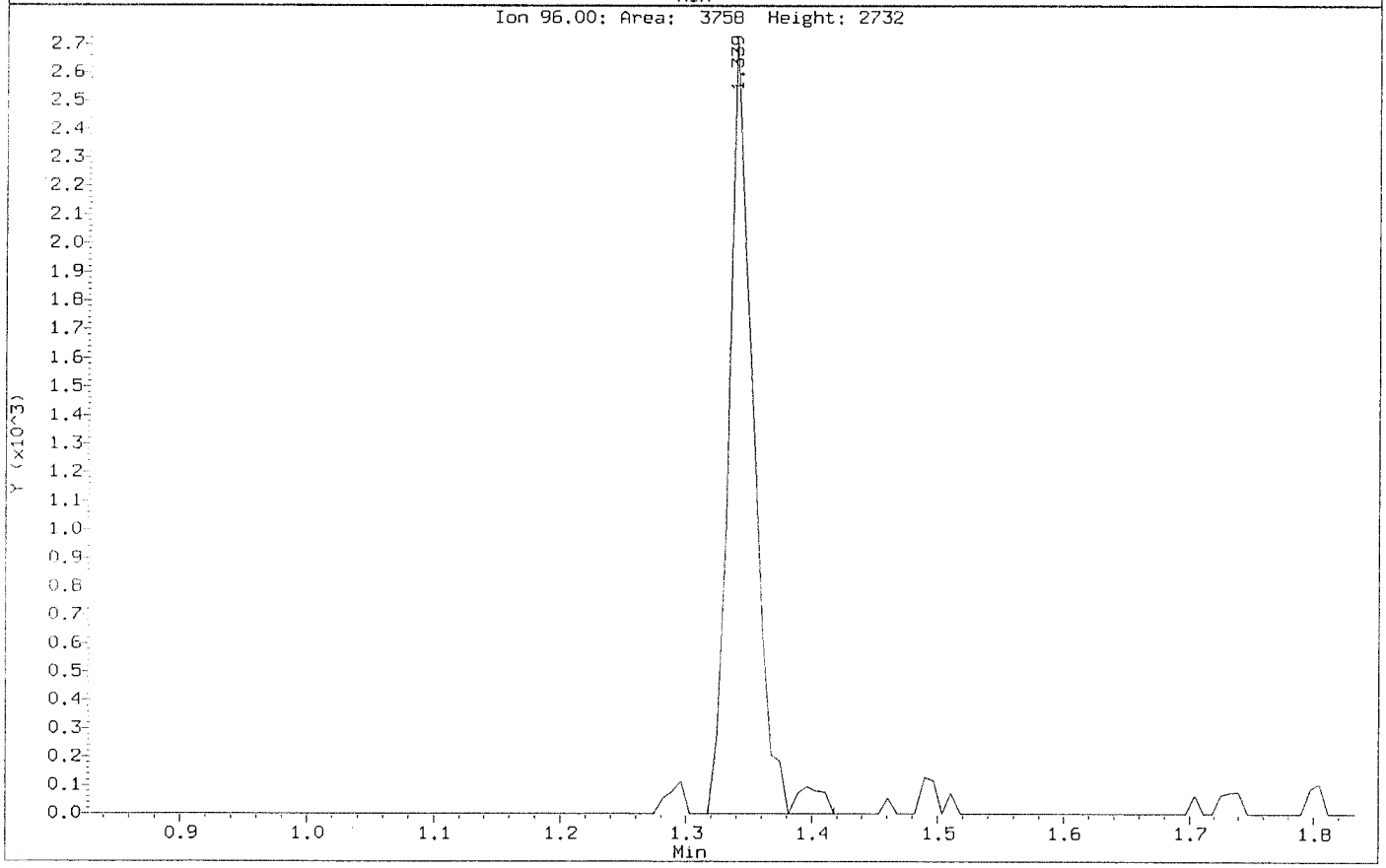




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Client Sample ID: VSTD000.5

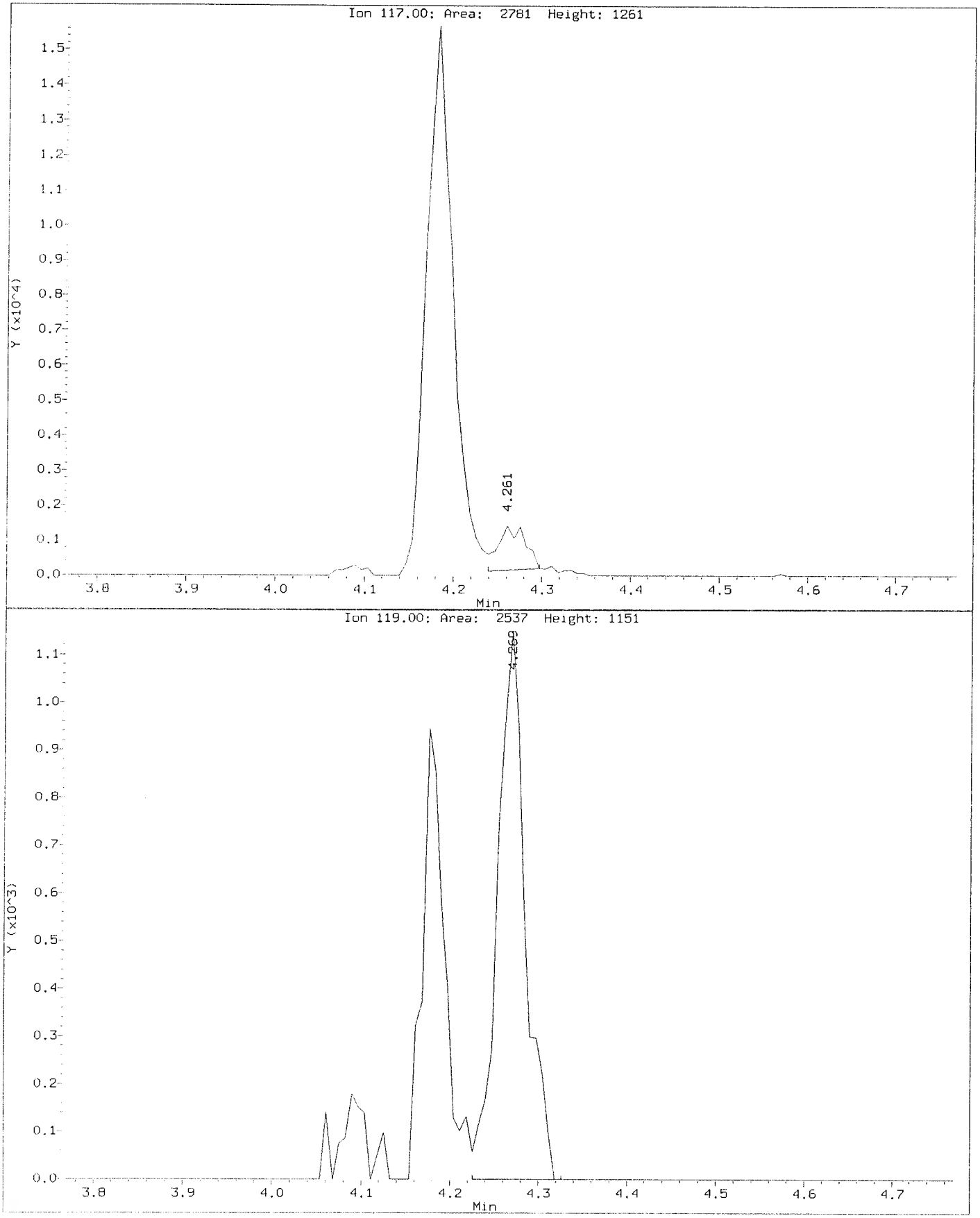
Compound: Bromomethane
CAS Number: 74-83-9





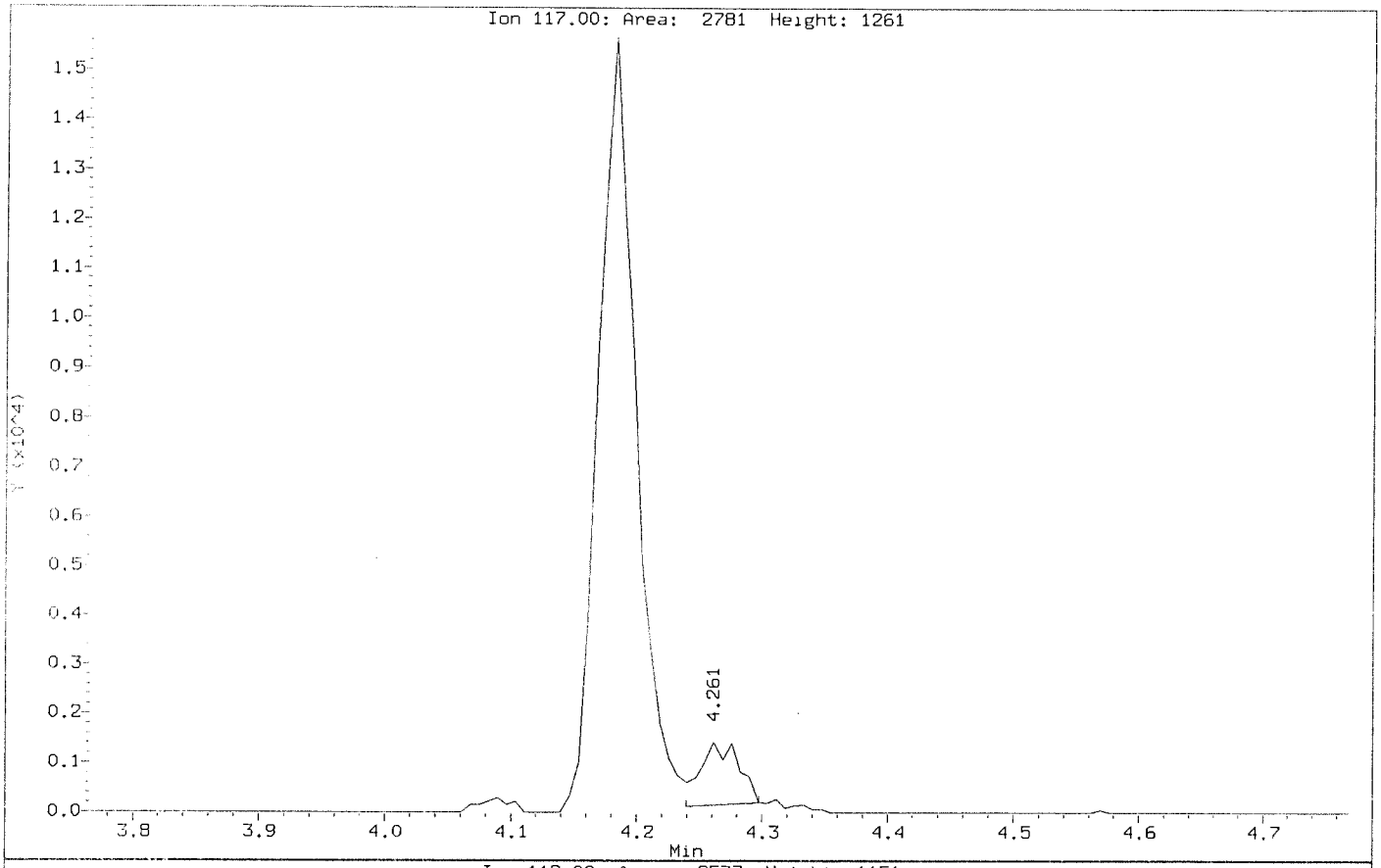
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Instrument: voa6.i
Client Sample ID: VSTD000.5

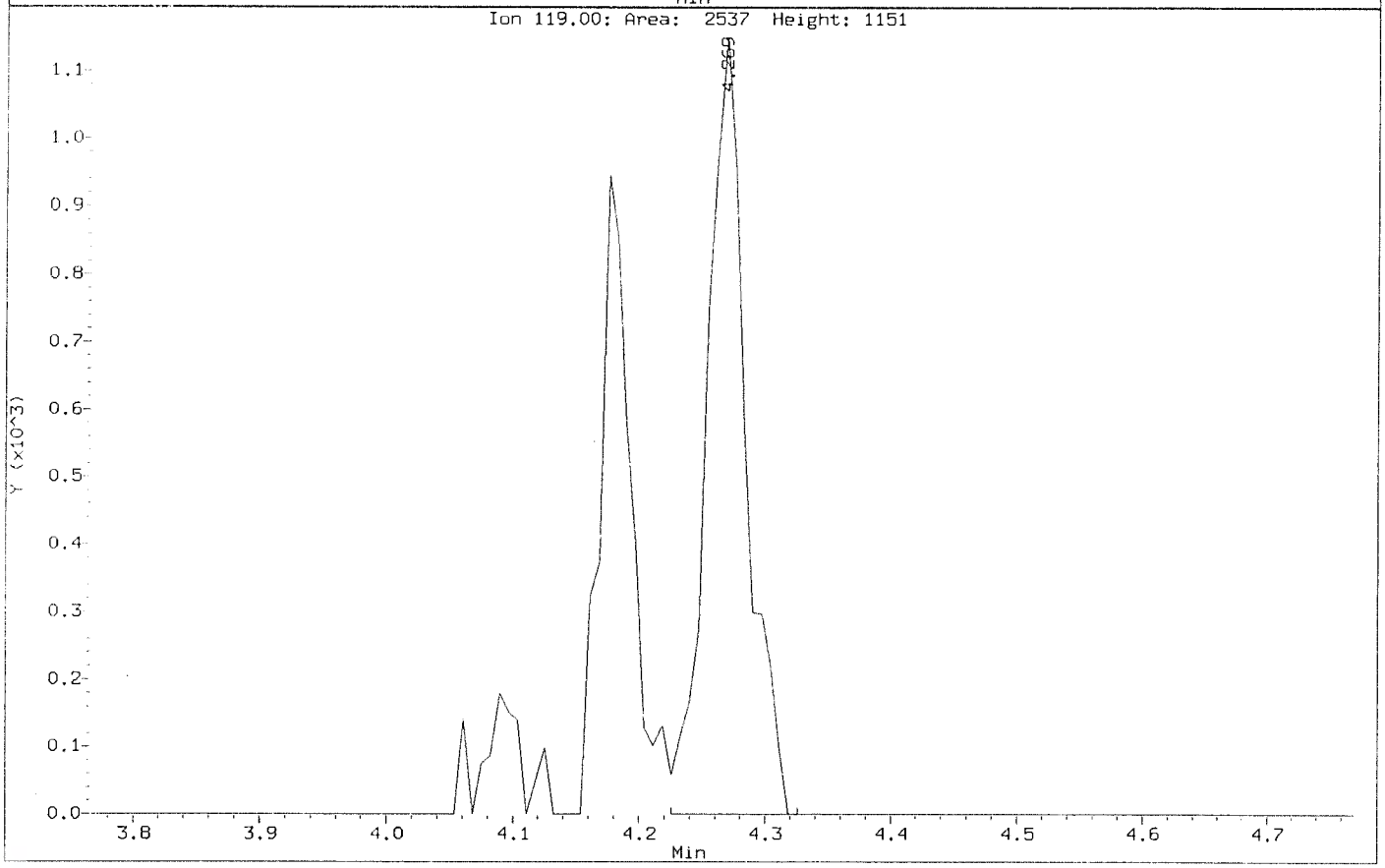
Compound: Carbon Tetrachloride
CAS Number: 56-23-5



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052603.D
Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

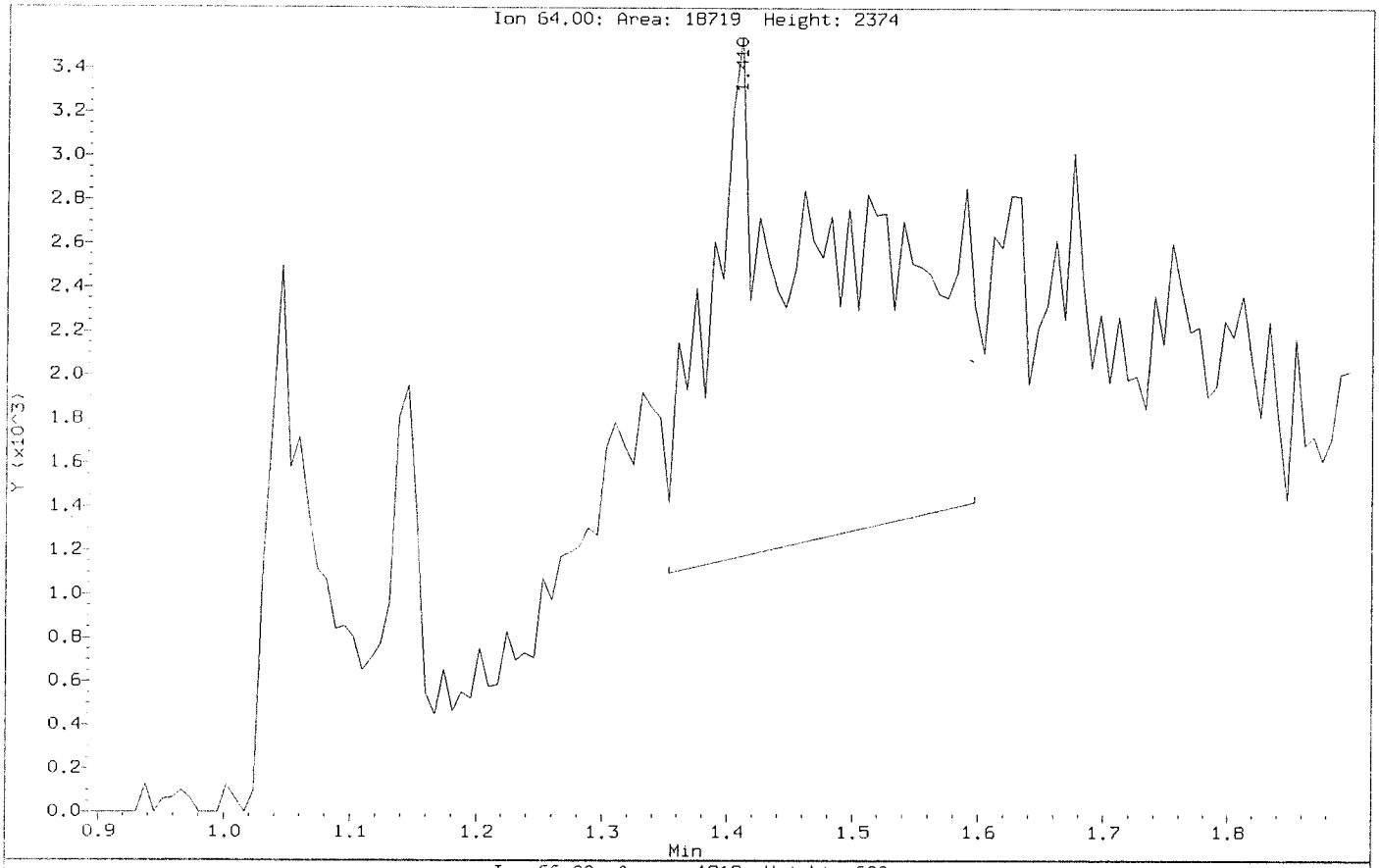
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

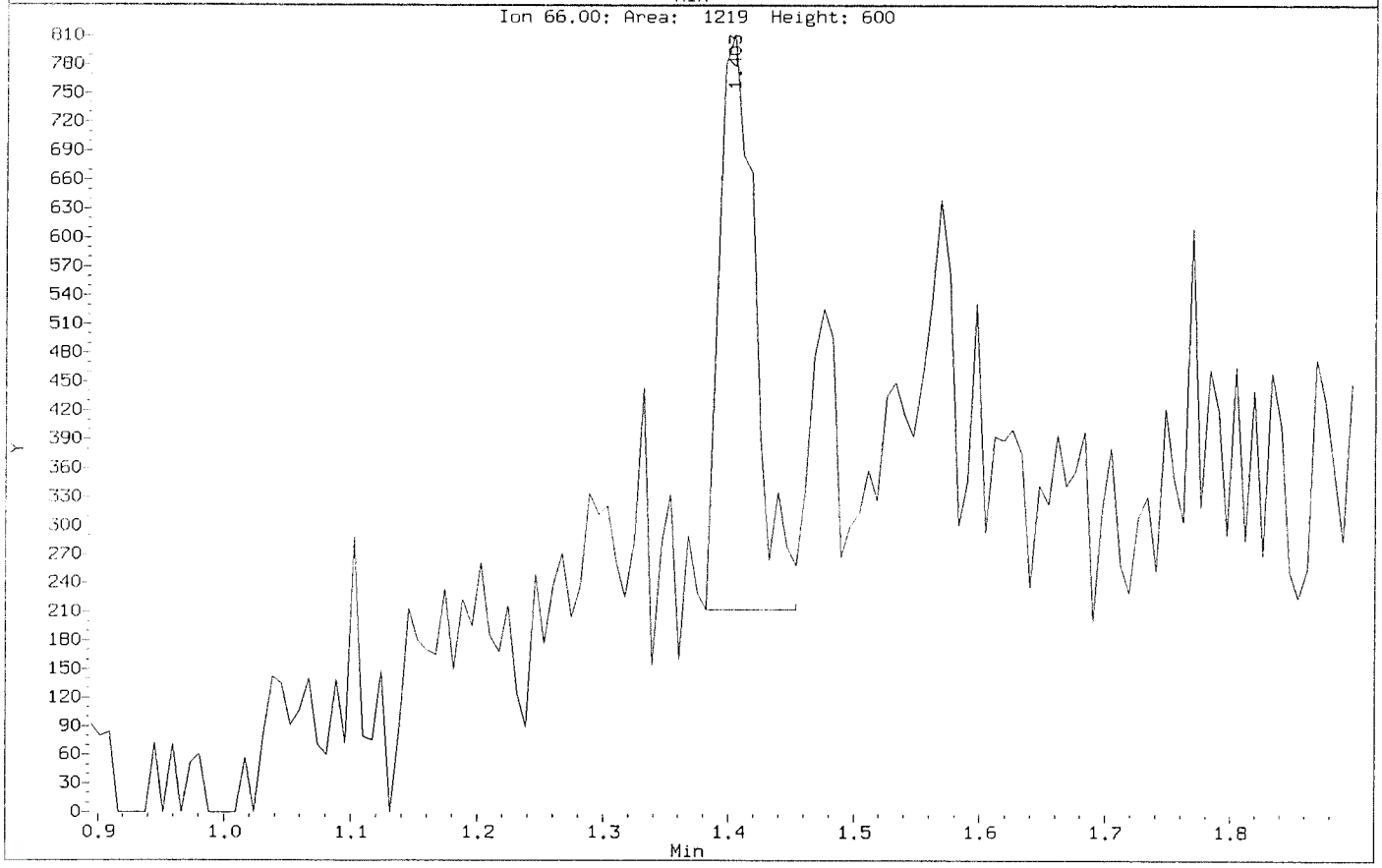




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Instrument: voa6.i
Client Sample ID: VSTD000.5

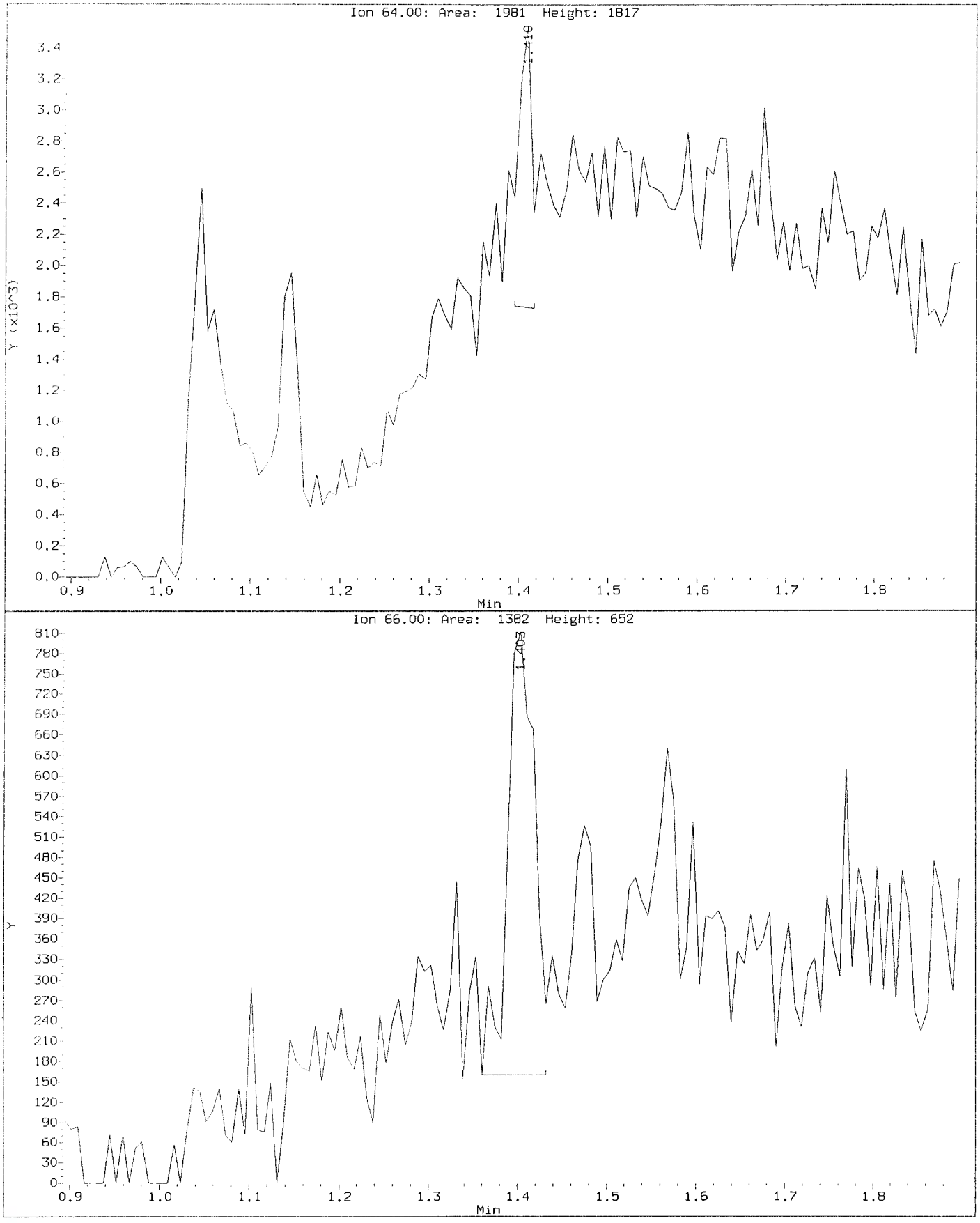
Compound: Chloroethane
CAS Number: 75-00-3





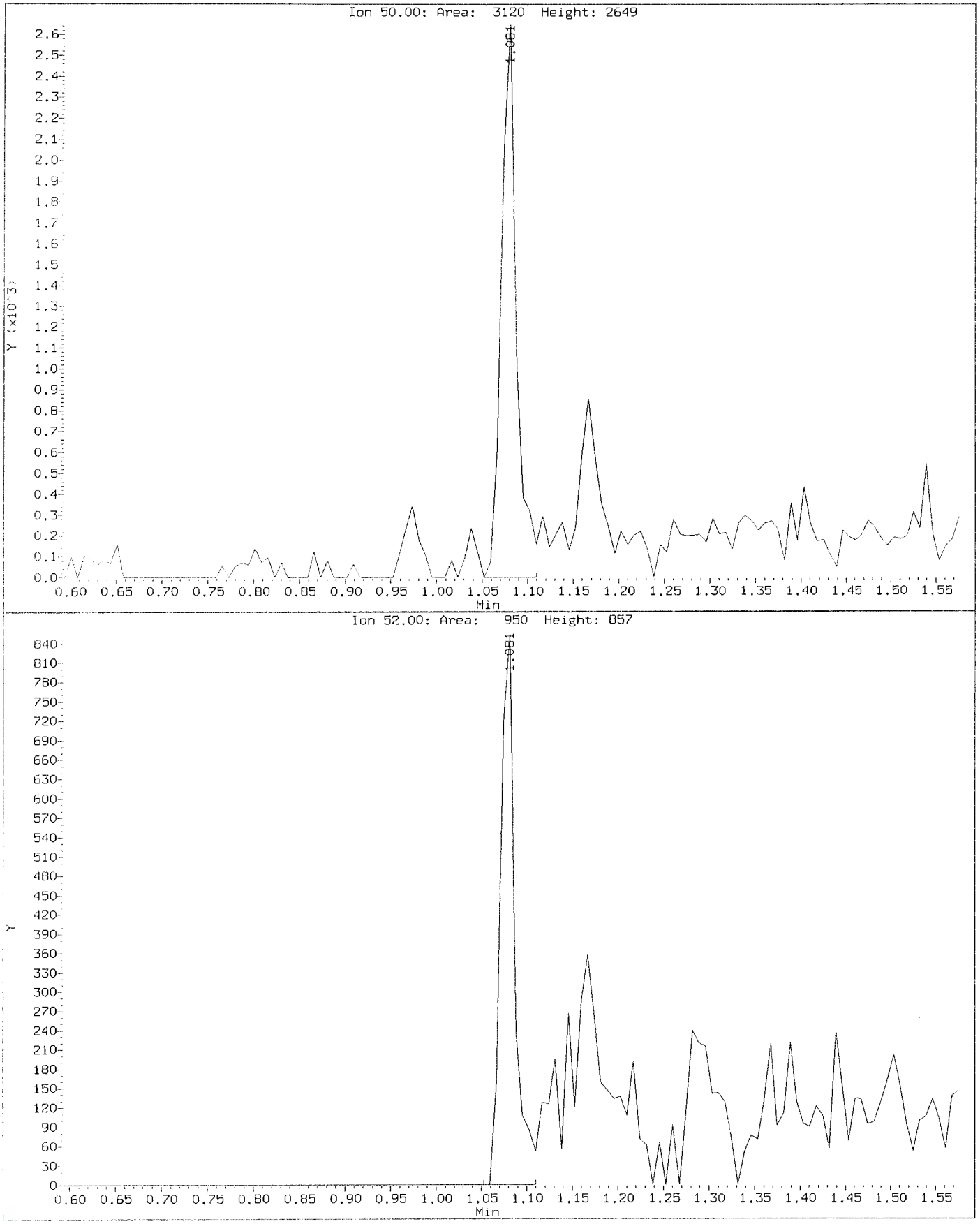
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Chloroethane
CAS Number: 75-00-3



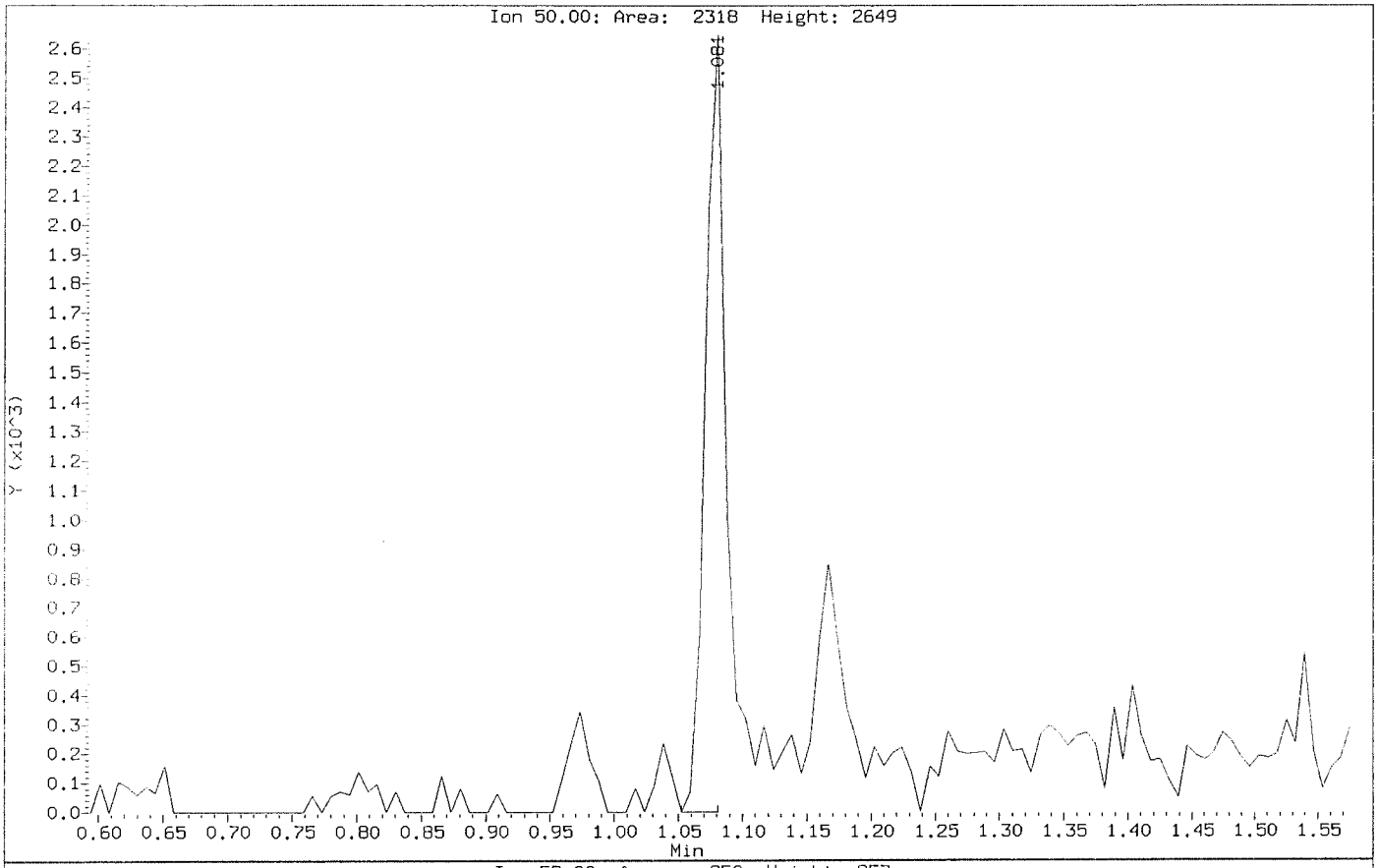
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Client Sample ID: VSTD000.5

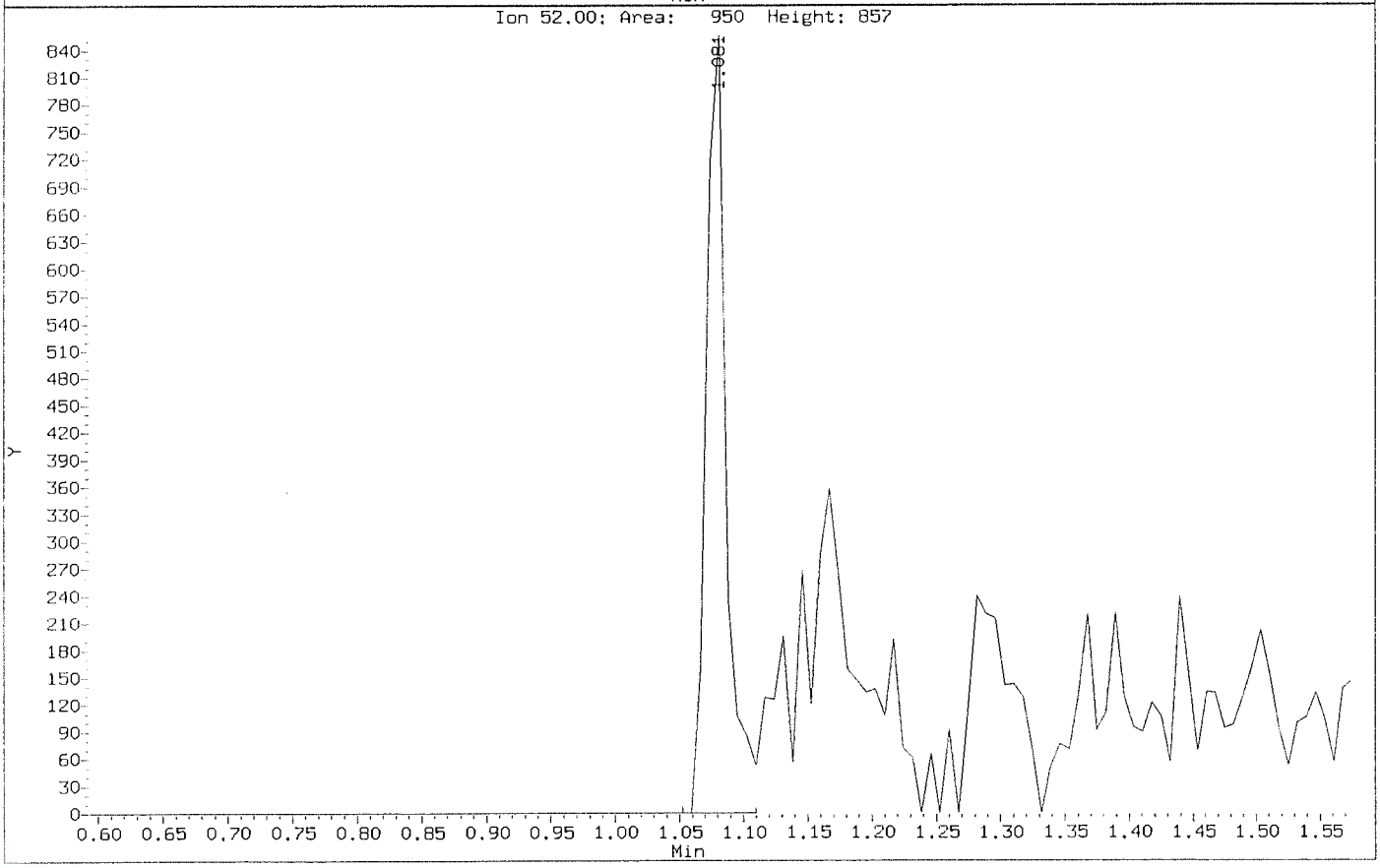
Compound: Chloromethane
CAS Number: 74-87-3



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052603.D
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Client Sample ID: VSTD000.5

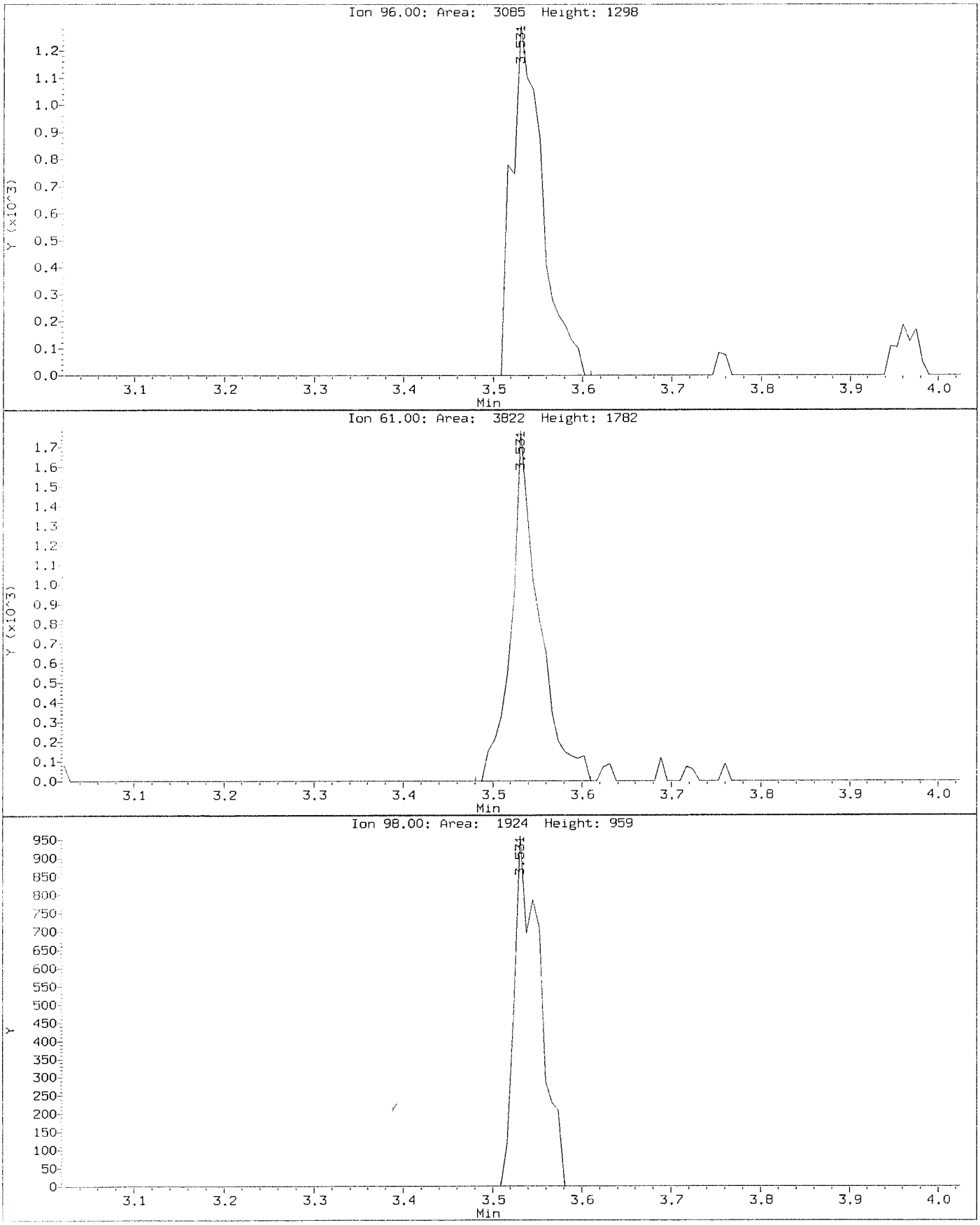
Compound: Chloromethane
CAS Number: 74-87-3





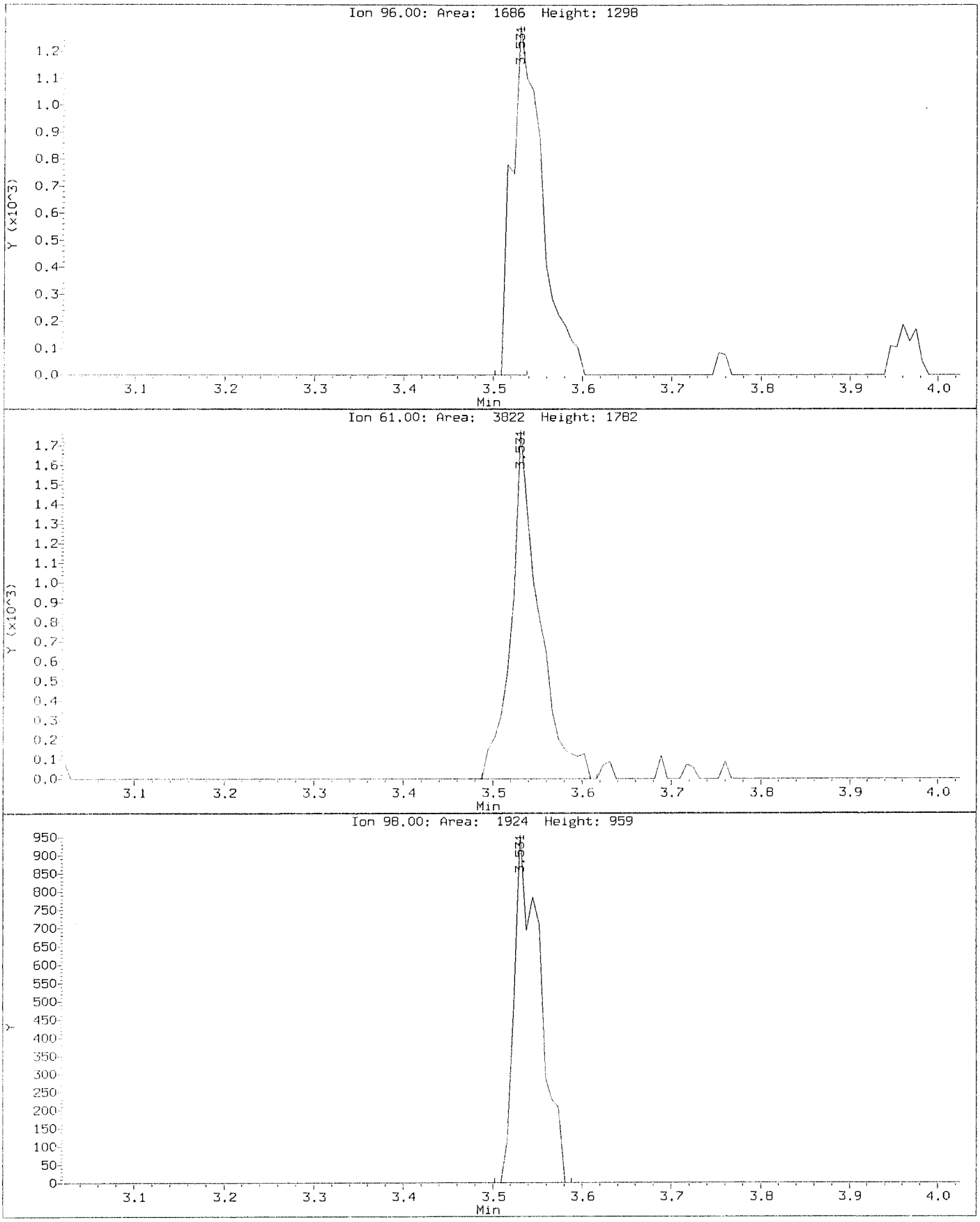
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: cis-1,2-Dichloroethene
CAS Number: 156-59-2



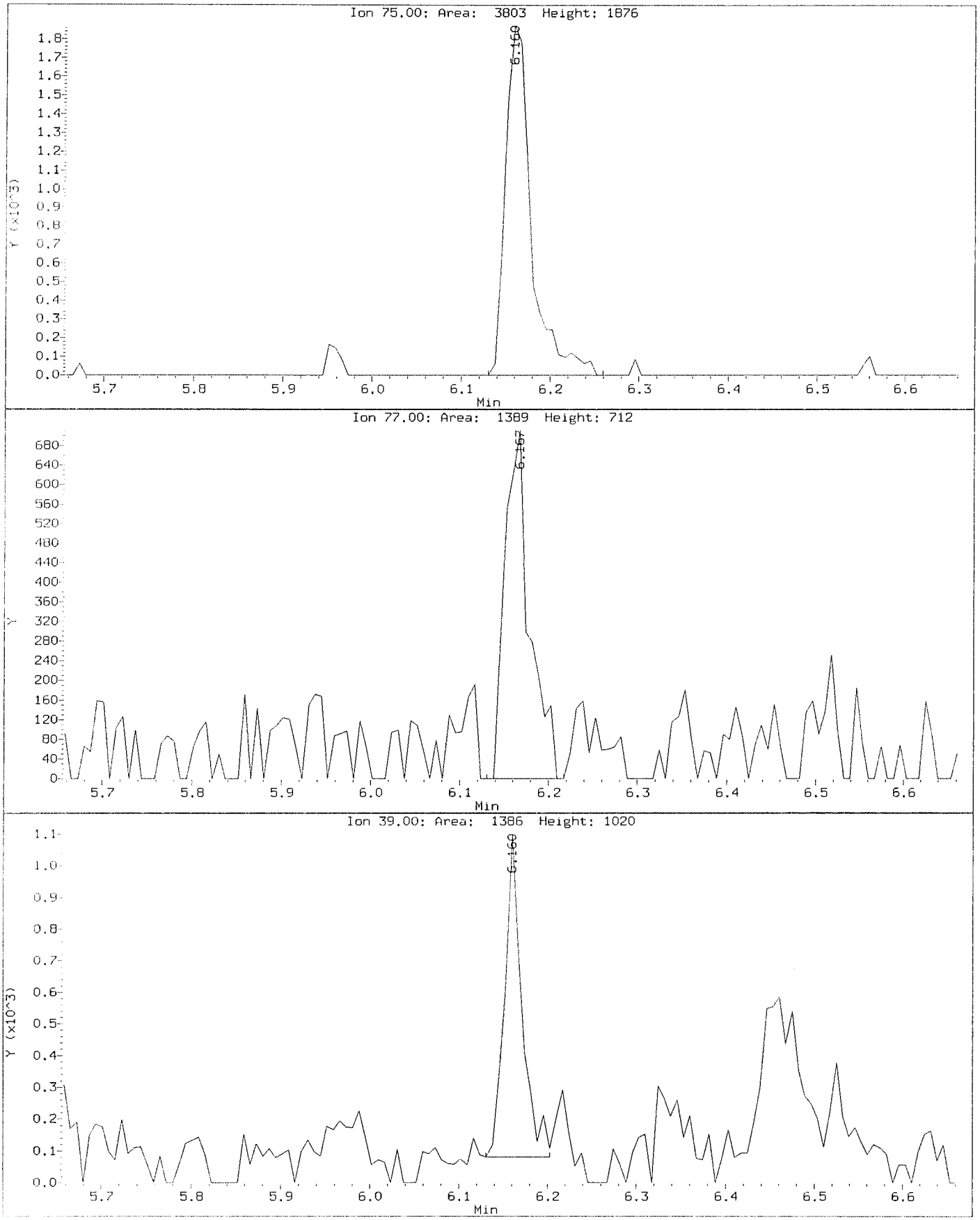
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: cis-1,2-Dichloroethene
CAS Number: 156-59-2



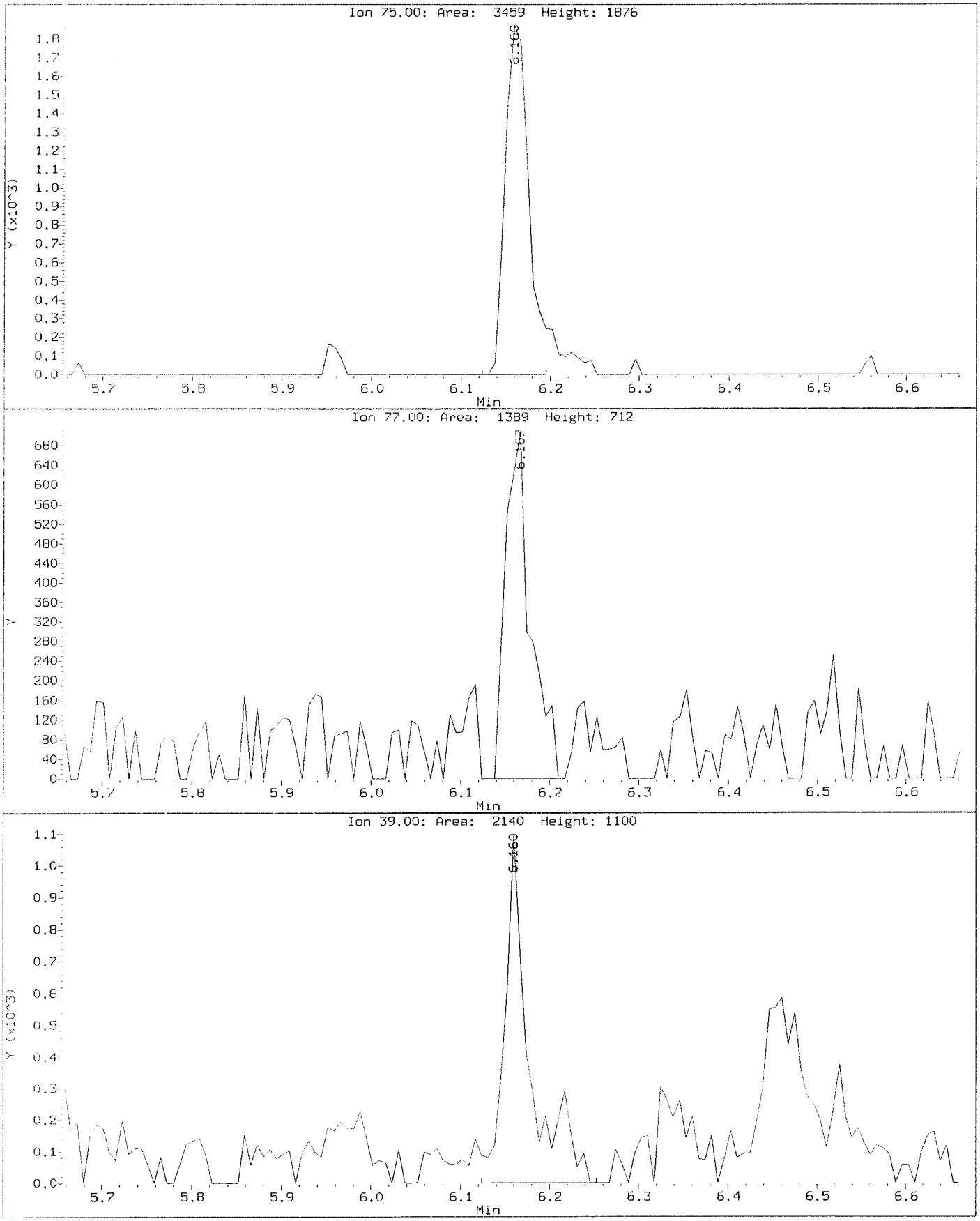
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: cis-1,3-Dichloropropene
CAS Number: 10061-01-5



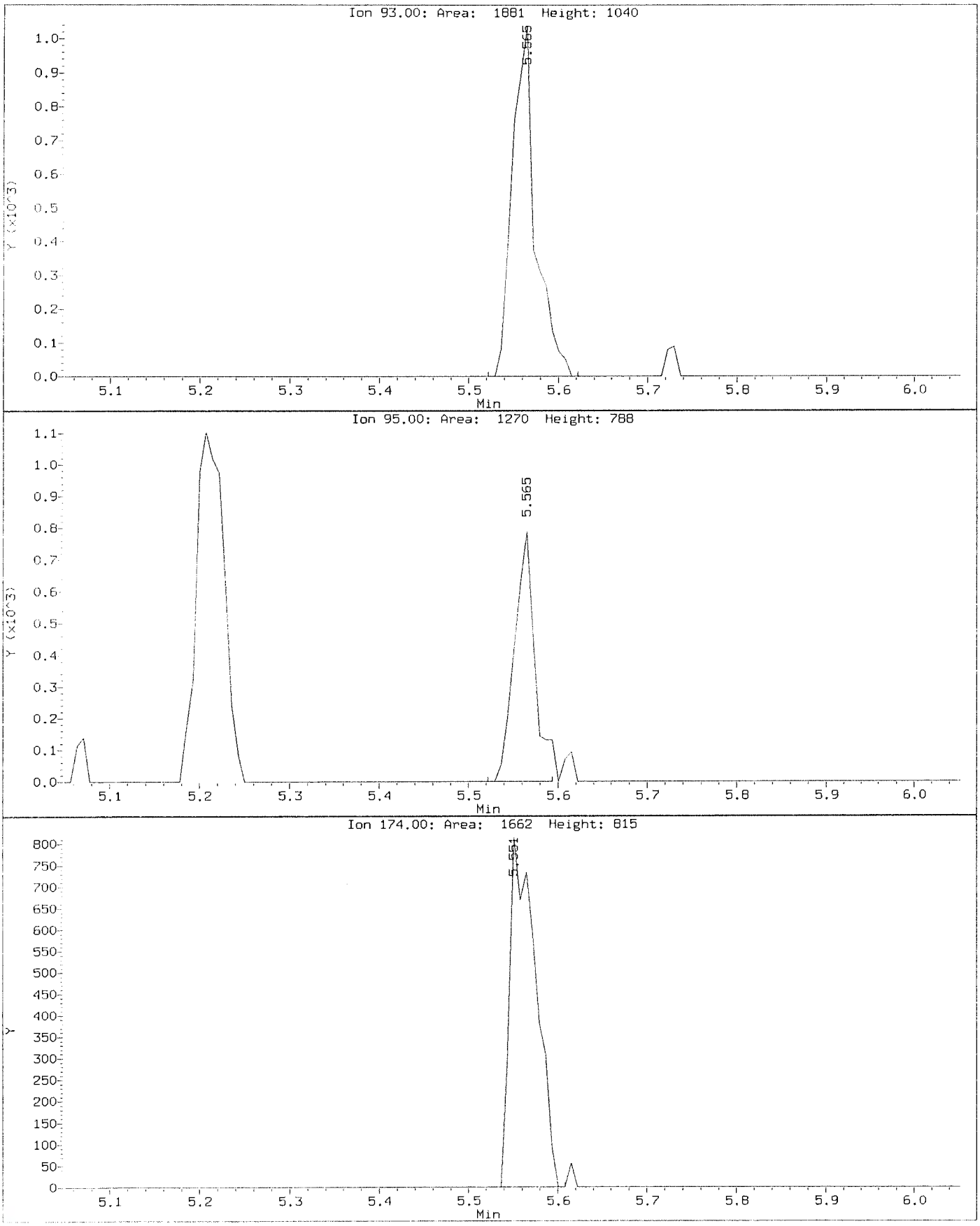
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: cis-1,3-Dichloropropene
CAS Number: 10061-01-5



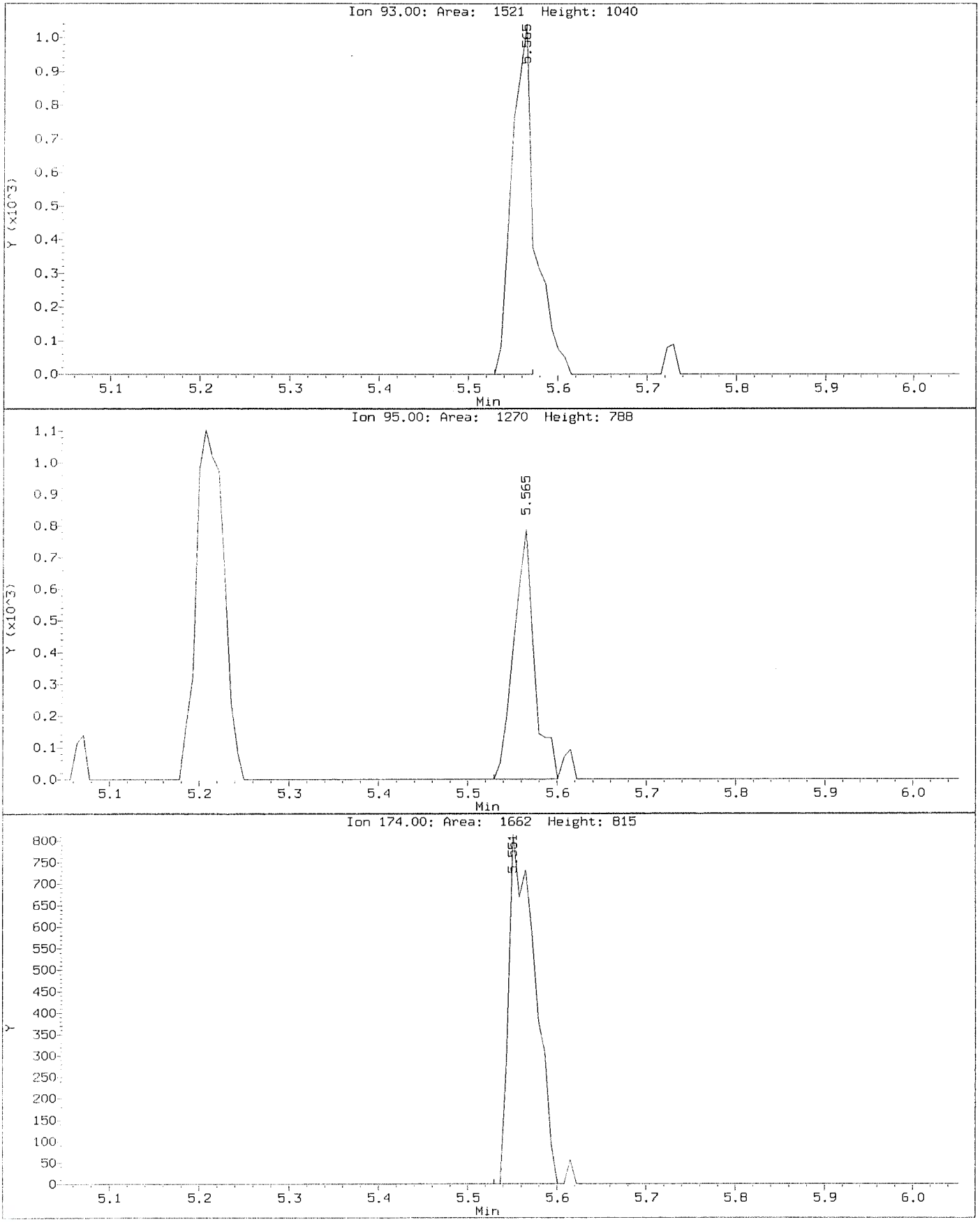
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Dibromomethane
CAS Number: 74-95-3



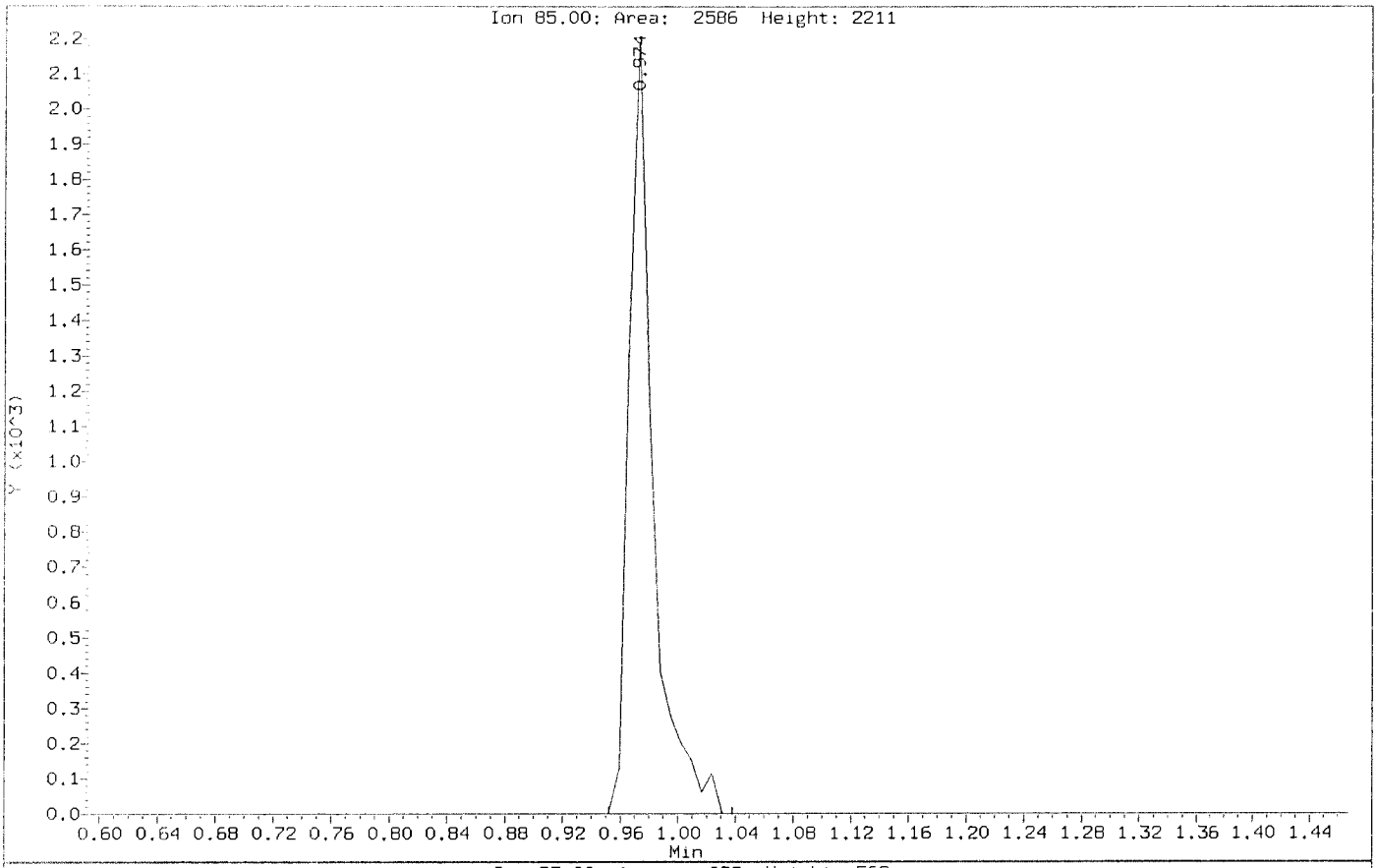
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Instrument: voa6.i
Client Sample ID: VSTD000.5

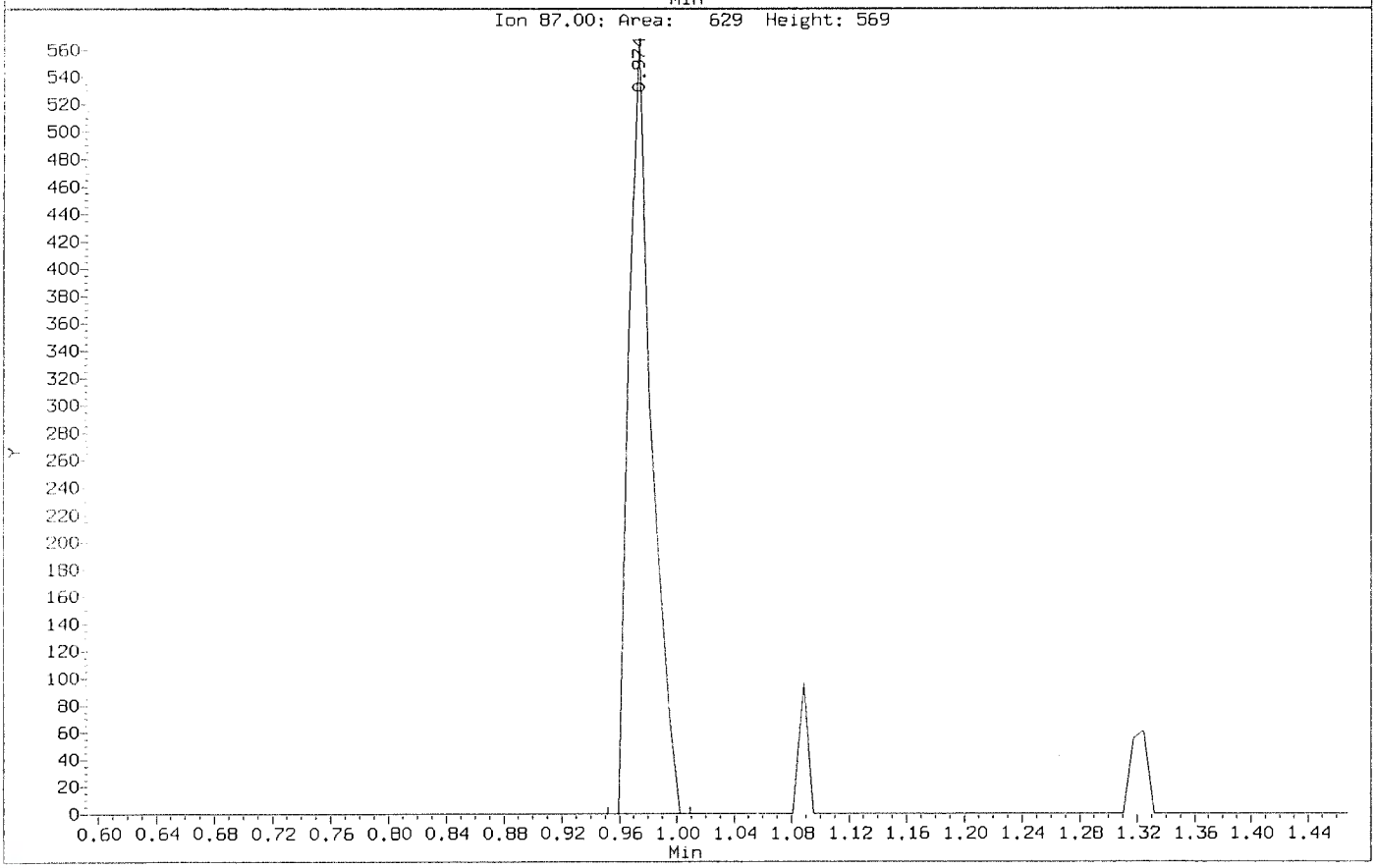
Compound: Dibromomethane
CAS Number: 74-95-3



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Instrument: voa6.i
Client Sample ID: VSTD000.5

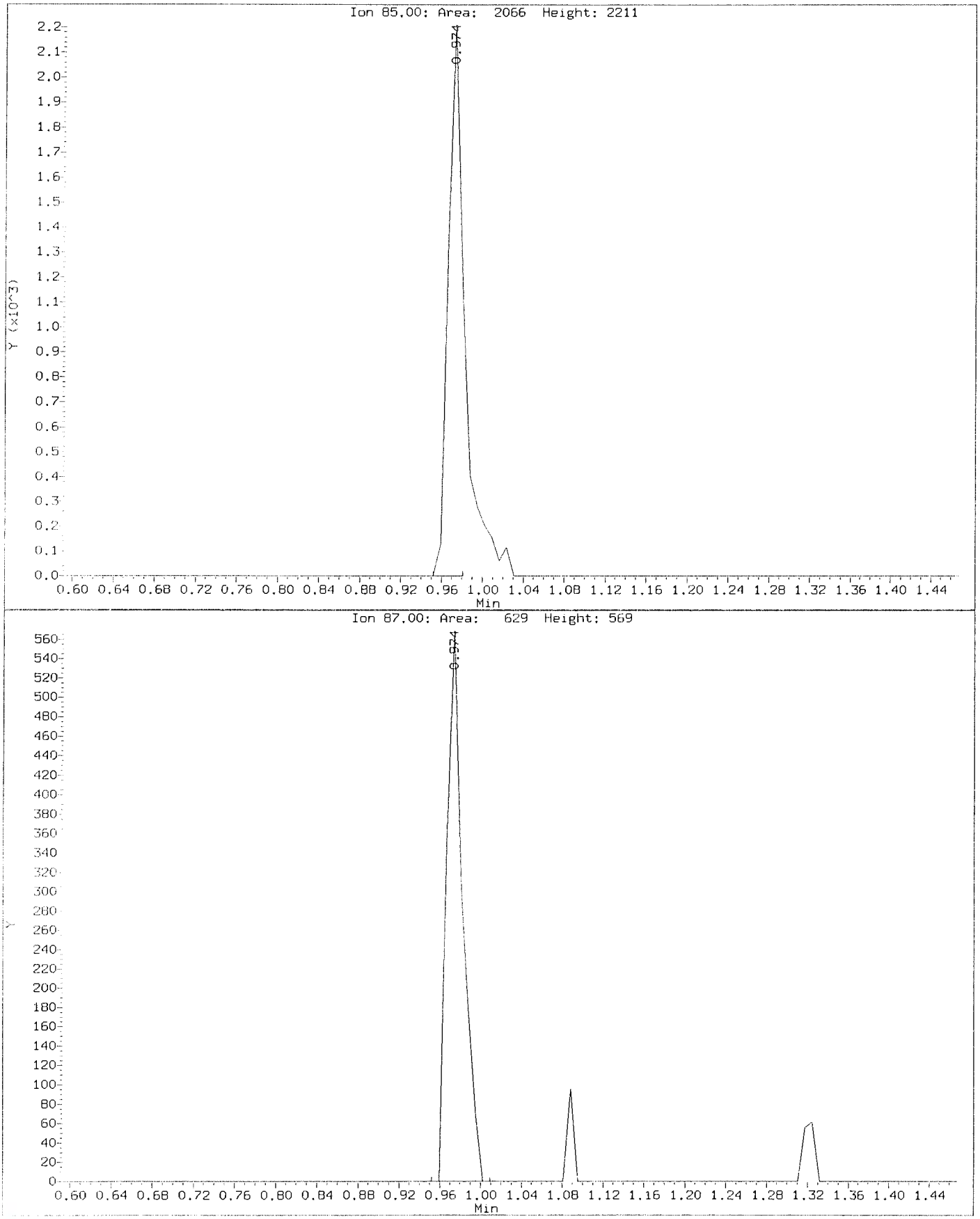
Compound: Dichlorodifluoromethane
CAS Number: 75-71-8





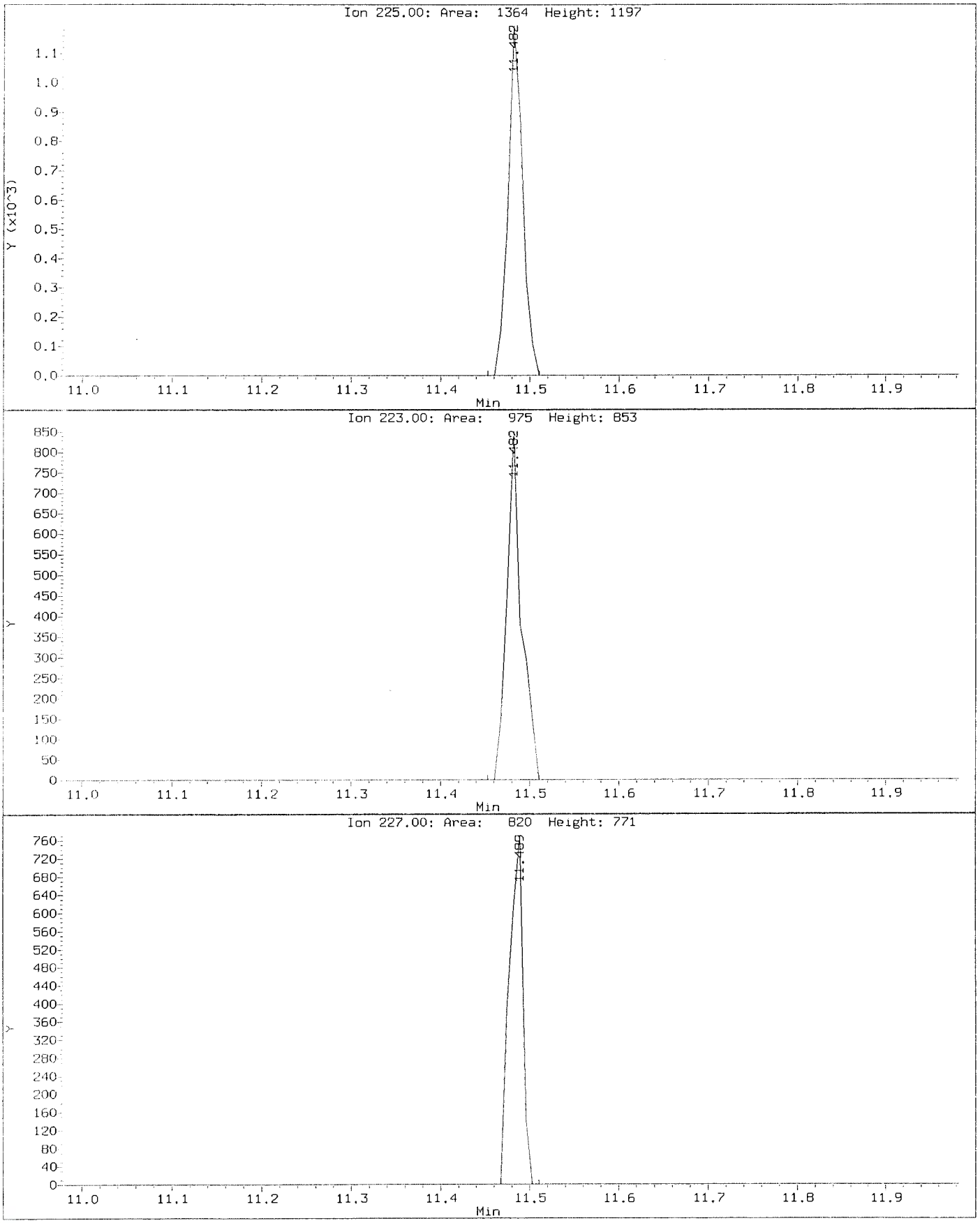
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Dichlorodifluoromethane
CAS Number: 75-71-8



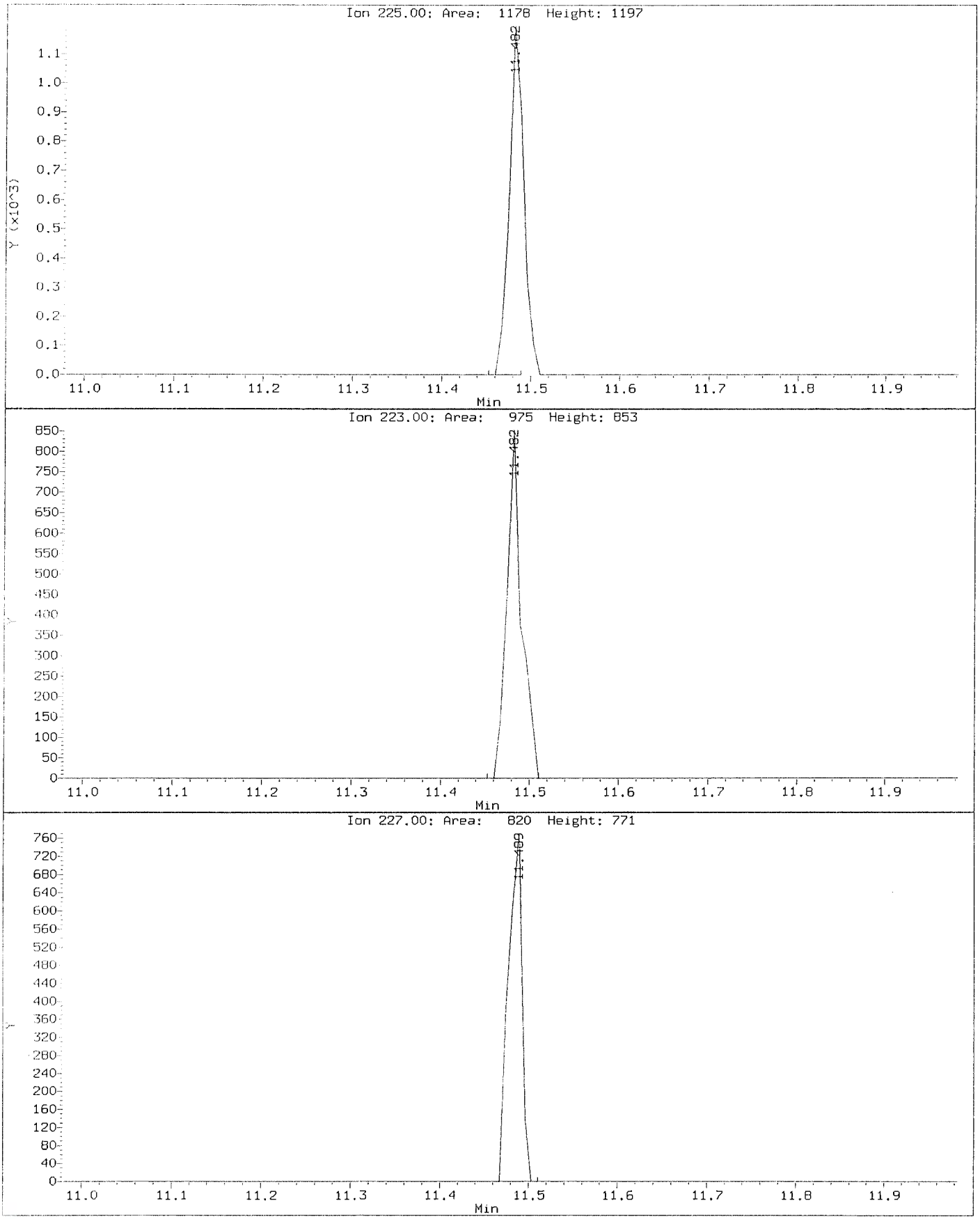
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



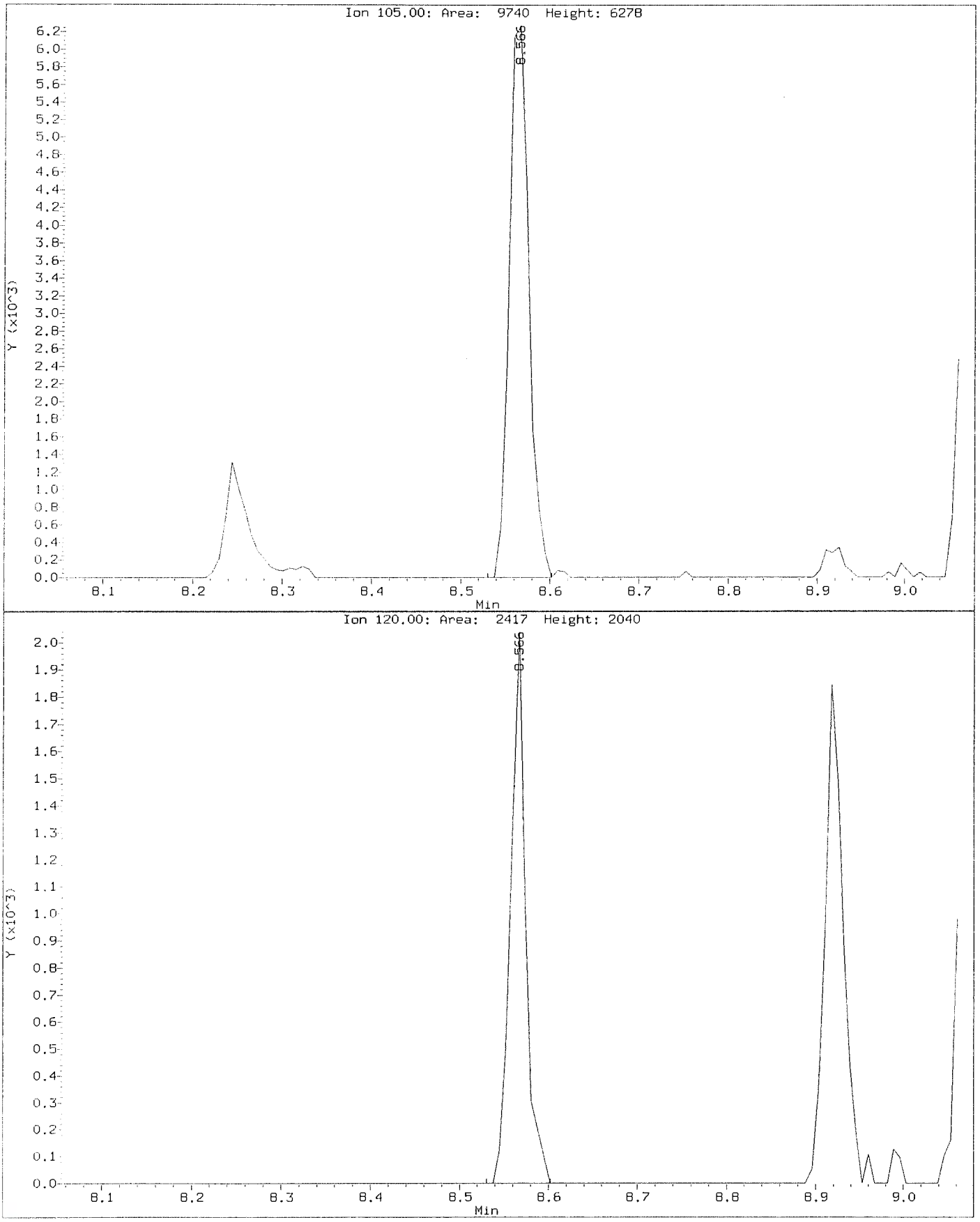
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Client Sample ID: VSTD000.5

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



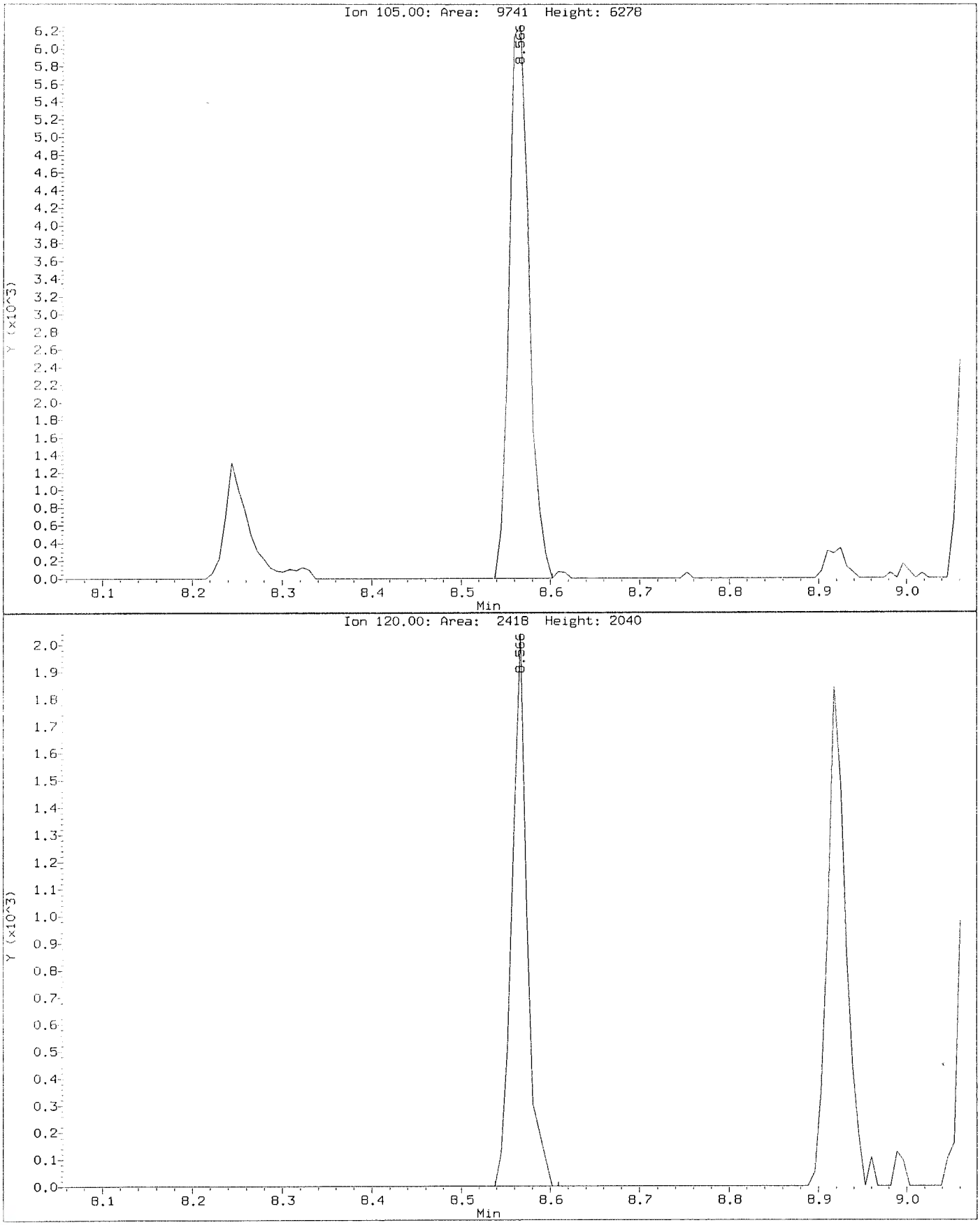
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Isopropylbenzene
CAS Number: 98-82-8



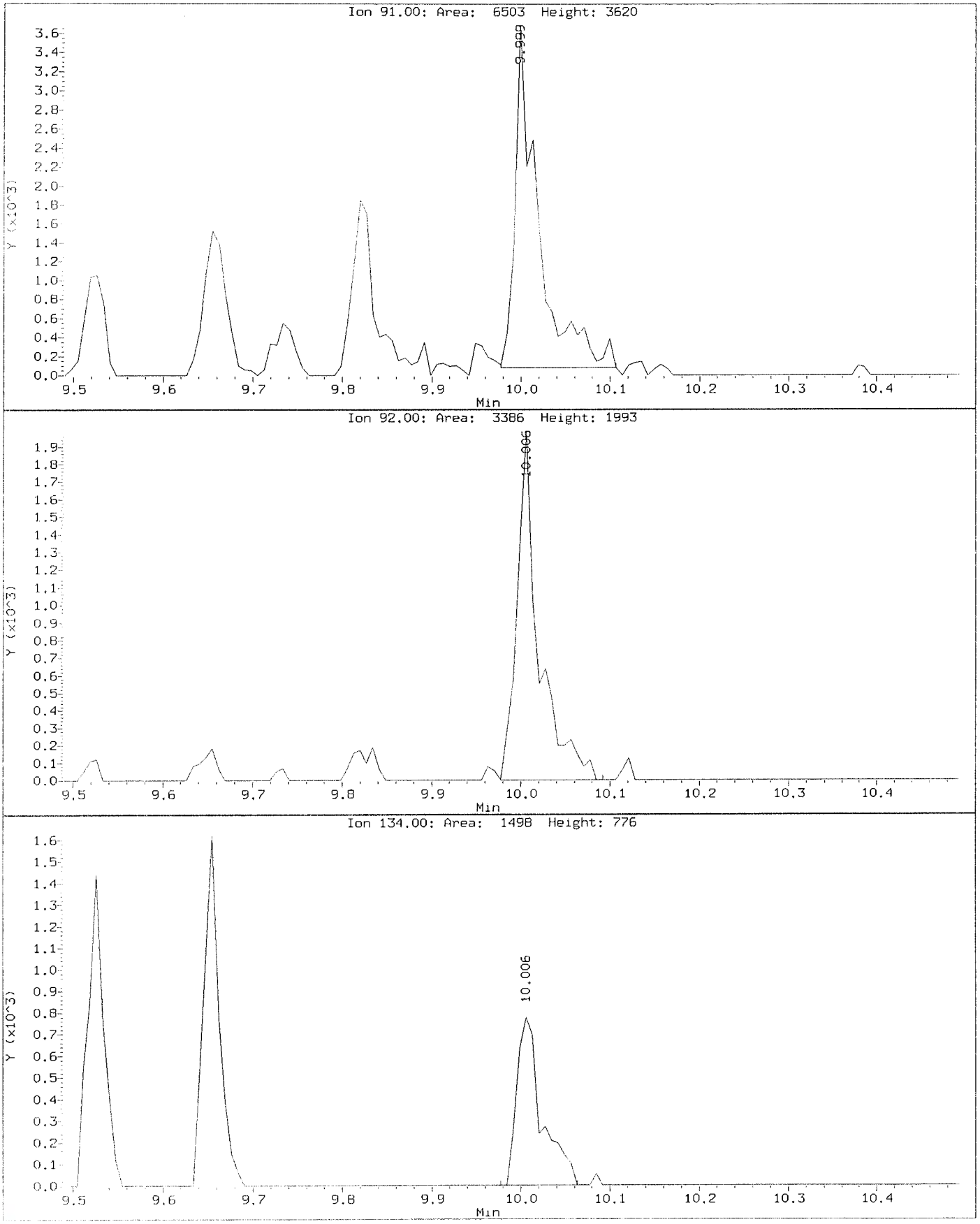
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Isopropylbenzene
CAS Number: 98-82-8



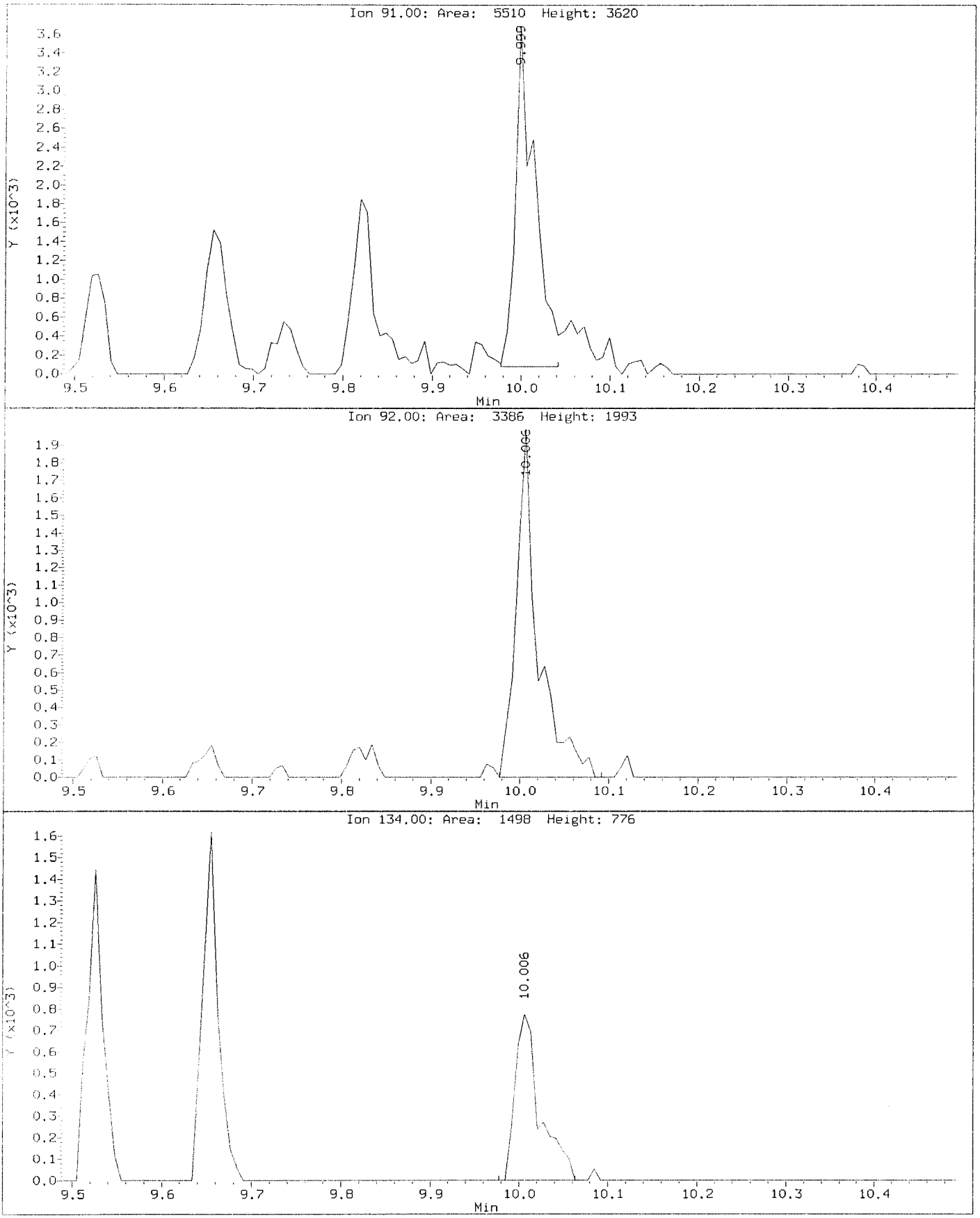
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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: n-Butylbenzene
CAS Number: 104-51-8



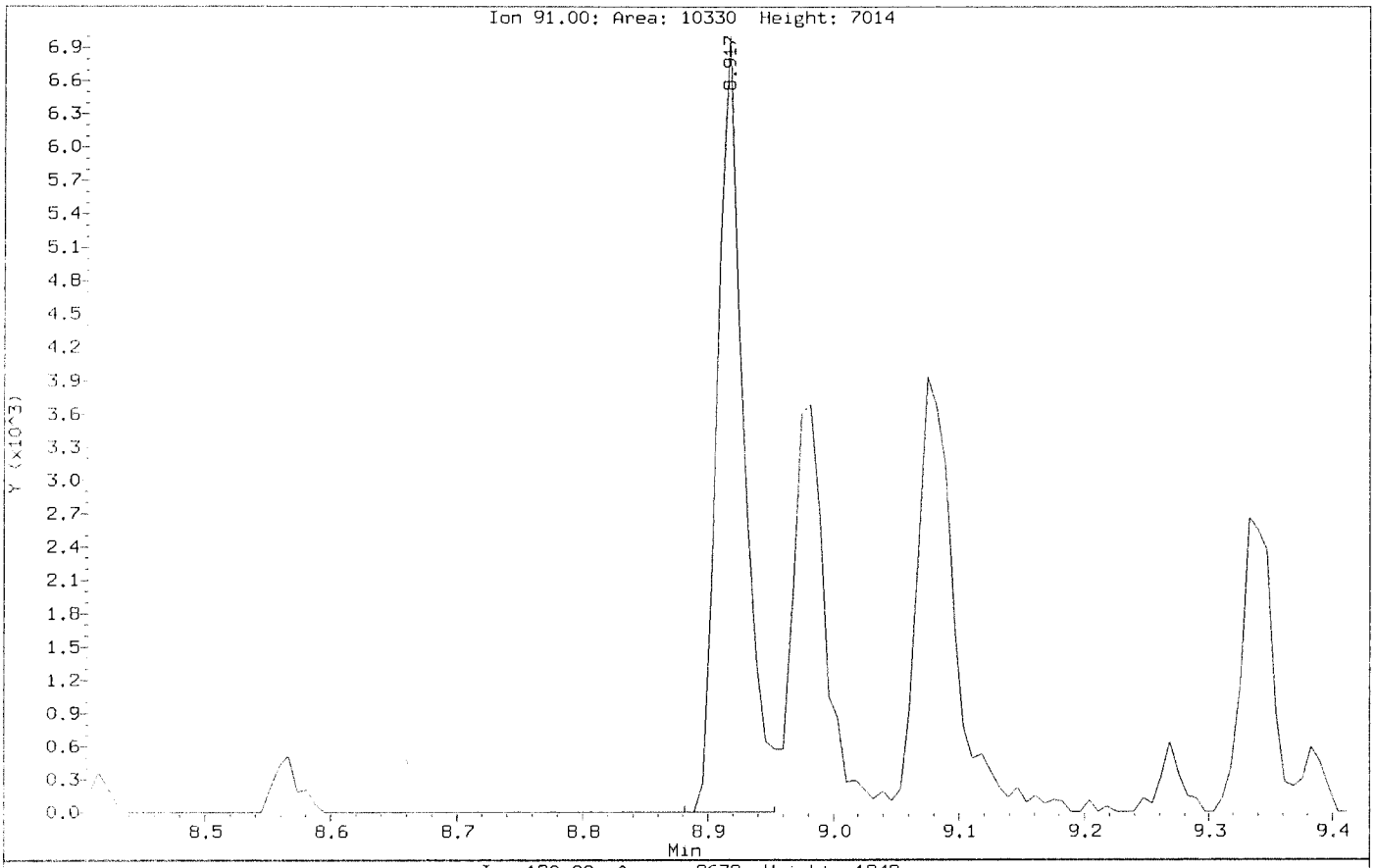
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Instrument: voa6.i
Client Sample ID: VSTD000.5

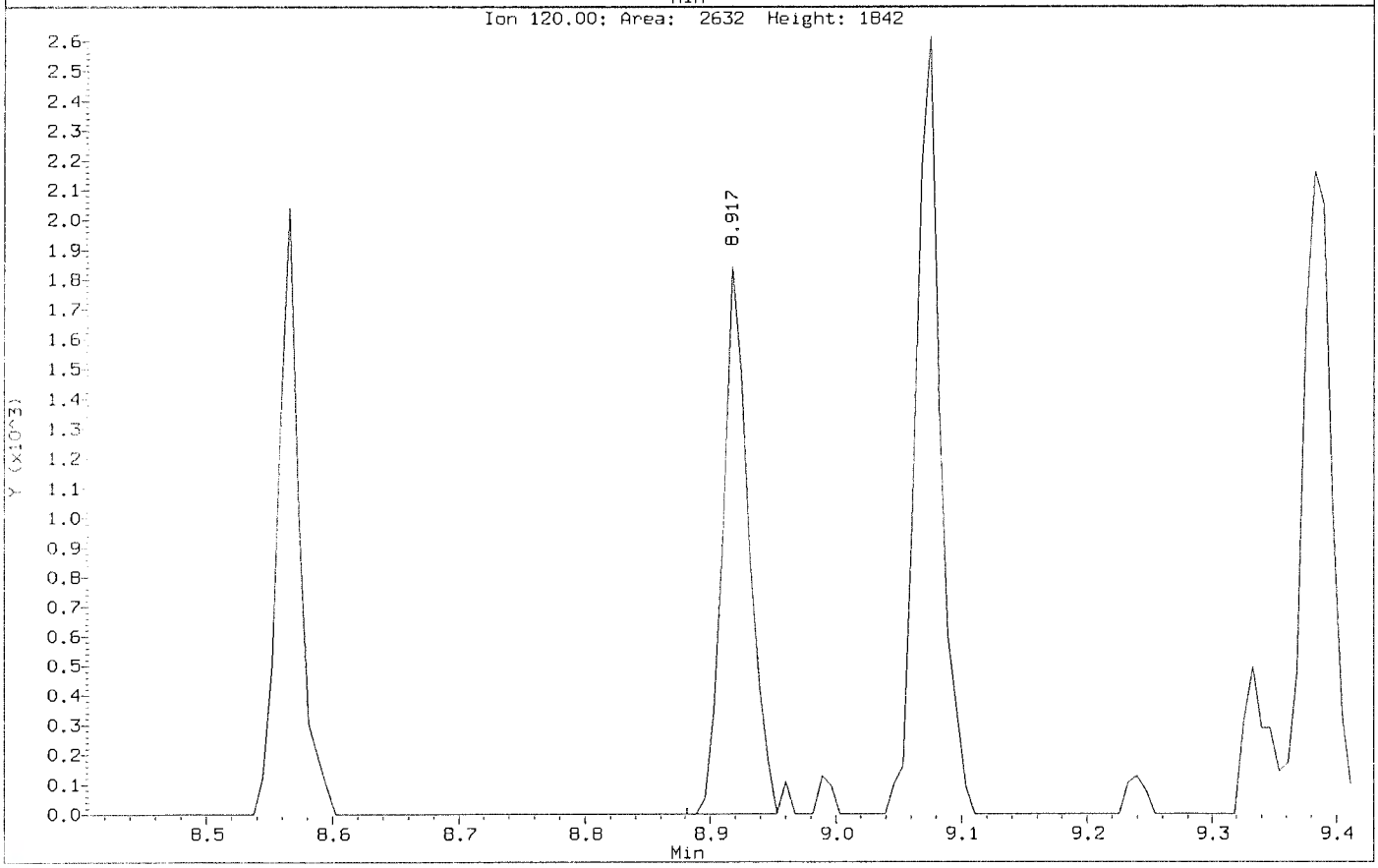
Compound: n-Butylbenzene
CAS Number: 104-51-8



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052603.D
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Instrument: voa6.i
Client Sample ID: VSTD000.5

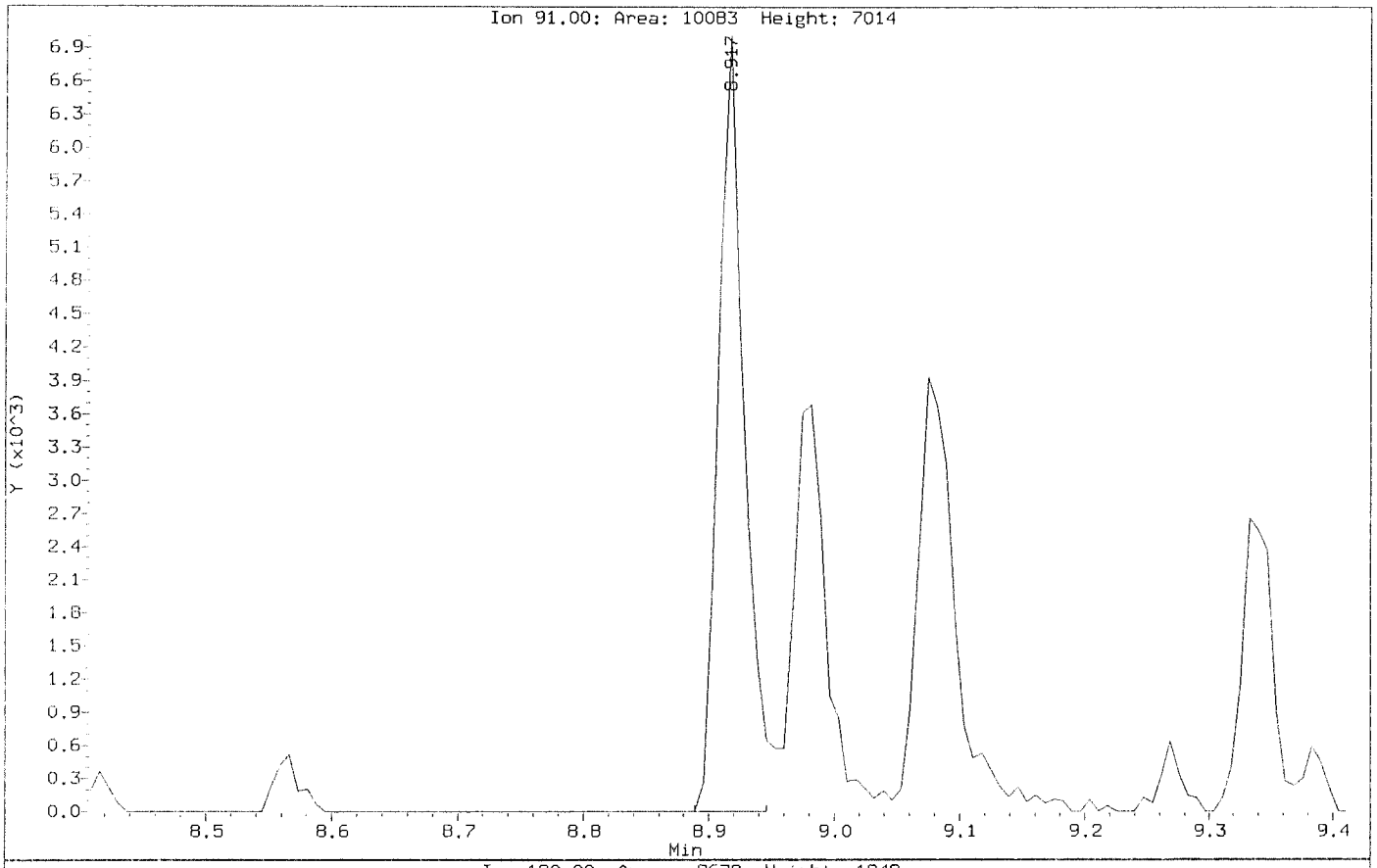
Compound: n-Propylbenzene
CAS Number: 106-65-1

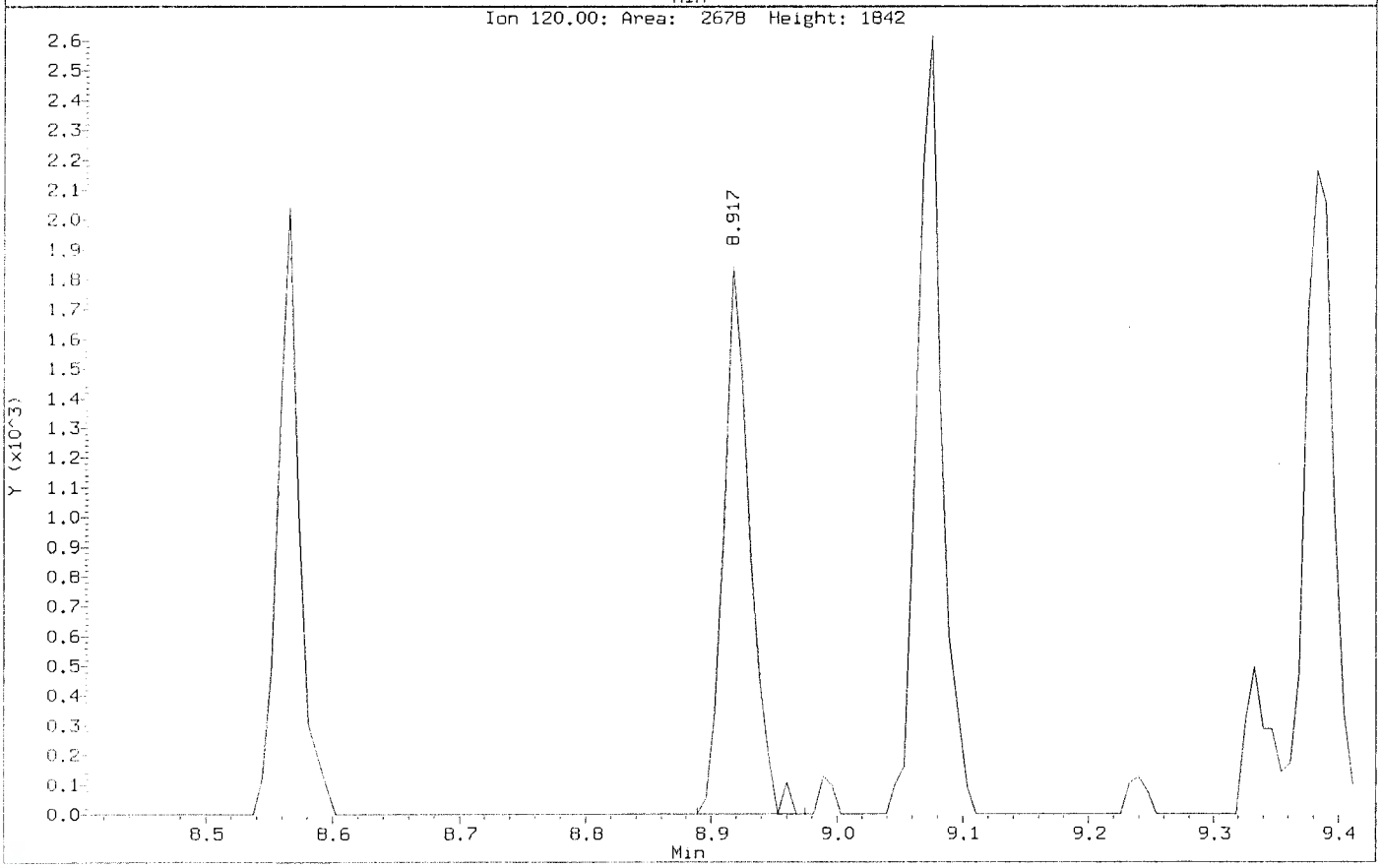




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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

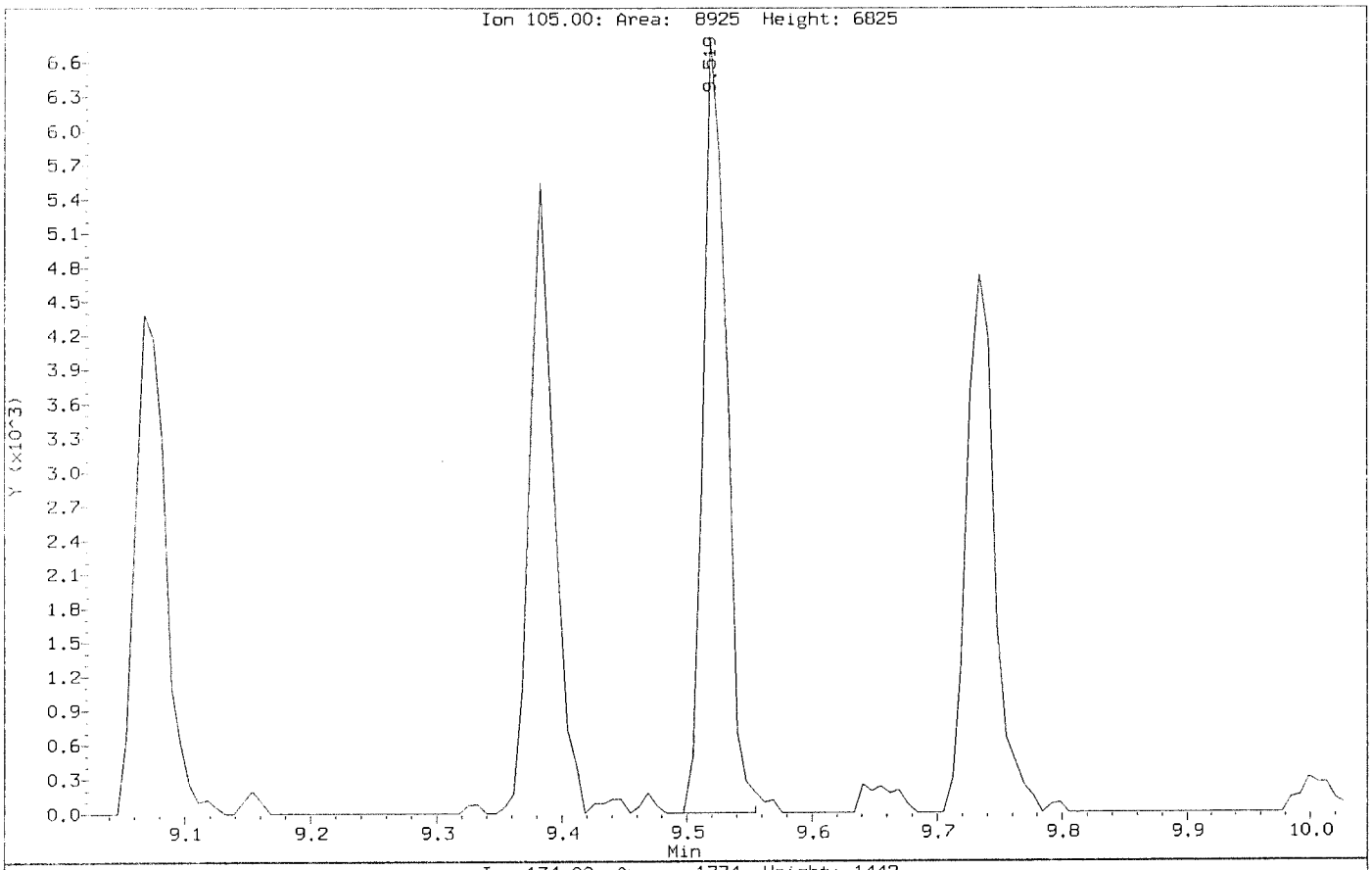
Compound: n-Propylbenzene
CAS Number: 106-65-1

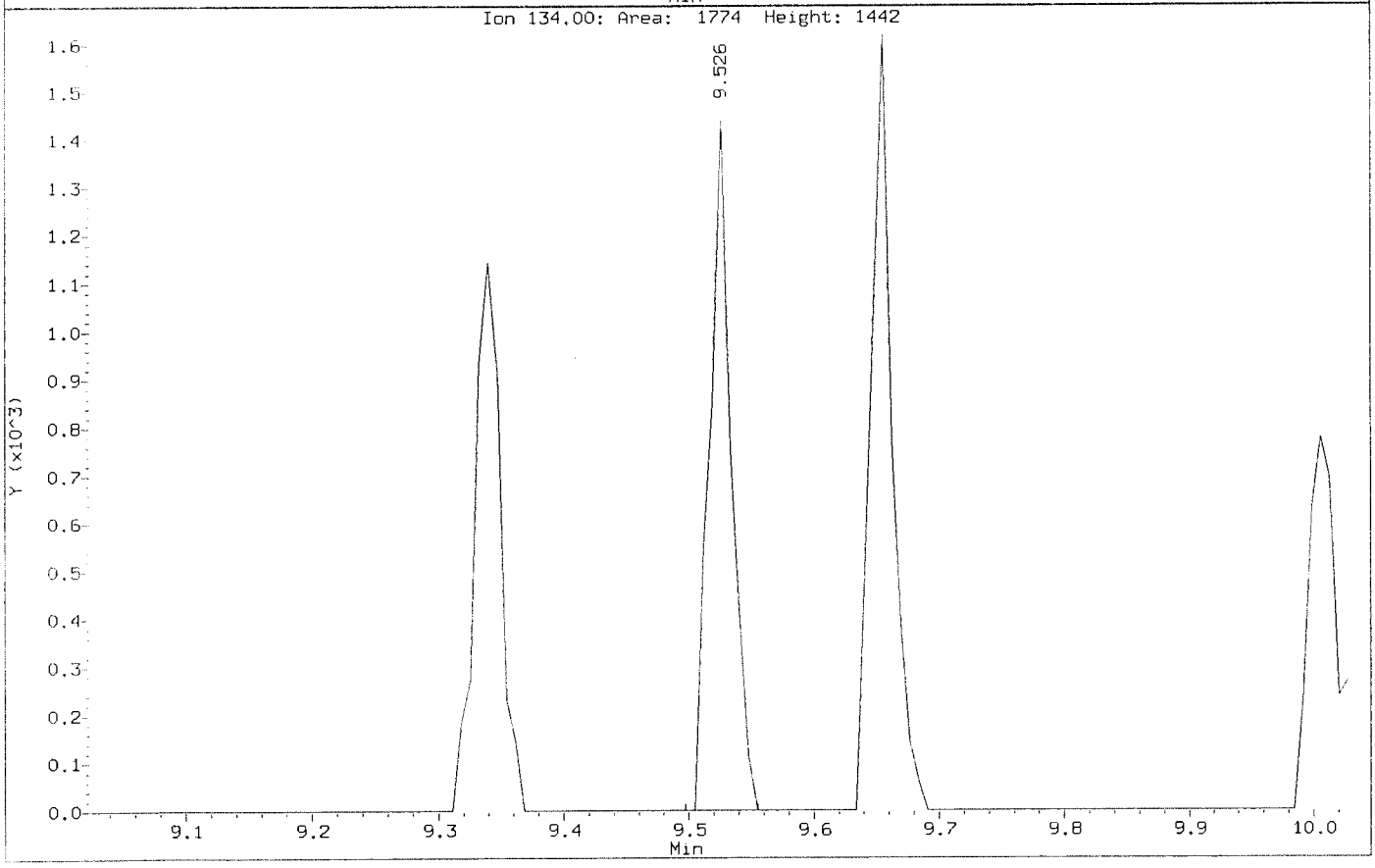




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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

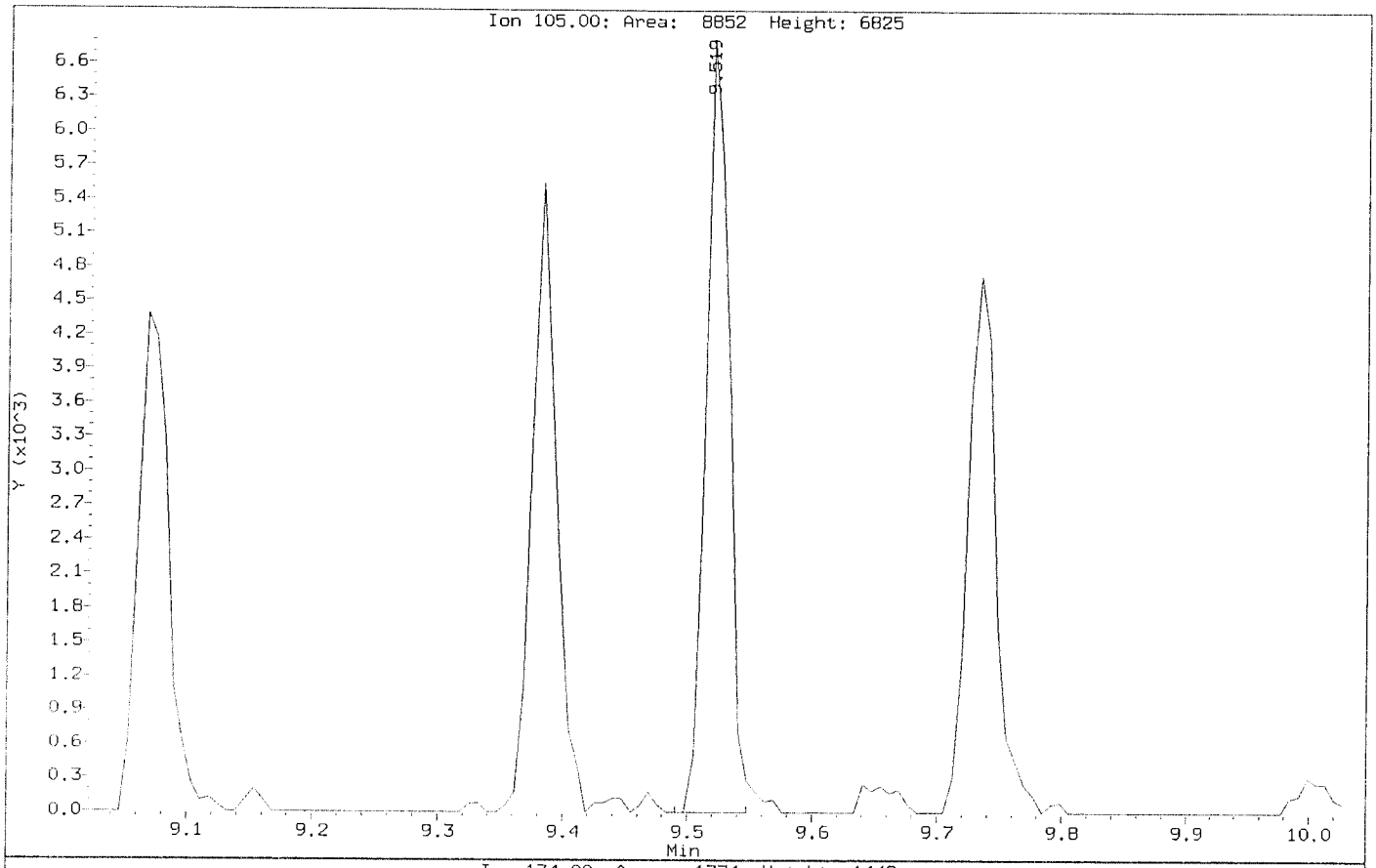
Compound: sec-Butylbenzene
CAS Number: 135-98-8

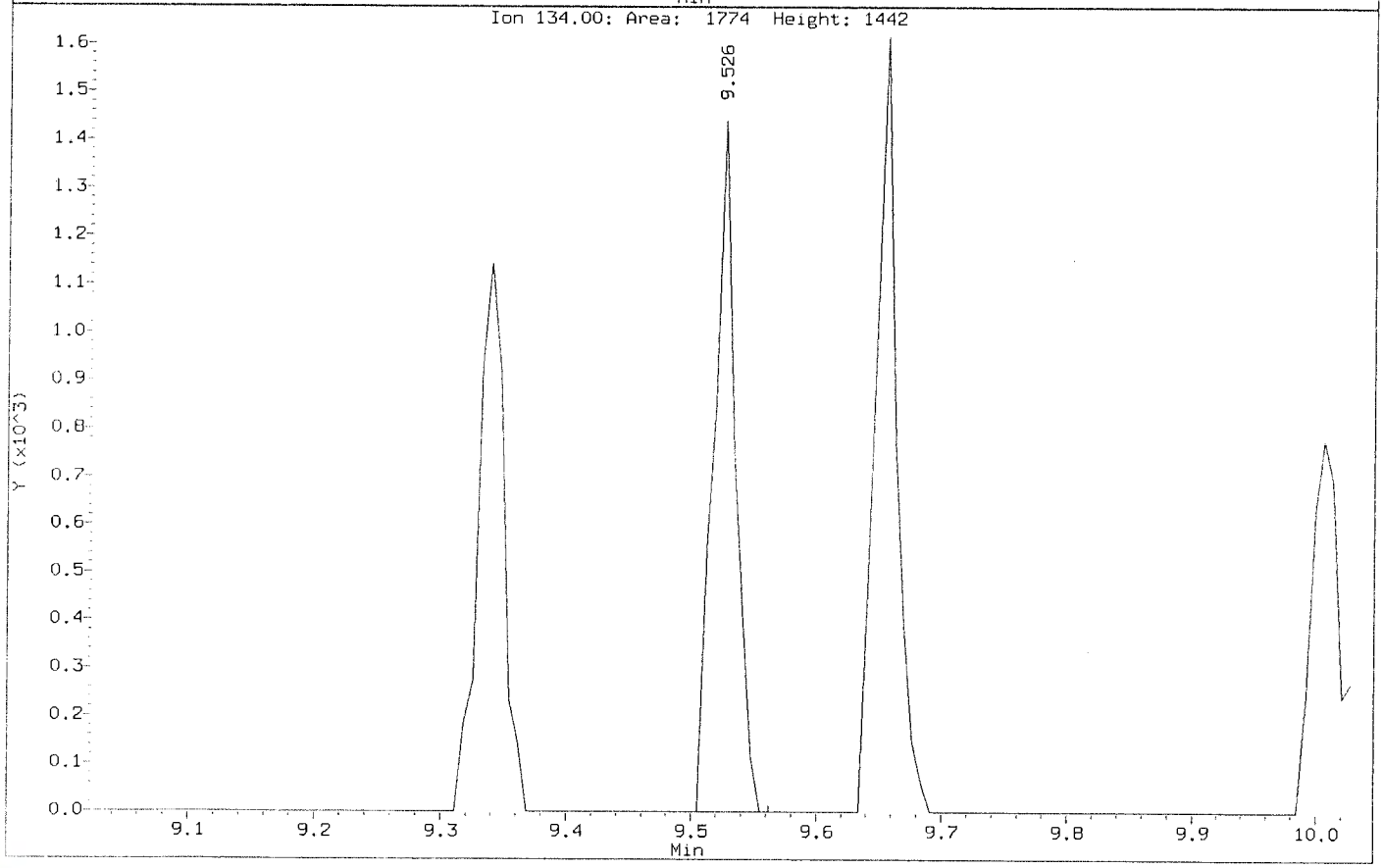




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Instrument: voa6.i
Client Sample ID: VSTD000.5

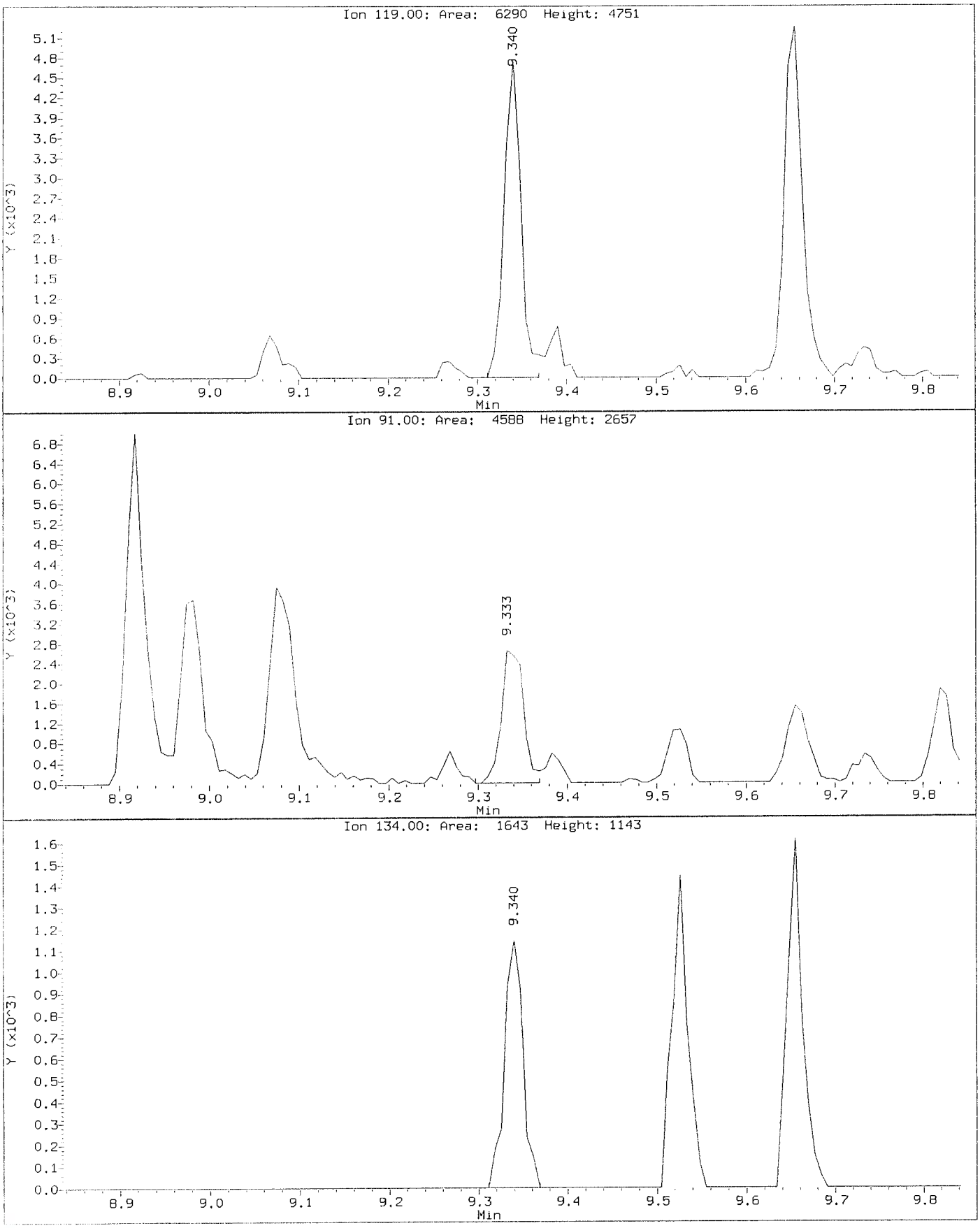
Compound: sec-Butylbenzene
CAS Number: 135-98-8





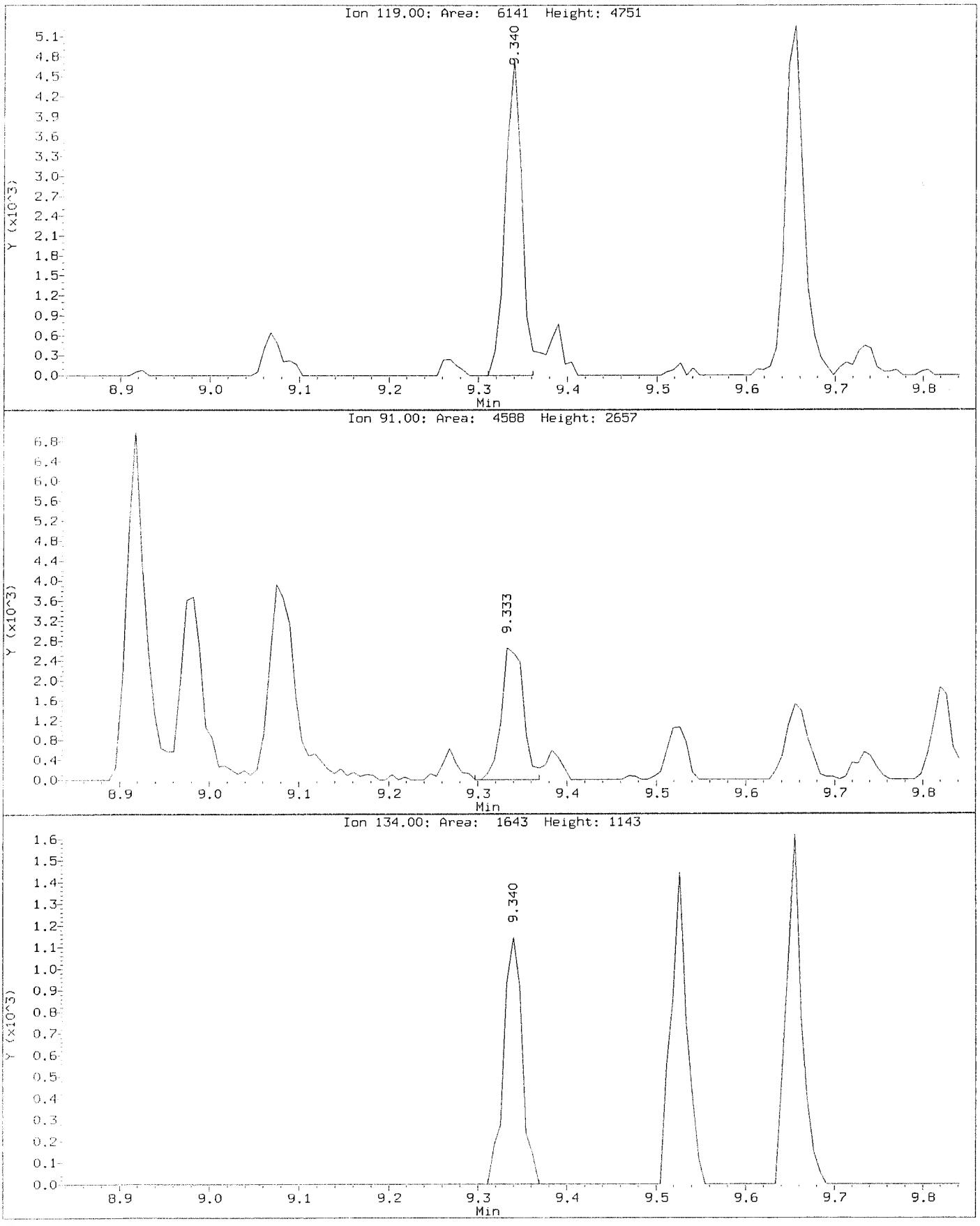
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: tert-Butylbenzene
CAS Number: 98-06-6



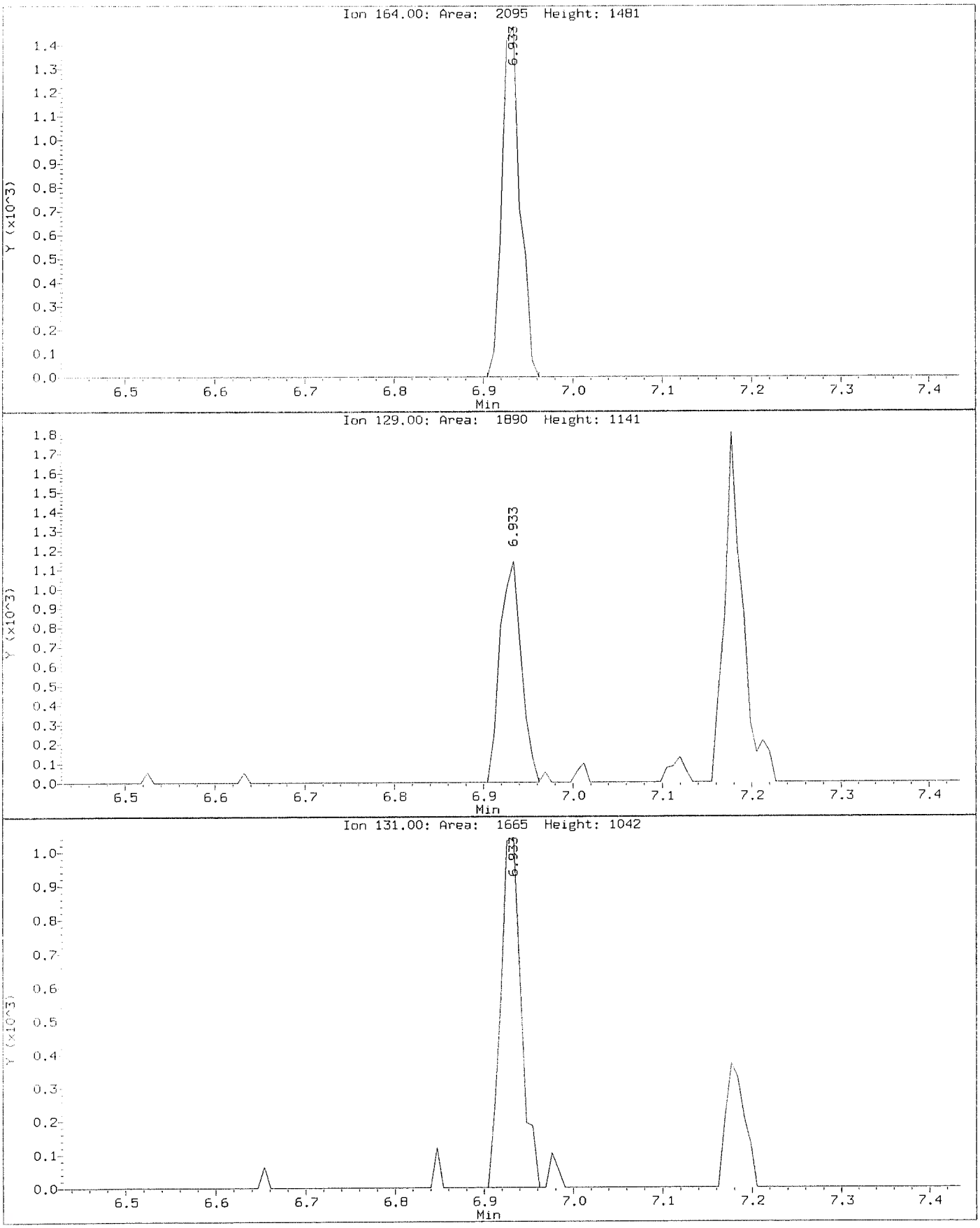
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Client Sample ID: VSTD000.5

Compound: tert-Butylbenzene
CAS Number: 98-06-6



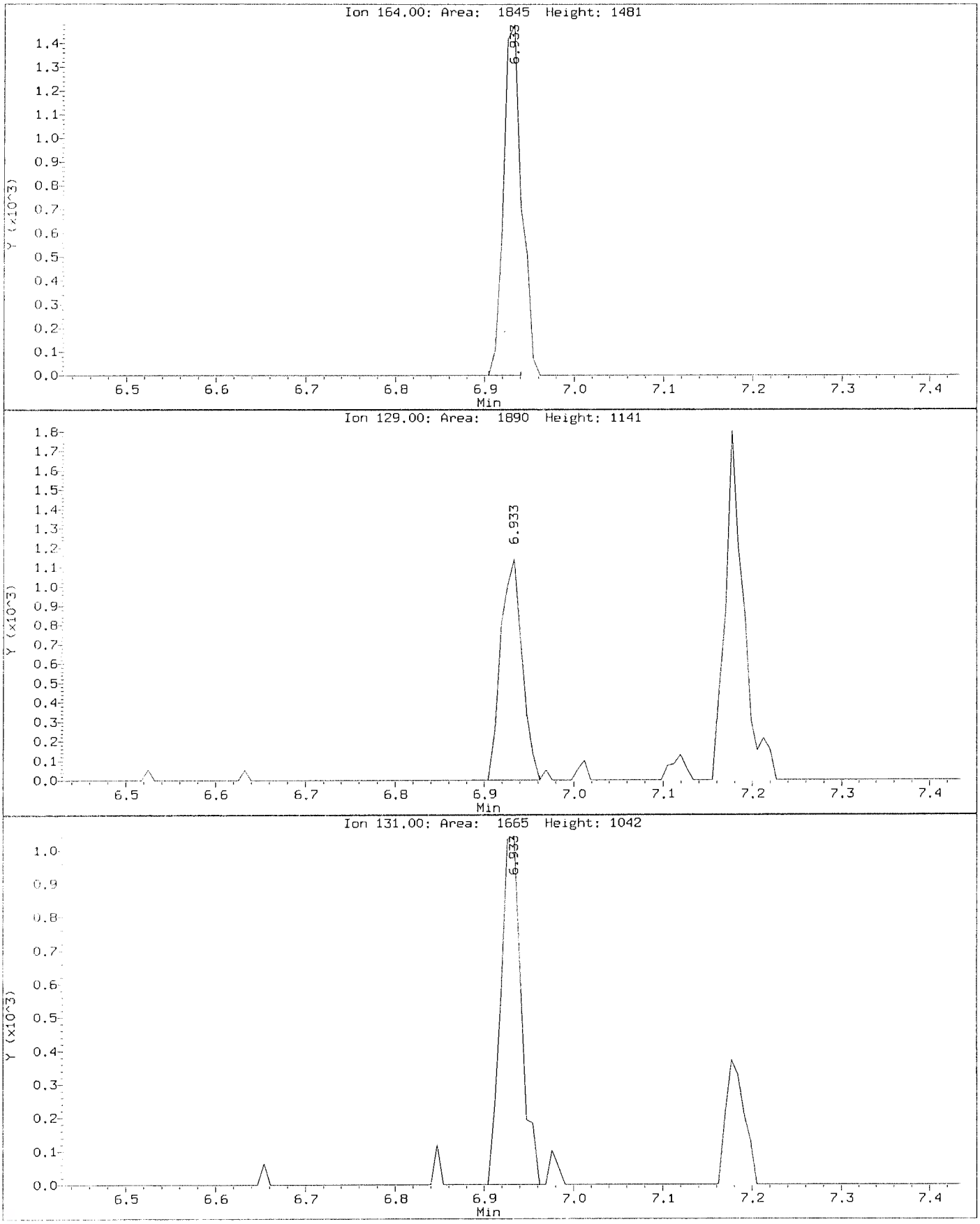
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Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Tetrachloroethene
CAS Number: 127-18-4



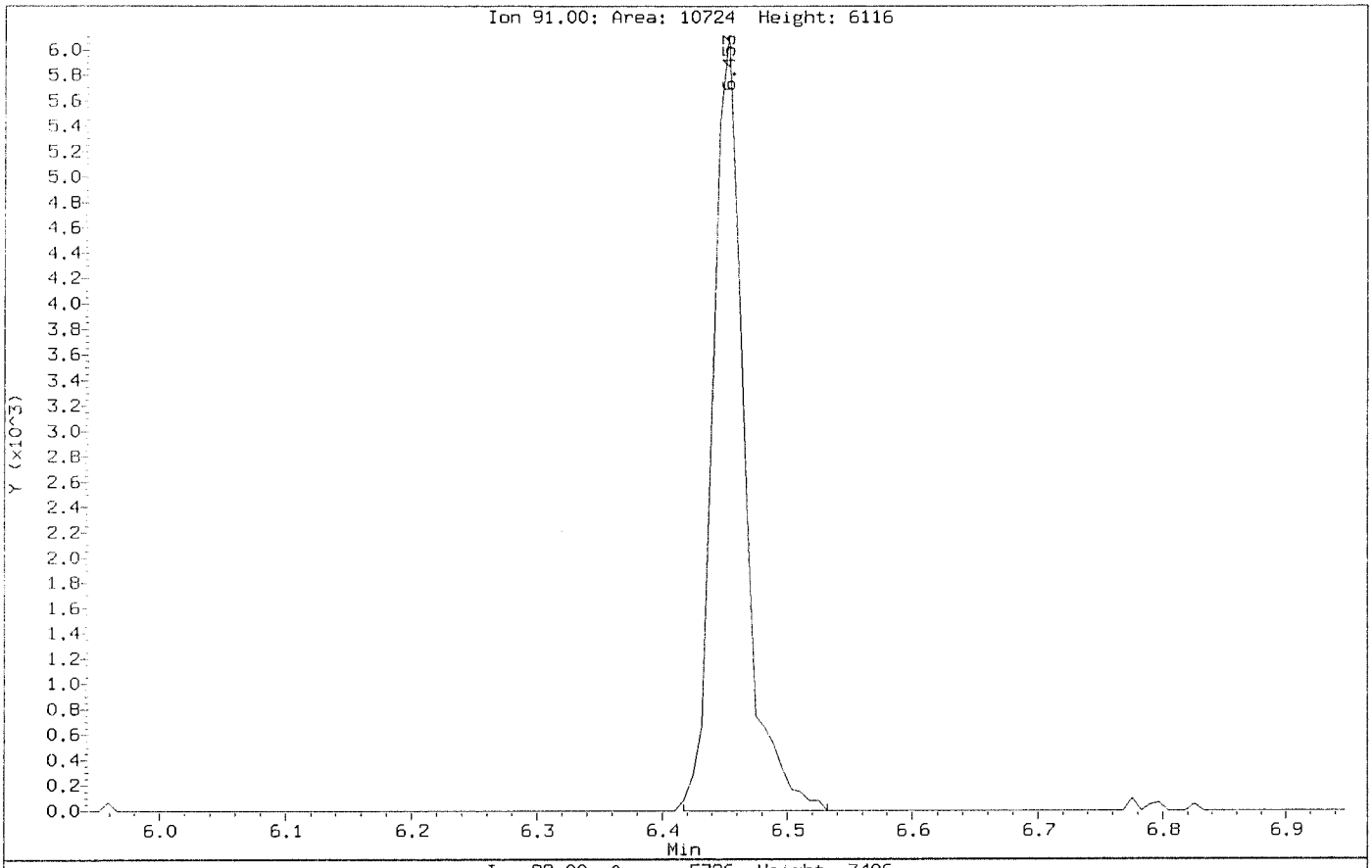
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Client Sample ID: VSTD000.5

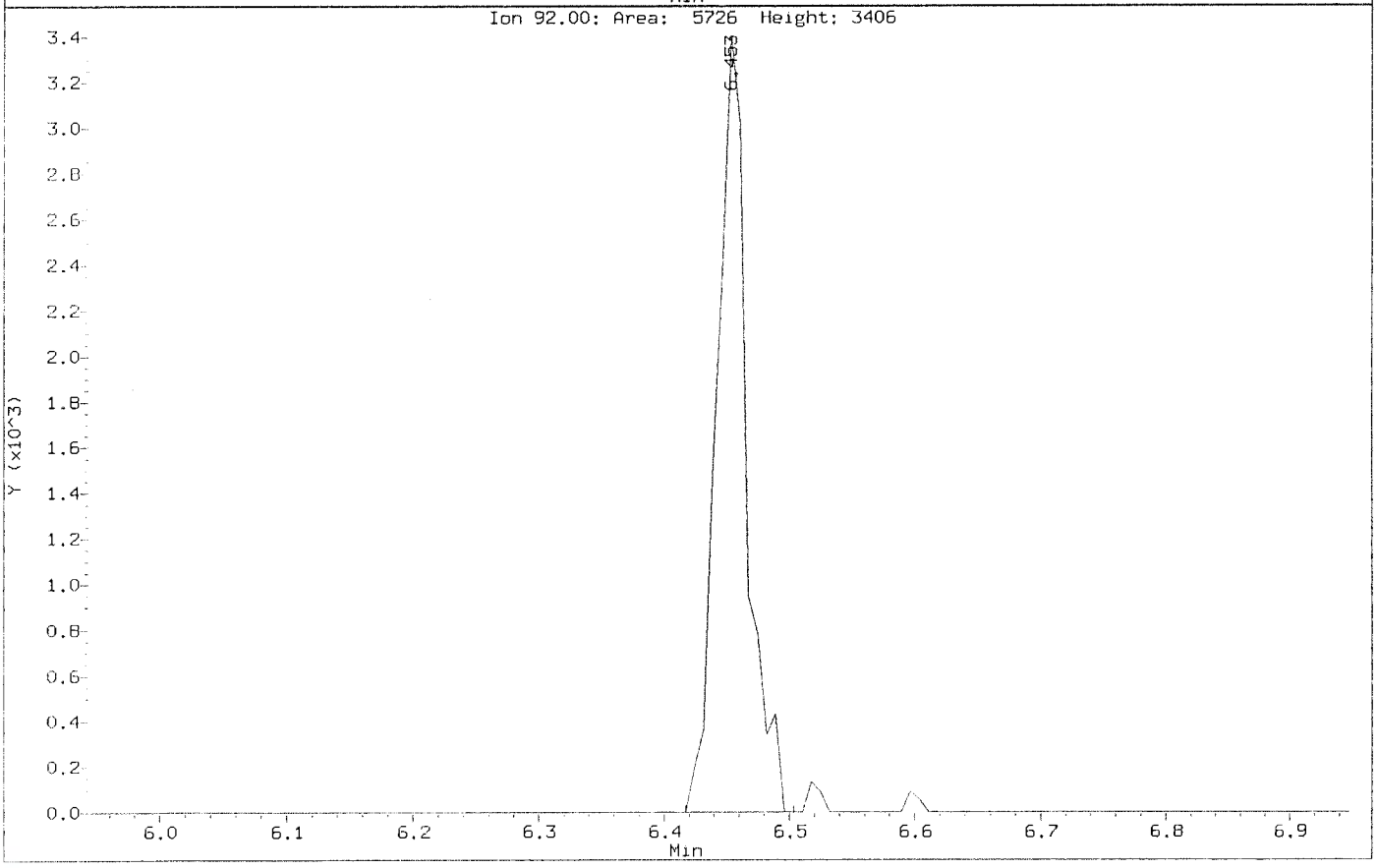
Compound: Tetrachloroethene
CAS Number: 127-18-4



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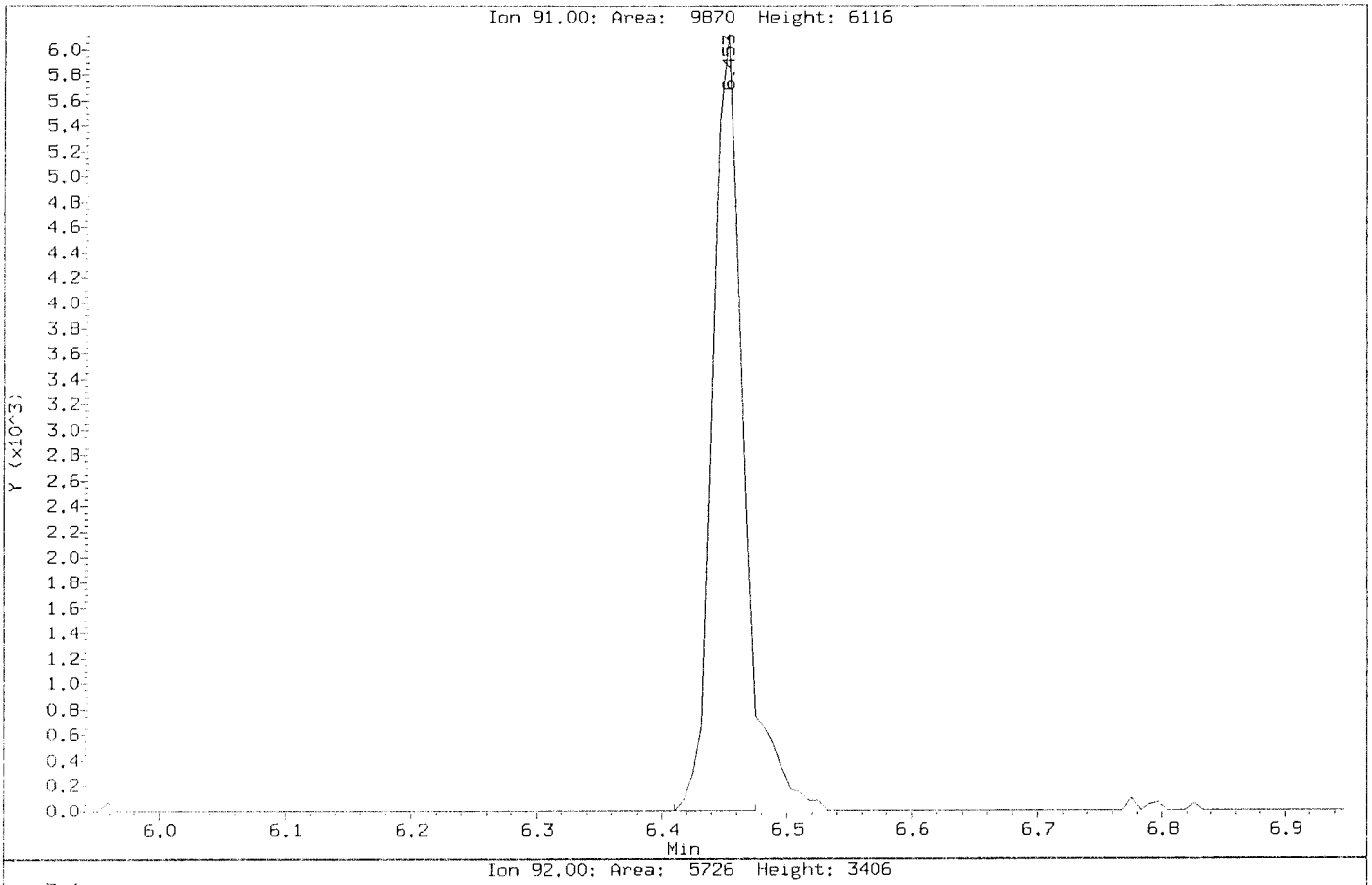
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CAS Number: 108-88-3

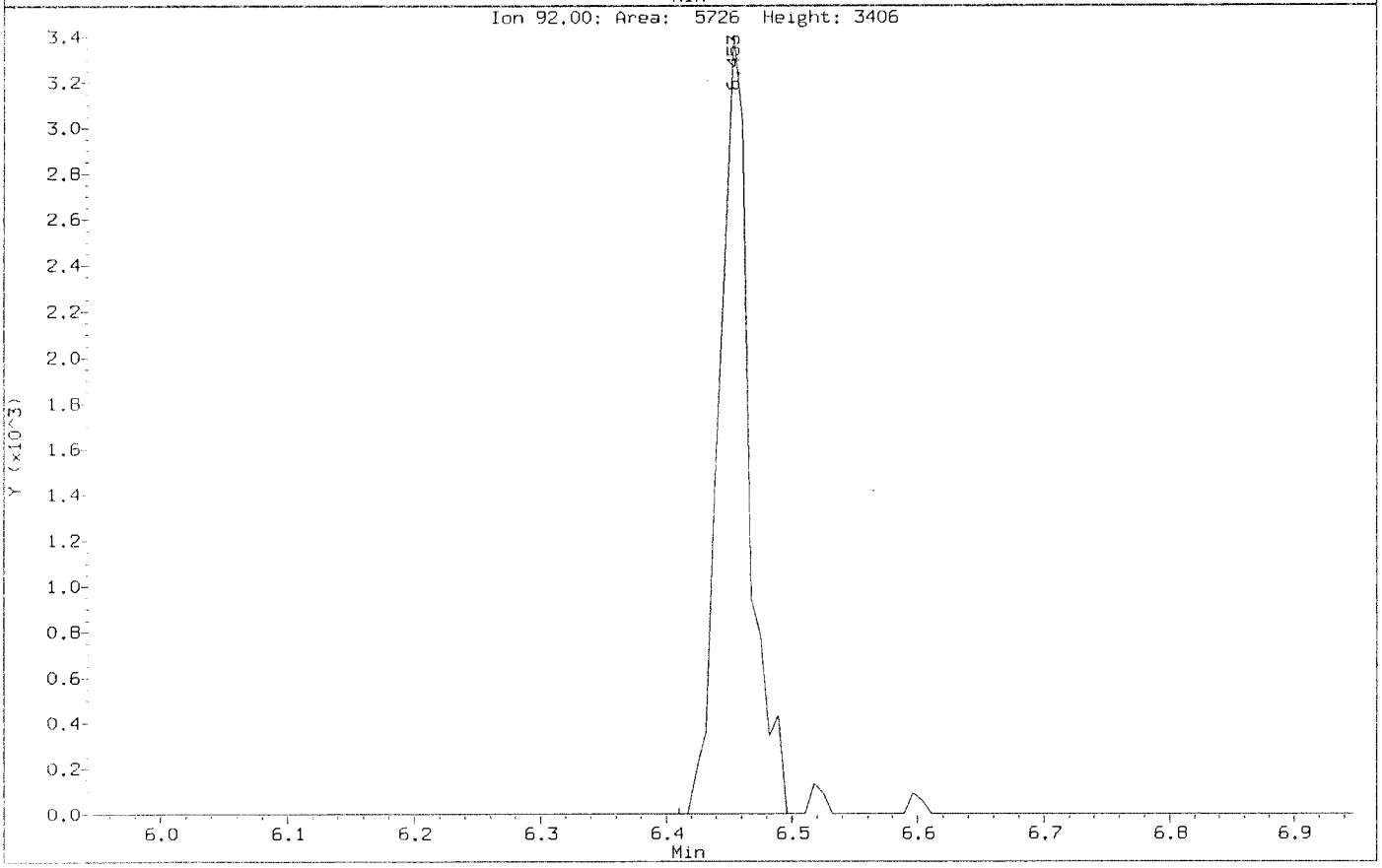




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Client Sample ID: VSTD000.5

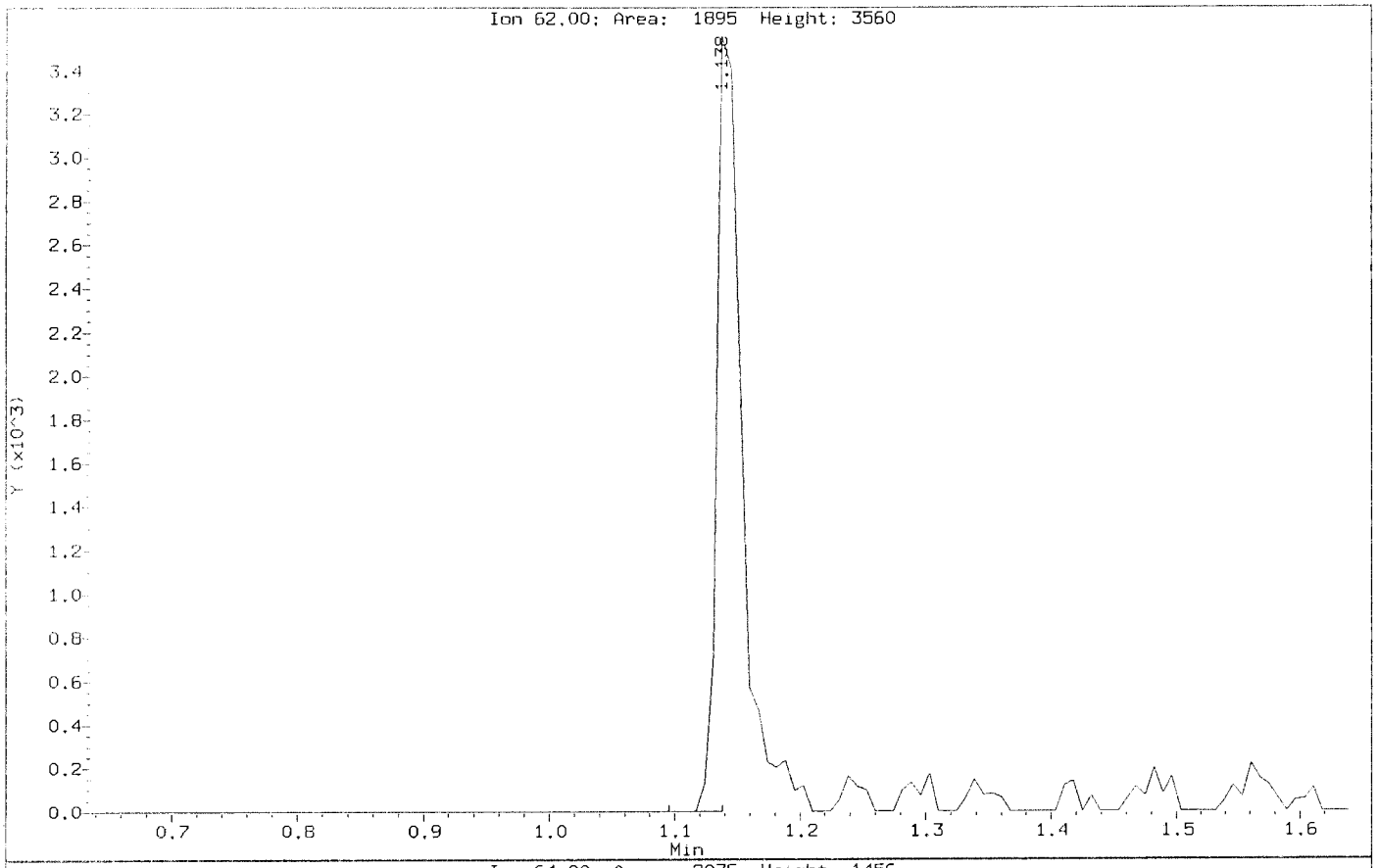
Compound: Toluene
CAS Number: 108-88-3

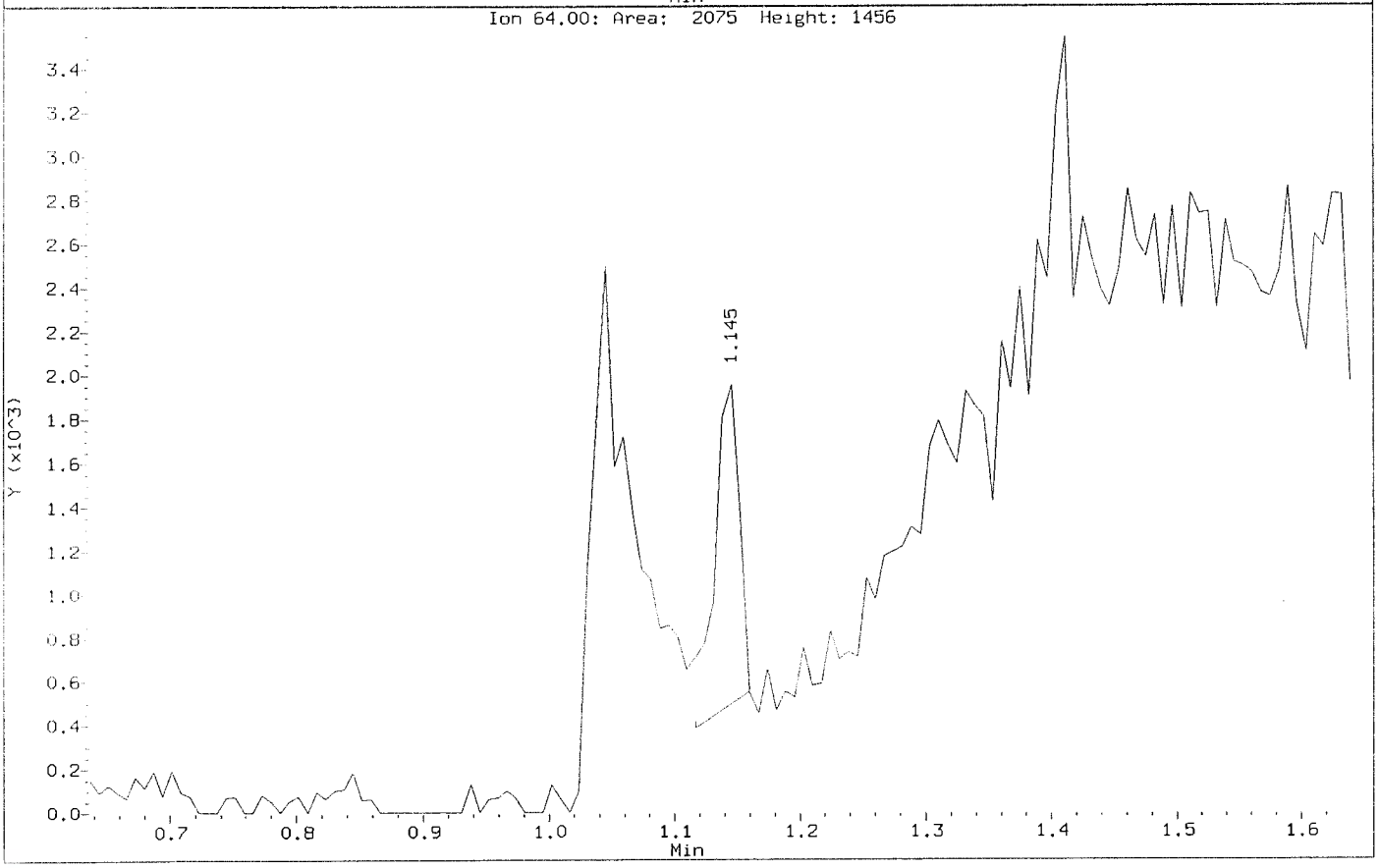




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Injection Date: 26-MAY-2021 12:55
Instrument: voa6.i
Client Sample ID: VSTD000.5

Compound: Vinyl Chloride
CAS Number: 75-01-4





Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052604.D Page 1
Report Date: 30-Jun-2021 18:30

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052604.D
Lab Smp Id: VSTD001 Client Smp ID: VSTD001
Inj Date : 26-MAY-2021 13:37
Operator : PC Inst ID: voa6.i
Smp Info : VSTD001;VSTD001;1;3;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 13:16 Cal File: X052689.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

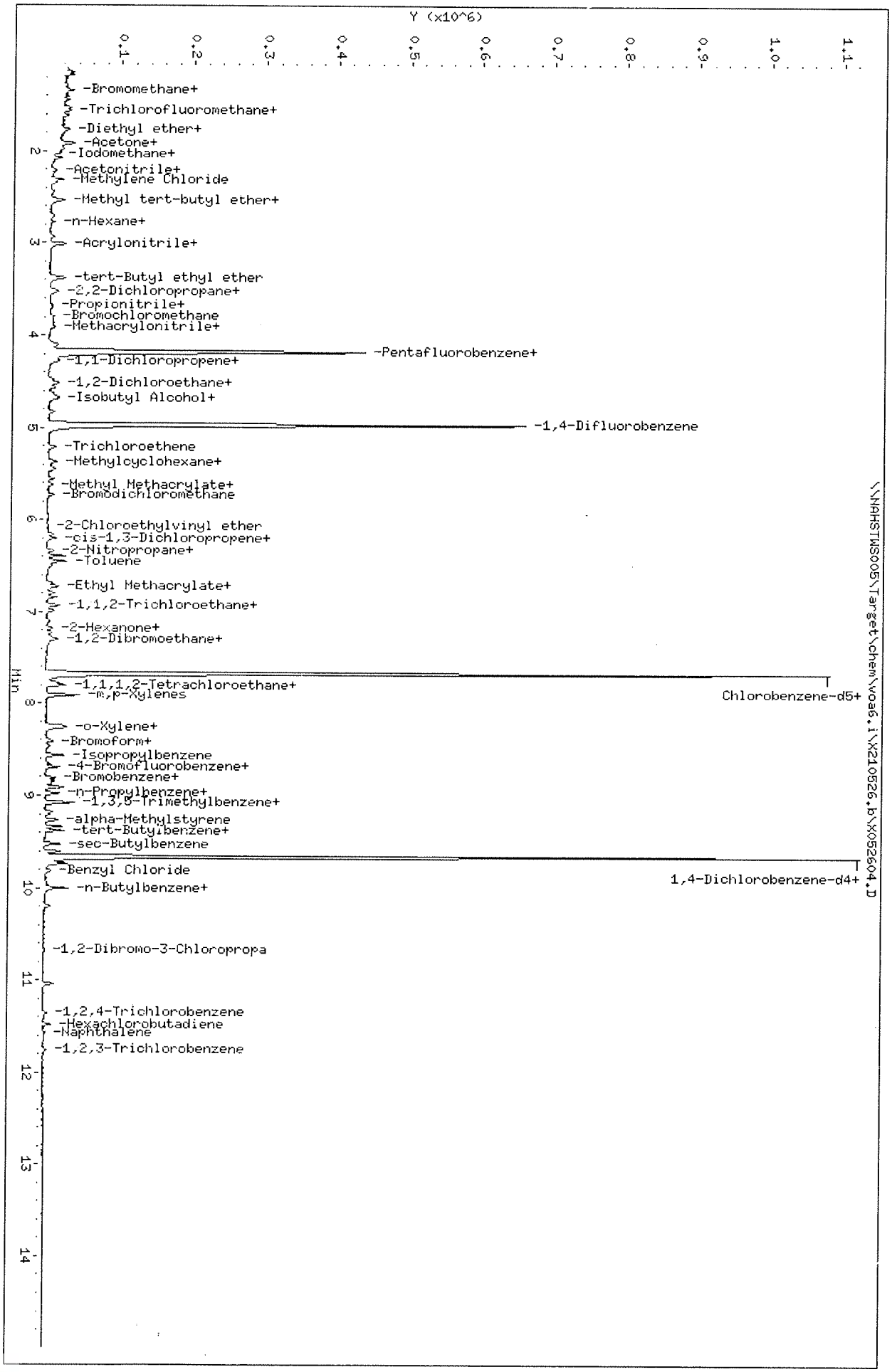
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	374662	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	596470	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	539050	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	263816	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	4774	1.00000	1.13(a)
$	35 1,2-Dichloroethane-d4	65	4.483	4.483	(1.072)	4768	1.00000	0.65(a)
$	46 Toluene-d8	98	6.388	6.388	(0.833)	16130	1.00000	1.20(a)
$	69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	6016	1.00000	2.00(a)
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	3901	1.00000	0.97(a)
	31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	5755	1.00000	1.03(a)
	68 1,1,2,2-Tetrachloroethane	83	8.845	8.845	(0.915)	4348	1.00000	0.02(aM)
	53 1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	2883	1.00000	0.98(a)
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	5856	1.00000	0.98(a)
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	3995	1.00000	1.03(a)
	32 1,1-Dichloropropene	75	4.283	4.283	(0.863)	5224	1.00000	1.14(a)
	93 1,2,3-Trichlorobenzene	180	11.754	11.754	(1.216)	1736	1.00000	1.08(a)
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	3425	1.00000	1.04(aM)
	90 1,2,4-Trichlorobenzene	180	11.352	11.352	(1.175)	2427	1.00000	0.93(a)
	79 1,2,4-Trimethylbenzene	105	9.383	9.383	(0.971)	12763	1.00000	1.06(a)
	89 1,2-Dibromo-3-Chloropropane	155	10.665	10.665	(1.104)	420	1.00000	1.50(aM)
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	4007	1.00000	1.00(a)
	88 1,2-Dichlorobenzene	146	9.999	9.999	(1.035)	6762	1.00000	0.94(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33 1,2-Dichloroethane	62	4.562	4.562	(0.919)	4589	1.00000	0.96(a)
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	3370	1.00000	0.95(aM)
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	11991	1.00000	1.00(a)
83 1,3-Dichlorobenzene	146	9.612	9.612	(0.995)	7778	1.00000	1.04(a)
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	6044	1.00000	1.04(a)
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	8598	1.00000	1.10(a)
26 2,2-Dichloropropane	77	3.502	3.502	(0.837)	5645	1.00000	1.10(a)
24 2-Butanone	43	3.609	3.609	(0.863)	2263	2.00000	1.98(aH)
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	10677	1.00000	1.08(a)
52 2-Hexanone	43	7.105	7.105	(0.926)	3902	2.00000	1.94(a)
77 4-Chlorotoluene	91	9.075	9.075	(0.939)	12726	1.00000	1.08(a)
82 p-Isopropyltoluene	119	9.655	9.655	(0.999)	11873	1.00000	0.97(a)
45 4-Methyl-2-Pentanone	43	6.338	6.338	(0.826)	6892	2.00000	2.22(a)
10 Acetone	43	1.976	1.976	(0.473)	6356	2.00000	1.07(a)
37 Benzene	78	4.512	4.512	(0.909)	13768	1.00000	1.00(a)
74 Bromobenzene	156	8.810	8.810	(0.912)	4457	1.00000	1.01(a)
29 Bromochloromethane	128	3.795	3.795	(0.908)	2448	1.00000	1.08(a)
39 Bromodichloromethane	83	5.729	5.729	(1.154)	5258	1.00000	1.02(aM)
66 Bromoform	173	8.416	8.416	(1.097)	3086	1.00000	1.02(Ta)
6 Bromomethane	94	1.338	1.338	(0.320)	5134	1.00000	1.47(aM)
19 Carbon Disulfide	76	2.069	2.069	(0.495)	17528	2.00000	1.91(a)
34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	5081	1.00000	1.02(aH)
59 Chlorobenzene	112	7.692	7.692	(1.003)	11243	1.00000	1.00(a)
7 Chloroethane	64	1.403	1.403	(0.336)	3557	1.00000	(aM)
28 Chloroform	83	3.910	3.910	(0.935)	6401	1.00000	0.97(a)
3 Chloromethane	50	1.081	1.081	(0.258)	4657	1.00000	(aM)
27 cis-1,2-Dichloroethene	96	3.538	3.538	(0.846)	4276	1.00000	1.08(a)
46 cis-1,3-Dichloropropene	75	6.159	6.159	(1.241)	5752	1.00000	0.95(a)
55 Dibromochloromethane	129	7.184	7.184	(0.937)	4180	1.00000	0.94(a)
44 Dibromomethane	93	5.558	5.558	(1.120)	2737	1.00000	1.03(a)
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	3382	1.00000	0.77(a)
61 Ethylbenzene	106	7.800	7.800	(1.017)	4880	1.00000	0.94(a)
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	1684	1.00000	2.04(a)
67 Isopropylbenzene	105	8.566	8.566	(1.117)	14326	1.00000	0.90(a)
62 m,p-Xylenes	106	7.907	7.907	(1.031)	12425	2.00000	1.84(a)
17 Methylene Chloride	84	2.306	2.306	(0.551)	5537	1.00000	0.34(a)
87 n-Butylbenzene	91	9.999	9.999	(1.035)	9814	1.00000	0.95(a)
73 n-Propylbenzene	91	8.917	8.917	(0.923)	17945	1.00000	1.09(a)
92 Naphthalene	128	11.567	11.567	(1.197)	3910	1.00000	1.03(a)
63 o-Xylene	106	8.244	8.244	(1.075)	6381	1.00000	0.96(a)
81 sec-Butylbenzene	105	9.526	9.526	(0.986)	13504	1.00000	0.97(a)
64 Styrene	104	8.265	8.265	(1.078)	10006	1.00000	0.90(a)
78 tert-Butylbenzene	119	9.340	9.340	(0.967)	10328	1.00000	1.00(a)
56 Tetrachloroethene	164	6.933	6.933	(0.904)	3075	1.00000	0.92(a)
50 Toluene	91	6.453	6.453	(0.841)	16276	1.00000	1.03(a)
20 trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	3617	1.00000	1.03(a)
51 trans-1,3-Dichloropropene	75	6.689	6.689	(1.348)	5128	1.00000	0.98(a)
38 Trichloroethene	130	5.214	5.214	(1.051)	3767	1.00000	0.92(a)
8 Trichlorofluoromethane	101	1.561	1.561	(0.373)	5964	1.00000	0.88(a)
5 Vinyl Chloride	62	1.138	1.138	(0.272)	5435	1.00000	1.22(aM)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

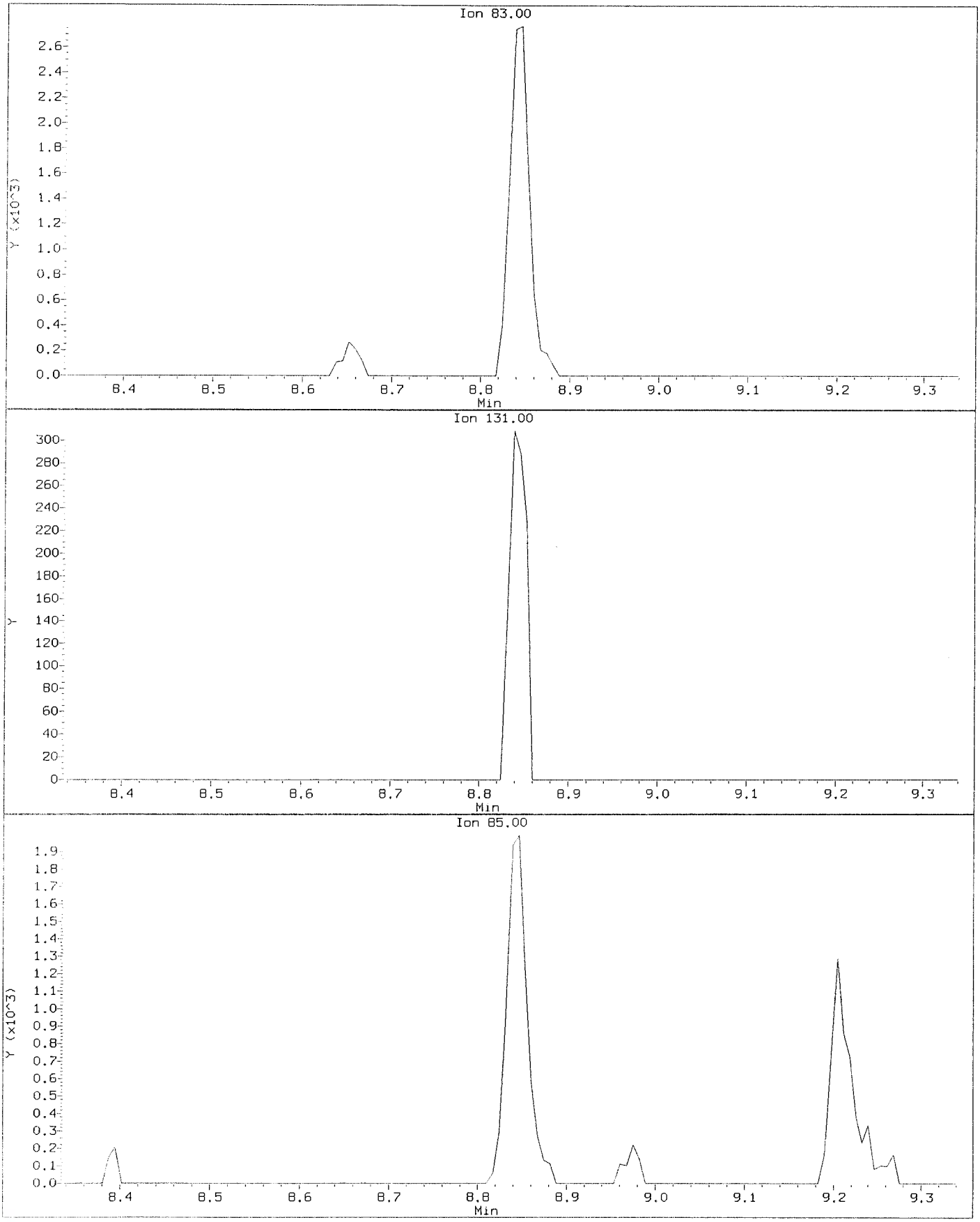


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Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6,i
Operator: PC
Column diameter: 0.18

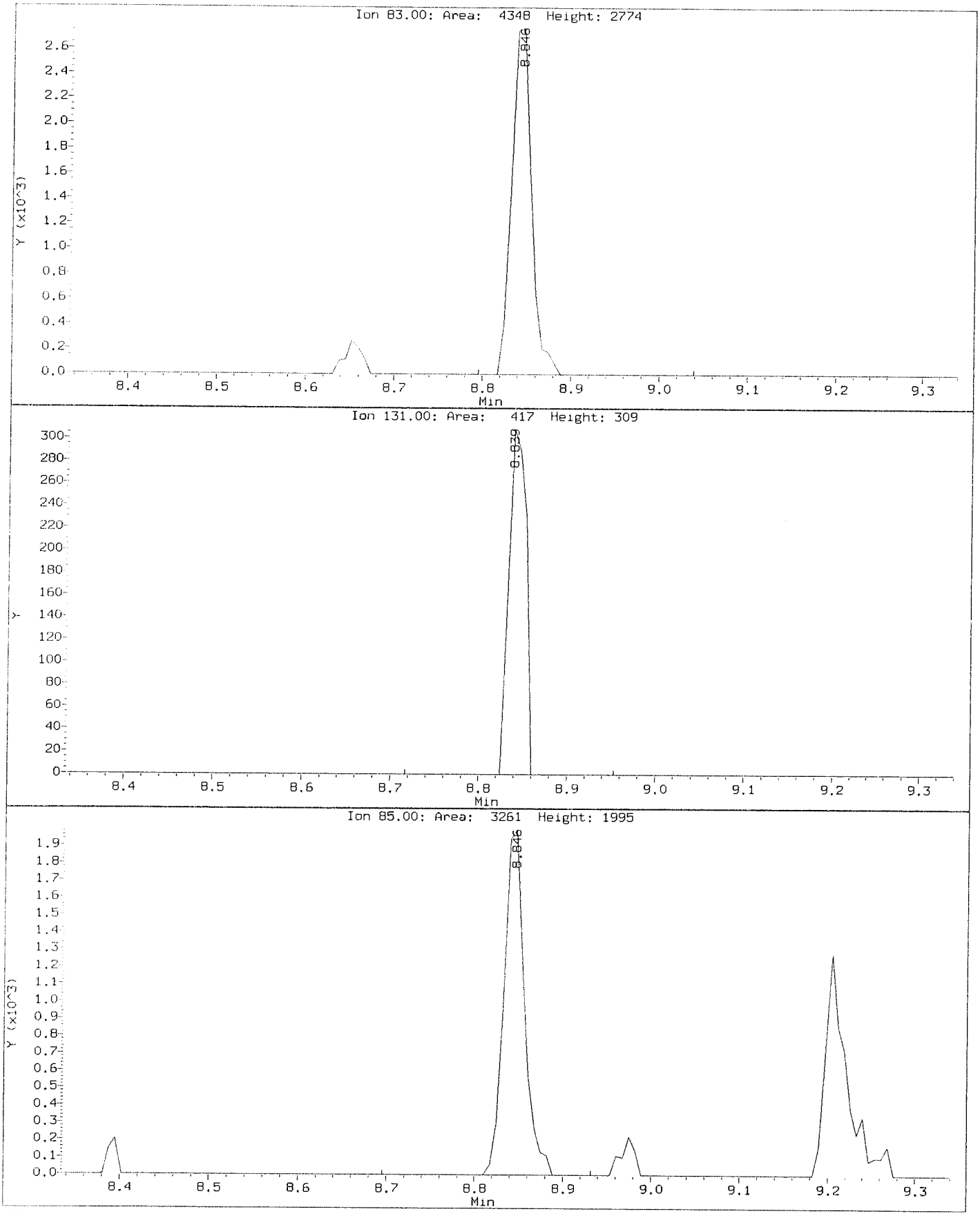
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Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



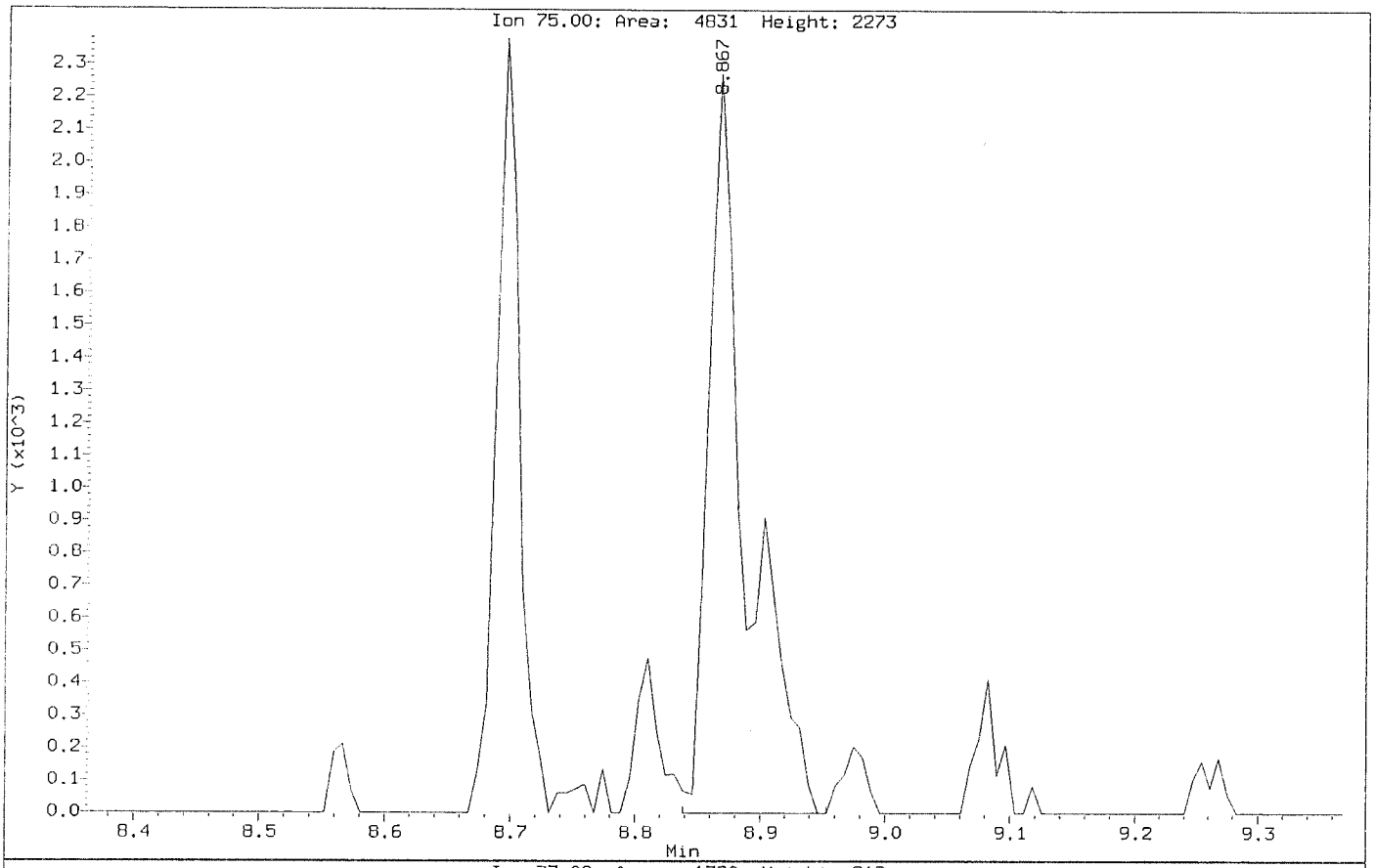
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Client Sample ID: VSTD001

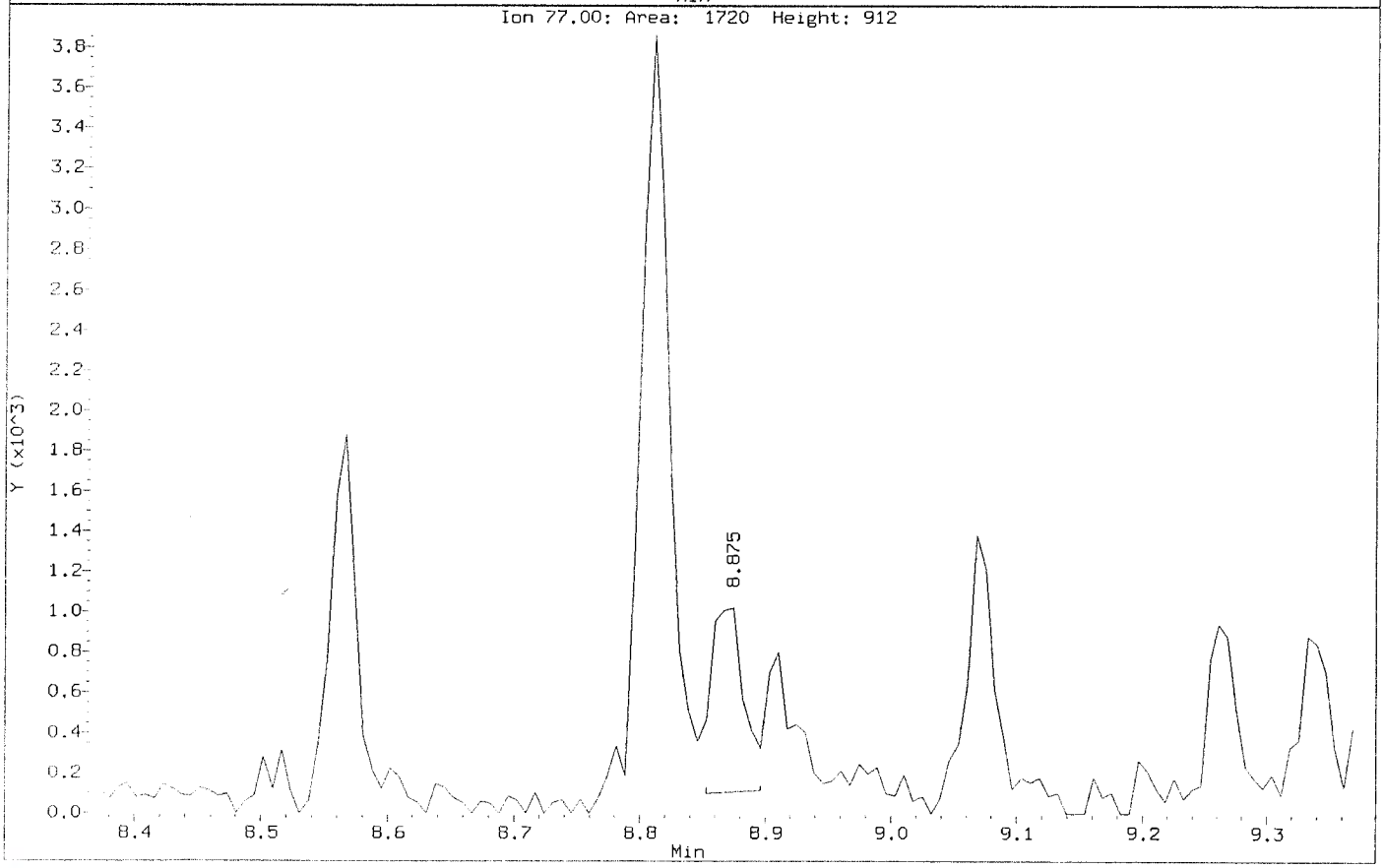
Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



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Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

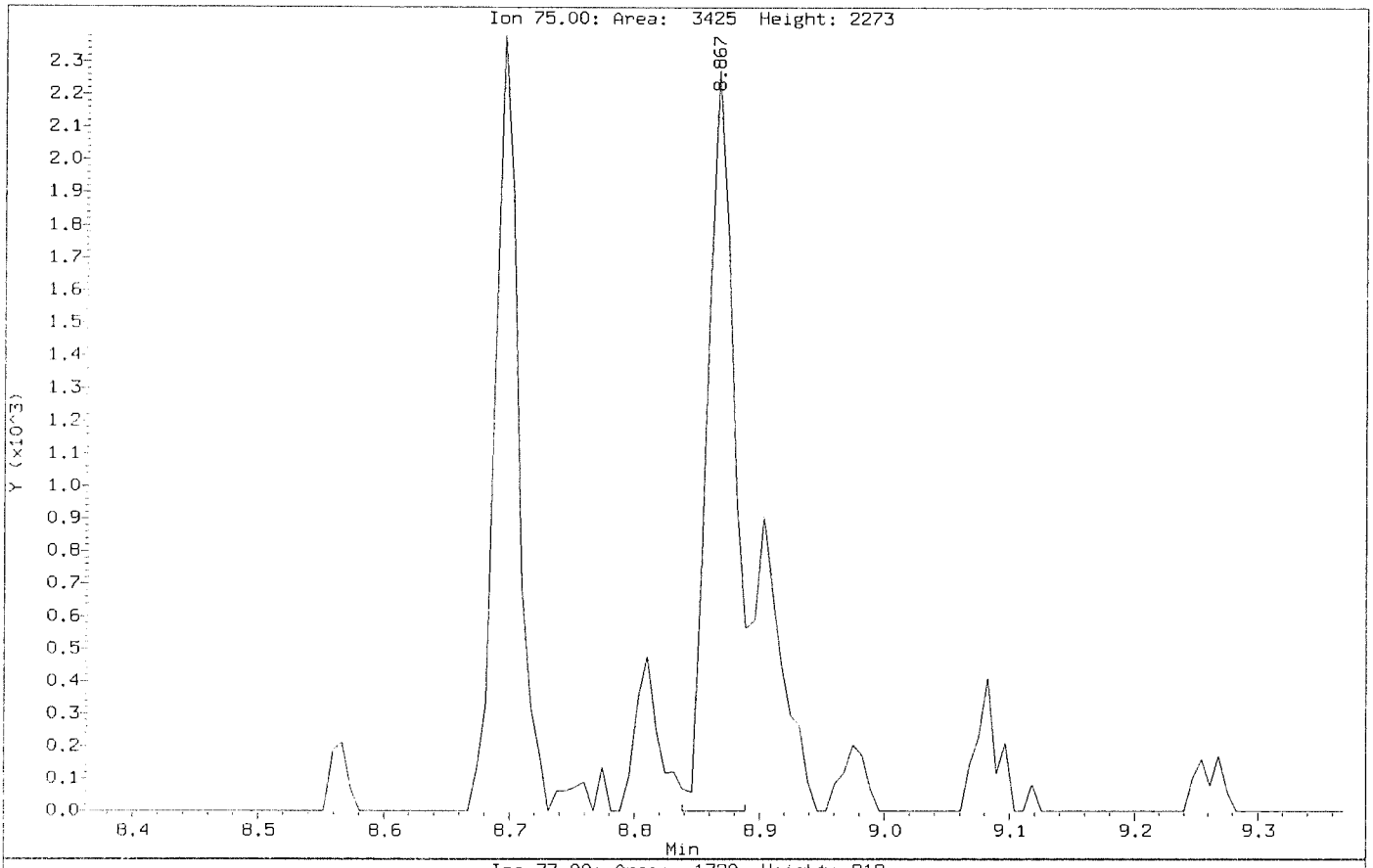
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

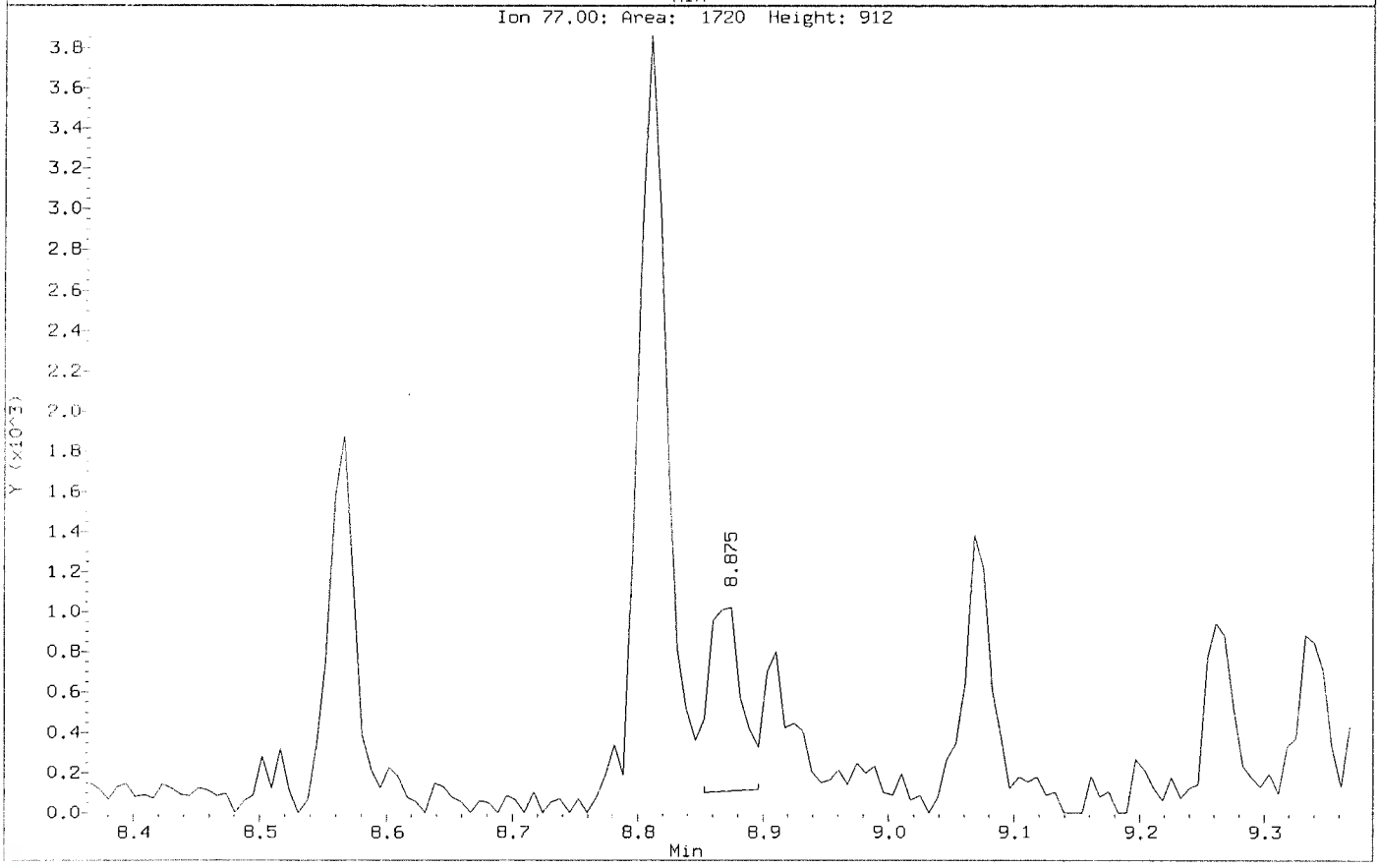




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052604.D
Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

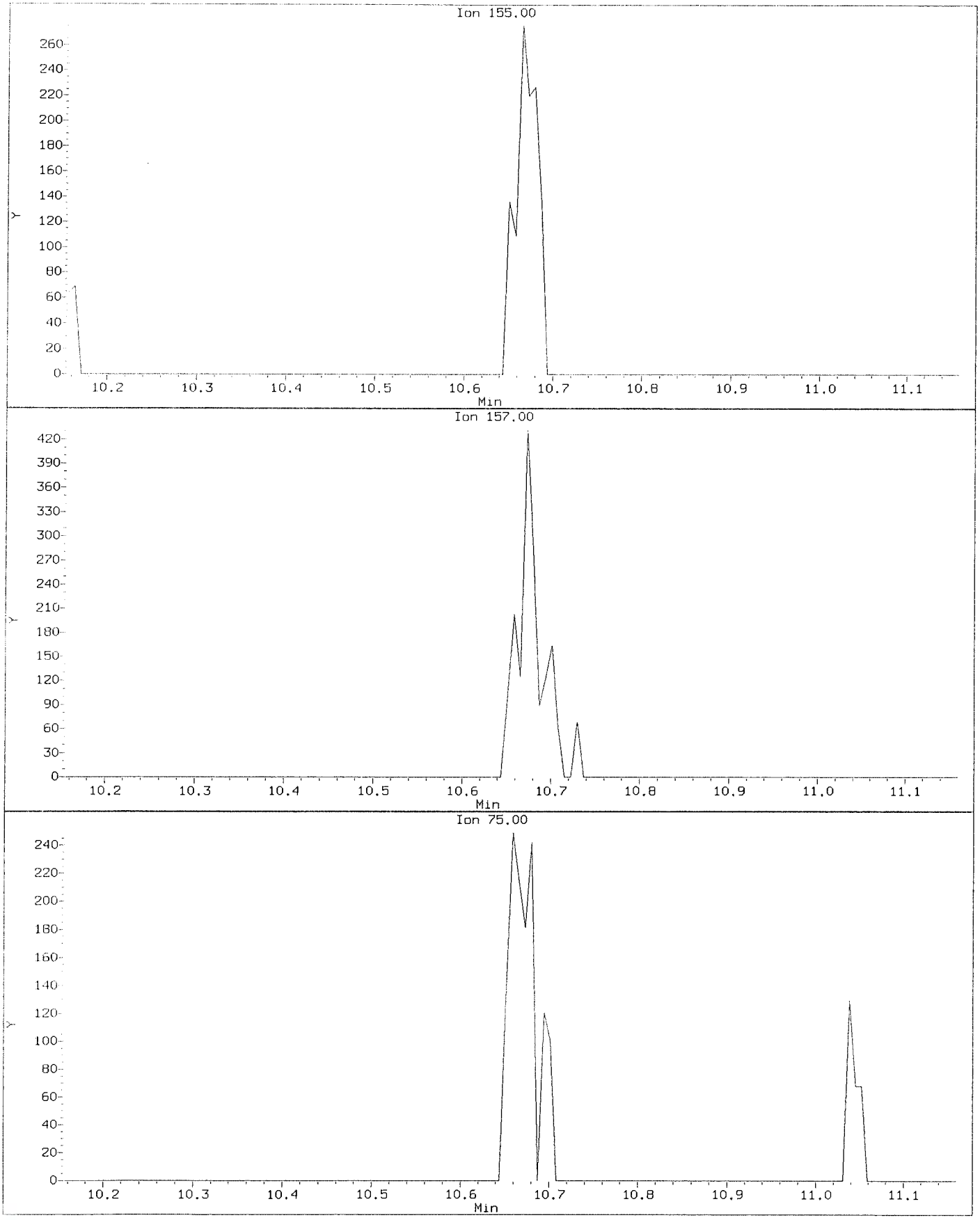
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





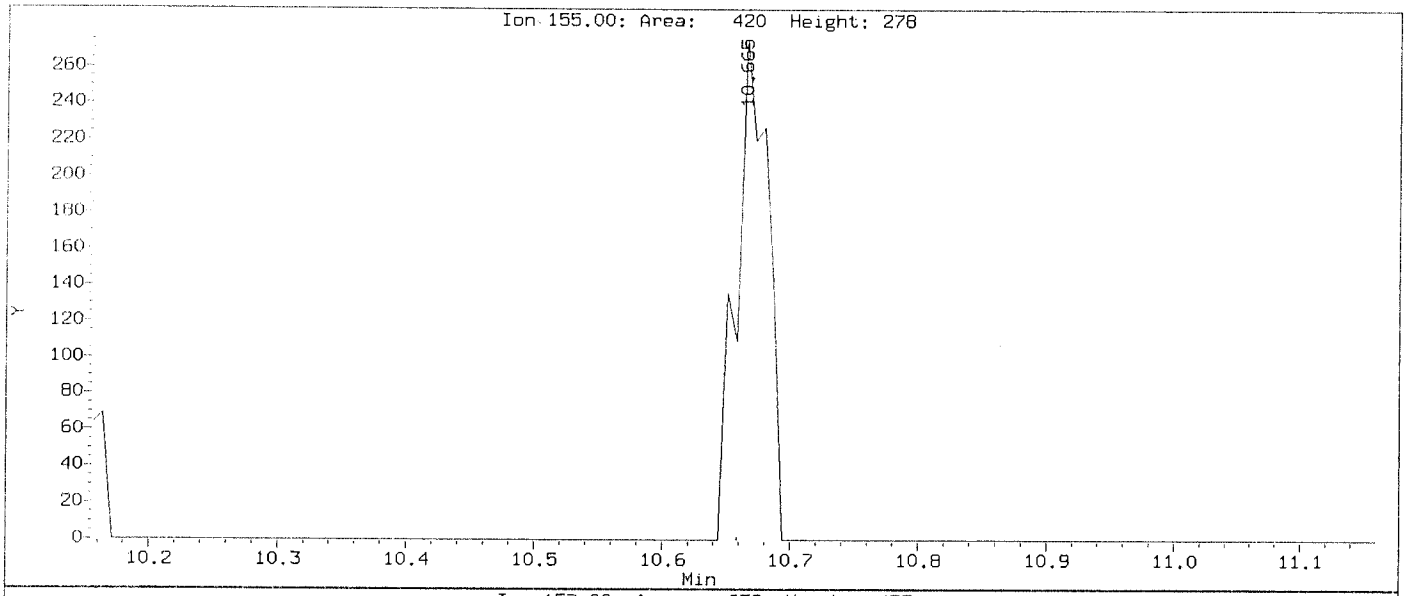
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Instrument: voa6.i
Client Sample ID: VSTD001

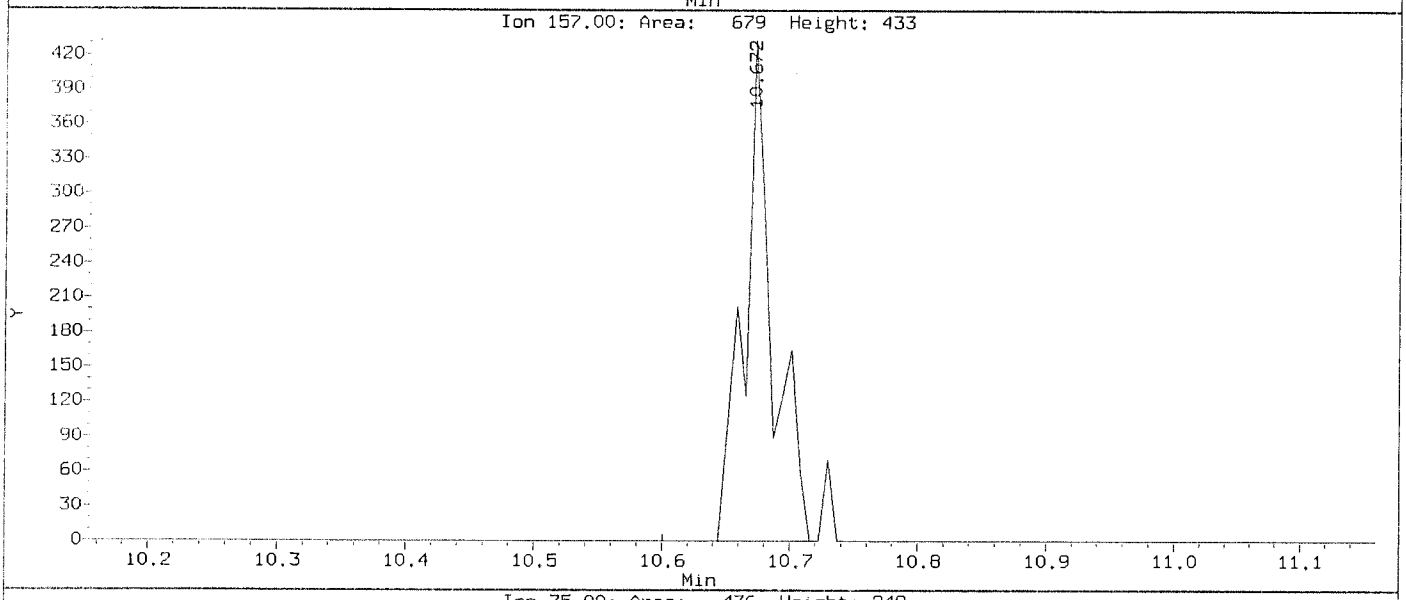
Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8

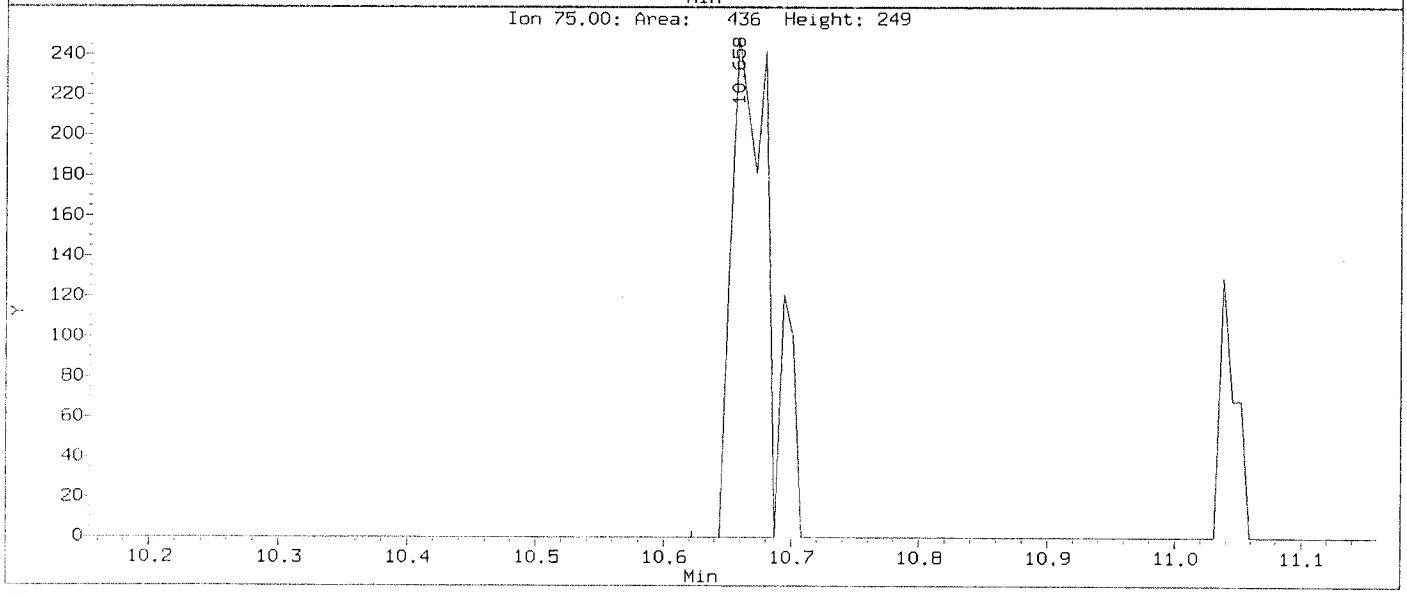


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Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8

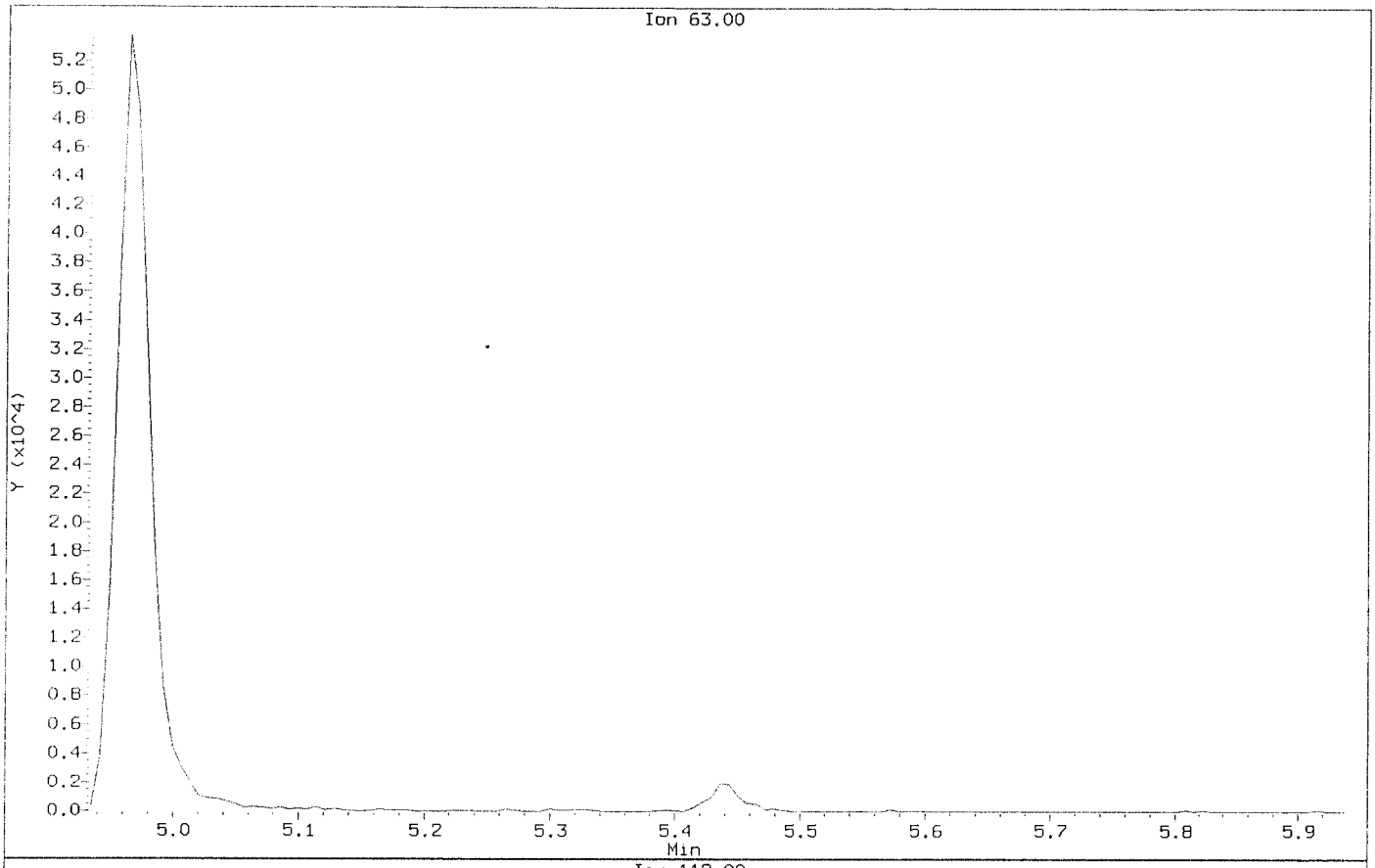


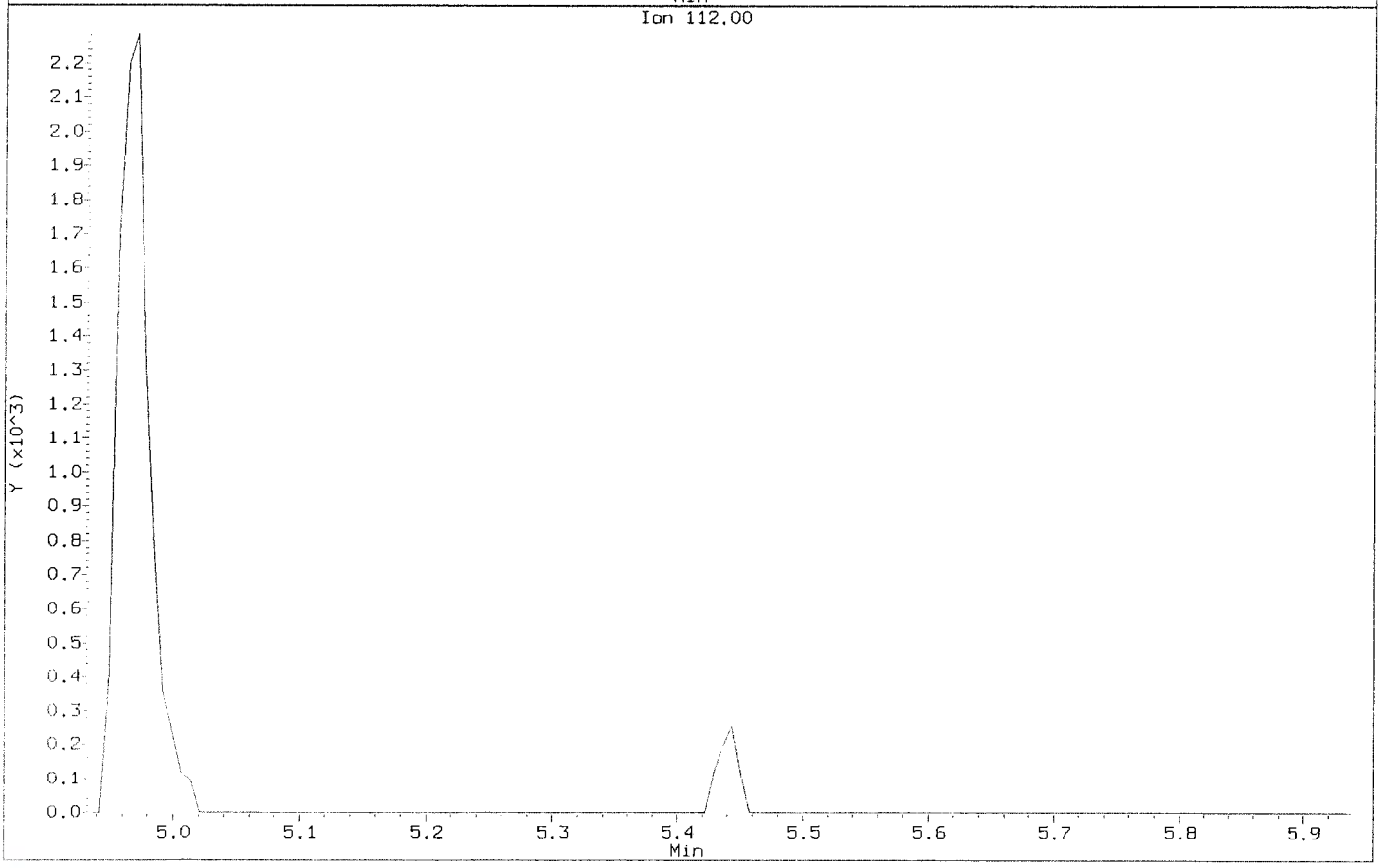




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Instrument: voa6.i
Client Sample ID: VSTD001

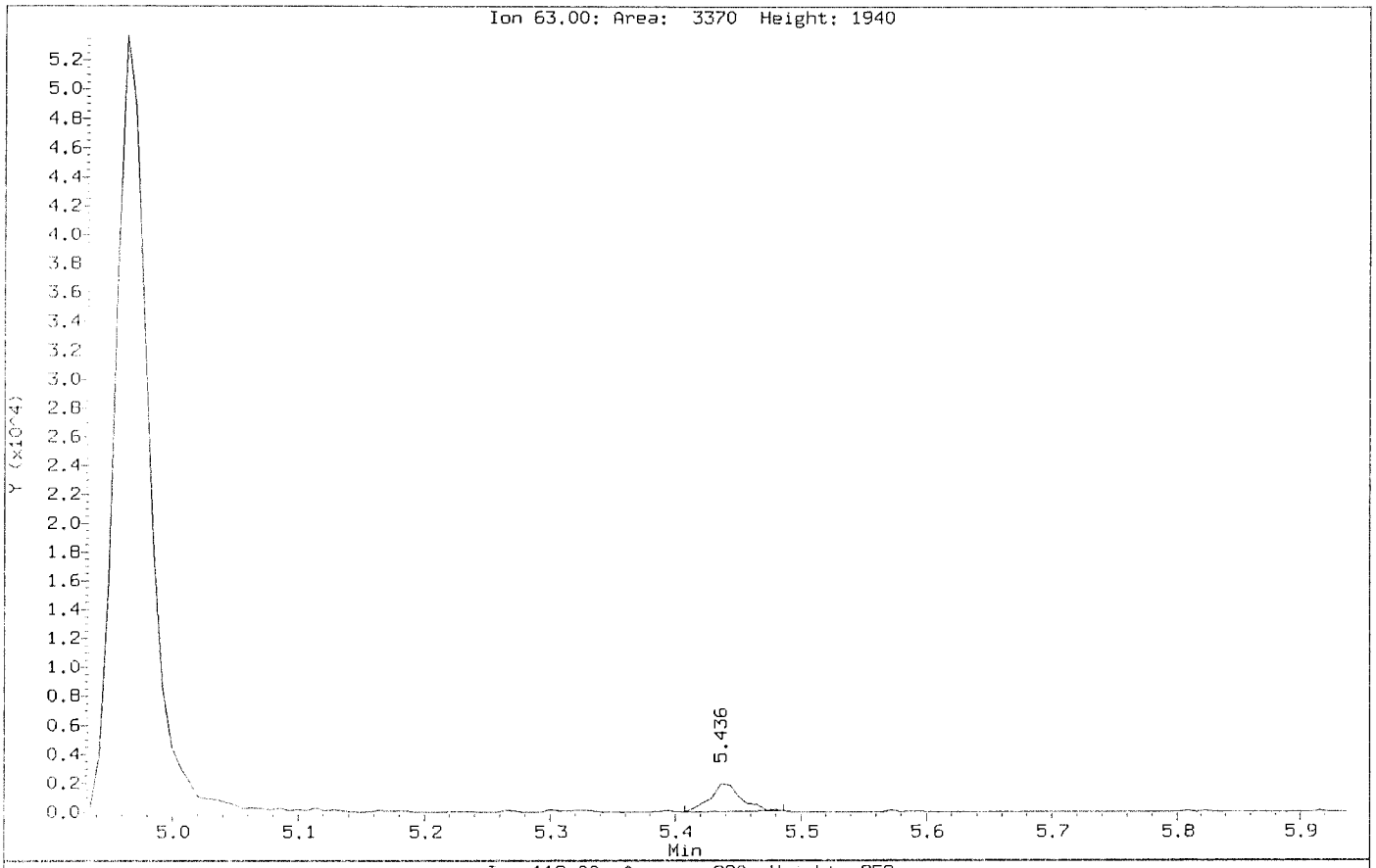
Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

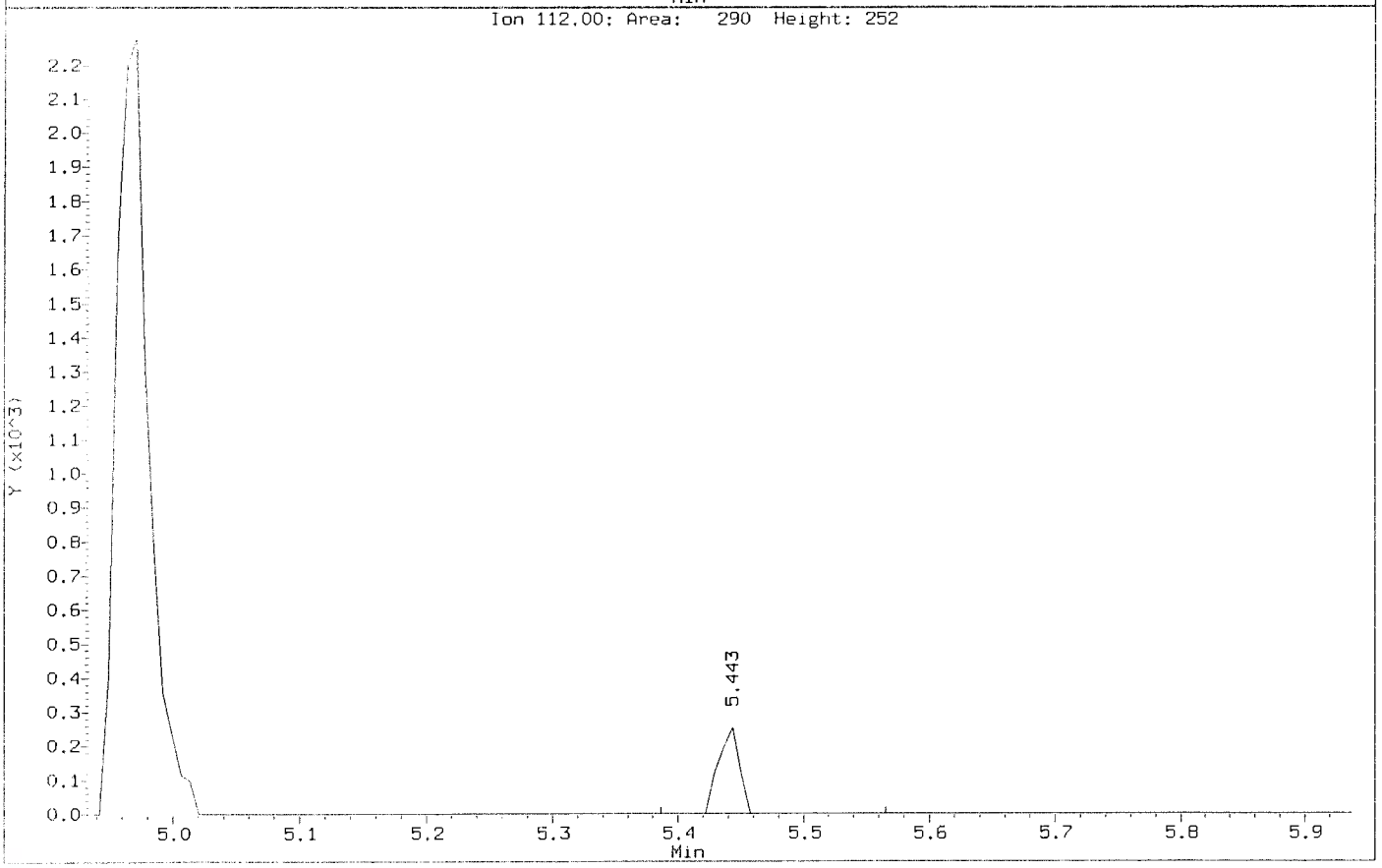




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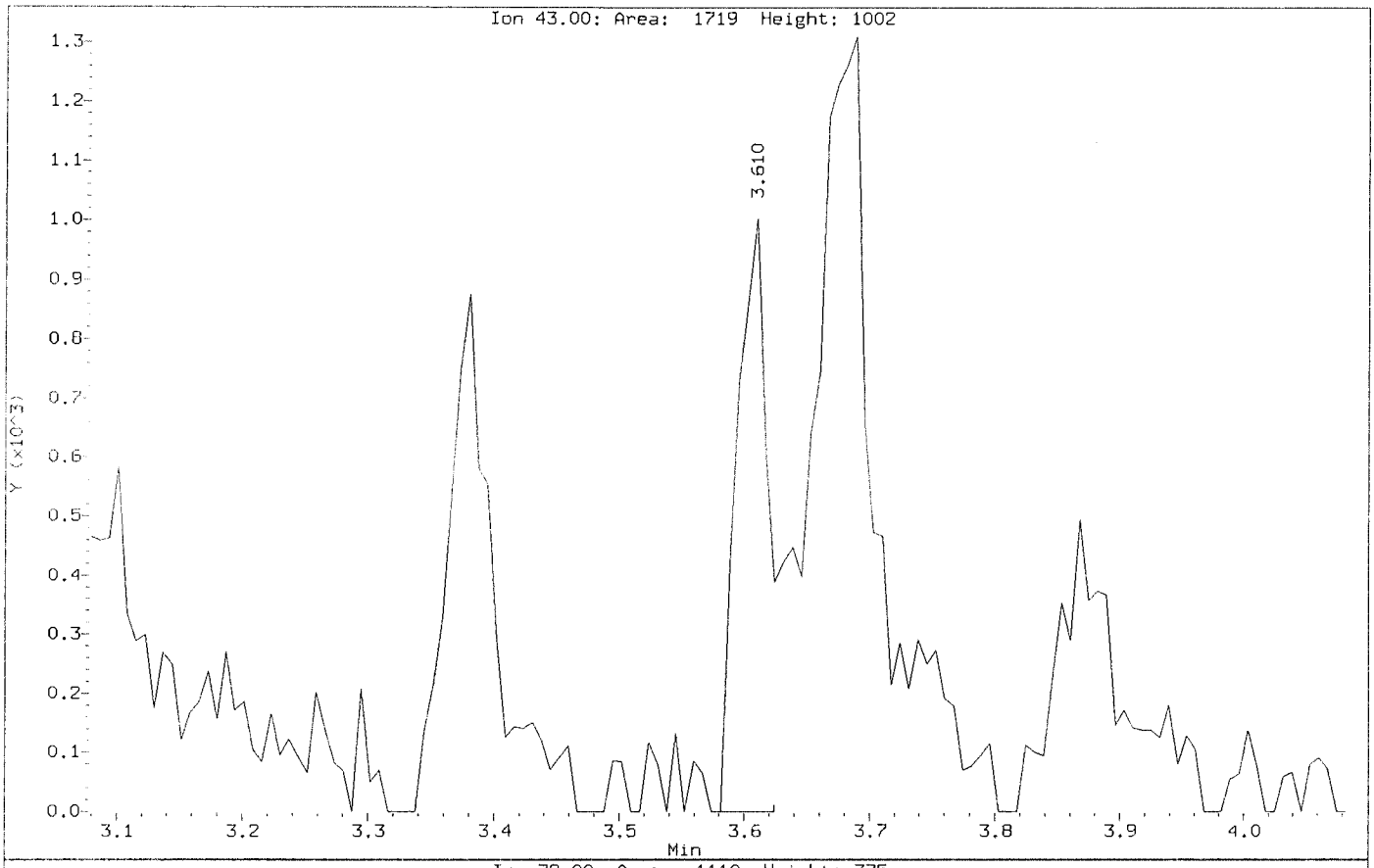
Compound: 1,2-Dichloropropane
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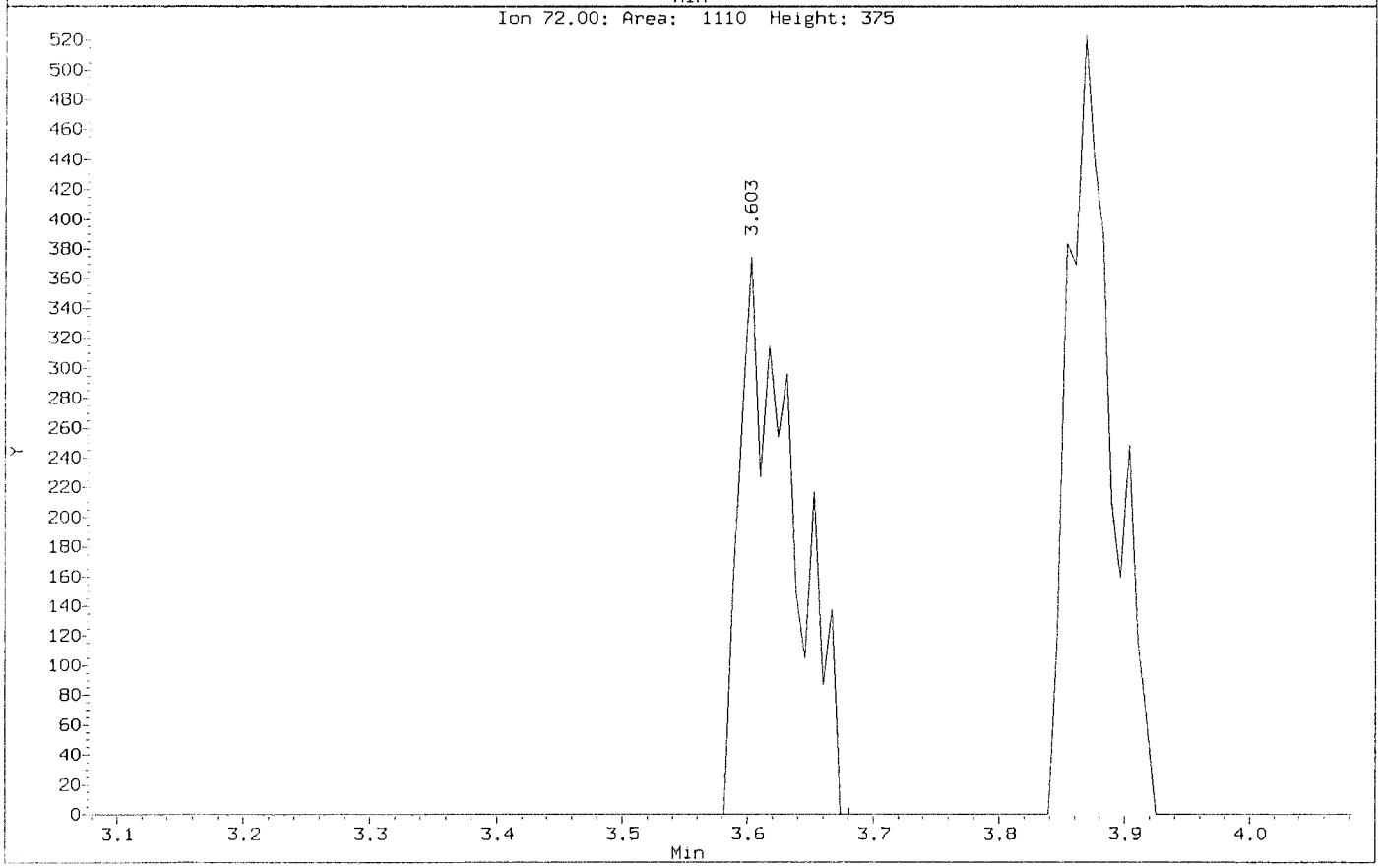




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Instrument: voa6.i
Client Sample ID: VSTD001

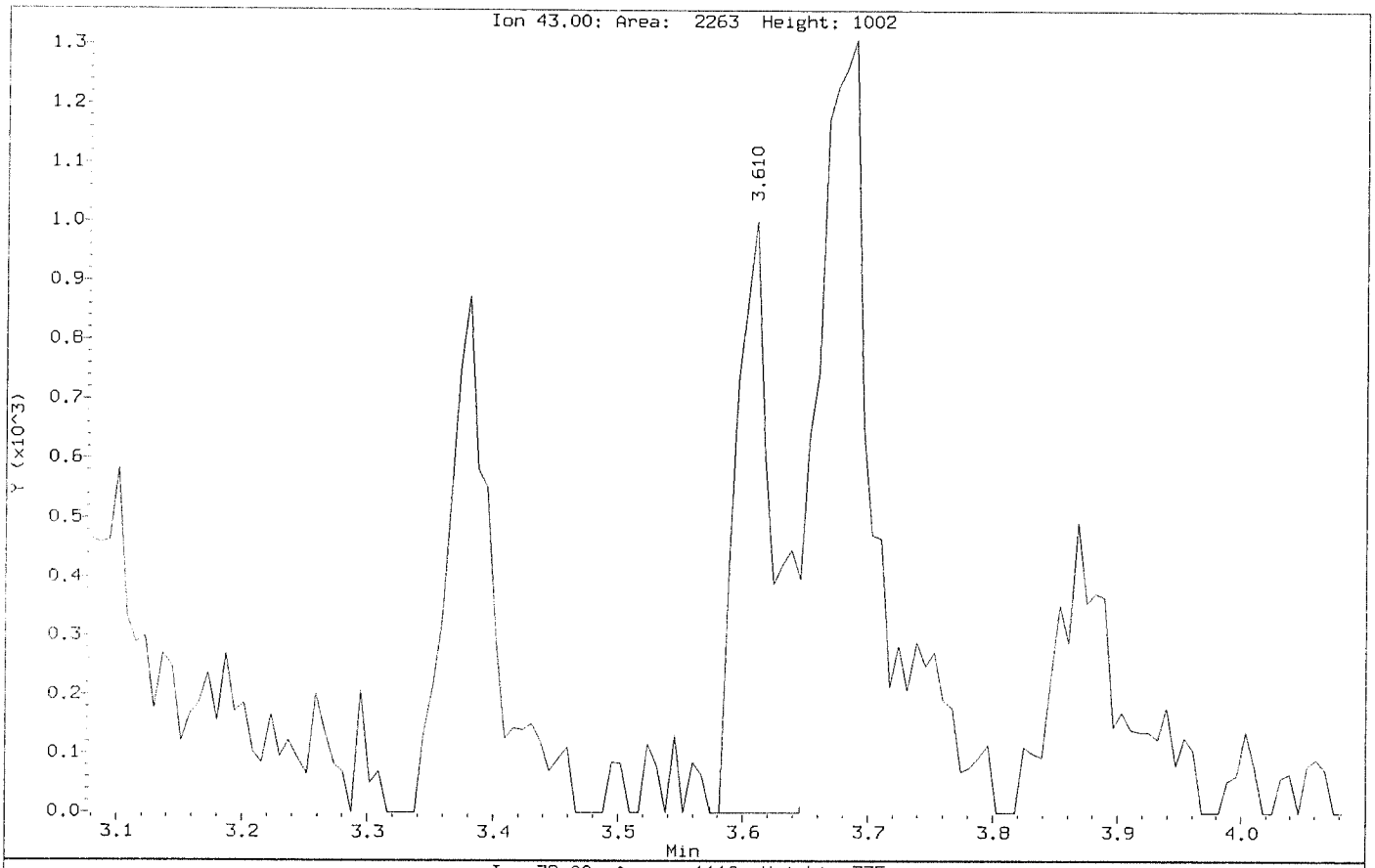
Compound: 2-Butanone
CAS Number: 78-93-3

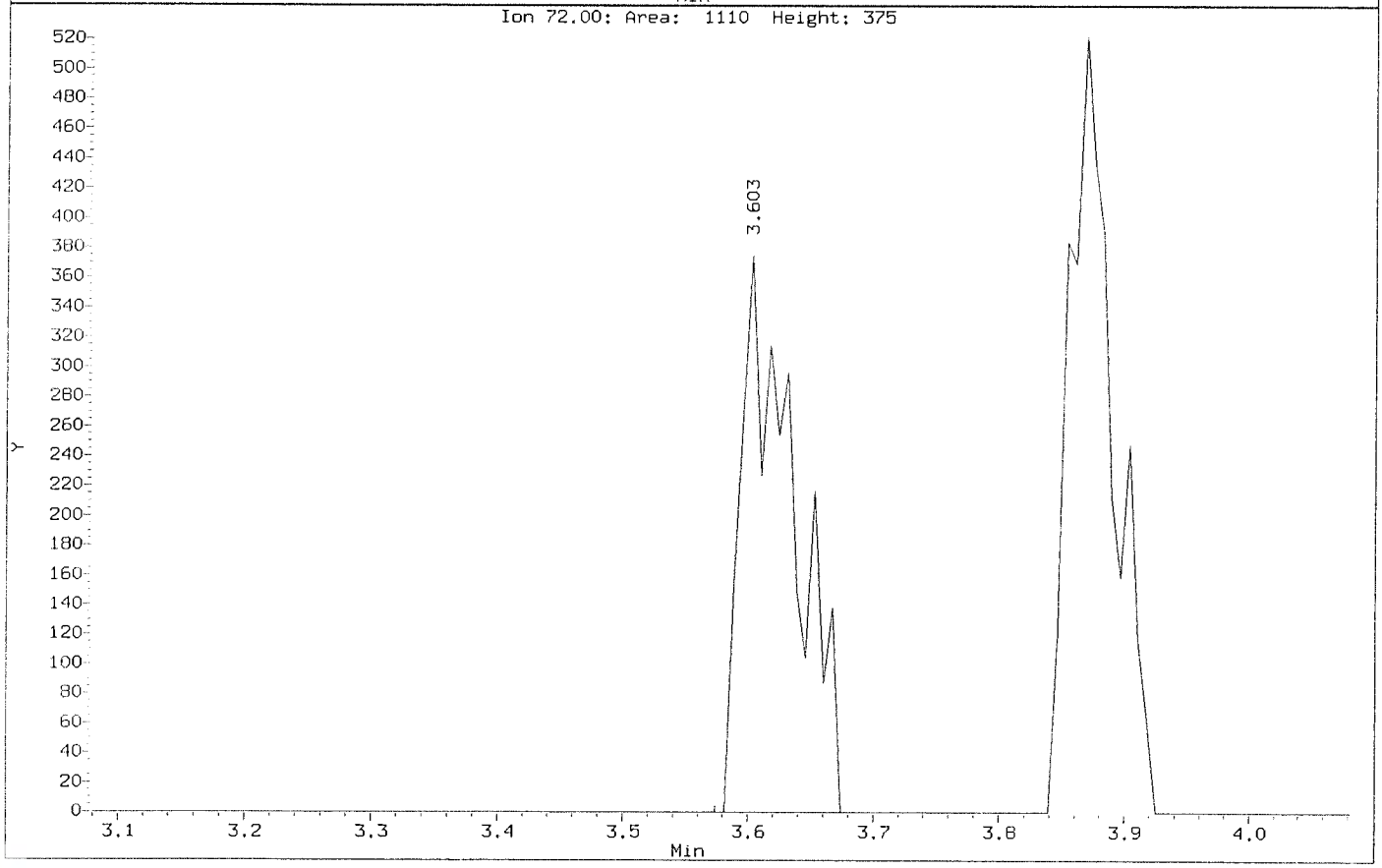




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Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

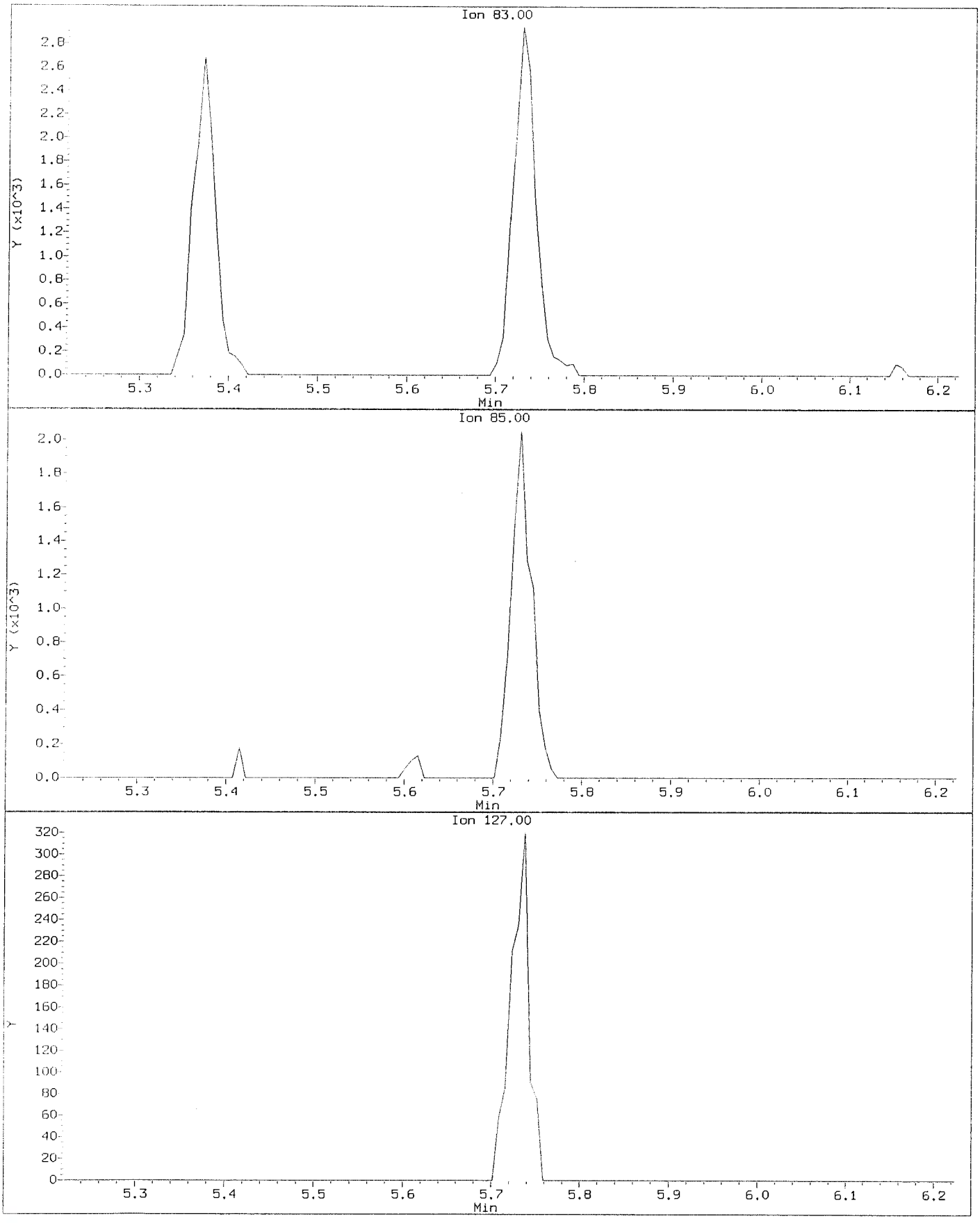
Compound: 2-Butanone
CAS Number: 78-93-3





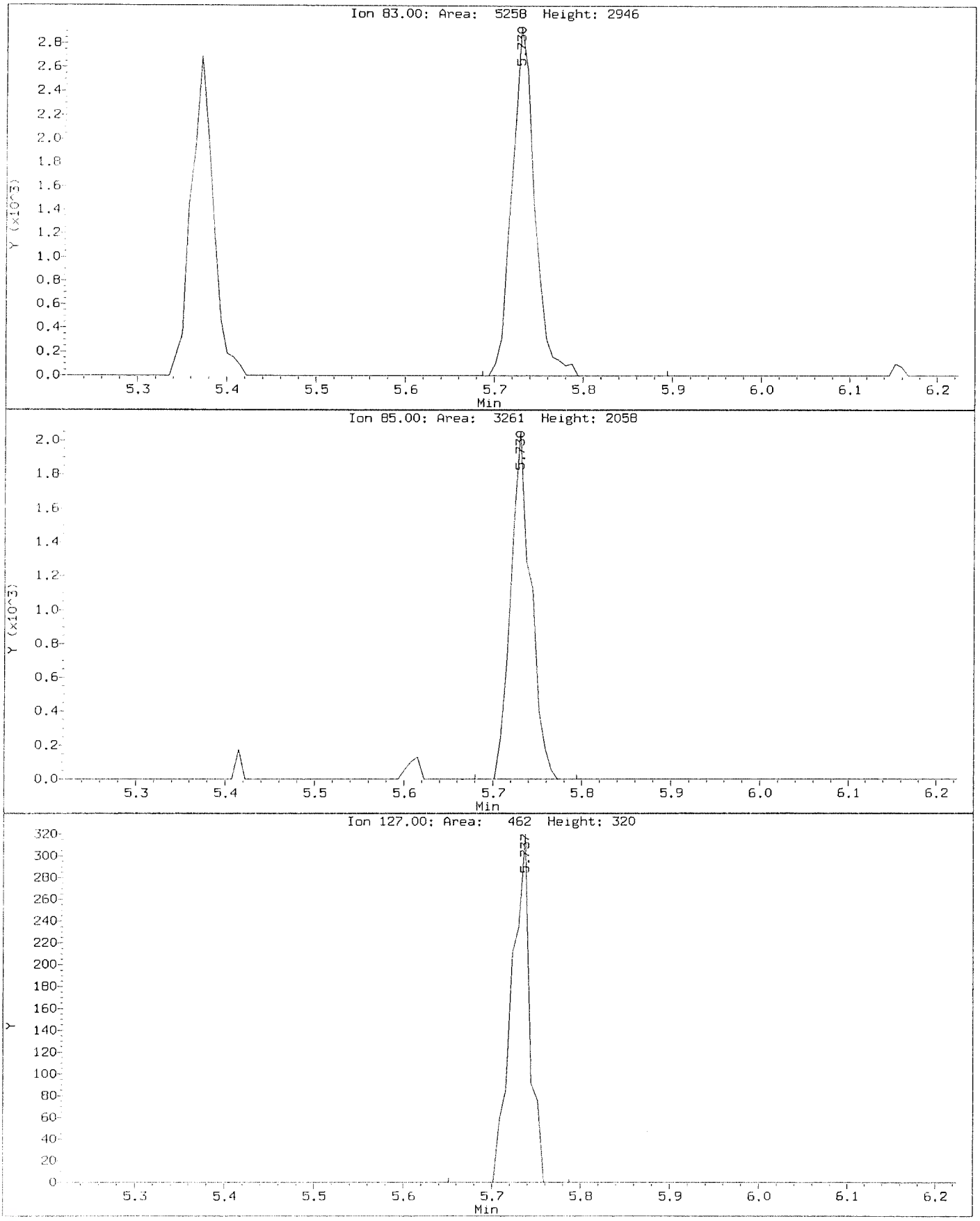
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Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Bromodichloromethane
CAS Number: 75-27-4



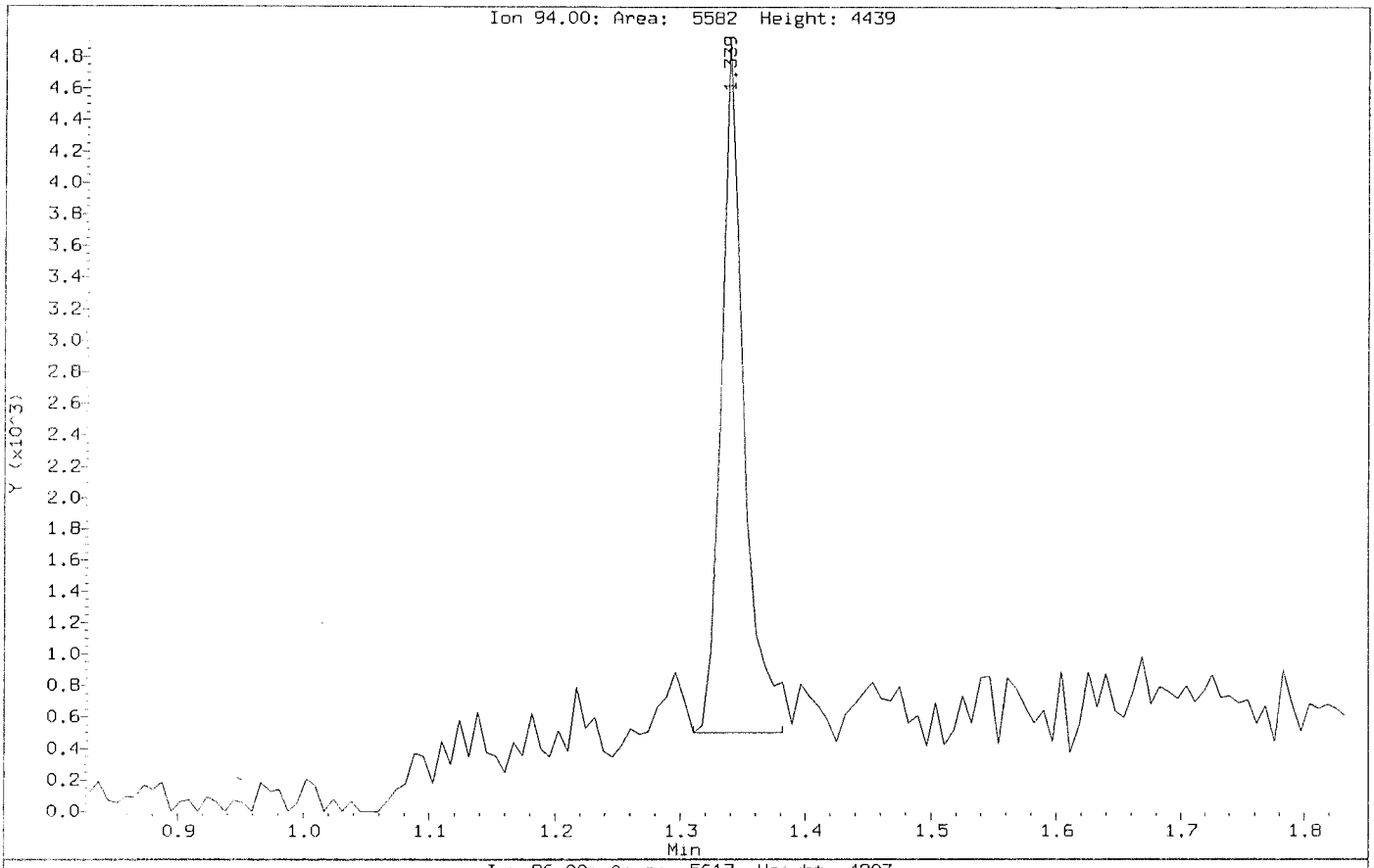
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Client Sample ID: VSTD001

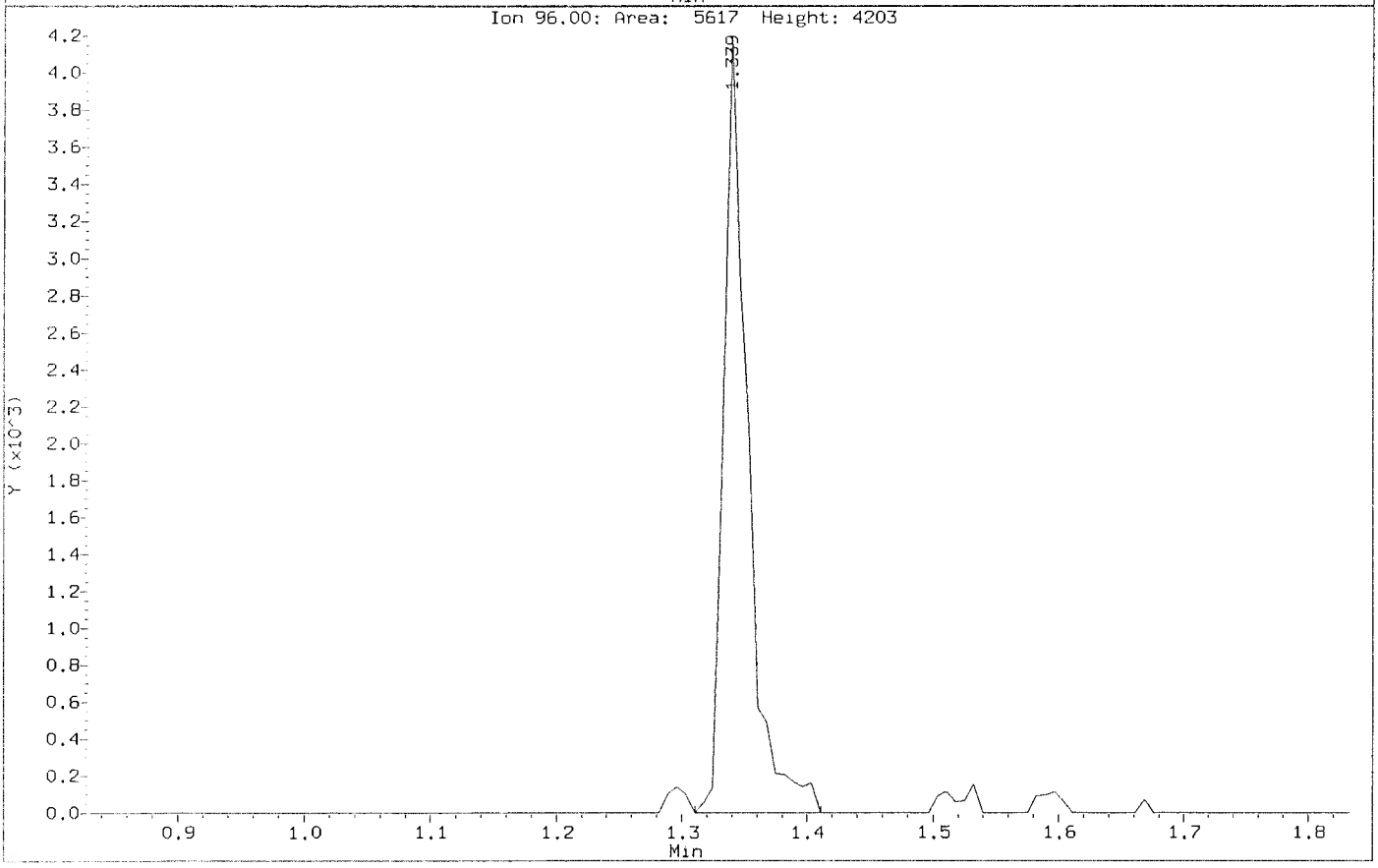
Compound: Bromodichloromethane
CAS Number: 75-27-4



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Instrument: voa6.i
Client Sample ID: VSTD001

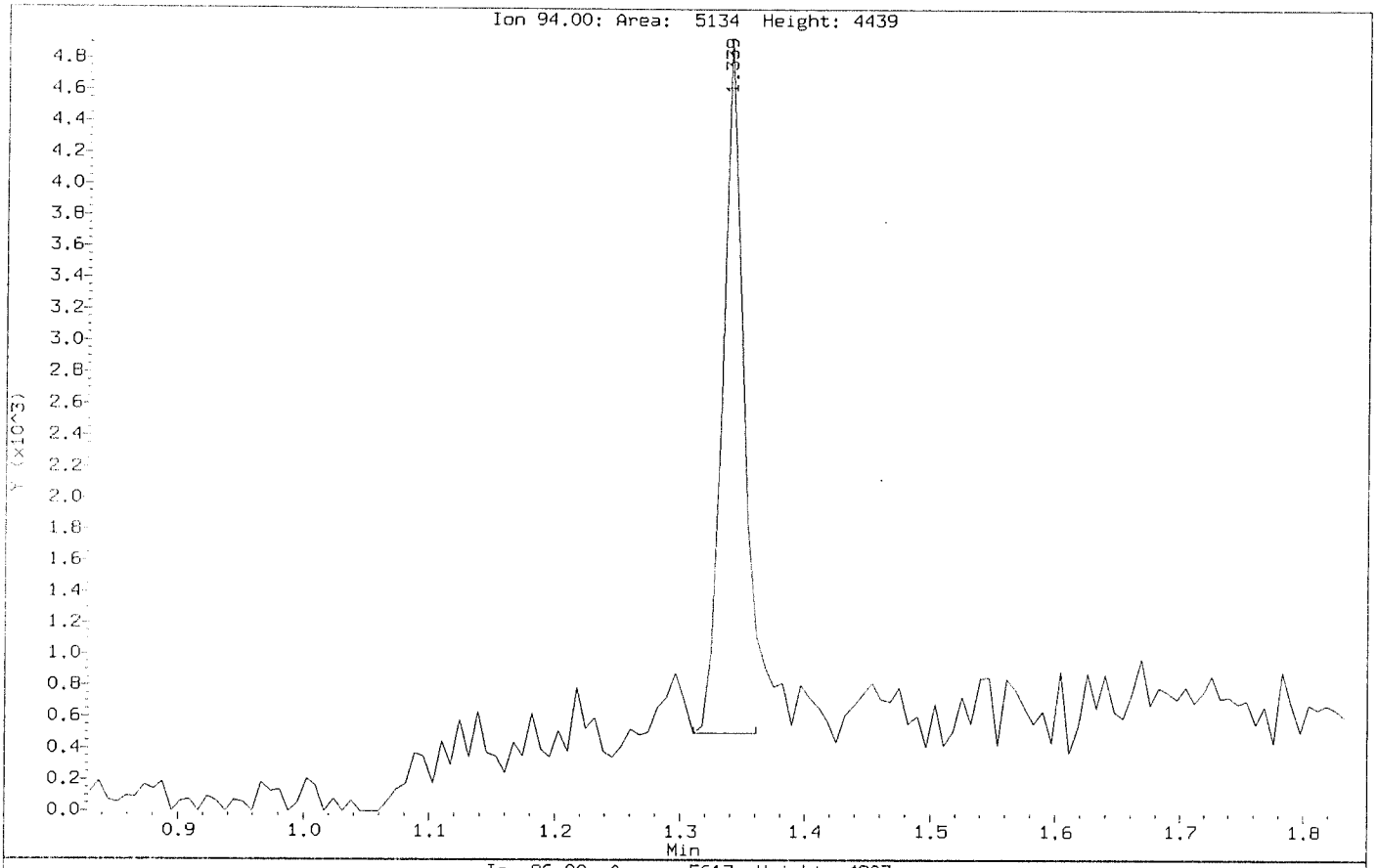
Compound: Bromomethane
CAS Number: 74-83-9

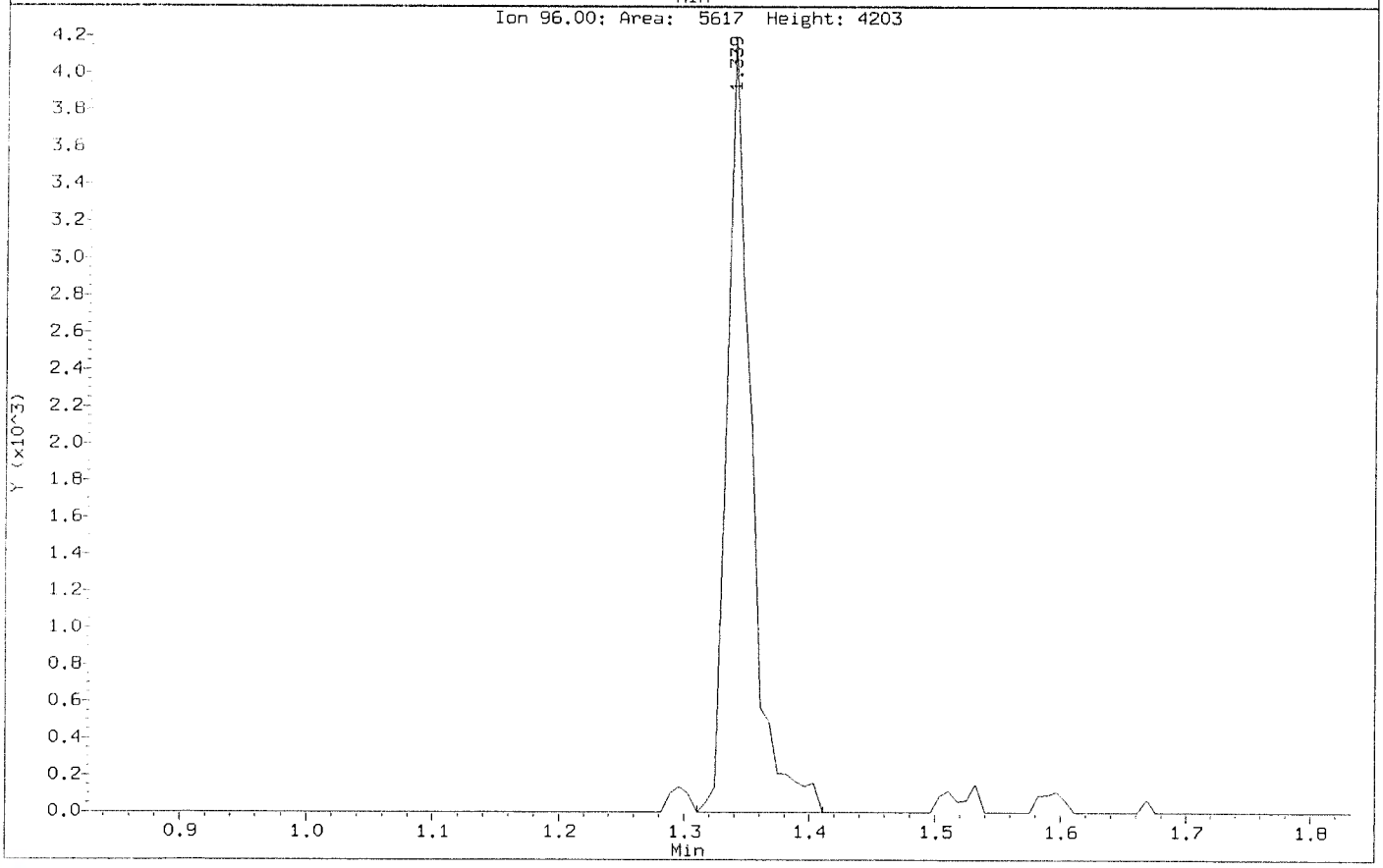




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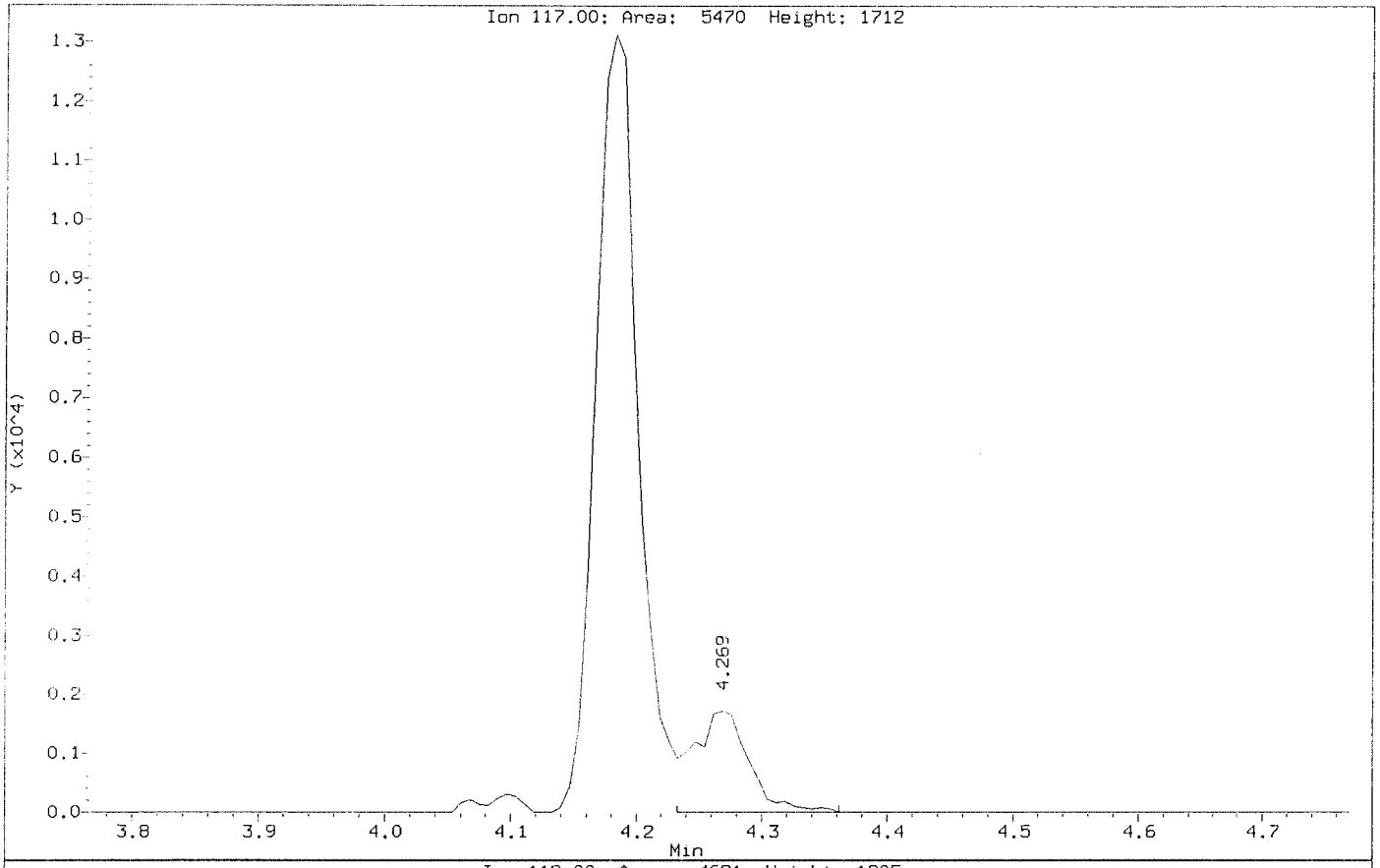
Compound: Bromomethane
CAS Number: 74-83-9

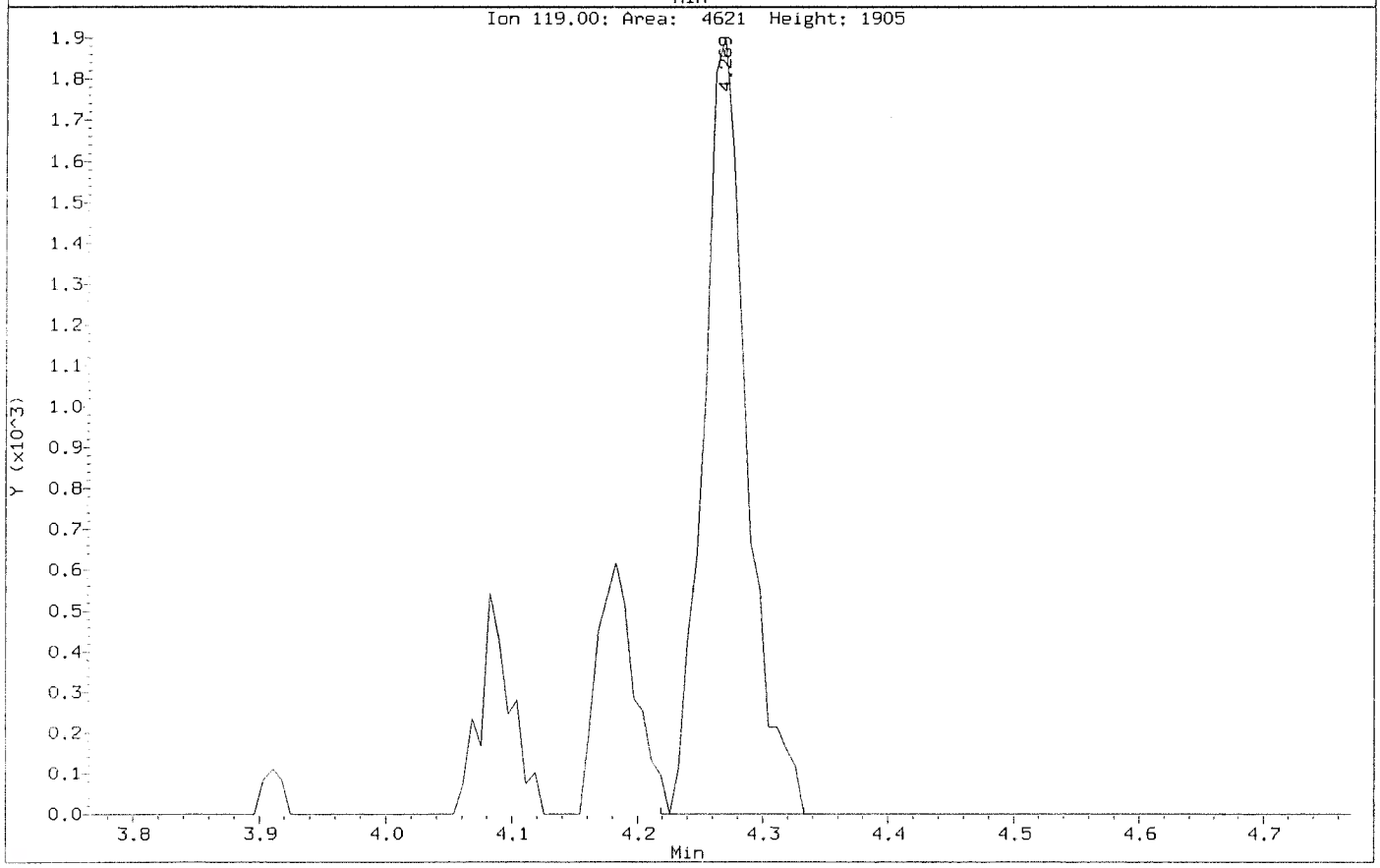




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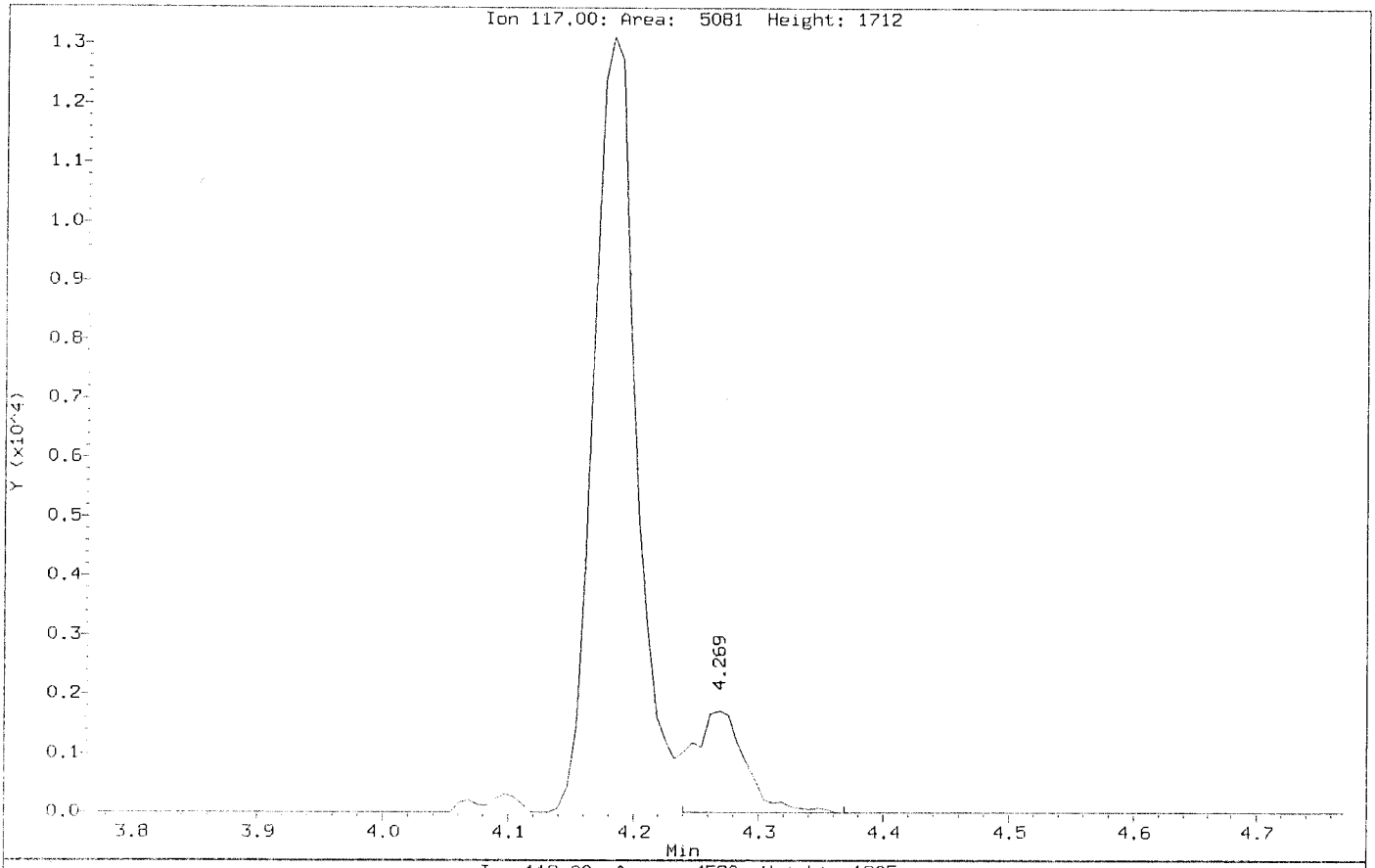
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

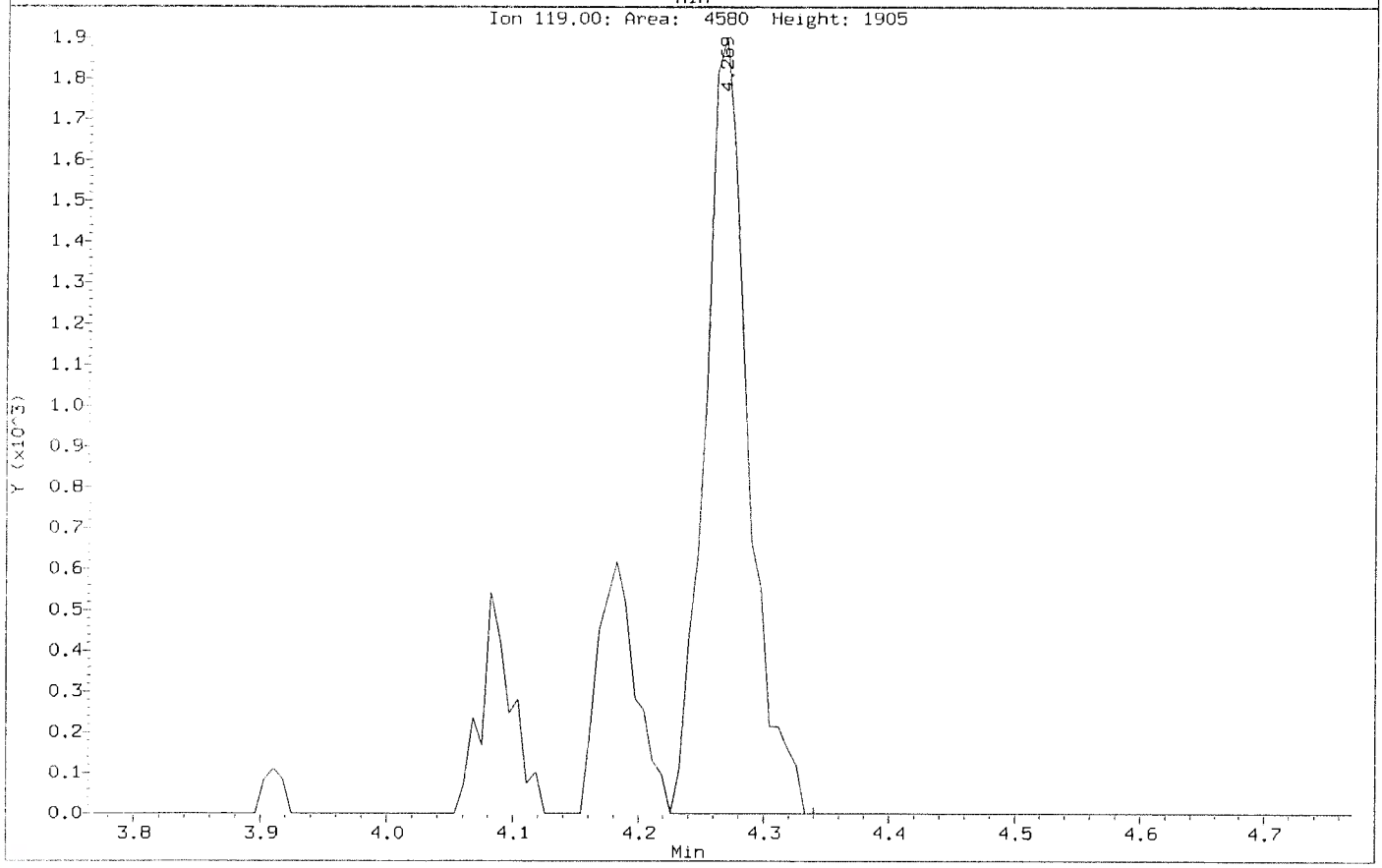




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Instrument: voa6.i
Client Sample ID: VSTD001

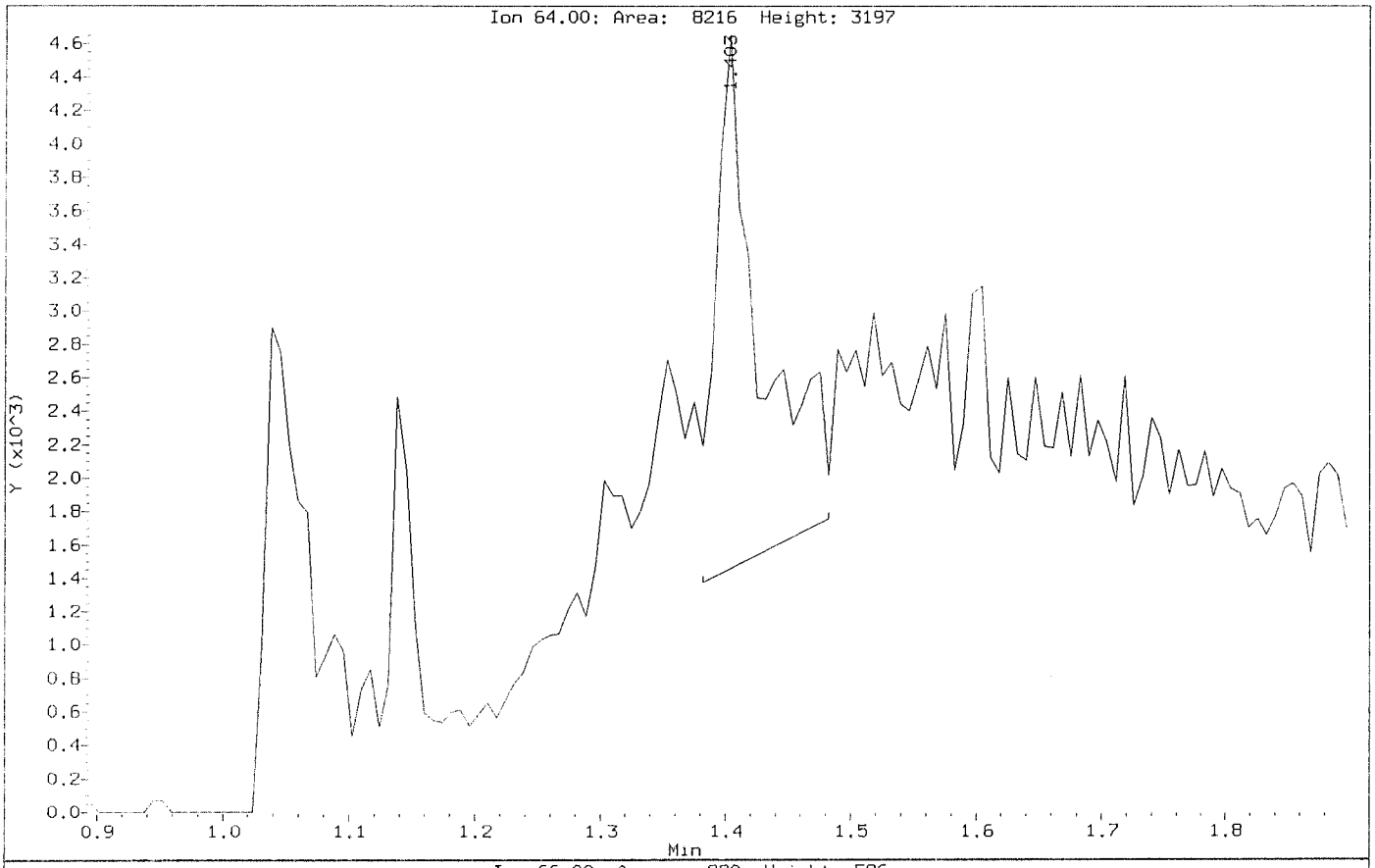
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

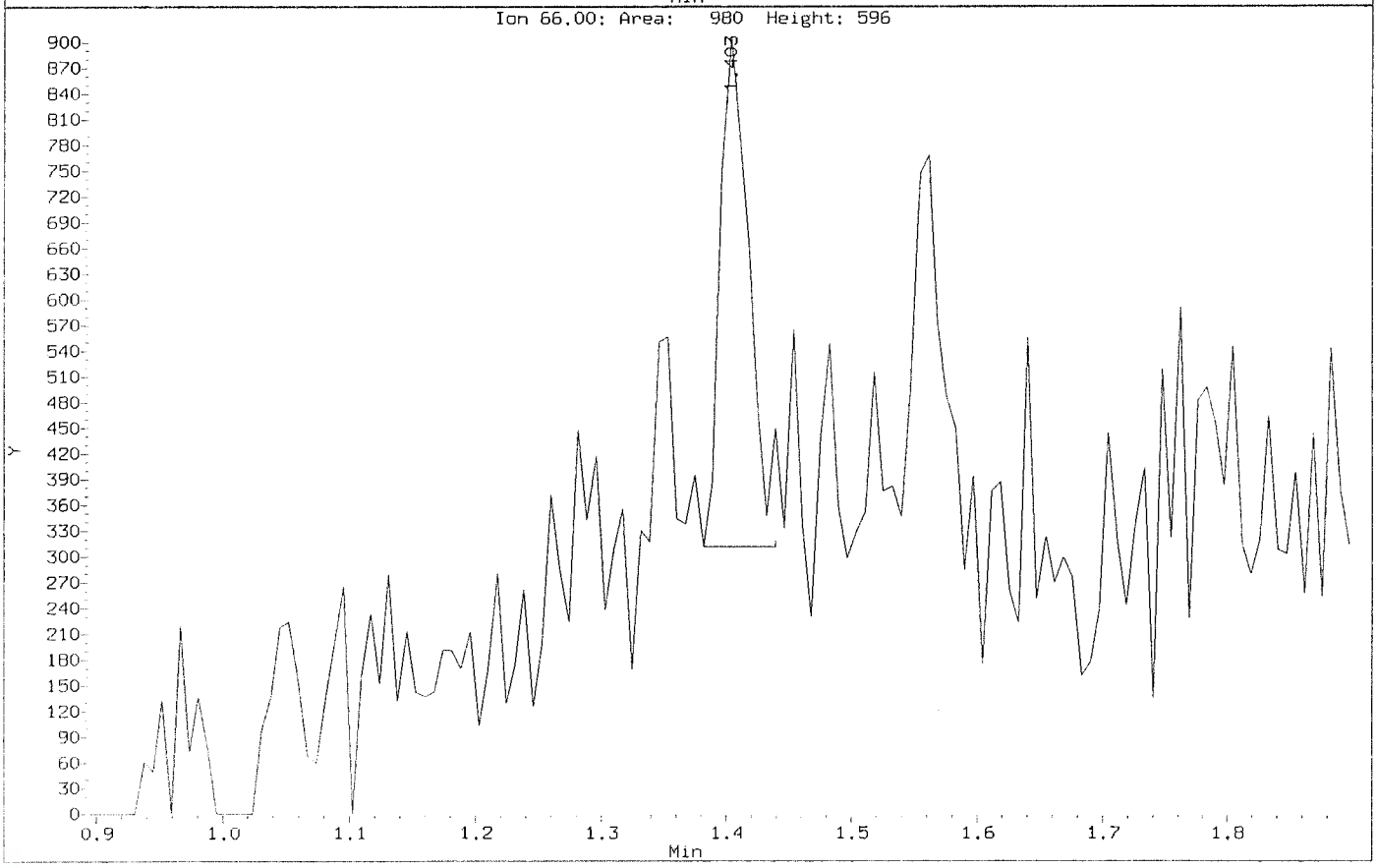




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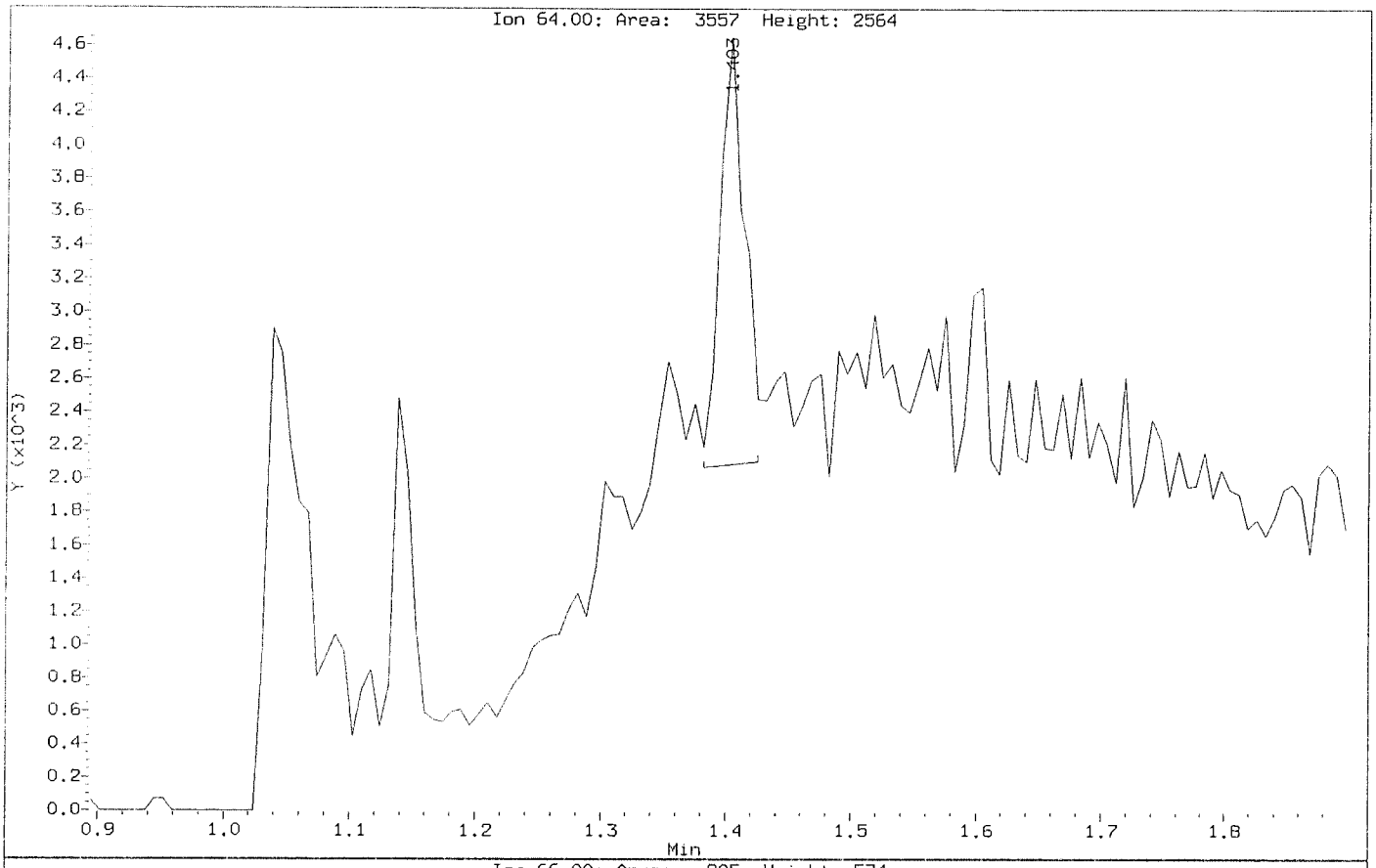
Compound: Chloroethane
CAS Number: 75-00-3

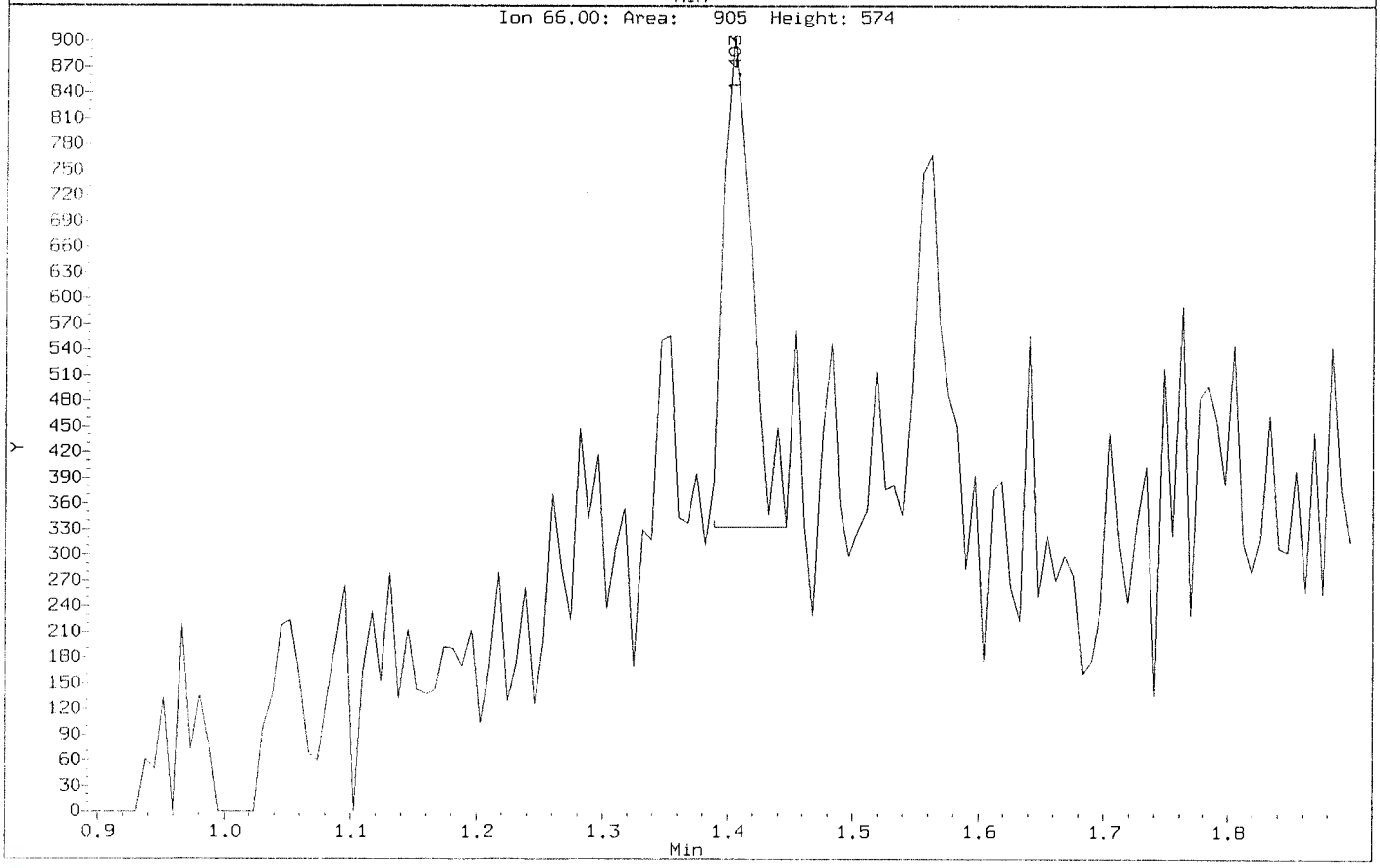




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Client Sample ID: VSTD001

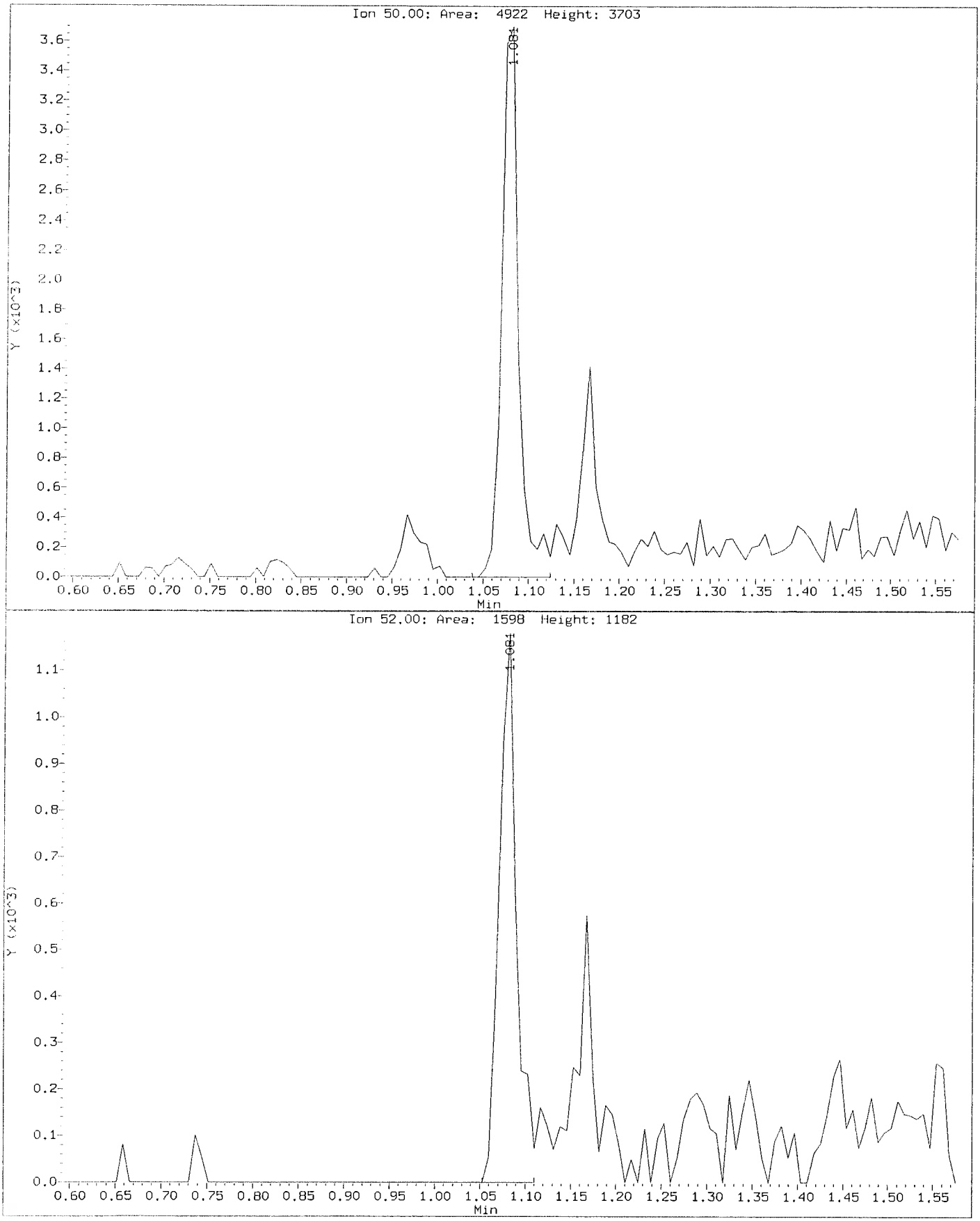
Compound: Chloroethane
CAS Number: 75-00-3





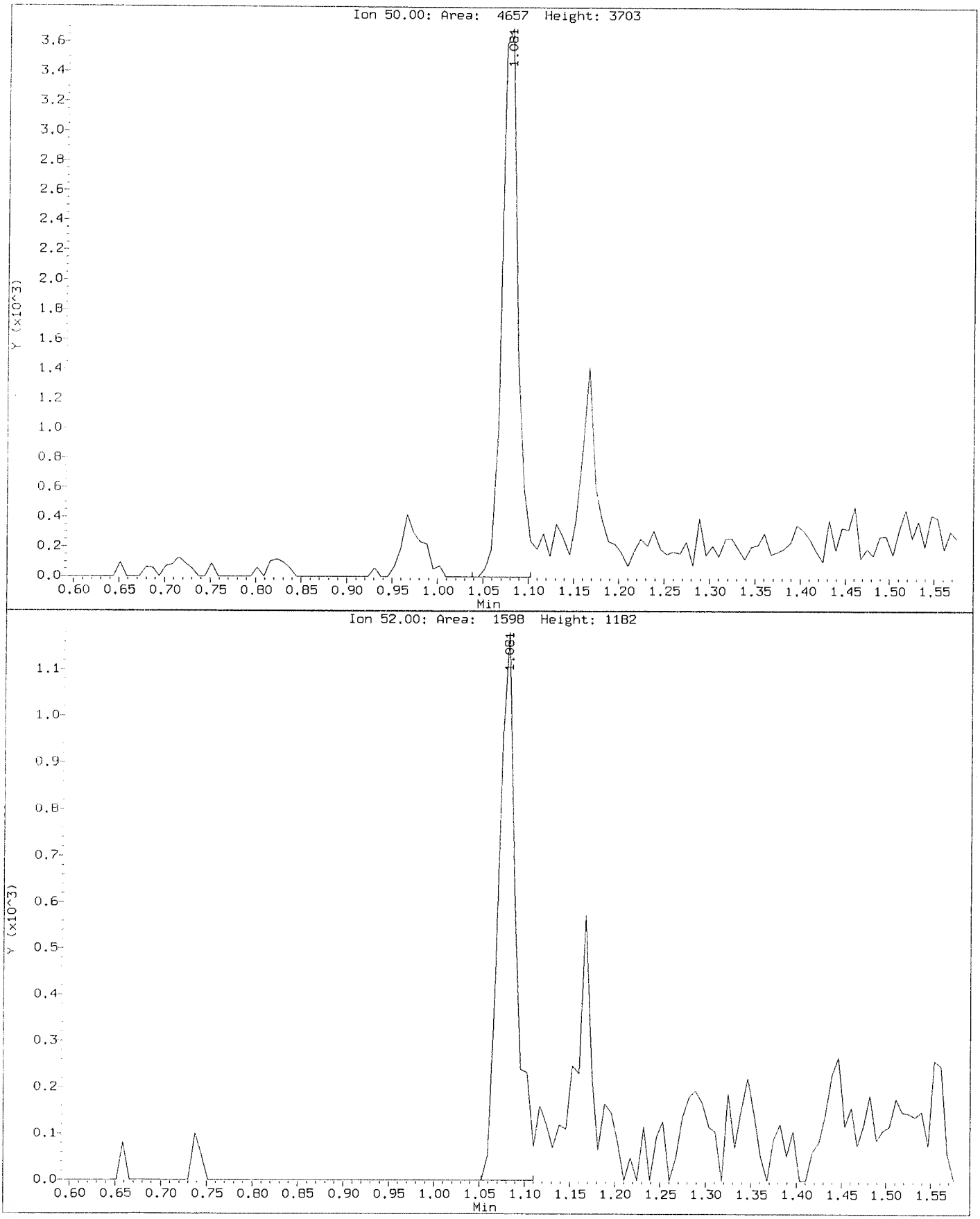
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Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Chloromethane
CAS Number: 74-87-3



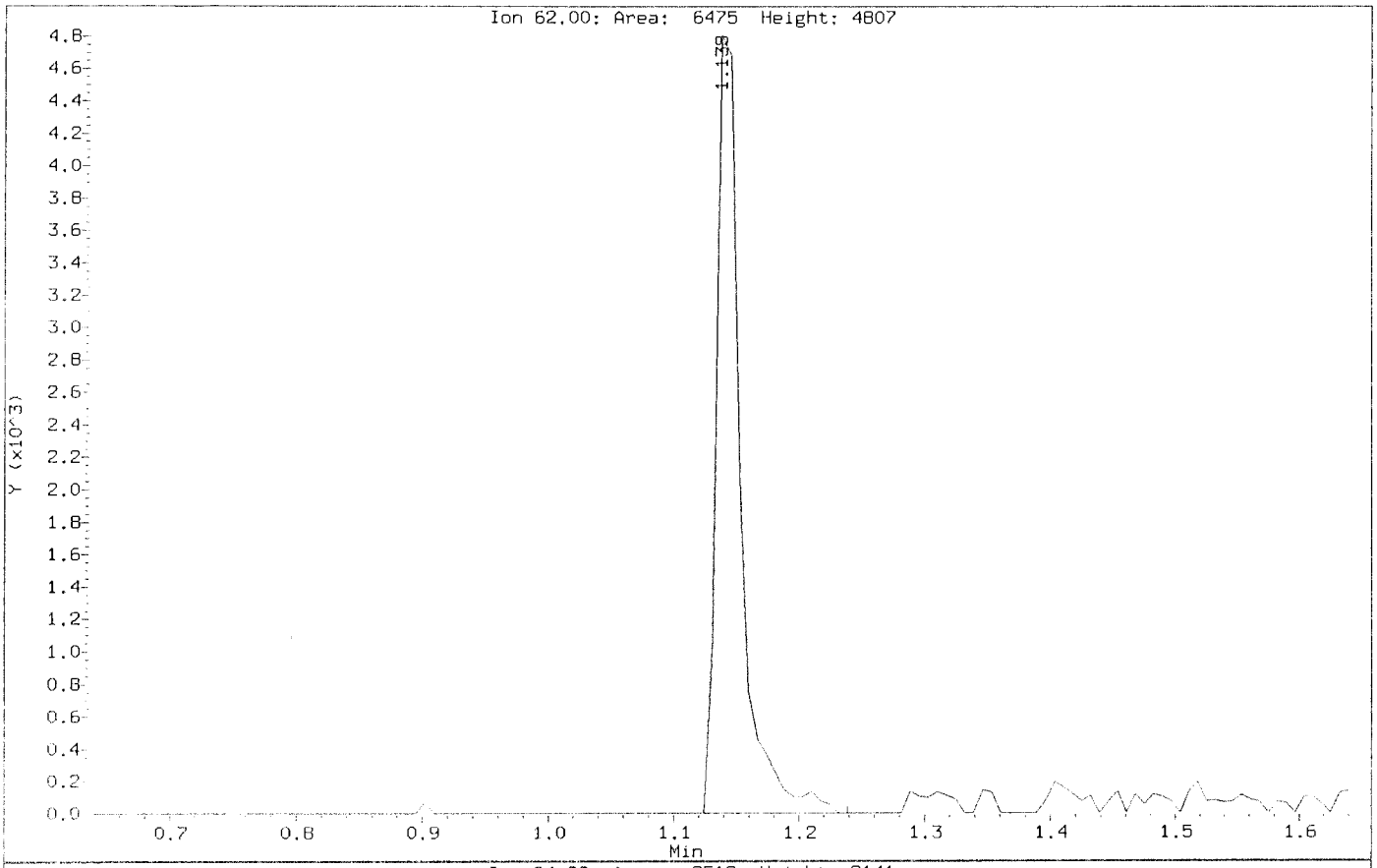
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Instrument: voa6.i
Client Sample ID: VSTD001

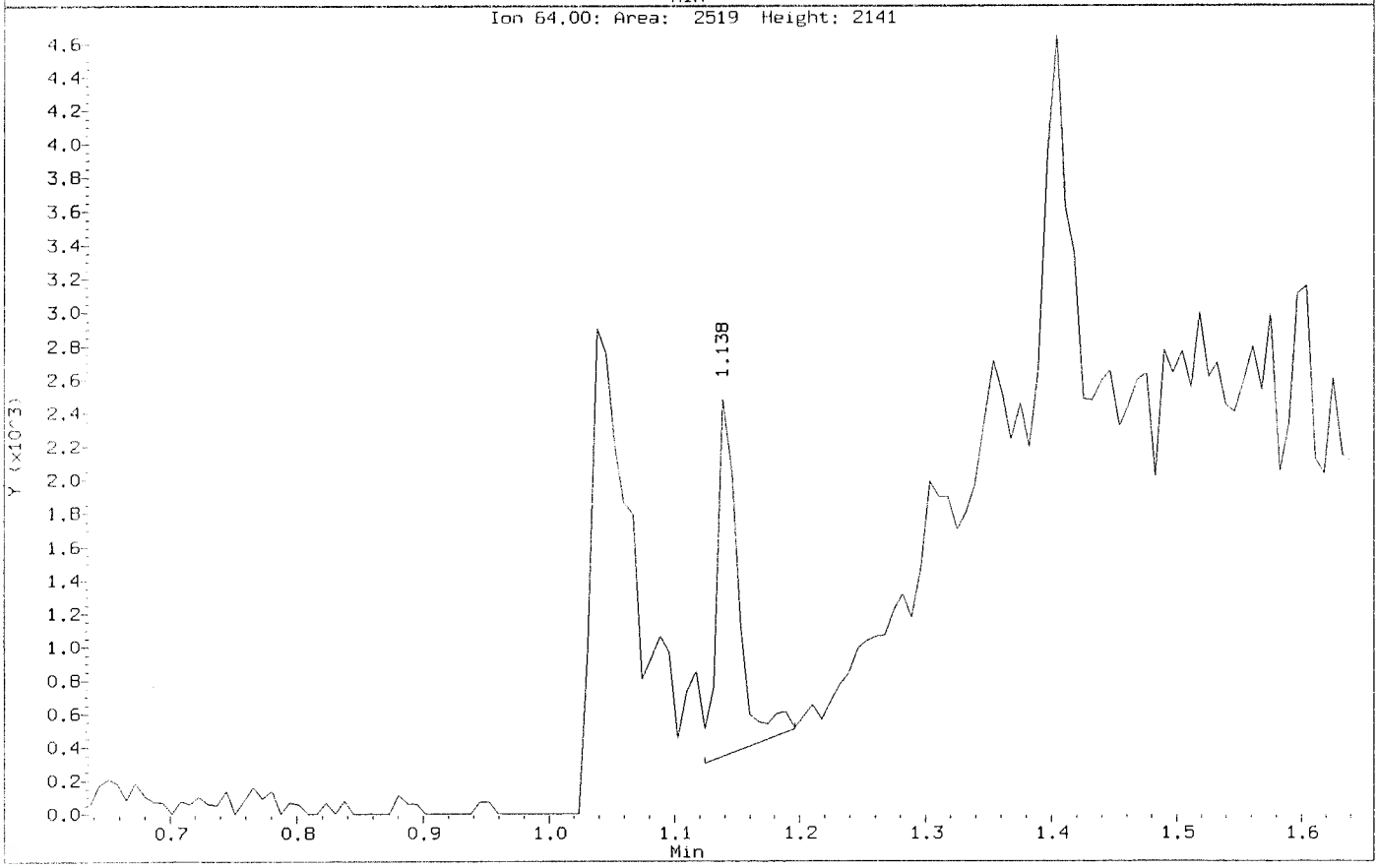
Compound: Chloromethane
CAS Number: 74-87-3



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052604.D
Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

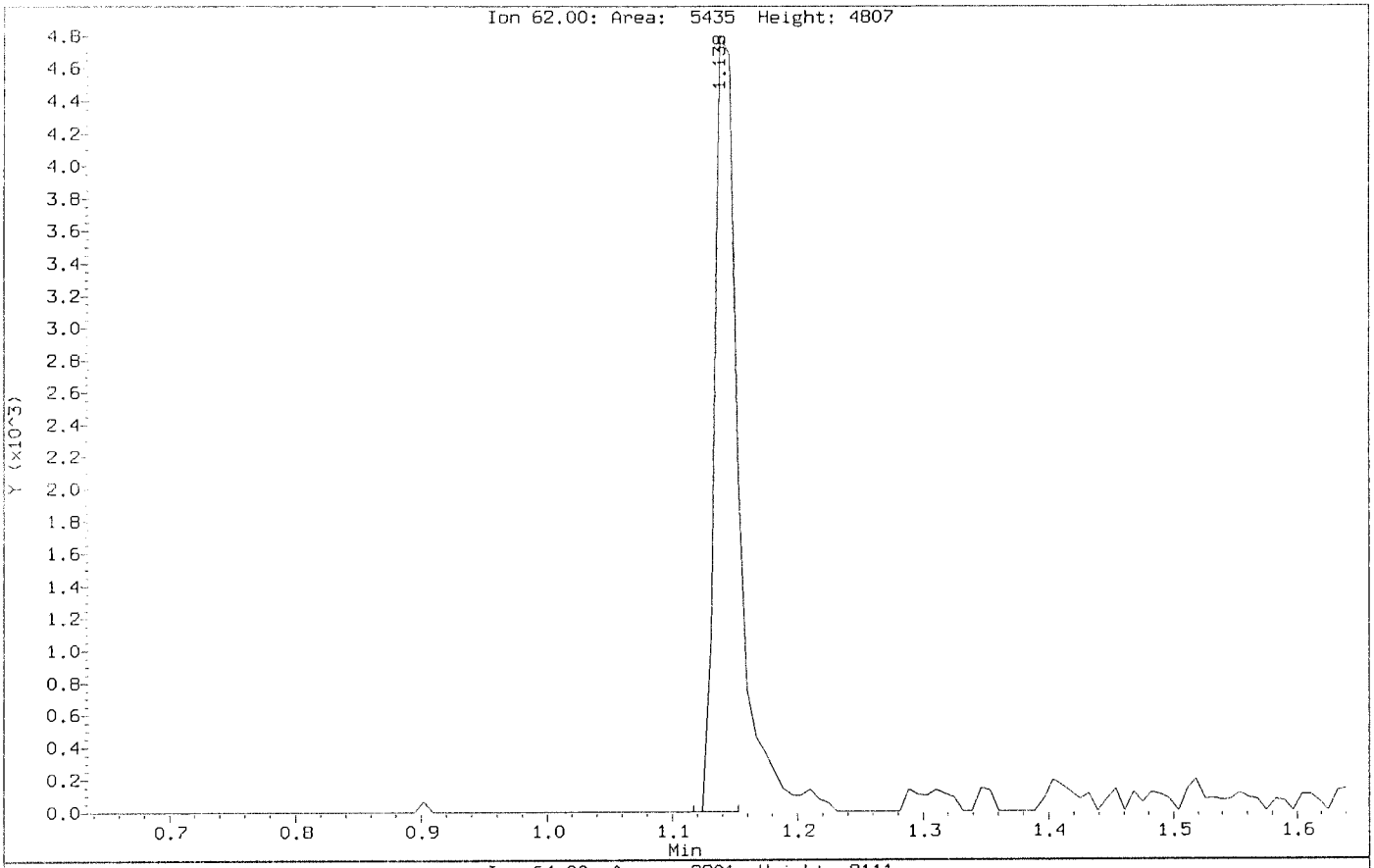
Compound: Vinyl Chloride
CAS Number: 75-01-4

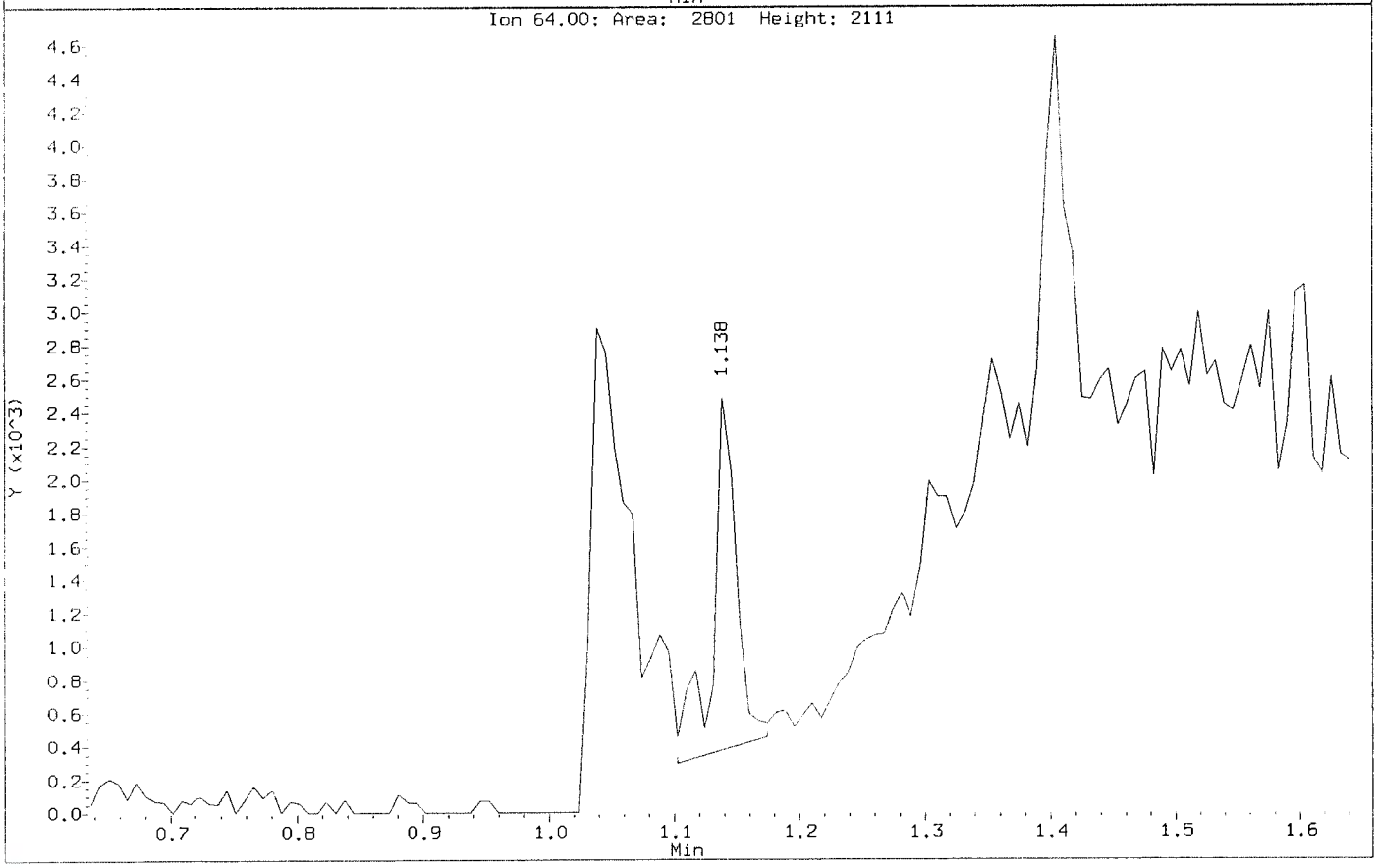




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052604.D
Injection Date: 26-MAY-2021 13:37
Instrument: voa6.i
Client Sample ID: VSTD001

Compound: Vinyl Chloride
CAS Number: 75-01-4





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052605.D
Lab Smp Id: VSTD002 Client Smp ID: VSTD002
Inj Date : 26-MAY-2021 13:58
Operator : PC Inst ID: voa6.i
Smp Info : VSTD002;VSTD002;1;4;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 13:37 Cal File: X052604.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

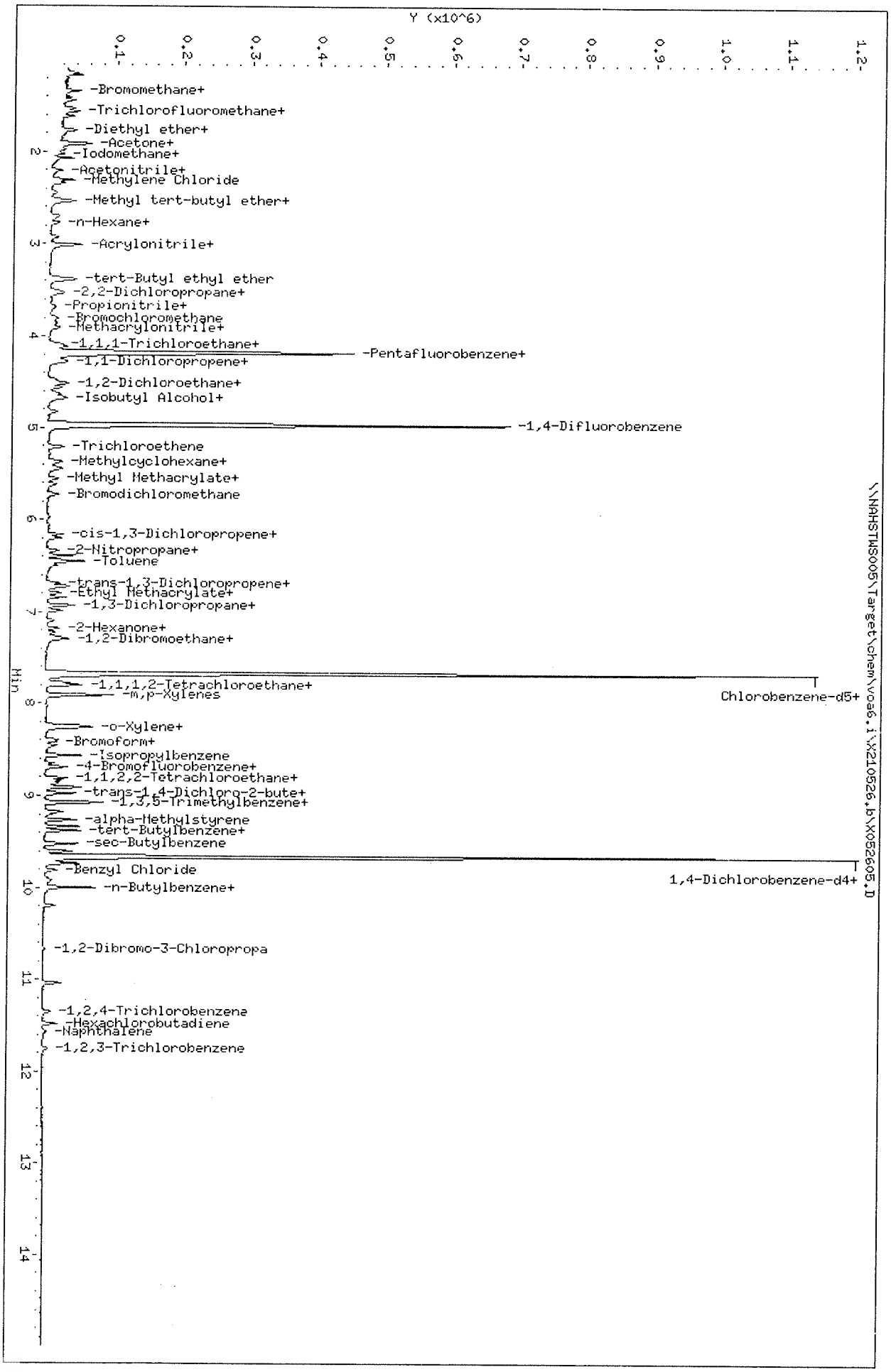
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT STG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	387304	50.0000	
*	36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	629894	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	565577	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	269984	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	8033	2.00000	1.94(a)
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	8542	2.00000	1.64(a)
$	48 Toluene-d8	98	6.388	6.388	(0.833)	26638	2.00000	1.89(a)
$	69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	10368	2.00000	2.80(a)
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	7699	2.00000	1.84(a)
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	11748	2.00000	2.05(a)
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	9638	2.00000	1.44(a)
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	6242	2.00000	2.03(a)
	22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	12991	2.00000	2.12(a)
	11 1,1-Dichloroethene	96	1.919	1.919	(0.459)	8783	2.00000	2.20(a)
	32 1,1-Dichloropropene	75	4.282	4.282	(0.862)	9888	2.00000	2.04(a)
	93 1,2,3-Trichlorobenzene	180	11.753	11.753	(1.216)	3409	2.00000	2.08(a)
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	6933	2.00000	2.05(aM)
	90 1,2,4-Trichlorobenzene	180	11.352	11.352	(1.175)	4917	2.00000	1.84(a)
	79 1,2,4-Trimethylbenzene	105	9.382	9.382	(0.971)	25642	2.00000	2.08(a)
	89 1,2-Dibromo-3-Chloropropane	155	10.657	10.657	(1.103)	630	2.00000	1.96(a)
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	7883	2.00000	1.89(a)
	88 1,2-Dichlorobenzene	146	9.998	9.998	(1.035)	15268	2.00000	2.08(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.562	4.562	(0.918)	9733	2.00000	1.93(a)
42	1,2-Dichloropropane	63	5.436	5.436	(1.094)	7597	2.00000	2.04(aM)
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	25985	2.00000	2.12(a)
83	1,3-Dichlorobenzene	146	9.612	9.612	(0.995)	15680	2.00000	2.05(a)
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	11498	2.00000	1.88(a)
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	16413	2.00000	2.06(a)
26	2,2-Dichloropropane	77	3.516	3.516	(0.841)	11139	2.00000	2.10(a)
24	2-Butanone	43	3.595	3.595	(0.860)	4608	4.00000	3.91(aH)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	23380	2.00000	2.31(a)
52	2-Hexanone	43	7.097	7.097	(0.925)	7204	4.00000	3.42(a)
77	4-Chlorotoluene	91	9.074	9.074	(0.939)	26083	2.00000	2.16(a)
82	p-Isopropyltoluene	119	9.655	9.655	(0.999)	26579	2.00000	2.12(a)
45	4-Methyl-2-Pentanone	43	6.331	6.331	(0.825)	12267	4.00000	3.76(a)
10	Acetone	43	1.976	1.976	(0.473)	9004	4.00000	3.68(a)
37	Benzene	78	4.512	4.512	(0.908)	30110	2.00000	2.08(a)
74	Bromobenzene	156	8.809	8.809	(0.912)	9664	2.00000	2.15(a)
29	Bromochloromethane	128	3.802	3.802	(0.909)	4539	2.00000	1.93(a)
39	Bromodichloromethane	83	5.729	5.729	(1.153)	11090	2.00000	2.04(a)
66	Bromoform	173	8.415	8.415	(1.097)	5644	2.00000	1.78(Ta)
6	Bromomethane	94	1.338	1.338	(0.320)	10705	2.00000	2.82(a)
19	Carbon Disulfide	76	2.069	2.069	(0.495)	40958	4.00000	4.32(a)
34	Carbon Tetrachloride	117	4.268	4.268	(0.859)	11201	2.00000	2.14(aH)
59	Chlorobenzene	112	7.692	7.692	(1.003)	22805	2.00000	1.93(a)
7	Chloroethane	64	1.403	1.403	(0.336)	6715	2.00000	1.12(aM)
28	Chloroform	83	3.910	3.910	(0.935)	13954	2.00000	2.04(a)
3	Chloromethane	50	1.073	1.073	(0.257)	9388	2.00000	0.08(a)
27	cis-1,2-Dichloroethene	96	3.537	3.537	(0.846)	8971	2.00000	2.20(a)
46	cis-1,3-Dichloropropene	75	6.159	6.159	(1.239)	11180	2.00000	1.75(a)
55	Dibromochloromethane	129	7.176	7.176	(0.936)	8317	2.00000	1.78(a)
44	Dibromomethane	93	5.557	5.557	(1.118)	4906	2.00000	1.76(a)
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	8466	2.00000	2.17(aM)
61	Ethylbenzene	106	7.799	7.799	(1.017)	10776	2.00000	1.98(a)
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	3790	2.00000	3.30(a)
67	Isopropylbenzene	105	8.566	8.566	(1.117)	33508	2.00000	2.01(a)
62	m,p-Xylenes	106	7.907	7.907	(1.031)	27594	4.00000	3.89(a)
17	Methylene Chloride	84	2.305	2.305	(0.551)	9737	2.00000	1.51(a)
87	n-Butylbenzene	91	9.998	9.998	(1.035)	21318	2.00000	2.02(a)
73	n-Propylbenzene	91	8.917	8.917	(0.923)	37124	2.00000	2.20(a)
92	Naphthalene	128	11.560	11.560	(1.196)	7708	2.00000	1.99(aM)
63	o-Xylene	106	8.243	8.243	(1.075)	13034	2.00000	1.88(a)
81	sec-Butylbenzene	105	9.526	9.526	(0.986)	30860	2.00000	2.17(a)
64	Styrene	104	8.265	8.265	(1.078)	20015	2.00000	1.73(a)
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	23163	2.00000	2.20(a)
56	Tetrachloroethene	164	6.925	6.925	(0.903)	7019	2.00000	2.01(a)
50	Toluene	91	6.446	6.446	(0.840)	33990	2.00000	2.05(a)
20	trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	7304	2.00000	2.01(a)
51	trans-1,3-Dichloropropene	75	6.689	6.689	(1.346)	9851	2.00000	1.78(a)
38	Trichloroethene	130	5.206	5.206	(1.048)	8523	2.00000	1.97(a)
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	16056	2.00000	2.29(a)
5	Vinyl Chloride	62	1.145	1.145	(0.274)	10726	2.00000	2.33(aM)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

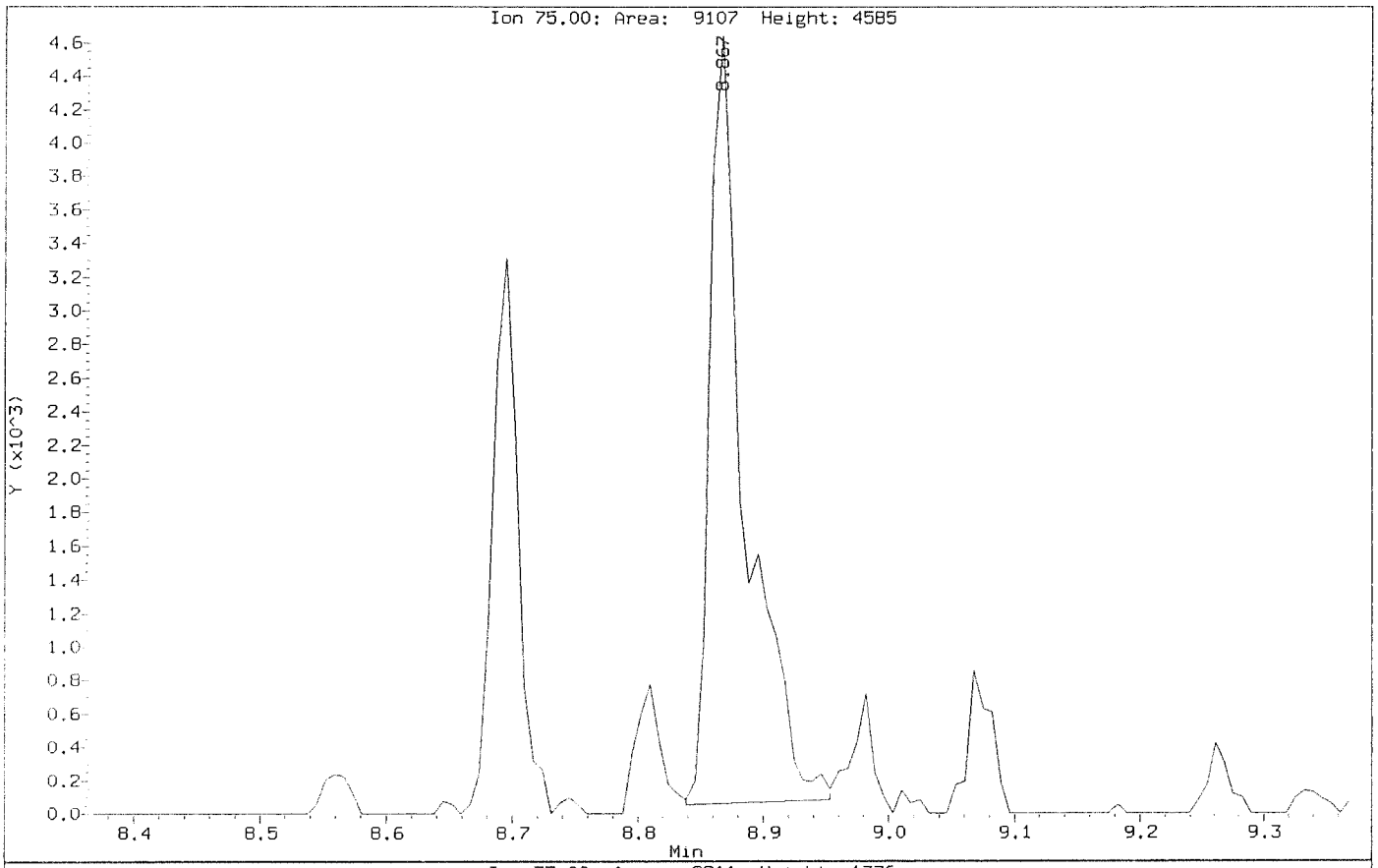


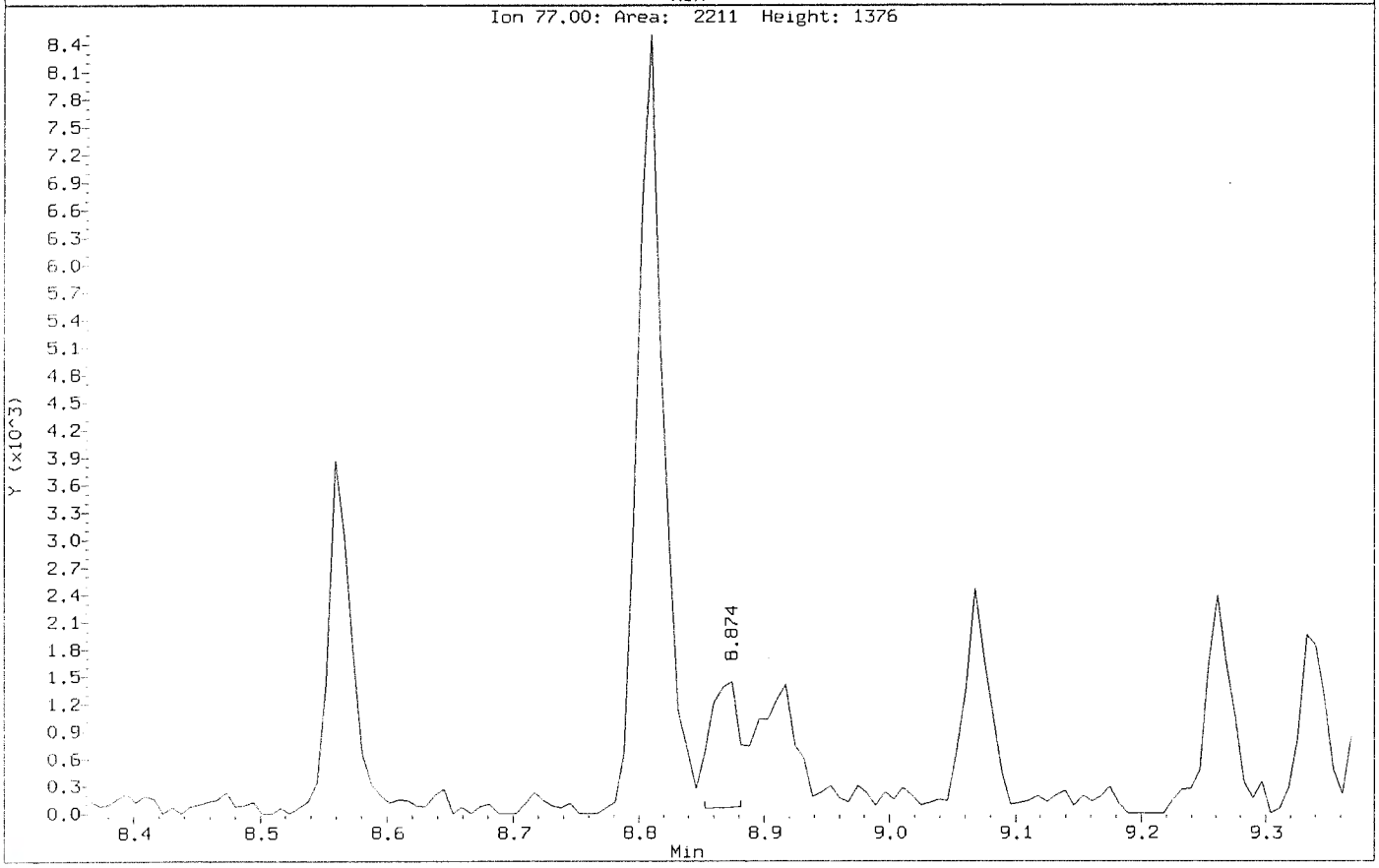
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Date : 26-MAY-2021 13:58
Client ID: VSTD002
Sample Info: VSTD002;VSTD002;1;4;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052605.D
Injection Date: 26-MAY-2021 13:58
Instrument: voa6.i
Client Sample ID: VSTD002

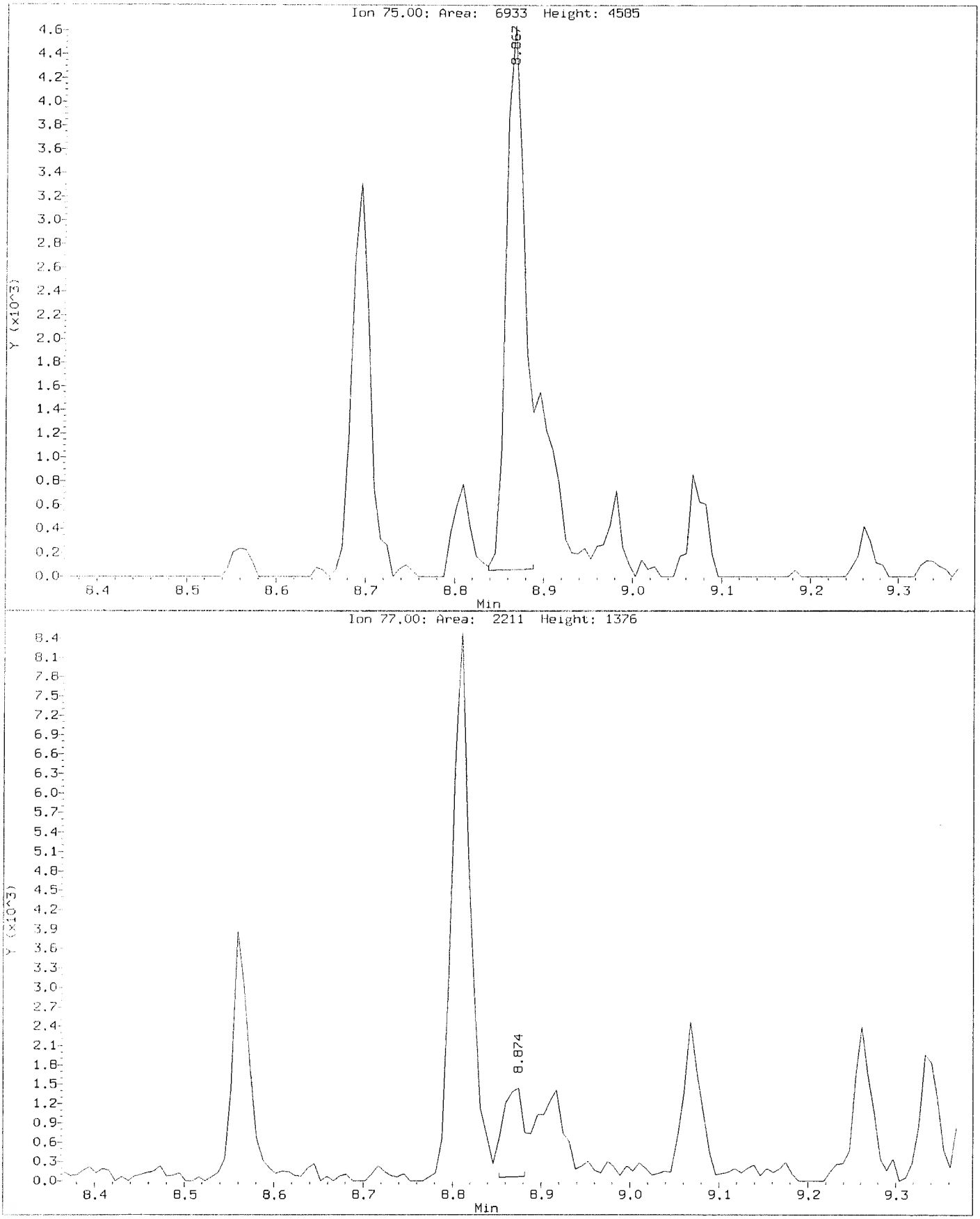
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





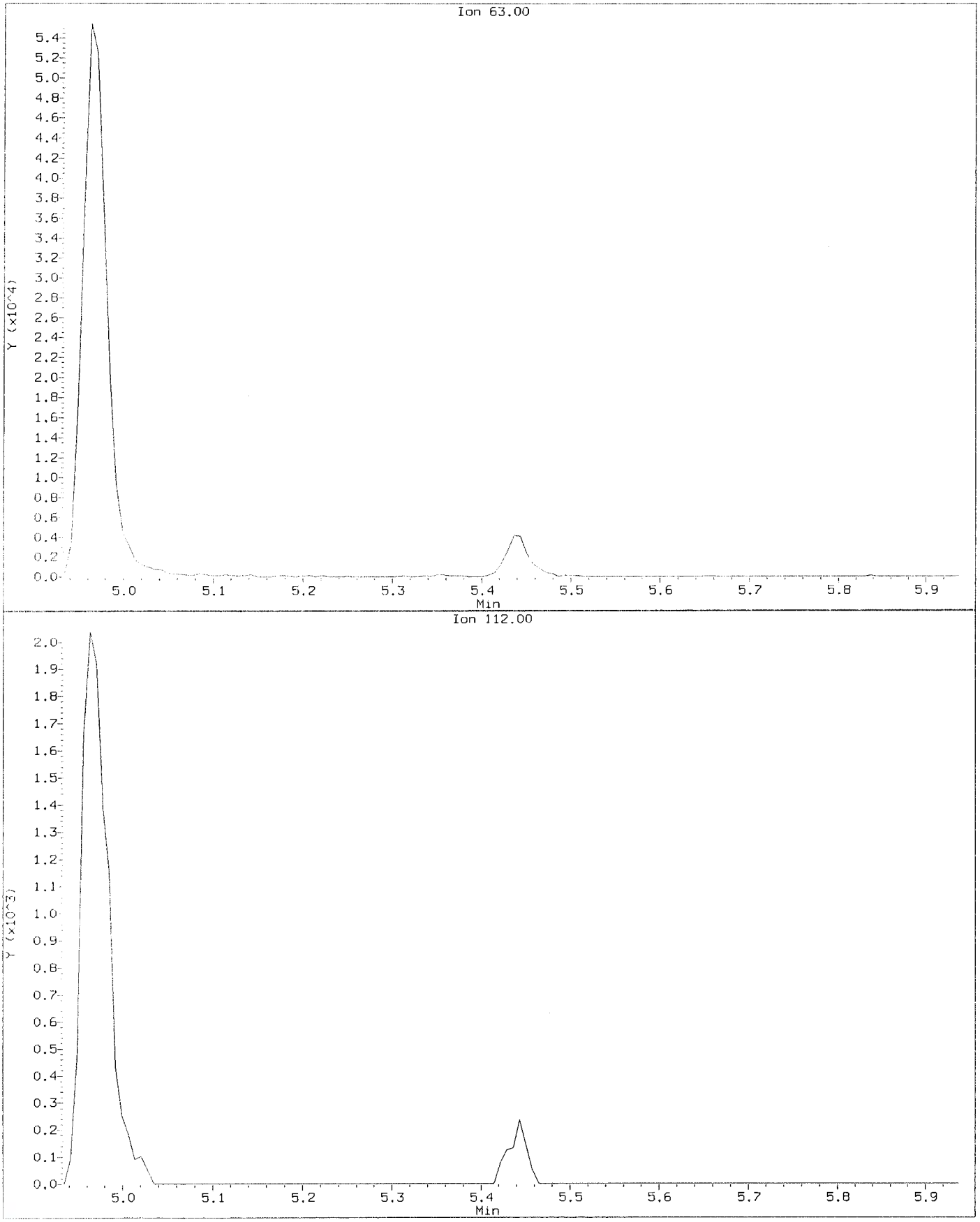
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Instrument: voa6.i
Client Sample ID: VSTD002

Compound: 1.2.3-Trichloropropane
CAS Number: 96-18-4



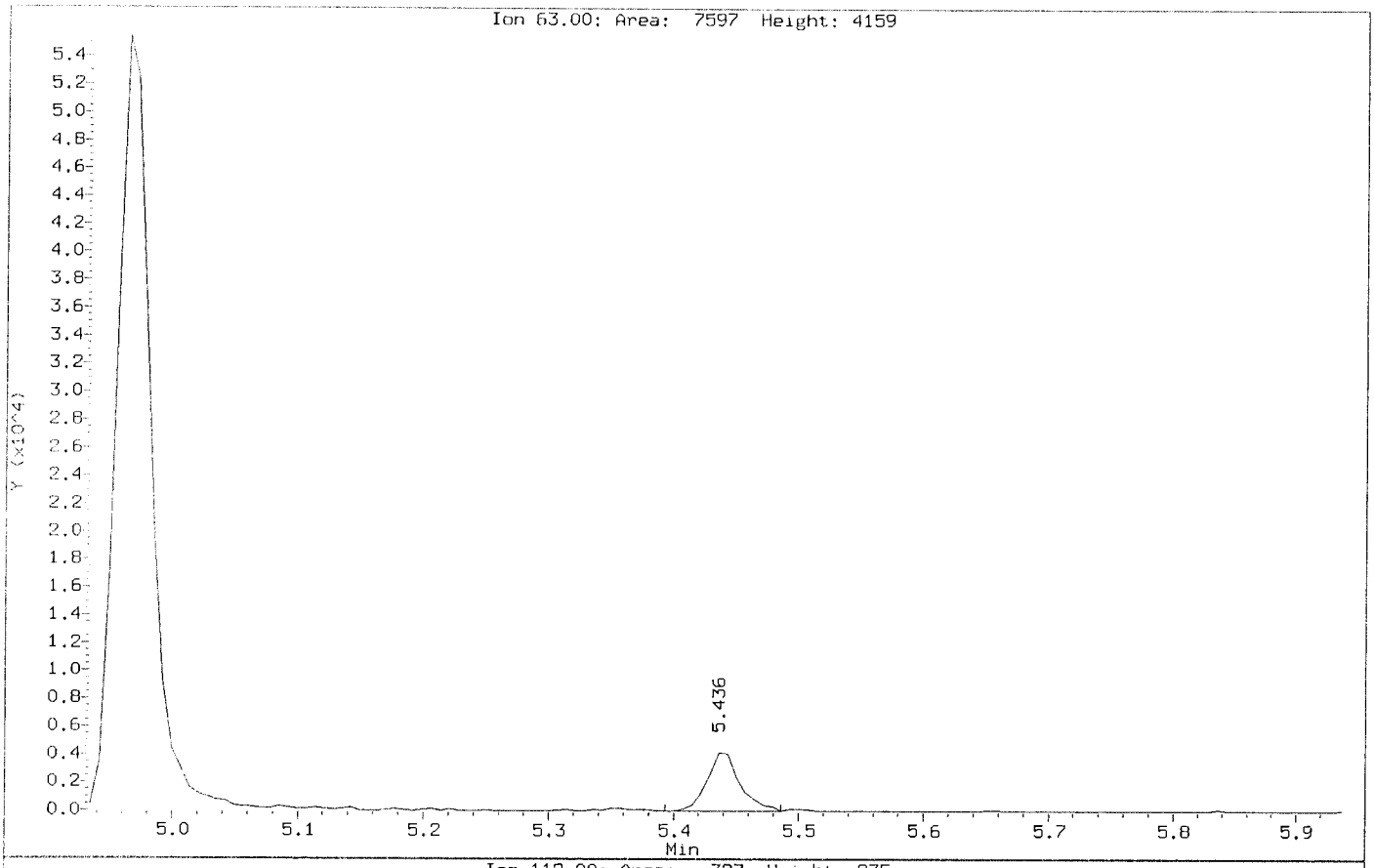
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Instrument: voa6.i
Client Sample ID: VSTD002

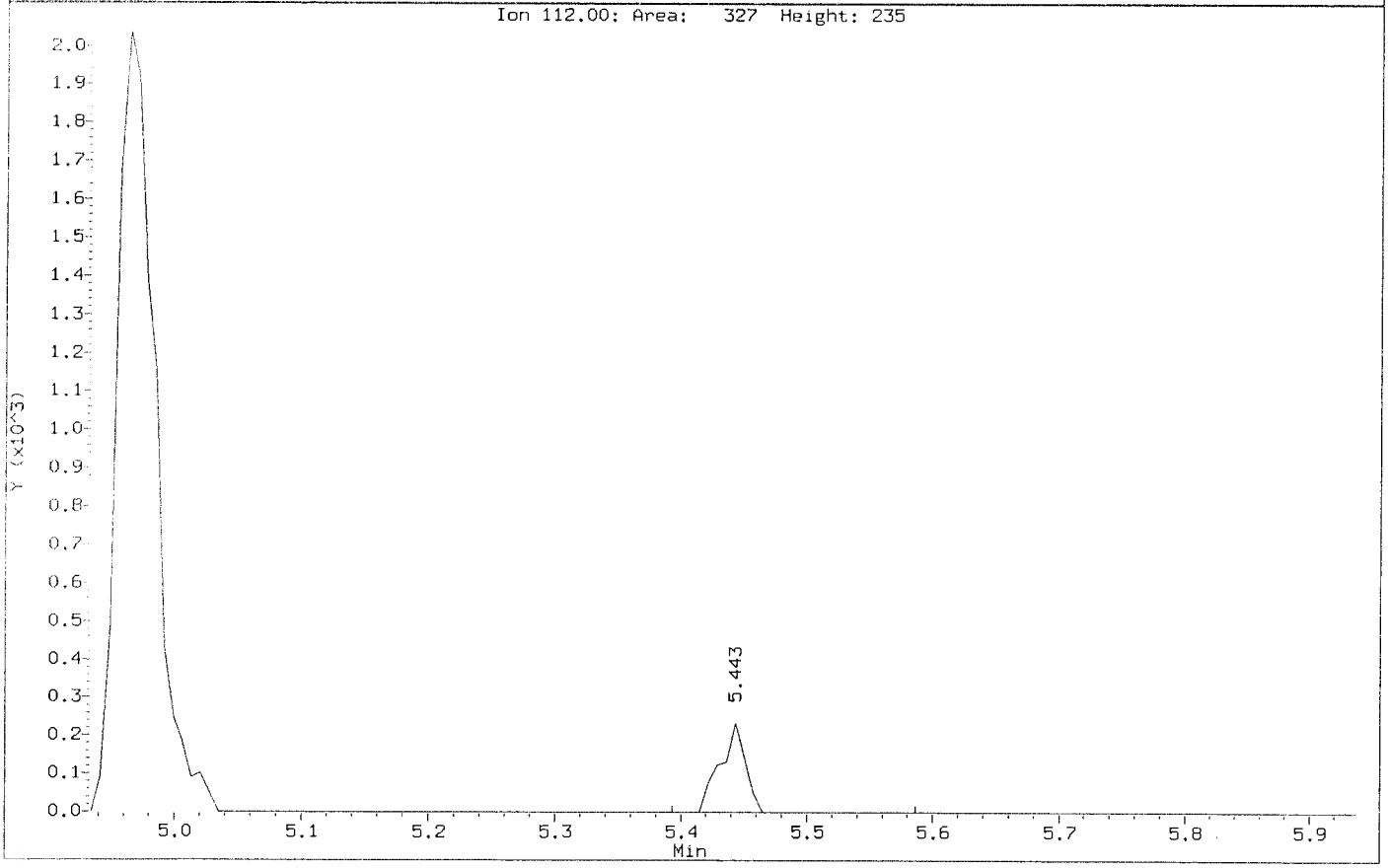
Compound: 1,2-Dichloropropane
CAS Number: 78-87-5



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Instrument: voa6.i
Client Sample ID: VSTD002

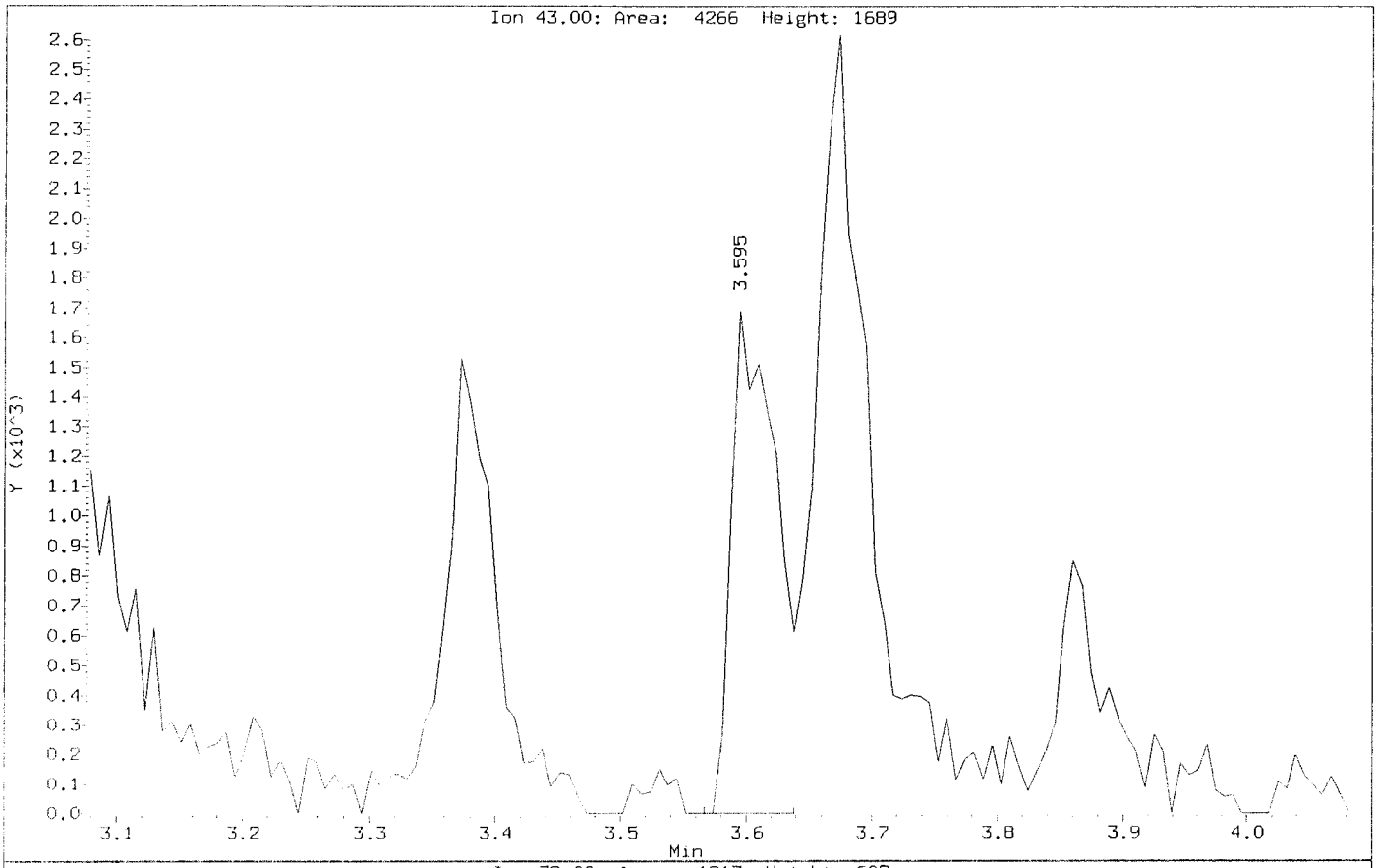
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CAS Number: 78-87-5

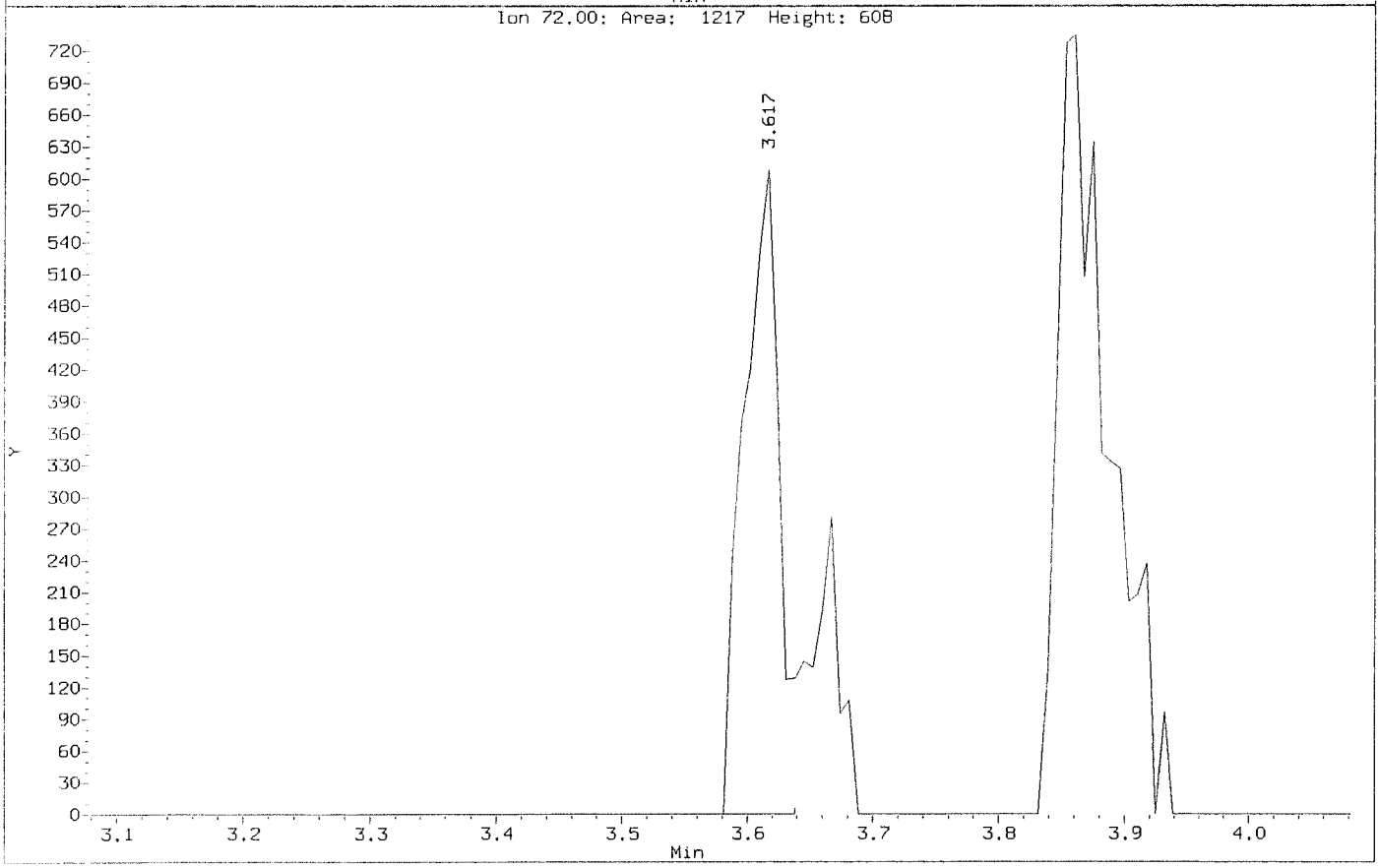




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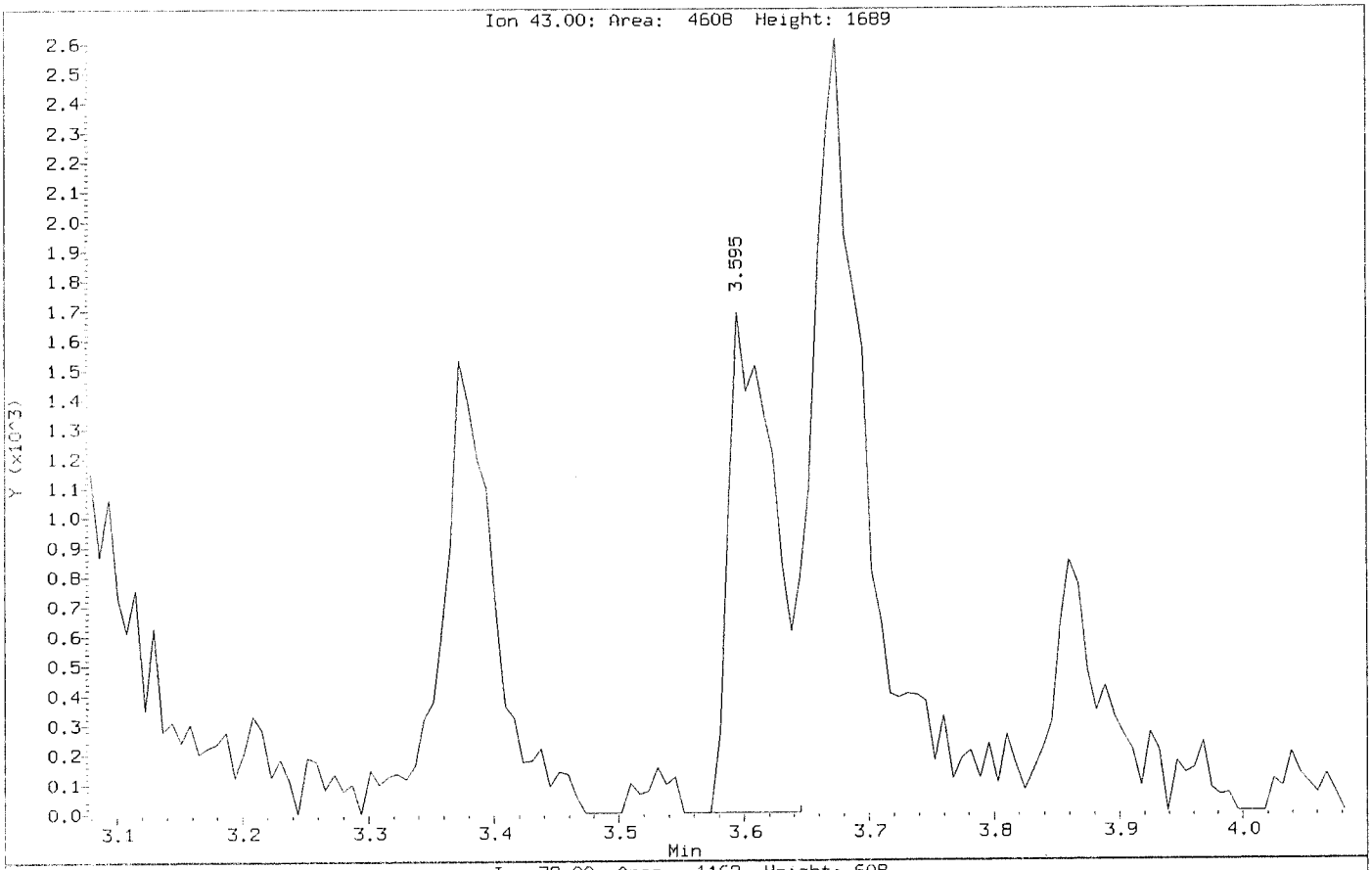
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CAS Number: 78-93-3

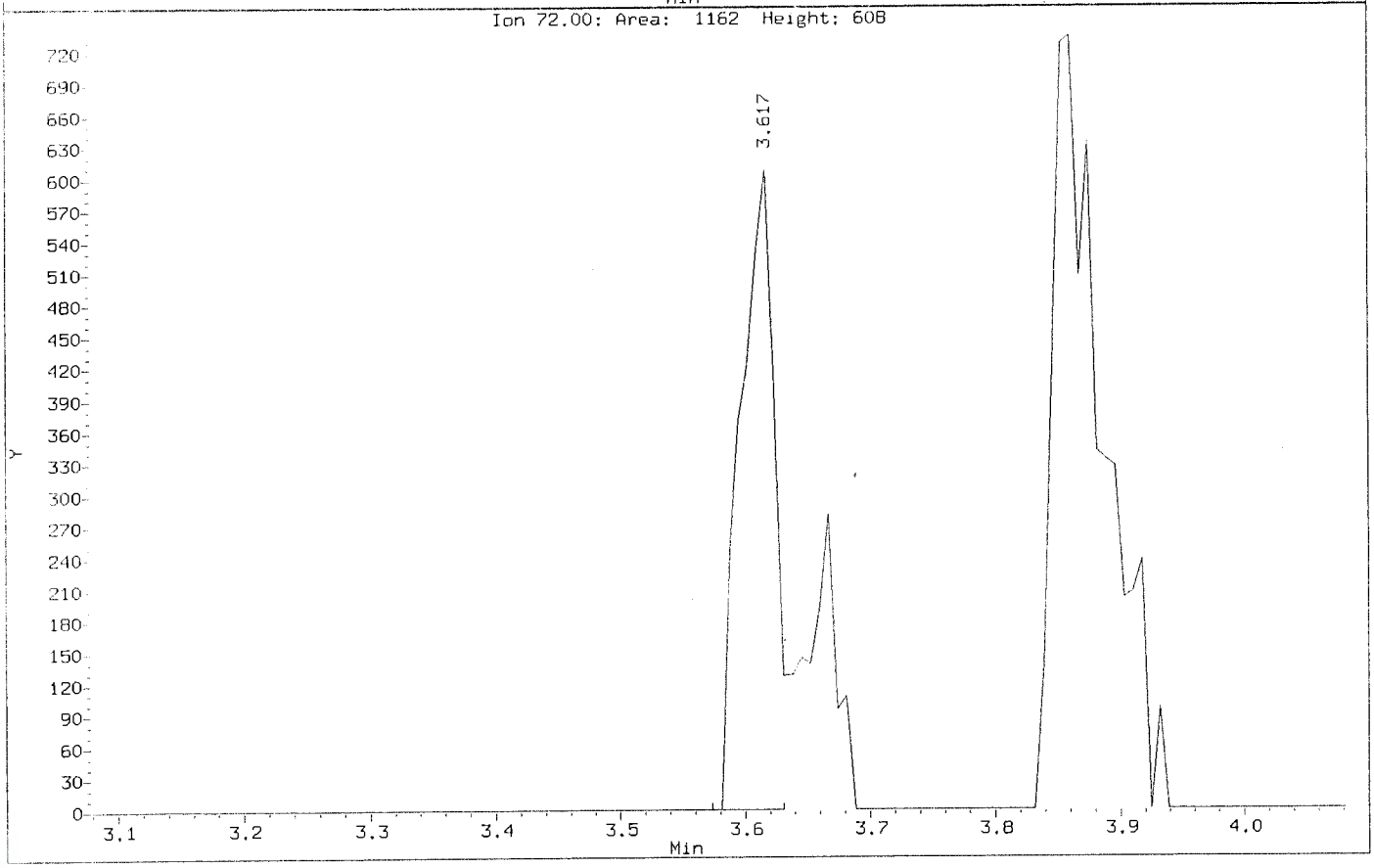




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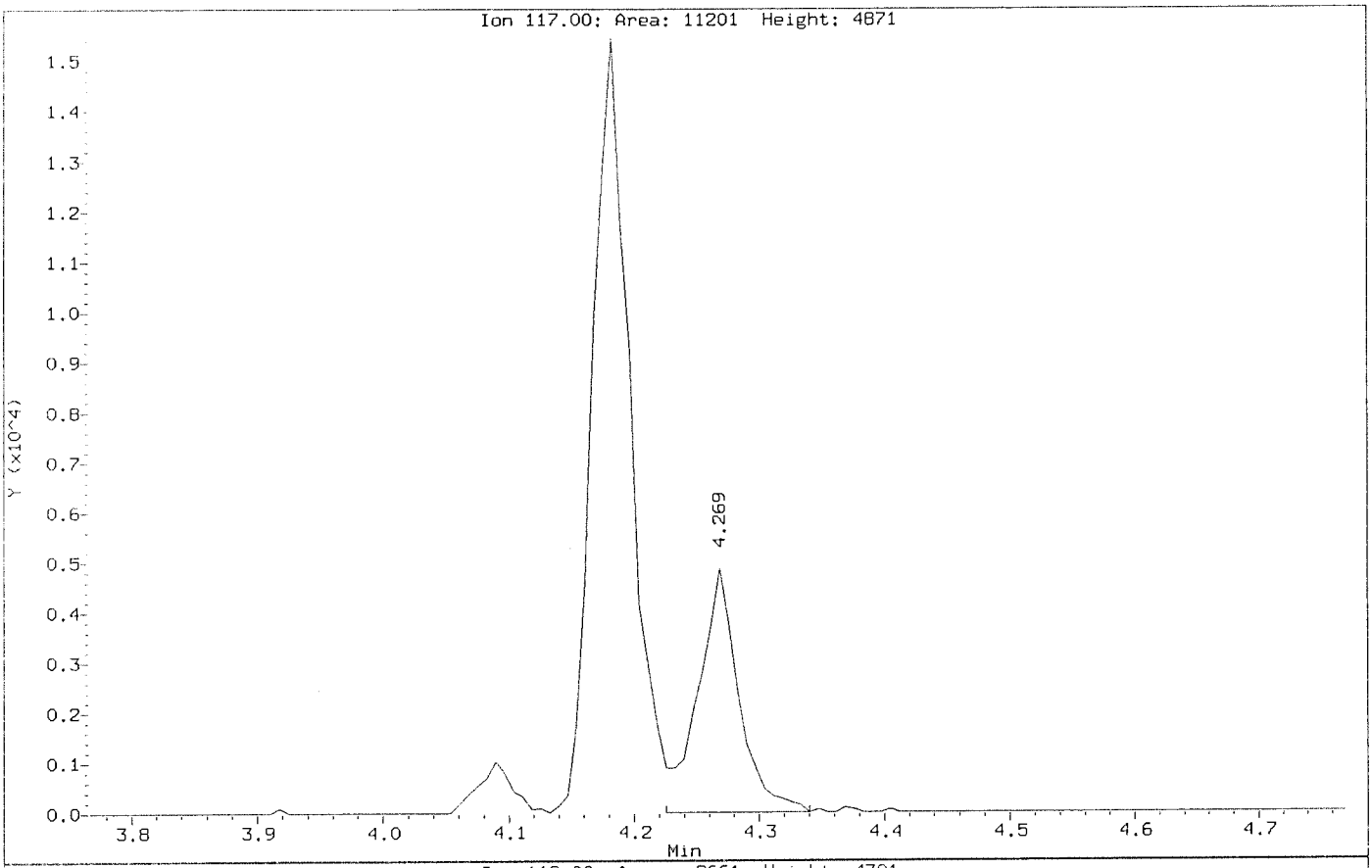
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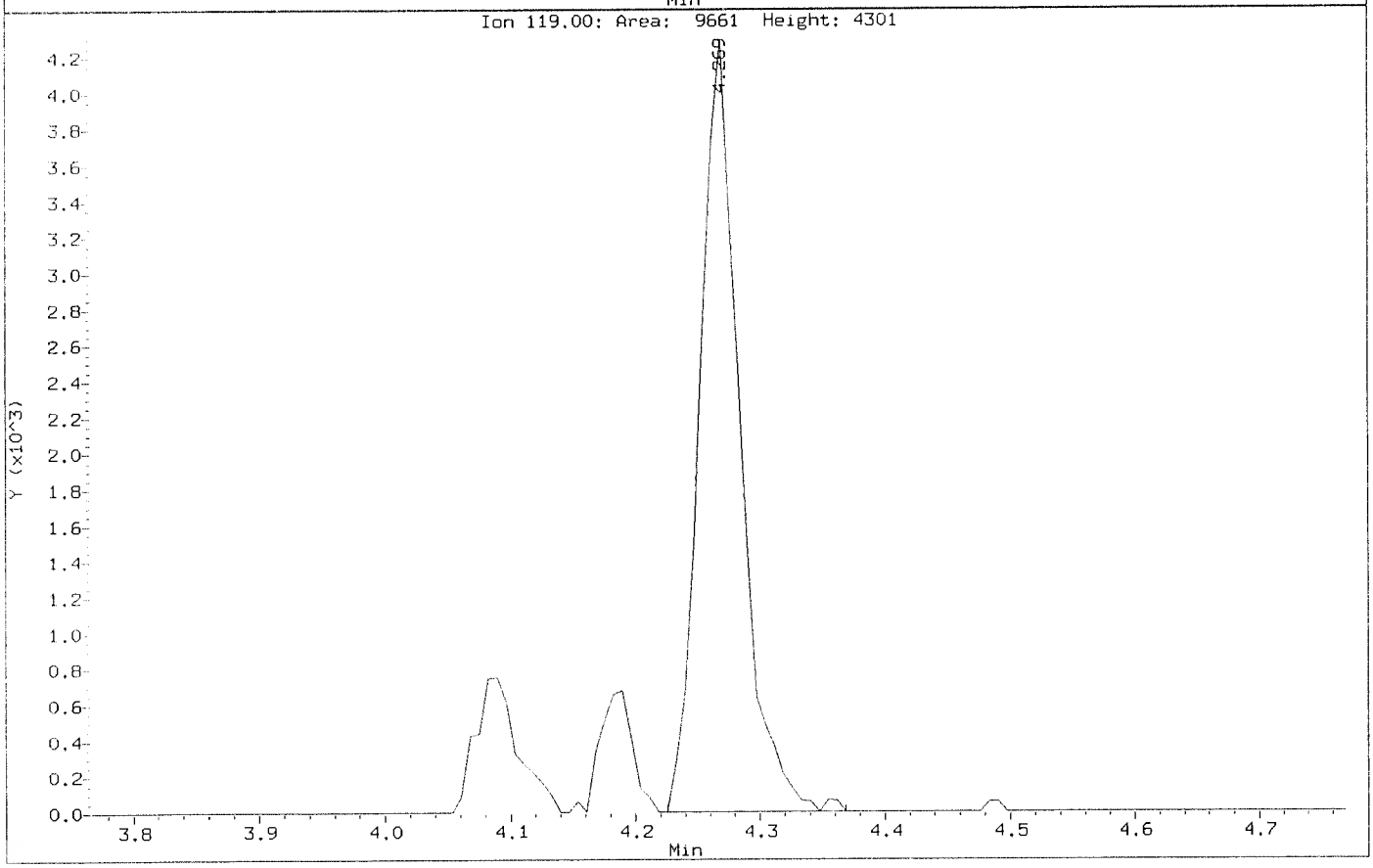




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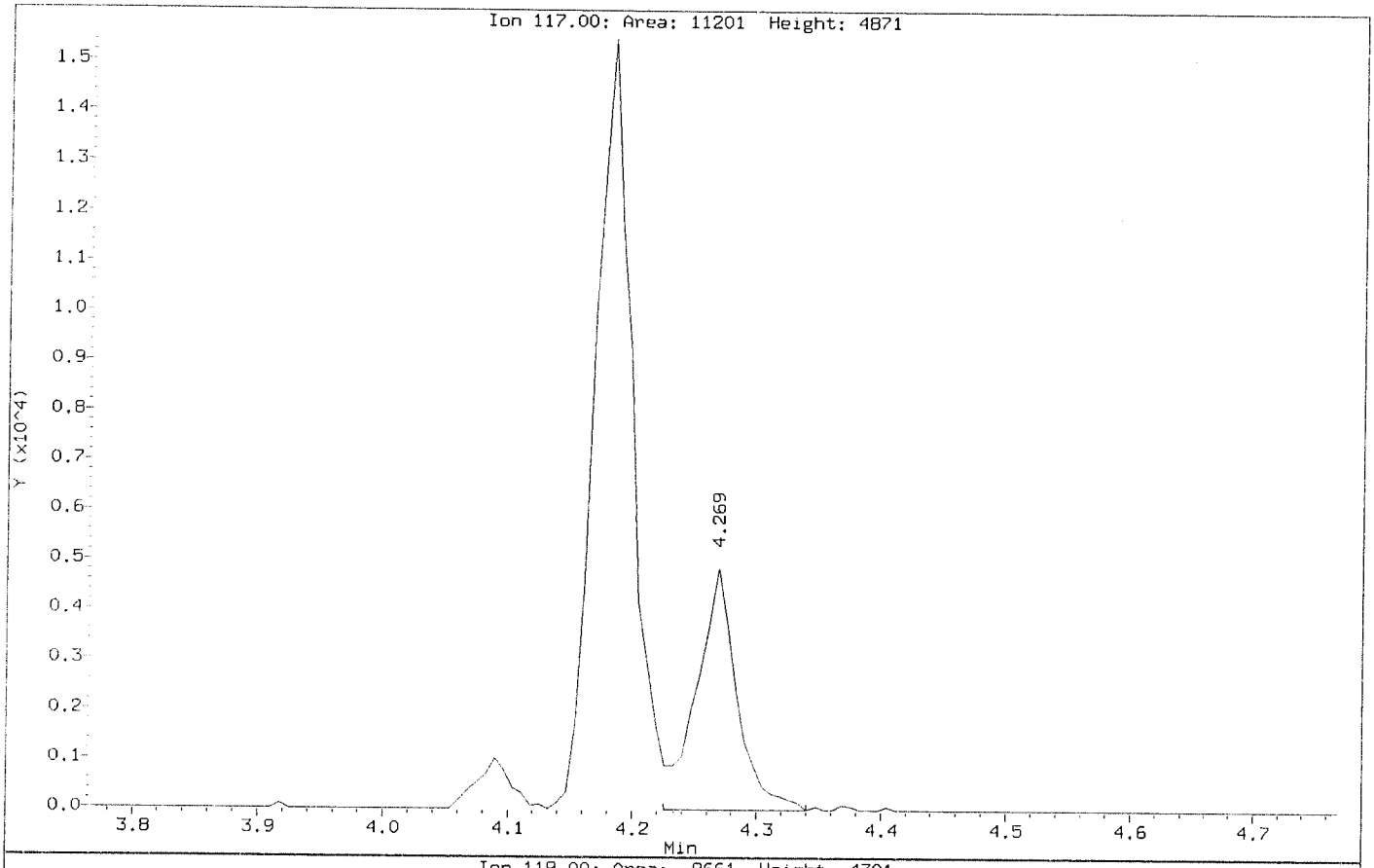
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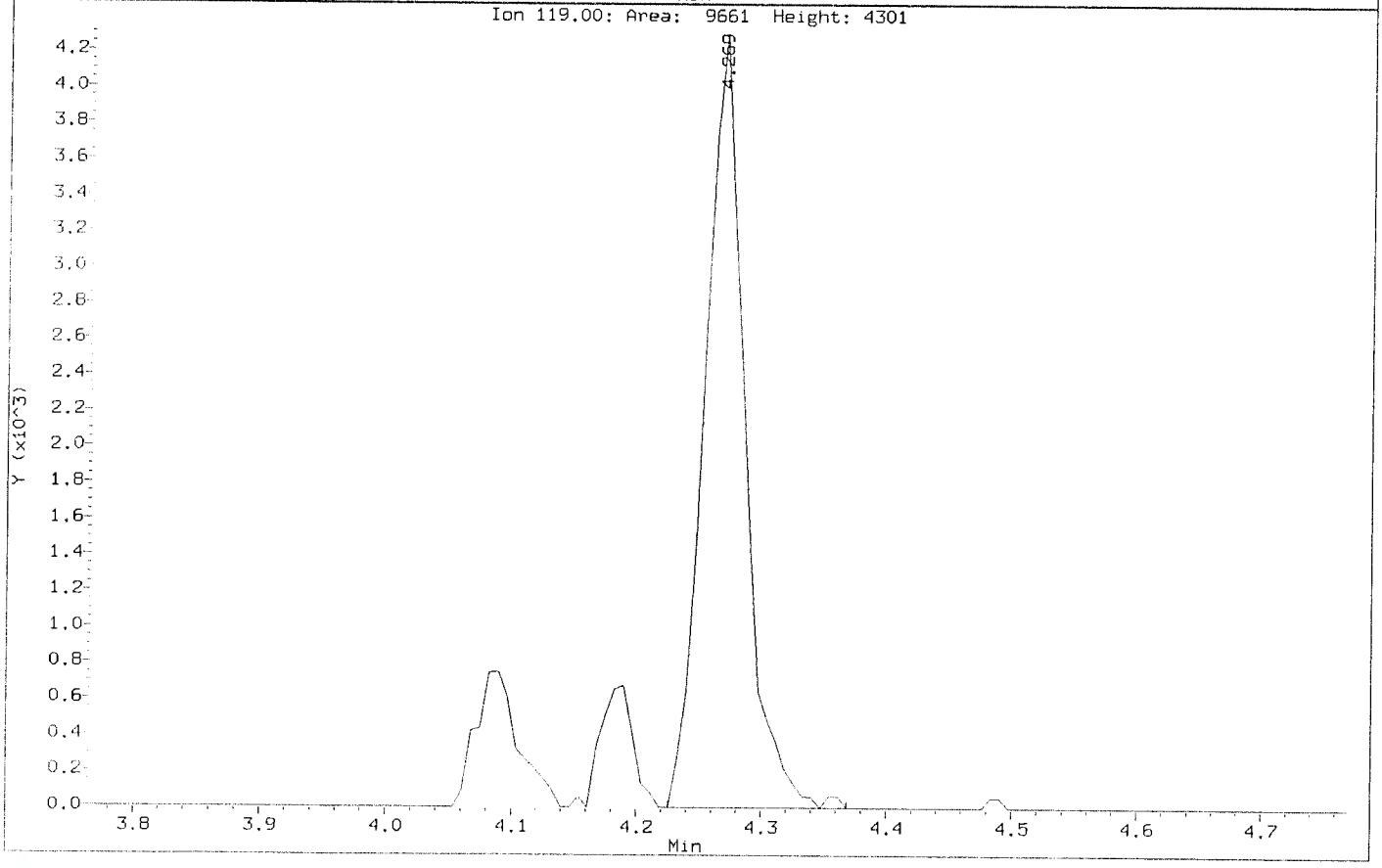




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Instrument: voa6.i
Client Sample ID: VSTD002

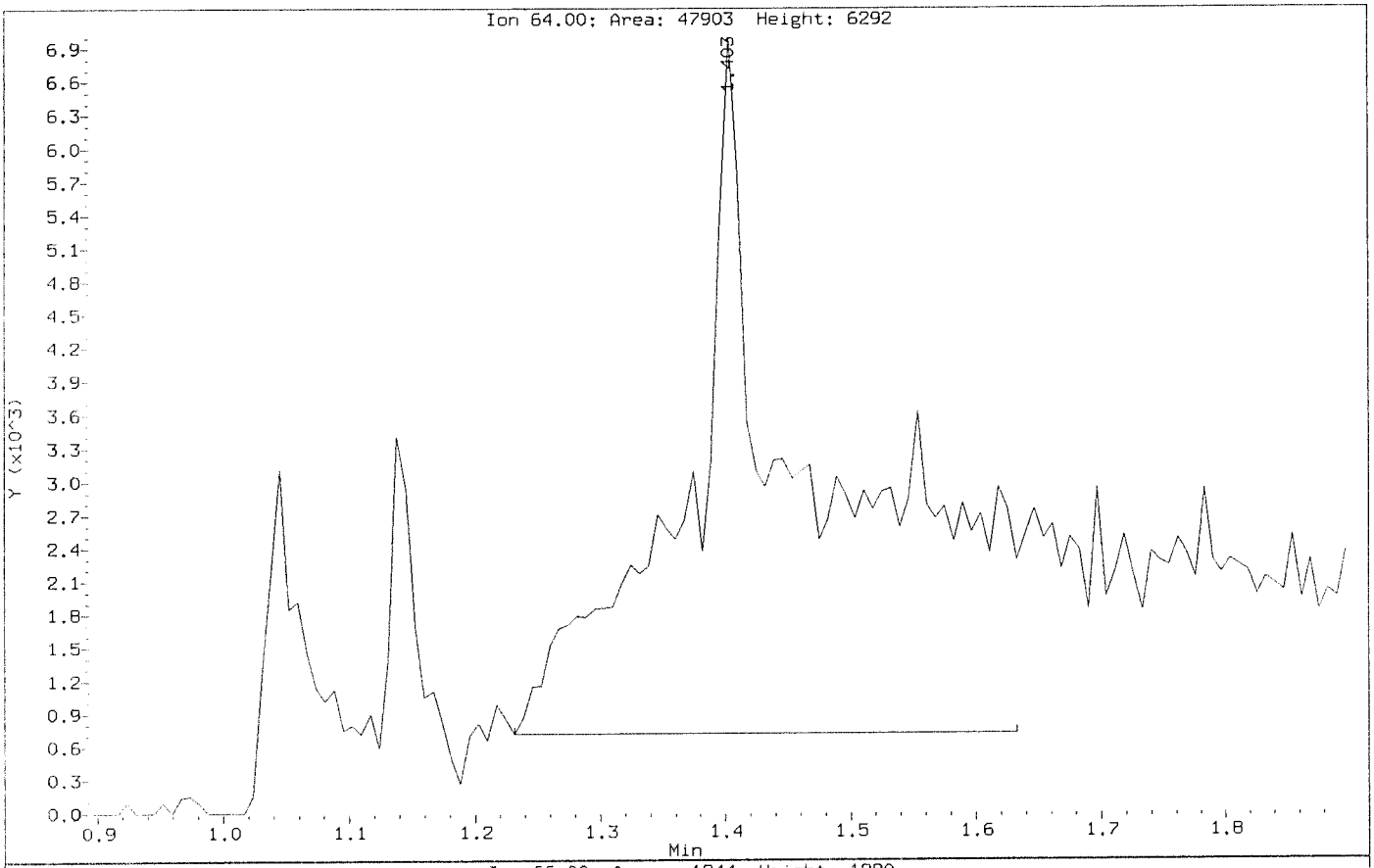
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CAS Number: 56-23-5

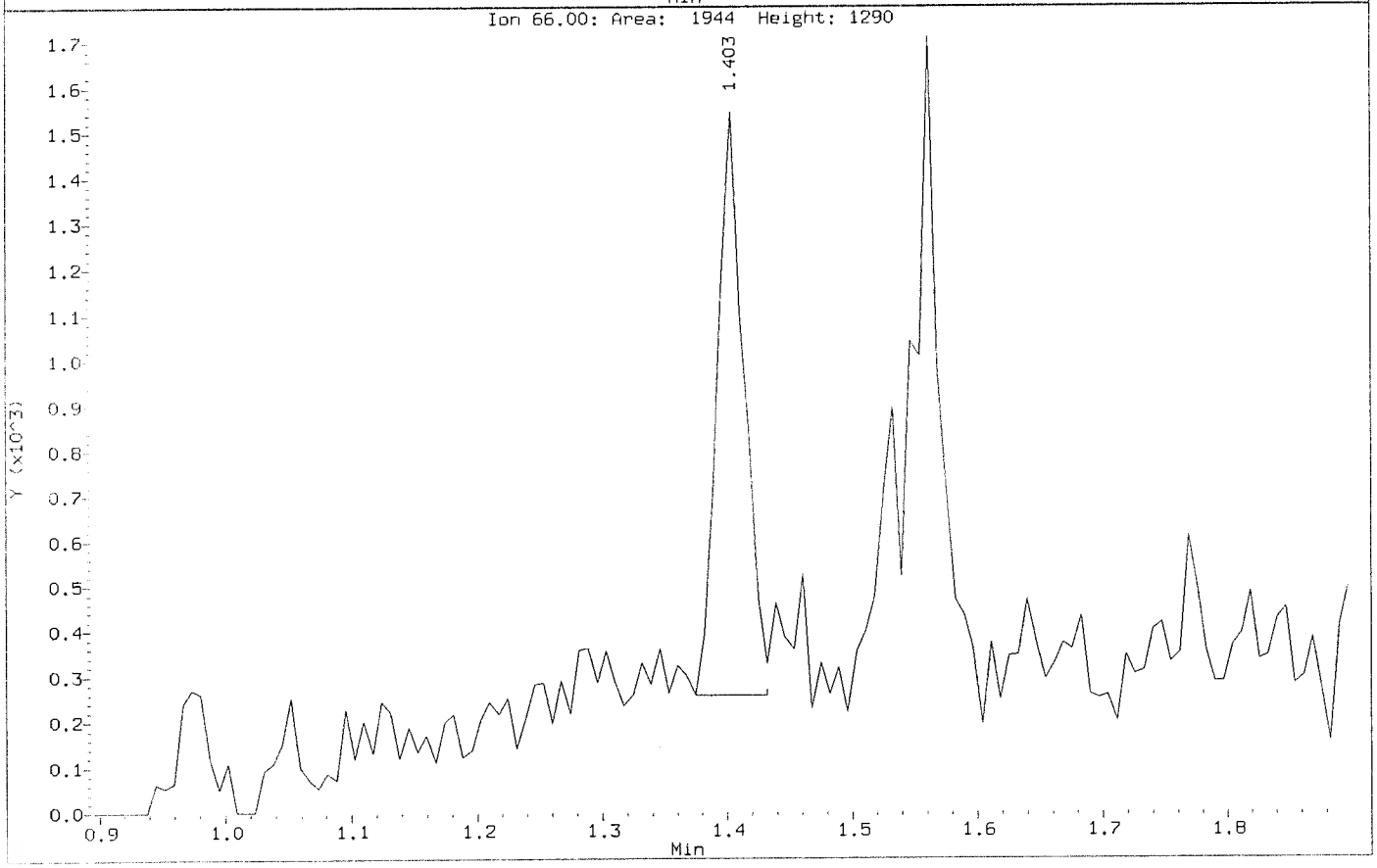




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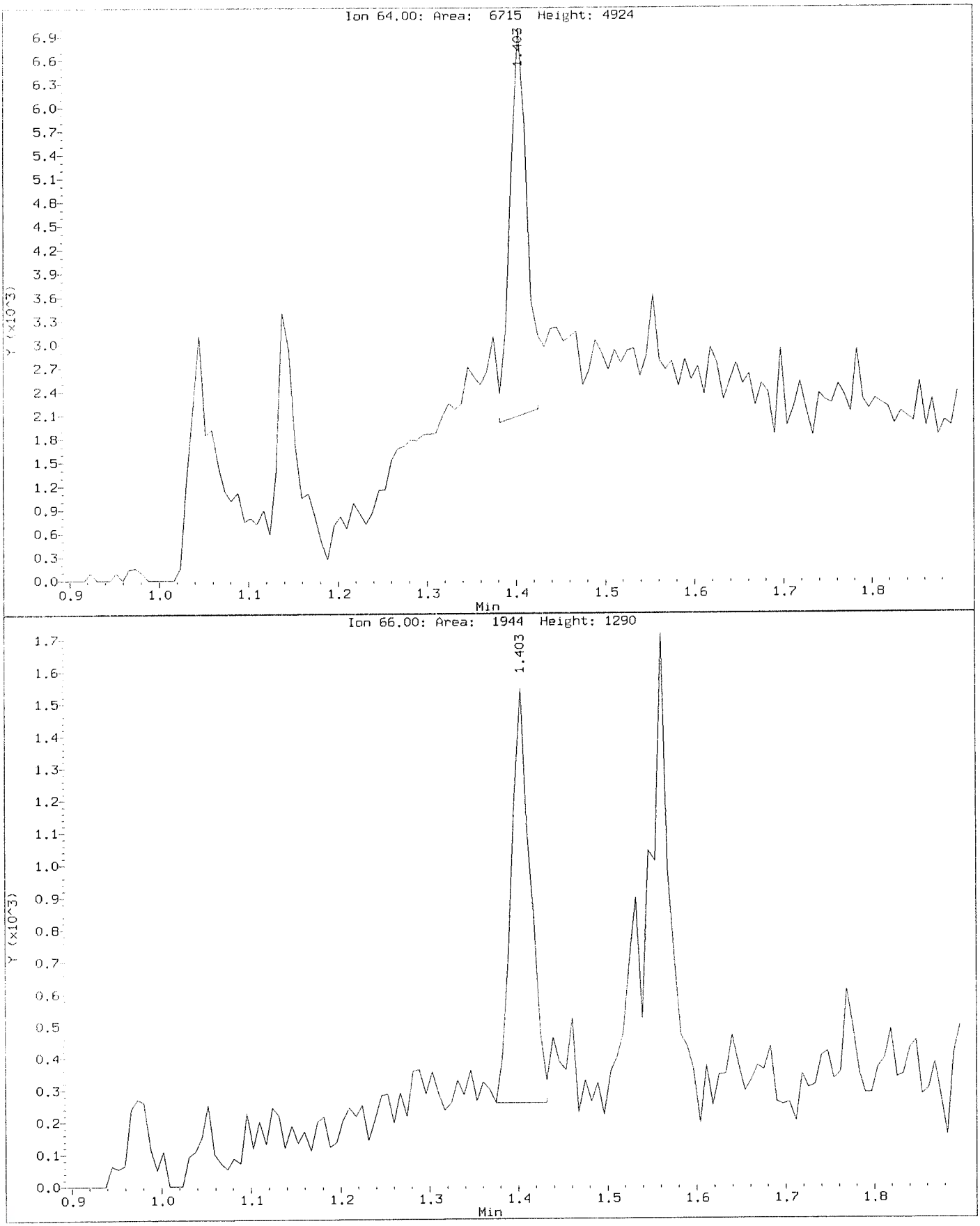
Compound: Chloroethane
CAS Number: 75-00-3





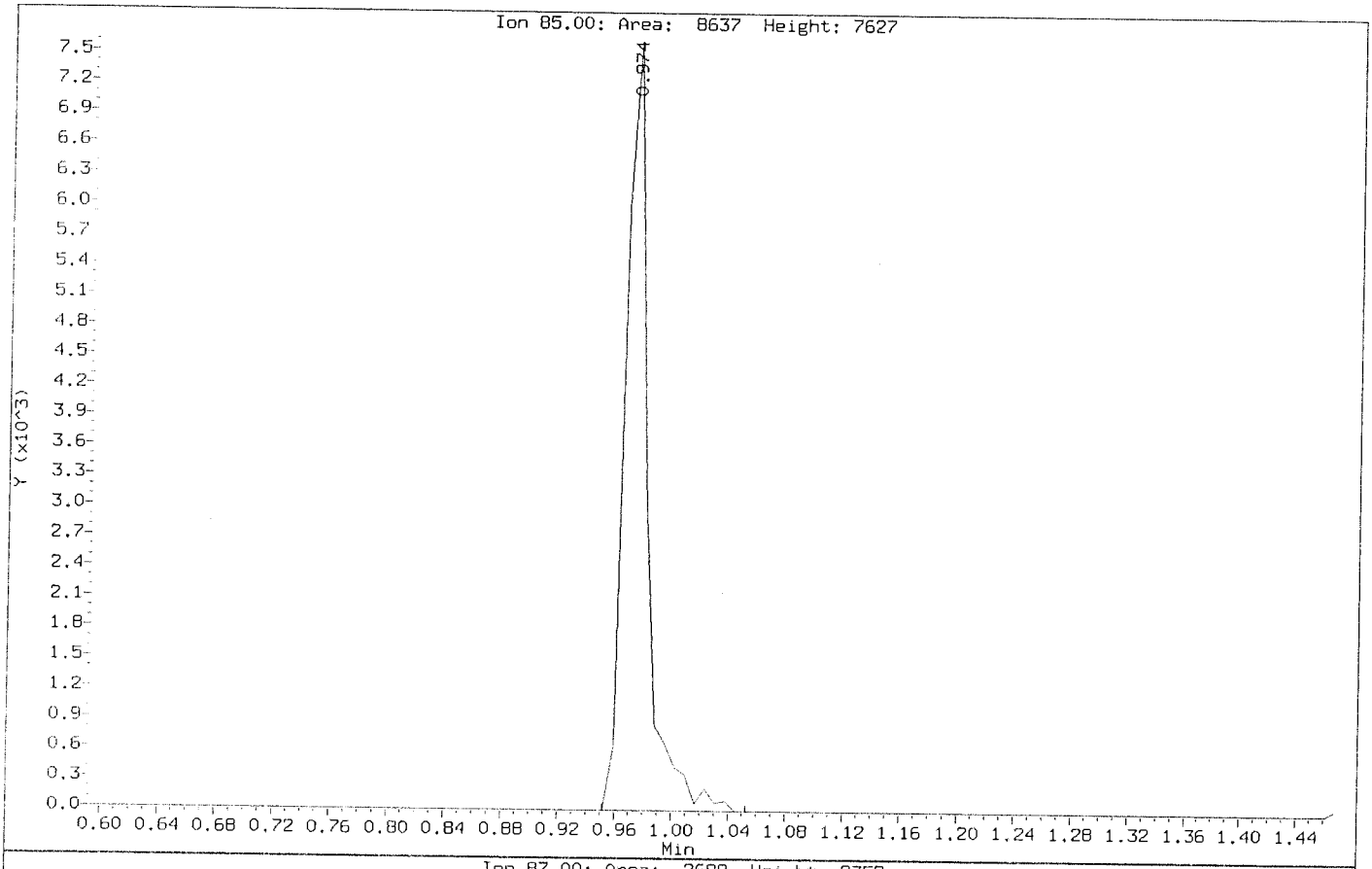
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Injection Date: 26-MAY-2021 13:58
Instrument: voa6.i
Client Sample ID: VSTD002

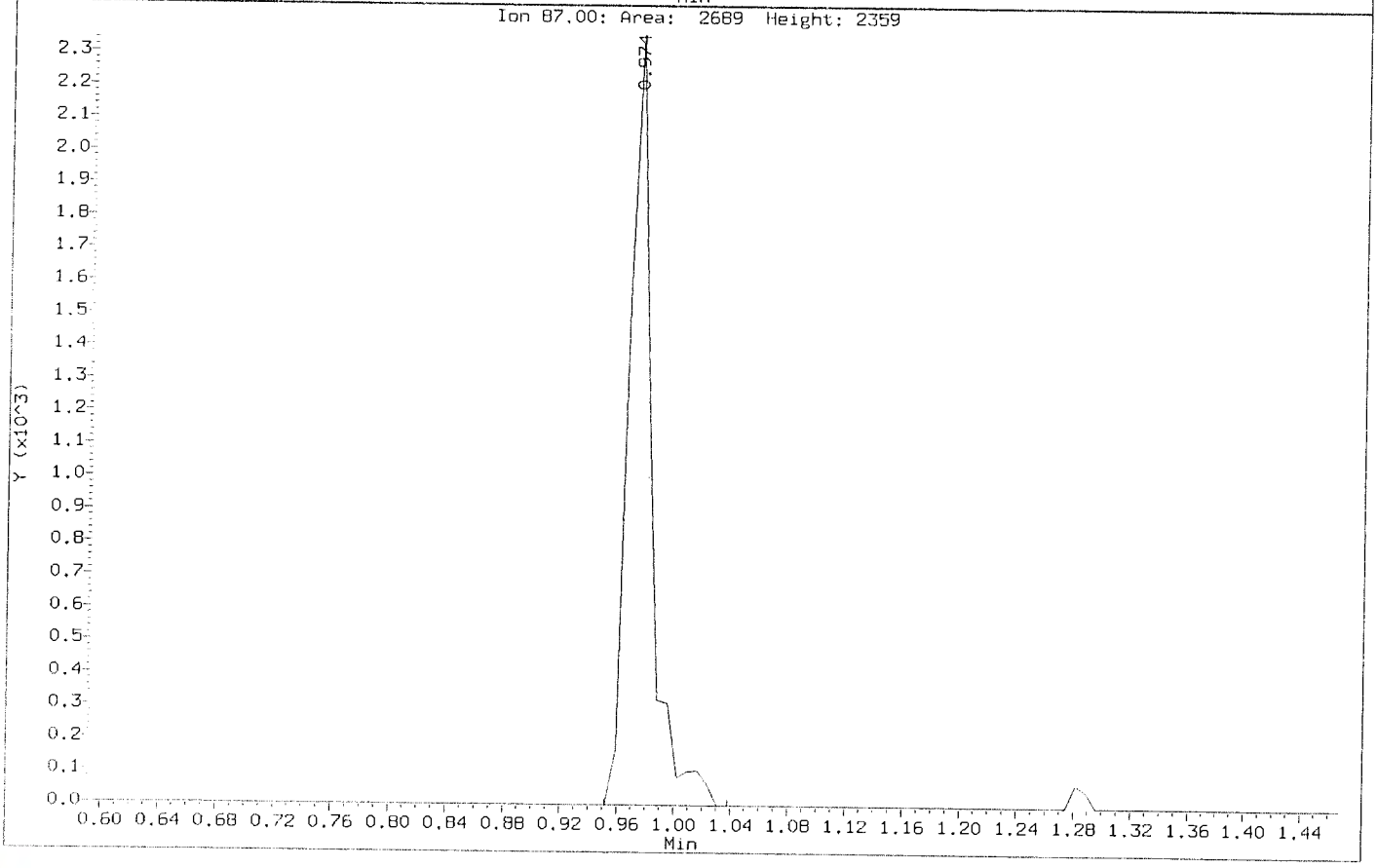
Compound: Chloroethane
CAS Number: 75-00-3



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Client Sample ID: VSTD002

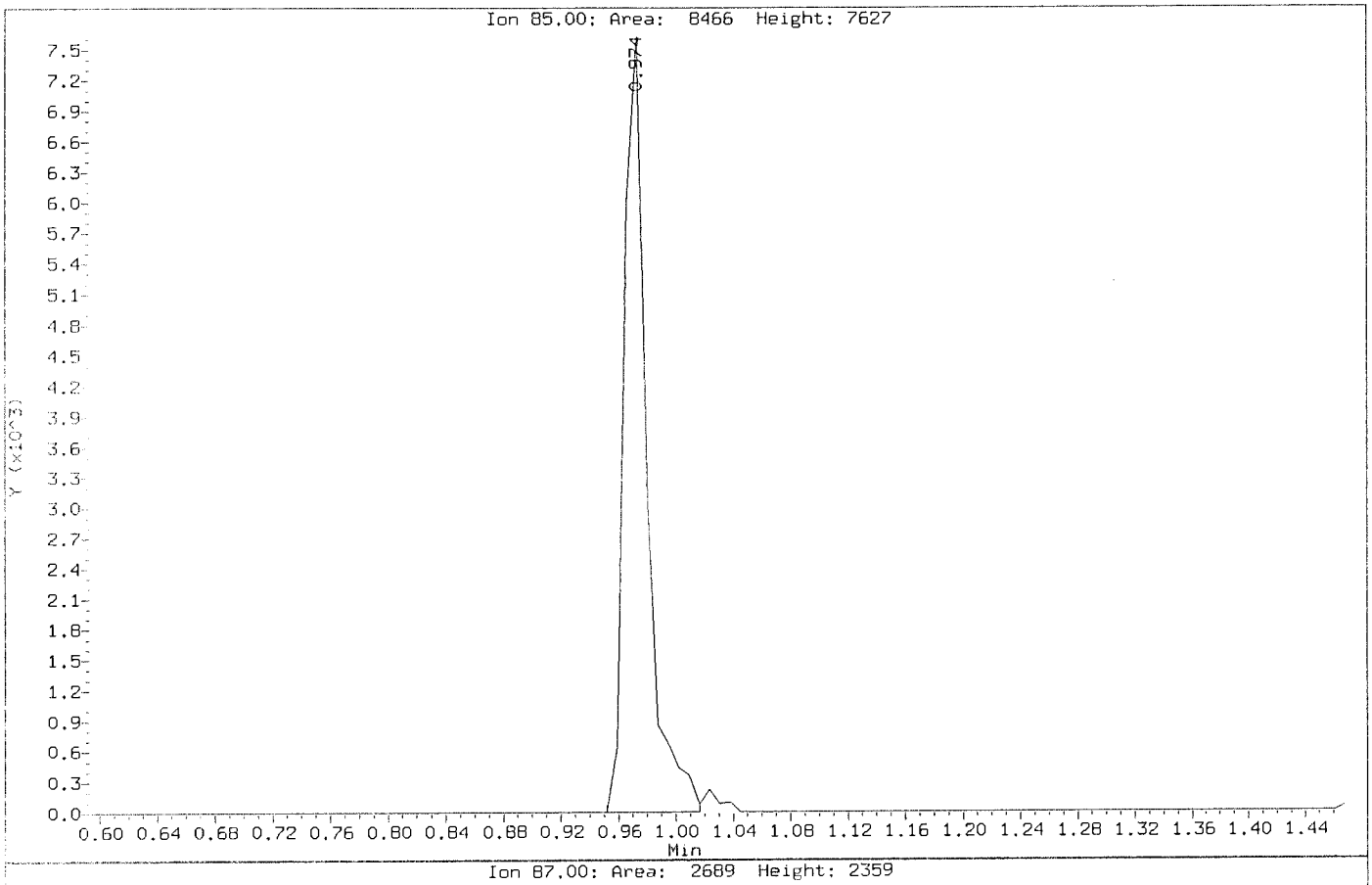
Compound: Dichlorodifluoromethane
CAS Number: 75-71-8

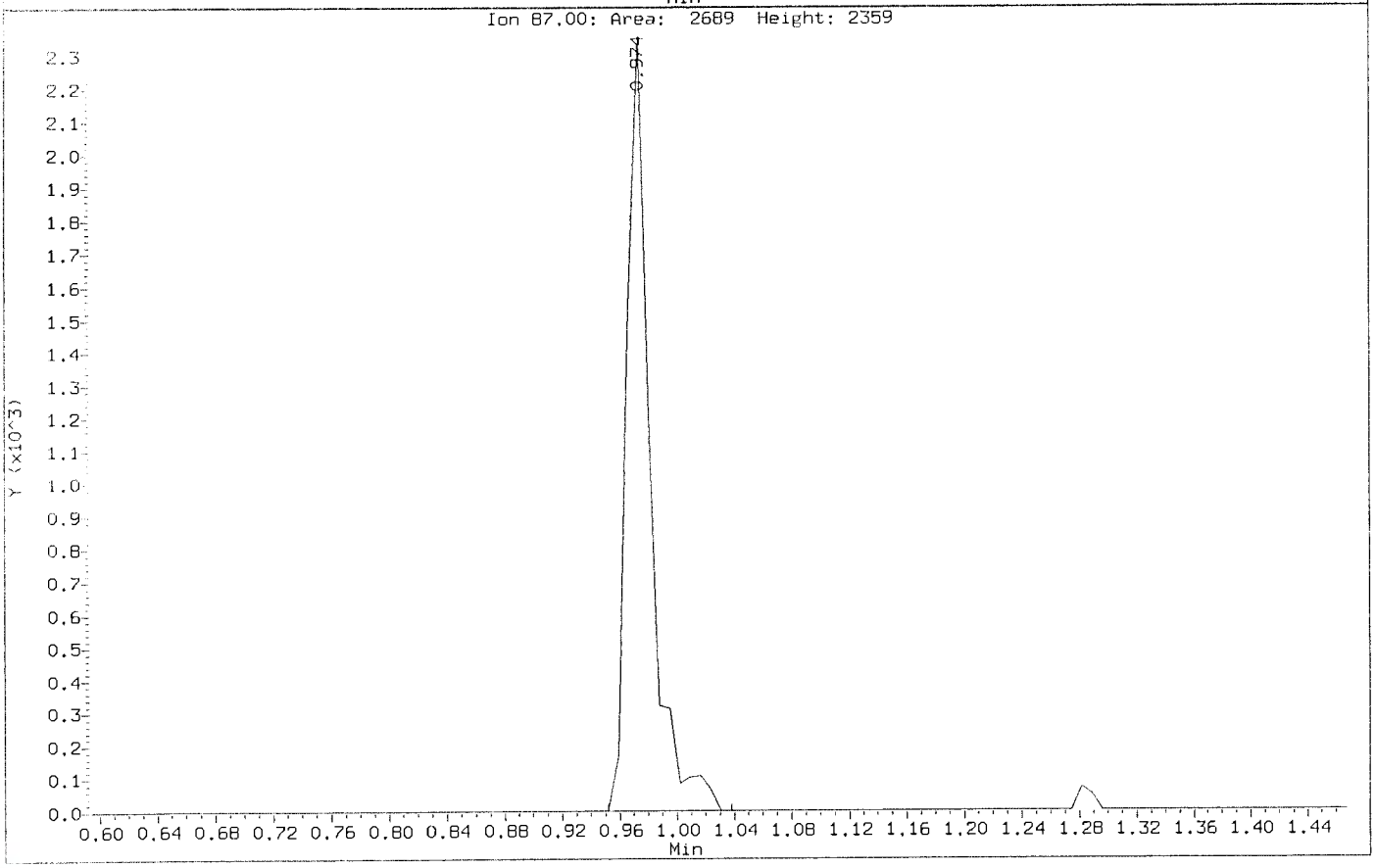




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Client Sample ID: VSTD002

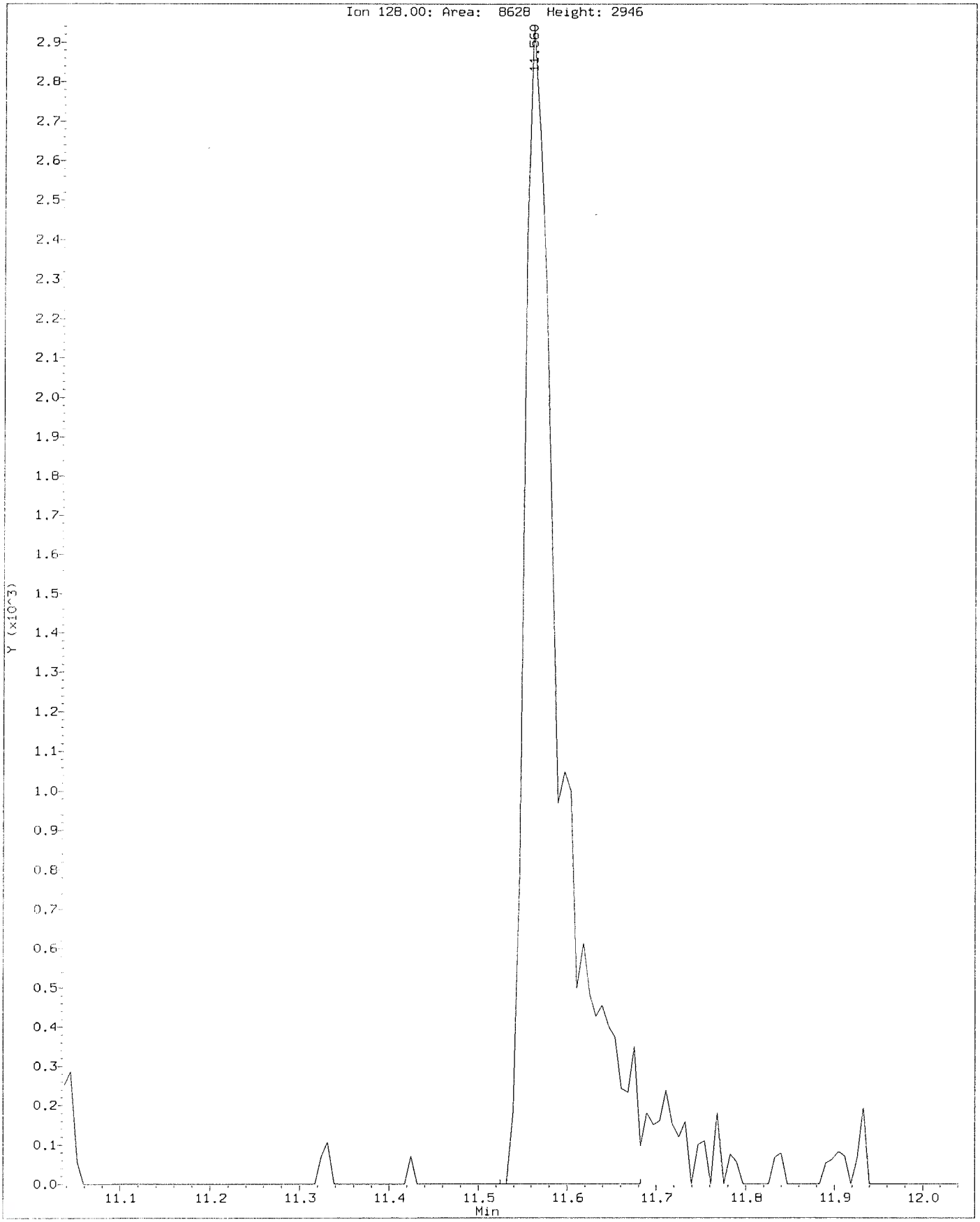
Compound: Dichlorodifluoromethane
CAS Number: 75-71-8





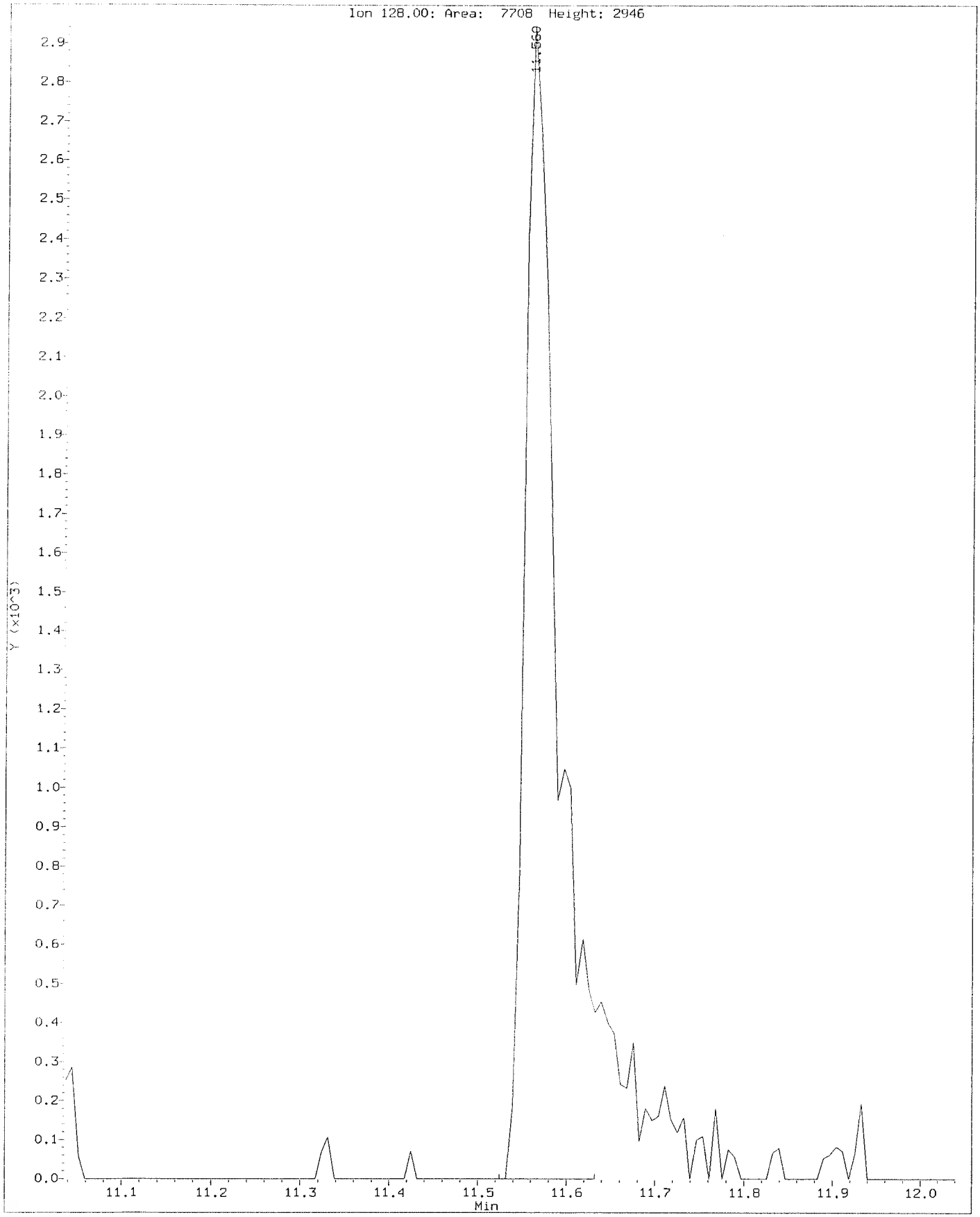
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Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Naphthalene
CAS Number: 91-20-3



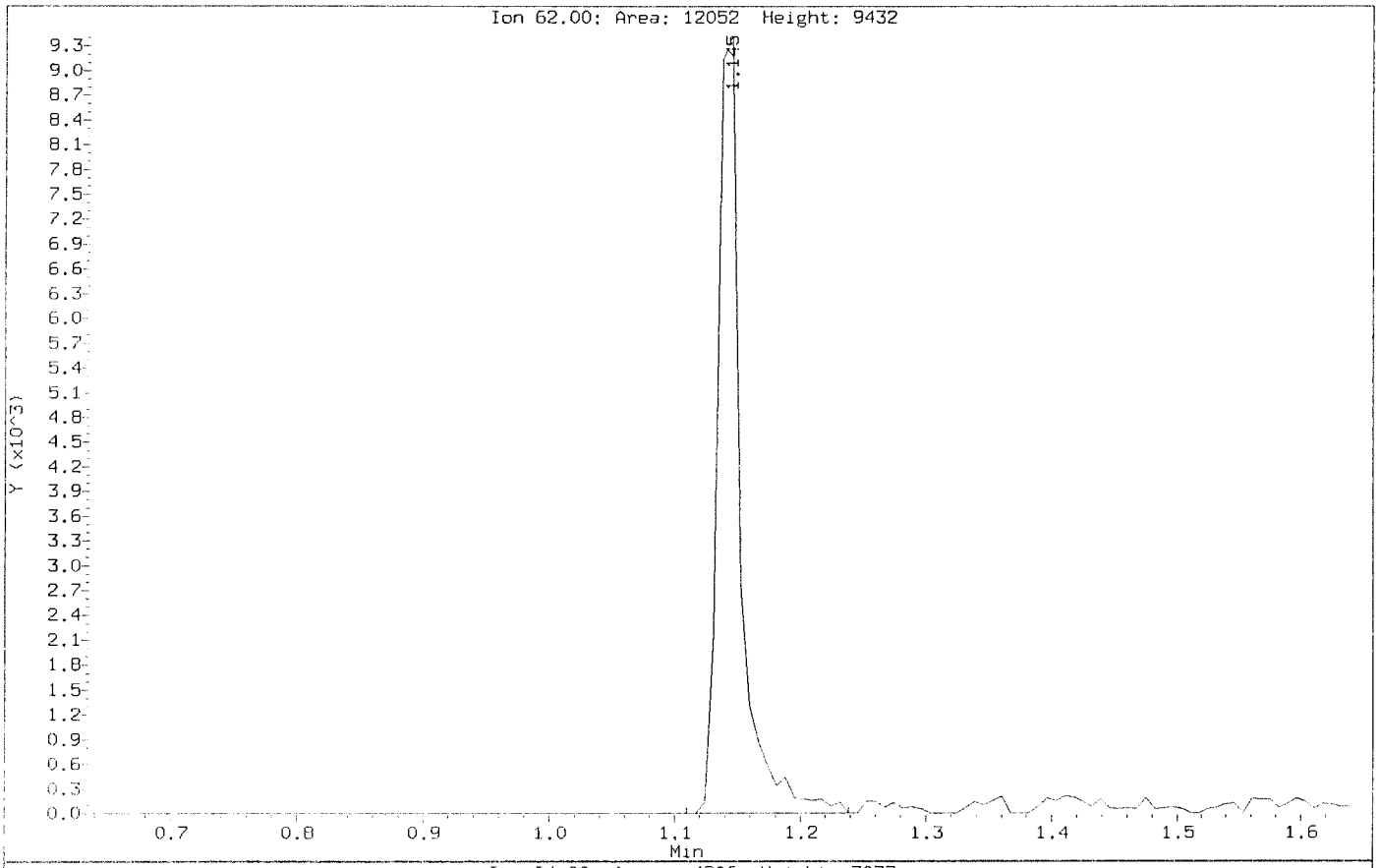
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Client Sample ID: VSTD002

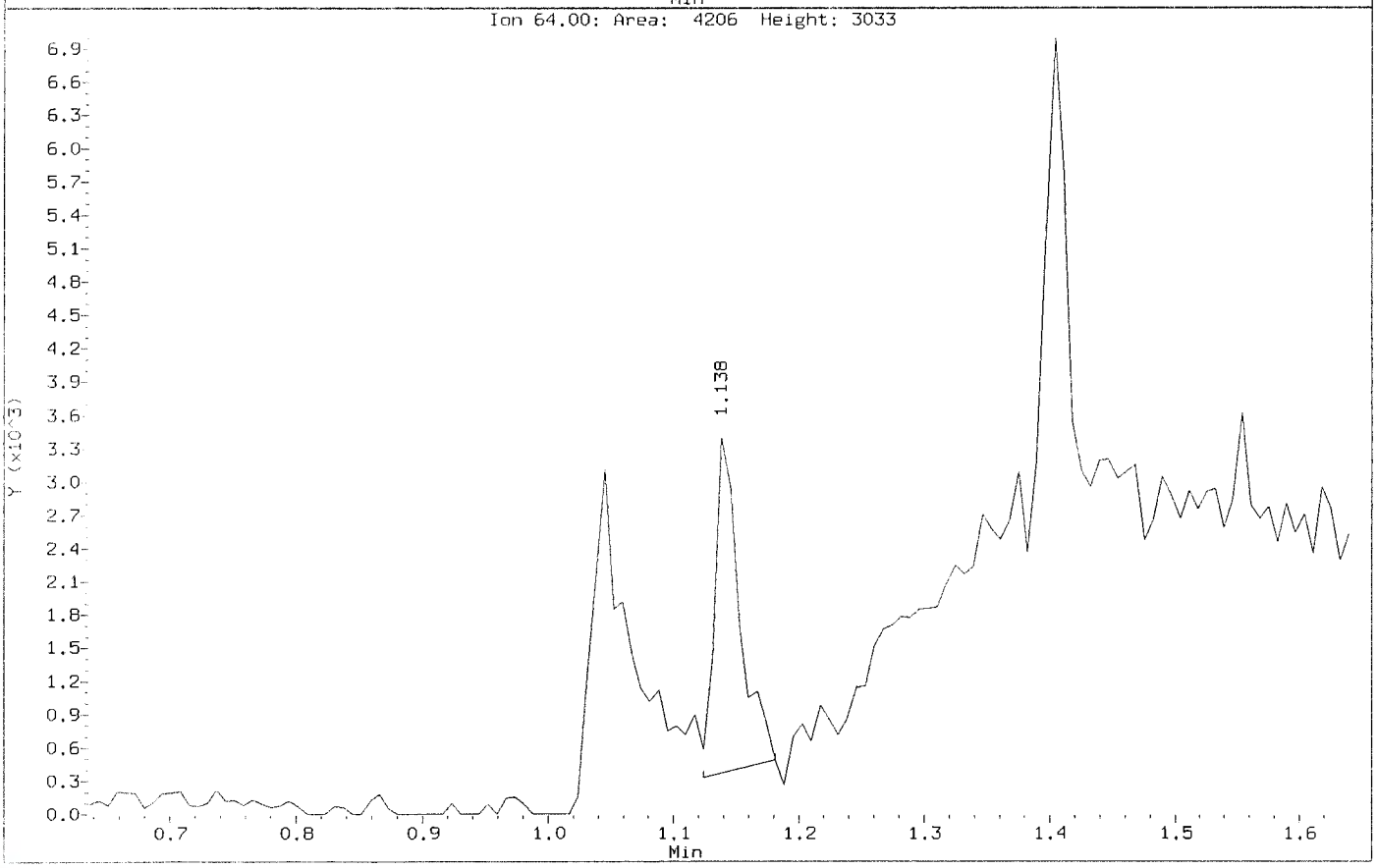
Compound: Naphthalene
CAS Number: 91-20-3



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Instrument: voa6.i
Client Sample ID: VSTD002

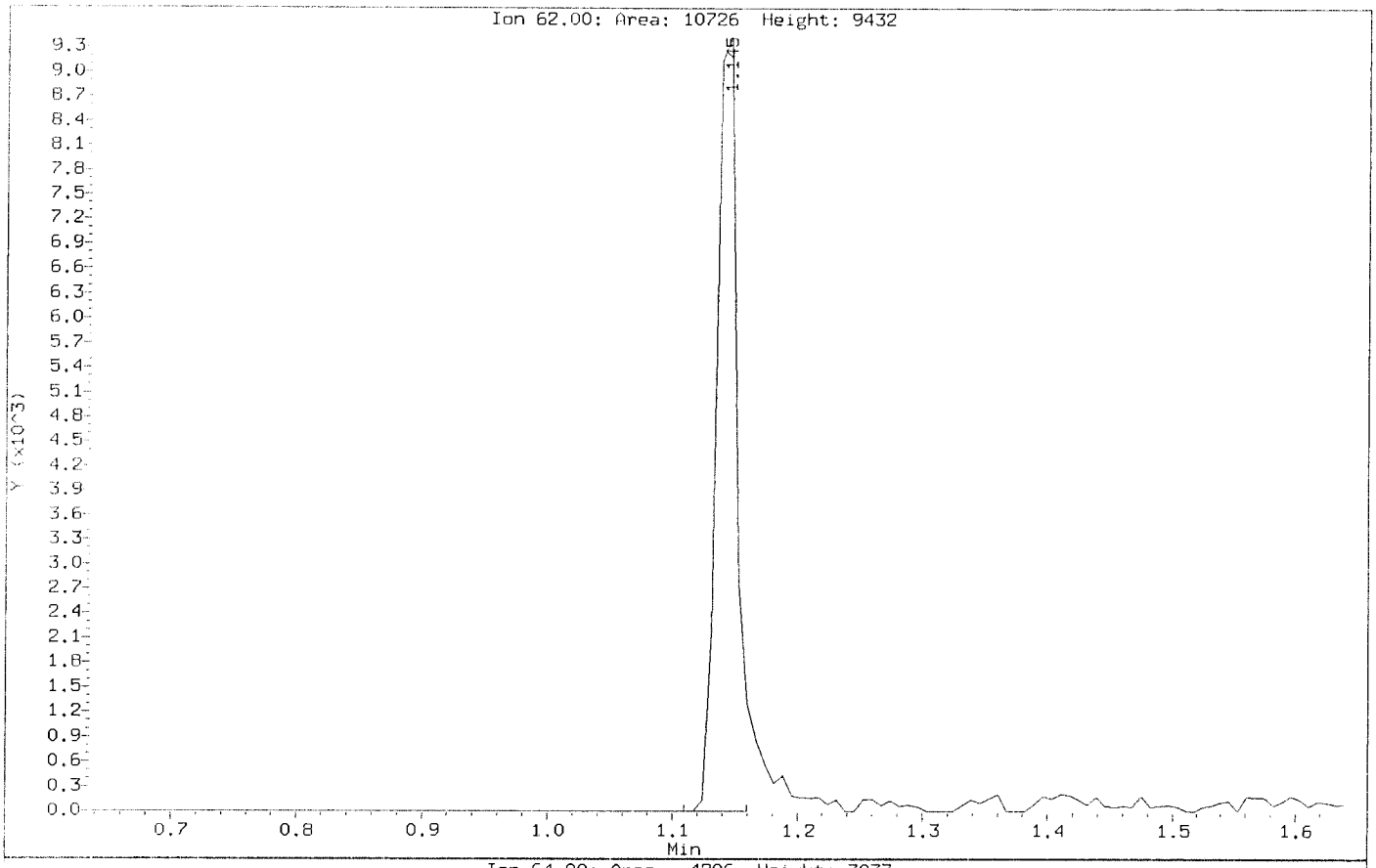
Compound: Vinyl Chloride
CAS Number: 75-01-4

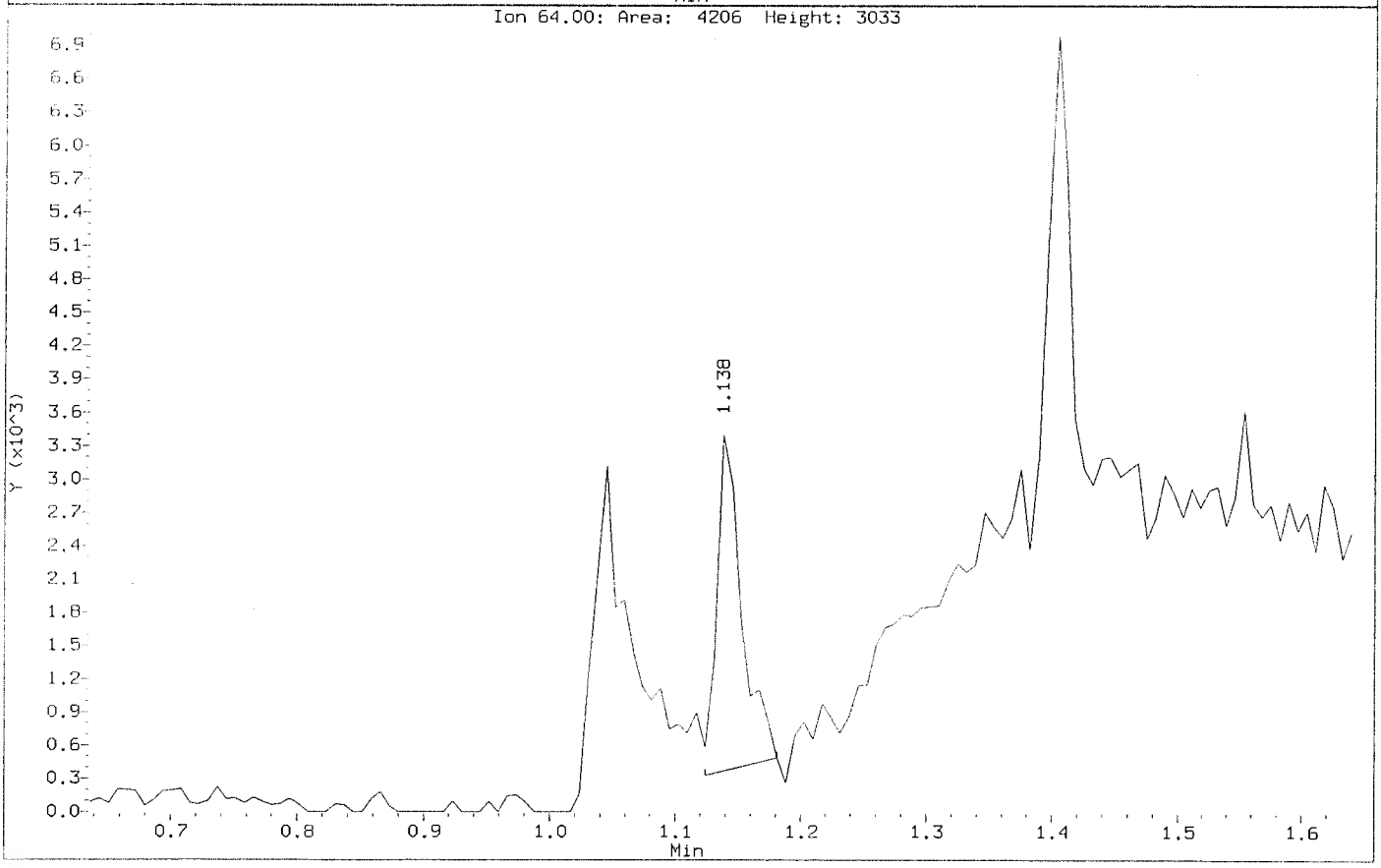




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Instrument: voa6.i
Client Sample ID: VSTD002

Compound: Vinyl Chloride
CAS Number: 75-01-4





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052606.D
Lab Smp Id: VSTD005 Client Smp ID: VSTD005
Inj Date : 26-MAY-2021 14:19
Operator : PC Inst ID: voa6.i
Smp Info : VSTD005;VSTD005;1;5;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 13:58 Cal File: X052605.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

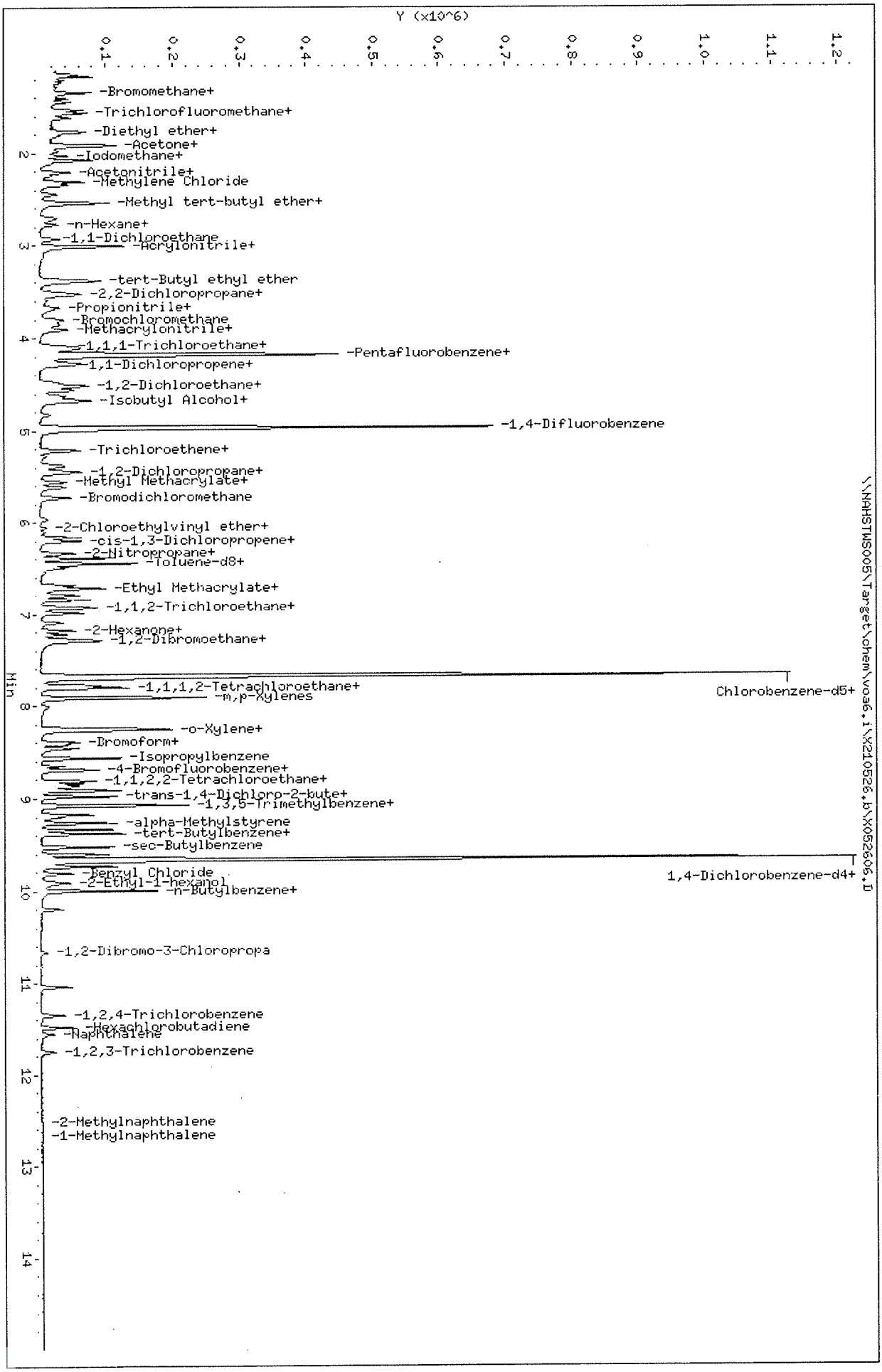
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	375848	50.0000	
*	36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	599369	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	554828	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	272673	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	21089	5.00000	5.55
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	21575	5.00000	5.39
$	48 Toluene-d8	98	6.388	6.388	(0.833)	68712	5.00000	4.97(a)
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	25524	5.00000	5.91
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	20225	5.00000	4.92(a)
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	28395	5.00000	5.11
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	24326	5.00000	5.41
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	17061	5.00000	5.67
	22 1,1-Dichloroethane	63	2.929	2.929	(0.700)	32111	5.00000	5.40
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	19736	5.00000	5.09
	32 1,1-Dichloropropene	75	4.290	4.290	(0.863)	22162	5.00000	4.82(a)
	93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	7772	5.00000	4.70(a)
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	17848	5.00000	5.25(M)
	90 1,2,4-Trichlorobenzene	180	11.345	11.345	(1.174)	12851	5.00000	4.76(a)
	79 1,2,4-Trimethylbenzene	105	9.382	9.382	(0.971)	58187	5.00000	4.67(a)
	89 1,2-Dibromo-3-Chloropropane	155	10.657	10.657	(1.103)	2323	5.00000	5.82
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	21217	5.00000	5.19
	88 1,2-Dichlorobenzene	146	9.998	9.998	(1.035)	36886	5.00000	4.98(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.562	4.562	(0.918)	25252	5.00000	5.28
42	1,2-Dichloropropane	63	5.436	5.436	(1.094)	18865	5.00000	5.34
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	58197	5.00000	4.70(a)
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	38487	5.00000	5.00
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	31865	5.00000	5.33
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	39709	5.00000	4.94(a)
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	27936	5.00000	5.43
24	2-Butanone	43	3.588	3.588	(0.858)	11362	10.0000	9.93(H)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	53843	5.00000	5.27
52	2-Hexanone	43	7.090	7.090	(0.924)	21892	10.0000	10.62
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	58486	5.00000	4.81(a)
82	p-Isopropyltoluene	119	9.647	9.647	(0.999)	55825	5.00000	4.42(a)
45	4-Methyl-2-Pentanone	43	6.331	6.331	(0.825)	32371	10.0000	10.13
10	Acetone	43	1.976	1.976	(0.473)	15534	10.0000	11.18
37	Benzene	78	4.512	4.512	(0.908)	71697	5.00000	5.20
74	Bromobenzene	156	8.809	8.809	(0.912)	22574	5.00000	4.98(a)
29	Bromochloromethane	128	3.802	3.802	(0.909)	12517	5.00000	5.50
39	Bromodichloromethane	83	5.722	5.722	(1.151)	27200	5.00000	5.27
66	Bromoform	173	8.408	8.408	(1.096)	13722	5.00000	4.43(a)
6	Bromomethane	94	1.338	1.338	(0.320)	24597	5.00000	6.46
19	Carbon Disulfide	76	2.069	2.069	(0.495)	93831	10.0000	10.22
34	Carbon Tetrachloride	117	4.268	4.268	(0.859)	24074	5.00000	4.84(aH)
59	Chlorobenzene	112	7.692	7.692	(1.003)	57208	5.00000	4.95(a)
7	Chloroethane	64	1.403	1.403	(0.336)	15071	5.00000	4.46(aM)
28	Chloroform	83	3.910	3.910	(0.935)	36863	5.00000	5.57
3	Chloromethane	50	1.080	1.080	(0.258)	23565	5.00000	4.57(a)
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	21562	5.00000	5.47
46	cis-1,3-Dichloropropene	75	6.159	6.159	(1.239)	31771	5.00000	5.23
55	Dibromochloromethane	129	7.176	7.176	(0.936)	22651	5.00000	4.96(a)
44	Dibromomethane	93	5.557	5.557	(1.118)	14381	5.00000	5.42
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	18295	5.00000	5.11
61	Ethylbenzene	106	7.799	7.799	(1.017)	26847	5.00000	5.03
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	8556	5.00000	6.15
67	Isopropylbenzene	105	8.566	8.566	(1.117)	72549	5.00000	4.45(a)
62	m,p-Xylenes	106	7.907	7.907	(1.031)	65384	10.0000	9.41
17	Methylene Chloride	84	2.305	2.305	(0.551)	21744	5.00000	5.22
87	n-Butylbenzene	91	9.998	9.998	(1.035)	47016	5.00000	4.43(a)
73	n-Propylbenzene	91	8.910	8.910	(0.922)	79074	5.00000	4.64(a)
92	Naphthalene	128	11.553	11.553	(1.196)	18362	5.00000	4.71(a)
63	o-Xylene	106	8.244	8.244	(1.075)	33045	5.00000	4.87(a)
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	66177	5.00000	4.62(a)
64	Styrene	104	8.258	8.258	(1.077)	52432	5.00000	4.63(a)
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	50317	5.00000	4.74(a)
56	Tetrachloroethene	164	6.933	6.933	(0.904)	16008	5.00000	4.68(a)
50	Toluene	91	6.446	6.446	(0.840)	80843	5.00000	4.99(a)
20	trans-1,2-Dichloroethene	96	2.535	2.535	(0.606)	18528	5.00000	5.27
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.344)	26258	5.00000	5.01
38	Trichloroethene	130	5.206	5.206	(1.048)	20721	5.00000	5.03
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	36670	5.00000	5.40
5	Vinyl Chloride	62	1.145	1.145	(0.274)	23945	5.00000	5.38(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

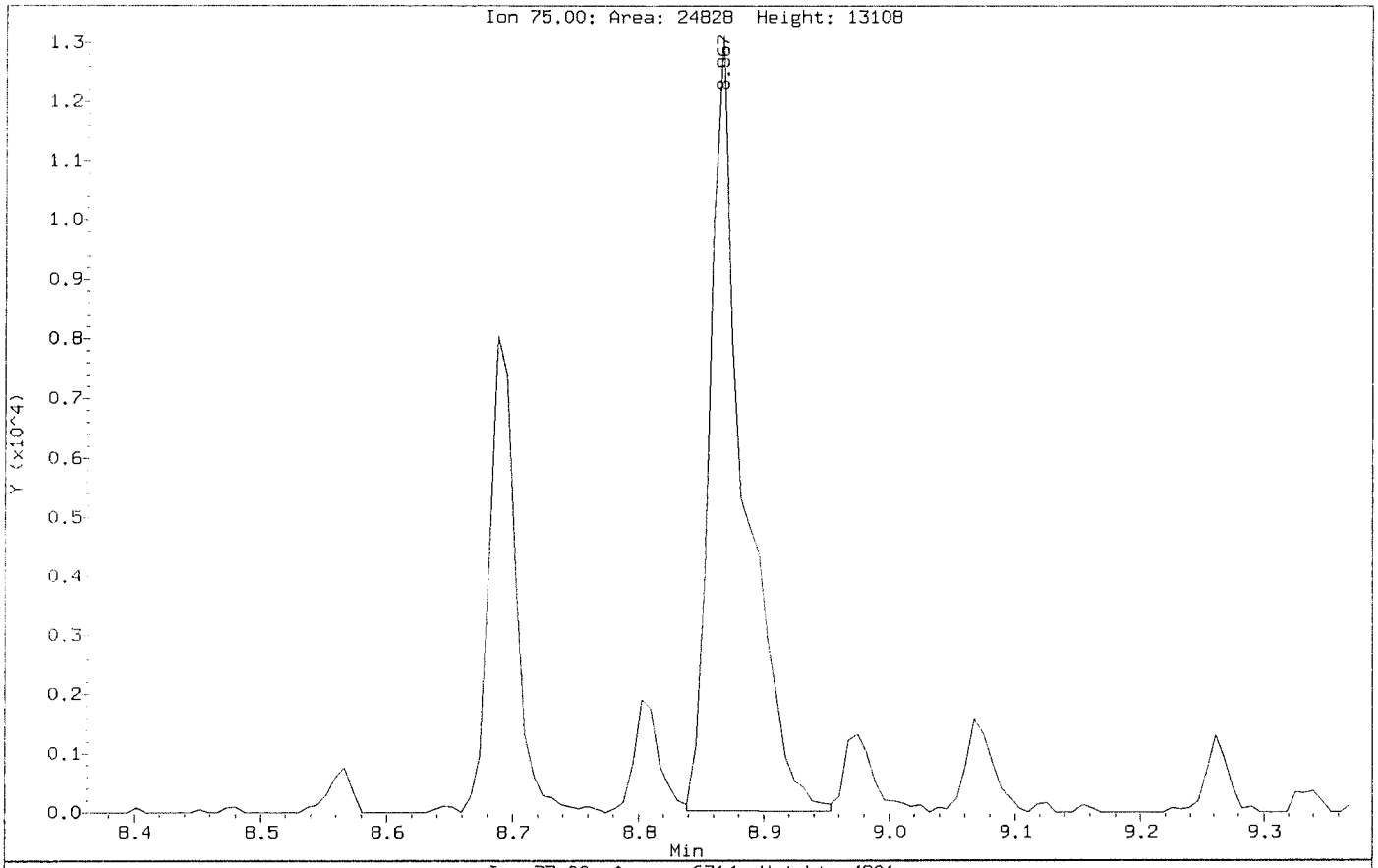


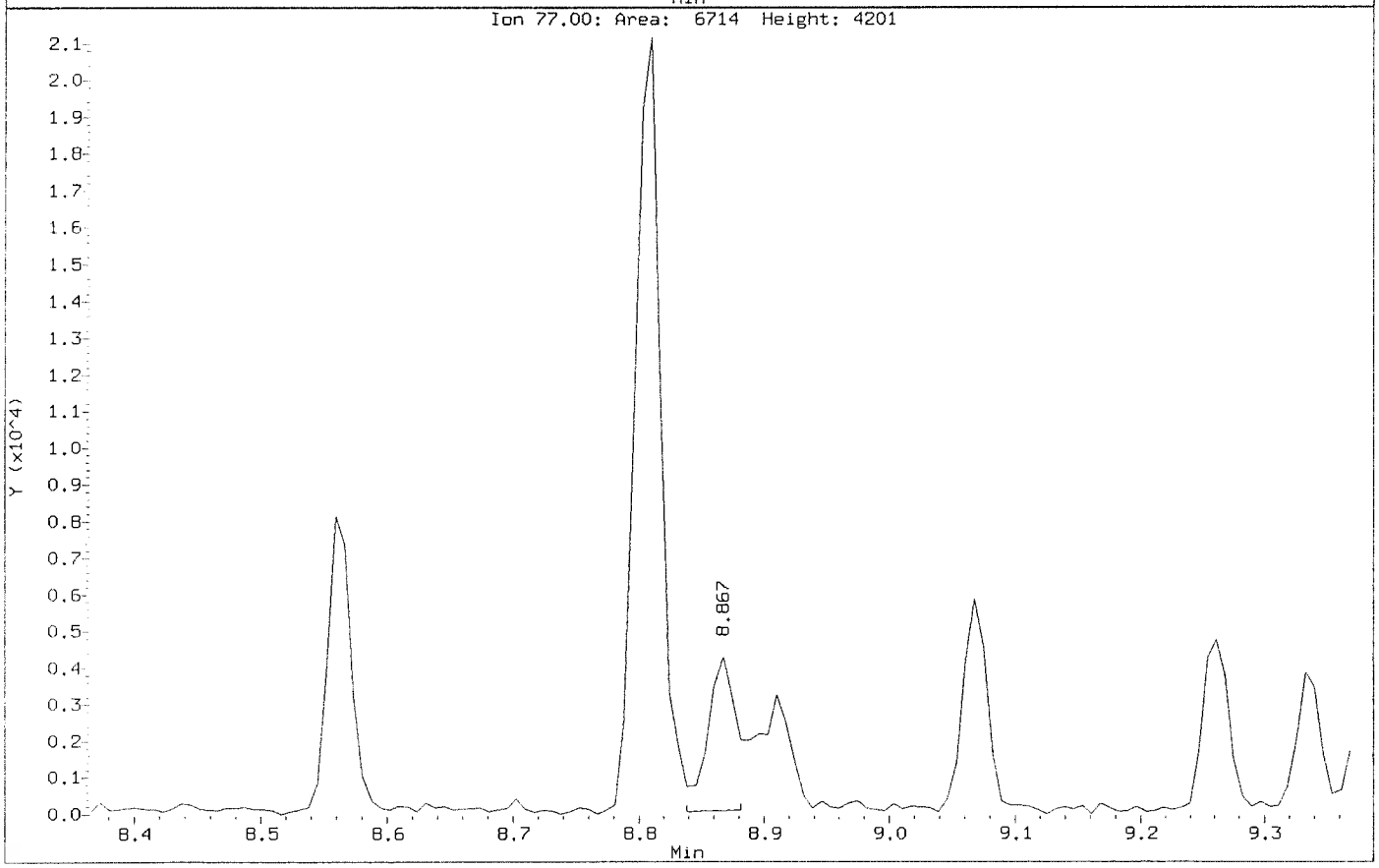
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Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052606.D
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Instrument: voa6.i
Client Sample ID: VSTD005

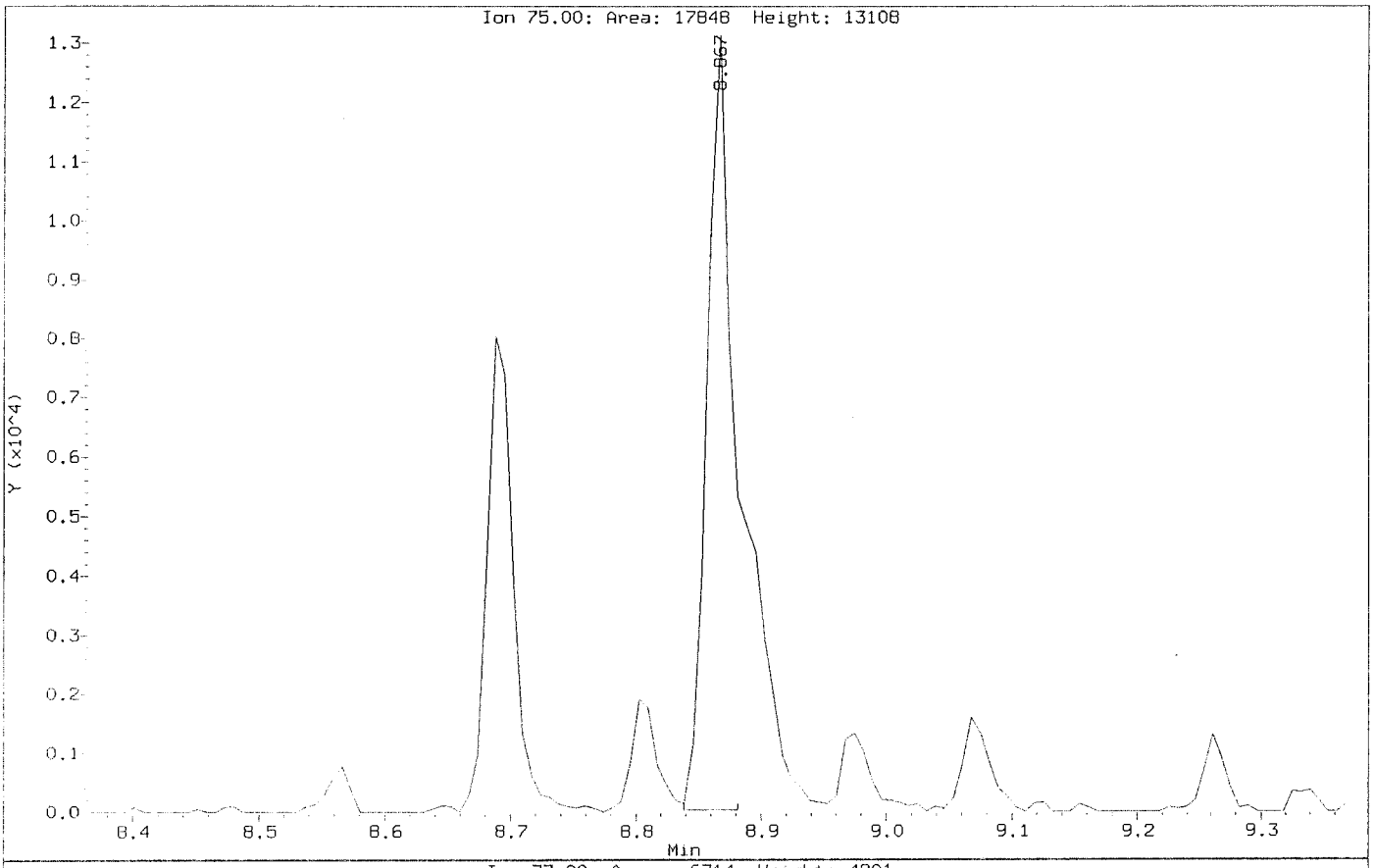
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CAS Number: 96-18-4

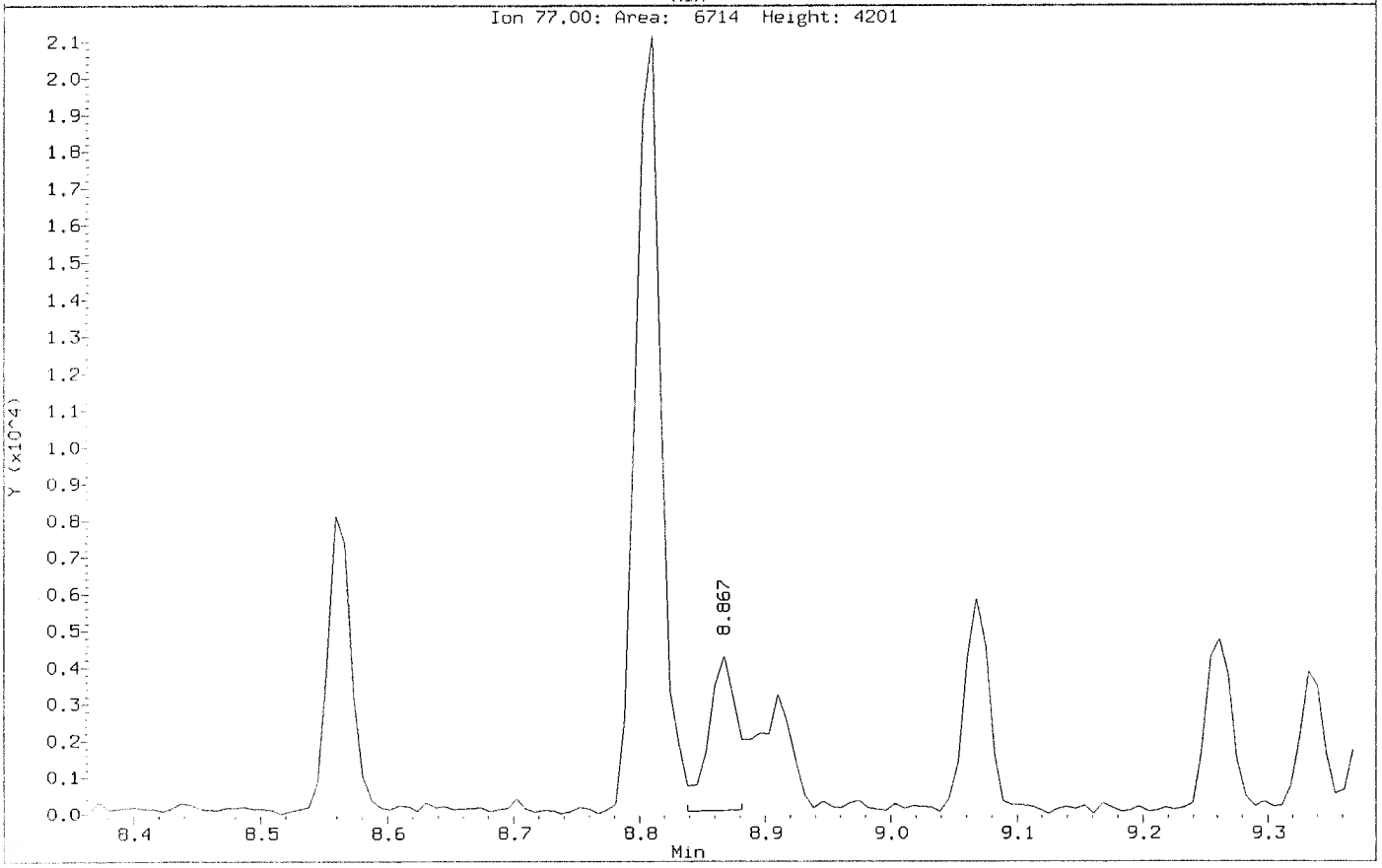




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Client Sample ID: VSTD005

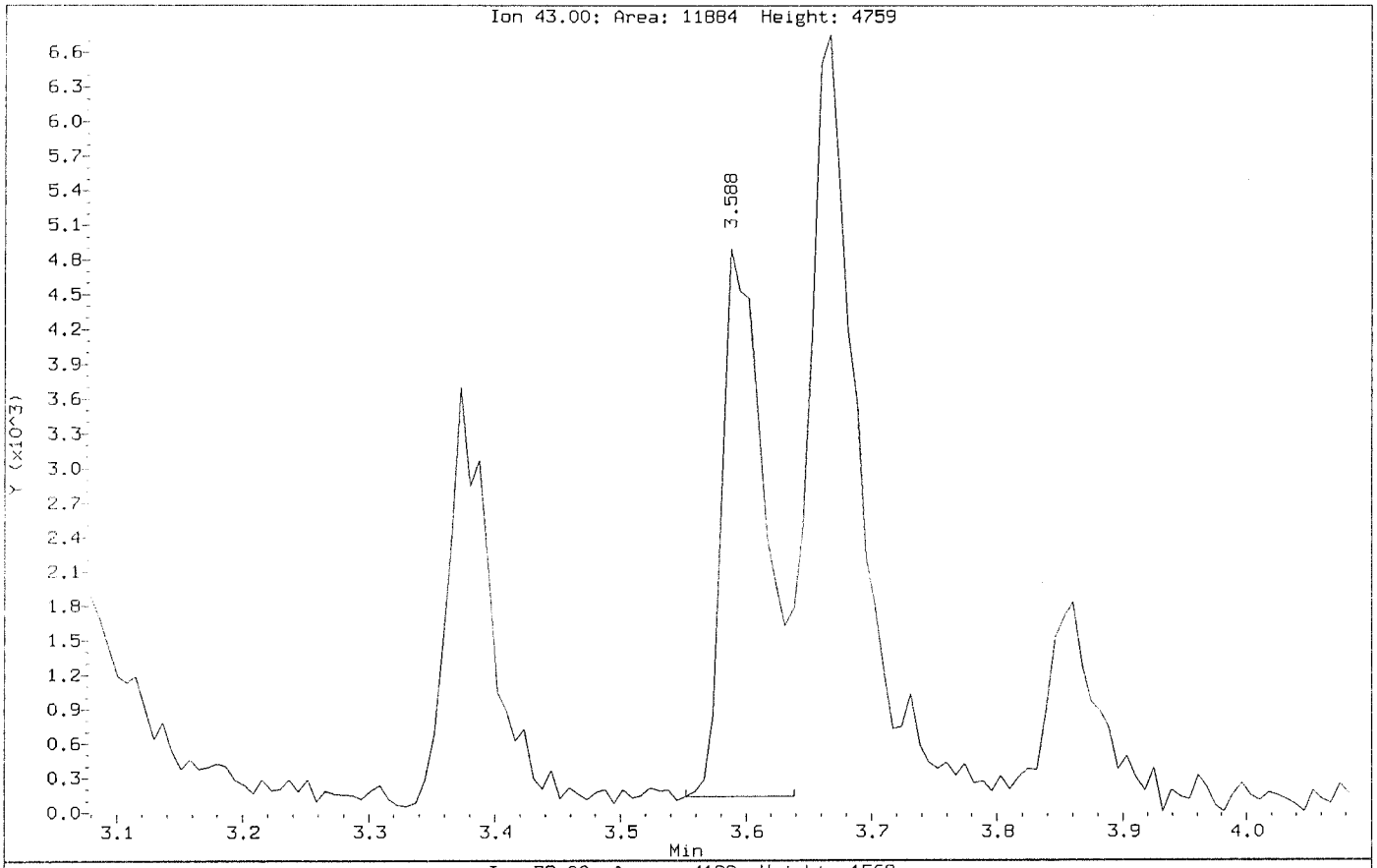
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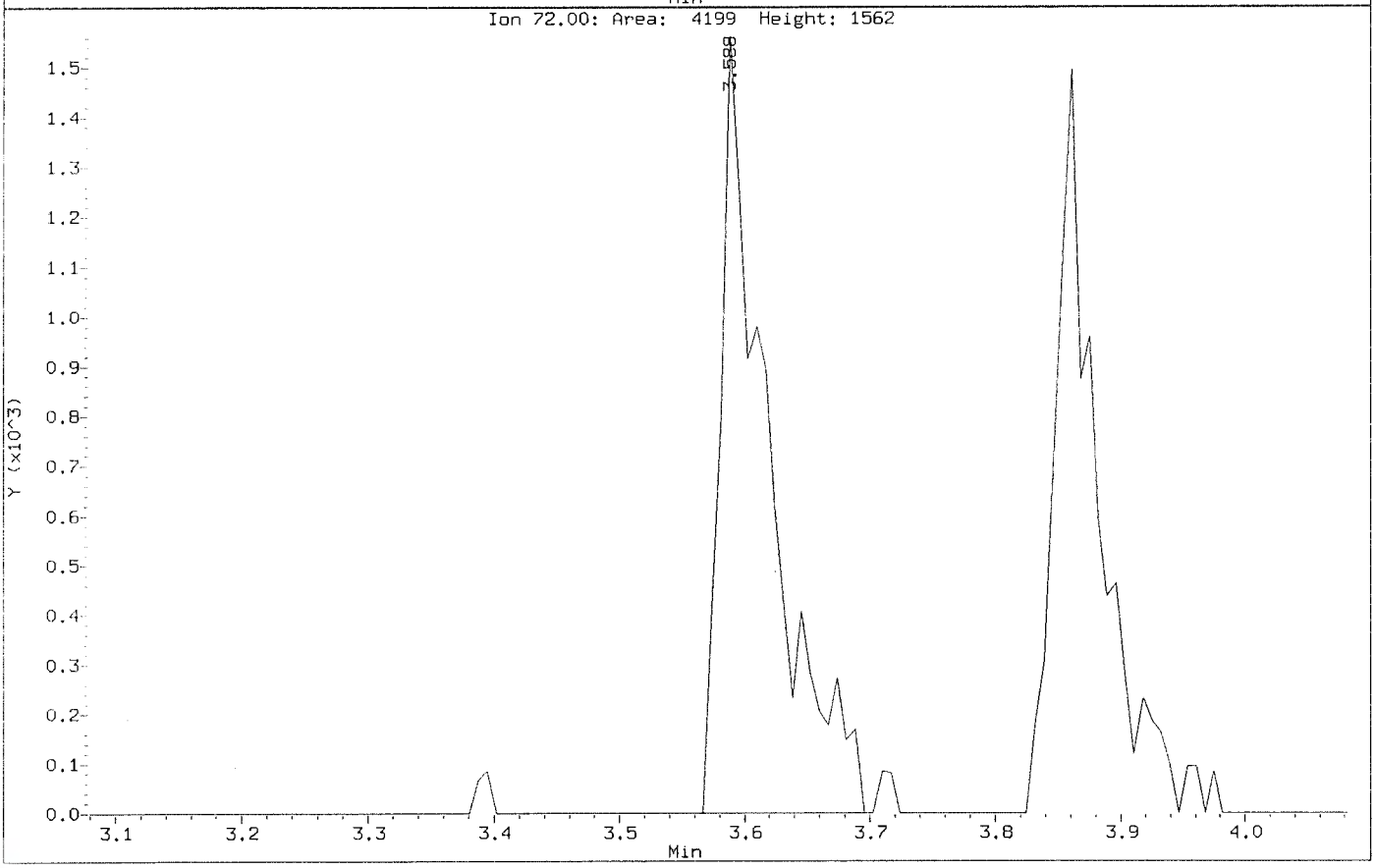




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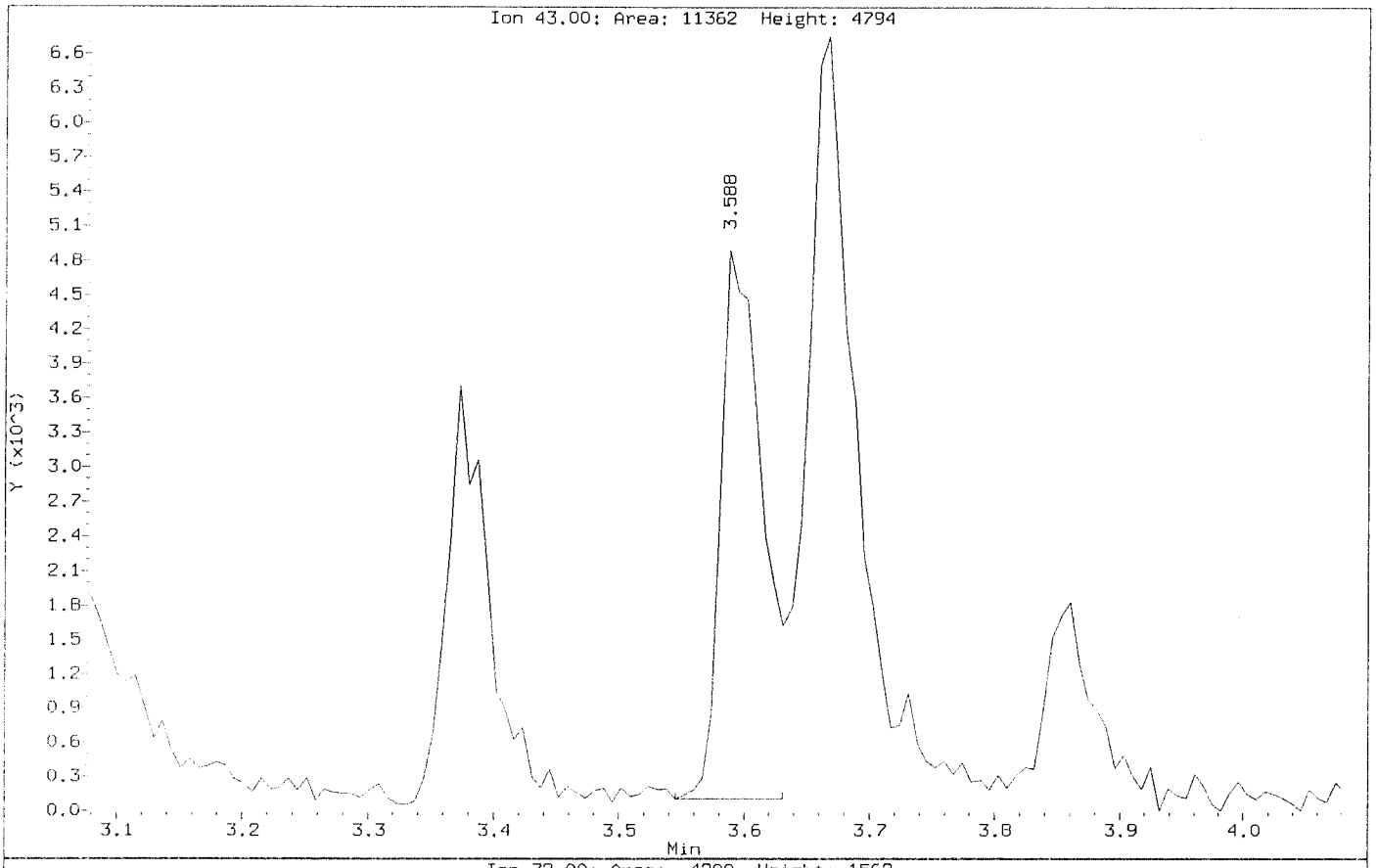
Compound: 2-Butanone
CAS Number: 78-93-3

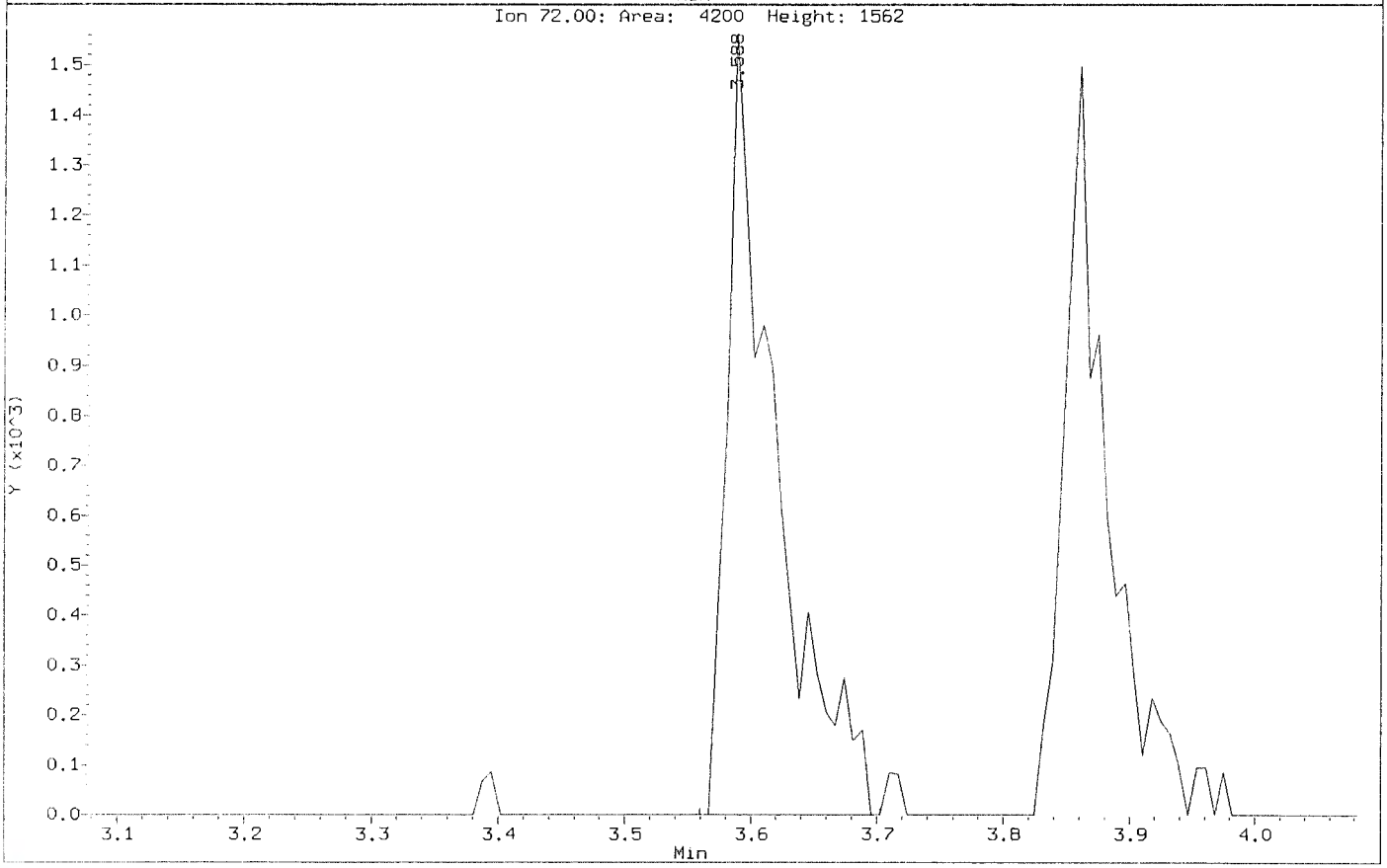




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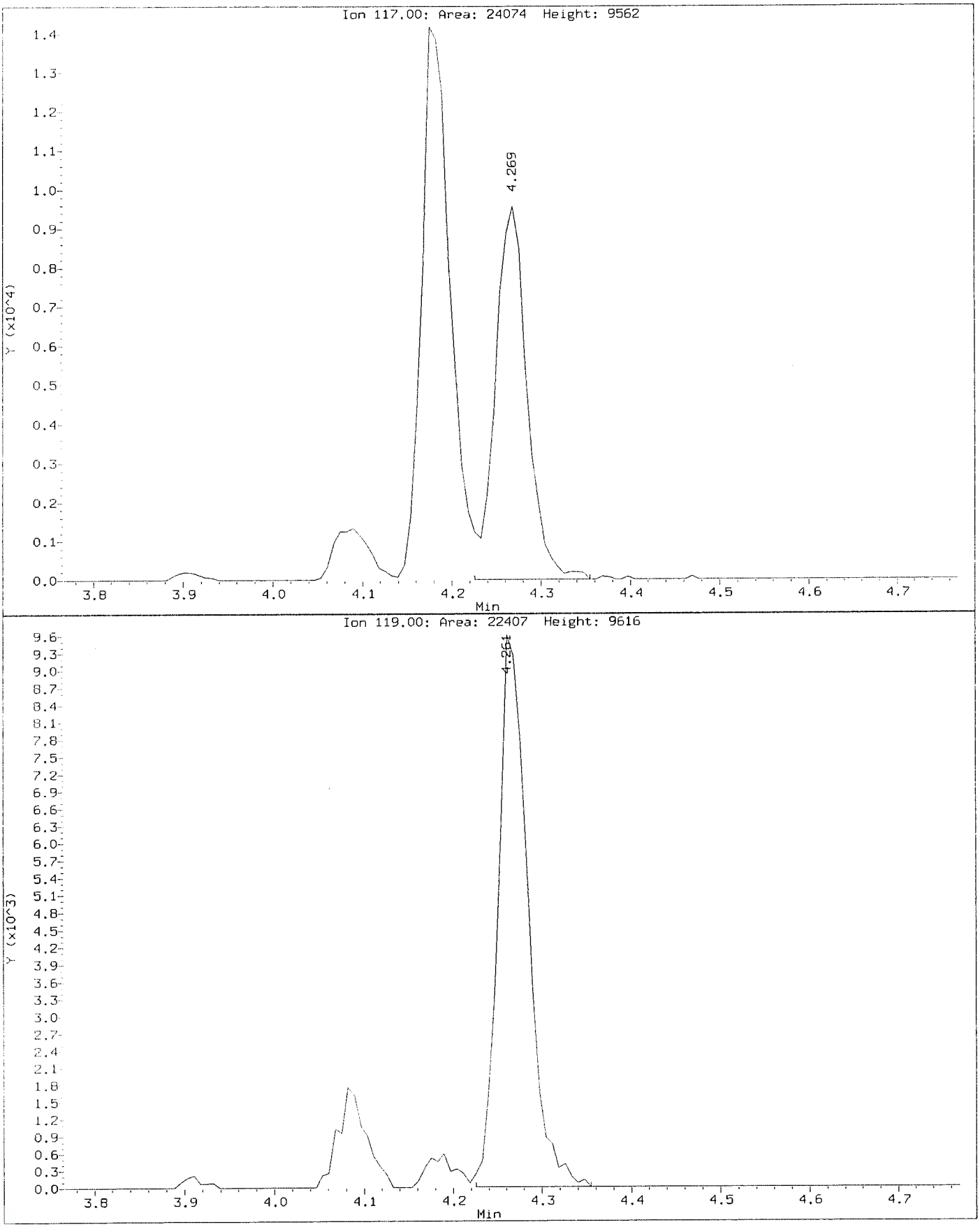
Compound: 2-Butanone
CAS Number: 78-93-3





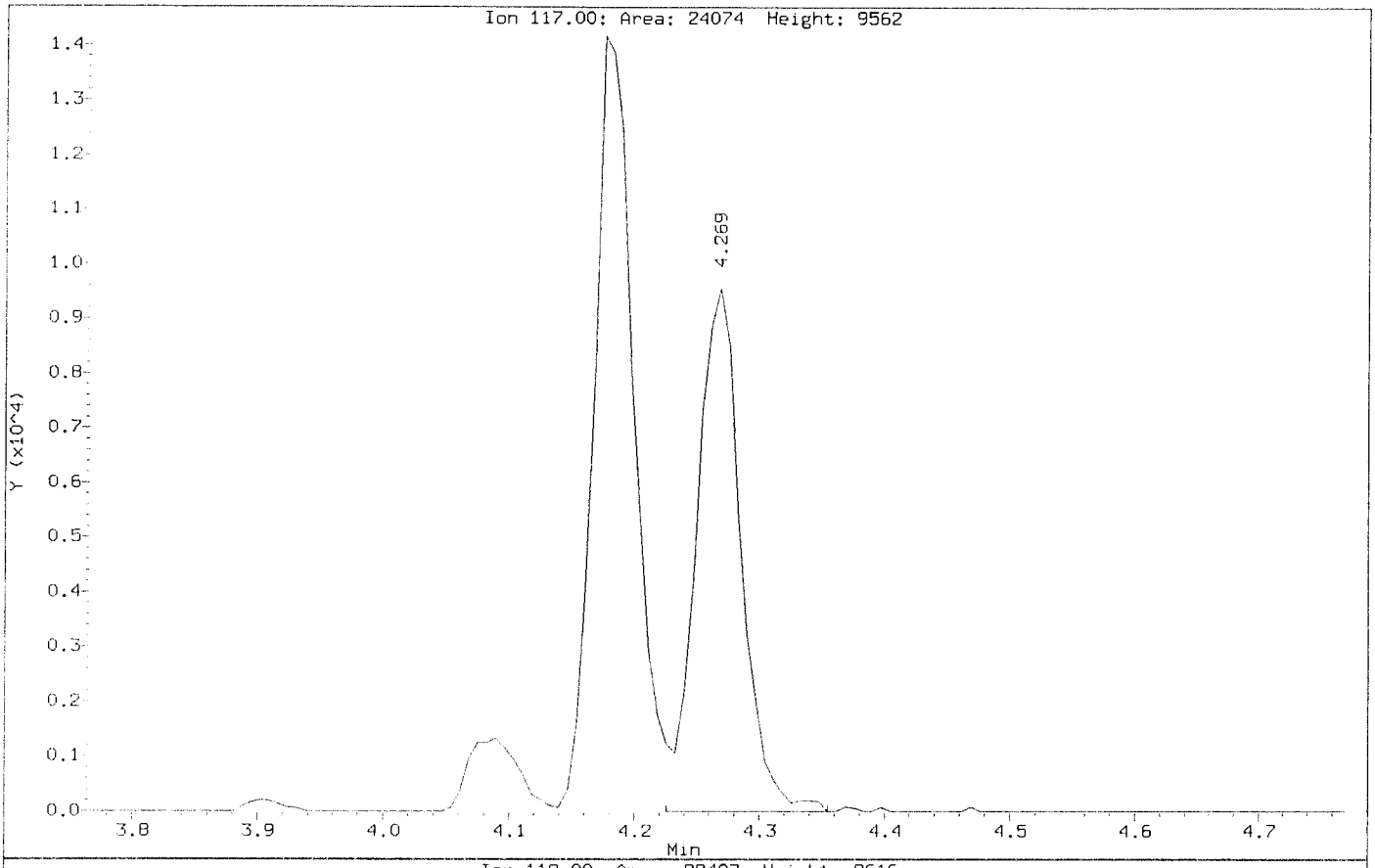
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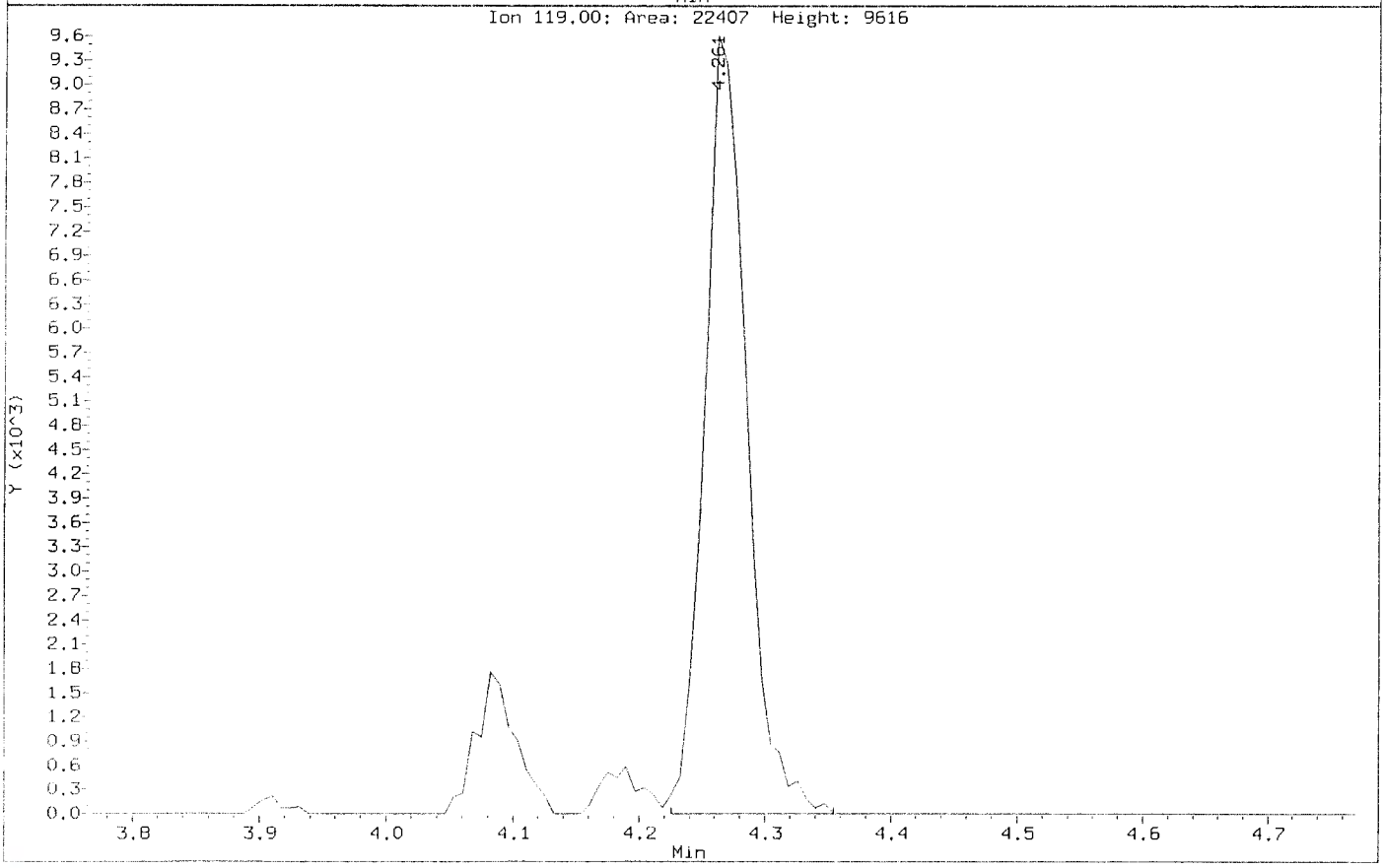
Compound: Carbon Tetrachloride
CAS Number: 56-23-5



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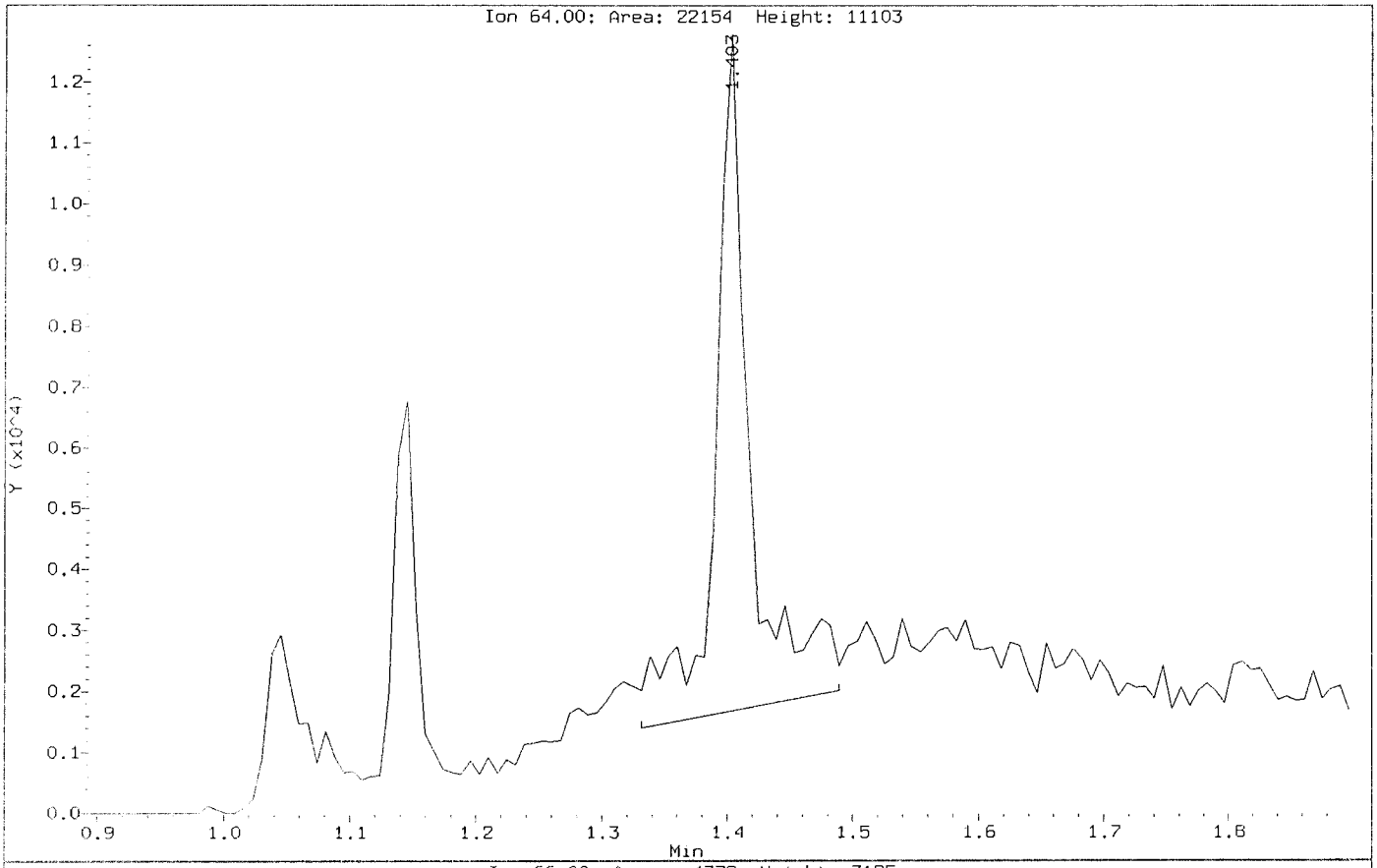
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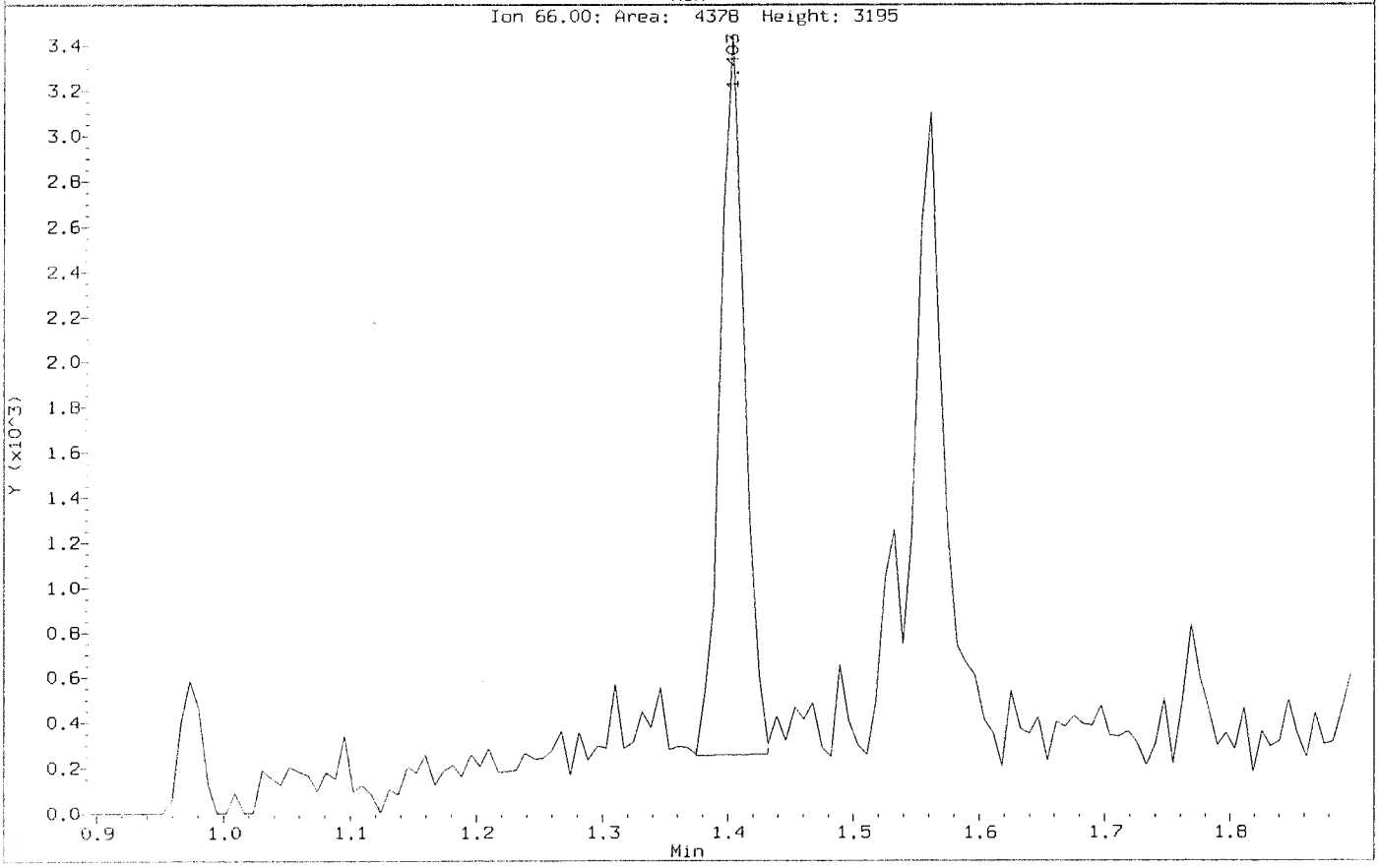




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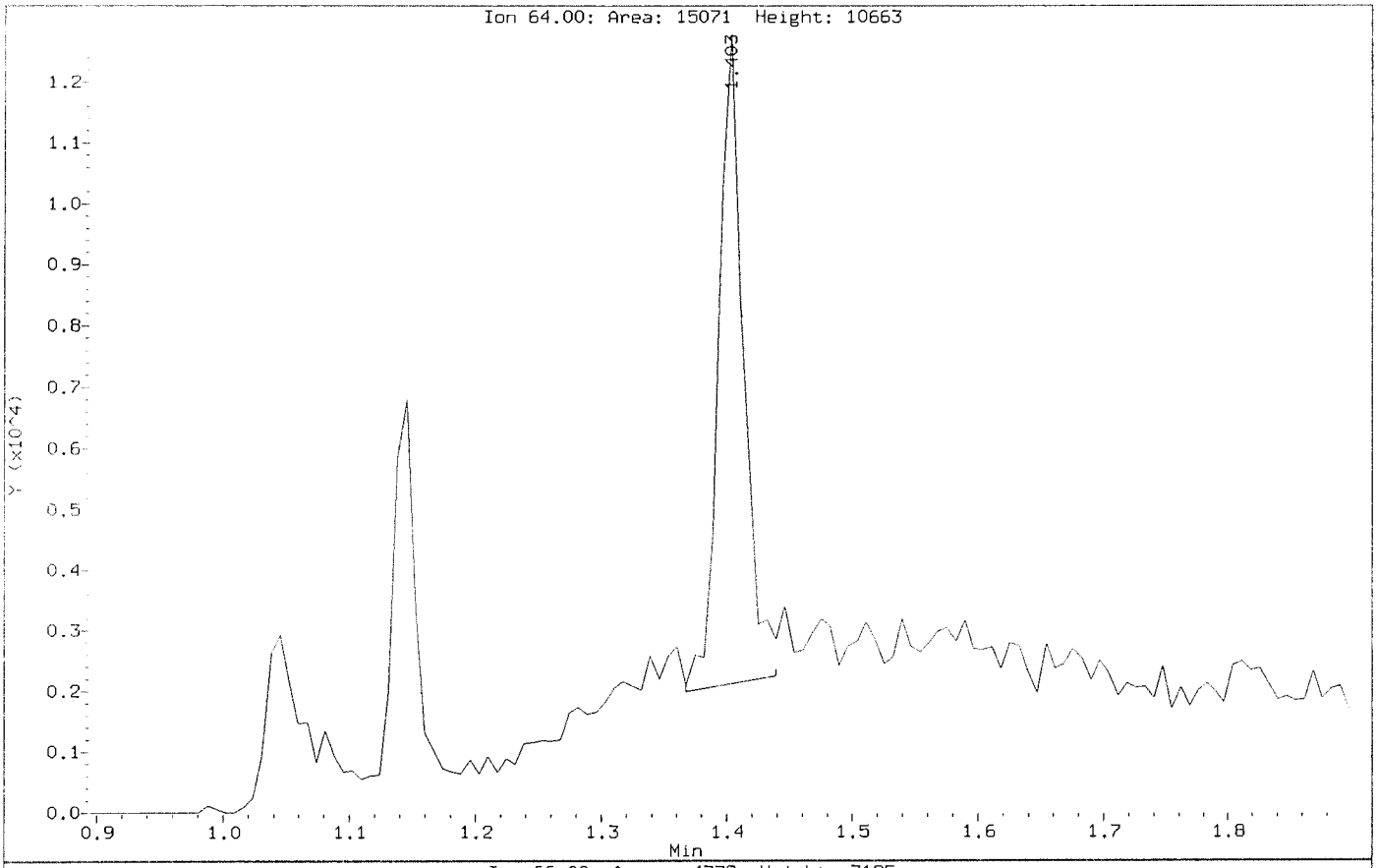
Compound: Chloroethane
CAS Number: 75-00-3

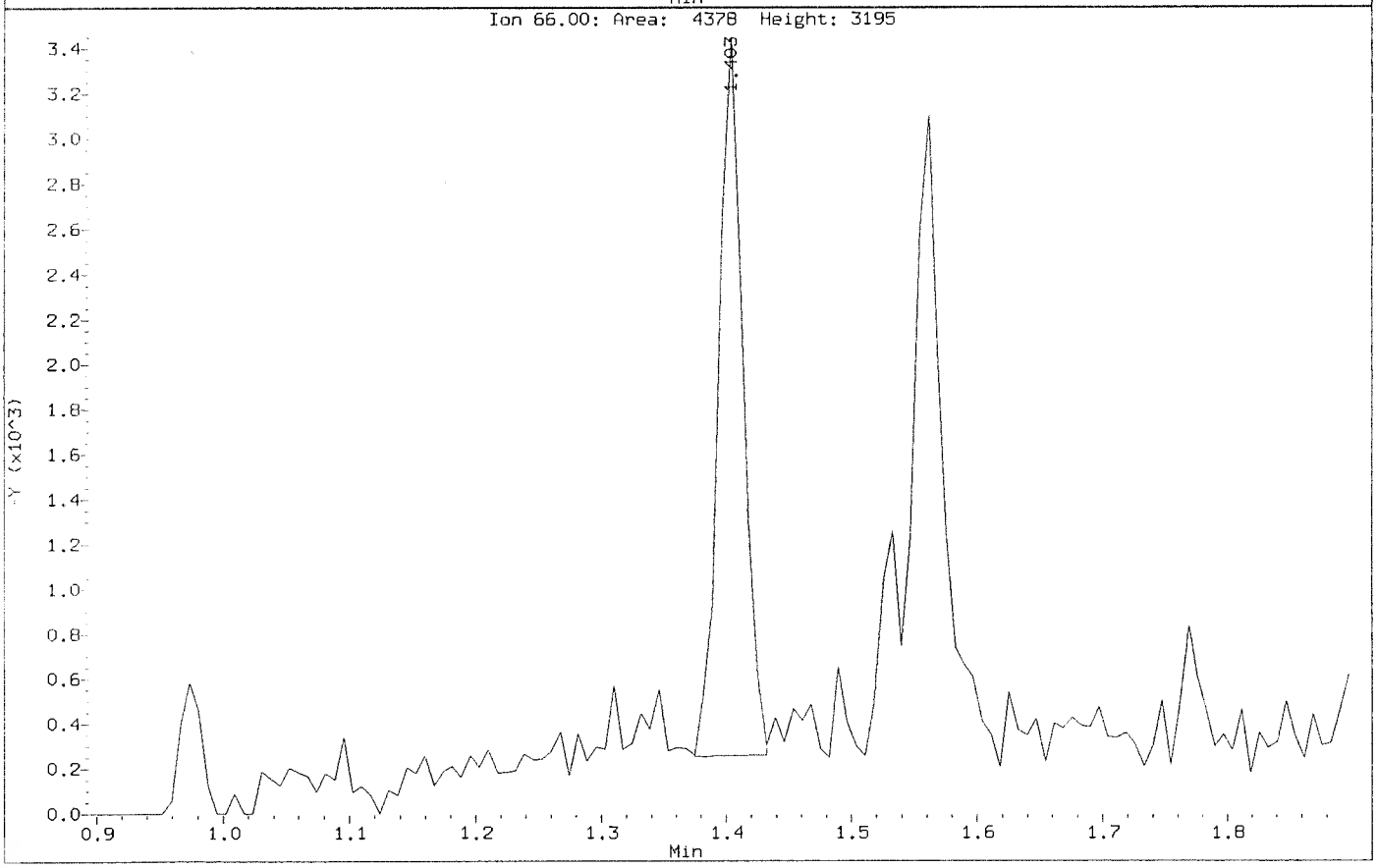




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Instrument: voa6.i
Client Sample ID: VSTD005

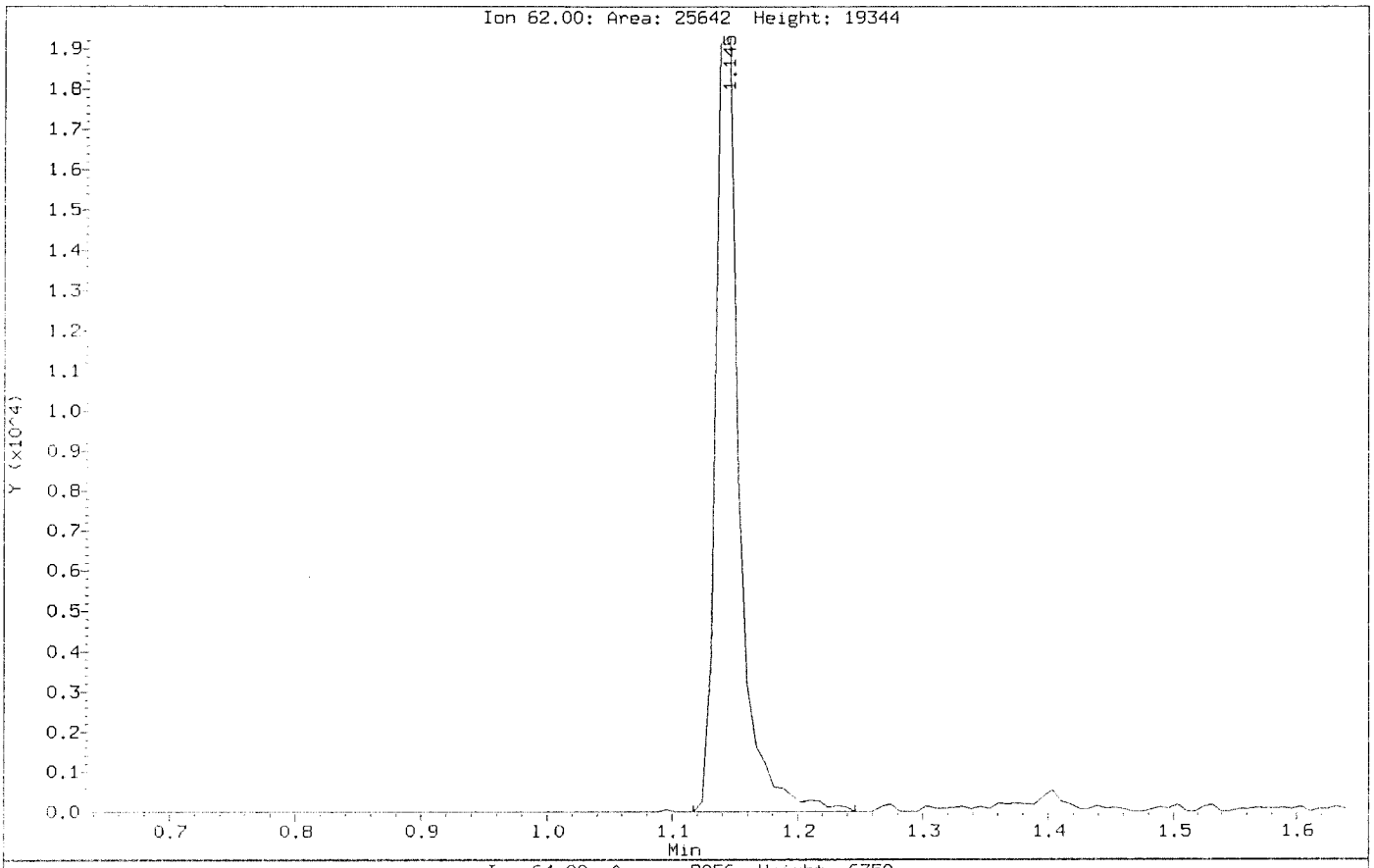
Compound: Chloroethane
CAS Number: 75-00-3

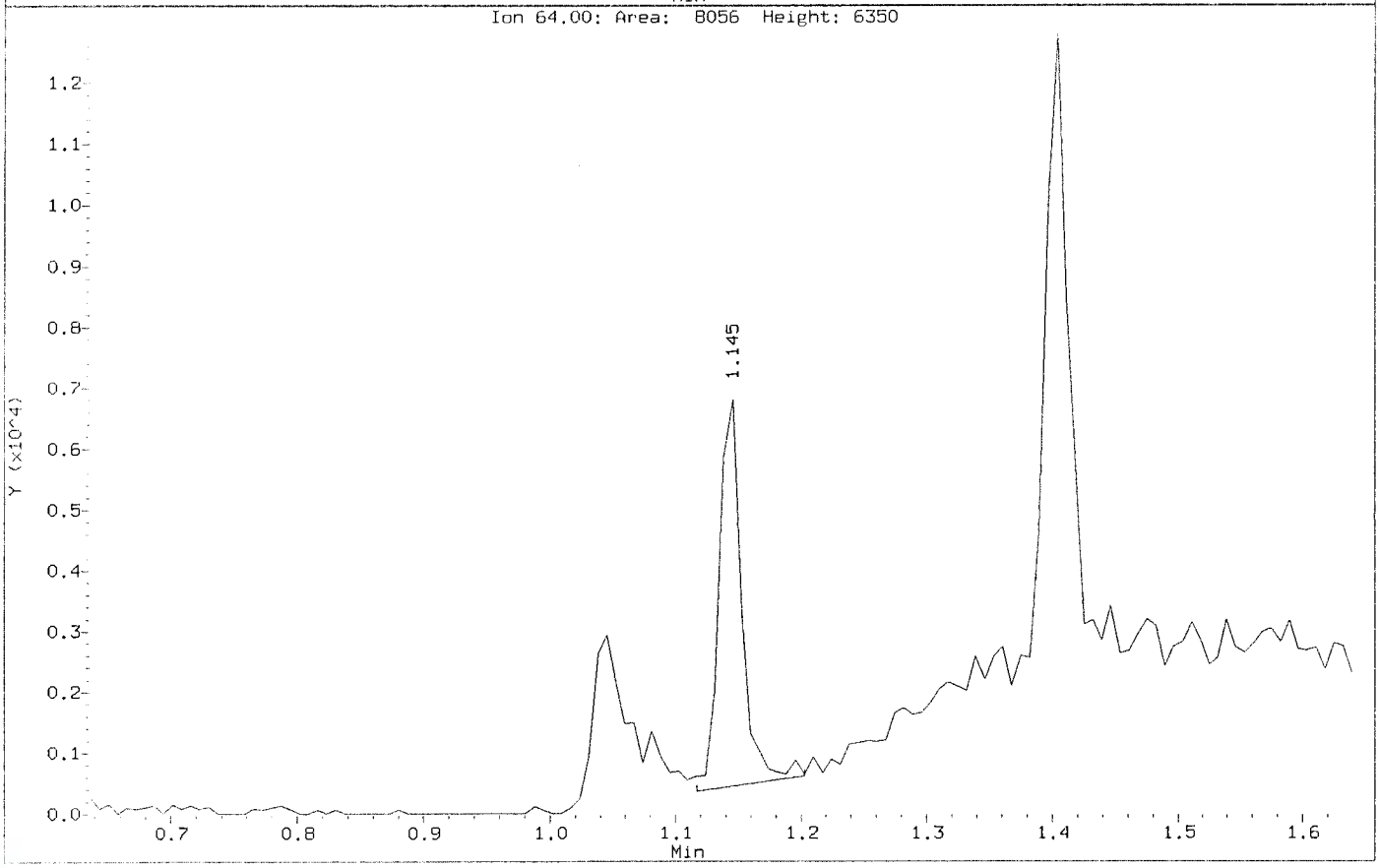




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Instrument: voa6.i
Client Sample ID: VSTD005

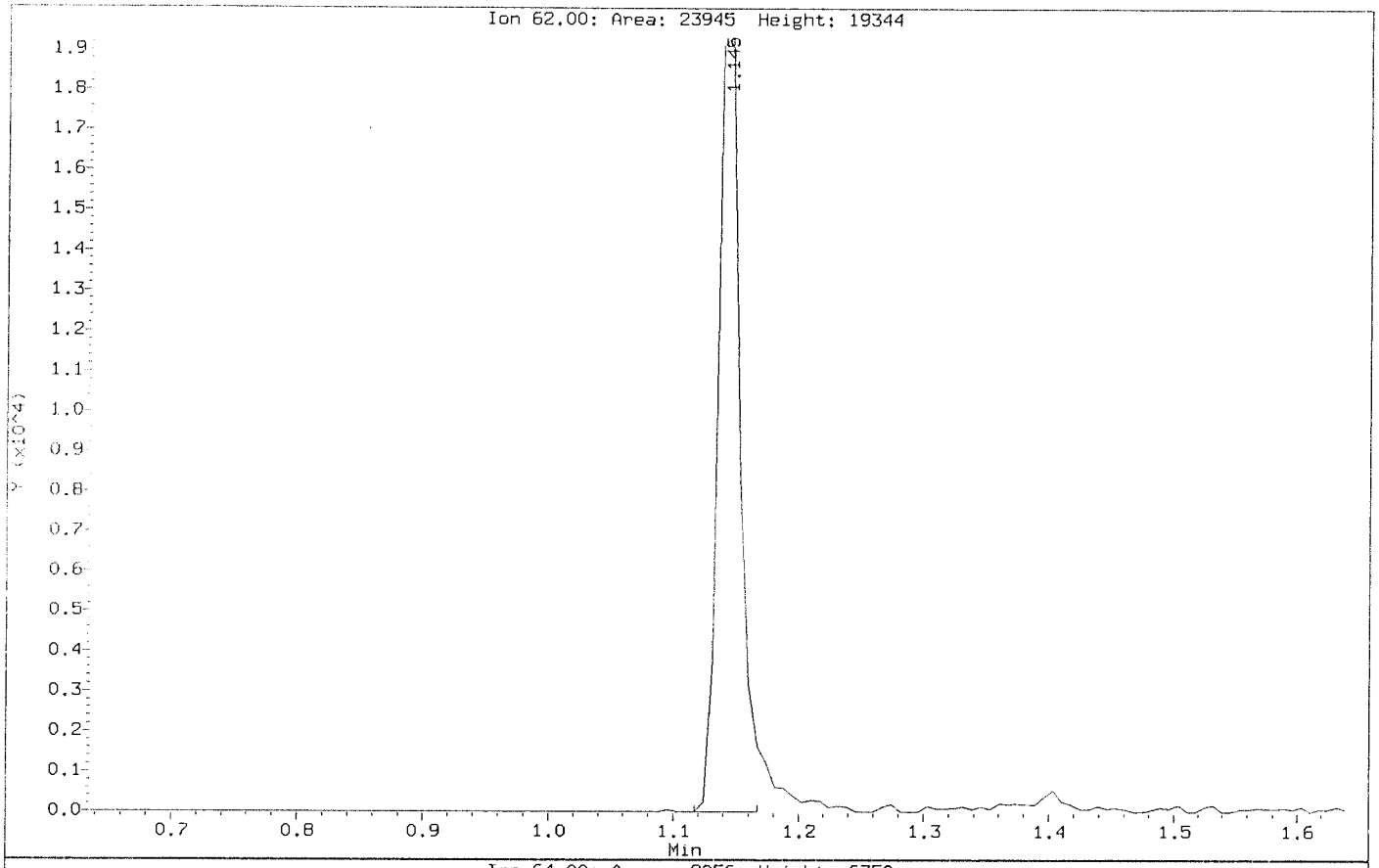
Compound: Vinyl Chloride
CAS Number: 75-01-4

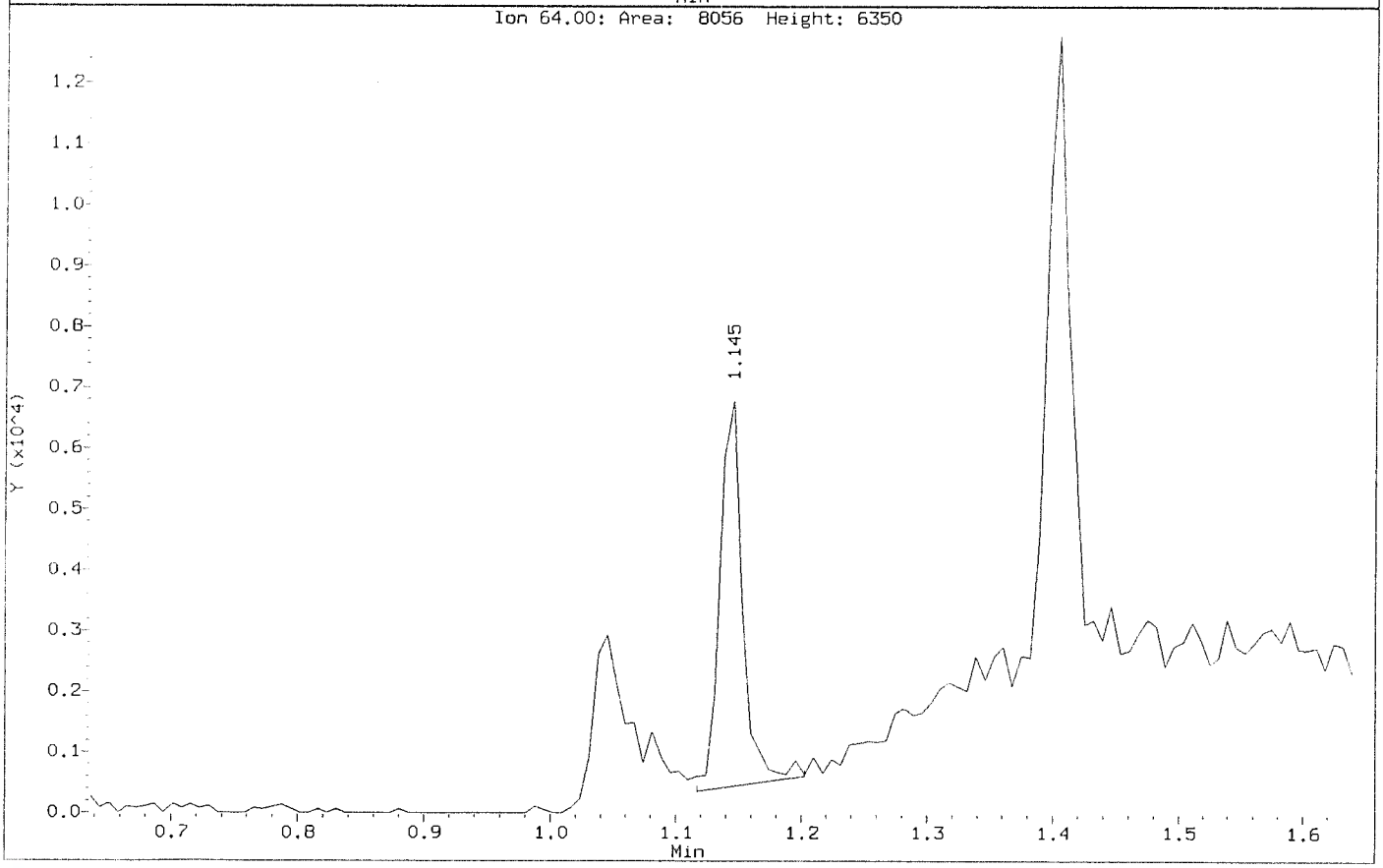




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Injection Date: 26-MAY-2021 14:19
Instrument: voa6.i
Client Sample ID: VSTD005

Compound: Vinyl Chloride
CAS Number: 75-01-4





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052607.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 26-MAY-2021 14:40
Operator : PC Inst ID: voa6.i
Smp Info : VSTD020;VSTD020;1;6;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 14:19 Cal File: X052606.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

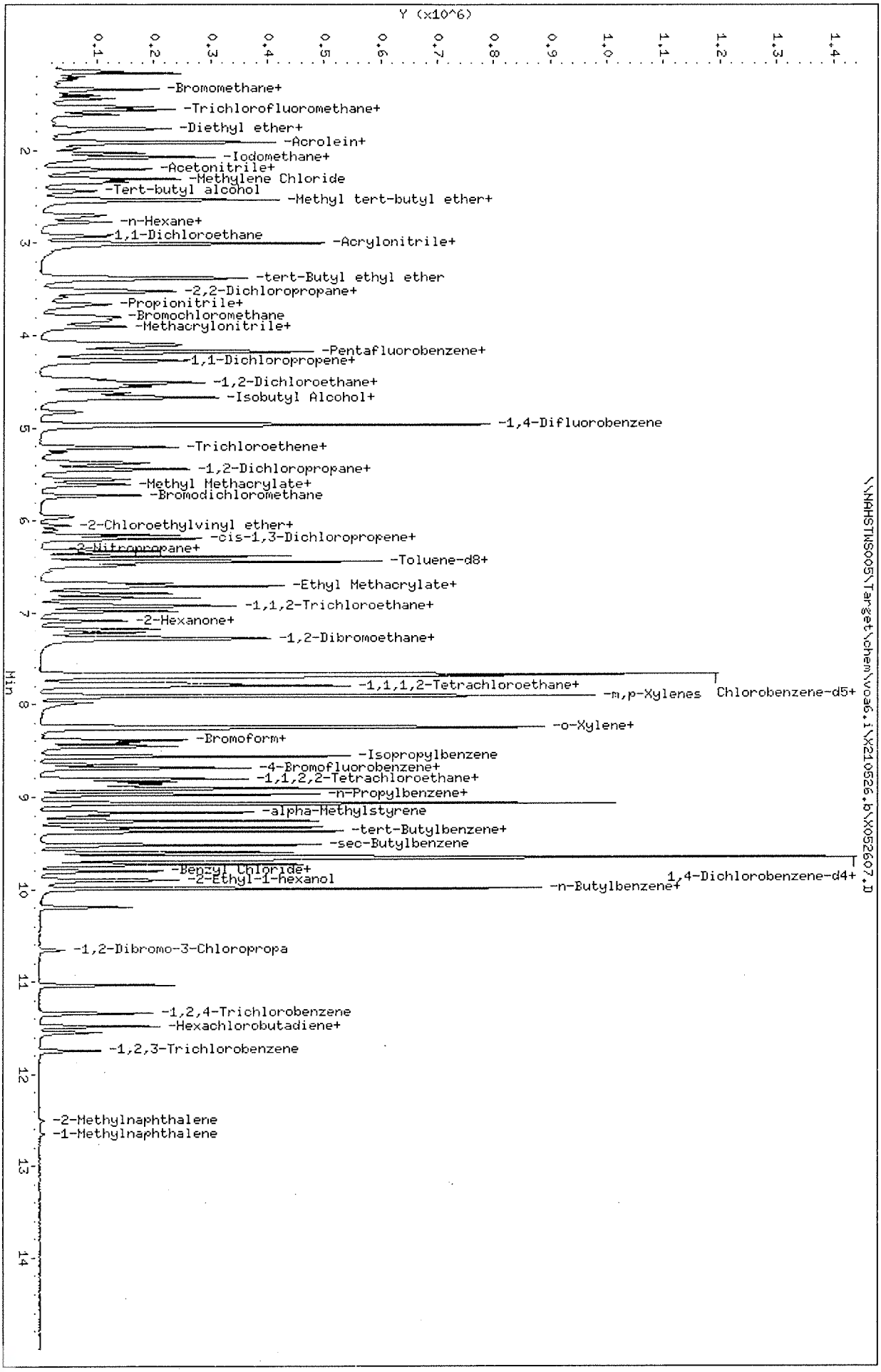
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	399349	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	620725	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	575687	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	297335	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.103	(0.981)	83421	20.0000	21.12
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	79438	20.0000	20.41
$	48 Toluene-d8	98	6.388	6.388	(0.833)	267583	20.0000	18.65
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	97463	20.0000	19.73
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	81457	20.0000	19.13
	31 1,1,1-Trichloroethane	97	4.089	4.089	(0.978)	111104	20.0000	18.82
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	94744	20.0000	22.42
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	60385	20.0000	19.36
	22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	135905	20.0000	19.94
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	78545	20.0000	19.09
	32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	91604	20.0000	19.26
	93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	34932	20.0000	19.40
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	75324	20.0000	20.31(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	59165	20.0000	20.12
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	258314	20.0000	19.04
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	9854	20.0000	21.18
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	81626	20.0000	19.25
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	154085	20.0000	19.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	97430	20.0000	19.69
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	70678	20.0000	19.34
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	254418	20.0000	18.85
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	159109	20.0000	18.97
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	121266	20.0000	19.55
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	165351	20.0000	18.89
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	104699	20.0000	19.16
24	2-Butanone	43	3.580	3.580	(0.856)	47300	40.0000	38.92(H)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	216732	20.0000	19.47
52	2-Hexanone	43	7.090	7.090	(0.924)	83319	40.0000	38.96
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	249789	20.0000	18.84
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	254273	20.0000	18.49
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	124052	40.0000	37.41
10	Acetone	43	1.976	1.976	(0.473)	45478	40.0000	41.28
37	Benzene	78	4.512	4.512	(0.909)	277041	20.0000	19.42
74	Bromobenzene	156	8.802	8.802	(0.911)	97493	20.0000	19.76
29	Bromochloromethane	128	3.795	3.795	(0.908)	48508	20.0000	20.08
39	Bromodichloromethane	83	5.729	5.729	(1.154)	104002	20.0000	19.48
66	Bromoform	173	8.408	8.408	(1.096)	59434	20.0000	18.51
6	Bromomethane	94	1.338	1.338	(0.320)	81986	20.0000	19.96
19	Carbon Disulfide	76	2.069	2.069	(0.495)	372089	40.0000	38.14
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	95975	20.0000	18.65(H)
59	Chlorobenzene	112	7.692	7.692	(1.003)	222059	20.0000	18.52
7	Chloroethane	64	1.403	1.403	(0.336)	58283	20.0000	19.98
28	Chloroform	83	3.910	3.910	(0.935)	135997	20.0000	19.36
3	Chloromethane	50	1.073	1.073	(0.257)	83965	20.0000	21.80
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	85550	20.0000	20.43
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	127546	20.0000	20.28
55	Dibromochloromethane	129	7.176	7.176	(0.936)	91711	20.0000	19.35
44	Dibromomethane	93	5.550	5.550	(1.118)	56237	20.0000	20.48
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	78750	20.0000	21.34
61	Ethylbenzene	106	7.799	7.799	(1.017)	107937	20.0000	19.52
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	34297	20.0000	19.77
67	Isopropylbenzene	105	8.559	8.559	(1.116)	310873	20.0000	18.40
62	m,p-Xylenes	106	7.907	7.907	(1.031)	270046	40.0000	37.46
17	Methylene Chloride	84	2.305	2.305	(0.551)	78742	20.0000	20.99
87	n-Butylbenzene	91	9.991	9.991	(1.034)	216151	20.0000	18.68
73	n-Propylbenzene	91	8.910	8.910	(0.922)	351677	20.0000	18.96
92	Naphthalene	128	11.546	11.546	(1.195)	87321	20.0000	20.55
63	o-Xylene	106	8.244	8.244	(1.075)	131590	20.0000	18.72
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	292609	20.0000	18.74
64	Styrene	104	8.258	8.258	(1.077)	219724	20.0000	18.70
78	tert-Butylbenzene	119	9.332	9.332	(0.966)	220623	20.0000	19.06
56	Tetrachloroethene	164	6.926	6.926	(0.903)	64343	20.0000	18.15
50	Toluene	91	6.446	6.446	(0.840)	307300	20.0000	18.28
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	70656	20.0000	18.94
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	107611	20.0000	19.83
38	Trichloroethene	130	5.206	5.206	(1.049)	83800	20.0000	19.67
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	139135	20.0000	19.30
5	Vinyl Chloride	62	1.138	1.138	(0.272)	91766	20.0000	19.41

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

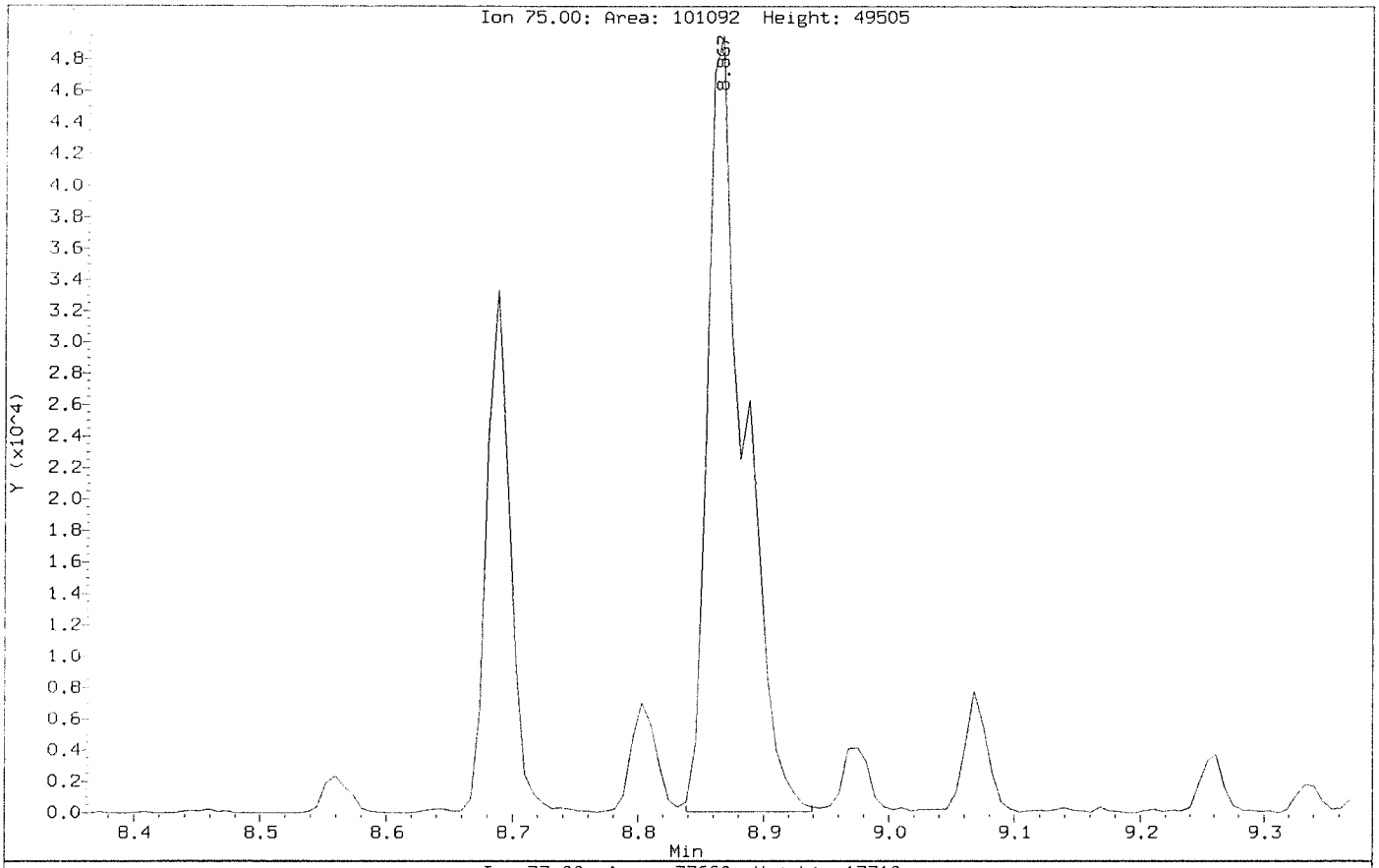


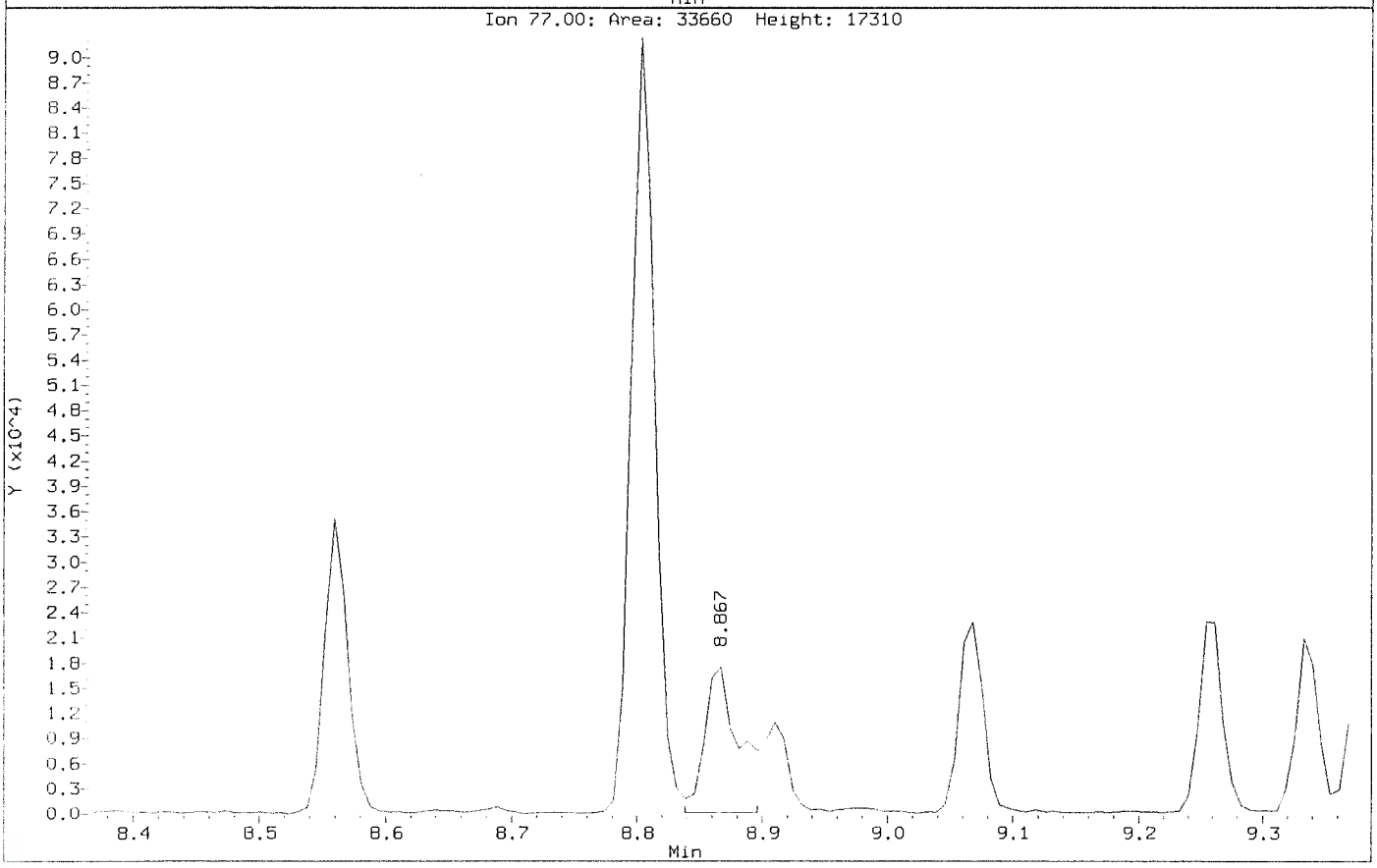
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Client ID: VSTD020
Sample Info: VSTD020;VSTD020;1;6;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052607.D
Injection Date: 26-MAY-2021 14:40
Instrument: voa6.i
Client Sample ID: VSTD020

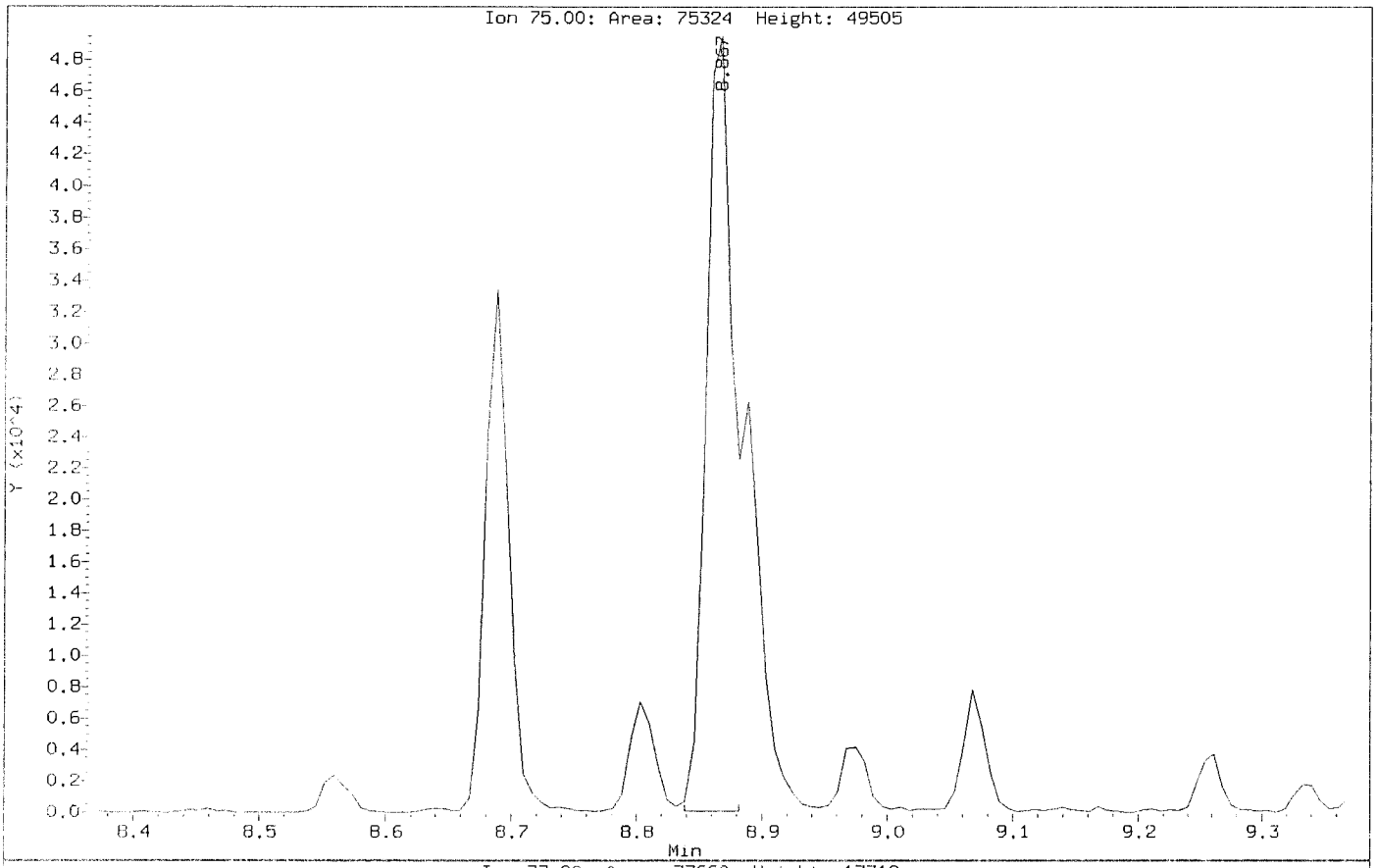
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CAS Number: 96-18-4

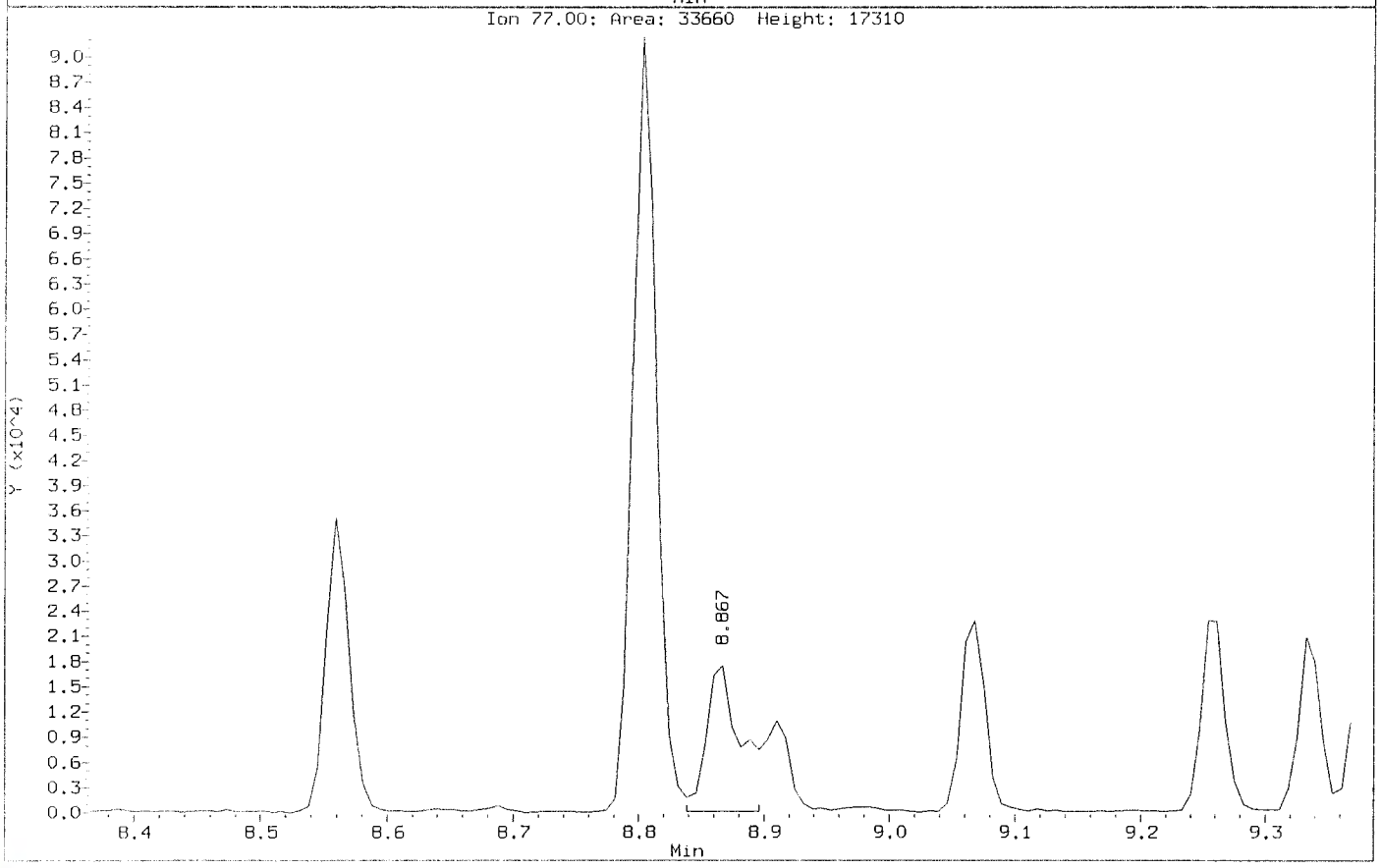




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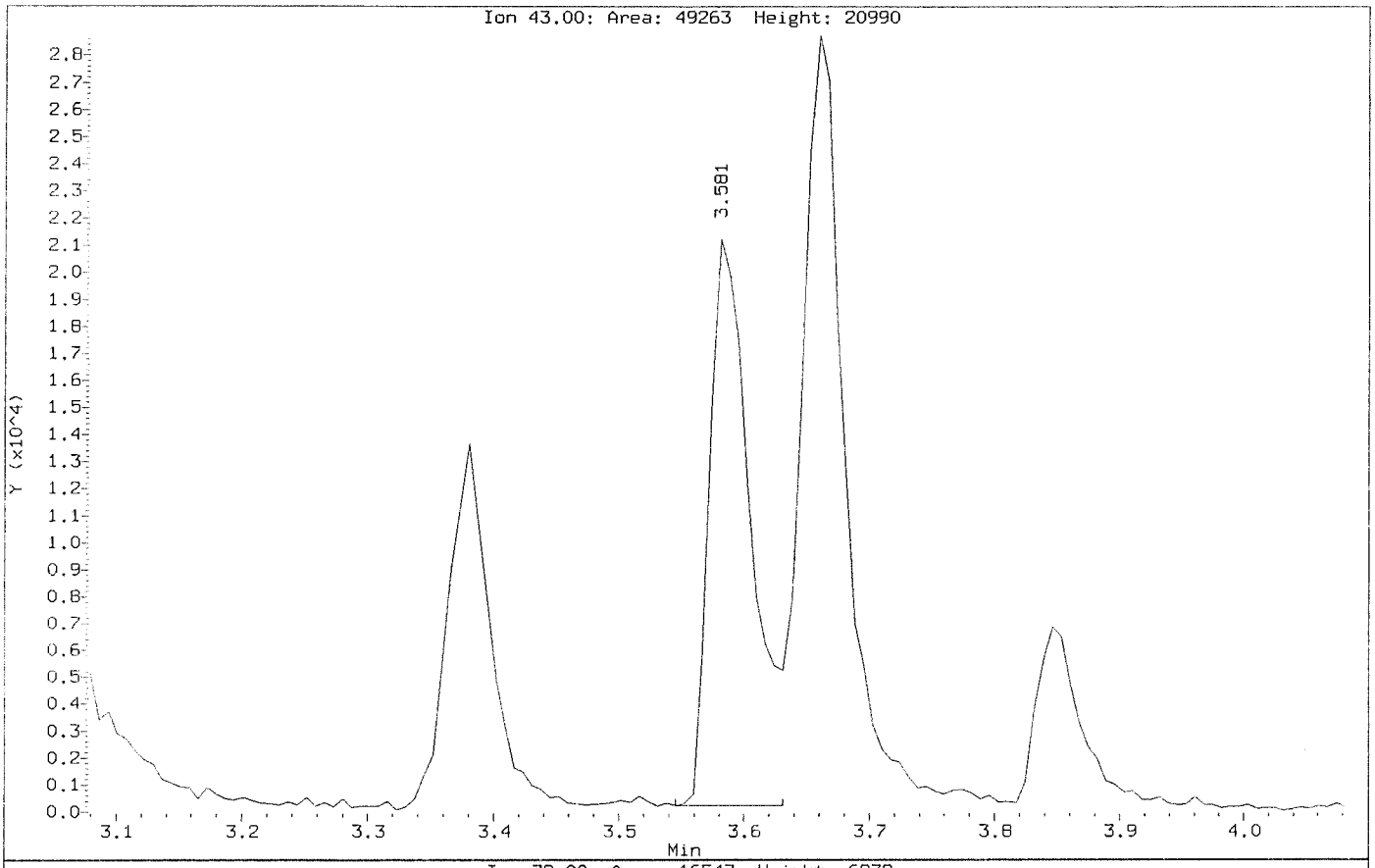
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

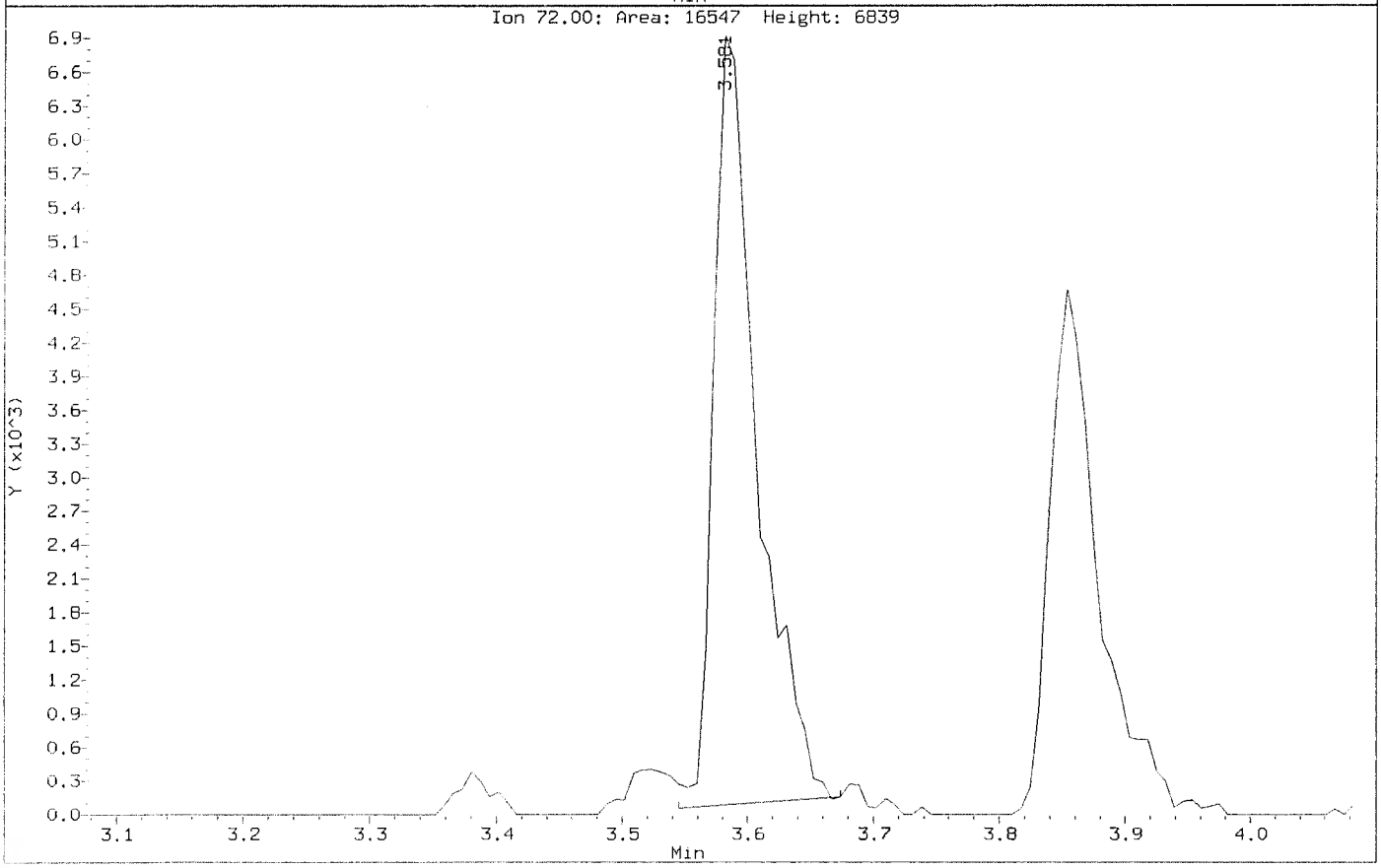




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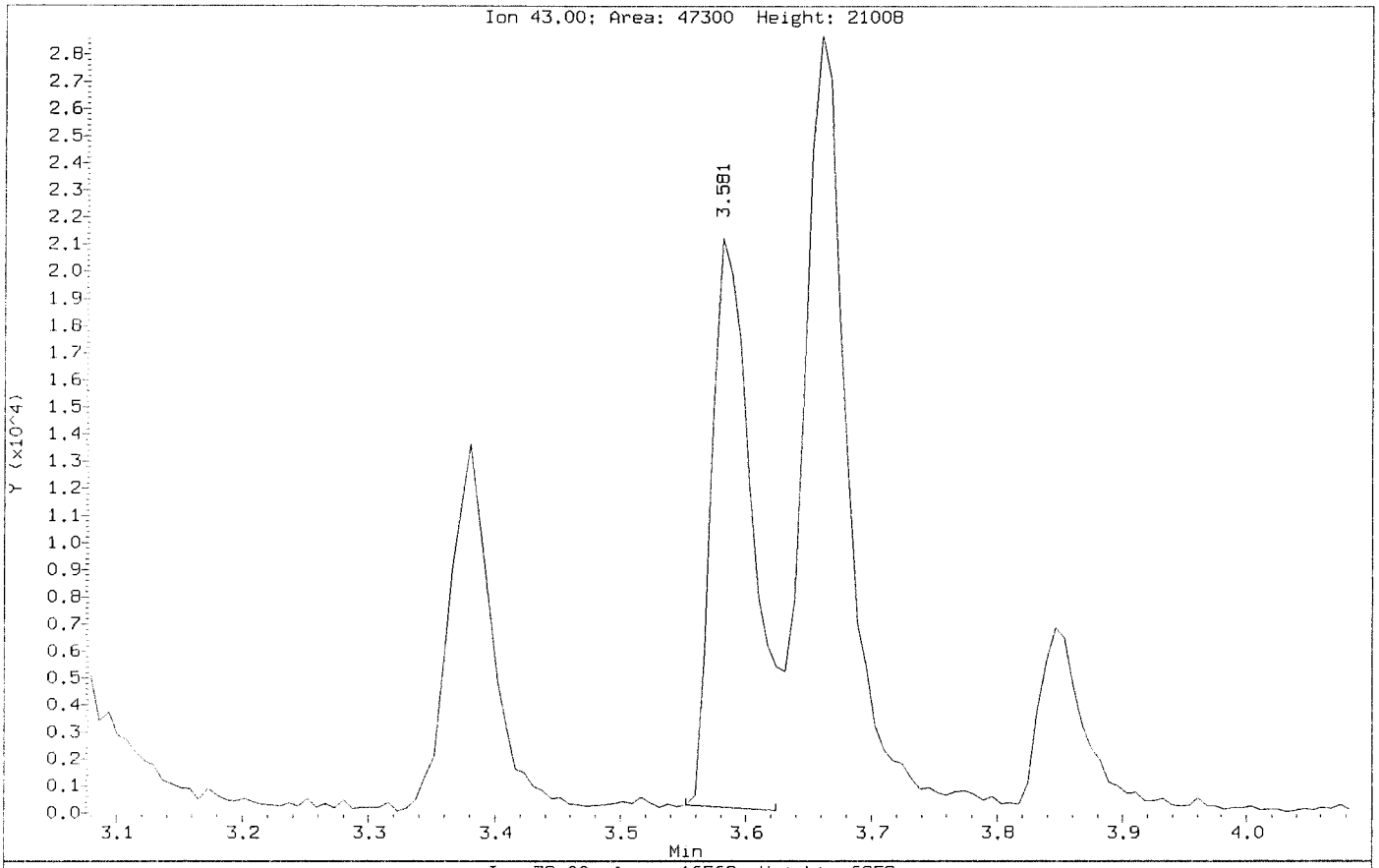
Compound: 2-Butanone
CAS Number: 78-93-3

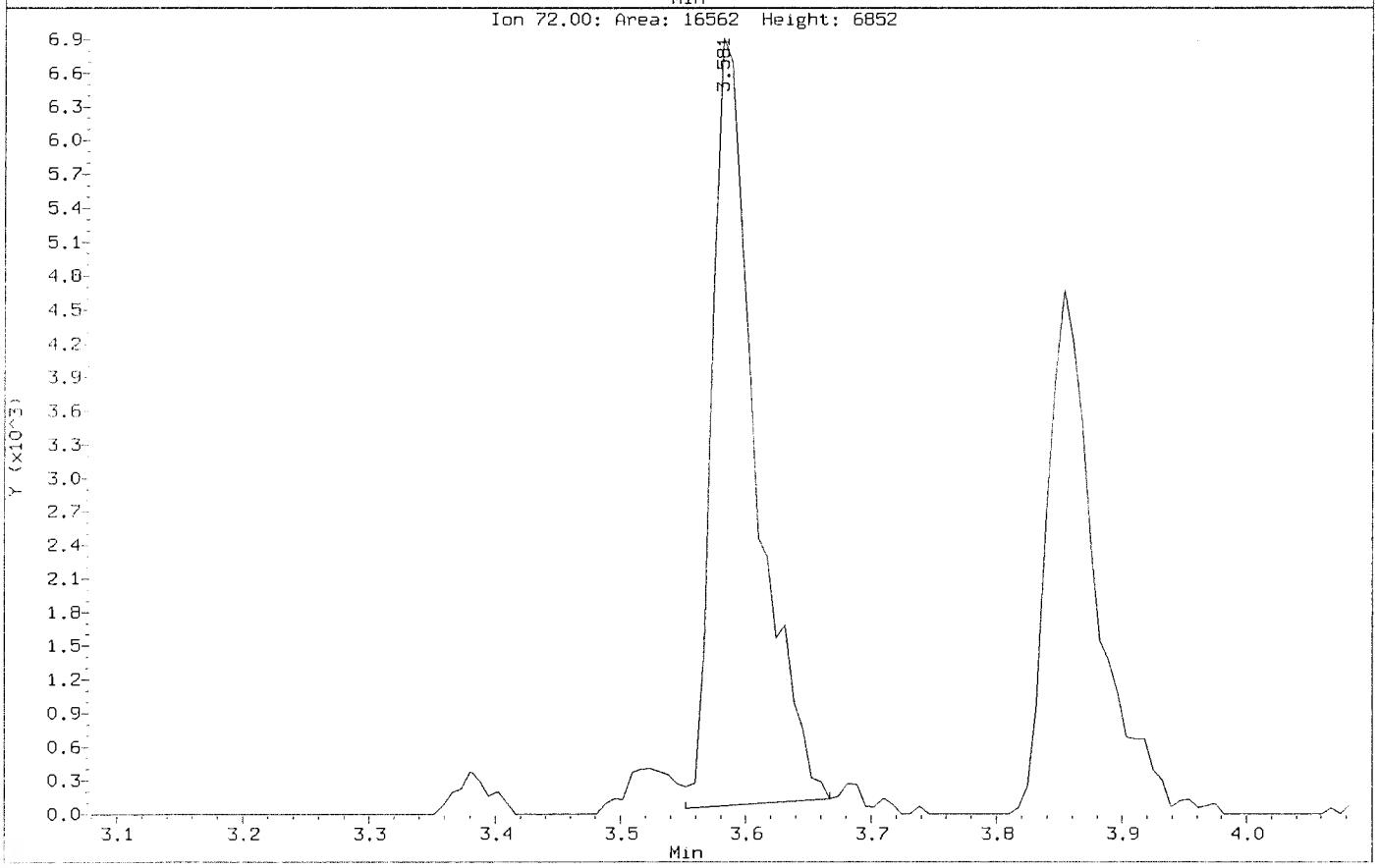




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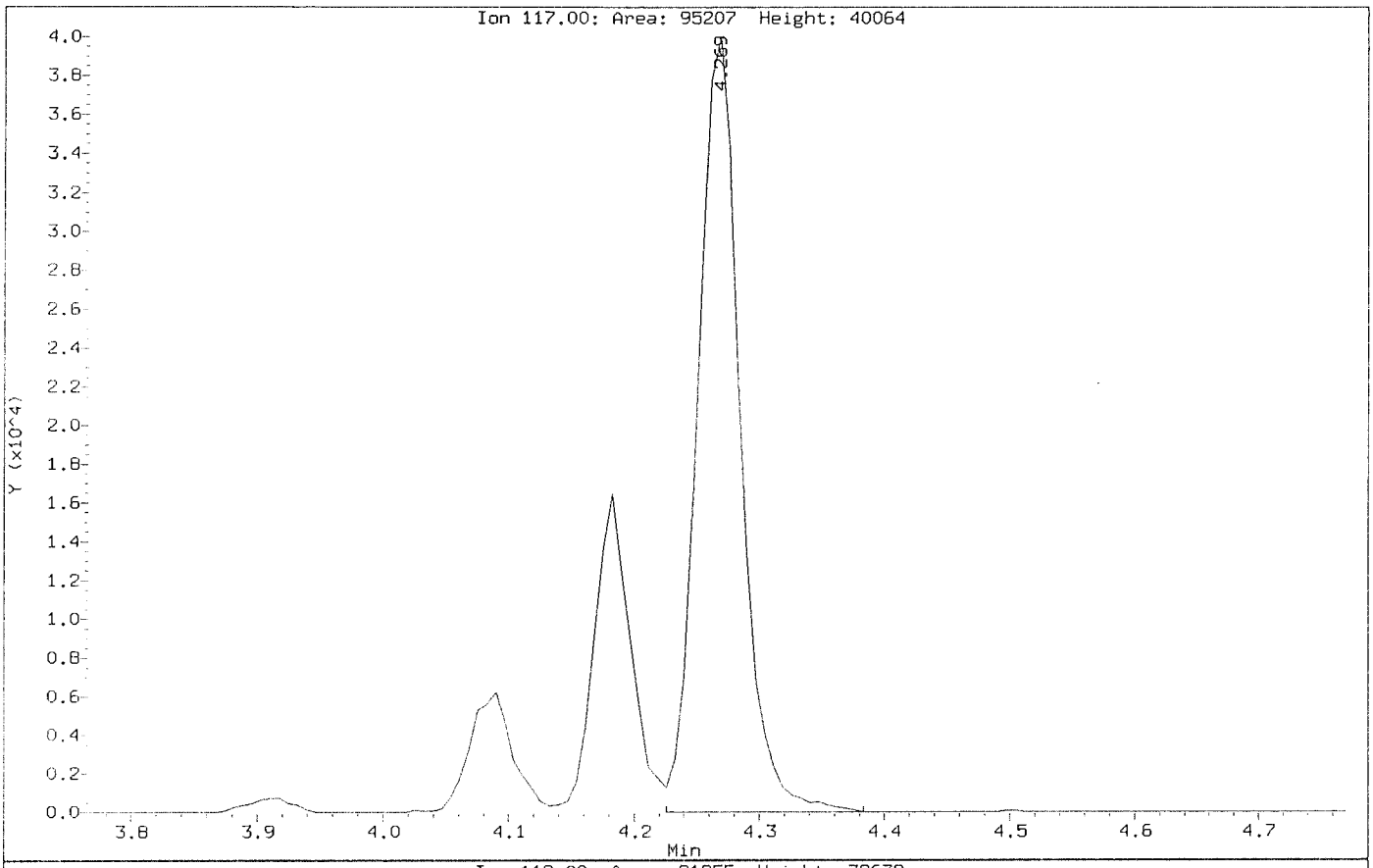
Compound: 2-Butanone
CAS Number: 78-93-3

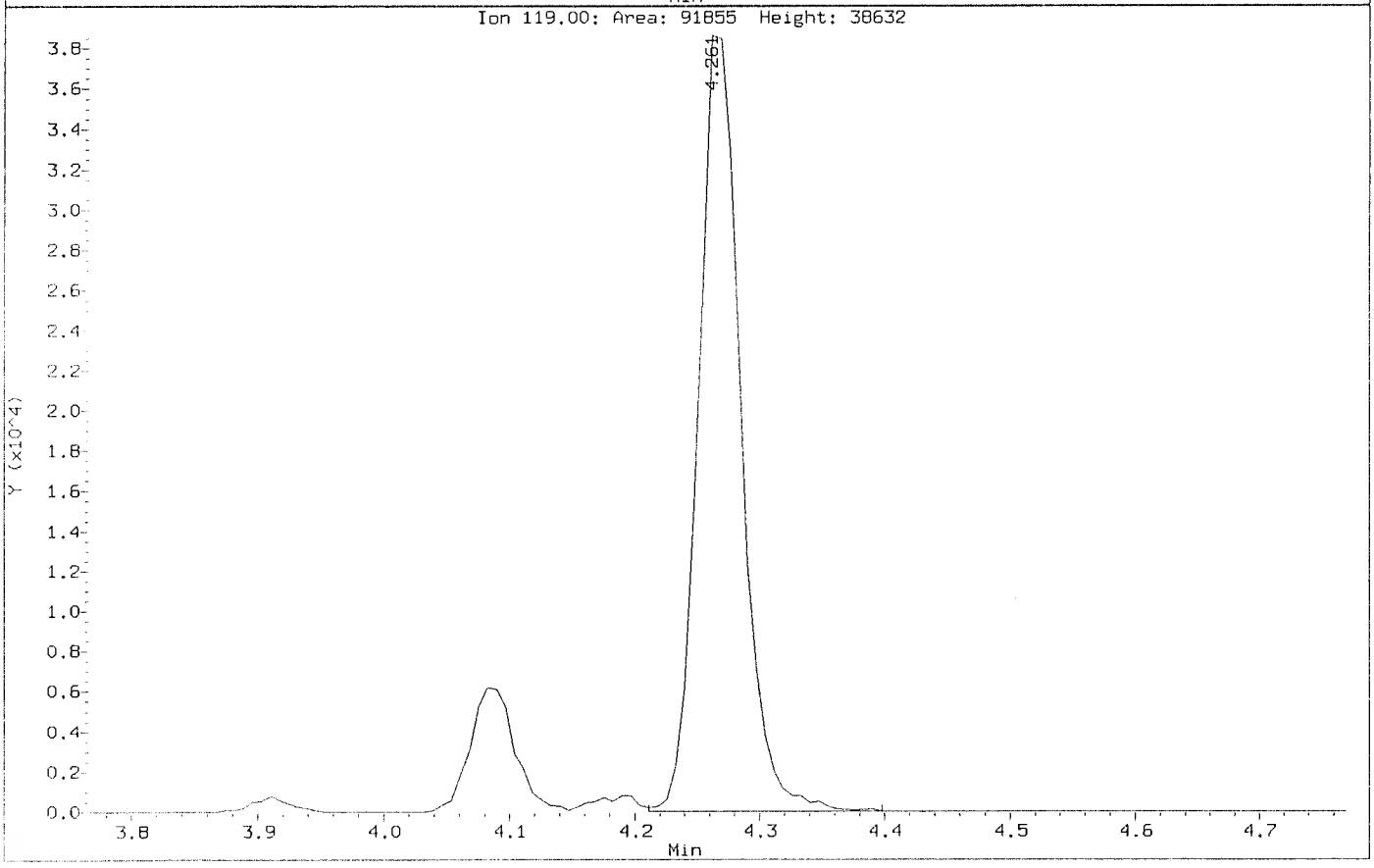




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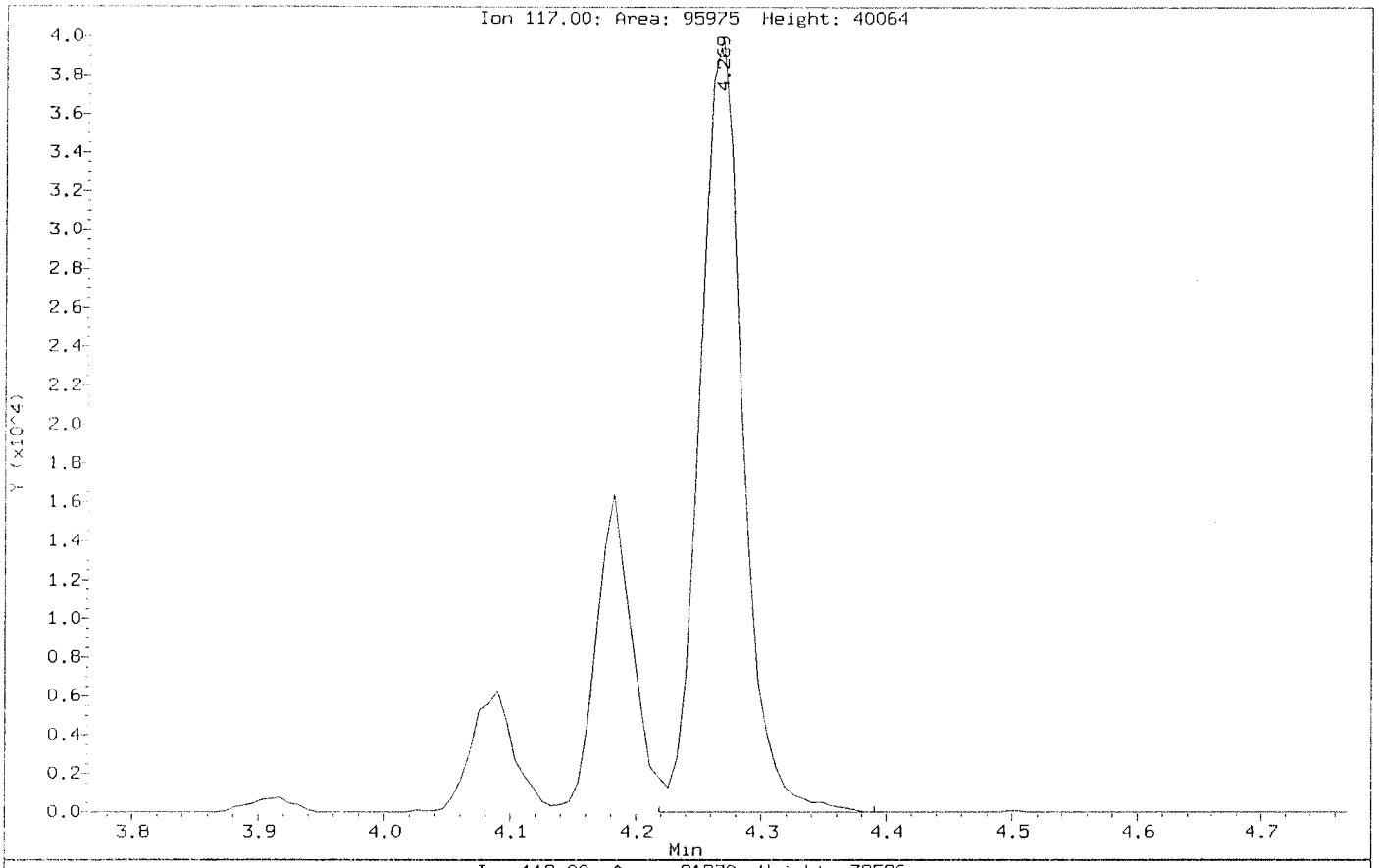
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

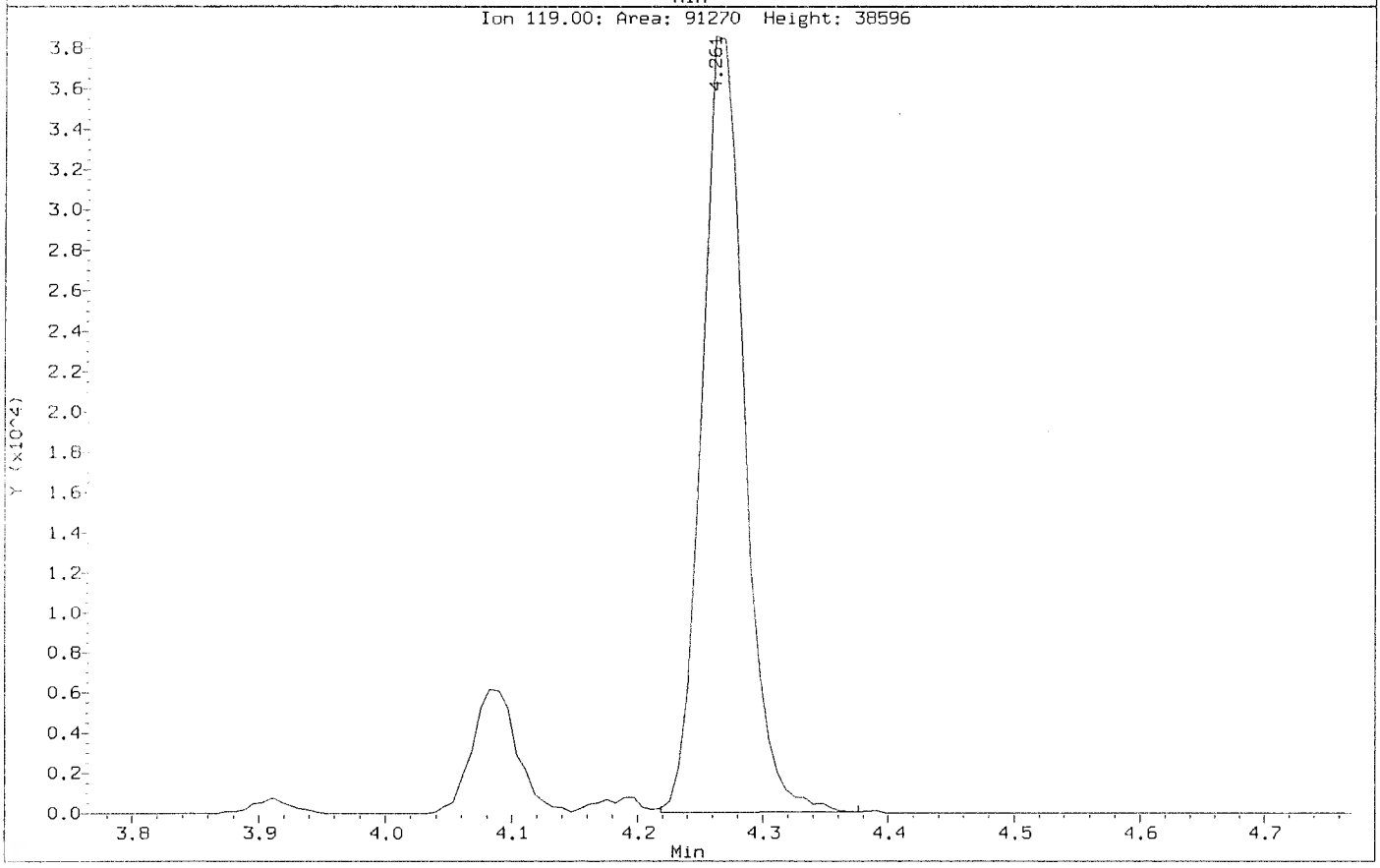




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Injection Date: 26-MAY-2021 14:40
Instrument: voa6.i
Client Sample ID: VSTD020

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052608.D
Lab Smp Id: VSTD050 Client Smp ID: VSTD050
Inj Date : 26-MAY-2021 15:01
Operator : PC Inst ID: voa6.i
Smp Info : VSTD050;VSTD050;1;7;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 14:40 Cal File: X052607.D
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

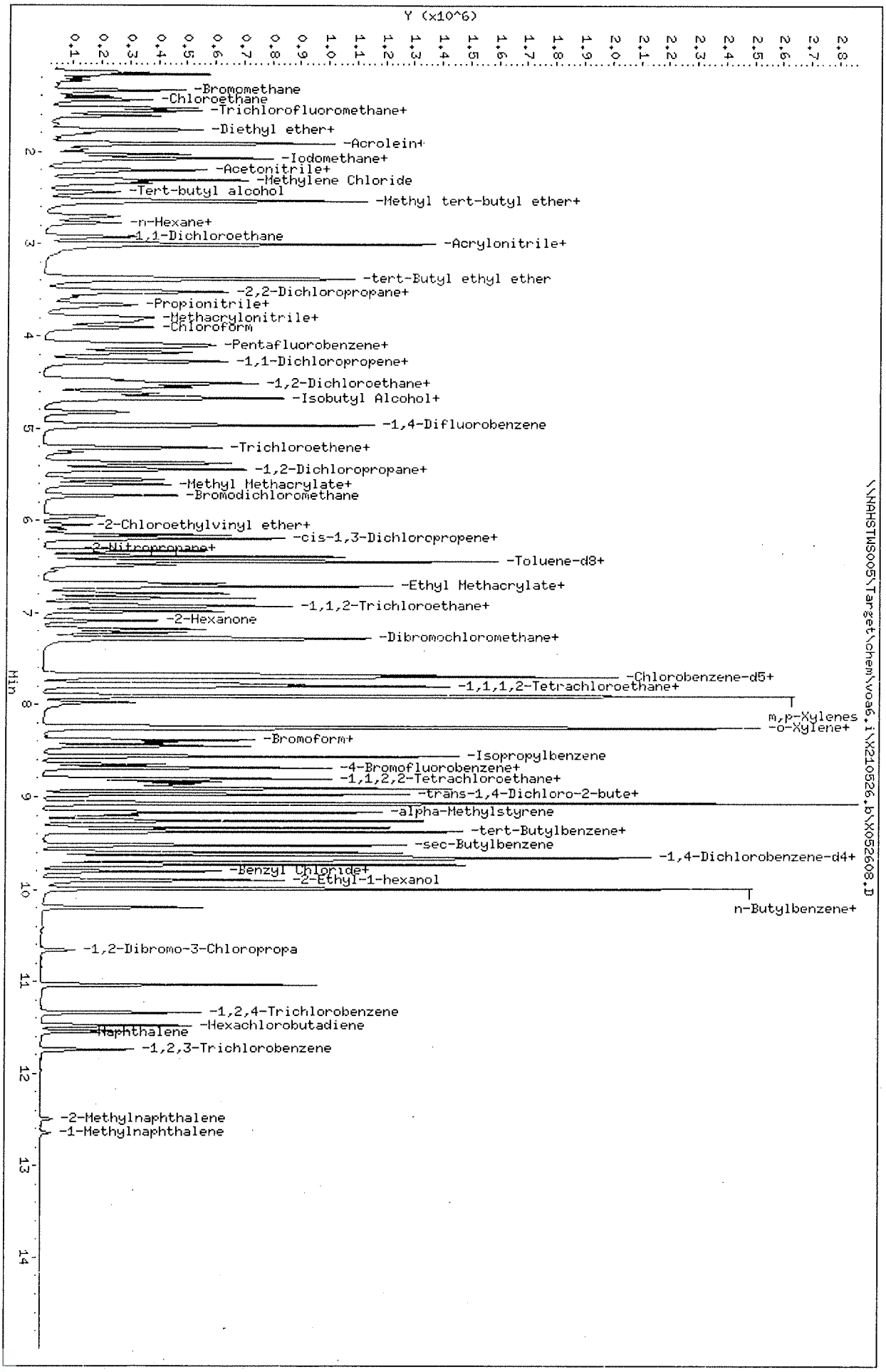
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	424959	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	666769	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	619576	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	345661	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	198305	50.0000	47.39
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	202707	50.0000	49.93
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	641202	50.0000	41.54
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	243279	50.0000	44.79
60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	218401	50.0000	47.66
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	286118	50.0000	45.55
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	241138	50.0000	50.50
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	159364	50.0000	47.48
22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	316911	50.0000	47.17
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	198252	50.0000	45.29
32 1,1-Dichloropropene	75	4.283	4.283	(0.863)	227298	50.0000	44.50
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	97298	50.0000	46.49
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	200716	50.0000	46.57(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	163230	50.0000	47.76
79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	692725	50.0000	43.93
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	26546	50.0000	48.42
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	218312	50.0000	47.85
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	432173	50.0000	46.09

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052608.D Page 2
Report Date: 30-Jun-2021 18:30

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	255497	50.0000	48.09
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	186813	50.0000	47.59
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	676389	50.0000	43.10
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	436776	50.0000	44.79
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	312775	50.0000	46.86
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	452783	50.0000	44.50
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	267855	50.0000	46.07
24	2-Butanone	43	3.581	3.581	(0.856)	132056	100.000	102.13(H)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	563374	50.0000	43.54
52	2-Hexanone	43	7.090	7.090	(0.924)	217409	100.000	94.46
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	676517	50.0000	43.90
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	680168	50.0000	42.55
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	322230	100.000	90.31
10	Acetone	43	1.976	1.976	(0.473)	109289	100.000	100.72
37	Benzene	78	4.512	4.512	(0.909)	726648	50.0000	47.43
74	Bromobenzene	156	8.802	8.802	(0.911)	261051	50.0000	45.51
29	Bromochloromethane	128	3.795	3.795	(0.908)	125003	50.0000	48.64
39	Bromodichloromethane	83	5.722	5.722	(1.153)	272973	50.0000	47.62
66	Bromoform	173	8.408	8.408	(1.096)	170774	50.0000	49.42
6	Bromomethane	94	1.339	1.339	(0.320)	208957	50.0000	47.61
19	Carbon Disulfide	76	2.069	2.069	(0.495)	965194	100.000	92.98
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	244057	50.0000	44.15(H)
59	Chlorobenzene	112	7.692	7.692	(1.003)	575989	50.0000	44.65
7	Chloroethane	64	1.403	1.403	(0.336)	169882	50.0000	57.20
28	Chloroform	83	3.910	3.910	(0.935)	352687	50.0000	47.19
3	Chloromethane	50	1.073	1.073	(0.257)	214824	50.0000	56.27
27	cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	219469	50.0000	49.27
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	335383	50.0000	49.65
55	Dibromochloromethane	129	7.176	7.176	(0.936)	248499	50.0000	48.73
44	Dibromomethane	93	5.550	5.550	(1.118)	141864	50.0000	48.09
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	189027	50.0000	48.41
61	Ethylbenzene	106	7.800	7.800	(1.017)	273828	50.0000	46.01
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	87915	50.0000	41.67
67	Isopropylbenzene	105	8.559	8.559	(1.116)	798894	50.0000	43.94
62	m,p-Xylenes	106	7.907	7.907	(1.031)	700454	100.000	90.30
17	Methylene Chloride	84	2.306	2.306	(0.551)	199728	50.0000	51.87
87	n-Butylbenzene	91	9.991	9.991	(1.034)	575579	50.0000	42.80
73	n-Propylbenzene	91	8.910	8.910	(0.922)	916886	50.0000	42.52
92	Naphthalene	128	11.539	11.539	(1.194)	235637	50.0000	47.70
63	o-Xylene	106	8.244	8.244	(1.075)	344243	50.0000	45.51
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	736380	50.0000	40.57
64	Styrene	104	8.258	8.258	(1.077)	606041	50.0000	47.94
78	tert-Butylbenzene	119	9.340	9.340	(0.967)	553101	50.0000	41.11
56	Tetrachloroethene	164	6.926	6.926	(0.903)	165887	50.0000	43.49
50	Toluene	91	6.446	6.446	(0.840)	806999	50.0000	44.61
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	188221	50.0000	47.43
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	287700	50.0000	49.37
38	Trichloroethene	130	5.207	5.207	(1.049)	221368	50.0000	48.37
8	Trichlorofluoromethane	101	1.561	1.561	(0.373)	347393	50.0000	45.28
5	Vinyl Chloride	62	1.138	1.138	(0.272)	233856	50.0000	46.48

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

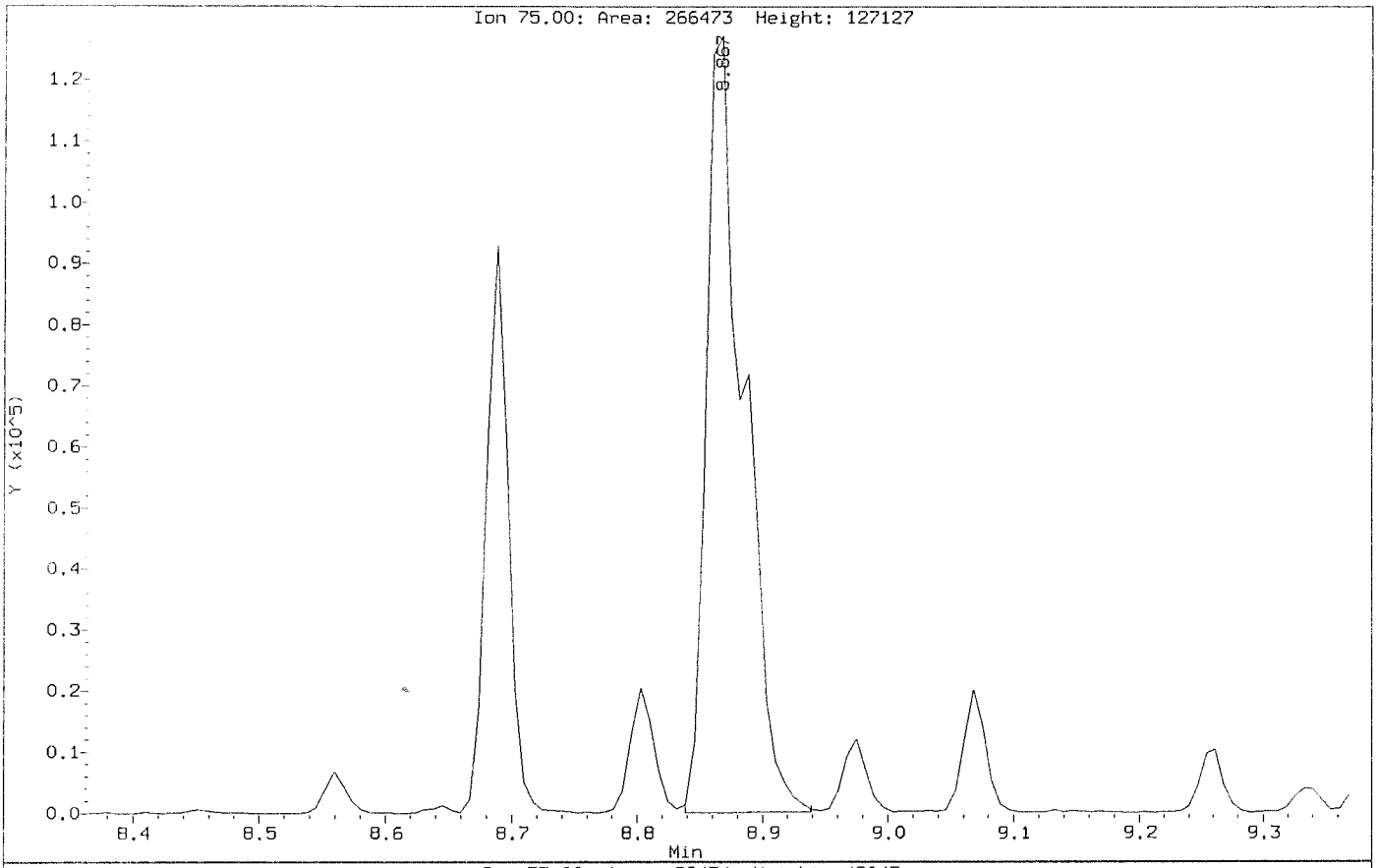


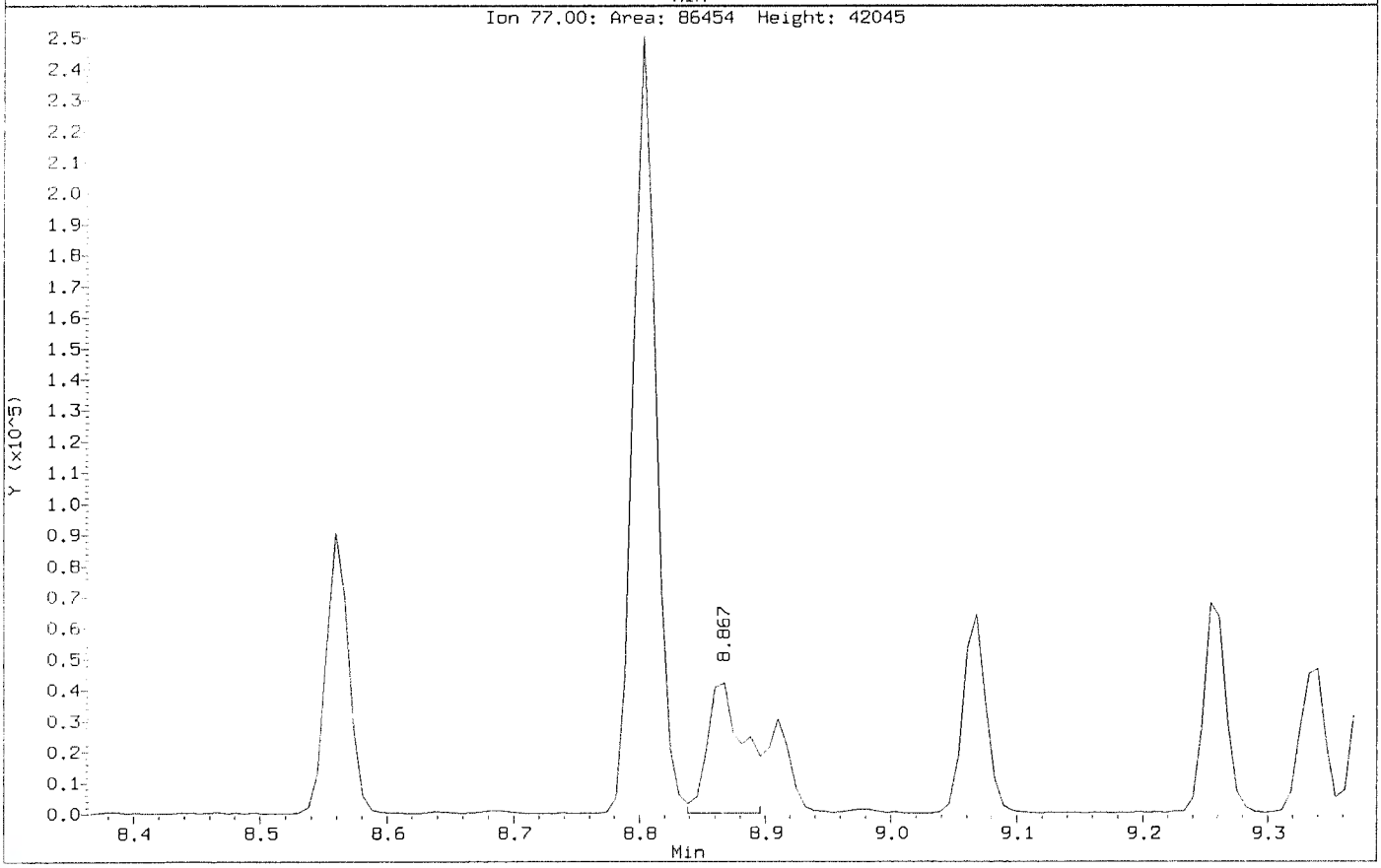
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Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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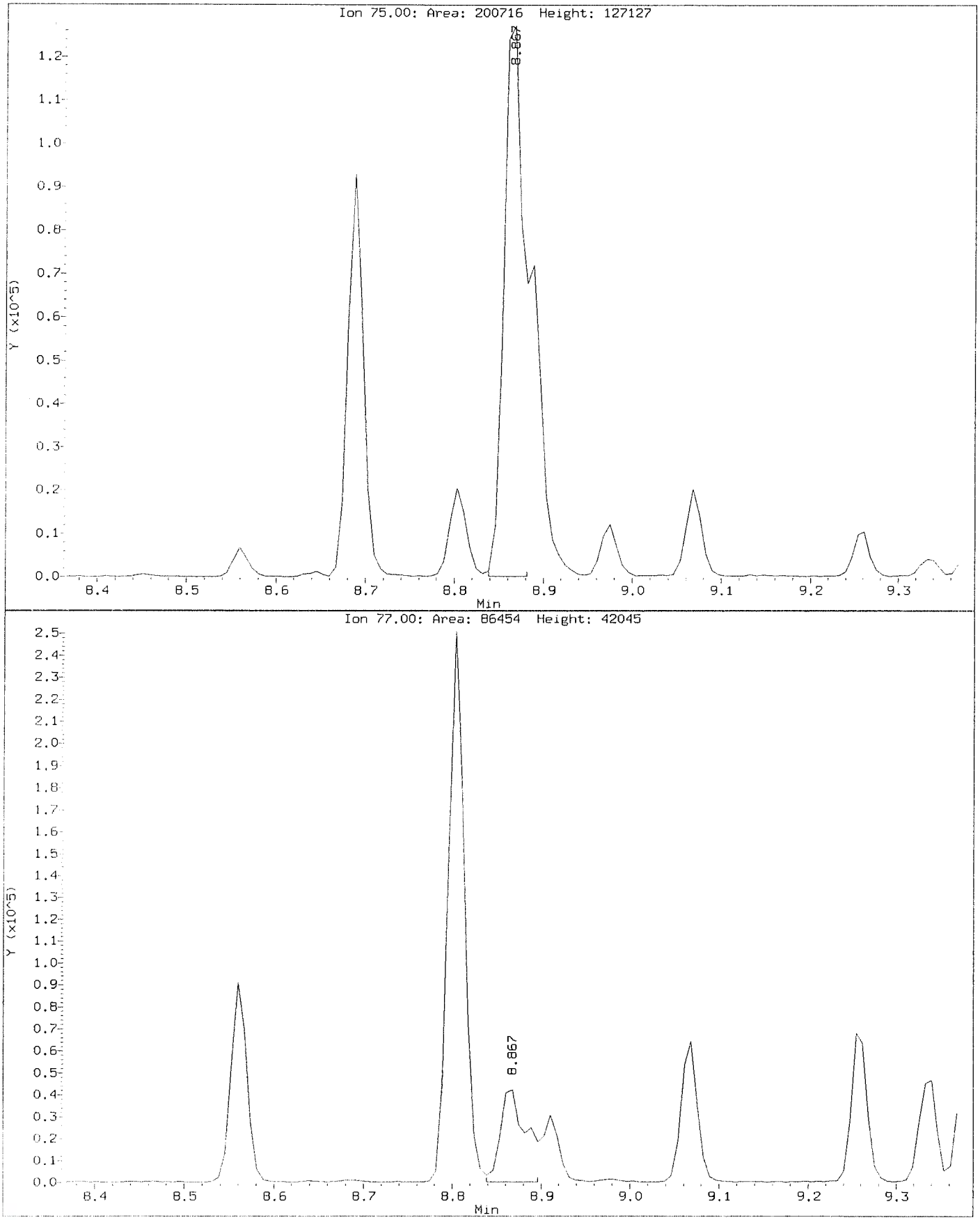
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





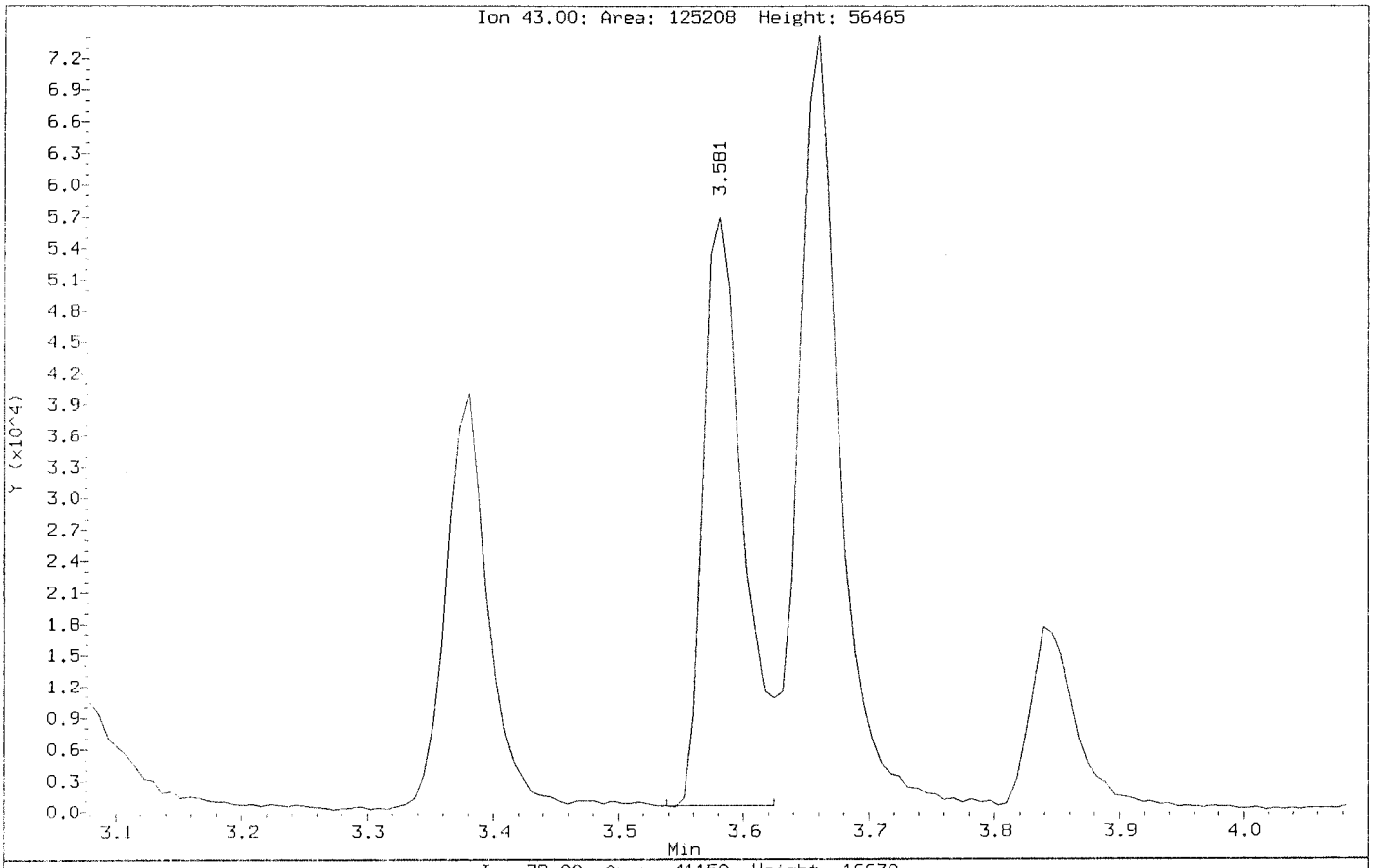
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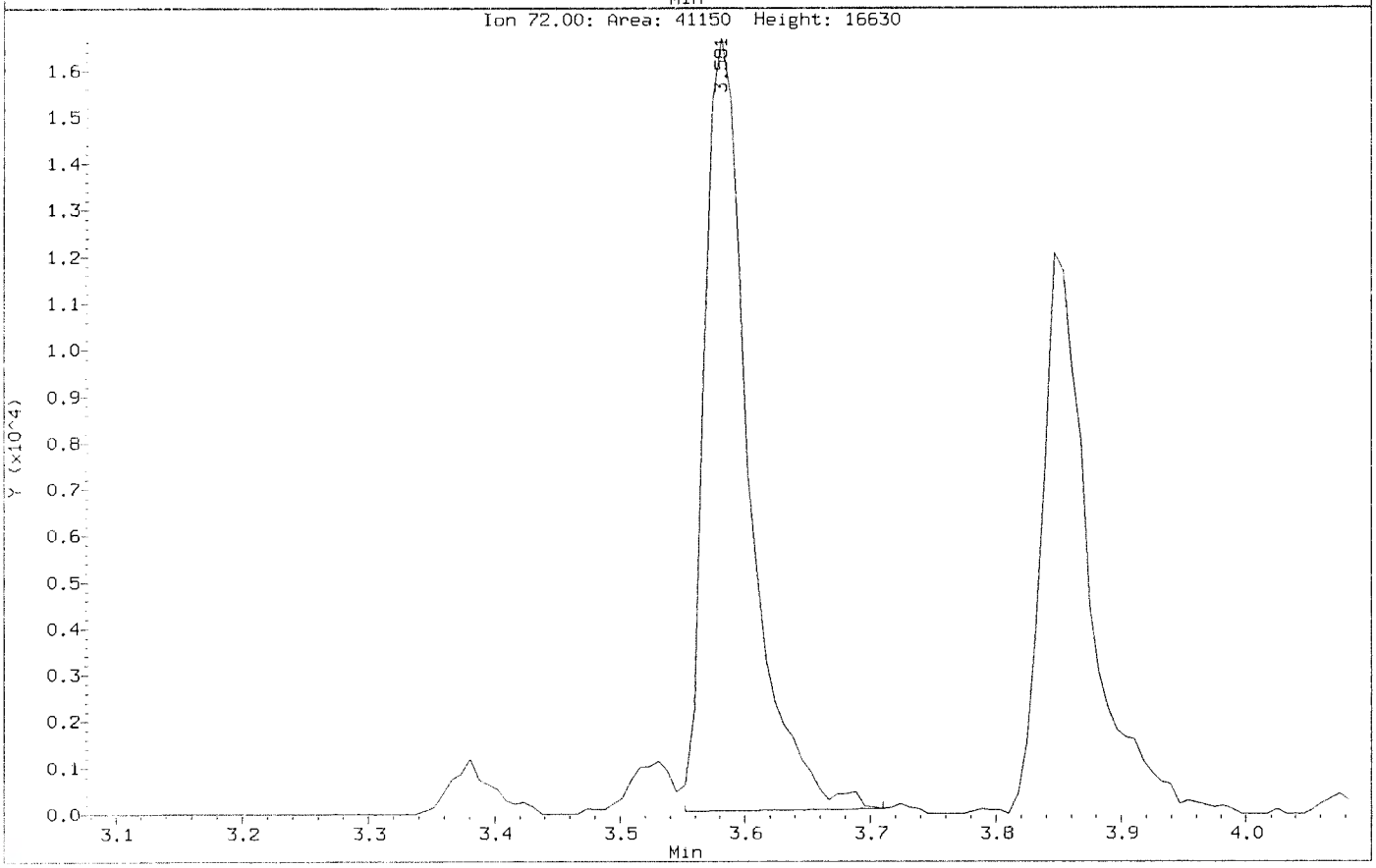
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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Injection Date: 26-MAY-2021 15:01
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Client Sample ID: VSTD050

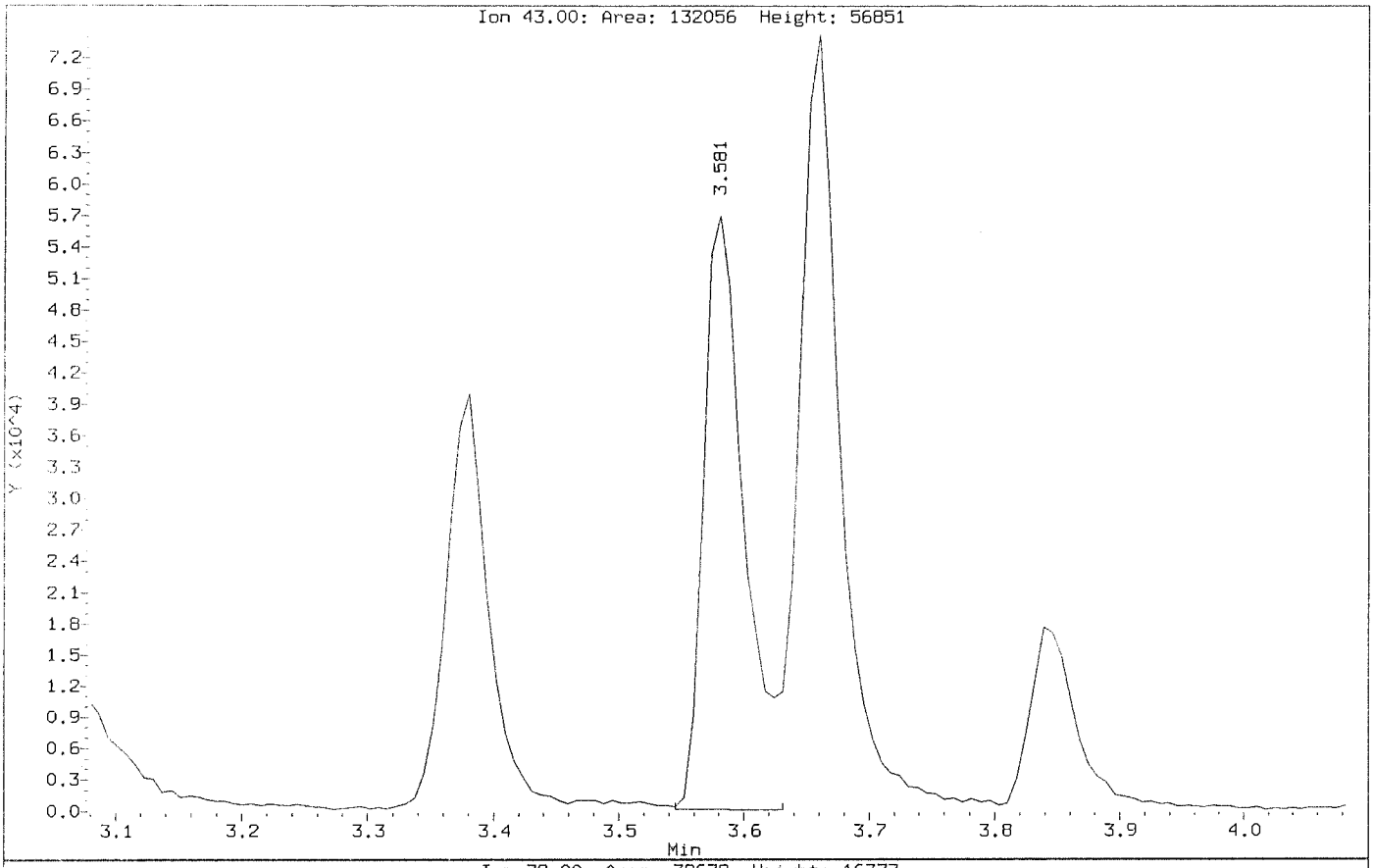
Compound: 2-Butanone
CAS Number: 78-93-3

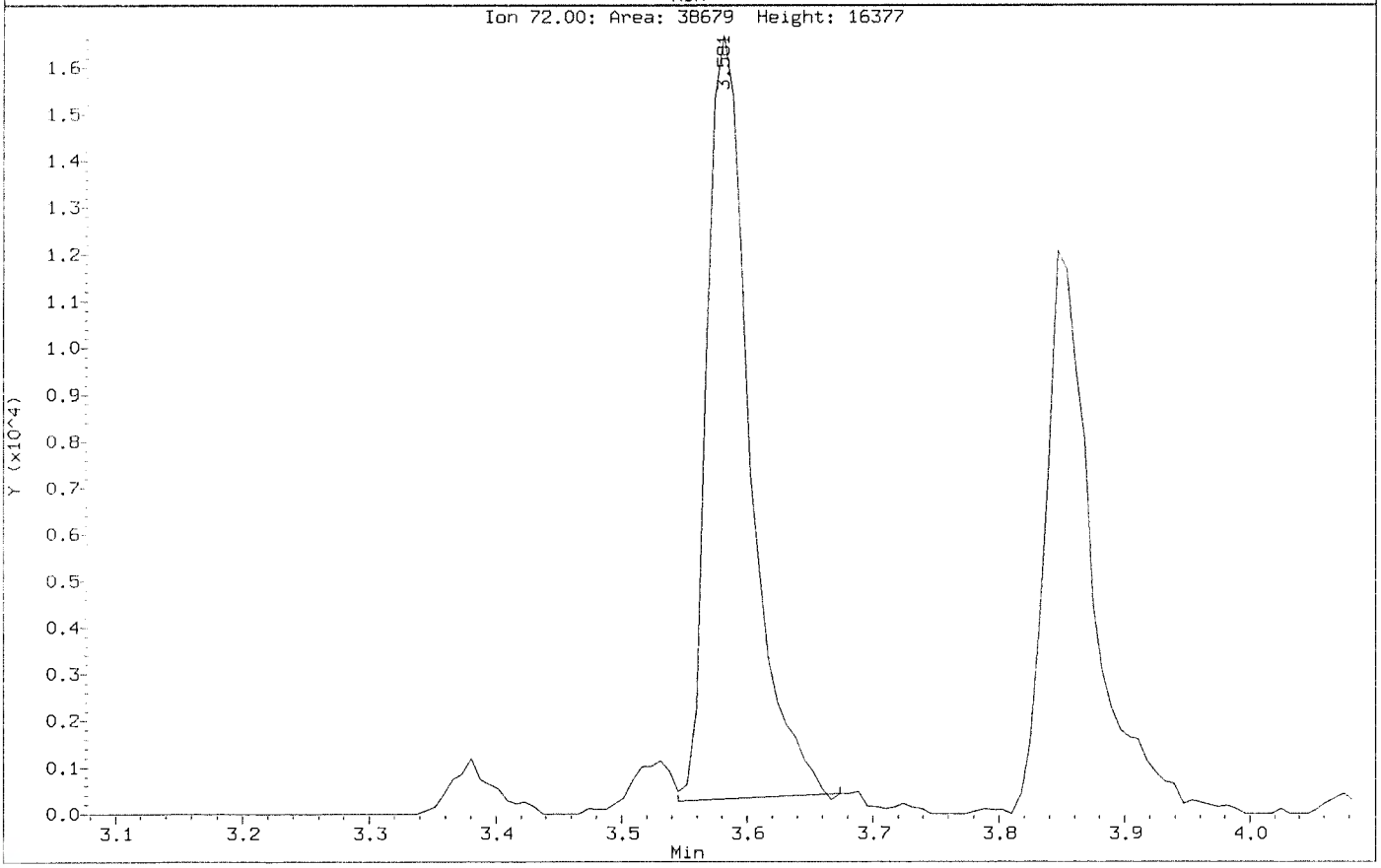




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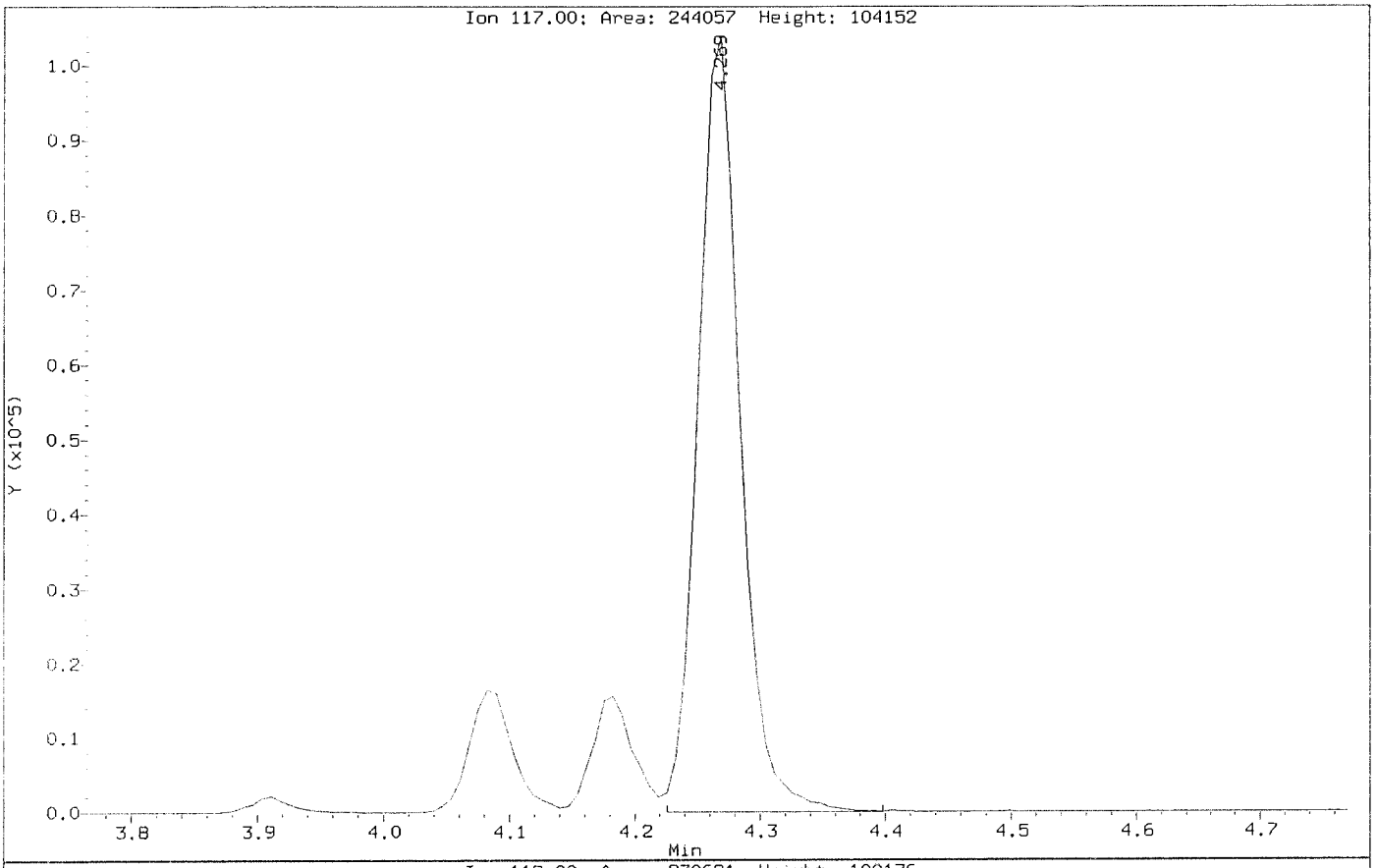
Compound: 2-Butanone
CAS Number: 78-93-3

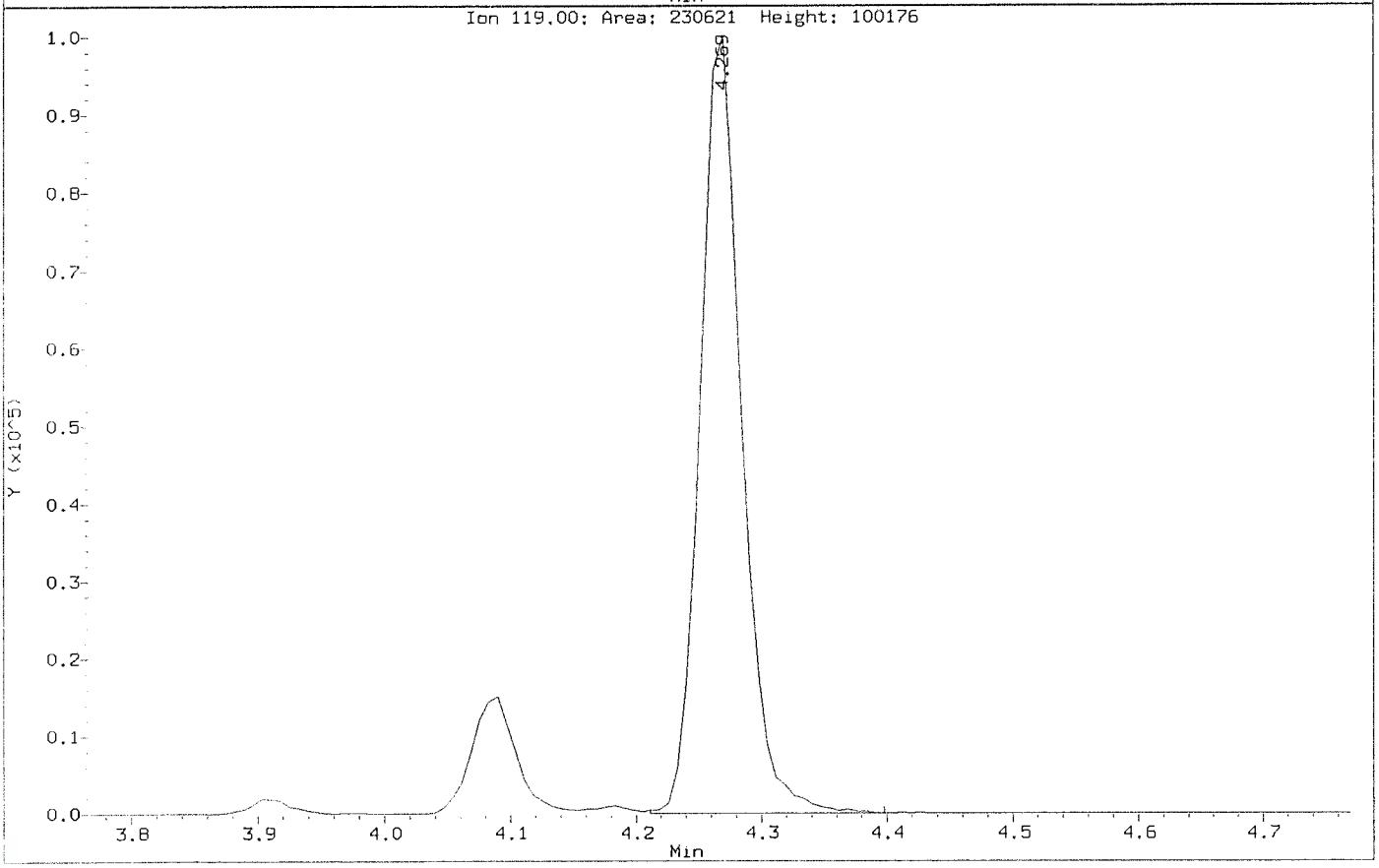




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Injection Date: 26-MAY-2021 15:01
Instrument: voa6.i
Client Sample ID: VSTD050

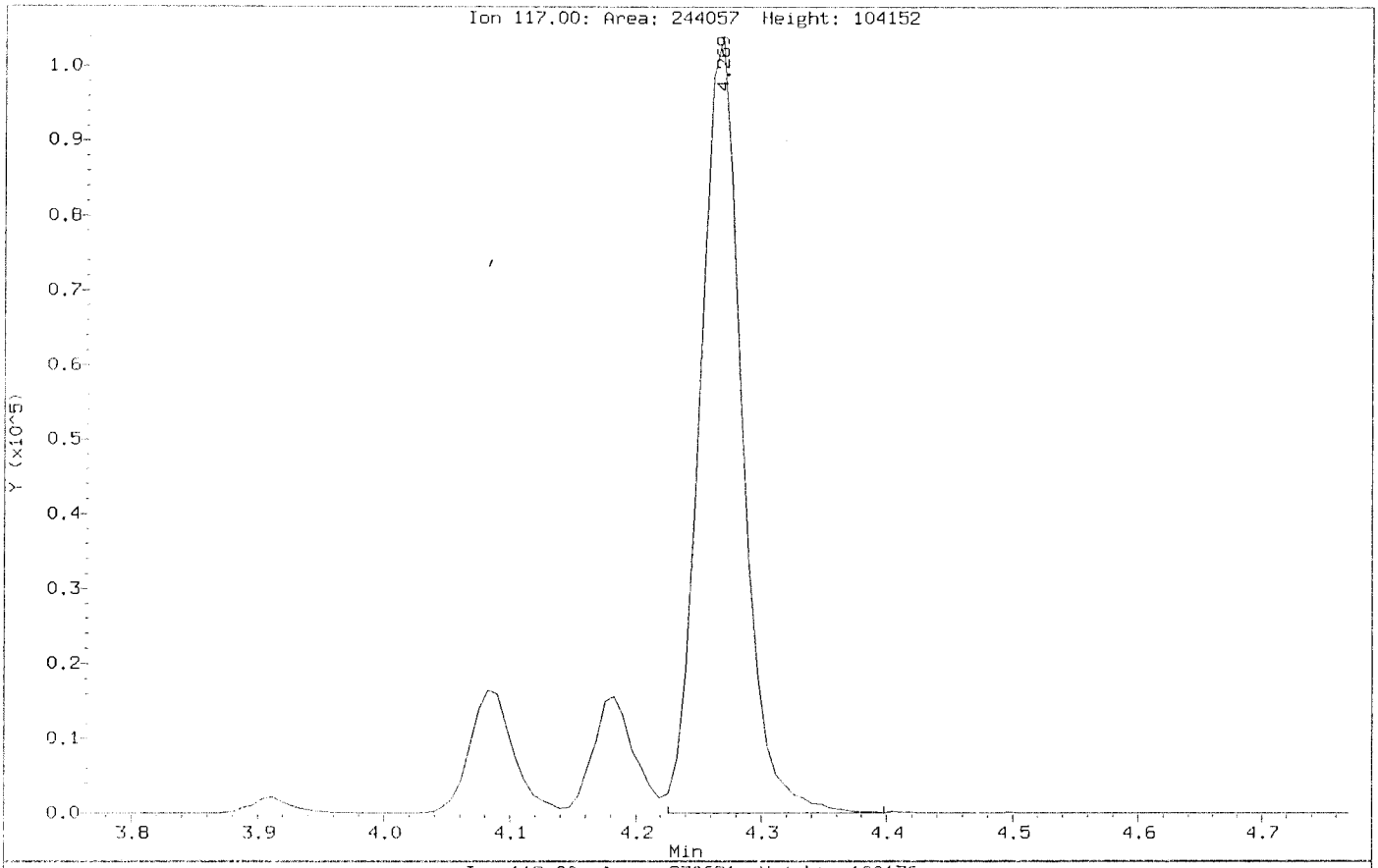
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

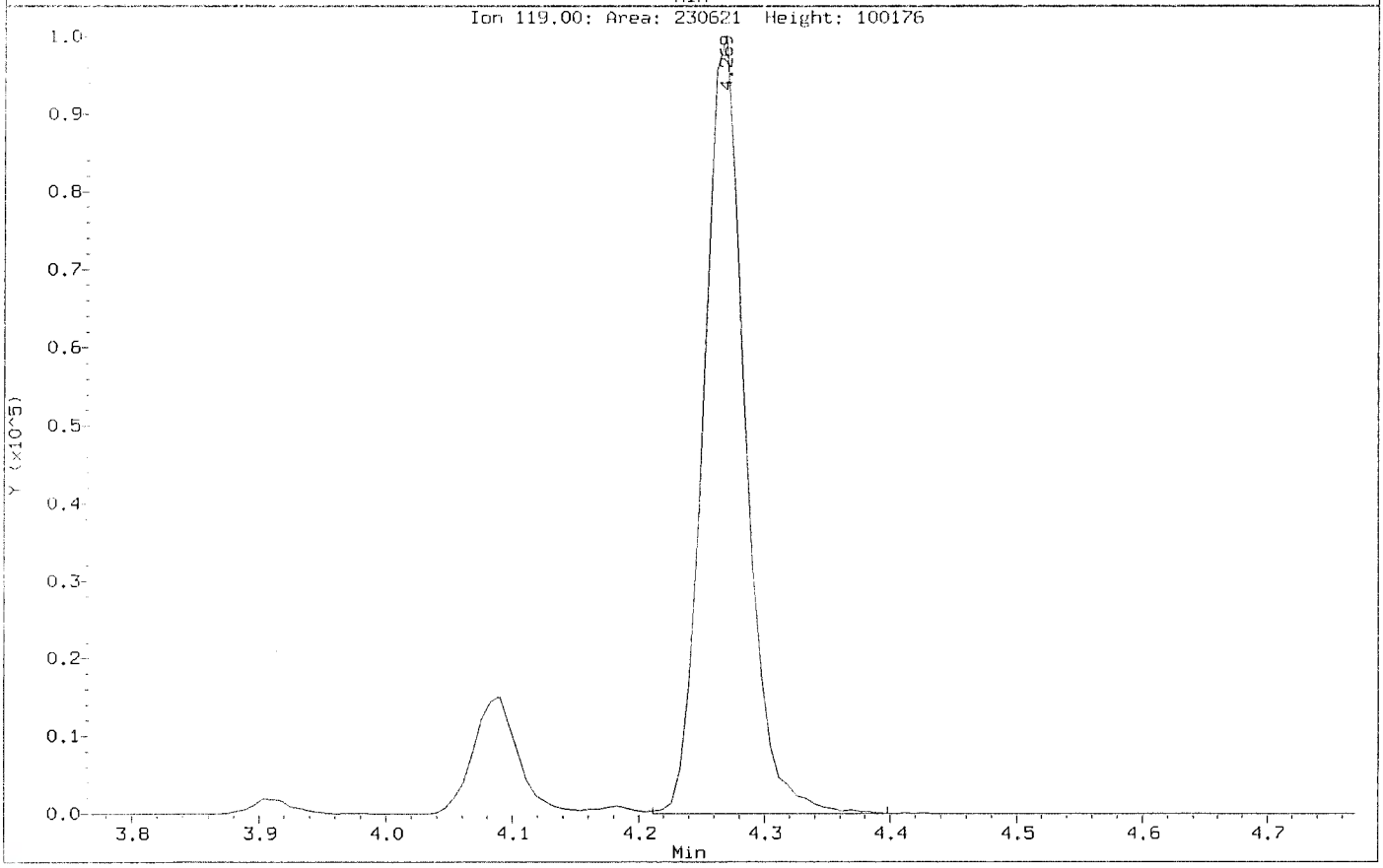




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Injection Date: 26-MAY-2021 15:01
Instrument: voa6.i
Client Sample ID: VSTD050

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052609.D
Lab Smp Id: VSTD100 Client Smp ID: VSTD100
Inj Date : 26-MAY-2021 15:22
Operator : PC Inst ID: voa6.i
Smp Info : VSTD100;VSTD100;1;8;
Misc Info : HS18090001;WATER;0;1;
Comment :
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Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

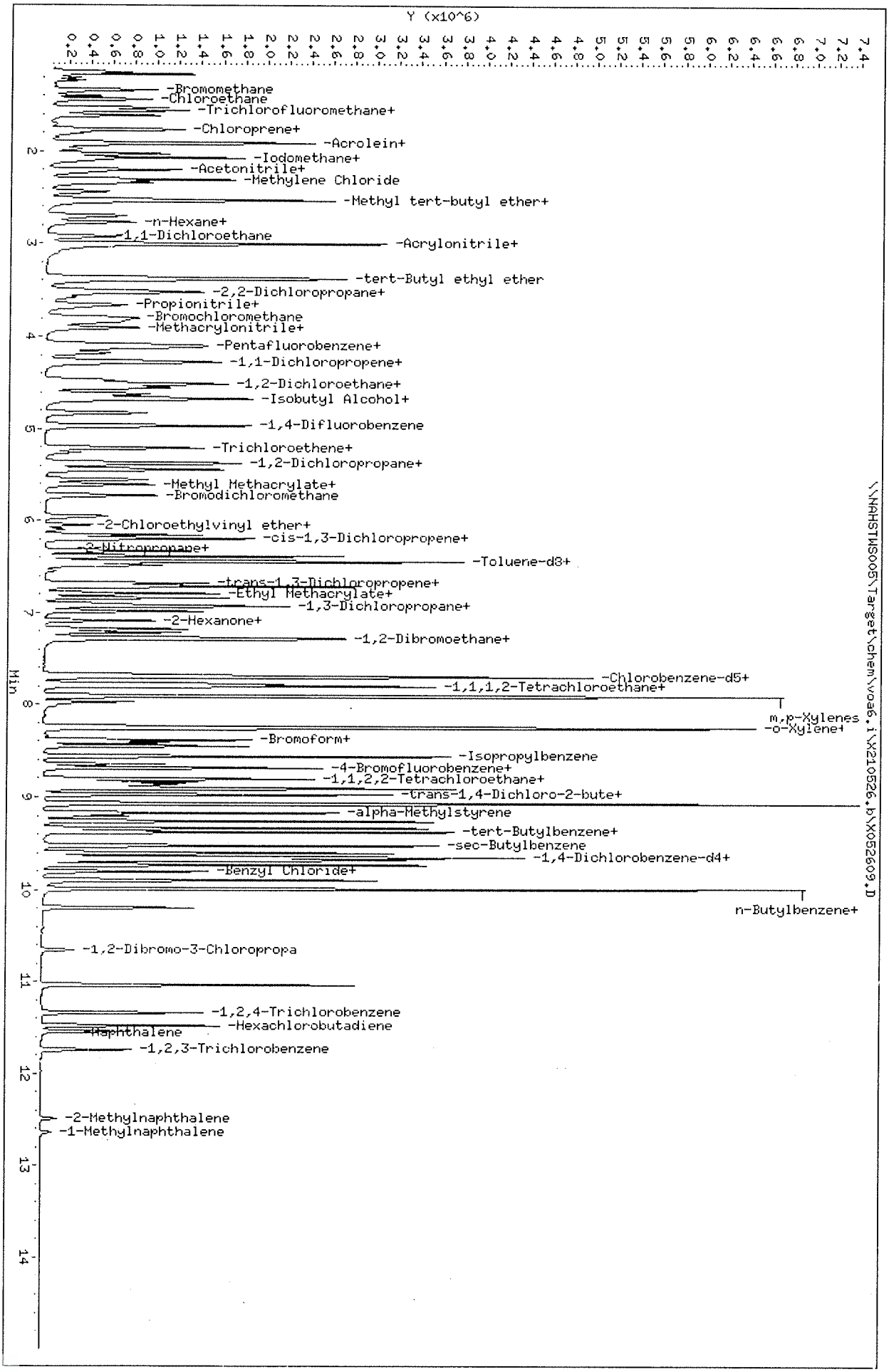
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	465829	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	710792	50.0000	
*	47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	666442	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	392601	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	469782	100.000	102.62
$	35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	450261	100.000	101.89
$	48 Toluene-d8	98	6.388	6.388	(0.833)	1608002	100.000	96.86
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	606080	100.000	102.75
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	499295	100.000	101.30
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	661548	100.000	96.09
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	539471	100.000	100.64
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	346404	100.000	95.95
	22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	677723	100.000	92.02
	11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	458831	100.000	95.62
	32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	536358	100.000	98.52
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	234050	100.000	98.47
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	455527	100.000	93.06(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	411722	100.000	106.07
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	1745248	100.000	97.46
	89 1,2-Dibromo-3-Chloropropane	155	10.657	10.657	(1.103)	62281	100.000	99.48
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	478499	100.000	97.52
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	1073113	100.000	100.77

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	546071	100.000	96.42
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	402126	100.000	96.11
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	1755512	100.000	98.50
83	1,3-Dichlorobenzene	146	9.604	9.604	(0.994)	1072305	100.000	96.83
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	683449	100.000	95.20
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	1102148	100.000	95.37
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	601433	100.000	94.37
24	2-Butanone	43	3.580	3.580	(0.856)	285717	200.000	201.59(AH)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	1366733	100.000	93.00
52	2-Hexanone	43	7.090	7.090	(0.924)	514396	200.000	207.78(A)
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	1673614	100.000	95.63
82	p-Isopropyltoluene	119	9.647	9.647	(0.999)	1855232	100.000	102.19
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	743310	200.000	193.68
10	Acetone	43	1.976	1.976	(0.473)	231561	200.000	200.25(A)
37	Benzene	78	4.512	4.512	(0.909)	1561197	100.000	95.60
74	Bromobenzene	156	8.802	8.802	(0.911)	631992	100.000	97.02
29	Bromochloromethane	128	3.795	3.795	(0.908)	264940	100.000	94.06
39	Bromodichloromethane	83	5.729	5.729	(1.154)	580394	100.000	94.98
66	Bromoform	173	8.408	8.408	(1.096)	405148	100.000	109.02
6	Bromomethane	94	1.338	1.338	(0.320)	464431	100.000	96.38
19	Carbon Disulfide	76	2.069	2.069	(0.495)	2136484	200.000	187.75
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	602380	100.000	102.23(H)
59	Chlorobenzene	112	7.692	7.692	(1.003)	1335922	100.000	96.29
7	Chloroethane	64	1.403	1.403	(0.336)	322237	100.000	100.02
28	Chloroform	83	3.910	3.910	(0.935)	762402	100.000	93.06
3	Chloromethane	50	1.073	1.073	(0.257)	427715	100.000	104.44
27	cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	473541	100.000	96.98
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	723500	100.000	100.47
55	Dibromochloromethane	129	7.176	7.176	(0.936)	559785	100.000	102.05
44	Dibromomethane	93	5.550	5.550	(1.118)	307713	100.000	97.86
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	442975	100.000	103.74
61	Ethylbenzene	106	7.799	7.799	(1.017)	658754	100.000	102.92
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	268099	100.000	104.15
67	Isopropylbenzene	105	8.559	8.559	(1.116)	2067374	100.000	105.71
62	m,p-Xylenes	106	7.907	7.907	(1.031)	1732036	200.000	207.58(A)
17	Methylene Chloride	84	2.305	2.305	(0.551)	421178	100.000	101.02
87	n-Butylbenzene	91	9.991	9.991	(1.034)	1668557	100.000	109.24
73	n-Propylbenzene	91	8.910	8.910	(0.922)	2376997	100.000	97.06
92	Naphthalene	128	11.538	11.538	(1.194)	552247	100.000	98.43
63	o-Xylene	106	8.243	8.243	(1.075)	828253	100.000	101.80
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	2073082	100.000	100.55
64	Styrene	104	8.258	8.258	(1.077)	1469045	100.000	108.05
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	1530236	100.000	100.15
56	Tetrachloroethene	164	6.925	6.925	(0.903)	441656	100.000	107.65
50	Toluene	91	6.446	6.446	(0.840)	1856343	100.000	95.41
20	trans-1,2-Dichloroethene	96	2.527	2.527	(0.604)	413319	100.000	95.02
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	636938	100.000	102.54
38	Trichloroethene	130	5.206	5.206	(1.049)	490520	100.000	100.54
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	841243	100.000	100.04
5	Vinyl Chloride	62	1.138	1.138	(0.272)	519936	100.000	94.29

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



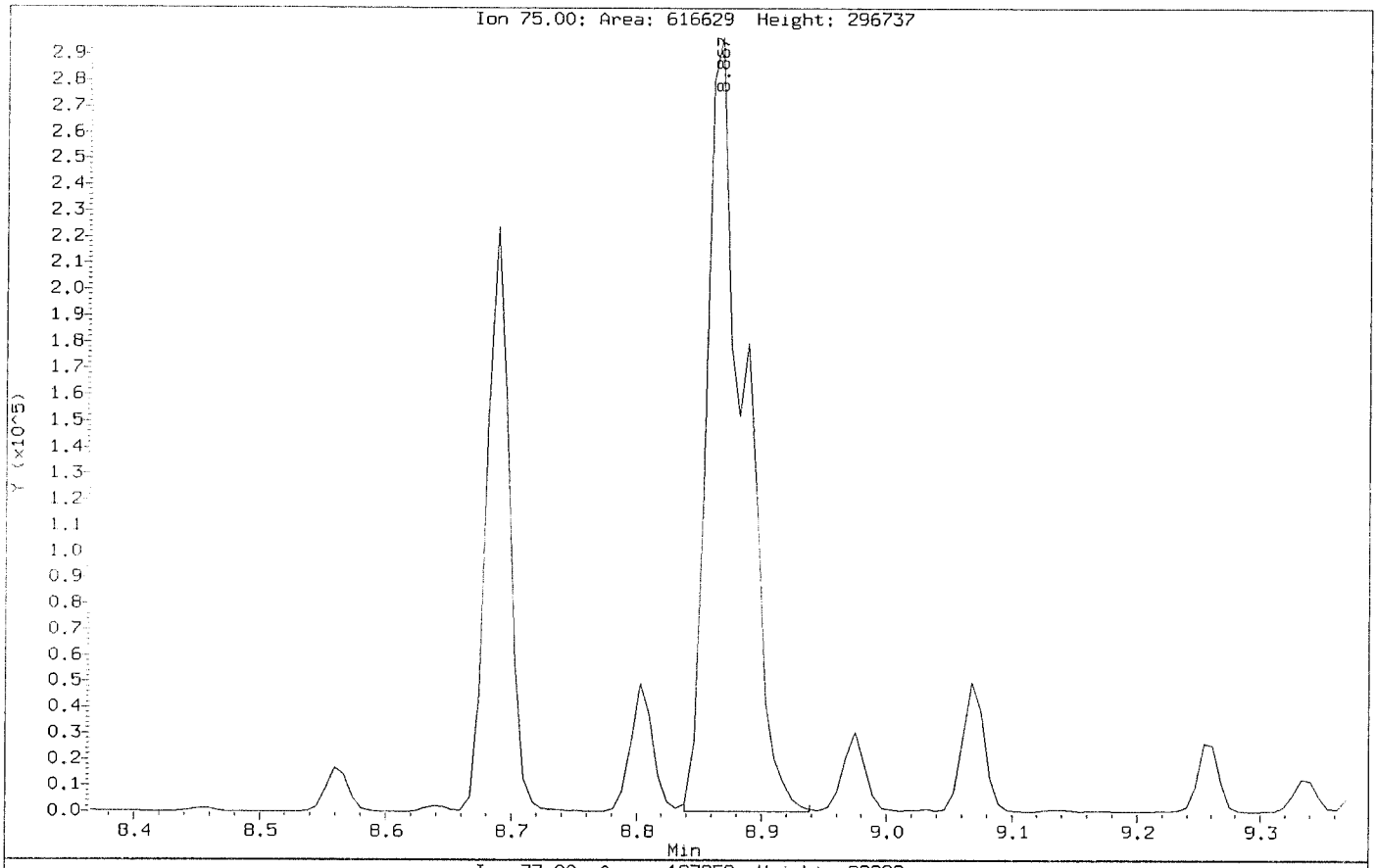
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Sample Info: VSTD100;VSTD100;1;8;
Purge Volume: 5.0
Column phase: DB624

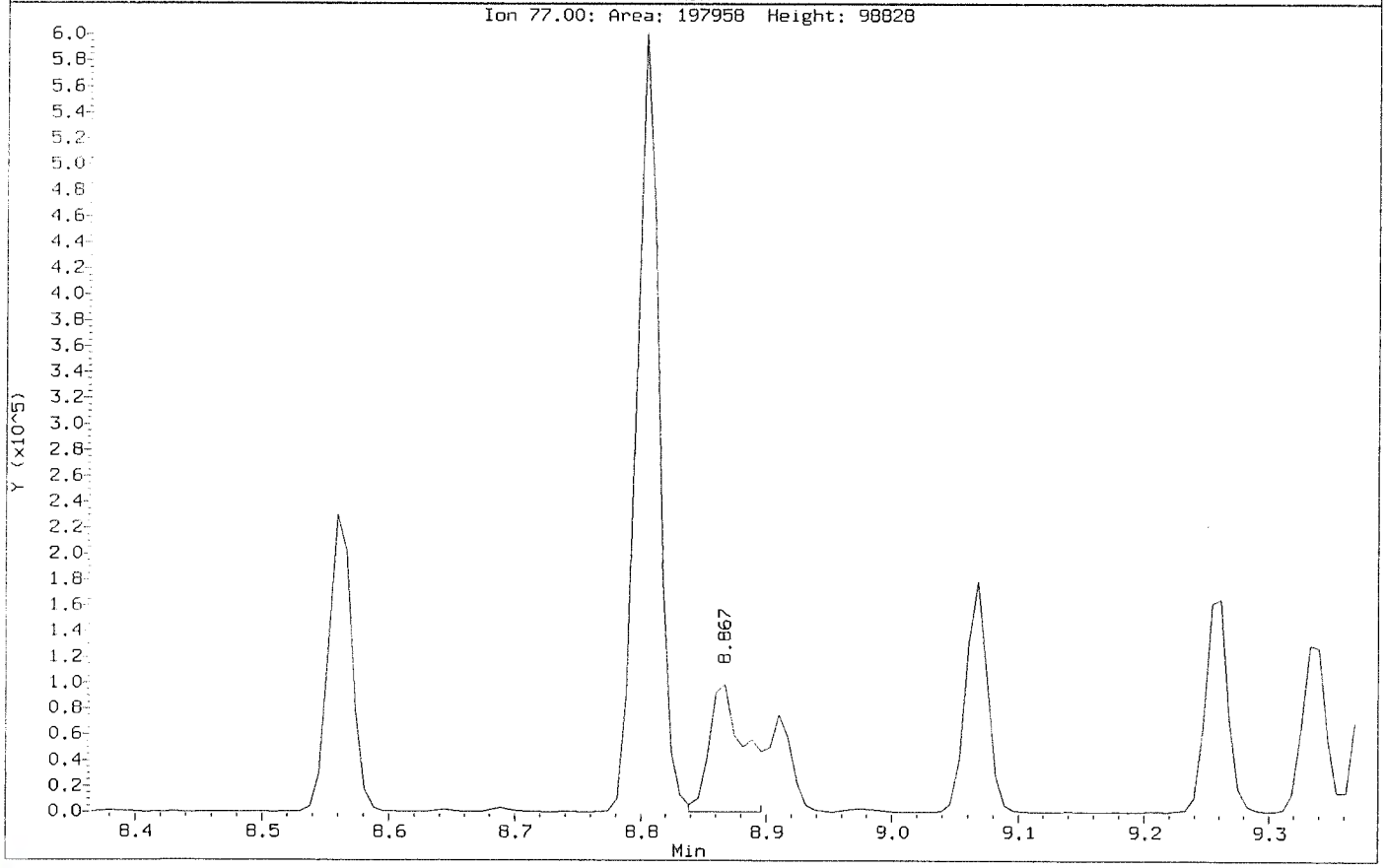
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Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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Injection Date: 26-MAY-2021 15:22
Instrument: voa6.i
Client Sample ID: VSTD100

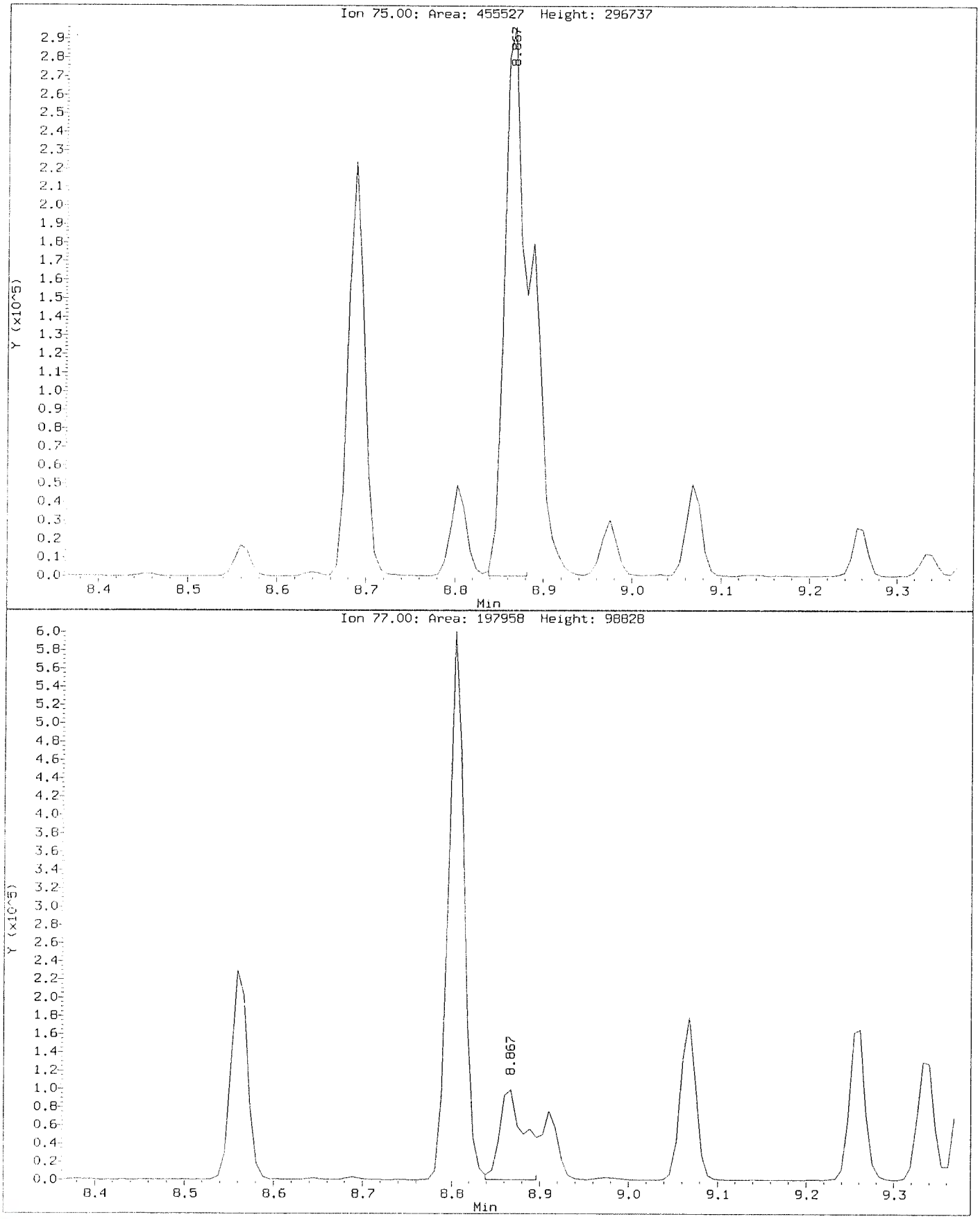
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





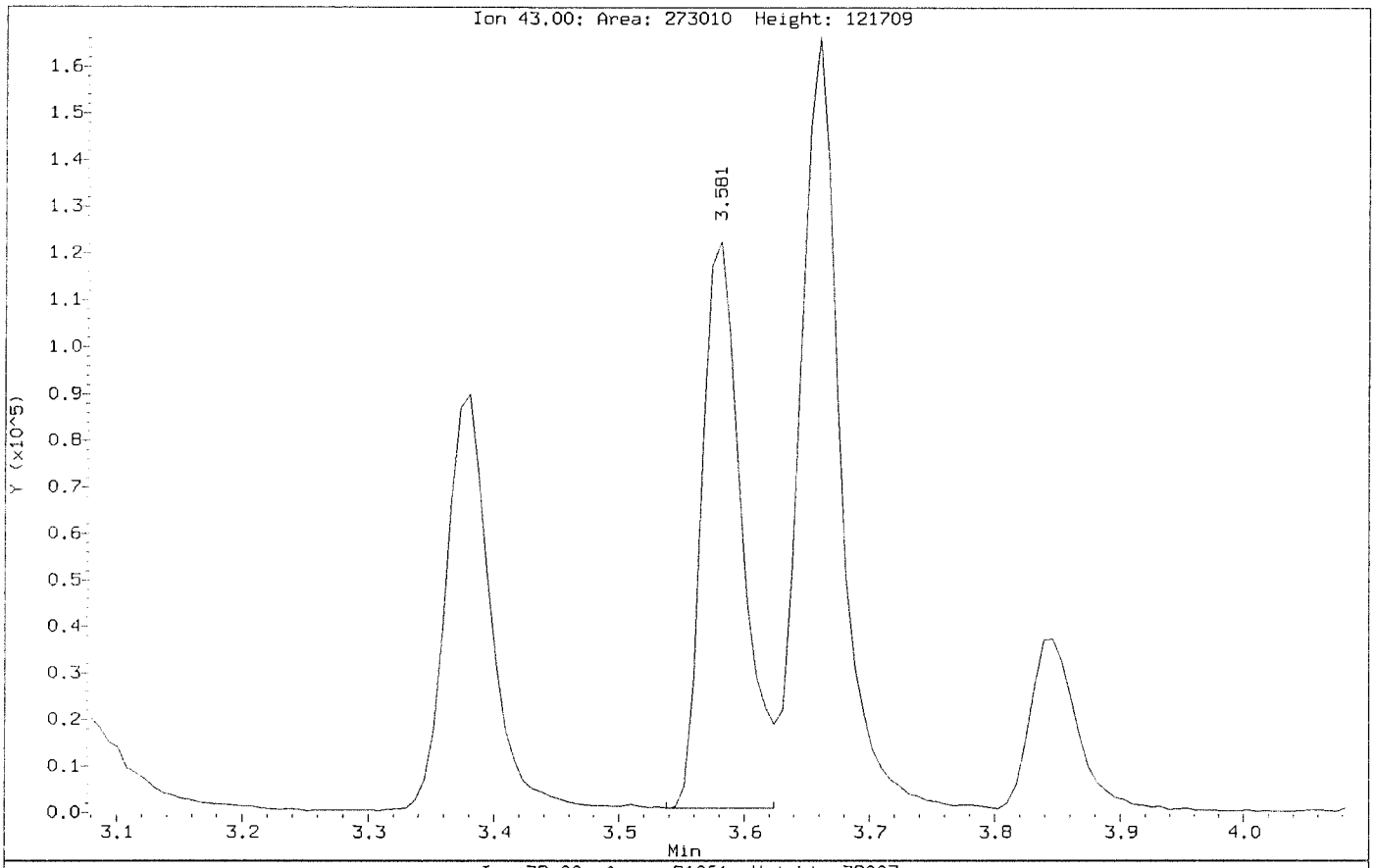
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Injection Date: 26-MAY-2021 15:22
Instrument: voa6.i
Client Sample ID: VSTD100

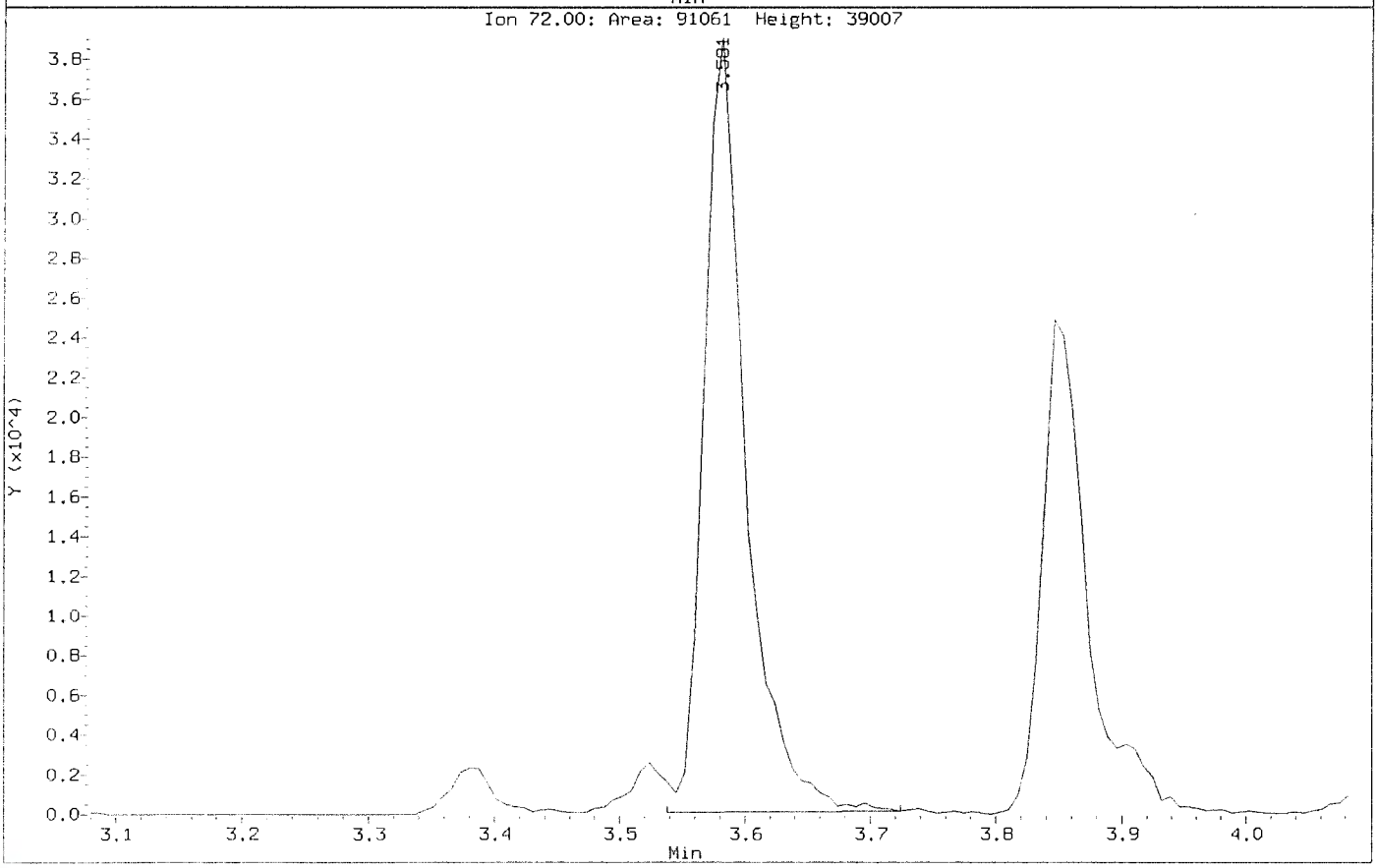
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052609.D
Injection Date: 26-MAY-2021 15:22
Instrument: voa6.i
Client Sample ID: VSTD100

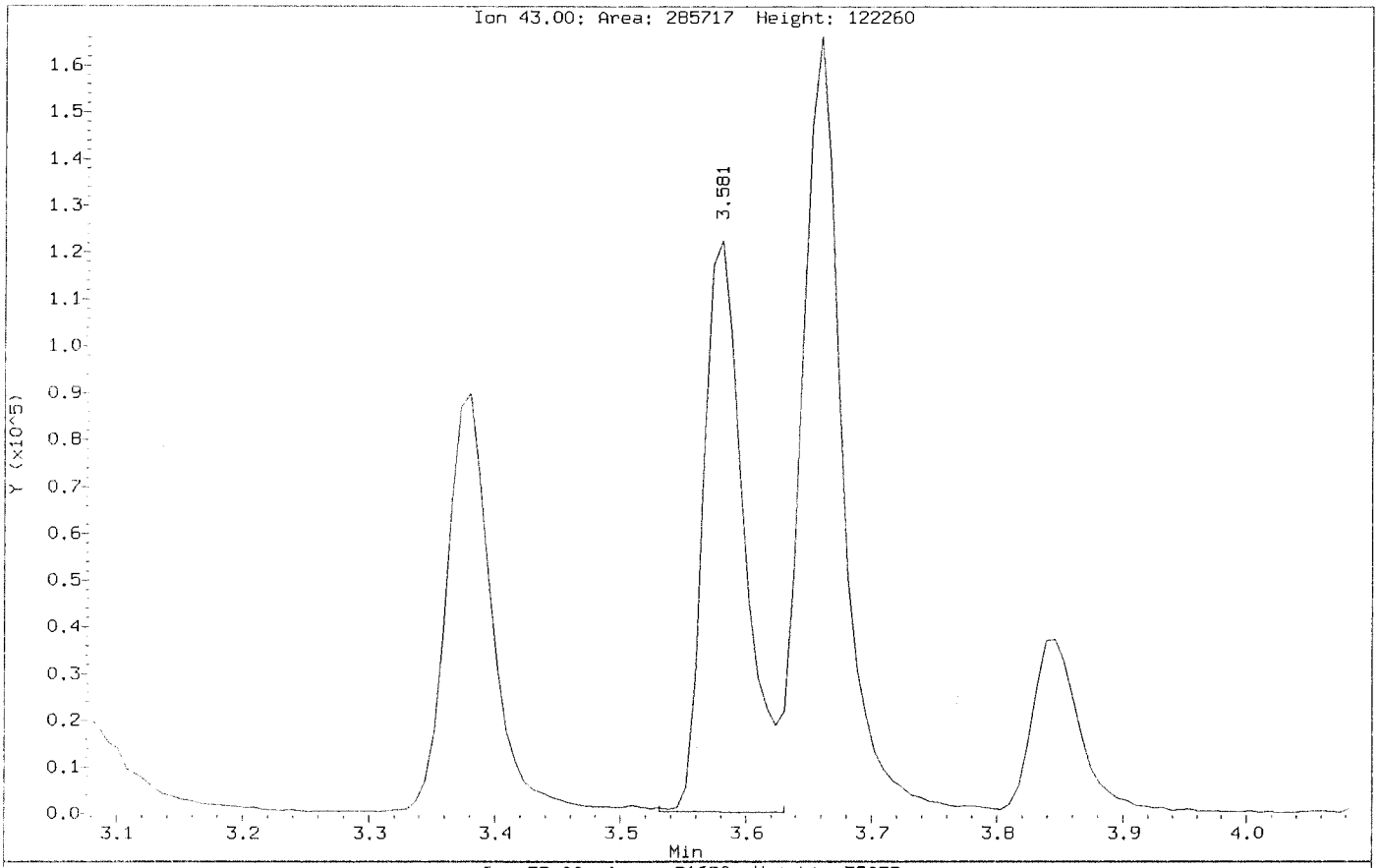
Compound: 2-Butanone
CAS Number: 78-93-3

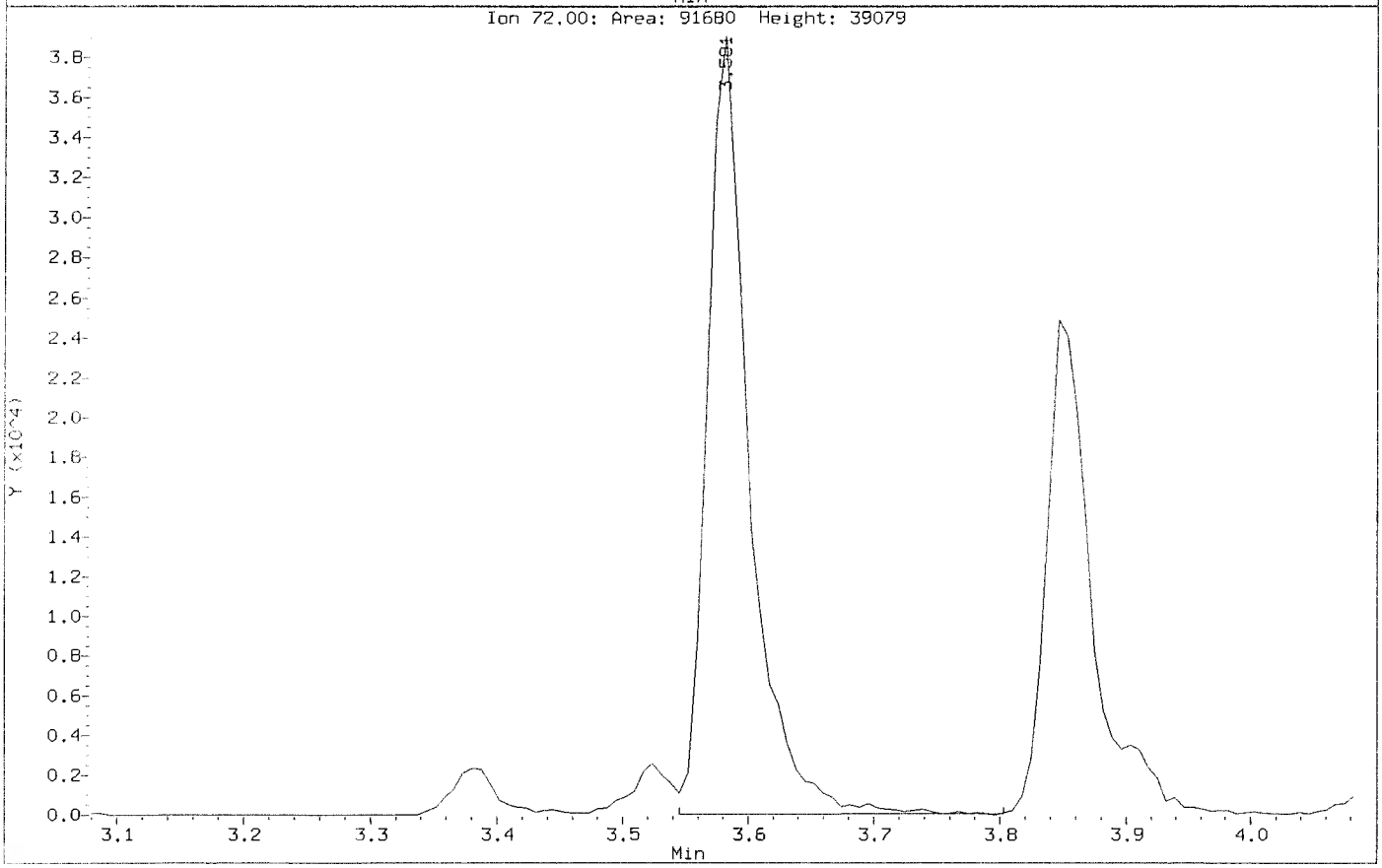




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Instrument: voa6.i
Client Sample ID: VSTD100

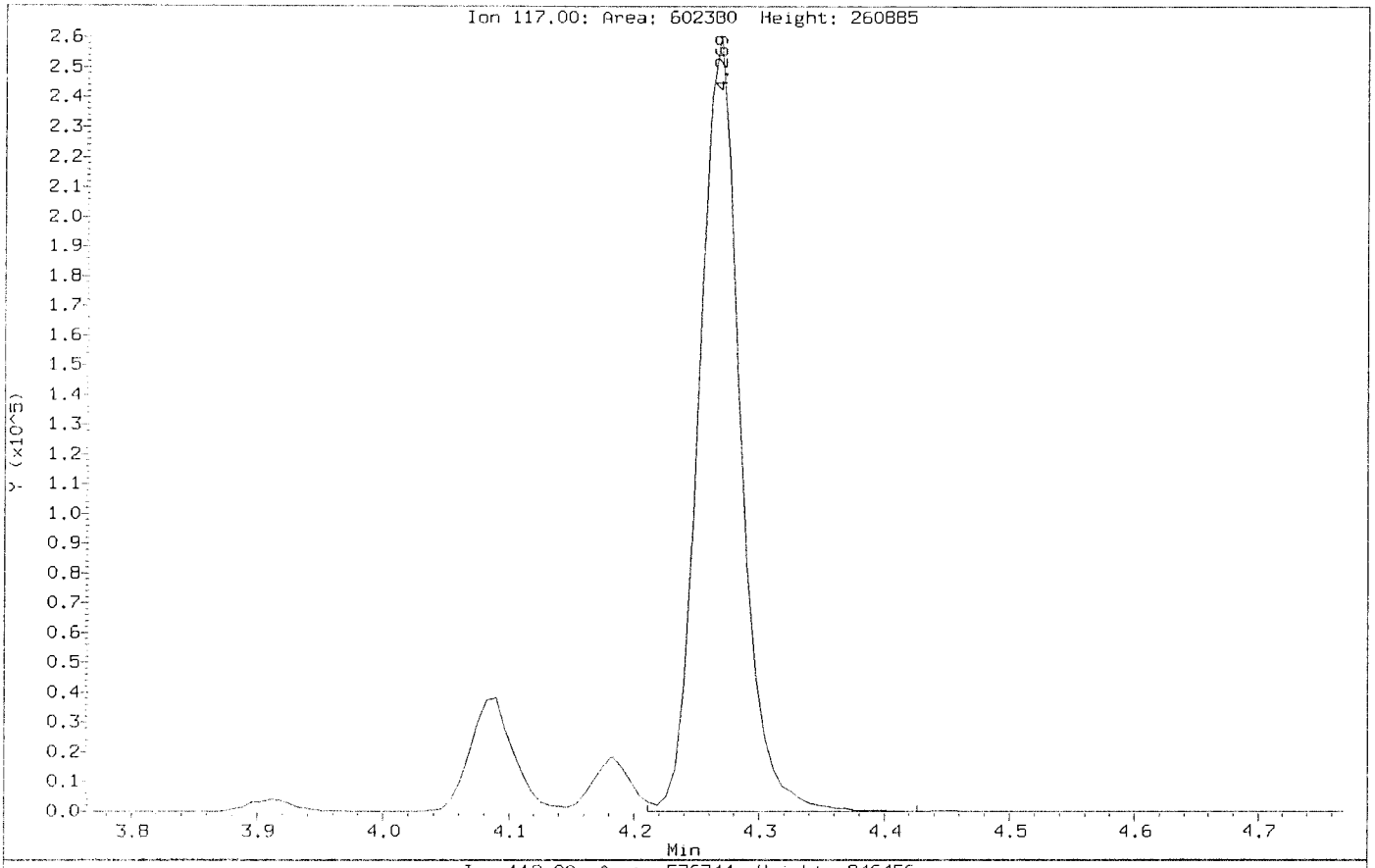
Compound: 2-Butanone
CAS Number: 78-93-3

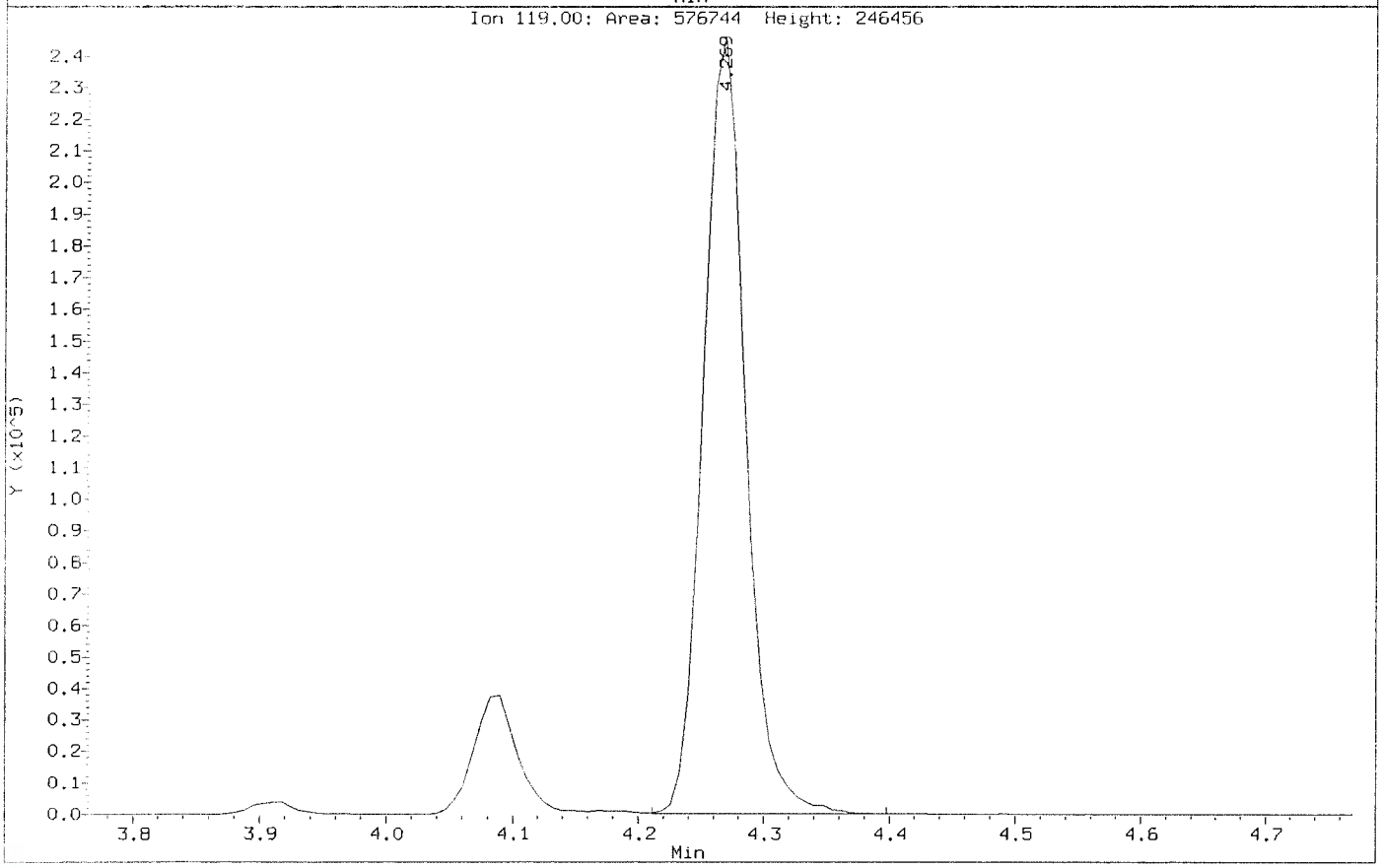




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Injection Date: 26-MAY-2021 15:22
Instrument: voa6.i
Client Sample ID: VSTD100

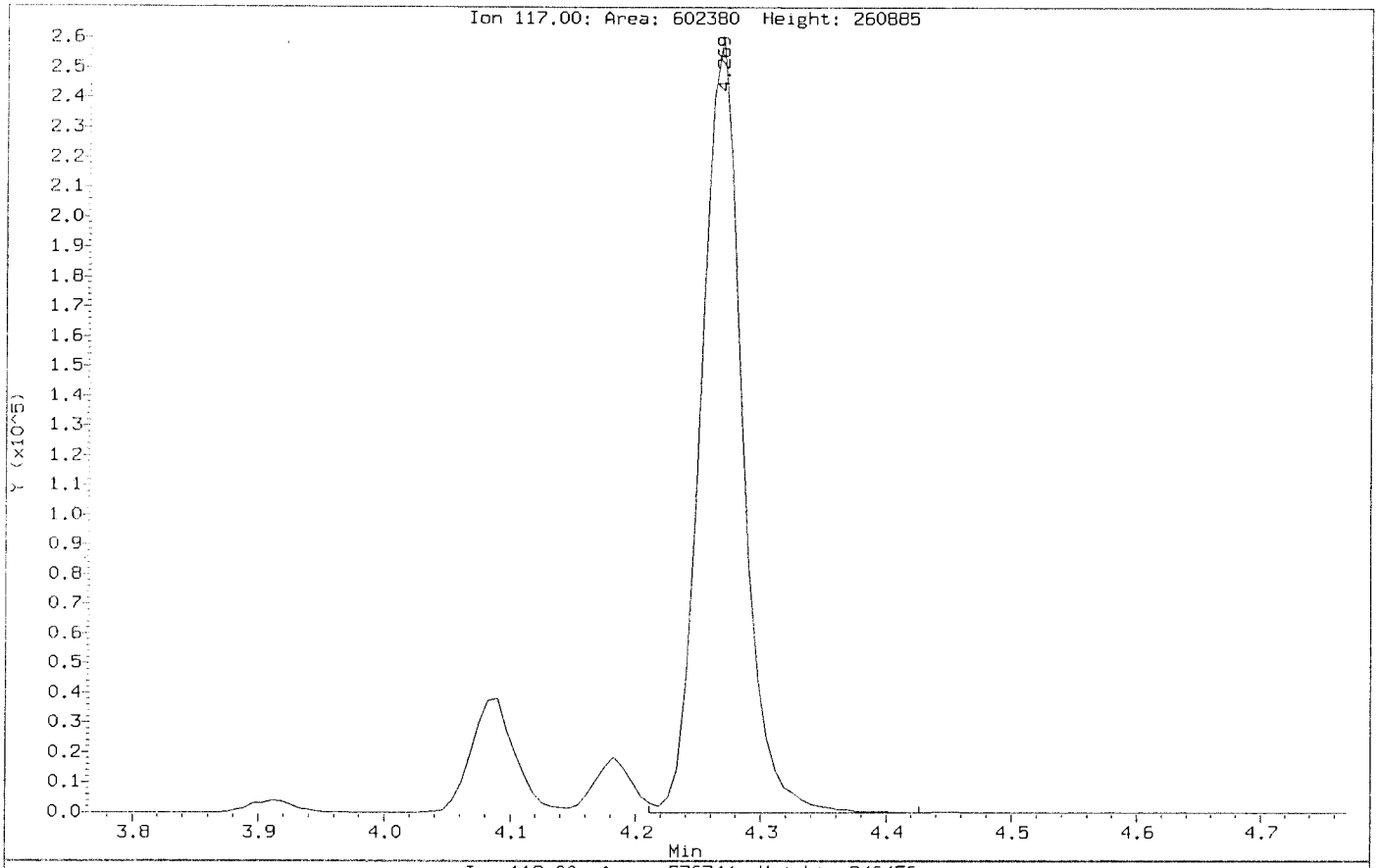
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

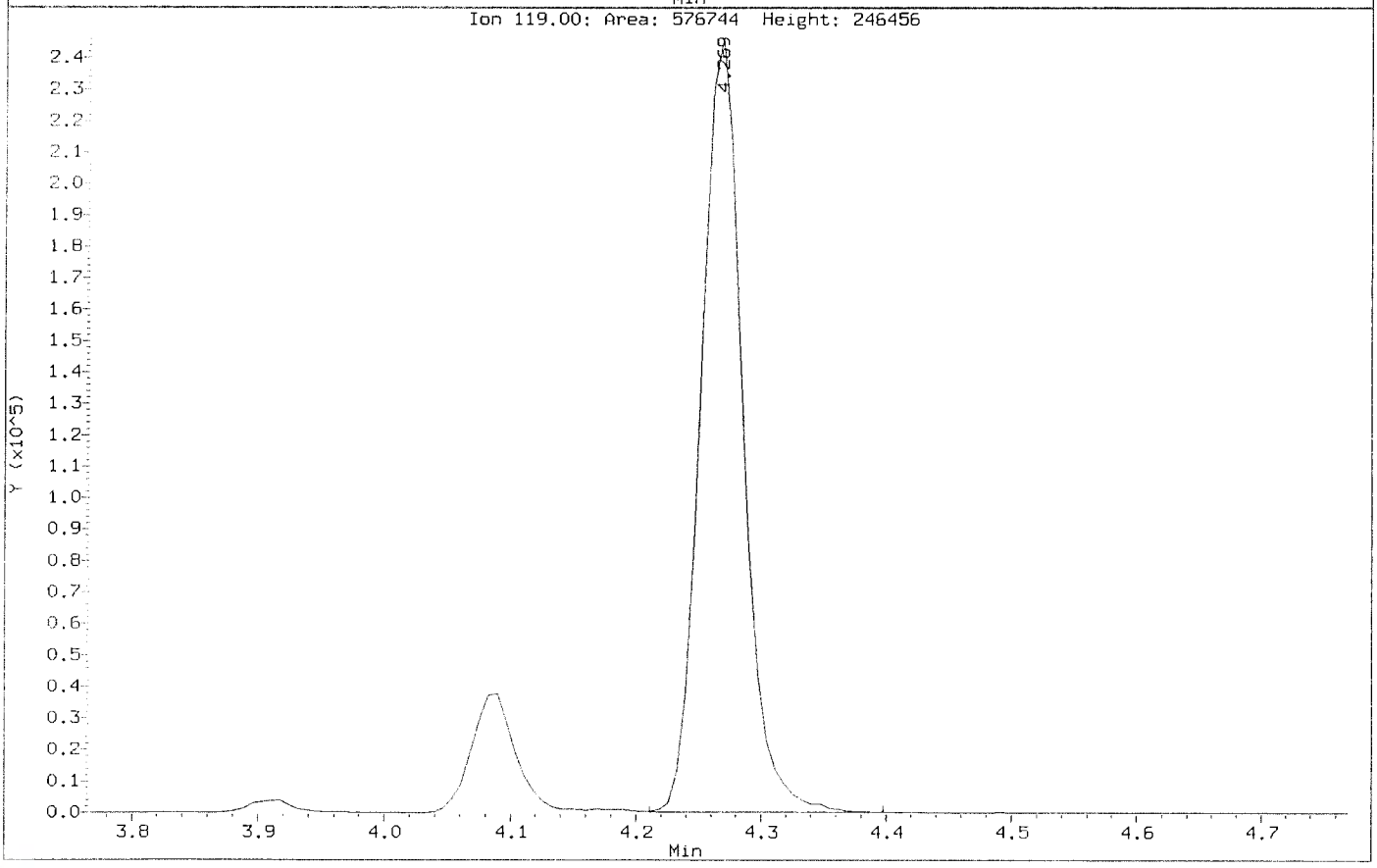




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052609.D
Injection Date: 26-MAY-2021 15:22
Instrument: voa6.i
Client Sample ID: VSTD100

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052610.D
Lab Smp Id: VSTD150 Client Smp ID: VSTD150
Inj Date : 26-MAY-2021 15:43
Operator : PC Inst ID: voa6.i
Smp Info : VSTD150;VSTD150;1;9;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:22 Cal File: X052609.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

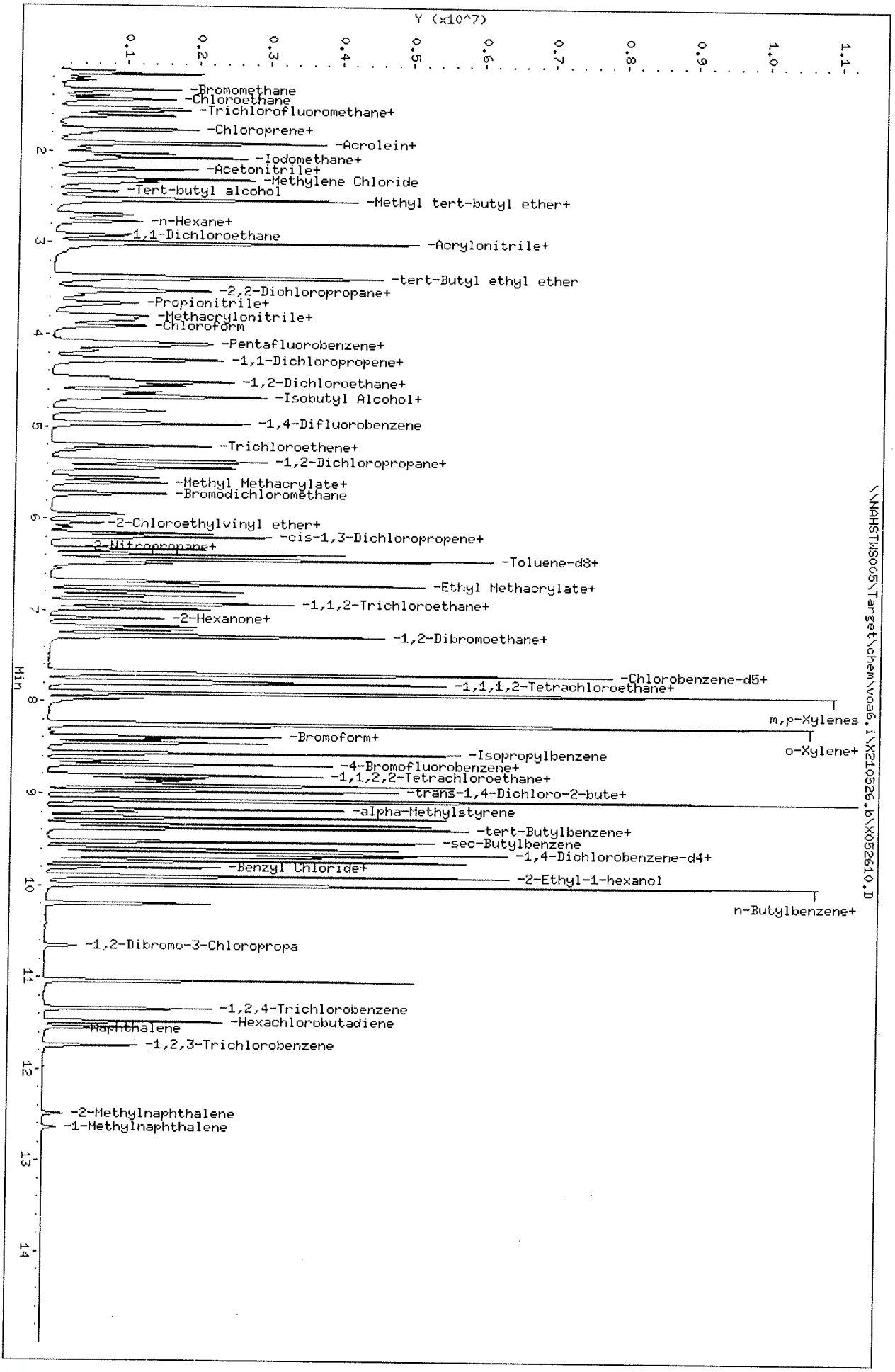
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	496717	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	755988	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	712100	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	415744	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	715769	150.000	146.71
$ 35 1,2-Dichloroethane-d4	65	4.468	4.468	(1.069)	696836	150.000	148.20
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	2408134	150.000	135.76
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	931244	150.000	147.42
60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	784505	150.000	148.96
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	1024526	150.000	139.57
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	832157	150.000	147.15
53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	547310	150.000	141.88
22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	1041496	150.000	132.62
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	716685	150.000	140.07
32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	803649	150.000	138.79
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	385015	150.000	152.97
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	694082	150.000	133.90(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	655214	150.000	161.83
79 1,2,4-Trimethylbenzene	105	9.382	9.382	(0.971)	2691902	150.000	141.96
89 1,2-Dibromo-3-Chloropropane	155	10.657	10.657	(1.103)	97075	150.000	146.19
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	745007	150.000	142.10
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	1675583	150.000	148.59

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.554	4.554	(0.918)	860786	150.000	142.90
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	625353	150.000	140.52
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	2725713	150.000	144.43
83	1,3-Dichlorobenzene	146	9.604	9.604	(0.994)	1646410	150.000	140.40
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	1072067	150.000	139.76
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	1693050	150.000	138.35
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	926747	150.000	136.37
24	2-Butanone	43	3.580	3.580	(0.856)	418873	300.000	277.17(AH)
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	2094808	150.000	134.61
52	2-Hexanone	43	7.090	7.090	(0.924)	794291	300.000	300.27(A)
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	2610637	150.000	140.87
82	p-Isopropyltoluene	119	9.647	9.647	(0.999)	2849522	150.000	148.23
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	1175728	300.000	286.71(A)
10	Acetone	43	1.976	1.976	(0.473)	361295	300.000	295.78(A)
37	Benzene	78	4.511	4.511	(0.909)	2402438	150.000	138.33
74	Bromobenzene	156	8.802	8.802	(0.911)	992332	150.000	143.86
29	Bromochloromethane	128	3.795	3.795	(0.909)	412667	150.000	137.39
39	Bromodichloromethane	83	5.722	5.722	(1.153)	921182	150.000	141.73
66	Bromoform	173	8.408	8.408	(1.096)	649384	150.000	163.53
6	Bromomethane	94	1.331	1.331	(0.318)	786302	150.000	152.94
19	Carbon Disulfide	76	2.069	2.069	(0.495)	3195658	300.000	263.37(A)
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	917973	150.000	146.47(H)
59	Chlorobenzene	112	7.692	7.692	(1.003)	2108986	150.000	142.26
7	Chloroethane	64	1.396	1.396	(0.334)	494207	150.000	144.48
28	Chloroform	83	3.910	3.910	(0.935)	1186262	150.000	135.80
3	Chloromethane	50	1.073	1.073	(0.257)	633860	150.000	146.22
27	cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	727278	150.000	139.69
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	1139309	150.000	148.76
55	Dibromochloromethane	129	7.176	7.176	(0.936)	882492	150.000	150.57
44	Dibromomethane	93	5.550	5.550	(1.118)	476483	150.000	142.48
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	654875	150.000	143.91
61	Ethylbenzene	106	7.799	7.799	(1.017)	1007746	150.000	147.35
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	433230	150.000	150.62
67	Isopropylbenzene	105	8.559	8.559	(1.116)	3224819	150.000	154.32
62	m,p-Xylenes	106	7.907	7.907	(1.031)	2710635	300.000	304.04(A)
17	Methylene Chloride	84	2.305	2.305	(0.551)	646121	150.000	145.92
87	n-Butylbenzene	91	9.991	9.991	(1.034)	2582559	150.000	159.67
73	n-Propylbenzene	91	8.910	8.910	(0.922)	3527326	150.000	136.01
92	Naphthalene	128	11.538	11.538	(1.194)	876476	150.000	147.52
63	o-Xylene	106	8.243	8.243	(1.075)	1321003	150.000	151.95
81	sec-Butylbenzene	105	9.518	9.518	(0.985)	3164362	150.000	144.94
64	Styrene	104	8.258	8.258	(1.077)	2333940	150.000	160.66
78	tert-Butylbenzene	119	9.339	9.339	(0.967)	2327731	150.000	143.87
56	Tetrachloroethene	164	6.925	6.925	(0.903)	689168	150.000	157.21
50	Toluene	91	6.445	6.445	(0.840)	2907224	150.000	139.84
20	trans-1,2-Dichloroethene	96	2.527	2.527	(0.604)	633195	150.000	136.52
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	1006695	150.000	152.37
38	Trichloroethene	130	5.206	5.206	(1.049)	743912	150.000	143.37
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	1277632	150.000	142.49
5	Vinyl Chloride	62	1.138	1.138	(0.272)	799846	150.000	136.03

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

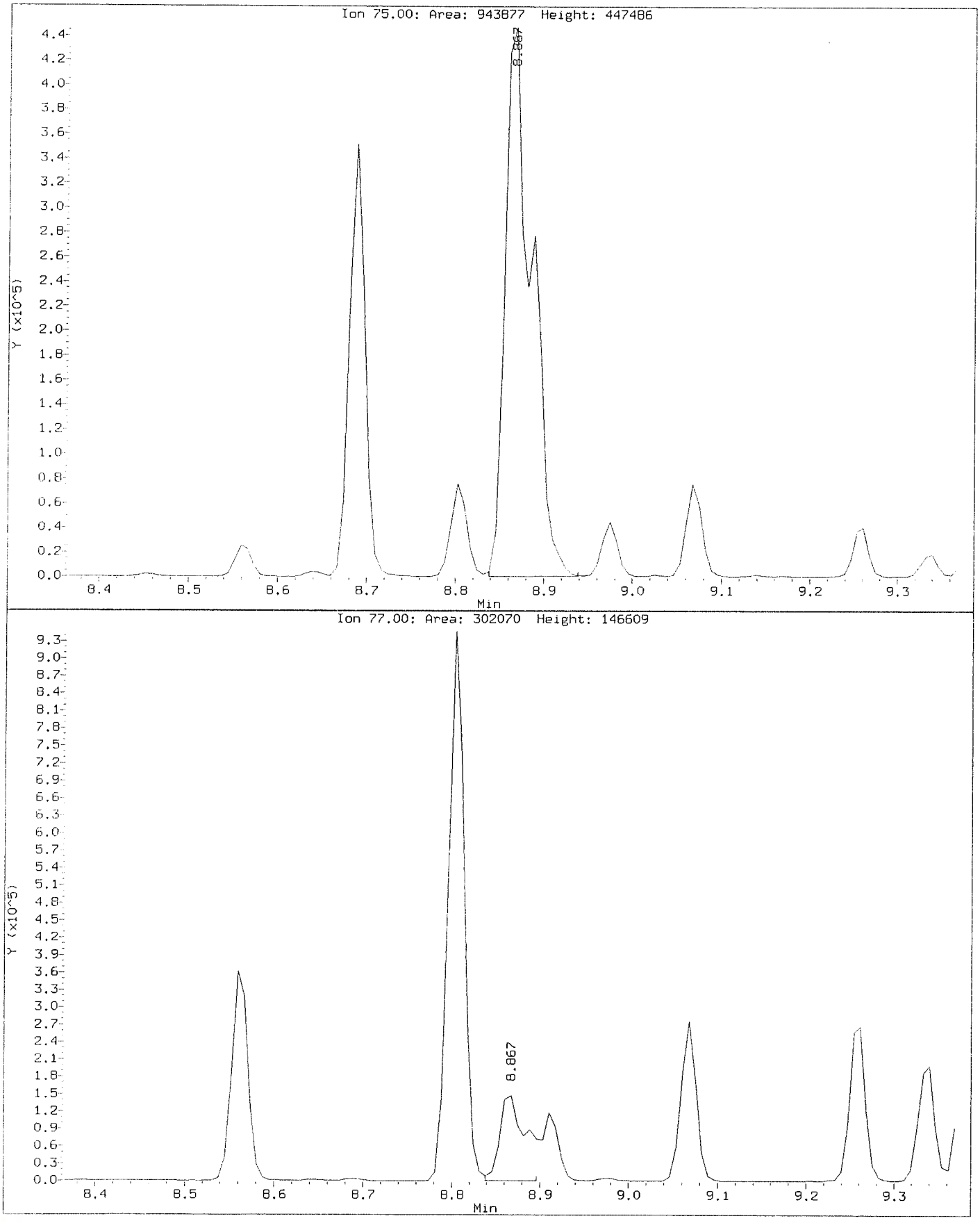


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Date : 26-MAY-2021 15:43
Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;9;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

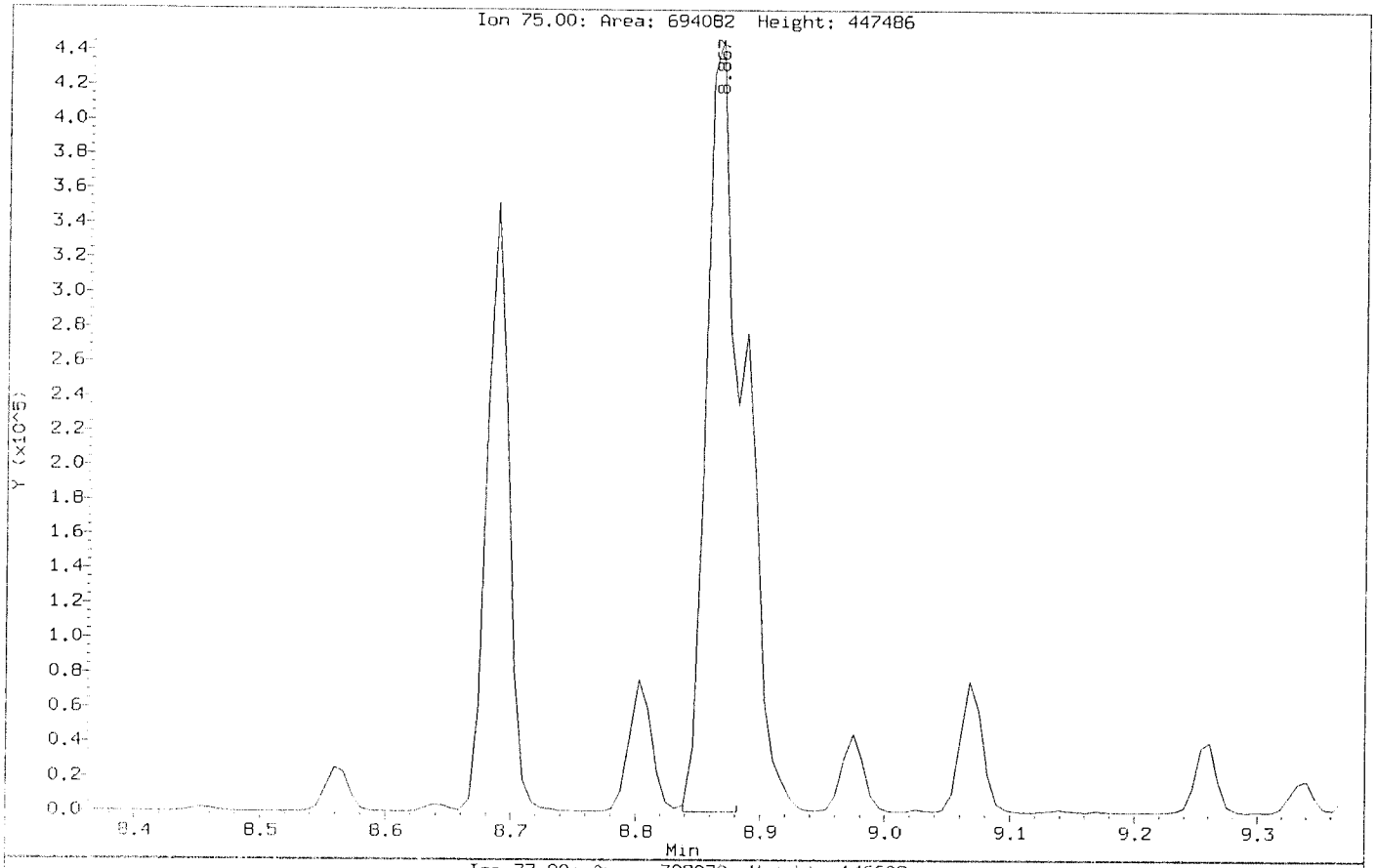
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Client Sample ID: VSTD150

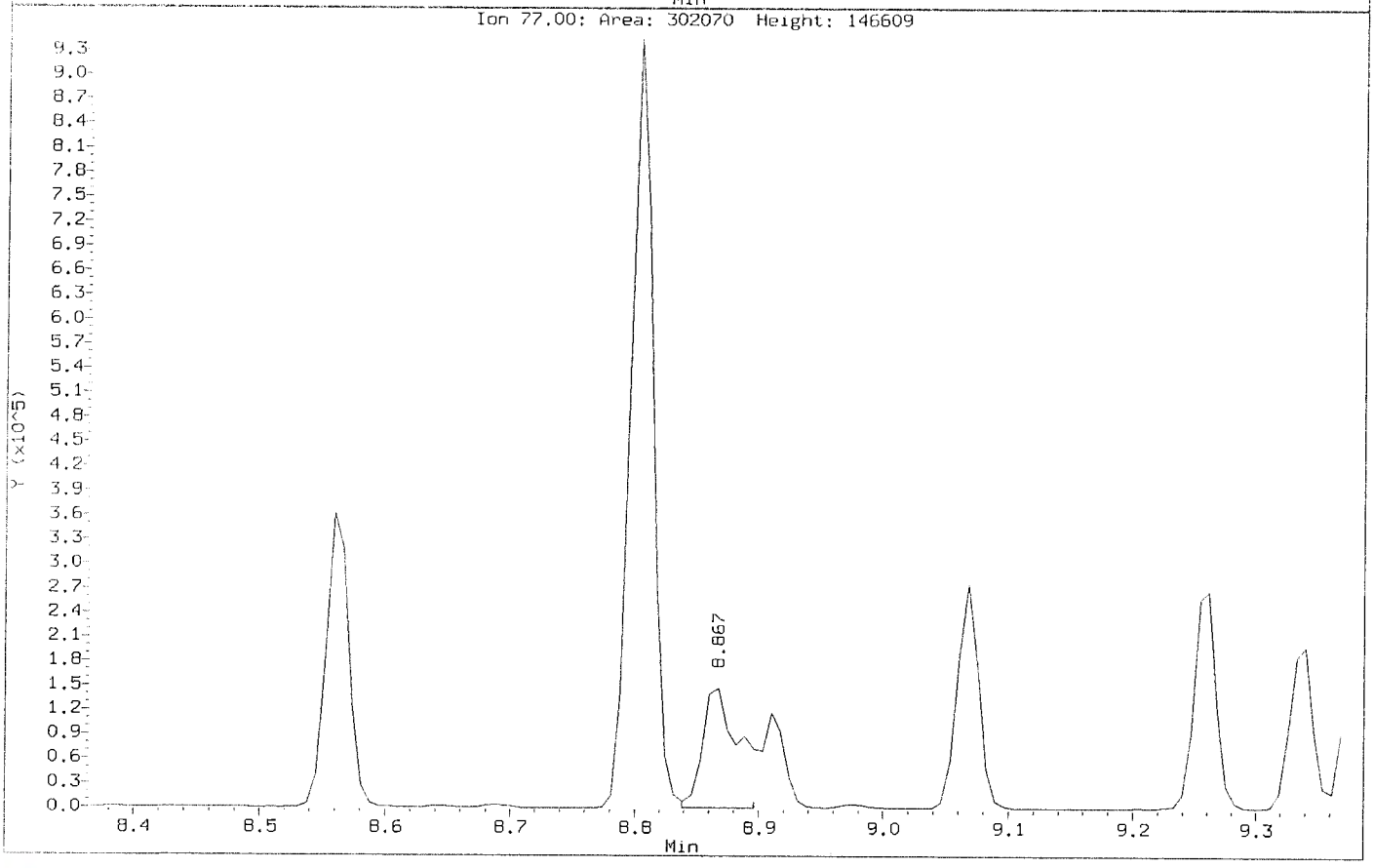
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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Instrument: voa6.i
Client Sample ID: VSTD150

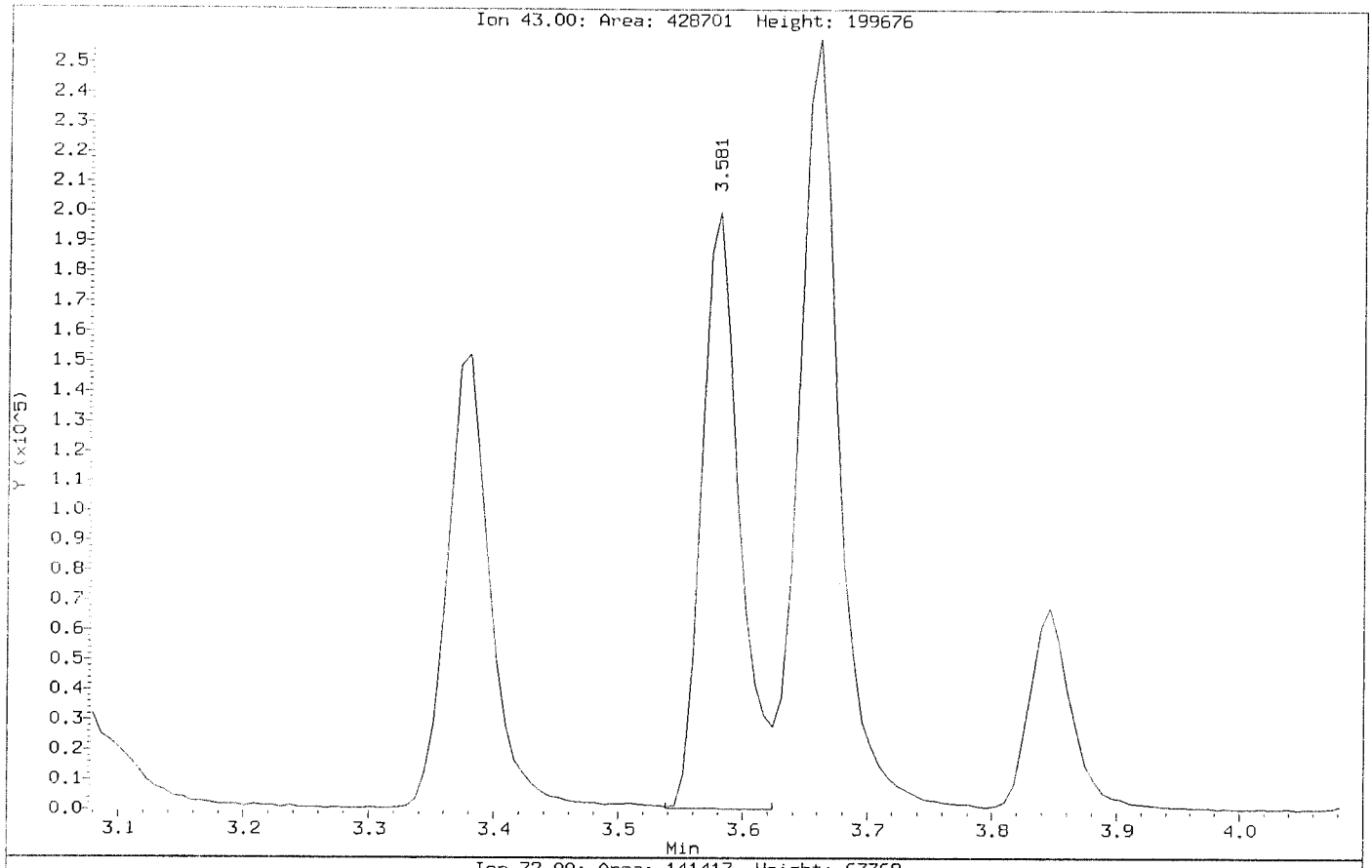
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

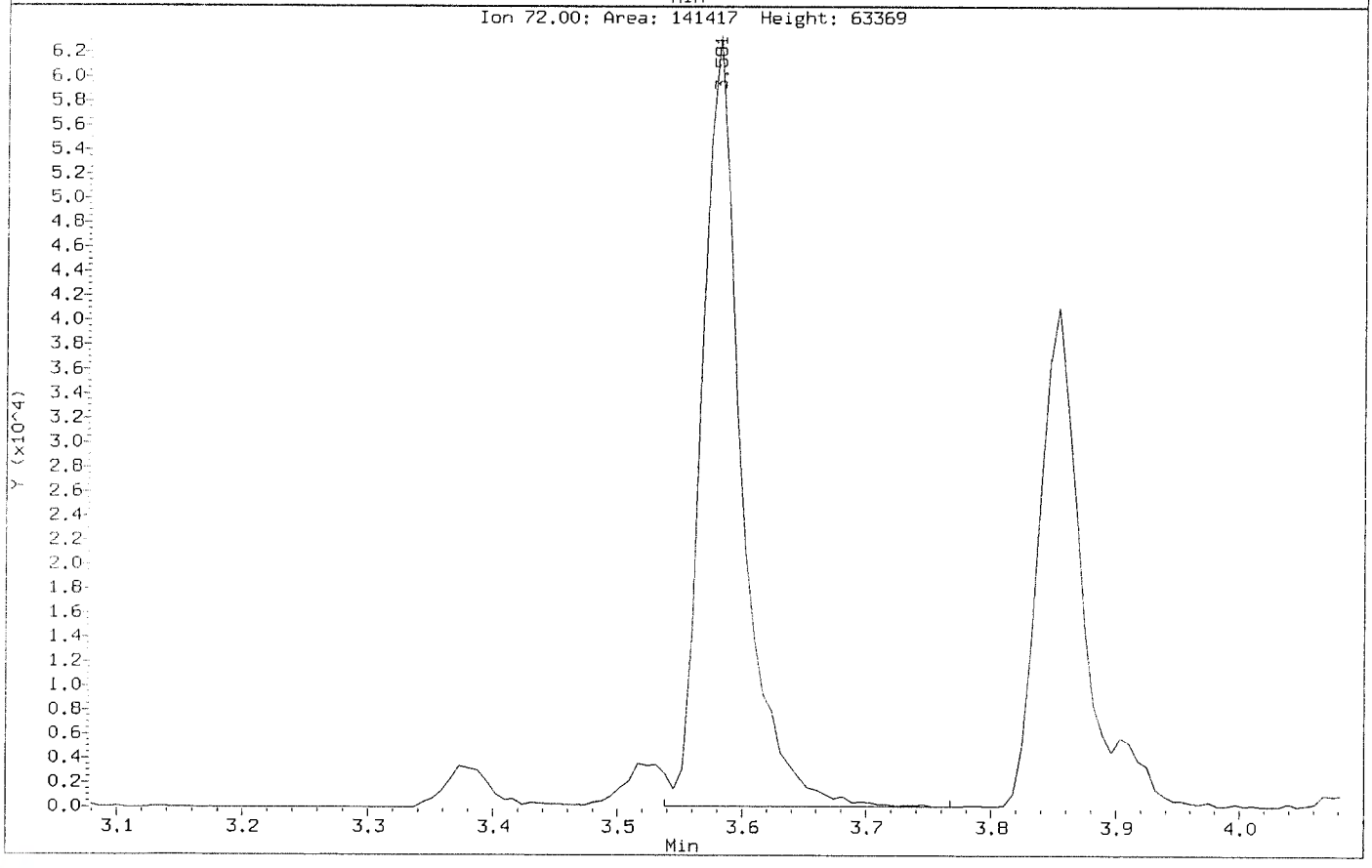




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Client Sample ID: VSTD150

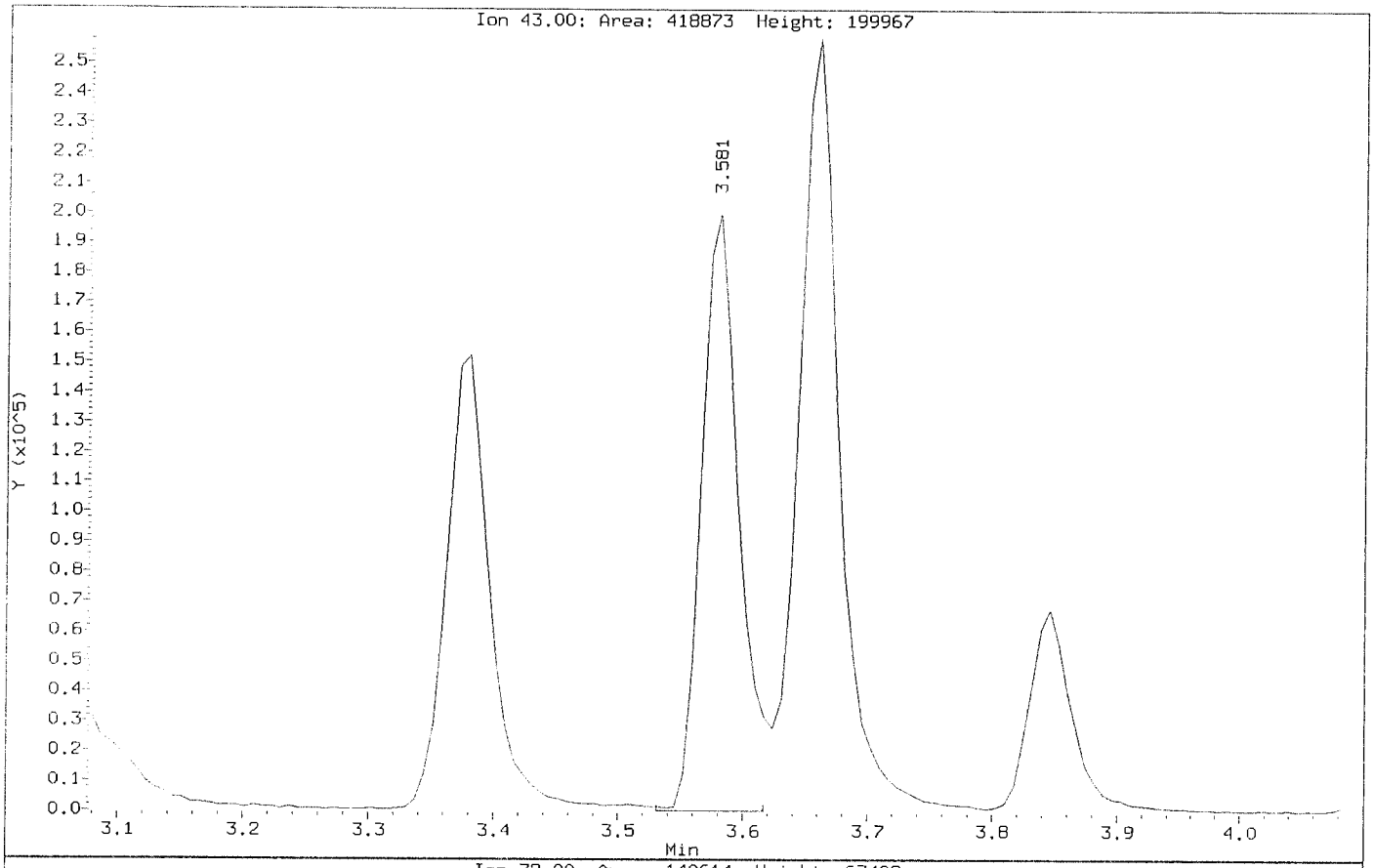
Compound: 2-Butanone
CAS Number: 78-93-3

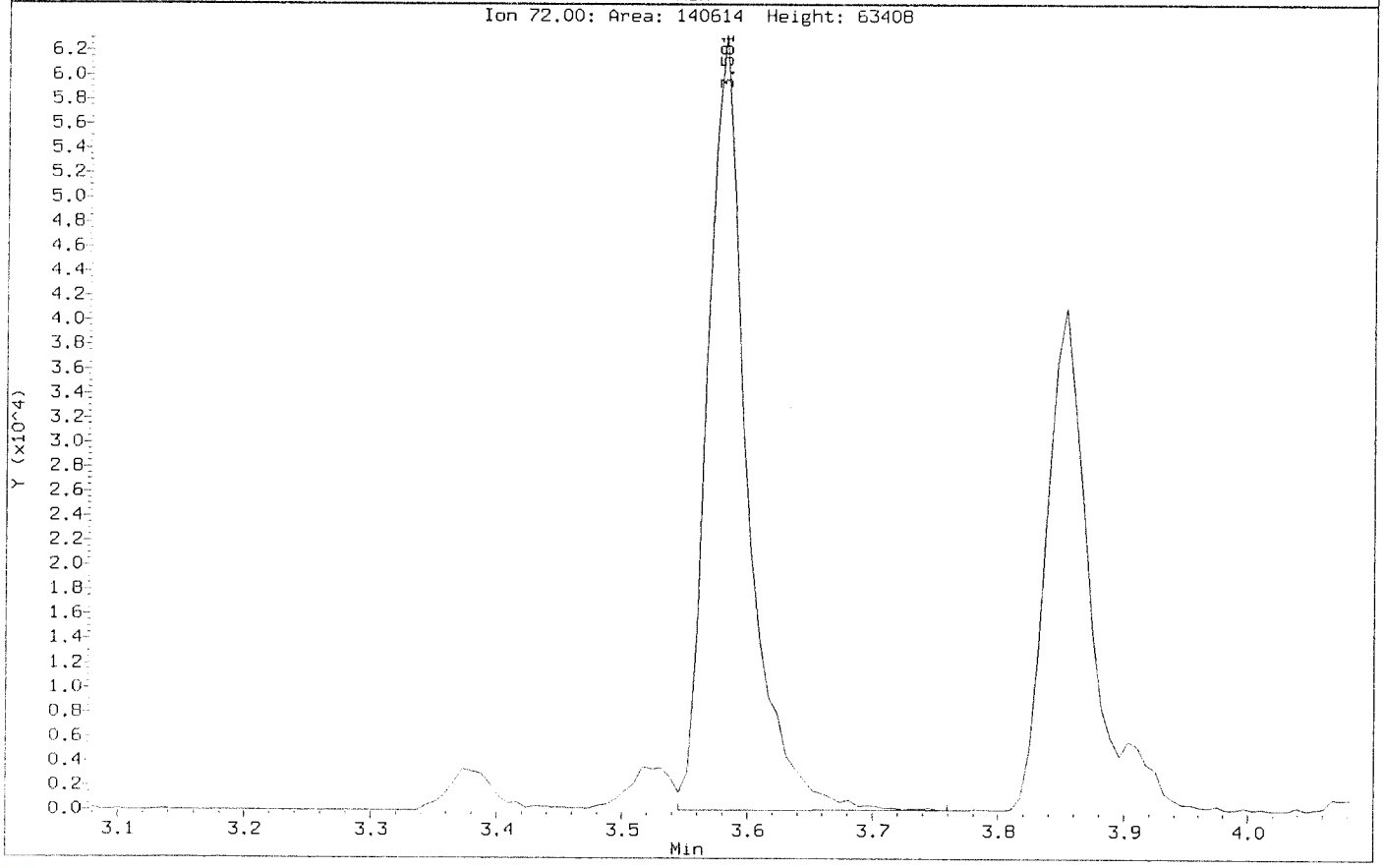




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Client Sample ID: VSTD150

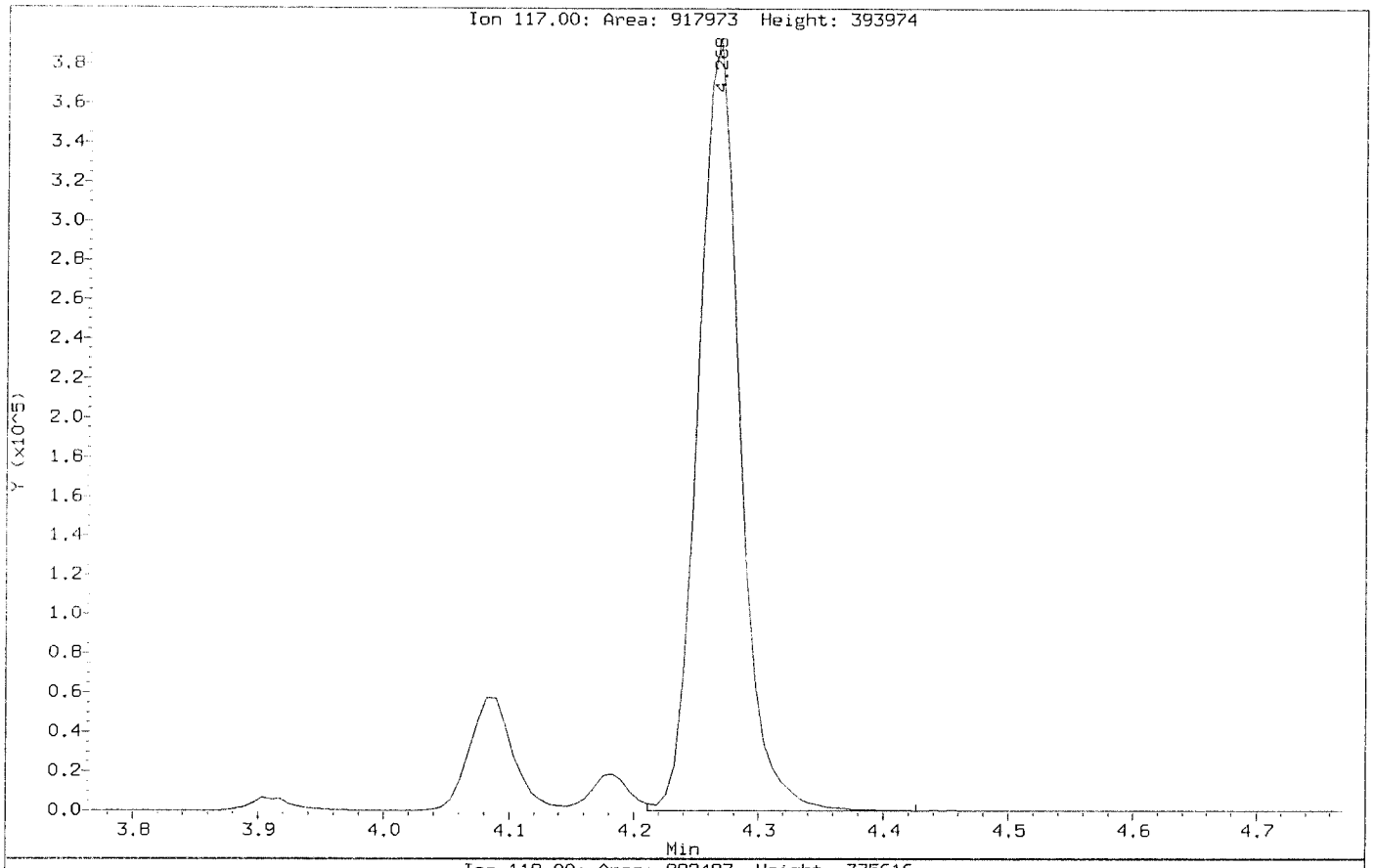
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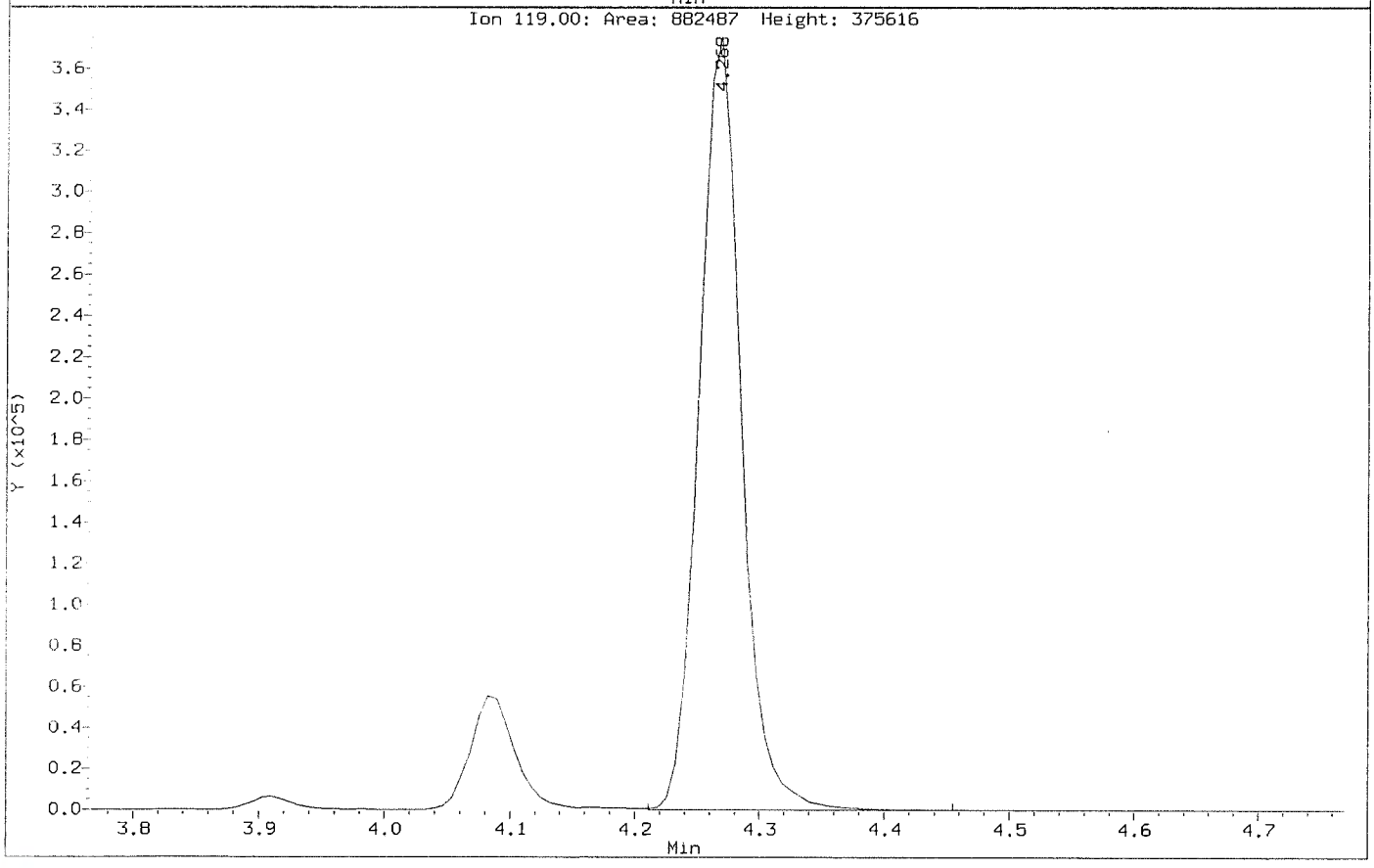




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Instrument: voa6.i
Client Sample ID: VSTD150

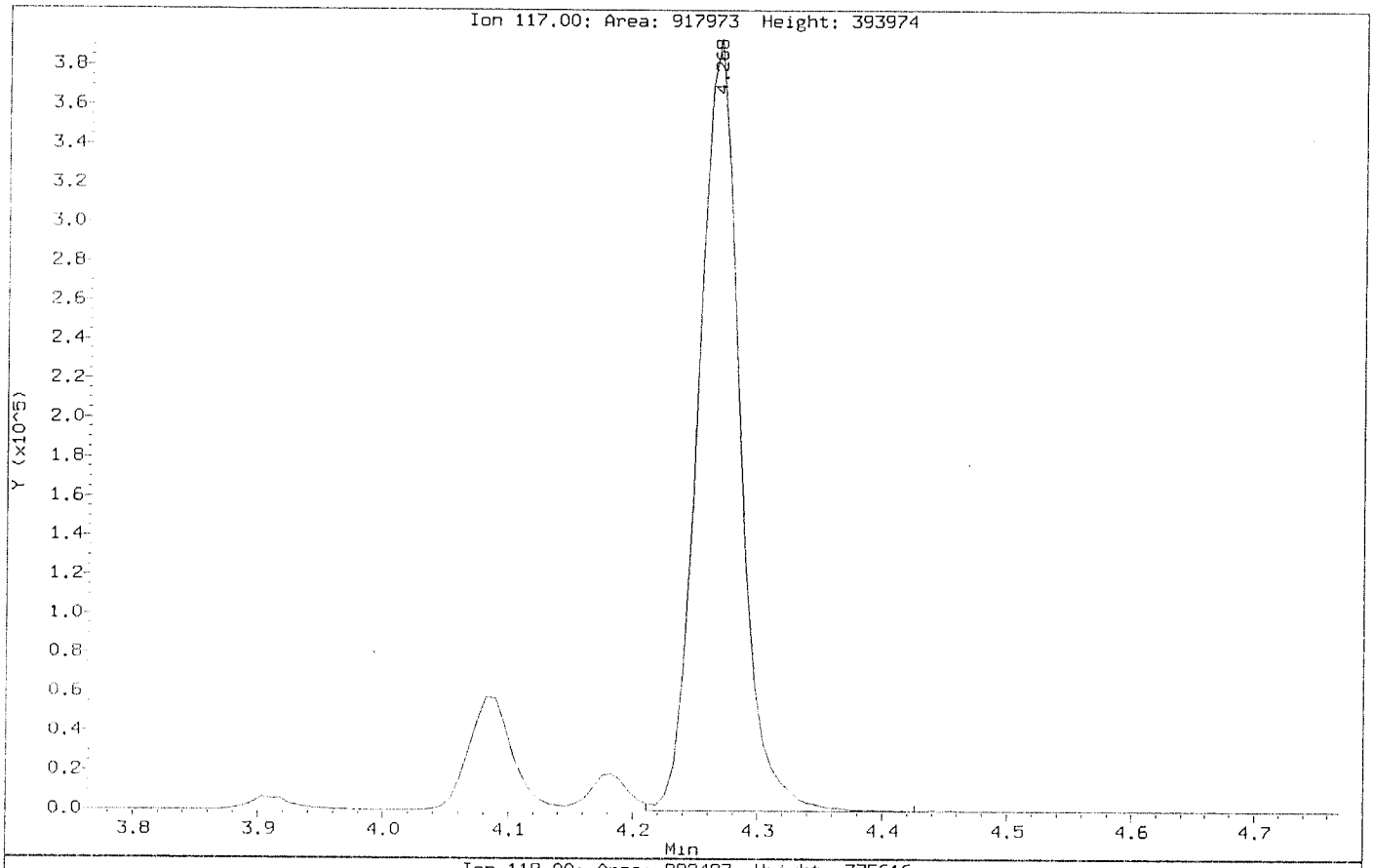
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

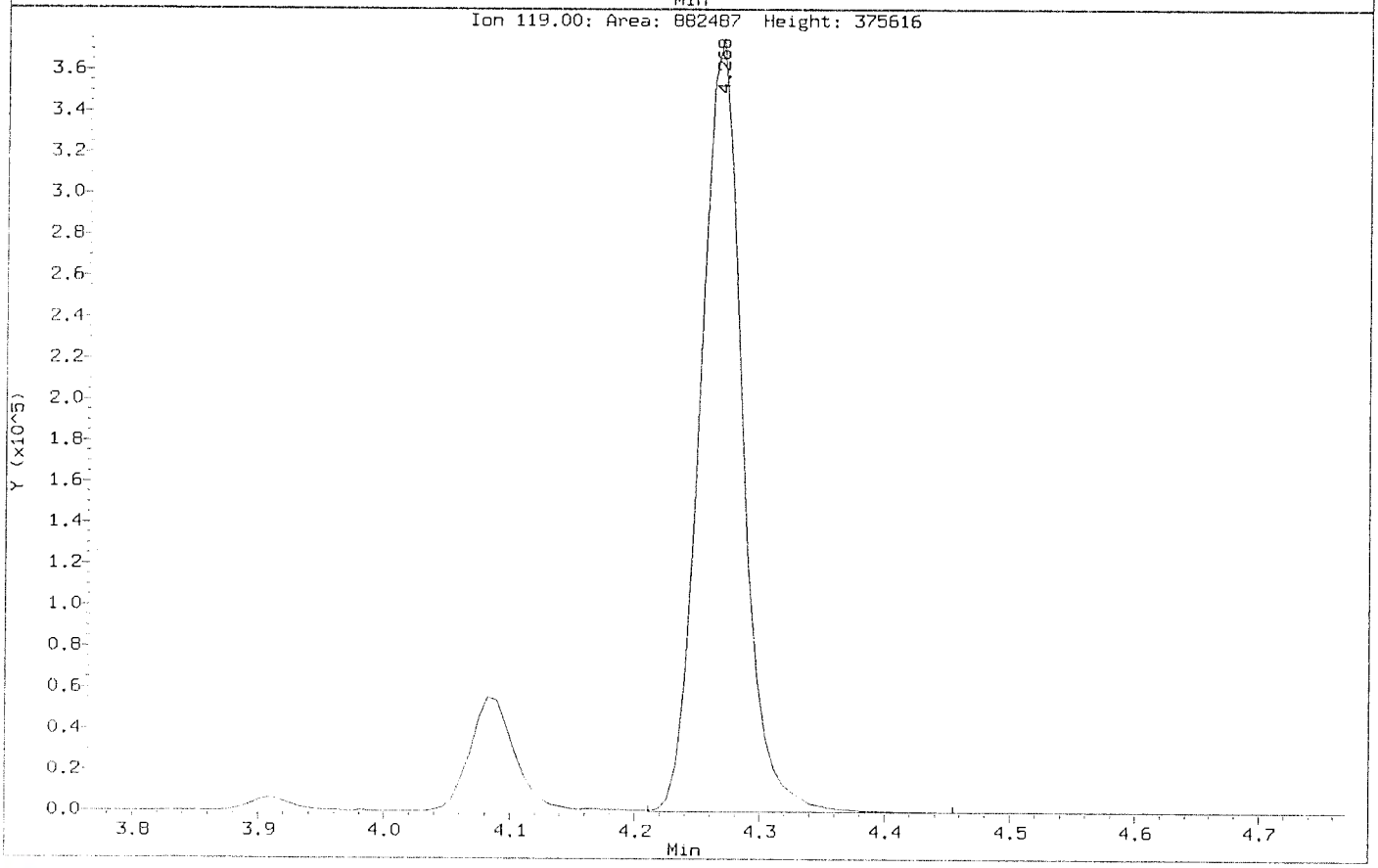




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Injection Date: 26-MAY-2021 15:43
Instrument: voa6.i
Client Sample ID: VSTD150

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052611.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 26-MAY-2021 16:04
Operator : PC Inst ID: voa6.i
Smp Info : VSTD200;VSTD200;1;10;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:43 Cal File: X052610.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

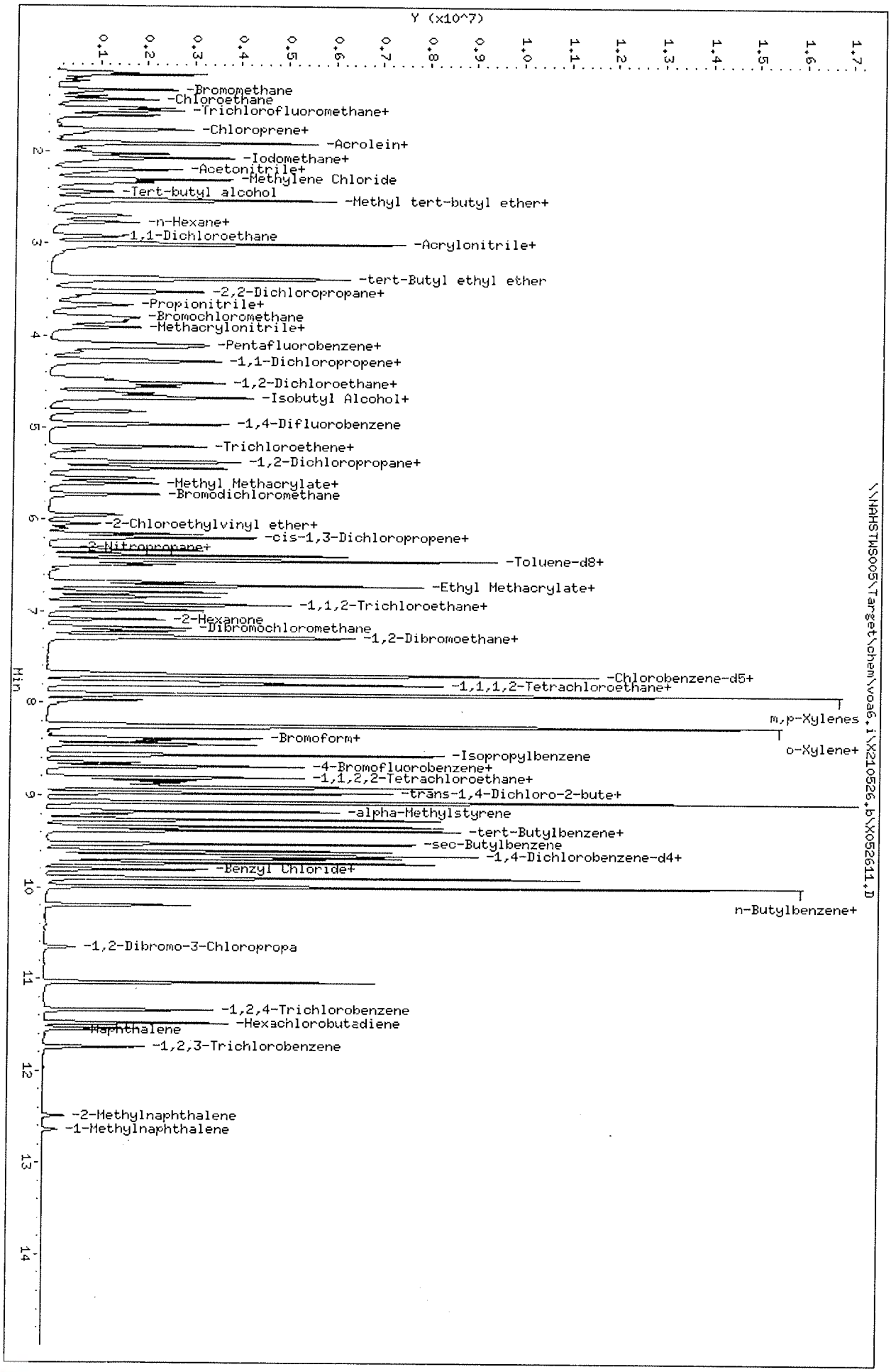
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	527290	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	811816	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	755473	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	445629	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	1043408	200.000	201.53(A)
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	998694	200.000	200.33(A)
$	48 Toluene-d8	98	6.388	6.388	(0.833)	3611012	200.000	191.88
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	1352939	200.000	201.60(A)
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	1160674	200.000	207.74(A)
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	1546157	200.000	198.41
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	1217789	200.000	201.34(A)
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	795336	200.000	194.34
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	1553138	200.000	186.31
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	1086071	200.000	199.96
	32 1,1-Dichloropropene	75	4.283	4.283	(0.863)	1215669	200.000	195.52
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	587179	200.000	217.65(A)
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	1016225	200.000	182.90(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	1006020	200.000	228.33(A)
	79 1,2,4-Trimethylbenzene	105	9.383	9.383	(0.971)	3984770	200.000	196.04
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	144783	200.000	203.21(A)
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	1081620	200.000	194.46
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	2444820	200.000	202.26(A)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052611.D Page 2
Report Date: 30-Jun-2021 18:30

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	1287189	200.000	198.99
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	927936	200.000	194.18
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	4079042	200.000	201.65(A)
83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	2476726	200.000	197.04
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	1564813	200.000	192.29
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	2515937	200.000	191.81
26 2,2-Dichloropropane	77	3.509	3.509	(0.839)	1390015	200.000	192.68
24 2-Butanone	43	3.581	3.581	(0.856)	612469	400.000	381.77(AH)
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	3071832	200.000	184.16
52 2-Hexanone	43	7.090	7.090	(0.924)	1187324	400.000	423.08(A)
77 4-Chlorotoluene	91	9.067	9.067	(0.938)	3896306	200.000	196.15
82 p-Isopropyltoluene	119	9.648	9.648	(0.999)	4264800	200.000	206.97(A)
45 4-Methyl-2-Pentanone	43	6.331	6.331	(0.825)	1734309	400.000	398.65(A)
10 Acetone	43	1.976	1.976	(0.473)	519345	400.000	402.63(A)
37 Benzene	78	4.512	4.512	(0.909)	3517442	200.000	188.60
74 Bromobenzene	156	8.810	8.810	(0.912)	1454241	200.000	196.69
29 Bromochloromethane	128	3.795	3.795	(0.908)	600567	200.000	188.36
39 Bromodichloromethane	83	5.722	5.722	(1.153)	1341462	200.000	192.21
66 Bromoform	173	8.408	8.408	(1.096)	949877	200.000	225.48(A)
6 Bromomethane	94	1.331	1.331	(0.318)	1239498	200.000	227.04(A)
19 Carbon Disulfide	76	2.069	2.069	(0.495)	4795917	400.000	372.34(A)
34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	1378935	200.000	204.90(AH)
59 Chlorobenzene	112	7.692	7.692	(1.003)	3148357	200.000	200.18(A)
7 Chloroethane	64	1.396	1.396	(0.334)	731139	200.000	201.91(A)
28 Chloroform	83	3.910	3.910	(0.935)	1752890	200.000	189.03
3 Chloromethane	50	1.073	1.073	(0.257)	908675	200.000	198.43
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	1076621	200.000	194.80
46 cis-1,3-Dichloropropene	75	6.159	6.159	(1.241)	1661934	200.000	202.08(A)
55 Dibromochloromethane	129	7.176	7.176	(0.936)	1301247	200.000	209.27(A)
44 Dibromomethane	93	5.550	5.550	(1.118)	692444	200.000	192.81
2 Dichlorodifluoromethane	85	0.966	0.966	(0.231)	978413	200.000	202.63(A)
61 Ethylbenzene	106	7.800	7.800	(1.017)	1516023	200.000	208.94(A)
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	655226	200.000	199.03
67 Isopropylbenzene	105	8.559	8.559	(1.116)	4812871	200.000	217.10(A)
62 m,p-Xylenes	106	7.907	7.907	(1.031)	4076675	400.000	431.01(A)
17 Methylene Chloride	84	2.298	2.298	(0.550)	946394	200.000	201.84(A)
87 n-Butylbenzene	91	9.991	9.991	(1.034)	3888439	200.000	224.29(A)
73 n-Propylbenzene	91	8.910	8.910	(0.922)	5428268	200.000	195.27
92 Naphthalene	128	11.539	11.539	(1.194)	1334488	200.000	209.55(A)
63 o Xylene	106	8.244	8.244	(1.075)	1968239	200.000	213.41(A)
81 sec-Butylbenzene	105	9.526	9.526	(0.986)	4746456	200.000	202.83(A)
64 Styrene	104	8.258	8.258	(1.077)	3480363	200.000	225.83(A)
78 tert-Butylbenzene	119	9.340	9.340	(0.967)	3505119	200.000	202.12(A)
56 Tetrachloroethene	164	6.933	6.933	(0.904)	1043185	200.000	224.30(A)
50 Toluene	91	6.446	6.446	(0.840)	4409516	200.000	195.93
20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	939280	200.000	190.77
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	1486499	200.000	209.53(A)
38 Trichloroethene	130	5.207	5.207	(1.049)	1115378	200.000	200.18(A)
8 Trichlorofluoromethane	101	1.553	1.553	(0.372)	1890285	200.000	198.60
5 Vinyl Chloride	62	1.138	1.138	(0.272)	1189726	200.000	190.61

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

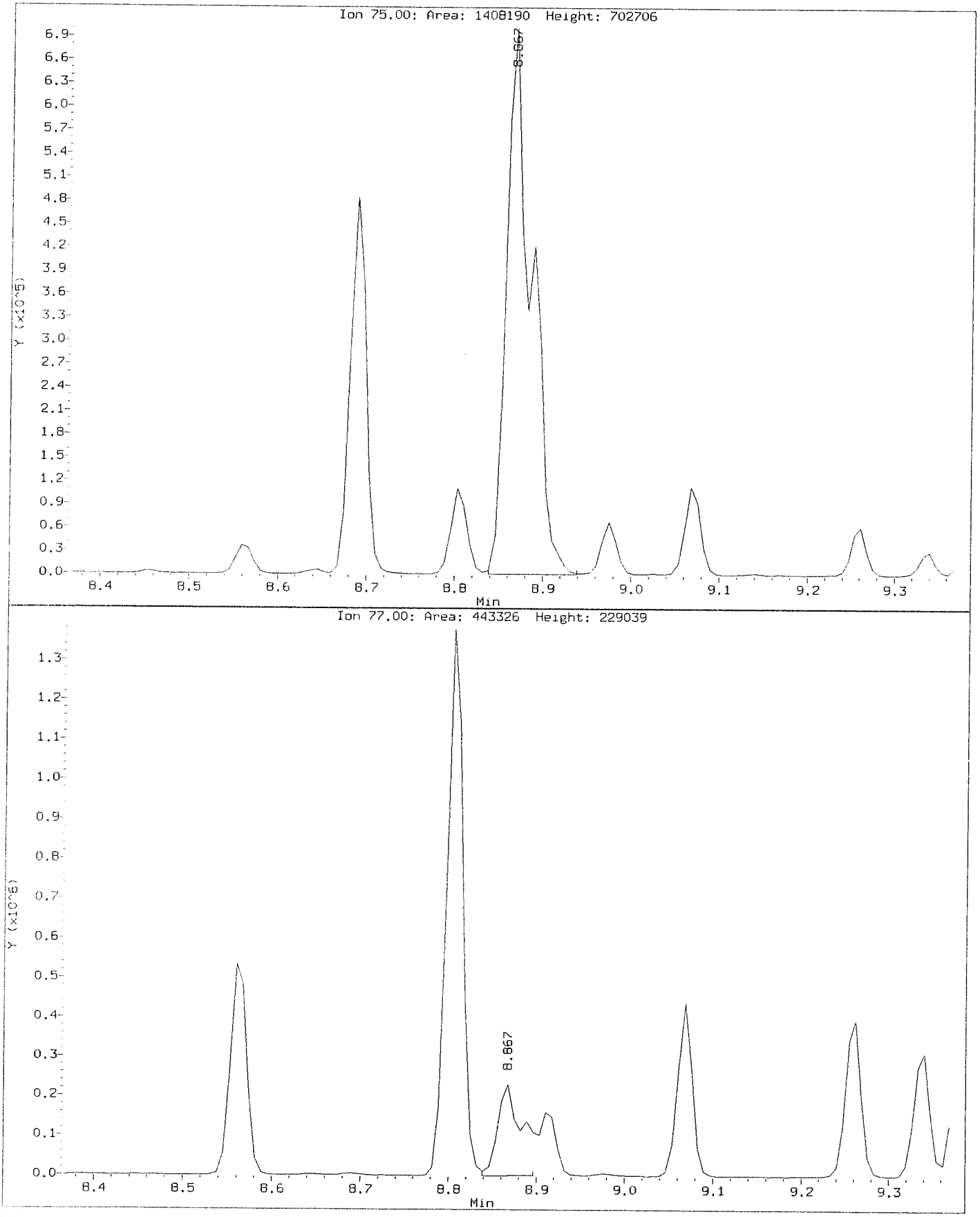


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Sample Info: VSTD200;VSTD200;1;10;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

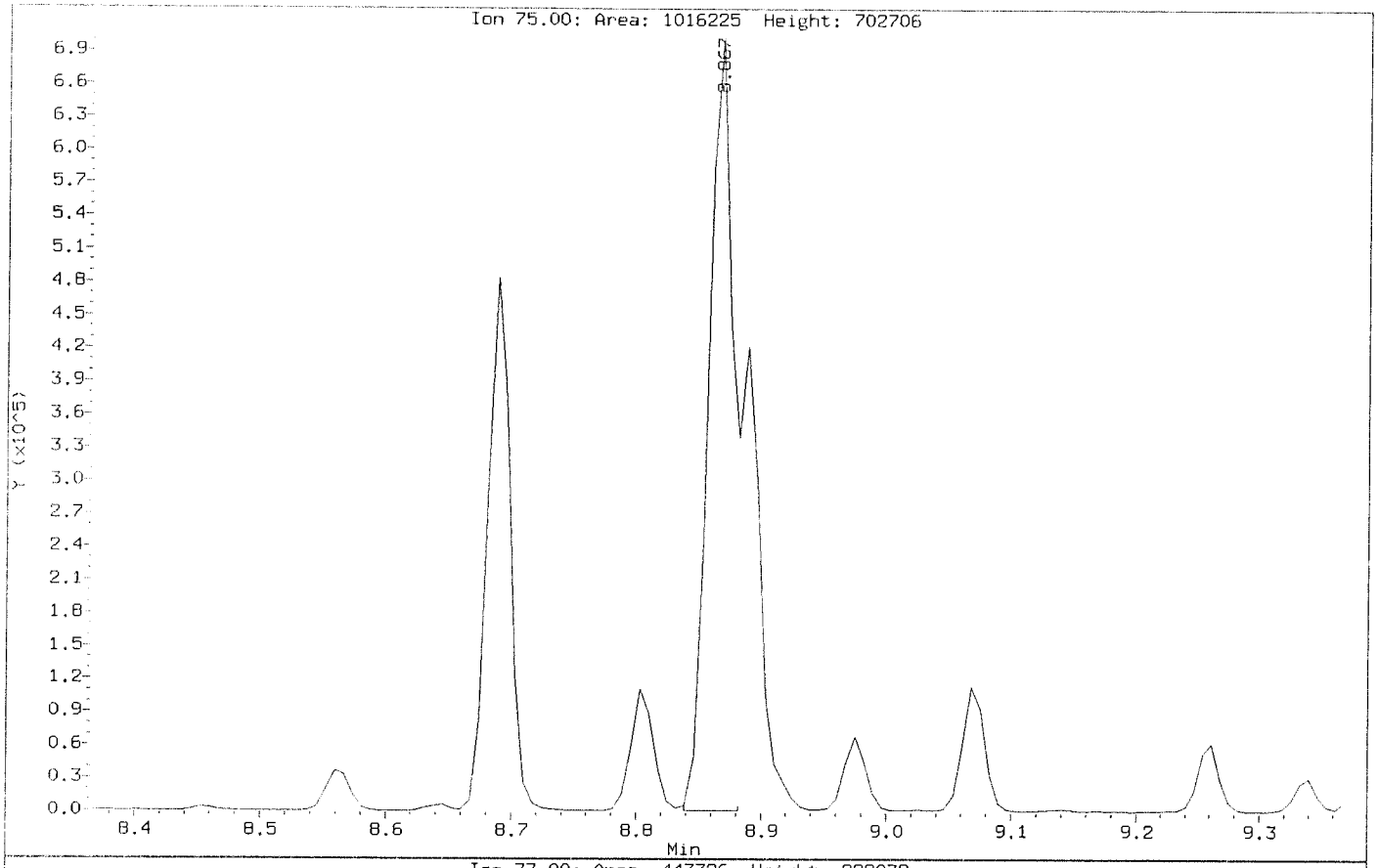
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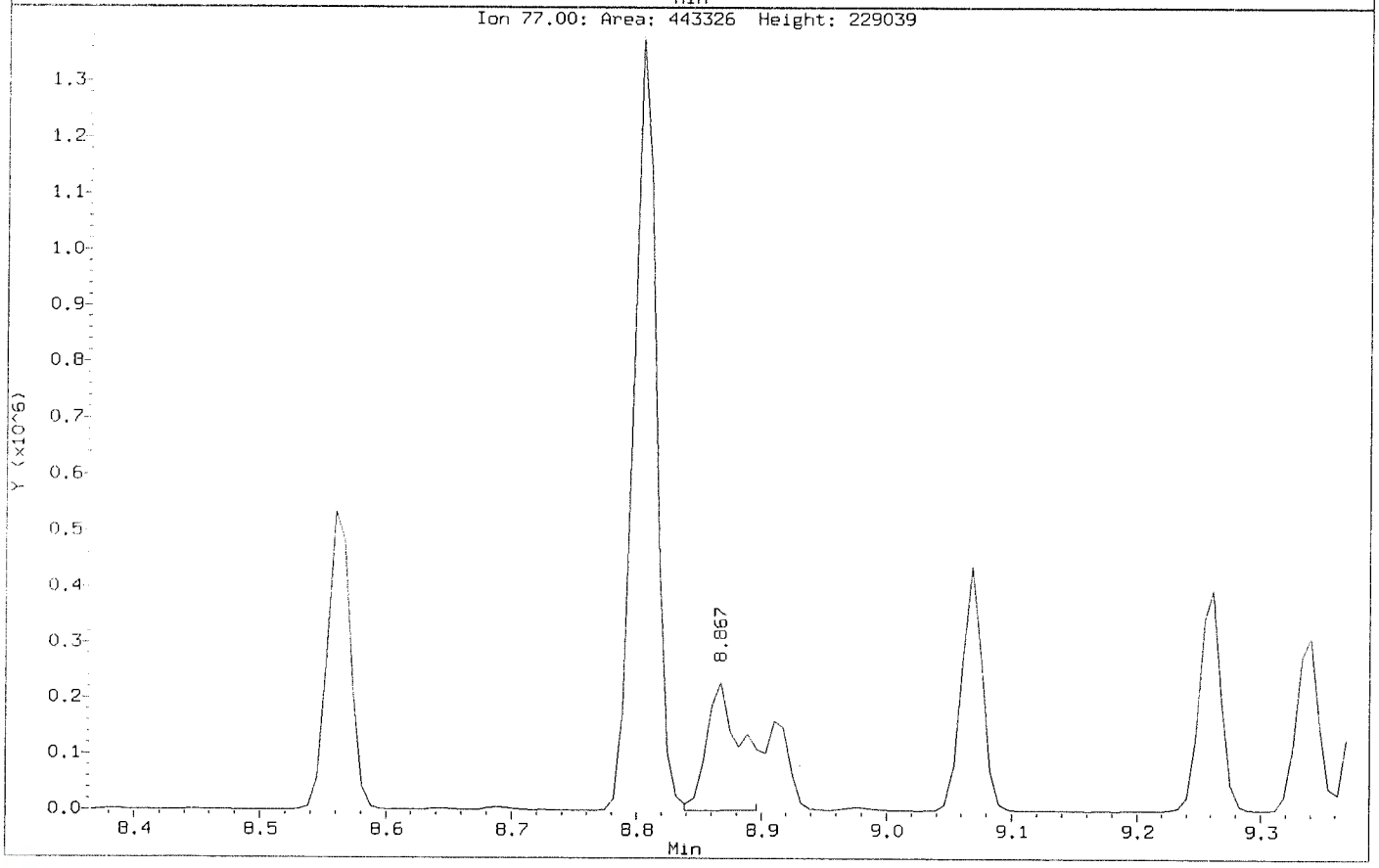
Compound: 1.2.3-Trichloropropane
CAS Number: 96-18-4



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052611.D
Injection Date: 26-MAY-2021 16:04
Instrument: voa6.i
Client Sample ID: VSTD200

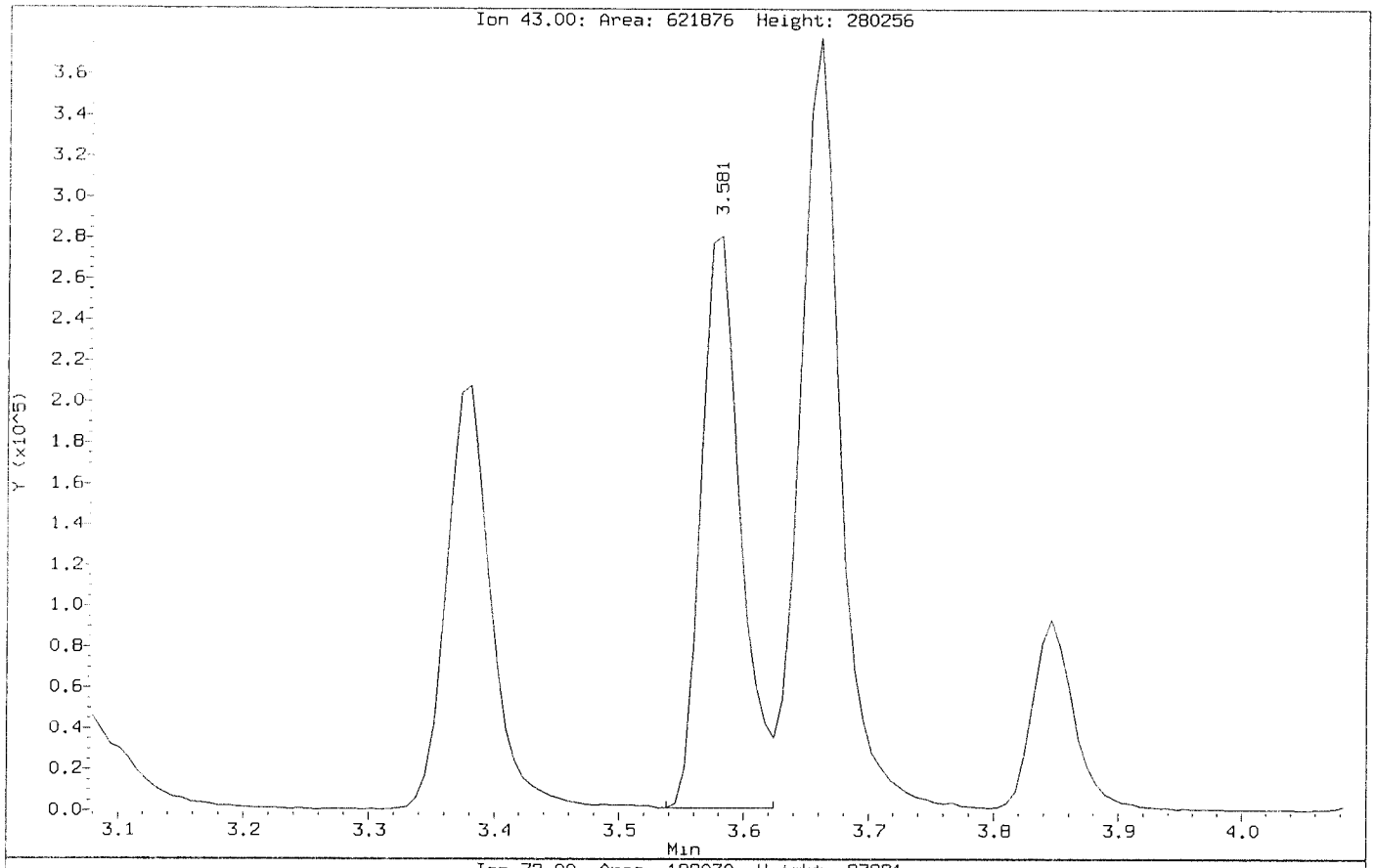
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

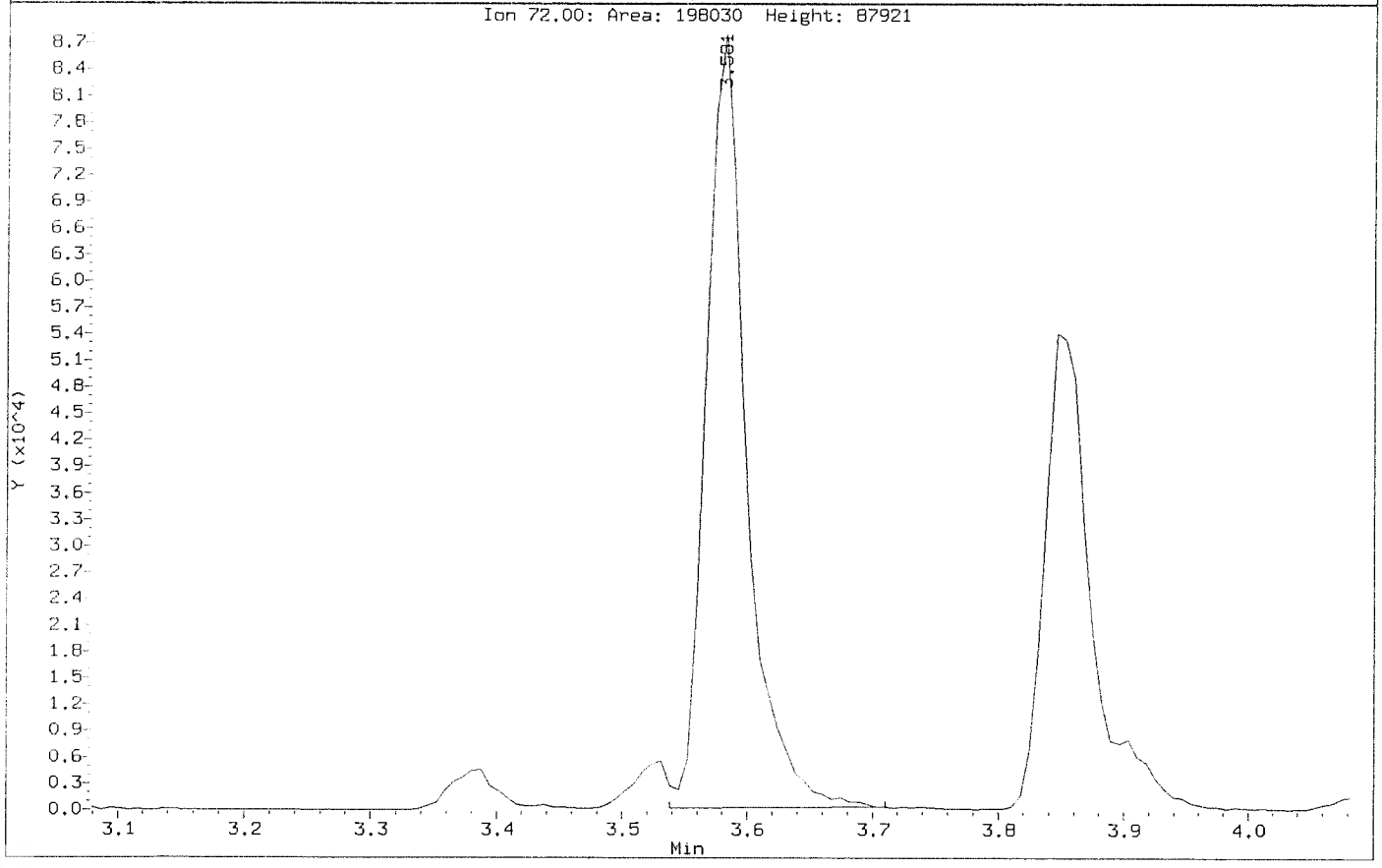




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Injection Date: 26-MAY-2021 16:04
Instrument: voa6.i
Client Sample ID: VSTD200

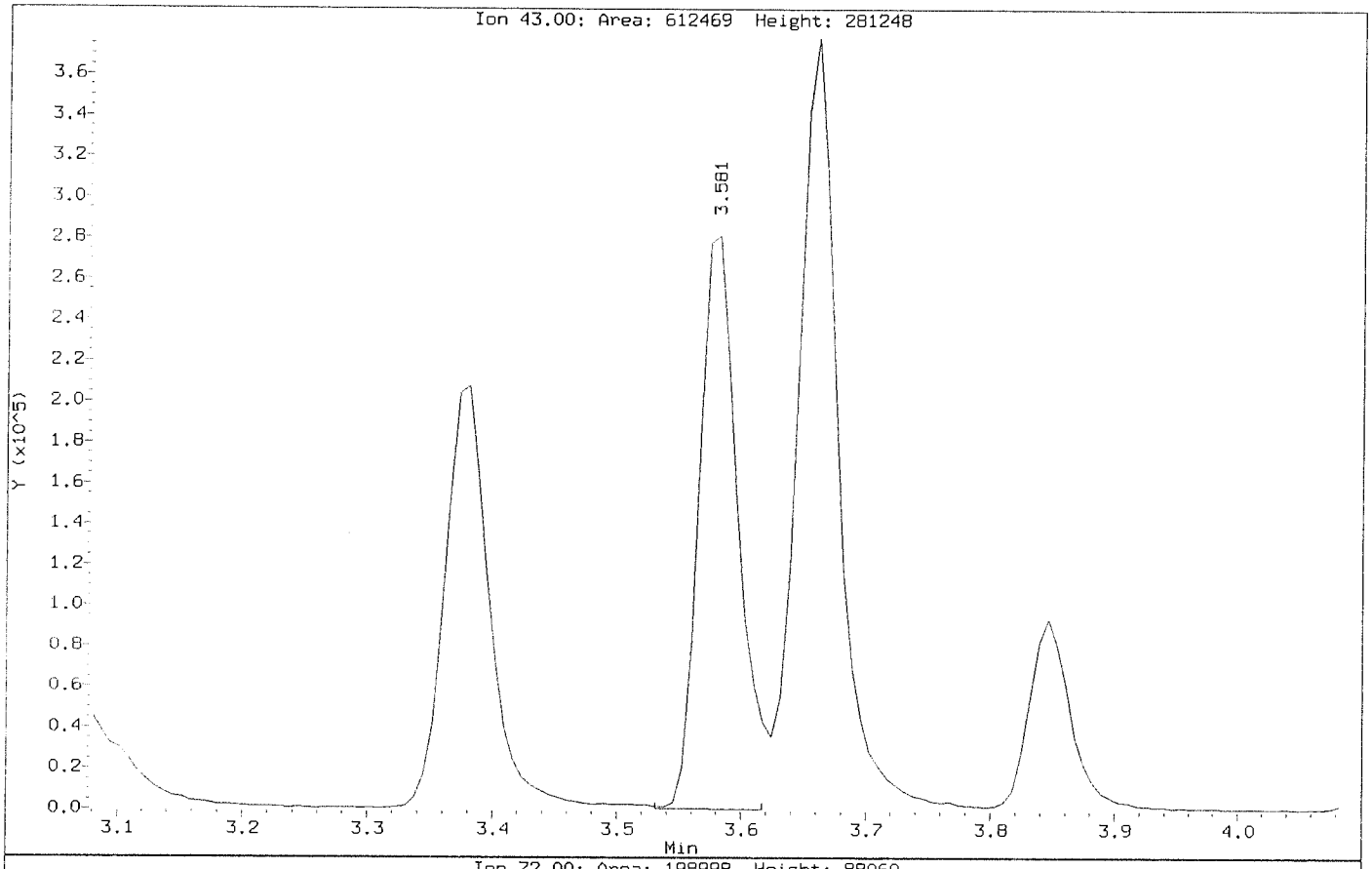
Compound: 2-Butanone
CAS Number: 78-93-3

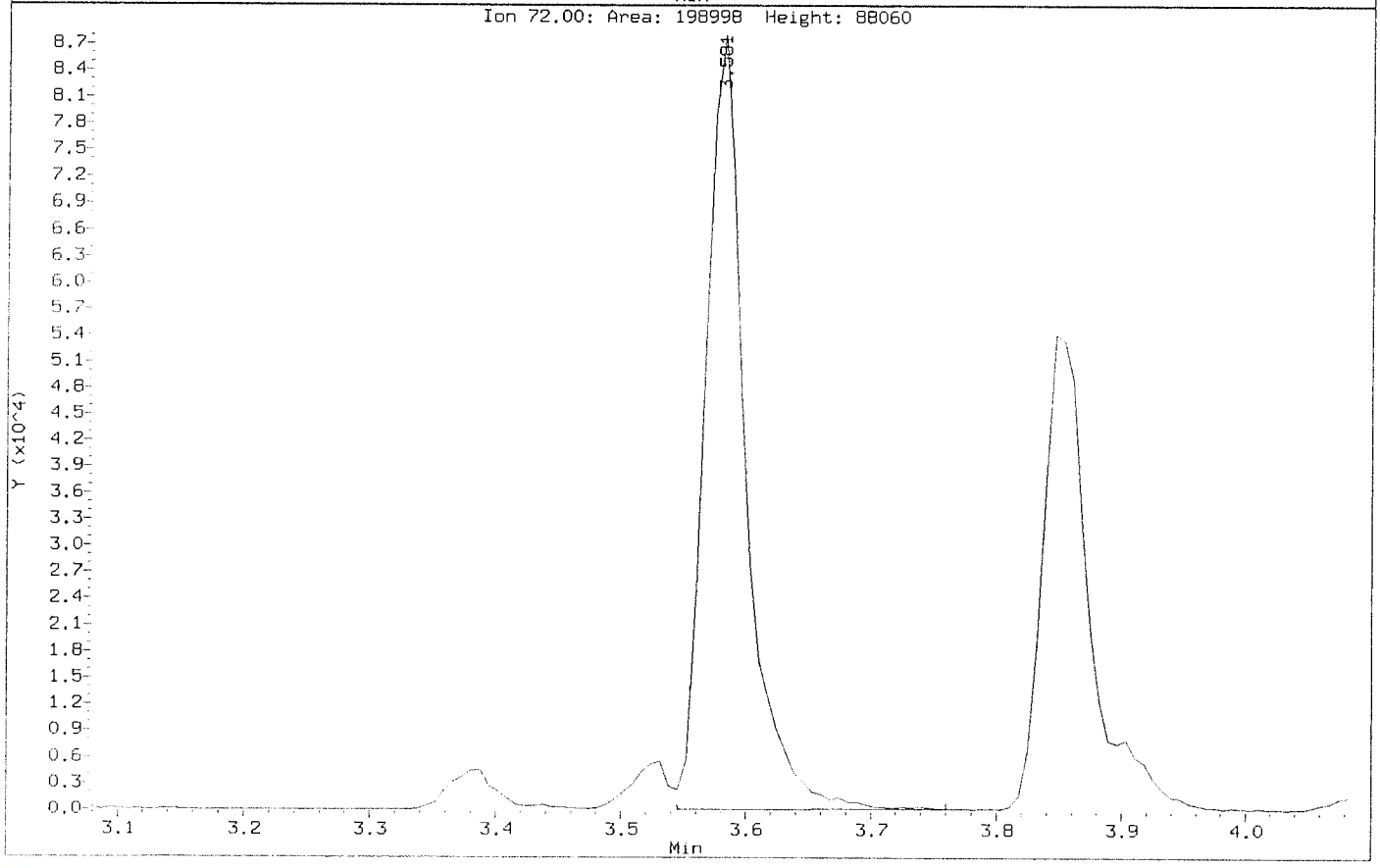




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052611.D
Injection Date: 26-MAY-2021 16:04
Instrument: voa6.i
Client Sample ID: VSTD200

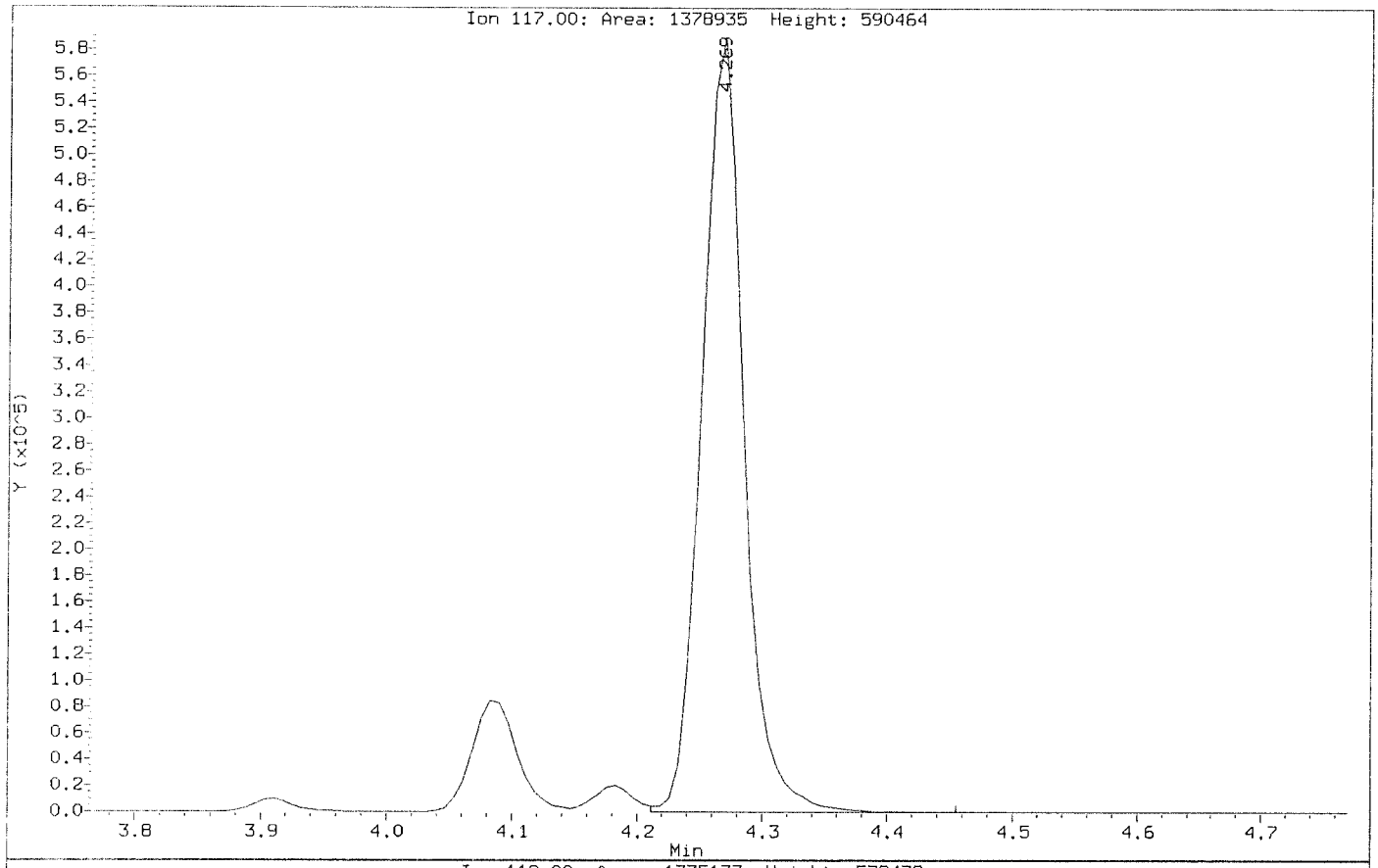
Compound: 2-Butanone
CAS Number: 78-93-3

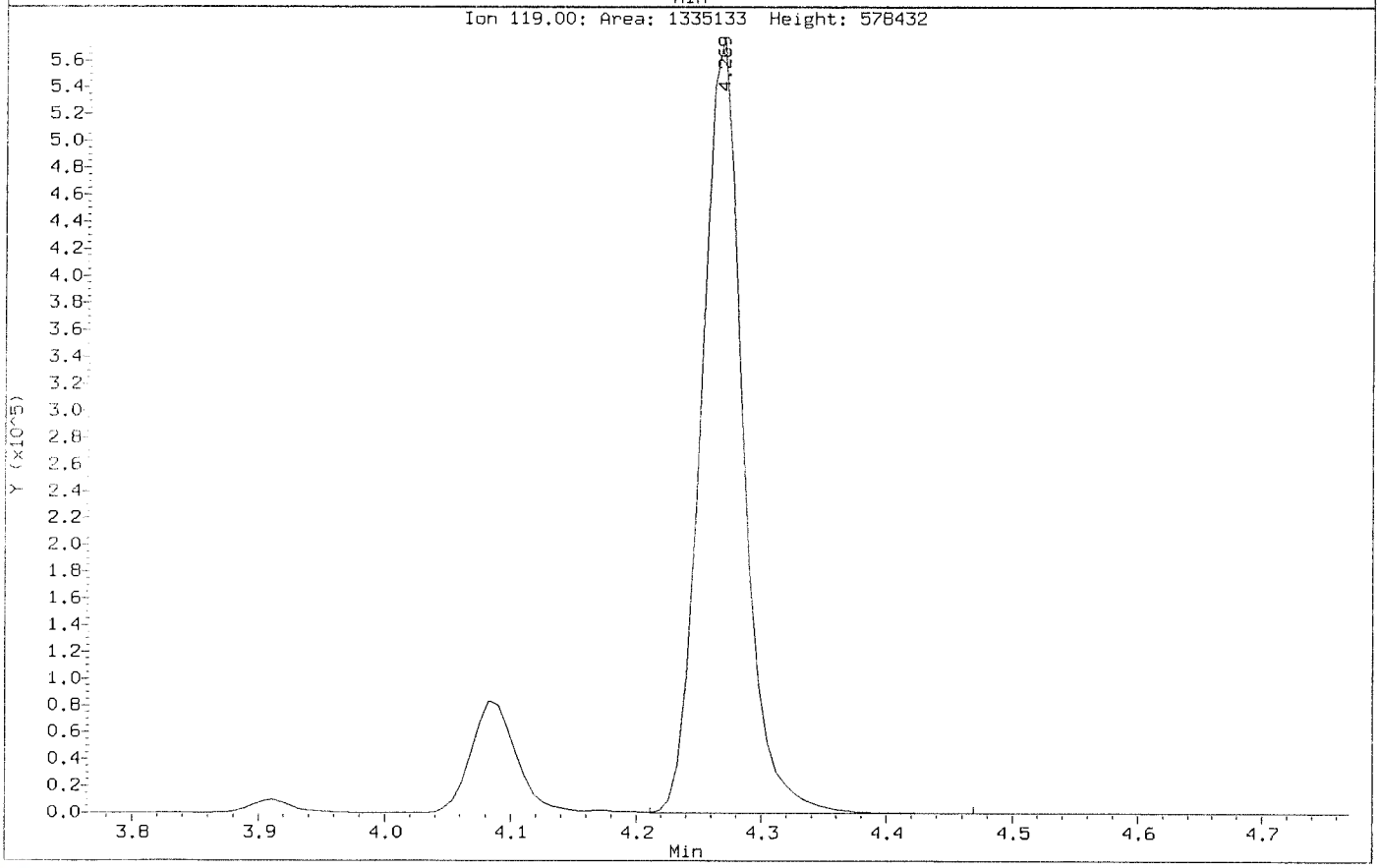




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\Before2\X052611.D
Injection Date: 26-MAY-2021 16:04
Instrument: voa6.i
Client Sample ID: VSTD200

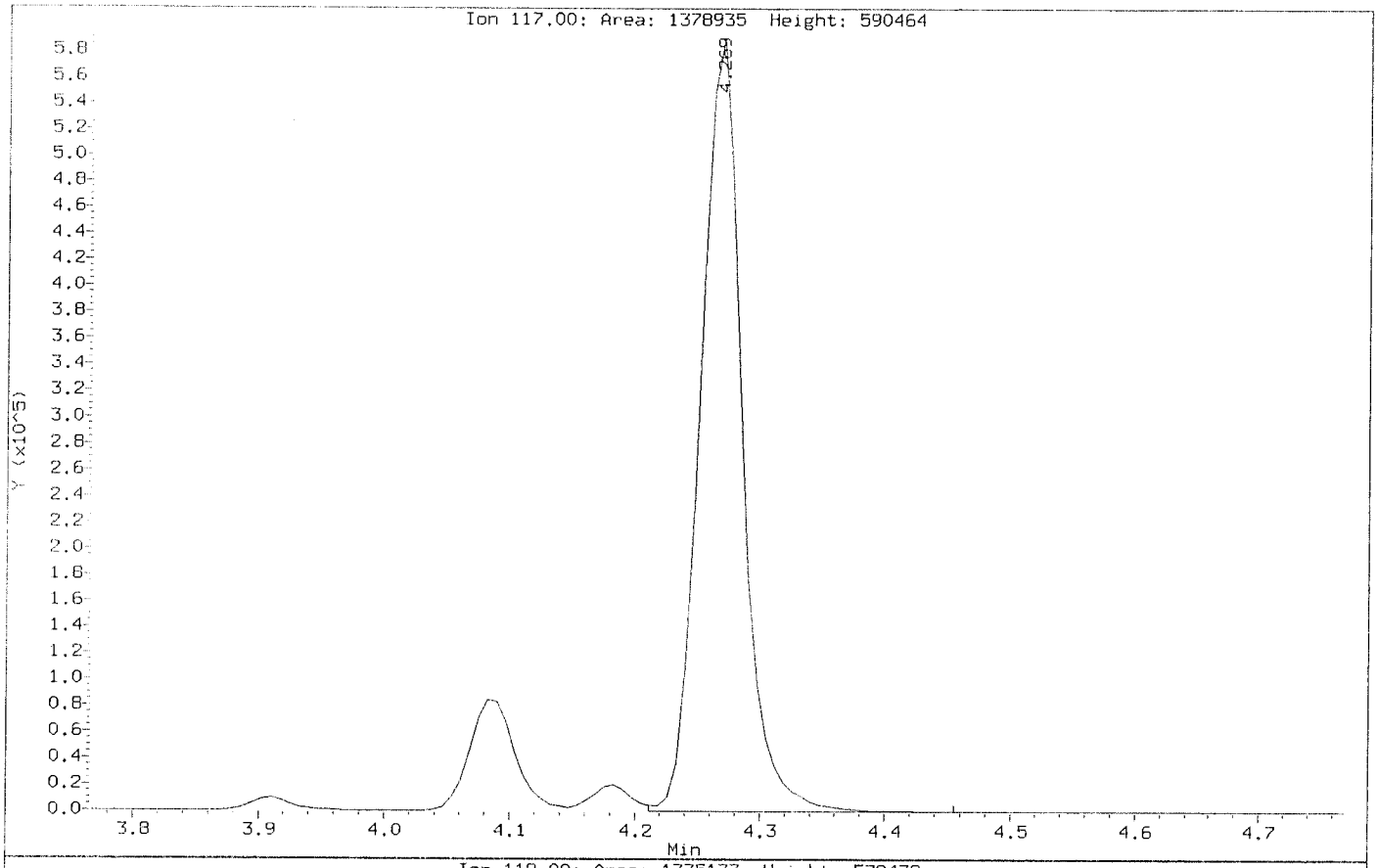
Compound: Carbon Tetrachloride
CAS Number: 56-23-5

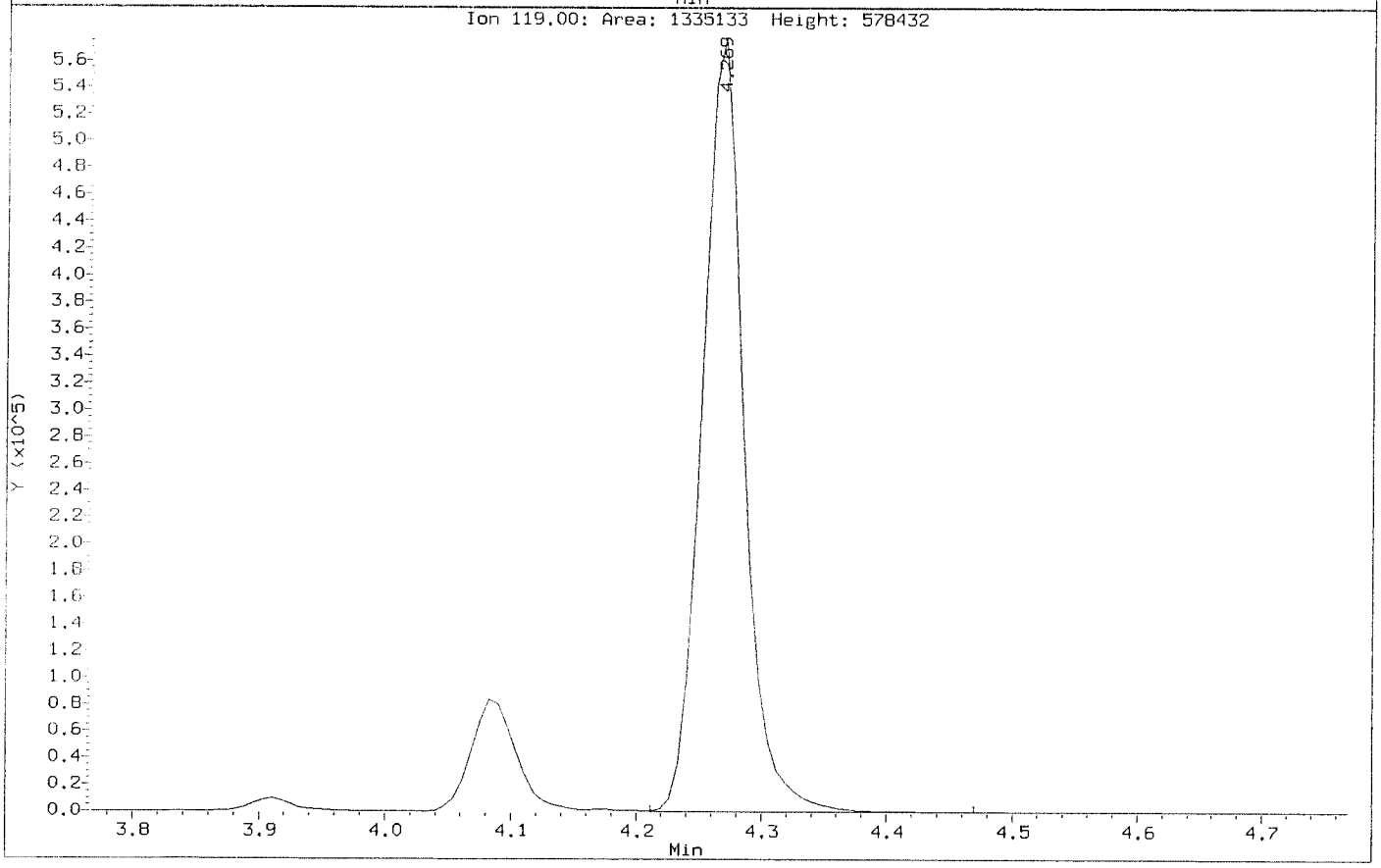




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052611.D
Injection Date: 26-MAY-2021 16:04
Instrument: voa6.i
Client Sample ID: VSTD200

Compound: Carbon Tetrachloride
CAS Number: 56-23-5





ALS Laboratory Group

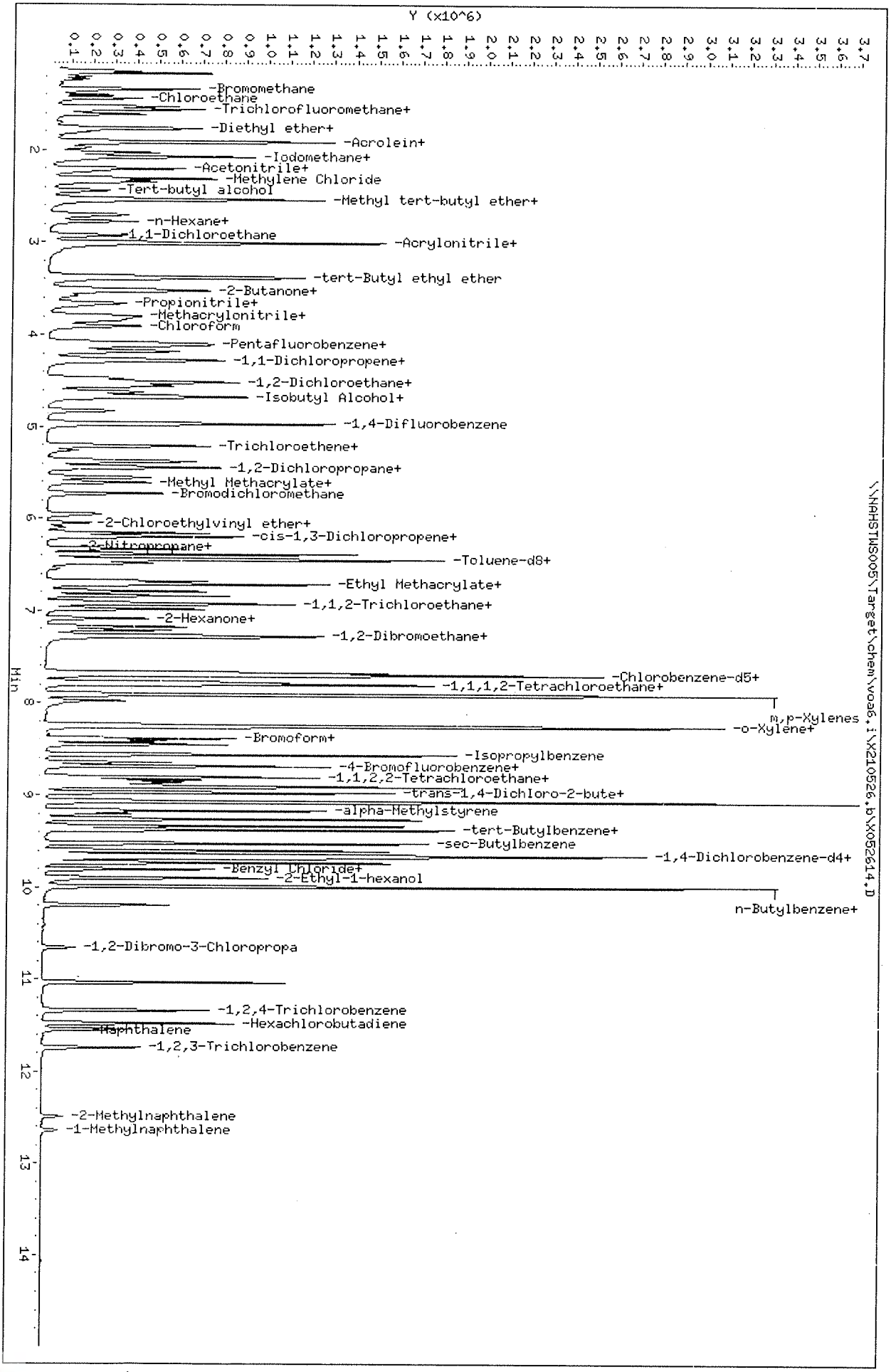
Data file : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052614.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 26-MAY-2021 17:07
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;ICV
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210526.b\8260W.m
Meth Date : 30-Jun-2021 18:30 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 16:04 Cal File: X052611.D
Als bottle: 15 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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 MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	506914	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	749401	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	706349	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	404605	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.096	(0.981)	247247	49.5505	49.55
$	35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	239842	49.5243	49.52
$	48 Toluene-d8	98	6.388	6.388	(0.833)	833853	47.3924	47.39
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	315807	50.8964	50.89
	60 1,1,1,2-Tetrachloroethane	131	7.778	7.778	(1.014)	257281	49.2529	49.25
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	339781	45.3571	45.35
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	270178	48.2956	48.29
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	179104	46.8083	46.80
	22 1,1-Dichloroethane	63	2.921	2.922	(0.699)	347110	43.3136	43.31
	11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	245712	47.0575	47.05
	32 1,1-Dichloropropene	75	4.282	4.283	(0.863)	274032	47.7443	47.74
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	132944	54.2763	54.27
	71 1,2,3-Trichloropropane	75	8.860	8.867	(0.917)	300466	59.5639	59.56
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	217548	54.3834	54.38
	79 1,2,4-Trimethylbenzene	105	9.375	9.383	(0.970)	872205	47.2632	47.26
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	32977	51.3630	51.36
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	239375	46.0296	46.02
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	528355	48.1444	48.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	289734	48.5232	48.52
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	207974	47.1466	47.14
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	895653	48.7678	48.76
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	551654	48.3386	48.33
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	347121	45.6229	45.62
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	560227	47.0431	47.04
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	322832	46.5498	46.54
24	2-Butanone	43	3.580	3.581	(0.856)	137219	88.9725	88.97
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	698906	46.1501	46.15
52	2-Hexanone	43	7.090	7.090	(0.924)	245058	93.3955	93.39
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	852569	47.2731	47.27
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	926735	49.5363	49.53
45	4-Methyl-2-Pentanone	43	6.324	6.331	(0.824)	353755	86.9700	86.96
10	Acetone	43	1.976	1.976	(0.473)	135713	105.102	105.10
37	Benzene	78	4.512	4.512	(0.909)	815678	47.3793	47.37
74	Bromobenzene	156	8.802	8.810	(0.911)	325168	48.4391	48.43
29	Bromochloromethane	128	3.795	3.795	(0.908)	138143	45.0694	45.06
39	Bromodichloromethane	83	5.722	5.722	(1.153)	302319	46.9256	46.92
66	Bromoform	173	8.408	8.408	(1.096)	199211	50.5771	50.57
6	Bromomethane	94	1.338	1.331	(0.320)	290943	55.5502	55.55
19	Carbon Disulfide	76	2.069	2.069	(0.495)	1117790	90.2714	90.27
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	303364	48.8328	48.83
59	Chlorobenzene	112	7.692	7.692	(1.003)	679625	46.2195	46.21
7	Chloroethane	64	1.403	1.396	(0.336)	180947	50.9274	50.92
28	Chloroform	83	3.910	3.910	(0.935)	393929	44.1902	44.19
3	Chloromethane	50	1.073	1.073	(0.257)	234438	51.2462	51.24
27	cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	247214	46.5287	46.52
46	cis-1,3-Dichloropropene	75	6.152	6.159	(1.240)	374428	49.3216	49.32
55	Dibromochloromethane	129	7.176	7.176	(0.936)	278310	47.8716	47.87
44	Dibromomethane	93	5.550	5.550	(1.118)	156126	47.0960	47.09
2	Dichlorodifluoromethane	85	0.973	0.966	(0.233)	239483	51.4356	51.43
61	Ethylbenzene	106	7.800	7.800	(1.017)	342336	50.4646	50.46
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	150526	59.5954	59.59
67	Isopropylbenzene	105	8.559	8.559	(1.116)	1042060	50.2754	50.27
62	m,p-Xylenes	106	7.907	7.907	(1.031)	869159	98.2848	98.28
17	Methylene Chloride	84	2.305	2.298	(0.551)	219481	47.6850	47.68
87	n-Butylbenzene	91	9.991	9.991	(1.034)	805502	51.1747	51.17
73	n-Propylbenzene	91	8.910	8.910	(0.922)	1192846	47.2628	47.26
92	Naphthalene	128	11.546	11.539	(1.195)	300951	52.0501	52.05
63	o-Xylene	106	8.244	8.244	(1.075)	420555	48.7708	48.77
81	sec-Butylbenzene	105	9.519	9.526	(0.985)	1015061	47.7769	47.77
64	Styrene	104	8.258	8.258	(1.077)	730776	50.7156	50.71
78	tert-Butylbenzene	119	9.340	9.340	(0.967)	757897	48.1351	48.13
56	Tetrachloroethene	164	6.926	6.933	(0.903)	224904	51.7220	51.72
50	Toluene	91	6.446	6.446	(0.840)	948186	45.9813	45.98
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	214846	45.3913	45.39
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	327047	49.9385	49.93
38	Trichloroethene	130	5.206	5.207	(1.049)	255360	49.6477	49.64
8	Trichlorofluoromethane	101	1.560	1.553	(0.373)	451809	49.3770	49.37
5	Vinyl Chloride	62	1.138	1.138	(0.272)	282225	47.0343	47.03



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210526.b\X052614.D
Date : 26-MAY-2021 17:07
Client ID: ICV
Sample Info: CCV;CCV;2;ICV
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

MSVOA06 -Logbook

Batch: 45165 **Analyst:** Presenta Cabascango

Date: 06-11-2021 **Reviewer:**

Method: 8260 **Laboratory:** Houston

Comments:

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	06-11-2021 10:53 am	1.00	50 mL	50 mL	X061101.D	Liquid	Y	NA
2	CCV	CCV	06-11-2021 11:14 am	1.00	50 mL	50 mL	X061102a.D	Liquid	Y	NA
3	CCV	CCV	06-11-2021 11:35 am	1.00	50 mL	50 mL	X061103.D	Liquid	Y	NA
4	CCB	SAMP	06-11-2021 11:56 am	1.00	50 mL	50 mL	X061104.D	Liquid	Y	NA
5	CCB	SAMP	06-11-2021 12:17 pm	1.00	50 mL	50 mL	X061105.D	Liquid	Y	NA
6	VLCSW-210611	LCS	06-11-2021 12:38 pm	1.00	50 mL	50 mL	X061106.D	Liquid	Y	NA
7	BLANK	SAMP	06-11-2021 12:59 pm	1.00	50 mL	50 mL	X061107.D	Liquid	Y	NA
8	VBLKW-210611	MBLK	06-11-2021 01:20 pm	1.00	50 mL	50 mL	X061108.D	Liquid	Y	NA
9	HS21060181-21	SAMP	06-11-2021 01:42 pm	1.00	50 mL	50 mL	X061109.D	Liquid	Y	NA
10	HS21060181-06	SAMP	06-11-2021 02:03 pm	1.00	50 mL	50 mL	X061110.D	Liquid	Y	NA
11	HS21060181-15	SAMP	06-11-2021 02:24 pm	25.00	2 mL	50 mL	X061111.D	Liquid	Y	NA
12	HS21060226-03	SAMP	06-11-2021 02:45 pm	10.00	5 mL	50 mL	X061112.D	Liquid	Y	NA
13	HS21060181-06MS	MS	06-11-2021 03:06 pm	1.00	50 mL	50 mL	X061113.D	Liquid	Y	NA
14	HS21060181-06MSD	MSD	06-11-2021 03:27 pm	1.00	50 mL	50 mL	X061114.D	Liquid	Y	NA
15	HS21060307-02	SAMP	06-11-2021 03:48 pm	500.0(	100 µL	50 mL	X061115.D	Liquid	Y	NA
16	HS21060309-01	SAMP	06-11-2021 04:09 pm	500.0(	100 µL	50 mL	X061116.D	Liquid	Y	NA
17	HS21060186-02	SAMP	06-11-2021 04:30 pm	1.00	50 mL	50 mL	X061117.D	Liquid	Y	NA
18	HS21060186-01	SAMP	06-11-2021 04:51 pm	1.00	50 mL	50 mL	X061118.D	Liquid	Y	NA
19	HS21060226-08	SAMP	06-11-2021 05:12 pm	1.00	50 mL	50 mL	X061119.D	Liquid	Y	NA
20	HS21060226-01	SAMP	06-11-2021 05:33 pm	1.00	50 mL	50 mL	X061120.D	Liquid	Y	NA
21	HS21060226-04	SAMP	06-11-2021 05:54 pm	1.00	50 mL	50 mL	X061121.D	Liquid	Y	NA
22	HS21060226-05	SAMP	06-11-2021 06:15 pm	1.00	50 mL	50 mL	X061122.D	Liquid	Y	NA
23	HS21060226-06	SAMP	06-11-2021 06:36 pm	1.00	50 mL	50 mL	X061123.D	Liquid	Y	NA
24	HS21060226-07	SAMP	06-11-2021 06:57 pm	1.00	50 mL	50 mL	X061124.D	Liquid	Y	NA
25	HS21060226-02	SAMP	06-11-2021 07:18 pm	1.00	50 mL	50 mL	X061125.D	Liquid	Y	NA
26	CCV-END	CCV	06-11-2021 07:39 pm	1.00	50 mL	50 mL	X061126.D	Liquid	Y	NA
27	HS21060601-01	SAMP	06-11-2021 08:00 pm	500.0(	100 µL	50 mL	X061127.D	Liquid	Y	NA
28	HS21060603-01	SAMP	06-11-2021 08:21 pm	500.0(	100 µL	50 mL	X061128.D	Liquid	Y	NA
29	MBLK-166666	MBLK	06-11-2021 08:42 pm	20.00	2.5 mL	50 mL	X061129.D	Liquid	Y	NA
30	HS21060399-01	SAMP	06-11-2021 09:03 pm	20.00	2.5 mL	50 mL	X061130.D	Liquid	Y	NA
31	HS21060564-01	SAMP	06-11-2021 09:25 pm	1.00	50 mL	50 mL	X061131.D	Liquid	Y	NA
32	HS21060205-10	SAMP	06-11-2021 09:46 pm	1.00	50 mL	50 mL	X061132.D	Liquid	Y	NA
33	BLANK	SAMP	06-11-2021 10:07 pm	1.00	50 mL	50 mL	X061133.D	Liquid	Y	NA

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060186

	CLIENT SAMPLE NO.	SMC1 (DCE)#	SMC2 #	SMC3 (TOL)#	OTHER #	TOT OUT
01	VLCSW-210611	102	97	94	98	0
02	VBLKW-210611	91	89	104	96	0
03	HS21060181-06MS	92	90	100	100	0
04	HS21060181-06MSD	91	90	102	97	0
05	HS21060186-02	92	90	103	98	0
06	HS21060186-01	94	91	102	100	0
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		QC LIMITS
SMC1 (DCE)	= 1,2-Dichloroethane-d4	(0-130)
SMC2	= Dibromofluoromethane	(0-130)
SMC3 (TOL)	= Toluene-d8	(0-130)
OTHER	= 4-Bromofluorobenzene	(0-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

VBLKW-210611

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060186

Lab File ID: X061108 Lab Sample ID: VBLKW-210611

Date Analyzed: 06/11/21 Time Analyzed: 1320

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSW-210611	VLCSW-210611	X061106	1238
02	HS21060181-06MS	HS21060181-06MS	X061113	1506
03	HS21060181-06MSD	HS21060181-06MSD	X061114	1527
04	HS21060186-02	HS21060186-02	X061117	1630
05	HS21060186-01	HS21060186-01	X061118	1651
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COMMENTS:

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060186

Lab File ID: X061101 BFB Injection Date: 06/11/21

Instrument ID: VOA6 BFB Injection Time: 1053

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	47.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.5
173	Less than 2.0% of mass 174	0.9 (1.3)1
174	Greater than 50.0% of mass 95	68.1
175	5.0 - 9.0% of mass 174	4.0 (5.9)1
176	95.0 - 101.0% of mass 174	66.0 (97.0)1
177	5.0 - 9.0% of mass 176	5.7 (8.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	X061103	06/11/21	1135
02	VLCSW-210611	VLCSW-210611	X061106	06/11/21	1238
03	VBLKW-210611	VBLKW-210611	X061108	06/11/21	1320
04	HS21060181-06MS	HS21060181-06MS	X061113	06/11/21	1506
05	HS21060181-06MSD	HS21060181-06MSD	X061114	06/11/21	1527
06	HS21060186-02	HS21060186-02	X061117	06/11/21	1630
07	HS21060186-01	HS21060186-01	X061118	06/11/21	1651
08	CCV-END	CCV-END	X061126	06/11/21	1939
09					
10					
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18					
19					
20					
21					
22					

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060186

Instrument ID: VOA6 Calibration Date: 06/11/21 Time: 1135

Lab File ID: X061103 Init. Calib. Date(s): 05/26/21 05/26/21

Init. Calib. Times: 1234 1604

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
cis-1,3-Dichloropropene	0.5060000	0.5079165	0.5079165	0.2	-0.38	20.00	AVRG
trans-1,3-Dichloropropene	0.4370000	0.4425925	0.4425925	0.1	-1.28	20.00	AVRG
1,3-Dichlorobenzene	1.4100000	1.3531308	1.3531308	0.6	4.03	20.00	AVRG
2,2-Dichloropropane	0.6840000	0.6064128	0.6064128	0.1	11.34	20.00	AVRG
1,1-Dichloropropene	0.3830000	0.3606354	0.3606354	0.1	5.84	20.00	AVRG
Dibromomethane	0.2210000	0.2142739	0.2142739	0.1	3.04	20.00	AVRG
1,2-Dibromoethane	0.3680000	0.3495951	0.3495951	0.1	5.00	20.00	AVRG
trans-1,2-Dichloroethene	0.4670000	0.4005325	0.4005325	0.1	14.23	20.00	AVRG
1,1,1,2-Tetrachloroethane	0.3700000	0.3679016	0.3679016	0.1	0.57	20.00	AVRG
1,1,1-Trichloroethane	0.7390000	0.6348474	0.6348474	0.1	14.09	20.00	AVRG
1,1,2,2-Tetrachloroethane	53.662442	50.000000	0.7401643	0.3	-7.32	20.00	LINR
1,1,2-Trichloroethane	0.2710000	0.2616225	0.2616225	0.1	3.46	20.00	AVRG
1,1-Dichloroethane	0.7900000	0.6781955	0.6781955	0.2	14.15	20.00	AVRG
1,1-Dichloroethene	0.5150000	0.4128980	0.4128980	0.1	19.82	20.00	AVRG
Trichloroethene	0.3430000	0.3402692	0.3402692	0.2	0.80	20.00	AVRG
1,2,3-Trichlorobenzene	0.3030000	0.3457762	0.3457762	0.01	-14.12	20.00	AVRG
Trichlorofluoromethane	0.9020000	0.7225828	0.7225828	0.1	19.89	20.00	AVRG
1,2,4-Trichlorobenzene	0.4940000	0.5786381	0.5786381	0.1	-17.13	20.00	AVRG
1,2,4-Trimethylbenzene	2.2800000	2.0653529	2.0653529	0.1	9.41	20.00	AVRG
Tetrachloroethene	0.3080000	0.2973033	0.2973033	0.2	3.47	20.00	AVRG
1,2-Dichlorobenzene	1.3560000	1.3173484	1.3173484	0.4	2.85	20.00	AVRG
1,2-Dichloroethane	0.3980000	0.3781232	0.3781232	0.1	4.99	20.00	AVRG
1,2-Dichloropropane	0.2940000	0.2827103	0.2827103	0.1	3.84	20.00	AVRG
1,3,5-Trimethylbenzene	2.2700000	2.0217976	2.0217976	0.1	10.93	20.00	AVRG
1,3-Dichloropropane	0.5390000	0.5074014	0.5074014	0.1	5.86	20.00	AVRG
1,4-Dichlorobenzene	1.4720000	1.3751749	1.3751749	0.4	6.58	20.00	AVRG
Toluene	1.4600000	1.3149049	1.3149049	0.4	9.94	20.00	AVRG
2-Butanone	0.1520000	0.1391136	0.1391136	0.1	8.48	20.00	AVRG
2-Chlorotoluene	1.8720000	1.7021038	1.7021038	0.1	9.08	20.00	AVRG
2-Hexanone	0.1860000	0.1801198	0.1801198	0.1	3.16	20.00	AVRG
4-Chlorotoluene	2.2280000	2.0165393	2.0165393	0.1	9.49	20.00	AVRG
tert-Butylbenzene	1.9460000	1.7110071	1.7110071	0.1	12.08	20.00	AVRG
4-Methyl-2-Pentanone	0.2880000	0.2657712	0.2657712	0.1	7.72	20.00	AVRG
Acetone	80.630671	100.00000	0.1043679	0.1	19.37	20.00	LINR
Benzene	1.1480000	1.0963122	1.0963122	0.5	4.50	20.00	AVRG
Bromobenzene	0.8300000	0.8125059	0.8125059	0.1	2.11	20.00	AVRG
Bromochloromethane	0.3020000	0.2717714	0.2717714	0.1	10.01	20.00	AVRG
Bromodichloromethane	0.4300000	0.4140783	0.4140783	0.2	3.70	20.00	AVRG
Bromoform	0.2790000	0.2868901	0.2868901	0.1	-2.83	20.00	AVRG
Bromomethane	40.529598	50.000000	0.4183272	0.1	18.94	20.00	LINR
Carbon Disulfide	1.2210000	1.0114490	1.0114490	0.1	17.16	20.00	AVRG
Carbon Tetrachloride	0.4140000	0.3889690	0.3889690	0.1	6.05	20.00	AVRG

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2106018

Instrument ID: VOA6 Calibration Date: 06/11/21 Time: 1135

Lab File ID: X061103 Init. Calib. Date(s): 05/26/21 05/26/21

Init. Calib. Times: 1234 1604

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Chlorobenzene	1.0410000	0.9570764	0.9570764	0.5	8.06	20.00	AVRG
Chloroethane	40.239104	50.000000	0.2840695	0.1	19.52	20.00	LINR
Chloroform	0.8790000	0.7638360	0.7638360	0.2	13.10	20.00	AVRG
Chloromethane	43.945545	50.000000	0.3999429	0.1	12.11	20.00	LINR
cis-1,2-Dichloroethene	0.5240000	0.4664565	0.4664565	0.1	10.98	20.00	AVRG
Dibromochloromethane	0.4120000	0.4132458	0.4132458	0.1	-0.30	20.00	AVRG
Dichlorodifluoromethane	47.324856	50.000000	0.4348295	0.1	5.35	20.00	LINR
Ethylbenzene	0.4800000	0.4605032	0.4605032	0.1	4.06	20.00	AVRG
Hexachlorobutadiene	55.167371	50.000000	0.3425918	0.1	-10.33	20.00	2RDR
Isopropylbenzene	1.4670000	1.3133456	1.3133456	0.1	10.47	20.00	AVRG
m,p-Xylenes	0.6260000	0.5785759	0.5785759	0.1	7.58	20.00	AVRG
Methylene Chloride	45.873562	50.000000	0.4169730	0.1	8.25	20.00	LINR
n-Butylbenzene	1.9450000	1.7084950	1.7084950	0.5	12.16	20.00	AVRG
n-Propylbenzene	3.1190000	2.7313009	2.7313009	0.1	12.43	20.00	AVRG
Naphthalene	0.7140000	0.8272028	0.8272028	0.2	-15.85	20.00	AVRG
o-Xylene	0.6100000	0.5730740	0.5730740	0.3	6.05	20.00	AVRG
sec-Butylbenzene	2.6250000	2.2262915	2.2262915	0.1	15.19	20.00	AVRG
Styrene	1.0200000	0.9928619	0.9928619	0.3	2.66	20.00	AVRG
Vinyl Chloride	0.5920000	0.4770183	0.4770183	0.1	19.42	20.00	AVRG
1,2,3-Trichloropropane	0.6230000	0.6209361	0.6209361	0.1	0.33	20.00	AVRG
p-Isopropyltoluene	2.3120000	2.0305789	2.0305789	0.1	12.17	20.00	AVRG
1,2-Dibromo-3-Chloropropane	56.998258	50.000000	9.05e-002	0.05	-14.00	20.00	LINR
1,2-Dichloroethane-d4	47.749029	50.000000	0.4564153	0.1	4.50	20.00	LINR
Dibromofluoromethane	48.190685	50.000000	0.4744083	0.1	3.62	20.00	LINR
Toluene-d8	1.2450000	1.1848400	1.1848400	0.1	4.83	20.00	AVRG
4-Bromofluorobenzene	51.723993	50.000000	0.4544768	0.1	-3.45	20.00	LINR

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060186

Instrument ID: VOA6 Calibration Date: 06/11/21 Time: 1939

Lab File ID: X061126 Init. Calib. Date(s): 05/26/21 05/26/21

Init. Calib. Times: 1234 1604

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
cis-1,3-Dichloropropene	0.5060000	0.4820210	0.4820210	0.2	4.74	50.00	AVRG
trans-1,3-Dichloropropene	0.4370000	0.4275001	0.4275001	0.1	2.17	50.00	AVRG
1,3-Dichlorobenzene	1.4100000	1.2389973	1.2389973	0.6	12.13	50.00	AVRG
2,2-Dichloropropane	0.6840000	0.5499449	0.5499449	0.1	19.60	50.00	AVRG
1,1-Dichloropropene	0.3830000	0.3595441	0.3595441	0.1	6.12	50.00	AVRG
Dibromomethane	0.2210000	0.2156535	0.2156535	0.1	2.42	50.00	AVRG
1,2-Dibromoethane	0.3680000	0.3499847	0.3499847	0.1	4.90	50.00	AVRG
trans-1,2-Dichloroethene	0.4670000	0.3976600	0.3976600	0.1	14.85	50.00	AVRG
1,1,1,2-Tetrachloroethane	0.3700000	0.3581003	0.3581003	0.1	3.22	50.00	AVRG
1,1,1-Trichloroethane	0.7390000	0.6709152	0.6709152	0.1	9.21	50.00	AVRG
1,1,2,2-Tetrachloroethane	54.148409	50.000000	0.7467210	0.3	-8.30	50.00	LINR
1,1,2-Trichloroethane	0.2710000	0.2538453	0.2538453	0.1	6.33	50.00	AVRG
1,1-Dichloroethane	0.7900000	0.6814822	0.6814822	0.2	13.74	50.00	AVRG
1,1-Dichloroethene	0.5150000	0.4300244	0.4300244	0.1	16.50	50.00	AVRG
Trichloroethene	0.3430000	0.3336884	0.3336884	0.2	2.71	50.00	AVRG
1,2,3-Trichlorobenzene	0.3030000	0.2917905	0.2917905	0.01	3.70	50.00	AVRG
Trichlorofluoromethane	0.9020000	0.7779554	0.7779554	0.1	13.75	50.00	AVRG
1,2,4-Trichlorobenzene	0.4940000	0.4880730	0.4880730	0.1	1.20	50.00	AVRG
1,2,4-Trimethylbenzene	2.2800000	1.9639659	1.9639659	0.1	13.86	50.00	AVRG
Tetrachloroethene	0.3080000	0.2942019	0.2942019	0.2	4.48	50.00	AVRG
1,2-Dichlorobenzene	1.3560000	1.2308312	1.2308312	0.4	9.23	50.00	AVRG
1,2-Dichloroethane	0.3980000	0.3839923	0.3839923	0.1	3.52	50.00	AVRG
1,2-Dichloropropane	0.2940000	0.2760730	0.2760730	0.1	6.10	50.00	AVRG
1,3,5-Trimethylbenzene	2.2700000	1.9274717	1.9274717	0.1	15.09	50.00	AVRG
1,3-Dichloropropane	0.5390000	0.5095953	0.5095953	0.1	5.46	50.00	AVRG
1,4-Dichlorobenzene	1.4720000	1.2798532	1.2798532	0.4	13.05	50.00	AVRG
Toluene	1.4600000	1.2709732	1.2709732	0.4	12.95	50.00	AVRG
2-Butanone	0.1520000	0.1482196	0.1482196	0.1	2.49	50.00	AVRG
2-Chlorotoluene	1.8720000	1.6295222	1.6295222	0.1	12.95	50.00	AVRG
2-Hexanone	0.1860000	0.1917593	0.1917593	0.1	-3.10	50.00	AVRG
4-Chlorotoluene	2.2280000	1.8951934	1.8951934	0.1	14.94	50.00	AVRG
tert-Butylbenzene	1.9460000	1.6592335	1.6592335	0.1	14.74	50.00	AVRG
4-Methyl-2-Pentanone	0.2880000	0.2742696	0.2742696	0.1	4.77	50.00	AVRG
Acetone	91.127826	100.00000	0.1170198	0.1	8.87	50.00	LINR
Benzene	1.1480000	1.0598270	1.0598270	0.5	7.68	50.00	AVRG
Bromobenzene	0.8300000	0.7878276	0.7878276	0.1	5.08	50.00	AVRG
Bromochloromethane	0.3020000	0.2800034	0.2800034	0.1	7.28	50.00	AVRG
Bromodichloromethane	0.4300000	0.4092994	0.4092994	0.2	4.81	50.00	AVRG
Bromoform	0.2790000	0.2848301	0.2848301	0.1	-2.09	50.00	AVRG
Bromomethane	42.046697	50.000000	0.4340452	0.1	15.91	50.00	LINR
Carbon Disulfide	1.2210000	1.0026056	1.0026056	0.1	17.89	50.00	AVRG
Carbon Tetrachloride	0.4140000	0.3838192	0.3838192	0.1	7.29	50.00	AVRG

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2106018

Instrument ID: VOA6 Calibration Date: 06/11/21 Time: 1939

Lab File ID: X061126 Init. Calib. Date(s): 05/26/21 05/26/21

Init. Calib. Times: 1234 1604

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Chlorobenzene	1.0410000	0.9202962	0.9202962	0.5	11.59	50.00	AVRG
Chloroethane	49.945803	50.000000	0.3502642	0.1	0.11	50.00	LINR
Chloroform	0.8790000	0.7769254	0.7769254	0.2	11.61	50.00	AVRG
Chloromethane	42.881782	50.000000	0.3908306	0.1	14.24	50.00	LINR
cis-1,2-Dichloroethene	0.5240000	0.4655381	0.4655381	0.1	11.16	50.00	AVRG
Dibromochloromethane	0.4120000	0.4027460	0.4027460	0.1	2.25	50.00	AVRG
Dichlorodifluoromethane	49.881593	50.000000	0.4582175	0.1	0.24	50.00	LINR
Ethylbenzene	0.4800000	0.4459832	0.4459832	0.1	7.09	50.00	AVRG
Hexachlorobutadiene	48.557978	50.000000	0.2990873	0.1	2.88	50.00	2RDR
Isopropylbenzene	1.4670000	1.2986390	1.2986390	0.1	11.48	50.00	AVRG
m,p-Xylenes	0.6260000	0.5555184	0.5555184	0.1	11.26	50.00	AVRG
Methylene Chloride	46.686868	50.000000	0.4241576	0.1	6.63	50.00	LINR
n-Butylbenzene	1.9450000	1.6499834	1.6499834	0.5	15.17	50.00	AVRG
n-Propylbenzene	3.1190000	2.6772224	2.6772224	0.1	14.16	50.00	AVRG
Naphthalene	0.7140000	0.6913737	0.6913737	0.2	3.17	50.00	AVRG
o-Xylene	0.6100000	0.5450891	0.5450891	0.3	10.64	50.00	AVRG
sec-Butylbenzene	2.6250000	2.2177869	2.2177869	0.1	15.51	50.00	AVRG
Styrene	1.0200000	0.9657681	0.9657681	0.3	5.32	50.00	AVRG
Vinyl Chloride	0.5920000	0.5147165	0.5147165	0.1	13.05	50.00	AVRG
1,2,3-Trichloropropane	0.6230000	0.6092552	0.6092552	0.1	2.21	50.00	AVRG
p-Isopropyltoluene	2.3120000	1.9740802	1.9740802	0.1	14.62	50.00	AVRG
1,2-Dibromo-3-Chloropropane	54.754634	50.000000	8.69e-002	0.05	-9.51	50.00	LINR
1,2-Dichloroethane-d4	51.593358	50.000000	0.4926358	0.1	-3.19	50.00	LINR
Dibromofluoromethane	49.911502	50.000000	0.4912909	0.1	0.18	50.00	LINR
Toluene-d8	1.2450000	1.1973138	1.1973138	0.1	3.83	50.00	AVRG
4-Bromofluorobenzene	51.347134	50.000000	0.4511167	0.1	-2.69	50.00	LINR

FORM VII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060186

Lab File ID (Standard): X061103 Date Analyzed: 06/11/21

Instrument ID: VOA6 Time Analyzed: 1135

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1(CBZ) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	734933	7.67	786204	4.96	401650	9.66
	UPPER LIMIT	1469866	8.17	1572408	5.46	803300	10.16
	LOWER LIMIT	367467	7.17	393102	4.46	200825	9.16
	CLIENT SAMPLE NO.						
01	VLCSW-210611	688441	7.67	732621	4.96	375429	9.66
02	VBLKW-210611	712698	7.67	827067	4.96	352334	9.66
03	HS21060181-06MS	749876	7.67	828481	4.96	404705	9.66
04	HS21060181-06MSD	747843	7.67	843861	4.96	380308	9.66
05	HS21060186-02	744914	7.67	864691	4.96	370870	9.66
06	HS21060186-01	736883	7.67	835860	4.96	381389	9.66
07							
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18							
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IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS HOUSTON Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060186

Lab File ID (Standard): X061103 Date Analyzed: 06/11/21

Instrument ID: VOA6 Time Analyzed: 1135

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	549436	4.18				
	UPPER LIMIT	1098872	4.68				
	LOWER LIMIT	274718	3.68				
	CLIENT SAMPLE NO.						
01	VLCSW-210611	507665	4.18				
02	VBLKW-210611	613086	4.18				
03	HS21060181-06MS	603479	4.18				
04	HS21060181-06MSD	616421	4.18				
05	HS21060186-02	630216	4.18				
06	HS21060186-01	613789	4.18				
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS4 = Pentafluorobenzene

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

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\X061101.D

Date : 11-JUN-2021 10:53

Client ID: BFB

Instrument: voa6.i

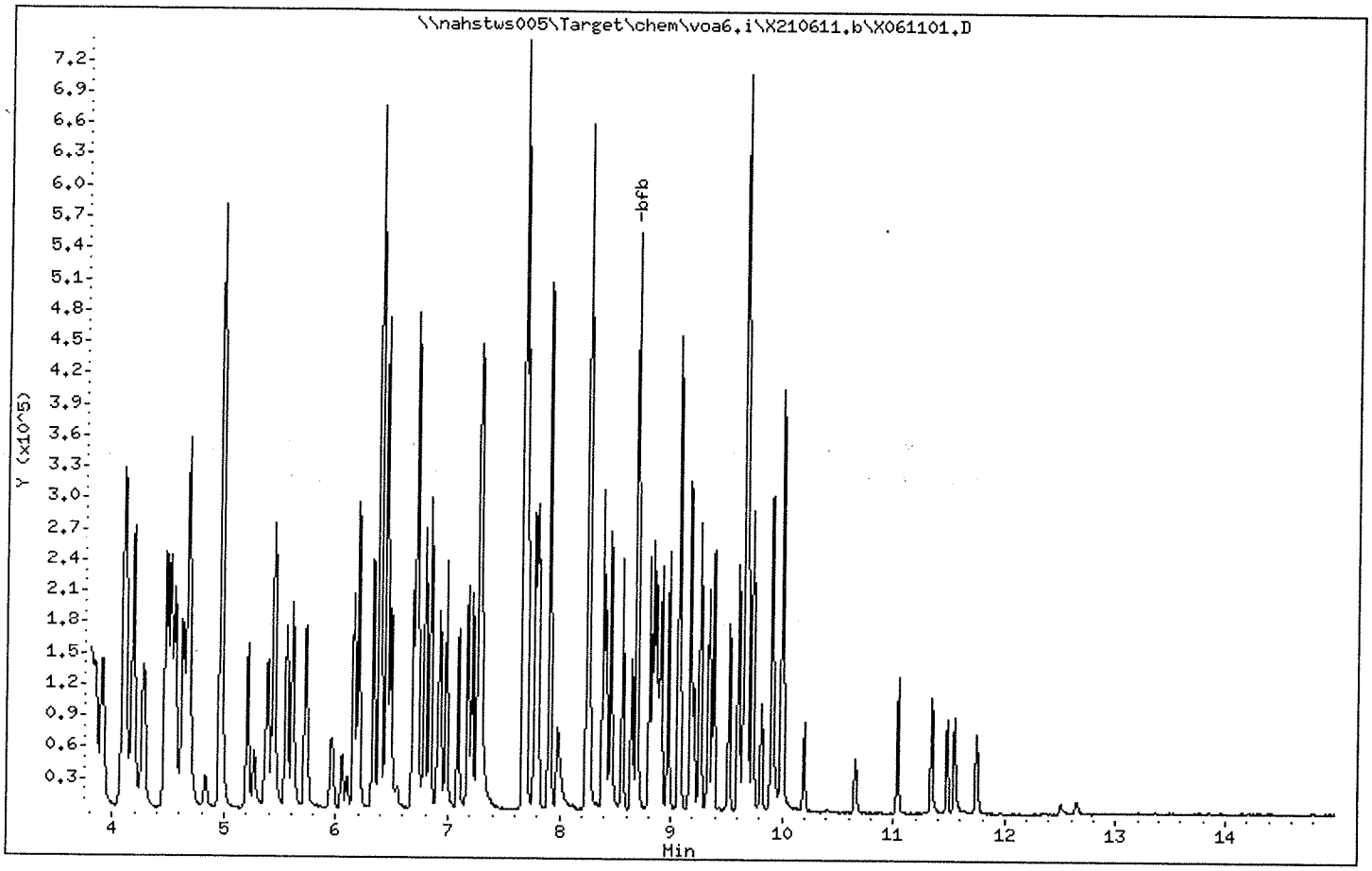
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\X061101.D

Date : 11-JUN-2021 10:53

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

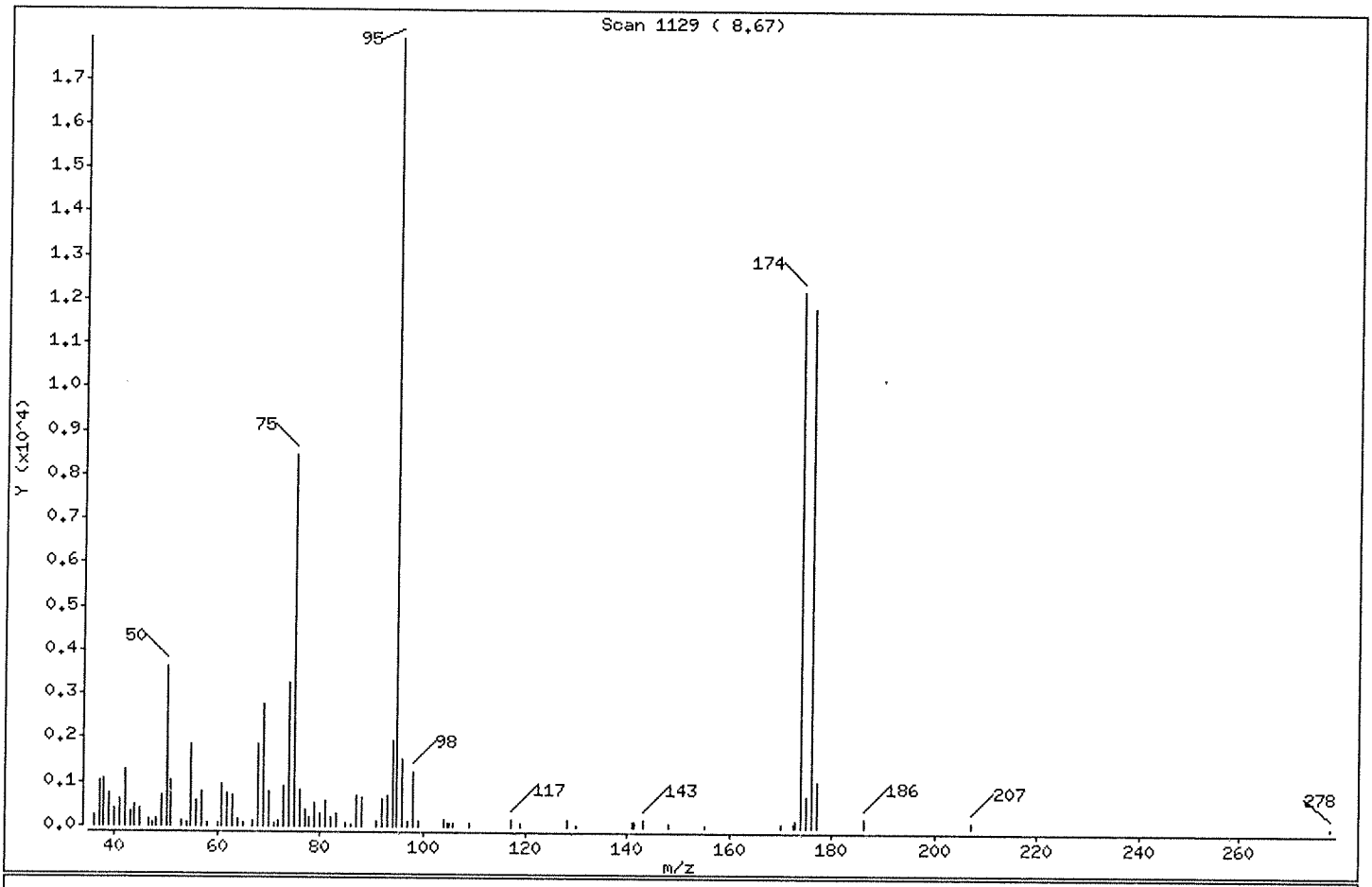
Volume Injected (uL): 2.0

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	20.33
75	30.00 - 60.00% of mass 95	47.19
96	5.00 - 9.00% of mass 95	8.52
173	Less than 2.00% of mass 174	0.90 (1.33)
174	Greater than 50.00% of mass 95	68.07
175	5.00 - 9.00% of mass 174	4.00 (5.88)
176	95.00 - 101.00% of mass 174	66.04 (97.02)
177	5.00 - 9.00% of mass 176	5.68 (8.60)

Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\X061101.D

Date : 11-JUN-2021 10:53

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: X061101.D
Spectrum: Scan 1129 (8.67)
Location of Maximum: 95.00
Number of points: 82

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	253	58.10	92	80.90	572	117.00	175
37.00	1029	60.00	97	82.00	222	118.80	83
38.00	1078	61.00	945	83.00	289	128.10	167
39.00	740	62.00	745	84.80	74	129.90	56
40.00	411	63.10	689	86.10	50	140.80	129
41.10	610	64.00	161	87.00	699	141.10	138
42.10	1283	65.00	82	88.00	643	143.10	172
43.00	349	67.00	117	91.00	121	148.10	96
44.00	509	68.00	1869	92.00	604	155.00	50
45.00	409	69.00	2779	93.00	683	170.00	82
46.80	160	70.00	786	94.00	1950	172.30	88
47.30	77	71.00	75	95.00	17928	172.90	162
48.00	163	72.00	144	96.00	1528	173.90	12204
49.00	685	73.00	926	97.10	144	175.00	718
50.10	3644	74.00	3242	98.10	1231	175.90	11840
51.10	1021	75.00	8461	99.00	126	176.90	1018
53.10	115	76.10	836	104.00	145	186.10	197
54.00	95	77.00	387	104.80	67	207.00	129
55.00	1835	78.00	204	105.20	77	278.00	51
56.00	572	78.90	548	106.00	92		
57.10	801	80.00	291	108.90	84		

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Data file : \\nahstws005\Target\chem\voa6.i\X210611.b\X061103.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 11-JUN-2021 11:35
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210611.b\8260W.m
Meth Date : 30-Jul-2021 13:35 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.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

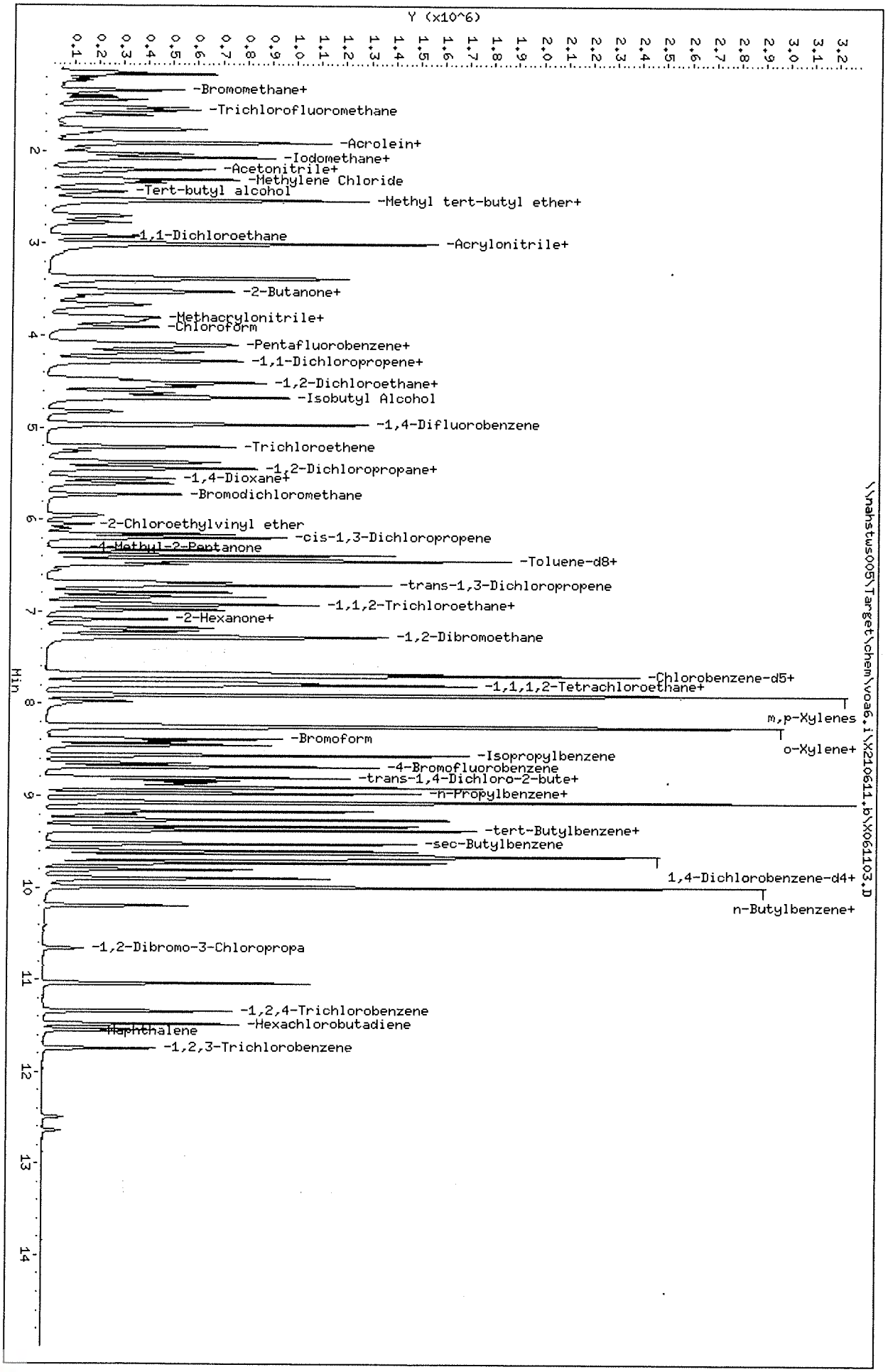
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	549436	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	786204	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	734933	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	401650	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	260657	50.0000	48.19
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	250771	50.0000	47.74
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	870778	50.0000	47.56
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	334010	50.0000	51.72
60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	270383	50.0000	49.74
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	348808	50.0000	42.95
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	297287	50.0000	53.66
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	192275	50.0000	48.29
22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	372625	50.0000	42.89
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	226861	50.0000	40.08(M)
32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	283533	50.0000	47.08
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	138881	50.0000	57.11
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	249399	50.0000	49.80(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	232410	50.0000	58.52
79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	829549	50.0000	45.28
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	36364	50.0000	56.99
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	256929	50.0000	47.48
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	529113	50.0000	48.56

Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\X061103.D Page 2
Report Date: 30-Jul-2021 13:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	297282	50.0000	47.45
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	222268	50.0000	48.02
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	812055	50.0000	44.54
83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	543485	50.0000	47.97
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	372906	50.0000	47.10
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	552339	50.0000	46.72
26 2,2-Dichloropropane	77	3.509	3.509	(0.839)	333185	50.0000	44.32
24 2-Butanone	43	3.581	3.581	(0.856)	152868	100.000	91.44
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	683650	50.0000	45.47
52 2-Hexanone	43	7.083	7.083	(0.923)	264752	100.000	96.97
77 4-Chlorotoluene	91	9.067	9.067	(0.938)	809943	50.0000	45.23
82 p-Isopropyltoluene	119	9.648	9.648	(0.999)	815582	50.0000	43.91
45 4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	390648	100.000	92.30
10 Acetone	43	1.976	1.976	(0.473)	114687	100.000	80.63
37 Benzene	78	4.512	4.512	(0.909)	861925	50.0000	47.72
74 Bromobenzene	156	8.802	8.802	(0.911)	326343	50.0000	48.97
29 Bromochloromethane	128	3.795	3.795	(0.908)	149321	50.0000	44.94
39 Bromodichloromethane	83	5.722	5.722	(1.153)	325550	50.0000	48.16
66 Bromoform	173	8.408	8.408	(1.096)	210845	50.0000	51.44
6 Bromomethane	94	1.338	1.338	(0.320)	229844	50.0000	40.52
19 Carbon Disulfide	76	2.069	2.069	(0.495)	1111453	100.000	82.81
34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	305809	50.0000	46.92
59 Chlorobenzene	112	7.692	7.692	(1.003)	703387	50.0000	45.97
7 Chloroethane	64	1.403	1.403	(0.336)	156078	50.0000	40.23(M)
28 Chloroform	83	3.910	3.910	(0.935)	419679	50.0000	43.43
3 Chloromethane	50	1.073	1.073	(0.257)	219743	50.0000	43.94
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	256288	50.0000	44.50
46 cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	399326	50.0000	50.13
55 Dibromochloromethane	129	7.176	7.176	(0.936)	303708	50.0000	50.20
44 Dibromomethane	93	5.550	5.550	(1.118)	168463	50.0000	48.43
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	238911	50.0000	47.32
61 Ethylbenzene	106	7.800	7.800	(1.017)	338439	50.0000	47.94
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	137602	50.0000	55.16
67 Isopropylbenzene	105	8.559	8.559	(1.116)	965221	50.0000	44.75
62 m,p-Xylenes	106	7.900	7.900	(1.030)	850429	100.000	92.42
17 Methylene Chloride	84	2.305	2.305	(0.551)	229100	50.0000	45.87
87 n-Butylbenzene	91	9.991	9.991	(1.034)	686217	50.0000	43.91
73 n-Propylbenzene	91	8.910	8.910	(0.922)	1097027	50.0000	43.78
92 Naphthalene	128	11.539	11.539	(1.194)	332246	50.0000	57.88
63 o-Xylene	106	8.244	8.244	(1.075)	421171	50.0000	46.94
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	894190	50.0000	42.39
64 Styrene	104	8.258	8.258	(1.077)	729687	50.0000	48.67
78 tert-Butylbenzene	119	9.332	9.332	(0.966)	687226	50.0000	43.96
56 Tetrachloroethene	164	6.926	6.926	(0.903)	218498	50.0000	48.29
50 Toluene	91	6.446	6.446	(0.840)	966367	50.0000	45.04
20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	220067	50.0000	42.89
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	347968	50.0000	50.64
38 Trichloroethene	130	5.207	5.207	(1.049)	267521	50.0000	49.57
8 Trichlorofluoromethane	101	1.561	1.561	(0.373)	397013	50.0000	40.03(M)
5 Vinyl Chloride	62	1.138	1.138	(0.272)	262091	50.0000	40.29

QC Flag Legend

M - Compound response manually integrated.

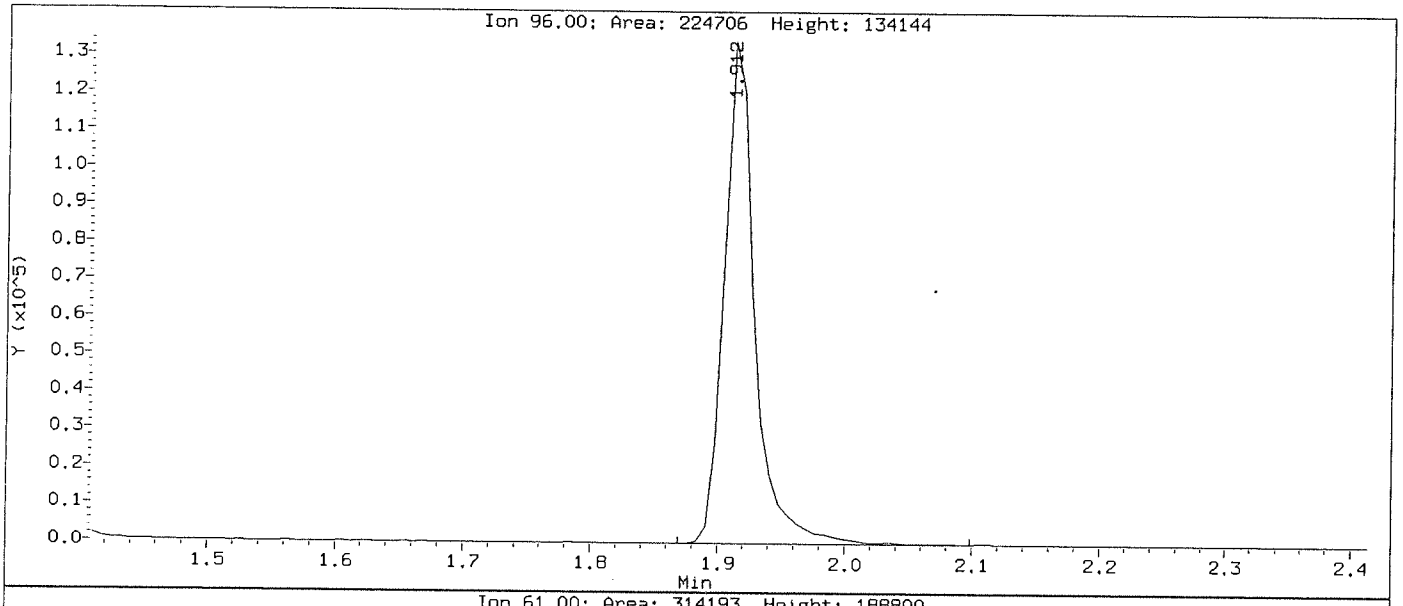


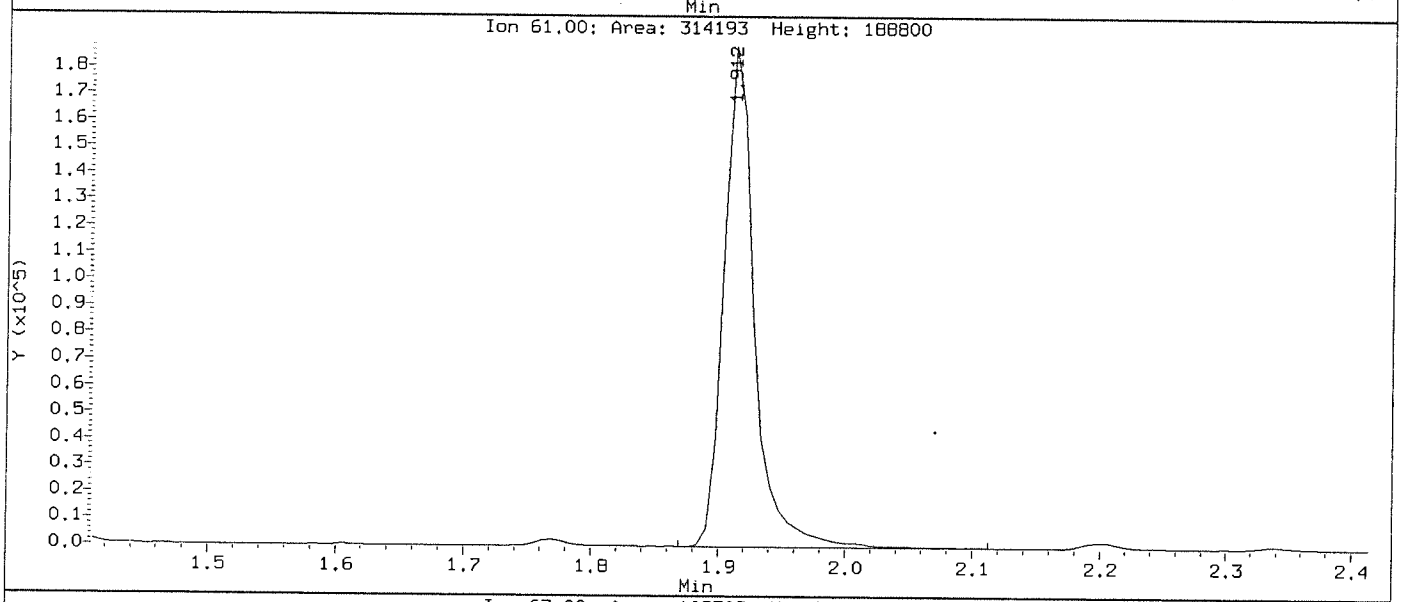
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Date : 11-JUN-2021 11:35
Client ID: CCV
Sample Info: CCV;CCV;2;;
Purge Volume: 5.0
Column phase: DB624

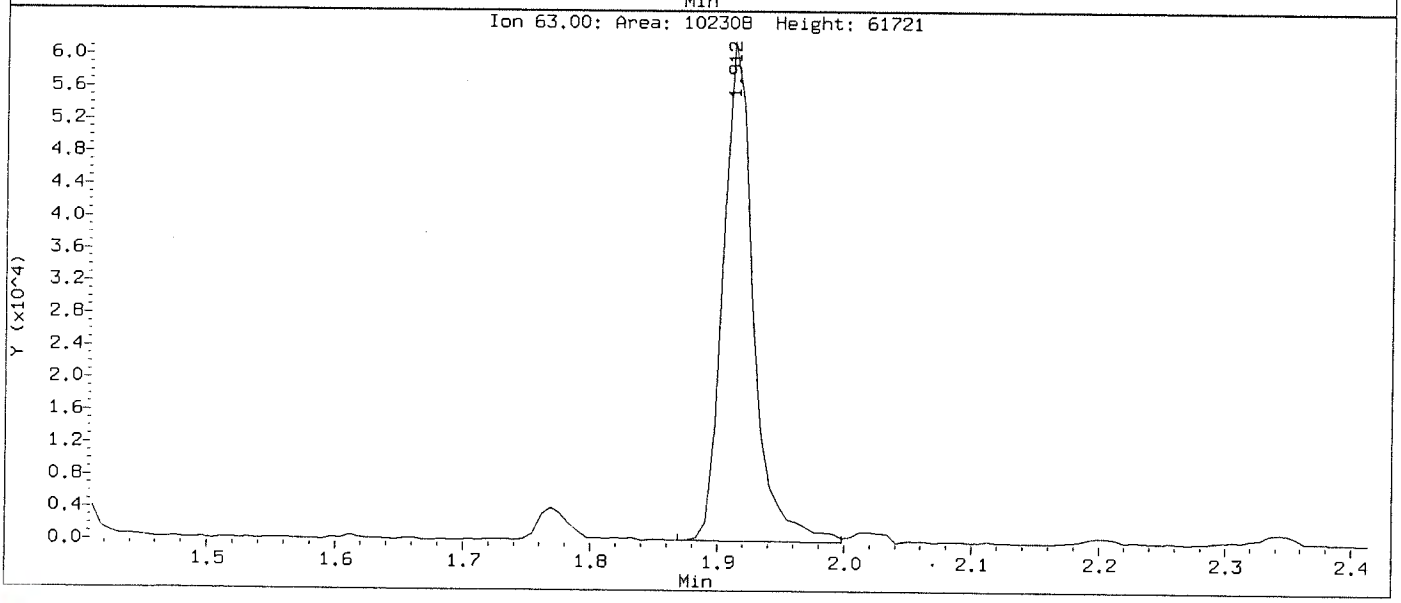
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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Injection Date: 11-JUN-2021 11:35
Instrument: voa6.i
Client Sample ID: CCV

Compound: 1,1-Dichloroethene
CAS Number: 75-35-4

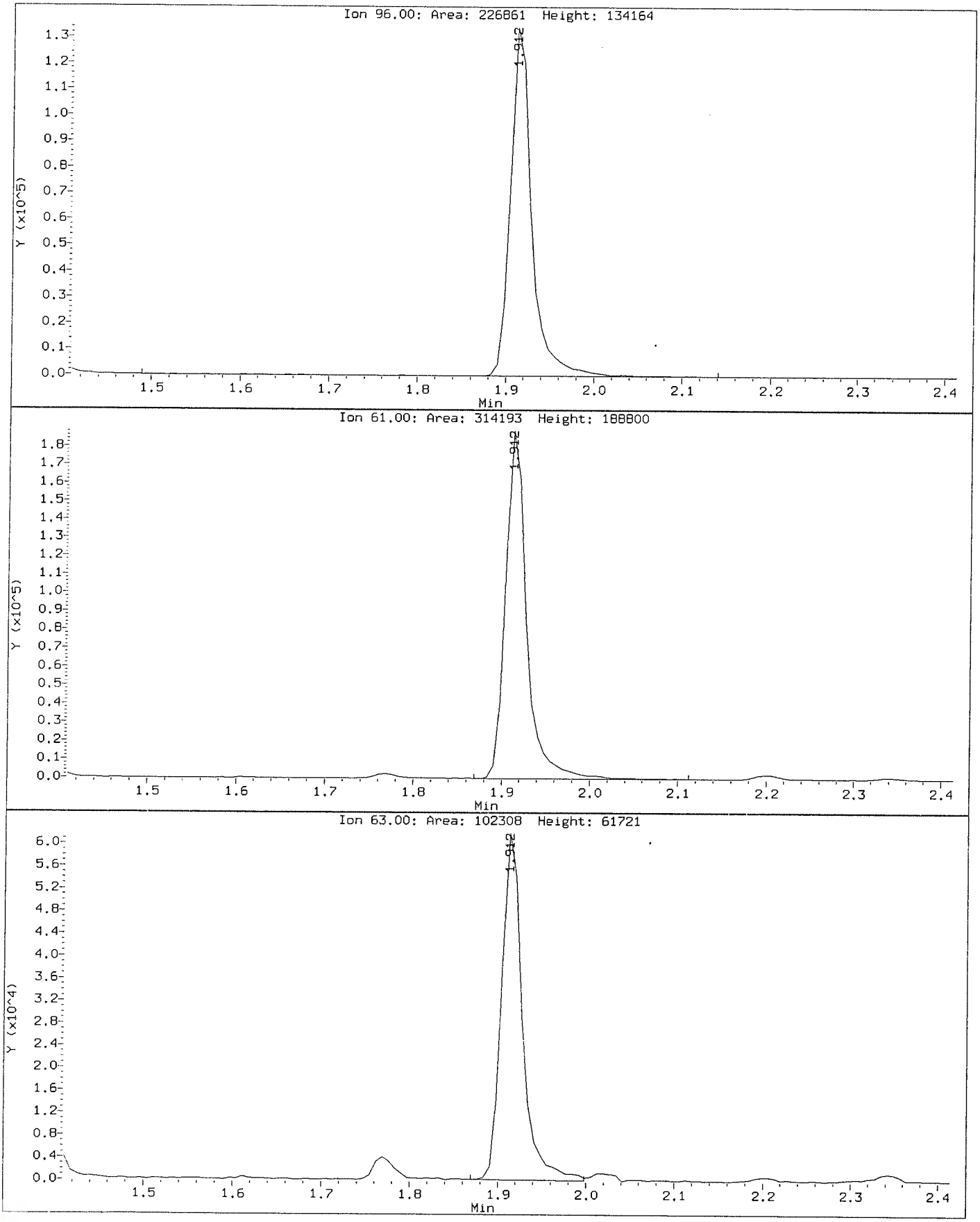






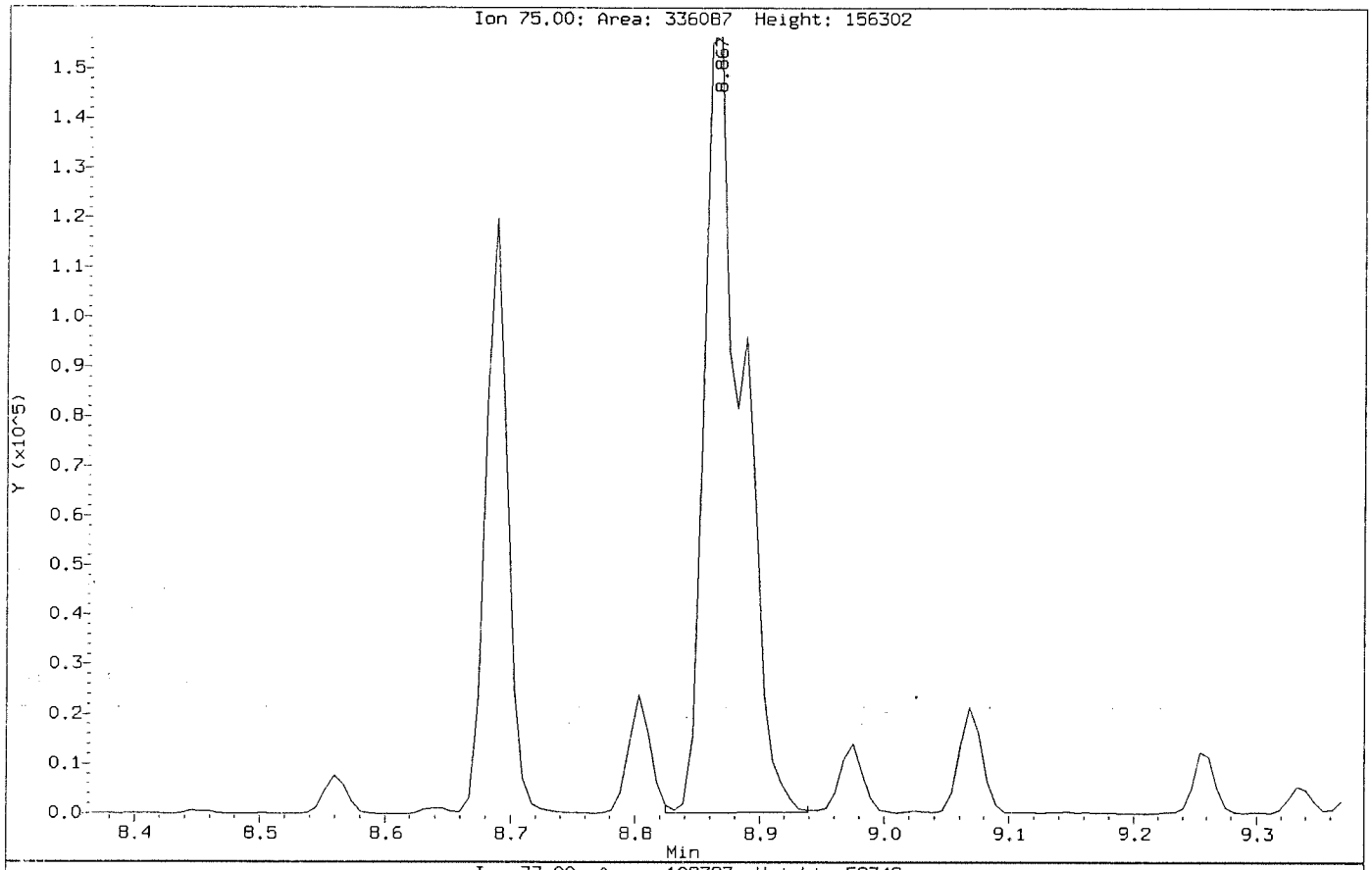
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Injection Date: 11-JUN-2021 11:35
Instrument: voa6.i
Client Sample ID: CCV

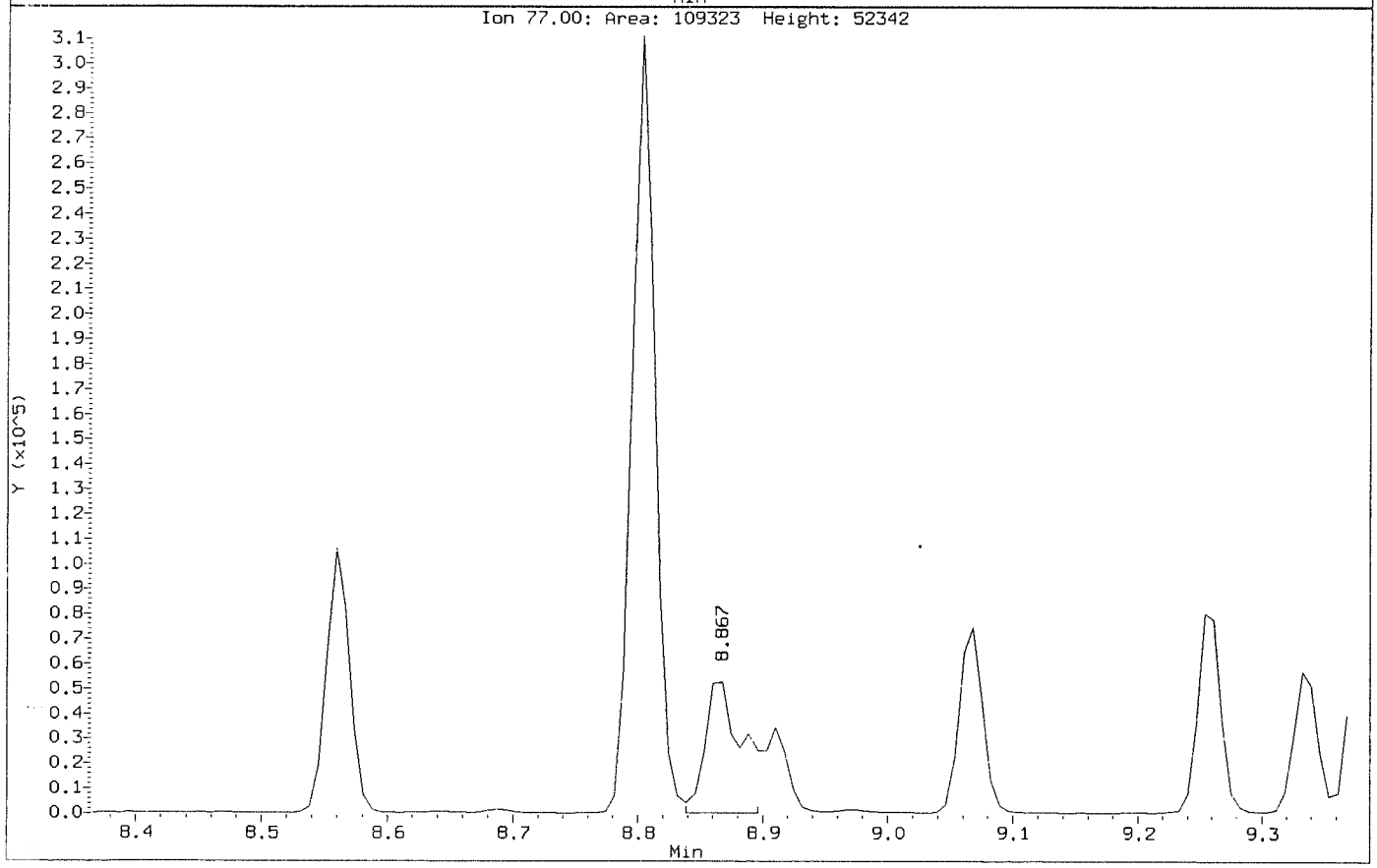
Compound: 1,1-Dichloroethene
CAS Number: 75-35-4



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Injection Date: 11-JUN-2021 11:35
Instrument: voa6.i
Client Sample ID: CCV

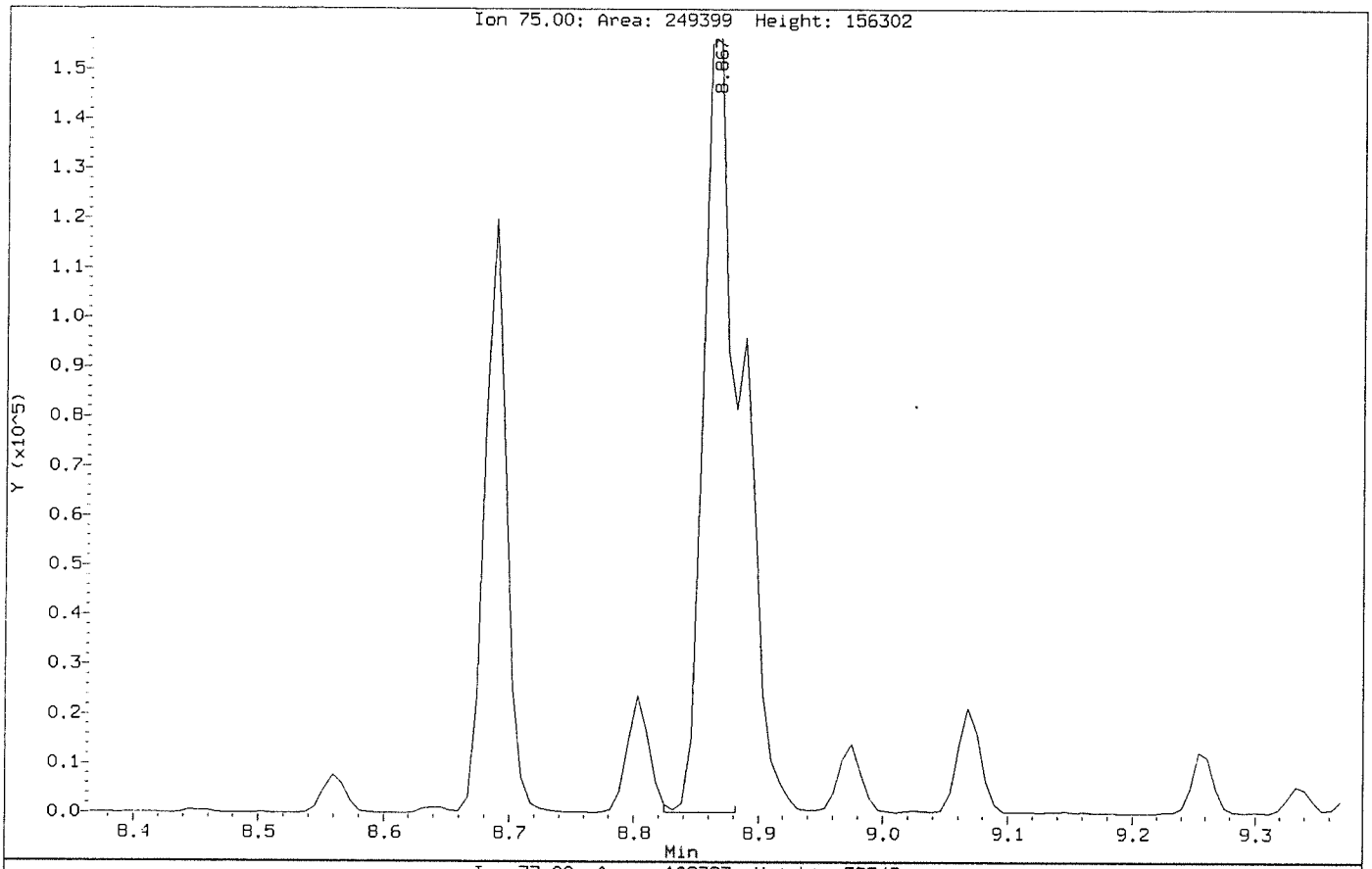
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

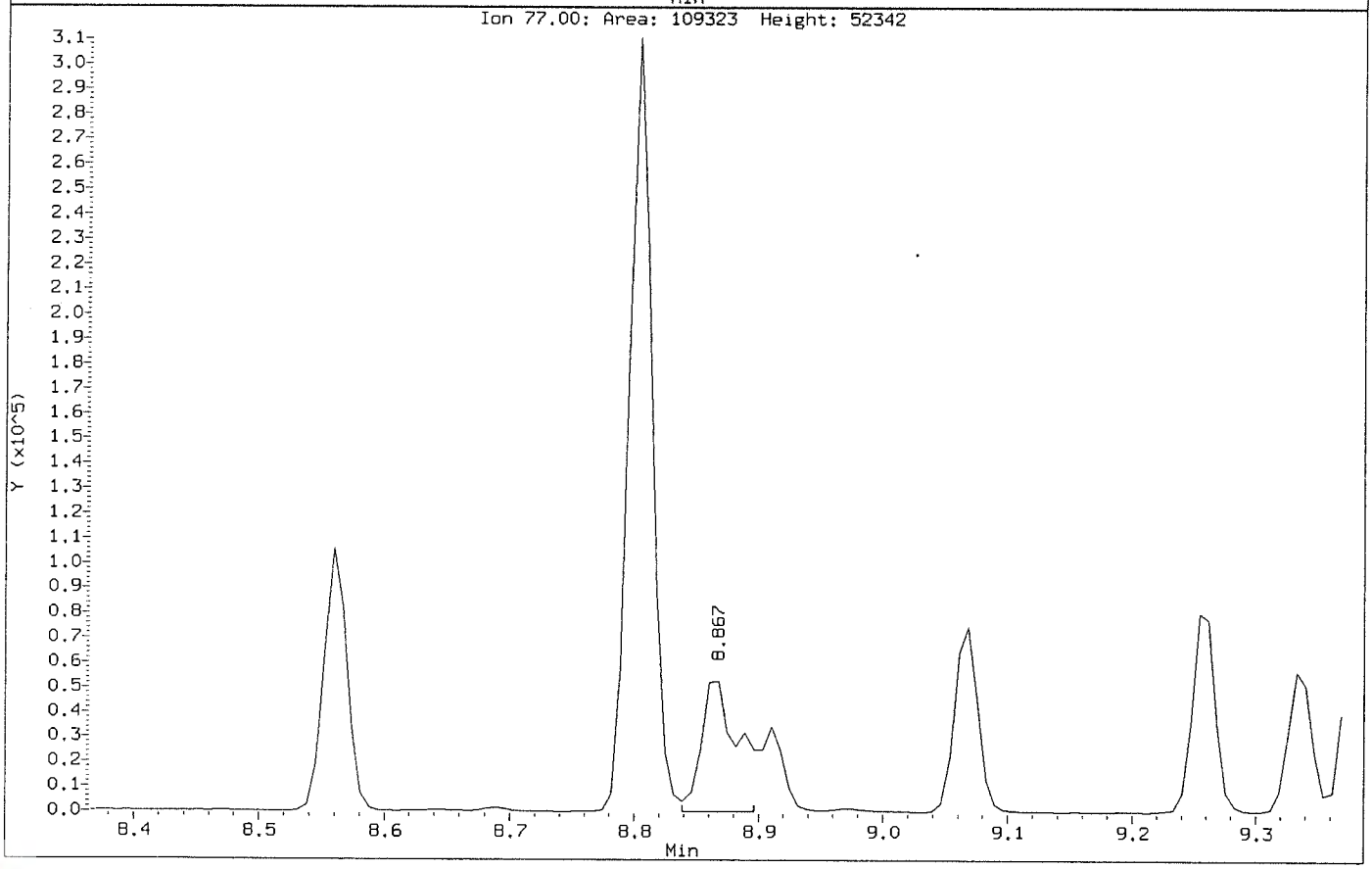




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Injection Date: 11-JUN-2021 11:35
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Client Sample ID: CCV

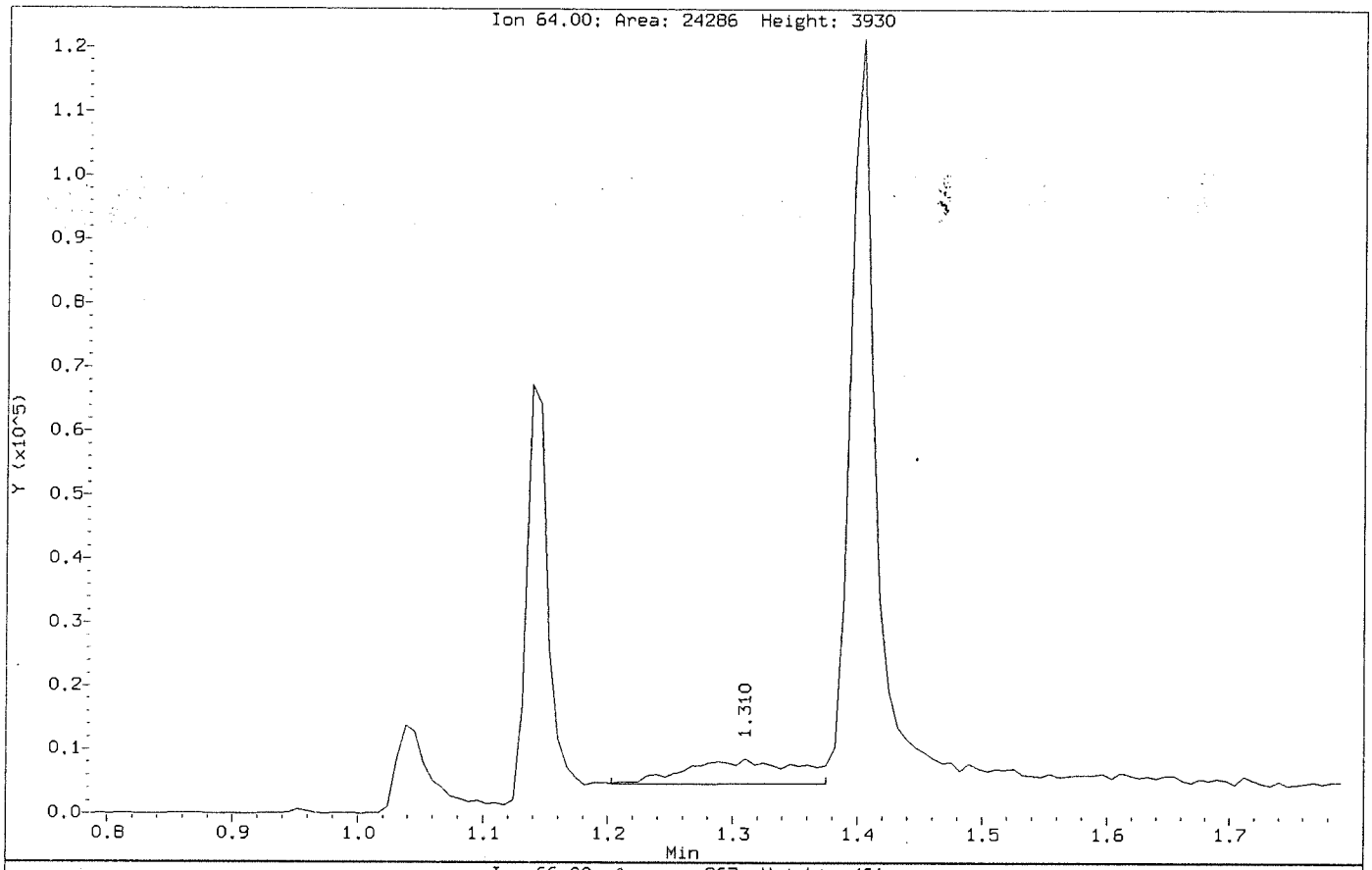
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

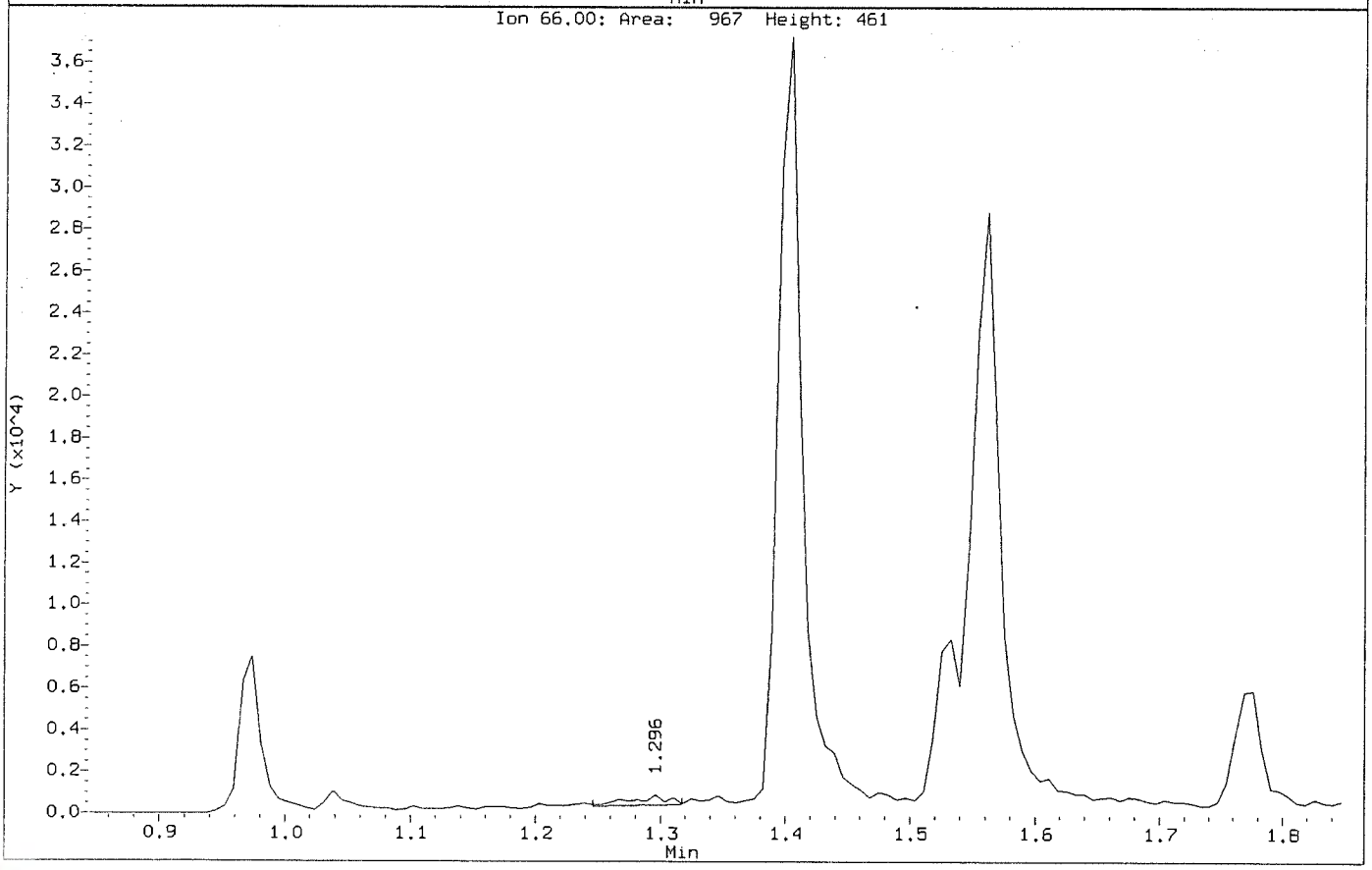




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Client Sample ID: CCV

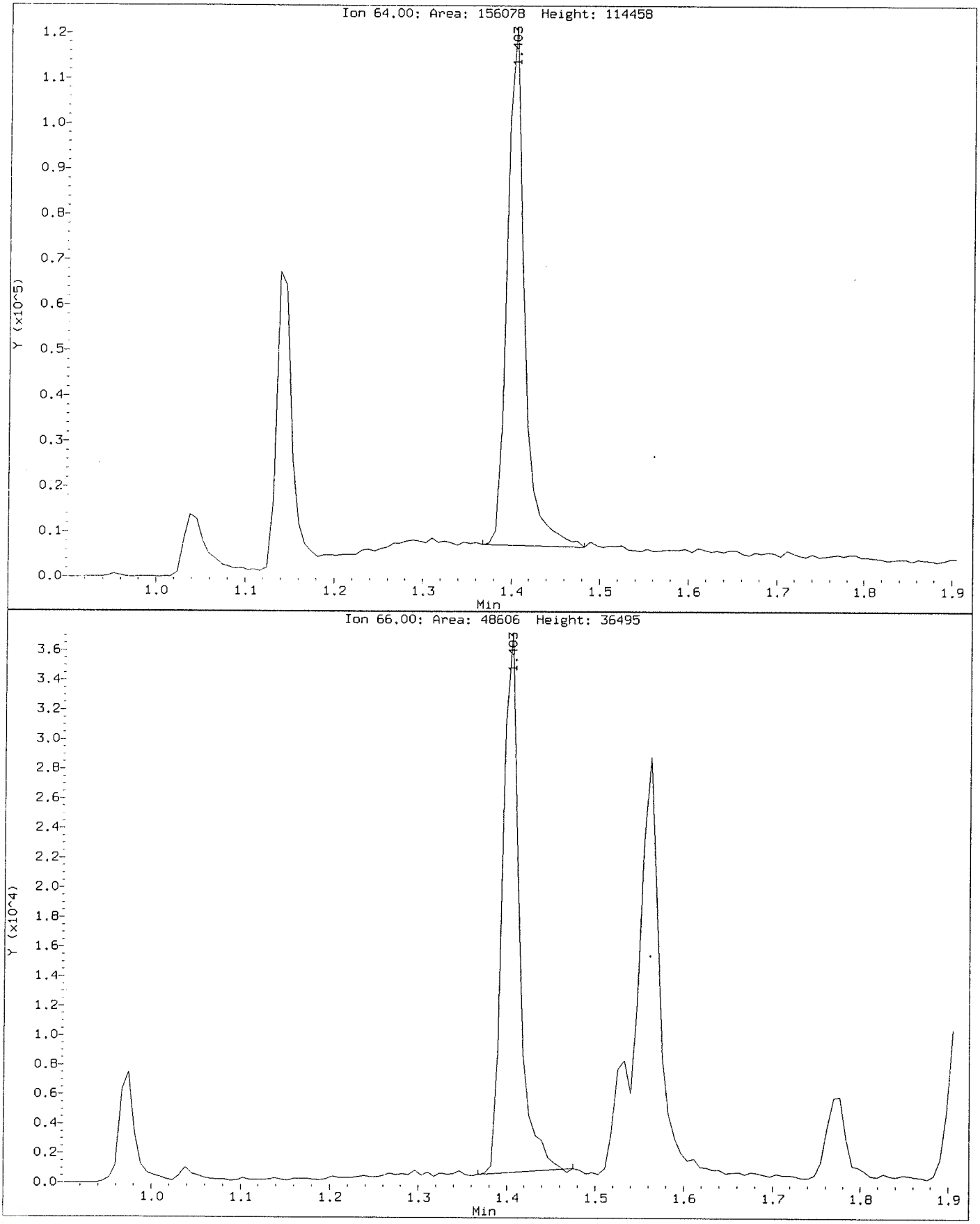
Compound: Chloroethane
CAS Number: 75-00-3





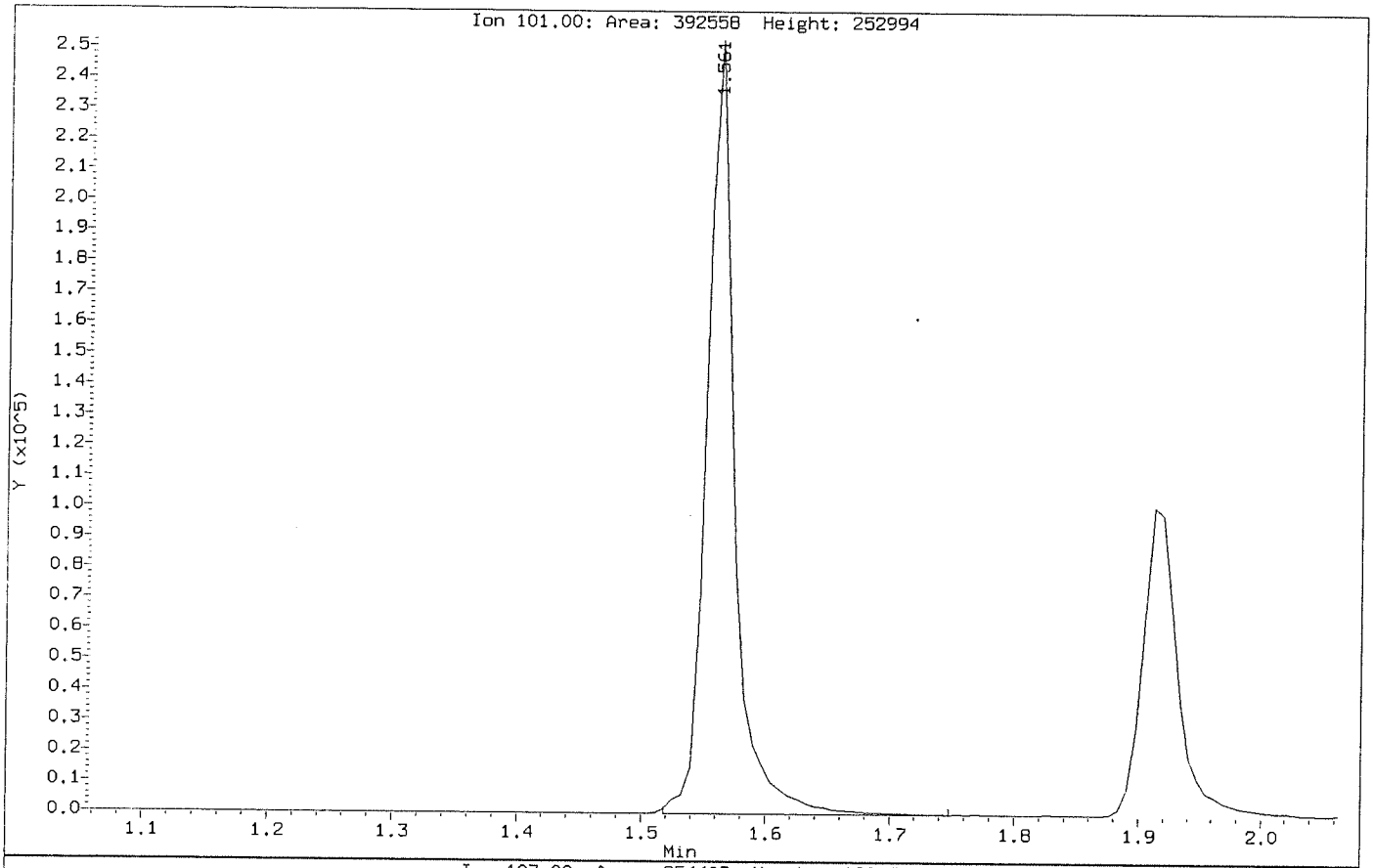
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Injection Date: 11-JUN-2021 11:35
Instrument: voa6.i
Client Sample ID: CCV

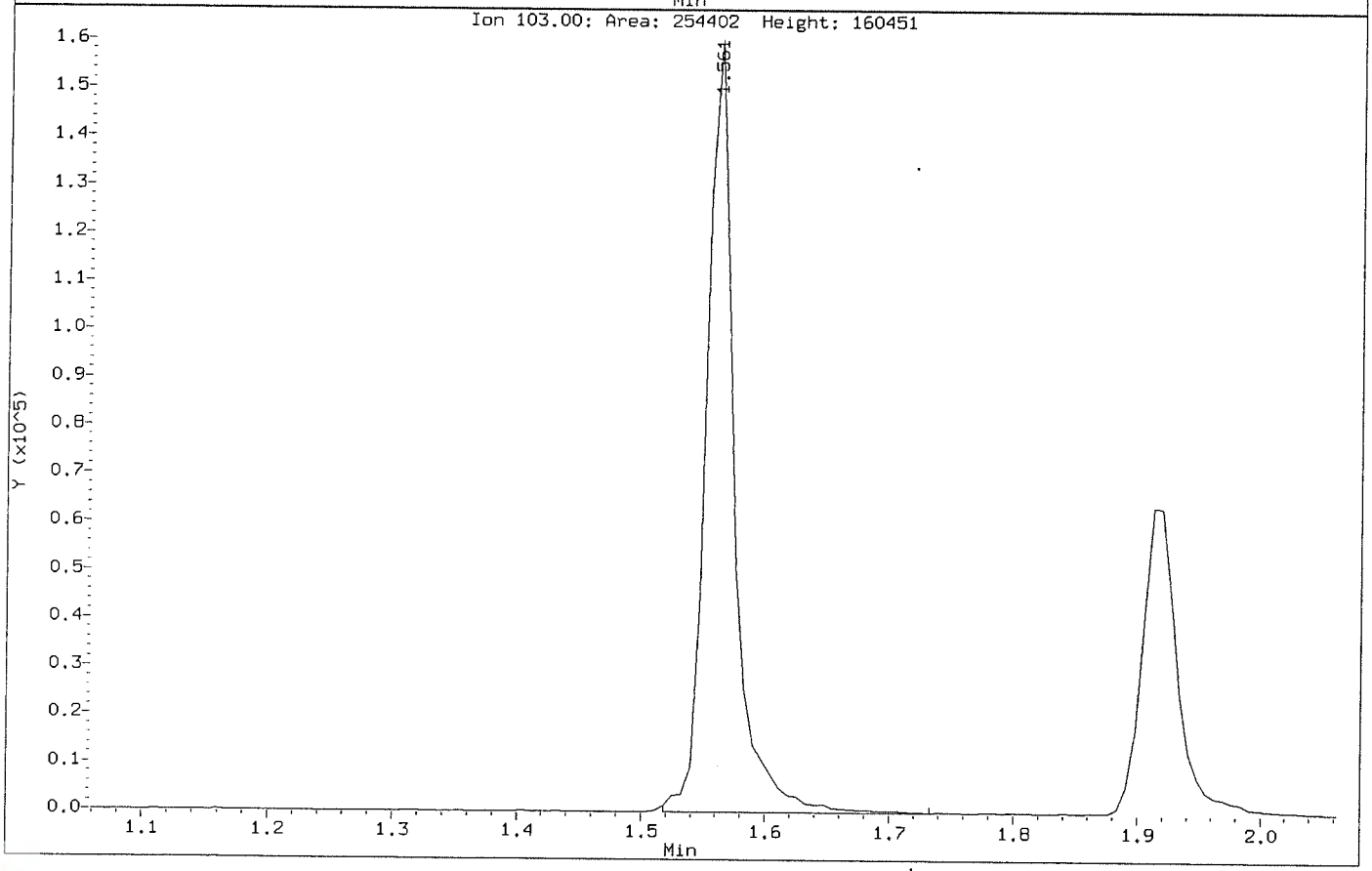
Compound: Chloroethane
CAS Number: 75-00-3



Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\Before\X061103.D
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Instrument: voa6.i
Client Sample ID: CCV

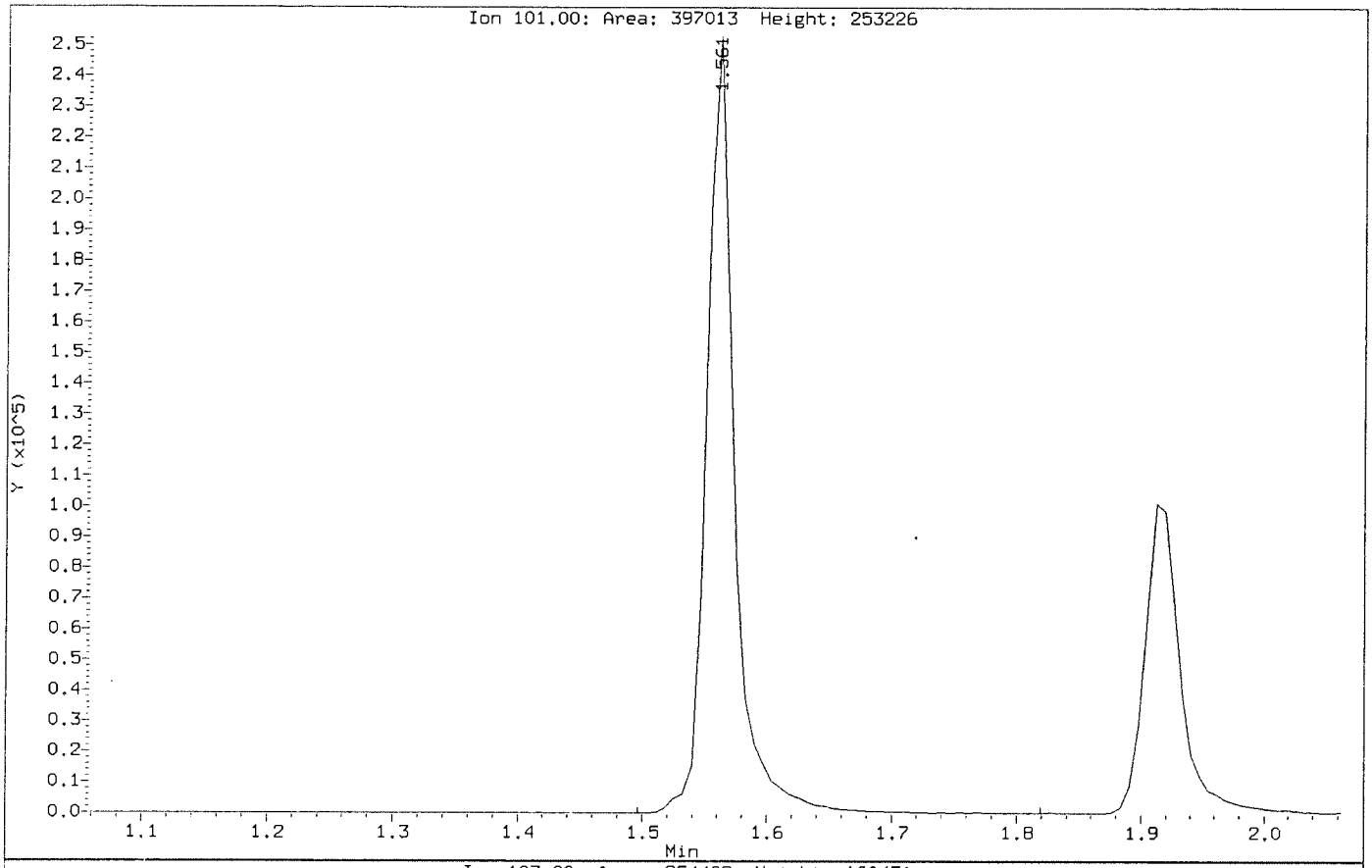
Compound: Trichlorofluoromethane
CAS Number: 75-69-4

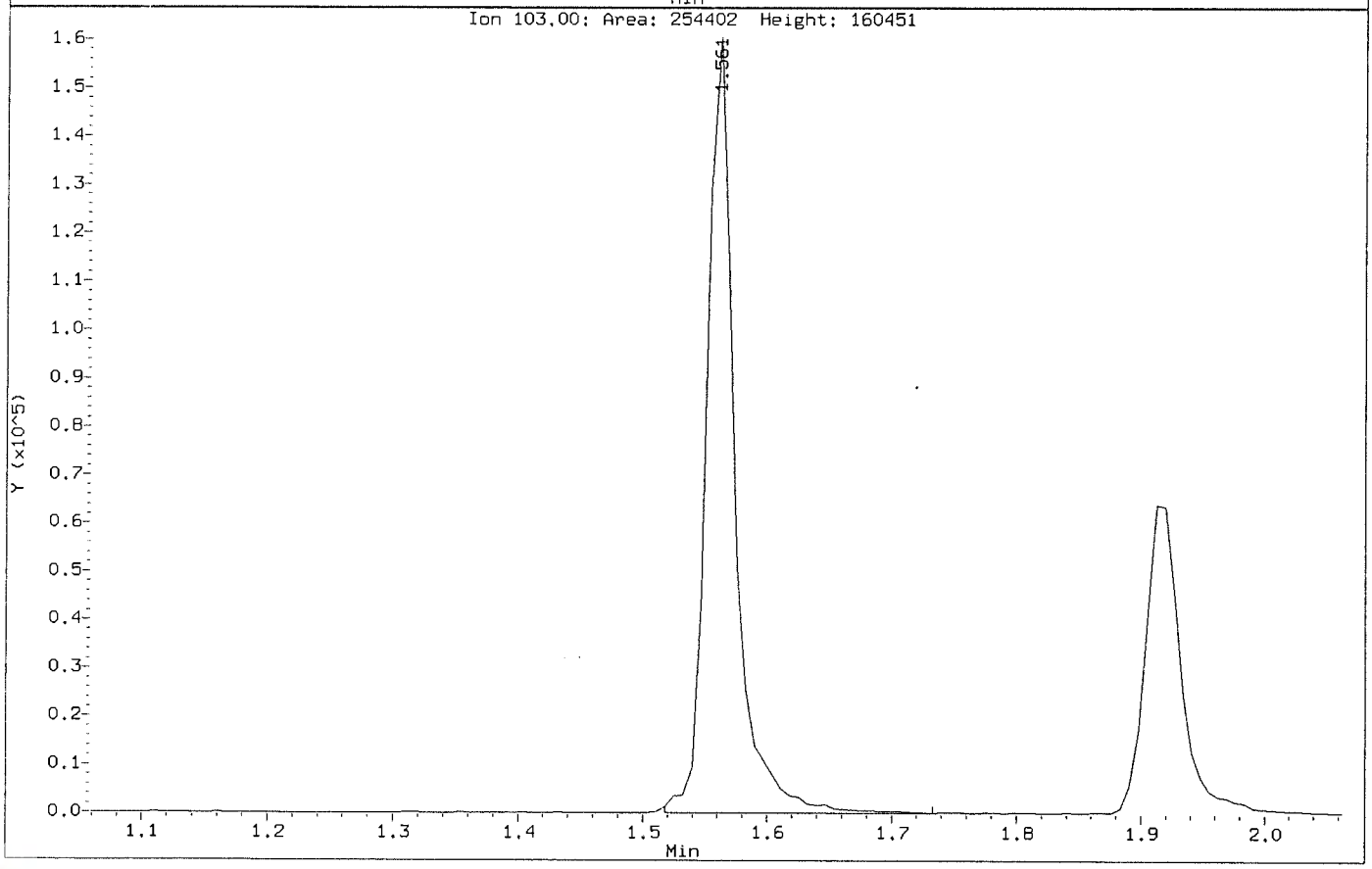




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Instrument: voa6.i
Client Sample ID: CCV

Compound: Trichlorofluoromethane
CAS Number: 75-69-4





Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\X061106.D Page 1
Report Date: 30-Jul-2021 13:35

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210611.b\X061106.D
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Inj Date : 11-JUN-2021 12:38
Operator : PC Inst ID: voa6.i
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Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210611.b\8260W.m
Meth Date : 30-Jul-2021 13:35 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

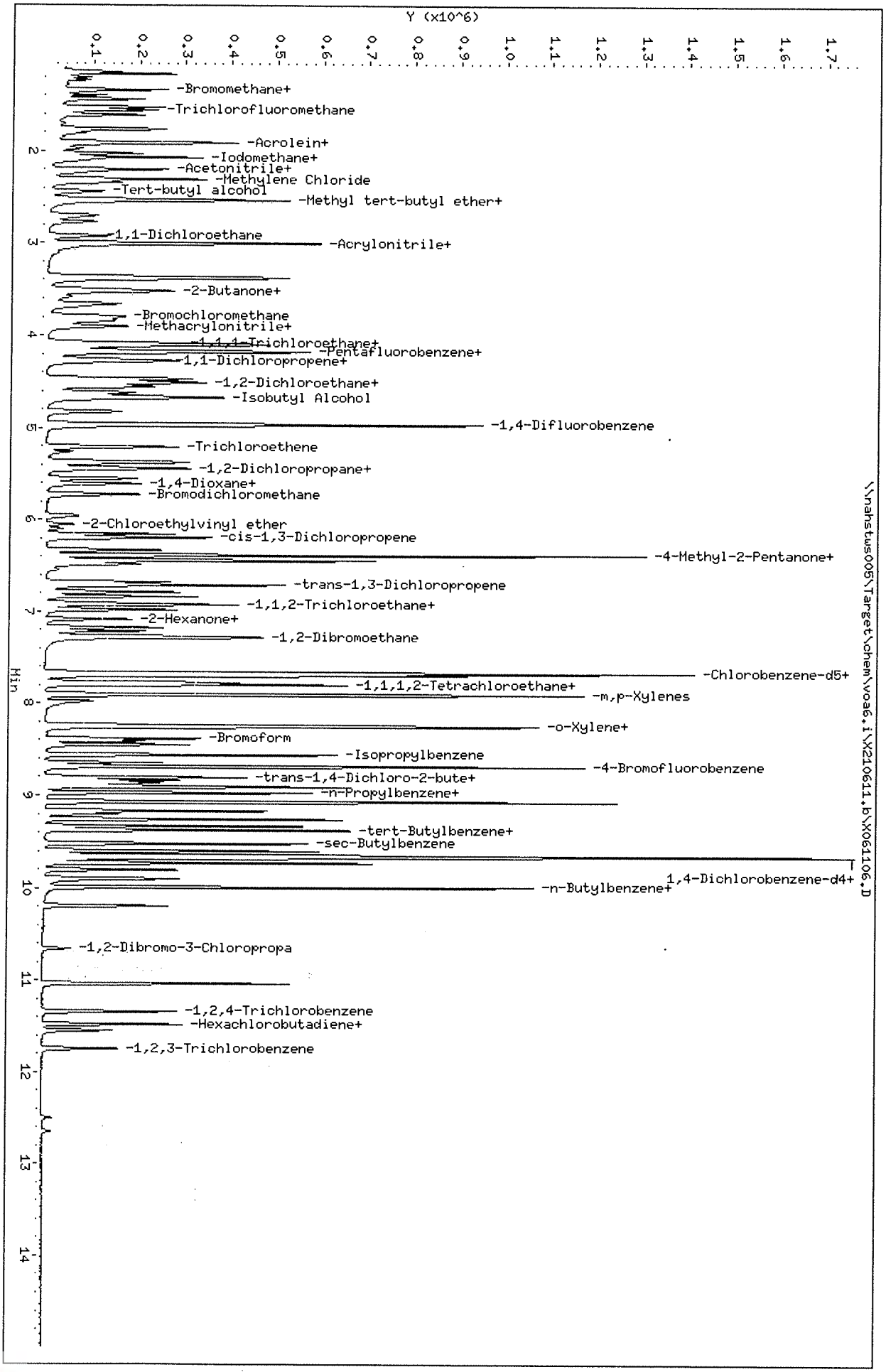
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	507665	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	732621	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	688441	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	375429	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	241582	48.3396	48.33
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	246863	50.9179	50.91
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	802303	46.7854	46.78
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	297892	49.2821	49.28
60 1,1,1,2-Tetrachloroethane	131	7.778	7.771	(1.014)	99896	19.6212	19.62
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	128982	17.1922	17.19
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	114215	21.3518	21.35
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	72155	19.3480	19.34
22 1,1-Dichloroethane	63	2.921	2.922	(0.699)	139843	17.4243	17.42
11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	82590	15.7938	15.79
32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	103227	18.3970	18.39
93 1,2,3-Trichlorobenzene	180	11.746	11.739	(1.216)	56317	24.7790	24.77
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	90102	19.2498	19.24(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	91084	24.5390	24.53
79 1,2,4-Trimethylbenzene	105	9.382	9.375	(0.971)	326400	19.0615	19.06
89 1,2-Dibromo-3-Chloropropane	155	10.657	10.658	(1.103)	13369	22.7296	22.72
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	100464	19.8208	19.82
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	199528	19.5942	19.59

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	118863	20.3625	20.36
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	82558	19.1441	19.14
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	312928	18.3629	18.36
83 1,3-Dichlorobenzene	146	9.604	9.605	(0.994)	210152	19.8456	19.84
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	145801	19.6614	19.66
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	211892	19.1757	19.17
26 2,2-Dichloropropane	77	3.509	3.509	(0.839)	124900	17.9829	17.98
24 2-Butanone	43	3.580	3.581	(0.856)	58272	37.7275	37.72
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	268289	19.0924	19.09
52 2-Hexanone	43	7.090	7.083	(0.924)	100514	39.3040	39.30
77 4-Chlorotoluene	91	9.067	9.067	(0.938)	310928	18.5801	18.58
82 p-Isopropyltoluene	119	9.647	9.648	(0.999)	316512	18.2331	18.23
45 4-Methyl-2-Pentanone	43	6.331	6.324	(0.825)	149353	37.6733	37.67
10 Acetone	43	1.976	1.976	(0.473)	49154	34.2044	34.20
37 Benzene	78	4.512	4.512	(0.909)	325019	19.3114	19.31
74 Bromobenzene	156	8.802	8.802	(0.911)	125299	20.1159	20.11
29 Bromochloromethane	128	3.795	3.795	(0.908)	56835	18.5151	18.51
39 Bromodichloromethane	83	5.722	5.722	(1.153)	121343	19.2661	19.26
66 Bromoform	173	8.408	8.408	(1.096)	77605	20.2154	20.21
6 Bromomethane	94	1.338	1.338	(0.320)	101808	19.5090	19.50
19 Carbon Disulfide	76	2.069	2.069	(0.495)	406189	32.7548	32.75
34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	108260	17.8259	17.82
59 Chlorobenzene	112	7.692	7.692	(1.003)	258034	18.0047	18.00
7 Chloroethane	64	1.403	1.403	(0.336)	79239	21.4717	21.47
28 Chloroform	83	3.910	3.910	(0.935)	159352	17.8494	17.84
3 Chloromethane	50	1.073	1.073	(0.257)	85610	16.9426	16.94
27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	98941	18.5944	18.59
46 cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	150664	20.3008	20.30
55 Dibromochloromethane	129	7.176	7.176	(0.936)	114506	20.2083	20.20
44 Dibromomethane	93	5.550	5.550	(1.118)	64525	19.9100	19.91
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	83320	17.7317	17.73
61 Ethylbenzene	106	7.799	7.800	(1.017)	130835	19.7884	19.78
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	53564	24.1449	24.14
67 Isopropylbenzene	105	8.559	8.559	(1.116)	367448	18.1891	18.18
62 m,p-Xylenes	106	7.907	7.900	(1.031)	322889	37.4622	37.46
17 Methylene Chloride	84	2.305	2.305	(0.551)	90947	18.9513	18.95
87 n-Butylbenzene	91	9.991	9.991	(1.034)	263888	18.0681	18.06
73 n-Propylbenzene	91	8.910	8.910	(0.922)	425401	18.1651	18.16
92 Naphthalene	128	11.546	11.539	(1.195)	119551	22.2834	22.28
63 o-Xylene	106	8.243	8.244	(1.075)	161110	19.1696	19.16
81 sec-Butylbenzene	105	9.518	9.519	(0.985)	342156	17.3561	17.35
64 Styrene	104	8.258	8.258	(1.077)	271516	19.3333	19.33
78 tert-Butylbenzene	119	9.339	9.332	(0.967)	260382	17.8224	17.82
56 Tetrachloroethene	164	6.925	6.926	(0.903)	80972	19.1058	19.10
50 Toluene	91	6.446	6.446	(0.840)	363627	18.0924	18.09
20 trans-1,2-Dichloroethene	96	2.527	2.528	(0.604)	81611	17.2168	17.21
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	129477	20.2233	20.22
38 Trichloroethene	130	5.206	5.207	(1.049)	99655	19.8189	19.81
8 Trichlorofluoromethane	101	1.560	1.561	(0.373)	140390	15.3201	15.32
5 Vinyl Chloride	62	1.145	1.138	(0.274)	98574	16.4036	16.40

QC Flag Legend

M - Compound response manually integrated.

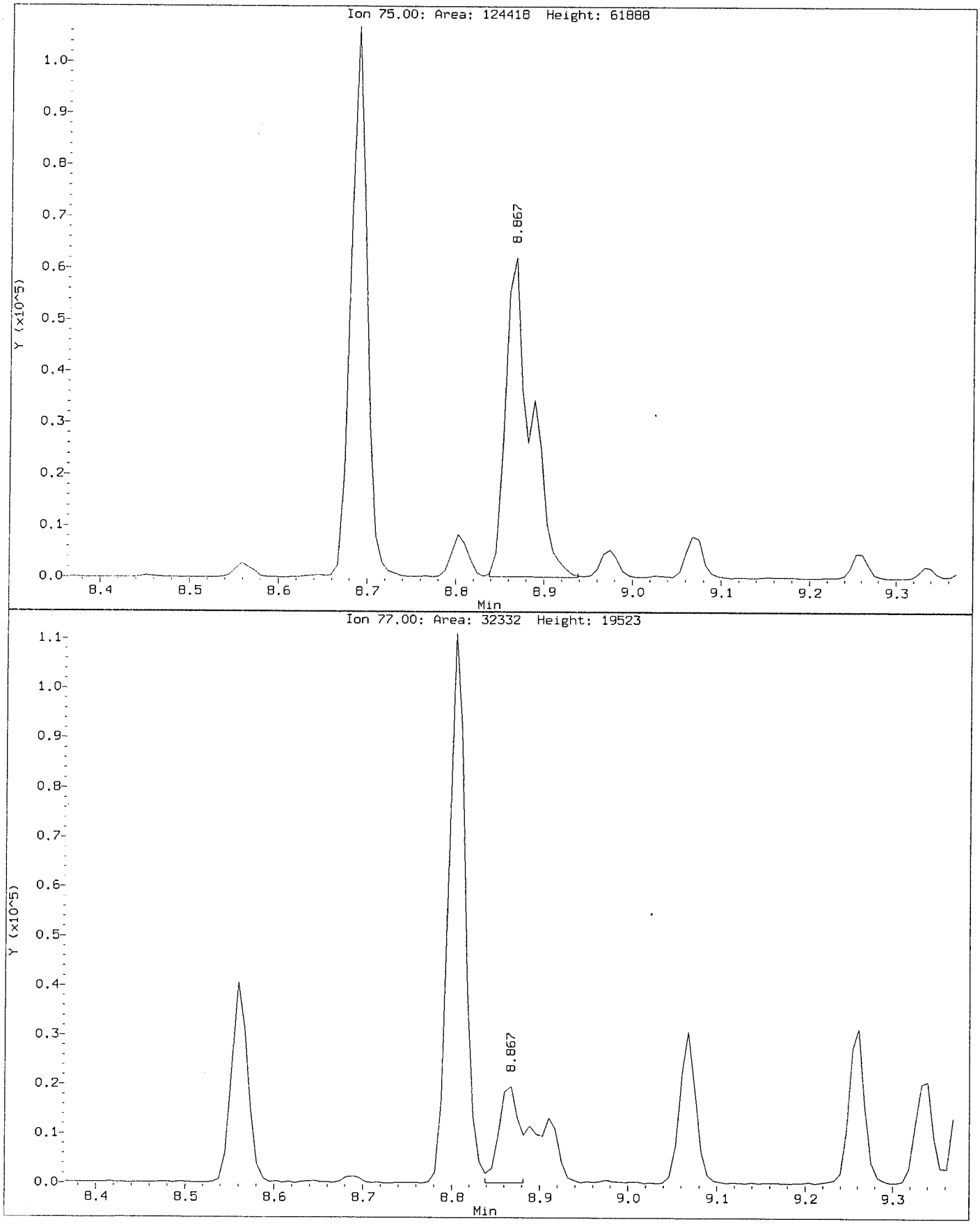


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Instrument: voa6.i
Operator: PC
Column diameter: 0.18

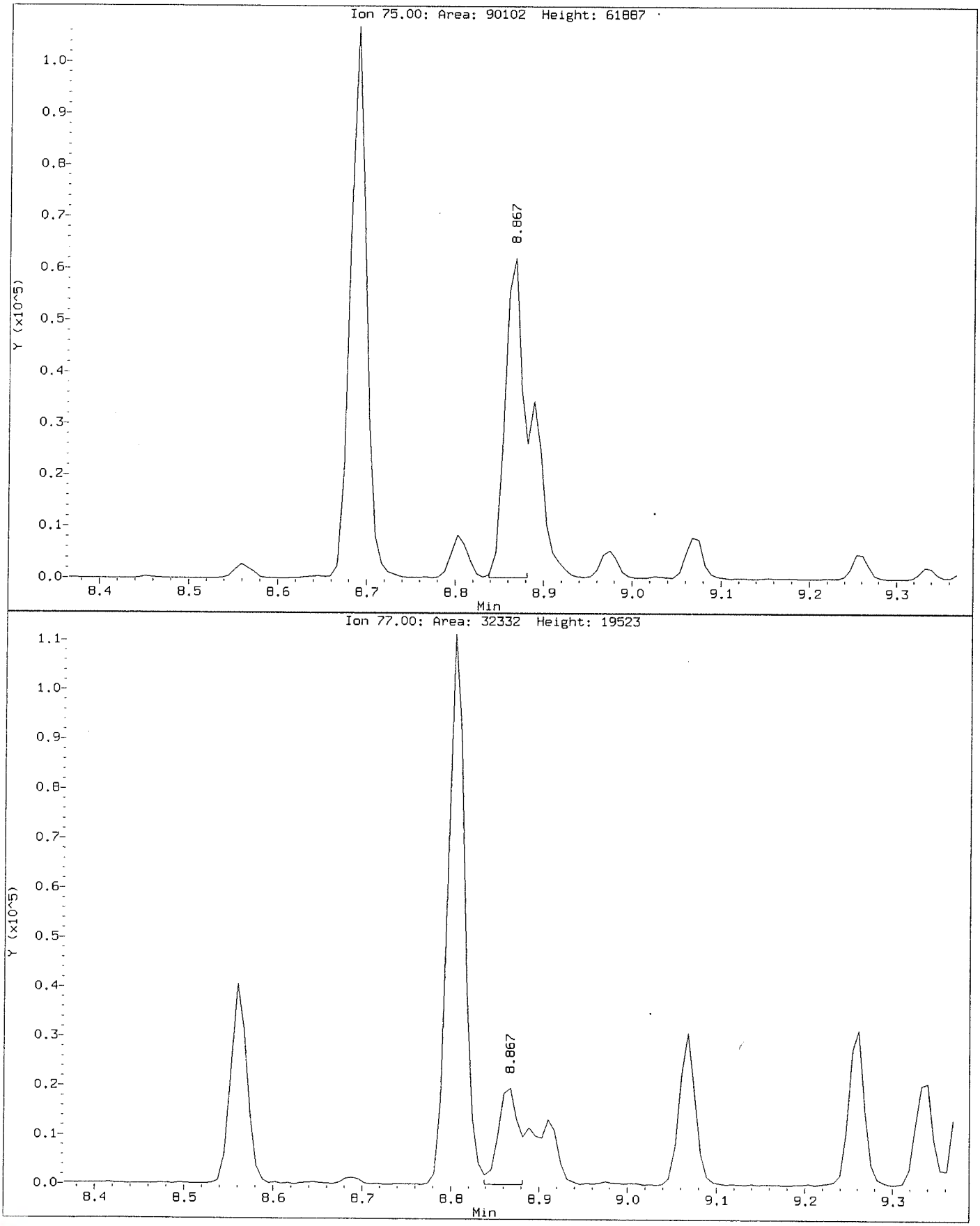
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CAS Number: 96-18-4



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Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



ALS Laboratory Group

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Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.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 MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	613086	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	827067	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	712698	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	352334	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	267864	44.3686	44.36
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	268041	45.7095	45.70
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	928120	52.2802	52.28
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	298810	47.7748	47.77

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Instrument: voa6.i

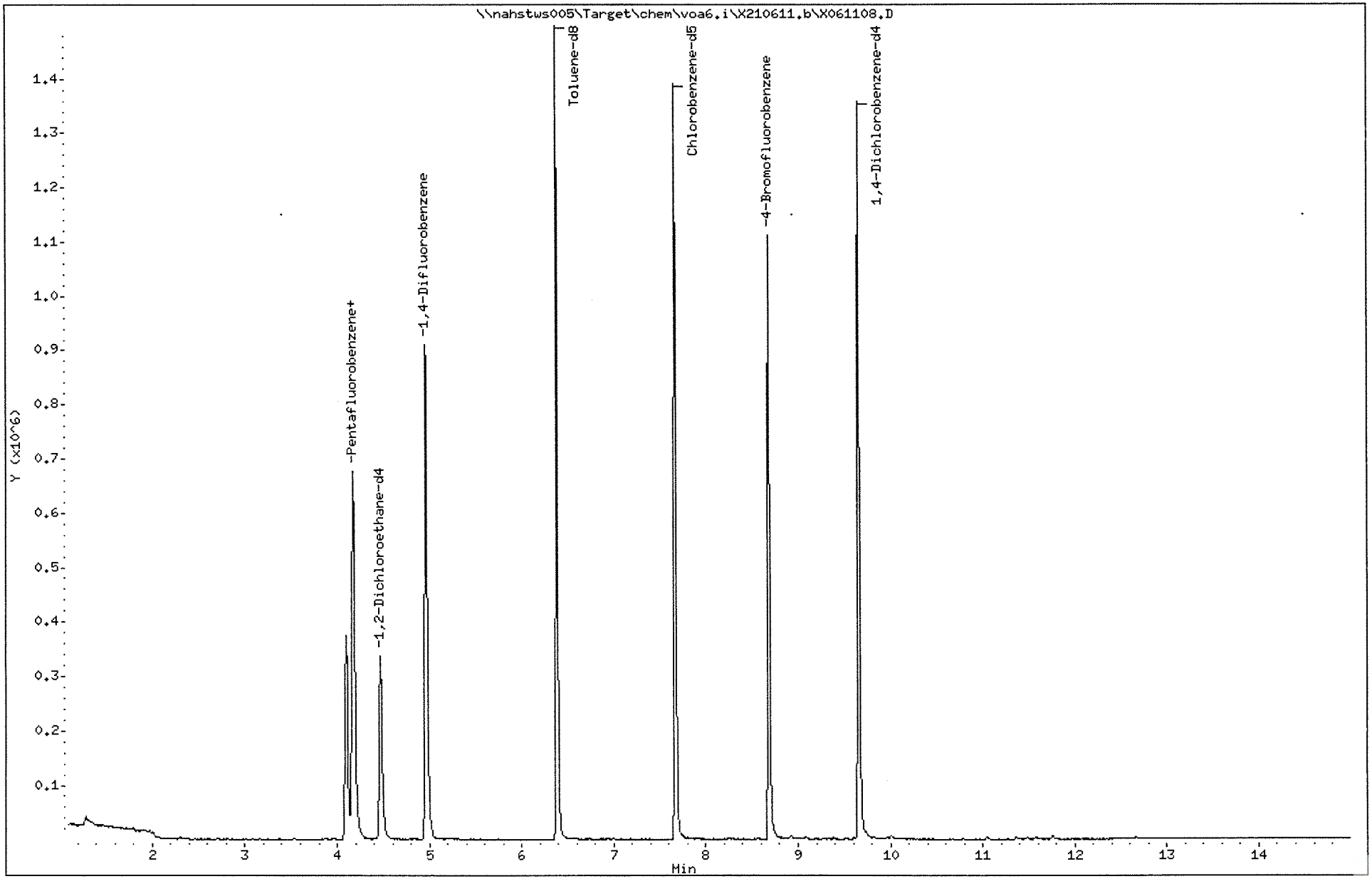
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Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\X061113.D Page 1
Report Date: 30-Jul-2021 13:35

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210611.b\X061113.D
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Operator : PC Inst ID: voa6.i
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Als bottle: 13 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

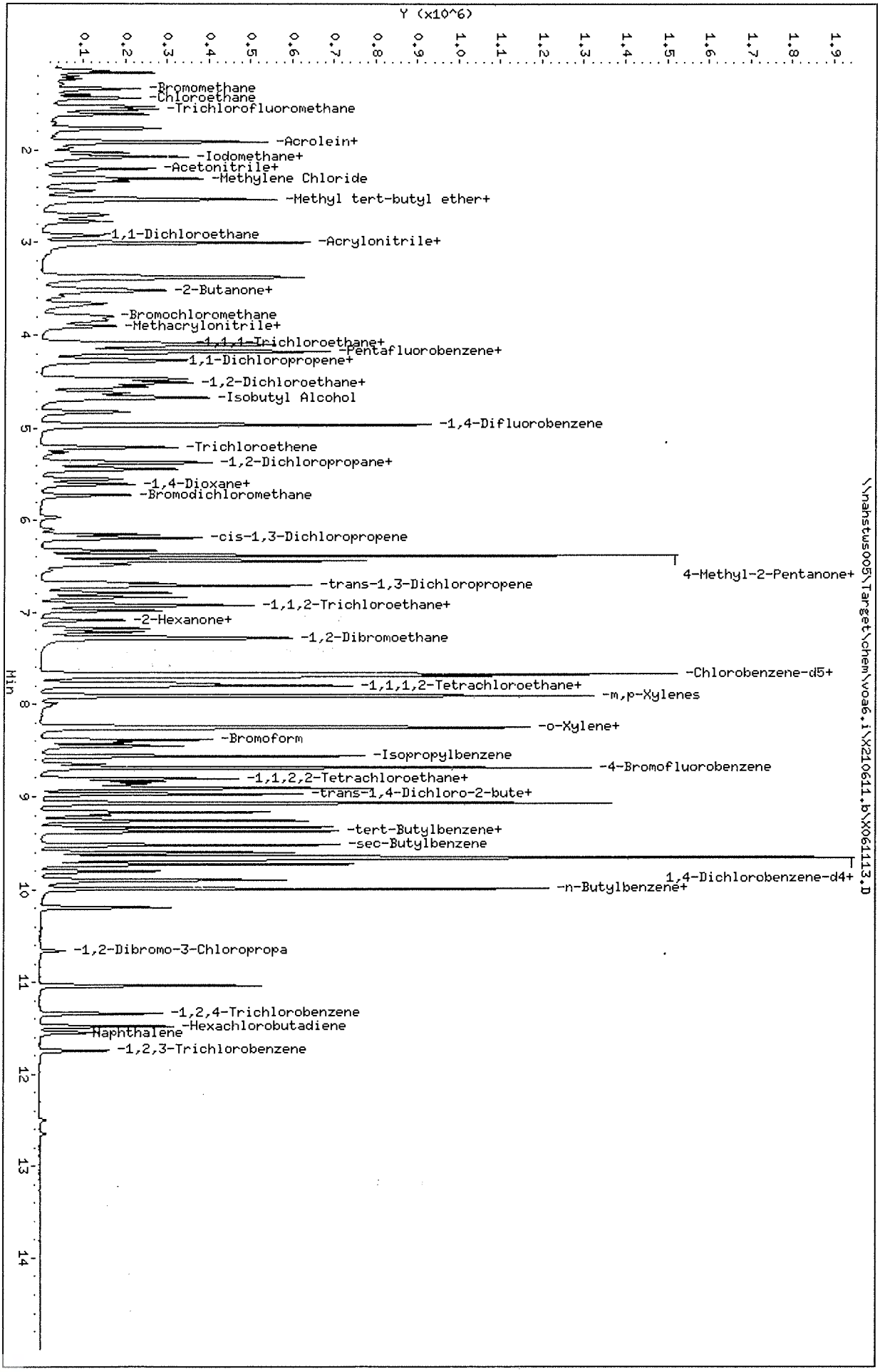
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	603479	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	828481	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	749876	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	404705	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	267651	45.0416	45.04
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	266927	46.2523	46.25
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	937723	50.2023	50.20
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	329952	50.1013	50.10
60 1,1,1,2-Tetrachloroethane	131	7.778	7.771	(1.014)	104598	18.8615	18.86
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	149685	16.7840	16.78
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	115665	19.9862	19.98
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	74445	18.3266	18.32
22 1,1-Dichloroethane	63	2.921	2.922	(0.699)	153509	16.0902	16.09
11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	98260	15.8071	15.80
32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	119992	18.9105	18.91
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	53758	21.9420	21.94
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	93426	18.5160	18.51(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	88819	22.1978	22.19
79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	345760	18.7315	18.73
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	13543	21.3907	21.39
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	100353	18.1769	18.17
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	202412	18.4395	18.43

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	118203	17.9065	17.90
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	86258	17.6877	17.68
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	351615	19.1405	19.14
83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	217400	19.0449	19.04
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	147907	18.3113	18.31
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	219368	18.4161	18.41
26 2,2-Dichloropropane	77	3.516	3.509	(0.841)	139623	16.9110	16.91
24 2-Butanone	43	3.580	3.581	(0.856)	57702	31.4271	31.42
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	290898	19.2038	19.20
52 2-Hexanone	43	7.090	7.083	(0.924)	109149	39.1838	39.18
77 4-Chlorotoluene	91	9.067	9.067	(0.938)	333055	18.4626	18.46
82 p-Isopropyltoluene	119	9.648	9.648	(0.999)	371247	19.8392	19.83
45 4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	160166	37.0909	37.09
10 Acetone	43	1.976	1.976	(0.473)	48161	27.1445	27.14
37 Benzene	78	4.512	4.512	(0.909)	339637	17.8450	17.84
74 Bromobenzene	156	8.802	8.802	(0.911)	131071	19.5203	19.52
29 Bromochloromethane	128	3.795	3.795	(0.908)	58400	16.0044	16.00
39 Bromodichloromethane	83	5.722	5.722	(1.153)	125023	17.5536	17.55
66 Bromoform	173	8.408	8.408	(1.096)	78929	18.8759	18.87
6 Bromomethane	94	1.338	1.338	(0.320)	101768	16.4294	16.42
19 Carbon Disulfide	76	2.069	2.069	(0.495)	432096	29.3118	29.31
34 Carbon Tetrachloride	117	4.268	4.268	(0.860)	137268	19.9870	19.98
59 Chlorobenzene	112	7.692	7.692	(1.003)	276336	17.7020	17.70
7 Chloroethane	64	1.403	1.403	(0.336)	85436	19.3436	19.34 (M)
28 Chloroform	83	3.910	3.910	(0.935)	165442	15.5893	15.58
3 Chloromethane	50	1.073	1.073	(0.257)	66977	10.2125	10.21
27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	102636	16.2263	16.22
46 cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	153254	18.2605	18.26
55 Dibromochloromethane	129	7.176	7.176	(0.936)	114956	18.6256	18.62
44 Dibromomethane	93	5.550	5.550	(1.118)	63273	17.2647	17.26
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	58839	10.4484	10.44
61 Ethylbenzene	106	7.800	7.800	(1.017)	144069	20.0048	20.00
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	57163	23.9174	23.91
67 Isopropylbenzene	105	8.559	8.559	(1.116)	435033	19.7704	19.77
62 m,p-Xylenes	106	7.907	7.900	(1.031)	354761	37.7879	37.78
17 Methylene Chloride	84	2.305	2.305	(0.551)	89172	15.3985	15.39
87 n-Butylbenzene	91	9.991	9.991	(1.034)	311943	19.8133	19.81
73 n-Propylbenzene	91	8.910	8.910	(0.922)	496855	19.6815	19.68
92 Naphthalene	128	11.546	11.539	(1.195)	118080	20.4171	20.41
63 o-Xylene	106	8.244	8.244	(1.075)	169679	18.5351	18.53
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	426170	20.0540	20.05
64 Styrene	104	8.258	8.258	(1.077)	281260	18.3863	18.38
78 tert-Butylbenzene	119	9.332	9.332	(0.966)	306671	19.4723	19.47
56 Tetrachloroethene	164	6.926	6.926	(0.903)	98881	21.4201	21.42
50 Toluene	91	6.446	6.446	(0.840)	392107	17.9111	17.91
20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	87604	15.5468	15.54
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	134051	18.5151	18.51
38 Trichloroethene	130	5.206	5.207	(1.049)	113079	19.8866	19.88
8 Trichlorofluoromethane	101	1.561	1.561	(0.373)	168253	15.4456	15.44
5 Vinyl Chloride	62	1.138	1.138	(0.272)	99190	13.8854	13.88

QC Flag Legend

M - Compound response manually integrated.

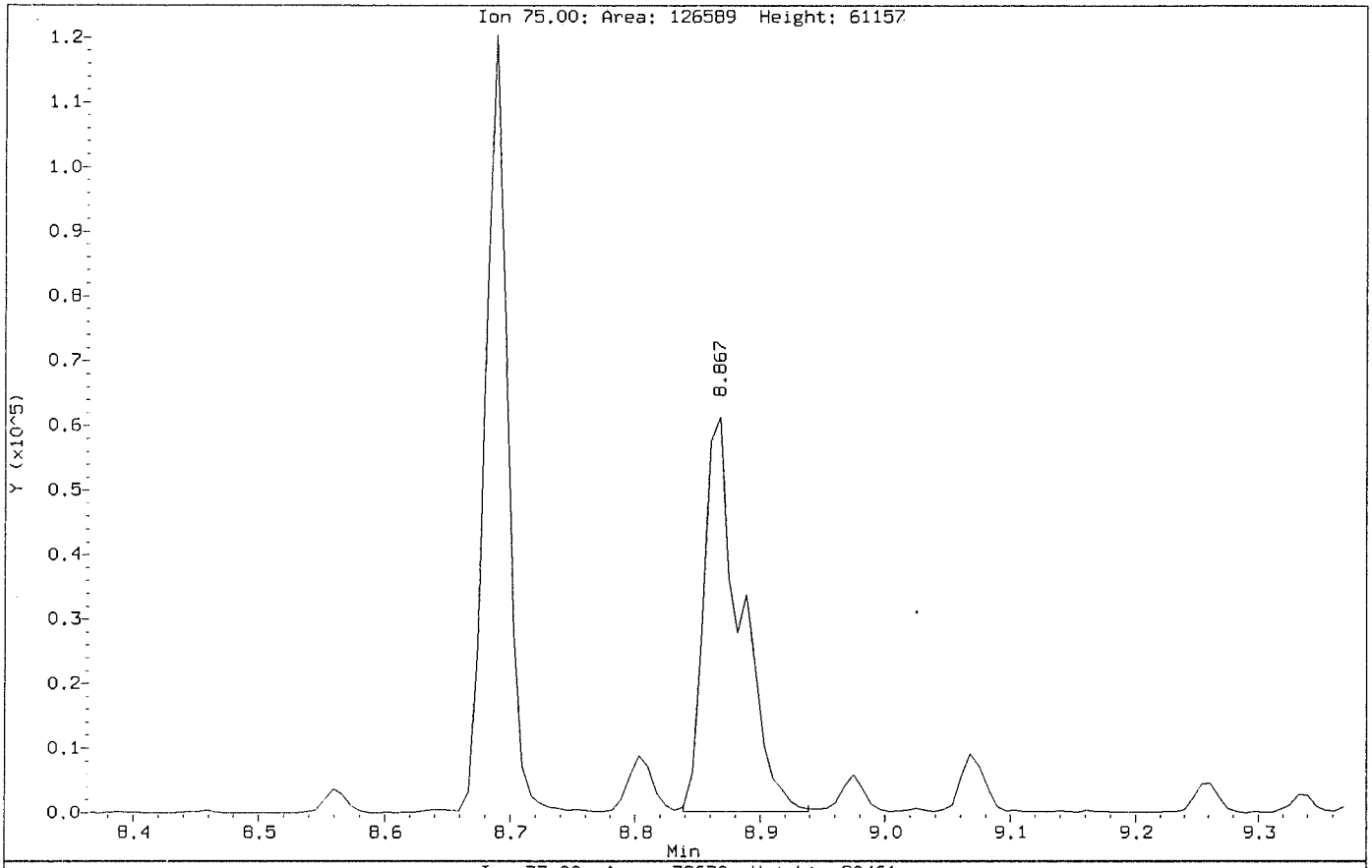


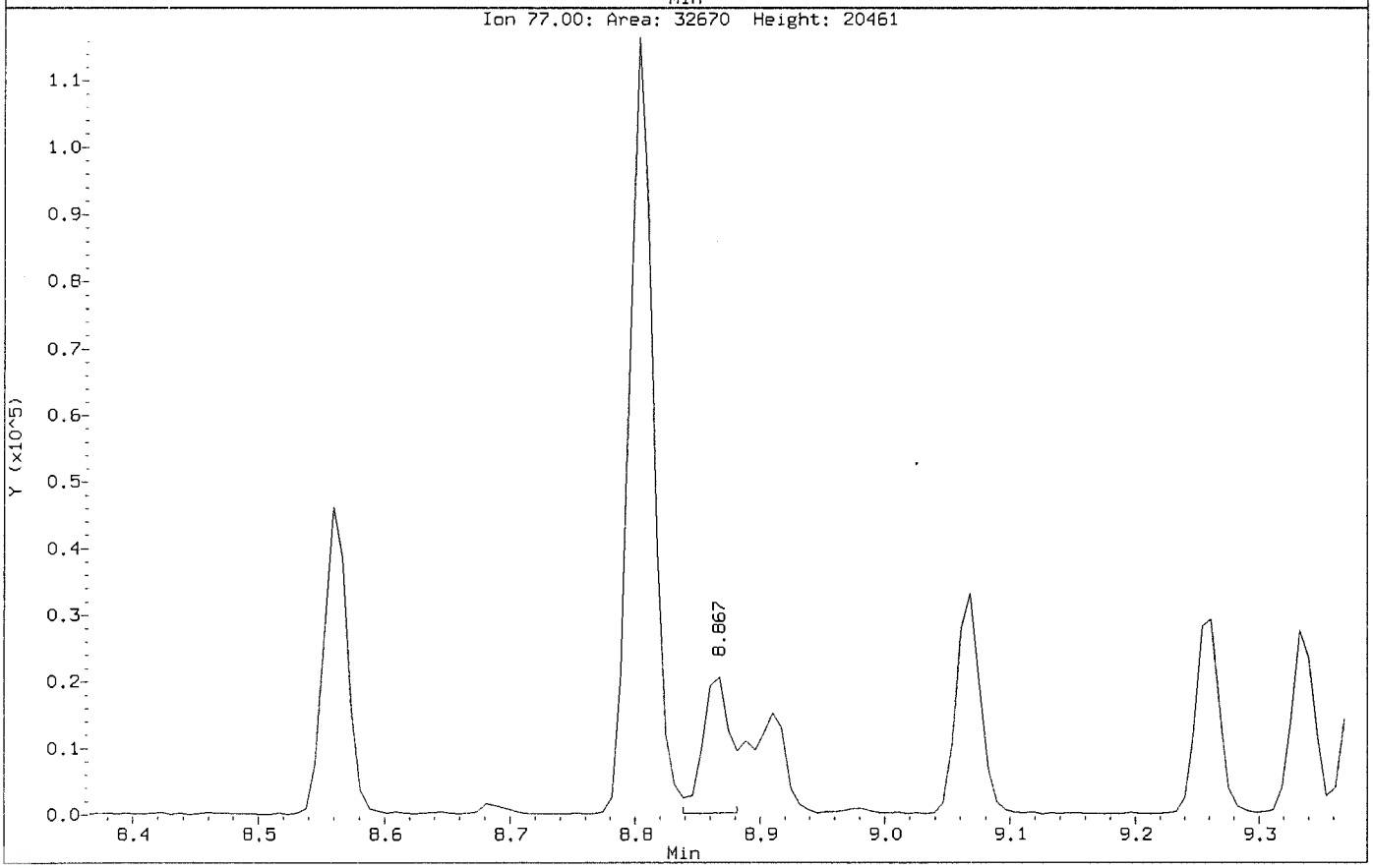
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Sample Info: HS21060181-06MS;HS21060181-06MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\Before\X061113.D
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Instrument: voa6.i
Client Sample ID: HS21060181-06MS

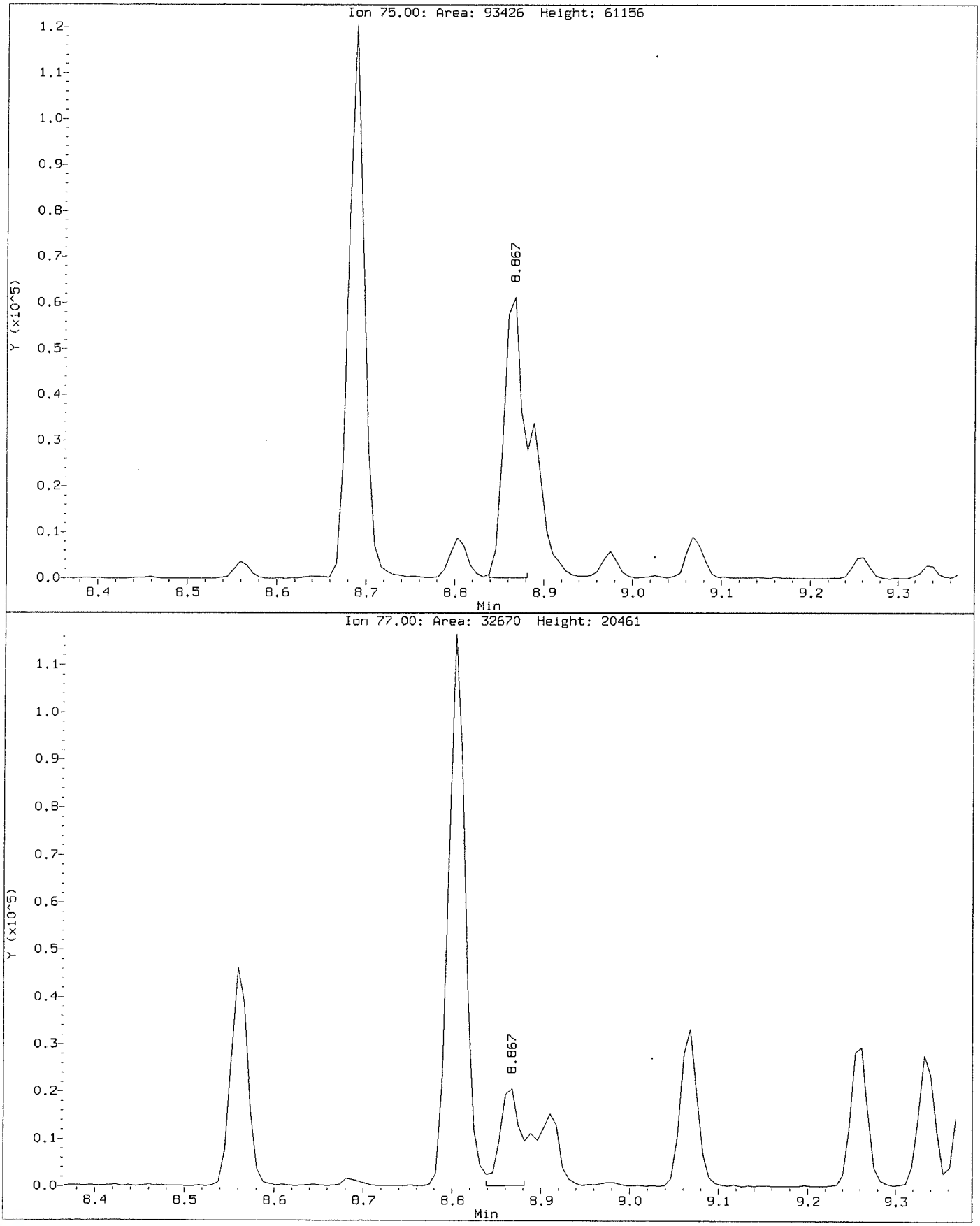
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4





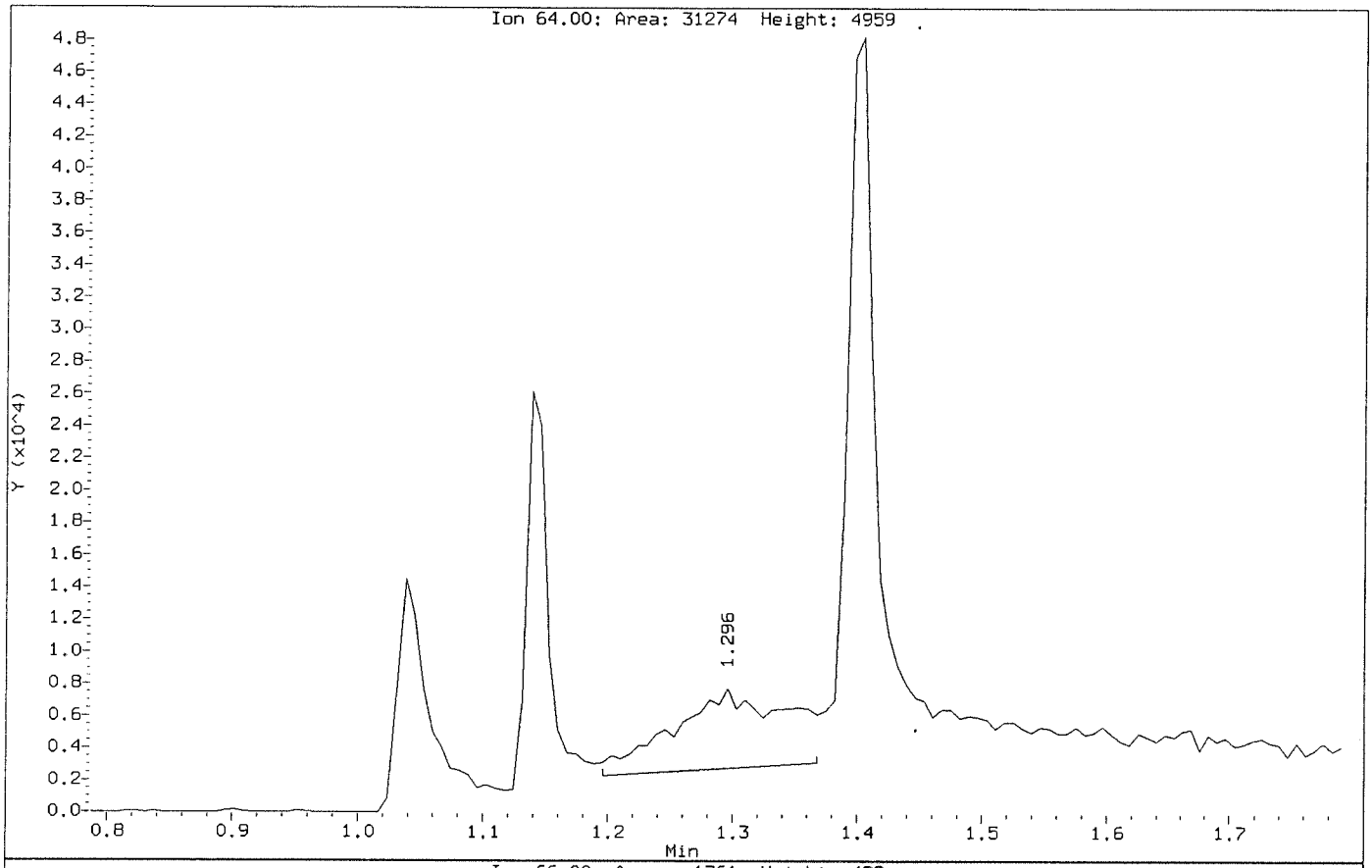
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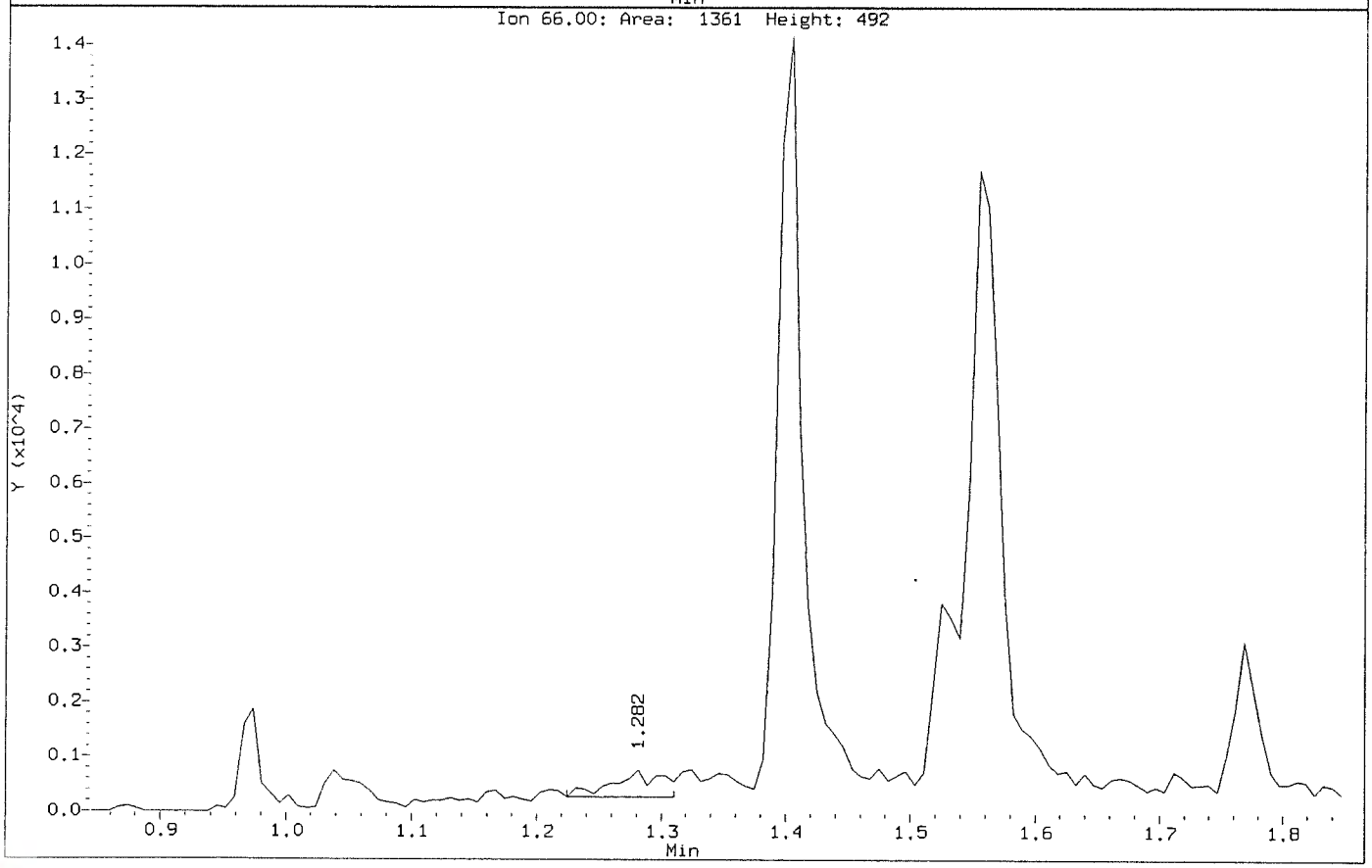
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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Instrument: voa6.i
Client Sample ID: HS210601B1-06MS

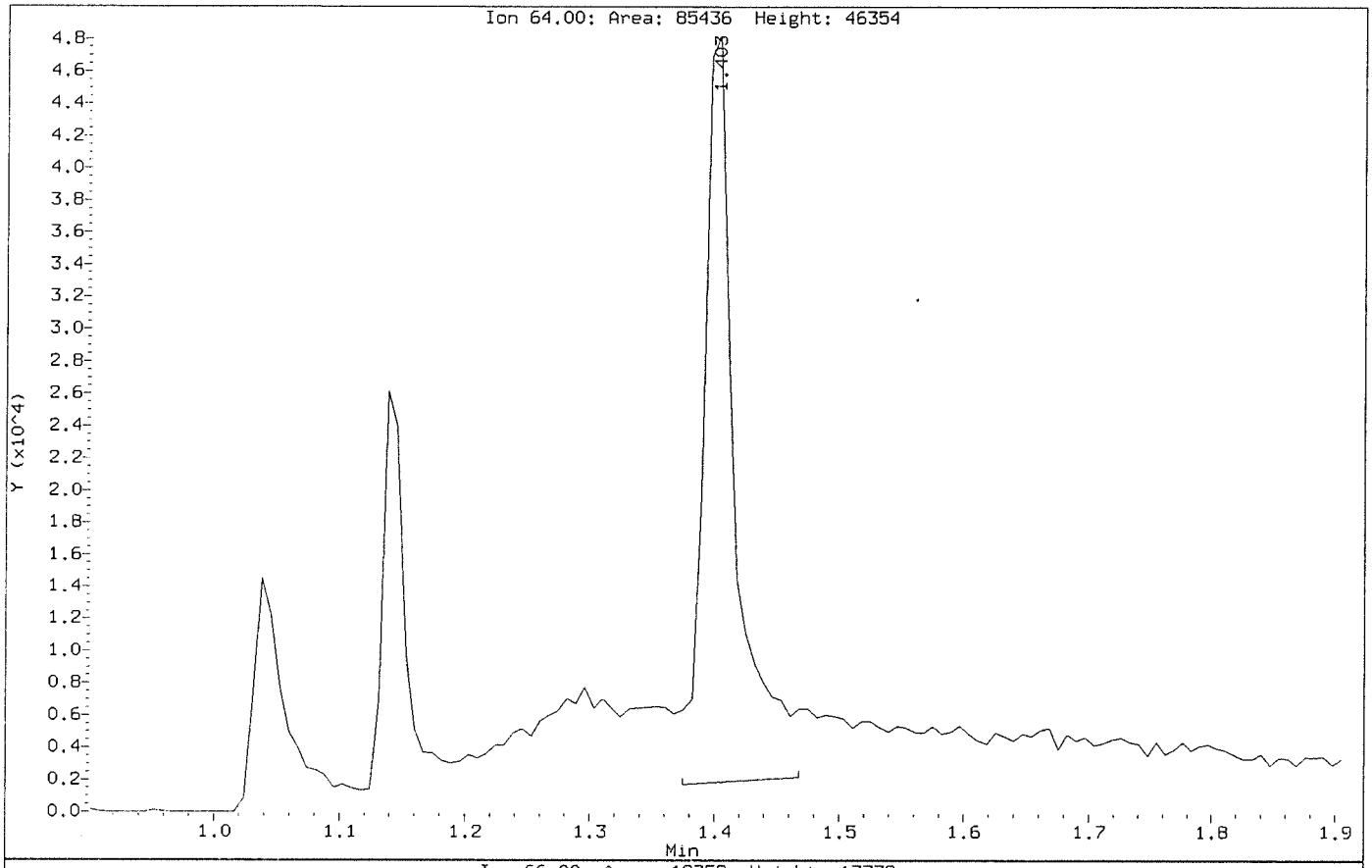
Compound: Chloroethane
CAS Number: 75-00-3

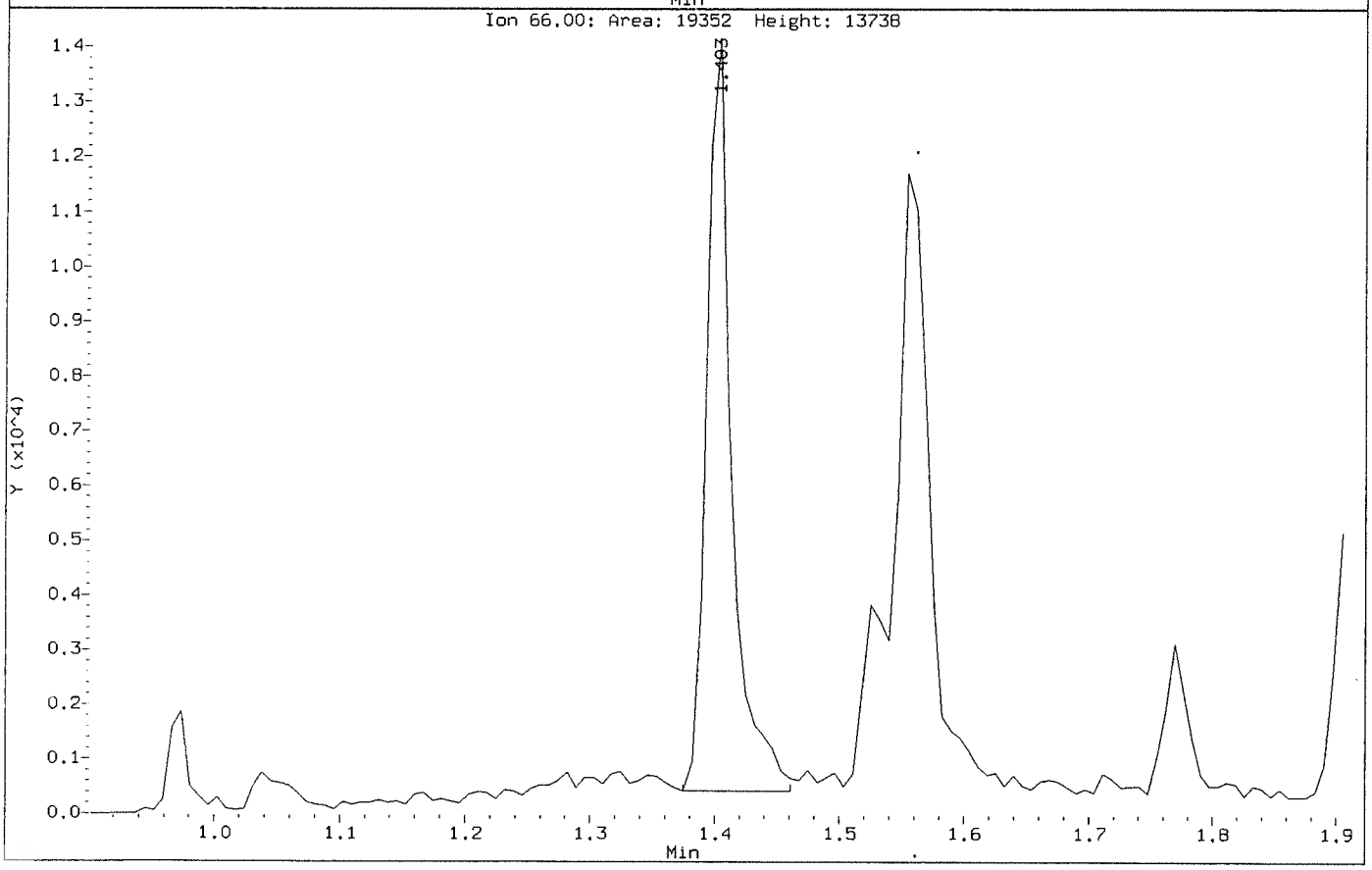




Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\X061113.D
Injection Date: 11-JUN-2021 15:06
Instrument: voa6.i
Client Sample ID: HS21060181-06MS

Compound: Chloroethane
CAS Number: 75-00-3





Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\X061114.D Page 1
Report Date: 30-Jul-2021 13:35

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210611.b\X061114.D
Lab Smp Id: HS21060181-06MSD Client Smp ID: HS21060181-06MSD
Inj Date : 11-JUN-2021 15:27
Operator : PC Inst ID: voa6.i
Smp Info : HS21060181-06MSD;HS21060181-06MSD;3;;MSD
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210611.b\8260W.m
Meth Date : 30-Jul-2021 13:35 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 13 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.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

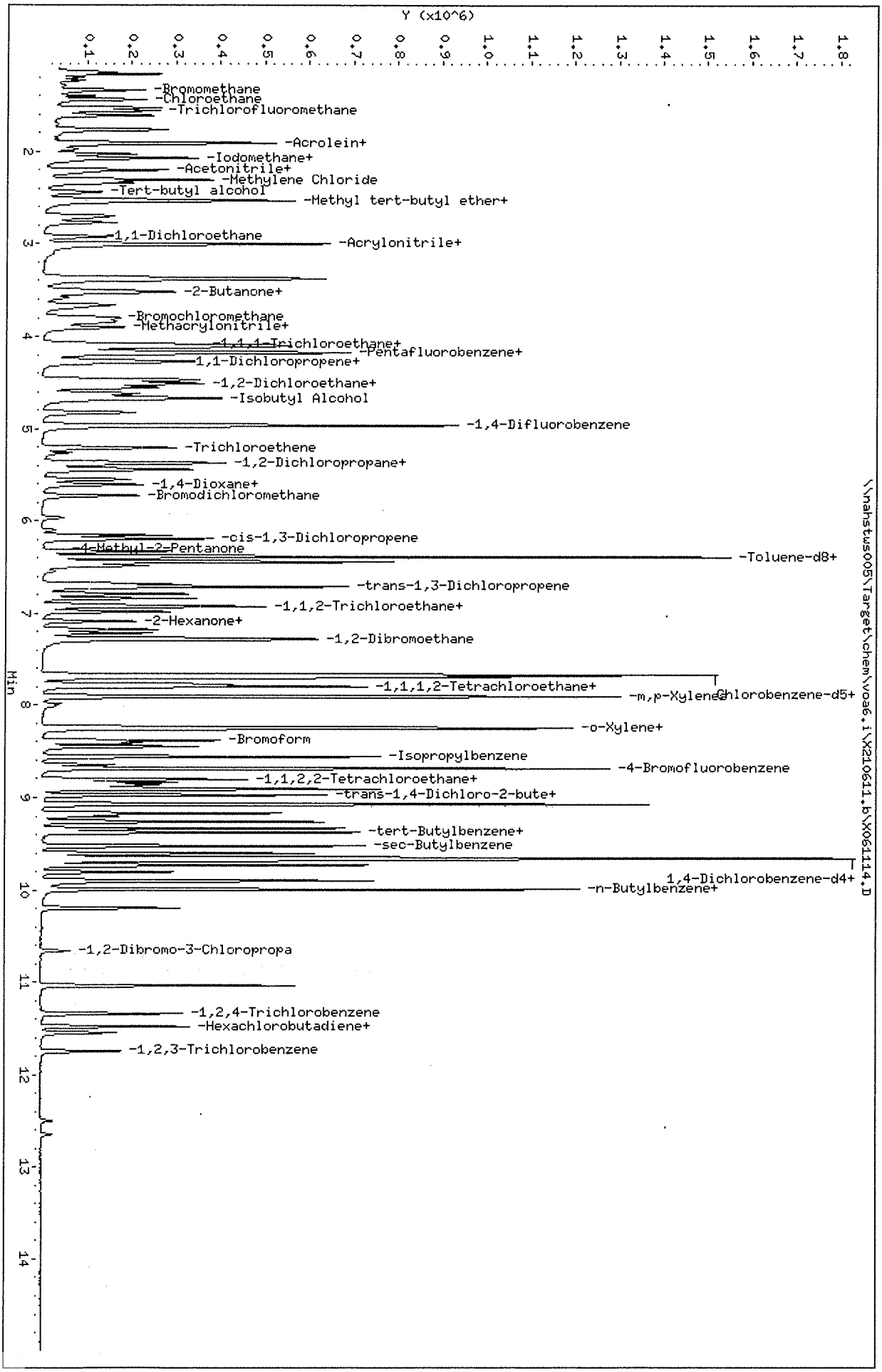
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	616421	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	843861	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	747843	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	380308	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	273296	45.0259	45.02
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.068)	268645	45.5625	45.56
$	48 Toluene-d8	98	6.388	6.388	(0.833)	948086	50.8951	50.89
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	319511	48.6695	48.66
	60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	101751	18.3980	18.39
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	149578	16.4199	16.41
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	117618	21.7257	21.72
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	75358	18.6018	18.60
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	155499	15.9566	15.95
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	96037	15.1251	15.12
	32 1,1-Dichloropropene	75	4.283	4.282	(0.863)	119866	18.5464	18.54
	93 1,2,3-Trichlorobenzene	180	11.746	11.739	(1.216)	59047	25.6469	25.64
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	97240	20.5082	20.50(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	94595	25.1579	25.15
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	345918	19.9422	19.94
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	14537	24.3607	24.36
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	103941	18.8779	18.87
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	208702	20.2322	20.23

Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\X061114.D Page 2
Report Date: 30-Jul-2021 13:35

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	120011	17.8490	17.84
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	85674	17.2478	17.24
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	348790	20.2047	20.20
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	219234	20.4377	20.43
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	149119	18.5116	18.51
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	222711	19.8962	19.89
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	139089	16.4927	16.49
24	2-Butanone	43	3.581	3.581	(0.856)	58680	31.2888	31.28
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	289238	20.3191	20.31
52	2-Hexanone	43	7.090	7.083	(0.924)	115491	41.5733	41.57
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	333442	19.6698	19.66
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	372848	21.2029	21.20
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	169314	39.3159	39.31
10	Acetone	43	1.976	1.976	(0.473)	49272	27.1971	27.19
37	Benzene	78	4.512	4.512	(0.909)	337615	17.4154	17.41
74	Bromobenzene	156	8.802	8.802	(0.911)	128992	20.4431	20.44
29	Bromochloromethane	128	3.795	3.795	(0.908)	59370	15.9286	15.92
39	Bromodichloromethane	83	5.729	5.722	(1.154)	124911	17.2182	17.21
66	Bromoform	173	8.408	8.408	(1.096)	80557	19.3176	19.31
6	Bromomethane	94	1.339	1.338	(0.320)	97445	15.4108	15.41
19	Carbon Disulfide	76	2.069	2.069	(0.495)	434768	28.8738	28.87
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	133633	19.1031	19.10
59	Chlorobenzene	112	7.692	7.692	(1.003)	277631	17.8334	17.83
7	Chloroethane	64	1.403	1.403	(0.336)	89378	19.8454	19.84(M)
28	Chloroform	83	3.903	3.910	(0.933)	168088	15.5061	15.50
3	Chloromethane	50	1.073	1.073	(0.257)	68849	10.2950	10.29
27	cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	102489	15.8629	15.86
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	153922	18.0058	18.00
55	Dibromochloromethane	129	7.176	7.176	(0.936)	117440	19.0798	19.07
44	Dibromomethane	93	5.550	5.550	(1.118)	66450	17.8011	17.80
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	57400	9.96943	9.96
61	Ethylbenzene	106	7.800	7.800	(1.017)	140213	19.5223	19.52
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	57939	25.6843	25.68
67	Isopropylbenzene	105	8.559	8.559	(1.116)	431199	19.6494	19.64
62	m,p-Xylenes	106	7.907	7.900	(1.031)	354204	37.8311	37.83
17	Methylene Chloride	84	2.298	2.305	(0.550)	91116	15.4043	15.40
87	n-Butylbenzene	91	9.991	9.991	(1.034)	316800	21.4126	21.41
73	n-Propylbenzene	91	8.910	8.910	(0.922)	487405	20.5457	20.54
92	Naphthalene	128	11.546	11.539	(1.195)	138811	25.5414	25.54
63	o-Xylene	106	8.244	8.244	(1.075)	168985	18.5095	18.50
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	423426	21.2031	21.20
64	Styrene	104	8.258	8.258	(1.077)	284625	18.6569	18.65
78	tert-Butylbenzene	119	9.332	9.332	(0.966)	309156	20.8894	20.88
56	Tetrachloroethene	164	6.926	6.926	(0.903)	98032	21.2939	21.29
50	Toluene	91	6.446	6.446	(0.840)	391311	17.9233	17.92
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	87266	15.1617	15.16
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	135454	18.3679	18.36
38	Trichloroethene	130	5.207	5.207	(1.049)	112606	19.4425	19.44
8	Trichlorofluoromethane	101	1.561	1.561	(0.373)	163509	14.6949	14.69
5	Vinyl Chloride	62	1.138	1.138	(0.272)	95581	13.0993	13.09

QC Flag Legend

M - Compound response manually integrated.

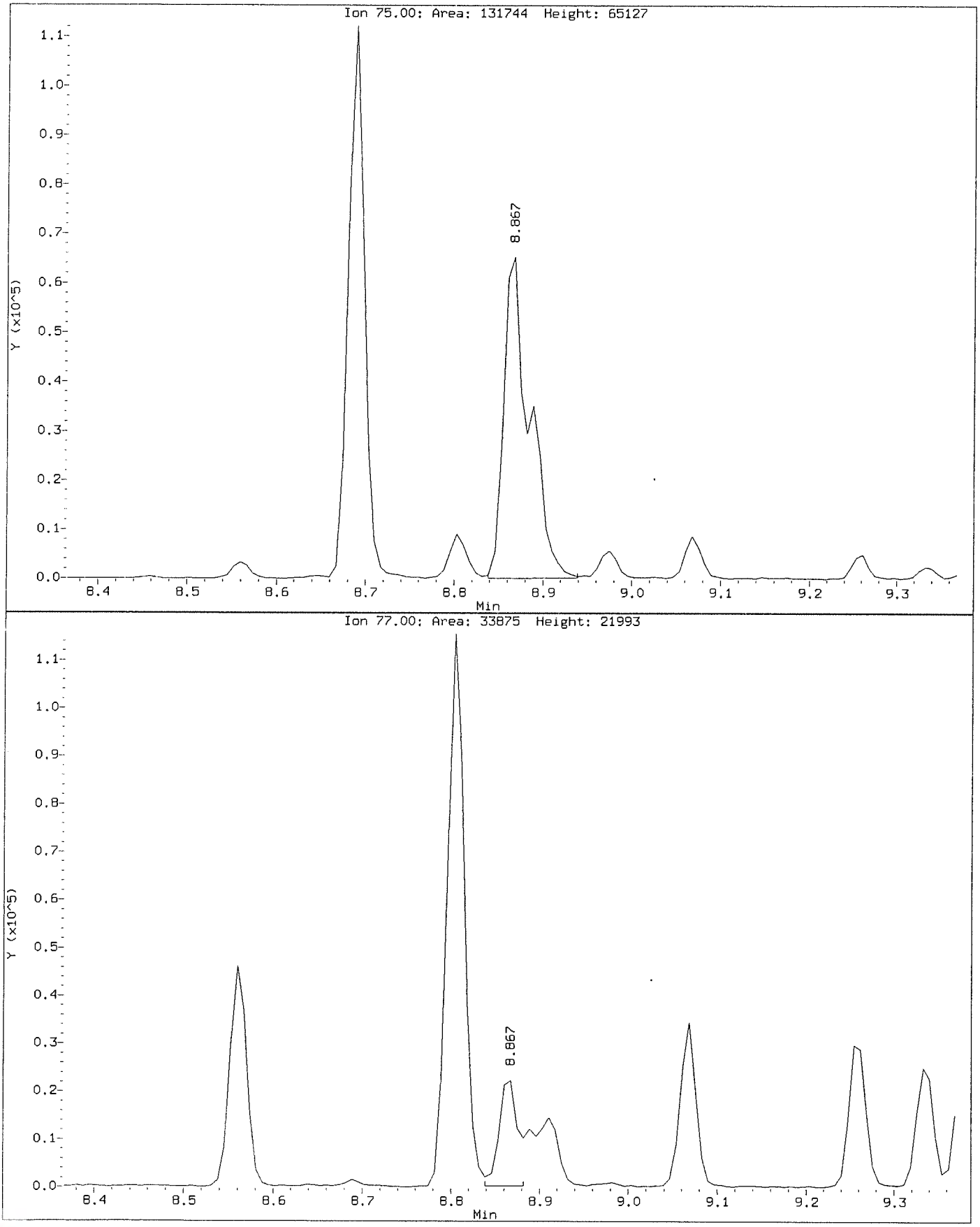


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Client ID: HS21060181-06HSD
Sample Info: HS21060181-06HSD;HS21060181-06HSD;3;;HSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

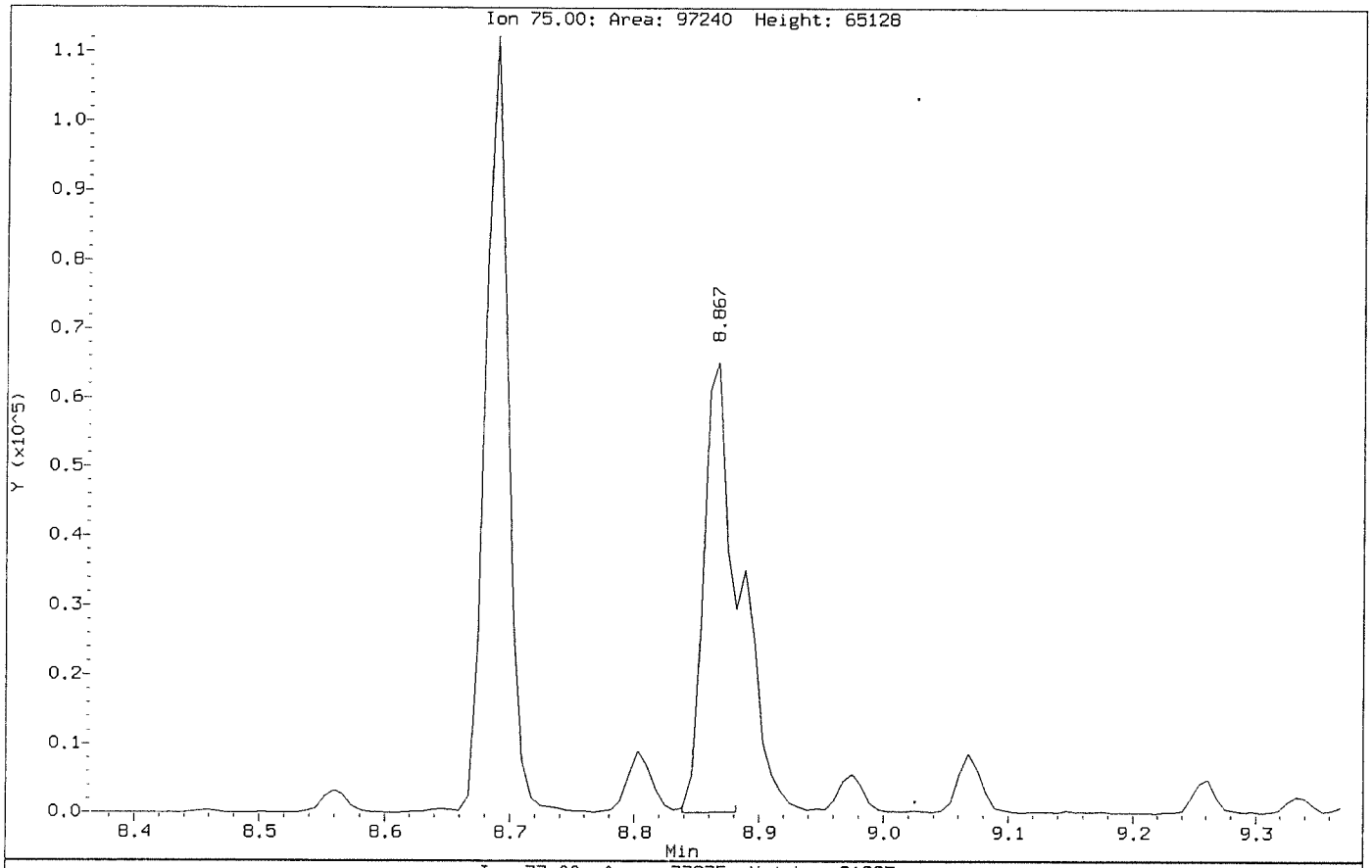
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Instrument: voa6.i
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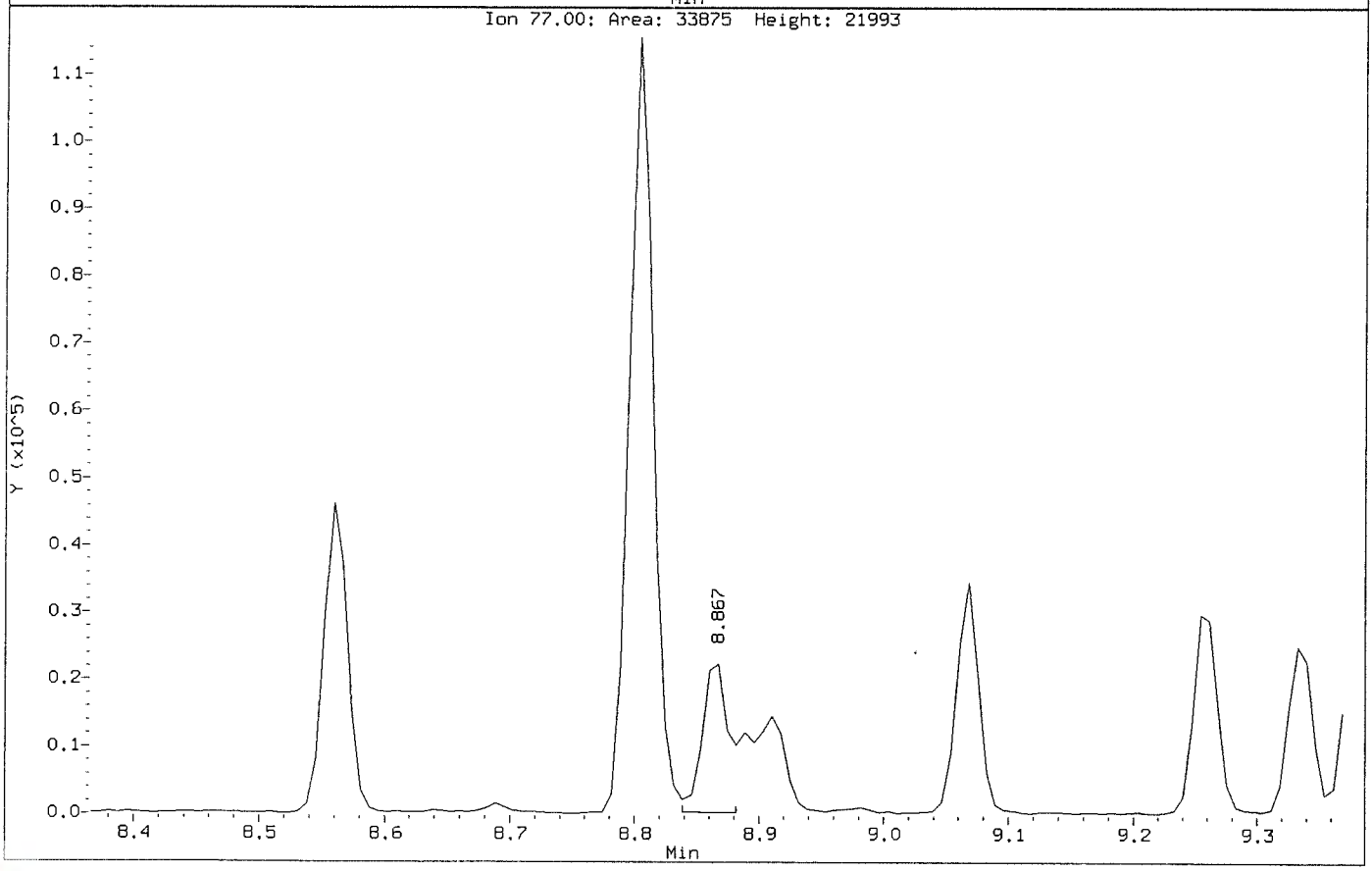
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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Instrument: voa6.i
Client Sample ID: HS21060181-06MSD

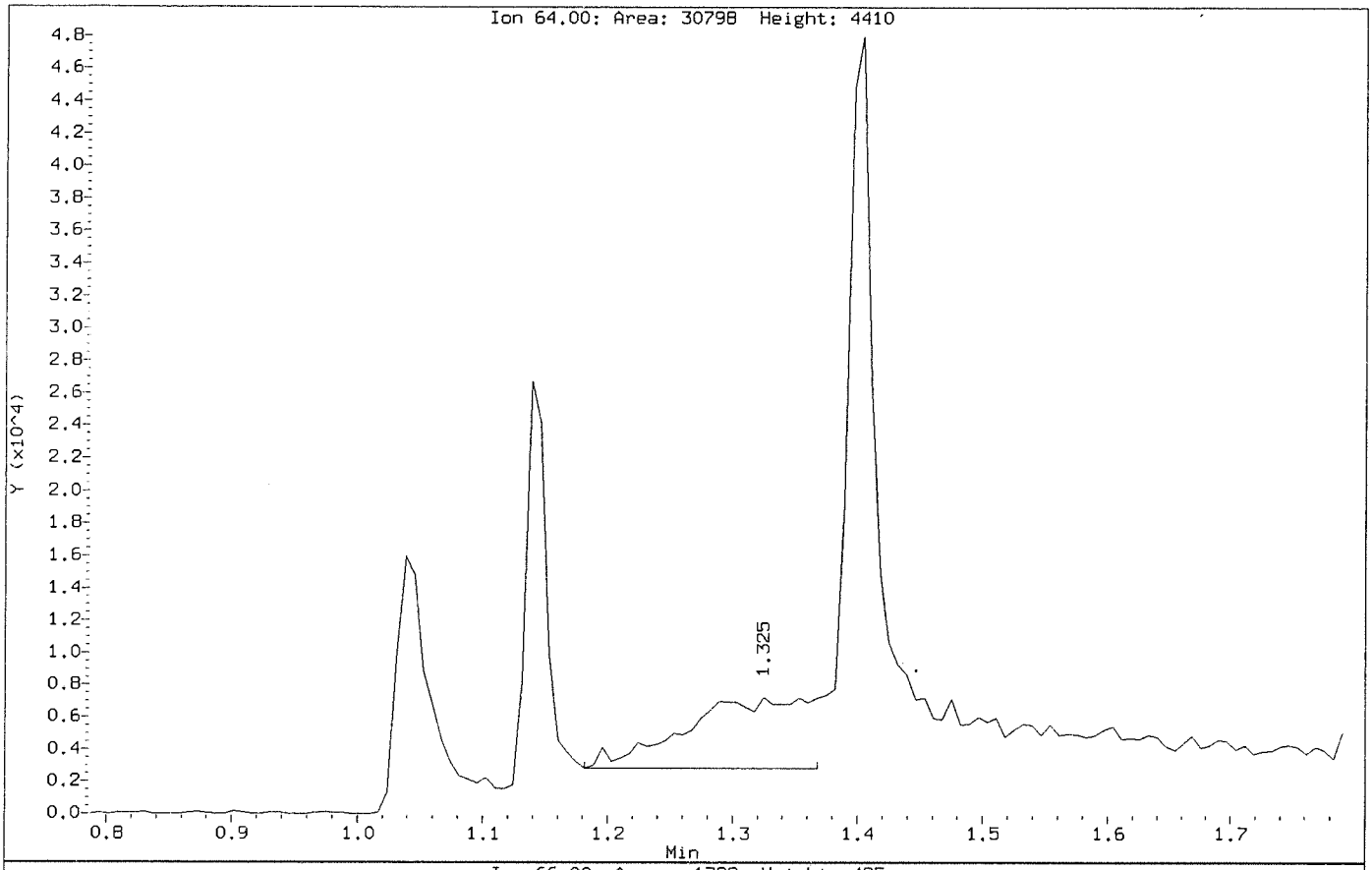
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

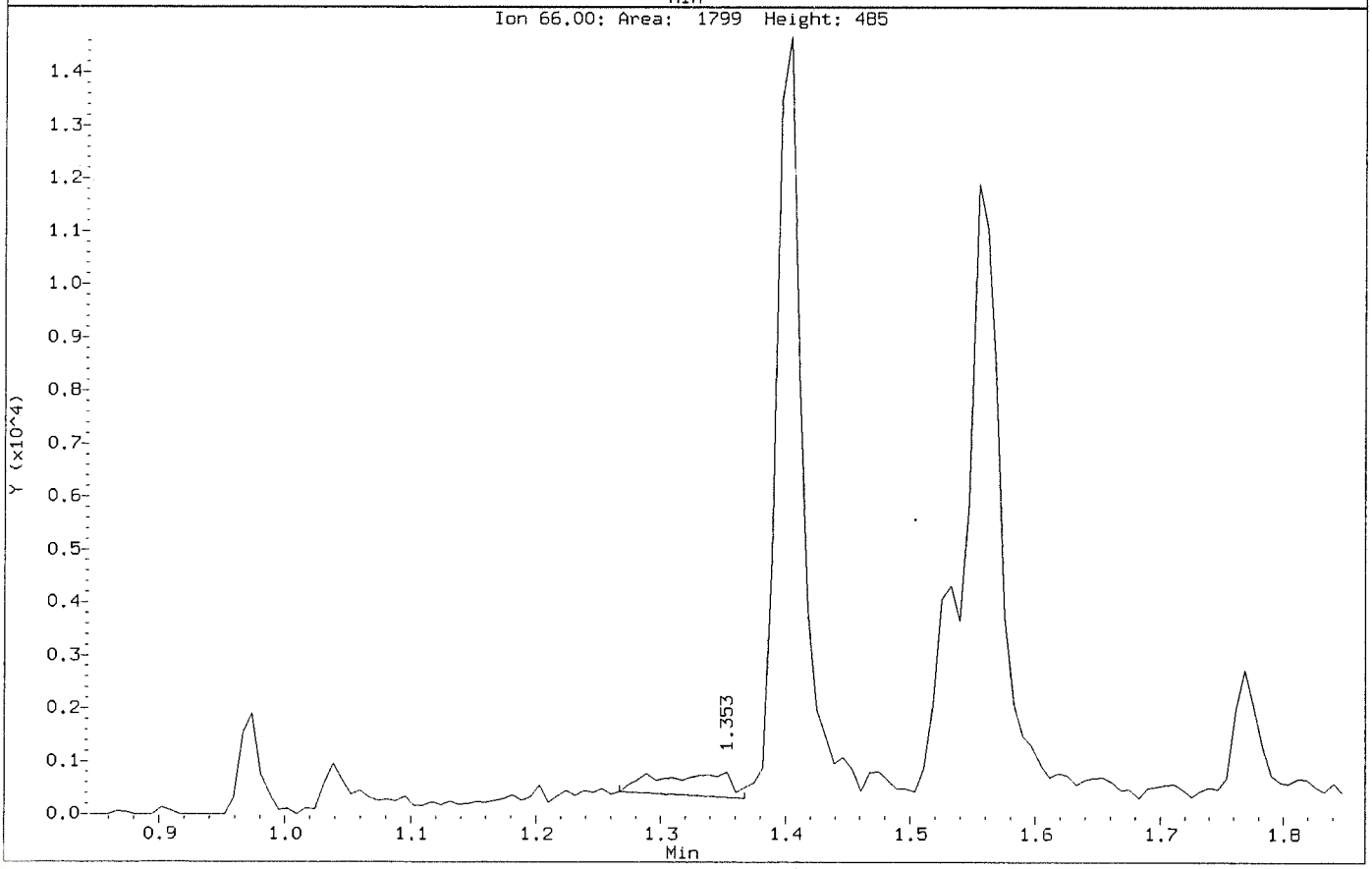




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Injection Date: 11-JUN-2021 15:27
Instrument: voa6.i
Client Sample ID: HS21060181-06MSD

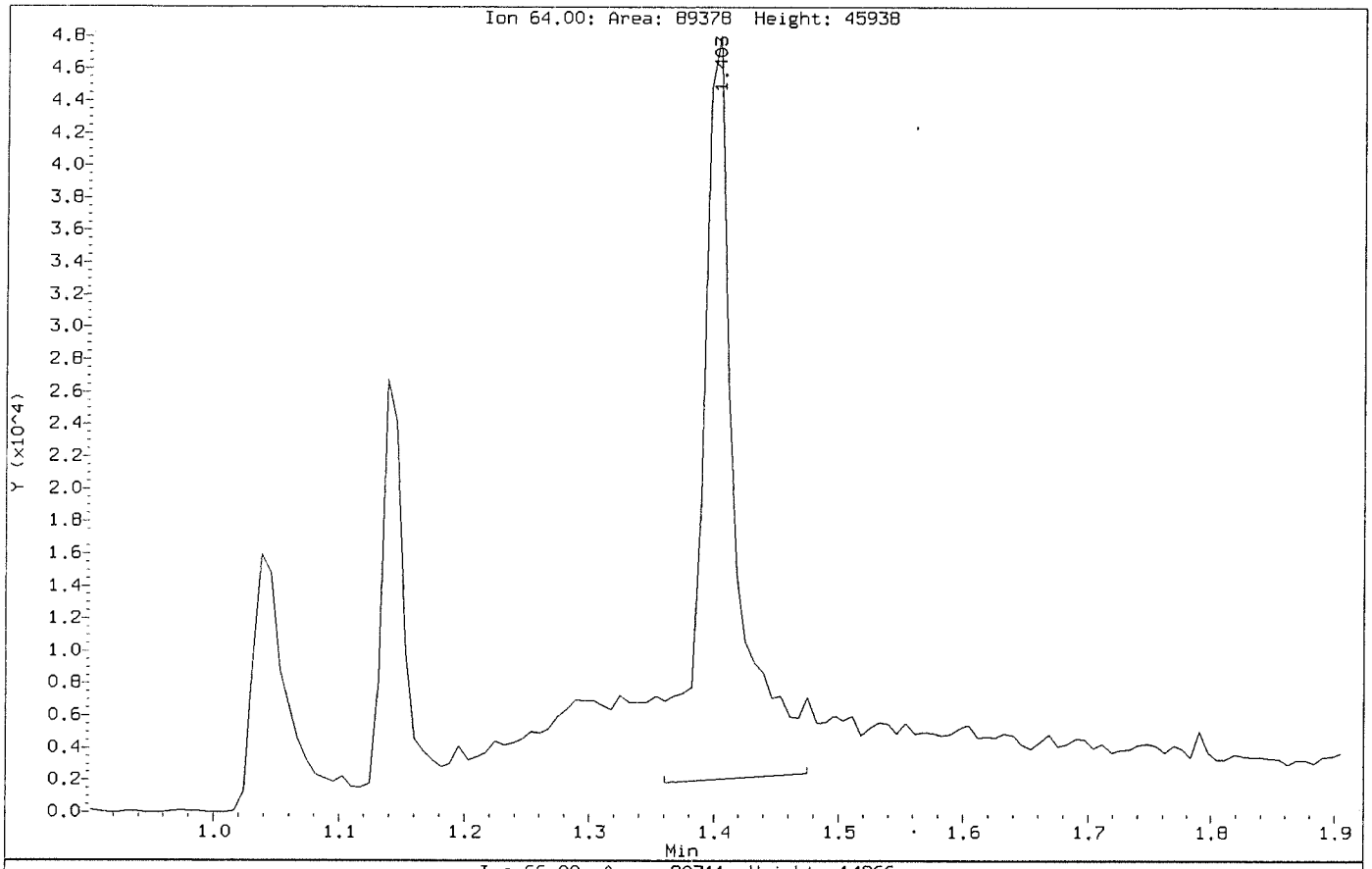
Compound: Chloroethane
CAS Number: 75-00-3

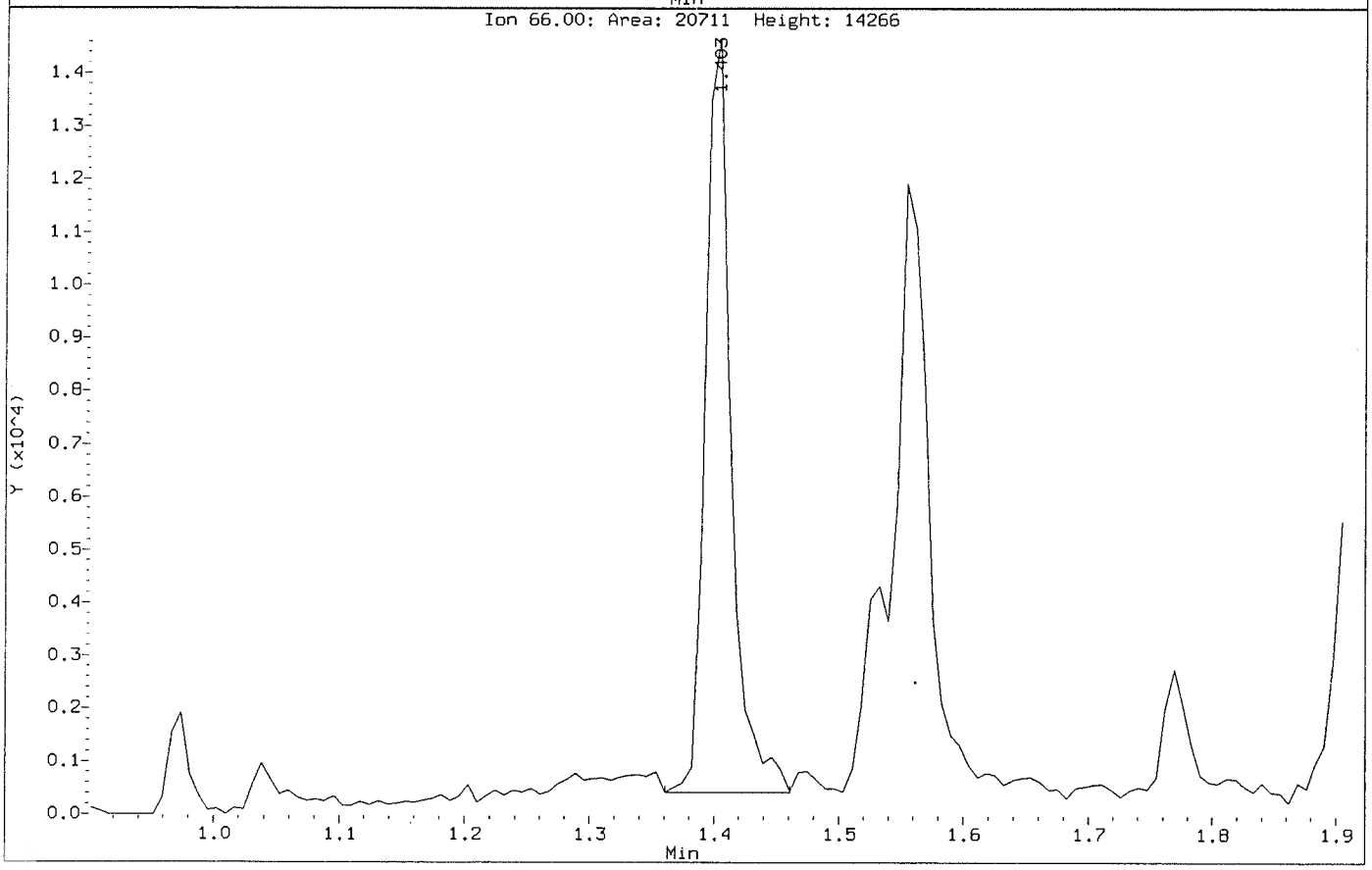




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Injection Date: 11-JUN-2021 15:27
Instrument: voa6.i
Client Sample ID: HS21060181-06MSD

Compound: Chloroethane
CAS Number: 75-00-3





Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\X061117.D Page 1
Report Date: 30-Jul-2021 16:18

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210611.b\X061117.D
Lab Smp Id: HS21060186-02 Client Smp ID: HS21060186-02
Inj Date : 11-JUN-2021 16:30
Operator : PC Inst ID: voa6.i
Smp Info : HS21060186-02;HS21060186-02;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210611.b\8260W.m
Meth Date : 30-Jul-2021 16:18 devak.giga Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7056

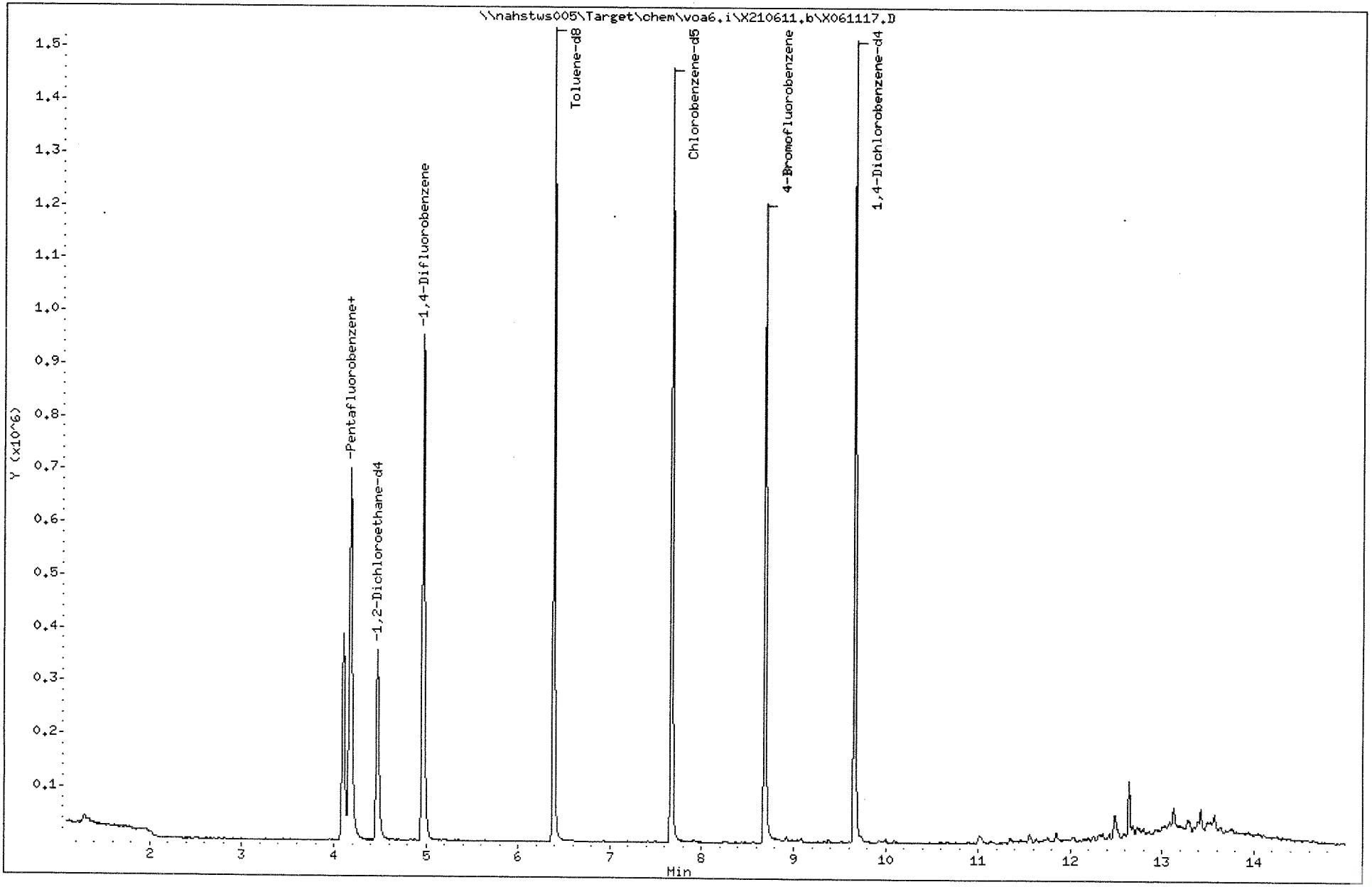
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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 MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	630216	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.970	(1.000)	864691	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	744914	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	370870	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	279401	45.0241	45.02
$ 35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.069)	277877	46.1048	46.10
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	959674	51.7197	51.71
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	320632	49.0267	49.02

Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\X061117.D
Date : 11-JUN-2021 16:30
Client ID: HS21060186-02
Sample Info: HS21060186-02;HS21060186-02;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210611.b\X061118.D
Lab Smp Id: HS21060186-01 Client Smp ID: HS21060186-01
Inj Date : 11-JUN-2021 16:51
Operator : PC Inst ID: voa6.i
Smp Info : HS21060186-01;HS21060186-01;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa6.i\X210611.b\8260W.m
Meth Date : 30-Jul-2021 16:18 devak.giga Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.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

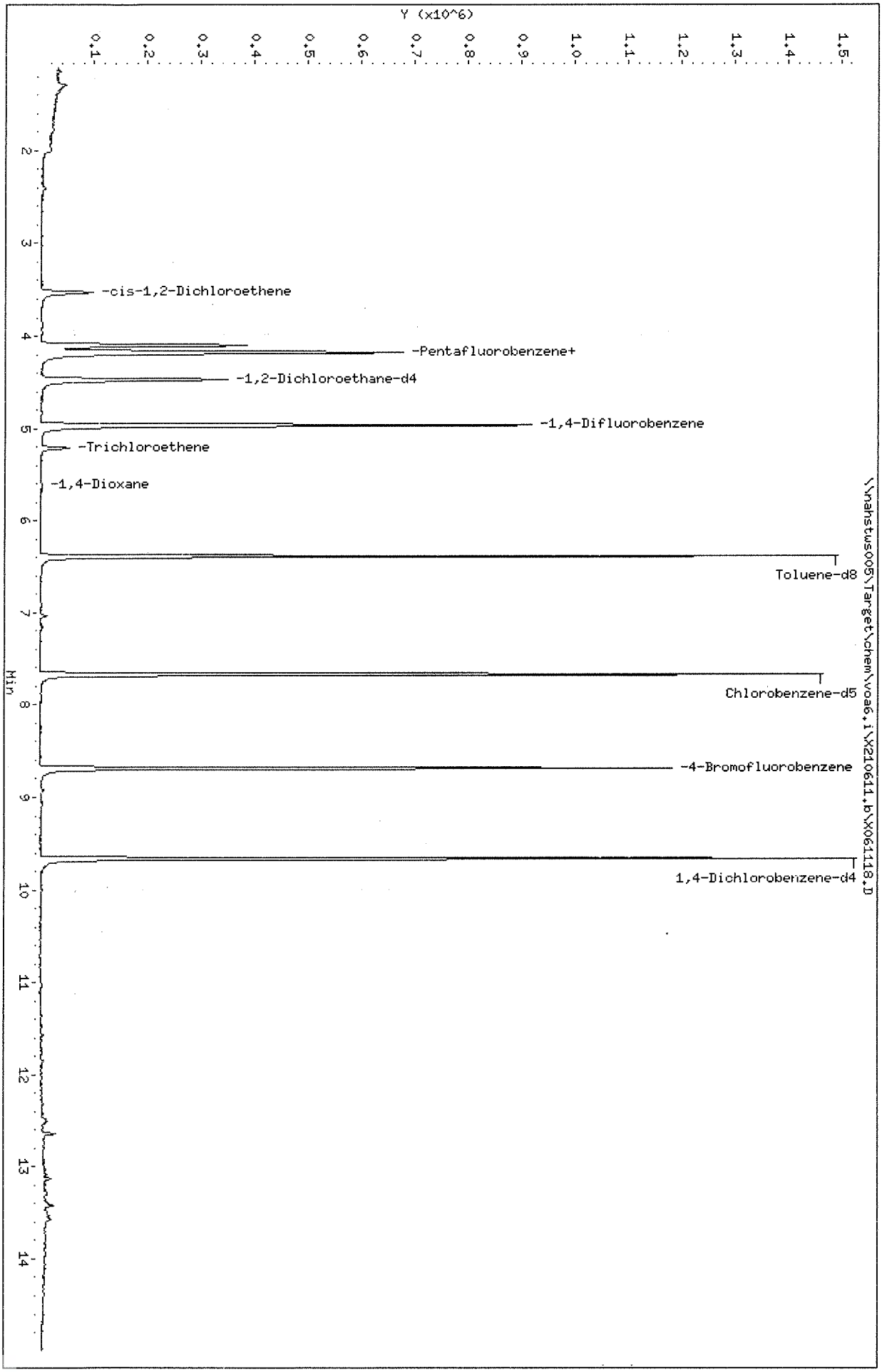
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	613789	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.970	(1.000)	835860	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	736883	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	381389	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	275505	45.5865	45.58
$ 35 1,2-Dichloroethane-d4	65	4.469	4.476	(1.069)	275480	46.9428	46.94
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	939377	51.1776	51.17
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	322027	49.7652	49.76
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	57339	8.91279	8.91
38 Trichloroethene	130	5.207	5.206	(1.049)	19857	3.46131	3.46(a)
5 Vinyl Chloride	62	1.138	1.138	(0.272)	5459	0.75136	0.75(a)

QC Flag Legend

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

Data File: \\nahstws005\Target\chem\voa6,i\X210611,b\X061118.D
Date : 11-JUN-2021 16:51
Client ID: HS21060186-01
Sample Info: HS21060186-01;HS21060186-01;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6,i
Operator: PC
Column diameter: 0.18



Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\X061118.D

Date : 11-JUN-2021 16:51

Client ID: HS21060186-01

Instrument: voa6.i

Sample Info: HS21060186-01;HS21060186-01;;;

Purge Volume: 5.0

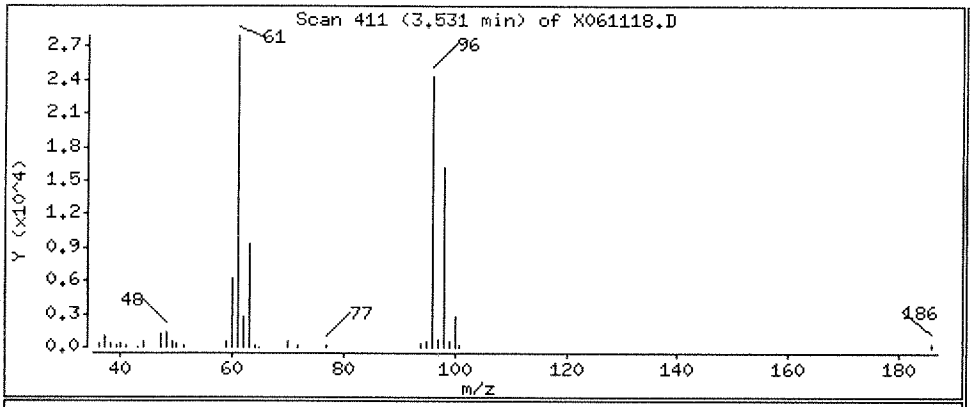
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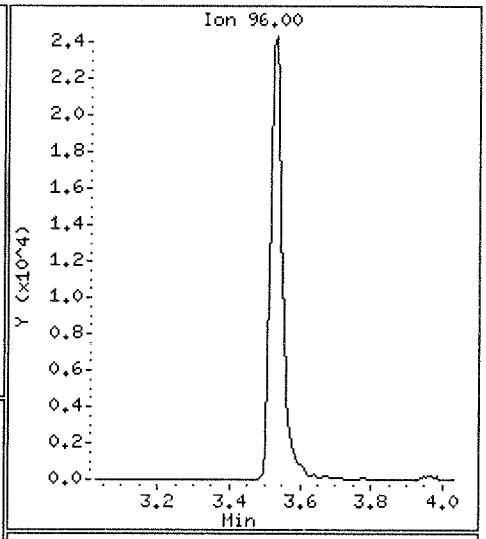
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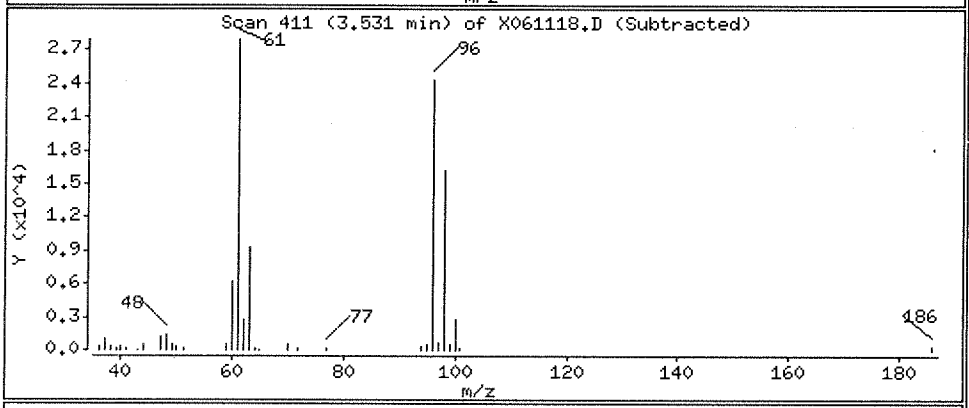
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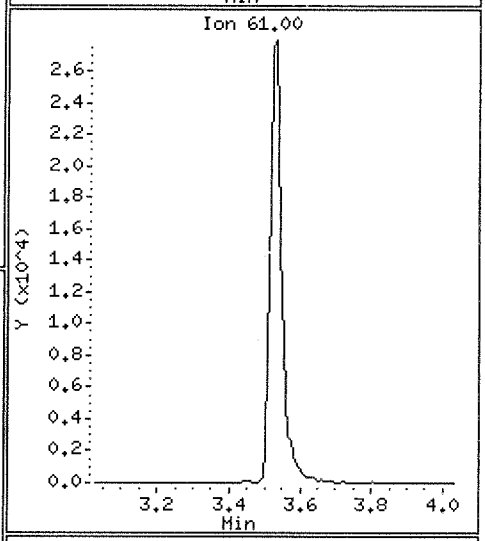
27 cis-1,2-Dichloroethene

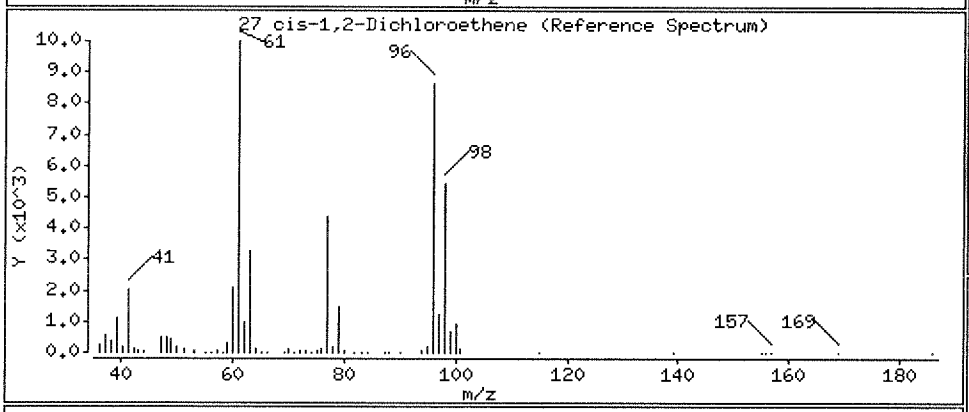
Concentration: 8.91 ug/l

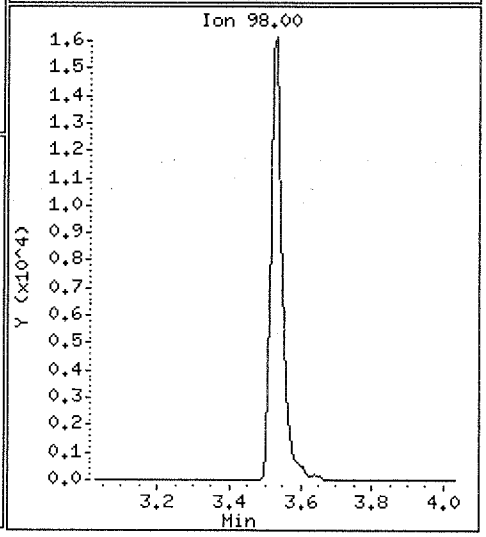


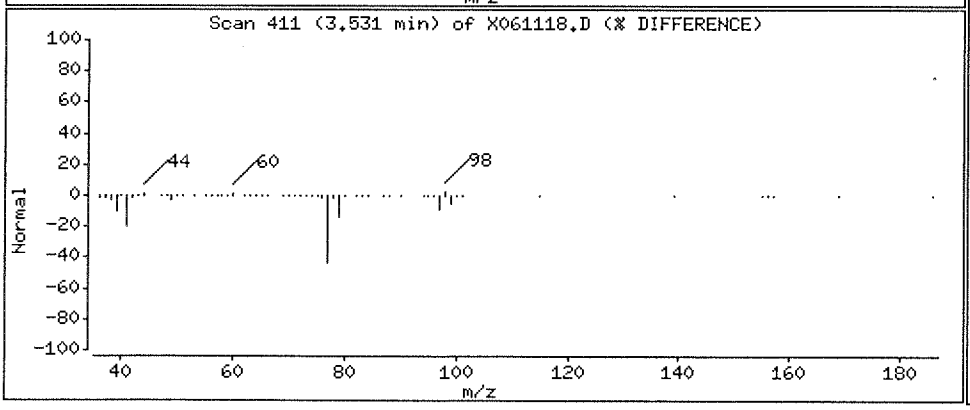












Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\X061118.D

Date : 11-JUN-2021 16:51

Client ID: HS21060186-01

Instrument: voa6.i

Sample Info: HS21060186-01;HS21060186-01;;;

Purge Volume: 5.0

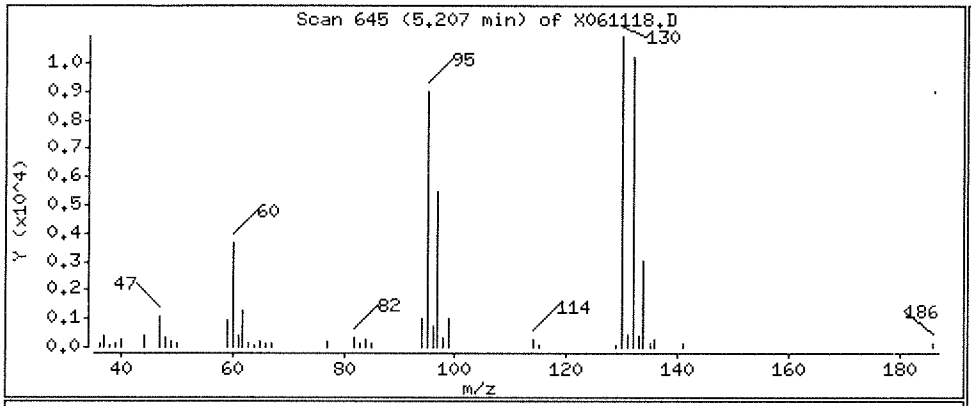
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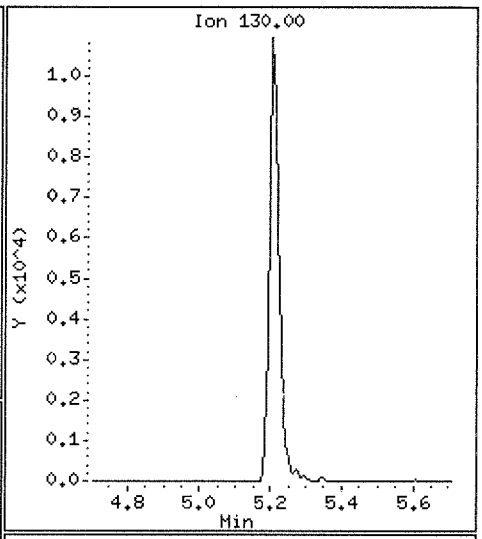
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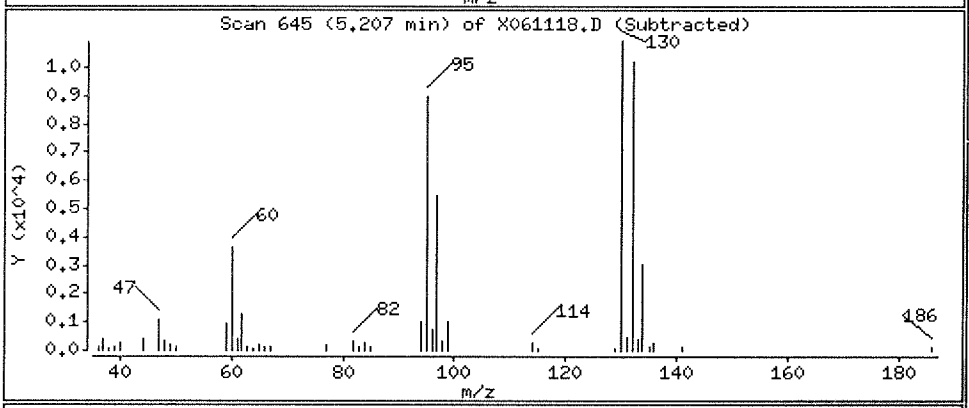
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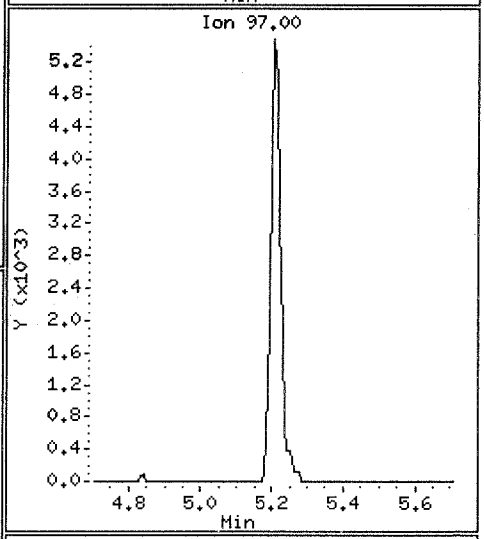
38 Trichloroethene

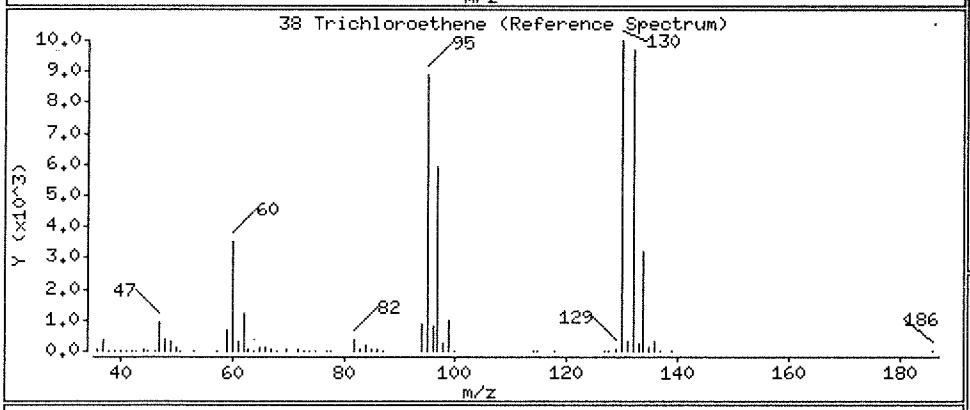
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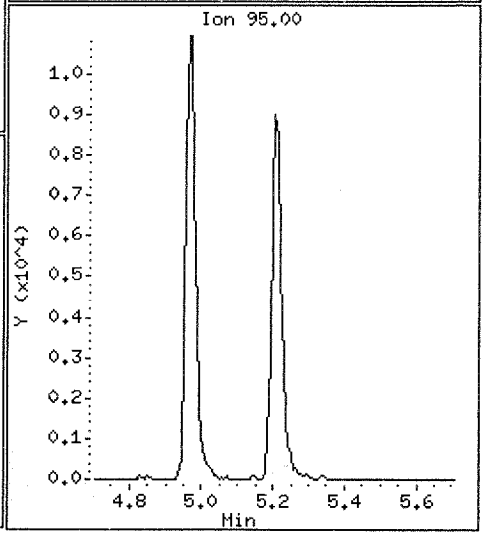


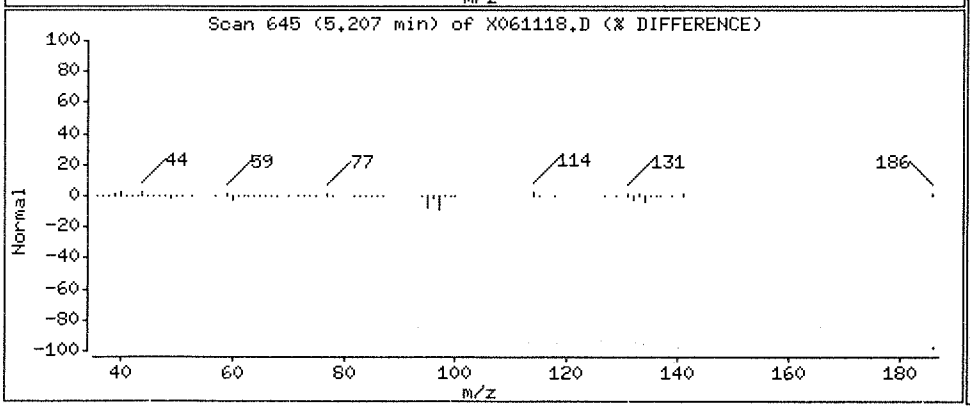












Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\X061118.D

Date : 11-JUN-2021 16:51

Client ID: HS21060186-01

Instrument: voa6.i

Sample Info: HS21060186-01;HS21060186-01;;;

Purge Volume: 5.0

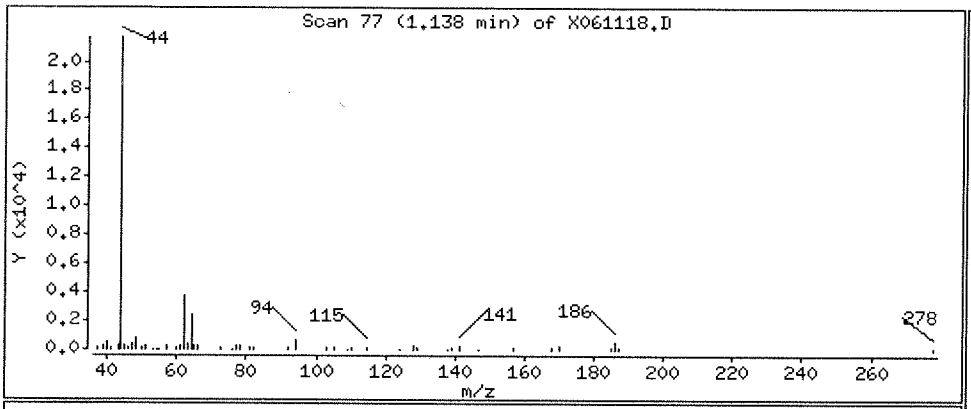
Operator: PC

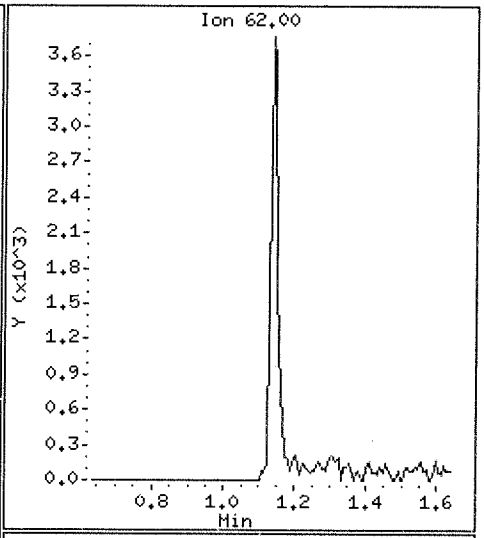
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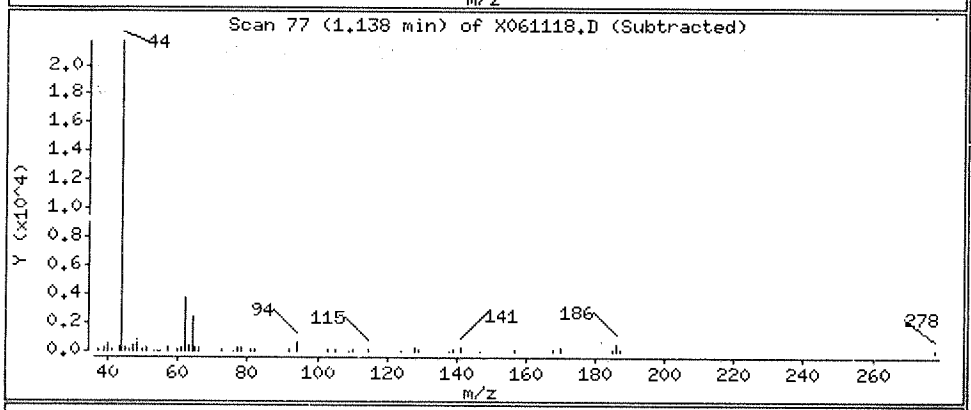
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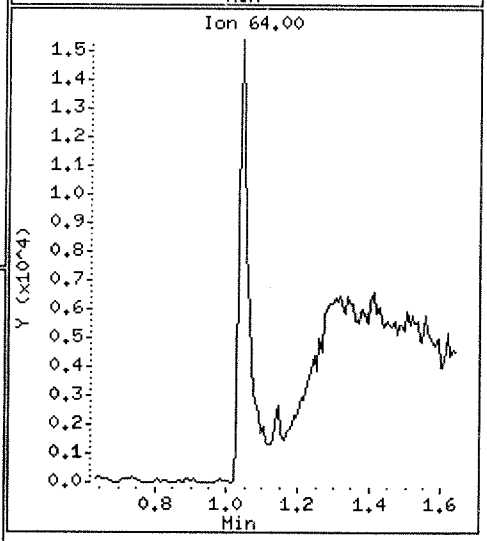
5 Vinyl Chloride

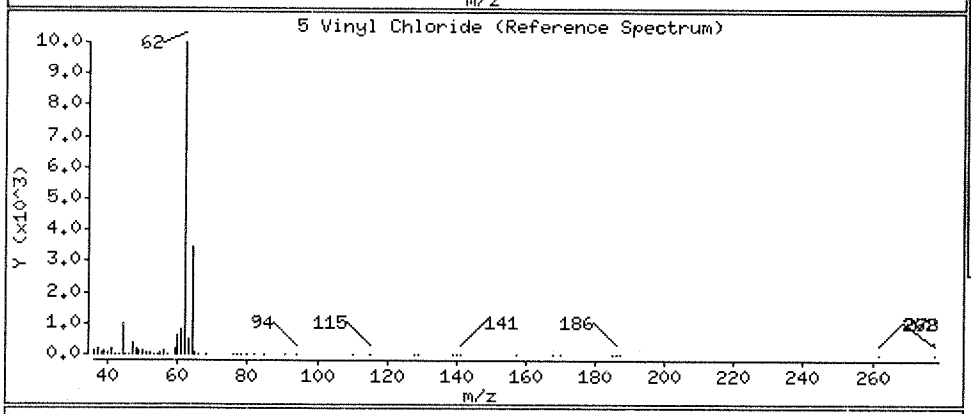
Concentration: 0.75 ug/l

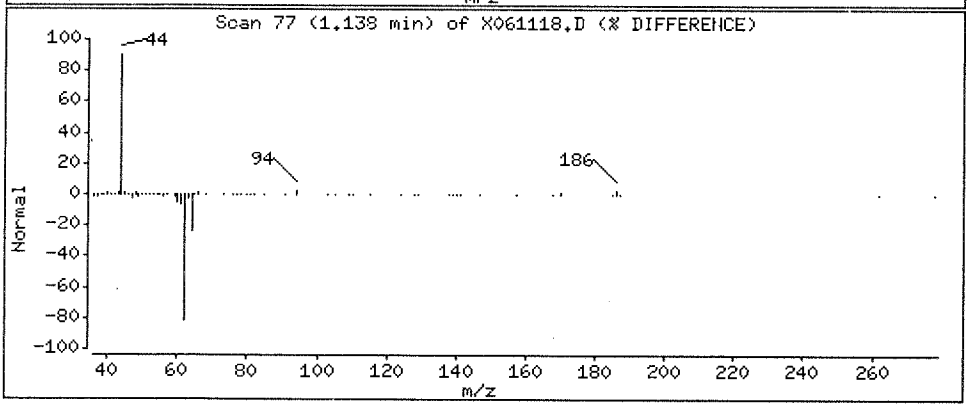












ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa6.i\X210611.b\X061126.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 11-JUN-2021 19:39
Operator : PC Inst ID; voa6.i
Smp Info : CCV-END;CCV-END;2;;
Misc Info : HS18090001;WATER;0;1;
Comment :
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Meth Date : 30-Jul-2021 13:35 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

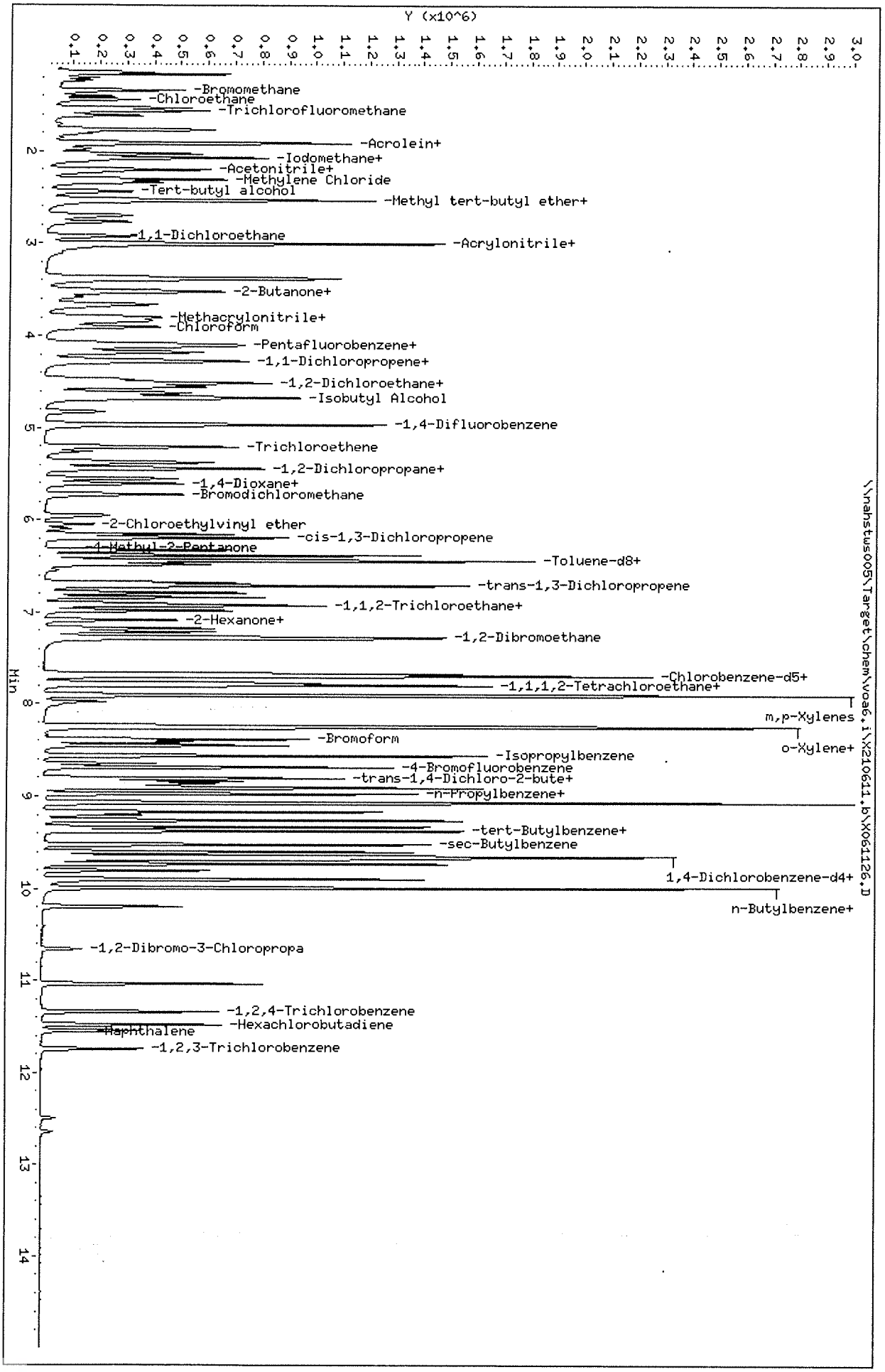
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	504876	50.0000	
* 36 1,4-Difluorobenzene	114	4.970	4.970	(1.000)	751015	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	709251	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	391130	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.103	(0.981)	248041	50.0000	49.91
$ 35 1,2-Dichloroethane-d4	65	4.476	4.476	(1.070)	248720	50.0000	51.59
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	849196	50.0000	48.06
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	319955	50.0000	51.34
60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	253983	50.0000	48.42
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	338729	50.0000	45.39
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	292065	50.0000	54.14
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	180040	50.0000	46.86
22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	344064	50.0000	43.10
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	217109	50.0000	41.74
32 1,1-Dichloropropene	75	4.282	4.282	(0.862)	270023	50.0000	46.94
93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	114128	50.0000	48.19
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	238298	50.0000	48.86 (M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	190900	50.0000	49.36
79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	768166	50.0000	43.05
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	34005	50.0000	54.75
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	248227	50.0000	47.53
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	481415	50.0000	45.37

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33 1,2-Dichloroethane	62	4.555	4.555	(0.916)	288384	50.0000	48.19
42 1,2-Dichloropropane	63	5.436	5.436	(1.094)	207335	50.0000	46.90
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	753892	50.0000	42.46
83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	484609	50.0000	43.92
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	361431	50.0000	47.30
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	500589	50.0000	43.48
26 2,2-Dichloropropane	77	3.509	3.509	(0.839)	277654	50.0000	40.19
24 2-Butanone	43	3.580	3.580	(0.856)	149665	100.000	97.43
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	637355	50.0000	43.53
52 2-Hexanone	43	7.090	7.090	(0.924)	272011	100.000	103.24
77 4-Chlorotoluene	91	9.067	9.067	(0.938)	741267	50.0000	42.51
82 p-Isopropyltoluene	119	9.648	9.648	(0.999)	772122	50.0000	42.69
45 4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	389052	100.000	95.25
10 Acetone	43	1.976	1.976	(0.473)	118161	100.000	91.12
37 Benzene	78	4.512	4.512	(0.908)	795946	50.0000	46.13
74 Bromobenzene	156	8.802	8.802	(0.911)	308143	50.0000	47.48
29 Bromochloromethane	128	3.795	3.795	(0.908)	141367	50.0000	46.30
39 Bromodichloromethane	83	5.722	5.722	(1.151)	307390	50.0000	47.61
66 Bromoform	173	8.408	8.408	(1.096)	202016	50.0000	51.07
6 Bromomethane	94	1.338	1.338	(0.320)	219139	50.0000	42.04
19 Carbon Disulfide	76	2.069	2.069	(0.495)	1012383	100.000	82.08
34 Carbon Tetrachloride	117	4.268	4.268	(0.859)	288254	50.0000	46.30
59 Chlorobenzene	112	7.692	7.692	(1.003)	652721	50.0000	44.20
7 Chloroethane	64	1.403	1.403	(0.336)	176840	50.0000	49.94
28 Chloroform	83	3.910	3.910	(0.935)	392251	50.0000	44.17
3 Chloromethane	50	1.073	1.073	(0.257)	197321	50.0000	42.88
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	235039	50.0000	44.41
46 cis-1,3-Dichloropropene	75	6.152	6.152	(1.238)	362005	50.0000	47.58
55 Dibromochloromethane	129	7.176	7.176	(0.936)	285648	50.0000	48.93
44 Dibromomethane	93	5.550	5.550	(1.117)	161959	50.0000	48.75
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	231343	50.0000	49.88
61 Ethylbenzene	106	7.799	7.799	(1.017)	316314	50.0000	46.43
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	116982	50.0000	48.55
67 Isopropylbenzene	105	8.559	8.559	(1.116)	921061	50.0000	44.25
62 m,p-Xylenes	106	7.907	7.907	(1.031)	788004	100.000	88.74
17 Methylene Chloride	84	2.305	2.305	(0.551)	214147	50.0000	46.68
87 n-Butylbenzene	91	9.991	9.991	(1.034)	645358	50.0000	42.41
73 n-Propylbenzene	91	8.910	8.910	(0.922)	1047142	50.0000	42.91
92 Naphthalene	128	11.539	11.539	(1.194)	270417	50.0000	48.38
63 o-Xylene	106	8.244	8.244	(1.075)	386605	50.0000	44.65
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	867443	50.0000	42.23
64 Styrene	104	8.258	8.258	(1.077)	684972	50.0000	47.34
78 tert-Butylbenzene	119	9.340	9.340	(0.967)	648976	50.0000	42.63
56 Tetrachloroethene	164	6.926	6.926	(0.903)	208663	50.0000	47.79
50 Toluene	91	6.446	6.446	(0.840)	901439	50.0000	43.53
20 trans-1,2-Dichloroethene	96	2.527	2.527	(0.604)	200769	50.0000	42.58
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.344)	321059	50.0000	48.31
38 Trichloroethene	130	5.206	5.206	(1.048)	250605	50.0000	48.61
8 Trichlorofluoromethane	101	1.560	1.560	(0.373)	392771	50.0000	43.09
5 Vinyl Chloride	62	1.138	1.138	(0.272)	259868	50.0000	43.48

QC Flag Legend

M - Compound response manually integrated.

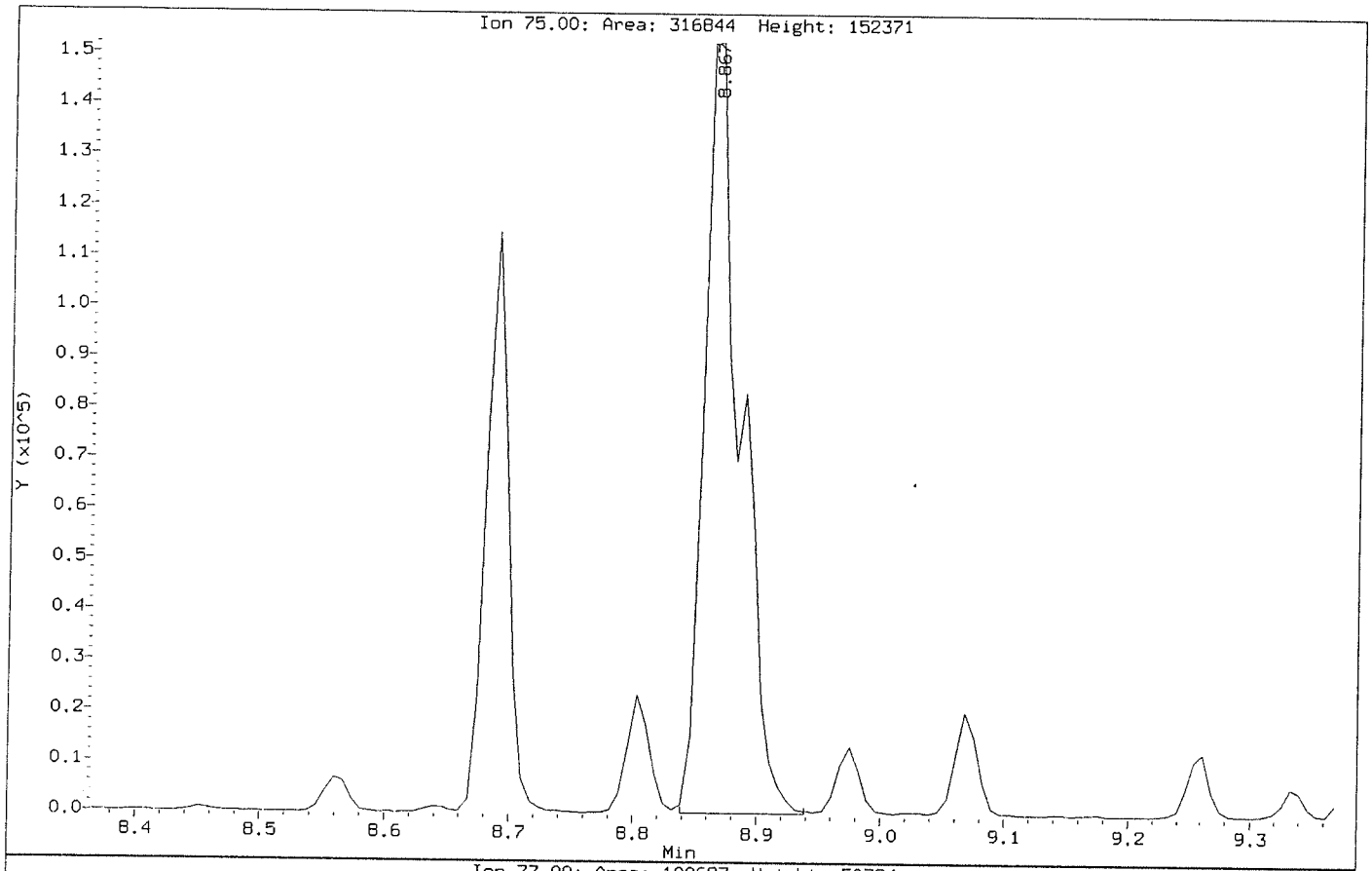


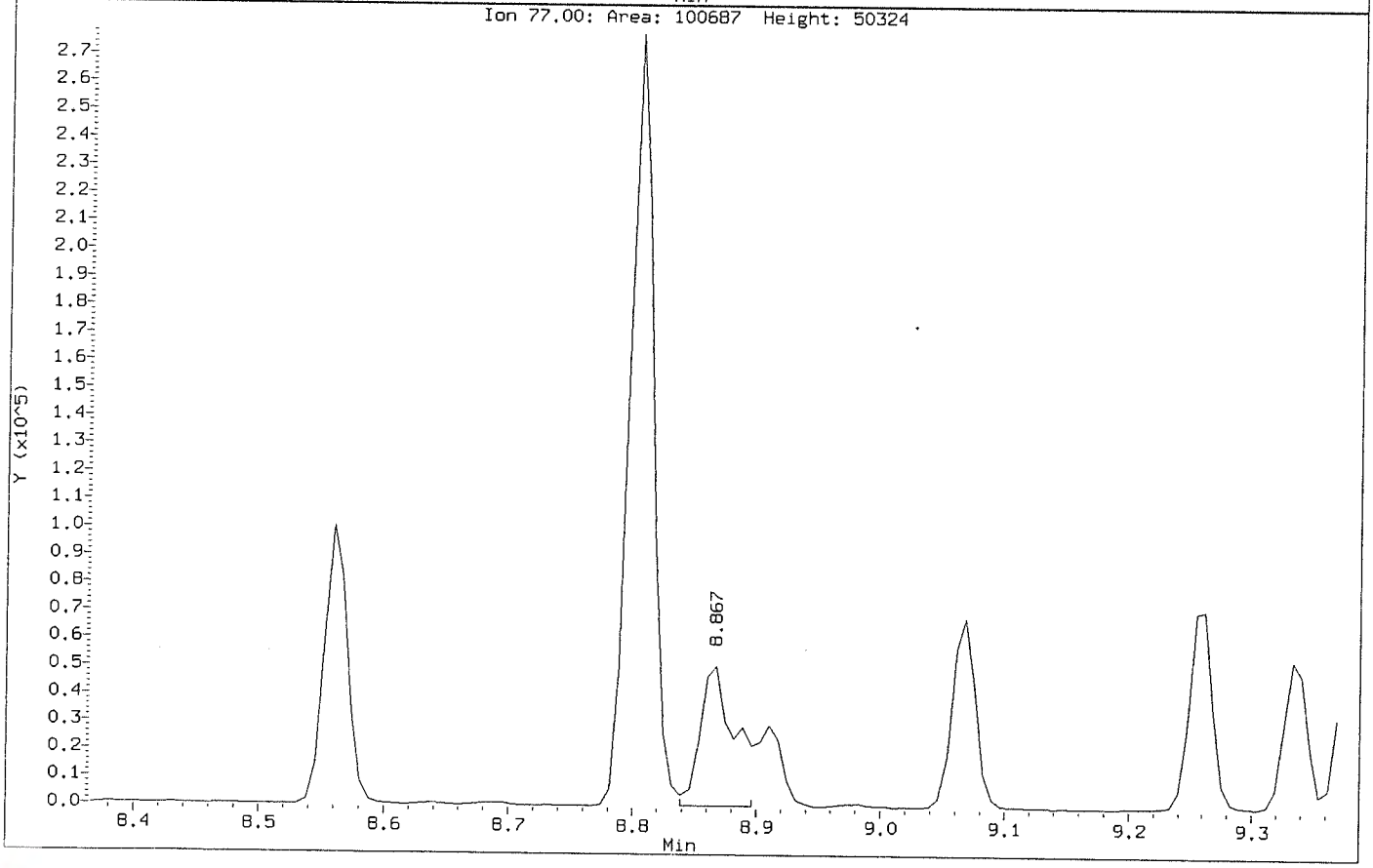
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Sample Info: CCV-END;CCV-END;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\nahstws005\Target\chem\voa6.i\X210611.b\Before\X061126.D
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Instrument: voa6.i
Client Sample ID: CCV-END

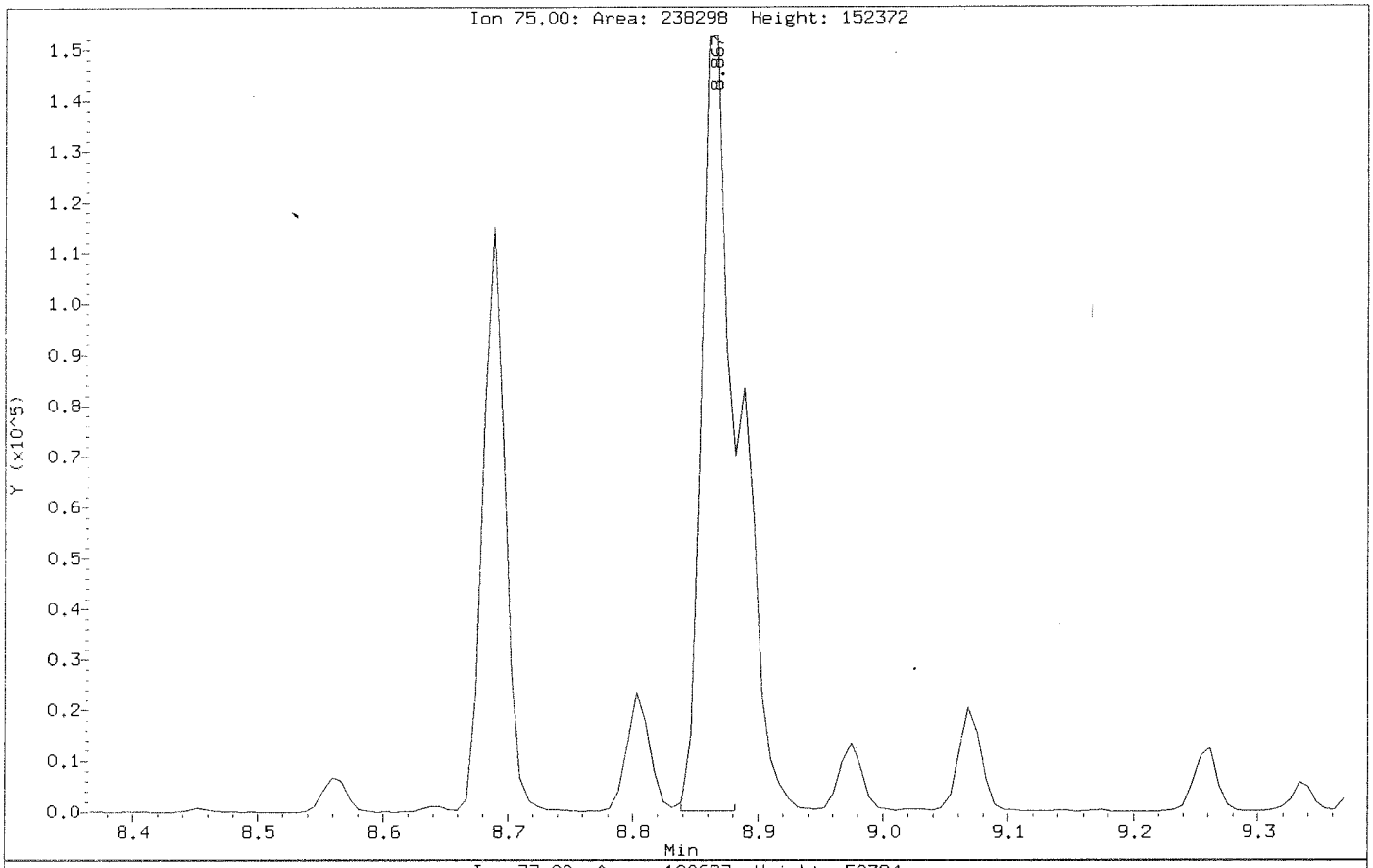
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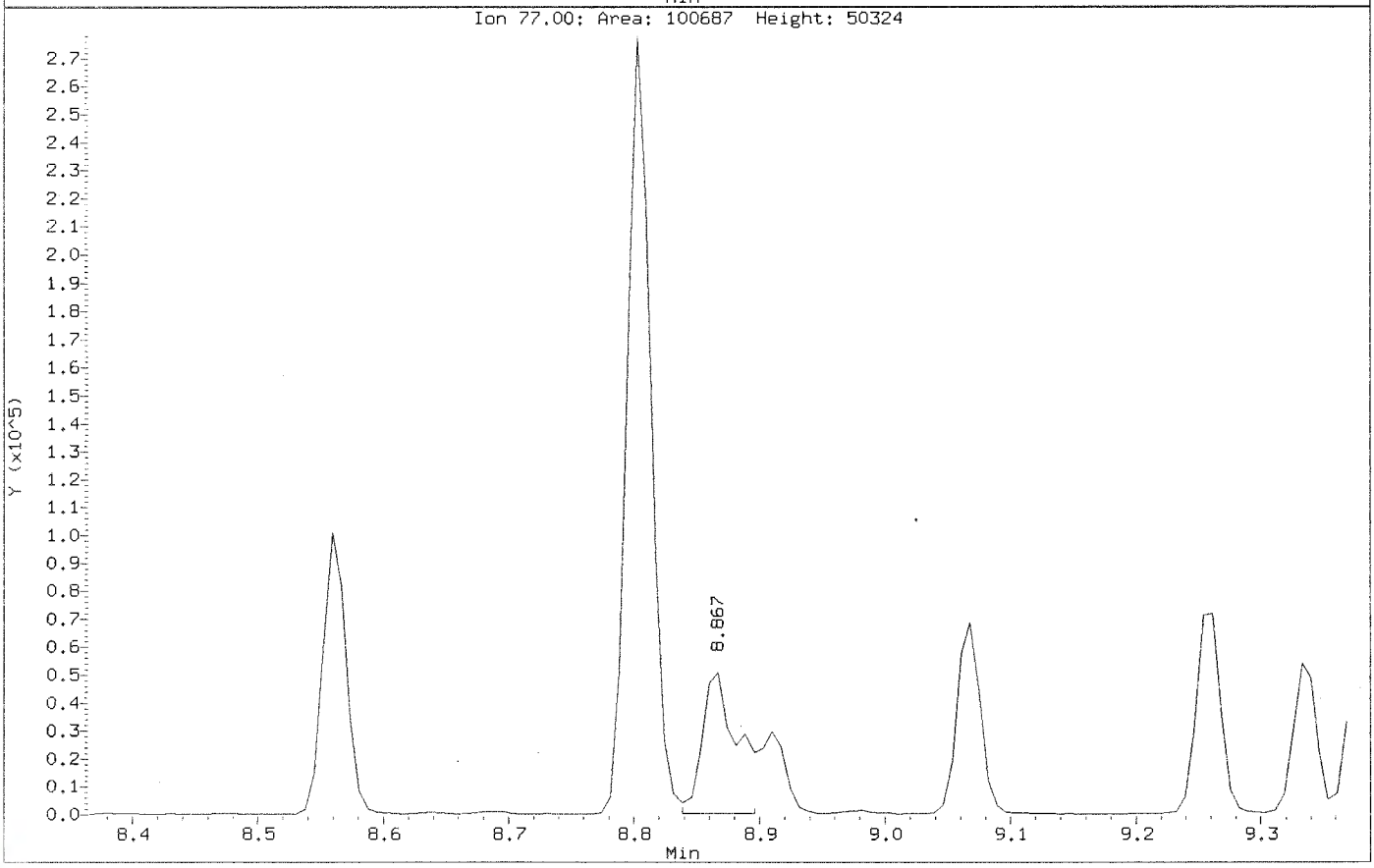




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Injection Date: 11-JUN-2021 19:39
Instrument: voa6.i
Client Sample ID: CCV-END

Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

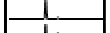




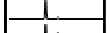
HS21060186 Wet Chem Raw Data (9056_anions_W)

ALS WO# HS21060186

Sequence: 061121
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method	Processing Method
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R4	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	MBLK		Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	LCS		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R6	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R6	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21060266-02DF10		Unknown	GA7	10.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21060266-02MSDF10		Unknown	GA8	10.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21060266-02MSDDF10		Unknown	GB1	10.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R4	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R6	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21060186-01		Unknown	GC5	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21060186-01DF20		Unknown	GC6	20.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R4	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R4	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21060705-01		Unknown	BE1	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21060705-01MS		Unknown	BE2	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	HS21060705-01MSD		Unknown	BE3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCV1		Unknown	R3	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO
	CCB		Unknown	R6	1.00		Anions Program ISO37mM 150mm short 0.4	Anions Processing Method ISO

Sequence: 061121
Last Update Operator: alshs.nouser

CD	Name	me	Status	Inject Time
	CCV	5.0	Finished	6/11/2021 12:18:13 PM -05:00
	CCB	5.0	Finished	6/11/2021 12:25:35 PM -05:00
	MBLK	5.0	Finished	6/11/2021 1:26:29 PM -05:00
	LCS	5.0	Finished	6/11/2021 1:33:56 PM -05:00
	CCV1	5.0	Finished	6/11/2021 1:41:19 PM -05:00
	CCB	5.0	Finished	6/11/2021 1:48:50 PM -05:00
	CCV1	5.0	Finished	6/11/2021 9:30:09 PM -05:00
	CCB	5.0	Finished	6/11/2021 9:37:32 PM -05:00
	HS21060266-02DF10	5.0	Finished	6/11/2021 10:29:19 PM -05:00
	HS21060266-02MSDF10	5.0	Finished	6/11/2021 10:36:42 PM -05:00
	HS21060266-02MSDDF10	5.0	Finished	6/11/2021 10:44:05 PM -05:00
	CCV	5.0	Finished	6/11/2021 10:58:54 PM -05:00
	CCB	5.0	Finished	6/11/2021 11:06:17 PM -05:00
	CCV1	5.0	Finished	6/12/2021 12:27:34 AM -05:00
	CCB	5.0	Finished	6/12/2021 12:34:57 AM -05:00
	HS21060186-01	5.0	Finished	6/12/2021 1:26:41 AM -05:00
	HS21060186-01DF20	5.0	Finished	6/12/2021 1:34:04 AM -05:00
	CCV	5.0	Finished	6/12/2021 1:56:14 AM -05:00
	CCB	5.0	Finished	6/12/2021 2:03:38 AM -05:00
	CCV	5.0	Finished	6/12/2021 4:46:10 AM -05:00
	CCB	5.0	Finished	6/12/2021 4:53:33 AM -05:00
	HS21060705-01	5.0	Finished	6/12/2021 12:00:00 PM -05:00
	HS21060705-01MS	5.0	Finished	6/12/2021 12:07:29 PM -05:00
	HS21060705-01MSD	5.0	Finished	6/12/2021 12:14:52 PM -05:00
	CCV1	5.0	Finished	6/12/2021 12:51:48 PM -05:00
	CCB	5.0	Finished	6/12/2021 12:59:11 PM -05:00

Sequence: 061121
Injection #6: STD6

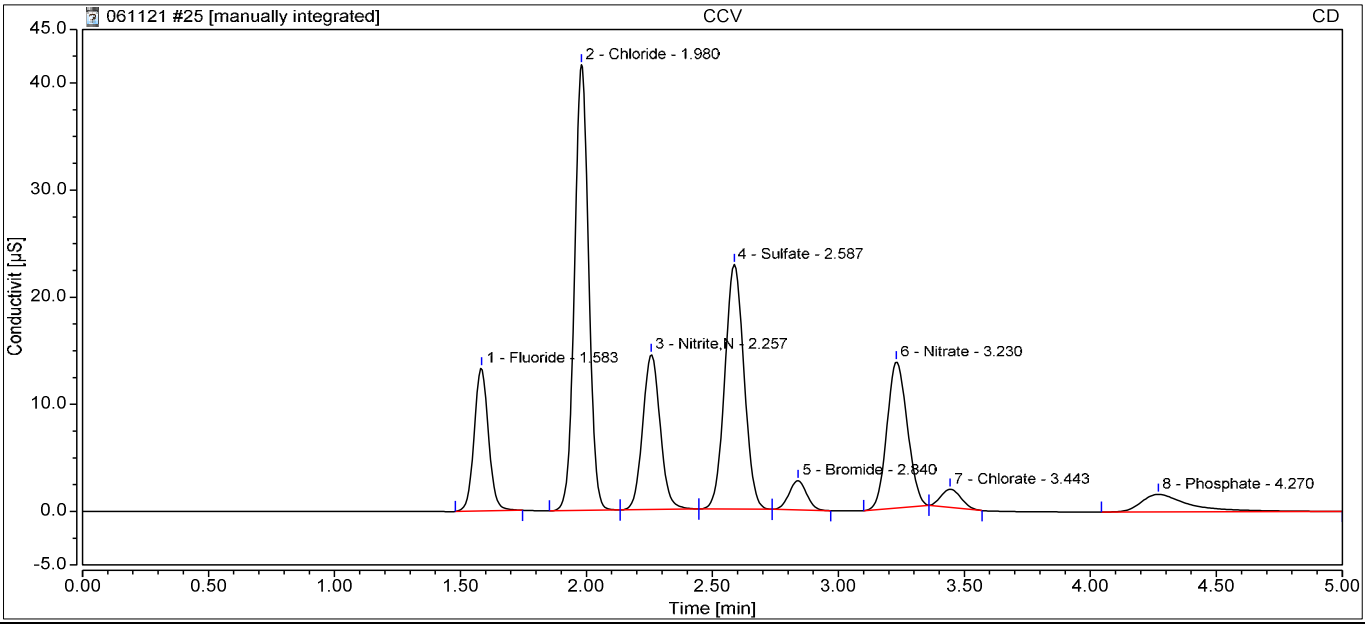
Calibration

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/*	*Area*	*6*	*21.8129*	*0.99737*	*0.0020*	*0.1994*	*0.0000*
2	Chloride	Lin, WithOffset, 1/	Area	6	6.1349	0.99980	0.0026	0.1332	0.0000
3	Nitrite,N	Quad, WithOffset,	Area	6	7.1497	0.99973	0.0069	0.3058	-0.0031
4	Sulfate	Lin, WithOffset, 1/	Area	6	7.9223	0.99966	0.0019	0.0996	0.0000
5	Bromide	Lin, WithOffset, 1/	Area	6	6.5599	0.99976	0.0008	0.0584	0.0000
6	Nitrate	Lin, WithOffset, 1/	Area	6	6.9585	0.99975	-0.0015	0.3139	0.0000
7	Chlorate	Lin, WithOffset, 1/	Area	6	15.4657	0.99864	0.0006	0.0363	0.0000
8	Phosphate	Quad, WithOffset,	Area	6	40.9740	0.99721	-0.0120	0.0898	0.0013
Maximum					**40.9740**	0.99980			
Minimum					6.1349	**0.99721**			

25 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/11/2021 12:18**	*Sample Weight:*	**1.0000**

Run Time:



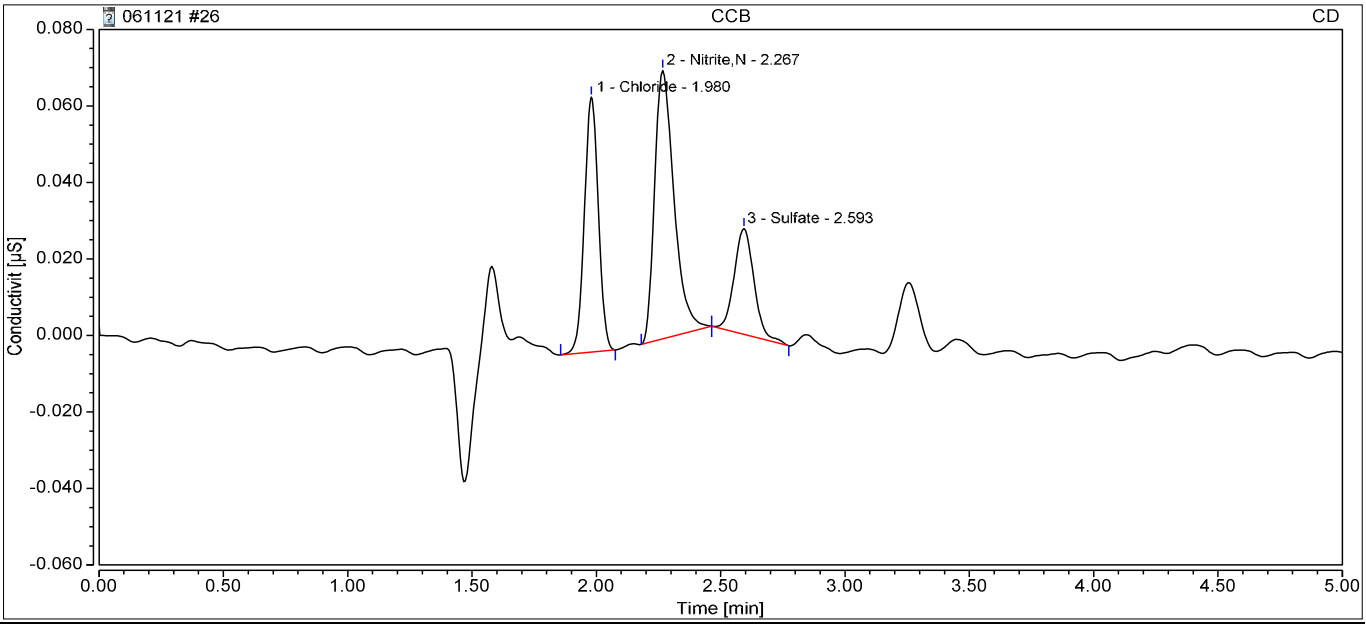
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB*	0.878	4.3914	4.3914	1.0000
2	1.98	Chloride	BMB	2.704	20.2775	20.2775	1.0000
3	2.26	Nitrite,N	BMB	1.166	3.9472	3.9472	1.0000
4	2.59	Sulfate	BMB	2.014	20.2024	20.2024	1.0000
5	2.84	Bromide	BMB	0.221	3.7715	3.7715	1.0000
6	3.23	Nitrate	BMB	1.283	4.0920	4.0920	1.0000
7	3.44	Chlorate	BMB	0.155	4.2603	4.2603	1.0000
8	4.27	Phosphate	BMB	0.365	3.9682	3.9682	1.0000
Total:			**0.000**	**8.785**		**64.91**	

26 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/11/2021 12:25**	*Sample Weight:*	**1.0000**

Run Time:



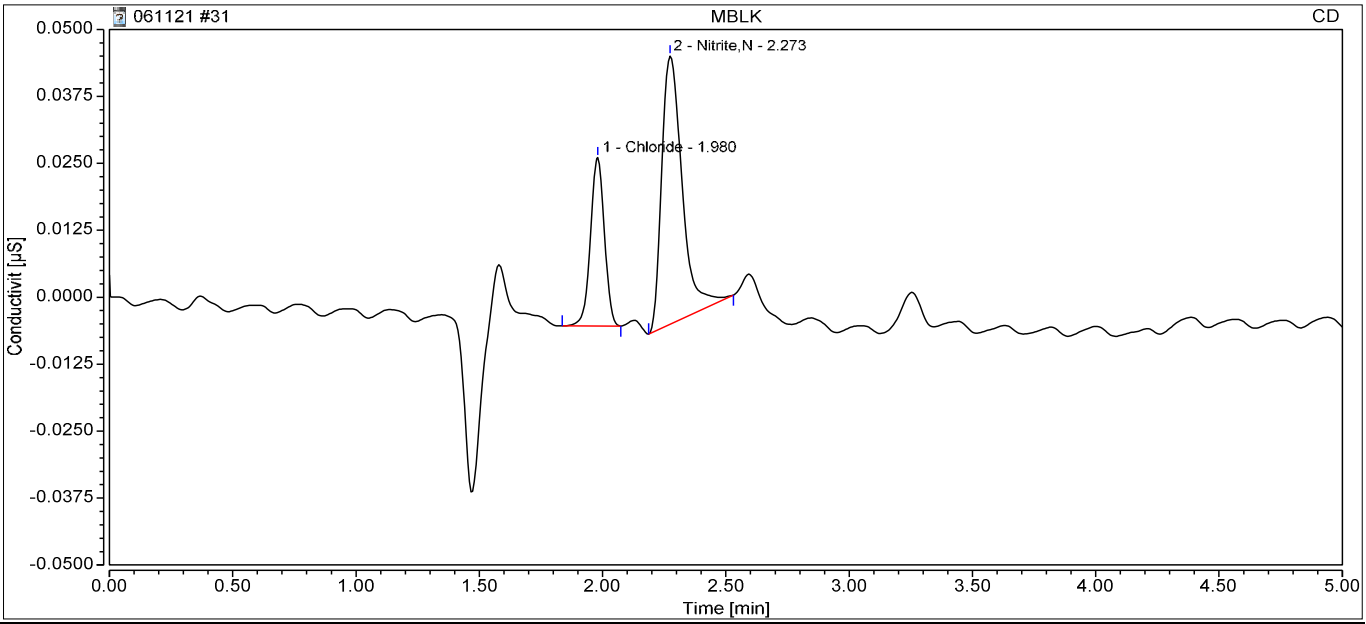
Integration Results

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
1	1.98	Chloride	BMB	0.004	0.0131	0.0131	1.0000
2	2.27	Nitrite,N	BMB	0.006	n.a.	n.a.	1.0000
3	2.59	Sulfate	BMB	0.003	0.0069	0.0069	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**	**0.013**		**0.02**	

31 MBLK

Sample Name:	**MBLK**	*Injection Volume:*	**5.00**
Vial Number:	**R5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/11/2021 13:26**	*Sample Weight:*	**1.0000**

Run Time:



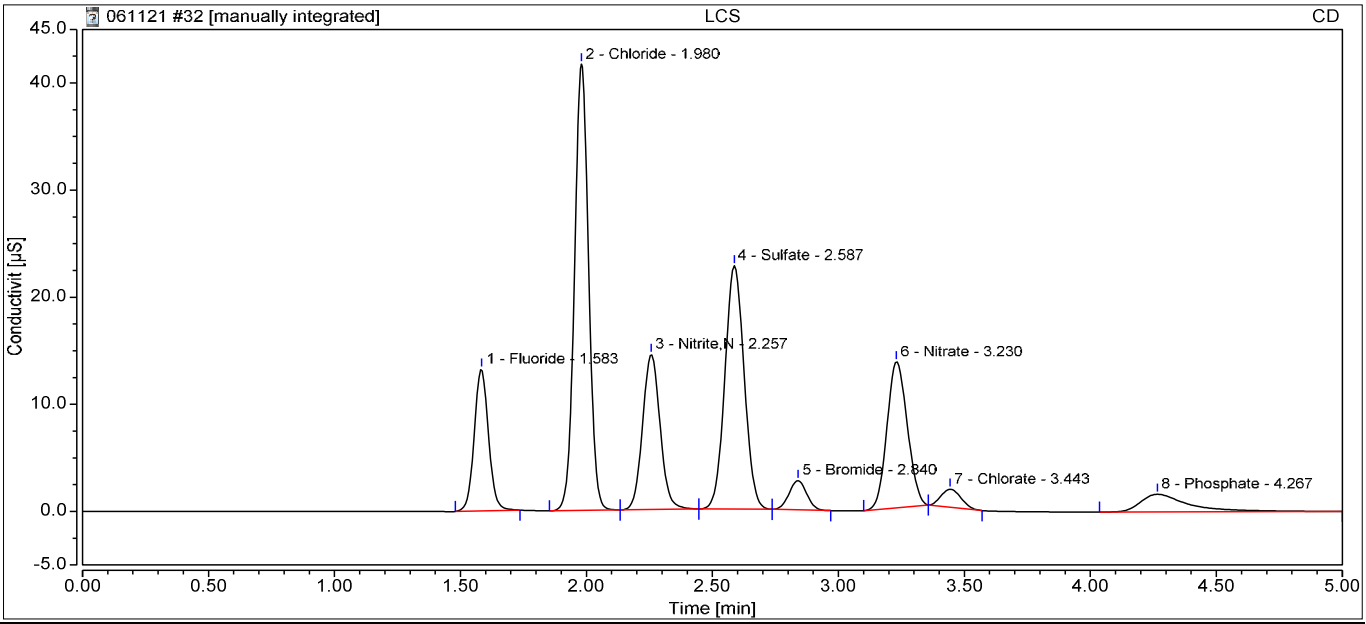
Integration Results

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
1	1.98	Chloride	BMB	0.002	n.a.	n.a.	1.0000
2	2.27	Nitrite,N	BMB	0.005	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**	**0.007**		**0.00**	

32 LCS

Sample Name:	**LCS**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/11/2021 13:33**	*Sample Weight:*	**1.0000**

Run Time:



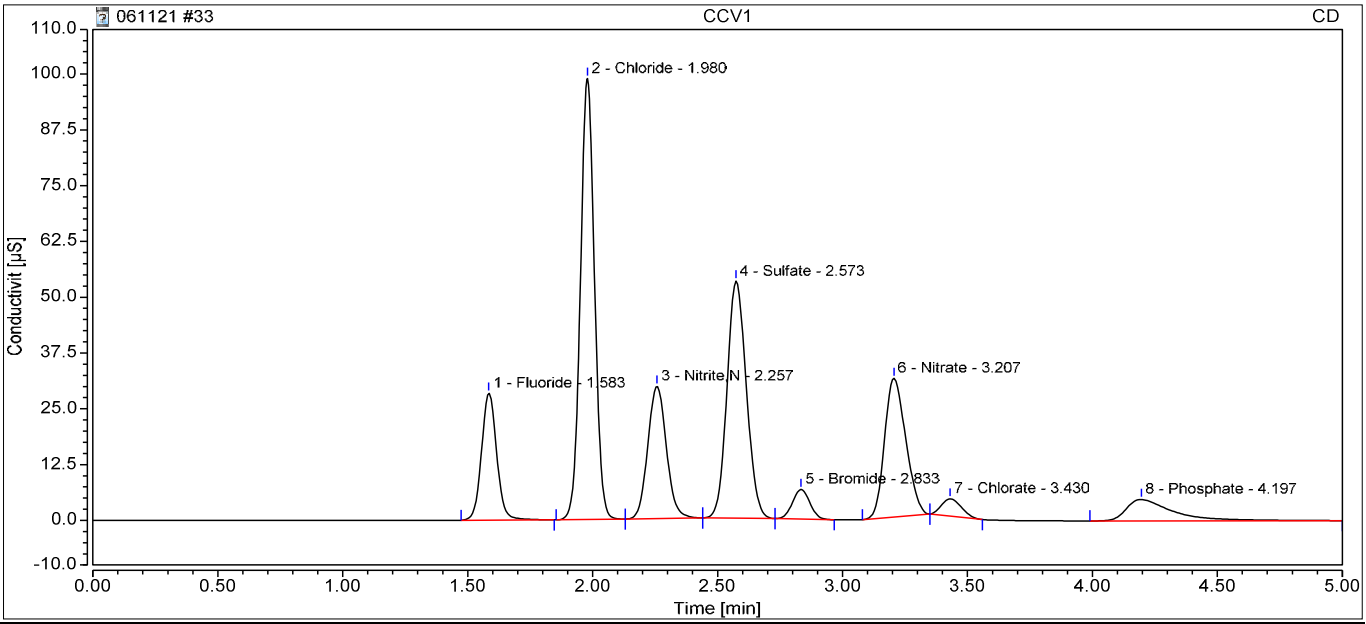
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB*	0.869	4.3481	4.3481	1.0000
2	1.98	Chloride	BMB	2.700	20.2471	20.2471	1.0000
3	2.26	Nitrite,N	BMB	1.170	3.9604	3.9604	1.0000
4	2.59	Sulfate	BMB	2.013	20.1907	20.1907	1.0000
5	2.84	Bromide	BMB	0.221	3.7758	3.7758	1.0000
6	3.23	Nitrate	BMB	1.280	4.0840	4.0840	1.0000
7	3.44	Chlorate	BMB	0.155	4.2508	4.2508	1.0000
8	4.27	Phosphate	BMB	0.368	3.9953	3.9953	1.0000
Total:			**0.000**	**8.775**		**64.85**	

33 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/11/2021 13:41**	*Sample Weight:*	**1.0000**

Run Time:



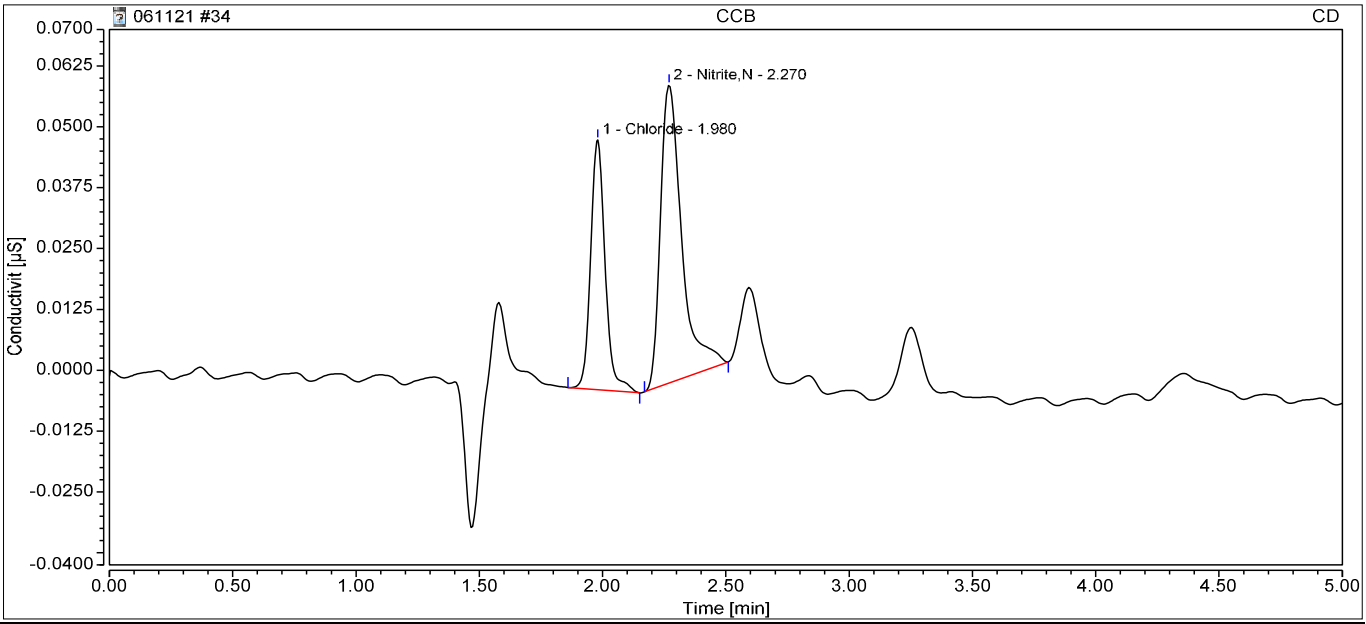
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	2.011	10.0743	10.0743	1.0000
2	1.98	Chloride	BMB	6.432	48.2679	48.2679	1.0000
3	2.26	Nitrite,N	BMB	2.561	9.2066	9.2066	1.0000
4	2.57	Sulfate	BMB	4.777	47.9522	47.9522	1.0000
5	2.83	Bromide	BMB	0.536	9.1649	9.1649	1.0000
6	3.21	Nitrate	BMB	3.067	9.7758	9.7758	1.0000
7	3.43	Chlorate	BMB	0.362	9.9781	9.9781	1.0000
8	4.20	Phosphate	BMB	1.032	10.1282	10.1282	1.0000
Total:			**0.000**	**20.778**		**154.55**	

34 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/11/2021 13:48**	*Sample Weight:*	**1.0000**

Run Time:



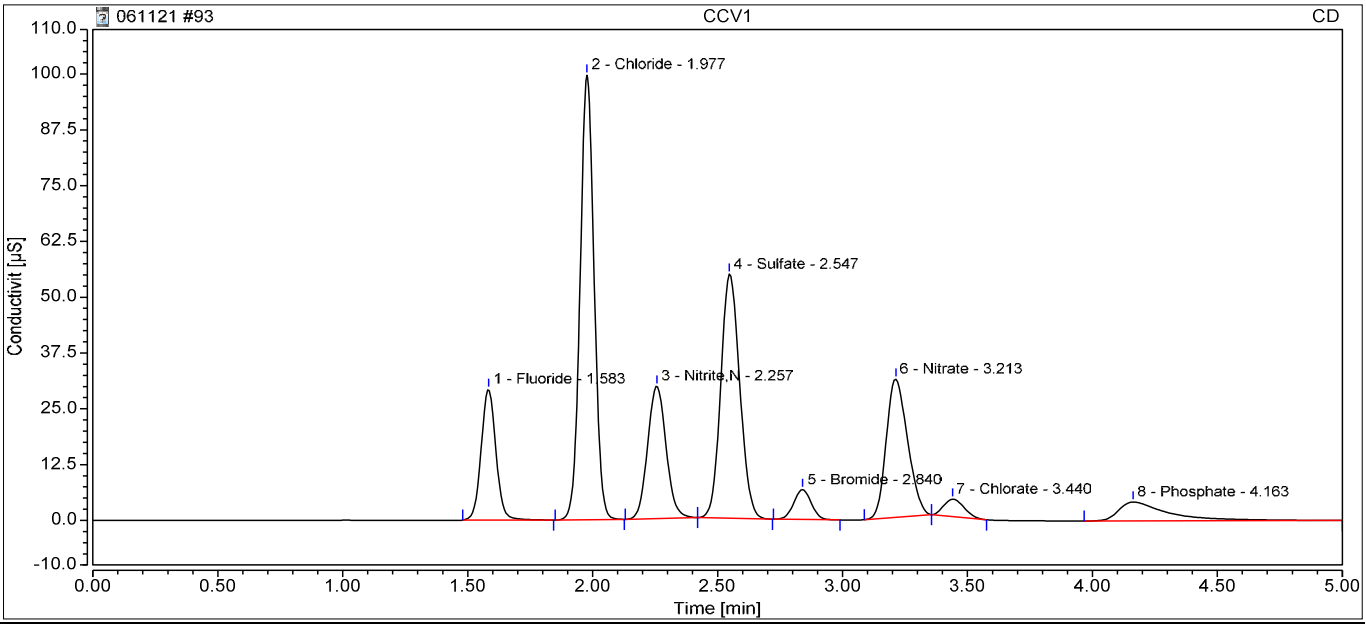
Integration Results

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
1	1.98	Chloride	BMB	0.003	0.0068	0.0068	1.0000
2	2.27	Nitrite,N	BMB	0.006	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**	**0.010**		**0.01**	

93 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/11/2021 21:30**	*Sample Weight:*	**1.0000**

Run Time:



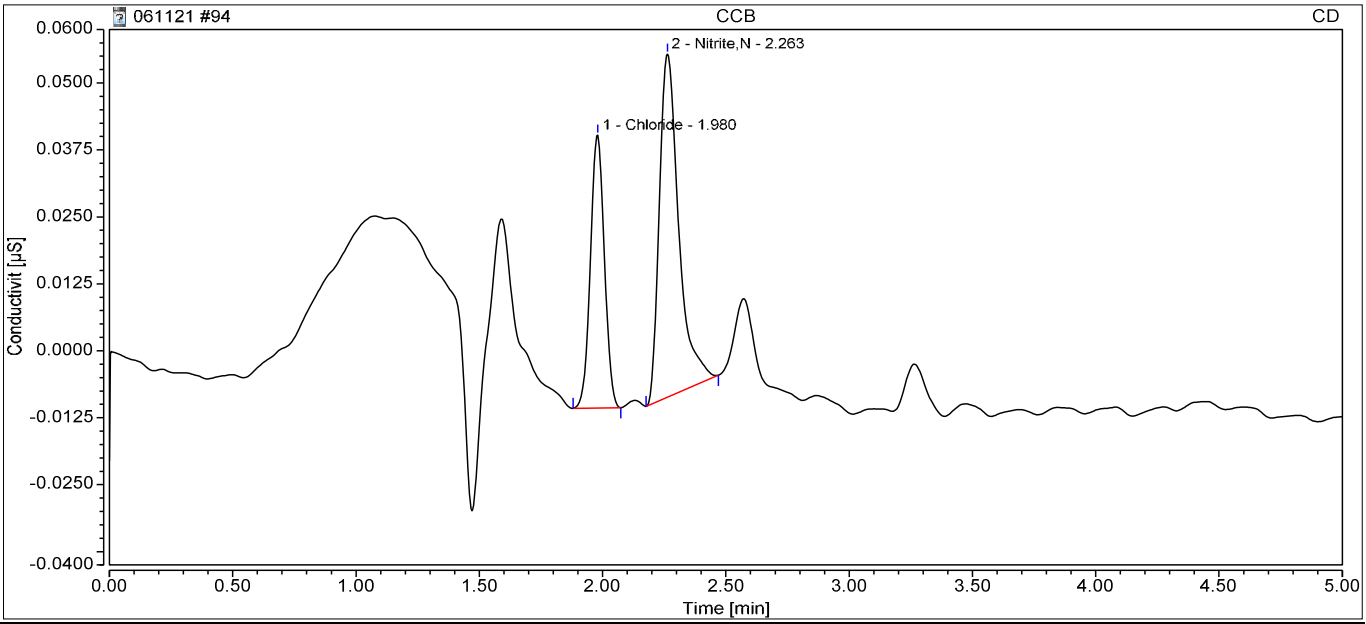
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	2.010	10.0718	10.0718	1.0000
2	1.98	Chloride	BMB	6.446	48.3756	48.3756	1.0000
3	2.26	Nitrite,N	BMB	2.539	9.1204	9.1204	1.0000
4	2.55	Sulfate	BMB	4.813	48.3111	48.3111	1.0000
5	2.84	Bromide	BMB	0.546	9.3434	9.3434	1.0000
6	3.21	Nitrate	BMB	3.072	9.7916	9.7916	1.0000
7	3.44	Chlorate	BMB	0.371	10.2224	10.2224	1.0000
8	4.16	Phosphate	BMB	0.973	9.6172	9.6172	1.0000
Total:			**0.000**	**20.771**		**154.85**	

94 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/11/2021 21:37**	*Sample Weight:*	**1.0000**

Run Time:



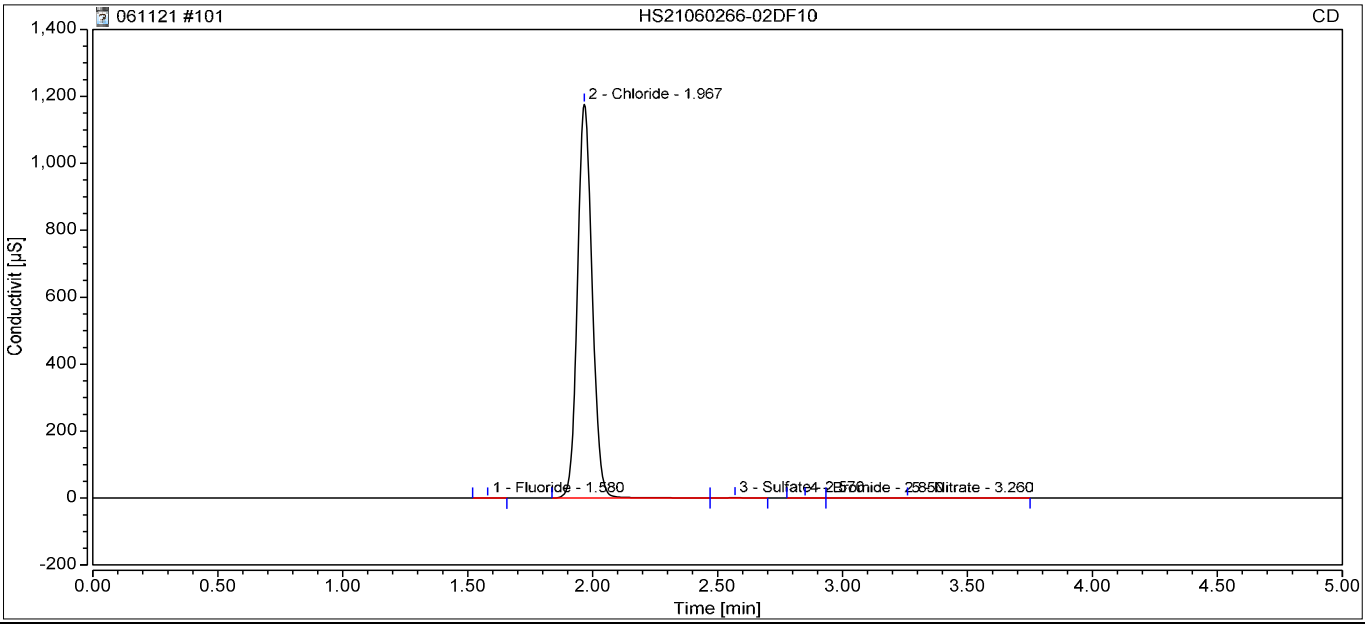
Integration Results

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
1	1.98	Chloride	BMB	0.003	0.0056	0.0056	1.0000
2	2.26	Nitrite,N	BMB	0.006	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**	**0.009**		**0.01**	

101 HS21060266-02DF10

Sample Name:	**HS21060266-02DF10**	*Injection Volume:*	**5.00**
Vial Number:	**GA7**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**06/11/2021 22:29**	*Sample Weight:*	**1.0000**

Run Time:



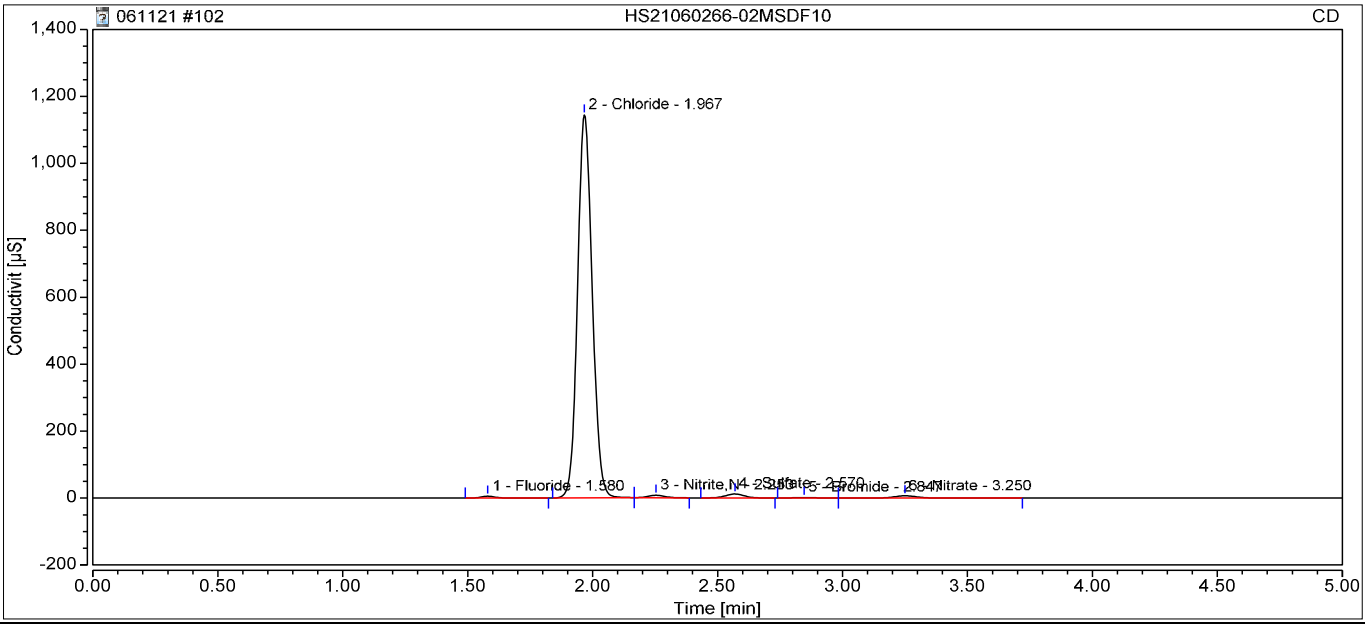
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.004	0.0075	0.0750	10.0000
2	1.97	Chloride	BMB	79.963	600.2914	6002.9137	10.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	10.0000
3	2.57	Sulfate	BMB	0.048	0.4642	4.6419	10.0000
4	2.85	Bromide	BMB	0.002	0.0219	0.2191	10.0000
5	3.26	Nitrate	BMB	0.027	0.0922	0.9219	10.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	10.0000
Total:			**0.000**	**80.045**		**6008.77**	

102 HS21060266-02MSDF10

Sample Name:	**HS21060266-02MSDF10**	*Injection Volume:*	**5.00**
Vial Number:	**GA8**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**06/11/2021 22:36**	*Sample Weight:*	**1.0000**

Run Time:



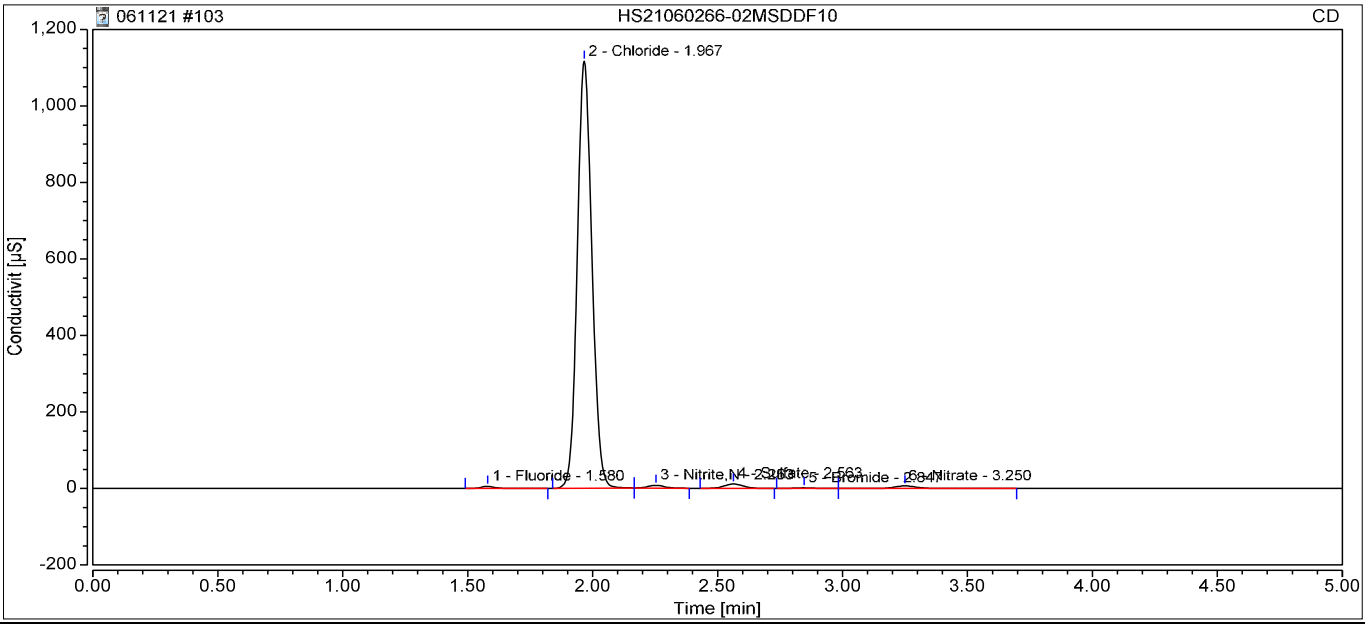
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.373	1.8625	18.6250	10.0000
2	1.97	Chloride	BMB	77.421	581.2017	5812.0166	10.0000
3	2.25	Nitrite,N	BMB	0.540	1.7756	17.7556	10.0000
4	2.57	Sulfate	BMB	1.023	10.2558	102.5577	10.0000
5	2.85	Bromide	BMB	0.111	1.8844	18.8441	10.0000
6	3.25	Nitrate	BMB	0.674	2.1522	21.5216	10.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	10.0000
Total:			**0.000**	**80.142**		**5991.32**	

103 HS21060266-02MSDDF10

Sample Name:	**HS21060266-02MSDDF10**	*Injection Volume:*	**5.00**
Vial Number:	**GB1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Recording Time:	**06/11/2021 22:44**	*Sample Weight:*	**1.0000**

Run Time:



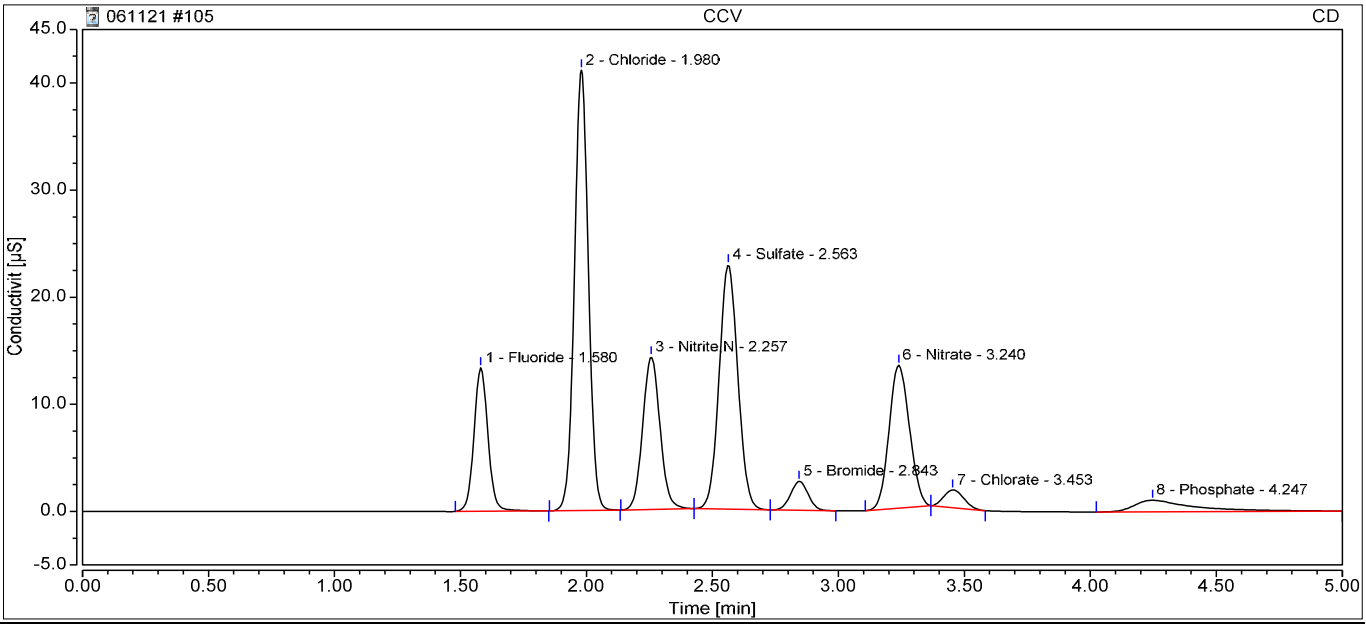
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.365	1.8221	18.2206	10.0000
2	1.97	Chloride	BMB	75.441	566.3413	5663.4129	10.0000
3	2.25	Nitrite,N	BMB	0.526	1.7280	17.2799	10.0000
4	2.56	Sulfate	BMB	0.998	10.0039	100.0389	10.0000
5	2.85	Bromide	BMB	0.108	1.8352	18.3516	10.0000
6	3.25	Nitrate	BMB	0.654	2.0901	20.9008	10.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	10.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	10.0000
Total:			**0.000**	**78.093**		**5838.20**	

105 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/11/2021 22:58**	*Sample Weight:*	**1.0000**

Run Time:



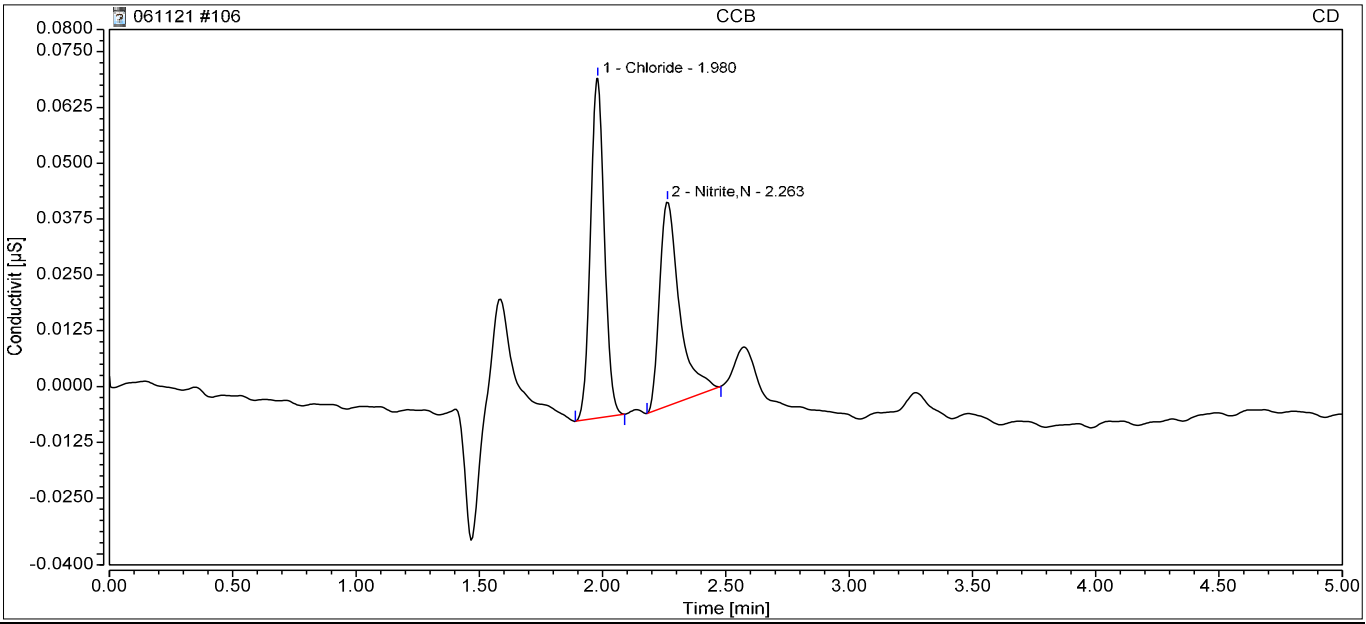
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.862	4.3157	4.3157	1.0000
2	1.98	Chloride	BMB	2.643	19.8222	19.8222	1.0000
3	2.26	Nitrite,N	BMB	1.137	3.8456	3.8456	1.0000
4	2.56	Sulfate	BMB	1.963	19.6896	19.6896	1.0000
5	2.84	Bromide	BMB	0.219	3.7372	3.7372	1.0000
6	3.24	Nitrate	BMB	1.255	4.0039	4.0039	1.0000
7	3.45	Chlorate	BMB	0.153	4.2018	4.2018	1.0000
8	4.25	Phosphate	BMB	0.296	3.2739	3.2739	1.0000
Total:			**0.000**	**8.528**		**62.89**	

106 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/11/2021 23:06**	*Sample Weight:*	**1.0000**

Run Time:



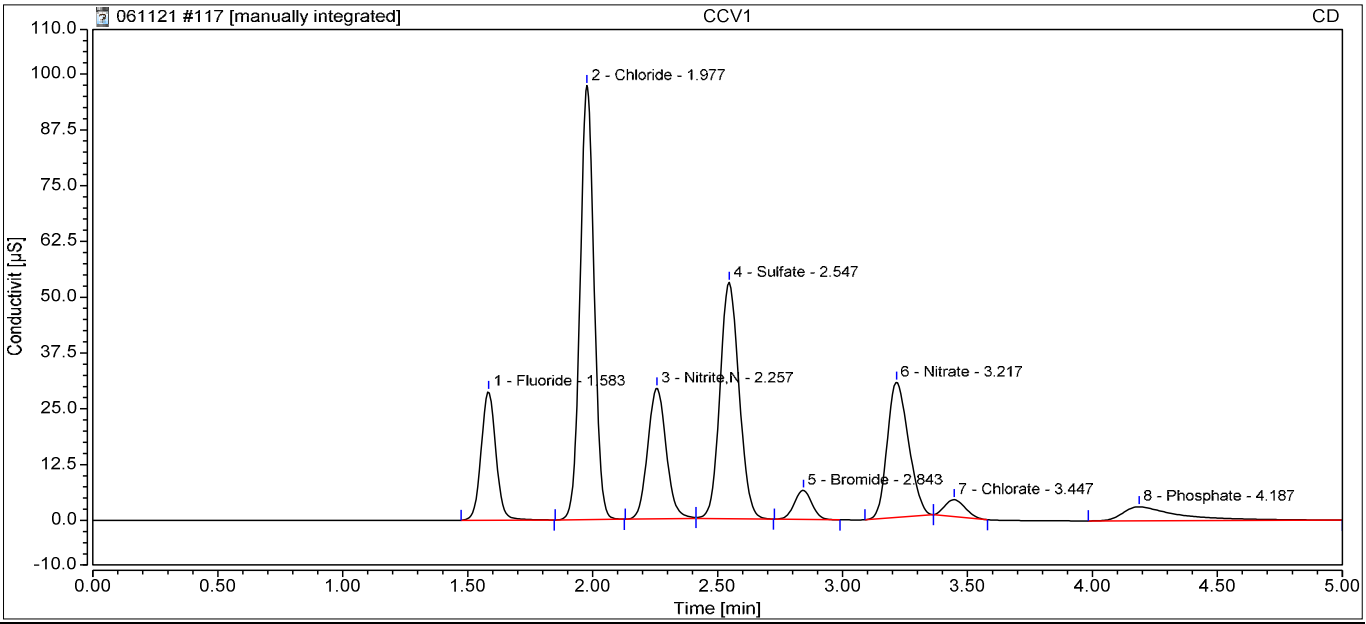
Integration Results

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
1	1.98	Chloride	BMB	0.005	0.0178	0.0178	1.0000
2	2.26	Nitrite,N	BMB	0.004	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**	**0.009**		**0.02**	

117 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/12/2021 00:27**	*Sample Weight:*	**1.0000**

Run Time:



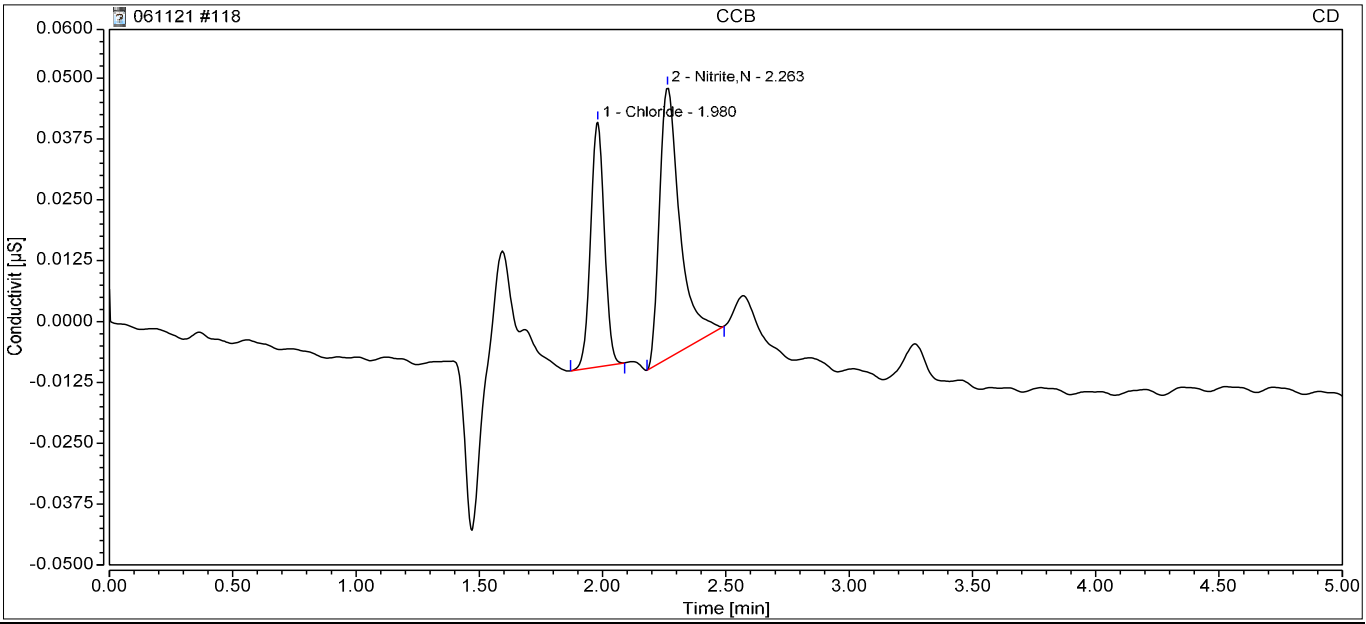
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	1.976	9.9027	9.9027	1.0000
2	1.98	Chloride	BMB	6.300	47.2737	47.2737	1.0000
3	2.26	Nitrite,N	BM *	2.516	9.0258	9.0258	1.0000
4	2.55	Sulfate	MB*	4.704	47.2153	47.2153	1.0000
5	2.84	Bromide	BMB	0.532	9.1024	9.1024	1.0000
6	3.22	Nitrate	BMB	3.001	9.5654	9.5654	1.0000
7	3.45	Chlorate	BMB	0.359	9.8880	9.8880	1.0000
8	4.19	Phosphate	BMB	0.816	8.2242	8.2242	1.0000
Total:			**0.000**	**20.203**		**150.20**	

118 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/12/2021 00:34**	*Sample Weight:*	**1.0000**

Run Time:



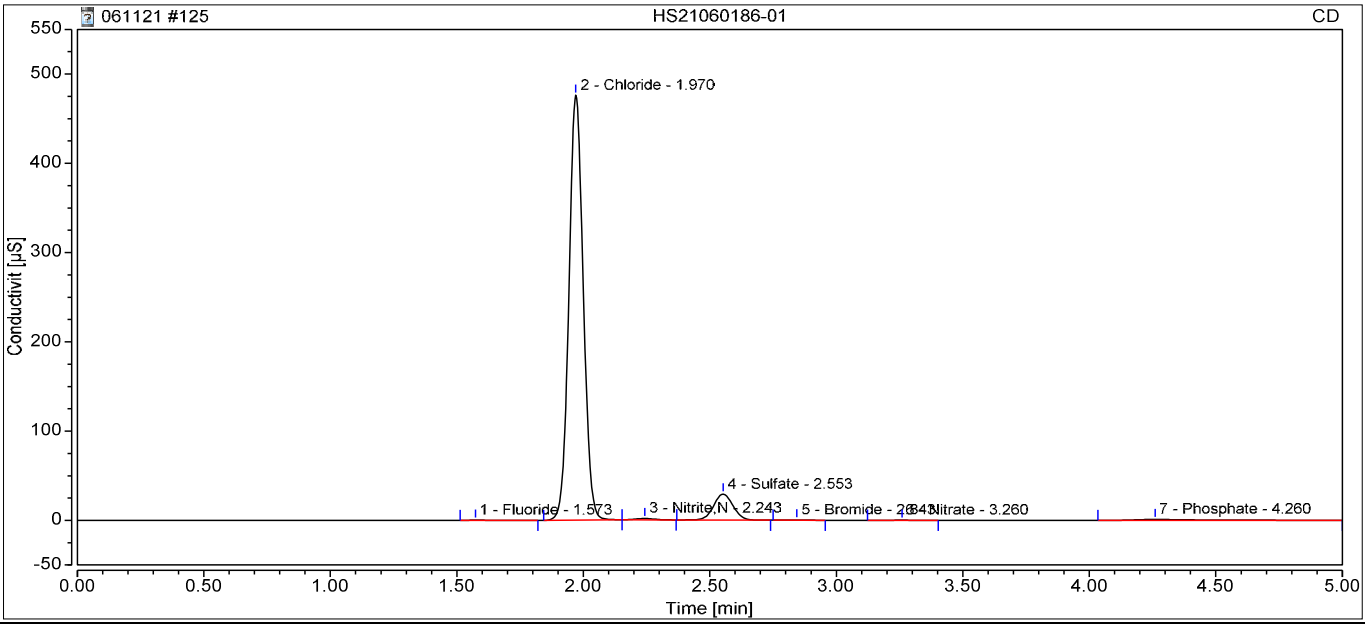
Integration Results

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
1	1.98	Chloride	BMB	0.003	0.0049	0.0049	1.0000
2	2.26	Nitrite,N	BMB	0.005	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**	**0.009**		**0.00**	

125 HS21060186-01

Sample Name:	**HS21060186-01**	*Injection Volume:*	**5.00**
Vial Number:	**GC5**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/12/2021 01:26**	*Sample Weight:*	**1.0000**

Run Time:



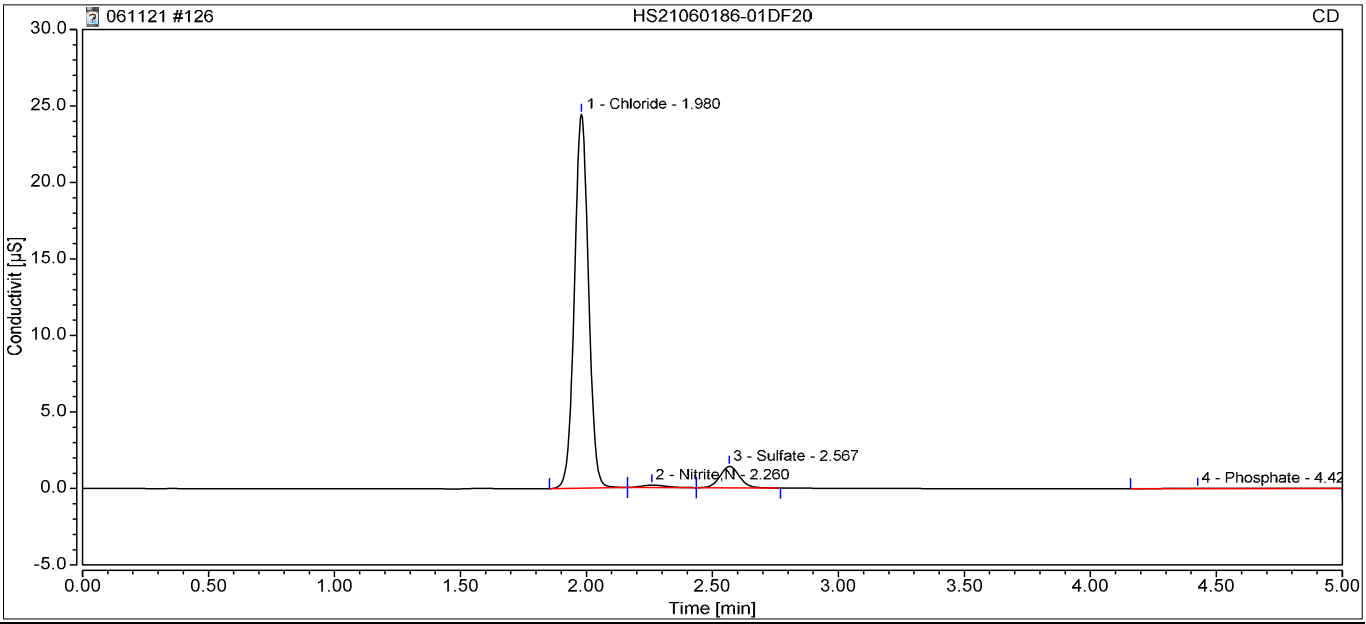
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.57	Fluoride	BMB	0.025	0.1140	0.1140	1.0000
2	1.97	Chloride	BMB	31.209	234.2783	234.2783	1.0000
3	2.24	Nitrite,N	BMB	0.124	0.3848	0.3848	1.0000
4	2.55	Sulfate	BMB	2.594	26.0269	26.0269	1.0000
5	2.84	Bromide	BMB	0.028	0.4659	0.4659	1.0000
6	3.26	Nitrate	BMB	0.011	0.0397	0.0397	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.26	Phosphate	BMB	0.293	3.2440	3.2440	1.0000
Total:			**0.000**	**34.284**		**264.55**	

126 HS21060186-01DF20

Sample Name:	**HS21060186-01DF20**	*Injection Volume:*	**5.00**
Vial Number:	**GC6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**20.0000**
Recording Time:	**06/12/2021 01:34**	*Sample Weight:*	**1.0000**

Run Time:



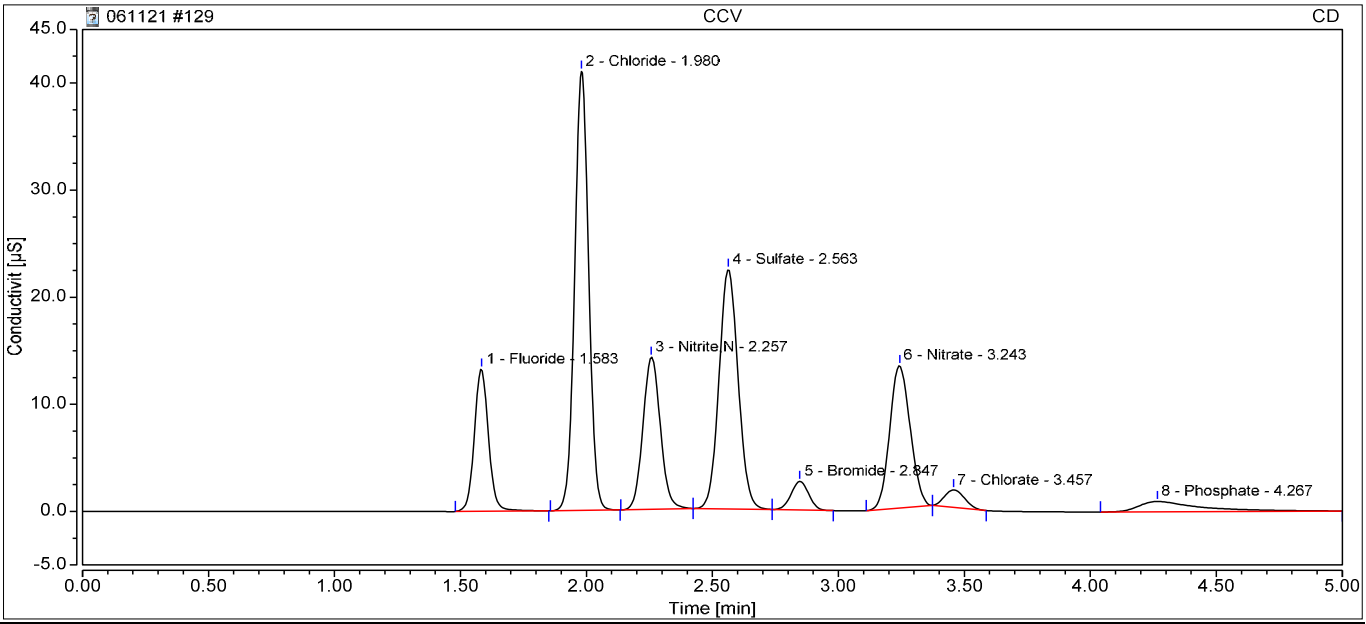
Integration Results

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.	20.0000
1	1.98	Chloride	BMB	1.578	11.8308	236.6156	20.0000
2	2.26	Nitrite,N	BMB	0.017	0.0334	0.6677	20.0000
3	2.57	Sulfate	BMB	0.124	1.2308	24.6156	20.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	20.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	20.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	20.0000
4	4.43	Phosphate	BMB	0.008	0.2235	4.4703	20.0000
Total:			**0.000**	**1.728**		**266.37**	

129 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/12/2021 01:56**	*Sample Weight:*	**1.0000**

Run Time:



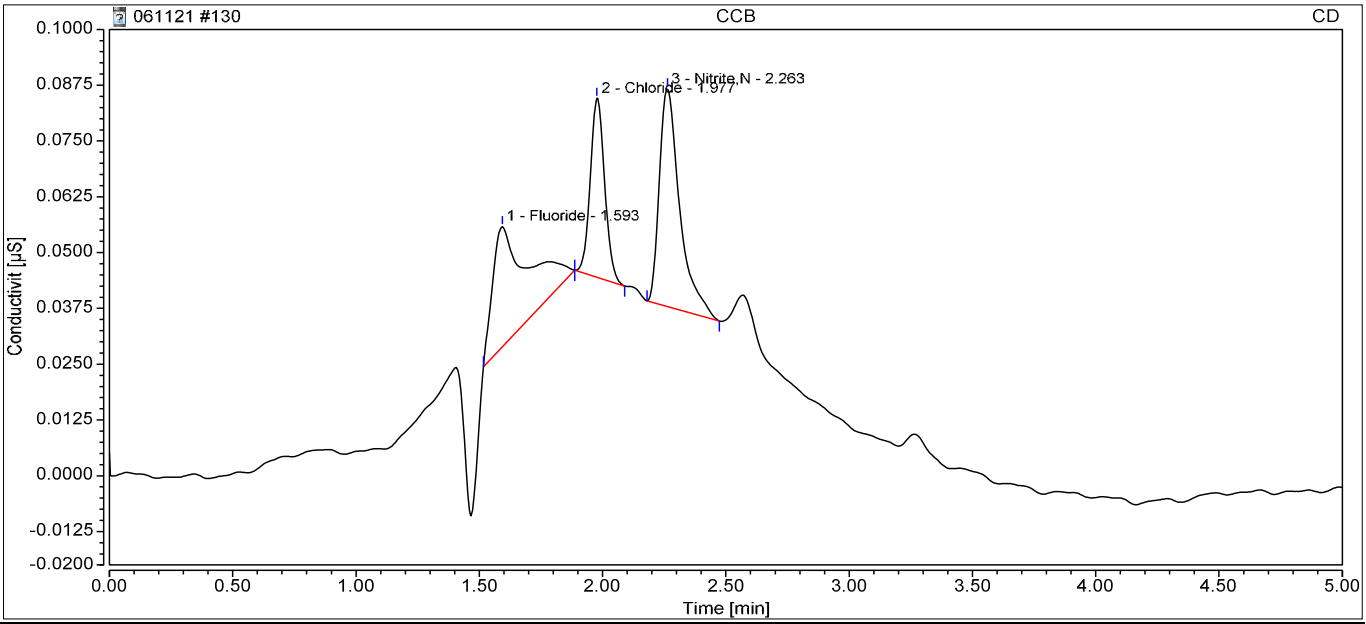
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.865	4.3283	4.3283	1.0000
2	1.98	Chloride	BMB	2.645	19.8357	19.8357	1.0000
3	2.26	Nitrite,N	BMB	1.140	3.8538	3.8538	1.0000
4	2.56	Sulfate	BMB	1.963	19.6973	19.6973	1.0000
5	2.85	Bromide	BMB	0.216	3.6914	3.6914	1.0000
6	3.24	Nitrate	BMB	1.256	4.0058	4.0058	1.0000
7	3.46	Chlorate	BMB	0.151	4.1615	4.1615	1.0000
8	4.27	Phosphate	BMB	0.275	3.0576	3.0576	1.0000
Total:			**0.000**	**8.511**		**62.63**	

130 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/12/2021 02:03**	*Sample Weight:*	**1.0000**

Run Time:



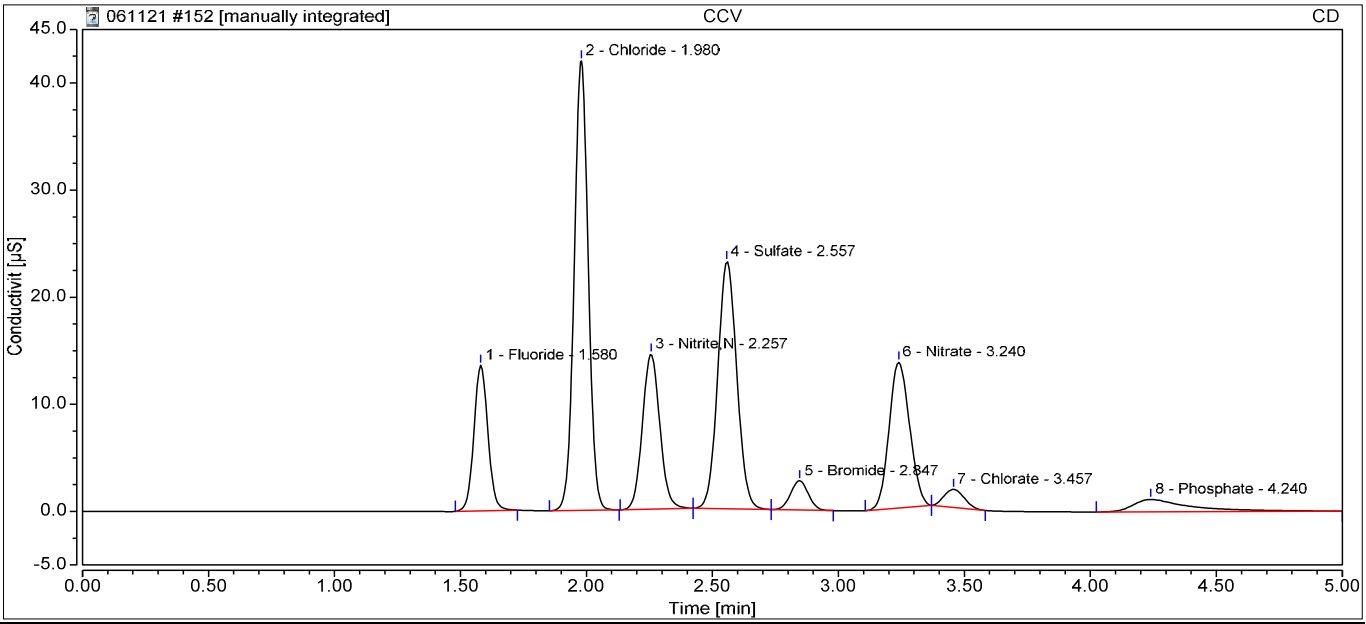
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.59	Fluoride	BMB	0.004	0.0115	0.0115	1.0000
2	1.98	Chloride	BMB	0.003	0.0009	0.0009	1.0000
3	2.26	Nitrite,N	BMB	0.005	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**		**0.01**	

152 CCV

Sample Name:	**CCV**	*Injection Volume:*	**5.00**
Vial Number:	**R1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/12/2021 04:46**	*Sample Weight:*	**1.0000**

Run Time:



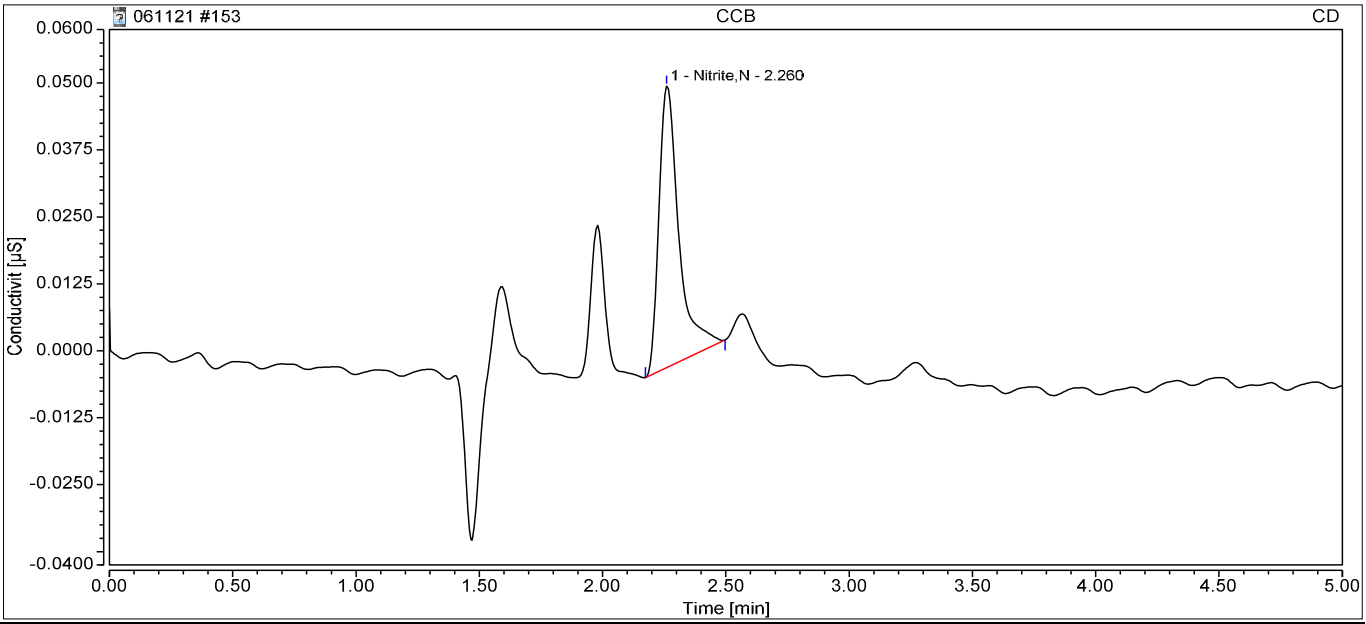
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB*	0.875	4.3784	4.3784	1.0000
2	1.98	Chloride	BMB	2.715	20.3651	20.3651	1.0000
3	2.26	Nitrite,N	BMB	1.164	3.9394	3.9394	1.0000
4	2.56	Sulfate	BMB	2.023	20.2943	20.2943	1.0000
5	2.85	Bromide	BMB	0.223	3.8085	3.8085	1.0000
6	3.24	Nitrate	BMB	1.289	4.1119	4.1119	1.0000
7	3.46	Chlorate	BMB	0.157	4.3149	4.3149	1.0000
8	4.24	Phosphate	BMB	0.306	3.3768	3.3768	1.0000
Total:			**0.000**	**8.752**		**64.59**	

153 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R4**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/12/2021 04:53**	*Sample Weight:*	**1.0000**

Run Time:



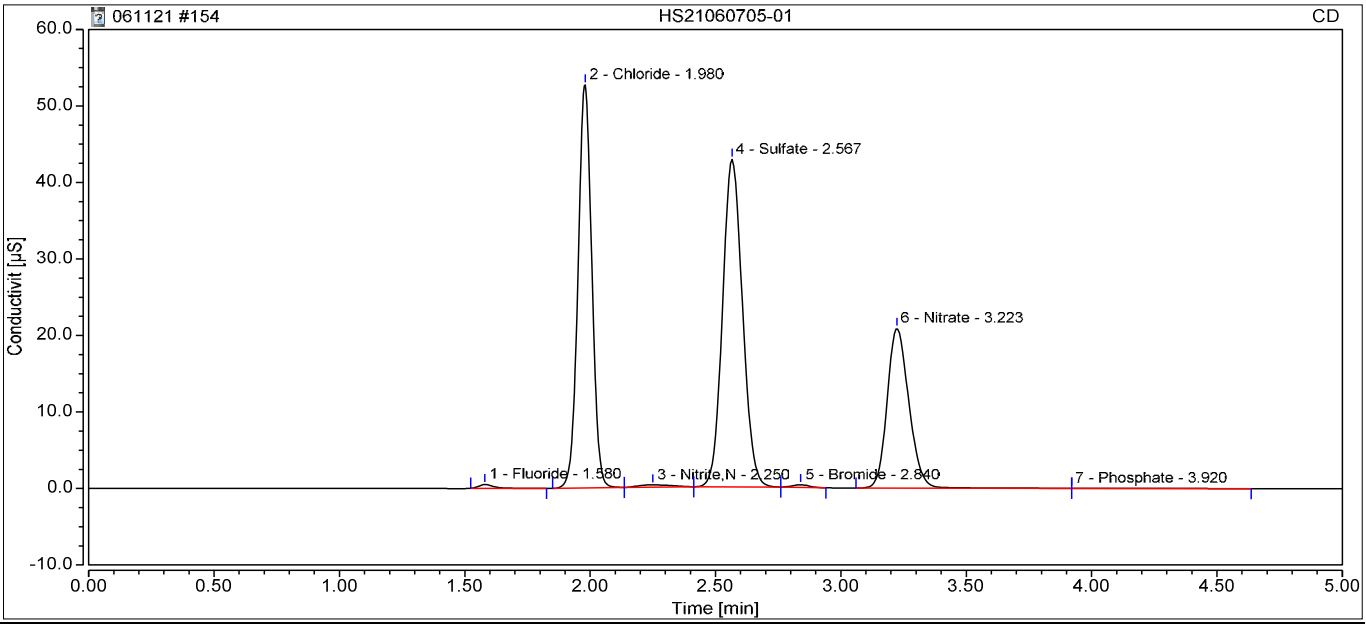
Integration Results

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
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	1.0000
1	2.26	Nitrite,N	BMB	0.005	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**	**0.005**		**0.00**	

154 HS21060705-01

Sample Name:	**HS21060705-01**	*Injection Volume:*	**5.00**
Vial Number:	**BE1**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/12/2021 12:00**	*Sample Weight:*	**1.0000**

Run Time:



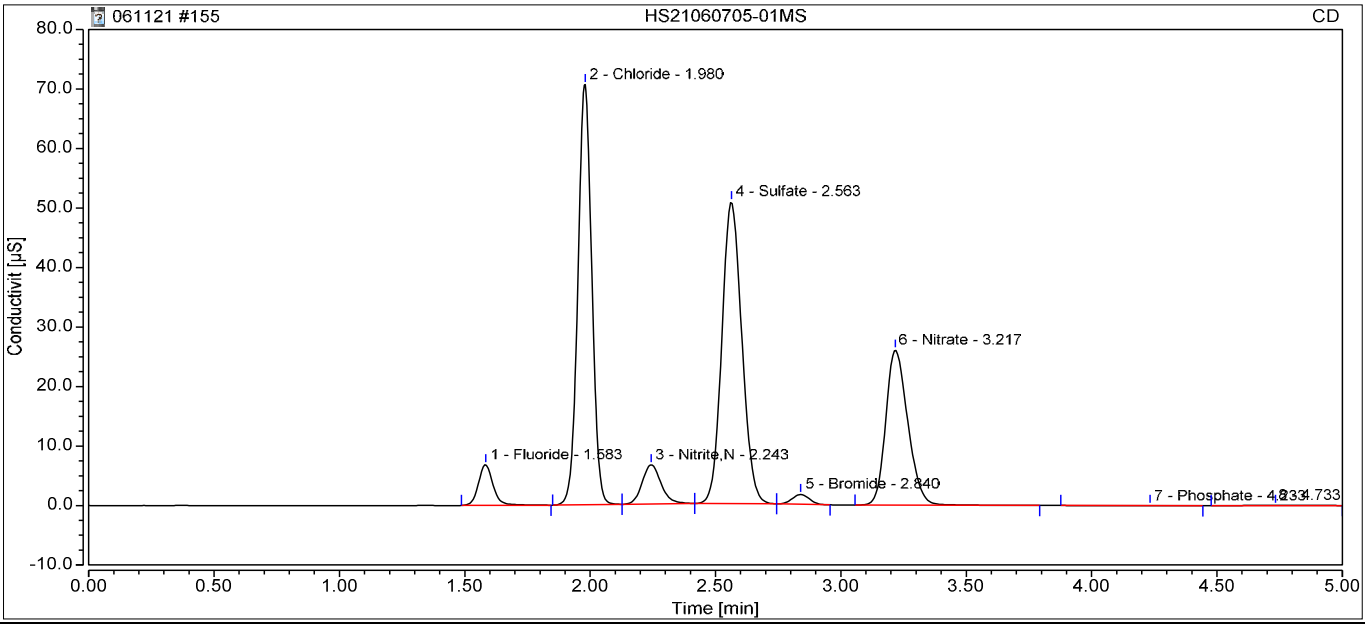
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.033	0.1568	0.1568	1.0000
2	1.98	Chloride	BMB	3.366	25.2483	25.2483	1.0000
3	2.25	Nitrite,N	BMB	0.044	0.1226	0.1226	1.0000
4	2.57	Sulfate	BMB	3.953	39.6753	39.6753	1.0000
5	2.84	Bromide	BMB	0.026	0.4292	0.4292	1.0000
6	3.22	Nitrate	BMB	2.093	6.6750	6.6750	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	3.92	Phosphate	BMB	0.007	0.2070	0.2070	1.0000
Total:			**0.000**	**9.522**		**72.51**	

155 HS21060705-01MS

Sample Name:	**HS21060705-01MS**	*Injection Volume:*	**5.00**
Vial Number:	**BE2**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/12/2021 12:07**	*Sample Weight:*	**1.0000**

Run Time:



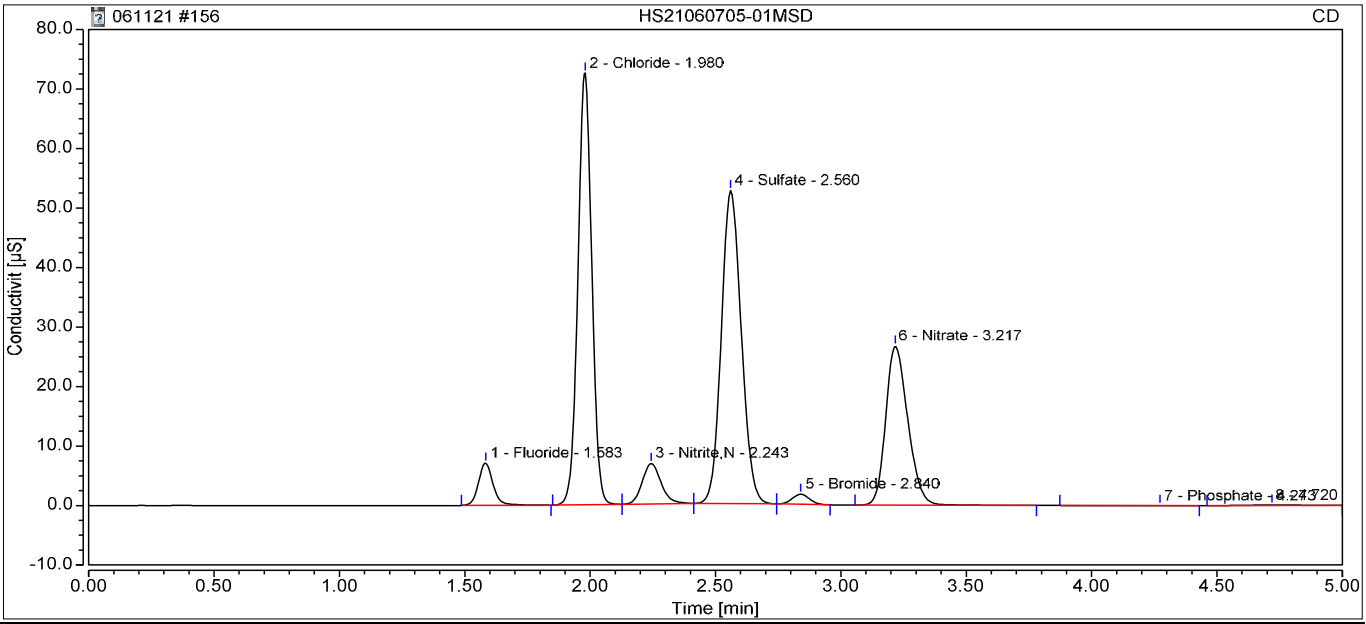
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.464	2.3176	2.3176	1.0000
2	1.98	Chloride	BMB	4.535	34.0245	34.0245	1.0000
3	2.24	Nitrite,N	BMB	0.574	1.8914	1.8914	1.0000
4	2.56	Sulfate	BMB	4.691	47.0845	47.0845	1.0000
5	2.84	Bromide	BMB	0.130	2.2144	2.2144	1.0000
6	3.22	Nitrate	BMB	2.657	8.4717	8.4717	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.23	Phosphate	BMB	0.004	0.1770	0.1770	1.0000
Total:			**0.000**	**13.055**		**96.18**	

156 HS21060705-01MSD

Sample Name:	**HS21060705-01MSD**	*Injection Volume:*	**5.00**
Vial Number:	**BE3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/12/2021 12:14**	*Sample Weight:*	**1.0000**

Run Time:



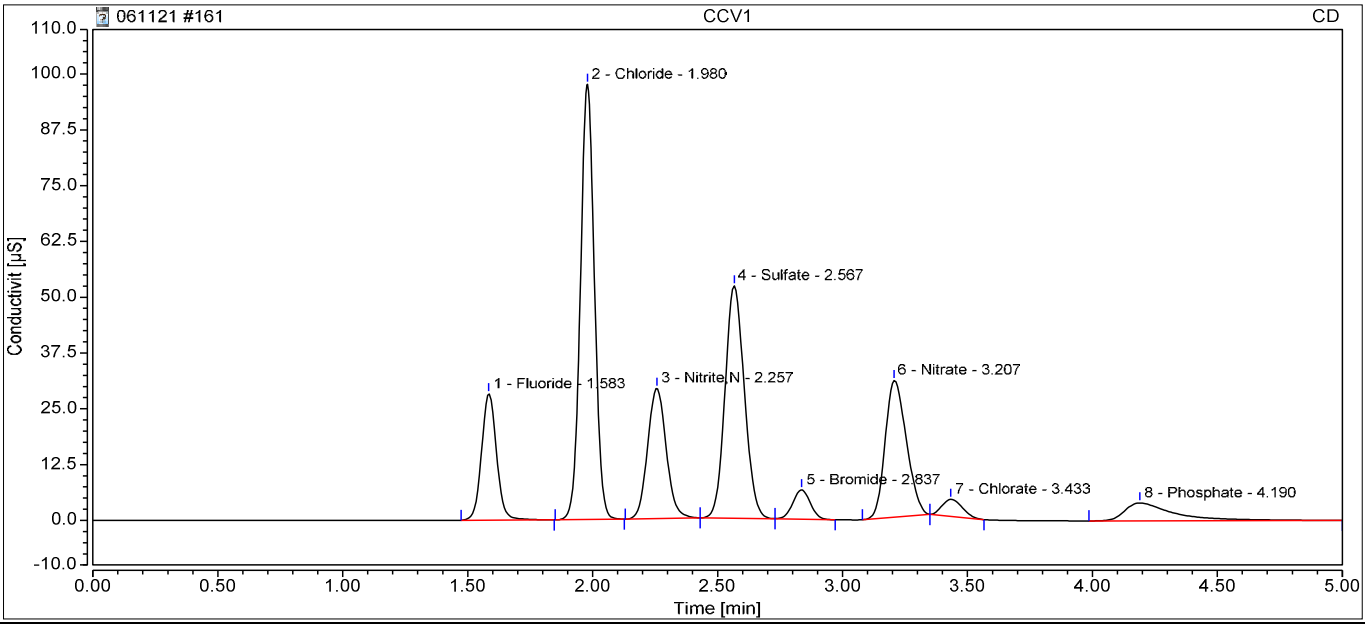
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	0.480	2.3993	2.3993	1.0000
2	1.98	Chloride	BMB	4.650	34.8929	34.8929	1.0000
3	2.24	Nitrite,N	BMB	0.589	1.9426	1.9426	1.0000
4	2.56	Sulfate	BMB	4.854	48.7274	48.7274	1.0000
5	2.84	Bromide	BMB	0.134	2.2907	2.2907	1.0000
6	3.22	Nitrate	BMB	2.731	8.7077	8.7077	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
7	4.27	Phosphate	BMB	0.003	0.1684	0.1684	1.0000
Total:			**0.000**	**13.443**		**99.13**	

161 CCV1

Sample Name:	**CCV1**	*Injection Volume:*	**5.00**
Vial Number:	**R3**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/12/2021 12:51**	*Sample Weight:*	**1.0000**

Run Time:



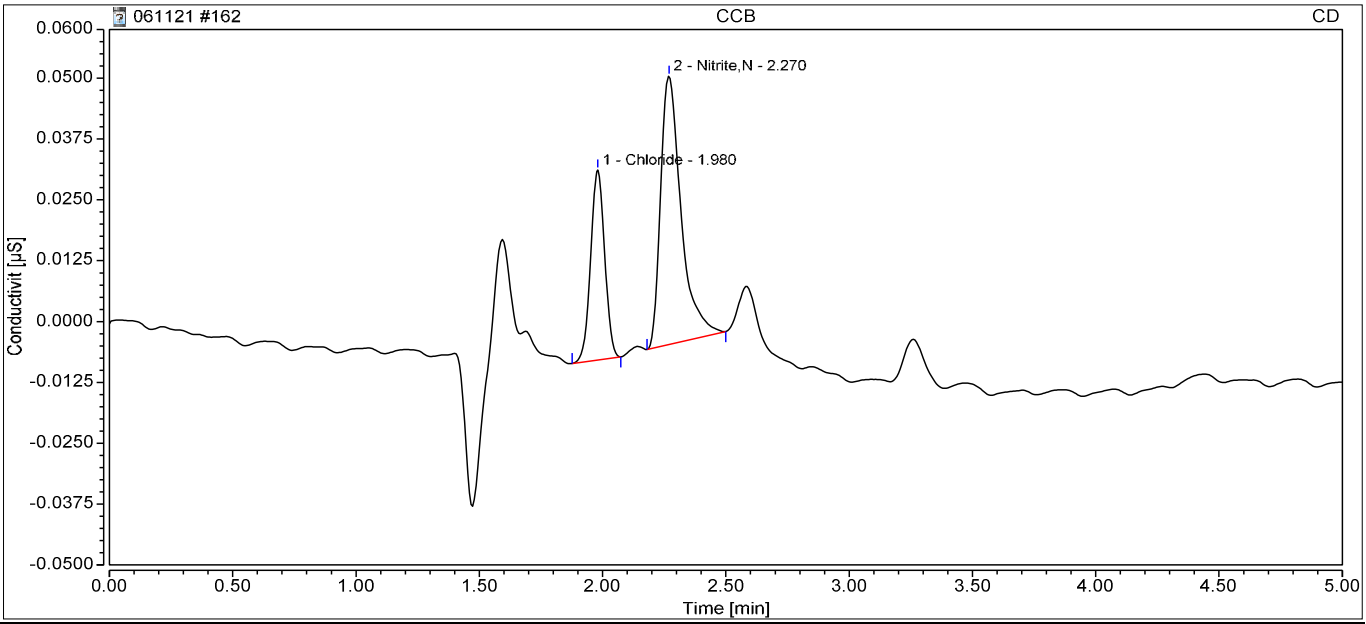
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.58	Fluoride	BMB	1.981	9.9239	9.9239	1.0000
2	1.98	Chloride	BMB	6.338	47.5611	47.5611	1.0000
3	2.26	Nitrite,N	BMB	2.518	9.0357	9.0357	1.0000
4	2.57	Sulfate	BMB	4.669	46.8638	46.8638	1.0000
5	2.84	Bromide	BMB	0.529	9.0463	9.0463	1.0000
6	3.21	Nitrate	BMB	3.021	9.6297	9.6297	1.0000
7	3.43	Chlorate	BMB	0.360	9.9088	9.9088	1.0000
8	4.19	Phosphate	BMB	0.918	9.1322	9.1322	1.0000
Total:			**0.000**	**20.332**		**151.10**	

162 CCB

Sample Name:	**CCB**	*Injection Volume:*	**5.00**
Vial Number:	**R6**	*Channel:*	**CD**
Sample Type:	**Unknown**	*Wavelength:*	**210**
Control Program:	**Anions Program ISO37mM 150mm short 0.4**	*Bandwidth:*	**n.a.**
Quantif. Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Recording Time:	**06/12/2021 12:59**	*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
1	1.98	Chloride	BMB	0.003	n.a.	n.a.	1.0000
2	2.27	Nitrite,N	BMB	0.005	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**		**0.00**	

10450 Stancliff Rd. Suite 210
Houston, TX 77099
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www.alsglobal.com

WorkOrder: HS21060460

Longhorn GW Treatment Plant Monthly Influent

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

14-Jul-2021

ALS Environmental
ALS Group USA, Corp
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Houston, TX 77099
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Table of Contents

HS21060460 Cover Page
- CoverPage
- HS21060460 Longhorn GW Treatment Plant Monthly Influent Final
  - CoverLetter
  - Sample Summary
  - CaseNarrative
  - LH18/24-SP140_060821
  - Weight/Volume Log
  - Dates Report
  - QC
  - Acronyms
  - Certifications
  - Sample Tracking Record
  - SampleReceiptCheckList
  - COC
  - HS21060460 - Sub Perch II (E2100631)
- HS21060460 - ME - ICP_W_DOD
  - Form 11 - ICPMS06 Internal Standard Association
  - Form 12 - ICPMS06_386127 Preparation Log
  - Form 13 - ICPMS06_386127 Run Log
  - Form 2 - ICPMS06_386127 CCV
  - Form 3 - ICPMS06_386127 CCB

Table of Contents (continued)

- Form 4 - ICPMS06_386127 ICSA
- Form 5A - ICPMS06_386127 MS
- Form 5B - ICPMS06_386127 PDS
- Form 7 - ICPMS06_386127 LCS
- Form 8 - ICPMS06_386127 SD

HS21060460 Wet Chem Raw Data (Cr6_W_7196_DOD)

HS21060460 - Sub Perch IV (E2100631)

- CoverLetter
- Certificate of Analysis
- Chain of Custody
- Preparation Sheets
- Analytical Results
- Accuracy and Precision
- Initial Calibration
- Chromatograms

HS21060460 Longhorn GW Treatment Plant
Monthly Influent Final

ALS WO# HS21060460

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

June 23, 2021

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS21060460**

Laboratory Results for: **Longhorn GW Treatment Plant Monthly Influent**

Dear Marcia Olive,

ALS Environmental received 1 sample(s) on Jun 09, 2021 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,



Generated By: JUMOKE.LAWAL
Ragen Giga
Project Manager

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
Work Order: HS21060460

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21060460-01	LH18/24-SP140_060821	Water		08-Jun-2021 14:00	09-Jun-2021 10:20	☐

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Monthly Influent
Work Order: HS21060460

Work Order Comments

- The analysis for Perchlorate was subcontracted to ALS Houston High-Res Lab. Final report attached

Metals by Method SW6020A

Batch ID: 167071

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW7196

Batch ID: R385273

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
Sample ID: LH18/24-SP140_060821
Collection Date: 08-Jun-2021 14:00

ANALYTICAL REPORT
WorkOrder:HS21060460
Lab ID:HS21060460-01
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 21-Jun-2021		Analyst: JHD
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	23-Jun-2021 12:04
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	23-Jun-2021 12:04
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**						Analyst: KVL
Chromium, Hexavalent	0.0100	U	0.00600	0.0100	0.0100	mg/L	1	09-Jun-2021 13:07
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: GR
Subcontract Analysis	See Attached		0	0		NA	1	23-Jun-2021 16:46

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
WorkOrder: HS21060460

Batch ID: 167071 **Start Date:** 21 Jun 2021 09:00 **End Date:** 21 Jun 2021 13:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21060460-01		10 (mL)	10 (mL)	1	120 plastic HNO3

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
WorkOrder: HS21060460

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 167071 (0)	**Test Name :** METALS BY ICPMS BY SW6020A				**Matrix:** Water	
HS21060460-01	LH18/24-SP140_060821	08 Jun 2021 14:00		21 Jun 2021 13:00	23 Jun 2021 12:04	1
Batch ID: R385273 (0)	**Test Name :** HEXAVALENT CHROMIUM BY SW7196A				**Matrix:** Water	
HS21060460-01	LH18/24-SP140_060821	08 Jun 2021 14:00			09 Jun 2021 13:07	1
Batch ID: R386175 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Water	
HS21060460-01	LH18/24-SP140_060821	08 Jun 2021 14:00			23 Jun 2021 16:46	1

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
WorkOrder: HS21060460

QC BATCH REPORT

Batch ID: 167071 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MBLK Sample ID: **MBLK-167071** Units: **mg/L** Analysis Date: **23-Jun-2021 11:33**
Client ID: Run ID: **ICPMS06_386127** SeqNo: **6150921** PrepDate: **21-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.00250	0.00500								U
Silver	0.000500	0.00500								U

LCS Sample ID: **LCS-167071** Units: **mg/L** Analysis Date: **23-Jun-2021 11:35**
Client ID: Run ID: **ICPMS06_386127** SeqNo: **6150922** PrepDate: **21-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.05395	0.00500	0.05	0	108	80 - 120				
Silver	0.05278	0.00500	0.05	0	106	85 - 116				

MS Sample ID: **HS21060495-07MS** Units: **mg/L** Analysis Date: **23-Jun-2021 11:41**
Client ID: Run ID: **ICPMS06_386127** SeqNo: **6150925** PrepDate: **21-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.05251	0.00500	0.05	0.000146	105	80 - 120				
Silver	0.0511	0.00500	0.05	-0.000003	102	85 - 116				

MSD Sample ID: **HS21060495-07MSD** Units: **mg/L** Analysis Date: **23-Jun-2021 11:43**
Client ID: Run ID: **ICPMS06_386127** SeqNo: **6150926** PrepDate: **21-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.05216	0.00500	0.05	0.000146	104	80 - 120	0.05251	0.661	20	
Silver	0.05145	0.00500	0.05	-0.000003	103	85 - 116	0.0511	0.677	20	

PDS Sample ID: **HS21060495-07PDS** Units: **mg/L** Analysis Date: **23-Jun-2021 12:10**
Client ID: Run ID: **ICPMS06_386127** SeqNo: **6151410** PrepDate: **21-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.09581	0.00500	0.1	0	95.8	80 - 120				

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
WorkOrder: HS21060460

QC BATCH REPORT

Batch ID: 167071 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

PDS Sample ID: **HS21060495-07PDS** Units: **mg/L** Analysis Date: **23-Jun-2021 11:45**
Client ID: Run ID: **ICPMS06_386127** SeqNo: **6150927** PrepDate: **21-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Silver	0.1144	0.00500	0.1	-0.000003	114	80 - 120				

SD Sample ID: **HS21060495-07SD** Units: **mg/L** Analysis Date: **23-Jun-2021 11:39**
Client ID: Run ID: **ICPMS06_386127** SeqNo: **6150924** PrepDate: **21-Jun-2021** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Selenium	0.0125	0.0250					0.000146	0	10	U
Silver	0.00250	0.0250					-0.000003	0	10	U

The following samples were analyzed in this batch: HS21060460-01

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
WorkOrder: HS21060460

QC BATCH REPORT

Batch ID: R385273 (0) **Instrument: UV-2450** **Method: HEXAVALENT CHROMIUM BY SW7196A**

MBLK Sample ID: **MBLK-R385273** Units: **mg/L** Analysis Date: **09-Jun-2021 09:30**
Client ID: Run ID: **UV-2450_385273** SeqNo: **6130228** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.0100	0.0100								U

LCS Sample ID: **LCS-R385273** Units: **mg/L** Analysis Date: **09-Jun-2021 09:30**
Client ID: Run ID: **UV-2450_385273** SeqNo: **6130227** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.251	0.0100	0.25	0	100	90 - 111				

MS Sample ID: **HS21060455-02MS** Units: **mg/L** Analysis Date: **09-Jun-2021 09:36**
Client ID: Run ID: **UV-2450_385273** SeqNo: **6130234** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.245	0.0100	0.25	0	98.0	90 - 111				

MSD Sample ID: **HS21060455-02MSD** Units: **mg/L** Analysis Date: **09-Jun-2021 09:36**
Client ID: Run ID: **UV-2450_385273** SeqNo: **6130233** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.242	0.0100	0.25	0	96.8	90 - 111	0.245	1.23	20	

The following samples were analyzed in this batch: HS21060460-01

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
WorkOrder: **HS21060460**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2020-2021	30-Jun-2021
Louisiana	03087, 2021-2022	30-Jun-2022
North Carolina	624-2021	31-Dec-2021
Oklahoma	2020-165	31-Aug-2021
Texas	T104704231-21-27	30-Apr-2022
Utah	TX026932021-10	31-Jul-2021

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
Work Order: HS21060460

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS21060460-01	LH18/24-SP140_060821	Login	6/9/2021 11:24:42 AM	JRM	MET038
HS21060460-01	LH18/24-SP140_060821	Login	6/9/2021 11:24:42 AM	JRM	Sub
HS21060460-01	LH18/24-SP140_060821	Login	6/9/2021 11:24:42 AM	JRM	WET282

ALS Houston, US Date: 23-Jun-21

Sample Receipt Checklist

Work Order ID: HS21060460 **Date/Time Received:** 09-Jun-2021 10:20

Client Name: Bhate Environmental **Received by:** Jared R. Makan

Completed By:	/S/ Jared R. Makan	09-Jun-2021 13:17	**Reviewed by:**	/S/ Ragen Giga	10-Jun-2021 18:13
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **Water** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	1.3°C UC/C	IR31
Cooler(s)/Kit(s):	47271	
Date/Time sample(s) sent to storage:	06/09/2021 13:20	

Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

bhate

1608 13th Avenue South, Suite 300
Birmingham Alabama 35205
Tel: 205-918-4000
Fax: 205-918-4050

Chain of Custody and Analytical Request

Page: ____ of ____

Project/Phase No: NWO1312.0150

COC Number(1): ____

LIMS Number: ____

Facility/Base I.D.: LHAAP

Project/Site Name: LHAAP / GWTP / MONTHLY INFLUENT

Client Name:

Collected by: Scott Beesinger

Field Sample ID (30 Characters Max)	Date Collected (dd-mmm-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	Silver Selenium	Hexavalent Chromium	Perchlorate	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
LHAAY-SP140_060821	08 Jun 2021	1400	-	N		WG	3	X	X	X				
			-											
			-											
			-											
			-											
			-											
			-											
			-											
			-											

Sample Analysis Requested (5) | Quality Assurance Samples (6)

HS21060460

Bhate Environmental Associates, Inc.

Longhorn GW Treatment Plant Monthly Influent Samp

COMMENTS: STANDARD TAT

Custody Transfers Prior to Receipt by Laboratory

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1. Scott Beesinger	6/8/21	1430	1.		
2.			2.		
3.			3.		

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: ____ Shipped ____ No.:

Method of Shipment: ____

Fed Ex ____ Airbill Number:

Analytical Lab: ALS 10450 Stancliff Rd, Suite 210 Houston, TX 77099 (281) 530-5656

ATTN: SONIA WEST Lab Recipient: Delivery Date/Time:

1.) Chain of Custody Number = date collected + custody number (e.g. 09-02-1999-01)

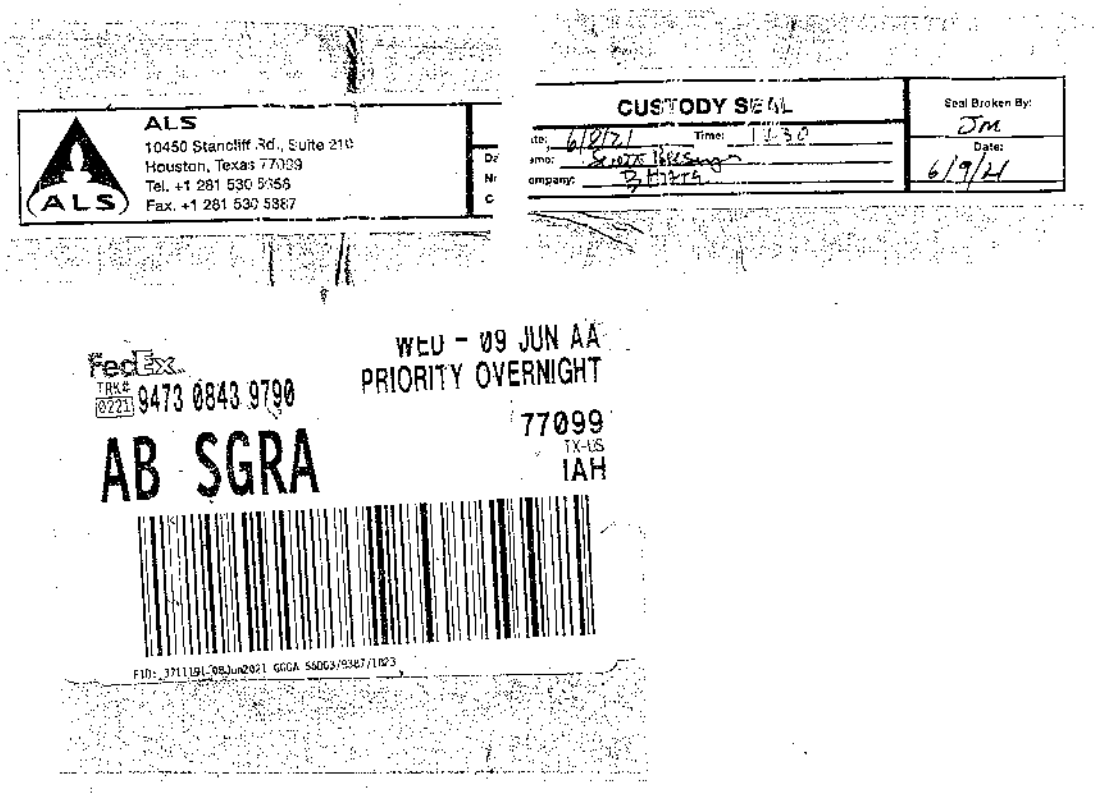
2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-t) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 10109901 in the Equipment Blank Lot Control



ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

CUSTODY SEAL
Seal Broken By:
Time:
Date:
6/9/24

FedEx
TRK# 9473 0843 9790
WED - 09 JUN AA
PRIORITY OVERNIGHT
77099
TX-US
IAH
AB SGRA

June 23, 2021 Service Request No:E2100631

Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099

Laboratory Results for: HS21060460

Dear Ragen,

Enclosed are the results of the sample(s) submitted to our laboratory June 10, 2021
For your reference, these analyses have been assigned our service request number **E2100631.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



Corey Grandits
Project Manager

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Houston	**Service Request No.:**	E2100631
Project:	HS21060460	**Date Received:**	06/10/21
Sample Matrix:	W		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 06/10/21.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2100354: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in addition to a MS/MSD for this extraction batch. The LCS and DLCS recoveries are within QC limits. MS/MSD was performed on an unrelated sample.

DoD certification is held for the method/matrix/analytes provided in this report.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2100631
Project: HS21060460

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100631-001	LH18/24-SP140_060821	6/8/2021	1400

Service Request Summary

Folder #: **E2100631**
Client Name: ALS Environmental - US
Project Name: HS21060460
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/10/21
Internal Due Date: 6/23/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21060460
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8C
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100631-001	LH18/24-SP140_060821	Water	06/08/21 1400	**IV**

Service Request Summary

Folder #: **E2100631**
Client Name: ALS Environmental - US
Project Name: HS21060460
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/10/21
Internal Due Date: 6/23/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21060460
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8C
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	1	Level II due 6/23,IV due 6/30

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	Internal standard not within the specified limits. See case narrative.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.
M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.

Data Qualifiers

Lab Standard

O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

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ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-2020	6/30/2021
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352-2020	7/31/2021
Louisiana Department of Environmental Quality	03087-2021	6/30/2022
Louisiana Department of Environmental Quality	03087-2020	6/30/2021
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Maryland Department of the Environment	343-2020	6/30/2021
Minnesota Department of Health	2021671	12/31/2021
Nevada Department of Concervation and Natural Resources	TX026932021-4	7/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
New Jersey Department of Environmental Protection	TX008	6/30/2021
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	014	6/30/2021
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022
Utah Department of Health Environmental Laboratory Certification	TX026932021-10	7/31/2021

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

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:** **16273**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Ragen Giga
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RagenP.Giga@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:	HS21060460
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21060460-01**	**LH18/24-SP140_060821**	**Water**	**08 Jun 2021 14:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			23 Jun 2021

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: _____

Cooler ID(s): _____ Temperature(s): _____

Cooler Receipt Form

Project Chemist CG

Client/Project ALS-H

Thermometer ID IR31

Date/Time Received: 6/10/21 Initials: CG Date/Time Logged in: 6/10/21 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ ALS Courier ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No If yes, how many and where?

Were they intact? ○ Yes ○ No ☒ N/A

Were they signed and dated? ○ Yes ○ No ☒ N/A

4. Packing Material: ○ Inserts ☒ Baggies ○ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		6/10/21	0800	CG	0.6	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No

10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 381265 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 6/14/21 09:59

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100608-001	LH18/24-SP650_060221_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2100629-001	LH18/24-SP650_060821_BIX	.01	6850/ClO4 DOD			Water	10mL	
3	E2100630-001	LH18/24-SP650_060821_BIX	.01	6850/ClO4 DOD			Water	10mL	
4	E2100631-001	LH18/24-SP140_060821	.01	6850/ClO4 DOD			Water	10mL	
5	E2100632-001	126_060821	.01	6850/ClO4 DOD			Water	10mL	
6	E2100632-002	102_060821	.01	6850/ClO4 DOD			Water	10mL	
7	E2100632-003	18CPTMW03SW_060821	.01	6850/ClO4 DOD			Water	10mL	
8	E2100632-004	18CPTMW22DW_060821	.01	6850/ClO4 DOD			Water	10mL	
9	E2100632-005	18CPTMW22R_060821	.01	6850/ClO4 DOD			Water	10mL	
10	E2100632-006	18CPTMW22SW_060821	.01	6850/ClO4 DOD			Water	10mL	
11	E2100632-007	MW20_060821	.01	6850/ClO4 DOD			Water	10mL	
12	EQ2100354-01	MB		6850/ClO4 DOD			Liquid	10mL	
13	EQ2100354-02	LCS		6850/ClO4 DOD			Liquid	10mL	
14	EQ2100354-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
15	EQ2100354-04	MW20_060821 MS	.01	6850/ClO4 DOD			Liquid	10mL	
16	EQ2100354-05	MW20_060821 DMS	.01	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Sodium Perchlorate 1 ug/mL (IS) (18-O) as CLO4 Inventory ID 214765 Logbook Ref: Sodium Perchlorate Expires On: 12/11/2022

E2100608-001	100.00µL	E2100629-001	100.00µL	E2100630-001	100.00µL	E2100631-001	100.00µL	E2100632-001	100.00µL	E2100632-002	100.00µL
E2100632-003	100.00µL	E2100632-004	100.00µL	E2100632-005	100.00µL	E2100632-006	100.00µL	E2100632-007	100.00µL	EQ2100354-01	100.00µL
EQ2100354-02	100.00µL	EQ2100354-03	100.00µL	EQ2100354-04	100.00µL	EQ2100354-05	100.00µL				

Name: Perchlorate Intermediate Stock1 Inventory ID 217422 Logbook Ref: Perchlorate Expires On: 11/26/2021

EQ2100354-02	1.00µL	EQ2100354-03	1.00µL	EQ2100354-04	1.00µL	EQ2100354-05	1.00µL

Preparation Steps

Step: Preparation
Started: 6/14/21 09:59
Finished: 6/14/21 11:00
By: GRIVERA
Comments

Preparation Information Benchsheet

Prep Run#: 381265
Team: Semivoa GCMS/GRIVERA

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 6/14/21 09:59

Comments: _____

Reviewed By: GR Date: 6/14/21

Chain of Custody

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Extracts Examined
Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Collected:**	6/ 8/21 1400
Sample Matrix:	Water	**Date Received:**	6/10/21
Sample Name:	LH18/24-SP140_060821	**Units:**	µg/L
Lab Code:	E2100631-001	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**7960**		100	50.0	25.0	1000	6/14/21	6/22/21 19:34	381265	728385	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100354-01	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/14/21	6/15/21 17:52	381265	727655	

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460
Sample Matrix: Water

Service Request: E2100631
Date Analyzed: 6/15/21

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: As Received

Extraction Lot: 381265

	Lab Control Sample EQ2100354-02			Duplicate Lab Control Sample EQ2100354-03				
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.117	0.100	117	0.119	0.100	119	84 - 119	2	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100354-02	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.117**		0.100	0.0500	0.0250	1	6/14/21	6/15/21 18:00	381265	727655	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100354-03	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.119**		0.100	0.0500	0.0250	1	6/14/21	6/15/21 18:09	381265	727655	

HS21060460 - ME - ICP_W_DOD

ALS WO# HS21060460

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
WorkOrder: HS21060460

Instrument:ICPMS06

Mass	Analyte	Assoc Int Standard 1	Assoc Int Standard 2	Mode
9	Beryllium	Lithium		Ar
11	Boron	Lithium		Ar
23	Sodium	Germanium		ArHe
24	Magnesium	Germanium		ArHe
27	Aluminum	Germanium		ArHe
39	Potassium	Germanium		ArHe
44	Calcium	Germanium		Ar
47	Titanium	Germanium		Ar
51	Vanadium	Germanium		ArHe
52	Chromium	Germanium		ArHe
55	Manganese	Germanium		ArHe
56	Iron	Germanium		ArHe
59	Cobalt	Germanium		ArHe
60	Nickel	Germanium		ArHe
63	Copper	Germanium		ArHe
66	Zinc	Germanium		ArHe
75	Arsenic	Germanium		ArHe
82	Selenium	Germanium		Ar
88	Strontium	Indium		Ar
95	Molybdenum	Indium		Ar
105	Palladium	Germanium		Ar
107	Silver	Indium		Ar
114	Cadmium	Indium		Ar
118	Tin	Indium		Ar
121	Antimony	Germanium		ArHe
137	Barium	Indium		Ar
205	Thallium	Bismuth		Ar
208	Lead	Bismuth		Ar

FORM 12 - PREPARATION LOG

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
WorkOrder: HS21060460
Start Date: 21-Jun-2021 09:00 End Date: 21-Jun-2021 13:00

Batch ID: 167071
Prep Code: 3010A
Method: SW3010A
Technician:

SampID	ClientID	Matrix	Init Wt	Init Vol	FinalVol (mL)	PrepFac
HS21060460-01	LH18/24-SP140_060821	Water		10	10	1
HS21060495-07MS				10	10	1
HS21060495-07MSD				10	10	1
HS21060495-07PDS				10	10	1
HS21060495-07SD				10	10	1
LCS-167071				10	10	1
MBLK-167071				10	10	1

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
WorkOrder: HS21060460
Start Date: 23-Jun-2021 End Date: 23-Jun-2021

Run ID:ICPMS06_386127
Instrument:ICPMS06
Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS06_386127_Tune	1	23-Jun-2021 00:00	ICPMS06_386127_Tune_1	
CAL BLK	1	23-Jun-2021 10:49	010CALB.d_6150890	AG SE
2/10/200	1	23-Jun-2021 10:51	011CALS.d_6150891	AG SE
5/25/500	1	23-Jun-2021 10:53	012CALS.d_6150892	AG SE
10/50/100	1	23-Jun-2021 10:55	013CALS.d_6150893	AG SE
100/500/10K	1	23-Jun-2021 10:57	014CALS.d_6150894	AG SE
200/1000/20K	1	23-Jun-2021 10:59	015CALS.d_6150895	AG SE
ICV	1	23-Jun-2021 11:12	017_ICV.d_6150897	AG SE
ICB	1	23-Jun-2021 11:14	018_ICB.d_6150898	AG SE
LLICV2	1	23-Jun-2021 11:16	019LCV2.d_6150899	AG SE
LLICV5	1	23-Jun-2021 11:18	020LCV5.d_6150900	AG SE
ICSA	1	23-Jun-2021 11:20	021ICSA.d_6150901	AG SE
ICSAB	1	23-Jun-2021 11:22	022ICSB.d_6150902	AG SE
CCV 1	1	23-Jun-2021 11:27	024_CCV.d_6150918	AG SE
CCB 1	1	23-Jun-2021 11:31	026_CCB.d_6150920	AG SE
MBLK-167071	1	23-Jun-2021 11:33	027SMPL.d_6150921	AG SE
LCS-167071	1	23-Jun-2021 11:35	028SMPL.d_6150922	AG SE
ZZZZZZSD	5	23-Jun-2021 11:39	030SMPL.d_6150924	AG SE
ZZZZZZMS	1	23-Jun-2021 11:41	031SMPL.d_6150925	AG SE
ZZZZZZMSD	1	23-Jun-2021 11:43	032SMPL.d_6150926	AG SE
ZZZZZZPDS	1	23-Jun-2021 11:45	033SMPL.d_6150927	AG
CCV 2	1	23-Jun-2021 11:53	037_CCV.d_6150931	AG SE
CCB 2	1	23-Jun-2021 11:55	038_CCB.d_6150932	AG SE
LH18/24-SP140_060821	1	23-Jun-2021 12:04	042SMPL.d_6151407	AG SE
LCS-167071	1	23-Jun-2021 12:09	044SMPL.d_6151409	
ZZZZZZPDS	1	23-Jun-2021 12:10	045SMPL.d_6151410	SE
CCV 3	1	23-Jun-2021 12:19	049_CCV.d_6151414	AG SE
CCB 3	1	23-Jun-2021 12:21	050_CCB.d_6151415	AG SE
CCV 4	1	23-Jun-2021 12:43	061_CCV.d_6151419	AG SE
CCB 4	1	23-Jun-2021 12:45	062_CCB.d_6151420	AG SE
CCB 5	1	23-Jun-2021 15:25	130_CCB.d_6152256	AG SE
CCV 5	1	23-Jun-2021 15:27	131_CCV.d_6152257	AG SE
CCV 6	1	23-Jun-2021 16:07	142_CCV.d_6152268	AG SE
CCB 6	1	23-Jun-2021 16:08	143_CCB.d_6152269	AG SE

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
WorkOrder: HS21060460

Run ID: ICPMS06_386127
Instrument: ICPMS06
Method: SW6020A

ICV	Date: 23-Jun-2021 11:12		Seq: 6150897	ICV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	101.492	101	90-110	
Silver	100	103.283	103	90-110	

CCV1	Date: 23-Jun-2021 11:27		Seq: 6150918	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	101.678	102	90-110	
Silver	100	100.72	101	90-110	

CCV2	Date: 23-Jun-2021 11:53		Seq: 6150931	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	101.944	102	90-110	
Silver	100	100.139	100	90-110	

CCV3	Date: 23-Jun-2021 12:19		Seq: 6151414	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	98.974	99	90-110	
Silver	100	101.006	101	90-110	

CCV4	Date: 23-Jun-2021 12:43		Seq: 6151419	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	100.56	101	90-110	
Silver	100	99.468	100	90-110	

CCV5	Date: 23-Jun-2021 15:27		Seq: 6152257	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	100.114	100	90-110	
Silver	100	103.117	103	90-110	

CCV6	Date: 23-Jun-2021 16:07		Seq: 6152268	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Selenium	100	101.784	102	90-110	
Silver	100	102.651	103	90-110	

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
WorkOrder: HS21060460

Run ID: ICPMS06_386127
Instrument: ICPMS06
Method: SW6020A

ICB	Date: 23-Jun-2021 11:14		Seq: 6150898	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	
CCB1	Date: 23-Jun-2021 11:31		Seq: 6150920	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
MBLK-167071	Date: 23-Jun-2021 11:33		Seq: 6150921	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	
CCB2	Date: 23-Jun-2021 11:55		Seq: 6150932	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
CCB3	Date: 23-Jun-2021 12:21		Seq: 6151415	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
CCB4	Date: 23-Jun-2021 12:45		Seq: 6151420	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
CCB5	Date: 23-Jun-2021 15:25		Seq: 6152256	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
CCB6	Date: 23-Jun-2021 16:08		Seq: 6152269	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
WorkOrder: HS21060460

Run ID: ICPMS06_386127
Instrument: ICPMS06
Method: SW6020A

ICSA	Date: 23-Jun-2021 11:20	Seq: 6150901	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Selenium		0.221	0	
Silver		0.287	0	

ICSAB	Date: 23-Jun-2021 11:22	Seq: 6150902	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Selenium	100	103.2	103	
Silver	100	96.64	96.6	

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
WorkOrder: HS21060460

Date Analyzed: 23-Jun-2021 11:43
Date Extracted: 21-Jun-2021 13:00
Units: ug/L

Matrix Spike: HS21060495-07MS
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Selenium	5.000	52.51	50.00	105	52.16	50.00	104	80-120	0.661	20
Silver	5.000	51.10	50.00	102	51.45	50.00	103	85-116	0.677	20

Form 5B - Post Digest Sample Recovery

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
WorkOrder: HS21060460

Date Analyzed: 23-Jun-2021 11:45
Date Extracted: 21-Jun-2021 13:00
Units: ug/L

Lab Sample ID: HS21060495-07PDS
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	PDS Result	Spike Amount	% Rec	% Rec Limits
Silver	0	114.4	100	114	80-120
Selenium	0	95.81	100	96	80-120

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
WorkOrder: HS21060460

Date Analyzed: 23-Jun-2021 11:35
Date Extracted: 21-Jun-2021 13:00
Units: ug/L

Lab Sample ID: LCS-167071 Analysis Method: SW6020A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Selenium	50	53.95	108	80-120
Silver	50	52.78	106	85-116

Form 8 - ICP Serial Dilutions

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent
WorkOrder: HS21060460

Date Analyzed: 23-Jun-2021 11:39
Date Extracted: 21-Jun-2021 13:00
Units: ug/L

Lab Sample ID: HS21060495-07SD
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	C	SD Result	C	RPD	Q
Selenium	0	U	0	U	0	
Silver	0	U	0	U	0	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	017_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T11:12:09-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	105.421	4.308	1295238	1.22	100	105.4	90	110	
Be	9	1	No Gas	105.102	2.311	299335	0.68	100	105.1	90	110	
V	51	2	He	102.071	0.603	424068	0.14	100	102.1	90	110	
Cr	52	2	He	101.436	0.589	500583	0.45	100	101.4	90	110	
Fe	56	2	He	10179.304	0.261	45863406	0.47	10000	101.8	90	110	
Se	78	2	He	101.492	2.714	6133	2.20	100	101.5	90	110	
As	75	2	He	101.057	0.779	68084	1.20	100	101.1	90	110	
Ca	44	2	He	10049.490	0.764	251656	1.07	10000	100.5	90	110	
Na	23	2	He	10199.242	1.777	7782449	2.38	10000	102.0	90	110	
Mg	24	2	He	10374.292	0.815	4652761	1.25	10000	103.7	90	110	
K	39	2	He	10219.714	1.690	4672808	2.01	10000	102.2	90	110	
Mn	55	2	He	102.452	0.671	364351	0.09	100	102.5	90	110	
Co	59	2	He	99.958	0.692	746183	0.48	100	100.0	90	110	
Ni	60	2	He	104.629	1.254	189665	1.15	100	104.6	90	110	
Cu	63	2	He	102.541	0.508	500712	0.54	100	102.5	90	110	
Zn	66	2	He	102.667	0.437	97985	0.37	100	102.7	90	110	
Al	27	2	He	106.344	3.260	27654	3.34	100	106.3	90	110	
B	11	1	No Gas	514.612	2.788	887534	0.53	500	102.9	90	110	
Al	27	1	No Gas	106.740	0.844	1191413	0.10	100	106.7	90	110	
Si	28	1	No Gas	523.127	1.039	2997086	1.59	500	104.6	90	110	
Ag	107	1	No Gas	103.283	0.803	1378381	0.56	100	103.3	90	110	
Cd	111	1	No Gas	100.641	0.693	272421	0.40	100	100.6	90	110	
Sr	88	1	No Gas	102.925	1.924	2386033	1.11	100	102.9	90	110	
Mo	95	1	No Gas	97.907	1.065	473659	0.83	100	97.9	90	110	
Sn	118	1	No Gas	97.642	0.664	843036	0.43	100	97.6	90	110	
Sb	121	1	No Gas	101.215	0.689	1228756	1.40	100	101.2	90	110	
Ba	137	1	No Gas	102.036	0.880	423437	1.78	100	102.0	90	110	
Tl	205	1	No Gas	104.516	0.235	3478538	0.33	100	104.5	90	110	
Tl	203	1	No Gas	102.288	0.956	1426855	0.81	100	102.3	90	110	
Pb	208	1	No Gas	100.694	1.010	4666221	0.77	100	100.7	90	110	
U	238	1	No Gas	98.168	1.850	5006519	1.68	100	98.2	90	110	
Ca	43	2	He	9906.303	2.314	14434	2.18	10000	99.1	90	110	
Sb	121	2	He	100.314	0.533	557565	0.55	100	100.3	90	110	
Ti	47	2	He	99.948	1.357	15392	1.39	100	99.9	90	110	
Cu	63	1	No Gas	100.078	0.644	891342	0.09	100	100.1	90	110	
Se	82	1	No Gas	102.826	2.303	14919	1.59	100	102.8	90	110	

QC ISTD Table

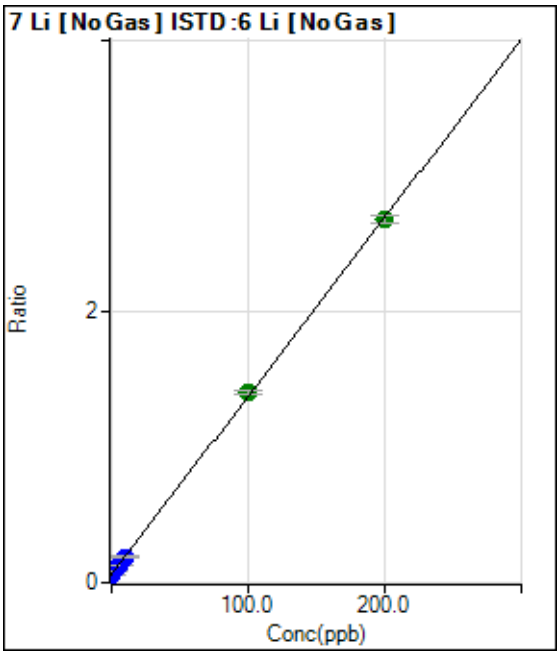
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	894210	2.97	974206	91.79	70	120	
Ge	72	2	He	521322	0.66	536534	97.16	70	120	
Ge	72	1	No Gas	1823844	0.73	1897028	96.14	70	120	
In	115	1	No Gas	2443274	0.93	2503440	97.60	70	120	
Bi	209	1	No Gas	2909237	0.29	2946615	98.73	70	120	

Calibration for 017_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\062321A.b\
Analysis File: 062321A.batch.bin
DA Date-Time: 6/23/2021 8:14:31 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	010CALB.d	CAL BLK	6/23/2021 10:49:41 AM
2	011CALS.d	2/10/200	6/23/2021 10:51:41 AM
3	012CALS.d	5/25/500	6/23/2021 10:53:40 AM
4	013CALS.d	10/50/100	6/23/2021 10:55:39 AM
5	014CALS.d	100/500/10K	6/23/2021 10:57:38 AM
6	015CALS.d	200/1000/20K	6/23/2021 10:59:32 AM

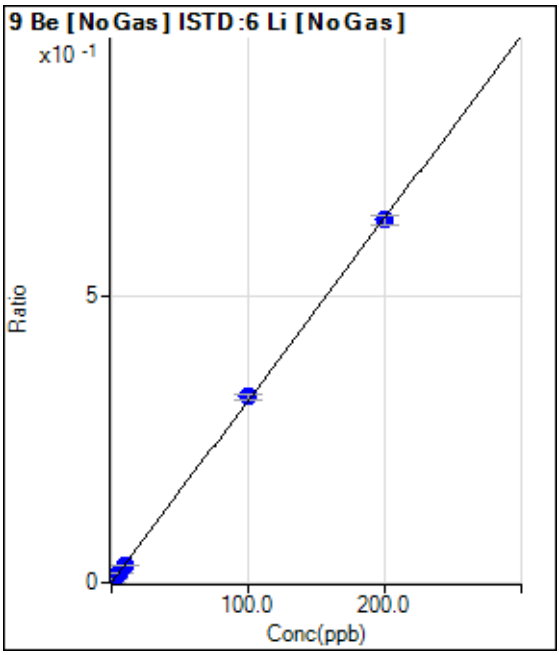
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	59162.01	0.0607	P	1.9
2	☐	2.000	1.969	83822.72	0.0867	P	0.7
3	☐	5.000	5.029	121577.86	0.1270	P	2.1
4	☐	10.000	9.934	182721.60	0.1916	P	1.7
5	☐	100.000	102.390	1281756.54	1.4097	A	1.9
6	☐	200.000	198.808	2416219.75	2.6800	A	2.2

y = 0.0132 * x + 0.0607
R = 0.9999
DL = 0.2697
BEC = 4.61

Weight: <None>
Min Conc: <None>

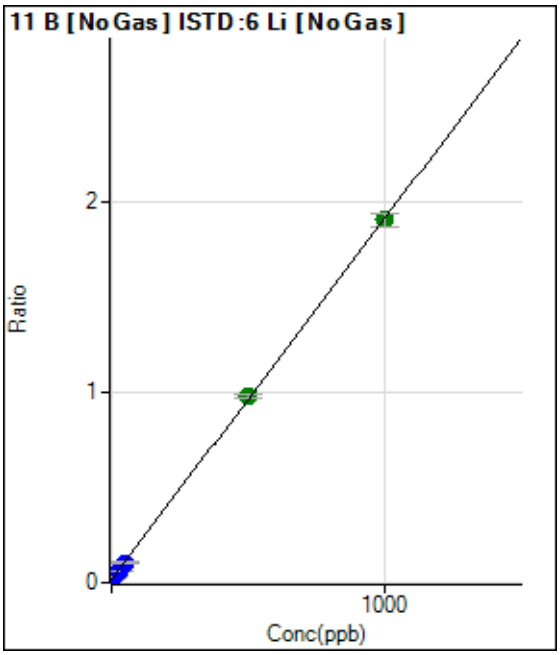


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	62.4
2	☐	2.000	1.897	5862.94	0.0061	P	0.3
3	☐	5.000	4.962	15153.22	0.0158	P	2.4
4	☐	10.000	9.864	29985.31	0.0314	P	2.2
5	☐	100.000	101.928	295272.17	0.3248	P	2.7
6	☐	200.000	199.045	571702.83	0.6342	P	2.5

y = 0.0032 * x + 1.7139E-005
R = 0.9999
DL = 0.01008
BEC = 0.005379

Weight: <None>
Min Conc: <None>

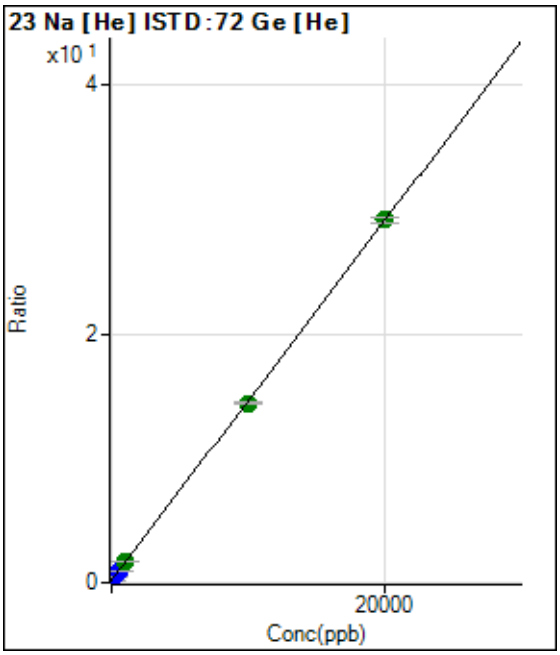
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15935.79	0.0164	P	1.9
2	☐	10.000	8.947	32243.63	0.0333	P	0.5
3	☐	25.000	23.332	58056.04	0.0606	P	2.3
4	☐	50.000	46.998	100649.34	0.1056	P	3.2
5	☐	500.000	506.833	889543.71	0.9783	A	1.9
6	☐	1000.000	996.786	1719882.74	1.9082	A	3.4

y = 0.0019 * x + 0.0164
R = 1.0000
DL = 0.4786
BEC = 8.619

Weight: <None>
Min Conc: <None>

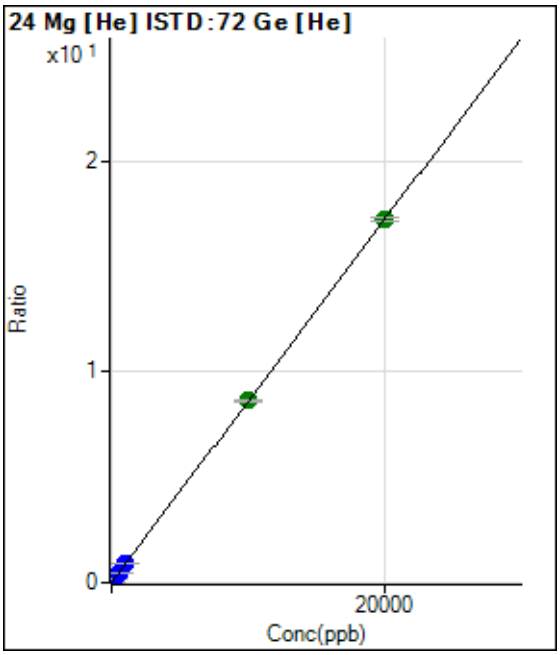


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	98807.94	0.1842	P	0.9
2	☐	200.000	210.013	260753.00	0.4877	P	1.2
3	☐	500.000	519.771	500841.03	0.9355	P	0.6
4	☐	1000.000	1040.013	896989.75	1.6875	A	4.5
5	☐	10000.000	9872.136	7620871.97	14.4544	A	0.5
6	☐	20000.000	20061.337	14862201.03	29.1829	A	1.9

y = 0.0014 * x + 0.1842
R = 1.0000
DL = 3.277
BEC = 127.4

Weight: <None>
Min Conc: <None>

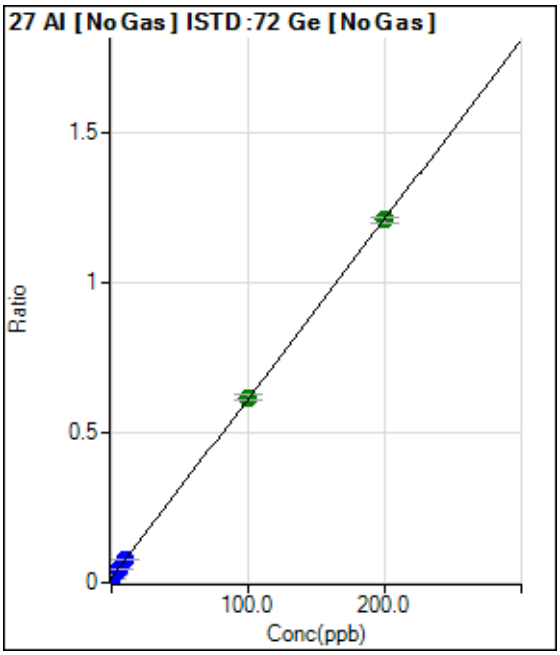
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	440.01	0.0008	P	17.2
2	☐	200.000	210.943	97448.80	0.1823	P	1.1
3	☐	500.000	524.645	242054.74	0.4521	P	0.5
4	☐	1000.000	1042.137	476962.39	0.8973	P	1.9
5	☐	10000.000	10013.878	4541920.45	8.6148	A	1.2
6	☐	20000.000	19990.228	8757767.99	17.1964	A	1.1

y = 8.6020E-004 * x + 8.2007E-004
R = 1.0000
DL = 0.4908
BEC = 0.9534

Weight: <None>
Min Conc: <None>

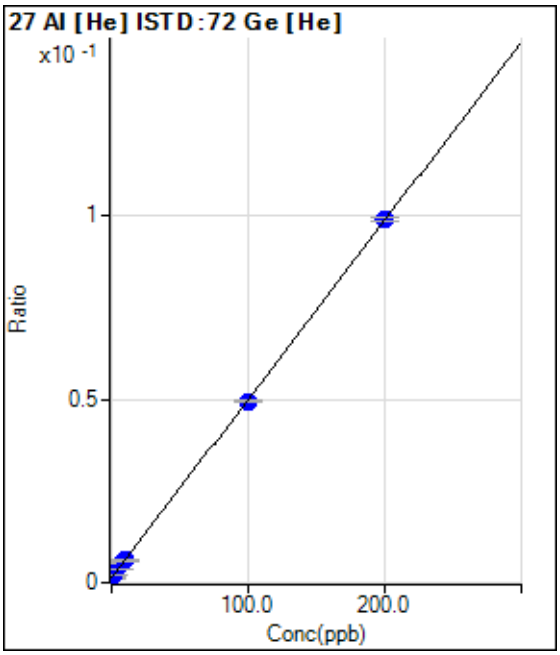


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	28031.92	0.0148	P	1.5
2	☐	2.000	2.145	51856.64	0.0276	P	2.9
3	☐	5.000	5.236	86370.46	0.0461	P	2.8
4	☐	10.000	10.226	141783.25	0.0759	P	0.6
5	☐	100.000	100.740	1130678.13	0.6174	A	3.3
6	☐	200.000	199.611	2135163.46	1.2088	A	1.6

y = 0.0060 * x + 0.0148
R = 1.0000
DL = 0.1088
BEC = 2.47

Weight: <None>
Min Conc: <None>

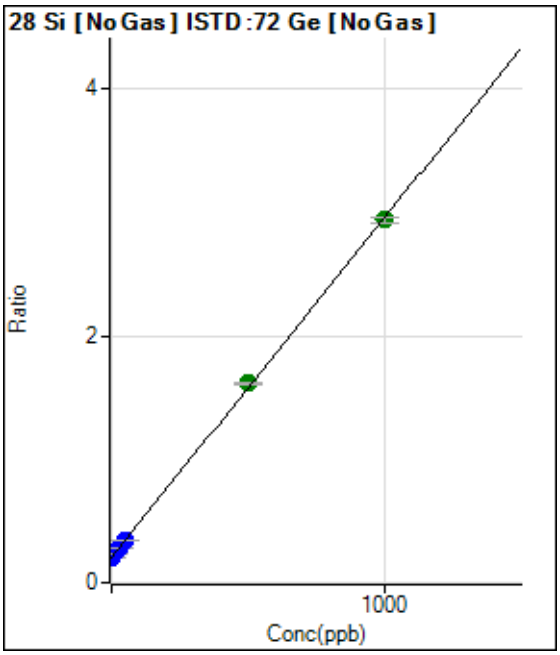
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.36	0.0013	P	19.5
2	☐	2.000	1.986	1216.75	0.0023	P	6.9
3	☐	5.000	6.784	2468.13	0.0046	P	32.9
4	☐	10.000	9.941	3267.13	0.0061	P	7.3
5	☐	100.000	98.959	26074.79	0.0495	P	1.8
6	☐	200.000	200.479	50337.96	0.0988	P	1.2

y = 4.8649E-004 * x + 0.0013
R = 0.9999
DL = 1.575
BEC = 2.693

Weight: <None>
Min Conc: <None>

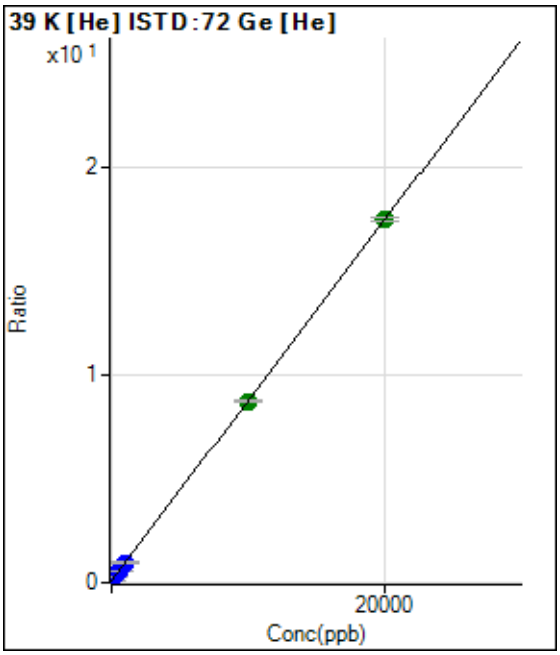


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	389258.18	0.2052	P	0.9
2	☐	10.000	11.407	444363.22	0.2366	P	1.4
3	☐	25.000	26.885	522963.89	0.2791	P	3.1
4	☐	50.000	51.104	645354.63	0.3457	P	0.8
5	☐	500.000	512.533	2956504.23	1.6141	A	0.8
6	☐	1000.000	993.617	5186966.90	2.9365	A	1.3

y = 0.0027 * x + 0.2052
R = 0.9999
DL = 2.106
BEC = 74.65

Weight: <None>
Min Conc: <None>

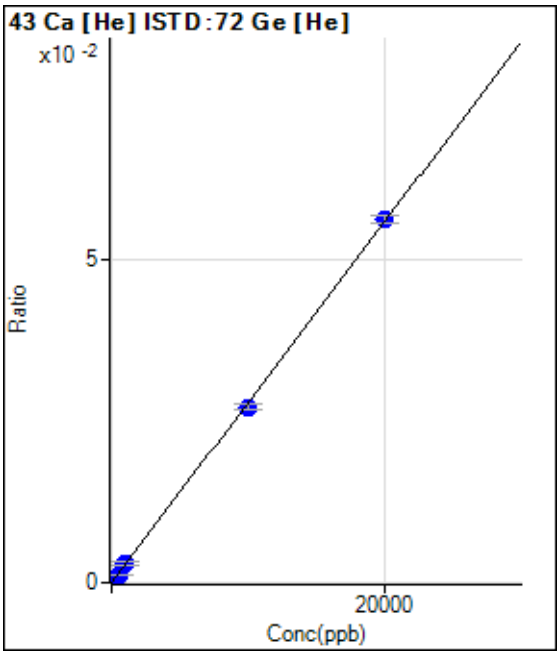
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	45542.34	0.0849	P	2.9
2	☐	200.000	204.631	140421.43	0.2627	P	1.1
3	☐	500.000	514.421	284697.19	0.5318	P	1.2
4	☐	1000.000	1014.813	513765.27	0.9665	P	1.3
5	☐	10000.000	9959.139	4606282.33	8.7368	A	1.3
6	☐	20000.000	20019.283	8900407.37	17.4764	A	1.0

y = 8.6874E-004 * x + 0.0849
R = 1.0000
DL = 8.463
BEC = 97.71

Weight: <None>
Min Conc: <None>

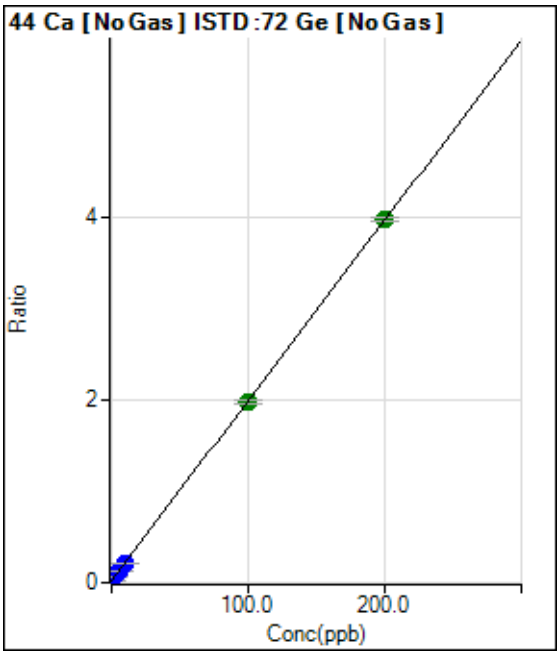


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	26.67	0.0000	P	43.6
2	☐	200.000	205.711	333.34	0.0006	P	9.7
3	☐	500.000	428.454	666.69	0.0012	P	13.8
4	☐	1000.000	1065.176	1606.79	0.0030	P	22.6
5	☐	10000.000	9747.494	14364.39	0.0272	P	3.2
6	☐	20000.000	20124.726	28620.24	0.0562	P	2.1

y = 2.7901E-006 * x + 4.9746E-005
R = 0.9999
DL = 23.35
BEC = 17.83

Weight: <None>
Min Conc: <None>

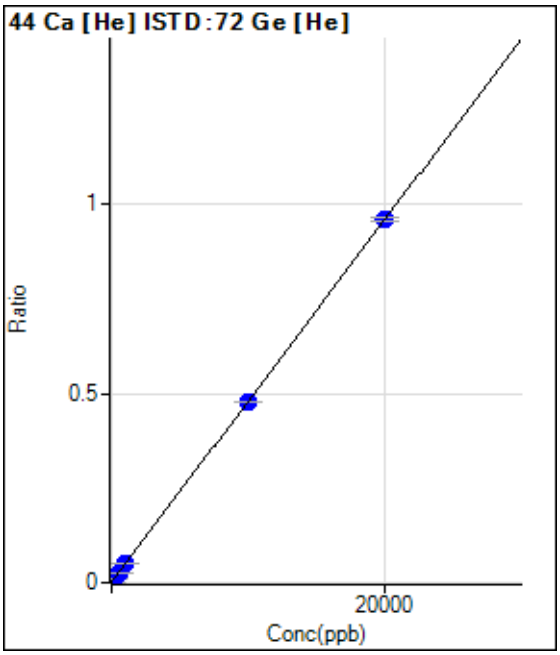
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40804.19	0.0215	P	3.9
2	☐	2.000	2.017	115034.10	0.0612	P	2.4
3	☐	5.000	5.031	226029.55	0.1206	P	2.3
4	☐	10.000	9.964	406643.11	0.2178	P	0.9
5	☐	100.000	99.392	3625517.97	1.9798	A	2.2
6	☐	200.000	200.305	7009160.73	3.9679	A	1.0

y = 0.0197 * x + 0.0215
R = 1.0000
DL = 0.1279
BEC = 1.092

Weight: <None>
Min Conc: <None>

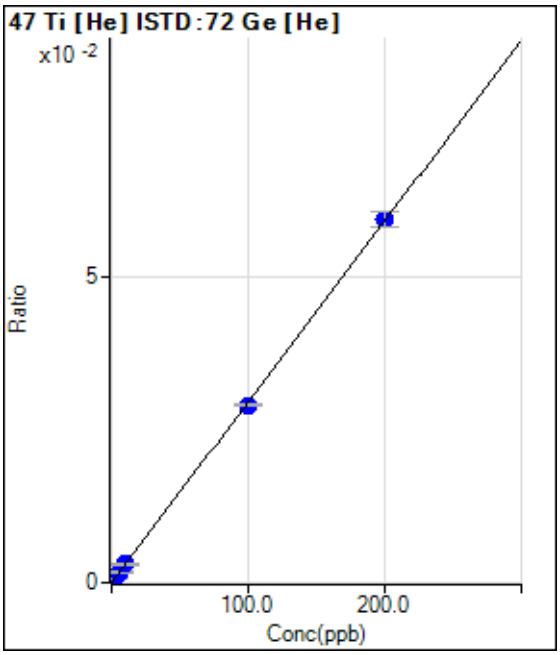


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	533.35	0.0010	P	15.6
2	☐	200.000	193.756	5494.54	0.0103	P	8.1
3	☐	500.000	507.019	13543.61	0.0253	P	1.7
4	☐	1000.000	1013.459	26352.27	0.0496	P	3.7
5	☐	10000.000	9981.664	252798.30	0.4795	P	0.3
6	☐	20000.000	20008.382	488962.86	0.9601	P	1.2

y = 4.7936E-005 * x + 9.9405E-004
R = 1.0000
DL = 9.717
BEC = 20.74

Weight: <None>
Min Conc: <None>

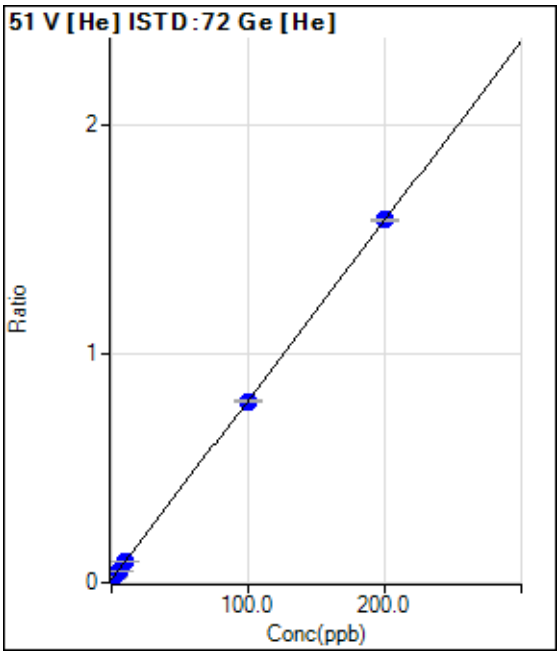
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	2.000	2.092	330.01	0.0006	P	19.9
3	☐	5.000	5.607	886.71	0.0017	P	9.7
4	☐	10.000	10.464	1643.46	0.0031	P	8.4
5	☐	100.000	98.422	15328.73	0.0291	P	2.1
6	☐	200.000	200.749	30200.42	0.0593	P	4.2

y = 2.9541E-004 * x + 0.0000E+000
R = 0.9999
DL = 0
BEC = 0

Weight: <None>
Min Conc: <None>

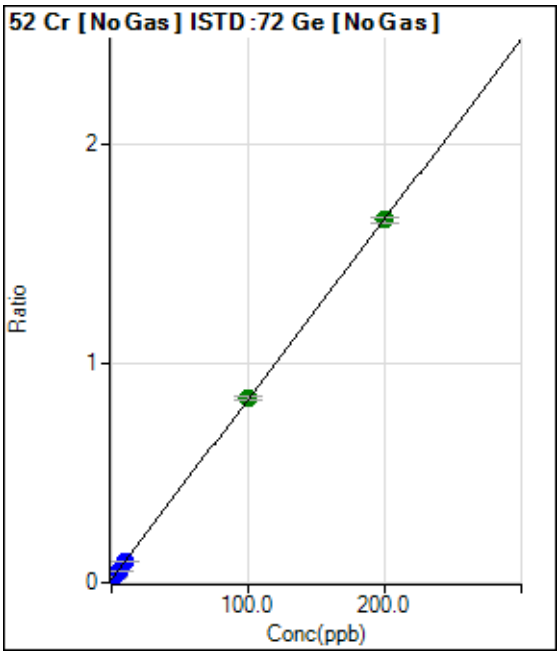


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7032.95	0.0131	P	3.2
2	☐	2.000	2.042	15568.86	0.0291	P	1.4
3	☐	5.000	4.884	27519.82	0.0514	P	1.3
4	☐	10.000	10.161	49321.59	0.0928	P	0.2
5	☐	100.000	99.172	416907.03	0.7907	P	1.0
6	☐	200.000	200.408	806984.90	1.5846	P	0.8

y = 0.0078 * x + 0.0131
R = 1.0000
DL = 0.1627
BEC = 1.672

Weight: <None>
Min Conc: <None>

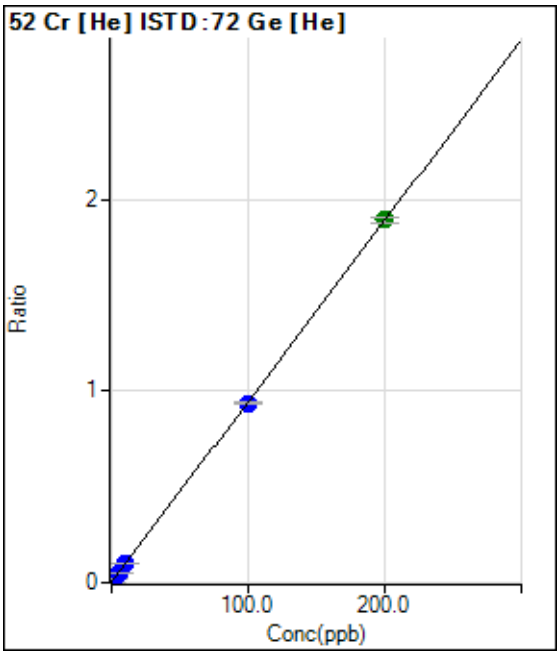
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	26876.77	0.0142	P	1.9
2	☐	2.000	1.999	57530.97	0.0306	P	1.4
3	☐	5.000	4.991	103556.61	0.0553	P	1.5
4	☐	10.000	10.084	181440.33	0.0972	P	1.4
5	☐	100.000	100.775	1545637.06	0.8439	A	1.4
6	☐	200.000	199.609	2928157.77	1.6577	A	1.7

y = 0.0082 * x + 0.0142
R = 1.0000
DL = 0.09867
BEC = 1.721

Weight: <None>
Min Conc: <None>

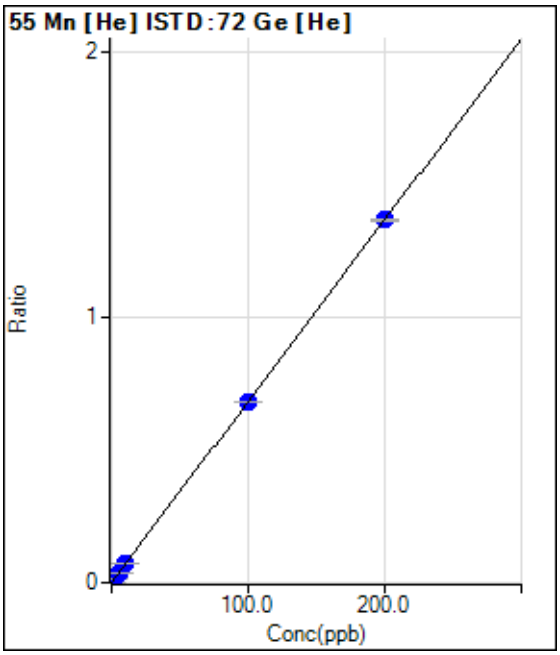


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1100.06	0.0021	P	9.9
2	☐	2.000	2.109	11748.55	0.0220	P	1.2
3	☐	5.000	5.153	27157.11	0.0507	P	1.9
4	☐	10.000	10.400	53313.77	0.1003	P	1.8
5	☐	100.000	99.019	494223.48	0.9374	P	1.1
6	☐	200.000	200.466	965426.21	1.8957	A	1.4

y = 0.0094 * x + 0.0021
R = 1.0000
DL = 0.06446
BEC = 0.2171

Weight: <None>
Min Conc: <None>

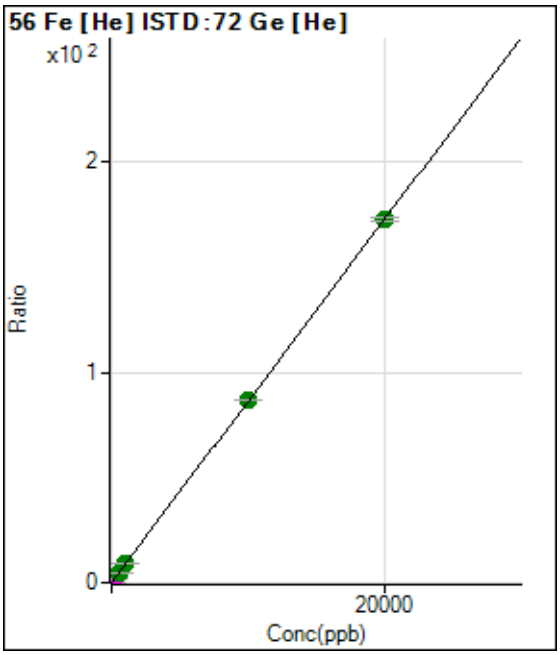
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	326.68	0.0006	P	16.1
2	☐	2.000	2.114	8025.84	0.0150	P	6.3
3	☐	5.000	5.169	19190.43	0.0358	P	0.5
4	☐	10.000	10.218	37347.98	0.0703	P	2.1
5	☐	100.000	99.666	358482.22	0.6799	P	0.5
6	☐	200.000	200.151	695093.43	1.3648	P	0.6

y = 0.0068 * x + 6.0916E-004
R = 1.0000
DL = 0.04323
BEC = 0.08937

Weight: <None>
Min Conc: <None>

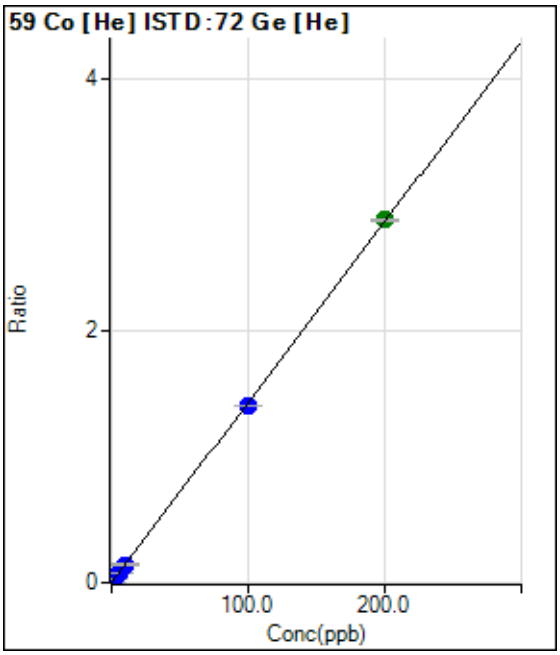


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5367.81	0.0100	P	5.9
2	☐	200.000	210.277	976663.14	1.8271	M	3.7
3	☐	500.000	530.262	2458630.80	4.5923	A	1.0
4	☐	1000.000	1031.651	4744546.08	8.9252	A	1.0
5	☐	10000.000	10045.297	45773245.99	86.8179	A	0.7
6	☐	20000.000	19974.910	87914925.35	172.6261	A	1.0

y = 0.0086 * x + 0.0100
R = 1.0000
DL = 0.2045
BEC = 1.158

Weight: <None>
Min Conc: <None>

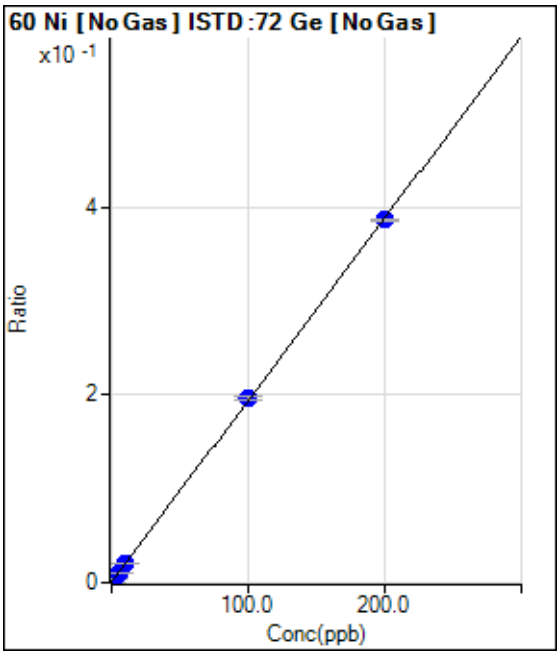
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.33	0.0001	P	20.4
2	☐	2.000	2.045	15725.95	0.0294	P	2.3
3	☐	5.000	5.065	38895.92	0.0727	P	2.5
4	☐	10.000	10.036	76464.40	0.1438	P	2.1
5	☐	100.000	97.846	738736.21	1.4011	P	0.5
6	☐	200.000	201.073	1466325.45	2.8791	A	0.4

y = 0.0143 * x + 1.3660E-004
R = 0.9999
DL = 0.005826
BEC = 0.00954

Weight: <None>
Min Conc: <None>

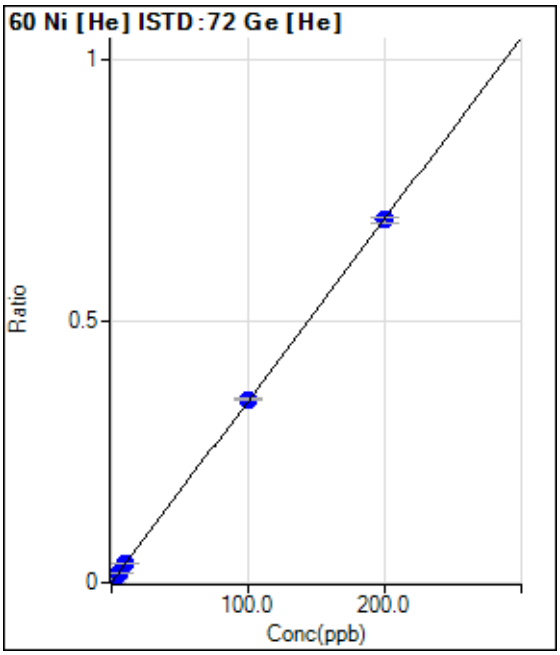


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	650.03	0.0003	P	17.9
2	☐	2.000	2.086	8245.97	0.0044	P	3.8
3	☐	5.000	5.249	19721.30	0.0105	P	1.8
4	☐	10.000	10.220	37635.50	0.0202	P	2.2
5	☐	100.000	101.384	360651.92	0.1969	P	2.3
6	☐	200.000	199.290	683233.40	0.3868	P	0.6

y = 0.0019 * x + 3.4304E-004
R = 1.0000
DL = 0.09525
BEC = 0.1769

Weight: <None>
Min Conc: <None>

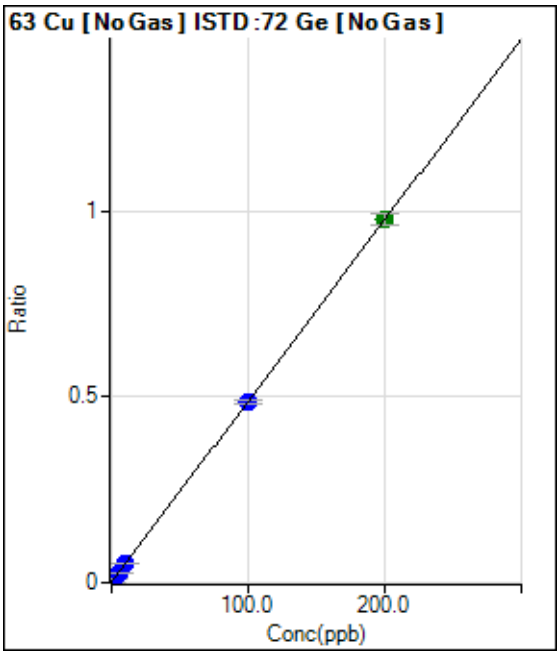
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	216.68	0.0004	P	13.7
2	☐	2.000	1.974	3880.62	0.0073	P	6.5
3	☐	5.000	5.068	9640.27	0.0180	P	2.3
4	☐	10.000	10.339	19303.98	0.0363	P	4.6
5	☐	100.000	100.688	184608.25	0.3501	P	1.2
6	☐	200.000	199.638	353352.52	0.6938	P	1.3

y = 0.0035 * x + 4.0396E-004
R = 1.0000
DL = 0.04763
BEC = 0.1163

Weight: <None>
Min Conc: <None>

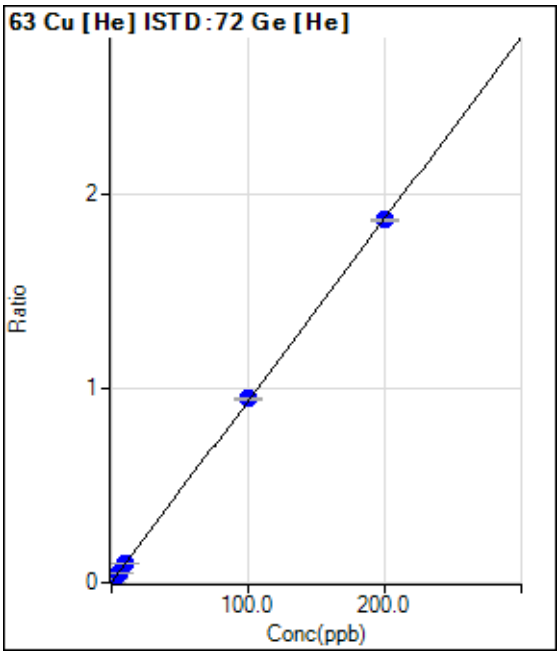


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1926.84	0.0010	P	5.5
2	☐	2.000	1.985	20081.75	0.0107	P	2.5
3	☐	5.000	5.046	47978.19	0.0256	P	2.8
4	☐	10.000	10.078	93580.59	0.0501	P	0.8
5	☐	100.000	99.649	891141.21	0.4866	P	2.6
6	☐	200.000	200.170	1724919.77	0.9765	A	3.3

y = 0.0049 * x + 0.0010
R = 1.0000
DL = 0.03433
BEC = 0.2085

Weight: <None>
Min Conc: <None>

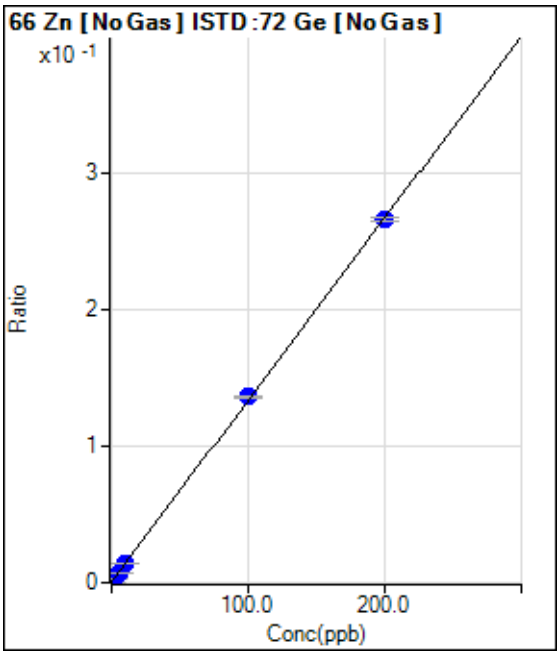
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.37	0.0013	P	2.8
2	☐	2.000	2.053	10967.96	0.0205	P	3.4
3	☐	5.000	5.230	26890.28	0.0502	P	2.0
4	☐	10.000	10.329	52056.39	0.0979	P	0.9
5	☐	100.000	100.946	498531.83	0.9456	P	0.8
6	☐	200.000	199.504	951081.60	1.8675	P	0.7

y = 0.0094 * x + 0.0013
R = 1.0000
DL = 0.01192
BEC = 0.1401

Weight: <None>
Min Conc: <None>

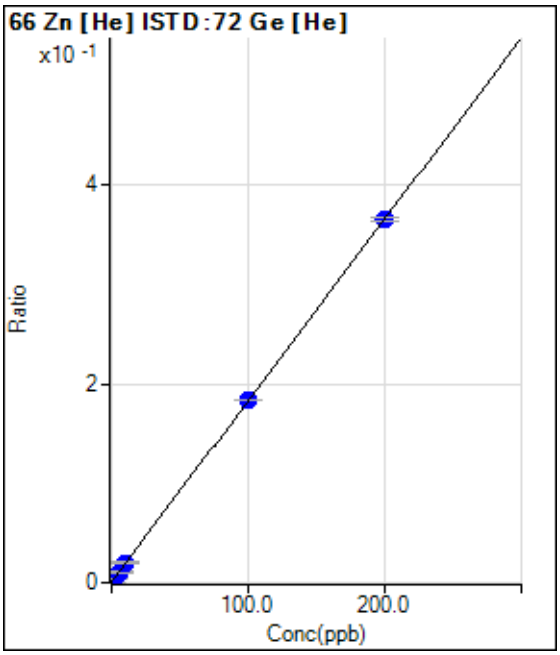


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1143.40	0.0006	P	2.1
2	☐	2.000	2.053	6274.91	0.0033	P	6.1
3	☐	5.000	5.231	14200.93	0.0076	P	1.6
4	☐	10.000	10.173	26446.12	0.0142	P	2.0
5	☐	100.000	101.658	249326.80	0.1361	P	1.2
6	☐	200.000	199.156	470064.04	0.2661	P	1.0

y = 0.0013 * x + 6.0266E-004
R = 1.0000
DL = 0.02878
BEC = 0.452

Weight: <None>
Min Conc: <None>

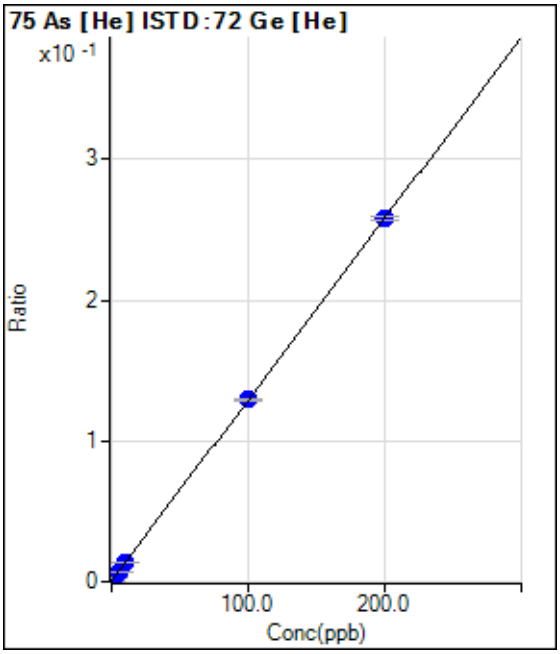
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	393.35	0.0007	P	17.5
2	☐	2.000	2.225	2560.30	0.0048	P	10.5
3	☐	5.000	5.407	5671.28	0.0106	P	2.0
4	☐	10.000	10.407	10477.53	0.0197	P	6.3
5	☐	100.000	100.520	97035.48	0.1840	P	0.6
6	☐	200.000	199.707	185856.28	0.3649	P	1.2

y = 0.0018 * x + 7.3286E-004
R = 1.0000
DL = 0.2114
BEC = 0.4019

Weight: <None>
Min Conc: <None>

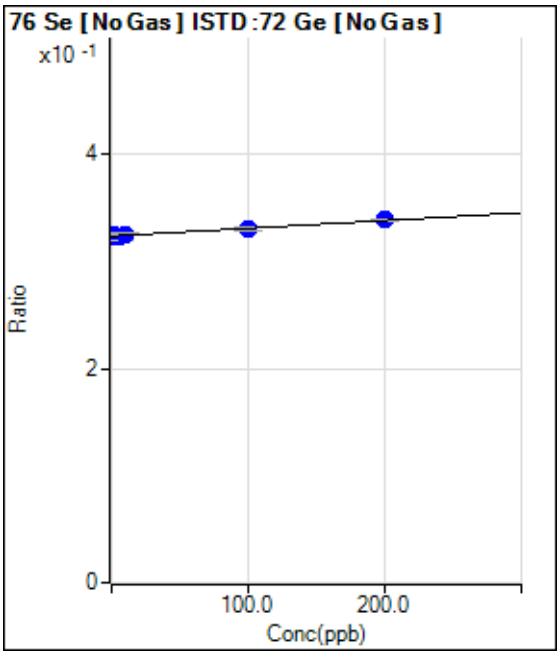


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	278.89	0.0005	P	12.9
2	☐	2.000	2.019	1667.89	0.0031	P	5.1
3	☐	5.000	5.080	3779.44	0.0071	P	1.7
4	☐	10.000	10.042	7147.47	0.0134	P	1.1
5	☐	100.000	100.191	68267.27	0.1295	P	0.6
6	☐	200.000	199.900	131306.92	0.2578	P	1.0

y = 0.0013 * x + 5.1996E-004
R = 1.0000
DL = 0.156
BEC = 0.404

Weight: <None>
Min Conc: <None>

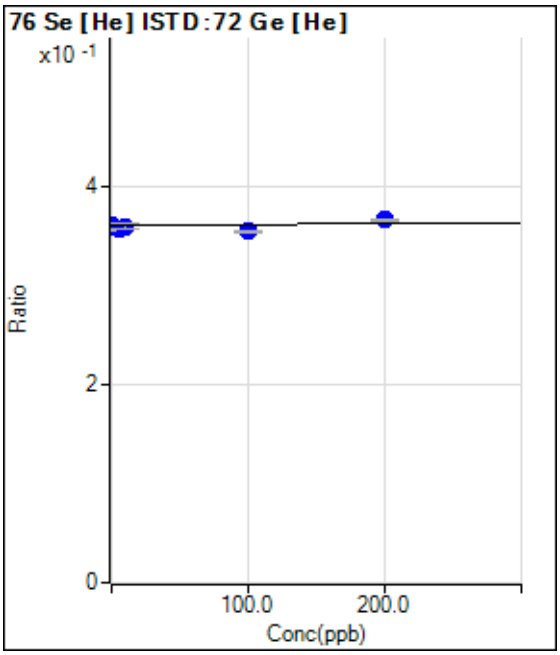
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	614439.73	0.3239	P	1.6
2	☐	2.000	10.105	609850.17	0.3247	P	1.0
3	☐	5.000	-5.854	606221.67	0.3235	P	1.7
4	☐	10.000	27.069	608394.97	0.3259	P	0.5
5	☐	100.000	84.778	604582.63	0.3301	P	1.0
6	☐	200.000	206.948	598799.95	0.3390	P	0.5

y = 7.2850E-005 * x + 0.3239
R = 0.9888
DL = 208.8
BEC = 4446

Weight: <None>
Min Conc: <None>

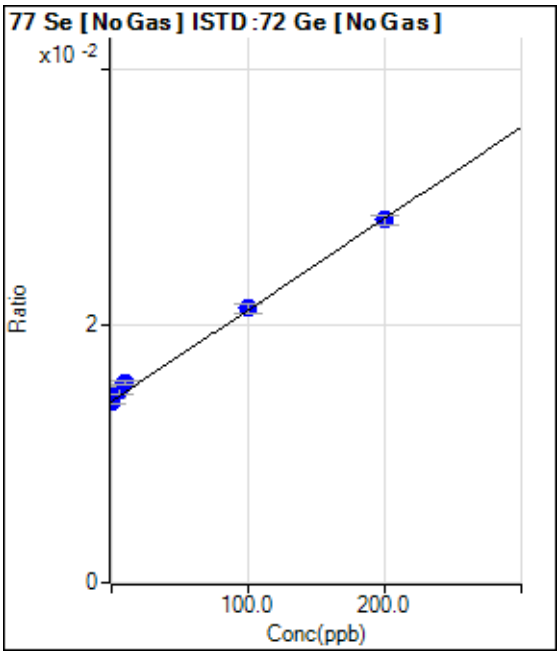


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	193319.38	0.3603	P	1.2
2	☐	2.000	-254.060	191354.07	0.3579	P	2.2
3	☐	5.000	-361.652	191076.42	0.3569	P	1.6
4	☐	10.000	-86.149	191116.22	0.3595	P	1.4
5	☐	100.000	-630.799	186841.15	0.3544	P	0.4
6	☐	200.000	581.934	186299.85	0.3658	P	0.5

y = 9.4222E-006 * x + 0.3603
R = 0.5345
DL = 1328
BEC = 3.824E+04

Weight: <None>
Min Conc: <None>

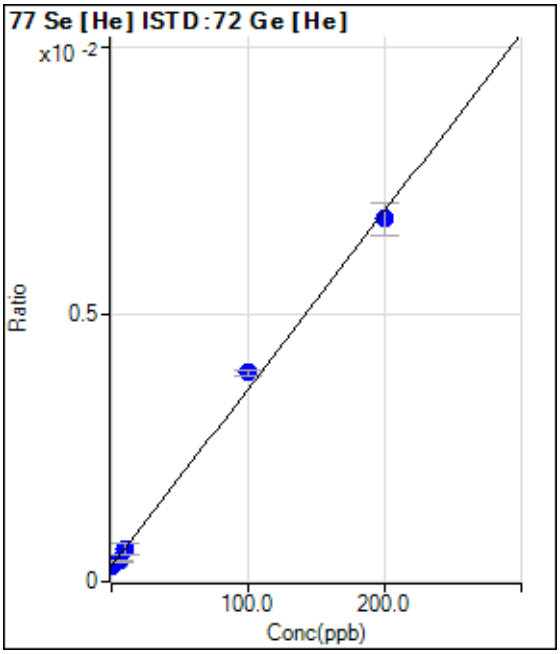
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	26803.75	0.0141	P	3.0
2	☐	2.000	10.166	27902.61	0.0149	P	3.0
3	☐	5.000	12.143	28089.63	0.0150	P	3.3
4	☐	10.000	20.722	29128.39	0.0156	P	2.0
5	☐	100.000	101.765	39133.80	0.0214	P	3.7
6	☐	200.000	198.321	49889.43	0.0282	P	2.5

y = 7.1188E-005 * x + 0.0141
R = 0.9989
DL = 17.63
BEC = 198.5

Weight: <None>
Min Conc: <None>

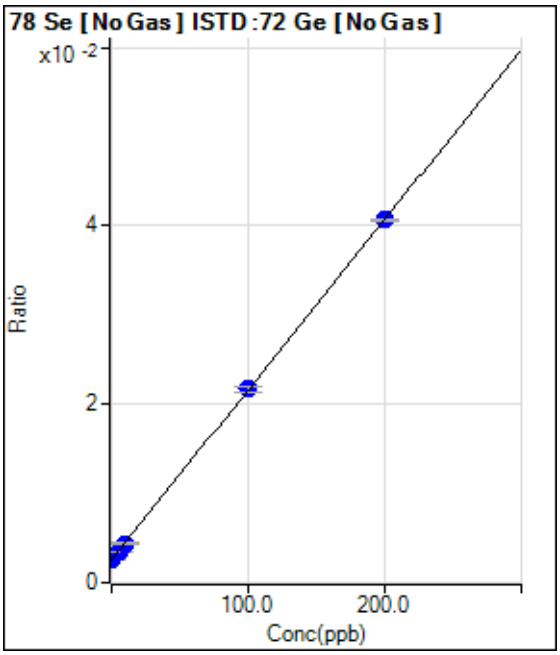


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	153.33	0.0003	P	26.5
2	☐	2.000	0.772	166.67	0.0003	P	22.0
3	☐	5.000	3.204	210.01	0.0004	P	9.2
4	☐	10.000	9.895	326.68	0.0006	P	36.6
5	☐	100.000	108.893	2056.87	0.0039	P	3.6
6	☐	200.000	195.616	3453.82	0.0068	P	8.7

y = 3.3204E-005 * x + 2.8580E-004
R = 0.9985
DL = 6.831
BEC = 8.607

Weight: <None>
Min Conc: <None>

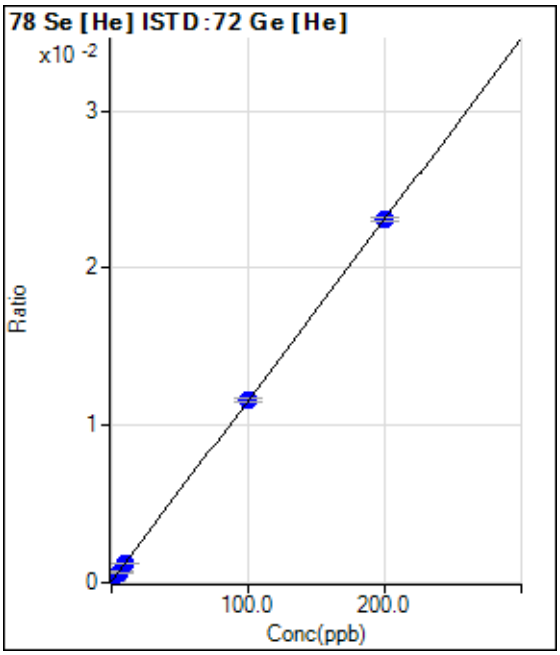
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4880.97	0.0026	P	2.5
2	☐	2.000	2.229	5631.27	0.0030	P	5.8
3	☐	5.000	4.547	6444.97	0.0034	P	1.5
4	☐	10.000	9.520	8189.32	0.0044	P	4.5
5	☐	100.000	100.283	39698.80	0.0217	P	2.3
6	☐	200.000	199.892	71818.06	0.0407	P	0.8

y = 1.9052E-004 * x + 0.0026
R = 1.0000
DL = 0.9981
BEC = 13.5

Weight: <None>
Min Conc: <None>

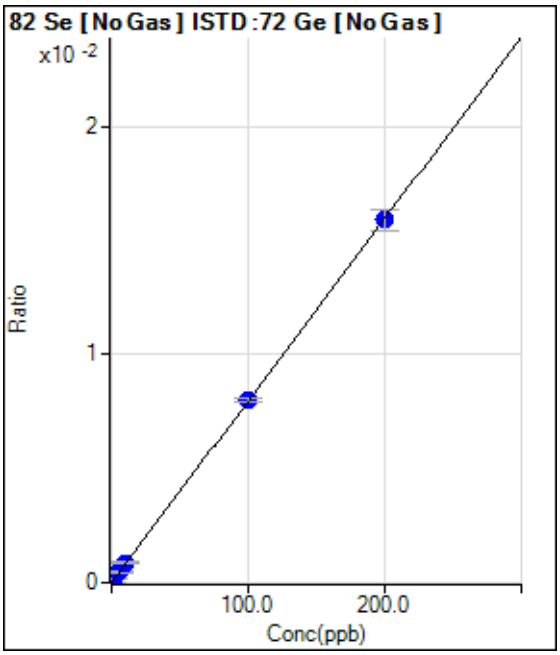


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	48.00	0.0001	P	25.1
2	☐	2.000	2.148	180.00	0.0003	P	9.0
3	☐	5.000	5.046	358.68	0.0007	P	1.3
4	☐	10.000	9.907	653.35	0.0012	P	3.4
5	☐	100.000	100.491	6142.08	0.0116	P	2.2
6	☐	200.000	199.757	11749.14	0.0231	P	1.0

y = 1.1504E-004 * x + 8.9414E-005
R = 1.0000
DL = 0.5845
BEC = 0.7772

Weight: <None>
Min Conc: <None>

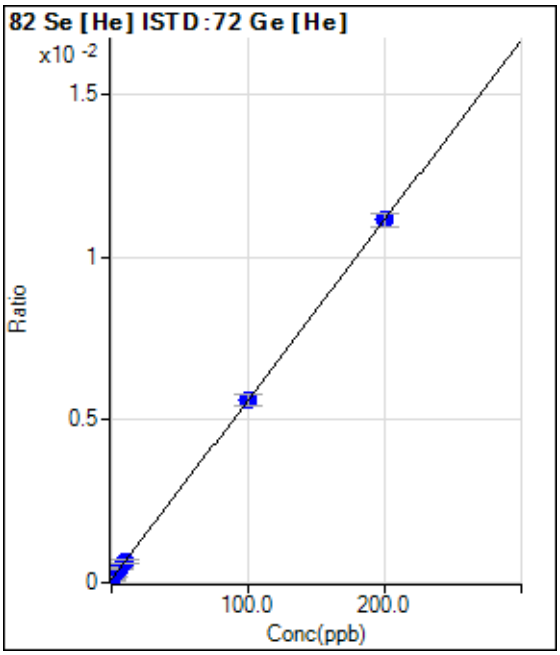
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-59.70	0.0000	P	-176.3
2	☐	2.000	2.258	280.35	0.0001	P	40.9
3	☐	5.000	6.124	861.11	0.0005	P	22.5
4	☐	10.000	10.795	1550.79	0.0008	P	9.6
5	☐	100.000	100.492	14641.55	0.0080	P	2.8
6	☐	200.000	199.684	28107.56	0.0159	P	5.8

y = 7.9863E-005 * x - 3.1182E-005
R = 1.0000
DL = 2.065
BEC = -0.3904

Weight: <None>
Min Conc: <None>

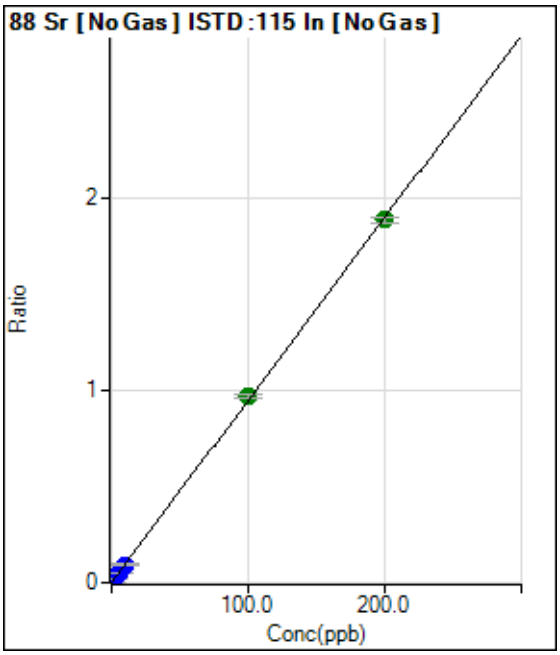


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0001	P	53.2
2	☐	2.000	2.604	126.67	0.0002	P	32.8
3	☐	5.000	6.084	230.01	0.0004	P	15.9
4	☐	10.000	9.877	340.01	0.0006	P	18.2
5	☐	100.000	99.847	2960.38	0.0056	P	6.0
6	☐	200.000	200.049	5681.29	0.0112	P	3.8

y = 5.5301E-005 * x + 9.3270E-005
R = 1.0000
DL = 2.693
BEC = 1.687

Weight: <None>
Min Conc: <None>

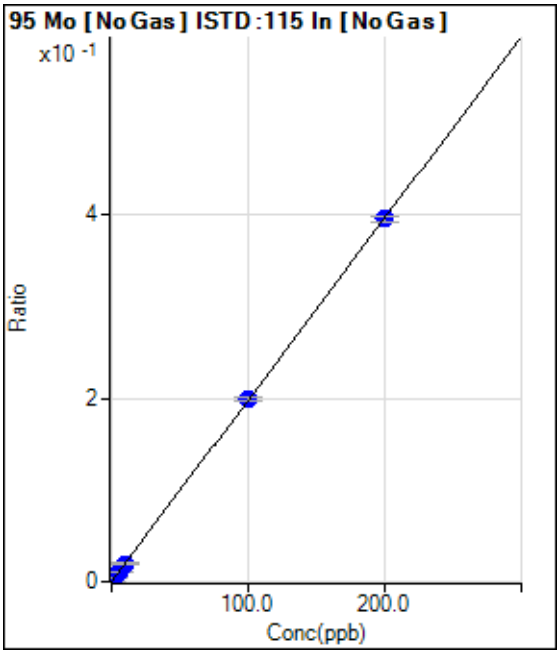
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1143.41	0.0005	P	5.3
2	☐	2.000	1.990	48554.97	0.0193	P	2.4
3	☐	5.000	4.958	118077.51	0.0475	P	1.5
4	☐	10.000	9.910	234749.14	0.0944	P	2.7
5	☐	100.000	102.153	2342148.46	0.9694	A	2.6
6	☐	200.000	198.929	4422990.25	1.8873	A	1.9

y = 0.0095 * x + 4.5720E-004
R = 0.9999
DL = 0.007659
BEC = 0.0482

Weight: <None>
Min Conc: <None>

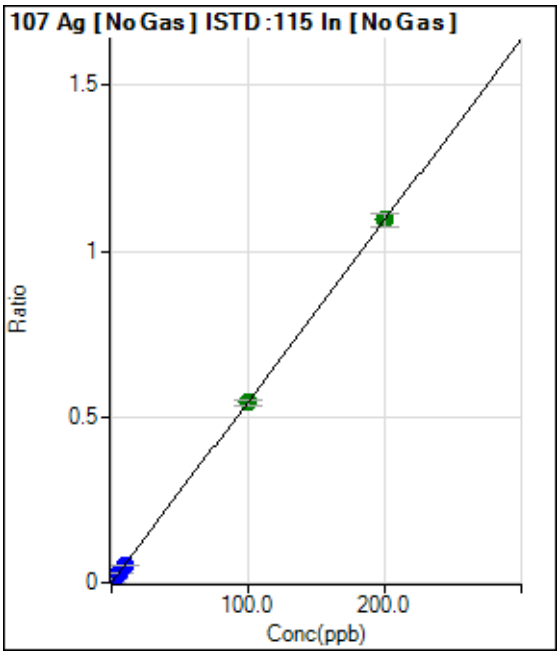


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.67	0.0000	P	33.0
2	☐	2.000	1.998	9977.24	0.0040	P	3.5
3	☐	5.000	4.861	23971.88	0.0096	P	0.5
4	☐	10.000	9.892	48712.62	0.0196	P	3.4
5	☐	100.000	100.488	480755.24	0.1990	P	2.6
6	☐	200.000	199.765	927038.29	0.3955	P	1.6

y = 0.0020 * x + 1.4694E-005
R = 1.0000
DL = 0.007343
BEC = 0.007421

Weight: <None>
Min Conc: <None>

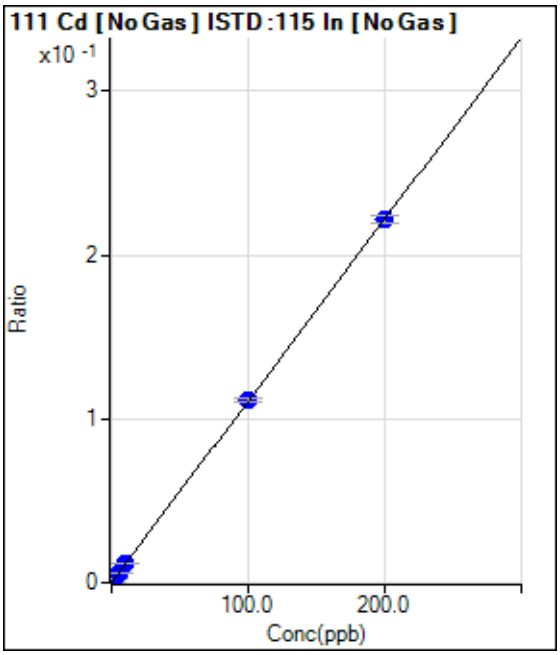
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	466.68	0.0002	P	17.1
2	☐	2.000	2.064	28791.68	0.0115	P	1.1
3	☐	5.000	4.975	68011.14	0.0274	P	1.8
4	☐	10.000	9.897	134798.56	0.0542	P	1.2
5	☐	100.000	99.447	1312437.66	0.5432	A	3.0
6	☐	200.000	200.281	2563050.54	1.0938	A	3.7

y = 0.0055 * x + 1.8680E-004
R = 1.0000
DL = 0.0176
BEC = 0.03421

Weight: <None>
Min Conc: <None>

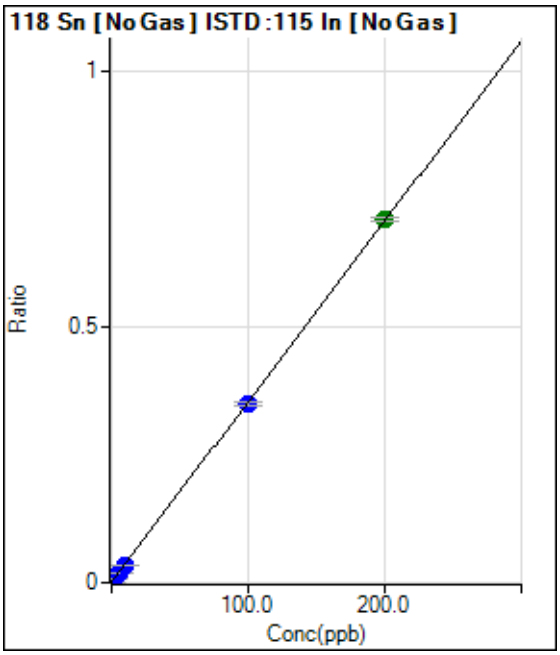


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	101.7
2	☐	2.000	1.995	5567.96	0.0022	P	7.5
3	☐	5.000	5.069	13970.99	0.0056	P	4.4
4	☐	10.000	10.127	27899.83	0.0112	P	1.2
5	☐	100.000	100.450	268907.12	0.1113	P	2.0
6	☐	200.000	199.767	518674.65	0.2213	P	2.1

y = 0.0011 * x + 4.0005E-006
R = 1.0000
DL = 0.01102
BEC = 0.003611

Weight: <None>
Min Conc: <None>

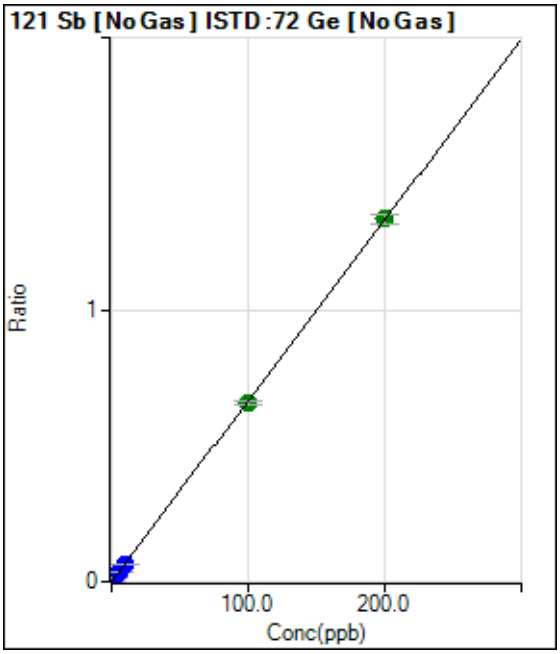
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1556.79	0.0006	P	6.3
2	☐	2.000	1.866	18096.15	0.0072	P	1.9
3	☐	5.000	4.905	44572.52	0.0179	P	1.6
4	☐	10.000	9.663	86272.18	0.0347	P	2.4
5	☐	100.000	98.462	840730.90	0.3480	P	2.1
6	☐	200.000	200.789	1661638.41	0.7089	A	0.9

y = 0.0035 * x + 6.2255E-004
R = 1.0000
DL = 0.03327
BEC = 0.1765

Weight: <None>
Min Conc: <None>

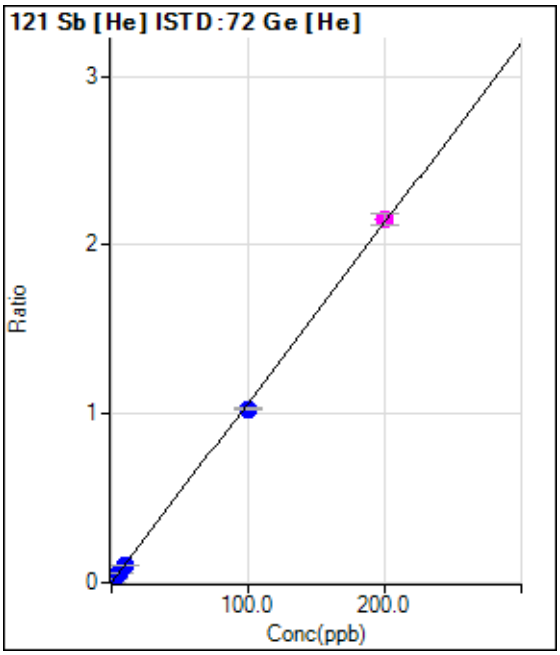


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1080.06	0.0006	P	2.7
2	☐	2.000	1.966	25631.93	0.0136	P	1.6
3	☐	5.000	4.820	61132.63	0.0326	P	2.0
4	☐	10.000	9.751	122127.53	0.0654	P	0.8
5	☐	100.000	98.593	1201765.69	0.6563	A	2.5
6	☐	200.000	200.721	2358828.87	1.3355	A	2.4

y = 0.0067 * x + 5.6944E-004
R = 1.0000
DL = 0.007033
BEC = 0.08562

Weight: <None>
Min Conc: <None>

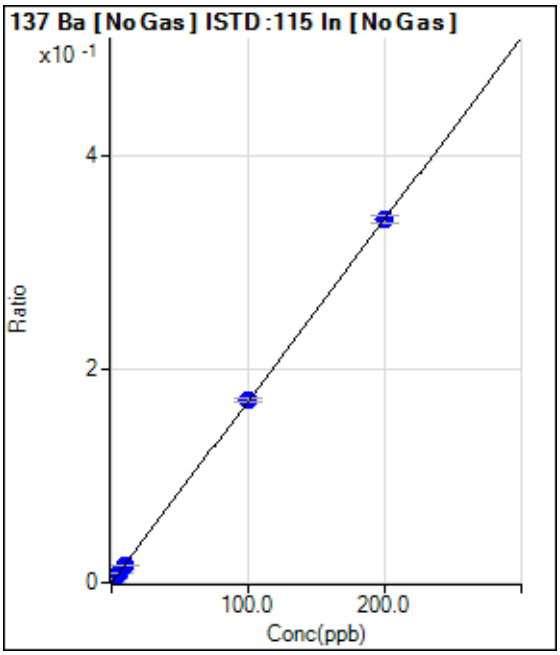
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	546.69	0.0010	P	11.8
2	☐	2.000	2.052	12229.26	0.0229	P	2.2
3	☐	5.000	4.824	28056.98	0.0524	P	0.9
4	☐	10.000	9.817	56126.94	0.1056	P	2.0
5	☐	100.000	96.632	543215.68	1.0303	P	1.0
6	☐	200.000	201.697	1094653.37	2.1494	M	3.2

y = 0.0107 * x + 0.0010
R = 0.9998
DL = 0.03375
BEC = 0.09563

Weight: <None>
Min Conc: <None>

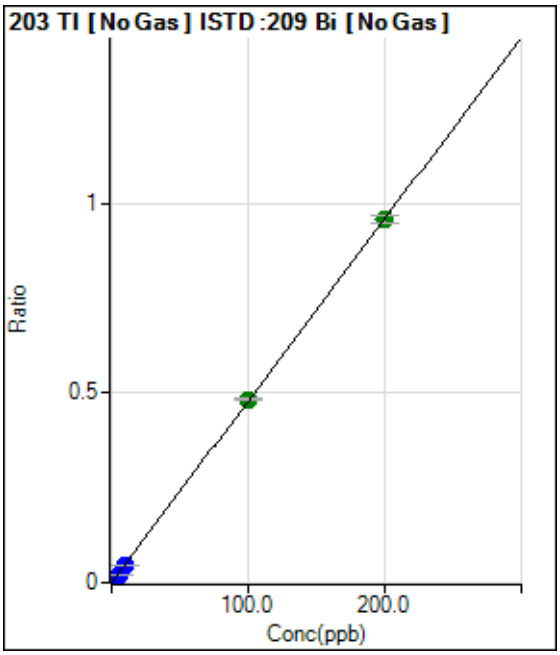


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	196.67	0.0001	P	16.7
2	☐	2.000	2.092	9120.02	0.0036	P	1.5
3	☐	5.000	5.030	21428.03	0.0086	P	1.8
4	☐	10.000	9.949	42178.83	0.0170	P	1.0
5	☐	100.000	100.455	412264.75	0.1706	P	1.6
6	☐	200.000	199.773	794963.30	0.3392	P	2.2

y = 0.0017 * x + 7.8657E-005
R = 1.0000
DL = 0.02314
BEC = 0.04633

Weight: <None>
Min Conc: <None>

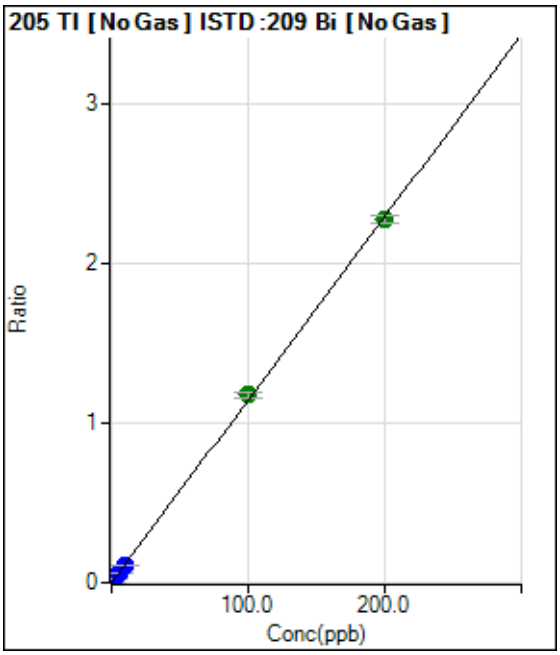
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	280.01	0.0001	P	6.9
2	☐	2.000	1.955	27841.39	0.0095	P	1.5
3	☐	5.000	4.722	68772.57	0.0227	P	0.5
4	☐	10.000	9.663	138826.41	0.0464	P	2.7
5	☐	100.000	100.750	1396784.20	0.4831	A	0.7
6	☐	200.000	199.649	2722148.19	0.9572	A	1.9

y = 0.0048 * x + 9.5070E-005
R = 1.0000
DL = 0.004101
BEC = 0.01983

Weight: <None>
Min Conc: <None>

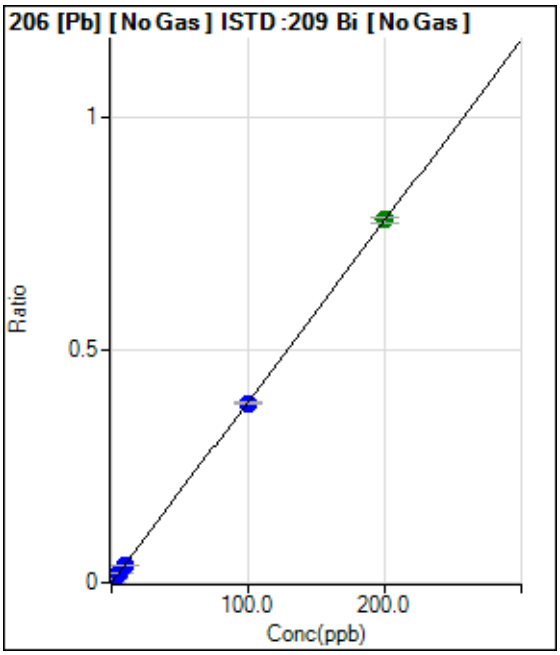


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	710.03	0.0002	P	10.7
2	☐	2.000	1.974	67120.93	0.0228	P	2.9
3	☐	5.000	4.823	167548.11	0.0554	P	2.2
4	☐	10.000	9.697	332461.41	0.1112	P	2.3
5	☐	100.000	102.920	3403736.72	1.1774	A	3.2
6	☐	200.000	198.560	6459220.74	2.2713	A	2.2

y = 0.0114 * x + 2.4125E-004
R = 0.9998
DL = 0.006774
BEC = 0.02109

Weight: <None>
Min Conc: <None>

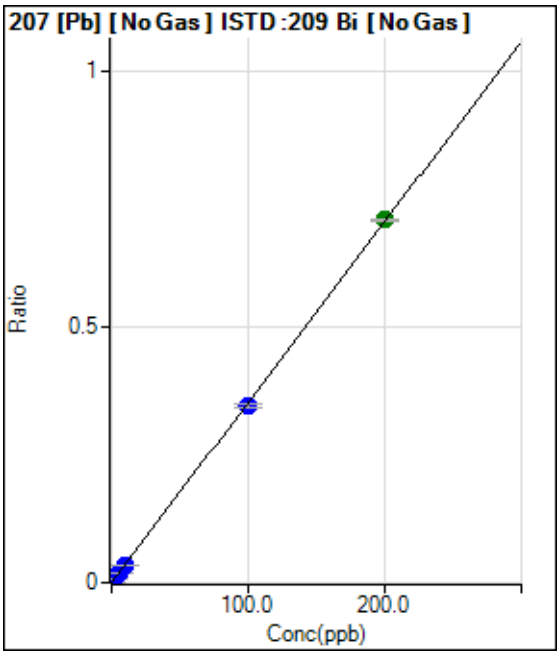
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	423.35	0.0001	P	24.0
2	☐	2.000	1.996	23208.52	0.0079	P	4.3
3	☐	5.000	4.897	57934.66	0.0192	P	2.7
4	☐	10.000	9.800	114236.53	0.0382	P	1.4
5	☐	100.000	98.933	1110913.42	0.3842	P	1.2
6	☐	200.000	200.546	2214520.80	0.7787	A	1.4

y = 0.0039 * x + 1.4404E-004
R = 1.0000
DL = 0.02668
BEC = 0.0371

Weight: <None>
Min Conc: <None>

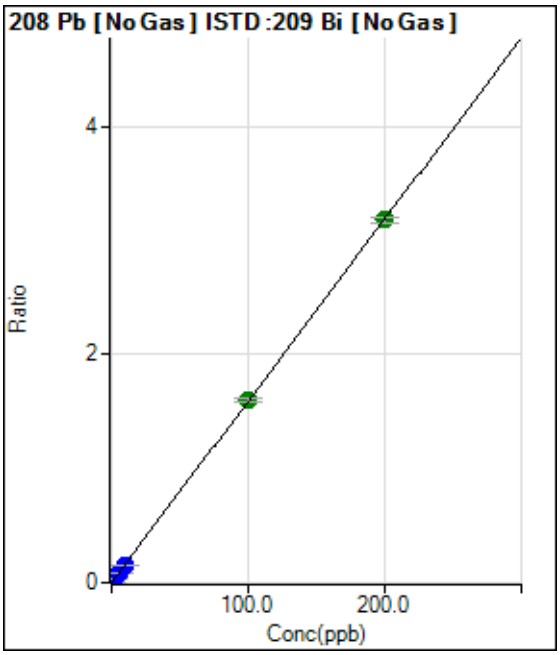


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	330.01	0.0001	P	26.2
2	☐	2.000	1.958	20647.42	0.0070	P	1.1
3	☐	5.000	4.901	52614.40	0.0174	P	2.7
4	☐	10.000	9.708	102751.18	0.0344	P	2.5
5	☐	100.000	97.799	997624.05	0.3451	P	1.8
6	☐	200.000	201.118	2017635.34	0.7095	A	0.6

y = 0.0035 * x + 1.1166E-004
R = 0.9999
DL = 0.02484
BEC = 0.03166

Weight: <None>
Min Conc: <None>

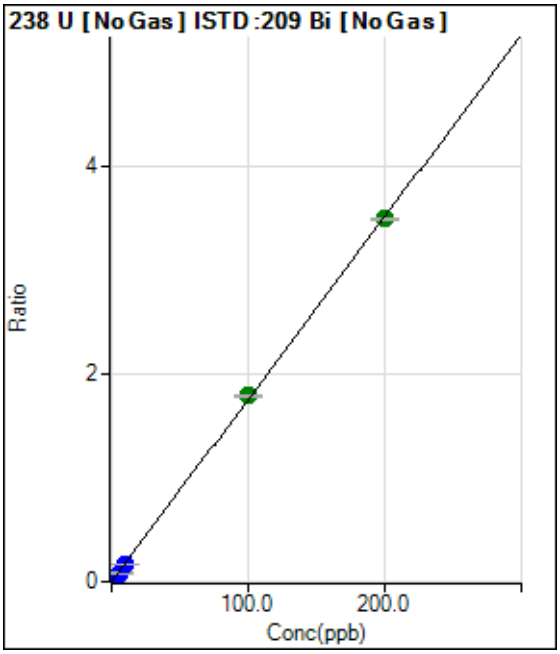
Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1680.08	0.0006	P	7.2
2	☐	2.000	1.963	93625.92	0.0318	P	2.3
3	☐	5.000	4.850	235309.45	0.0778	P	2.1
4	☐	10.000	9.698	463564.01	0.1550	P	2.0
5	☐	100.000	100.445	4625802.90	1.6000	A	1.8
6	☐	200.000	199.797	9048997.94	3.1820	A	1.3

y = 0.0159 * x + 5.7024E-004
R = 1.0000
DL = 0.007784
BEC = 0.03581

Weight: <None>
Min Conc: <None>

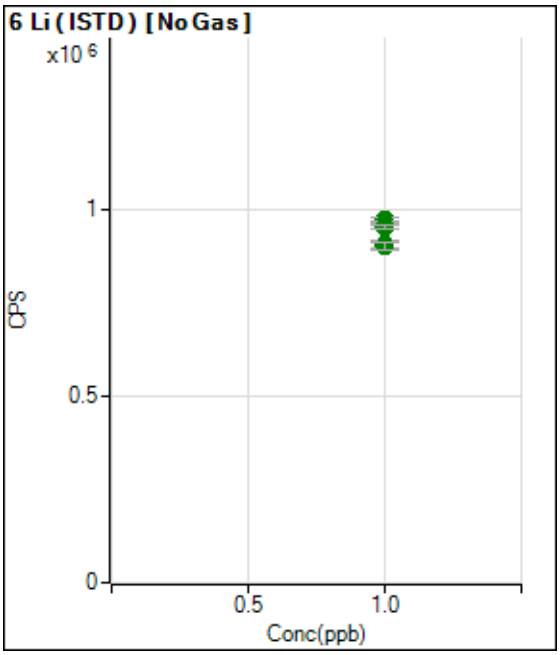


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0000	P	20.9
2	☐	2.000	1.930	99657.69	0.0339	P	2.0
3	☐	5.000	4.729	250828.55	0.0829	P	2.7
4	☐	10.000	9.551	500941.32	0.1675	P	1.9
5	☐	100.000	101.996	5169652.32	1.7880	A	1.3
6	☐	200.000	199.032	9922685.27	3.4891	A	0.8

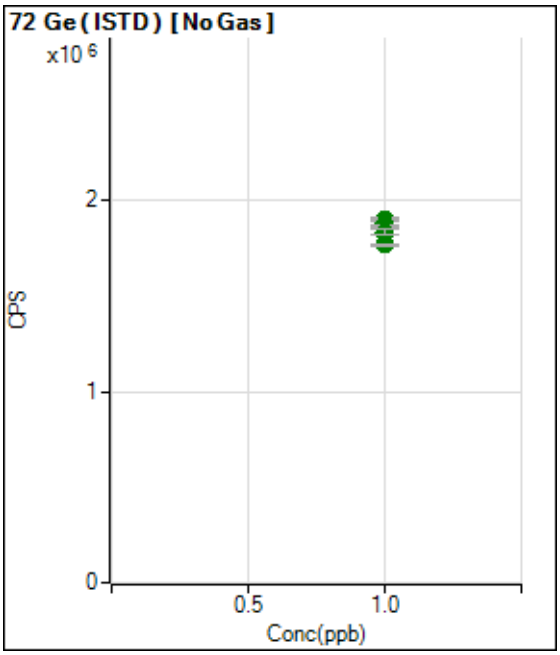
y = 0.0175 * x + 3.8495E-005
R = 0.9999
DL = 0.001379
BEC = 0.002196

Weight: <None>
Min Conc: <None>

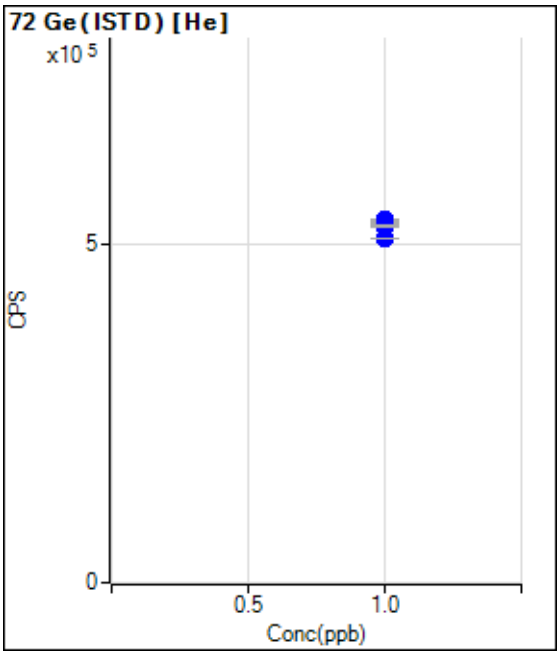
Calibration for 017_ICV.d



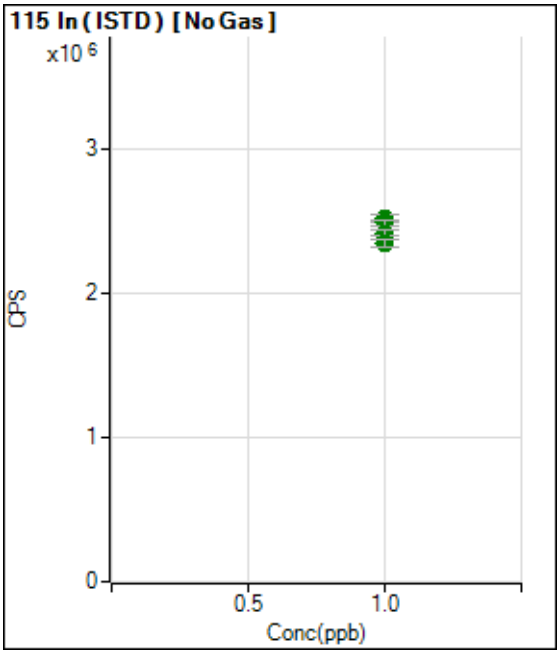
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		974206.47		A	1.0
2	☐	1.000		967105.77		A	1.1
3	☐	1.000		957554.66		A	1.3
4	☐	1.000		953725.94		A	1.2
5	☐	1.000		909447.43		A	2.1
6	☐	1.000		901758.82		A	2.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1897028.41		A	1.0
2	☐	1.000		1878590.44		A	1.0
3	☐	1.000		1874462.89		A	2.3
4	☐	1.000		1866914.04		A	0.7
5	☐	1.000		1831736.69		A	1.7
6	☐	1.000		1766438.88		A	0.7

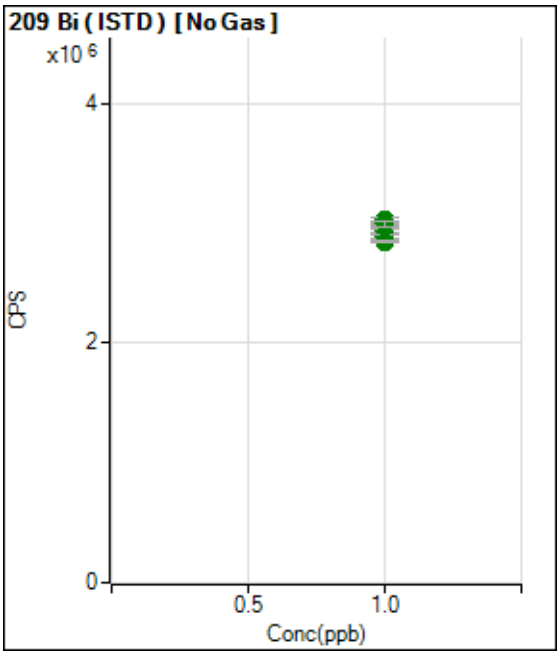


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		536534.25		P	0.5
2	☐	1.000		534655.32		P	1.0
3	☐	1.000		535386.89		P	0.6
4	☐	1.000		531588.89		P	0.3
5	☐	1.000		527241.36		P	0.4
6	☐	1.000		509292.89		P	0.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2503439.73		A	2.9
2	☐	1.000		2512512.61		A	2.0
3	☐	1.000		2486705.48		A	1.3
4	☐	1.000		2486035.48		A	1.4
5	☐	1.000		2416803.53		A	1.7
6	☐	1.000		2344132.08		A	1.9

Calibration for 017_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2946615.16		A	2.0
2	☐	1.000		2941692.35		A	1.1
3	☐	1.000		3025037.77		A	1.8
4	☐	1.000		2991643.08		A	1.8
5	☐	1.000		2891515.37		A	1.2
6	☐	1.000		2843839.33		A	0.4

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	010CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T10:49:41-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	59162	0.00
Be	9	1	No Gas	17	374.70
V	51	2	He	7033	0.04
Cr	52	2	He	1100	0.86
Fe	56	2	He	5368	0.11
Se	78	2	He	48	52.80
As	75	2	He	279	4.50
Ca	44	2	He	533	2.93
Na	23	2	He	98808	0.00
Mg	24	2	He	440	3.90
K	39	2	He	45542	0.01
Mn	55	2	He	327	4.81
Co	59	2	He	73	28.40
Ni	60	2	He	217	6.15
Cu	63	2	He	703	0.47
Zn	66	2	He	393	4.54
Al	27	2	He	703	2.83
B	11	1	No Gas	15936	0.01
Al	27	1	No Gas	28032	0.01
Si	28	1	No Gas	389258	0.00
Ag	107	1	No Gas	467	3.32
Cd	111	1	No Gas	10	1000.00
Sr	88	1	No Gas	1143	0.22
Mo	95	1	No Gas	37	85.89
Sn	118	1	No Gas	1557	0.25
Sb	121	1	No Gas	1080	0.17
Ba	137	1	No Gas	197	7.90
Tl	205	1	No Gas	710	1.30
Tl	203	1	No Gas	280	2.21
Pb	208	1	No Gas	1680	0.43
U	238	1	No Gas	113	17.98
Ca	43	2	He	27	162.38
Sb	121	2	He	547	2.23
Cu	63	1	No Gas	1927	0.24

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	6	1	No Gas	974206	1.01

Calibration Blank Report

Ge	72	2	He	536534	0.45
Ge	72	1	No Gas	1897028	1.03
In	115	1	No Gas	2503440	2.86
Bi	209	1	No Gas	2946615	1.96

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	011CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T10:51:41-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	5863	0.02
V	51	2	He	15569	0.01
Cr	52	2	He	11749	0.01
Fe	56	2	He	976663	0.00
Se	78	2	He	180	5.27
As	75	2	He	1668	0.35
Ca	44	2	He	5495	0.13
Na	23	2	He	260753	0.00
Mg	24	2	He	97449	0.00
K	39	2	He	140421	0.00
Mn	55	2	He	8026	0.07
Co	59	2	He	15726	0.02
Ni	60	2	He	3881	0.15
Cu	63	2	He	10968	0.04
Zn	66	2	He	2560	0.40
Al	27	2	He	1217	0.51
B	11	1	No Gas	32244	0.00
Al	27	1	No Gas	51857	0.00
Si	28	1	No Gas	444363	0.00
Ag	107	1	No Gas	28792	0.01
Cd	111	1	No Gas	5568	0.16
Sr	88	1	No Gas	48555	0.00
Mo	95	1	No Gas	9977	0.04
Sn	118	1	No Gas	18096	0.00
Sb	121	1	No Gas	25632	0.00
Ba	137	1	No Gas	9120	0.02
Tl	205	1	No Gas	67121	0.00
Tl	203	1	No Gas	27841	0.00
Pb	208	1	No Gas	93626	0.00
U	238	1	No Gas	99658	0.00
Ca	43	2	He	333	2.75
Sb	121	2	He	12229	0.02
Cu	63	1	No Gas	20082	0.01

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	967106	1.12	974206	99.27	70	120	
Ge	72	2	He	534655	0.96	536534	99.65	70	120	
Ge	72	1	No Gas	1878590	0.98	1897028	99.03	70	120	

Calibration Standard Report

In	115	1	No Gas	2512513	2.02	2503440	100.36	70	120	
Bi	209	1	No Gas	2941692	1.06	2946615	99.83	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	012CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T10:53:40-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	15153	0.01
V	51	2	He	27520	0.01
Cr	52	2	He	27157	0.01
Fe	56	2	He	2458631	0.00
Se	78	2	He	359	0.39
As	75	2	He	3779	0.06
Ca	44	2	He	13544	0.01
Na	23	2	He	500841	0.00
Mg	24	2	He	242055	0.00
K	39	2	He	284697	0.00
Mn	55	2	He	19190	0.00
Co	59	2	He	38896	0.01
Ni	60	2	He	9640	0.02
Cu	63	2	He	26890	0.01
Zn	66	2	He	5671	0.03
Al	27	2	He	2468	1.33
B	11	1	No Gas	58056	0.00
Al	27	1	No Gas	86370	0.00
Si	28	1	No Gas	522964	0.00
Ag	107	1	No Gas	68011	0.00
Cd	111	1	No Gas	13971	0.03
Sr	88	1	No Gas	118078	0.00
Mo	95	1	No Gas	23972	0.01
Sn	118	1	No Gas	44573	0.00
Sb	121	1	No Gas	61133	0.00
Ba	137	1	No Gas	21428	0.00
Tl	205	1	No Gas	167548	0.00
Tl	203	1	No Gas	68773	0.00
Pb	208	1	No Gas	235309	0.00
U	238	1	No Gas	250829	0.00
Ca	43	2	He	667	2.09
Sb	121	2	He	28057	0.00
Cu	63	1	No Gas	47978	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	957555	1.31	974206	98.29	70	120	
Ge	72	2	He	535387	0.55	536534	99.79	70	120	
Ge	72	1	No Gas	1874463	2.30	1897028	98.81	70	120	

Calibration Standard Report

In	115	1	No Gas	2486705	1.34	2503440	99.33	70	120	
Bi	209	1	No Gas	3025038	1.80	2946615	102.66	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	013CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T10:55:39-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	29985	0.00
V	51	2	He	49322	0.00
Cr	52	2	He	53314	0.00
Fe	56	2	He	4744546	0.00
Se	78	2	He	653	0.50
As	75	2	He	7147	0.01
Ca	44	2	He	26352	0.01
Na	23	2	He	896990	0.00
Mg	24	2	He	476962	0.00
K	39	2	He	513765	0.00
Mn	55	2	He	37348	0.01
Co	59	2	He	76464	0.00
Ni	60	2	He	19304	0.02
Cu	63	2	He	52056	0.00
Zn	66	2	He	10478	0.06
Al	27	2	He	3267	0.22
B	11	1	No Gas	100649	0.00
Al	27	1	No Gas	141783	0.00
Si	28	1	No Gas	645355	0.00
Ag	107	1	No Gas	134799	0.00
Cd	111	1	No Gas	27900	0.00
Sr	88	1	No Gas	234749	0.00
Mo	95	1	No Gas	48713	0.00
Sn	118	1	No Gas	86272	0.00
Sb	121	1	No Gas	122128	0.00
Ba	137	1	No Gas	42179	0.00
Tl	205	1	No Gas	332461	0.00
Tl	203	1	No Gas	138826	0.00
Pb	208	1	No Gas	463564	0.00
U	238	1	No Gas	500941	0.00
Ca	43	2	He	1607	1.42
Sb	121	2	He	56127	0.00
Cu	63	1	No Gas	93581	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	953726	1.24	974206	97.90	70	120	
Ge	72	2	He	531589	0.27	536534	99.08	70	120	
Ge	72	1	No Gas	1866914	0.72	1897028	98.41	70	120	

Calibration Standard Report

In	115	1	No Gas	2486035	1.35	2503440	99.30	70	120	
Bi	209	1	No Gas	2991643	1.78	2946615	101.53	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	014CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T10:57:38-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	295272	0.00
V	51	2	He	416907	0.00
Cr	52	2	He	494223	0.00
Fe	56	2	He	45773246	0.00
Se	78	2	He	6142	0.03
As	75	2	He	68267	0.00
Ca	44	2	He	252798	0.00
Na	23	2	He	7620872	0.00
Mg	24	2	He	4541920	0.00
K	39	2	He	4606282	0.00
Mn	55	2	He	358482	0.00
Co	59	2	He	738736	0.00
Ni	60	2	He	184608	0.00
Cu	63	2	He	498532	0.00
Zn	66	2	He	97035	0.00
Al	27	2	He	26075	0.01
B	11	1	No Gas	889544	0.00
Al	27	1	No Gas	1130678	0.00
Si	28	1	No Gas	2956504	0.00
Ag	107	1	No Gas	1312438	0.00
Cd	111	1	No Gas	268907	0.00
Sr	88	1	No Gas	2342148	0.00
Mo	95	1	No Gas	480755	0.00
Sn	118	1	No Gas	840731	0.00
Sb	121	1	No Gas	1201766	0.00
Ba	137	1	No Gas	412265	0.00
Tl	205	1	No Gas	3403737	0.00
Tl	203	1	No Gas	1396784	0.00
Pb	208	1	No Gas	4625803	0.00
U	238	1	No Gas	5169652	0.00
Ca	43	2	He	14364	0.02
Sb	121	2	He	543216	0.00
Cu	63	1	No Gas	891141	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	909447	2.06	974206	93.35	70	120	
Ge	72	2	He	527241	0.39	536534	98.27	70	120	
Ge	72	1	No Gas	1831737	1.67	1897028	96.56	70	120	

Calibration Standard Report

In	115	1	No Gas	2416804	1.70	2503440	96.54	70	120	
Bi	209	1	No Gas	2891515	1.16	2946615	98.13	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	015CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T10:59:32-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	571703	0.00
V	51	2	He	806985	0.00
Cr	52	2	He	965426	0.00
Fe	56	2	He	87914925	0.00
Se	78	2	He	11749	0.01
As	75	2	He	131307	0.00
Ca	44	2	He	488963	0.00
Na	23	2	He	14862201	0.00
Mg	24	2	He	8757768	0.00
K	39	2	He	8900407	0.00
Mn	55	2	He	695093	0.00
Co	59	2	He	1466325	0.00
Ni	60	2	He	353353	0.00
Cu	63	2	He	951082	0.00
Zn	66	2	He	185856	0.00
Al	27	2	He	50338	0.00
B	11	1	No Gas	1719883	0.00
Al	27	1	No Gas	2135163	0.00
Si	28	1	No Gas	5186967	0.00
Ag	107	1	No Gas	2563051	0.00
Cd	111	1	No Gas	518675	0.00
Sr	88	1	No Gas	4422990	0.00
Mo	95	1	No Gas	927038	0.00
Sn	118	1	No Gas	1661638	0.00
Sb	121	1	No Gas	2358829	0.00
Ba	137	1	No Gas	794963	0.00
Tl	205	1	No Gas	6459221	0.00
Tl	203	1	No Gas	2722148	0.00
Pb	208	1	No Gas	9048998	0.00
U	238	1	No Gas	9922685	0.00
Ca	43	2	He	28620	0.01
Sb	121	2	He	1094653	0.00
Cu	63	1	No Gas	1724920	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	901759	2.25	974206	92.56	70	120	
Ge	72	2	He	509293	0.40	536534	94.92	70	120	
Ge	72	1	No Gas	1766439	0.66	1897028	93.12	70	120	

Calibration Standard Report

In	115	1	No Gas	2344132	1.86	2503440	93.64	70	120	
Bi	209	1	No Gas	2843839	0.39	2946615	96.51	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	018_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T11:14:03-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.091	65.9	58508	0.3	0.5	
Be	9	1	No Gas	0.008	71.8	40	43.3	0.5	
V	51	2	He	-0.320	-9.5	5591	2.0	2.5	
Cr	52	2	He	0.009	195.4	1123	6.3	2.5	
Fe	56	2	He	0.827	19.0	9044	7.9	100	
Se	78	2	He	-0.020	-850.2	46	22.6	1	
As	75	2	He	-0.021	-70.9	260	3.4	2.5	
Ca	44	2	He	2.086	76.8	577	6.1	100	
Na	23	2	He	-0.890	-157.8	96435	0.2	100	
Mg	24	2	He	0.120	79.6	487	8.3	100	
K	39	2	He	3.628	81.6	46418	1.8	100	
Mn	55	2	He	0.019	53.2	390	10.3	2.5	
Co	59	2	He	0.003	62.6	97	15.8	2.5	
Ni	60	2	He	-0.043	-15.5	133	8.7	2.5	
Cu	63	2	He	-0.009	-89.0	647	6.3	1	
Zn	66	2	He	0.180	31.8	560	10.7	2.5	
Al	27	2	He	0.278	243.3	763	23.6	5	
B	11	1	No Gas	16.843	12.8	45683	9.3	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	0.358	1.2	31025	1.0	5	
Si	28	1	No Gas	7.868	21.4	415886	1.2	10	
Ag	107	1	No Gas	-0.006	-25.5	383	4.0	2.5	
Cd	111	1	No Gas	0.012	76.8	43	58.1	1	
Sr	88	1	No Gas	0.009	79.4	1333	11.3	2.5	
Mo	95	1	No Gas	0.089	31.9	470	27.9	2.5	
Sn	118	1	No Gas	0.126	12.1	2634	3.6	5	
Sb	121	1	No Gas	0.053	37.6	1690	14.5	2.5	
Ba	137	1	No Gas	0.020	91.7	280	27.0	2.5	
Tl	205	1	No Gas	0.086	59.2	3581	47.3	1	
Tl	203	1	No Gas	0.080	54.3	1403	43.2	1	
Pb	208	1	No Gas	0.042	34.7	3637	18.6	2.5	
U	238	1	No Gas	0.020	46.5	1147	41.9	2.5	
Ca	43	2	He	-6.487	-61.3	17	34.6	100	
Sb	121	2	He	0.027	58.1	690	13.8	2.5	
Ti	47	2	He	0.000	#DIV/0!	0	#DIV/0!	2.5	
Se	82	1	No Gas	0.713	49.8	47	109.8	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	944875	1.01	974206	96.99	70	120	
Ge	72	2	He	527361	1.09	536534	98.29	70	120	
Ge	72	1	No Gas	1833661	0.91	1897028	96.66	70	120	
In	115	1	No Gas	2473433	1.79	2503440	98.80	70	120	
Bi	209	1	No Gas	2920961	1.40	2946615	99.13	70	120	

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	019LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T11:16:03-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	2.081	2.081	2.58	83253	0.00	2	
Be	9	1	No Gas	1.954	1.954	2.18	5898	0.03	2	
V	51	2	He	1.886	1.886	4.29	14805	0.01	2	
Cr	52	2	He	1.985	1.985	5.40	11035	0.02	2	
Fe	56	2	He	207.561	207.561	1.66	957505	0.02	200	
Se	78	2	He	2.228	2.228	12.85	183	1.22	2	
As	75	2	He	1.978	1.978	3.19	1627	0.12	2	
Ca	44	2	He	201.237	201.237	9.89	5645	3.57	200	
Na	23	2	He	208.024	208.024	2.27	257336	0.08	200	
Mg	24	2	He	209.941	209.941	1.06	96285	0.22	200	
K	39	2	He	205.317	205.317	0.59	139742	0.15	200	
Mn	55	2	He	2.015	2.015	3.55	7612	0.03	2	
Co	59	2	He	2.014	2.014	3.11	15386	0.01	2	
Ni	60	2	He	2.097	2.097	2.67	4081	0.05	2	
Cu	63	2	He	2.090	2.090	1.87	11075	0.02	2	
Zn	66	2	He	2.271	2.271	13.69	2587	0.09	2	
Al	27	2	He	2.249	2.249	15.39	1277	0.18	2	
B	11	1	No Gas	14.685	14.685	1.66	41774	0.04	10	NewName Main CR1 Failed
Al	27	1	No Gas	2.173	2.173	2.45	51275	0.00	2	
Si	28	1	No Gas	12.998	12.998	12.74	444758	0.00	10	
Ag	107	1	No Gas	2.153	2.153	4.49	29219	0.01	2	
Cd	111	1	No Gas	2.064	2.064	5.29	5608	0.04	2	
Sr	88	1	No Gas	1.995	1.995	3.92	47418	0.00	2	
Mo	95	1	No Gas	2.017	2.017	2.60	9810	0.02	2	
Sn	118	1	No Gas	1.990	1.990	3.66	18697	0.01	2	
Sb	121	1	No Gas	2.029	2.029	1.96	25959	0.01	2	
Ba	137	1	No Gas	1.982	1.982	4.31	8426	0.02	2	
Tl	205	1	No Gas	1.946	1.946	4.22	67429	0.00	2	
Tl	203	1	No Gas	1.910	1.910	2.43	27738	0.01	2	
Pb	208	1	No Gas	1.946	1.946	2.61	94635	0.00	2	
U	238	1	No Gas	1.908	1.908	1.69	100390	0.00	2	
Ca	43	2	He	198.168	198.168	9.33	320	61.93	200	
Sb	121	2	He	2.009	2.009	0.87	11899	0.02	2	
Ti	47	2	He	2.206	2.206	24.36	347	0.64	200	
Cu	63	1	No Gas	2.031	2.031	2.21	20148	0.01	2	
Se	82	1	No Gas	1.976	1.976	26.08	234	0.85	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	944525	0.86	974206	96.95	70	120	
Ge	72	2	He	530808	1.55	536534	98.93	70	120	
Ge	72	1	No Gas	1846275	1.39	1897028	97.32	70	120	
In	115	1	No Gas	2447793	2.24	2503440	97.78	70	120	
Bi	209	1	No Gas	2999123	1.89	2946615	101.78	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	020LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T11:18:02-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	010CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	4.956	4.956	0.98	120755	0.00	5	
Be	9	1	No Gas	4.902	4.902	2.77	14985	0.03	5	
V	51	2	He	4.967	4.967	0.95	27405	0.02	5	
Cr	52	2	He	5.116	5.116	2.01	26523	0.02	5	
Fe	56	2	He	534.335	534.335	1.99	2436039	0.02	500	
Se	78	2	He	5.365	5.365	2.64	372	1.44	5	
As	75	2	He	5.199	5.199	4.15	3796	0.14	5	
Ca	44	2	He	501.384	501.384	1.35	13176	3.81	500	
Na	23	2	He	526.738	526.738	1.47	497778	0.11	500	
Mg	24	2	He	526.376	526.376	1.18	238796	0.22	500	
K	39	2	He	510.590	510.590	1.41	278202	0.18	500	
Mn	55	2	He	5.092	5.092	1.39	18593	0.03	5	
Co	59	2	He	5.000	5.000	1.51	37759	0.01	5	
Ni	60	2	He	5.107	5.107	4.80	9550	0.05	5	
Cu	63	2	He	5.232	5.232	1.67	26456	0.02	5	
Zn	66	2	He	5.274	5.274	8.43	5448	0.10	5	
Al	27	2	He	5.030	5.030	37.95	1977	0.25	5	
B	11	1	No Gas	26.324	26.324	0.78	63546	0.04	25	
Al	27	1	No Gas	5.102	5.102	3.40	84046	0.01	5	
Si	28	1	No Gas	27.429	27.429	4.41	520696	0.01	25	
Ag	107	1	No Gas	4.986	4.986	2.55	68179	0.01	5	
Cd	111	1	No Gas	4.973	4.973	2.43	13714	0.04	5	
Sr	88	1	No Gas	5.007	5.007	2.06	119259	0.00	5	
Mo	95	1	No Gas	4.870	4.870	1.48	24019	0.02	5	
Sn	118	1	No Gas	4.753	4.753	1.94	43245	0.01	5	
Sb	121	1	No Gas	4.904	4.904	1.02	61572	0.01	5	
Ba	137	1	No Gas	4.996	4.996	3.00	21288	0.02	5	
Tl	205	1	No Gas	4.855	4.855	1.80	166326	0.00	5	
Tl	203	1	No Gas	4.836	4.836	1.67	69423	0.01	5	
Pb	208	1	No Gas	4.867	4.867	2.57	232785	0.00	5	
U	238	1	No Gas	4.814	4.814	1.46	251770	0.00	5	
Ca	43	2	He	460.978	460.978	6.73	703	65.54	500	
Sb	121	2	He	4.964	4.964	3.18	28371	0.02	5	
Ti	47	2	He	4.652	4.652	12.00	723	0.64	5	
Cu	63	1	No Gas	5.080	5.080	2.11	47828	0.01	5	
Se	82	1	No Gas	5.340	5.340	4.31	733	0.73	5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	958165	0.65	974206	98.35	70	120	
Ge	72	2	He	526456	0.52	536534	98.12	70	120	
Ge	72	1	No Gas	1855722	0.94	1897028	97.82	70	120	

Sample Report

In	115	1	No Gas	2487263	0.89	2503440	99.35	70	120	
Bi	209	1	No Gas	2982590	1.69	2946615	101.22	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	021ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T11:20:08-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.592	26.0	62518	0.6	0	ICSA Main CR1 Failed
Be	9	1	No Gas	-0.002	-90.4	10	50.0	0	ICSA Main CR1 Failed
V	51	2	He	-0.153	-28.2	5950	3.3	0	ICSA Main CR1 Failed
Cr	52	2	He	2.043	2.3	10664	2.6	0	ICSA Main CR1 Failed
Fe	56	2	He	101549.612	0.9	438319447	1.3	0	
Se	78	2	He	0.221	25.2	57	5.3	0	ICSA Main CR1 Failed
As	75	2	He	0.011	389.1	267	10.9	0	ICSA Main CR1 Failed
Ca	44	2	He	103185.379	1.3	2470807	0.4	0	
Na	23	2	He	103339.286	1.1	74701416	1.4	0	
Mg	24	2	He	103032.201	1.1	44264613	0.2	0	
K	39	2	He	103236.570	1.2	44834291	0.4	0	
Mn	55	2	He	0.613	15.3	2390	13.4	0	ICSA Main CR1 Failed
Co	59	2	He	0.086	8.3	687	8.0	0	ICSA Main CR1 Failed
Ni	60	2	He	0.128	42.3	423	21.9	0	ICSA Main CR1 Failed
Cu	63	2	He	0.384	14.7	2450	11.5	0	ICSA Main CR1 Failed
Zn	66	2	He	1.336	0.8	1583	1.6	0	ICSA Main CR1 Failed
Al	27	2	He	99597.045	0.2	24201255	0.7	0	
B	11	1	No Gas	2.632	42.3	19447	6.6	0	
Al	27	1	No Gas	94706.320	1.1	998003345	0.1	0	
Si	28	1	No Gas	33.611	5.7	524240	1.0	0	
Ag	107	1	No Gas	0.287	4.7	3991	5.6	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	1.934	4.7	4878	5.9	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	1.085	0.6	24409	1.2	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	2027.806	2.1	9117350	1.0	0	
Sn	118	1	No Gas	0.049	30.0	1804	5.0	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.118	9.6	2380	5.2	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.322	14.9	1420	11.6	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.016	30.3	1140	15.0	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.018	61.3	487	30.8	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.080	3.8	4991	3.6	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.004	24.0	297	17.0	0	ICSA Main CR1 Failed
Ca	43	2	He	100611.509	1.0	140238	1.7	0	
Sb	121	2	He	0.109	12.8	1090	6.9	0	ICSA Main CR1 Failed
Ti	47	2	He	2004.768	0.9	295784	0.1	0	
Se	82	1	No Gas	-0.275	-464.8	-95	-190.9	0	ICSA Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	912857	3.62	974206	93.70	70	120	
Ge	72	2	He	499470	0.95	536534	93.09	70	120	
Ge	72	1	No Gas	1761766	1.08	1897028	92.87	70	120	
In	115	1	No Gas	2271224	1.49	2503440	90.72	70	120	
Bi	209	1	No Gas	2703346	2.05	2946615	91.74	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	022ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T11:22:09-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	100.646	2.583	1249607	0.53	100	100.6	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	98.678	2.357	283343	0.51	100	98.7	80	120	
V	51	2	He	100.639	0.443	403920	0.96	100	100.6	80	120	
Cr	52	2	He	100.876	1.589	480809	1.90	100	100.9	80	120	
Fe	56	2	He	111270.520	1.078	484114926	0.50	100	111270.5	80	120	
Se	78	2	He	103.246	4.021	6026	4.58	100	103.2	80	120	
As	75	2	He	101.724	0.258	66187	0.86	100	101.7	80	120	
Ca	44	2	He	113372.914	1.151	2736755	1.34	100	113372.9	80	120	
Na	23	2	He	112807.425	1.033	82189392	0.51	100	112807.4	80	120	
Mg	24	2	He	110658.936	0.617	47927401	1.15	100	110658.9	80	120	ICSB Main CR1 Failed
K	39	2	He	111659.113	1.379	48879708	0.94	100	111659.1	80	120	
Mn	55	2	He	100.224	0.104	344248	0.51	100	100.2	80	120	
Co	59	2	He	97.514	1.865	703022	1.64	100	97.5	80	120	
Ni	60	2	He	99.106	1.949	173509	1.53	100	99.1	80	120	
Cu	63	2	He	97.741	1.720	460977	1.77	100	97.7	80	120	
Zn	66	2	He	100.097	1.024	92273	0.95	100	100.1	80	120	
Al	27	2	He	96838.506	1.469	23719845	1.37	100	96838.5	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	491.058	3.460	854612	2.64	100	491.1	80	120	
Al	27	1	No Gas	94220.245	1.679	997196892	1.77	100	94220.2	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	544.240	3.209	3010046	2.97	100	544.2	80	120	
Ag	107	1	No Gas	96.635	1.964	1217642	0.75	100	96.6	80	120	
Cd	111	1	No Gas	99.745	1.952	254914	1.00	100	99.7	80	120	
Sr	88	1	No Gas	101.673	0.648	2225823	1.16	100	101.7	80	120	
Mo	95	1	No Gas	2076.457	2.710	9482734	0.99	100	2076.5	80	120	ICSB Main CR1 Failed
Sn	118	1	No Gas	97.783	1.495	797136	0.83	100	97.8	80	120	
Sb	121	1	No Gas	96.399	0.285	1135276	0.37	100	96.4	80	120	
Ba	137	1	No Gas	100.396	0.717	393377	1.16	100	100.4	80	120	
Tl	205	1	No Gas	99.652	1.235	3103230	0.68	100	99.7	80	120	
Tl	203	1	No Gas	96.651	1.428	1261477	0.94	100	96.7	80	120	
Pb	208	1	No Gas	96.314	0.754	4176229	0.45	100	96.3	80	120	
U	238	1	No Gas	101.530	1.903	4844735	1.40	100	101.5	80	120	
Ca	43	2	He	110451.419	0.610	155180	0.47	100	110451.4	80	120	
Sb	121	2	He	96.907	0.190	520221	0.43	100	96.9	80	120	
Ti	47	2	He	2088.897	1.683	310688	1.70	100	2088.9	80	120	
Cu	63	1	No Gas	94.230	0.411	814266	0.40	100	94.2	80	120	
Se	82	1	No Gas	102.263	4.645	14394	4.48	100	102.3	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	901511	2.71	974206	92.54	70	120	
Ge	72	2	He	503484	0.60	536534	93.84	70	120	
Ge	72	1	No Gas	1769264	0.18	1897028	93.27	70	120	
In	115	1	No Gas	2307193	1.80	2503440	92.16	70	120	
Bi	209	1	No Gas	2722222	1.16	2946615	92.38	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	024_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T11:27:27-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	103.515	2.117	1358309	1.56	100	103.5	90	110	
Be	9	1	No Gas	99.375	1.169	301946	1.07	100	99.4	90	110	
V	51	2	He	101.377	1.152	427494	0.60	100	101.4	90	110	
Cr	52	2	He	100.561	0.402	503659	0.21	100	100.6	90	110	
Fe	56	2	He	10189.461	1.551	46589849	0.97	10000	101.9	90	110	
Se	78	2	He	101.678	1.606	6236	1.96	100	101.7	90	110	
As	75	2	He	100.819	0.552	68934	0.73	100	100.8	90	110	
Ca	44	2	He	10168.843	1.695	258409	1.11	10000	101.7	90	110	
Na	23	2	He	10171.223	0.596	7876059	0.06	10000	101.7	90	110	
Mg	24	2	He	10309.125	1.351	4692020	0.82	10000	103.1	90	110	
K	39	2	He	10258.447	2.523	4759571	1.96	10000	102.6	90	110	
Mn	55	2	He	101.627	1.054	366795	0.54	100	101.6	90	110	
Co	59	2	He	99.041	1.424	750327	1.10	100	99.0	90	110	
Ni	60	2	He	102.249	0.659	188112	0.31	100	102.2	90	110	
Cu	63	2	He	102.113	0.929	506044	0.86	100	102.1	90	110	
Zn	66	2	He	101.170	0.409	98000	0.62	100	101.2	90	110	
Al	27	2	He	102.182	1.514	26993	1.20	100	102.2	90	110	
B	11	1	No Gas	484.450	2.029	892364	1.94	500	96.9	90	110	
Al	27	1	No Gas	104.058	0.763	1198192	2.25	100	104.1	90	110	
Si	28	1	No Gas	518.412	1.622	3064872	1.16	5000	10.4	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	100.720	0.790	1363159	1.10	100	100.7	90	110	
Cd	111	1	No Gas	101.003	1.434	277235	0.47	100	101.0	90	110	
Sr	88	1	No Gas	103.885	2.954	2442053	2.22	100	103.9	90	110	
Mo	95	1	No Gas	100.107	1.245	491118	1.02	100	100.1	90	110	
Sn	118	1	No Gas	97.228	2.022	851182	0.39	100	97.2	90	110	
Sb	121	1	No Gas	97.622	0.317	1221875	2.39	100	97.6	90	110	
Ba	137	1	No Gas	100.343	0.302	422279	1.64	100	100.3	90	110	
Tl	205	1	No Gas	102.294	2.222	3447918	1.33	100	102.3	90	110	
Tl	203	1	No Gas	99.349	4.004	1403077	1.73	100	99.3	90	110	
Pb	208	1	No Gas	98.576	1.460	4626620	0.96	100	98.6	90	110	
U	238	1	No Gas	101.430	1.614	5239067	0.79	100	101.4	90	110	
Ca	43	2	He	10373.687	1.565	15339	1.11	10000	103.7	90	110	
Sb	121	2	He	98.281	0.707	554401	0.40	100	98.3	90	110	
Ti	47	2	He	101.331	3.702	15836	3.32	100	101.3	90	110	
Cu	63	1	No Gas	99.749	1.295	915784	0.82	100	99.7	90	110	
Se	82	1	No Gas	103.391	1.507	15469	3.29	100	103.4	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	953625	1.31	974206	97.89	70	120	
Ge	72	2	He	529079	0.59	536534	98.61	70	120	
Ge	72	1	No Gas	1880316	2.11	1897028	99.12	70	120	
In	115	1	No Gas	2477890	1.89	2503440	98.98	70	120	
Bi	209	1	No Gas	2947124	2.32	2946615	100.02	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	026_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T11:31:43-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.214	44.6	63025	1.1	0.5	
Be	9	1	No Gas	0.002	115.6	23	32.7	0.5	
V	51	2	He	0.509	10.1	9387	2.6	2.5	
Cr	52	2	He	-0.030	-75.8	970	11.9	2.5	
Fe	56	2	He	0.493	33.3	7829	9.6	100	
Se	78	2	He	-0.038	-166.8	47	8.9	2	
As	75	2	He	0.059	127.0	327	15.9	2.5	
Ca	44	2	He	-1.224	-66.8	513	4.1	100	
Na	23	2	He	-18.341	-3.5	86524	0.7	100	
Mg	24	2	He	0.155	20.2	523	2.9	100	
K	39	2	He	7.644	43.4	50235	3.4	100	
Mn	55	2	He	0.008	17.7	363	1.6	2.5	
Co	59	2	He	0.001	197.9	80	12.5	2.5	
Ni	60	2	He	-0.039	-27.4	147	14.2	2.5	
Cu	63	2	He	0.012	75.3	783	6.3	2	
Zn	66	2	He	0.181	37.4	583	11.7	2.5	
Al	27	2	He	0.152	292.4	760	16.0	5	
B	11	1	No Gas	3.576	13.3	22949	2.2	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	0.440	9.7	33177	1.3	5	
Si	28	1	No Gas	0.351	111.0	392930	0.9	10	
Ag	107	1	No Gas	-0.012	-24.4	310	14.1	2.5	
Cd	111	1	No Gas	0.001	452.3	13	114.6	1	
Sr	88	1	No Gas	0.008	53.9	1340	7.1	2.5	
Mo	95	1	No Gas	0.055	7.9	310	8.5	2.5	
Sn	118	1	No Gas	0.052	15.7	2030	5.1	5	
Sb	121	1	No Gas	0.023	74.0	1380	15.2	2.5	
Ba	137	1	No Gas	-0.009	-78.0	160	18.8	2.5	
Tl	205	1	No Gas	-0.001	-241.0	707	8.5	1	
Tl	203	1	No Gas	0.002	145.9	323	14.3	1	
Pb	208	1	No Gas	0.000	799.4	1743	4.9	2.5	
U	238	1	No Gas	0.002	71.5	210	31.2	2.5	
Ca	43	2	He	-0.449	-3649.6	27	94.4	100	
Sb	121	2	He	0.020	32.4	673	5.2	2.5	
Ti	47	2	He	0.021	173.2	3	173.2	2.5	
Cu	63	1	No Gas	0.017	58.3	2097	4.4	2.5	
Se	82	1	No Gas	0.064	665.4	-50	-131.2	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	992005	2.07	974206	101.83	70	120	
Ge	72	2	He	548830	0.33	536534	102.29	70	120	
Ge	72	1	No Gas	1905869	0.83	1897028	100.47	70	120	
In	115	1	No Gas	2512684	1.60	2503440	100.37	70	120	
Bi	209	1	No Gas	3043495	1.53	2946615	103.29	70	120	

Sample Report

Sample Table

Sample Name	MBLK-167071
Data File Name	027SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T11:33:43-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 167071
ISTD Ref FileName	010CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	0.199	0.199	54.10	63059	0.00	2000	
Be	9	1	No Gas	-0.003	-0.003	-74.96	7	-0.05	2000	
V	51	2	He	0.875	0.875	3.03	11087	0.01	2000	
Cr	52	2	He	-0.007	-0.007	-3.18	1100	0.00	2000	
Fe	56	2	He	0.452	0.452	16.38	7726	0.01	200000	
Se	78	2	He	0.089	0.089	62.52	55	0.16	2000	
As	75	2	He	0.055	0.055	72.71	328	0.02	2000	
Ca	44	2	He	3.701	3.701	84.90	650	0.57	200000	
Na	23	2	He	-21.664	-21.664	-7.68	84870	-0.03	200000	
Mg	24	2	He	0.533	0.533	21.51	710	0.08	200000	
K	39	2	He	5.475	5.475	22.91	49773	0.01	200000	
Mn	55	2	He	0.013	0.013	151.26	387	0.00	2000	
Co	59	2	He	-0.001	-0.001	-586.28	70	0.00	2000	
Ni	60	2	He	-0.026	-0.026	-110.99	173	-0.02	2000	
Cu	63	2	He	0.011	0.011	39.35	787	0.00	2000	
Zn	66	2	He	0.253	0.253	2.95	663	0.04	2000	
Al	27	2	He	1.367	1.367	20.32	1097	0.12	2000	
B	11	1	No Gas	1.077	1.077	13.88	18320	0.01	2000	
Al	27	1	No Gas	1.547	1.547	4.29	46398	0.00	2000	
Si	28	1	No Gas	0.467	0.467	372.97	398603	0.00	2000	
Ag	107	1	No Gas	-0.012	-0.012	-48.80	313	0.00	2000	
Cd	111	1	No Gas	-0.001	-0.001	-161.92	7	-0.02	2000	
Sr	88	1	No Gas	0.026	0.026	28.01	1790	0.00	2000	
Mo	95	1	No Gas	0.029	0.029	31.51	183	0.02	2000	
Sn	118	1	No Gas	0.073	0.073	38.23	2240	0.00	2000	
Sb	121	1	No Gas	0.004	0.004	10.40	1157	0.00	2000	
Ba	137	1	No Gas	0.020	0.020	51.52	287	0.01	2000	
Tl	205	1	No Gas	-0.006	-0.006	-32.54	540	0.00	2000	
Tl	203	1	No Gas	-0.003	-0.003	-143.19	243	0.00	2000	
Pb	208	1	No Gas	-0.002	-0.002	-54.86	1640	0.00	2000	
U	238	1	No Gas	-0.001	-0.001	-52.01	73	0.00	2000	
Ca	43	2	He	5.893	5.893	231.69	37	16.07	200000	
Sb	121	2	He	-0.005	-0.005	-302.30	537	0.00	2000	
Ti	47	2	He	0.000	0.000	#DIV/0!	0	#DIV/0!	2000	
Cu	63	1	No Gas	0.030	0.030	16.74	2247	0.00	2000	
Zn	66	1	No Gas	0.235	0.235	22.34	1767	0.01	2000	
Se	82	1	No Gas	0.026	0.026	694.44	-56	-0.05	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	995685	2.52	974206	102.20	70	120	
Ge	72	2	He	555280	0.94	536534	103.49	70	120	
Ge	72	1	No Gas	1930806	1.40	1897028	101.78	70	120	
In	115	1	No Gas	2545634	0.84	2503440	101.69	70	120	

Sample Report

Bi	209	1	No Gas	3041254	0.60	2946615	103.21	70	120	

Sample Report

Sample Table

Sample Name	LCS-167071
Data File Name	028SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T11:35:43-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 167071
ISTD Ref FileName	010CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	0.274	0.274	33.05	64057	0.00	2000	
Be	9	1	No Gas	51.016	51.016	2.08	161847	0.03	2000	
V	51	2	He	53.360	53.360	1.38	235843	0.02	2000	
Cr	52	2	He	52.392	52.392	2.08	271589	0.02	2000	
Fe	56	2	He	5311.259	5311.259	2.60	25088238	0.02	200000	
Se	78	2	He	53.946	53.946	2.07	3440	1.57	2000	
As	75	2	He	50.531	50.531	0.88	35834	0.14	2000	
Ca	44	2	He	5151.679	5151.679	2.29	135509	3.80	200000	
Na	23	2	He	5329.330	5329.330	2.95	4310348	0.12	200000	
Mg	24	2	He	5343.137	5343.137	2.19	2512301	0.21	200000	
K	39	2	He	5425.316	5425.316	2.05	2622186	0.21	200000	
Mn	55	2	He	52.587	52.587	1.45	196231	0.03	2000	
Co	59	2	He	52.526	52.526	1.20	411128	0.01	2000	
Ni	60	2	He	54.723	54.723	0.87	104109	0.05	2000	
Cu	63	2	He	54.527	54.527	0.30	279512	0.02	2000	
Zn	66	2	He	55.436	55.436	1.57	55654	0.10	2000	
Al	27	2	He	117.703	117.703	2.84	32010	0.37	2000	
B	11	1	No Gas	-0.134	-0.134	-197.19	16031	0.00	2000	
Al	27	1	No Gas	118.652	118.652	3.49	1412367	0.01	2000	
Si	28	1	No Gas	91.337	91.337	5.47	889630	0.01	2000	
Ag	107	1	No Gas	52.777	52.777	0.40	744293	0.01	2000	
Cd	111	1	No Gas	53.554	53.554	0.25	153144	0.03	2000	
Sr	88	1	No Gas	0.056	0.056	25.48	2544	0.00	2000	
Mo	95	1	No Gas	52.195	52.195	0.58	266767	0.02	2000	
Sn	118	1	No Gas	-0.012	-0.012	-134.15	1493	0.00	2000	
Sb	121	1	No Gas	50.884	50.884	3.04	660819	0.01	2000	
Ba	137	1	No Gas	52.420	52.420	0.62	229880	0.02	2000	
Tl	205	1	No Gas	52.733	52.733	2.25	1855601	0.00	2000	
Tl	203	1	No Gas	49.621	49.621	2.06	731864	0.01	2000	
Pb	208	1	No Gas	51.389	51.389	1.33	2518471	0.00	2000	
U	238	1	No Gas	-0.001	-0.001	-27.89	50	0.00	2000	
Ca	43	2	He	5388.810	5388.810	4.41	8249	65.32	200000	
Sb	121	2	He	51.695	51.695	1.01	301517	0.02	2000	
Ti	47	2	He	49.899	49.899	2.69	8056	0.62	2000	
Cu	63	1	No Gas	52.733	52.733	2.81	503007	0.01	2000	
Zn	66	1	No Gas	55.454	55.454	4.15	145271	0.04	2000	
Se	82	1	No Gas	52.308	52.308	1.86	8086	0.65	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	995808	1.73	974206	102.22	70	120	
Ge	72	2	He	546619	1.49	536534	101.88	70	120	
Ge	72	1	No Gas	1950727	3.19	1897028	102.83	70	120	
In	115	1	No Gas	2581021	1.25	2503440	103.10	70	120	

Sample Report

Bi	209	1	No Gas	3076052	1.79	2946615	104.39	70	120	

Sample Report

Sample Table

Sample Name	HS21060495-07SD
Data File Name	030SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T11:39:38-05:00
Sample Type	Sample
Dilution	5
Comment	DOD TW 167071
ISTD Ref FileName	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	1.455	7.274	3.42	80033	0.00	2000	
Be	9	1	No Gas	0.015	0.075	30.51	65	0.02	2000	
V	51	2	He	1.894	9.468	2.29	15510	0.01	2000	
Cr	52	2	He	4.832	24.161	1.85	26459	0.02	2000	
Fe	56	2	He	266.438	1332.190	3.72	1282727	0.02	200000	
Se	78	2	He	0.058	0.292	216.34	53	0.11	2000	
As	75	2	He	0.158	0.789	31.28	401	0.04	2000	
Ca	44	2	He	8685.949	43429.744	1.19	231536	3.75	200000	
Na	23	2	He	8791.579	43957.897	2.21	7152345	0.12	200000	
Mg	24	2	He	2336.123	11680.617	1.26	1115240	0.21	200000	
K	39	2	He	118.835	594.175	3.25	104357	0.11	200000	
Mn	55	2	He	50.412	252.059	1.37	190961	0.03	2000	
Co	59	2	He	2.254	11.271	1.09	17982	0.01	2000	
Ni	60	2	He	89.691	448.457	0.74	173049	0.05	2000	
Cu	63	2	He	0.869	4.343	5.99	5234	0.02	2000	
Zn	66	2	He	2.244	11.222	8.29	2677	0.08	2000	
Al	27	2	He	273.193	1365.967	6.01	74461	0.37	2000	
B	11	1	No Gas	1.337	6.684	15.08	18926	0.01	2000	
Al	27	1	No Gas	368.511	1842.553	32.54	4334729	0.01	2000	
Si	28	1	No Gas	3679.616	18398.079	10.99	20163826	0.02	2000	>LDR
Ag	107	1	No Gas	-0.013	-0.064	-30.58	303	0.00	2000	
Cd	111	1	No Gas	0.056	0.282	17.50	173	0.03	2000	
Sr	88	1	No Gas	88.474	442.372	0.57	2183009	0.00	2000	
Mo	95	1	No Gas	0.337	1.685	2.74	1773	0.02	2000	
Sn	118	1	No Gas	0.045	0.224	34.27	2030	0.00	2000	
Sb	121	1	No Gas	0.044	0.221	18.43	1687	0.00	2000	
Ba	137	1	No Gas	81.087	405.435	1.89	358042	0.02	2000	
Tl	205	1	No Gas	0.001	0.007	119.30	790	0.00	2000	
Tl	203	1	No Gas	0.002	0.011	213.75	323	0.00	2000	
Pb	208	1	No Gas	0.086	0.432	2.83	5967	0.00	2000	
U	238	1	No Gas	0.169	0.845	4.25	9204	0.00	2000	
Ca	43	2	He	8786.598	43932.992	2.08	13627	64.48	200000	
Sb	121	2	He	0.046	0.230	28.39	837	0.01	2000	
Ti	47	2	He	8.244	41.220	44.58	1351	0.61	2000	
Cu	63	1	No Gas	0.894	4.470	4.33	10498	0.01	2000	
Zn	66	1	No Gas	2.201	11.006	2.70	6912	0.03	2000	
Se	82	1	No Gas	0.436	2.180	164.54	7	6.26	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1001696	0.66	974206	102.82	70	120	
Ge	72	2	He	554756	0.41	536534	103.40	70	120	
Ge	72	1	No Gas	1953977	0.23	1897028	103.00	70	120	
In	115	1	No Gas	2600063	1.98	2503440	103.86	70	120	

Sample Report

Bi	209	1	No Gas	3068119	0.54	2946615	104.12	70	120	

Sample Report

Sample Table

Sample Name	HS21060495-07MS
Data File Name	031SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T11:41:37-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 167071
ISTD Ref FileName	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	6.695	6.695	1.38	147079	0.00	2000	
Be	9	1	No Gas	50.573	50.573	1.04	159139	0.03	2000	
V	51	2	He	54.228	54.228	0.76	238887	0.02	2000	
Cr	52	2	He	75.579	75.579	1.53	390205	0.02	2000	
Fe	56	2	He	6391.609	6391.609	0.94	30107922	0.02	200000	
Se	78	2	He	52.506	52.506	2.93	3341	1.57	2000	
As	75	2	He	50.387	50.387	1.35	35630	0.14	2000	
Ca	44	2	He	50411.445	50411.445	0.35	1317580	3.83	200000	
Na	23	2	He	48142.914	48142.914	2.05	38025700	0.13	200000	
Mg	24	2	He	16722.989	16722.989	1.43	7840510	0.21	200000	
K	39	2	He	6064.831	6064.831	1.47	2917716	0.21	200000	
Mn	55	2	He	311.239	311.239	1.11	1156513	0.03	2000	
Co	59	2	He	61.795	61.795	0.19	482299	0.01	2000	
Ni	60	2	He	490.438	490.438	0.86	928614	0.05	2000	
Cu	63	2	He	55.973	55.973	1.36	286058	0.02	2000	
Zn	66	2	He	62.620	62.620	0.99	62638	0.10	2000	
Al	27	2	He	1729.373	1729.373	3.64	459182	0.38	2000	
B	11	1	No Gas	8.880	8.880	4.57	32795	0.03	2000	
Al	27	1	No Gas	1648.430	1648.430	5.58	18880863	0.01	2000	
Si	28	1	No Gas	18219.978	18219.978	2.47	96206499	0.02	2000	>LDR
Ag	107	1	No Gas	51.100	51.100	0.24	706012	0.01	2000	
Cd	111	1	No Gas	52.762	52.762	0.63	147804	0.04	2000	
Sr	88	1	No Gas	446.041	446.041	4.25	10696284	0.00	2000	
Mo	95	1	No Gas	53.226	53.226	1.25	266489	0.02	2000	
Sn	118	1	No Gas	0.125	0.125	10.79	2687	0.00	2000	
Sb	121	1	No Gas	50.293	50.293	1.60	640761	0.01	2000	
Ba	137	1	No Gas	484.367	484.367	1.99	2079130	0.02	2000	
Tl	205	1	No Gas	52.883	52.883	2.47	1789398	0.00	2000	
Tl	203	1	No Gas	49.606	49.606	2.13	703502	0.01	2000	
Pb	208	1	No Gas	51.168	51.168	1.57	2411051	0.00	2000	
U	238	1	No Gas	0.852	0.852	1.08	44287	0.00	2000	
Ca	43	2	He	49087.942	49087.942	3.02	74665	65.74	200000	
Sb	121	2	He	50.436	50.436	1.57	293339	0.02	2000	
Ti	47	2	He	80.128	80.128	9.84	12897	0.62	2000	
Cu	63	1	No Gas	54.607	54.607	1.63	510890	0.01	2000	
Zn	66	1	No Gas	63.175	63.175	1.49	162235	0.04	2000	
Se	82	1	No Gas	52.590	52.590	1.28	7973	0.66	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	987614	1.99	974206	101.38	70	120	
Ge	72	2	He	545016	0.62	536534	101.58	70	120	
Ge	72	1	No Gas	1912741	1.35	1897028	100.83	70	120	
In	115	1	No Gas	2528451	0.87	2503440	101.00	70	120	

Sample Report

Bi	209	1	No Gas	2957637	1.61	2946615	100.37	70	120	

Sample Report

Sample Table

Sample Name	HS21060495-07MSD
Data File Name	032SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T11:43:34-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 167071
ISTD Ref FileName	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	6.778	6.778	4.77	148132	0.00	2000	
Be	9	1	No Gas	50.375	50.375	2.50	158504	0.03	2000	
V	51	2	He	53.909	53.909	0.84	236267	0.02	2000	
Cr	52	2	He	74.041	74.041	1.67	380263	0.02	2000	
Fe	56	2	He	6359.558	6359.558	0.69	29799142	0.02	200000	
Se	78	2	He	52.160	52.160	2.03	3302	1.58	2000	
As	75	2	He	50.902	50.902	1.00	35802	0.14	2000	
Ca	44	2	He	50111.369	50111.369	2.12	1302826	3.85	200000	
Na	23	2	He	47519.177	47519.177	0.76	37338118	0.13	200000	
Mg	24	2	He	16481.812	16481.812	3.61	7686004	0.21	200000	
K	39	2	He	5863.077	5863.077	0.45	2807379	0.21	200000	
Mn	55	2	He	312.436	312.436	2.37	1154740	0.03	2000	
Co	59	2	He	61.580	61.580	0.75	478072	0.01	2000	
Ni	60	2	He	491.263	491.263	0.33	925284	0.05	2000	
Cu	63	2	He	55.661	55.661	0.47	282977	0.02	2000	
Zn	66	2	He	62.702	62.702	0.98	62390	0.10	2000	
Al	27	2	He	1535.021	1535.021	2.59	405527	0.38	2000	
B	11	1	No Gas	8.792	8.792	6.15	32626	0.03	2000	
Al	27	1	No Gas	1572.262	1572.262	14.77	17986559	0.01	2000	
Si	28	1	No Gas	17557.413	17557.413	2.21	92494862	0.02	2000	>LDR
Ag	107	1	No Gas	51.447	51.447	1.34	701804	0.01	2000	
Cd	111	1	No Gas	53.267	53.267	1.48	147332	0.04	2000	
Sr	88	1	No Gas	435.520	435.520	1.45	10313785	0.00	2000	
Mo	95	1	No Gas	53.755	53.755	0.79	265760	0.02	2000	
Sn	118	1	No Gas	0.088	0.088	31.50	2334	0.00	2000	
Sb	121	1	No Gas	49.777	49.777	1.19	632877	0.01	2000	
Ba	137	1	No Gas	488.275	488.275	0.37	2069652	0.02	2000	
Tl	205	1	No Gas	52.105	52.105	0.68	1758625	0.00	2000	
Tl	203	1	No Gas	49.745	49.745	1.88	703600	0.01	2000	
Pb	208	1	No Gas	51.347	51.347	1.71	2413042	0.00	2000	
U	238	1	No Gas	0.850	0.850	1.26	44093	0.00	2000	
Ca	43	2	He	49226.558	49226.558	2.69	74485	66.09	200000	
Sb	121	2	He	50.242	50.242	1.17	290671	0.02	2000	
Ti	47	2	He	100.949	100.949	26.35	16174	0.62	2000	
Cu	63	1	No Gas	54.253	54.253	0.73	506553	0.01	2000	
Zn	66	1	No Gas	62.868	62.868	0.72	161118	0.04	2000	
Se	82	1	No Gas	51.068	51.068	3.56	7723	0.66	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	987841	2.61	974206	101.40	70	120	
Ge	72	2	He	542136	0.54	536534	101.04	70	120	
Ge	72	1	No Gas	1908664	1.22	1897028	100.61	70	120	
In	115	1	No Gas	2496666	1.17	2503440	99.73	70	120	

Sample Report

Bi	209	1	No Gas	2949852	1.77	2946615	100.11	70	120	

Sample Report

Sample Table

Sample Name	HS21060495-07PDS
Data File Name	033SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T11:45:30-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 167071
ISTD Ref FileName	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	6.824	6.824	3.08	147106	0.00	2000	
Be	9	1	No Gas	115.889	115.889	1.11	360627	0.03	2000	
V	51	2	He	122.340	122.340	1.10	523572	0.02	2000	
Cr	52	2	He	142.205	142.205	0.95	724364	0.02	2000	
Fe	56	2	He	13044.515	13044.515	1.23	60697197	0.02	200000	
Se	78	2	He	120.191	120.191	3.00	7491	1.60	2000	
As	75	2	He	116.853	116.853	1.26	81261	0.14	2000	
Ca	44	2	He	56009.877	56009.877	0.62	1446342	3.87	200000	
Na	23	2	He	54397.859	54397.859	1.48	42435896	0.13	200000	
Mg	24	2	He	22826.118	22826.118	1.50	10572548	0.22	200000	
K	39	2	He	12534.930	12534.930	2.38	5907927	0.21	200000	
Mn	55	2	He	377.309	377.309	1.70	1385149	0.03	2000	
Co	59	2	He	126.891	126.891	0.53	978343	0.01	2000	
Ni	60	2	He	555.457	555.457	1.27	1039088	0.05	2000	
Cu	63	2	He	122.901	122.901	0.69	619699	0.02	2000	
Zn	66	2	He	132.437	132.437	1.24	130426	0.10	2000	
Al	27	2	He	1521.459	1521.459	2.17	399266	0.38	2000	
B	11	1	No Gas	8.698	8.698	5.13	32093	0.03	2000	
Al	27	1	No Gas	1457.343	1457.343	5.14	16527172	0.01	2000	
Si	28	1	No Gas	18018.343	18018.343	4.03	94139555	0.02	2000	>LDR
Ag	107	1	No Gas	114.407	114.407	2.75	1560158	0.01	2000	
Cd	111	1	No Gas	120.675	120.675	1.87	333800	0.04	2000	
Sr	88	1	No Gas	432.434	432.434	2.66	10240965	0.00	2000	
Mo	95	1	No Gas	120.082	120.082	2.15	593637	0.02	2000	
Sn	118	1	No Gas	0.122	0.122	25.68	2627	0.00	2000	
Sb	121	1	No Gas	117.662	117.662	2.07	1482439	0.01	2000	
Ba	137	1	No Gas	541.183	541.183	1.64	2294071	0.02	2000	
Tl	205	1	No Gas	119.227	119.227	2.05	4055329	0.00	2000	
Tl	203	1	No Gas	117.331	117.331	2.24	1672525	0.01	2000	
Pb	208	1	No Gas	117.814	117.814	1.70	5579605	0.00	2000	
U	238	1	No Gas	0.841	0.841	1.57	43950	0.00	2000	
Ca	43	2	He	54860.503	54860.503	0.58	82453	66.54	200000	
Sb	121	2	He	114.071	114.071	1.86	654695	0.02	2000	
Ti	47	2	He	146.255	146.255	0.91	23263	0.63	2000	
Cu	63	1	No Gas	119.849	119.849	1.34	1107665	0.01	2000	
Zn	66	1	No Gas	130.936	130.936	0.57	331639	0.04	2000	
Se	82	1	No Gas	120.100	120.100	1.10	18100	0.66	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	976683	1.28	974206	100.25	70	120	
Ge	72	2	He	538473	1.64	536534	100.36	70	120	
Ge	72	1	No Gas	1893325	1.03	1897028	99.80	70	120	
In	115	1	No Gas	2496662	0.48	2503440	99.73	70	120	

Sample Report

Bi	209	1	No Gas	2973842	1.97	2946615	100.92	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	037_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T11:53:32-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	99.616	3.273	1440159	1.44	100	99.6	90	110	
Be	9	1	No Gas	95.997	2.705	320831	1.14	100	96.0	90	110	
V	51	2	He	102.417	0.501	457724	0.25	100	102.4	90	110	
Cr	52	2	He	100.970	0.427	536042	0.46	100	101.0	90	110	
Fe	56	2	He	10306.939	1.764	49955823	1.63	10000	103.1	90	110	
Se	78	2	He	101.944	1.399	6627	1.17	100	101.9	90	110	
As	75	2	He	101.310	0.939	73423	0.81	100	101.3	90	110	
Ca	44	2	He	10174.032	0.587	274064	0.39	10000	101.7	90	110	
Na	23	2	He	10345.383	0.806	8489722	0.49	10000	103.5	90	110	
Mg	24	2	He	10233.864	1.194	4937420	1.27	10000	102.3	90	110	
K	39	2	He	10277.948	0.726	5055001	0.66	10000	102.8	90	110	
Mn	55	2	He	102.416	0.967	391828	1.14	100	102.4	90	110	
Co	59	2	He	100.201	0.899	804682	0.98	100	100.2	90	110	
Ni	60	2	He	103.982	1.345	202775	1.25	100	104.0	90	110	
Cu	63	2	He	103.593	0.923	544163	0.74	100	103.6	90	110	
Zn	66	2	He	100.980	0.490	103684	0.68	100	101.0	90	110	
Al	27	2	He	102.117	2.348	28597	2.52	100	102.1	90	110	
B	11	1	No Gas	481.561	3.248	975772	2.02	500	96.3	90	110	
Al	27	1	No Gas	105.735	0.343	1287766	0.51	100	105.7	90	110	
Si	28	1	No Gas	516.379	3.068	3231966	1.87	5000	10.3	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	100.139	2.231	1447112	0.92	100	100.1	90	110	
Cd	111	1	No Gas	99.642	2.025	292056	0.53	100	99.6	90	110	
Sr	88	1	No Gas	102.631	3.416	2576111	1.91	100	102.6	90	110	
Mo	95	1	No Gas	99.358	1.930	520495	0.43	100	99.4	90	110	
Sn	118	1	No Gas	96.659	1.857	903711	0.71	100	96.7	90	110	
Sb	121	1	No Gas	99.566	1.107	1318508	0.76	100	99.6	90	110	
Ba	137	1	No Gas	98.938	2.570	444527	1.08	100	98.9	90	110	
Tl	205	1	No Gas	102.130	2.520	3597520	0.86	100	102.1	90	110	
Tl	203	1	No Gas	99.603	2.014	1470620	0.52	100	99.6	90	110	
Pb	208	1	No Gas	99.787	2.046	4894535	0.78	100	99.8	90	110	
U	238	1	No Gas	101.308	2.355	5468449	0.66	100	101.3	90	110	
Ca	43	2	He	10041.539	2.639	15739	2.35	10000	100.4	90	110	
Sb	121	2	He	97.183	0.099	581112	0.40	100	97.2	90	110	
Ti	47	2	He	99.395	1.110	16467	1.14	100	99.4	90	110	
Cu	63	1	No Gas	100.134	0.998	972894	0.99	100	100.1	90	110	
Se	82	1	No Gas	101.408	2.717	16050	2.61	100	101.4	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1049230	2.22	974206	107.70	70	120	
Ge	72	2	He	560815	0.33	536534	104.53	70	120	
Ge	72	1	No Gas	1989601	0.84	1897028	104.88	70	120	
In	115	1	No Gas	2646066	1.50	2503440	105.70	70	120	
Bi	209	1	No Gas	3079922	1.72	2946615	104.52	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	038_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T11:55:27-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.314	13.7	70758	0.6	0.5	
Be	9	1	No Gas	0.007	128.9	43	73.3	0.5	
V	51	2	He	0.765	8.0	11030	1.1	2.5	
Cr	52	2	He	-0.023	-98.5	1060	10.4	2.5	
Fe	56	2	He	0.904	17.6	10294	8.5	100	
Se	78	2	He	0.156	35.0	62	6.5	2	
As	75	2	He	0.089	78.1	366	12.6	2.5	
Ca	44	2	He	0.440	1116.4	587	23.9	100	
Na	23	2	He	32.808	9.8	133705	0.9	100	
Mg	24	2	He	1.089	21.6	1013	9.9	100	
K	39	2	He	3.198	71.7	50610	0.6	100	
Mn	55	2	He	0.000	-2865.1	350	15.9	2.5	
Co	59	2	He	0.000	-1062.8	77	30.1	2.5	
Ni	60	2	He	-0.018	-91.4	197	15.5	2.5	
Cu	63	2	He	0.024	11.6	887	2.3	2	
Zn	66	2	He	0.222	37.4	657	13.8	2.5	
Al	27	2	He	-0.322	-53.8	667	8.7	5	
B	11	1	No Gas	10.950	16.8	40522	9.8	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	0.321	32.2	34139	2.7	5	
Si	28	1	No Gas	-2.633	-48.6	404792	0.7	10	
Ag	107	1	No Gas	-0.008	-20.0	383	5.4	2.5	
Cd	111	1	No Gas	0.001	227.0	13	43.3	1	
Sr	88	1	No Gas	0.031	28.5	2020	11.6	2.5	
Mo	95	1	No Gas	0.066	31.3	393	27.9	2.5	
Sn	118	1	No Gas	0.102	37.1	2644	13.3	5	
Sb	121	1	No Gas	0.130	18.7	2927	11.1	2.5	
Ba	137	1	No Gas	0.041	67.3	400	32.5	2.5	
Tl	205	1	No Gas	0.100	73.9	4431	62.5	1	
Tl	203	1	No Gas	0.094	56.3	1744	47.8	1	
Pb	208	1	No Gas	0.033	38.1	3507	19.7	2.5	
U	238	1	No Gas	0.015	55.2	970	49.7	2.5	
Ca	43	2	He	2.892	329.2	33	45.8	100	
Sb	121	2	He	0.089	24.5	1137	11.7	2.5	
Ti	47	2	He	0.019	173.2	3	173.2	2.5	
Cu	63	1	No Gas	0.125	15.5	3327	5.0	2.5	
Se	82	1	No Gas	0.227	244.5	-27	-338.7	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1090820	1.27	974206	111.97	70	120	
Ge	72	2	He	577458	1.66	536534	107.63	70	120	
Ge	72	1	No Gas	2045026	1.16	1897028	107.80	70	120	
In	115	1	No Gas	2691398	0.94	2503440	107.51	70	120	
Bi	209	1	No Gas	3179926	1.41	2946615	107.92	70	120	

Sample Report

Sample Table

Sample Name	HS21060460-01
Data File Name	042SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T12:04:30-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 167071
ISTD Ref FileName	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	14.496	14.496	1.83	273439	0.01	2000	
Be	9	1	No Gas	0.150	0.150	10.12	538	0.03	2000	
V	51	2	He	3.513	3.513	2.71	23550	0.01	2000	
Cr	52	2	He	1.464	1.464	8.72	9197	0.02	2000	
Fe	56	2	He	684.515	684.515	2.27	3432378	0.02	200000	
Se	78	2	He	0.523	0.523	65.58	87	0.60	2000	
As	75	2	He	0.740	0.740	8.80	853	0.09	2000	
Ca	44	2	He	19999.943	19999.943	1.19	555915	3.60	200000	
Na	23	2	He	124135.693	124135.693	1.17	104047222	0.12	200000	
Mg	24	2	He	15704.540	15704.540	0.64	7825726	0.20	200000	
K	39	2	He	1104.458	1104.458	0.78	604960	0.18	200000	
Mn	55	2	He	227.063	227.063	0.41	896855	0.03	2000	
Co	59	2	He	4.307	4.307	1.01	35804	0.01	2000	
Ni	60	2	He	7.946	7.946	3.82	16220	0.05	2000	
Cu	63	2	He	4.688	4.688	1.37	26159	0.02	2000	
Zn	66	2	He	12.034	12.034	2.56	13137	0.09	2000	
Al	27	2	He	442.517	442.517	1.35	125465	0.35	2000	
B	11	1	No Gas	49.370	49.370	2.20	119551	0.04	2000	
Al	27	1	No Gas	444.583	444.583	4.10	5530727	0.01	2000	
Si	28	1	No Gas	19851.840	19851.840	0.87	113298238	0.02	2000	>LDR
Ag	107	1	No Gas	-0.012	-0.012	-41.53	323	0.00	2000	
Cd	111	1	No Gas	0.139	0.139	15.02	427	0.03	2000	
Sr	88	1	No Gas	370.786	370.786	0.89	9469009	0.00	2000	
Mo	95	1	No Gas	0.211	0.211	3.26	1167	0.02	2000	
Sn	118	1	No Gas	-0.006	-0.006	-246.37	1620	0.00	2000	
Sb	121	1	No Gas	0.109	0.109	26.11	2680	0.00	2000	
Ba	137	1	No Gas	356.605	356.605	0.96	1629977	0.02	2000	
Tl	205	1	No Gas	0.002	0.002	149.69	820	0.00	2000	
Tl	203	1	No Gas	0.005	0.005	31.37	360	0.00	2000	
Pb	208	1	No Gas	0.171	0.171	2.51	10082	0.00	2000	
U	238	1	No Gas	0.468	0.468	1.95	25243	0.00	2000	
Ca	43	2	He	20274.483	20274.483	0.23	32796	61.82	200000	
Sb	121	2	He	0.096	0.096	15.38	1180	0.01	2000	
Ti	47	2	He	10.599	10.599	19.23	1814	0.58	2000	
Cu	63	1	No Gas	4.796	4.796	2.05	50444	0.01	2000	
Zn	66	1	No Gas	12.135	12.135	3.36	34705	0.03	2000	
Se	82	1	No Gas	1.303	1.303	54.99	150	0.87	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1086493	1.93	974206	111.53	70	120	
Ge	72	2	He	579262	0.23	536534	107.96	70	120	
Ge	72	1	No Gas	2068430	0.92	1897028	109.04	70	120	
In	115	1	No Gas	2692230	0.93	2503440	107.54	70	120	
Bi	209	1	No Gas	3062620	1.53	2946615	103.94	70	120	

Sample Report

Sample Table

Sample Name	LCS-167071
Data File Name	044SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T12:09:01-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 167071
ISTD Ref FileName	010CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	0.736	0.736	12.50	81590	0.00	2000	
Be	9	1	No Gas	49.047	49.047	0.58	181069	0.03	2000	
V	51	2	He	50.724	50.724	1.68	257143	0.02	2000	
Cr	52	2	He	49.936	49.936	1.11	296520	0.02	2000	
Fe	56	2	He	4995.596	4995.596	1.63	27025430	0.02	200000	
Se	78	2	He	54.118	54.118	1.30	3953	1.37	2000	
As	75	2	He	49.751	49.751	1.29	40406	0.12	2000	
Ca	44	2	He	5025.285	5025.285	1.96	151392	3.32	200000	
Na	23	2	He	5244.581	5244.581	1.59	4860051	0.11	200000	
Mg	24	2	He	5266.908	5266.908	2.07	2836068	0.19	200000	
K	39	2	He	5325.708	5325.708	1.27	2948911	0.18	200000	
Mn	55	2	He	50.259	50.259	1.67	214788	0.02	2000	
Co	59	2	He	49.431	49.431	0.48	443083	0.01	2000	
Ni	60	2	He	51.385	51.385	0.51	111964	0.05	2000	
Cu	63	2	He	51.771	51.771	1.84	303913	0.02	2000	
Zn	66	2	He	54.022	54.022	1.83	62119	0.09	2000	
Al	27	2	He	107.371	107.371	3.02	33511	0.32	2000	
B	11	1	No Gas	1.387	1.387	80.49	22011	0.01	2000	
Al	27	1	No Gas	108.695	108.695	2.69	1448392	0.01	2000	
Si	28	1	No Gas	110.759	110.759	4.26	1110236	0.01	2000	
Ag	107	1	No Gas	50.969	50.969	1.00	795670	0.01	2000	
Cd	111	1	No Gas	52.126	52.126	0.97	164989	0.03	2000	
Sr	88	1	No Gas	0.244	0.244	3.03	7919	0.00	2000	
Mo	95	1	No Gas	49.634	49.634	1.28	280786	0.02	2000	
Sn	118	1	No Gas	-0.035	-0.035	-17.96	1430	0.00	2000	
Sb	121	1	No Gas	49.019	49.019	1.15	711425	0.01	2000	
Ba	137	1	No Gas	50.862	50.862	1.91	246878	0.02	2000	
Tl	205	1	No Gas	49.609	49.609	1.47	1933924	0.00	2000	
Tl	203	1	No Gas	46.186	46.186	4.02	754330	0.01	2000	
Pb	208	1	No Gas	47.970	47.970	1.96	2603672	0.00	2000	
U	238	1	No Gas	-0.002	-0.002	-46.22	40	0.00	2000	
Ca	43	2	He	5108.454	5108.454	2.01	8953	57.06	200000	
Sb	121	2	He	49.009	49.009	0.34	327380	0.01	2000	
Ti	47	2	He	49.064	49.064	5.72	9070	0.54	2000	
Cu	63	1	No Gas	51.769	51.769	1.51	551806	0.01	2000	
Zn	66	1	No Gas	53.491	53.491	2.72	156650	0.03	2000	
Se	82	1	No Gas	50.528	50.528	0.75	8723	0.58	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1158503	0.65	974206	118.92	70	120	
Ge	72	2	He	625920	0.70	536534	116.66	70	120	
Ge	72	1	No Gas	2178734	1.57	1897028	114.85	70	120	
In	115	1	No Gas	2856859	0.69	2503440	114.12	70	120	

Sample Report

Bi	209	1	No Gas	3406978	1.96	2946615	115.62	70	120	

Sample Report

Sample Table

Sample Name	HS21060495-07PDS
Data File Name	045SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T12:10:58-05:00
Sample Type	Sample
Dilution	1
Comment	DOD TW 167071
ISTD Ref FileName	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	7.107	7.107	3.01	156920	0.00	2000	
Be	9	1	No Gas	95.340	95.340	1.16	308817	0.03	2000	
V	51	2	He	96.430	96.430	1.12	441619	0.02	2000	
Cr	52	2	He	114.375	114.375	1.36	621443	0.02	2000	
Fe	56	2	He	10502.642	10502.642	1.31	52111029	0.02	200000	
Se	78	2	He	95.814	95.814	1.58	6380	1.50	2000	
As	75	2	He	92.946	92.946	1.10	68983	0.13	2000	
Ca	44	2	He	51348.852	51348.852	0.93	1413707	3.63	200000	
Na	23	2	He	49595.778	49595.778	0.47	41265352	0.12	200000	
Mg	24	2	He	19968.023	19968.023	1.14	9861521	0.20	200000	
K	39	2	He	10182.466	10182.466	0.70	5127372	0.20	200000	
Mn	55	2	He	335.959	335.959	0.97	1315067	0.03	2000	
Co	59	2	He	100.876	100.876	0.68	829311	0.01	2000	
Ni	60	2	He	498.013	498.013	1.26	993298	0.05	2000	
Cu	63	2	He	96.955	96.955	0.60	521436	0.02	2000	
Zn	66	2	He	105.542	105.542	0.68	110920	0.10	2000	
Al	27	2	He	1299.986	1299.986	0.31	363852	0.36	2000	
B	11	1	No Gas	11.267	11.267	2.00	38366	0.03	2000	
Al	27	1	No Gas	1574.207	1574.207	40.67	19166565	0.01	2000	
Si	28	1	No Gas	16016.796	16016.796	0.94	89594222	0.02	2000	>LDR
Ag	107	1	No Gas	91.770	91.770	0.14	1317241	0.01	2000	
Cd	111	1	No Gas	95.553	95.553	0.88	278175	0.03	2000	
Sr	88	1	No Gas	407.175	407.175	0.68	10148709	0.00	2000	
Mo	95	1	No Gas	96.035	96.035	0.40	499668	0.02	2000	
Sn	118	1	No Gas	0.075	0.075	33.84	2334	0.00	2000	
Sb	121	1	No Gas	91.570	91.570	2.12	1234525	0.01	2000	
Ba	137	1	No Gas	494.741	494.741	1.33	2207190	0.02	2000	
Tl	205	1	No Gas	98.120	98.120	1.02	3385491	0.00	2000	
Tl	203	1	No Gas	97.139	97.139	0.45	1404817	0.01	2000	
Pb	208	1	No Gas	94.660	94.660	0.66	4547767	0.00	2000	
U	238	1	No Gas	0.825	0.825	5.75	43728	0.00	2000	
Ca	43	2	He	49550.712	49550.712	1.76	79395	62.41	200000	
Sb	121	2	He	90.066	90.066	1.99	551321	0.02	2000	
Ti	47	2	He	131.645	131.645	11.54	22328	0.59	2000	
Cu	63	1	No Gas	92.663	92.663	0.98	916730	0.01	2000	
Zn	66	1	No Gas	104.067	104.067	0.40	282259	0.04	2000	
Se	82	1	No Gas	97.510	97.510	2.31	15713	0.62	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1016660	1.85	974206	104.36	70	120	
Ge	72	2	He	574143	1.04	536534	107.01	70	120	
Ge	72	1	No Gas	2025650	1.27	1897028	106.78	70	120	
In	115	1	No Gas	2627596	0.51	2503440	104.96	70	120	

Sample Report

Bi	209	1	No Gas	3016120	0.82	2946615	102.36	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	049_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T12:19:29-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	100.069	1.258	1388760	1.29	100	100.1	90	110	
Be	9	1	No Gas	97.273	2.312	312065	0.67	100	97.3	90	110	
V	51	2	He	100.750	0.360	450939	0.85	100	100.8	90	110	
Cr	52	2	He	100.495	0.724	534166	0.95	100	100.5	90	110	
Fe	56	2	He	10133.928	0.244	49176664	0.54	10000	101.3	90	110	
Se	78	2	He	98.974	1.377	6444	2.00	100	99.0	90	110	
As	75	2	He	99.478	0.742	72185	0.07	100	99.5	90	110	
Ca	44	2	He	9988.629	1.019	269412	1.53	10000	99.9	90	110	
Na	23	2	He	10025.254	1.243	8239719	0.50	10000	100.3	90	110	
Mg	24	2	He	10016.694	0.358	4838446	0.87	10000	100.2	90	110	
K	39	2	He	9986.704	1.386	4919332	2.07	10000	99.9	90	110	
Mn	55	2	He	100.373	1.486	384461	1.24	100	100.4	90	110	
Co	59	2	He	98.843	1.098	794689	0.59	100	98.8	90	110	
Ni	60	2	He	101.802	2.161	198747	1.41	100	101.8	90	110	
Cu	63	2	He	101.198	0.468	532233	0.34	100	101.2	90	110	
Zn	66	2	He	99.694	0.267	102492	0.85	100	99.7	90	110	
Al	27	2	He	99.479	2.317	27912	2.84	100	99.5	90	110	
B	11	1	No Gas	492.071	3.165	957097	3.96	500	98.4	90	110	
Al	27	1	No Gas	102.441	1.503	1244410	1.97	100	102.4	90	110	
Si	28	1	No Gas	499.809	1.438	3130965	0.01	5000	10.0	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	101.006	2.054	1434419	2.25	100	101.0	90	110	
Cd	111	1	No Gas	100.936	1.233	290728	1.35	100	100.9	90	110	
Sr	88	1	No Gas	104.174	1.631	2569943	1.77	100	104.2	90	110	
Mo	95	1	No Gas	99.902	0.453	514282	0.65	100	99.9	90	110	
Sn	118	1	No Gas	98.485	1.177	904799	1.35	100	98.5	90	110	
Sb	121	1	No Gas	98.977	2.150	1306170	1.08	100	99.0	90	110	
Ba	137	1	No Gas	101.051	2.052	446188	2.18	100	101.1	90	110	
Tl	205	1	No Gas	103.797	1.104	3648214	1.78	100	103.8	90	110	
Tl	203	1	No Gas	102.370	0.177	1508004	0.98	100	102.4	90	110	
Pb	208	1	No Gas	101.185	0.427	4951550	0.64	100	101.2	90	110	
U	238	1	No Gas	101.490	1.370	5466009	1.77	100	101.5	90	110	
Ca	43	2	He	10182.276	1.926	15979	2.11	10000	101.8	90	110	
Sb	121	2	He	96.923	1.119	580218	0.46	100	96.9	90	110	
Ti	47	2	He	98.681	3.240	16370	3.81	100	98.7	90	110	
Cu	63	1	No Gas	97.467	1.012	943843	1.06	100	97.5	90	110	
Se	82	1	No Gas	101.184	1.111	15961	0.25	100	101.2	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1007115	2.02	974206	103.38	70	120	
Ge	72	2	He	561487	0.76	536534	104.65	70	120	
Ge	72	1	No Gas	1982941	1.26	1897028	104.53	70	120	
In	115	1	No Gas	2599734	0.21	2503440	103.85	70	120	
Bi	209	1	No Gas	3072182	0.99	2946615	104.26	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	050_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T12:21:23-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.291	33.3	67286	1.0	0.5	
Be	9	1	No Gas	0.003	70.6	28	27.0	0.5	
V	51	2	He	0.862	2.7	11448	0.7	2.5	
Cr	52	2	He	-0.010	-290.7	1127	14.9	2.5	
Fe	56	2	He	0.766	14.3	9580	6.0	100	
Se	78	2	He	-0.113	-165.8	44	27.6	2	
As	75	2	He	0.085	23.8	362	3.2	2.5	
Ca	44	2	He	-3.120	-51.1	487	9.5	100	
Na	23	2	He	10.096	31.3	114500	1.2	100	
Mg	24	2	He	0.183	127.1	563	21.0	100	
K	39	2	He	14.715	13.3	56268	0.7	100	
Mn	55	2	He	-0.005	-189.8	330	13.2	2.5	
Co	59	2	He	-0.002	-204.9	63	50.8	2.5	
Ni	60	2	He	-0.023	-98.9	187	25.3	2.5	
Cu	63	2	He	0.010	189.4	807	11.1	2	
Zn	66	2	He	0.223	25.9	657	9.7	2.5	
Al	27	2	He	0.163	203.6	800	10.9	5	
B	11	1	No Gas	11.558	14.9	39907	8.3	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	0.362	14.3	33999	1.3	5	
Si	28	1	No Gas	-2.586	-50.1	397477	0.5	10	
Ag	107	1	No Gas	-0.012	-26.3	327	12.4	2.5	
Cd	111	1	No Gas	0.004	123.1	23	65.5	1	
Sr	88	1	No Gas	0.044	92.7	2343	44.6	2.5	
Mo	95	1	No Gas	0.077	32.6	447	31.0	2.5	
Sn	118	1	No Gas	0.093	38.0	2550	14.5	5	
Sb	121	1	No Gas	0.136	21.1	2964	13.3	2.5	
Ba	137	1	No Gas	0.023	110.1	317	37.7	2.5	
Tl	205	1	No Gas	0.118	70.0	5075	61.1	1	
Tl	203	1	No Gas	0.120	76.6	2140	67.6	1	
Pb	208	1	No Gas	0.034	44.2	3557	23.4	2.5	
U	238	1	No Gas	0.017	46.4	1083	42.8	2.5	
Ca	43	2	He	0.906	1396.0	30	66.7	100	
Sb	121	2	He	0.079	14.5	1070	7.5	2.5	
Ti	47	2	He	0.020	173.2	3	173.2	2.5	
Cu	63	1	No Gas	0.034	23.3	2370	2.2	2.5	
Se	82	1	No Gas	0.657	72.2	44	174.7	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1042322	1.45	974206	106.99	70	120	
Ge	72	2	He	576173	1.05	536534	107.39	70	120	
Ge	72	1	No Gas	2006960	2.01	1897028	105.79	70	120	
In	115	1	No Gas	2679908	1.53	2503440	107.05	70	120	
Bi	209	1	No Gas	3173973	2.21	2946615	107.72	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	061_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T12:43:19-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	96.724	1.654	1313408	1.07	100	96.7	90	110	
Be	9	1	No Gas	95.769	0.870	300221	0.40	100	95.8	90	110	
V	51	2	He	100.655	0.258	432298	0.46	100	100.7	90	110	
Cr	52	2	He	99.944	1.941	509736	1.57	100	99.9	90	110	
Fe	56	2	He	10248.127	1.644	47721193	1.91	10000	102.5	90	110	
Se	78	2	He	100.560	1.536	6281	1.41	100	100.6	90	110	
As	75	2	He	99.301	0.394	69146	0.81	100	99.3	90	110	
Ca	44	2	He	9950.168	0.991	257515	0.99	10000	99.5	90	110	
Na	23	2	He	10184.536	1.421	8031090	1.57	10000	101.8	90	110	
Mg	24	2	He	10061.116	0.343	4663464	1.05	10000	100.6	90	110	
K	39	2	He	9885.326	0.977	4672675	1.17	10000	98.9	90	110	
Mn	55	2	He	101.177	1.768	371882	1.86	100	101.2	90	110	
Co	59	2	He	99.221	0.915	765498	0.99	100	99.2	90	110	
Ni	60	2	He	101.804	1.157	190728	0.86	100	101.8	90	110	
Cu	63	2	He	101.871	0.730	514100	0.42	100	101.9	90	110	
Zn	66	2	He	101.824	1.459	100447	2.12	100	101.8	90	110	
Al	27	2	He	97.493	4.287	26265	4.86	100	97.5	90	110	
B	11	1	No Gas	480.233	3.047	912633	1.73	500	96.0	90	110	
Al	27	1	No Gas	100.388	3.770	1171671	2.68	100	100.4	90	110	
Si	28	1	No Gas	506.991	1.985	3045099	0.62	5000	10.1	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	99.468	2.164	1395355	0.84	100	99.5	90	110	
Cd	111	1	No Gas	99.758	3.257	283804	1.82	100	99.8	90	110	
Sr	88	1	No Gas	99.306	1.196	2420256	0.31	100	99.3	90	110	
Mo	95	1	No Gas	98.107	1.828	498909	0.60	100	98.1	90	110	
Sn	118	1	No Gas	97.013	2.627	880429	1.55	100	97.0	90	110	
Sb	121	1	No Gas	100.499	2.074	1274108	1.95	100	100.5	90	110	
Ba	137	1	No Gas	98.770	1.859	430842	1.39	100	98.8	90	110	
Tl	205	1	No Gas	102.181	0.557	3589991	1.14	100	102.2	90	110	
Tl	203	1	No Gas	101.750	1.359	1498372	2.01	100	101.7	90	110	
Pb	208	1	No Gas	99.338	0.574	4859532	1.20	100	99.3	90	110	
U	238	1	No Gas	101.714	1.357	5475581	0.72	100	101.7	90	110	
Ca	43	2	He	10141.952	2.215	15272	2.06	10000	101.4	90	110	
Sb	121	2	He	98.387	1.368	565158	0.83	100	98.4	90	110	
Ti	47	2	He	98.223	3.900	15632	3.72	100	98.2	90	110	
Cu	63	1	No Gas	97.434	1.277	906298	0.28	100	97.4	90	110	
Se	82	1	No Gas	101.545	2.750	15386	2.43	100	101.5	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	983881	1.24	974206	100.99	70	120	
Ge	72	2	He	538784	0.71	536534	100.42	70	120	
Ge	72	1	No Gas	1904799	1.20	1897028	100.41	70	120	
In	115	1	No Gas	2568608	1.43	2503440	102.60	70	120	
Bi	209	1	No Gas	3071005	0.70	2946615	104.22	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	062_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T12:45:13-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.136	92.7	61559	0.5	0.5	
Be	9	1	No Gas	0.003	162.0	27	60.3	0.5	
V	51	2	He	0.243	25.5	8396	3.1	2.5	
Cr	52	2	He	-0.018	-34.8	1050	3.4	2.5	
Fe	56	2	He	0.725	13.9	9100	5.5	100	
Se	78	2	He	-0.104	-197.5	43	30.7	2	
As	75	2	He	0.051	89.3	328	10.2	2.5	
Ca	44	2	He	-2.457	-70.6	490	9.4	100	
Na	23	2	He	-16.619	-5.3	89563	0.8	100	
Mg	24	2	He	0.086	125.3	500	10.6	100	
K	39	2	He	6.341	15.7	50556	1.2	100	
Mn	55	2	He	0.065	17.0	590	7.4	2.5	
Co	59	2	He	-0.004	-34.8	43	26.6	2.5	
Ni	60	2	He	-0.022	-116.3	183	26.9	2.5	
Cu	63	2	He	-0.004	-315.7	713	8.6	2	
Zn	66	2	He	0.186	19.1	600	6.0	2.5	
Al	27	2	He	-0.194	-52.4	680	3.9	5	
B	11	1	No Gas	10.818	19.6	36287	9.1	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	0.422	21.8	33183	3.2	5	
Si	28	1	No Gas	-2.412	-21.0	380914	1.0	10	
Ag	107	1	No Gas	-0.005	-153.3	420	25.2	2.5	
Cd	111	1	No Gas	-0.002	-81.2	3	173.2	1	
Sr	88	1	No Gas	0.011	59.1	1453	10.7	2.5	
Mo	95	1	No Gas	0.077	39.6	433	36.1	2.5	
Sn	118	1	No Gas	0.111	22.4	2640	7.9	5	
Sb	121	1	No Gas	0.130	9.4	2747	5.8	2.5	
Ba	137	1	No Gas	0.021	96.0	297	29.1	2.5	
Tl	205	1	No Gas	0.124	65.0	5175	56.5	1	
Tl	203	1	No Gas	0.125	73.3	2157	64.2	1	
Pb	208	1	No Gas	0.034	43.3	3434	21.8	2.5	
U	238	1	No Gas	0.016	51.4	1000	46.2	2.5	
Ca	43	2	He	9.948	207.4	43	74.2	100	
Sb	121	2	He	0.095	19.6	1133	9.8	2.5	
Ti	47	2	He	0.000	#DIV/0!	0	#DIV/0!	2.5	
Cu	63	1	No Gas	-0.027	-78.5	1697	11.9	2.5	
Se	82	1	No Gas	0.524	14.2	20	55.7	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	985014	2.20	974206	101.11	70	120	
Ge	72	2	He	559270	0.22	536534	104.24	70	120	
Ge	72	1	No Gas	1918221	0.30	1897028	101.12	70	120	
In	115	1	No Gas	2606893	0.67	2503440	104.13	70	120	
Bi	209	1	No Gas	3105362	0.92	2946615	105.39	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	130_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T15:25:27-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.001	9215.8	58198	1.1	0.5	
Be	9	1	No Gas	0.009	36.6	43	24.0	0.5	
V	51	2	He	-0.631	-7.4	4300	4.0	2.5	
Cr	52	2	He	-0.019	-167.1	987	16.5	2.5	
Fe	56	2	He	1.118	14.0	10361	7.1	100	
Se	78	2	He	0.037	424.6	49	19.2	2	
As	75	2	He	-0.117	-22.2	194	9.4	2.5	
Ca	44	2	He	-4.758	-49.7	403	14.5	100	
Na	23	2	He	38.882	2.6	126611	0.2	100	
Mg	24	2	He	0.349	27.3	590	7.8	100	
K	39	2	He	12.705	25.3	50523	2.5	100	
Mn	55	2	He	0.896	6.9	3537	6.5	2.5	
Co	59	2	He	0.001	247.5	77	15.1	2.5	
Ni	60	2	He	0.038	129.0	283	32.6	2.5	
Cu	63	2	He	0.016	97.8	767	9.3	2	
Zn	66	2	He	0.323	52.7	697	24.1	2.5	
Al	27	2	He	-1.406	-4.3	330	5.2	5	
B	11	1	No Gas	28.493	7.3	67520	6.7	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-0.948	-5.8	17268	4.6	5	
Si	28	1	No Gas	-0.383	-468.5	386952	1.4	10	
Ag	107	1	No Gas	-0.012	-22.6	317	12.0	2.5	
Cd	111	1	No Gas	0.006	69.7	27	43.3	1	
Sr	88	1	No Gas	0.001	587.6	1197	10.4	2.5	
Mo	95	1	No Gas	0.109	34.0	590	32.3	2.5	
Sn	118	1	No Gas	1.949	3.8	19254	3.5	5	
Sb	121	1	No Gas	0.165	21.1	3154	13.8	2.5	
Ba	137	1	No Gas	0.021	52.8	293	15.4	2.5	
Tl	205	1	No Gas	0.132	77.2	5515	66.7	1	
Tl	203	1	No Gas	0.125	75.8	2174	65.5	1	
Pb	208	1	No Gas	0.021	23.2	2830	8.6	2.5	
U	238	1	No Gas	0.020	40.3	1200	36.3	2.5	
Ca	43	2	He	-6.494	-60.2	17	34.6	100	
Sb	121	2	He	0.159	6.2	1430	3.6	2.5	
Ti	47	2	He	0.064	99.9	10	100.0	2.5	
Cu	63	1	No Gas	0.167	26.0	3474	12.0	2.5	
Se	82	1	No Gas	0.946	42.4	84	72.6	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	958265	1.61	974206	98.36	70	120	
Ge	72	2	He	526747	0.54	536534	98.18	70	120	
Ge	72	1	No Gas	1895706	0.98	1897028	99.93	70	120	
In	115	1	No Gas	2568237	1.14	2503440	102.59	70	120	
Bi	209	1	No Gas	3140295	0.34	2946615	106.57	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	131_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T15:27:27-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	103.559	1.081	1283638	1.51	100	103.6	90	110	
Be	9	1	No Gas	99.969	0.651	286910	0.35	100	100.0	90	110	
V	51	2	He	101.970	0.832	417164	1.03	100	102.0	90	110	
Cr	52	2	He	102.489	1.171	497987	0.44	100	102.5	90	110	
Fe	56	2	He	10443.612	0.376	46332518	0.84	10000	104.4	90	110	
Se	78	2	He	100.114	1.681	5957	0.89	100	100.1	90	110	
As	75	2	He	102.360	0.993	67896	0.12	100	102.4	90	110	
Ca	44	2	He	10133.685	1.577	249853	1.29	10000	101.3	90	110	
Na	23	2	He	10802.164	1.820	8109634	1.74	10000	108.0	90	110	
Mg	24	2	He	10606.716	2.048	4683411	1.21	10000	106.1	90	110	
K	39	2	He	10506.236	1.808	4728418	1.27	10000	105.1	90	110	
Mn	55	2	He	102.655	0.464	359492	1.32	100	102.7	90	110	
Co	59	2	He	101.672	1.354	747300	0.73	100	101.7	90	110	
Ni	60	2	He	106.083	1.096	189343	0.77	100	106.1	90	110	
Cu	63	2	He	105.252	1.093	506036	0.73	100	105.3	90	110	
Zn	66	2	He	106.253	0.646	99838	0.68	100	106.3	90	110	
Al	27	2	He	108.138	0.434	27678	1.07	100	108.1	90	110	
B	11	1	No Gas	529.149	2.385	919332	2.56	500	105.8	90	110	
Al	27	1	No Gas	113.333	1.246	1287931	0.91	100	113.3	90	110	CCV Main CR1-2 Failed
Si	28	1	No Gas	547.756	1.994	3181096	1.63	5000	11.0	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	103.117	3.209	1402777	2.86	100	103.1	90	110	
Cd	111	1	No Gas	104.203	0.597	287534	0.26	100	104.2	90	110	
Sr	88	1	No Gas	105.186	2.745	2485698	2.17	100	105.2	90	110	
Mo	95	1	No Gas	100.713	1.411	496665	0.66	100	100.7	90	110	
Sn	118	1	No Gas	102.290	0.550	900271	1.11	100	102.3	90	110	
Sb	121	1	No Gas	105.330	2.430	1303371	1.72	100	105.3	90	110	
Ba	137	1	No Gas	104.462	0.094	441882	0.77	100	104.5	90	110	
Tl	205	1	No Gas	106.545	1.984	3674846	0.62	100	106.5	90	110	
Tl	203	1	No Gas	105.271	1.570	1521971	1.39	100	105.3	90	110	
Pb	208	1	No Gas	105.301	0.501	5057964	1.65	100	105.3	90	110	
U	238	1	No Gas	104.984	0.359	5549631	1.20	100	105.0	90	110	
Ca	43	2	He	10156.008	0.310	14571	1.10	10000	101.6	90	110	
Sb	121	2	He	103.268	1.799	565117	0.92	100	103.3	90	110	
Ti	47	2	He	100.682	1.538	15269	2.30	100	100.7	90	110	
Cu	63	1	No Gas	98.541	1.179	894744	0.61	100	98.5	90	110	
Se	82	1	No Gas	103.581	5.003	15320	4.35	100	103.6	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	900704	0.50	974206	92.46	70	120	
Ge	72	2	He	513327	0.89	536534	95.67	70	120	
Ge	72	1	No Gas	1859355	0.79	1897028	98.01	70	120	
In	115	1	No Gas	2490653	0.76	2503440	99.49	70	120	
Bi	209	1	No Gas	3015476	1.45	2946615	102.34	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	142_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T16:07:04-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	98.491	2.954	1384787	1.51	100	98.5	90	110	
Be	9	1	No Gas	97.288	2.540	316034	0.36	100	97.3	90	110	
V	51	2	He	103.288	1.349	470032	0.82	100	103.3	90	110	
Cr	52	2	He	101.968	1.257	551283	0.98	100	102.0	90	110	
Fe	56	2	He	10442.364	1.642	51542911	1.35	10000	104.4	90	110	
Se	78	2	He	101.784	1.742	6739	2.24	100	101.8	90	110	
As	75	2	He	102.383	0.729	75562	0.21	100	102.4	90	110	
Ca	44	2	He	10251.865	1.074	281242	1.13	10000	102.5	90	110	
Na	23	2	He	10812.400	0.866	9031588	0.75	10000	108.1	90	110	
Mg	24	2	He	10587.898	1.252	5202033	0.82	10000	105.9	90	110	
K	39	2	He	10386.747	2.142	5201978	2.05	10000	103.9	90	110	
Mn	55	2	He	102.655	1.384	399955	0.94	100	102.7	90	110	
Co	59	2	He	101.290	0.572	828383	0.10	100	101.3	90	110	
Ni	60	2	He	104.450	1.445	207427	0.91	100	104.4	90	110	
Cu	63	2	He	105.063	0.524	562037	0.46	100	105.1	90	110	
Zn	66	2	He	105.236	0.270	110027	0.69	100	105.2	90	110	
Al	27	2	He	107.434	2.985	30597	2.55	100	107.4	90	110	
B	11	1	No Gas	522.308	2.602	1027296	0.98	500	104.5	90	110	
Al	27	1	No Gas	113.539	1.376	1425512	0.56	100	113.5	90	110	CCV Main CR1-2 Failed
Si	28	1	No Gas	547.213	1.443	3511745	1.35	5000	10.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	102.651	1.768	1502045	2.56	100	102.7	90	110	
Cd	111	1	No Gas	104.900	1.261	311323	2.13	100	104.9	90	110	
Sr	88	1	No Gas	106.091	0.294	2696572	1.32	100	106.1	90	110	
Mo	95	1	No Gas	101.686	0.279	539341	1.27	100	101.7	90	110	
Sn	118	1	No Gas	101.368	0.598	959423	0.57	100	101.4	90	110	
Sb	121	1	No Gas	102.589	1.112	1402710	0.38	100	102.6	90	110	
Ba	137	1	No Gas	103.257	1.464	469690	0.34	100	103.3	90	110	
Tl	205	1	No Gas	103.203	0.524	3835336	0.59	100	103.2	90	110	
Tl	203	1	No Gas	102.549	1.316	1597305	1.30	100	102.5	90	110	
Pb	208	1	No Gas	103.338	0.075	5347129	0.12	100	103.3	90	110	
U	238	1	No Gas	102.782	0.872	5853175	0.91	100	102.8	90	110	
Ca	43	2	He	10213.111	0.133	16303	0.48	10000	102.1	90	110	
Sb	121	2	He	101.213	0.927	616308	0.65	100	101.2	90	110	
Ti	47	2	He	99.145	1.327	16727	0.85	100	99.1	90	110	
Cu	63	1	No Gas	97.049	1.324	973641	0.48	100	97.0	90	110	
Se	82	1	No Gas	100.811	2.342	16478	3.13	100	100.8	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1019833	2.21	974206	104.68	70	120	
Ge	72	2	He	571139	0.53	536534	106.45	70	120	
Ge	72	1	No Gas	2054382	0.88	1897028	108.29	70	120	
In	115	1	No Gas	2678563	1.15	2503440	107.00	70	120	
Bi	209	1	No Gas	3248447	0.06	2946615	110.24	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	143_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq Date Time	2021-06-23T16:08:59-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.230	16.3	68415	1.0	0.5	
Be	9	1	No Gas	0.009	40.3	50	26.5	0.5	
V	51	2	He	1.384	4.9	14002	2.2	2.5	
Cr	52	2	He	-0.009	-224.5	1147	10.1	2.5	
Fe	56	2	He	1.495	6.3	13400	3.9	100	
Se	78	2	He	0.105	113.8	59	14.0	2	
As	75	2	He	0.091	72.0	372	12.7	2.5	
Ca	44	2	He	-8.370	-27.0	347	18.8	100	
Na	23	2	He	85.096	92.9	179273	36.6	100	
Mg	24	2	He	0.407	34.5	683	9.7	100	
K	39	2	He	9.361	6.8	54361	0.9	100	
Mn	55	2	He	0.899	3.1	3937	3.2	2.5	
Co	59	2	He	0.000	12422.1	80	25.0	2.5	
Ni	60	2	He	0.000	11312.1	237	21.3	2.5	
Cu	63	2	He	0.071	30.1	1153	10.3	2	
Zn	66	2	He	0.271	12.6	717	5.3	2.5	
Al	27	2	He	-1.040	-14.2	470	9.3	5	
B	11	1	No Gas	14.438	12.0	46953	7.5	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-0.831	-14.9	20441	7.3	5	
Si	28	1	No Gas	-2.223	-117.4	414929	1.3	10	
Ag	107	1	No Gas	-0.008	-68.3	403	18.9	2.5	
Cd	111	1	No Gas	0.003	112.6	20	50.0	1	
Sr	88	1	No Gas	0.006	42.5	1420	5.5	2.5	
Mo	95	1	No Gas	0.087	29.3	523	28.0	2.5	
Sn	118	1	No Gas	1.927	2.3	20646	1.2	5	
Sb	121	1	No Gas	0.088	10.4	2414	5.2	2.5	
Ba	137	1	No Gas	0.045	16.5	433	9.3	2.5	
Tl	205	1	No Gas	0.139	73.6	6112	64.7	1	
Tl	203	1	No Gas	0.138	68.5	2527	60.6	1	
Pb	208	1	No Gas	0.024	37.4	3154	15.8	2.5	
U	238	1	No Gas	0.014	44.4	957	39.2	2.5	
Ca	43	2	He	-7.587	-124.1	17	91.7	100	
Sb	121	2	He	0.066	9.5	1003	4.0	2.5	
Ti	47	2	He	0.058	99.7	10	100.0	2.5	
Cu	63	1	No Gas	0.237	15.2	4531	9.0	2.5	
Se	82	1	No Gas	-0.115	-323.4	-83	-73.2	2	

QC ISTD Table

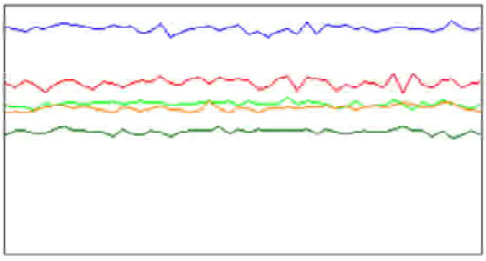
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1073043	1.54	974206	110.15	70	120	
Ge	72	2	He	584403	0.55	536534	108.92	70	120	
Ge	72	1	No Gas	2085233	2.32	1897028	109.92	70	120	
In	115	1	No Gas	2783414	1.30	2503440	111.18	70	120	
Bi	209	1	No Gas	3317579	1.08	2946615	112.59	70	120	

Tune Check Report

Operator Name	ALSHS NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\062321A.b
Acq. Date-Time	6/23/2021 10:07:53 AM
Report Comment	---
Instrument Name	G8421A SG18523544

[No Gas]

Sensitivity



Sampling Period [sec]	0.514
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
9	5000	3455	34552.64		
24	20000	12109	121088.37		
59	20000	18202	182024.36		
115	50000	29451	294510.50		
208	50000	24656	246559.78		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	2.643	5.000	
24	1.664	5.000	
59	1.626	5.000	
115	1.850	5.000	
208	1.982	5.000	

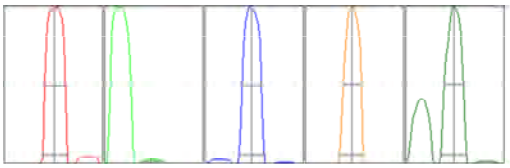
Mass	Background	Background (Required)	Background (Flag)
9	0.300		
24	1.400		
59	0.100		
115	0.100		
208	0.400		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.780 %
Doubly Charged	70 / 140 0.604 %

Tune Check Report

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	37.4
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	3449.08	9.05	8.90 - 9.10	
24	12155.94	23.95	23.90 - 24.10	
59	18397.23	58.95	58.90 - 59.10	
115	29543.12	114.95	114.90 - 115.10	
208	24444.51	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.64	0.741		
24	0.66	0.788		
59	0.60	0.771		
115	0.56	0.724		
208	0.60	0.782		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.47 L/min	Dilution Gas	0.55 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	14.0 V
Extract 2	-195.0 V	Cell Entrance	-30 V	Plate Bias	-45 V
Omega Bias	-90 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	134	Axis Gain	1.0004	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.12		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

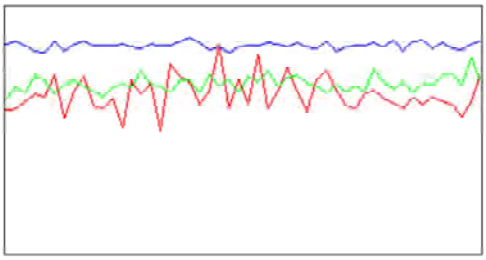
EM

Discriminator	4.4 mV	Analog HV	2547 V	Pulse HV	1302 V

[He]

Tune Check Report

Sensitivity



Sampling Period [sec]	0.306
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
9	200	129	1288.46		
24	1000	687	6867.08		
59	10000	8422	84224.80		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

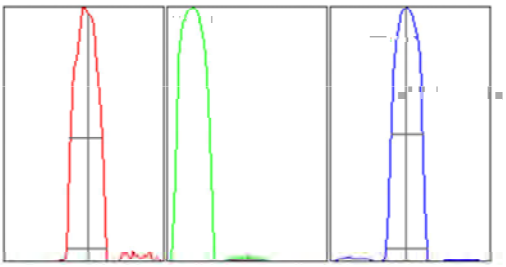
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	11.018	5.000	Fail
24	4.804	5.000	
59	1.675	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.100		
24	0.300		
59	0.100		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.442 %
Doubly Charged	70 / 140 0.699 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	135.51	9.10	8.90 - 9.10	
24	670.18	24.05	23.90 - 24.10	
59	8477.40	58.95	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.60	0.740		
24	0.66	0.788		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.60	0.771		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.47 L/min	Dilution Gas	0.55 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	0.2 V
Extract 2	-195.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-80 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	4.1 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	134	Axis Gain	1.0004	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.12		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

EM

Discriminator	4.4 mV	Analog HV	2547 V	Pulse HV	1302 V

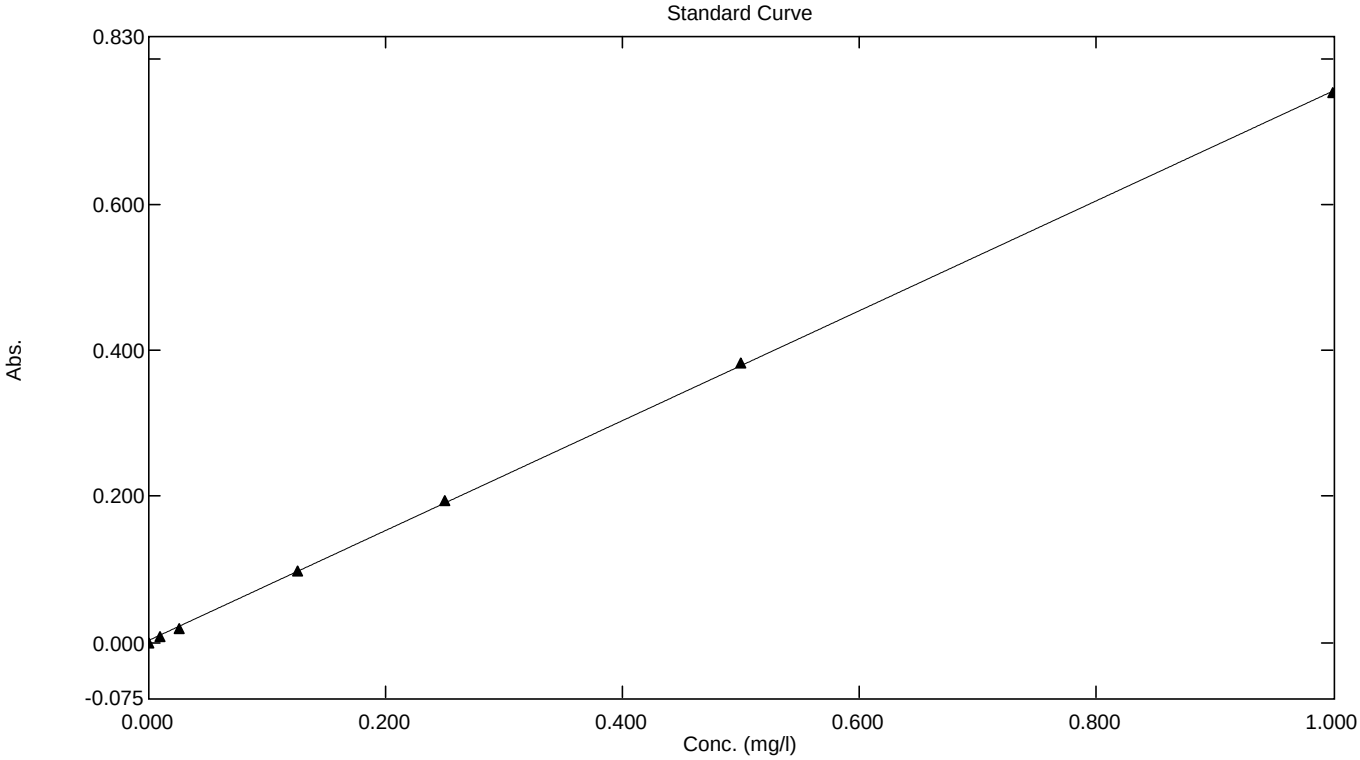
HS21060460 Wet Chem Raw Data (Cr6_W_7196_DOD)

ALS WO# HS21060460

Standard Table Report

07/14/2021 11:57:29 AM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2021\06092021CR6_W.pho



Correlation Coefficient r2 = 0.99987

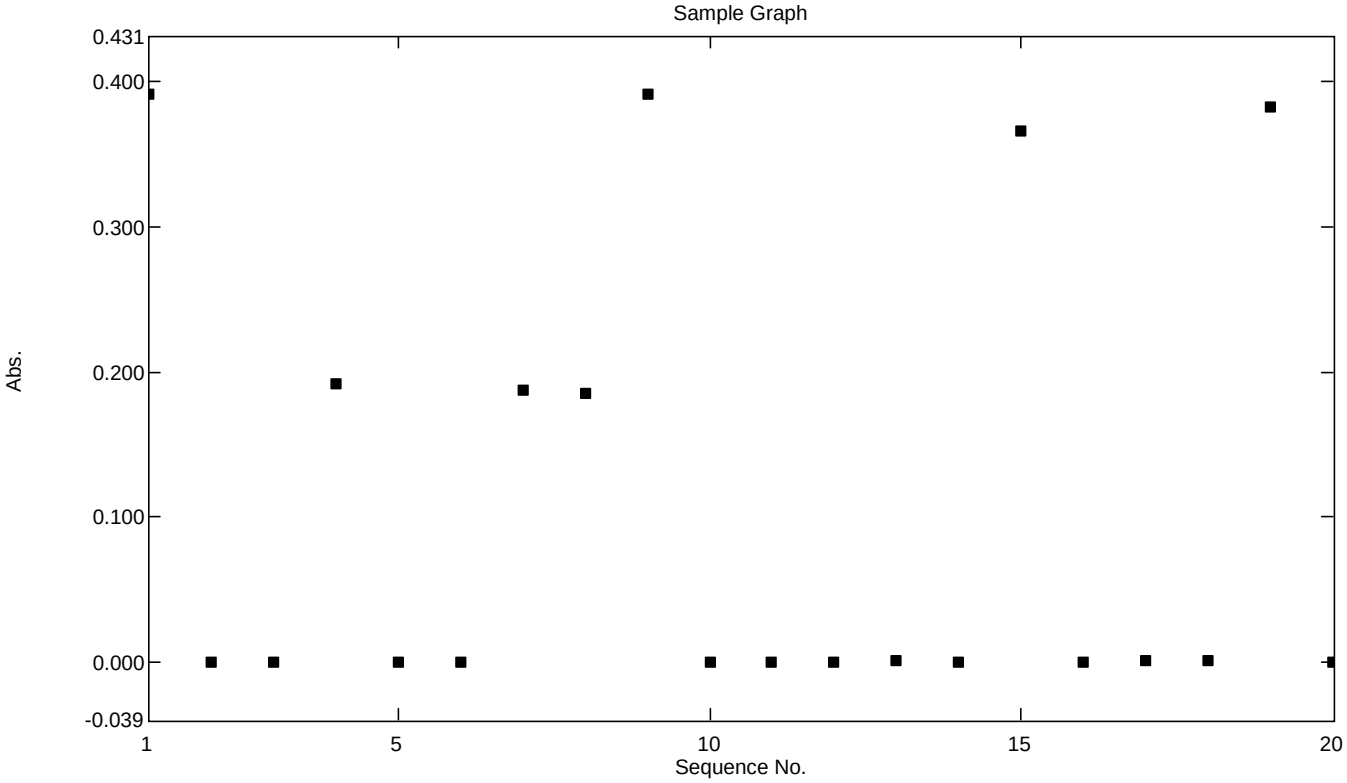
Standard Table

	Sample ID	Type	Ex	Conc	WL540.0	Wgt.Factor	Comments
1	STD1	Standard		0.000	0.000	1.000	
2	STD2	Standard		0.010	0.008	1.000	
3	STD3	Standard		0.025	0.020	1.000	
4	STD4	Standard		0.125	0.099	1.000	
5	STD5	Standard		0.250	0.195	1.000	
6	STD6	Standard		0.500	0.383	1.000	
7	STD7	Standard		1.000	0.752	1.000	
8							

Sample Table Report

07/14/2021 11:58:01 AM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2021\06092021CR6_W.pho



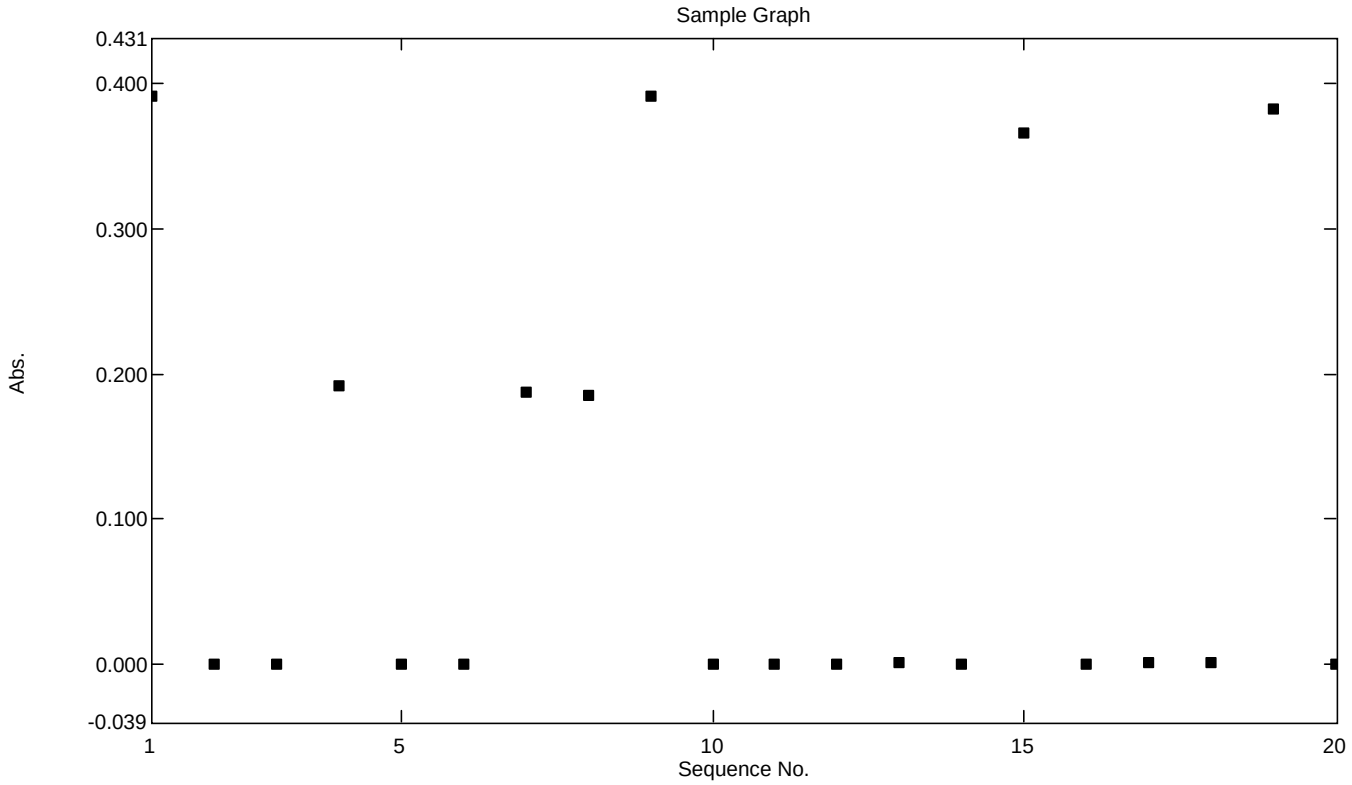
Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL540.0	Comments
1	CCV	Unknown		06/09/2021	09:34:13 AM	0.517	0.392	316134805 WC-14
2	CCB	Unknown		06/09/2021	09:34:25 AM	-0.004	0.000	316133009 WC-13
3	MBLK	Unknown		06/09/2021	09:34:32 AM	-0.004	0.000	316134304 WC-13
4	LCS	Unknown		06/09/2021	09:35:00 AM	0.251	0.192	316134804 WC-14
5	HS21060455.02	Unknown		06/09/2021	09:35:33 AM	-0.003	0.001	SAMP-BKG=TOT Al
6	HS21060455.02BKG	Unknown		06/09/2021	09:36:02 AM	-0.004	0.000	0.000
7	HS21060455.02MS	Unknown		06/09/2021	09:36:28 AM	0.245	0.187	
8	HS21060455.02MSD	Unknown		06/09/2021	09:36:55 AM	0.242	0.185	
9	CCV2	Unknown		06/09/2021	09:37:06 AM	0.517	0.392	
10	CCB2	Unknown		06/09/2021	09:37:18 AM	-0.004	0.000	
11	HS21060460.01	Unknown		06/09/2021	01:07:06 PM	-0.004	-0.000	0.000
12	HS21060460.01BKG	Unknown		06/09/2021	01:07:36 PM	-0.003	0.001	
13	HS21060462.01	Unknown		06/09/2021	01:08:06 PM	-0.002	0.002	0.000
14	HS21060462.01BKG	Unknown		06/09/2021	01:08:36 PM	-0.004	-0.000	
15	CCV3	Unknown		06/09/2021	01:08:58 PM	0.482	0.366	
16	CCB3	Unknown		06/09/2021	01:09:12 PM	-0.004	0.000	
17	HS21060486.01	Unknown		06/09/2021	04:55:39 PM	-0.002	0.001	0.000
18	HS21060486.01BKG	Unknown		06/09/2021	04:56:17 PM	-0.002	0.001	
19	CCV4	Unknown		06/09/2021	04:56:50 PM	0.505	0.383	

Sample Table Report

07/14/2021 11:58:01 AM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2021\06092021CR6_W.pho



Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL540.0	Comments
20	CCB4	Unknown		06/09/2021	04:57:01 PM	-0.004	0.000	
21								

HS21060460 - Sub Perch IV (E2100631)

ALS WO# HS21060460

June 23, 2021 Service Request No:E2100631

Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099

Laboratory Results for: HS21060460

Dear Ragen,

Enclosed are the results of the sample(s) submitted to our laboratory June 10, 2021
For your reference, these analyses have been assigned our service request number **E2100631.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



Corey Grandits
Project Manager

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Houston	**Service Request No.:**	E2100631
Project:	HS21060460	**Date Received:**	06/10/21
Sample Matrix:	W		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 06/10/21.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2100354: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in addition to a MS/MSD for this extraction batch. The LCS and DLCS recoveries are within QC limits. MS/MSD was performed on an unrelated sample.

DoD certification is held for the method/matrix/analytes provided in this report.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2100631
Project: HS21060460

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100631-001	LH18/24-SP140_060821	6/8/2021	1400

Service Request Summary

Folder #: **E2100631**
Client Name: ALS Environmental - US
Project Name: HS21060460
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/10/21
Internal Due Date: 6/23/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21060460
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8C
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100631-001	LH18/24-SP140_060821	Water	06/08/21 1400	IV

Service Request Summary

Folder #: **E2100631**
Client Name: ALS Environmental - US
Project Name: HS21060460
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/10/21
Internal Due Date: 6/23/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21060460
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8C
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	1	Level II due 6/23,IV due 6/30

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	Internal standard not within the specified limits. See case narrative.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.
M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.

Data Qualifiers

Lab Standard

O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

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ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-2020	6/30/2021
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352-2020	7/31/2021
Louisiana Department of Environmental Quality	03087-2021	6/30/2022
Louisiana Department of Environmental Quality	03087-2020	6/30/2021
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Maryland Department of the Environment	343-2020	6/30/2021
Minnesota Department of Health	2021671	12/31/2021
Nevada Department of Concervation and Natural Resources	TX026932021-4	7/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
New Jersey Department of Environmental Protection	TX008	6/30/2021
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	014	6/30/2021
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022
Utah Department of Health Environmental Laboratory Certification	TX026932021-10	7/31/2021

Chain of Custody

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Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **16273**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Ragen Giga
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RagenP.Giga@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:	HS21060460
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21060460-01**	**LH18/24-SP140_060821**	**Water**	**08 Jun 2021 14:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			23 Jun 2021

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: _____

Cooler ID(s): _____ Temperature(s): _____

Cooler Receipt Form

Project Chemist CG

Client/Project ALS-H

Thermometer ID IR31

Date/Time Received: 6/10/21 Initials: CG Date/Time Logged in: 6/10/21 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ ALS Courier ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No If yes, how many and where?

Were they intact? ○ Yes ○ No ☒ N/A

Were they signed and dated? ○ Yes ○ No ☒ N/A

4. Packing Material: ○ Inserts ☒ Baggies ○ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		6/10/21	0800	CG	0.6	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No

10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

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SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

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Preparation Information Benchsheet

Prep Run#: 381265 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 6/14/21 09:59

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100608-001	LH18/24-SP650_060221_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2100629-001	LH18/24-SP650_060821_BIX	.01	6850/ClO4 DOD			Water	10mL	
3	E2100630-001	LH18/24-SP650_060821_BIX	.01	6850/ClO4 DOD			Water	10mL	
4	E2100631-001	LH18/24-SP140_060821	.01	6850/ClO4 DOD			Water	10mL	
5	E2100632-001	126_060821	.01	6850/ClO4 DOD			Water	10mL	
6	E2100632-002	102_060821	.01	6850/ClO4 DOD			Water	10mL	
7	E2100632-003	18CPTMW03SW_060821	.01	6850/ClO4 DOD			Water	10mL	
8	E2100632-004	18CPTMW22DW_060821	.01	6850/ClO4 DOD			Water	10mL	
9	E2100632-005	18CPTMW22R_060821	.01	6850/ClO4 DOD			Water	10mL	
10	E2100632-006	18CPTMW22SW_060821	.01	6850/ClO4 DOD			Water	10mL	
11	E2100632-007	MW20_060821	.01	6850/ClO4 DOD			Water	10mL	
12	EQ2100354-01	MB		6850/ClO4 DOD			Liquid	10mL	
13	EQ2100354-02	LCS		6850/ClO4 DOD			Liquid	10mL	
14	EQ2100354-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
15	EQ2100354-04	MW20_060821 MS	.01	6850/ClO4 DOD			Liquid	10mL	
16	EQ2100354-05	MW20_060821 DMS	.01	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Sodium Perchlorate 1 ug/mL (IS) (18-O) as CLO4 Inventory ID 214765 Logbook Ref: Sodium Perchlorate Expires On: 12/11/2022

E2100608-001	100.00µL	E2100629-001	100.00µL	E2100630-001	100.00µL	E2100631-001	100.00µL	E2100632-001	100.00µL	E2100632-002	100.00µL
E2100632-003	100.00µL	E2100632-004	100.00µL	E2100632-005	100.00µL	E2100632-006	100.00µL	E2100632-007	100.00µL	EQ2100354-01	100.00µL
EQ2100354-02	100.00µL	EQ2100354-03	100.00µL	EQ2100354-04	100.00µL	EQ2100354-05	100.00µL				

Name: Perchlorate Intermediate Stock1 Inventory ID 217422 Logbook Ref: Perchlorate Expires On: 11/26/2021

EQ2100354-02	1.00µL	EQ2100354-03	1.00µL	EQ2100354-04	1.00µL	EQ2100354-05	1.00µL

Preparation Steps

Step: Preparation
Started: 6/14/21 09:59
Finished: 6/14/21 11:00
By: GRIVERA
Comments

Preparation Information Benchsheet

Prep Run#: 381265
Team: Semivoa GCMS/GRIVERA

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 6/14/21 09:59

Comments: _____

Reviewed By: GR Date: 6/14/21

Chain of Custody

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Extracts Examined
Yes No

Analytical Results

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Collected:**	6/ 8/21 1400
Sample Matrix:	Water	**Date Received:**	6/10/21
Sample Name:	LH18/24-SP140_060821	**Units:**	µg/L
Lab Code:	E2100631-001	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**7960**		100	50.0	25.0	1000	6/14/21	6/22/21 19:34	381265	728385	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100354-01	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/14/21	6/15/21 17:52	381265	727655	

Accuracy & Precision

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460
Sample Matrix: Water

Service Request: E2100631
Date Analyzed: 6/15/21

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: As Received

Extraction Lot: 381265

	Lab Control Sample EQ2100354-02			Duplicate Lab Control Sample EQ2100354-03				
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.117	0.100	117	0.119	0.100	119	84 - 119	2	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100354-02	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.117**		0.100	0.0500	0.0250	1	6/14/21	6/15/21 18:00	381265	727655	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100354-03	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.119**		0.100	0.0500	0.0250	1	6/14/21	6/15/21 18:09	381265	727655	

Accuracy & Precision

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460
Sample Matrix: Water

Service Request: E2100631
Date Analyzed: 6/15/21

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: As Received

Extraction Lot: 381265

	Lab Control Sample EQ2100354-02			Duplicate Lab Control Sample EQ2100354-03				
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.117	0.100	117	0.119	0.100	119	84 - 119	2	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Initial Calibration

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20210615

ALS Environmental

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210615_007	Perchlorate6850c.lcm	1x	☒	3100810-05	6/15/2021 15:32
2	PERCHLORATE2		20210615_008	Perchlorate6850c.lcm	1x	☒	3100810-06	6/15/2021 15:41
3	PERCHLORATE3		20210615_009	Perchlorate6850c.lcm	1x	☒	3100810-07	6/15/2021 15:49
4	PERCHLORATE4		20210615_010	Perchlorate6850c.lcm	1x	☒	3100810-08	6/15/2021 15:58
5	PERCHLORATE5		20210615_011	Perchlorate6850c.lcm	1x	☒	3100810-09	6/15/2021 16:07
6	PERCHLORATE6		20210615_012	Perchlorate6850c.lcm	1x	☒	3100811-01	6/15/2021 16:15
7	PERCHLORATE7		20210615_013	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 16:24
8	PERCHLORATE8		20210615_014	Perchlorate6850c.lcm	1x	☒	3100811-03	6/15/2021 16:32
9	PERCHLORATE9		20210615_015	Perchlorate6850c.lcm	1x	☒	3100811-04	6/15/2021 16:41
10	PERCHLORATE10		20210615_016	Perchlorate6850c.lcm	1x	☒	3100811-05	6/15/2021 16:49
11	PERCHLORATEICV		20210615_017	Perchlorate6850c.lcm	1x	☒	3100811-06	6/15/2021 16:58
12	ICS		20210615_018	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:06
13	LODV		20210615_019	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:15
14	PERCHLORATE7		20210615_020	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 17:23
15	EQ2100354-01		20210615_021	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:52
16	EQ2100354-02		20210615_022	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:00
17	EQ2100354-03		20210615_023	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:09
18	E2100631-001X100		20210615_024	Perchlorate6850c.lcm	100x	☒	DNU-over calibration range	6/15/2021 18:17
19	E2100608-001X100		20210615_025	Perchlorate6850c.lcm	100x	☒		6/15/2021 18:26
20	E2100629-001X10		20210615_026	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:34
21	E2100630-001X10		20210615_027	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:43
22	E2100632-006X100		20210615_028	Perchlorate6850c.lcm	100x	☒	DNU-INST low	6/15/2021 18:52
23	EQ2100357-04X100		20210615_029	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:00
24	EQ2100357-05X100		20210615_030	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:09
25	PERCHLORATE7		20210615_031	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 19:17
26	E2100644-001X1000		20210615_032	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:26
27	E2100644-002X100		20210615_033	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:34
28	E2100644-003X1000		20210615_034	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:43
29	E2100644-004X1000		20210615_035	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:51
30	E2100644-005X100		20210615_036	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:00
31	E2100644-006X100		20210615_037	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:09
32	E2100644-008X10		20210615_038	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 20:17
33	E2100645-001X100		20210615_039	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:26
34	E2100645-002X100		20210615_040	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:34
35	E2100645-003X10		20210615_041	Perchlorate6850c.lcm	10x	☒		6/15/2021 20:43
36	PERCHLORATE7		20210615_042	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 20:51
37	E2100645-006X10		20210615_043	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 21:00
38	E2100645-007X1000		20210615_044	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:08
39	E2100645-008X1000		20210615_045	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:17
40	PERCHLORATE7		20210615_046	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 21:25
41	EQ2100354-04		20210615_047	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:34
42	EQ2100354-05		20210615_048	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:42
43	E2100632-001		20210615_049	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:51
44	E2100632-002		20210615_050	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:59
45	E2100632-003		20210615_051	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:08
46	E2100632-004		20210615_052	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:17
47	PERCHLORATE7		20210615_053	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 22:25
48	E2100632-005		20210615_054	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:34
49	E2100632-007		20210615_055	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:42
50	EQ2100357-01		20210615_056	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:51
51	EQ2100357-02		20210615_057	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:59
52	EQ2100357-03		20210615_058	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:08
53	E2100644-007		20210615_059	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:16
54	E2100644-009		20210615_060	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:25
55	E2100645-004		20210615_061	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:33
56	E2100645-005		20210615_062	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:42
57	PERCHLORATE7		20210615_063	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 23:50
58	EQ2100358-01		20210615_064	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:59
59	EQ2100358-02		20210615_065	Perchlorate6850c.lcm	1x	☒		6/16/2021 0:08
60	EQ2100358-03		20210615_066	Perchlorate6850c.lcm	1x	☒	Reanalyze	6/16/2021 0:16
61	E2100645-017		20210615_067	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:25
62	E2100645-019		20210615_068	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:33
63	E2100645-022		20210615_069	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:42
64	E2100645-023		20210615_070	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:50

20210615

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
65	PERCHLORATE7		20210615_071	Perchlorate6850c.lcm	1x	☒	3100811-02	6/16/2021 0:59

Initial Calibration - Detailed Report

Calibration ID: EC2100038 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2100038-01	PERCHLORATE1	20210615_007	06/15/2021 15:32
02	EC2100038-02	PERCHLORATE2	20210615_008	06/15/2021 15:41
03	EC2100038-03	PERCHLORATE3	20210615_009	06/15/2021 15:49
04	EC2100038-04	PERCHLORATE4	20210615_010	06/15/2021 15:58
05	EC2100038-05	PERCHLORATE5	20210615_011	06/15/2021 16:07
06	EC2100038-06	PERCHLORATE6	20210615_012	06/15/2021 16:15
07	EC2100038-07	PERCHLORATE7	20210615_013	06/15/2021 16:24
08	EC2100038-08	PERCHLORATE8	20210615_014	06/15/2021 16:32
09	EC2100038-09	PERCHLORATE9	20210615_015	06/15/2021 16:41
10	EC2100038-10	PERCHLORATE10	20210615_016	06/15/2021 16:49

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 12.07** **Average RF = 0.1057**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1311	02	0.5000	0.1058	03	0.7000	0.1084	04	1.0000	0.1195
05	2.0000	0.1126	06	5.0000	0.1042	07	10.0000	0.09375	08	20.0000	0.09679
09	30.0000	0.0936	10	50.0000	0.09139						

Analyte

Perchlorate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.124	24.0	02	0.5000	0.501	0.1	03	0.7000	0.718	2.5
04	1.0000	1.13	13.1	05	2.0000	2.13	6.6	06	5.0000	4.93	-1.4
07	10.0000	8.87	-11.3	08	20.0000	18.3	-8.4	09	30.0000	26.6	-11.5
10	50.0000	43.2	-13.6								

Initial Calibration Verification Summary Report

Calibration ID:	EC2100038	**Instrument ID:**	E-LCMS-01
Datafile ID:	20210615_017	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2100038-11	T	Average RF	10	9.463	ng/mL	-5.4	<= 15

Insight Report

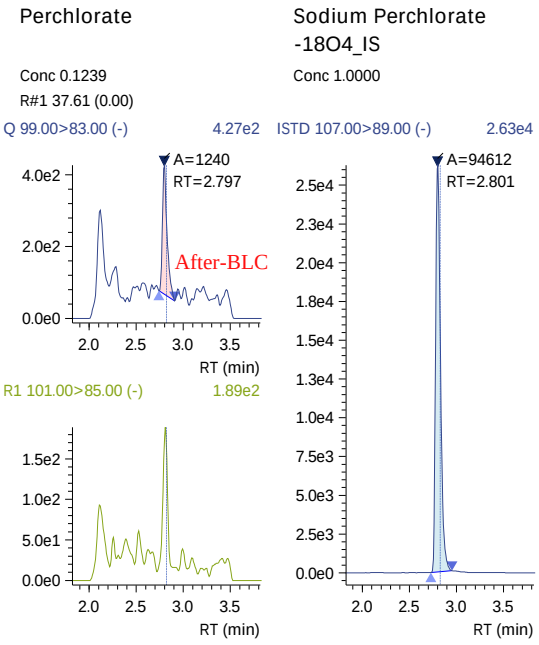
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Method File: I:\LCMS01\DATA\20210615\20210615.lcm
Project File: I:\LCMS01\DATA\20210615\20210615.damlp

20210615_007

Sample ID: PERCHLORATE1
Date Acquired: 6/15/2021 3:32:48 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_007.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.797	1240	94612	1	0.1239	ng/mL	0.1000	37.61
Sodium Perchlorate-18O4 _IS	Auto	2.801	94612	94612	1	1.0000	ng/mL	1.0000	----



Before

Insight Report

Printed at 6/17/2021 2:00:46 PM

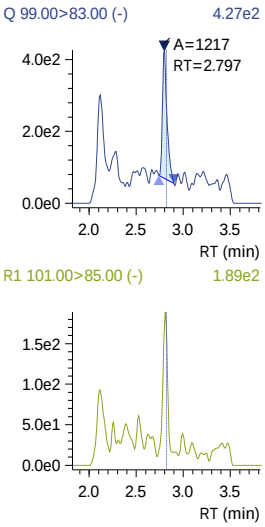
Method File: I:\LCMS01\DATA\20210615\20210615.lcm

20210615_007

Sample ID: PERCHLORATE1
Date Acquired: 6/15/2021 3:32:48 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_007.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

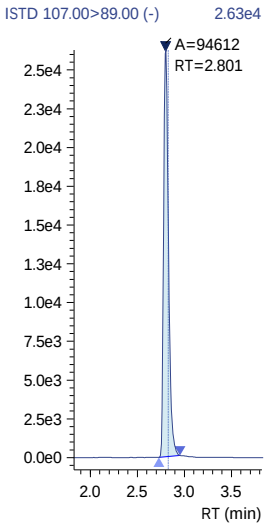
Perchlorate

Conc 0.1239
R#1 37.94 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



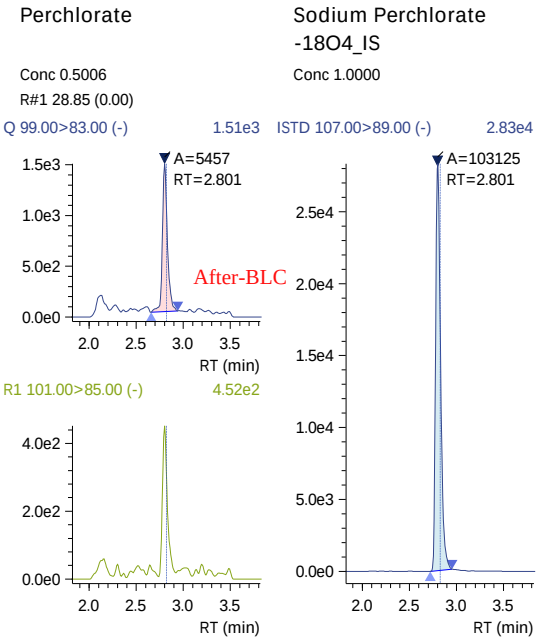
Insight Report

Printed at 6/17/2021 1:58:19 PM

20210615_008

Sample ID: PERCHLORATE2
Date Acquired: 6/15/2021 3:41:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_008.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.801	5457	103125	1	0.5006	ng/mL	0.5000	28.85
Sodium Perchlorate-18O4 _IS	Auto	2.801	1031 25	103125	1	1.0000	ng/mL	1.0000	----



Before

Insight Report

Printed at 6/17/2021 2:00:46 PM

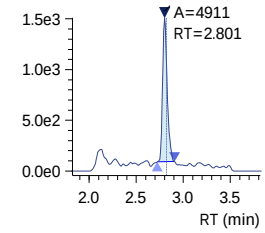
20210615_008

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Date Acquired: 6/15/2021 3:41:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_008.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

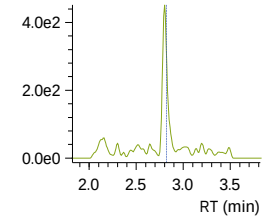
Perchlorate

Conc 0.4590
R#1 30.76 (0.00)

Q 99.00>83.00 (-) 1.51e3



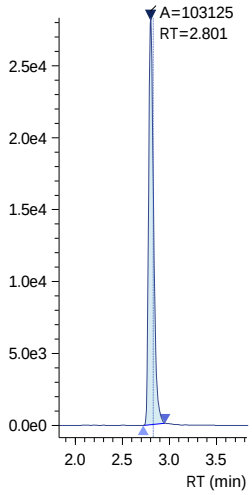
R1 101.00>85.00 (-) 4.52e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.83e4



Insight Report

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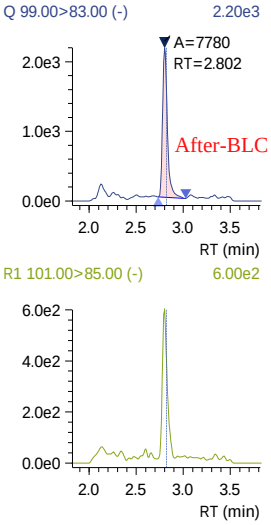
20210615_009

Sample ID: PERCHLORATE3
Date Acquired: 6/15/2021 3:49:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_009.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.802	7780	102556	1	0.7176	ng/mL	0.7000	26.99
Sodium Perchlorate-18O4_IS	Auto	2.800	1025 56	102556	1	1.0000	ng/mL	1.0000	----

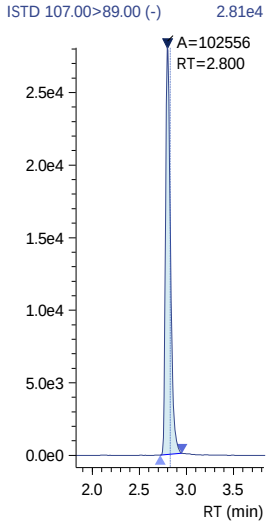
Perchlorate

Conc 0.7176
R#1 26.99 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

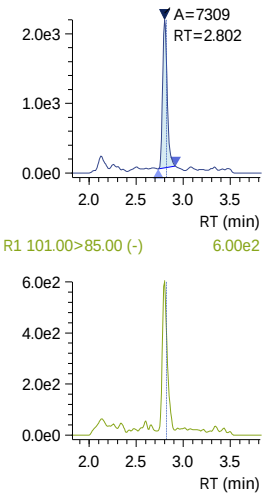
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20210615_009

Sample ID: PERCHLORATE3
Date Acquired: 6/15/2021 3:49:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_009.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

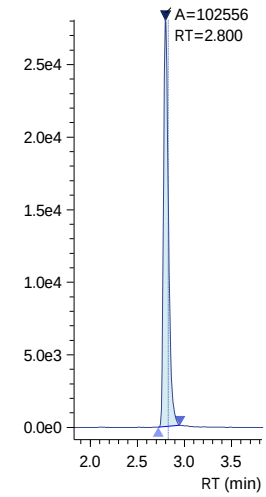
Perchlorate

Conc 0.6869
R#1 27.36 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



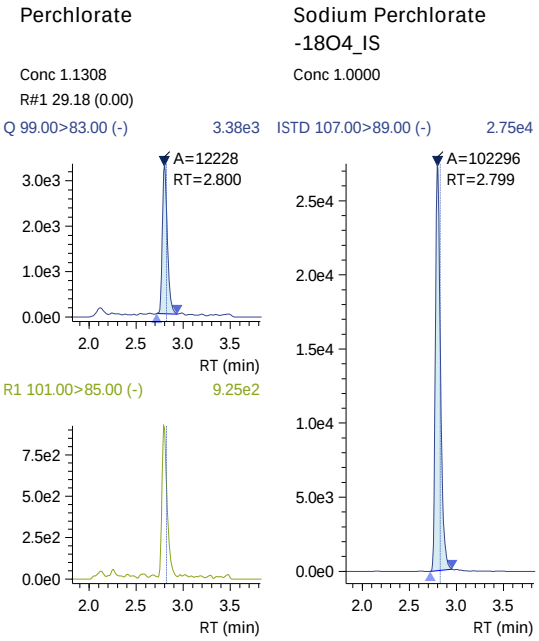
Insight Report

Printed at 6/17/2021 1:58:19 PM

20210615_010

Sample ID: PERCHLORATE4
Date Acquired: 6/15/2021 3:58:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_010.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.800	12228	102296	1	1.1308	ng/mL	1.0000	29.18
Sodium Perchlorate-18O4 _IS	Auto	2.799	1022 96	102296	1	1.0000	ng/mL	1.0000	----



Insight Report

Printed at 6/17/2021 2:00:46 PM

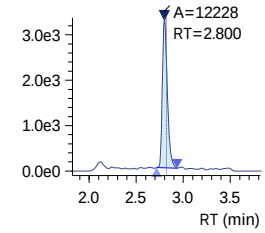
20210615_010

Sample ID: PERCHLORATE4
Date Acquired: 6/15/2021 3:58:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_010.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

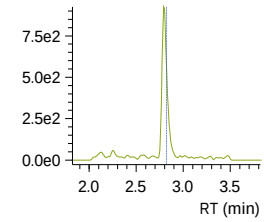
Perchlorate

Conc 1.1521
R#1 29.18 (0.00)

Q 99.00>83.00 (-) 3.38e3



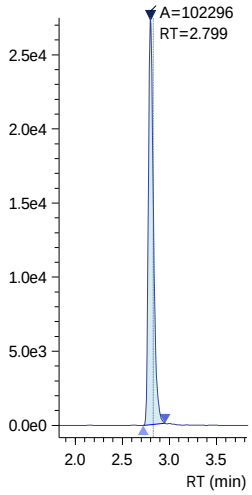
R1 101.00>85.00 (-) 9.25e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.75e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

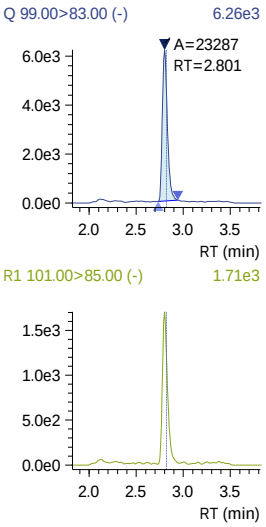
20210615_011

Sample ID: PERCHLORATE5
Date Acquired: 6/15/2021 4:07:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_011.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.801	23287	103365	1	2.1312	ng/mL	2.0000	27.30
Sodium Perchlorate-18O4 _IS	Auto	2.800	1033 65	103365	1	1.0000	ng/mL	1.0000	----

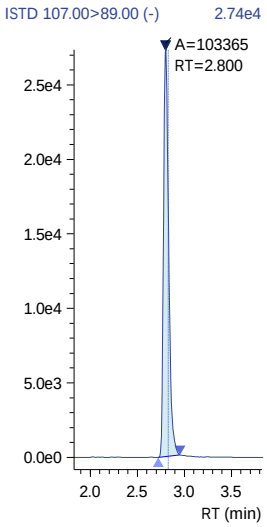
Perchlorate

Conc 2.1312
R#1 27.30 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

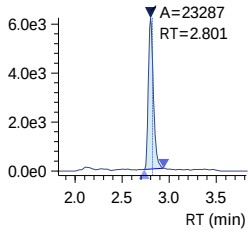
20210615_011

Sample ID: PERCHLORATE5
Date Acquired: 6/15/2021 4:07:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_011.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

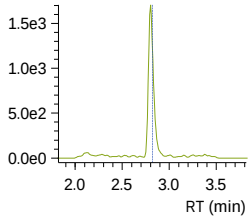
Perchlorate

Conc 2.1714
R#1 27.30 (0.00)

Q 99.00>83.00 (-) 6.26e3



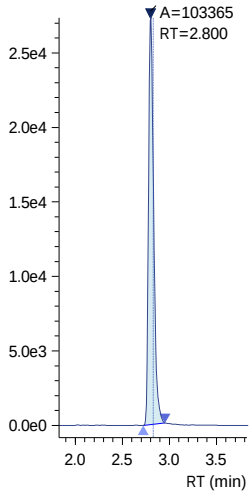
R1 101.00>85.00 (-) 1.71e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.74e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

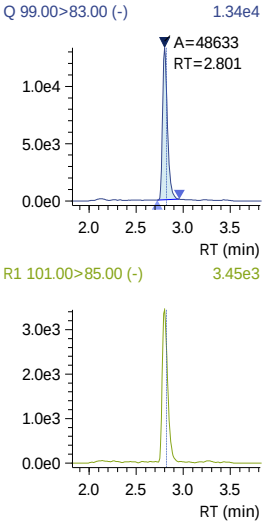
20210615_012

Sample ID: PERCHLORATE6
Date Acquired: 6/15/2021 4:15:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_012.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.801	48633	93357	1	4.9280	ng/mL	5.0000	25.88
Sodium Perchlorate-18O4 _IS	Auto	2.801	93357	93357	1	1.0000	ng/mL	1.0000	----

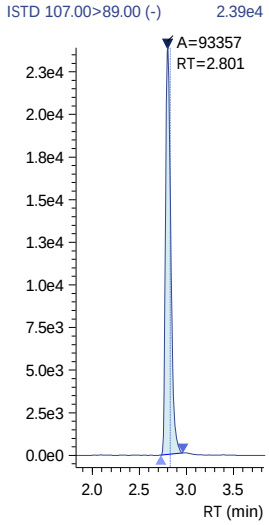
Perchlorate

Conc 4.9280
R#1 25.88 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

Printed at 6/17/2021 2:00:46 PM

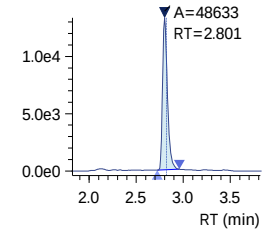
20210615_012

Sample ID: PERCHLORATE6
Date Acquired: 6/15/2021 4:15:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_012.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

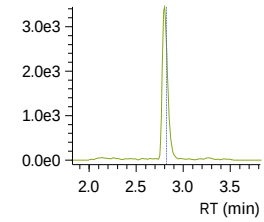
Perchlorate

Conc 5.0209
R#1 25.88 (0.00)

Q 99.00>83.00 (-) 1.34e4



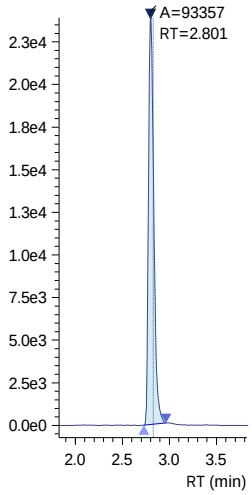
R1 101.00>85.00 (-) 3.45e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.39e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

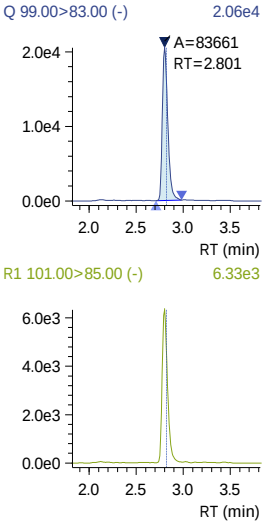
20210615_013

Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 4:24:05 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_013.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.801	83661	89240	1	8.8684	ng/mL	10.0000	30.81
Sodium Perchlorate-18O4 _IS	Auto	2.800	89240	89240	1	1.0000	ng/mL	1.0000	----

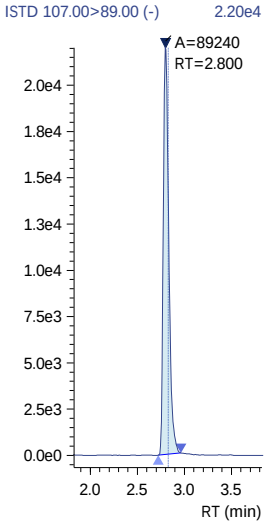
Perchlorate

Conc 8.8684
R#1 30.81 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

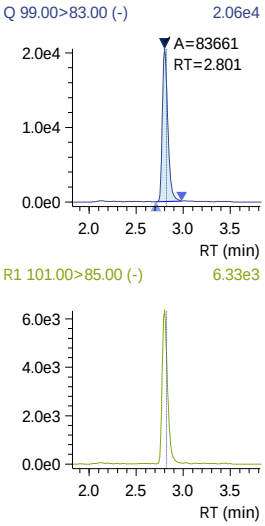
Insight Report

20210615_013

Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 4:24:05 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_013.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

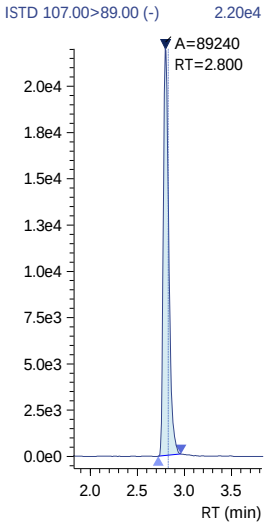
Perchlorate

Conc 9.0357
R#1 30.81 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



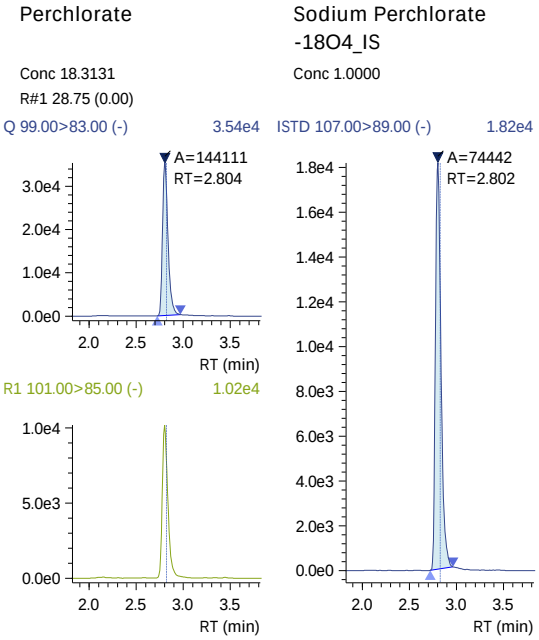
Insight Report

Printed at 6/17/2021 1:58:19 PM

20210615_014

Sample ID: PERCHLORATE8
Date Acquired: 6/15/2021 4:32:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_014.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.804	144111	74442	1	18.3131	ng/mL	20.0000	28.75
Sodium Perchlorate-18O4_IS	Auto	2.802	74442	74442	1	1.0000	ng/mL	1.0000	----



Before

Insight Report

Printed at 6/17/2021 2:00:46 PM

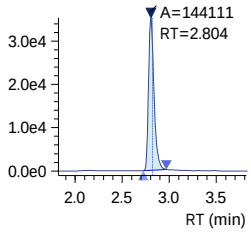
20210615_014

Sample ID: PERCHLORATE8
Date Acquired: 6/15/2021 4:32:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_014.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

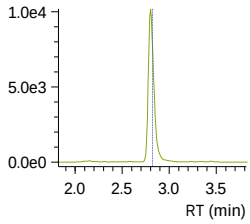
Perchlorate

Conc 18.6585
R#1 28.75 (0.00)

Q 99.00>83.00 (-) 3.54e4



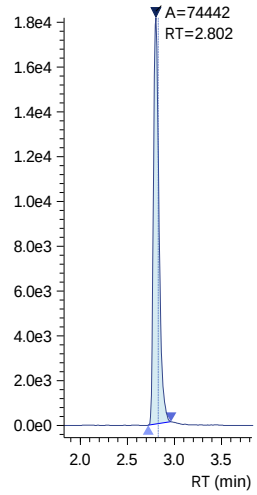
R1 101.00>85.00 (-) 1.02e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.82e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

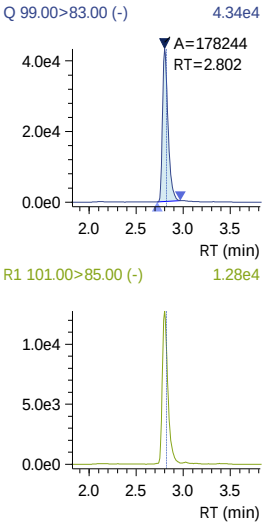
20210615_015

Sample ID: PERCHLORATE9
Date Acquired: 6/15/2021 4:41:08 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_015.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.802	178244	63474	1	26.5645	ng/mL	30.0000	29.37
Sodium Perchlorate-18O4_IS	Auto	2.802	63474	63474	1	1.0000	ng/mL	1.0000	----

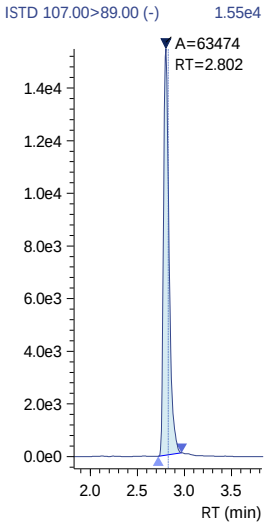
Perchlorate

Conc 26.5645
R#1 29.37 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

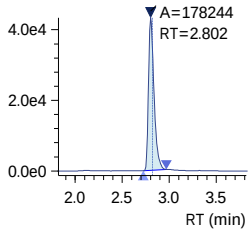
20210615_015

Sample ID: PERCHLORATE9
Date Acquired: 6/15/2021 4:41:08 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_015.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

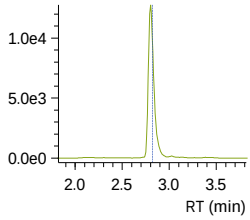
Perchlorate

Conc 27.0656
R#1 29.37 (0.00)

Q 99.00>83.00 (-) 4.34e4



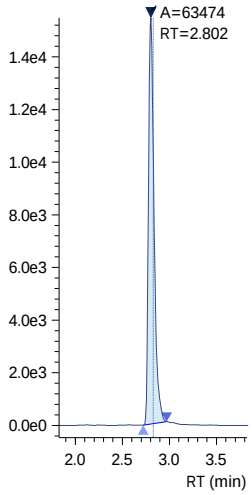
R1 101.00>85.00 (-) 1.28e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.55e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

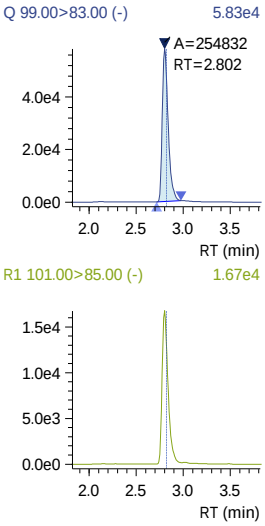
20210615_016

Sample ID: PERCHLORATE10
Date Acquired: 6/15/2021 4:49:43 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_016.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.802	254832	55769	1	43.2260	ng/mL	50.0000	28.69
Sodium Perchlorate-18O4_IS	Auto	2.801	55769	55769	1	1.0000	ng/mL	1.0000	----

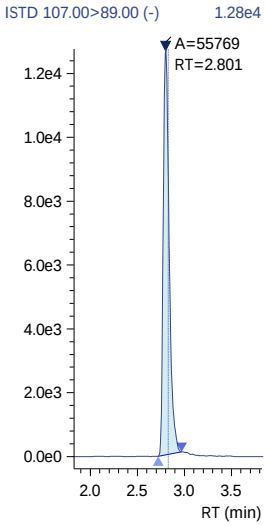
Perchlorate

Conc 43.2260
R#1 28.69 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/17/2021 2:00:46 PM

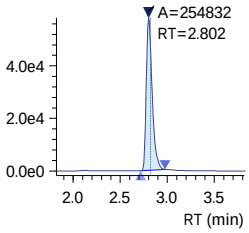
20210615_016

Sample ID: PERCHLORATE10
Date Acquired: 6/15/2021 4:49:43 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_016.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

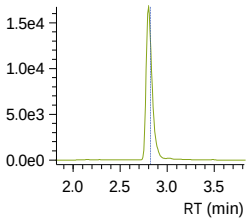
Perchlorate

Conc 44.0414
R#1 28.69 (0.00)

Q 99.00>83.00 (-) 5.83e4



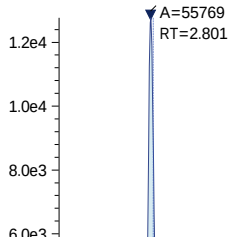
R1 101.00>85.00 (-) 1.67e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.28e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

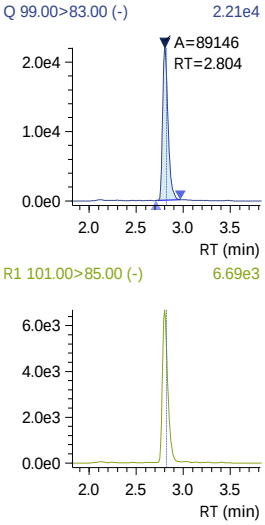
20210615_017

Sample ID: PERCHLORATEICV
Date Acquired: 6/15/2021 4:58:17 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_017.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.804	89146	89108	1	9.4639	ng/mL	10.0000	30.30
Sodium Perchlorate-18O4 _IS	Auto	2.802	89108	89108	1	1.0000	ng/mL	1.0000	----

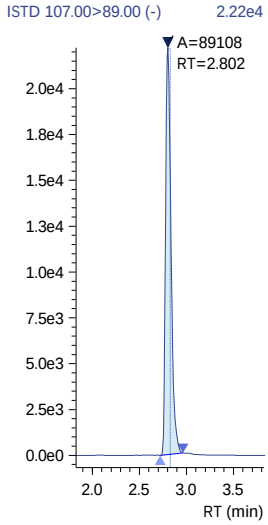
Perchlorate

Conc 9.4639
R#1 30.30 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/17/2021 2:00:46 PM

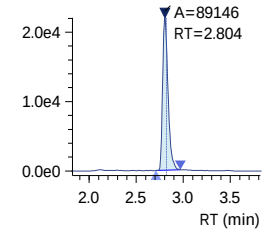
20210615_017

Sample ID: PERCHLORATEICV
Date Acquired: 6/15/2021 4:58:17 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_017.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

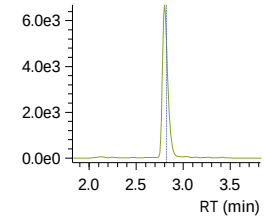
Perchlorate

Conc 9.6424
R#1 30.30 (0.00)

Q 99.00>83.00 (-) 2.21e4



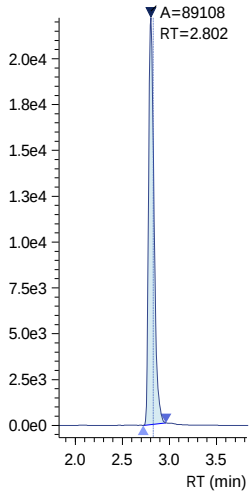
R1 101.00>85.00 (-) 6.69e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.22e4



20210622

1st Review: Grivera
2nd Review: Kneir

ALS Environmental

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/22/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100044**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-08 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210622_002	Perchlorate6850c.lcm	1x	☒	3100812-01	6/22/2021 17:16
2	PERCHLORATE2		20210622_003	Perchlorate6850c.lcm	1x	☒	3100812-02	6/22/2021 17:25
3	PERCHLORATE3		20210622_004	Perchlorate6850c.lcm	1x	☒	3100812-03	6/22/2021 17:33
4	PERCHLORATE4		20210622_006	Perchlorate6850c.lcm	1x	☒	3100812-05	6/22/2021 17:51
5	PERCHLORATE5		20210622_007	Perchlorate6850c.lcm	1x	☒	3100812-06	6/22/2021 17:59
6	PERCHLORATE6		20210622_008	Perchlorate6850c.lcm	1x	☒	3100812-07	6/22/2021 18:08
7	PERCHLORATE7		20210622_009	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 18:16
8	PERCHLORATE8		20210622_010	Perchlorate6850c.lcm	1x	☒	3100812-09	6/22/2021 18:25
9	PERCHLORATE9		20210622_011	Perchlorate6850c.lcm	1x	☒	3100813-01	6/22/2021 18:34
10	PERCHLORATEICV		20210622_012	Perchlorate6850c.lcm	1x	☒	3100811-06	6/22/2021 18:42
11	ICS		20210622_013	Perchlorate6850c.lcm	1x	☒		6/22/2021 18:51
12	LODV		20210622_014	Perchlorate6850c.lcm	1x	☒		6/22/2021 18:59
13	PERCHLORATE7		20210622_015	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 19:08
14	EQ2100354-04		20210622_016	Perchlorate6850c.lcm	1x	☒		6/22/2021 19:17
15	EQ2100354-05		20210622_017	Perchlorate6850c.lcm	1x	☒		6/22/2021 19:25
16	E2100631-001X1000		20210622_018	Perchlorate6850c.lcm	1000x	☒		6/22/2021 19:34
17	E2100629-001X20		20210622_019	Perchlorate6850c.lcm	20x	☒		6/22/2021 19:43
18	E2100630-001X20		20210622_020	Perchlorate6850c.lcm	20x	☒		6/22/2021 19:51
19	E2100632-001X10		20210622_021	Perchlorate6850c.lcm	10x	☒		6/22/2021 20:00
20	E2100632-002X10		20210622_022	Perchlorate6850c.lcm	10x	☒		6/22/2021 20:08
21	E2100632-003X2		20210622_023	Perchlorate6850c.lcm	2x	☒	DNU-INST out of range	6/22/2021 20:17
22	E2100632-004X2		20210622_024	Perchlorate6850c.lcm	2x	☒	DNU-INST out of range	6/22/2021 20:25
23	PERCHLORATE7		20210622_025	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 20:34
24	E2100608-001		20210622_026	Perchlorate6850c.lcm	1x	☒	confirmation run only	6/22/2021 20:43
25	E2100632-005X2		20210622_027	Perchlorate6850c.lcm	2x	☒		6/22/2021 20:51
26	E2100632-006X200		20210622_028	Perchlorate6850c.lcm	200x	☒		6/22/2021 21:00
27	E2100632-007X2		20210622_029	Perchlorate6850c.lcm	2x	☒		6/22/2021 21:08
28	EQ2100367-01		20210622_030	Perchlorate6850c.lcm	1x	☒		6/22/2021 21:17
29	EQ2100367-02		20210622_031	Perchlorate6850c.lcm	1x	☒		6/22/2021 21:26
30	EQ2100367-03		20210622_032	Perchlorate6850c.lcm	1x	☒		6/22/2021 21:34
31	E2100651-001		20210622_033	Perchlorate6850c.lcm	1x	☒	DNU-over calibration range	6/22/2021 21:43
32	PERCHLORATE7		20210622_034	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 21:52
33	E2100644-007X5		20210622_035	Perchlorate6850c.lcm	5x	☒	DNU-INST out of range	6/22/2021 22:00
34	E2100644-008X20		20210622_036	Perchlorate6850c.lcm	20x	☒	DNU-INST out of range	6/22/2021 22:09
35	E2100644-009X2		20210622_037	Perchlorate6850c.lcm	2x	☒		6/22/2021 22:17
36	E2100645-004X2		20210622_038	Perchlorate6850c.lcm	2x	☒		6/22/2021 22:26
37	E2100645-005X2		20210622_039	Perchlorate6850c.lcm	2x	☒		6/22/2021 22:34
38	E2100645-006X20		20210622_040	Perchlorate6850c.lcm	20x	☒		6/22/2021 22:43
39	PERCHLORATE7		20210622_041	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 22:52
40	E2100645-009X100		20210622_042	Perchlorate6850c.lcm	100x	☒		6/22/2021 23:00
41	E2100645-010X1000		20210622_043	Perchlorate6850c.lcm	1000x	☒		6/22/2021 23:09
42	E2100645-011X1000		20210622_044	Perchlorate6850c.lcm	1000x	☒		6/22/2021 23:17
43	EQ2100358-03		20210622_045	Perchlorate6850c.lcm	1x	☒		6/22/2021 23:26
44	E2100645-012X1000		20210622_046	Perchlorate6850c.lcm	1000x	☒		6/22/2021 23:35
45	E2100645-013X1000		20210622_047	Perchlorate6850c.lcm	1000x	☒		6/22/2021 23:43
46	E2100645-014X10		20210622_048	Perchlorate6850c.lcm	10x	☒		6/22/2021 23:52
47	E2100645-015X10		20210622_049	Perchlorate6850c.lcm	10x	☒		6/23/2021 0:00
48	E2100645-016X10		20210622_050	Perchlorate6850c.lcm	10x	☒		6/23/2021 0:09
49	E2100645-017X2		20210622_051	Perchlorate6850c.lcm	2x	☒		6/23/2021 0:18
50	PERCHLORATE7		20210622_052	Perchlorate6850c.lcm	1x	☒	3100812-08	6/23/2021 0:26
51	E2100645-018X10		20210622_053	Perchlorate6850c.lcm	10x	☒		6/23/2021 0:35
52	E2100645-019X2		20210622_054	Perchlorate6850c.lcm	2x	☒		6/23/2021 0:44
53	E2100645-020X10		20210622_055	Perchlorate6850c.lcm	10x	☒		6/23/2021 0:52
54	E2100645-021X100		20210622_056	Perchlorate6850c.lcm	100x	☒		6/23/2021 1:01
55	E2100645-022X5		20210622_057	Perchlorate6850c.lcm	5x	☒	DNU-INST out of range	6/23/2021 1:09
56	E2100645-023X5		20210622_058	Perchlorate6850c.lcm	5x	☒	DNU-INST out of range	6/23/2021 1:18
57	E2100645-024X100		20210622_059	Perchlorate6850c.lcm	100x	☒		6/23/2021 1:27
58	PERCHLORATE7		20210622_060	Perchlorate6850c.lcm	1x	☒	3100812-08	6/23/2021 1:35

Initial Calibration - Detailed Report

Calibration ID: EC2100044 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2100044-01	PERCHLORATE1	20210622_002	06/22/2021 17:16
02	EC2100044-02	PERCHLORATE2	20210622_003	06/22/2021 17:25
03	EC2100044-03	PERCHLORATE3	20210622_004	06/22/2021 17:33
04	EC2100044-04	PERCHLORATE4	20210622_006	06/22/2021 17:51
05	EC2100044-05	PERCHLORATE5	20210622_007	06/22/2021 17:59
06	EC2100044-06	PERCHLORATE6	20210622_008	06/22/2021 18:08
07	EC2100044-07	PERCHLORATE7	20210622_009	06/22/2021 18:16
08	EC2100044-08	PERCHLORATE8	20210622_010	06/22/2021 18:25
09	EC2100044-09	PERCHLORATE9	20210622_011	06/22/2021 18:34

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 11.7** **Average RF = 0.122**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1538	02	0.5000	0.1192	03	0.7000	0.1198	04	2.0000	0.1331
05	5.0000	0.1233	06	10.0000	0.1194	07	20.0000	0.1105	08	30.0000	0.1126
09	50.0000	0.1061									

Analyte

Perchlorate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.126	26.1	02	0.5000	0.489	-2.3	03	0.7000	0.688	-1.8
04	2.0000	2.18	9.1	05	5.0000	5.06	1.1	06	10.0000	9.79	-2.1
07	20.0000	18.1	-9.4	08	30.0000	27.7	-7.7	09	50.0000	43.5	-13.0

Initial Calibration Verification Summary Report

Calibration ID:	EC2100044	**Instrument ID:**	E-LCMS-01
Datafile ID:	20210622_012	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2100044-10	T	Average RF	10	8.601	ng/mL	-14.0	<= 15

Insight Report

Printed at 6/24/2021 1:58:03 PM

Method File: I:\LCMS01\DATA\20210622\20210622.lcm
Project File: I:\LCMS01\DATA\20210622\20210622.damlp

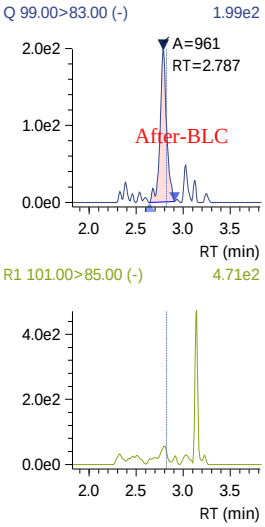
20210622_002

Sample ID: PERCHLORATE1
Date Acquired: 6/22/2021 5:16:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_002.lcd
Vial: 20 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.787	961	62485	1	0.1261	ng/mL	0.1000	14.80
Sodium Perchlorate-18O4 _IS	Auto	2.786	62485	62485	1	1.0000	ng/mL	1.0000	----

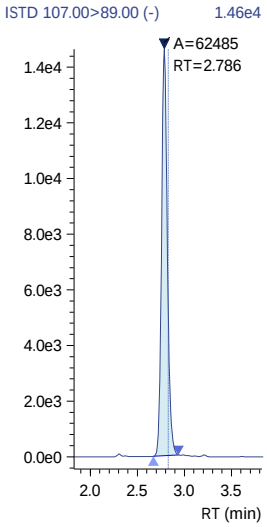
Perchlorate

Conc 0.1261
R#1 14.80 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

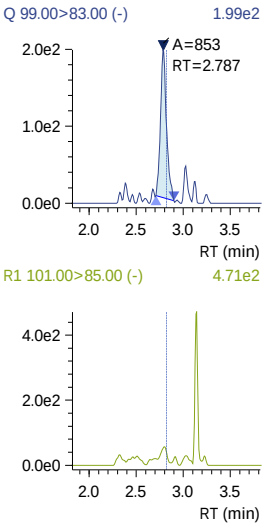
Method File: I:\LCMS01\DATA\20210622\20210622.lcm

20210622_002

Sample ID: PERCHLORATE1
Date Acquired: 6/22/2021 5:16:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_002.lcd
Vial: 20 | Inj. Volume: 50.0000uL | Tray: 1

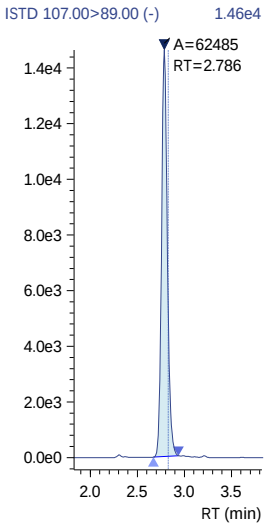
Perchlorate

Conc 0.1181
R#1 16.93 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 1:58:03 PM

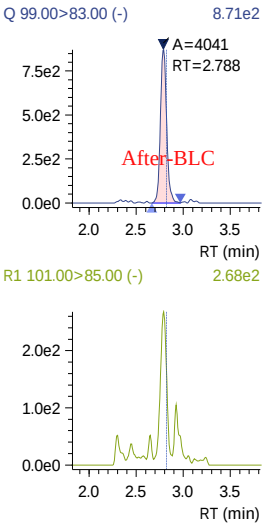
20210622_003

Sample ID: PERCHLORATE2
Date Acquired: 6/22/2021 5:25:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_003.lcd
Vial: 21 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.788	4041	67816	1	0.4886	ng/mL	0.5000	26.30
Sodium Perchlorate-18O4 _IS	M	2.788	67816	67816	1	1.0000	ng/mL	1.0000	----

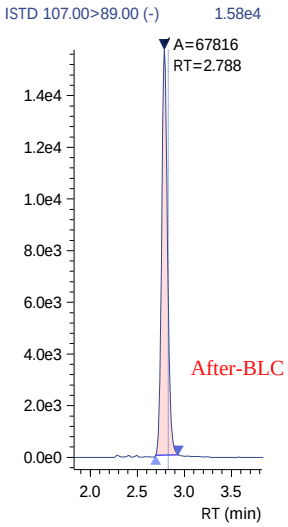
Perchlorate

Conc 0.4886
R#1 26.30 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

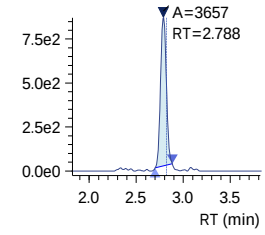
20210622_003

Sample ID: PERCHLORATE2
Date Acquired: 6/22/2021 5:25:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_003.lcd
Vial: 21 | Inj. Volume: 50.0000uL | Tray: 1

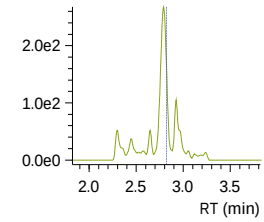
Perchlorate

Conc 0.4621
R#1 29.70 (0.00)

Q 99.00>83.00 (-) 8.71e2



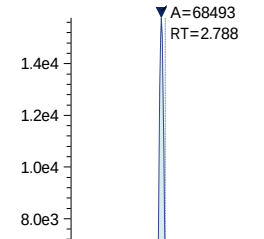
R1 101.00>85.00 (-) 2.68e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.58e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

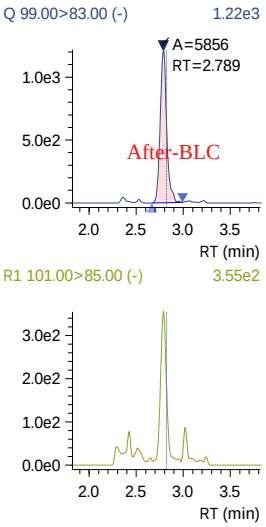
20210622_004

Sample ID: PERCHLORATE3
Date Acquired: 6/22/2021 5:33:46 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_004.lcd
Vial: 22 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.789	5856	69827	1	0.6876	ng/mL	0.7000	27.89
Sodium Perchlorate-18O4 _IS	Auto	2.787	69827	69827	1	1.0000	ng/mL	1.0000	----

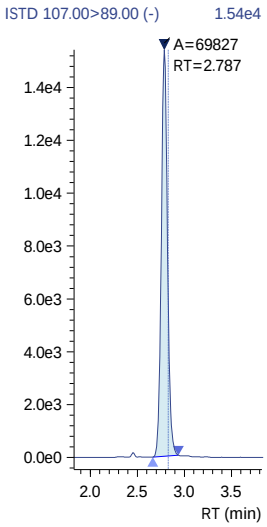
Perchlorate

Conc 0.6876
R#1 27.89 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

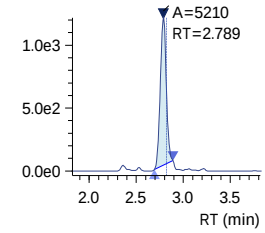
20210622_004

Sample ID: PERCHLORATE3
Date Acquired: 6/22/2021 5:33:46 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_004.lcd
Vial: 22 | Inj. Volume: 50.0000uL | Tray: 1

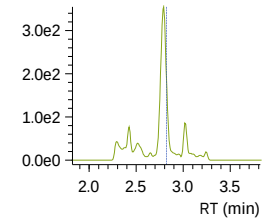
Perchlorate

Conc 0.6457
R#1 28.96 (0.00)

Q 99.00>83.00 (-) 1.22e3



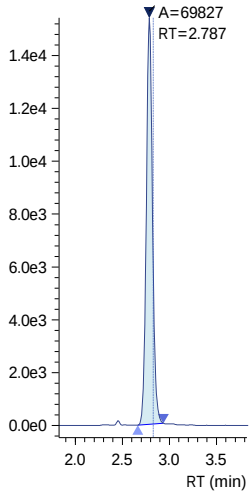
R1 101.00>85.00 (-) 3.55e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.54e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

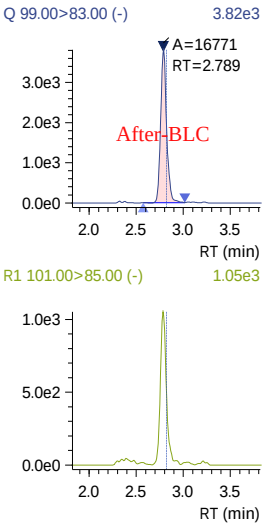
20210622_006

Sample ID: PERCHLORATE4
Date Acquired: 6/22/2021 5:51:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_006.lcd
Vial: 24 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.789	16771	63001	1	2.1825	ng/mL	2.0000	27.75
Sodium Perchlorate-18O4 _IS	Auto	2.788	63001	63001	1	1.0000	ng/mL	1.0000	----

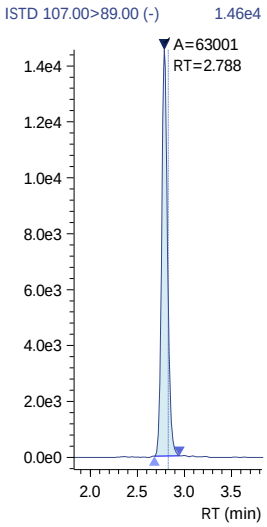
Perchlorate

Conc 2.1825
R#1 27.75 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

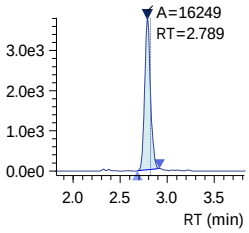
20210622_006

Sample ID: PERCHLORATE4
Date Acquired: 6/22/2021 5:51:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_006.lcd
Vial: 24 | Inj. Volume: 50.0000uL | Tray: 1

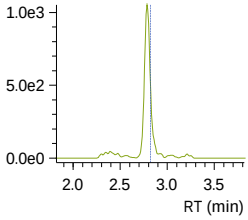
Perchlorate

Conc 2.2319
R#1 28.00 (0.00)

Q 99.00>83.00 (-) 3.82e3



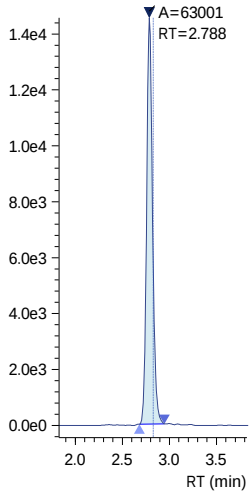
R1 101.00>85.00 (-) 1.05e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.46e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

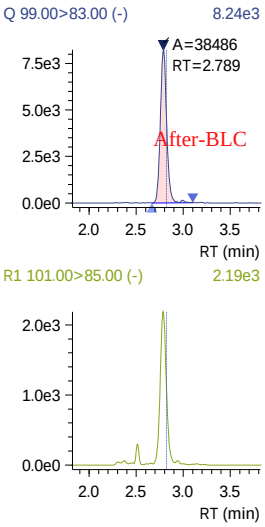
20210622_007

Sample ID: PERCHLORATE5
Date Acquired: 6/22/2021 5:59:37 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_007.lcd
Vial: 25 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.789	38486	62414	1	5.0555	ng/mL	5.0000	26.59
Sodium Perchlorate-18O4 _IS	M	2.788	62414	62414	1	1.0000	ng/mL	1.0000	----

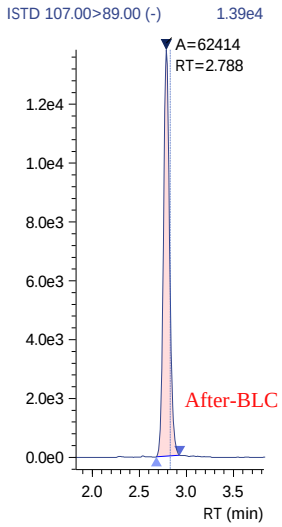
Perchlorate

Conc 5.0555
R#1 26.59 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

Printed at 6/24/2021 2:00:30 PM

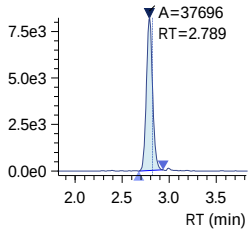
20210622_007

Sample ID: PERCHLORATE5
Date Acquired: 6/22/2021 5:59:37 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_007.lcd
Vial: 25 | Inj. Volume: 50.0000uL | Tray: 1

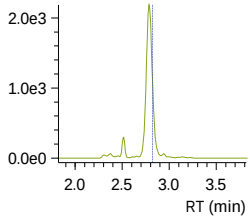
Perchlorate

Conc 5.2127
R#1 26.50 (0.00)

Q 99.00>83.00 (-) 8.24e3



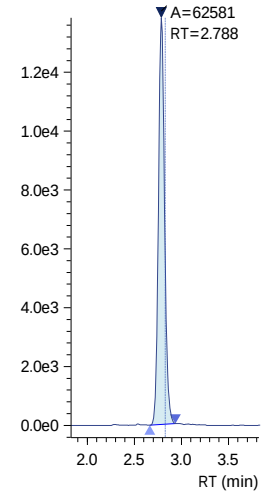
R1 101.00>85.00 (-) 2.19e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.39e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

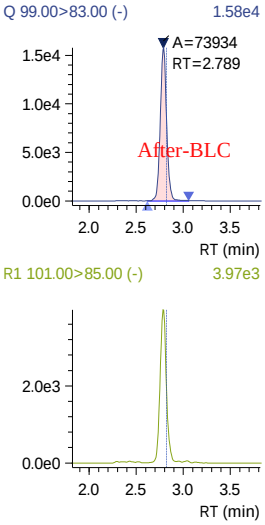
20210622_008

Sample ID: PERCHLORATE6
Date Acquired: 6/22/2021 6:08:15 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_008.lcd
Vial: 26 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.789	73934	61934	1	9.7872	ng/mL	10.0000	25.43
Sodium Perchlorate-18O4 _IS	M	2.787	61934	61934	1	1.0000	ng/mL	1.0000	----

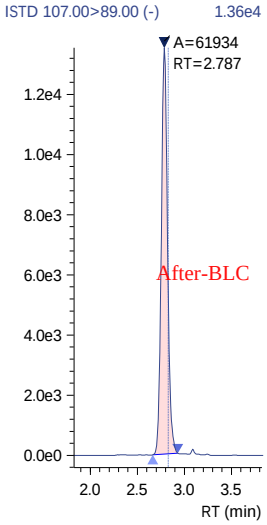
Perchlorate

Conc 9.7872
R#1 25.43 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

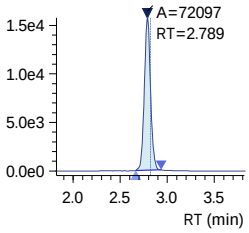
20210622_008

Sample ID: PERCHLORATE6
Date Acquired: 6/22/2021 6:08:15 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_008.lcd
Vial: 26 | Inj. Volume: 50.0000uL | Tray: 1

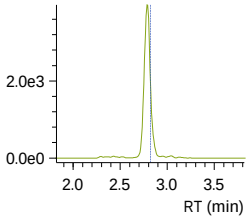
Perchlorate

Conc 10.0410
R#1 25.45 (0.00)

Q 99.00>83.00 (-) 1.58e4



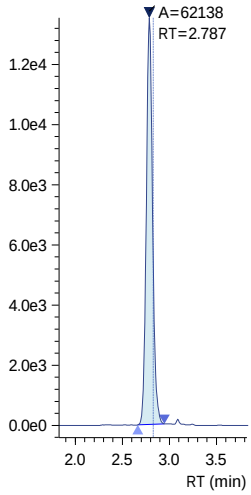
R1 101.00>85.00 (-) 3.97e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.36e4



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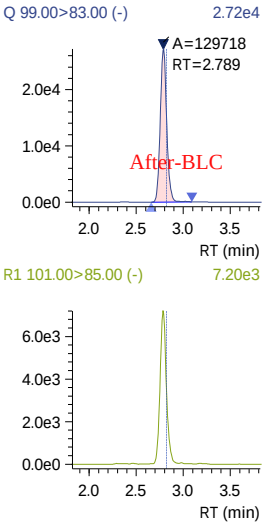
20210622_009

Sample ID: PERCHLORATE7
Date Acquired: 6/22/2021 6:16:54 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_009.lcd
Vial: 27 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.789	129718	58712	1	18.1141	ng/mL	20.0000	26.63
Sodium Perchlorate-18O4_IS	M	2.787	58712	58712	1	1.0000	ng/mL	1.0000	----

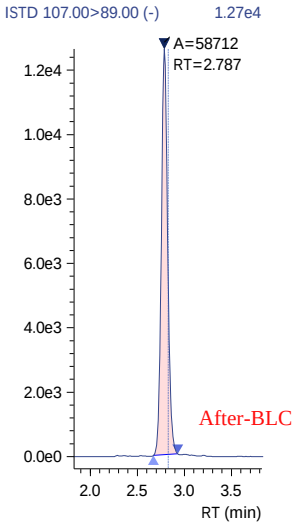
Perchlorate

Conc 18.1141
R#1 26.63 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

Printed at 6/24/2021 2:00:30 PM

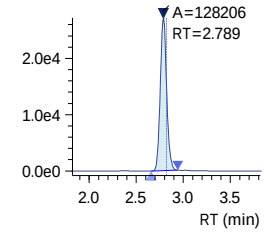
20210622_009

Sample ID: PERCHLORATE7
Date Acquired: 6/22/2021 6:16:54 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_009.lcd
Vial: 27 | Inj. Volume: 50.0000uL | Tray: 1

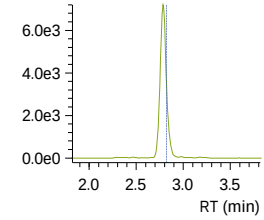
Perchlorate

Conc 18.7699
R#1 26.65 (0.00)

Q 99.00>83.00 (-) 2.72e4



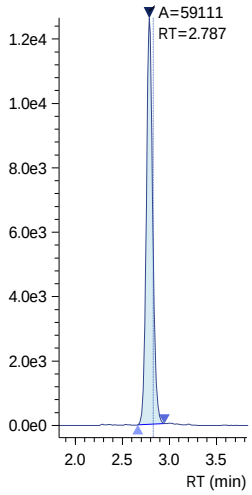
R1 101.00>85.00 (-) 7.20e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.27e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

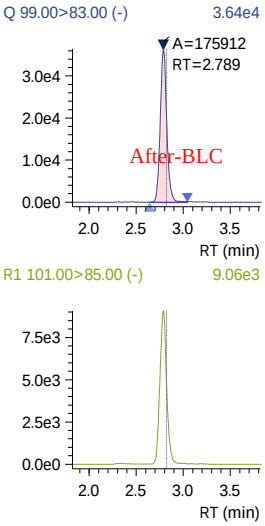
20210622_010

Sample ID: PERCHLORATE8
Date Acquired: 6/22/2021 6:25:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_010.lcd
Vial: 28 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.789	175912	52085	1	27.6902	ng/mL	30.0000	25.11
Sodium Perchlorate-18O4_IS	M	2.788	52085	52085	1	1.0000	ng/mL	1.0000	----

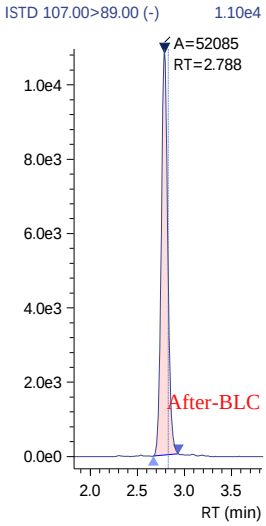
Perchlorate

Conc 27.6902
R#1 25.11 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

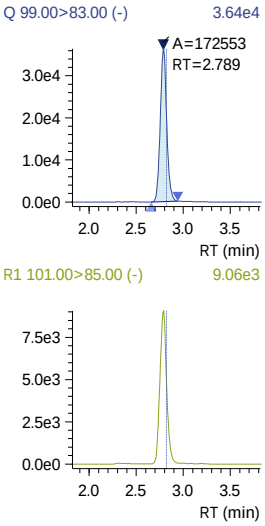
Printed at 6/24/2021 2:00:30 PM

20210622_010

Sample ID: PERCHLORATE8
Date Acquired: 6/22/2021 6:25:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_010.lcd
Vial: 28 | Inj. Volume: 50.0000uL | Tray: 1

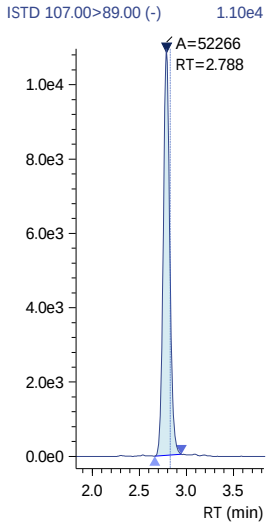
Perchlorate

Conc 28.5706
R#1 25.08 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 1:58:03 PM

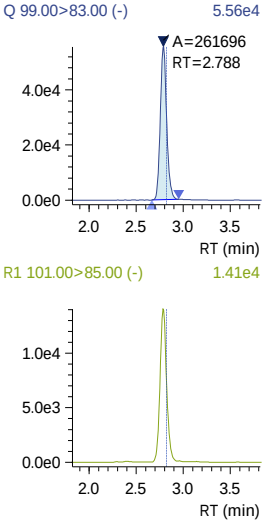
20210622_011

Sample ID: PERCHLORATE9
Date Acquired: 6/22/2021 6:34:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_011.lcd
Vial: 29 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.788	261696	49311	1	43.5110	ng/mL	50.0000	25.36
Sodium Perchlorate-18O4_IS	Auto	2.788	49311	49311	1	1.0000	ng/mL	1.0000	----

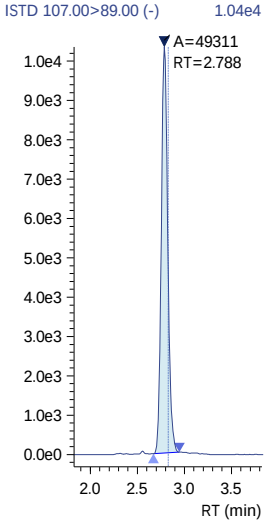
Perchlorate

Conc 43.5110
R#1 25.36 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

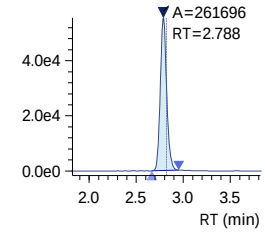
20210622_011

Sample ID: PERCHLORATE9
Date Acquired: 6/22/2021 6:34:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_011.lcd
Vial: 29 | Inj. Volume: 50.0000uL | Tray: 1

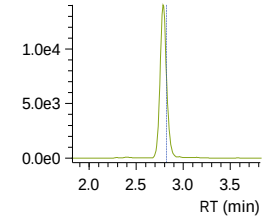
Perchlorate

Conc 45.9277
R#1 25.36 (0.00)

Q 99.00>83.00 (-) 5.56e4



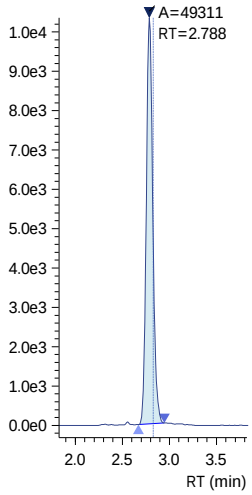
R1 101.00>85.00 (-) 1.41e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.04e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

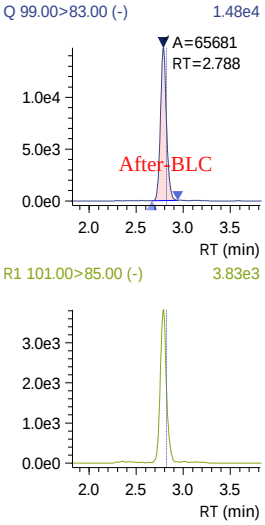
20210622_012

Sample ID: PERCHLORATEICV
Date Acquired: 6/22/2021 6:42:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_012.lcd
Vial: 30 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.788	65681	62607	1	8.6012	ng/mL	10.0000	25.84
Sodium Perchlorate-18O4 _IS	Auto	2.787	62607	62607	1	1.0000	ng/mL	1.0000	----

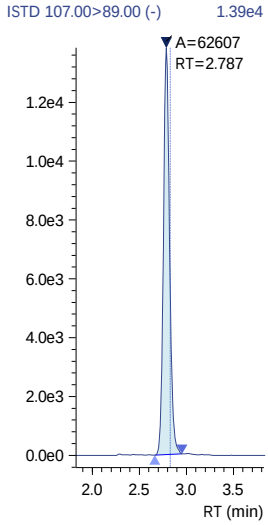
Perchlorate

Conc 8.6012
R#1 25.84 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

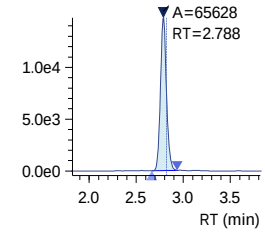
20210622_012

Sample ID: PERCHLORATEICV
Date Acquired: 6/22/2021 6:42:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\Before\20210622_012.lcd
Vial: 30 | Inj. Volume: 50.0000uL | Tray: 1

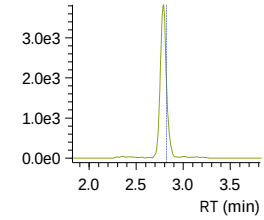
Perchlorate

Conc 9.0716
R#1 25.83 (0.00)

Q 99.00>83.00 (-) 1.48e4



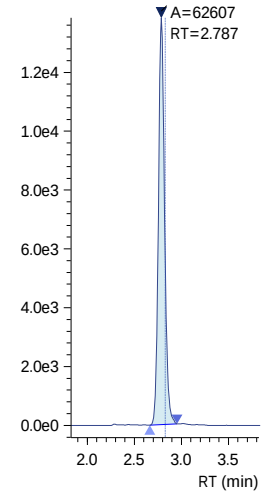
R1 101.00>85.00 (-) 3.83e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.39e4



Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20210615

ALS Environmental

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210615_007	Perchlorate6850c.lcm	1x	☒	3100810-05	6/15/2021 15:32
2	PERCHLORATE2		20210615_008	Perchlorate6850c.lcm	1x	☒	3100810-06	6/15/2021 15:41
3	PERCHLORATE3		20210615_009	Perchlorate6850c.lcm	1x	☒	3100810-07	6/15/2021 15:49
4	PERCHLORATE4		20210615_010	Perchlorate6850c.lcm	1x	☒	3100810-08	6/15/2021 15:58
5	PERCHLORATE5		20210615_011	Perchlorate6850c.lcm	1x	☒	3100810-09	6/15/2021 16:07
6	PERCHLORATE6		20210615_012	Perchlorate6850c.lcm	1x	☒	3100811-01	6/15/2021 16:15
7	PERCHLORATE7		20210615_013	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 16:24
8	PERCHLORATE8		20210615_014	Perchlorate6850c.lcm	1x	☒	3100811-03	6/15/2021 16:32
9	PERCHLORATE9		20210615_015	Perchlorate6850c.lcm	1x	☒	3100811-04	6/15/2021 16:41
10	PERCHLORATE10		20210615_016	Perchlorate6850c.lcm	1x	☒	3100811-05	6/15/2021 16:49
11	PERCHLORATEICV		20210615_017	Perchlorate6850c.lcm	1x	☒	3100811-06	6/15/2021 16:58
12	ICS		20210615_018	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:06
13	LODV		20210615_019	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:15
14	PERCHLORATE7		20210615_020	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 17:23
15	EQ2100354-01		20210615_021	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:52
16	EQ2100354-02		20210615_022	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:00
17	EQ2100354-03		20210615_023	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:09
18	E2100631-001X100		20210615_024	Perchlorate6850c.lcm	100x	☒	DNU-over calibration range	6/15/2021 18:17
19	E2100608-001X100		20210615_025	Perchlorate6850c.lcm	100x	☒		6/15/2021 18:26
20	E2100629-001X10		20210615_026	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:34
21	E2100630-001X10		20210615_027	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:43
22	E2100632-006X100		20210615_028	Perchlorate6850c.lcm	100x	☒	DNU-INST low	6/15/2021 18:52
23	EQ2100357-04X100		20210615_029	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:00
24	EQ2100357-05X100		20210615_030	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:09
25	PERCHLORATE7		20210615_031	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 19:17
26	E2100644-001X1000		20210615_032	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:26
27	E2100644-002X100		20210615_033	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:34
28	E2100644-003X1000		20210615_034	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:43
29	E2100644-004X1000		20210615_035	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:51
30	E2100644-005X100		20210615_036	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:00
31	E2100644-006X100		20210615_037	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:09
32	E2100644-008X10		20210615_038	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 20:17
33	E2100645-001X100		20210615_039	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:26
34	E2100645-002X100		20210615_040	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:34
35	E2100645-003X10		20210615_041	Perchlorate6850c.lcm	10x	☒		6/15/2021 20:43
36	PERCHLORATE7		20210615_042	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 20:51
37	E2100645-006X10		20210615_043	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 21:00
38	E2100645-007X1000		20210615_044	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:08
39	E2100645-008X1000		20210615_045	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:17
40	PERCHLORATE7		20210615_046	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 21:25
41	EQ2100354-04		20210615_047	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:34
42	EQ2100354-05		20210615_048	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:42
43	E2100632-001		20210615_049	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:51
44	E2100632-002		20210615_050	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:59
45	E2100632-003		20210615_051	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:08
46	E2100632-004		20210615_052	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:17
47	PERCHLORATE7		20210615_053	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 22:25
48	E2100632-005		20210615_054	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:34
49	E2100632-007		20210615_055	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:42
50	EQ2100357-01		20210615_056	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:51
51	EQ2100357-02		20210615_057	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:59
52	EQ2100357-03		20210615_058	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:08
53	E2100644-007		20210615_059	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:16
54	E2100644-009		20210615_060	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:25
55	E2100645-004		20210615_061	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:33
56	E2100645-005		20210615_062	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:42
57	PERCHLORATE7		20210615_063	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 23:50
58	EQ2100358-01		20210615_064	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:59
59	EQ2100358-02		20210615_065	Perchlorate6850c.lcm	1x	☒		6/16/2021 0:08
60	EQ2100358-03		20210615_066	Perchlorate6850c.lcm	1x	☒	Reanalyze	6/16/2021 0:16
61	E2100645-017		20210615_067	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:25
62	E2100645-019		20210615_068	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:33
63	E2100645-022		20210615_069	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:42
64	E2100645-023		20210615_070	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:50

20210615

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
65	PERCHLORATE7		20210615_071	Perchlorate6850c.lcm	1x	☒	3100811-02	6/16/2021 0:59

20210622

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/22/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100044**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-08 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210622_002	Perchlorate6850c.lcm	1x	☒	3100812-01	6/22/2021 17:16
2	PERCHLORATE2		20210622_003	Perchlorate6850c.lcm	1x	☒	3100812-02	6/22/2021 17:25
3	PERCHLORATE3		20210622_004	Perchlorate6850c.lcm	1x	☒	3100812-03	6/22/2021 17:33
4	PERCHLORATE4		20210622_006	Perchlorate6850c.lcm	1x	☒	3100812-05	6/22/2021 17:51
5	PERCHLORATE5		20210622_007	Perchlorate6850c.lcm	1x	☒	3100812-06	6/22/2021 17:59
6	PERCHLORATE6		20210622_008	Perchlorate6850c.lcm	1x	☒	3100812-07	6/22/2021 18:08
7	PERCHLORATE7		20210622_009	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 18:16
8	PERCHLORATE8		20210622_010	Perchlorate6850c.lcm	1x	☒	3100812-09	6/22/2021 18:25
9	PERCHLORATE9		20210622_011	Perchlorate6850c.lcm	1x	☒	3100813-01	6/22/2021 18:34
10	PERCHLORATEICV		20210622_012	Perchlorate6850c.lcm	1x	☒	3100811-06	6/22/2021 18:42
11	ICS		20210622_013	Perchlorate6850c.lcm	1x	☒		6/22/2021 18:51
12	LODV		20210622_014	Perchlorate6850c.lcm	1x	☒		6/22/2021 18:59
13	PERCHLORATE7		20210622_015	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 19:08
14	EQ2100354-04		20210622_016	Perchlorate6850c.lcm	1x	☒		6/22/2021 19:17
15	EQ2100354-05		20210622_017	Perchlorate6850c.lcm	1x	☒		6/22/2021 19:25
16	E2100631-001X1000		20210622_018	Perchlorate6850c.lcm	1000x	☒		6/22/2021 19:34
17	E2100629-001X20		20210622_019	Perchlorate6850c.lcm	20x	☒		6/22/2021 19:43
18	E2100630-001X20		20210622_020	Perchlorate6850c.lcm	20x	☒		6/22/2021 19:51
19	E2100632-001X10		20210622_021	Perchlorate6850c.lcm	10x	☒		6/22/2021 20:00
20	E2100632-002X10		20210622_022	Perchlorate6850c.lcm	10x	☒		6/22/2021 20:08
21	E2100632-003X2		20210622_023	Perchlorate6850c.lcm	2x	☒	DNU-INST out of range	6/22/2021 20:17
22	E2100632-004X2		20210622_024	Perchlorate6850c.lcm	2x	☒	DNU-INST out of range	6/22/2021 20:25
23	PERCHLORATE7		20210622_025	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 20:34
24	E2100608-001		20210622_026	Perchlorate6850c.lcm	1x	☒	confirmation run only	6/22/2021 20:43
25	E2100632-005X2		20210622_027	Perchlorate6850c.lcm	2x	☒		6/22/2021 20:51
26	E2100632-006X200		20210622_028	Perchlorate6850c.lcm	200x	☒		6/22/2021 21:00
27	E2100632-007X2		20210622_029	Perchlorate6850c.lcm	2x	☒		6/22/2021 21:08
28	EQ2100367-01		20210622_030	Perchlorate6850c.lcm	1x	☒		6/22/2021 21:17
29	EQ2100367-02		20210622_031	Perchlorate6850c.lcm	1x	☒		6/22/2021 21:26
30	EQ2100367-03		20210622_032	Perchlorate6850c.lcm	1x	☒		6/22/2021 21:34
31	E2100651-001		20210622_033	Perchlorate6850c.lcm	1x	☒	DNU-over calibration range	6/22/2021 21:43
32	PERCHLORATE7		20210622_034	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 21:52
33	E2100644-007X5		20210622_035	Perchlorate6850c.lcm	5x	☒	DNU-INST out of range	6/22/2021 22:00
34	E2100644-008X20		20210622_036	Perchlorate6850c.lcm	20x	☒	DNU-INST out of range	6/22/2021 22:09
35	E2100644-009X2		20210622_037	Perchlorate6850c.lcm	2x	☒		6/22/2021 22:17
36	E2100645-004X2		20210622_038	Perchlorate6850c.lcm	2x	☒		6/22/2021 22:26
37	E2100645-005X2		20210622_039	Perchlorate6850c.lcm	2x	☒		6/22/2021 22:34
38	E2100645-006X20		20210622_040	Perchlorate6850c.lcm	20x	☒		6/22/2021 22:43
39	PERCHLORATE7		20210622_041	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 22:52
40	E2100645-009X100		20210622_042	Perchlorate6850c.lcm	100x	☒		6/22/2021 23:00
41	E2100645-010X1000		20210622_043	Perchlorate6850c.lcm	1000x	☒		6/22/2021 23:09
42	E2100645-011X1000		20210622_044	Perchlorate6850c.lcm	1000x	☒		6/22/2021 23:17
43	EQ2100358-03		20210622_045	Perchlorate6850c.lcm	1x	☒		6/22/2021 23:26
44	E2100645-012X1000		20210622_046	Perchlorate6850c.lcm	1000x	☒		6/22/2021 23:35
45	E2100645-013X1000		20210622_047	Perchlorate6850c.lcm	1000x	☒		6/22/2021 23:43
46	E2100645-014X10		20210622_048	Perchlorate6850c.lcm	10x	☒		6/22/2021 23:52
47	E2100645-015X10		20210622_049	Perchlorate6850c.lcm	10x	☒		6/23/2021 0:00
48	E2100645-016X10		20210622_050	Perchlorate6850c.lcm	10x	☒		6/23/2021 0:09
49	E2100645-017X2		20210622_051	Perchlorate6850c.lcm	2x	☒		6/23/2021 0:18
50	PERCHLORATE7		20210622_052	Perchlorate6850c.lcm	1x	☒	3100812-08	6/23/2021 0:26
51	E2100645-018X10		20210622_053	Perchlorate6850c.lcm	10x	☒		6/23/2021 0:35
52	E2100645-019X2		20210622_054	Perchlorate6850c.lcm	2x	☒		6/23/2021 0:44
53	E2100645-020X10		20210622_055	Perchlorate6850c.lcm	10x	☒		6/23/2021 0:52
54	E2100645-021X100		20210622_056	Perchlorate6850c.lcm	100x	☒		6/23/2021 1:01
55	E2100645-022X5		20210622_057	Perchlorate6850c.lcm	5x	☒	DNU-INST out of range	6/23/2021 1:09
56	E2100645-023X5		20210622_058	Perchlorate6850c.lcm	5x	☒	DNU-INST out of range	6/23/2021 1:18
57	E2100645-024X100		20210622_059	Perchlorate6850c.lcm	100x	☒		6/23/2021 1:27
58	PERCHLORATE7		20210622_060	Perchlorate6850c.lcm	1x	☒	3100812-08	6/23/2021 1:35

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460

Service Request: E2100631
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_020

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.14	0.1057	0.09659	-8.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460

Service Request: E2100631
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_031

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.15	0.1057	0.09669	-8.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460

Service Request: E2100631
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_042

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.09	0.1057	0.09609	-9.1	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460

Service Request: E2100631
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_046

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.03	0.1057	0.09546	-9.7	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460

Service Request: E2100631
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_053

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	8.82	0.1057	0.09319	-11.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460

Service Request: E2100631
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_063

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.34	0.1057	0.09869	-6.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460

Service Request: E2100631
Date Analyzed: 6/16/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_071

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.17	0.1057	0.09692	-8.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460

Service Request: E2100631
Date Analyzed: 6/22/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210622\20210622_015

Calibration Date: 6/22/21
Calibration ID: EC2100044
Analysis Lot: 728385
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.66	0.1220	0.1179	-3.4	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460

Service Request: E2100631
Date Analyzed: 6/22/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210622\20210622_025

Calibration Date: 6/22/21
Calibration ID: EC2100044
Analysis Lot: 728385
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.34	0.1220	0.1140	-6.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460

Service Request: E2100631
Date Analyzed: 6/22/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210622\20210622_034

Calibration Date: 6/22/21
Calibration ID: EC2100044
Analysis Lot: 728385
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.38	0.1220	0.1144	-6.2	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460

Service Request: E2100631
Date Analyzed: 6/22/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210622\20210622_041

Calibration Date: 6/22/21
Calibration ID: EC2100044
Analysis Lot: 728385
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.25	0.1220	0.1128	-7.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460

Service Request: E2100631
Date Analyzed: 6/23/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210622\20210622_052

Calibration Date: 6/22/21
Calibration ID: EC2100044
Analysis Lot: 728385
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.17	0.1220	0.1119	-8.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460

Service Request: E2100631
Date Analyzed: 6/23/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210622\20210622_060

Calibration Date: 6/22/21
Calibration ID: EC2100044
Analysis Lot: 728385
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.54	0.1220	0.1164	-4.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060460

Service Request: E2100631
Date Analyzed: 6/15/21 17:23

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20210615\20210615_020
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2100361-01
Analysis Lot: 727655
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-01	91,410	2.80
Method Blank	EQ2100354-01	132,232	2.80
Lab Control Sample	EQ2100354-02	127,528	2.78
Duplicate Lab Control Sample	EQ2100354-03	129,149	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Analyzed:**	6/15/21 19:17

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_031	**Lab Code:**	EQ2100361-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-02	98,763	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Analyzed:**	6/15/21 20:51

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_042	**Lab Code:**	EQ2100361-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-03	96,816	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Analyzed:**	6/15/21 21:25

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_046	**Lab Code:**	EQ2100361-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-04	94,189	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Analyzed:**	6/15/21 22:25

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_053	**Lab Code:**	EQ2100361-05
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-05	61,947	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Analyzed:**	6/15/21 23:50

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_063	**Lab Code:**	EQ2100361-06
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-06	55,999	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Analyzed:**	6/16/21 00:59

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_071	**Lab Code:**	EQ2100361-07
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-07	51,074	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Analyzed:**	6/22/21 19:08

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210622\20210622_015	**Lab Code:**	EQ2100376-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	728385
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	60,843	2.79
	Upper Limit ==>	91,265	4.79
	Lower Limit ==>	30,422	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100376-01	59,737	2.79
LH18/24-SP140_060821	E2100631-001	56,269	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Analyzed:**	6/22/21 20:34

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210622\20210622_025	**Lab Code:**	EQ2100376-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	728385
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	60,843	2.79
	Upper Limit ==>	91,265	4.79
	Lower Limit ==>	30,422	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100376-02	49,224	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Analyzed:**	6/22/21 21:52

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210622\20210622_034	**Lab Code:**	EQ2100376-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	728385
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	60,843	2.79
	Upper Limit ==>	91,265	4.79
	Lower Limit ==>	30,422	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100376-03	49,936	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Analyzed:**	6/22/21 22:52

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210622\20210622_041	**Lab Code:**	EQ2100376-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	728385
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	60,843	2.79
	Upper Limit ==>	91,265	4.79
	Lower Limit ==>	30,422	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100376-04	48,761	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Analyzed:**	6/23/21 00:26

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210622\20210622_052	**Lab Code:**	EQ2100376-05
Instrument ID:	E-LCMS-01	**Analysis Lot:**	728385
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	60,843	2.79
	Upper Limit ==>	91,265	4.79
	Lower Limit ==>	30,422	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100376-05	51,508	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100631
Project:	HS21060460	**Date Analyzed:**	6/23/21 01:35

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210622\20210622_060	**Lab Code:**	EQ2100376-06
Instrument ID:	E-LCMS-01	**Analysis Lot:**	728385
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	60,843	2.79
	Upper Limit ==>	91,265	4.79
	Lower Limit ==>	30,422	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100376-06	48,454	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

Insight Report

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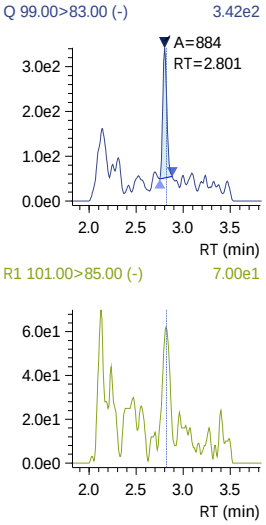
20210615_019

Sample ID: LODV
Date Acquired: 6/15/2021 5:15:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_019.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.801	884	129435	1	0.0646	ng/mL	----	13.59
Sodium Perchlorate-18O4 _IS	Auto	2.803	1294 35	129435	1	1.0000	ng/mL	----	----

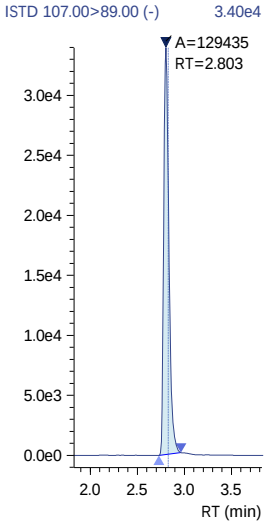
Perchlorate

Conc 0.0646
R#1 13.59 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

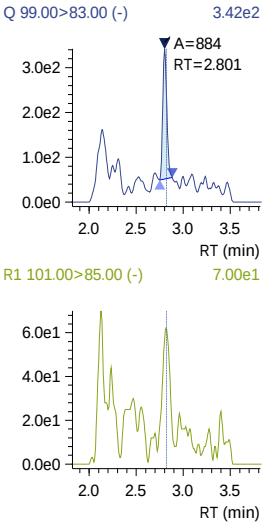
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20210615_019

Sample ID: LODV
Date Acquired: 6/15/2021 5:15:23 PM
Acquired by: System Administrator
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Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

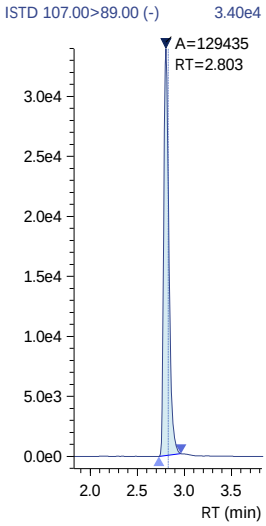
Perchlorate

Conc 0.0658
R#1 13.59 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

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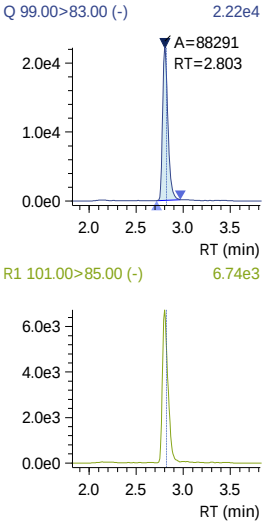
20210615_020

Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 5:23:58 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_020.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.803	88291	91410	1	9.1371	ng/mL	10.0000	30.31
Sodium Perchlorate-18O4 _IS	Auto	2.802	91410	91410	1	1.0000	ng/mL	1.0000	----

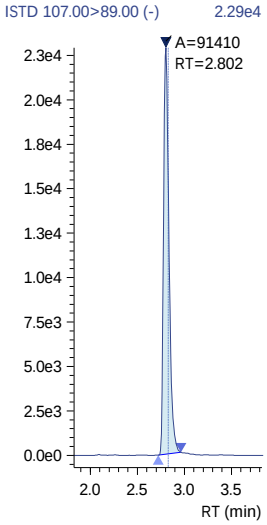
Perchlorate

Conc 9.1371
R#1 30.31 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

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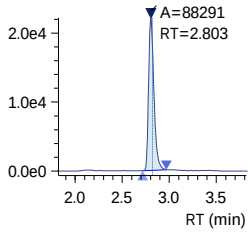
20210615_020

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Date Acquired: 6/15/2021 5:23:58 PM
Acquired by: System Administrator
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Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

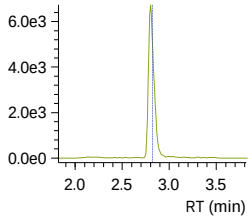
Perchlorate

Conc 9.3094
R#1 30.31 (0.00)

Q 99.00>83.00 (-) 2.22e4



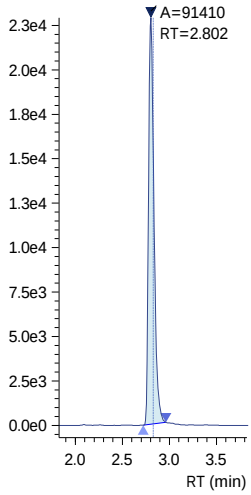
R1 101.00>85.00 (-) 6.74e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.29e4



Insight Report

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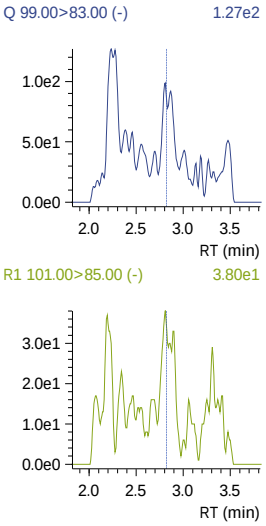
20210615_021

Sample ID: EQ2100354-01
Date Acquired: 6/15/2021 5:52:16 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_021.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	ND(W/B)	----	----	132232	1	----	ng/mL	----	----
Sodium Perchlorate-18O4_IS	M	2.799	132232	132232	1	1.0000	ng/mL	----	----

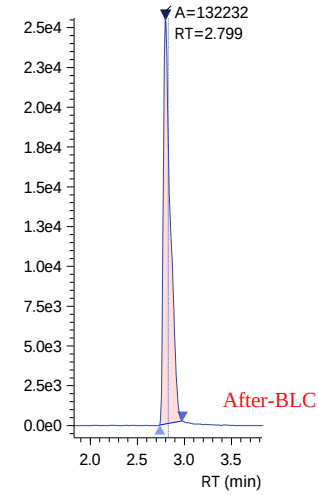
Perchlorate

Conc ----
R#1 ---- (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

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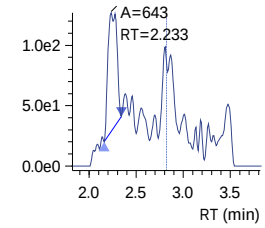
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Sample ID: EQ2100354-01
Date Acquired: 6/15/2021 5:52:16 PM
Acquired by: System Administrator
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Vial: 27 | Inj. Volume: 25.0000uL | Tray: 2

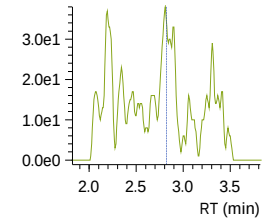
Perchlorate

Conc ----
R#1 ---- (0.00)

Q 99.00>83.00 (-) 1.27e2



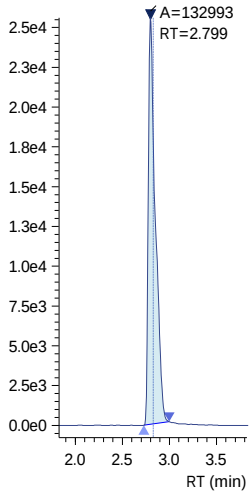
R1 101.00>85.00 (-) 3.80e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.56e4



Insight Report

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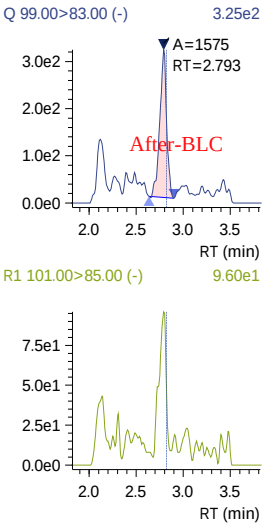
20210615_022

Sample ID: EQ2100354-02
Date Acquired: 6/15/2021 6:00:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_022.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.793	1575	127528	1	0.1168	ng/mL	----	26.05
Sodium Perchlorate-18O4 _IS	M	2.781	1275 28	127528	1	1.0000	ng/mL	----	----

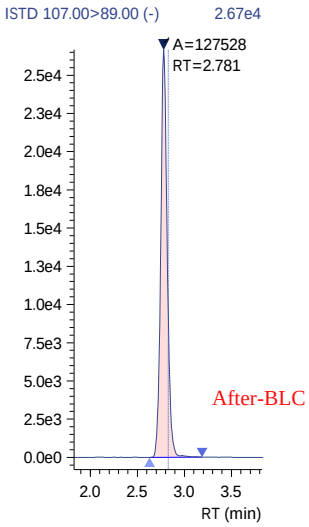
Perchlorate

Conc 0.1168
R#1 26.05 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

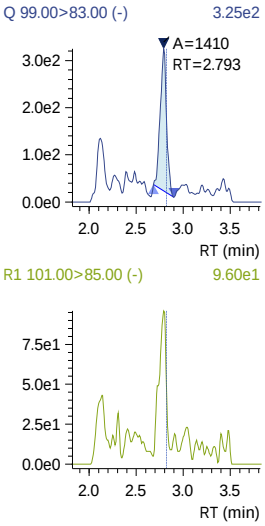
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20210615_022

Sample ID: EQ2100354-02
Date Acquired: 6/15/2021 6:00:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_022.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 2

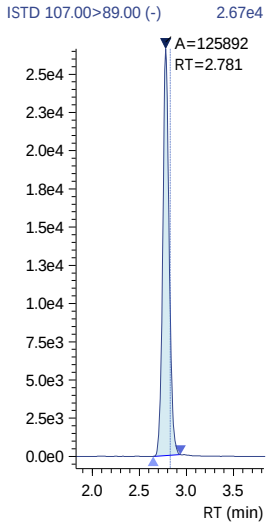
Perchlorate

Conc 0.1080
R#1 28.19 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

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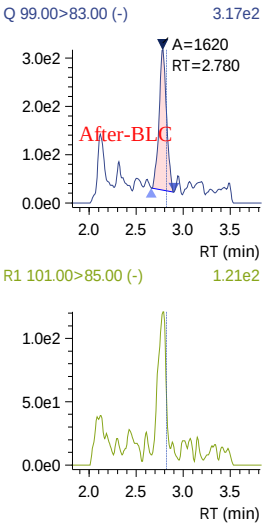
20210615_023

Sample ID: EQ2100354-03
Date Acquired: 6/15/2021 6:09:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_023.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.780	1620	129149	1	0.1187	ng/mL	----	37.63
Sodium Perchlorate-18O4_IS	M	2.780	129149	129149	1	1.0000	ng/mL	----	----

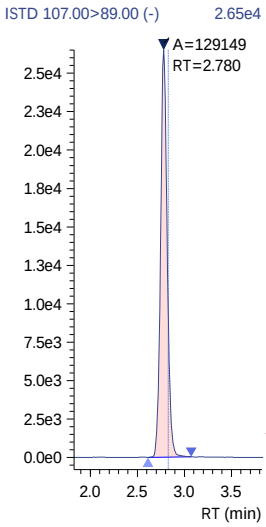
Perchlorate

Conc 0.1187
R#1 37.63 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



After-BLC

Insight Report

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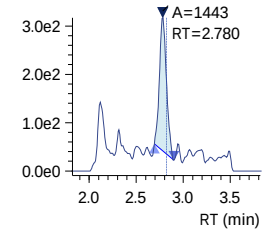
20210615_023

Sample ID: EQ2100354-03
Date Acquired: 6/15/2021 6:09:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_023.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 2

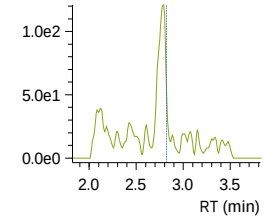
Perchlorate

Conc 0.1090
R#1 37.13 (0.00)

Q 99.00>83.00 (-) 3.17e2



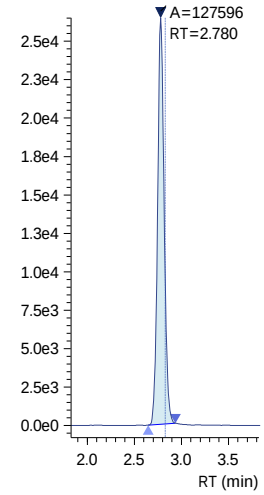
R1 101.00>85.00 (-) 1.21e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.65e4



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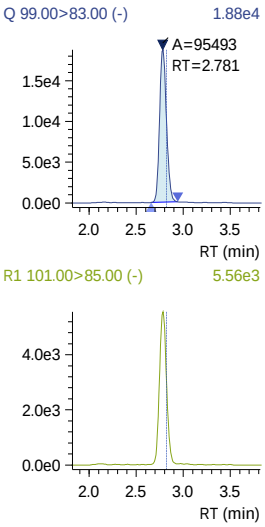
20210615_031

Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 7:17:47 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_031.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.781	95493	98763	1	9.1466	ng/mL	10.0000	29.24
Sodium Perchlorate-18O4 _IS	Auto	2.781	98763	98763	1	1.0000	ng/mL	1.0000	----

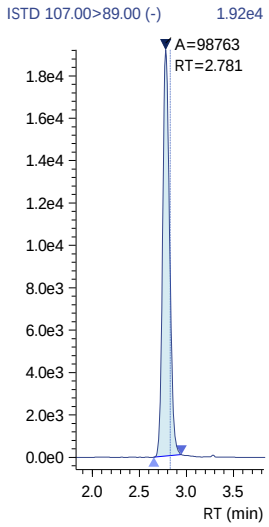
Perchlorate

Conc 9.1466
R#1 29.24 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/17/2021 2:00:46 PM

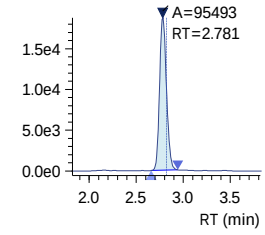
20210615_031

Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 7:17:47 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_031.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

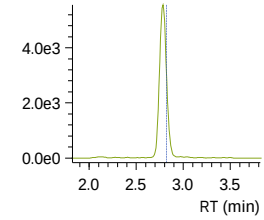
Perchlorate

Conc 9.3192
R#1 29.24 (0.00)

Q 99.00>83.00 (-) 1.88e4



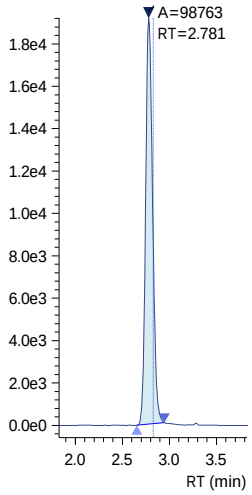
R1 101.00>85.00 (-) 5.56e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.92e4



Insight Report

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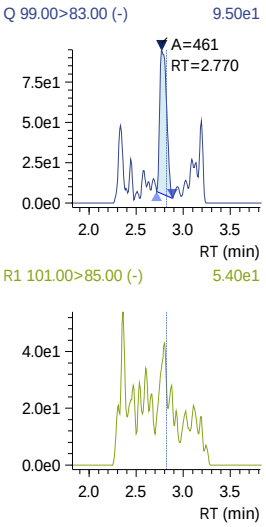
20210622_014

Sample ID: LODV
Date Acquired: 6/22/2021 6:59:57 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_014.lcd
Vial: 31 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.770	461	60632	1	0.0623	ng/mL	----	16.09
Sodium Perchlorate-18O4 _IS	Auto	2.787	60632	60632	1	1.0000	ng/mL	----	----

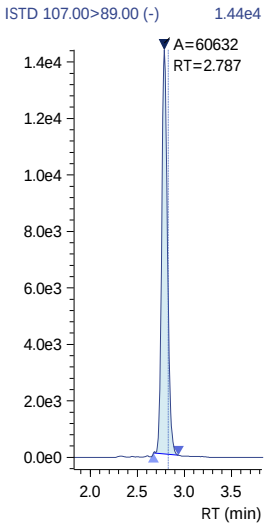
Perchlorate

Conc 0.0623
R#1 16.09 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

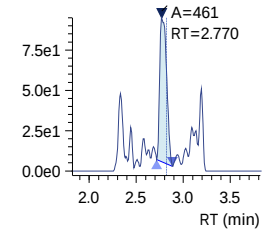
20210622_014

Sample ID: LODV
Date Acquired: 6/22/2021 6:59:57 PM
Acquired by: System Administrator
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Vial: 31 | Inj. Volume: 50.0000uL | Tray: 1

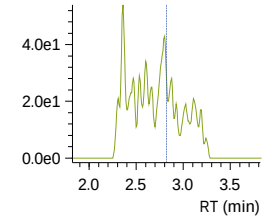
Perchlorate

Conc 0.0657
R#1 16.09 (0.00)

Q 99.00>83.00 (-) 9.50e1



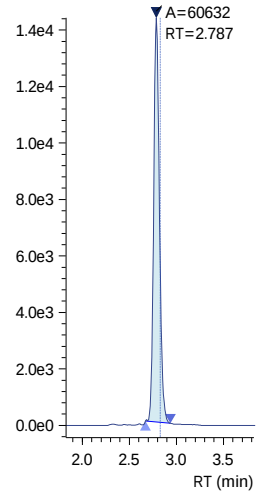
R1 101.00>85.00 (-) 5.40e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.44e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

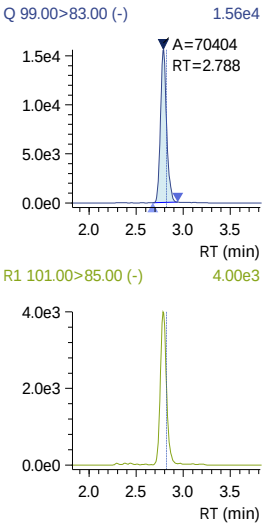
20210622_015

Sample ID: PERCHLORATE7
Date Acquired: 6/22/2021 7:08:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_015.lcd
Vial: 26 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.788	70404	59737	1	9.6627	ng/mL	10.0000	25.75
Sodium Perchlorate-18O4 _IS	Auto	2.789	59737	59737	1	1.0000	ng/mL	1.0000	----

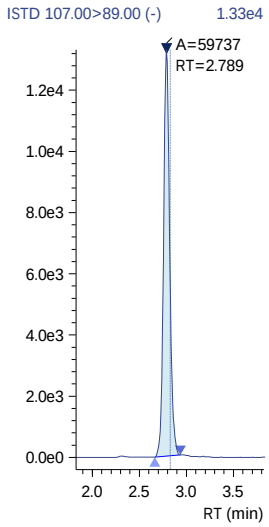
Perchlorate

Conc 9.6627
R#1 25.75 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

Printed at 6/24/2021 2:00:30 PM

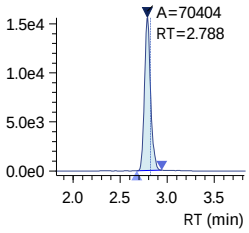
20210622_015

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Date Acquired: 6/22/2021 7:08:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\Before\20210622_015.lcd
Vial: 26 | Inj. Volume: 50.0000uL | Tray: 1

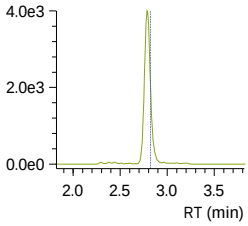
Perchlorate

Conc 10.1994
R#1 25.75 (0.00)

Q 99.00>83.00 (-) 1.56e4



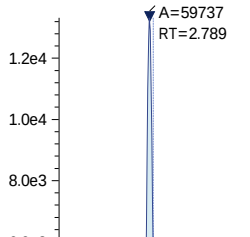
R1 101.00>85.00 (-) 4.00e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.33e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

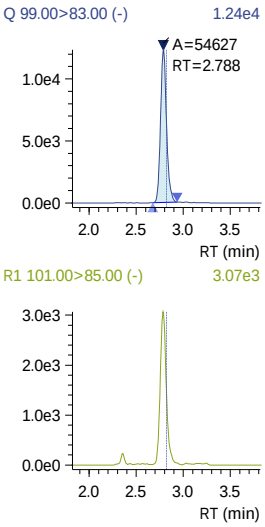
20210622_018

Sample ID: E2100631-001X1000
Date Acquired: 6/22/2021 7:34:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_018.lcd
Vial: 35 | Inj. Volume: 50.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.788	54627	56269	1	7.9594	ng/mL	----	24.97
Sodium Perchlorate-18O4 _IS	Auto	2.787	56269	56269	1	1.0000	ng/mL	----	----

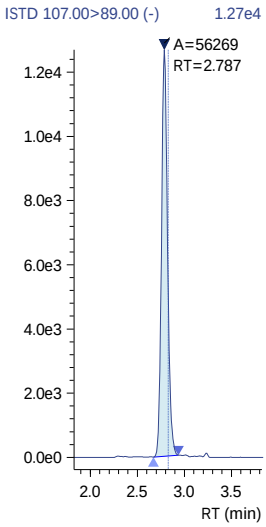
Perchlorate

Conc 7.9594
R#1 24.97 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

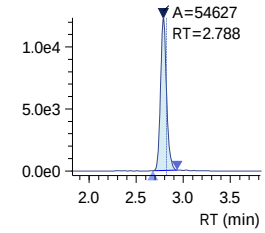
20210622_018

Sample ID: E2100631-001X1000
Date Acquired: 6/22/2021 7:34:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\Before\20210622_018.lcd
Vial: 35 | Inj. Volume: 50.0000uL | Tray: 2

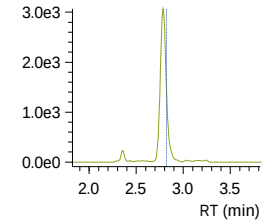
Perchlorate

Conc 8.4015
R#1 24.97 (0.00)

Q 99.00>83.00 (-) 1.24e4



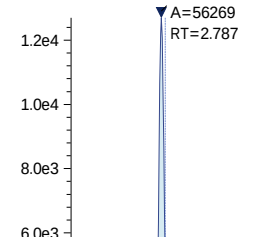
R1 101.00>85.00 (-) 3.07e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.27e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

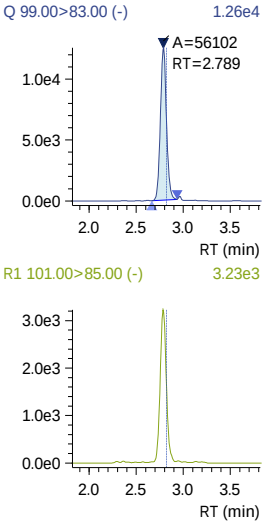
20210622_025

Sample ID: PERCHLORATE7
Date Acquired: 6/22/2021 8:34:32 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_025.lcd
Vial: 26 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.789	56102	49224	1	9.3444	ng/mL	10.0000	25.90
Sodium Perchlorate-18O4 _IS	Auto	2.788	49224	49224	1	1.0000	ng/mL	1.0000	----

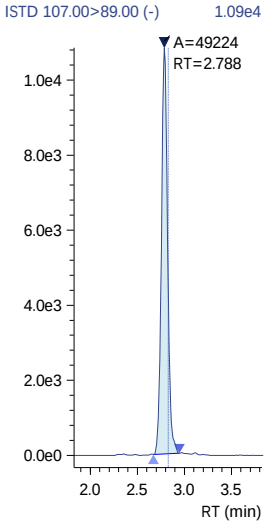
Perchlorate

Conc 9.3444
R#1 25.90 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

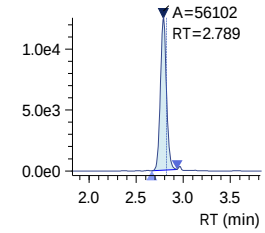
20210622_025

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Date Acquired: 6/22/2021 8:34:32 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\Before\20210622_025.lcd
Vial: 26 | Inj. Volume: 50.0000uL | Tray: 1

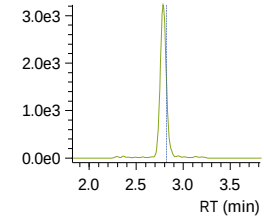
Perchlorate

Conc 9.8634
R#1 25.90 (0.00)

Q 99.00>83.00 (-) 1.26e4



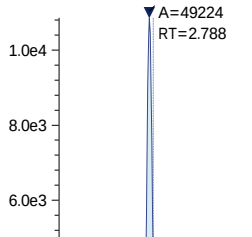
R1 101.00>85.00 (-) 3.23e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.09e4



HS21060462 Longhorn GW Treatment Plant
Monthly Effluent Cover Page

ALS WO# HS21060462

ALS Environmental
ALS Group USA, Corp
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Houston, TX 77099
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F : +1 281 530 5887
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Table of Contents

HS21060462 Longhorn GW Treatment Plant Monthly Effluent Cover Page
- CoverPage
- HS21060462 Longhorn GW Treatment Plant Monthly Effluent Final
  - CoverLetter
  - Sample Summary
  - CaseNarrative
  - LH18/24-SP650_060821
  - LH18/24-SP650_060821_BIX
  - Trip Blank
  - Weight/Volume Log
  - Dates Report
  - QC
  - Acronyms
  - Certifications
  - Sample Tracking Record
  - SampleReceiptCheckList
  - COC
  - HS21060462 - Sub Perch II (E2100630)
- HS21060462 8260_W DOD IV Raw Data
- HS21060462 8270 Raw Data
- HS21060462 - Sub Perch IV (E2100630)
  - CoverLetter

Table of Contents (continued)

Certificate of Analysis
Chain of Custody
Preparation Sheets
Analytical Results
Accuracy and Precision
Initial Calibration
Chromatogram
HS21060462 Wet Chemistry Raw Data

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WorkOrder: HS21060462

Longhorn GW Treatment Plant Monthly Effluent

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

02-Sep-2021

HS21060462 Longhorn GW Treatment Plant
Monthly Effluent Final

ALS WO# HS21060462

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

June 23, 2021

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS21060462**

Laboratory Results for: **Longhorn GW Treatment Plant Monthly Effluent**

Dear Marcia Olive,

ALS Environmental received 3 sample(s) on Jun 09, 2021 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
Ragen Giga
Project Manager

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
Work Order: HS21060462

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS21060462-01	LH18/24-SP650_060821	Water		08-Jun-2021 14:00	09-Jun-2021 10:20	☐
HS21060462-02	LH18/24-SP650_060821_BIX	Water		08-Jun-2021 14:00	09-Jun-2021 10:20	☐
HS21060462-03	Trip Blank	Water		08-Jun-2021 14:00	09-Jun-2021 10:20	☐

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Monthly Effluent
Work Order: HS21060462

Work Order Comments

- The analysis for Perchlorate was subcontracted to ALS Houston High-Res Lab. Final report attached

GCMS Semivolatiles by Method SW8270SIM

Batch ID: 166791

Sample ID: LH18/24-SP650_060821 (HS21060462-01)

- The surrogate recoveries could not be determined due to dilution below the calibration range.

GCMS Volatiles by Method SW8260

Batch ID: R385384

Sample ID: CCV

- 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,2-Dibromo-3-Chloropropane and Hexachlorobutadiene exceeded %D limits for CCV. Samples are ND for these compounds.

Sample ID: VLCSW-210610

- 1,1,2,2-Tetrachloroethane, 1,2,3-Trichlorobenzene, 1,2-Dibromo-3-Chloropropane and Naphthalene exceeded QC limits for LCS. Samples are ND for these compounds.

Sample ID: HS21060495-07MS

- MS and MSD are for an unrelated sample

Sample ID: HS21060222-01MS

- MS and MSD are for an unrelated sample

Metals by Method SW6020A

Batch ID: 166919

Sample ID: HS21060700-02MS

- MS and MSD are for an unrelated sample

WetChemistry by Method SW7196

Batch ID: R385273

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
Sample ID: LH18/24-SP650_060821
Collection Date: 08-Jun-2021 14:00

ANALYTICAL REPORT
WorkOrder:HS21060462
Lab ID:HS21060462-01
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,1,2-Tetrachloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14
1,1,2,2-Tetrachloroethane	1.0	U	0.50	1.0	1.0	ug/L	1	10-Jun-2021 20:14
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14
1,1-Dichloropropene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
1,2,3-Trichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	10-Jun-2021 20:14
1,2,3-Trichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	10-Jun-2021 20:14
1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	10-Jun-2021 20:14
1,2,4-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14
1,2-Dichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	10-Jun-2021 20:14
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14
1,2-Dichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	10-Jun-2021 20:14
1,3,5-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
1,3-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	10-Jun-2021 20:14
1,3-Dichloropropane	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
1,4-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	10-Jun-2021 20:14
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	10-Jun-2021 20:14
2-Chlorotoluene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
2-Hexanone	2.0	U	1.0	2.0	2.0	ug/L	1	10-Jun-2021 20:14
4-Chlorotoluene	1.0	U	0.40	1.0	1.0	ug/L	1	10-Jun-2021 20:14
4-Isopropyltoluene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
4-Methyl-2-pentanone	2.0	U	0.70	2.0	2.0	ug/L	1	10-Jun-2021 20:14
Acetone	2.0	U	0.40	2.0	2.0	ug/L	1	10-Jun-2021 20:14
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14
Bromobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	10-Jun-2021 20:14
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14
Bromoform	1.0	U	0.40	1.0	1.0	ug/L	1	10-Jun-2021 20:14
Bromomethane	1.0	U	0.40	1.0	1.0	ug/L	1	10-Jun-2021 20:14
Carbon disulfide	2.0	U	0.60	2.0	2.0	ug/L	1	10-Jun-2021 20:14
Carbon tetrachloride	1.0	U	0.50	1.0	1.0	ug/L	1	10-Jun-2021 20:14
Chlorobenzene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
Chloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
Sample ID: LH18/24-SP650_060821
Collection Date: 08-Jun-2021 14:00

ANALYTICAL REPORT
WorkOrder:HS21060462
Lab ID:HS21060462-01
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14
cis-1,2-Dichloroethene	**9.8**		**0.20**	**0.50**	**1.0**	**ug/L**	1	10-Jun-2021 20:14
cis-1,3-Dichloropropene	0.50	U	0.10	0.50	1.0	ug/L	1	10-Jun-2021 20:14
Dibromochloromethane	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14
Dichlorodifluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
Ethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
Hexachlorobutadiene	1.0	U	1.0	1.0	1.0	ug/L	1	10-Jun-2021 20:14
Isopropylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	10-Jun-2021 20:14
Methylene chloride	2.0	U	0.40	2.0	2.0	ug/L	1	10-Jun-2021 20:14
n-Butylbenzene	1.0	U	0.40	1.0	1.0	ug/L	1	10-Jun-2021 20:14
n-Propylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
Naphthalene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
o-Xylene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
sec-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
Styrene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
tert-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
Tetrachloroethene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14
Trichloroethene	**3.8**		**0.20**	**0.50**	**1.0**	**ug/L**	1	10-Jun-2021 20:14
Trichlorofluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 20:14
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 20:14
Surr: 1,2-Dichloroethane-d4	*93.0*			**0**	*81-118*	*%REC*	*1*	*10-Jun-2021 20:14*
Surr: 4-Bromofluorobenzene	*98.1*			**0**	*85-114*	*%REC*	*1*	*10-Jun-2021 20:14*
Surr: Dibromofluoromethane	*89.7*			**0**	*80-119*	*%REC*	*1*	*10-Jun-2021 20:14*
Surr: Toluene-d8	*103*			**0**	*89-112*	*%REC*	*1*	*10-Jun-2021 20:14*
SEMIVOLATILES SIM		**Method:SW8270SIM**				Prep:SW3510 / 11-Jun-2021		Analyst: ACN
1,4-Dioxane	**13**	a	**1.0**	**1.0**	**1.0**	**ug/L**	100	14-Jun-2021 13:41
Surr: 2-Fluorobiphenyl	*0*	*S*		0	*40-140*	*%REC*	*100*	*14-Jun-2021 13:41*
Surr: 4-Terphenyl-d14	*0*	*S*		0	*40-140*	*%REC*	*100*	*14-Jun-2021 13:41*
Surr: Nitrobenzene-d5	*0*	*S*		0	*40-140*	*%REC*	*100*	*14-Jun-2021 13:41*
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 16-Jun-2021		Analyst: JHD
Barium	**0.0799**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	17-Jun-2021 12:03
Lead	0.00100	U	0.000600	0.00100	0.00500	mg/L	1	17-Jun-2021 12:03
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	17-Jun-2021 12:03
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	17-Jun-2021 12:03

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder:HS21060462
Sample ID: LH18/24-SP650_060821
Lab ID:HS21060462-01
Collection Date: 08-Jun-2021 14:00
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**						Analyst: KVL
Chromium, Hexavalent	0.0100	U	0.00600	0.0100	0.0100	mg/L	1	09-Jun-2021 13:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder:HS21060462
Sample ID: LH18/24-SP650_060821_BIX
Lab ID:HS21060462-02
Collection Date: 08-Jun-2021 14:00
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: GR
Subcontract Analysis	See Attached		0	0		NA	1	23-Jun-2021 16:46

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
Sample ID: Trip Blank
Collection Date: 08-Jun-2021 14:00

ANALYTICAL REPORT
WorkOrder:HS21060462
Lab ID:HS21060462-03
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,1,2-Tetrachloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
1,1,2,2-Tetrachloroethane	1.0	U	0.50	1.0	1.0	ug/L	1	10-Jun-2021 19:53
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
1,1-Dichloropropene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
1,2,3-Trichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	10-Jun-2021 19:53
1,2,3-Trichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	10-Jun-2021 19:53
1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	10-Jun-2021 19:53
1,2,4-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
1,2-Dichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	10-Jun-2021 19:53
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
1,2-Dichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	10-Jun-2021 19:53
1,3,5-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
1,3-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	10-Jun-2021 19:53
1,3-Dichloropropane	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
1,4-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	10-Jun-2021 19:53
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	10-Jun-2021 19:53
2-Chlorotoluene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
2-Hexanone	2.0	U	1.0	2.0	2.0	ug/L	1	10-Jun-2021 19:53
4-Chlorotoluene	1.0	U	0.40	1.0	1.0	ug/L	1	10-Jun-2021 19:53
4-Isopropyltoluene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
4-Methyl-2-pentanone	2.0	U	0.70	2.0	2.0	ug/L	1	10-Jun-2021 19:53
Acetone	2.0	U	0.40	2.0	2.0	ug/L	1	10-Jun-2021 19:53
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
Bromobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	10-Jun-2021 19:53
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
Bromoform	1.0	U	0.40	1.0	1.0	ug/L	1	10-Jun-2021 19:53
Bromomethane	1.0	U	0.40	1.0	1.0	ug/L	1	10-Jun-2021 19:53
Carbon disulfide	2.0	U	0.60	2.0	2.0	ug/L	1	10-Jun-2021 19:53
Carbon tetrachloride	1.0	U	0.50	1.0	1.0	ug/L	1	10-Jun-2021 19:53
Chlorobenzene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
Chloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder:HS21060462
Sample ID: Trip Blank
Lab ID:HS21060462-03
Collection Date: 08-Jun-2021 14:00
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
cis-1,3-Dichloropropene	0.50	U	0.10	0.50	1.0	ug/L	1	10-Jun-2021 19:53
Dibromochloromethane	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
Dichlorodifluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
Ethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
Hexachlorobutadiene	1.0	U	1.0	1.0	1.0	ug/L	1	10-Jun-2021 19:53
Isopropylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	10-Jun-2021 19:53
Methylene chloride	2.0	U	0.40	2.0	2.0	ug/L	1	10-Jun-2021 19:53
n-Butylbenzene	1.0	U	0.40	1.0	1.0	ug/L	1	10-Jun-2021 19:53
n-Propylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
Naphthalene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
o-Xylene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
sec-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
Styrene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
tert-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
Tetrachloroethene	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
Trichlorofluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	10-Jun-2021 19:53
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	10-Jun-2021 19:53
Surr: 1,2-Dichloroethane-d4	*92.6*			**0**	*81-118*	*%REC*	*1*	*10-Jun-2021 19:53*
Surr: 4-Bromofluorobenzene	*95.7*			**0**	*85-114*	*%REC*	*1*	*10-Jun-2021 19:53*
Surr: Dibromofluoromethane	*89.2*			**0**	*80-119*	*%REC*	*1*	*10-Jun-2021 19:53*
Surr: Toluene-d8	*105*			**0**	*89-112*	*%REC*	*1*	*10-Jun-2021 19:53*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

Batch ID: 166791 **Start Date:** 11 Jun 2021 10:30 **End Date:** 11 Jun 2021 14:30
Method: SV AQ SEP FUN EXTRACT-LOWLEV - 3510C **Prep Code:** 3510_B_SIM

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21060462-01	1	1000 (mL)	1 (mL)	0.001	1-liter amber glass, Neat

Batch ID: 166919 **Start Date:** 16 Jun 2021 10:00 **End Date:** 16 Jun 2021 14:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS21060462-01		10 (mL)	10 (mL)	1	120 plastic HNO3

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 166791 (0)	**Test Name :** SEMIVOLATILES SIM				**Matrix:** Water	
HS21060462-01	LH18/24-SP650_060821	08 Jun 2021 14:00		11 Jun 2021 13:22	14 Jun 2021 13:41	100
Batch ID: 166919 (0)	**Test Name :** METALS BY ICPMS BY SW6020A				**Matrix:** Water	
HS21060462-01	LH18/24-SP650_060821	08 Jun 2021 14:00		16 Jun 2021 14:00	17 Jun 2021 12:03	1
Batch ID: R385273 (0)	**Test Name :** HEXAVALENT CHROMIUM BY SW7196A				**Matrix:** Water	
HS21060462-01	LH18/24-SP650_060821	08 Jun 2021 14:00			09 Jun 2021 13:08	1
Batch ID: R385384 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS21060462-01	LH18/24-SP650_060821	08 Jun 2021 14:00			10 Jun 2021 20:14	1
HS21060462-03	Trip Blank	08 Jun 2021 14:00			10 Jun 2021 19:53	1
Batch ID: R386175 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Water	
HS21060462-02	LH18/24-SP650_060821_BIX	08 Jun 2021 14:00			23 Jun 2021 16:46	1

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

QC BATCH REPORT

Batch ID: 166919 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MBLK Sample ID: **MBLK-166919** Units: **mg/L** Analysis Date: **17-Jun-2021 11:22**
Client ID: Run ID: **ICPMS06_385722** SeqNo: **6140506** PrepDate: **16-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.00250	0.00500								U
Lead	0.00100	0.00500								U
Selenium	0.00250	0.00500								U
Silver	0.000500	0.00500								U

LCS Sample ID: **LCS-166919** Units: **mg/L** Analysis Date: **17-Jun-2021 11:24**
Client ID: Run ID: **ICPMS06_385722** SeqNo: **6140507** PrepDate: **16-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.04877	0.00500	0.05	0	97.5	86 - 114				
Lead	0.04775	0.00500	0.05	0	95.5	88 - 115				
Selenium	0.04958	0.00500	0.05	0	99.2	80 - 120				
Silver	0.05307	0.00500	0.05	0	106	85 - 116				

MS Sample ID: **HS21060700-02MS** Units: **mg/L** Analysis Date: **17-Jun-2021 11:30**
Client ID: Run ID: **ICPMS06_385722** SeqNo: **6140510** PrepDate: **16-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.1566	0.00500	0.05	0.09957	114	86 - 114				S
Lead	0.04832	0.00500	0.05	0.000063	96.5	88 - 115				
Selenium	0.04926	0.00500	0.05	0.000033	98.5	80 - 120				
Silver	0.05189	0.00500	0.05	-0.000004	104	85 - 116				

MSD Sample ID: **HS21060700-02MSD** Units: **mg/L** Analysis Date: **17-Jun-2021 11:32**
Client ID: Run ID: **ICPMS06_385722** SeqNo: **6140511** PrepDate: **16-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.1648	0.00500	0.05	0.09957	130	86 - 114	0.1566	5.09	20	S
Lead	0.05104	0.00500	0.05	0.000063	102	88 - 115	0.04832	5.47	20	
Selenium	0.05254	0.00500	0.05	0.000033	105	80 - 120	0.04926	6.45	20	
Silver	0.05453	0.00500	0.05	-0.000004	109	85 - 116	0.05189	4.95	20	

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

QC BATCH REPORT

Batch ID: 166919 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

PDS Sample ID: **HS21060700-02PDS** Units: **mg/L** Analysis Date: **17-Jun-2021 12:19**
Client ID: Run ID: **ICPMS06_385722** SeqNo: **6140791** PrepDate: **16-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.1817	0.00500	0.1	0.09957	82.2	80 - 120				

PDS Sample ID: **HS21060700-02PDS** Units: **mg/L** Analysis Date: **17-Jun-2021 11:34**
Client ID: Run ID: **ICPMS06_385722** SeqNo: **6140512** PrepDate: **16-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	0.1145	0.00500	0.1	0.000063	114	80 - 120				
Selenium	0.113	0.00500	0.1	0.000033	113	80 - 120				
Silver	0.1136	0.00500	0.1	-0.000004	114	80 - 120				

SD Sample ID: **HS21060700-02SD** Units: **mg/L** Analysis Date: **17-Jun-2021 11:28**
Client ID: Run ID: **ICPMS06_385722** SeqNo: **6140509** PrepDate: **16-Jun-2021** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Barium	0.0991	0.0250					0.09957	0.471	10	
Lead	0.00500	0.0250					0.000063	0	10	U
Selenium	0.0125	0.0250					0.000033	0	10	U
Silver	0.00250	0.0250					-0.000004	0	10	U

The following samples were analyzed in this batch: HS21060462-01

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

QC BATCH REPORT

Batch ID: 166791 (0) **Instrument: SV-6** **Method: SEMIVOLATILES SIM**

MBLK Sample ID: **MBLK-166791** Units: **ug/L** Analysis Date: **14-Jun-2021 10:59**
Client ID: Run ID: **SV-6_385630** SeqNo: **6138352** PrepDate: **11-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.010	0.010								U
Surr: 2-Fluorobiphenyl	*0.06409*	*0*	*0.08*	*0*	*80.1*	*40 - 140*				
Surr: 4-Terphenyl-d14	*0.06495*	*0*	*0.08*	*0*	*81.2*	*40 - 140*				
Surr: Nitrobenzene-d5	*0.0444*	*0*	*0.08*	*0*	*55.5*	*40 - 140*				

LCS Sample ID: **LCS-166791** Units: **ug/L** Analysis Date: **14-Jun-2021 11:17**
Client ID: Run ID: **SV-6_385630** SeqNo: **6138353** PrepDate: **11-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.1066	0.010	0.08	0	133	40 - 140				
Surr: 2-Fluorobiphenyl	*0.05407*	*0*	*0.08*	*0*	*67.6*	*40 - 140*				
Surr: 4-Terphenyl-d14	*0.05743*	*0*	*0.08*	*0*	*71.8*	*40 - 140*				
Surr: Nitrobenzene-d5	*0.04084*	*0*	*0.08*	*0*	*51.0*	*40 - 140*				

LCSD Sample ID: **LCSD-166791** Units: **ug/L** Analysis Date: **14-Jun-2021 11:35**
Client ID: Run ID: **SV-6_385630** SeqNo: **6138354** PrepDate: **11-Jun-2021** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.1027	0.010	0.08	0	128	40 - 140	0.1066	3.71	20	
Surr: 2-Fluorobiphenyl	*0.0541*	*0*	*0.08*	*0*	*67.6*	*40 - 140*	*0.05407*	*0.0592*	*20*	
Surr: 4-Terphenyl-d14	*0.05832*	*0*	*0.08*	*0*	*72.9*	*40 - 140*	*0.05743*	*1.53*	*20*	
Surr: Nitrobenzene-d5	*0.04794*	*0*	*0.08*	*0*	*59.9*	*40 - 140*	*0.04084*	*16*	*20*	

The following samples were analyzed in this batch: HS21060462-01

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

QC BATCH REPORT

Batch ID: R385384 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-210610** Units: **ug/L** Analysis Date: **10-Jun-2021 15:41**
Client ID: Run ID: **VOA6_385384** SeqNo: **6132850** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1.0	1.0								U
1,1,1-Trichloroethane	0.50	1.0								U
1,1,2,2-Tetrachloroethane	1.0	1.0								U
1,1,2-Trichloroethane	1.0	1.0								U
1,1-Dichloroethane	0.50	1.0								U
1,1-Dichloroethene	0.50	1.0								U
1,1-Dichloropropene	1.0	1.0								U
1,2,3-Trichlorobenzene	1.0	1.0								U
1,2,3-Trichloropropane	1.0	1.0								U
1,2,4-Trichlorobenzene	1.0	1.0								U
1,2,4-Trimethylbenzene	1.0	1.0								U
1,2-Dibromo-3-chloropropane	0.50	1.0								U
1,2-Dibromoethane	0.50	1.0								U
1,2-Dichlorobenzene	1.0	1.0								U
1,2-Dichloroethane	0.50	1.0								U
1,2-Dichloropropane	1.0	1.0								U
1,3,5-Trimethylbenzene	1.0	1.0								U
1,3-Dichlorobenzene	1.0	1.0								U
1,3-Dichloropropane	1.0	1.0								U
1,4-Dichlorobenzene	1.0	1.0								U
2,2-Dichloropropane	0.50	1.0								U
2-Butanone	1.0	2.0								U
2-Chlorotoluene	1.0	1.0								U
2-Hexanone	2.0	2.0								U
4-Chlorotoluene	1.0	1.0								U
4-Isopropyltoluene	1.0	1.0								U
4-Methyl-2-pentanone	2.0	2.0								U
Acetone	2.0	2.0								U
Benzene	0.50	1.0								U
Bromobenzene	1.0	1.0								U
Bromochloromethane	0.50	1.0								U
Bromodichloromethane	0.50	1.0								U
Bromoform	1.0	1.0								U
Bromomethane	1.0	1.0								U

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

QC BATCH REPORT

Batch ID: R385384 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-210610** Units: **ug/L** Analysis Date: **10-Jun-2021 15:41**
Client ID: Run ID: **VOA6_385384** SeqNo: **6132850** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	2.0	2.0								U
Carbon tetrachloride	1.0	1.0								U
Chlorobenzene	1.0	1.0								U
Chloroethane	1.0	1.0								U
Chloroform	0.50	1.0								U
Chloromethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
cis-1,3-Dichloropropene	0.50	1.0								U
Dibromochloromethane	1.0	1.0								U
Dibromomethane	0.50	1.0								U
Dichlorodifluoromethane	1.0	1.0								U
Ethylbenzene	1.0	1.0								U
Hexachlorobutadiene	1.0	1.0								U
Isopropylbenzene	1.0	1.0								U
m,p-Xylene	1.0	2.0								U
Methylene chloride	2.0	2.0								U
Naphthalene	1.0	1.0								U
n-Butylbenzene	1.0	1.0								U
n-Propylbenzene	1.0	1.0								U
o-Xylene	1.0	1.0								U
sec-Butylbenzene	1.0	1.0								U
Styrene	1.0	1.0								U
tert-Butylbenzene	1.0	1.0								U
Tetrachloroethene	1.0	1.0								U
Toluene	0.50	1.0								U
trans-1,2-Dichloroethene	0.50	1.0								U
trans-1,3-Dichloropropene	0.50	1.0								U
Trichloroethene	0.50	1.0								U
Trichlorofluoromethane	1.0	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*46.69*	*1.0*	*50*	*0*	*93.4*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.96*	*1.0*	*50*	*0*	*97.9*	*85 - 114*				
Surr: Dibromofluoromethane	*44.65*	*1.0*	*50*	*0*	*89.3*	*80 - 119*				
Surr: Toluene-d8	*52.69*	*1.0*	*50*	*0*	*105*	*89 - 112*				

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

QC BATCH REPORT

Batch ID: R385384 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-210610** Units: **ug/L** Analysis Date: **10-Jun-2021 14:59**
Client ID: Run ID: **VOA6_385384** SeqNo: **6132849** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.68	1.0	20	0	108	78 - 124				
1,1,1-Trichloroethane	19.81	1.0	20	0	99.0	74 - 131				
1,1,2,2-Tetrachloroethane	25.33	1.0	20	0	127	71 - 121				S
1,1,2-Trichloroethane	22.12	1.0	20	0	111	80 - 119				
1,1-Dichloroethane	20.05	1.0	20	0	100	77 - 125				
1,1-Dichloroethene	18.78	1.0	20	0	93.9	71 - 131				
1,1-Dichloropropene	20.9	1.0	20	0	105	78 - 125				
1,2,3-Trichlorobenzene	29.39	1.0	20	0	147	69 - 129				S
1,2,3-Trichloropropane	23.8	1.0	20	0	119	73 - 122				
1,2,4-Trichlorobenzene	25.82	1.0	20	0	129	69 - 130				
1,2,4-Trimethylbenzene	19.68	1.0	20	0	98.4	76 - 124				
1,2-Dibromo-3-chloropropane	27.46	1.0	20	0	137	62 - 128				S
1,2-Dibromoethane	22.49	1.0	20	0	112	77 - 121				
1,2-Dichlorobenzene	21.07	1.0	20	0	105	80 - 119				
1,2-Dichloroethane	22.74	1.0	20	0	114	73 - 128				
1,2-Dichloropropane	22.25	1.0	20	0	111	78 - 122				
1,3,5-Trimethylbenzene	19.02	1.0	20	0	95.1	75 - 124				
1,3-Dichlorobenzene	20.94	1.0	20	0	105	80 - 119				
1,3-Dichloropropane	21.77	1.0	20	0	109	80 - 119				
1,4-Dichlorobenzene	21.28	1.0	20	0	106	79 - 118				
2,2-Dichloropropane	20.68	1.0	20	0	103	60 - 139				
2-Butanone	44.35	2.0	40	0	111	56 - 143				
2-Chlorotoluene	20.3	1.0	20	0	102	79 - 122				
2-Hexanone	46.17	2.0	40	0	115	57 - 139				
4-Chlorotoluene	19.5	1.0	20	0	97.5	78 - 122				
4-Isopropyltoluene	18.83	1.0	20	0	94.2	77 - 127				
4-Methyl-2-pentanone	44.53	2.0	40	0	111	67 - 130				
Acetone	40.16	2.0	40	0	100	39 - 160				
Benzene	21.28	1.0	20	0	106	79 - 120				
Bromobenzene	21.87	1.0	20	0	109	80 - 120				
Bromochloromethane	21.38	1.0	20	0	107	78 - 123				
Bromodichloromethane	21.89	1.0	20	0	109	79 - 125				
Bromoform	23.47	1.0	20	0	117	66 - 130				
Bromomethane	22.75	1.0	20	0	114	53 - 141				

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

QC BATCH REPORT

Batch ID: R385384 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-210610** Units: **ug/L** Analysis Date: **10-Jun-2021 14:59**
Client ID: Run ID: **VOA6_385384** SeqNo: **6132849** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	37.9	2.0	40	0	94.7	64 - 133				
Carbon tetrachloride	20.91	1.0	20	0	105	72 - 136				
Chlorobenzene	19.77	1.0	20	0	98.8	82 - 118				
Chloroethane	17.93	1.0	20	0	89.6	60 - 138				
Chloroform	20.2	1.0	20	0	101	79 - 124				
Chloromethane	18.11	1.0	20	0	90.6	50 - 139				
cis-1,2-Dichloroethene	21.39	1.0	20	0	107	78 - 123				
cis-1,3-Dichloropropene	22.44	1.0	20	0	112	75 - 124				
Dibromochloromethane	22.34	1.0	20	0	112	74 - 126				
Dibromomethane	22.81	1.0	20	0	114	79 - 123				
Dichlorodifluoromethane	22.4	1.0	20	0	112	32 - 152				
Ethylbenzene	20.14	1.0	20	0	101	79 - 121				
Hexachlorobutadiene	25.86	1.0	20	0	129	66 - 134				
Isopropylbenzene	18.61	1.0	20	0	93.1	72 - 131				
m,p-Xylene	38.52	2.0	40	0	96.3	80 - 121				
Methylene chloride	21.07	2.0	20	0	105	74 - 124				
Naphthalene	28.17	1.0	20	0	141	61 - 128				S
n-Butylbenzene	18.65	1.0	20	0	93.3	75 - 128				
n-Propylbenzene	18.83	1.0	20	0	94.2	76 - 126				
o-Xylene	19.9	1.0	20	0	99.5	78 - 122				
sec-Butylbenzene	18.22	1.0	20	0	91.1	77 - 126				
Styrene	20.26	1.0	20	0	101	78 - 123				
tert-Butylbenzene	18.41	1.0	20	0	92.1	78 - 124				
Tetrachloroethene	20.88	1.0	20	0	104	74 - 129				
Toluene	19.76	1.0	20	0	98.8	80 - 121				
trans-1,2-Dichloroethene	19.68	1.0	20	0	98.4	75 - 124				
trans-1,3-Dichloropropene	22.82	1.0	20	0	114	73 - 127				
Trichloroethene	22.11	1.0	20	0	111	79 - 123				
Trichlorofluoromethane	18.49	1.0	20	0	92.4	65 - 141				
Vinyl chloride	19.58	1.0	20	0	97.9	58 - 137				
Surr: 1,2-Dichloroethane-d4	*50.44*	*1.0*	*50*	*0*	*101*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.09*	*1.0*	*50*	*0*	*96.2*	*85 - 114*				
Surr: Dibromofluoromethane	*47.37*	*1.0*	*50*	*0*	*94.7*	*80 - 119*				
Surr: Toluene-d8	*45.16*	*1.0*	*50*	*0*	*90.3*	*89 - 112*				

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

QC BATCH REPORT

Batch ID: R385384 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21060495-07MS** Units: **ug/L** Analysis Date: **10-Jun-2021 17:47**
Client ID: Run ID: **VOA6_385384** SeqNo: **6132855** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	19.93	1.0	20	0	99.7	78 - 124				
1,1,1-Trichloroethane	16.98	1.0	20	0	84.9	74 - 131				
1,1,2,2-Tetrachloroethane	22.65	1.0	20	0	113	71 - 121				
1,1,2-Trichloroethane	18.9	1.0	20	0	94.5	80 - 119				
1,1-Dichloroethane	16.19	1.0	20	0	80.9	77 - 125				
1,1-Dichloroethene	15.2	1.0	20	0	76.0	71 - 131				
1,1-Dichloropropene	20.2	1.0	20	0	101	78 - 125				
1,2,3-Trichlorobenzene	29.79	1.0	20	0	149	69 - 129				S
1,2,3-Trichloropropane	20.42	1.0	20	0	102	73 - 122				
1,2,4-Trichlorobenzene	28.67	1.0	20	0	143	69 - 130				S
1,2,4-Trimethylbenzene	20.75	1.0	20	0	104	76 - 124				
1,2-Dibromo-3-chloropropane	25.58	1.0	20	0	128	62 - 128				
1,2-Dibromoethane	18.94	1.0	20	0	94.7	77 - 121				
1,2-Dichlorobenzene	20.51	1.0	20	0	103	80 - 119				
1,2-Dichloroethane	18.92	1.0	20	0	94.6	73 - 128				
1,2-Dichloropropane	18.11	1.0	20	0	90.6	78 - 122				
1,3,5-Trimethylbenzene	20.76	1.0	20	0	104	75 - 124				
1,3-Dichlorobenzene	21.09	1.0	20	0	105	80 - 119				
1,3-Dichloropropane	18.81	1.0	20	0	94.0	80 - 119				
1,4-Dichlorobenzene	20.55	1.0	20	0	103	79 - 118				
2,2-Dichloropropane	17.68	1.0	20	0	88.4	60 - 139				
2-Butanone	33.81	2.0	40	0	84.5	56 - 143				
2-Chlorotoluene	21.08	1.0	20	0	105	79 - 122				
2-Hexanone	40.33	2.0	40	0	101	57 - 139				
4-Chlorotoluene	20	1.0	20	0	100.0	78 - 122				
4-Isopropyltoluene	22.15	1.0	20	0	111	77 - 127				
4-Methyl-2-pentanone	39.05	2.0	40	0	97.6	67 - 130				
Acetone	27.92	2.0	40	0	69.8	39 - 160				
Benzene	18.46	1.0	20	0	92.3	79 - 120				
Bromobenzene	20.71	1.0	20	0	104	80 - 120				
Bromochloromethane	16.5	1.0	20	0	82.5	78 - 123				
Bromodichloromethane	18.27	1.0	20	0	91.4	79 - 125				
Bromoform	19.9	1.0	20	0	99.5	66 - 130				
Bromomethane	16.37	1.0	20	0	81.8	53 - 141				

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

QC BATCH REPORT

Batch ID: R385384 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21060495-07MS** Units: **ug/L** Analysis Date: **10-Jun-2021 17:47**
Client ID: Run ID: **VOA6_385384** SeqNo: **6132855** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	30.45	2.0	40	0	76.1	64 - 133				
Carbon tetrachloride	20.41	1.0	20	0	102	72 - 136				
Chlorobenzene	18.5	1.0	20	0	92.5	82 - 118				
Chloroethane	13.29	1.0	20	0	66.4	60 - 138				
Chloroform	15.96	1.0	20	0	79.8	79 - 124				
Chloromethane	10.47	1.0	20	0	52.4	50 - 139				
cis-1,2-Dichloroethene	16.76	1.0	20	0	83.8	78 - 123				
cis-1,3-Dichloropropene	18.78	1.0	20	0	93.9	75 - 124				
Dibromochloromethane	19.52	1.0	20	0	97.6	74 - 126				
Dibromomethane	18.34	1.0	20	0	91.7	79 - 123				
Dichlorodifluoromethane	11.04	1.0	20	0	55.2	32 - 152				
Ethylbenzene	21	1.0	20	0	105	79 - 121				
Hexachlorobutadiene	29.68	1.0	20	0	148	66 - 134				S
Isopropylbenzene	20.65	1.0	20	0	103	72 - 131				
m,p-Xylene	39.71	2.0	40	0	99.3	80 - 121				
Methylene chloride	15.85	2.0	20	0	79.3	74 - 124				
Naphthalene	28.16	1.0	20	0	141	61 - 128				S
n-Butylbenzene	22.46	1.0	20	0	112	75 - 128				
n-Propylbenzene	21.59	1.0	20	0	108	76 - 126				
o-Xylene	19.13	1.0	20	0	95.7	78 - 122				
sec-Butylbenzene	22.43	1.0	20	0	112	77 - 126				
Styrene	19.09	1.0	20	0	95.4	78 - 123				
tert-Butylbenzene	21.64	1.0	20	0	108	78 - 124				
Tetrachloroethene	22.23	1.0	20	0	111	74 - 129				
Toluene	18.72	1.0	20	0	93.6	80 - 121				
trans-1,2-Dichloroethene	16.06	1.0	20	0	80.3	75 - 124				
trans-1,3-Dichloropropene	19.03	1.0	20	0	95.1	73 - 127				
Trichloroethene	20.01	1.0	20	0	100	79 - 123				
Trichlorofluoromethane	15.52	1.0	20	0	77.6	65 - 141				
Vinyl chloride	13.83	1.0	20	0	69.2	58 - 137				
Surr: 1,2-Dichloroethane-d4	*47.23*	*1.0*	*50*	*0*	*94.5*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*49.45*	*1.0*	*50*	*0*	*98.9*	*85 - 114*				
Surr: Dibromofluoromethane	*44.93*	*1.0*	*50*	*0*	*89.9*	*80 - 119*				
Surr: Toluene-d8	*50.91*	*1.0*	*50*	*0*	*102*	*89 - 112*				

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

QC BATCH REPORT

Batch ID: R385384 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21060222-01MS** Units: **ug/L** Analysis Date: **10-Jun-2021 17:05**
Client ID: Run ID: **VOA6_385384** SeqNo: **6132853** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	19.08	1.0	20	0	95.4	78 - 124				
1,1,1-Trichloroethane	16.99	1.0	20	0	85.0	74 - 131				
1,1,2,2-Tetrachloroethane	20.27	1.0	20	0	101	71 - 121				
1,1,2-Trichloroethane	18.36	1.0	20	0	91.8	80 - 119				
1,1-Dichloroethane	15.8	1.0	20	0	79.0	77 - 125				
1,1-Dichloroethene	15.29	1.0	20	0	76.4	71 - 131				
1,1-Dichloropropene	19.94	1.0	20	0	99.7	78 - 125				
1,2,3-Trichlorobenzene	24.55	1.0	20	0	123	69 - 129				
1,2,3-Trichloropropane	19.26	1.0	20	0	96.3	73 - 122				
1,2,4-Trichlorobenzene	24.78	1.0	20	0	124	69 - 130				
1,2,4-Trimethylbenzene	18.86	1.0	20	0	94.3	76 - 124				
1,2-Dibromo-3-chloropropane	22.61	1.0	20	0	113	62 - 128				
1,2-Dibromoethane	18.7	1.0	20	0	93.5	77 - 121				
1,2-Dichlorobenzene	18.78	1.0	20	0	93.9	80 - 119				
1,2-Dichloroethane	18.92	1.0	20	0	94.6	73 - 128				
1,2-Dichloropropane	17.87	1.0	20	0	89.3	78 - 122				
1,3,5-Trimethylbenzene	19.03	1.0	20	0	95.2	75 - 124				
1,3-Dichlorobenzene	18.85	1.0	20	0	94.2	80 - 119				
1,3-Dichloropropane	18.16	1.0	20	0	90.8	80 - 119				
1,4-Dichlorobenzene	18.5	1.0	20	0	92.5	79 - 118				
2,2-Dichloropropane	17.01	1.0	20	0	85.0	60 - 139				
2-Butanone	32.7	2.0	40	0	81.7	56 - 143				
2-Chlorotoluene	18.91	1.0	20	0	94.5	79 - 122				
2-Hexanone	39.78	2.0	40	0	99.4	57 - 139				
4-Chlorotoluene	18.24	1.0	20	0	91.2	78 - 122				
4-Isopropyltoluene	19.96	1.0	20	0	99.8	77 - 127				
4-Methyl-2-pentanone	37.64	2.0	40	0	94.1	67 - 130				
Acetone	28.13	2.0	40	0	70.3	39 - 160				
Benzene	18.12	1.0	20	0	90.6	79 - 120				
Bromobenzene	19.27	1.0	20	0	96.4	80 - 120				
Bromochloromethane	16.08	1.0	20	0	80.4	78 - 123				
Bromodichloromethane	17.87	1.0	20	0	89.4	79 - 125				
Bromoform	19.34	1.0	20	0	96.7	66 - 130				
Bromomethane	17.89	1.0	20	0	89.5	53 - 141				

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

QC BATCH REPORT

Batch ID: R385384 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS21060222-01MS** Units: **ug/L** Analysis Date: **10-Jun-2021 17:05**
Client ID: Run ID: **VOA6_385384** SeqNo: **6132853** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	29.56	2.0	40	0	73.9	64 - 133				
Carbon tetrachloride	20	1.0	20	0	100.0	72 - 136				
Chlorobenzene	17.79	1.0	20	0	89.0	82 - 118				
Chloroethane	14.21	1.0	20	0	71.1	60 - 138				
Chloroform	15.72	1.0	20	0	78.6	79 - 124				S
Chloromethane	9.974	1.0	20	0	49.9	50 - 139				S
cis-1,2-Dichloroethene	18.24	1.0	20	1.984	81.3	78 - 123				
cis-1,3-Dichloropropene	18.28	1.0	20	0	91.4	75 - 124				
Dibromochloromethane	18.96	1.0	20	0	94.8	74 - 126				
Dibromomethane	18.37	1.0	20	0	91.8	79 - 123				
Dichlorodifluoromethane	10.86	1.0	20	0	54.3	32 - 152				
Ethylbenzene	19.65	1.0	20	0	98.3	79 - 121				
Hexachlorobutadiene	25.17	1.0	20	0	126	66 - 134				
Isopropylbenzene	19.86	1.0	20	0	99.3	72 - 131				
m,p-Xylene	38.25	2.0	40	0	95.6	80 - 121				
Methylene chloride	15.35	2.0	20	0	76.7	74 - 124				
Naphthalene	22.62	1.0	20	0	113	61 - 128				
n-Butylbenzene	19.43	1.0	20	0	97.2	75 - 128				
n-Propylbenzene	19.45	1.0	20	0	97.2	76 - 126				
o-Xylene	18.63	1.0	20	0	93.2	78 - 122				
sec-Butylbenzene	20	1.0	20	0	100.0	77 - 126				
Styrene	18.11	1.0	20	0	90.5	78 - 123				
tert-Butylbenzene	19.87	1.0	20	0	99.3	78 - 124				
Tetrachloroethene	22.43	1.0	20	1.241	106	74 - 129				
Toluene	18.02	1.0	20	0	90.1	80 - 121				
trans-1,2-Dichloroethene	15.61	1.0	20	0	78.1	75 - 124				
trans-1,3-Dichloropropene	18.32	1.0	20	0	91.6	73 - 127				
Trichloroethene	22.25	1.0	20	2.31	99.7	79 - 123				
Trichlorofluoromethane	15.59	1.0	20	0	78.0	65 - 141				
Vinyl chloride	14.2	1.0	20	0	71.0	58 - 137				
Surr: 1,2-Dichloroethane-d4	*47.02*	*1.0*	*50*	*0*	*94.0*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*49.93*	*1.0*	*50*	*0*	*99.9*	*85 - 114*				
Surr: Dibromofluoromethane	*44.75*	*1.0*	*50*	*0*	*89.5*	*80 - 119*				
Surr: Toluene-d8	*49.66*	*1.0*	*50*	*0*	*99.3*	*89 - 112*				

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

QC BATCH REPORT

Batch ID: R385384 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS21060495-07MSD** Units: **ug/L** Analysis Date: **10-Jun-2021 18:08**
Client ID: Run ID: **VOA6_385384** SeqNo: **6132856** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	18.97	1.0	20	0	94.9	78 - 124	19.93	4.92	20	
1,1,1-Trichloroethane	16.31	1.0	20	0	81.5	74 - 131	16.98	4.01	20	
1,1,2,2-Tetrachloroethane	21.75	1.0	20	0	109	71 - 121	22.65	4.06	20	
1,1,2-Trichloroethane	18.82	1.0	20	0	94.1	80 - 119	18.9	0.418	20	
1,1-Dichloroethane	15.41	1.0	20	0	77.1	77 - 125	16.19	4.91	20	
1,1-Dichloroethene	14.04	1.0	20	0	70.2	71 - 131	15.2	7.94	20	S
1,1-Dichloropropene	18.53	1.0	20	0	92.6	78 - 125	20.2	8.6	20	
1,2,3-Trichlorobenzene	28.68	1.0	20	0	143	69 - 129	29.79	3.8	20	S
1,2,3-Trichloropropane	20.24	1.0	20	0	101	73 - 122	20.42	0.928	20	
1,2,4-Trichlorobenzene	26.3	1.0	20	0	131	69 - 130	28.67	8.63	20	S
1,2,4-Trimethylbenzene	19.5	1.0	20	0	97.5	76 - 124	20.75	6.23	20	
1,2-Dibromo-3-chloropropane	24.9	1.0	20	0	125	62 - 128	25.58	2.69	20	
1,2-Dibromoethane	18.49	1.0	20	0	92.5	77 - 121	18.94	2.41	20	
1,2-Dichlorobenzene	19.25	1.0	20	0	96.3	80 - 119	20.51	6.34	20	
1,2-Dichloroethane	18.09	1.0	20	0	90.4	73 - 128	18.92	4.5	20	
1,2-Dichloropropane	17.91	1.0	20	0	89.5	78 - 122	18.11	1.14	20	
1,3,5-Trimethylbenzene	19.47	1.0	20	0	97.3	75 - 124	20.76	6.44	20	
1,3-Dichlorobenzene	19.48	1.0	20	0	97.4	80 - 119	21.09	7.96	20	
1,3-Dichloropropane	18.52	1.0	20	0	92.6	80 - 119	18.81	1.51	20	
1,4-Dichlorobenzene	19.18	1.0	20	0	95.9	79 - 118	20.55	6.86	20	
2,2-Dichloropropane	16.36	1.0	20	0	81.8	60 - 139	17.68	7.72	20	
2-Butanone	33.94	2.0	40	0	84.9	56 - 143	33.81	0.398	20	
2-Chlorotoluene	19.76	1.0	20	0	98.8	79 - 122	21.08	6.44	20	
2-Hexanone	40.33	2.0	40	0	101	57 - 139	40.33	0.00427	20	
4-Chlorotoluene	18.57	1.0	20	0	92.9	78 - 122	20	7.37	20	
4-Isopropyltoluene	20.6	1.0	20	0	103	77 - 127	22.15	7.22	20	
4-Methyl-2-pentanone	38.31	2.0	40	0	95.8	67 - 130	39.05	1.92	20	
Acetone	27.19	2.0	40	0	68.0	39 - 160	27.92	2.63	20	
Benzene	17.71	1.0	20	0	88.5	79 - 120	18.46	4.18	20	
Bromobenzene	19.67	1.0	20	0	98.3	80 - 120	20.71	5.19	20	
Bromochloromethane	15.88	1.0	20	0	79.4	78 - 123	16.5	3.83	20	
Bromodichloromethane	17.44	1.0	20	0	87.2	79 - 125	18.27	4.67	20	
Bromoform	20.09	1.0	20	0	100	66 - 130	19.9	0.932	20	
Bromomethane	15.12	1.0	20	0	75.6	53 - 141	16.37	7.89	20	

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

QC BATCH REPORT

Batch ID: R385384 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS21060495-07MSD** Units: **ug/L** Analysis Date: **10-Jun-2021 18:08**
Client ID: Run ID: **VOA6_385384** SeqNo: **6132856** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	28.78	2.0	40	0	72.0	64 - 133	30.45	5.65	20	
Carbon tetrachloride	19.15	1.0	20	0	95.7	72 - 136	20.41	6.37	20	
Chlorobenzene	17.57	1.0	20	0	87.8	82 - 118	18.5	5.19	20	
Chloroethane	11.92	1.0	20	0	59.6	60 - 138	13.29	10.8	20	S
Chloroform	15.37	1.0	20	0	76.9	79 - 124	15.96	3.75	20	S
Chloromethane	9.78	1.0	20	0	48.9	50 - 139	10.47	6.86	20	S
cis-1,2-Dichloroethene	15.93	1.0	20	0	79.6	78 - 123	16.76	5.06	20	
cis-1,3-Dichloropropene	18.22	1.0	20	0	91.1	75 - 124	18.78	3.01	20	
Dibromochloromethane	18.87	1.0	20	0	94.3	74 - 126	19.52	3.4	20	
Dibromomethane	18.43	1.0	20	0	92.1	79 - 123	18.34	0.48	20	
Dichlorodifluoromethane	9.858	1.0	20	0	49.3	32 - 152	11.04	11.3	20	
Ethylbenzene	19.48	1.0	20	0	97.4	79 - 121	21	7.53	20	
Hexachlorobutadiene	27.06	1.0	20	0	135	66 - 134	29.68	9.22	20	S
Isopropylbenzene	19.66	1.0	20	0	98.3	72 - 131	20.65	4.92	20	
m,p-Xylene	37.54	2.0	40	0	93.8	80 - 121	39.71	5.62	20	
Methylene chloride	15.42	2.0	20	0	77.1	74 - 124	15.85	2.74	20	
Naphthalene	27.01	1.0	20	0	135	61 - 128	28.16	4.18	20	S
n-Butylbenzene	20.79	1.0	20	0	104	75 - 128	22.46	7.74	20	
n-Propylbenzene	19.87	1.0	20	0	99.4	76 - 126	21.59	8.29	20	
o-Xylene	18.56	1.0	20	0	92.8	78 - 122	19.13	3.07	20	
sec-Butylbenzene	20.62	1.0	20	0	103	77 - 126	22.43	8.44	20	
Styrene	18.46	1.0	20	0	92.3	78 - 123	19.09	3.35	20	
tert-Butylbenzene	20.26	1.0	20	0	101	78 - 124	21.64	6.58	20	
Tetrachloroethene	20.9	1.0	20	0	104	74 - 129	22.23	6.16	20	
Toluene	17.66	1.0	20	0	88.3	80 - 121	18.72	5.81	20	
trans-1,2-Dichloroethene	15.09	1.0	20	0	75.5	75 - 124	16.06	6.23	20	
trans-1,3-Dichloropropene	18.45	1.0	20	0	92.2	73 - 127	19.03	3.09	20	
Trichloroethene	19.2	1.0	20	0	96.0	79 - 123	20.01	4.15	20	
Trichlorofluoromethane	14.54	1.0	20	0	72.7	65 - 141	15.52	6.56	20	
Vinyl chloride	12.94	1.0	20	0	64.7	58 - 137	13.83	6.68	20	
Surr: 1,2-Dichloroethane-d4	*47.51*	*1.0*	*50*	*0*	*95.0*	*81 - 118*	*47.23*	*0.598*	*20*	
Surr: 4-Bromofluorobenzene	*50.02*	*1.0*	*50*	*0*	*100*	*85 - 114*	*49.45*	*1.16*	*20*	
Surr: Dibromofluoromethane	*45.04*	*1.0*	*50*	*0*	*90.1*	*80 - 119*	*44.93*	*0.259*	*20*	
Surr: Toluene-d8	*50.05*	*1.0*	*50*	*0*	*100*	*89 - 112*	*50.91*	*1.69*	*20*	

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

QC BATCH REPORT

Batch ID: R385384 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS21060222-01MSD** Units: **ug/L** Analysis Date: **10-Jun-2021 17:26**
Client ID: Run ID: **VOA6_385384** SeqNo: **6132854** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	18.82	1.0	20	0	94.1	78 - 124	19.08	1.34	20	
1,1,1-Trichloroethane	16.27	1.0	20	0	81.4	74 - 131	16.99	4.31	20	
1,1,2,2-Tetrachloroethane	21.32	1.0	20	0	107	71 - 121	20.27	5.06	20	
1,1,2-Trichloroethane	18.14	1.0	20	0	90.7	80 - 119	18.36	1.22	20	
1,1-Dichloroethane	15	1.0	20	0	75.0	77 - 125	15.8	5.2	20	S
1,1-Dichloroethene	14.56	1.0	20	0	72.8	71 - 131	15.29	4.87	20	
1,1-Dichloropropene	18.39	1.0	20	0	91.9	78 - 125	19.94	8.07	20	
1,2,3-Trichlorobenzene	27.27	1.0	20	0	136	69 - 129	24.55	10.5	20	S
1,2,3-Trichloropropane	19.49	1.0	20	0	97.4	73 - 122	19.26	1.17	20	
1,2,4-Trichlorobenzene	25.78	1.0	20	0	129	69 - 130	24.78	3.95	20	
1,2,4-Trimethylbenzene	19.18	1.0	20	0	95.9	76 - 124	18.86	1.71	20	
1,2-Dibromo-3-chloropropane	24.82	1.0	20	0	124	62 - 128	22.61	9.34	20	
1,2-Dibromoethane	18.68	1.0	20	0	93.4	77 - 121	18.7	0.111	20	
1,2-Dichlorobenzene	19.54	1.0	20	0	97.7	80 - 119	18.78	3.96	20	
1,2-Dichloroethane	18	1.0	20	0	90.0	73 - 128	18.92	4.96	20	
1,2-Dichloropropane	17.36	1.0	20	0	86.8	78 - 122	17.87	2.86	20	
1,3,5-Trimethylbenzene	19.39	1.0	20	0	97.0	75 - 124	19.03	1.85	20	
1,3-Dichlorobenzene	19.31	1.0	20	0	96.5	80 - 119	18.85	2.4	20	
1,3-Dichloropropane	18.34	1.0	20	0	91.7	80 - 119	18.16	0.965	20	
1,4-Dichlorobenzene	18.82	1.0	20	0	94.1	79 - 118	18.5	1.72	20	
2,2-Dichloropropane	16.13	1.0	20	0	80.7	60 - 139	17.01	5.28	20	
2-Butanone	33.31	2.0	40	0	83.3	56 - 143	32.7	1.86	20	
2-Chlorotoluene	19.21	1.0	20	0	96.0	79 - 122	18.91	1.58	20	
2-Hexanone	40.77	2.0	40	0	102	57 - 139	39.78	2.47	20	
4-Chlorotoluene	18.34	1.0	20	0	91.7	78 - 122	18.24	0.52	20	
4-Isopropyltoluene	20.22	1.0	20	0	101	77 - 127	19.96	1.32	20	
4-Methyl-2-pentanone	37.61	2.0	40	0	94.0	67 - 130	37.64	0.0842	20	
Acetone	28.27	2.0	40	0	70.7	39 - 160	28.13	0.485	20	
Benzene	17.39	1.0	20	0	86.9	79 - 120	18.12	4.1	20	
Bromobenzene	19.67	1.0	20	0	98.4	80 - 120	19.27	2.03	20	
Bromochloromethane	16.3	1.0	20	0	81.5	78 - 123	16.08	1.38	20	
Bromodichloromethane	17.37	1.0	20	0	86.8	79 - 125	17.87	2.86	20	
Bromoform	19.21	1.0	20	0	96.0	66 - 130	19.34	0.675	20	
Bromomethane	16.35	1.0	20	0	81.8	53 - 141	17.89	9.01	20	

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

QC BATCH REPORT

Batch ID: R385384 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS21060222-01MSD** Units: **ug/L** Analysis Date: **10-Jun-2021 17:26**
Client ID: Run ID: **VOA6_385384** SeqNo: **6132854** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	28.91	2.0	40	0	72.3	64 - 133	29.56	2.2	20	
Carbon tetrachloride	19.2	1.0	20	0	96.0	72 - 136	20	4.07	20	
Chlorobenzene	17.7	1.0	20	0	88.5	82 - 118	17.79	0.498	20	
Chloroethane	13.03	1.0	20	0	65.2	60 - 138	14.21	8.65	20	
Chloroform	15.55	1.0	20	0	77.8	79 - 124	15.72	1.07	20	S
Chloromethane	10.16	1.0	20	0	50.8	50 - 139	9.974	1.88	20	
cis-1,2-Dichloroethene	17.83	1.0	20	1.984	79.2	78 - 123	18.24	2.27	20	
cis-1,3-Dichloropropene	17.61	1.0	20	0	88.0	75 - 124	18.28	3.75	20	
Dibromochloromethane	18.84	1.0	20	0	94.2	74 - 126	18.96	0.61	20	
Dibromomethane	17.37	1.0	20	0	86.8	79 - 123	18.37	5.6	20	
Dichlorodifluoromethane	10.34	1.0	20	0	51.7	32 - 152	10.86	4.87	20	
Ethylbenzene	19.38	1.0	20	0	96.9	79 - 121	19.65	1.38	20	
Hexachlorobutadiene	27.01	1.0	20	0	135	66 - 134	25.17	7.02	20	S
Isopropylbenzene	19.25	1.0	20	0	96.3	72 - 131	19.86	3.08	20	
m,p-Xylene	36.84	2.0	40	0	92.1	80 - 121	38.25	3.74	20	
Methylene chloride	15.23	2.0	20	0	76.1	74 - 124	15.35	0.77	20	
Naphthalene	26.25	1.0	20	0	131	61 - 128	22.62	14.9	20	S
n-Butylbenzene	20.35	1.0	20	0	102	75 - 128	19.43	4.62	20	
n-Propylbenzene	19.92	1.0	20	0	99.6	76 - 126	19.45	2.39	20	
o-Xylene	18.43	1.0	20	0	92.1	78 - 122	18.63	1.11	20	
sec-Butylbenzene	20.29	1.0	20	0	101	77 - 126	20	1.46	20	
Styrene	17.96	1.0	20	0	89.8	78 - 123	18.11	0.808	20	
tert-Butylbenzene	19.74	1.0	20	0	98.7	78 - 124	19.87	0.615	20	
Tetrachloroethene	21.88	1.0	20	1.241	103	74 - 129	22.43	2.51	20	
Toluene	17.58	1.0	20	0	87.9	80 - 121	18.02	2.44	20	
trans-1,2-Dichloroethene	15.59	1.0	20	0	78.0	75 - 124	15.61	0.143	20	
trans-1,3-Dichloropropene	18.31	1.0	20	0	91.5	73 - 127	18.32	0.0766	20	
Trichloroethene	21.37	1.0	20	2.31	95.3	79 - 123	22.25	4.03	20	
Trichlorofluoromethane	14.58	1.0	20	0	72.9	65 - 141	15.59	6.72	20	
Vinyl chloride	13.1	1.0	20	0	65.5	58 - 137	14.2	8.06	20	
Surr: 1,2-Dichloroethane-d4	*47.95*	*1.0*	*50*	*0*	*95.9*	*81 - 118*	*47.02*	*1.95*	*20*	
Surr: 4-Bromofluorobenzene	*49.22*	*1.0*	*50*	*0*	*98.4*	*85 - 114*	*49.93*	*1.43*	*20*	
Surr: Dibromofluoromethane	*45.08*	*1.0*	*50*	*0*	*90.2*	*80 - 119*	*44.75*	*0.735*	*20*	
Surr: Toluene-d8	*50.24*	*1.0*	*50*	*0*	*100*	*89 - 112*	*49.66*	*1.17*	*20*	

ALS Houston, US Date: 23-Jun-21

Client:	Bhate Environmental Associates, Inc.
Project:	Longhorn GW Treatment Plant Monthly Effluent
WorkOrder:	HS21060462

QC BATCH REPORT

Batch ID:	**R385384 (0)**	**Instrument:**	**VOA6**	**Method:**	**VOLATILES ORGANICS BY METHOD 8260C**

The following samples were analyzed in this batch: HS21060462-01 HS21060462-03

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: HS21060462

QC BATCH REPORT

Batch ID: R385273 (0) **Instrument: UV-2450** **Method: HEXAVALENT CHROMIUM BY SW7196A**

MBLK Sample ID: **MBLK-R385273** Units: **mg/L** Analysis Date: **09-Jun-2021 09:30**
Client ID: Run ID: **UV-2450_385273** SeqNo: **6130228** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.0100	0.0100								U

LCS Sample ID: **LCS-R385273** Units: **mg/L** Analysis Date: **09-Jun-2021 09:30**
Client ID: Run ID: **UV-2450_385273** SeqNo: **6130227** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.251	0.0100	0.25	0	100	90 - 111				

MS Sample ID: **HS21060455-02MS** Units: **mg/L** Analysis Date: **09-Jun-2021 09:36**
Client ID: Run ID: **UV-2450_385273** SeqNo: **6130234** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.245	0.0100	0.25	0	98.0	90 - 111				

MSD Sample ID: **HS21060455-02MSD** Units: **mg/L** Analysis Date: **09-Jun-2021 09:36**
Client ID: Run ID: **UV-2450_385273** SeqNo: **6130233** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.242	0.0100	0.25	0	96.8	90 - 111	0.245	1.23	20	

The following samples were analyzed in this batch: HS21060462-01

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
WorkOrder: **HS21060462**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	21-022-0	26-Mar-2022
Dept of Defense	PJLA L20-507-R2	22-Dec-2021
Florida	E87611-30-07/01/2020	30-Jun-2021
Illinois	2000322021-7	09-May-2022
Kansas	E-10352 2020-2021	31-Jul-2021
Kentucky	123043, 2021-2022	30-Apr-2022
Louisiana	03087, 2020-2021	30-Jun-2021
Louisiana	03087, 2021-2022	30-Jun-2022
North Carolina	624-2021	31-Dec-2021
Oklahoma	2020-165	31-Aug-2021
Texas	T104704231-21-27	30-Apr-2022
Utah	TX026932021-10	31-Jul-2021

ALS Houston, US Date: 23-Jun-21

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent
Work Order: HS21060462

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS21060462-01	LH18/24-SP650_060821	Login	6/9/2021 11:53:53 AM	JRM	MET038
HS21060462-01	LH18/24-SP650_060821	Login	6/9/2021 11:53:53 AM	JRM	EXT133
HS21060462-01	LH18/24-SP650_060821	Login	6/9/2021 11:53:53 AM	JRM	WET282
HS21060462-01	LH18/24-SP650_060821	Login	6/9/2021 11:53:53 AM	JRM	VOA189
HS21060462-02	LH18/24-SP650_060821_BIX	Login	6/9/2021 11:53:53 AM	JRM	Sub
HS21060462-03	Trip Blank	Login	6/9/2021 11:53:53 AM	JRM	VOA189

ALS Houston, US Date: 23-Jun-21

Sample Receipt Checklist

Work Order ID: HS21060462 **Date/Time Received:** 09-Jun-2021 10:20

Client Name: Bhate Environmental **Received by:** Jared R. Makan

Completed By:	/S/ Jared R. Makan	09-Jun-2021 13:19	**Reviewed by:**	/S/ Ragen Giga	10-Jun-2021 18:18
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **Water** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	1.3°C UC/C	IR31
Cooler(s)/Kit(s):	47271	
Date/Time sample(s) sent to storage:	06/09/2021 13:20	

Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

bhate ENVIRONMENTAL CONSTRUCTION ENERGY

1608 13th Avenue South, Suite 300
Birmingham Alabama 35205
Tel: 205-918-4000
Fax: 205-918-4050

Chain of Custody and Analytical Request

Page: _____ of _____

Project/Phase No: NWO1312.0150

COC Number(1): _____

LIMS Number: _____

Facility/Base I.D.: LHAAP

Project/Site Name: LHAAP / GWTP / MONTHLY Effluent

Client Name:

Collected by: Scott Beesinger

Field Sample ID (30 Characters Max)	Date Collected (dd-mmm-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOC	Silver, selenium, lead, barium, hexavalent chromium	1,4-D'oxane	Perchlorate	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
LH18/24-SPL650_060821	08-Jun-2021	1400	-	N		WG	6	X	X	X					
LH18/24-SPL650_060821_BIX	08-Jun-2021	1400	-	N		WG	1				X				
TRIP BLANK	08-Jun-2021		-	TB		WG	2	X							
			-												
			-												
			-												
			-												
			-												

Sample Analysis Requested (5) | Quality Assurance Samples (6)

HS21060462

Bhate Environmental Associates, Inc.
Longhorn GW Treatment Plant Monthly Effluent

COMMENTS:

STANDARD TAT

Cooler 47271 11231
Temp 1.3°C CFO

Custody Transfers Prior to Receipt by Laboratory

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1. Scott Beesinger	6/8/21	1430	1. J. Mascorro	6/9/21	10:20
2.			2.		
3.			3.		

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped _____ No.:

_____ Method of Shipment: _____

_____ Fed Ex _____ Airbill Number:

_____ Analytical Lab: ALS 10450 Stancliff Rd, Suite 210 Houston, TX 77099 (281) 530-5656

ATTN: SONIA WEST Lab Recipient: Delivery Date/Time:

1.) Chain of Custody Number = date collected + custody number (e.g. 09-02-1999-01)

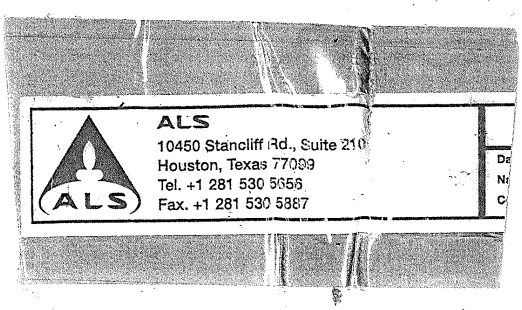
2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

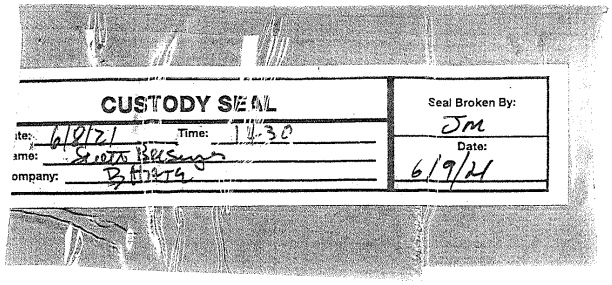
3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

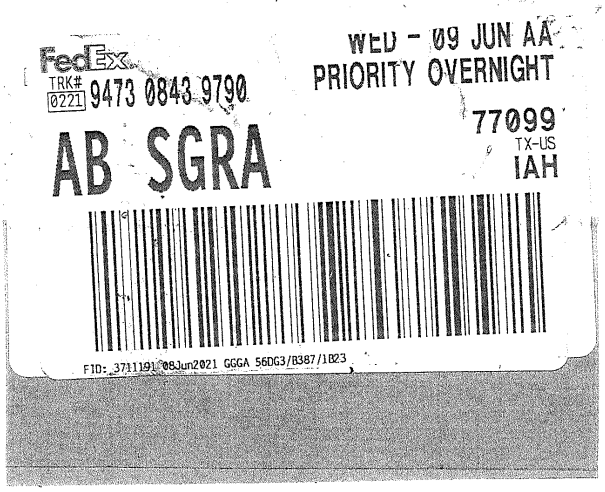
4.) Matrix Codes: GS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 10109901 in the Equipment Blank Lot Control


ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887


CUSTODY SEAL
Time:
Seal Broken By:
Date:
6/9/21


FedEx
TRK# 0221 9473 0843 9790
WED - 09 JUN AA
PRIORITY OVERNIGHT
77099
TX-US
IAH
AB SGRA
FID: 3711191,08Jun2021 GGGA 56DG3/B387/1023

June 23, 2021 Service Request No:E2100630

Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099

Laboratory Results for: HS21060462

Dear Ragen,

Enclosed are the results of the sample(s) submitted to our laboratory June 10, 2021
For your reference, these analyses have been assigned our service request number **E2100630.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



Corey Grandits
Project Manager

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Houston	**Service Request No.:**	E2100630
Project:	HS21060462	**Date Received:**	06/10/21
Sample Matrix:	W		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 06/10/21.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2100354: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in addition to a MS/MSD for this extraction batch. The LCS and DLCS recoveries are within QC limits. MS/MSD was performed on an unrelated sample.

DoD certification is held for the method/matrix/analytes provided in this report.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2100630
Project: HS21060462

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100630-001	LH18/24-SP650_060821_BIX	6/8/2021	1400

Service Request Summary

Folder #: **E2100630**
Client Name: ALS Environmental - US
Project Name: HS21060462
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/10/21
Internal Due Date: 6/23/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21060462
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8C
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100630-001	LH18/24-SP650_060821_BIX	Water	06/08/21 1400	**IV**

Service Request Summary

Folder #: **E2100630**
Client Name: ALS Environmental - US
Project Name: HS21060462
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/10/21
Internal Due Date: 6/23/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21060462
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8C
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	1	Level II due 6/23,IV due 6/30

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	Internal standard not within the specified limits. See case narrative.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.
M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.

Data Qualifiers

Lab Standard

O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-2020	6/30/2021
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352-2020	7/31/2021
Louisiana Department of Environmental Quality	03087-2021	6/30/2022
Louisiana Department of Environmental Quality	03087-2020	6/30/2021
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Maryland Department of the Environment	343-2020	6/30/2021
Minnesota Department of Health	2021671	12/31/2021
Nevada Department of Concervation and Natural Resources	TX026932021-4	7/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
New Jersey Department of Environmental Protection	TX008	6/30/2021
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	014	6/30/2021
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022
Utah Department of Health Environmental Laboratory Certification	TX026932021-10	7/31/2021

ALS

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

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:** **16274**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Ragen Giga
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RagenP.Giga@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:	HS21060462
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21060462-02**	**LH18/24-SP650_060821_BIX**	**Water**	**08 Jun 2021 14:00**
	Provide Level II and Level IV reports in separate pdf			23 Jun 2021

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: J. Rivera Date/Time:

Received By: Date/Time: 6/9/21 0900

Cooler ID(s): Temperature(s):

Cooler Receipt Form

ALS Environmental

Project Chemist CG

Client/Project ALS-H

Thermometer ID IR31

Date/Time Received: 6/10/21 Initials: CG Date/Time Logged in: 6/10/21 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ ALS Courier ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No If yes, how many and where?

Were they intact? ○ Yes ○ No ☒ N/A

Were they signed and dated? ○ Yes ○ No ☒ N/A

4. Packing Material: ○ Inserts ☒ Baggies ○ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		6/10/21	0500	CG	0.6	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No

10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 381265 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 6/14/21 09:59

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100608-001	LH18/24-SP650_060221_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2100629-001	LH18/24-SP650_060821_BIX	.01	6850/ClO4 DOD			Water	10mL	
3	E2100630-001	LH18/24-SP650_060821_BIX	.01	6850/ClO4 DOD			Water	10mL	
4	E2100631-001	LH18/24-SP140_060821	.01	6850/ClO4 DOD			Water	10mL	
5	E2100632-001	126_060821	.01	6850/ClO4 DOD			Water	10mL	
6	E2100632-002	102_060821	.01	6850/ClO4 DOD			Water	10mL	
7	E2100632-003	18CPTMW03SW_060821	.01	6850/ClO4 DOD			Water	10mL	
8	E2100632-004	18CPTMW22DW_060821	.01	6850/ClO4 DOD			Water	10mL	
9	E2100632-005	18CPTMW22R_060821	.01	6850/ClO4 DOD			Water	10mL	
10	E2100632-006	18CPTMW22SW_060821	.01	6850/ClO4 DOD			Water	10mL	
11	E2100632-007	MW20_060821	.01	6850/ClO4 DOD			Water	10mL	
12	EQ2100354-01	MB		6850/ClO4 DOD			Liquid	10mL	
13	EQ2100354-02	LCS		6850/ClO4 DOD			Liquid	10mL	
14	EQ2100354-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
15	EQ2100354-04	MW20_060821 MS	.01	6850/ClO4 DOD			Liquid	10mL	
16	EQ2100354-05	MW20_060821 DMS	.01	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Sodium Perchlorate 1 ug/mL (IS) (18-O) as CLO4 Inventory ID 214765 Logbook Ref: Sodium Perchlorate Expires On: 12/11/2022

E2100608-001	100.00µL	E2100629-001	100.00µL	E2100630-001	100.00µL	E2100631-001	100.00µL	E2100632-001	100.00µL	E2100632-002	100.00µL
E2100632-003	100.00µL	E2100632-004	100.00µL	E2100632-005	100.00µL	E2100632-006	100.00µL	E2100632-007	100.00µL	EQ2100354-01	100.00µL
EQ2100354-02	100.00µL	EQ2100354-03	100.00µL	EQ2100354-04	100.00µL	EQ2100354-05	100.00µL				

Name: Perchlorate Intermediate Stock1 Inventory ID 217422 Logbook Ref: Perchlorate Expires On: 11/26/2021

EQ2100354-02	1.00µL	EQ2100354-03	1.00µL	EQ2100354-04	1.00µL	EQ2100354-05	1.00µL

Preparation Steps

Step: Preparation
Started: 6/14/21 09:59
Finished: 6/14/21 11:00
By: GRIVERA
Comments

Preparation Information Benchsheet

Prep Run#: 381265
Team: Semivoa GCMS/GRIVERA
Prep WorkFlow: GenExt28Day
Prep Method: Method
Status: Prepped
Prep Date/Time: 6/14/21 09:59

Comments:

Reviewed By: GR Date: 6/14/21

Chain of Custody

Relinquished By: Date:

Received By: Date:

Extracts Examined
Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Collected:**	6/ 8/21 1400
Sample Matrix:	Water	**Date Received:**	6/10/21
Sample Name:	LH18/24-SP650_060821_BIX	**Units:**	µg/L
Lab Code:	E2100630-001	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**88.8**		2.00	1.00	0.500	20	6/14/21	6/22/21 19:51	381265	728385	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100354-01	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/14/21	6/15/21 17:52	381265	727655	

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060462
Sample Matrix: Water

Service Request: E2100630
Date Analyzed: 6/15/21

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: As Received

Extraction Lot: 381265

	Lab Control Sample EQ2100354-02			Duplicate Lab Control Sample EQ2100354-03				
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.117	0.100	117	0.119	0.100	119	84 - 119	2	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100354-02	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.117**		0.100	0.0500	0.0250	1	6/14/21	6/15/21 18:00	381265	727655	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100354-03	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.119**		0.100	0.0500	0.0250	1	6/14/21	6/15/21 18:09	381265	727655	

HS21060462 8260_W DOD IV Raw Data

ALS WO# HS21060462

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060462

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
cis-1,3-Dichloropropene	50.00	49.32	99	80-120
trans-1,3-Dichloroprope	50.00	49.93	100	80-120
1,3-Dichlorobenzene	50.00	48.33	97	80-120
2,2-Dichloropropane	50.00	46.54	93	80-120
1,1-Dichloropropene	50.00	47.74	95	80-120
Dibromomethane	50.00	47.09	94	80-120
1,2-Dibromoethane	50.00	46.02	92	80-120
trans-1,2-Dichloroethen	50.00	45.39	91	80-120
1,1,1,2-Tetrachloroetha	50.00	49.25	98	80-120
1,1,1-Trichloroethane	50.00	45.35	91	80-120
1,1,2,2-Tetrachloroetha	50.00	48.29	96	80-120
1,1,2-Trichloroethane	50.00	46.80	94	80-120
1,1-Dichloroethane	50.00	43.31	87	80-120
1,1-Dichloroethene	50.00	47.05	94	80-120
Trichloroethene	50.00	49.64	99	80-120
1,2,3-Trichlorobenzene	50.00	54.27	108	80-120
Trichlorofluoromethane	50.00	49.37	99	80-120
1,2,4-Trichlorobenzene	50.00	54.38	109	80-120
1,2,4-Trimethylbenzene	50.00	47.26	94	80-120
Tetrachloroethene	50.00	51.72	103	80-120
1,2-Dichlorobenzene	50.00	48.14	96	80-120
1,2-Dichloroethane	50.00	48.52	97	80-120
1,2-Dichloropropane	50.00	47.14	94	80-120
1,3,5-Trimethylbenzene	50.00	48.76	98	80-120
1,3-Dichloropropane	50.00	45.62	91	80-120
1,4-Dichlorobenzene	50.00	47.04	94	80-120
Toluene	50.00	45.98	92	80-120
2-Butanone	100.00	88.97	89	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM III VOA

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060462

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
2-Chlorotoluene	50.00	46.15	92	80-120
2-Hexanone	100.00	93.39	93	80-120
4-Chlorotoluene	50.00	47.27	94	80-120
tert-Butylbenzene	50.00	48.13	96	80-120
4-Methyl-2-Pentanone	100.00	86.96	87	80-120
Acetone	100.00	105.10	105	80-120
Benzene	50.00	47.37	95	80-120
Bromobenzene	50.00	48.43	97	80-120
Bromochloromethane	50.00	45.06	90	80-120
Bromodichloromethane	50.00	46.92	94	80-120
Bromoform	50.00	50.57	101	80-120
Bromomethane	50.00	55.55	111	80-120
Carbon Disulfide	100.00	90.27	90	80-120
Carbon Tetrachloride	50.00	48.83	98	80-120
Chlorobenzene	50.00	46.21	92	80-120
Chloroethane	50.00	50.92	102	80-120
Chloroform	50.00	44.19	88	80-120
Chloromethane	50.00	51.24	102	80-120
cis-1,2-Dichloroethene	50.00	46.52	93	80-120
Dibromochloromethane	50.00	47.87	96	80-120
Dichlorodifluoromethane	50.00	51.43	103	80-120
Ethylbenzene	50.00	50.46	101	80-120
Hexachlorobutadiene	50.00	59.59	119	80-120
Isopropylbenzene	50.00	50.27	100	80-120
m,p-Xylenes	100.00	98.28	98	80-120
Methylene Chloride	50.00	47.68	95	80-120
n-Butylbenzene	50.00	51.17	102	80-120
n-Propylbenzene	50.00	47.26	94	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM 3
WATER VOLATILE METHOD SPIKE RECOVERY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060462

Matrix Spike - Sample No.: ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT ()	% REC #	QC. LIMITS REC.
Naphthalene	50.00	52.05	104	80-120
o-Xylene	50.00	48.77	98	80-120
sec-Butylbenzene	50.00	47.77	96	80-120
Styrene	50.00	50.71	101	80-120
Vinyl Chloride	50.00	47.03	94	80-120
1,2,3-Trichloropropane	50.00	59.56	119	80-120
p-Isopropyltoluene	50.00	49.53	99	80-120
1,2-Dibromo-3-Chloropro	50.00	51.36	103	80-120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM III VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060462

Lab File ID: X052601 BFB Injection Date: 05/26/21

Instrument ID: VOA6 BFB Injection Time: 1213

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	47.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	1.2 (1.6)1
174	Greater than 50.0% of mass 95	73.7
175	5.0 - 9.0% of mass 174	5.5 (7.5)1
176	95.0 - 101.0% of mass 174	71.7 (97.3)1
177	5.0 - 9.0% of mass 176	5.8 (8.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD000.25	VSTD000.25	X052602	05/26/21	1234
02	VSTD000.5	VSTD000.5	X052603	05/26/21	1255
03	VSTD001	VSTD001	X052604	05/26/21	1337
04	VSTD002	VSTD002	X052605	05/26/21	1358
05	VSTD005	VSTD005	X052606	05/26/21	1419
06	VSTD020	VSTD020	X052607	05/26/21	1440
07	VSTD050	VSTD050	X052608	05/26/21	1501
08	VSTD100	VSTD100	X052609	05/26/21	1522
09	VSTD150	VSTD150	X052610	05/26/21	1543
10	VSTD200	VSTD200	X052611	05/26/21	1604
11	ICV	ICV	X052614	05/26/21	1707
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060462

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

LAB FILE ID: RF0.25: X052602 RF0.5: X052603 RF1: X052604
RF2: X052605 RF5: X052606 RF20: X052607

COMPOUND	RF0.25	RF0.5	RF1	RF2	RF5	RF20
cis-1,3-Dichloropropene		0.563	0.482	0.444	0.530	0.514
trans-1,3-Dichloropropene		0.459	0.430	0.391	0.438	0.433
1,3-Dichlorobenzene		1.679	1.474	1.452	1.411	1.338
2,2-Dichloropropane		0.729	0.753	0.719	0.743	0.655
1,1-Dichloropropene		0.430	0.438	0.392	0.370	0.369
Dibromomethane		0.247	0.229	0.195	0.240	0.226
1,2-Dibromoethane		0.438	0.372	0.348	0.382	0.354
trans-1,2-Dichloroethene		0.556	0.483	0.471	0.493	0.442
1,1,1,2-Tetrachloroethane		0.429	0.362	0.340	0.364	0.354
1,1,1-Trichloroethane		0.869	0.768	0.758	0.755	0.696
1,1,2,2-Tetrachloroethane		2582	4348	9638	24326	94744
1,1,2-Trichloroethane		0.288	0.267	0.276	0.308	0.262
1,1-Dichloroethane		0.943	0.782	0.838	0.854	0.788
1,1-Dichloroethene		0.564	0.533	0.567	0.525	0.492
Trichloroethene		0.403	0.316	0.338	0.346	0.338
1,2,3-Trichlorobenzene		0.283	0.329	0.316	0.285	0.294
Trichlorofluoromethane		0.970	0.796	1.036	0.976	0.871
1,2,4-Trichlorobenzene		0.471	0.460	0.455	0.471	0.497
1,2,4-Trimethylbenzene		2.805	2.419	2.374	2.134	2.172
Tetrachloroethene		0.340	0.285	0.310	0.288	0.279
1,2-Dichlorobenzene		1.530	1.282	1.414	1.353	1.296
1,2-Dichloroethane		0.458	0.385	0.386	0.421	0.392
1,2-Dichloropropane		0.341	0.282	0.302	0.315	0.285
1,3,5-Trimethylbenzene		2.808	2.273	2.406	2.134	2.139
1,3-Dichloropropane		0.640	0.561	0.508	0.574	0.527
1,4-Dichlorobenzene		1.766	1.630	1.520	1.456	1.390
Toluene		1.818	1.510	1.502	1.457	1.334
2-Butanone		0.176	0.151	0.149	0.151	0.148
2-Chlorotoluene		2.084	2.024	2.165	1.975	1.822
2-Hexanone		0.202	0.181	0.159	0.197	0.181
4-Chlorotoluene		2.618	2.412	2.415	2.145	2.100
tert-Butylbenzene		2.327	1.957	2.145	1.845	1.855
4-Methyl-2-Pentanone		0.338	0.320	0.271	0.292	0.269
Acetone		5938	6356	9004	15534	45478
Benzene		1.346	1.154	1.195	1.196	1.116
Bromobenzene		0.907	0.845	0.895	0.828	0.820
Bromochloromethane		0.324	0.327	0.293	0.333	0.304
Bromodichloromethane		0.478	0.441	0.440	0.454	0.419
Bromoform		0.270	0.286	0.249	0.247	0.258
Bromomethane		2714	5134	10705	24597	81986
Carbon Disulfide		1.596	1.170	1.322	1.248	1.165
Carbon Tetrachloride		0.452	0.426	0.444	0.402	0.386
Chlorobenzene		1.360	1.043	1.008	1.031	0.964
Chloroethane		1981	3557	6715	15071	58283

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2106046

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

LAB FILE ID: RF0.25: X052602 RF0.5: X052603 RF1: X052604
RF2: X052605 RF5: X052606 RF20: X052607

COMPOUND	RF0.25	RF0.5	RF1	RF2	RF5	RF20
Chloroform		1.051	0.854	0.901	0.981	0.851
Chloromethane		2318	4657	9388	23565	83965
cis-1,2-Dichloroethene		0.434	0.571	0.579	0.574	0.536
Dibromochloromethane		0.477	0.388	0.368	0.408	0.398
Dichlorodifluoromethane		2066	3382	8466	18295	78750
Ethylbenzene		0.530	0.453	0.476	0.484	0.469
Hexachlorobutadiene		1178	1684	3790	8556	34297
Isopropylbenzene		1.794	1.329	1.481	1.308	1.350
m,p-Xylenes		0.748	0.576	0.610	0.589	0.586
Methylene Chloride		3718	5537	9737	21744	78742
n-Butylbenzene		2.088	1.860	1.974	1.724	1.817
n-Propylbenzene		3.822	3.401	3.438	2.900	2.957
Naphthalene		0.732	0.741	0.714	0.673	0.734
o-Xylene		0.712	0.592	0.576	0.596	0.571
sec-Butylbenzene		3.355	2.559	2.858	2.427	2.460
Styrene		1.143	0.928	0.885	0.945	0.954
Vinyl Chloride		0.488	0.725	0.692	0.637	0.574
1,2,3-Trichloropropane		0.744	0.649	0.642	0.654	0.633
p-Isopropyltoluene		2.903	2.250	2.461	2.047	2.138
1,2-Dibromo-3-Chloropropane		75	420	630	2323	9854
1,2-Dichloroethane-d4		2577	4768	8542	21575	79438
Dibromofluoromethane		2388	4774	8033	21089	83421
Toluene-d8		1.572	1.496	1.177	1.238	1.162
4-Bromofluorobenzene		3467	6016	10368	25524	97463

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2106046

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

LAB FILE ID: RF50: X052608 RF100: X052609 RF150: X052610
RF200: X052611

COMPOUND	RF50	RF100	RF150	RF200
cis-1,3-Dichloropropene	0.503	0.509	0.502	0.512
trans-1,3-Dichloropropene	0.431	0.448	0.444	0.458
1,3-Dichlorobenzene	1.264	1.366	1.320	1.389
2,2-Dichloropropane	0.630	0.646	0.622	0.659
1,1-Dichloropropene	0.341	0.377	0.354	0.374
Dibromomethane	0.213	0.216	0.210	0.213
1,2-Dibromoethane	0.352	0.359	0.349	0.358
trans-1,2-Dichloroethene	0.443	0.444	0.425	0.445
1,1,1,2-Tetrachloroethane	0.352	0.375	0.367	0.384
1,1,1-Trichloroethane	0.673	0.710	0.688	0.733
1,1,2,2-Tetrachloroethane	241138	539471	832157	1217789
1,1,2-Trichloroethane	0.257	0.260	0.256	0.263
1,1-Dichloroethane	0.746	0.727	0.699	0.736
1,1-Dichloroethene	0.466	0.492	0.481	0.515
Trichloroethene	0.332	0.345	0.328	0.343
1,2,3-Trichlorobenzene	0.281	0.298	0.309	0.329
Trichlorofluoromethane	0.817	0.903	0.857	0.896
1,2,4-Trichlorobenzene	0.472	0.524	0.533	0.564
1,2,4-Trimethylbenzene	2.004	2.223	2.158	2.235
Tetrachloroethene	0.268	0.331	0.323	0.345
1,2-Dichlorobenzene	1.250	1.367	1.343	1.372
1,2-Dichloroethane	0.383	0.384	0.380	0.396
1,2-Dichloropropane	0.280	0.283	0.276	0.286
1,3,5-Trimethylbenzene	1.957	2.236	2.185	2.288
1,3-Dichloropropane	0.505	0.513	0.502	0.518
1,4-Dichlorobenzene	1.310	1.404	1.357	1.411
Toluene	1.302	1.393	1.361	1.459
2-Butanone	0.155	0.153	0.140	0.145
2-Chlorotoluene	1.630	1.741	1.680	1.723
2-Hexanone	0.175	0.193	0.186	0.196
4-Chlorotoluene	1.957	2.131	2.093	2.186
tert-Butylbenzene	1.600	1.949	1.866	1.966
4-Methyl-2-Pentanone	0.260	0.279	0.275	0.287
Acetone	109289	231561	361295	519345
Benzene	1.090	1.098	1.059	1.083
Bromobenzene	0.755	0.805	0.796	0.816
Bromochloromethane	0.294	0.284	0.277	0.285
Bromodichloromethane	0.409	0.408	0.406	0.413
Bromoform	0.276	0.304	0.304	0.314
Bromomethane	208957	464431	786302	
Carbon Disulfide	1.136	1.147	1.072	1.137
Carbon Tetrachloride	0.366	0.424	0.405	0.425
Chlorobenzene	0.930	1.002	0.987	1.042
Chloroethane	169882	322237	494207	731139

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2106046

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

LAB FILE ID: RF50: X052608 RF100: X052609 RF150: X052610
RF200: X052611

COMPOUND	RF50	RF100	RF150	RF200
Chloroform	0.830	0.818	0.796	0.831
Chloromethane	214824	427715	633860	908675
cis-1,2-Dichloroethene	0.516	0.508	0.488	0.510
Dibromochloromethane	0.401	0.420	0.413	0.431
Dichlorodifluoromethane	189027	442975	654875	978413
Ethylbenzene	0.442	0.494	0.472	0.502
Hexachlorobutadiene	87915	268099	433230	655226
Isopropylbenzene	1.289	1.551	1.510	1.593
m,p-Xylenes	0.565	0.650	0.634	0.674
Methylene Chloride	199728	421178	646121	946394
n-Butylbenzene	1.665	2.125	2.071	2.181
n-Propylbenzene	2.652	3.027	2.828	3.045
Naphthalene	0.682	0.703	0.703	0.749
o-Xylene	0.556	0.621	0.618	0.651
sec-Butylbenzene	2.130	2.640	2.537	2.663
Styrene	0.978	1.102	1.092	1.152
Vinyl Chloride	0.550	0.558	0.537	0.564
1,2,3-Trichloropropane	0.581	0.580	0.556	0.570
p-Isopropyltoluene	1.968	2.363	2.285	2.392
1,2-Dibromo-3-Chloropropane	26546	62281	97075	144783
1,2-Dichloroethane-d4	202707	450261	696836	998694
Dibromofluoromethane	198305	469782	715769	1043408
Toluene-d8	1.035	1.206	1.127	1.195
4-Bromofluorobenzene	243279	606080	931244	1352939

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2106046

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

COMPOUND	CURVE	COEFFICENTS A0	COEFFICENTS A1	COEFFICENTS A2	%RSD OR R^2	MAX %RSD OR R^2
cis-1,3-Dichloropropene	AVRG		0.50650854		6.388	15.000
trans-1,3-Dichloropropene	AVRG		0.43694869		4.647	15.000
1,3-Dichlorobenzene	AVRG		1.41029902		8.507	15.000
2,2-Dichloropropane	AVRG		0.68406039		7.525	15.000
1,1-Dichloropropene	AVRG		0.38294444		8.481	15.000
Dibromomethane	AVRG		0.22118034		7.360	15.000
1,2-Dibromoethane	AVRG		0.36812214		7.741	15.000
trans-1,2-Dichloroethene	AVRG		0.46686379		8.551	15.000
1,1,1,2-Tetrachloroethane	AVRG		0.36976577		6.936	15.000
1,1,1-Trichloroethane	AVRG		0.73890640		8.017	15.000
1,1,2,2-Tetrachloroethane	LINR	-2.39e-002	1.48234879		0.9995765	0.9900000
1,1,2-Trichloroethane	AVRG		0.27085272		6.305	15.000
1,1-Dichloroethane	AVRG		0.79045824		9.700	15.000
1,1-Dichloroethene	AVRG		0.51503132		6.878	15.000
Trichloroethene	AVRG		0.34316996		7.076	15.000
1,2,3-Trichlorobenzene	AVRG		0.30268951		6.244	15.000
Trichlorofluoromethane	AVRG		0.90253943		8.713	15.000
1,2,4-Trichlorobenzene	AVRG		0.49434198		7.710	15.000
1,2,4-Trimethylbenzene	AVRG		2.28052238		10.202	15.000
Tetrachloroethene	AVRG		0.30780299		9.261	15.000
1,2-Dichlorobenzene	AVRG		1.35618432		6.087	15.000
1,2-Dichloroethane	AVRG		0.39838777		6.393	15.000
1,2-Dichloropropane	AVRG		0.29431649		7.228	15.000
1,3,5-Trimethylbenzene	AVRG		2.26957979		10.449	15.000
1,3-Dichloropropane	AVRG		0.53857857		8.492	15.000
1,4-Dichlorobenzene	AVRG		1.47165689		9.862	15.000
Toluene	AVRG		1.45969768		10.489	15.000
2-Butanone	AVRG		0.15212279		6.497	15.000
2-Chlorotoluene	AVRG		1.87147769		10.382	15.000
2-Hexanone	AVRG		0.18573488		7.212	15.000
4-Chlorotoluene	AVRG		2.22871518		9.348	15.000
tert-Butylbenzene	AVRG		1.94574941		10.438	15.000
4-Methyl-2-Pentanone	AVRG		0.28792795		8.880	15.000
Acetone	LINR	-0.1192488	8.29690774		0.9998328	0.9900000
Benzene	AVRG		1.14864603		7.713	15.000
Bromobenzene	AVRG		0.82956540		5.737	15.000
Bromochloromethane	AVRG		0.30233090		6.875	15.000
Bromodichloromethane	AVRG		0.42984419		5.798	15.000
Bromoform	AVRG		0.27881115		8.919	15.000
Bromomethane	LINR	3.056e-003	1.93039335		0.9986047	0.9900000
Carbon Disulfide	AVRG		1.22136627		12.937	15.000
Carbon Tetrachloride	AVRG		0.41448436		6.639	15.000
Chlorobenzene	AVRG		1.04086521		12.054	15.000
Chloroethane	LINR	-2.83e-002	2.93277028		0.9979846	0.9900000

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2106046

Instrument ID: VOA6 Calibration Date(s): 05/26/21 05/26/21

Column: DB624 ID: 0.18 (mm) Calibration Time(s): 1234 1604

COMPOUND	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
Chloroform	AVRG		0.87928016		9.604	15.000
Chloromethane	LINR	-5.49e-002	2.33480241		0.9978695	0.9900000
cis-1,2-Dichloroethene	AVRG		0.52406781		8.954	15.000
Dibromochloromethane	AVRG		0.41152986		7.456	15.000
Dichlorodifluoromethane	LINR	-4.2e-003	2.18637335		0.9985940	0.9900000
Ethylbenzene	AVRG		0.48019388		5.533	15.000
Hexachlorobutadiene	2ORDR	1.978e-002	3.30529341	-0.4157995	0.9978942	0.9900000
Isopropylbenzene	AVRG		1.46719468		11.350	15.000
m,p-Xylenes	AVRG		0.62598444		9.328	15.000
Methylene Chloride	LINR	-2.66e-002	2.26403519		0.9993950	0.9900000
n-Butylbenzene	AVRG		1.94513549		9.549	15.000
n-Propylbenzene	AVRG		3.11891495		11.698	15.000
Naphthalene	AVRG		0.71451827		3.699	15.000
o-Xylene	AVRG		0.61039840		7.858	15.000
sec-Butylbenzene	AVRG		2.62550633		12.857	15.000
Styrene	AVRG		1.01998348		9.987	15.000
Vinyl Chloride	AVRG		0.59185680		13.042	15.000
1,2,3-Trichloropropane	AVRG		0.62337735		9.428	15.000
p-Isopropyltoluene	AVRG		2.31190973		11.883	15.000
1,2-Dibromo-3-Chloropropane	LINR	1.025e-002	12.4779790		0.9993248	0.9900000
1,2-Dichloroethane-d4	LINR	-1.39e-002	2.12273607		0.9998254	0.9900000
Dibromofluoromethane	LINR	-3.3e-003	2.03856572		0.9993599	0.9900000
Toluene-d8	AVRG		1.24546498		14.000	15.000
4-Bromofluorobenzene	LINR	1.501e-002	2.24316621		0.9989319	0.9900000

FORM VI VOA

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060462

	CLIENT SAMPLE NO.	SMC1 (DCE)#	SMC2 #	SMC3 (TOL)#	OTHER #	TOT OUT
01	VLCSW-210610	101	95	90	96	0
02	VBLKW-210610	93	89	105	98	0
03	HS21060222-01MS	94	90	99	100	0
04	HS21060222-01MSD	96	90	100	98	0
05	HS21060495-07MS	94	90	102	99	0
06	HS21060495-07MSD	95	90	100	100	0
07	HS21060462-03	93	89	104	96	0
08	HS21060462-01	93	90	103	98	0
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		QC LIMITS
SMC1 (DCE)	= 1,2-Dichloroethane-d4	(0-130)
SMC2	= Dibromofluoromethane	(0-130)
SMC3 (TOL)	= Toluene-d8	(0-130)
OTHER	= 4-Bromofluorobenzene	(0-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

VBLKW-210610

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060462

Lab File ID: X061008 Lab Sample ID: VBLKW-210610

Date Analyzed: 06/10/21 Time Analyzed: 1541

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSW-210610	VLCSW-210610	X061006	1459
02	HS21060222-01MS	HS21060222-01MS	X061012	1705
03	HS21060222-01MSD	HS21060222-01MSD	X061013	1726
04	HS21060495-07MS	HS21060495-07MS	X061014	1747
05	HS21060495-07MSD	HS21060495-07MSD	X061015	1808
06	HS21060462-03	HS21060462-03	X061020	1953
07	HS21060462-01	HS21060462-01	X061021	2014
08				
09				
10				
11				
12				
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COMMENTS:

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060462

Lab File ID: X061001 BFB Injection Date: 06/10/21

Instrument ID: VOA6 BFB Injection Time: 1314

GC Column: DB624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.4
75	30.0 - 60.0% of mass 95	49.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.5
173	Less than 2.0% of mass 174	0.6 (0.9)1
174	Greater than 50.0% of mass 95	70.5
175	5.0 - 9.0% of mass 174	4.9 (6.9)1
176	95.0 - 101.0% of mass 174	67.3 (95.5)1
177	5.0 - 9.0% of mass 176	4.9 (7.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	X061002	06/10/21	1335
02	VLCSW-210610	VLCSW-210610	X061006	06/10/21	1459
03	VBLKW-210610	VBLKW-210610	X061008	06/10/21	1541
04	HS21060222-01MS	HS21060222-01MS	X061012	06/10/21	1705
05	HS21060222-01MSD	HS21060222-01MSD	X061013	06/10/21	1726
06	HS21060495-07MS	HS21060495-07MS	X061014	06/10/21	1747
07	HS21060495-07MSD	HS21060495-07MSD	X061015	06/10/21	1808
08	HS21060462-03	HS21060462-03	X061020	06/10/21	1953
09	HS21060462-01	HS21060462-01	X061021	06/10/21	2014
10	CCV-END	CCV-END	X061029	06/10/21	2303
11					
12					
13					
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17					
18					
19					
20					
21					
22					

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060462

Instrument ID: VOA6 Calibration Date: 06/10/21 Time: 1335

Lab File ID: X061002 Init. Calib. Date(s): 05/26/21 05/26/21

Init. Calib. Times: 1234 1604

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
cis-1,3-Dichloropropene	0.5060000	0.5640753	0.5640753	0.2	-11.48	20.00	AVRG	
trans-1,3-Dichloropropene	0.4370000	0.4945667	0.4945667	0.1	-13.17	20.00	AVRG	
1,3-Dichlorobenzene	1.4100000	1.4273522	1.4273522	0.6	-1.23	20.00	AVRG	
2,2-Dichloropropane	0.6840000	0.6778304	0.6778304	0.1	0.90	20.00	AVRG	
1,1-Dichloropropene	0.3830000	0.3936114	0.3936114	0.1	-2.77	20.00	AVRG	
Dibromomethane	0.2210000	0.2403201	0.2403201	0.1	-8.74	20.00	AVRG	
1,2-Dibromoethane	0.3680000	0.3879465	0.3879465	0.1	-5.42	20.00	AVRG	
trans-1,2-Dichloroethene	0.4670000	0.4356211	0.4356211	0.1	6.72	20.00	AVRG	
1,1,1,2-Tetrachloroethane	0.3700000	0.4001933	0.4001933	0.1	-8.16	20.00	AVRG	
1,1,1-Trichloroethane	0.7390000	0.6951780	0.6951780	0.1	5.93	20.00	AVRG	
1,1,2,2-Tetrachloroethane	59.438877	50.000000	0.8181006	0.3	-18.88	20.00	LINR	
1,1,2-Trichloroethane	0.2710000	0.2871399	0.2871399	0.1	-5.96	20.00	AVRG	
1,1-Dichloroethane	0.7900000	0.7583310	0.7583310	0.2	4.01	20.00	AVRG	
1,1-Dichloroethene	0.5150000	0.4577114	0.4577114	0.1	11.12	20.00	AVRG	
Trichloroethene	0.3430000	0.3764546	0.3764546	0.2	-9.75	20.00	AVRG	
1,2,3-Trichlorobenzene	0.3030000	0.3760637	0.3760637	0.01	-24.11	20.00	AVRG	<-
Trichlorofluoromethane	0.9020000	0.7981978	0.7981978	0.1	11.51	20.00	AVRG	
1,2,4-Trichlorobenzene	0.4940000	0.6122109	0.6122109	0.1	-23.93	20.00	AVRG	<-
1,2,4-Trimethylbenzene	2.2800000	2.2135685	2.2135685	0.1	2.91	20.00	AVRG	
Tetrachloroethene	0.3080000	0.3235124	0.3235124	0.2	-5.04	20.00	AVRG	
1,2-Dichlorobenzene	1.3560000	1.3823174	1.3823174	0.4	-1.94	20.00	AVRG	
1,2-Dichloroethane	0.3980000	0.4331100	0.4331100	0.1	-8.82	20.00	AVRG	
1,2-Dichloropropane	0.2940000	0.3121110	0.3121110	0.1	-6.16	20.00	AVRG	
1,3,5-Trimethylbenzene	2.2700000	2.1386658	2.1386658	0.1	5.78	20.00	AVRG	
1,3-Dichloropropane	0.5390000	0.5599709	0.5599709	0.1	-3.89	20.00	AVRG	
1,4-Dichlorobenzene	1.4720000	1.4704278	1.4704278	0.4	0.11	20.00	AVRG	
Toluene	1.4600000	1.4282200	1.4282200	0.4	2.18	20.00	AVRG	
2-Butanone	0.1520000	0.1604147	0.1604147	0.1	-5.54	20.00	AVRG	
2-Chlorotoluene	1.8720000	1.8278830	1.8278830	0.1	2.36	20.00	AVRG	
2-Hexanone	0.1860000	0.2043456	0.2043456	0.1	-9.86	20.00	AVRG	
4-Chlorotoluene	2.2280000	2.1271612	2.1271612	0.1	4.52	20.00	AVRG	
tert-Butylbenzene	1.9460000	1.8686179	1.8686179	0.1	3.98	20.00	AVRG	
4-Methyl-2-Pentanone	0.2880000	0.2962479	0.2962479	0.1	-2.86	20.00	AVRG	
Acetone	101.67846	100.00000	0.1297362	0.1	-1.68	20.00	LINR	
Benzene	1.1480000	1.2091171	1.2091171	0.5	-5.32	20.00	AVRG	
Bromobenzene	0.8300000	0.8800871	0.8800871	0.1	-6.03	20.00	AVRG	
Bromochloromethane	0.3020000	0.3050901	0.3050901	0.1	-1.02	20.00	AVRG	
Bromodichloromethane	0.4300000	0.4635960	0.4635960	0.2	-7.81	20.00	AVRG	
Bromoform	0.2790000	0.3238635	0.3238635	0.1	-16.08	20.00	AVRG	
Bromomethane	47.740828	50.000000	0.4930397	0.1	4.52	20.00	LINR	
Carbon Disulfide	1.2210000	1.1280969	1.1280969	0.1	7.61	20.00	AVRG	
Carbon Tetrachloride	0.4140000	0.4273464	0.4273464	0.1	-3.22	20.00	AVRG	

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2106046

Instrument ID: VOA6 Calibration Date: 06/10/21 Time: 1335

Lab File ID: X061002 Init. Calib. Date(s): 05/26/21 05/26/21

Init. Calib. Times: 1234 1604

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Chlorobenzene	1.0410000	1.0288883	1.0288883	0.5	1.16	20.00	AVRG	
Chloroethane	43.328485	50.000000	0.3051375	0.1	13.34	20.00	LINR	
Chloroform	0.8790000	0.8356706	0.8356706	0.2	4.93	20.00	AVRG	
Chloromethane	46.231822	50.000000	0.4195272	0.1	7.54	20.00	LINR	
cis-1,2-Dichloroethene	0.5240000	0.5159609	0.5159609	0.1	1.53	20.00	AVRG	
Dibromochloromethane	0.4120000	0.4579653	0.4579653	0.1	-11.16	20.00	AVRG	
Dichlorodifluoromethane	55.120604	50.000000	0.5061417	0.1	-10.24	20.00	LINR	
Ethylbenzene	0.4800000	0.4956341	0.4956341	0.1	-3.26	20.00	AVRG	
Hexachlorobutadiene	65.961191	50.000000	0.4147822	0.1	-31.92	20.00	2RDR	<-
Isopropylbenzene	1.4670000	1.4543835	1.4543835	0.1	0.86	20.00	AVRG	
m,p-Xylenes	0.6260000	0.6272088	0.6272088	0.1	-0.19	20.00	AVRG	
Methylene Chloride	51.910258	50.000000	0.4702999	0.1	-3.82	20.00	LINR	
n-Butylbenzene	1.9450000	1.9566519	1.9566519	0.5	-0.60	20.00	AVRG	
n-Propylbenzene	3.1190000	2.9788682	2.9788682	0.1	4.49	20.00	AVRG	
Naphthalene	0.7140000	0.8509658	0.8509658	0.2	-19.18	20.00	AVRG	
o-Xylene	0.6100000	0.6101752	0.6101752	0.3	-0.03	20.00	AVRG	
sec-Butylbenzene	2.6250000	2.5085685	2.5085685	0.1	4.44	20.00	AVRG	
Styrene	1.0200000	1.0694778	1.0694778	0.3	-4.85	20.00	AVRG	
Vinyl Chloride	0.5920000	0.5537575	0.5537575	0.1	6.46	20.00	AVRG	
1,2,3-Trichloropropane	0.6230000	0.6859446	0.6859446	0.1	-10.10	20.00	AVRG	
p-Isopropyltoluene	2.3120000	2.2556767	2.2556767	0.1	2.44	20.00	AVRG	
1,2-Dibromo-3-Chloropropane	62.629981	50.000000	9.96e-002	0.05	-25.26	20.00	LINR	<-
1,2-Dichloroethane-d4	49.938133	50.000000	0.4770406	0.1	0.12	20.00	LINR	
Dibromofluoromethane	49.399952	50.000000	0.4862722	0.1	1.20	20.00	LINR	
Toluene-d8	1.2450000	1.2039976	1.2039976	0.1	3.29	20.00	AVRG	
4-Bromofluorobenzene	51.908517	50.000000	0.4561220	0.1	-3.82	20.00	LINR	

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060462

Instrument ID: VOA6 Calibration Date: 06/10/21 Time: 2303

Lab File ID: X061029 Init. Calib. Date(s): 05/26/21 05/26/21

Init. Calib. Times: 1234 1604

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
cis-1,3-Dichloropropene	0.5060000	0.5287883	0.5287883	0.2	-4.50	50.00	AVRG
trans-1,3-Dichloropropene	0.4370000	0.4656330	0.4656330	0.1	-6.55	50.00	AVRG
1,3-Dichlorobenzene	1.4100000	1.4053807	1.4053807	0.6	0.33	50.00	AVRG
2,2-Dichloropropane	0.6840000	0.5508490	0.5508490	0.1	19.47	50.00	AVRG
1,1-Dichloropropene	0.3830000	0.3924804	0.3924804	0.1	-2.48	50.00	AVRG
Dibromomethane	0.2210000	0.2304931	0.2304931	0.1	-4.30	50.00	AVRG
1,2-Dibromoethane	0.3680000	0.3781832	0.3781832	0.1	-2.77	50.00	AVRG
trans-1,2-Dichloroethene	0.4670000	0.4437570	0.4437570	0.1	4.98	50.00	AVRG
1,1,1,2-Tetrachloroethane	0.3700000	0.3891260	0.3891260	0.1	-5.17	50.00	AVRG
1,1,1-Trichloroethane	0.7390000	0.7399231	0.7399231	0.1	-0.12	50.00	AVRG
1,1,2,2-Tetrachloroethane	56.202214	50.000000	0.7744312	0.3	-12.40	50.00	LINR
1,1,2-Trichloroethane	0.2710000	0.2743257	0.2743257	0.1	-1.23	50.00	AVRG
1,1-Dichloroethane	0.7900000	0.7593658	0.7593658	0.2	3.88	50.00	AVRG
1,1-Dichloroethene	0.5150000	0.4655400	0.4655400	0.1	9.60	50.00	AVRG
Trichloroethene	0.3430000	0.3701653	0.3701653	0.2	-7.92	50.00	AVRG
1,2,3-Trichlorobenzene	0.3030000	0.3186258	0.3186258	0.01	-5.16	50.00	AVRG
Trichlorofluoromethane	0.9020000	0.8343424	0.8343424	0.1	7.50	50.00	AVRG
1,2,4-Trichlorobenzene	0.4940000	0.5369385	0.5369385	0.1	-8.69	50.00	AVRG
1,2,4-Trimethylbenzene	2.2800000	2.2174915	2.2174915	0.1	2.74	50.00	AVRG
Tetrachloroethene	0.3080000	0.3242770	0.3242770	0.2	-5.28	50.00	AVRG
1,2-Dichlorobenzene	1.3560000	1.3610699	1.3610699	0.4	-0.37	50.00	AVRG
1,2-Dichloroethane	0.3980000	0.4219422	0.4219422	0.1	-6.02	50.00	AVRG
1,2-Dichloropropane	0.2940000	0.3000266	0.3000266	0.1	-2.05	50.00	AVRG
1,3,5-Trimethylbenzene	2.2700000	2.1721189	2.1721189	0.1	4.31	50.00	AVRG
1,3-Dichloropropane	0.5390000	0.5487115	0.5487115	0.1	-1.80	50.00	AVRG
1,4-Dichlorobenzene	1.4720000	1.4394654	1.4394654	0.4	2.21	50.00	AVRG
Toluene	1.4600000	1.4177575	1.4177575	0.4	2.89	50.00	AVRG
2-Butanone	0.1520000	0.1577130	0.1577130	0.1	-3.76	50.00	AVRG
2-Chlorotoluene	1.8720000	1.8338707	1.8338707	0.1	2.04	50.00	AVRG
2-Hexanone	0.1860000	0.1961243	0.1961243	0.1	-5.44	50.00	AVRG
4-Chlorotoluene	2.2280000	2.1330179	2.1330179	0.1	4.26	50.00	AVRG
tert-Butylbenzene	1.9460000	1.9031629	1.9031629	0.1	2.20	50.00	AVRG
4-Methyl-2-Pentanone	0.2880000	0.2861061	0.2861061	0.1	0.66	50.00	AVRG
Acetone	99.440408	100.00000	0.1270387	0.1	0.56	50.00	LINR
Benzene	1.1480000	1.1707345	1.1707345	0.5	-1.98	50.00	AVRG
Bromobenzene	0.8300000	0.8710996	0.8710996	0.1	-4.95	50.00	AVRG
Bromochloromethane	0.3020000	0.3062474	0.3062474	0.1	-1.41	50.00	AVRG
Bromodichloromethane	0.4300000	0.4525584	0.4525584	0.2	-5.25	50.00	AVRG
Bromoform	0.2790000	0.3071108	0.3071108	0.1	-10.08	50.00	AVRG
Bromomethane	47.278303	50.000000	0.4882477	0.1	5.44	50.00	LINR
Carbon Disulfide	1.2210000	1.1009405	1.1009405	0.1	9.83	50.00	AVRG
Carbon Tetrachloride	0.4140000	0.4248958	0.4248958	0.1	-2.63	50.00	AVRG

FORM VII VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS2106046

Instrument ID: VOA6 Calibration Date: 06/10/21 Time: 2303

Lab File ID: X061029 Init. Calib. Date(s): 05/26/21 05/26/21

Init. Calib. Times: 1234 1604

GC Column: DB624 ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Chlorobenzene	1.0410000	1.0071498	1.0071498	0.5	3.25	50.00	AVRG
Chloroethane	44.852993	50.000000	0.3155339	0.1	10.29	50.00	LINR
Chloroform	0.8790000	0.8577260	0.8577260	0.2	2.42	50.00	AVRG
Chloromethane	48.017179	50.000000	0.4348206	0.1	3.96	50.00	LINR
cis-1,2-Dichloroethene	0.5240000	0.5231128	0.5231128	0.1	0.17	50.00	AVRG
Dibromochloromethane	0.4120000	0.4414092	0.4414092	0.1	-7.14	50.00	AVRG
Dichlorodifluoromethane	53.563021	50.000000	0.4918936	0.1	-7.13	50.00	LINR
Ethylbenzene	0.4800000	0.5060886	0.5060886	0.1	-5.44	50.00	AVRG
Hexachlorobutadiene	55.597429	50.000000	0.3454406	0.1	-11.19	50.00	2RDR
Isopropylbenzene	1.4670000	1.4683978	1.4683978	0.1	-0.10	50.00	AVRG
m,p-Xylenes	0.6260000	0.6297672	0.6297672	0.1	-0.60	50.00	AVRG
Methylene Chloride	51.570064	50.000000	0.4672947	0.1	-3.14	50.00	LINR
n-Butylbenzene	1.9450000	1.8480206	1.8480206	0.5	4.99	50.00	AVRG
n-Propylbenzene	3.1190000	3.0132871	3.0132871	0.1	3.39	50.00	AVRG
Naphthalene	0.7140000	0.7015773	0.7015773	0.2	1.74	50.00	AVRG
o-Xylene	0.6100000	0.6144913	0.6144913	0.3	-0.74	50.00	AVRG
sec-Butylbenzene	2.6250000	2.5399112	2.5399112	0.1	3.24	50.00	AVRG
Styrene	1.0200000	1.0604965	1.0604965	0.3	-3.97	50.00	AVRG
Vinyl Chloride	0.5920000	0.5664762	0.5664762	0.1	4.31	50.00	AVRG
1,2,3-Trichloropropane	0.6230000	0.6462248	0.6462248	0.1	-3.73	50.00	AVRG
p-Isopropyltoluene	2.3120000	2.2447958	2.2447958	0.1	2.91	50.00	AVRG
1,2-Dibromo-3-Chloropropane	56.716099	50.000000	9.01e-002	0.05	-13.43	50.00	LINR
1,2-Dichloroethane-d4	56.774825	50.000000	0.5414546	0.1	-13.55	50.00	LINR
Dibromofluoromethane	56.805730	50.000000	0.5589289	0.1	-13.61	50.00	LINR
Toluene-d8	1.2450000	1.3172028	1.3172028	0.1	-5.80	50.00	AVRG
4-Bromofluorobenzene	56.703004	50.000000	0.4988695	0.1	-13.41	50.00	LINR

FORM VII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060462

Lab File ID (Standard): X061002 Date Analyzed: 06/10/21

Instrument ID: VOA6 Time Analyzed: 1335

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS1(CBZ) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	658052	7.67	693138	4.96	366983	9.66
	UPPER LIMIT	1316104	8.17	1386276	5.46	733966	10.16
	LOWER LIMIT	329026	7.17	346569	4.46	183492	9.16
	CLIENT SAMPLE NO.						
01	VLCSW-210610	650427	7.67	685227	4.96	347302	9.66
02	VBLKW-210610	723375	7.67	849693	4.96	357687	9.66
03	HS21060222-01MS	792230	7.67	874189	4.96	427592	9.66
04	HS21060222-01MSD	801200	7.67	897642	4.96	422035	9.66
05	HS21060495-07MS	788043	7.67	882681	4.96	407282	9.66
06	HS21060495-07MSD	798182	7.67	889743	4.96	422357	9.66
07	HS21060462-03	743487	7.67	857450	4.96	368507	9.66
08	HS21060462-01	741911	7.67	845753	4.96	381353	9.66
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS LABORATORY GROUP Contract:

Lab Code: ALS-HS Case No.: SAS No.: SDG No.: HS21060462

Lab File ID (Standard): X061002 Date Analyzed: 06/10/21

Instrument ID: VOA6 Time Analyzed: 1335

GC Column: DB624 ID: 0.18 (mm) Heated Purge: (Y/N) N

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	484965	4.18				
	UPPER LIMIT	969930	4.68				
	LOWER LIMIT	242483	3.68				
	CLIENT SAMPLE NO.						
01	VLCSW-210610	471015	4.18				
02	VBLKW-210610	626574	4.18				
03	HS21060222-01MS	643046	4.18				
04	HS21060222-01MSD	649999	4.18				
05	HS21060495-07MS	646740	4.18				
06	HS21060495-07MSD	650699	4.18				
07	HS21060462-03	631829	4.18				
08	HS21060462-01	623468	4.18				
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS4 = Pentafluorobenzene

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

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061001.D

Date : 10-JUN-2021 13:14

Client ID: BFB

Instrument: voa6.i

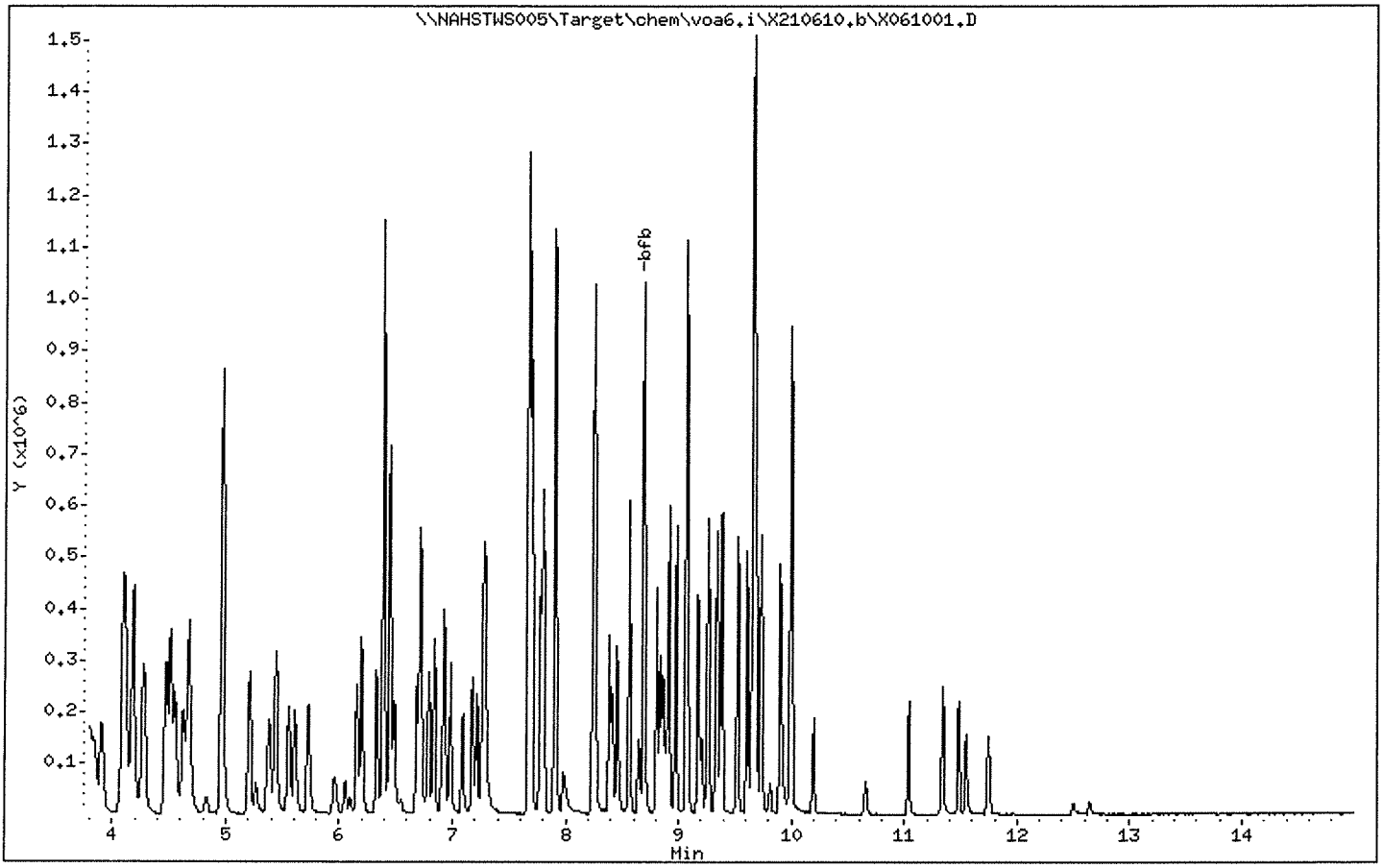
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061001.D

Date : 10-JUN-2021 13:14

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

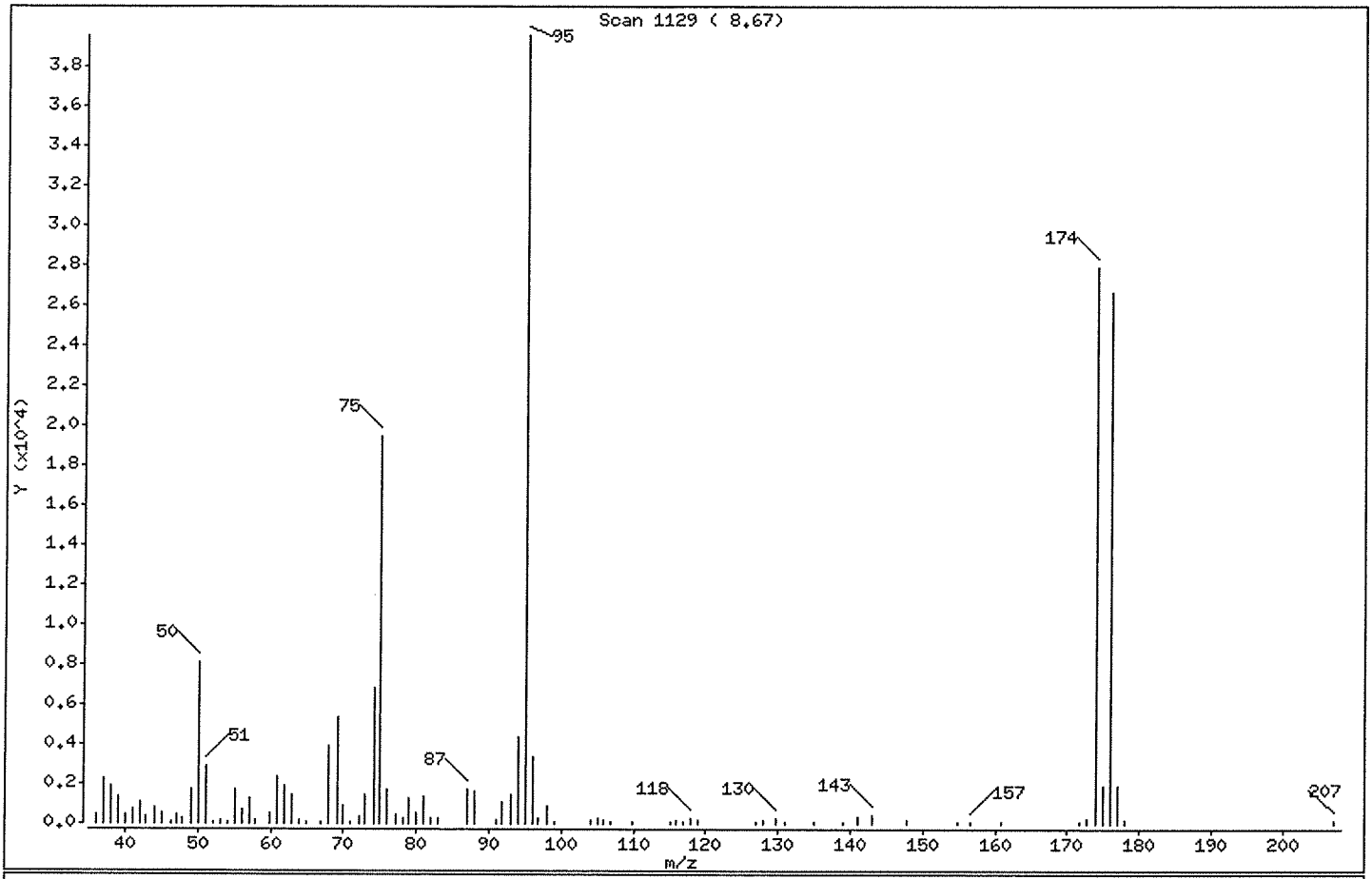
Volume Injected (uL): 2.0

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	20.41
75	30.00 - 60.00% of mass 95	49.21
96	5.00 - 9.00% of mass 95	8.54
173	Less than 2.00% of mass 174	0.62 (0.88)
174	Greater than 50.00% of mass 95	70.48
175	5.00 - 9.00% of mass 174	4.89 (6.94)
176	95.00 - 101.00% of mass 174	67.29 (95.47)
177	5.00 - 9.00% of mass 176	4.88 (7.25)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061001.D

Date : 10-JUN-2021 13:14

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: X061001.D
Spectrum: Scan 1129 (8.67)
Location of Maximum: 95.00
Number of points: 87

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	429	57.90	203	81.90	259	118.90	224
37.00	2302	59.90	526	83.10	296	126.90	129
38.00	1951	61.00	2338	87.00	1719	128.00	208
39.00	1359	62.00	1891	88.00	1666	129.80	249
40.00	468	63.00	1430	90.90	210	131.00	81
41.10	759	64.00	212	91.90	1102	135.00	84
42.10	1073	64.90	125	93.00	1458	138.90	60
42.90	364	67.00	136	94.00	4391	141.10	320
44.10	834	68.00	3931	95.00	39568	143.00	456
45.10	503	69.10	5405	96.00	3379	147.80	142
46.30	119	70.00	923	96.90	308	154.90	76
47.00	494	71.00	113	98.00	868	156.70	124
47.90	316	72.10	387	99.00	56	160.80	59
49.00	1766	73.00	1450	104.00	165	171.70	72
50.00	8076	74.10	6803	105.00	282	172.80	245
51.10	2950	75.00	19472	105.90	179	173.90	27888
52.00	108	76.00	1737	106.80	52	174.90	1936
53.10	180	77.10	452	109.80	53	175.90	26624
54.20	129	78.10	250	115.10	104	176.90	1929
55.10	1720	78.90	1266	115.80	139	177.90	169
56.00	760	79.90	535	116.90	121	207.10	140
57.10	1232	80.90	1377	117.90	299		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061002.D Page 1
Report Date: 26-Aug-2021 12:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061002.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 10-JUN-2021 13:35
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\8260W.m
Meth Date : 26-Aug-2021 12:42 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

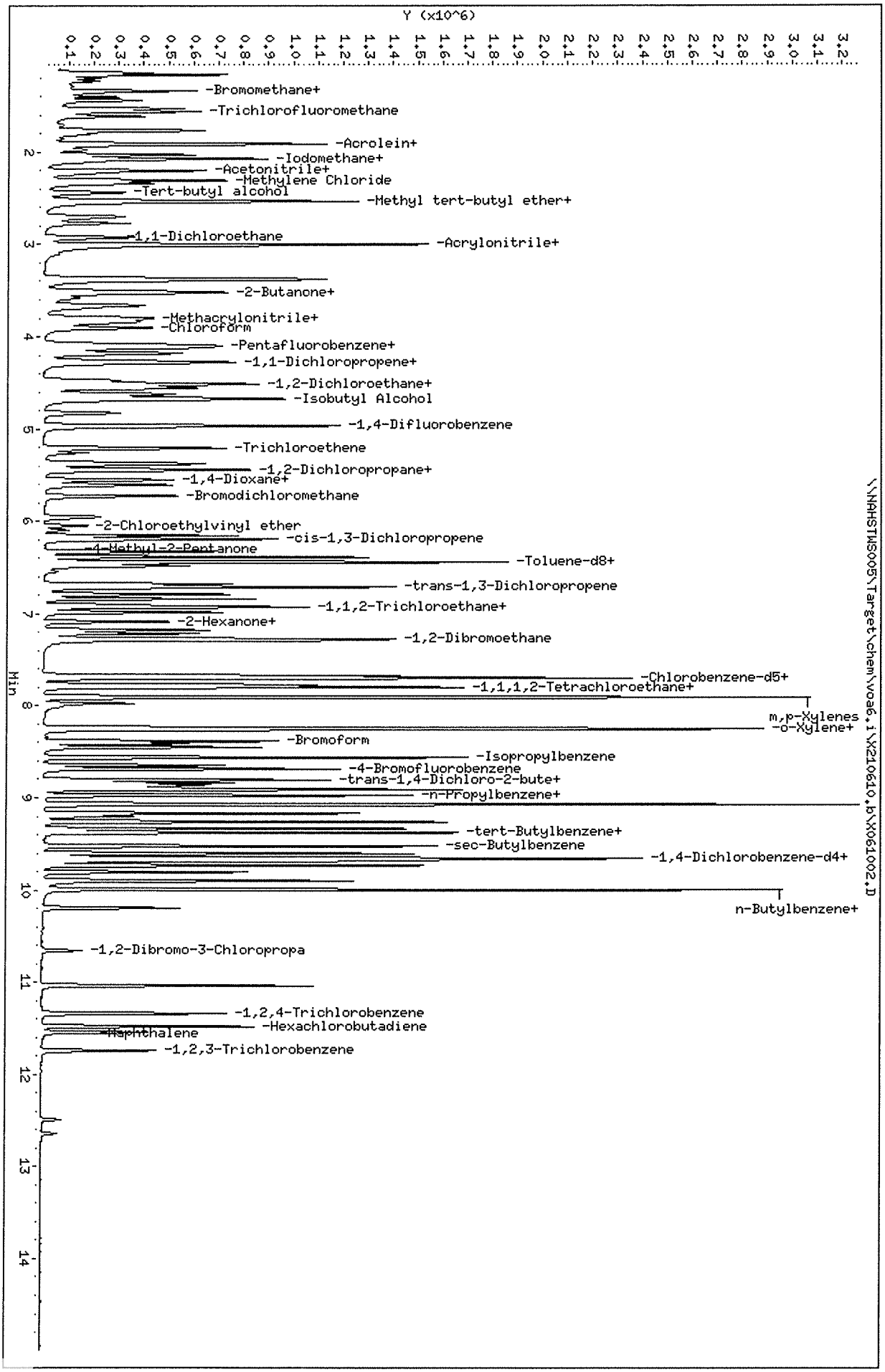
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.182	4.182	(1.000)	484965	50.0000	
* 36	1,4-Difluorobenzene	114	4.963	4.963	(1.000)	693138	50.0000	
* 47	Chlorobenzene-d5	117	7.671	7.671	(1.000)	658052	50.0000	
* 70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	366983	50.0000	
$ 30	Dibromofluoromethane	113	4.096	4.096	(0.979)	235825	50.0000	49.39
$ 35	1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	231348	50.0000	49.93
$ 48	Toluene-d8	98	6.388	6.388	(0.833)	792293	50.0000	48.33
$ 69	4-Bromofluorobenzene	95	8.688	8.688	(1.133)	300152	50.0000	51.90
60	1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	263348	50.0000	54.11
31	1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	337137	50.0000	47.04
68	1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	300229	50.0000	59.43
53	1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	188953	50.0000	53.00
22	1,1-Dichloroethane	63	2.922	2.922	(0.699)	367764	50.0000	47.96
11	1,1-Dichloroethene	96	1.912	1.912	(0.457)	221974	50.0000	44.43
32	1,1-Dichloropropene	75	4.283	4.283	(0.863)	272827	50.0000	51.39
93	1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	138009	50.0000	62.12
71	1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	251730	50.0000	55.01(M)
90	1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	224671	50.0000	61.92
79	1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	812342	50.0000	48.53
89	1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	36538	50.0000	62.62
57	1,2-Dibromoethane	107	7.262	7.262	(0.947)	255289	50.0000	52.69
88	1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	507287	50.0000	50.96

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061002.D Page 2
Report Date: 26-Aug-2021 12:42

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	300205	50.0000	54.35
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	216336	50.0000	53.02
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	784854	50.0000	47.11
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	523814	50.0000	50.60
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	368490	50.0000	51.98
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	539622	50.0000	49.95
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	328724	50.0000	49.54
24	2-Butanone	43	3.581	3.581	(0.856)	155591	100.000	105.45
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	670802	50.0000	48.83
52	2-Hexanone	43	7.090	7.090	(0.924)	268940	100.000	110.02
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	780632	50.0000	47.72
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	827795	50.0000	48.78
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	389893	100.000	102.88
10	Acetone	43	1.976	1.976	(0.473)	125835	100.000	101.67
37	Benzene	78	4.512	4.512	(0.909)	838085	50.0000	52.63
74	Bromobenzene	156	8.802	8.802	(0.911)	322977	50.0000	53.04
29	Bromochloromethane	128	3.795	3.795	(0.908)	147958	50.0000	50.45
39	Bromodichloromethane	83	5.722	5.722	(1.153)	321336	50.0000	53.92
66	Bromoform	173	8.408	8.408	(1.096)	213119	50.0000	58.07
6	Bromomethane	94	1.339	1.339	(0.320)	239107	50.0000	47.74
19	Carbon Disulfide	76	2.069	2.069	(0.495)	1094175	100.000	92.36
34	Carbon Tetrachloride	117	4.261	4.261	(0.859)	296210	50.0000	51.55
59	Chlorobenzene	112	7.692	7.692	(1.003)	677062	50.0000	49.42
7	Chloroethane	64	1.403	1.403	(0.336)	147981	50.0000	43.32 (M)
28	Chloroform	83	3.910	3.910	(0.935)	405271	50.0000	47.52
3	Chloromethane	50	1.073	1.073	(0.257)	203456	50.0000	46.23
27	cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	250223	50.0000	49.22
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	390982	50.0000	55.68
55	Dibromochloromethane	129	7.176	7.176	(0.936)	301365	50.0000	55.64
44	Dibromomethane	93	5.550	5.550	(1.118)	166575	50.0000	54.32
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	245461	50.0000	55.12
61	Ethylbenzene	106	7.800	7.800	(1.017)	326153	50.0000	51.60
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	152218	50.0000	65.96
67	Isopropylbenzene	105	8.559	8.559	(1.116)	957060	50.0000	49.56
62	m,p-Xylenes	106	7.907	7.907	(1.031)	825472	100.000	100.19
17	Methylene Chloride	84	2.306	2.306	(0.551)	228079	50.0000	51.91
87	n-Butylbenzene	91	9.991	9.991	(1.034)	718058	50.0000	50.29
73	n-Propylbenzene	91	8.910	8.910	(0.922)	1093194	50.0000	47.75
92	Naphthalene	128	11.539	11.539	(1.194)	312290	50.0000	59.54
63	o-Xylene	106	8.244	8.244	(1.075)	401527	50.0000	49.98
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	920602	50.0000	47.77
64	Styrene	104	8.258	8.258	(1.077)	703772	50.0000	52.42
78	tert-Butylbenzene	119	9.340	9.340	(0.967)	685751	50.0000	48.01
56	Tetrachloroethene	164	6.926	6.926	(0.903)	212888	50.0000	52.55
50	Toluene	91	6.446	6.446	(0.840)	939843	50.0000	48.92
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	211261	50.0000	46.65
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	342803	50.0000	56.59
38	Trichloroethene	130	5.207	5.207	(1.049)	260935	50.0000	54.84
8	Trichlorofluoromethane	101	1.561	1.561	(0.373)	387098	50.0000	44.21
5	Vinyl Chloride	62	1.138	1.138	(0.272)	268553	50.0000	46.78

QC Flag Legend

M - Compound response manually integrated.

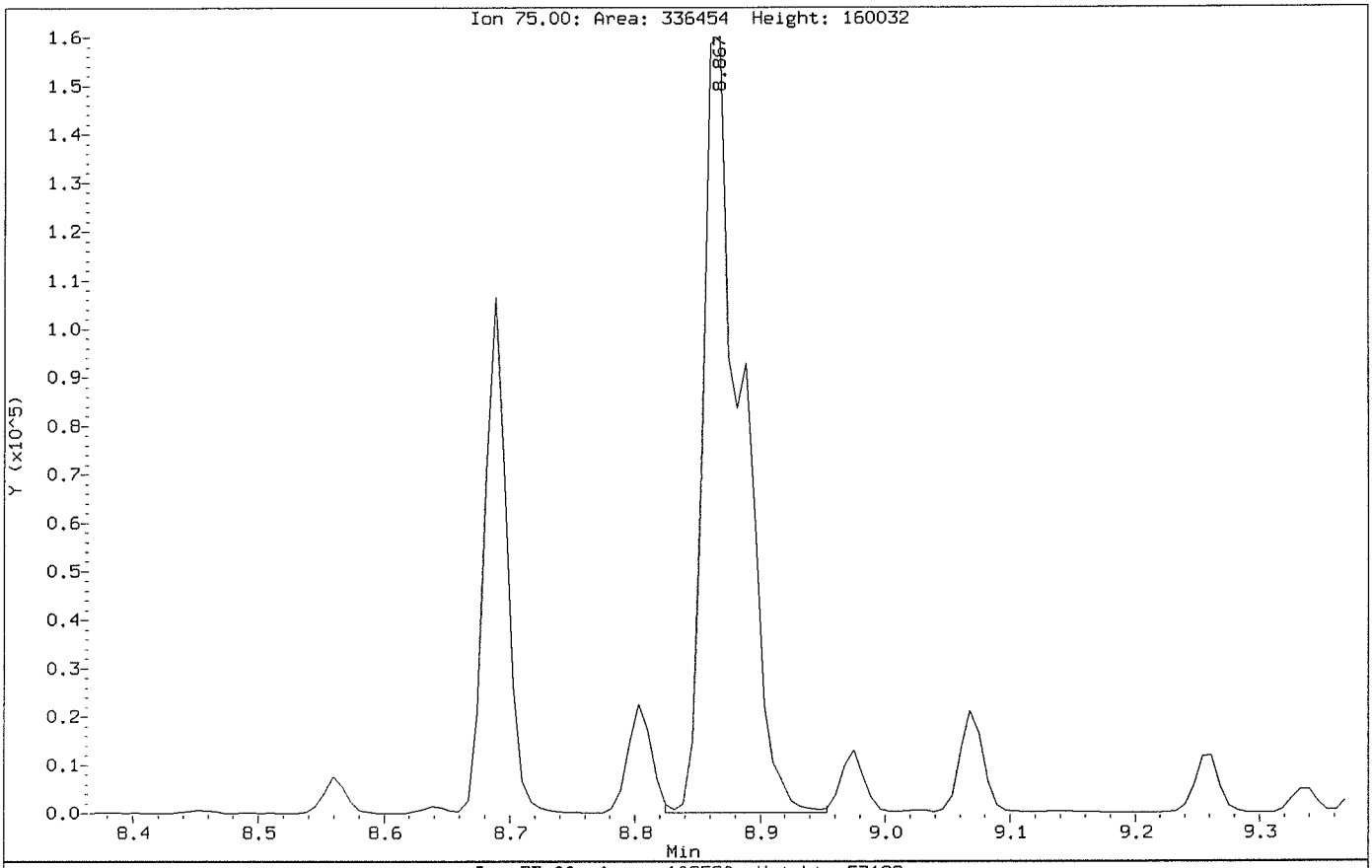


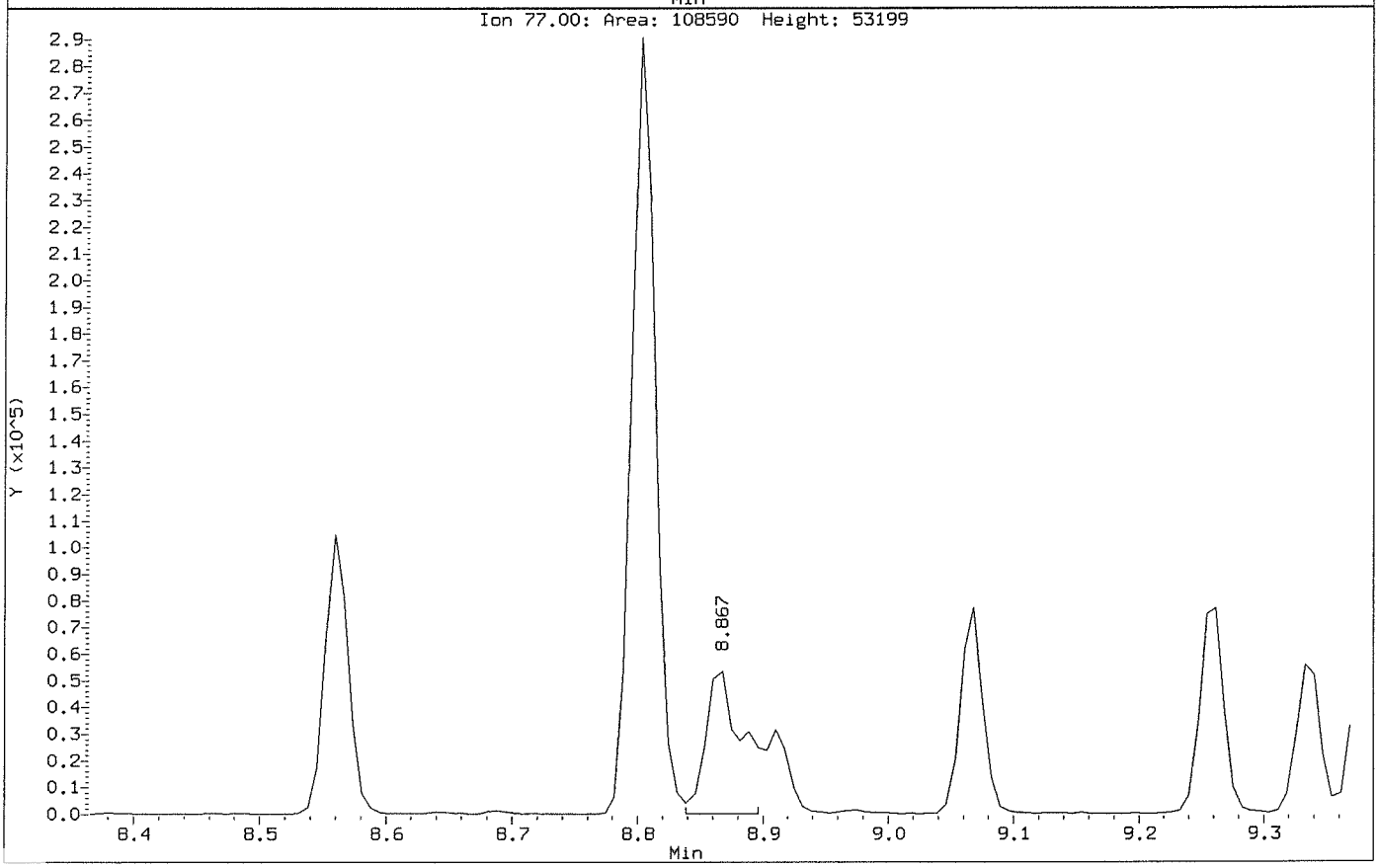
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Purge Volume: 5.0
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Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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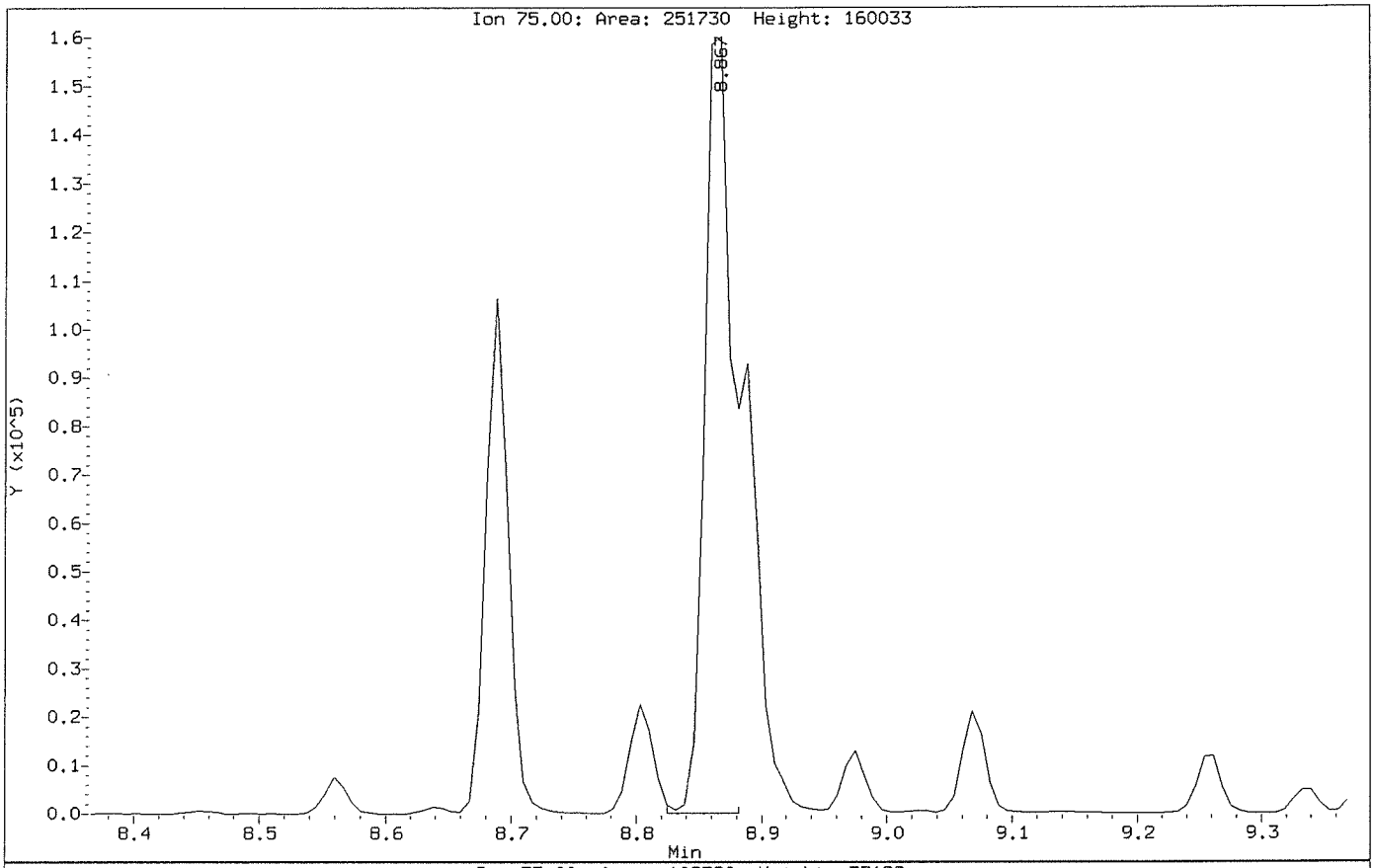
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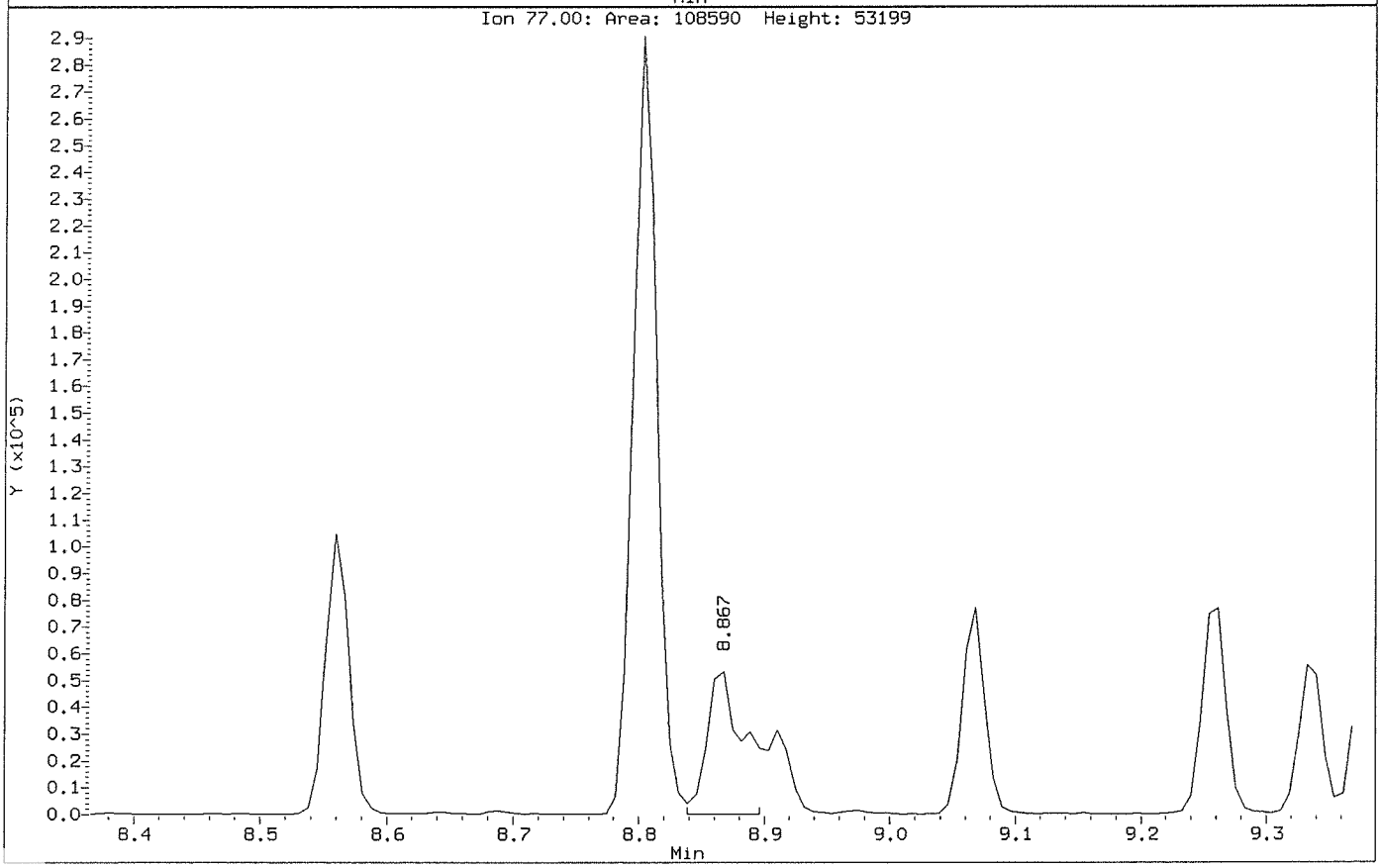




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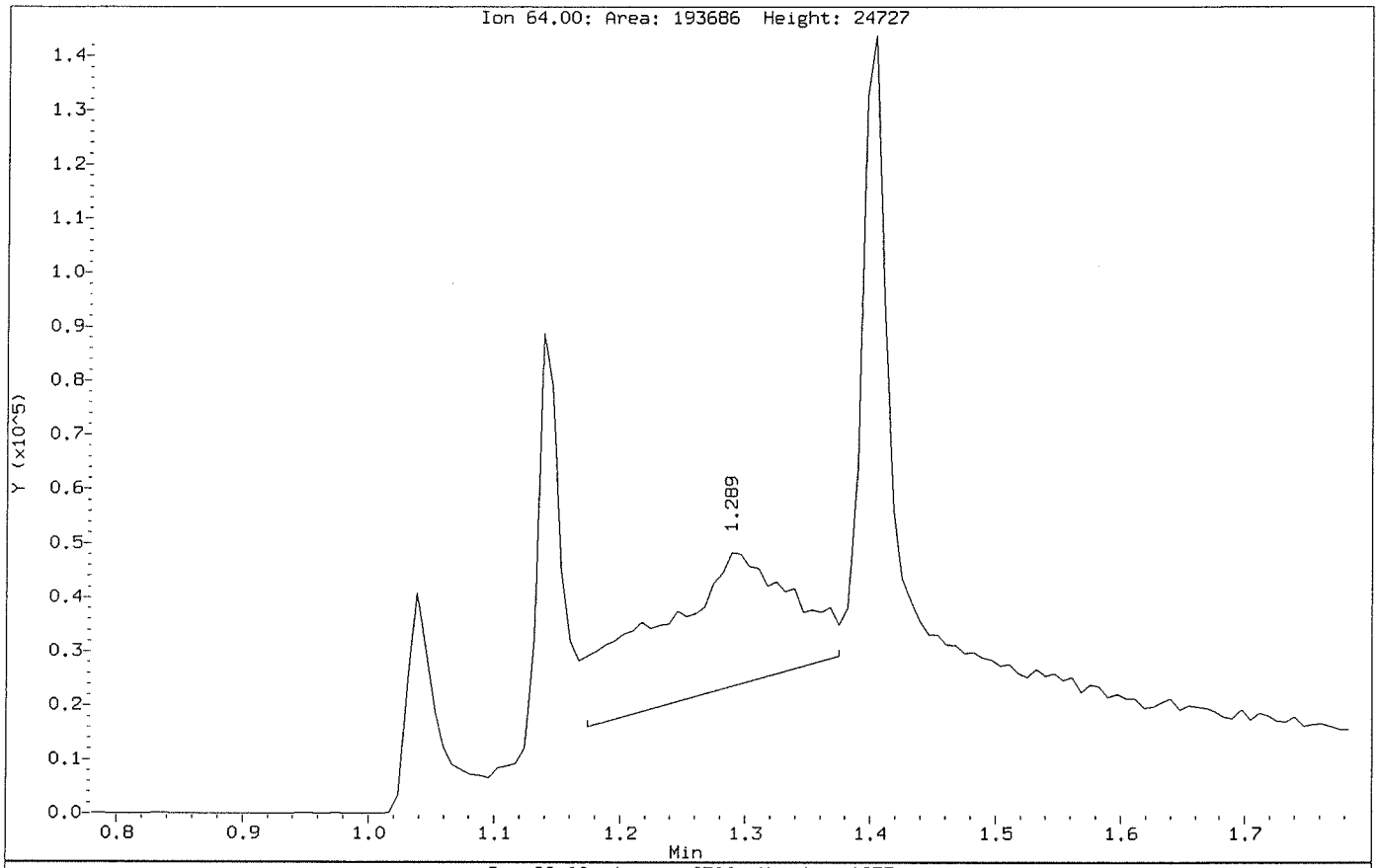
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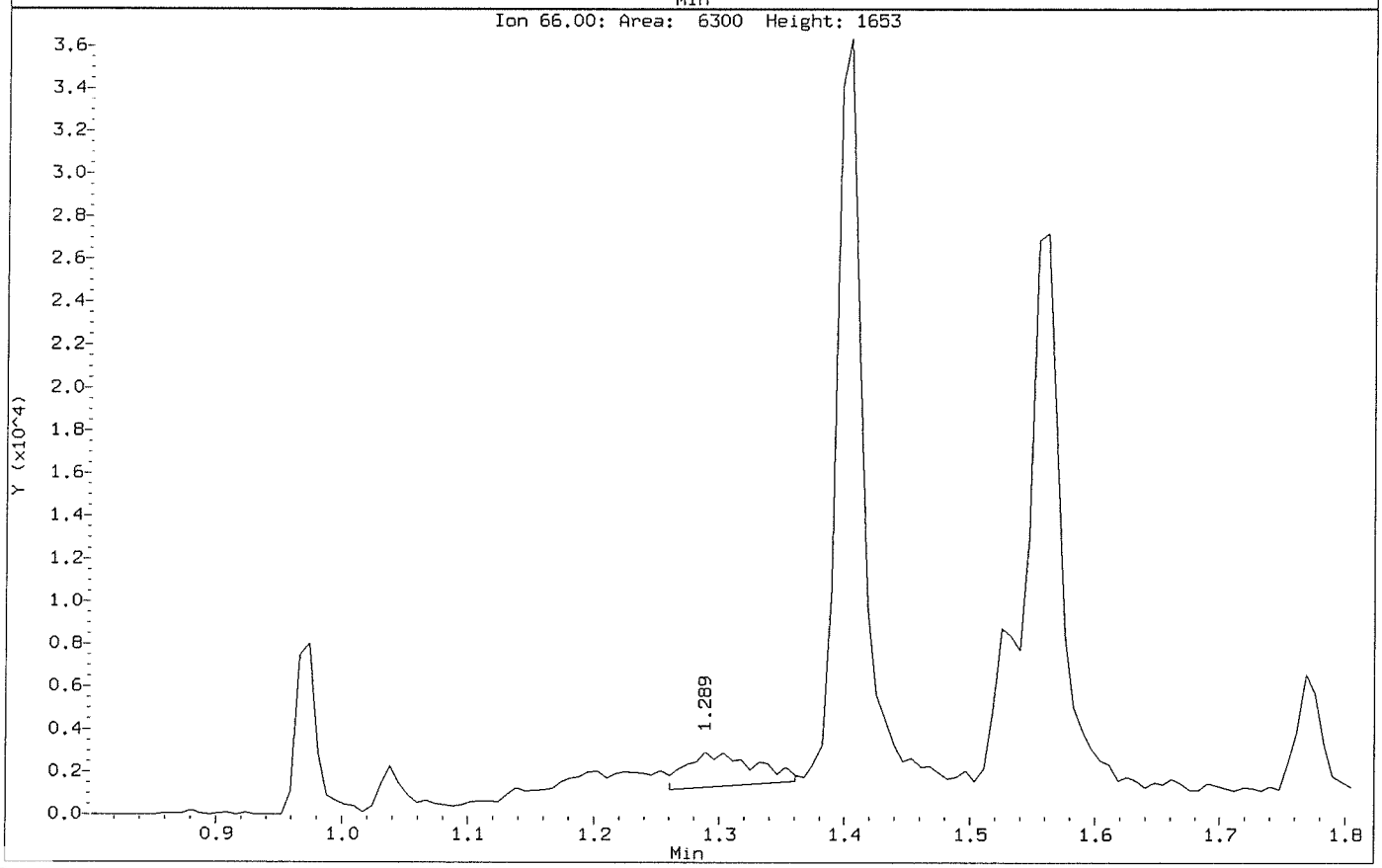




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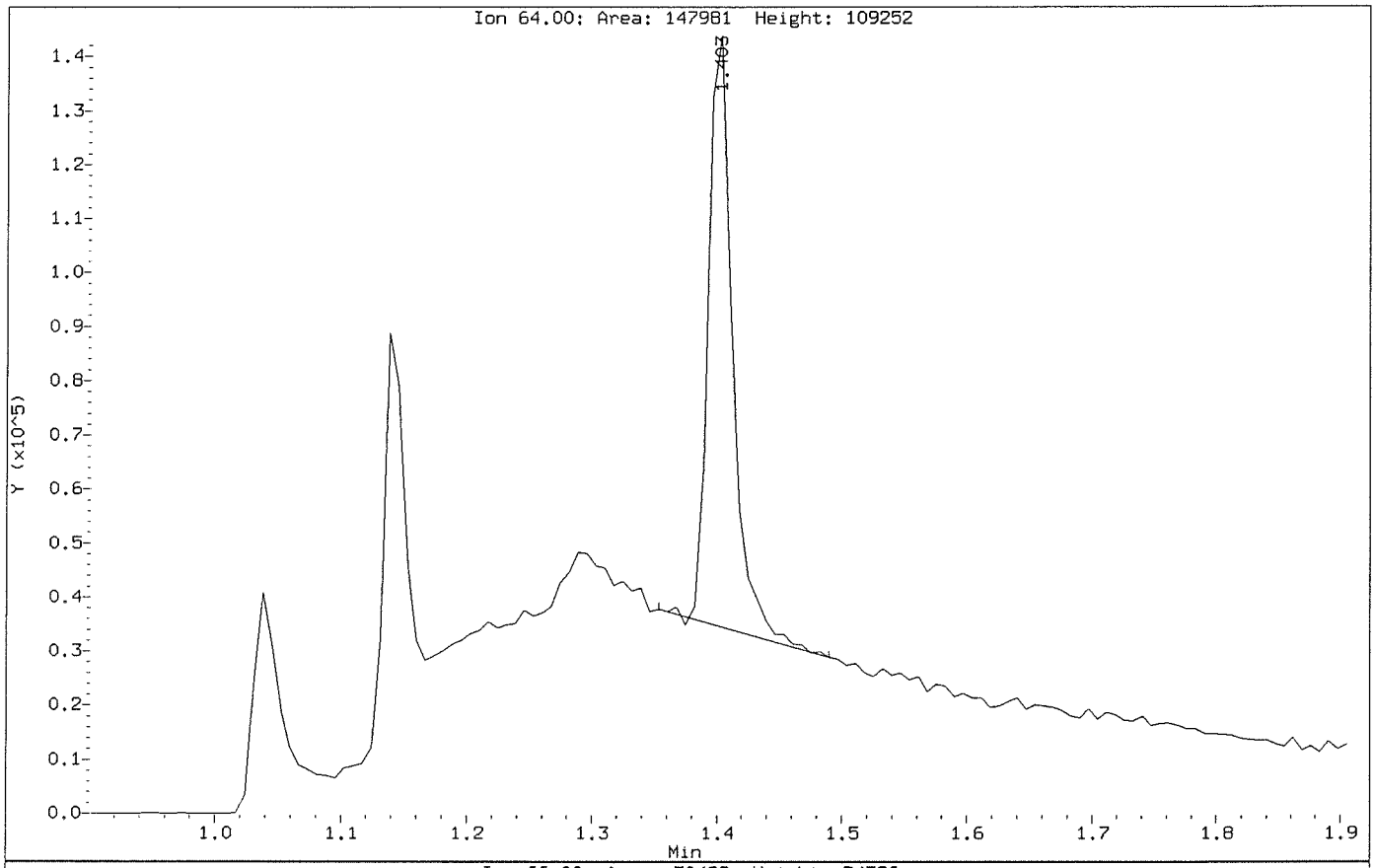
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CAS Number: 75-00-3

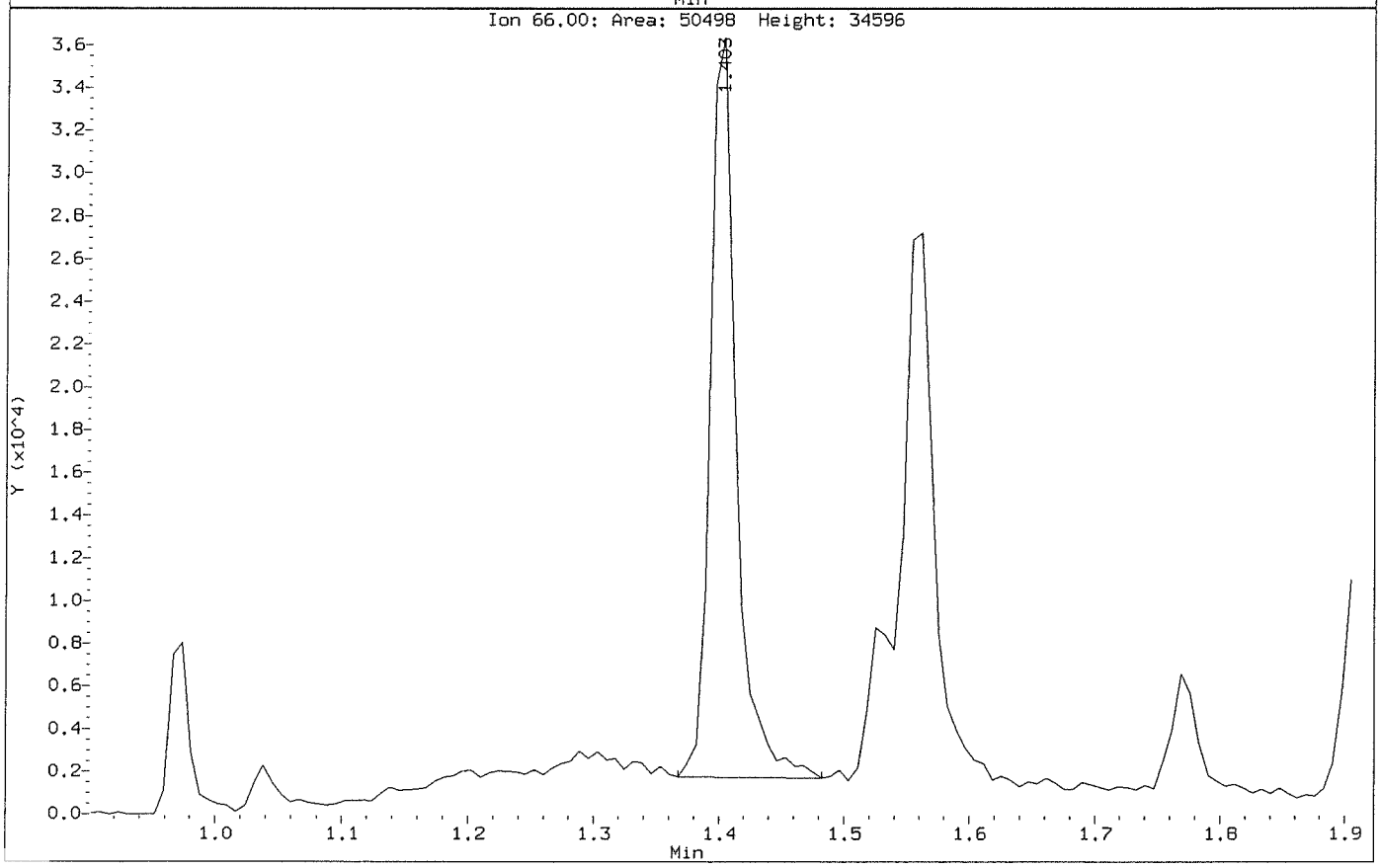




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Instrument: voa6.i
Client Sample ID: CCV

Compound: Chloroethane
CAS Number: 75-00-3





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061006.D
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Inj Date : 10-JUN-2021 14:59
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-210610;VLCSW-210610;3;;LCS
Misc Info : HS18090001;WATER;0;1;
Comment :
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Meth Date : 26-Aug-2021 12:42 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

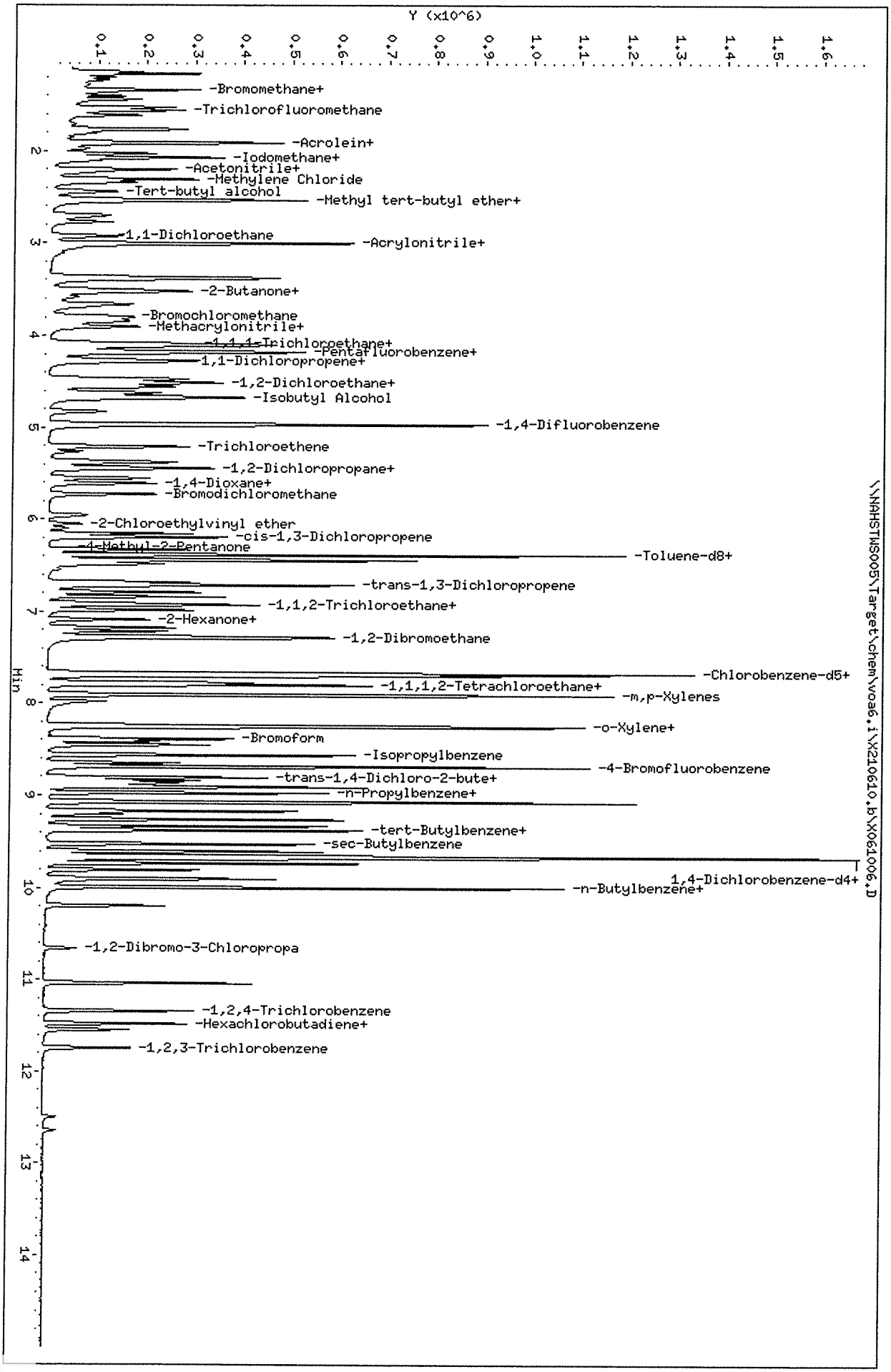
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	471015	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	685227	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	650427	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	347302	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	219683	47.3748	47.37
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	226941	50.4446	50.44
$	48 Toluene-d8	98	6.388	6.388	(0.833)	731704	45.1622	45.16
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	274549	48.0933	48.09
	60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	104281	21.6795	21.67
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	137864	19.8060	19.80
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	124306	25.3314	25.33
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	77943	22.1215	22.12
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	149298	20.0498	20.04
	11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	91109	18.7786	18.77
	32 1,1-Dichloropropene	75	4.282	4.283	(0.863)	109700	20.9029	20.90
	93 1,2,3-Trichlorobenzene	180	11.746	11.739	(1.216)	61790	29.3889	29.38
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	103045	23.7979	23.79(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	88668	25.8227	25.82(M)
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	311688	19.6765	19.67
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	14998	27.4553	27.45(M)
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	107706	22.4916	22.49
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	198484	21.0702	21.07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	124180	22.7448	22.74
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	89753	22.2520	22.25
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	299792	19.0168	19.01
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	205110	20.9382	20.93
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	152544	21.7730	21.77
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	217534	21.2806	21.28
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	133285	20.6834	20.68
24	2-Butanone	43	3.581	3.581	(0.856)	63559	44.3525	44.35
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	263930	20.3033	20.30
52	2-Hexanone	43	7.090	7.090	(0.924)	111554	46.1703	46.17
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	301928	19.5035	19.50
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	302459	18.8347	18.83
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	166779	44.5276	44.52
10	Acetone	43	1.976	1.976	(0.473)	52373	40.1650	40.16
37	Benzene	78	4.512	4.512	(0.909)	334958	21.2784	21.27
74	Bromobenzene	156	8.802	8.802	(0.911)	126001	21.8668	21.86
29	Bromochloromethane	128	3.795	3.795	(0.908)	60894	21.3810	21.38
39	Bromodichloromethane	83	5.729	5.722	(1.154)	128934	21.8873	21.88
66	Bromoform	173	8.408	8.408	(1.096)	85117	23.4681	23.46
6	Bromomethane	94	1.338	1.339	(0.320)	110288	22.7528	22.75
19	Carbon Disulfide	76	2.069	2.069	(0.495)	436035	37.8975	37.89
34	Carbon Tetrachloride	117	4.268	4.261	(0.860)	118789	20.9124	20.91
59	Chlorobenzene	112	7.692	7.692	(1.003)	267675	19.7690	19.76
7	Chloroethane	64	1.403	1.403	(0.336)	62128	17.9255	17.92(M)
28	Chloroform	83	3.910	3.910	(0.935)	167312	20.1992	20.19
3	Chloromethane	50	1.073	1.073	(0.257)	84155	18.1138	18.11
27	cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	105615	21.3931	21.39
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	155792	22.4437	22.44
55	Dibromochloromethane	129	7.176	7.176	(0.936)	119575	22.3363	22.33
44	Dibromomethane	93	5.550	5.550	(1.118)	69126	22.8050	22.80
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	97410	22.3979	22.39
61	Ethylbenzene	106	7.800	7.800	(1.017)	125813	20.1410	20.14
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	53301	25.8629	25.86(M)
67	Isopropylbenzene	105	8.559	8.559	(1.116)	355201	18.6105	18.61
62	m,p-Xylenes	106	7.907	7.907	(1.031)	313685	38.5214	38.52
17	Methylene Chloride	84	2.305	2.306	(0.551)	93198	21.0703	21.07
87	n-Butylbenzene	91	9.991	9.991	(1.034)	252000	18.6515	18.65
73	n-Propylbenzene	91	8.910	8.910	(0.922)	408013	18.8336	18.83
92	Naphthalene	128	11.546	11.539	(1.195)	139834	28.1749	28.17(M)
63	o-Xylene	106	8.244	8.244	(1.075)	158051	19.9047	19.90
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	332322	18.2225	18.22
64	Styrene	104	8.258	8.258	(1.077)	268880	20.2645	20.26
78	tert-Butylbenzene	119	9.332	9.340	(0.966)	248860	18.4133	18.41
56	Tetrachloroethene	164	6.926	6.926	(0.903)	83611	20.8815	20.88
50	Toluene	91	6.446	6.446	(0.840)	375256	19.7622	19.76
20	trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	86532	19.6753	19.67
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	136649	22.8198	22.81
38	Trichloroethene	130	5.207	5.207	(1.049)	104002	22.1140	22.11
8	Trichlorofluoromethane	101	1.561	1.561	(0.373)	157205	18.4899	18.48
5	Vinyl Chloride	62	1.138	1.138	(0.272)	109155	19.5777	19.57

QC Flag Legend

M - Compound response manually integrated.

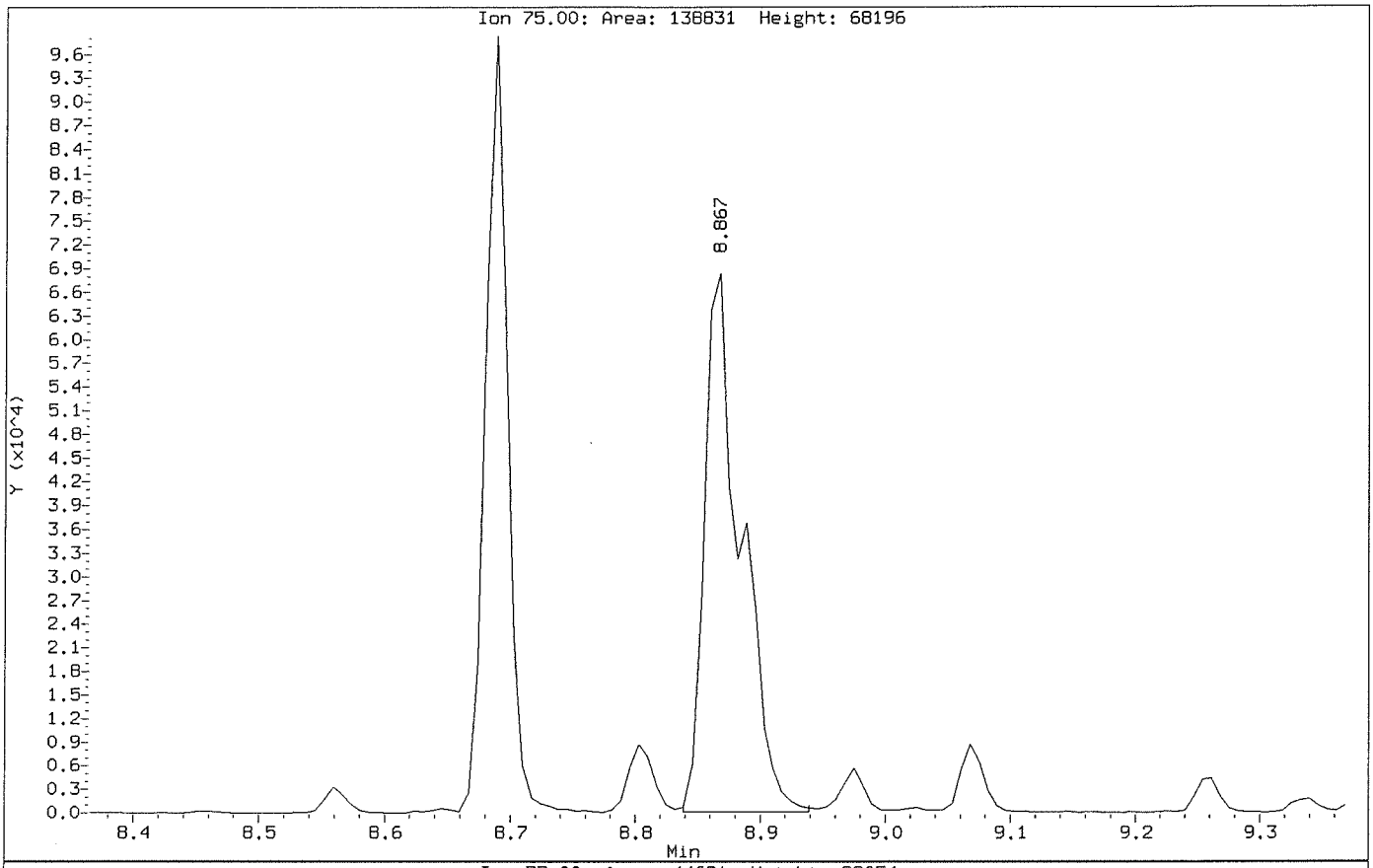


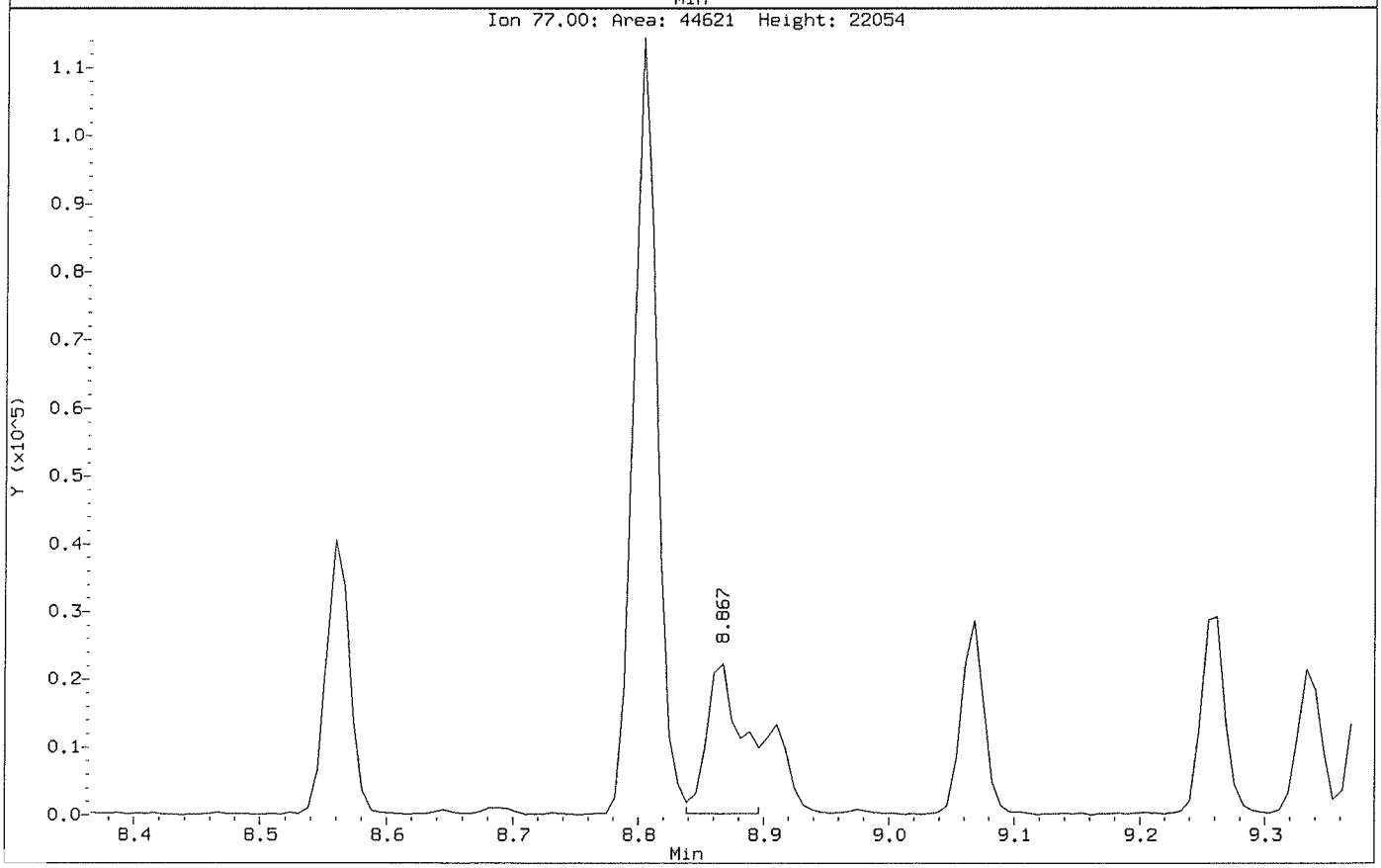
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Sample Info: VLCSW-210610;VLCSW-210610;3;;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\Before\X061006.D
Injection Date: 10-JUN-2021 14:59
Instrument: voa6.i
Client Sample ID: VLCSW-210610

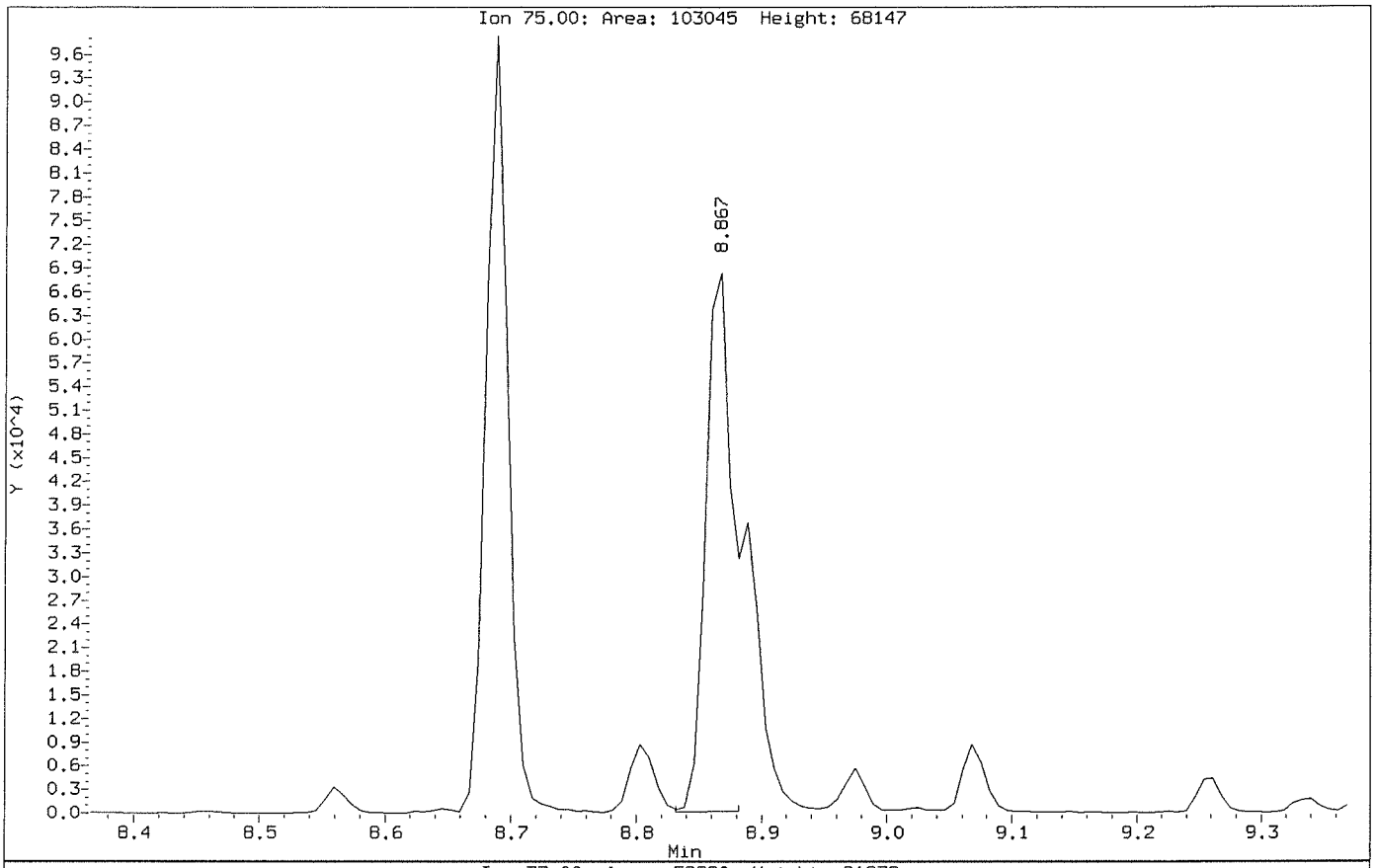
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

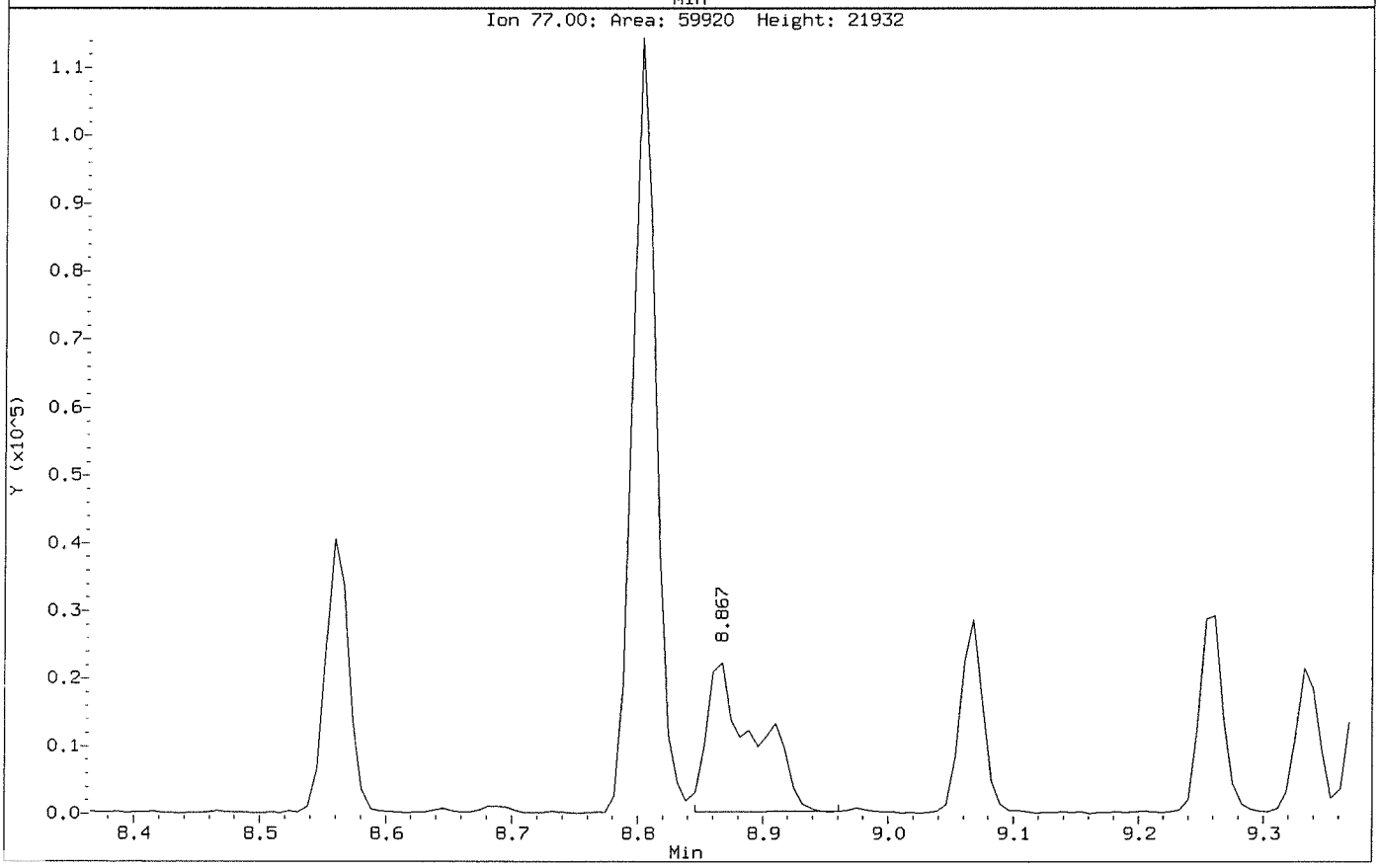




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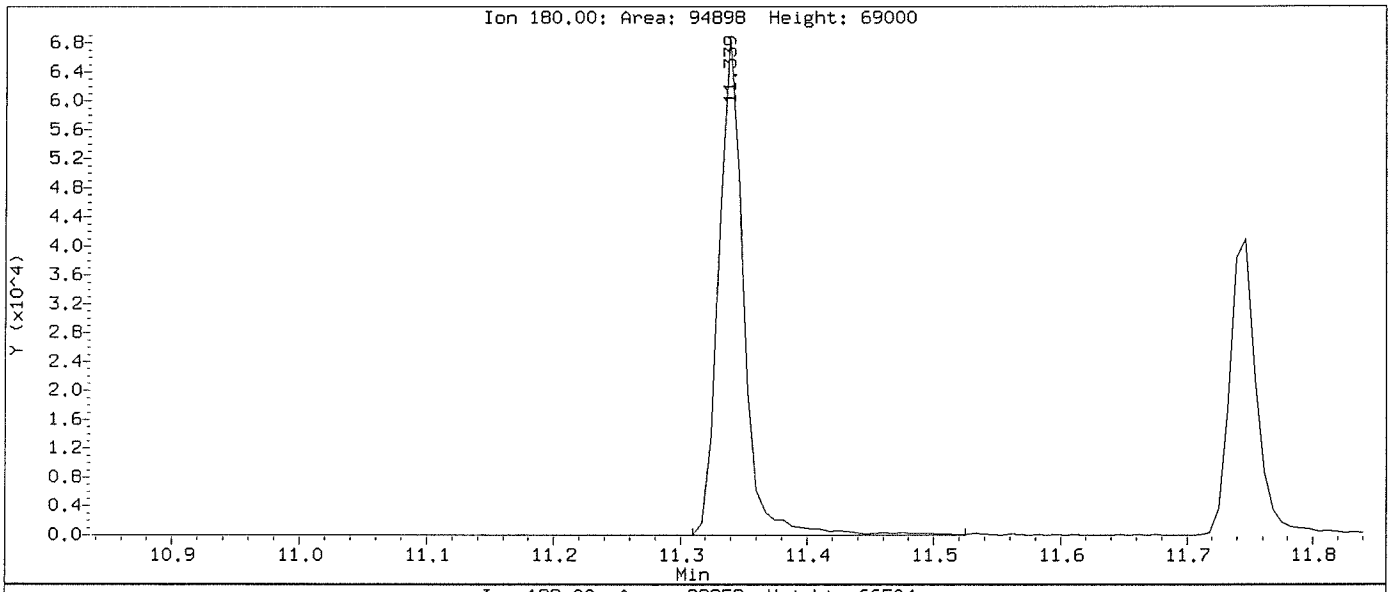
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

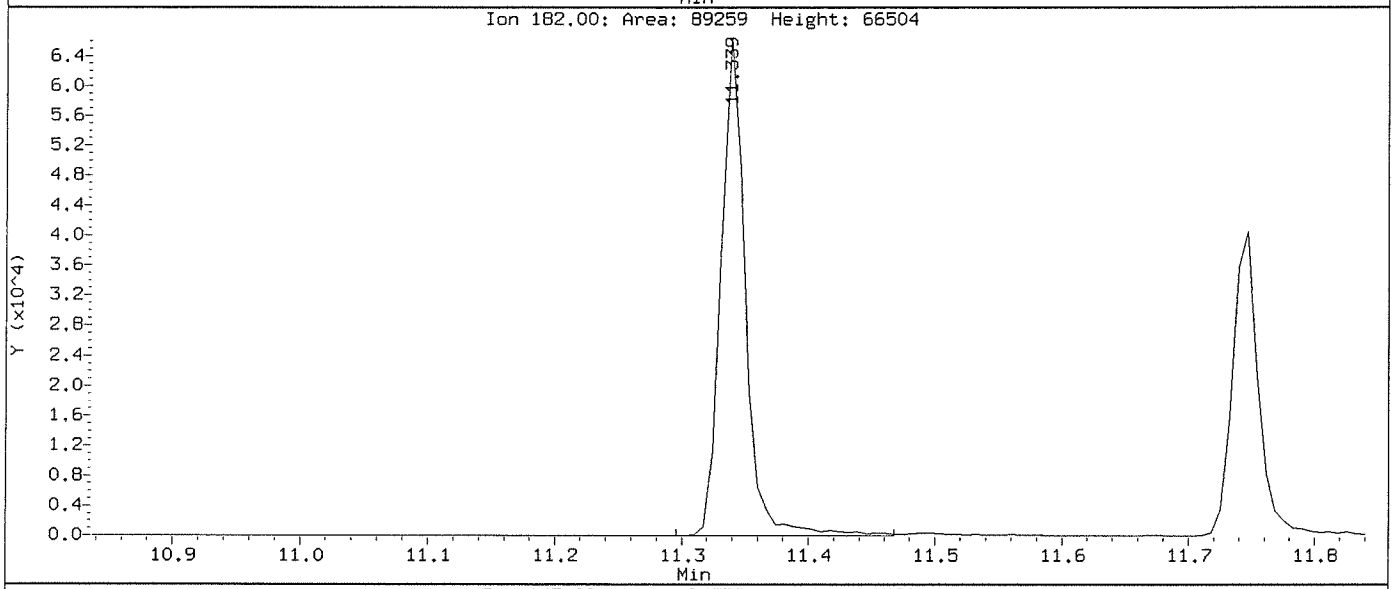


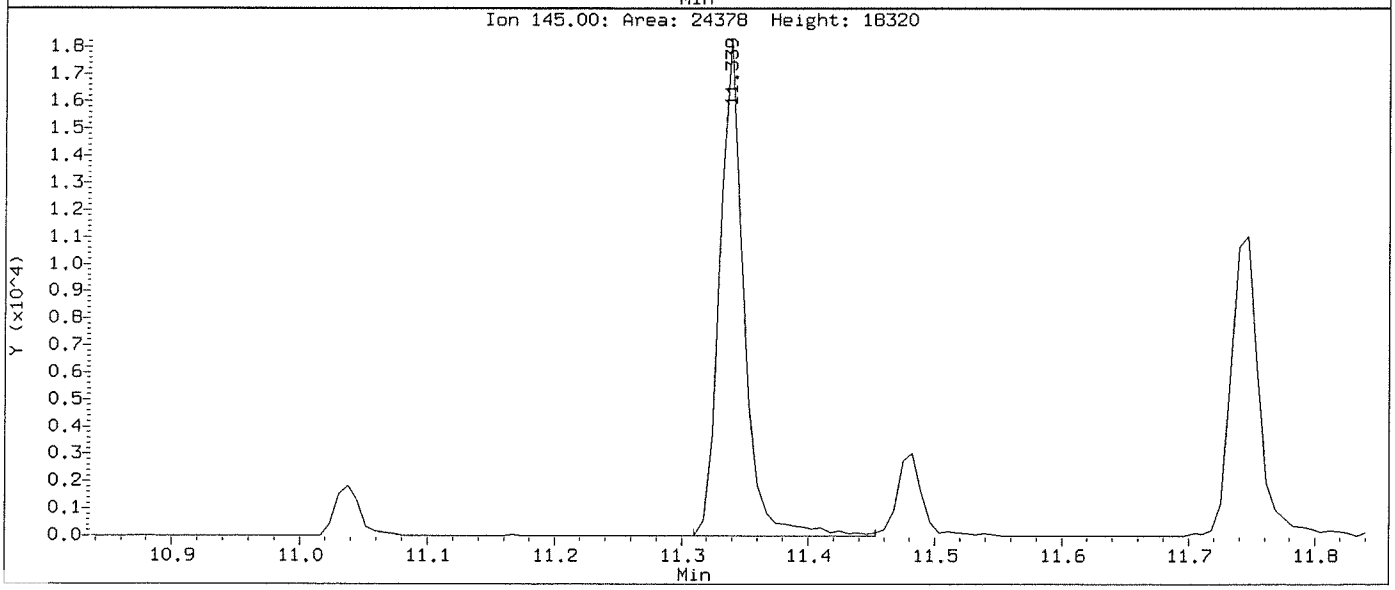


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Injection Date: 10-JUN-2021 14:59
Instrument: voa6.i
Client Sample ID: VLCSW-210610

Compound: 1,2,4-Trichlorobenzene
CAS Number: 120-82-1

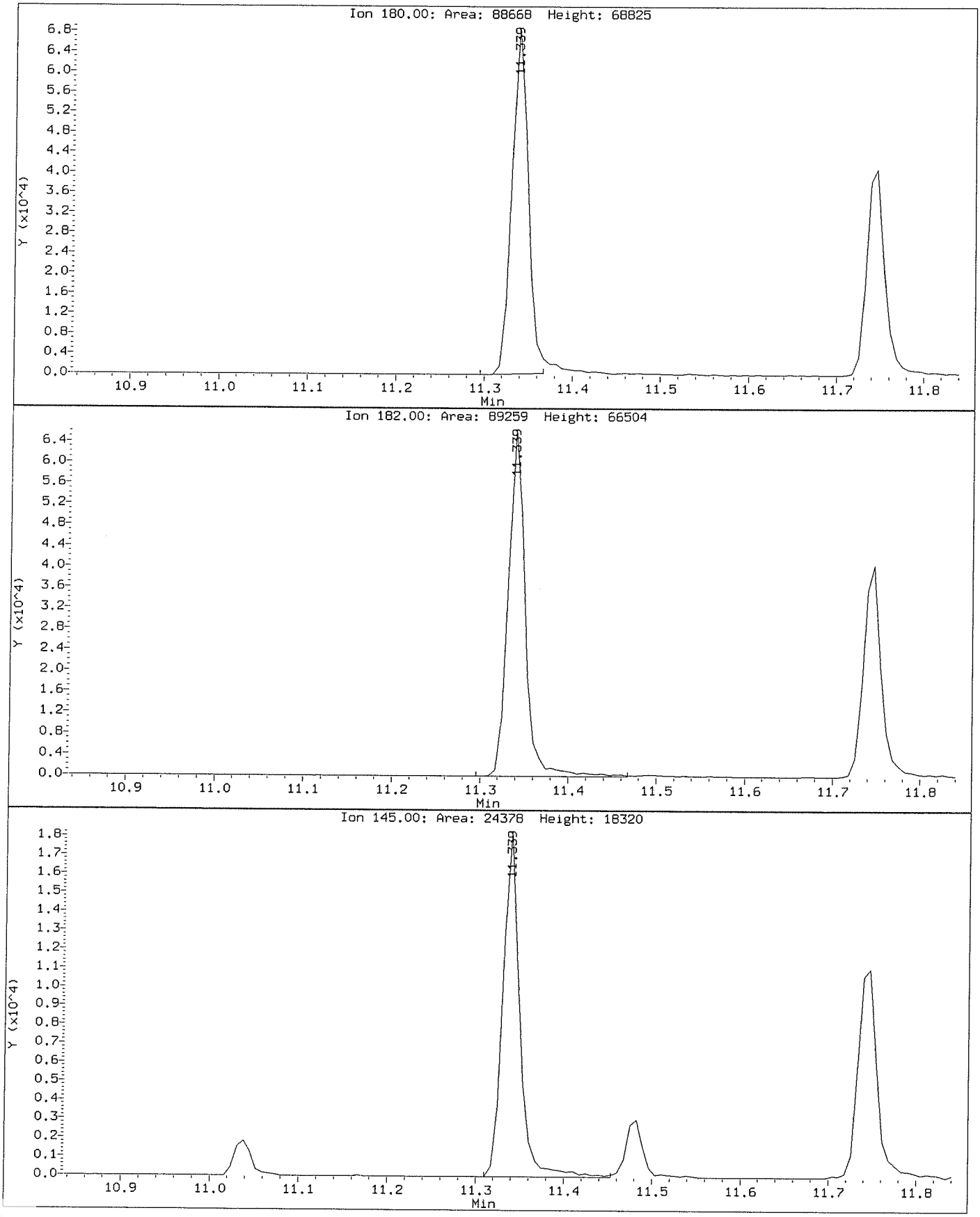






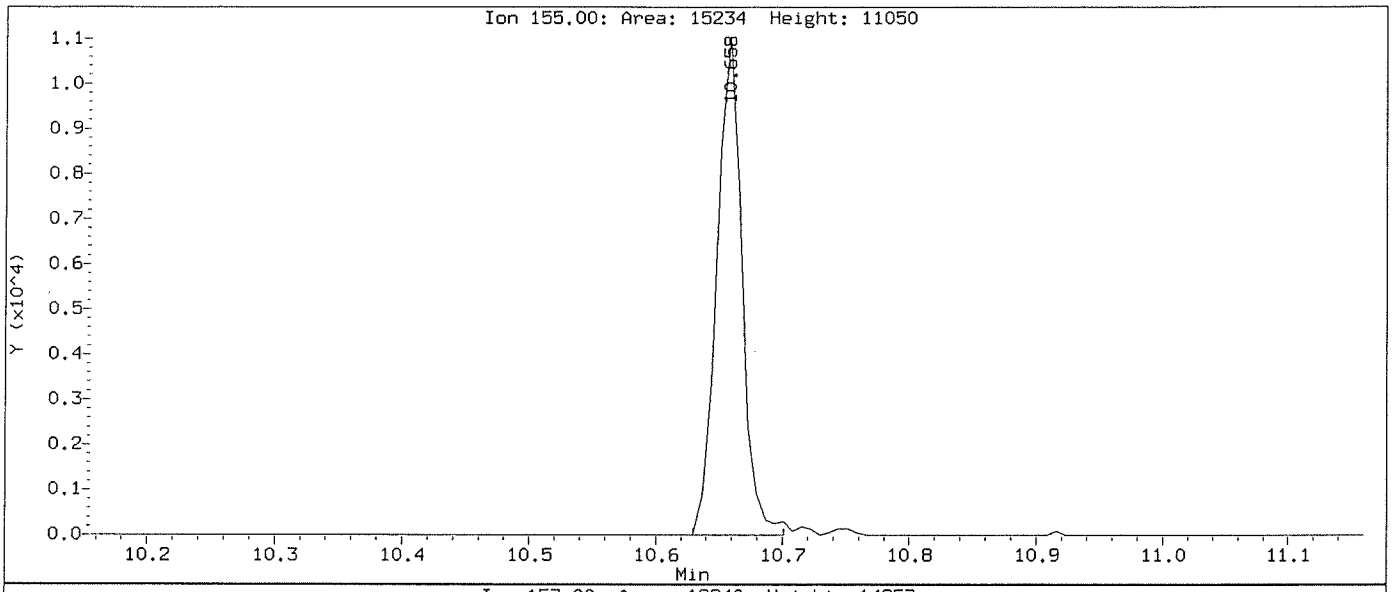
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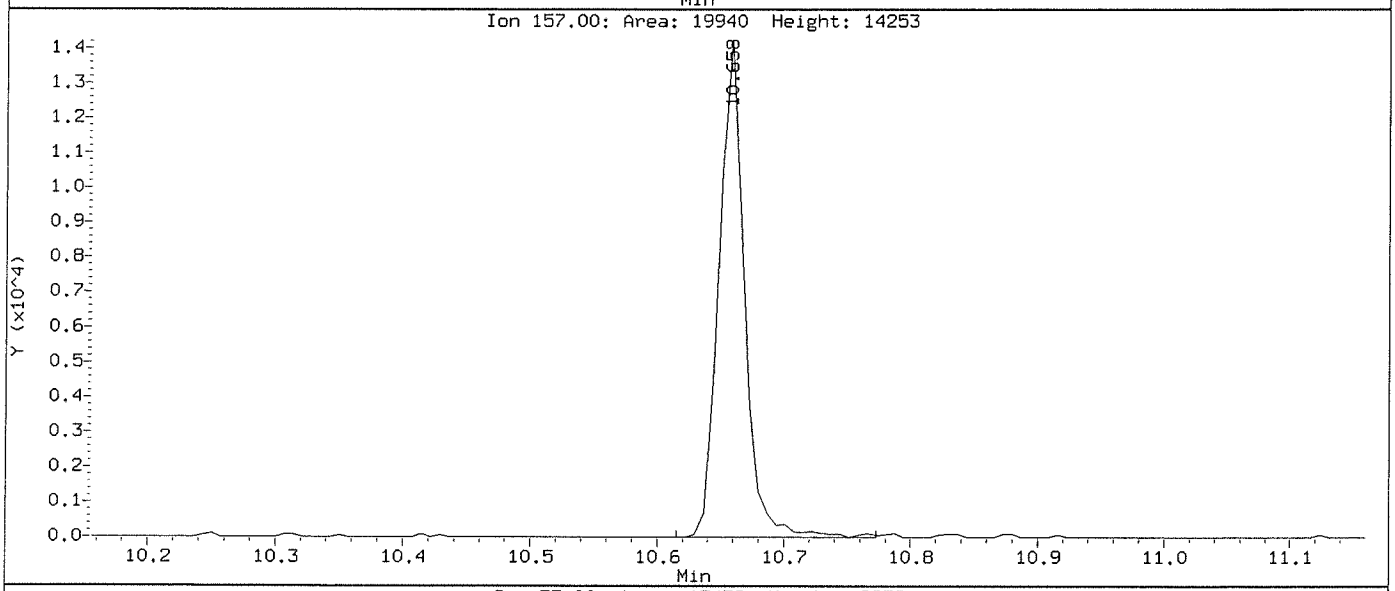
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CAS Number: 120-82-1

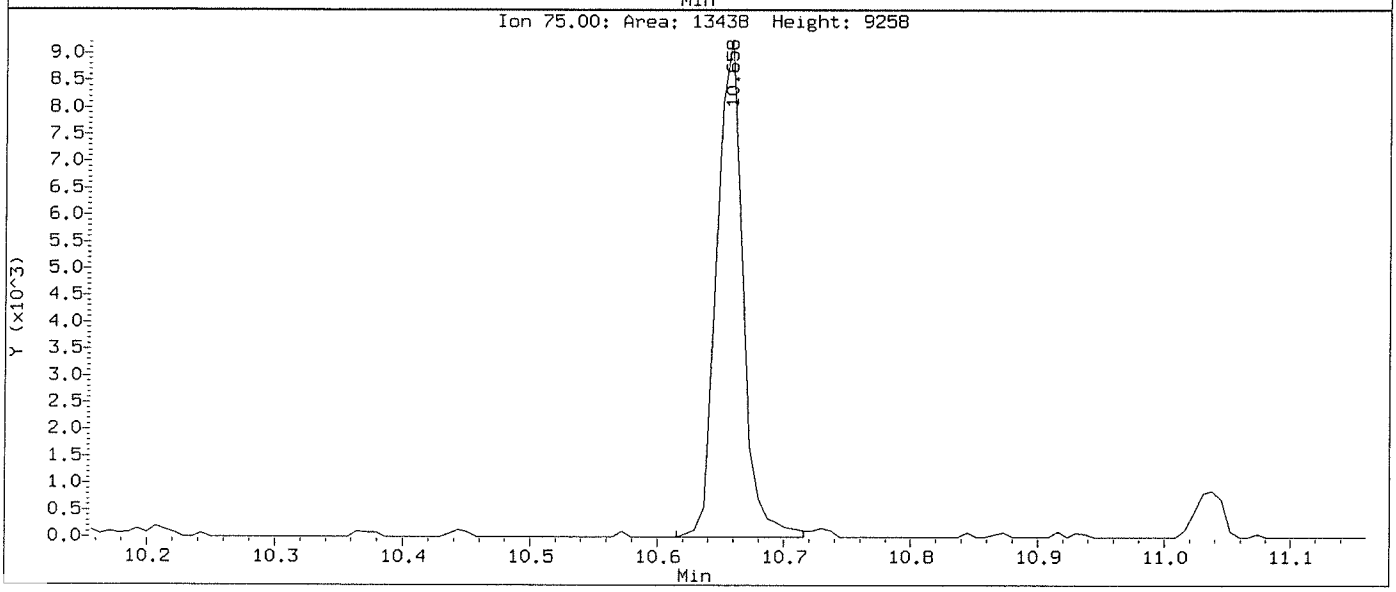


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Injection Date: 10-JUN-2021 14:59
Instrument: voa6.i
Client Sample ID: VLCSW-210610

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8

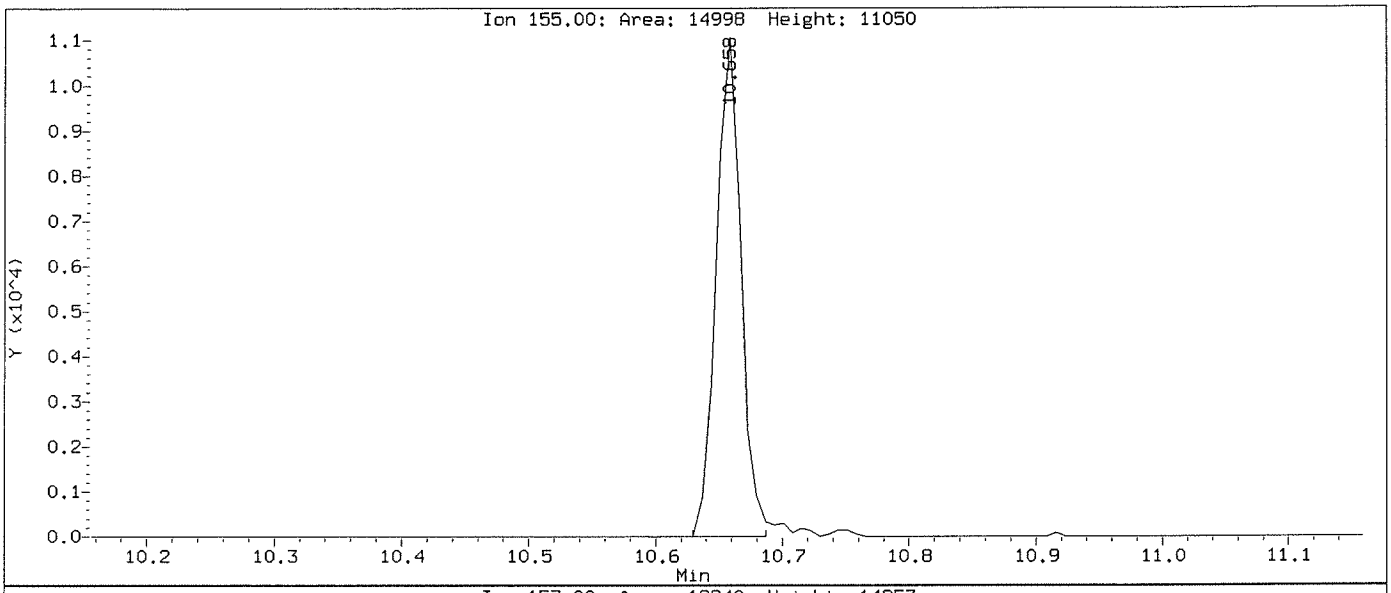


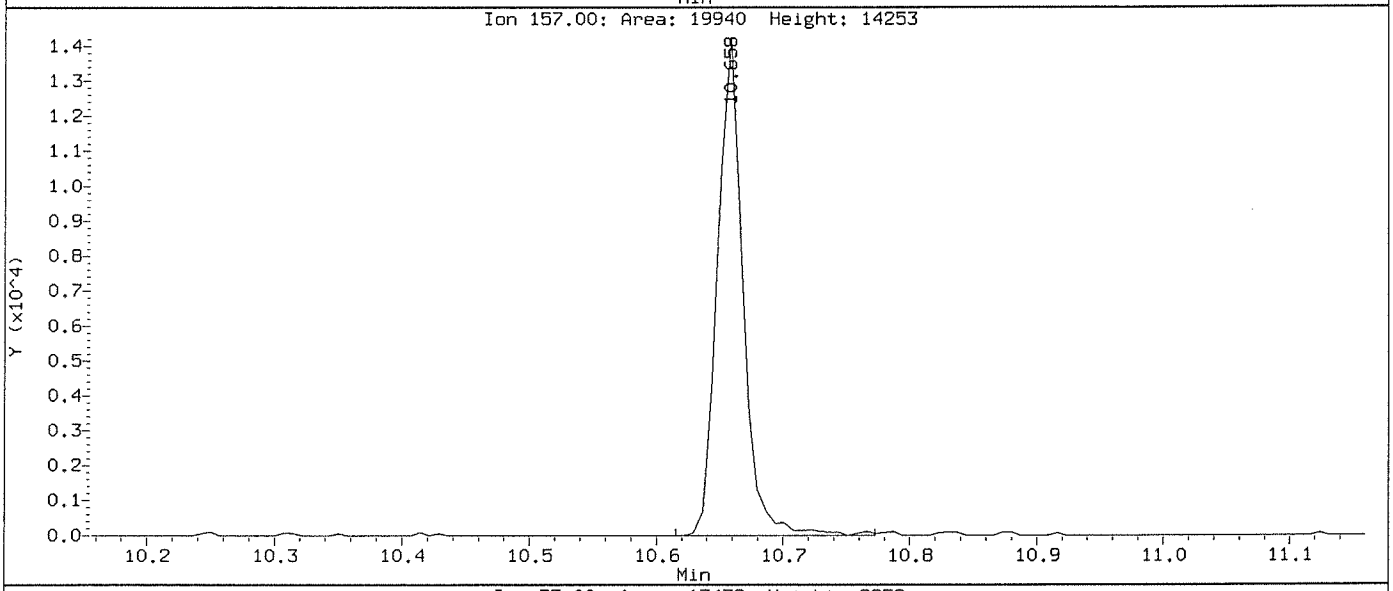


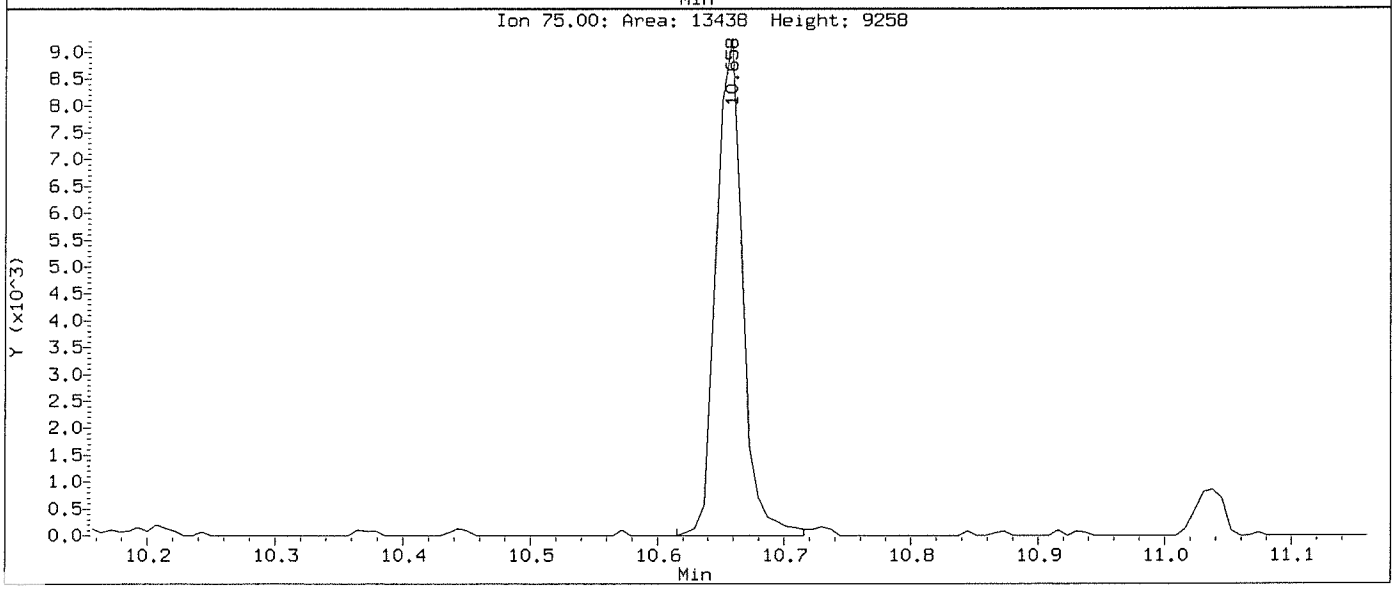


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Client Sample ID: VLCSW-210610

Compound: 1,2-Dibromo-3-Chloropropane
CAS Number: 96-12-8

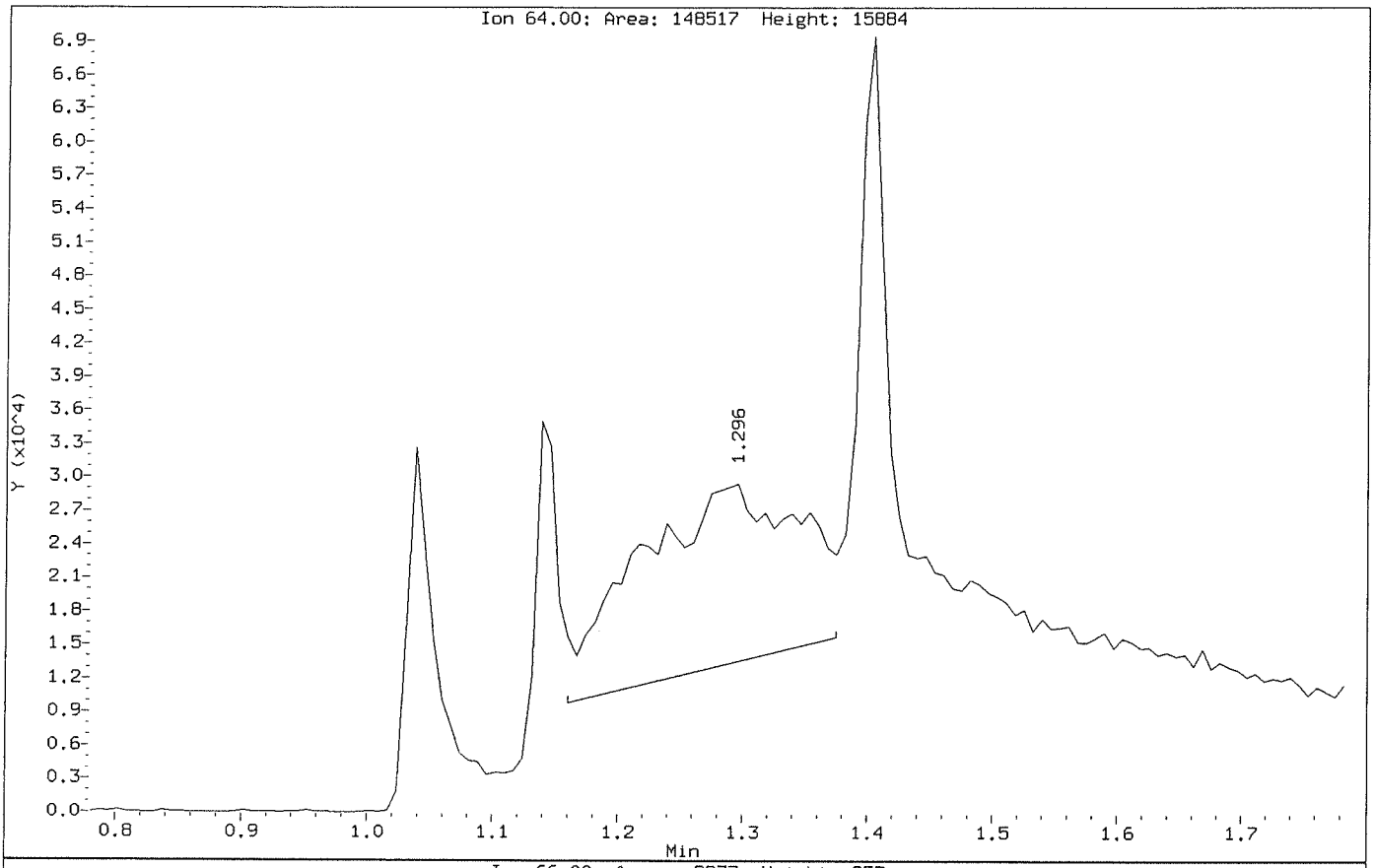


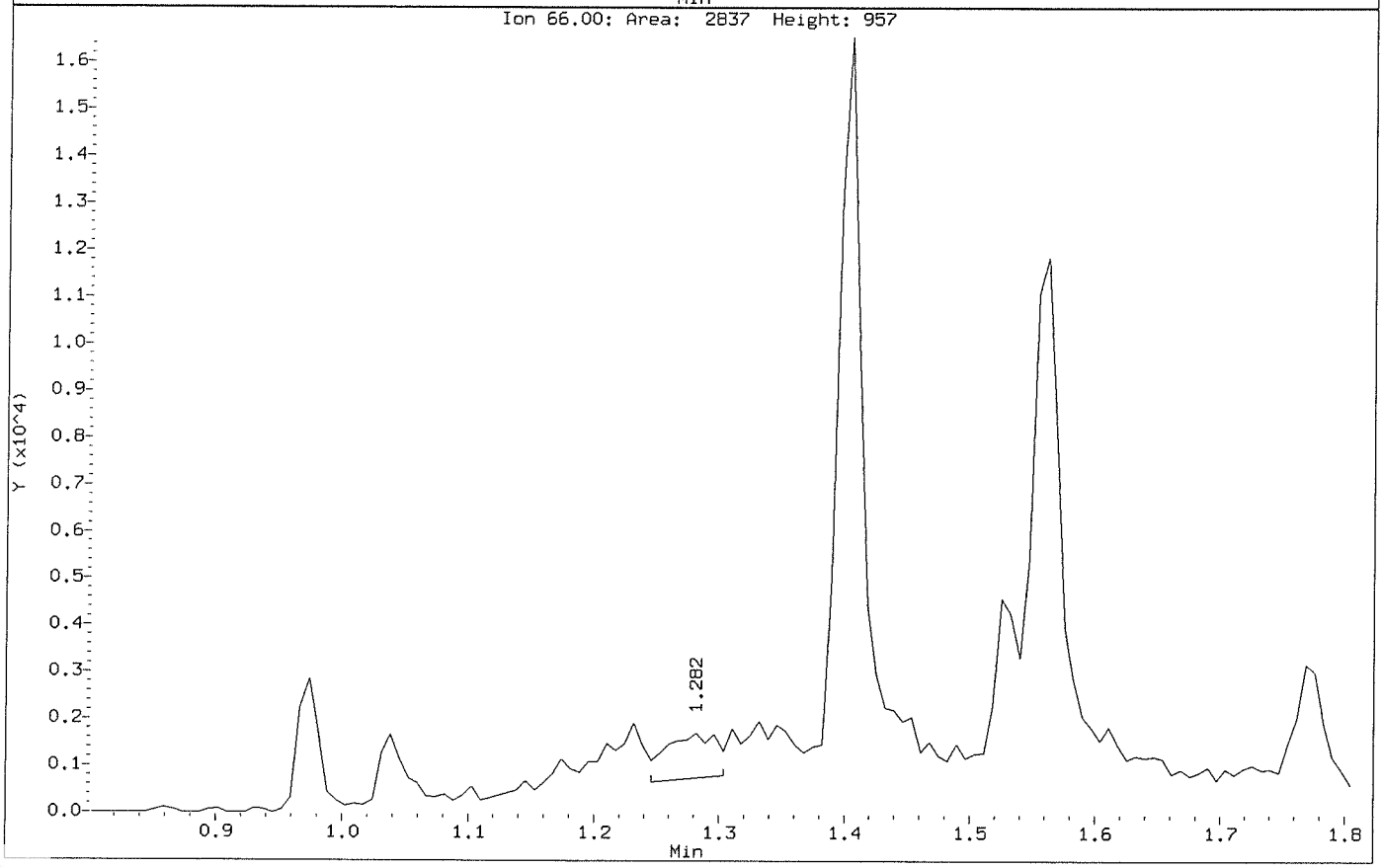




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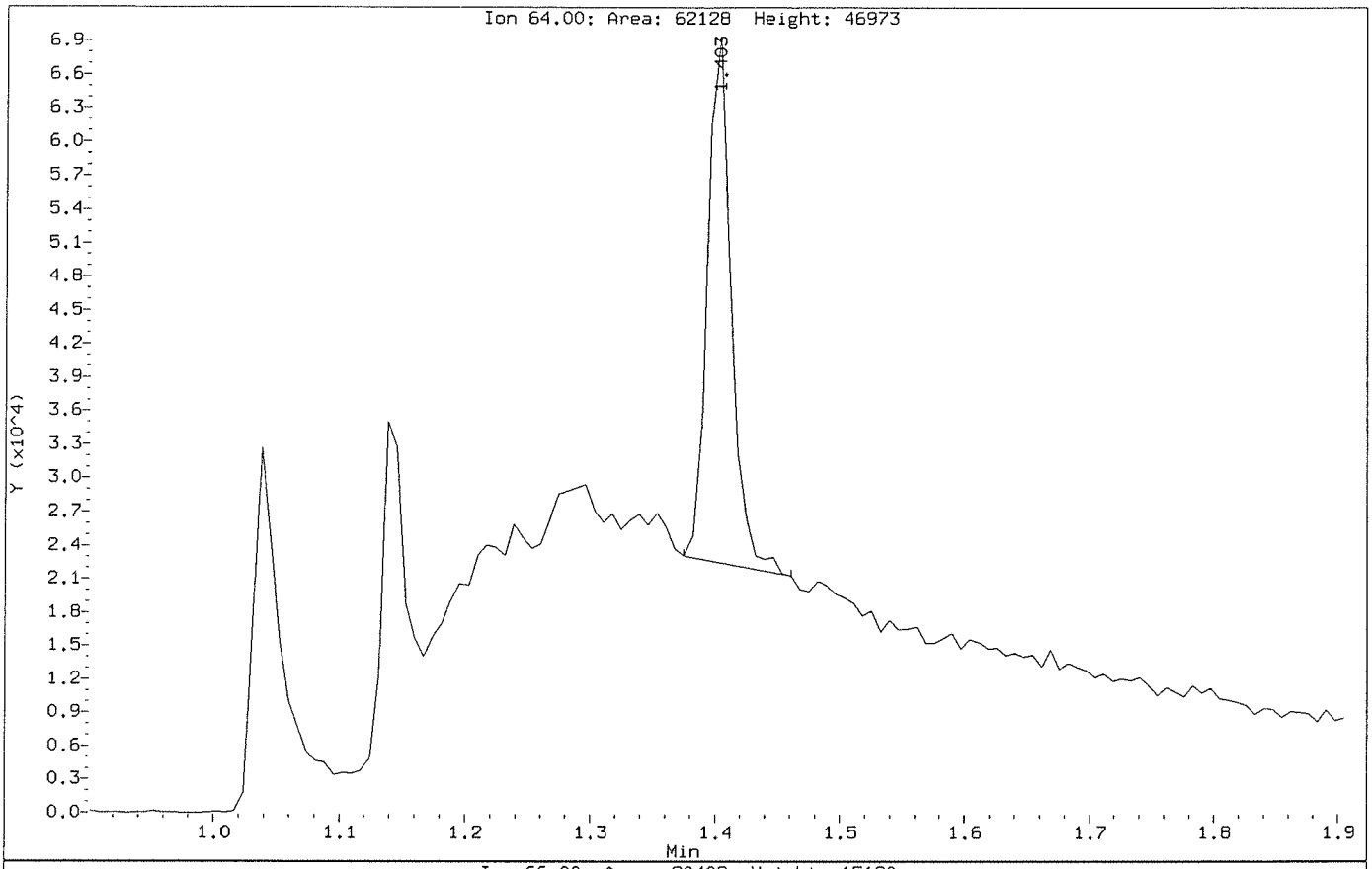
Compound: Chloroethane
CAS Number: 75-00-3

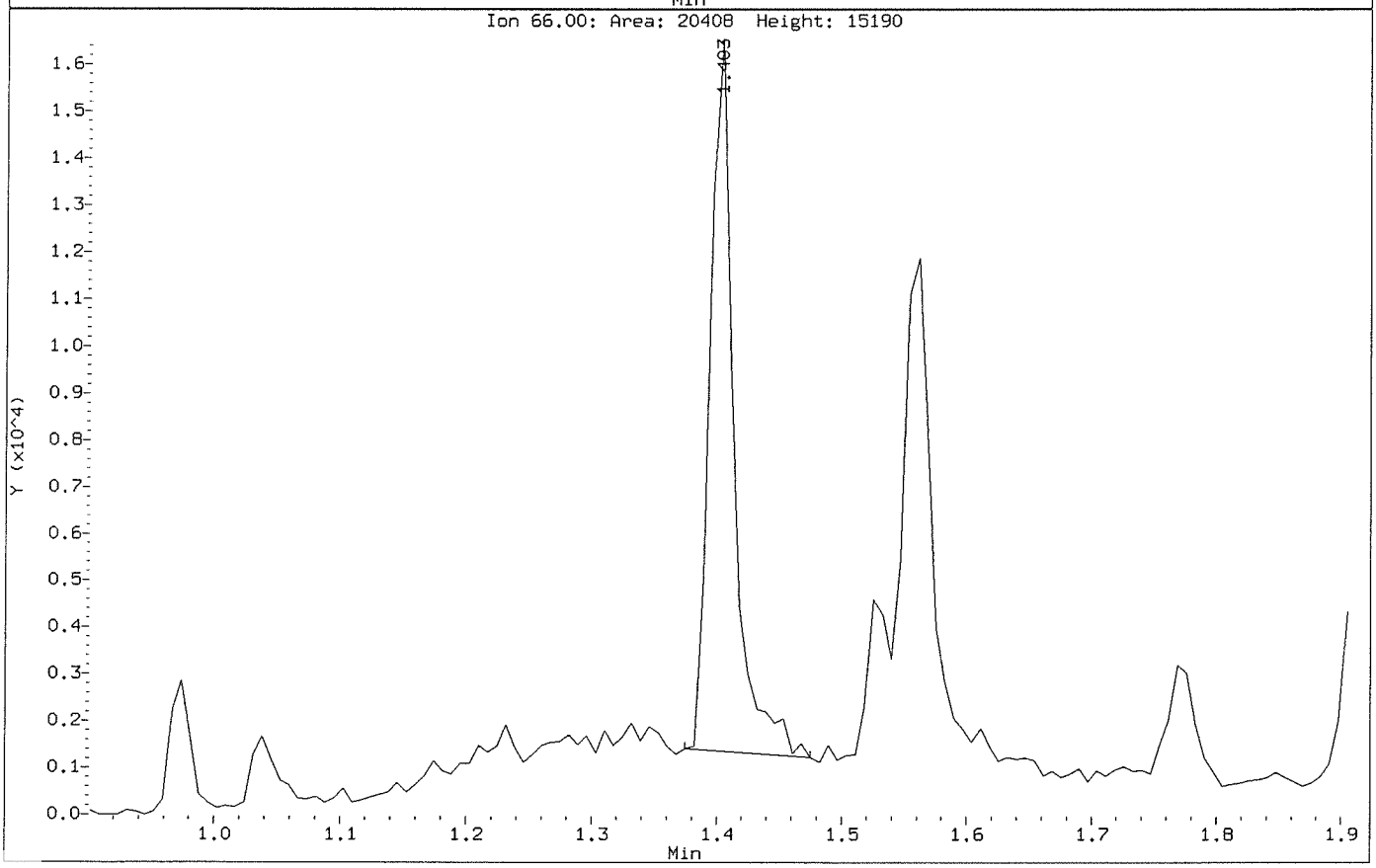




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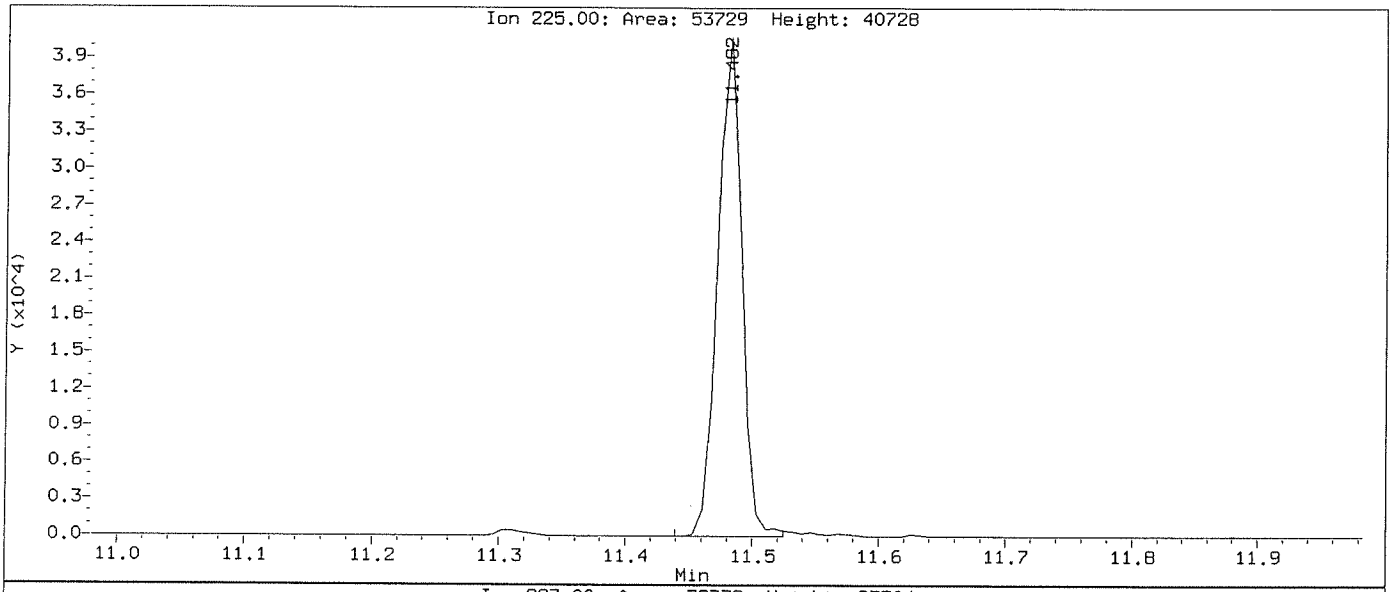
Compound: Chloroethane
CAS Number: 75-00-3

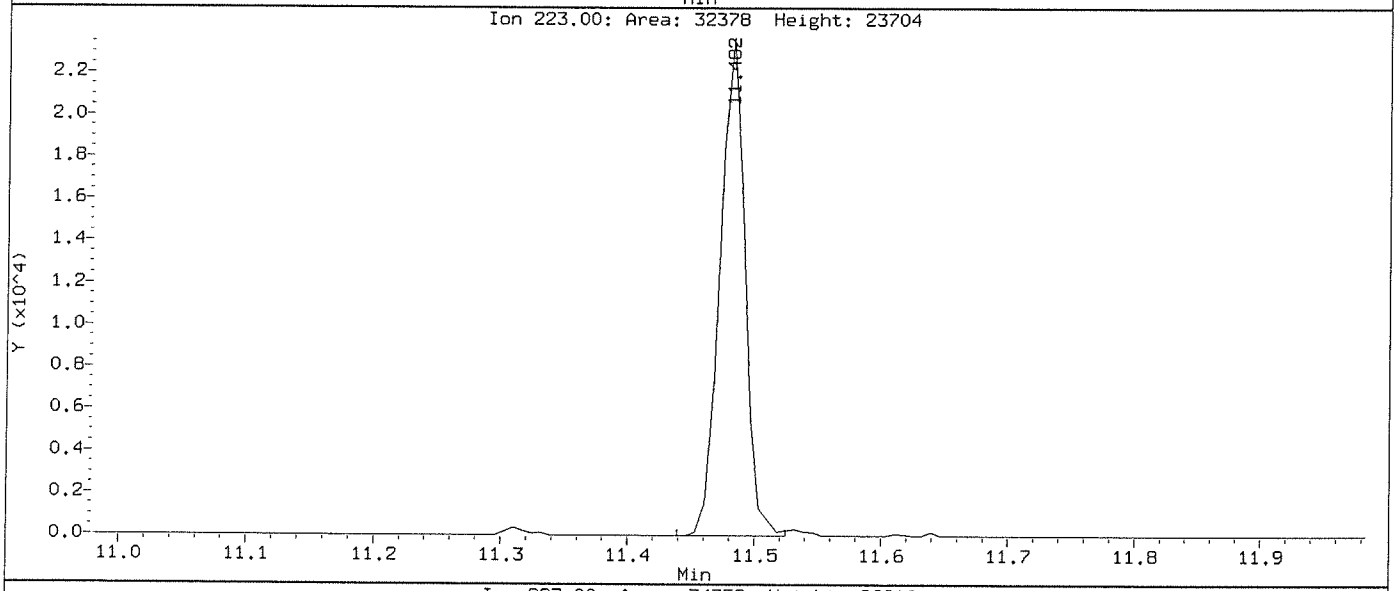


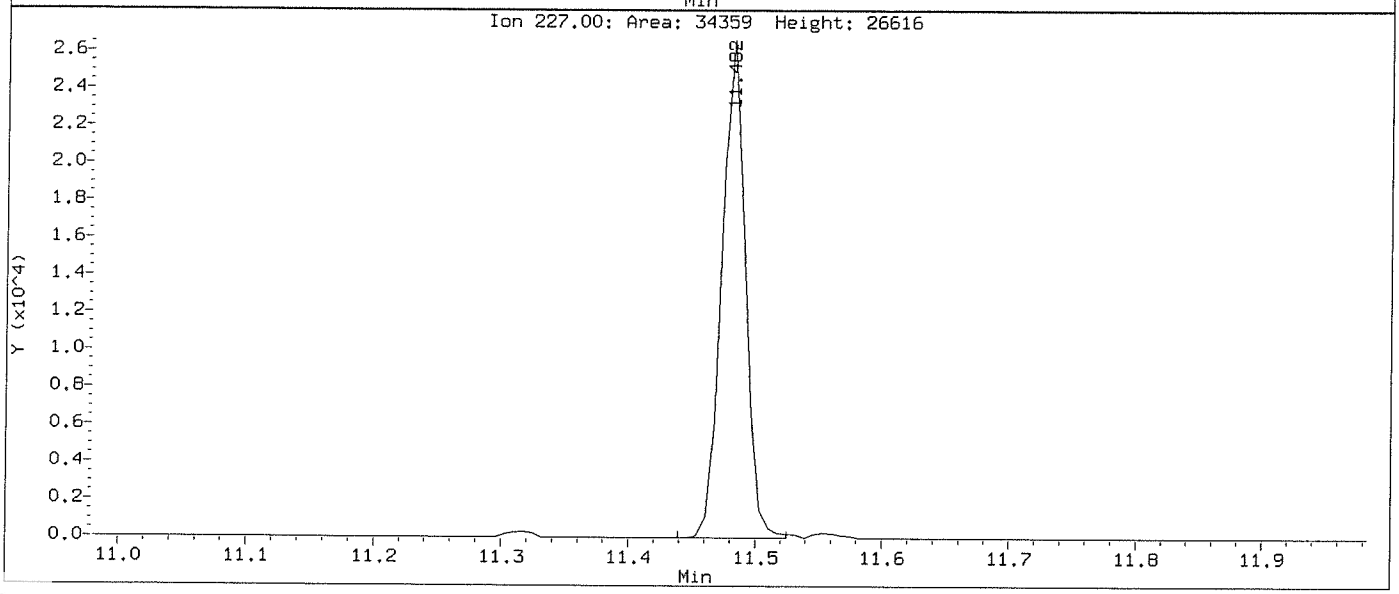


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Injection Date: 10-JUN-2021 14:59
Instrument: voa6.i
Client Sample ID: VLCSW-210610

Compound: Hexachlorobutadiene
CAS Number: 87-68-3

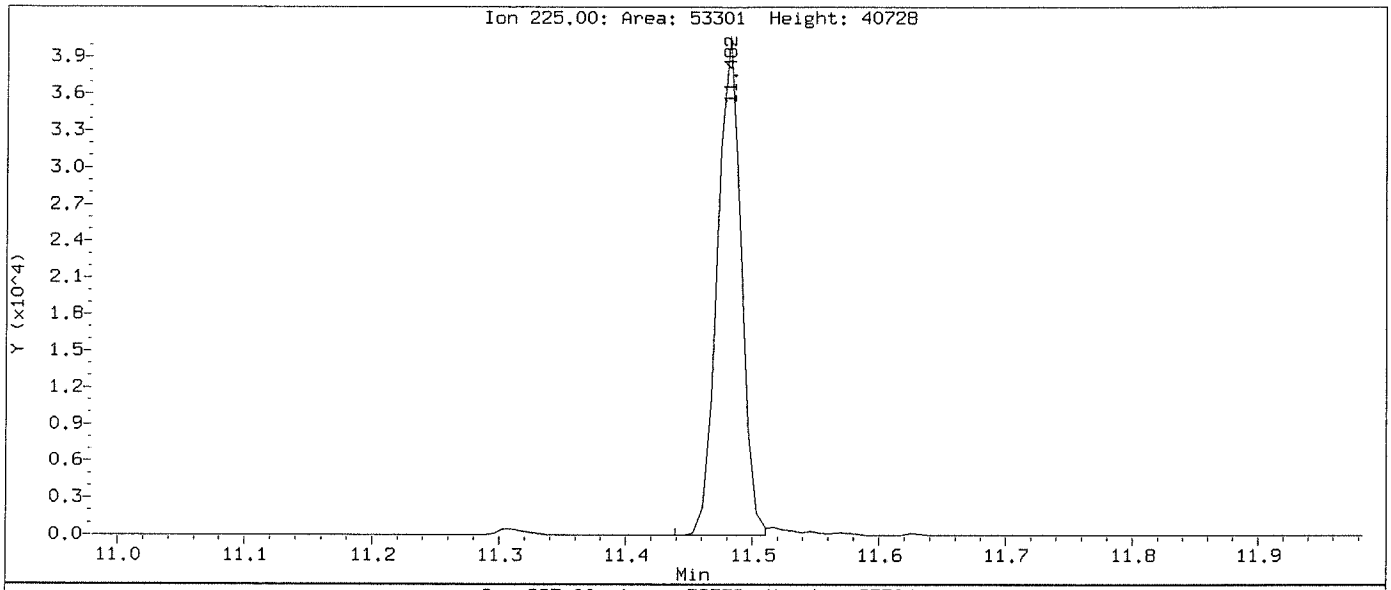


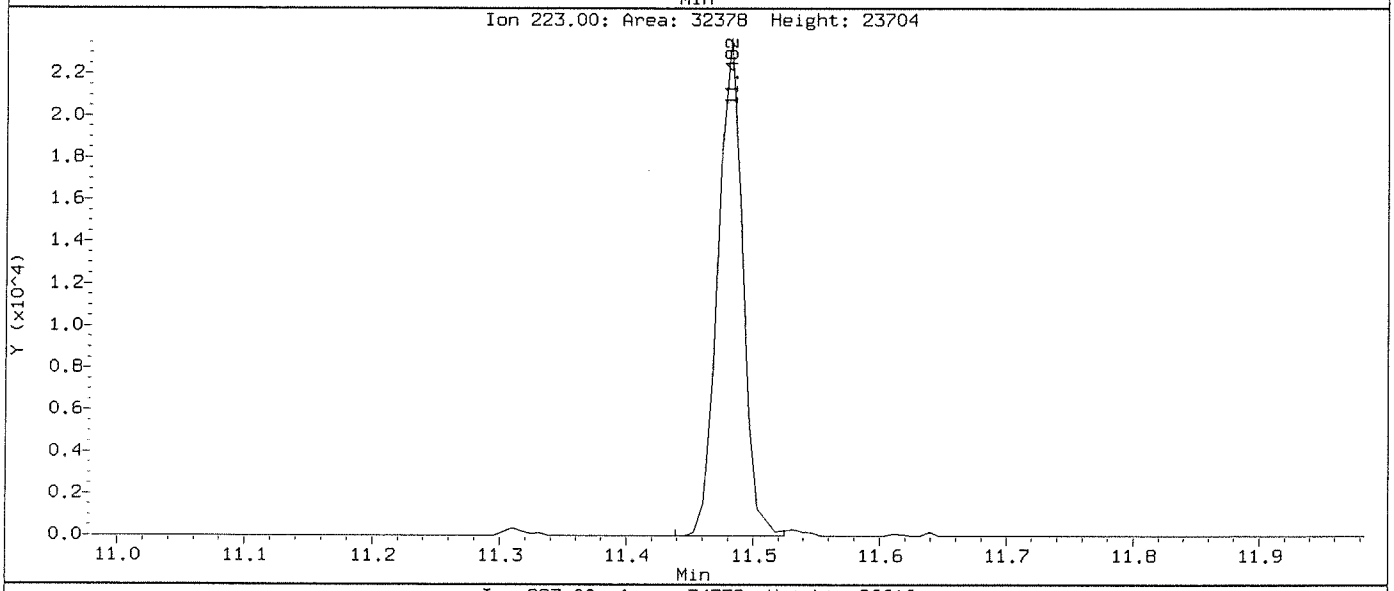


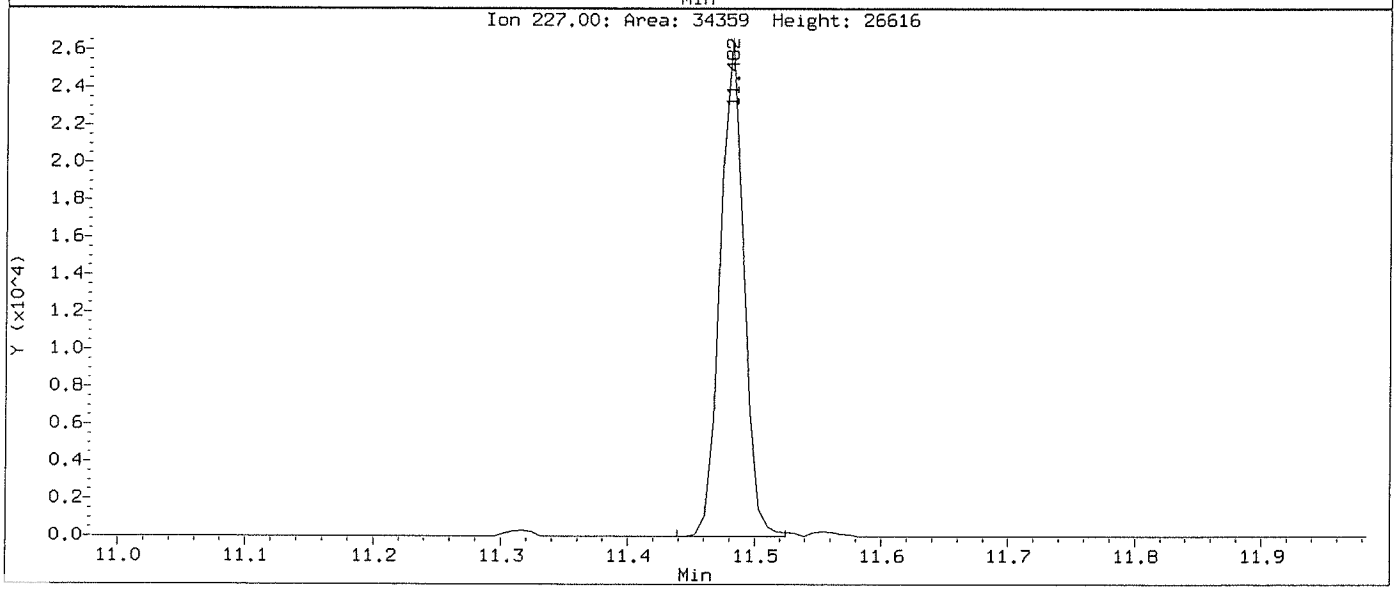


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Injection Date: 10-JUN-2021 14:59
Instrument: voa6.i
Client Sample ID: VLCSW-210610

Compound: Hexachlorobutadiene
CAS Number: 87-68-3

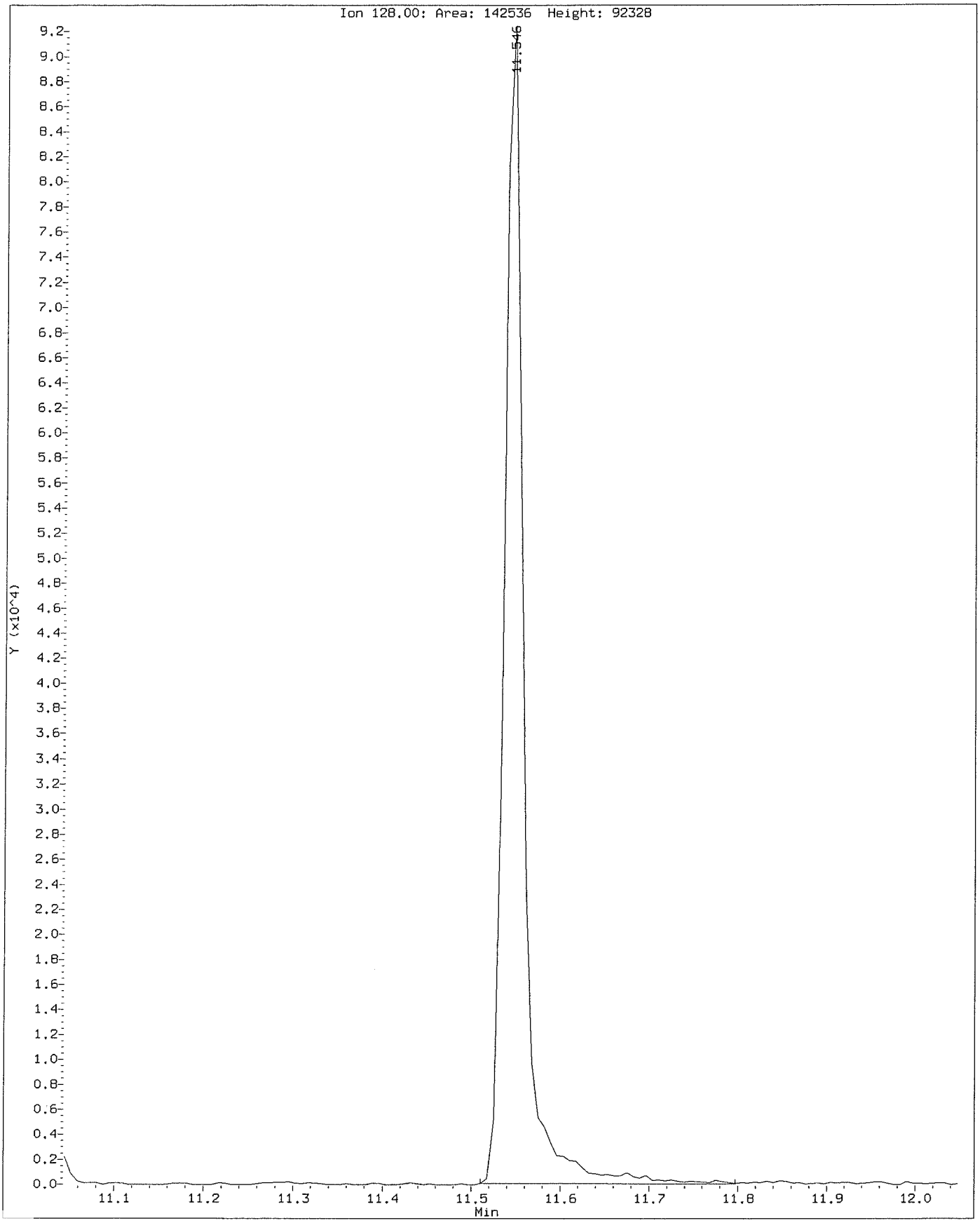






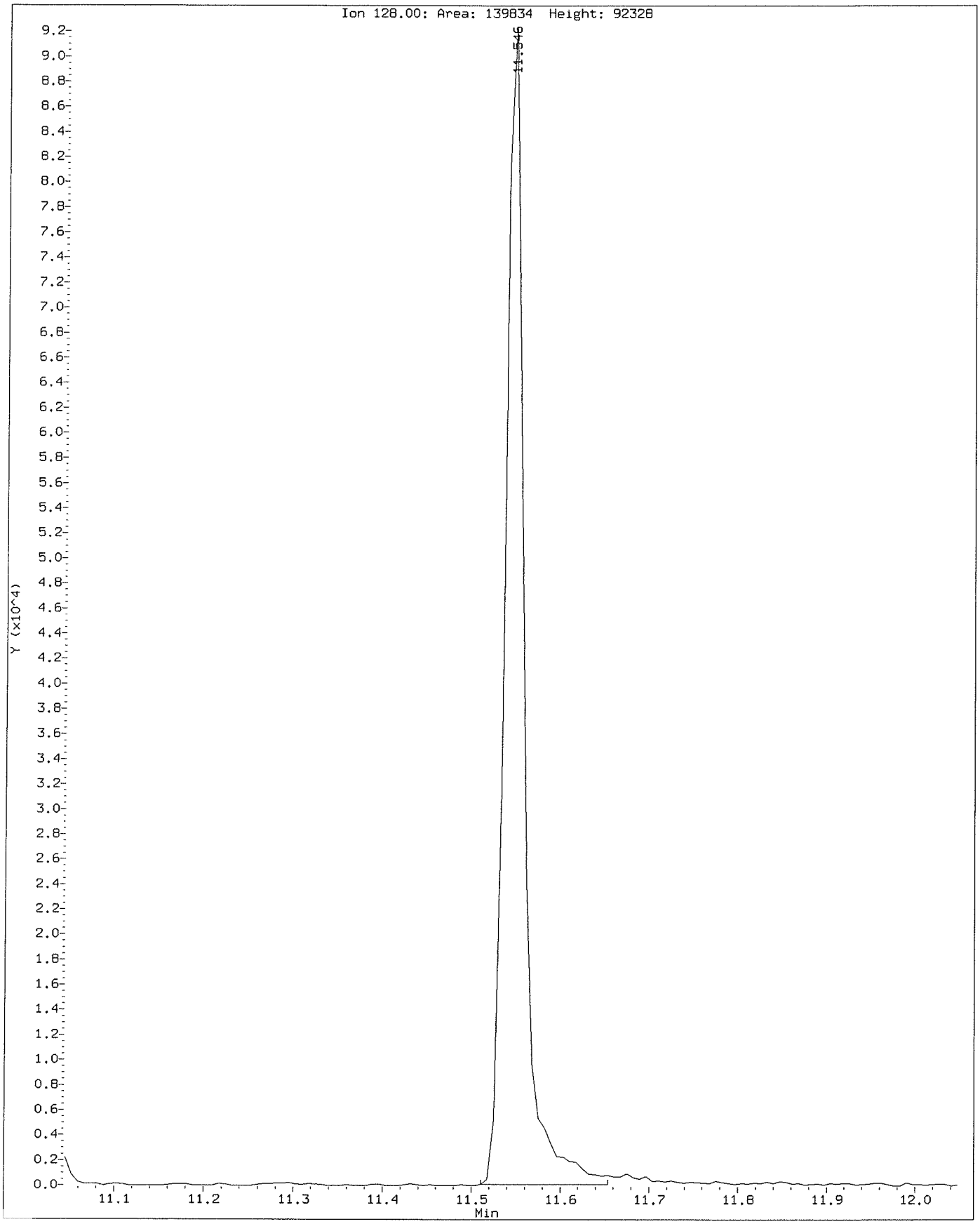
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Injection Date: 10-JUN-2021 14:59
Instrument: voa6.i
Client Sample ID: VLCSW-210610

Compound: Naphthalene
CAS Number: 91-20-3



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061006.D
Injection Date: 10-JUN-2021 14:59
Instrument: voa6.i
Client Sample ID: VLCSW-210610

Compound: Naphthalene
CAS Number: 91-20-3



ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061008.D
Lab Smp Id: VBLKW-210610 Client Smp ID: VBLKW-210610
Inj Date : 10-JUN-2021 15:41
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-210610;VBLKW-210610;3;;BLANK
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\8260W.m
Meth Date : 26-Aug-2021 12:42 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

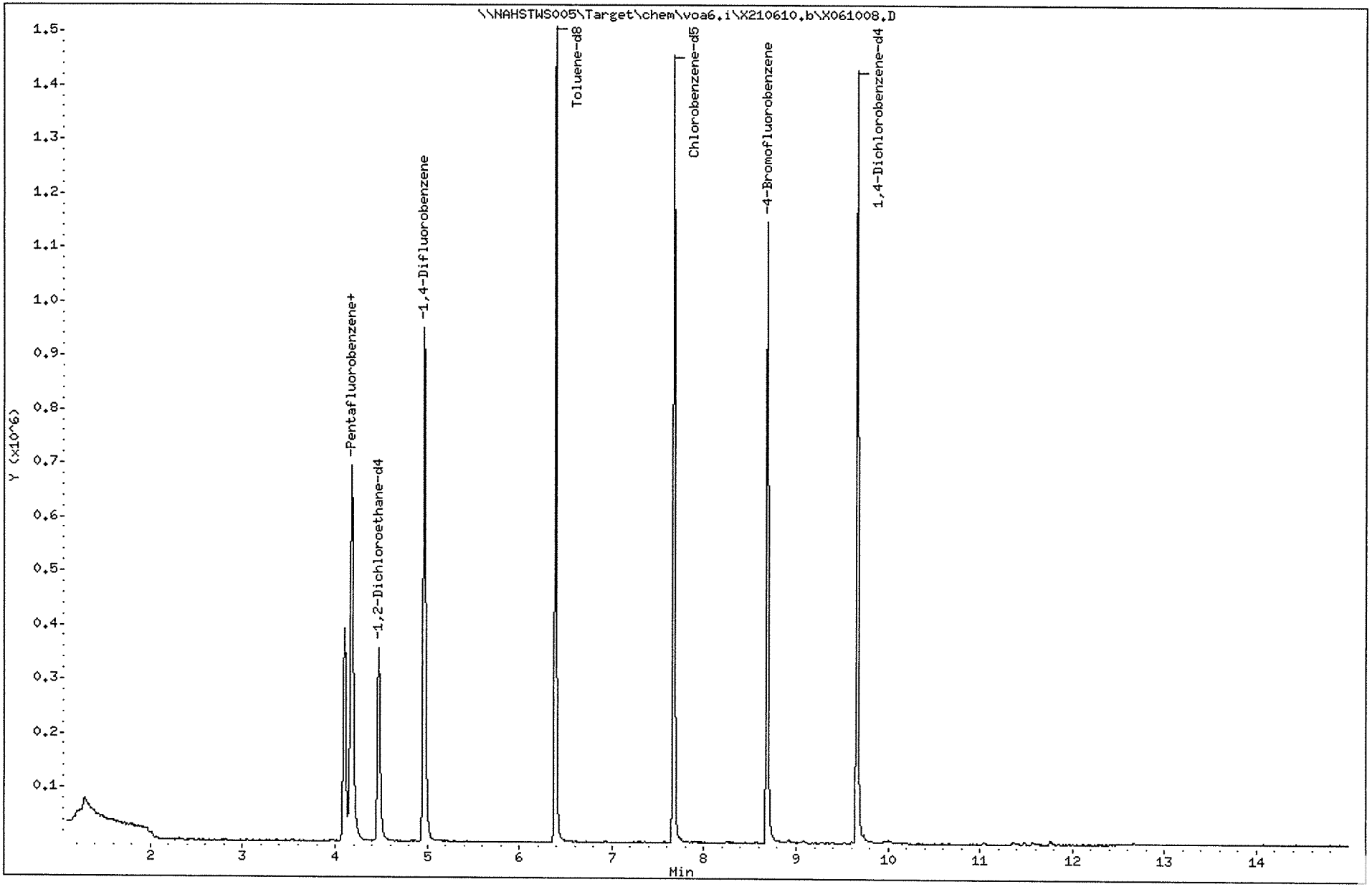
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	626574	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	849693	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	723375	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	357687	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	275476	44.6483	44.64
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	279754	46.6947	46.69
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	949321	52.6851	52.68
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	310957	48.9641	48.96

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061008.D
Date : 10-JUN-2021 15:41
Client ID: VBLKW-210610
Sample Info: VBLKW-210610;VBLKW-210610;3;;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i

Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061012.D Page 1
Report Date: 26-Aug-2021 12:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061012.D
Lab Smp Id: HS21060222-01MS Client Smp ID: HS21060222-01MS
Inj Date : 10-JUN-2021 17:05
Operator : PC Inst ID: voa6.i
Smp Info : HS21060222-01MS;HS21060222-01MS;3;;MS
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\8260W.m
Meth Date : 26-Aug-2021 12:42 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 12 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

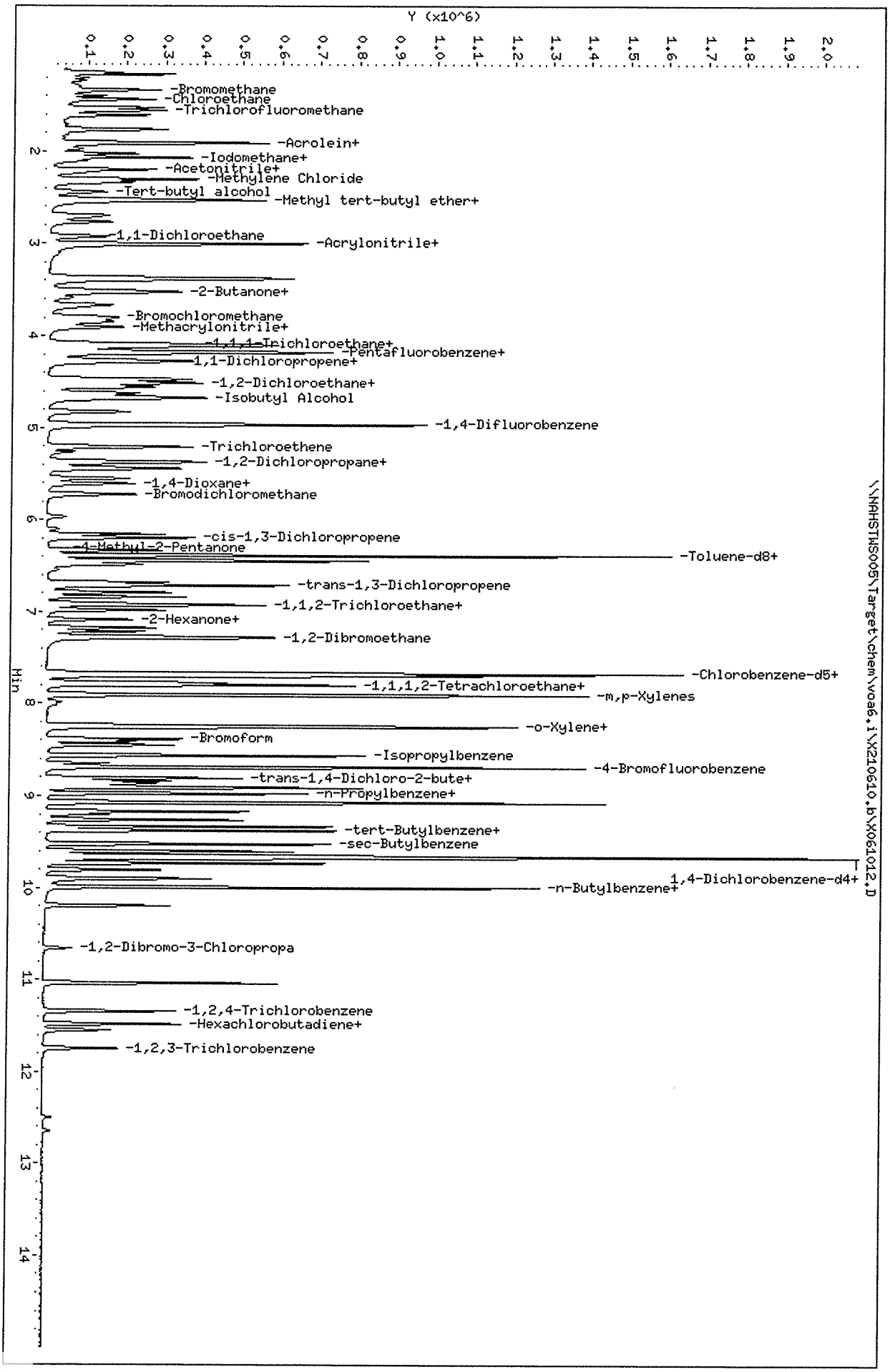
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	643046	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	874189	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.671	(1.000)	792230	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	427592	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	283388	44.7545	44.75
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	289083	47.0206	47.02
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	979909	49.6561	49.65
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	347400	49.9331	49.93
60 1,1,1,2-Tetrachloroethane	131	7.778	7.771	(1.014)	111757	19.0751	19.07
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	161461	16.9905	16.99
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	123821	20.2661	20.26
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	78798	18.3612	18.36
22 1,1-Dichloroethane	63	2.921	2.922	(0.699)	160649	15.8025	15.80
11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	101275	15.2896	15.28
32 1,1-Dichloropropene	75	4.282	4.283	(0.863)	133473	19.9353	19.93
93 1,2,3-Trichlorobenzene	180	11.746	11.739	(1.216)	63551	24.5508	24.55
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	102689	19.2625	19.26 (M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	104745	24.7769	24.77
79 1,2,4-Trimethylbenzene	105	9.382	9.375	(0.971)	367801	18.8590	18.85
89 1,2-Dibromo-3-Chloropropane	155	10.657	10.658	(1.103)	15142	22.6063	22.60
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	109100	18.7047	18.70
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	217776	18.7772	18.77

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061012.D Page 2
Report Date: 26-Aug-2021 12:42

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	131771	18.9181	18.91
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	91942	17.8675	17.86
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	369447	19.0347	19.03
83	1,3-Dichlorobenzene	146	9.604	9.605	(0.994)	227329	18.8488	18.84
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	154986	18.1619	18.16
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	232862	18.5026	18.50
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	149621	17.0069	17.00
24	2-Butanone	43	3.580	3.581	(0.856)	63975	32.6997	32.69
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	302569	18.9052	18.90
52	2-Hexanone	43	7.090	7.090	(0.924)	117059	39.7768	39.77
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	347729	18.2443	18.24
82	p-Isopropyltoluene	119	9.647	9.648	(0.999)	394571	19.9570	19.95
45	4-Methyl-2-Pentanone	43	6.331	6.324	(0.825)	171705	37.6372	37.63
10	Acetone	43	1.976	1.976	(0.473)	52852	28.1337	28.13
37	Benzene	78	4.512	4.512	(0.909)	363802	18.1152	18.11
74	Bromobenzene	156	8.802	8.802	(0.911)	136740	19.2746	19.27
29	Bromochloromethane	128	3.795	3.795	(0.908)	62521	16.0795	16.07
39	Bromodichloromethane	83	5.729	5.722	(1.154)	134329	17.8741	17.87
66	Bromoform	173	8.408	8.408	(1.096)	85427	19.3377	19.33
6	Bromomethane	94	1.331	1.339	(0.318)	118196	17.8937	17.89
19	Carbon Disulfide	76	2.069	2.069	(0.495)	464252	29.5553	29.55
34	Carbon Tetrachloride	117	4.268	4.261	(0.860)	144921	19.9981	19.99
59	Chlorobenzene	112	7.692	7.692	(1.003)	293435	17.7925	17.79
7	Chloroethane	64	1.396	1.403	(0.334)	68528	14.2105	14.21(M)
28	Chloroform	83	3.910	3.910	(0.935)	177739	15.7175	15.71
3	Chloromethane	50	1.073	1.073	(0.257)	70054	9.97394	9.97
27	cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	122955	18.2426	18.24
46	cis-1,3-Dichloropropene	75	6.159	6.152	(1.241)	161890	18.2809	18.28
55	Dibromochloromethane	129	7.176	7.176	(0.936)	123620	18.9586	18.95
44	Dibromomethane	93	5.550	5.550	(1.118)	71035	18.3692	18.36
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	65094	10.8559	10.85
61	Ethylbenzene	106	7.799	7.800	(1.017)	149525	19.6524	19.65
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	63767	25.1728	25.17
67	Isopropylbenzene	105	8.559	8.559	(1.116)	461624	19.8573	19.85
62	m,p-Xylenes	106	7.900	7.907	(1.030)	379374	38.2492	38.24
17	Methylene Chloride	84	2.298	2.306	(0.550)	94724	15.3467	15.34
87	n-Butylbenzene	91	9.991	9.991	(1.034)	323267	19.4335	19.43
73	n-Propylbenzene	91	8.910	8.910	(0.922)	518692	19.4467	19.44
92	Naphthalene	128	11.546	11.539	(1.195)	138210	22.6186	22.61
63	o-Xylene	106	8.243	8.244	(1.075)	180214	18.6335	18.63
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	448947	19.9950	19.99
64	Styrene	104	8.258	8.258	(1.077)	292664	18.1090	18.10
78	tert-Butylbenzene	119	9.339	9.340	(0.967)	330569	19.8662	19.86
56	Tetrachloroethene	164	6.925	6.926	(0.903)	109414	22.4346	22.43
50	Toluene	91	6.446	6.446	(0.840)	416696	18.0167	18.01
20	trans-1,2-Dichloroethene	96	2.527	2.528	(0.604)	93744	15.6128	15.61
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	139968	18.3216	18.32
38	Trichloroethene	130	5.206	5.207	(1.049)	133516	22.2530	22.25
8	Trichlorofluoromethane	101	1.553	1.561	(0.371)	180998	15.5932	15.59
5	Vinyl Chloride	62	1.138	1.138	(0.272)	108122	14.2045	14.20

QC Flag Legend

M - Compound response manually integrated.



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Purge Volume: 5.0
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Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061013.D Page 1
Report Date: 26-Aug-2021 12:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061013.D
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Inj Date : 10-JUN-2021 17:26
Operator : PC Inst ID: voa6.i
Smp Info : HS21060222-01MSD;HS21060222-01MSD;3;;MSD
Misc Info : HS18090001;WATER;0;1;
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Meth Date : 26-Aug-2021 12:42 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 12 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

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

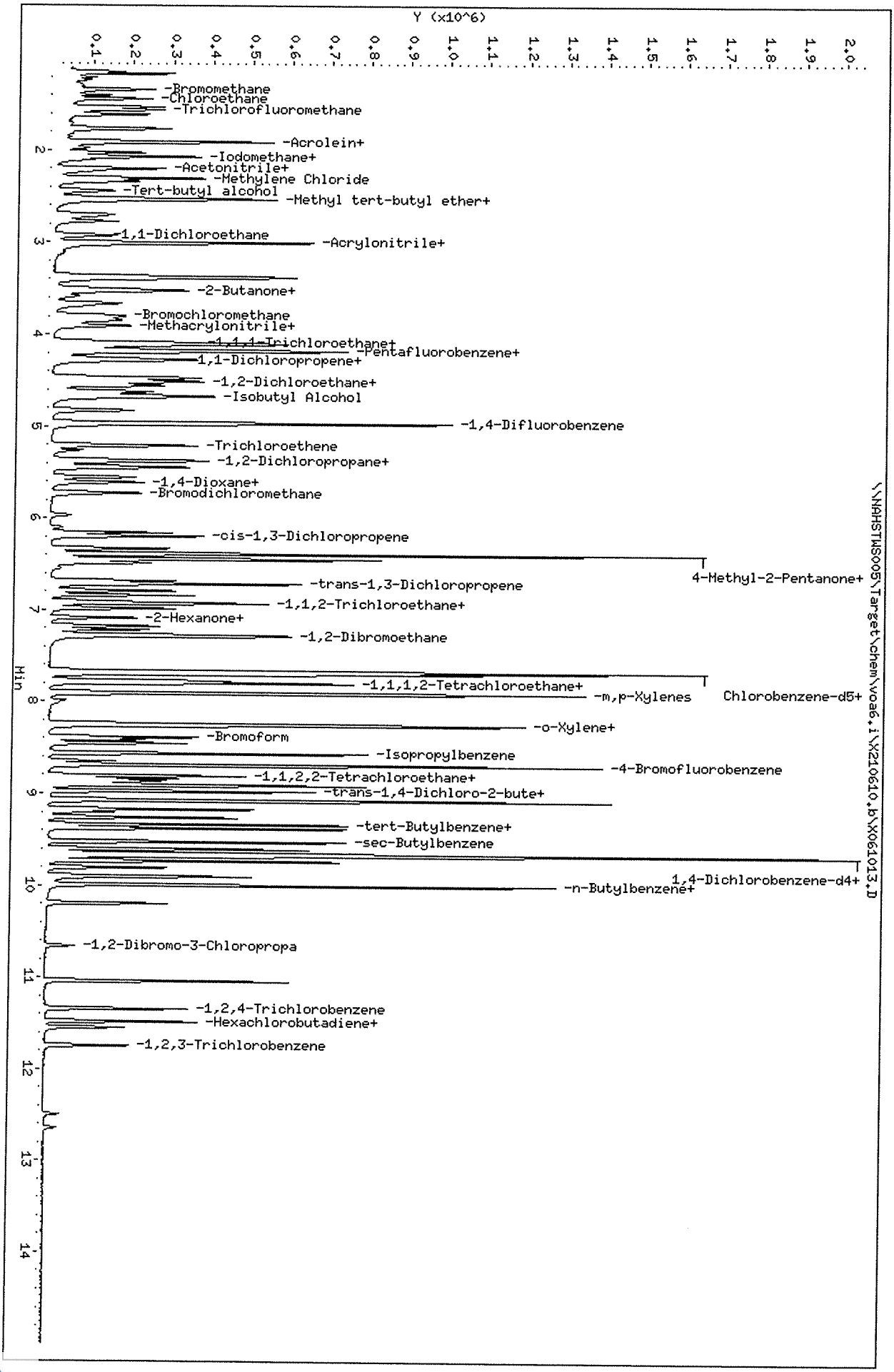
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	649999	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	897642	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	801200	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	422035	50.0000	
$	30 Dibromofluoromethane	113	4.103	4.096	(0.981)	288557	45.0845	45.08
$	35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	297874	47.9457	47.94
$	48 Toluene-d8	98	6.388	6.388	(0.833)	1002651	50.2397	50.23
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	346252	49.2217	49.22
	60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	111519	18.8214	18.82
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	156327	16.2743	16.27
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	128202	21.3181	21.31
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	78721	18.1379	18.13
	22 1,1-Dichloroethane	63	2.921	2.922	(0.699)	154159	15.0019	15.00
	11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	97501	14.5624	14.56
	32 1,1-Dichloropropene	75	4.282	4.283	(0.863)	126426	18.3894	18.38
	93 1,2,3-Trichlorobenzene	180	11.746	11.739	(1.216)	69669	27.2687	27.26
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	102549	19.4896	19.48 (M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	107554	25.7763	25.77
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	369271	19.1837	19.18
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	16443	24.8205	24.82
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	110213	18.6840	18.68
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	223631	19.5360	19.53

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061013.D Page 2
Report Date: 26-Aug-2021 12:42

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	128760	18.0029	18.00
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	91750	17.3643	17.36
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	371462	19.3906	19.39
83	1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	229816	19.3059	19.30
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	158260	18.3380	18.33
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	233824	18.8237	18.82
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	143465	16.1328	16.13
24	2-Butanone	43	3.580	3.581	(0.856)	65883	33.3147	33.31
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	303390	19.2061	19.20
52	2-Hexanone	43	7.090	7.090	(0.924)	121342	40.7706	40.77
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	344998	18.3393	18.33
82	p-Isopropyltoluene	119	9.648	9.648	(0.999)	394602	20.2213	20.22
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	173503	37.6056	37.60
10	Acetone	43	1.976	1.976	(0.473)	53638	28.2707	28.27
37	Benzene	78	4.512	4.512	(0.909)	358569	17.3881	17.38
74	Bromobenzene	156	8.802	8.802	(0.911)	137732	19.6701	19.67
29	Bromochloromethane	128	3.795	3.795	(0.908)	64077	16.3034	16.30
39	Bromodichloromethane	83	5.729	5.722	(1.154)	134040	17.3696	17.36
66	Bromoform	173	8.408	8.408	(1.096)	85813	19.2076	19.20
6	Bromomethane	94	1.338	1.339	(0.320)	109082	16.3506	16.35
19	Carbon Disulfide	76	2.069	2.069	(0.495)	459081	28.9135	28.91
34	Carbon Tetrachloride	117	4.268	4.261	(0.860)	142871	19.2001	19.20
59	Chlorobenzene	112	7.692	7.692	(1.003)	295283	17.7041	17.70
7	Chloroethane	64	1.396	1.403	(0.334)	64047	13.0325	13.03 (M)
28	Chloroform	83	3.910	3.910	(0.935)	177751	15.5504	15.55
3	Chloromethane	50	1.073	1.073	(0.257)	71863	10.1628	10.16
27	cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	121495	17.8332	17.83
46	cis-1,3-Dichloropropene	75	6.159	6.152	(1.241)	160110	17.6075	17.60
55	Dibromochloromethane	129	7.176	7.176	(0.936)	124260	18.8434	18.84
44	Dibromomethane	93	5.550	5.550	(1.118)	68965	17.3680	17.36
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	62729	10.3398	10.33
61	Ethylbenzene	106	7.799	7.800	(1.017)	149140	19.3824	19.38
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	67808	27.0054	27.00
67	Isopropylbenzene	105	8.559	8.559	(1.116)	452690	19.2549	19.25
62	m,p-Xylenes	106	7.907	7.907	(1.031)	369569	36.8435	36.84
17	Methylene Chloride	84	2.305	2.306	(0.551)	95072	15.2289	15.22
87	n-Butylbenzene	91	9.991	9.991	(1.034)	334161	20.3530	20.35
73	n-Propylbenzene	91	8.910	8.910	(0.922)	524330	19.9169	19.91
92	Naphthalene	128	11.546	11.539	(1.195)	158324	26.2516	26.25
63	o-Xylene	106	8.244	8.244	(1.075)	180236	18.4271	18.42
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	449623	20.2888	20.28
64	Styrene	104	8.258	8.258	(1.077)	293596	17.9633	17.96
78	tert-Butylbenzene	119	9.340	9.340	(0.967)	324271	19.7443	19.74
56	Tetrachloroethene	164	6.926	6.926	(0.903)	107906	21.8777	21.87
50	Toluene	91	6.446	6.446	(0.840)	411240	17.5817	17.58
20	trans-1,2-Dichloroethene	96	2.527	2.528	(0.604)	94622	15.5905	15.59
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	143613	18.3075	18.30
38	Trichloroethene	130	5.206	5.207	(1.049)	131679	21.3734	21.37
8	Trichlorofluoromethane	101	1.560	1.561	(0.373)	171065	14.5798	14.57
5	Vinyl Chloride	62	1.138	1.138	(0.272)	100819	13.1034	13.10

QC Flag Legend

M - Compound response manually integrated.

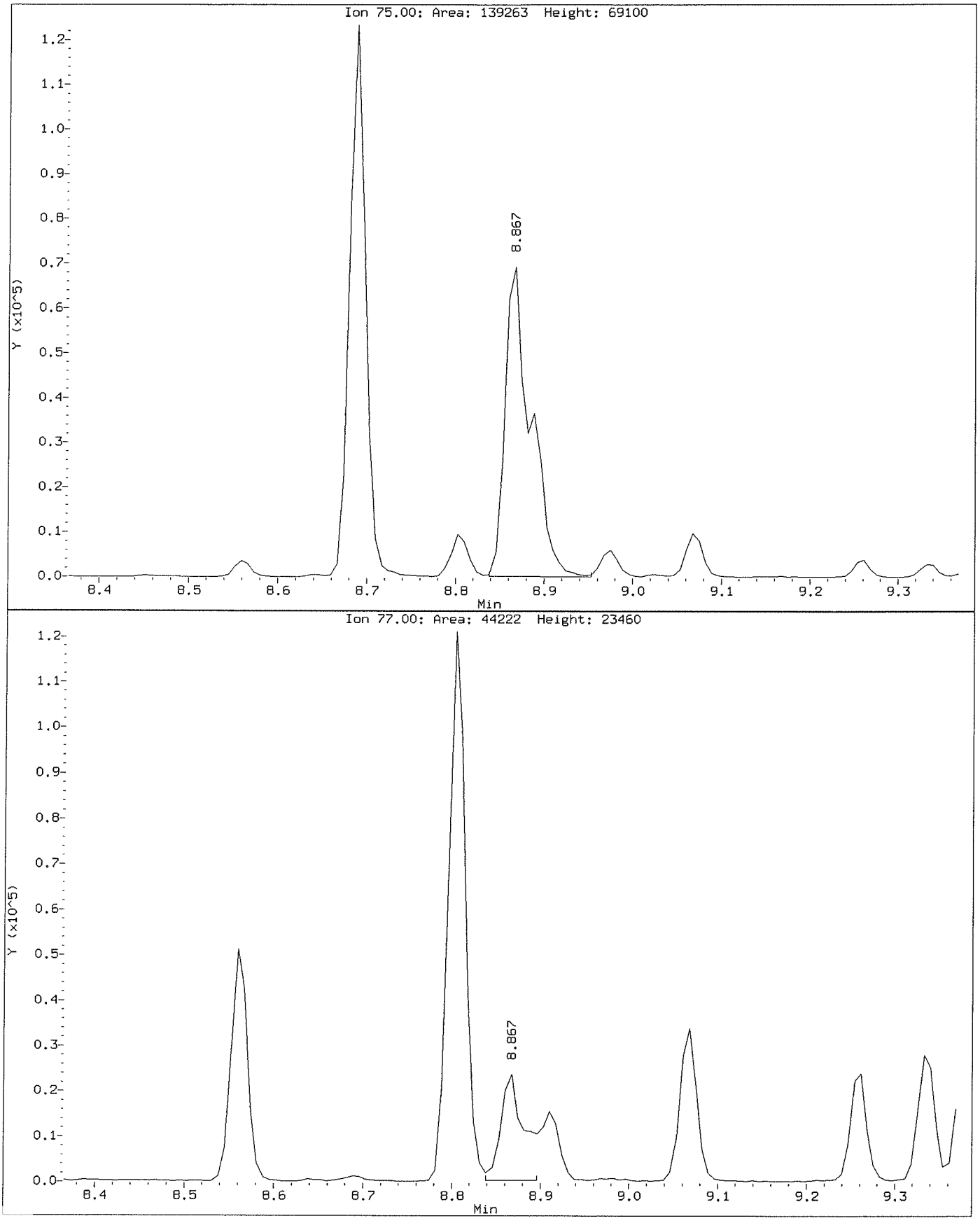


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Instrument: voa6.i
Operator: PC
Column diameter: 0.18

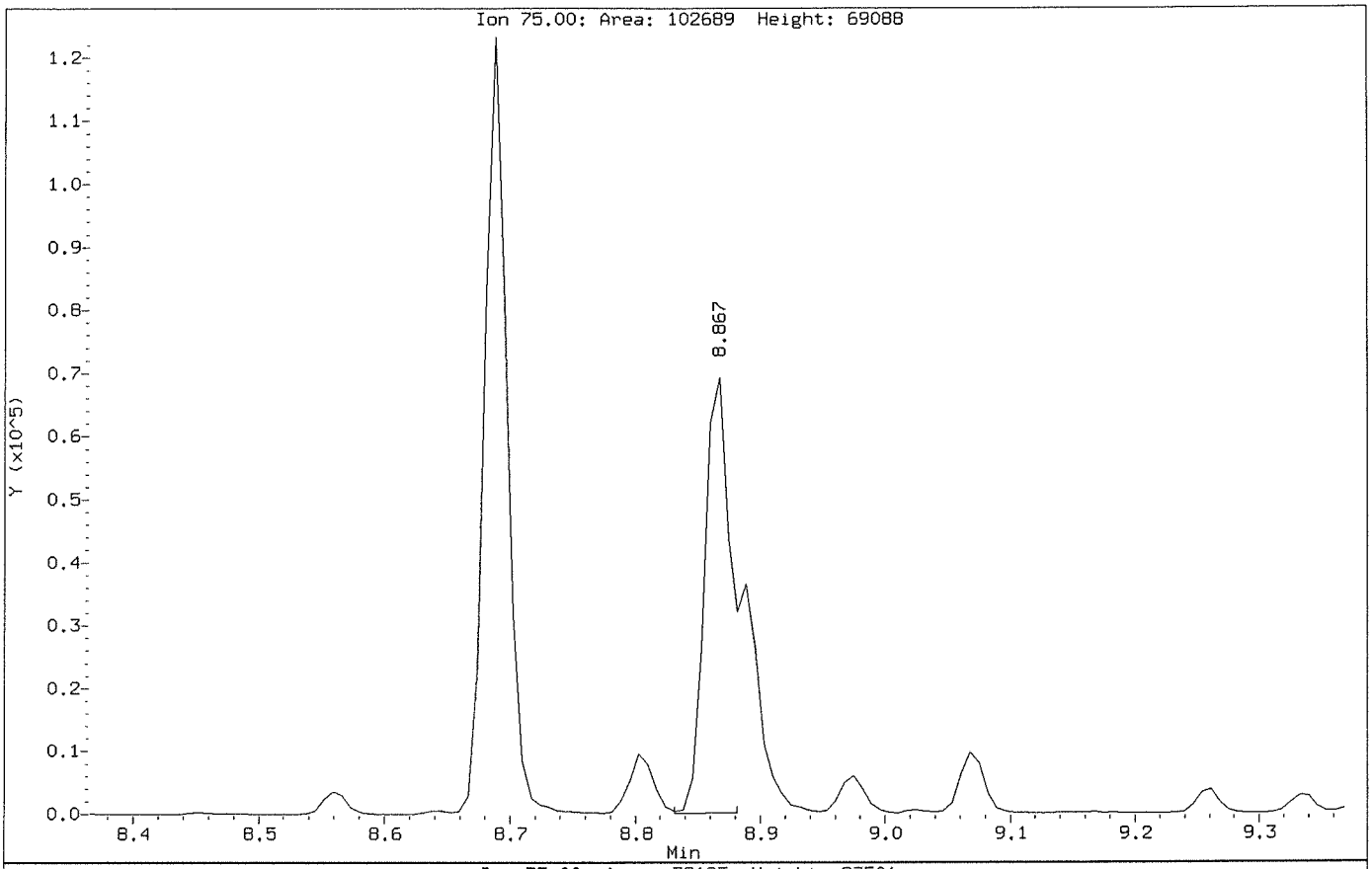
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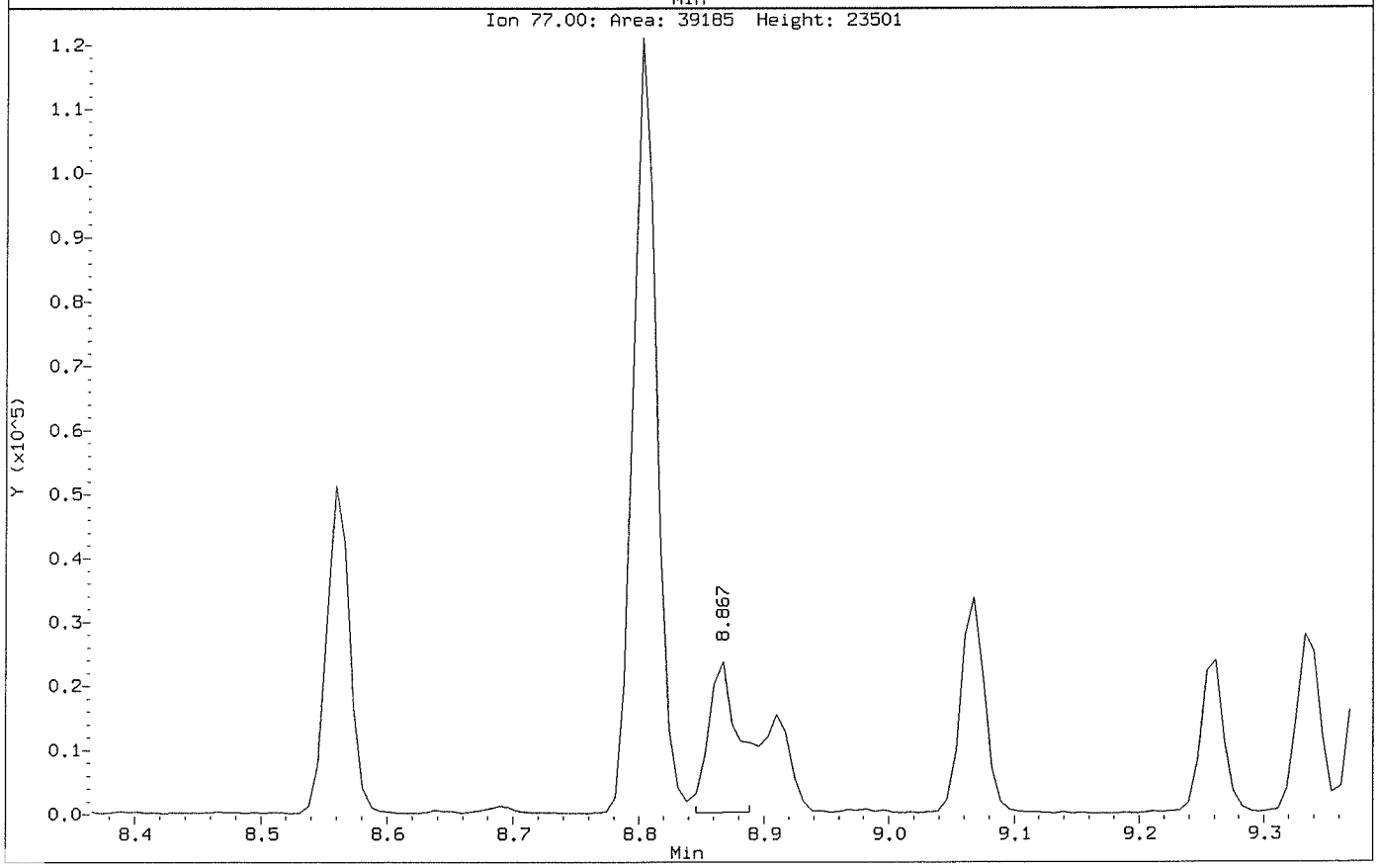
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4



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Instrument: voa6.i
Client Sample ID: HS21060222-01MS

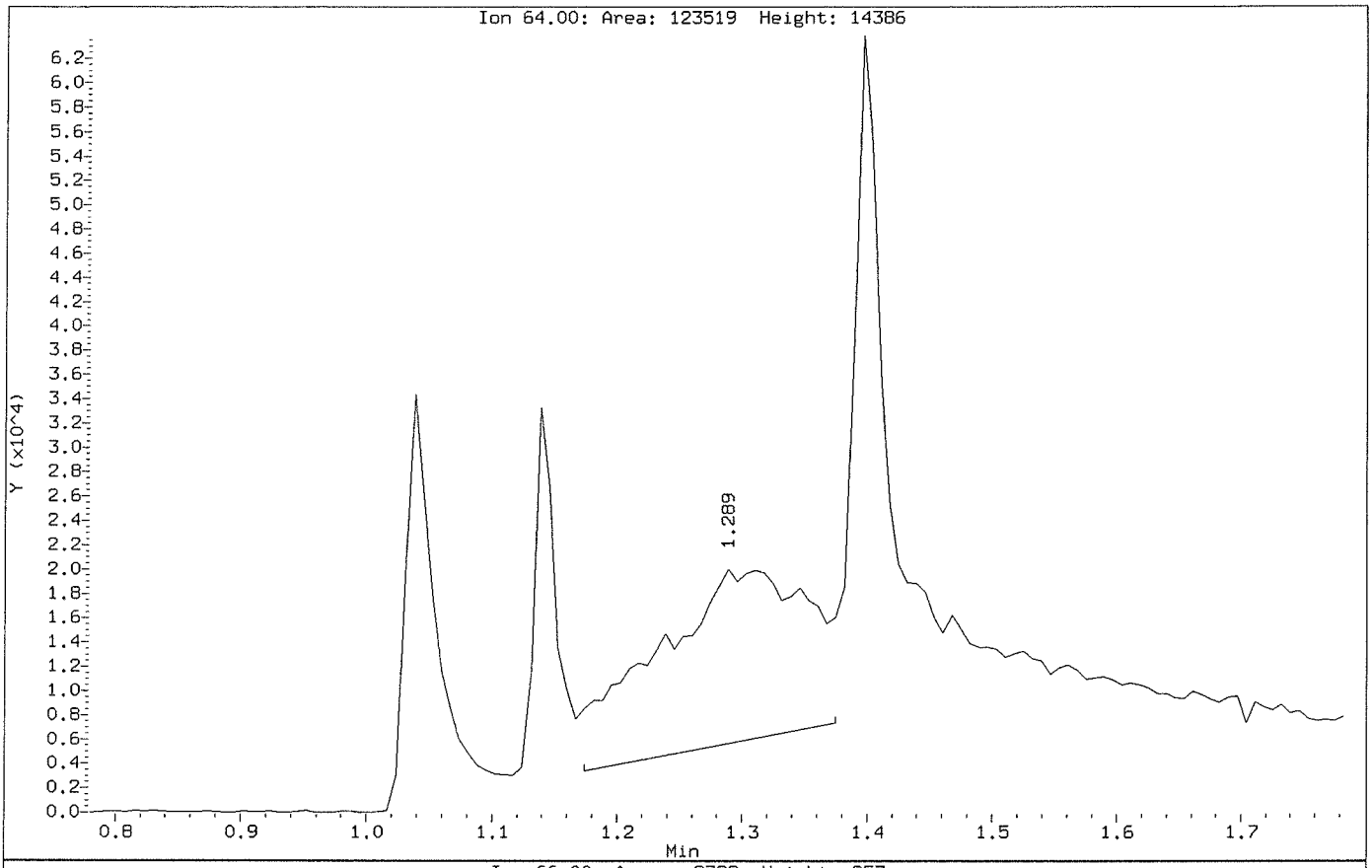
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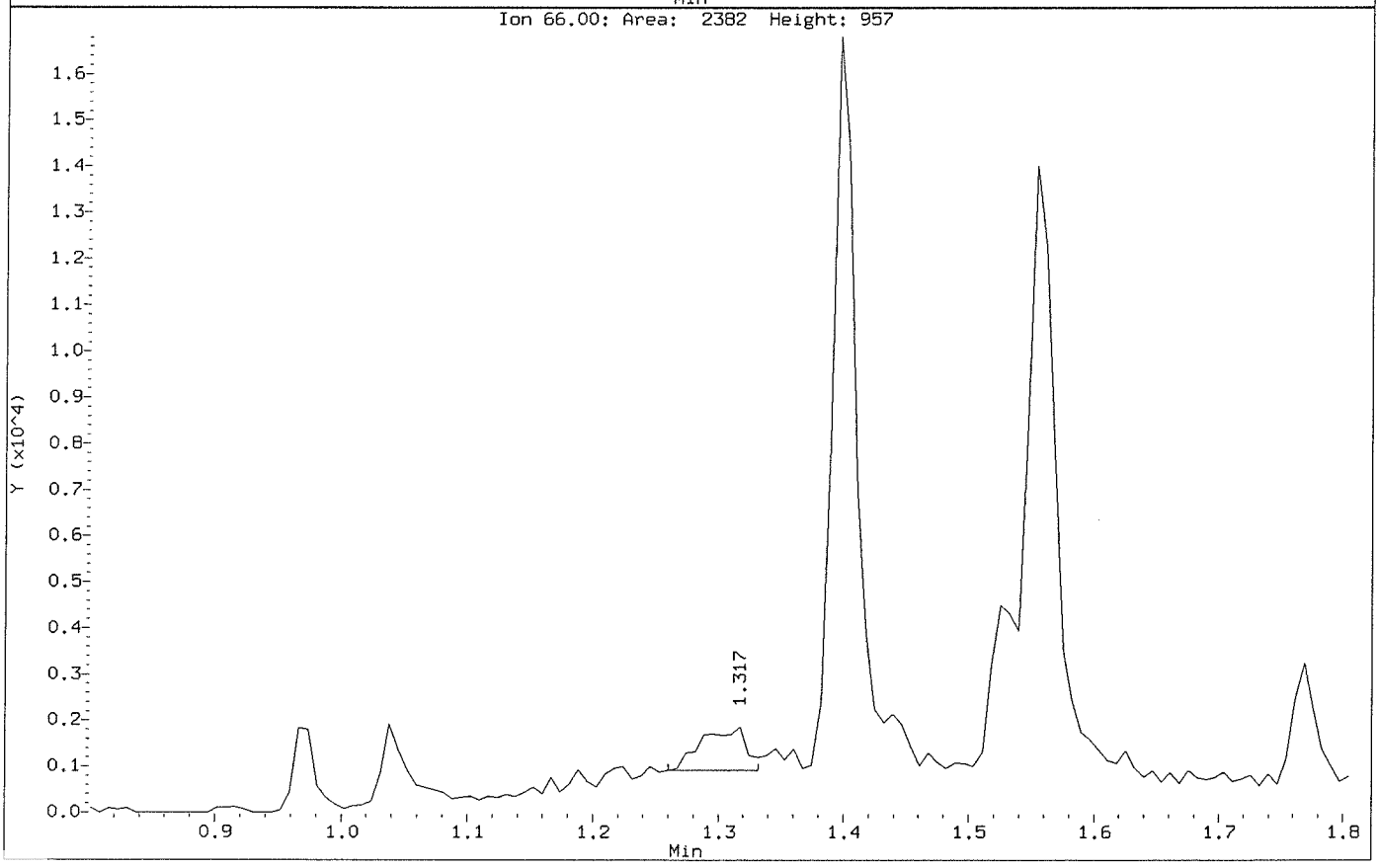




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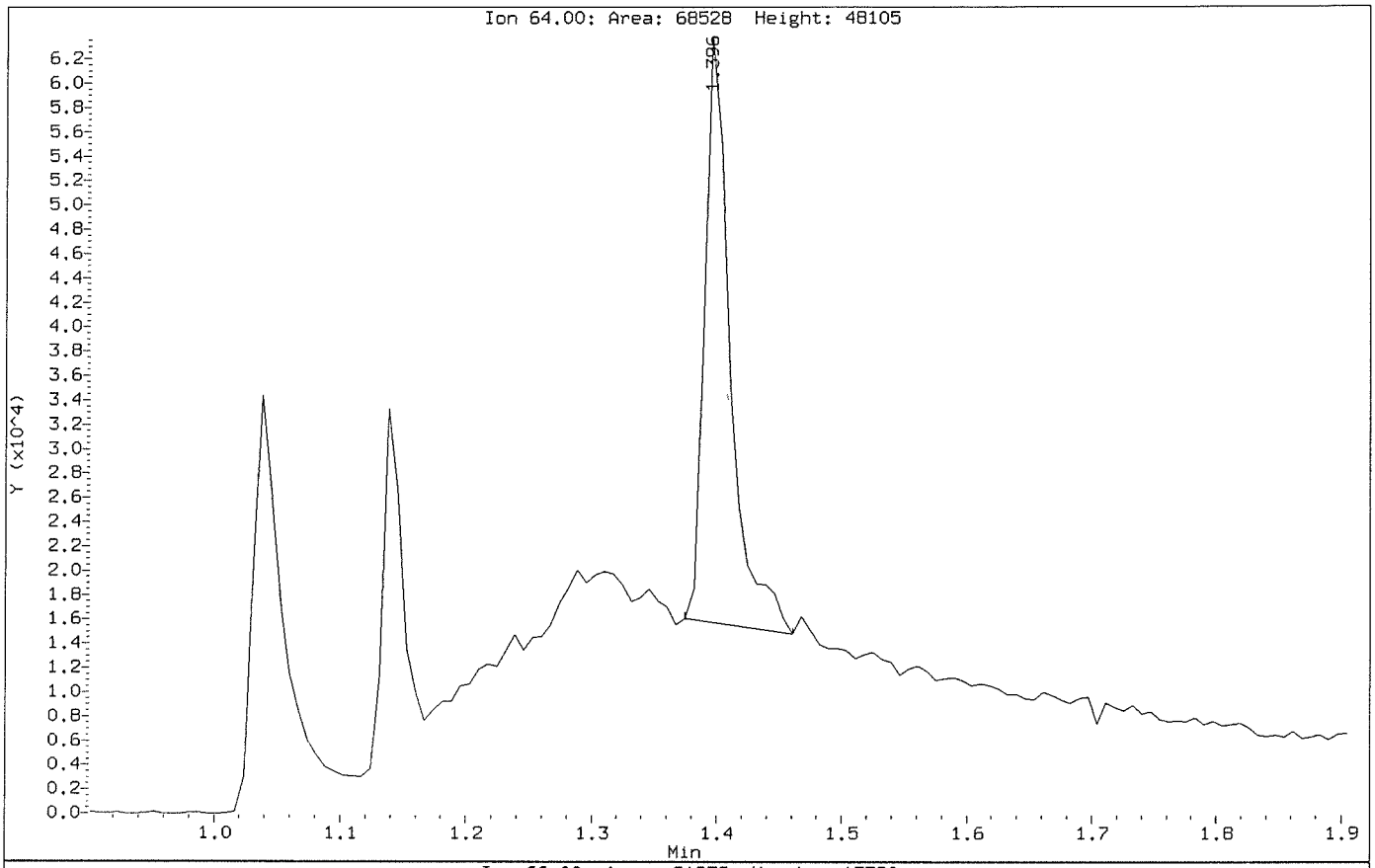
Compound: Chloroethane
CAS Number: 75-00-3

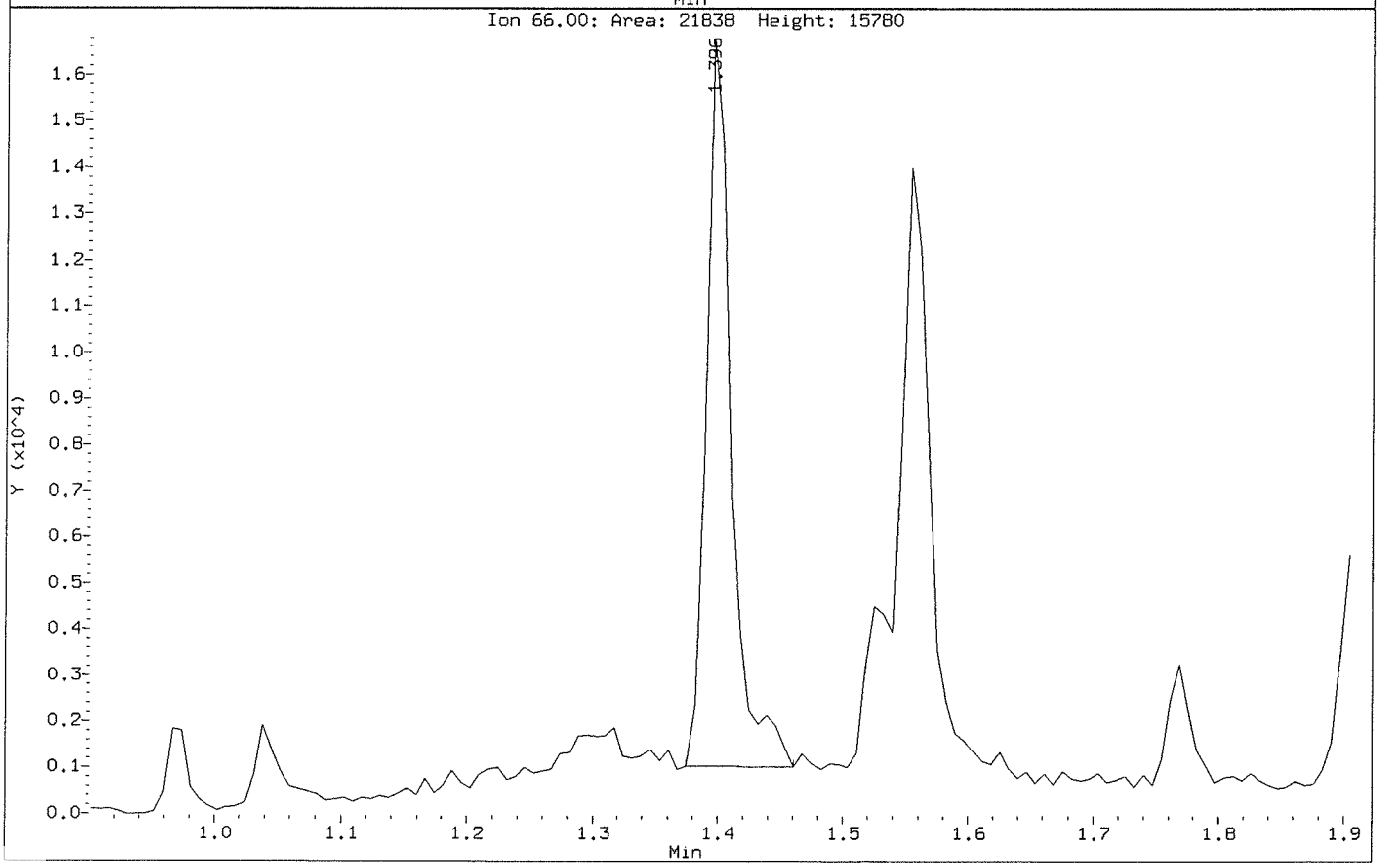




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Injection Date: 10-JUN-2021 17:05
Instrument: voa6.i
Client Sample ID: HS21060222-01MS

Compound: Chloroethane
CAS Number: 75-00-3





Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061014.D Page 1
Report Date: 26-Aug-2021 12:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061014.D
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Inj Date : 10-JUN-2021 17:47
Operator : PC Inst ID: voa6.i
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Misc Info : HS18090001;WATER;0;1;
Comment :
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Meth Date : 26-Aug-2021 12:42 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 13 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

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

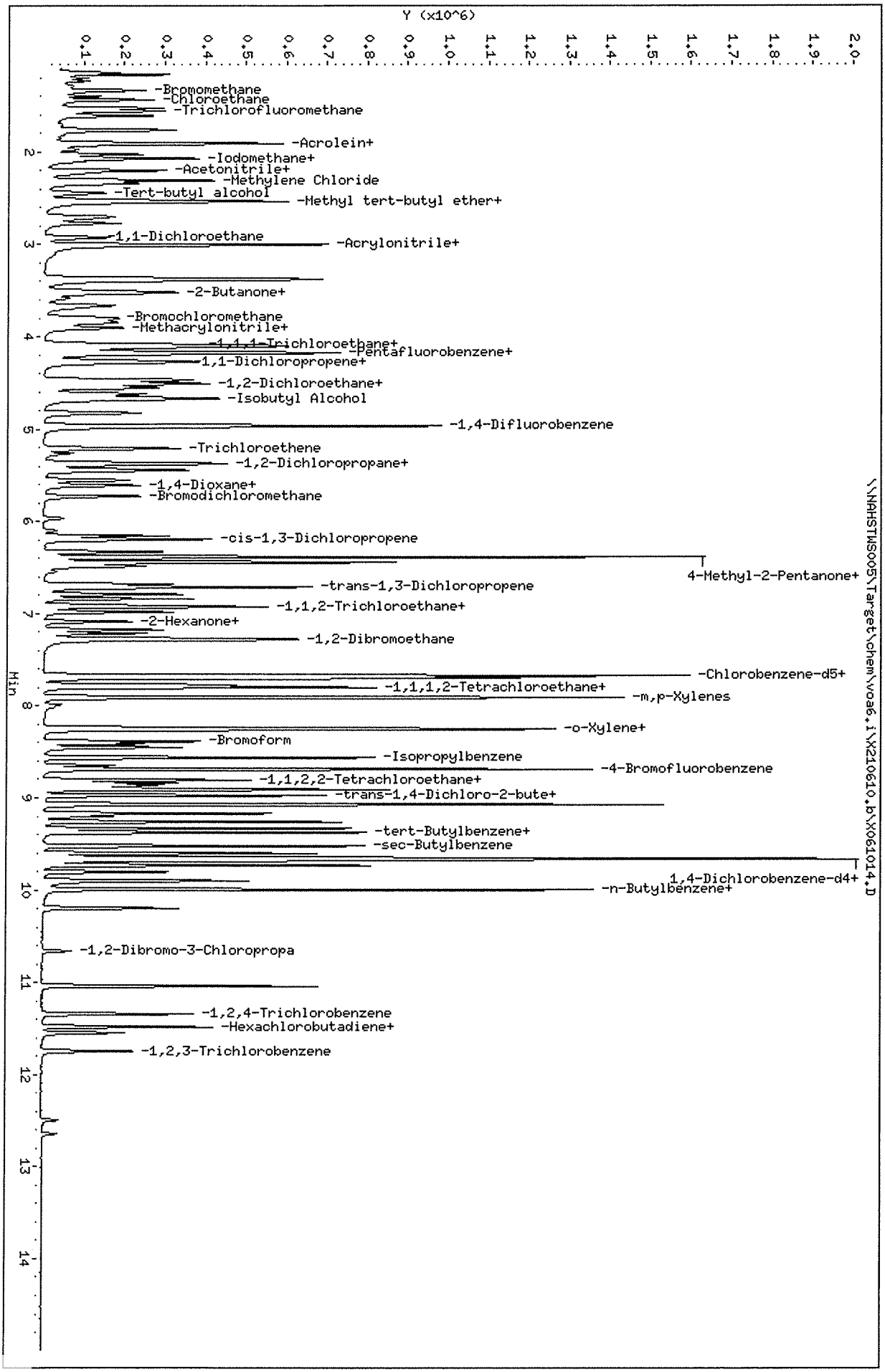
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	646740	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	882681	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	788043	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	407282	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	286110	44.9269	44.92
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	292019	47.2299	47.22
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	999316	50.9086	50.90
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	342159	49.4485	49.44
60 1,1,1,2-Tetrachloroethane	131	7.778	7.771	(1.014)	116151	19.9304	19.93
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	162242	16.9752	16.97
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	131033	22.6488	22.64
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	80671	18.8975	18.89
22 1,1-Dichloroethane	63	2.921	2.922	(0.699)	165530	16.1897	16.18
11 1,1-Dichloroethene	96	1.912	1.912	(0.457)	101282	15.2033	15.20
32 1,1-Dichloropropene	75	4.282	4.283	(0.863)	136527	20.1952	20.19
93 1,2,3-Trichlorobenzene	180	11.746	11.739	(1.216)	73451	29.7903	29.79
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	103714	20.4250	20.42(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	115446	28.6699	28.66
79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	385550	20.7549	20.75
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	16364	25.5800	25.57
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	109902	18.9423	18.94
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	226613	20.5136	20.51

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Report Date: 26-Aug-2021 12:42

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	133074	18.9214	18.92
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	94113	18.1135	18.11
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	383855	20.7633	20.76
83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	242263	21.0887	21.08
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	159628	18.8053	18.80
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	246322	20.5481	20.54
26 2,2-Dichloropropane	77	3.509	3.509	(0.839)	156411	17.6772	17.67
24 2-Butanone	43	3.580	3.581	(0.856)	66527	33.8099	33.80
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	321300	21.0766	21.07
52 2-Hexanone	43	7.090	7.090	(0.924)	118071	40.3339	40.33
77 4-Chlorotoluene	91	9.067	9.067	(0.938)	363000	19.9953	19.99
82 p-Isopropyltoluene	119	9.648	9.648	(0.999)	417103	22.1486	22.14
45 4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	177223	39.0532	39.05
10 Acetone	43	1.976	1.976	(0.473)	52815	27.9153	27.91
37 Benzene	78	4.512	4.512	(0.909)	374423	18.4647	18.46
74 Bromobenzene	156	8.802	8.802	(0.911)	139969	20.7136	20.71
29 Bromochloromethane	128	3.795	3.795	(0.908)	64512	16.4967	16.49
39 Bromodichloromethane	83	5.729	5.722	(1.154)	138662	18.2731	18.27
66 Bromoform	173	8.408	8.408	(1.096)	87444	19.8994	19.89
6 Bromomethane	94	1.331	1.339	(0.318)	108641	16.3664	16.36
19 Carbon Disulfide	76	2.069	2.069	(0.495)	481116	30.4540	30.45
34 Carbon Tetrachloride	117	4.268	4.261	(0.860)	149325	20.4075	20.40
59 Chlorobenzene	112	7.692	7.692	(1.003)	303525	18.5021	18.50
7 Chloroethane	64	1.396	1.403	(0.334)	64854	13.2882	13.28(M)
28 Chloroform	83	3.910	3.910	(0.935)	181506	15.9589	15.95
3 Chloromethane	50	1.073	1.073	(0.257)	73230	10.4746	10.47
27 cis-1,2-Dichloroethene	96	3.530	3.523	(0.844)	113585	16.7561	16.75
46 cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	167894	18.7765	18.77
55 Dibromochloromethane	129	7.176	7.176	(0.936)	126616	19.5212	19.52
44 Dibromomethane	93	5.550	5.550	(1.118)	71613	18.3405	18.34
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	66569	11.0420	11.04
61 Ethylbenzene	106	7.800	7.800	(1.017)	158953	21.0026	21.00
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	72316	29.6777	29.67
67 Isopropylbenzene	105	8.559	8.559	(1.116)	477472	20.6481	20.64
62 m,p-Xylenes	106	7.907	7.907	(1.031)	391778	39.7097	39.70
17 Methylene Chloride	84	2.305	2.306	(0.551)	98149	15.8509	15.85
87 n-Butylbenzene	91	9.991	9.991	(1.034)	355872	22.4605	22.46
73 n-Propylbenzene	91	8.910	8.910	(0.922)	548569	21.5925	21.59
92 Naphthalene	128	11.546	11.539	(1.195)	163906	28.1615	28.16
63 o-Xylene	106	8.244	8.244	(1.075)	184079	19.1342	19.13
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	479802	22.4349	22.43
64 Styrene	104	8.258	8.258	(1.077)	306812	19.0853	19.08
78 tert-Butylbenzene	119	9.332	9.340	(0.966)	342952	21.6382	21.63
56 Tetrachloroethene	164	6.926	6.926	(0.903)	107829	22.2271	22.22
50 Toluene	91	6.446	6.446	(0.840)	430626	18.7179	18.71
20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.604)	97005	16.0636	16.06
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	146763	19.0262	19.02
38 Trichloroethene	130	5.207	5.207	(1.049)	121243	20.0131	20.01
8 Trichlorofluoromethane	101	1.561	1.561	(0.373)	181195	15.5210	15.52
5 Vinyl Chloride	62	1.138	1.138	(0.272)	105910	13.8344	13.83

QC Flag Legend

M - Compound response manually integrated.

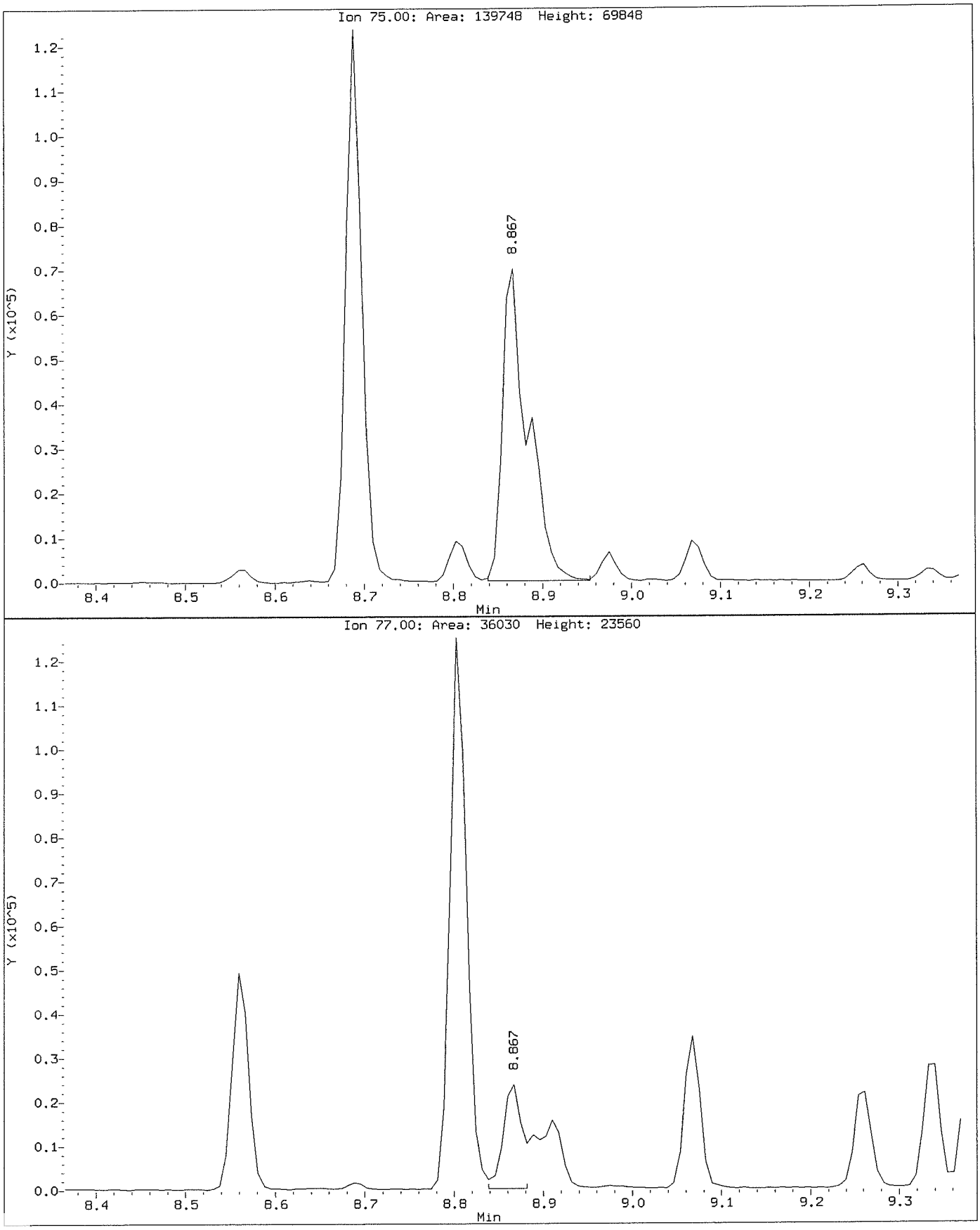


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Instrument: voa6.i
Operator: PC
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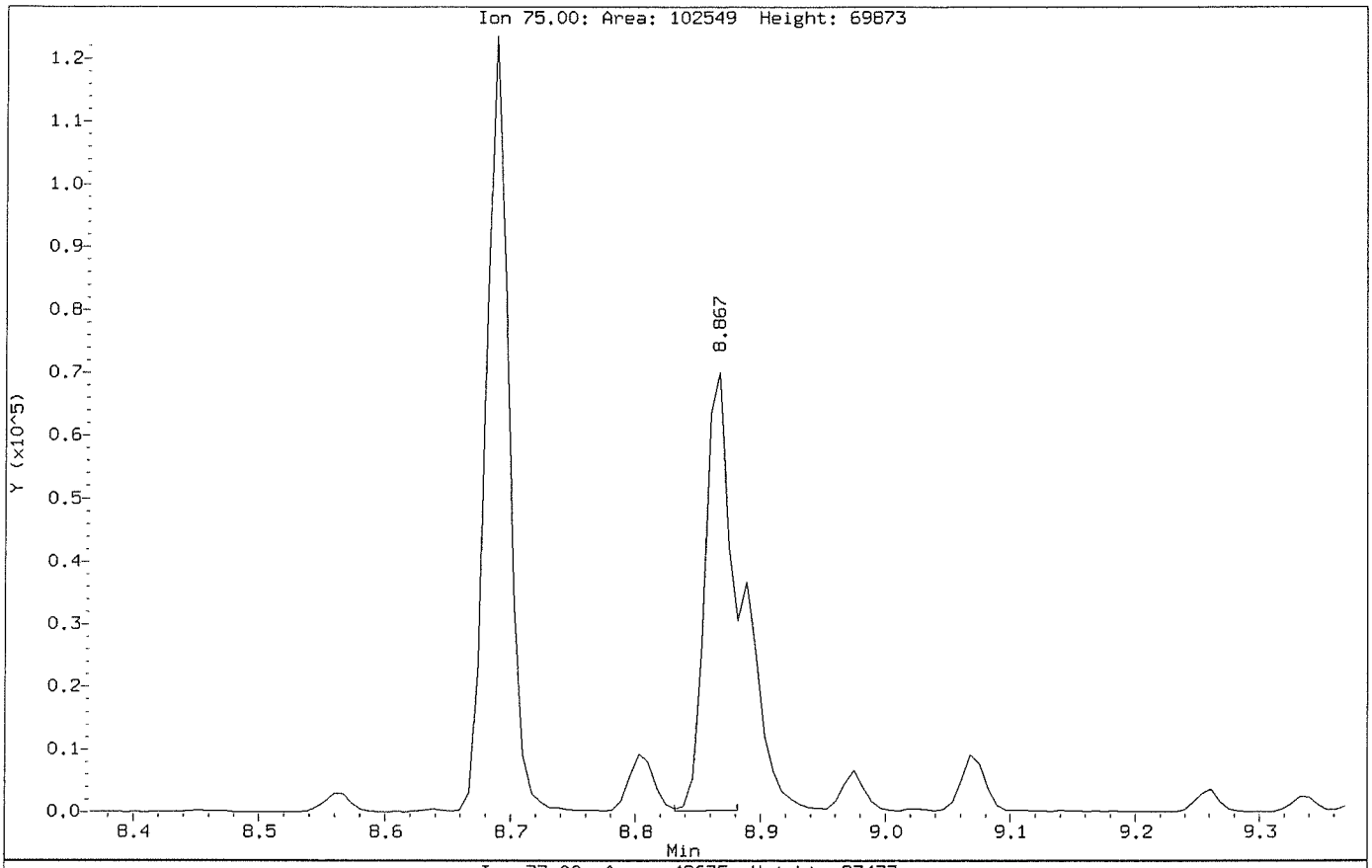
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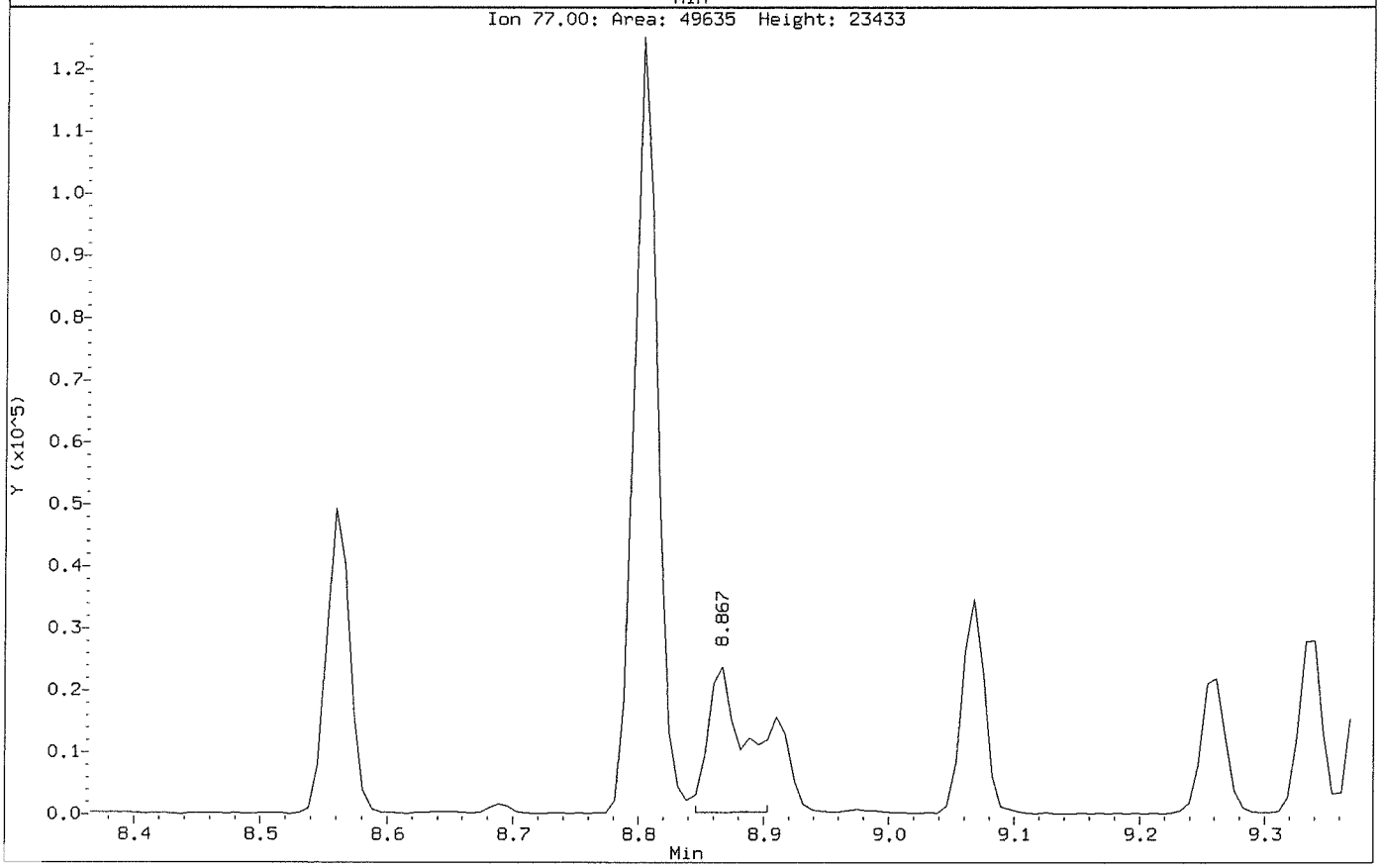
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CAS Number: 96-18-4



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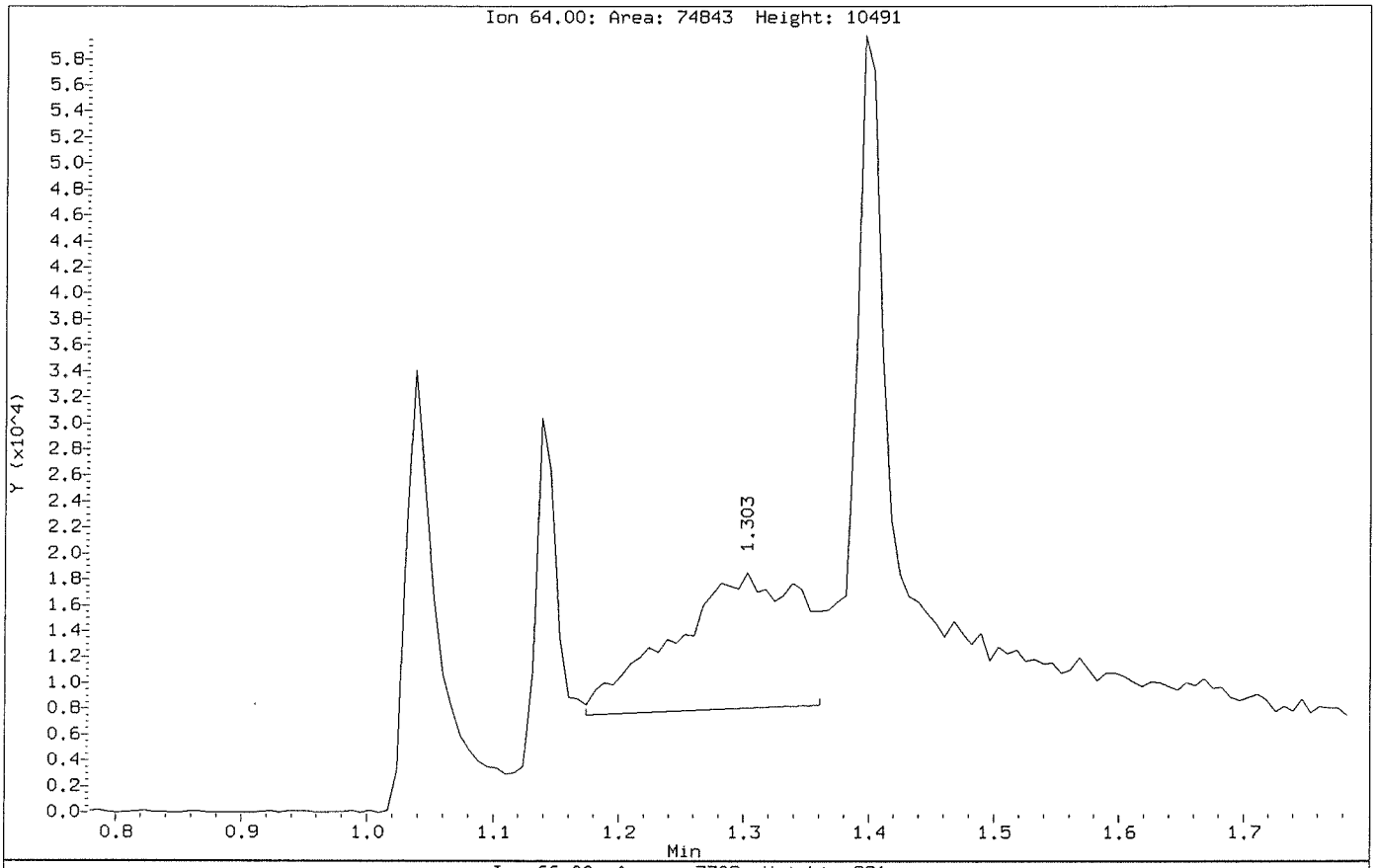
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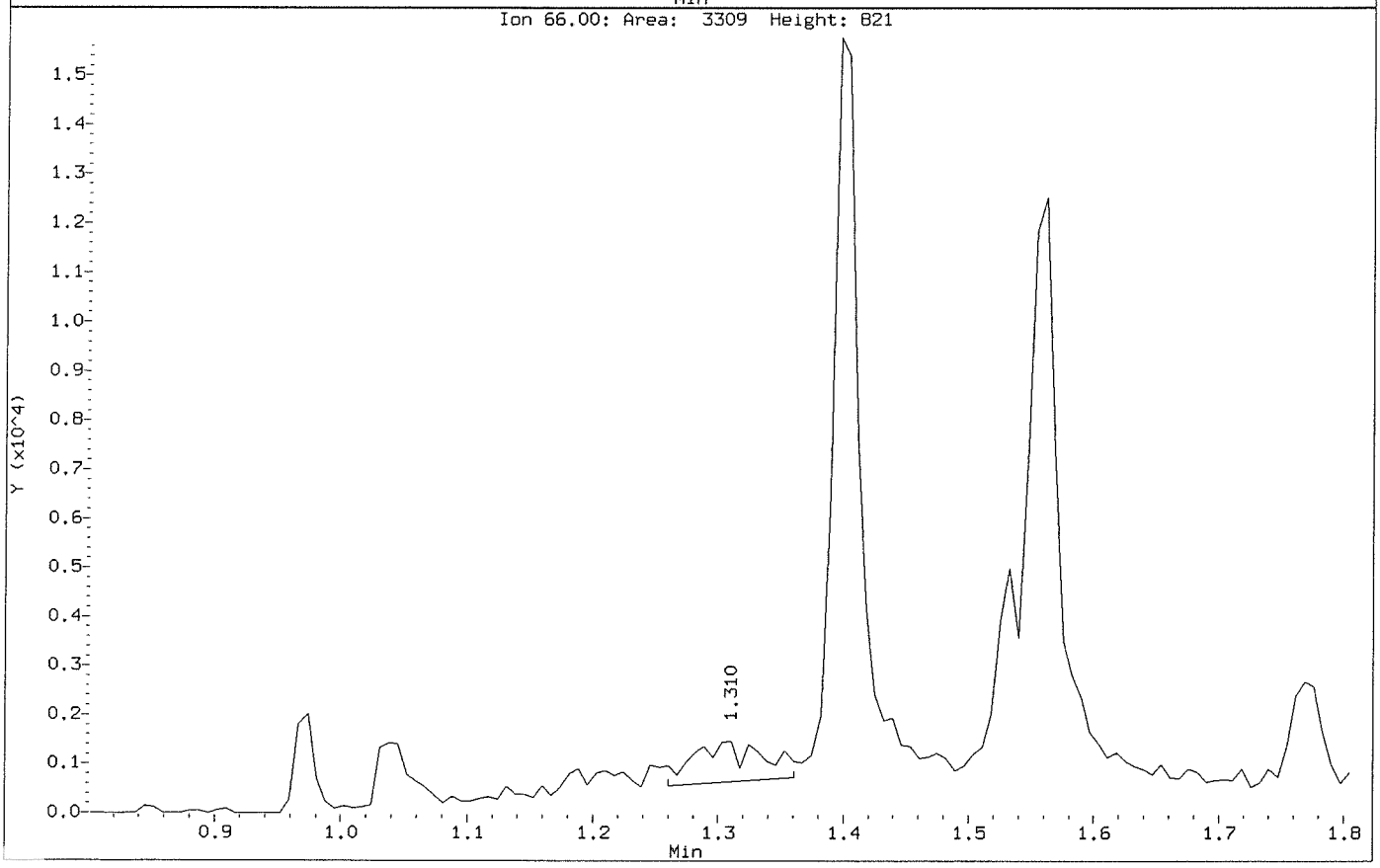




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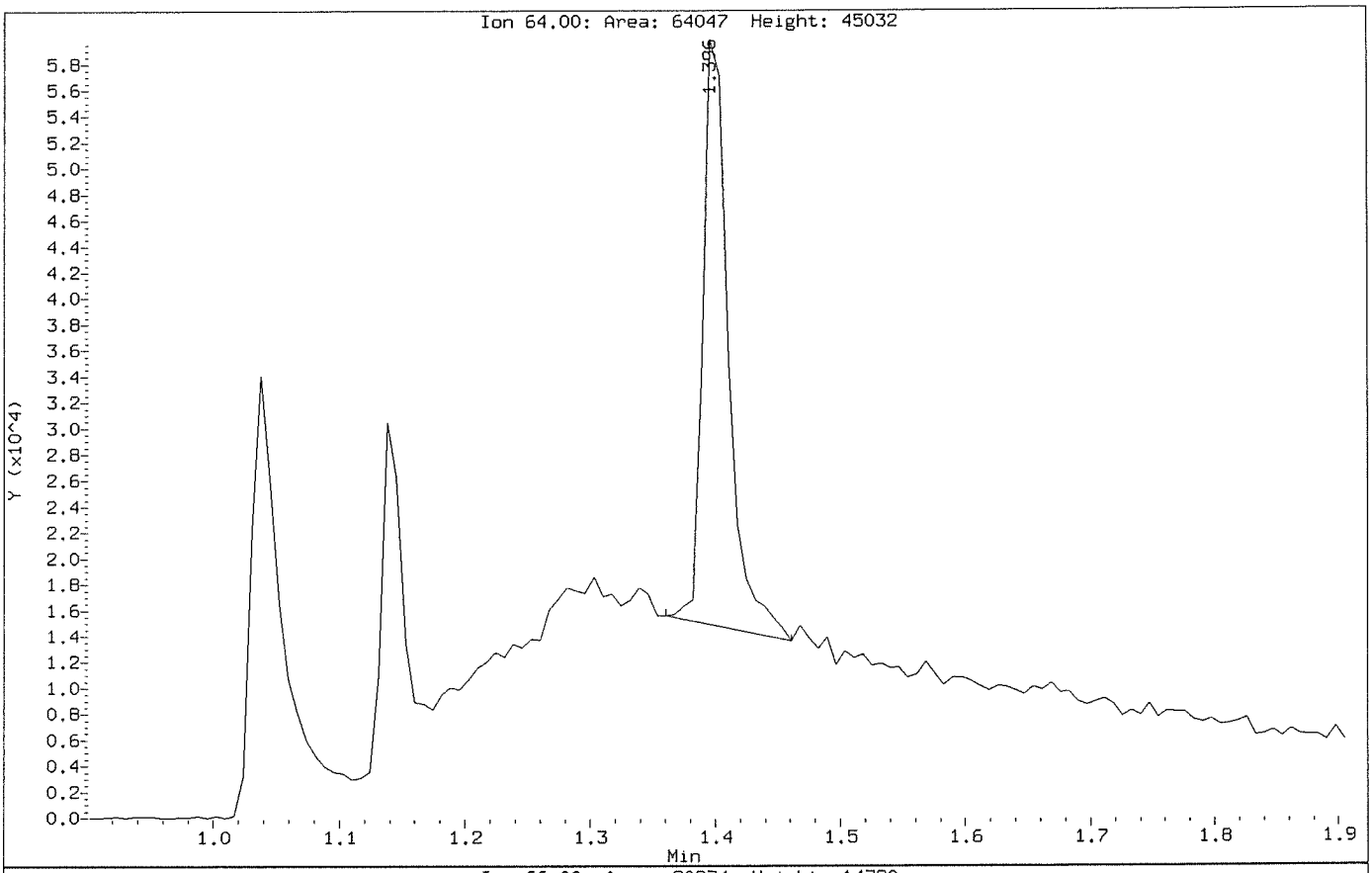
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CAS Number: 75-00-3

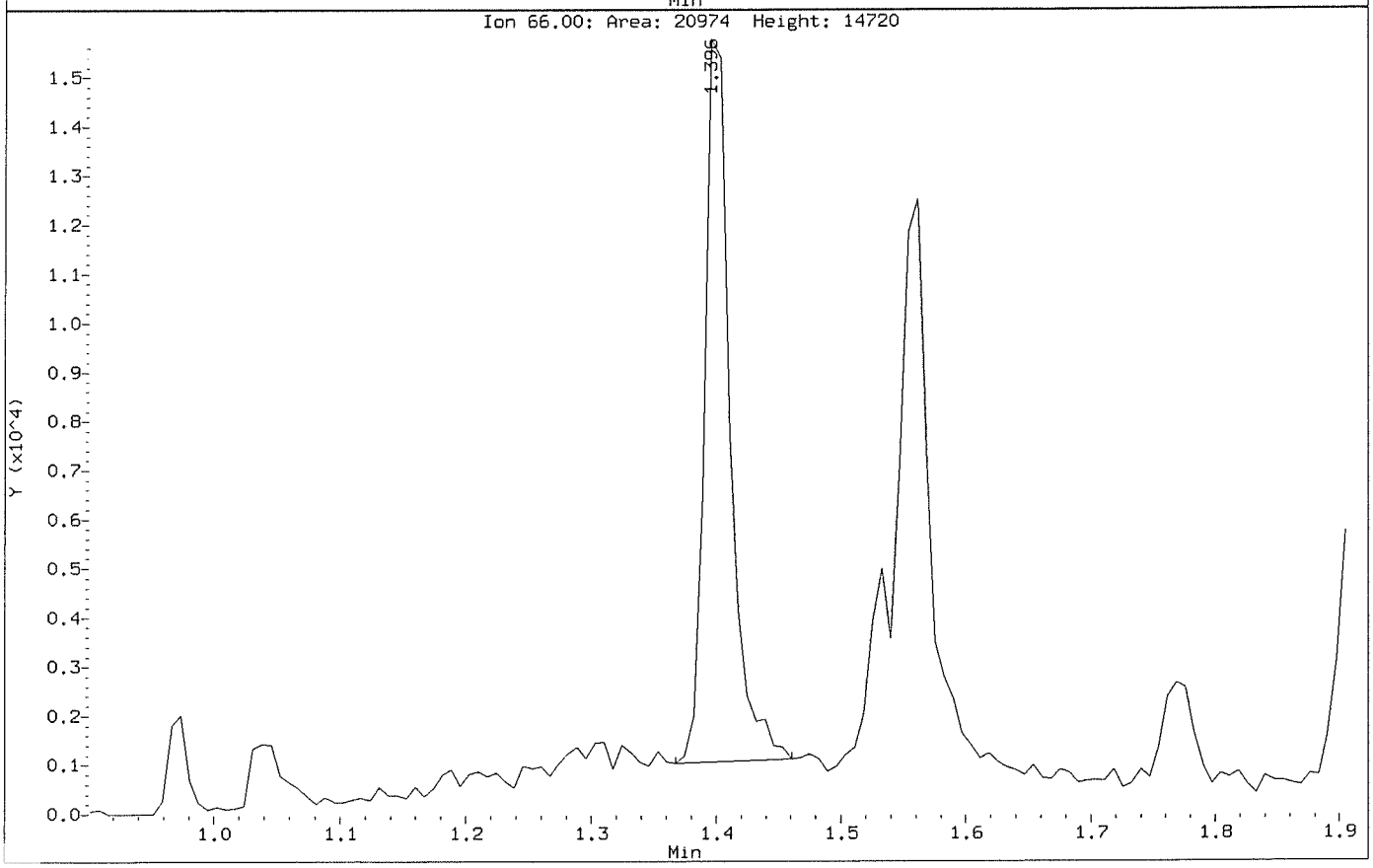




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Compound: Chloroethane
CAS Number: 75-00-3





Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061014.D Page 1
Report Date: 26-Aug-2021 12:52

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061014.D
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Als bottle: 13 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

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

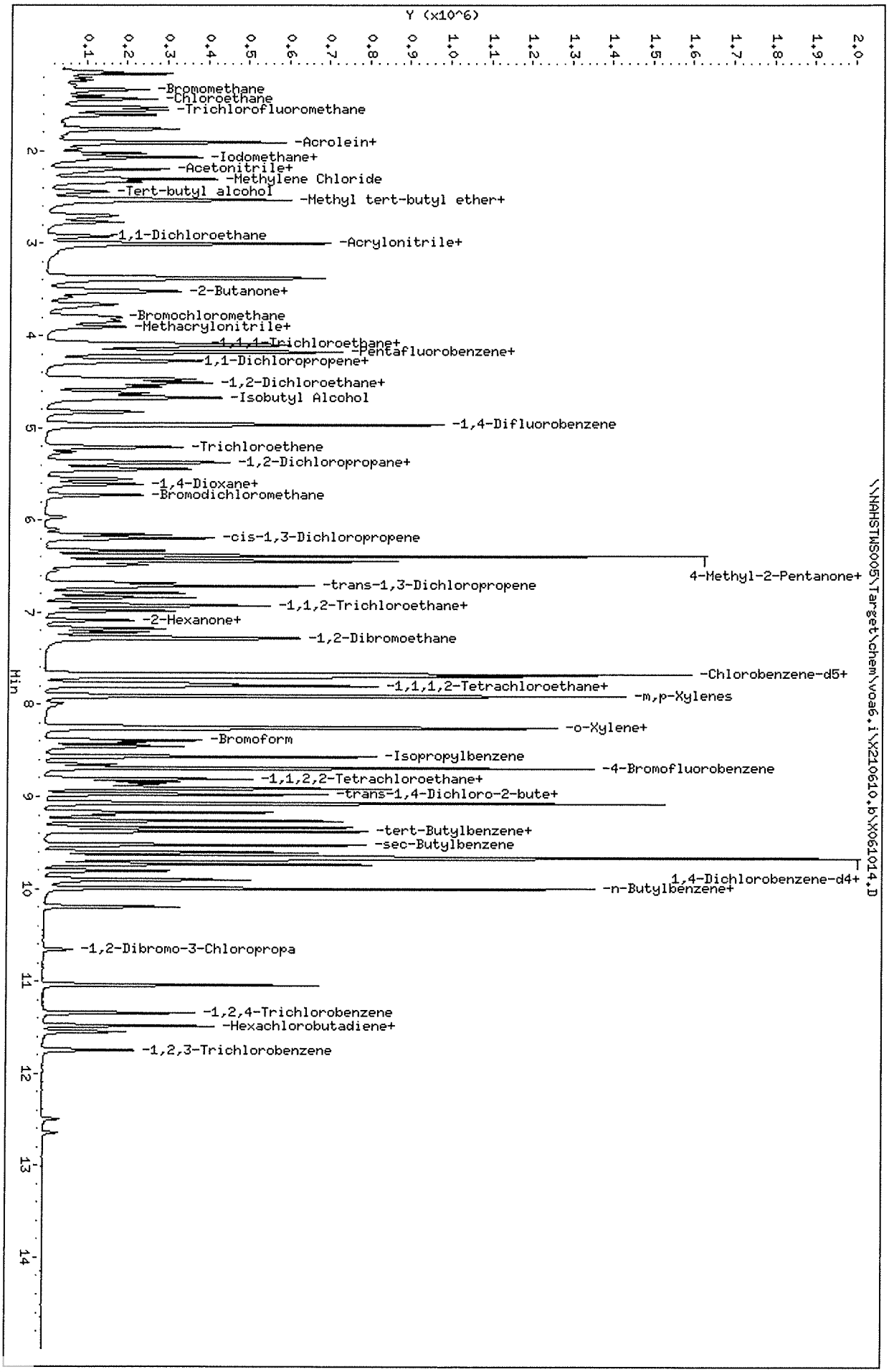
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	646740	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	882681	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	788043	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	407282	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	286110	44.9269	44.92
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	292019	47.2299	47.22
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	999316	50.9086	50.90
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	342159	49.4485	49.44
60 1,1,1,2-Tetrachloroethane	131	7.778	7.771	(1.014)	116151	19.9304	19.93
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	162242	16.9752	16.97
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	131033	22.6488	22.64
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	80671	18.8975	18.89
22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	165530	16.1897	16.18
11 1,1-Dichloroethene	96	1.912	1.911	(0.457)	101282	15.2033	15.20
32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	136527	20.1952	20.19
93 1,2,3-Trichlorobenzene	180	11.746	11.739	(1.216)	73451	29.7903	29.79
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	103714	20.4250	20.42(M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	115446	28.6699	28.66
79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	385550	20.7549	20.75
89 1,2-Dibromo-3-Chloropropane	155	10.658	10.657	(1.103)	16364	25.5800	25.57
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	109902	18.9423	18.94
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	226613	20.5136	20.51

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061014.D Page 2
Report Date: 26-Aug-2021 12:52

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	133074	18.9214	18.92
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	94113	18.1135	18.11
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	383855	20.7633	20.76
83	1,3-Dichlorobenzene	146	9.605	9.604	(0.994)	242263	21.0887	21.08
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	159628	18.8053	18.80
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	246322	20.5481	20.54
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	156411	17.6772	17.67
24	2-Butanone	43	3.580	3.580	(0.856)	66527	33.8099	33.80
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	321300	21.0766	21.07
52	2-Hexanone	43	7.090	7.083	(0.924)	118071	40.3339	40.33
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	363000	19.9953	19.99
82	p-Isopropyltoluene	119	9.648	9.647	(0.999)	417103	22.1486	22.14
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	177223	39.0532	39.05
10	Acetone	43	1.976	1.976	(0.473)	52815	27.9153	27.91
37	Benzene	78	4.512	4.512	(0.909)	374423	18.4647	18.46
74	Bromobenzene	156	8.802	8.802	(0.911)	139969	20.7136	20.71
29	Bromochloromethane	128	3.795	3.795	(0.908)	64512	16.4967	16.49
39	Bromodichloromethane	83	5.729	5.722	(1.154)	138662	18.2731	18.27
66	Bromoform	173	8.408	8.408	(1.096)	87444	19.8994	19.89
6	Bromomethane	94	1.331	1.338	(0.318)	108641	16.3664	16.36
19	Carbon Disulfide	76	2.069	2.069	(0.495)	481116	30.4540	30.45
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	149325	20.4075	20.40
59	Chlorobenzene	112	7.692	7.692	(1.003)	303525	18.5021	18.50
7	Chloroethane	64	1.396	1.403	(0.334)	64854	13.2882	13.28 (M)
28	Chloroform	83	3.910	3.910	(0.935)	181506	15.9589	15.95
3	Chloromethane	50	1.073	1.073	(0.257)	73230	10.4746	10.47
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	113585	16.7561	16.75
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	167894	18.7765	18.77
55	Dibromochloromethane	129	7.176	7.176	(0.936)	126616	19.5212	19.52
44	Dibromomethane	93	5.550	5.550	(1.118)	71613	18.3405	18.34
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	66569	11.0420	11.04
61	Ethylbenzene	106	7.800	7.799	(1.017)	158953	21.0026	21.00
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	72316	29.6777	29.67
67	Isopropylbenzene	105	8.559	8.559	(1.116)	477472	20.6481	20.64
62	m,p-Xylenes	106	7.907	7.900	(1.031)	391778	39.7097	39.70
17	Methylene Chloride	84	2.305	2.305	(0.551)	98149	15.8509	15.85
87	n-Butylbenzene	91	9.991	9.991	(1.034)	355872	22.4605	22.46
73	n-Propylbenzene	91	8.910	8.910	(0.922)	548569	21.5925	21.59
92	Naphthalene	128	11.546	11.546	(1.195)	163906	28.1615	28.16
63	o-Xylene	106	8.244	8.243	(1.075)	184079	19.1342	19.13
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	479802	22.4349	22.43
64	Styrene	104	8.258	8.258	(1.077)	306812	19.0853	19.08
78	tert-Butylbenzene	119	9.332	9.332	(0.966)	342952	21.6382	21.63
56	Tetrachloroethene	164	6.926	6.925	(0.903)	107829	22.2271	22.22
50	Toluene	91	6.446	6.446	(0.840)	430626	18.7179	18.71
20	trans-1,2-Dichloroethene	96	2.528	2.527	(0.604)	97005	16.0636	16.06
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	146763	19.0262	19.02
38	Trichloroethene	130	5.207	5.206	(1.049)	121243	20.0131	20.01
8	Trichlorofluoromethane	101	1.561	1.560	(0.373)	181195	15.5210	15.52
5	Vinyl Chloride	62	1.138	1.138	(0.272)	105910	13.8344	13.83

QC Flag Legend

M - Compound response manually integrated.

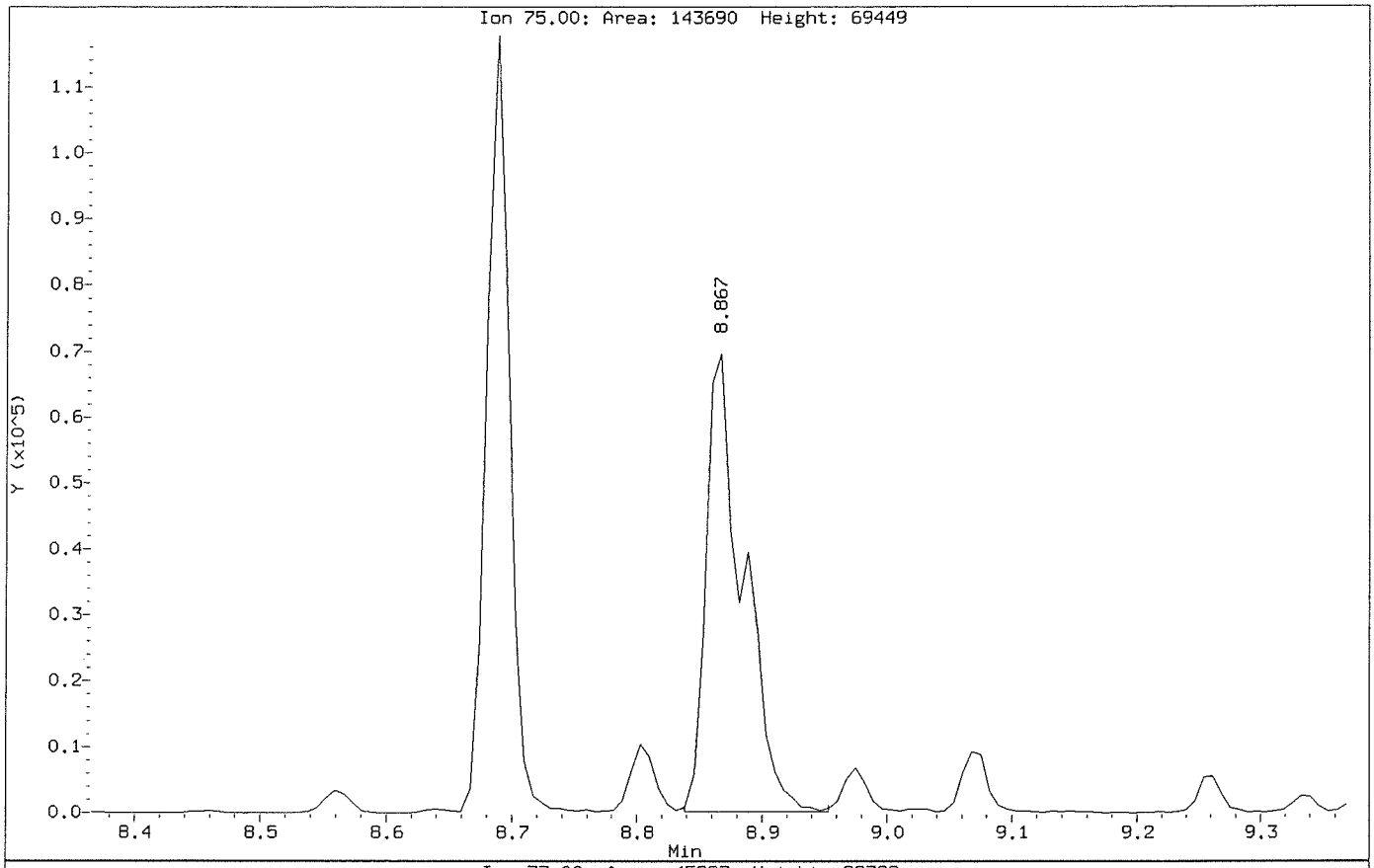


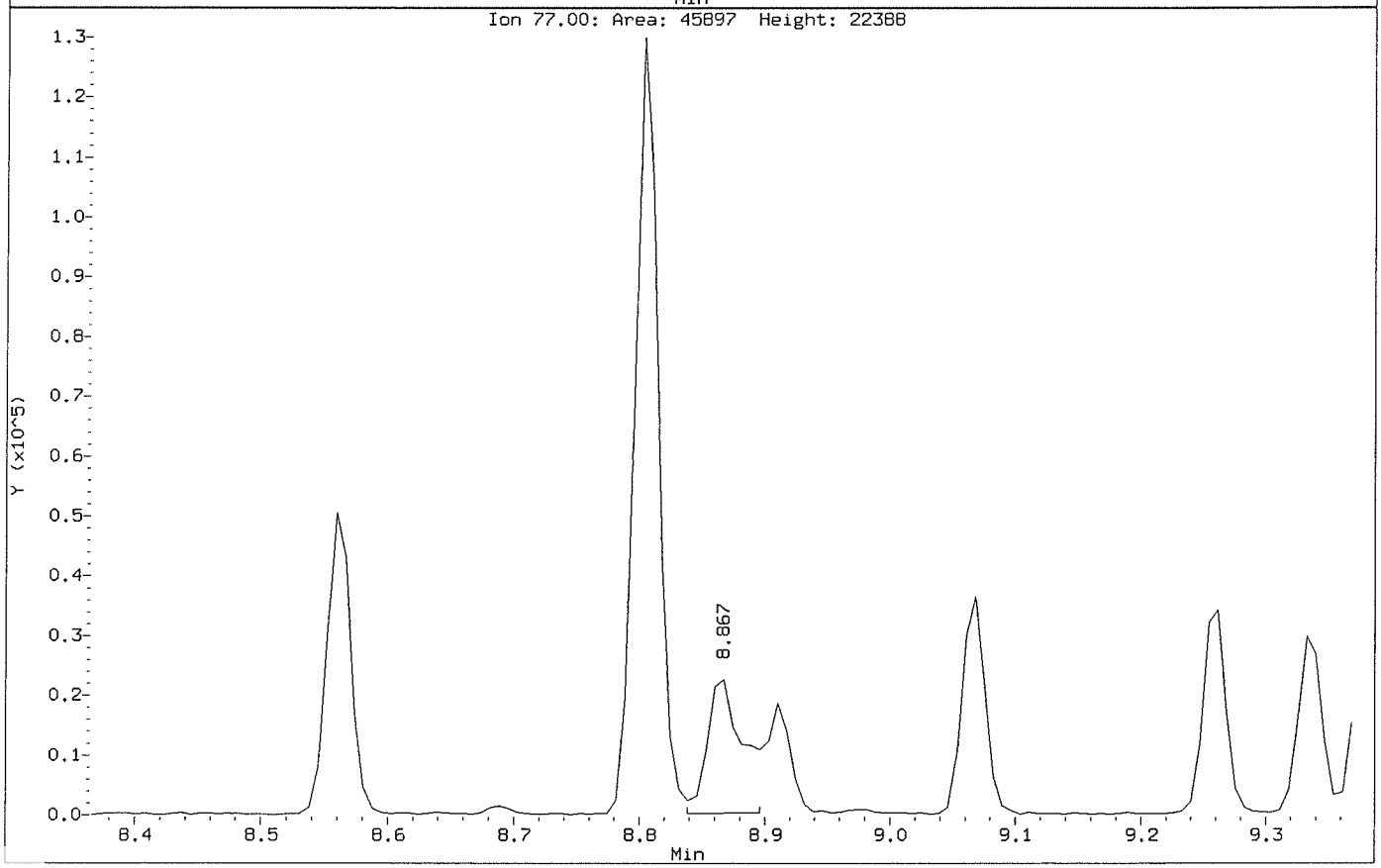
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Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

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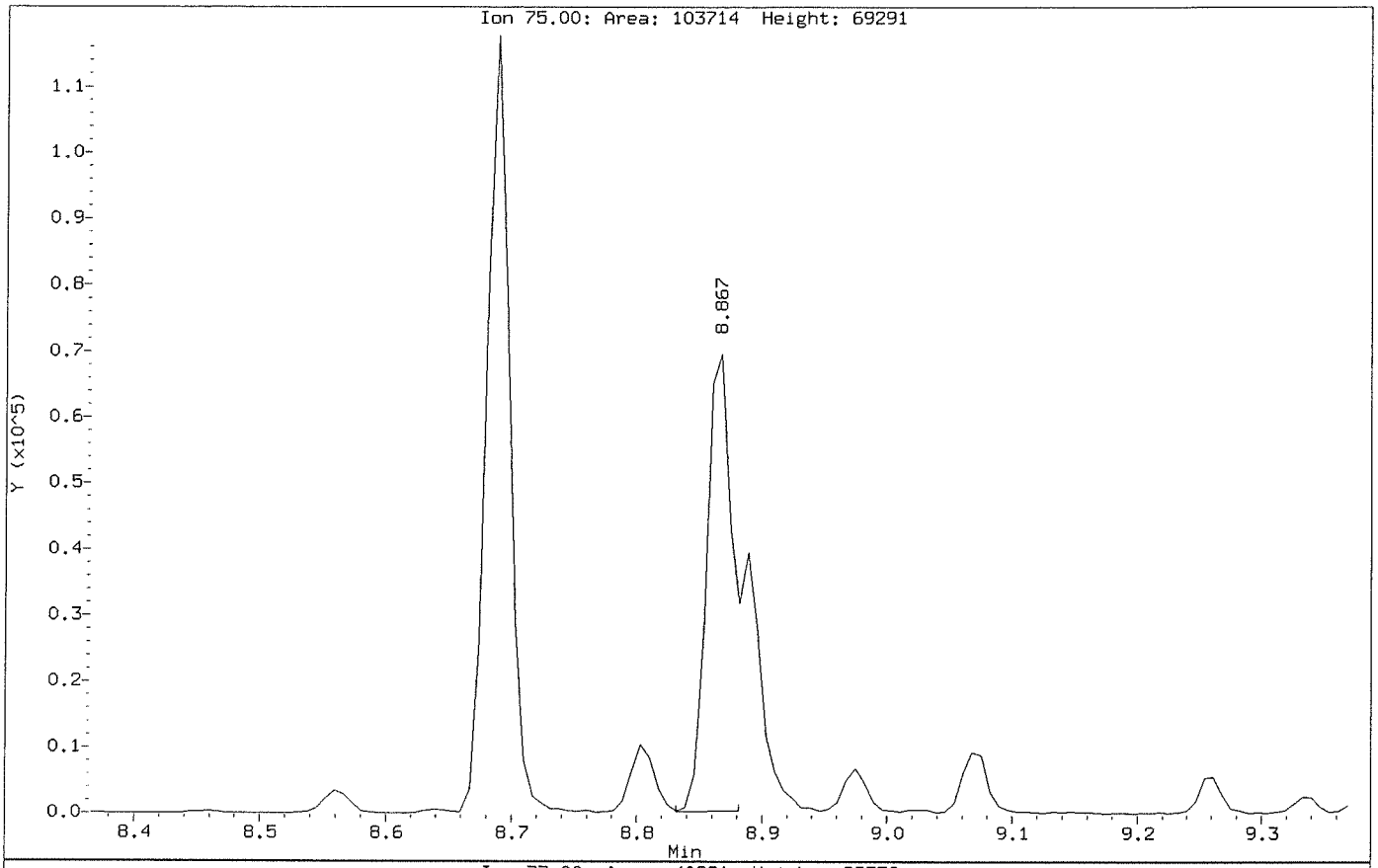
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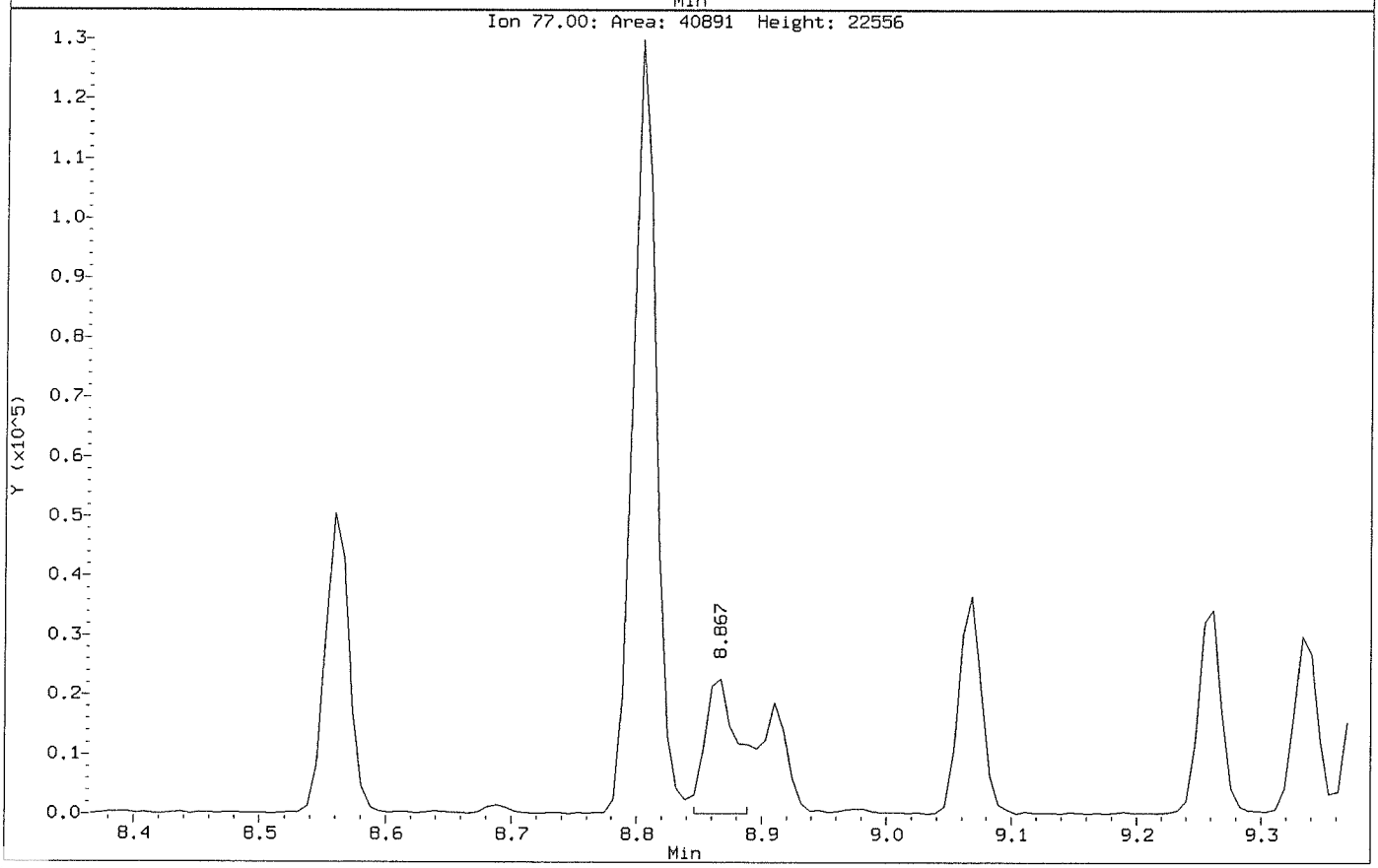




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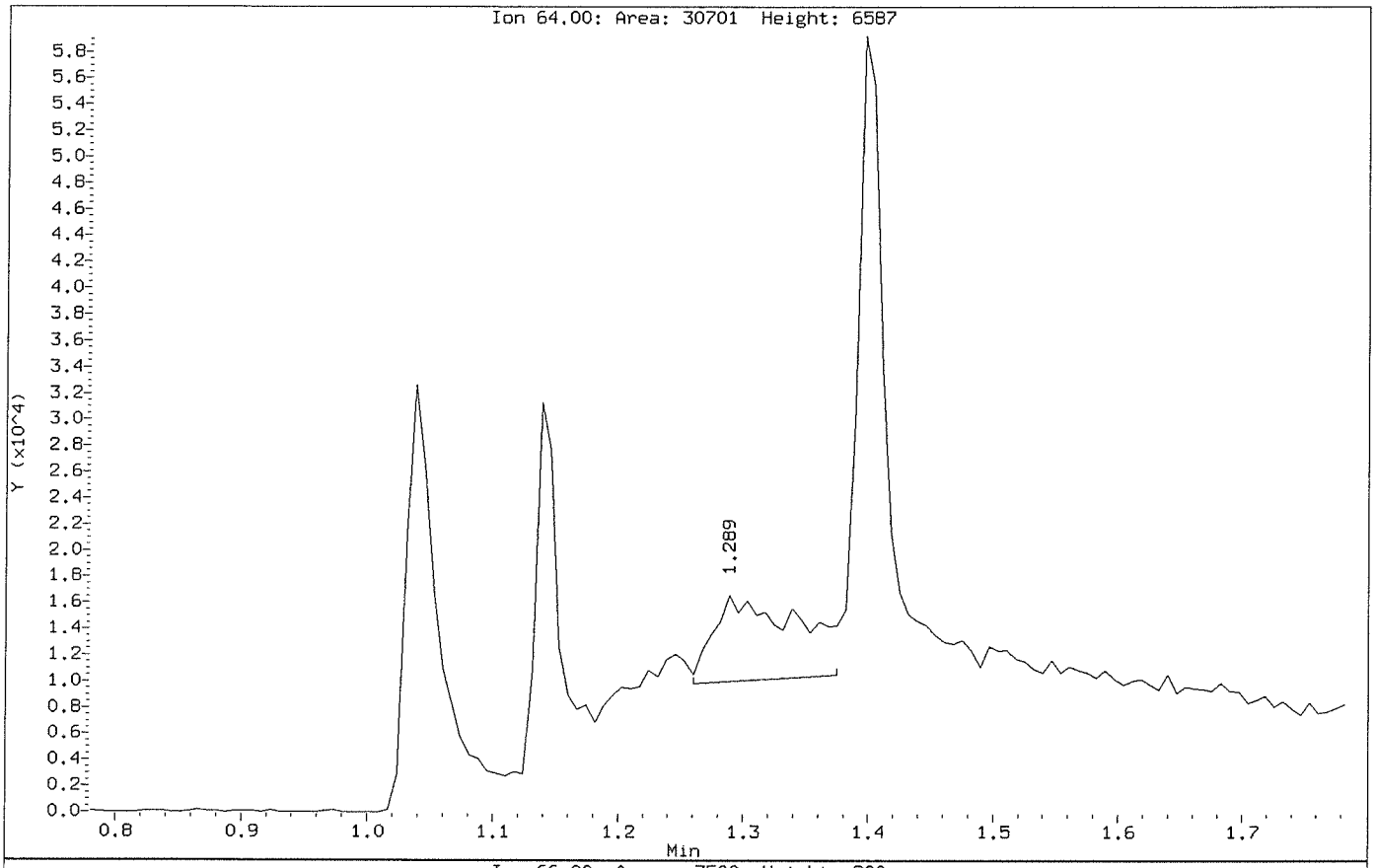
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CAS Number: 96-18-4

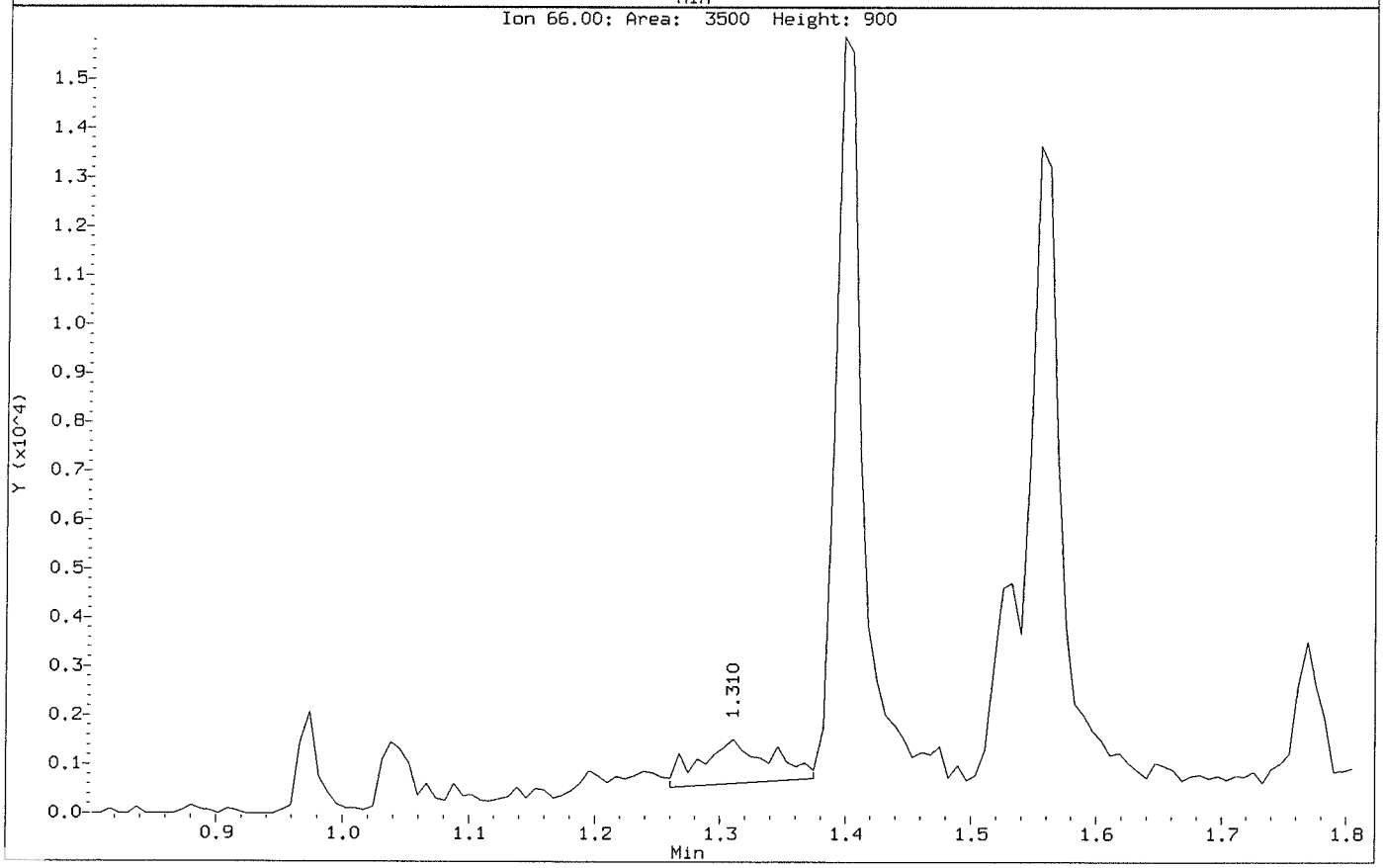




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\Before\X061014.D
Injection Date: 10-JUN-2021 17:47
Instrument: voa6.i
Client Sample ID: HS21060495-07MS

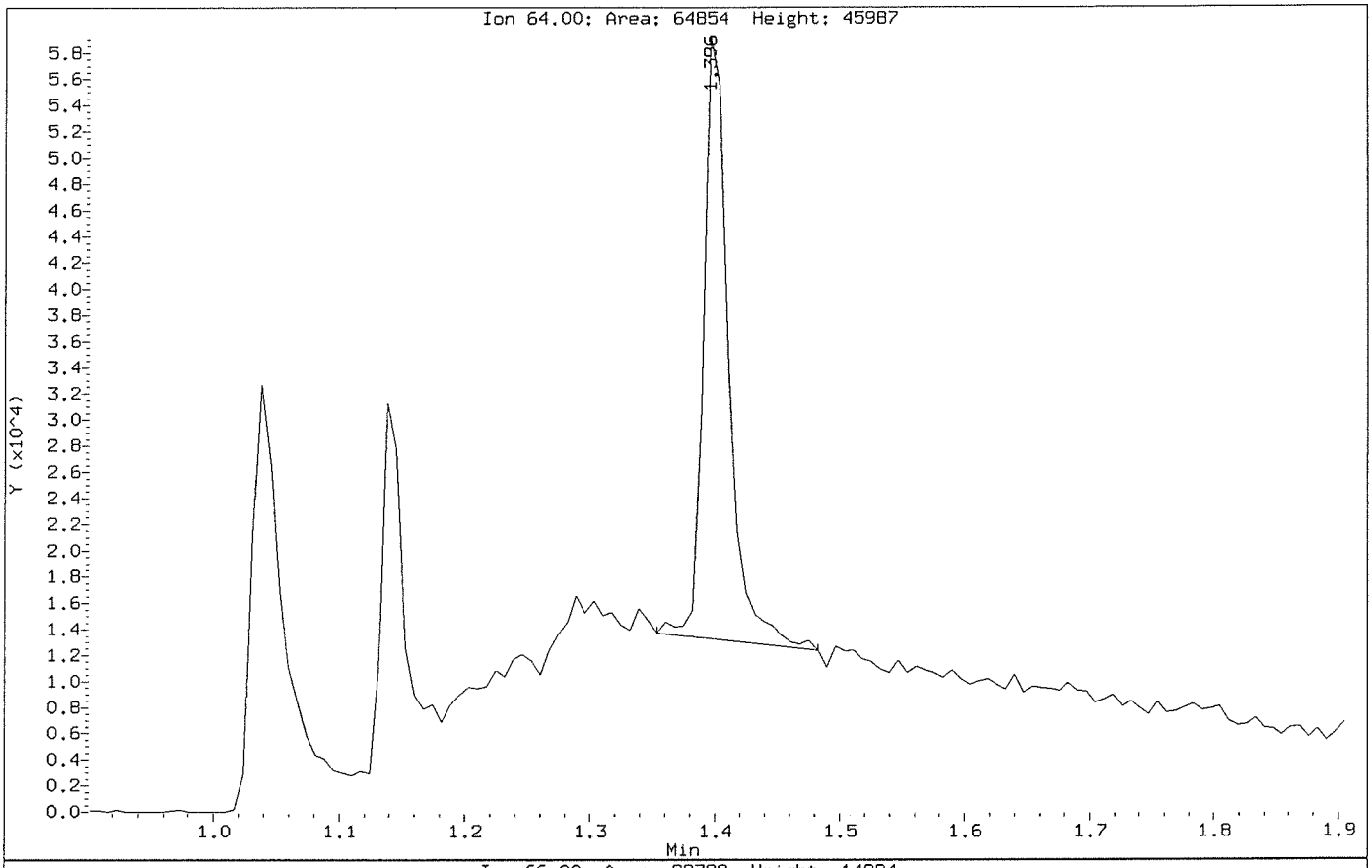
Compound: Chloroethane
CAS Number: 75-00-3

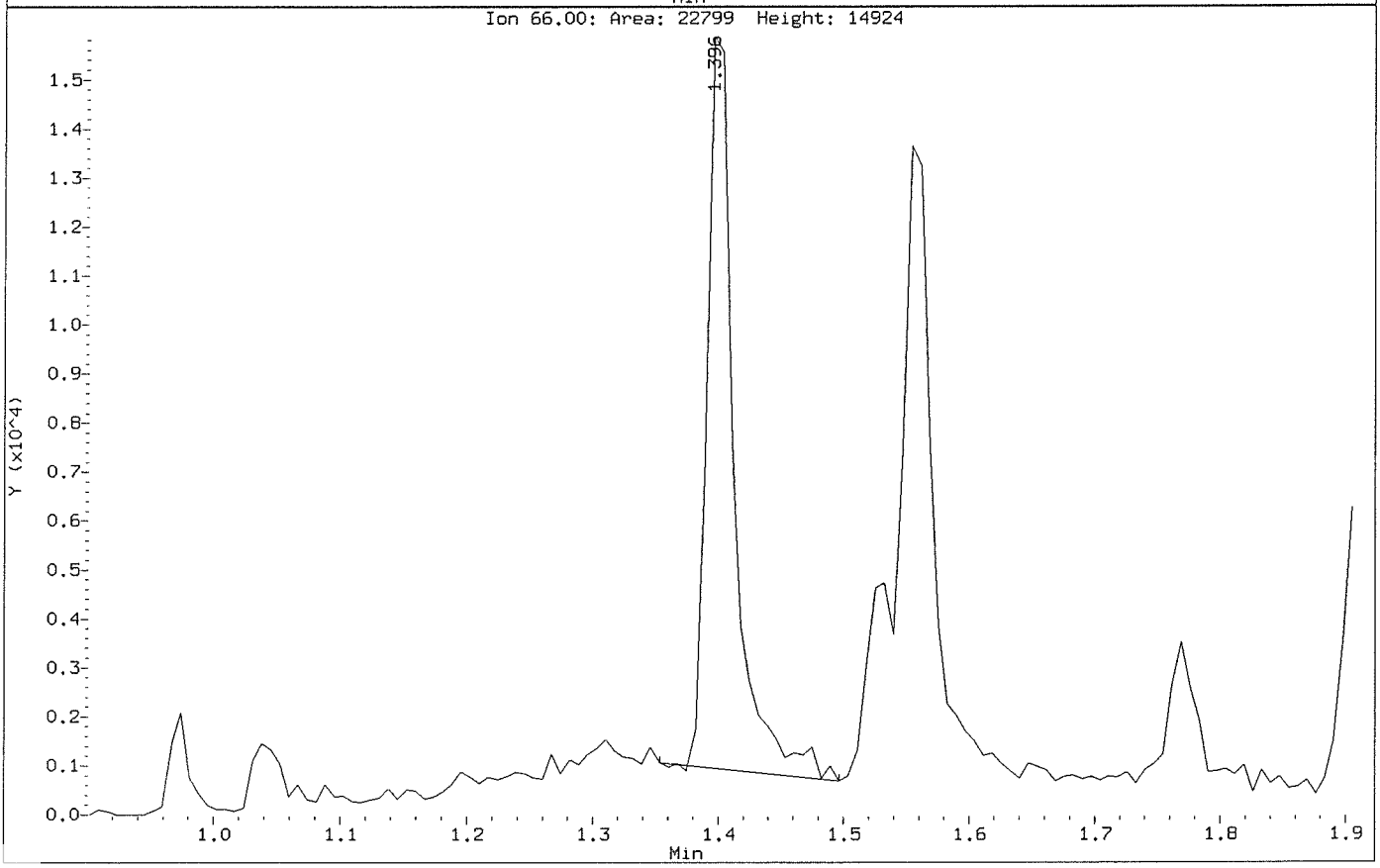




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Injection Date: 10-JUN-2021 17:47
Instrument: voa6.i
Client Sample ID: HS21060495-07MS

Compound: Chloroethane
CAS Number: 75-00-3





ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061015.D
Lab Smp Id: HS21060495-07MSD Client Smp ID: HS21060495-07MSD
Inj Date : 10-JUN-2021 18:08
Operator : PC Inst ID: voa6.i
Smp Info : HS21060495-07MSD;HS21060495-07MSD;3;;MSD
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\8260W.m
Meth Date : 26-Aug-2021 12:42 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 13 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

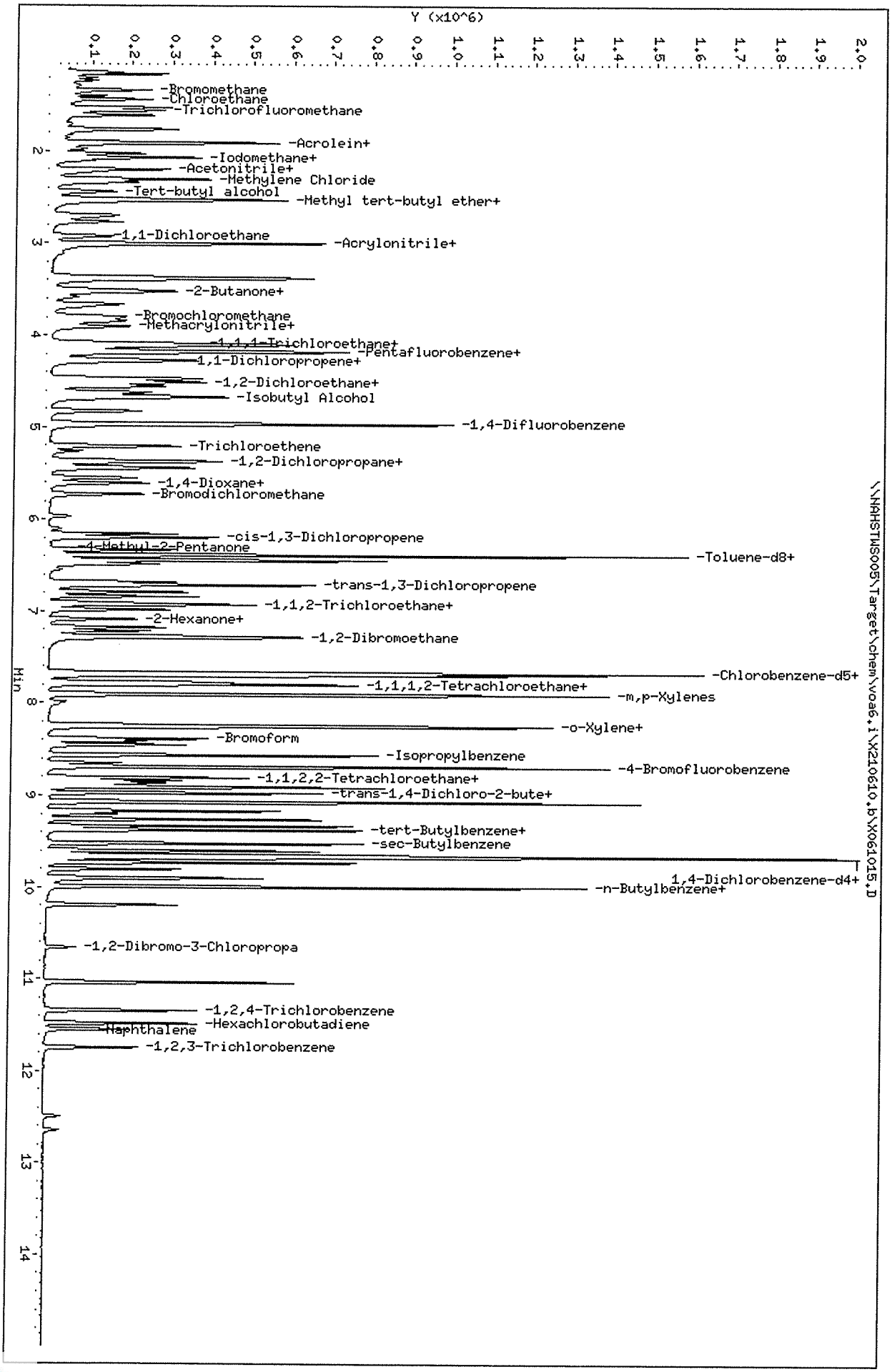
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.182	4.182	(1.000)	650699	50.0000	
*	36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	889743	50.0000	
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	798182	50.0000	
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	422357	50.0000	
$	30 Dibromofluoromethane	113	4.096	4.096	(0.979)	288605	45.0434	45.04
$	35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	295544	47.5133	47.51
$	48 Toluene-d8	98	6.388	6.388	(0.833)	995179	50.0539	50.05
$	69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	350655	50.0237	50.02
	60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	112001	18.9742	18.97
	31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	156812	16.3072	16.30
	68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	130751	21.7482	21.74
	53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	81368	18.8187	18.81
	22 1,1-Dichloroethane	63	2.921	2.922	(0.699)	158565	15.4141	15.41
	11 1,1-Dichloroethene	96	1.911	1.912	(0.457)	94119	14.0421	14.04
	32 1,1-Dichloropropene	75	4.282	4.283	(0.863)	126270	18.5298	18.52
	93 1,2,3-Trichlorobenzene	180	11.746	11.739	(1.216)	73331	28.6801	28.68
	71 1,2,3-Trichloropropane	75	8.860	8.867	(0.917)	106559	20.2362	20.23(M)
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	109819	26.2991	26.29
	79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	375646	19.5000	19.50
	89 1,2-Dibromo-3-Chloropropane	155	10.658	10.658	(1.103)	16510	24.9009	24.90
	57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	108665	18.4912	18.49
	88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	220555	19.2526	19.25

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
33 1,2-Dichloroethane	62	4.555	4.555	(0.918)	128234	18.0885	18.08
42 1,2-Dichloropropane	63	5.436	5.436	(1.095)	93788	17.9076	17.90
75 1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	373234	19.4682	19.46
83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	232006	19.4750	19.47
54 1,3-Dichloropropane	76	6.983	6.983	(0.910)	159258	18.5234	18.52
84 1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	238491	19.1847	19.18
26 2,2-Dichloropropane	77	3.509	3.509	(0.839)	145677	16.3639	16.36
24 2-Butanone	43	3.580	3.581	(0.856)	67201	33.9446	33.94
76 2-Chlorotoluene	91	8.974	8.974	(0.929)	312413	19.7622	19.76
52 2-Hexanone	43	7.090	7.090	(0.924)	119585	40.3321	40.33
77 4-Chlorotoluene	91	9.067	9.067	(0.938)	349689	18.5745	18.57
82 p-Isopropyltoluene	119	9.648	9.648	(0.999)	402395	20.6050	20.60
45 4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	176093	38.3113	38.31
10 Acetone	43	1.976	1.976	(0.473)	52001	27.1902	27.19
37 Benzene	78	4.512	4.512	(0.909)	361953	17.7081	17.70
74 Bromobenzene	156	8.802	8.802	(0.911)	137802	19.6651	19.66
29 Bromochloromethane	128	3.795	3.795	(0.908)	62467	15.8766	15.87
39 Bromodichloromethane	83	5.722	5.722	(1.153)	133395	17.4395	17.43
66 Bromoform	173	8.408	8.408	(1.096)	89398	20.0856	20.08
6 Bromomethane	94	1.338	1.339	(0.320)	100927	15.1235	15.12
19 Carbon Disulfide	76	2.069	2.069	(0.495)	457471	28.7811	28.78
34 Carbon Tetrachloride	117	4.268	4.261	(0.860)	141226	19.1475	19.14
59 Chlorobenzene	112	7.692	7.692	(1.003)	291868	17.5655	17.56
7 Chloroethane	64	1.396	1.403	(0.334)	59200	11.9246	11.92(M)
28 Chloroform	83	3.910	3.910	(0.935)	175893	15.3713	15.37
3 Chloromethane	50	1.073	1.073	(0.257)	69804	9.77951	9.77
27 cis-1,2-Dichloroethene	96	3.523	3.523	(0.842)	108645	15.9299	15.92
46 cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	164226	18.2205	18.22
55 Dibromochloromethane	129	7.176	7.176	(0.936)	123955	18.8682	18.86
44 Dibromomethane	93	5.550	5.550	(1.118)	72533	18.4287	18.42
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	59930	9.85822	9.85
61 Ethylbenzene	106	7.799	7.800	(1.017)	149318	19.4789	19.47
91 Hexachlorobutadiene	225	11.481	11.481	(1.188)	68014	27.0633	27.06
67 Isopropylbenzene	105	8.559	8.559	(1.116)	460391	19.6565	19.65
62 m,p-Xylenes	106	7.900	7.907	(1.030)	375110	37.5373	37.53
17 Methylene Chloride	84	2.298	2.306	(0.550)	96288	15.4227	15.42
87 n-Butylbenzene	91	9.991	9.991	(1.034)	341535	20.7862	20.78
73 n-Propylbenzene	91	8.910	8.910	(0.922)	523613	19.8745	19.87
92 Naphthalene	128	11.546	11.539	(1.195)	163016	27.0089	27.00
63 o-Xylene	106	8.244	8.244	(1.075)	180811	18.5558	18.55
81 sec-Butylbenzene	105	9.519	9.519	(0.985)	457281	20.6187	20.61
64 Styrene	104	8.258	8.258	(1.077)	300522	18.4566	18.45
78 tert-Butylbenzene	119	9.332	9.340	(0.966)	332977	20.2590	20.25
56 Tetrachloroethene	164	6.926	6.926	(0.903)	102686	20.8981	20.89
50 Toluene	91	6.446	6.446	(0.840)	411549	17.6615	17.66
20 trans-1,2-Dichloroethene	96	2.527	2.528	(0.604)	91704	15.0934	15.09
51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	143433	18.4469	18.44
38 Trichloroethene	130	5.206	5.207	(1.049)	117249	19.2002	19.20
8 Trichlorofluoromethane	101	1.560	1.561	(0.373)	170733	14.5359	14.53
5 Vinyl Chloride	62	1.138	1.138	(0.272)	99668	12.9398	12.93

QC Flag Legend

M - Compound response manually integrated.

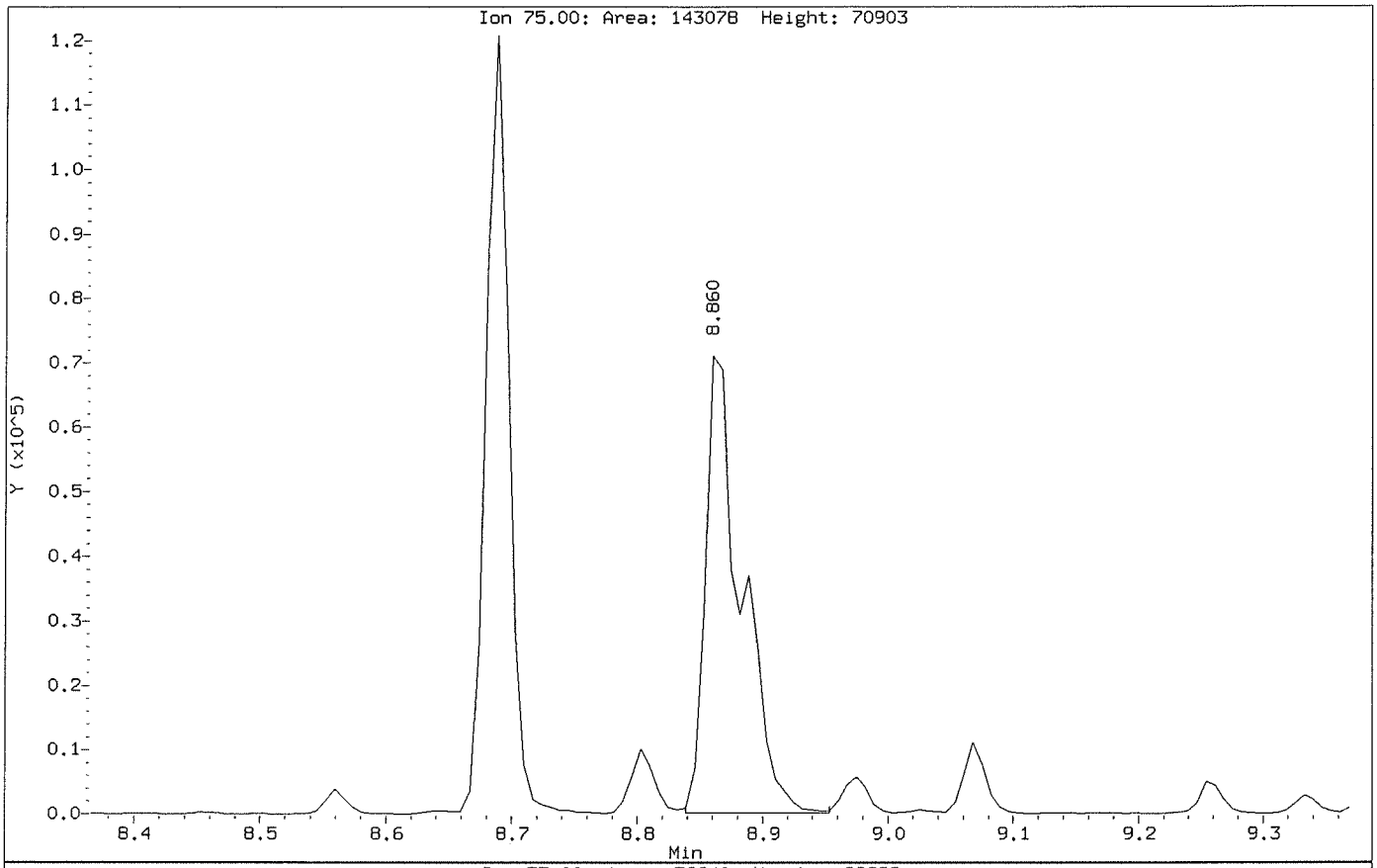


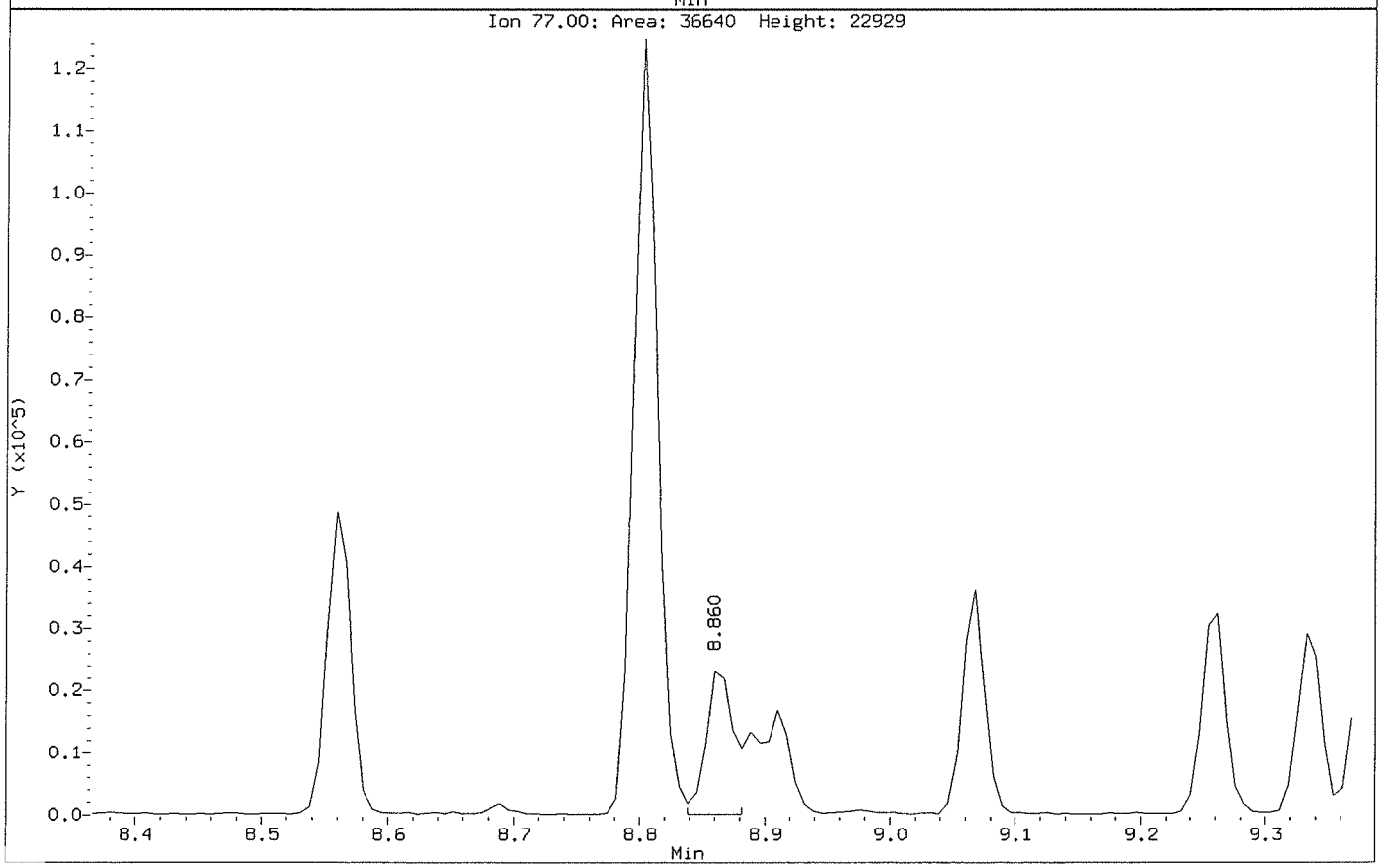
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Date : 10-JUN-2021 18:08
Client ID: HS21060495-07MSD
Sample Info: HS21060495-07MSD;HS21060495-07MSD;3;;MSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\Before\X061015.D
Injection Date: 10-JUN-2021 18:08
Instrument: voa6.i
Client Sample ID: HS21060495-07MSD

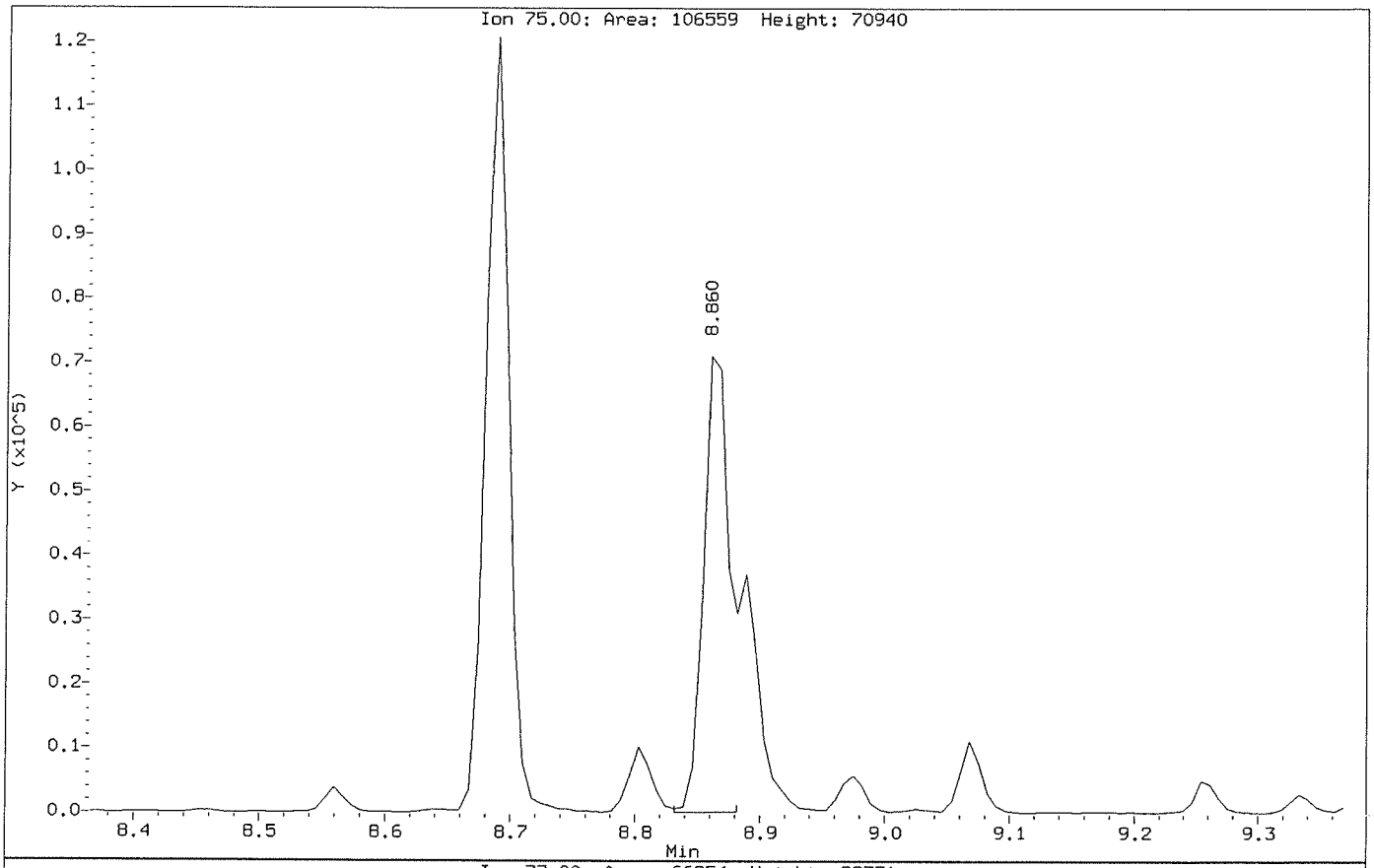
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

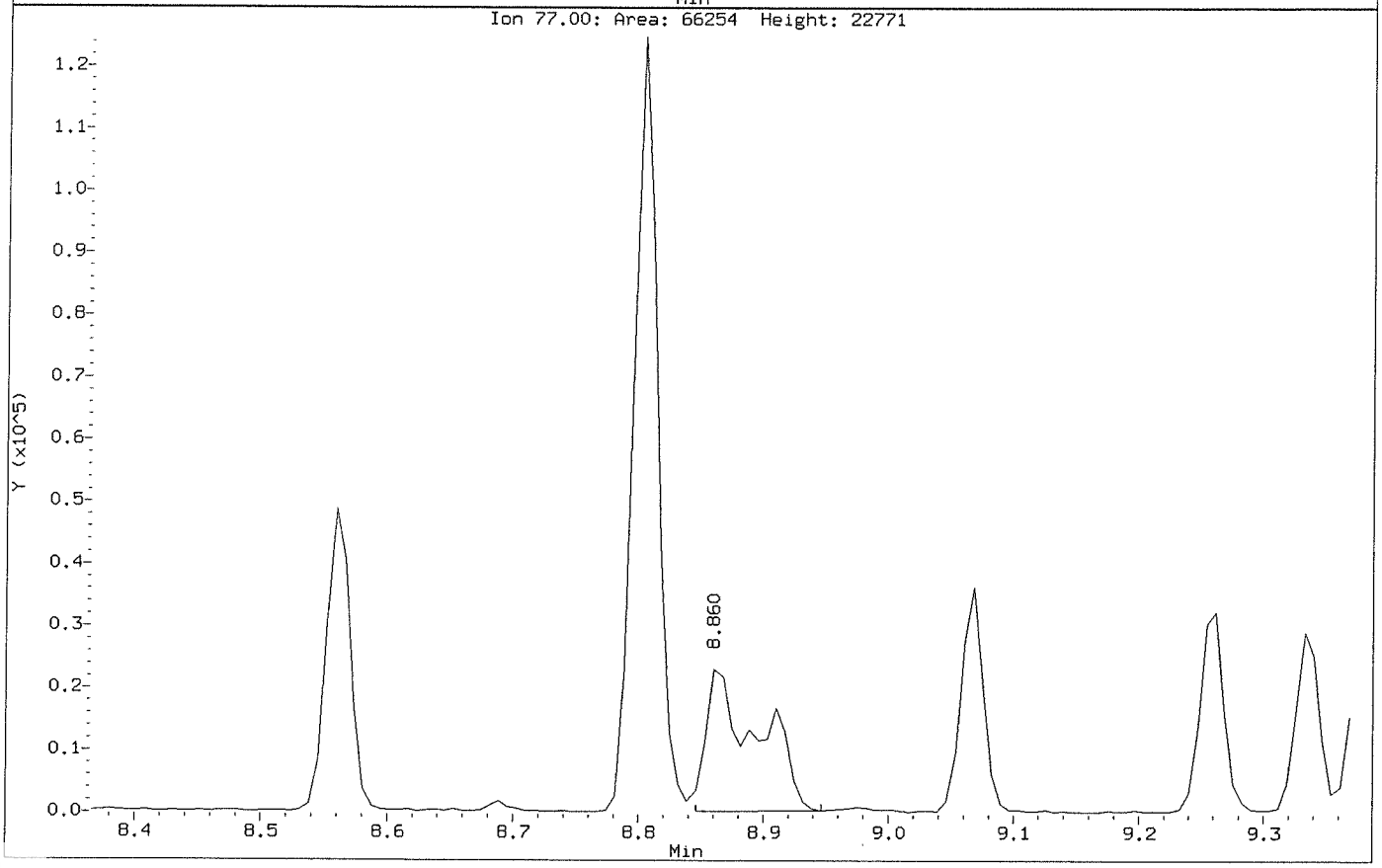




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Instrument: voa6.i
Client Sample ID: HS21060495-07MSD

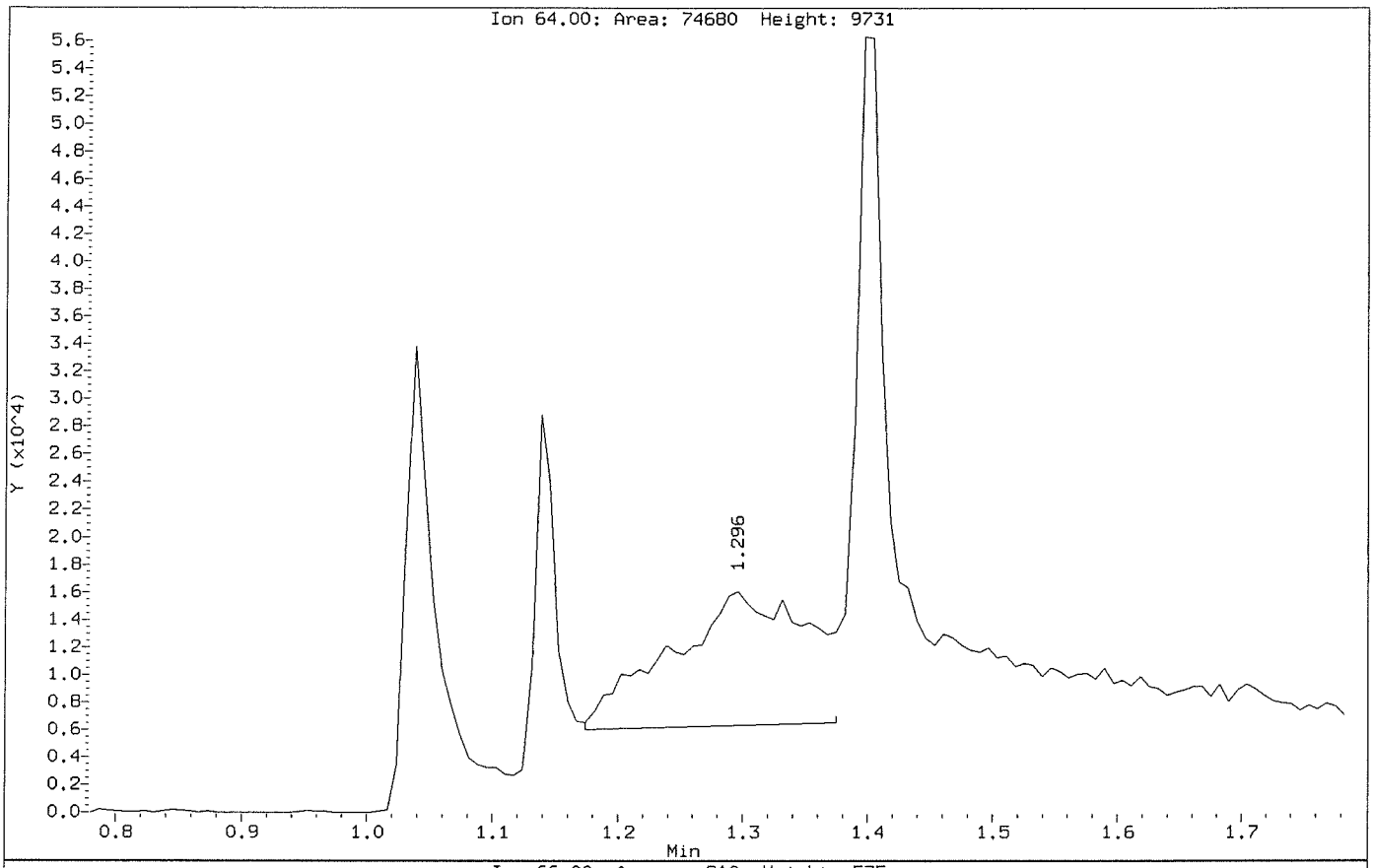
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

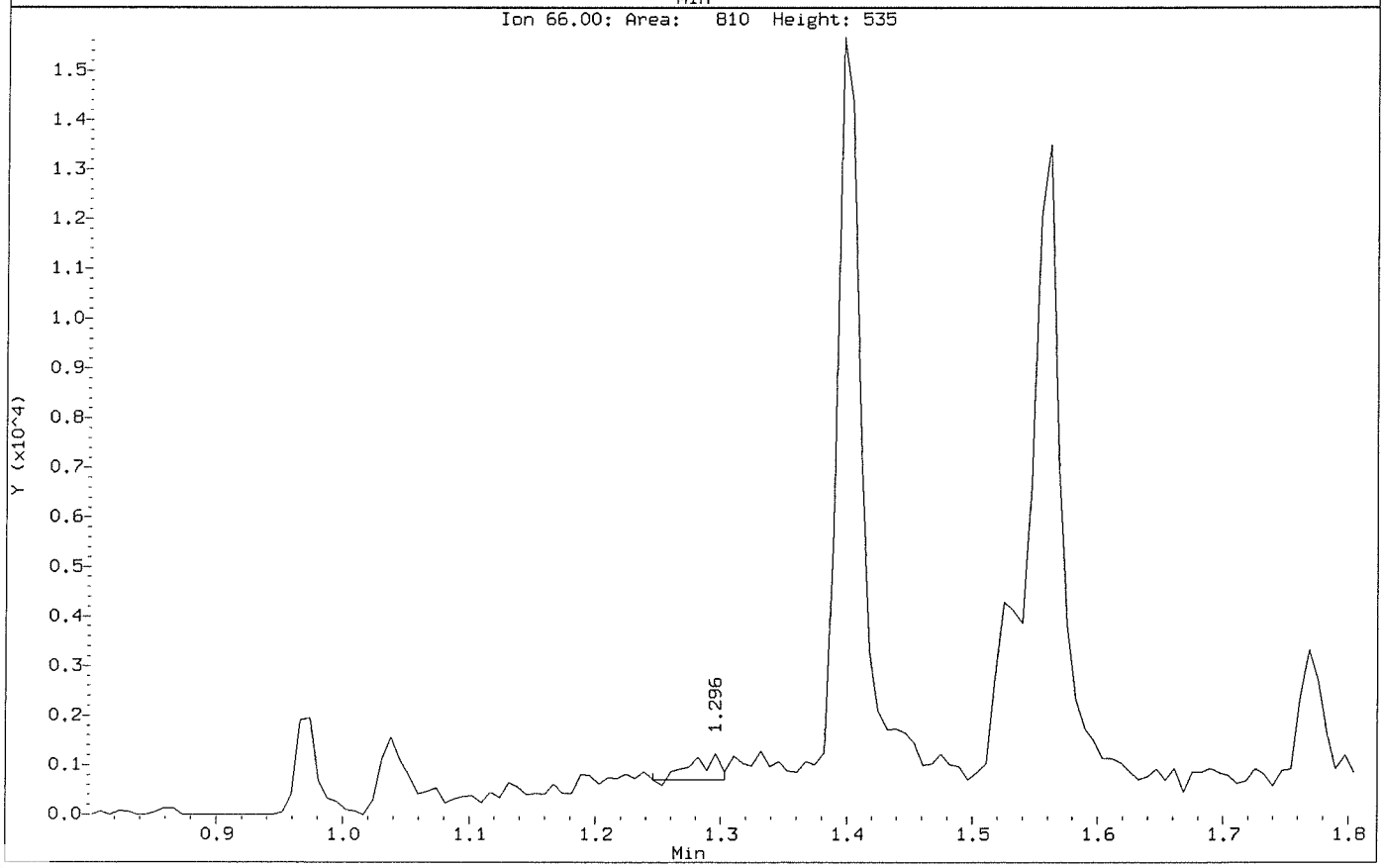




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Injection Date: 10-JUN-2021 18:08
Instrument: voa6.i
Client Sample ID: HS21060495-07MSD

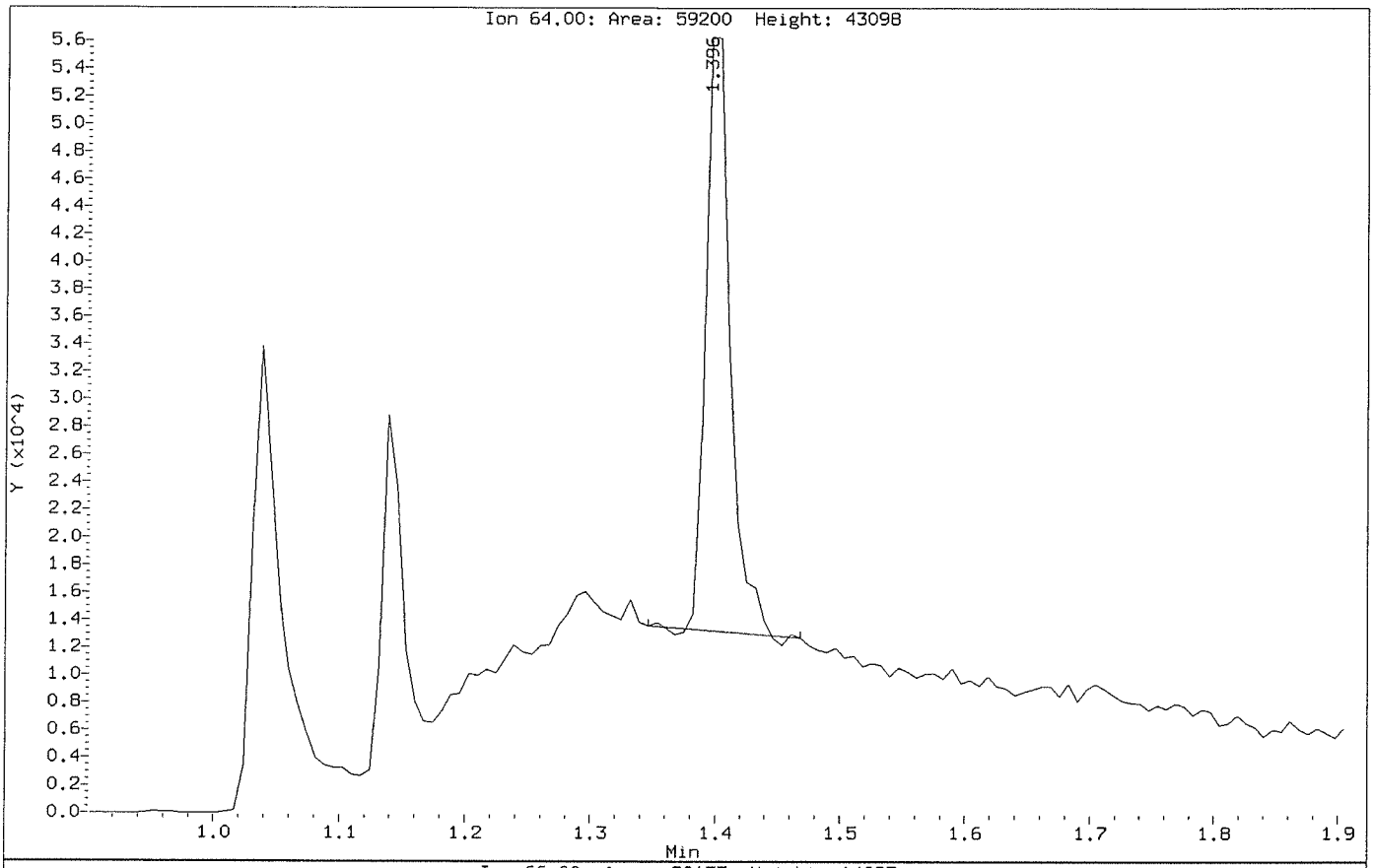
Compound: Chloroethane
CAS Number: 75-00-3

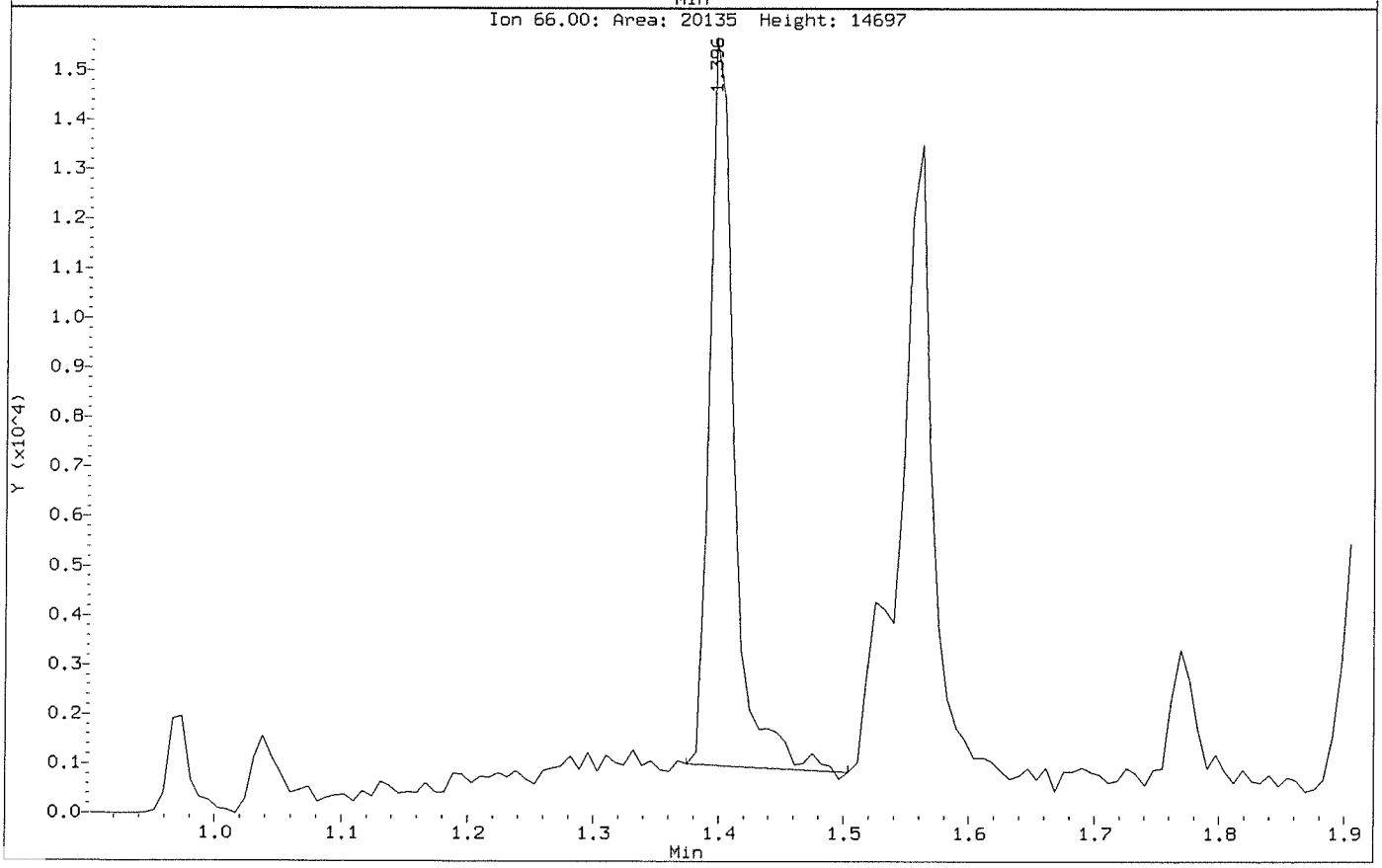




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Injection Date: 10-JUN-2021 18:08
Instrument: voa6.i
Client Sample ID: HS21060495-07MSD

Compound: Chloroethane
CAS Number: 75-00-3





Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061020.D Page 1
Report Date: 26-Aug-2021 12:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061020.D
Lab Smp Id: HS21060462-03 Client Smp ID: HS21060462-03
Inj Date : 10-JUN-2021 19:53
Operator : PC Inst ID: voa6.i
Smp Info : HS21060462-03;HS21060462-03;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\8260W.m
Meth Date : 26-Aug-2021 12:42 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

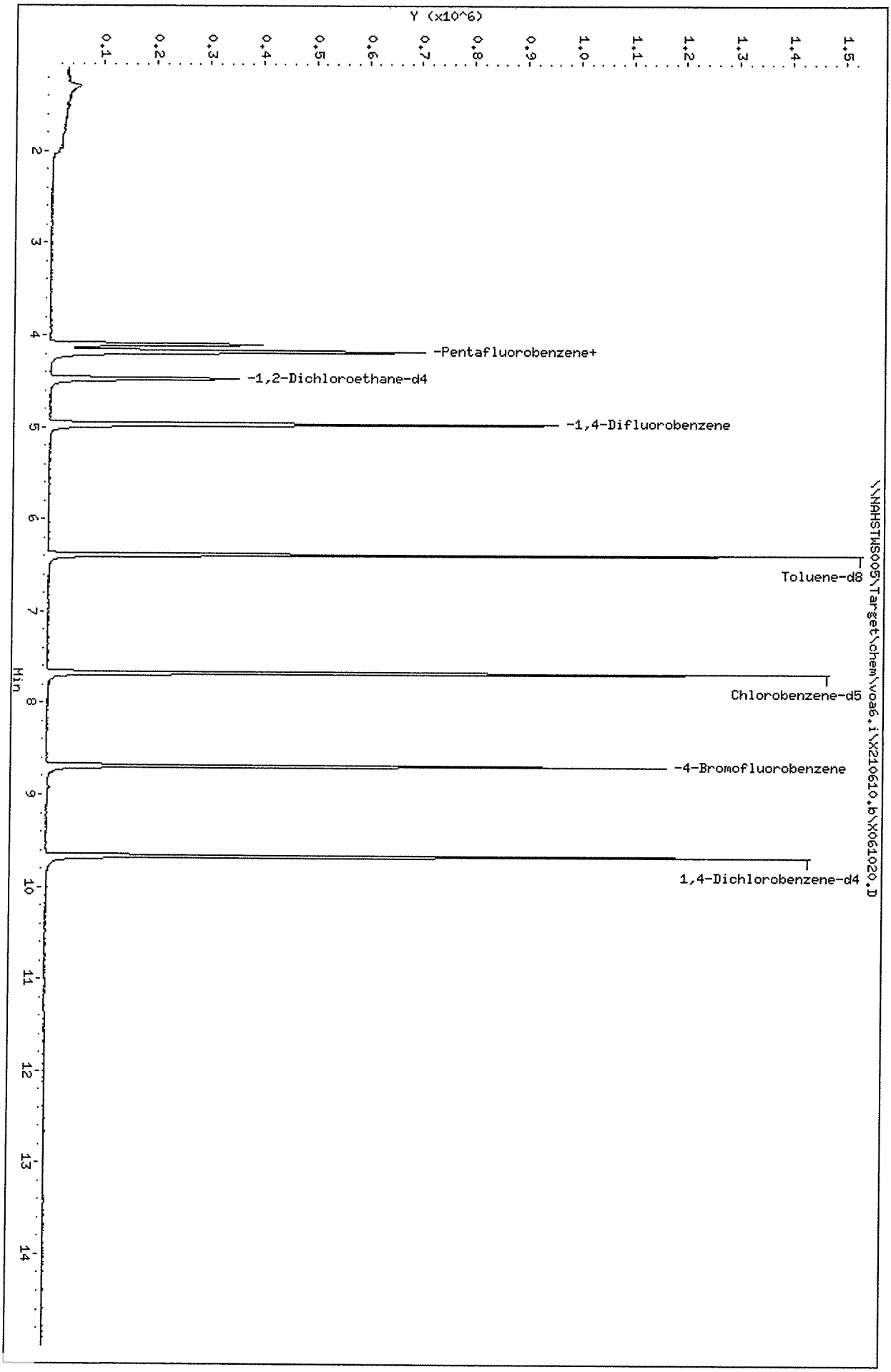
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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 MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	631829	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	857450	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	743487	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	368507	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	277398	44.5856	44.58
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	279825	46.3125	46.31
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	967933	52.2649	52.26
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	312247	47.8545	47.85

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061020.D
Date : 10-JUN-2021 19:53
Client ID: HS21060462-03
Sample Info: HS21060462-03;HS21060462-03;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061021.D
Lab Smp Id: HS21060462-01 Client Smp ID: HS21060462-01
Inj Date : 10-JUN-2021 20:14
Operator : PC Inst ID: voa6.i
Smp Info : HS21060462-01;HS21060462-01;;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\8260W.m
Meth Date : 26-Aug-2021 12:43 Qin.Xu Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

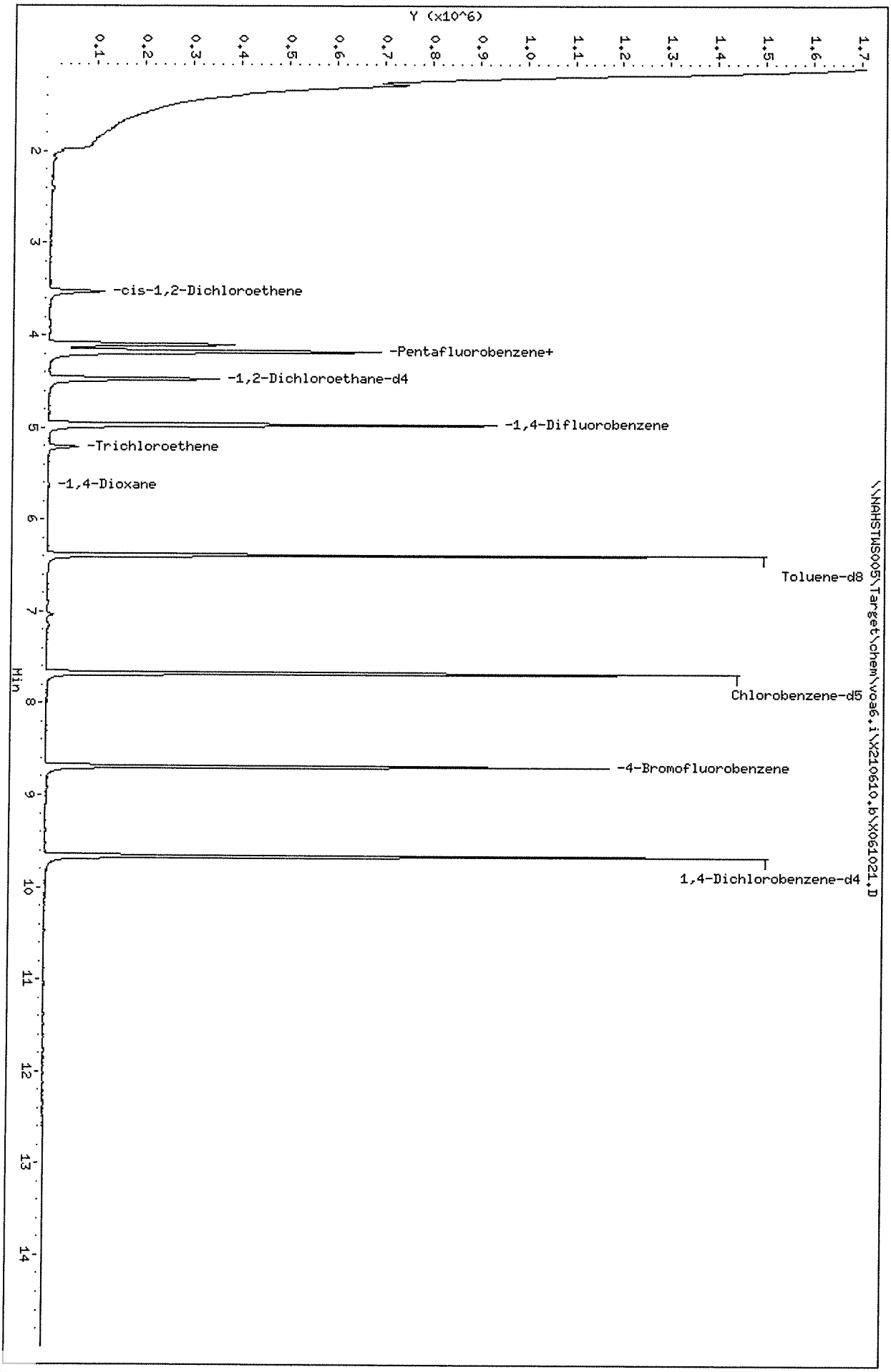
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	623468	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	845753	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.670	(1.000)	741911	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	381353	50.0000	
$ 30 Dibromofluoromethane	113	4.103	4.096	(0.981)	275381	44.8560	44.85
$ 35 1,2-Dichloroethane-d4	65	4.476	4.469	(1.070)	277100	46.4790	46.47
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	952054	51.5167	51.51
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	319345	49.0276	49.02
27 cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	63955	9.78685	9.78
38 Trichloroethene	130	5.206	5.206	(1.049)	22074	3.80275	3.80(a)

QC Flag Legend

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

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061021.D
Date : 10-JUN-2021 20:14
Client ID: HS21060462-01
Sample Info: HS21060462-01;HS21060462-01;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061021.D

Date : 10-JUN-2021 20:14

Client ID: HS21060462-01

Instrument: voa6.i

Sample Info: HS21060462-01;HS21060462-01;;;

Purge Volume: 5.0

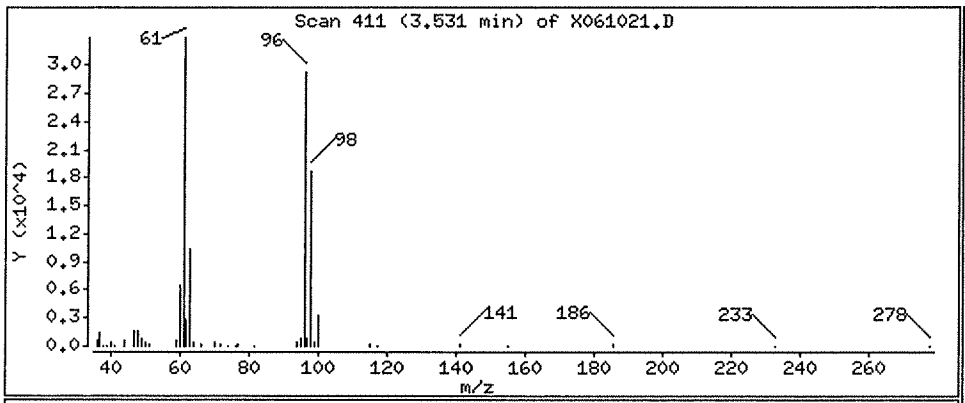
Operator: PC

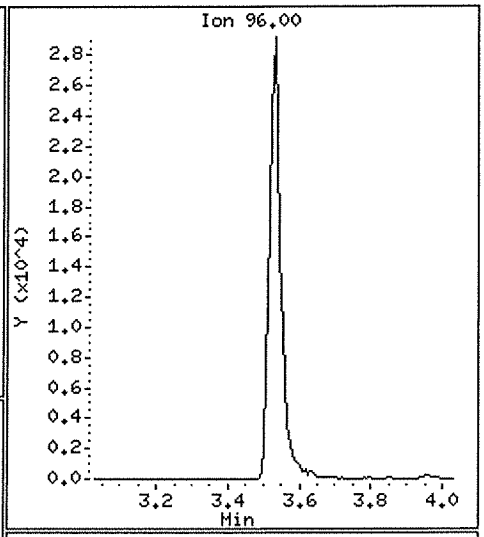
Column phase: DB624

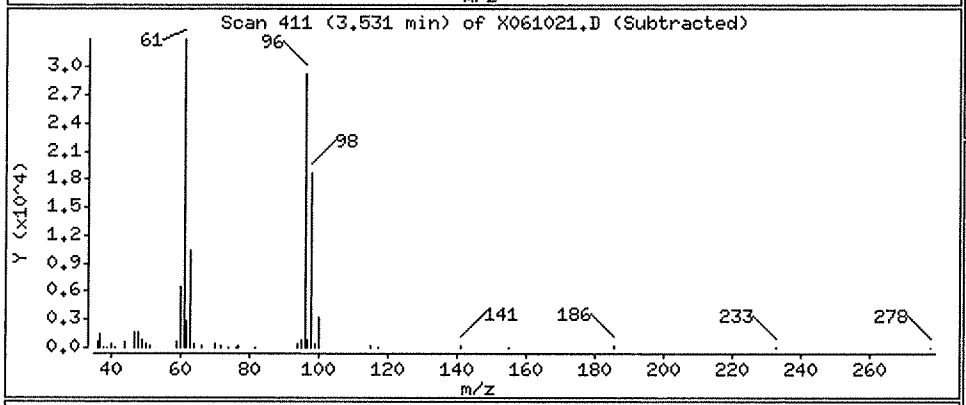
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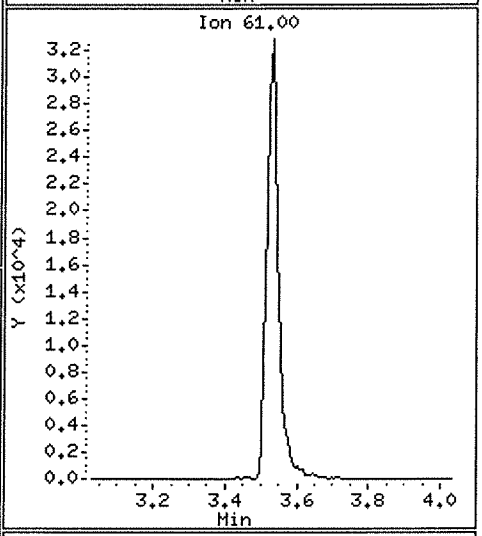
27 cis-1,2-Dichloroethene

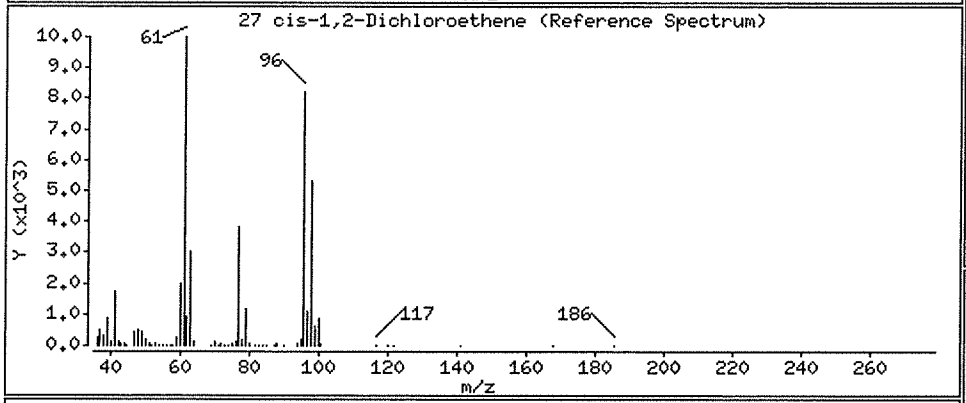
Concentration: 9.78 ug/l

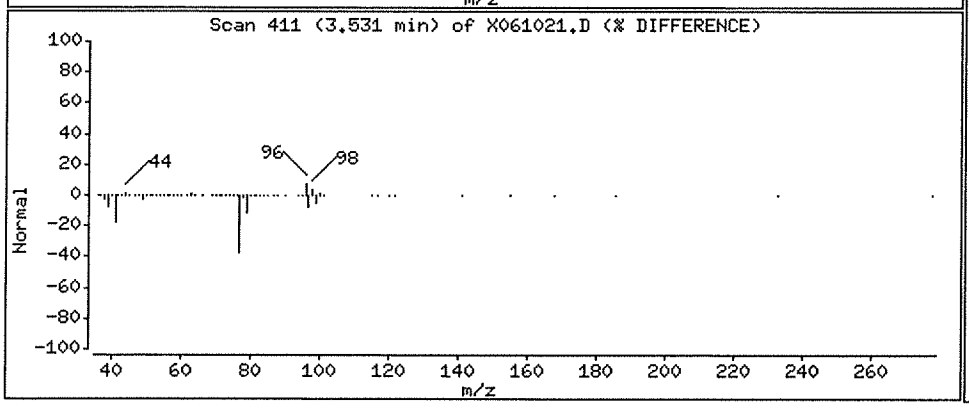


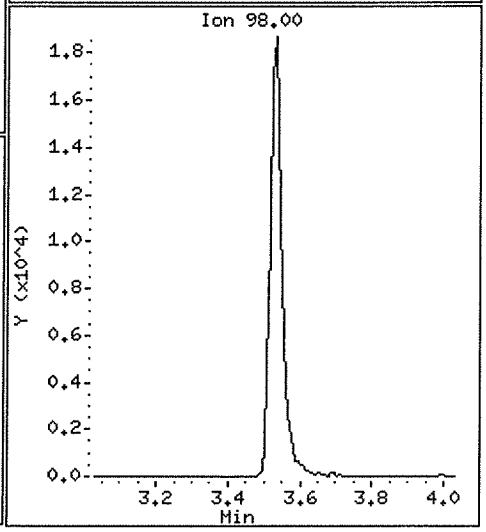












Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061021.D

Date : 10-JUN-2021 20:14

Client ID: HS21060462-01

Instrument: voa6.i

Sample Info: HS21060462-01;HS21060462-01;;;

Purge Volume: 5.0

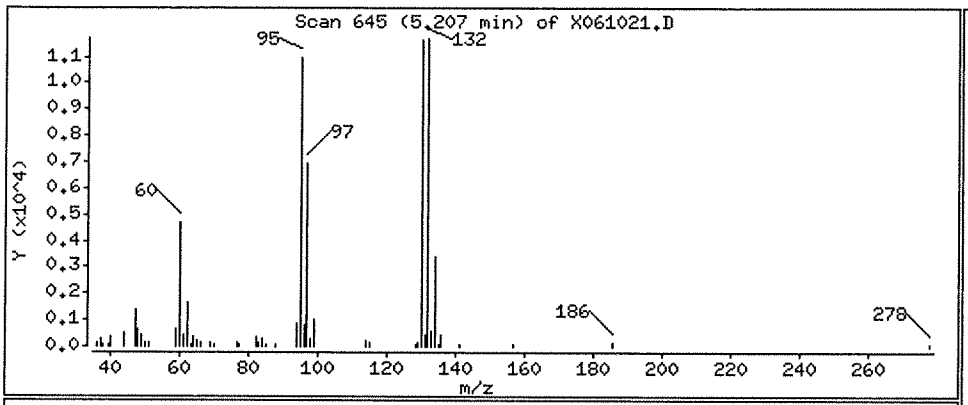
Operator: PC

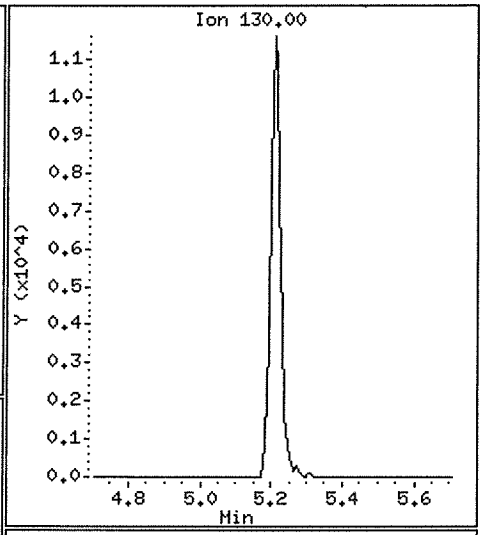
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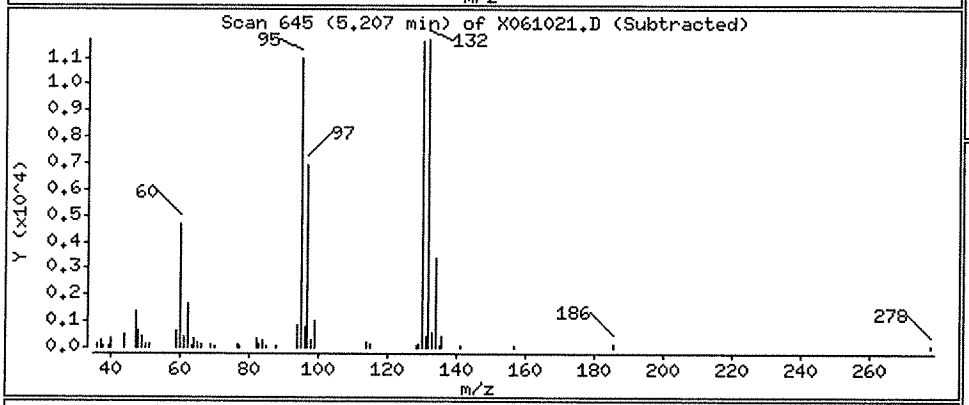
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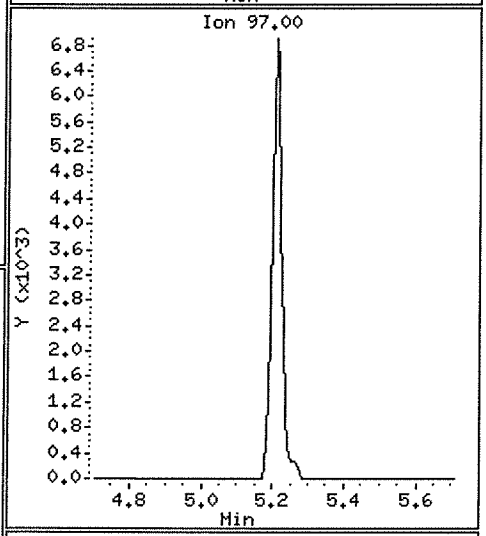
38 Trichloroethene

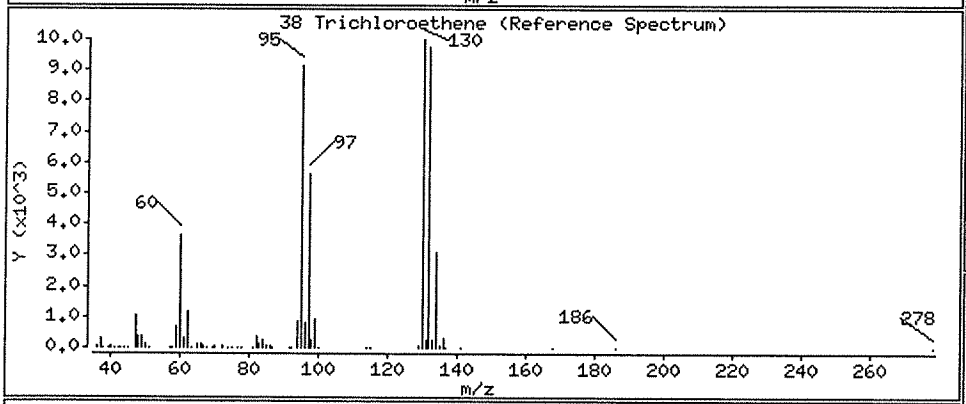
Concentration: 3.80 ug/l

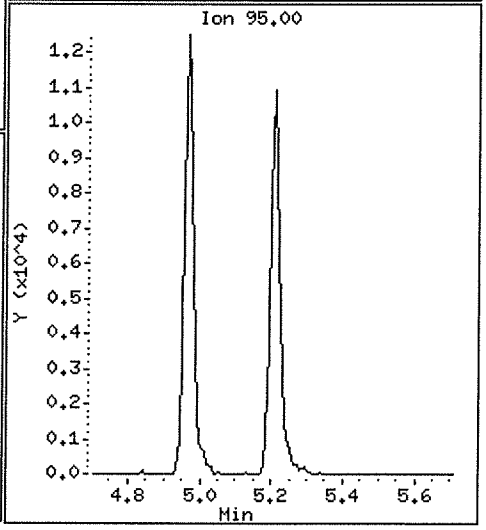


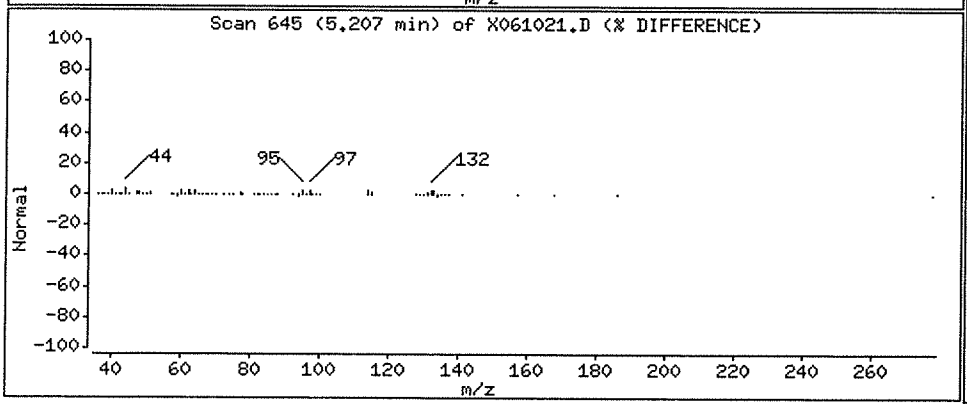












ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061029.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 10-JUN-2021 23:03
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;
Misc Info : HS18090001;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X210610.b\8260W.m
Meth Date : 26-Aug-2021 12:42 voa6.i Quant Type: ISTD
Cal Date : 26-MAY-2021 15:01 Cal File: X052608.D
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: bhate.sub
Target Version: 4.14
Processing Host: NAHSTW7066

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

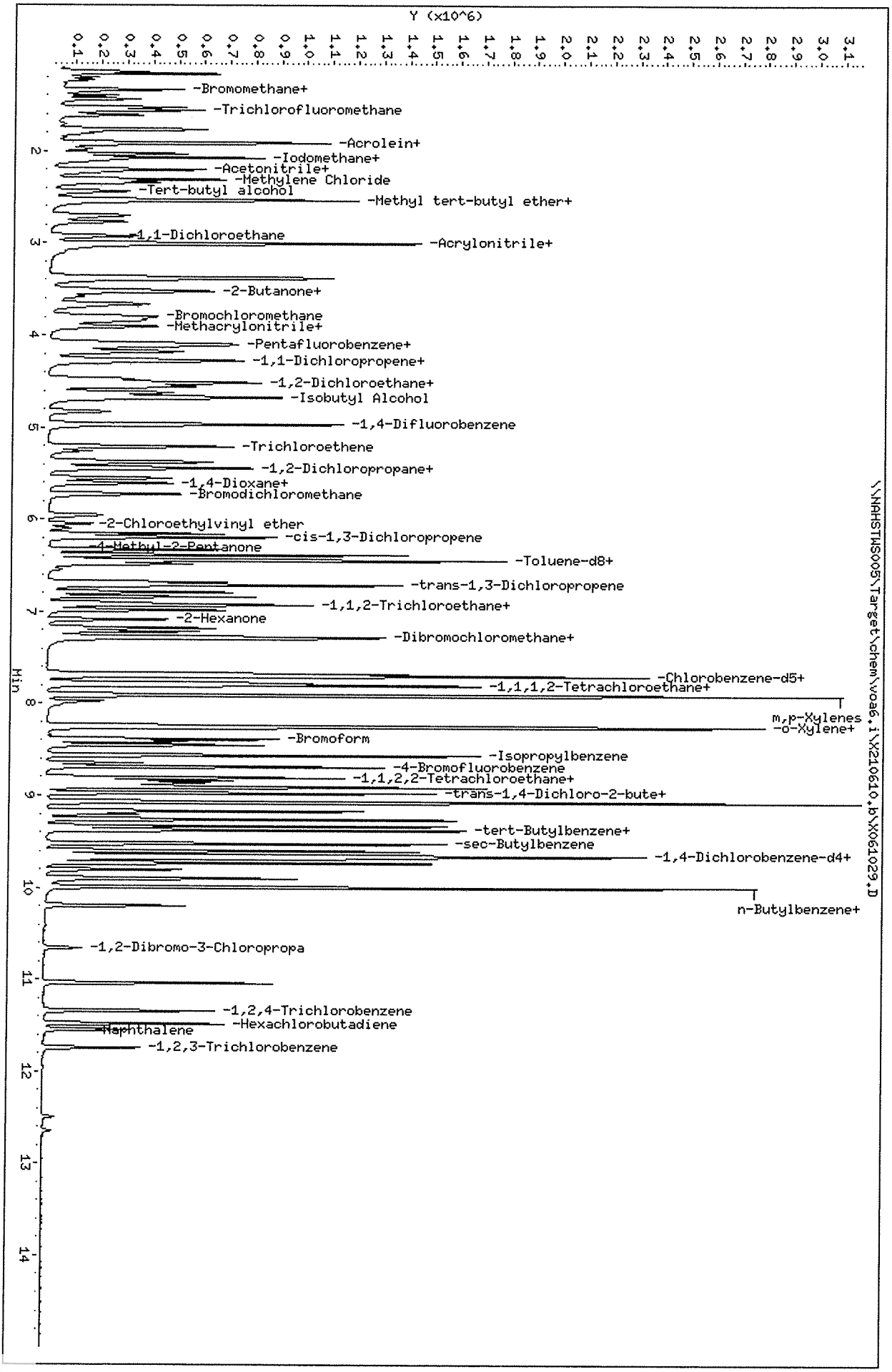
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.182	4.182	(1.000)	454208	50.0000	
* 36 1,4-Difluorobenzene	114	4.963	4.963	(1.000)	679183	50.0000	
* 47 Chlorobenzene-d5	117	7.670	7.670	(1.000)	648831	50.0000	
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	361628	50.0000	
$ 30 Dibromofluoromethane	113	4.096	4.096	(0.979)	253870	50.0000	56.80
$ 35 1,2-Dichloroethane-d4	65	4.469	4.469	(1.069)	245933	50.0000	56.77
$ 48 Toluene-d8	98	6.388	6.388	(0.833)	854642	50.0000	52.87
$ 69 4-Bromofluorobenzene	95	8.688	8.688	(1.133)	323682	50.0000	56.70
60 1,1,1,2-Tetrachloroethane	131	7.771	7.771	(1.013)	252477	50.0000	52.61
31 1,1,1-Trichloroethane	97	4.082	4.082	(0.976)	336079	50.0000	50.06
68 1,1,2,2-Tetrachloroethane	83	8.838	8.838	(0.915)	280056	50.0000	56.20
53 1,1,2-Trichloroethane	83	6.840	6.840	(0.892)	177991	50.0000	50.64
22 1,1-Dichloroethane	63	2.921	2.921	(0.699)	344910	50.0000	48.03
11 1,1-Dichloroethene	96	1.911	1.911	(0.457)	211452	50.0000	45.19
32 1,1-Dichloropropene	75	4.282	4.282	(0.863)	266566	50.0000	51.24
93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	115224	50.0000	52.63
71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	233693	50.0000	51.83 (M)
90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	194172	50.0000	54.30
79 1,2,4-Trimethylbenzene	105	9.375	9.375	(0.970)	801907	50.0000	48.61
89 1,2-Dibromo-3-Chloropropane	155	10.657	10.657	(1.103)	32577	50.0000	56.71
57 1,2-Dibromoethane	107	7.262	7.262	(0.947)	245377	50.0000	51.36
88 1,2-Dichlorobenzene	146	9.991	9.991	(1.034)	492201	50.0000	50.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061029.D Page 2
Report Date: 26-Aug-2021 12:42

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
33	1,2-Dichloroethane	62	4.555	4.555	(0.918)	286576	50.0000	52.95
42	1,2-Dichloropropane	63	5.436	5.436	(1.095)	203773	50.0000	50.97
75	1,3,5-Trimethylbenzene	105	9.067	9.067	(0.938)	785499	50.0000	47.85
83	1,3-Dichlorobenzene	146	9.604	9.604	(0.994)	508225	50.0000	49.82
54	1,3-Dichloropropane	76	6.983	6.983	(0.910)	356021	50.0000	50.94
84	1,4-Dichlorobenzene	146	9.683	9.683	(1.002)	520551	50.0000	48.90
26	2,2-Dichloropropane	77	3.509	3.509	(0.839)	250200	50.0000	40.26
24	2-Butanone	43	3.580	3.580	(0.856)	143269	100.000	103.67
76	2-Chlorotoluene	91	8.974	8.974	(0.929)	663179	50.0000	48.99
52	2-Hexanone	43	7.083	7.083	(0.923)	254503	100.000	105.59
77	4-Chlorotoluene	91	9.067	9.067	(0.938)	771359	50.0000	47.85
82	p-Isopropyltoluene	119	9.647	9.647	(0.999)	811781	50.0000	48.54
45	4-Methyl-2-Pentanone	43	6.324	6.324	(0.824)	371269	100.000	99.36
10	Acetone	43	1.976	1.976	(0.473)	115404	100.000	99.44
37	Benzene	78	4.512	4.512	(0.909)	795143	50.0000	50.96
74	Bromobenzene	156	8.802	8.802	(0.911)	315014	50.0000	52.50
29	Bromochloromethane	128	3.795	3.795	(0.908)	139100	50.0000	50.64
39	Bromodichloromethane	83	5.722	5.722	(1.153)	307370	50.0000	52.64
66	Bromoform	173	8.408	8.408	(1.096)	199263	50.0000	55.07
6	Bromomethane	94	1.338	1.338	(0.320)	221766	50.0000	47.27
19	Carbon Disulfide	76	2.069	2.069	(0.495)	1000112	100.000	90.14
34	Carbon Tetrachloride	117	4.268	4.268	(0.860)	288582	50.0000	51.25
59	Chlorobenzene	112	7.692	7.692	(1.003)	653470	50.0000	48.38
7	Chloroethane	64	1.403	1.403	(0.336)	143318	50.0000	44.85 (M)
28	Chloroform	83	3.910	3.910	(0.935)	389586	50.0000	48.77
3	Chloromethane	50	1.073	1.073	(0.257)	197499	50.0000	48.01
27	cis-1,2-Dichloroethene	96	3.530	3.530	(0.844)	237602	50.0000	49.90
46	cis-1,3-Dichloropropene	75	6.152	6.152	(1.240)	359144	50.0000	52.19
55	Dibromochloromethane	129	7.176	7.176	(0.936)	286400	50.0000	53.63
44	Dibromomethane	93	5.550	5.550	(1.118)	156547	50.0000	52.10
2	Dichlorodifluoromethane	85	0.973	0.973	(0.233)	223422	50.0000	53.56
61	Ethylbenzene	106	7.799	7.799	(1.017)	328366	50.0000	52.69
91	Hexachlorobutadiene	225	11.481	11.481	(1.188)	124921	50.0000	55.59
67	Isopropylbenzene	105	8.559	8.559	(1.116)	952742	50.0000	50.04
62	m,p-Xylenes	106	7.900	7.900	(1.030)	817225	100.000	100.60
17	Methylene Chloride	84	2.305	2.305	(0.551)	212249	50.0000	51.57
87	n-Butylbenzene	91	9.991	9.991	(1.034)	668296	50.0000	47.50
73	n-Propylbenzene	91	8.910	8.910	(0.922)	1089689	50.0000	48.30
92	Naphthalene	128	11.546	11.546	(1.195)	253710	50.0000	49.09
63	o-Xylene	106	8.243	8.243	(1.075)	398701	50.0000	50.33
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	918503	50.0000	48.36
64	Styrene	104	8.258	8.258	(1.077)	688083	50.0000	51.98
78	tert-Butylbenzene	119	9.332	9.332	(0.966)	688237	50.0000	48.90
56	Tetrachloroethene	164	6.925	6.925	(0.903)	210401	50.0000	52.67
50	Toluene	91	6.446	6.446	(0.840)	919885	50.0000	48.56
20	trans-1,2-Dichloroethene	96	2.527	2.527	(0.604)	201558	50.0000	47.52
51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	316250	50.0000	53.28
38	Trichloroethene	130	5.206	5.206	(1.049)	251410	50.0000	53.93
8	Trichlorofluoromethane	101	1.560	1.560	(0.373)	378965	50.0000	46.22
5	Vinyl Chloride	62	1.138	1.138	(0.272)	257298	50.0000	47.85

QC Flag Legend

M - Compound response manually integrated.

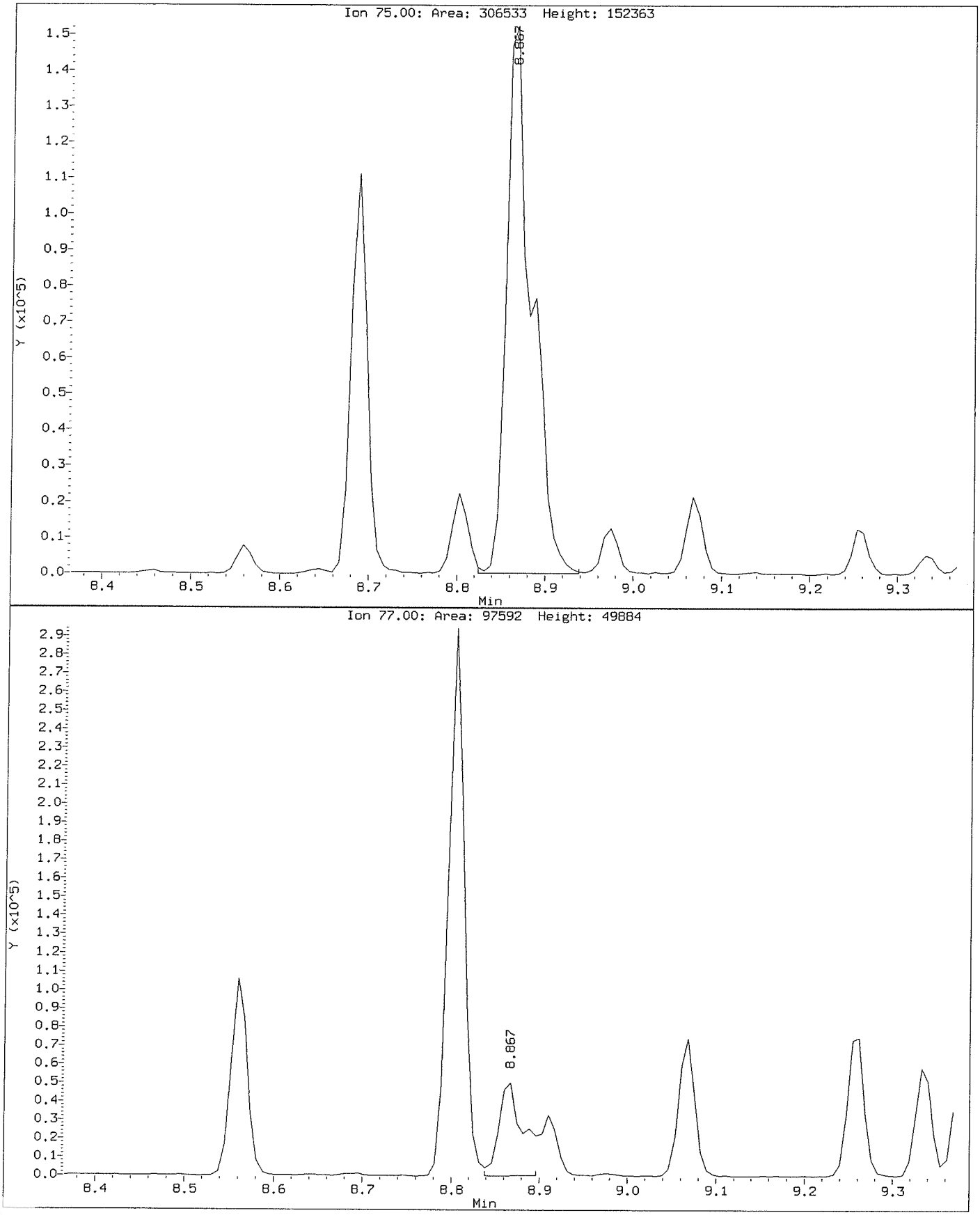


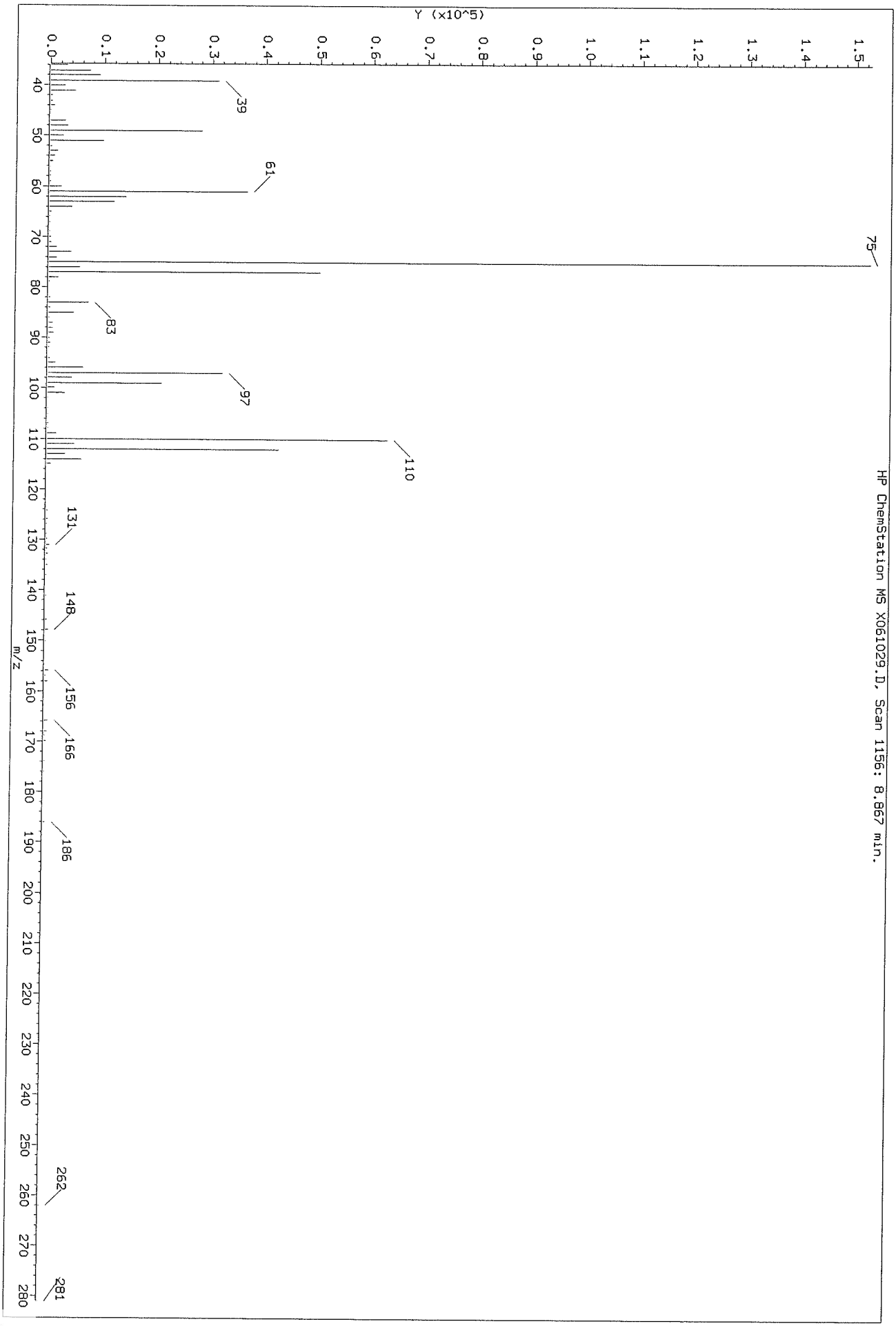
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Date : 10-JUN-2021 23:03
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\Before\X061029.D
Injection Date: 10-JUN-2021 23:03
Instrument: voa6.i
Client Sample ID: CCV-END

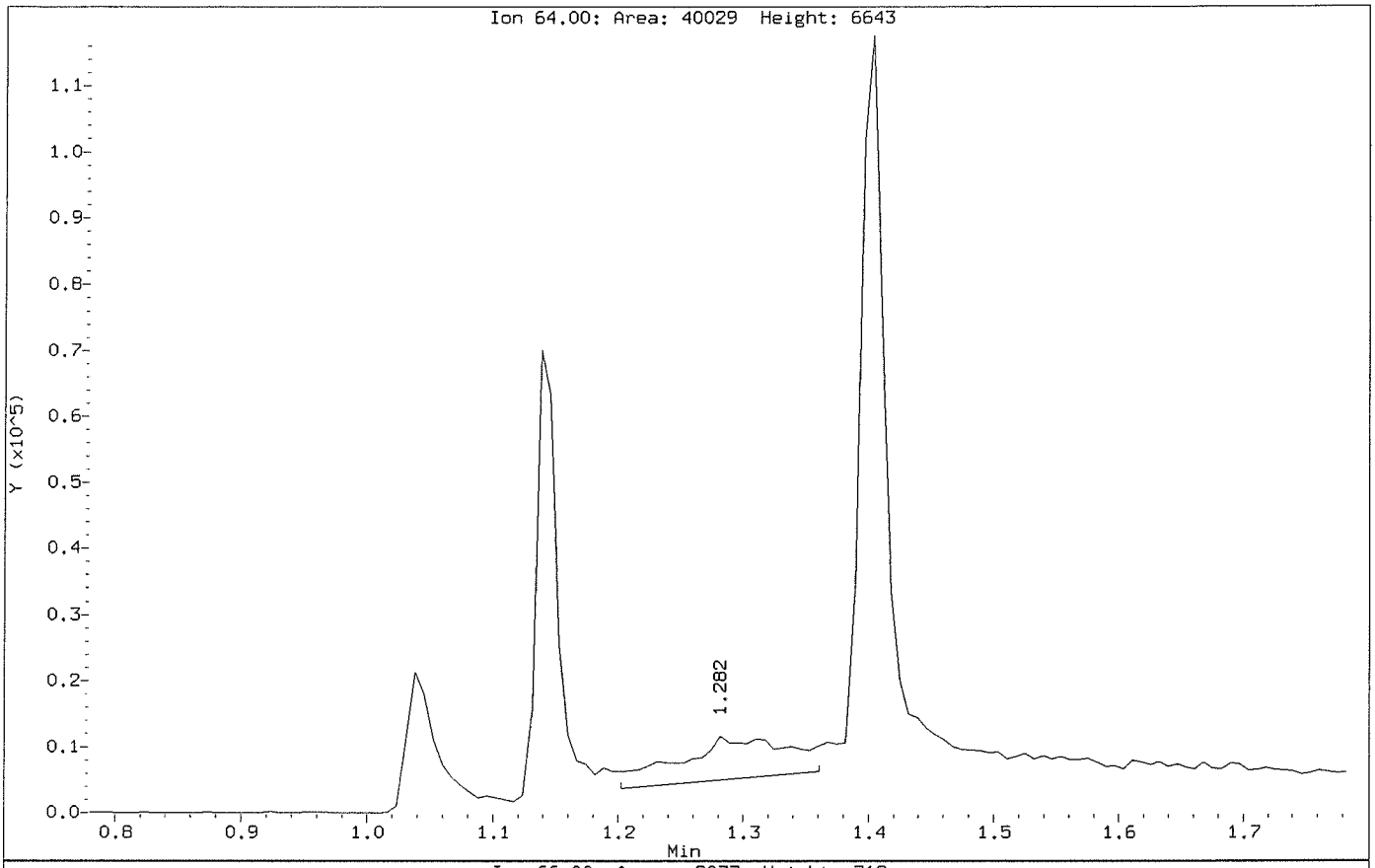
Compound: 1,2,3-Trichloropropane
CAS Number: 96-18-4

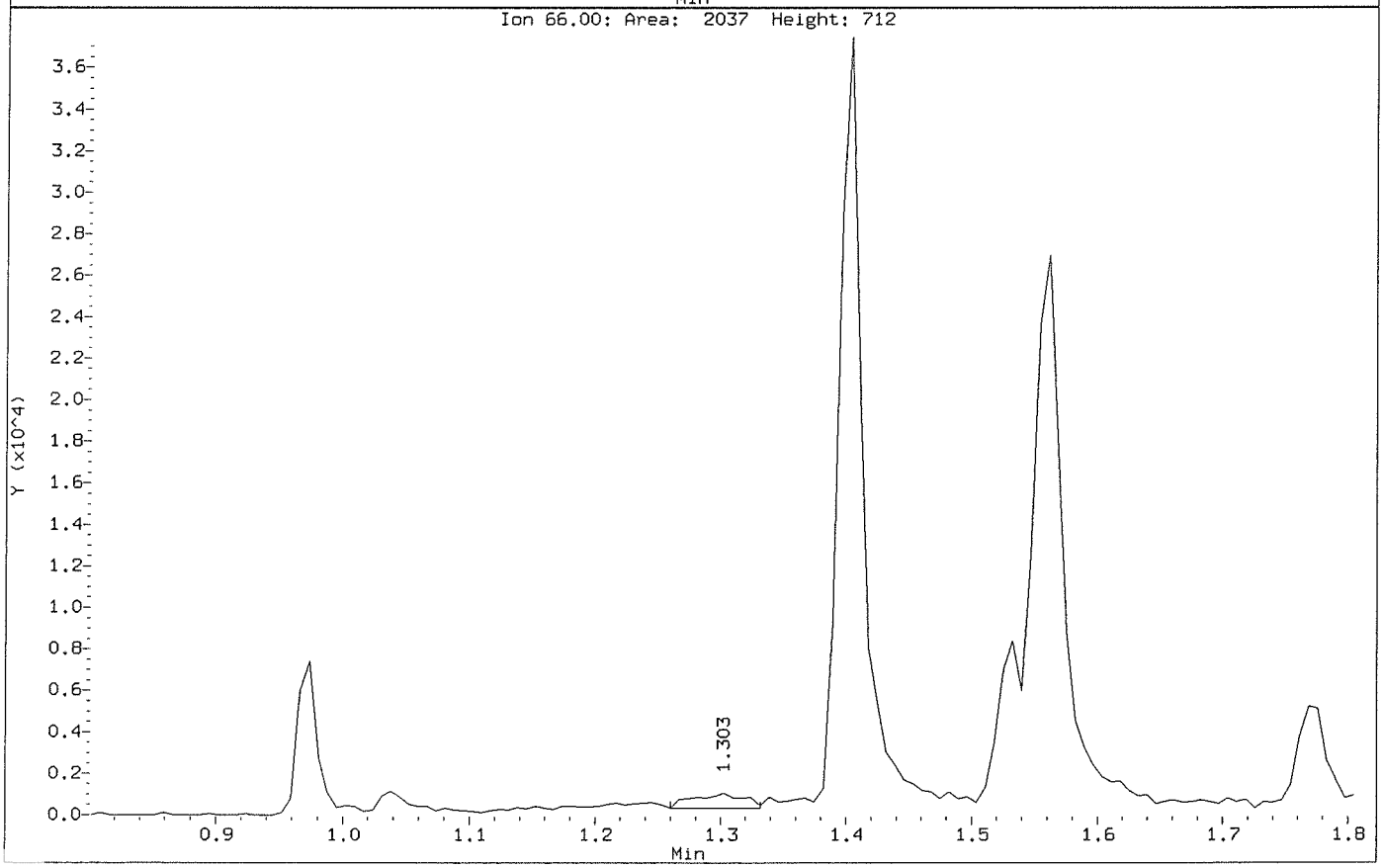



Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061029.D
Injection Date: 10-JUN-2021 23:03
Instrument: voa6.i
Client Sample ID: CCV-END
HP ChemStation MS X061029.D, Scan 1156; 8.867 min.
Y (x10^5)
m/z
39
61
75
83
97
110
131
148
156
166
186
262
281

Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\Before\X061029.D
Injection Date: 10-JUN-2021 23:03
Instrument: voa6.i
Client Sample ID: CCV-END

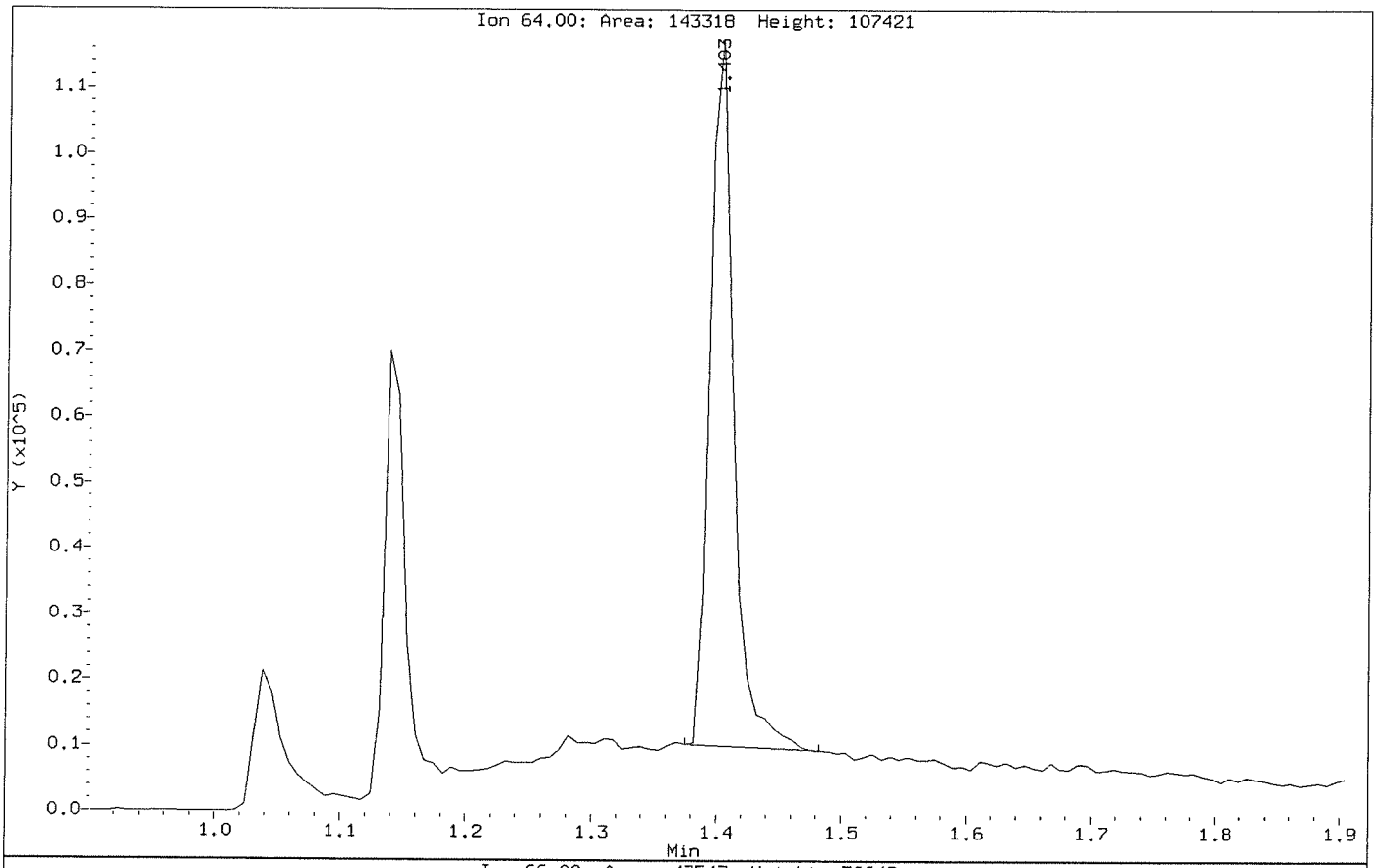
Compound: Chloroethane
CAS Number: 75-00-3

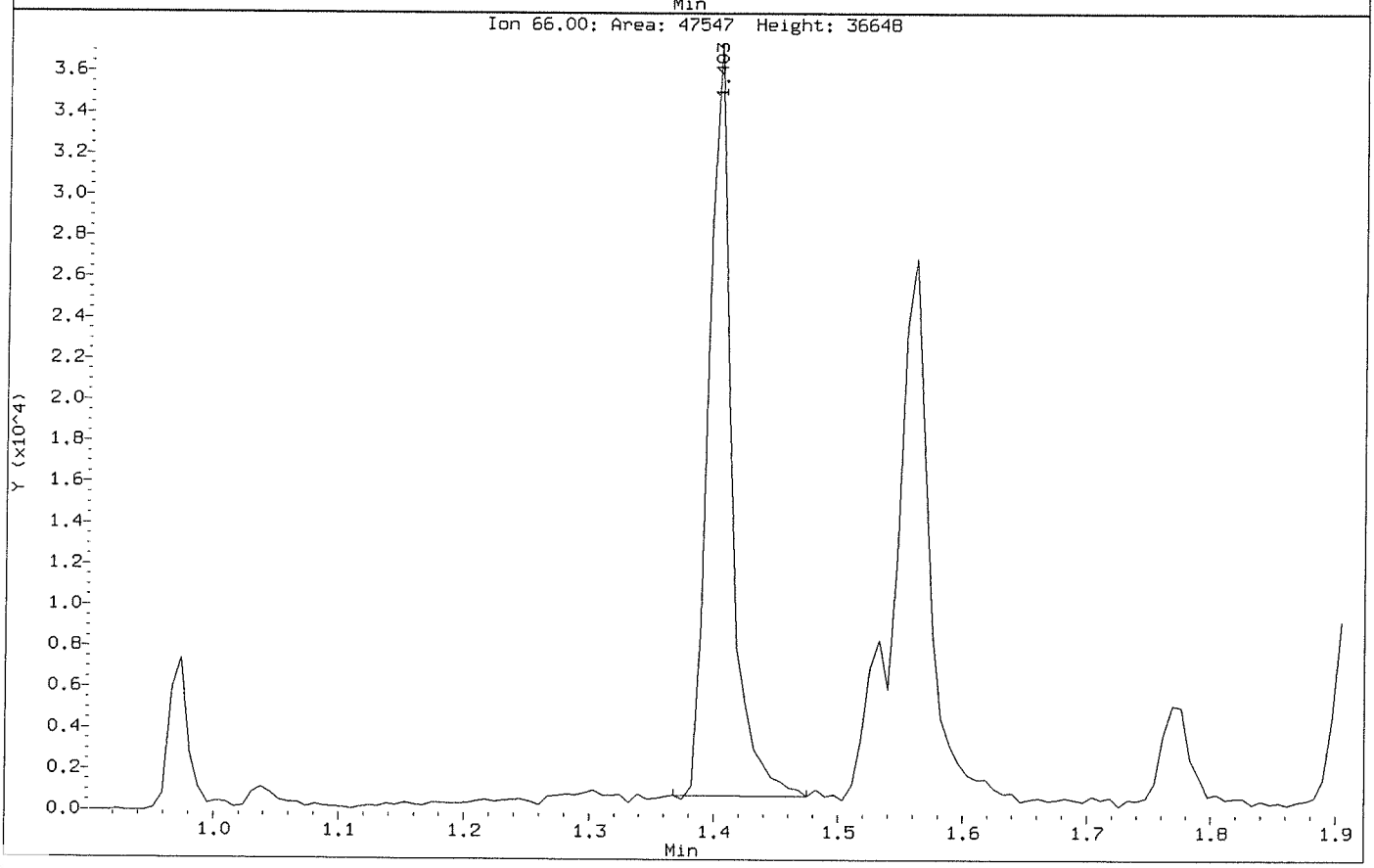




Data File: \\NAHSTWS005\Target\chem\voa6.i\X210610.b\X061029.D
Injection Date: 10-JUN-2021 23:03
Instrument: voa6.i
Client Sample ID: CCV-END

Compound: Chloroethane
CAS Number: 75-00-3





HS21060462 8270 Raw Data

ALS WO# HS21060462

SV06 -Logbook

Batch: 45062
Date: 06-07-2021
Method: 8270DSIM
Comments: MSSV003

Analyst: Andrew Neir
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
1	DFTPP	TUNE	06-07-2021 10:54 am	1.00			001.D	Liquid	Y	N
2	SLSTD-2.5	SAMP	06-07-2021 11:05 am	1.00			002.D	Liquid	Y	N
3	DXSIM-0.08	SAMP	06-07-2021 11:25 am	1.00			003.D	Liquid	Y	N
4	DXSIM-0.01	SAMP	06-07-2021 11:43 am	1.00			004.D	Liquid	Y	N
5	DXSIM-0.03	SAMP	06-07-2021 12:01 pm	1.00			005.D	Liquid	Y	N
6	DXSIM-0.05	SAMP	06-07-2021 12:19 pm	1.00			006.D	Liquid	Y	N
7	DXSIM-0.1	SAMP	06-07-2021 12:43 pm	1.00			007.D	Liquid	Y	N
8	DXSIM-0.15	SAMP	06-07-2021 01:01 pm	1.00			008.D	Liquid	Y	N
9	DXSIM-0.2	SAMP	06-07-2021 01:19 pm	1.00			009.D	Liquid	Y	N
10	DXSIM-0.5	SAMP	06-07-2021 01:37 pm	1.00			010.D	Liquid	Y	N
11	DXSIM-ICV	SAMP	06-07-2021 01:55 pm	1.00			011.D	Liquid	Y	N

Chemical	Value
IS ID	3141114-01
CAL STD ID	3141106-05/ 3141114-07
DFTPP ID	31411105-05
PCP Tailing	1.19
Benz. Tailing	1.16
Routine SOP Maintenance	ACN

FORM 3
WATER SEMIVOLATILE METHOD SPIKE RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21060462

Matrix Spike - Sample No.: DXSIM-ICV

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	% REC #	QC. LIMITS REC.
1,4-Dioxane	0.08000	0.08066	101	40-150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

COMMENTS: _____

_____

FORM III SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21060462

Lab File ID: 001 BFB Injection Date: 06/07/21

Instrument ID: SV6 BFB Injection Time: 1054

GC Column: DB-5MS ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	21.0
68	Less than 2.0% of mass 69	0.4 (1.6)1
69	Mass 69 relative abundance	23.4
70	Less than 2.0% of mass 69	0.1 (0.5)1
127	10.0 - 80.0% of mass 198	32.7
197	Less than 2.0% of mass 198	0.6
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	26.6
365	1.0 - 100.0% of mass 198	3.2
441	Present, but less than mass 443	12.9
442	50.0 - 150.0% of mass 198	87.8
443	15.0 - 24.0% of mass 442	17.4 (19.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	DXSIM-0.08	DXSIM-0.08	003	06/07/21	1125
02	DXSIM-0.01	DXSIM-0.01	004	06/07/21	1143
03	DXSIM-0.03	DXSIM-0.03	005	06/07/21	1201
04	DXSIM-0.05	DXSIM-0.05	006	06/07/21	1219
05	DXSIM-0.1	DXSIM-0.1	007	06/07/21	1243
06	DXSIM-0.15	DXSIM-0.15	008	06/07/21	1301
07	DXSIM-0.2	DXSIM-0.2	009	06/07/21	1319
08	DXSIM-0.5	DXSIM-0.5	010	06/07/21	1337
09	DXSIM-ICV	DXSIM-ICV	011	06/07/21	1355
10					
11					
12					
13					
14					
15					
16					
17					
18					

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21060462

Instrument ID: SV6 Calibration Date(s): 06/07/21 06/07/21

Column: RTX-5SIL MS ID: 0.28 (mm) Calibration Time(s): 1125 1337

LAB FILE ID: RF0.01: 004 RF0.03: 005 RF0.05: 006
RF0.08: 003 RF0.1: 007 RF0.15: 008

COMPOUND	RF0.01	RF0.03	RF0.05	RF0.08	RF0.1	RF0.15
1,4-Dioxane	0.045	0.050	0.050	0.050	0.052	0.050
Nitrobenzene-d5	6821	13323	15816	28048	31308	37770
4-Terphenyl-d14	0.872	0.984	0.900	0.878	0.885	0.882
2-Fluorobiphenyl	1.469	1.506	1.386	1.139	1.282	1.246

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS2106046

Instrument ID: SV6 Calibration Date(s): 06/07/21 06/07/21

Column: RTX-5SIL MS ID: 0.28 (mm) Calibration Time(s): 1125 1337

LAB FILE ID: RF0.2: 009 RF0.5: 010

COMPOUND	RF0.2	RF0.5
1,4-Dioxane	0.053	0.062
Nitrobenzene-d5	51149	80842
4-Terphenyl-d14	0.916	0.902
2-Fluorobiphenyl	1.279	1.369

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS2106046

Instrument ID: SV6 Calibration Date(s): 06/07/21 06/07/21

Column: RTX-5SIL MS ID: 0.28 (mm) Calibration Time(s): 1125 1337

COMPOUND	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
1,4-Dioxane	AVRG		5.153e-002		9.321	20.000
Nitrobenzene-d5	2ORDR	-0.1575236	4.13259107	1.49830062	0.9998634	0.9900000
4-Terphenyl-d14	AVRG		0.90228060		3.988	20.000
2-Fluorobiphenyl	AVRG		1.33461899		9.099	20.000

FORM VI SV

Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\001.D

Date : 07-JUN-2021 10:54

Client ID: DFTPP

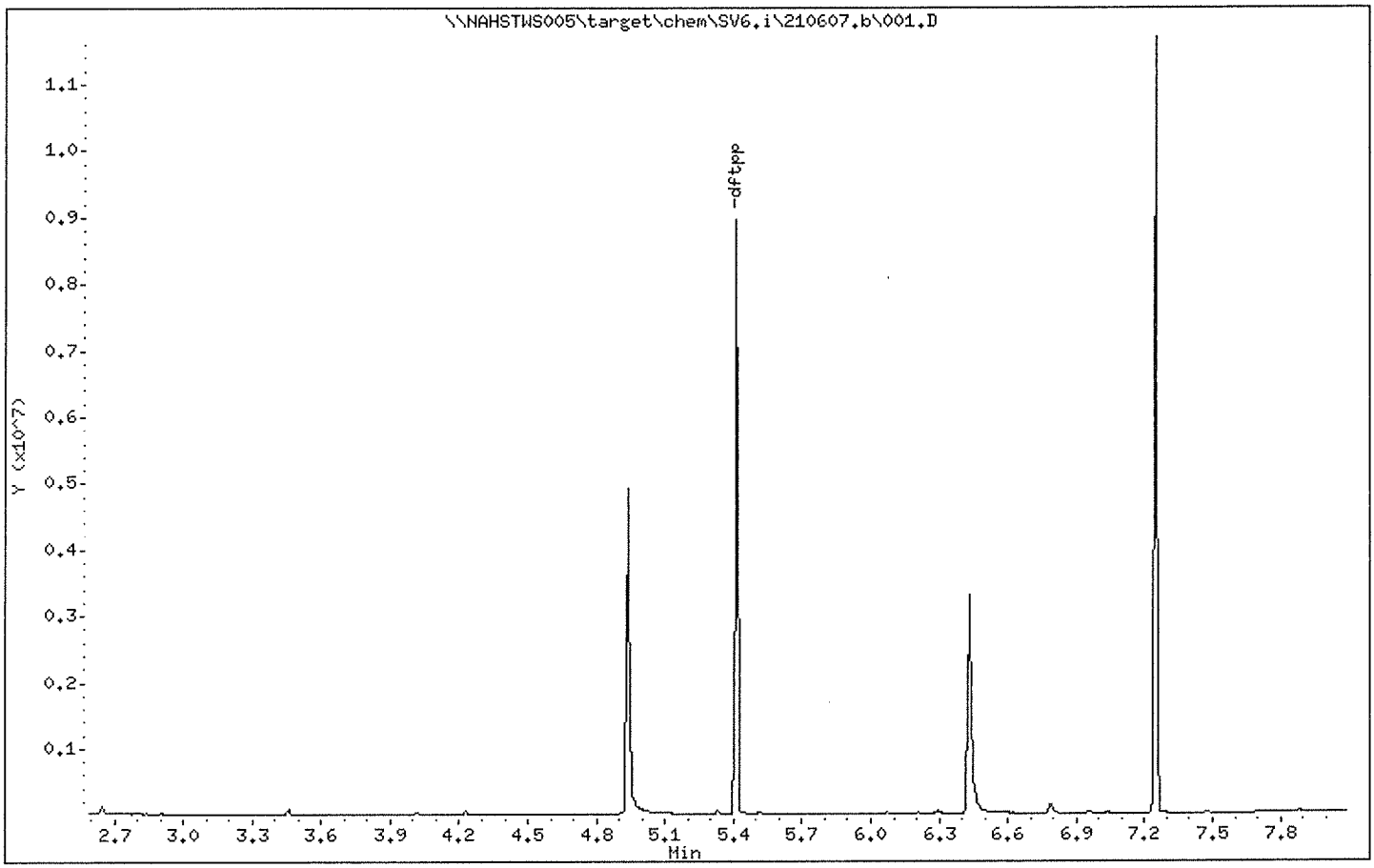
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25



Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\001.D

Date : 07-JUN-2021 10:54

Client ID: DFTPP

Instrument: SV6.i

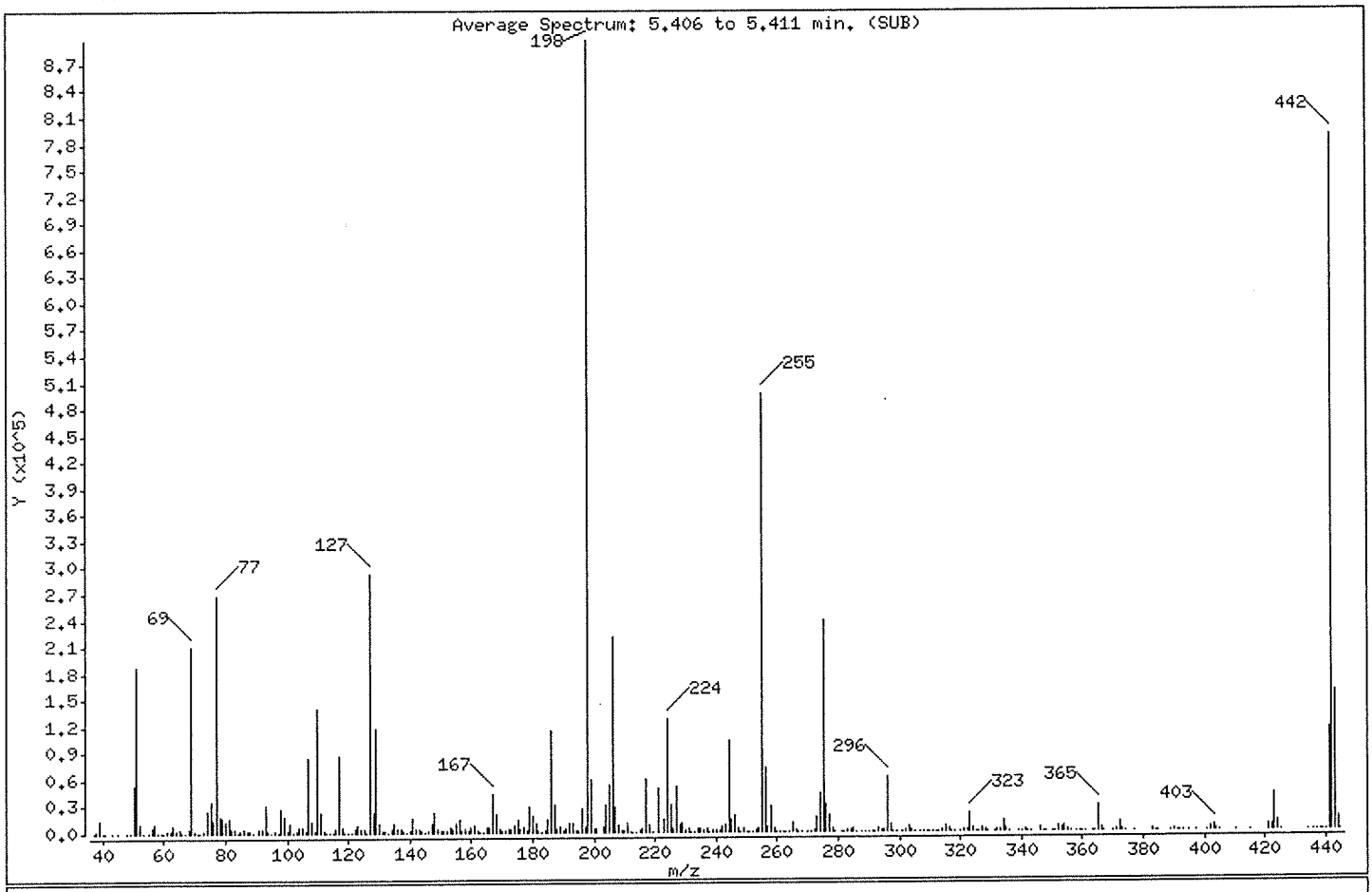
Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	21.04
68	Less than 2.00% of mass 69	0.37 (1.57)
69	Mass 69 relative abundance	23.36
70	Less than 2.00% of mass 69	0.12 (0.50)
127	10.00 - 80.00% of mass 198	32.69
197	Less than 2.00% of mass 198	0.60
199	5.00 - 9.00% of mass 198	6.72
275	10.00 - 60.00% of mass 198	26.59
365	1.00 - 100.00% of mass 198	3.20
441	Present, but less than mass 443	12.93
442	50.00 - 150.00% of mass 198	87.77
443	15.00 - 24.00% of mass 442	17.41 (19.83)

Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\001.D

Date : 07-JUN-2021 10:54

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 001.D
Spectrum: Average Spectrum: 5.406 to 5.411 min. (SUB)
Location of Maximum: 198.00
Number of points: 347

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	875	130.00	9937	218.00	7865	312.00	223
38.00	2555	131.00	2047	219.00	784	313.00	569
39.00	14113	132.00	1036	221.00	49992	314.00	2928
40.00	654	133.00	226	223.00	13873	315.00	6895
41.00	269	134.00	3191	224.00	127672	316.00	3736
43.00	18	135.00	9277	225.00	31784	317.00	597
45.00	422	136.00	3849	226.00	3610	318.00	84
48.00	275	137.00	4922	227.00	52272	320.00	182
49.00	988	138.00	1089	228.00	7514	321.00	1942
50.00	53072	139.00	621	229.00	11017	322.00	1058
51.00	188544	140.00	1511	230.00	1474	323.00	21376
52.00	9332	141.00	15998	231.00	4386	324.00	3821
53.00	373	142.00	5124	232.00	809	325.00	387
55.00	756	143.00	3858	233.00	749	326.00	435
56.00	5226	144.00	1032	234.00	3384	327.00	3834
57.00	10753	145.00	972	235.00	3679	328.00	2103
58.00	536	146.00	3068	236.00	2819	329.00	392
59.00	171	147.00	9390	237.00	4095	331.00	85
60.00	258	148.00	22272	238.00	675	332.00	1357
61.00	2046	149.00	4050	239.00	1913	333.00	1823
62.00	2782	150.00	1135	240.00	1566	334.00	13039
63.00	7345	151.00	2066	241.00	2832	335.00	3578
64.00	1104	152.00	1355	242.00	6776	336.00	377
65.00	3789	153.00	5182	243.00	7325	339.00	328
66.00	238	154.00	3936	244.00	102104	340.00	277
67.00	381	155.00	10118	245.00	14203	341.00	2339
68.00	3277	156.00	14485	246.00	18344	342.00	606
69.00	209344	157.00	2664	247.00	3641	343.00	88
70.00	1047	158.00	3302	248.00	872	346.00	4854
71.00	102	159.00	2315	249.00	3568	347.00	942
72.00	88	160.00	5728	250.00	770	348.00	84
73.00	1730	161.00	8329	251.00	667	350.00	191
74.00	23912	162.00	2414	252.00	891	351.00	386
75.00	34520	163.00	719	253.00	2220	352.00	6222
76.00	13652	164.00	702	254.00	4392	353.00	4575

Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\001.D

Date : 07-JUN-2021 10:54

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 001.D
Spectrum: Average Spectrum: 5.406 to 5.411 min. (SUB)
Location of Maximum: 198.00
Number of points: 347

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	268416	165.00	6263	255.00	497088	354.00	6091
78.00	17936	166.00	5607	256.00	72360	355.00	1241
79.00	15658	167.00	44144	257.00	5773	356.00	121
80.00	11562	168.00	21224	258.00	28648	358.00	76
81.00	17328	169.00	3430	259.00	4642	359.00	586
82.00	4416	170.00	1347	260.00	885	360.00	108
83.00	4007	171.00	1531	261.00	1018	361.00	105
84.00	18	172.00	3373	262.00	85	363.00	133
85.00	2837	173.00	4347	263.00	301	364.00	167
86.00	4872	174.00	8432	264.00	678	365.00	28672
87.00	2144	175.00	14845	265.00	10911	366.00	4060
88.00	1034	176.00	4466	266.00	1724	367.00	333
89.00	547	177.00	6919	267.00	241	370.00	673
91.00	4227	178.00	2233	268.00	194	371.00	1821
92.00	4429	179.00	28944	270.00	541	372.00	11040
93.00	30296	180.00	19520	271.00	975	373.00	2648
94.00	1992	181.00	9318	272.00	1369	374.00	324
95.00	440	182.00	1504	273.00	15763	377.00	263
96.00	1128	183.00	866	274.00	42488	383.00	2834
97.00	621	184.00	2538	275.00	238336	384.00	898
98.00	25784	185.00	15363	276.00	31168	385.00	272
99.00	17712	186.00	114512	277.00	18184	389.00	125
100.00	1337	187.00	31240	278.00	3382	390.00	1692
101.00	10120	188.00	3275	279.00	699	391.00	1019
102.00	490	189.00	6409	281.00	102	392.00	743
103.00	2863	190.00	1391	282.00	486	393.00	96
104.00	6023	191.00	3242	283.00	2127	395.00	78
105.00	6100	192.00	9963	284.00	1355	397.00	135
106.00	2052	193.00	10675	285.00	3242	401.00	801
107.00	83464	194.00	2463	286.00	673	402.00	4653
108.00	12093	195.00	1418	288.00	146	403.00	6754
109.00	2321	196.00	26272	289.00	746	404.00	2021
110.00	139264	197.00	5360	290.00	586	405.00	367
111.00	22120	198.00	896448	291.00	370	410.00	122
112.00	3036	199.00	60208	292.00	905	415.00	288

Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\001.D

Date : 07-JUN-2021 10:54

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 001.D
Spectrum: Average Spectrum: 5.406 to 5.411 min. (SUB)
Location of Maximum: 198.00
Number of points: 347

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	1022	200.00	4826	293.00	4307	421.00	6063
114.00	216	201.00	4239	294.00	1093	422.00	5261
115.00	408	203.00	5611	295.00	1300	423.00	42056
116.00	4555	204.00	31776	296.00	62304	424.00	9387
117.00	87584	205.00	54056	297.00	8413	425.00	945
118.00	5811	206.00	221184	298.00	581	434.00	97
119.00	590	207.00	28136	299.00	99	436.00	138
120.00	1027	208.00	7214	301.00	785	437.00	463
121.00	361	209.00	2245	302.00	1163	438.00	241
122.00	5142	210.00	2638	303.00	7205	439.00	558
123.00	8772	211.00	9286	304.00	2046	440.00	772
124.00	3943	212.00	498	305.00	224	441.00	115896
125.00	4024	213.00	634	307.00	83	442.00	786752
126.00	972	214.00	169	308.00	930	443.00	156032
127.00	293056	215.00	2329	309.00	760	444.00	14617
128.00	22200	216.00	4941	310.00	916	445.00	883
129.00	117392	217.00	59496	311.00	182		

Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\003.D Page 1
Report Date: 01-Sep-2021 13:56

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\target\chem\SV6.i\210607.b\003.D
Lab Smp Id: DXSIM-0.08 Client Smp ID: DXSIM-0.08
Inj Date : 07-JUN-2021 11:25 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.08;DXSIM-0.08
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 01-Sep-2021 13:56 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 3 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

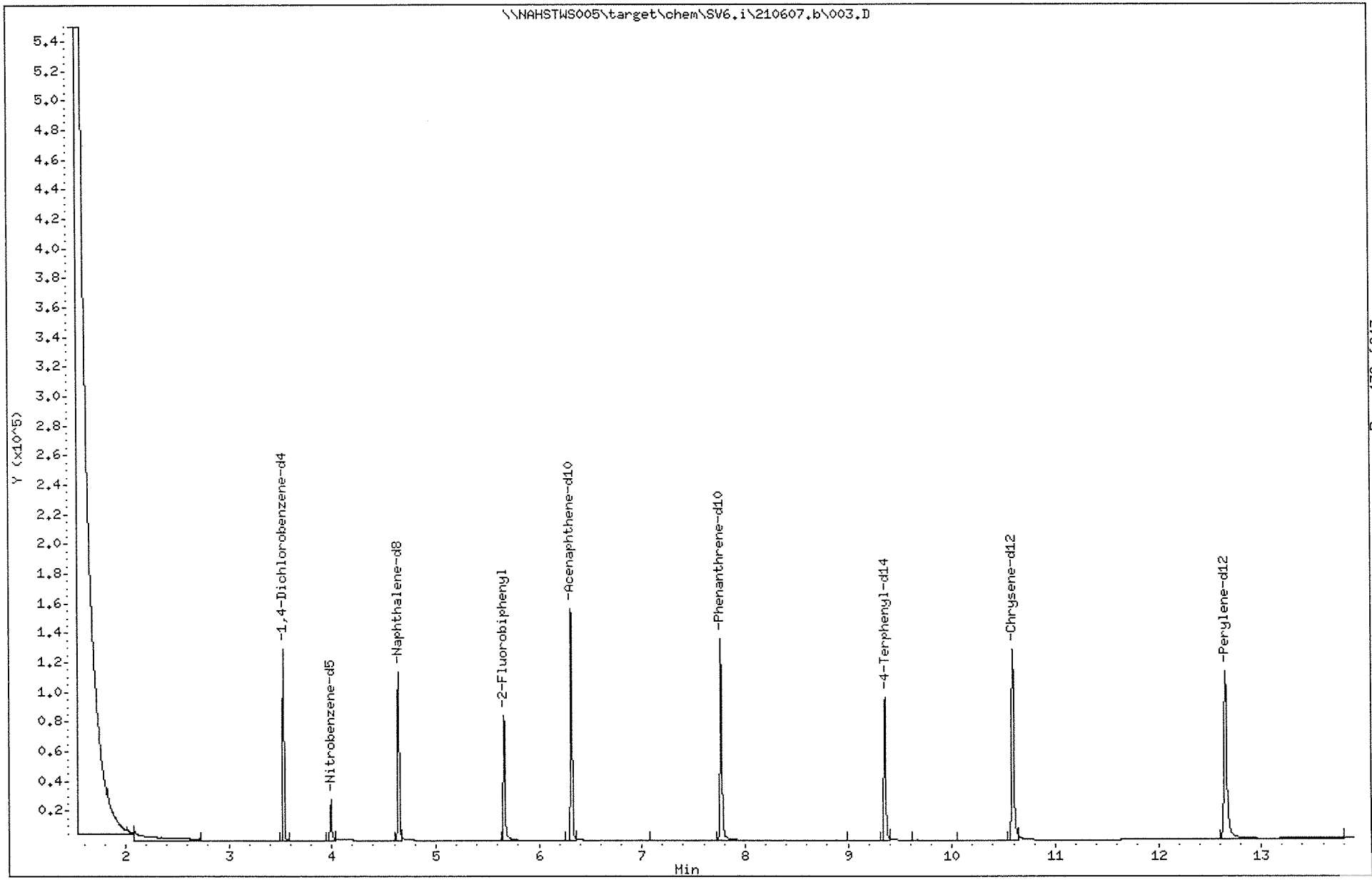
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	37444	0.10000	(a)
* 45 Naphthalene-d8	136	4.641	4.641	(1.000)	127295	0.10000	
$ 33 Nitrobenzene-d5	82	3.993	3.993	(0.860)	28048	0.08000	0.08258(Q)
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	78359	0.10000	(Q)
$ 69 2-Fluorobiphenyl	172	5.666	5.666	(0.896)	71387	0.08000	0.06826(Q)
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	161444	0.10000	
* 182 Chrysene-d12	240	10.594	10.594	(1.000)	161496	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	113379	0.08000	0.07781(M)
* 198 Perylene-d12	264	12.657	12.657	(1.000)	163563	0.10000	
1 1,4-Dioxane	58	1.833	1.833	(0.518)	1504	0.08000	0.07795(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\003.D
Date : 07-JUN-2021 11:25
Client ID: DXSIM-0.08
Sample Info: DXSIM-0.08;DXSIM-0.08
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\004.D Page 1
Report Date: 01-Sep-2021 13:56

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\target\chem\SV6.i\210607.b\004.D
Lab Smp Id: DXSIM-0.01 Client Smp ID: DXSIM-0.01
Inj Date : 07-JUN-2021 11:43 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.01;DXSIM-0.01
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 01-Sep-2021 13:56 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 11:25 Cal File: 003.D
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.532	3.532	(1.000)	32441	0.10000		(a)
* 45 Naphthalene-d8	136	4.645	4.645	(1.000)	108743	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.993	3.993	(1.000)	6821	0.01000	0.01076	
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	69538	0.10000		(M)
$ 69 2-Fluorobiphenyl	172	5.670	5.670	(0.897)	10217	0.01000	0.01101	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	139165	0.10000		
* 182 Chrysene-d12	240	10.594	10.594	(1.000)	139300	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	12143	0.01000	0.009661	(M)
* 198 Perylene-d12	264	12.657	12.657	(1.000)	136463	0.10000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\004.D

Date : 07-JUN-2021 11:43

Client ID: DXSIM-0.01

Instrument: SV6.i

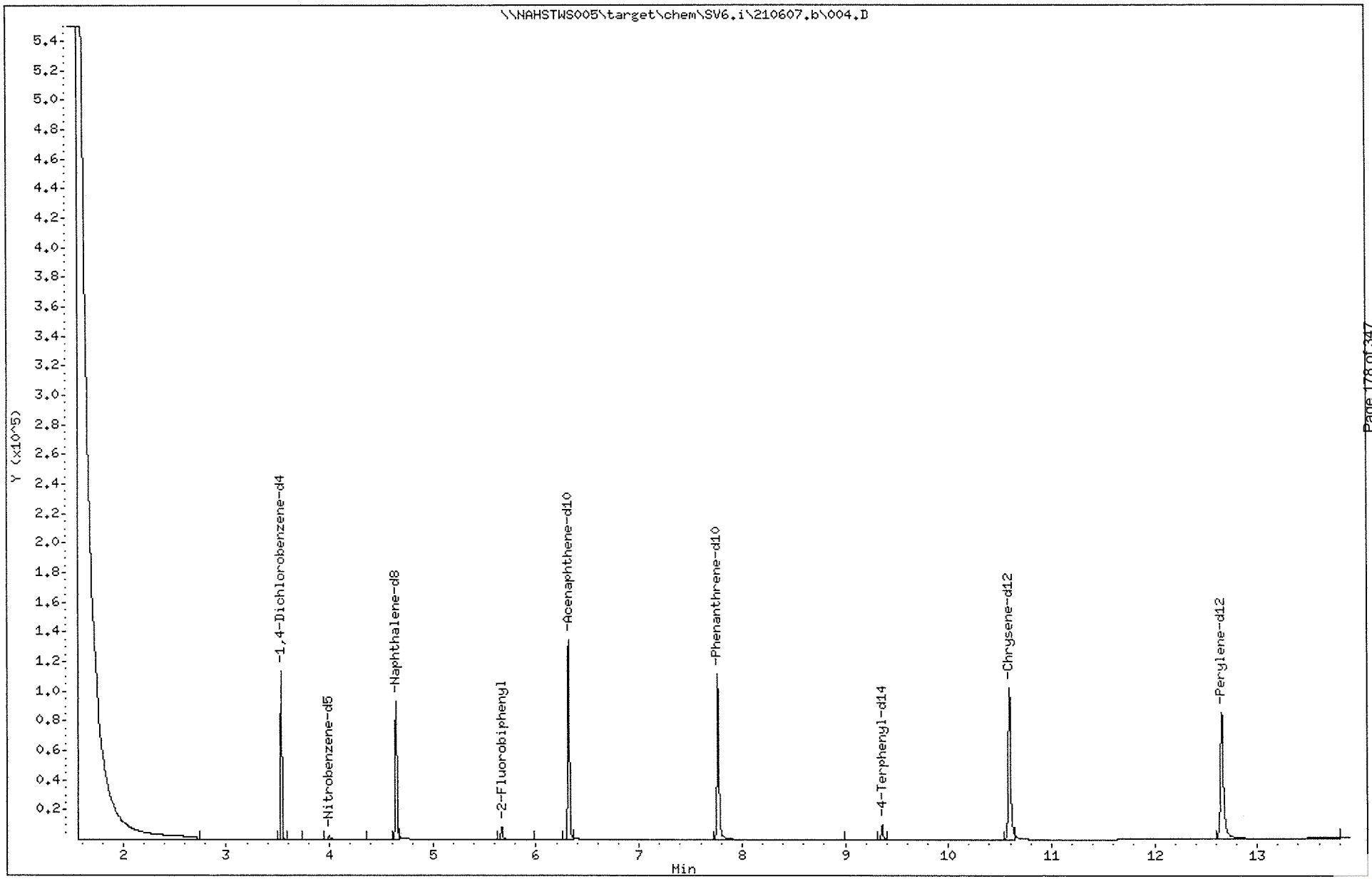
Sample Info: DXSIM-0.01;DXSIM-0.01

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\005.D Page 1
Report Date: 01-Sep-2021 13:56

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\target\chem\SV6.i\210607.b\005.D
Lab Smp Id: DXSIM-0.03 Client Smp ID: DXSIM-0.03
Inj Date : 07-JUN-2021 12:01 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.03;DXSIM-0.03
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 01-Sep-2021 13:56 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 11:43 Cal File: 004.D
Als bottle: 5 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	38001	0.10000		(a)
* 45 Naphthalene-d8	136	4.641	4.641	(1.000)	129653	0.10000		
$ 33 Nitrobenzene-d5	82	3.993	3.993	(0.860)	13323	0.03000	0.02830	
* 86 Acenaphthene-d10	164	6.320	6.320	(1.000)	79894	0.10000		
$ 69 2-Fluorobiphenyl	172	5.666	5.666	(0.896)	36092	0.03000	0.03385	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	165510	0.10000		
* 182 Chrysene-d12	240	10.594	10.594	(1.000)	166418	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	49106	0.03000	0.03270	(M)
* 198 Perylene-d12	264	12.657	12.657	(1.000)	160787	0.10000		

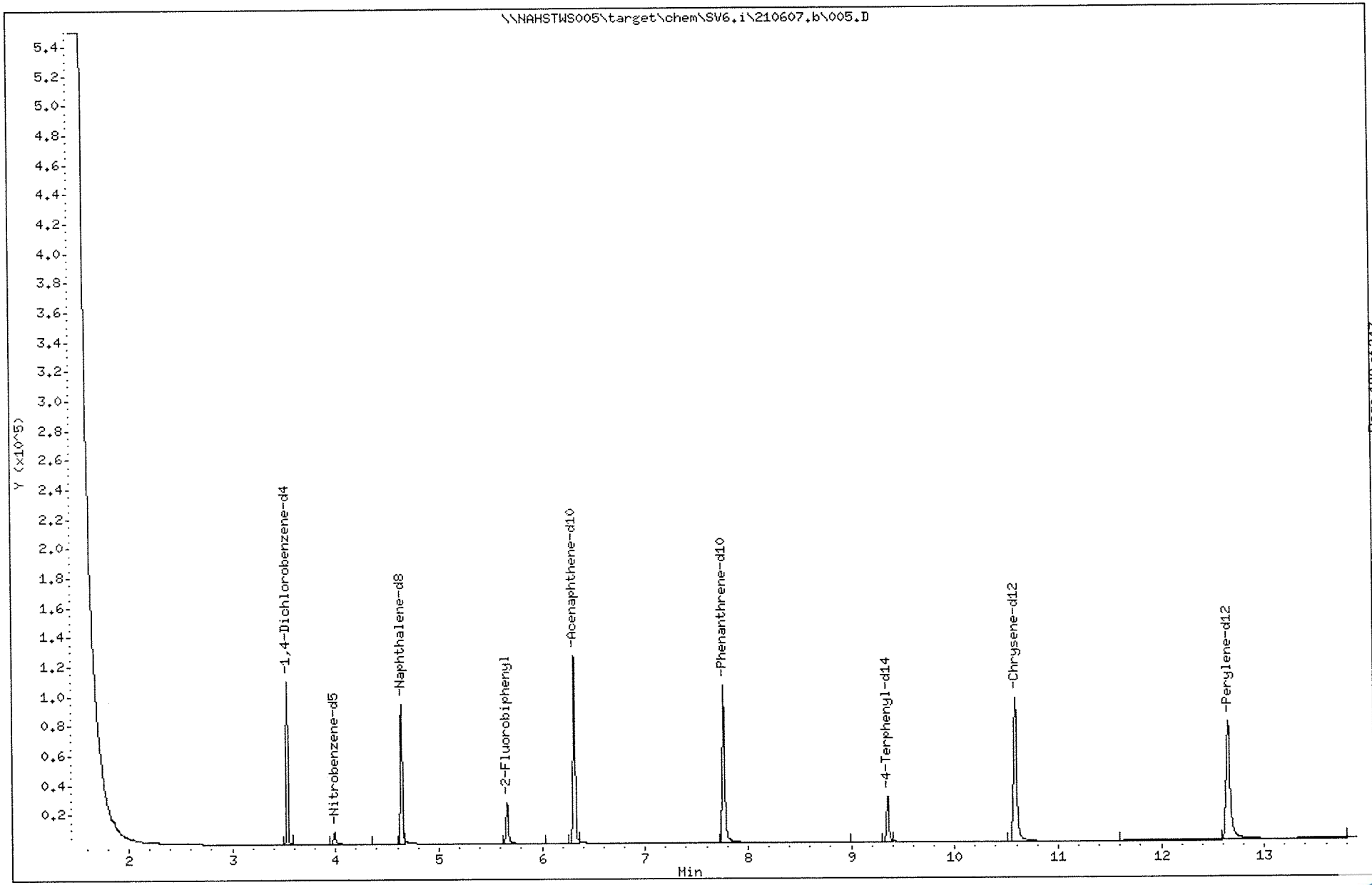
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\005.D
Date : 07-JUN-2021 12:01
Client ID: DXSIM-0.03
Sample Info: DXSIM-0.03;DXSIM-0.03
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i

Operator: LG
Column diameter: 0.28



Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\006.D
Report Date: 01-Sep-2021 13:56

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\target\chem\SV6.i\210607.b\006.D
Lab Smp Id: DXSIM-0.05 Client Smp ID: DXSIM-0.05
Inj Date : 07-JUN-2021 12:19 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.05;DXSIM-0.05
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 01-Sep-2021 13:56 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 12:01 Cal File: 005.D
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

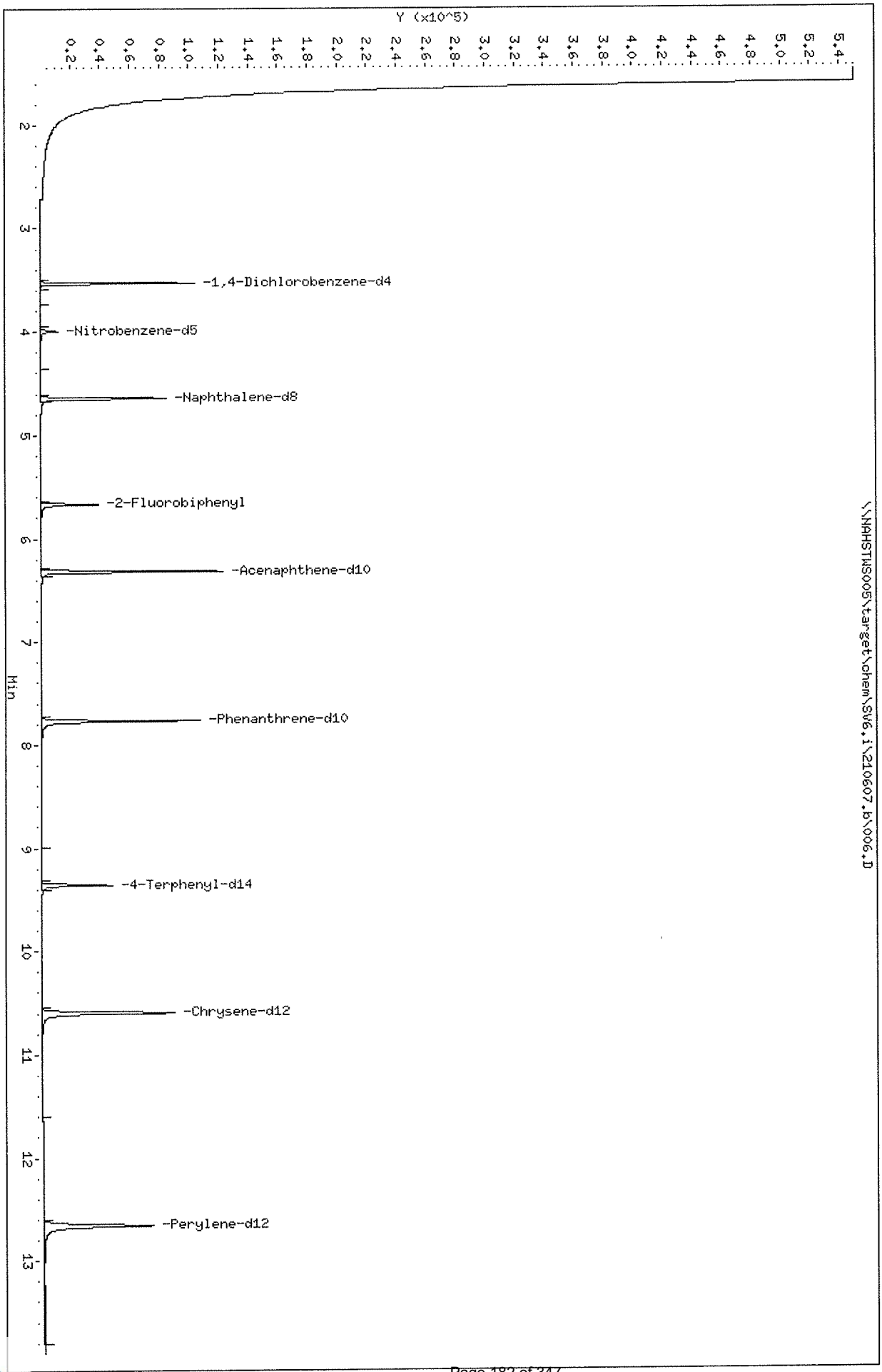
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.531	3.531	(1.000)	30540	0.10000		(a)
* 45 Naphthalene-d8	136	4.641	4.641	(1.000)	102937	0.10000		
$ 33 Nitrobenzene-d5	82	3.993	3.993	(0.860)	15816	0.05000	0.05128	
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	62420	0.10000		(Q)
$ 69 2-Fluorobiphenyl	172	5.670	5.670	(0.897)	43274	0.05000	0.05194	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	129763	0.10000		
* 182 Chrysene-d12	240	10.594	10.594	(1.000)	129060	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	58071	0.05000	0.04987	(M)
* 198 Perylene-d12	264	12.657	12.657	(1.000)	123621	0.10000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.



Data File: \\NAHSTMS005\target\chem\SV6.i\210607.b\006.D
Date : 07-JUN-2021 12:19
Client ID: DXSIM-0.05
Sample Info: DXSIM-0.05;DXSIM-0.05
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28

Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\007.D Page 1
Report Date: 01-Sep-2021 13:56

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\target\chem\SV6.i\210607.b\007.D
Lab Smp Id: DXSIM-0.1 Client Smp ID: DXSIM-0.1
Inj Date : 07-JUN-2021 12:43 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.1;DXSIM-0.1
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 01-Sep-2021 13:56 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 12:19 Cal File: 006.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	36721	0.10000		(a)
* 45 Naphthalene-d8	136	4.644	4.644	(1.000)	125484	0.10000		
$ 33 Nitrobenzene-d5	82	3.998	3.998	(0.861)	31308	0.10000	0.09668	
* 86 Acenaphthene-d10	164	6.320	6.320	(1.000)	79287	0.10000		(QM)
$ 69 2-Fluorobiphenyl	172	5.669	5.669	(0.936)	101666	0.10000	0.09608	
* 126 Phenanthrene-d10	188	7.776	7.776	(1.000)	157971	0.10000		
* 182 Chrysene-d12	240	10.600	10.600	(1.000)	160256	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.362	9.362	(0.883)	141769	0.10000	0.09804	(M)
* 198 Perylene-d12	264	12.662	12.662	(1.000)	155555	0.10000		
1 1,4-Dioxane	58	1.836	1.836	(0.519)	1898	0.10000	0.1003	(aQM)

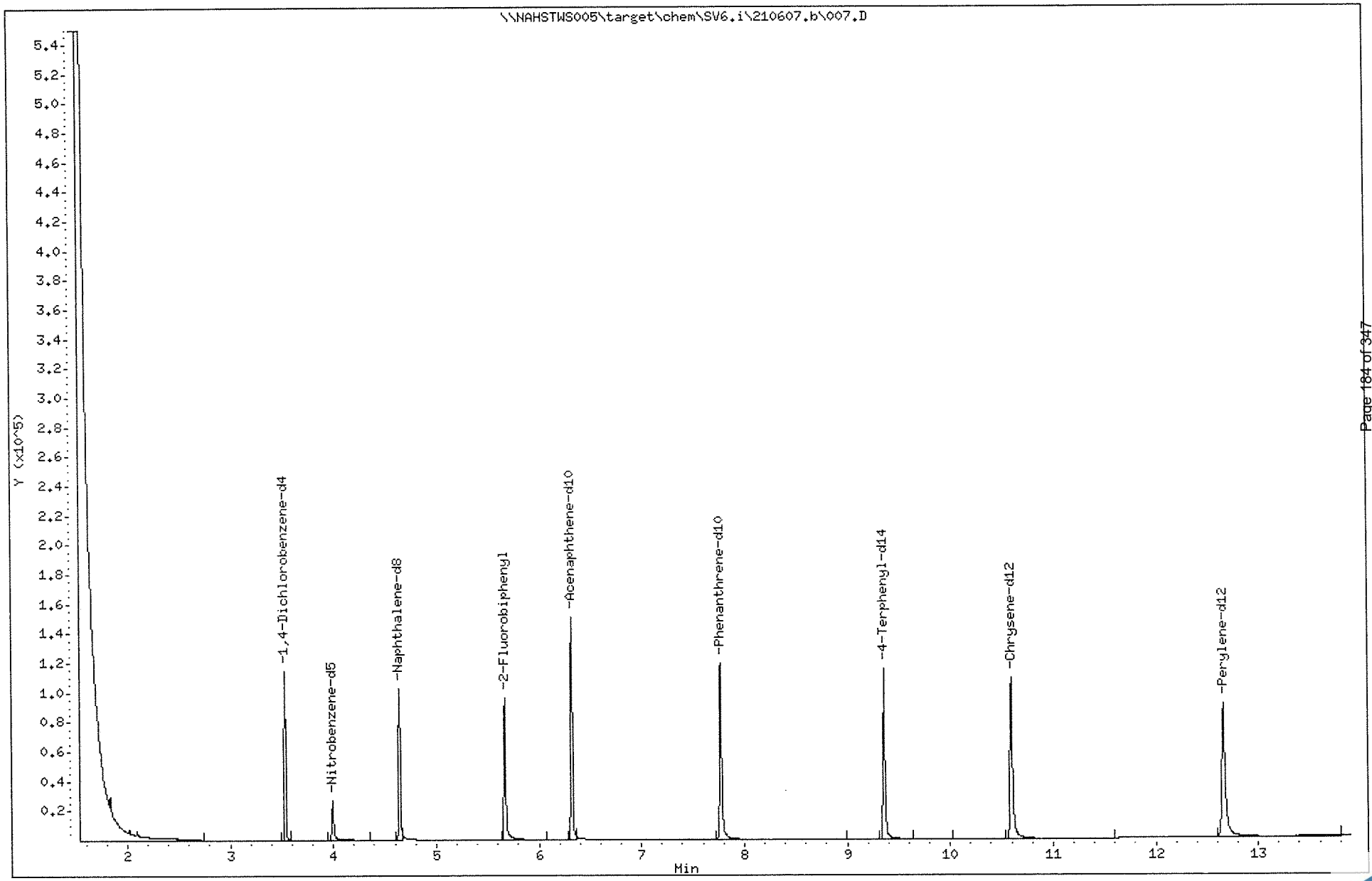
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\007.D
Date : 07-JUN-2021 12:43
Client ID: DXSIM-0.1
Sample Info: DXSIM-0.1;DXSIM-0.1
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i

Operator: LG
Column diameter: 0.28



Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\008.D
Report Date: 01-Sep-2021 13:56

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\target\chem\SV6.i\210607.b\008.D
Lab Smp Id: DXSIM-0.15 Client Smp ID: DXSIM-0.15
Inj Date : 07-JUN-2021 13:01 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.15;DXSIM-0.15
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 01-Sep-2021 13:56 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 12:43 Cal File: 007.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	31974	0.10000		(a)
* 45 Naphthalene-d8	136	4.644	4.644	(1.000)	106586	0.10000		
$ 33 Nitrobenzene-d5	82	3.998	3.998	(0.861)	37770	0.15000	0.1495	
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	68282	0.10000		(M)
$ 69 2-Fluorobiphenyl	172	5.670	5.670	(0.932)	127675	0.15000	0.1401	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	133068	0.10000		
* 182 Chrysene-d12	240	10.594	10.594	(1.000)	136695	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	180944	0.15000	0.1467	(M)
* 198 Perylene-d12	264	12.662	12.662	(1.000)	128306	0.10000		
1 1,4-Dioxane	58	1.847	1.847	(0.522)	2410	0.15000	0.1463	(aQM)

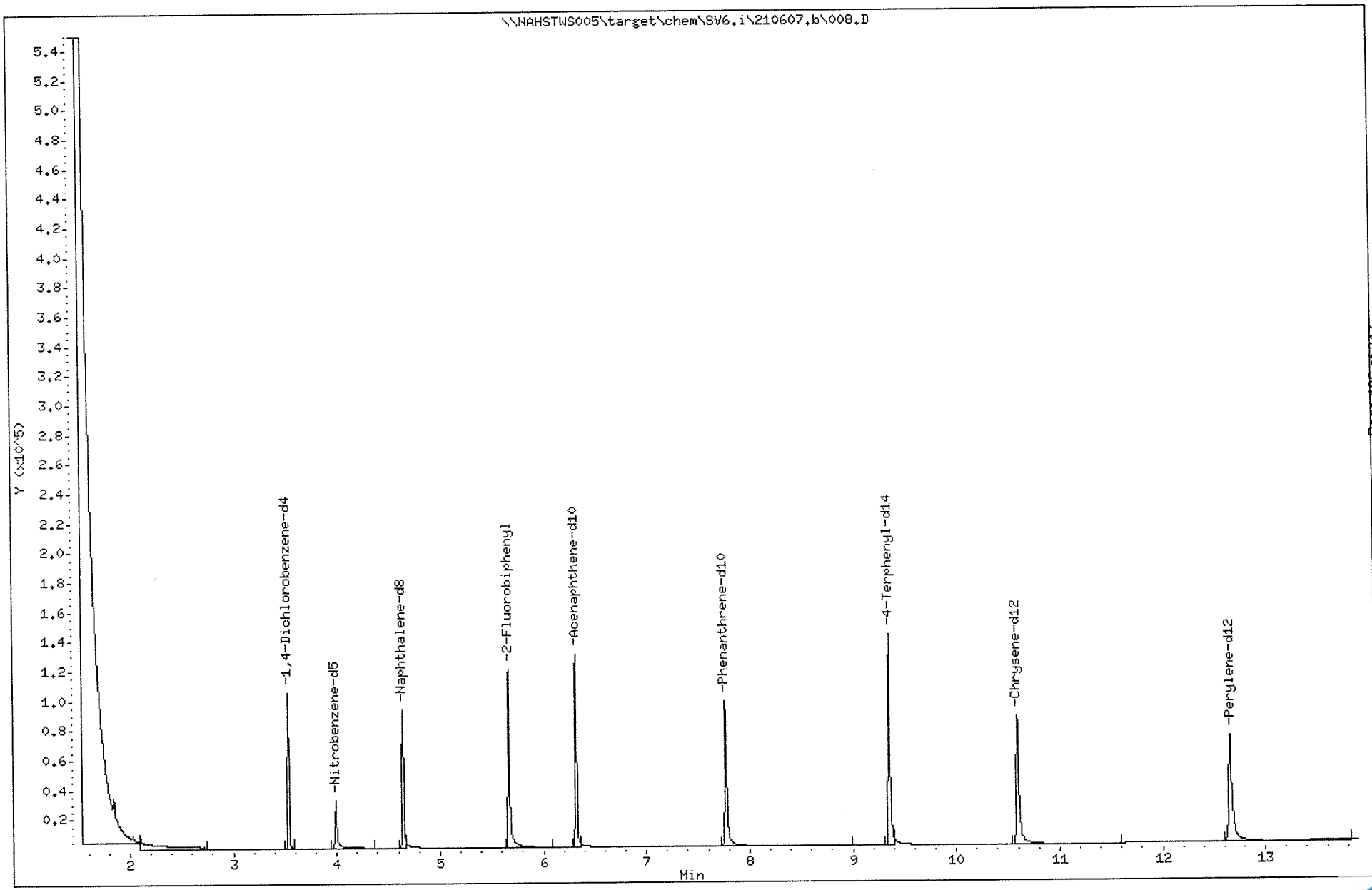
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\008.D
Date : 07-JUN-2021 13:01
Client ID: DXSIM-0.15
Sample Info: DXSIM-0.15;DXSIM-0.15
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i

Operator: LG
Column diameter: 0.28



Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\009.D
Report Date: 01-Sep-2021 13:56

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\target\chem\SV6.i\210607.b\009.D
Lab Smp Id: DXSIM-0.2 Client Smp ID: DXSIM-0.2
Inj Date : 07-JUN-2021 13:19 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.2;DXSIM-0.2
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 01-Sep-2021 13:56 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:01 Cal File: 008.D
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.532	3.532	(1.000)	32671	0.10000	(a)
* 45 Naphthalene-d8	136	4.626	4.626	(1.000)	113469	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.982	3.982	(0.917)	51149	0.20000	0.2010 (A)
* 86 Acenaphthene-d10	164	6.299	6.299	(1.000)	68302	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.648	5.648	(1.000)	174723	0.20000	0.1917 (A)
* 126 Phenanthrene-d10	188	7.749	7.749	(1.000)	141566	0.10000	
* 182 Chrysene-d12	240	10.562	10.562	(1.000)	134180	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.330	9.330	(0.883)	245911	0.20000	0.2031 (AM)
* 198 Perylene-d12	264	12.625	12.625	(1.000)	125962	0.10000	(M)
1 1,4-Dioxane	58	1.881	1.881	(0.533)	3443	0.20000	0.2045 (QM)

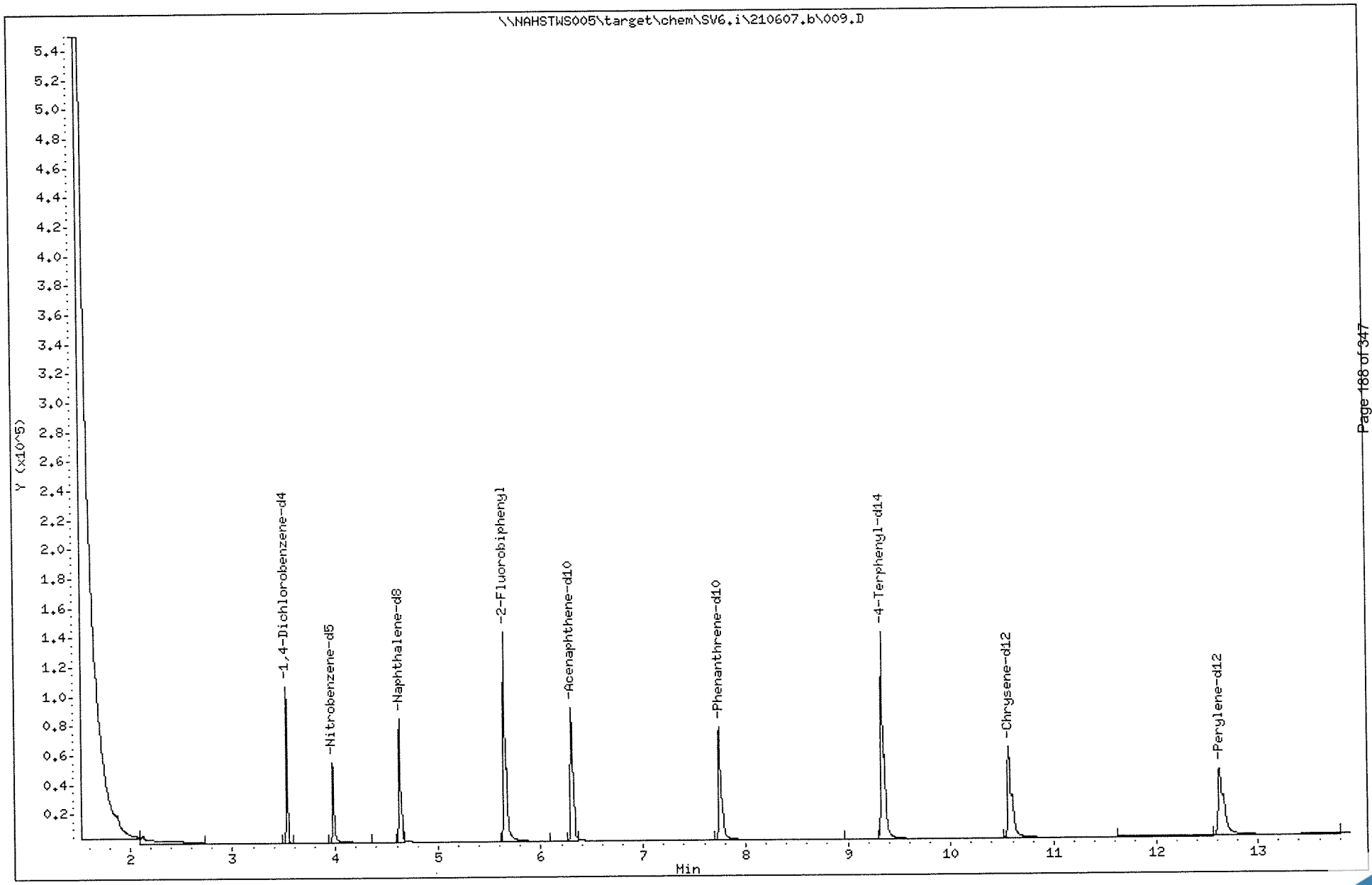
QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\009.D
Date : 07-JUN-2021 13:19
Client ID: DXSIM-0.2
Sample Info: DXSIM-0.2;DXSIM-0.2
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i

Operator: LG
Column diameter: 0.28



Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\010.D
Report Date: 01-Sep-2021 13:56

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\target\chem\SV6.i\210607.b\010.D
Lab Smp Id: DXSIM-0.5 Client Smp ID: DXSIM-0.5
Inj Date : 07-JUN-2021 13:37 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.5;DXSIM-0.5
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 01-Sep-2021 13:56 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:19 Cal File: 009.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.505	3.505	(1.000)	28197	0.10000		(a)
* 45 Naphthalene-d8	136	4.585	4.585	(1.000)	86691	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.945	3.945	(0.860)	80842	0.50000	0.4999	(AQM)
* 86 Acenaphthene-d10	164	6.251	6.251	(1.000)	49687	0.10000		(QM)
$ 69 2-Fluorobiphenyl	172	5.600	5.600	(0.896)	340029	0.50000	0.5128	(AM)
* 126 Phenanthrene-d10	188	7.700	7.700	(1.000)	111127	0.10000		(M)
* 182 Chrysene-d12	240	10.503	10.503	(1.000)	104718	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.362	9.362	(0.891)	472282	0.50000	0.4998	(AM)
* 198 Perylene-d12	264	12.668	12.668	(1.000)	98459	0.10000		(M)
1 1,4-Dioxane	58	2.006	2.006	(0.572)	8747	0.50000	0.6020	(AQM)

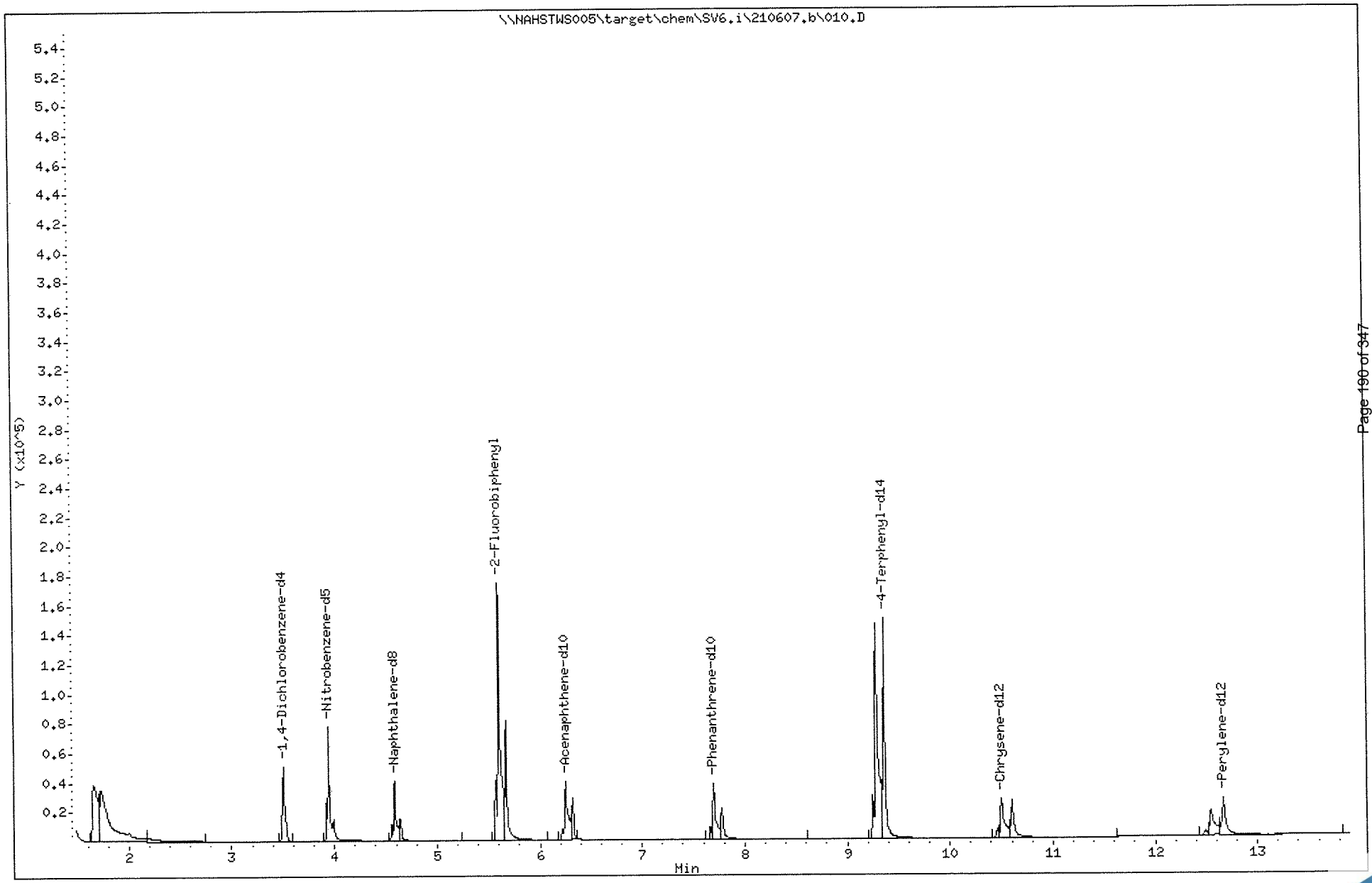
QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\010.D
Date : 07-JUN-2021 13:37
Client ID: DXSIM-0.5
Sample Info: DXSIM-0.5;DXSIM-0.5
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i

Operator: LG
Column diameter: 0.28



Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\011.D
Report Date: 01-Sep-2021 13:56

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\target\chem\SV6.i\210607.b\011.D
Lab Smp Id: DXSIM-ICV
Inj Date : 07-JUN-2021 13:55
Operator : LG
Smp Info : DXSIM-ICV;DXSIM-ICV
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\target\chem\SV6.i\210607.b\DXSIM.m
Meth Date : 01-Sep-2021 13:56 SV6.i
Cal Date : 07-JUN-2021 13:37
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 4.14
Processing Host: NAHSTW7056

Client Smp ID: DXSIM-ICV
MS Autotune Date: 27-MAY-2021 10:12
Inst ID: SV6.i
Quant Type: ISTD
Cal File: 010.D
QC Sample: METHSPIKE
Compound Sublist: 14dx.sub

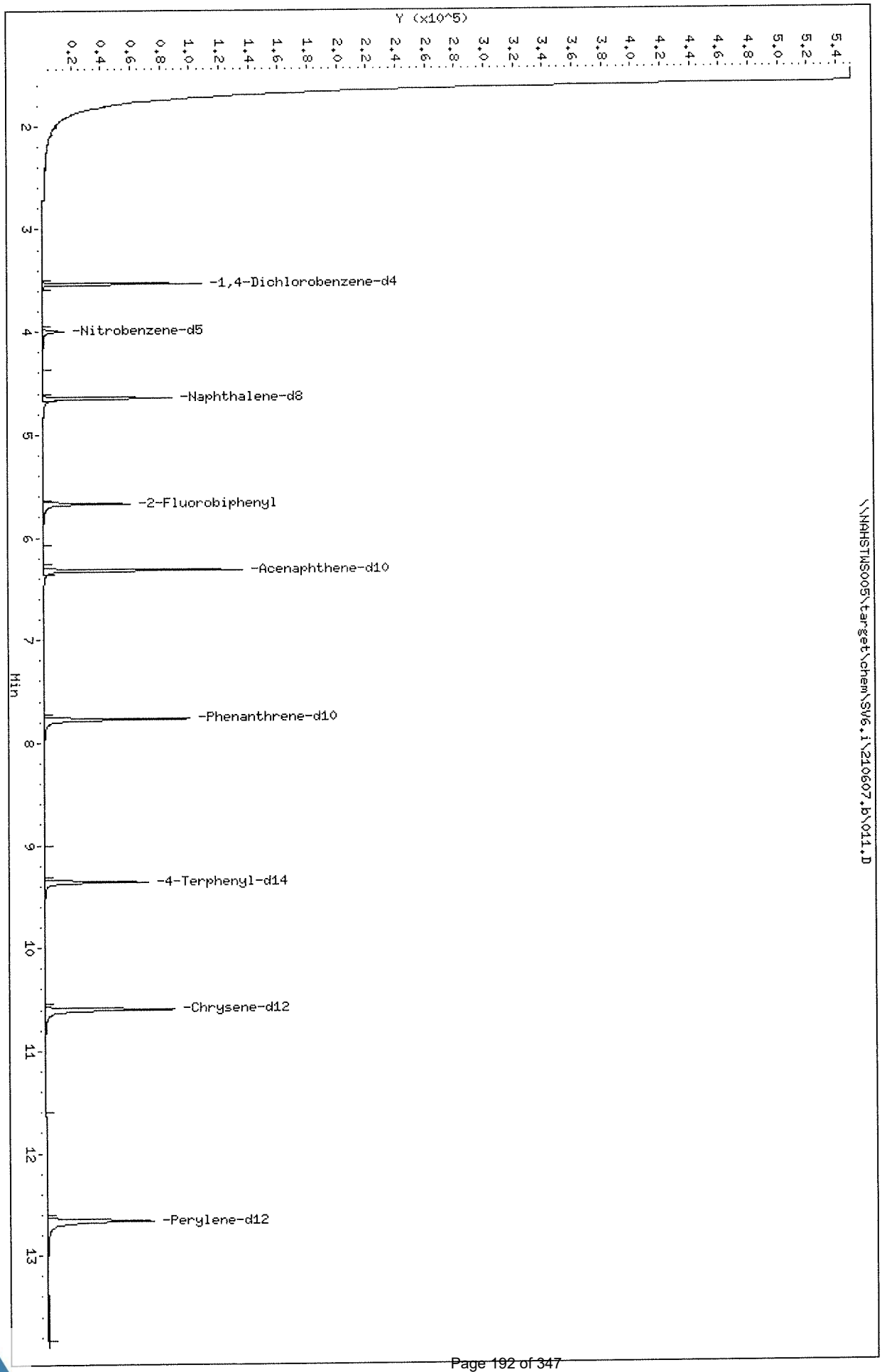
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	3.532	3.505	(1.000)	31156	0.10000		(a)
* 45 Naphthalene-d8	136	4.645	4.585	(1.000)	105707	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.998	3.945	(0.921)	20403	0.06959	0.06959	
* 86 Acenaphthene-d10	164	6.321	6.251	(1.000)	68049	0.10000		(QM)
$ 69 2-Fluorobiphenyl	172	5.670	5.600	(1.000)	66382	0.07309	0.07309	
* 126 Phenanthrene-d10	188	7.770	7.700	(1.000)	137852	0.10000		(M)
* 182 Chrysene-d12	240	10.594	10.503	(1.000)	131692	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.362	(0.883)	93833	0.07897	0.07897	(M)
* 198 Perylene-d12	264	12.662	12.668	(1.000)	121944	0.10000		
1 1,4-Dioxane	58	1.818	2.006	(0.515)	1295	0.08066	0.08066	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.



Data File: \\NAHSTWS005\target\chem\SV6.i\210607.b\011.D
Date : 07-JUN-2021 13:55
Client ID: DXSIM-ICV
Sample Info: DXSIM-ICV;DXSIM-ICV
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28

SV06 -Logbook

Batch: 46236
Date: 06-14-2021
Method: 8270DSIM
Comments: MSSV003

Analyst: Andrew Neir
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	p
1	DFTPP	TUNE	06-14-2021 09:48 am	1.00			001.D		Y	N
2	DXSIM-0.08	SAMP	06-14-2021 09:59 am	1.00			002.D		Y	N
3	PAHSIM-0.08	CCV	06-14-2021 10:23 am	1.00			003.D		Y	N
4	CC	SAMP	06-14-2021 10:41 am	1.00			004.D		Y	N
5	MBLK-166791	MBLK	06-14-2021 10:59 am	1.00	1000.00 mL	1.00 mL	005.D	Liquid	Y	N
6	LCS-166791	LCS	06-14-2021 11:17 am	1.00	1000.00 mL	1.00 mL	006.D	Liquid	Y	N
7	LCSD-166791	LCSD	06-14-2021 11:35 am	1.00	1000.00 mL	1.00 mL	007.D	Liquid	Y	N
8	HS210690462-01	SAMP	06-14-2021 11:53 am	1.00	1000.00 mL	1.00 mL	008.D	Liquid	Y	N
9	HS210690465-01	SAMP	06-14-2021 12:11 pm	1.00	1000.00 mL	1.00 mL	009.D	Liquid	Y	N
10	HS210690465-02	SAMP	06-14-2021 12:29 pm	1.00	1000.00 mL	1.00 mL	010.D	Liquid	Y	N
11	HS210690465-03	SAMP	06-14-2021 12:47 pm	1.00	1000.00 mL	1.00 mL	011.D	Liquid	Y	N
12	HS210690465-04	SAMP	06-14-2021 01:05 pm	1.00	1000.00 mL	1.00 mL	012.D	Liquid	Y	N
13	HS210690465-05	SAMP	06-14-2021 01:23 pm	1.00	1000.00 mL	1.00 mL	013.D	Liquid	Y	N
14	HS21060462-01	SAMP	06-14-2021 01:41 pm	100.0(	1000.00 mL	1.00 mL	014.D	Liquid	Y	N
15	HS21060495-01	SAMP	06-14-2021 01:59 pm	10.00	1000.00 mL	1.00 mL	015.D	Liquid	Y	N
16	HS21060495-03	SAMP	06-14-2021 02:17 pm	10.00	1000.00 mL	1.00 mL	016.D	Liquid	Y	N
17	HS21060495-04	SAMP	06-14-2021 02:35 pm	10.00	1000.00 mL	1.00 mL	017.D	Liquid	Y	N
18	HS21060495-05	SAMP	06-14-2021 02:53 pm	10.00	1000.00 mL	1.00 mL	018.D	Liquid	Y	N
19	HS21060495-06	SAMP	06-14-2021 03:11 pm	10.00	1000.00 mL	1.00 mL	019.D	Liquid	Y	N
20	DXSIM-0.08	SAMP	06-14-2021 03:29 pm	1.00	1000.00 mL	1.00 mL	020.D	Liquid	Y	N
21	MBLK-166792	MBLK	06-14-2021 03:49 pm	1.00	1000.00 mL	1.00 mL	021.D	Liquid	Y	N
22	LCS-166792	LCS	06-14-2021 04:08 pm	1.00	1000.00 mL	1.00 mL	022.D	Liquid	Y	N
23	LCSD-166792	LCSD	06-14-2021 04:46 pm	1.00	1000.00 mL	1.00 mL	023.D	Liquid	Y	N
24	HS21060571-01	SAMP	06-14-2021 05:05 pm	1.00	1000.00 mL	1.00 mL	024.D	Liquid	Y	N
25	HS21060571-02	SAMP	06-14-2021 05:25 pm	1.00	1000.00 mL	1.00 mL	025.D	Liquid	Y	N
26	HS21060571-03	SAMP	06-14-2021 05:44 pm	1.00	1000.00 mL	1.00 mL	026.D	Liquid	Y	N
27	HS21060571-04	SAMP	06-14-2021 06:03 pm	1.00	1000.00 mL	1.00 mL	027.D	Liquid	Y	N
28	HS21060571-05	SAMP	06-14-2021 06:23 pm	1.00	1000.00 mL	1.00 mL	028.D	Liquid	Y	N
29	HS21060571-06	SAMP	06-14-2021 06:42 pm	1.00	1000.00 mL	1.00 mL	029.D	Liquid	Y	N
30	HS21060571-07	SAMP	06-14-2021 07:01 pm	1.00	1000.00 mL	1.00 mL	030.D	Liquid	Y	N
31	HS21060571-08	SAMP	06-14-2021 07:21 pm	1.00	1000.00 mL	1.00 mL	031.D	Liquid	Y	N
32	HS21060571-09	SAMP	06-14-2021 07:40 pm	1.00	1000.00 mL	1.00 mL	032.D	Liquid	Y	N
33	HS21060571-10	SAMP	06-14-2021 08:00 pm	1.00	1000.00 mL	1.00 mL	033.D	Liquid	Y	N
34	HS21060571-11	SAMP	06-14-2021 08:19 pm	1.00	1000.00 mL	1.00 mL	034.D	Liquid	Y	N
35	HS21060571-12	SAMP	06-14-2021 08:38 pm	1.00	1000.00 mL	1.00 mL	035.D	Liquid	Y	N

SV06 -Logbook

Chemical	Value
IS ID	3141114-01
CAL STD ID	3141106-05/ 3141114-07/ 3141115-07
DFTPP ID	31411105-05
PCP Tailing	1.08
Benz. Tailing	0.98
Routine SOP Maintenance	ACN

FORM 2
WATER SEMIVOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21060462

	CLIENT SAMPLE NO.	SMC1 (NBZ) #	SMC2 #	SMC3 (FBP) #	OTHER	TOT OUT
01	MBLK-166791	54	81	80		0
02	LCS-166791	48	72	68		0
03	LCSD-166791	60	73	68		0
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						

	QC LIMITS
SMC1 (NBZ) = Nitrobenzene-d5	(40-140)
SMC2 = 4-Terphenyl-d14	(40-140)
SMC3 (FBP) = 2-Fluorobiphenyl	(40-140)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21060462

Lab File ID: 001 BFB Injection Date: 06/14/21

Instrument ID: SV6 BFB Injection Time: 0948

GC Column: DB-5MS ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	16.7
68	Less than 2.0% of mass 69	0.3 (1.6)1
69	Mass 69 relative abundance	20.3
70	Less than 2.0% of mass 69	0.1 (0.5)1
127	10.0 - 80.0% of mass 198	31.2
197	Less than 2.0% of mass 198	0.6
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	27.8
365	1.0 - 100.0% of mass 198	3.6
441	Present, but less than mass 443	15.4
442	50.0 - 150.0% of mass 198	104.6
443	15.0 - 24.0% of mass 442	20.9 (20.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	DXSIM-0.08	DXSIM-0.08	002	06/14/21	0959
02	MBLK-166791	MBLK-166791	005	06/14/21	1059
03	LCS-166791	LCS-166791	006	06/14/21	1117
04	LCSD-166791	LCSD-166791	007	06/14/21	1135
05	DXSIM-0.08	DXSIM-0.08	020	06/14/21	1529
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21060462

Instrument ID: SV6 Calibration Date: 06/14/21 Time: 0959

Lab File ID: 002 Init. Calib. Date(s): 06/07/21 06/07/21

Init. Calib. Times: 1125 1337

GC Column: RTX-5SIL MS ID: 0.28 (mm)

COMPOUND	RRF or AMOUNT	RRF8e-002 or AMOUNT	CCAL RRF8e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
1,4-Dioxane	5.2e-002	5.27e-002	5.27e-002	0.01	1.35	20.00	AVRG
Nitrobenzene-d5	7.22e-002	8.e-002	0.2480966	0.01	-9.75	20.00	2RDR
4-Terphenyl-d14	0.9020000	0.8580900	0.8580900	0.01	-4.87	20.00	AVRG
2-Fluorobiphenyl	1.3340000	1.2785720	1.2785720	0.01	-4.16	20.00	AVRG

FORM VII SV

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21060462

Instrument ID: SV6 Calibration Date: 06/14/21 Time: 1529

Lab File ID: 020 Init. Calib. Date(s): 06/07/21 06/07/21

Init. Calib. Times: 1125 1337

GC Column: RTX-5SIL MS ID: 0.28 (mm)

COMPOUND	RRF OR AMOUNT	RRF8e-002 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
1,4-Dioxane	5.2e-002	5.45e-002	0.01	4.81	50.00	AVRG
Nitrobenzene-d5	0.3060000	0.2859100	0.01	-6.56	50.00	AVRG
4-Terphenyl-d14	0.9020000	0.8597462	0.01	-4.68	50.00	AVRG
2-Fluorobiphenyl	1.3340000	1.2228591	0.01	-8.33	50.00	AVRG

FORM VII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21060462

Lab File ID (Standard): 002 Date Analyzed: 06/14/21

Instrument ID: SV6 Time Analyzed: 0959

GC Column: RTX-5SIL MS ID: 0.28 (mm) Heated Purge: (Y/N) N

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	36715	3.54	134499	4.65	78836	6.32
	UPPER LIMIT	73430	4.04	268998	5.15	157672	6.82
	LOWER LIMIT	18358	3.04	67250	4.15	39418	5.82
	CLIENT SAMPLE NO.						
01	MBLK-166791	31095	3.54	111159	4.65	67019	6.33
02	LCS-166791	39953	3.54	122680	4.64	80300	6.32
03	LCSD-166791	46114	3.54	133158	4.64	90080	6.32
04							
05							
06							
07							
08							
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11							
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14							
15							
16							
17							
18							
19							
20							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS21060462

Lab File ID (Standard): 002 Date Analyzed: 06/14/21

Instrument ID: SV6 Time Analyzed: 0959

GC Column: RTX-5SIL MS ID: 0.28 (mm) Heated Purge: (Y/N) N

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	162522	7.77	168961	10.60	169280	12.66
	UPPER LIMIT	325044	8.27	337922	11.10	338560	13.16
	LOWER LIMIT	81261	7.27	84481	10.10	84640	12.16
	CLIENT SAMPLE NO.						
01	MBLK-166791	146927	7.78	139075	10.61	134803	12.67
02	LCS-166791	160643	7.77	158851	10.60	153765	12.66
03	LCSD-166791	182257	7.77	182965	10.59	177131	12.66
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

Data File: \\NAHSTWS005\target\chem\SV6.i\210614.b\001.D

Date : 14-JUN-2021 09:48

Client ID: DFTPP

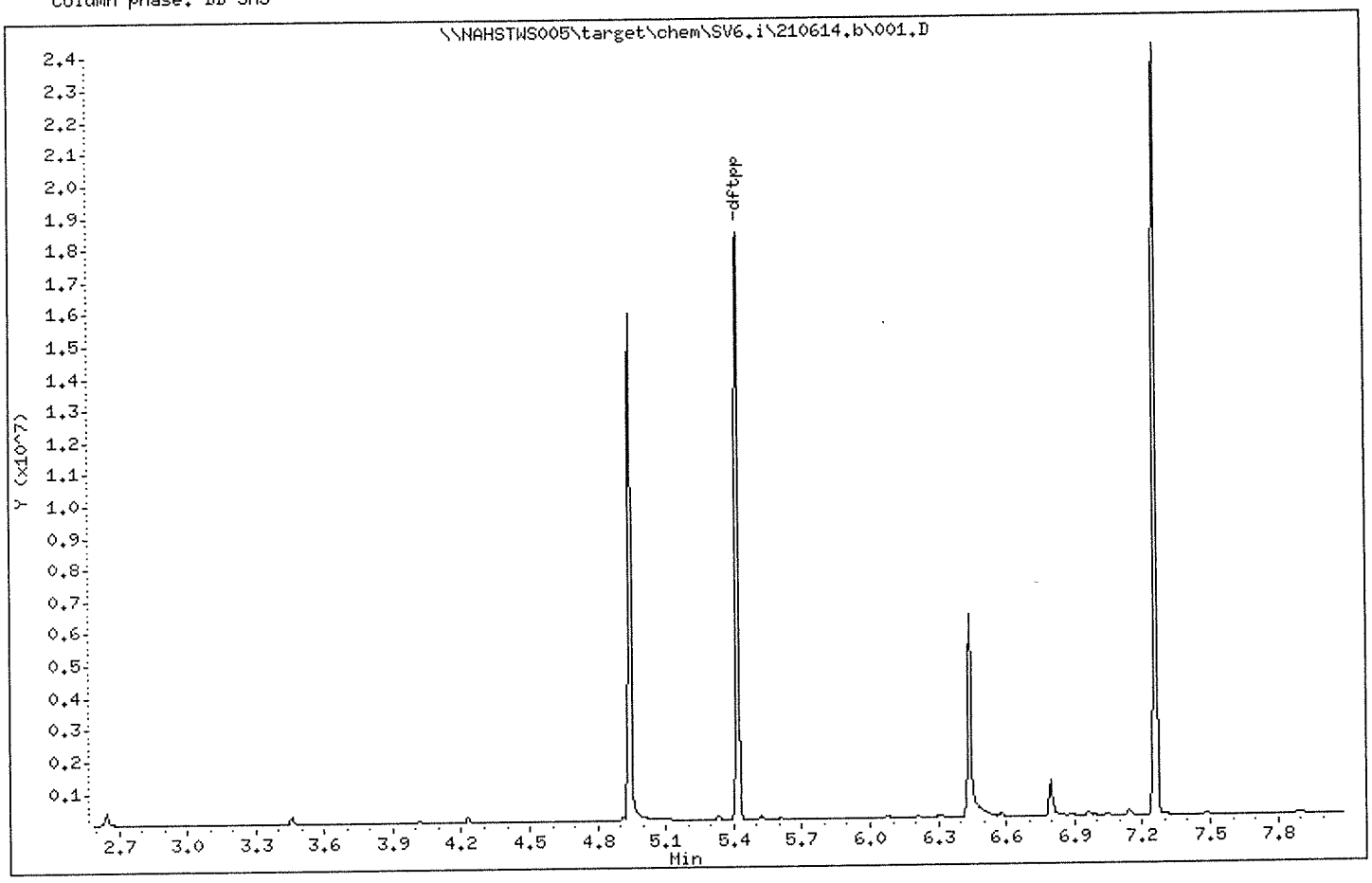
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25



Data File: \\NAHSTWS005\target\chem\SV6.i\210614.b\001.D

Date : 14-JUN-2021 09:48

Client ID: DFTPP

Instrument: SV6.i

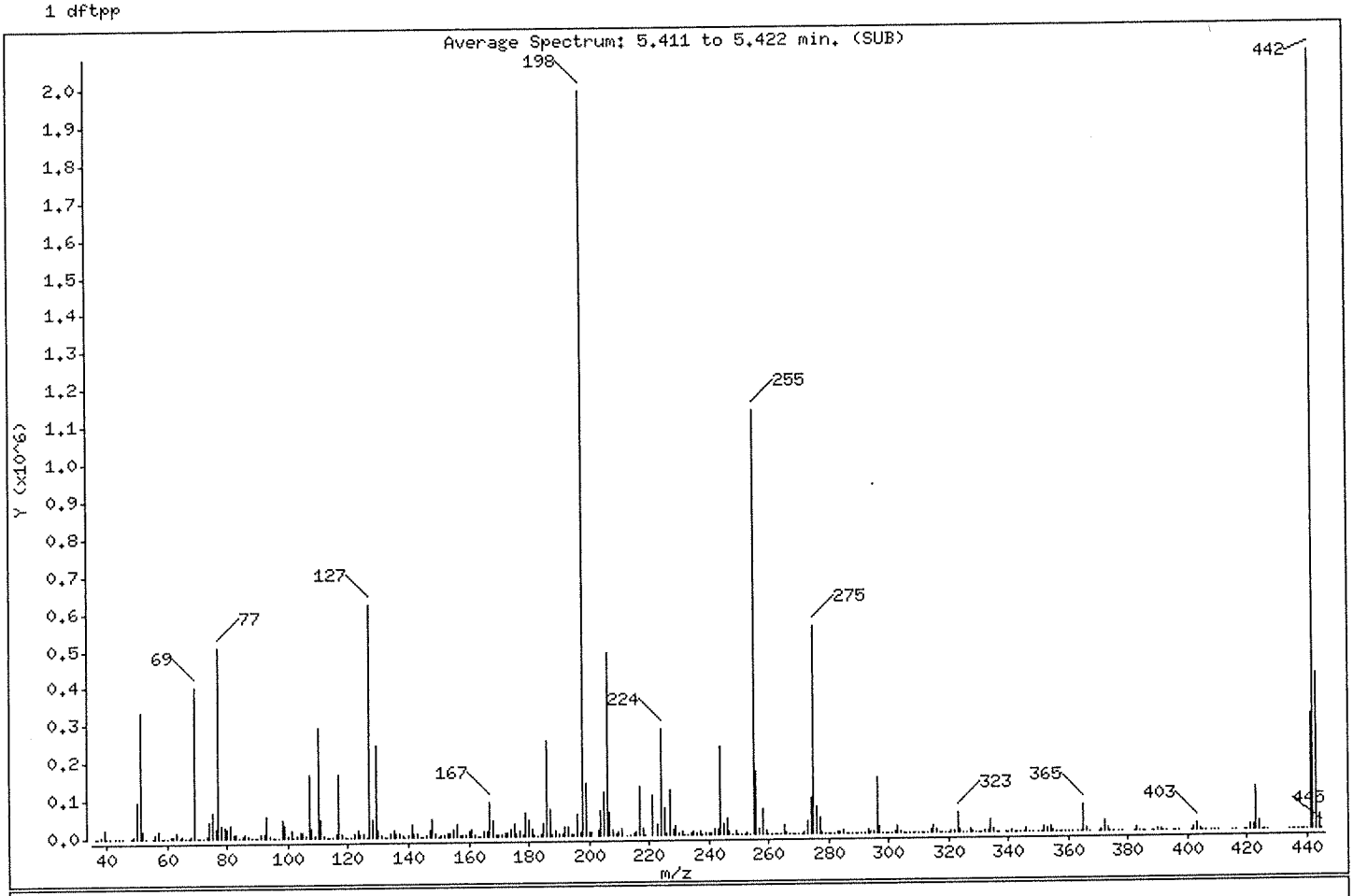
Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	16.71
68	Less than 2.00% of mass 69	0.33 (1.61)
69	Mass 69 relative abundance	20.26
70	Less than 2.00% of mass 69	0.11 (0.53)
127	10.00 - 80.00% of mass 198	31.23
197	Less than 2.00% of mass 198	0.58
199	5.00 - 9.00% of mass 198	6.87
275	10.00 - 60.00% of mass 198	27.79
365	1.00 - 100.00% of mass 198	3.60
441	Present, but less than mass 443	15.40
442	50.00 - 150.00% of mass 198	104.57
443	15.00 - 24.00% of mass 442	20.87 (19.96)

Data File: \\NAHSTWS005\target\chem\SV6.i\210614.b\001.D

Date : 14-JUN-2021 09:48

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 001.D
Spectrum: Average Spectrum: 5.411 to 5.422 min. (SUB)
Location of Maximum: 442.00
Number of points: 375

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	261	134.00	7191	232.00	1697	326.00	1007
37.00	1432	135.00	21376	233.00	1986	327.00	9477
38.00	4445	136.00	8473	234.00	6990	328.00	4929
39.00	23680	137.00	10756	235.00	8498	329.00	921
40.00	874	138.00	3013	236.00	5666	330.00	255
41.00	451	139.00	1316	237.00	8755	331.00	188
43.00	83	140.00	3176	238.00	1299	332.00	3728
44.00	108	141.00	34144	239.00	4557	333.00	4672
45.00	573	142.00	11366	240.00	3198	334.00	32840
48.00	134	143.00	8060	241.00	6400	335.00	8689
49.00	2471	144.00	2061	242.00	15604	336.00	1079
50.00	93792	145.00	1949	243.00	16400	337.00	128
51.00	332736	146.00	6482	244.00	232320	339.00	946
52.00	16776	147.00	18504	245.00	31008	340.00	834
53.00	656	148.00	46992	246.00	42672	341.00	5843
55.00	1506	149.00	8696	247.00	8342	342.00	1587
56.00	9096	150.00	2372	248.00	1938	343.00	185
57.00	20704	151.00	4766	249.00	7637	344.00	51
58.00	873	152.00	3026	250.00	1529	345.00	104
59.00	283	153.00	11333	251.00	1806	346.00	11440
60.00	217	154.00	8811	252.00	2063	347.00	1970
61.00	4229	155.00	21072	253.00	4639	348.00	295
62.00	5120	156.00	31200	254.00	1778	350.00	487
63.00	14057	157.00	6098	255.00	1133568	351.00	994
64.00	1935	158.00	6929	256.00	165760	352.00	15841
65.00	6850	159.00	5441	257.00	12513	353.00	11067
66.00	465	160.00	12141	258.00	65832	354.00	16624
67.00	187	161.00	18536	259.00	10326	355.00	2939
68.00	6489	162.00	5443	260.00	1712	356.00	334
69.00	403456	163.00	1387	261.00	2010	357.00	235
70.00	2134	164.00	2089	262.00	306	358.00	238
71.00	286	165.00	13954	263.00	667	359.00	1321
72.00	258	166.00	12589	264.00	1630	360.00	235
73.00	3151	167.00	93040	265.00	25792	361.00	289
74.00	45056	168.00	40912	266.00	3830	363.00	184

Data File: \\NAHSTWS005\target\chem\SV6.i\210614.b\001.D

Date : 14-JUN-2021 09:48

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 001.D
Spectrum: Average Spectrum: 5.411 to 5.422 min. (SUB)
Location of Maximum: 442.00
Number of points: 375

m/z	Y	m/z	Y	m/z	Y	m/z	Y
75.00	66056	169.00	7073	267.00	300	364.00	290
76.00	26264	170.00	2692	268.00	413	365.00	71744
77.00	505856	171.00	3513	269.00	170	366.00	10538
78.00	33568	172.00	7515	270.00	1294	367.00	660
79.00	30656	173.00	10002	271.00	2156	370.00	1544
80.00	23504	174.00	18144	272.00	3195	371.00	4422
81.00	33128	175.00	34408	273.00	35464	372.00	29160
82.00	8236	176.00	9657	274.00	97528	373.00	7252
83.00	7458	177.00	15464	275.00	553408	374.00	831
84.00	575	178.00	5122	276.00	71088	375.00	51
85.00	6170	179.00	63296	277.00	45312	377.00	780
86.00	9706	180.00	43688	278.00	7001	378.00	163
87.00	4245	181.00	21120	279.00	1696	382.00	51
88.00	1588	182.00	3298	280.00	209	383.00	7608
89.00	773	183.00	1911	281.00	408	384.00	2330
90.00	256	184.00	5234	282.00	1191	385.00	673
91.00	7698	185.00	32152	283.00	4828	386.00	53
92.00	8501	186.00	255936	284.00	3382	388.00	52
93.00	59784	187.00	72224	285.00	7784	389.00	172
94.00	3943	188.00	7024	286.00	1539	390.00	3991
95.00	846	189.00	14935	287.00	179	391.00	2878
96.00	2203	190.00	2719	288.00	557	392.00	2034
97.00	1200	191.00	7140	289.00	1584	393.00	285
98.00	49736	192.00	22096	290.00	1586	395.00	225
99.00	34872	193.00	24672	291.00	1010	396.00	176
100.00	3269	194.00	5075	292.00	2130	397.00	297
101.00	20160	195.00	2881	293.00	10542	401.00	1874
102.00	1141	196.00	57416	294.00	2621	402.00	11866
103.00	6436	197.00	11528	295.00	3002	403.00	17928
104.00	12858	198.00	1991168	296.00	149504	404.00	6231
105.00	12691	199.00	136768	297.00	20848	405.00	783
106.00	4188	200.00	10066	298.00	1421	406.00	124
107.00	167360	201.00	9900	299.00	340	408.00	58
108.00	25624	203.00	13079	300.00	175	409.00	74
109.00	4443	204.00	68624	301.00	1864	410.00	567

Data File: \\NAHSTWS005\target\chem\SV6.i\210614.b\001.D

Date : 14-JUN-2021 09:48

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 001.D
Spectrum: Average Spectrum: 5.411 to 5.422 min. (SUB)
Location of Maximum: 442.00
Number of points: 375

m/z	Y	m/z	Y	m/z	Y	m/z	Y
110.00	291456	205.00	116472	302.00	2820	415.00	818
111.00	46256	206.00	488000	303.00	17024	416.00	141
112.00	5694	207.00	63160	304.00	4800	419.00	110
113.00	1909	208.00	16664	305.00	608	420.00	61
114.00	452	209.00	4869	306.00	129	421.00	15541
115.00	944	210.00	8470	307.00	269	422.00	13401
116.00	9120	211.00	19712	308.00	2181	423.00	116832
117.00	169728	213.00	1294	309.00	1437	424.00	23368
118.00	11869	214.00	547	310.00	1963	425.00	2269
119.00	1357	215.00	5483	311.00	565	426.00	73
120.00	2220	216.00	10735	312.00	554	427.00	60
121.00	766	217.00	130680	313.00	1492	434.00	105
122.00	11472	218.00	17440	314.00	7408	435.00	183
123.00	17624	219.00	1629	315.00	16936	436.00	226
124.00	8069	221.00	107192	316.00	9509	437.00	293
125.00	7947	223.00	29912	317.00	1591	438.00	286
126.00	1835	224.00	281344	318.00	229	439.00	1087
127.00	621888	225.00	71280	319.00	349	440.00	238
128.00	46200	226.00	6976	320.00	687	441.00	306688
129.00	243200	227.00	117472	321.00	5068	442.00	2081792
130.00	21160	228.00	16178	322.00	2626	443.00	415616
131.00	3939	229.00	24104	323.00	51312	444.00	38096
132.00	2067	230.00	3164	324.00	9641	445.00	2235
133.00	969	231.00	9654	325.00	917		

Data File: \\NAHSTWS005\target\chem\SV6.i\210614.b\002.D
Report Date: 01-Sep-2021 13:47

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\target\chem\SV6.i\210614.b\002.D
Lab Smp Id: DXSIM-0.08 Client Smp ID: DXSIM-0.08
Inj Date : 14-JUN-2021 09:59 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.08;DXSIM-0.08
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\target\chem\SV6.i\210614.b\DXSIM.m
Meth Date : 01-Sep-2021 13:47 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	36715	0.10000		(a)
* 45 Naphthalene-d8	136	4.645	4.645	(1.000)	134499	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.998	3.998	(0.861)	26695	0.08000	0.07217	(QM)
* 86 Acenaphthene-d10	164	6.321	6.321	(1.000)	78836	0.10000		(M)
$ 69 2-Fluorobiphenyl	172	5.670	5.670	(0.933)	80638	0.08000	0.07664	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	162522	0.10000		
* 182 Chrysene-d12	240	10.600	10.600	(1.000)	168961	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	115987	0.08000	0.07608	(M)
* 198 Perylene-d12	264	12.662	12.662	(1.000)	169280	0.10000		
1 1,4-Dioxane	58	1.837	1.837	(0.519)	1549	0.08000	0.08187	(aQ)

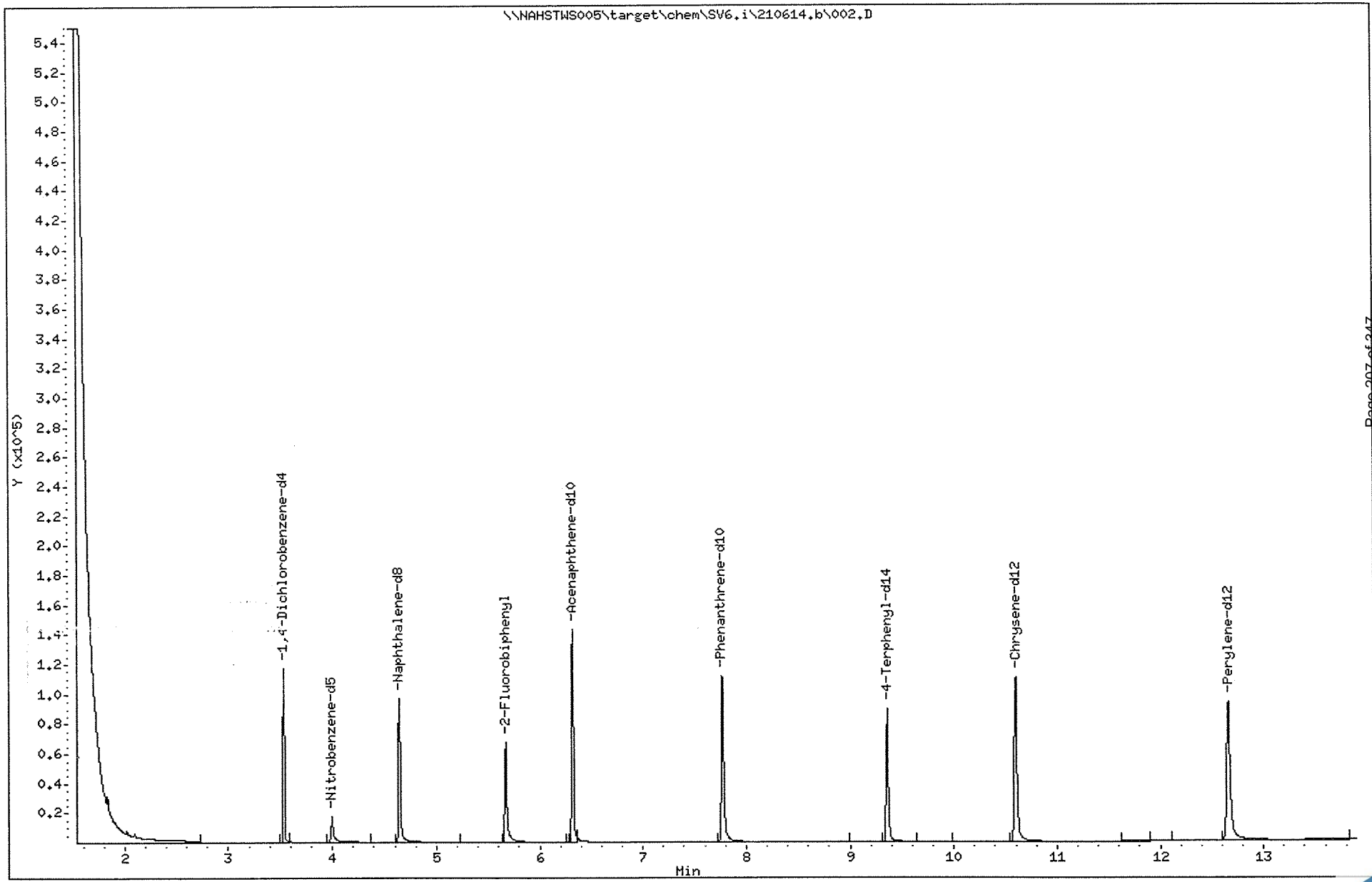
QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\target\chem\SV6.i\210614.b\002.D
Date : 14-JUN-2021 09:59
Client ID: DXSIM-0.08
Sample Info: DXSIM-0.08;DXSIM-0.08
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i

Operator: LG
Column diameter: 0.28



Data File: \\NAHSTWS005\target\chem\SV6.i\210614.b\005.D Page 1
Report Date: 01-Sep-2021 13:47

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\target\chem\SV6.i\210614.b\005.D
Lab Smp Id: MBLK-166791 Client Smp ID: MBLK-166791
Inj Date : 14-JUN-2021 10:59 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : MBLK-166791;MBLK-166791;3;;BLANK
Misc Info : HS2060462;1;0;1
Comment :
Method : \\NAHSTWS005\target\chem\SV6.i\210614.b\DXSIM.m
Meth Date : 01-Sep-2021 13:47 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

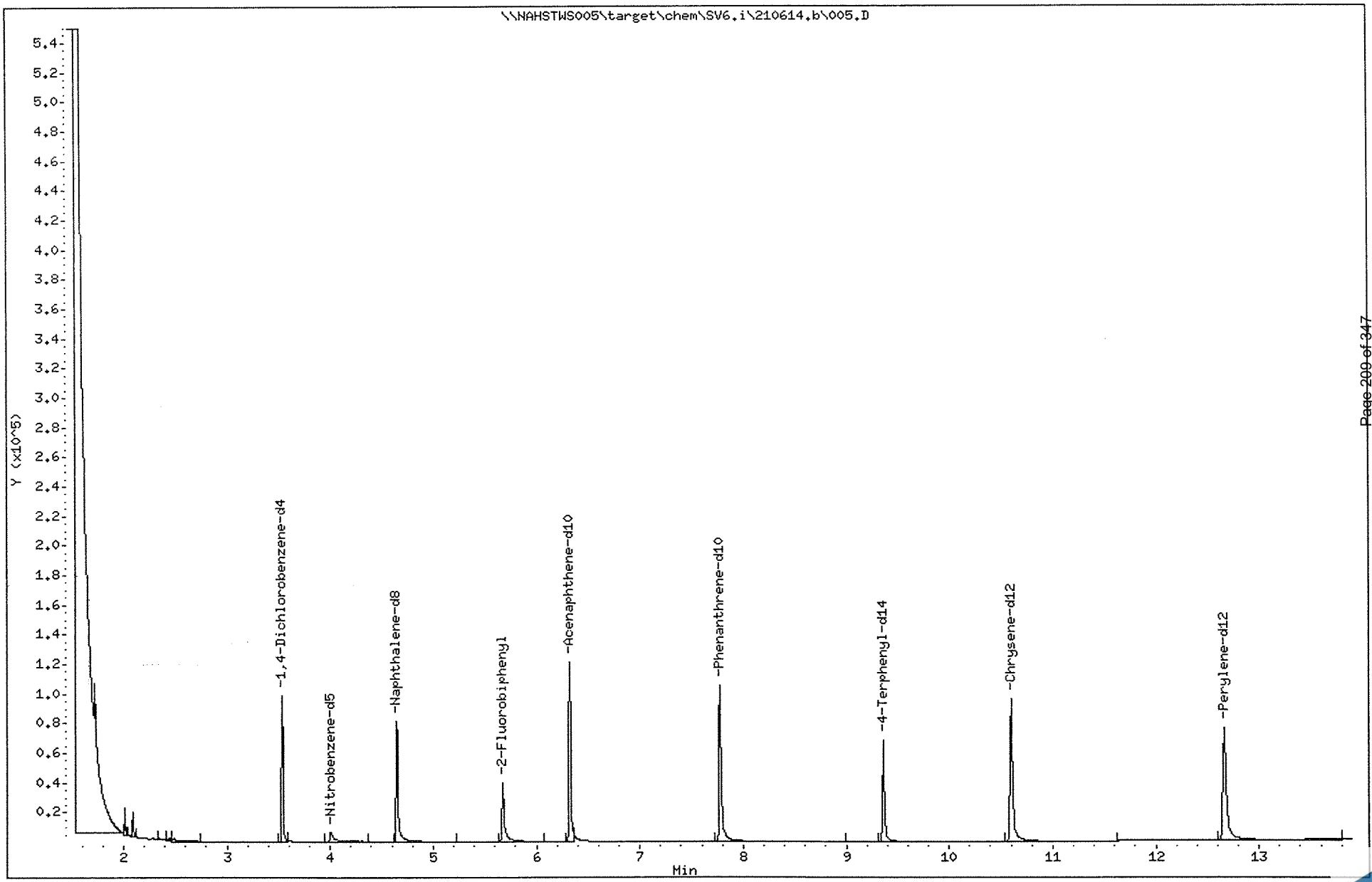
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	31095	0.10000		(a)
* 45 Naphthalene-d8	136	4.648	4.645	(1.000)	111159	0.10000		
$ 33 Nitrobenzene-d5	82	4.009	3.998	(0.863)	15117	0.04322	0.04322	(Q)
* 86 Acenaphthene-d10	164	6.326	6.321	(1.000)	67019	0.10000		(QM)
$ 69 2-Fluorobiphenyl	172	5.677	5.670	(1.000)	57330	0.06410	0.06410	
* 126 Phenanthrene-d10	188	7.775	7.770	(1.000)	146927	0.10000		
* 182 Chrysene-d12	240	10.605	10.600	(1.000)	139075	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.362	9.357	(0.883)	81499	0.06495	0.06495	(M)
* 198 Perylene-d12	264	12.667	12.662	(1.000)	134803	0.10000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\target\chem\SV6.i\210614.b\005.D
Date : 14-JUN-2021 10:59
Client ID: MBLK-166791
Sample Info: MBLK-166791;MBLK-166791;3;;BLANK
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\target\chem\SV6.i\210614.b\006.D
Lab Smp Id: LCS-166791 Client Smp ID: LCS-166791
Inj Date : 14-JUN-2021 11:17 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : LCS-166791;LCS-166791;3;;LCS
Misc Info : HS2060462;1;0;1
Comment :
Method : \\NAHSTWS005\target\chem\SV6.i\210614.b\DXSIM.m
Meth Date : 01-Sep-2021 13:47 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

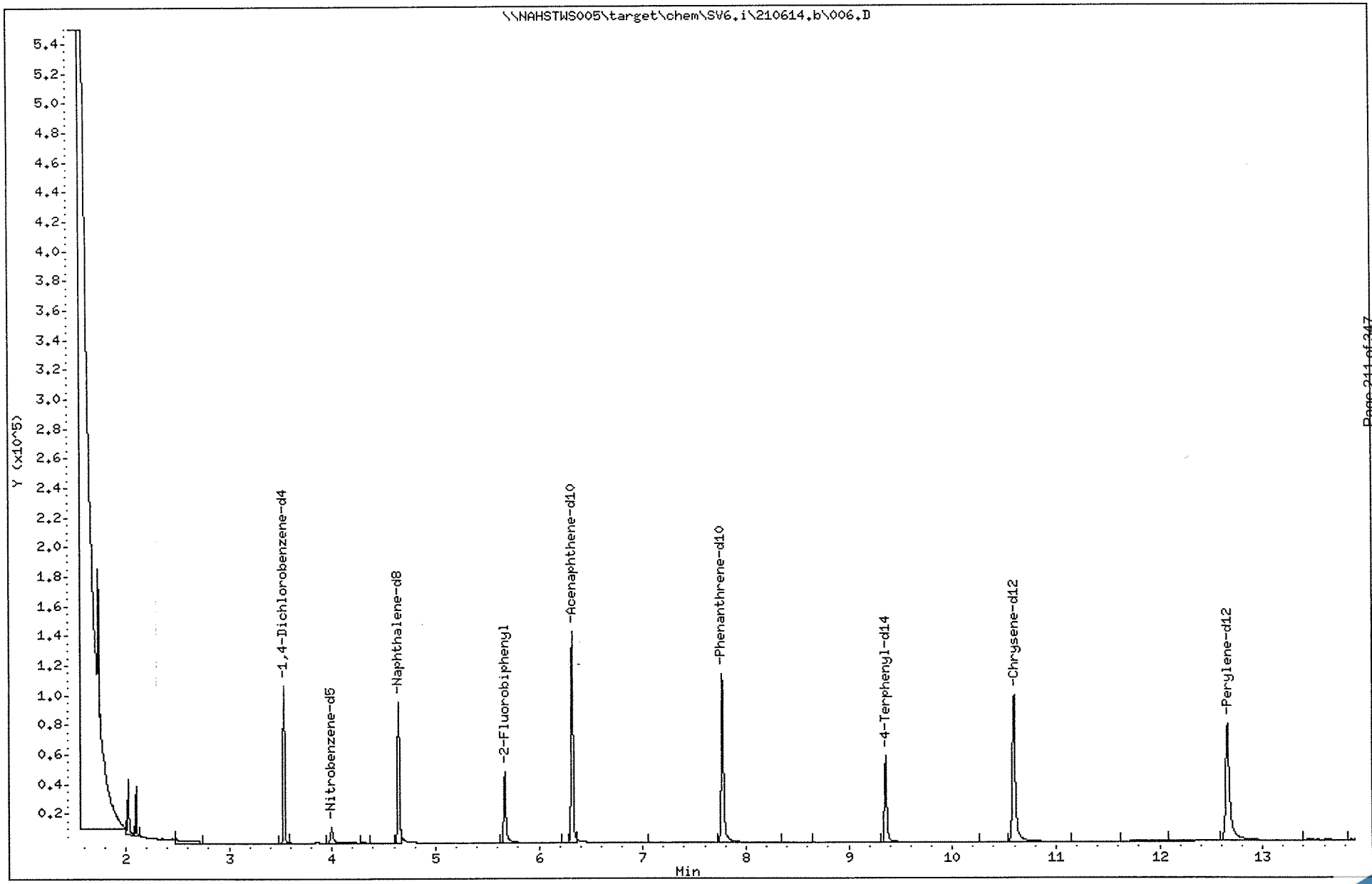
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	39953	0.10000		(aM)
* 45 Naphthalene-d8	136	4.644	4.645	(1.000)	122680	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.998	3.998	(1.000)	15344	0.03828	0.03828	(Q)
* 86 Acenaphthene-d10	164	6.320	6.321	(1.000)	80300	0.10000		(QM)
$ 69 2-Fluorobiphenyl	172	5.669	5.670	(0.933)	57946	0.05407	0.05407	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	160643	0.10000		
* 182 Chrysene-d12	240	10.600	10.600	(1.000)	158851	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	82315	0.05743	0.05743	(M)
* 198 Perylene-d12	264	12.662	12.662	(1.000)	153765	0.10000		
1 1,4-Dioxane	58	1.792	1.837	(0.507)	2194	0.10657	0.1066	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\target\chem\SV6.i\210614.b\006.D
Date : 14-JUN-2021 11:17
Client ID: LCS-166791
Sample Info: LCS-166791;LCS-166791;3;;LCS
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\target\chem\SV6.i\210614.b\007.D
Lab Smp Id: LCSD-166791 Client Smp ID: LCSD-166791
Inj Date : 14-JUN-2021 11:35 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : LCSD-166791;LCSD-166791;3;;LCSD
Misc Info : HS2060462;1;0;1
Comment :
Method : \\NAHSTWS005\target\chem\SV6.i\210614.b\DXSIM.m
Meth Date : 01-Sep-2021 13:47 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 7 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

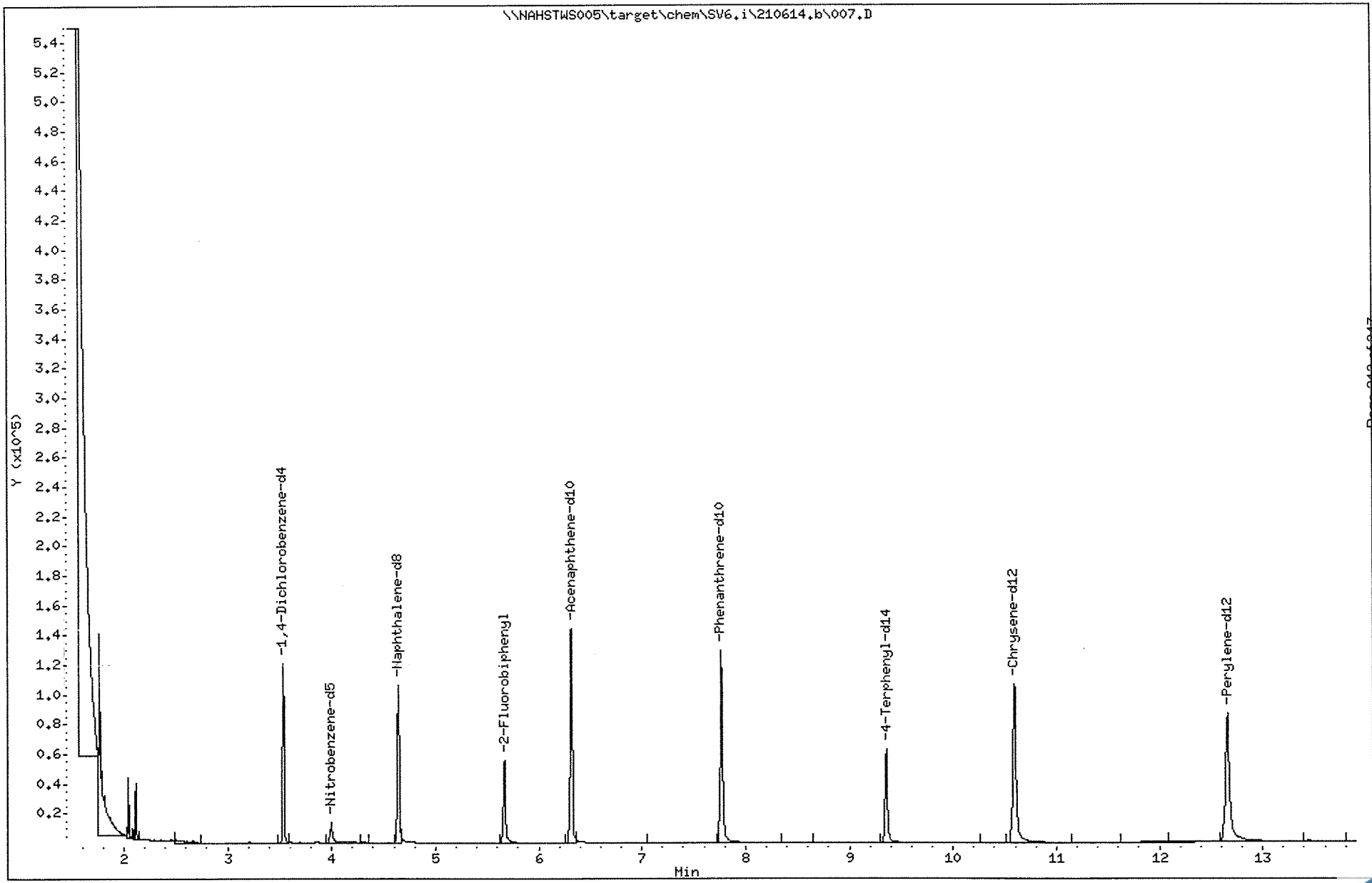
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	46114	0.10000		(aM)
* 45 Naphthalene-d8	136	4.644	4.645	(1.000)	133158	0.10000		(M)
$ 33 Nitrobenzene-d5	82	3.998	3.998	(1.000)	19553	0.04816	0.04816	(Q)
* 86 Acenaphthene-d10	164	6.320	6.321	(1.000)	90080	0.10000		(QM)
$ 69 2-Fluorobiphenyl	172	5.669	5.670	(0.936)	65042	0.05410	0.05410	
* 126 Phenanthrene-d10	188	7.770	7.770	(1.000)	182257	0.10000		
* 182 Chrysene-d12	240	10.594	10.600	(1.000)	182965	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.357	9.357	(0.883)	96276	0.05832	0.05832	(M)
* 198 Perylene-d12	264	12.662	12.662	(1.000)	177131	0.10000		
1 1,4-Dioxane	58	1.814	1.837	(0.513)	2440	0.10268	0.1027	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\target\chem\SV6.i\210614.b\007.D
Date : 14-JUN-2021 11:35
Client ID: LCSD-166791
Sample Info: LCSD-166791;LCSD-166791;3;;LCSD
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



Data File: \\NAHSTWS005\target\chem\SV6.i\210614.b\014.D Page 1
Report Date: 01-Sep-2021 13:45

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\target\chem\SV6.i\210614.b\014.D
Lab Smp Id: HS21060462-01 Client Smp ID: HS21060462-01
Inj Date : 14-JUN-2021 13:41 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : HS210690462-01;HS21060462-01
Misc Info : HS2060462;1;0;100
Comment :
Method : \\NAHSTWS005\target\chem\SV6.i\210614.b\DXSIM.m
Meth Date : 01-Sep-2021 13:44 Genoveva.R Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 14
Dil Factor: 100.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	100.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

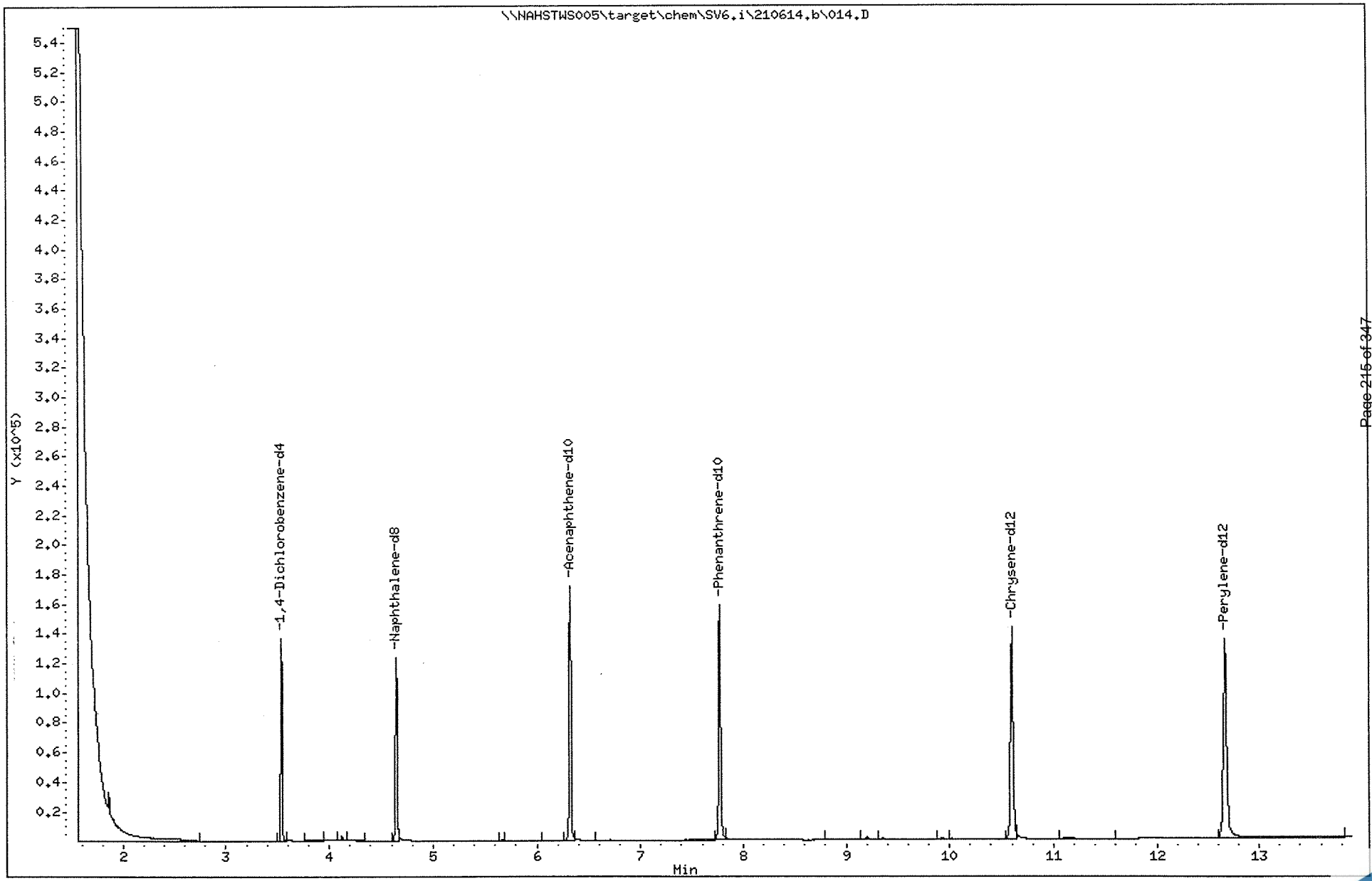
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	40517	0.10000		(a)
* 45 Naphthalene-d8	136	4.648	4.645	(1.000)	138113	0.10000		(M)
* 86 Acenaphthene-d10	164	6.326	6.321	(1.000)	90060	0.10000		
* 126 Phenanthrene-d10	188	7.776	7.770	(1.000)	186028	0.10000		
* 182 Chrysene-d12	240	10.600	10.600	(1.000)	198281	0.10000		(M)
* 198 Perylene-d12	264	12.673	12.662	(1.000)	215419	0.10000		
1 1,4-Dioxane	58	1.862	1.837	(0.527)	2810	0.13459	13.46	(aQH)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\NAHSTWS005\target\chem\SV6.i\210614.b\014.D
Date : 14-JUN-2021 13:41
Client ID: HS21060462-01
Sample Info: HS210690462-01;HS21060462-01
Purge Volume: 1000.0
Column phase: RTX-5SIL MS

Instrument: SV6.i
Operator: LG
Column diameter: 0.28



Data File: \\NAHSTWS005\target\chem\SV6.i\210614.b\014.D

Date : 14-JUN-2021 13:41

Client ID: HS21060462-01

Instrument: SV6.i

Sample Info: HS210690462-01;HS21060462-01

Purge Volume: 1000.0

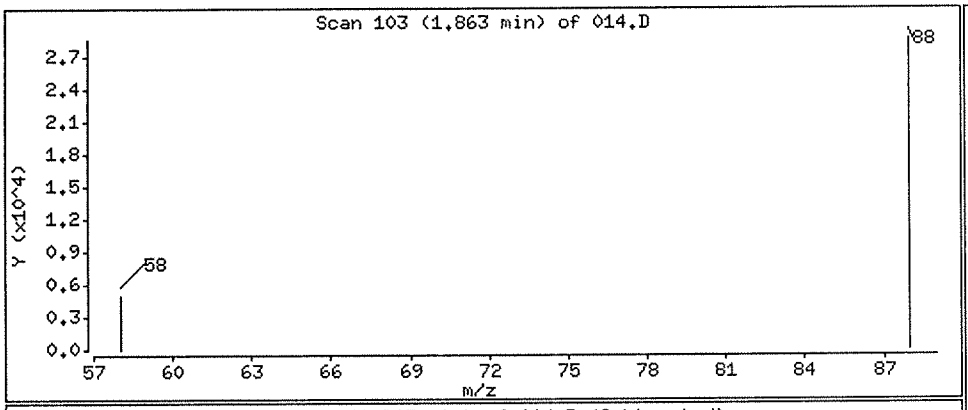
Operator: LG

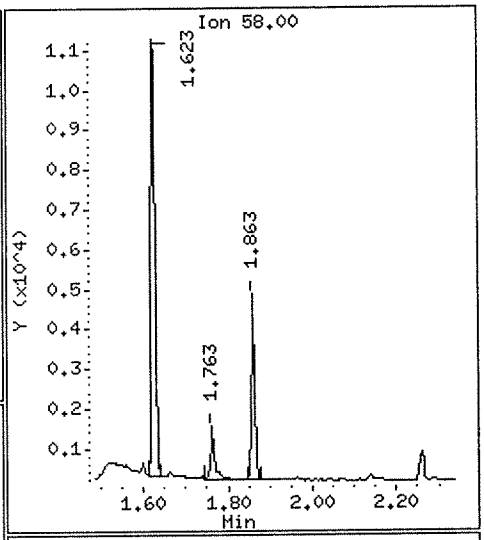
Column phase: RTX-5SIL MS

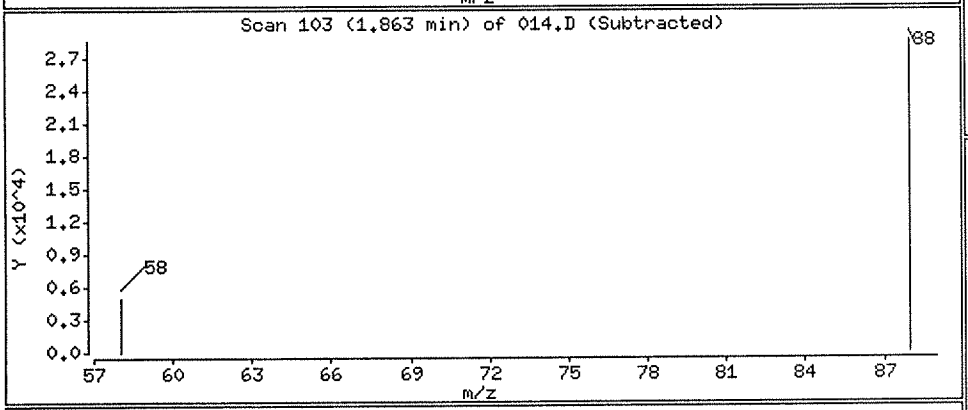
Column diameter: 0.28

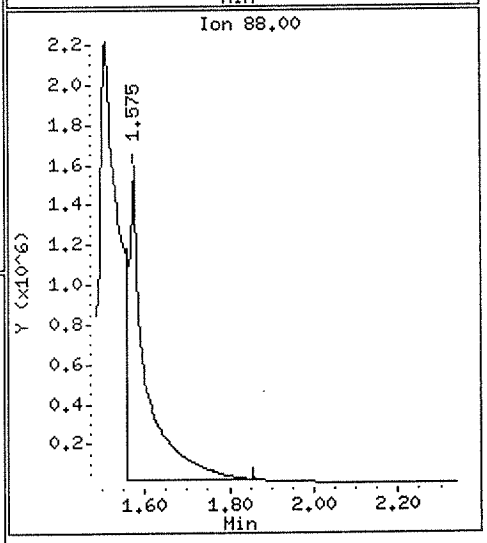
1 1,4-Dioxane

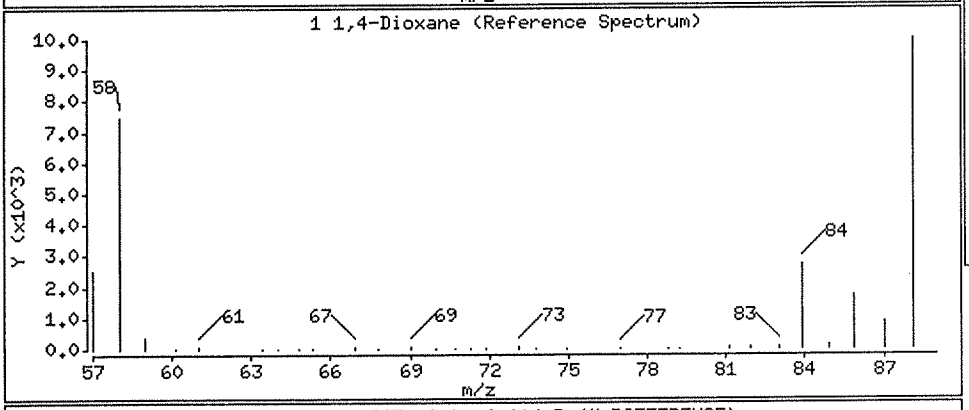
Concentration: 13.46 ug/L

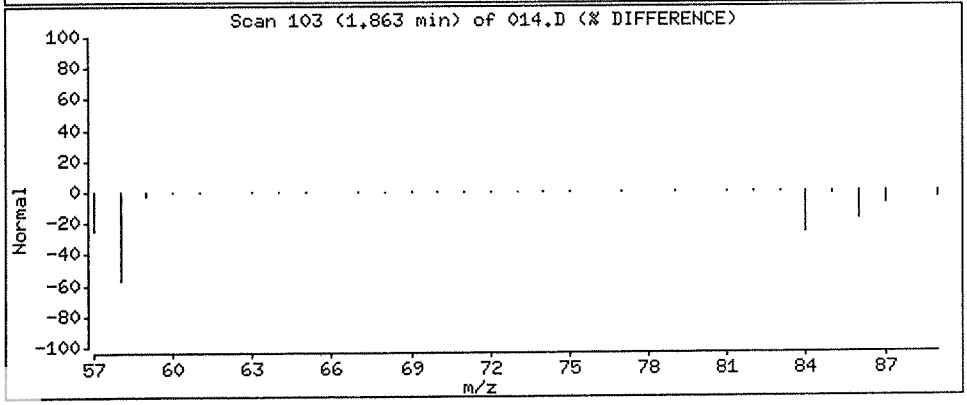












ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\target\chem\SV6.i\210614.b\020.D
Lab Smp Id: DXSIM-0.08 Client Smp ID: DXSIM-0.08
Inj Date : 14-JUN-2021 15:29 MS Autotune Date: 27-MAY-2021 10:12
Operator : LG Inst ID: SV6.i
Smp Info : DXSIM-0.08;DXSIM-0.08
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\target\chem\SV6.i\210614.b\DXSIM.m
Meth Date : 01-Sep-2021 13:47 SV6.i Quant Type: ISTD
Cal Date : 07-JUN-2021 13:37 Cal File: 010.D
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	
* 20 1,4-Dichlorobenzene-d4	152	3.537	3.537	(1.000)	34227	0.10000		(a)
* 45 Naphthalene-d8	136	4.648	4.648	(1.000)	117314	0.10000		(M)
$ 33 Nitrobenzene-d5	82	4.004	4.004	(0.922)	26833	0.08000	0.08661	(Q)
* 86 Acenaphthene-d10	164	6.326	6.326	(1.000)	79861	0.10000		(M)
$ 69 2-Fluorobiphenyl	172	5.677	5.677	(0.934)	78127	0.08000	0.07330	
* 126 Phenanthrene-d10	188	7.781	7.781	(1.000)	167586	0.10000		
* 182 Chrysene-d12	240	10.605	10.605	(1.000)	173022	0.10000		(M)
$ 158 4-Terphenyl-d14	244	9.362	9.362	(0.883)	119004	0.08000	0.07623	(M)
* 198 Perylene-d12	264	12.673	12.673	(1.000)	186573	0.10000		
1 1,4-Dioxane	58	1.836	1.836	(0.519)	1493	0.08000	0.08465	(aQ)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\target\chem\SV6.i\210614.b\020.D

Date : 14-JUN-2021 15:29

Client ID: DXSIM-0.08

Instrument: SV6.i

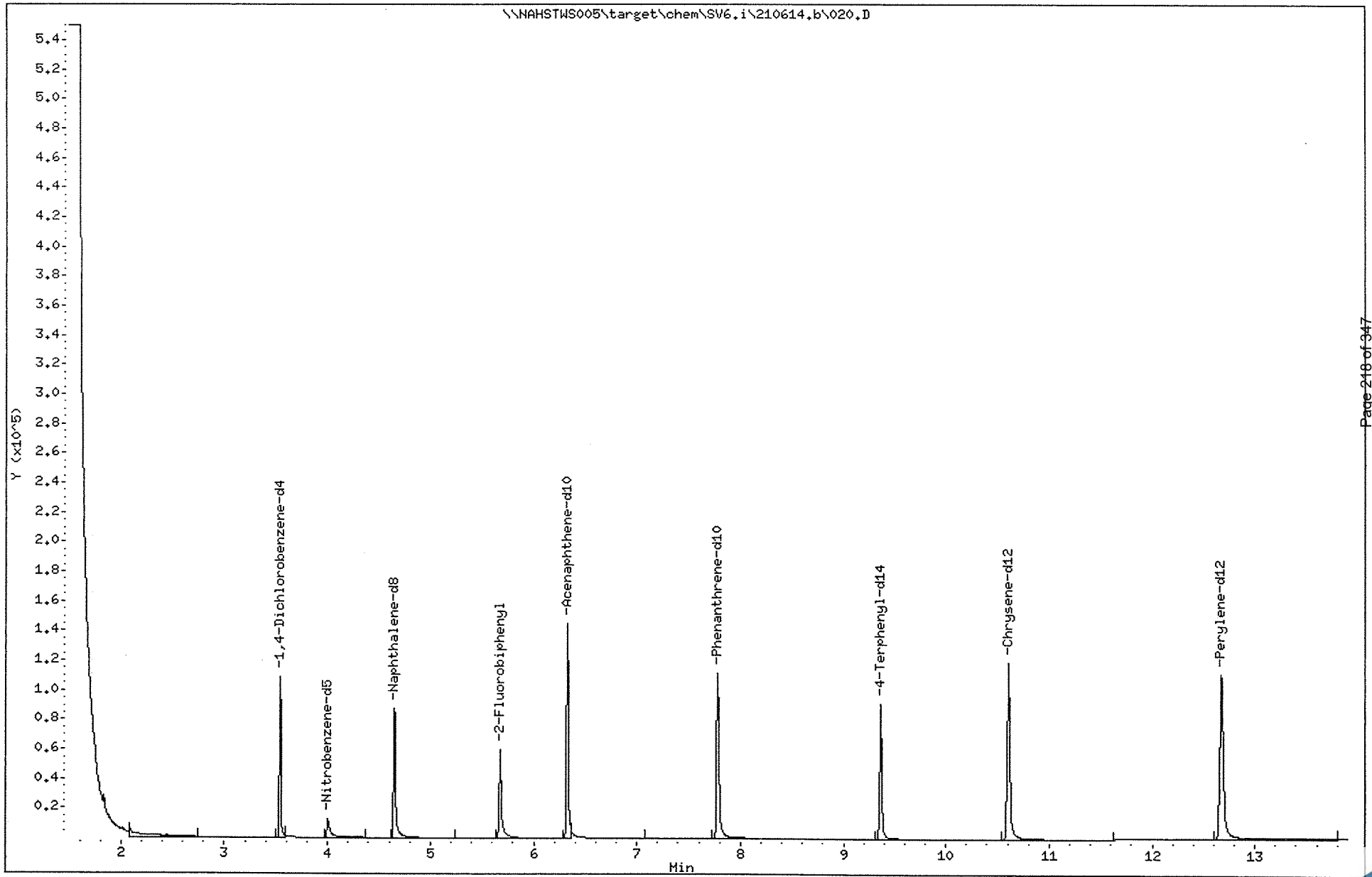
Sample Info: DXSIM-0.08;DXSIM-0.08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



HS21060462 - Sub Perch IV (E2100630)

ALS WO# HS21060462

June 30, 2021 Service Request No:E2100630

Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099

Laboratory Results for: HS21060462

Dear Ragen,

Enclosed are the results of the sample(s) submitted to our laboratory June 10, 2021
For your reference, these analyses have been assigned our service request number **E2100630.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Corey Grandits
Project Manager

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Houston	**Service Request No.:**	E2100630
Project:	HS21060462	**Date Received:**	06/10/21
Sample Matrix:	W		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 06/10/21.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2100354: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in addition to a MS/MSD for this extraction batch. The LCS and DLCS recoveries are within QC limits. MS/MSD was performed on an unrelated sample.

DoD certification is held for the method/matrix/analytes provided in this report.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2100630
Project: HS21060462

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2100630-001	LH18/24-SP650_060821_BIX	6/8/2021	1400

Service Request Summary

Folder #: **E2100630**
Client Name: ALS Environmental - US
Project Name: HS21060462
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/10/21
Internal Due Date: 6/23/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21060462
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8C
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2100630-001	LH18/24-SP650_060821_BIX	Water	06/08/21 1400	**IV**

Service Request Summary

Folder #: **E2100630**
Client Name: ALS Environmental - US
Project Name: HS21060462
Project Number:

Report To: Ragen Giga
ALS Environmental - US
10450 Stancliff Rd Suite 210
Houston, TX 77099
USA
Phone Number:
Cell Number:
Fax Number:
E-mail: ragenp.giga@alsglobal.com

Project Chemist: Corey Grandits
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 06/10/21
Internal Due Date: 6/23/2021
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS21060462
EDD: No EDD Specified

1 125 mL-Plastic Bottle Plastic
Location: EHRMS-WIC 8C
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	1	Level II due 6/23,IV due 6/30

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	Internal standard not within the specified limits. See case narrative.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.
M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.

Data Qualifiers

Lab Standard

O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

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ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01 2020	11/30/2021
Arkansas Department of Environmental Quality	21-022-0	3/26/2022
Department of Defense	A2LA 2897.01	11/30/2021
Florida Department of Health	E87611-2020	6/30/2021
Hawaii Department of Health	2021-2022	4/30/2022
Kansas Department of Health and Environment	E-10352-2020	7/31/2021
Louisiana Department of Environmental Quality	03087-2021	6/30/2022
Louisiana Department of Environmental Quality	03087-2020	6/30/2021
Louisiana Department of Health and Hospitals	LA028-2021	12/31/2021
Maine Department of Health and Human Services	2020016	6/5/2022
Maryland Department of the Environment	343-2020	6/30/2021
Minnesota Department of Health	2021671	12/31/2021
Nevada Department of Concervation and Natural Resources	TX026932021-4	7/31/2021
New Hampshire Environmental Laboratory Accreditation Program	209421	4/24/2022
New Jersey Department of Environmental Protection	TX008	6/30/2021
Oklahoma Department of Environmental Quality	2020-123	8/31/2021
Pennsylvania Department of Environmental Protection	014	6/30/2021
Tennessee Department of Environment and Concervation	04016-2021	4/30/2022
United States Department of Agriculture	P330-19-00299	10/10/2022
Utah Department of Health Environmental Laboratory Certification	TX026932021-10	7/31/2021

ALS

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

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Houston, TX 77099
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F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **16274**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Ragen Giga
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RagenP.Giga@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:	HS21060462
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS21060462-02**	**LH18/24-SP650_060821_BIX**	**Water**	**08 Jun 2021 14:00**
	Provide Level II and Level IV reports in separate pdf			23 Jun 2021

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: J. Rivera Date/Time:

Received By: Date/Time: 6/8/21 0900

Cooler ID(s): Temperature(s):

Cooler Receipt Form

Project Chemist CG

Client/Project ALS-H

Thermometer ID IR31

Date/Time Received: 6/10/21 Initials: CG Date/Time Logged in: 6/10/21 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ ALS Courier ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No If yes, how many and where?

Were they intact? ○ Yes ○ No ☒ N/A

Were they signed and dated? ○ Yes ○ No ☒ N/A

4. Packing Material: ○ Inserts ☒ Baggies ○ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		6/10/21	0500	CG	0.6	☒
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No

10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

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Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 381265 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/GRIVERA **Prep Method:** Method **Prep Date/Time:** 6/14/21 09:59

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2100608-001	LH18/24-SP650_060221_BIX	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2100629-001	LH18/24-SP650_060821_BIX	.01	6850/ClO4 DOD			Water	10mL	
3	E2100630-001	LH18/24-SP650_060821_BIX	.01	6850/ClO4 DOD			Water	10mL	
4	E2100631-001	LH18/24-SP140_060821	.01	6850/ClO4 DOD			Water	10mL	
5	E2100632-001	126_060821	.01	6850/ClO4 DOD			Water	10mL	
6	E2100632-002	102_060821	.01	6850/ClO4 DOD			Water	10mL	
7	E2100632-003	18CPTMW03SW_060821	.01	6850/ClO4 DOD			Water	10mL	
8	E2100632-004	18CPTMW22DW_060821	.01	6850/ClO4 DOD			Water	10mL	
9	E2100632-005	18CPTMW22R_060821	.01	6850/ClO4 DOD			Water	10mL	
10	E2100632-006	18CPTMW22SW_060821	.01	6850/ClO4 DOD			Water	10mL	
11	E2100632-007	MW20_060821	.01	6850/ClO4 DOD			Water	10mL	
12	EQ2100354-01	MB		6850/ClO4 DOD			Liquid	10mL	
13	EQ2100354-02	LCS		6850/ClO4 DOD			Liquid	10mL	
14	EQ2100354-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
15	EQ2100354-04	MW20_060821 MS	.01	6850/ClO4 DOD			Liquid	10mL	
16	EQ2100354-05	MW20_060821 DMS	.01	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Sodium Perchlorate 1 ug/mL (IS) (18-O) as CLO4 Inventory ID 214765 Logbook Ref: Sodium Perchlorate Expires On: 12/11/2022

E2100608-001	100.00µL	E2100629-001	100.00µL	E2100630-001	100.00µL	E2100631-001	100.00µL	E2100632-001	100.00µL	E2100632-002	100.00µL
E2100632-003	100.00µL	E2100632-004	100.00µL	E2100632-005	100.00µL	E2100632-006	100.00µL	E2100632-007	100.00µL	EQ2100354-01	100.00µL
EQ2100354-02	100.00µL	EQ2100354-03	100.00µL	EQ2100354-04	100.00µL	EQ2100354-05	100.00µL				

Name: Perchlorate Intermediate Stock1 Inventory ID 217422 Logbook Ref: Perchlorate Expires On: 11/26/2021

EQ2100354-02	1.00µL	EQ2100354-03	1.00µL	EQ2100354-04	1.00µL	EQ2100354-05	1.00µL

Preparation Steps

Step: Preparation
Started: 6/14/21 09:59
Finished: 6/14/21 11:00
By: GRIVERA
Comments

Preparation Information Benchsheet

Prep Run#: 381265
Team: Semivoa GCMS/GRIVERA

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 6/14/21 09:59

Comments:

Reviewed By: GR Date: 6/14/21

Chain of Custody

Relinquished By: Date:

Received By: Date:

Extracts Examined
Yes No

Analytical Results

ALS Environmental - Houston HRMS
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Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Collected:**	6/ 8/21 1400
Sample Matrix:	Water	**Date Received:**	6/10/21
Sample Name:	LH18/24-SP650_060821_BIX	**Units:**	µg/L
Lab Code:	E2100630-001	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**88.8**		2.00	1.00	0.500	20	6/14/21	6/22/21 19:51	381265	728385	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2100354-01	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/14/21	6/15/21 17:52	381265	727655	

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060462
Sample Matrix: Water

Service Request: E2100630
Date Analyzed: 6/15/21

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: As Received

Extraction Lot: 381265

	Lab Control Sample EQ2100354-02			Duplicate Lab Control Sample EQ2100354-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.117	0.100	117	0.119	0.100	119	84 - 119	2	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100354-02	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.117**		0.100	0.0500	0.0250	1	6/14/21	6/15/21 18:00	381265	727655	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2100354-03	**Basis:**	As Received

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.119**		0.100	0.0500	0.0250	1	6/14/21	6/15/21 18:09	381265	727655	

Initial Calibration

ALS Environmental - Houston HRMS
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Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20210615

ALS Environmental

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210615_007	Perchlorate6850c.lcm	1x	☒	3100810-05	6/15/2021 15:32
2	PERCHLORATE2		20210615_008	Perchlorate6850c.lcm	1x	☒	3100810-06	6/15/2021 15:41
3	PERCHLORATE3		20210615_009	Perchlorate6850c.lcm	1x	☒	3100810-07	6/15/2021 15:49
4	PERCHLORATE4		20210615_010	Perchlorate6850c.lcm	1x	☒	3100810-08	6/15/2021 15:58
5	PERCHLORATE5		20210615_011	Perchlorate6850c.lcm	1x	☒	3100810-09	6/15/2021 16:07
6	PERCHLORATE6		20210615_012	Perchlorate6850c.lcm	1x	☒	3100811-01	6/15/2021 16:15
7	PERCHLORATE7		20210615_013	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 16:24
8	PERCHLORATE8		20210615_014	Perchlorate6850c.lcm	1x	☒	3100811-03	6/15/2021 16:32
9	PERCHLORATE9		20210615_015	Perchlorate6850c.lcm	1x	☒	3100811-04	6/15/2021 16:41
10	PERCHLORATE10		20210615_016	Perchlorate6850c.lcm	1x	☒	3100811-05	6/15/2021 16:49
11	PERCHLORATEICV		20210615_017	Perchlorate6850c.lcm	1x	☒	3100811-06	6/15/2021 16:58
12	ICS		20210615_018	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:06
13	LODV		20210615_019	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:15
14	PERCHLORATE7		20210615_020	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 17:23
15	EQ2100354-01		20210615_021	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:52
16	EQ2100354-02		20210615_022	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:00
17	EQ2100354-03		20210615_023	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:09
18	E2100631-001X100		20210615_024	Perchlorate6850c.lcm	100x	☒	DNU-over calibration range	6/15/2021 18:17
19	E2100608-001X100		20210615_025	Perchlorate6850c.lcm	100x	☒		6/15/2021 18:26
20	E2100629-001X10		20210615_026	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:34
21	E2100630-001X10		20210615_027	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:43
22	E2100632-006X100		20210615_028	Perchlorate6850c.lcm	100x	☒	DNU-INST low	6/15/2021 18:52
23	EQ2100357-04X100		20210615_029	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:00
24	EQ2100357-05X100		20210615_030	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:09
25	PERCHLORATE7		20210615_031	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 19:17
26	E2100644-001X1000		20210615_032	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:26
27	E2100644-002X100		20210615_033	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:34
28	E2100644-003X1000		20210615_034	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:43
29	E2100644-004X1000		20210615_035	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:51
30	E2100644-005X100		20210615_036	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:00
31	E2100644-006X100		20210615_037	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:09
32	E2100644-008X10		20210615_038	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 20:17
33	E2100645-001X100		20210615_039	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:26
34	E2100645-002X100		20210615_040	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:34
35	E2100645-003X10		20210615_041	Perchlorate6850c.lcm	10x	☒		6/15/2021 20:43
36	PERCHLORATE7		20210615_042	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 20:51
37	E2100645-006X10		20210615_043	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 21:00
38	E2100645-007X1000		20210615_044	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:08
39	E2100645-008X1000		20210615_045	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:17
40	PERCHLORATE7		20210615_046	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 21:25
41	EQ2100354-04		20210615_047	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:34
42	EQ2100354-05		20210615_048	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:42
43	E2100632-001		20210615_049	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:51
44	E2100632-002		20210615_050	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:59
45	E2100632-003		20210615_051	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:08
46	E2100632-004		20210615_052	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:17
47	PERCHLORATE7		20210615_053	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 22:25
48	E2100632-005		20210615_054	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:34
49	E2100632-007		20210615_055	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:42
50	EQ2100357-01		20210615_056	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:51
51	EQ2100357-02		20210615_057	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:59
52	EQ2100357-03		20210615_058	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:08
53	E2100644-007		20210615_059	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:16
54	E2100644-009		20210615_060	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:25
55	E2100645-004		20210615_061	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:33
56	E2100645-005		20210615_062	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:42
57	PERCHLORATE7		20210615_063	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 23:50
58	EQ2100358-01		20210615_064	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:59
59	EQ2100358-02		20210615_065	Perchlorate6850c.lcm	1x	☒		6/16/2021 0:08
60	EQ2100358-03		20210615_066	Perchlorate6850c.lcm	1x	☒	Reanalyze	6/16/2021 0:16
61	E2100645-017		20210615_067	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:25
62	E2100645-019		20210615_068	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:33
63	E2100645-022		20210615_069	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:42
64	E2100645-023		20210615_070	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:50

20210615

1st Review: Grivera
2nd Review: Kneir

ALS Environmental

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
65	PERCHLORATE7		20210615_071	Perchlorate6850c.lcm	1x	☒	3100811-02	6/16/2021 0:59

Initial Calibration - Detailed Report

Calibration ID: EC2100038 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2100038-01	PERCHLORATE1	20210615_007	06/15/2021 15:32
02	EC2100038-02	PERCHLORATE2	20210615_008	06/15/2021 15:41
03	EC2100038-03	PERCHLORATE3	20210615_009	06/15/2021 15:49
04	EC2100038-04	PERCHLORATE4	20210615_010	06/15/2021 15:58
05	EC2100038-05	PERCHLORATE5	20210615_011	06/15/2021 16:07
06	EC2100038-06	PERCHLORATE6	20210615_012	06/15/2021 16:15
07	EC2100038-07	PERCHLORATE7	20210615_013	06/15/2021 16:24
08	EC2100038-08	PERCHLORATE8	20210615_014	06/15/2021 16:32
09	EC2100038-09	PERCHLORATE9	20210615_015	06/15/2021 16:41
10	EC2100038-10	PERCHLORATE10	20210615_016	06/15/2021 16:49

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 12.07** **Average RF = 0.1057**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1311	02	0.5000	0.1058	03	0.7000	0.1084	04	1.0000	0.1195
05	2.0000	0.1126	06	5.0000	0.1042	07	10.0000	0.09375	08	20.0000	0.09679
09	30.0000	0.0936	10	50.0000	0.09139						

Analyte

Perchlorate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.124	24.0	02	0.5000	0.501	0.1	03	0.7000	0.718	2.5
04	1.0000	1.13	13.1	05	2.0000	2.13	6.6	06	5.0000	4.93	-1.4
07	10.0000	8.87	-11.3	08	20.0000	18.3	-8.4	09	30.0000	26.6	-11.5
10	50.0000	43.2	-13.6								

Initial Calibration Verification Summary Report

Calibration ID:	EC2100038	**Instrument ID:**	E-LCMS-01
Datafile ID:	20210615_017	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2100038-11	T	Average RF	10	9.463	ng/mL	-5.4	<= 15

Insight Report

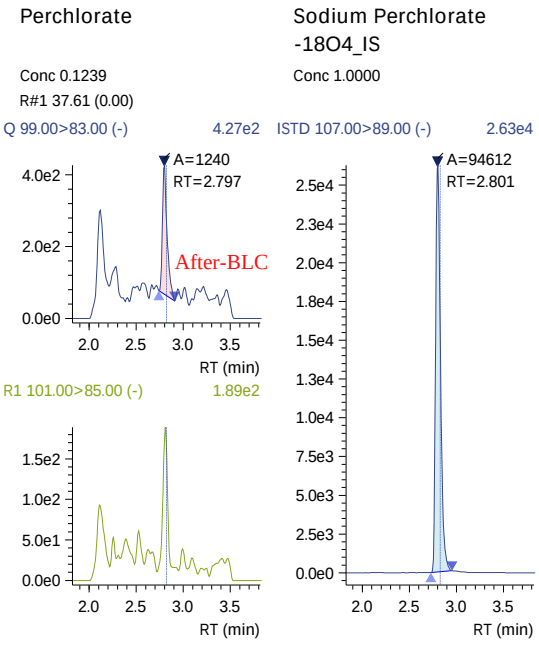
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Method File: I:\LCMS01\DATA\20210615\20210615.lcm
Project File: I:\LCMS01\DATA\20210615\20210615.damlp

20210615_007

Sample ID: PERCHLORATE1
Date Acquired: 6/15/2021 3:32:48 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_007.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.797	1240	94612	1	0.1239	ng/mL	0.1000	37.61
Sodium Perchlorate-18O4 _IS	Auto	2.801	94612	94612	1	1.0000	ng/mL	1.0000	----



Before

Insight Report

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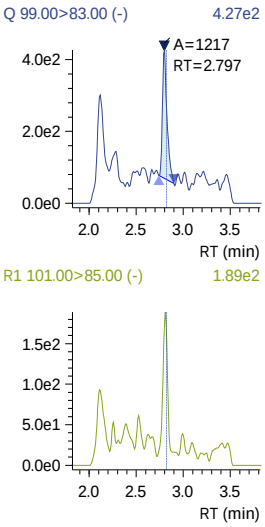
Method File: I:\LCMS01\DATA\20210615\20210615.lcm

20210615_007

Sample ID: PERCHLORATE1
Date Acquired: 6/15/2021 3:32:48 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_007.lcd
Vial: 20 | Inj. Volume: 25.0000uL | Tray: 1

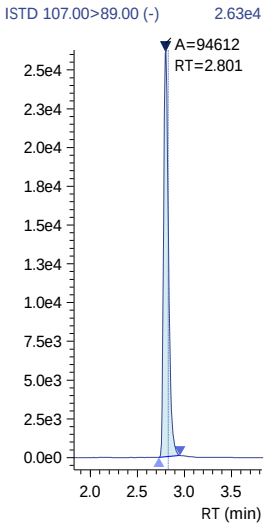
Perchlorate

Conc 0.1239
R#1 37.94 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/17/2021 1:58:19 PM

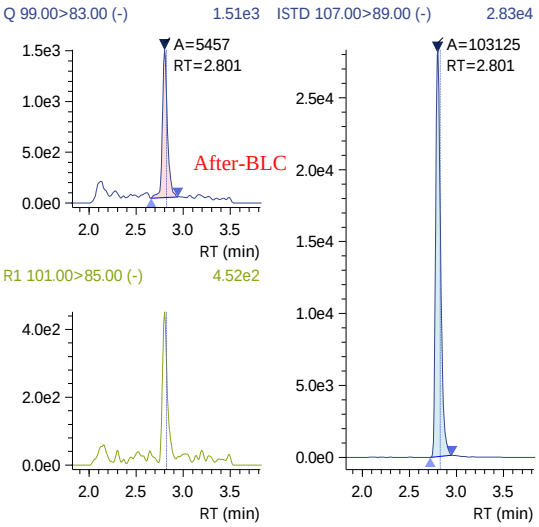
20210615_008

Sample ID: PERCHLORATE2
Date Acquired: 6/15/2021 3:41:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_008.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.801	5457	103125	1	0.5006	ng/mL	0.5000	28.85
Sodium Perchlorate-18O4 _IS	Auto	2.801	1031 25	103125	1	1.0000	ng/mL	1.0000	----

Perchlorate

Conc 0.5006
R#1 28.85 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000

Insight Report

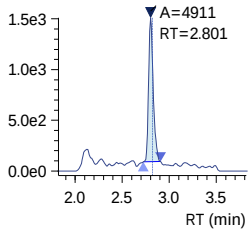
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Date Acquired: 6/15/2021 3:41:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_008.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 1

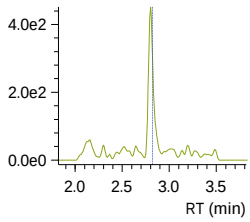
Perchlorate

Conc 0.4590
R#1 30.76 (0.00)

Q 99.00>83.00 (-) 1.51e3



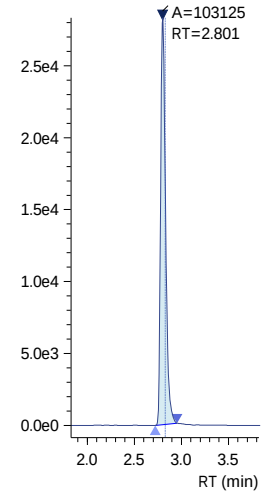
R1 101.00>85.00 (-) 4.52e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.83e4



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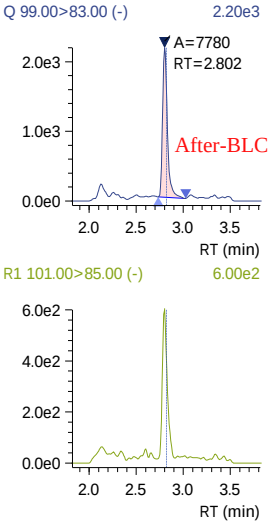
20210615_009

Sample ID: PERCHLORATE3
Date Acquired: 6/15/2021 3:49:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_009.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.802	7780	102556	1	0.7176	ng/mL	0.7000	26.99
Sodium Perchlorate-18O4_IS	Auto	2.800	1025 56	102556	1	1.0000	ng/mL	1.0000	----

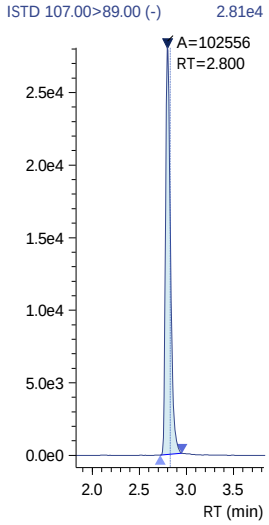
Perchlorate

Conc 0.7176
R#1 26.99 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

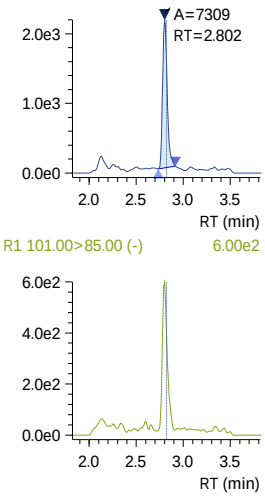
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20210615_009

Sample ID: PERCHLORATE3
Date Acquired: 6/15/2021 3:49:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_009.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 1

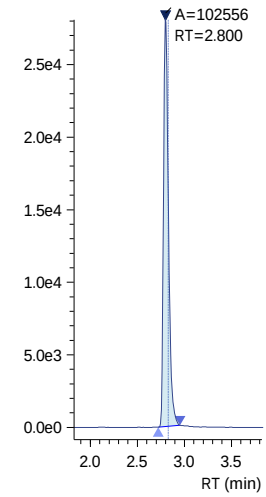
Perchlorate

Conc 0.6869
R#1 27.36 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

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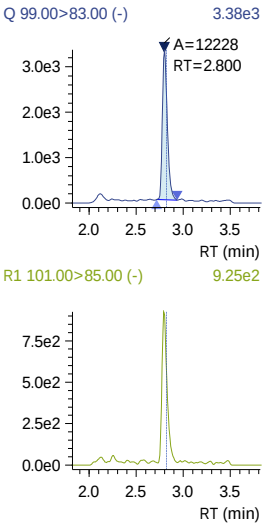
20210615_010

Sample ID: PERCHLORATE4
Date Acquired: 6/15/2021 3:58:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_010.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.800	12228	102296	1	1.1308	ng/mL	1.0000	29.18
Sodium Perchlorate-18O4 _IS	Auto	2.799	1022 96	102296	1	1.0000	ng/mL	1.0000	----

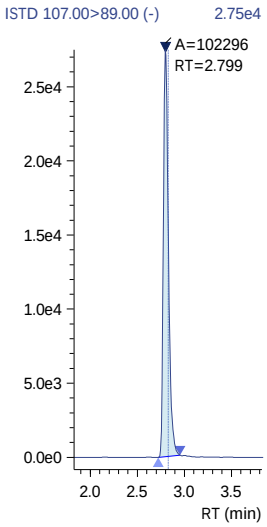
Perchlorate

Conc 1.1308
R#1 29.18 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

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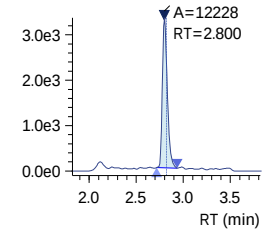
20210615_010

Sample ID: PERCHLORATE4
Date Acquired: 6/15/2021 3:58:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_010.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 1

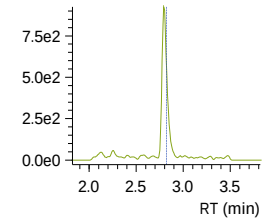
Perchlorate

Conc 1.1521
R#1 29.18 (0.00)

Q 99.00>83.00 (-) 3.38e3



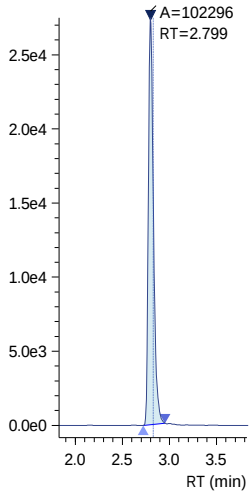
R1 101.00>85.00 (-) 9.25e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.75e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

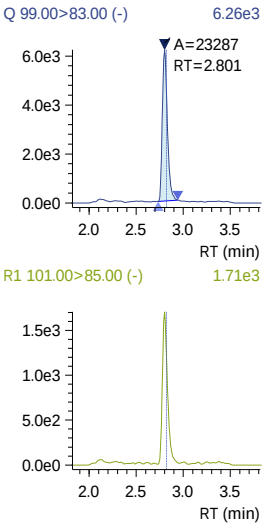
20210615_011

Sample ID: PERCHLORATE5
Date Acquired: 6/15/2021 4:07:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_011.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.801	23287	103365	1	2.1312	ng/mL	2.0000	27.30
Sodium Perchlorate-18O4_IS	Auto	2.800	1033 65	103365	1	1.0000	ng/mL	1.0000	----

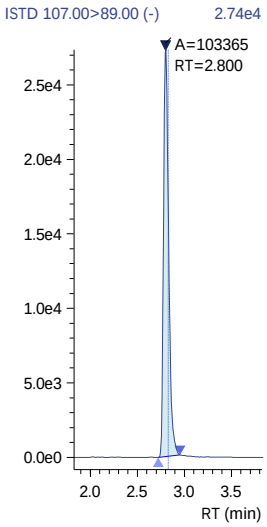
Perchlorate

Conc 2.1312
R#1 27.30 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

Printed at 6/17/2021 2:00:46 PM

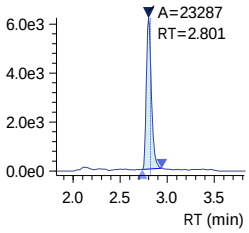
20210615_011

Sample ID: PERCHLORATE5
Date Acquired: 6/15/2021 4:07:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_011.lcd
Vial: 24 | Inj. Volume: 25.0000uL | Tray: 1

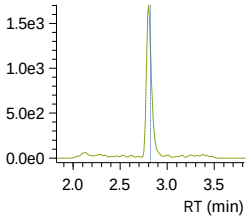
Perchlorate

Conc 2.1714
R#1 27.30 (0.00)

Q 99.00>83.00 (-) 6.26e3



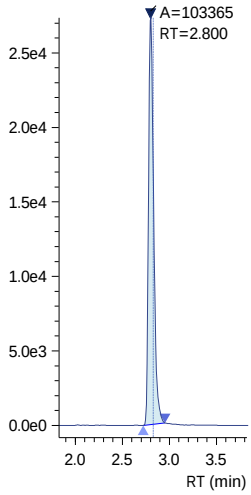
R1 101.00>85.00 (-) 1.71e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.74e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

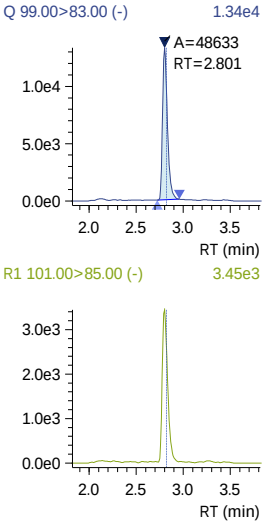
20210615_012

Sample ID: PERCHLORATE6
Date Acquired: 6/15/2021 4:15:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_012.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.801	48633	93357	1	4.9280	ng/mL	5.0000	25.88
Sodium Perchlorate-18O4 _IS	Auto	2.801	93357	93357	1	1.0000	ng/mL	1.0000	----

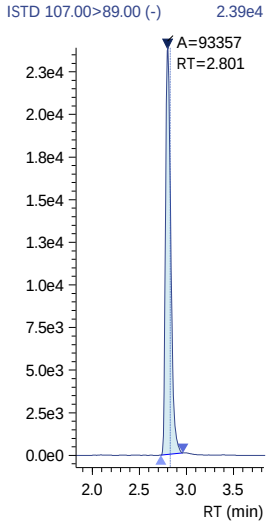
Perchlorate

Conc 4.9280
R#1 25.88 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

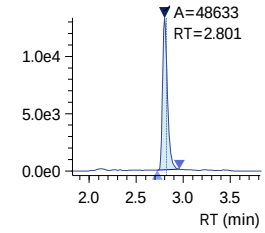
20210615_012

Sample ID: PERCHLORATE6
Date Acquired: 6/15/2021 4:15:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_012.lcd
Vial: 25 | Inj. Volume: 25.0000uL | Tray: 1

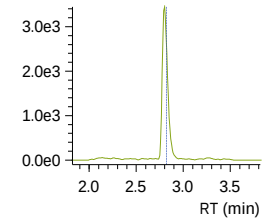
Perchlorate

Conc 5.0209
R#1 25.88 (0.00)

Q 99.00>83.00 (-) 1.34e4



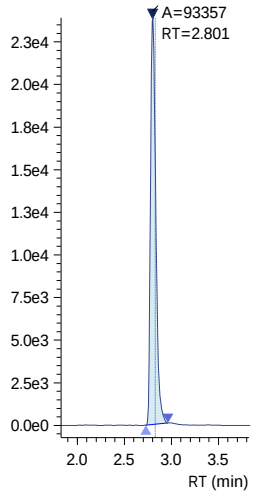
R1 101.00>85.00 (-) 3.45e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.39e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

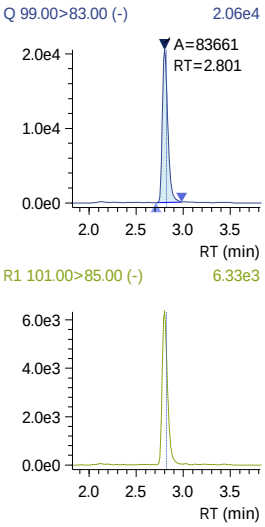
20210615_013

Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 4:24:05 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_013.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.801	83661	89240	1	8.8684	ng/mL	10.0000	30.81
Sodium Perchlorate-18O4 _IS	Auto	2.800	89240	89240	1	1.0000	ng/mL	1.0000	----

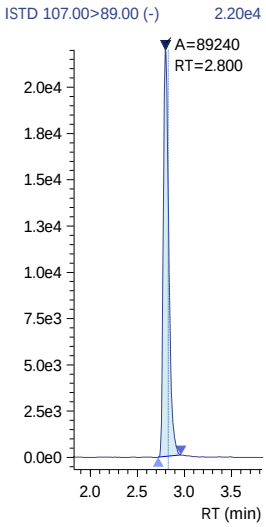
Perchlorate

Conc 8.8684
R#1 30.81 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/17/2021 2:00:46 PM

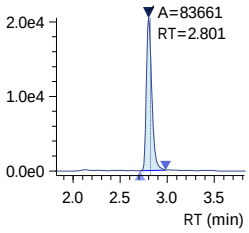
20210615_013

Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 4:24:05 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_013.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

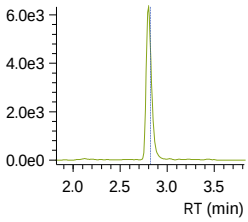
Perchlorate

Conc 9.0357
R#1 30.81 (0.00)

Q 99.00>83.00 (-) 2.06e4



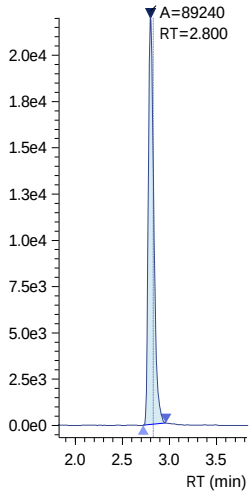
R1 101.00>85.00 (-) 6.33e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.20e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

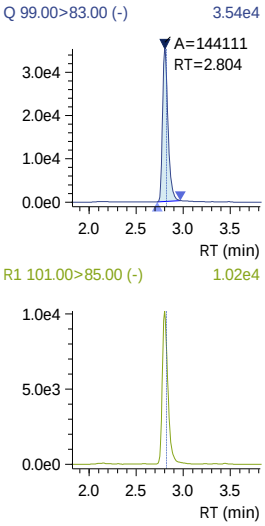
20210615_014

Sample ID: PERCHLORATE8
Date Acquired: 6/15/2021 4:32:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_014.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.804	144111	74442	1	18.3131	ng/mL	20.0000	28.75
Sodium Perchlorate-18O4_IS	Auto	2.802	74442	74442	1	1.0000	ng/mL	1.0000	----

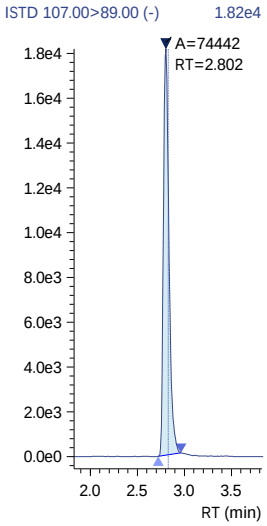
Perchlorate

Conc 18.3131
R#1 28.75 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/17/2021 2:00:46 PM

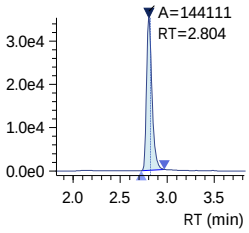
20210615_014

Sample ID: PERCHLORATE8
Date Acquired: 6/15/2021 4:32:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_014.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 1

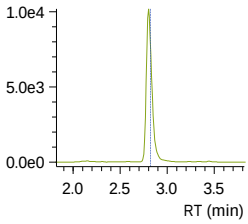
Perchlorate

Conc 18.6585
R#1 28.75 (0.00)

Q 99.00>83.00 (-) 3.54e4



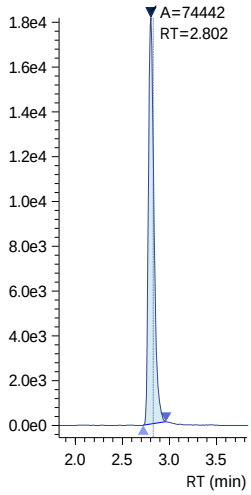
R1 101.00>85.00 (-) 1.02e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.82e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

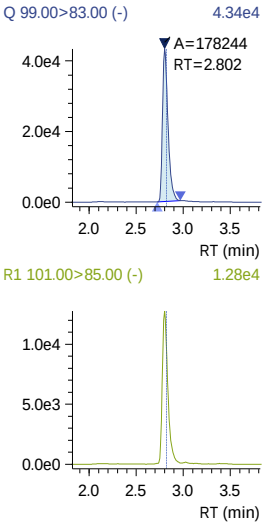
20210615_015

Sample ID: PERCHLORATE9
Date Acquired: 6/15/2021 4:41:08 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_015.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.802	178244	63474	1	26.5645	ng/mL	30.0000	29.37
Sodium Perchlorate-18O4_IS	Auto	2.802	63474	63474	1	1.0000	ng/mL	1.0000	----

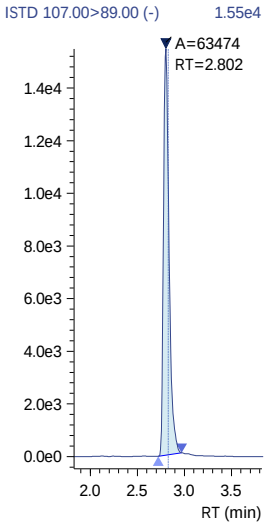
Perchlorate

Conc 26.5645
R#1 29.37 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/17/2021 2:00:46 PM

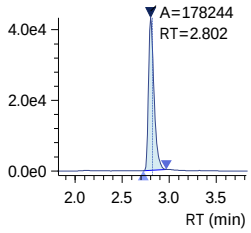
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Sample ID: PERCHLORATE9
Date Acquired: 6/15/2021 4:41:08 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_015.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 1

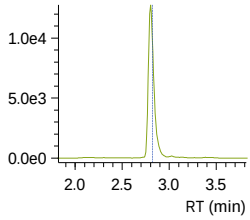
Perchlorate

Conc 27.0656
R#1 29.37 (0.00)

Q 99.00>83.00 (-) 4.34e4



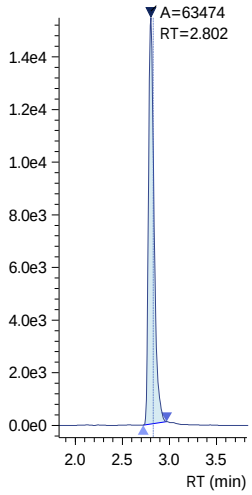
R1 101.00>85.00 (-) 1.28e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.55e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

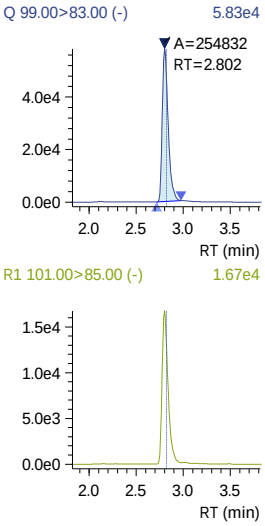
20210615_016

Sample ID: PERCHLORATE10
Date Acquired: 6/15/2021 4:49:43 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_016.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.802	254832	55769	1	43.2260	ng/mL	50.0000	28.69
Sodium Perchlorate-18O4_IS	Auto	2.801	55769	55769	1	1.0000	ng/mL	1.0000	----

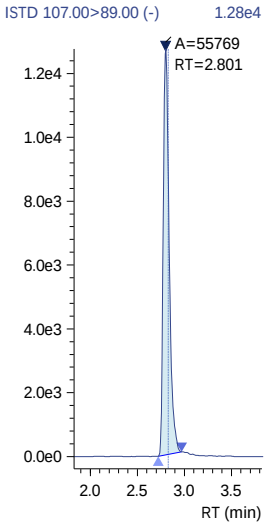
Perchlorate

Conc 43.2260
R#1 28.69 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/17/2021 2:00:46 PM

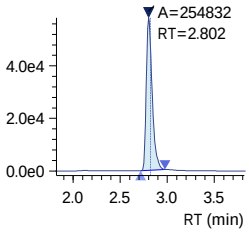
20210615_016

Sample ID: PERCHLORATE10
Date Acquired: 6/15/2021 4:49:43 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_016.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 1

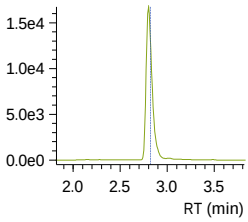
Perchlorate

Conc 44.0414
R#1 28.69 (0.00)

Q 99.00>83.00 (-) 5.83e4



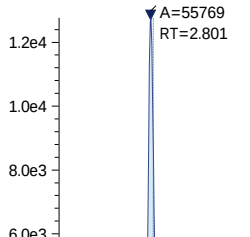
R1 101.00>85.00 (-) 1.67e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.28e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

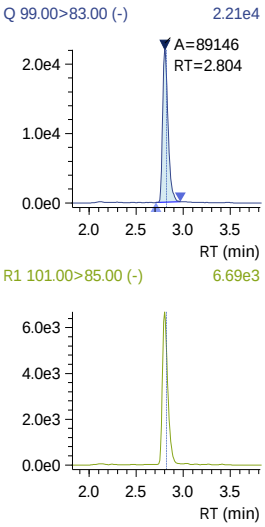
20210615_017

Sample ID: PERCHLORATEICV
Date Acquired: 6/15/2021 4:58:17 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_017.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.804	89146	89108	1	9.4639	ng/mL	10.0000	30.30
Sodium Perchlorate-18O4 _IS	Auto	2.802	89108	89108	1	1.0000	ng/mL	1.0000	----

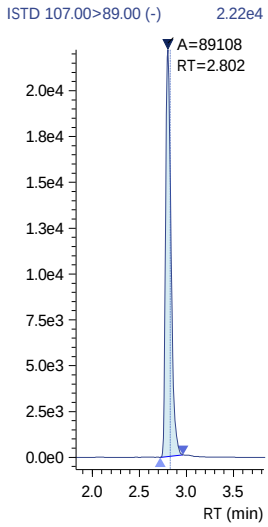
Perchlorate

Conc 9.4639
R#1 30.30 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/17/2021 2:00:46 PM

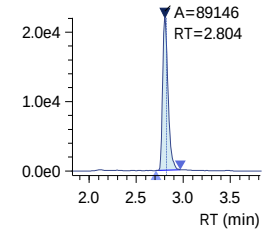
20210615_017

Sample ID: PERCHLORATEICV
Date Acquired: 6/15/2021 4:58:17 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_017.lcd
Vial: 30 | Inj. Volume: 25.0000uL | Tray: 1

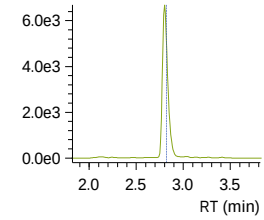
Perchlorate

Conc 9.6424
R#1 30.30 (0.00)

Q 99.00>83.00 (-) 2.21e4



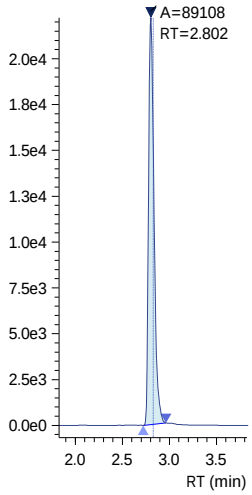
R1 101.00>85.00 (-) 6.69e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.22e4



20210622

ALS Environmental

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/22/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100044**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-08 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210622_002	Perchlorate6850c.lcm	1x	☒	3100812-01	6/22/2021 17:16
2	PERCHLORATE2		20210622_003	Perchlorate6850c.lcm	1x	☒	3100812-02	6/22/2021 17:25
3	PERCHLORATE3		20210622_004	Perchlorate6850c.lcm	1x	☒	3100812-03	6/22/2021 17:33
4	PERCHLORATE4		20210622_006	Perchlorate6850c.lcm	1x	☒	3100812-05	6/22/2021 17:51
5	PERCHLORATE5		20210622_007	Perchlorate6850c.lcm	1x	☒	3100812-06	6/22/2021 17:59
6	PERCHLORATE6		20210622_008	Perchlorate6850c.lcm	1x	☒	3100812-07	6/22/2021 18:08
7	PERCHLORATE7		20210622_009	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 18:16
8	PERCHLORATE8		20210622_010	Perchlorate6850c.lcm	1x	☒	3100812-09	6/22/2021 18:25
9	PERCHLORATE9		20210622_011	Perchlorate6850c.lcm	1x	☒	3100813-01	6/22/2021 18:34
10	PERCHLORATEICV		20210622_012	Perchlorate6850c.lcm	1x	☒	3100811-06	6/22/2021 18:42
11	ICS		20210622_013	Perchlorate6850c.lcm	1x	☒		6/22/2021 18:51
12	LODV		20210622_014	Perchlorate6850c.lcm	1x	☒		6/22/2021 18:59
13	PERCHLORATE7		20210622_015	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 19:08
14	EQ2100354-04		20210622_016	Perchlorate6850c.lcm	1x	☒		6/22/2021 19:17
15	EQ2100354-05		20210622_017	Perchlorate6850c.lcm	1x	☒		6/22/2021 19:25
16	E2100631-001X1000		20210622_018	Perchlorate6850c.lcm	1000x	☒		6/22/2021 19:34
17	E2100629-001X20		20210622_019	Perchlorate6850c.lcm	20x	☒		6/22/2021 19:43
18	E2100630-001X20		20210622_020	Perchlorate6850c.lcm	20x	☒		6/22/2021 19:51
19	E2100632-001X10		20210622_021	Perchlorate6850c.lcm	10x	☒		6/22/2021 20:00
20	E2100632-002X10		20210622_022	Perchlorate6850c.lcm	10x	☒		6/22/2021 20:08
21	E2100632-003X2		20210622_023	Perchlorate6850c.lcm	2x	☒	DNU-INST out of range	6/22/2021 20:17
22	E2100632-004X2		20210622_024	Perchlorate6850c.lcm	2x	☒	DNU-INST out of range	6/22/2021 20:25
23	PERCHLORATE7		20210622_025	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 20:34
24	E2100608-001		20210622_026	Perchlorate6850c.lcm	1x	☒	confirmation run only	6/22/2021 20:43
25	E2100632-005X2		20210622_027	Perchlorate6850c.lcm	2x	☒		6/22/2021 20:51
26	E2100632-006X200		20210622_028	Perchlorate6850c.lcm	200x	☒		6/22/2021 21:00
27	E2100632-007X2		20210622_029	Perchlorate6850c.lcm	2x	☒		6/22/2021 21:08
28	EQ2100367-01		20210622_030	Perchlorate6850c.lcm	1x	☒		6/22/2021 21:17
29	EQ2100367-02		20210622_031	Perchlorate6850c.lcm	1x	☒		6/22/2021 21:26
30	EQ2100367-03		20210622_032	Perchlorate6850c.lcm	1x	☒		6/22/2021 21:34
31	E2100651-001		20210622_033	Perchlorate6850c.lcm	1x	☒	DNU-over calibration range	6/22/2021 21:43
32	PERCHLORATE7		20210622_034	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 21:52
33	E2100644-007X5		20210622_035	Perchlorate6850c.lcm	5x	☒	DNU-INST out of range	6/22/2021 22:00
34	E2100644-008X20		20210622_036	Perchlorate6850c.lcm	20x	☒	DNU-INST out of range	6/22/2021 22:09
35	E2100644-009X2		20210622_037	Perchlorate6850c.lcm	2x	☒		6/22/2021 22:17
36	E2100645-004X2		20210622_038	Perchlorate6850c.lcm	2x	☒		6/22/2021 22:26
37	E2100645-005X2		20210622_039	Perchlorate6850c.lcm	2x	☒		6/22/2021 22:34
38	E2100645-006X20		20210622_040	Perchlorate6850c.lcm	20x	☒		6/22/2021 22:43
39	PERCHLORATE7		20210622_041	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 22:52
40	E2100645-009X100		20210622_042	Perchlorate6850c.lcm	100x	☒		6/22/2021 23:00
41	E2100645-010X1000		20210622_043	Perchlorate6850c.lcm	1000x	☒		6/22/2021 23:09
42	E2100645-011X1000		20210622_044	Perchlorate6850c.lcm	1000x	☒		6/22/2021 23:17
43	EQ2100358-03		20210622_045	Perchlorate6850c.lcm	1x	☒		6/22/2021 23:26
44	E2100645-012X1000		20210622_046	Perchlorate6850c.lcm	1000x	☒		6/22/2021 23:35
45	E2100645-013X1000		20210622_047	Perchlorate6850c.lcm	1000x	☒		6/22/2021 23:43
46	E2100645-014X10		20210622_048	Perchlorate6850c.lcm	10x	☒		6/22/2021 23:52
47	E2100645-015X10		20210622_049	Perchlorate6850c.lcm	10x	☒		6/23/2021 0:00
48	E2100645-016X10		20210622_050	Perchlorate6850c.lcm	10x	☒		6/23/2021 0:09
49	E2100645-017X2		20210622_051	Perchlorate6850c.lcm	2x	☒		6/23/2021 0:18
50	PERCHLORATE7		20210622_052	Perchlorate6850c.lcm	1x	☒	3100812-08	6/23/2021 0:26
51	E2100645-018X10		20210622_053	Perchlorate6850c.lcm	10x	☒		6/23/2021 0:35
52	E2100645-019X2		20210622_054	Perchlorate6850c.lcm	2x	☒		6/23/2021 0:44
53	E2100645-020X10		20210622_055	Perchlorate6850c.lcm	10x	☒		6/23/2021 0:52
54	E2100645-021X100		20210622_056	Perchlorate6850c.lcm	100x	☒		6/23/2021 1:01
55	E2100645-022X5		20210622_057	Perchlorate6850c.lcm	5x	☒	DNU-INST out of range	6/23/2021 1:09
56	E2100645-023X5		20210622_058	Perchlorate6850c.lcm	5x	☒	DNU-INST out of range	6/23/2021 1:18
57	E2100645-024X100		20210622_059	Perchlorate6850c.lcm	100x	☒		6/23/2021 1:27
58	PERCHLORATE7		20210622_060	Perchlorate6850c.lcm	1x	☒	3100812-08	6/23/2021 1:35

Initial Calibration - Detailed Report

Calibration ID: EC2100044 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2100044-01	PERCHLORATE1	20210622_002	06/22/2021 17:16
02	EC2100044-02	PERCHLORATE2	20210622_003	06/22/2021 17:25
03	EC2100044-03	PERCHLORATE3	20210622_004	06/22/2021 17:33
04	EC2100044-04	PERCHLORATE4	20210622_006	06/22/2021 17:51
05	EC2100044-05	PERCHLORATE5	20210622_007	06/22/2021 17:59
06	EC2100044-06	PERCHLORATE6	20210622_008	06/22/2021 18:08
07	EC2100044-07	PERCHLORATE7	20210622_009	06/22/2021 18:16
08	EC2100044-08	PERCHLORATE8	20210622_010	06/22/2021 18:25
09	EC2100044-09	PERCHLORATE9	20210622_011	06/22/2021 18:34

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 11.7** **Average RF = 0.122**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1538	02	0.5000	0.1192	03	0.7000	0.1198	04	2.0000	0.1331
05	5.0000	0.1233	06	10.0000	0.1194	07	20.0000	0.1105	08	30.0000	0.1126
09	50.0000	0.1061									

Analyte

Perchlorate

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.126	26.1	02	0.5000	0.489	-2.3	03	0.7000	0.688	-1.8
04	2.0000	2.18	9.1	05	5.0000	5.06	1.1	06	10.0000	9.79	-2.1
07	20.0000	18.1	-9.4	08	30.0000	27.7	-7.7	09	50.0000	43.5	-13.0

Initial Calibration Verification Summary Report

Calibration ID:	EC2100044	**Instrument ID:**	E-LCMS-01
Datafile ID:	20210622_012	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2100044-10	T	Average RF	10	8.601	ng/mL	-14.0	<= 15

Insight Report

Printed at 6/24/2021 1:58:03 PM

Method File: I:\LCMS01\DATA\20210622\20210622.lcm
Project File: I:\LCMS01\DATA\20210622\20210622.damlp

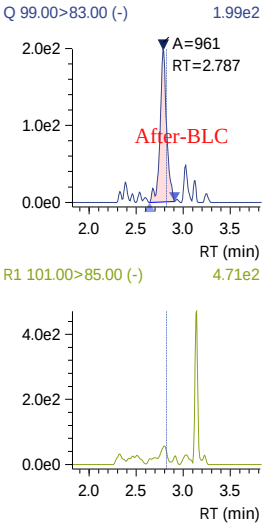
20210622_002

Sample ID: PERCHLORATE1
Date Acquired: 6/22/2021 5:16:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_002.lcd
Vial: 20 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.787	961	62485	1	0.1261	ng/mL	0.1000	14.80
Sodium Perchlorate-18O4 _IS	Auto	2.786	62485	62485	1	1.0000	ng/mL	1.0000	----

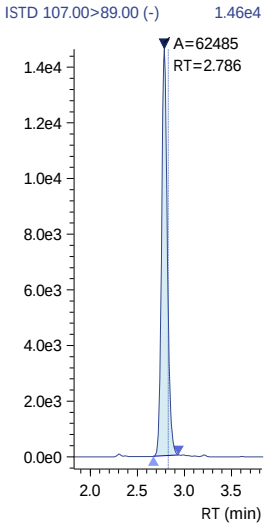
Perchlorate

Conc 0.1261
R#1 14.80 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

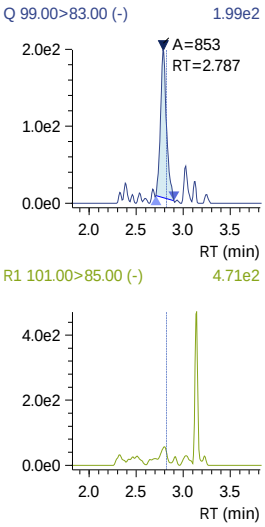
Method File: I:\LCMS01\DATA\20210622\20210622.lcm

20210622_002

Sample ID: PERCHLORATE1
Date Acquired: 6/22/2021 5:16:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_002.lcd
Vial: 20 | Inj. Volume: 50.0000uL | Tray: 1

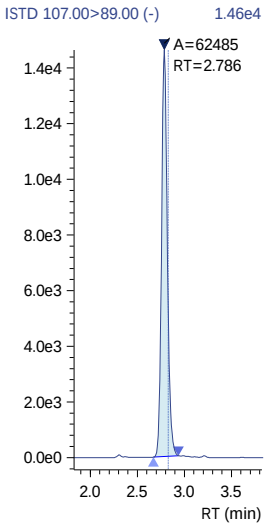
Perchlorate

Conc 0.1181
R#1 16.93 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 1:58:03 PM

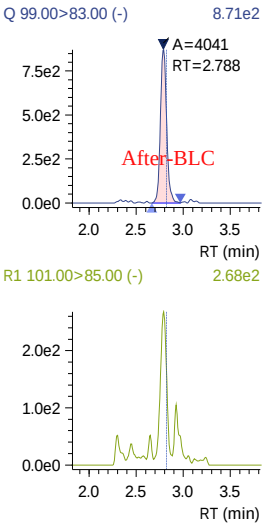
20210622_003

Sample ID: PERCHLORATE2
Date Acquired: 6/22/2021 5:25:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_003.lcd
Vial: 21 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.788	4041	67816	1	0.4886	ng/mL	0.5000	26.30
Sodium Perchlorate-18O4 _IS	M	2.788	67816	67816	1	1.0000	ng/mL	1.0000	----

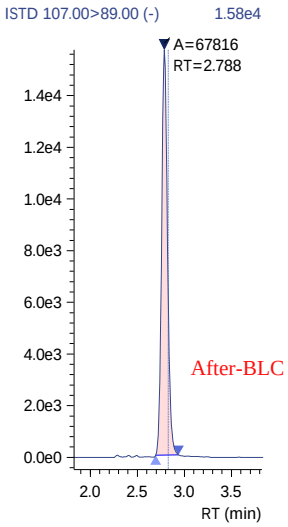
Perchlorate

Conc 0.4886
R#1 26.30 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

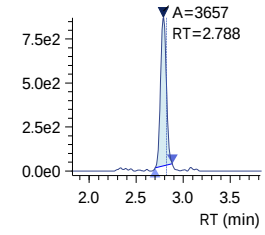
20210622_003

Sample ID: PERCHLORATE2
Date Acquired: 6/22/2021 5:25:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_003.lcd
Vial: 21 | Inj. Volume: 50.0000uL | Tray: 1

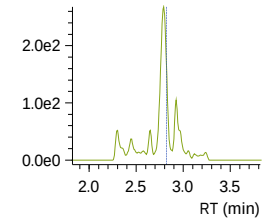
Perchlorate

Conc 0.4621
R#1 29.70 (0.00)

Q 99.00>83.00 (-) 8.71e2



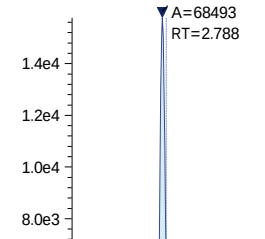
R1 101.00>85.00 (-) 2.68e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.58e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

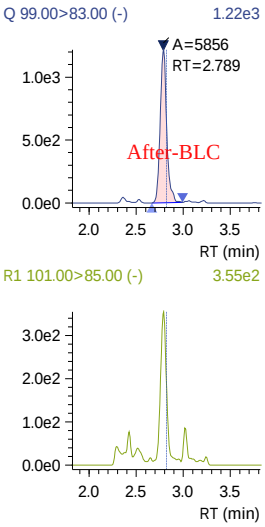
20210622_004

Sample ID: PERCHLORATE3
Date Acquired: 6/22/2021 5:33:46 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_004.lcd
Vial: 22 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.789	5856	69827	1	0.6876	ng/mL	0.7000	27.89
Sodium Perchlorate-18O4 _IS	Auto	2.787	69827	69827	1	1.0000	ng/mL	1.0000	----

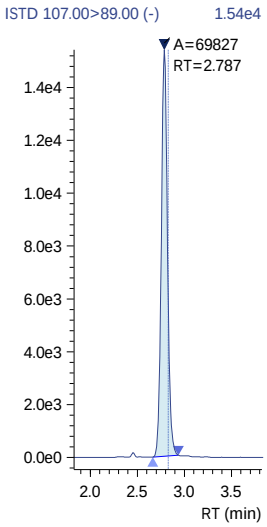
Perchlorate

Conc 0.6876
R#1 27.89 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

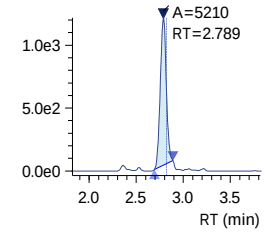
20210622_004

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Date Acquired: 6/22/2021 5:33:46 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_004.lcd
Vial: 22 | Inj. Volume: 50.0000uL | Tray: 1

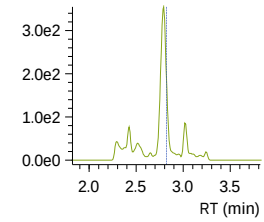
Perchlorate

Conc 0.6457
R#1 28.96 (0.00)

Q 99.00>83.00 (-) 1.22e3



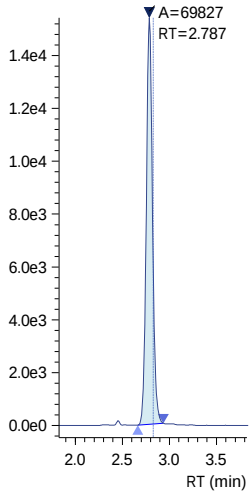
R1 101.00>85.00 (-) 3.55e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.54e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

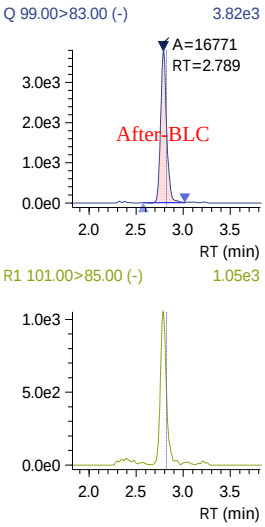
20210622_006

Sample ID: PERCHLORATE4
Date Acquired: 6/22/2021 5:51:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_006.lcd
Vial: 24 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.789	16771	63001	1	2.1825	ng/mL	2.0000	27.75
Sodium Perchlorate-18O4 _IS	Auto	2.788	63001	63001	1	1.0000	ng/mL	1.0000	----

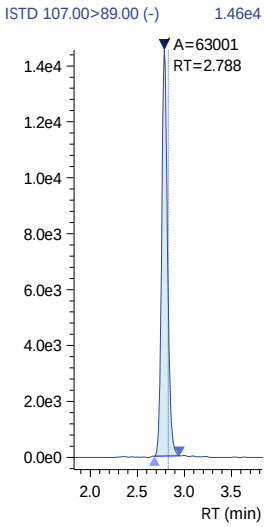
Perchlorate

Conc 2.1825
R#1 27.75 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

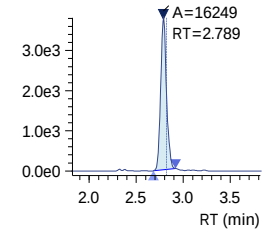
20210622_006

Sample ID: PERCHLORATE4
Date Acquired: 6/22/2021 5:51:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_006.lcd
Vial: 24 | Inj. Volume: 50.0000uL | Tray: 1

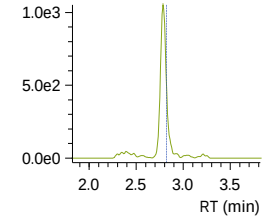
Perchlorate

Conc 2.2319
R#1 28.00 (0.00)

Q 99.00>83.00 (-) 3.82e3



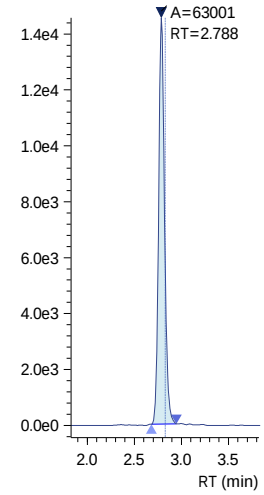
R1 101.00>85.00 (-) 1.05e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.46e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

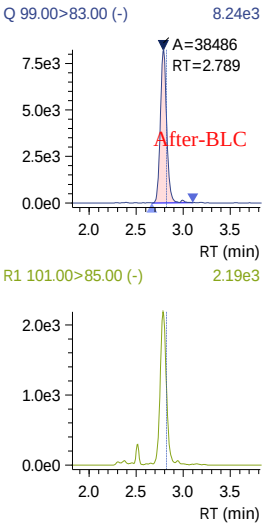
20210622_007

Sample ID: PERCHLORATE5
Date Acquired: 6/22/2021 5:59:37 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_007.lcd
Vial: 25 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.789	38486	62414	1	5.0555	ng/mL	5.0000	26.59
Sodium Perchlorate-18O4 _IS	M	2.788	62414	62414	1	1.0000	ng/mL	1.0000	----

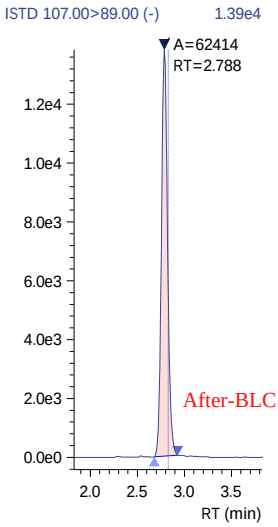
Perchlorate

Conc 5.0555
R#1 26.59 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

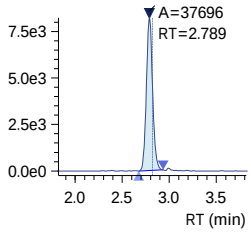
20210622_007

Sample ID: PERCHLORATE5
Date Acquired: 6/22/2021 5:59:37 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_007.lcd
Vial: 25 | Inj. Volume: 50.0000uL | Tray: 1

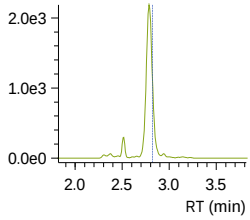
Perchlorate

Conc 5.2127
R#1 26.50 (0.00)

Q 99.00>83.00 (-) 8.24e3



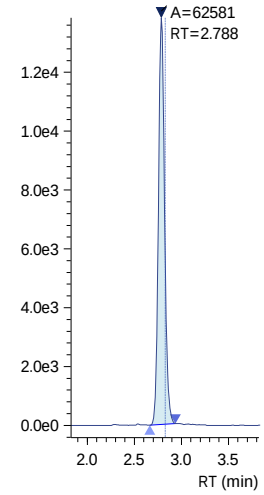
R1 101.00>85.00 (-) 2.19e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.39e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

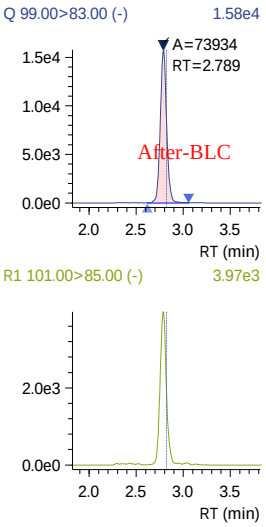
20210622_008

Sample ID: PERCHLORATE6
Date Acquired: 6/22/2021 6:08:15 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_008.lcd
Vial: 26 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.789	73934	61934	1	9.7872	ng/mL	10.0000	25.43
Sodium Perchlorate-18O4 _IS	M	2.787	61934	61934	1	1.0000	ng/mL	1.0000	----

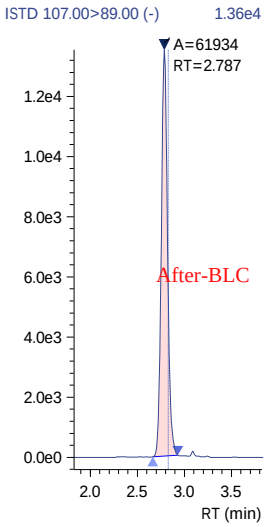
Perchlorate

Conc 9.7872
R#1 25.43 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

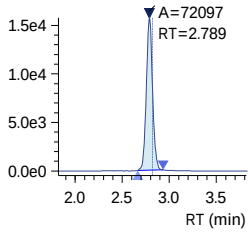
20210622_008

Sample ID: PERCHLORATE6
Date Acquired: 6/22/2021 6:08:15 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_008.lcd
Vial: 26 | Inj. Volume: 50.0000uL | Tray: 1

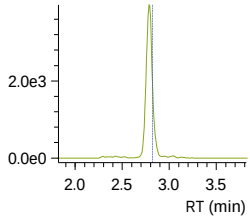
Perchlorate

Conc 10.0410
R#1 25.45 (0.00)

Q 99.00>83.00 (-) 1.58e4



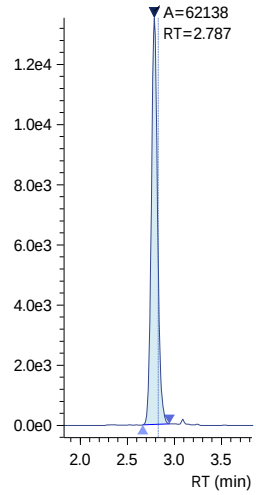
R1 101.00>85.00 (-) 3.97e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.36e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

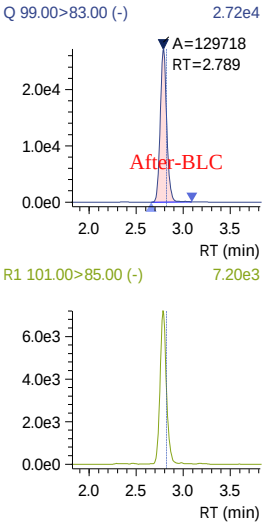
20210622_009

Sample ID: PERCHLORATE7
Date Acquired: 6/22/2021 6:16:54 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_009.lcd
Vial: 27 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.789	129718	58712	1	18.1141	ng/mL	20.0000	26.63
Sodium Perchlorate-18O4_IS	M	2.787	58712	58712	1	1.0000	ng/mL	1.0000	----

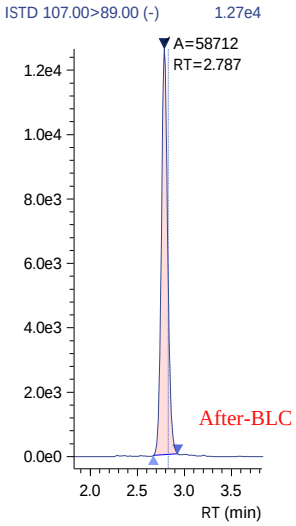
Perchlorate

Conc 18.1141
R#1 26.63 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Before

Insight Report

Printed at 6/24/2021 2:00:30 PM

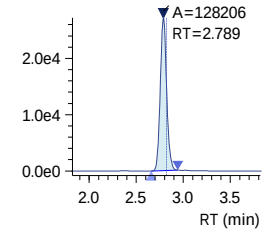
20210622_009

Sample ID: PERCHLORATE7
Date Acquired: 6/22/2021 6:16:54 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_009.lcd
Vial: 27 | Inj. Volume: 50.0000uL | Tray: 1

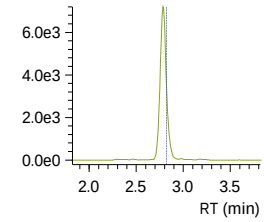
Perchlorate

Conc 18.7699
R#1 26.65 (0.00)

Q 99.00>83.00 (-) 2.72e4



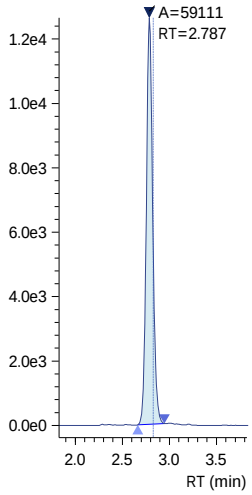
R1 101.00>85.00 (-) 7.20e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.27e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

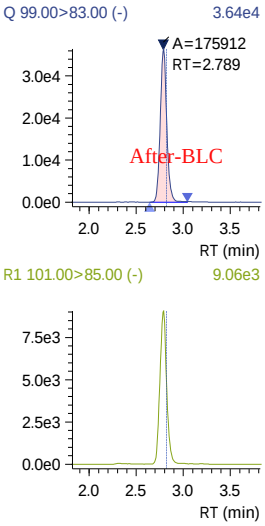
20210622_010

Sample ID: PERCHLORATE8
Date Acquired: 6/22/2021 6:25:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_010.lcd
Vial: 28 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.789	175912	52085	1	27.6902	ng/mL	30.0000	25.11
Sodium Perchlorate-18O4_IS	M	2.788	52085	52085	1	1.0000	ng/mL	1.0000	----

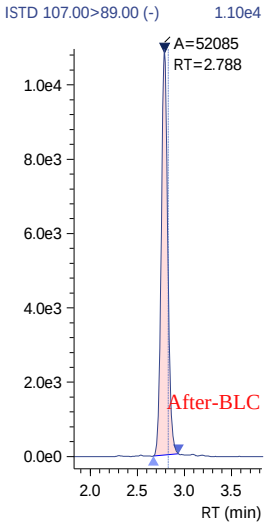
Perchlorate

Conc 27.6902
R#1 25.11 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

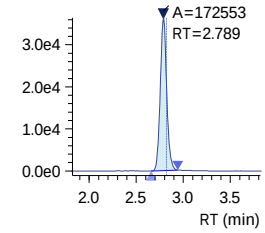
20210622_010

Sample ID: PERCHLORATE8
Date Acquired: 6/22/2021 6:25:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_010.lcd
Vial: 28 | Inj. Volume: 50.0000uL | Tray: 1

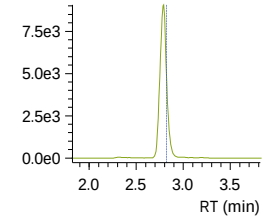
Perchlorate

Conc 28.5706
R#1 25.08 (0.00)

Q 99.00>83.00 (-) 3.64e4



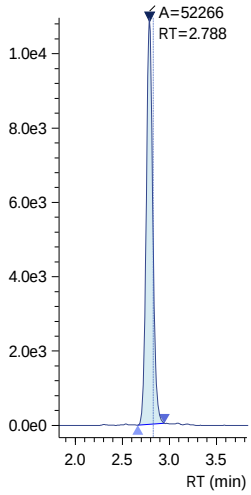
R1 101.00>85.00 (-) 9.06e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.10e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

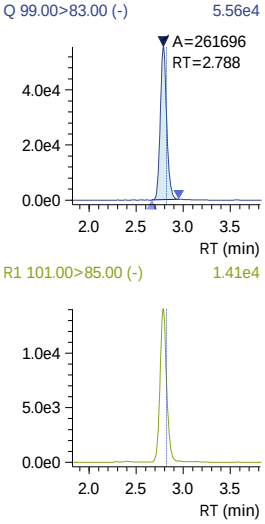
20210622_011

Sample ID: PERCHLORATE9
Date Acquired: 6/22/2021 6:34:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_011.lcd
Vial: 29 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.788	261696	49311	1	43.5110	ng/mL	50.0000	25.36
Sodium Perchlorate-18O4_IS	Auto	2.788	49311	49311	1	1.0000	ng/mL	1.0000	----

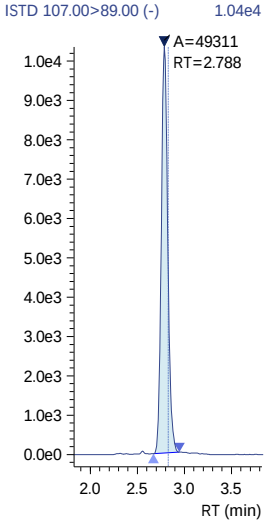
Perchlorate

Conc 43.5110
R#1 25.36 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

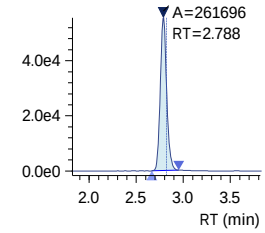
20210622_011

Sample ID: PERCHLORATE9
Date Acquired: 6/22/2021 6:34:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_011.lcd
Vial: 29 | Inj. Volume: 50.0000uL | Tray: 1

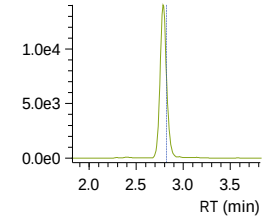
Perchlorate

Conc 45.9277
R#1 25.36 (0.00)

Q 99.00>83.00 (-) 5.56e4



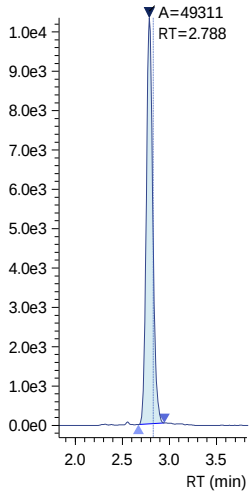
R1 101.00>85.00 (-) 1.41e4



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.04e4



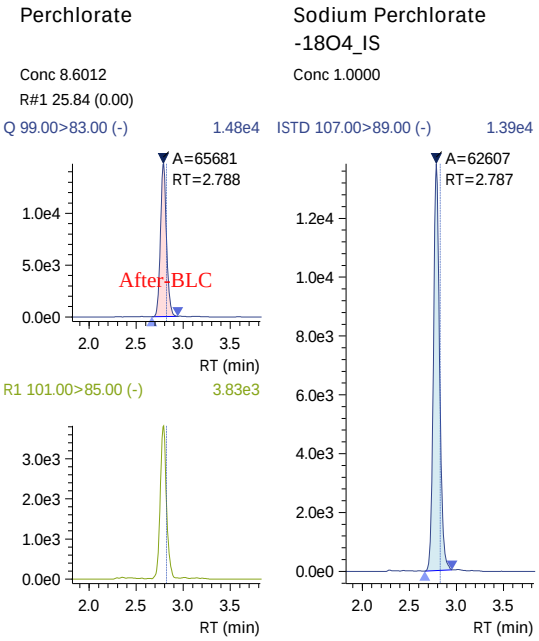
Insight Report

Printed at 6/24/2021 1:58:03 PM

20210622_012

Sample ID: PERCHLORATEICV
Date Acquired: 6/22/2021 6:42:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_012.lcd
Vial: 30 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.788	65681	62607	1	8.6012	ng/mL	10.0000	25.84
Sodium Perchlorate-18O4 _IS	Auto	2.787	62607	62607	1	1.0000	ng/mL	1.0000	----



Insight Report

Printed at 6/24/2021 2:00:30 PM

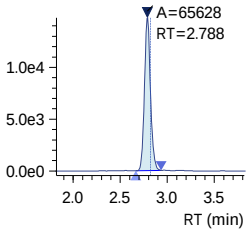
20210622_012

Sample ID: PERCHLORATEICV
Date Acquired: 6/22/2021 6:42:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\Before\20210622_012.lcd
Vial: 30 | Inj. Volume: 50.0000uL | Tray: 1

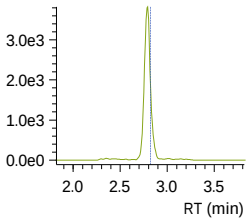
Perchlorate

Conc 9.0716
R#1 25.83 (0.00)

Q 99.00>83.00 (-) 1.48e4



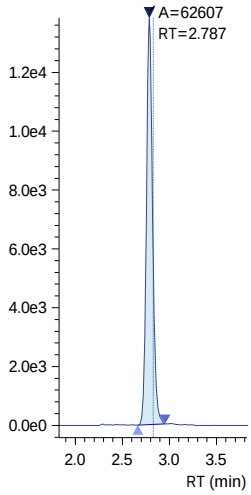
R1 101.00>85.00 (-) 3.83e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.39e4



Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20210615

ALS Environmental

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210615_007	Perchlorate6850c.lcm	1x	☒	3100810-05	6/15/2021 15:32
2	PERCHLORATE2		20210615_008	Perchlorate6850c.lcm	1x	☒	3100810-06	6/15/2021 15:41
3	PERCHLORATE3		20210615_009	Perchlorate6850c.lcm	1x	☒	3100810-07	6/15/2021 15:49
4	PERCHLORATE4		20210615_010	Perchlorate6850c.lcm	1x	☒	3100810-08	6/15/2021 15:58
5	PERCHLORATE5		20210615_011	Perchlorate6850c.lcm	1x	☒	3100810-09	6/15/2021 16:07
6	PERCHLORATE6		20210615_012	Perchlorate6850c.lcm	1x	☒	3100811-01	6/15/2021 16:15
7	PERCHLORATE7		20210615_013	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 16:24
8	PERCHLORATE8		20210615_014	Perchlorate6850c.lcm	1x	☒	3100811-03	6/15/2021 16:32
9	PERCHLORATE9		20210615_015	Perchlorate6850c.lcm	1x	☒	3100811-04	6/15/2021 16:41
10	PERCHLORATE10		20210615_016	Perchlorate6850c.lcm	1x	☒	3100811-05	6/15/2021 16:49
11	PERCHLORATEICV		20210615_017	Perchlorate6850c.lcm	1x	☒	3100811-06	6/15/2021 16:58
12	ICS		20210615_018	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:06
13	LODV		20210615_019	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:15
14	PERCHLORATE7		20210615_020	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 17:23
15	EQ2100354-01		20210615_021	Perchlorate6850c.lcm	1x	☒		6/15/2021 17:52
16	EQ2100354-02		20210615_022	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:00
17	EQ2100354-03		20210615_023	Perchlorate6850c.lcm	1x	☒		6/15/2021 18:09
18	E2100631-001X100		20210615_024	Perchlorate6850c.lcm	100x	☒	DNU-over calibration range	6/15/2021 18:17
19	E2100608-001X100		20210615_025	Perchlorate6850c.lcm	100x	☒		6/15/2021 18:26
20	E2100629-001X10		20210615_026	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:34
21	E2100630-001X10		20210615_027	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 18:43
22	E2100632-006X100		20210615_028	Perchlorate6850c.lcm	100x	☒	DNU-INST low	6/15/2021 18:52
23	EQ2100357-04X100		20210615_029	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:00
24	EQ2100357-05X100		20210615_030	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:09
25	PERCHLORATE7		20210615_031	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 19:17
26	E2100644-001X1000		20210615_032	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:26
27	E2100644-002X100		20210615_033	Perchlorate6850c.lcm	100x	☒		6/15/2021 19:34
28	E2100644-003X1000		20210615_034	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:43
29	E2100644-004X1000		20210615_035	Perchlorate6850c.lcm	1000x	☒		6/15/2021 19:51
30	E2100644-005X100		20210615_036	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:00
31	E2100644-006X100		20210615_037	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:09
32	E2100644-008X10		20210615_038	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 20:17
33	E2100645-001X100		20210615_039	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:26
34	E2100645-002X100		20210615_040	Perchlorate6850c.lcm	100x	☒		6/15/2021 20:34
35	E2100645-003X10		20210615_041	Perchlorate6850c.lcm	10x	☒		6/15/2021 20:43
36	PERCHLORATE7		20210615_042	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 20:51
37	E2100645-006X10		20210615_043	Perchlorate6850c.lcm	10x	☒	DNU-INST low	6/15/2021 21:00
38	E2100645-007X1000		20210615_044	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:08
39	E2100645-008X1000		20210615_045	Perchlorate6850c.lcm	1000x	☒		6/15/2021 21:17
40	PERCHLORATE7		20210615_046	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 21:25
41	EQ2100354-04		20210615_047	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:34
42	EQ2100354-05		20210615_048	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:42
43	E2100632-001		20210615_049	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:51
44	E2100632-002		20210615_050	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 21:59
45	E2100632-003		20210615_051	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:08
46	E2100632-004		20210615_052	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:17
47	PERCHLORATE7		20210615_053	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 22:25
48	E2100632-005		20210615_054	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:34
49	E2100632-007		20210615_055	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 22:42
50	EQ2100357-01		20210615_056	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:51
51	EQ2100357-02		20210615_057	Perchlorate6850c.lcm	1x	☒		6/15/2021 22:59
52	EQ2100357-03		20210615_058	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:08
53	E2100644-007		20210615_059	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:16
54	E2100644-009		20210615_060	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:25
55	E2100645-004		20210615_061	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:33
56	E2100645-005		20210615_062	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/15/2021 23:42
57	PERCHLORATE7		20210615_063	Perchlorate6850c.lcm	1x	☒	3100811-02	6/15/2021 23:50
58	EQ2100358-01		20210615_064	Perchlorate6850c.lcm	1x	☒		6/15/2021 23:59
59	EQ2100358-02		20210615_065	Perchlorate6850c.lcm	1x	☒		6/16/2021 0:08
60	EQ2100358-03		20210615_066	Perchlorate6850c.lcm	1x	☒	Reanalyze	6/16/2021 0:16
61	E2100645-017		20210615_067	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:25
62	E2100645-019		20210615_068	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:33
63	E2100645-022		20210615_069	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:42
64	E2100645-023		20210615_070	Perchlorate6850c.lcm	1x	☒	DNU-INST low	6/16/2021 0:50

20210615

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/15/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100038**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-07 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
65	PERCHLORATE7		20210615_071	Perchlorate6850c.lcm	1x	☒	3100811-02	6/16/2021 0:59

20210622

ALS Environmental

1st Review: Grivera
2nd Review: Kneir

Injection Log
LCMS01 -Shimadzu 8050

ICAL Date: 6/22/2021
Cal. Std. xp: 11/26/2021
ICAL ID: **EC2100044**

Mobile Phases **A:** 0.75% Formic Acid/Water 3100811-08 **B:** MeOH 216350

			File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20210622_002	Perchlorate6850c.lcm	1x	☒	3100812-01	6/22/2021 17:16
2	PERCHLORATE2		20210622_003	Perchlorate6850c.lcm	1x	☒	3100812-02	6/22/2021 17:25
3	PERCHLORATE3		20210622_004	Perchlorate6850c.lcm	1x	☒	3100812-03	6/22/2021 17:33
4	PERCHLORATE4		20210622_006	Perchlorate6850c.lcm	1x	☒	3100812-05	6/22/2021 17:51
5	PERCHLORATE5		20210622_007	Perchlorate6850c.lcm	1x	☒	3100812-06	6/22/2021 17:59
6	PERCHLORATE6		20210622_008	Perchlorate6850c.lcm	1x	☒	3100812-07	6/22/2021 18:08
7	PERCHLORATE7		20210622_009	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 18:16
8	PERCHLORATE8		20210622_010	Perchlorate6850c.lcm	1x	☒	3100812-09	6/22/2021 18:25
9	PERCHLORATE9		20210622_011	Perchlorate6850c.lcm	1x	☒	3100813-01	6/22/2021 18:34
10	PERCHLORATEICV		20210622_012	Perchlorate6850c.lcm	1x	☒	3100811-06	6/22/2021 18:42
11	ICS		20210622_013	Perchlorate6850c.lcm	1x	☒		6/22/2021 18:51
12	LODV		20210622_014	Perchlorate6850c.lcm	1x	☒		6/22/2021 18:59
13	PERCHLORATE7		20210622_015	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 19:08
14	EQ2100354-04		20210622_016	Perchlorate6850c.lcm	1x	☒		6/22/2021 19:17
15	EQ2100354-05		20210622_017	Perchlorate6850c.lcm	1x	☒		6/22/2021 19:25
16	E2100631-001X1000		20210622_018	Perchlorate6850c.lcm	1000x	☒		6/22/2021 19:34
17	E2100629-001X20		20210622_019	Perchlorate6850c.lcm	20x	☒		6/22/2021 19:43
18	E2100630-001X20		20210622_020	Perchlorate6850c.lcm	20x	☒		6/22/2021 19:51
19	E2100632-001X10		20210622_021	Perchlorate6850c.lcm	10x	☒		6/22/2021 20:00
20	E2100632-002X10		20210622_022	Perchlorate6850c.lcm	10x	☒		6/22/2021 20:08
21	E2100632-003X2		20210622_023	Perchlorate6850c.lcm	2x	☒	DNU-INST out of range	6/22/2021 20:17
22	E2100632-004X2		20210622_024	Perchlorate6850c.lcm	2x	☒	DNU-INST out of range	6/22/2021 20:25
23	PERCHLORATE7		20210622_025	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 20:34
24	E2100608-001		20210622_026	Perchlorate6850c.lcm	1x	☒	confirmation run only	6/22/2021 20:43
25	E2100632-005X2		20210622_027	Perchlorate6850c.lcm	2x	☒		6/22/2021 20:51
26	E2100632-006X200		20210622_028	Perchlorate6850c.lcm	200x	☒		6/22/2021 21:00
27	E2100632-007X2		20210622_029	Perchlorate6850c.lcm	2x	☒		6/22/2021 21:08
28	EQ2100367-01		20210622_030	Perchlorate6850c.lcm	1x	☒		6/22/2021 21:17
29	EQ2100367-02		20210622_031	Perchlorate6850c.lcm	1x	☒		6/22/2021 21:26
30	EQ2100367-03		20210622_032	Perchlorate6850c.lcm	1x	☒		6/22/2021 21:34
31	E2100651-001		20210622_033	Perchlorate6850c.lcm	1x	☒	DNU-over calibration range	6/22/2021 21:43
32	PERCHLORATE7		20210622_034	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 21:52
33	E2100644-007X5		20210622_035	Perchlorate6850c.lcm	5x	☒	DNU-INST out of range	6/22/2021 22:00
34	E2100644-008X20		20210622_036	Perchlorate6850c.lcm	20x	☒	DNU-INST out of range	6/22/2021 22:09
35	E2100644-009X2		20210622_037	Perchlorate6850c.lcm	2x	☒		6/22/2021 22:17
36	E2100645-004X2		20210622_038	Perchlorate6850c.lcm	2x	☒		6/22/2021 22:26
37	E2100645-005X2		20210622_039	Perchlorate6850c.lcm	2x	☒		6/22/2021 22:34
38	E2100645-006X20		20210622_040	Perchlorate6850c.lcm	20x	☒		6/22/2021 22:43
39	PERCHLORATE7		20210622_041	Perchlorate6850c.lcm	1x	☒	3100812-08	6/22/2021 22:52
40	E2100645-009X100		20210622_042	Perchlorate6850c.lcm	100x	☒		6/22/2021 23:00
41	E2100645-010X1000		20210622_043	Perchlorate6850c.lcm	1000x	☒		6/22/2021 23:09
42	E2100645-011X1000		20210622_044	Perchlorate6850c.lcm	1000x	☒		6/22/2021 23:17
43	EQ2100358-03		20210622_045	Perchlorate6850c.lcm	1x	☒		6/22/2021 23:26
44	E2100645-012X1000		20210622_046	Perchlorate6850c.lcm	1000x	☒		6/22/2021 23:35
45	E2100645-013X1000		20210622_047	Perchlorate6850c.lcm	1000x	☒		6/22/2021 23:43
46	E2100645-014X10		20210622_048	Perchlorate6850c.lcm	10x	☒		6/22/2021 23:52
47	E2100645-015X10		20210622_049	Perchlorate6850c.lcm	10x	☒		6/23/2021 0:00
48	E2100645-016X10		20210622_050	Perchlorate6850c.lcm	10x	☒		6/23/2021 0:09
49	E2100645-017X2		20210622_051	Perchlorate6850c.lcm	2x	☒		6/23/2021 0:18
50	PERCHLORATE7		20210622_052	Perchlorate6850c.lcm	1x	☒	3100812-08	6/23/2021 0:26
51	E2100645-018X10		20210622_053	Perchlorate6850c.lcm	10x	☒		6/23/2021 0:35
52	E2100645-019X2		20210622_054	Perchlorate6850c.lcm	2x	☒		6/23/2021 0:44
53	E2100645-020X10		20210622_055	Perchlorate6850c.lcm	10x	☒		6/23/2021 0:52
54	E2100645-021X100		20210622_056	Perchlorate6850c.lcm	100x	☒		6/23/2021 1:01
55	E2100645-022X5		20210622_057	Perchlorate6850c.lcm	5x	☒	DNU-INST out of range	6/23/2021 1:09
56	E2100645-023X5		20210622_058	Perchlorate6850c.lcm	5x	☒	DNU-INST out of range	6/23/2021 1:18
57	E2100645-024X100		20210622_059	Perchlorate6850c.lcm	100x	☒		6/23/2021 1:27
58	PERCHLORATE7		20210622_060	Perchlorate6850c.lcm	1x	☒	3100812-08	6/23/2021 1:35

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	6/15/21
File ID:	I:\LCMS01\DATA\20210615\20210615_020	**Calibration ID:**	EC2100038
		Analysis Lot:	727655
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.14	0.1057	0.09659	-8.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	6/15/21
File ID:	I:\LCMS01\DATA\20210615\20210615_031	**Calibration ID:**	EC2100038
		Analysis Lot:	727655
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.15	0.1057	0.09669	-8.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060462

Service Request: E2100630
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_042

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.09	0.1057	0.09609	-9.1	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	6/15/21
File ID:	I:\LCMS01\DATA\20210615\20210615_046	**Calibration ID:**	EC2100038
		Analysis Lot:	727655
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.03	0.1057	0.09546	-9.7	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060462

Service Request: E2100630
Date Analyzed: 6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_053

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	8.82	0.1057	0.09319	-11.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/15/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	6/15/21
File ID:	I:\LCMS01\DATA\20210615\20210615_063	**Calibration ID:**	EC2100038
		Analysis Lot:	727655
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.34	0.1057	0.09869	-6.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060462

Service Request: E2100630
Date Analyzed: 6/16/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210615\20210615_071

Calibration Date: 6/15/21
Calibration ID: EC2100038
Analysis Lot: 727655
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.17	0.1057	0.09692	-8.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060462

Service Request: E2100630
Date Analyzed: 6/22/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210622\20210622_015

Calibration Date: 6/22/21
Calibration ID: EC2100044
Analysis Lot: 728385
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.66	0.1220	0.1179	-3.4	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060462

Service Request: E2100630
Date Analyzed: 6/22/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210622\20210622_025

Calibration Date: 6/22/21
Calibration ID: EC2100044
Analysis Lot: 728385
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.34	0.1220	0.1140	-6.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/22/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	6/22/21
File ID:	I:\LCMS01\DATA\20210622\20210622_034	**Calibration ID:**	EC2100044
		Analysis Lot:	728385
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.38	0.1220	0.1144	-6.2	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060462

Service Request: E2100630
Date Analyzed: 6/22/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210622\20210622_041

Calibration Date: 6/22/21
Calibration ID: EC2100044
Analysis Lot: 728385
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.25	0.1220	0.1128	-7.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060462

Service Request: E2100630
Date Analyzed: 6/23/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210622\20210622_052

Calibration Date: 6/22/21
Calibration ID: EC2100044
Analysis Lot: 728385
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.17	0.1220	0.1119	-8.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS21060462

Service Request: E2100630
Date Analyzed: 6/23/21

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20210622\20210622_060

Calibration Date: 6/22/21
Calibration ID: EC2100044
Analysis Lot: 728385
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.54	0.1220	0.1164	-4.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/15/21 17:23

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_020	**Lab Code:**	EQ2100361-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-01	91,410	2.80
Method Blank	EQ2100354-01	132,232	2.80
Lab Control Sample	EQ2100354-02	127,528	2.78
Duplicate Lab Control Sample	EQ2100354-03	129,149	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/15/21 19:17

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_031	**Lab Code:**	EQ2100361-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-02	98,763	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/15/21 20:51

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_042	**Lab Code:**	EQ2100361-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-03	96,816	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/15/21 21:25

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_046	**Lab Code:**	EQ2100361-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-04	94,189	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/15/21 22:25

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_053	**Lab Code:**	EQ2100361-05
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-05	61,947	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/15/21 23:50

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_063	**Lab Code:**	EQ2100361-06
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-06	55,999	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/16/21 00:59

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210615\20210615_071	**Lab Code:**	EQ2100361-07
Instrument ID:	E-LCMS-01	**Analysis Lot:**	727655
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	88,224	2.80
	Upper Limit ==>	132,336	4.80
	Lower Limit ==>	44,112	0.80
Associated Analyses			
Continuing Calibration Verification	EQ2100361-07	51,074	2.78

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/22/21 19:08

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210622\20210622_015	**Lab Code:**	EQ2100376-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	728385
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	60,843	2.79
	Upper Limit ==>	91,265	4.79
	Lower Limit ==>	30,422	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100376-01	59,737	2.79
LH18/24-SP650_060821_BIX	E2100630-001	30,458	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/22/21 20:34

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210622\20210622_025	**Lab Code:**	EQ2100376-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	728385
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	60,843	2.79
	Upper Limit ==>	91,265	4.79
	Lower Limit ==>	30,422	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100376-02	49,224	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/22/21 21:52

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210622\20210622_034	**Lab Code:**	EQ2100376-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	728385
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	60,843	2.79
	Upper Limit ==>	91,265	4.79
	Lower Limit ==>	30,422	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100376-03	49,936	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/22/21 22:52

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210622\20210622_041	**Lab Code:**	EQ2100376-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	728385
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	60,843	2.79
	Upper Limit ==>	91,265	4.79
	Lower Limit ==>	30,422	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100376-04	48,761	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/23/21 00:26

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210622\20210622_052	**Lab Code:**	EQ2100376-05
Instrument ID:	E-LCMS-01	**Analysis Lot:**	728385
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	60,843	2.79
	Upper Limit ==>	91,265	4.79
	Lower Limit ==>	30,422	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100376-05	51,508	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2100630
Project:	HS21060462	**Date Analyzed:**	6/23/21 01:35

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20210622\20210622_060	**Lab Code:**	EQ2100376-06
Instrument ID:	E-LCMS-01	**Analysis Lot:**	728385
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	60,843	2.79
	Upper Limit ==>	91,265	4.79
	Lower Limit ==>	30,422	0.79
Associated Analyses			
Continuing Calibration Verification	EQ2100376-06	48,454	2.79

Results flagged with an asterisk (*) indicate values outside control criteria.

Insight Report

Printed at 6/17/2021 1:58:19 PM

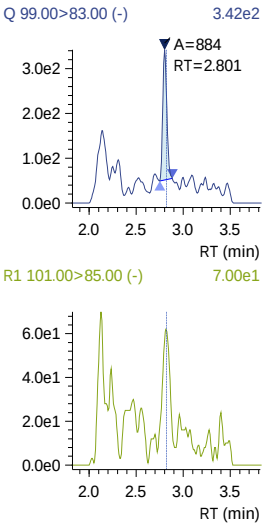
20210615_019

Sample ID: LODV
Date Acquired: 6/15/2021 5:15:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_019.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.801	884	129435	1	0.0646	ng/mL	----	13.59
Sodium Perchlorate-18O4 _IS	Auto	2.803	1294 35	129435	1	1.0000	ng/mL	----	----

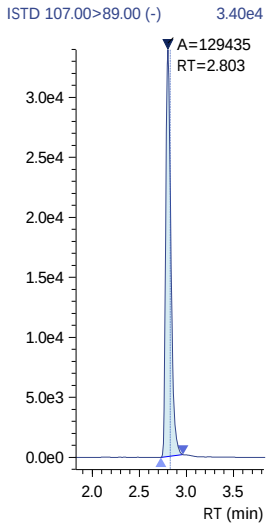
Perchlorate

Conc 0.0646
R#1 13.59 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/17/2021 2:00:46 PM

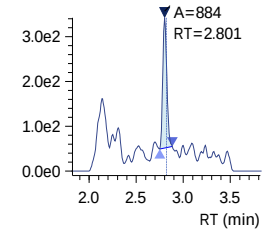
20210615_019

Sample ID: LODV
Date Acquired: 6/15/2021 5:15:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_019.lcd
Vial: 31 | Inj. Volume: 25.0000uL | Tray: 1

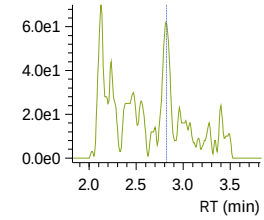
Perchlorate

Conc 0.0658
R#1 13.59 (0.00)

Q 99.00>83.00 (-) 3.42e2



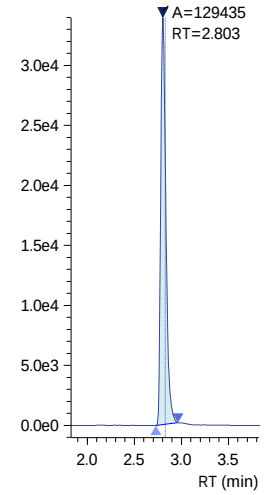
R1 101.00>85.00 (-) 7.00e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.40e4



Insight Report

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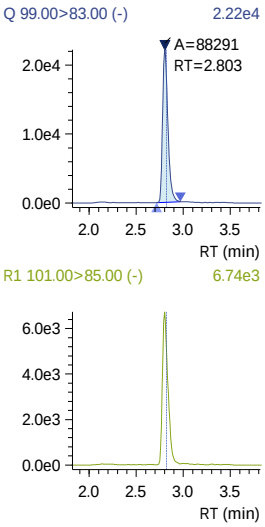
20210615_020

Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 5:23:58 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_020.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.803	88291	91410	1	9.1371	ng/mL	10.0000	30.31
Sodium Perchlorate-18O4 _IS	Auto	2.802	91410	91410	1	1.0000	ng/mL	1.0000	----

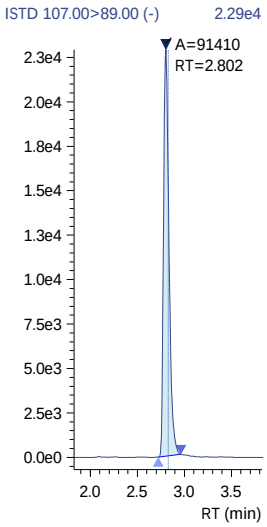
Perchlorate

Conc 9.1371
R#1 30.31 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

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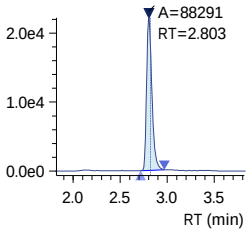
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Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 5:23:58 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_020.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

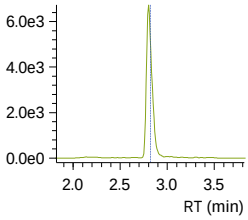
Perchlorate

Conc 9.3094
R#1 30.31 (0.00)

Q 99.00>83.00 (-) 2.22e4



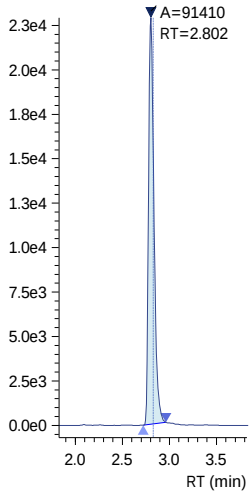
R1 101.00>85.00 (-) 6.74e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.29e4



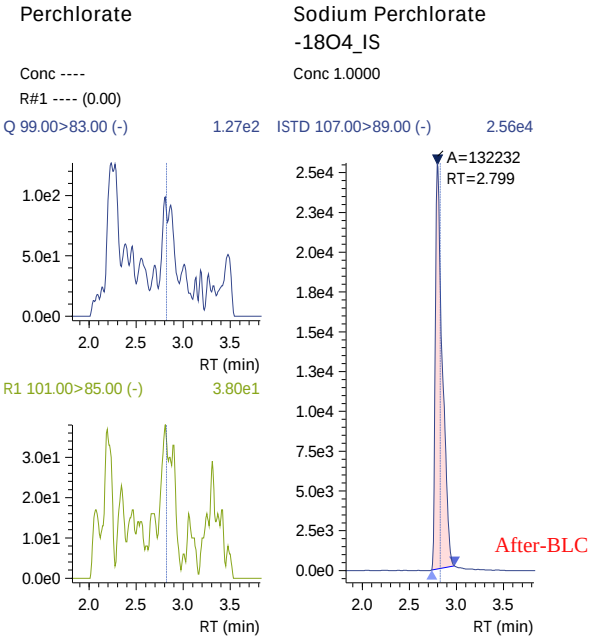
Insight Report

Printed at 6/17/2021 1:58:19 PM

20210615_021

Sample ID: EQ2100354-01
Date Acquired: 6/15/2021 5:52:16 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_021.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	ND(W/B)	----	----	132232	1	----	ng/mL	----	----
Sodium Perchlorate-18O4_IS	M	2.799	132232	132232	1	1.0000	ng/mL	----	----



Insight Report

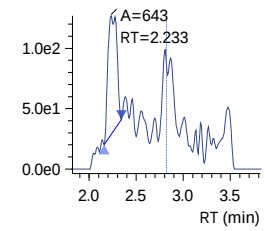
20210615_021

Sample ID: EQ2100354-01
Date Acquired: 6/15/2021 5:52:16 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_021.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 2

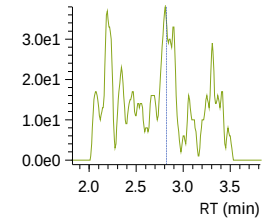
Perchlorate

Conc ----
R#1 ---- (0.00)

Q 99.00>83.00 (-) 1.27e2



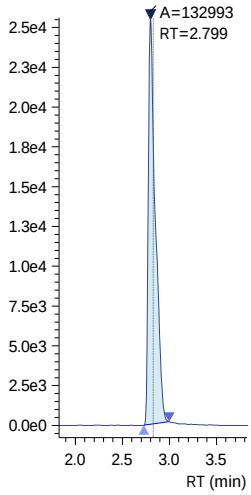
R1 101.00>85.00 (-) 3.80e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.56e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

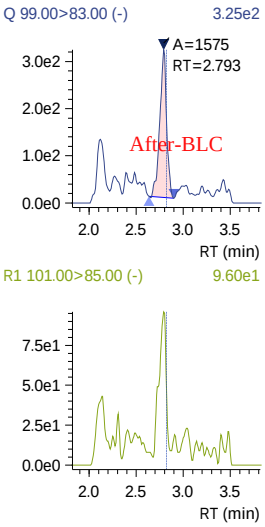
20210615_022

Sample ID: EQ2100354-02
Date Acquired: 6/15/2021 6:00:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_022.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.793	1575	127528	1	0.1168	ng/mL	----	26.05
Sodium Perchlorate-18O4_IS	M	2.781	1275 28	127528	1	1.0000	ng/mL	----	----

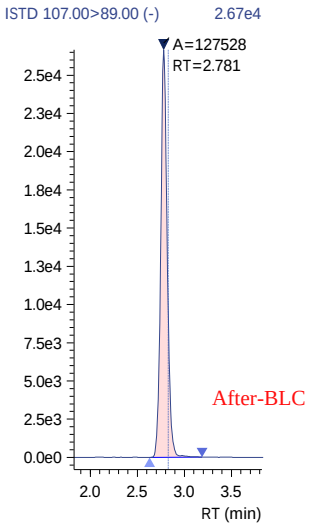
Perchlorate

Conc 0.1168
R#1 26.05 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

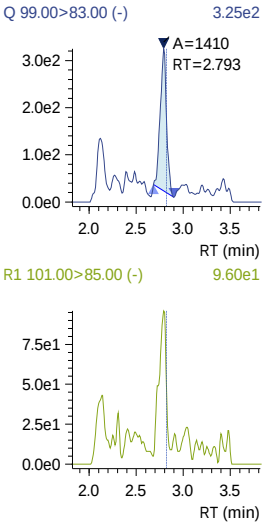
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20210615_022

Sample ID: EQ2100354-02
Date Acquired: 6/15/2021 6:00:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_022.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 2

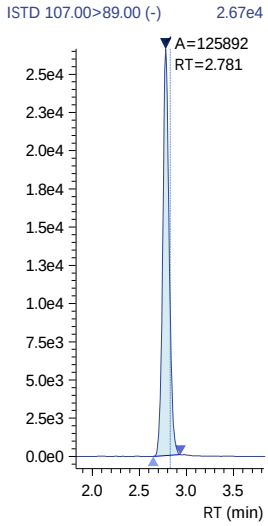
Perchlorate

Conc 0.1080
R#1 28.19 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/17/2021 1:58:19 PM

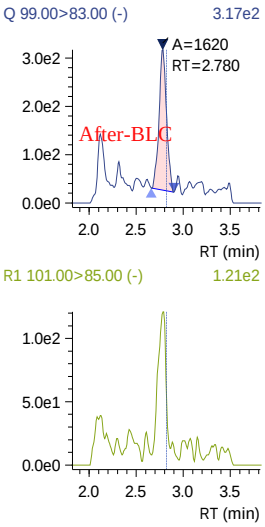
20210615_023

Sample ID: EQ2100354-03
Date Acquired: 6/15/2021 6:09:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_023.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	M	2.780	1620	129149	1	0.1187	ng/mL	----	37.63
Sodium Perchlorate-18O4 _IS	M	2.780	1291 49	129149	1	1.0000	ng/mL	----	----

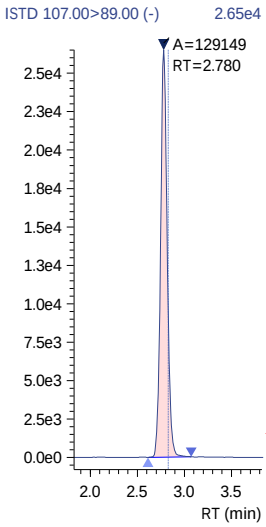
Perchlorate

Conc 0.1187
R#1 37.63 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



After-BLC

Insight Report

Printed at 6/17/2021 2:00:46 PM

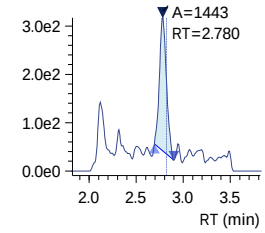
20210615_023

Sample ID: EQ2100354-03
Date Acquired: 6/15/2021 6:09:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_023.lcd
Vial: 29 | Inj. Volume: 25.0000uL | Tray: 2

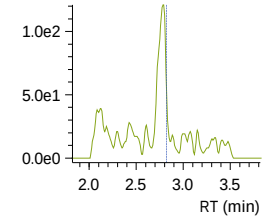
Perchlorate

Conc 0.1090
R#1 37.13 (0.00)

Q 99.00>83.00 (-) 3.17e2



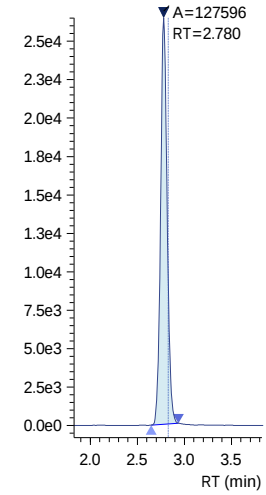
R1 101.00>85.00 (-) 1.21e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.65e4



Insight Report

Printed at 6/17/2021 1:58:19 PM

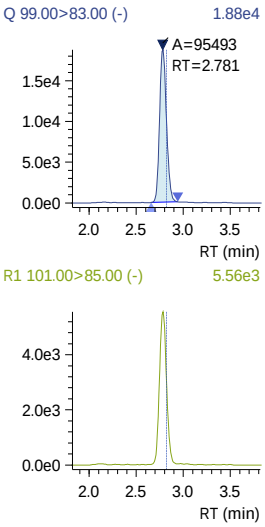
20210615_031

Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 7:17:47 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\20210615_031.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.781	95493	98763	1	9.1466	ng/mL	10.0000	29.24
Sodium Perchlorate-18O4 _IS	Auto	2.781	98763	98763	1	1.0000	ng/mL	1.0000	----

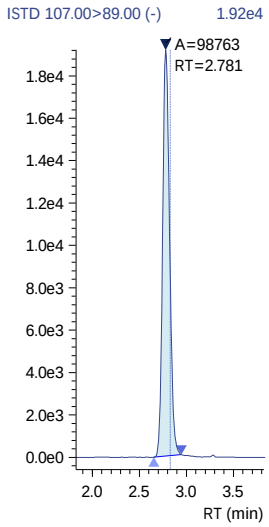
Perchlorate

Conc 9.1466
R#1 29.24 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

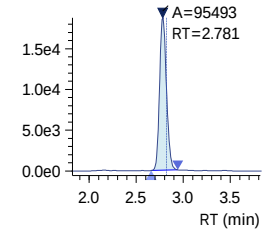
20210615_031

Sample ID: PERCHLORATE7
Date Acquired: 6/15/2021 7:17:47 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210615\Before\20210615_031.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 1

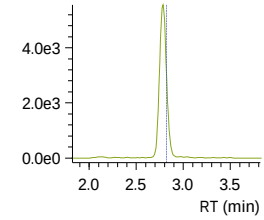
Perchlorate

Conc 9.3192
R#1 29.24 (0.00)

Q 99.00>83.00 (-) 1.88e4



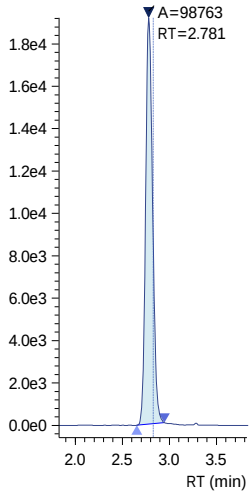
R1 101.00>85.00 (-) 5.56e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.92e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

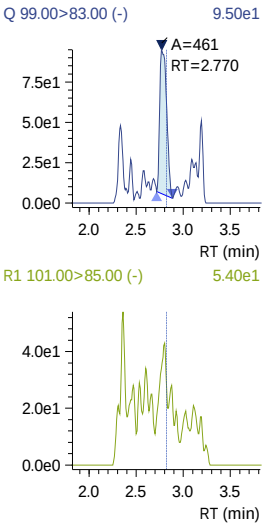
20210622_014

Sample ID: LODV
Date Acquired: 6/22/2021 6:59:57 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_014.lcd
Vial: 31 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.770	461	60632	1	0.0623	ng/mL	----	16.09
Sodium Perchlorate-18O4 _IS	Auto	2.787	60632	60632	1	1.0000	ng/mL	----	----

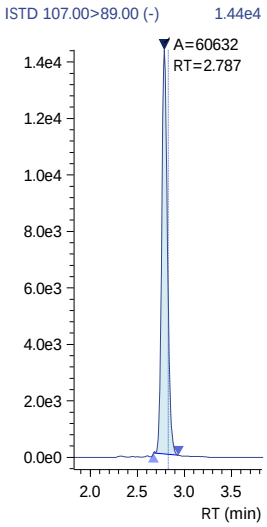
Perchlorate

Conc 0.0623
R#1 16.09 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

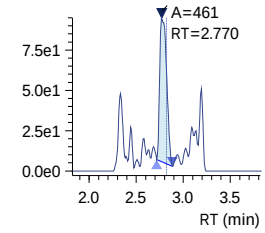
20210622_014

Sample ID: LODV
Date Acquired: 6/22/2021 6:59:57 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\Before\20210622_014.lcd
Vial: 31 | Inj. Volume: 50.0000uL | Tray: 1

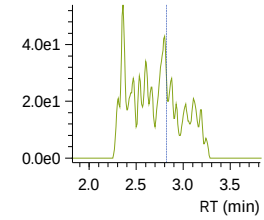
Perchlorate

Conc 0.0657
R#1 16.09 (0.00)

Q 99.00>83.00 (-) 9.50e1



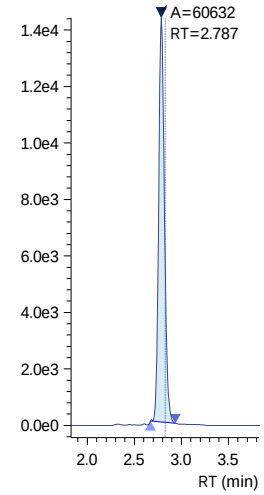
R1 101.00>85.00 (-) 5.40e1



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.44e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

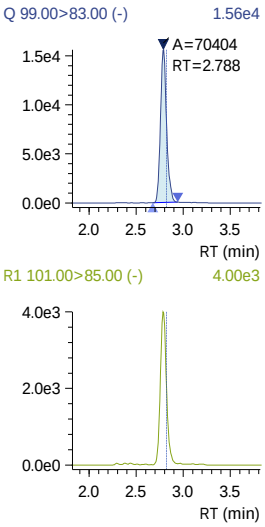
20210622_015

Sample ID: PERCHLORATE7
Date Acquired: 6/22/2021 7:08:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_015.lcd
Vial: 26 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.788	70404	59737	1	9.6627	ng/mL	10.0000	25.75
Sodium Perchlorate-18O4 _IS	Auto	2.789	59737	59737	1	1.0000	ng/mL	1.0000	----

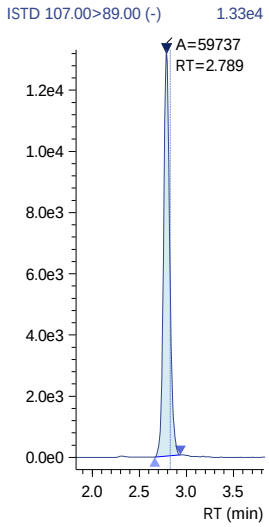
Perchlorate

Conc 9.6627
R#1 25.75 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

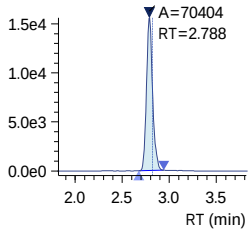
20210622_015

Sample ID: PERCHLORATE7
Date Acquired: 6/22/2021 7:08:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\Before\20210622_015.lcd
Vial: 26 | Inj. Volume: 50.0000uL | Tray: 1

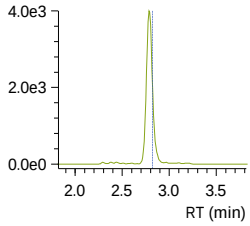
Perchlorate

Conc 10.1994
R#1 25.75 (0.00)

Q 99.00>83.00 (-) 1.56e4



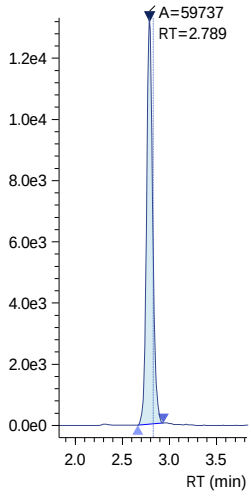
R1 101.00>85.00 (-) 4.00e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.33e4



Insight Report

Printed at 6/24/2021 1:58:03 PM

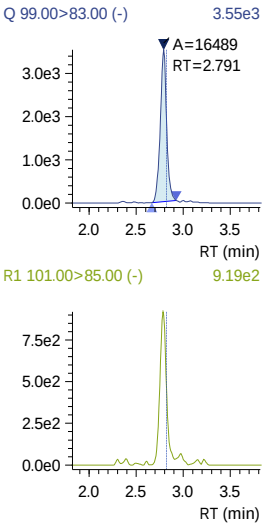
20210622_020

Sample ID: E2100630-001X20
Date Acquired: 6/22/2021 7:51:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_020.lcd
Vial: 34 | Inj. Volume: 50.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.791	16489	30458	1	4.4383	ng/mL	----	26.65
Sodium Perchlorate-18O4_IS	M	2.789	30458	30458	1	1.0000	ng/mL	----	----

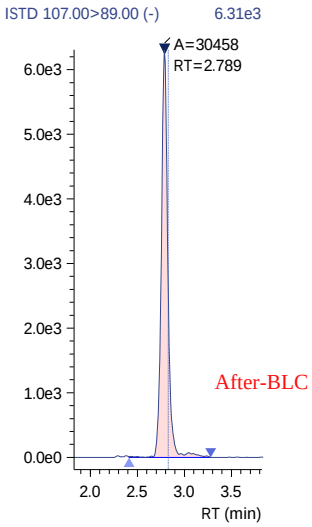
Perchlorate

Conc 4.4383
R#1 26.65 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



After-BLC

Insight Report

Printed at 6/24/2021 2:00:30 PM

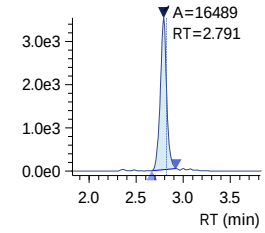
20210622_020

Sample ID: E2100630-001X20
Date Acquired: 6/22/2021 7:51:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\Before\20210622_020.lcd
Vial: 34 | Inj. Volume: 50.0000uL | Tray: 2

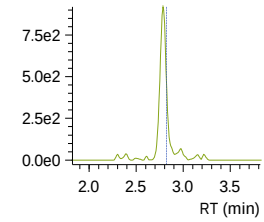
Perchlorate

Conc 4.9257
R#1 26.65 (0.00)

Q 99.00>83.00 (-) 3.55e3



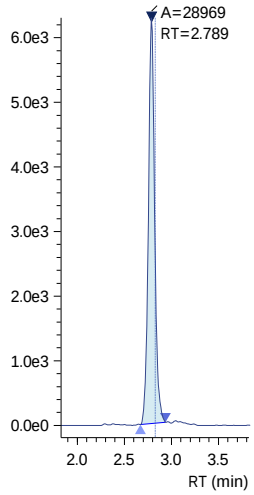
R1 101.00>85.00 (-) 9.19e2



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.31e3



Insight Report

Printed at 6/24/2021 1:58:03 PM

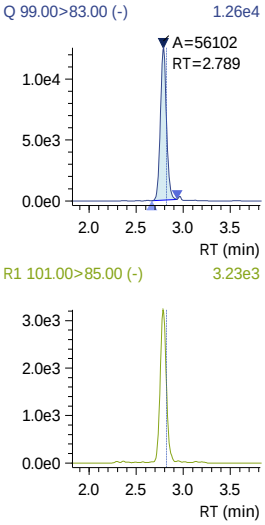
20210622_025

Sample ID: PERCHLORATE7
Date Acquired: 6/22/2021 8:34:32 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\20210622_025.lcd
Vial: 26 | Inj. Volume: 50.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	ISTD Group	Conc.	Unit	Std. Conc.	Ref 1 Actual Ratio
Perchlorate	Auto	2.789	56102	49224	1	9.3444	ng/mL	10.0000	25.90
Sodium Perchlorate-18O4 _IS	Auto	2.788	49224	49224	1	1.0000	ng/mL	1.0000	----

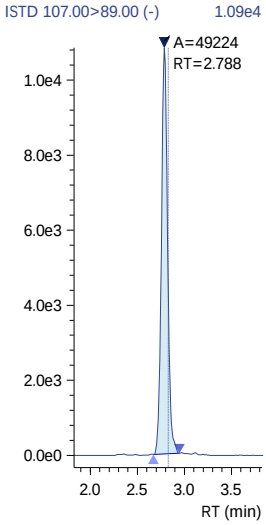
Perchlorate

Conc 9.3444
R#1 25.90 (0.00)



Sodium Perchlorate -18O4_IS

Conc 1.0000



Insight Report

Printed at 6/24/2021 2:00:30 PM

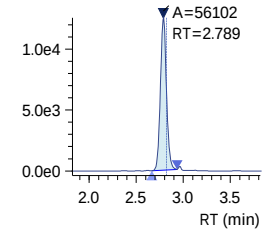
20210622_025

Sample ID: PERCHLORATE7
Date Acquired: 6/22/2021 8:34:32 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20210622\Before\20210622_025.lcd
Vial: 26 | Inj. Volume: 50.0000uL | Tray: 1

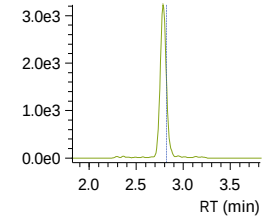
Perchlorate

Conc 9.8634
R#1 25.90 (0.00)

Q 99.00>83.00 (-) 1.26e4



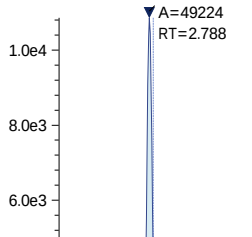
R1 101.00>85.00 (-) 3.23e3



Sodium Perchlorate -18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.09e4



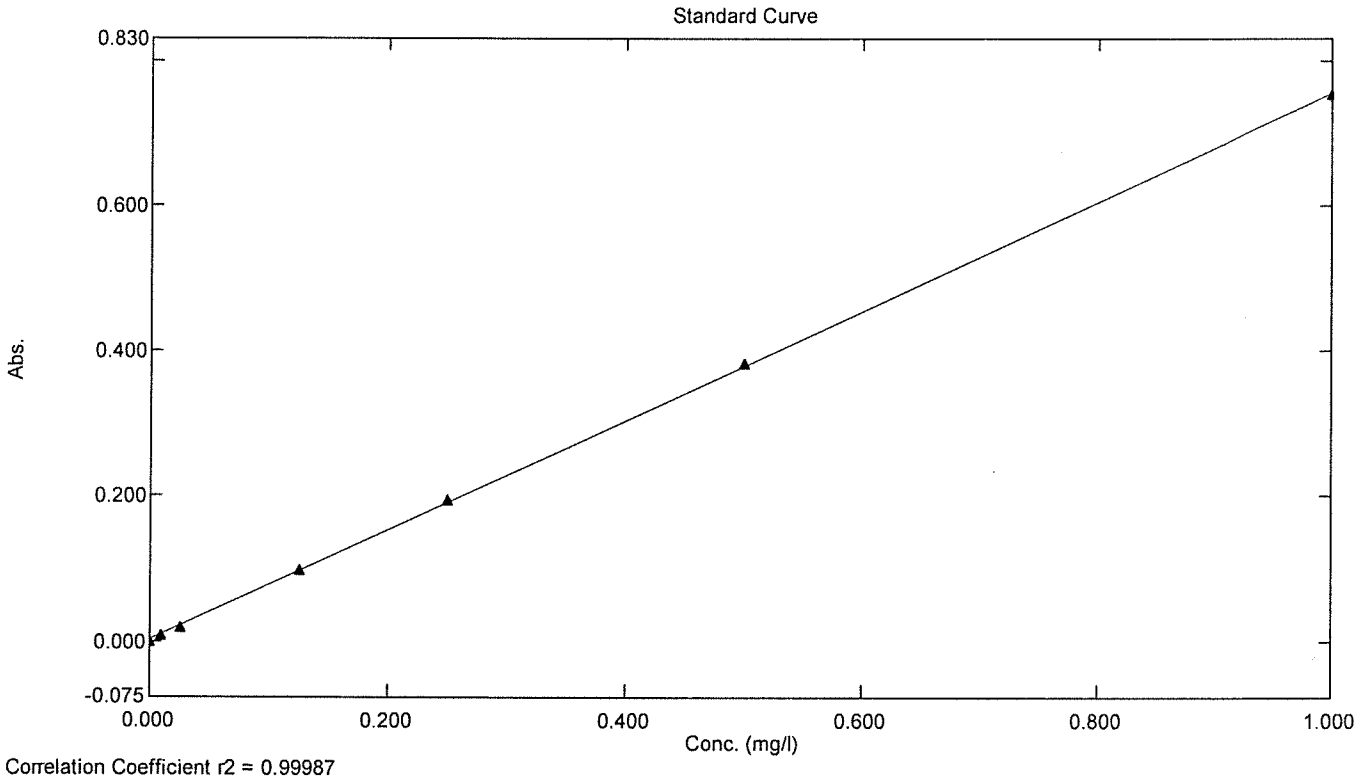
HS21060462 Wet Chemistry Raw Data

ALS WO# HS21060462

Standard Table Report

08/18/2021 12:53:14 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2021\06092021CR6_W.pho



Correlation Coefficient r2 = 0.99987

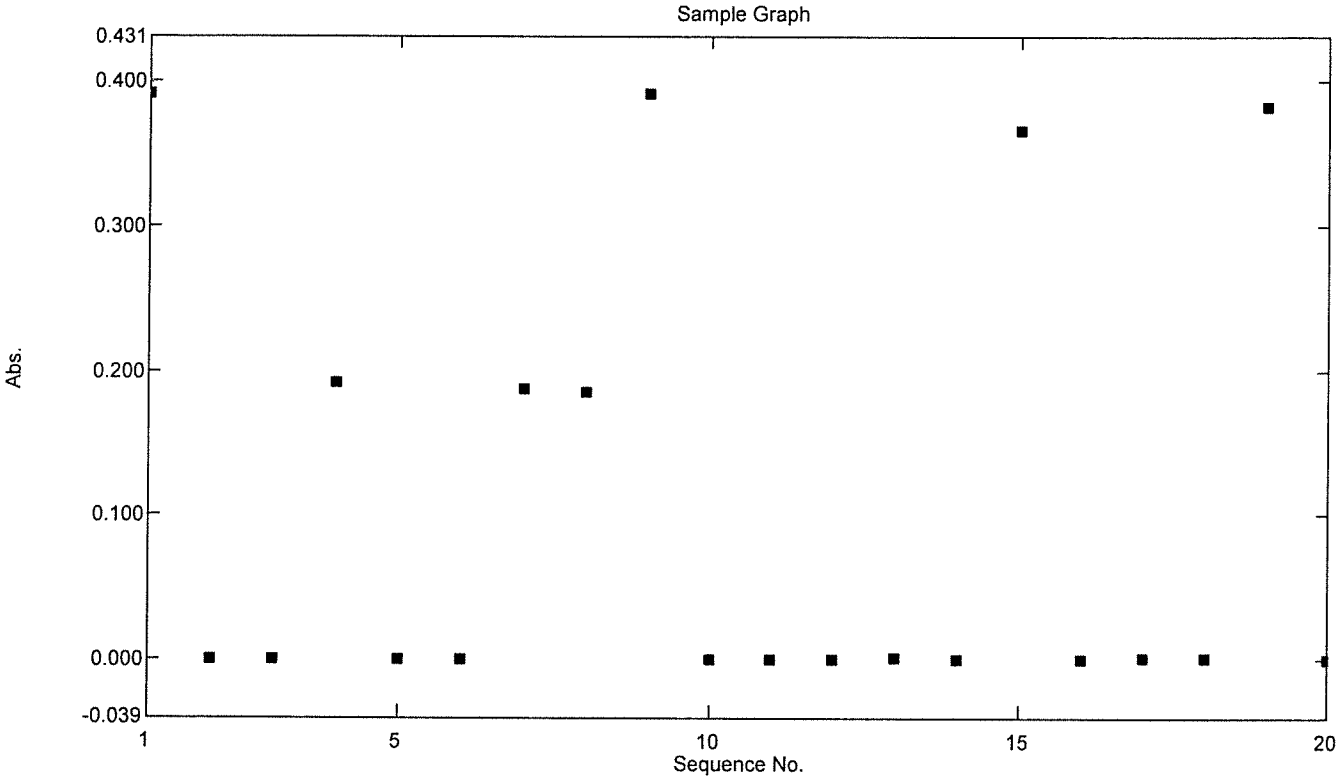
Standard Table

	Sample ID	Type	Ex	Conc	WL540.0	Wgt.Factor	Comments
1	STD1	Standard		0.000	0.000	1.000	
2	STD2	Standard		0.010	0.008	1.000	
3	STD3	Standard		0.025	0.020	1.000	
4	STD4	Standard		0.125	0.099	1.000	
5	STD5	Standard		0.250	0.195	1.000	
6	STD6	Standard		0.500	0.383	1.000	
7	STD7	Standard		1.000	0.752	1.000	
8							

Sample Table Report

08/18/2021 12:53:08 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2021\06092021CR6_W.pho



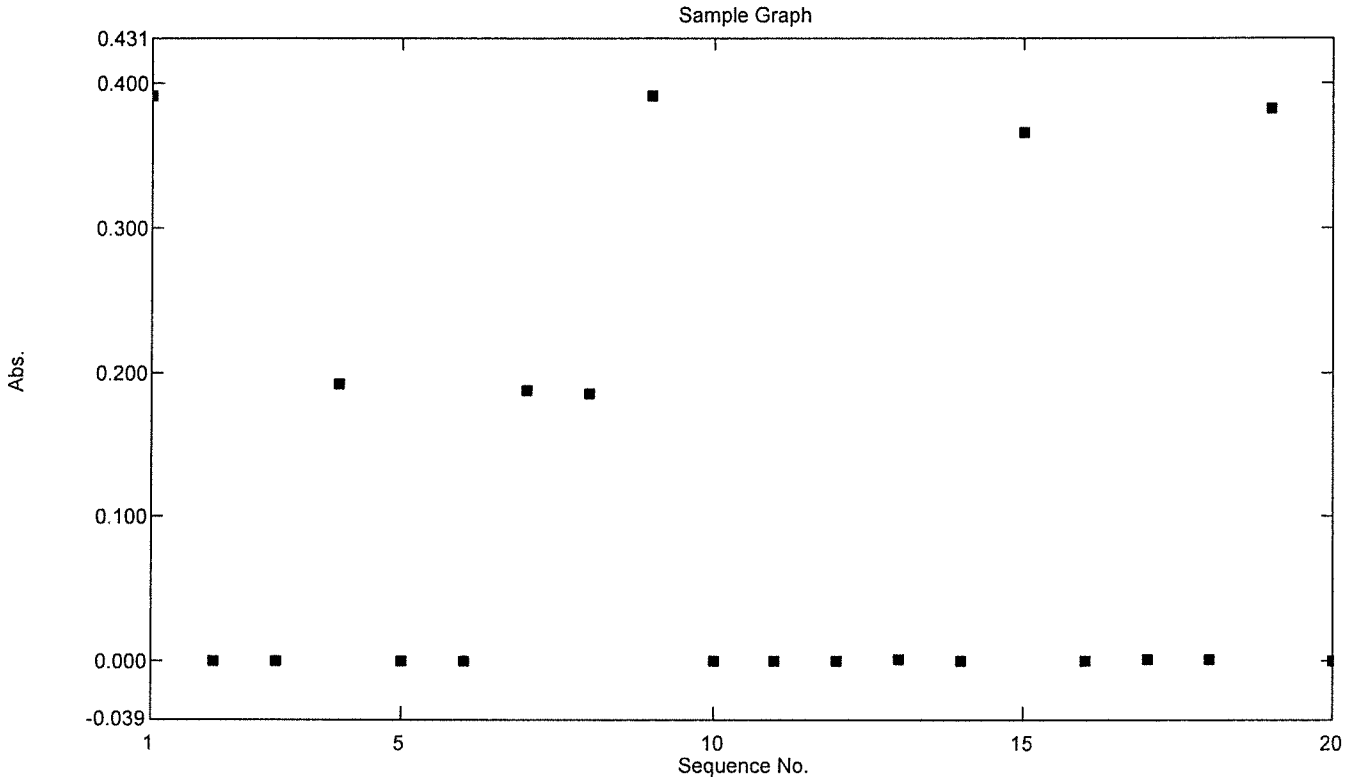
Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL540.0	Comments
1	CCV	Unknown		06/09/2021	09:34:13 AM	0.517	0.392	316134805 WC-14
2	CCB	Unknown		06/09/2021	09:34:25 AM	-0.004	0.000	316133009 WC-13
3	MBLK	Unknown		06/09/2021	09:34:32 AM	-0.004	0.000	316134304 WC-13
4	LCS	Unknown		06/09/2021	09:35:00 AM	0.251	0.192	316134804 WC-14
5	HS21060455.02	Unknown		06/09/2021	09:35:33 AM	-0.003	0.001	SAMP-BKG=TOT
6	HS21060455.02BKG	Unknown		06/09/2021	09:36:02 AM	-0.004	0.000	0.000
7	HS21060455.02MS	Unknown		06/09/2021	09:36:28 AM	0.245	0.187	
8	HS21060455.02MSD	Unknown		06/09/2021	09:36:55 AM	0.242	0.185	
9	CCV2	Unknown		06/09/2021	09:37:06 AM	0.517	0.392	
10	CCB2	Unknown		06/09/2021	09:37:18 AM	-0.004	0.000	
11	HS21060460.01	Unknown		06/09/2021	01:07:06 PM	-0.004	-0.000	0.000
12	HS21060460.01BKG	Unknown		06/09/2021	01:07:36 PM	-0.003	0.001	
13	HS21060462.01	Unknown		06/09/2021	01:08:06 PM	-0.002	0.002	0.000
14	HS21060462.01BKG	Unknown		06/09/2021	01:08:36 PM	-0.004	-0.000	
15	CCV3	Unknown		06/09/2021	01:08:58 PM	0.482	0.366	
16	CCB3	Unknown		06/09/2021	01:09:12 PM	-0.004	0.000	
17	HS21060486.01	Unknown		06/09/2021	04:55:39 PM	-0.002	0.001	0.000
18	HS21060486.01BKG	Unknown		06/09/2021	04:56:17 PM	-0.002	0.001	
19	CCV4	Unknown		06/09/2021	04:56:50 PM	0.505	0.383	

Sample Table Report

08/18/2021 12:53:08 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2021\06092021CR6_W.pho



Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL540.0	Comments
20	CCB4	Unknown		06/09/2021	04:57:01 PM	-0.004	0.000	
21								