

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL092821\
 Data File : VL037723.D
 Acq On : 29 Sep 2021 8:27
 Operator : SY/AP
 Sample : M3949-02
 Misc : 400mL/MSVOA_L
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-18B

Quant Time: Sep 29 22:21:03 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL091621AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Sep 16 13:42:46 2021
 QLast Update : Thu Sep 16 13:42:46 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1296272	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3891117	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	3424377	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	2312329	9.34	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	93.40%

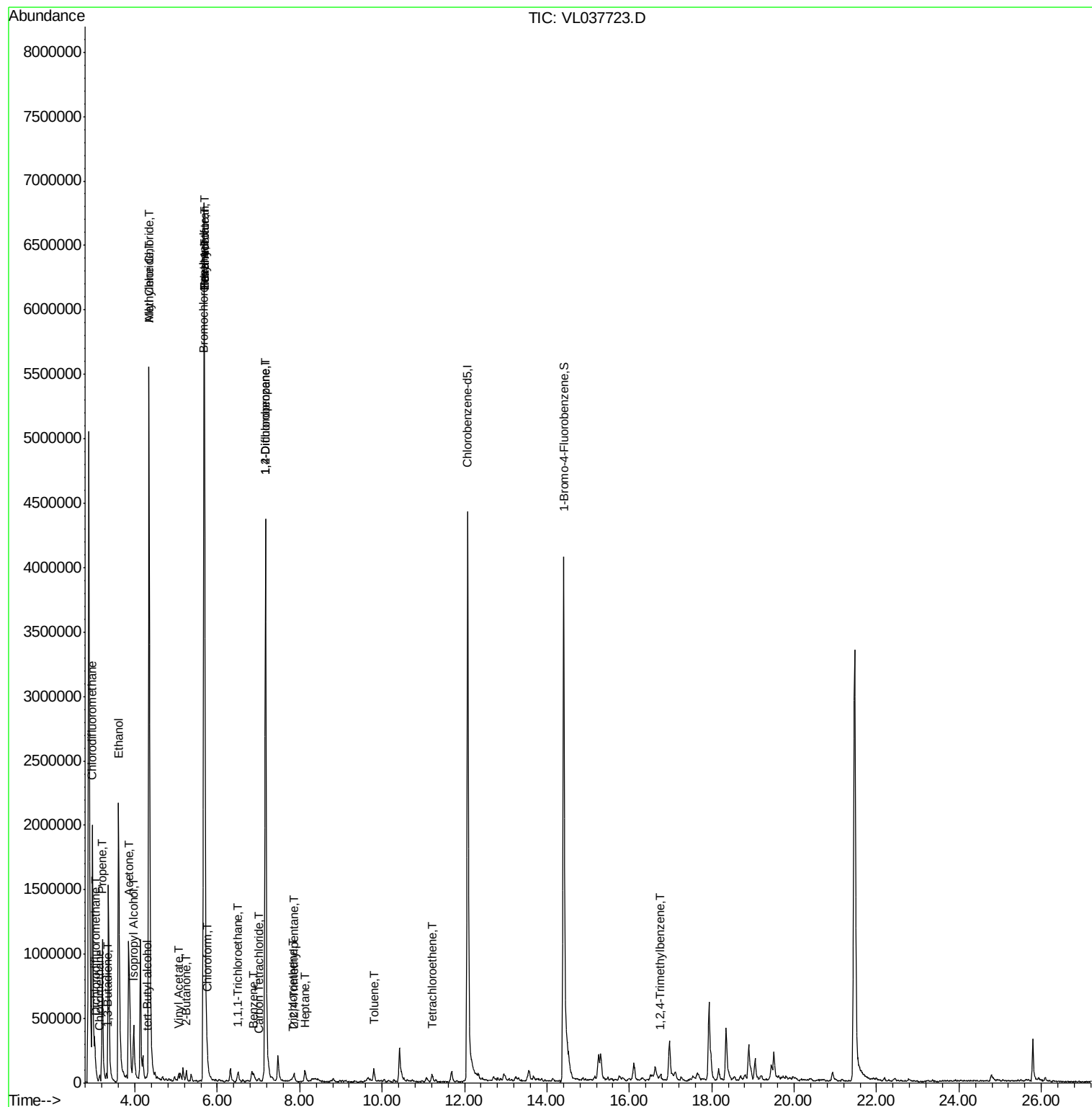
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.05	85	40791	0.174	ppbv	95
3) Chlorodifluoromethane	2.97	51	1620673	6.628	ppbv #	61
4) Chloromethane	3.14	50	50589	0.560	ppbv	97
9) Propene	3.21	41	309613	3.590	ppbv	86
10) Heptane	8.11	43	8764	0.044	ppbv #	1
13) Ethanol	3.60	45	3002525	355.908	ppbv	92
15) Acetone	3.85	43	1526878	11.337	ppbv	91
16) 1,3-Butadiene	3.33	39	2605	0.031	ppbv #	12
17) tert-Butyl alcohol	4.29	59	3704	0.032	ppbv #	72
19) Isopropyl Alcohol	3.97	45	519451	7.089	ppbv	100
20) Methylene Chloride	4.34	84	2435536	37.879	ppbv	96
21) Allyl Chloride	4.35	41	51092	0.508	ppbv #	29
23) Vinyl Acetate	5.06	43	44205	0.237	ppbv #	78
25) Ethyl Acetate	5.68	43	2075771	6.364	ppbv #	77
26) Hexane	5.68	57	2920810	18.850	ppbv #	47
29) Chloroform	5.75	83	30151	0.133	ppbv	93
32) 1,1,1-Trichloroethane	6.51	97	31615	0.150	ppbv #	48
34) 2-Butanone	5.24	43	48304	0.305	ppbv #	53
35) Carbon Tetrachloride	7.01	117	8937	0.041	ppbv #	46
36) Benzene	6.88	78	17079	0.053	ppbv #	91
38) Trichloroethene	7.83	130	5074	0.037	ppbv #	61
39) 1,2-Dichloropropane	7.17	63	908794	7.313	ppbv #	28
41) Tetrahydrofuran	5.68	42	1068115	14.369	ppbv #	50
44) 2,2,4-Trimethylpentane	7.86	57	21755	0.040	ppbv #	1
52) Tetrachloroethene	11.22	164	4735	0.038	ppbv #	27
53) Toluene	9.80	91	65075	0.180	ppbv	97
74) 1,2,4-Trimethylbenzene	16.75	105	13399	0.032	ppbv #	65

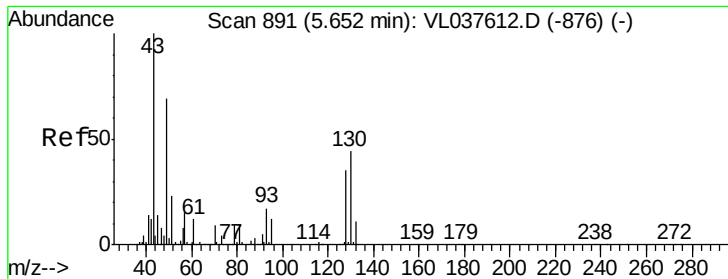
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument: MSVOA_L

Delta R.T. ClientSampleId:

Lab File: IA-18B

Acq: 29 Sep 2021 8:27

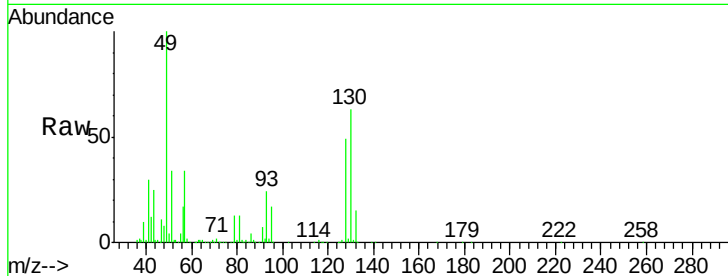
Tgt Ion: 49 Resp: 1296272

Ion Ratio Lower Upper

49 100

128 53.0 27.9 83.6

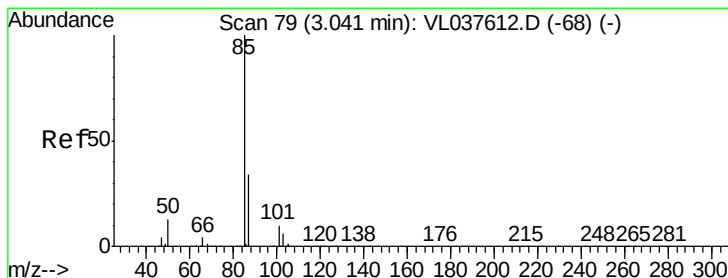
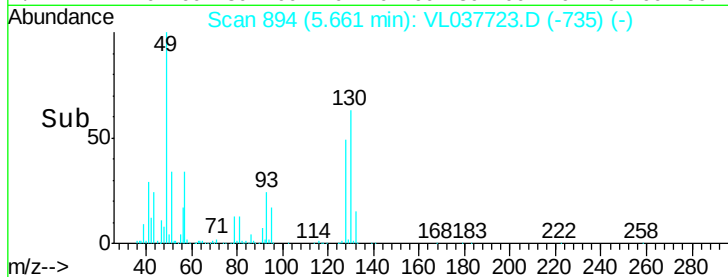
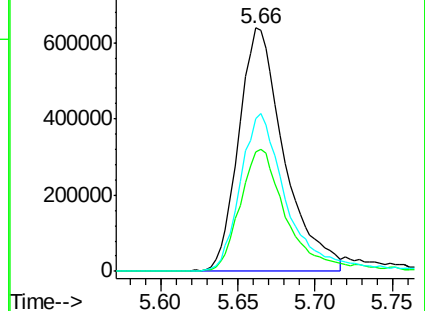
130 68.9 33.9 101.7



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.174 ppbv

RT: 3.05 min Scan# 82

Delta R.T. 0.01 min

Lab File: VL037723.D

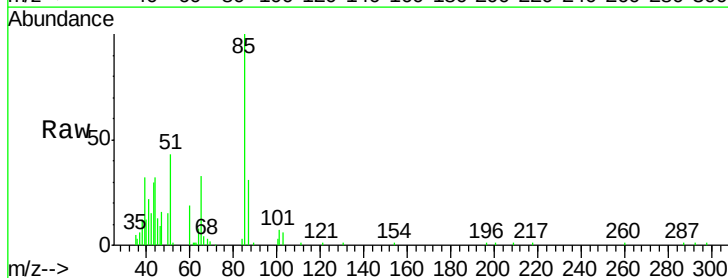
Acq: 29 Sep 2021 8:27

Tgt Ion: 85 Resp: 40791

Ion Ratio Lower Upper

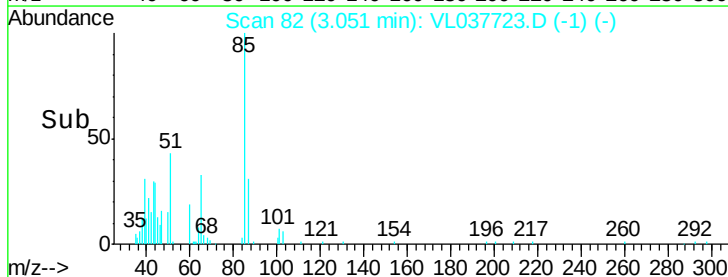
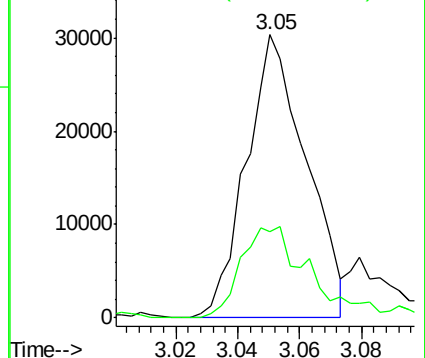
85 100

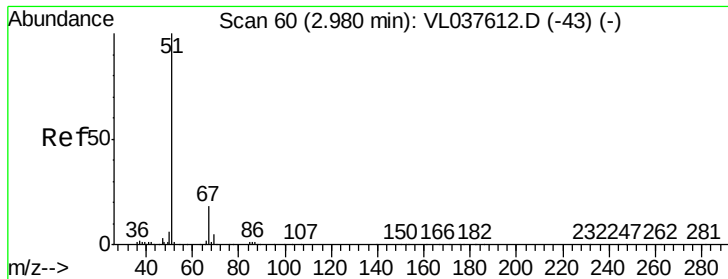
87 30.5 26.8 40.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 6.628 ppbv

RT: 2.97 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: LA-18B

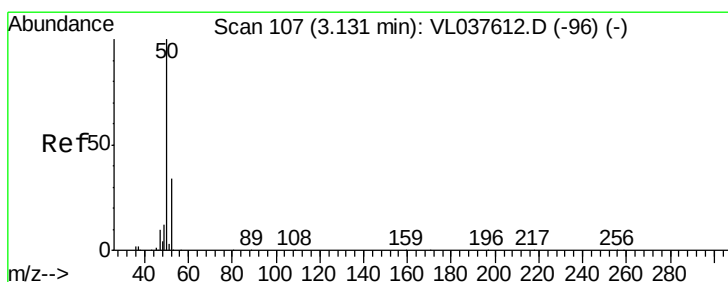
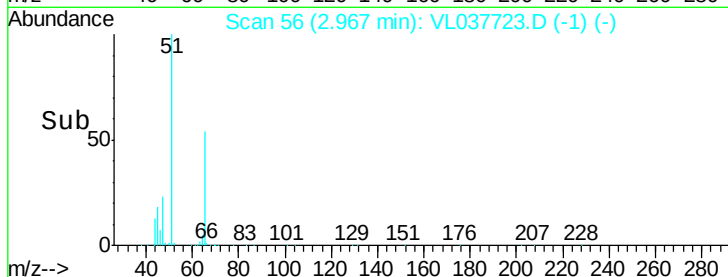
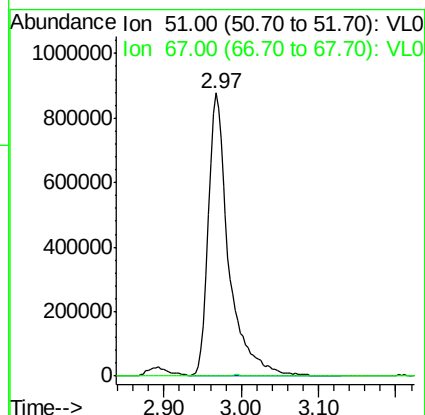
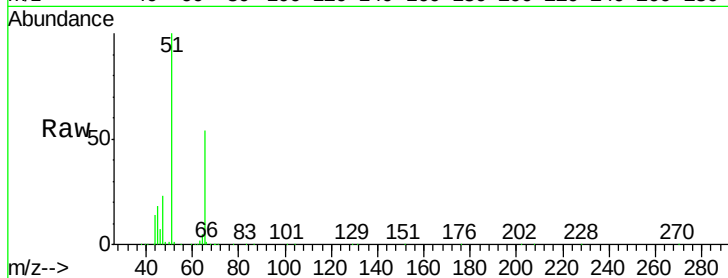
Acq: 29 Sep 2021 8:27

Tgt Ion: 51 Resp: 1620673

Ion Ratio Lower Upper

51 100

67 0.5 14.0 21.0#



#4

Chloromethane

Concen: 0.560 ppbv

RT: 3.14 min Scan# 111

Delta R.T. 0.01 min

Lab File: VL037723.D

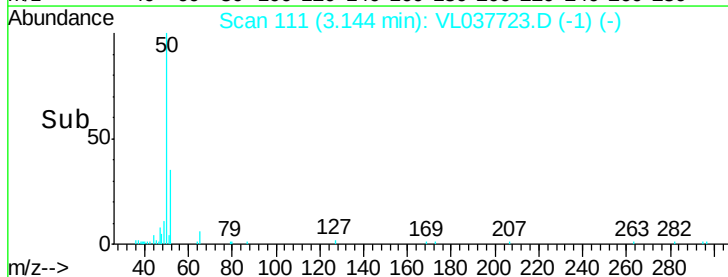
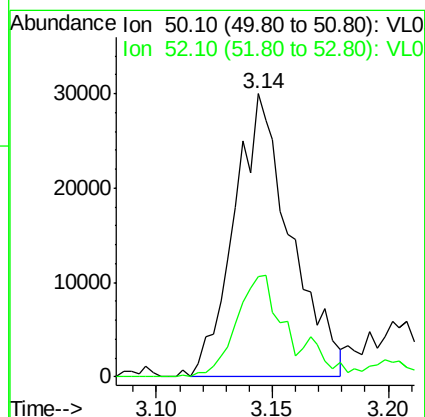
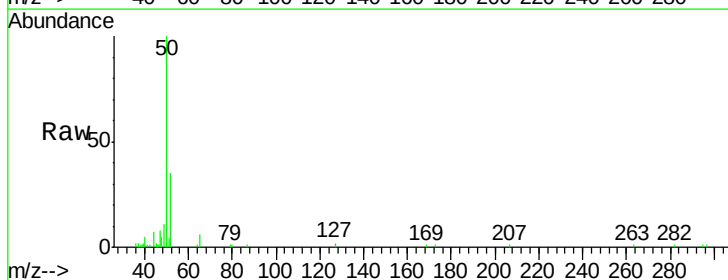
Acq: 29 Sep 2021 8:27

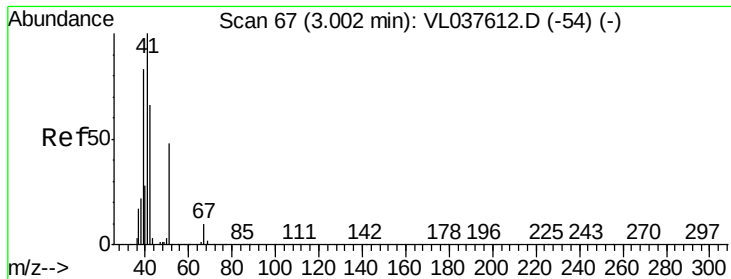
Tgt Ion: 50 Resp: 50589

Ion Ratio Lower Upper

50 100

52 35.5 27.1 40.7





#9

Propene

Concen: 3.590 ppbv

RT: 3.21 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

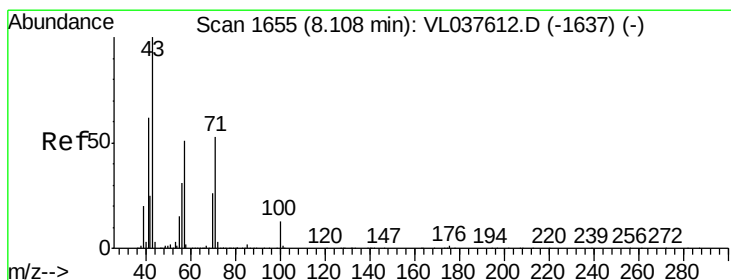
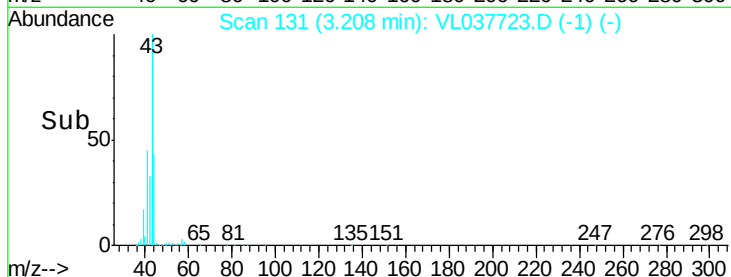
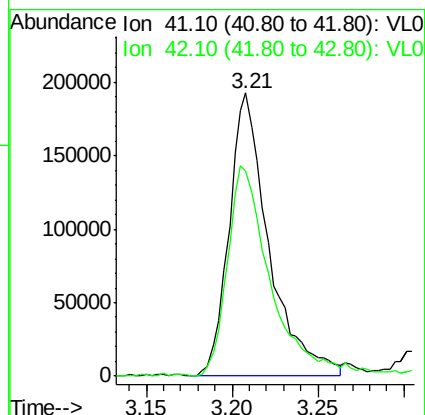
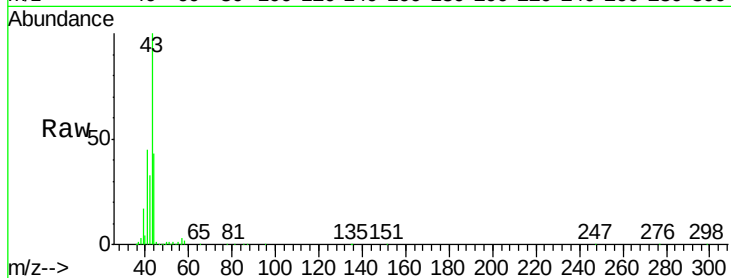
Acq: 29 Sep 2021 8:27

Tgt Ion: 41 Resp: 309613

Ion Ratio Lower Upper

41 100

42 82.9 57.2 85.8



#10

Heptane

Concen: 0.044 ppbv

RT: 8.11 min Scan# 1657

Delta R.T. 0.01 min

Lab File: VL037723.D

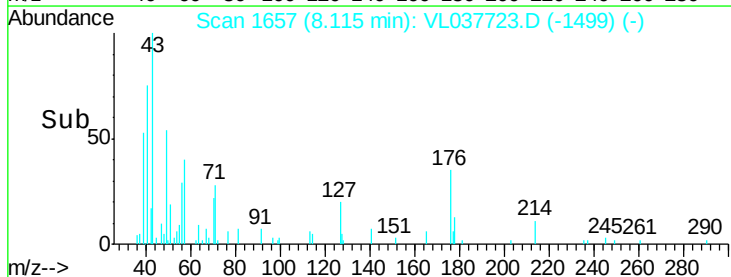
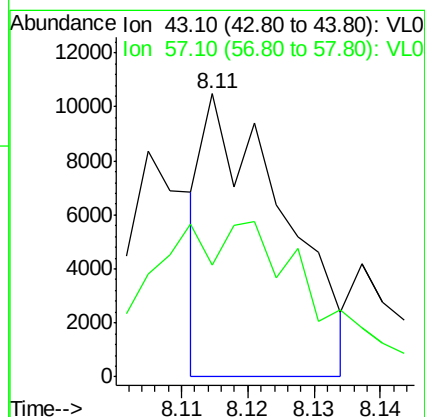
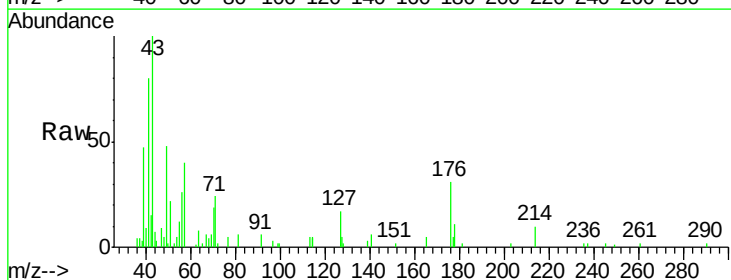
Acq: 29 Sep 2021 8:27

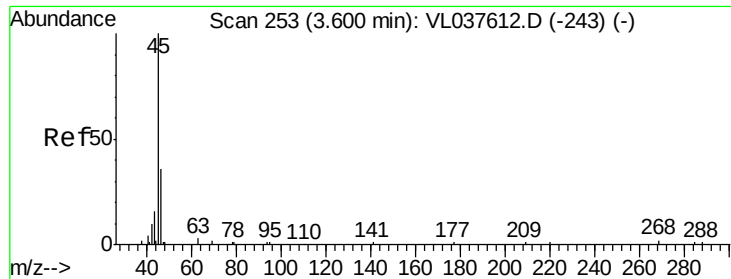
Tgt Ion: 43 Resp: 8764

Ion Ratio Lower Upper

43 100

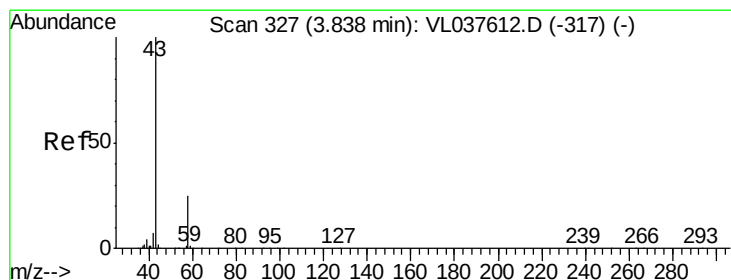
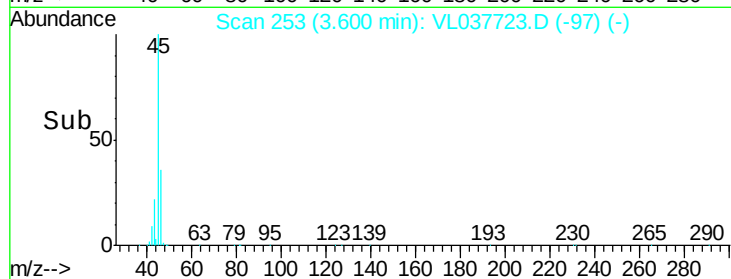
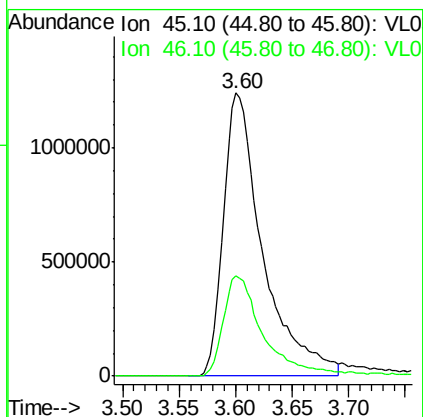
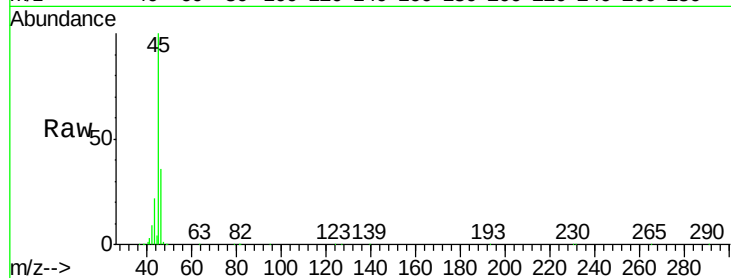
57 134.0 40.1 60.1#





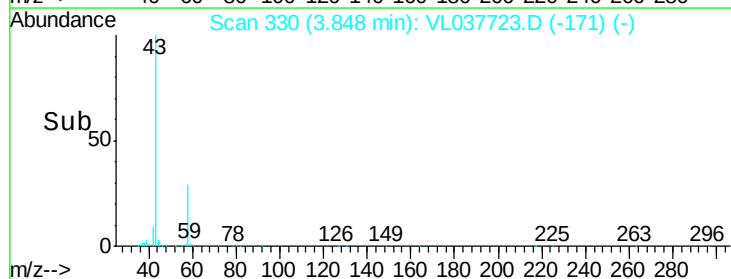
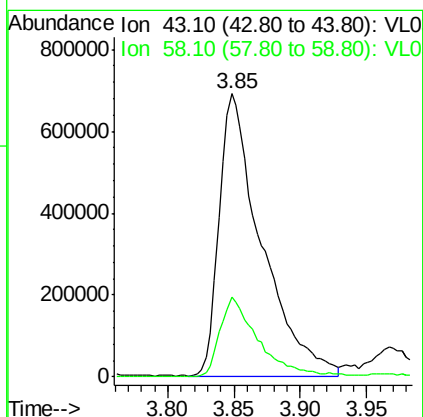
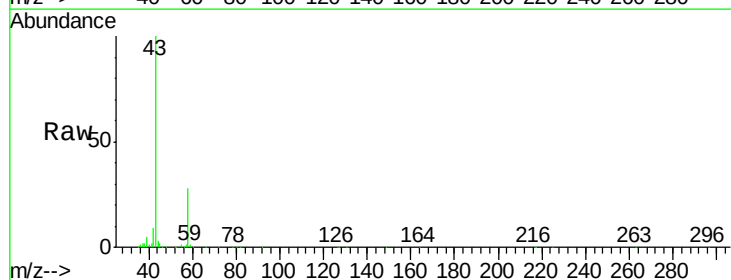
#13
 Ethanol
 Concen: 355.908 ppbv
 RT: 3.60
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 29 Sep 2021 8:27

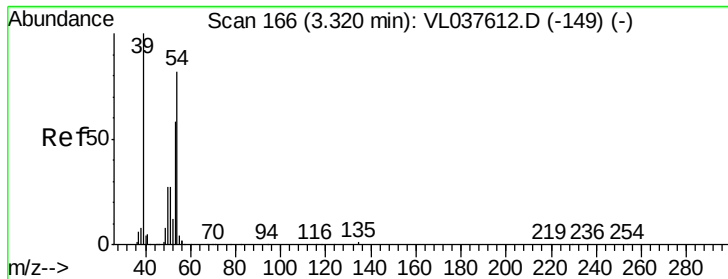
Tgt Ion: 45 Resp: 3002525
 Ion Ratio Lower Upper
 45 100
 46 37.9 17.2 68.8



#15
 Acetone
 Concen: 11.337 ppbv
 RT: 3.85 min Scan# 330
 Delta R.T. 0.01 min
 Lab File: VL037723.D
 Acq: 29 Sep 2021 8:27

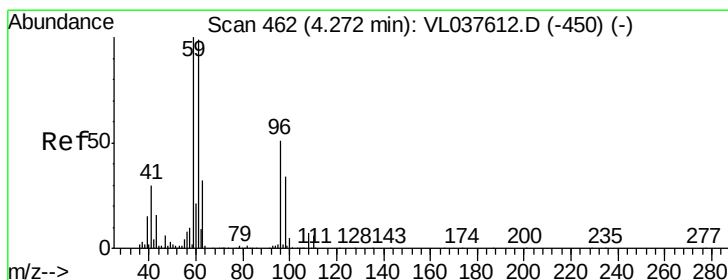
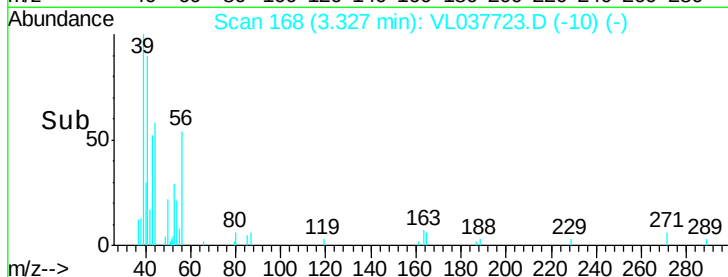
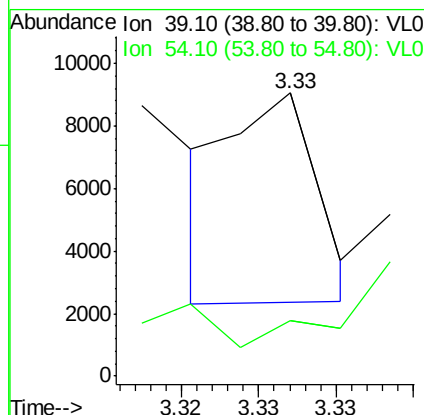
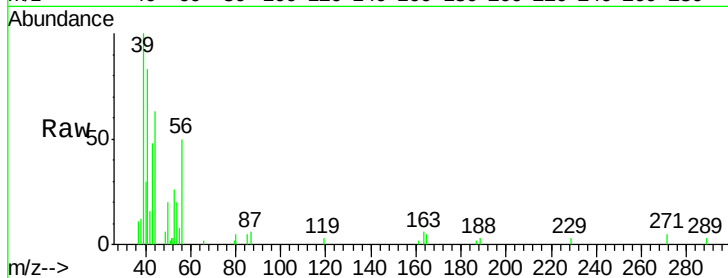
Tgt Ion: 43 Resp: 1526878
 Ion Ratio Lower Upper
 43 100
 58 26.1 24.9 37.3





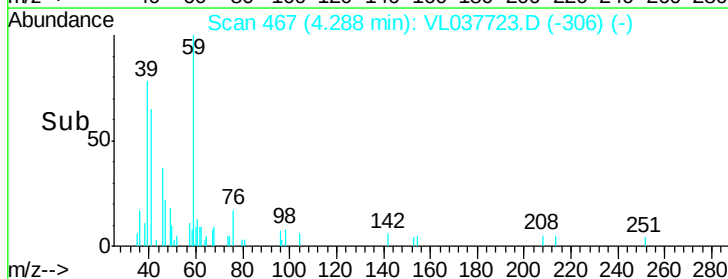
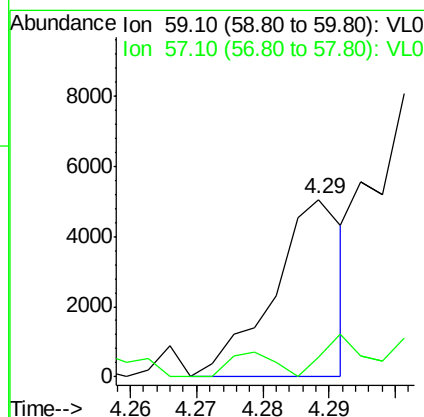
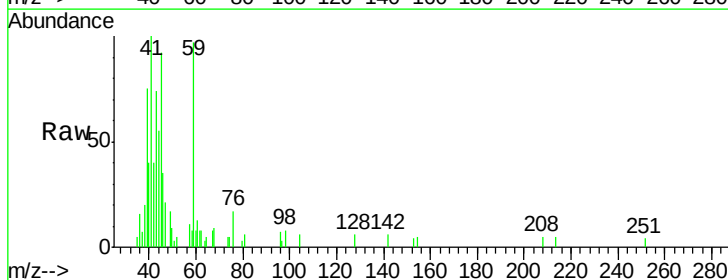
#16
 1,3-Butadiene
 Concen: 0.031 ppbv
 RT: 3.33
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 29 Sep 2021 8:27

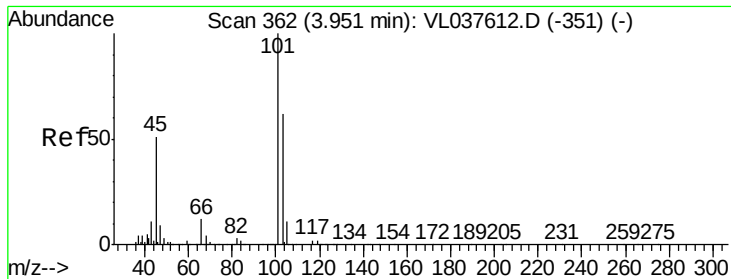
Tgt Ion: 39 Resp: 2605
 Ion Ratio Lower Upper
 39 100
 54 154.6 62.6 93.8#



#17
 tert-Butyl alcohol
 Concen: 0.032 ppbv
 RT: 4.29 min Scan# 467
 Delta R.T. 0.02 min
 Lab File: VL037723.D
 Acq: 29 Sep 2021 8:27

Tgt Ion: 59 Resp: 3704
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.4 12.6#





#19

Isopropyl Alcohol

Concen: 7.089 ppbv

RT: 3.97 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

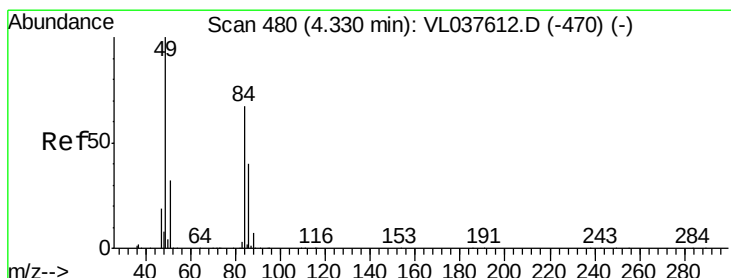
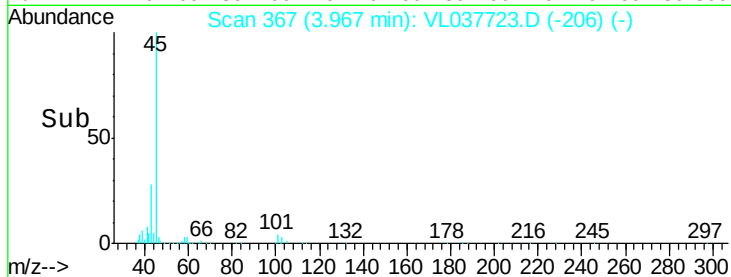
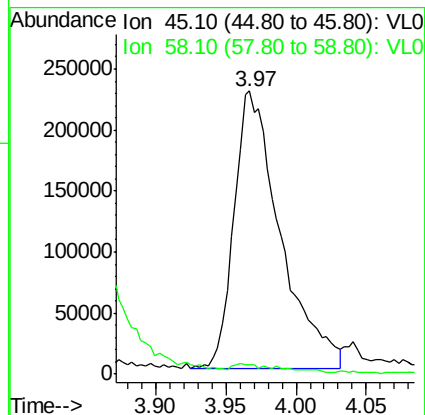
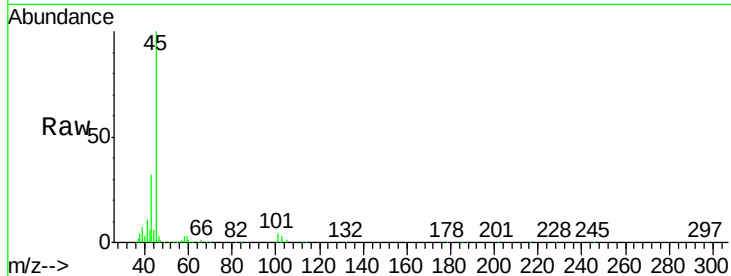
Acq: 29 Sep 2021 8:27

Tgt Ion: 45 Resp: 519451

Ion Ratio Lower Upper

45 100

58 3.5 2.9 4.3



#20

Methylene Chloride

Concen: 37.879 ppbv

RT: 4.34 min Scan# 484

Delta R.T. 0.01 min

Lab File: VL037723.D

Acq: 29 Sep 2021 8:27

Tgt Ion: 84 Resp: 2435536

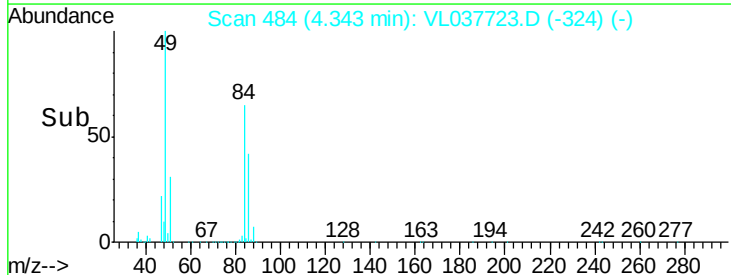
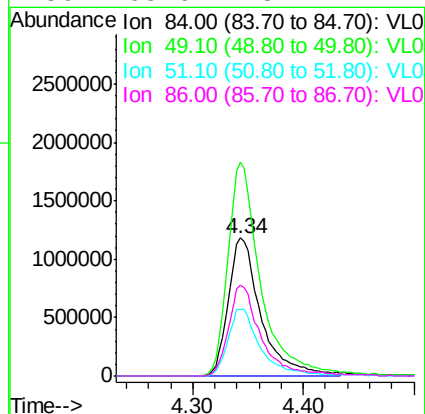
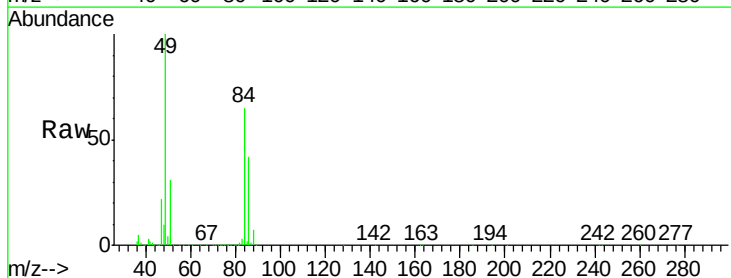
Ion Ratio Lower Upper

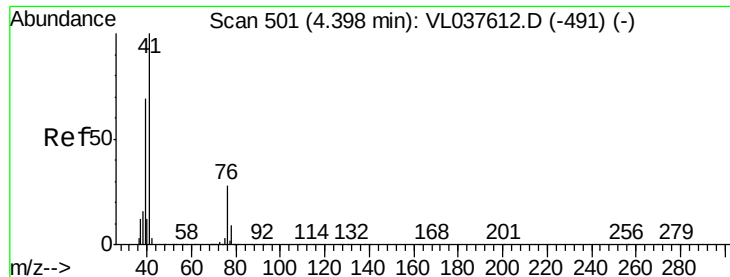
84 100

49 154.9 120.0 180.0

51 48.2 38.0 57.0

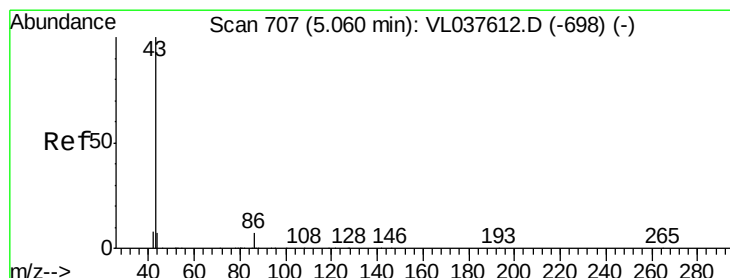
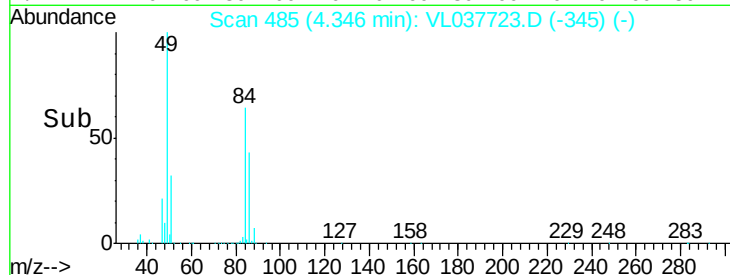
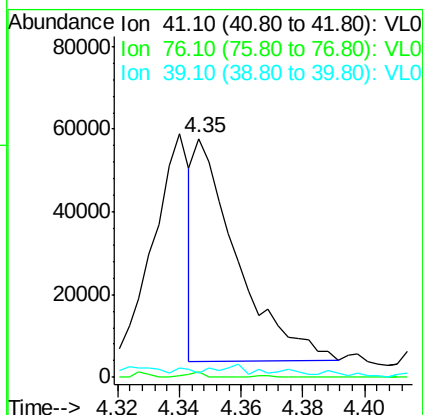
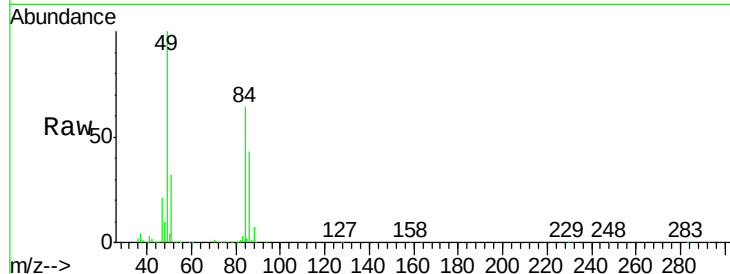
86 65.6 48.2 72.2





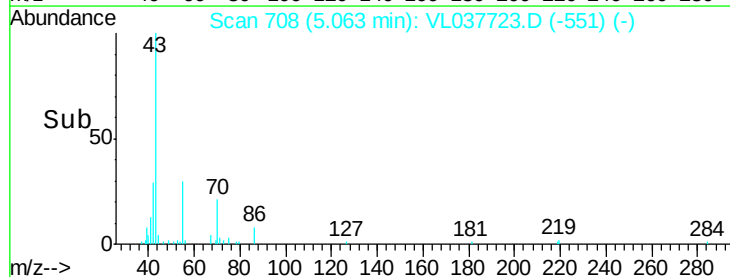
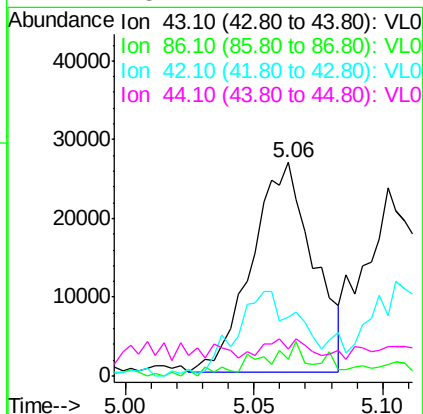
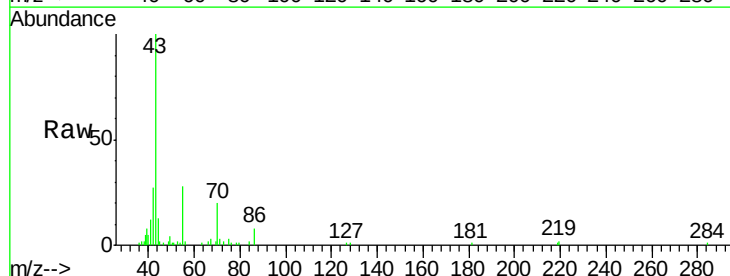
#21
 Allyl Chloride
 Concen: 0.508 ppbv
 RT: 4.35
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 29 Sep 2021 8:27

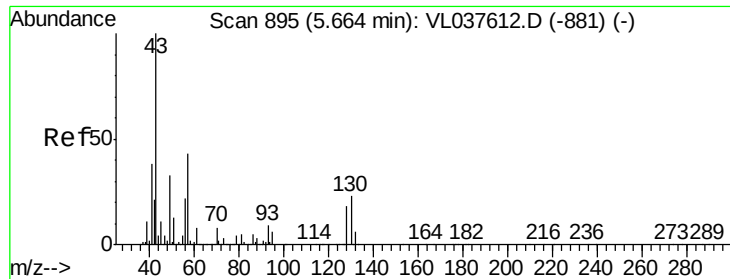
Tgt Ion	Ratio	Lower	Upper
41	100		
76	0.4	23.1	34.7#
39	10.1	61.0	91.6#



#23
 Vinyl Acetate
 Concen: 0.237 ppbv
 RT: 5.06 min Scan# 708
 Delta R.T. 0.00 min
 Lab File: VL037723.D
 Acq: 29 Sep 2021 8:27

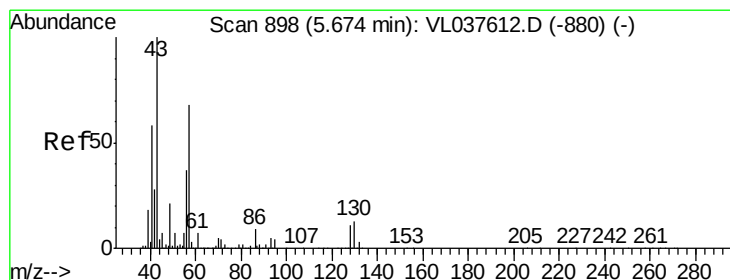
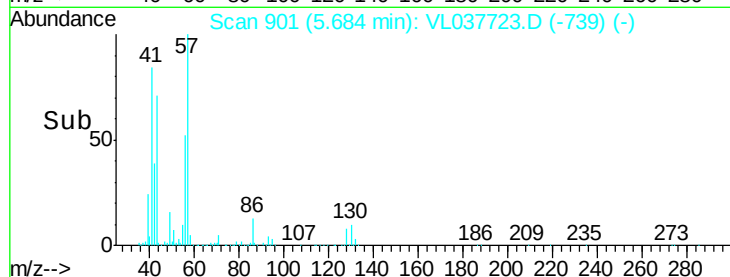
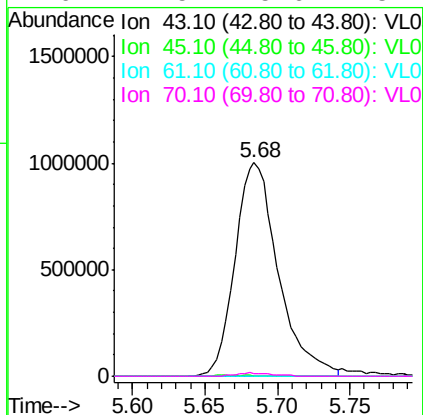
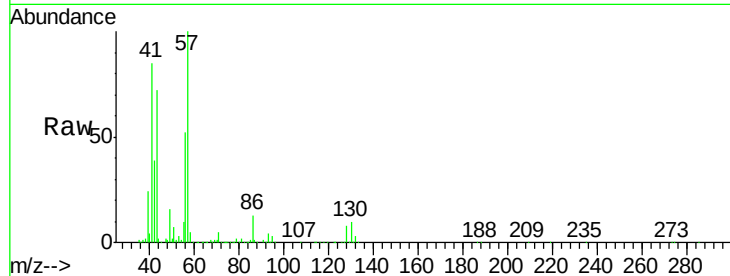
Tgt Ion	Ratio	Lower	Upper
43	100		
86	4.6	5.0	7.6#
42	24.9	7.5	11.3#
44	3.1	4.7	7.1#





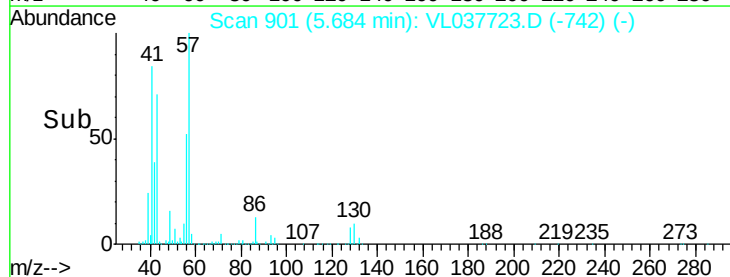
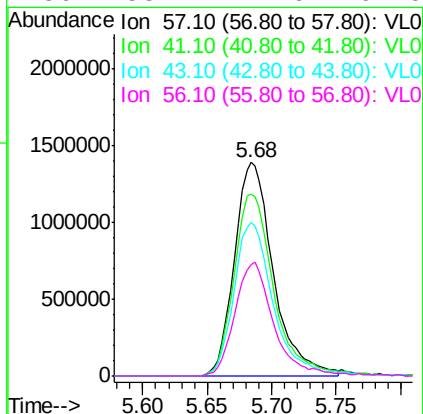
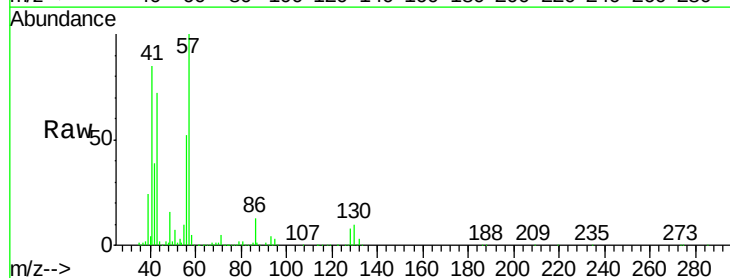
#25
Ethyl Acetate
Concen: 6.364 ppbv
RT: 5.68
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 29 Sep 2021 8:27

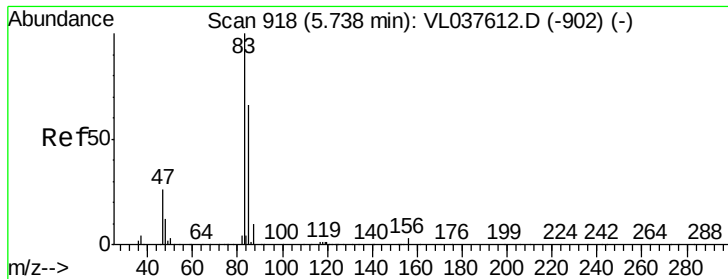
Tgt Ion:	43	Resp:	2075771
Ion	Ratio	Lower	Upper
43	100		
45	0.6	8.0	12.0#
61	0.3	7.5	11.3#
70	1.5	5.6	8.4#



#26
Hexane
Concen: 18.850 ppbv
RT: 5.68 min Scan# 901
Delta R.T. 0.01 min
Lab File: VL037723.D
Acq: 29 Sep 2021 8:27

Tgt Ion:	57	Resp:	2920810
Ion	Ratio	Lower	Upper
57	100		
41	88.4	70.9	106.3
43	73.2	170.4	255.6#
56	53.7	42.6	64.0





#29

Chloroform

Concen: 0.133 ppbv

RT: 5.75 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

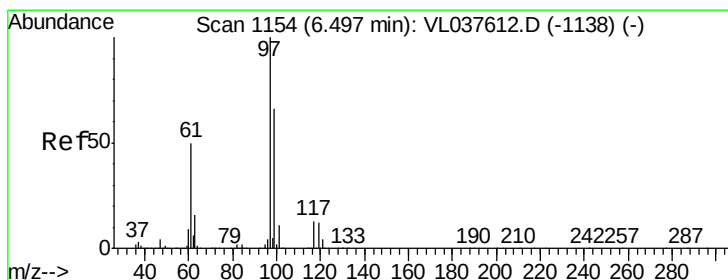
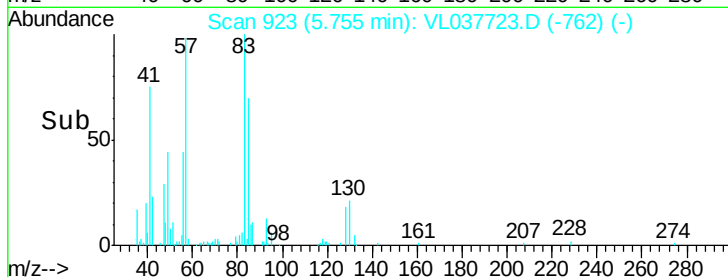
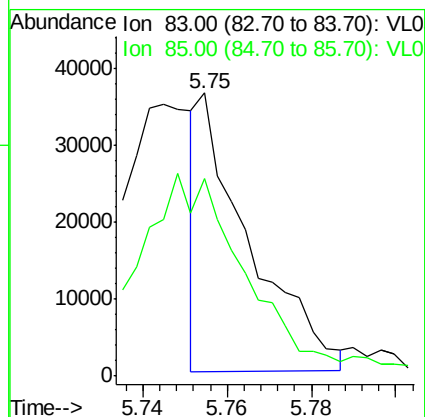
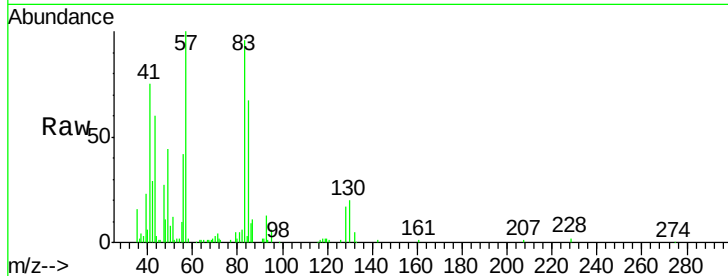
Acq: 29 Sep 2021 8:27

Tgt Ion: 83 Resp: 30151

Ion Ratio Lower Upper

83 100

85 71.1 52.6 79.0



#32

1,1,1-Trichloroethane

Concen: 0.150 ppbv

RT: 6.51 min Scan# 1158

Delta R.T. 0.01 min

Lab File: VL037723.D

Acq: 29 Sep 2021 8:27

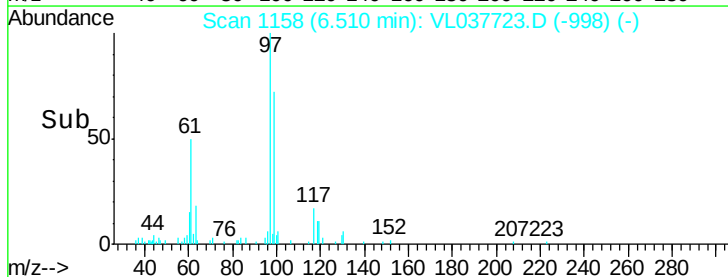
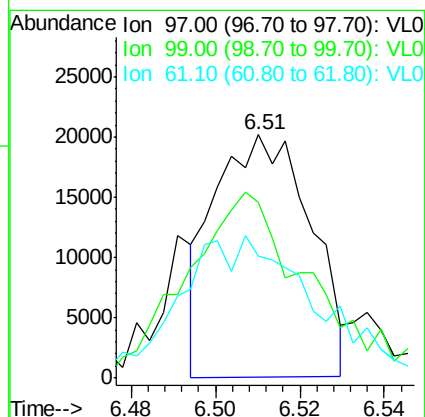
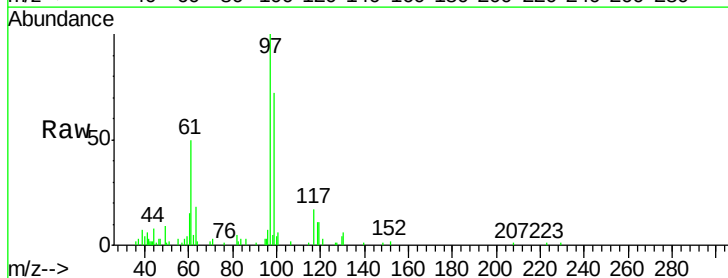
Tgt Ion: 97 Resp: 31615

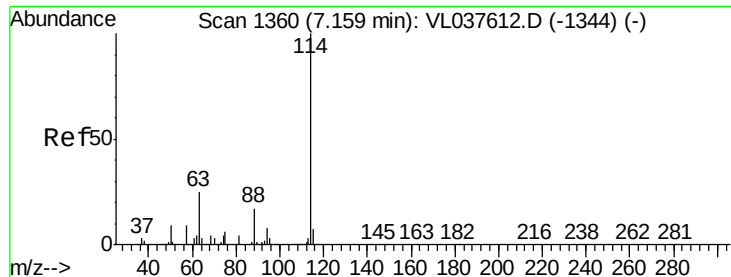
Ion Ratio Lower Upper

97 100

99 104.1 52.3 78.5#

61 87.1 39.5 59.3#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17

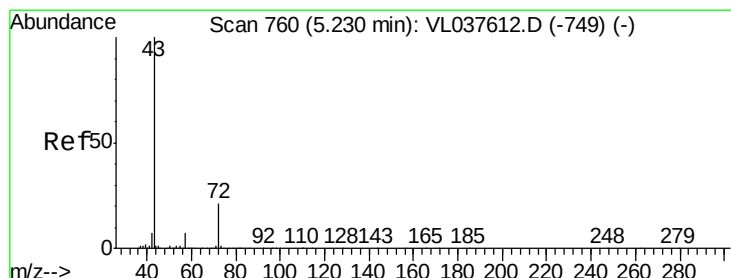
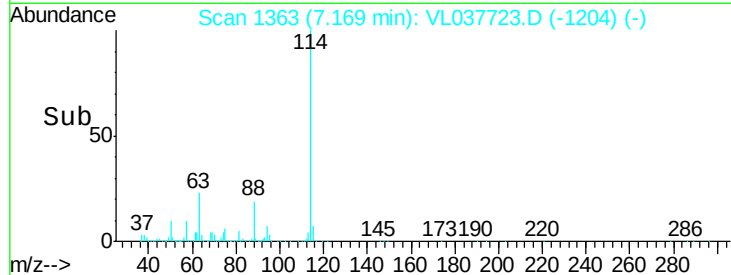
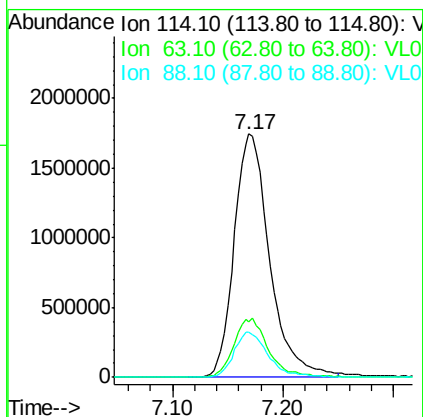
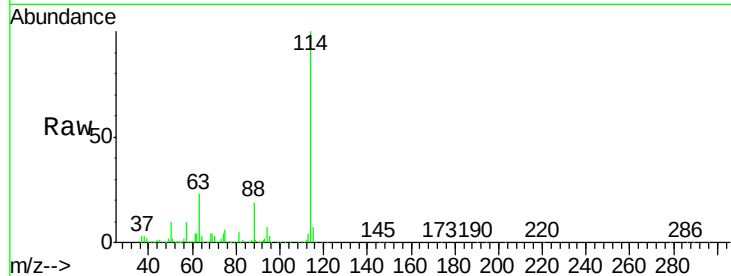
Delta R.T. MSVOA_L

Lab File: ClientSampleId : IA-18B

Acq: 29 Sep 2021 8:27

Tgt Ion: 114 Resp: 3891117

Ion	Ratio	Lower	Upper
114	100		
63	23.9	19.6	29.4
88	18.4	14.2	21.4



#34

2-Butanone

Concen: 0.305 ppbv

RT: 5.24 min Scan# 764

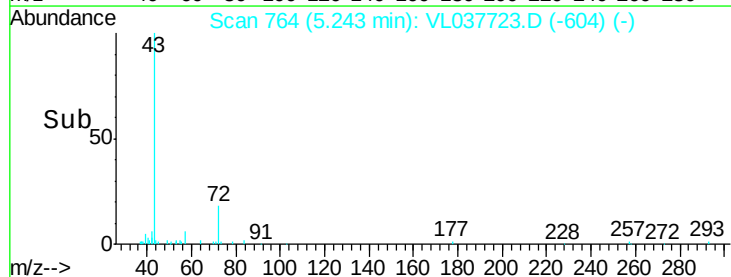
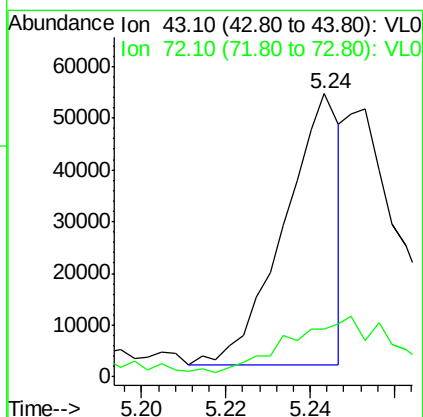
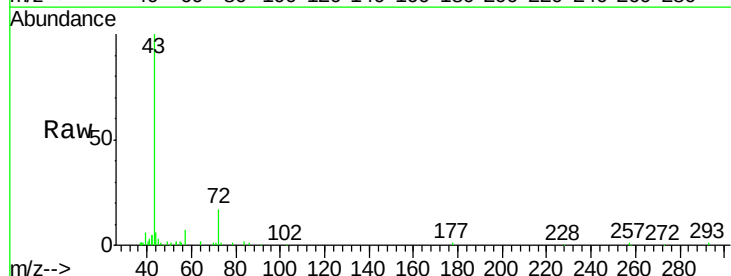
Delta R.T. 0.01 min

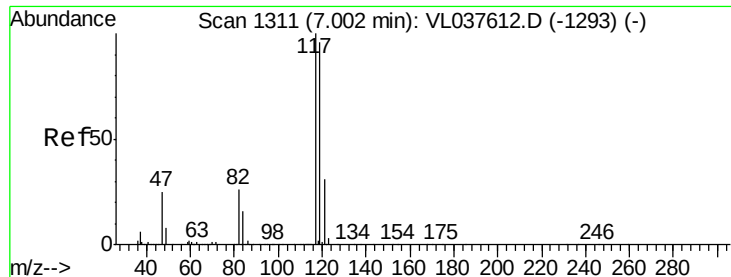
Lab File: VL037723.D

Acq: 29 Sep 2021 8:27

Tgt Ion: 43 Resp: 48304

Ion	Ratio	Lower	Upper
43	100		
72	0.0	18.4	27.6#





#35

Carbon Tetrachloride

Concen: 0.041 ppbv

RT: 7.01 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: IA-18B

Acq: 29 Sep 2021 8:27

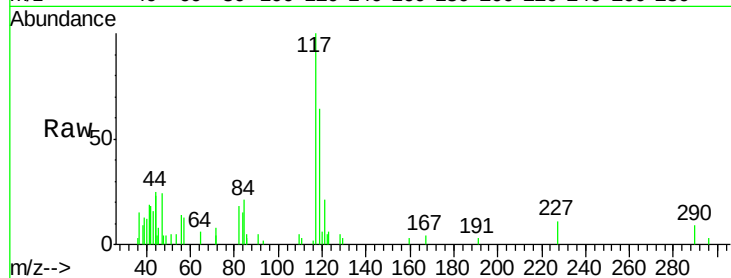
Tgt Ion: 117 Resp: 8937

Ion Ratio Lower Upper

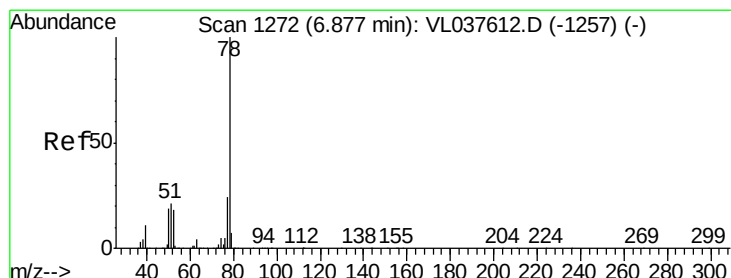
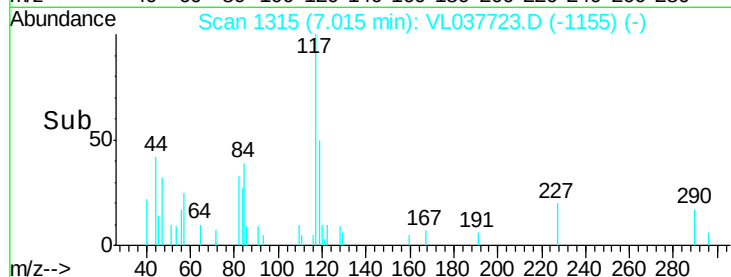
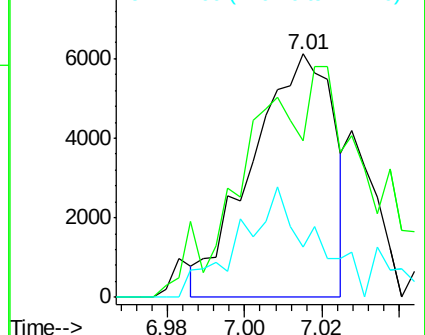
117 100

119 37.8 77.0 115.6#

121 10.4 24.5 36.7#



Abundance Ion 117.00 (116.70 to 117.70): V
Ion 119.00 (118.70 to 119.70): V
Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.053 ppbv

RT: 6.88 min Scan# 1274

Delta R.T. 0.01 min

Lab File: VL037723.D

Acq: 29 Sep 2021 8:27

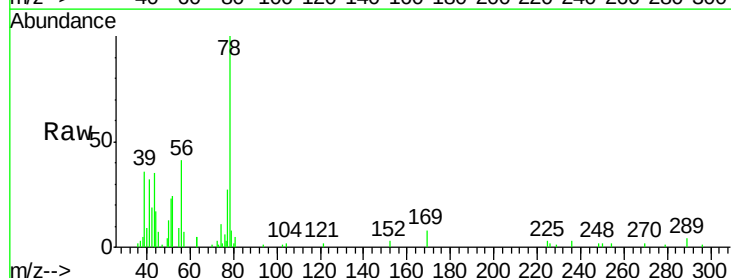
Tgt Ion: 78 Resp: 17079

Ion Ratio Lower Upper

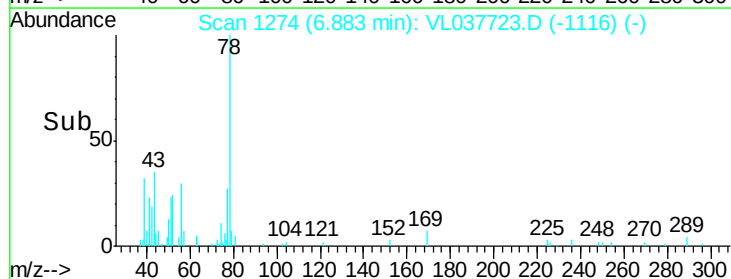
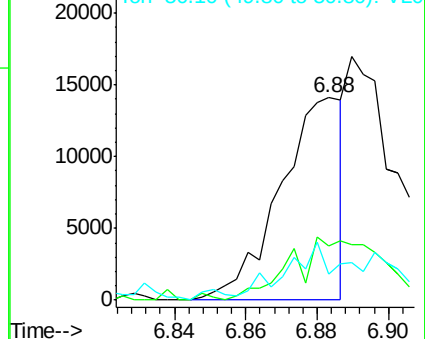
78 100

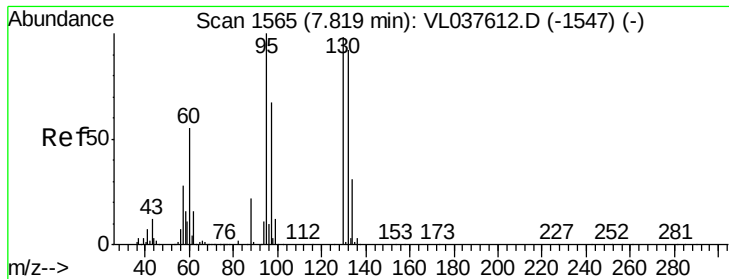
77 26.8 19.0 28.4

50 12.6 14.8 22.2#



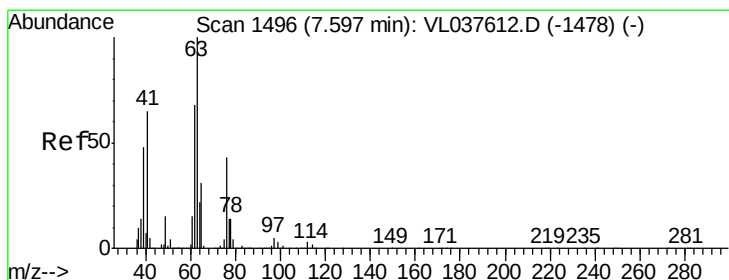
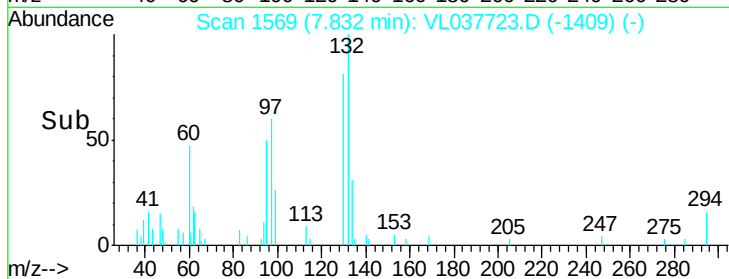
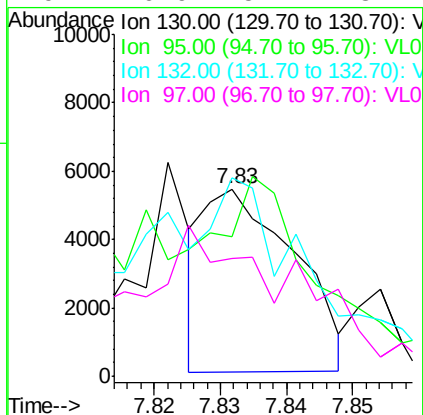
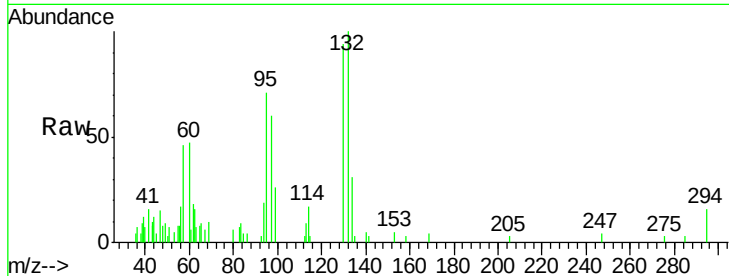
Abundance Ion 78.10 (77.80 to 78.80): VL0
Ion 77.10 (76.80 to 77.80): VL0
Ion 50.10 (49.80 to 50.80): VL0





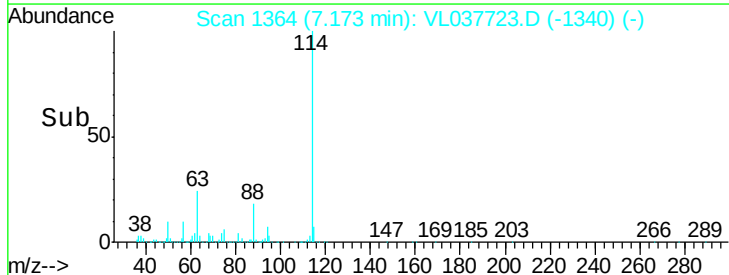
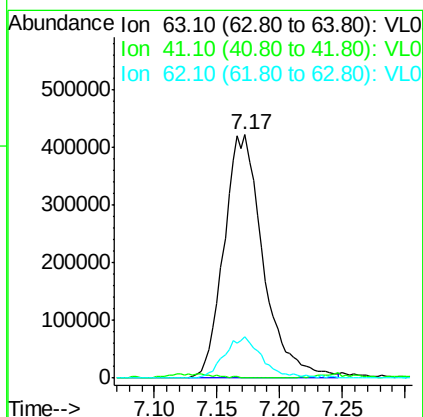
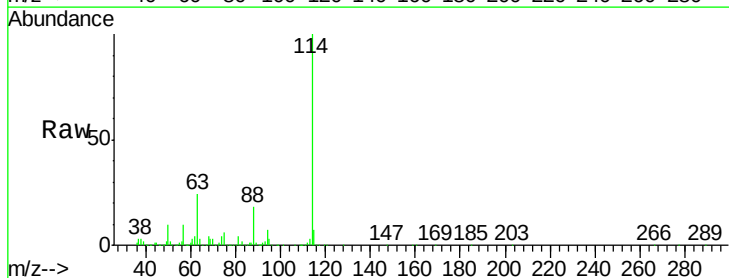
#38
 Trichloroethene
 Concen: 0.037 ppbv
 RT: 7.83
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 29 Sep 2021 8:27

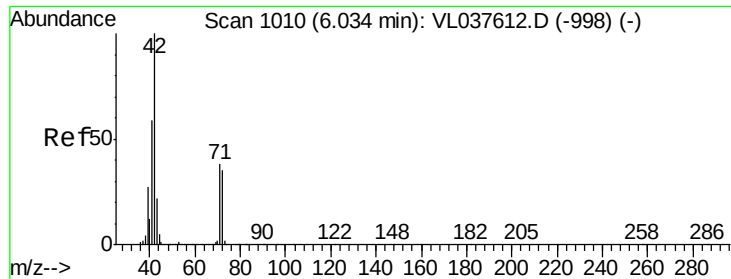
Tgt Ion:	130	Resp:	5074
Ion	Ratio	Lower	Upper
130	100		
95	41.1	81.8	122.6#
132	95.1	75.3	112.9
97	20.9	54.7	82.1#



#39
 1,2-Dichloropropane
 Concen: 7.313 ppbv
 RT: 7.17 min Scan# 1364
 Delta R.T. -0.42 min
 Lab File: VL037723.D
 Acq: 29 Sep 2021 8:27

Tgt Ion:	63	Resp:	908794
Ion	Ratio	Lower	Upper
63	100		
41	0.0	51.6	77.4#
62	16.9	54.6	81.8#

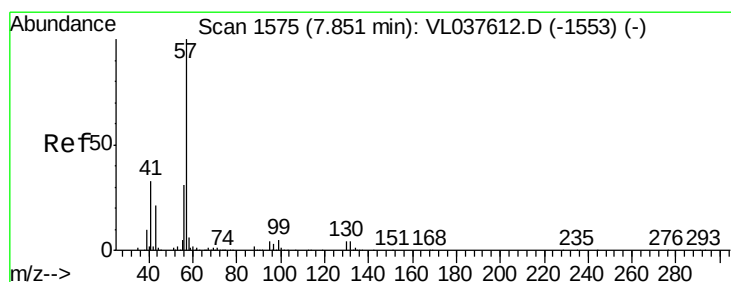
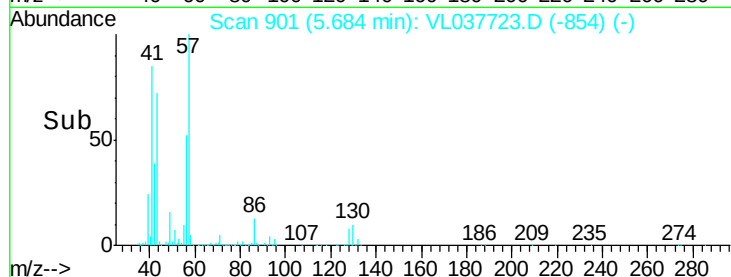
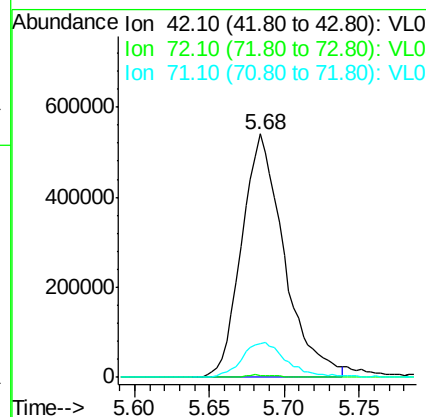
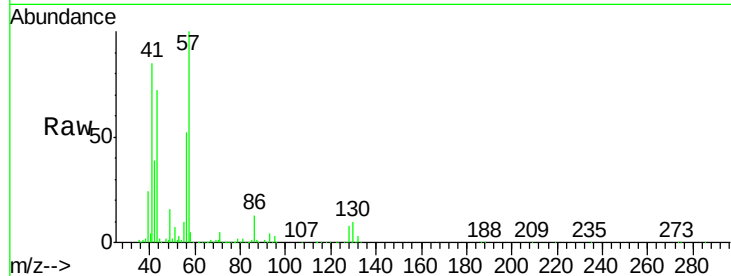




#41
Tetrahydrofuran
Concen: 14.369 ppbv
RT: 5.68
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 29 Sep 2021 8:27

Tgt Ion: 42 Resp: 1068115

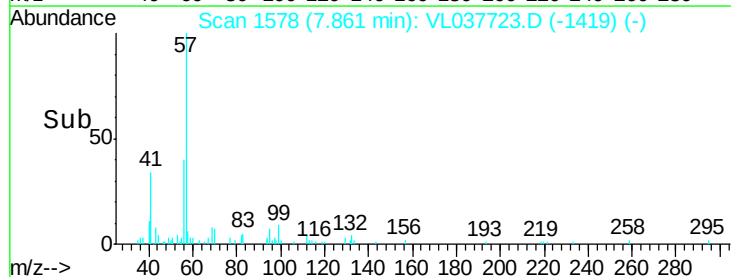
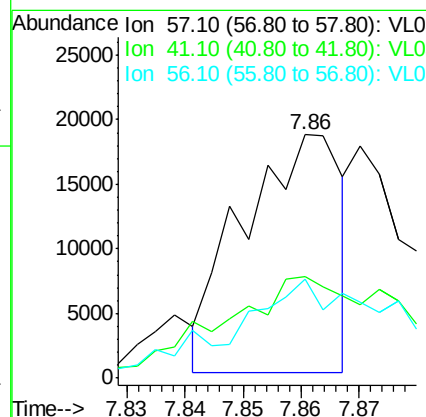
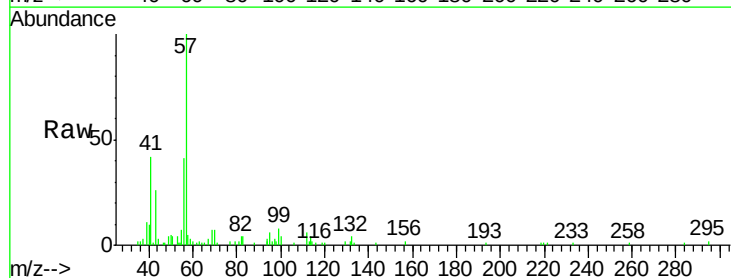
Ion	Ratio	Lower	Upper
42	100		
72	0.8	31.4	47.2#
71	15.6	30.6	46.0#

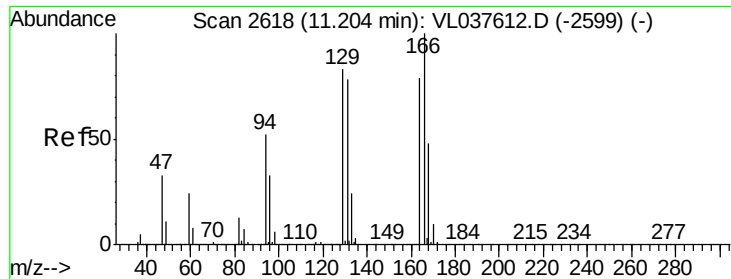


#44
2,2,4-Trimethylpentane
Concen: 0.040 ppbv
RT: 7.86 min Scan# 1578
Delta R.T.: 0.01 min
Lab File: VL037723.D
Acq: 29 Sep 2021 8:27

Tgt Ion: 57 Resp: 21755

Ion	Ratio	Lower	Upper
57	100		
41	98.0	26.1	39.1#
56	86.1	25.7	38.5#





#52

Tetrachloroethene

Concen: 0.038 ppbv

RT: 11.22

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 29 Sep 2021 8:27

Tgt Ion: 164 Resp: 4735

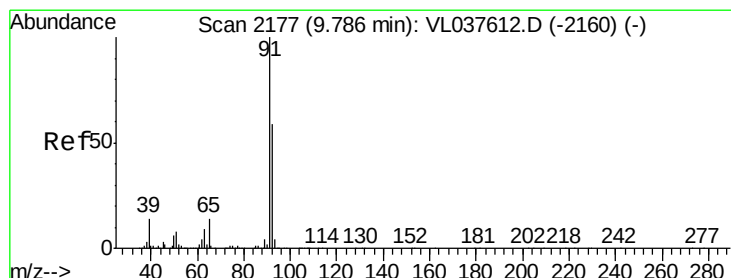
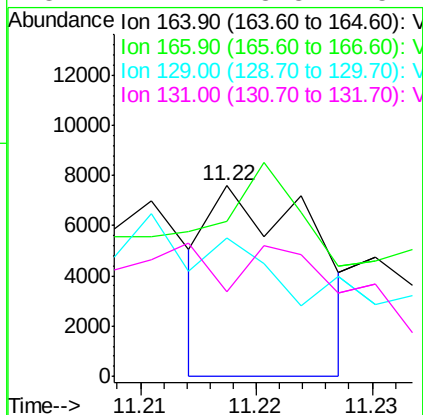
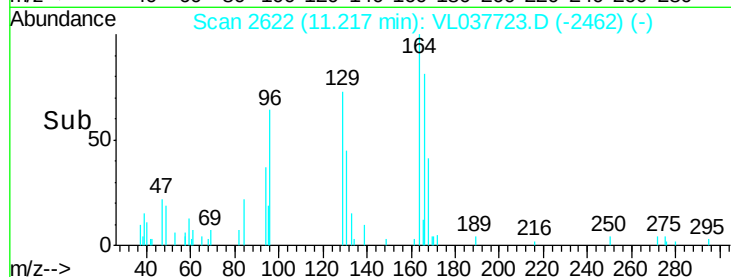
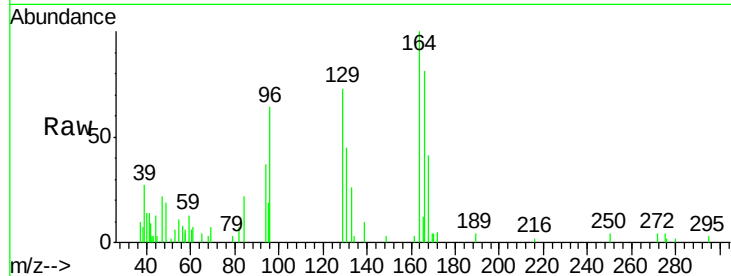
Ion Ratio Lower Upper

164 100

166 51.9 101.2 151.8#

129 44.4 84.0 126.0#

131 1.4 78.8 118.2#



#53

Toluene

Concen: 0.180 ppbv

RT: 9.80 min Scan# 2181

Delta R.T. 0.01 min

Lab File: VL037723.D

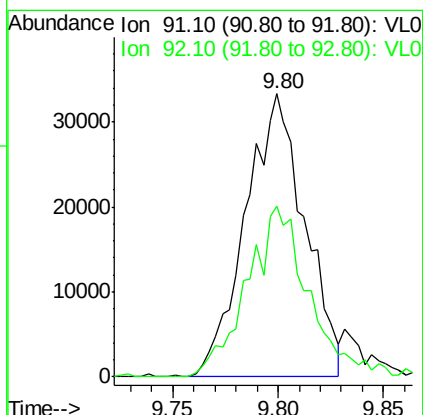
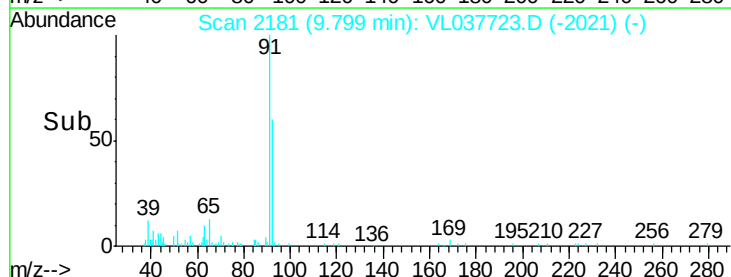
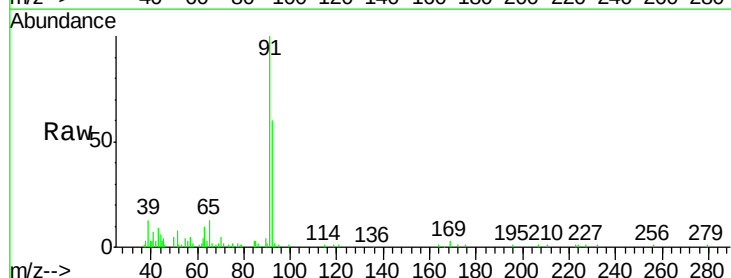
Acq: 29 Sep 2021 8:27

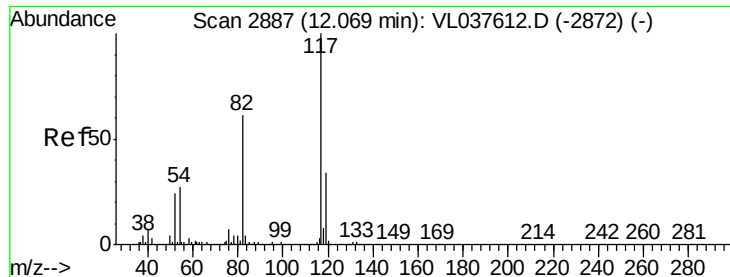
Tgt Ion: 91 Resp: 65075

Ion Ratio Lower Upper

91 100

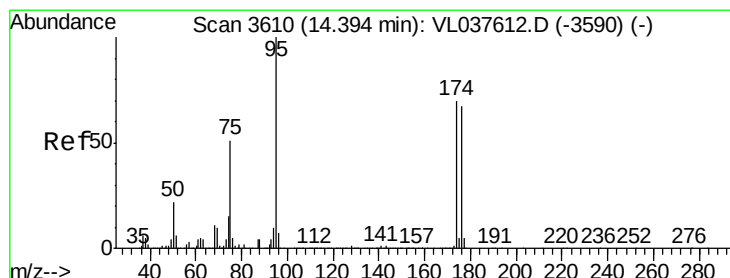
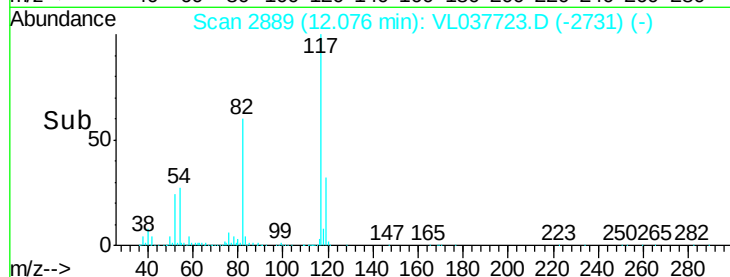
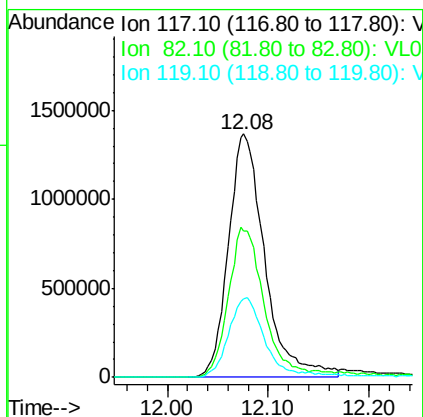
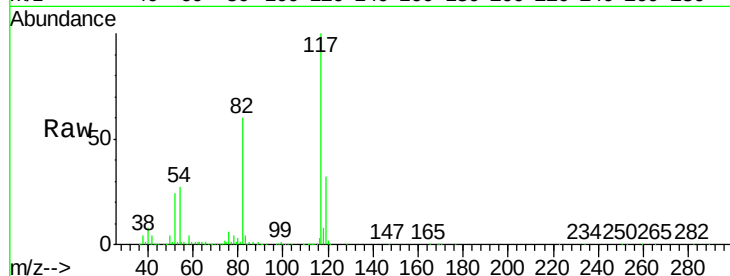
92 63.3 48.9 73.3





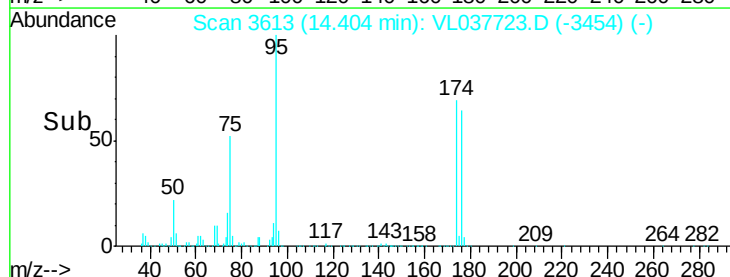
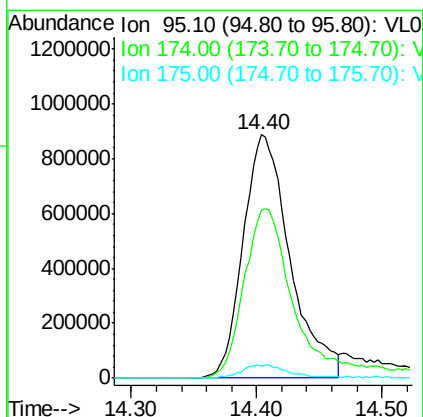
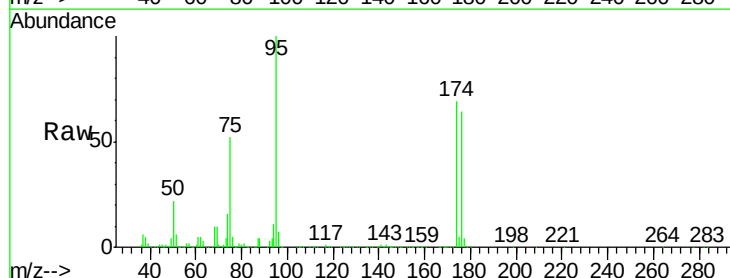
#55
 Chlorobenzene-d5
 Concen: 10.000 ppbv
 RT: 12.08 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 29 Sep 2021 8:27

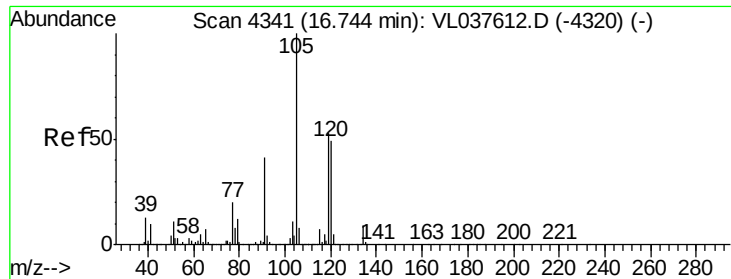
Tgt Ion: 117 Resp: 3424377
 Ion Ratio Lower Upper
 117 100
 82 64.1 50.6 75.8
 119 34.6 26.2 39.2



#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.343 ppbv
 RT: 14.40 min Scan# 3613
 Delta R.T.: 0.01 min
 Lab File: VL037723.D
 Acq: 29 Sep 2021 8:27

Tgt Ion: 95 Resp: 2312329
 Ion Ratio Lower Upper
 95 100
 174 79.4 56.3 84.5
 175 5.8 4.4 6.6





#74
 1,2,4-Trimethylbenzene
 Concen: 0.032 ppbv
 RT: 16.75
 Delta R.T: MSVOA_L
 Lab File: ClientSampleId :
 Acq: 29 Sep 2021 8:27

Tgt Ion:	105	Resp:	13399
Ion Ratio	Lower	Upper	
105	100		
120	41.3	39.4	59.0
91	2.0	33.3	49.9#
77	4.0	15.7	23.5#

