

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL071222\
 Data File : VL039453.D
 Acq On : 12 Jul 2022 18:02
 Operator : SY/AP
 Sample : N3660-04 2X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-7

Quant Time: Jul 13 01:35:45 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL062922AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Jul 06 02:15:38 2022
 QLast Update : Wed Jul 06 02:15:38 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.69	49	1586021	10.00	ppbv	0.04
33) 1,4-Difluorobenzene	7.20	114	4185595	10.00	ppbv	0.04
55) Chlorobenzene-d5	12.10	117	3852344	10.00	ppbv	0.04

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	2949842	10.32	ppbv	0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.20%

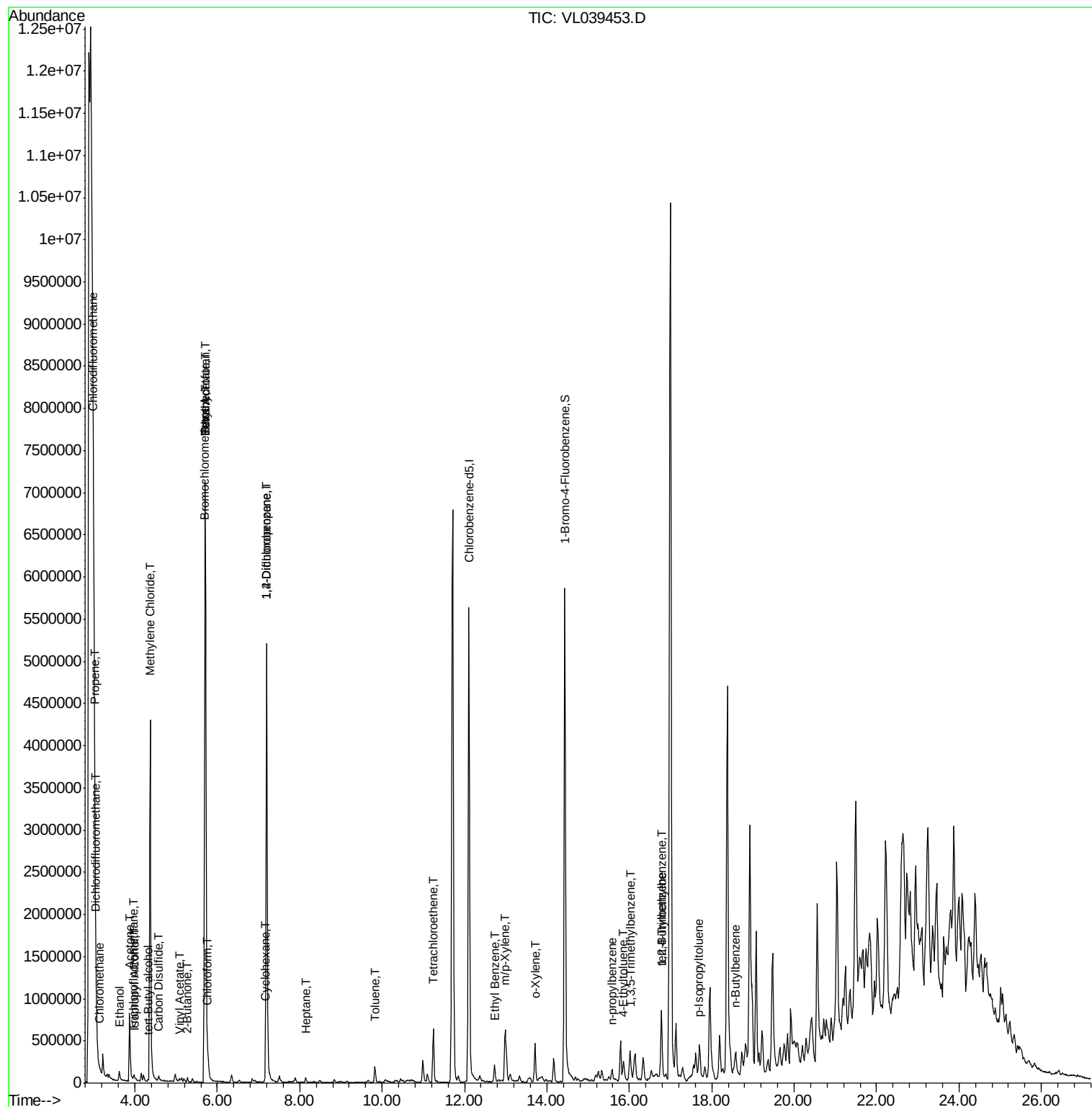
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.06	85	89678	0.39	ppbv	90
3) Chlorodifluoromethane	3.00	51	37199	0.18	ppbv #	80
4) Chloromethane	3.15	50	8650	0.08	ppbv #	85
9) Propene	3.03	41	17181	0.19	ppbv #	74
10) Heptane	8.15	43	7821	0.04	ppbv #	27
11) Trichlorofluoromethane	3.97	101	44243	0.17	ppbv	95
13) Ethanol	3.62	45	131790	25.00	ppbv	82
15) Acetone	3.87	43	924904	4.93	ppbv	97
17) tert-Butyl alcohol	4.32	59	16140	0.10	ppbv #	93
19) Isopropyl Alcohol	3.99	45	5846	0.06	ppbv #	88
20) Methylene Chloride	4.37	84	1672638	22.36	ppbv	96
23) Vinyl Acetate	5.09	43	12545	0.10	ppbv #	84
25) Ethyl Acetate	5.71	43	2030422	5.28	ppbv #	76
26) Hexane	5.71	57	2836179	18.29	ppbv #	37
27) Carbon Disulfide	4.57	76	22121	0.12	ppbv #	73
29) Chloroform	5.77	83	123589	0.46	ppbv	99
30) Cyclohexane	7.16	84	4891	0.03	ppbv #	1
34) 2-Butanone	5.27	43	62024	0.29	ppbv	97
39) 1,2-Dichloropropane	7.20	63	1037857	8.58	ppbv #	25
41) Tetrahydrofuran	5.71	42	1030866	8.44	ppbv #	49
52) Tetrachloroethene	11.24	164	166839	1.28	ppbv	93
53) Toluene	9.83	91	135117	0.36	ppbv	99
58) Ethyl Benzene	12.73	91	180688	0.36	ppbv	99
59) m/p-Xylene	12.98	91	656475	1.50	ppbv	96
60) o-Xylene	13.71	91	356217	0.86	ppbv	100
64) n-propylbenzene	15.58	120	26777	0.17	ppbv	86
65) tert-Butylbenzene	16.78	119	51496	0.09	ppbv #	34
69) p-Isopropyltoluene	17.67	119	23351	0.03	ppbv #	44
70) n-Butylbenzene	18.58	91	37914	0.06	ppbv #	1
72) 4-Ethyltoluene	15.86	105	57883	0.12	ppbv #	32
73) 1,3,5-Trimethylbenzene	16.01	105	240844	0.54	ppbv	94
74) 1,2,4-Trimethylbenzene	16.78	105	625415	1.26	ppbv #	71

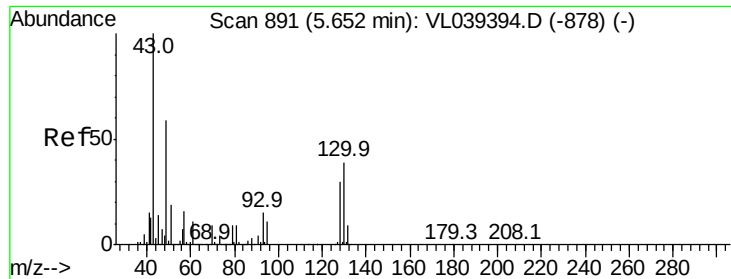
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Wed Jul 06 02:15:38 2022
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.69 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId :

Acq: 12 Jul 2022 18:02

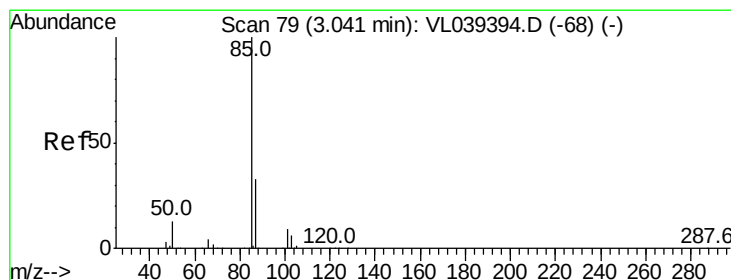
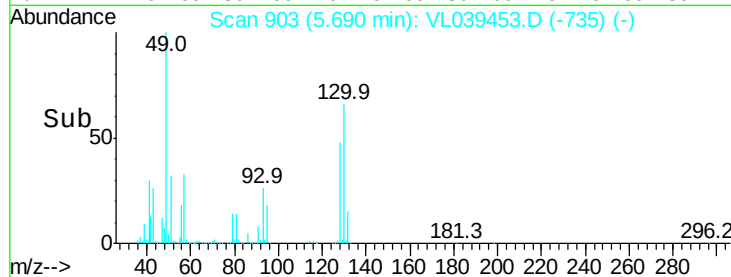
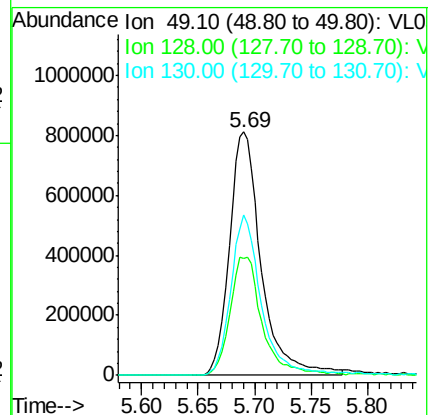
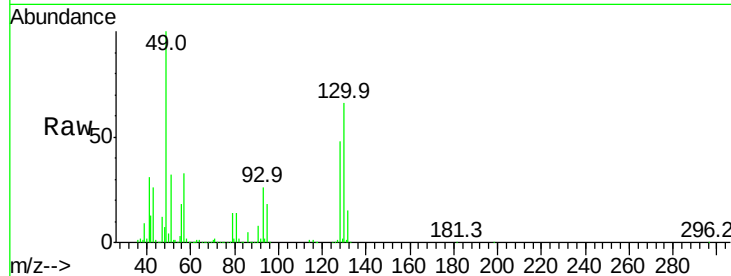
Tgt Ion: 49 Resp: 1586021

Ion Ratio Lower Upper

49 100

128 50.0 26.7 80.0

130 65.1 34.3 102.8



#2

Dichlorodifluoromethane

Concen: 0.39 ppbv

RT: 3.06 min Scan# 85

Delta R.T. 0.02 min

Lab File: VL039453.D

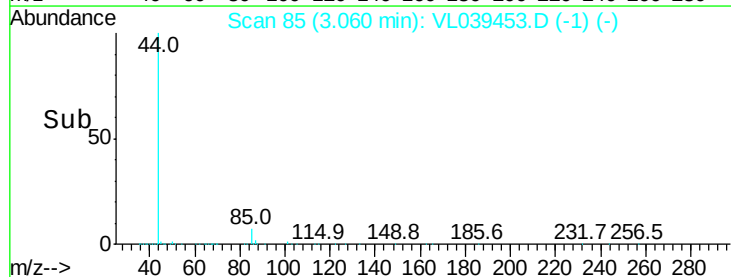
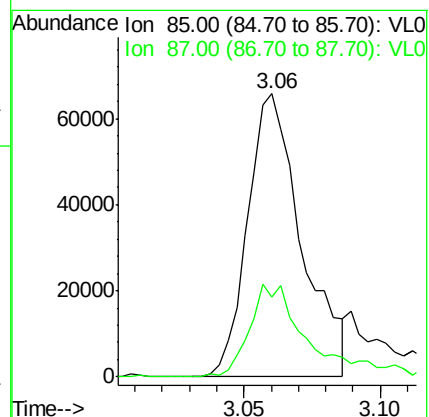
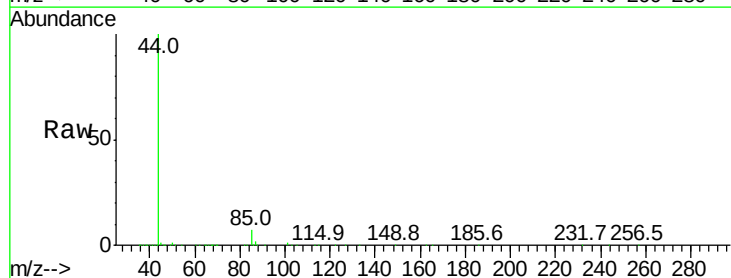
Acq: 12 Jul 2022 18:02

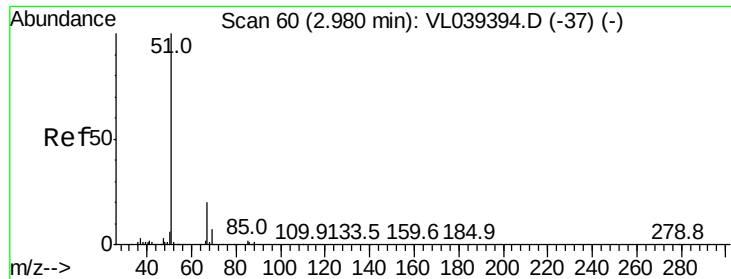
Tgt Ion: 85 Resp: 89678

Ion Ratio Lower Upper

85 100

87 27.9 26.7 40.1





#3

Chlorodifluoromethane

Concen: 0.18 ppbv

RT: 3.00 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

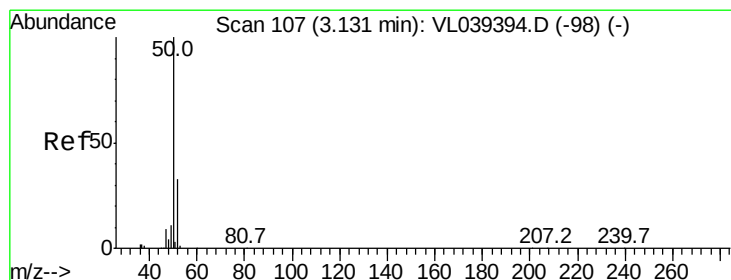
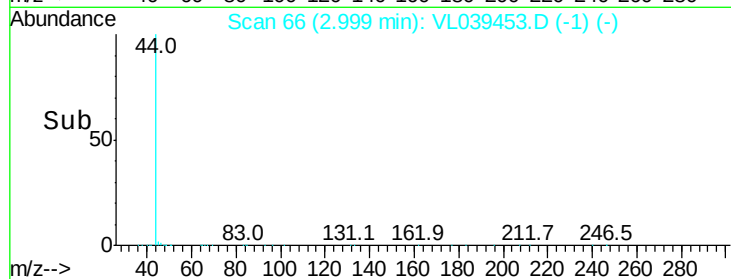
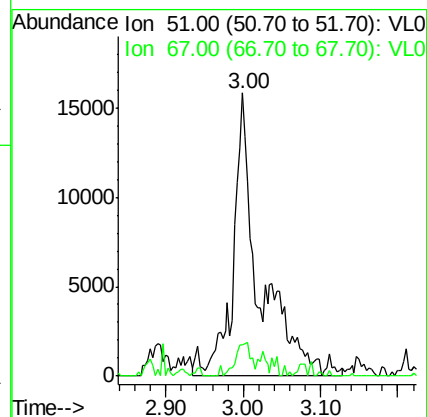
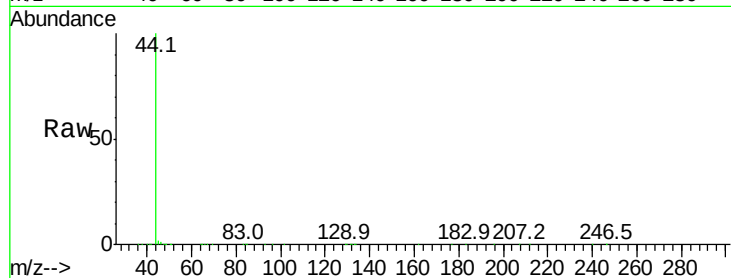
Acq: 12 Jul 2022 18:02 SG-7

Tgt Ion: 51 Resp: 37199

Ion Ratio Lower Upper

51 100

67 10.6 15.7 23.5#



#4

Chloromethane

Concen: 0.08 ppbv

RT: 3.15 min Scan# 114

Delta R.T. 0.02 min

Lab File: VL039453.D

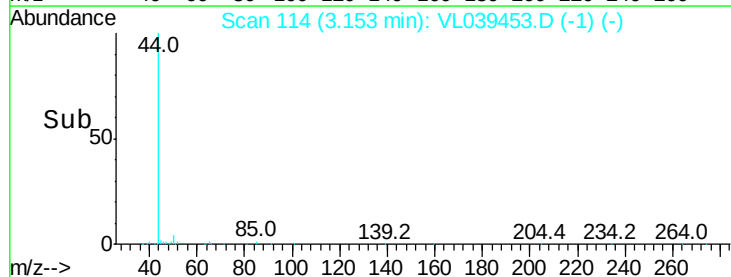
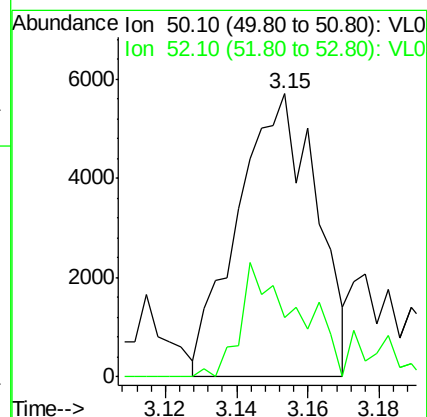
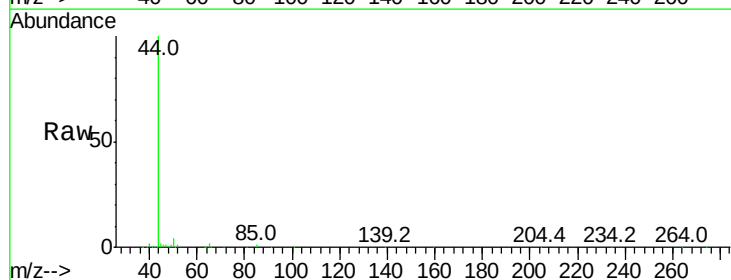
Acq: 12 Jul 2022 18:02

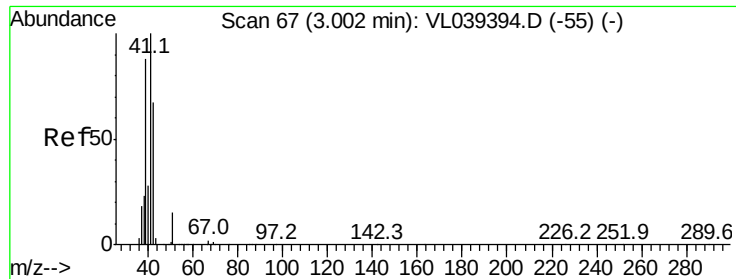
Tgt Ion: 50 Resp: 8650

Ion Ratio Lower Upper

50 100

52 24.3 26.5 39.7#





#9

Propene

Concen: 0.19 ppbv

RT: 3.03 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SG-7

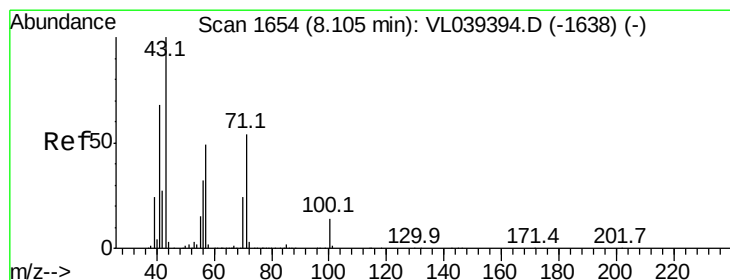
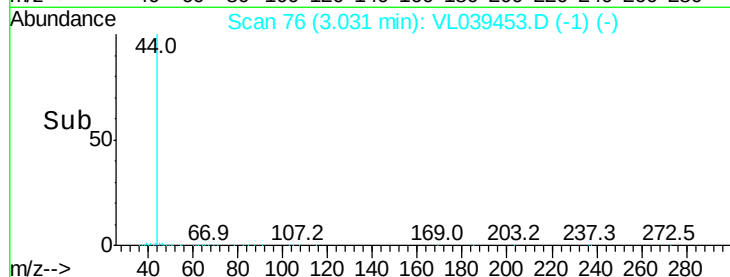
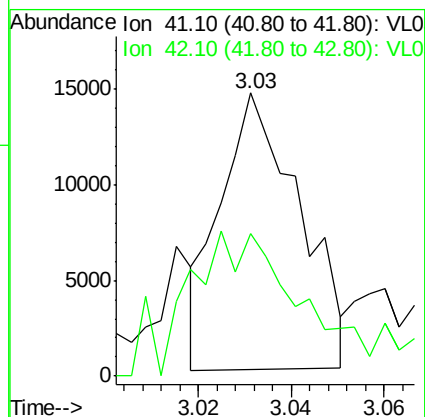
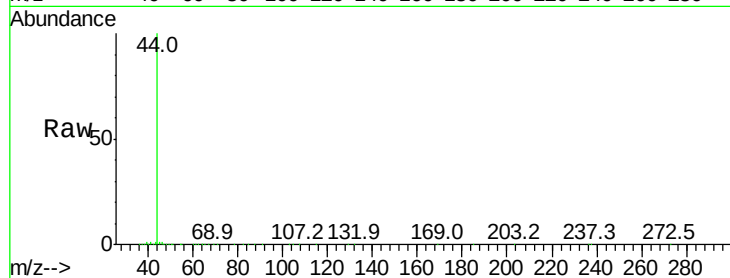
Acq: 12 Jul 2022 18:02

Tgt Ion: 41 Resp: 17181

Ion Ratio Lower Upper

41 100

42 89.8 55.2 82.8#



#10

Heptane

Concen: 0.04 ppbv

RT: 8.15 min Scan# 1669

Delta R.T. 0.05 min

Lab File: VL039453.D

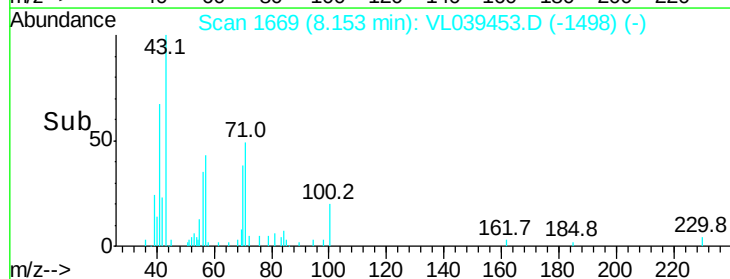
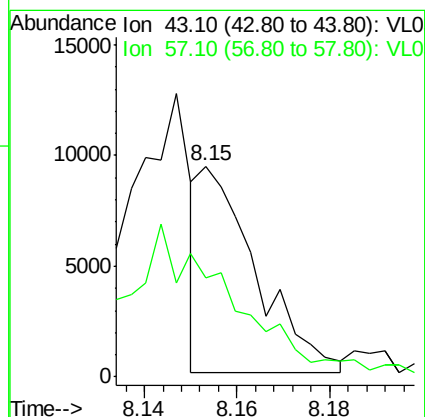
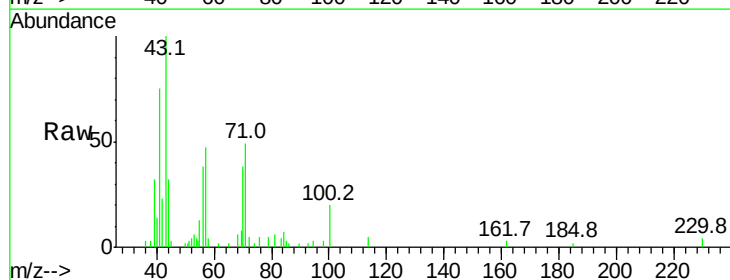
Acq: 12 Jul 2022 18:02

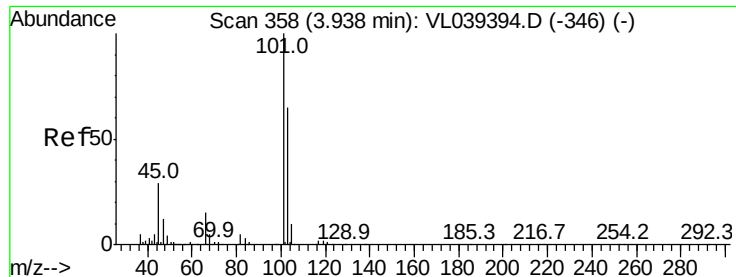
Tgt Ion: 43 Resp: 7821

Ion Ratio Lower Upper

43 100

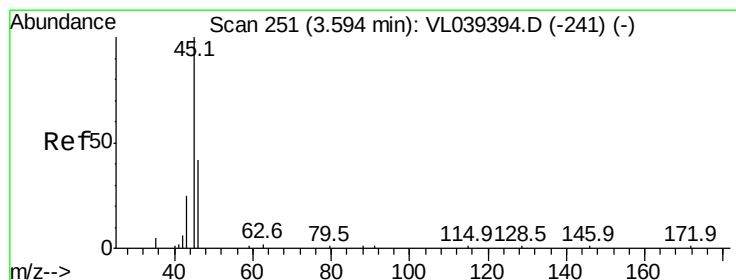
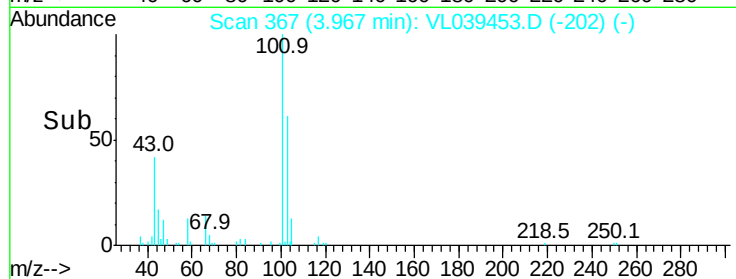
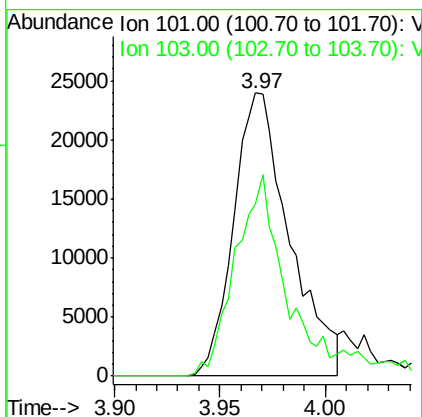
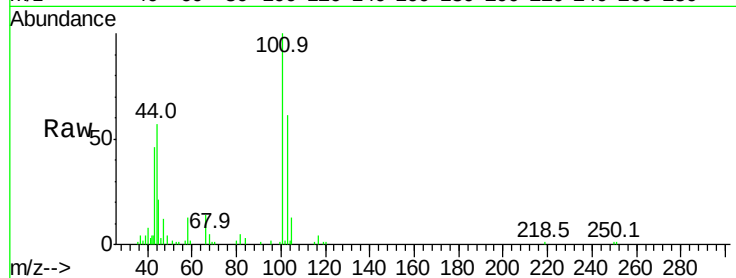
57 0.0 40.5 60.7#





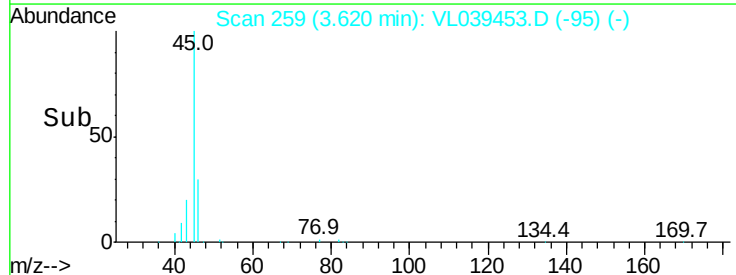
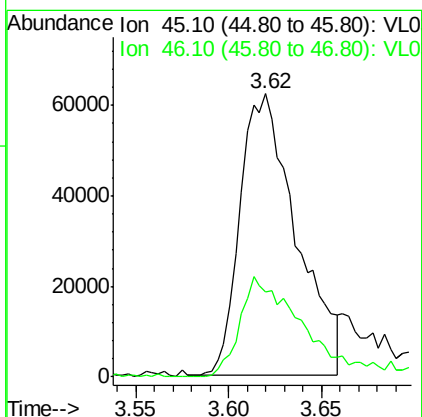
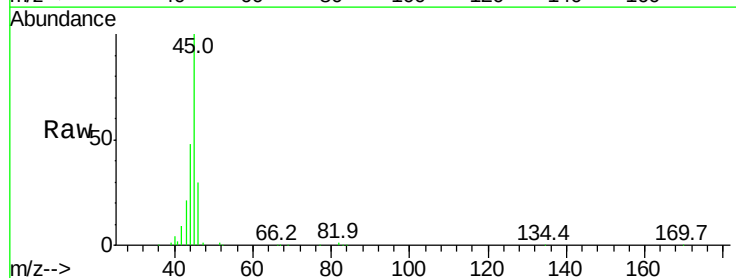
#11
 Trichlorofluoromethane
 Concen: 0.17 ppbv
 RT: 3.97
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 12 Jul 2022 18:02

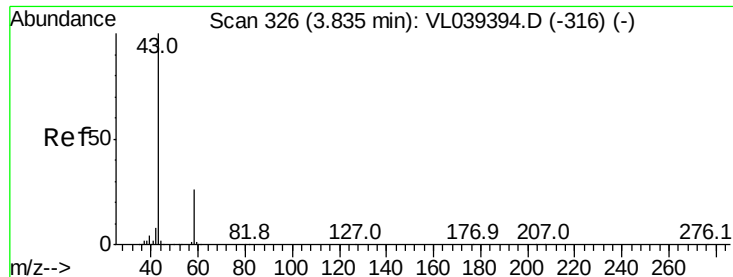
Tgt Ion: 101 Resp: 44243
 Ion Ratio Lower Upper
 101 100
 103 60.7 51.8 77.8



#13
 Ethanol
 Concen: 25.00 ppbv
 RT: 3.62 min Scan# 259
 Delta R.T. 0.03 min
 Lab File: VL039453.D
 Acq: 12 Jul 2022 18:02

Tgt Ion: 45 Resp: 131790
 Ion Ratio Lower Upper
 45 100
 46 43.5 22.8 91.2





#15

Acetone

Concen: 4.93 ppbv

RT: 3.87

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

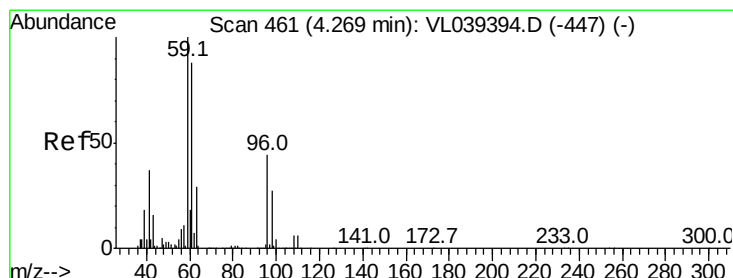
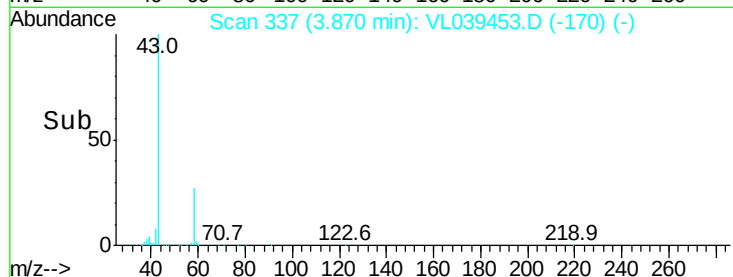
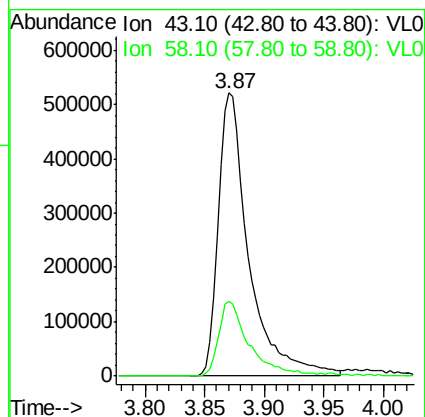
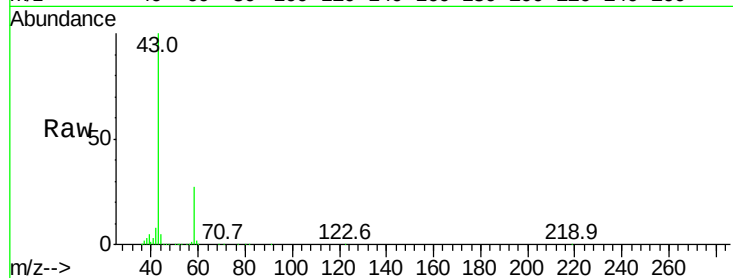
Acq: 12 Jul 2022 18:02

Tgt Ion: 43 Resp: 924904

Ion Ratio Lower Upper

43 100

58 27.9 21.0 31.6



#17

tert-Butyl alcohol

Concen: 0.10 ppbv

RT: 4.32 min Scan# 478

Delta R.T. 0.05 min

Lab File: VL039453.D

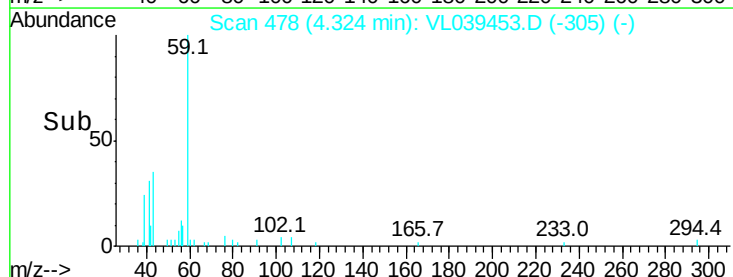
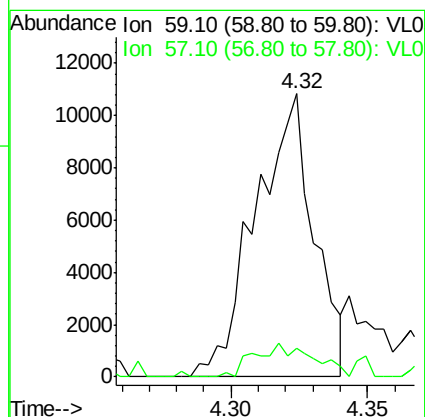
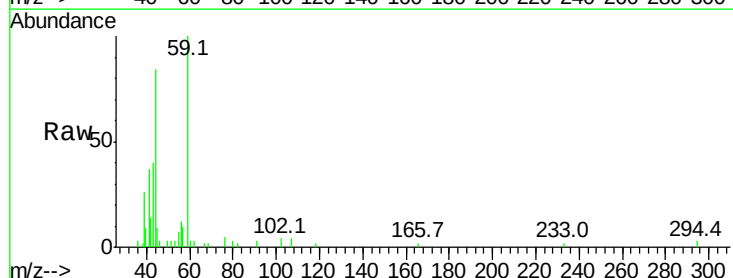
Acq: 12 Jul 2022 18:02

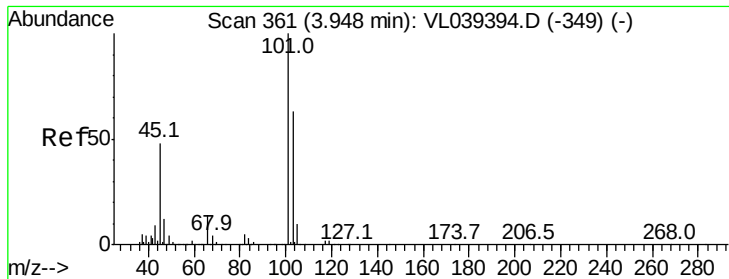
Tgt Ion: 59 Resp: 16140

Ion Ratio Lower Upper

59 100

57 13.5 8.7 13.1#





#19

Isopropyl Alcohol

Concen: 0.06 ppbv

RT: 3.99 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

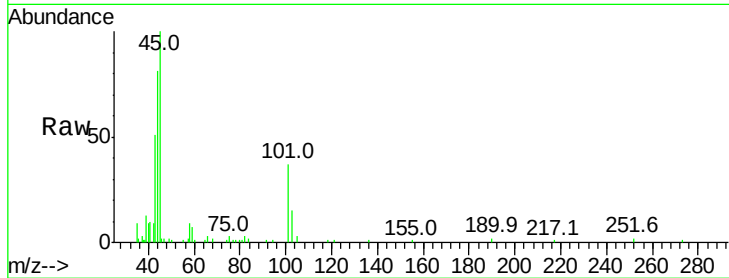
Acq: 12 Jul 2022 18:02 SG-7

Tgt Ion: 45 Resp: 5846

Ion Ratio Lower Upper

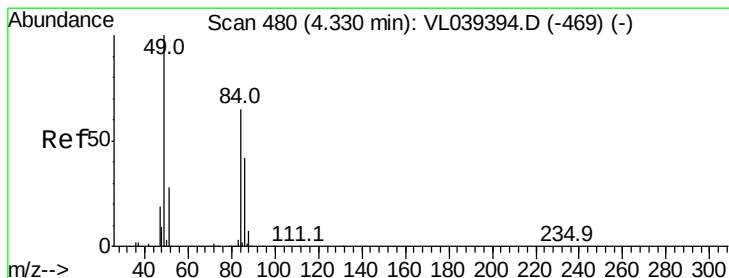
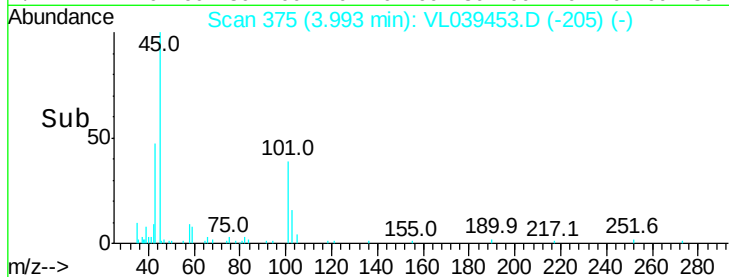
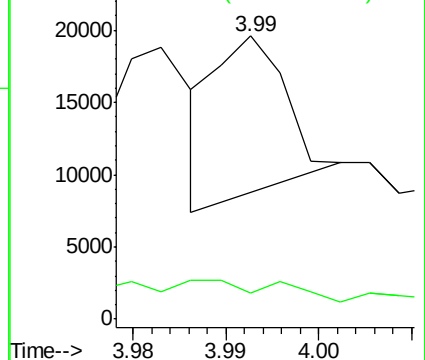
45 100

58 0.0 3.2 4.8#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 22.36 ppbv

RT: 4.37 min Scan# 492

Delta R.T. 0.04 min

Lab File: VL039453.D

Acq: 12 Jul 2022 18:02

Tgt Ion: 84 Resp: 1672638

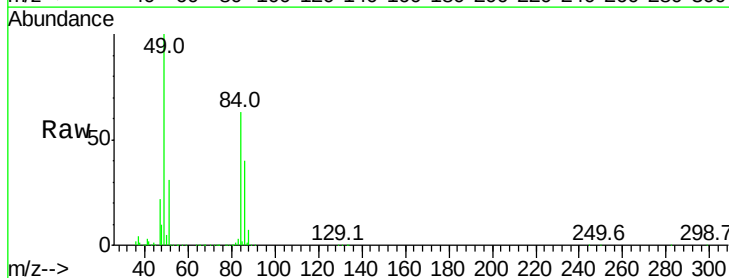
Ion Ratio Lower Upper

84 100

49 157.9 123.1 184.7

51 49.3 34.4 51.6

86 63.5 51.1 76.7

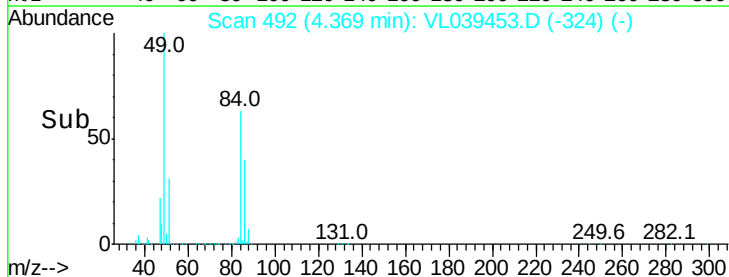
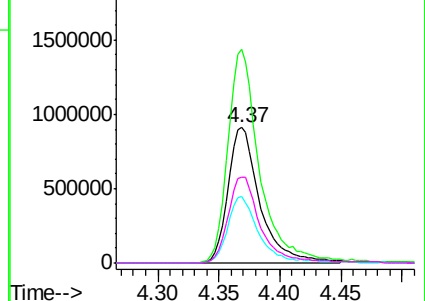


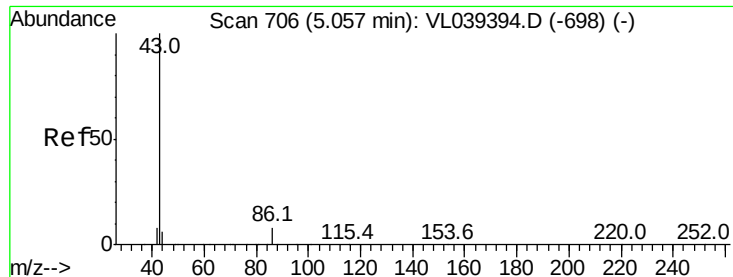
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

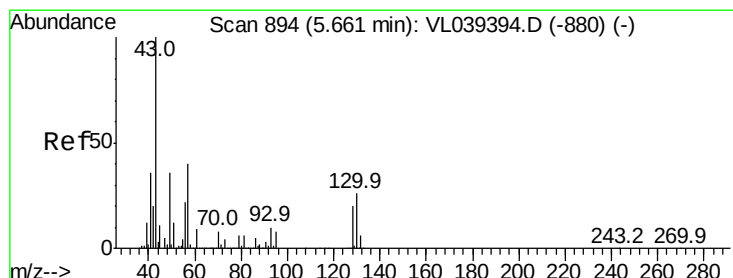
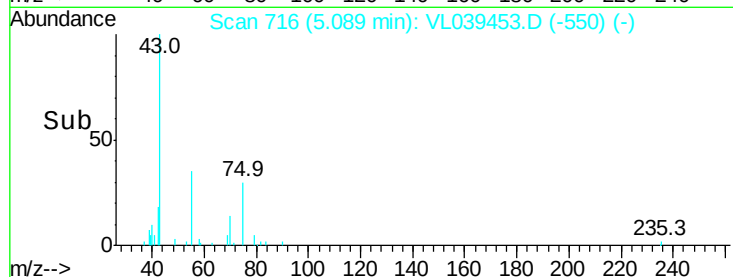
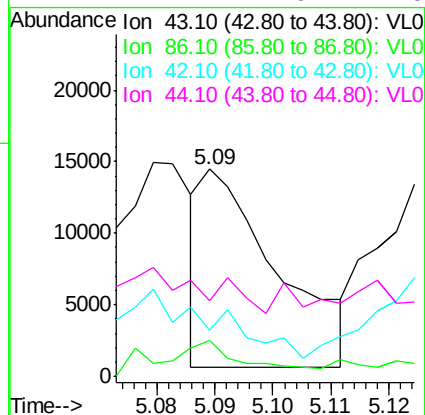
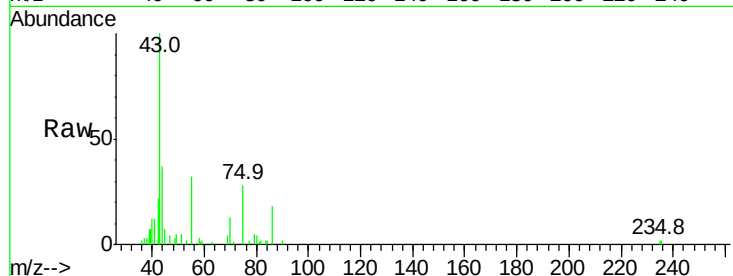
Ion 86.00 (85.70 to 86.70): VL0





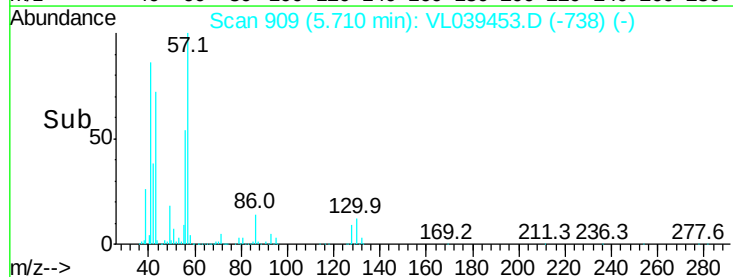
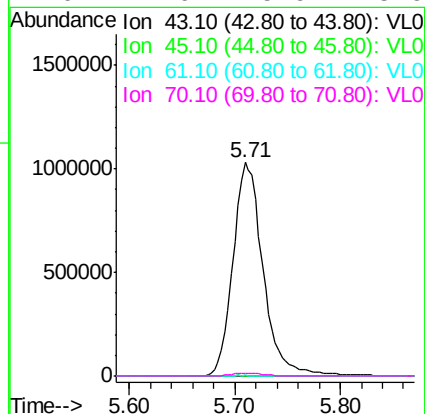
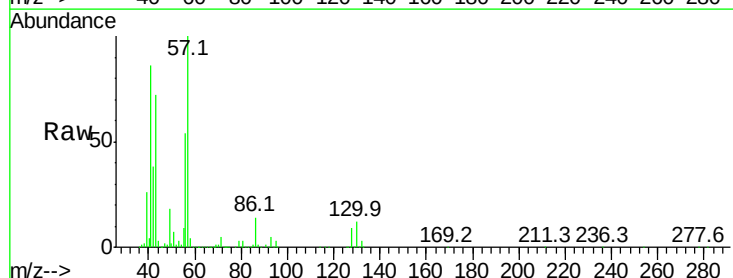
#23
 Vinyl Acetate
 Concen: 0.10 ppbv
 RT: 5.09
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 12 Jul 2022 18:02

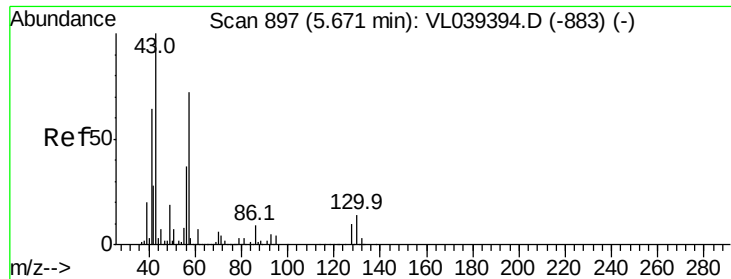
Tgt Ion:	43	Resp:	12545
Ion	Ratio	Lower	Upper
43	100		
86	15.1	5.0	7.6#
42	5.3	7.7	11.5#
44	2.1	4.6	7.0#



#25
 Ethyl Acetate
 Concen: 5.28 ppbv
 RT: 5.71 min Scan# 909
 Delta R.T. 0.05 min
 Lab File: VL039453.D
 Acq: 12 Jul 2022 18:02

Tgt Ion:	43	Resp:	2030422
Ion	Ratio	Lower	Upper
43	100		
45	0.3	8.2	12.4#
61	0.4	8.3	12.5#
70	1.6	5.9	8.9#





#26

Hexane

Concen: 18.29 ppbv

RT: 5.71

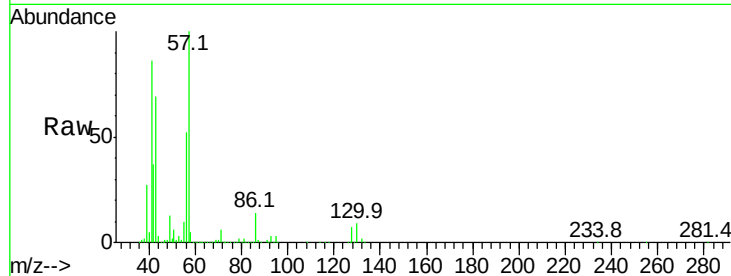
Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 12 Jul 2022 18:02

Tgt Ion: 57 Resp: 2836179

Ion	Ratio	Lower	Upper
57	100		
41	88.0	76.9	115.3
43	72.1	191.0	286.6#
56	53.0	43.2	64.8

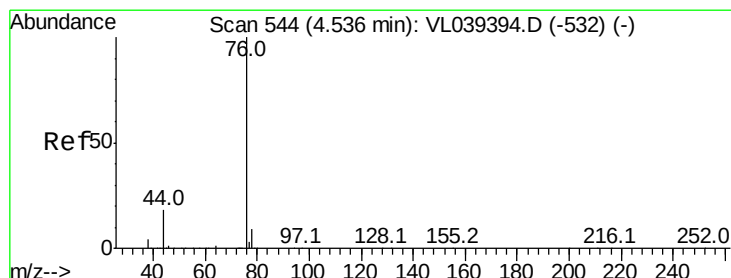
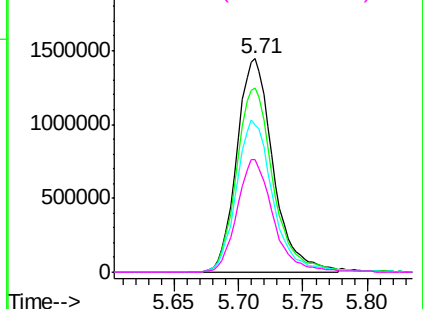
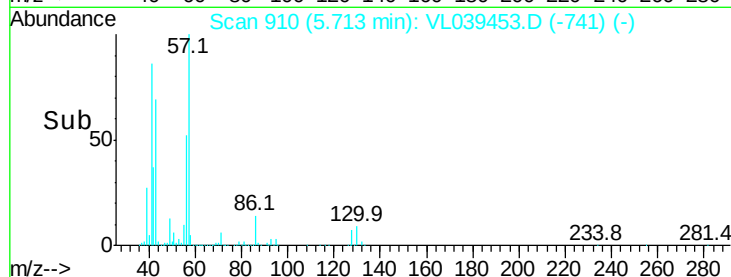


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#27

Carbon Disulfide

Concen: 0.12 ppbv

RT: 4.57 min Scan# 554

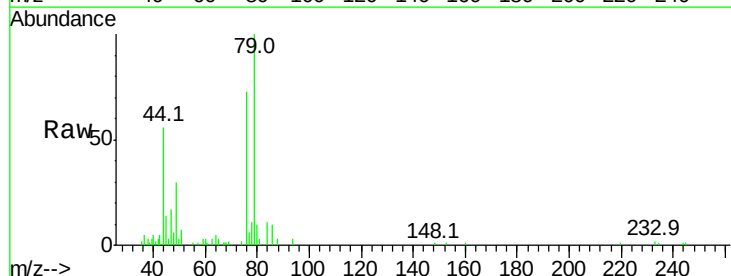
Delta R.T. 0.03 min

Lab File: VL039453.D

Acq: 12 Jul 2022 18:02

Tgt Ion: 76 Resp: 22121

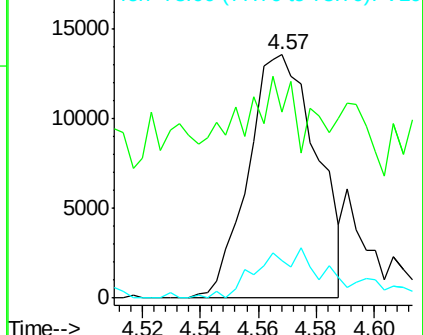
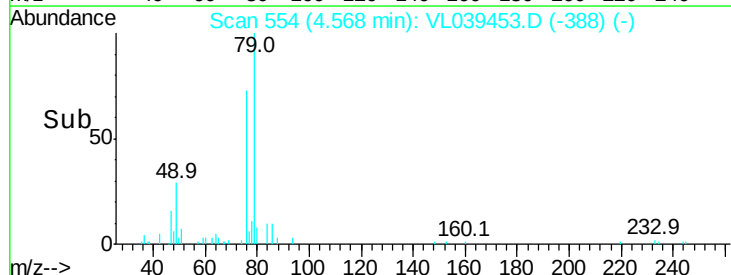
Ion	Ratio	Lower	Upper
76	100		
44	28.1	14.6	21.8#
78	23.2	7.8	11.6#

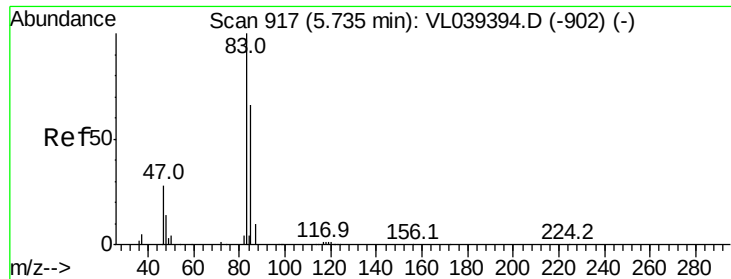


Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0





#29

Chloroform

Concen: 0.46 ppbv

RT: 5.77 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

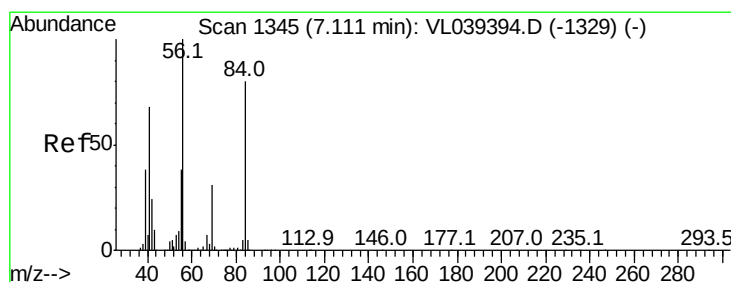
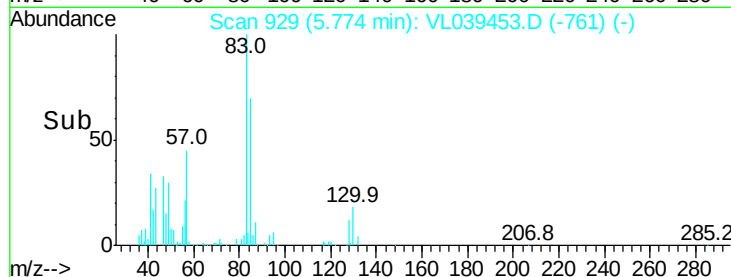
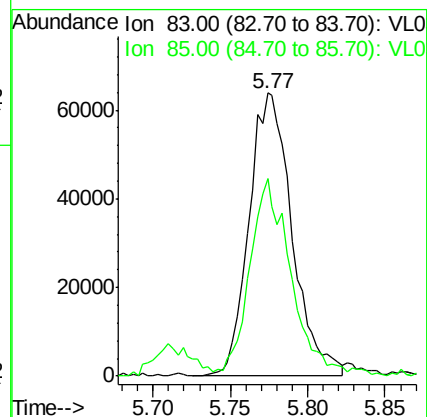
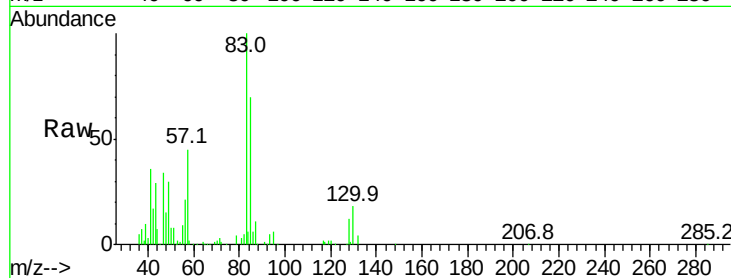
Acq: 12 Jul 2022 18:02 SG-7

Tgt Ion: 83 Resp: 123589

Ion Ratio Lower Upper

83 100

85 66.5 52.8 79.2



#30

Cyclohexane

Concen: 0.03 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. 0.05 min

Lab File: VL039453.D

Acq: 12 Jul 2022 18:02

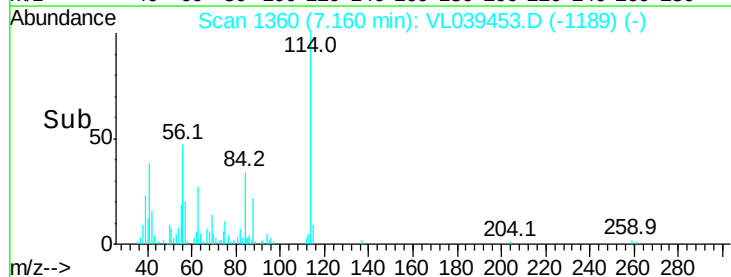
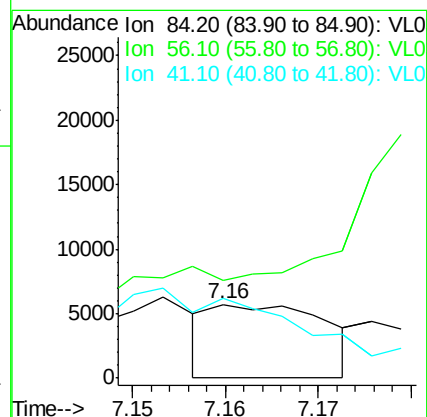
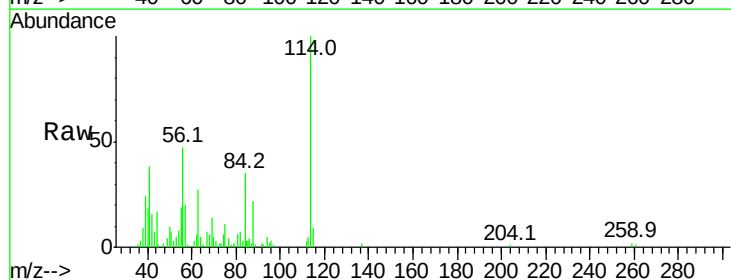
Tgt Ion: 84 Resp: 4891

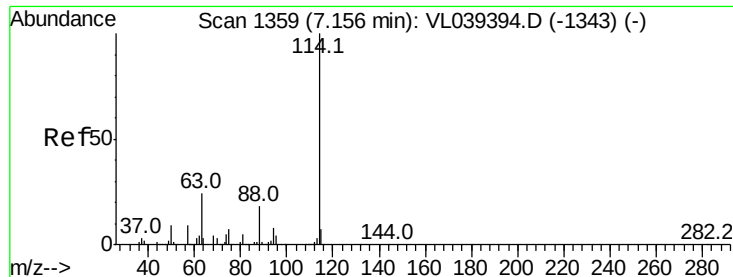
Ion Ratio Lower Upper

84 100

56 0.0 107.7 161.5#

41 0.0 67.7 101.5#





#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 7.20

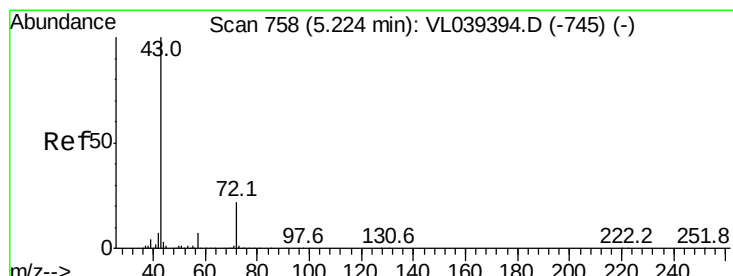
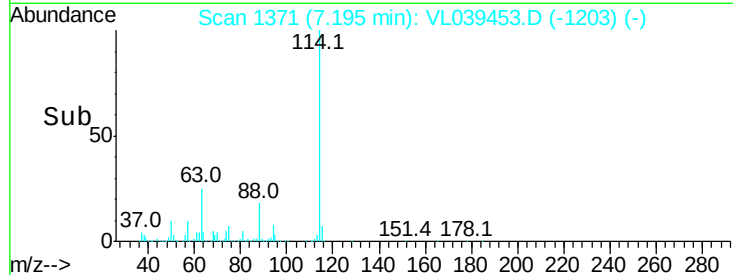
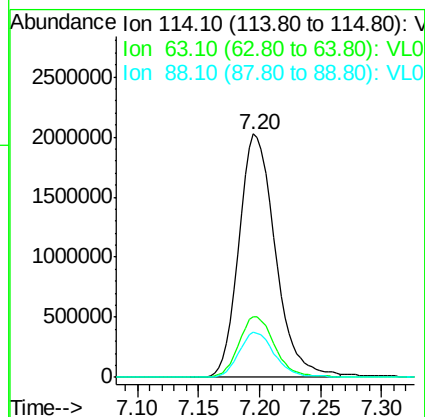
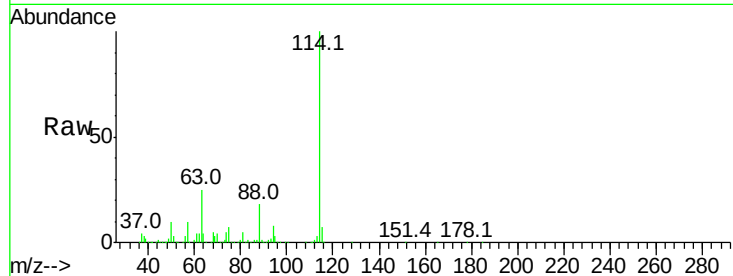
Delta R.T. MSVOA_1

Lab File: ClientSampleId :

Acq: 12 Jul 2022 18:02

Tgt Ion: 114 Resp: 4185595

Ion	Ratio	Lower	Upper
114	100		
63	25.1	20.2	30.4
88	18.5	14.5	21.7



#34

2-Butanone

Concen: 0.29 ppbv

RT: 5.27 min Scan# 772

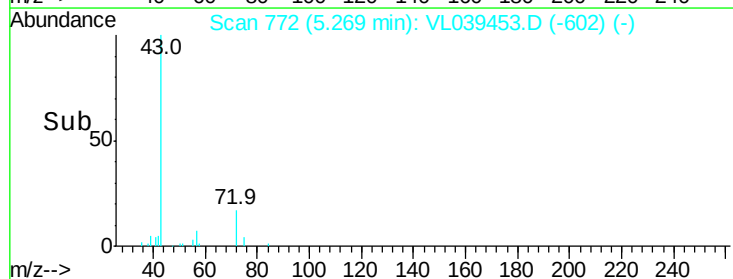
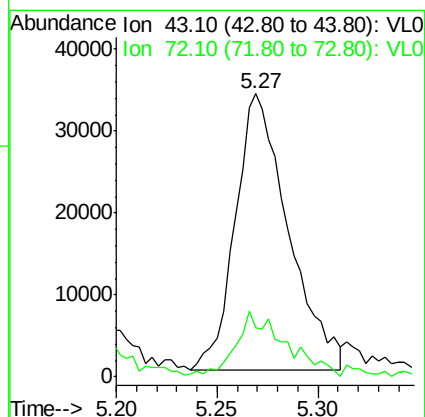
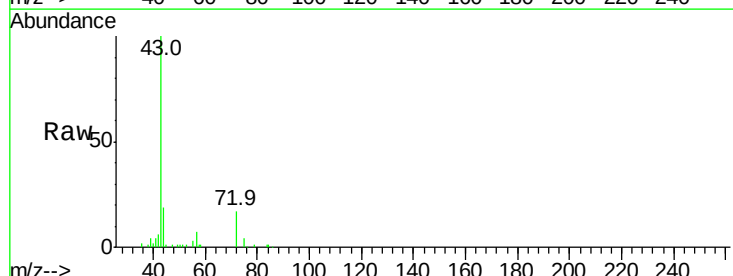
Delta R.T. 0.05 min

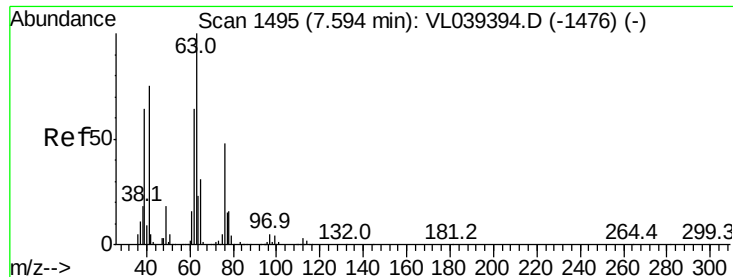
Lab File: VL039453.D

Acq: 12 Jul 2022 18:02

Tgt Ion: 43 Resp: 62024

Ion	Ratio	Lower	Upper
43	100		
72	23.9	17.9	26.9





#39

1,2-Dichloropropane

Concen: 8.58 ppbv

RT: 7.20 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 12 Jul 2022 18:02 SG-7

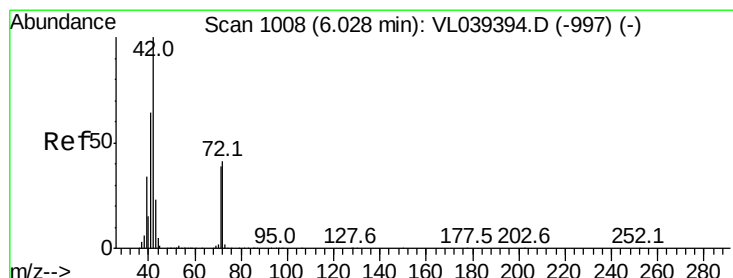
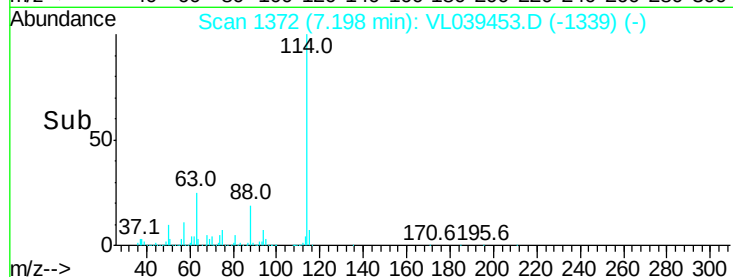
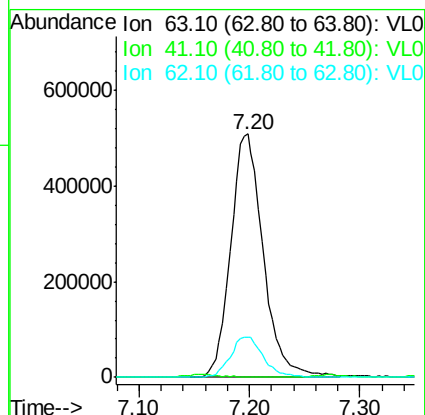
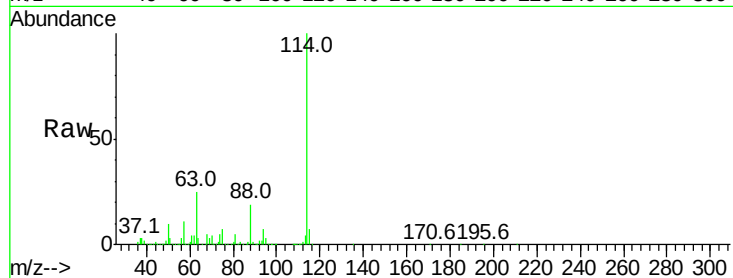
Tgt Ion: 63 Resp: 1037857

Ion Ratio Lower Upper

63 100

41 0.0 59.6 89.4#

62 16.4 51.4 77.0#



#41

Tetrahydrofuran

Concen: 8.44 ppbv

RT: 5.71 min Scan# 909

Delta R.T. -0.32 min

Lab File: VL039453.D

Acq: 12 Jul 2022 18:02

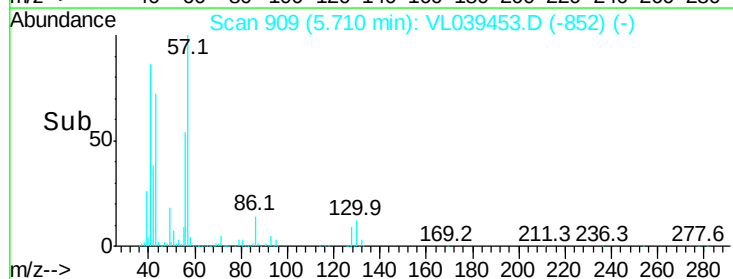
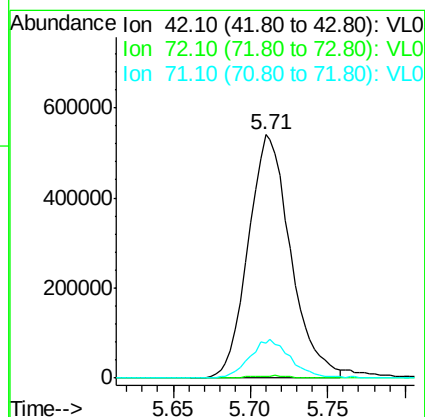
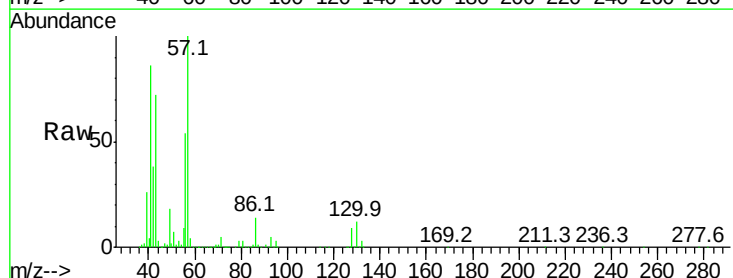
Tgt Ion: 42 Resp: 1030866

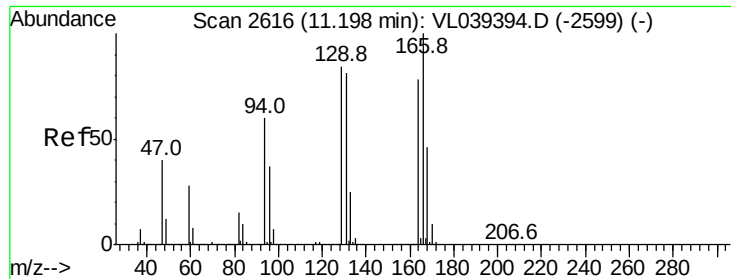
Ion Ratio Lower Upper

42 100

72 1.0 31.8 47.8#

71 15.7 31.8 47.8#





#52

Tetrachloroethene

Concen: 1.28 ppbv

RT: 11.24

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 12 Jul 2022 18:02

Tgt Ion: 164 Resp: 166839

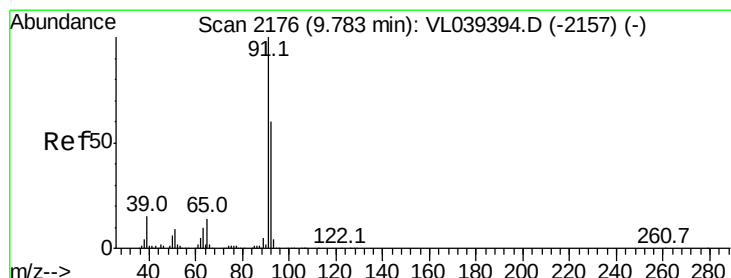
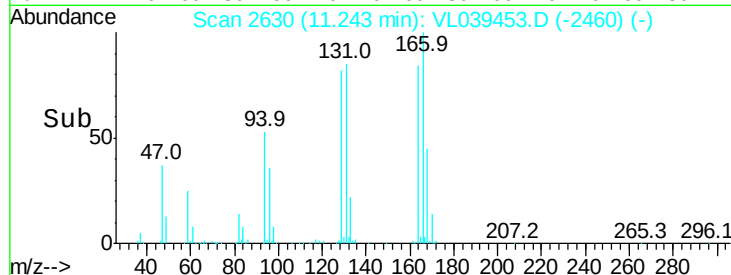
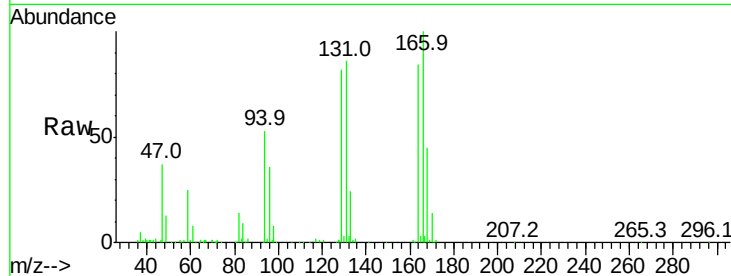
Ion Ratio Lower Upper

164 100

166 118.8 102.2 153.2

129 97.2 85.8 128.8

131 101.7 83.3 124.9



#53

Toluene

Concen: 0.36 ppbv

RT: 9.83 min Scan# 2190

Delta R.T. 0.05 min

Lab File: VL039453.D

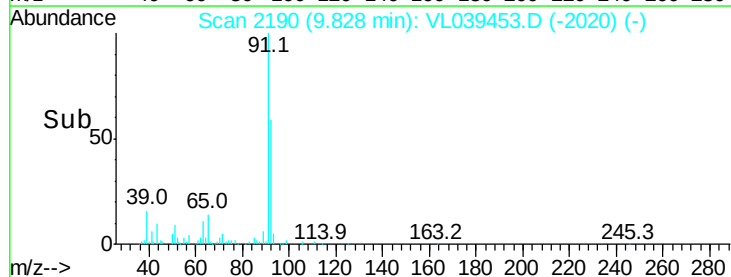
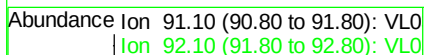
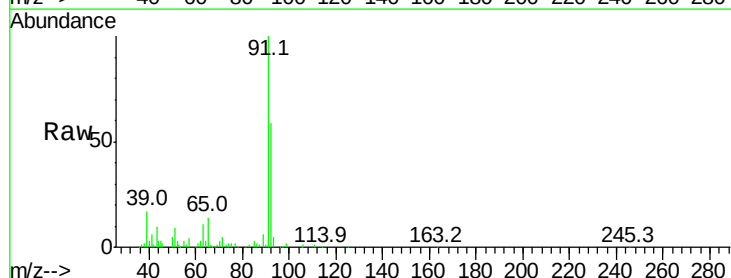
Acq: 12 Jul 2022 18:02

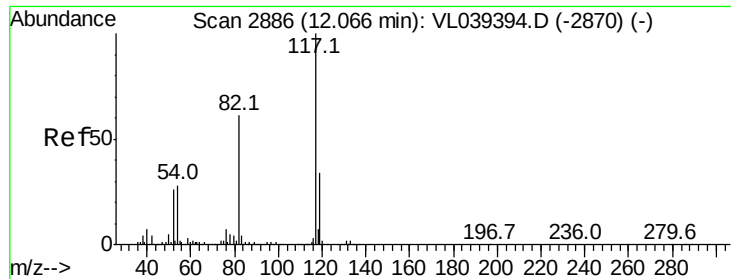
Tgt Ion: 91 Resp: 135117

Ion Ratio Lower Upper

91 100

92 60.8 48.2 72.2

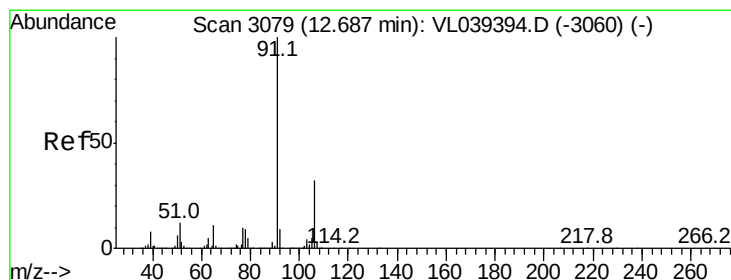
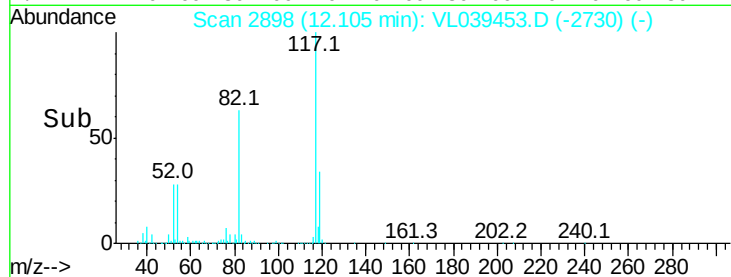
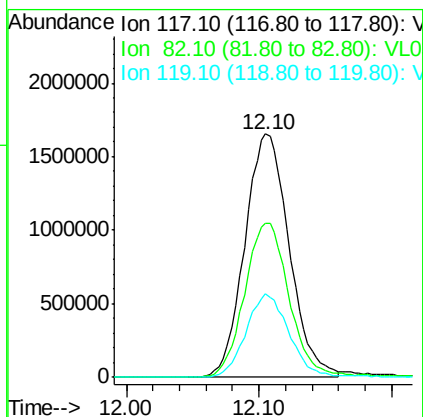
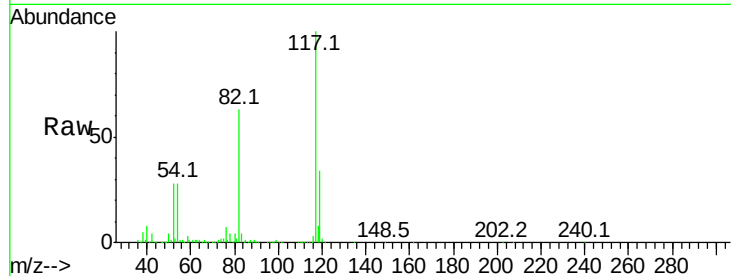




#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 12.10 min
Instrument: MSVOA_1
Delta R.T.: 0.05 min
Lab File: ClientSampleId : SG-7
Acq: 12 Jul 2022 18:02

Tgt Ion: 117 Resp: 3852344

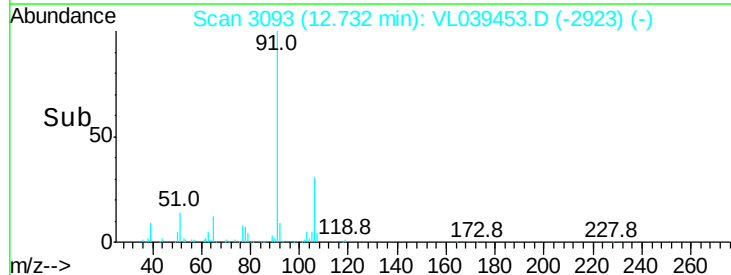
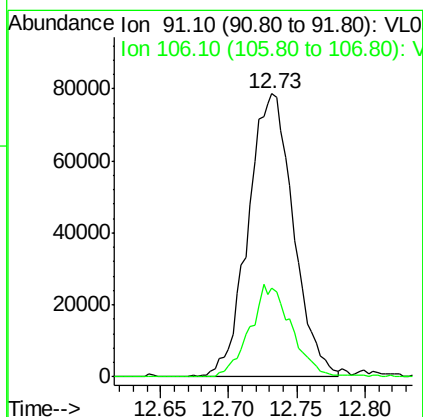
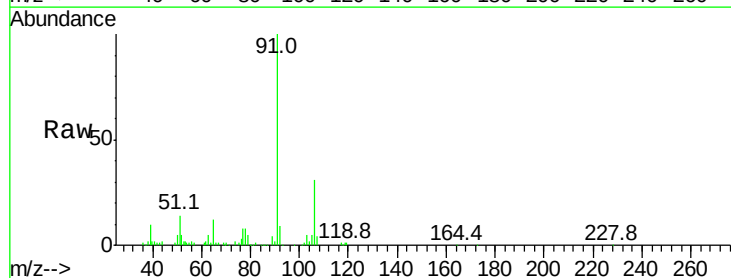
Ion	Ratio	Lower	Upper
117	100		
82	65.1	50.8	76.2
119	33.9	24.1	36.1

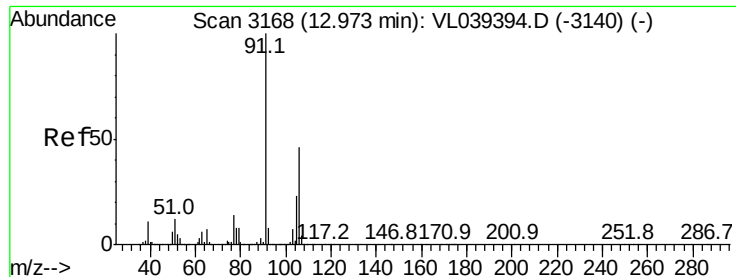


#58
Ethyl Benzene
Concen: 0.36 ppbv
RT: 12.73 min Scan# 3093
Delta R.T.: 0.05 min
Lab File: VL039453.D
Acq: 12 Jul 2022 18:02

Tgt Ion: 91 Resp: 180688

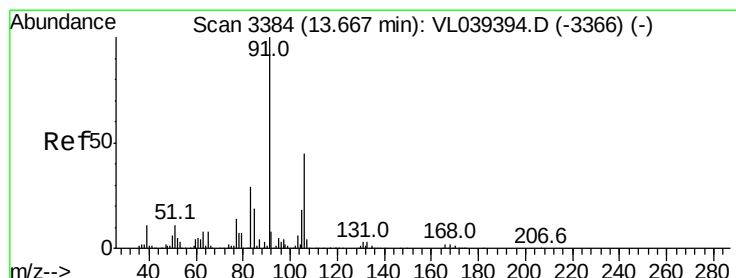
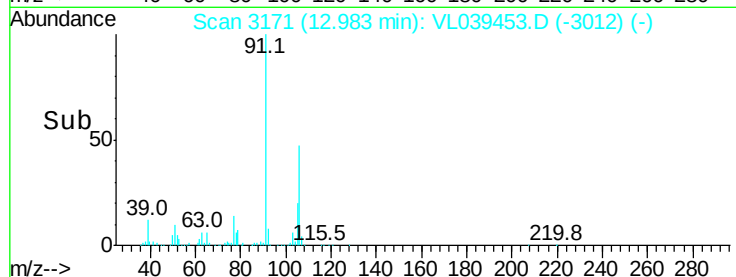
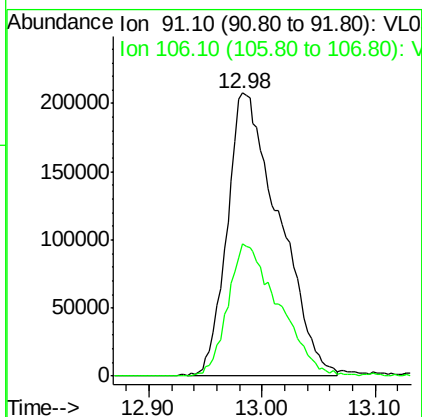
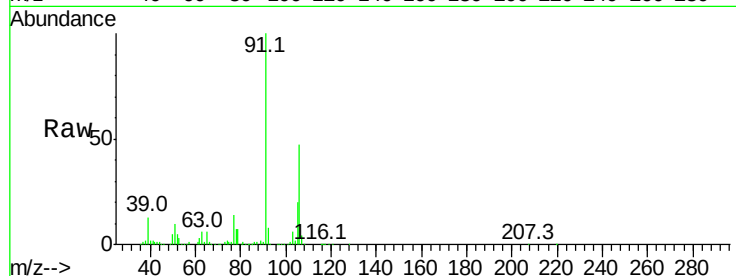
Ion	Ratio	Lower	Upper
91	100		
106	31.2	25.4	38.0





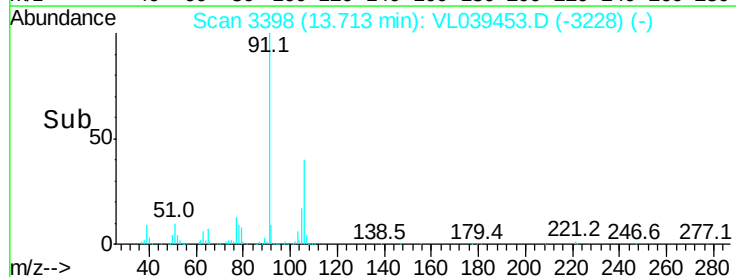
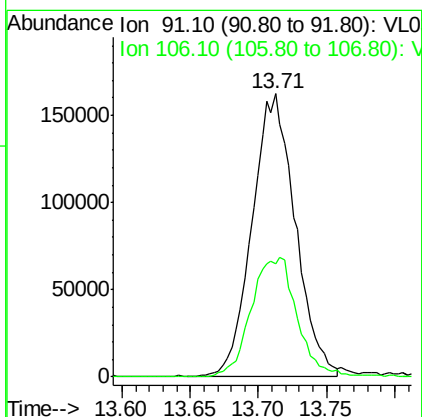
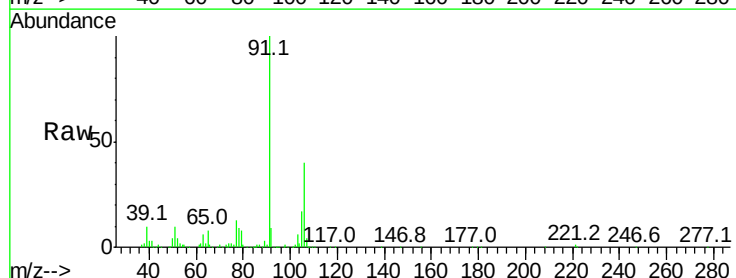
#59
m/p-Xylene
Concen: 1.50 ppbv
RT: 12.98 min
Delta R.T. MSVOA_1
Lab File: ClientSampleId :
Acq: 12 Jul 2022 18:02

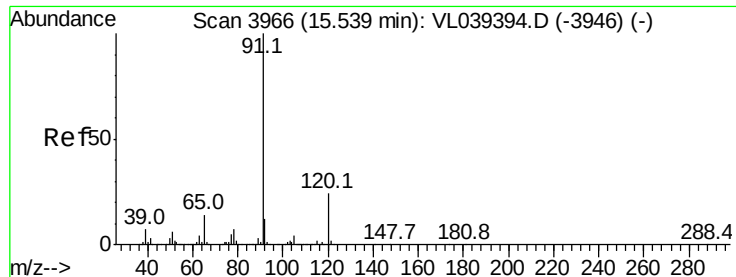
Tgt Ion: 91 Resp: 656475
Ion Ratio Lower Upper
91 100
106 46.6 35.4 53.2



#60
o-Xylene
Concen: 0.86 ppbv
RT: 13.71 min Scan# 3398
Delta R.T. 0.05 min
Lab File: VL039453.D
Acq: 12 Jul 2022 18:02

Tgt Ion: 91 Resp: 356217
Ion Ratio Lower Upper
91 100
106 45.2 22.4 67.3





#64

n-propylbenzene

Concen: 0.17 ppbv

RT: 15.58

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

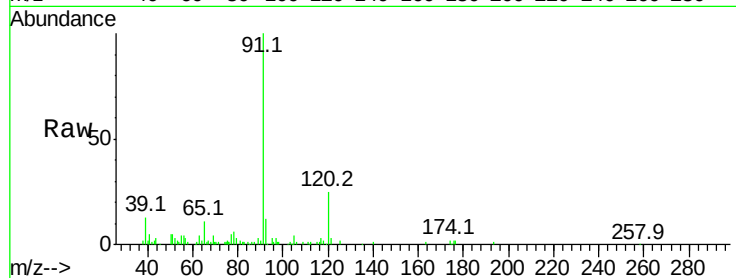
Acq: 12 Jul 2022 18:02

Tgt Ion:120 Resp: 26777

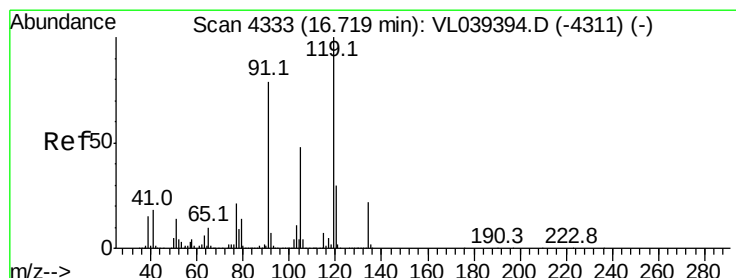
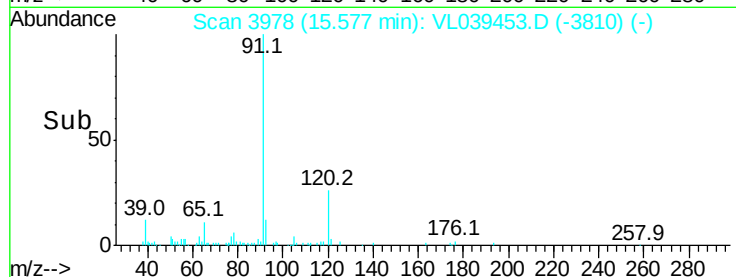
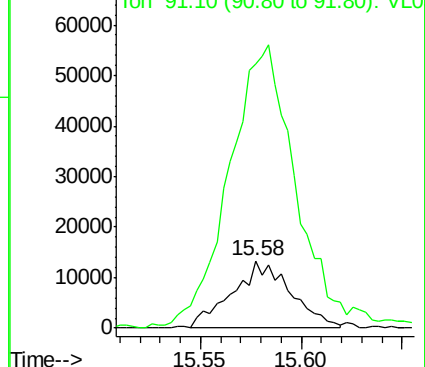
Ion Ratio Lower Upper

120 100

91 494.5 367.2 550.8



Abundance Ion 120.20 (119.90 to 120.90): V



#65

tert-Butylbenzene

Concen: 0.09 ppbv

RT: 16.78 min Scan# 4352

Delta R.T. 0.06 min

Lab File: VL039453.D

Acq: 12 Jul 2022 18:02

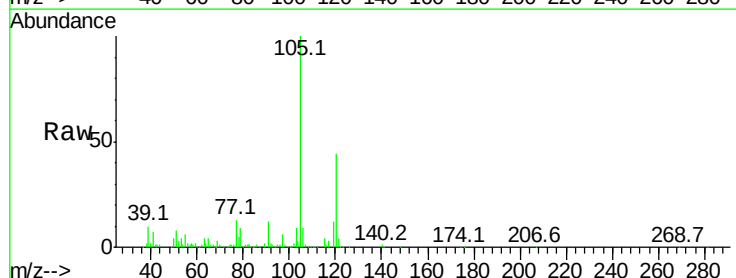
Tgt Ion:119 Resp: 51496

Ion Ratio Lower Upper

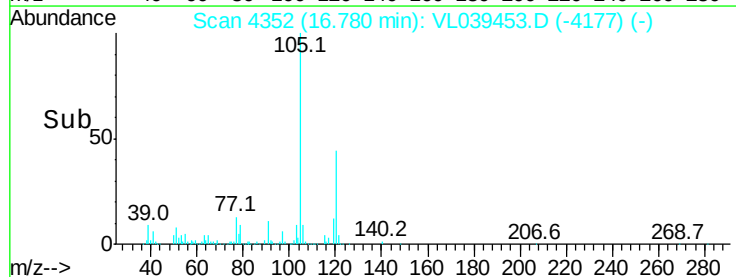
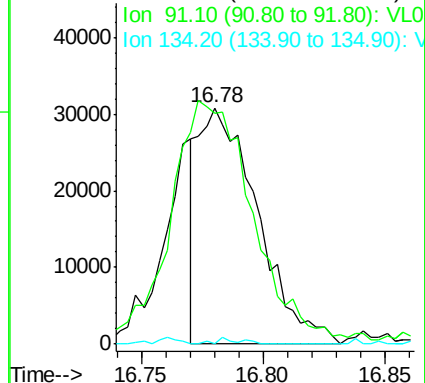
119 100

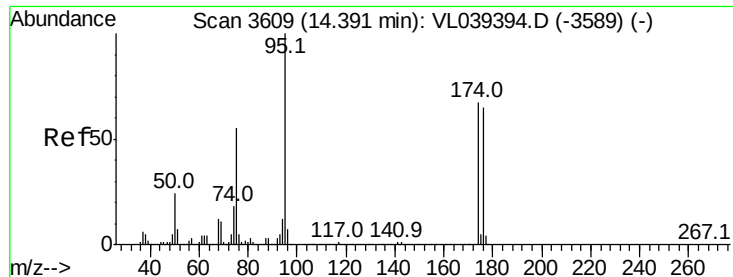
91 143.8 63.4 95.2#

134 2.3 15.9 23.9#



Abundance Ion 119.20 (118.90 to 119.90): V

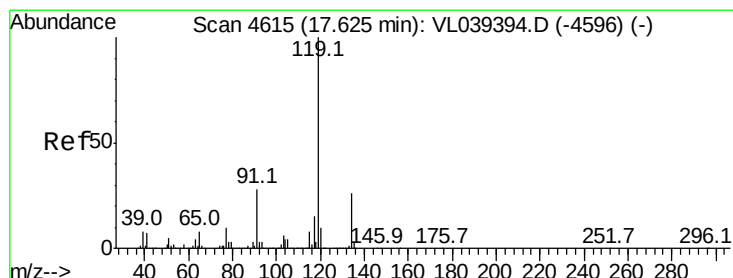
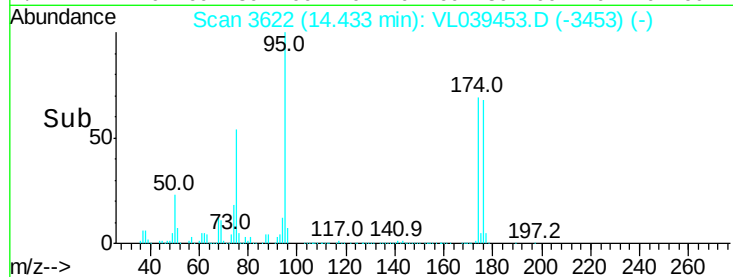
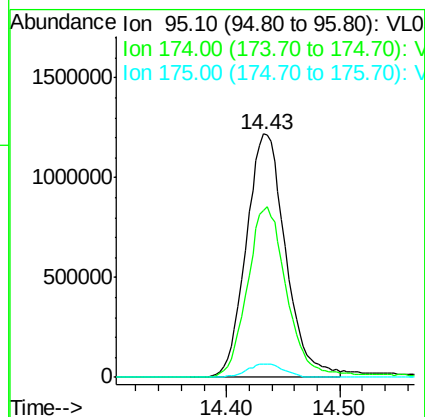
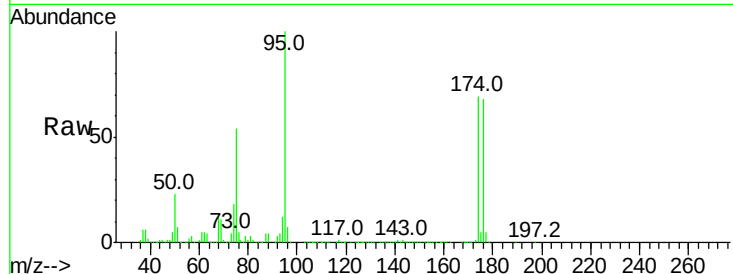




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.32 ppbv
 RT: 14.43 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId : SG-7
 Acq: 12 Jul 2022 18:02

Tgt Ion: 95 Resp: 2949842

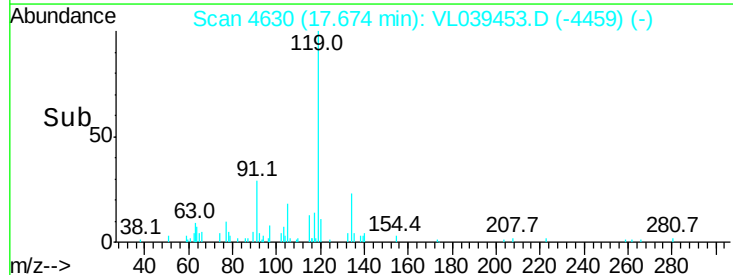
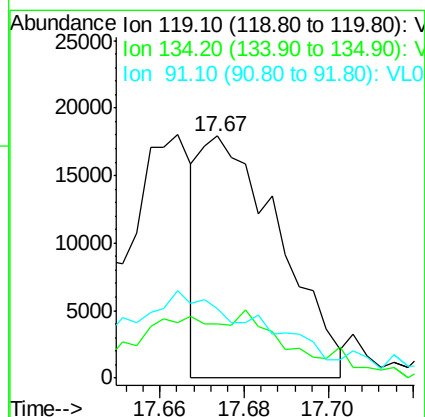
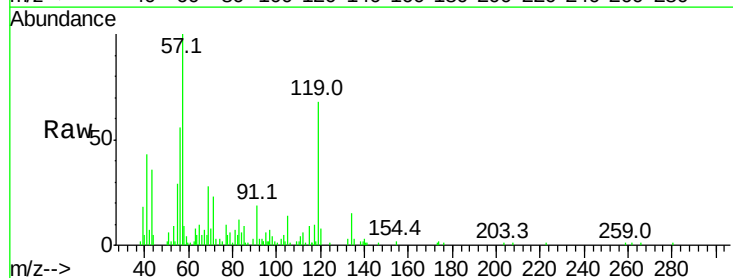
Ion	Ratio	Lower	Upper
95	100		
174	72.6	55.9	83.9
175	5.3	4.2	6.4

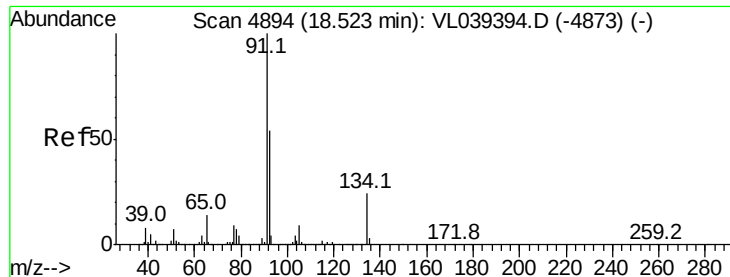


#69
 p-Isopropyltoluene
 Concen: 0.03 ppbv
 RT: 17.67 min Scan# 4630
 Delta R.T. 0.05 min
 Lab File: VL039453.D
 Acq: 12 Jul 2022 18:02

Tgt Ion: 119 Resp: 23351

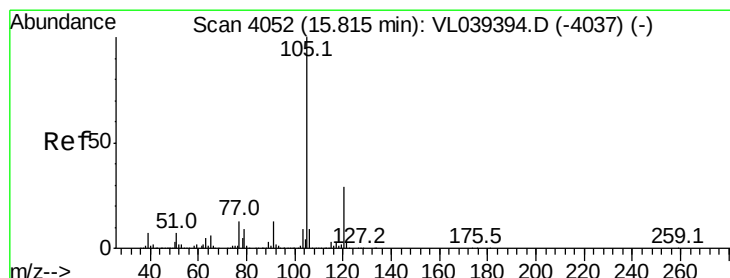
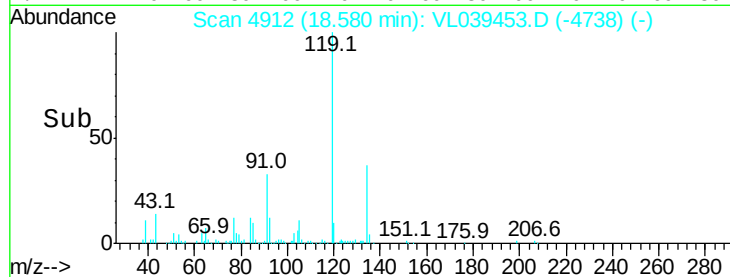
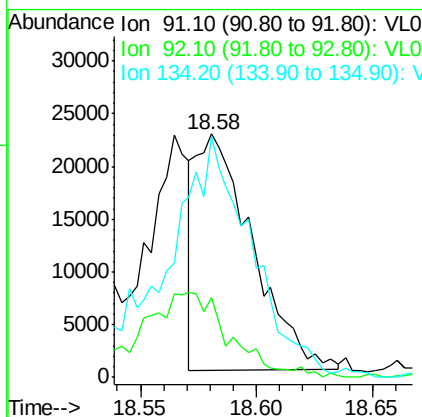
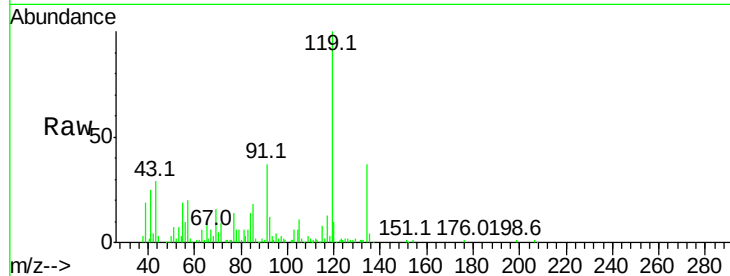
Ion	Ratio	Lower	Upper
119	100		
134	55.0	20.3	30.5#
91	0.0	22.9	34.3#





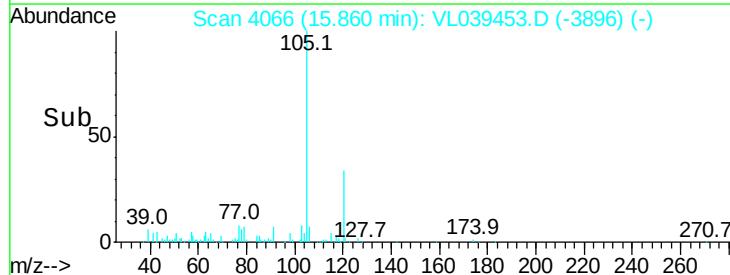
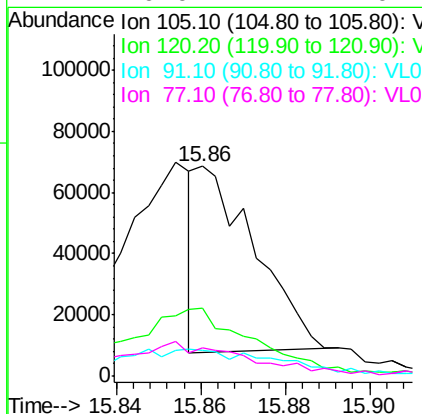
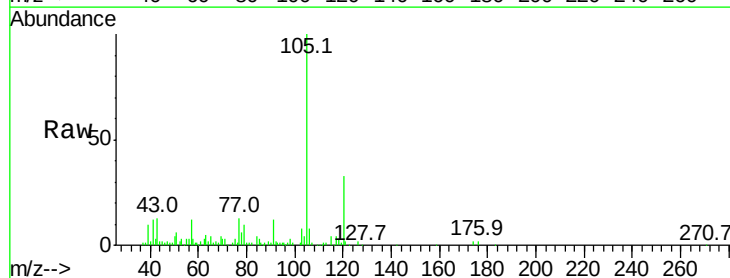
#70
 n-Butylbenzene
 Concen: 0.06 ppbv
 RT: 18.58
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId : SG-7
 Acq: 12 Jul 2022 18:02

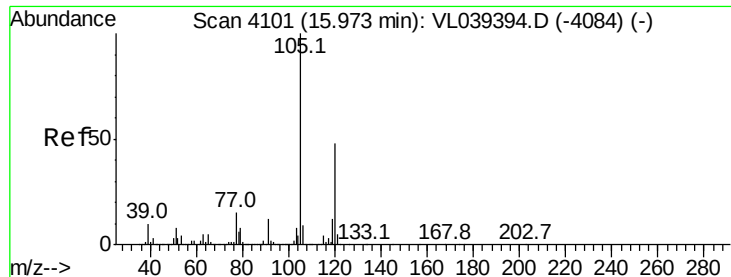
Tgt Ion	Ratio	Lower	Upper
91	100		
92	0.0	43.4	65.2#
134	173.1	18.9	28.3#



#72
 4-Ethyltoluene
 Concen: 0.12 ppbv
 RT: 15.86 min Scan# 4066
 Delta R.T. 0.05 min
 Lab File: VL039453.D
 Acq: 12 Jul 2022 18:02

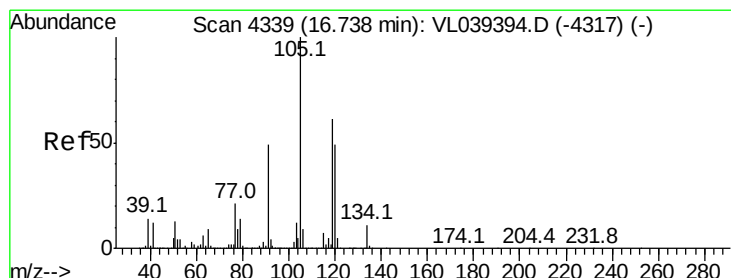
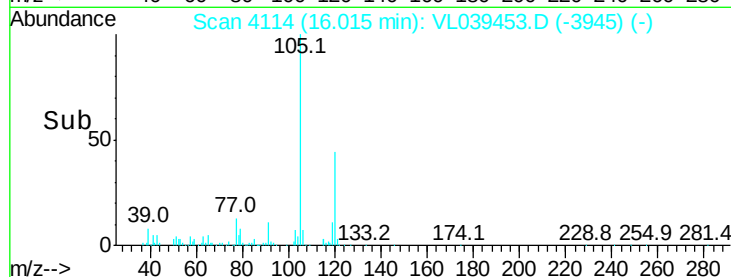
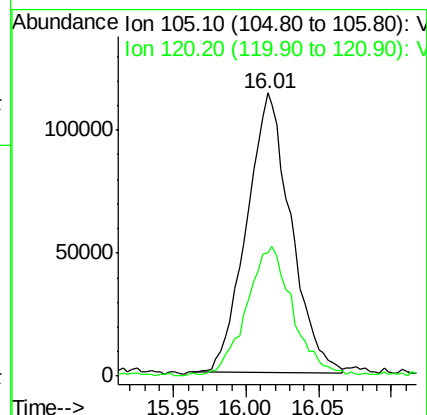
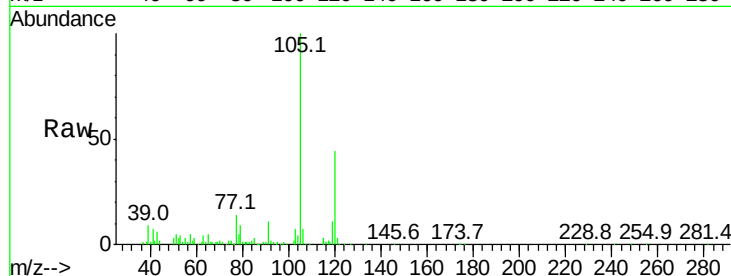
Tgt Ion	Ratio	Lower	Upper
105	100		
120	84.1	24.2	36.2#
91	0.0	10.2	15.4#
77	0.0	11.1	16.7#





#73
 1,3,5-Trimethylbenzene
 Concen: 0.54 ppbv
 RT: 16.01
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 12 Jul 2022 18:02

Tgt Ion:105 Resp: 240844
 Ion Ratio Lower Upper
 105 100
 120 43.4 38.2 57.4



#74
 1,2,4-Trimethylbenzene
 Concen: 1.26 ppbv
 RT: 16.78 min Scan# 4352
 Delta R.T. 0.04 min
 Lab File: VL039453.D
 Acq: 12 Jul 2022 18:02

Tgt Ion:105 Resp: 625415
 Ion Ratio Lower Upper
 105 100
 120 43.3 39.5 59.3
 91 11.4 39.2 58.8#
 77 12.9 17.2 25.8#

