

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL030222\
 Data File : VL038499.D
 Acq On : 3 Mar 2022 2:00
 Operator : SY/AP
 Sample : N1754-01
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

Quant Time: Mar 03 03:16:47 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL022222AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Feb 22 19:45:51 2022
 QLast Update : Tue Feb 22 19:45:51 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	896247	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.19	114	1970219	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.10	117	1763553	10.00	ppbv	0.04

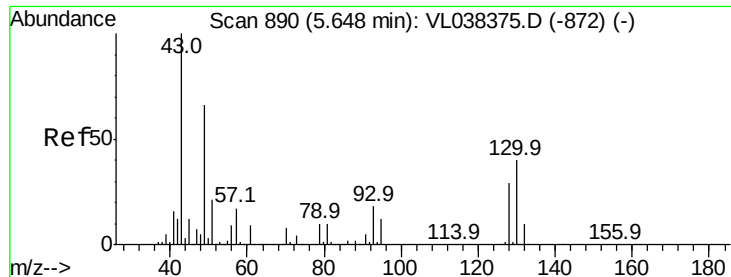
System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	1496274	10.25	ppbv	0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.50%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.06	85	27029	0.19	ppbv	92
3) Chlorodifluoromethane	3.00	51	719940	4.55	ppbv	96
4) Chloromethane	3.15	50	26610	0.48	ppbv	89
9) Propene	3.03	41	80317	1.54	ppbv #	76
11) Trichlorofluoromethane	3.96	101	27437	0.20	ppbv	92
12) 1,1,2-Trichlorotrifluoroet	4.50	101	5499	0.06	ppbv	87
13) Ethanol	3.63	45	12579390	2412.22	ppbv	91
15) Acetone	3.86	43	1234380	16.20	ppbv	100
16) 1,3-Butadiene	3.33	39	4261	0.08	ppbv #	12
17) tert-Butyl alcohol	3.99	59	99780	1.31	ppbv	98
19) Isopropyl Alcohol	3.99	45	2783626	63.07	ppbv	99
20) Methylene Chloride	4.36	84	42415	1.12	ppbv	92
21) Allyl Chloride	4.32	41	12066	0.19	ppbv #	54
22) trans-1,2-Dichloroethene	4.90	96	7561	0.17	ppbv	83
23) Vinyl Acetate	5.08	43	14731	0.15	ppbv #	67
25) Ethyl Acetate	5.68	43	247087	1.21	ppbv #	92
26) Hexane	5.70	57	21001	0.23	ppbv #	1
29) Chloroform	5.76	83	4966	0.03	ppbv	86
31) cis-1,2-Dichloroethene	5.68	61	26437	0.29	ppbv #	30
34) 2-Butanone	5.25	43	59897	0.97	ppbv	94
35) Carbon Tetrachloride	7.03	117	14037	0.10	ppbv	93
36) Benzene	6.90	78	37179	0.21	ppbv #	90
39) 1,2-Dichloropropane	7.18	63	553855	8.02	ppbv #	25
50) 4-Methyl-2-Pentanone	8.76	43	4072	0.04	ppbv	90
51) 2-Hexanone	10.16	43	1877	0.04	ppbv #	1
52) Tetrachloroethene	11.23	164	60449	1.05	ppbv	94
53) Toluene	9.81	91	152503	0.81	ppbv	98
61) Styrene	13.54	104	10218	0.11	ppbv #	72
69) p-Isopropyltoluene	17.68	119	19454	0.08	ppbv #	47

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



#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.68 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId :

Acq: 3 Mar 2022 2:00

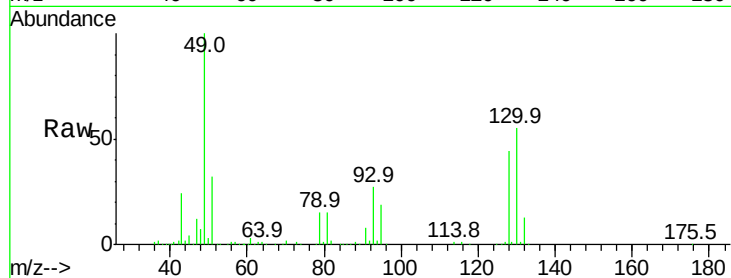
Tgt Ion: 49 Resp: 896247

Ion Ratio Lower Upper

49 100

128 43.4 24.3 72.9

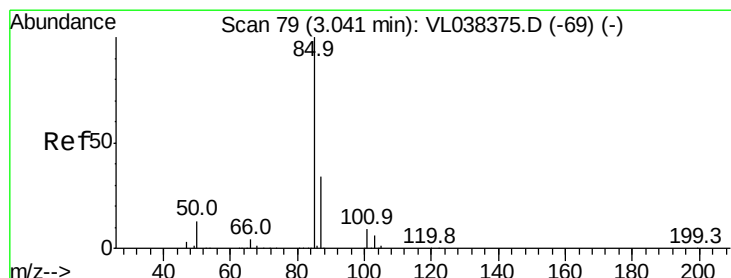
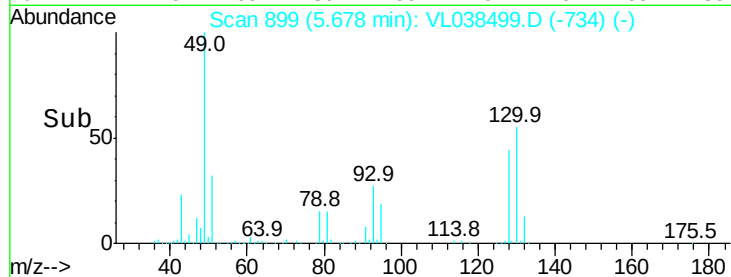
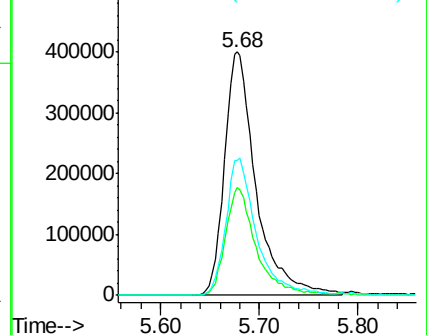
130 55.9 30.1 90.5



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: 0.19 ppbv

RT: 3.06 min Scan# 86

Delta R.T. 0.02 min

Lab File: VL038499.D

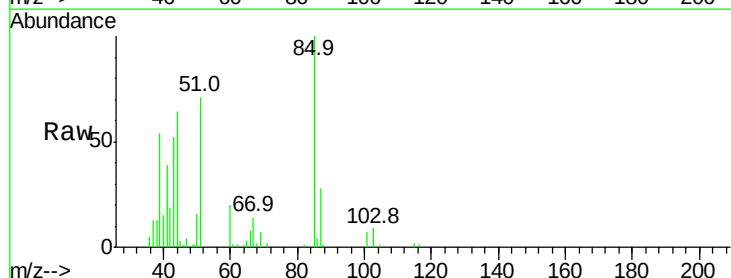
Acq: 3 Mar 2022 2:00

Tgt Ion: 85 Resp: 27029

Ion Ratio Lower Upper

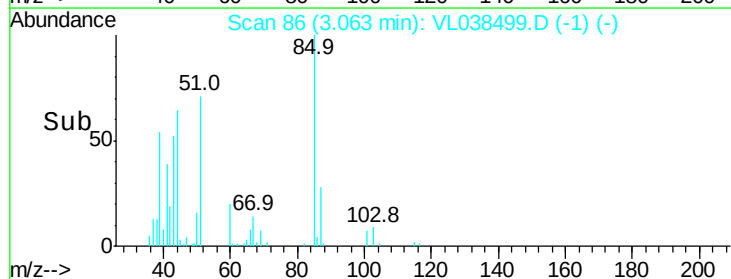
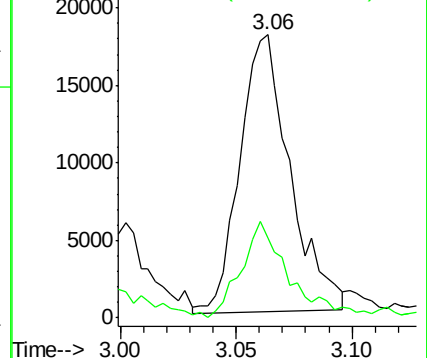
85 100

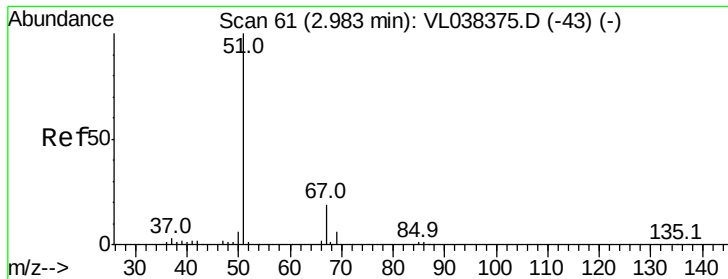
87 29.5 27.4 41.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 4.55 ppbv

RT: 3.00 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

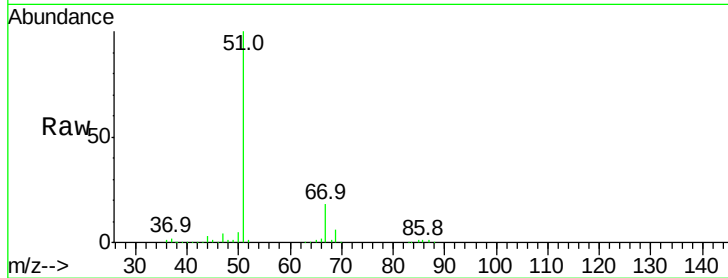
Acq: 3 Mar 2022 2:00

Tgt Ion: 51 Resp: 719940

Ion Ratio Lower Upper

51 100

67 16.7 14.7 22.1



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

3.00

400000

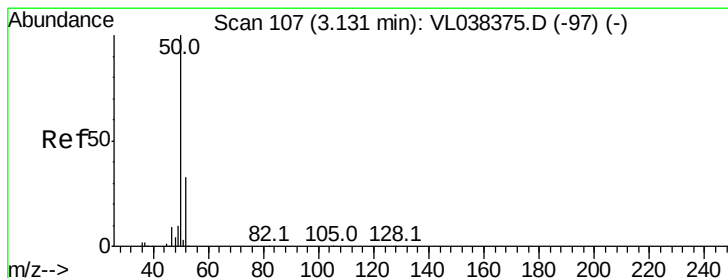
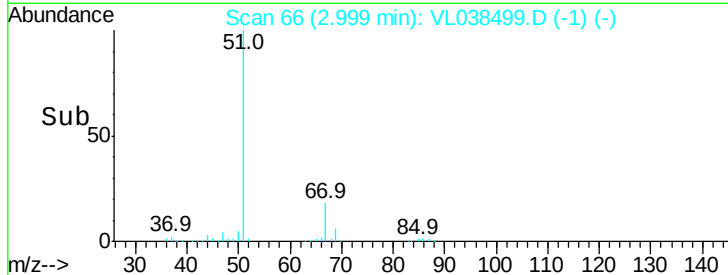
300000

200000

100000

0

Time--> 2.80 2.90 3.00 3.10 3.20



#4

Chloromethane

Concen: 0.48 ppbv

RT: 3.15 min Scan# 114

Delta R.T. 0.02 min

Lab File: VL038499.D

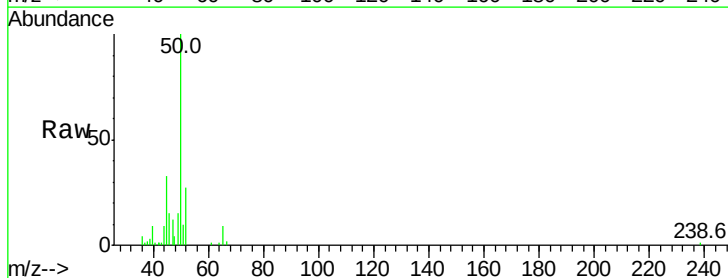
Acq: 3 Mar 2022 2:00

Tgt Ion: 50 Resp: 26610

Ion Ratio Lower Upper

50 100

52 26.9 26.5 39.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

3.15

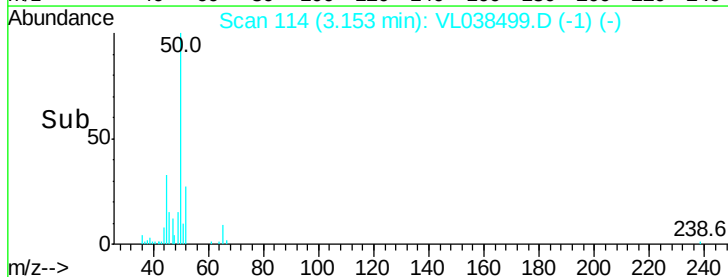
15000

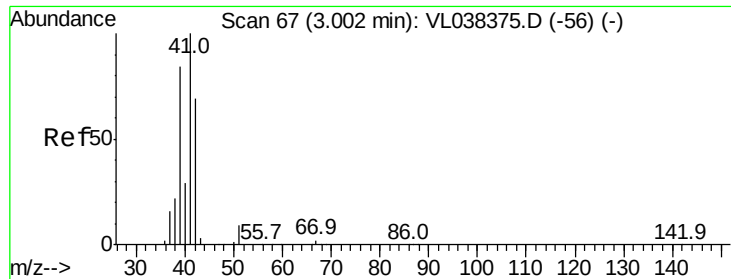
10000

5000

0

Time--> 3.10 3.15 3.20





#9

Propene

Concen: 1.54 ppbv

RT: 3.03 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

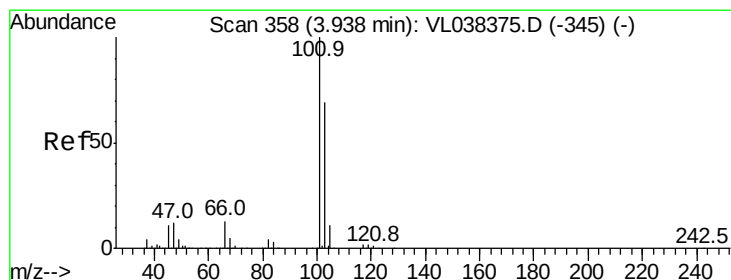
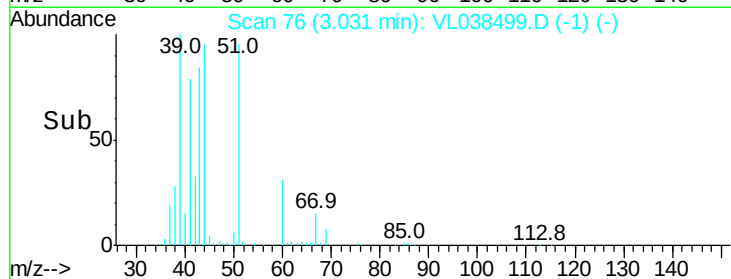
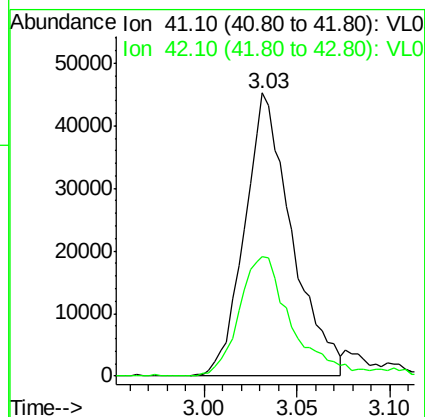
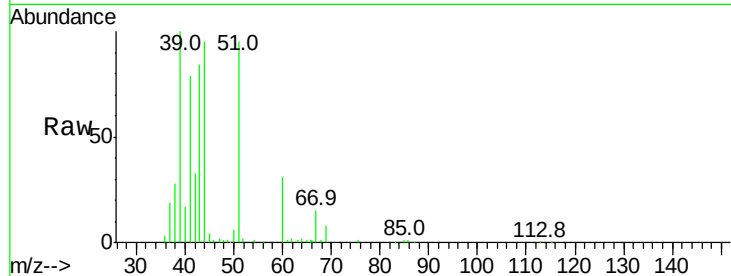
Acq: 3 Mar 2022 2:00

Tgt Ion: 41 Resp: 80317

Ion Ratio Lower Upper

41 100

42 48.9 54.6 82.0#



#11

Trichlorofluoromethane

Concen: 0.20 ppbv

RT: 3.96 min Scan# 366

Delta R.T. 0.03 min

Lab File: VL038499.D

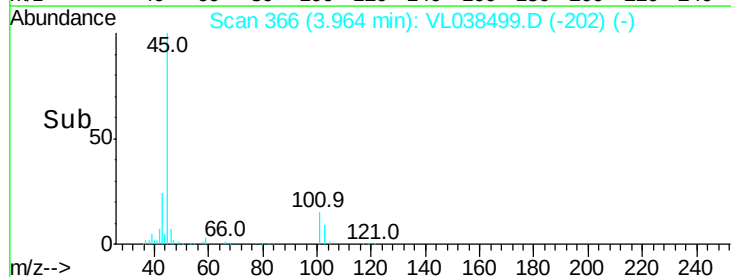
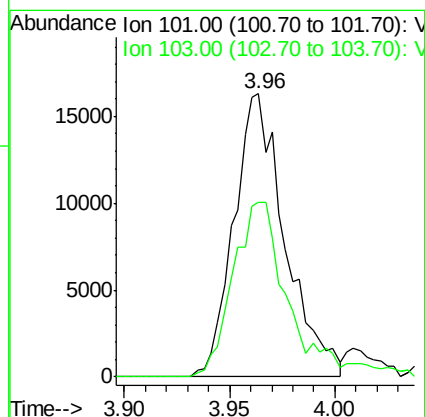
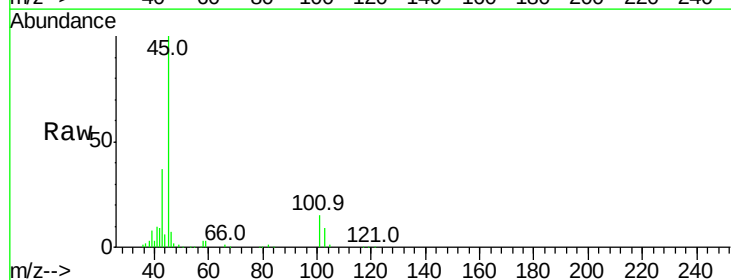
Acq: 3 Mar 2022 2:00

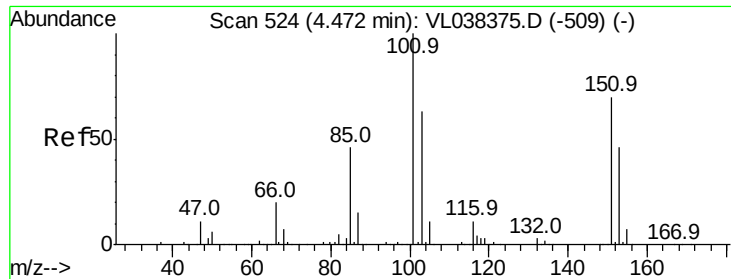
Tgt Ion: 101 Resp: 27437

Ion Ratio Lower Upper

101 100

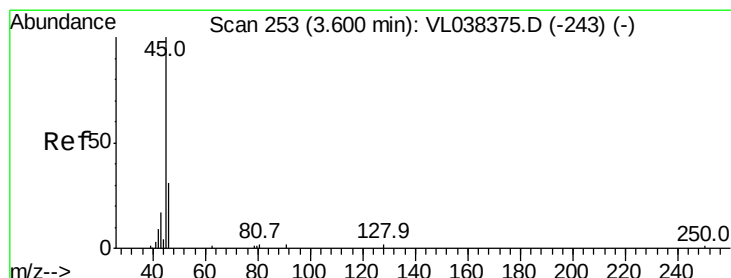
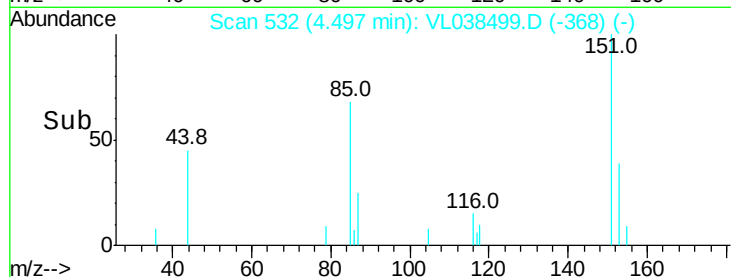
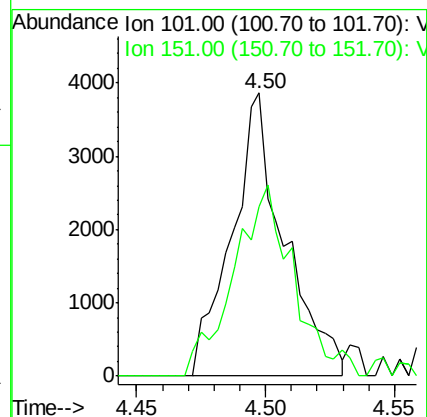
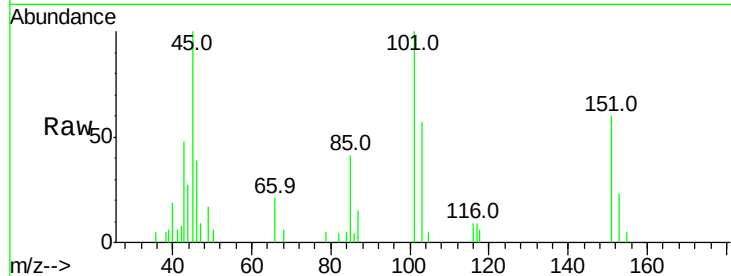
103 61.9 55.0 82.4





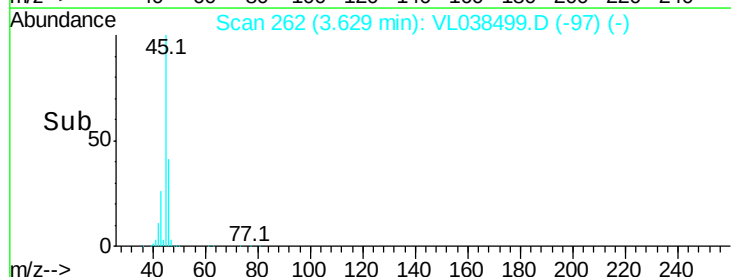
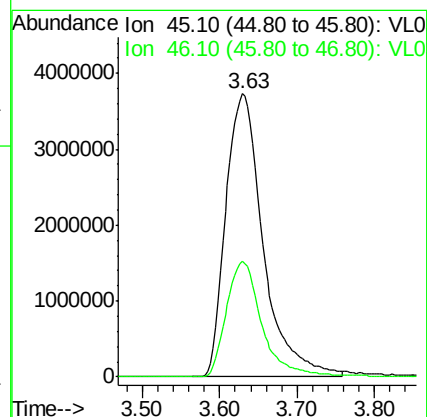
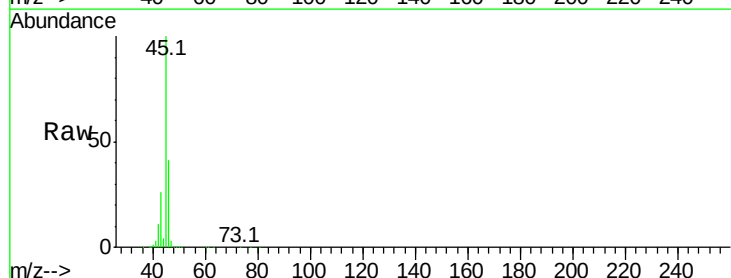
#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.06 ppbv
 RT: 4.50
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 3 Mar 2022 2:00

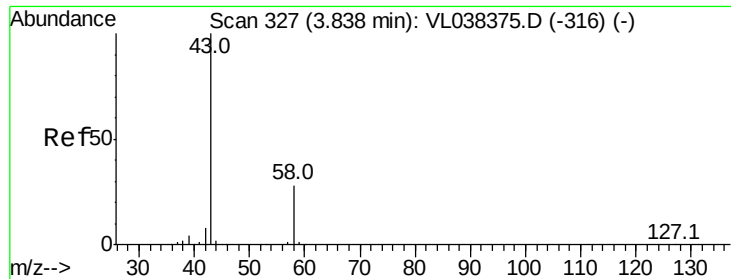
Tgt Ion: 101 Resp: 5499
 Ion Ratio Lower Upper
 101 100
 151 80.5 55.9 83.9



#13
 Ethanol
 Concen: 2412.22 ppbv
 RT: 3.63 min Scan# 262
 Delta R.T. 0.03 min
 Lab File: VL038499.D
 Acq: 3 Mar 2022 2:00

Tgt Ion: 45 Resp: 12579390
 Ion Ratio Lower Upper
 45 100
 46 39.3 18.2 72.8





#15

Acetone

Concen: 16.20 ppbv

RT: 3.86 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

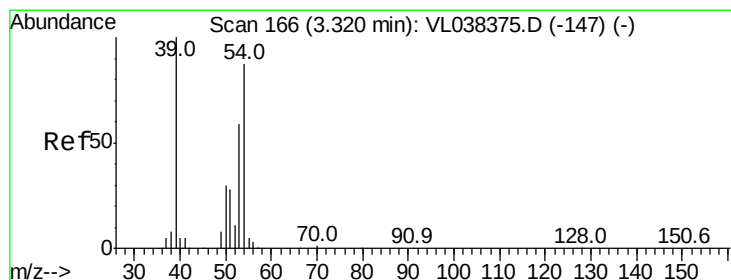
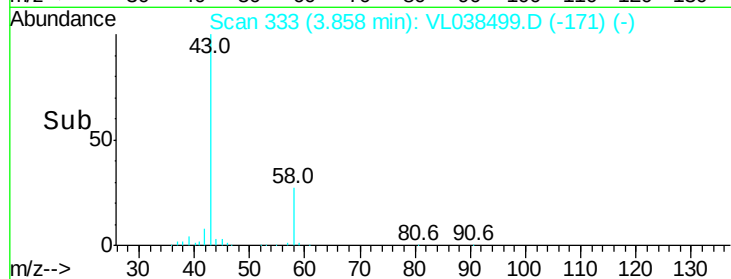
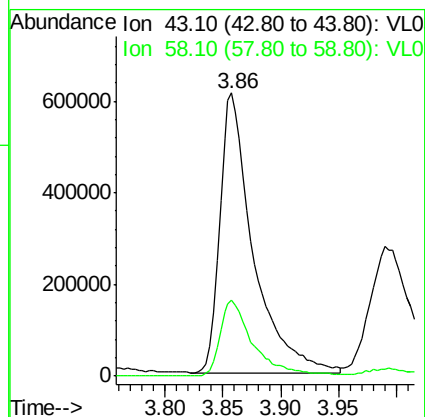
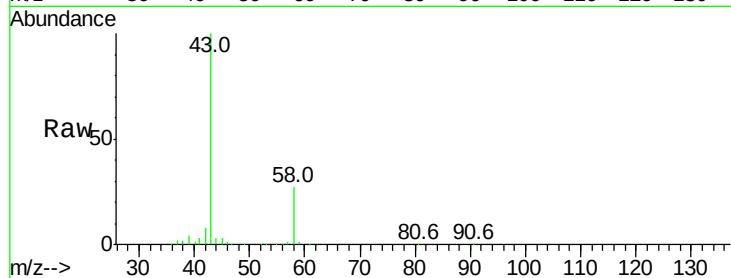
Acq: 3 Mar 2022 2:00

Tgt Ion: 43 Resp: 1234380

Ion Ratio Lower Upper

43 100

58 27.2 21.7 32.5



#16

1,3-Butadiene

Concen: 0.08 ppbv

RT: 3.33 min Scan# 168

Delta R.T. 0.01 min

Lab File: VL038499.D

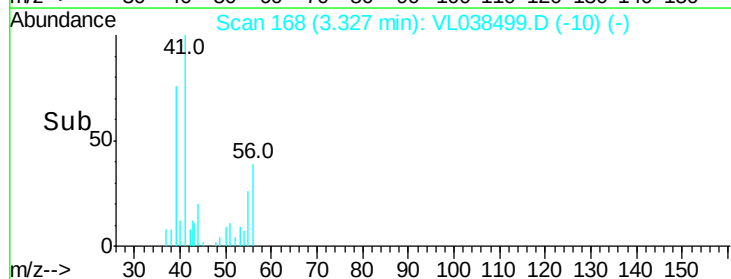
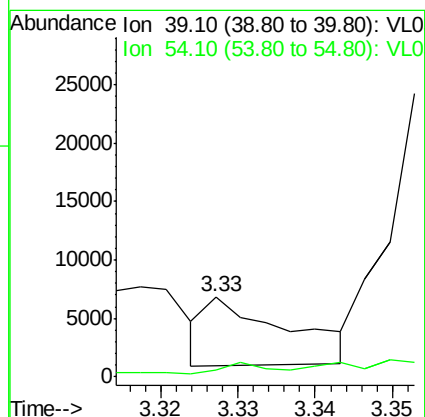
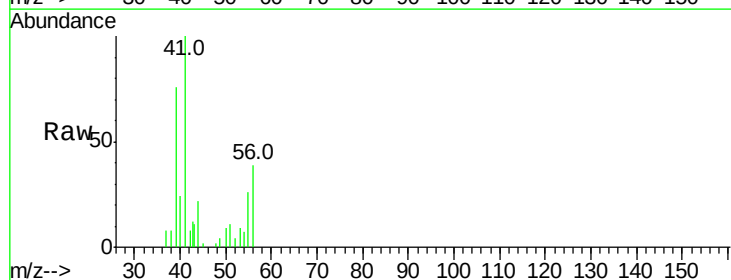
Acq: 3 Mar 2022 2:00

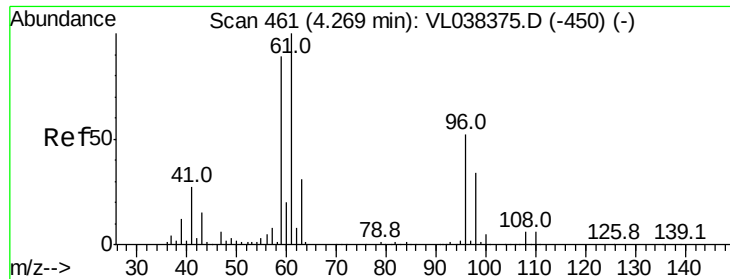
Tgt Ion: 39 Resp: 4261

Ion Ratio Lower Upper

39 100

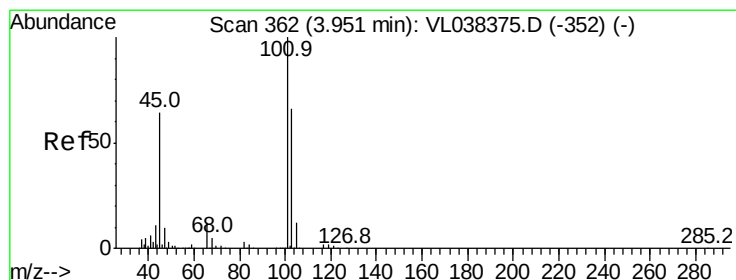
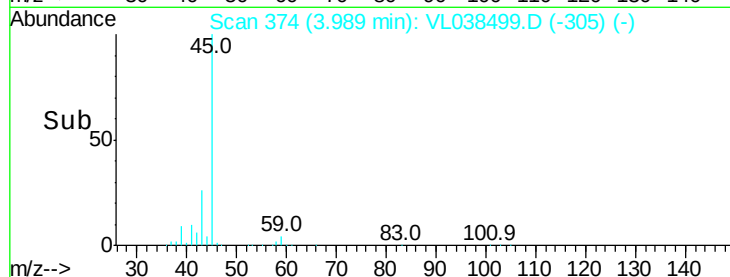
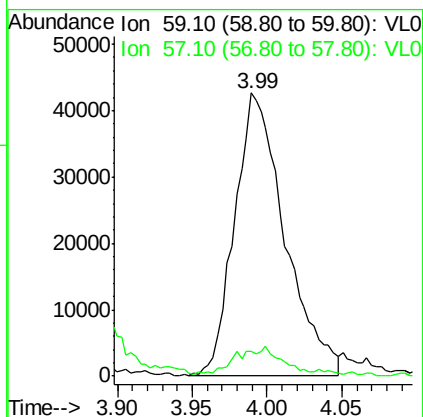
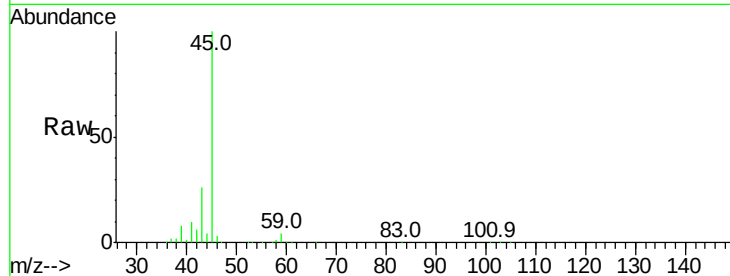
54 0.0 60.3 90.5#





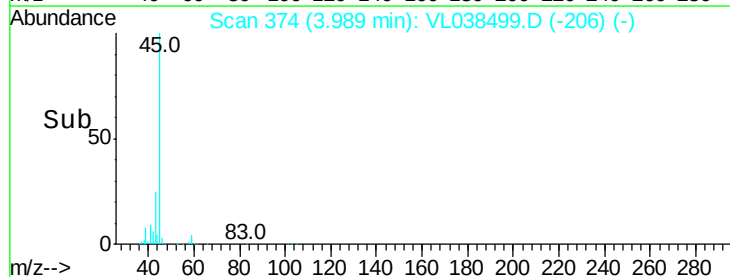
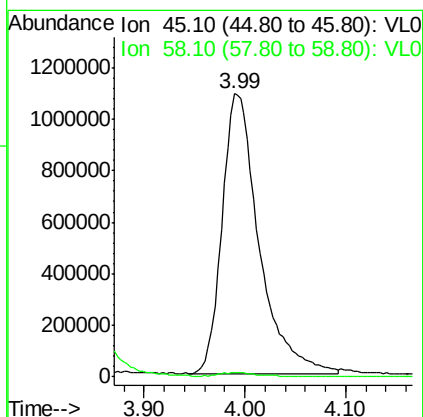
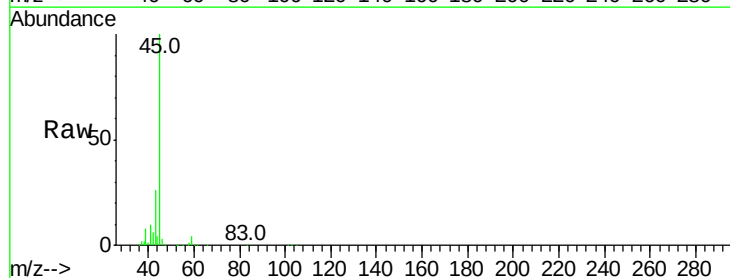
#17
tert-Butyl alcohol
Concen: 1.31 ppbv
RT: 3.99
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 3 Mar 2022 2:00

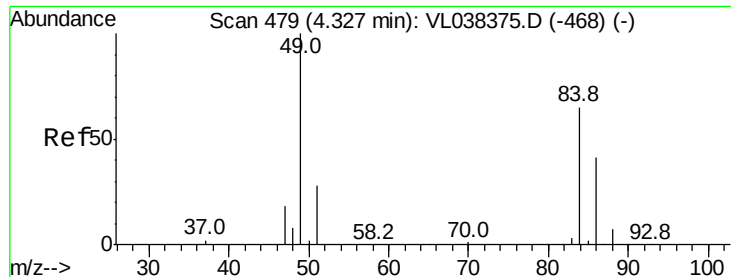
Tgt Ion: 59 Resp: 99780
Ion Ratio Lower Upper
59 100
57 11.4 8.4 12.6



#19
Isopropyl Alcohol
Concen: 63.07 ppbv
RT: 3.99 min Scan# 374
Delta R.T. 0.04 min
Lab File: VL038499.D
Acq: 3 Mar 2022 2:00

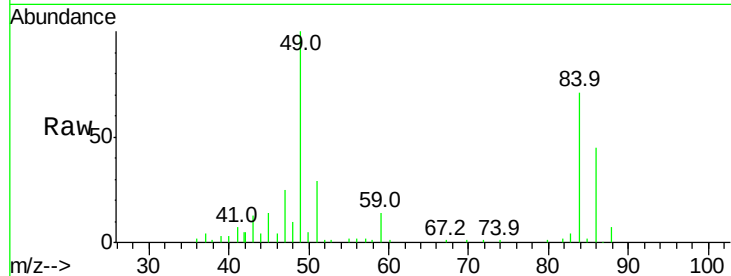
Tgt Ion: 45 Resp: 2783626
Ion Ratio Lower Upper
45 100
58 1.9 1.8 2.8





#20
Methylene Chloride
Concen: 1.12 ppbv
RT: 4.36
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 3 Mar 2022 2:00

Tgt Ion:	84	Resp:	42415
Ion	Ratio	Lower	Upper
84	100		
49	138.5	122.4	183.6
51	38.3	33.3	49.9
86	63.1	50.7	76.1



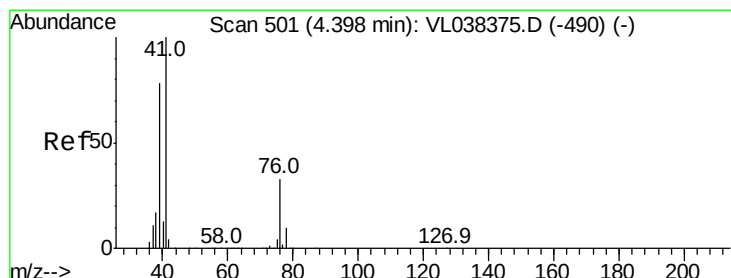
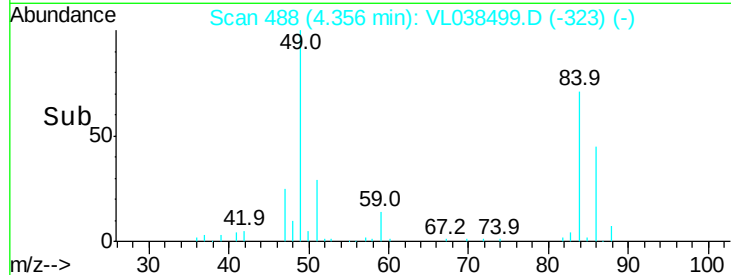
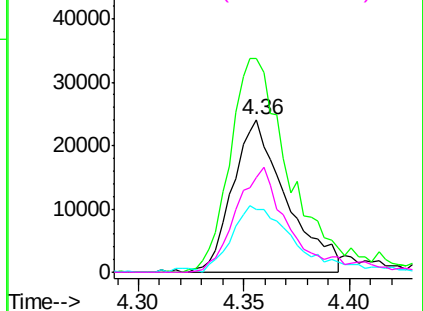
Abundance

Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

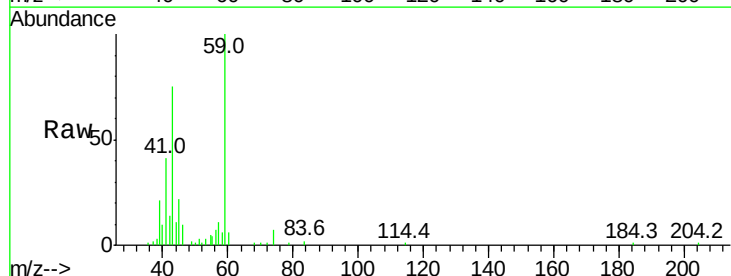
Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#21
Allyl Chloride
Concen: 0.19 ppbv
RT: 4.32 min Scan# 478
Delta R.T. -0.07 min
Lab File: VL038499.D
Acq: 3 Mar 2022 2:00

Tgt Ion:	41	Resp:	12066
Ion	Ratio	Lower	Upper
41	100		
76	0.0	25.4	38.0#
39	114.7	63.0	94.6#

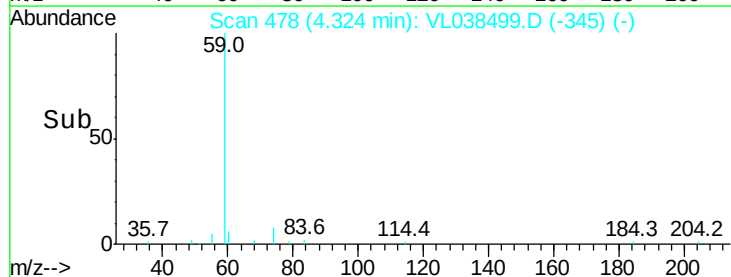
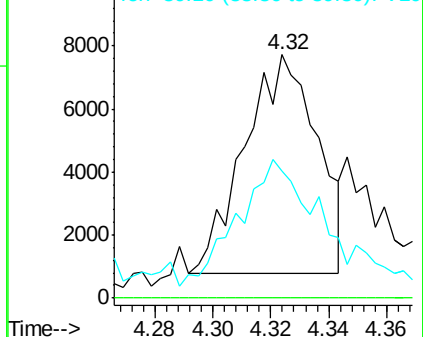


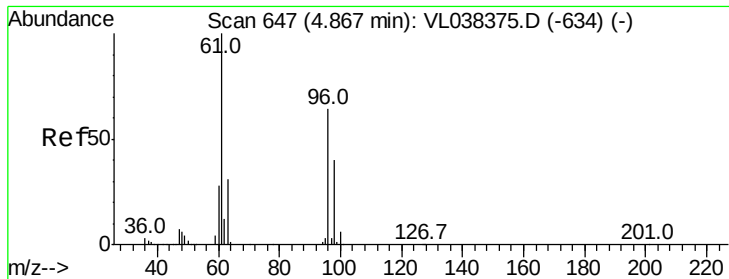
Abundance

Ion 41.10 (40.80 to 41.80): VL0

Ion 76.10 (75.80 to 76.80): VL0

Ion 39.10 (38.80 to 39.80): VL0





#22

trans-1,2-Dichloroethene

Concen: 0.17 ppbv

RT: 4.90 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 3 Mar 2022 2:00

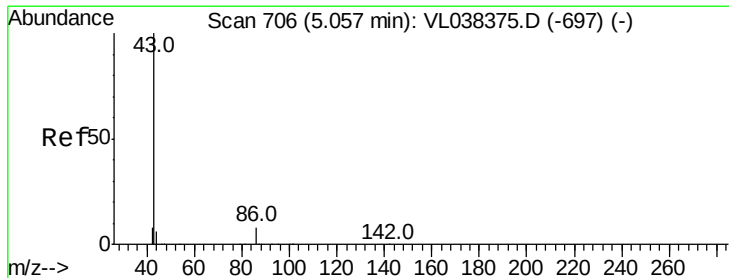
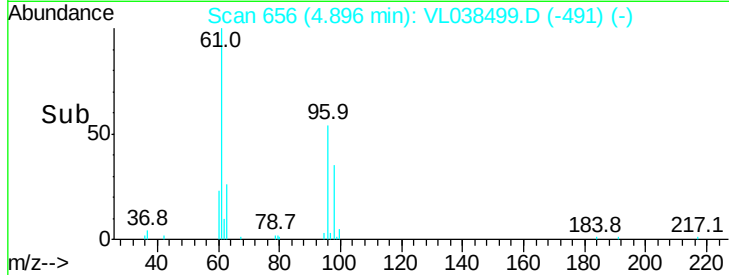
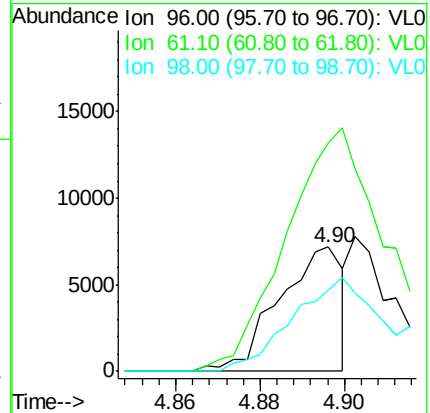
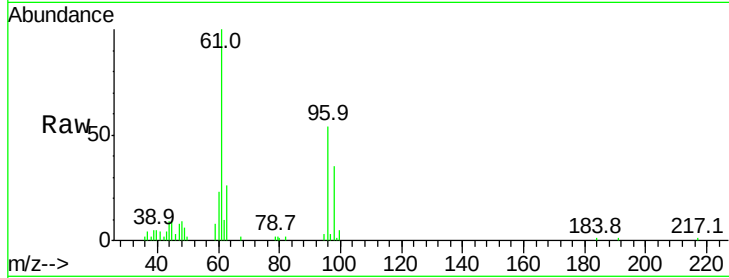
Tgt Ion: 96 Resp: 7561

Ion Ratio Lower Upper

96 100

61 183.6 124.2 186.4

98 64.9 49.1 73.7



#23

Vinyl Acetate

Concen: 0.15 ppbv

RT: 5.08 min Scan# 713

Delta R.T. 0.02 min

Lab File: VL038499.D

Acq: 3 Mar 2022 2:00

Tgt Ion: 43 Resp: 14731

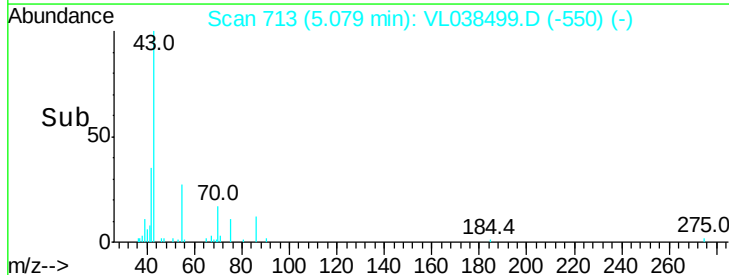
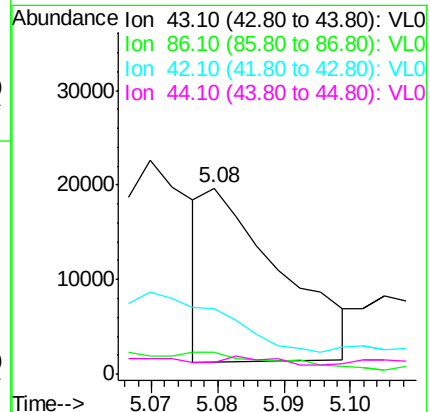
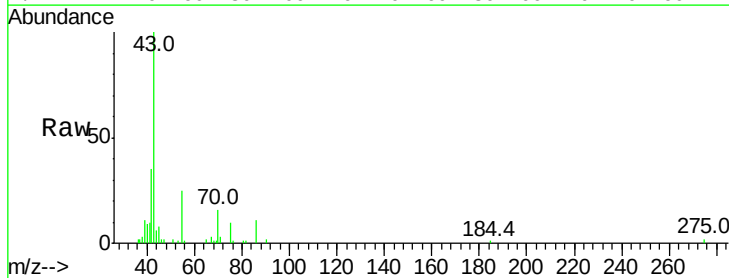
Ion Ratio Lower Upper

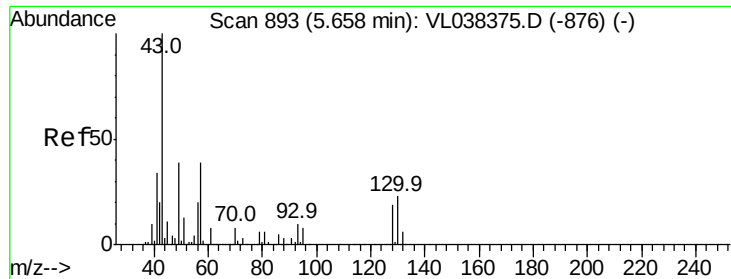
43 100

86 11.2 5.8 8.6#

42 31.5 7.4 11.0#

44 1.6 4.2 6.2#





#25

Ethyl Acetate

Concen: 1.21 ppbv

RT: 5.68 Instrument: MSVOA_1

Delta R.T. 0.03

Lab File: ClientSampleId: A1

Acq: 3 Mar 2022 2:00

Tgt Ion: 43 Resp: 247087

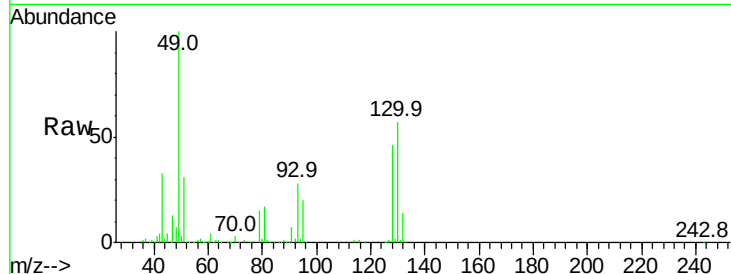
Ion Ratio Lower Upper

43 100

45 13.7 7.8 11.6#

61 11.8 7.5 11.3#

70 8.2 5.4 8.0#

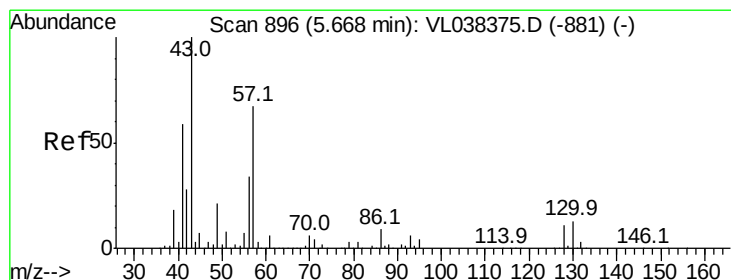
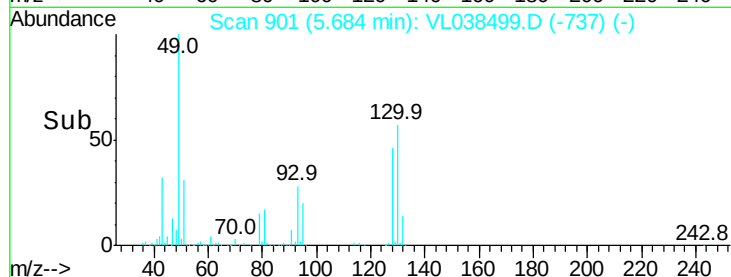
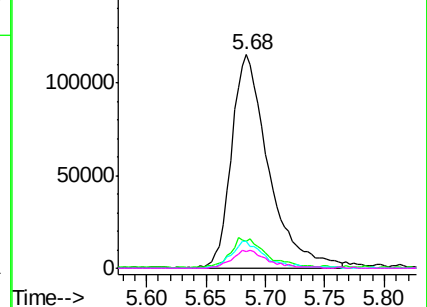


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 0.23 ppbv

RT: 5.70 min Scan# 905

Delta R.T. 0.03 min

Lab File: VL038499.D

Acq: 3 Mar 2022 2:00

Tgt Ion: 57 Resp: 21001

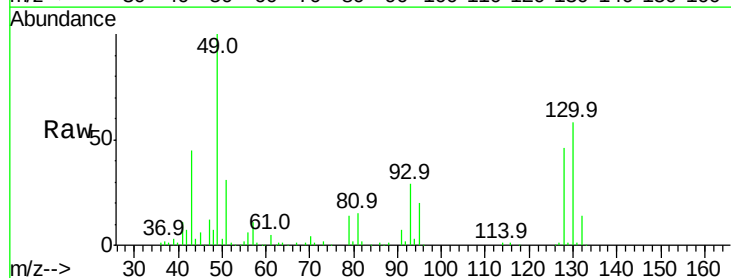
Ion Ratio Lower Upper

57 100

41 175.1 73.1 109.7#

43 1202.0 181.0 271.4#

56 95.6 43.4 65.0#

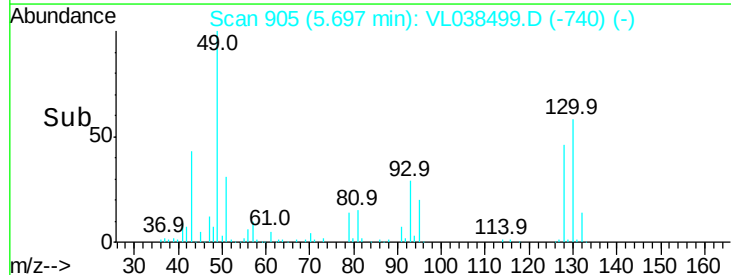
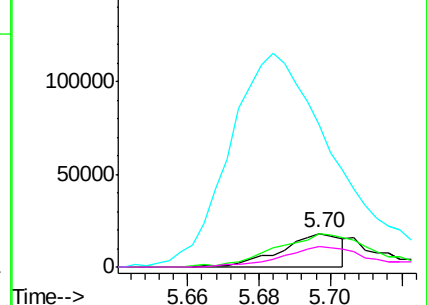


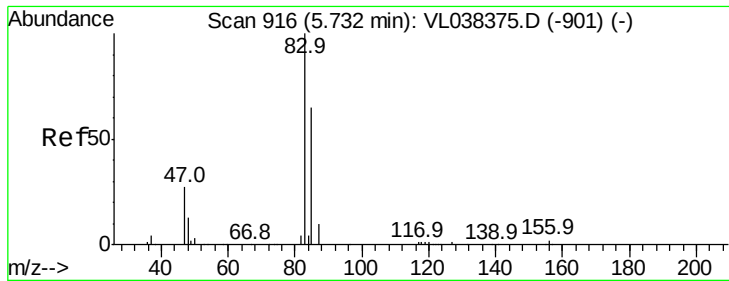
Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

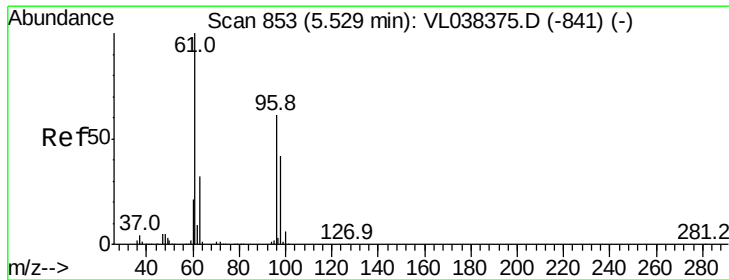
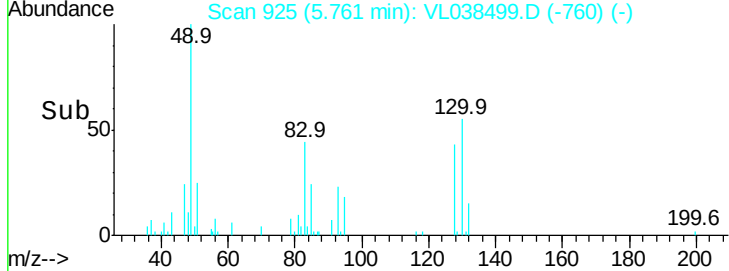
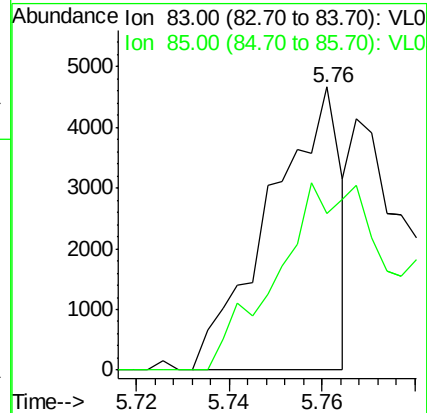
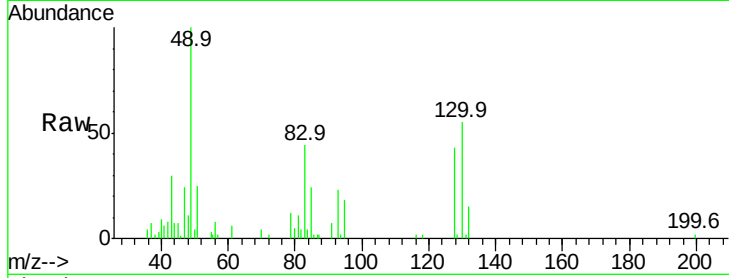
Ion 56.10 (55.80 to 56.80): VL0





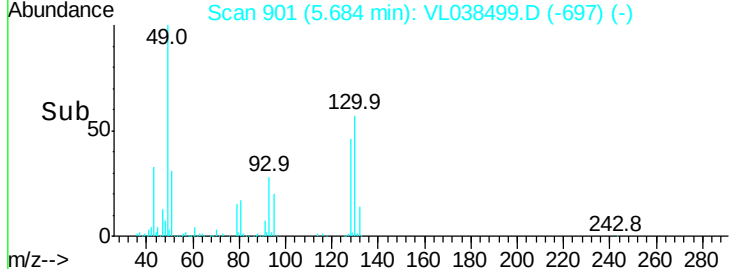
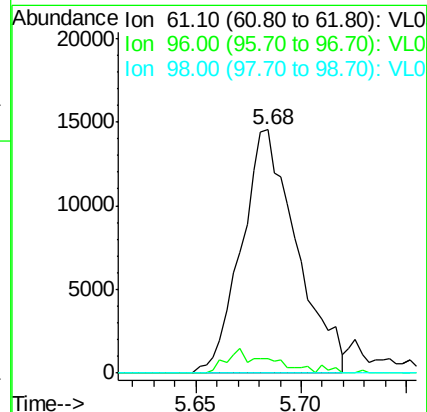
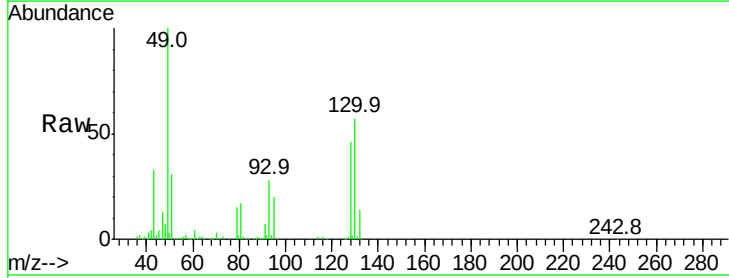
#29
Chloroform
Concen: 0.03 ppbv
RT: 5.76
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 3 Mar 2022 2:00

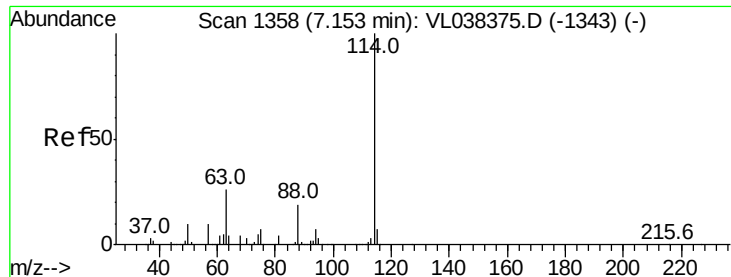
Tgt Ion: 83 Resp: 4966
Ion Ratio Lower Upper
83 100
85 53.8 51.6 77.4



#31
cis-1,2-Dichloroethene
Concen: 0.29 ppbv
RT: 5.68 min Scan# 901
Delta R.T. 0.15 min
Lab File: VL038499.D
Acq: 3 Mar 2022 2:00

Tgt Ion: 61 Resp: 26437
Ion Ratio Lower Upper
61 100
96 5.9 48.6 73.0#
98 0.0 33.2 49.8#

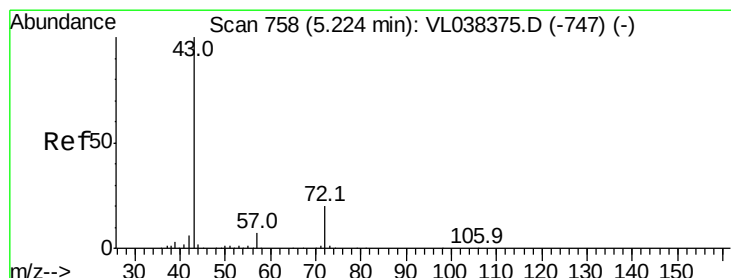
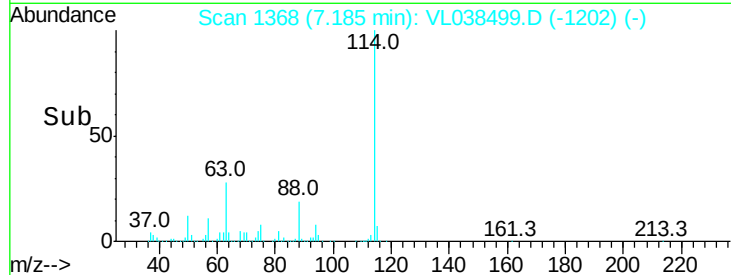
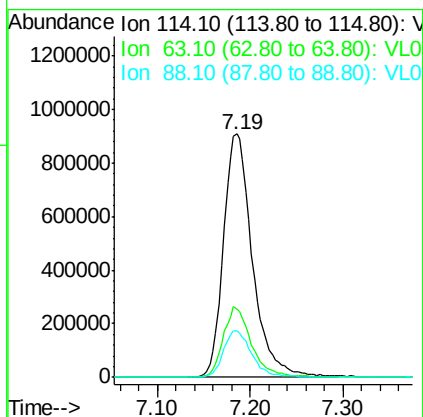
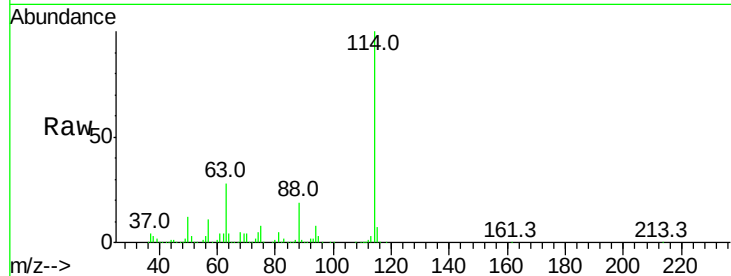




#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 7.19
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 3 Mar 2022 2:00

Tgt Ion: 114 Resp: 1970219

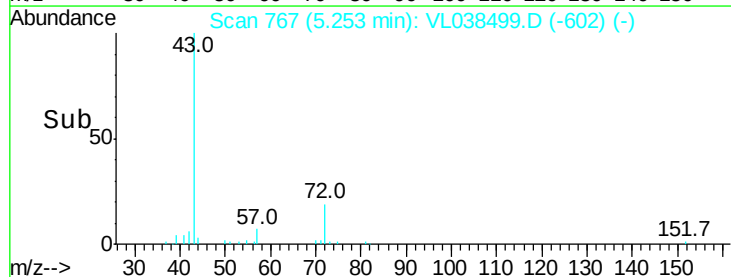
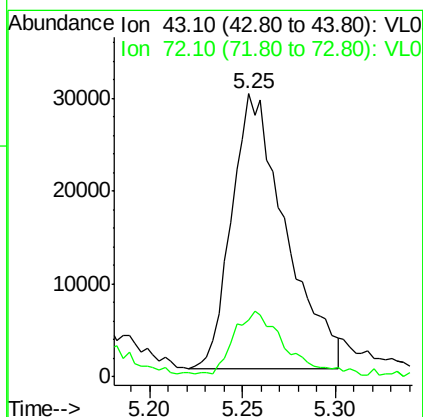
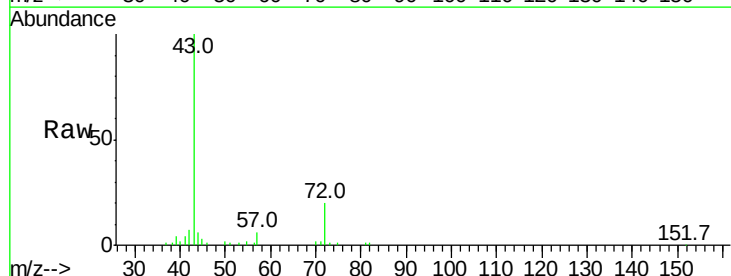
Ion	Ratio	Lower	Upper
114	100		
63	28.4	22.2	33.2
88	19.0	15.2	22.8

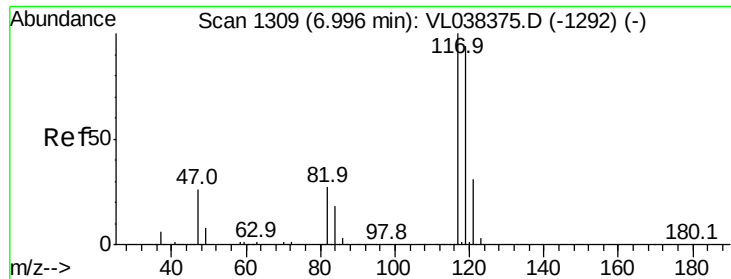


#34
 2-Butanone
 Concen: 0.97 ppbv
 RT: 5.25 min Scan# 767
 Delta R.T. 0.03 min
 Lab File: VL038499.D
 Acq: 3 Mar 2022 2:00

Tgt Ion: 43 Resp: 59897

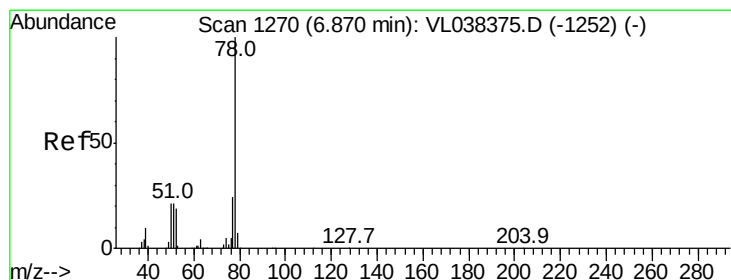
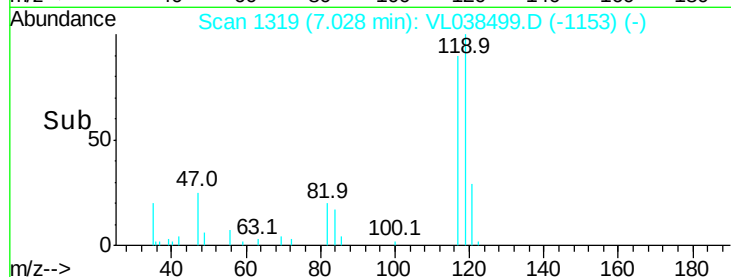
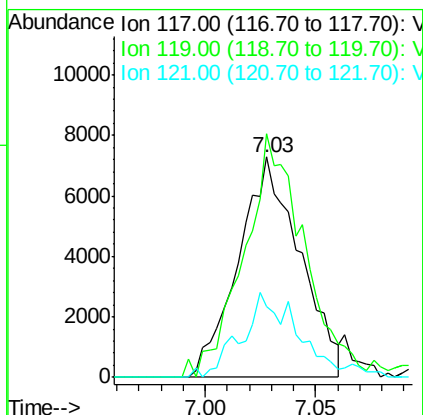
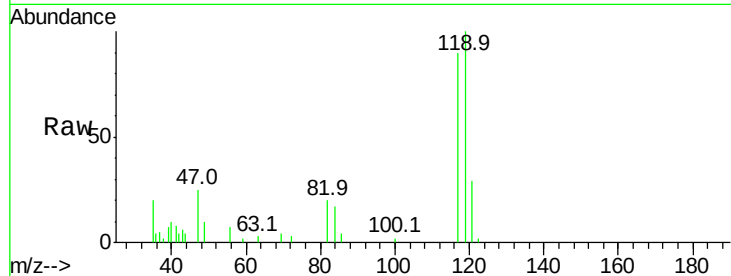
Ion	Ratio	Lower	Upper
43	100		
72	24.6	17.4	26.2





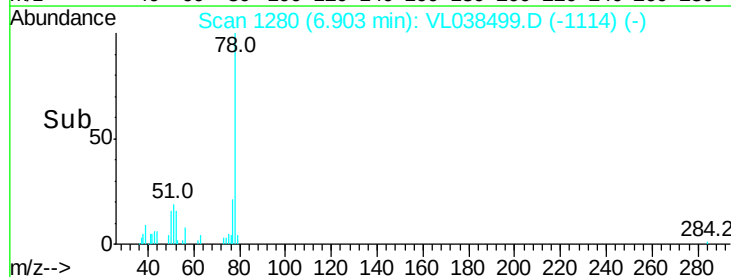
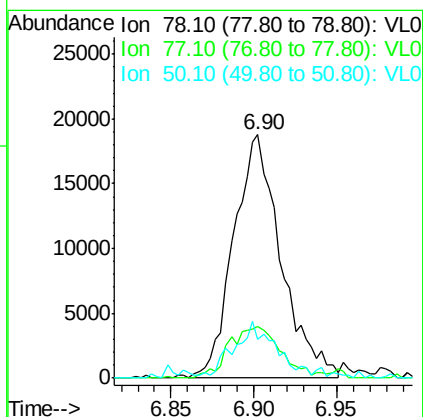
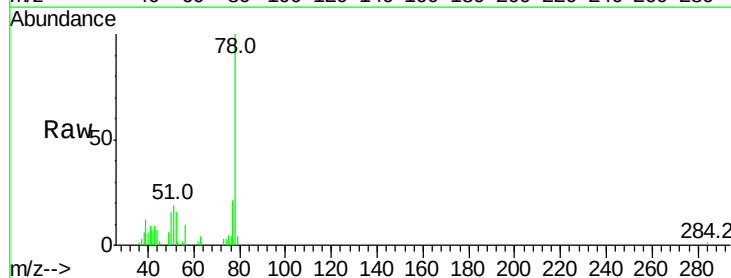
#35
Carbon Tetrachloride
Concen: 0.10 ppbv
RT: 7.03
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 3 Mar 2022 2:00

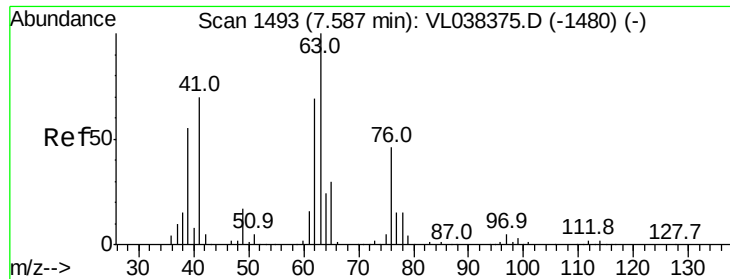
Tgt Ion: 117 Resp: 14037
Ion Ratio Lower Upper
117 100
119 102.3 74.9 112.3
121 32.1 24.8 37.2



#36
Benzene
Concen: 0.21 ppbv
RT: 6.90 min Scan# 1280
Delta R.T. 0.03 min
Lab File: VL038499.D
Acq: 3 Mar 2022 2:00

Tgt Ion: 78 Resp: 37179
Ion Ratio Lower Upper
78 100
77 21.3 19.0 28.6
50 13.8 16.6 24.8#





#39

1,2-Dichloropropane

Concen: 8.02 ppbv

RT: 7.18

Delta R.T. MSVOA_1

Lab File: ClientSampleId :

Acq: 3 Mar 2022 2:00

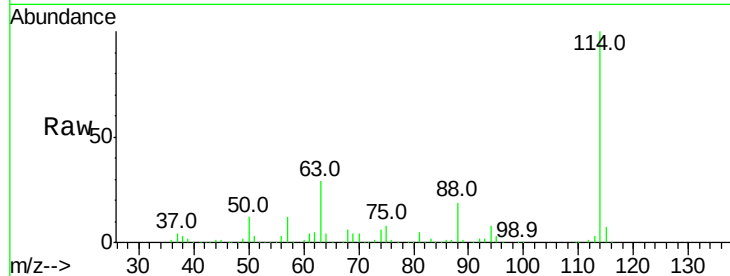
Tgt Ion: 63 Resp: 553855

Ion Ratio Lower Upper

63 100

41 0.0 56.1 84.1#

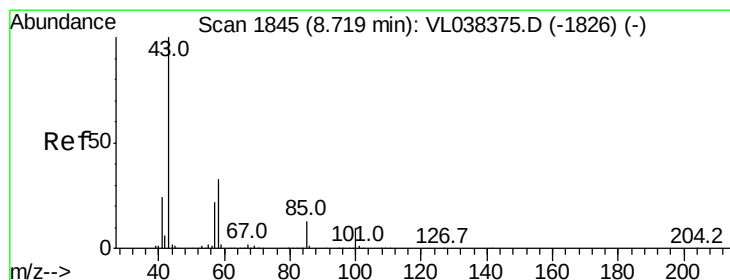
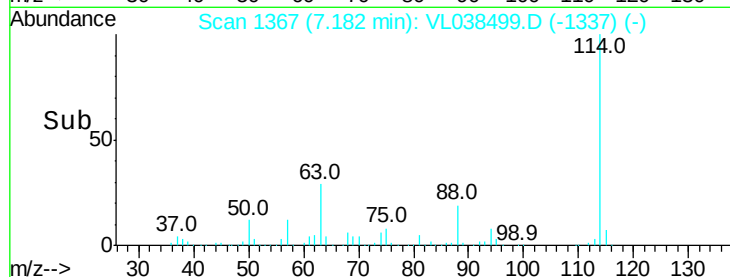
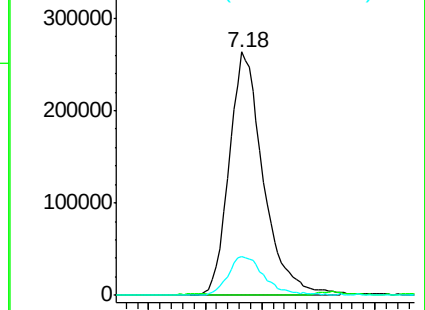
62 16.0 55.5 83.3#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#50

4-Methyl-2-Pentanone

Concen: 0.04 ppbv

RT: 8.76 min Scan# 1858

Delta R.T. 0.04 min

Lab File: VL038499.D

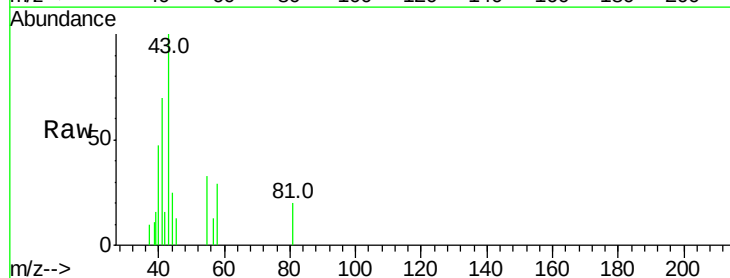
Acq: 3 Mar 2022 2:00

Tgt Ion: 43 Resp: 4072

Ion Ratio Lower Upper

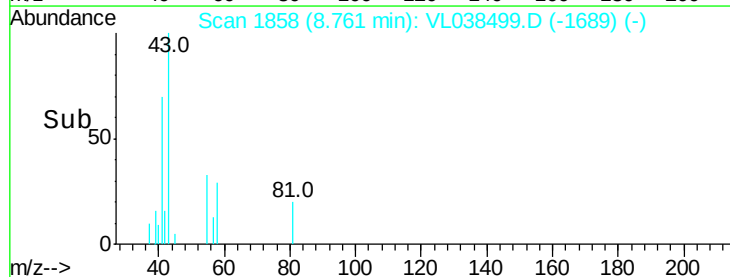
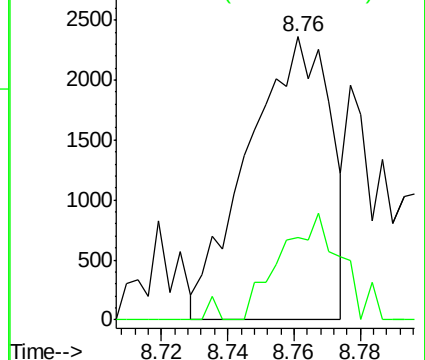
43 100

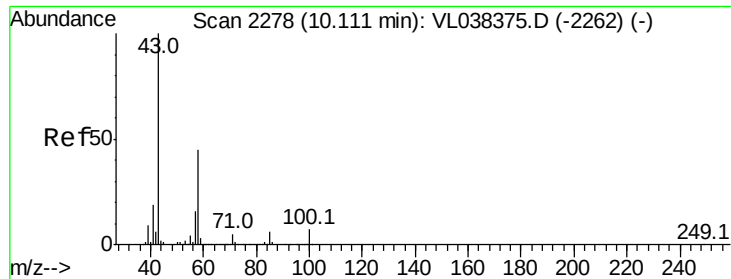
58 29.0 27.7 41.5



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





#51

2-Hexanone

Concen: 0.04 ppbv

RT: 10.16

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 3 Mar 2022 2:00

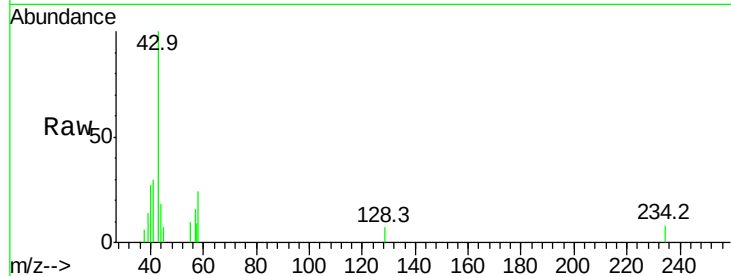
Tgt Ion: 43 Resp: 1877

Ion Ratio Lower Upper

43 100

58 119.2 37.4 56.0#

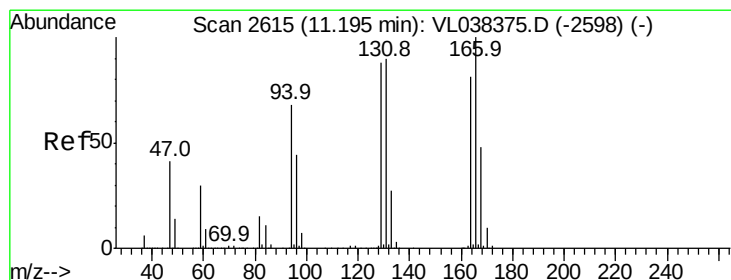
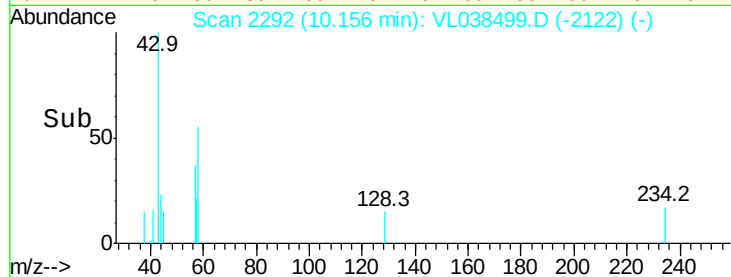
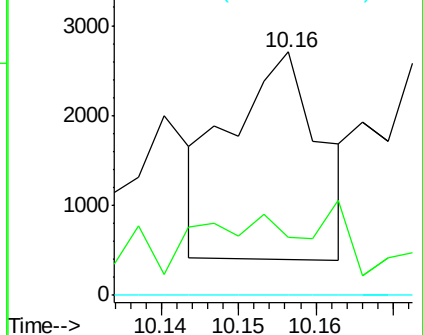
98 0.0 0.1 0.1#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

Ion 98.20 (97.90 to 98.90): VL0



#52

Tetrachloroethene

Concen: 1.05 ppbv

RT: 11.23 min Scan# 2626

Delta R.T. 0.04 min

Lab File: VL038499.D

Acq: 3 Mar 2022 2:00

Tgt Ion: 164 Resp: 60449

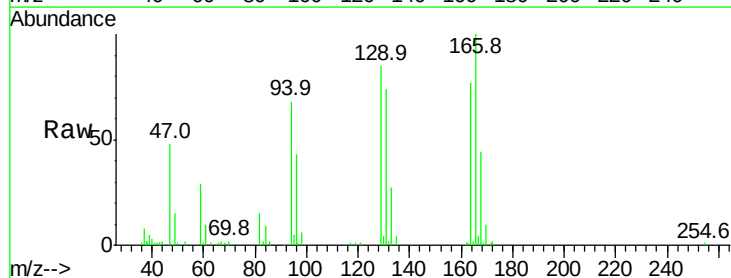
Ion Ratio Lower Upper

164 100

166 128.5 98.6 148.0

129 108.6 86.9 130.3

131 95.0 88.6 133.0

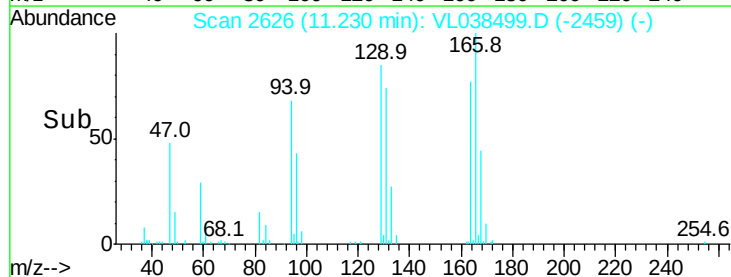
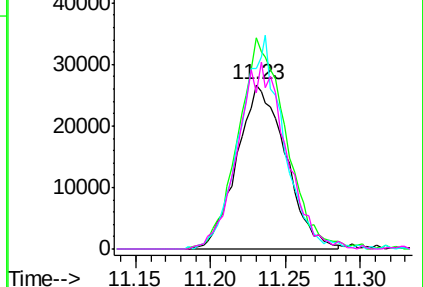


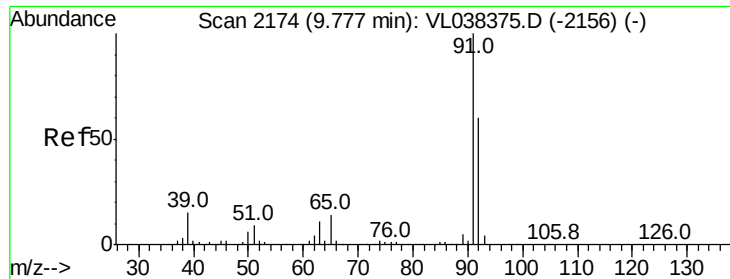
Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V





#53

Toluene

Concen: 0.81 ppbv

RT: 9.81 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

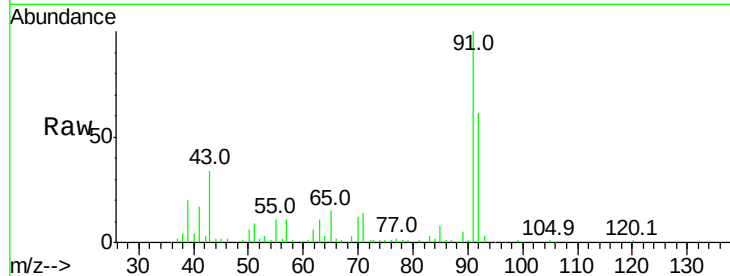
Acq: 3 Mar 2022 2:00

Tgt Ion: 91 Resp: 152503

Ion Ratio Lower Upper

91 100

92 59.0 48.2 72.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

9.81

80000

60000

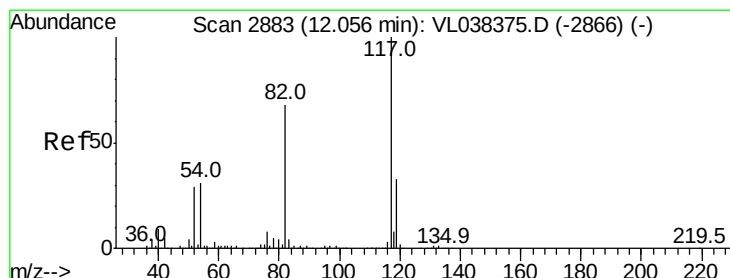
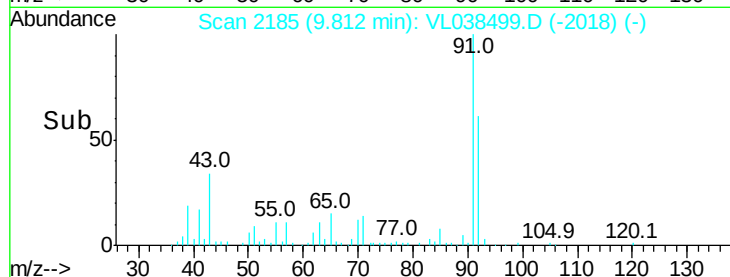
40000

20000

0

9.75 9.80 9.85

Time-->



#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.10 min Scan# 2896

Delta R.T. 0.04 min

Lab File: VL038499.D

Acq: 3 Mar 2022 2:00

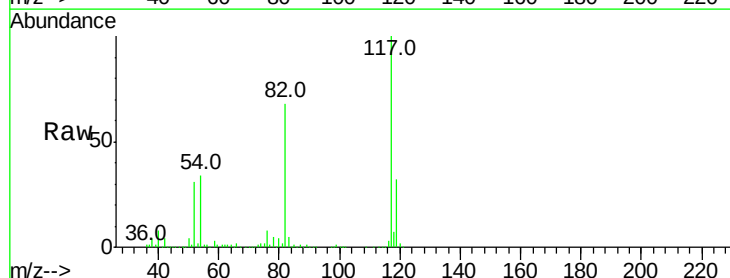
Tgt Ion: 117 Resp: 1763553

Ion Ratio Lower Upper

117 100

82 73.3 54.9 82.3

119 33.5 46.1 69.1#



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V

1000000

800000

600000

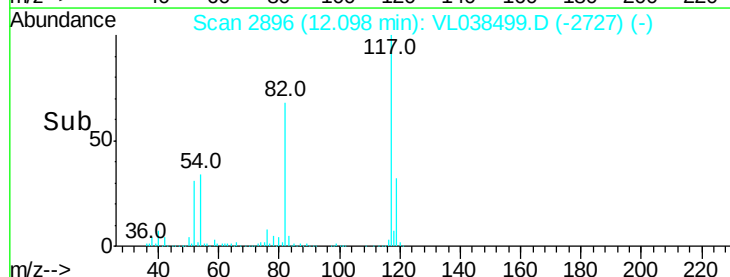
400000

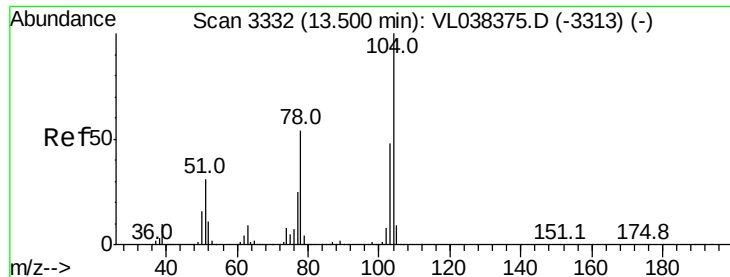
200000

0

12.00 12.10 12.20

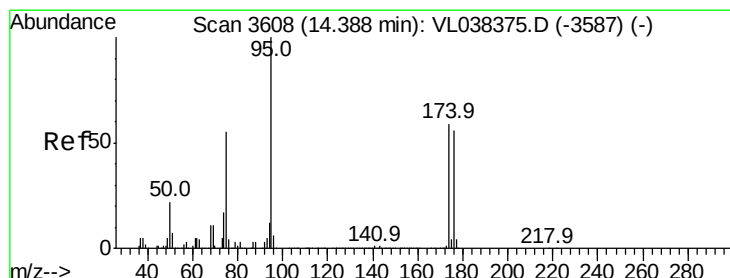
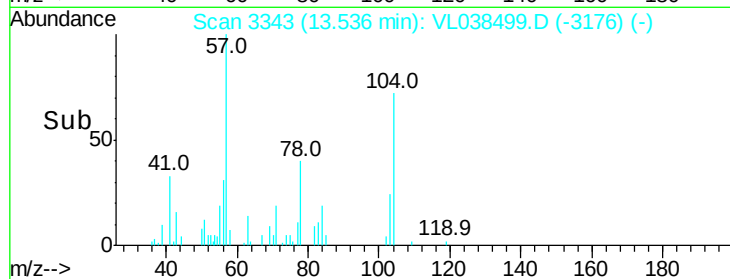
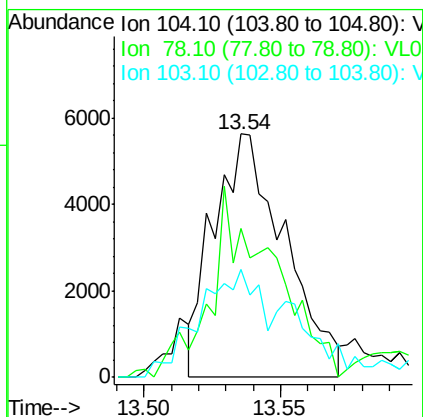
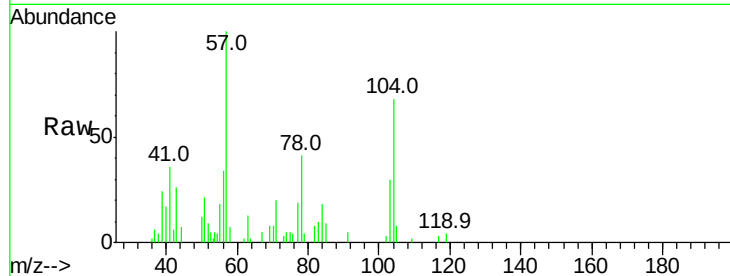
Time-->





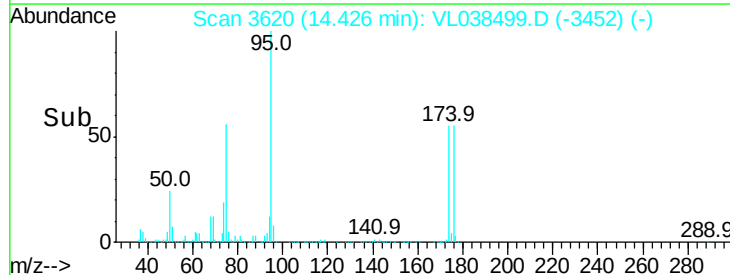
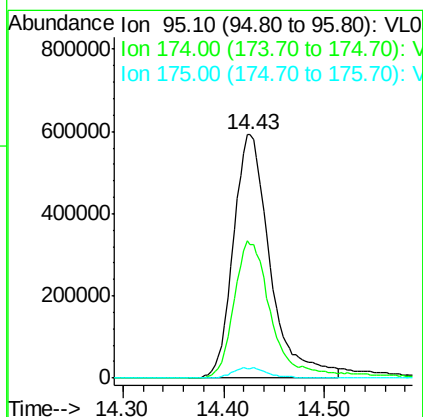
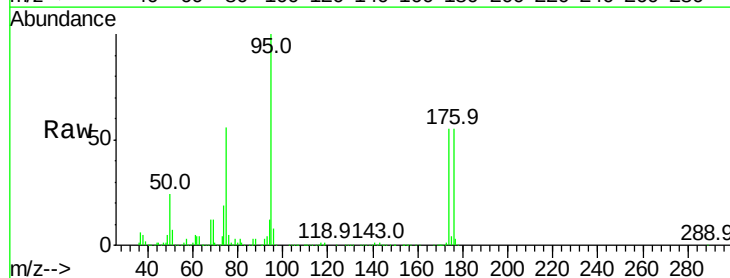
#61
 Styrene
 Concen: 0.11 ppbv
 RT: 13.54
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 3 Mar 2022 2:00

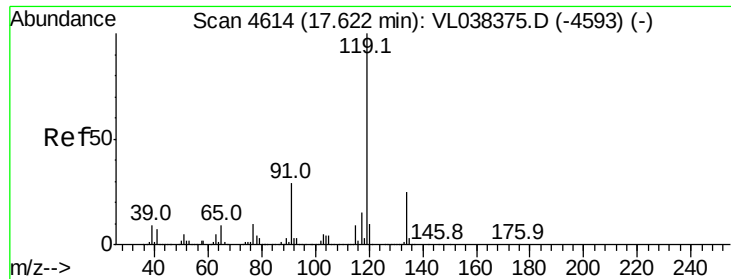
Tgt Ion: 104 Resp: 10218
 Ion Ratio Lower Upper
 104 100
 78 81.2 44.2 66.4#
 103 61.5 38.4 57.6#



#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.25 ppbv
 RT: 14.43 min Scan# 3620
 Delta R.T. 0.04 min
 Lab File: VL038499.D
 Acq: 3 Mar 2022 2:00

Tgt Ion: 95 Resp: 1496274
 Ion Ratio Lower Upper
 95 100
 174 59.3 49.0 73.4
 175 4.3 3.6 5.4





#69

p-Isopropyltoluene

Concen: 0.08 ppbv

RT: 17.68

Delta R.T: MSVOA_L

Lab File: ClientSampleId :

Acq: 3 Mar 2022 2.00

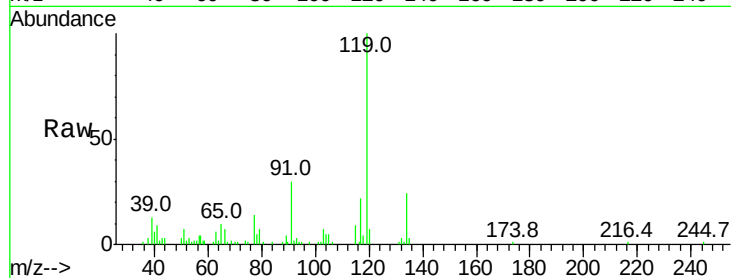
Tgt Ion: 119 Resp: 19454

Ion Ratio Lower Upper

119 100

134 0.0 20.4 30.6#

91 0.0 23.8 35.8#



Abundance Ion 119.10 (118.80 to 119.80): V

Ion 134.20 (133.90 to 134.90): V

Ion 91.10 (90.80 to 91.80): VLO

