

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL112321\
 Data File : VL038110.D
 Acq On : 23 Nov 2021 21:56
 Operator : SY/AP
 Sample : M4805-12
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-CURVY-BRIDE

Quant Time: Nov 26 04:16:45 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Nov 18 13:16:09 2021
 QLast Update : Thu Nov 18 13:16:09 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	900680	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	2632744	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	2285768	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	1821049	11.04	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	110.40%

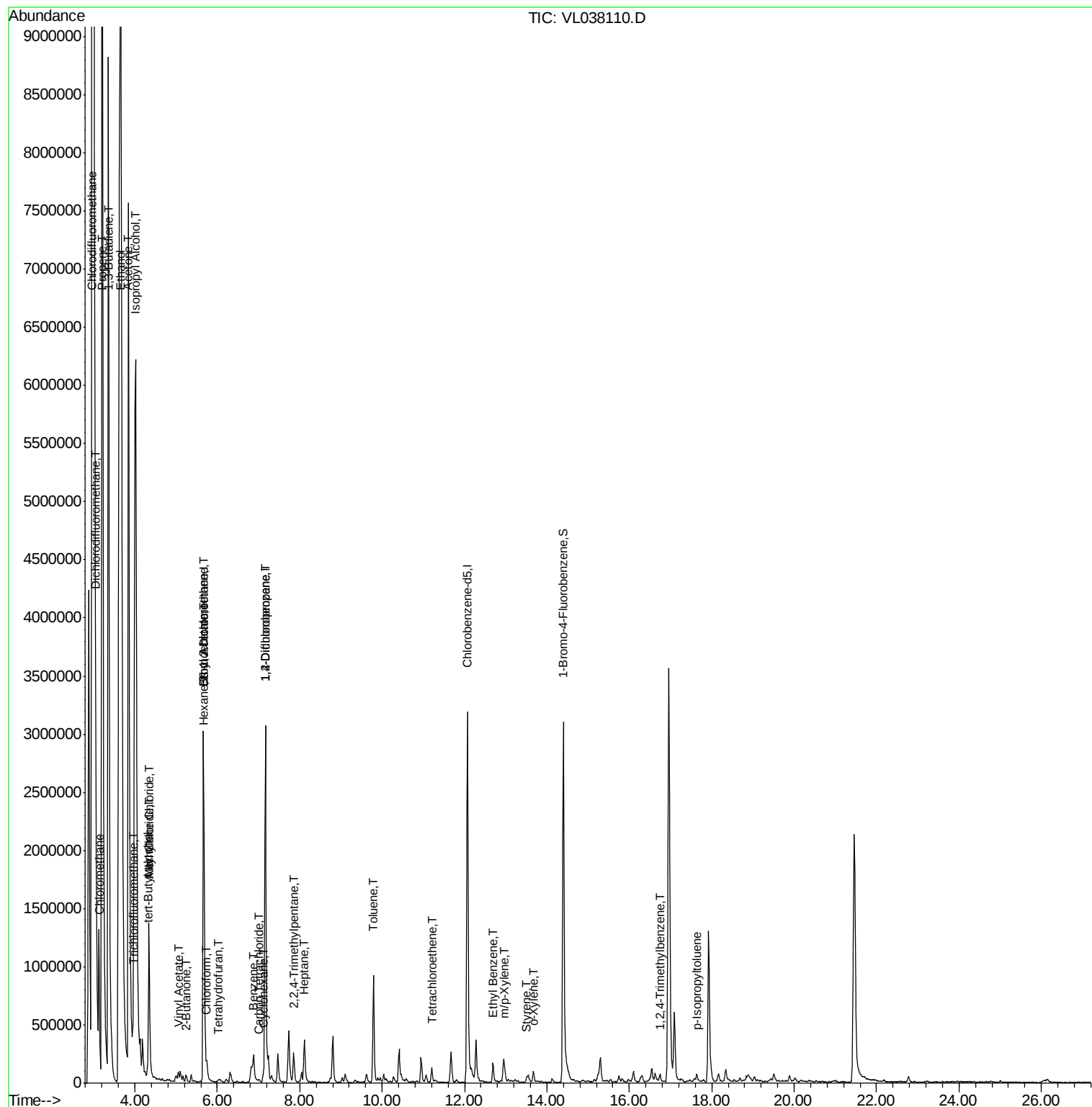
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	35520	0.239	ppbv 98
3) Chlorodifluoromethane	2.96	51	27631602	146.085	ppbv # 60
4) Chloromethane	3.14	50	21544	0.335	ppbv 92
9) Propene	3.20	41	6681592	95.918	ppbv 99
10) Heptane	8.11	43	177069	1.028	ppbv 99
11) Trichlorofluoromethane	3.95	101	134929	0.954	ppbv 100
13) Ethanol	3.65	45	27025519	4014.644	ppbv 99
15) Acetone	3.84	43	10643771	136.301	ppbv 94
16) 1,3-Butadiene	3.36	39	1675577	27.503	ppbv # 11
17) tert-Butyl alcohol	4.32	59	66939	0.707	ppbv # 60
19) Isopropyl Alcohol	4.01	45	14224862	252.110	ppbv # 99
20) Methylene Chloride	4.34	84	522282	11.941	ppbv 97
21) Allyl Chloride	4.34	41	64437	0.891	ppbv # 21
23) Vinyl Acetate	5.06	43	44551	0.394	ppbv # 60
25) Ethyl Acetate	5.66	43	1762717	6.792	ppbv # 94
26) Hexane	5.68	57	352662	2.819	ppbv # 1
29) Chloroform	5.75	83	89344	0.485	ppbv 97
30) Cyclohexane	7.11	84	18482	0.163	ppbv # 41
31) cis-1,2-Dichloroethene	5.66	61	198051	1.664	ppbv # 22
34) 2-Butanone	5.24	43	40073	0.377	ppbv # 44
35) Carbon Tetrachloride	7.01	117	7480	0.040	ppbv # 71
36) Benzene	6.89	78	64772	0.247	ppbv 98
39) 1,2-Dichloropropane	7.16	63	657314	6.525	ppbv # 27
41) Tetrahydrofuran	6.03	42	3606	0.055	ppbv # 56
44) 2,2,4-Trimethylpentane	7.85	57	249213	0.567	ppbv 94
52) Tetrachloroethene	11.20	164	26136	0.269	ppbv 89
53) Toluene	9.79	91	756820	2.505	ppbv 98
58) Ethyl Benzene	12.69	91	156143	0.413	ppbv 92
59) m/p-Xylene	12.97	91	53403	0.168	ppbv # 29
60) o-Xylene	13.67	91	74443	0.252	ppbv 97
61) Styrene	13.51	104	14157	0.090	ppbv # 59
69) p-Isopropyltoluene	17.64	119	42434	0.106	ppbv # 83
74) 1,2,4-Trimethylbenzene	16.74	105	24216	0.075	ppbv # 67

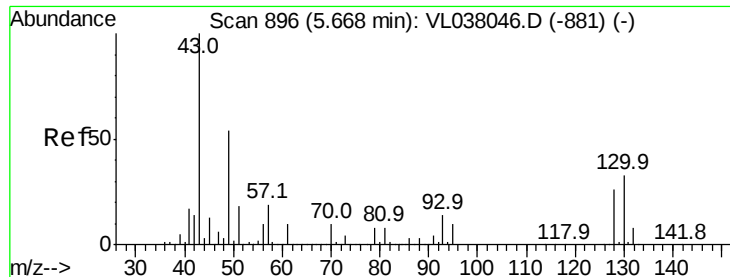
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 23 Nov 2021 21:50

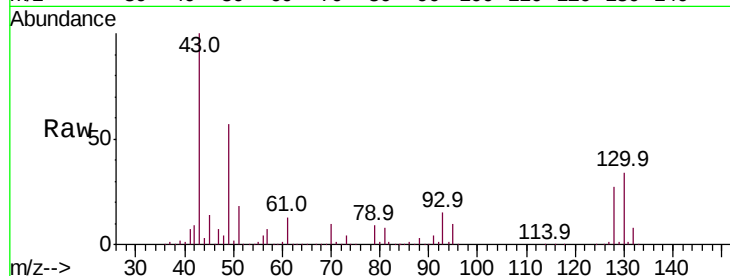
Tot Ion: 49 Resp: 900680

Ion Ratio Lower Upper

49 100

128 49.3 26.5 79.5

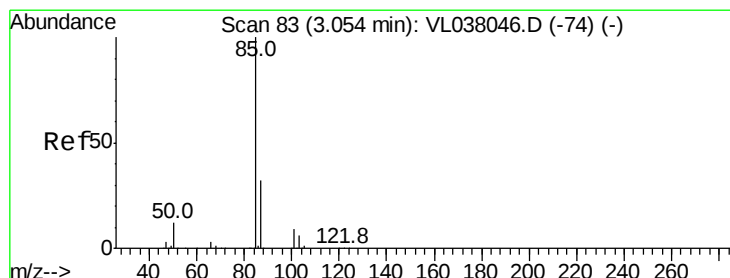
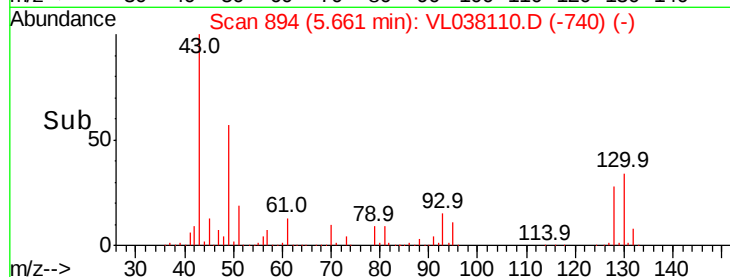
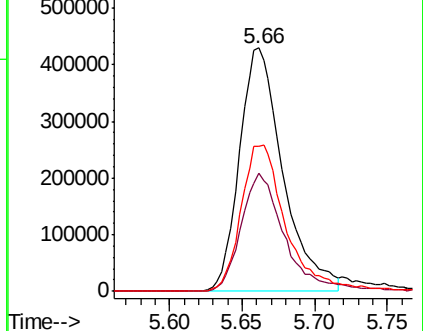
130 63.1 32.5 97.4



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.239 ppbv

RT: 3.05 min Scan# 82

Delta R.T. -0.00 min

Lab File: VL038110.D

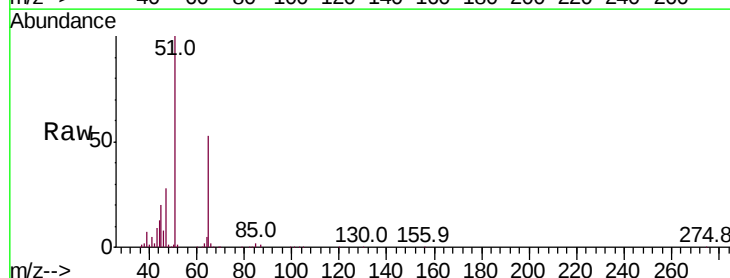
Acq: 23 Nov 2021 21:56

Tgt Ion: 85 Resp: 35520

Ion Ratio Lower Upper

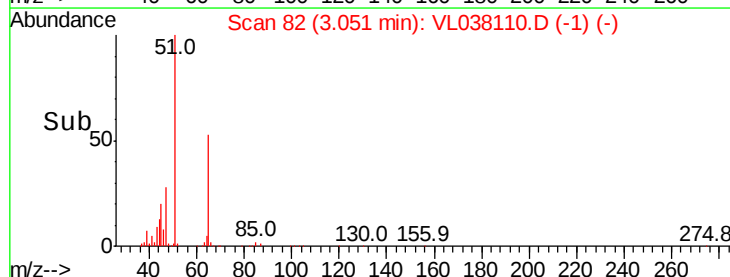
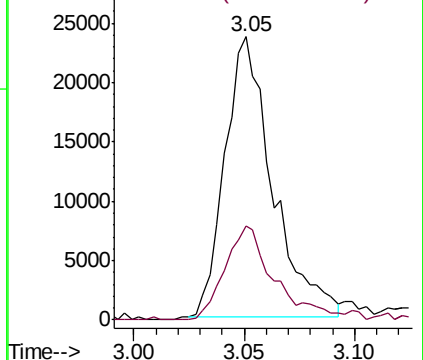
85 100

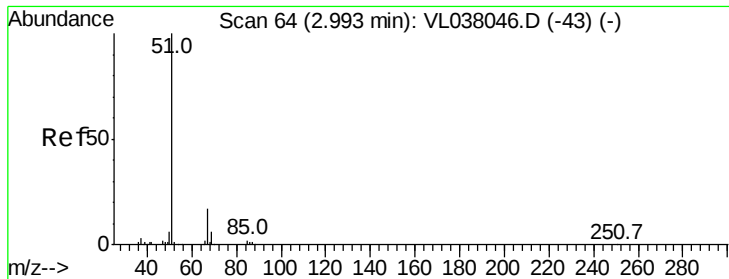
87 33.5 25.8 38.6



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 146.085 ppbv

RT: 2.96

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

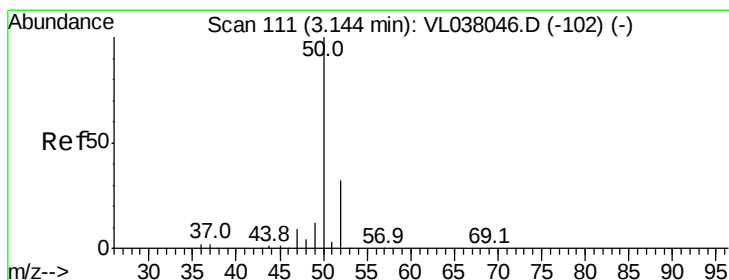
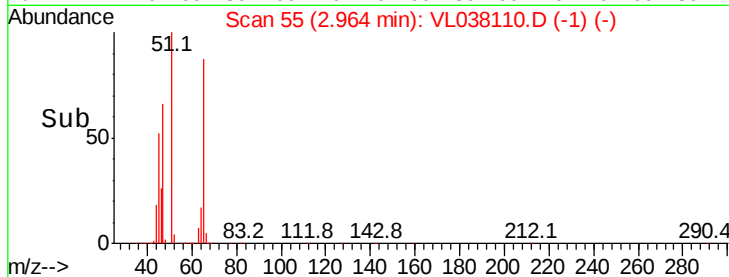
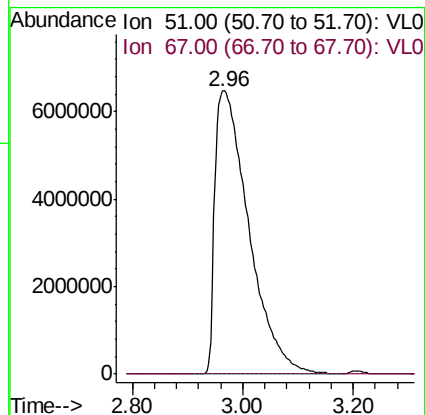
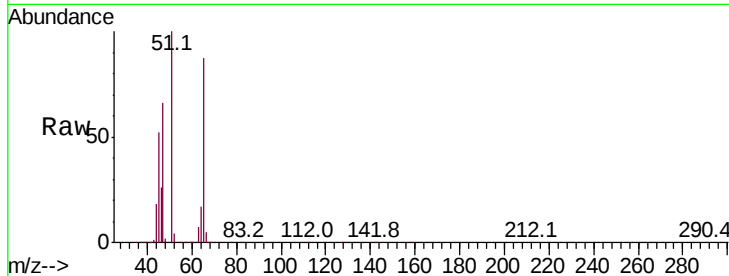
Acq: 23 Nov 2021 21:50

Tot Ion: 51 Resp: 27631602

Ion Ratio Lower Upper

51 100

67 0.1 13.8 20.8#



#4

Chloromethane

Concen: 0.335 ppbv

RT: 3.14 min Scan# 110

Delta R.T. -0.00 min

Lab File: VL038110.D

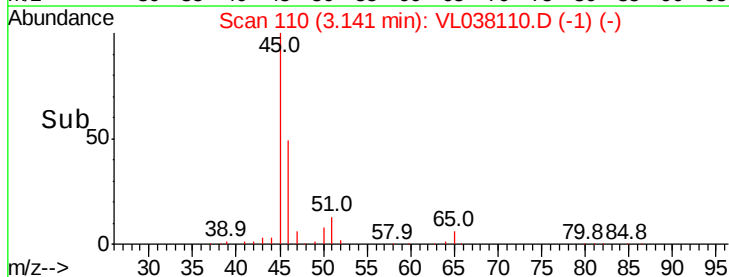
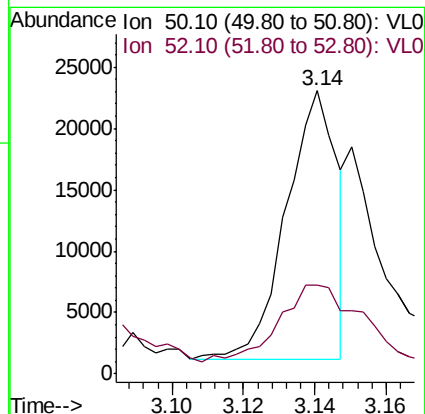
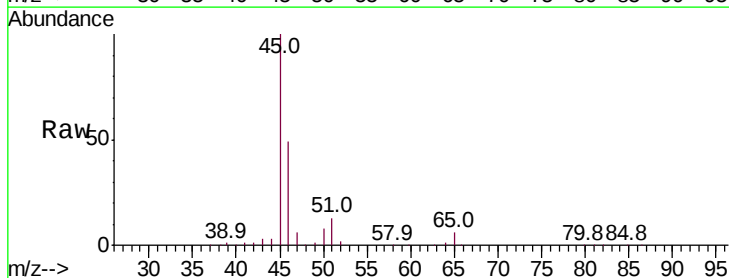
Acq: 23 Nov 2021 21:56

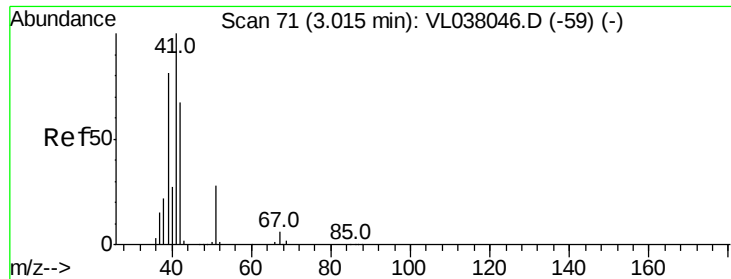
Tgt Ion: 50 Resp: 21544

Ion Ratio Lower Upper

50 100

52 27.3 25.4 38.0





#9

Propene

Concen: 95.918 ppbv

RT: 3.20 Instrument: MSVOA_1

Delta R.T. -0.01 min

Lab File: ClientSampleId: IA-CURVY-BRIDE

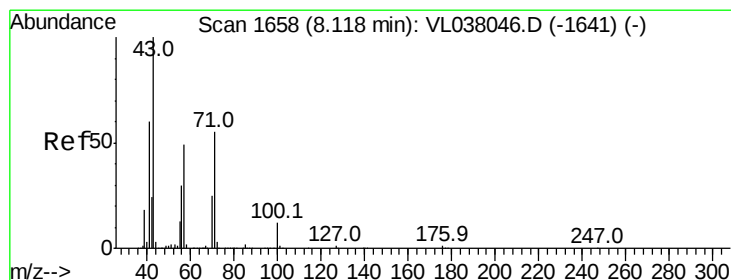
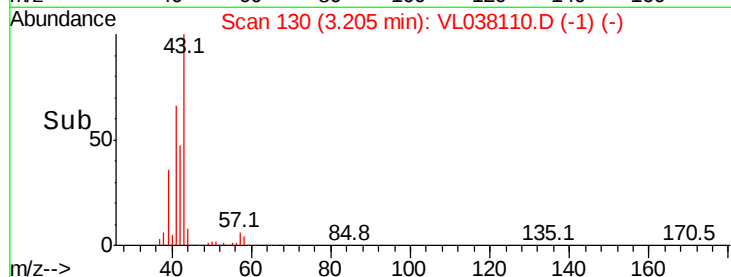
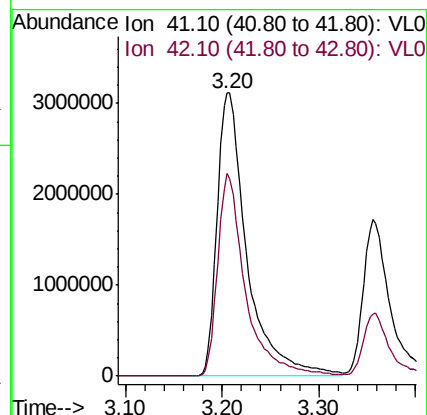
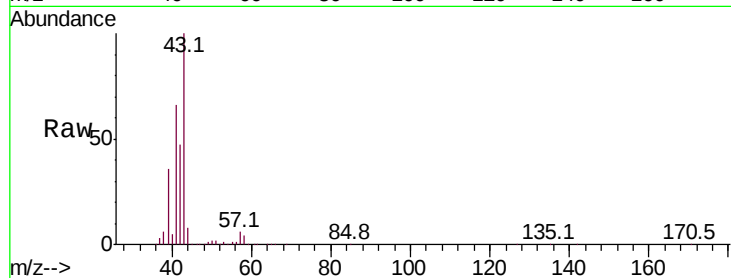
Acq: 23 Nov 2021 21:56

Tot Ion: 41 Resp: 6681592

Ion Ratio Lower Upper

41 100

42 66.8 53.8 80.8



#10

Heptane

Concen: 1.028 ppbv

RT: 8.11 min Scan# 1655

Delta R.T. -0.01 min

Lab File: VL038110.D

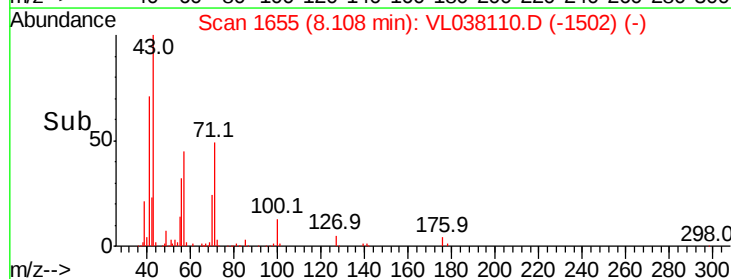
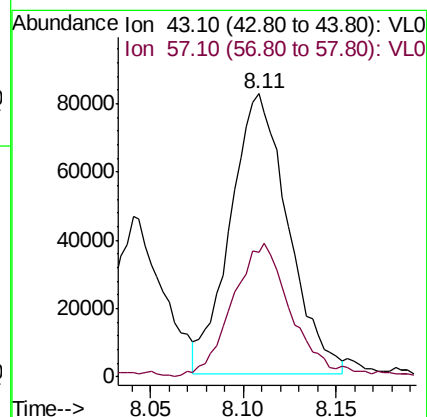
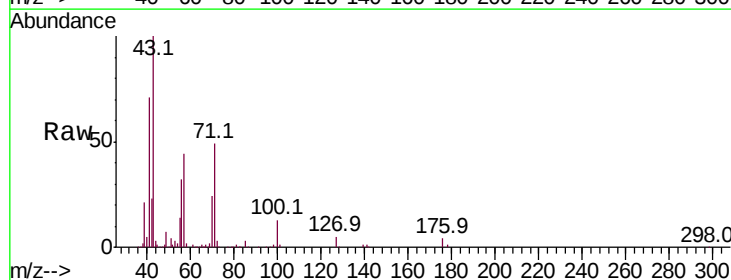
Acq: 23 Nov 2021 21:56

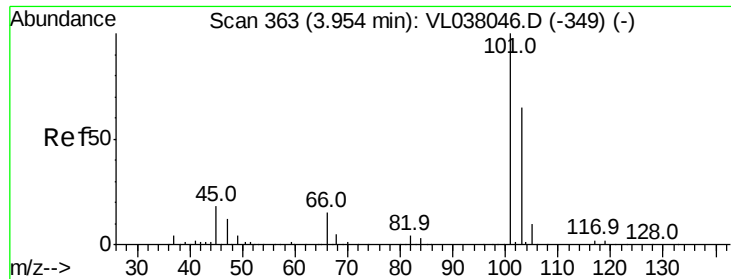
Tgt Ion: 43 Resp: 177069

Ion Ratio Lower Upper

43 100

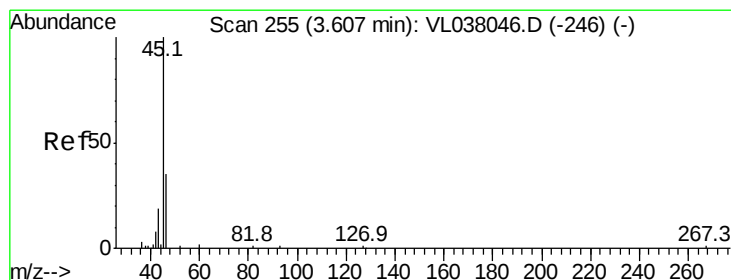
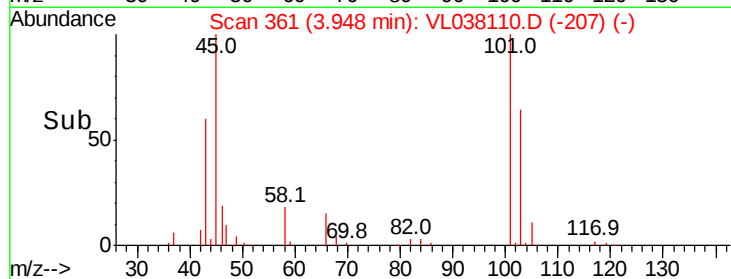
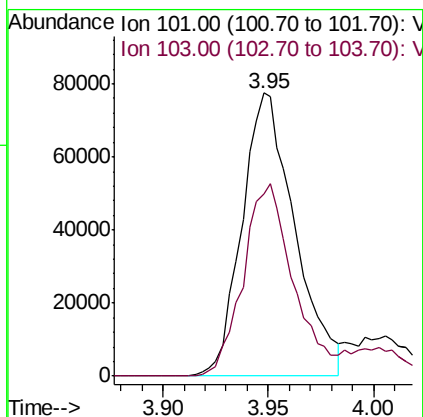
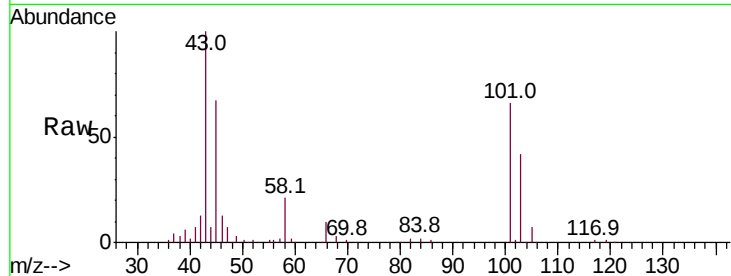
57 50.1 40.4 60.6





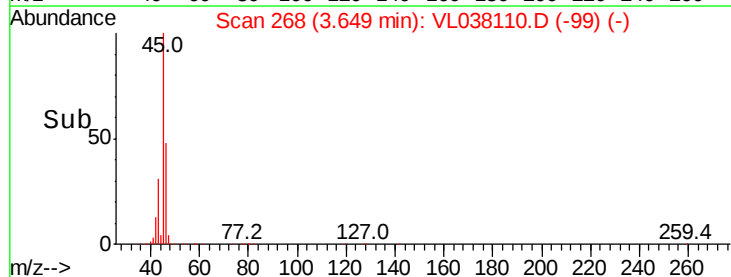
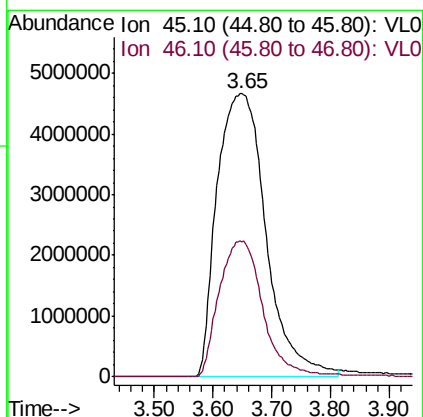
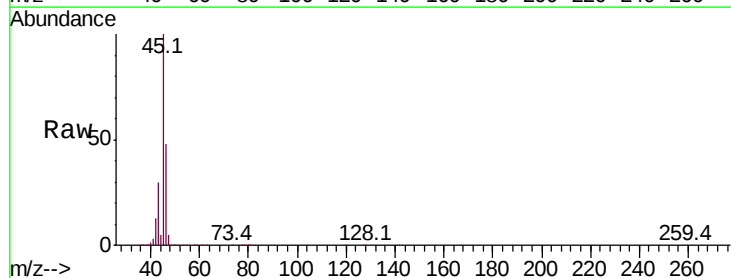
#11
 Trichlorofluoromethane
 Concen: 0.954 ppbv
 RT: 3.95
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 23 Nov 2021 21:56

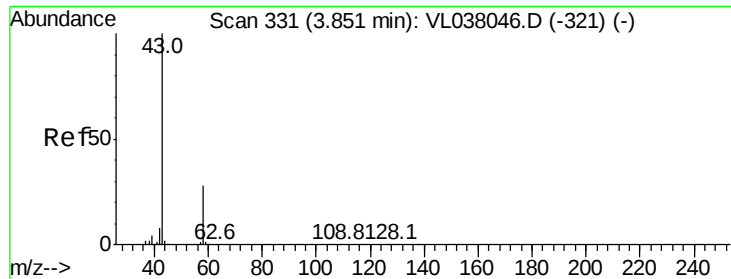
Tot Ion:101 Resp: 134929
 Ion Ratio Lower Upper
 101 100
 103 64.6 51.8 77.6



#13
 Ethanol
 Concen: 4014.644 ppbv
 RT: 3.65 min Scan# 268
 Delta R.T. 0.04 min
 Lab File: VL038110.D
 Acq: 23 Nov 2021 21:56

Tgt Ion: 45 Resp:27025519
 Ion Ratio Lower Upper
 45 100
 46 43.3 17.6 70.2





#15

Acetone

Concen: 136.301 ppbv

RT: 3.84

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

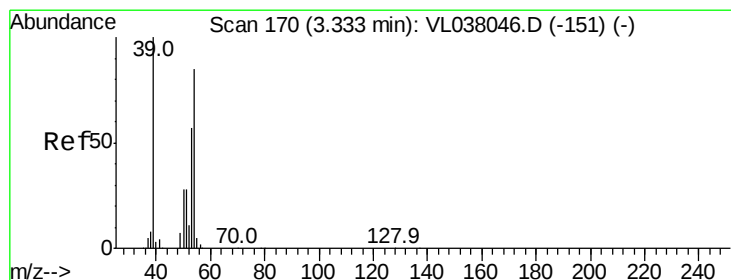
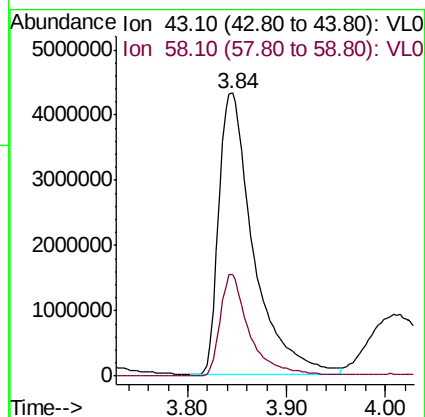
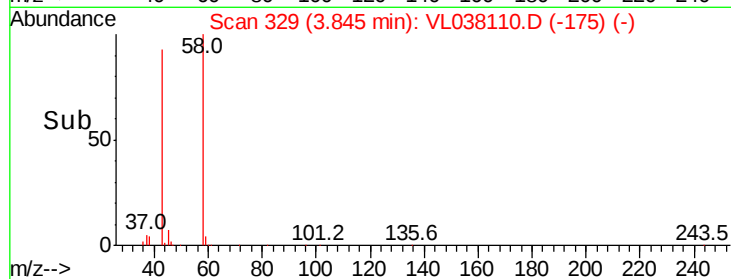
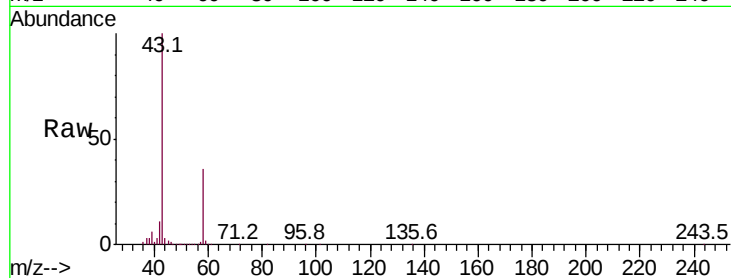
Acq: 23 Nov 2021 21:58

Tot Ion: 43 Resp: 10643771

Ion Ratio Lower Upper

43 100

58 31.3 22.4 33.6



#16

1,3-Butadiene

Concen: 27.503 ppbv

RT: 3.36 min Scan# 177

Delta R.T. 0.02 min

Lab File: VL038110.D

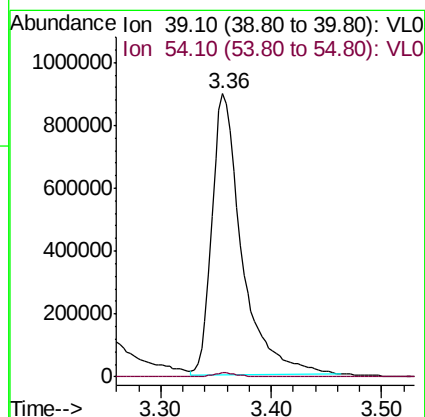
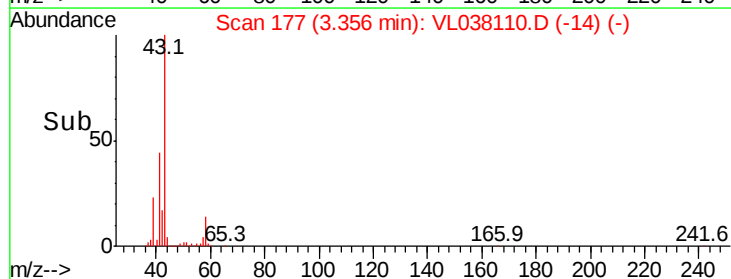
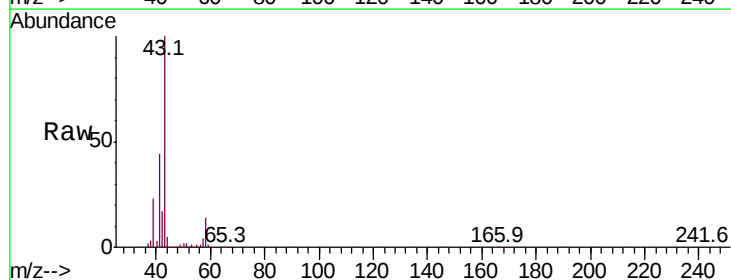
Acq: 23 Nov 2021 21:56

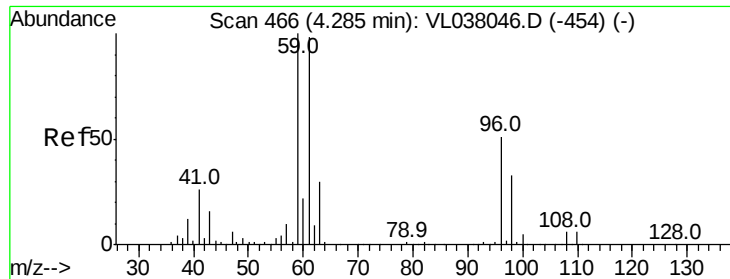
Tgt Ion: 39 Resp: 1675577

Ion Ratio Lower Upper

39 100

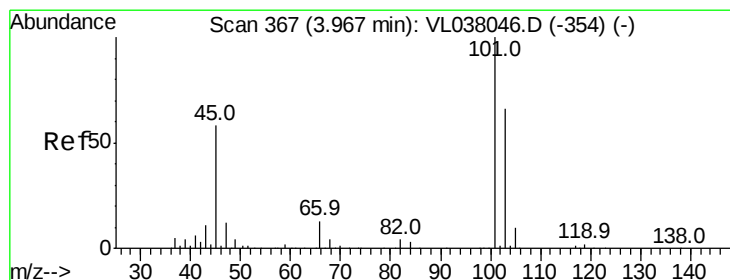
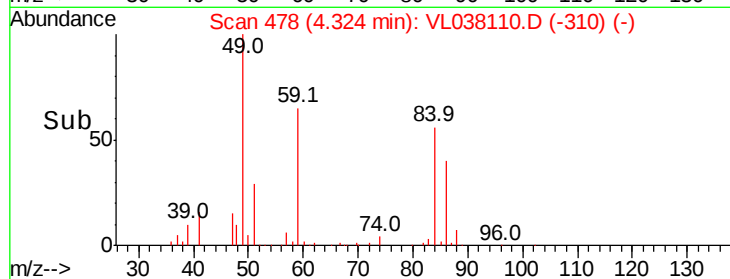
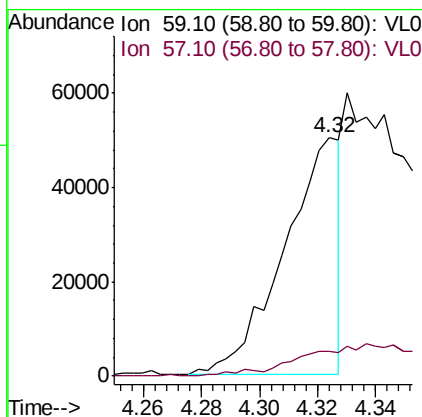
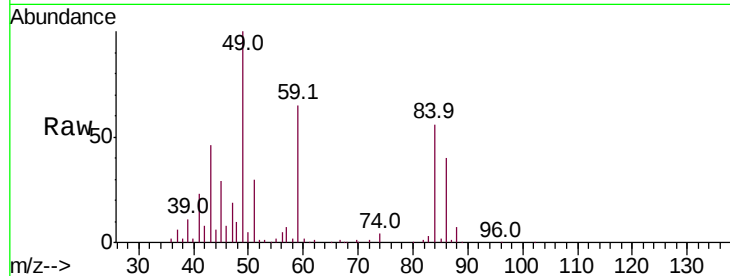
54 1.5 64.4 96.6#





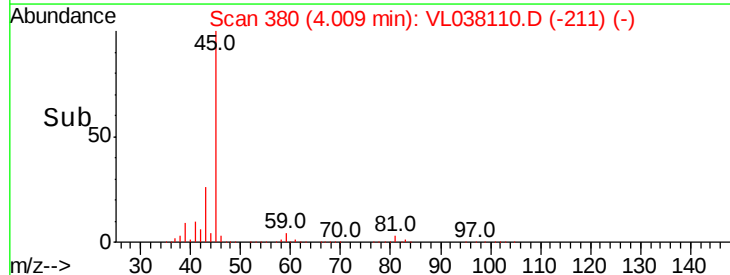
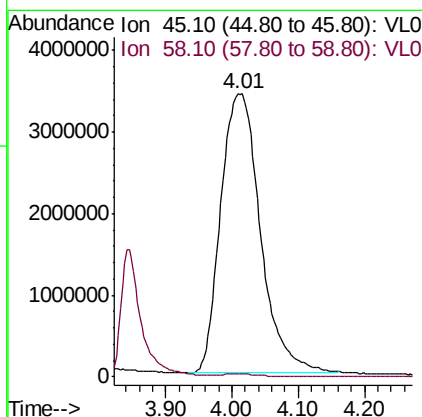
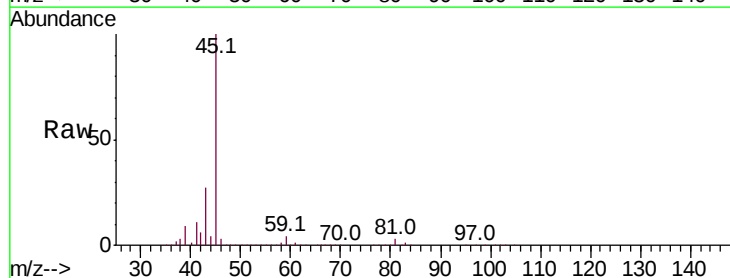
#17
 tert-Butyl alcohol
 Concen: 0.707 ppbv
 RT: 4.32
 Delta R.T. MSVOA_1
 Lab File: ClientSampleId :
 Acq: 23 Nov 2021 21:56

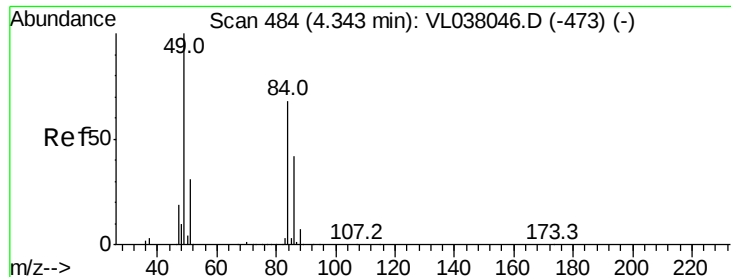
Tot Ion: 59 Resp: 66939
 Ion Ratio Lower Upper
 59 100
 57 25.7 8.6 13.0#



#19
 Isopropyl Alcohol
 Concen: 252.110 ppbv
 RT: 4.01 min Scan# 380
 Delta R.T. 0.04 min
 Lab File: VL038110.D
 Acq: 23 Nov 2021 21:56

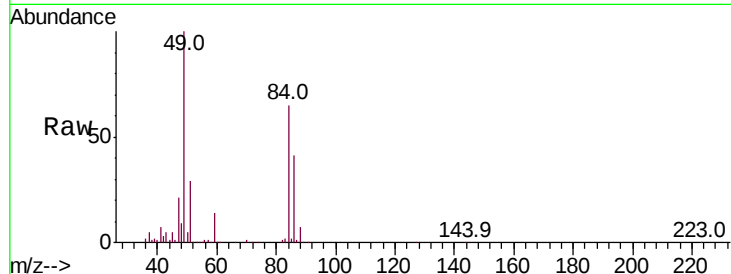
Tgt Ion: 45 Resp: 14224862
 Ion Ratio Lower Upper
 45 100
 58 1.2 1.4 2.0#





#20
Methvlene Chloride
Concen: 11.941 ppbv
RT: 4.34 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 23 Nov 2021 21:56

Tot Ion:	84	Resp:	522282
Ion	Ratio	Lower	Upper
84	100		
49	153.0	118.2	177.2
51	44.3	36.8	55.2
86	62.5	49.0	73.6



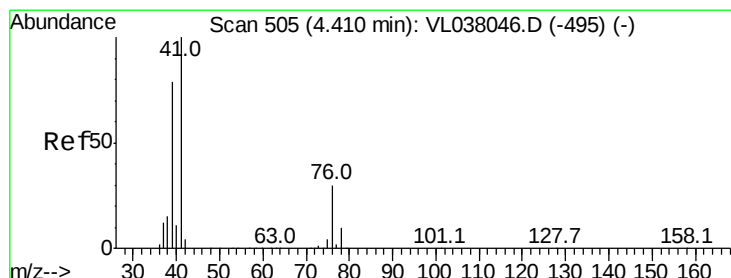
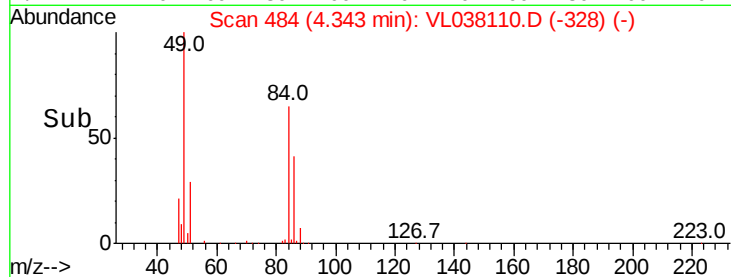
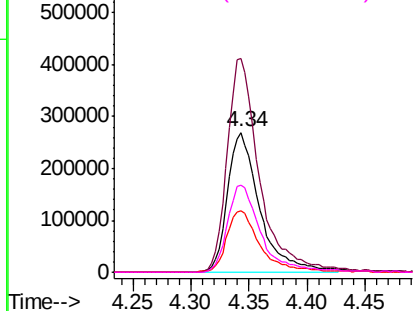
Abundance

Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

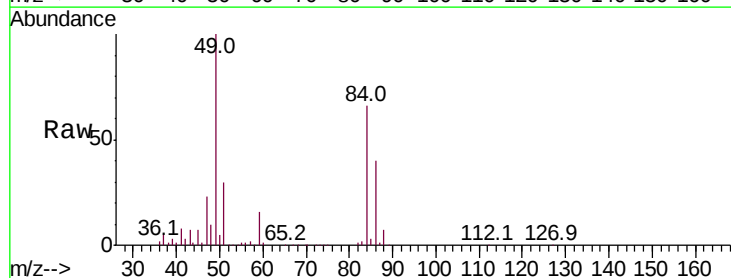
Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#21
Allyl Chloride
Concen: 0.891 ppbv
RT: 4.34 min Scan# 482
Delta R.T. -0.07 min
Lab File: VL038110.D
Acq: 23 Nov 2021 21:56

Tgt Ion:	41	Resp:	64437
Ion	Ratio	Lower	Upper
41	100		
76	4.2	24.6	36.8#
39	0.0	63.4	95.0#

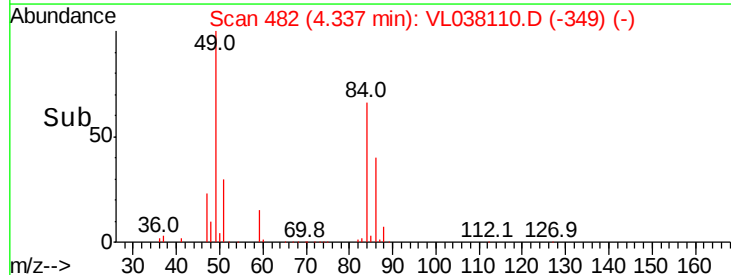
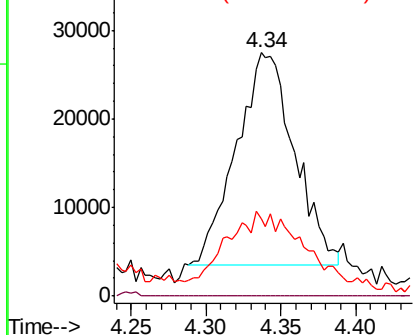


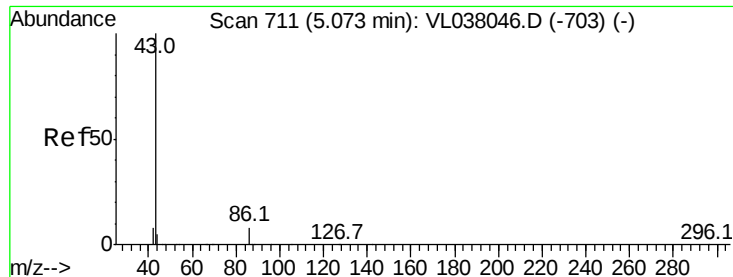
Abundance

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





#23

Vinyl Acetate

Concen: 0.394 ppbv

RT: 5.06 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: IA-CURVY-BRIDE

Acq: 23 Nov 2021 21:50

Tot Ion: 43 Resp: 44551

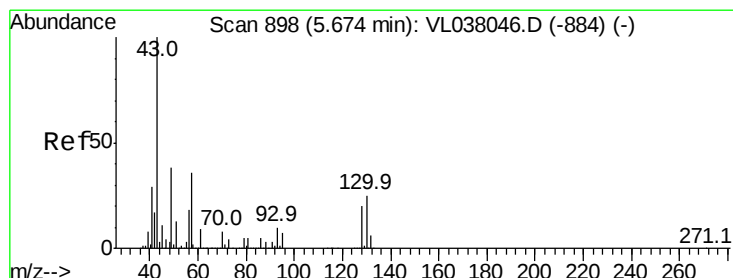
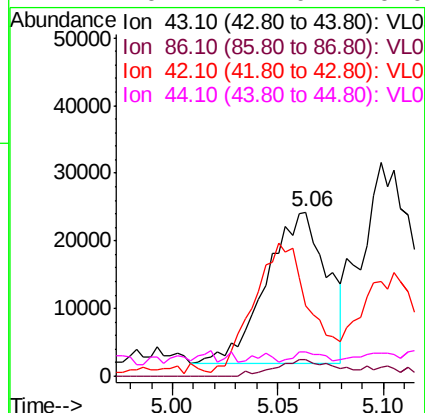
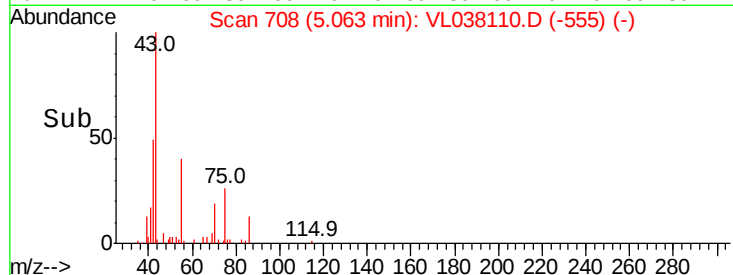
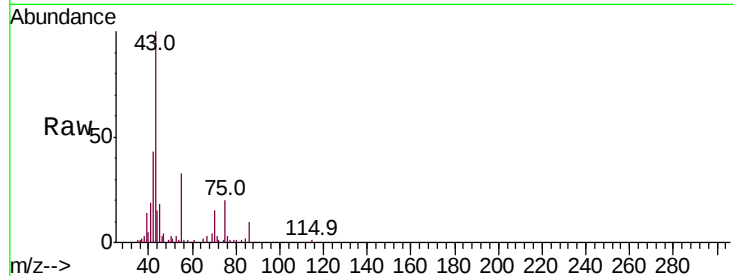
Ion Ratio Lower Upper

43 100

86 11.1 5.3 7.9#

42 37.9 7.0 10.6#

44 6.2 4.0 6.0#



#25

Ethyl Acetate

Concen: 6.792 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.01 min

Lab File: VL038110.D

Acq: 23 Nov 2021 21:56

Tgt Ion: 43 Resp: 1762717

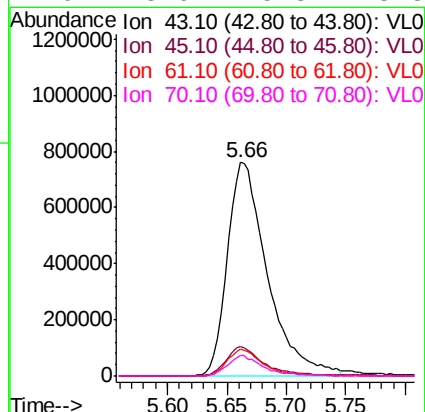
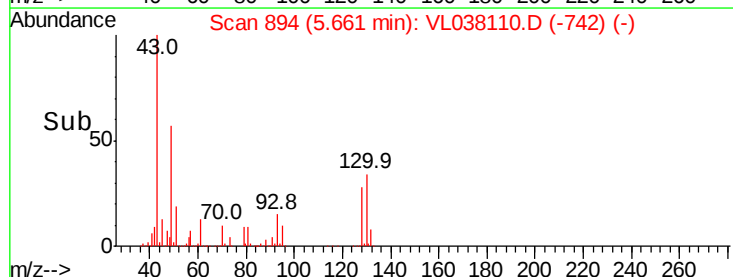
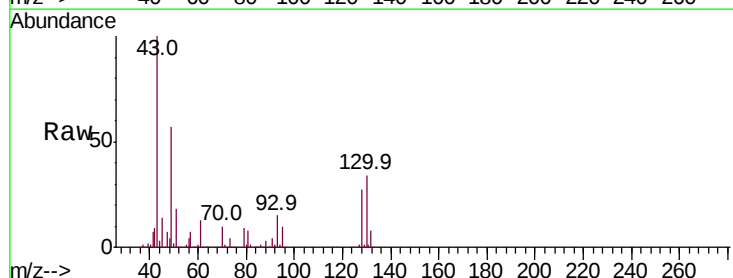
Ion Ratio Lower Upper

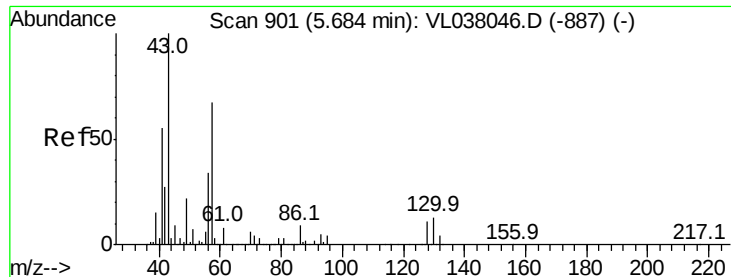
43 100

45 13.0 7.9 11.9#

61 11.7 7.8 11.6#

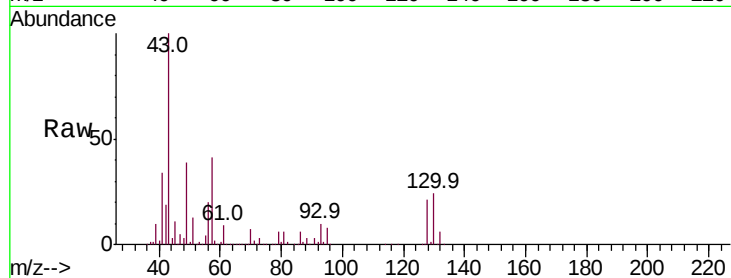
70 8.9 5.8 8.8#



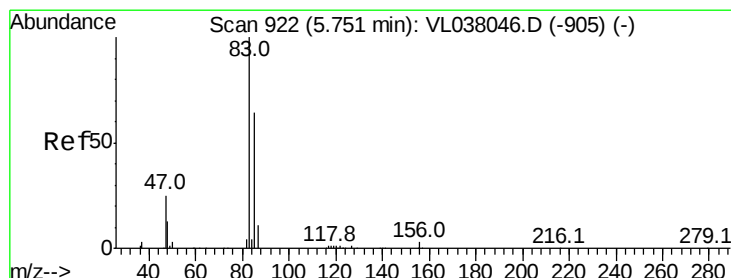
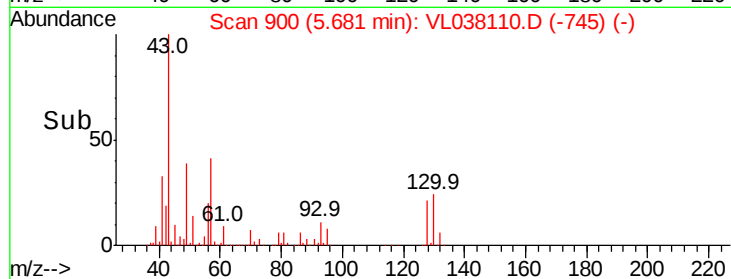
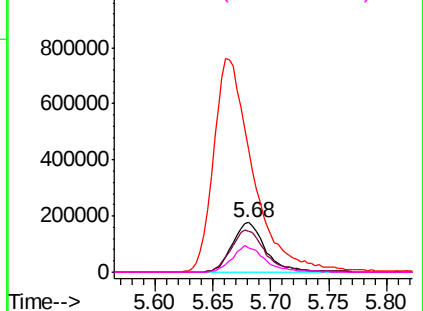


#26
Hexane
Concen: 2.819 ppbv
RT: 5.68
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 23 Nov 2021 21:56

Tot Ion: 57 Resp: 352662
Ion Ratio Lower Upper
57 100
41 90.1 71.4 107.2
43 511.9 174.6 261.8#
56 53.4 43.2 64.8

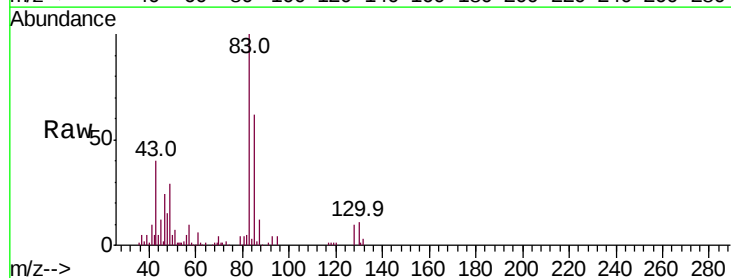


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

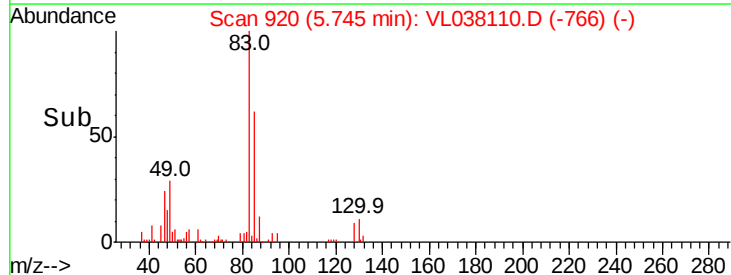
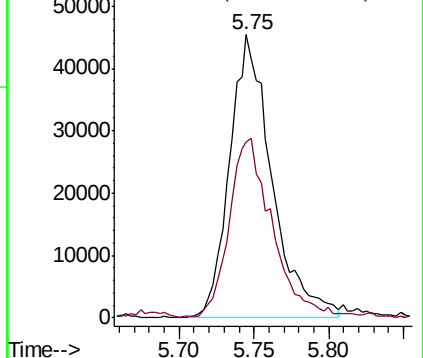


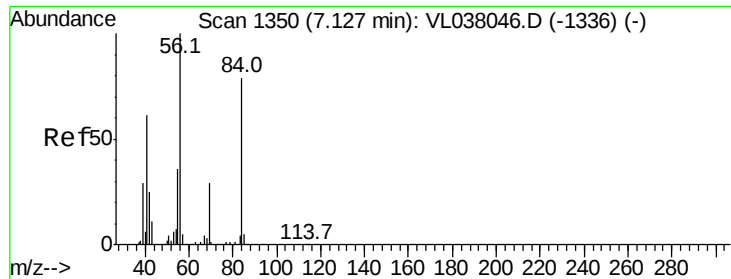
#29
Chloroform
Concen: 0.485 ppbv
RT: 5.75 min Scan# 920
Delta R.T. -0.01 min
Lab File: VL038110.D
Acq: 23 Nov 2021 21:56

Tgt Ion: 83 Resp: 89344
Ion Ratio Lower Upper
83 100
85 61.2 51.0 76.6



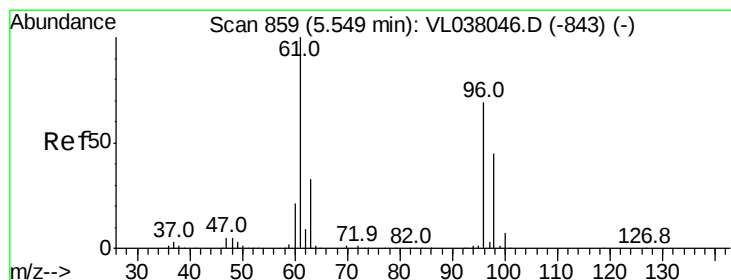
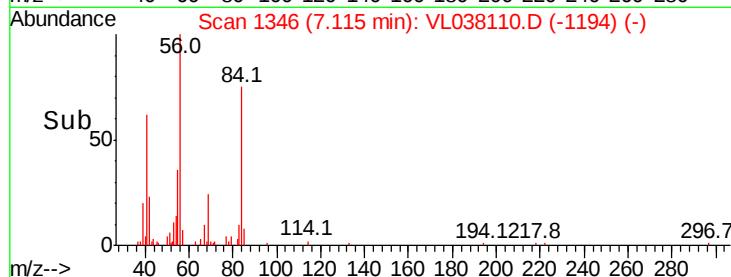
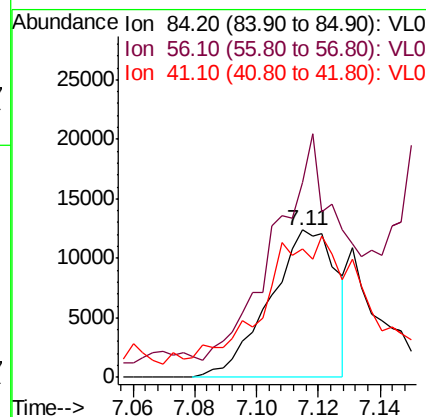
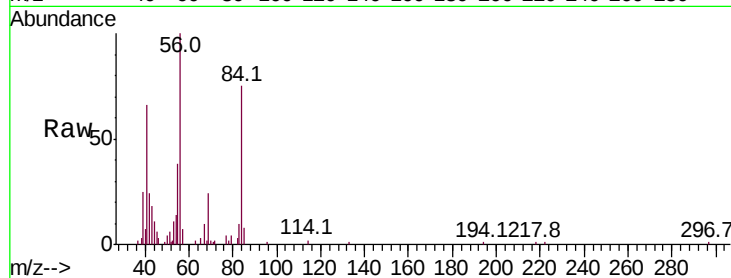
Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0





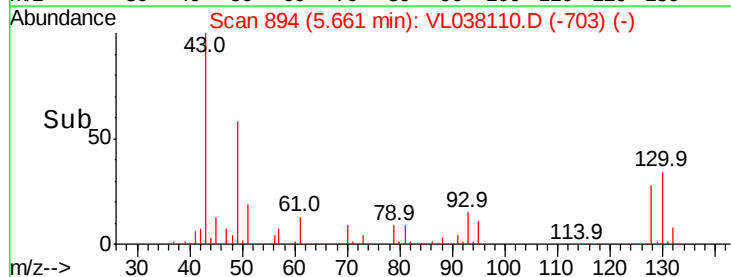
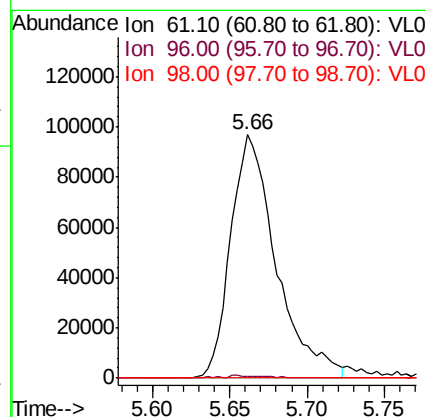
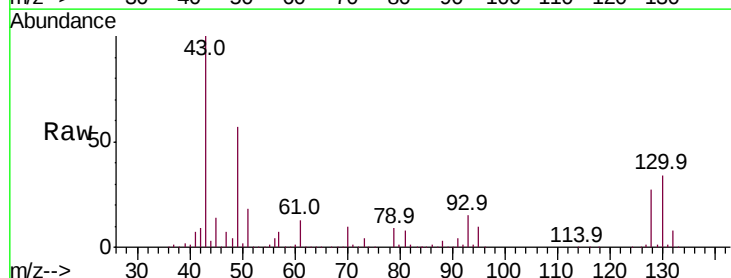
#30
Cvclohexane
Concen: 0.163 ppbv
RT: 7.11 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 23 Nov 2021 21:56

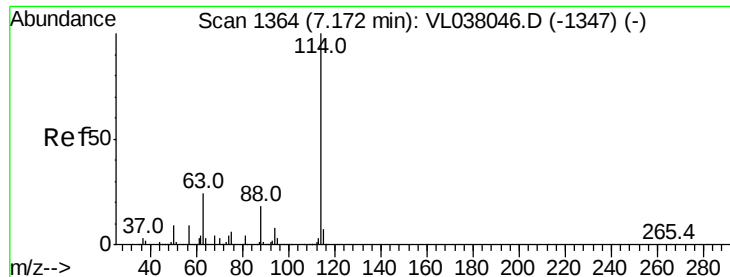
Tot Ion: 84 Resp: 18482
Ion Ratio Lower Upper
84 100
56 201.2 108.1 162.1#
41 138.0 64.4 96.6#



#31
cis-1,2-Dichloroethene
Concen: 1.664 ppbv
RT: 5.66 min Scan# 894
Delta R.T. 0.11 min
Lab File: VL038110.D
Acq: 23 Nov 2021 21:56

Tgt Ion: 61 Resp: 198051
Ion Ratio Lower Upper
61 100
96 0.7 55.4 83.2#
98 0.0 35.7 53.5#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17

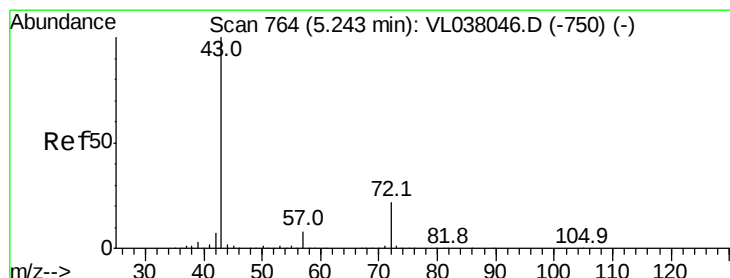
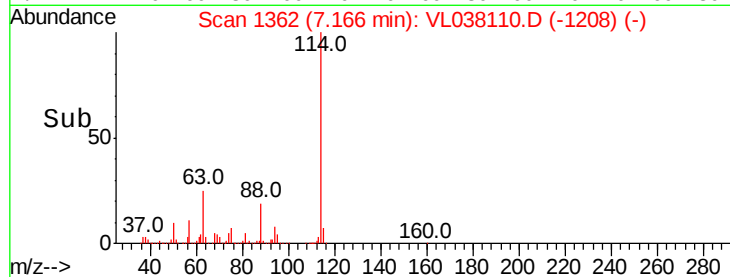
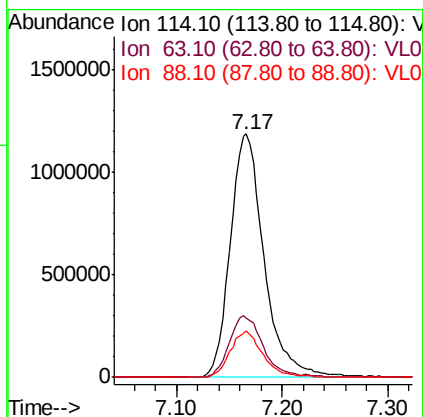
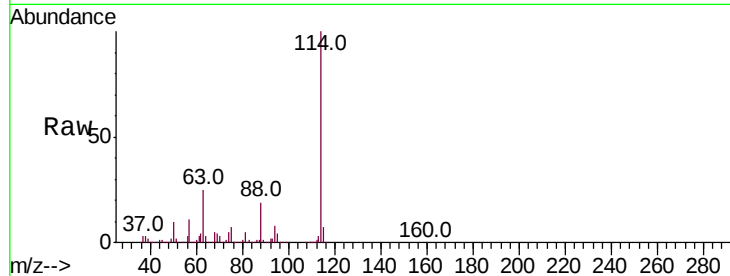
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 23 Nov 2021 21:50

Tot Ion:114 Resp: 2632744

Ion	Ratio	Lower	Upper
114	100		
63	25.7	19.7	29.5
88	18.6	14.4	21.6



#34

2-Butanone

Concen: 0.377 ppbv

RT: 5.24 min Scan# 763

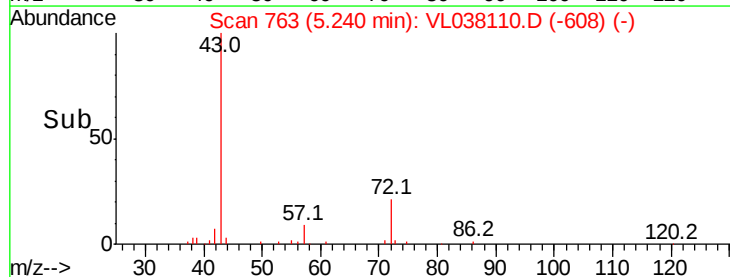
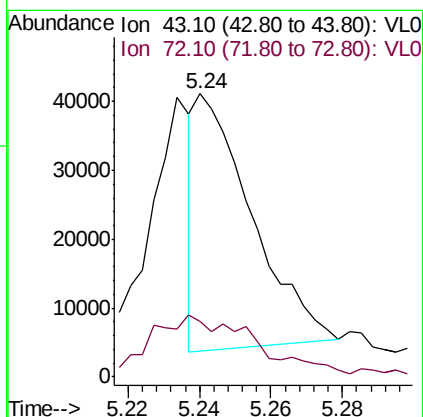
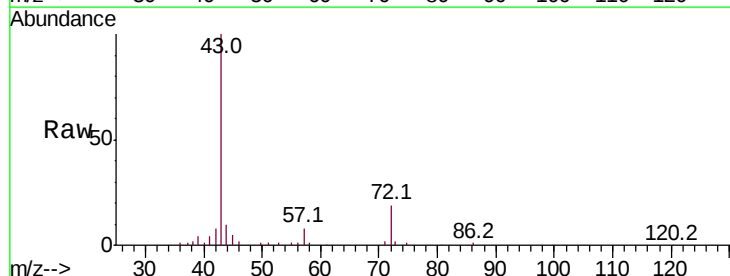
Delta R.T. -0.00 min

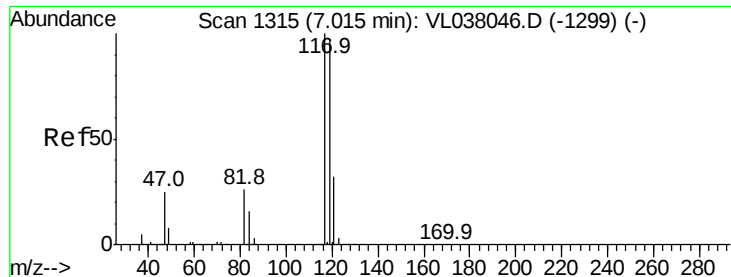
Lab File: VL038110.D

Acq: 23 Nov 2021 21:56

Tgt Ion: 43 Resp: 40073

Ion	Ratio	Lower	Upper
43	100		
72	51.0	18.8	28.2#





#35

Carbon Tetrachloride

Concen: 0.040 ppbv

RT: 7.01 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 23 Nov 2021 21:58

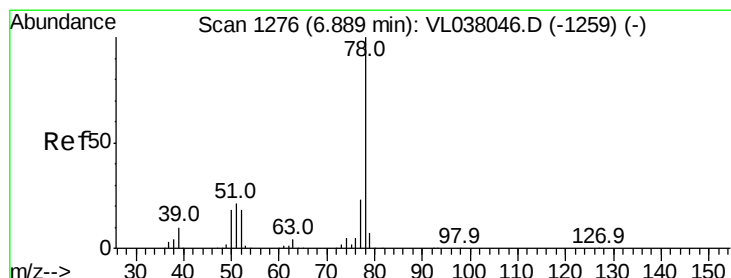
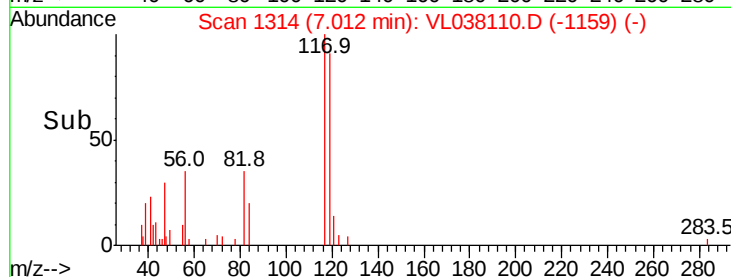
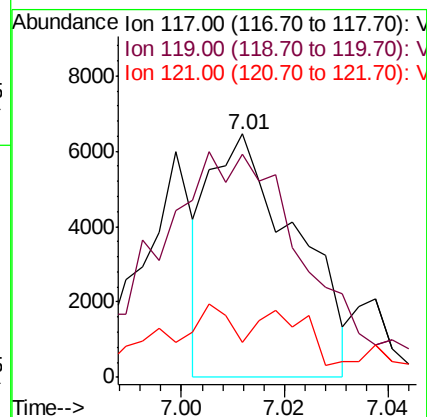
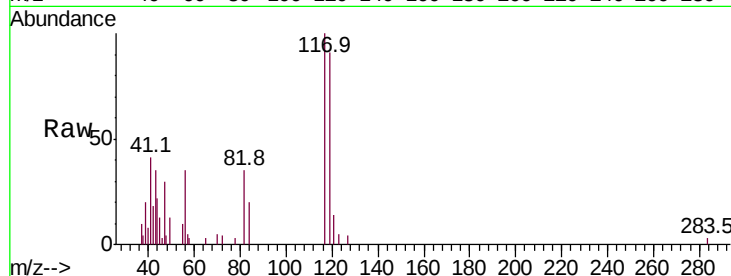
Tot Ion:117 Resp: 7480

Ion Ratio Lower Upper

117 100

119 72.0 77.7 116.5#

121 9.9 25.6 38.4#



#36

Benzene

Concen: 0.247 ppbv

RT: 6.89 min Scan# 1275

Delta R.T. -0.00 min

Lab File: VL038110.D

Acq: 23 Nov 2021 21:56

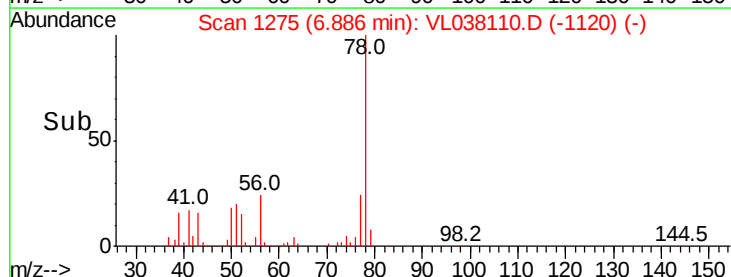
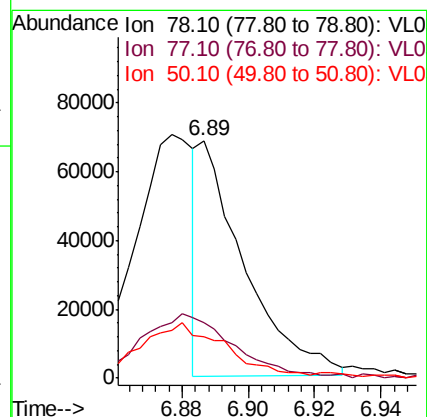
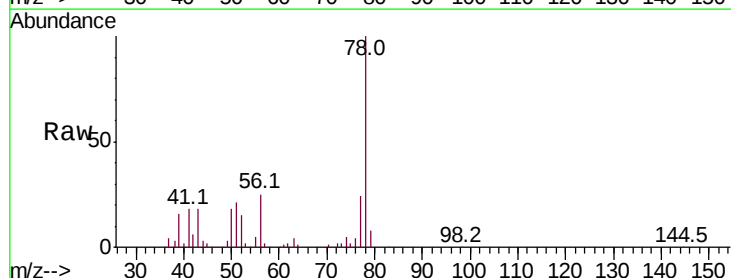
Tgt Ion: 78 Resp: 64772

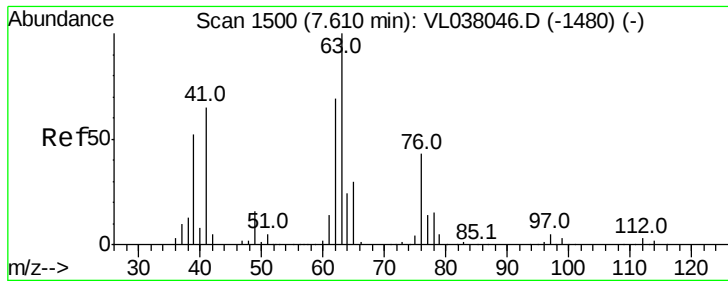
Ion Ratio Lower Upper

78 100

77 22.9 18.2 27.4

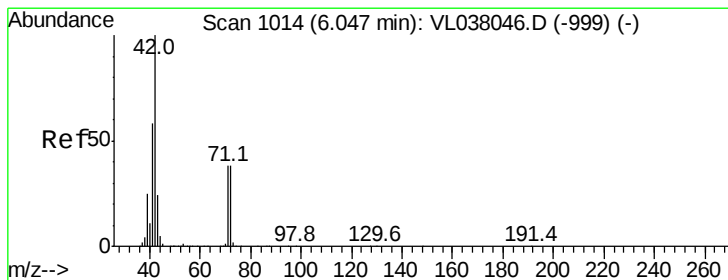
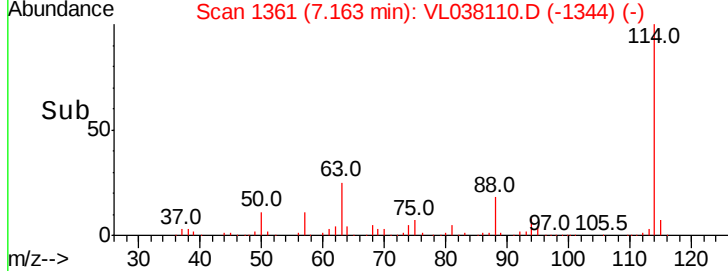
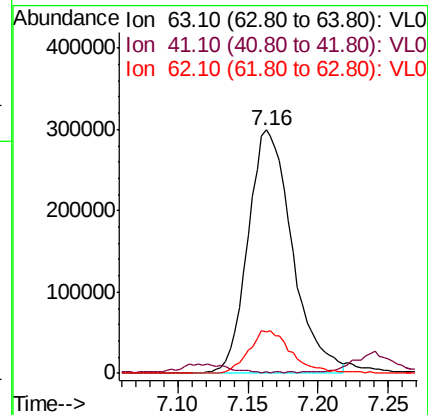
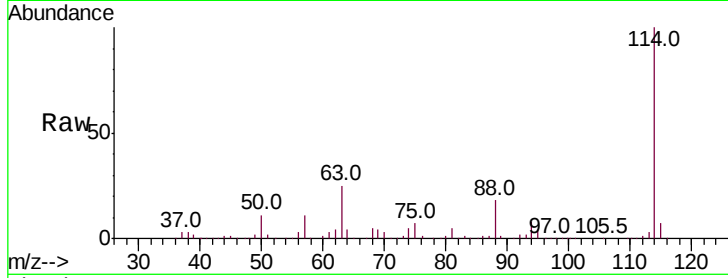
50 16.5 14.7 22.1





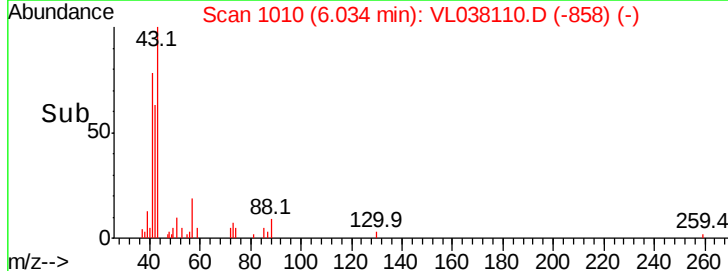
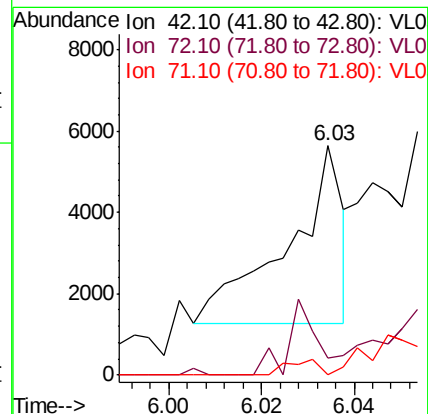
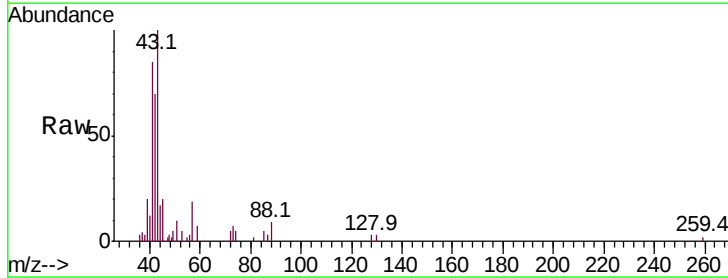
#39
 1,2-Dichloropropane
 Concen: 6.525 ppbv
 RT: 7.16
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 23 Nov 2021 21:56

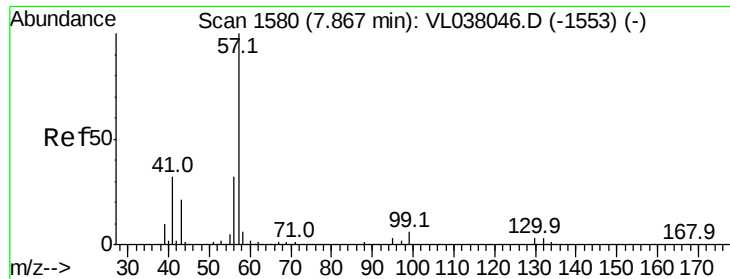
Tot Ion	Ratio	Lower	Upper
63	100		
41	0.0	52.3	78.5#
62	17.0	55.1	82.7#



#41
 Tetrahydrofuran
 Concen: 0.055 ppbv
 RT: 6.03 min Scan# 1010
 Delta R.T. -0.01 min
 Lab File: VL038110.D
 Acq: 23 Nov 2021 21:56

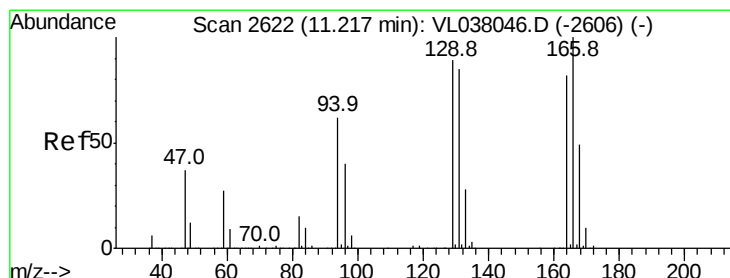
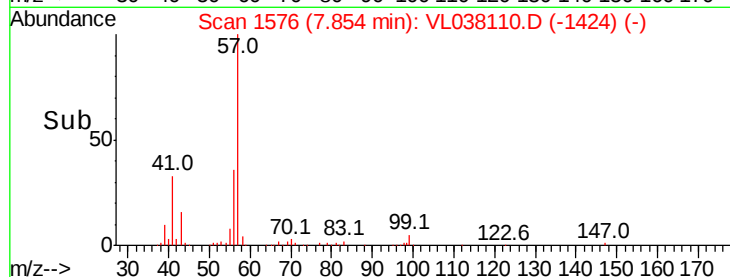
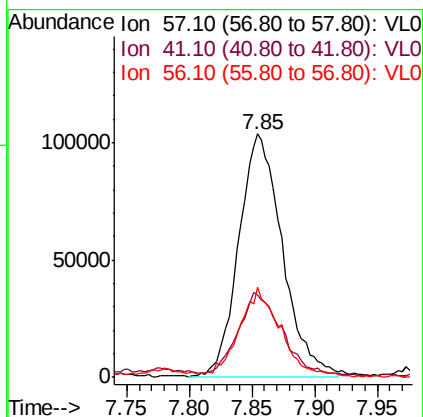
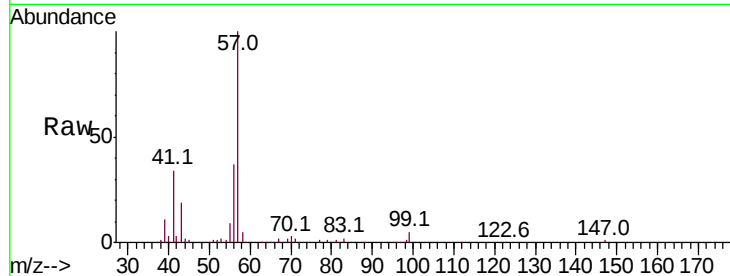
Tgt Ion	Ratio	Lower	Upper
42	100		
72	84.3	31.7	47.5#
71	46.5	30.6	46.0#





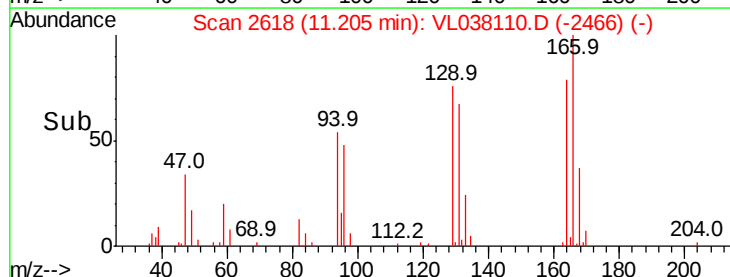
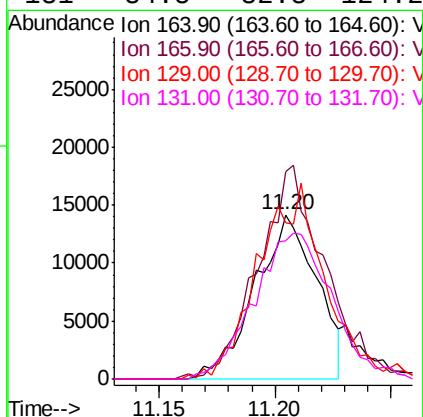
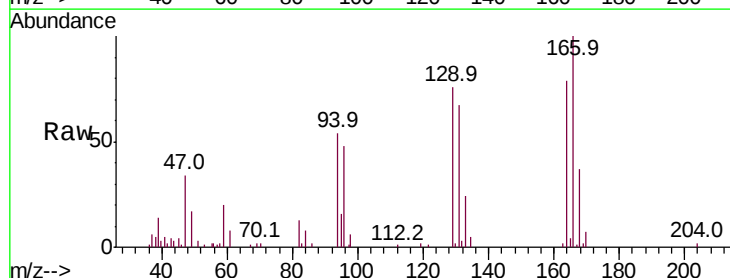
#44
2,2,4-Trimethylpentane
Concen: 0.567 ppbv
RT: 7.85
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 23 Nov 2021 21:56

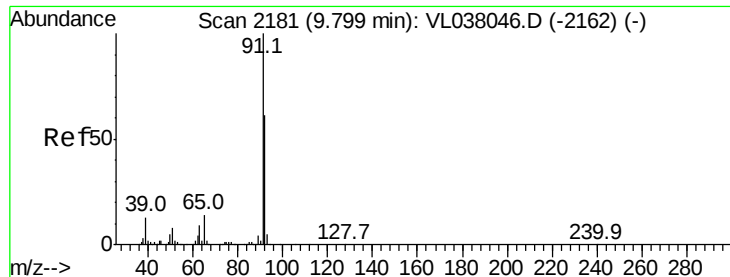
Tot Ion: 57 Resp: 249213
Ion Ratio Lower Upper
57 100
41 35.7 25.8 38.6
56 35.0 25.6 38.4



#52
Tetrachloroethene
Concen: 0.269 ppbv
RT: 11.20 min Scan# 2618
Delta R.T. -0.01 min
Lab File: VL038110.D
Acq: 23 Nov 2021 21:56

Tgt Ion:164 Resp: 26136
Ion Ratio Lower Upper
164 100
166 122.6 97.2 145.8
129 93.0 86.9 130.3
131 84.5 82.8 124.2





#53

Toluene

Concen: 2.505 ppbv

RT: 9.79 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

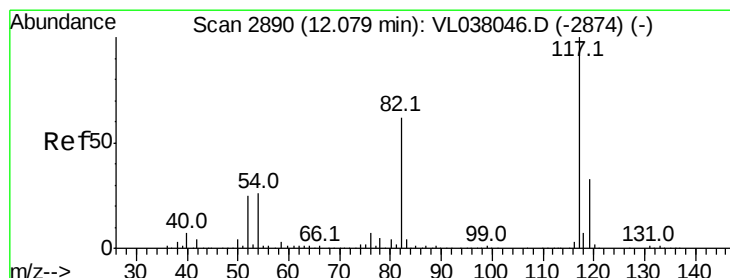
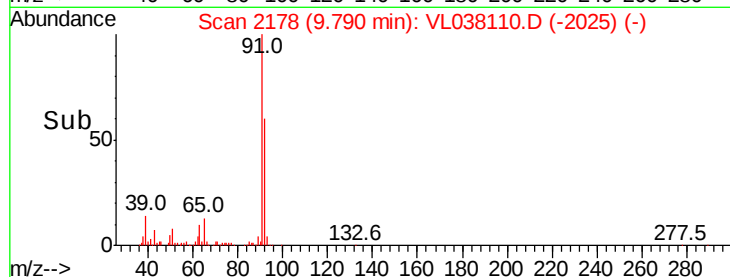
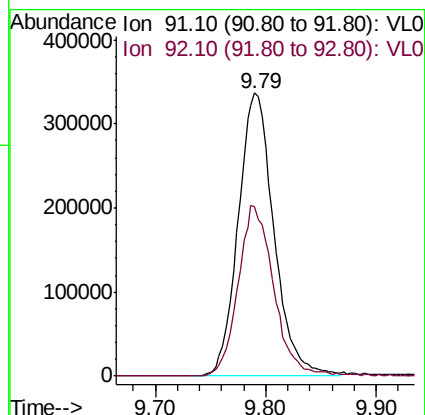
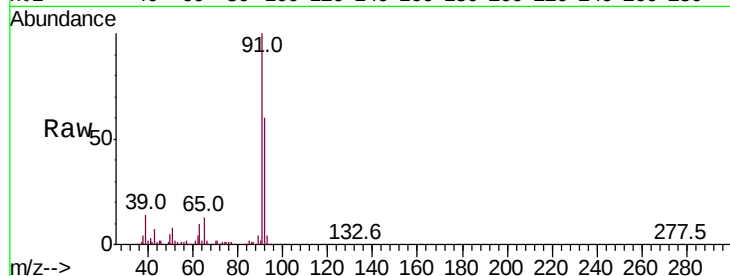
Acq: 23 Nov 2021 21:50

Tot Ion: 91 Resp: 756820

Ion Ratio Lower Upper

91 100

92 60.6 49.7 74.5



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2887

Delta R.T. -0.01 min

Lab File: VL038110.D

Acq: 23 Nov 2021 21:56

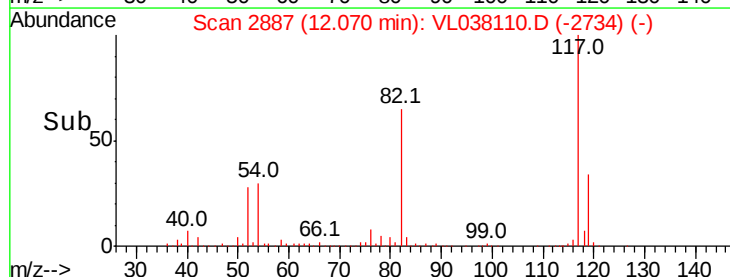
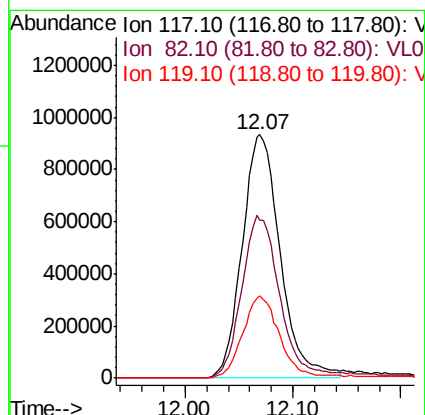
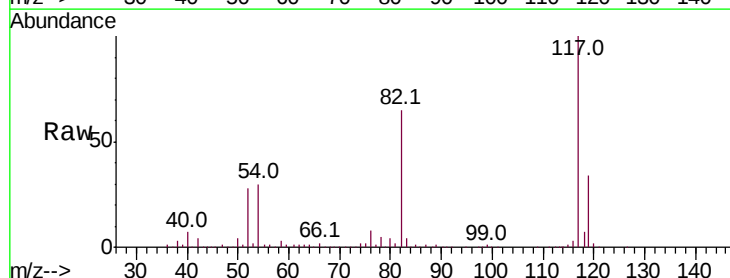
Tgt Ion: 117 Resp: 2285768

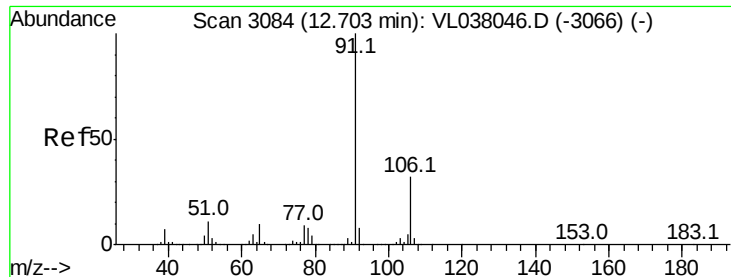
Ion Ratio Lower Upper

117 100

82 70.2 52.8 79.2

119 34.1 26.8 40.2





#58

Ethyl Benzene

Concen: 0.413 ppbv

RT: 12.69

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

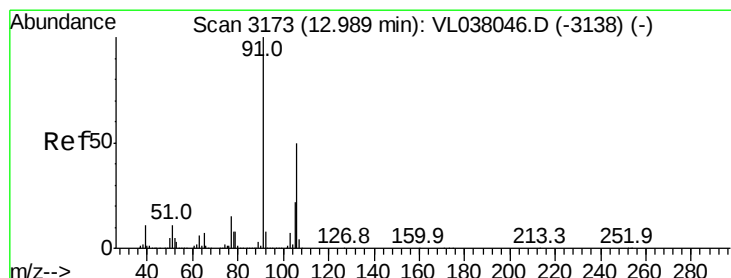
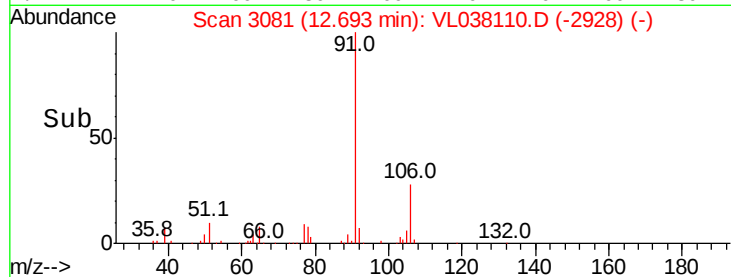
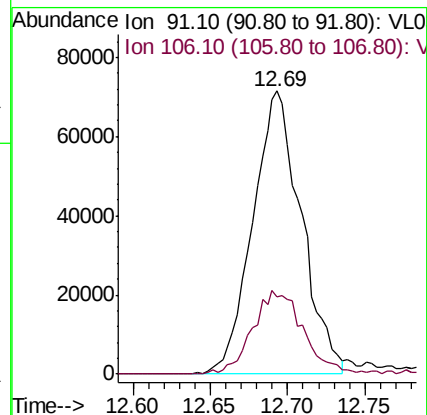
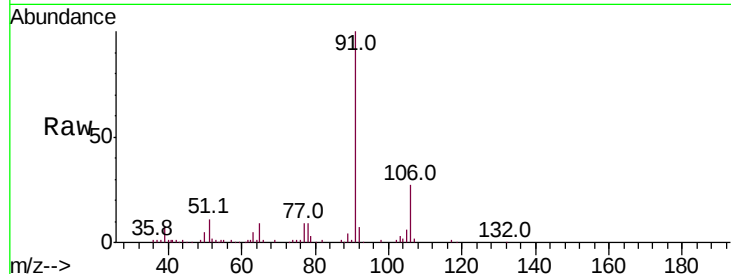
Acq: 23 Nov 2021 21:58

Tot Ion: 91 Resp: 156143

Ion Ratio Lower Upper

91 100

106 27.5 25.8 38.6



#59

m/p-Xylene

Concen: 0.168 ppbv

RT: 12.97 min Scan# 3167

Delta R.T. -0.02 min

Lab File: VL038110.D

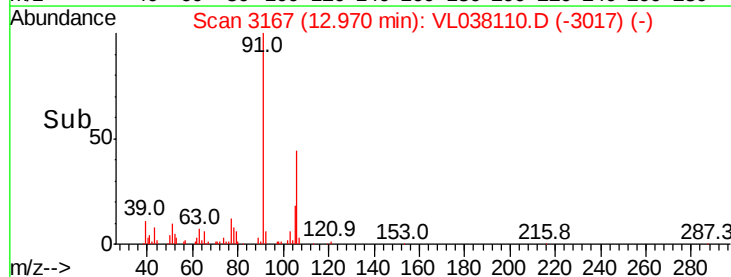
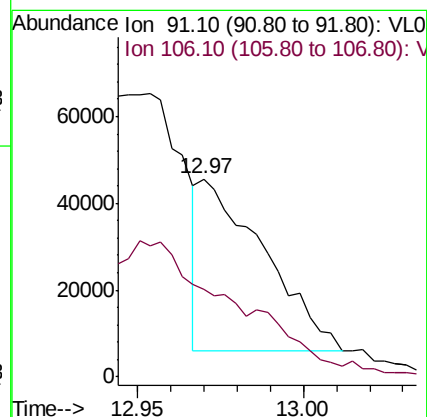
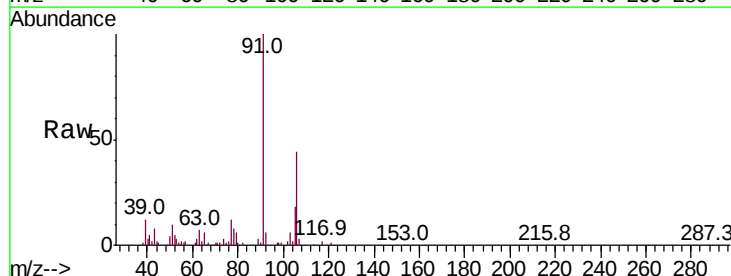
Acq: 23 Nov 2021 21:56

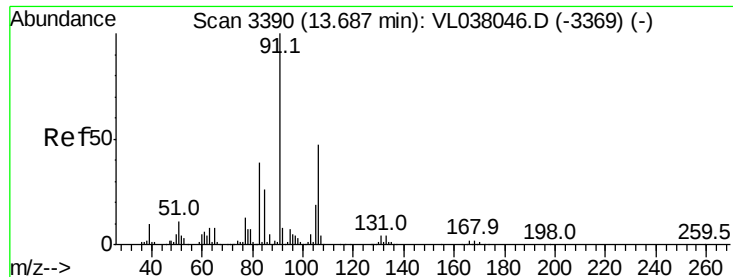
Tgt Ion: 91 Resp: 53403

Ion Ratio Lower Upper

91 100

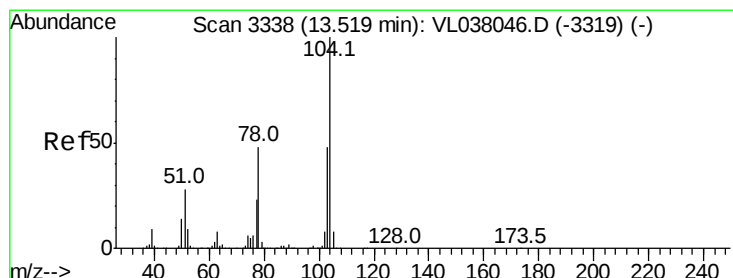
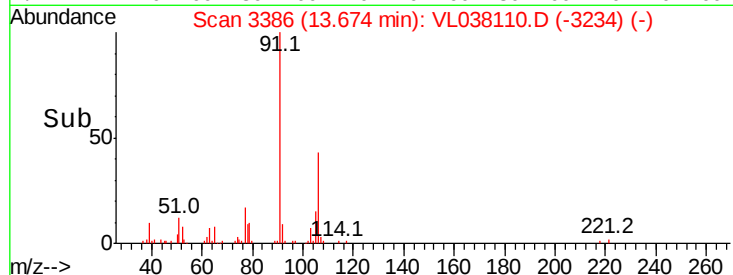
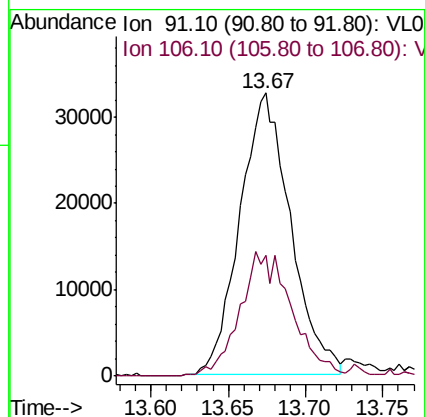
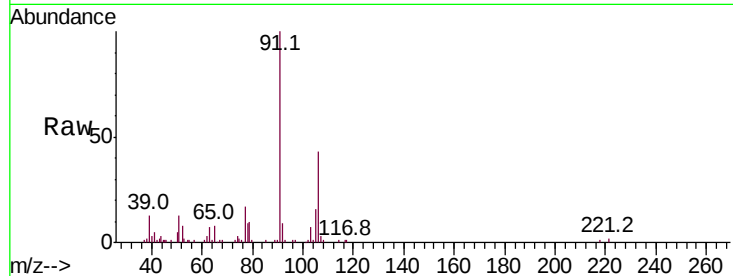
106 0.0 38.1 57.1#





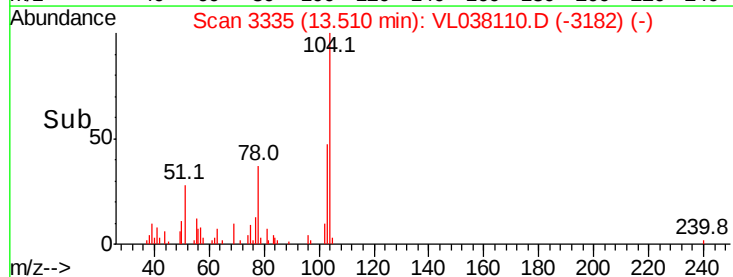
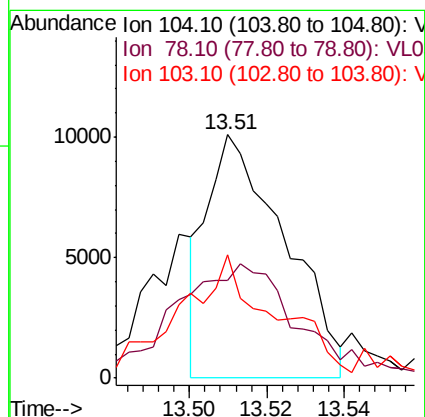
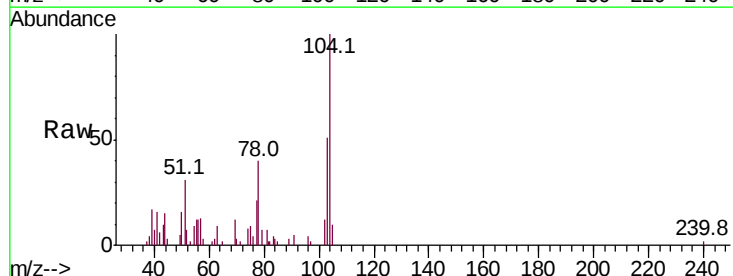
#60
o-Xylene
Concen: 0.252 ppbv
RT: 13.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 23 Nov 2021 21:58

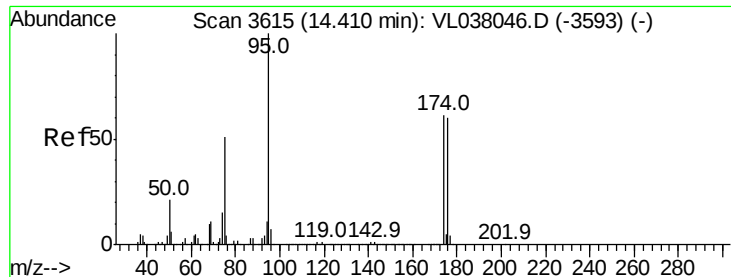
Tot Ion: 91 Resp: 74443
Ion Ratio Lower Upper
91 100
106 46.1 24.2 72.6



#61
Styrene
Concen: 0.090 ppbv
RT: 13.51 min Scan# 3335
Delta R.T. -0.01 min
Lab File: VL038110.D
Acq: 23 Nov 2021 21:56

Tgt Ion: 104 Resp: 14157
Ion Ratio Lower Upper
104 100
78 84.7 39.8 59.6#
103 68.0 38.2 57.2#





#68

1-Bromo-4-Fluorobenzene

Concen: 11.045 ppbv

RT: 14.40 min

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 23 Nov 2021 21:58

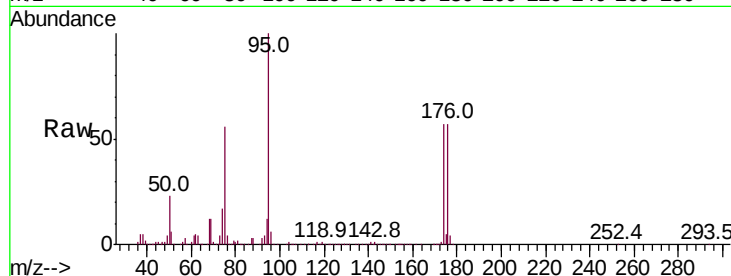
Tot Ion: 95 Resp: 1821049

Ion Ratio Lower Upper

95 100

174 62.1 53.1 79.7

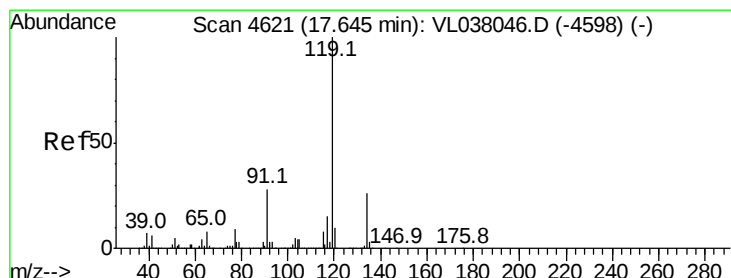
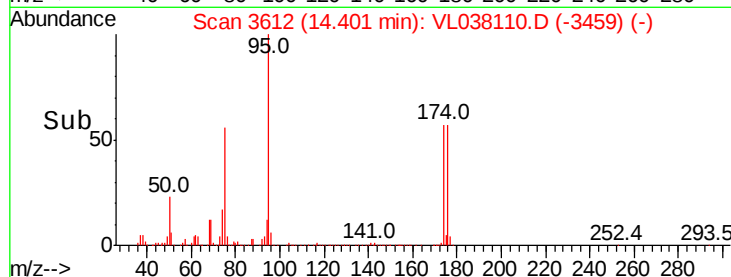
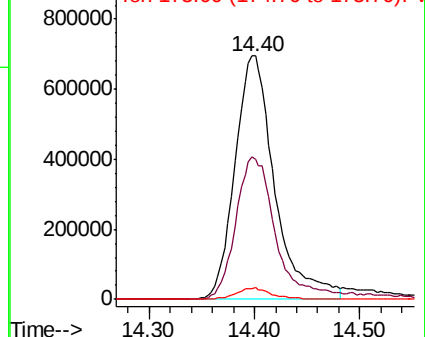
175 4.7 4.0 6.0



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



#69

p-Isopropyltoluene

Concen: 0.106 ppbv

RT: 17.64 min Scan# 4618

Delta R.T. -0.01 min

Lab File: VL038110.D

Acq: 23 Nov 2021 21:56

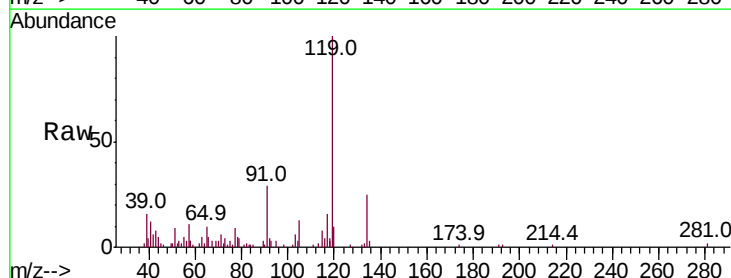
Tgt Ion: 119 Resp: 42434

Ion Ratio Lower Upper

119 100

134 27.8 20.6 30.8

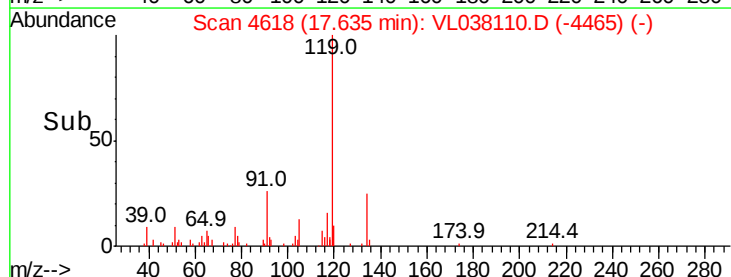
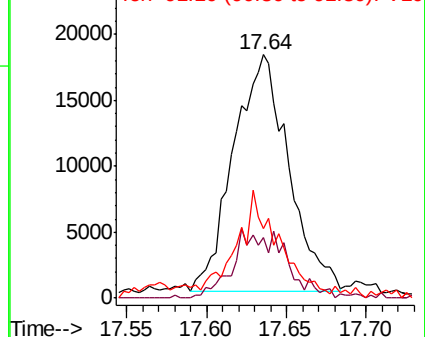
91 42.5 22.2 33.4#

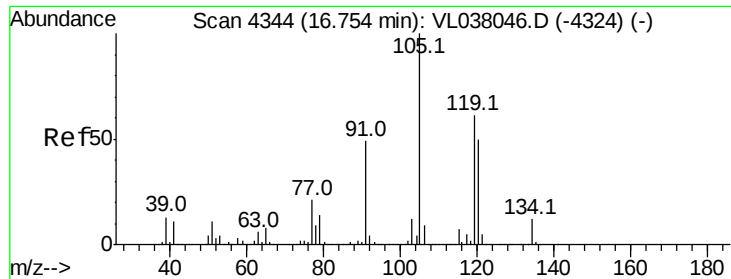


Abundance Ion 119.10 (118.80 to 119.80): V

Ion 134.20 (133.90 to 134.90): V

Ion 91.10 (90.80 to 91.80): VL0





#74
 1,2,4-Trimethylbenzene
 Concen: 0.075 ppbv
 RT: 16.74
 Delta R.T: MSVOA_1
 Lab File: ClientSampleId :
 IA-CURVY-BRIDE
 Acq: 23 Nov 2021 21:58

Tot Ion:	105	Resp:	24216
Ion	Ratio	Lower	Upper
105	100		
120	37.7	40.1	60.1#
91	10.3	39.8	59.8#
77	15.0	16.6	25.0#

