

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL122121\
 Data File : VL038222.D
 Acq On : 21 Dec 2021 20:57
 Operator : SY/AP
 Sample : M5118-01
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Dec 22 08:28:55 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL122121AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Dec 21 17:47:08 2021
 QLast Update : Tue Dec 21 17:47:08 2021
 Response via : Initial Calibration

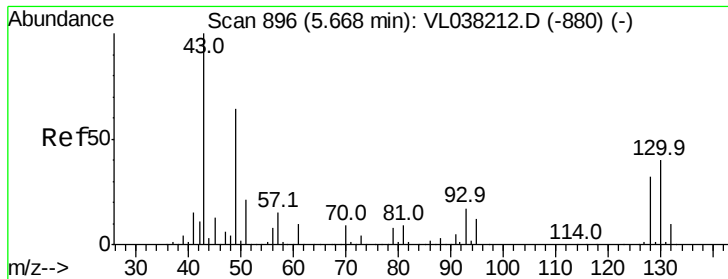
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	659428	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	1886277	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	1588736	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	1300419	10.62	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.20%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.06	85	26194	0.211 ppbv	93
3) Chlorodifluoromethane	3.00	51	48547	0.350 ppbv #	89
4) Chloromethane	3.16	50	21377	0.445 ppbv #	88
9) Propene	3.22	41	40727	0.846 ppbv	86
10) Heptane	8.14	43	4267	0.035 ppbv #	27
11) Trichlorofluoromethane	3.96	101	26021	0.228 ppbv	98
12) 1,1,2-Trichlorotrifluoroet	4.50	101	2980	0.035 ppbv #	32
13) Ethanol	3.62	45	357346	43.808 ppbv #	100
15) Acetone	3.86	43	358269	5.413 ppbv	90
16) 1,3-Butadiene	3.34	39	1890	0.042 ppbv #	1
19) Isopropyl Alcohol	3.99	45	254878	6.175 ppbv #	38
20) Methylene Chloride	4.36	84	519596	13.906 ppbv	97
21) Allyl Chloride	4.36	41	11011	0.197 ppbv #	45
25) Ethyl Acetate	5.70	43	280392	1.564 ppbv #	78
26) Hexane	5.70	57	390114	4.336 ppbv #	45
34) 2-Butanone	5.26	43	28395	0.501 ppbv	96
35) Carbon Tetrachloride	7.02	117	3581	0.031 ppbv #	82
36) Benzene	6.90	78	30340	0.172 ppbv	97
39) 1,2-Dichloropropane	7.18	63	476633	7.039 ppbv #	25
41) Tetrahydrofuran	6.07	42	2913	0.070 ppbv #	30
44) 2,2,4-Trimethylpentane	7.87	57	56916	0.190 ppbv #	79
52) Tetrachloroethene	11.22	164	3284	0.051 ppbv #	70
53) Toluene	9.81	91	143735	0.708 ppbv	99
58) Ethyl Benzene	12.71	91	18563	0.075 ppbv	91
59) m/p-Xylene	12.98	91	30619	0.145 ppbv #	30
60) o-Xylene	13.70	91	12651	0.065 ppbv #	30
74) 1,2,4-Trimethylbenzene	16.77	105	10571	0.050 ppbv #	45

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 21 Dec 2021 20:57

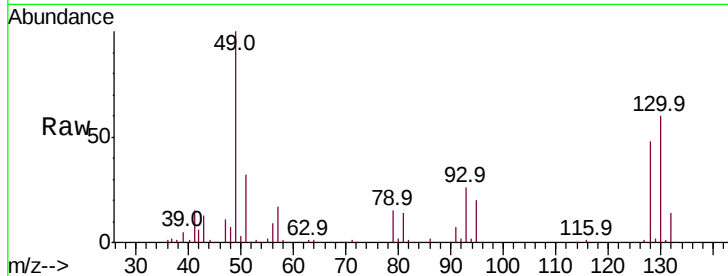
Tot Ion: 49 Resp: 659428

Ion Ratio Lower Upper

49 100

128 49.0 26.9 80.6

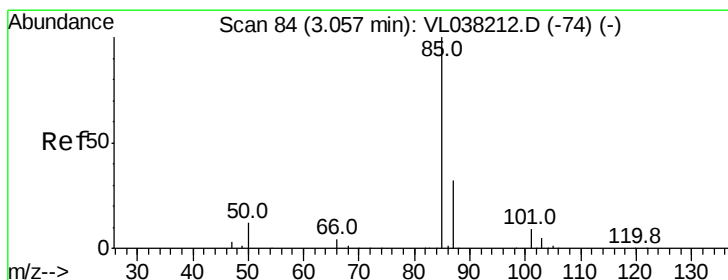
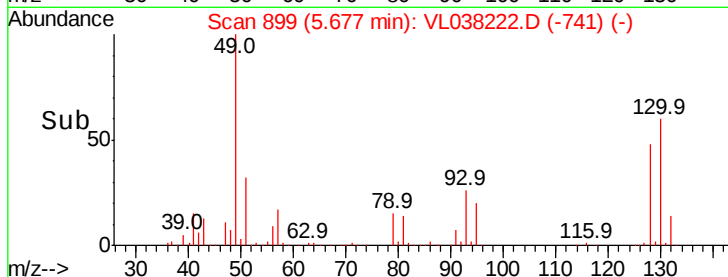
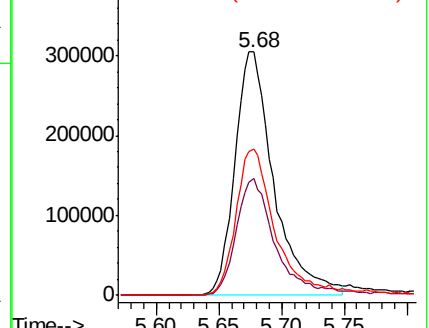
130 63.3 32.3 96.9



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: 0.211 ppbv

RT: 3.06 min Scan# 86

Delta R.T. 0.01 min

Lab File: VL038222.D

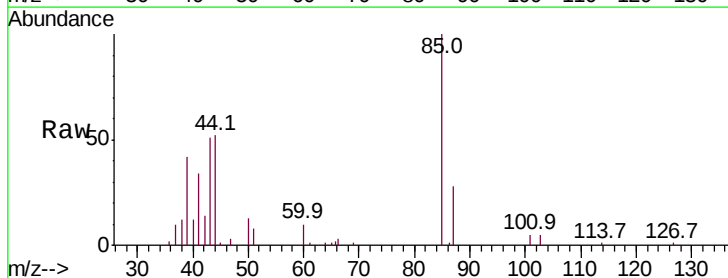
Acq: 21 Dec 2021 20:57

Tgt Ion: 85 Resp: 26194

Ion Ratio Lower Upper

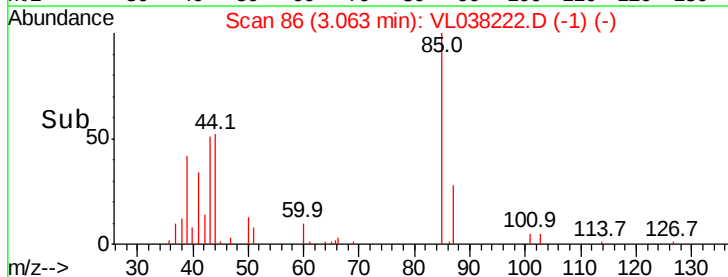
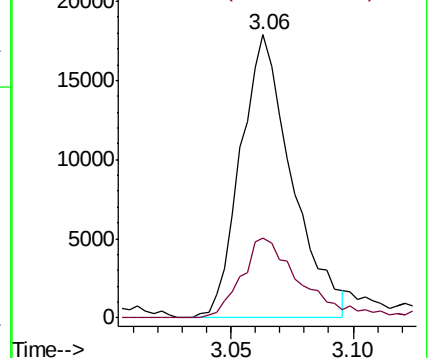
85 100

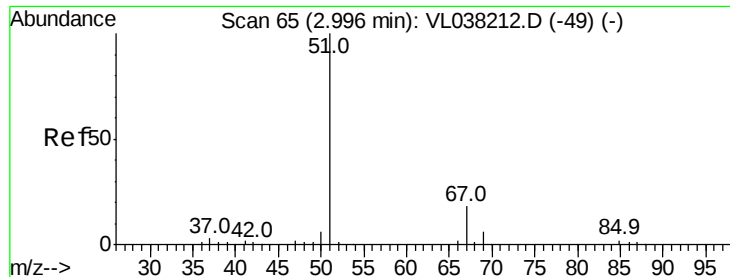
87 28.1 25.4 38.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

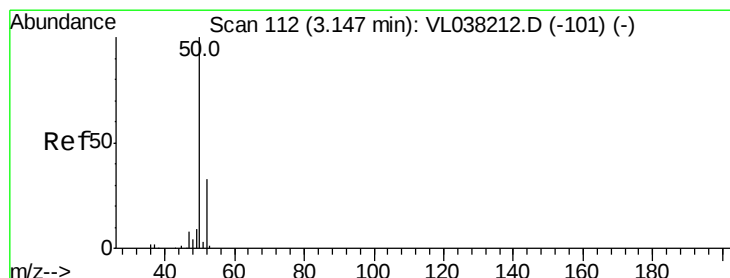
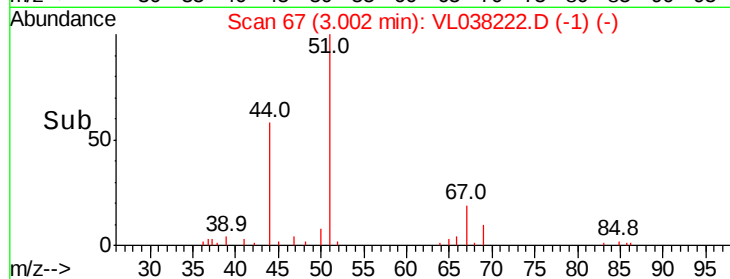
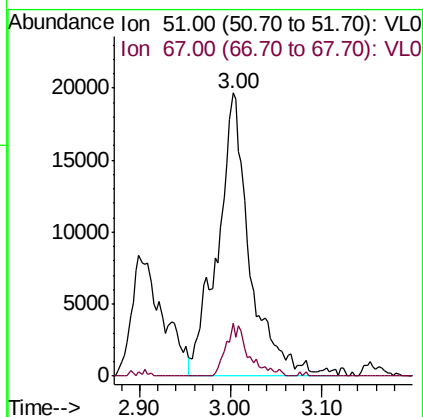
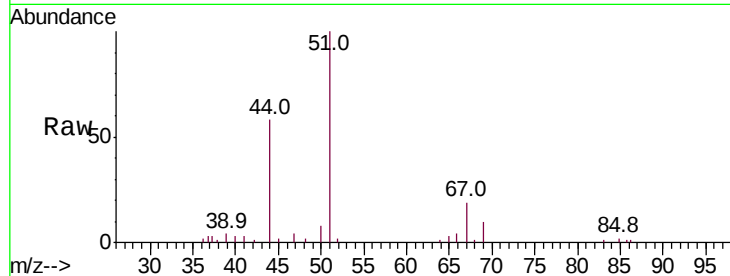
Ion 87.00 (86.70 to 87.70): VL0





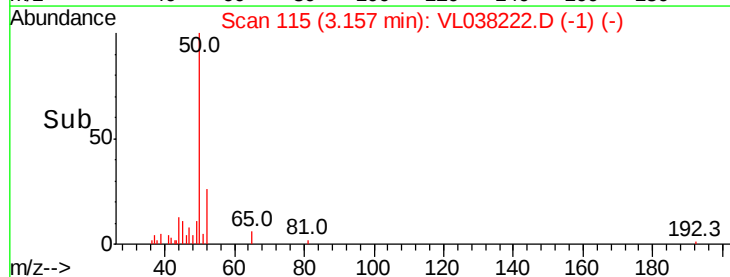
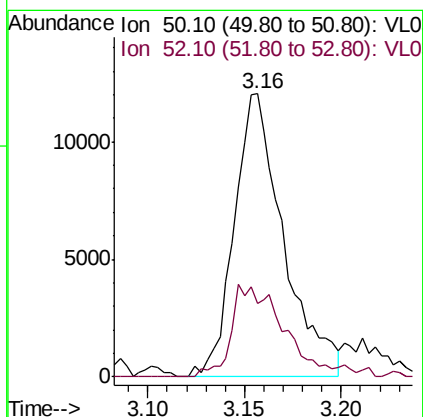
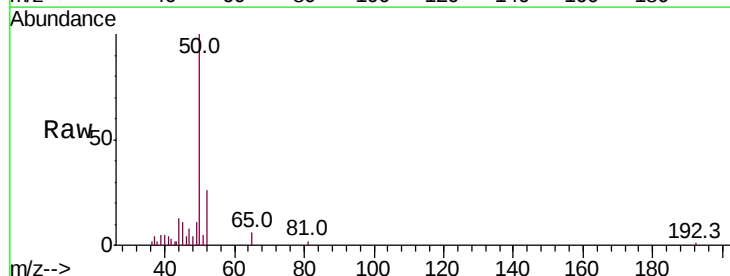
#3
 Chlorodifluoromethane
 Concen: 0.350 ppbv
 RT: 3.00 Instrument : MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 21 Dec 2021 20:57

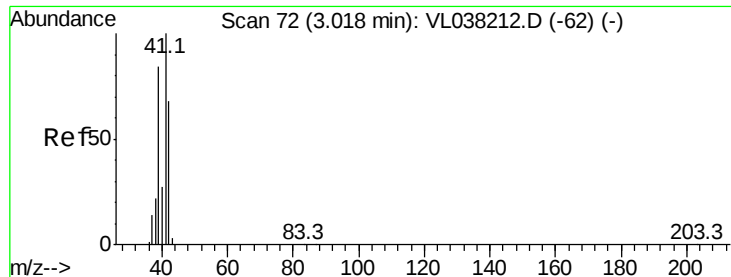
Tot Ion: 51 Resp: 48547
 Ion Ratio Lower Upper
 51 100
 67 12.8 14.0 21.0#



#4
 Chloromethane
 Concen: 0.445 ppbv
 RT: 3.16 min Scan# 115
 Delta R.T. 0.01 min
 Lab File: VL038222.D
 Acq: 21 Dec 2021 20:57

Tgt Ion: 50 Resp: 21377
 Ion Ratio Lower Upper
 50 100
 52 25.9 26.2 39.2#





#9

Propene

Concen: 0.846 ppbv

RT: 3.22 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

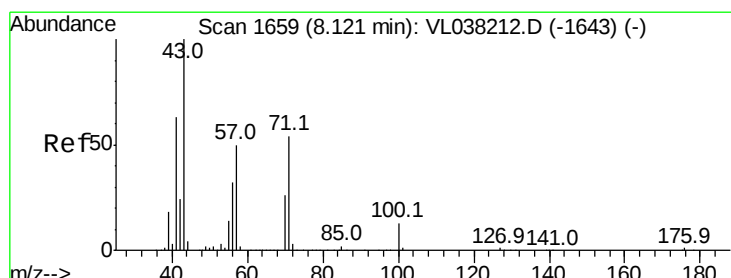
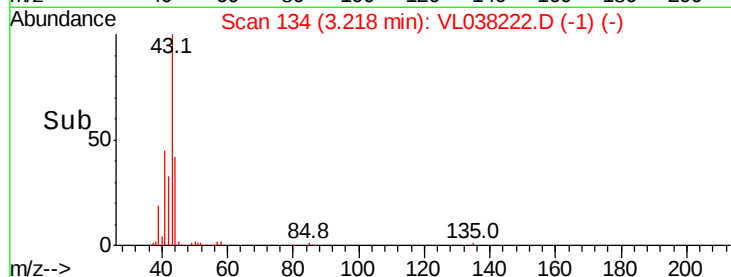
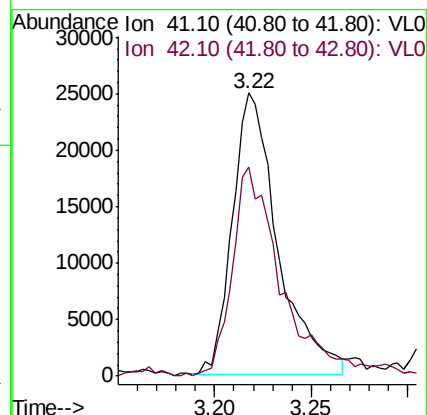
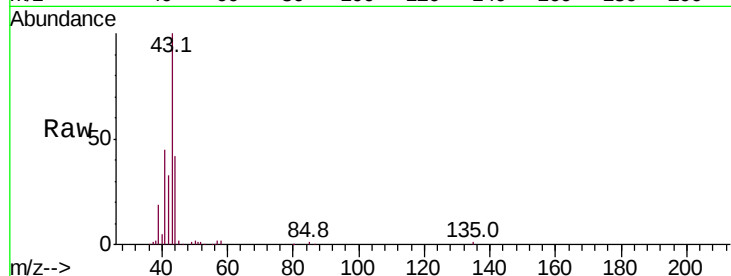
Acq: 21 Dec 2021 20:57

Tot Ion: 41 Resp: 40727

Ion Ratio Lower Upper

41 100

42 80.5 55.5 83.3



#10

Heptane

Concen: 0.035 ppbv

RT: 8.14 min Scan# 1664

Delta R.T. 0.02 min

Lab File: VL038222.D

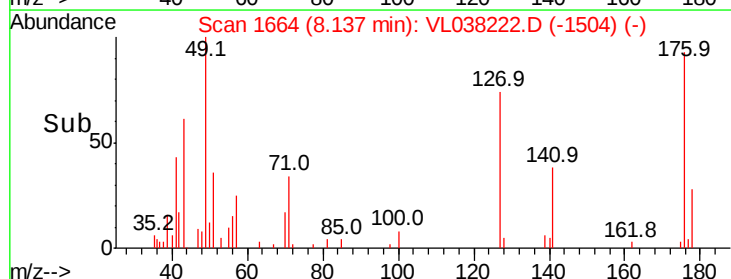
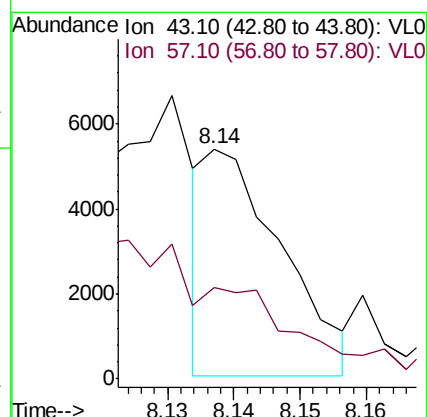
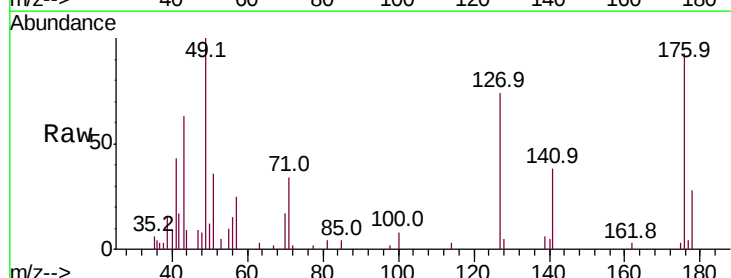
Acq: 21 Dec 2021 20:57

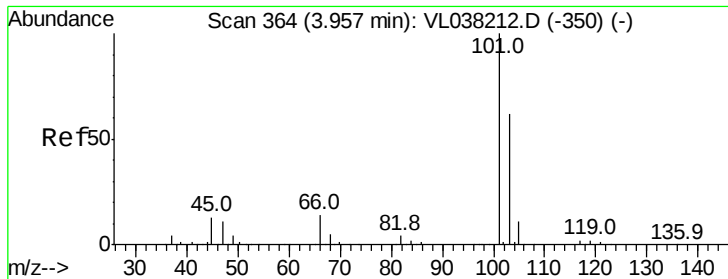
Tgt Ion: 43 Resp: 4267

Ion Ratio Lower Upper

43 100

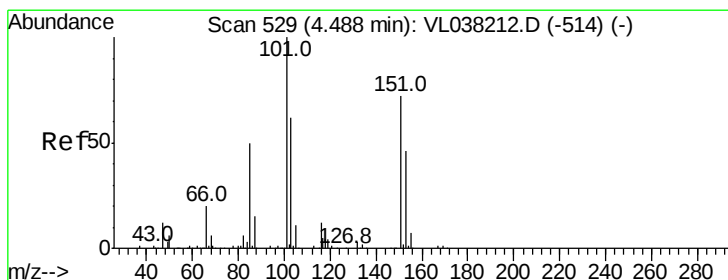
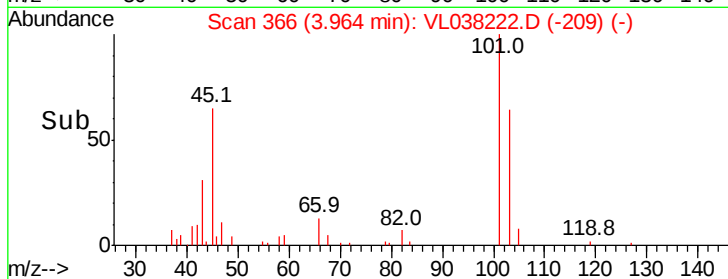
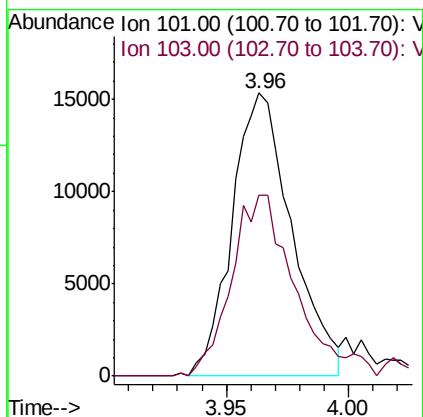
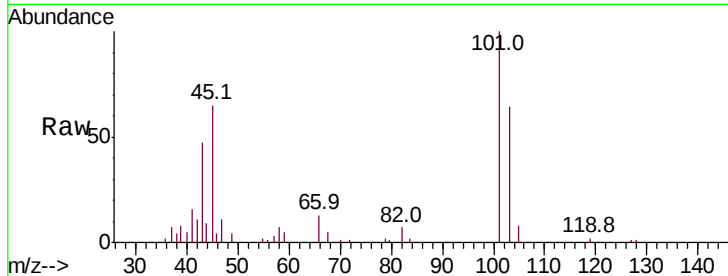
57 0.0 40.3 60.5#





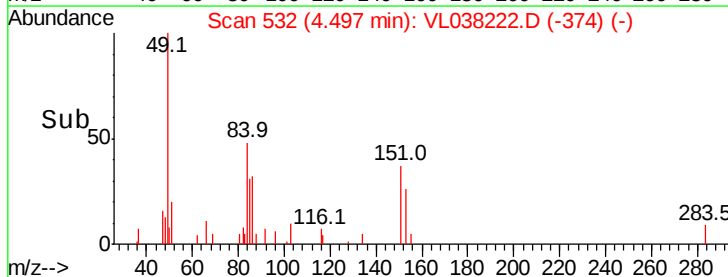
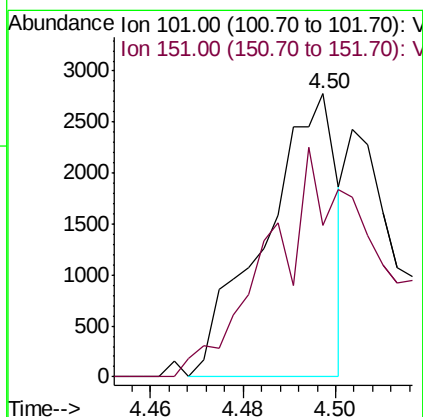
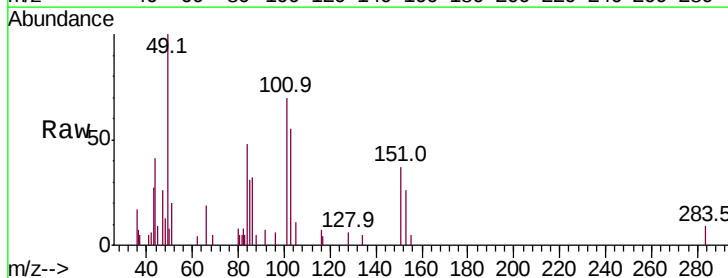
#11
 Trichlorofluoromethane
 Concen: 0.228 ppbv
 RT: 3.96
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 21 Dec 2021 20:57

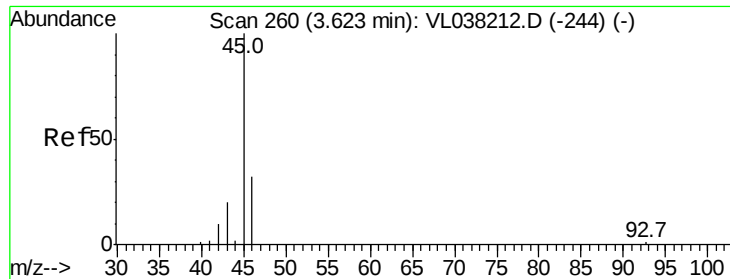
Tot Ion:101 Resp: 26021
 Ion Ratio Lower Upper
 101 100
 103 63.8 49.9 74.9



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.035 ppbv
 RT: 4.50 min Scan# 532
 Delta R.T. 0.01 min
 Lab File: VL038222.D
 Acq: 21 Dec 2021 20:57

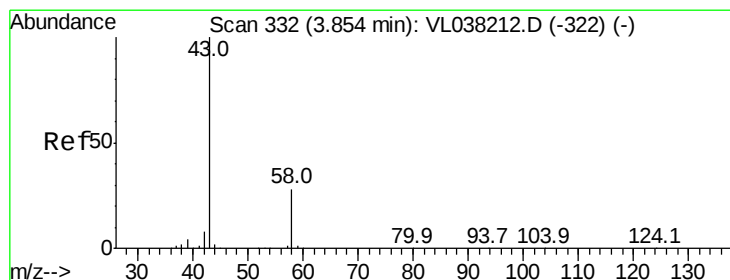
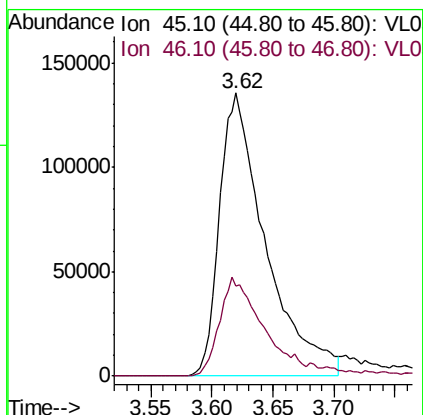
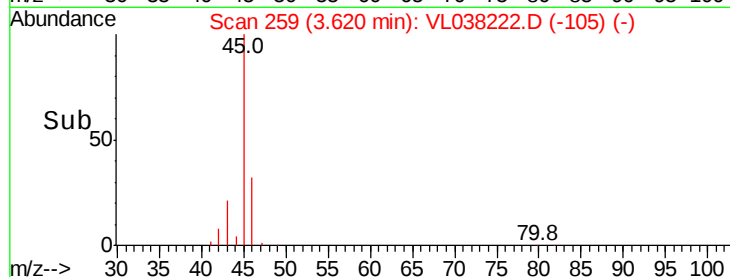
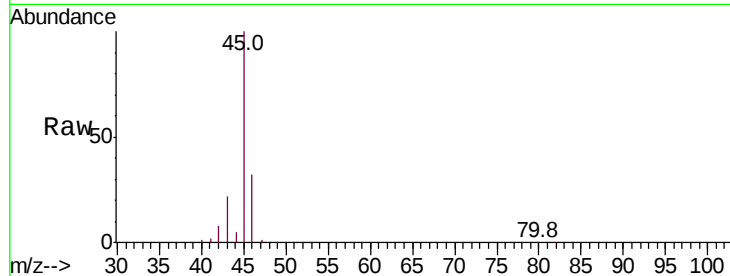
Tgt Ion:101 Resp: 2980
 Ion Ratio Lower Upper
 101 100
 151 130.7 58.6 87.8#





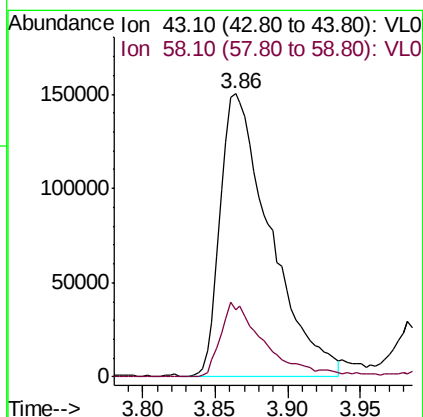
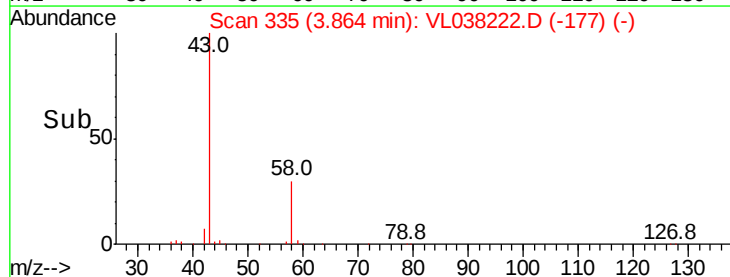
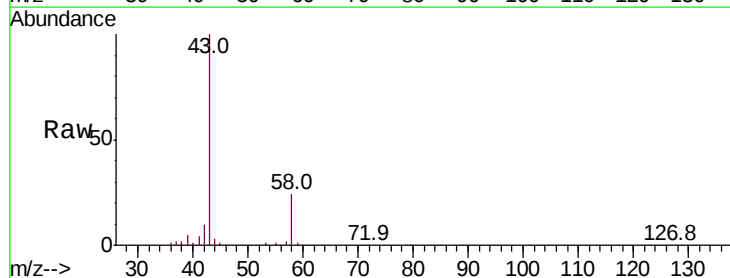
#13
Ethanol
Concen: 43.808 ppbv
RT: 3.62
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 21 Dec 2021 20:57

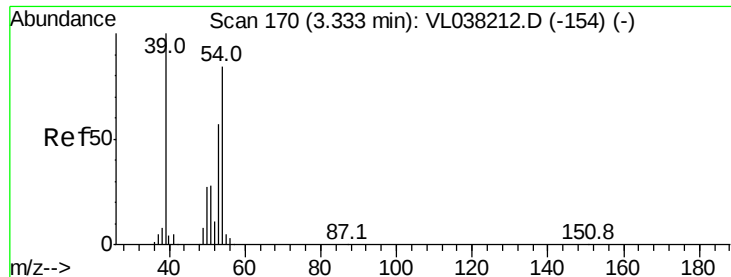
Tot Ion: 45 Resp: 357346
Ion Ratio Lower Upper
45 100
46 36.4 0.0 0.0#



#15
Acetone
Concen: 5.413 ppbv
RT: 3.86 min Scan# 335
Delta R.T. 0.01 min
Lab File: VL038222.D
Acq: 21 Dec 2021 20:57

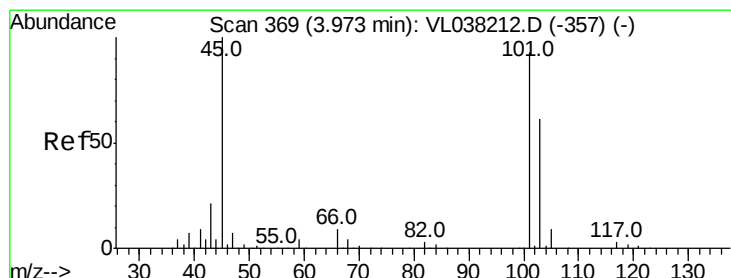
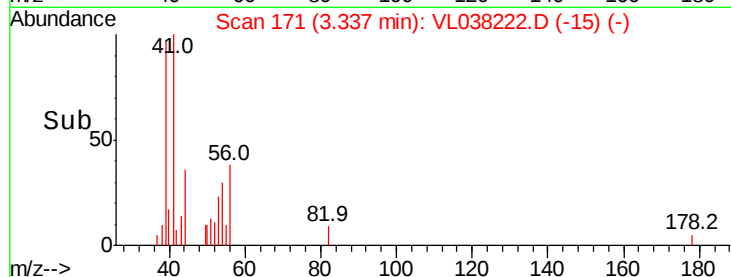
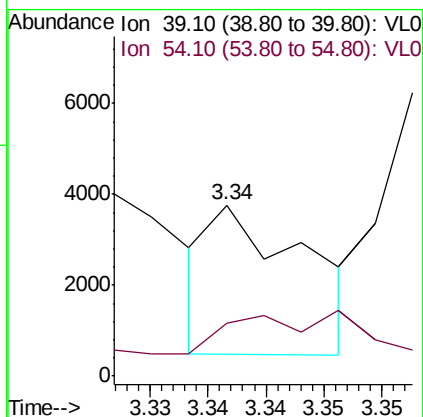
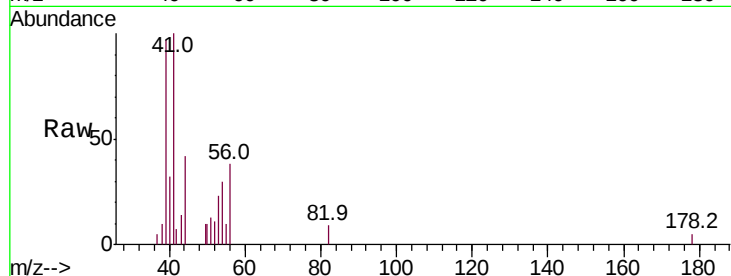
Tgt Ion: 43 Resp: 358269
Ion Ratio Lower Upper
43 100
58 24.0 23.3 34.9





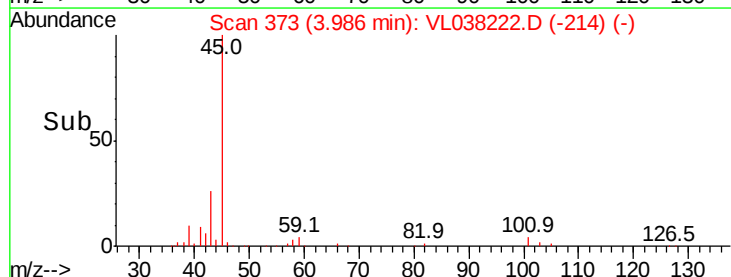
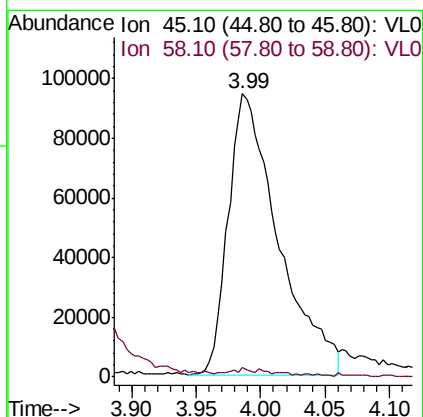
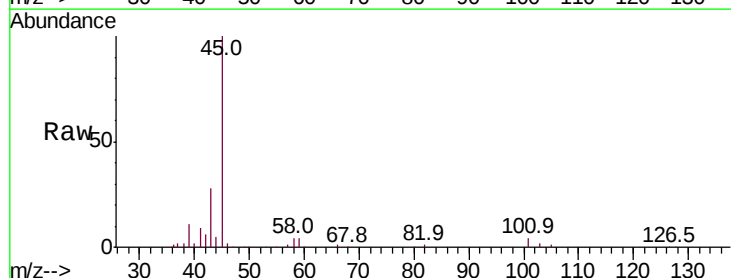
#16
 1,3-Butadiene
 Concen: 0.042 ppbv
 RT: 3.34 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 21 Dec 2021 20:57

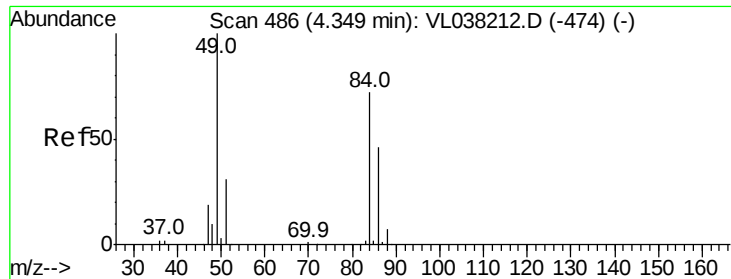
Tot Ion: 39 Resp: 1890
 Ion Ratio Lower Upper
 39 100
 54 166.5 62.9 94.3#



#19
 Isopropyl Alcohol
 Concen: 6.175 ppbv
 RT: 3.99 min Scan# 373
 Delta R.T. 0.01 min
 Lab File: VL038222.D
 Acq: 21 Dec 2021 20:57

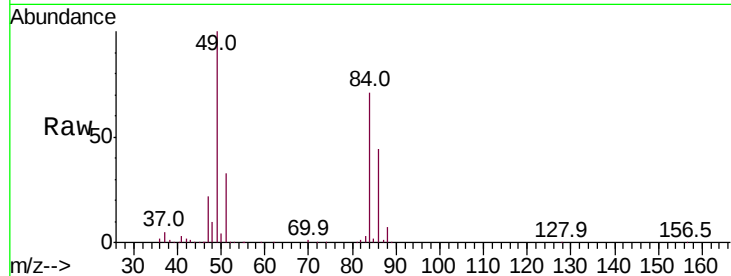
Tgt Ion: 45 Resp: 254878
 Ion Ratio Lower Upper
 45 100
 58 2.2 32.4 48.6#



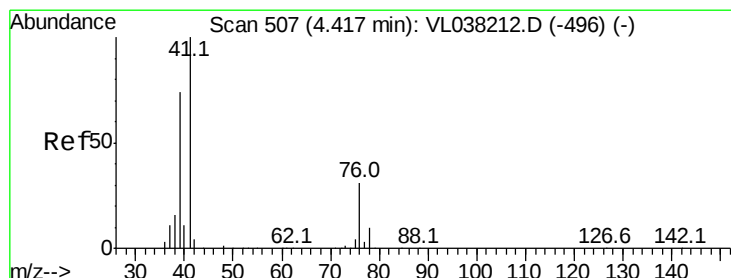
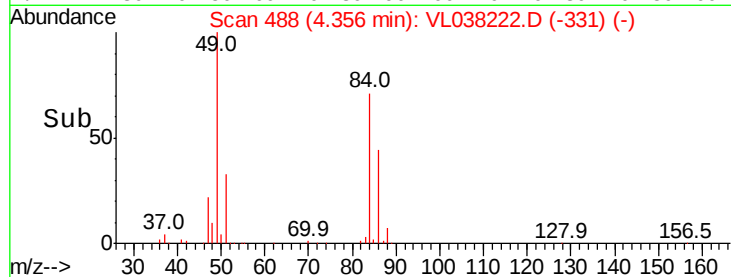
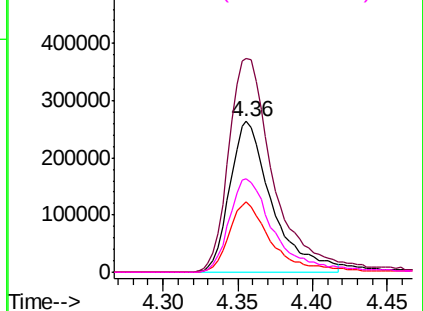


#20
Methvlene Chloride
Concen: 13.906 ppbv
RT: 4.36
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 21 Dec 2021 20:57

Tot Ion:	84	Resp:	519596
Ion	Ratio	Lower	Upper
84	100		
49	141.4	110.6	166.0
51	46.5	34.2	51.2
86	61.6	50.5	75.7

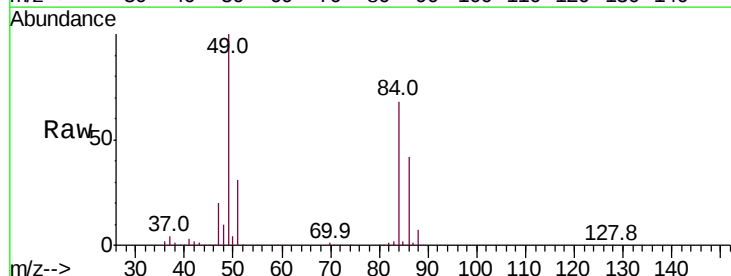


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

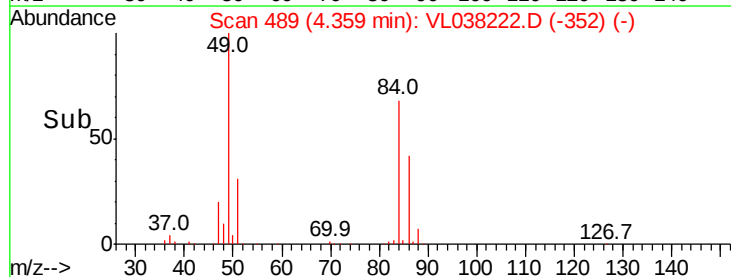
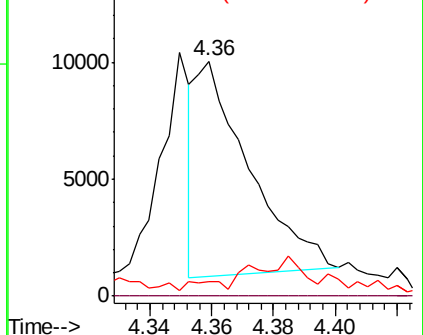


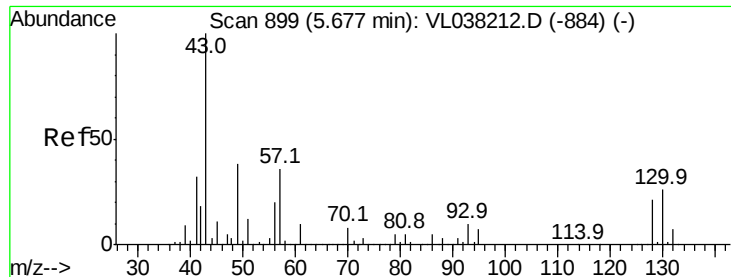
#21
Allyl Chloride
Concen: 0.197 ppbv
RT: 4.36 min Scan# 489
Delta R.T. -0.06 min
Lab File: VL038222.D
Acq: 21 Dec 2021 20:57

Tgt Ion:	41	Resp:	11011
Ion	Ratio	Lower	Upper
41	100		
76	0.0	25.2	37.8#
39	34.4	66.1	99.1#



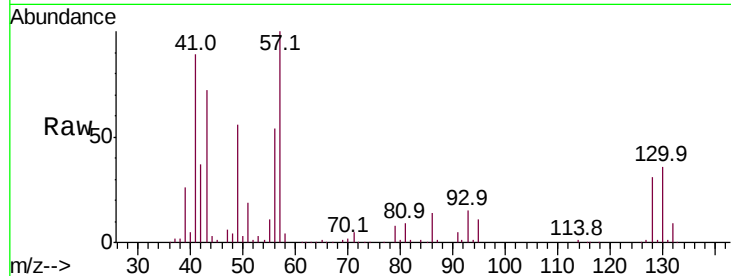
Abundance Ion 41.10 (40.80 to 41.80): VL0
Ion 76.10 (75.80 to 76.80): VL0
Ion 39.10 (38.80 to 39.80): VL0





#25
Ethyl Acetate
Concen: 1.564 ppbv
RT: 5.70 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 21 Dec 2021 20:57

Tot Ion:	43	Resp:	280392
Ion	Ratio	Lower	Upper
43	100		
45	1.5	7.9	11.9#
61	0.7	8.1	12.1#
70	1.9	5.5	8.3#



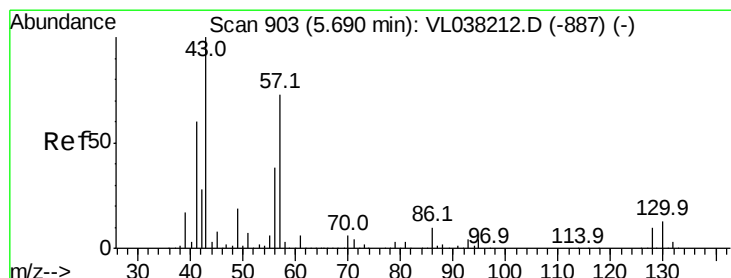
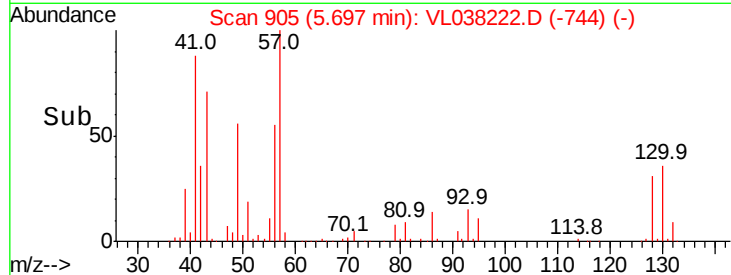
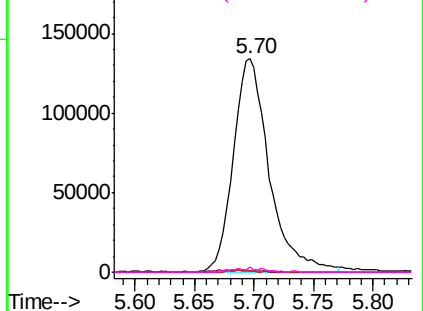
Abundance

Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

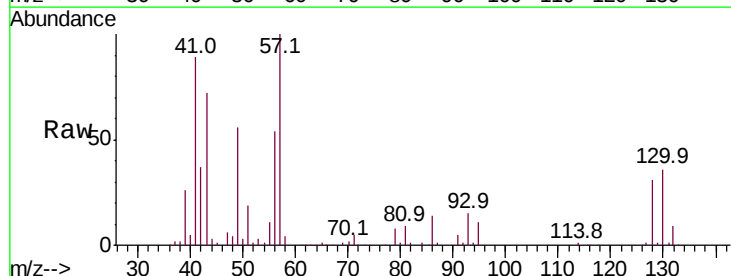
Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26
Hexane
Concen: 4.336 ppbv
RT: 5.70 min Scan# 905
Delta R.T.: 0.01 min
Lab File: VL038222.D
Acq: 21 Dec 2021 20:57

Tgt Ion:	57	Resp:	390114
Ion	Ratio	Lower	Upper
57	100		
41	89.2	69.0	103.6
43	74.0	171.2	256.8#
56	54.0	41.5	62.3



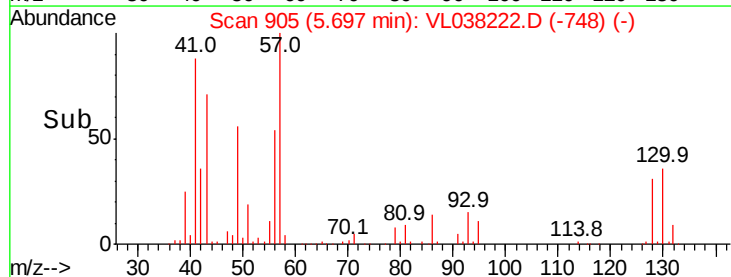
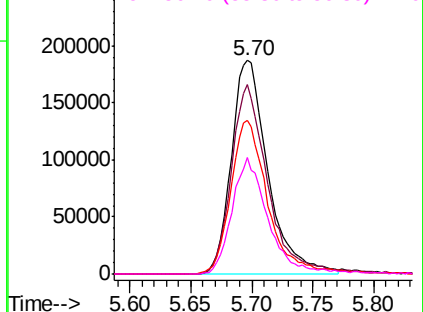
Abundance

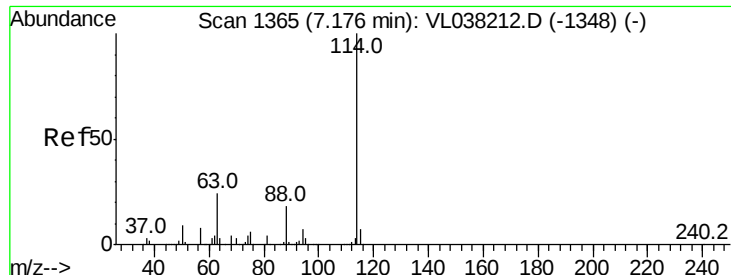
Ion 57.10 (56.80 to 57.80): VL0

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





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.18

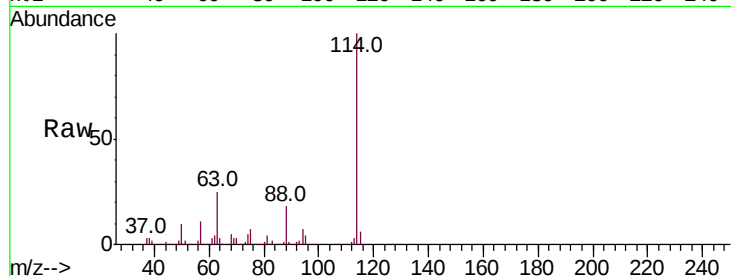
Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 21 Dec 2021 20:57

Tot Ion:114 Resp: 1886277

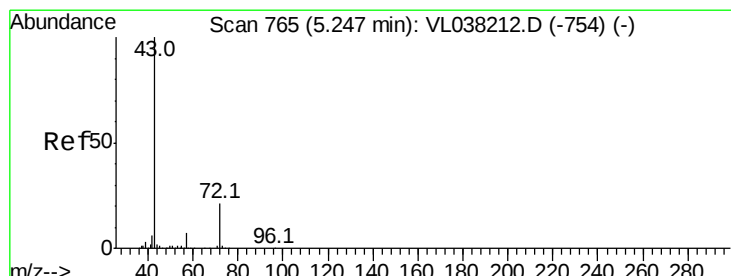
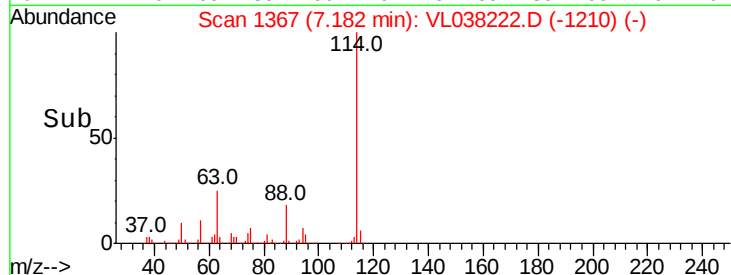
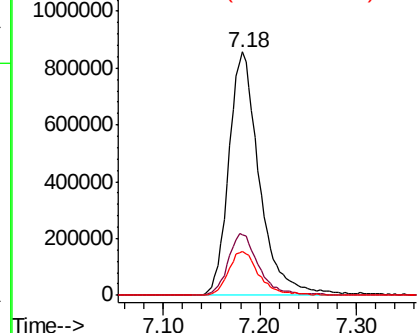
Ion	Ratio	Lower	Upper
114	100		
63	25.6	19.7	29.5
88	18.5	14.3	21.5



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 0.501 ppbv

RT: 5.26 min Scan# 770

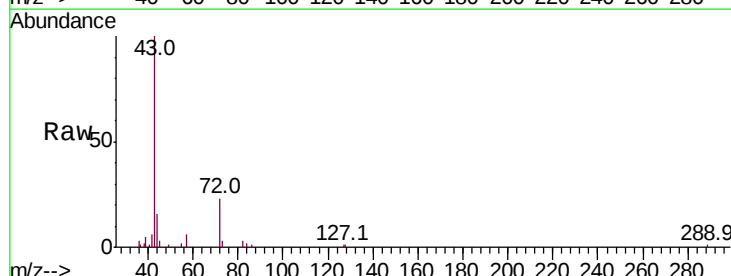
Delta R.T. 0.02 min

Lab File: VL038222.D

Acq: 21 Dec 2021 20:57

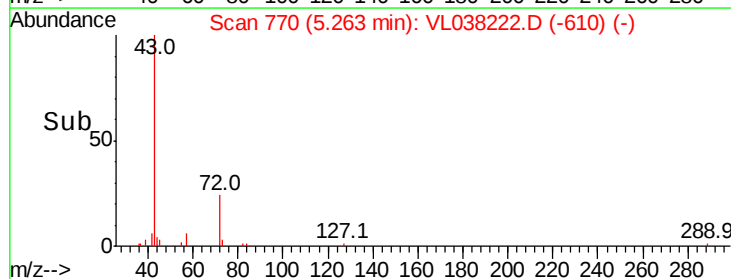
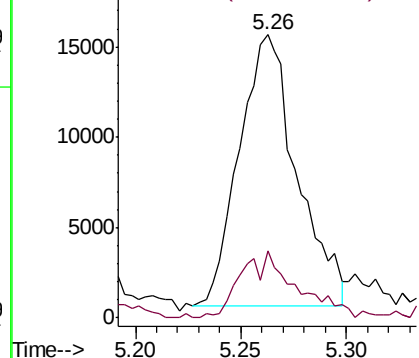
Tgt Ion: 43 Resp: 28395

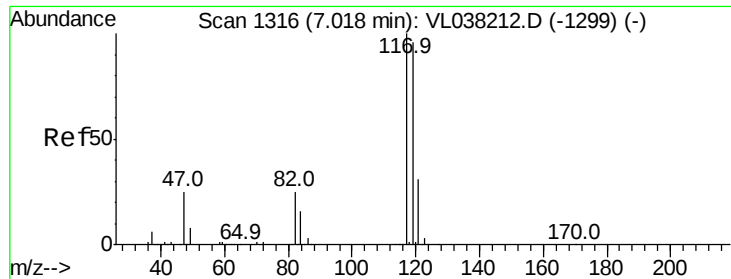
Ion	Ratio	Lower	Upper
43	100		
72	24.9	18.3	27.5



Abundance Ion 43.10 (42.80 to 43.80): VL0

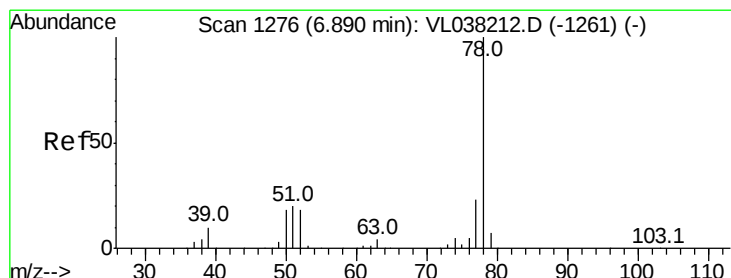
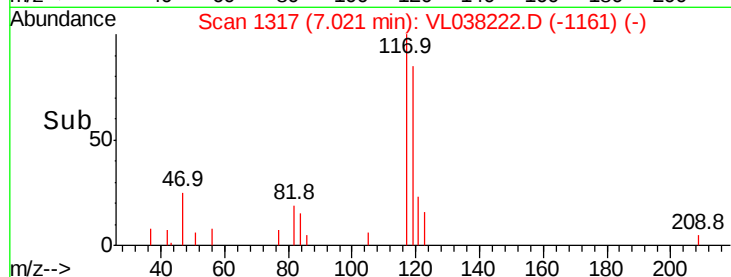
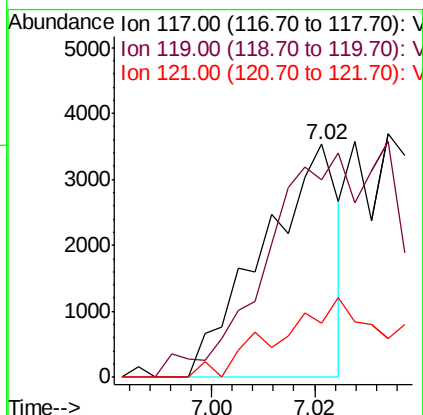
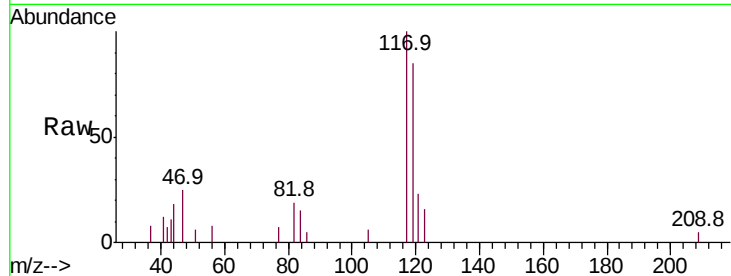
Ion 72.10 (71.80 to 72.80): VL0





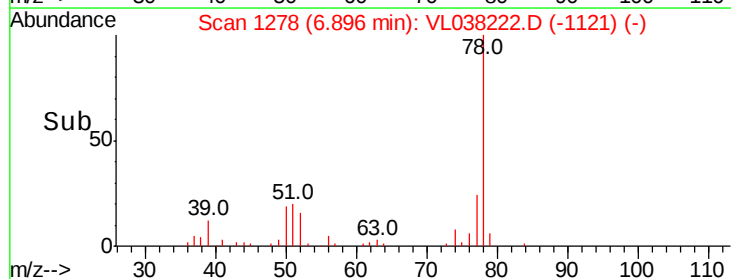
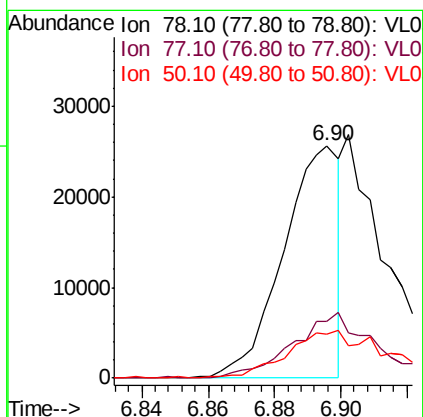
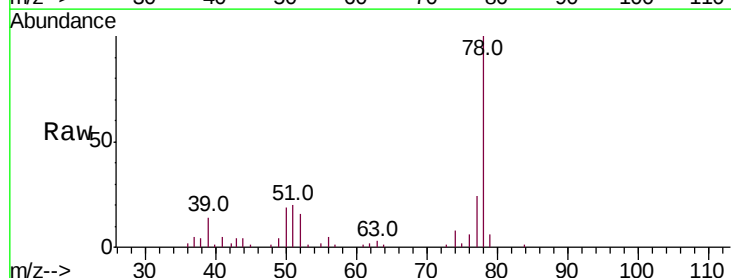
#35
Carbon Tetrachloride
Concen: 0.031 ppbv
RT: 7.02 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 21 Dec 2021 20:57

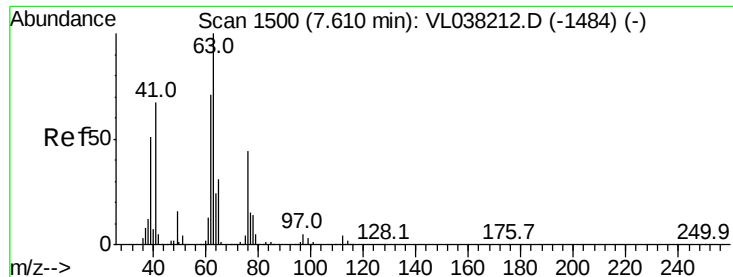
Tot Ion: 117 Resp: 3581
Ion Ratio Lower Upper
117 100
119 77.2 76.7 115.1
121 23.4 25.0 37.4#



#36
Benzene
Concen: 0.172 ppbv
RT: 6.90 min Scan# 1278
Delta R.T. 0.01 min
Lab File: VL038222.D
Acq: 21 Dec 2021 20:57

Tgt Ion: 78 Resp: 30340
Ion Ratio Lower Upper
78 100
77 24.3 18.2 27.4
50 19.0 14.3 21.5





#39

1,2-Dichloropropane

Concen: 7.039 ppbv

RT: 7.18

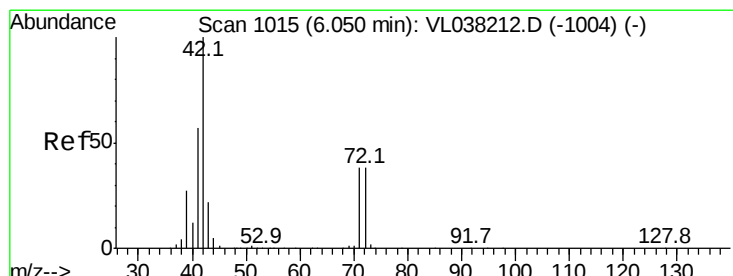
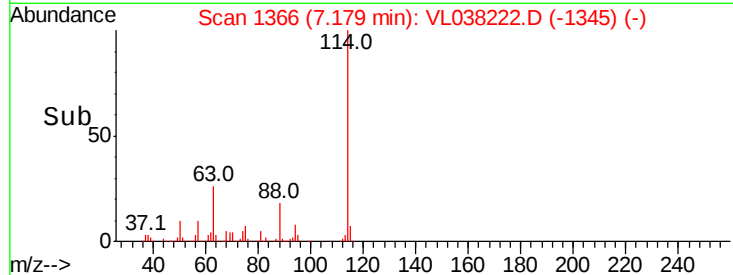
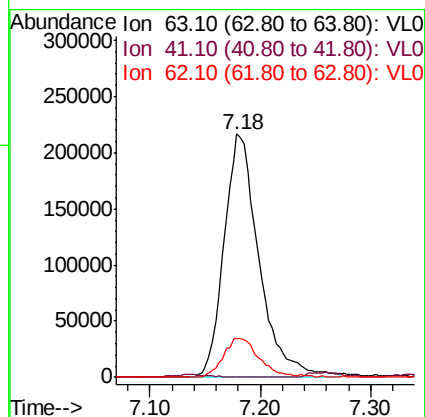
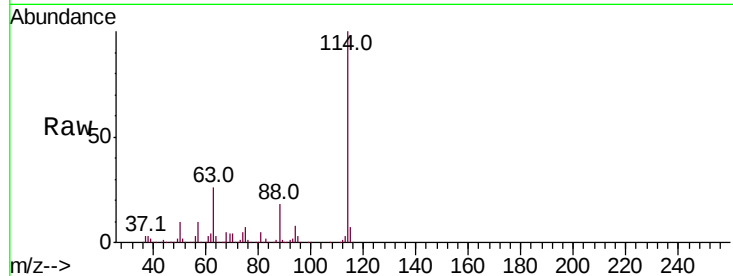
Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 21 Dec 2021 20:57

Tot Ion	Ratio	Lower	Upper
63	100		
41	0.0	53.4	80.2#
62	16.0	56.5	84.7#



#41

Tetrahydrofuran

Concen: 0.070 ppbv

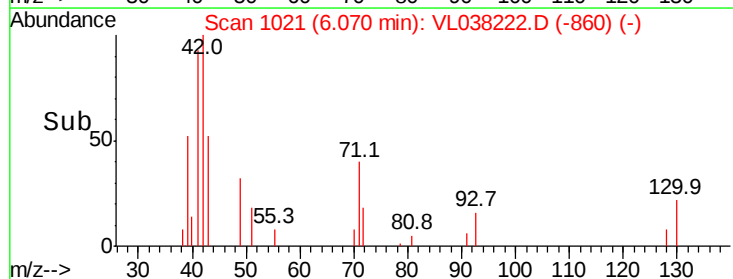
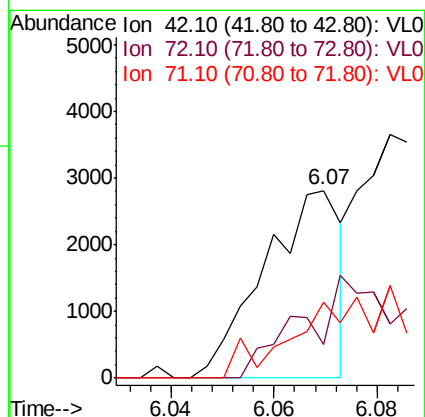
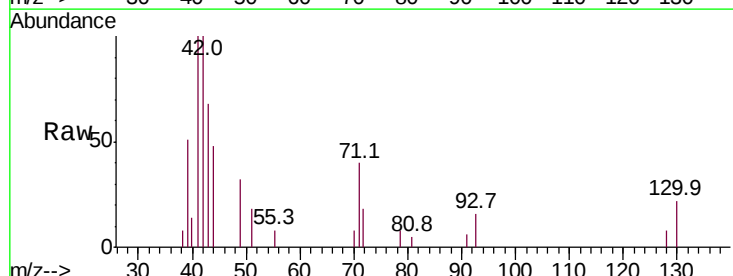
RT: 6.07 min Scan# 1021

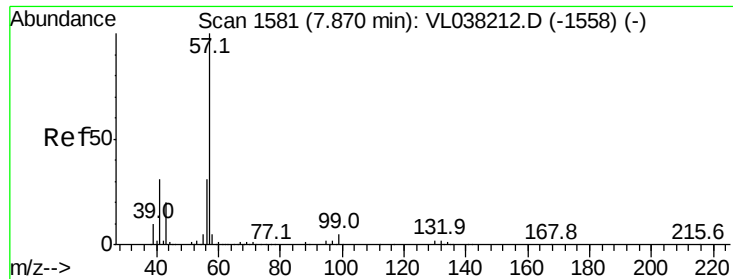
Delta R.T. 0.02 min

Lab File: VL038222.D

Acq: 21 Dec 2021 20:57

Tgt Ion	Ratio	Lower	Upper
42	100		
72	86.9	31.4	47.0#
71	0.0	30.0	45.0#





#44

2,2,4-Trimethylpentane

Concen: 0.190 ppbv

RT: 7.87 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 21 Dec 2021 20:57

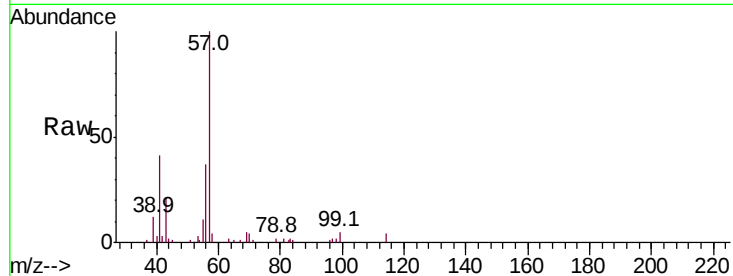
Tot Ion: 57 Resp: 56916

Ion Ratio Lower Upper

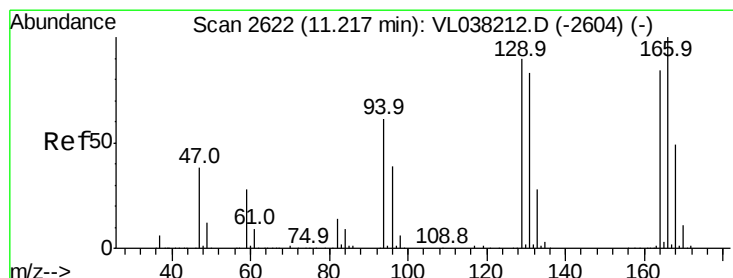
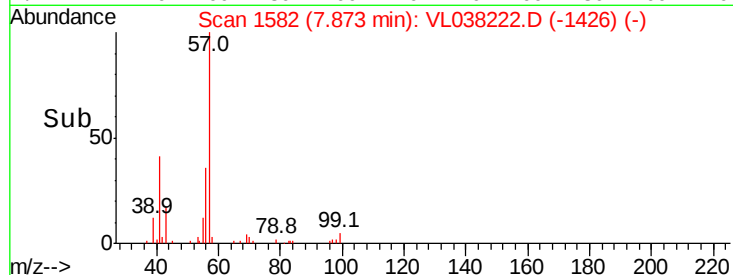
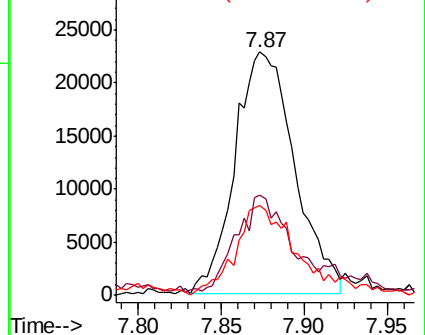
57 100

41 44.6 24.9 37.3#

56 40.6 24.8 37.2#



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



#52

Tetrachloroethene

Concen: 0.051 ppbv

RT: 11.22 min Scan# 2623

Delta R.T. 0.00 min

Lab File: VL038222.D

Acq: 21 Dec 2021 20:57

Tgt Ion:164 Resp: 3284

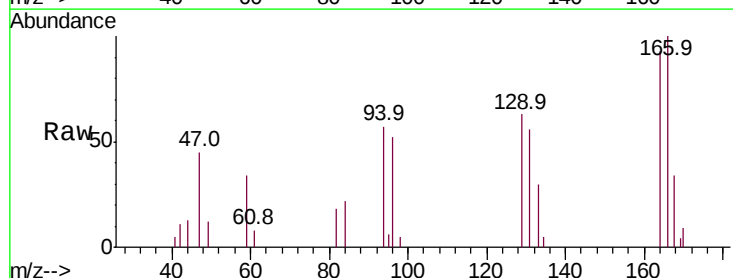
Ion Ratio Lower Upper

164 100

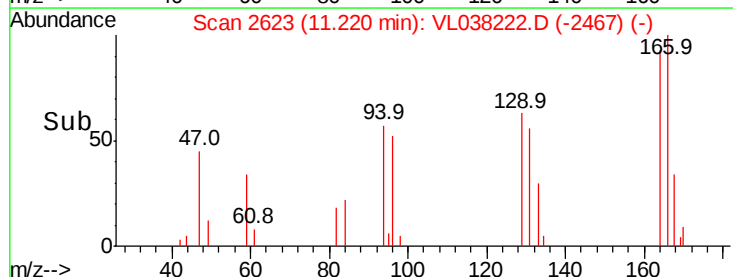
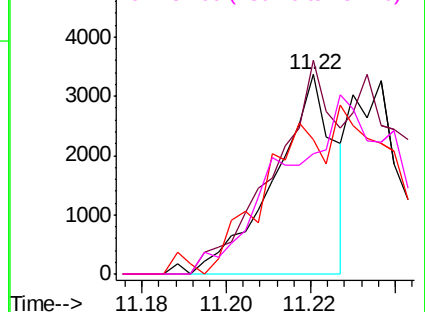
166 107.2 95.6 143.4

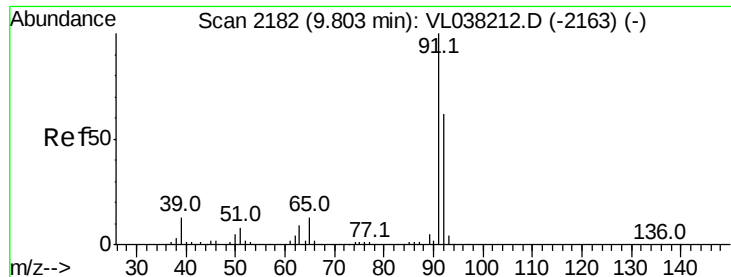
129 62.0 85.8 128.8#

131 60.3 79.3 118.9#



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: 0.708 ppbv

RT: 9.81 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

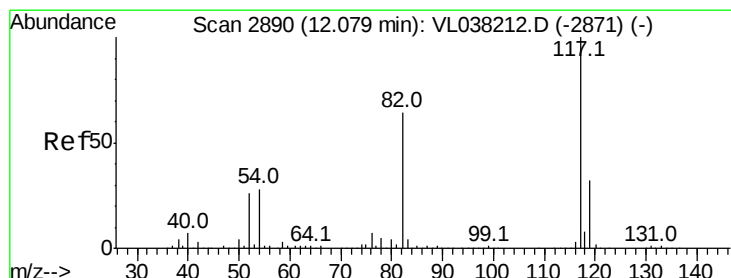
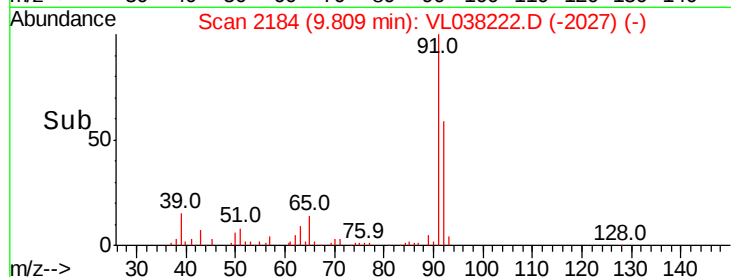
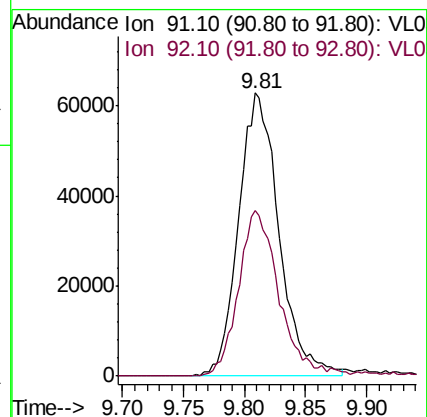
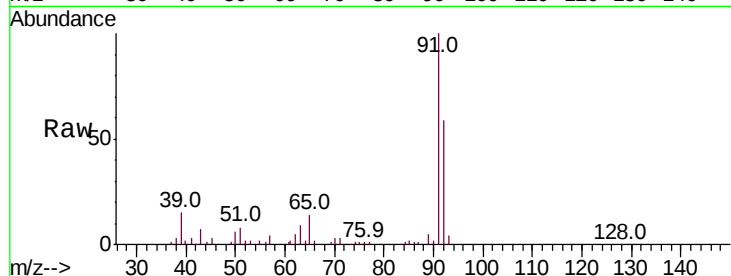
Acq: 21 Dec 2021 20:57

Tot Ion: 91 Resp: 143735

Ion Ratio Lower Upper

91 100

92 60.2 48.9 73.3



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2893

Delta R.T. 0.01 min

Lab File: VL038222.D

Acq: 21 Dec 2021 20:57

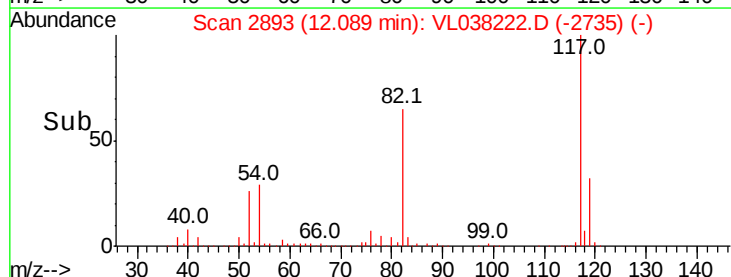
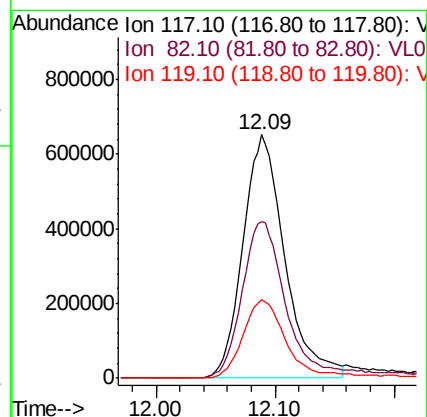
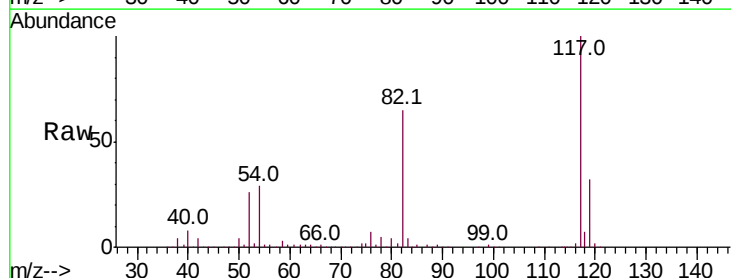
Tgt Ion: 117 Resp: 1588736

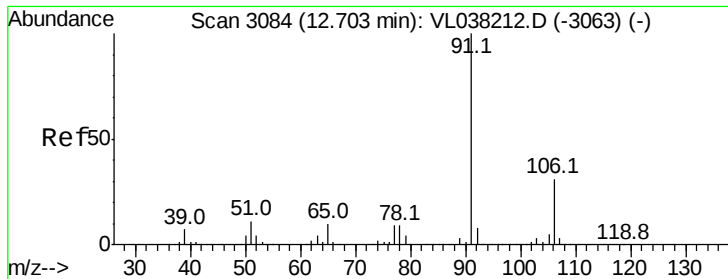
Ion Ratio Lower Upper

117 100

82 73.2 53.3 79.9

119 35.4 25.5 38.3





#58

Ethyl Benzene

Concen: 0.075 ppbv

RT: 12.71 min

Delta R.T. MSVOA_L

Lab File:

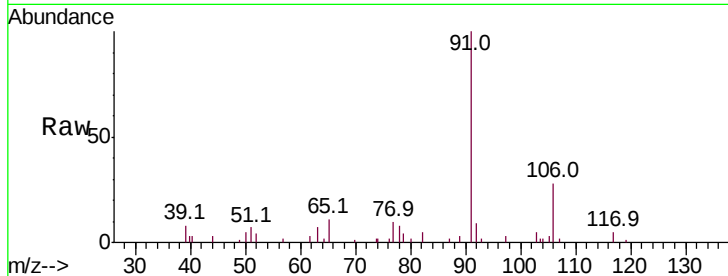
Acq: 21 Dec 2021 20:57

Tot Ion: 91 Resp: 18563

Ion Ratio Lower Upper

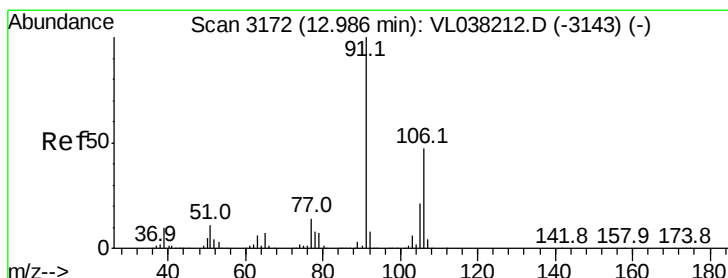
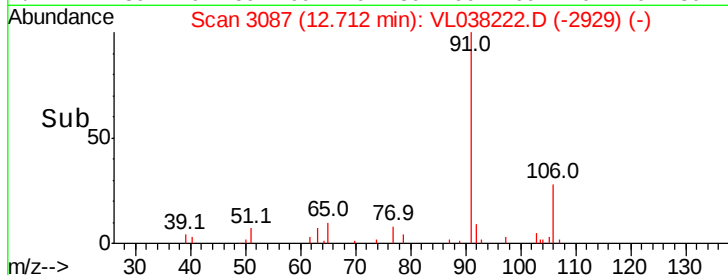
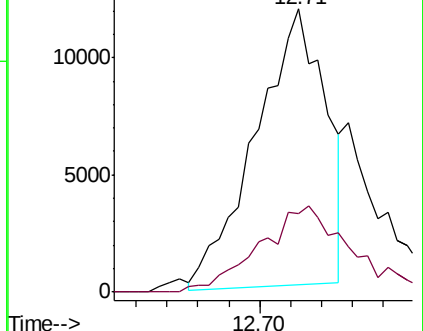
91 100

106 26.5 25.0 37.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.145 ppbv

RT: 12.98 min Scan# 3171

Delta R.T. -0.00 min

Lab File: VL038222.D

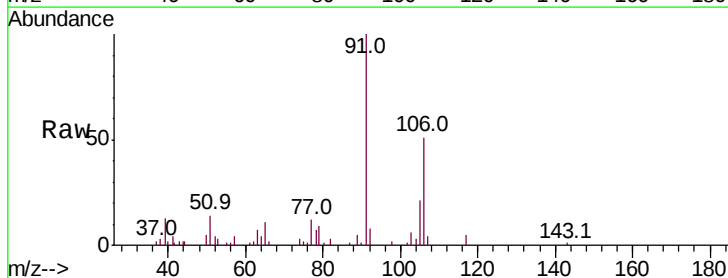
Acq: 21 Dec 2021 20:57

Tgt Ion: 91 Resp: 30619

Ion Ratio Lower Upper

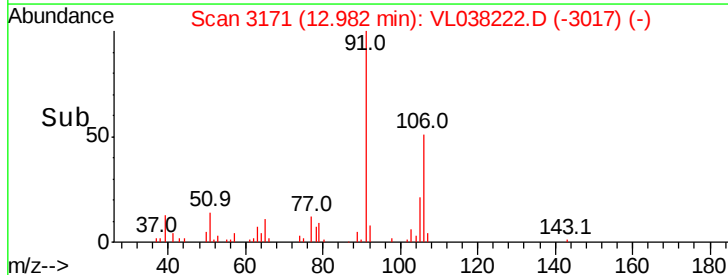
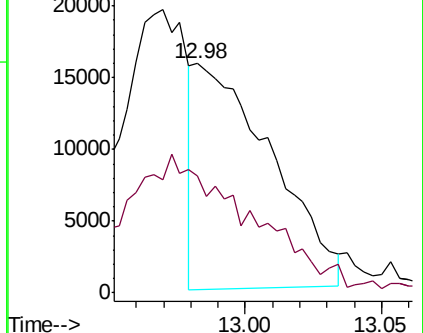
91 100

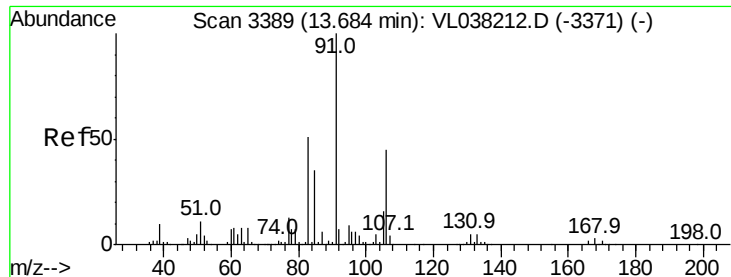
106 0.0 36.9 55.3#



Abundance Ion 91.10 (90.80 to 91.80): VL0

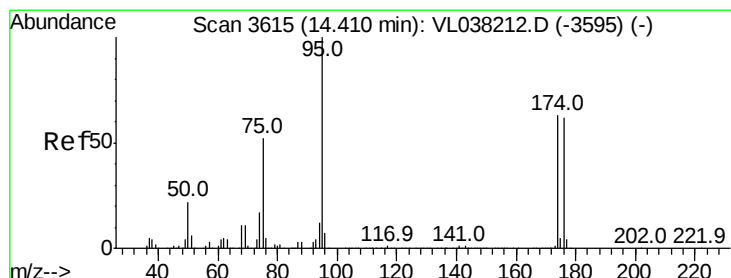
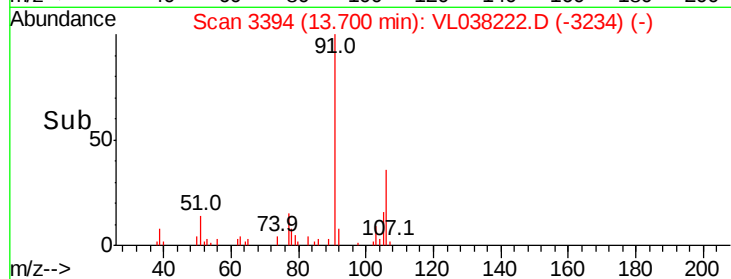
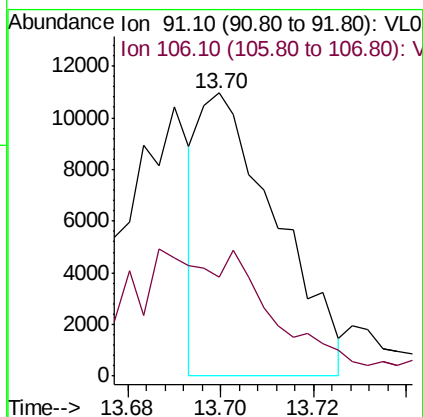
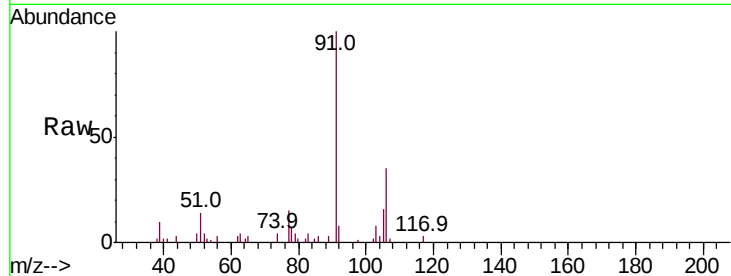
Ion 106.10 (105.80 to 106.80): V





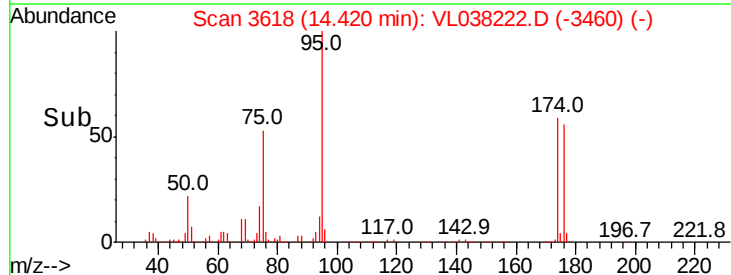
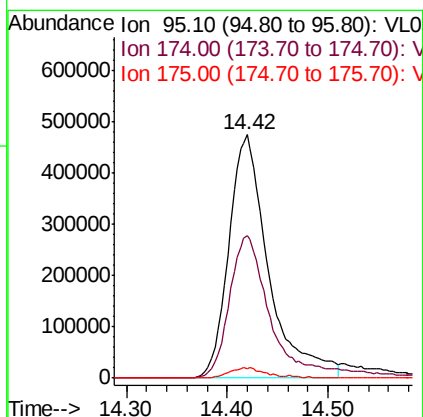
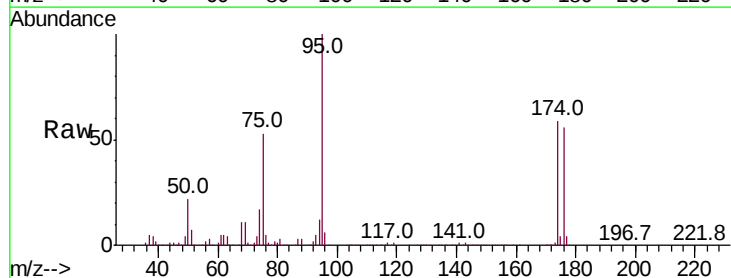
#60
o-Xylene
Concen: 0.065 ppbv
RT: 13.70 min
Delta R.T. MSVOA_L
Lab File: ClientSampled :
Acq: 21 Dec 2021 20:57

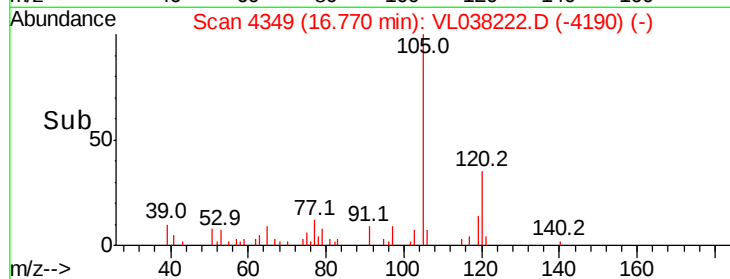
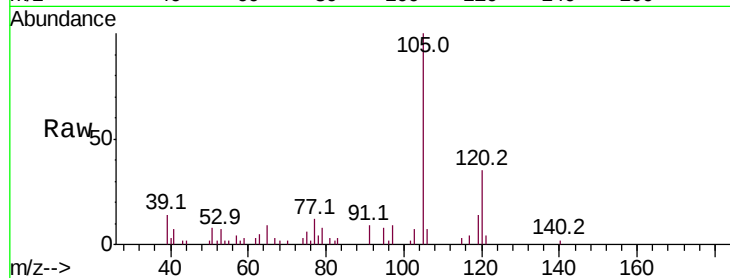
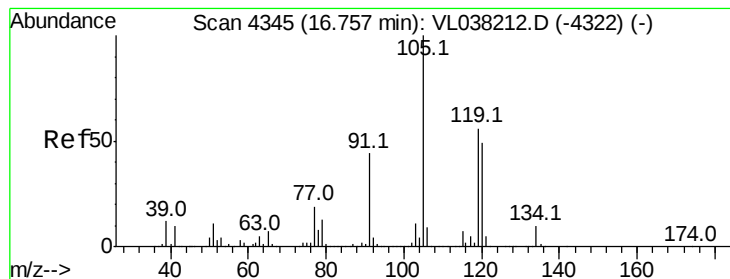
Tot Ion: 91 Resp: 12651
Ion Ratio Lower Upper
91 100
106 0.0 23.5 70.5#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.622 ppbv
RT: 14.42 min Scan# 3618
Delta R.T. 0.01 min
Lab File: VL038222.D
Acq: 21 Dec 2021 20:57

Tgt Ion: 95 Resp: 1300419
Ion Ratio Lower Upper
95 100
174 63.8 54.6 81.8
175 4.6 4.1 6.1





#74

1,2,4-Trimethylbenzene

Concen: 0.050 ppbv

RT: 16.77 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 21 Dec 2021 20:37

Tot Ion:105 Resp: 10571

Ion Ratio Lower Upper

105 100

120 8.8 39.4 59.2#

91 2.4 35.0 52.4#

77 9.0 15.6 23.4#

Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

