

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL121621\
 Data File : VL038209.D
 Acq On : 17 Dec 2021 4:17
 Operator : SY/AP
 Sample : M5117-03
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

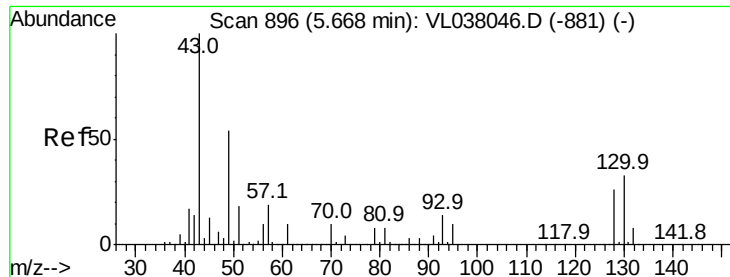
Quant Time: Dec 18 04:08:45 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Nov 18 13:16:09 2021
 QLast Update : Thu Nov 18 13:16:09 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	769545	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	2316345	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	2014241	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	1379393	9.49	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.90%

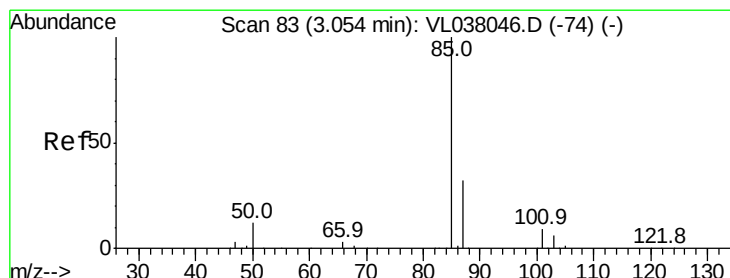
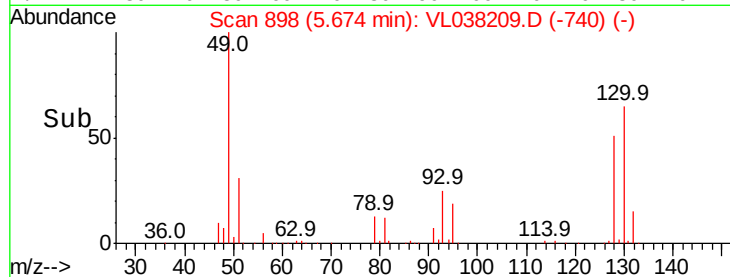
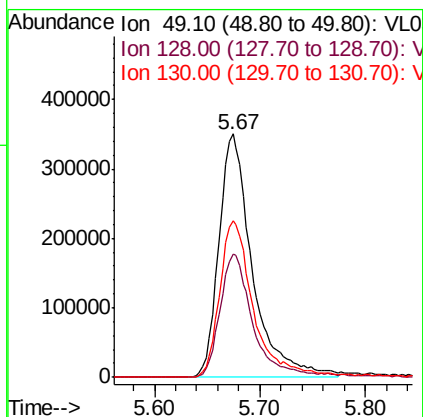
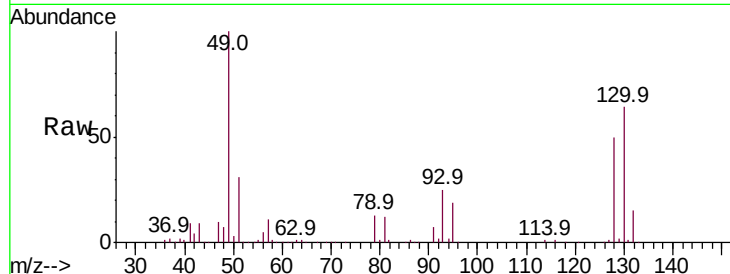
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.06	85	26895	0.212	ppbv 93
3) Chlorodifluoromethane	3.00	51	43681	0.270	ppbv # 87
4) Chloromethane	3.15	50	24438	0.444	ppbv 98
9) Propene	3.03	41	36457	0.613	ppbv 83
10) Heptane	8.12	43	7882	0.054	ppbv # 13
11) Trichlorofluoromethane	3.96	101	12703	0.105	ppbv 99
12) 1,1,2-Trichlorotrifluoroet	4.49	101	3978	0.047	ppbv # 63
13) Ethanol	3.61	45	30327	5.273	ppbv # 28
15) Acetone	3.86	43	386014	5.786	ppbv 97
16) 1,3-Butadiene	3.33	39	1911	0.037	ppbv # 67
19) Isopropyl Alcohol	3.98	45	50994	1.058	ppbv # 95
20) Methylene Chloride	4.35	84	377139	10.092	ppbv 95
23) Vinyl Acetate	5.08	43	10879	0.113	ppbv # 62
25) Ethyl Acetate	5.70	43	250990	1.132	ppbv # 79
26) Hexane	5.69	57	350708	3.281	ppbv # 44
30) Cyclohexane	7.14	84	3673	0.038	ppbv # 1
34) 2-Butanone	5.26	43	68965	0.738	ppbv # 62
35) Carbon Tetrachloride	7.02	117	5467	0.034	ppbv # 90
36) Benzene	6.90	78	41415	0.179	ppbv # 92
39) 1,2-Dichloropropane	7.18	63	539125	6.083	ppbv # 26
41) Tetrahydrofuran	6.07	42	34200	0.590	ppbv # 81
53) Toluene	9.81	91	179043	0.673	ppbv 100
59) m/p-Xylene	13.00	91	11586	0.041	ppbv # 29
60) o-Xylene	13.69	91	11488	0.044	ppbv # 40
74) 1,2,4-Trimethylbenzene	16.77	105	16493	0.058	ppbv # 64

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



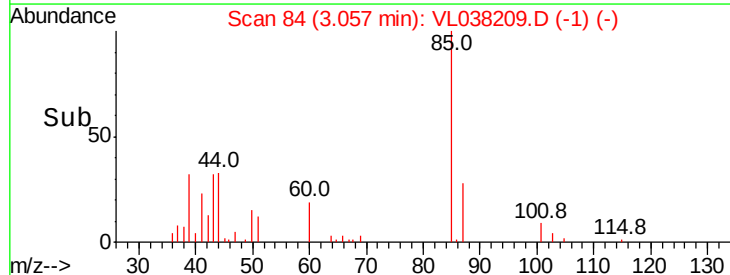
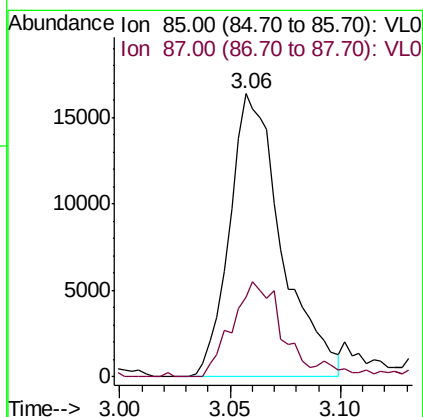
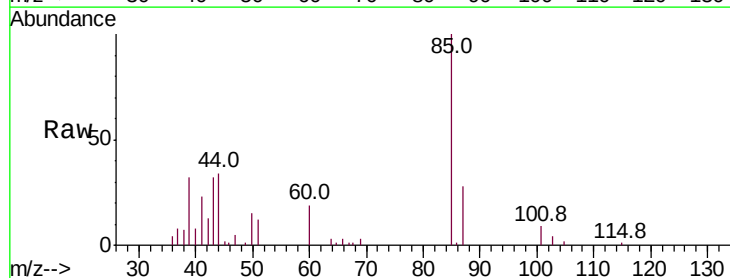
#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.67 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 17 Dec 2021 4:17

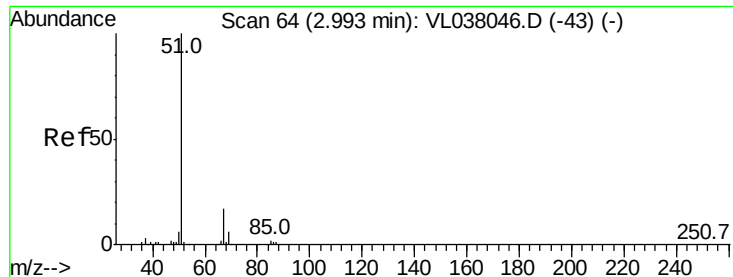
Tot Ion	49	Resp	769545
Ion	Ratio	Lower	Upper
49	100		
128	51.6	26.5	79.5
130	67.0	32.5	97.4



#2
 Dichlorodifluoromethane
 Concen: 0.212 ppbv
 RT: 3.06 min Scan# 84
 Delta R.T.: 0.00 min
 Lab File: VL038209.D
 Acq: 17 Dec 2021 4:17

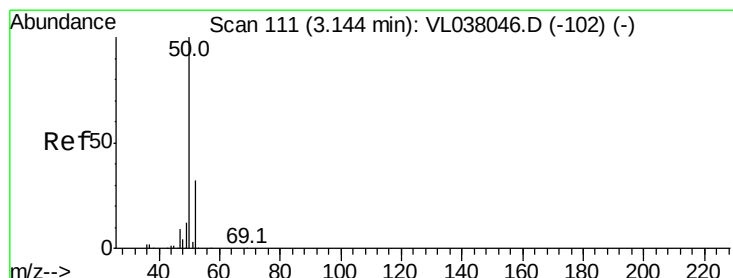
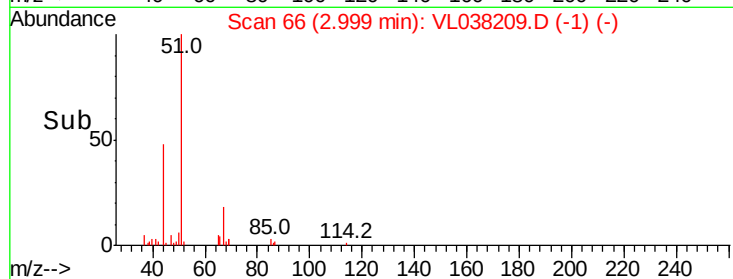
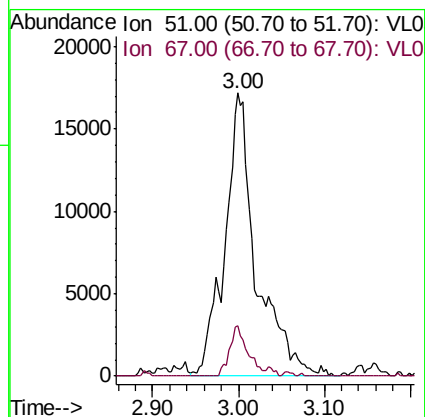
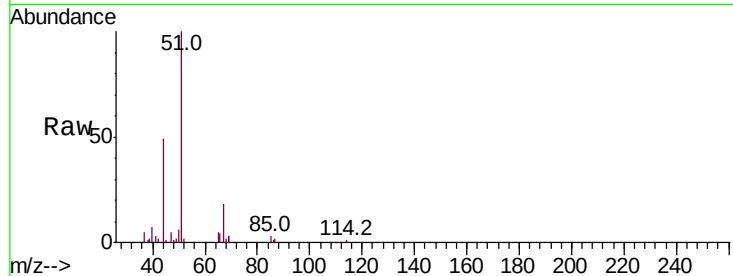
Tgt Ion	85	Resp	26895
Ion	Ratio	Lower	Upper
85	100		
87	28.3	25.8	38.6





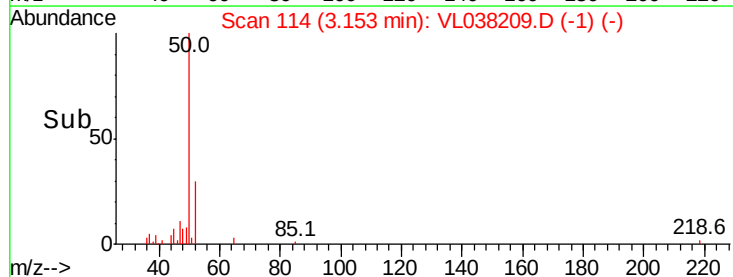
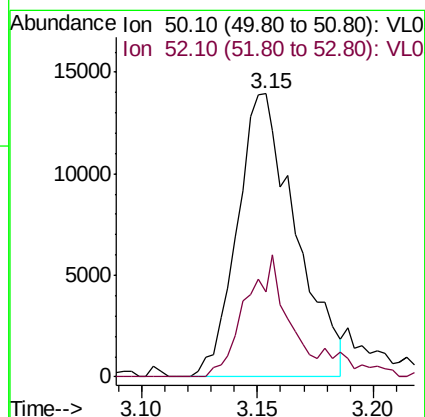
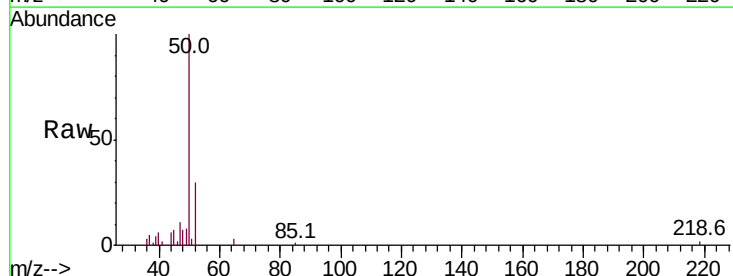
#3
 Chlorodifluoromethane
 Concen: 0.270 ppbv
 RT: 3.00
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 17 Dec 2021 4:17

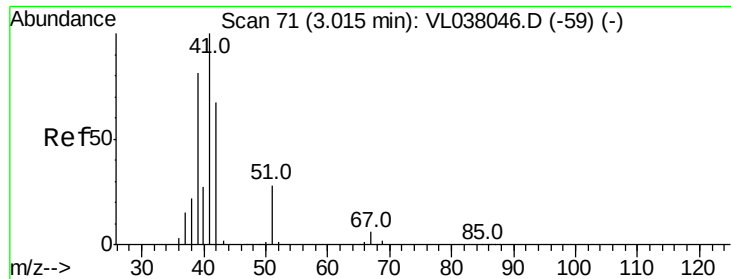
Tot Ion: 51 Resp: 43681
 Ion Ratio Lower Upper
 51 100
 67 11.4 13.8 20.8#



#4
 Chloromethane
 Concen: 0.444 ppbv
 RT: 3.15 min Scan# 114
 Delta R.T. 0.01 min
 Lab File: VL038209.D
 Acq: 17 Dec 2021 4:17

Tgt Ion: 50 Resp: 24438
 Ion Ratio Lower Upper
 50 100
 52 30.5 25.4 38.0





#9

Propene

Concen: 0.613 ppbv

RT: 3.03 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

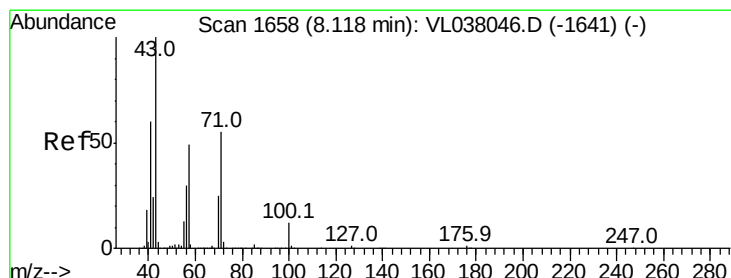
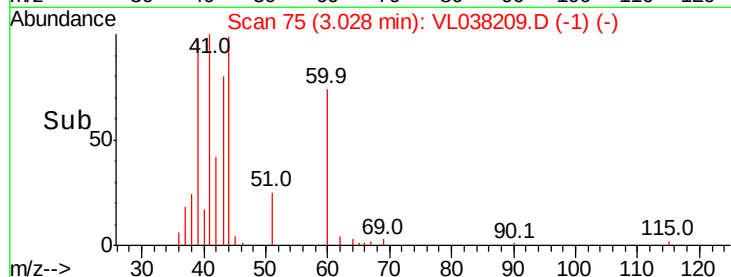
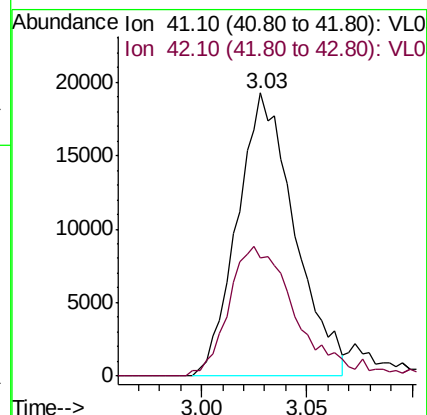
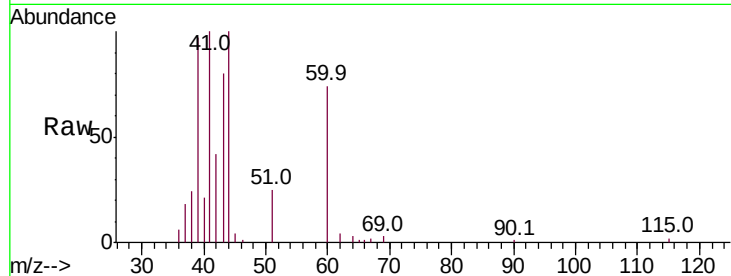
Acq: 17 Dec 2021 4:17

Tot Ion: 41 Resp: 36457

Ion Ratio Lower Upper

41 100

42 53.9 53.8 80.8



#10

Heptane

Concen: 0.054 ppbv

RT: 8.12 min Scan# 1660

Delta R.T. 0.01 min

Lab File: VL038209.D

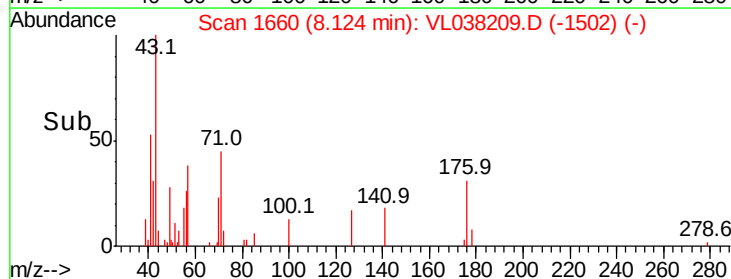
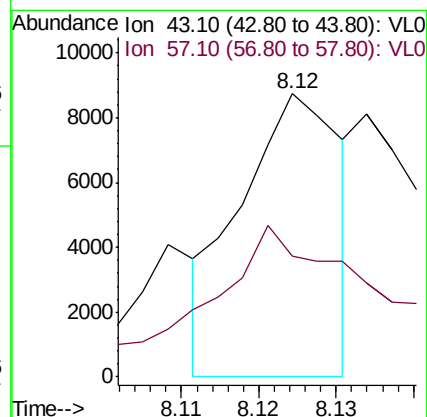
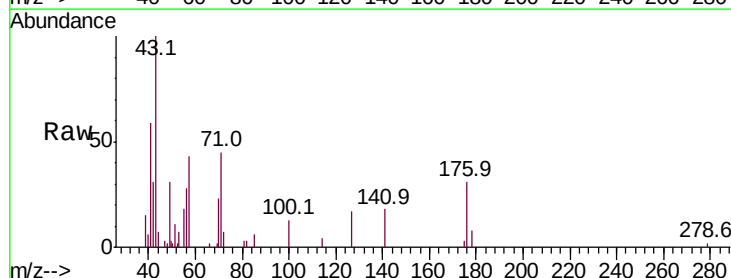
Acq: 17 Dec 2021 4:17

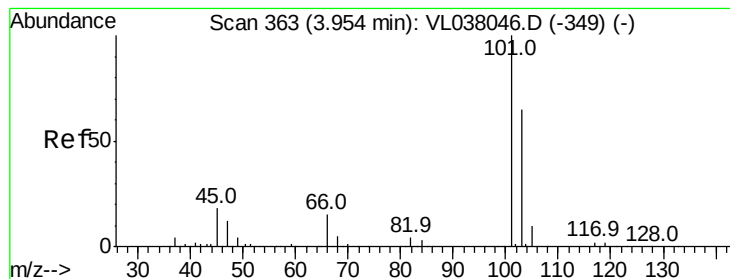
Tgt Ion: 43 Resp: 7882

Ion Ratio Lower Upper

43 100

57 110.5 40.4 60.6#





#11

Trichlorofluoromethane

Concen: 0.105 ppbv

RT: 3.96 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

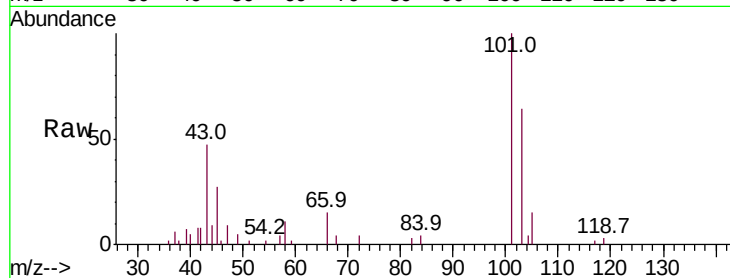
Acq: 17 Dec 2021 4:17

Tot Ion:101 Resp: 12703

Ion Ratio Lower Upper

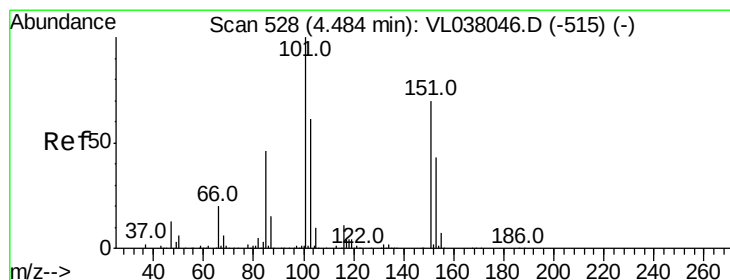
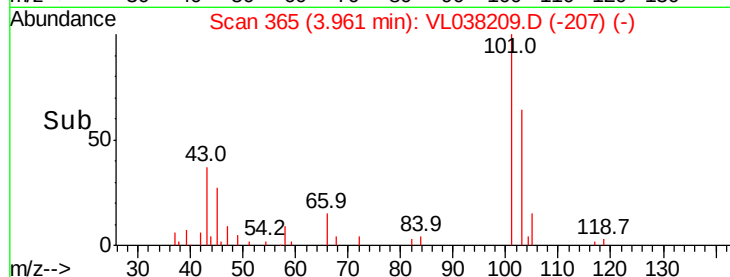
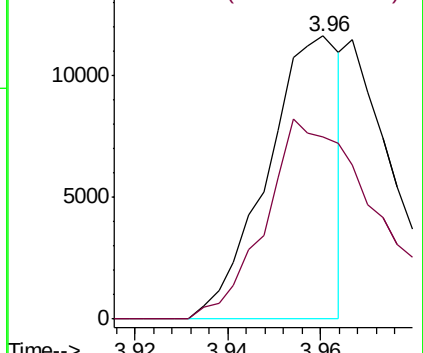
101 100

103 64.2 51.8 77.6



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.047 ppbv

RT: 4.49 min Scan# 530

Delta R.T. 0.01 min

Lab File: VL038209.D

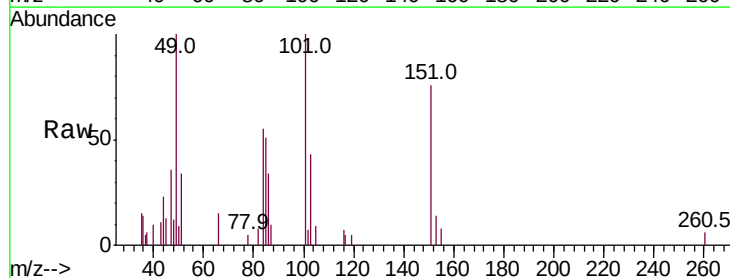
Acq: 17 Dec 2021 4:17

Tgt Ion:101 Resp: 3978

Ion Ratio Lower Upper

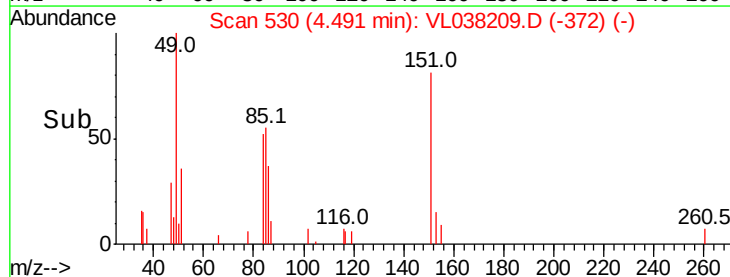
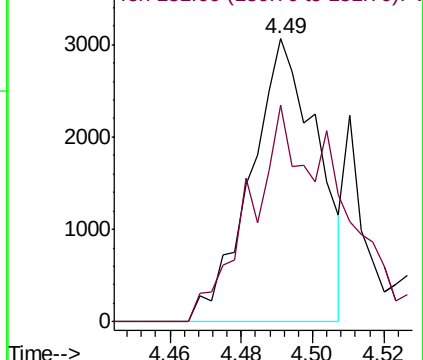
101 100

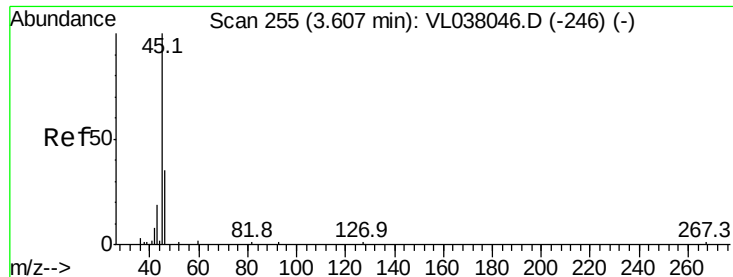
151 105.1 59.0 88.4#



Abundance Ion 101.00 (100.70 to 101.70): V

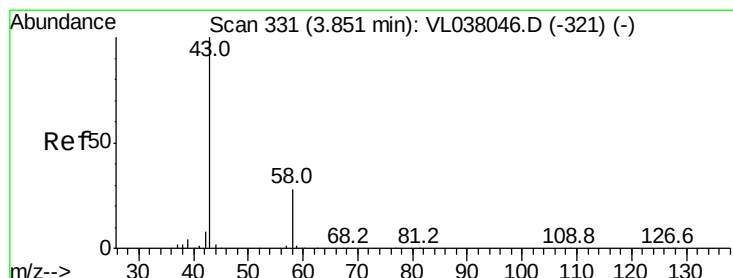
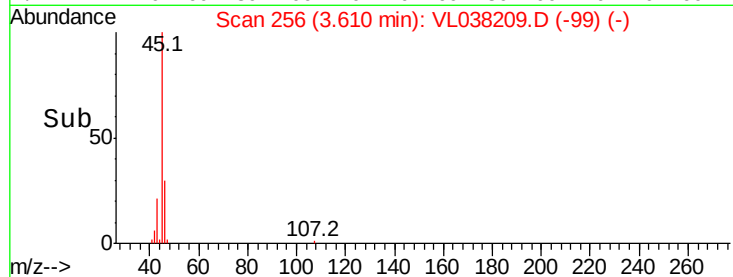
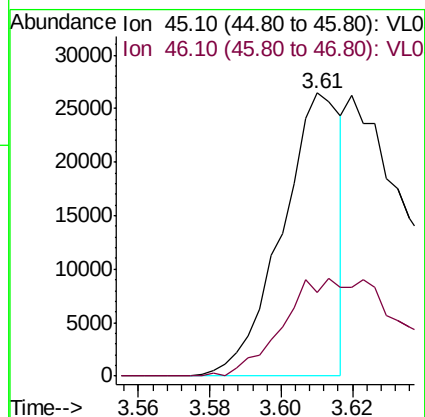
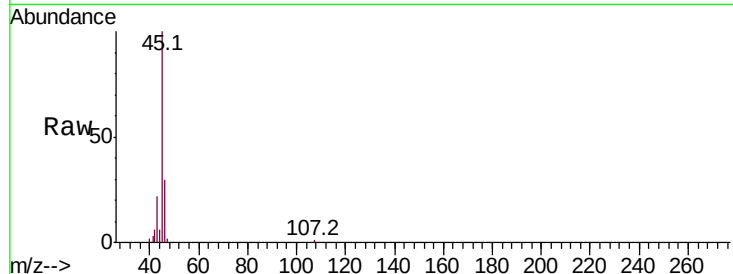
Ion 151.00 (150.70 to 151.70): V





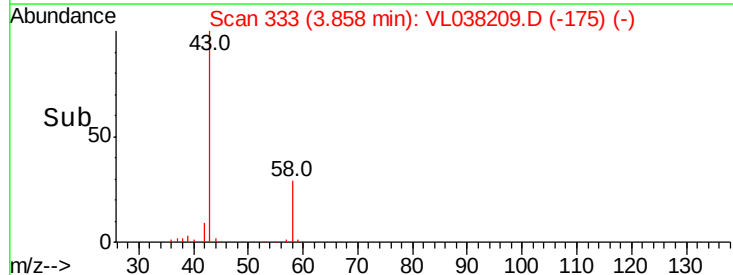
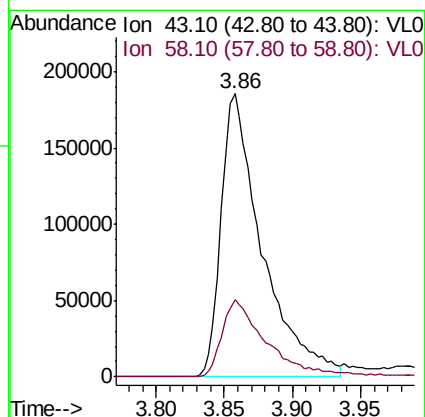
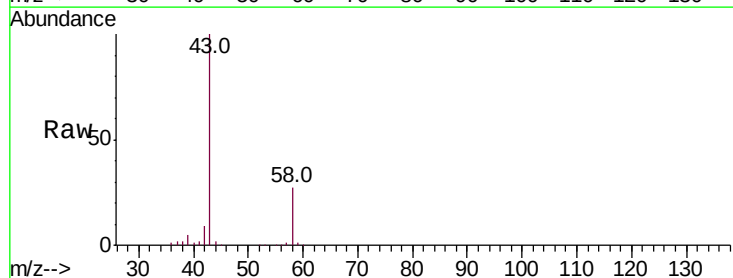
#13
Ethanol
Concen: 5.273 ppbv
RT: 3.61
Delta R.T. MSVOA_L
Lab File: ClientSampleId:
Acq: 17 Dec 2021 4:17

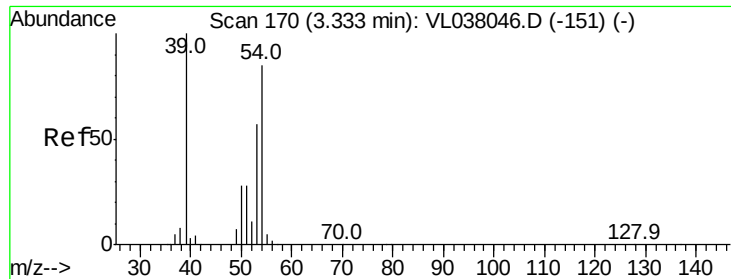
Tot Ion: 45 Resp: 30327
Ion Ratio Lower Upper
45 100
46 90.5 17.6 70.2#



#15
Acetone
Concen: 5.786 ppbv
RT: 3.86 min Scan# 333
Delta R.T. 0.01 min
Lab File: VL038209.D
Acq: 17 Dec 2021 4:17

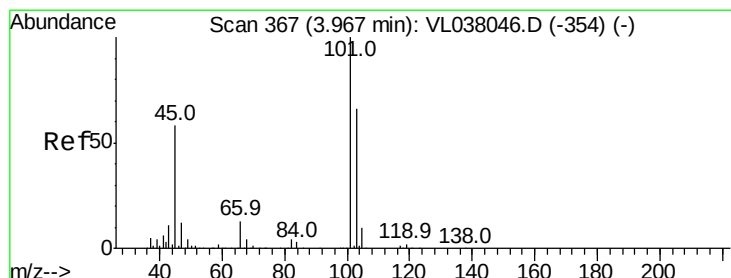
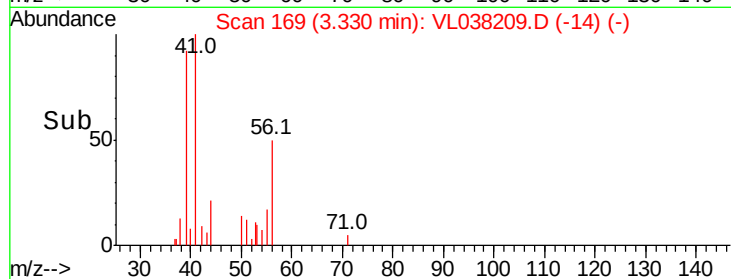
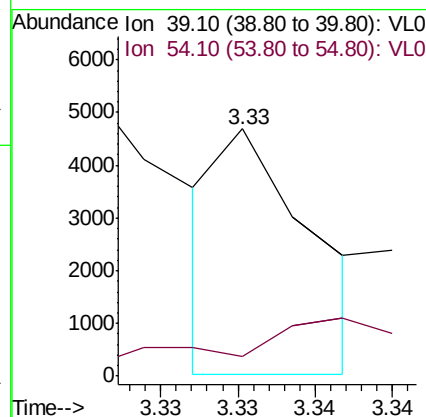
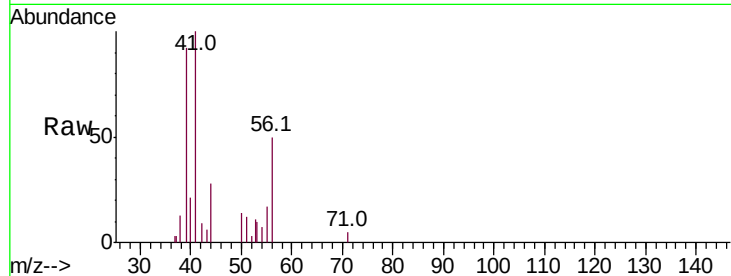
Tgt Ion: 43 Resp: 386014
Ion Ratio Lower Upper
43 100
58 29.8 22.4 33.6





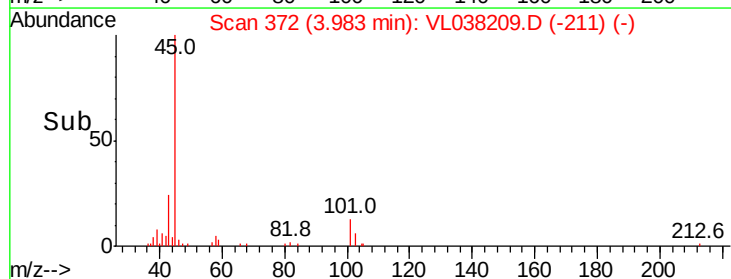
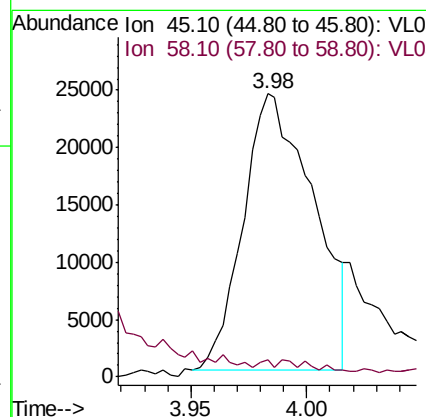
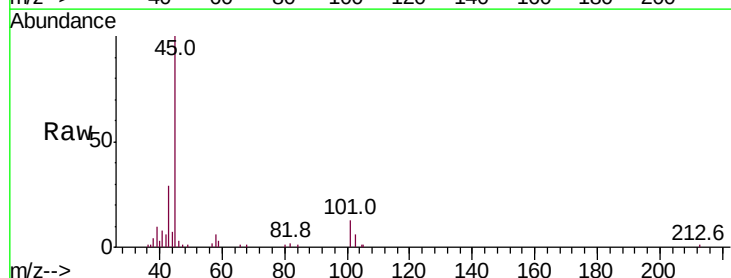
#16
 1,3-Butadiene
 Concen: 0.037 ppbv
 RT: 3.33 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 17 Dec 2021 4:17

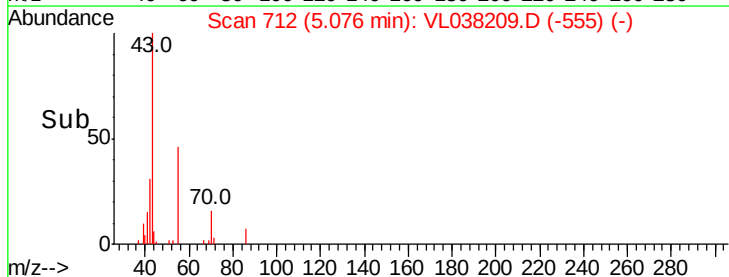
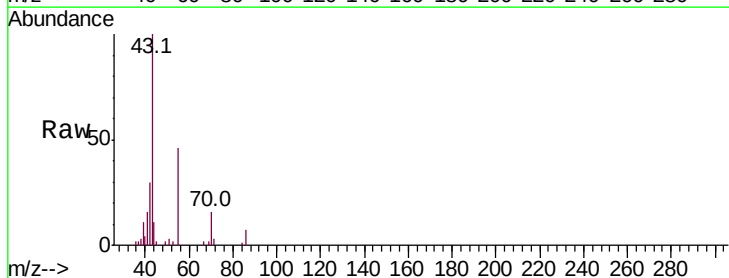
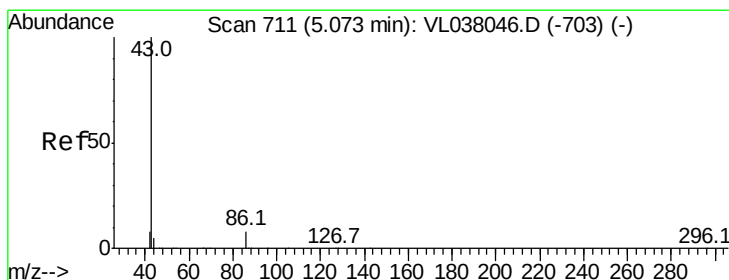
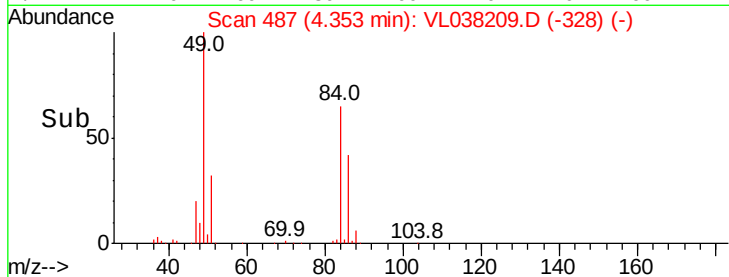
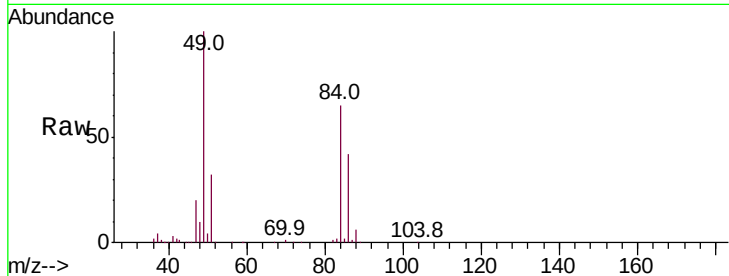
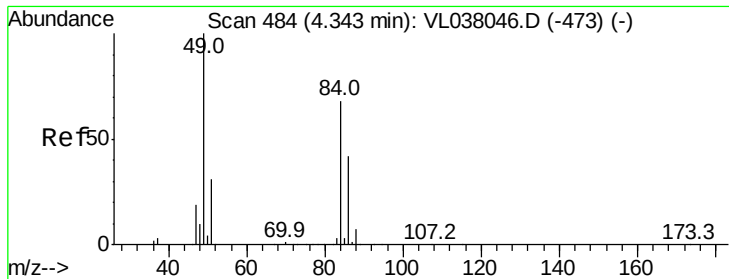
Tot Ion: 39 Resp: 1911
 Ion Ratio Lower Upper
 39 100
 54 109.3 64.4 96.6#



#19
 Isopropyl Alcohol
 Concen: 1.058 ppbv
 RT: 3.98 min Scan# 372
 Delta R.T. 0.02 min
 Lab File: VL038209.D
 Acq: 17 Dec 2021 4:17

Tgt Ion: 45 Resp: 50994
 Ion Ratio Lower Upper
 45 100
 58 0.0 1.4 2.0#





#20

Methylene Chloride

Concen: 10.092 ppbv

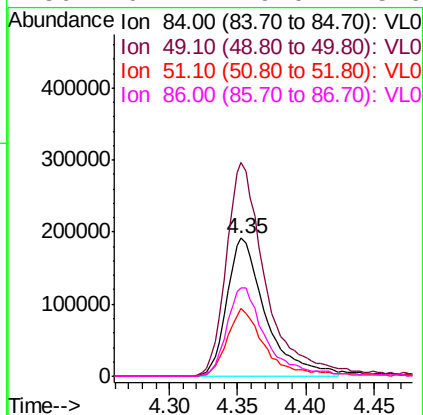
RT: 4.35 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File:

Acq: 17 Dec 2021 4:17

Tot Ion	84	Resp	377139
Ion	Ratio	Lower	Upper
84	100		
49	154.9	118.2	177.2
51	48.9	36.8	55.2
86	64.4	49.0	73.6



#23

Vinyl Acetate

Concen: 0.113 ppbv

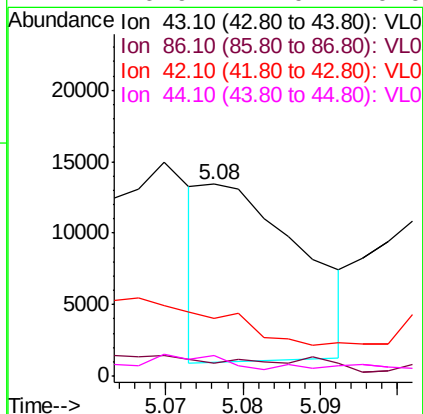
RT: 5.08 min Scan# 712

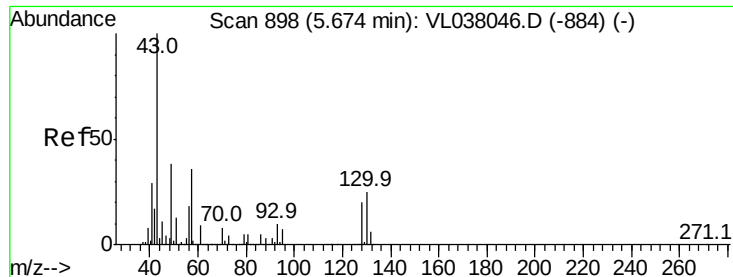
Delta R.T. 0.00 min

Lab File: VL038209.D

Acq: 17 Dec 2021 4:17

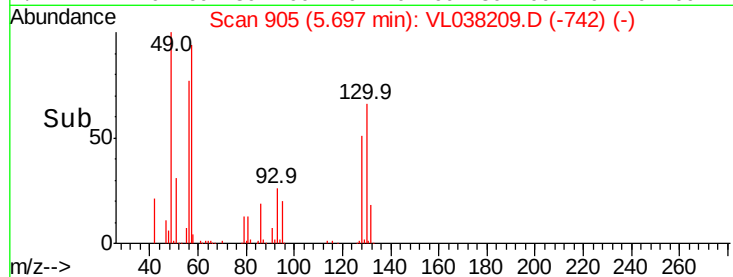
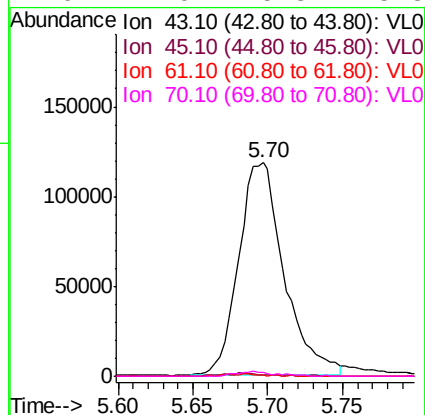
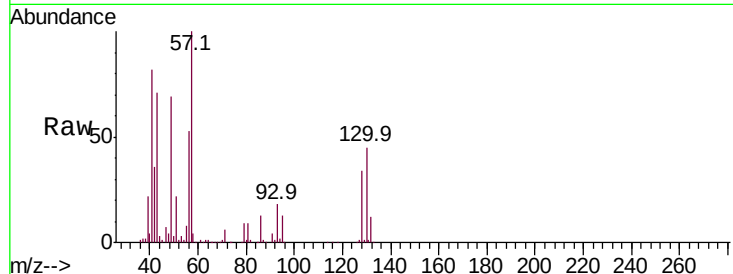
Tgt Ion	43	Resp	10879
Ion	Ratio	Lower	Upper
43	100		
86	0.7	5.3	7.9#
42	28.5	7.0	10.6#
44	16.9	4.0	6.0#





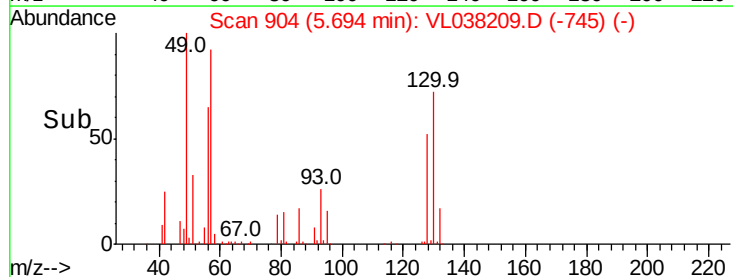
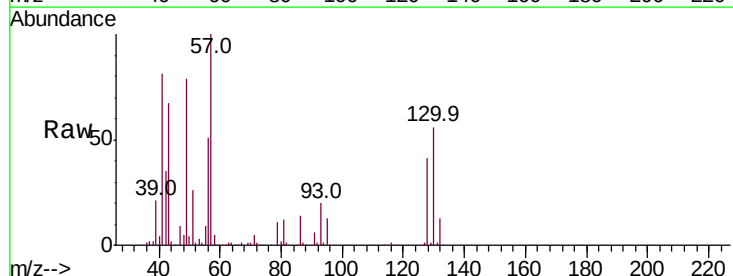
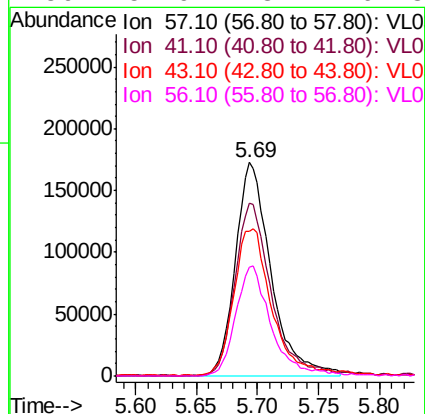
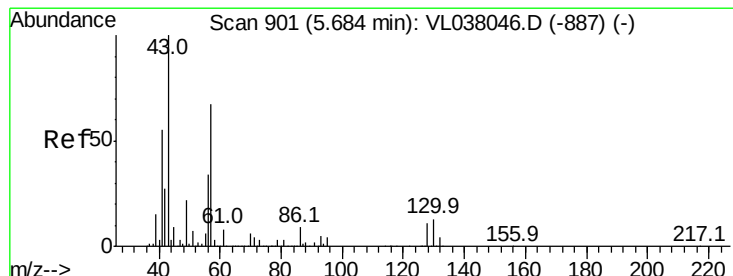
#25
Ethyl Acetate
Concen: 1.132 ppbv
RT: 5.70
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 17 Dec 2021 4:17

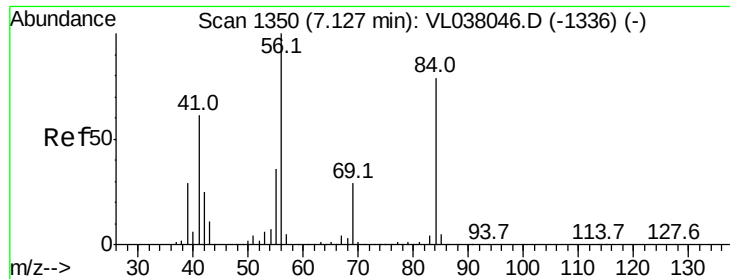
Tot Ion:	43	Resp:	250990
Ion	Ratio	Lower	Upper
43	100		
45	1.6	7.9	11.9#
61	1.0	7.8	11.6#
70	2.0	5.8	8.8#



#26
Hexane
Concen: 3.281 ppbv
RT: 5.69 min Scan# 904
Delta R.T.: 0.01 min
Lab File: VL038209.D
Acq: 17 Dec 2021 4:17

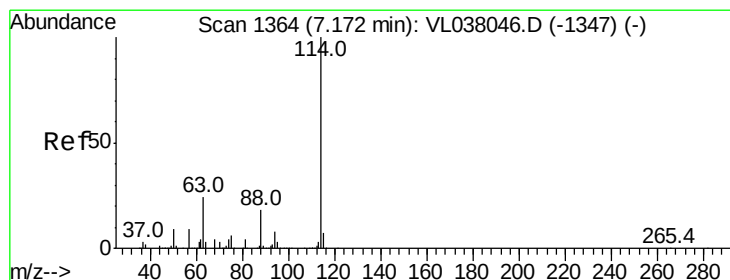
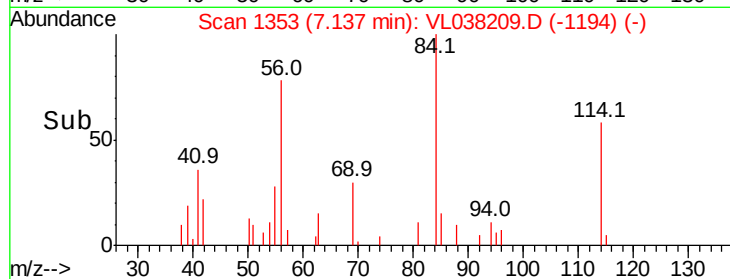
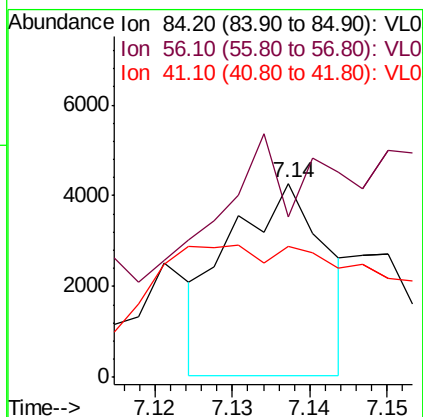
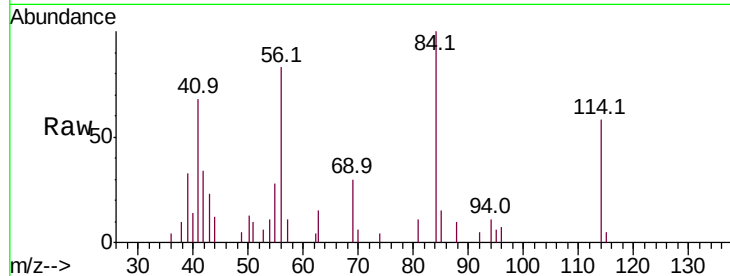
Tgt Ion:	57	Resp:	350708
Ion	Ratio	Lower	Upper
57	100		
41	83.9	71.4	107.2
43	74.0	174.6	261.8#
56	51.9	43.2	64.8





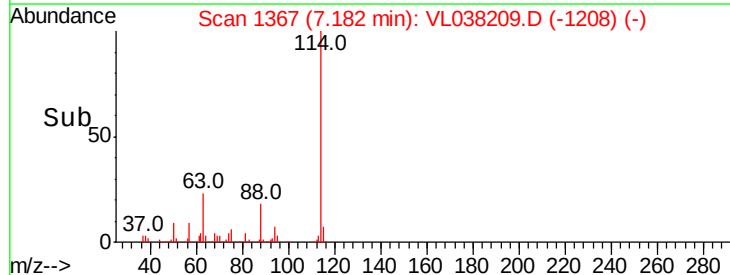
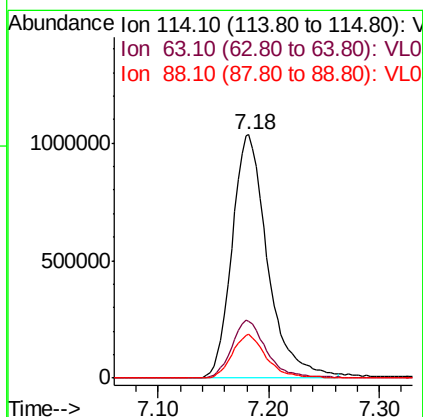
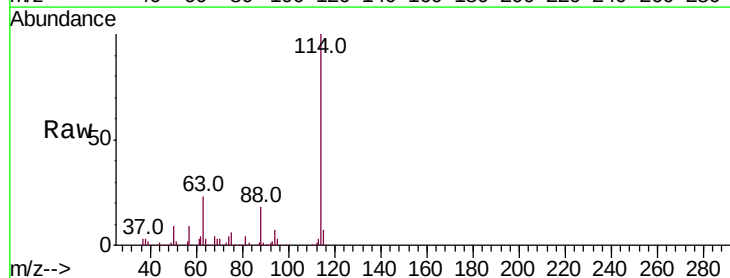
#30
Cvclohexane
Concen: 0.038 ppbv
RT: 7.14 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 17 Dec 2021 4:17

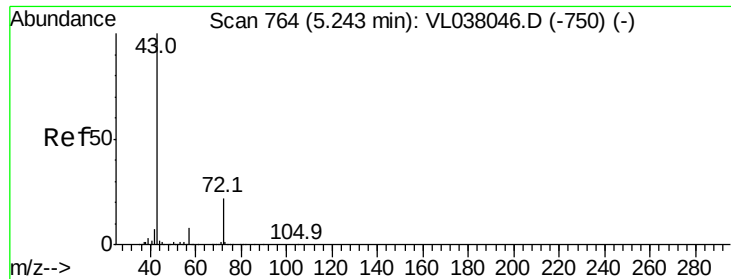
Tot Ion: 84 Resp: 3673
Ion Ratio Lower Upper
84 100
56 0.0 108.1 162.1#
41 198.9 64.4 96.6#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.18 min Scan# 1367
Delta R.T. 0.01 min
Lab File: VL038209.D
Acq: 17 Dec 2021 4:17

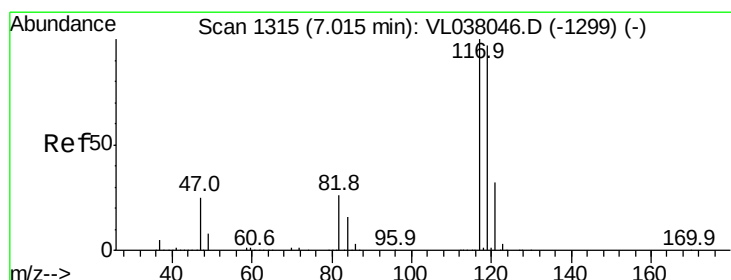
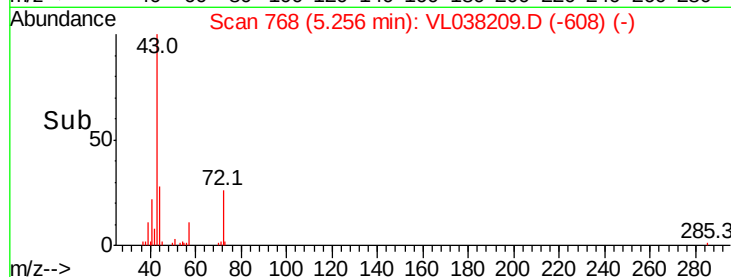
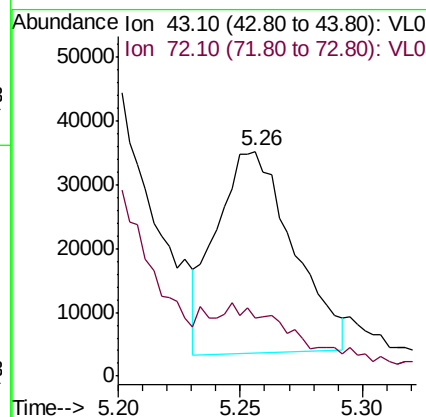
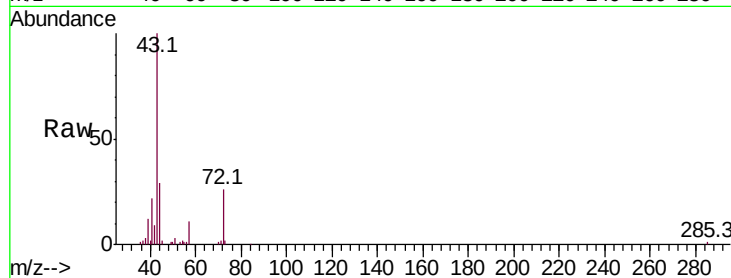
Tgt Ion: 114 Resp: 2316345
Ion Ratio Lower Upper
114 100
63 23.8 19.7 29.5
88 17.6 14.4 21.6





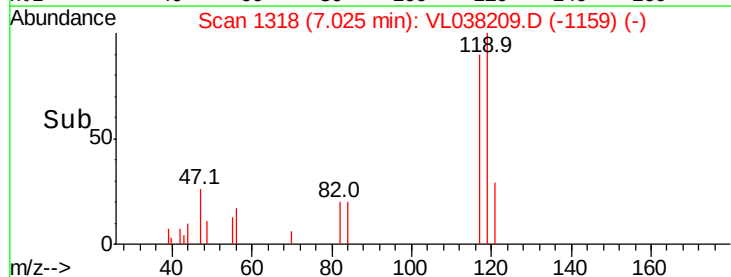
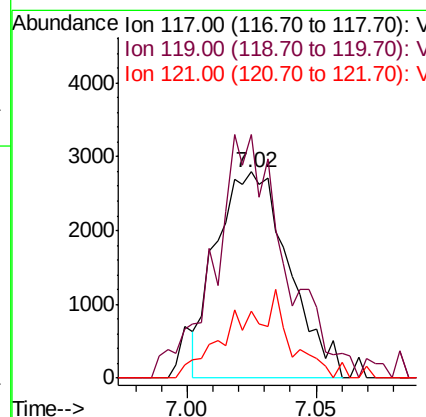
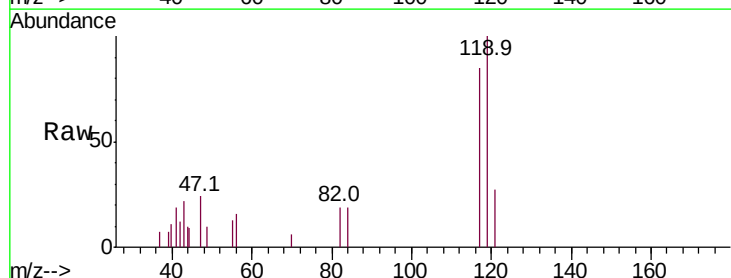
#34
2-Butanone
Concen: 0.738 ppbv
RT: 5.26
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 17 Dec 2021 4:17

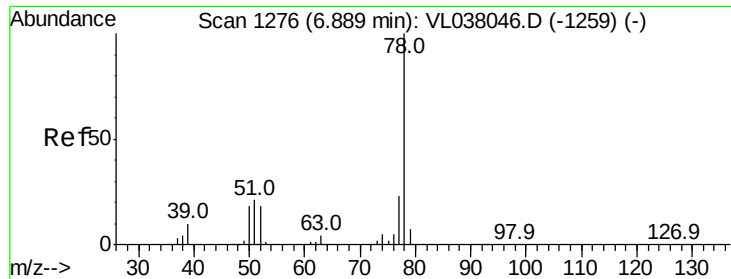
Tot Ion: 43 Resp: 68965
Ion Ratio Lower Upper
43 100
72 42.0 18.8 28.2#



#35
Carbon Tetrachloride
Concen: 0.034 ppbv
RT: 7.02 min Scan# 1318
Delta R.T. 0.01 min
Lab File: VL038209.D
Acq: 17 Dec 2021 4:17

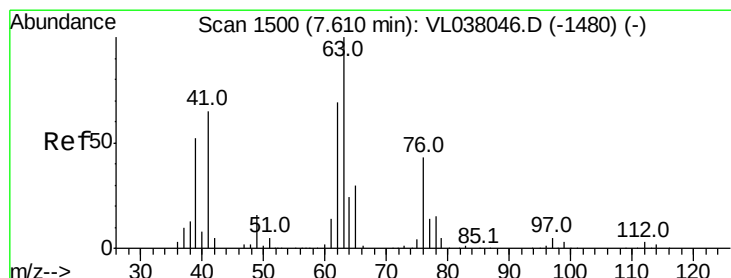
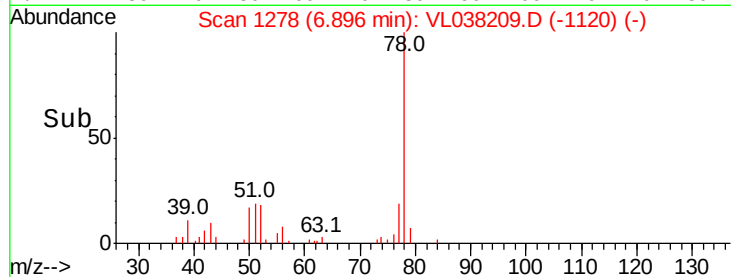
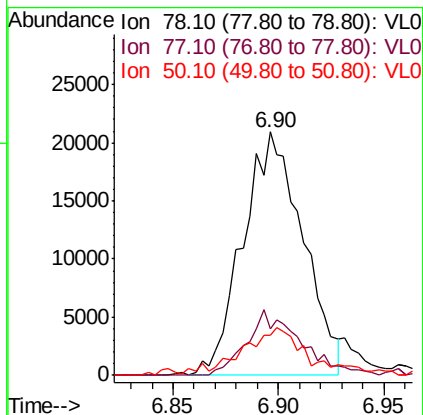
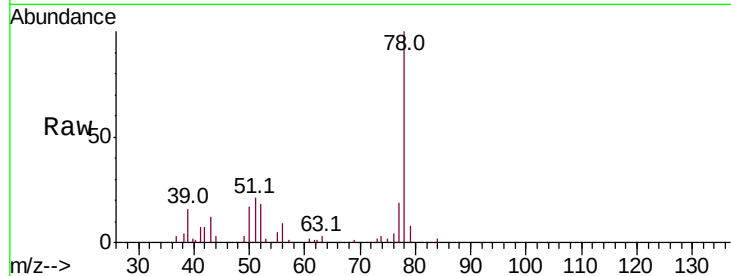
Tgt Ion: 117 Resp: 5467
Ion Ratio Lower Upper
117 100
119 105.8 77.7 116.5
121 24.4 25.6 38.4#





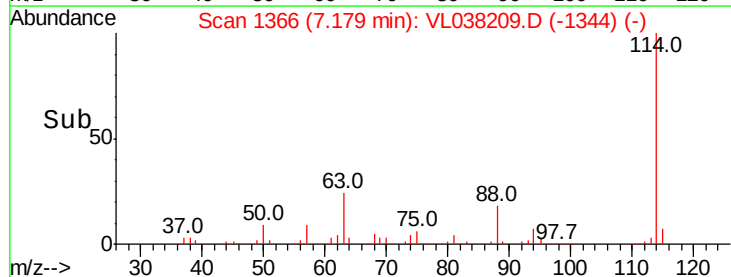
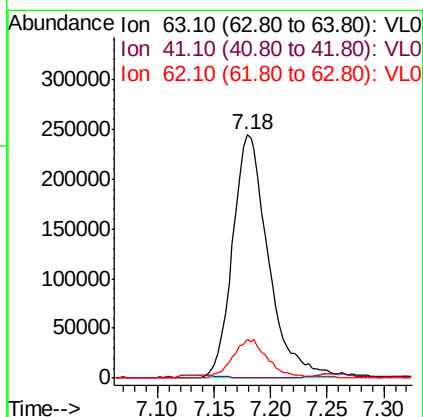
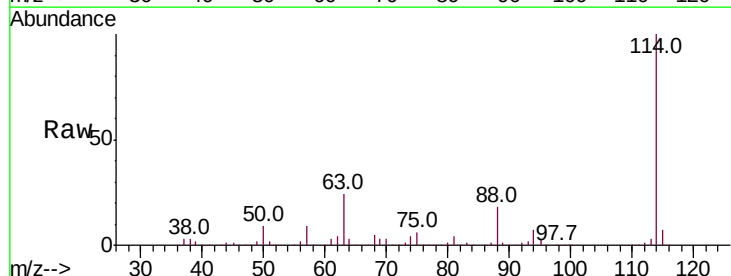
#36
Benzene
Concen: 0.179 ppbv
RT: 6.90 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 17 Dec 2021 4:17

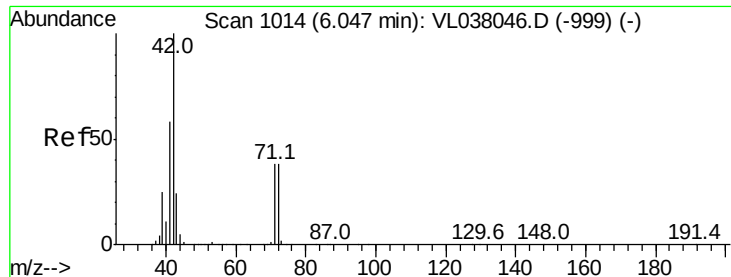
Tot Ion: 78 Resp: 41415
Ion Ratio Lower Upper
78 100
77 19.3 18.2 27.4
50 13.9 14.7 22.1#



#39
1,2-Dichloropropane
Concen: 6.083 ppbv
RT: 7.18 min Scan# 1366
Delta R.T. -0.43 min
Lab File: VL038209.D
Acq: 17 Dec 2021 4:17

Tgt Ion: 63 Resp: 539125
Ion Ratio Lower Upper
63 100
41 0.0 52.3 78.5#
62 15.8 55.1 82.7#





#41

Tetrahydrofuran

Concen: 0.590 ppbv

RT: 6.07 Instrument:

Delta R.T. MSVOA_L

Lab File:

Acq: 17 Dec 2021 4:17

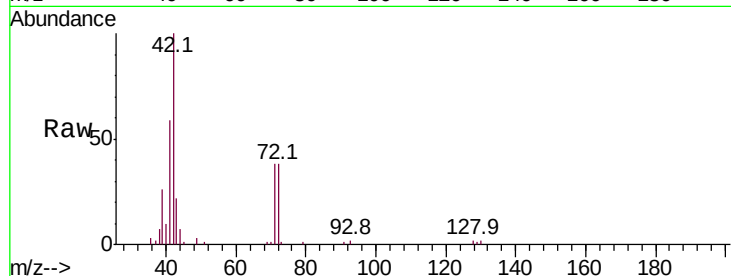
Tot Ion: 42 Resp: 34200

Ion Ratio Lower Upper

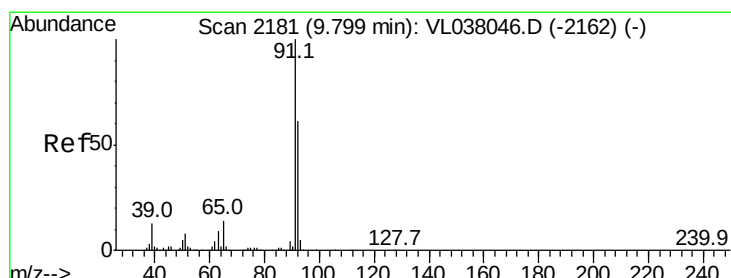
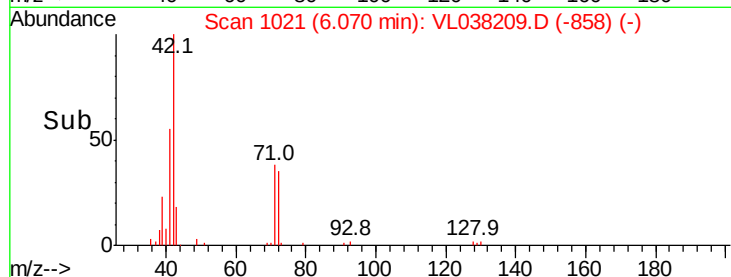
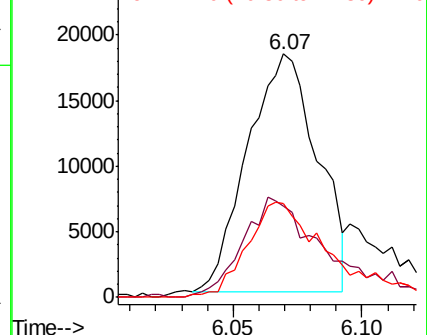
42 100

72 50.2 31.7 47.5#

71 51.2 30.6 46.0#



Abundance Ion 42.10 (41.80 to 42.80): VL0
Ion 72.10 (71.80 to 72.80): VL0
Ion 71.10 (70.80 to 71.80): VL0



#53

Toluene

Concen: 0.673 ppbv

RT: 9.81 min Scan# 2184

Delta R.T. 0.01 min

Lab File: VL038209.D

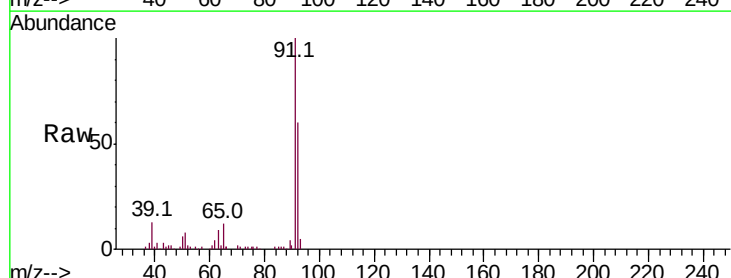
Acq: 17 Dec 2021 4:17

Tgt Ion: 91 Resp: 179043

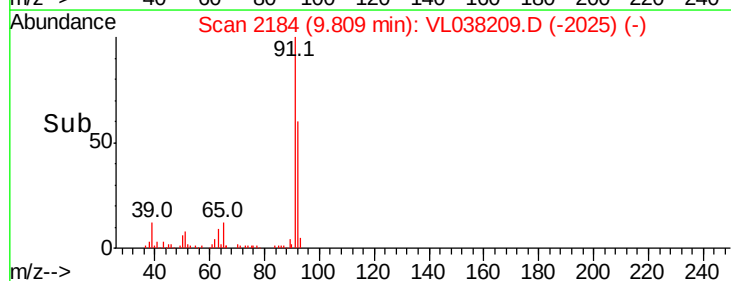
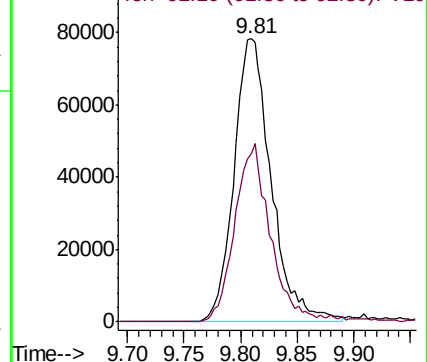
Ion Ratio Lower Upper

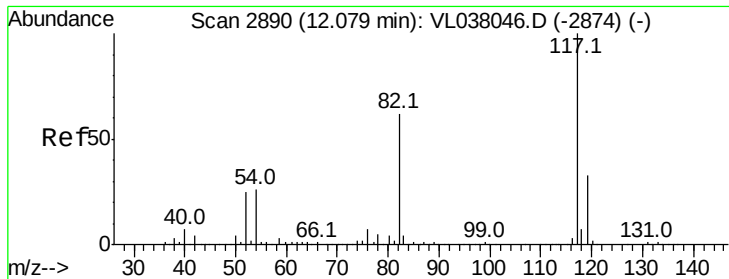
91 100

92 61.7 49.7 74.5



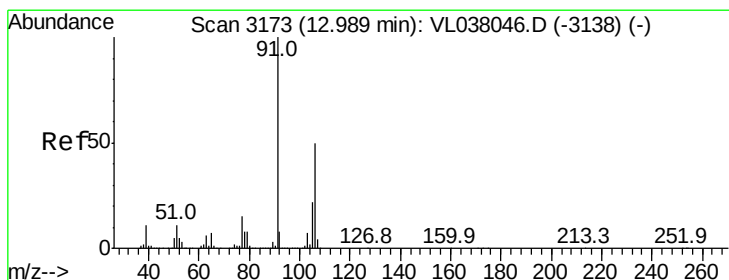
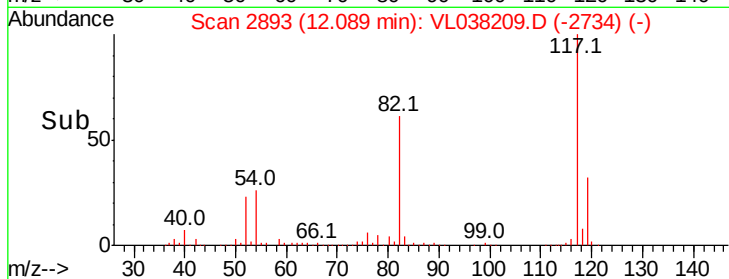
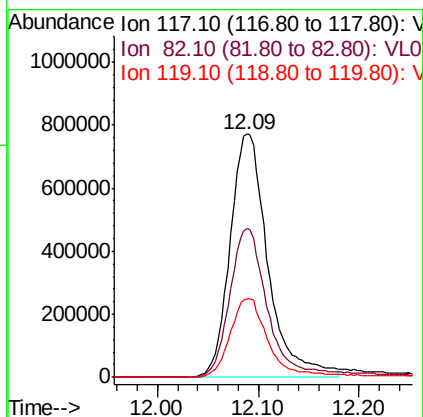
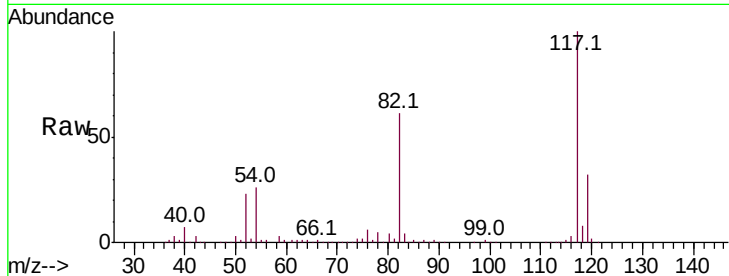
Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 92.10 (91.80 to 92.80): VL0





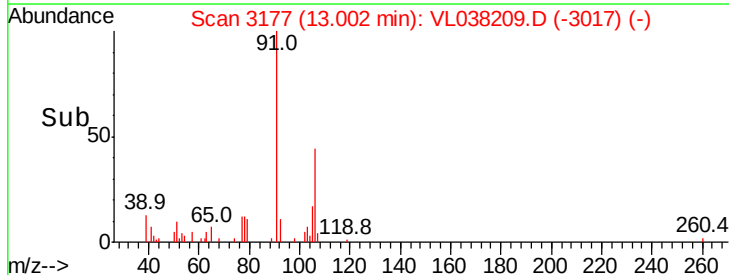
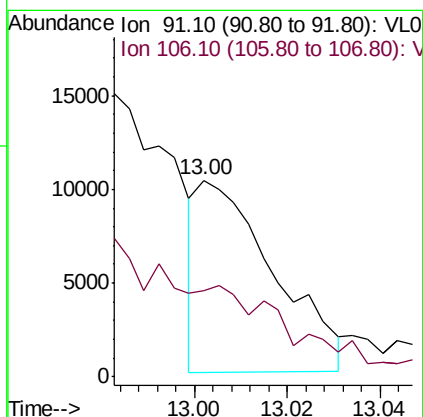
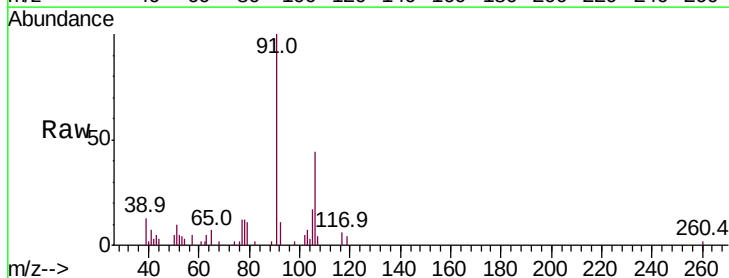
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.09 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 17 Dec 2021 4:17

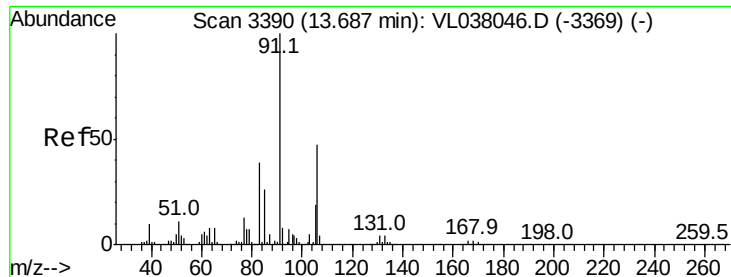
Tot Ion: 117 Resp: 2014241
Ion Ratio Lower Upper
117 100
82 63.4 52.8 79.2
119 34.1 26.8 40.2



#59
m/p-Xylene
Concen: 0.041 ppbv
RT: 13.00 min Scan# 3177
Delta R.T.: 0.01 min
Lab File: VL038209.D
Acq: 17 Dec 2021 4:17

Tgt Ion: 91 Resp: 11586
Ion Ratio Lower Upper
91 100
106 0.0 38.1 57.1#





#60

o-Xylene

Concen: 0.044 ppbv

RT: 13.69

Delta R.T. MSVOA_L

Lab File:

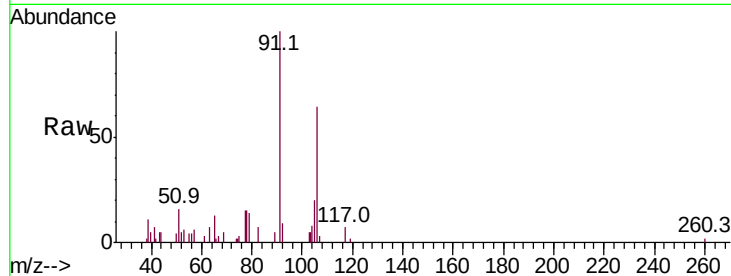
Acq: 17 Dec 2021 4:17

Tot Ion: 91 Resp: 11488

Ion Ratio Lower Upper

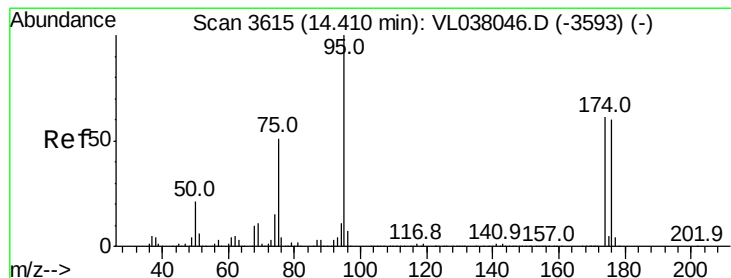
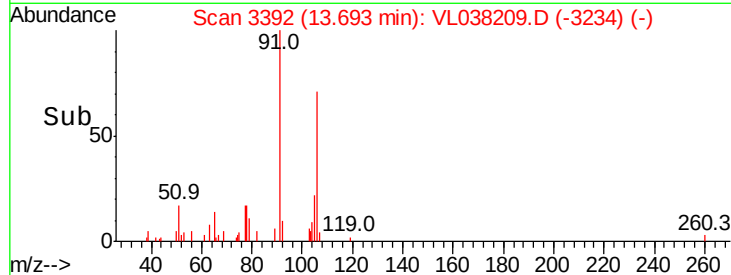
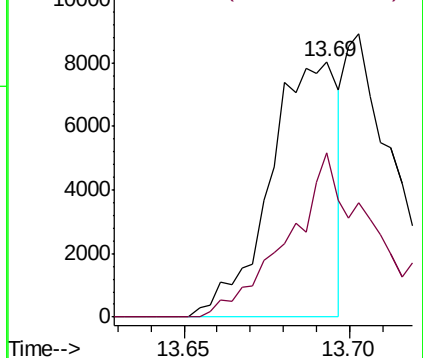
91 100

106 89.4 24.2 72.6#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 9.494 ppbv

RT: 14.42 min Scan# 3617

Delta R.T. 0.01 min

Lab File: VL038209.D

Acq: 17 Dec 2021 4:17

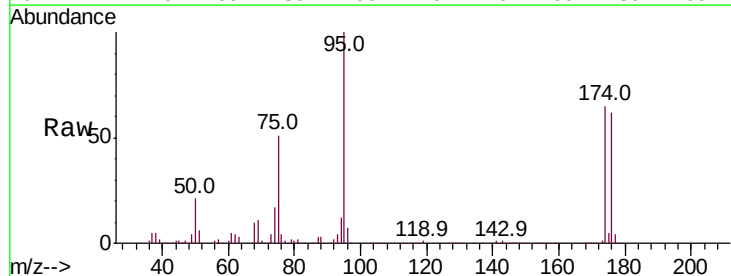
Tgt Ion: 95 Resp: 1379393

Ion Ratio Lower Upper

95 100

174 72.6 53.1 79.7

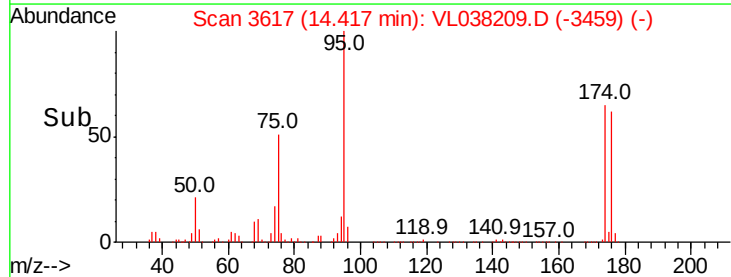
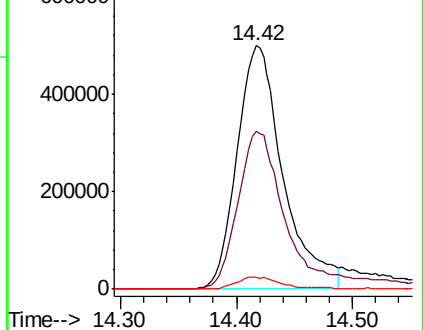
175 4.9 4.0 6.0

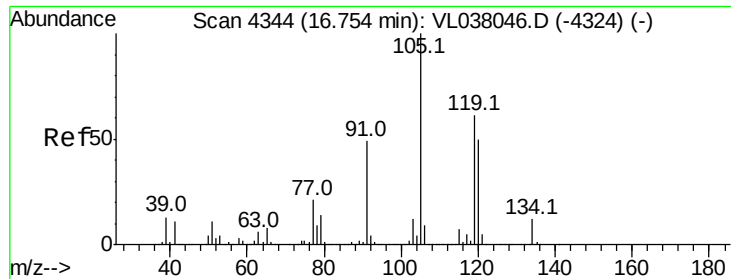


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

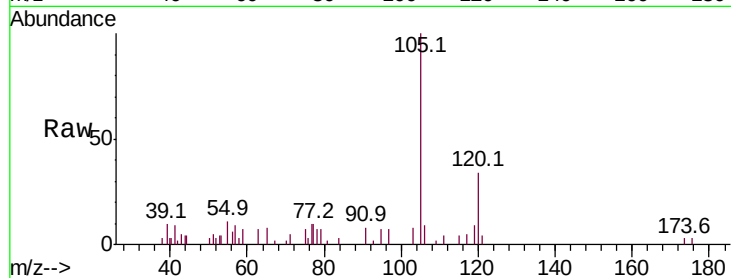
Ion 175.00 (174.70 to 175.70): V





#74
 1,2,4-Trimethylbenzene
 Concen: 0.058 ppbv
 RT: 16.77
 Delta R.T: MSVOA_L
 Lab File: ClientSampleId :
 Acq: 17 Dec 2021 4.17

Tot Ion:	105	Resp:	16493
Ion Ratio	Lower	Upper	
105	100		
120	37.6	40.1	60.1#
91	5.1	39.8	59.8#
77	16.1	16.6	25.0#



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

