

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL041922\
 Data File : VL038948.D
 Acq On : 19 Apr 2022 13:52
 Operator : SY/AP
 Sample : N2465-02
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA L
 ClientSampleId :
 IA-1

Quant Time: Apr 20 04:24:32 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL040522AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Apr 06 06:12:53 2022
 QLast Update : Wed Apr 06 06:12:53 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1176481	10.00	ppbv	0.02
33) 1,4-Difluorobenzene	7.19	114	2890819	10.00	ppbv	0.02
55) Chlorobenzene-d5	12.10	117	2502309	10.00	ppbv	0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	1972111	10.39	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.90%

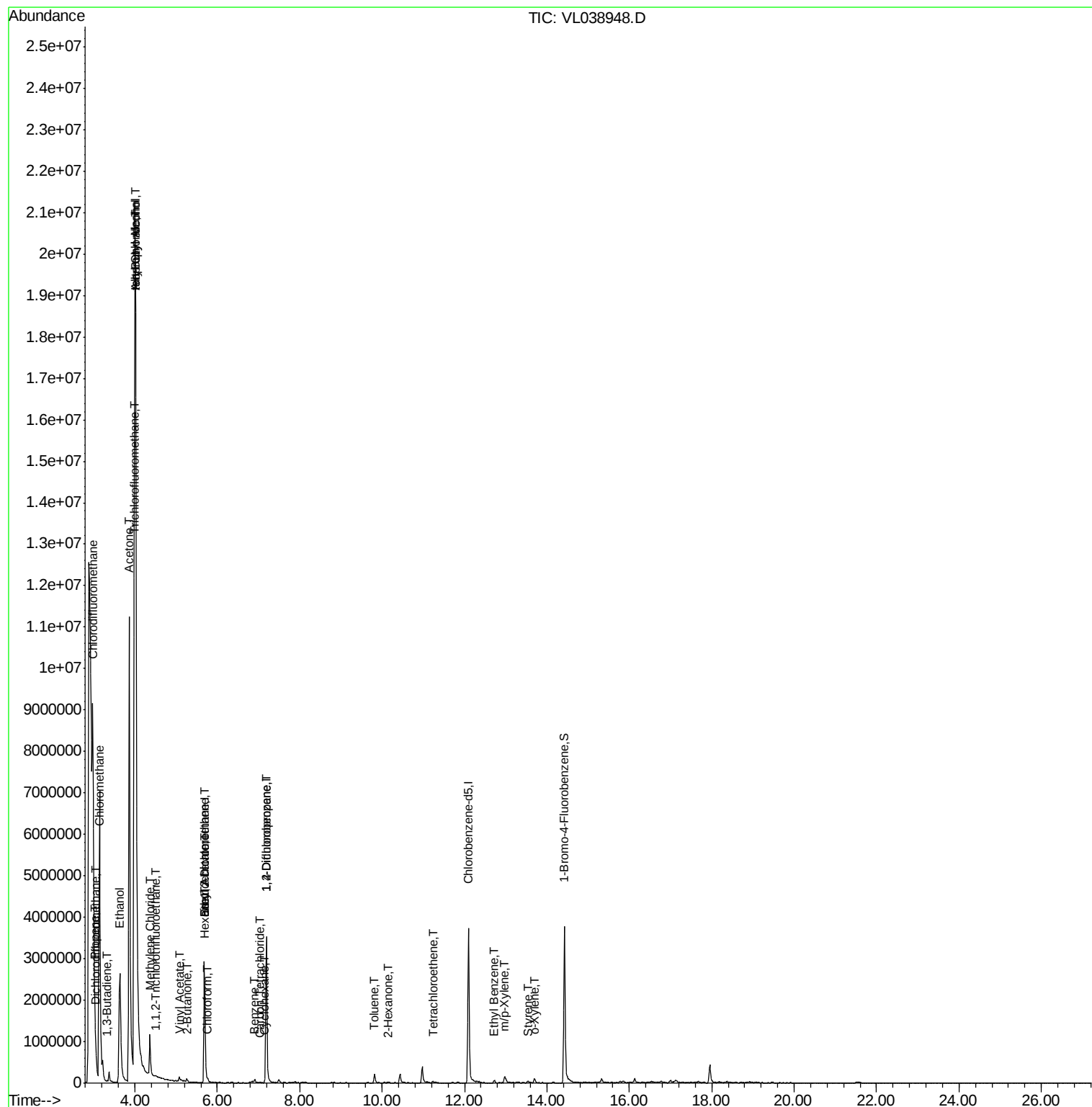
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.06	85	106074	0.636	ppbv	97
3) Chlorodifluoromethane	2.98	51	3162339	22.025	ppbv #	62
4) Chloromethane	3.16	50	34696	0.467	ppbv	98
9) Propene	3.03	41	75132	0.989	ppbv #	77
11) Trichlorofluoromethane	3.97	101	27086	0.202	ppbv	90
12) 1,1,2-Trichlorotrifluoroet	4.50	101	6209	0.060	ppbv #	12
13) Ethanol	3.63	45	4963538	1075.173	ppbv #	100
15) Acetone	3.86	43	14609450	124.729	ppbv #	88
16) 1,3-Butadiene	3.32	39	6609	0.099	ppbv	86
17) tert-Butyl alcohol	4.01	59	2770767	26.380	ppbv	94
19) Isopropyl Alcohol	4.01	45	37100524	619.739	ppbv #	100
20) Methylene Chloride	4.37	84	366942	8.638	ppbv	94
21) Allyl Chloride	4.01	41	6953119	79.284	ppbv #	76
23) Vinyl Acetate	5.10	43	4457	0.039	ppbv #	68
25) Ethyl Acetate	5.69	43	847150	2.850	ppbv #	94
26) Hexane	5.70	57	138872	1.027	ppbv #	1
29) Chloroform	5.77	83	32532	0.172	ppbv	92
30) Cyclohexane	7.14	84	7371	0.062	ppbv #	1
31) cis-1,2-Dichloroethene	5.68	61	99310	0.798	ppbv #	25
34) 2-Butanone	5.26	43	93510	0.819	ppbv	95
35) Carbon Tetrachloride	7.04	117	7048	0.041	ppbv #	83
36) Benzene	6.90	78	41575	0.158	ppbv	99
39) 1,2-Dichloropropane	7.19	63	731307	7.270	ppbv #	26
51) 2-Hexanone	10.14	43	7978	0.041	ppbv #	26
52) Tetrachloroethene	11.23	164	7926	0.086	ppbv #	64
53) Toluene	9.82	91	167243	0.551	ppbv	99
58) Ethyl Benzene	12.72	91	36950	0.099	ppbv	96
59) m/p-Xylene	12.98	91	156161	0.497	ppbv	99
60) o-Xylene	13.71	91	35074	0.119	ppbv #	29
61) Styrene	13.54	104	12417	0.069	ppbv #	17

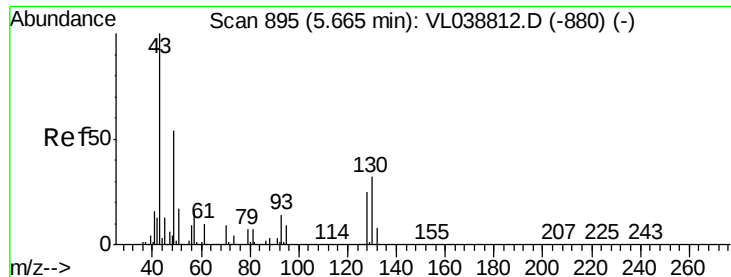
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Misc : 400mL/MSVOA L
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Quant Time: Apr 20 04:24:32 2022
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL040522AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Apr 06 06:12:53 2022
QLast Update : Wed Apr 06 06:12:53 2022
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 19 Apr 2022 13:52

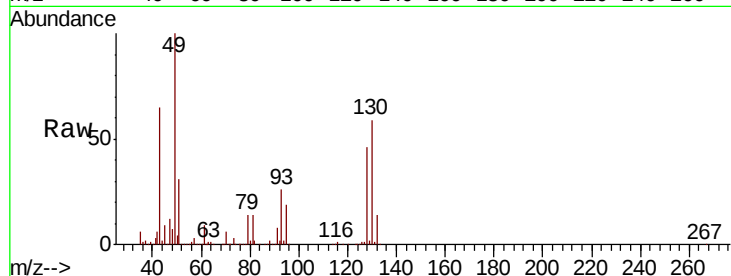
Tot Ion: 49 Resp: 1176481

Ion Ratio Lower Upper

49 100

128 46.1 24.1 72.3

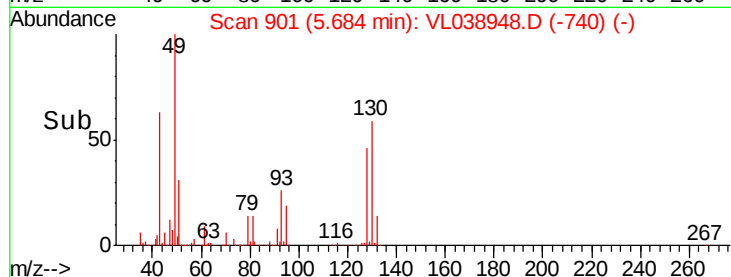
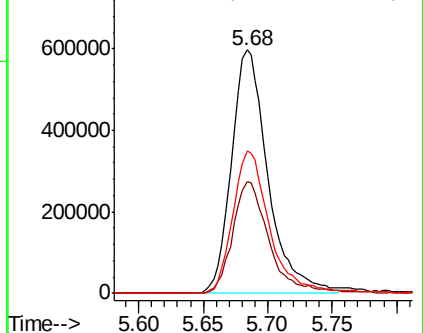
130 59.9 30.9 92.8



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.636 ppbv

RT: 3.06 min Scan# 85

Delta R.T. 0.01 min

Lab File: VL038948.D

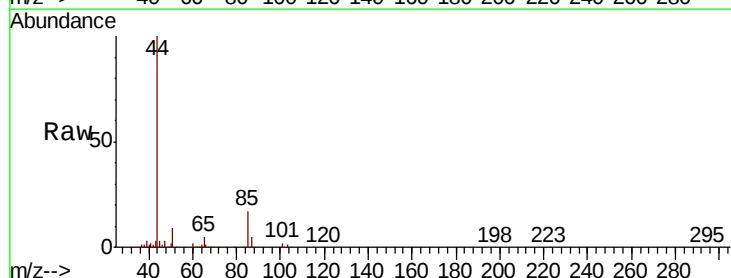
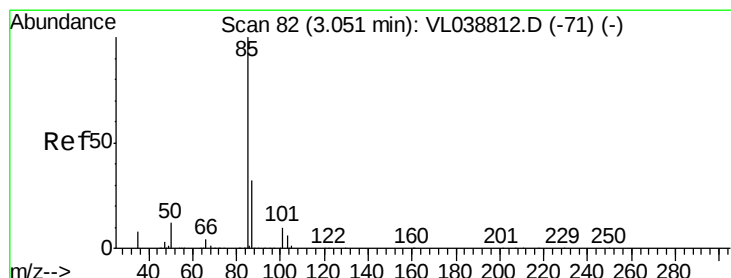
Acq: 19 Apr 2022 13:52

Tgt Ion: 85 Resp: 106074

Ion Ratio Lower Upper

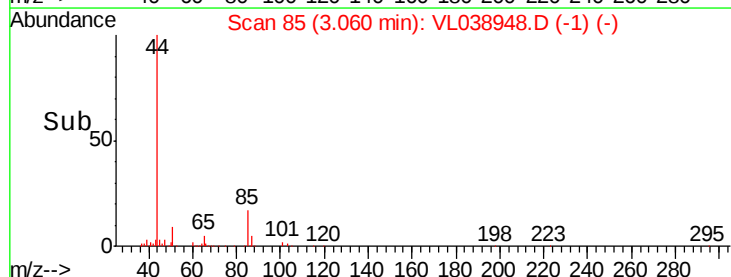
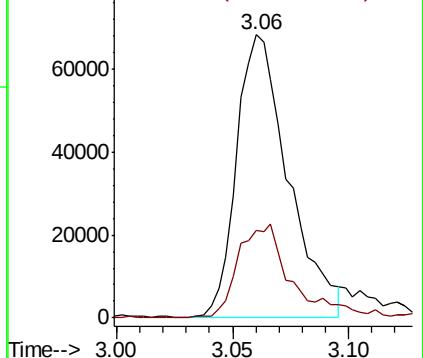
85 100

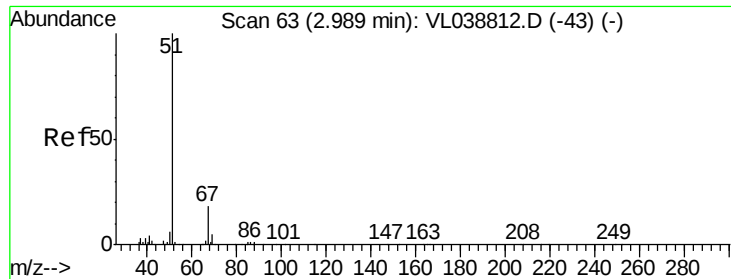
87 30.7 25.9 38.9



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 22.025 ppbv

RT: 2.98 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

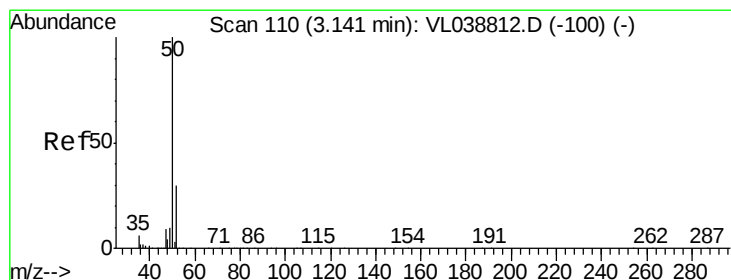
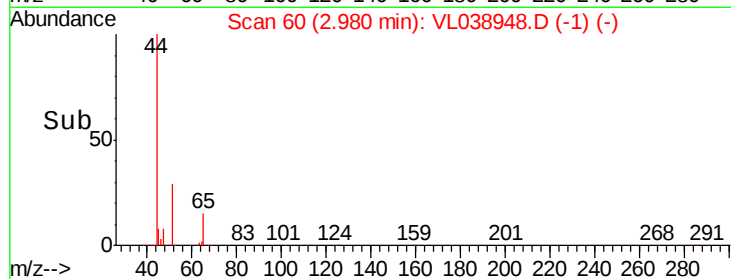
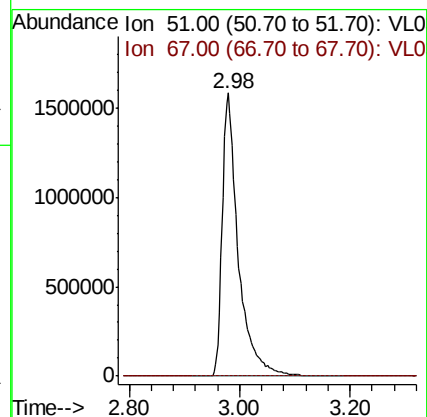
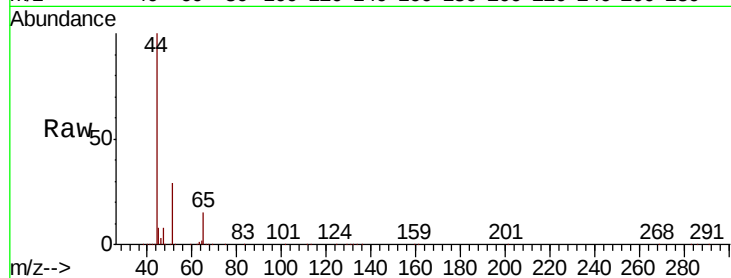
Acq: 19 Apr 2022 13:52

Tot Ion: 51 Resp: 3162339

Ion Ratio Lower Upper

51 100

67 0.3 13.4 20.0#



#4

Chloromethane

Concen: 0.467 ppbv

RT: 3.16 min Scan# 115

Delta R.T. 0.02 min

Lab File: VL038948.D

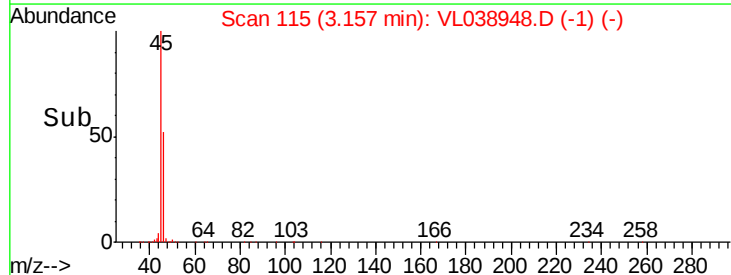
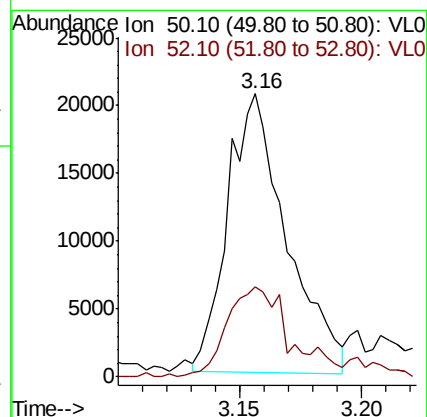
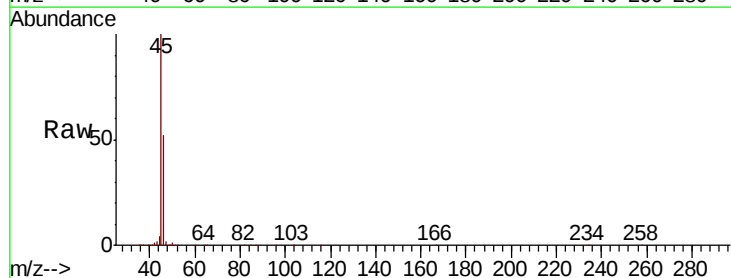
Acq: 19 Apr 2022 13:52

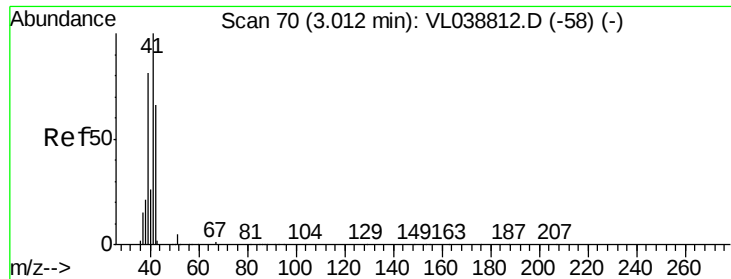
Tgt Ion: 50 Resp: 34696

Ion Ratio Lower Upper

50 100

52 31.7 24.3 36.5





#9

Propene

Concen: 0.989 ppbv

RT: 3.03 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

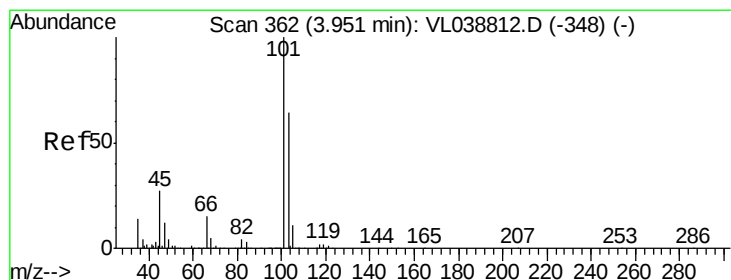
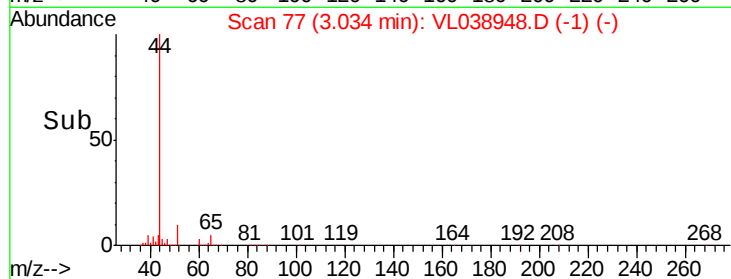
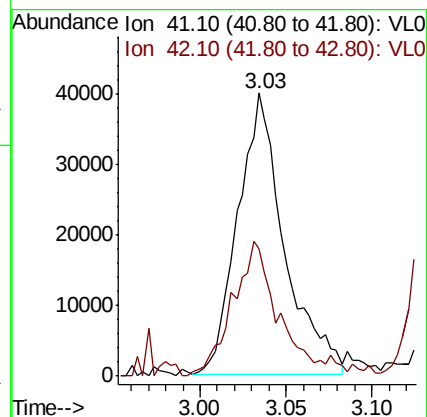
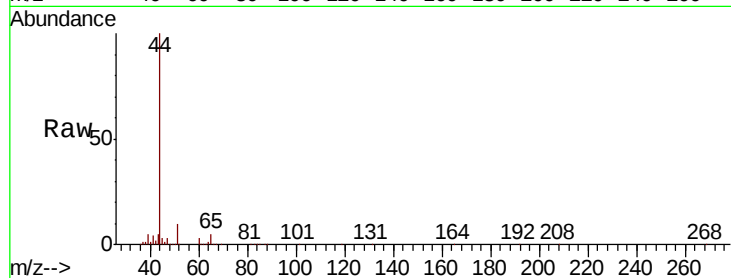
Acq: 19 Apr 2022 13:52

Tot Ion: 41 Resp: 75132

Ion Ratio Lower Upper

41 100

42 49.6 54.2 81.4#



#11

Trichlorofluoromethane

Concen: 0.202 ppbv

RT: 3.97 min Scan# 367

Delta R.T. 0.02 min

Lab File: VL038948.D

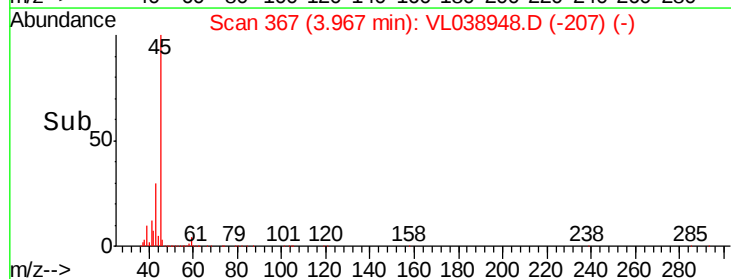
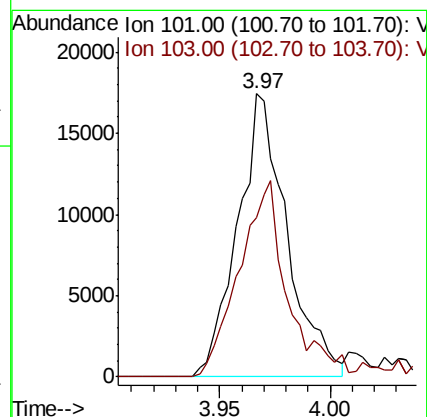
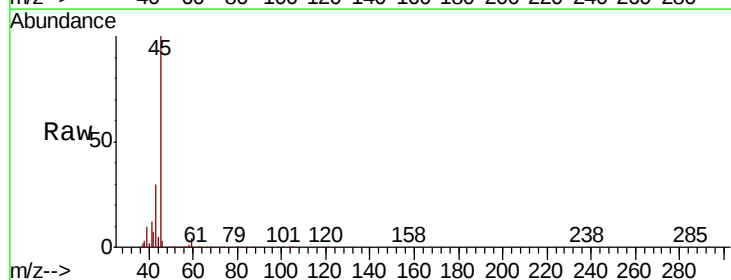
Acq: 19 Apr 2022 13:52

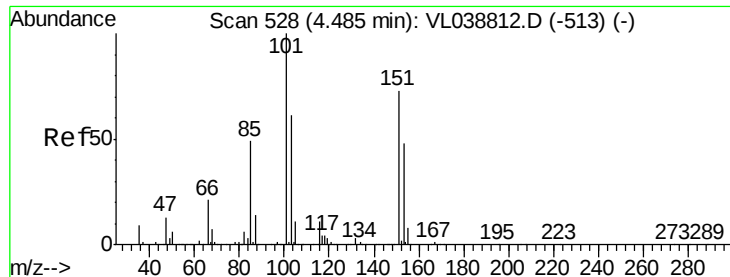
Tgt Ion: 101 Resp: 27086

Ion Ratio Lower Upper

101 100

103 56.4 51.4 77.0





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.060 ppbv

RT: 4.50 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

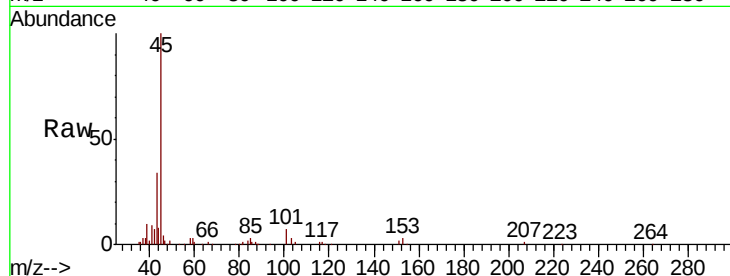
Acq: 19 Apr 2022 13:52

Tot Ion: 101 Resp: 6209

Ion Ratio Lower Upper

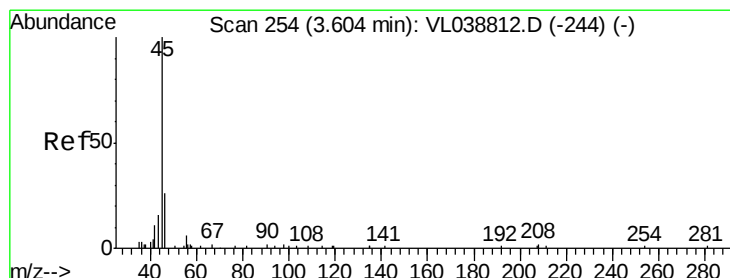
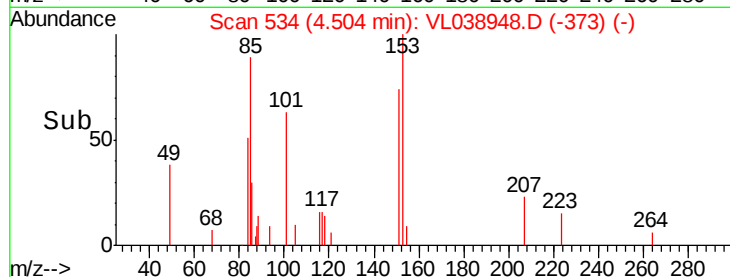
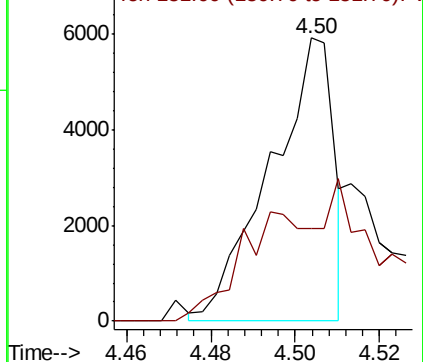
101 100

151 0.0 59.9 89.9#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 1075.173 ppbv

RT: 3.63 min Scan# 263

Delta R.T. 0.03 min

Lab File: VL038948.D

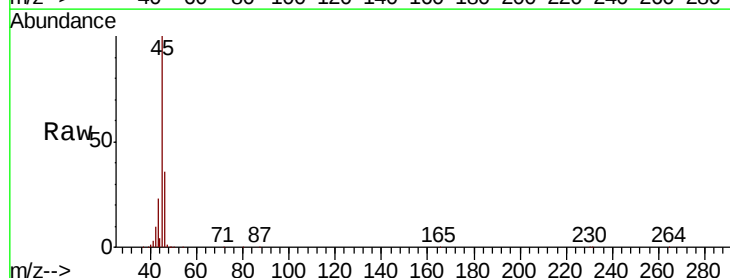
Acq: 19 Apr 2022 13:52

Tgt Ion: 45 Resp: 4963538

Ion Ratio Lower Upper

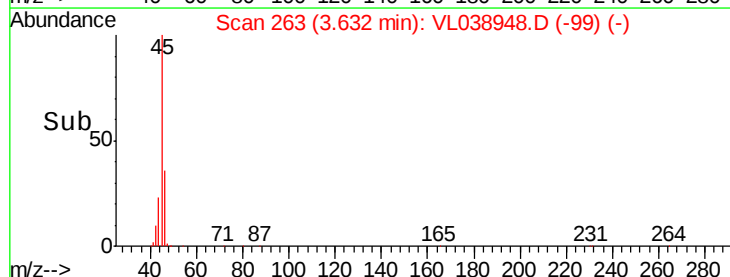
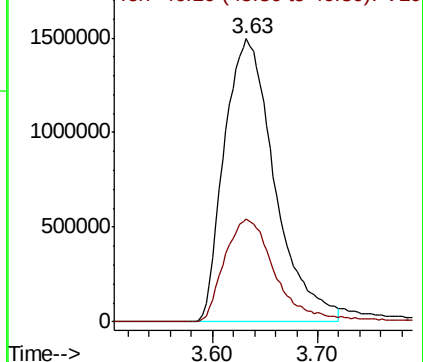
45 100

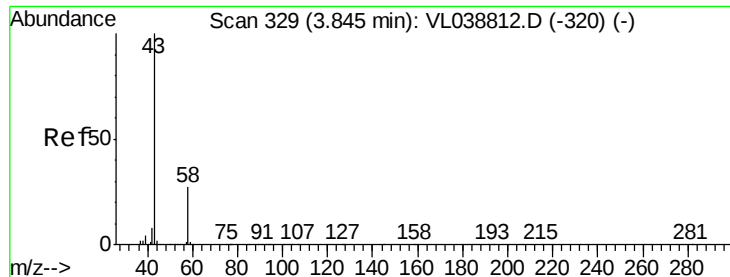
46 37.1 0.0 0.0#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 124.729 ppbv

RT: 3.86 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

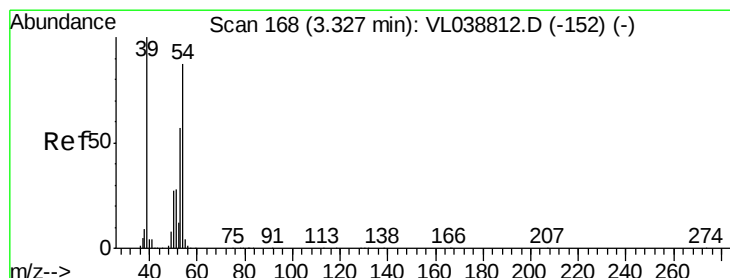
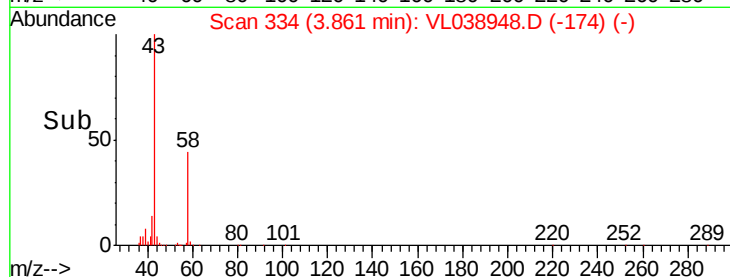
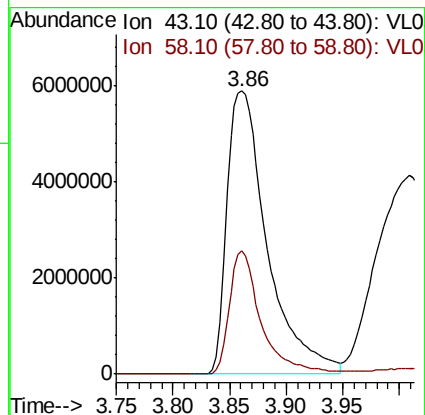
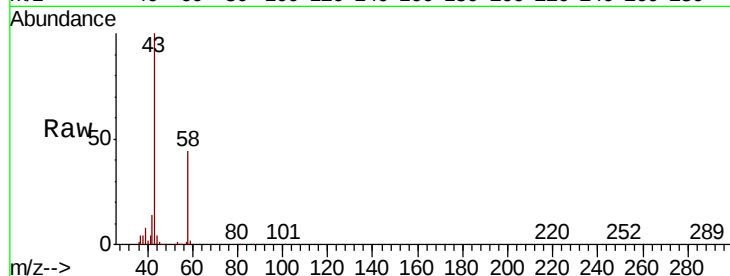
Acq: 19 Apr 2022 13:52

Tot Ion: 43 Resp:14609450

Ion Ratio Lower Upper

43 100

58 34.6 22.5 33.7#



#16

1,3-Butadiene

Concen: 0.099 ppbv

RT: 3.32 min Scan# 166

Delta R.T. -0.01 min

Lab File: VL038948.D

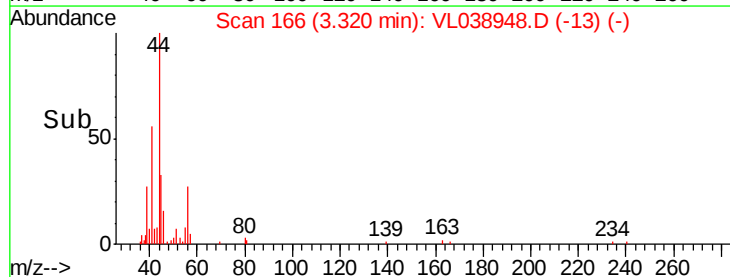
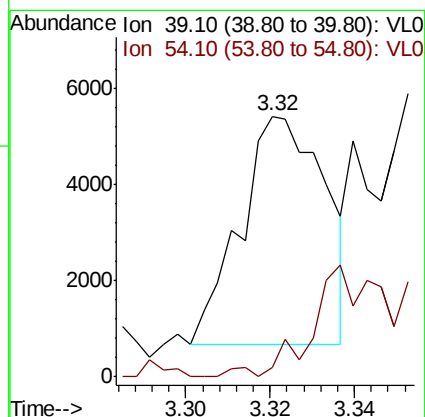
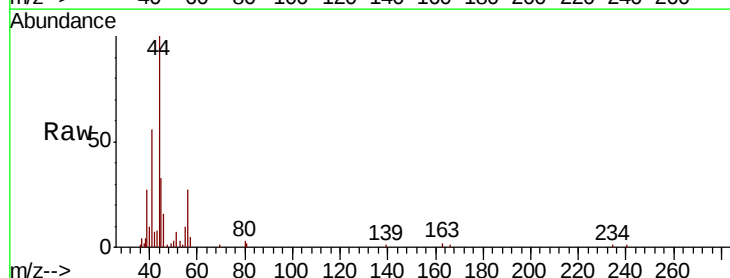
Acq: 19 Apr 2022 13:52

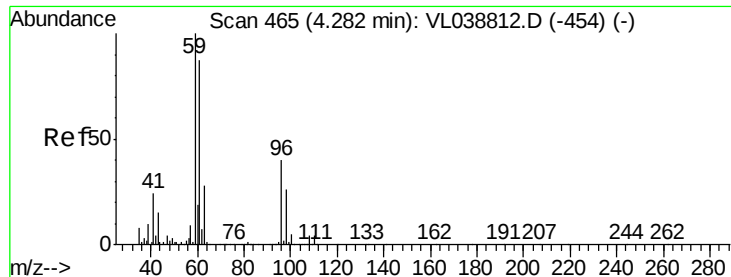
Tgt Ion: 39 Resp: 6609

Ion Ratio Lower Upper

39 100

54 69.0 64.8 97.2





#17

tert-Butyl alcohol

Concen: 26.380 ppbv

RT: 4.01 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

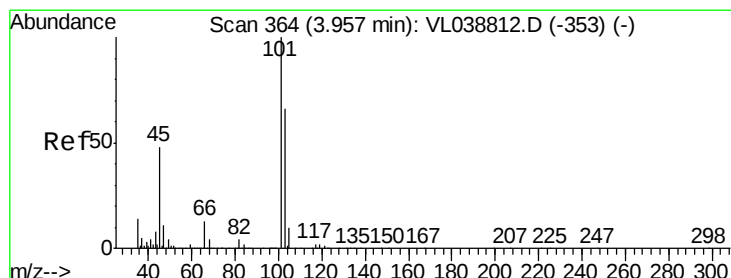
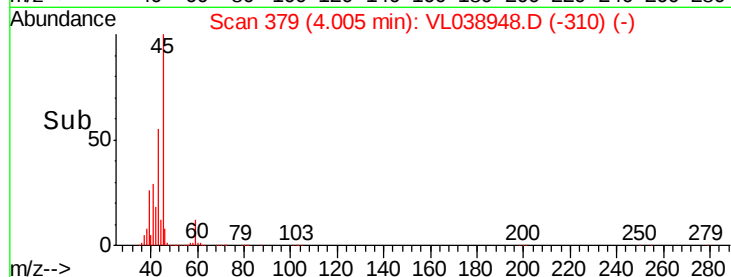
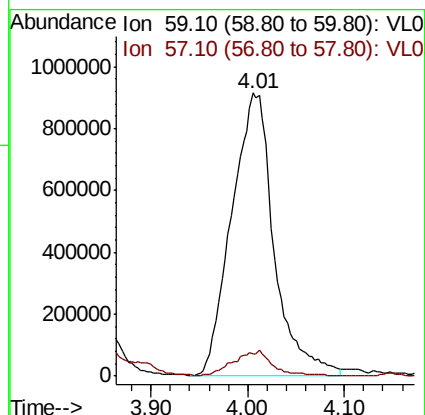
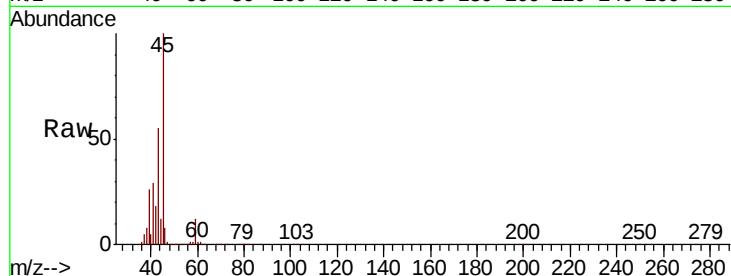
Acq: 19 Apr 2022 13:52

Tot Ion: 59 Resp: 2770767

Ion Ratio Lower Upper

59 100

57 8.5 8.5 12.7



#19

Isopropyl Alcohol

Concen: 619.739 ppbv

RT: 4.01 min Scan# 380

Delta R.T. 0.05 min

Lab File: VL038948.D

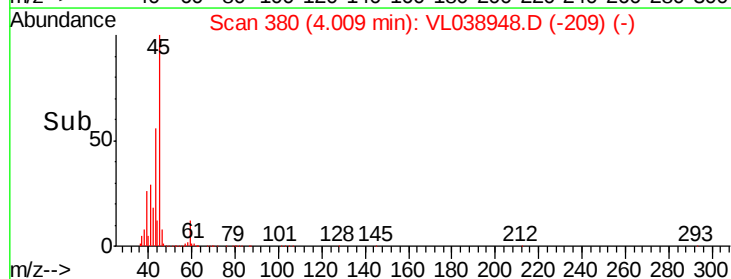
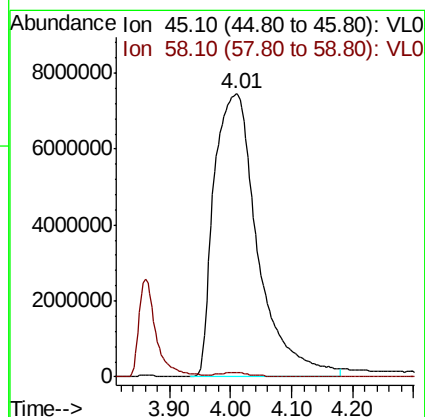
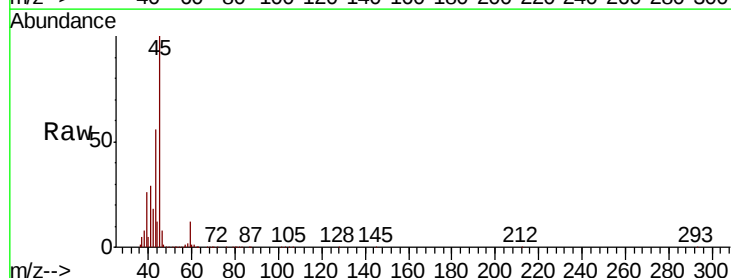
Acq: 19 Apr 2022 13:52

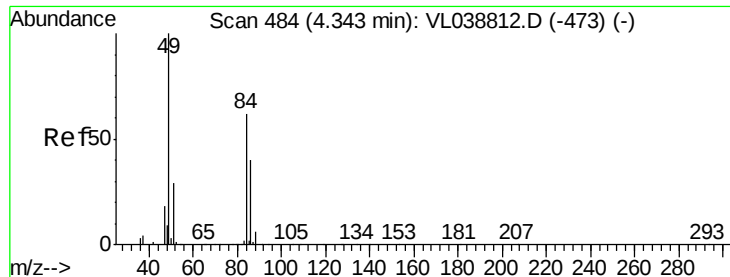
Tgt Ion: 45 Resp: 37100524

Ion Ratio Lower Upper

45 100

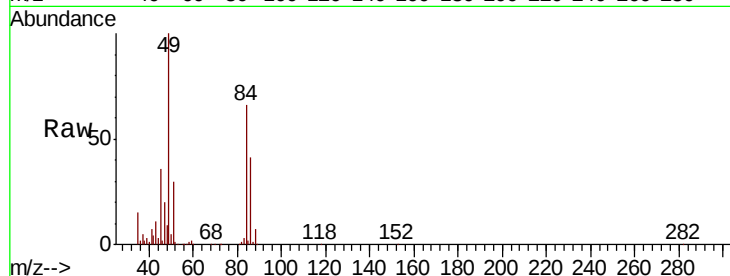
58 1.2 0.0 0.0#



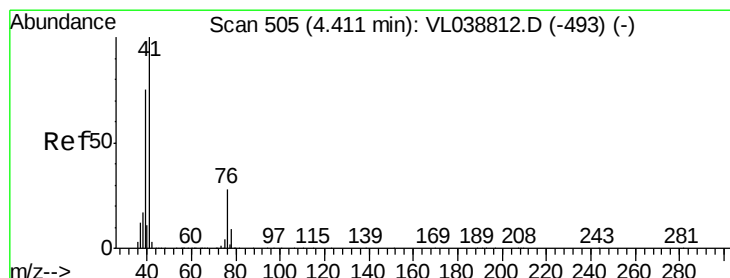
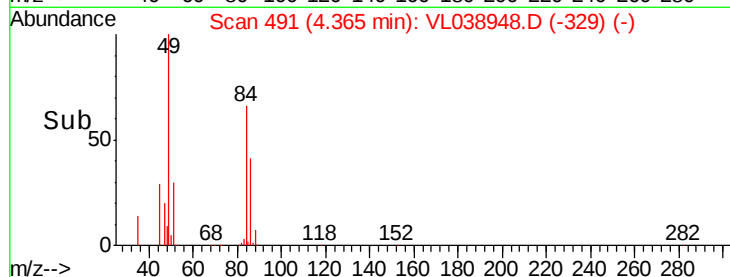
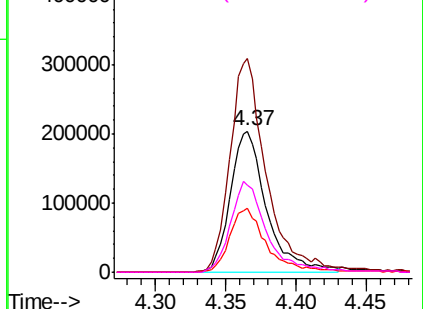


#20
Methylene Chloride
Concen: 8.638 ppbv
RT: 4.37
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 19 Apr 2022 13:52

Tot Ion:	84	Resp:	366942
Ion	Ratio	Lower	Upper
84	100		
49	151.4	129.4	194.0
51	45.3	37.4	56.2
86	62.1	51.4	77.2

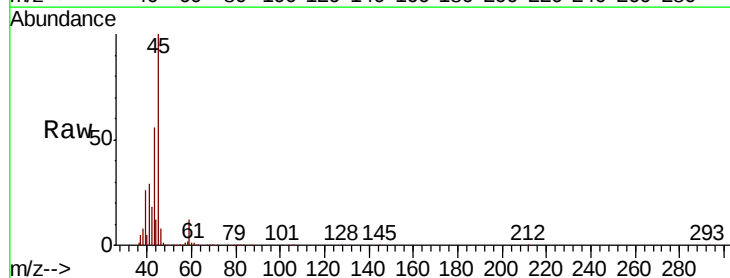


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

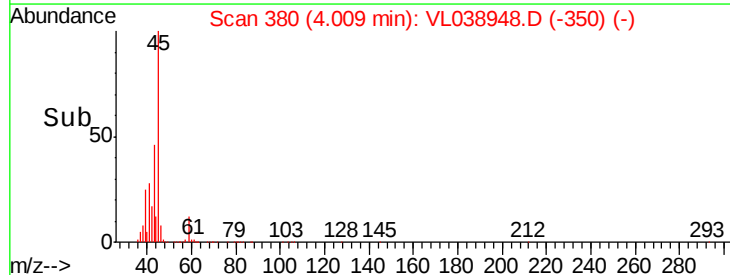
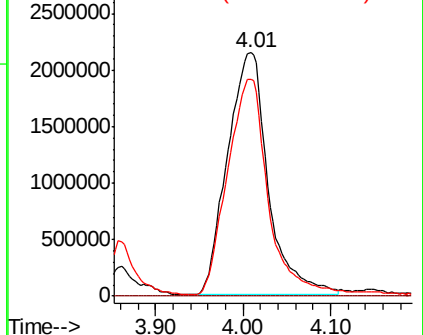


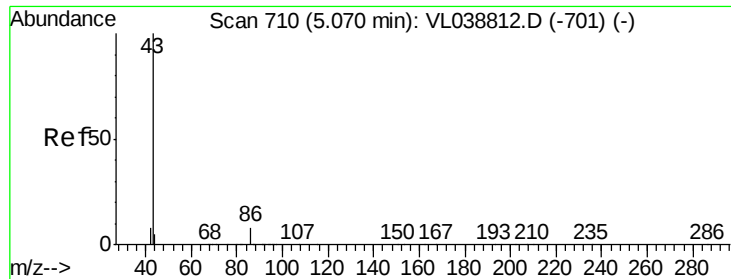
#21
Allyl Chloride
Concen: 79.284 ppbv
RT: 4.01 min Scan# 380
Delta R.T. -0.40 min
Lab File: VL038948.D
Acq: 19 Apr 2022 13:52

Tgt Ion:	41	Resp:	6953119
Ion	Ratio	Lower	Upper
41	100		
76	0.0	23.7	35.5#
39	88.0	62.0	93.0



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: 0.039 ppbv

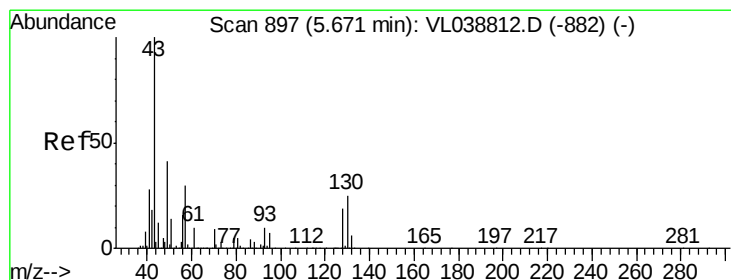
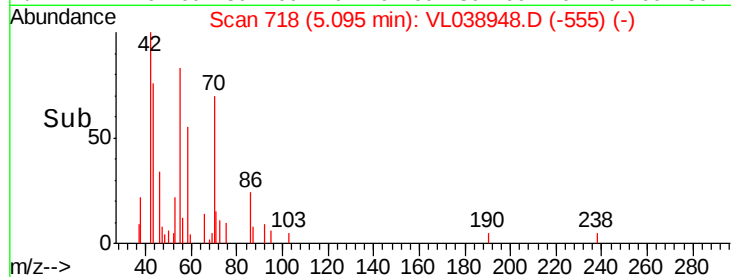
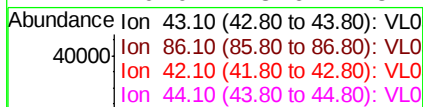
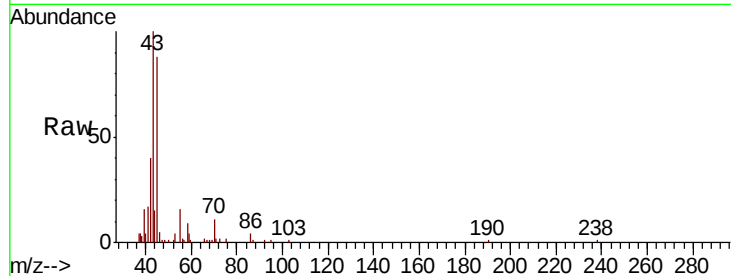
RT: 5.10 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 19 Apr 2022 13:52

Tot Ion:	43	Resp:	4457
Ion	Ratio	Lower	Upper
43	100		
86	0.0	5.8	8.6#
42	27.6	7.8	11.6#
44	0.0	3.6	5.4#



#25

Ethyl Acetate

Concen: 2.850 ppbv

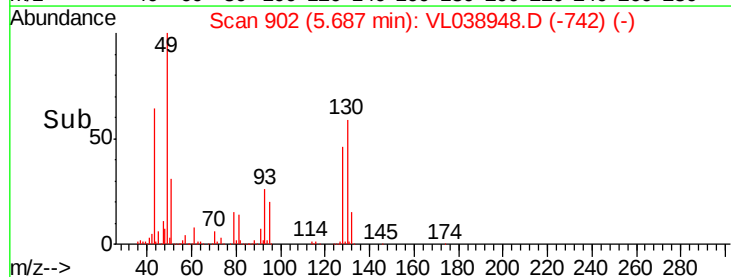
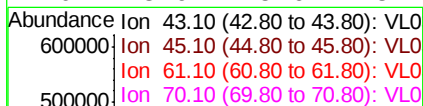
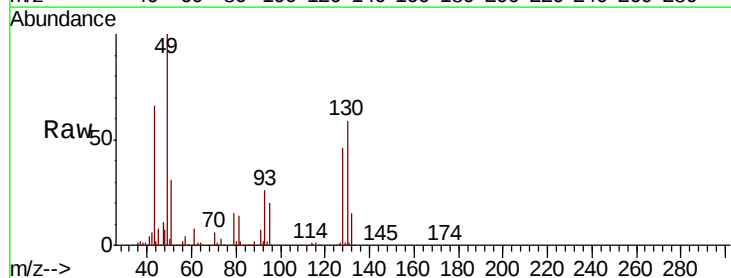
RT: 5.69 min Scan# 902

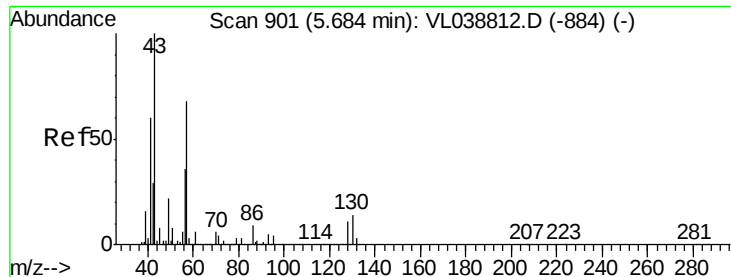
Delta R.T. 0.02 min

Lab File: VL038948.D

Acq: 19 Apr 2022 13:52

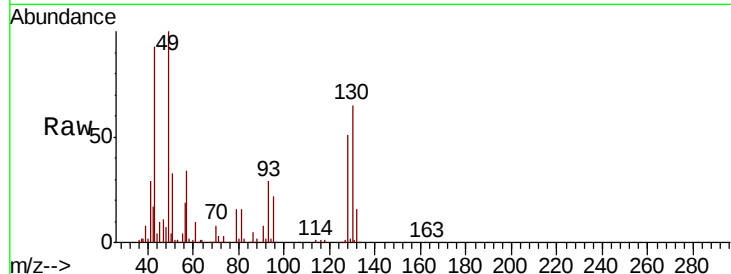
Tgt Ion:	43	Resp:	847150
Ion	Ratio	Lower	Upper
43	100		
45	13.1	8.4	12.6#
61	12.1	7.9	11.9#
70	8.9	5.6	8.4#



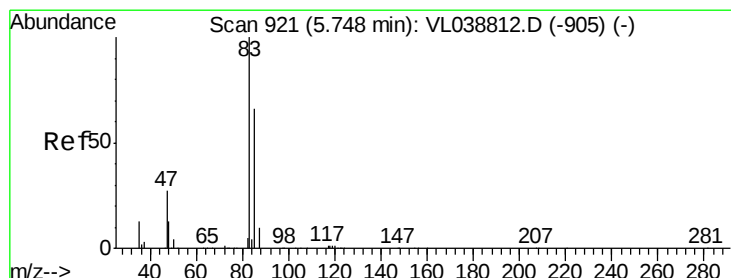
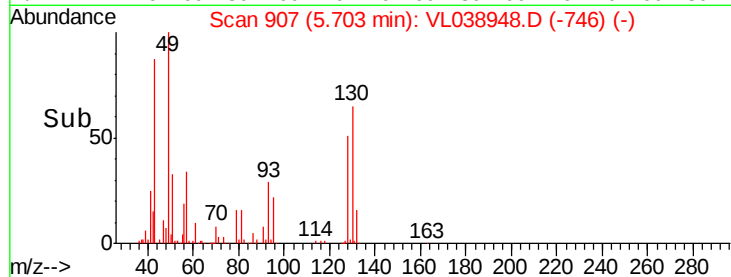
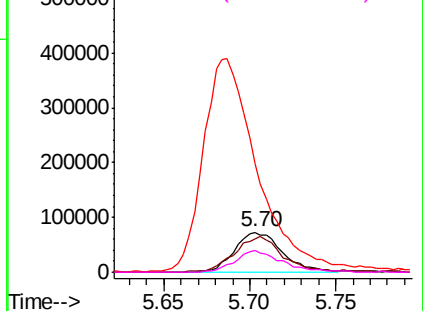


#26
Hexane
Concen: 1.027 ppbv
RT: 5.70
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 19 Apr 2022 13:52

Tot Ion:	57	Resp:	138872
Ion	Ratio	Lower	Upper
57	100		
41	93.2	72.0	108.0
43	627.2	186.6	280.0#
56	55.7	42.8	64.2

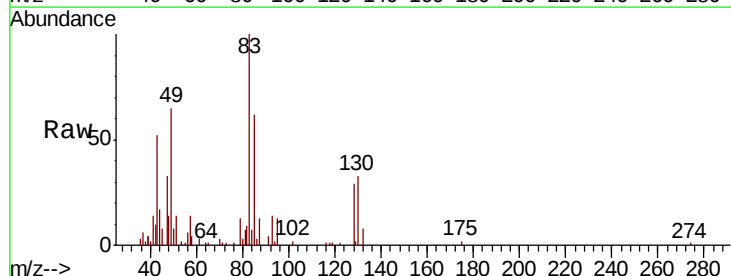


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

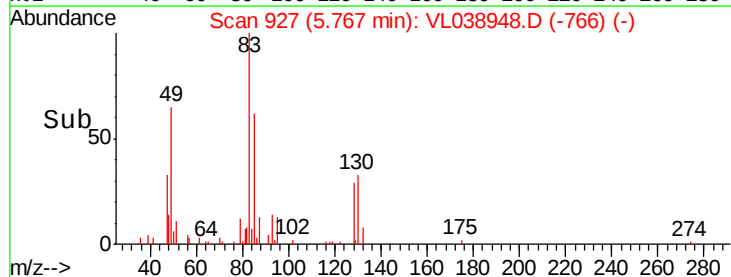
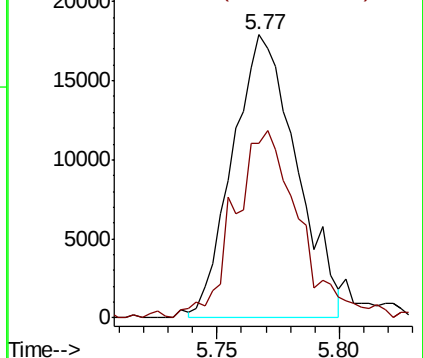


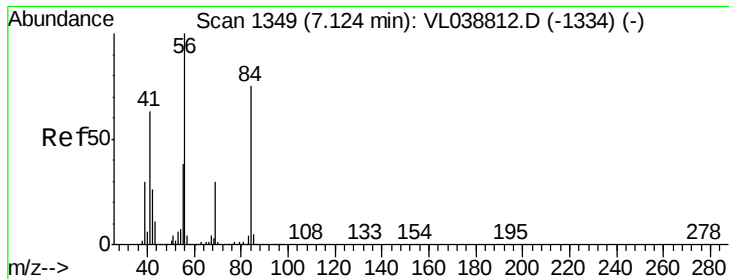
#29
Chloroform
Concen: 0.172 ppbv
RT: 5.77 min Scan# 927
Delta R.T. 0.02 min
Lab File: VL038948.D
Acq: 19 Apr 2022 13:52

Tgt Ion:	83	Resp:	32532
Ion	Ratio	Lower	Upper
83	100		
85	59.6	52.5	78.7



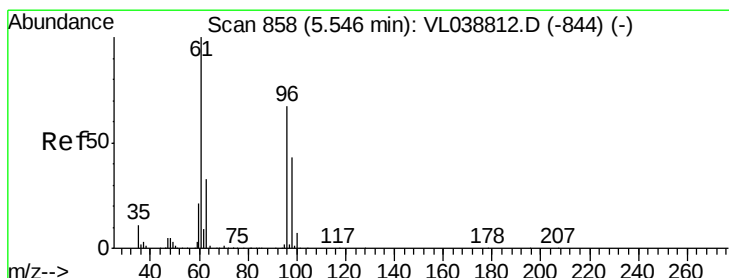
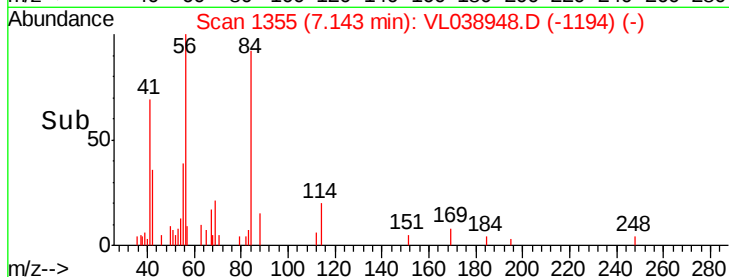
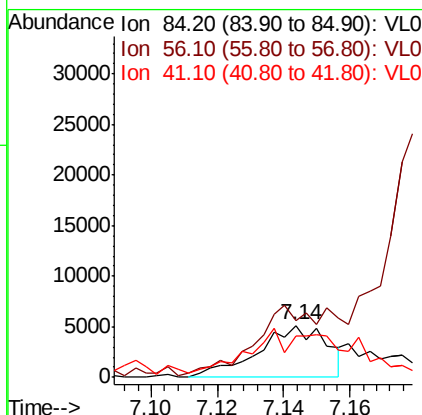
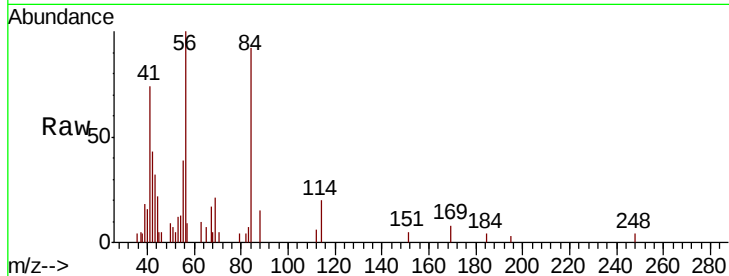
Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0





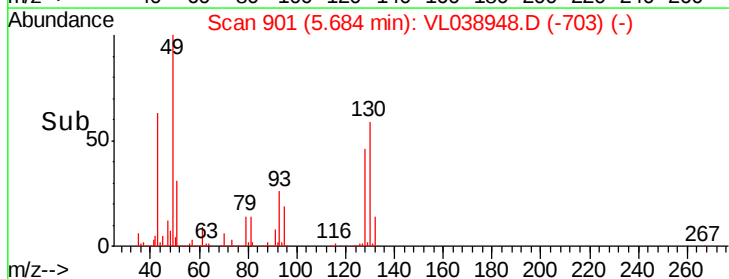
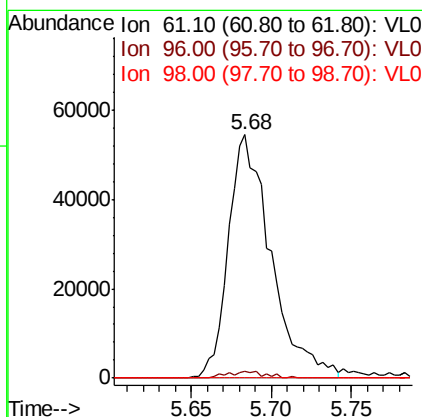
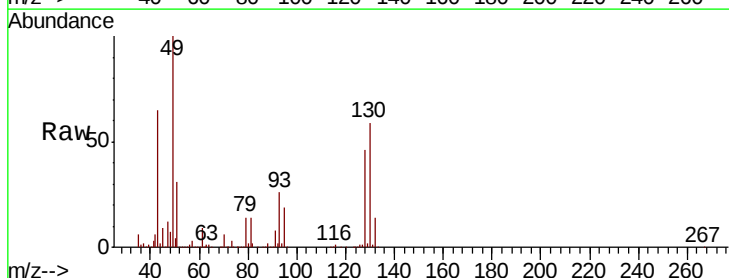
#30
Cvclohexane
Concen: 0.062 ppbv
RT: 7.14
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 19 Apr 2022 13:52

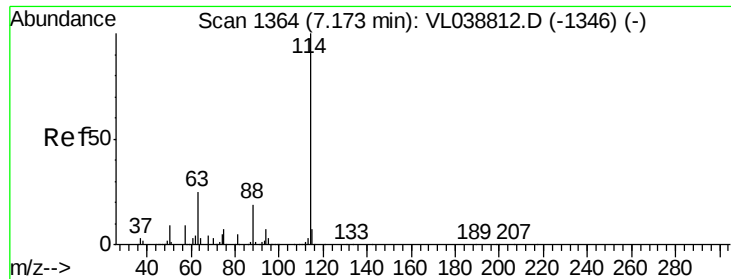
Tot Ion: 84 Resp: 7371
Ion Ratio Lower Upper
84 100
56 0.0 114.4 171.6#
41 157.7 69.0 103.4#



#31
cis-1,2-Dichloroethene
Concen: 0.798 ppbv
RT: 5.68 min Scan# 901
Delta R.T. 0.14 min
Lab File: VL038948.D
Acq: 19 Apr 2022 13:52

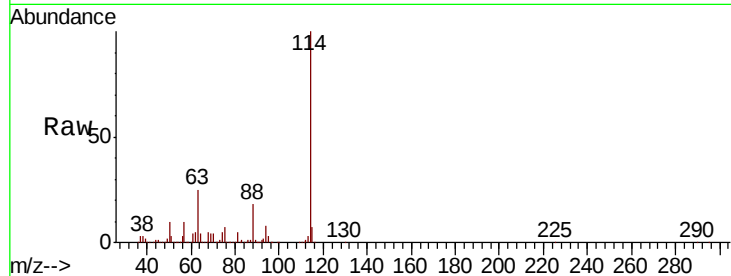
Tgt Ion: 61 Resp: 99310
Ion Ratio Lower Upper
61 100
96 2.9 53.4 80.0#
98 0.0 34.2 51.4#



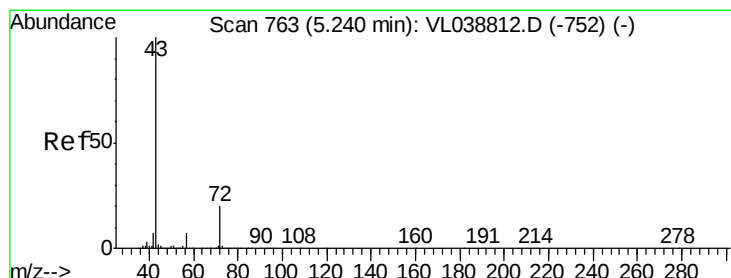
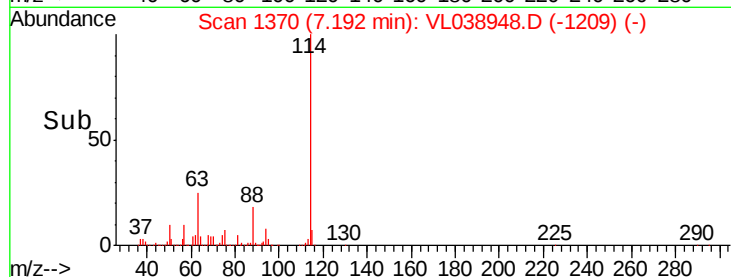
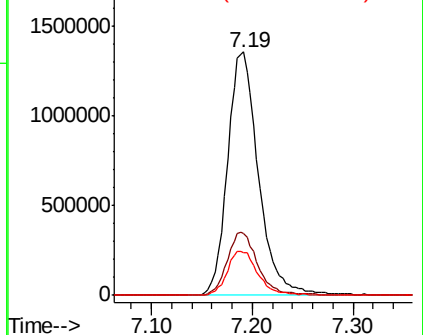


#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.19 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 19 Apr 2022 13:52

Tot Ion:114 Resp: 2890819
 Ion Ratio Lower Upper
 114 100
 63 25.9 19.8 29.8
 88 18.2 14.2 21.4

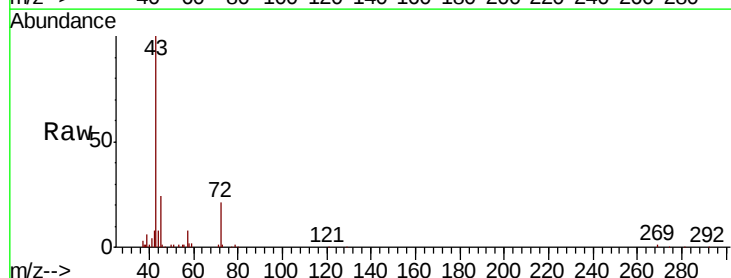


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

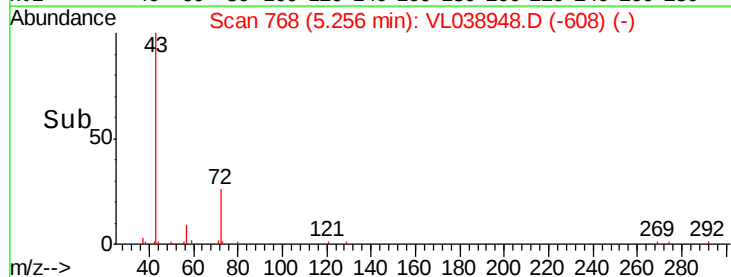
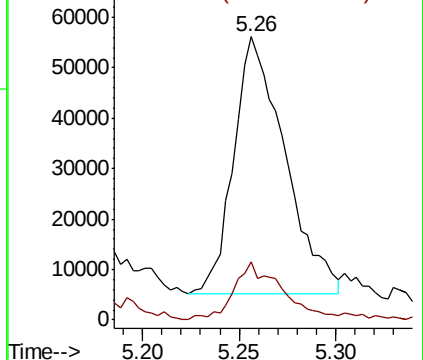


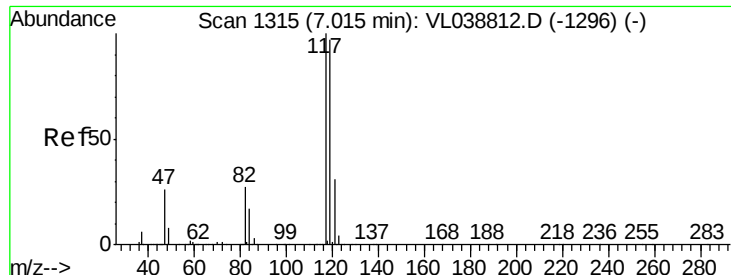
#34
 2-Butanone
 Concen: 0.819 ppbv
 RT: 5.26 min Scan# 768
 Delta R.T.: 0.02 min
 Lab File: VL038948.D
 Acq: 19 Apr 2022 13:52

Tgt Ion: 43 Resp: 93510
 Ion Ratio Lower Upper
 43 100
 72 23.7 16.9 25.3



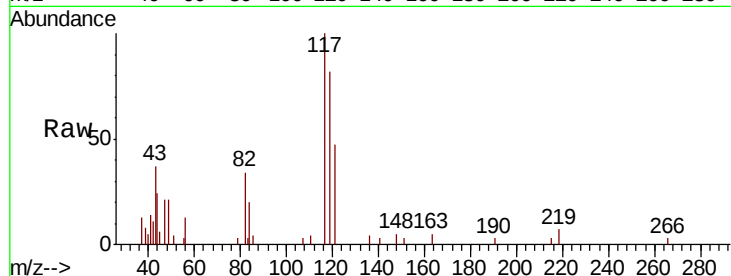
Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0



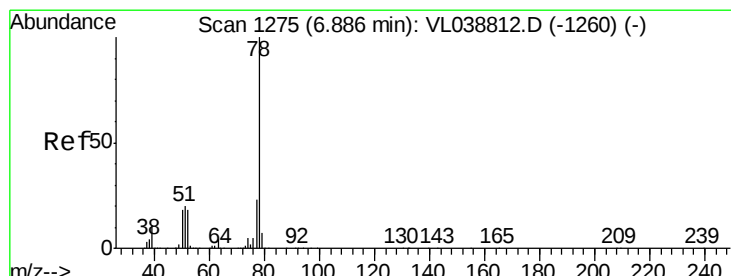
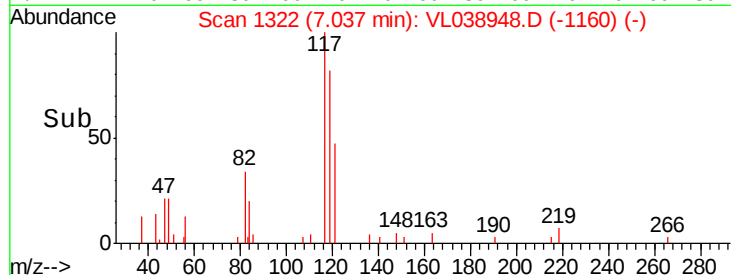
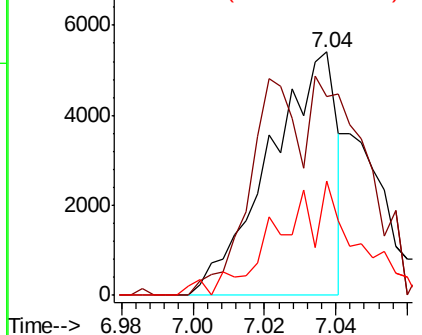


#35
 Carbon Tetrachloride
 Concen: 0.041 ppbv
 RT: 7.04 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampled:
 Acq: 19 Apr 2022 13:52

Tot Ion	Ratio	Lower	Upper
117	100		
119	81.7	77.7	116.5
121	43.0	24.5	36.7#

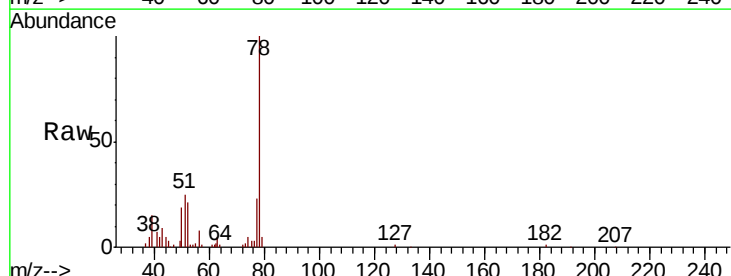


Abundance Ion 117.00 (116.70 to 117.70): V
 Ion 119.00 (118.70 to 119.70): V
 Ion 121.00 (120.70 to 121.70): V

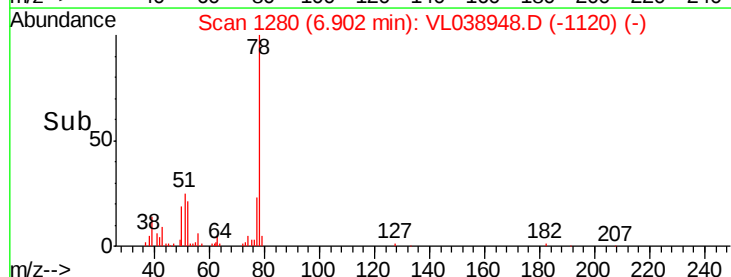
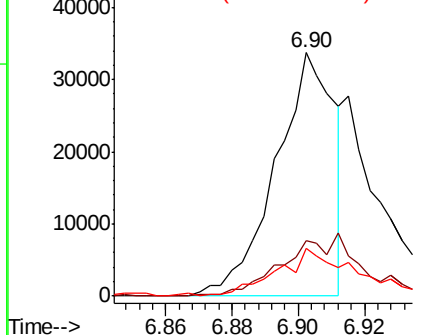


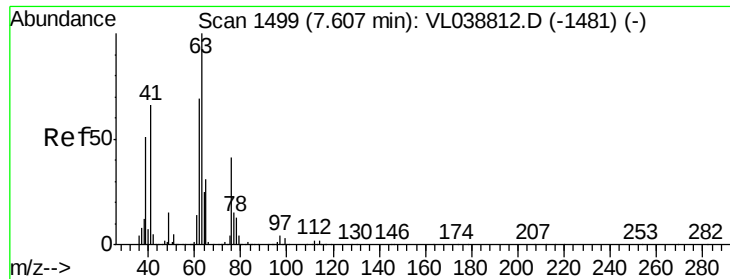
#36
 Benzene
 Concen: 0.158 ppbv
 RT: 6.90 min Scan# 1280
 Delta R.T.: 0.02 min
 Lab File: VL038948.D
 Acq: 19 Apr 2022 13:52

Tgt Ion	Ratio	Lower	Upper
78	100		
77	22.8	18.2	27.2
50	16.9	14.0	21.0



Abundance Ion 78.10 (77.80 to 78.80): VL0
 Ion 77.10 (76.80 to 77.80): VL0
 Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 7.270 ppbv

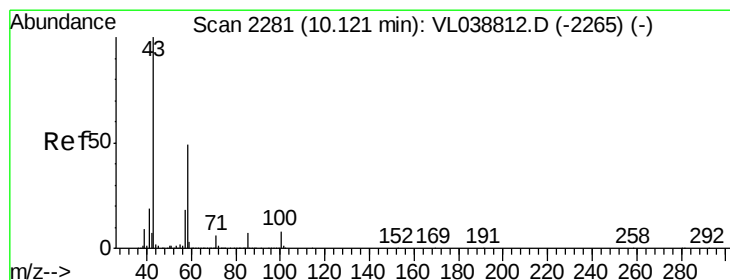
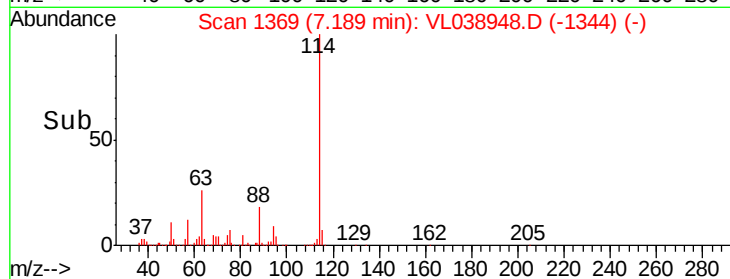
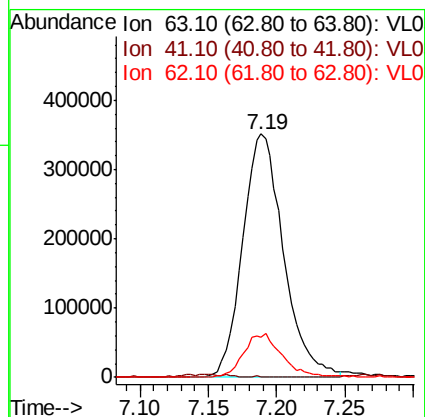
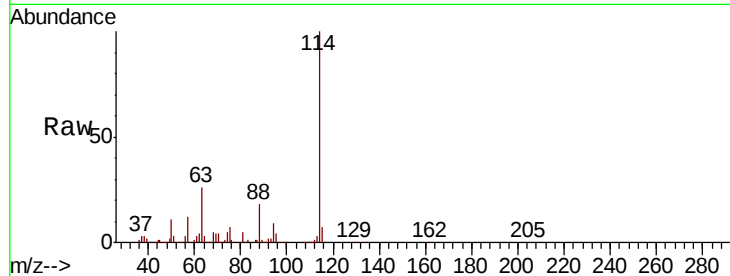
RT: 7.19 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampled :

Acq: 19 Apr 2022 13:52

Tot Ion:	63	Resp:	731307
Ion	Ratio	Lower	Upper
63	100		
41	0.0	53.0	79.6#
62	16.5	55.0	82.4#



#51

2-Hexanone

Concen: 0.041 ppbv

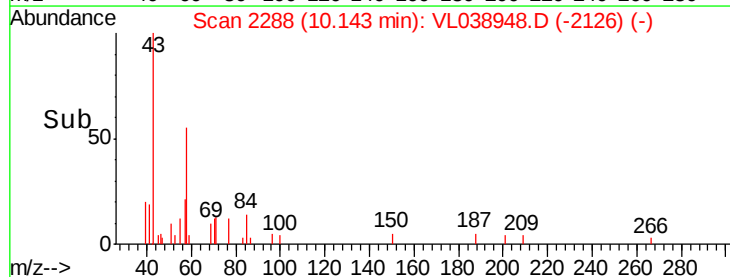
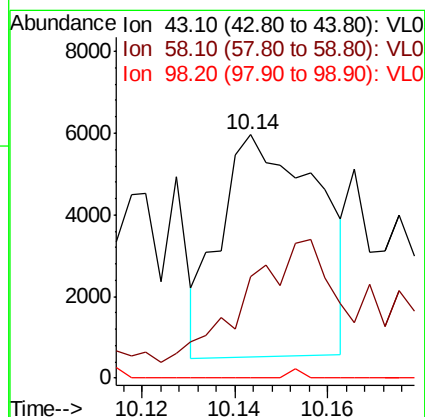
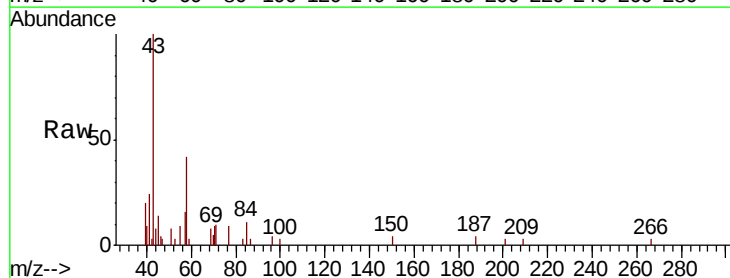
RT: 10.14 min Scan# 2288

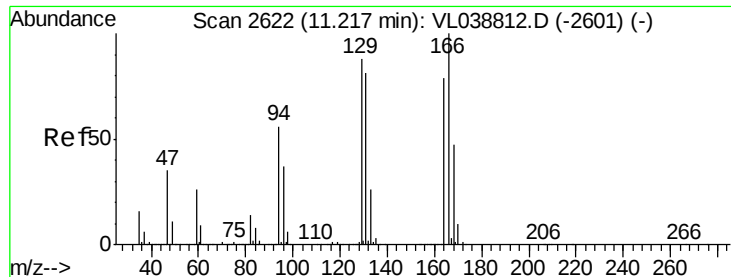
Delta R.T. 0.02 min

Lab File: VL038948.D

Acq: 19 Apr 2022 13:52

Tgt Ion:	43	Resp:	7978
Ion	Ratio	Lower	Upper
43	100		
58	0.0	41.4	62.0#
98	0.0	0.1	0.1#





#52

Tetrachloroethene

Concen: 0.086 ppbv

RT: 11.23

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 19 Apr 2022 13:52

Tot Ion:164 Resp: 7926

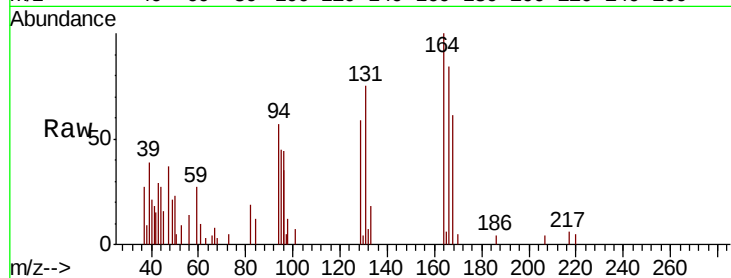
Ion Ratio Lower Upper

164 100

166 83.9 101.0 151.6#

129 59.1 88.7 133.1#

131 82.3 81.8 122.6

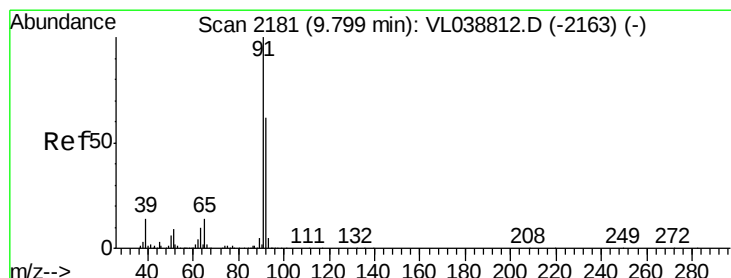
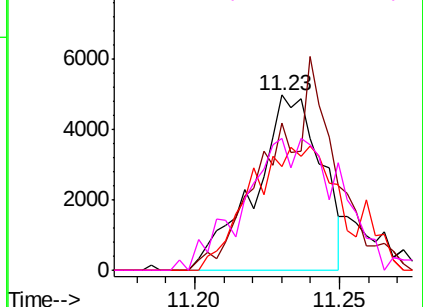
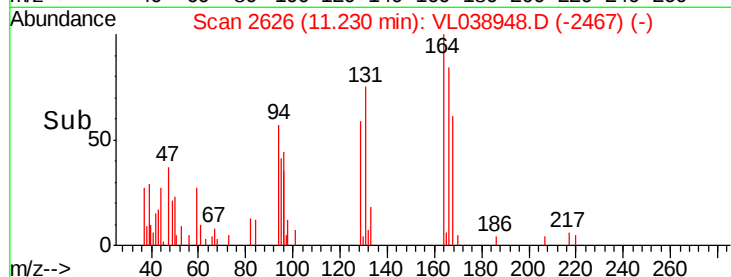


Abundance Ion 163.90 (163.60 to 164.60): V

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: 0.551 ppbv

RT: 9.82 min Scan# 2187

Delta R.T. 0.02 min

Lab File: VL038948.D

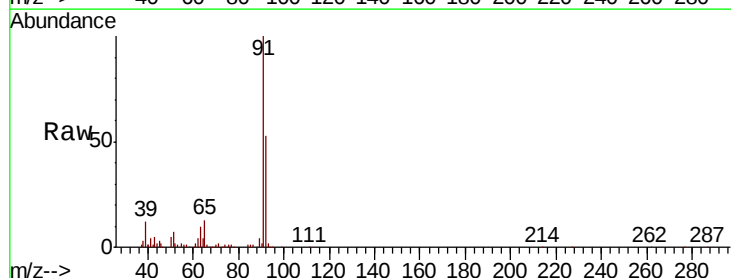
Acq: 19 Apr 2022 13:52

Tgt Ion: 91 Resp: 167243

Ion Ratio Lower Upper

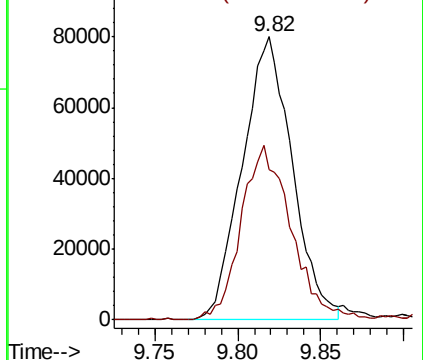
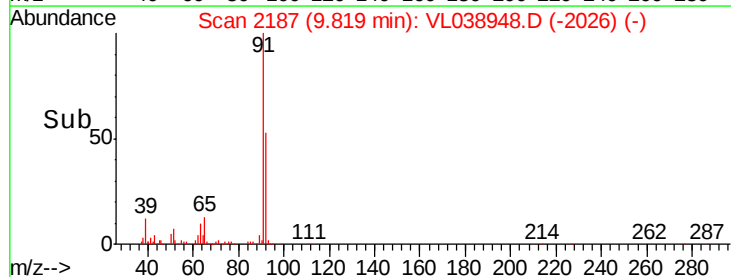
91 100

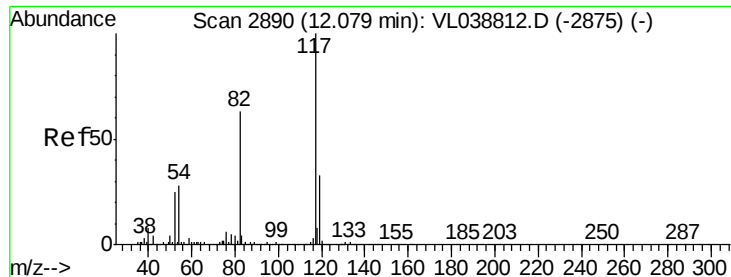
92 61.9 49.2 73.8



Abundance Ion 91.10 (90.80 to 91.80): VL0

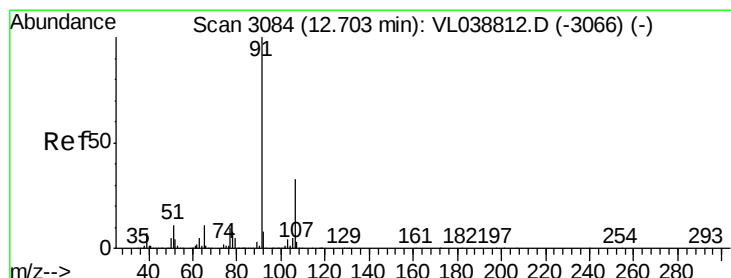
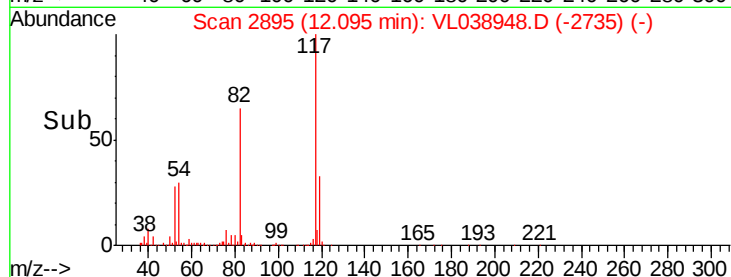
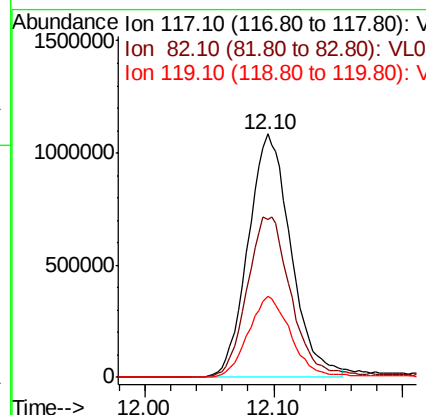
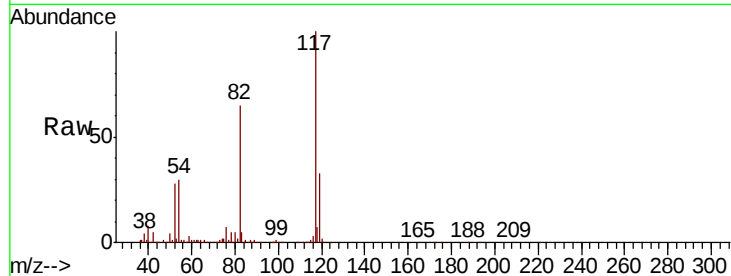
Ion 92.10 (91.80 to 92.80): VL0





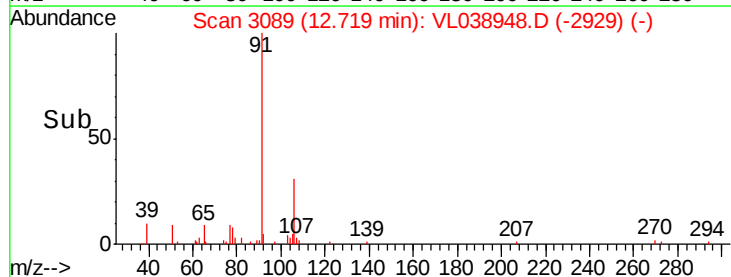
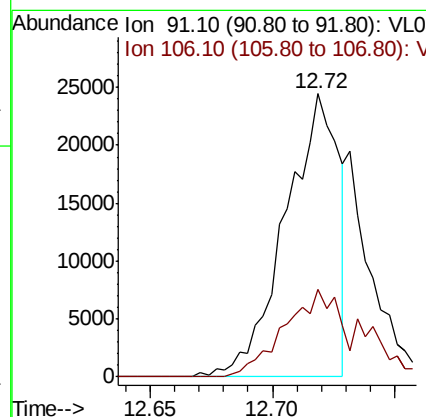
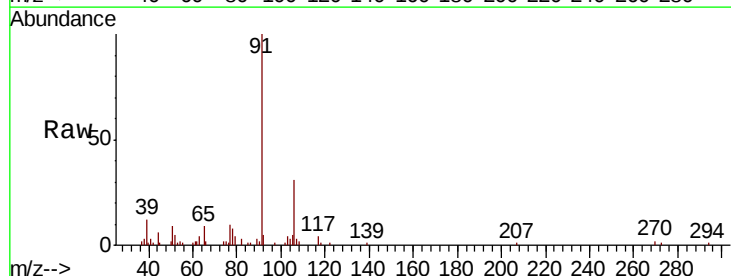
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 19 Apr 2022 13:52

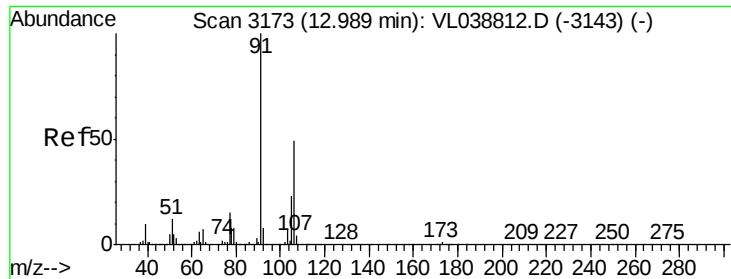
Tot Ion: 117 Resp: 2502309
Ion Ratio Lower Upper
117 100
82 70.5 53.0 79.6
119 34.4 24.9 37.3



#58
Ethyl Benzene
Concen: 0.099 ppbv
RT: 12.72 min Scan# 3089
Delta R.T.: 0.02 min
Lab File: VL038948.D
Acq: 19 Apr 2022 13:52

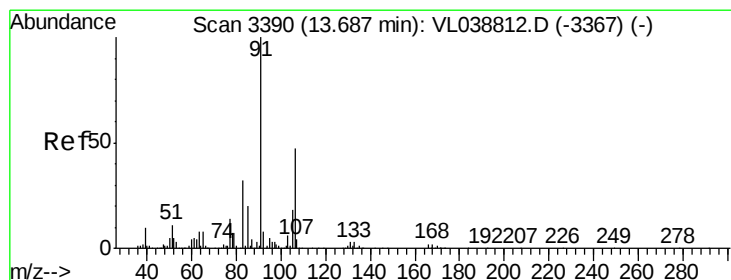
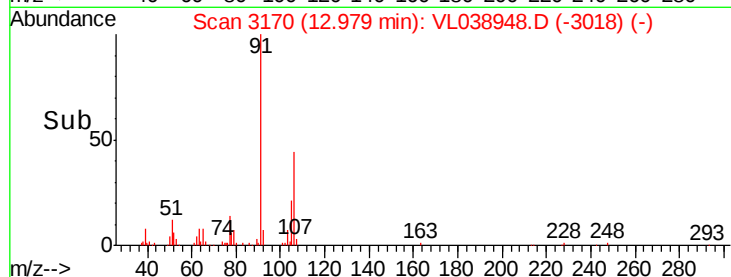
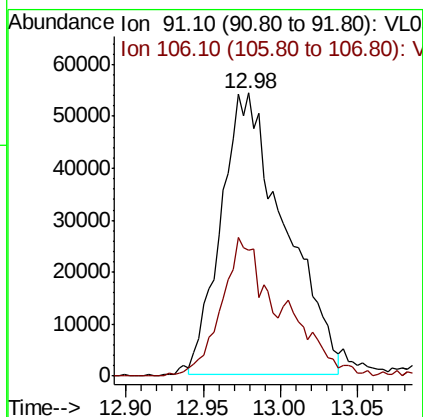
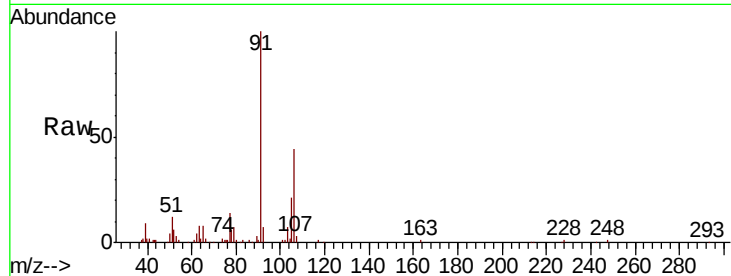
Tgt Ion: 91 Resp: 36950
Ion Ratio Lower Upper
91 100
106 30.8 26.7 40.1





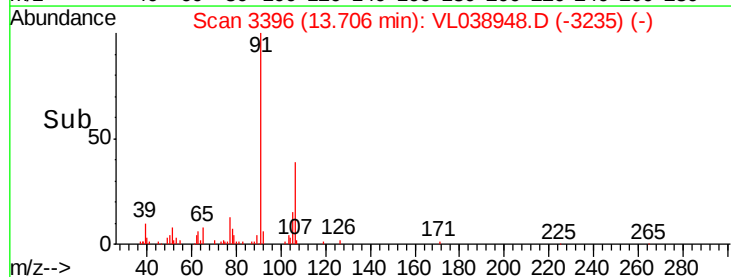
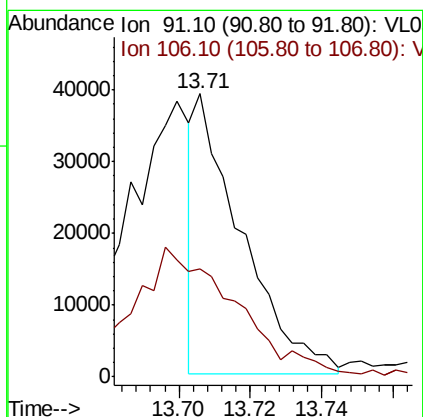
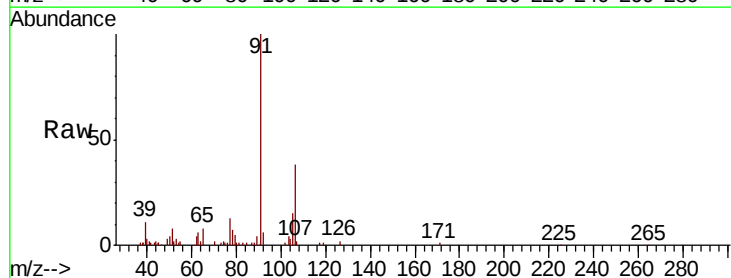
#59
m/p-Xylene
Concen: 0.497 ppbv
RT: 12.98 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 19 Apr 2022 13:52

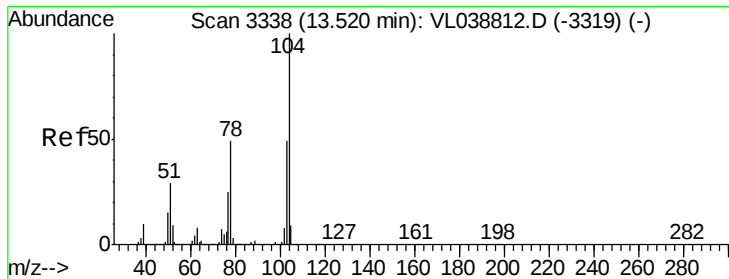
Tot Ion: 91 Resp: 156161
Ion Ratio Lower Upper
91 100
106 47.0 37.1 55.7



#60
o-Xylene
Concen: 0.119 ppbv
RT: 13.71 min Scan# 3396
Delta R.T. 0.02 min
Lab File: VL038948.D
Acq: 19 Apr 2022 13:52

Tgt Ion: 91 Resp: 35074
Ion Ratio Lower Upper
91 100
106 0.0 23.8 71.4#





#61

Stvrene

Concen: 0.069 ppbv

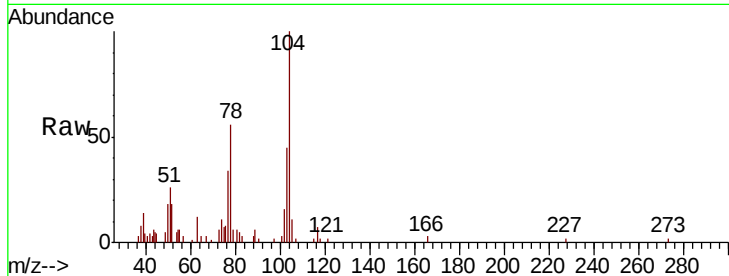
RT: 13.54 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 19 Apr 2022 13:52

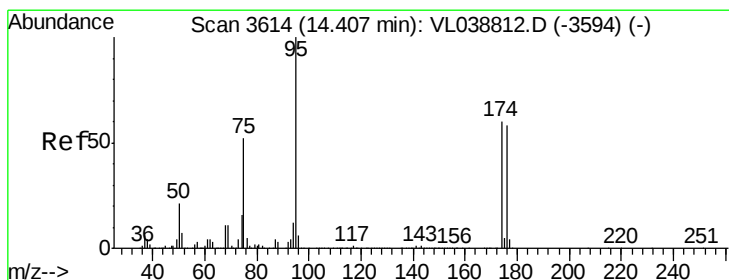
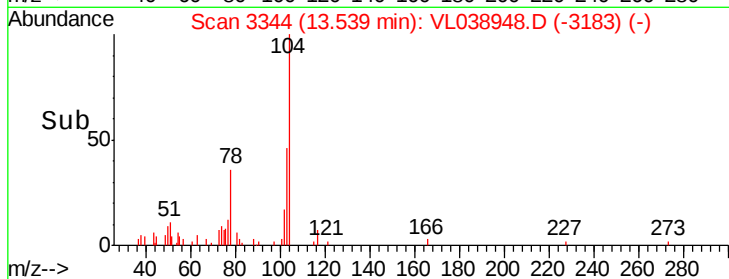
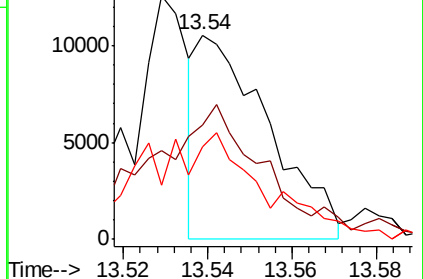
Tot Ion:	104	Resp:	12417
Ion	Ratio	Lower	Upper
104	100		
78	116.9	40.5	60.7#
103	96.5	39.0	58.4#



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.390 ppbv

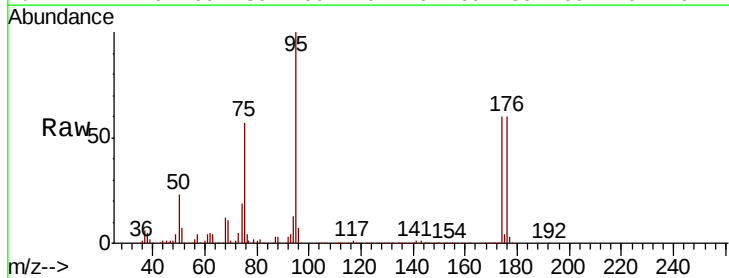
RT: 14.43 min Scan# 3620

Delta R.T. 0.02 min

Lab File: VL038948.D

Acq: 19 Apr 2022 13:52

Tgt Ion:	95	Resp:	1972111
Ion	Ratio	Lower	Upper
95	100		
174	63.3	52.0	78.0
175	4.6	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

