

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032322\
 Data File : VL038726.D
 Acq On : 23 Mar 2022 21:51
 Operator : SY/AP
 Sample : N2047-04
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 C0PA2

Quant Time: Mar 24 04:35:39 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032122AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Mar 21 17:09:26 2022
 QLast Update : Mon Mar 21 17:09:26 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	710354	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	1916709	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	1754447	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	1266144	9.41	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.10%

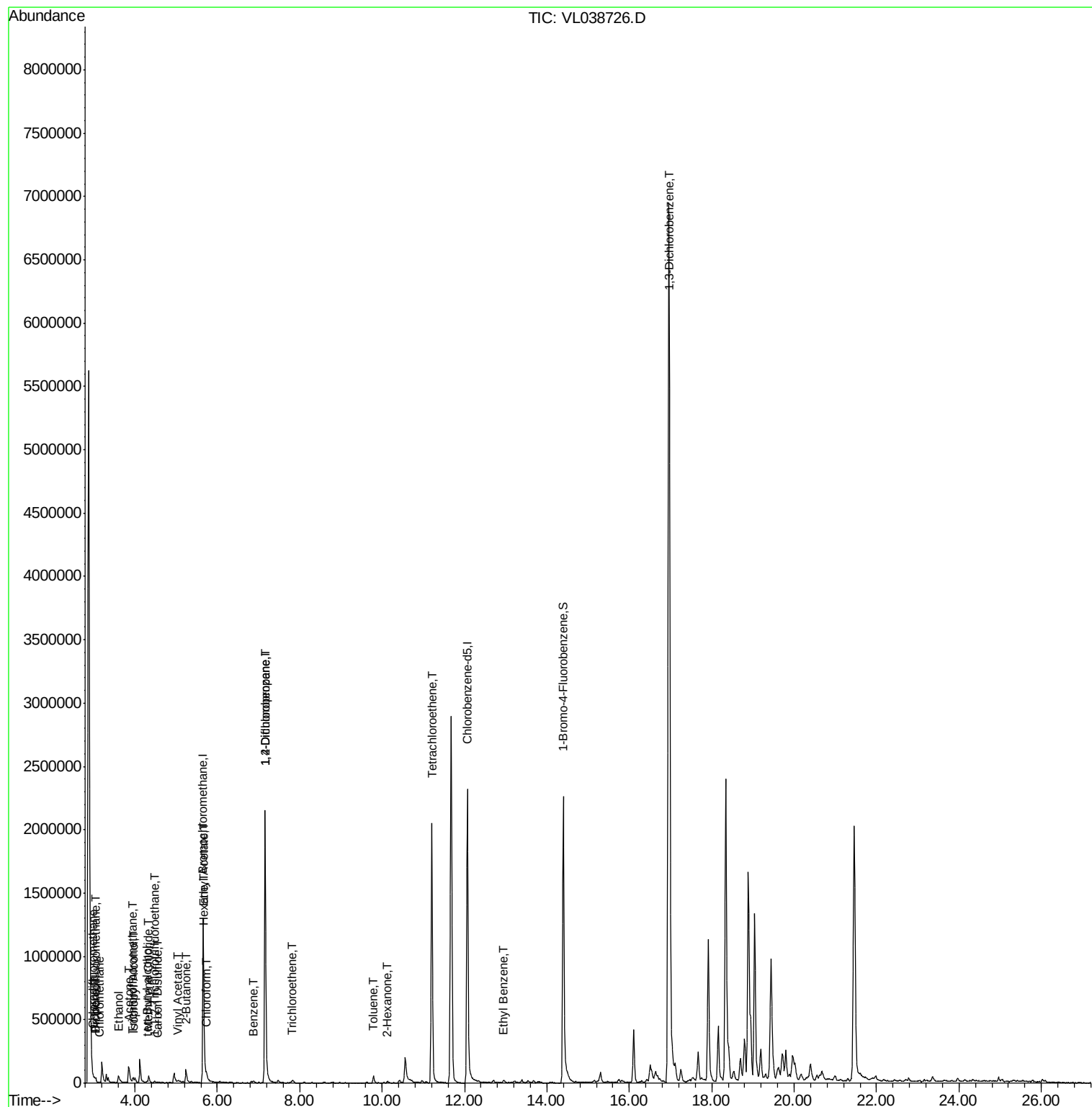
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	25176	0.264	ppbv 97
3) Chlorodifluoromethane	2.99	51	23965	0.319	ppbv 94
4) Chloromethane	3.14	50	2818	0.068	ppbv 98
9) Propene	3.02	41	10755	0.297	ppbv 91
11) Trichlorofluoromethane	3.94	101	22896	0.272	ppbv 88
12) 1,1,2-Trichlorotrifluoroet	4.48	101	5044	0.078	ppbv # 70
13) Ethanol	3.60	45	76487	19.143	ppbv 88
15) Acetone	3.85	43	178921	2.919	ppbv # 86
17) tert-Butyl alcohol	4.29	59	4353	0.081	ppbv # 73
19) Isopropyl Alcohol	3.97	45	25403	0.747	ppbv # 1
20) Methylene Chloride	4.33	84	19933	0.772	ppbv 91
23) Vinyl Acetate	5.05	43	7131	0.120	ppbv # 20
25) Ethyl Acetate	5.67	43	17500	0.113	ppbv # 87
26) Hexane	5.68	57	17776	0.257	ppbv # 55
27) Carbon Disulfide	4.55	76	4692	0.069	ppbv # 10
29) Chloroform	5.74	83	32570	0.294	ppbv 92
34) 2-Butanone	5.24	43	146751	1.934	ppbv 95
36) Benzene	6.87	78	6014	0.041	ppbv 94
38) Trichloroethene	7.82	130	2253	0.036	ppbv # 59
39) 1,2-Dichloropropane	7.16	63	428516	7.410	ppbv # 28
51) 2-Hexanone	10.13	43	4861	0.048	ppbv # 27
52) Tetrachloroethene	11.21	164	571223	10.552	ppbv 97
53) Toluene	9.79	91	48395	0.304	ppbv 96
58) Ethyl Benzene	12.95	91	11585	0.056	ppbv 97
75) 1,3-Dichlorobenzene	16.98	146	11505	0.090	ppbv # 1

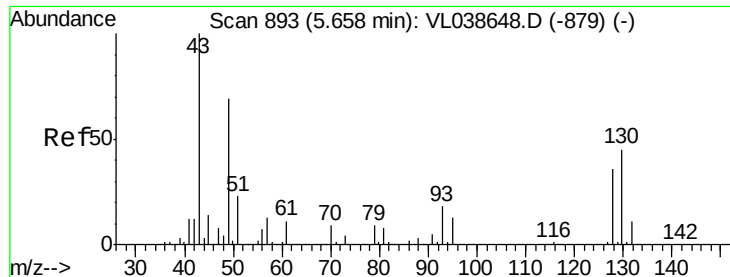
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 23 Mar 2022 21:51

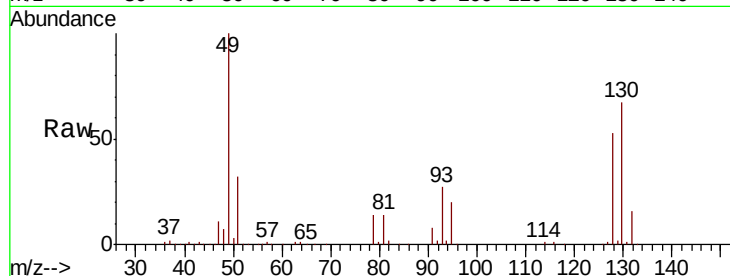
Tot Ion: 49 Resp: 710354

Ion Ratio Lower Upper

49 100

128 57.0 26.2 78.6

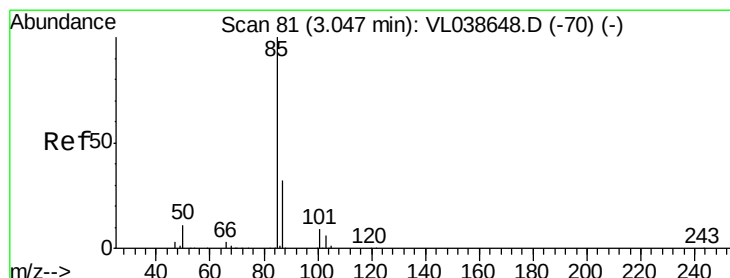
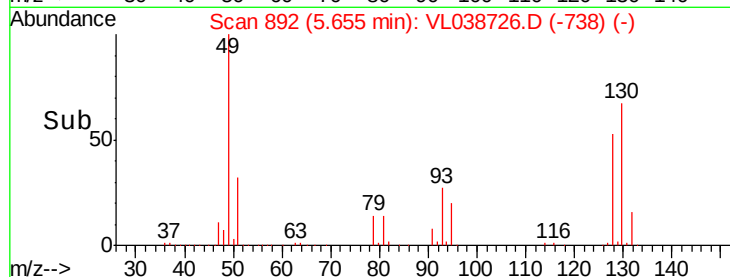
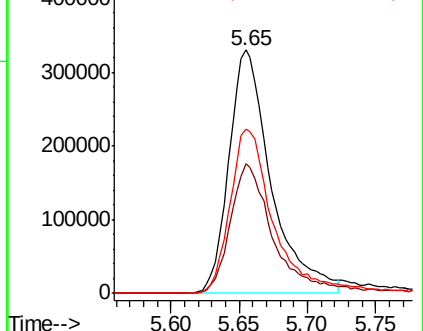
130 72.6 33.7 101.1



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: 0.264 ppbv

RT: 3.05 min Scan# 81

Delta R.T. -0.00 min

Lab File: VL038726.D

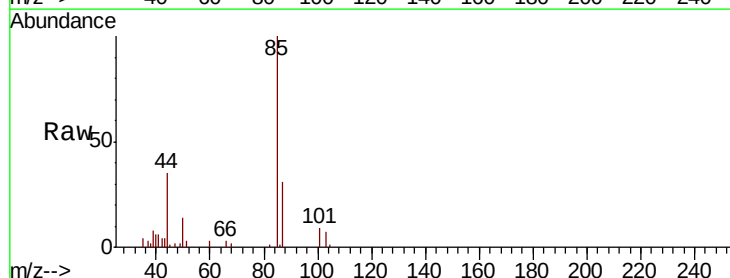
Acq: 23 Mar 2022 21:51

Tgt Ion: 85 Resp: 25176

Ion Ratio Lower Upper

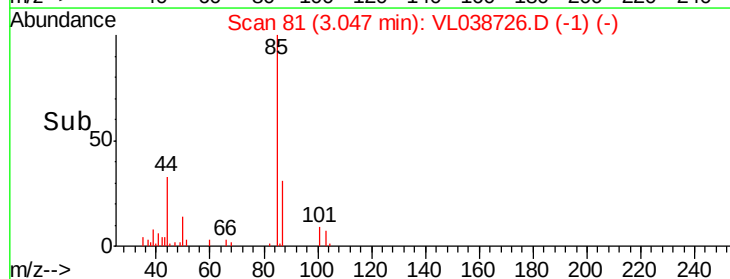
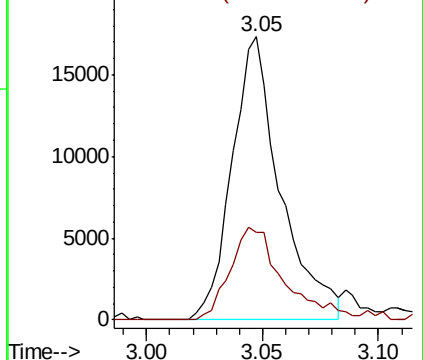
85 100

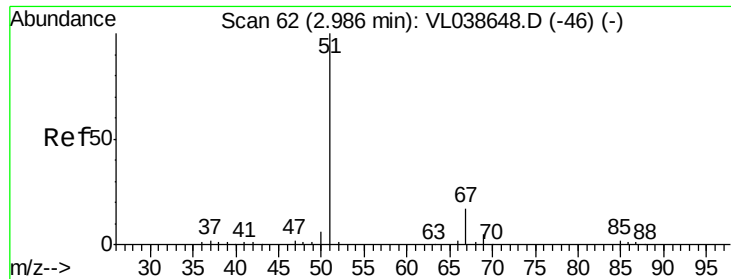
87 30.7 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

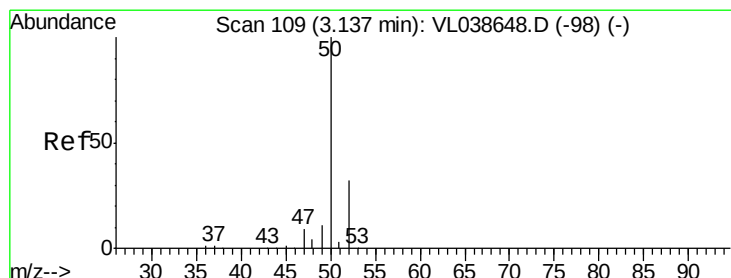
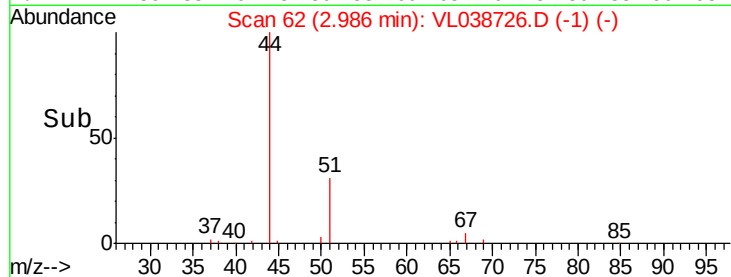
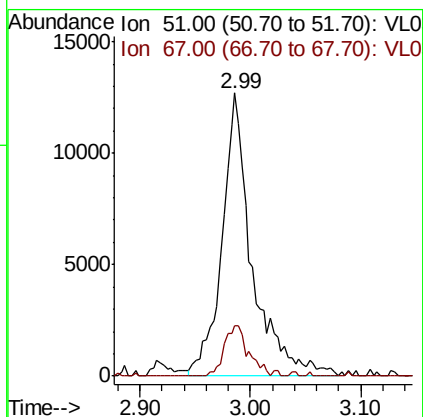
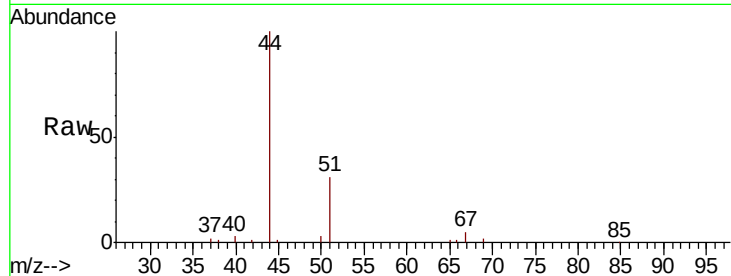
Ion 87.00 (86.70 to 87.70): VL0





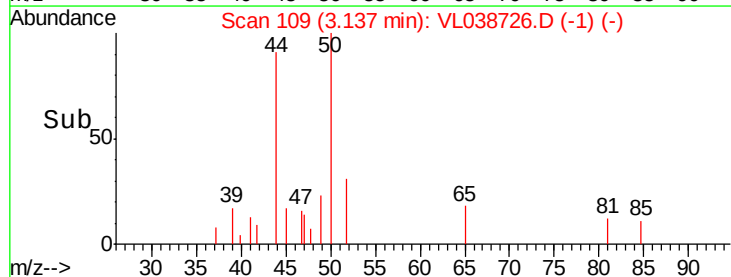
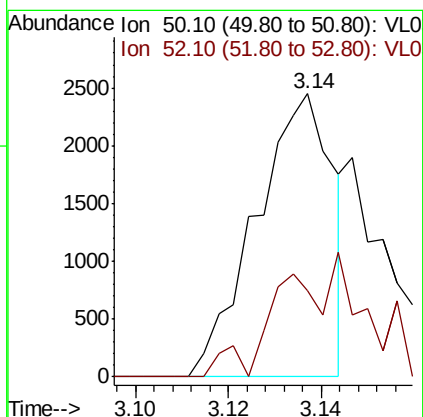
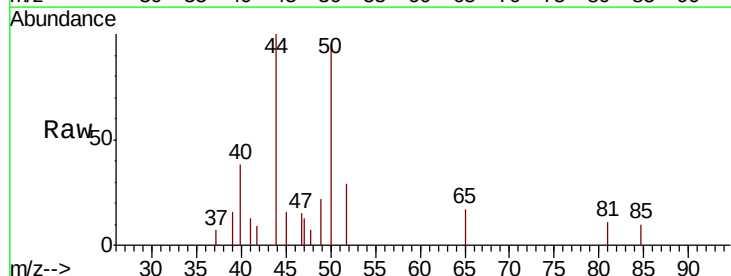
#3
 Chlorodifluoromethane
 Concen: 0.319 ppbv
 RT: 2.99
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 C0PA2
 Acq: 23 Mar 2022 21:51

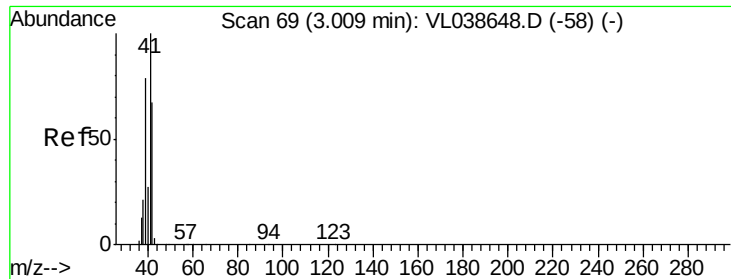
Tot Ion: 51 Resp: 23965
 Ion Ratio Lower Upper
 51 100
 67 15.1 14.1 21.1



#4
 Chloromethane
 Concen: 0.068 ppbv
 RT: 3.14 min Scan# 109
 Delta R.T. -0.00 min
 Lab File: VL038726.D
 Acq: 23 Mar 2022 21:51

Tgt Ion: 50 Resp: 2818
 Ion Ratio Lower Upper
 50 100
 52 30.6 25.5 38.3





#9

Propene

Concen: 0.297 ppbv

RT: 3.02 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

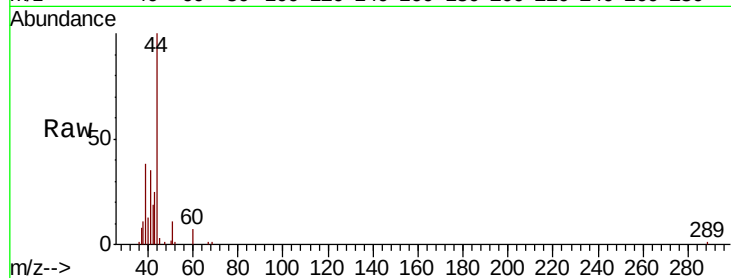
Acq: 23 Mar 2022 21:51

Tot Ion: 41 Resp: 10755

Ion Ratio Lower Upper

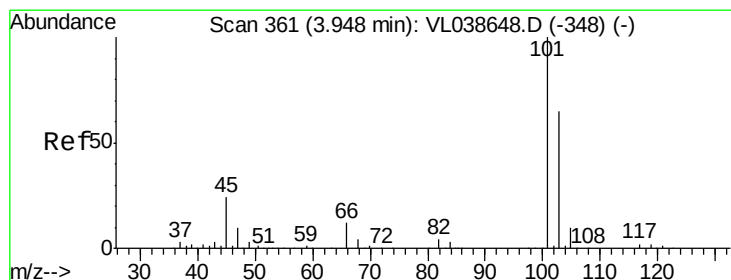
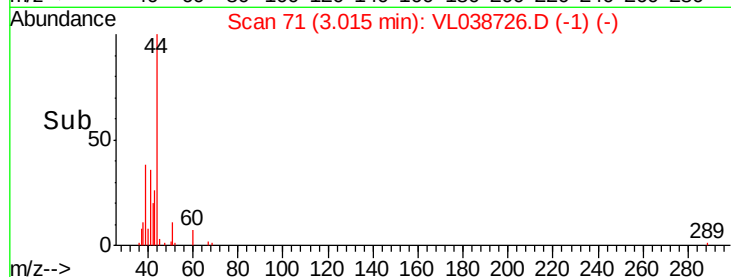
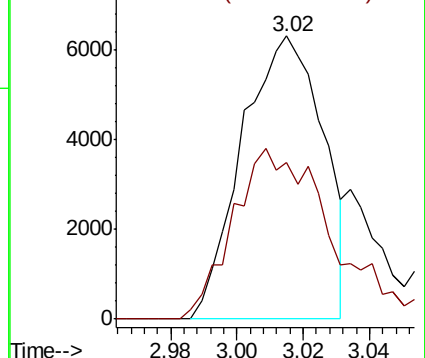
41 100

42 77.5 56.2 84.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#11

Trichlorofluoromethane

Concen: 0.272 ppbv

RT: 3.94 min Scan# 360

Delta R.T. -0.00 min

Lab File: VL038726.D

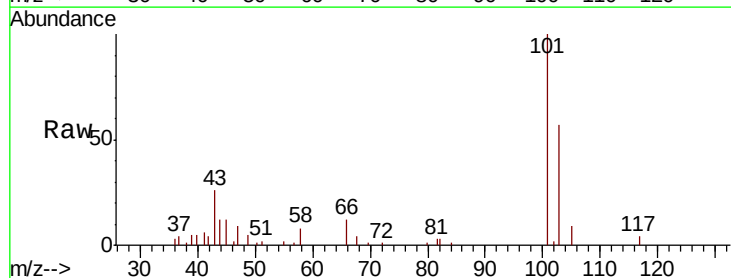
Acq: 23 Mar 2022 21:51

Tgt Ion: 101 Resp: 22896

Ion Ratio Lower Upper

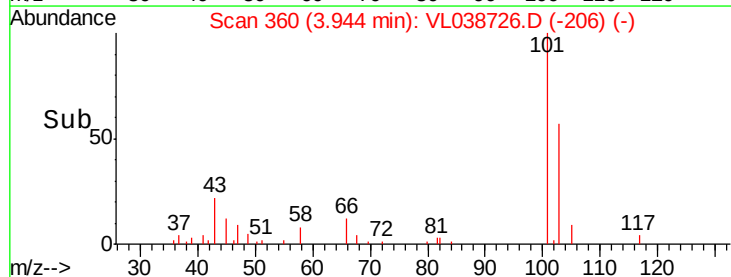
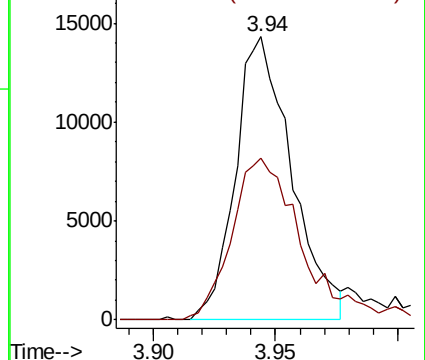
101 100

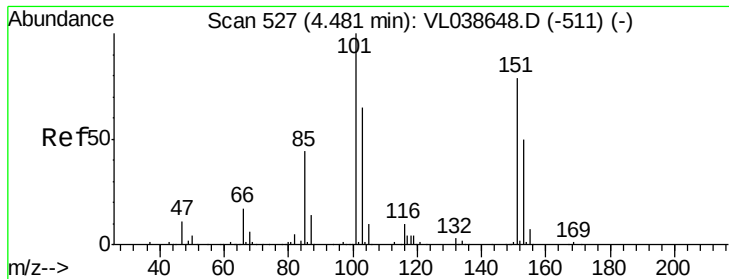
103 55.4 51.9 77.9



Abundance Ion 101.00 (100.70 to 101.70): V

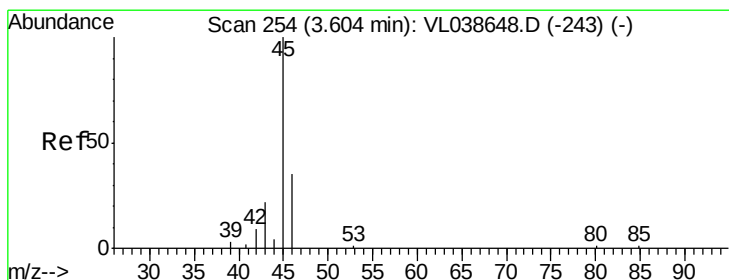
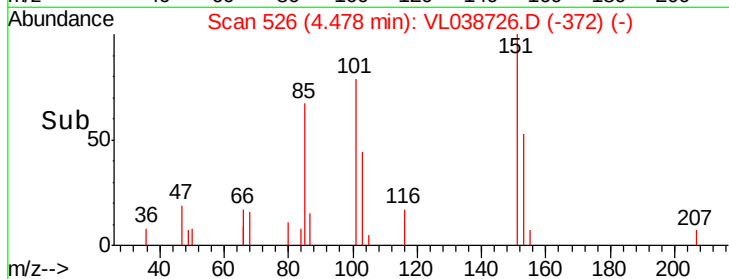
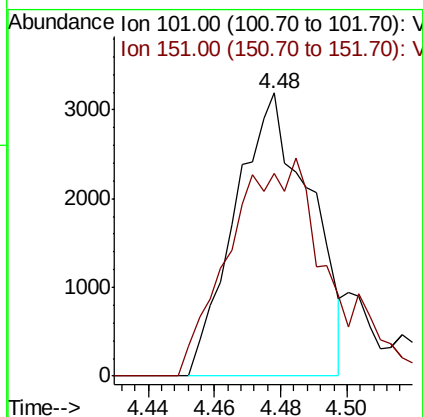
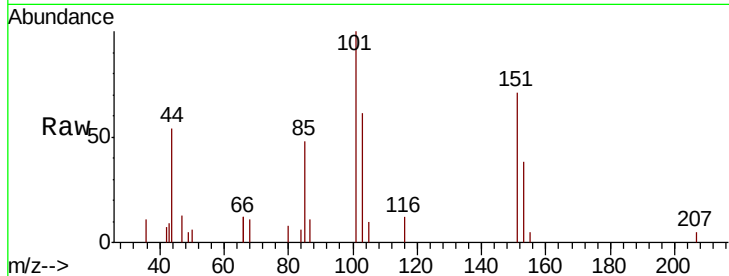
Ion 103.00 (102.70 to 103.70): V





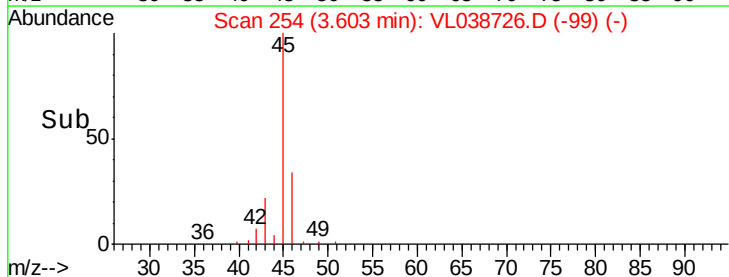
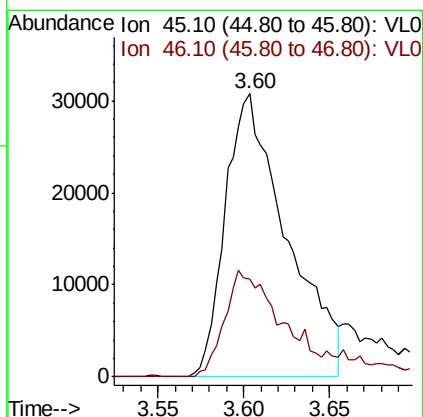
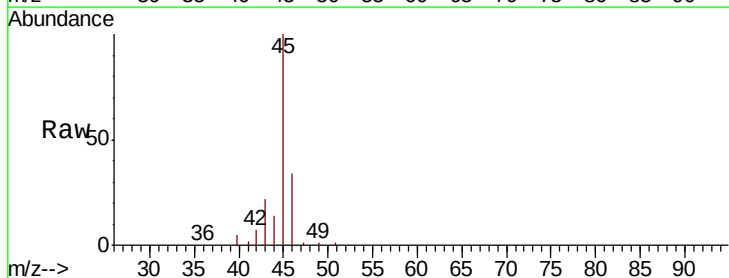
#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.078 ppbv
 RT: 4.48
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 C0PA2
 Acq: 23 Mar 2022 21:51

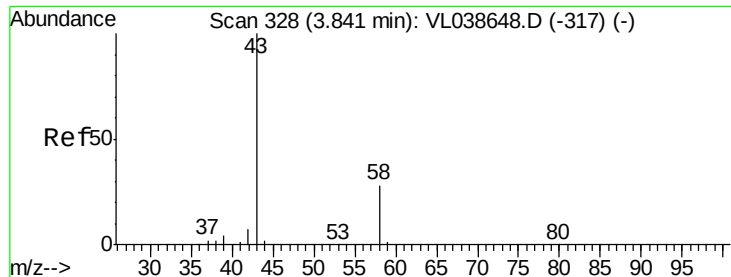
Tot Ion: 101 Resp: 5044
 Ion Ratio Lower Upper
 101 100
 151 105.0 62.9 94.3#



#13
 Ethanol
 Concen: 19.143 ppbv
 RT: 3.60 min Scan# 254
 Delta R.T. -0.00 min
 Lab File: VL038726.D
 Acq: 23 Mar 2022 21:51

Tgt Ion: 45 Resp: 76487
 Ion Ratio Lower Upper
 45 100
 46 45.3 15.1 60.5





#15

Acetone

Concen: 2.919 ppbv

RT: 3.85 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

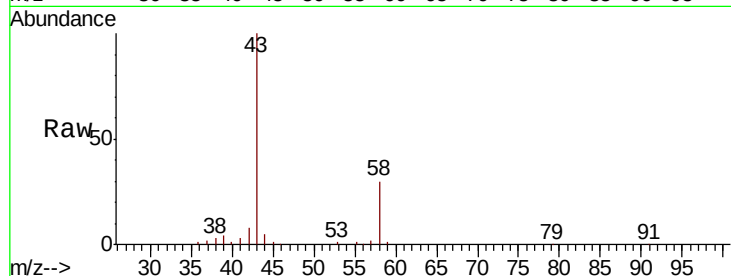
Acq: 23 Mar 2022 21:51

Tot Ion: 43 Resp: 178921

Ion Ratio Lower Upper

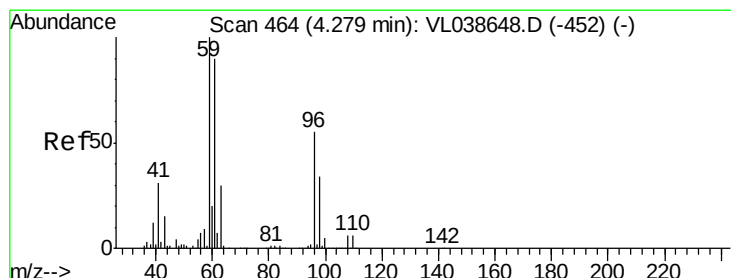
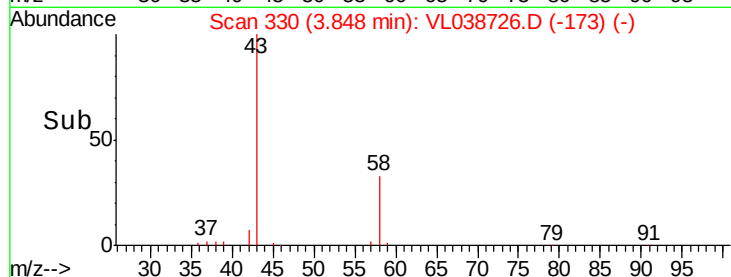
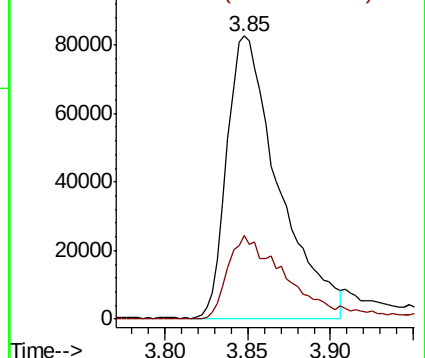
43 100

58 36.5 23.3 34.9#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#17

tert-Butyl alcohol

Concen: 0.081 ppbv

RT: 4.29 min Scan# 466

Delta R.T. 0.01 min

Lab File: VL038726.D

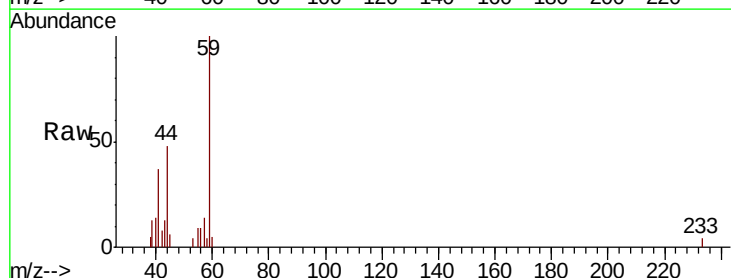
Acq: 23 Mar 2022 21:51

Tgt Ion: 59 Resp: 4353

Ion Ratio Lower Upper

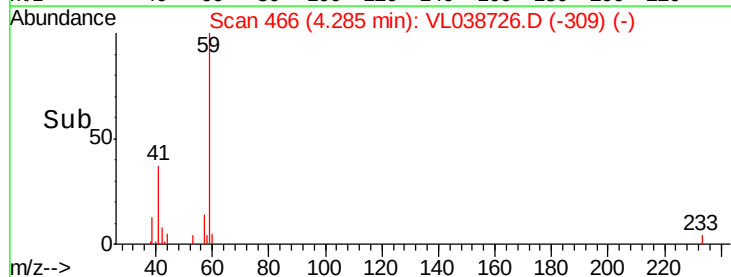
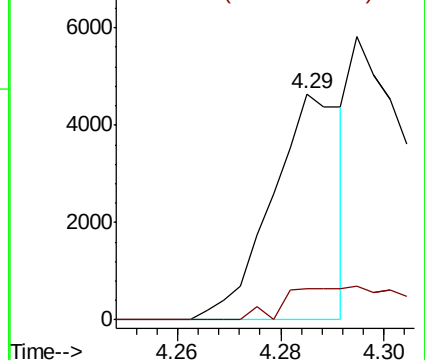
59 100

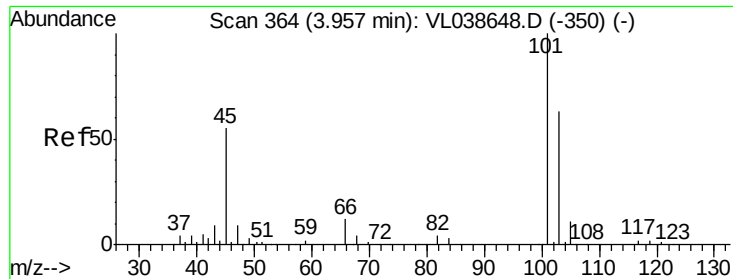
57 0.0 8.2 12.2#



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#19

Isopropyl Alcohol

Concen: 0.747 ppbv

RT: 3.97 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

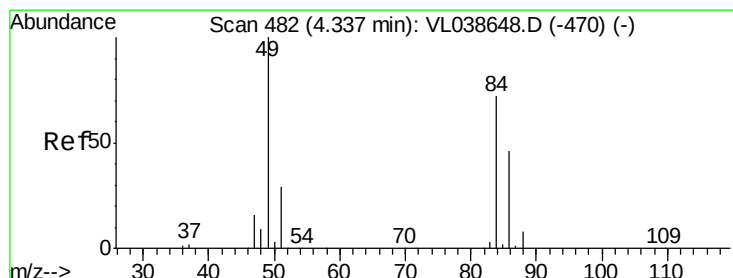
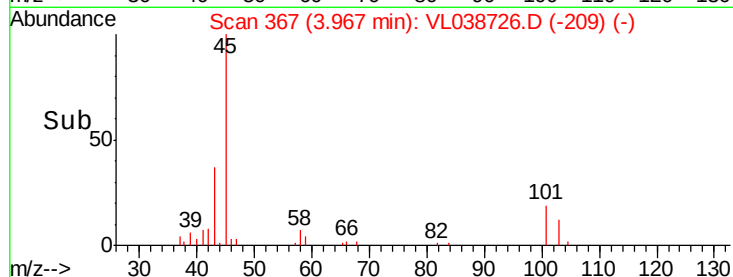
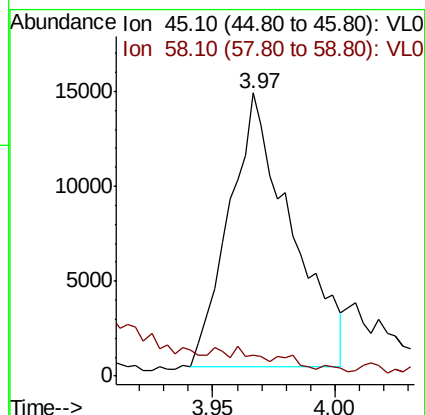
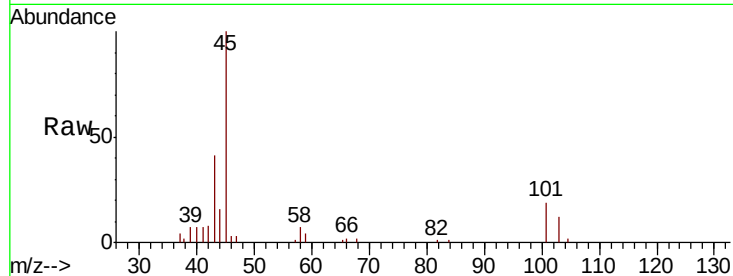
Acq: 23 Mar 2022 21:51

Tot Ion: 45 Resp: 25403

Ion Ratio Lower Upper

45 100

58 257.0 2.3 3.5#



#20

Methylene Chloride

Concen: 0.772 ppbv

RT: 4.33 min Scan# 481

Delta R.T. -0.00 min

Lab File: VL038726.D

Acq: 23 Mar 2022 21:51

Tgt Ion: 84 Resp: 19933

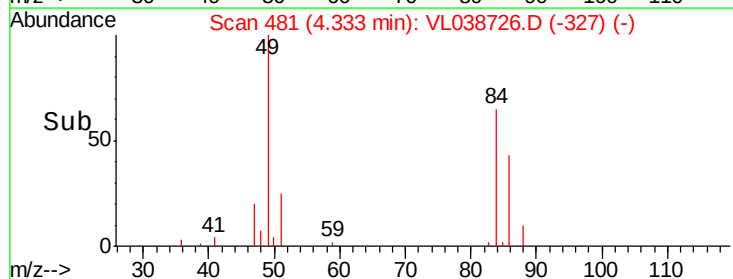
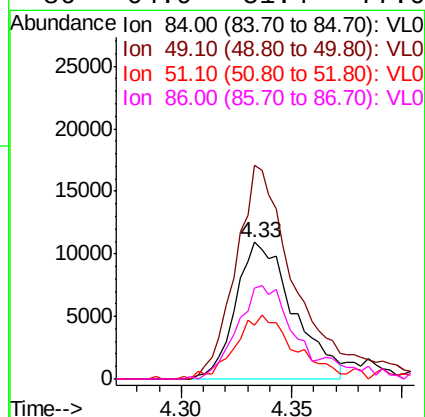
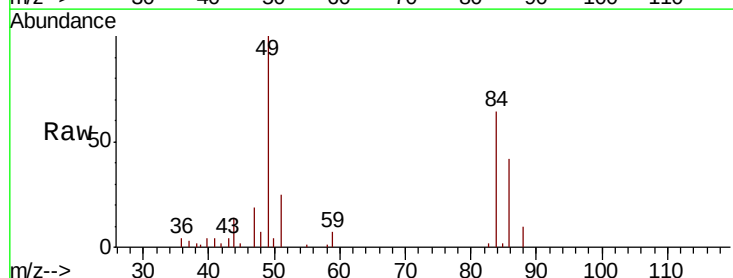
Ion Ratio Lower Upper

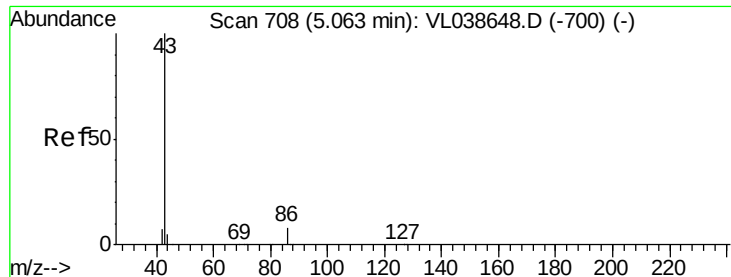
84 100

49 156.5 111.2 166.8

51 39.4 32.8 49.2

86 64.9 51.4 77.0





#23

Vinyl Acetate

Concen: 0.120 ppbv

RT: 5.05 Instrument: MSVOA_1

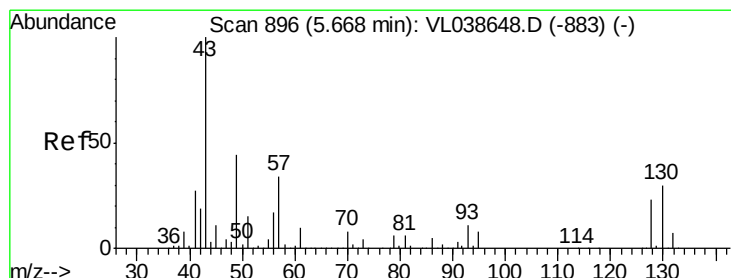
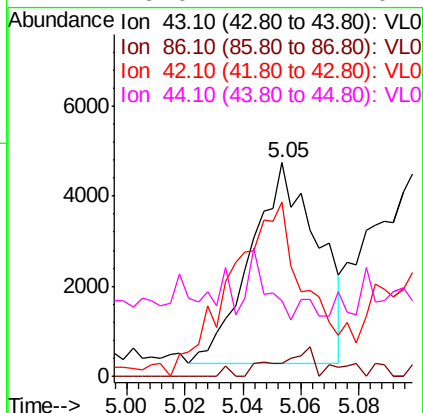
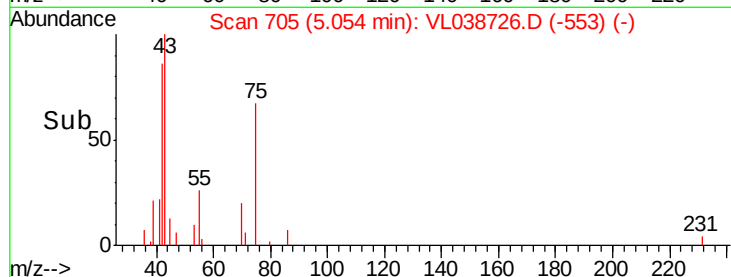
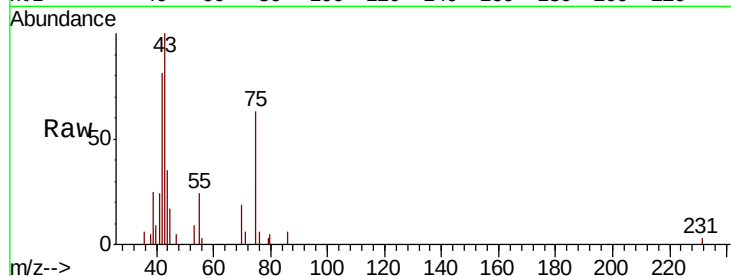
Delta R.T. ClientSampleId:

Lab File: COPA2

Acq: 23 Mar 2022 21:51

Tot Ion: 43 Resp: 7131

Ion	Ratio	Lower	Upper
43	100		
86	6.6	5.6	8.4
42	74.6	6.8	10.2#
44	0.0	4.2	6.2#



#25

Ethyl Acetate

Concen: 0.113 ppbv

RT: 5.67 min Scan# 898

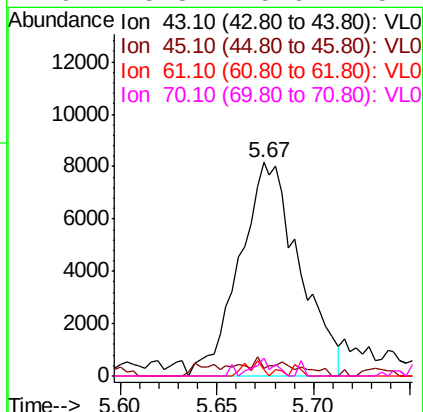
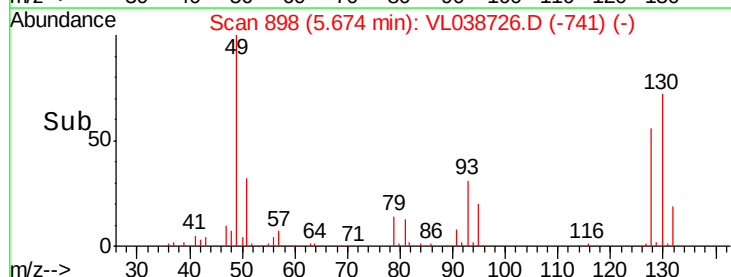
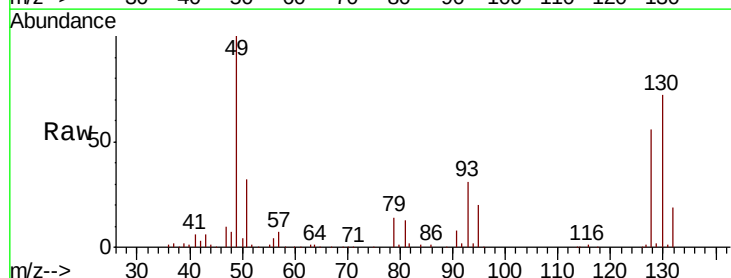
Delta R.T. 0.01 min

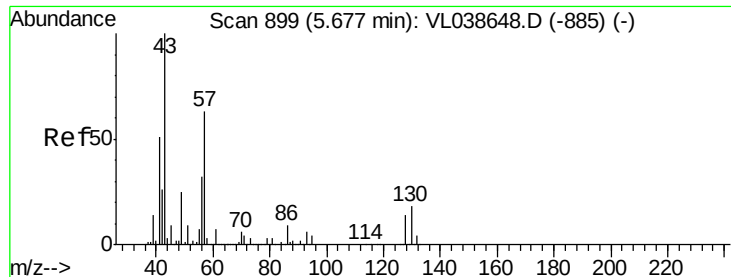
Lab File: VL038726.D

Acq: 23 Mar 2022 21:51

Tgt Ion: 43 Resp: 17500

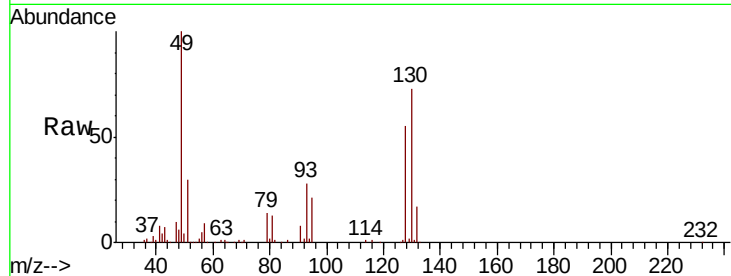
Ion	Ratio	Lower	Upper
43	100		
45	7.5	8.2	12.4#
61	2.4	8.3	12.5#
70	3.8	5.6	8.4#



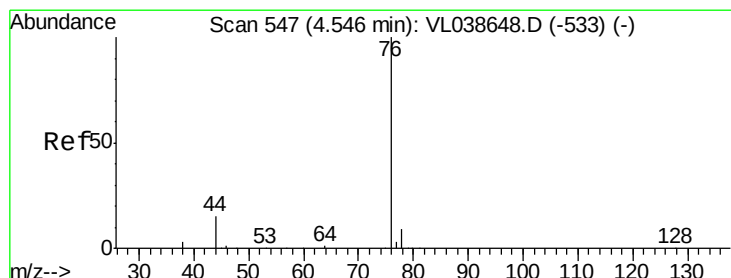
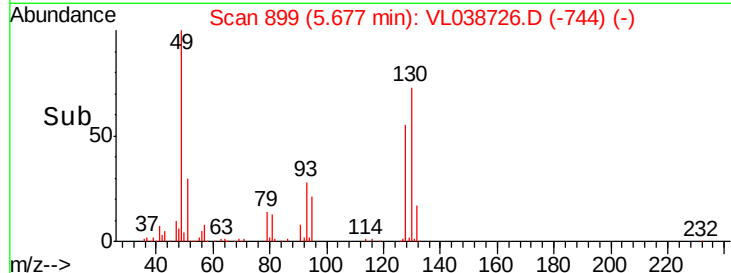
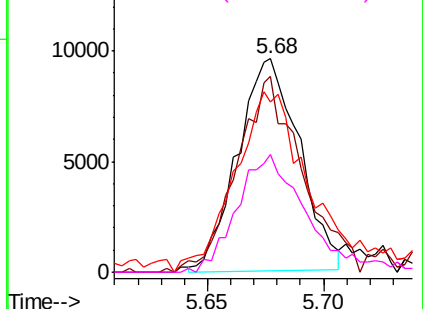


#26
Hexane
Concen: 0.257 ppbv
RT: 5.68
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 23 Mar 2022 21:51

Tot Ion: 57 Resp: 17776
Ion Ratio Lower Upper
57 100
41 102.8 67.0 100.4#
43 130.4 184.2 276.2#
56 63.4 42.6 64.0

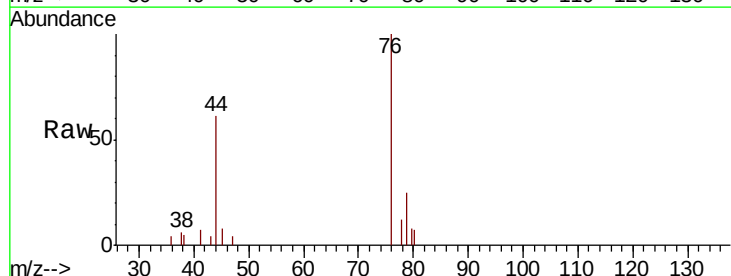


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

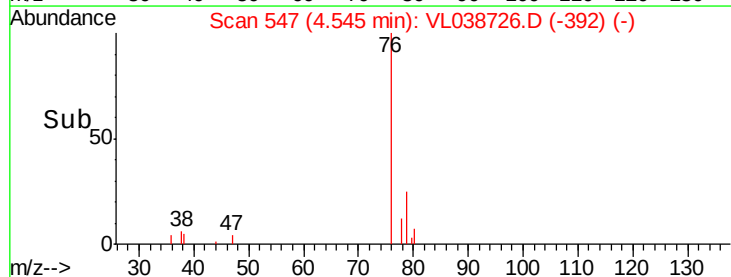
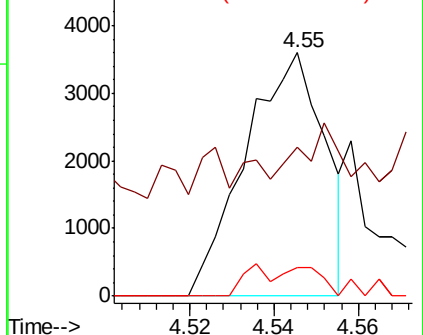


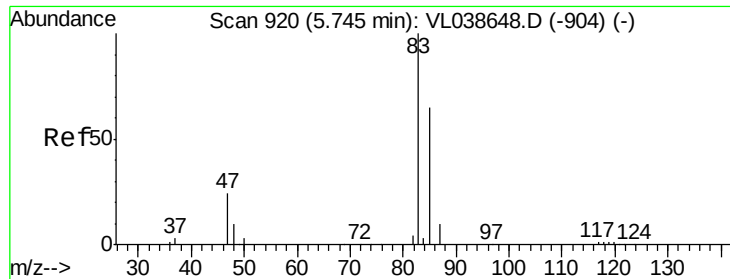
#27
Carbon Disulfide
Concen: 0.069 ppbv
RT: 4.55 min Scan# 547
Delta R.T. -0.00 min
Lab File: VL038726.D
Acq: 23 Mar 2022 21:51

Tgt Ion: 76 Resp: 4692
Ion Ratio Lower Upper
76 100
44 74.7 12.4 18.6#
78 13.0 7.8 11.8#



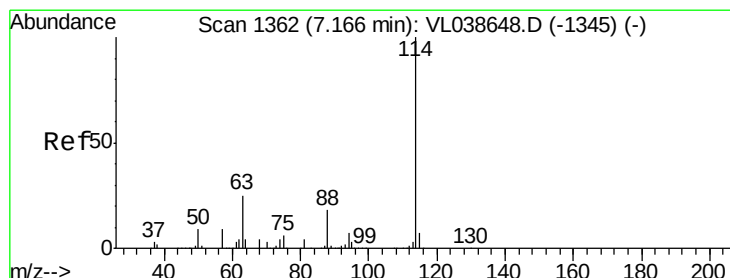
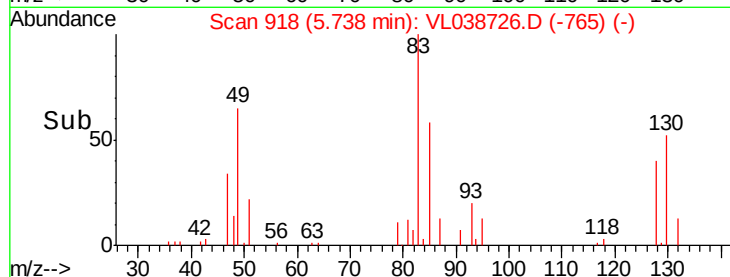
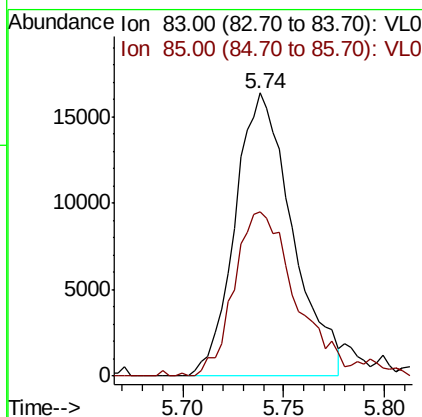
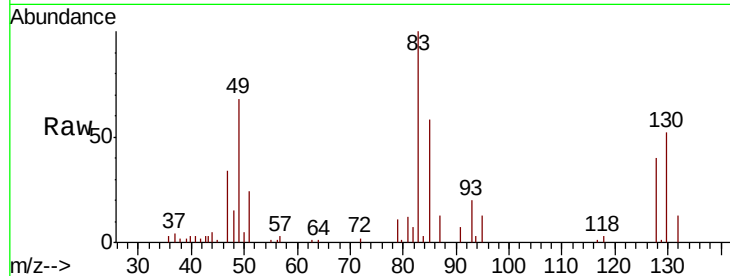
Abundance Ion 76.00 (75.70 to 76.70): VL0
Ion 44.10 (43.80 to 44.80): VL0
Ion 78.00 (77.70 to 78.70): VL0





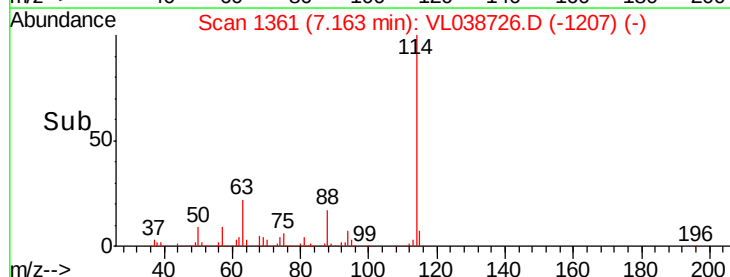
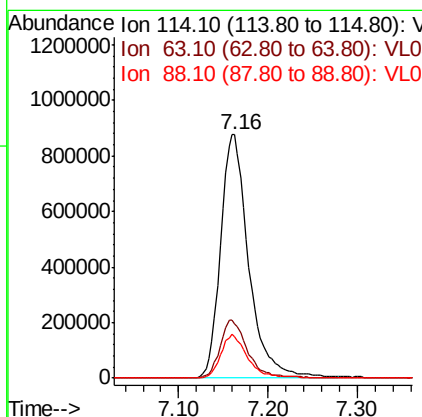
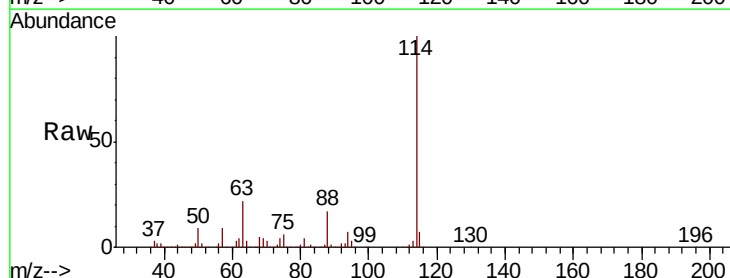
#29
 Chloroform
 Concen: 0.294 ppbv
 RT: 5.74
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 23 Mar 2022 21:51

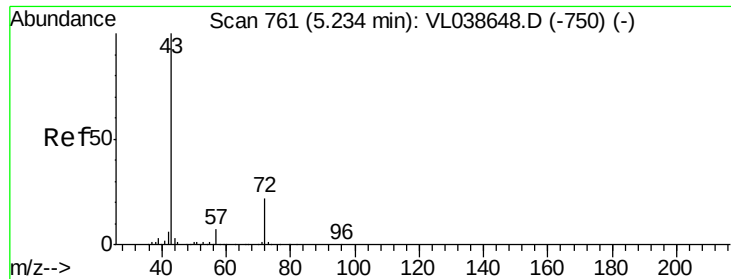
Tot Ion: 83 Resp: 32570
 Ion Ratio Lower Upper
 83 100
 85 58.1 51.7 77.5



#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16 min Scan# 1361
 Delta R.T. -0.00 min
 Lab File: VL038726.D
 Acq: 23 Mar 2022 21:51

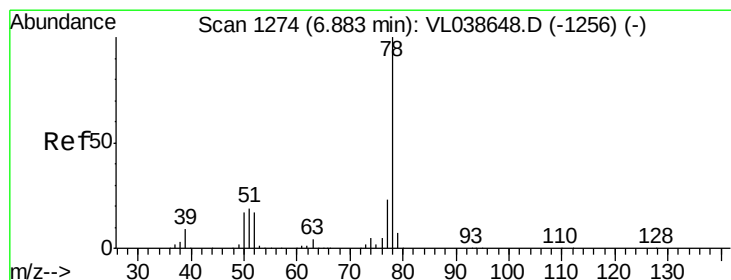
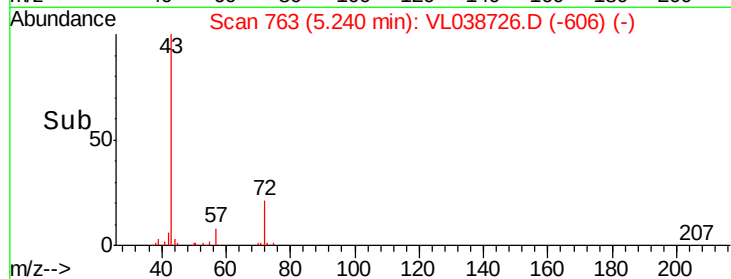
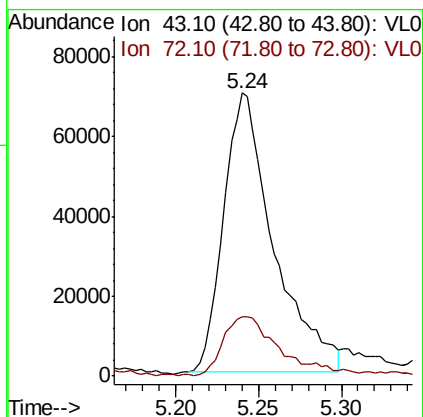
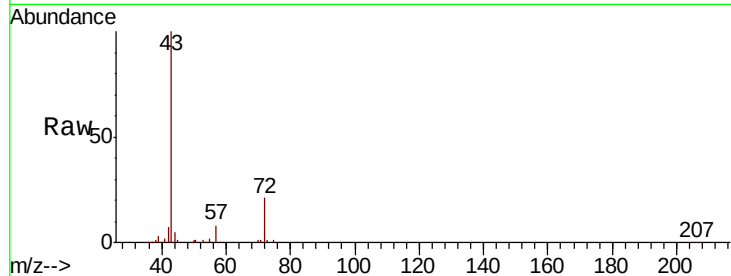
Tgt Ion: 114 Resp: 1916709
 Ion Ratio Lower Upper
 114 100
 63 23.5 19.4 29.0
 88 17.2 13.9 20.9





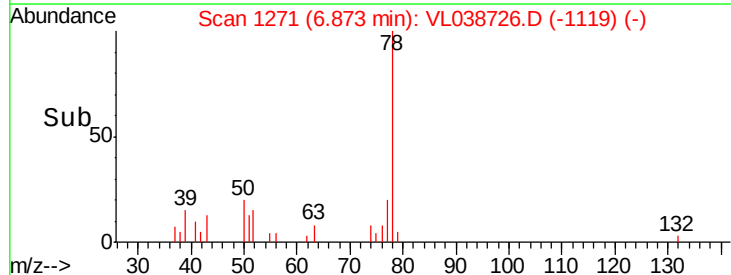
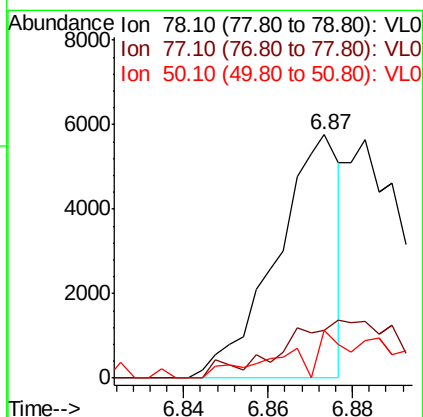
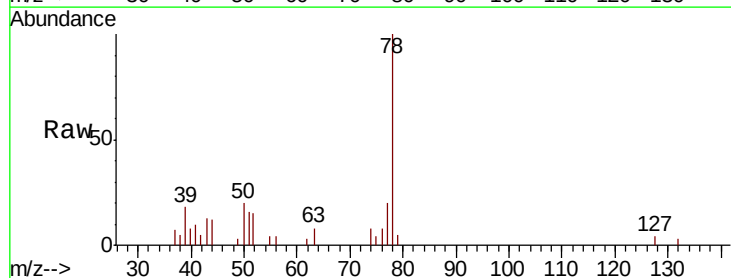
#34
 2-Butanone
 Concen: 1.934 ppbv
 RT: 5.24
 Delta R.T.: MSVOA_L
 Lab File: ClientSampleId :
 C0PA2
 Acq: 23 Mar 2022 21:51

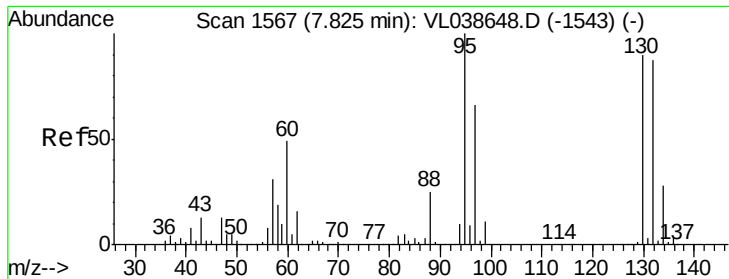
Tot Ion: 43 Resp: 146751
 Ion Ratio Lower Upper
 43 100
 72 24.7 17.8 26.8



#36
 Benzene
 Concen: 0.041 ppbv
 RT: 6.87 min Scan# 1271
 Delta R.T.: -0.01 min
 Lab File: VL038726.D
 Acq: 23 Mar 2022 21:51

Tgt Ion: 78 Resp: 6014
 Ion Ratio Lower Upper
 78 100
 77 19.8 18.1 27.1
 50 19.8 13.6 20.4





#38

Trichloroethene

Concen: 0.036 ppbv

RT: 7.82 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 23 Mar 2022 21:51

Tot Ion: 130 Resp: 2253

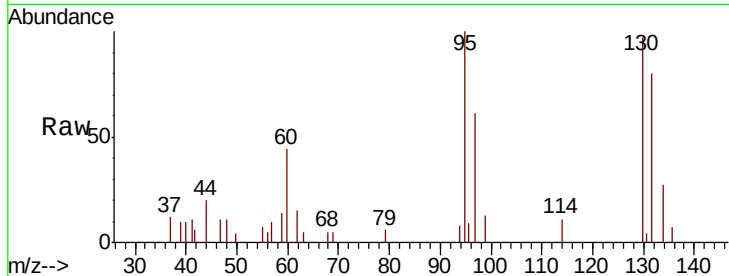
Ion Ratio Lower Upper

130 100

95 59.0 88.9 133.3#

132 45.2 77.4 116.0#

97 61.0 58.2 87.4

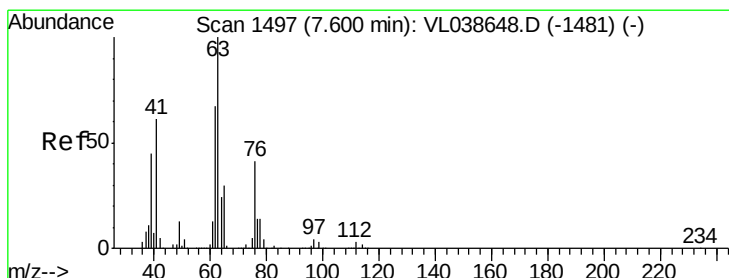
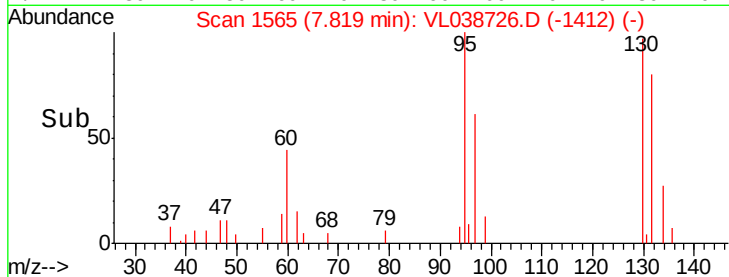
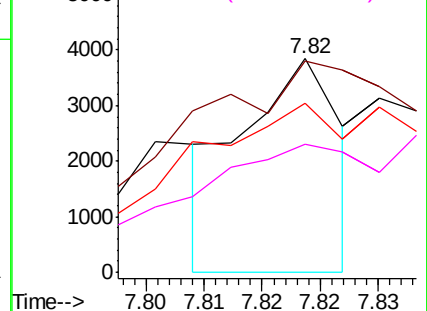


Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0



#39

1,2-Dichloropropane

Concen: 7.410 ppbv

RT: 7.16 min Scan# 1359

Delta R.T. -0.44 min

Lab File: VL038726.D

Acq: 23 Mar 2022 21:51

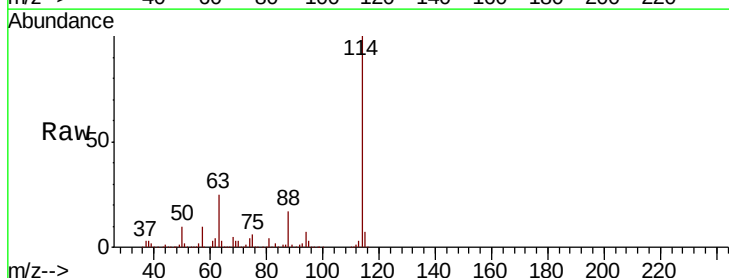
Tgt Ion: 63 Resp: 428516

Ion Ratio Lower Upper

63 100

41 0.2 49.0 73.6#

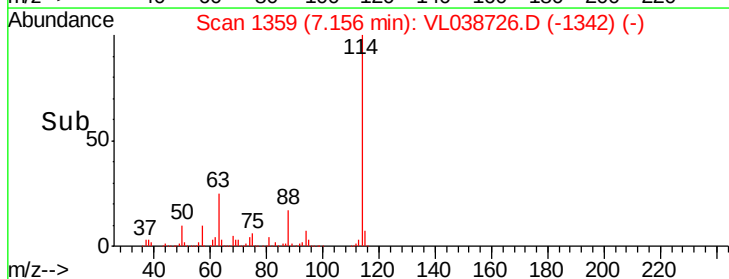
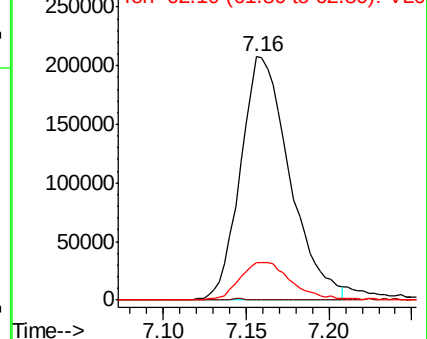
62 15.2 53.9 80.9#

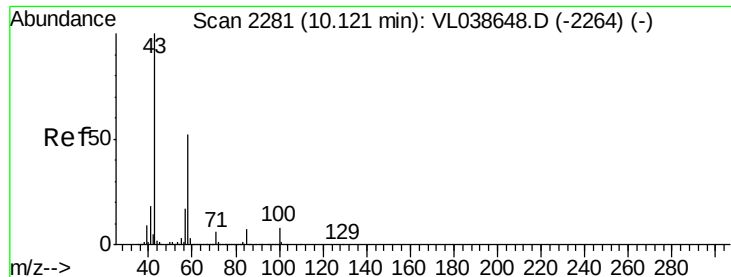


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#51

2-Hexanone

Concen: 0.048 ppbv

RT: 10.13

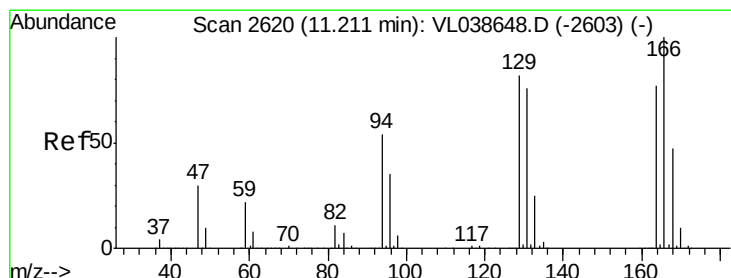
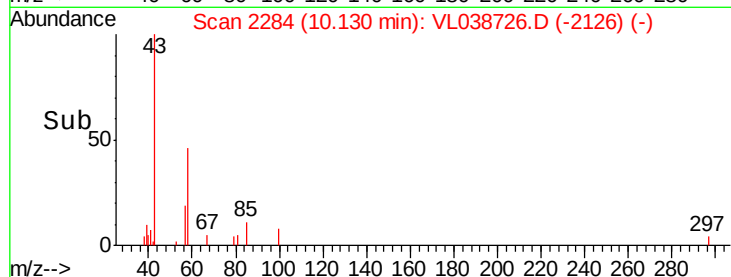
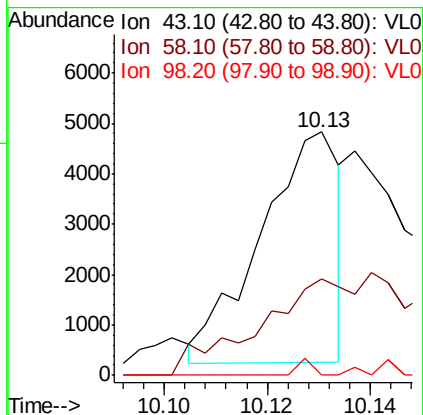
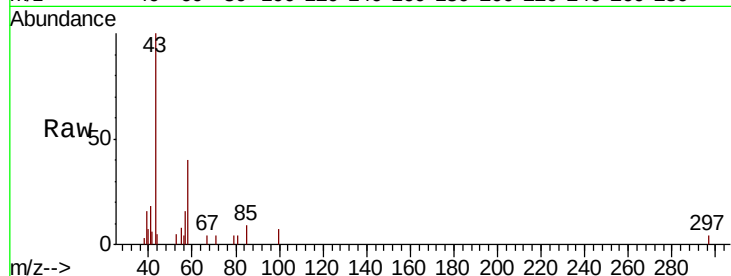
Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 23 Mar 2022 21:51

Tot Ion: 43 Resp: 4861

Ion	Ratio	Lower	Upper
43	100		
58	0.0	41.2	61.8#
98	3.2	0.2	0.4#



#52

Tetrachloroethene

Concen: 10.552 ppbv

RT: 11.21 min Scan# 2620

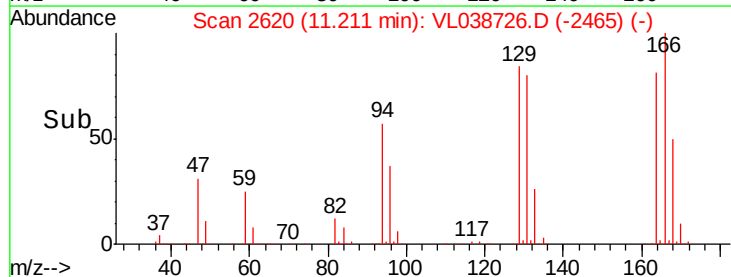
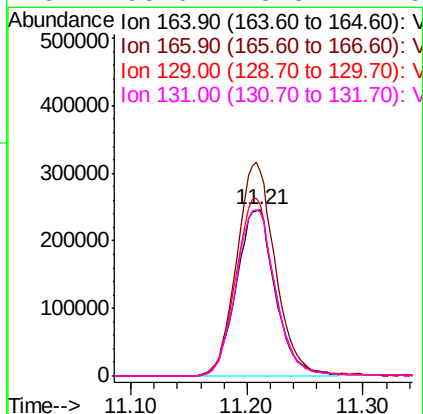
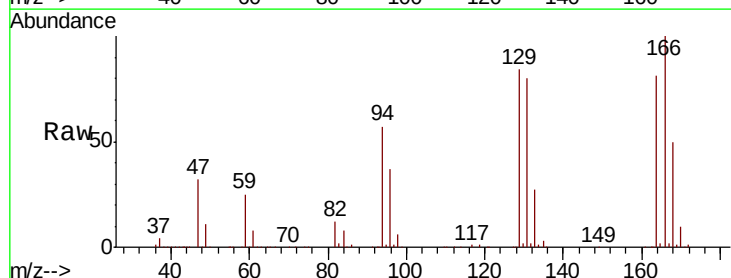
Delta R.T. -0.00 min

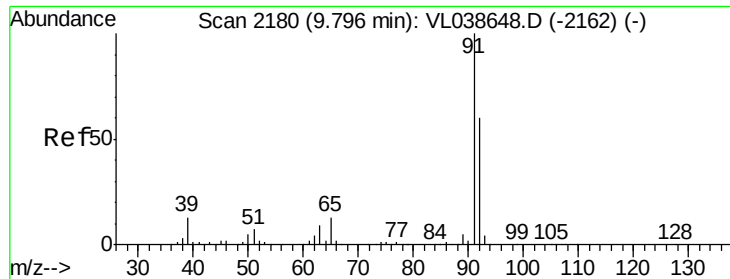
Lab File: VL038726.D

Acq: 23 Mar 2022 21:51

Tgt Ion: 164 Resp: 571223

Ion	Ratio	Lower	Upper
164	100		
166	123.5	103.3	154.9
129	103.6	85.2	127.8
131	98.6	78.3	117.5





#53

Toluene

Concen: 0.304 ppbv

RT: 9.79 Instrument: MSVOA_L

Delta R.T. ClientSampleId:

Lab File: COPA2

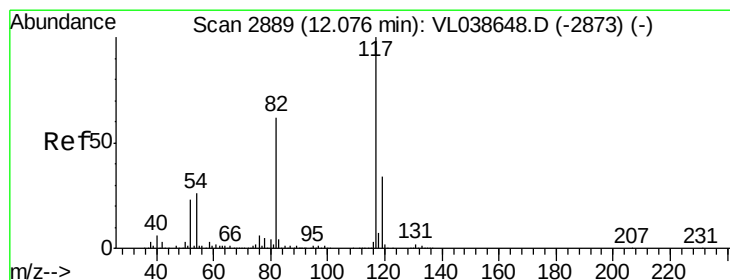
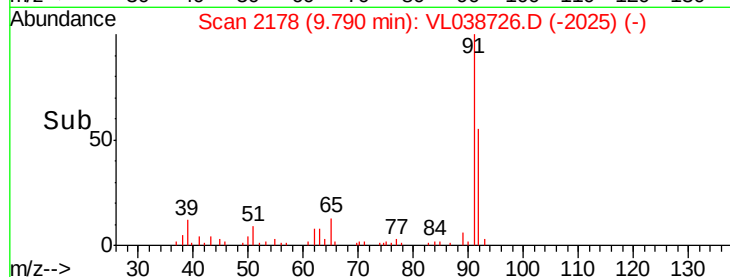
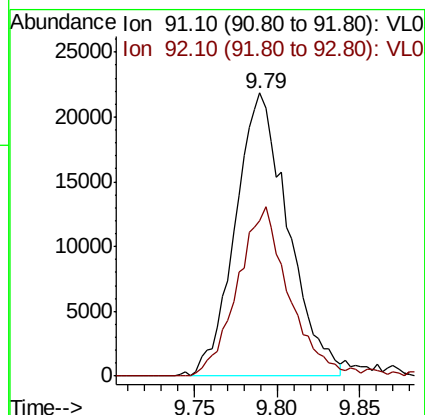
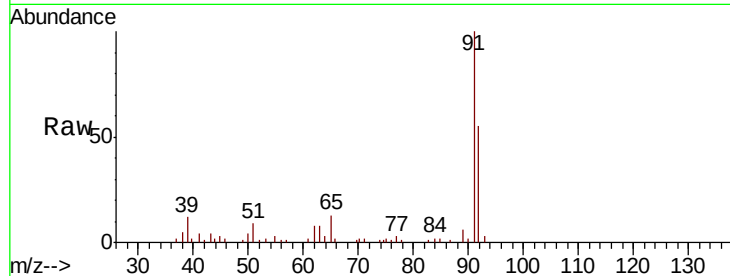
Acq: 23 Mar 2022 21:51

Tot Ion: 91 Resp: 48395

Ion Ratio Lower Upper

91 100

92 58.2 48.7 73.1



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2886

Delta R.T. -0.01 min

Lab File: VL038726.D

Acq: 23 Mar 2022 21:51

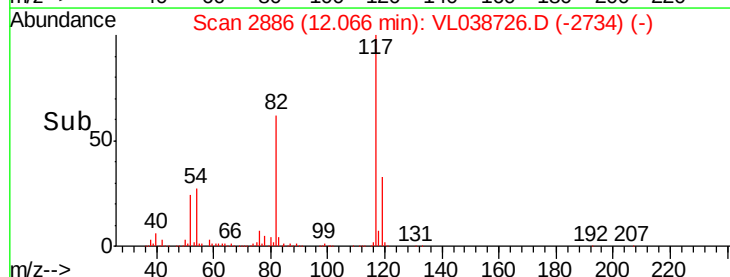
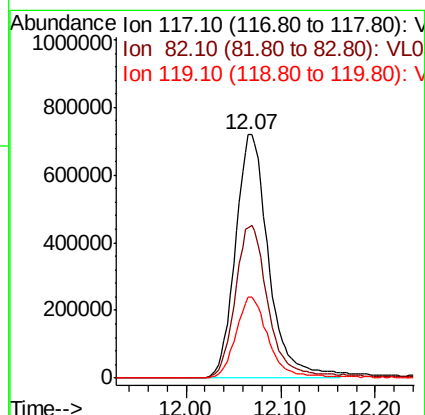
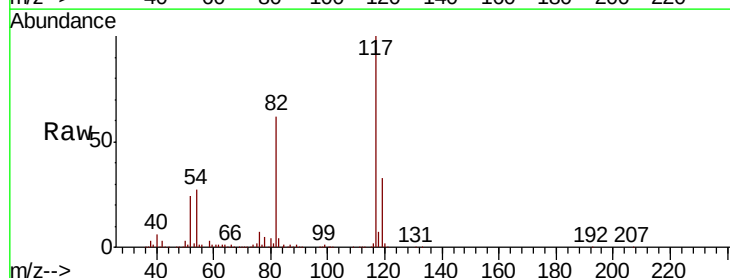
Tgt Ion: 117 Resp: 1754447

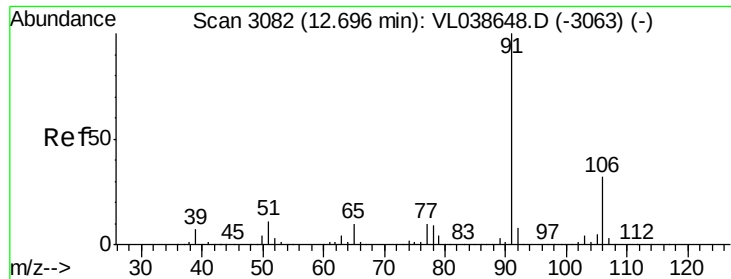
Ion Ratio Lower Upper

117 100

82 64.9 51.6 77.4

119 33.8 26.9 40.3





#58

Ethyl Benzene

Concen: 0.056 ppbv

RT: 12.95

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

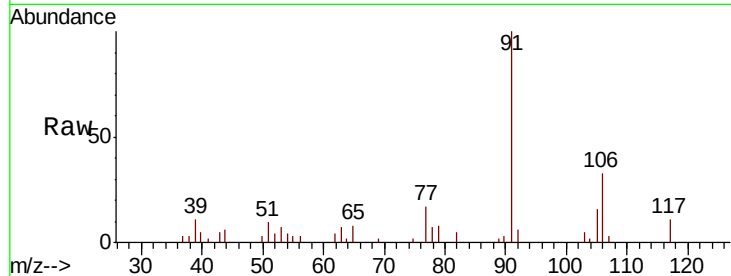
Acq: 23 Mar 2022 21:51

Tot Ion: 91 Resp: 11585

Ion Ratio Lower Upper

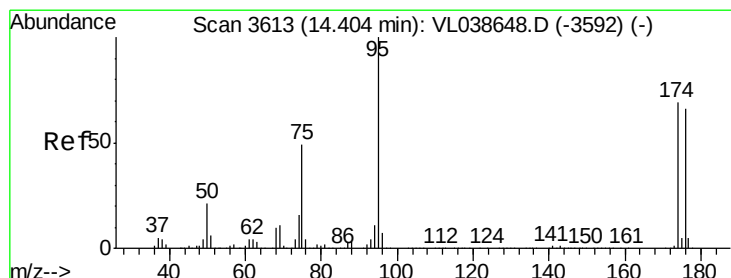
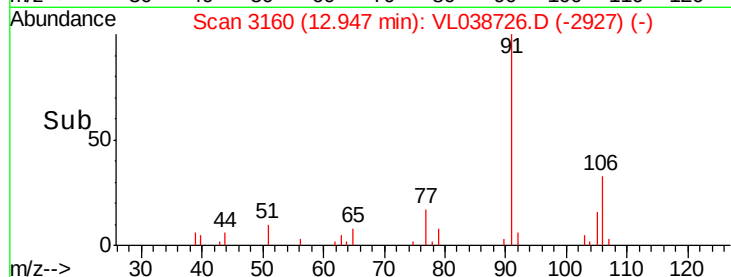
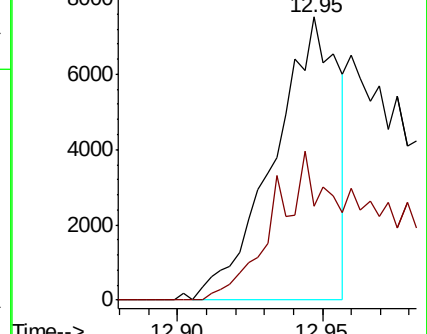
91 100

106 33.3 25.4 38.0



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: 9.413 ppbv

RT: 14.40 min Scan# 3611

Delta R.T. -0.01 min

Lab File: VL038726.D

Acq: 23 Mar 2022 21:51

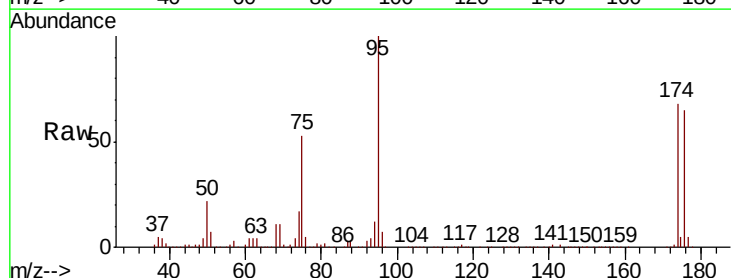
Tgt Ion: 95 Resp: 1266144

Ion Ratio Lower Upper

95 100

174 71.4 56.1 84.1

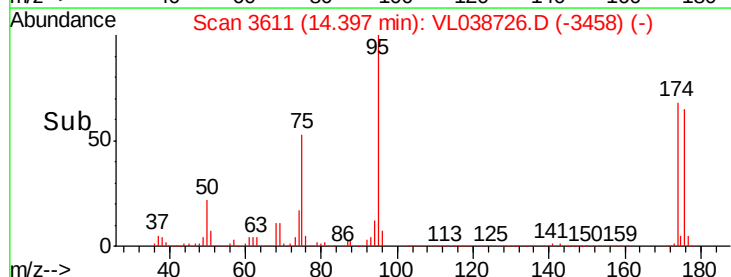
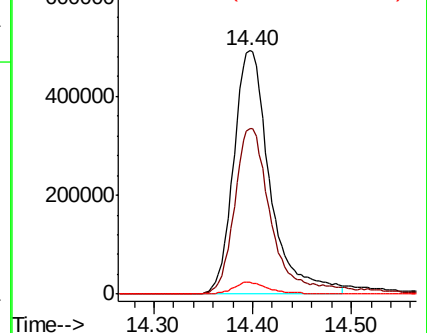
175 5.1 4.2 6.2

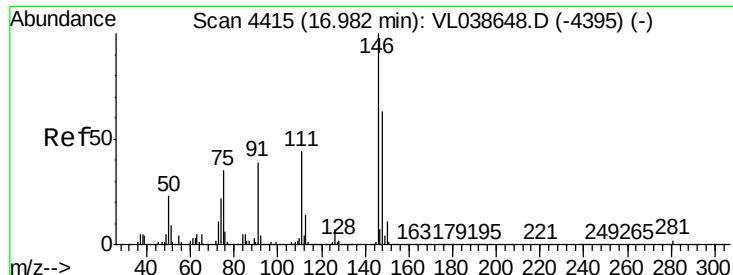


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#75

1,3-Dichlorobenzene

Concen: 0.090 ppbv

RT: 16.98

Delta R.T: MSVOA_L

Lab File: ClientSampleId :

Acq: 23 Mar 2022 21:51

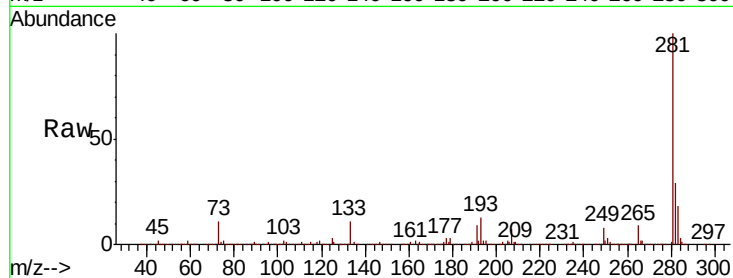
Tot Ion:146 Resp: 11505

Ion Ratio Lower Upper

146 100

111 429.2 22.2 66.6#

148 242.4 32.5 97.5#



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V

