

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL041122\
 Data File : VL038878.D
 Acq On : 11 Apr 2022 20:19
 Operator : SY/AP
 Sample : N2332-02DL 4X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2DL

Quant Time: Apr 12 02:51:09 2022
 Quant Method : Z:\VOASRV\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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1167020	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3212087	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	2928750	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.40	95	2228314	10.03	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.30%

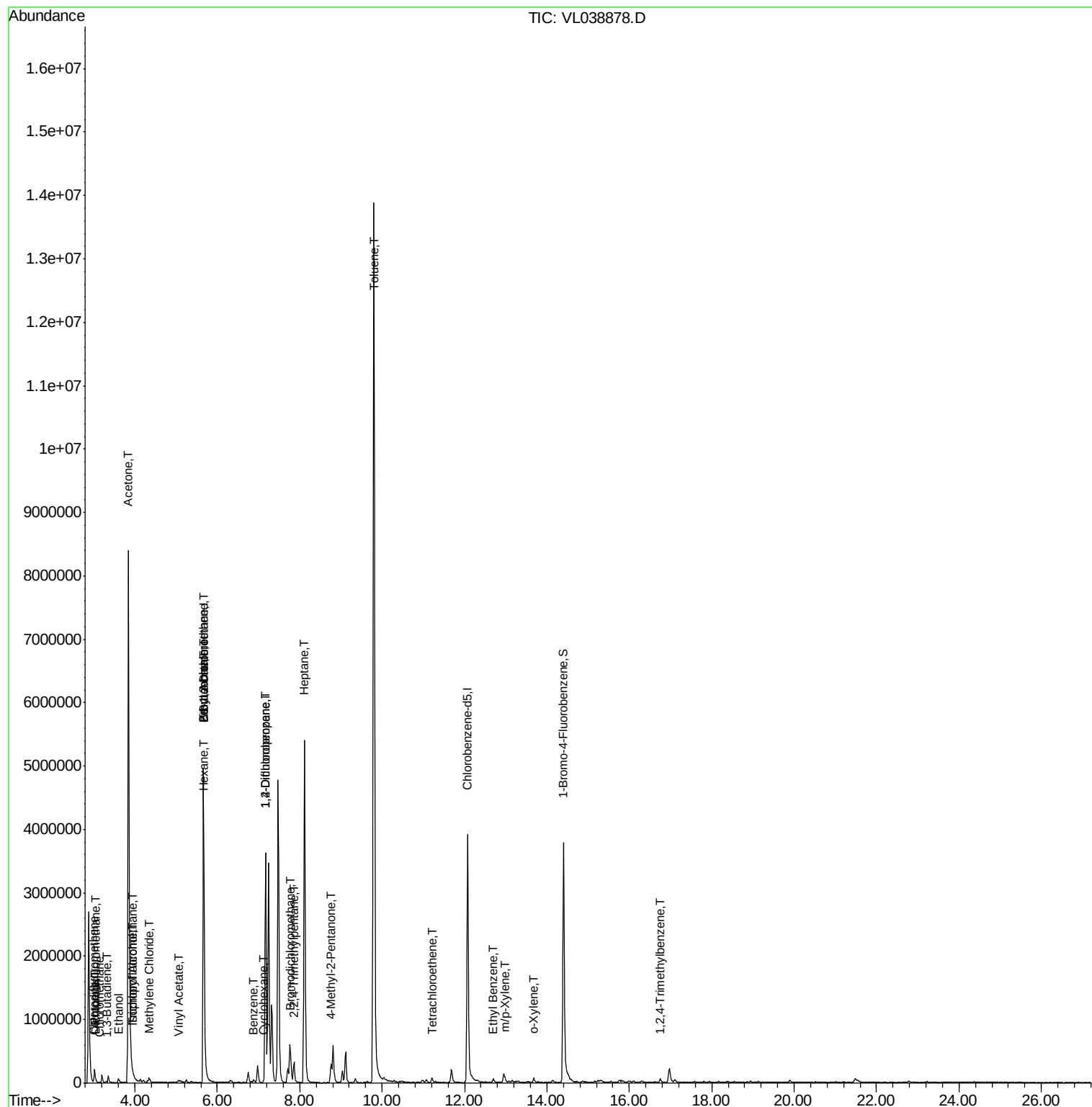
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	21438	0.130	ppbv 89
3) Chlorodifluoromethane	2.99	51	15878	0.111	ppbv # 89
4) Chloromethane	3.14	50	10909	0.148	ppbv # 87
9) Propene	3.02	41	59088	0.784	ppbv # 80
10) Heptane	8.11	43	2932397	15.449	ppbv 99
11) Trichlorofluoromethane	3.95	101	6422	0.048	ppbv 92
13) Ethanol	3.60	45	74376	16.242	ppbv # 100
15) Acetone	3.84	43	11789888	101.473	ppbv 94
16) 1,3-Butadiene	3.30	39	7756	0.117	ppbv # 52
19) Isopropyl Alcohol	3.95	45	3088	0.052	ppbv # 100
20) Methylene Chloride	4.34	84	20525	0.487	ppbv # 82
23) Vinyl Acetate	5.06	43	32025	0.283	ppbv # 83
25) Ethyl Acetate	5.66	43	4021035	13.639	ppbv # 89
26) Hexane	5.68	57	23631	0.176	ppbv # 1
30) Cyclohexane	7.12	84	3776	0.032	ppbv # 1
31) cis-1,2-Dichloroethene	5.66	61	504707	4.091	ppbv # 23
34) 2-Butanone	5.66	43	3939599	31.039	ppbv # 55
36) Benzene	6.89	78	18044	0.062	ppbv 93
39) 1,2-Dichloropropane	7.17	63	791398	7.081	ppbv # 26
42) Bromodichloromethane	7.79	83	11216	0.053	ppbv # 24
44) 2,2,4-Trimethylpentane	7.86	57	63599	0.129	ppbv # 1
50) 4-Methyl-2-Pentanone	8.76	43	62422	0.219	ppbv 95
52) Tetrachloroethene	11.22	164	3996	0.039	ppbv # 81
53) Toluene	9.80	91	13154167	38.996	ppbv 92
58) Ethyl Benzene	12.70	91	55581	0.127	ppbv 98
59) m/p-Xylene	12.99	91	21493	0.058	ppbv # 30
60) o-Xylene	13.68	91	48101	0.140	ppbv 92
74) 1,2,4-Trimethylbenzene	16.75	105	22443	0.058	ppbv # 69

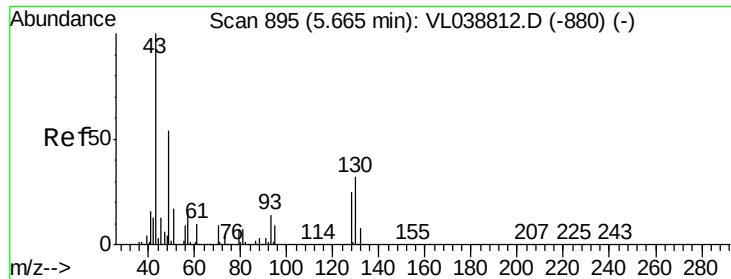
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL041122\
Data File : VL038878.D
Acq On : 11 Apr 2022 20:19
Operator : SY/AP
Sample : N2332-02DL 4X
Misc : 400mL/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
IA-2DL

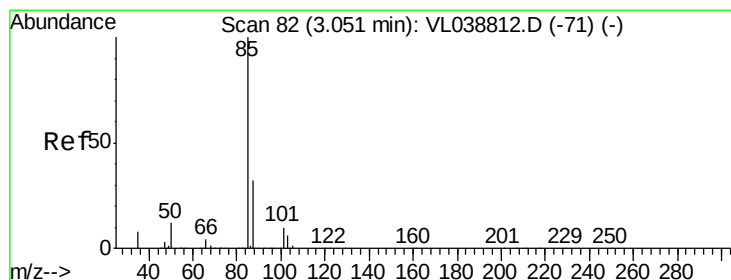
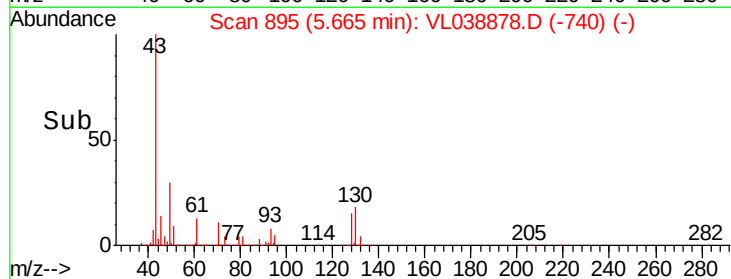
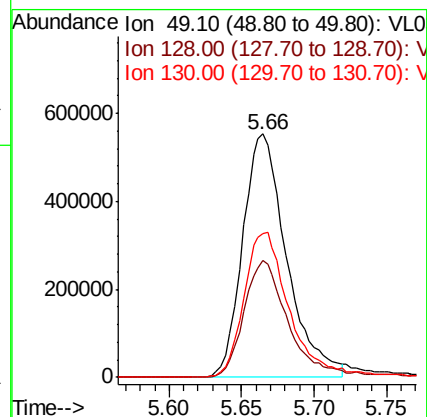
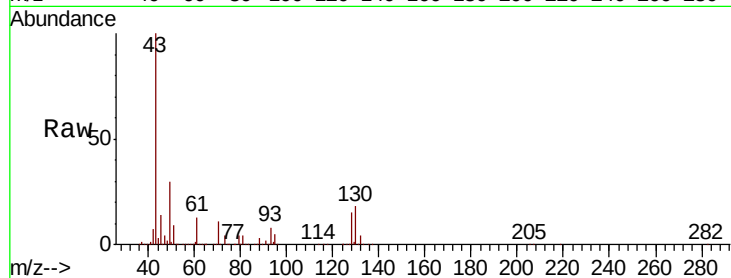
Quant Time: Apr 12 02:51:09 2022
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL040522AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Apr 06 06:12:53 2022
QLast Update : Wed Apr 06 06:12:53 2022
Response via : Initial Calibration





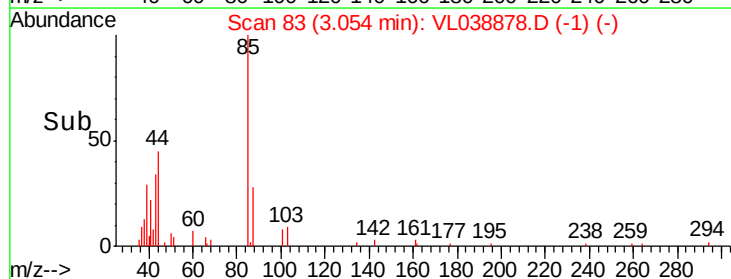
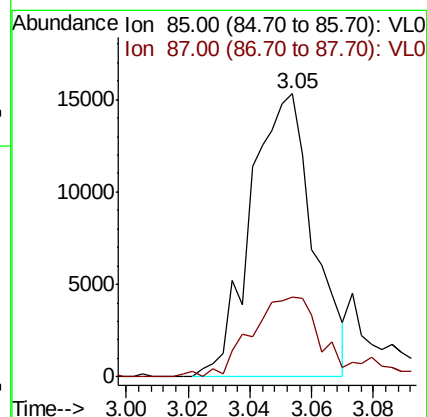
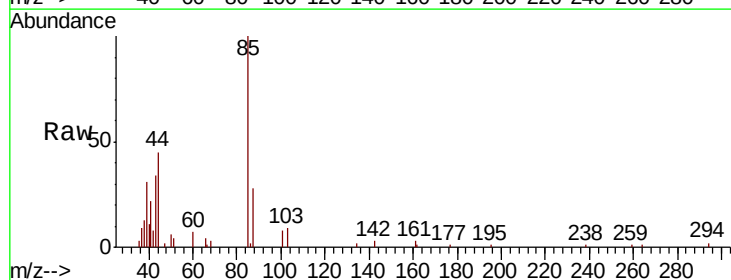
#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.66
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 11 Apr 2022 20:19

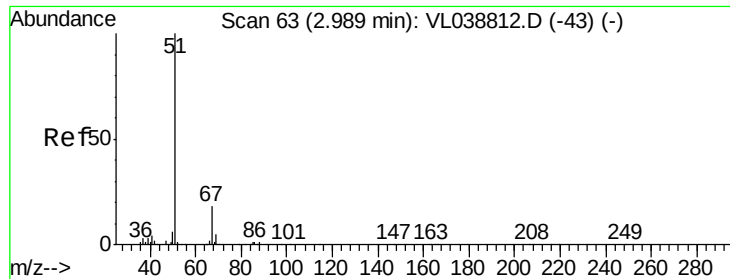
Tot Ion: 49 Resp: 1167020
 Ion Ratio Lower Upper
 49 100
 128 49.9 24.1 72.3
 130 63.0 30.9 92.8



#2
 Dichlorodifluoromethane
 Concen: 0.130 ppbv
 RT: 3.05 min Scan# 83
 Delta R.T.: 0.00 min
 Lab File: VL038878.D
 Acq: 11 Apr 2022 20:19

Tgt Ion: 85 Resp: 21438
 Ion Ratio Lower Upper
 85 100
 87 26.1 25.9 38.9





#3

Chlorodifluoromethane

Concen: 0.111 ppbv

RT: 2.99 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

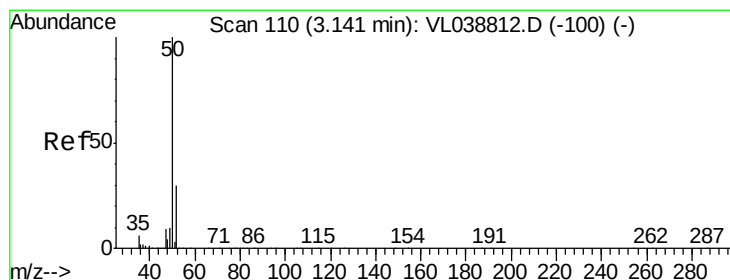
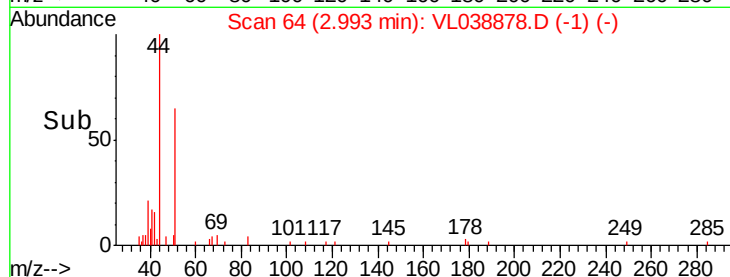
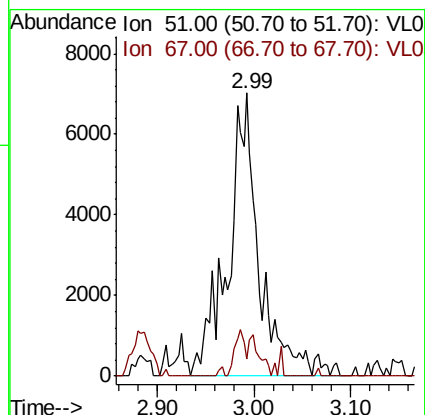
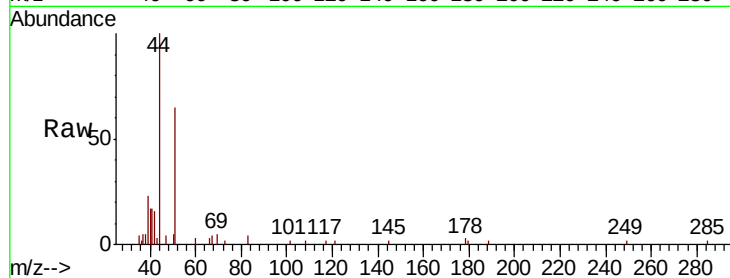
Acq: 11 Apr 2022 20:19

Tot Ion: 51 Resp: 15878

Ion Ratio Lower Upper

51 100

67 11.9 13.4 20.0#



#4

Chloromethane

Concen: 0.148 ppbv

RT: 3.14 min Scan# 110

Delta R.T. -0.00 min

Lab File: VL038878.D

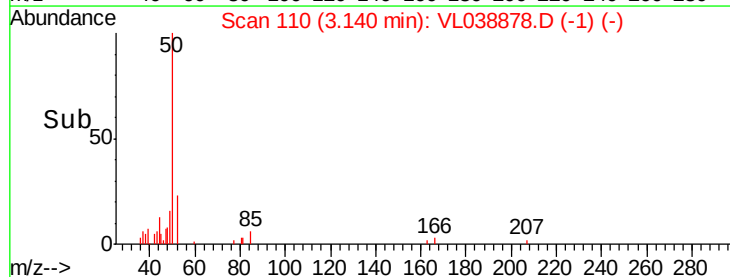
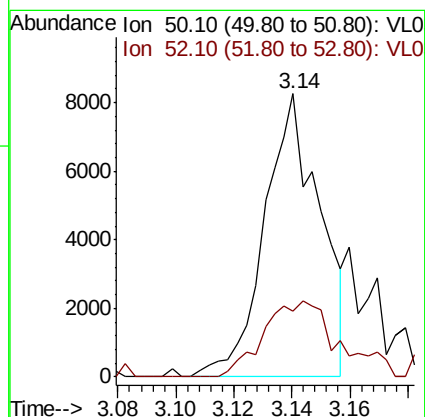
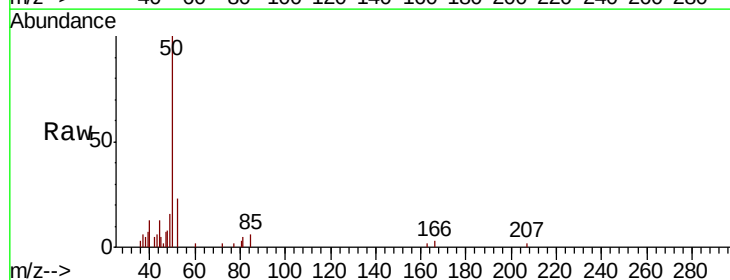
Acq: 11 Apr 2022 20:19

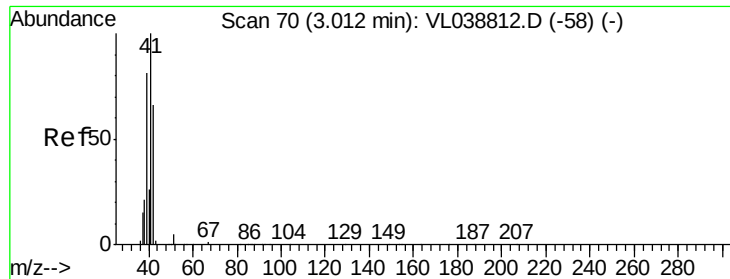
Tgt Ion: 50 Resp: 10909

Ion Ratio Lower Upper

50 100

52 23.4 24.3 36.5#





#9

Propene

Concen: 0.784 ppbv

RT: 3.02 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

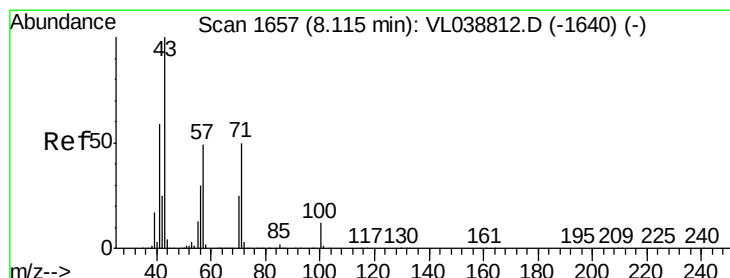
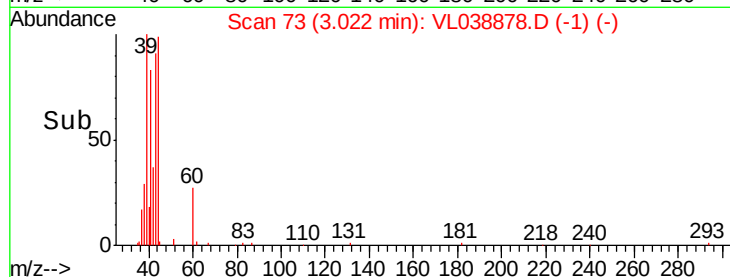
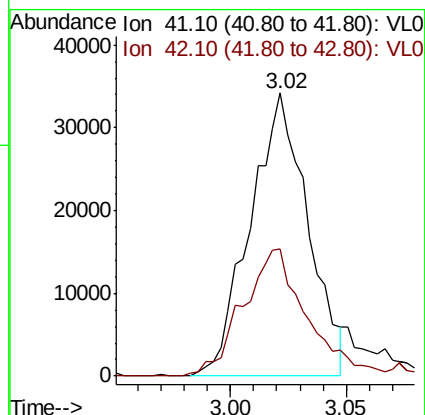
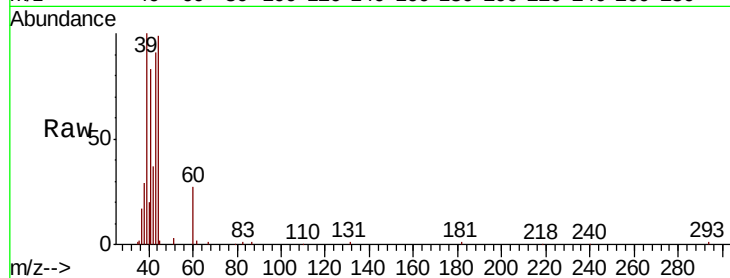
Acq: 11 Apr 2022 20:19

Tot Ion: 41 Resp: 59088

Ion Ratio Lower Upper

41 100

42 51.8 54.2 81.4#



#10

Heptane

Concen: 15.449 ppbv

RT: 8.11 min Scan# 1657

Delta R.T. -0.00 min

Lab File: VL038878.D

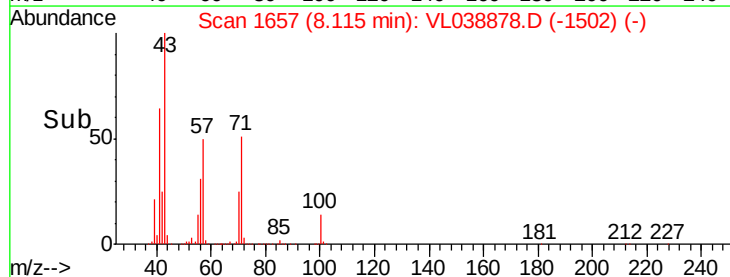
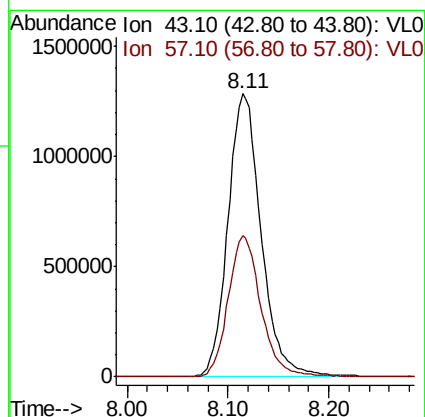
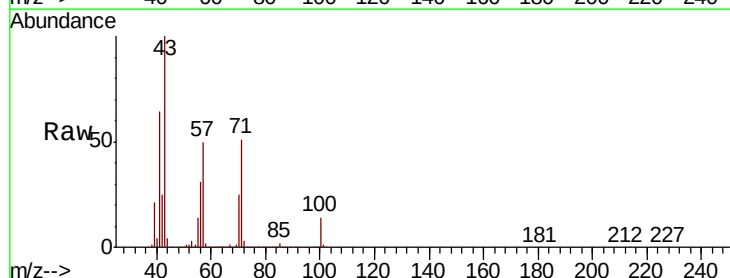
Acq: 11 Apr 2022 20:19

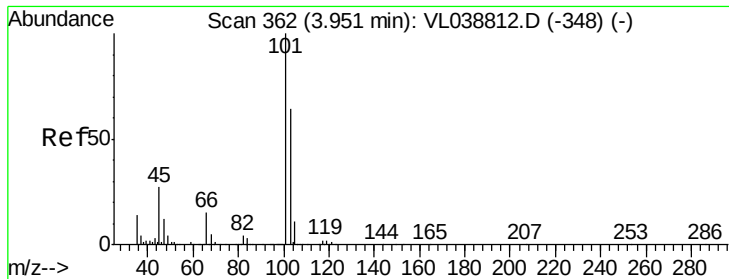
Tgt Ion: 43 Resp: 2932397

Ion Ratio Lower Upper

43 100

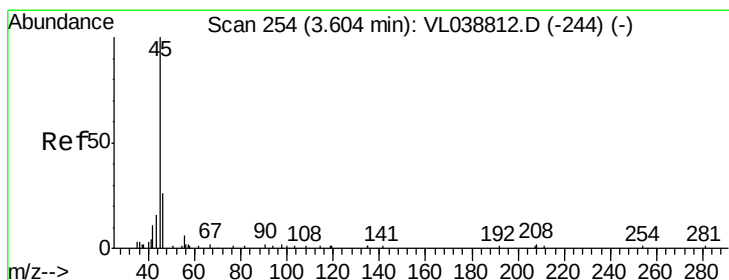
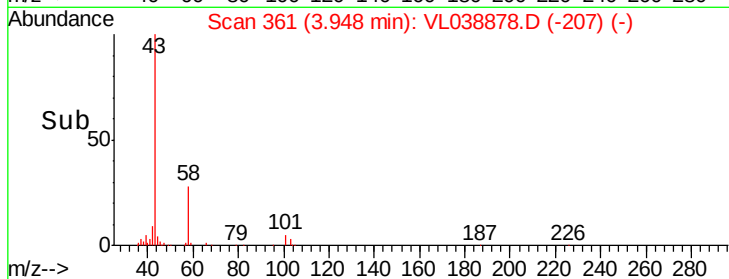
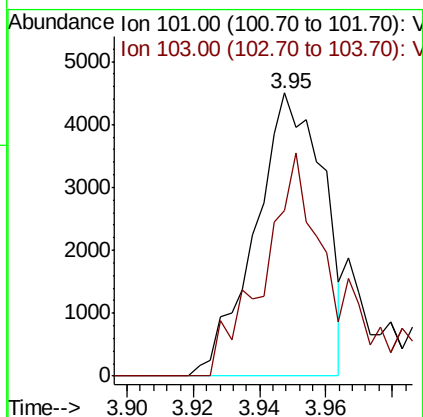
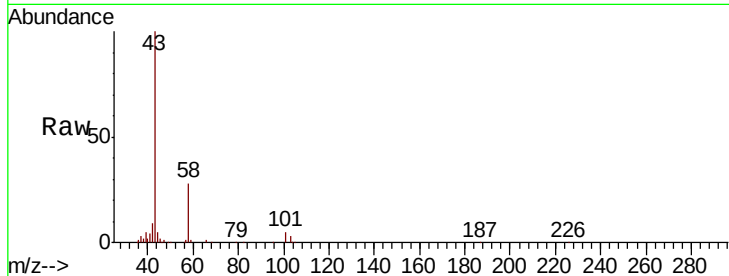
57 49.5 39.3 58.9





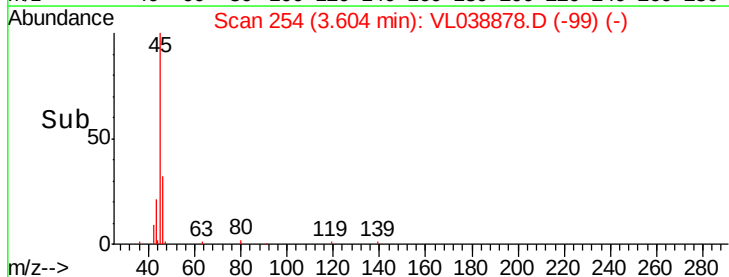
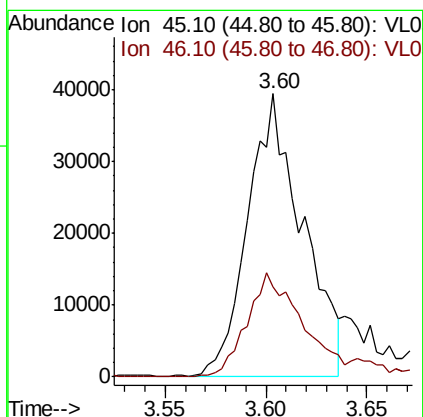
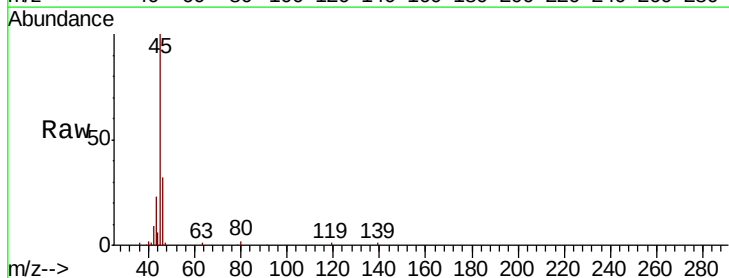
#11
 Trichlorofluoromethane
 Concen: 0.048 ppbv
 RT: 3.95
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 11 Apr 2022 20:19

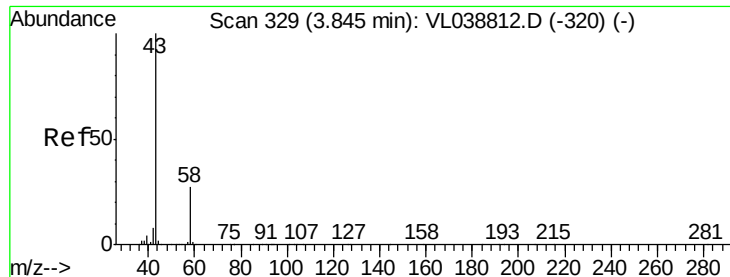
Tot Ion: 101 Resp: 6422
 Ion Ratio Lower Upper
 101 100
 103 58.3 51.4 77.0



#13
 Ethanol
 Concen: 16.242 ppbv
 RT: 3.60 min Scan# 254
 Delta R.T. -0.00 min
 Lab File: VL038878.D
 Acq: 11 Apr 2022 20:19

Tgt Ion: 45 Resp: 74376
 Ion Ratio Lower Upper
 45 100
 46 43.4 0.0 0.0#





#15

Acetone

Concen: 101.473 ppbv

RT: 3.84 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: IA-2DL

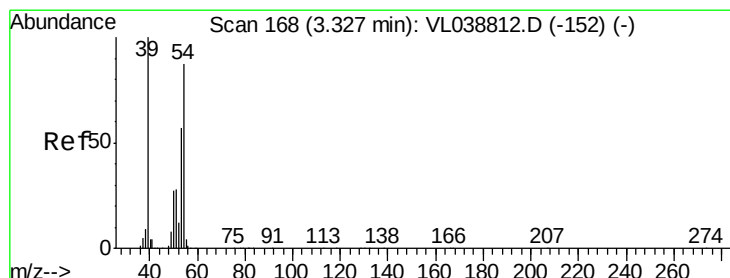
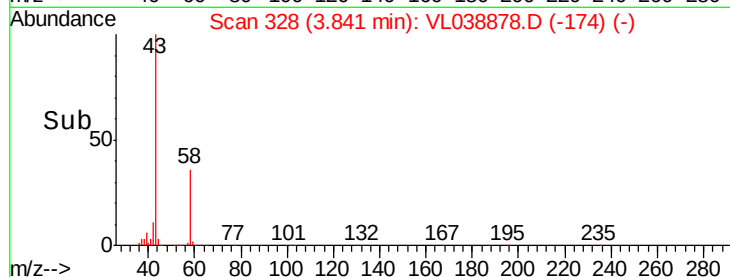
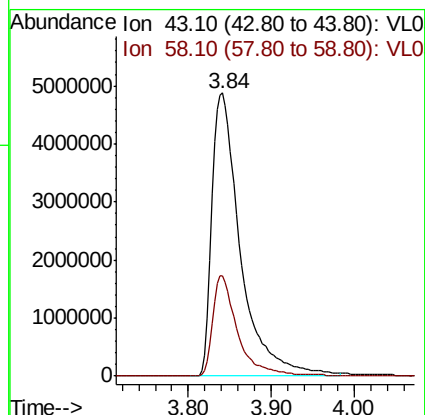
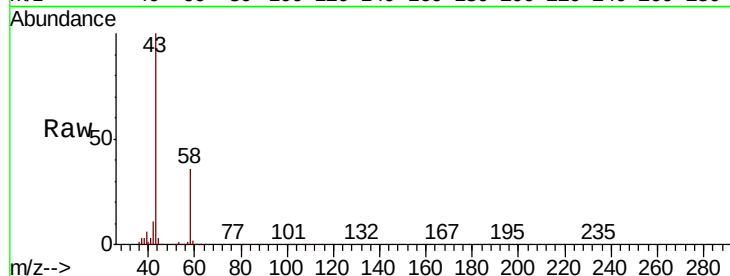
Acq: 11 Apr 2022 20:19

Tot Ion: 43 Resp: 11789888

Ion Ratio Lower Upper

43 100

58 31.4 22.5 33.7



#16

1,3-Butadiene

Concen: 0.117 ppbv

RT: 3.30 min Scan# 161

Delta R.T. -0.02 min

Lab File: VL038878.D

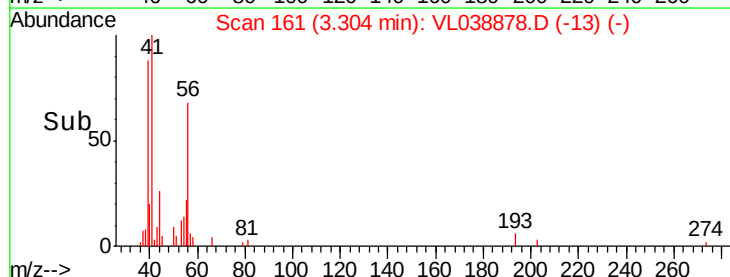
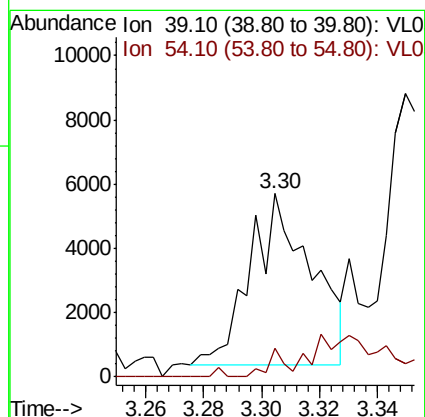
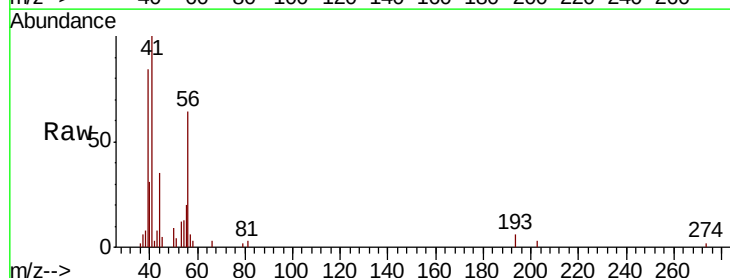
Acq: 11 Apr 2022 20:19

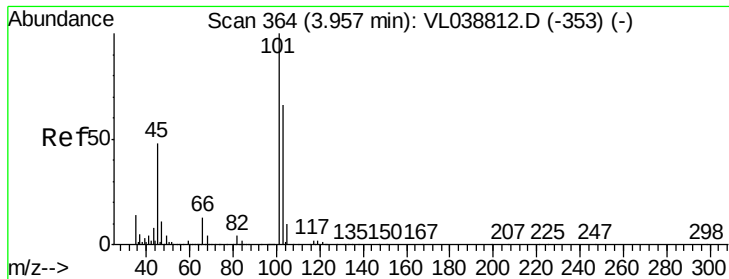
Tgt Ion: 39 Resp: 7756

Ion Ratio Lower Upper

39 100

54 38.1 64.8 97.2#





#19

Isopropyl Alcohol

Concen: 0.052 ppbv

RT: 3.95 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

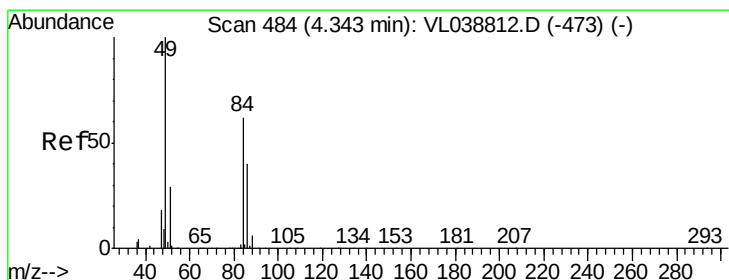
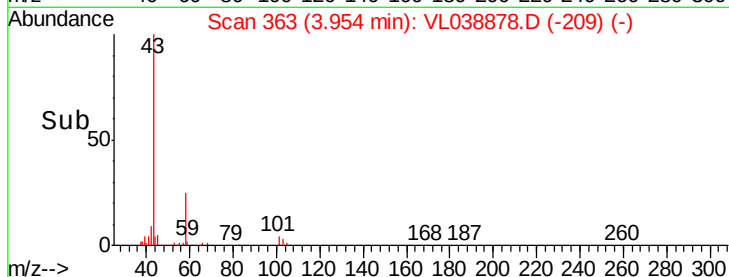
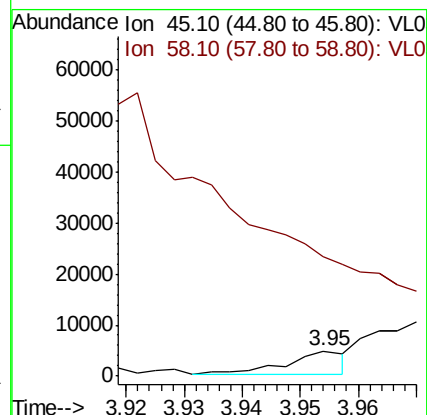
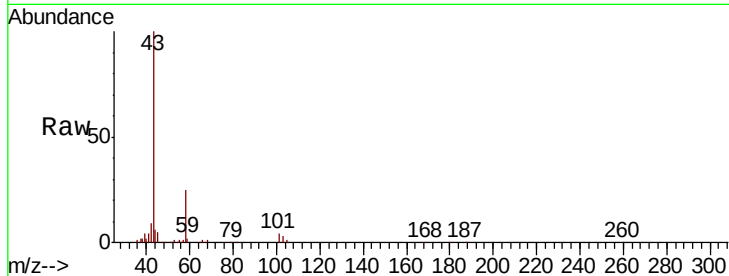
Acq: 11 Apr 2022 20:19

Tot Ion: 45 Resp: 3088

Ion Ratio Lower Upper

45 100

58 0.0 0.0 0.0



#20

Methylene Chloride

Concen: 0.487 ppbv

RT: 4.34 min Scan# 484

Delta R.T. -0.00 min

Lab File: VL038878.D

Acq: 11 Apr 2022 20:19

Tgt Ion: 84 Resp: 20525

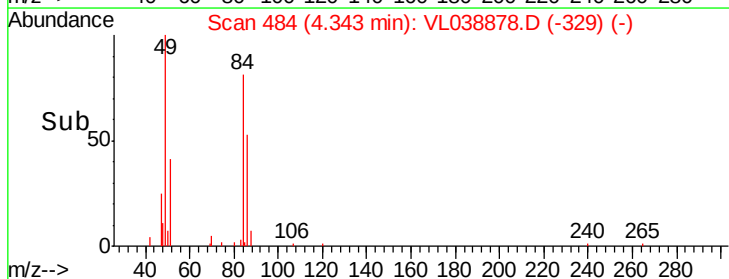
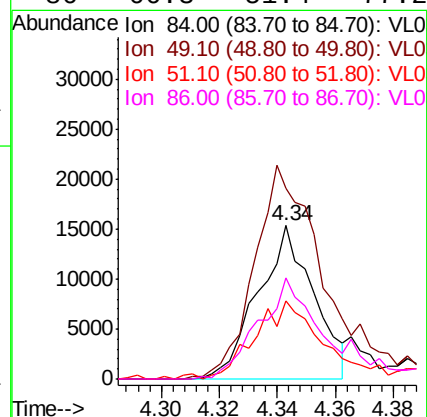
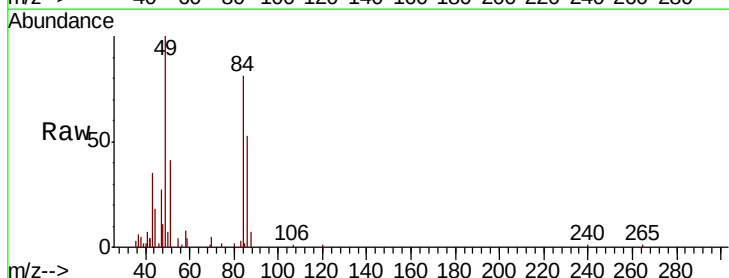
Ion Ratio Lower Upper

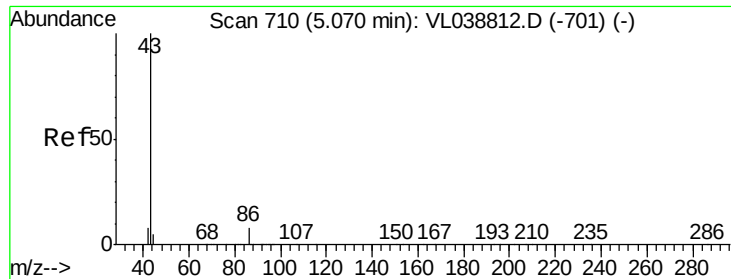
84 100

49 122.5 129.4 194.0#

51 47.2 37.4 56.2

86 66.3 51.4 77.2





#23

Vinyl Acetate

Concen: 0.283 ppbv

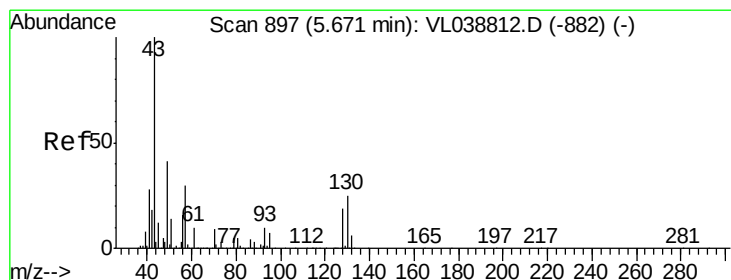
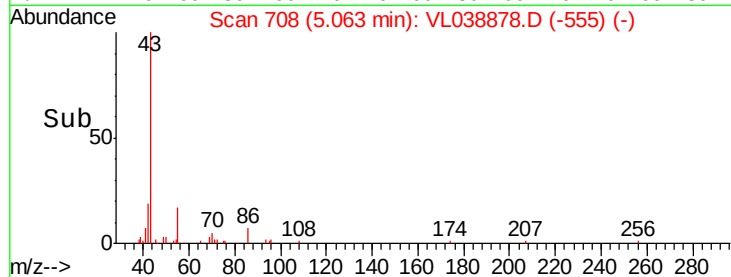
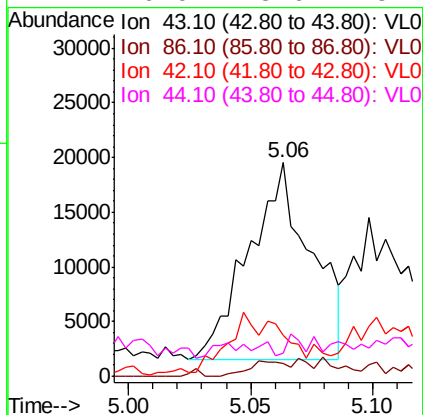
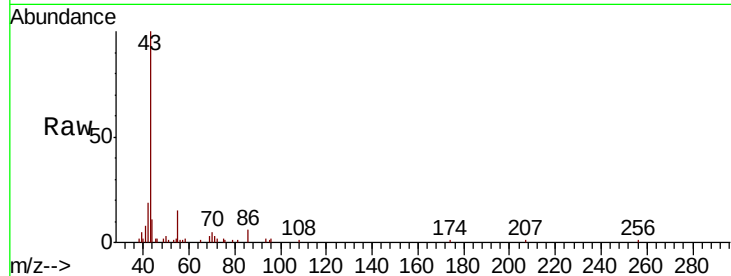
RT: 5.06 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 11 Apr 2022 20:19

Tot Ion:	43	Resp:	32025
Ion	Ratio	Lower	Upper
43	100		
86	4.7	5.8	8.6#
42	19.0	7.8	11.6#
44	0.0	3.6	5.4#



#25

Ethyl Acetate

Concen: 13.639 ppbv

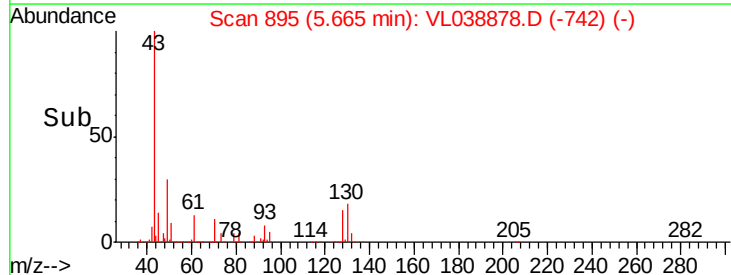
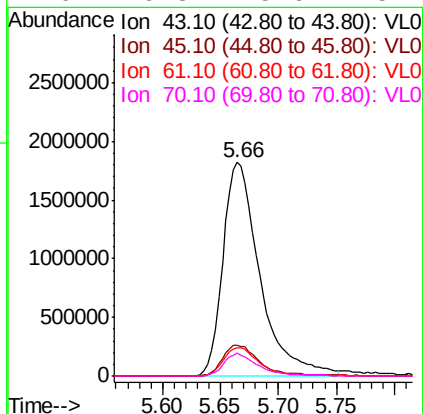
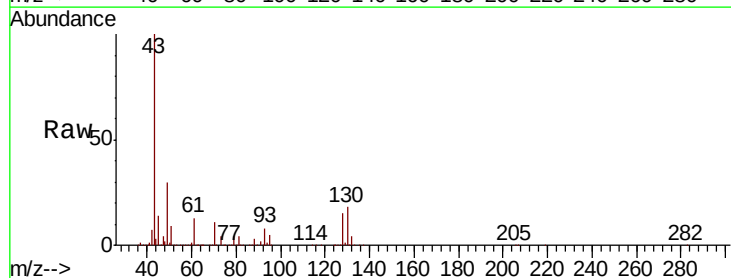
RT: 5.66 min Scan# 895

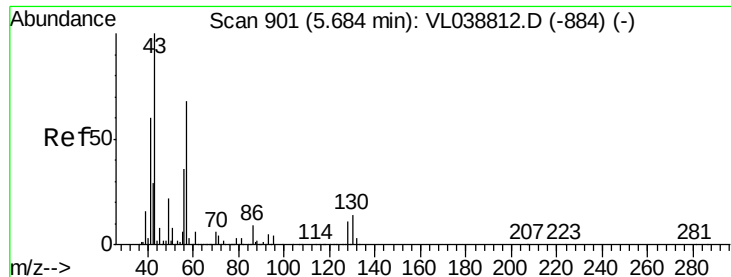
Delta R.T. -0.01 min

Lab File: VL038878.D

Acq: 11 Apr 2022 20:19

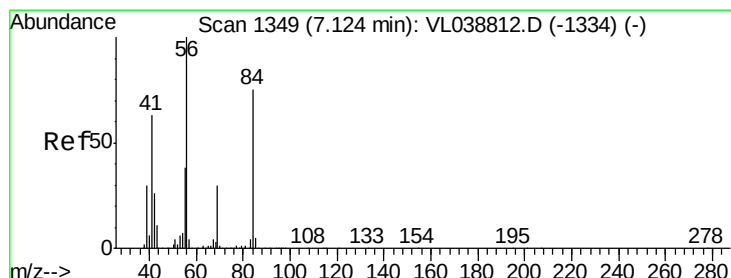
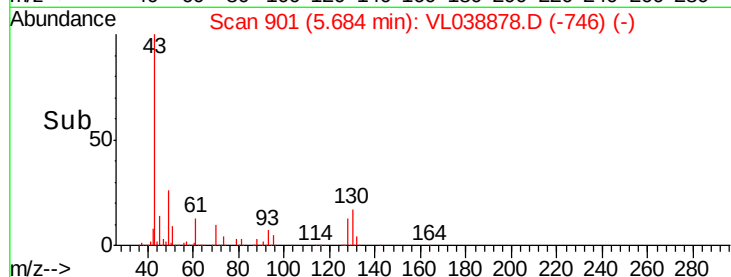
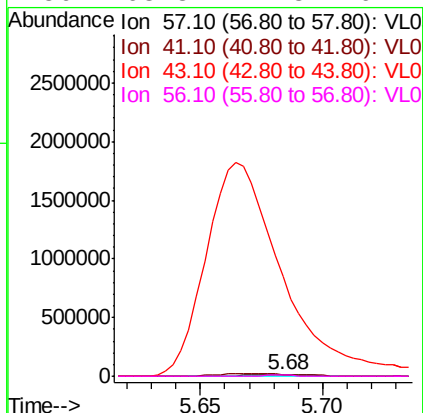
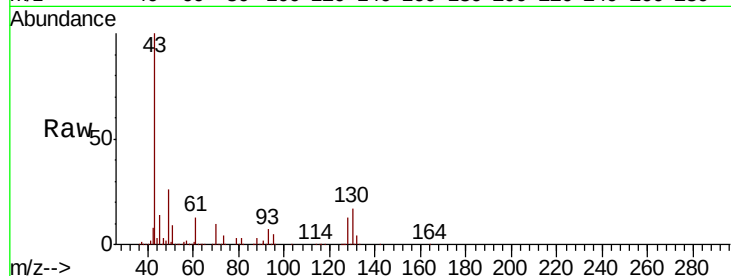
Tgt Ion:	43	Resp:	4021035
Ion	Ratio	Lower	Upper
43	100		
45	15.0	8.4	12.6#
61	13.6	7.9	11.9#
70	10.3	5.6	8.4#





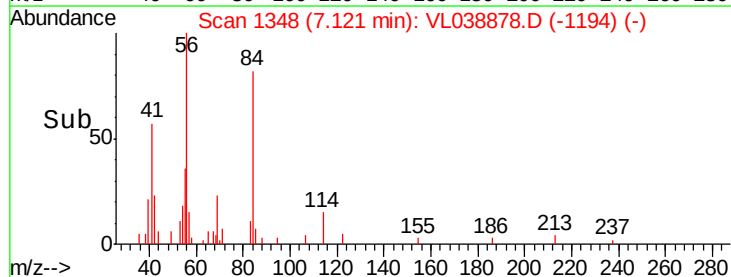
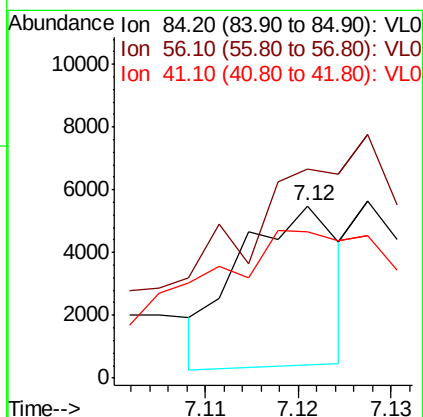
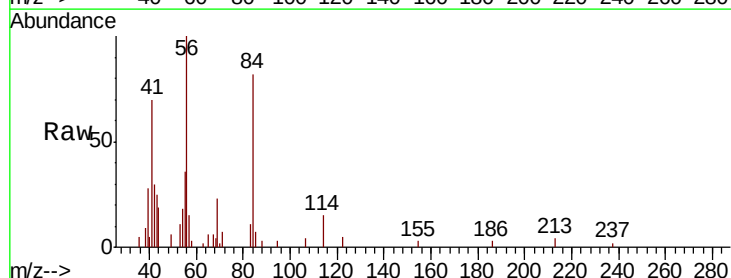
#26
Hexane
Concen: 0.176 ppbv
RT: 5.68
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 11 Apr 2022 20:19

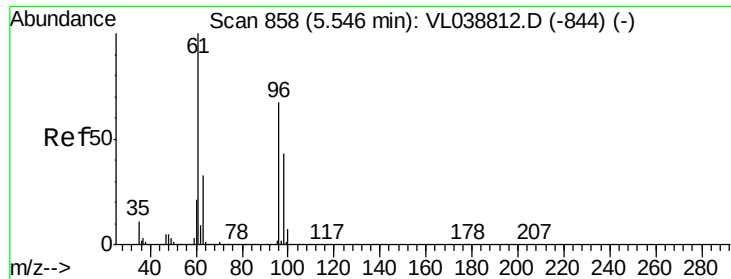
Tot Ion: 57 Resp: 23631
Ion Ratio Lower Upper
57 100
41 241.2 72.0 108.0#
43 17677.6 186.6 280.0#
56 63.3 42.8 64.2



#30
Cyclohexane
Concen: 0.032 ppbv
RT: 7.12 min Scan# 1348
Delta R.T. -0.00 min
Lab File: VL038878.D
Acq: 11 Apr 2022 20:19

Tgt Ion: 84 Resp: 3776
Ion Ratio Lower Upper
84 100
56 0.0 114.4 171.6#
41 0.0 69.0 103.4#





#31

cis-1,2-Dichloroethene

Concen: 4.091 ppbv

RT: 5.66 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 11 Apr 2022 20:19

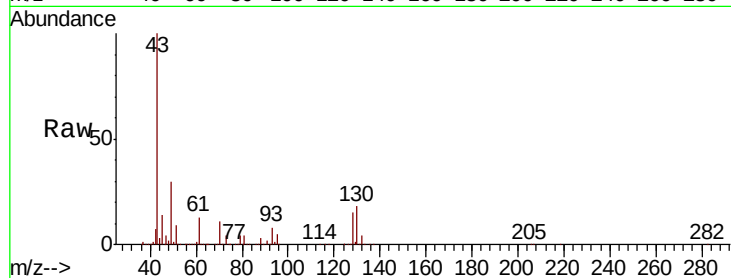
Tot Ion: 61 Resp: 504707

Ion Ratio Lower Upper

61 100

96 0.3 53.4 80.0#

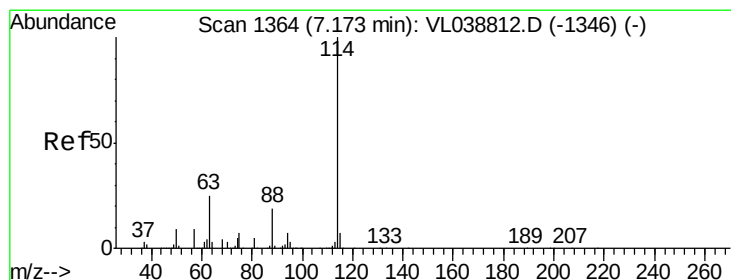
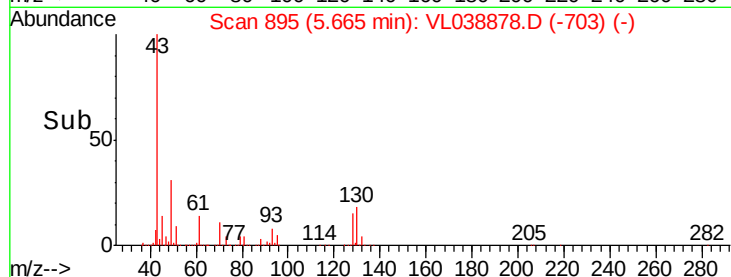
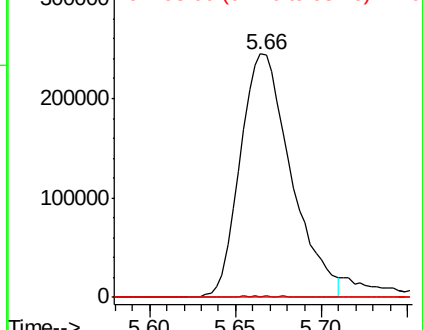
98 0.0 34.2 51.4#



Abundance Ion 61.10 (60.80 to 61.80): VL0

Ion 96.00 (95.70 to 96.70): VL0

Ion 98.00 (97.70 to 98.70): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17 min Scan# 1364

Delta R.T. -0.00 min

Lab File: VL038878.D

Acq: 11 Apr 2022 20:19

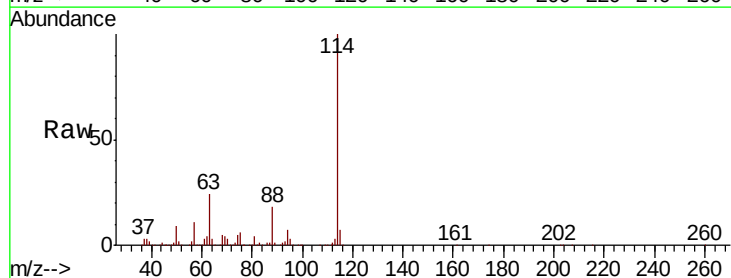
Tgt Ion: 114 Resp: 3212087

Ion Ratio Lower Upper

114 100

63 24.9 19.8 29.8

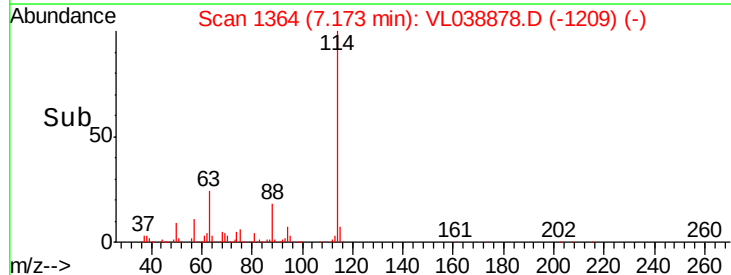
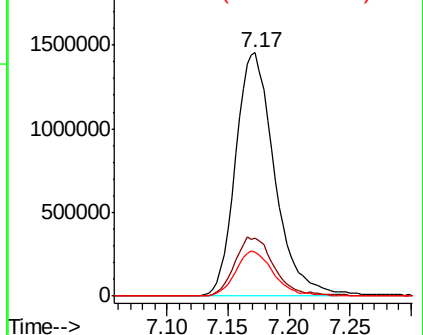
88 18.3 14.2 21.4

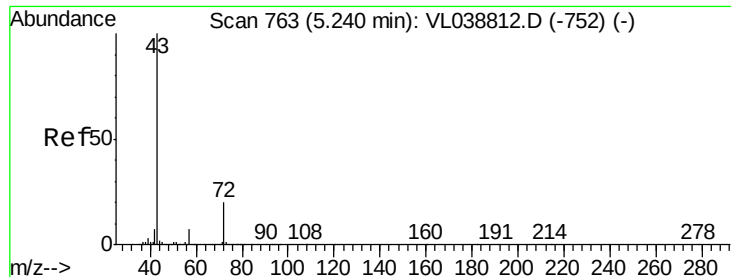


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

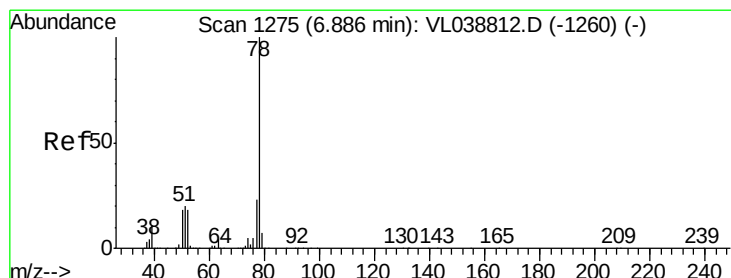
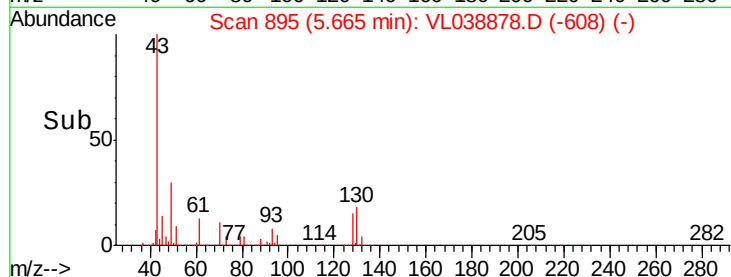
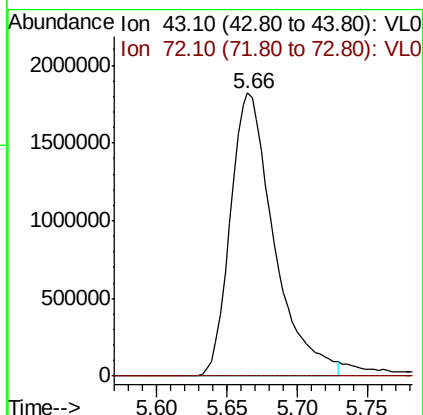
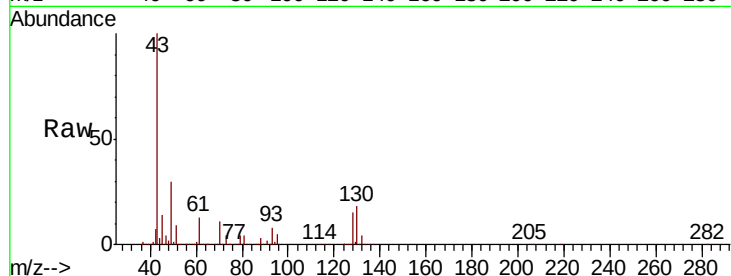
Ion 88.10 (87.80 to 88.80): VL0





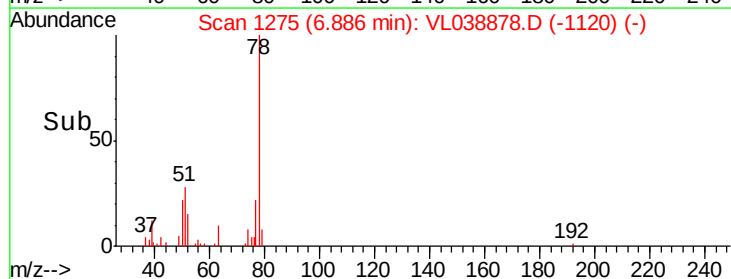
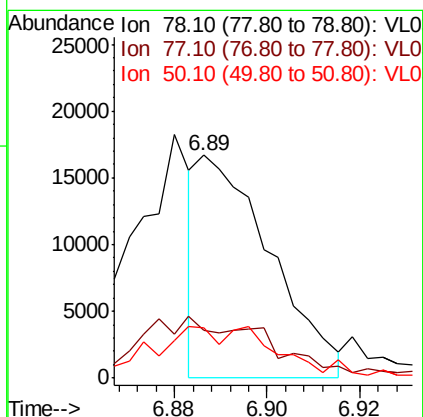
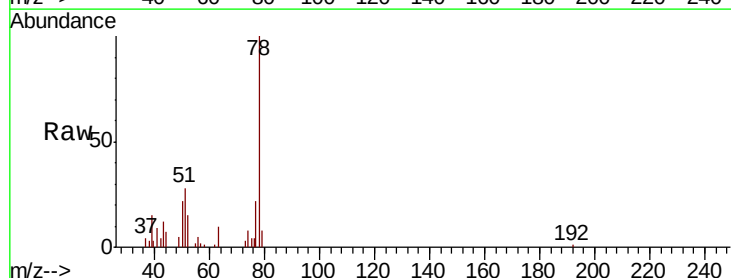
#34
 2-Butanone
 Concen: 31.039 ppbv
 RT: 5.66
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 11 Apr 2022 20:19

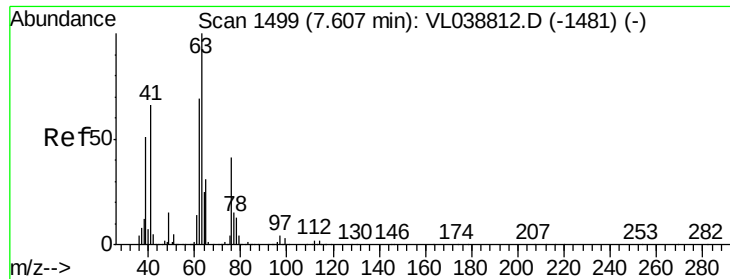
Tot Ion: 43 Resp: 3939599
 Ion Ratio Lower Upper
 43 100
 72 0.0 16.9 25.3#



#36
 Benzene
 Concen: 0.062 ppbv
 RT: 6.89 min Scan# 1275
 Delta R.T. -0.00 min
 Lab File: VL038878.D
 Acq: 11 Apr 2022 20:19

Tgt Ion: 78 Resp: 18044
 Ion Ratio Lower Upper
 78 100
 77 18.3 18.2 27.2
 50 15.7 14.0 21.0





#39

1,2-Dichloropropane

Concen: 7.081 ppbv

RT: 7.17 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 11 Apr 2022 20:19

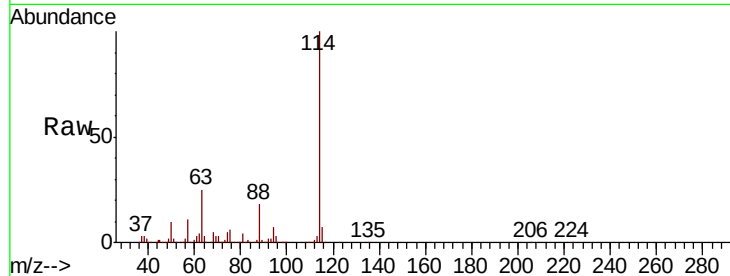
Tot Ion: 63 Resp: 791398

Ion Ratio Lower Upper

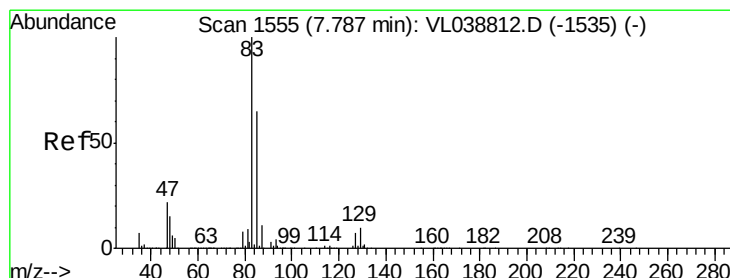
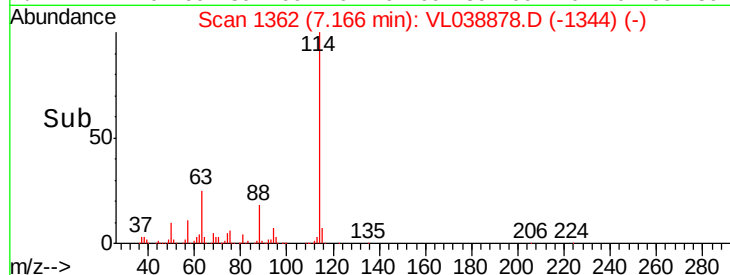
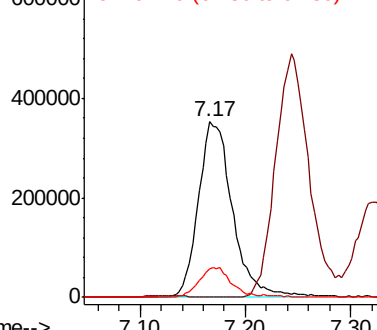
63 100

41 0.0 53.0 79.6#

62 16.2 55.0 82.4#



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



#42

Bromodichloromethane

Concen: 0.053 ppbv

RT: 7.79 min Scan# 1556

Delta R.T. 0.00 min

Lab File: VL038878.D

Acq: 11 Apr 2022 20:19

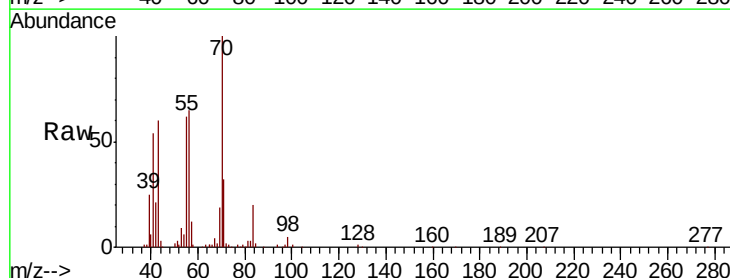
Tgt Ion: 83 Resp: 11216

Ion Ratio Lower Upper

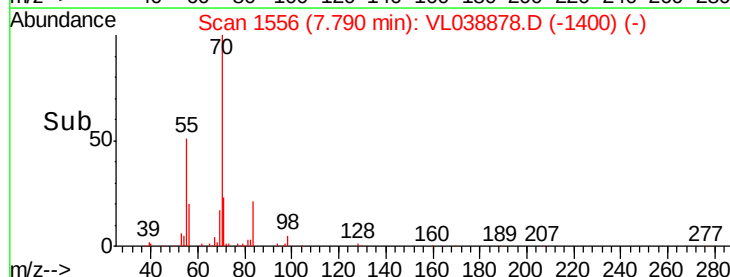
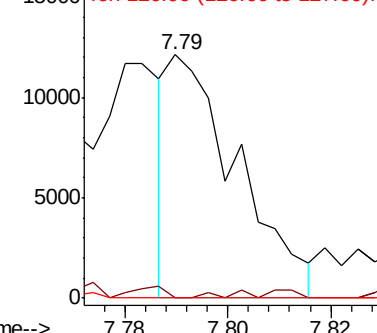
83 100

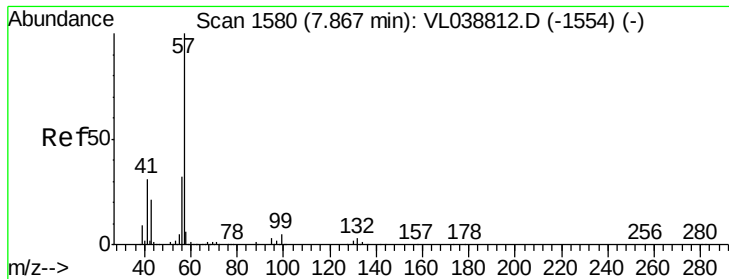
85 0.0 51.7 77.5#

127 0.0 5.9 8.9#



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0
Ion 126.90 (126.60 to 127.60): V





#44

2,2,4-Trimethylpentane

Concen: 0.129 ppbv

RT: 7.86 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 11 Apr 2022 20:19

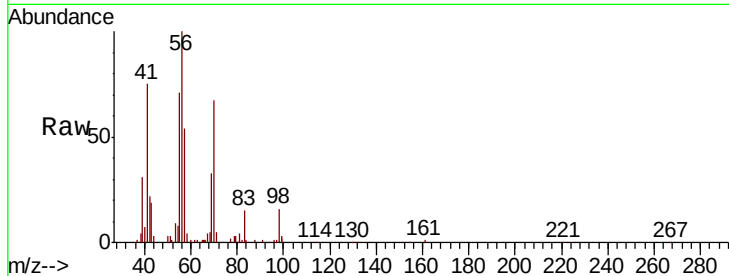
Tot Ion: 57 Resp: 63599

Ion Ratio Lower Upper

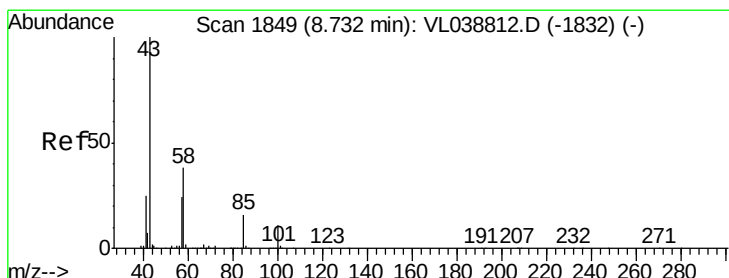
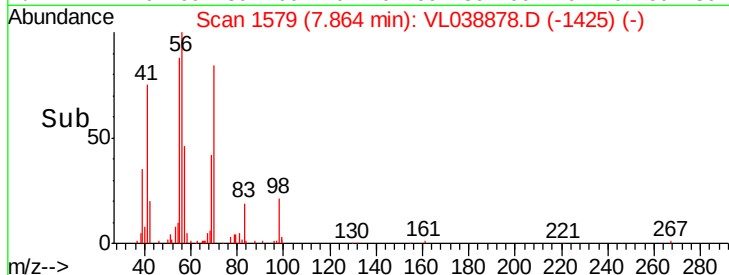
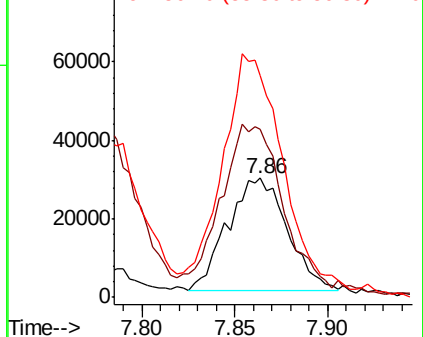
57 100

41 170.3 25.0 37.4#

56 234.2 25.3 37.9#



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



#50

4-Methyl-2-Pentanone

Concen: 0.219 ppbv

RT: 8.76 min Scan# 1857

Delta R.T. 0.03 min

Lab File: VL038878.D

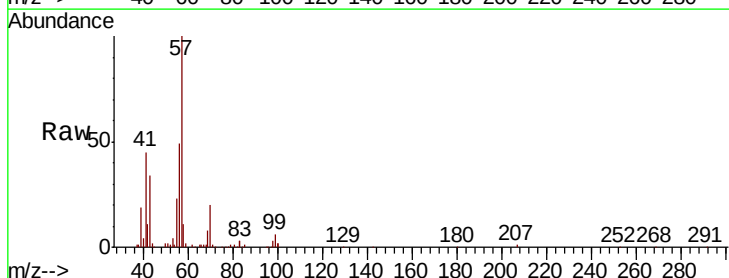
Acq: 11 Apr 2022 20:19

Tgt Ion: 43 Resp: 62422

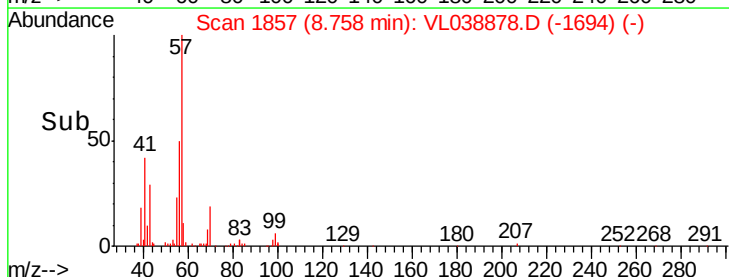
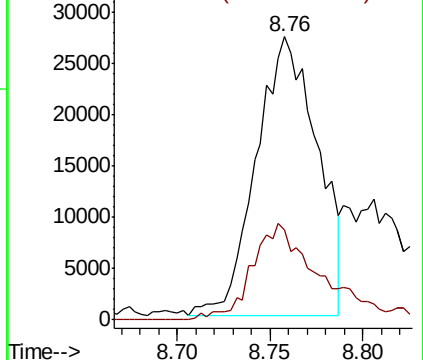
Ion Ratio Lower Upper

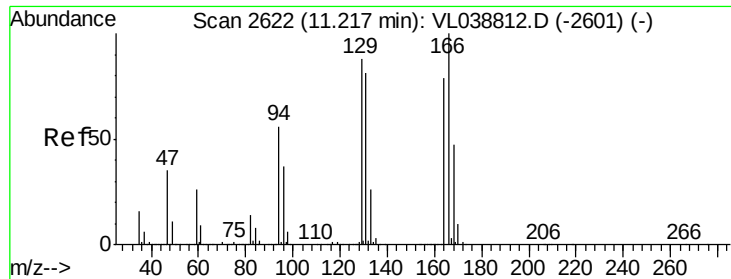
43 100

58 39.1 29.0 43.6



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 58.10 (57.80 to 58.80): VL0





#52

Tetrachloroethene

Concen: 0.039 ppbv

RT: 11.22

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 11 Apr 2022 20:19

Tot Ion:164 Resp: 3996

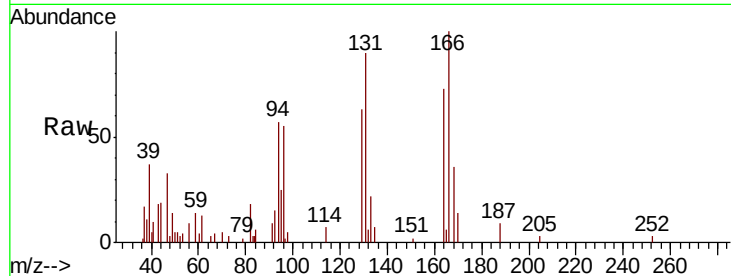
Ion Ratio Lower Upper

164 100

166 143.4 101.0 151.6

129 87.8 88.7 133.1#

131 124.6 81.8 122.6#

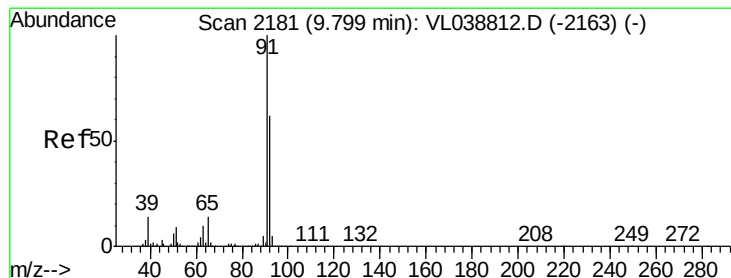
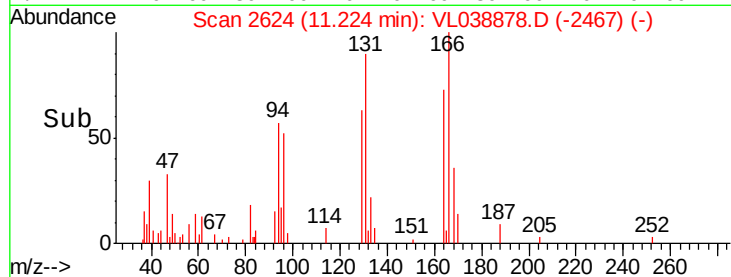
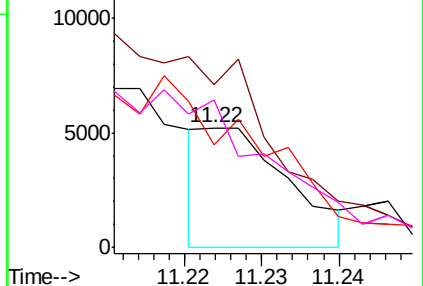


Abundance Ion 163.90 (163.60 to 164.60): V

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: 38.996 ppbv

RT: 9.80 min Scan# 2181

Delta R.T. -0.00 min

Lab File: VL038878.D

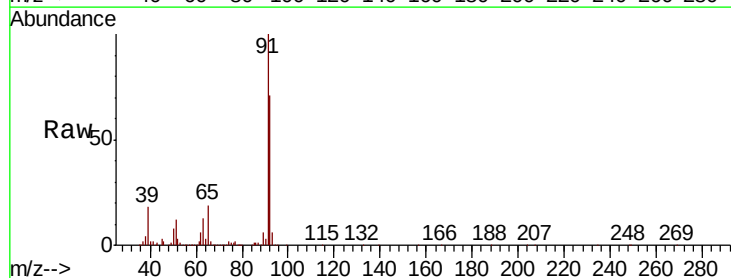
Acq: 11 Apr 2022 20:19

Tgt Ion: 91 Resp:13154167

Ion Ratio Lower Upper

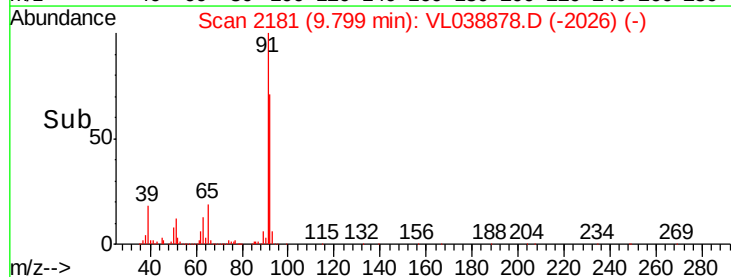
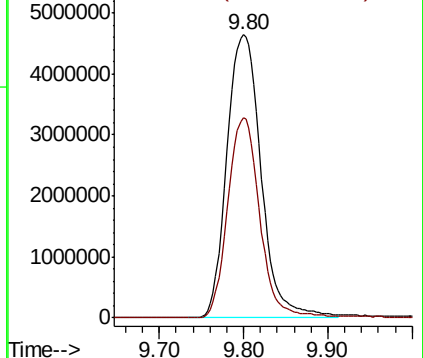
91 100

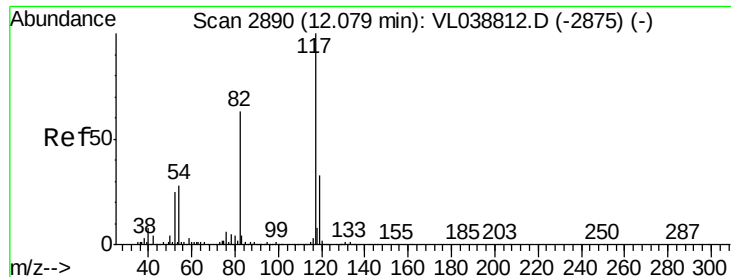
92 67.4 49.2 73.8



Abundance Ion 91.10 (90.80 to 91.80): VL0

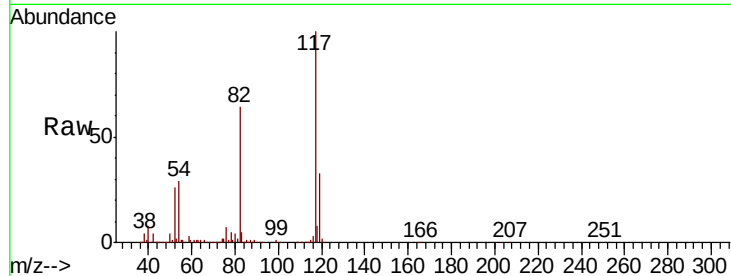
Ion 92.10 (91.80 to 92.80): VL0



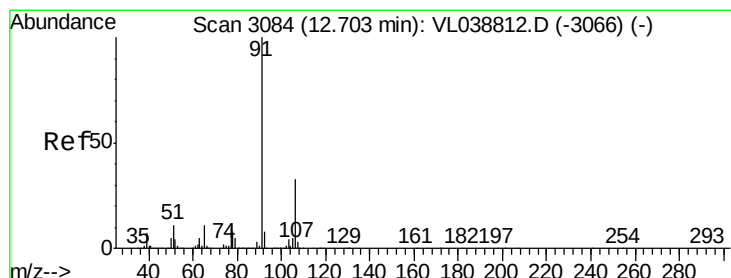
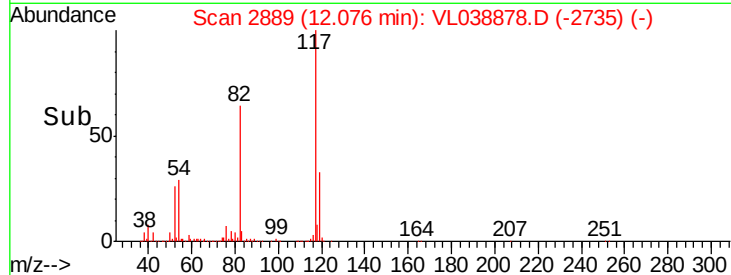
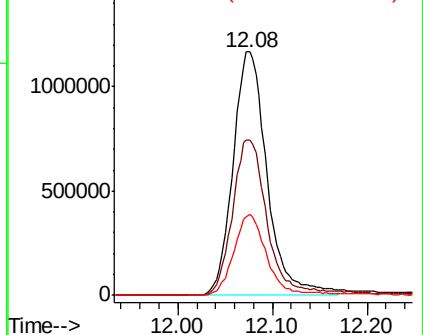


#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.08 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 11 Apr 2022 20:19

Tot Ion: 117 Resp: 2928750
Ion Ratio Lower Upper
117 100
82 66.7 53.0 79.6
119 33.0 24.9 37.3

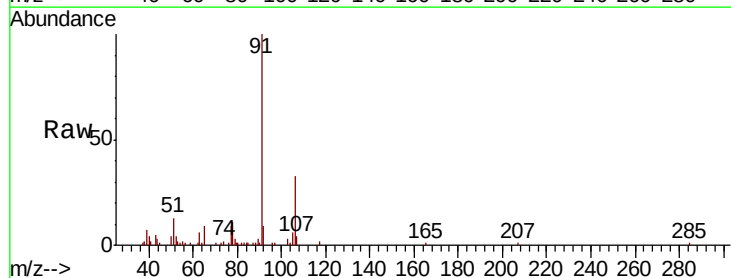


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

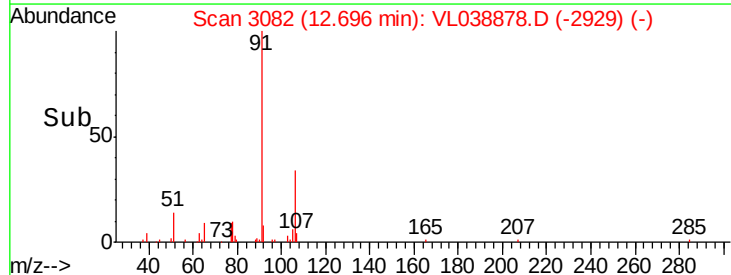
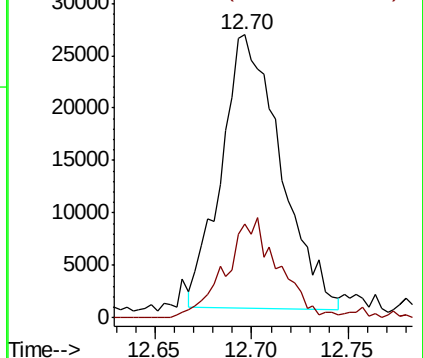


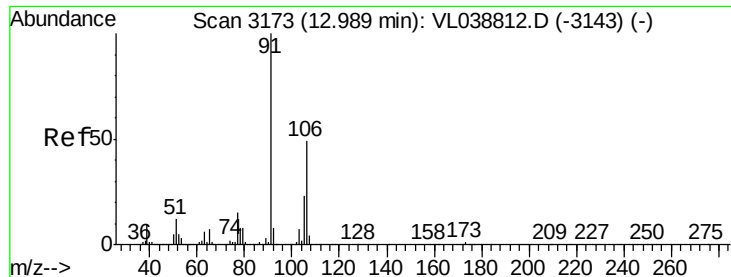
#58
Ethyl Benzene
Concen: 0.127 ppbv
RT: 12.70 min Scan# 3082
Delta R.T.: -0.01 min
Lab File: VL038878.D
Acq: 11 Apr 2022 20:19

Tgt Ion: 91 Resp: 55581
Ion Ratio Lower Upper
91 100
106 34.7 26.7 40.1



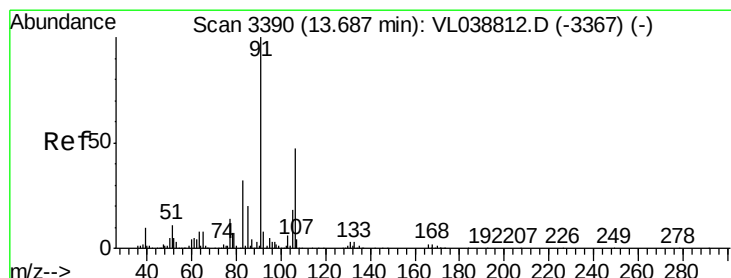
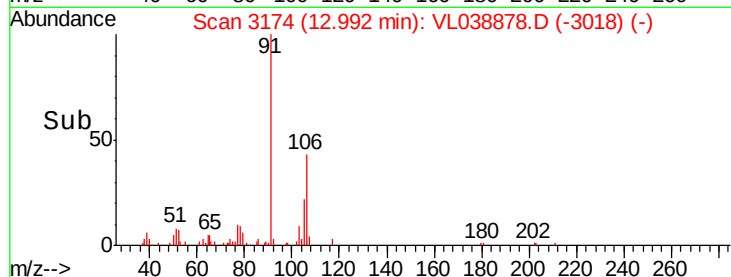
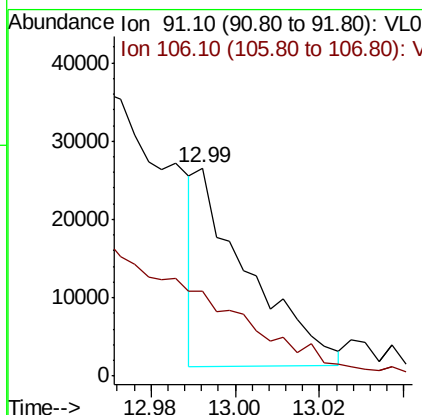
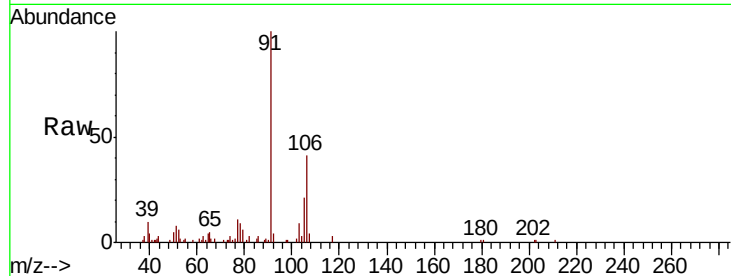
Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V





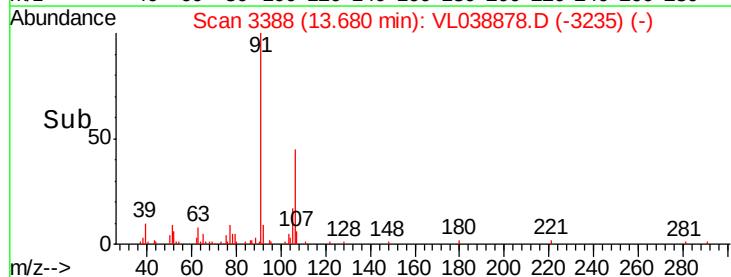
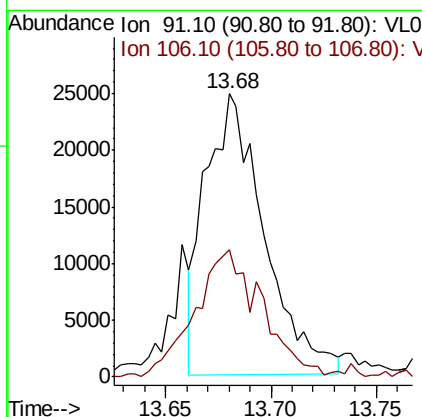
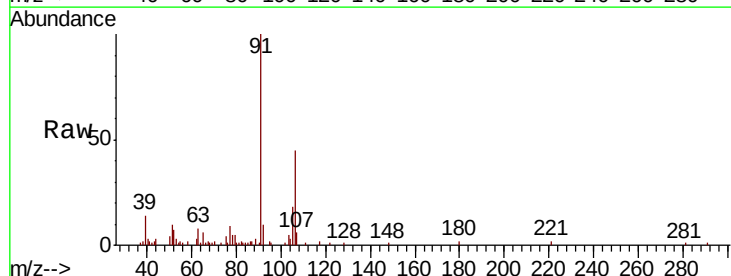
#59
m/p-Xylene
Concen: 0.058 ppbv
RT: 12.99
Instrument: MSVOA_L
Delta R.T.:
Lab File: ClientSampleId:
Acq: 11 Apr 2022 20:19

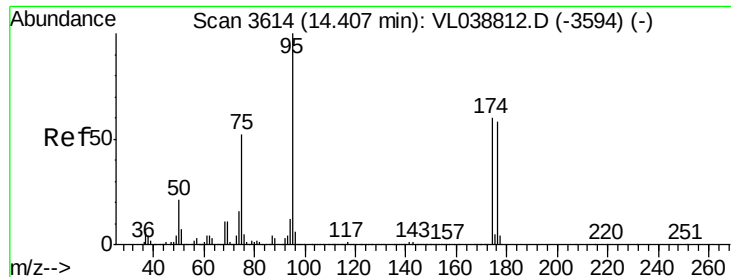
Tot Ion: 91 Resp: 21493
Ion Ratio Lower Upper
91 100
106 0.0 37.1 55.7#



#60
o-Xylene
Concen: 0.140 ppbv
RT: 13.68 min Scan# 3388
Delta R.T.: -0.01 min
Lab File: VL038878.D
Acq: 11 Apr 2022 20:19

Tgt Ion: 91 Resp: 48101
Ion Ratio Lower Upper
91 100
106 52.9 23.8 71.4





#68

1-Bromo-4-Fluorobenzene

Concen: 10.030 ppbv

RT: 14.40 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 11 Apr 2022 20:19

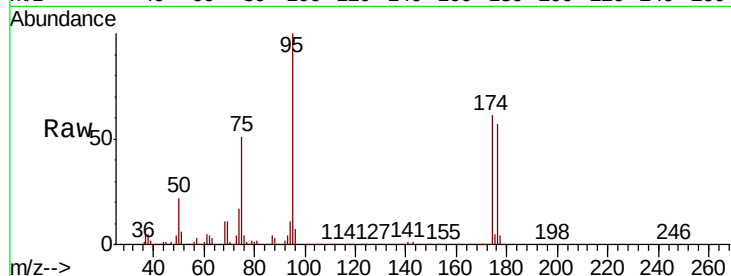
Tot Ion: 95 Resp: 2228314

Ion Ratio Lower Upper

95 100

174 65.7 52.0 78.0

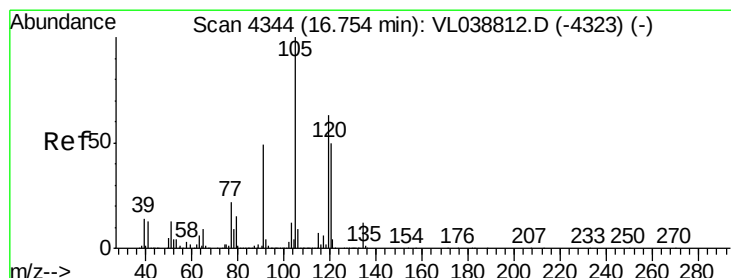
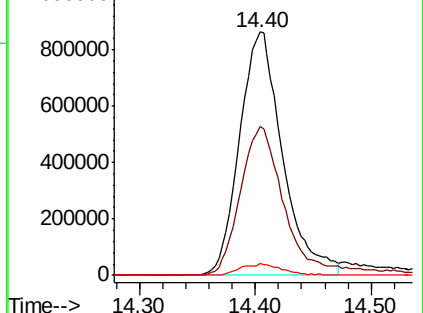
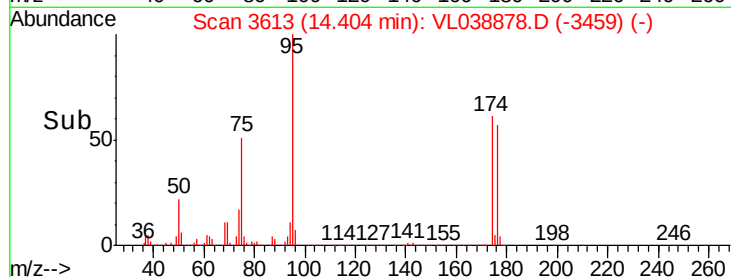
175 4.7 4.0 6.0



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



#74

1,2,4-Trimethylbenzene

Concen: 0.058 ppbv

RT: 16.75 min Scan# 4343

Delta R.T. -0.00 min

Lab File: VL038878.D

Acq: 11 Apr 2022 20:19

Tgt Ion: 105 Resp: 22443

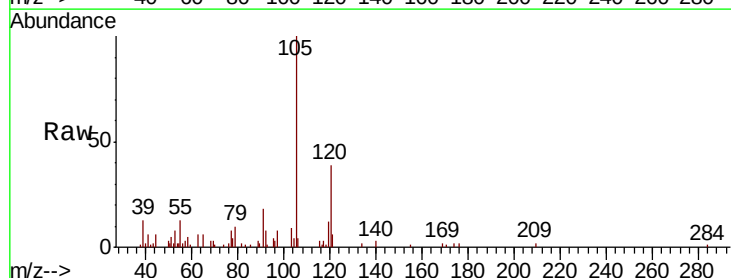
Ion Ratio Lower Upper

105 100

120 37.6 39.8 59.8#

91 15.4 39.4 59.0#

77 13.7 17.3 25.9#



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

