

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040221\
 Data File : VL036652.D
 Acq On : 2 Apr 2021 19:44
 Operator : SY/AP
 Sample : M1841-07DL 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Apr 03 02:58:20 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 09:42:40 2021
 QLast Update : Thu Mar 25 09:42:40 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1369548	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.16	114	3469019	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.07	117	3101608	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.40	95	2406239	9.73	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.30%

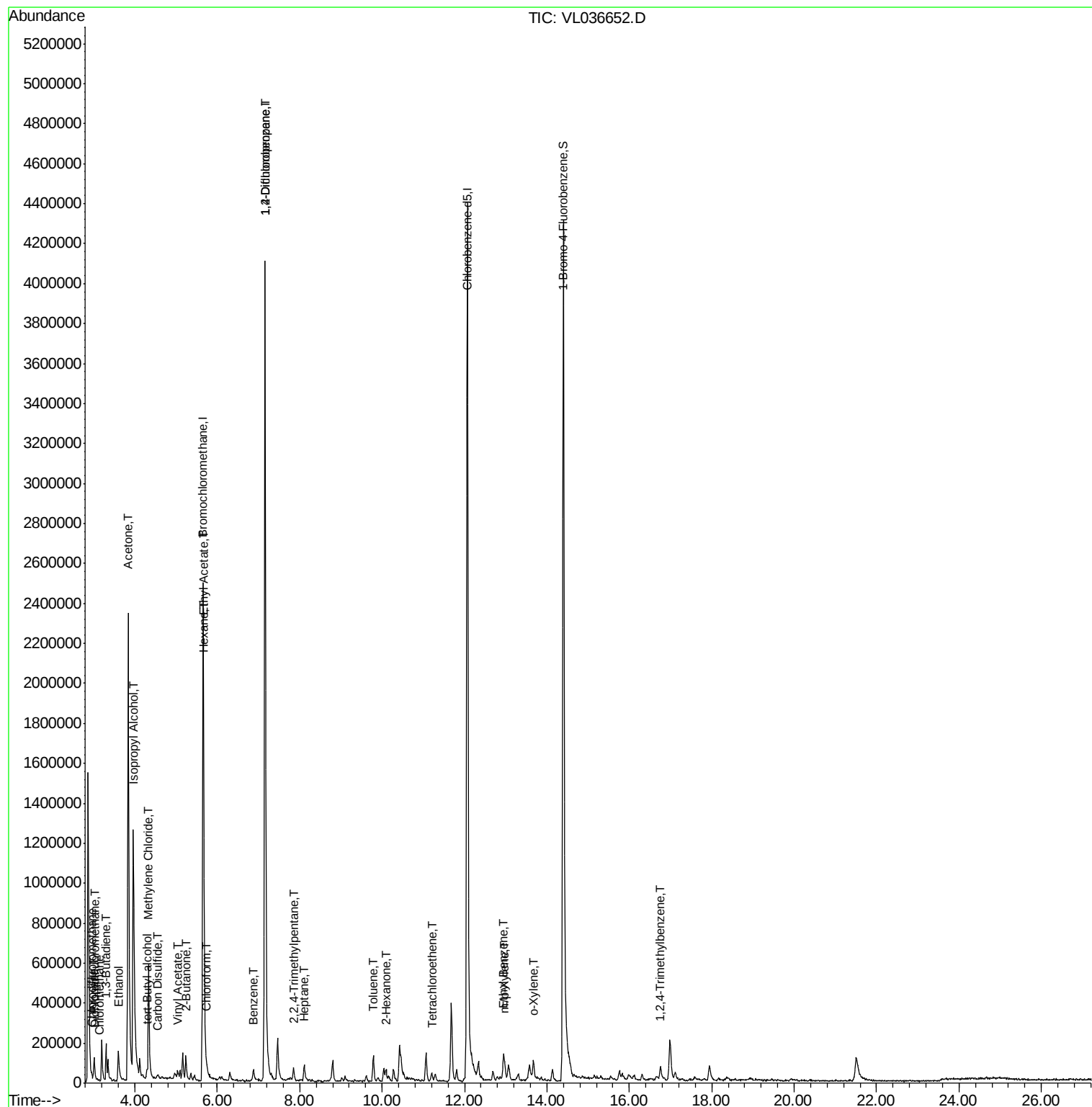
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.04	85	6836	0.031 ppbv	93
3) Chlorodifluoromethane	2.96	51	28634	0.112 ppbv #	67
4) Chloromethane	3.13	50	1949	0.022 ppbv #	50
9) Propene	3.00	41	27532	0.338 ppbv #	71
10) Heptane	8.10	43	8863	0.043 ppbv #	28
13) Ethanol	3.60	45	209734	21.591 ppbv	98
15) Acetone	3.84	43	3188367	23.653 ppbv	99
16) 1,3-Butadiene	3.30	39	59613	0.635 ppbv #	27
17) tert-Butyl alcohol	4.29	59	25056	0.214 ppbv #	28
19) Isopropyl Alcohol	3.96	45	2016188	27.191 ppbv #	1
20) Methylene Chloride	4.33	84	207635	3.290 ppbv	88
23) Vinyl Acetate	5.05	43	12541	0.054 ppbv #	17
25) Ethyl Acetate	5.67	43	149108	0.465 ppbv #	80
26) Hexane	5.67	57	200504	1.348 ppbv #	48
27) Carbon Disulfide	4.53	76	6124	0.042 ppbv #	1
29) Chloroform	5.73	83	7154	0.030 ppbv	83
34) 2-Butanone	5.24	43	153047	0.904 ppbv	97
36) Benzene	6.88	78	15751	0.049 ppbv #	87
39) 1,2-Dichloropropane	7.16	63	891717	6.871 ppbv #	24
44) 2,2,4-Trimethylpentane	7.85	57	50230	0.089 ppbv #	86
51) 2-Hexanone	10.10	43	16000	0.129 ppbv #	40
52) Tetrachloroethene	11.20	164	5176	0.044 ppbv #	74
53) Toluene	9.79	91	80842	0.237 ppbv	91
58) Ethyl Benzene	12.95	91	98770	0.219 ppbv	89
59) m/p-Xylene	12.97	91	47307	0.120 ppbv #	32
60) o-Xylene	13.67	91	44180	0.116 ppbv #	62
74) 1,2,4-Trimethylbenzene	16.75	105	18250	0.044 ppbv #	70

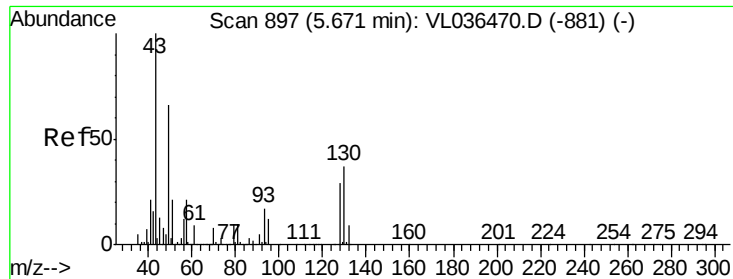
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Thu Mar 25 09:42:40 2021
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 891

Delta R.T. -0.02 min

Lab File: VL036652.D

Acq: 2 Apr 2021 19:44

Instrument :
MSVOA_L
ClientSampleId :

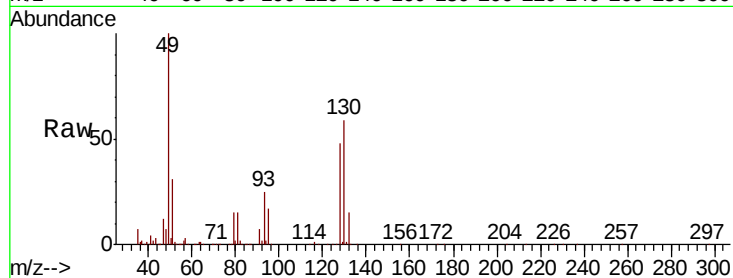
Tot Ion: 49 Resp: 1369548

Ion Ratio Lower Upper

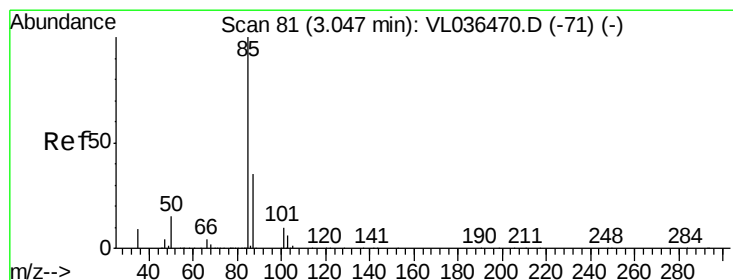
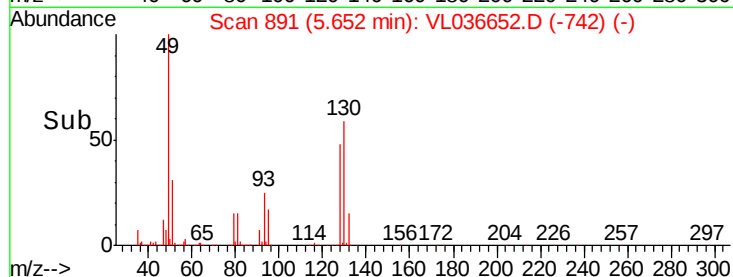
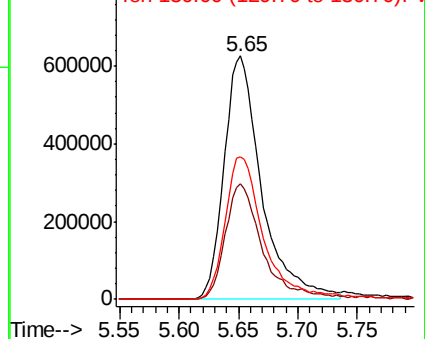
49 100

128 47.9 23.5 70.6

130 61.7 29.1 87.4



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: 0.031 ppbv

RT: 3.04 min Scan# 79

Delta R.T. -0.01 min

Lab File: VL036652.D

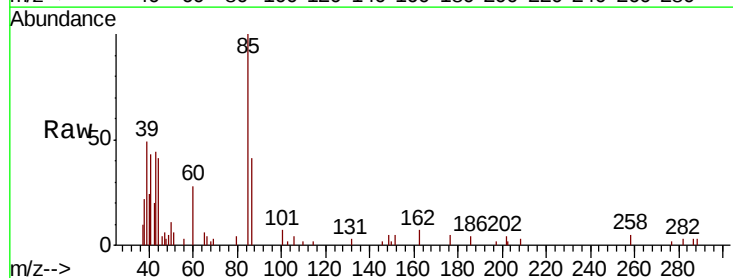
Acq: 2 Apr 2021 19:44

Tgt Ion: 85 Resp: 6836

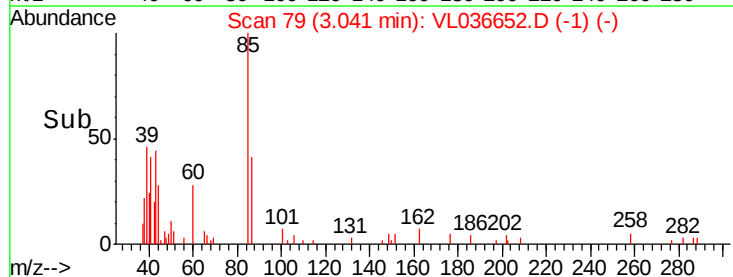
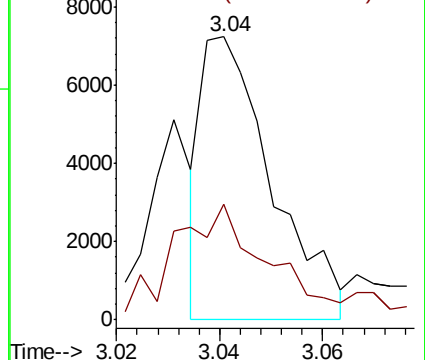
Ion Ratio Lower Upper

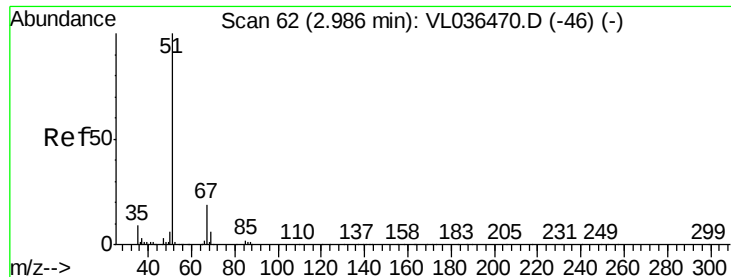
85 100

87 39.0 27.8 41.8



Abundance Ion 85.00 (84.70 to 85.70): VL0
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.112 ppbv

RT: 2.96 min Scan# 53

Delta R.T. -0.03 min

Lab File: VL036652.D

Acq: 2 Apr 2021 19:44

Instrument :

MSVOA_L

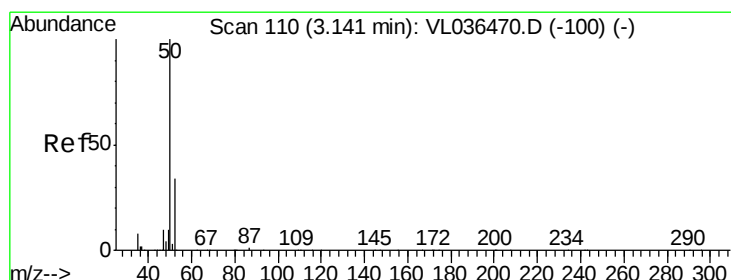
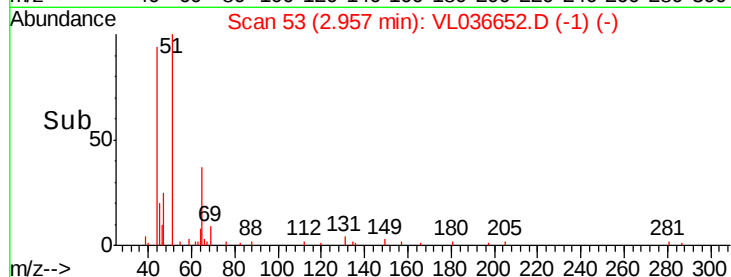
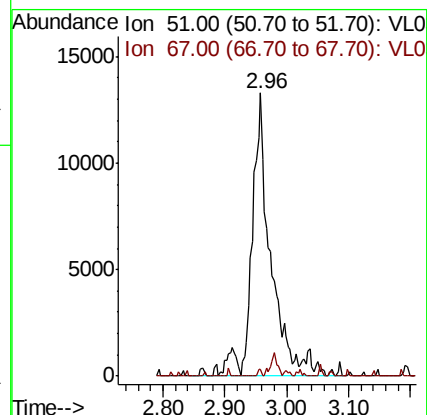
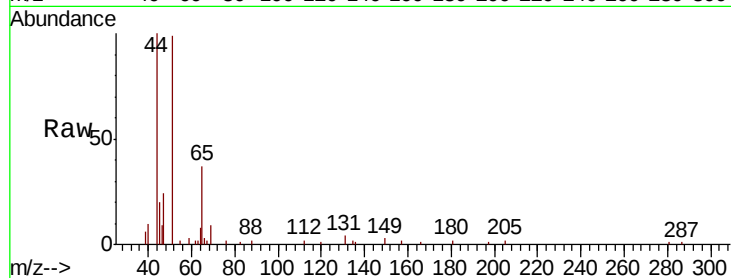
ClientSampleId :

Tot Ion: 51 Resp: 28634

Ion Ratio Lower Upper

51 100

67 3.7 14.7 22.1#



#4

Chloromethane

Concen: 0.022 ppbv

RT: 3.13 min Scan# 106

Delta R.T. -0.01 min

Lab File: VL036652.D

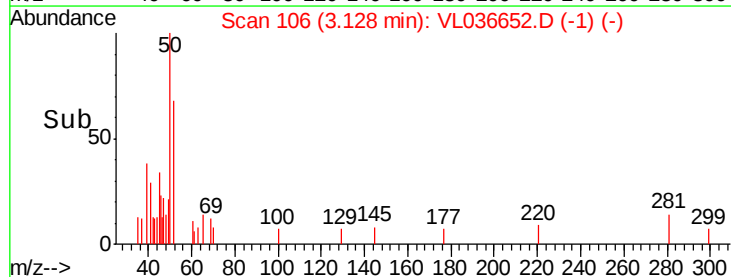
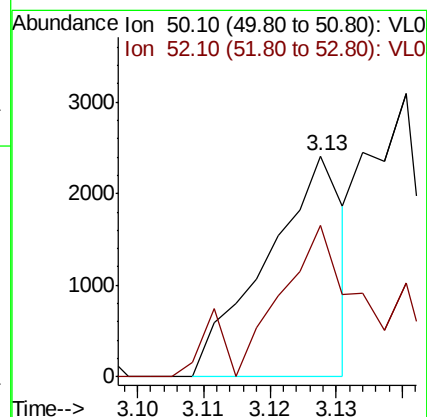
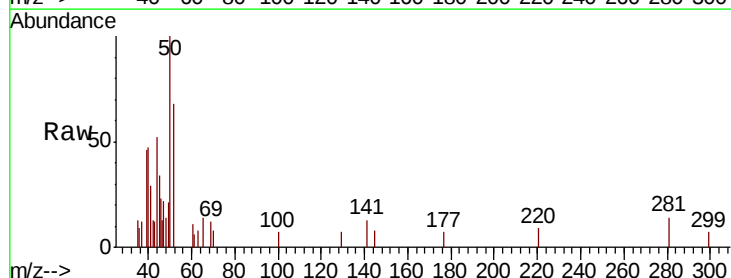
Acq: 2 Apr 2021 19:44

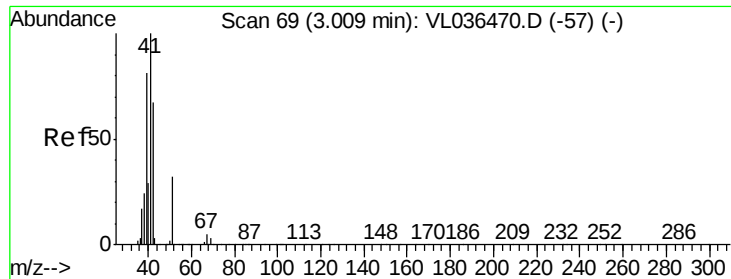
Tgt Ion: 50 Resp: 1949

Ion Ratio Lower Upper

50 100

52 62.2 27.0 40.6#





#9

Propene

Concen: 0.338 ppbv

RT: 3.00 min Scan# 67

Delta R.T. -0.01 min

Lab File: VL036652.D

Acq: 2 Apr 2021 19:44

Instrument :

MSVOA_L

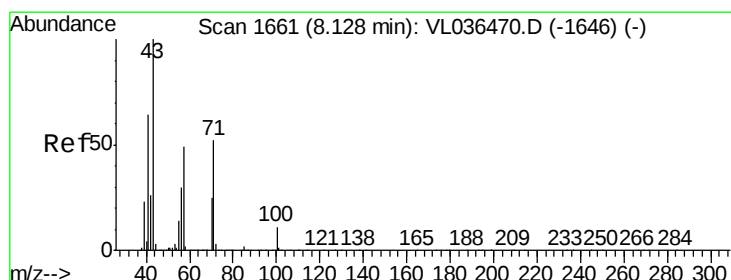
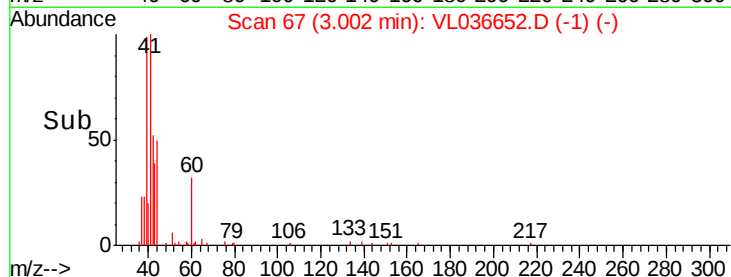
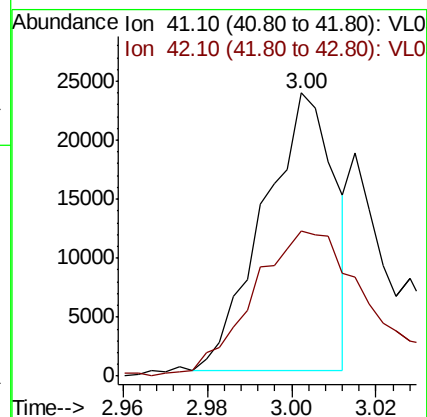
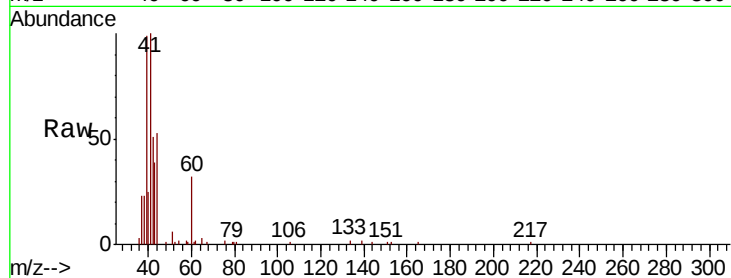
ClientSampleId :

Tot Ion: 41 Resp: 27532

Ion Ratio Lower Upper

41 100

42 95.3 57.0 85.4#



#10

Heptane

Concen: 0.043 ppbv

RT: 8.10 min Scan# 1651

Delta R.T. -0.03 min

Lab File: VL036652.D

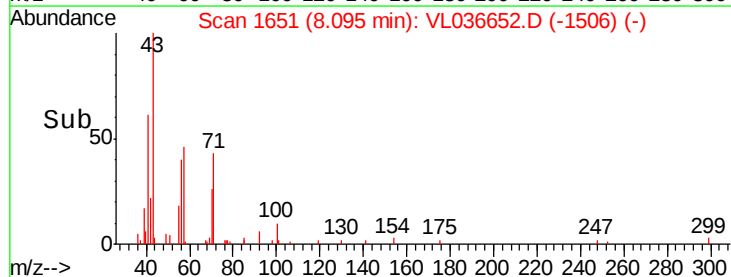
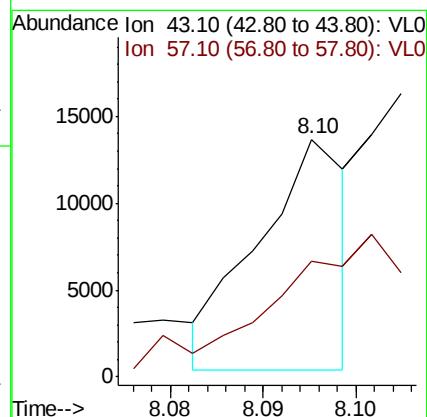
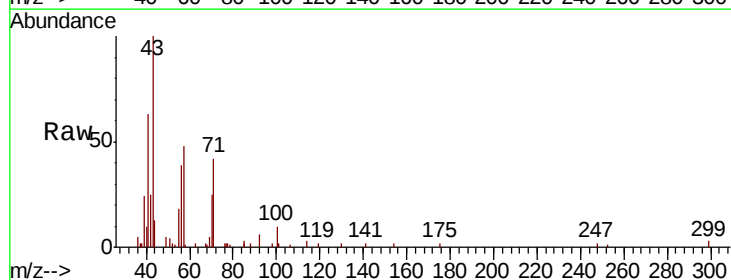
Acq: 2 Apr 2021 19:44

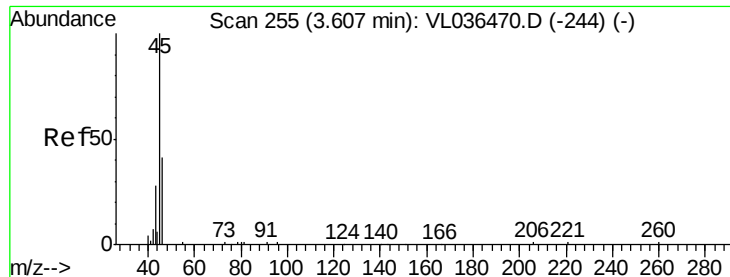
Tgt Ion: 43 Resp: 8863

Ion Ratio Lower Upper

43 100

57 0.0 39.0 58.6#





#13

Ethanol

Concen: 21.591 ppbv

RT: 3.60 min Scan# 252

Delta R.T. -0.01 min

Lab File: VL036652.D

Acq: 2 Apr 2021 19:44

Instrument :

MSVOA_L

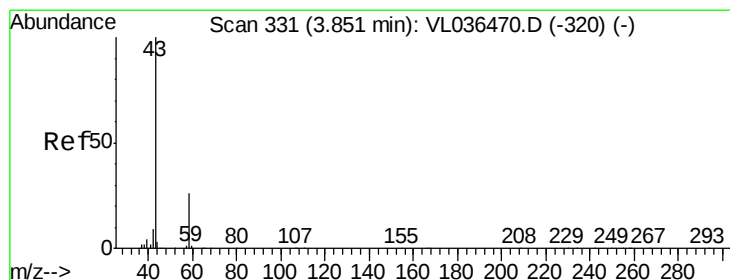
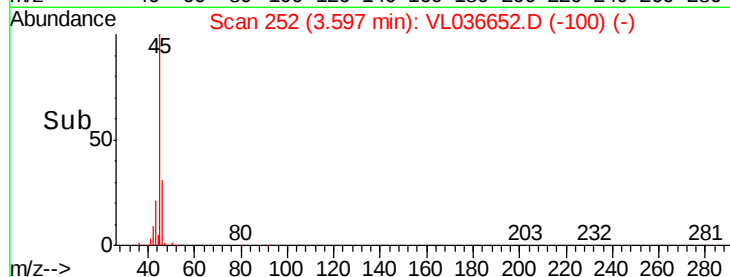
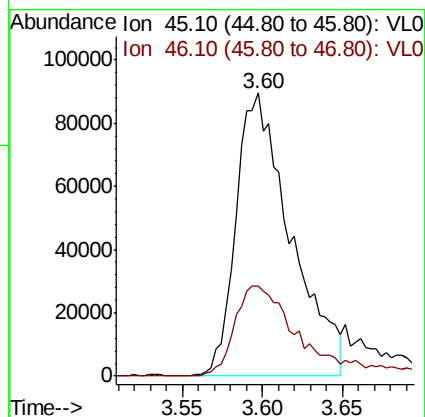
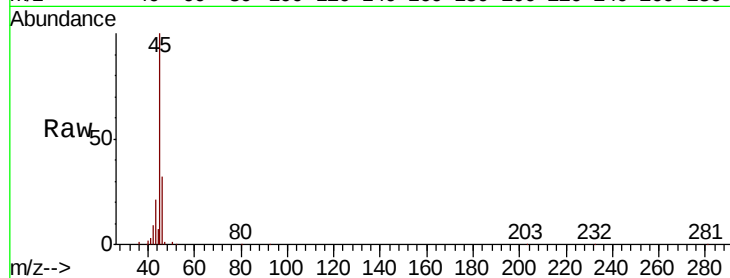
ClientSampleId :

Tot Ion: 45 Resp: 209734

Ion Ratio Lower Upper

45 100

46 40.2 16.6 66.2



#15

Acetone

Concen: 23.653 ppbv

RT: 3.84 min Scan# 326

Delta R.T. -0.02 min

Lab File: VL036652.D

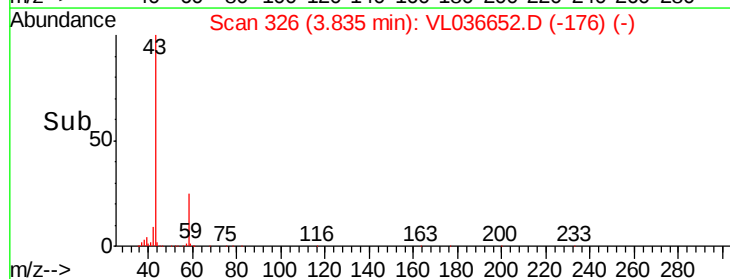
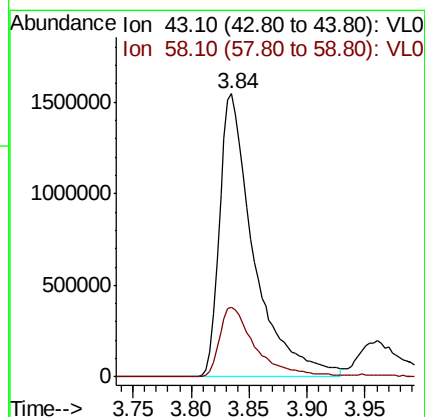
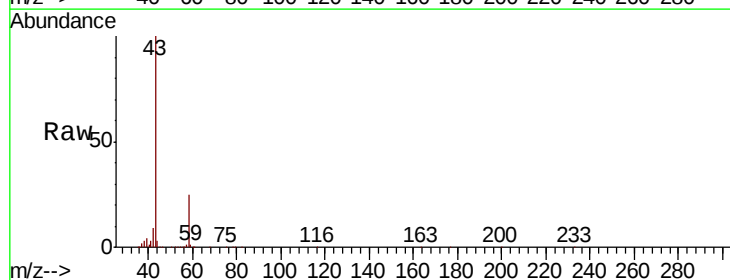
Acq: 2 Apr 2021 19:44

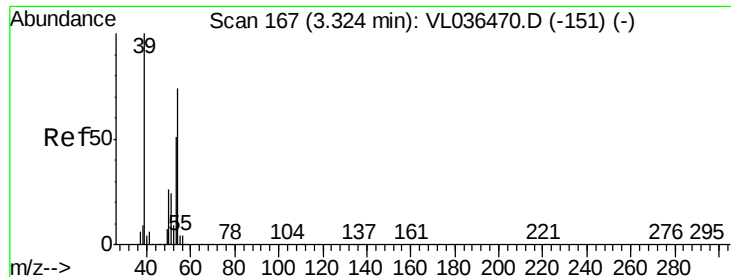
Tgt Ion: 43 Resp: 3188367

Ion Ratio Lower Upper

43 100

58 26.1 21.2 31.8

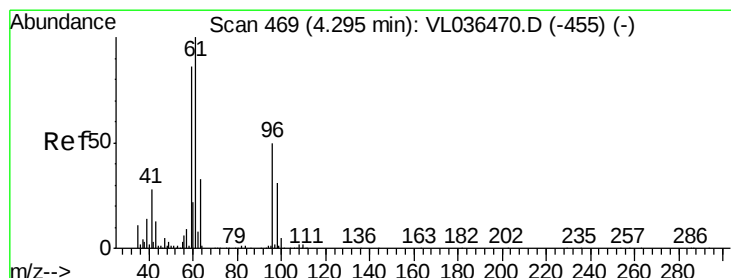
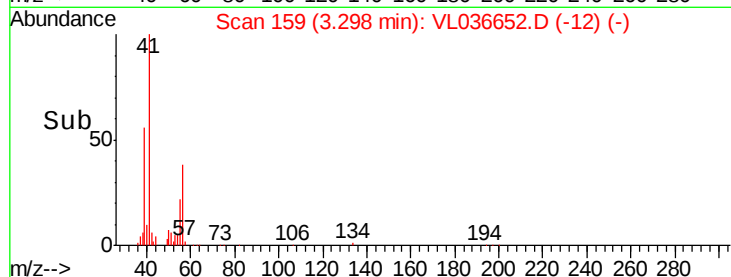
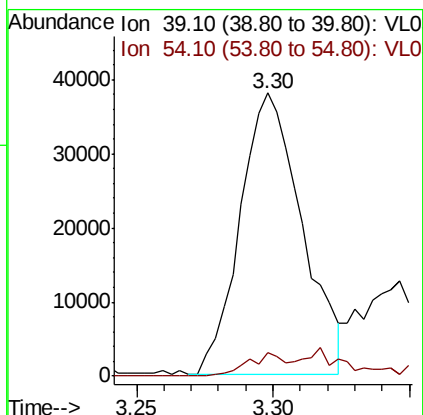
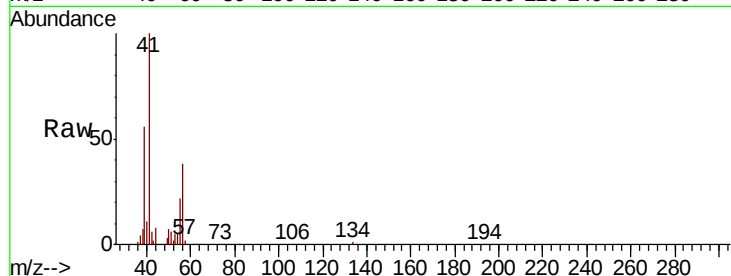




#16
 1,3-Butadiene
 Concen: 0.635 ppbv
 RT: 3.30 min Scan# 159
 Delta R.T. -0.03 min
 Lab File: VL036652.D
 Acq: 2 Apr 2021 19:44

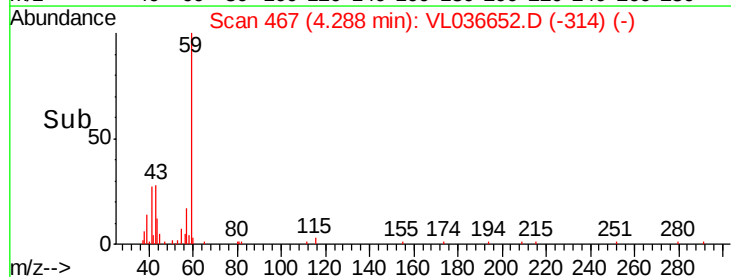
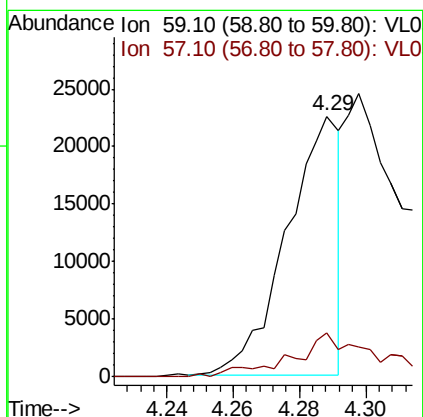
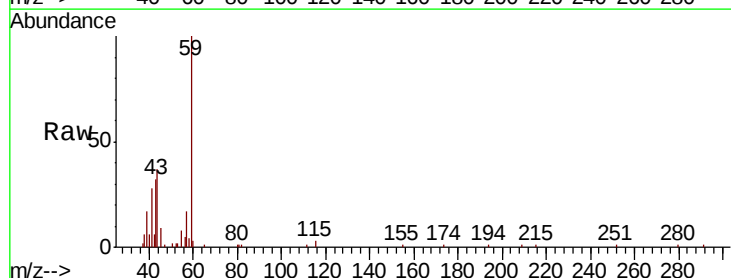
Instrument :
 MSVOA_L
 ClientSampleId :

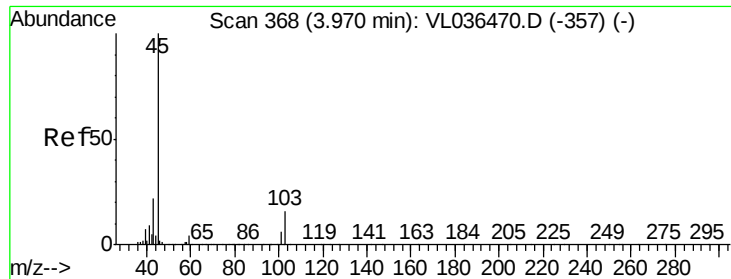
Tot Ion: 39 Resp: 59613
 Ion Ratio Lower Upper
 39 100
 54 12.4 58.8 88.2#



#17
 tert-Butyl alcohol
 Concen: 0.214 ppbv
 RT: 4.29 min Scan# 467
 Delta R.T. -0.01 min
 Lab File: VL036652.D
 Acq: 2 Apr 2021 19:44

Tgt Ion: 59 Resp: 25056
 Ion Ratio Lower Upper
 59 100
 57 37.7 8.6 12.8#





#19

Isopropyl Alcohol

Concen: 27.191 ppbv

RT: 3.96 min Scan# 364

Delta R.T. -0.01 min

Lab File: VL036652.D

Acq: 2 Apr 2021 19:44

Instrument :

MSVOA_L

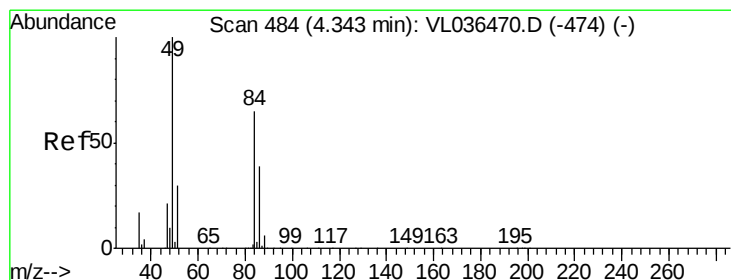
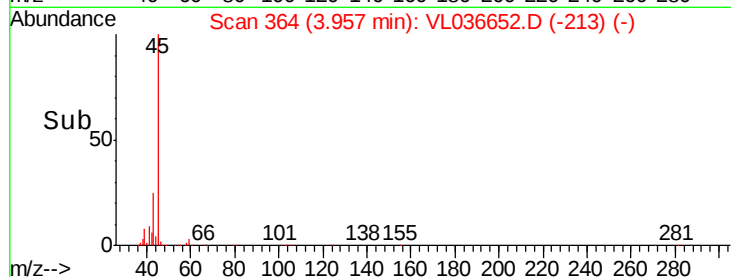
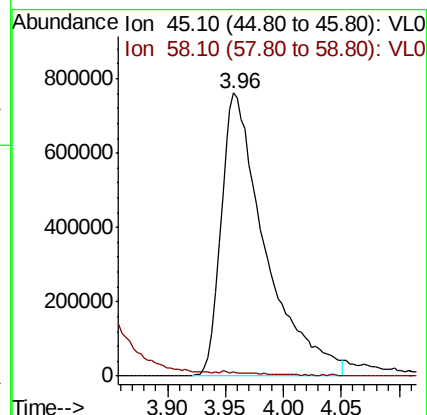
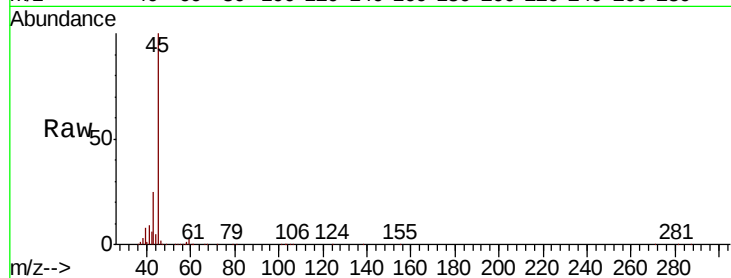
ClientSampleId :

Tot Ion: 45 Resp: 2016188

Ion Ratio Lower Upper

45 100

58 42.7 2.9 4.3#



#20

Methylene Chloride

Concen: 3.290 ppbv

RT: 4.33 min Scan# 480

Delta R.T. -0.01 min

Lab File: VL036652.D

Acq: 2 Apr 2021 19:44

Tgt Ion: 84 Resp: 207635

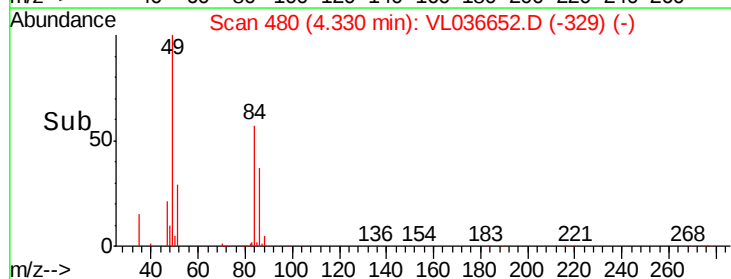
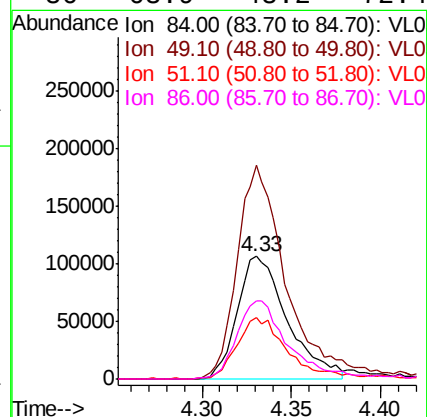
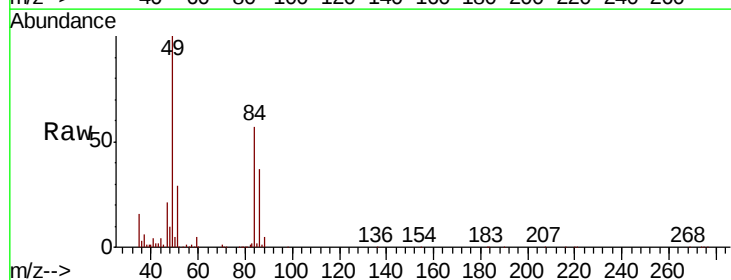
Ion Ratio Lower Upper

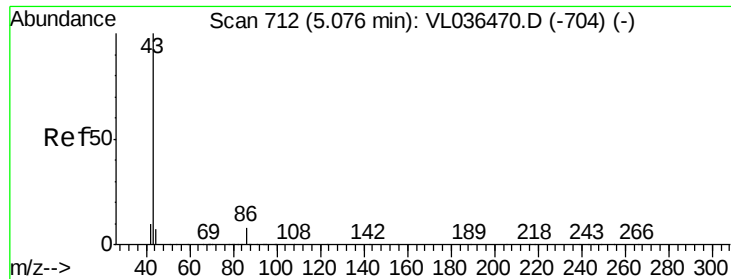
84 100

49 174.3 122.9 184.3

51 50.3 36.9 55.3

86 63.9 48.2 72.4

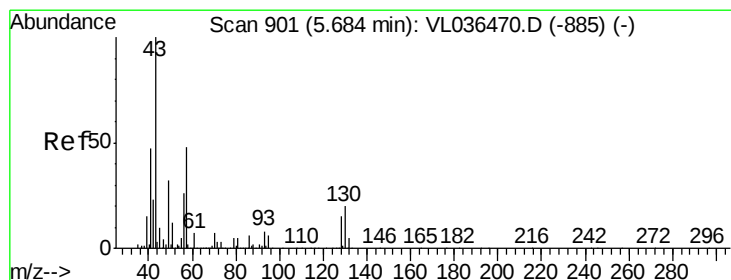
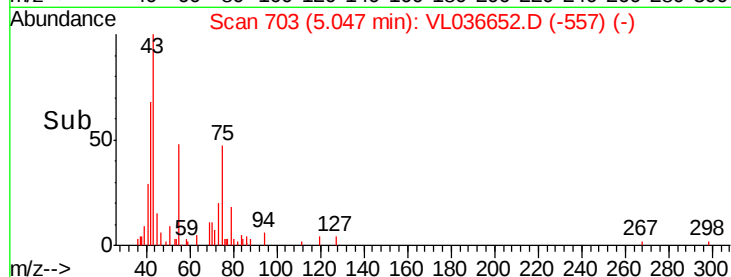
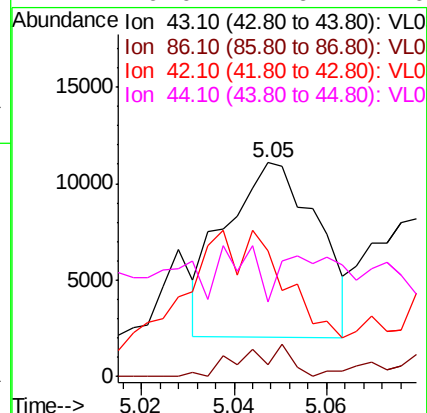
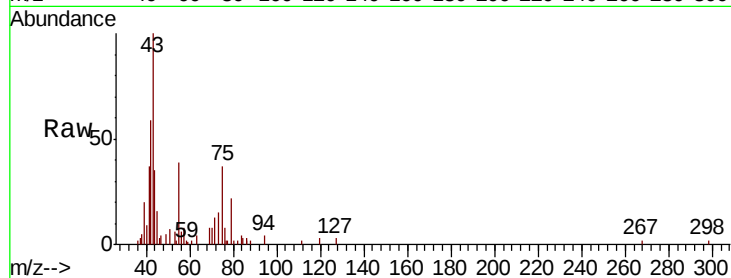




#23
 Vinyl Acetate
 Concen: 0.054 ppbv
 RT: 5.05 min Scan# 703
 Delta R.T. -0.03 min
 Lab File: VL036652.D
 Acq: 2 Apr 2021 19:44

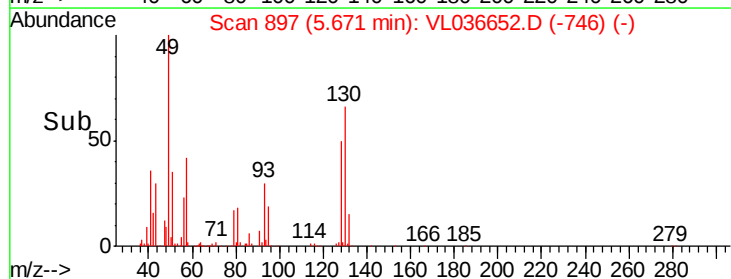
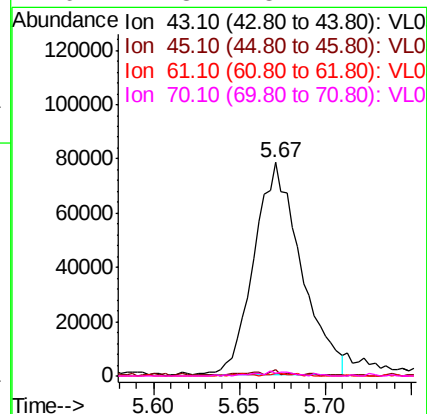
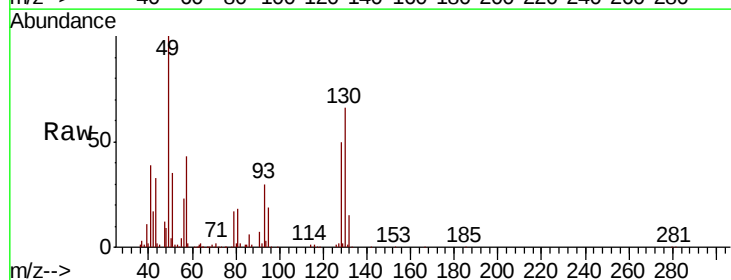
Instrument :
 MSVOA_L
 ClientSampleId :

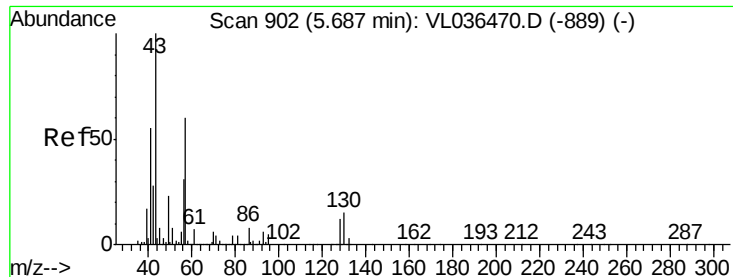
Tot Ion:	43	Resp:	12541
Ion	Ratio	Lower	Upper
43	100		
86	5.8	5.4	8.0
42	74.0	8.5	12.7#
44	0.0	4.6	7.0#



#25
 Ethyl Acetate
 Concen: 0.465 ppbv
 RT: 5.67 min Scan# 897
 Delta R.T. -0.01 min
 Lab File: VL036652.D
 Acq: 2 Apr 2021 19:44

Tgt Ion:	43	Resp:	149108
Ion	Ratio	Lower	Upper
43	100		
45	2.6	7.9	11.9#
61	0.7	7.4	11.2#
70	1.8	5.1	7.7#

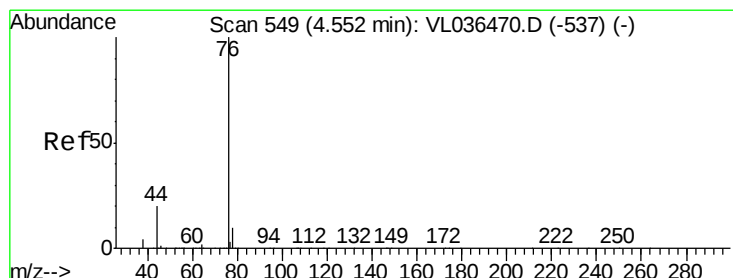
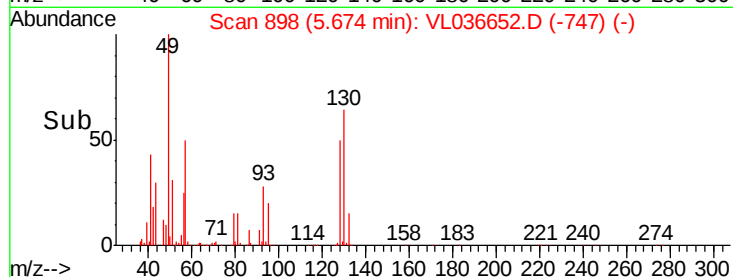
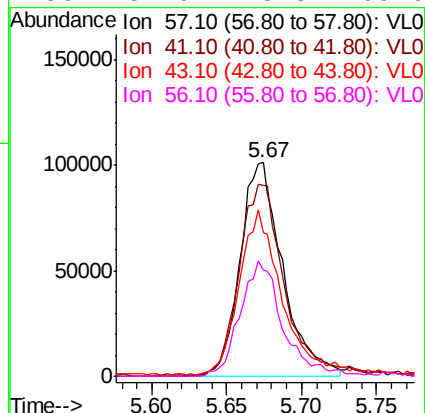
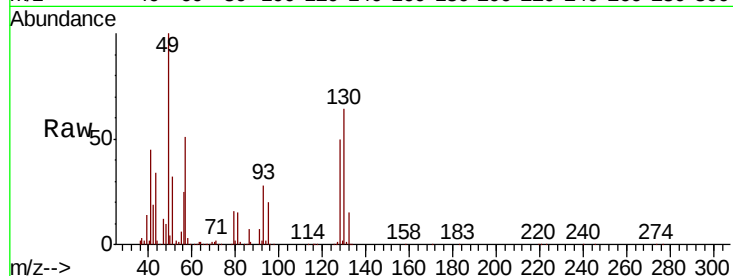




#26
Hexane
Concen: 1.348 ppbv
RT: 5.67 min Scan# 898
Delta R.T. -0.01 min
Lab File: VL036652.D
Acq: 2 Apr 2021 19:44

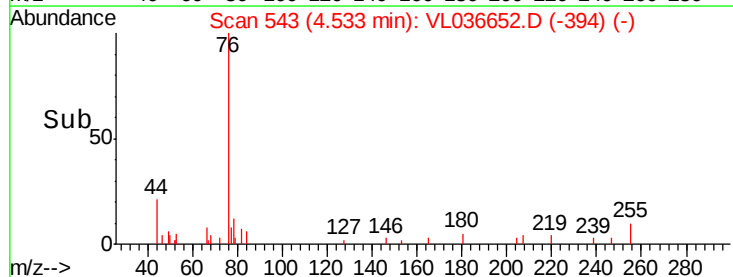
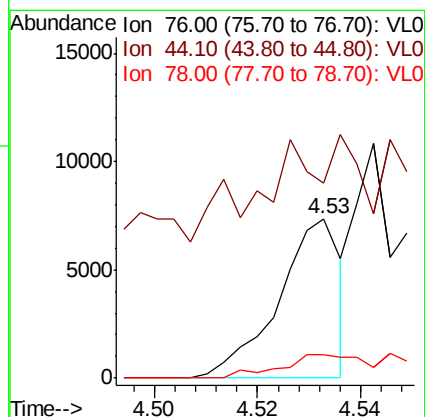
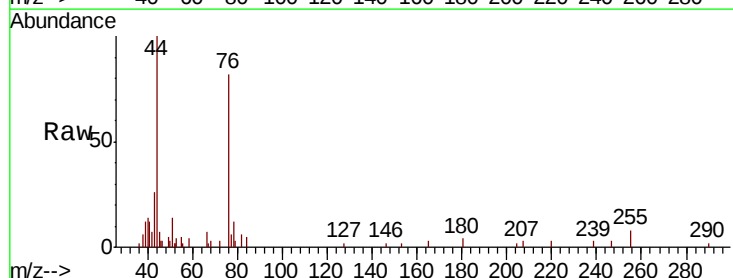
Instrument :
MSVOA_L
ClientSampleId :

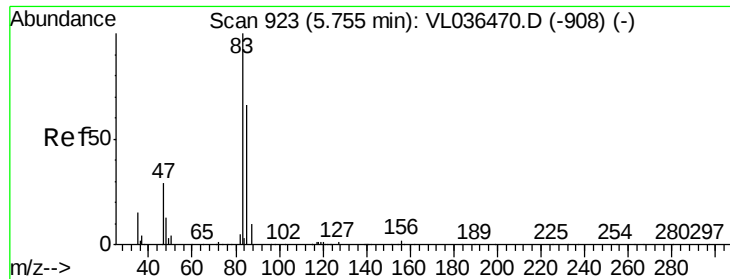
Tot Ion: 57 Resp: 200504
Ion Ratio Lower Upper
57 100
41 99.2 77.2 115.8
43 79.3 173.8 260.6#
56 54.9 43.8 65.6



#27
Carbon Disulfide
Concen: 0.042 ppbv
RT: 4.53 min Scan# 543
Delta R.T. -0.02 min
Lab File: VL036652.D
Acq: 2 Apr 2021 19:44

Tgt Ion: 76 Resp: 6124
Ion Ratio Lower Upper
76 100
44 202.5 17.5 26.3#
78 0.0 8.6 13.0#





#29

Chloroform

Concen: 0.030 ppbv

RT: 5.73 min Scan# 916

Delta R.T. -0.02 min

Lab File: VL036652.D

Acq: 2 Apr 2021 19:44

Instrument :

MSVOA_L

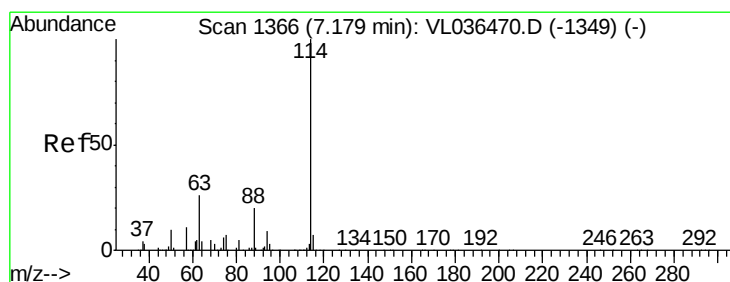
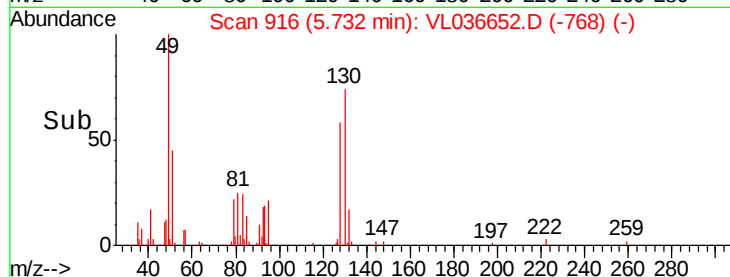
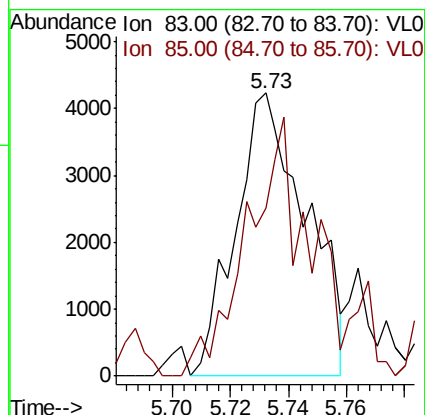
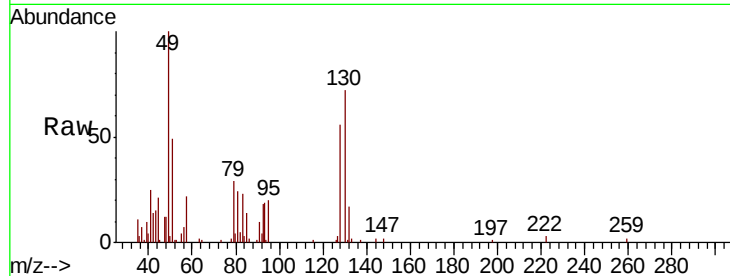
ClientSampleId :

Tot Ion: 83 Resp: 7154

Ion Ratio Lower Upper

83 100

85 52.6 52.6 78.8



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.02 min

Lab File: VL036652.D

Acq: 2 Apr 2021 19:44

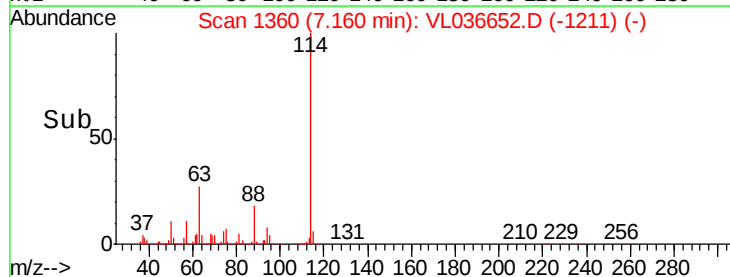
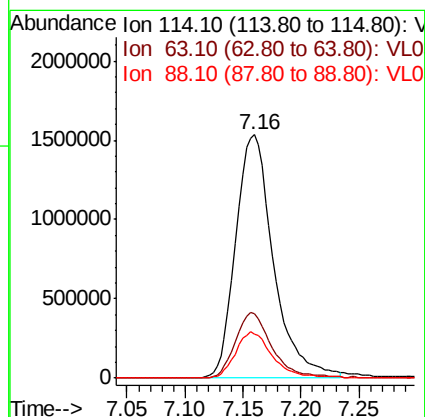
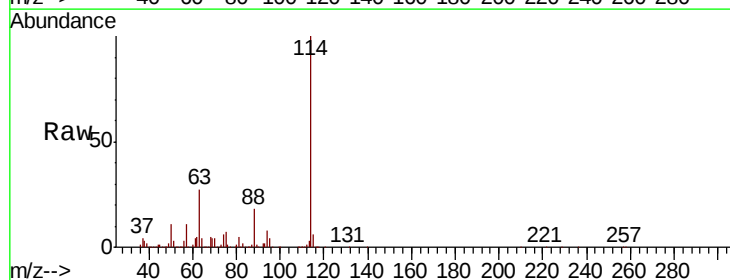
Tgt Ion: 114 Resp: 3469019

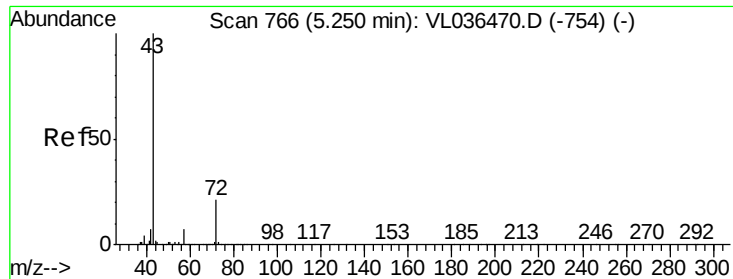
Ion Ratio Lower Upper

114 100

63 26.7 22.4 33.6

88 19.0 15.4 23.0

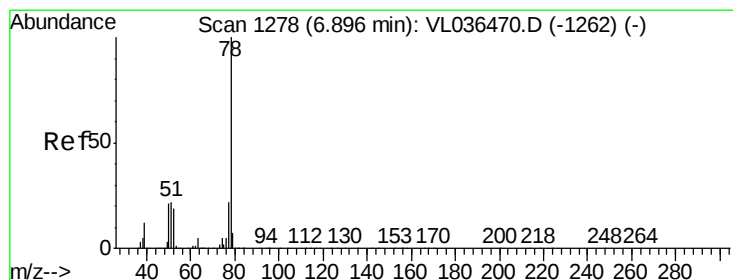
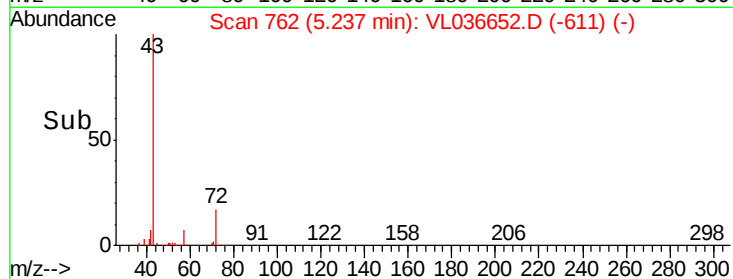
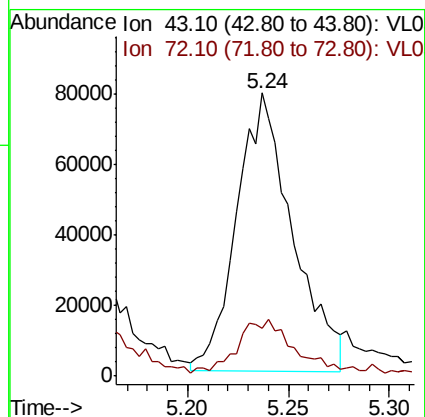
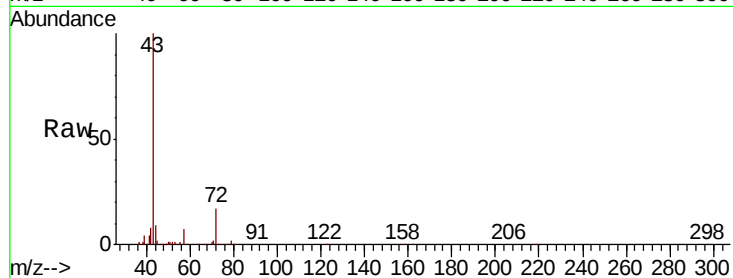




#34
2-Butanone
Concen: 0.904 ppbv
RT: 5.24 min Scan# 762
Delta R.T. -0.01 min
Lab File: VL036652.D
Acq: 2 Apr 2021 19:44

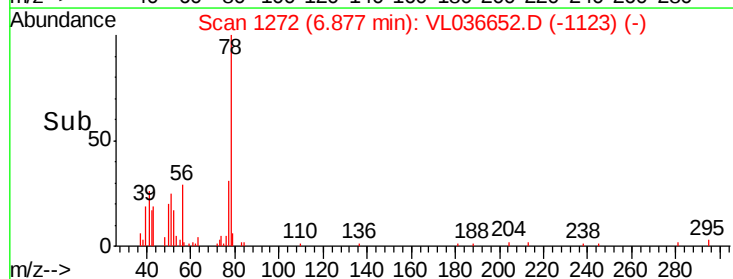
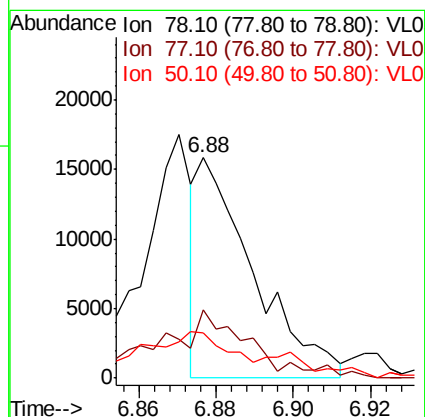
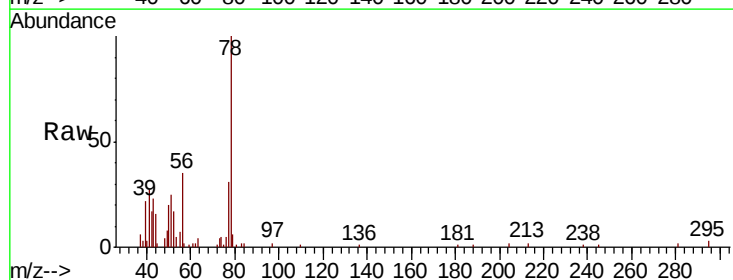
Instrument :
MSVOA_L
ClientSampleId :

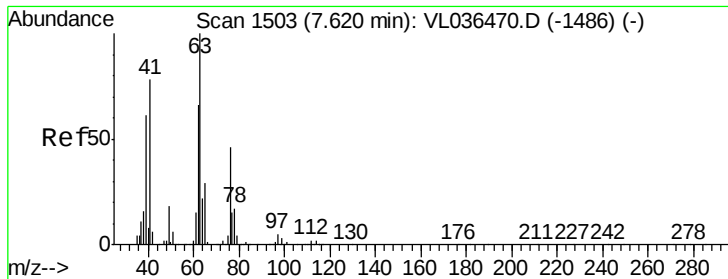
Tot Ion: 43 Resp: 153047
Ion Ratio Lower Upper
43 100
72 22.9 17.0 25.6



#36
Benzene
Concen: 0.049 ppbv
RT: 6.88 min Scan# 1272
Delta R.T. -0.02 min
Lab File: VL036652.D
Acq: 2 Apr 2021 19:44

Tgt Ion: 78 Resp: 15751
Ion Ratio Lower Upper
78 100
77 31.6 18.0 27.0#
50 17.9 16.5 24.7





#39

1,2-Dichloropropane

Concen: 6.871 ppbv

RT: 7.16 min Scan# 1359

Delta R.T. -0.46 min

Lab File: VL036652.D

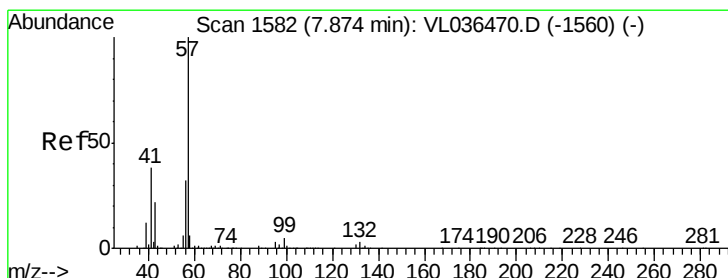
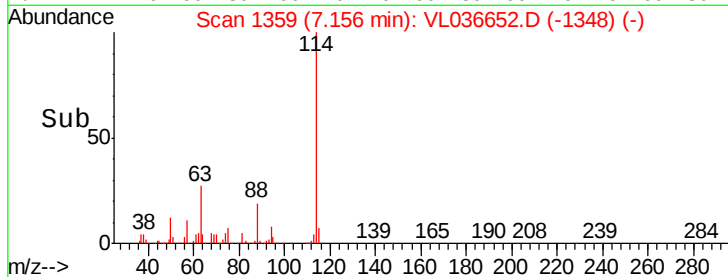
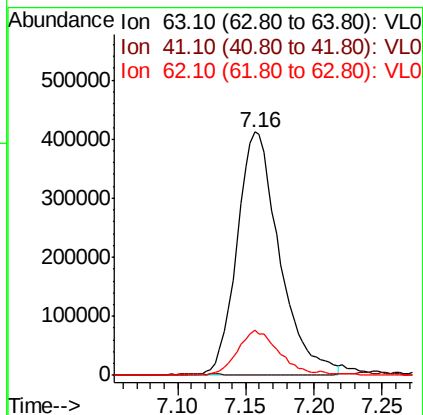
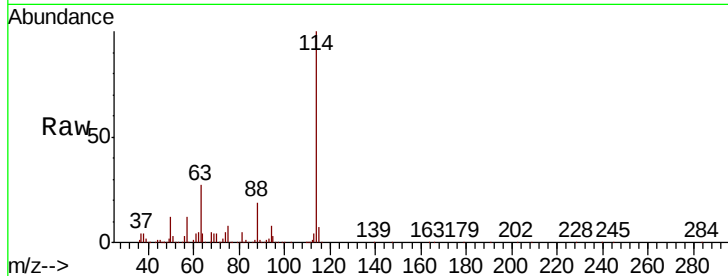
Acq: 2 Apr 2021 19:44

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:	63	Resp:	891717
Ion	Ratio	Lower	Upper
63	100		
41	0.0	62.4	93.6#
62	18.6	52.8	79.2#



#44

2,2,4-Trimethylpentane

Concen: 0.089 ppbv

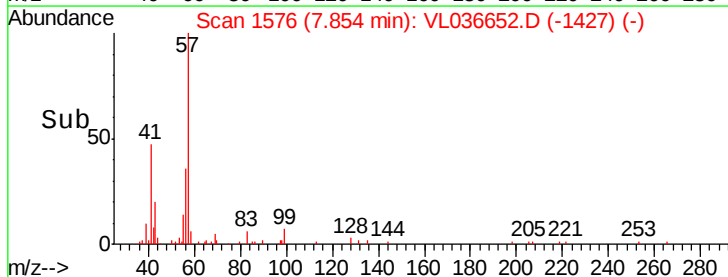
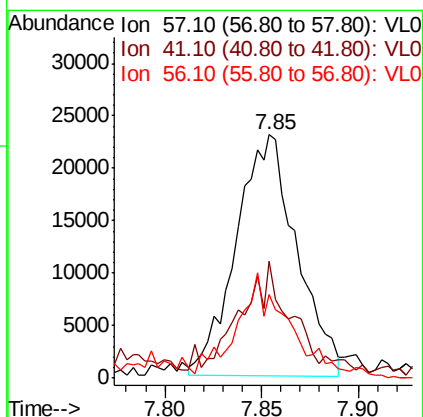
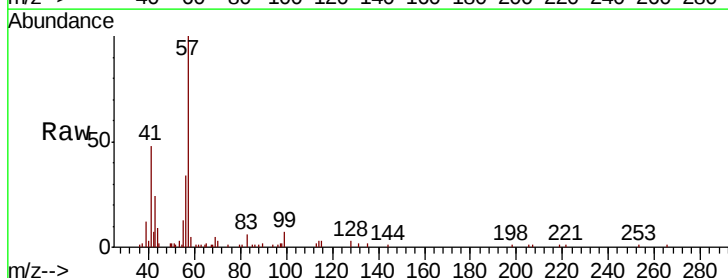
RT: 7.85 min Scan# 1576

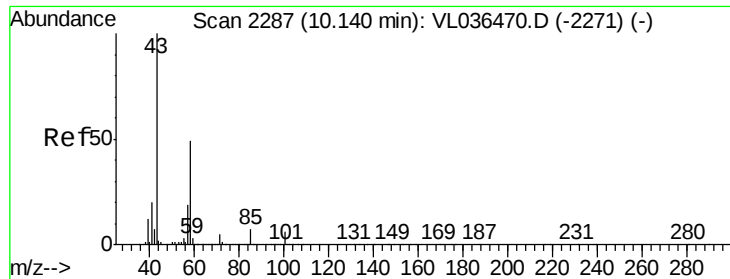
Delta R.T. -0.02 min

Lab File: VL036652.D

Acq: 2 Apr 2021 19:44

Tgt Ion:	57	Resp:	50230
Ion	Ratio	Lower	Upper
57	100		
41	44.7	28.8	43.2#
56	39.5	26.1	39.1#





#51

2-Hexanone

Concen: 0.129 ppbv

RT: 10.10 min Scan# 2273

Delta R.T. -0.05 min

Lab File: VL036652.D

Acq: 2 Apr 2021 19:44

Instrument :

MSVOA_L

ClientSampled :

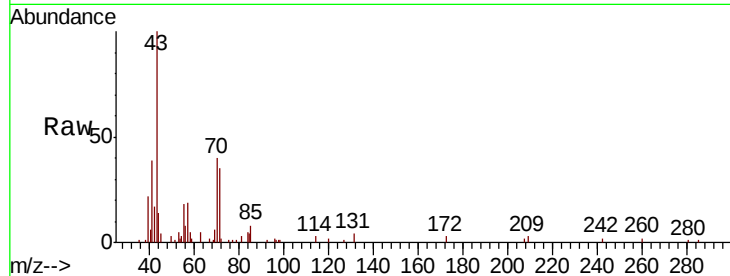
Tot Ion: 43 Resp: 16000

Ion Ratio Lower Upper

43 100

58 6.5 37.7 56.5#

98 2.7 0.2 0.2#

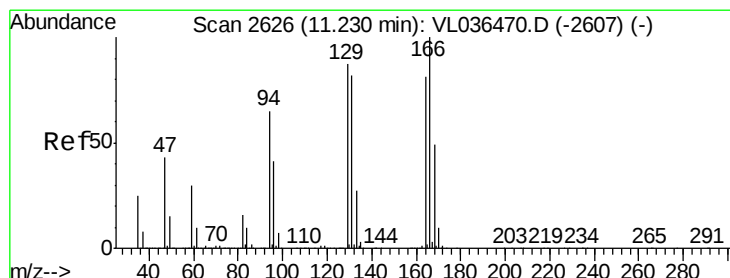
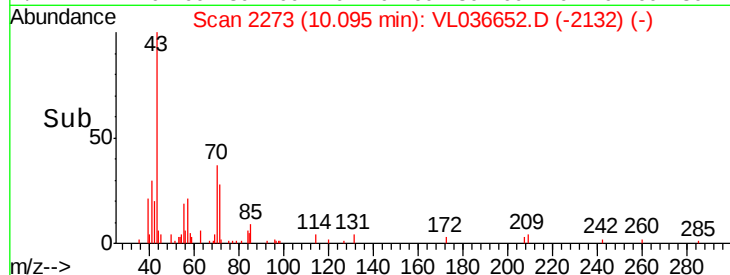
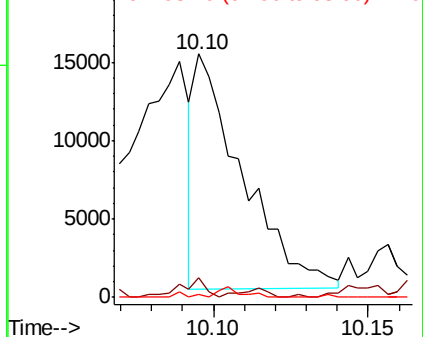


Abundance

Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

Ion 98.20 (97.90 to 98.90): VL0



#52

Tetrachloroethene

Concen: 0.044 ppbv

RT: 11.20 min Scan# 2617

Delta R.T. -0.03 min

Lab File: VL036652.D

Acq: 2 Apr 2021 19:44

Tgt Ion: 164 Resp: 5176

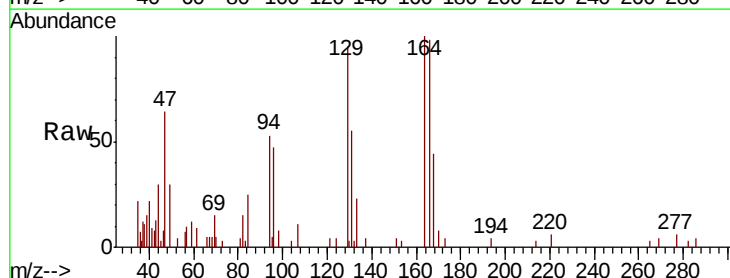
Ion Ratio Lower Upper

164 100

166 97.7 98.3 147.5#

129 95.2 85.8 128.8

131 55.3 80.9 121.3#



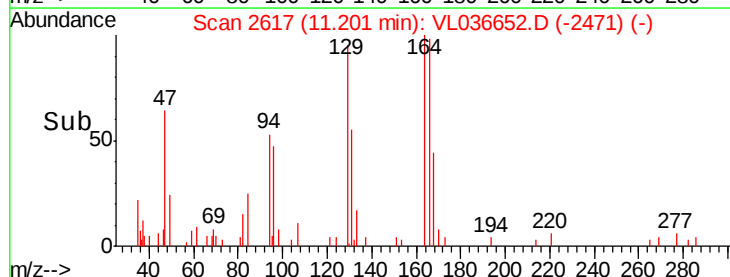
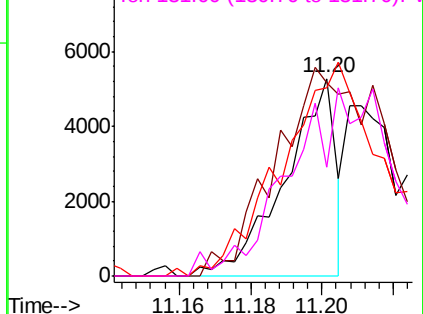
Abundance

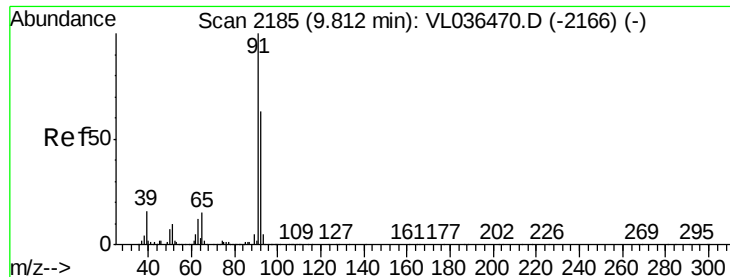
Ion 163.90 (163.60 to 164.60): V

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: 0.237 ppbv

RT: 9.79 min Scan# 2177

Delta R.T. -0.03 min

Lab File: VL036652.D

Acq: 2 Apr 2021 19:44

Instrument :

MSVOA_L

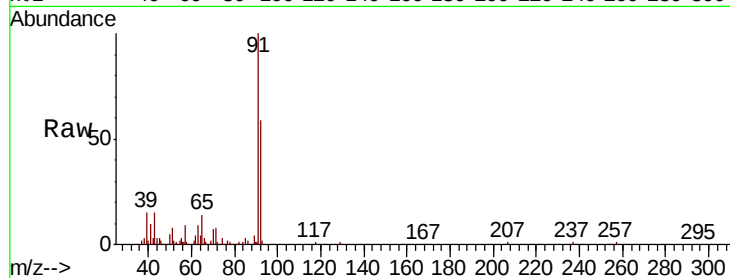
ClientSampleId :

Tot Ion: 91 Resp: 80842

Ion Ratio Lower Upper

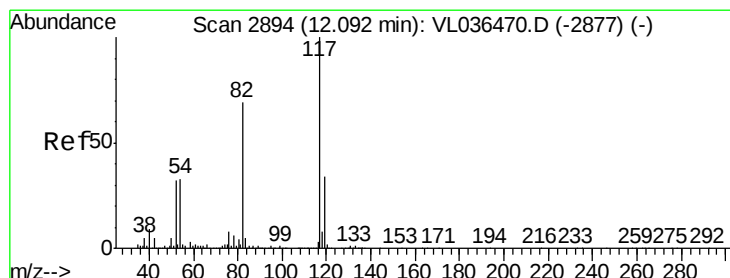
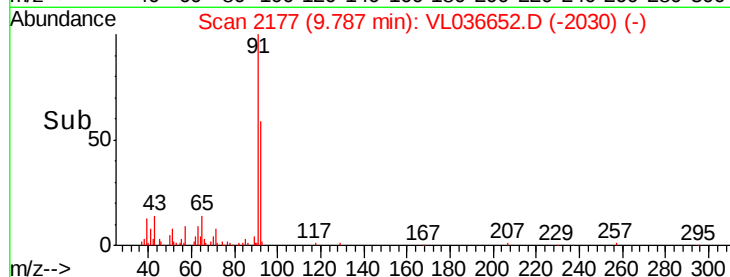
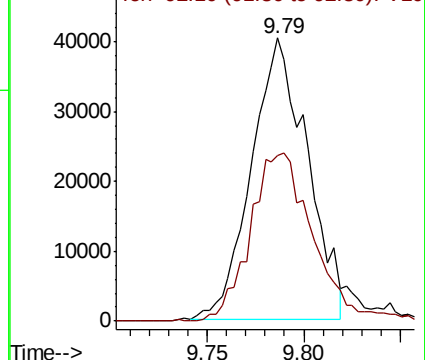
91 100

92 68.1 48.8 73.2



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: 12.07 min Scan# 2887

Delta R.T. -0.02 min

Lab File: VL036652.D

Acq: 2 Apr 2021 19:44

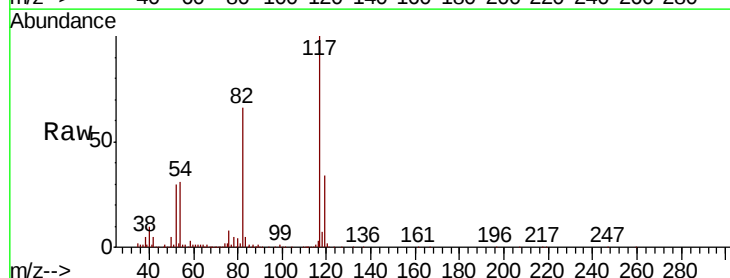
Tgt Ion: 117 Resp: 3101608

Ion Ratio Lower Upper

117 100

82 68.6 57.4 86.0

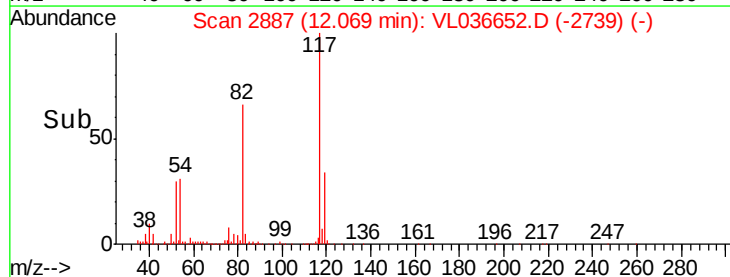
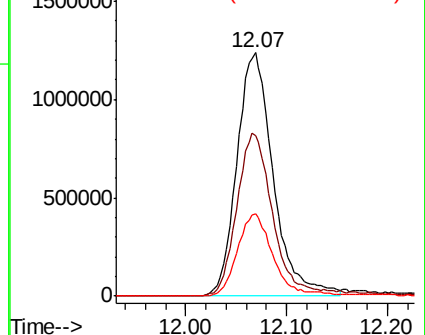
119 34.3 47.4 71.0#

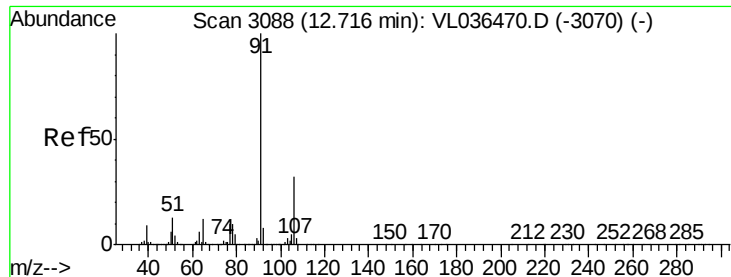


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#58

Ethyl Benzene

Concen: 0.219 ppbv

RT: 12.95 min Scan# 3161

Delta R.T. 0.23 min

Lab File: VL036652.D

Acq: 2 Apr 2021 19:44

Instrument :

MSVOA_L

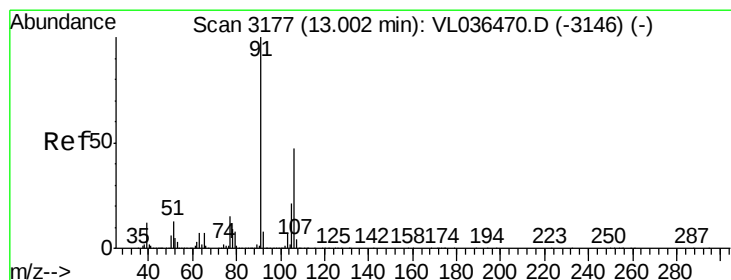
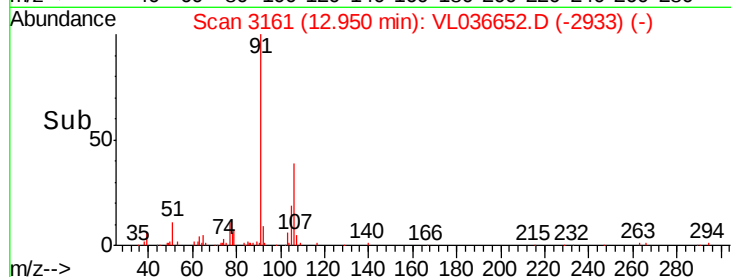
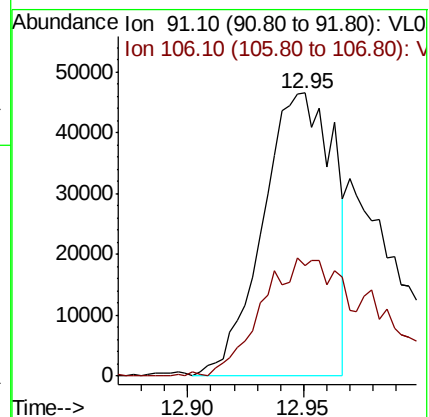
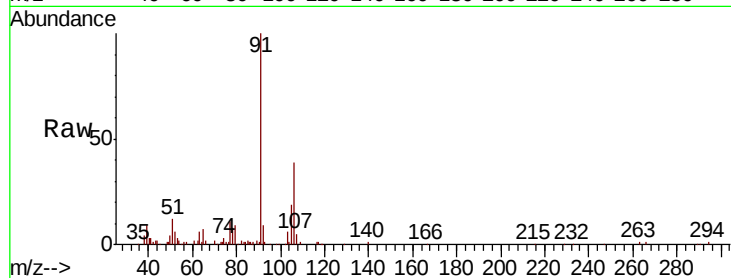
ClientSampleId :

Tot Ion: 91 Resp: 98770

Ion Ratio Lower Upper

91 100

106 37.7 25.3 37.9



#59

m/p-Xylene

Concen: 0.120 ppbv

RT: 12.97 min Scan# 3167

Delta R.T. -0.03 min

Lab File: VL036652.D

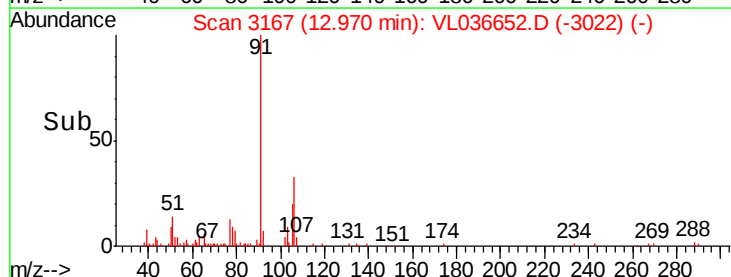
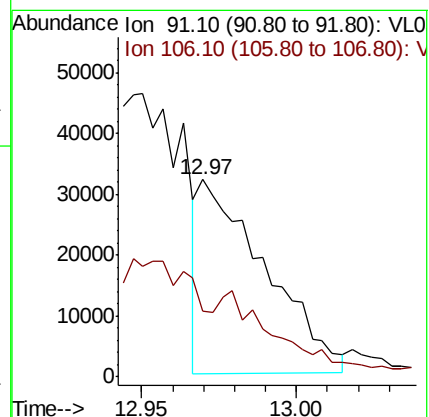
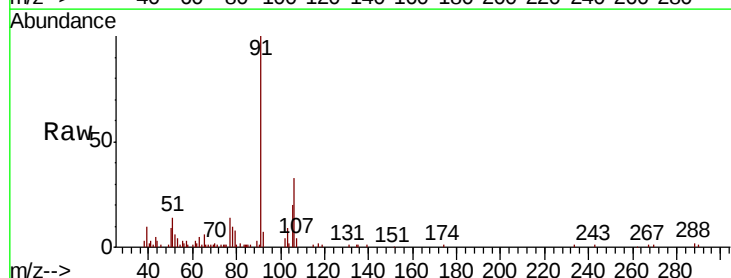
Acq: 2 Apr 2021 19:44

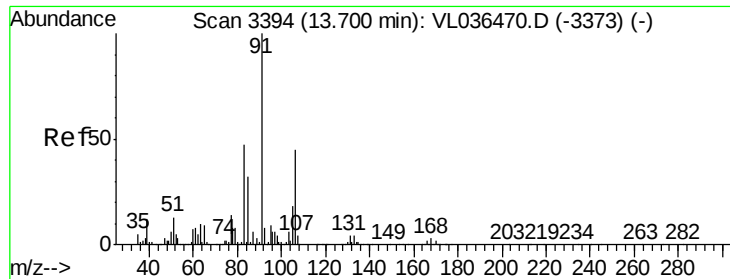
Tgt Ion: 91 Resp: 47307

Ion Ratio Lower Upper

91 100

106 0.0 35.3 52.9#

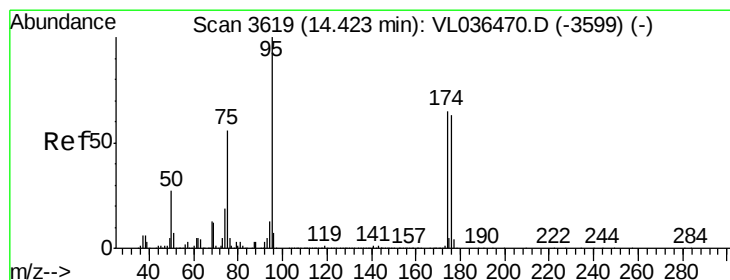
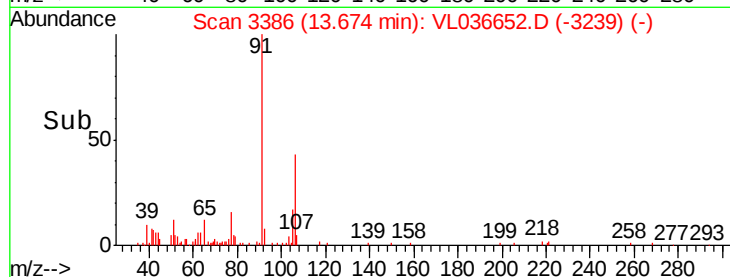
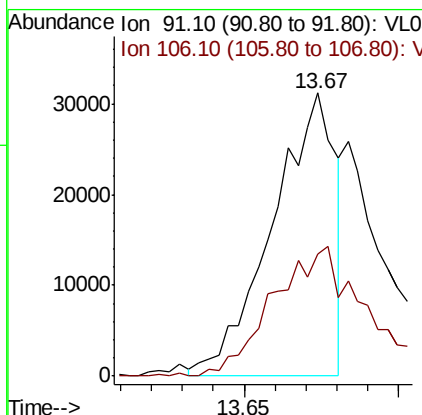
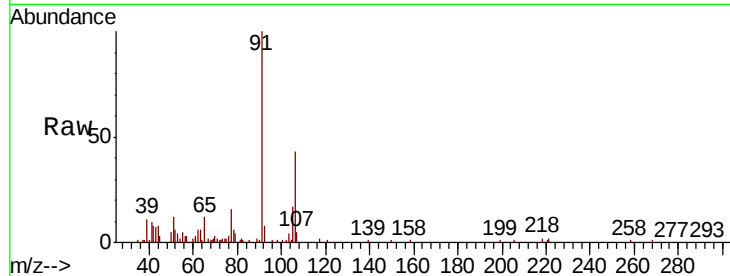




#60
o-Xylene
Concen: 0.116 ppbv
RT: 13.67 min Scan# 3386
Delta R.T. -0.03 min
Lab File: VL036652.D
Acq: 2 Apr 2021 19:44

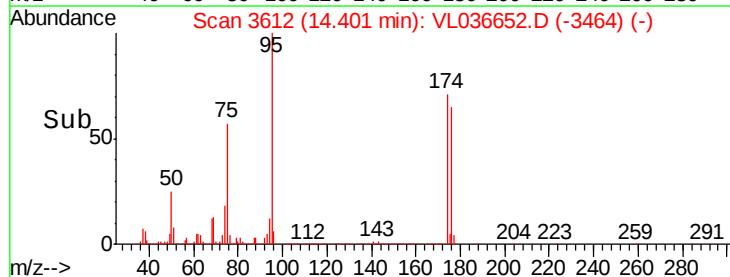
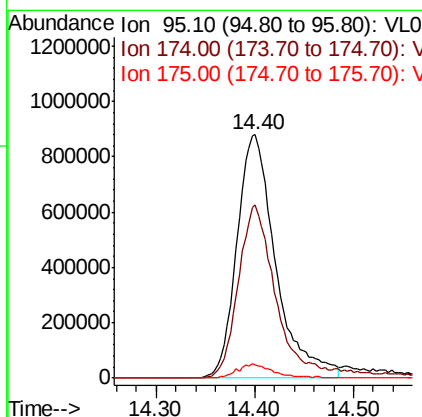
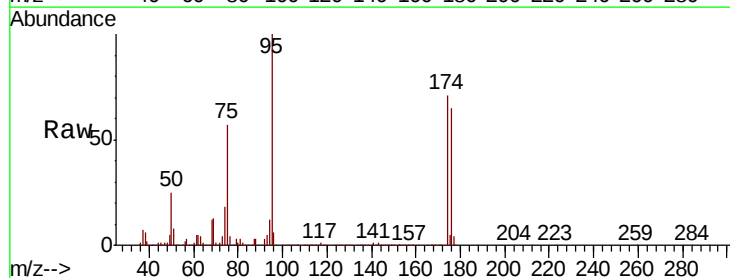
Instrument :
MSVOA_L
ClientSampleId :

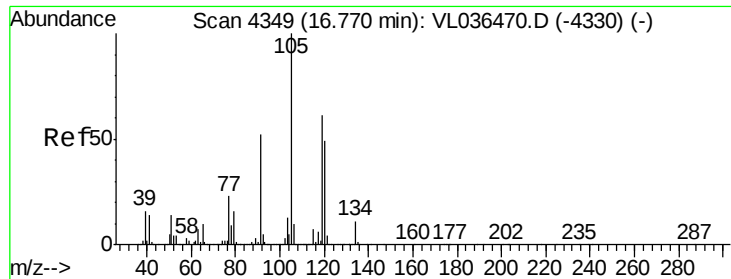
Tot Ion: 91 Resp: 44180
Ion Ratio Lower Upper
91 100
106 69.1 22.3 66.9#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.734 ppbv
RT: 14.40 min Scan# 3612
Delta R.T. -0.02 min
Lab File: VL036652.D
Acq: 2 Apr 2021 19:44

Tgt Ion: 95 Resp: 2406239
Ion Ratio Lower Upper
95 100
174 73.0 51.0 76.6
175 5.7 3.9 5.9





#74

1,2,4-Trimethylbenzene

Concen: 0.044 ppbv

RT: 16.75 min Scan# 4342

Delta R.T. -0.02 min

Lab File: VL036652.D

Acq: 2 Apr 2021 19:44

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:105 Resp: 18250

Ion Ratio Lower Upper

105 100

120 44.4 39.2 58.8

91 14.2 42.6 64.0#

77 13.4 18.6 28.0#

