

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL060121\
 Data File : VL037076.D
 Acq On : 1 Jun 2021 18:58
 Operator : SY/AP
 Sample : M2559-04
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jun 02 03:02:25 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May 18 12:00:15 2021
 QLast Update : Tue May 18 12:00:15 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1634645	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	4808517	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	4452189	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	3223803	9.64	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.40%

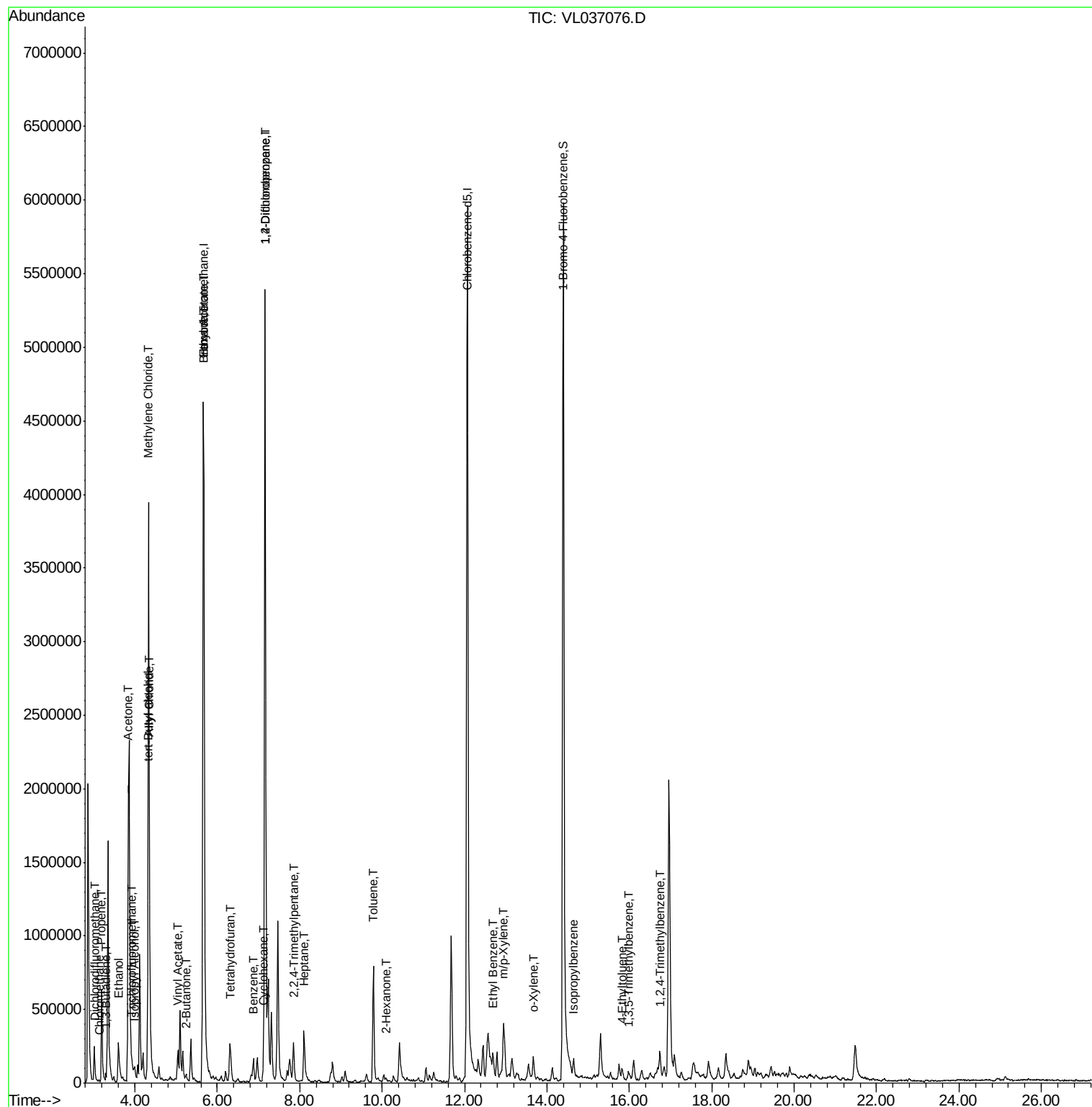
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.03	85	23251	0.084 ppbv	95
4) Chloromethane	3.13	50	11785	0.116 ppbv	96
9) Propene	3.20	41	218241	2.035 ppbv	99
10) Heptane	8.10	43	154799	0.579 ppbv	98
11) Trichlorofluoromethane	3.94	101	13692	0.053 ppbv	92
13) Ethanol	3.60	45	421943	29.490 ppbv	95
15) Acetone	3.84	43	3266167	19.507 ppbv	90
16) 1,3-Butadiene	3.29	39	12903	0.124 ppbv #	18
17) tert-Butyl alcohol	4.31	59	50589	0.330 ppbv #	72
19) Isopropyl Alcohol	3.98	45	9275	0.103 ppbv #	30
20) Methylene Chloride	4.33	84	1726646	19.238 ppbv	99
21) Allyl Chloride	4.36	41	34728	0.275 ppbv #	17
23) Vinyl Acetate	5.04	43	87306	0.329 ppbv #	1
25) Ethyl Acetate	5.67	43	1029833	2.560 ppbv #	77
26) Hexane	5.67	57	1496511	7.281 ppbv #	47
30) Cyclohexane	7.11	84	13990	0.080 ppbv #	1
34) 2-Butanone	5.24	43	51848	0.296 ppbv #	77
36) Benzene	6.87	78	61838	0.149 ppbv	96
39) 1,2-Dichloropropane	7.16	63	1156112	7.246 ppbv #	25
41) Tetrahydrofuran	6.30	42	19565	0.196 ppbv #	37
44) 2,2,4-Trimethylpentane	7.85	57	182935	0.257 ppbv #	71
51) 2-Hexanone	10.09	43	6267	0.041 ppbv #	27
53) Toluene	9.79	91	675603	1.371 ppbv	99
58) Ethyl Benzene	12.69	91	132764	0.211 ppbv	89
59) m/p-Xylene	12.95	91	377868	0.727 ppbv	97
60) o-Xylene	13.67	91	62136	0.125 ppbv #	37
62) Isopropylbenzene	14.65	105	78648	0.110 ppbv #	70
72) 4-Ethyltoluene	15.82	105	31663	0.054 ppbv #	66
73) 1,3,5-Trimethylbenzene	15.98	105	38164	0.069 ppbv	87
74) 1,2,4-Trimethylbenzene	16.74	105	141449	0.248 ppbv #	68

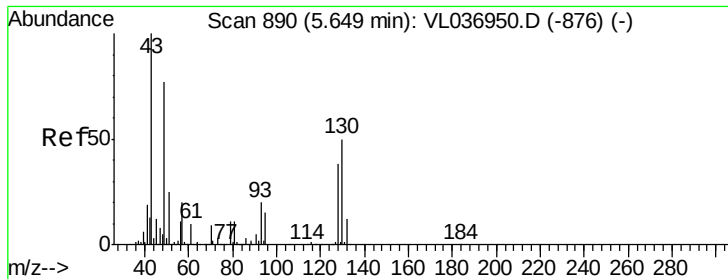
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Tue May 18 12:00:15 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 891

Delta R.T. 0.00 min

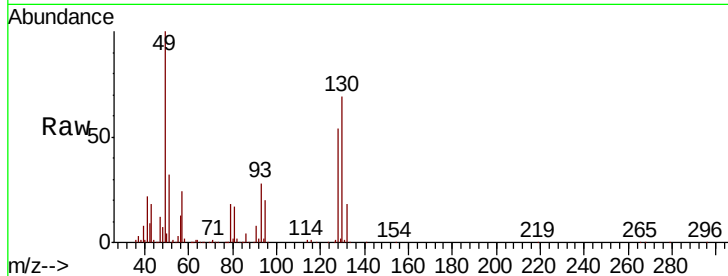
Lab File: VL037076.D

Acq: 1 Jun 2021 18:58

Instrument :
MSVOA_L
ClientSampled :

Tot Ion: 49 Resp: 1634645

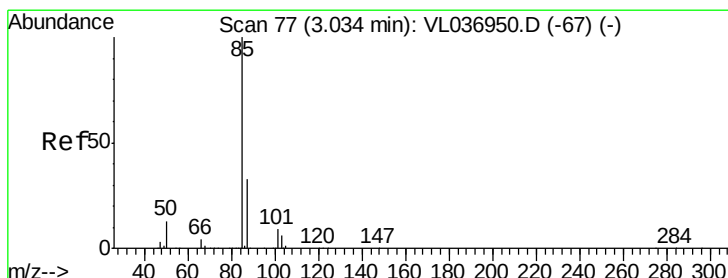
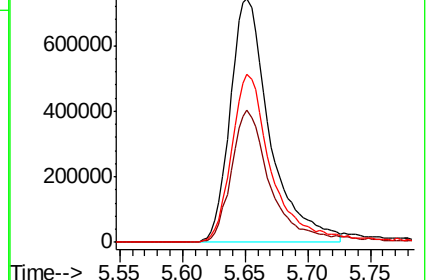
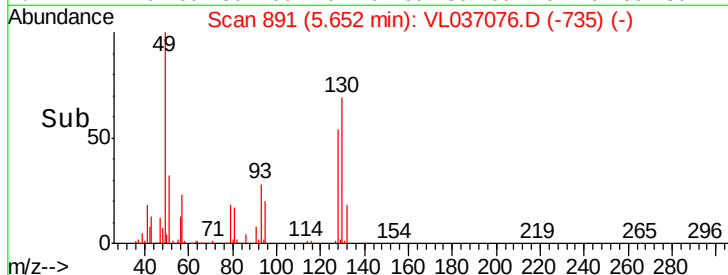
Ion	Ratio	Lower	Upper
49	100		
128	56.0	26.9	80.7
130	70.3	33.8	101.4



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: 0.084 ppbv

RT: 3.03 min Scan# 77

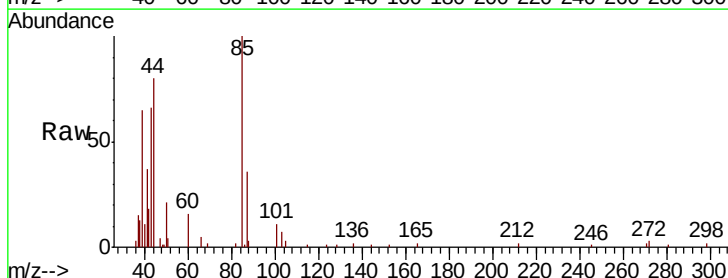
Delta R.T. -0.00 min

Lab File: VL037076.D

Acq: 1 Jun 2021 18:58

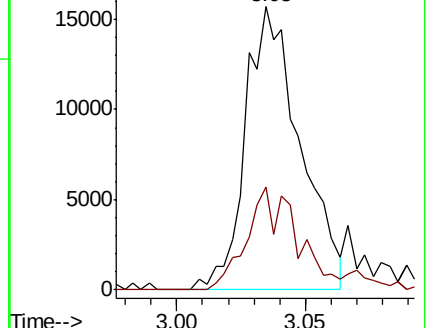
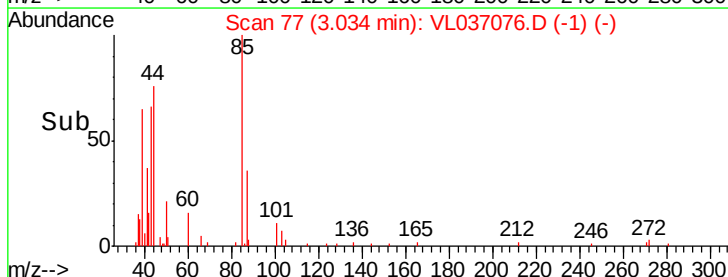
Tgt Ion: 85 Resp: 23251

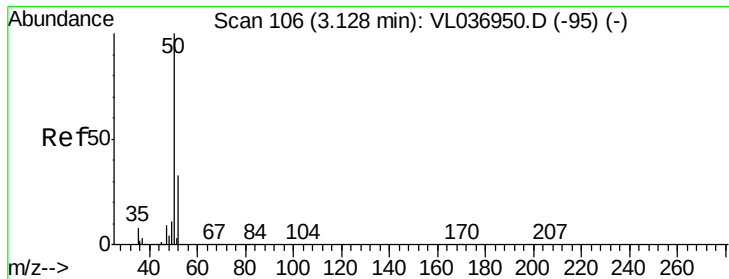
Ion	Ratio	Lower	Upper
85	100		
87	36.1	26.6	39.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#4

Chloromethane

Concen: 0.116 ppbv

RT: 3.13 min Scan# 107

Delta R.T. 0.00 min

Lab File: VL037076.D

Acq: 1 Jun 2021 18:58

Instrument :

MSVOA_L

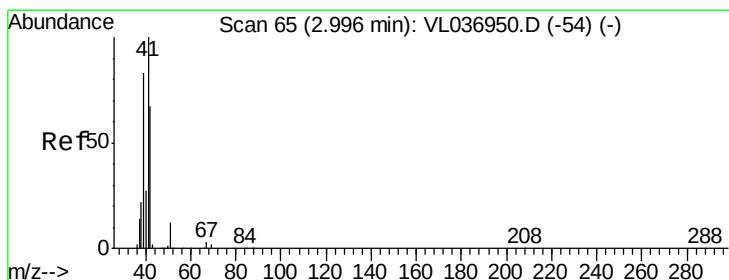
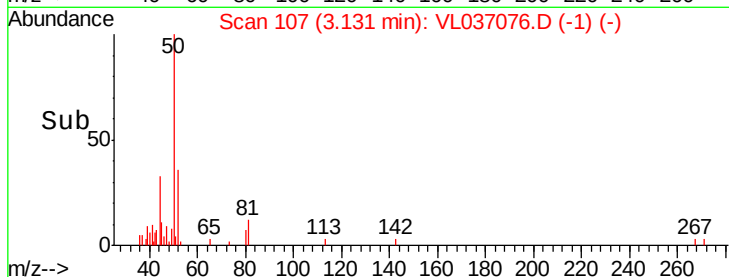
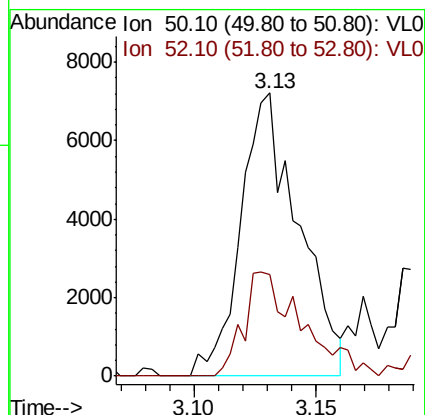
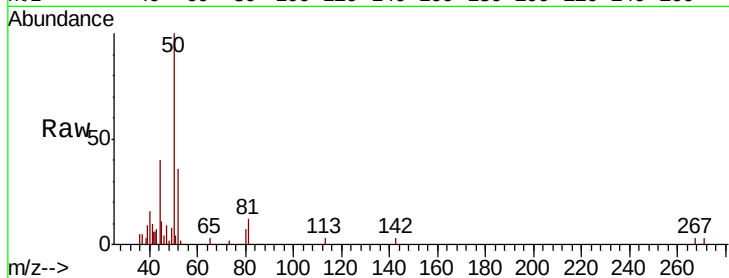
ClientSampled :

Tot Ion: 50 Resp: 11785

Ion Ratio Lower Upper

50 100

52 34.6 26.1 39.1



#9

Propene

Concen: 2.035 ppbv

RT: 3.20 min Scan# 127

Delta R.T. 0.20 min

Lab File: VL037076.D

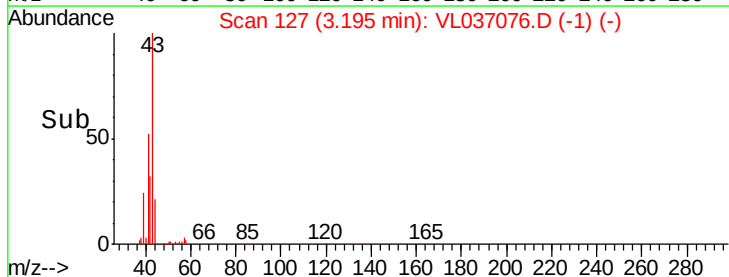
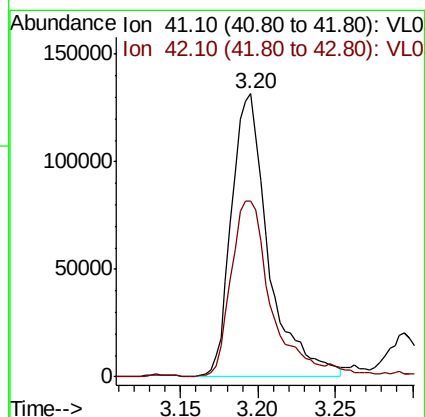
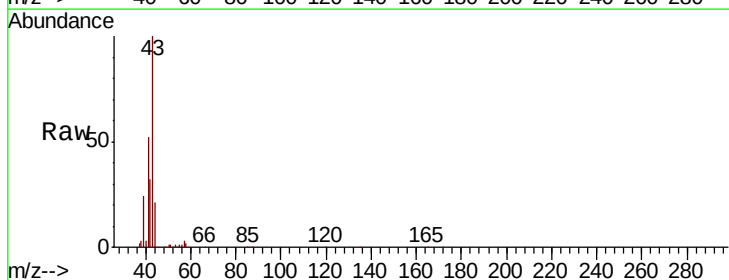
Acq: 1 Jun 2021 18:58

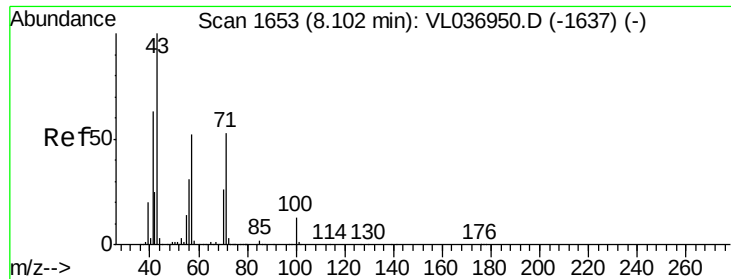
Tgt Ion: 41 Resp: 218241

Ion Ratio Lower Upper

41 100

42 68.2 53.9 80.9

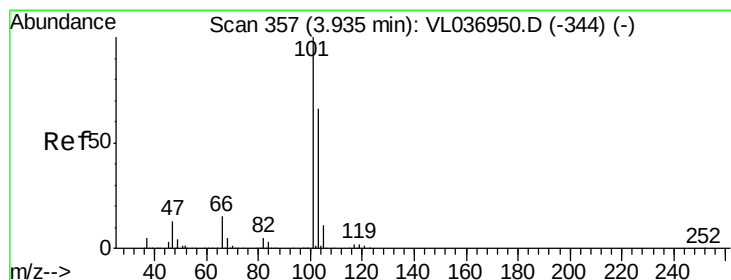
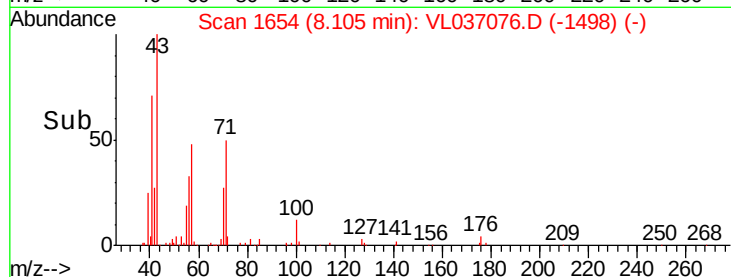
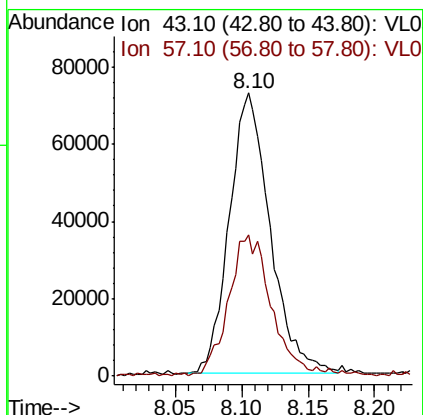
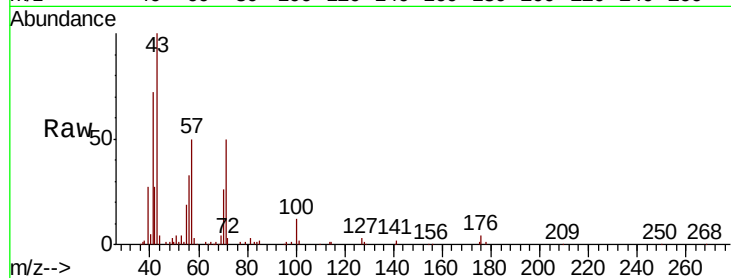




#10
Heptane
Concen: 0.579 ppbv
RT: 8.10 min Scan# 1654
Delta R.T. 0.00 min
Lab File: VL037076.D
Acq: 1 Jun 2021 18:58

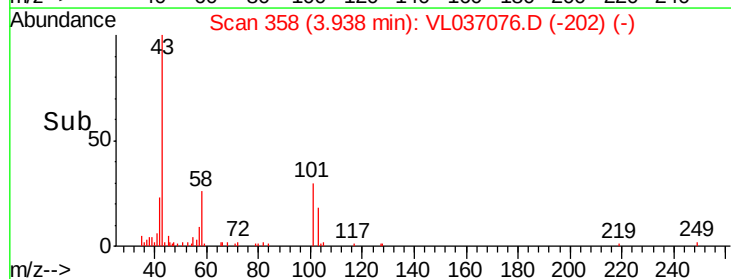
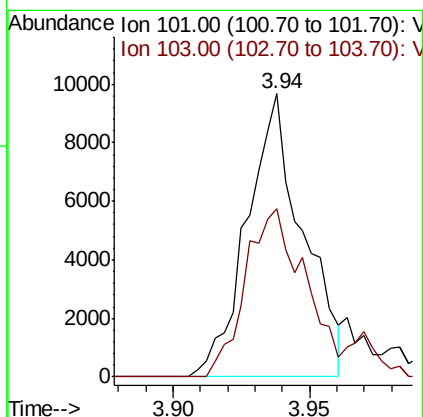
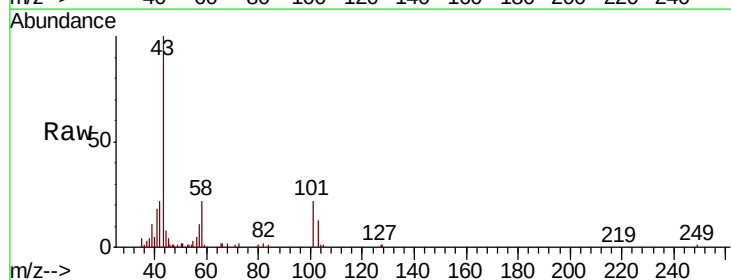
Instrument :
MSVOA_L
ClientSampleId :

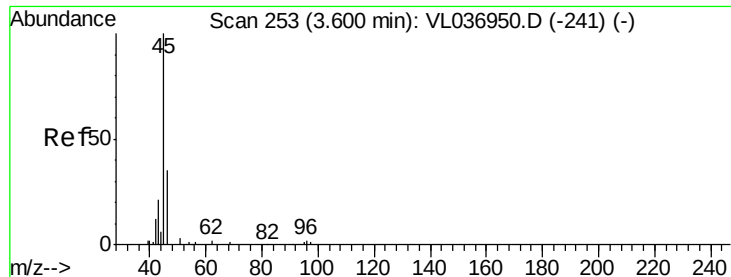
Tot Ion: 43 Resp: 154799
Ion Ratio Lower Upper
43 100
57 52.8 41.0 61.6



#11
Trichlorofluoromethane
Concen: 0.053 ppbv
RT: 3.94 min Scan# 358
Delta R.T. 0.00 min
Lab File: VL037076.D
Acq: 1 Jun 2021 18:58

Tgt Ion: 101 Resp: 13692
Ion Ratio Lower Upper
101 100
103 59.6 52.6 79.0

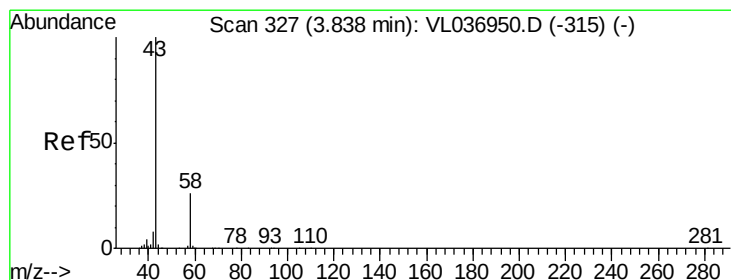
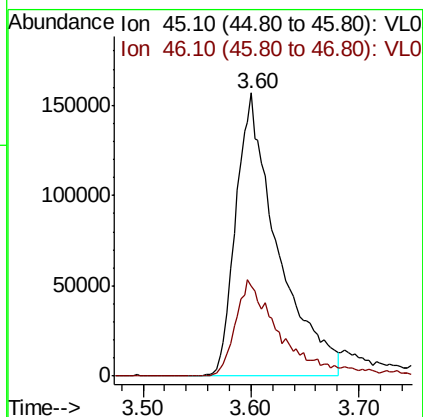
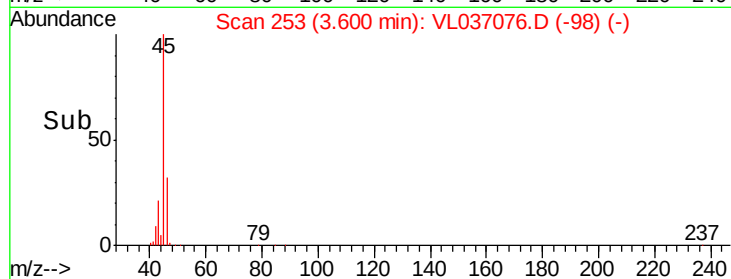
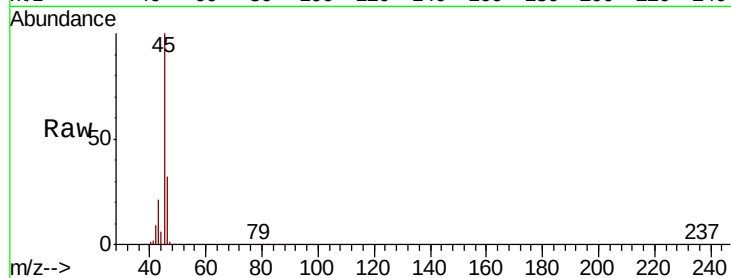




#13
Ethanol
Concen: 29.490 ppbv
RT: 3.60 min Scan# 253
Delta R.T. -0.00 min
Lab File: VL037076.D
Acq: 1 Jun 2021 18:58

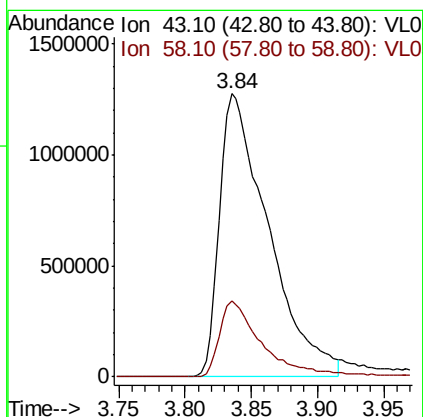
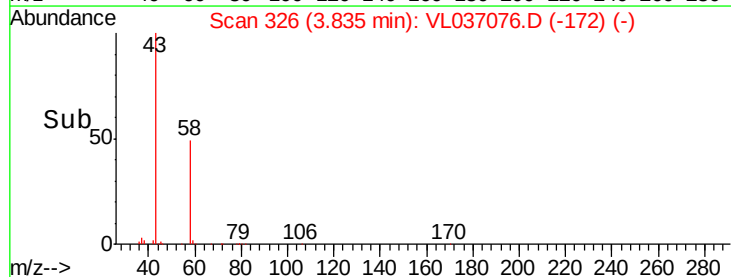
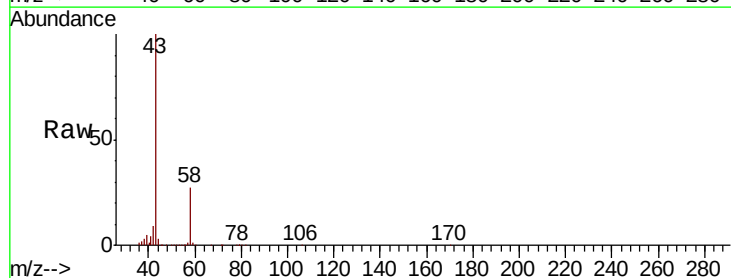
Instrument :
MSVOA_L
ClientSampleId :

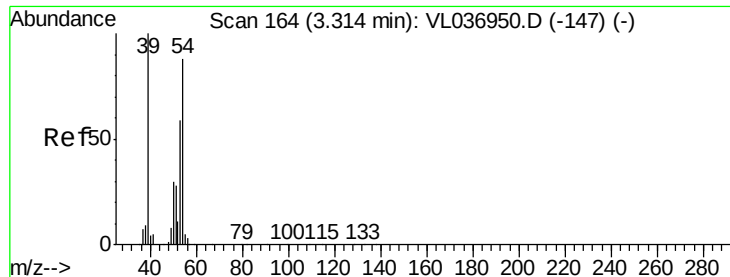
Tot Ion: 45 Resp: 421943
Ion Ratio Lower Upper
45 100
46 37.6 16.3 65.3



#15
Acetone
Concen: 19.507 ppbv
RT: 3.84 min Scan# 326
Delta R.T. -0.00 min
Lab File: VL037076.D
Acq: 1 Jun 2021 18:58

Tgt Ion: 43 Resp: 3266167
Ion Ratio Lower Upper
43 100
58 24.7 24.0 36.0

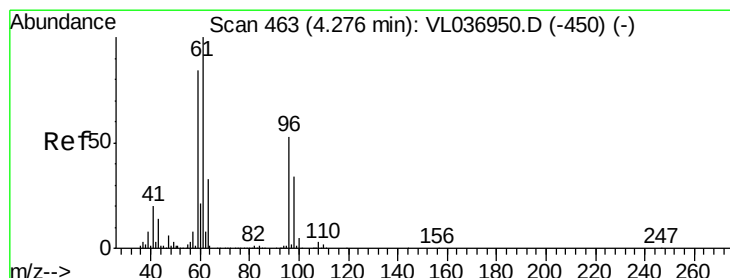
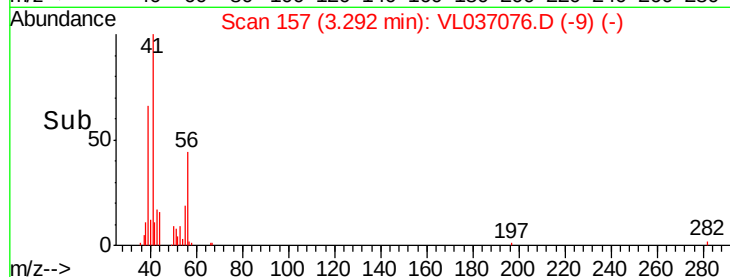
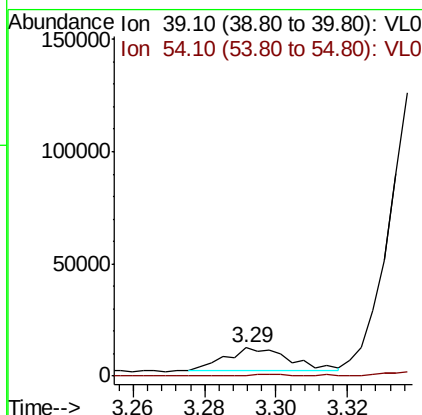
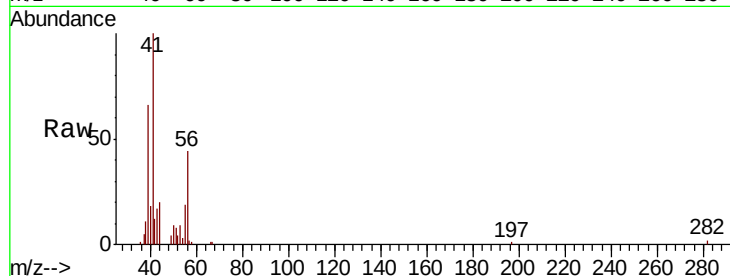




#16
1,3-Butadiene
Concen: 0.124 ppbv
RT: 3.29 min Scan# 157
Delta R.T. -0.02 min
Lab File: VL037076.D
Acq: 1 Jun 2021 18:58

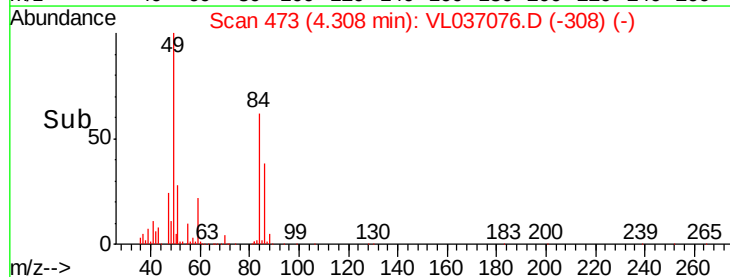
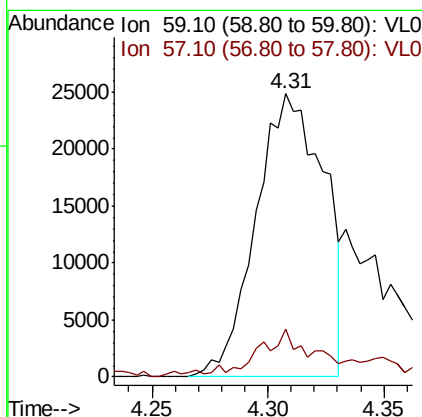
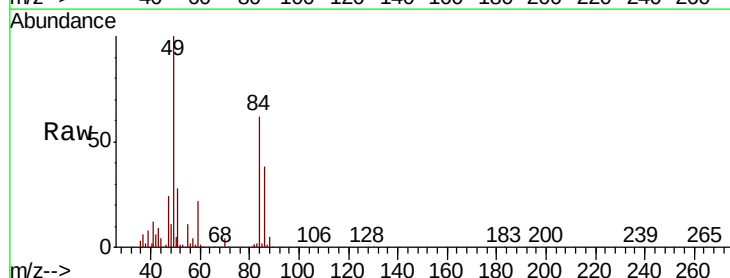
Instrument :
MSVOA_L
ClientSampled :

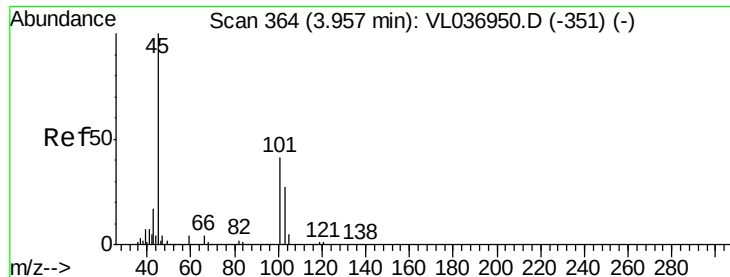
Tot Ion: 39 Resp: 12903
Ion Ratio Lower Upper
39 100
54 7.6 63.2 94.8#



#17
tert-Butyl alcohol
Concen: 0.330 ppbv
RT: 4.31 min Scan# 473
Delta R.T. 0.03 min
Lab File: VL037076.D
Acq: 1 Jun 2021 18:58

Tgt Ion: 59 Resp: 50589
Ion Ratio Lower Upper
59 100
57 0.0 8.3 12.5#





#19

Isopropyl Alcohol

Concen: 0.103 ppbv

RT: 3.98 min Scan# 372

Delta R.T. 0.03 min

Lab File: VL037076.D

Acq: 1 Jun 2021 18:58

Instrument :

MSVOA_L

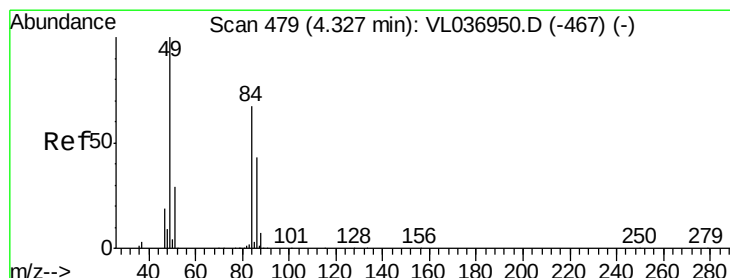
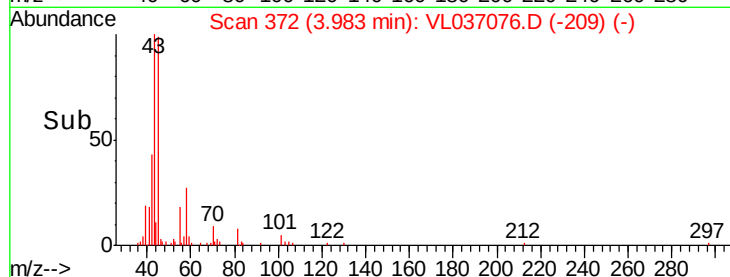
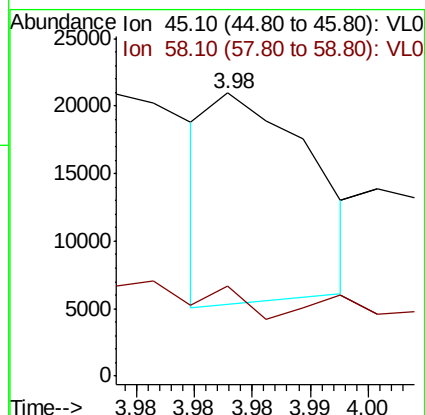
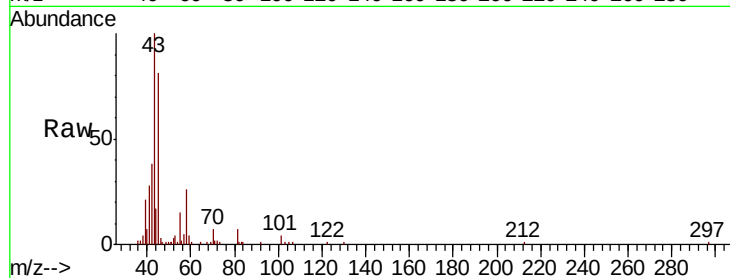
ClientSampleId :

Tot Ion: 45 Resp: 9275

Ion Ratio Lower Upper

45 100

58 0.0 37.2 55.8#



#20

Methylene Chloride

Concen: 19.238 ppbv

RT: 4.33 min Scan# 480

Delta R.T. 0.00 min

Lab File: VL037076.D

Acq: 1 Jun 2021 18:58

Tgt Ion: 84 Resp: 1726646

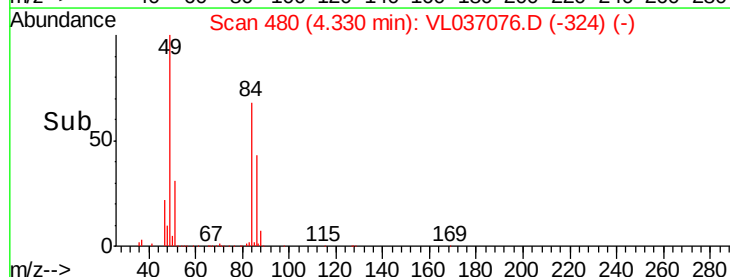
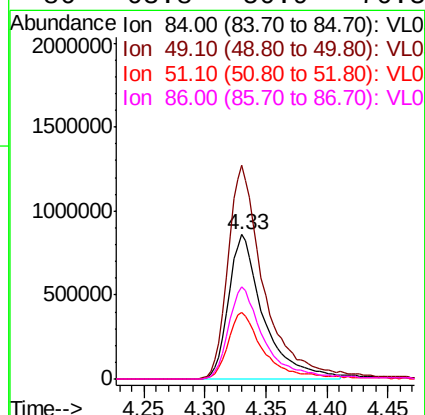
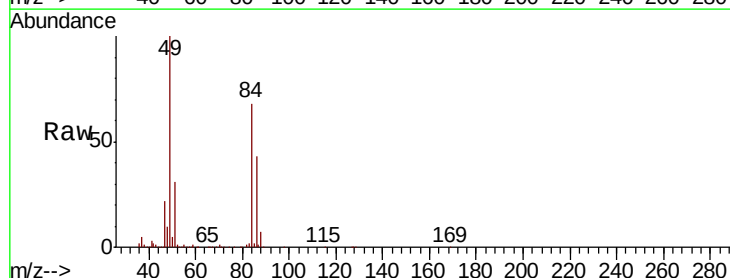
Ion Ratio Lower Upper

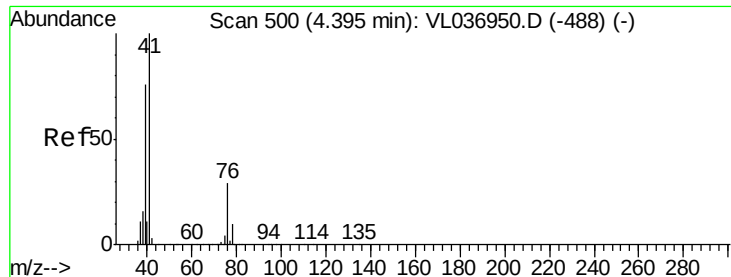
84 100

49 147.9 119.8 179.6

51 45.8 35.1 52.7

86 63.8 50.9 76.3

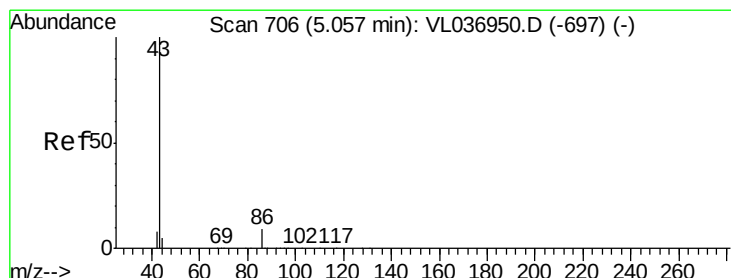
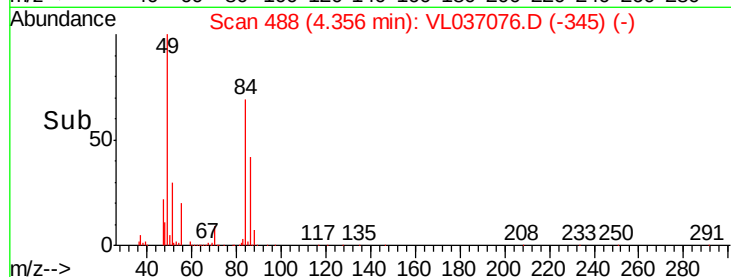
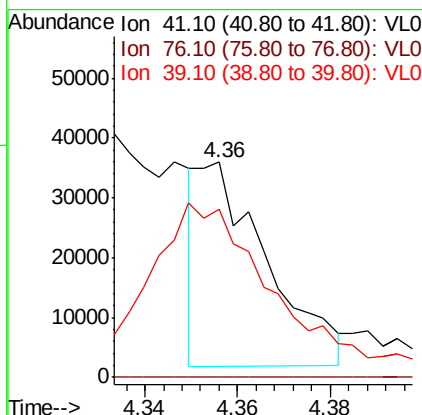
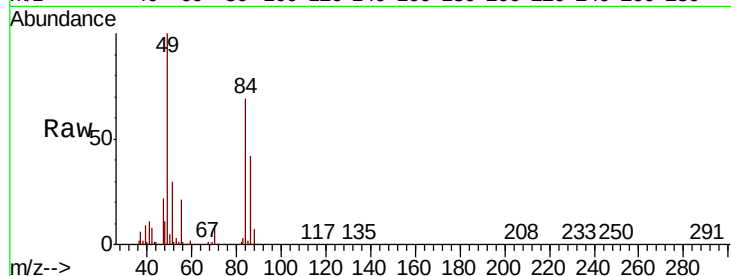




#21
Allvl Chloride
Concen: 0.275 ppbv
RT: 4.36 min Scan# 488
Delta R.T. -0.04 min
Lab File: VL037076.D
Acq: 1 Jun 2021 18:58

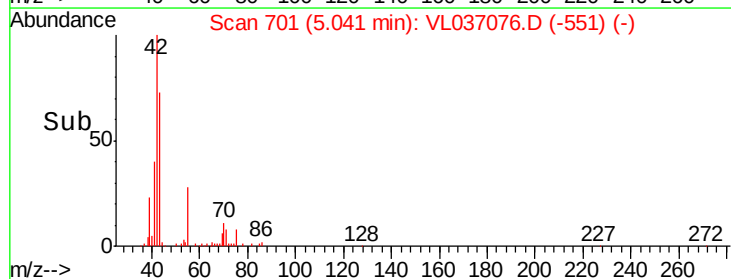
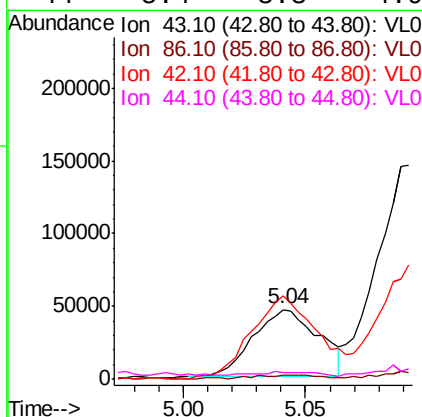
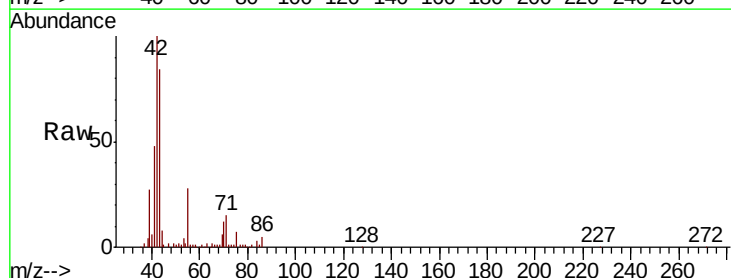
Instrument :
MSVOA_L
ClientSampled :

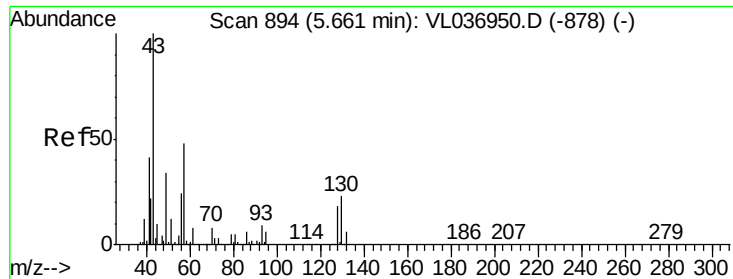
Tot Ion: 41 Resp: 34728
Ion Ratio Lower Upper
41 100
76 6.2 24.9 37.3#
39 165.5 63.7 95.5#



#23
Vinyl Acetate
Concen: 0.329 ppbv
RT: 5.04 min Scan# 701
Delta R.T. -0.02 min
Lab File: VL037076.D
Acq: 1 Jun 2021 18:58

Tgt Ion: 43 Resp: 87306
Ion Ratio Lower Upper
43 100
86 6.6 5.8 8.8
42 121.7 7.4 11.2#
44 5.4 3.3 4.9#

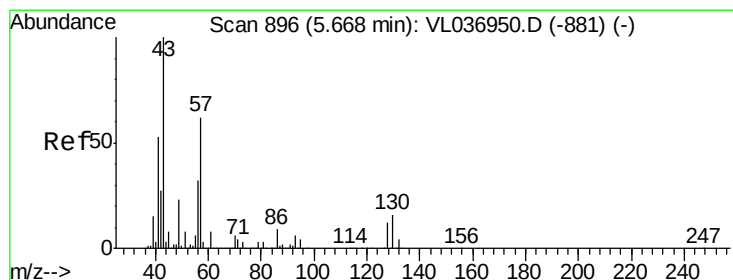
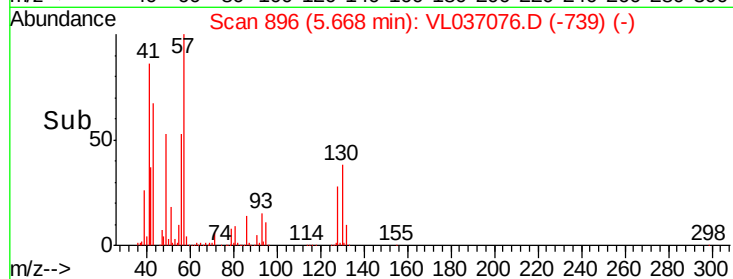
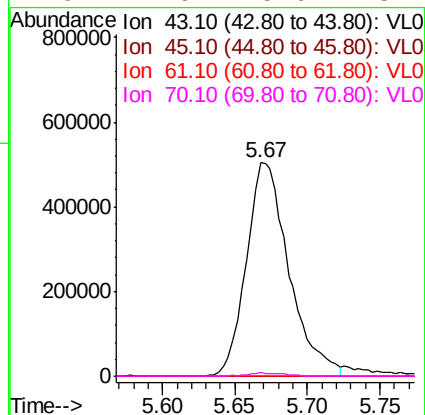
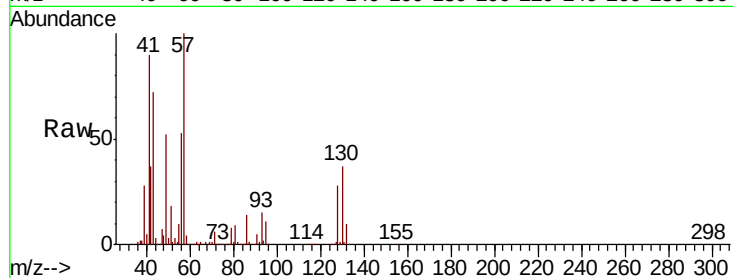




#25
Ethyl Acetate
Concen: 2.560 ppbv
RT: 5.67 min Scan# 896
Delta R.T. 0.01 min
Lab File: VL037076.D
Acq: 1 Jun 2021 18:58

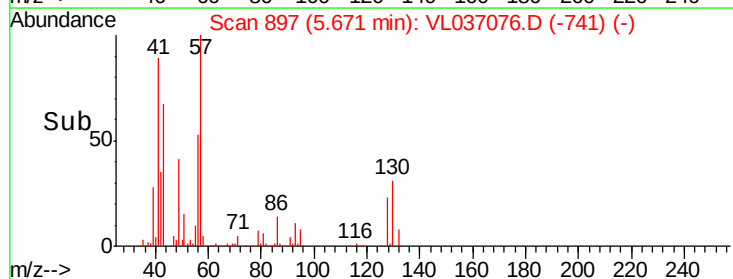
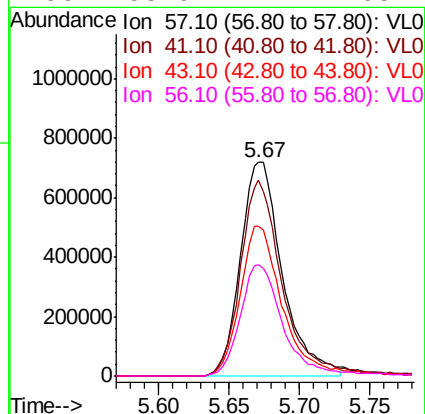
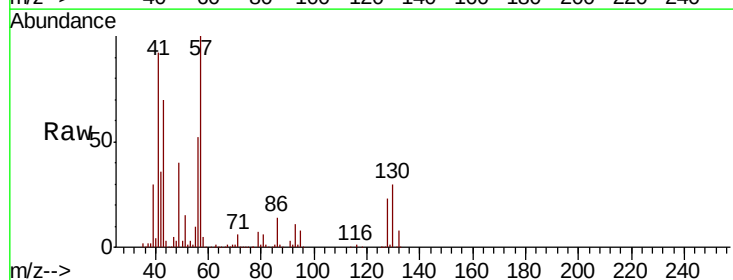
Instrument :
MSVOA_L
ClientSampleId :

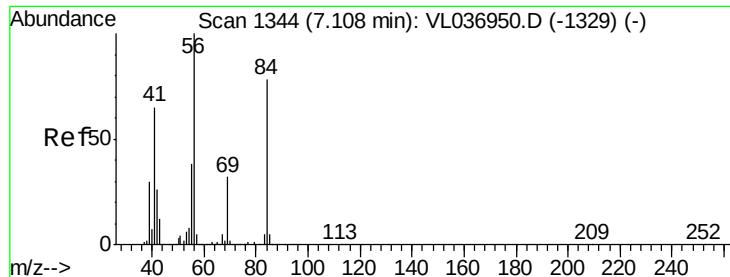
Tot Ion: 43 Resp: 1029833
Ion Ratio Lower Upper
43 100
45 0.3 7.8 11.8#
61 0.0 7.8 11.8#
70 1.6 5.6 8.4#



#26
Hexane
Concen: 7.281 ppbv
RT: 5.67 min Scan# 897
Delta R.T. 0.00 min
Lab File: VL037076.D
Acq: 1 Jun 2021 18:58

Tgt Ion: 57 Resp: 1496511
Ion Ratio Lower Upper
57 100
41 92.3 70.5 105.7
43 72.1 165.8 248.8#
56 53.9 42.2 63.4

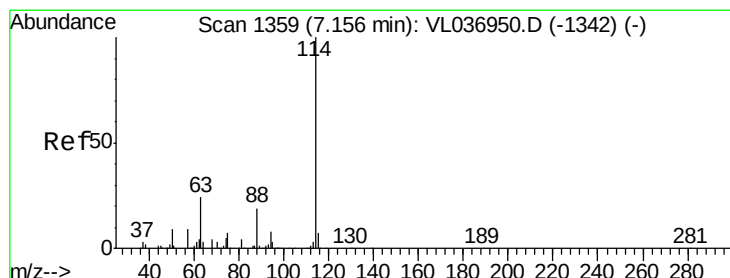
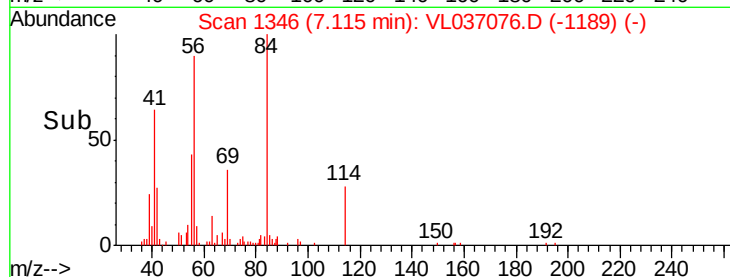
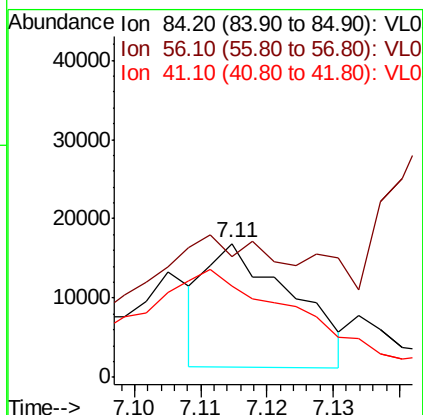
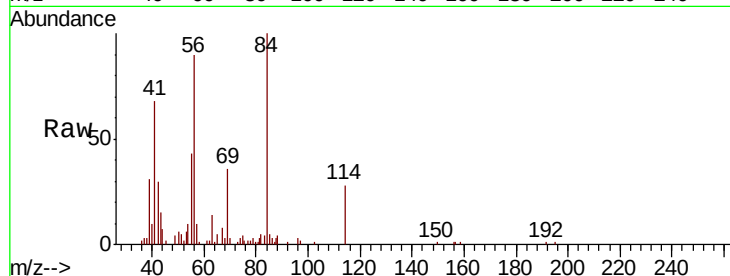




#30
Cyclohexane
Concen: 0.080 ppbv
RT: 7.11 min Scan# 1346
Delta R.T. 0.01 min
Lab File: VL037076.D
Acq: 1 Jun 2021 18:58

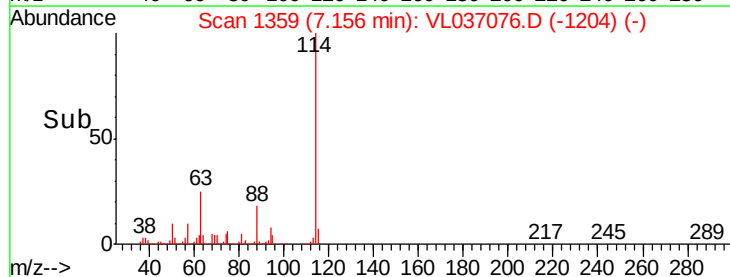
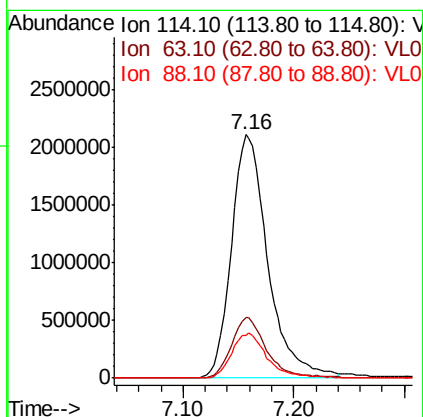
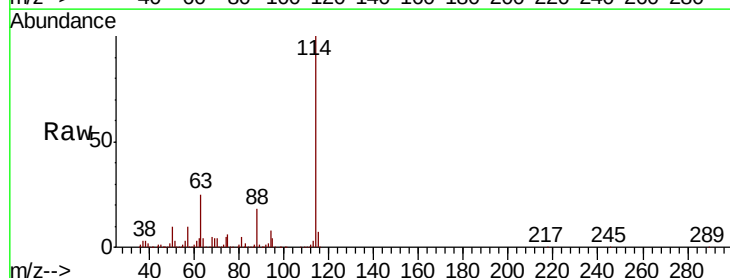
Instrument :
MSVOA_L
ClientSampled :

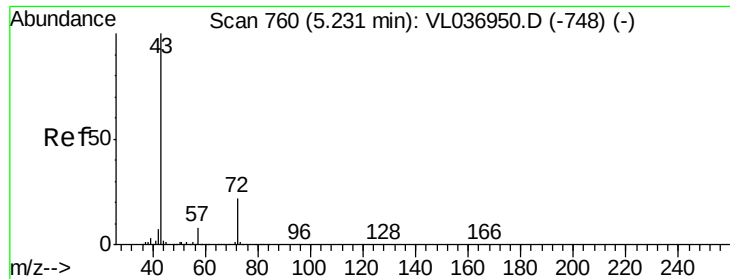
Tot Ion: 84 Resp: 13990
Ion Ratio Lower Upper
84 100
56 0.0 107.9 161.9#
41 178.6 65.5 98.3#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.16 min Scan# 1359
Delta R.T. -0.00 min
Lab File: VL037076.D
Acq: 1 Jun 2021 18:58

Tgt Ion: 114 Resp: 4808517
Ion Ratio Lower Upper
114 100
63 24.6 19.6 29.4
88 18.3 14.6 21.8

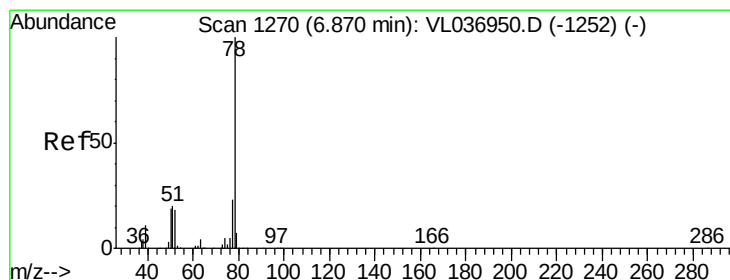
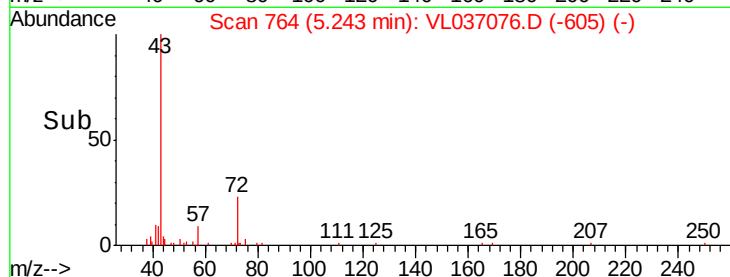
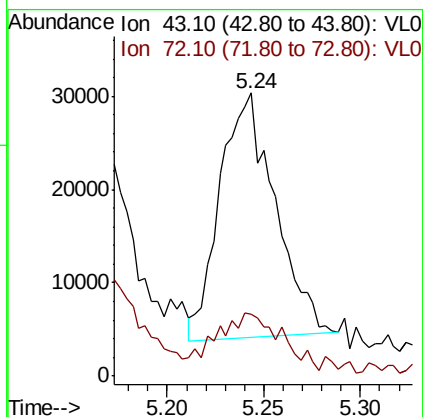
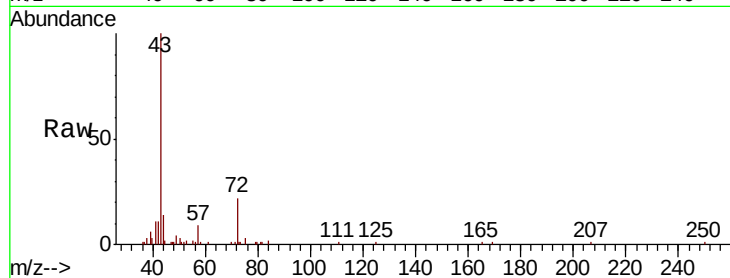




#34
 2-Butanone
 Concen: 0.296 ppbv
 RT: 5.24 min Scan# 764
 Delta R.T. 0.01 min
 Lab File: VL037076.D
 Acq: 1 Jun 2021 18:58

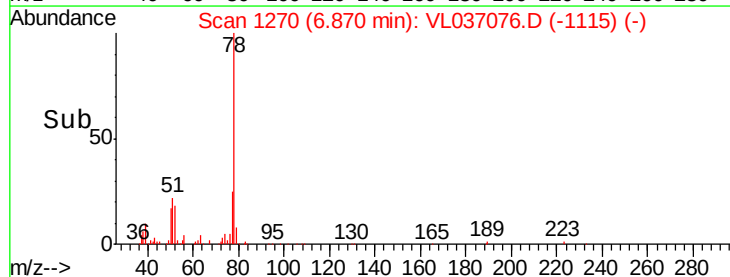
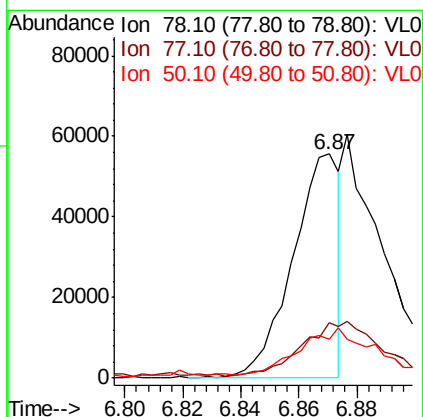
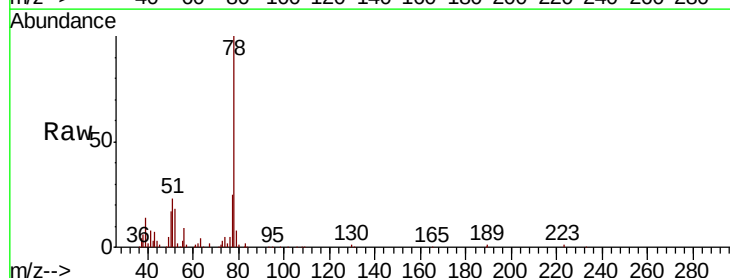
Instrument :
 MSVOA_L
 ClientSampleId :

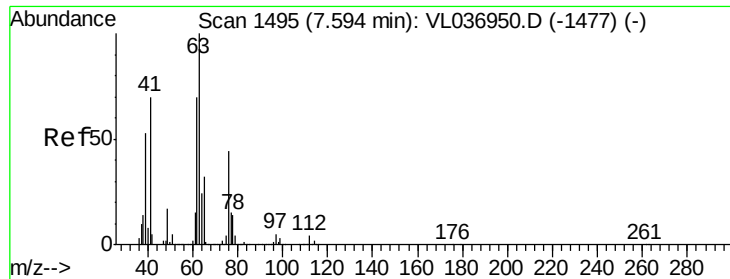
Tot Ion: 43 Resp: 51848
 Ion Ratio Lower Upper
 43 100
 72 34.8 19.0 28.4#



#36
 Benzene
 Concen: 0.149 ppbv
 RT: 6.87 min Scan# 1270
 Delta R.T. -0.00 min
 Lab File: VL037076.D
 Acq: 1 Jun 2021 18:58

Tgt Ion: 78 Resp: 61838
 Ion Ratio Lower Upper
 78 100
 77 23.4 18.6 28.0
 50 15.2 15.0 22.4

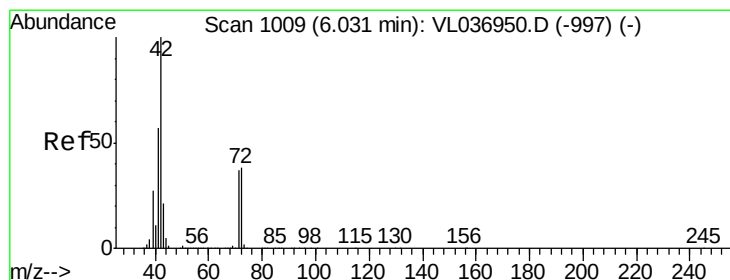
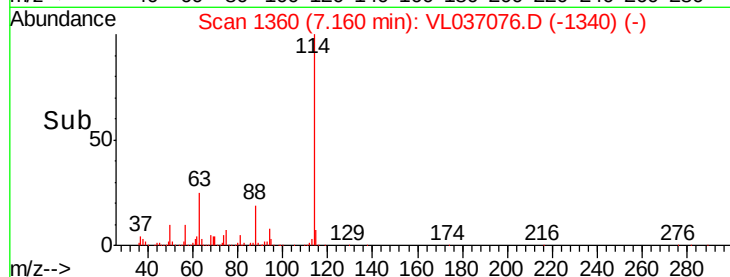
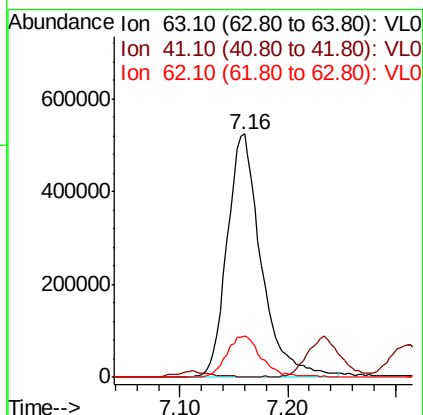
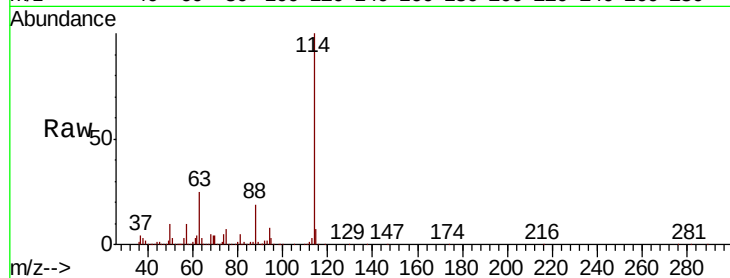




#39
 1,2-Dichloropropane
 Concen: 7.246 ppbv
 RT: 7.16 min Scan# 1360
 Delta R.T. -0.43 min
 Lab File: VL037076.D
 Acq: 1 Jun 2021 18:58

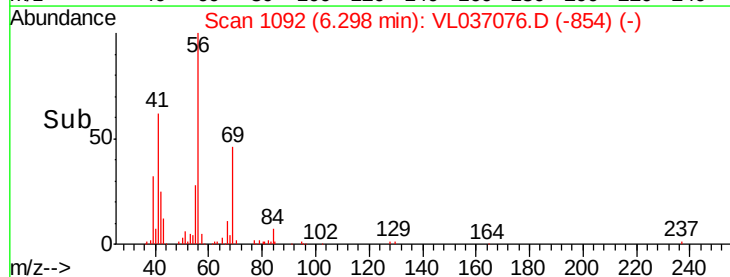
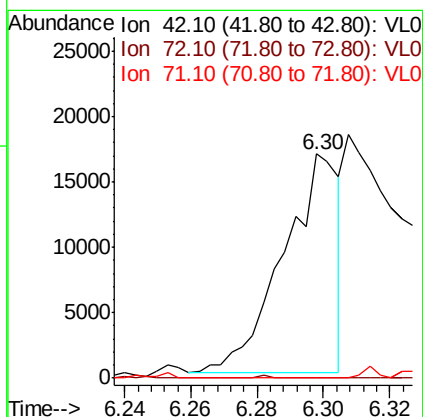
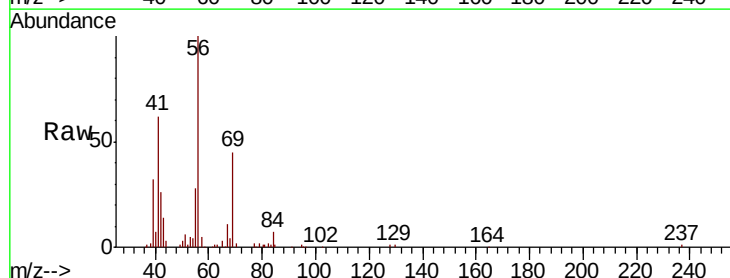
Instrument :
 MSVOA_L
 ClientSampleId :

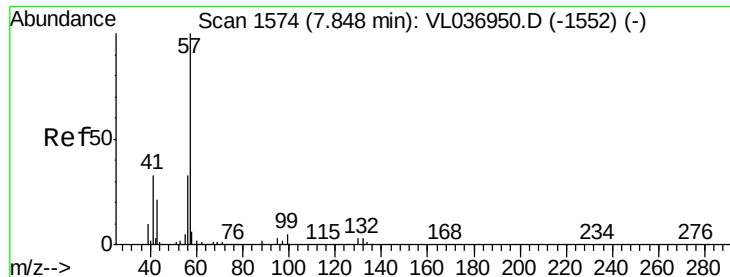
Tot Ion: 63 Resp: 1156112
 Ion Ratio Lower Upper
 63 100
 41 0.0 55.7 83.5#
 62 16.7 56.2 84.4#



#41
 Tetrahydrofuran
 Concen: 0.196 ppbv
 RT: 6.30 min Scan# 1092
 Delta R.T. 0.27 min
 Lab File: VL037076.D
 Acq: 1 Jun 2021 18:58

Tgt Ion: 42 Resp: 19565
 Ion Ratio Lower Upper
 42 100
 72 1.2 31.4 47.2#
 71 0.0 30.4 45.6#





#44

2,2,4-Trimethylpentane

Concen: 0.257 ppbv

RT: 7.85 min Scan# 1576

Delta R.T. 0.01 min

Lab File: VL037076.D

Acq: 1 Jun 2021 18:58

Instrument :

MSVOA_L

ClientSampleId :

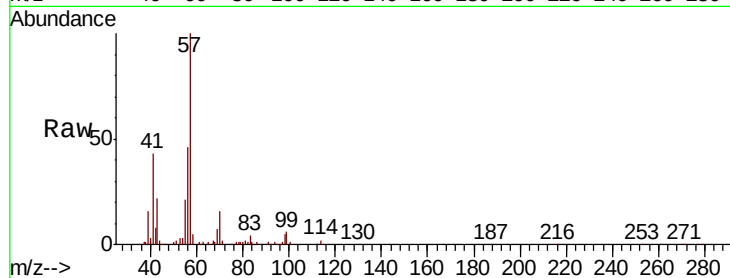
Tot Ion: 57 Resp: 182935

Ion Ratio Lower Upper

57 100

41 48.6 27.0 40.4#

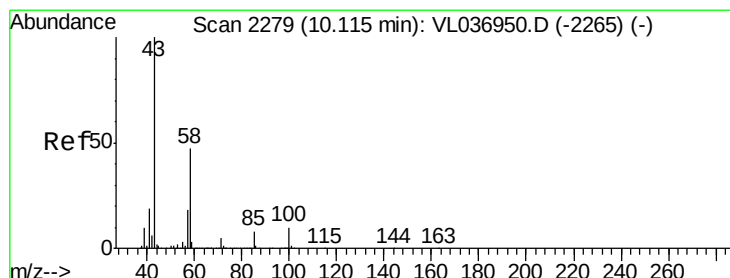
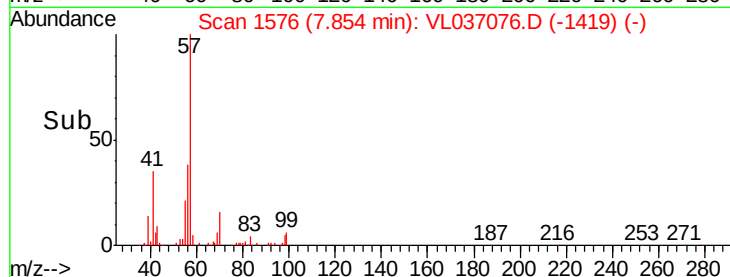
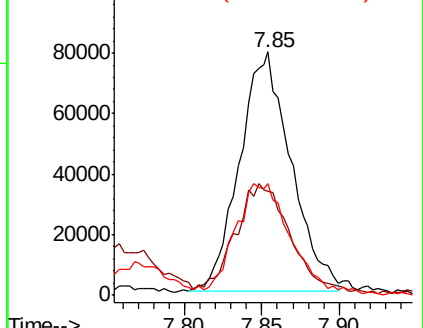
56 49.4 25.4 38.2#



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



#51

2-Hexanone

Concen: 0.041 ppbv

RT: 10.09 min Scan# 2271

Delta R.T. -0.03 min

Lab File: VL037076.D

Acq: 1 Jun 2021 18:58

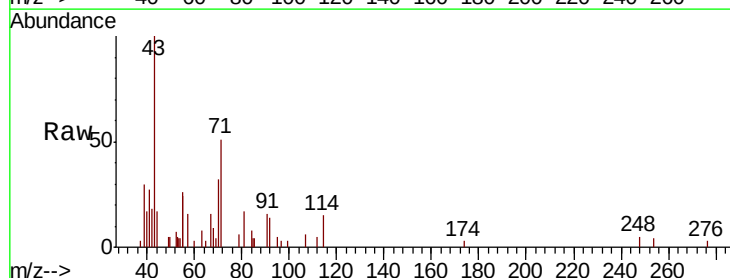
Tgt Ion: 43 Resp: 6267

Ion Ratio Lower Upper

43 100

58 0.0 41.1 61.7#

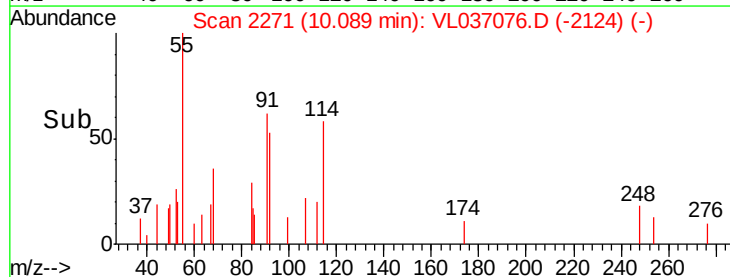
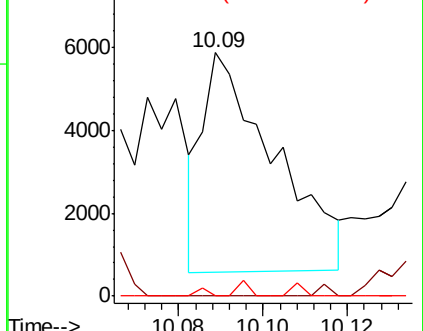
98 2.8 0.1 0.1#

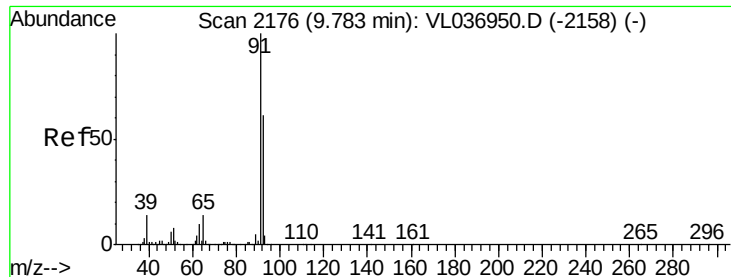


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

Ion 98.20 (97.90 to 98.90): VL0





#53

Toluene

Concen: 1.371 ppbv

RT: 9.79 min Scan# 2178

Delta R.T. 0.01 min

Lab File: VL037076.D

Acq: 1 Jun 2021 18:58

Instrument :

MSVOA_L

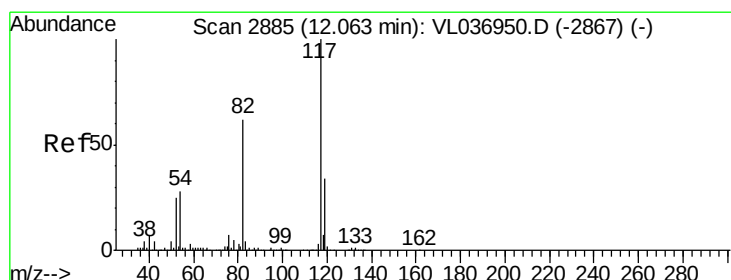
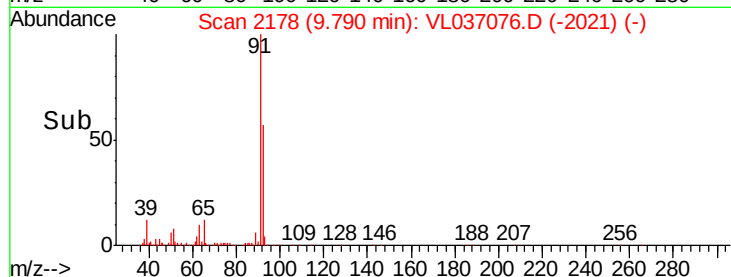
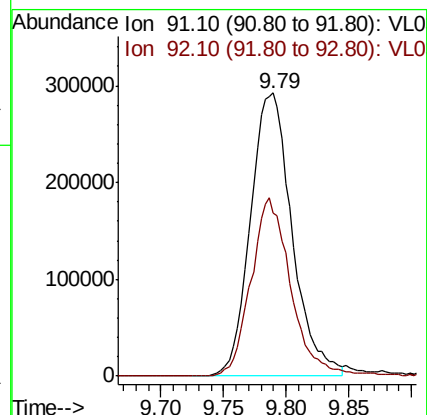
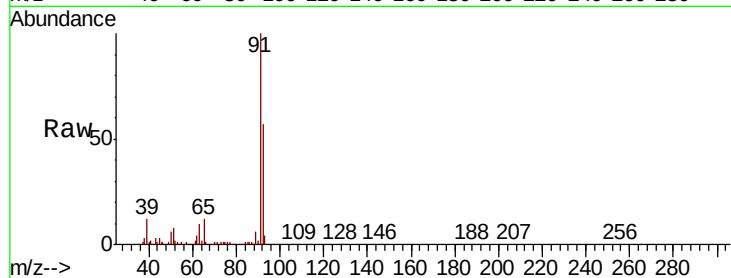
ClientSampleId :

Tot Ion: 91 Resp: 675603

Ion Ratio Lower Upper

91 100

92 61.3 49.5 74.3



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2886

Delta R.T. 0.00 min

Lab File: VL037076.D

Acq: 1 Jun 2021 18:58

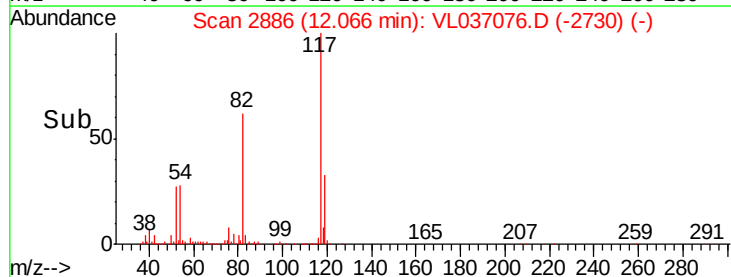
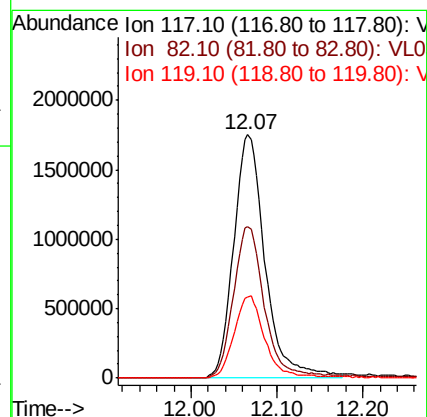
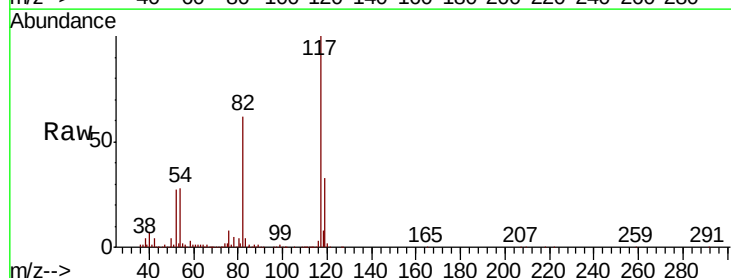
Tgt Ion: 117 Resp: 4452189

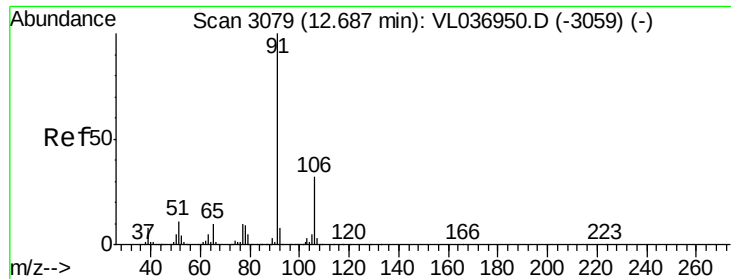
Ion Ratio Lower Upper

117 100

82 63.5 52.6 79.0

119 33.4 46.6 70.0#





#58

Ethyl Benzene

Concen: 0.211 ppbv

RT: 12.69 min Scan# 3081

Delta R.T. 0.01 min

Lab File: VL037076.D

Acq: 1 Jun 2021 18:58

Instrument :

MSVOA_L

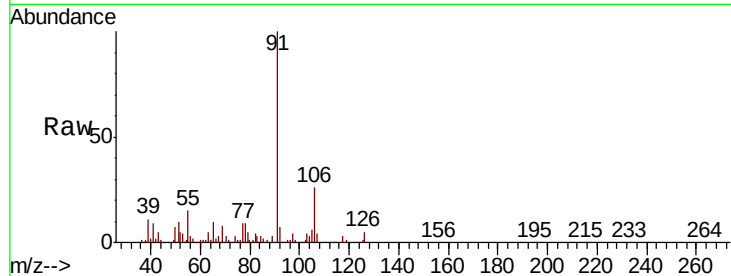
ClientSampleId :

Tot Ion: 91 Resp: 132764

Ion Ratio Lower Upper

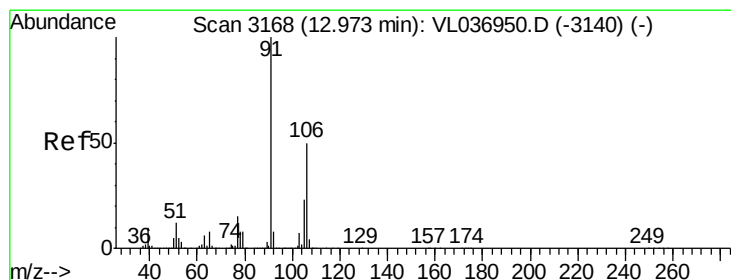
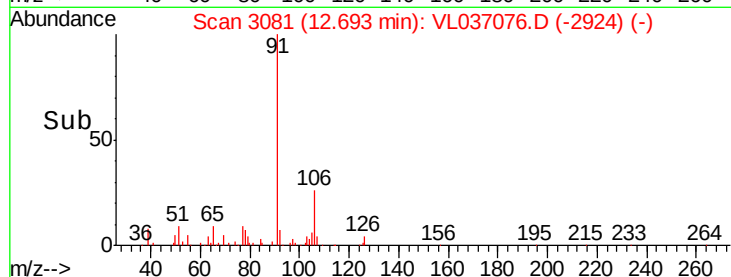
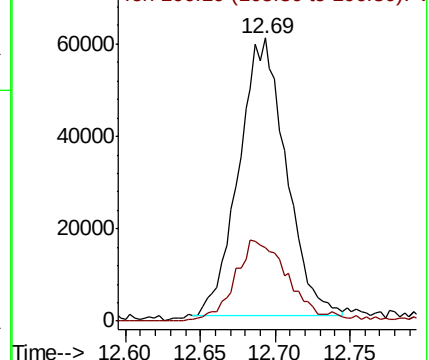
91 100

106 25.8 25.6 38.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.727 ppbv

RT: 12.95 min Scan# 3161

Delta R.T. -0.02 min

Lab File: VL037076.D

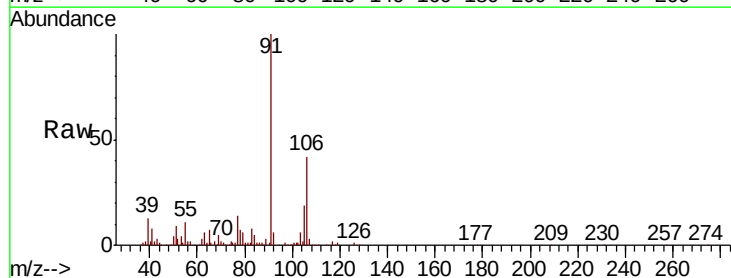
Acq: 1 Jun 2021 18:58

Tgt Ion: 91 Resp: 377868

Ion Ratio Lower Upper

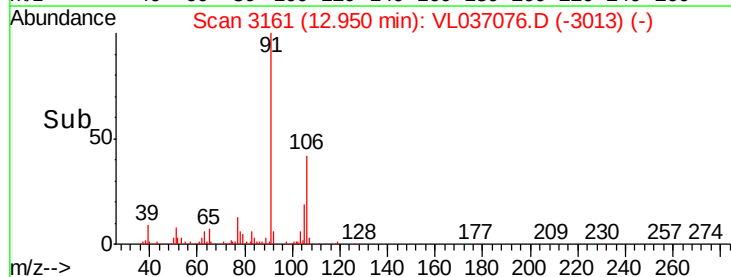
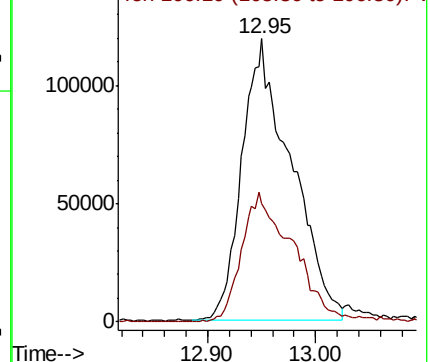
91 100

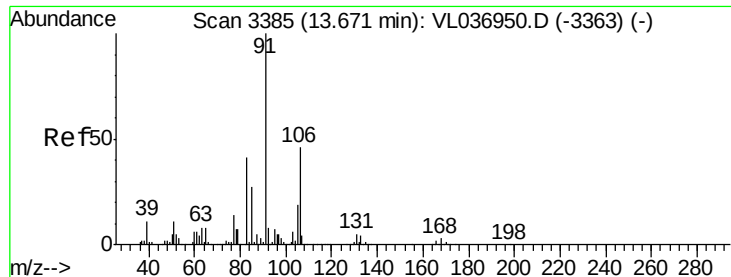
106 48.8 37.4 56.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

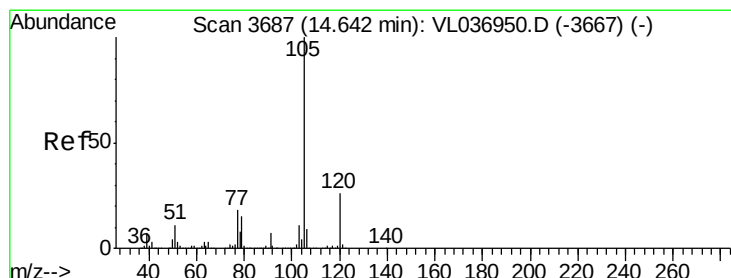
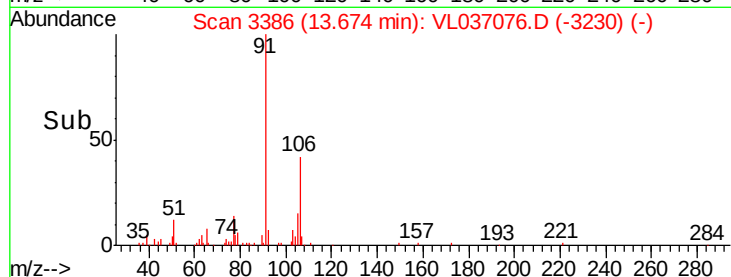
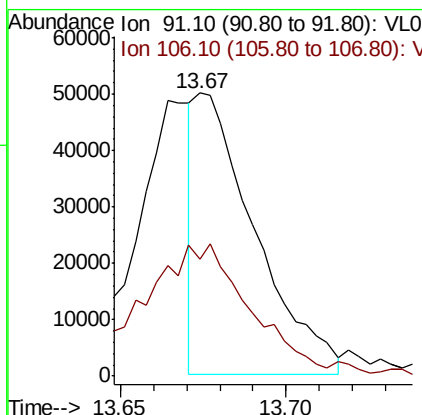
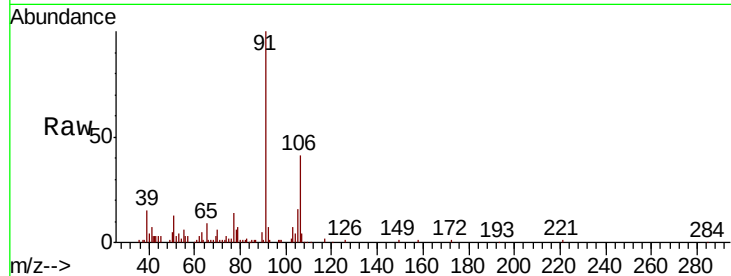




#60
o-Xylene
Concen: 0.125 ppbv
RT: 13.67 min Scan# 3386
Delta R.T. 0.00 min
Lab File: VL037076.D
Acq: 1 Jun 2021 18:58

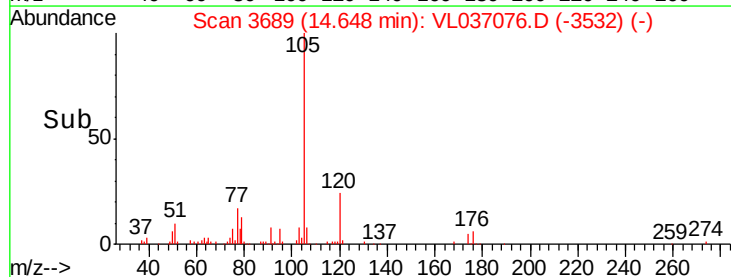
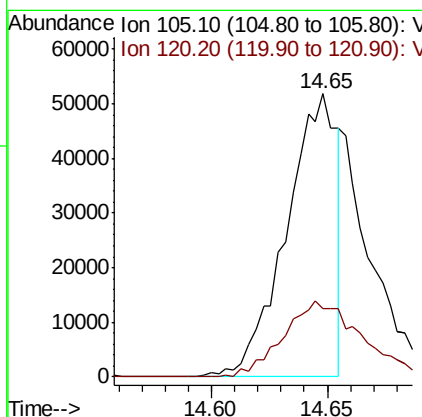
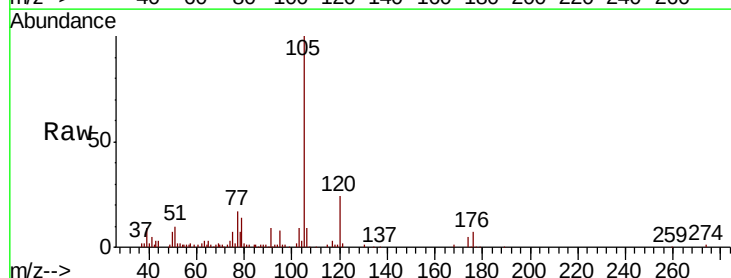
Instrument :
MSVOA_L
ClientSampled :

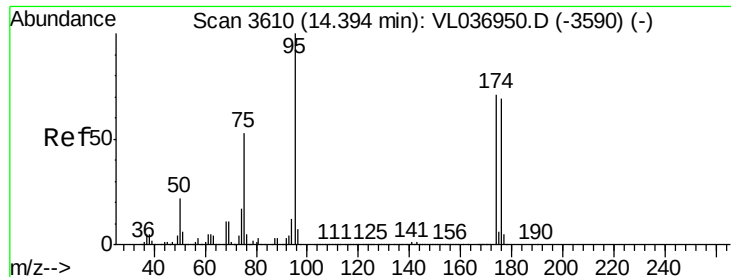
Tot Ion: 91 Resp: 62136
Ion Ratio Lower Upper
91 100
106 88.6 23.4 70.3#



#62
Isopropylbenzene
Concen: 0.110 ppbv
RT: 14.65 min Scan# 3689
Delta R.T. 0.01 min
Lab File: VL037076.D
Acq: 1 Jun 2021 18:58

Tgt Ion: 105 Resp: 78648
Ion Ratio Lower Upper
105 100
120 42.9 21.7 32.5#





#68

1-Bromo-4-Fluorobenzene

Concen: 9.639 ppbv

RT: 14.40 min Scan# 3611

Delta R.T. 0.00 min

Lab File: VL037076.D

Acq: 1 Jun 2021 18:58

Instrument :

MSVOA_L

ClientSampleId :

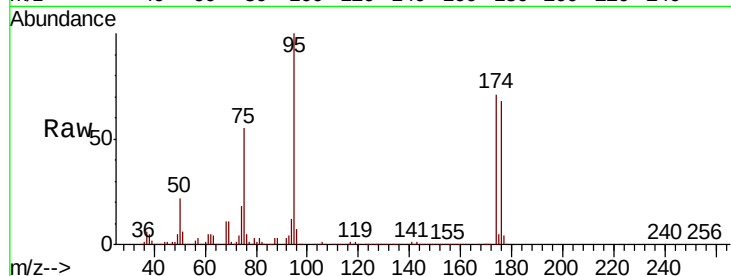
Tot Ion: 95 Resp: 3223803

Ion Ratio Lower Upper

95 100

174 77.3 58.4 87.6

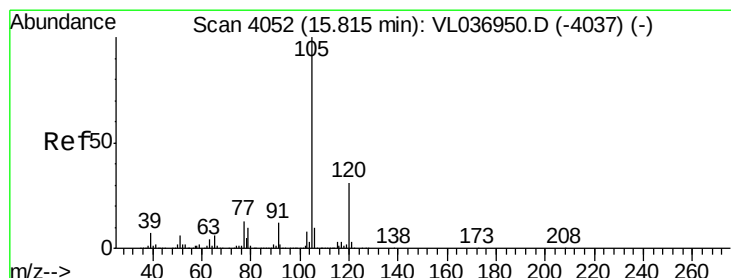
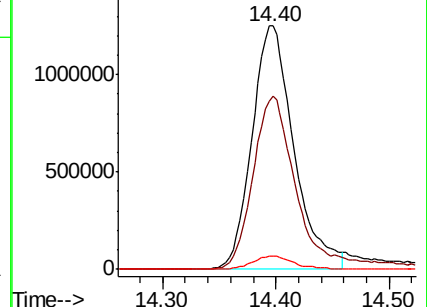
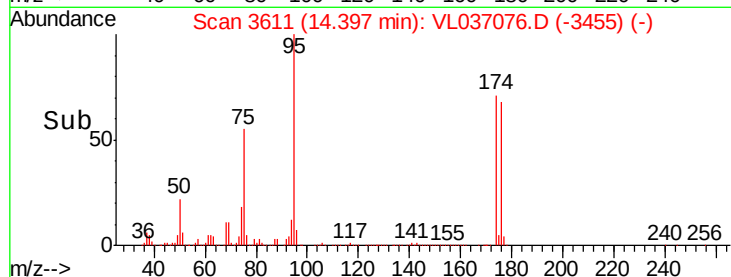
175 5.6 4.4 6.6



Abundance Ion 95.10 (94.80 to 95.80): VL036950.D (-3590) (-)

Ion 174.00 (173.70 to 174.70): VL036950.D (-3590) (-)

Ion 175.00 (174.70 to 175.70): VL036950.D (-3590) (-)



#72

4-Ethyltoluene

Concen: 0.054 ppbv

RT: 15.82 min Scan# 4053

Delta R.T. 0.00 min

Lab File: VL037076.D

Acq: 1 Jun 2021 18:58

Tgt Ion: 105 Resp: 31663

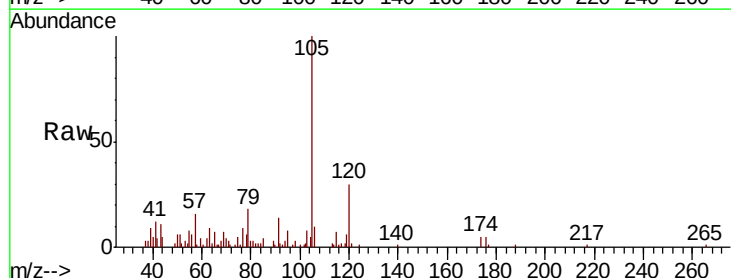
Ion Ratio Lower Upper

105 100

120 49.8 24.6 37.0#

91 0.0 9.8 14.6#

77 0.0 10.4 15.6#

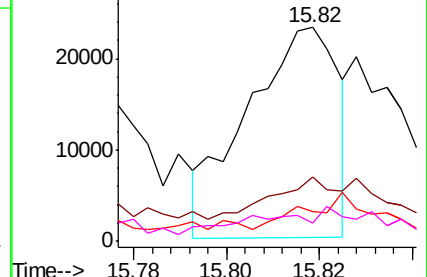
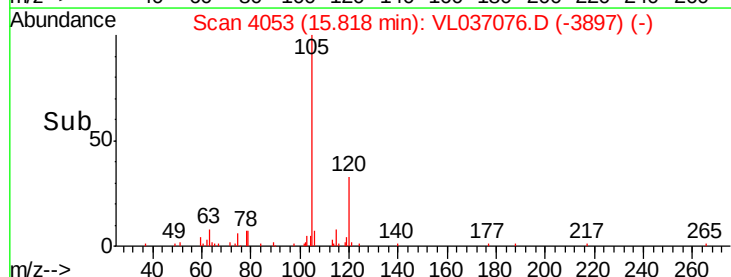


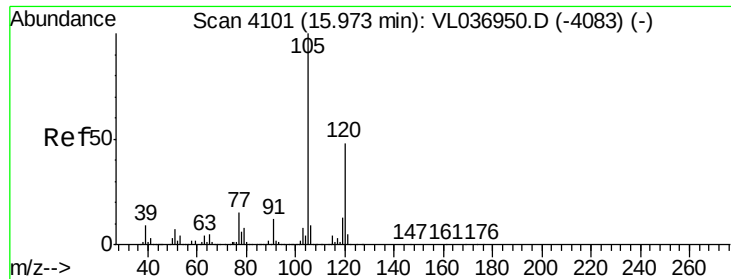
Abundance Ion 105.10 (104.80 to 105.80): VL036950.D (-4037) (-)

Ion 120.20 (119.90 to 120.90): VL036950.D (-4037) (-)

Ion 91.10 (90.80 to 91.80): VL036950.D (-4037) (-)

Ion 77.10 (76.80 to 77.80): VL036950.D (-4037) (-)





#73

1,3,5-Trimethylbenzene

Concen: 0.069 ppbv

RT: 15.98 min Scan# 4103

Delta R.T. 0.01 min

Lab File: VL037076.D

Acq: 1 Jun 2021 18:58

Instrument :

MSVOA_L

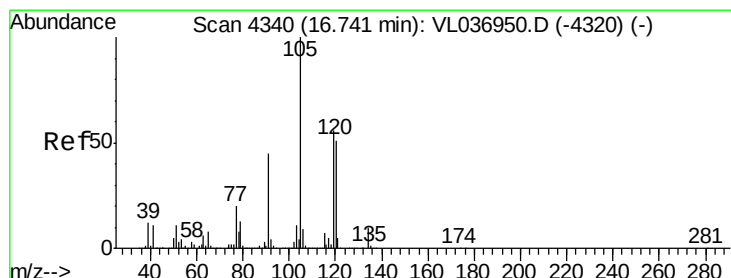
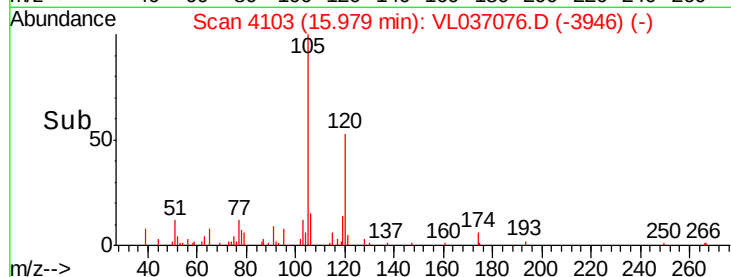
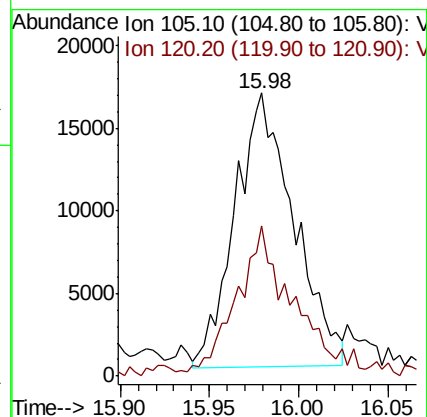
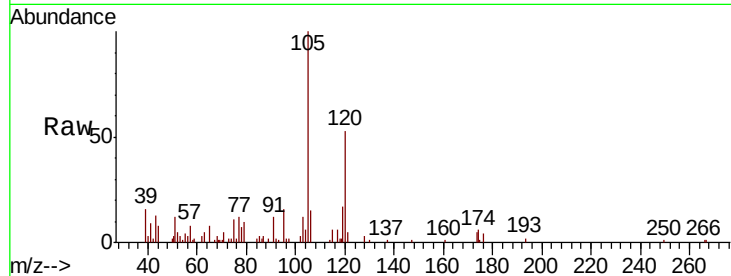
ClientSampled :

Tot Ion:105 Resp: 38164

Ion Ratio Lower Upper

105 100

120 57.1 38.6 58.0



#74

1,2,4-Trimethylbenzene

Concen: 0.248 ppbv

RT: 16.74 min Scan# 4341

Delta R.T. 0.00 min

Lab File: VL037076.D

Acq: 1 Jun 2021 18:58

Tgt Ion:105 Resp: 141449

Ion Ratio Lower Upper

105 100

120 36.6 40.6 61.0#

91 13.3 37.4 56.0#

77 12.8 16.2 24.4#

