

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051420\
 Data File : VL035037.D
 Acq On : 15 May 2020 8:43
 Operator : SY/AP
 Sample : L2566-06DL2 60X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: May 15 23:37:19 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed May 06 14:49:39 2020
 QLast Update : Wed May 06 14:49:39 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1141125	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.17	114	2639617	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.10	117	2595827	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.45	95	2256760	10.74	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	107.40%

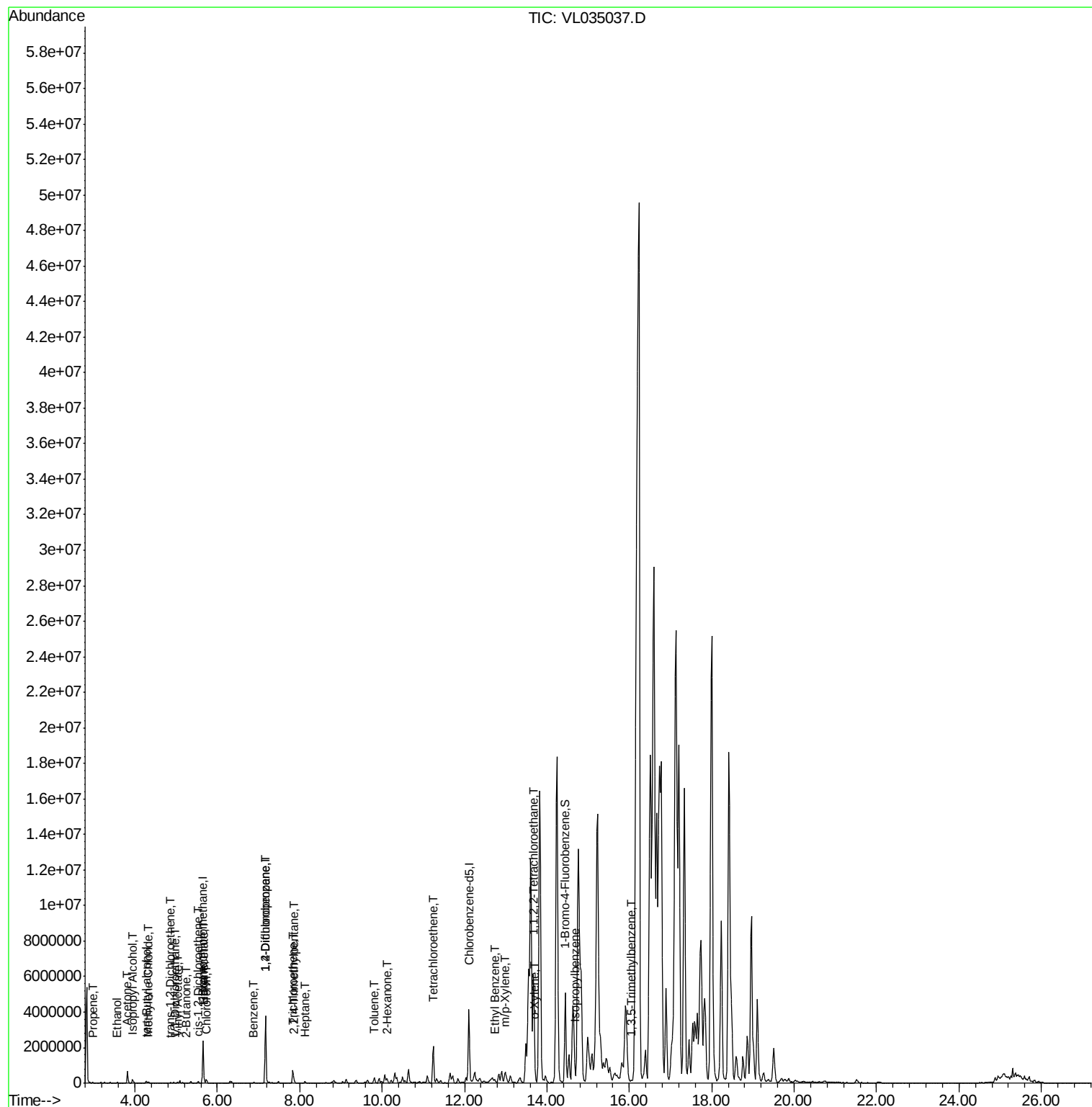
Target Compounds					Ovalue
9) Propene	2.97	41	5435	0.096 ppbv	# 45
10) Heptane	8.12	43	30258	0.214 ppbv	95
13) Ethanol	3.57	45	52602	2.820 ppbv	91
15) Acetone	3.82	43	666876	4.420 ppbv	98
17) tert-Butyl alcohol	4.27	59	80526	0.600 ppbv	# 94
19) Isopropyl Alcohol	3.93	45	217173	2.159 ppbv	# 93
20) Methylene Chloride	4.32	84	16578	0.332 ppbv	# 81
22) trans-1,2-Dichloroethene	4.86	96	7787	0.152 ppbv	# 89
23) Vinyl Acetate	5.03	43	32055	0.168 ppbv	# 22
24) 1,1-Dichloroethane	4.99	63	8749	0.059 ppbv	98
25) Ethyl Acetate	5.67	43	22533	0.089 ppbv	# 82
26) Hexane	5.67	57	24979	0.227 ppbv	# 43
29) Chloroform	5.73	83	142652	0.794 ppbv	92
31) cis-1,2-Dichloroethene	5.53	61	57487	0.536 ppbv	# 89
34) 2-Butanone	5.24	43	18649	0.114 ppbv	96
36) Benzene	6.88	78	31725	0.146 ppbv	# 89
38) Trichloroethene	7.83	130	211169	2.505 ppbv	96
39) 1,2-Dichloropropane	7.17	63	720477	8.258 ppbv	# 24
44) 2,2,4-Trimethylpentane	7.87	57	42350	0.109 ppbv	# 69
51) 2-Hexanone	10.12	43	140128	0.766 ppbv	# 30
52) Tetrachloroethene	11.24	164	519770	6.717 ppbv	96
53) Toluene	9.82	91	84008	0.364 ppbv	96
58) Ethyl Benzene	12.73	91	35063	0.109 ppbv	98
59) m/p-Xylene	12.99	91	167134	0.592 ppbv	# 8
60) o-Xylene	13.72	91	107170	0.385 ppbv	96
62) Isopropylbenzene	14.69	105	34648	0.083 ppbv	# 49
63) 1,1,2,2-Tetrachloroethane	13.69	83	19939	0.091 ppbv	# 25
73) 1,3,5-Trimethylbenzene	16.03	105	11293	0.037 ppbv	# 84

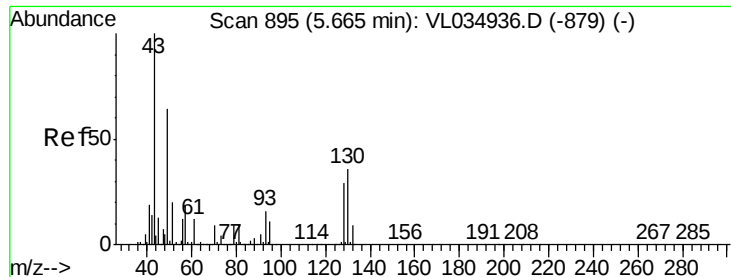
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed May 06 14:49:39 2020
QLast Update : Wed May 06 14:49:39 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 891

Delta R.T. -0.01 min

Lab File: VL035037.D

Acq: 15 May 2020 8:43

Instrument :
MSVOA_L
ClientSampleId :

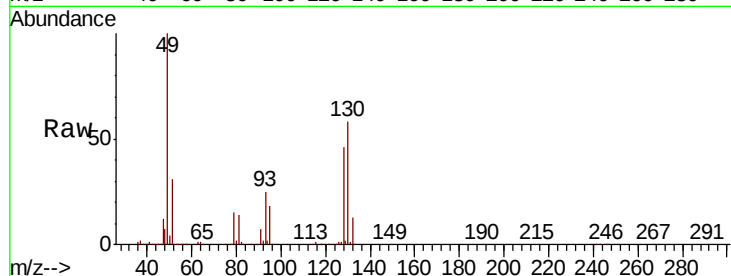
Tot Ion: 49 Resp: 1141125

Ion Ratio Lower Upper

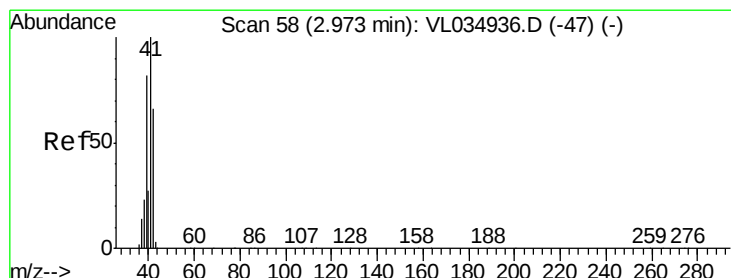
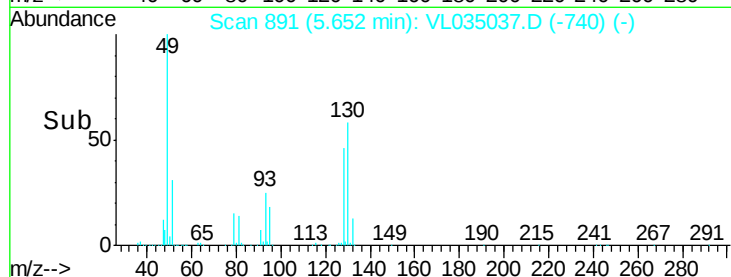
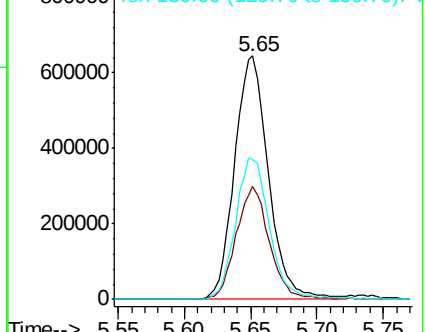
49 100

128 45.8 22.1 66.5

130 58.8 29.1 87.3



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



#9

Propene

Concen: 0.096 ppbv

RT: 2.97 min Scan# 56

Delta R.T. -0.01 min

Lab File: VL035037.D

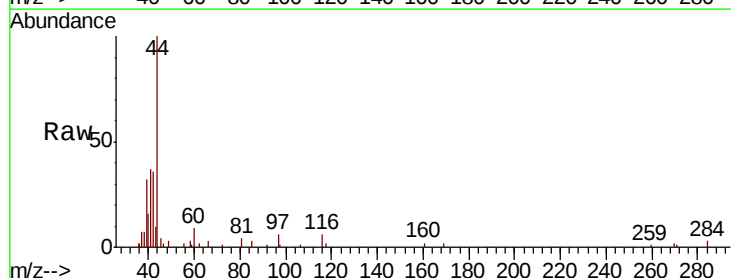
Acq: 15 May 2020 8:43

Tgt Ion: 41 Resp: 5435

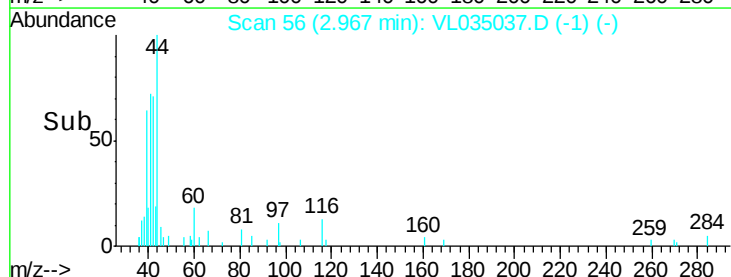
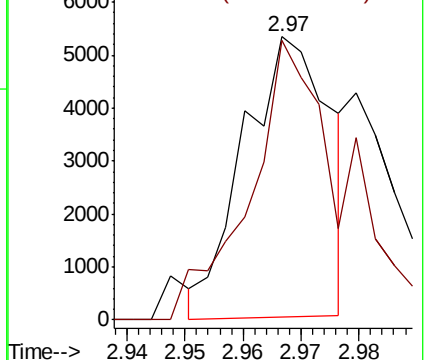
Ion Ratio Lower Upper

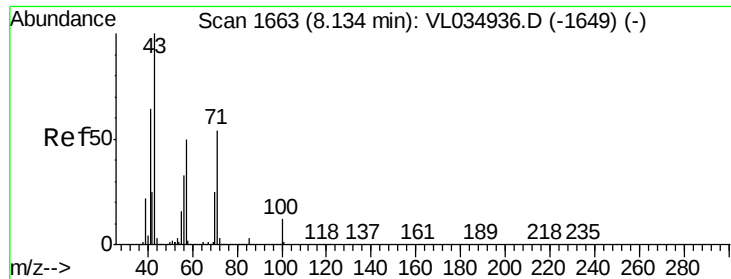
41 100

42 112.5 54.5 81.7#



Abundance Ion 41.10 (40.80 to 41.80): VL0
Ion 42.10 (41.80 to 42.80): VL0

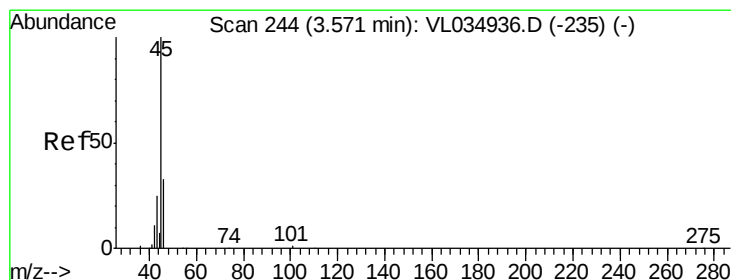
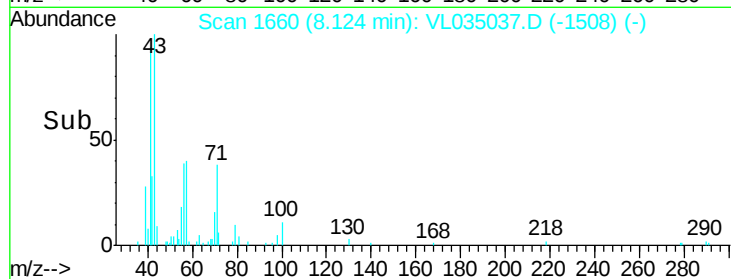
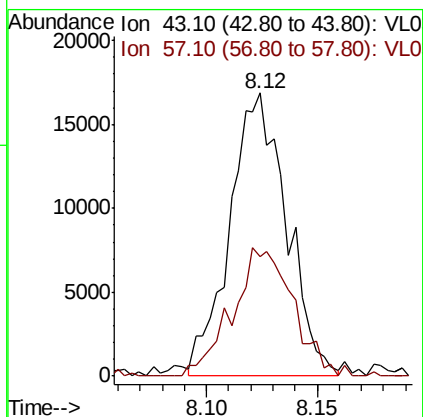
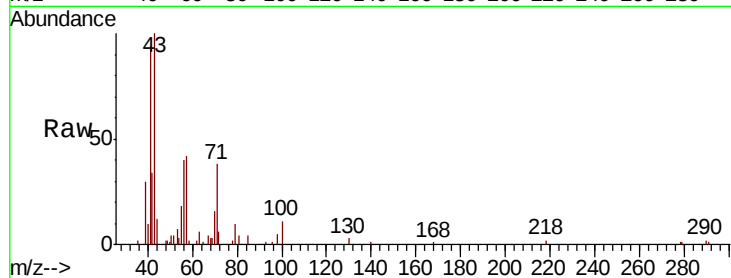




#10
Heptane
Concen: 0.214 ppbv
RT: 8.12 min Scan# 1660
Delta R.T. -0.01 min
Lab File: VL035037.D
Acq: 15 May 2020 8:43

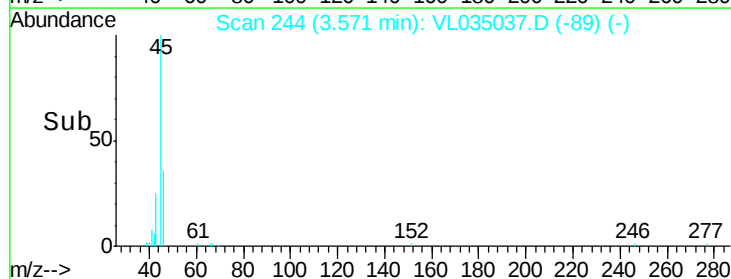
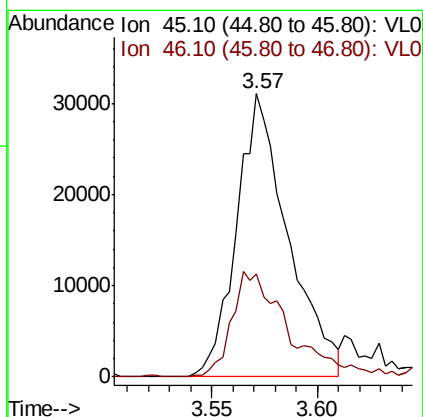
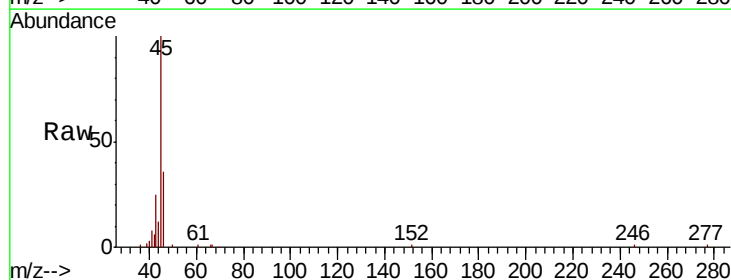
Instrument :
MSVOA_L
ClientSampled :

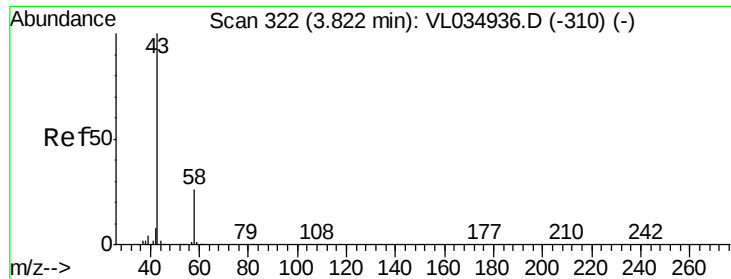
Tot Ion: 43 Resp: 30258
Ion Ratio Lower Upper
43 100
57 48.1 41.1 61.7



#13
Ethanol
Concen: 2.820 ppbv
RT: 3.57 min Scan# 244
Delta R.T. -0.00 min
Lab File: VL035037.D
Acq: 15 May 2020 8:43

Tgt Ion: 45 Resp: 52602
Ion Ratio Lower Upper
45 100
46 40.8 14.3 57.3





#15

Acetone

Concen: 4.420 ppbv

RT: 3.82 min Scan# 320

Delta R.T. -0.01 min

Lab File: VL035037.D

Acq: 15 May 2020 8:43

Instrument :

MSVOA_L

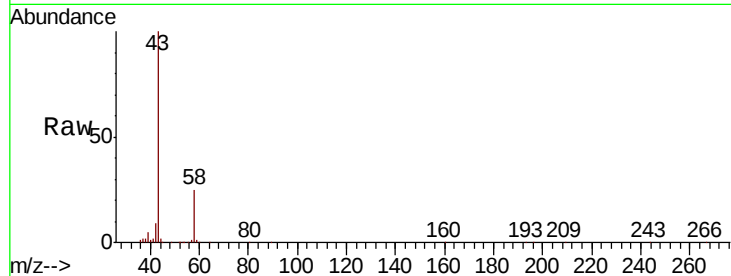
ClientSampleId :

Tot Ion: 43 Resp: 666876

Ion Ratio Lower Upper

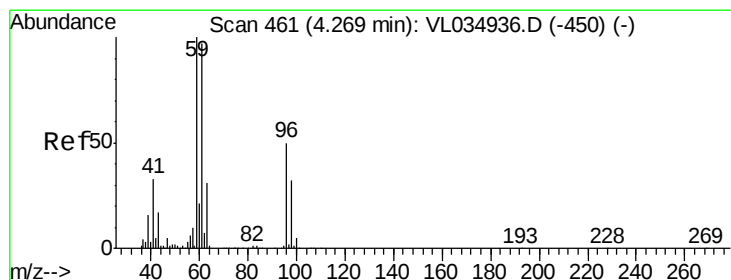
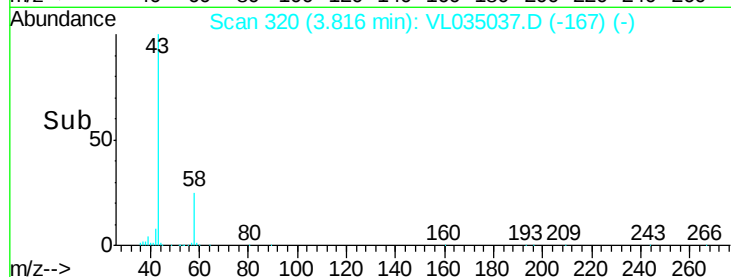
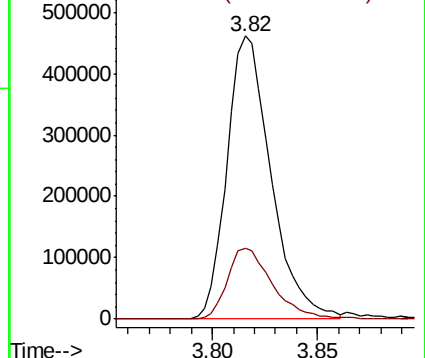
43 100

58 26.1 21.7 32.5



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#17

tert-Butyl alcohol

Concen: 0.600 ppbv

RT: 4.27 min Scan# 462

Delta R.T. 0.00 min

Lab File: VL035037.D

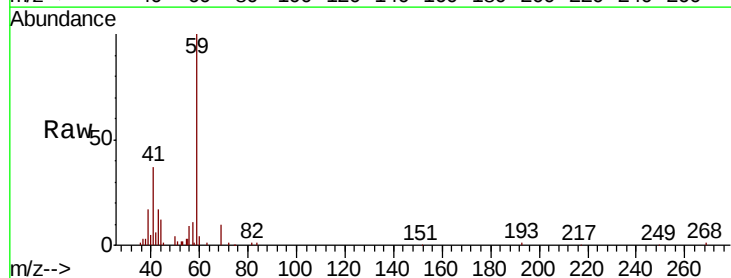
Acq: 15 May 2020 8:43

Tgt Ion: 59 Resp: 80526

Ion Ratio Lower Upper

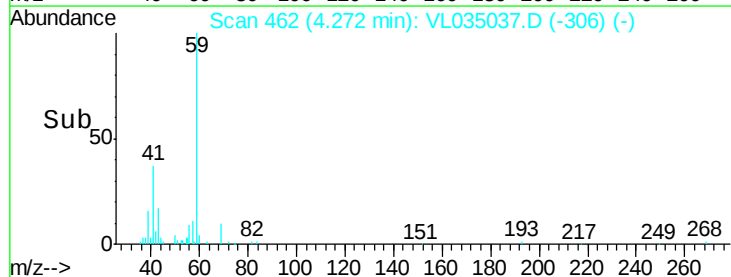
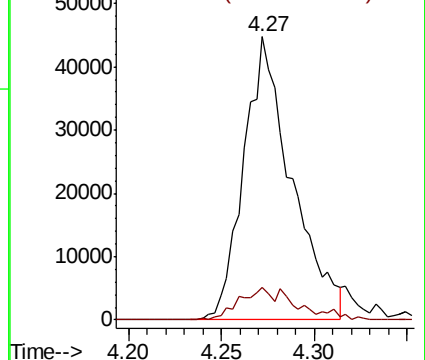
59 100

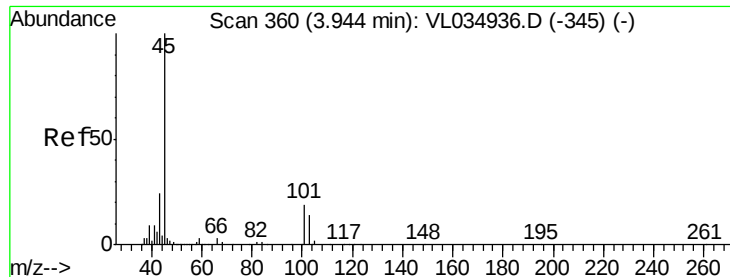
57 13.4 8.7 13.1#



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



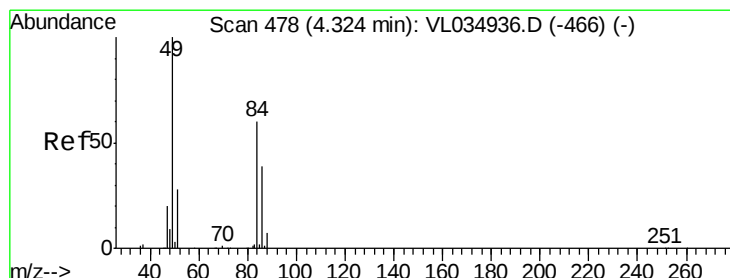
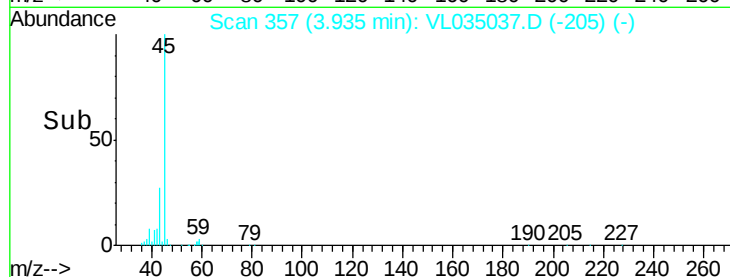
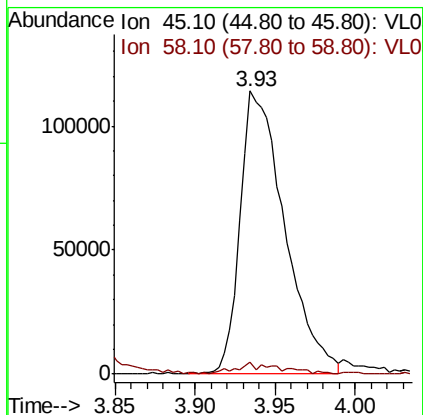
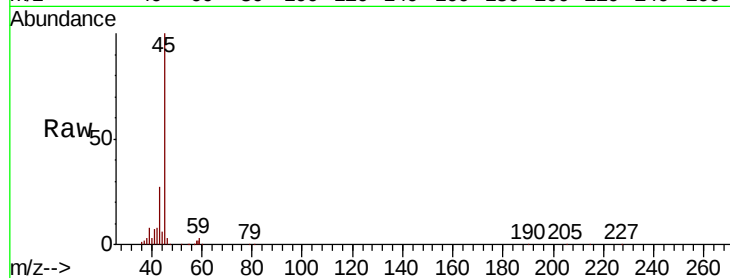


#19

Isopropyl Alcohol
 Concen: 2.159 ppbv
 RT: 3.93 min Scan# 357
 Delta R.T. -0.01 min
 Lab File: VL035037.D
 Acq: 15 May 2020 8:43

Instrument :
 MSVOA_L
 ClientSampled :

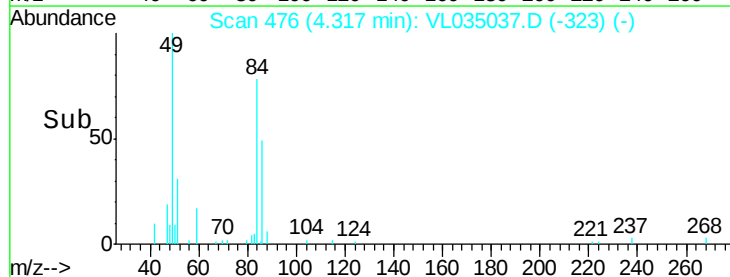
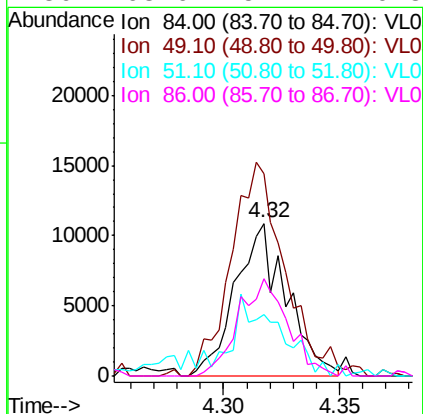
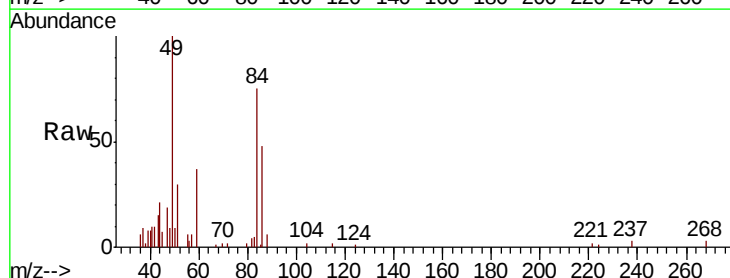
Tot Ion: 45 Resp: 217173
 Ion Ratio Lower Upper
 45 100
 58 4.5 1.7 2.5#

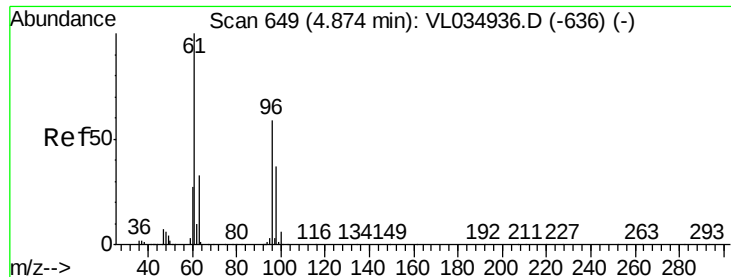


#20

Methylene Chloride
 Concen: 0.332 ppbv
 RT: 4.32 min Scan# 476
 Delta R.T. -0.01 min
 Lab File: VL035037.D
 Acq: 15 May 2020 8:43

Tgt Ion: 84 Resp: 16578
 Ion Ratio Lower Upper
 84 100
 49 132.6 132.5 198.7
 51 32.3 38.4 57.6#
 86 63.6 51.2 76.8





#22

trans-1,2-Dichloroethene

Concen: 0.152 ppbv

RT: 4.86 min Scan# 645

Delta R.T. -0.01 min

Lab File: VL035037.D

Acq: 15 May 2020 8:43

Instrument :

MSVOA_L

ClientSampled :

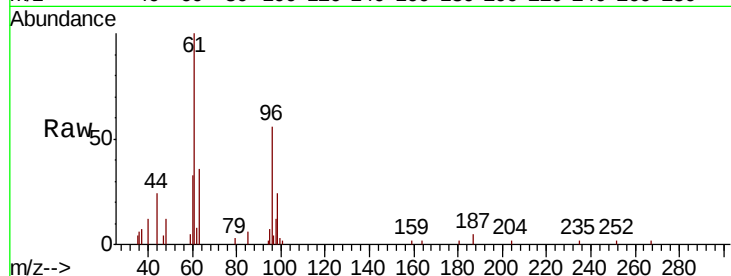
Tot Ion: 96 Resp: 7787

Ion Ratio Lower Upper

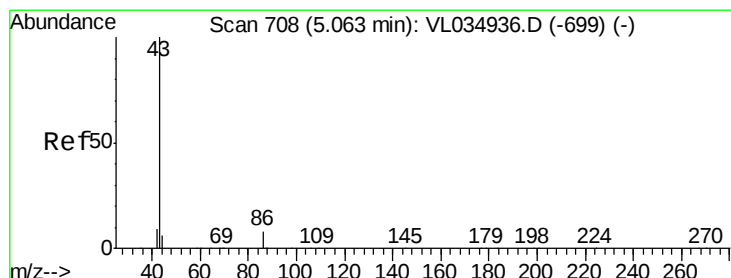
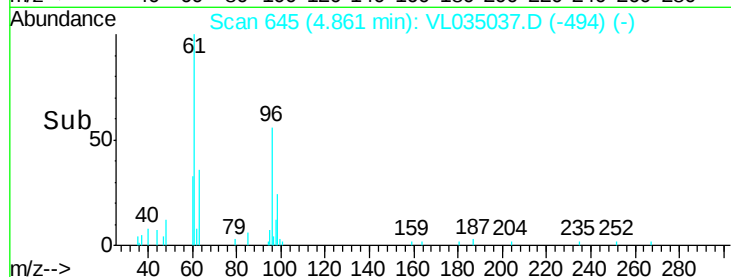
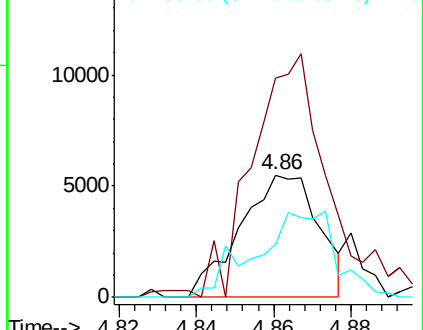
96 100

61 175.4 135.3 202.9

98 40.5 50.4 75.6#



Abundance Ion 96.00 (95.70 to 96.70): VL0
Ion 61.10 (60.80 to 61.80): VL0
Ion 98.00 (97.70 to 98.70): VL0



#23

Vinyl Acetate

Concen: 0.168 ppbv

RT: 5.03 min Scan# 699

Delta R.T. -0.03 min

Lab File: VL035037.D

Acq: 15 May 2020 8:43

Tgt Ion: 43 Resp: 32055

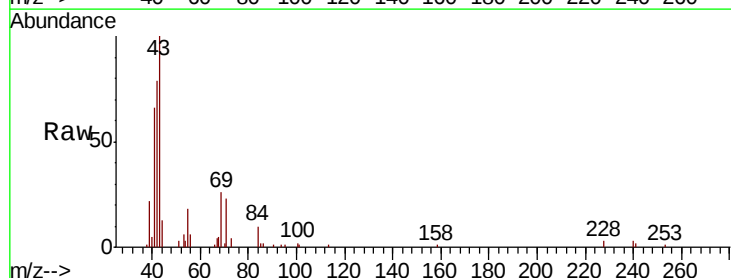
Ion Ratio Lower Upper

43 100

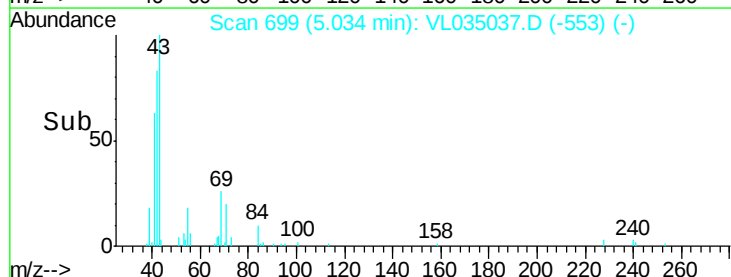
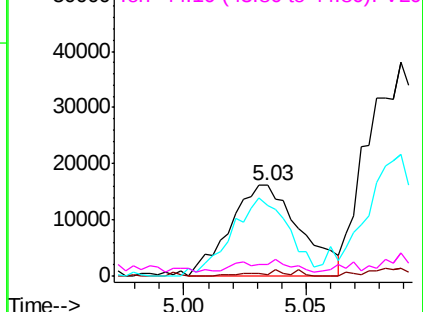
86 1.7 5.5 8.3#

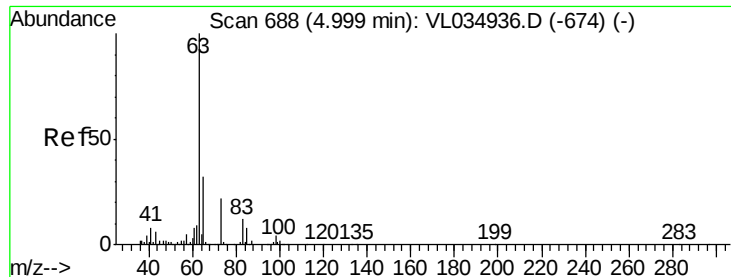
42 70.0 8.0 12.0#

44 4.2 4.5 6.7#



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 86.10 (85.80 to 86.80): VL0
Ion 42.10 (41.80 to 42.80): VL0
Ion 44.10 (43.80 to 44.80): VL0





#24

1,1-Dichloroethane

Concen: 0.059 ppbv

RT: 4.99 min Scan# 684

Delta R.T. -0.01 min

Lab File: VL035037.D

Acq: 15 May 2020 8:43

Instrument :

MSVOA_L

ClientSampleId :

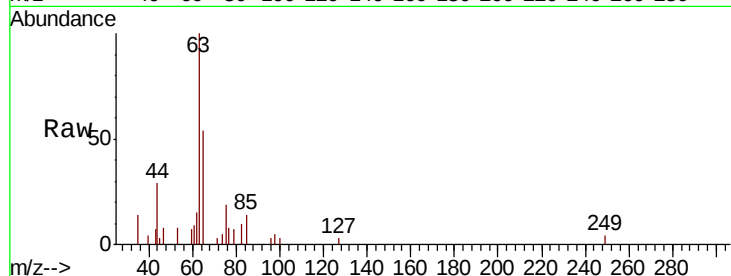
Tot Ion: 63 Resp: 8749

Ion Ratio Lower Upper

63 100

98 4.7 2.0 6.0

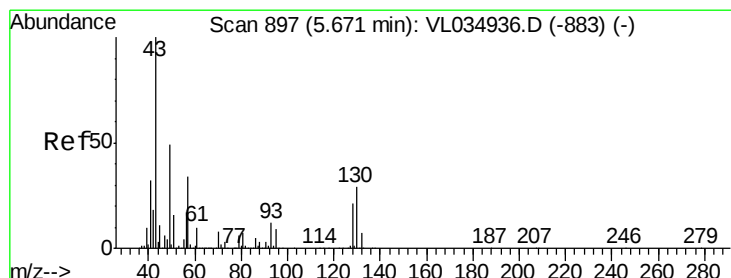
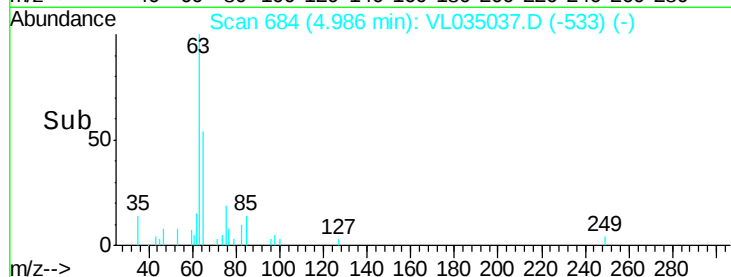
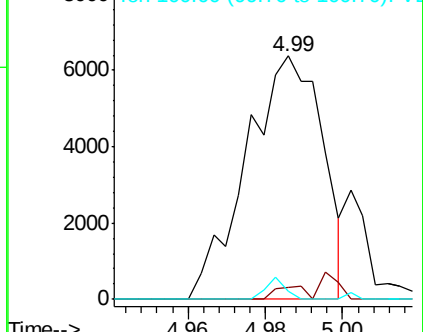
100 3.1 1.1 3.5



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0



#25

Ethyl Acetate

Concen: 0.089 ppbv

RT: 5.67 min Scan# 896

Delta R.T. -0.00 min

Lab File: VL035037.D

Acq: 15 May 2020 8:43

Tgt Ion: 43 Resp: 22533

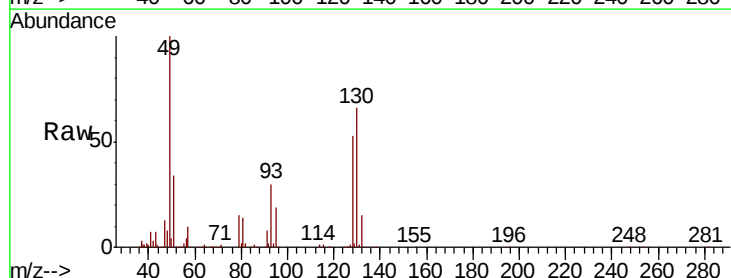
Ion Ratio Lower Upper

43 100

45 4.9 8.1 12.1#

61 0.0 7.8 11.8#

70 3.6 6.0 9.0#

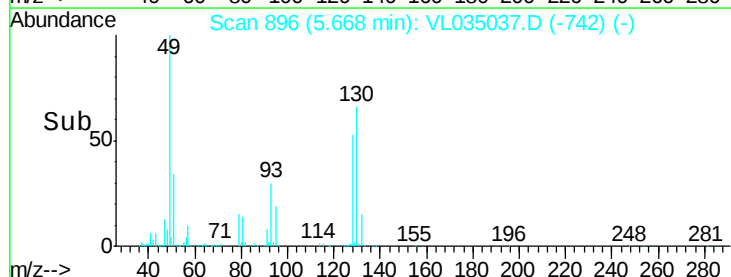
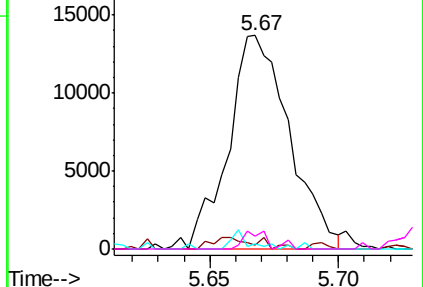


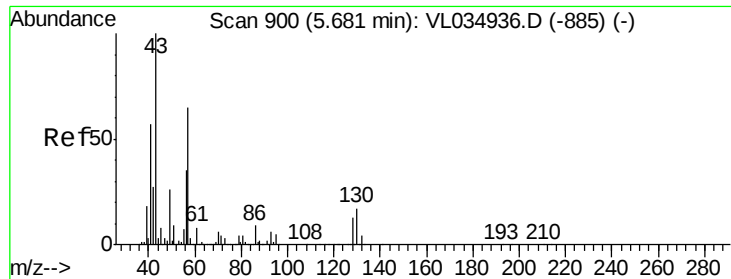
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0

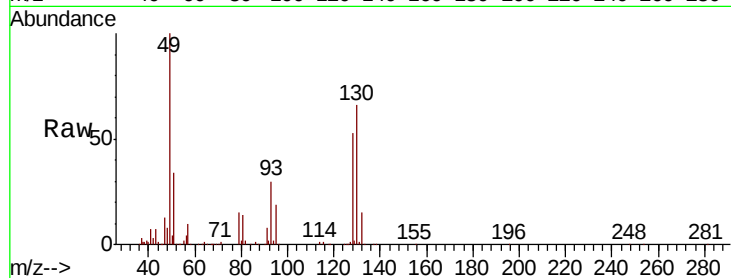




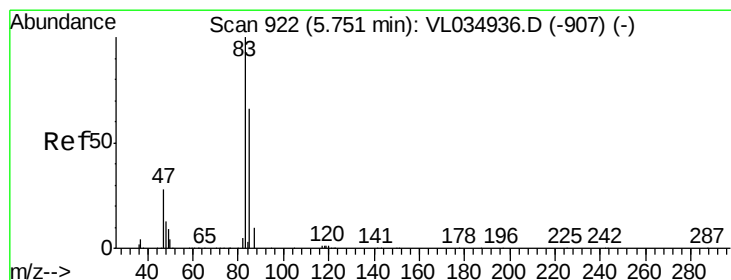
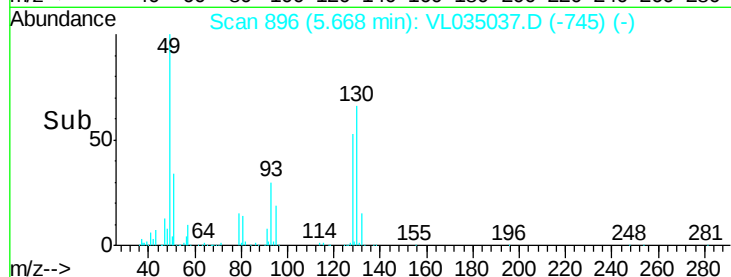
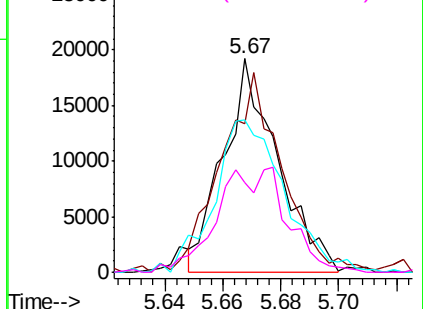
#26
Hexane
Concen: 0.227 ppbv
RT: 5.67 min Scan# 896
Delta R.T. -0.01 min
Lab File: VL035037.D
Acq: 15 May 2020 8:43

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 57 Resp: 24979
Ion Ratio Lower Upper
57 100
41 108.5 72.7 109.1
43 92.5 182.1 273.1#
56 63.5 42.2 63.2#

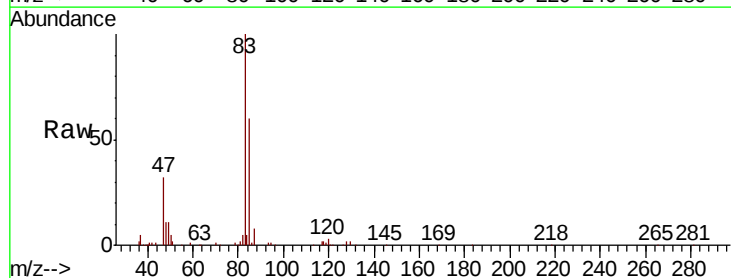


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

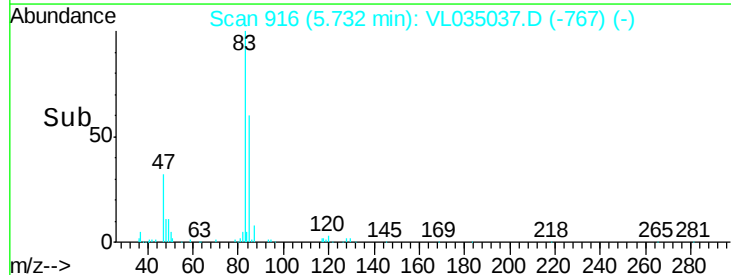
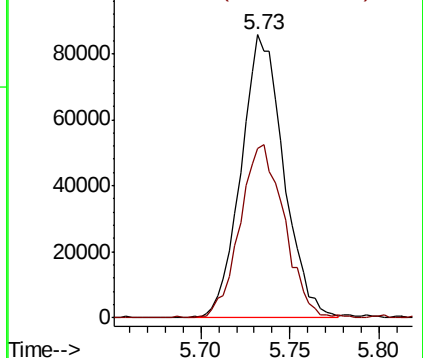


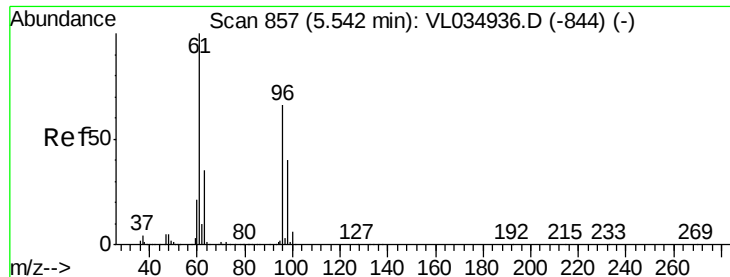
#29
Chloroform
Concen: 0.794 ppbv
RT: 5.73 min Scan# 916
Delta R.T. -0.02 min
Lab File: VL035037.D
Acq: 15 May 2020 8:43

Tgt Ion: 83 Resp: 142652
Ion Ratio Lower Upper
83 100
85 59.9 53.0 79.6



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





#31

cis-1,2-Dichloroethene

Concen: 0.536 ppbv

RT: 5.53 min Scan# 853

Delta R.T. -0.01 min

Lab File: VL035037.D

Acq: 15 May 2020 8:43

Instrument :

MSVOA_L

ClientSampleId :

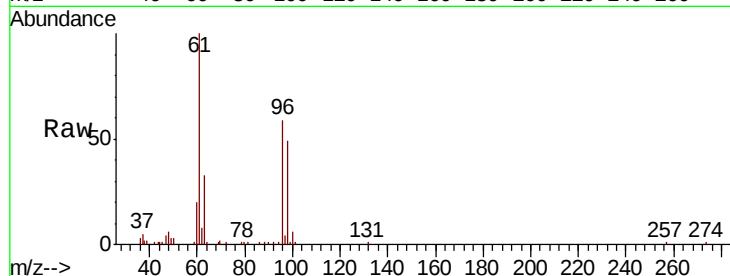
Tot Ion: 61 Resp: 57487

Ion Ratio Lower Upper

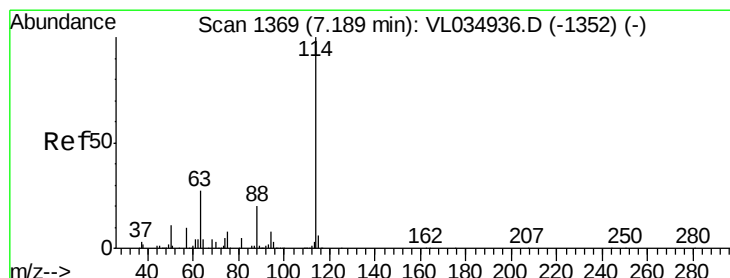
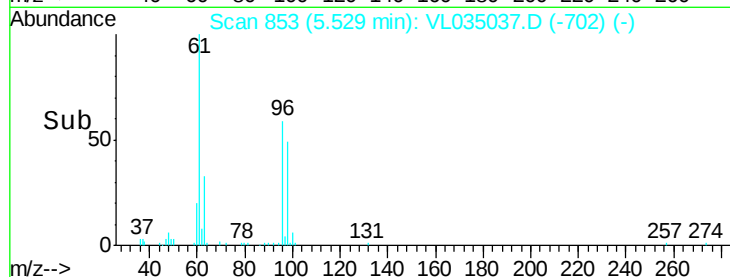
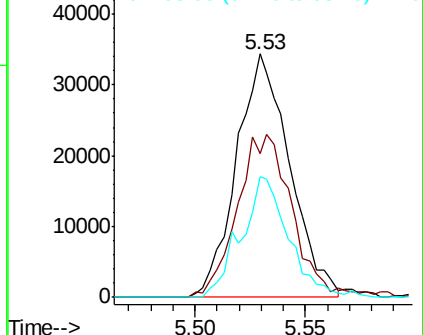
61 100

96 59.0 53.0 79.6

98 49.4 32.2 48.2#



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# 1363

Delta R.T. -0.02 min

Lab File: VL035037.D

Acq: 15 May 2020 8:43

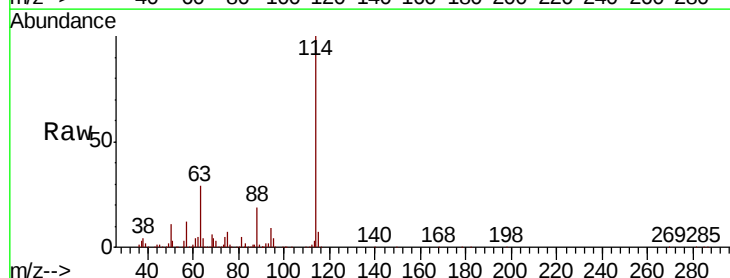
Tgt Ion: 114 Resp: 2639617

Ion Ratio Lower Upper

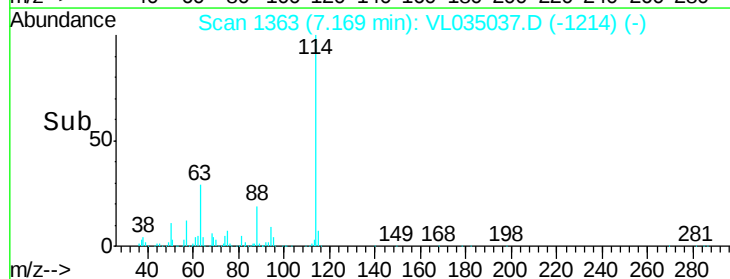
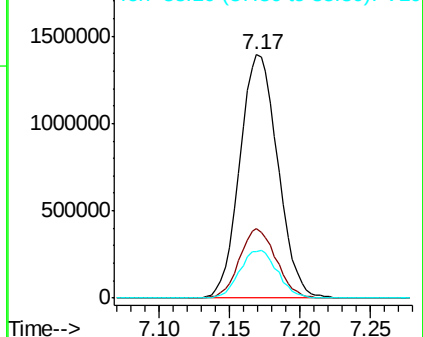
114 100

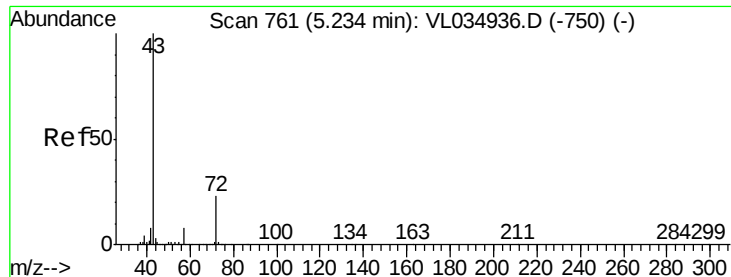
63 27.5 22.2 33.4

88 19.5 15.5 23.3



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

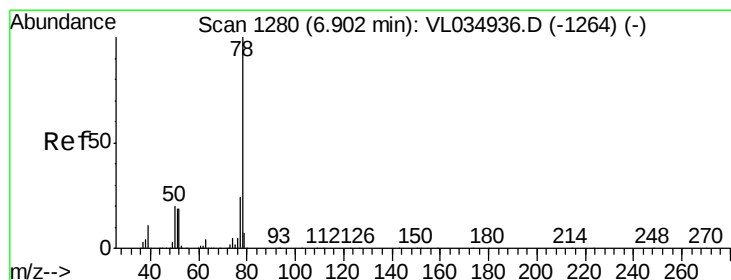
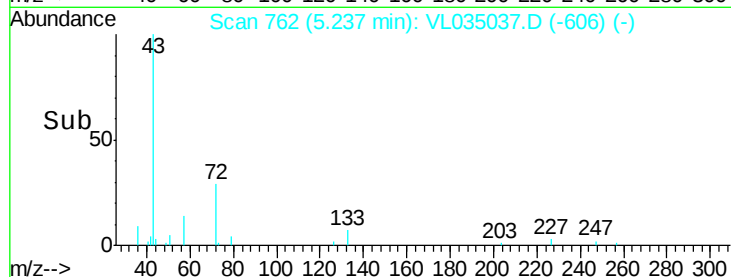
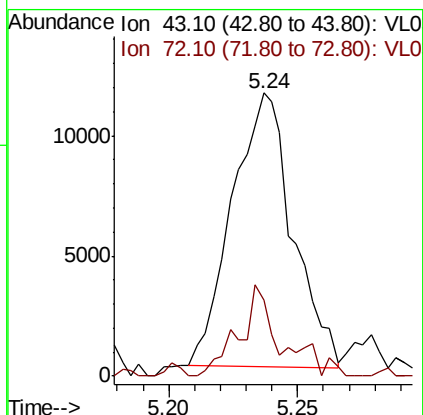
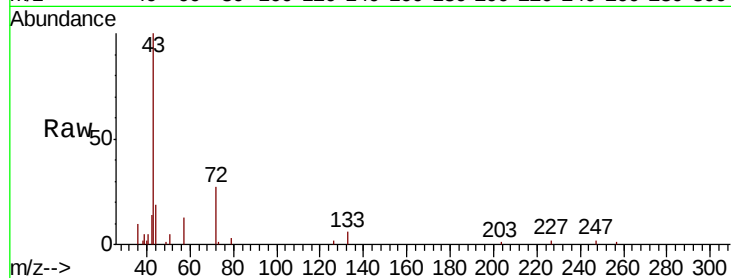




#34
2-Butanone
Concen: 0.114 ppbv
RT: 5.24 min Scan# 762
Delta R.T. 0.00 min
Lab File: VL035037.D
Acq: 15 May 2020 8:43

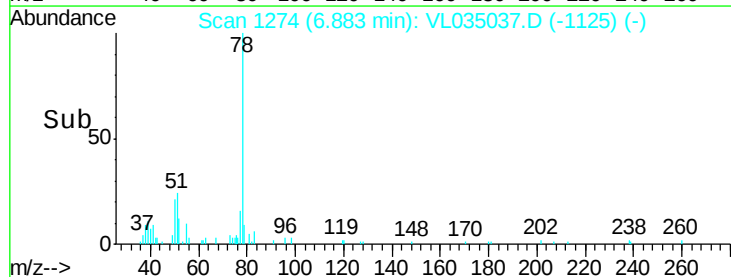
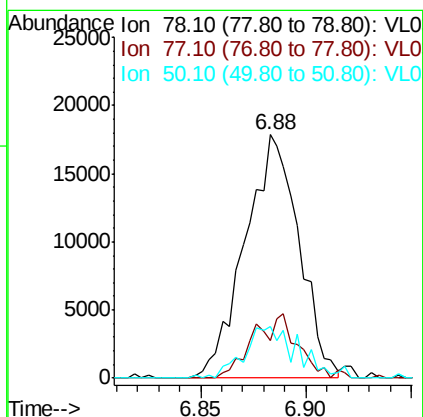
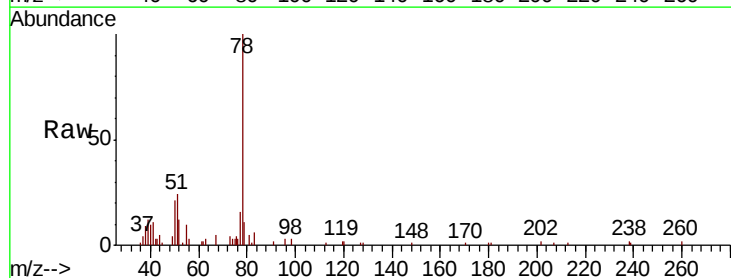
Instrument :
MSVOA_L
ClientSampled :

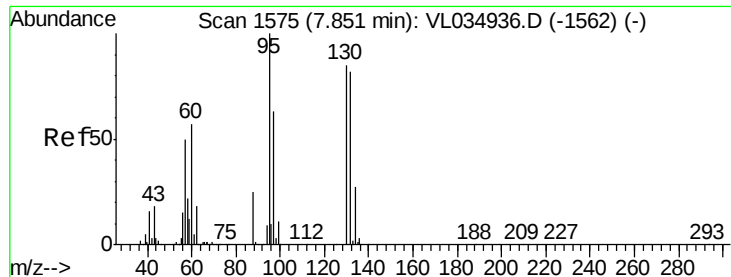
Tot Ion: 43 Resp: 18649
Ion Ratio Lower Upper
43 100
72 24.5 18.0 27.0



#36
Benzene
Concen: 0.146 ppbv
RT: 6.88 min Scan# 1274
Delta R.T. -0.02 min
Lab File: VL035037.D
Acq: 15 May 2020 8:43

Tgt Ion: 78 Resp: 31725
Ion Ratio Lower Upper
78 100
77 15.6 19.0 28.6#
50 21.3 15.8 23.8

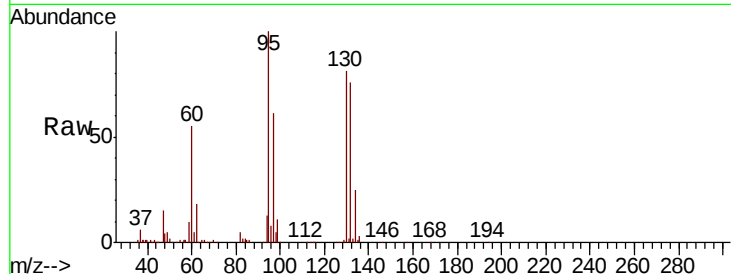




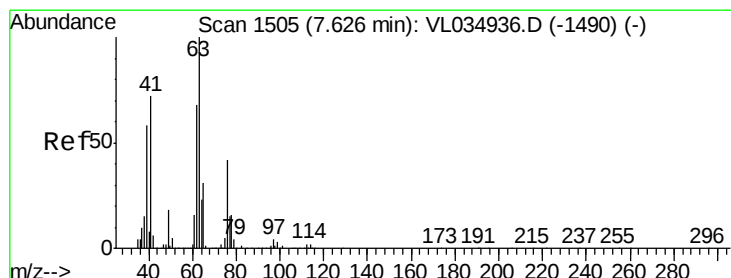
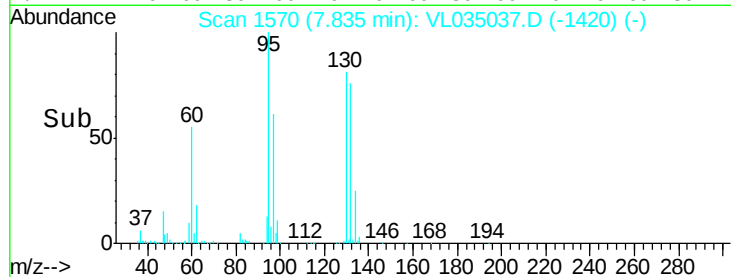
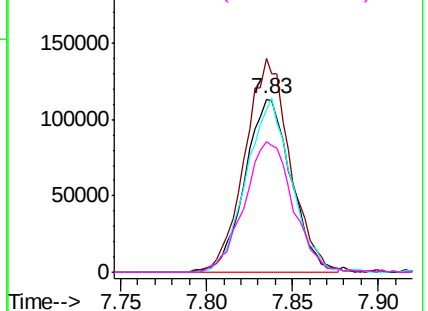
#38
 Trichloroethene
 Concen: 2.505 ppbv
 RT: 7.83 min Scan# 1570
 Delta R.T. -0.02 min
 Lab File: VL035037.D
 Acq: 15 May 2020 8:43

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:130 Resp: 211169
 Ion Ratio Lower Upper
 130 100
 95 123.1 93.4 140.0
 132 93.4 76.4 114.6
 97 75.3 58.5 87.7

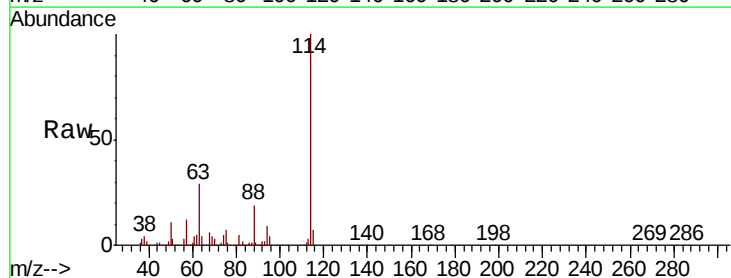


Abundance Ion 130.00 (129.70 to 130.70): V
 Ion 95.00 (94.70 to 95.70): VL0
 Ion 132.00 (131.70 to 132.70): V
 Ion 97.00 (96.70 to 97.70): VL0

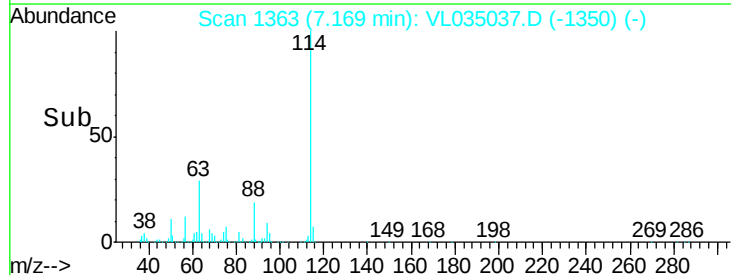
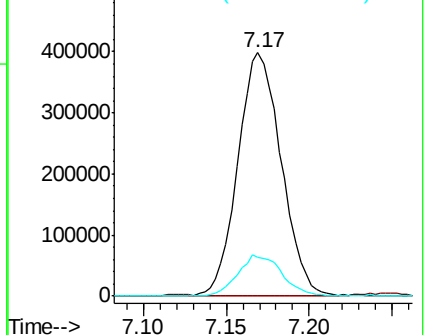


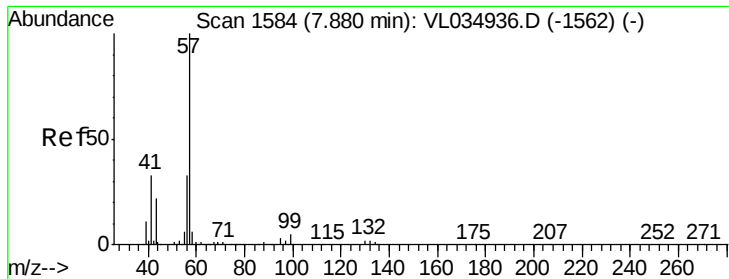
#39
 1,2-Dichloropropane
 Concen: 8.258 ppbv
 RT: 7.17 min Scan# 1363
 Delta R.T. -0.46 min
 Lab File: VL035037.D
 Acq: 15 May 2020 8:43

Tgt Ion: 63 Resp: 720477
 Ion Ratio Lower Upper
 63 100
 41 0.0 57.8 86.8#
 62 15.8 54.2 81.2#



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





#44

2,2,4-Trimethylpentane

Concen: 0.109 ppbv

RT: 7.87 min Scan# 1580

Delta R.T. -0.01 min

Lab File: VL035037.D

Acq: 15 May 2020 8:43

Instrument :

MSVOA_L

ClientSampleId :

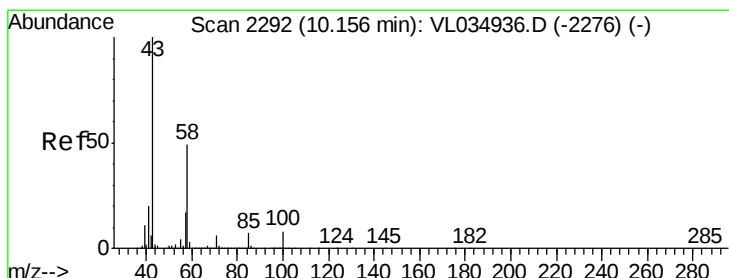
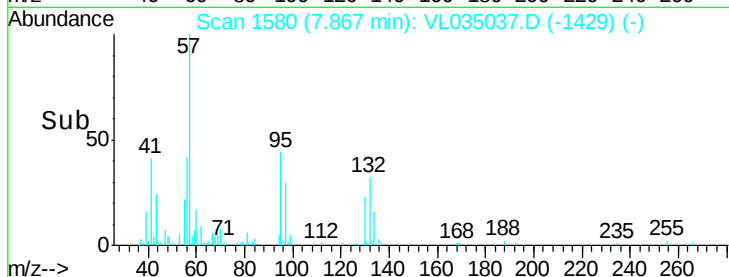
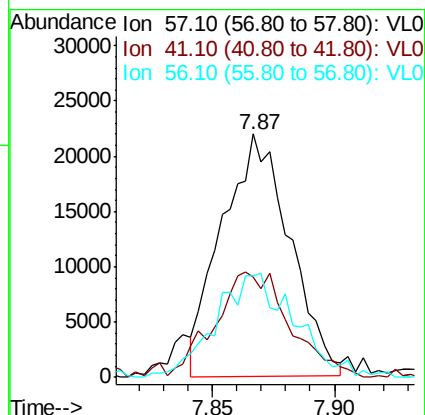
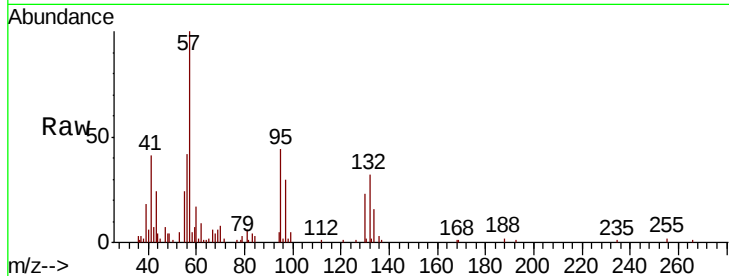
Tot Ion: 57 Resp: 42350

Ion Ratio Lower Upper

57 100

41 49.6 26.4 39.6#

56 50.1 25.5 38.3#



#51

2-Hexanone

Concen: 0.766 ppbv

RT: 10.12 min Scan# 2281

Delta R.T. -0.04 min

Lab File: VL035037.D

Acq: 15 May 2020 8:43

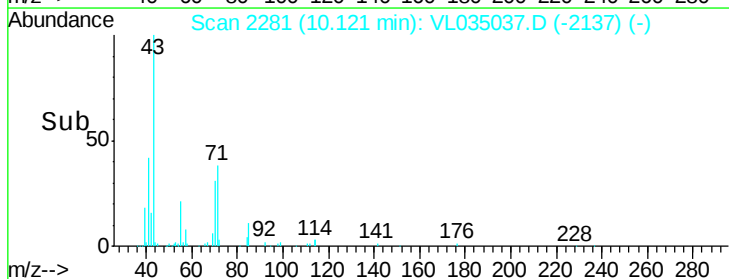
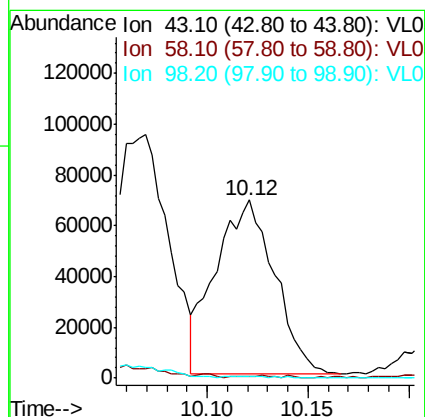
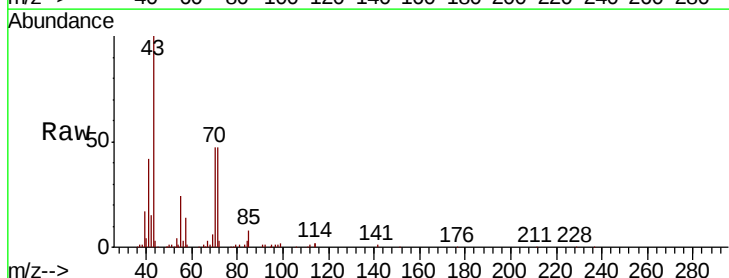
Tgt Ion: 43 Resp: 140128

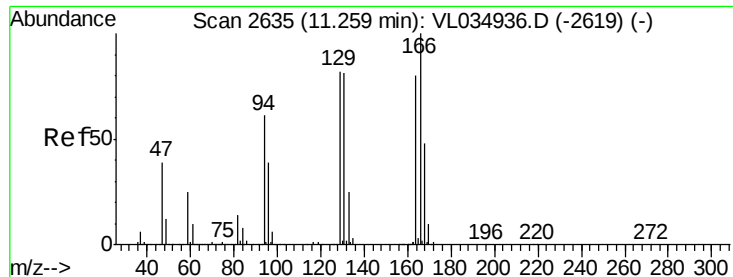
Ion Ratio Lower Upper

43 100

58 1.0 39.1 58.7#

98 0.0 0.3 0.5#

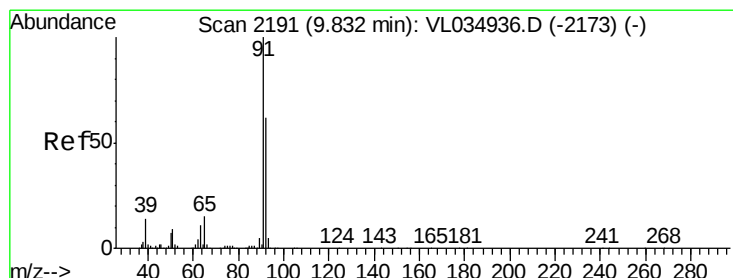
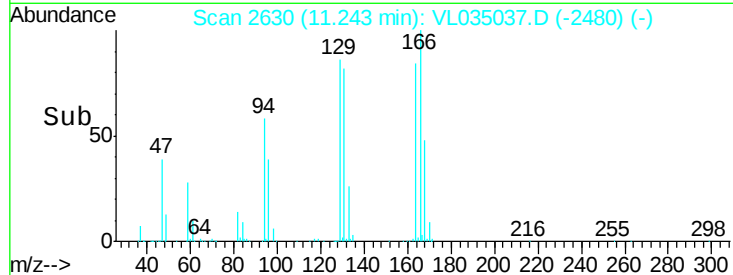
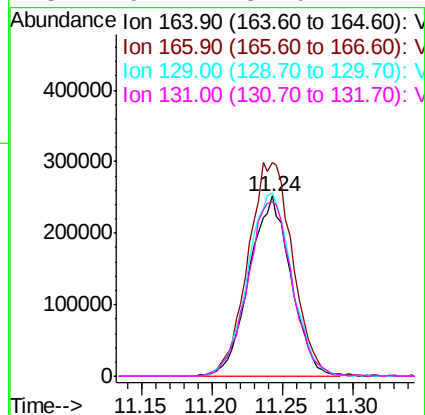
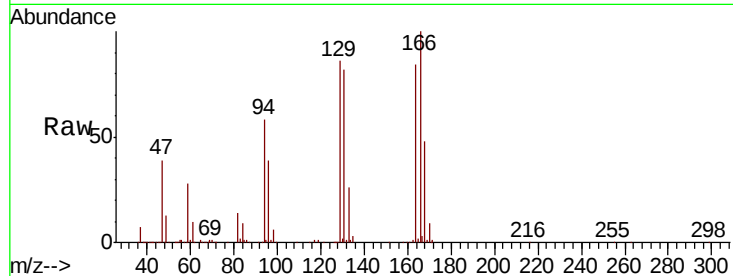




#52
Tetrachloroethene
Concen: 6.717 ppbv
RT: 11.24 min Scan# 2630
Delta R.T. -0.02 min
Lab File: VL035037.D
Acq: 15 May 2020 8:43

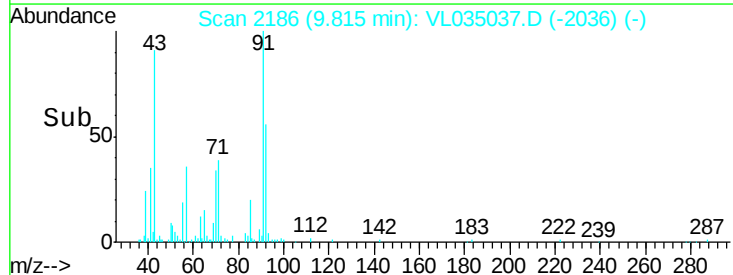
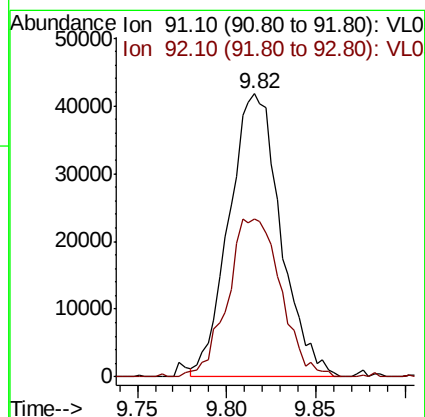
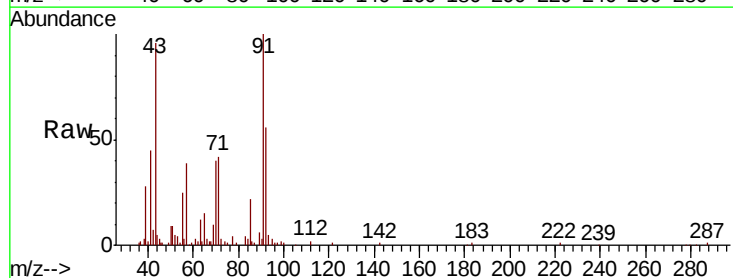
Instrument :
MSVOA_L
ClientSampleId :

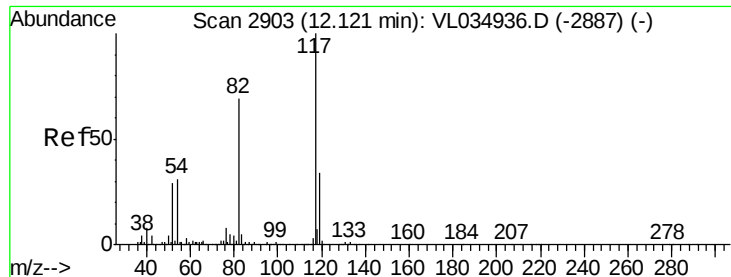
Tot Ion:164 Resp: 519770
Ion Ratio Lower Upper
164 100
166 118.6 100.7 151.1
129 101.4 83.0 124.4
131 97.1 81.0 121.4



#53
Toluene
Concen: 0.364 ppbv
RT: 9.82 min Scan# 2186
Delta R.T. -0.02 min
Lab File: VL035037.D
Acq: 15 May 2020 8:43

Tgt Ion: 91 Resp: 84008
Ion Ratio Lower Upper
91 100
92 57.6 48.6 73.0





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2898

Delta R.T. -0.02 min

Lab File: VL035037.D

Acq: 15 May 2020 8:43

Instrument :

MSVOA_L

ClientSampleId :

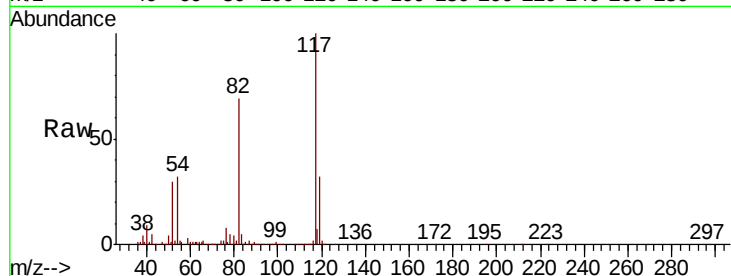
Tot Ion:117 Resp: 2595827

Ion Ratio Lower Upper

117 100

82 69.2 53.1 79.7

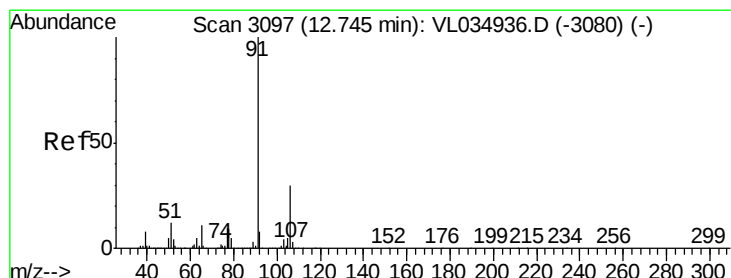
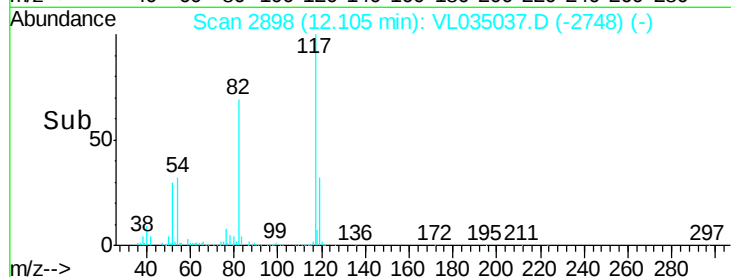
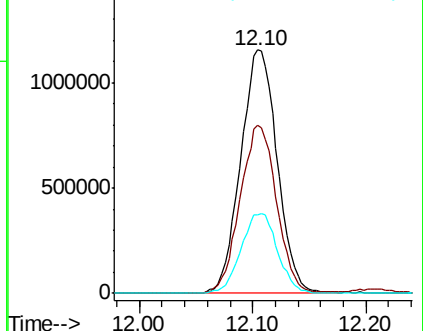
119 32.9 26.7 40.1



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: 0.109 ppbv

RT: 12.73 min Scan# 3093

Delta R.T. -0.01 min

Lab File: VL035037.D

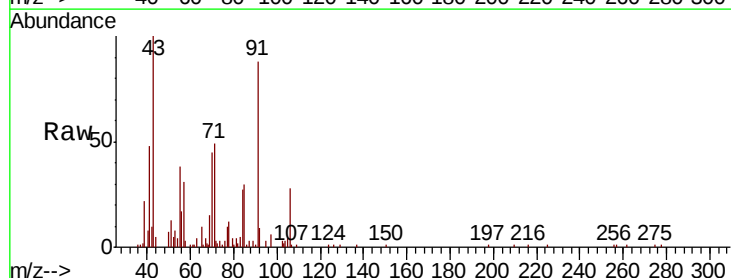
Acq: 15 May 2020 8:43

Tgt Ion: 91 Resp: 35063

Ion Ratio Lower Upper

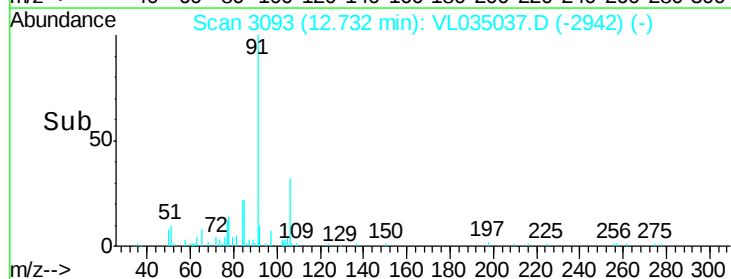
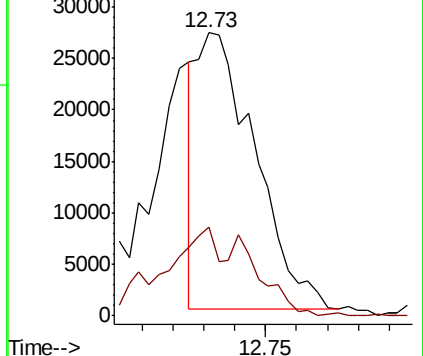
91 100

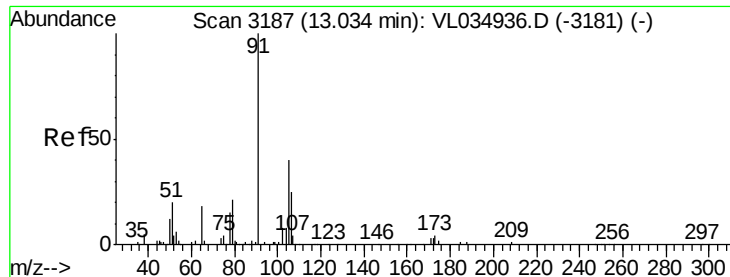
106 31.3 24.2 36.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

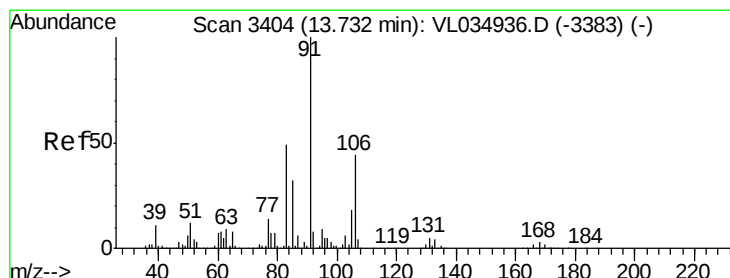
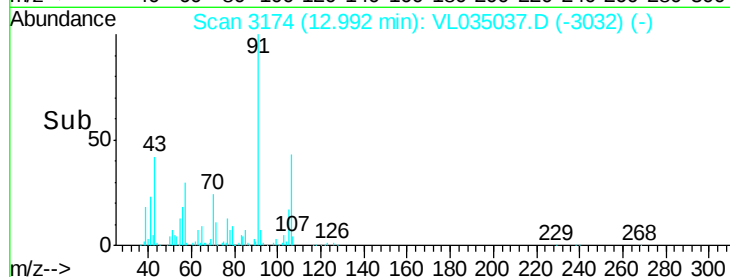
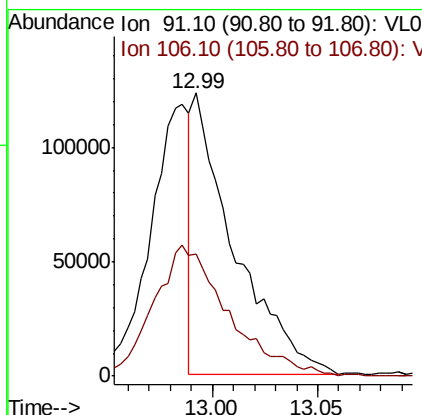
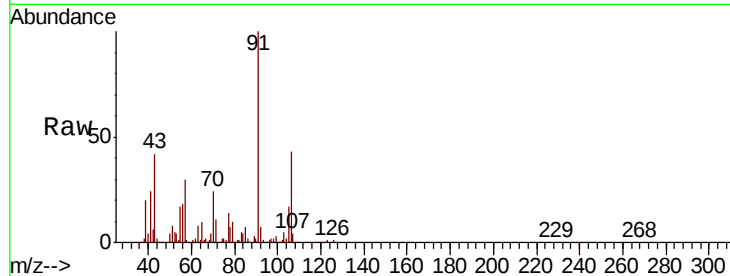




#59
m/p-Xylene
Concen: 0.592 ppbv
RT: 12.99 min Scan# 3174
Delta R.T. -0.04 min
Lab File: VL035037.D
Acq: 15 May 2020 8:43

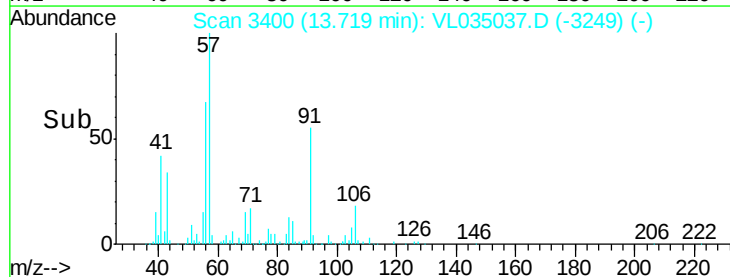
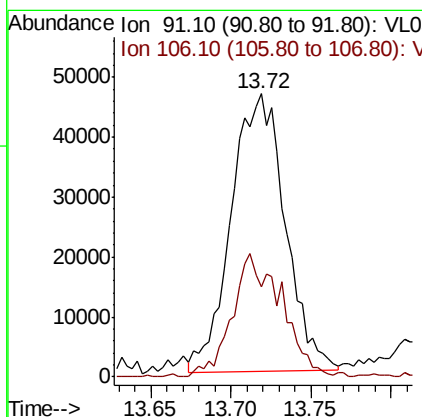
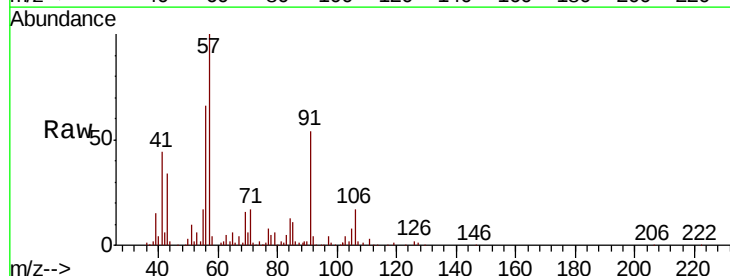
Instrument :
MSVOA_L
ClientSampleId :

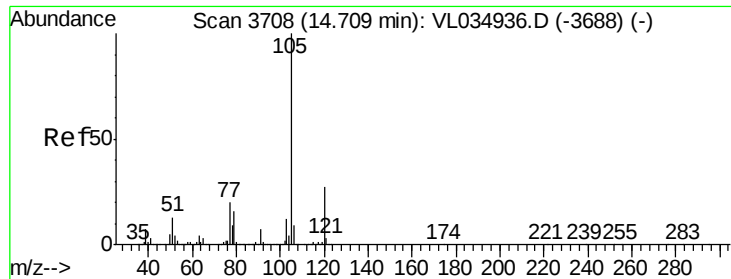
Tot Ion: 91 Resp: 167134
Ion Ratio Lower Upper
91 100
106 0.0 66.0 99.0#



#60
o-Xylene
Concen: 0.385 ppbv
RT: 13.72 min Scan# 3400
Delta R.T. -0.01 min
Lab File: VL035037.D
Acq: 15 May 2020 8:43

Tgt Ion: 91 Resp: 107170
Ion Ratio Lower Upper
91 100
106 40.9 21.9 65.5





#62

Isopropylbenzene

Concen: 0.083 ppbv

RT: 14.69 min Scan# 3702

Delta R.T. -0.02 min

Lab File: VL035037.D

Acq: 15 May 2020 8:43

Instrument :

MSVOA_L

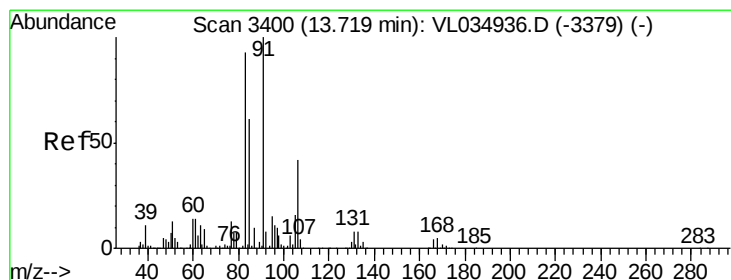
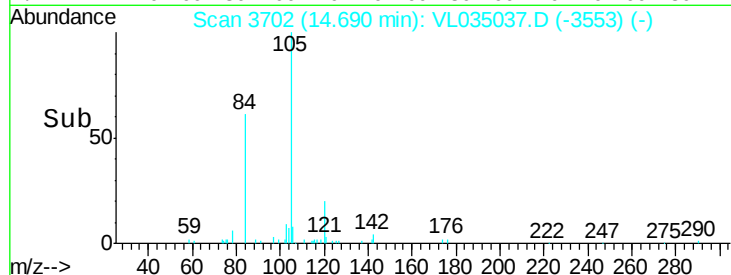
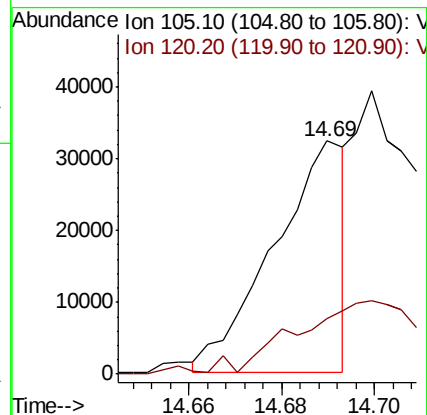
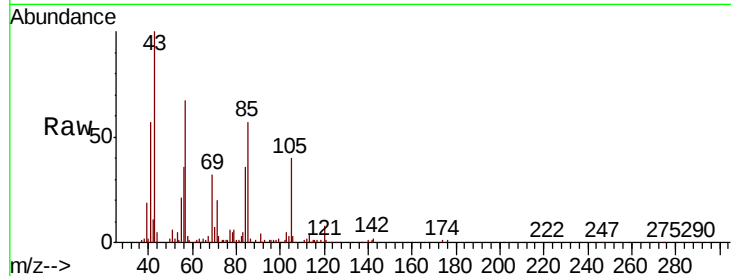
ClientSampleId :

Tot Ion:105 Resp: 34648

Ion Ratio Lower Upper

105 100

120 0.0 20.6 31.0#



#63

1,1,2,2-Tetrachloroethane

Concen: 0.091 ppbv

RT: 13.69 min Scan# 3391

Delta R.T. -0.03 min

Lab File: VL035037.D

Acq: 15 May 2020 8:43

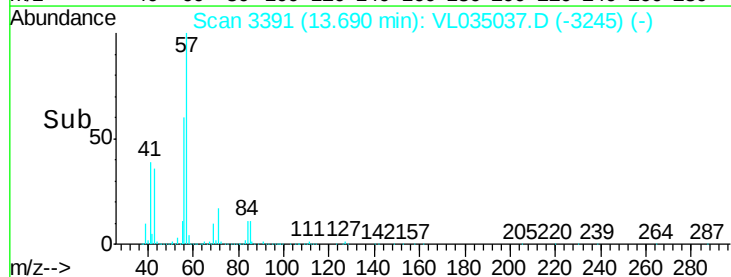
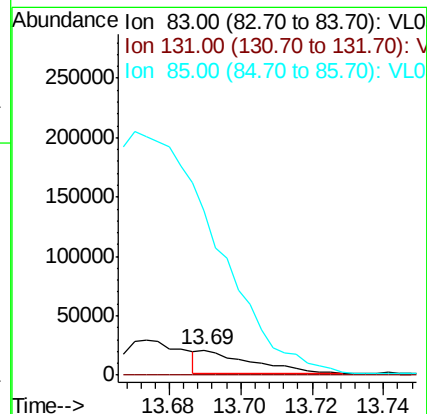
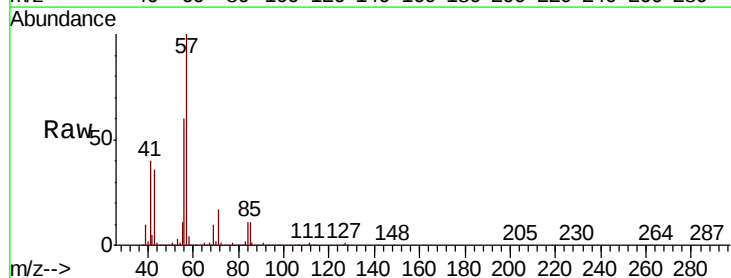
Tgt Ion: 83 Resp: 19939

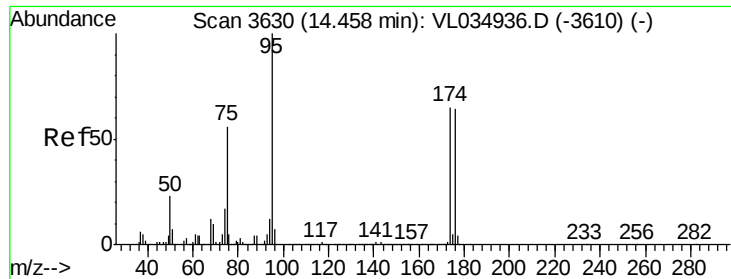
Ion Ratio Lower Upper

83 100

131 1.4 4.7 14.0#

85 0.0 32.5 97.4#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.740 ppbv

RT: 14.45 min Scan# 3627

Delta R.T. -0.01 min

Lab File: VL035037.D

Acq: 15 May 2020 8:43

Instrument :

MSVOA_L

ClientSampleId :

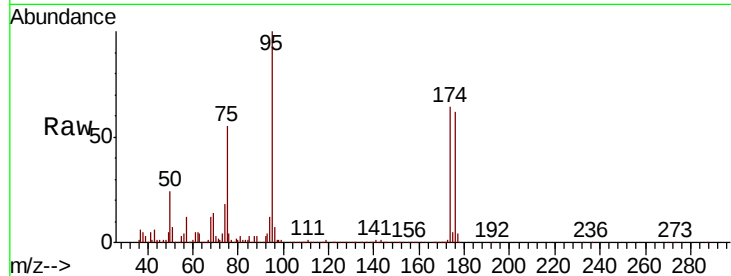
Tot Ion: 95 Resp: 2256760

Ion Ratio Lower Upper

95 100

174 65.3 51.5 77.3

175 4.9 3.8 5.8



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

1200000

1000000

800000

600000

400000

200000

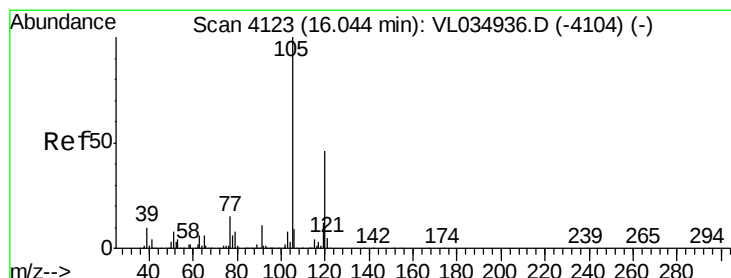
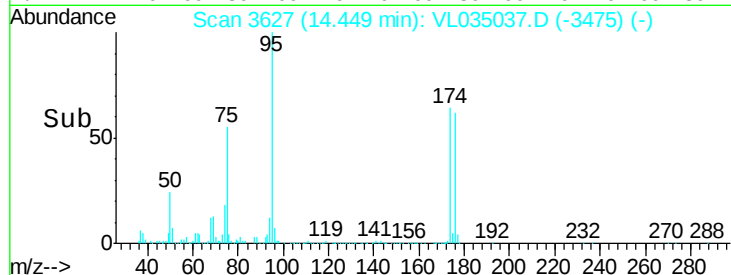
0

14.45

14.40

14.50

Time-->



#73

1,3,5-Trimethylbenzene

Concen: 0.037 ppbv

RT: 16.03 min Scan# 4120

Delta R.T. -0.01 min

Lab File: VL035037.D

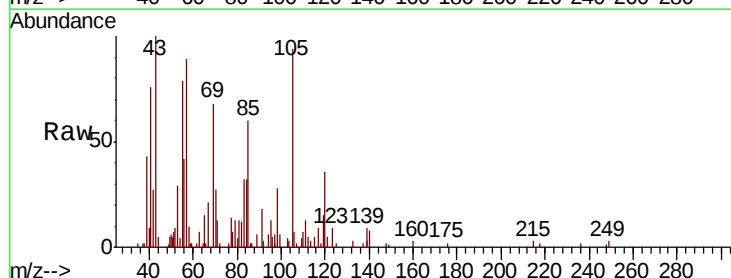
Acq: 15 May 2020 8:43

Tgt Ion:105 Resp: 11293

Ion Ratio Lower Upper

105 100

120 34.9 36.4 54.6#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

12000

10000

8000

6000

4000

2000

0

16.03

16.00

16.02

16.04

Time-->

