

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL052220\
 Data File : VL035090.D
 Acq On : 22 May 2020 18:44
 Operator : SY/AP
 Sample : L2739-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 AA-1

Quant Time: May 23 02:36:11 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	1005558	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.17	114	2377480	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.10	117	2256703	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.44	95	1927090	10.55	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.50%

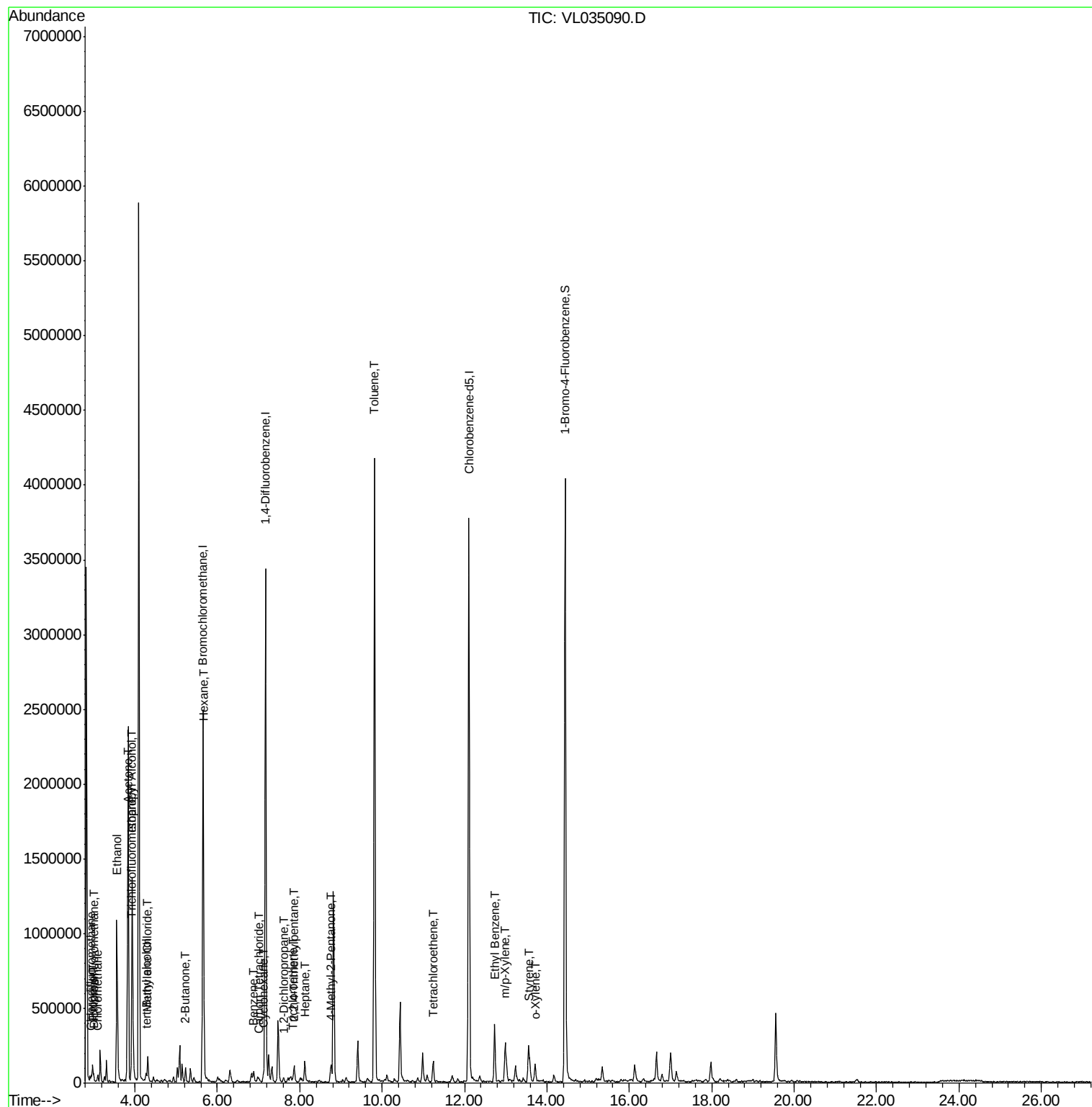
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.00	85	35192	0.247	ppbv	100
3) Chlorodifluoromethane	2.94	51	34398m	0.300	ppbv	
4) Chloromethane	3.09	50	37654	0.572	ppbv	94
9) Propene	2.97	41	23527	0.472	ppbv	87
10) Heptane	8.12	43	46721	0.374	ppbv	91
11) Trichlorofluoromethane	3.91	101	41448	0.282	ppbv	97
13) Ethanol	3.56	45	1070364	65.111	ppbv	98
15) Acetone	3.82	43	412574	3.103	ppbv #	70
17) tert-Butyl alcohol	4.27	59	28581	0.242	ppbv #	71
19) Isopropyl Alcohol	3.93	45	1416372	15.976	ppbv	99
20) Methylene Chloride	4.31	84	53725	1.221	ppbv	89
26) Hexane	5.67	57	170608	1.762	ppbv	82
30) Cyclohexane	7.11	84	15261m	0.204	ppbv	
34) 2-Butanone	5.22	43	94020	0.636	ppbv	98
35) Carbon Tetrachloride	7.02	117	10169m	0.068	ppbv	
36) Benzene	6.88	78	53934	0.275	ppbv #	90
38) Trichloroethene	7.83	130	4534m	0.060	ppbv	
39) 1,2-Dichloropropane	7.60	63	9891m	0.126	ppbv	
44) 2,2,4-Trimethylpentane	7.87	57	58175m	0.167	ppbv	
50) 4-Methyl-2-Pentanone	8.75	43	76070	0.361	ppbv	98
52) Tetrachloroethene	11.24	164	34923m	0.501	ppbv	
53) Toluene	9.82	91	3215174	15.473	ppbv	99
58) Ethyl Benzene	12.73	91	314593	1.127	ppbv	93
59) m/p-Xylene	12.99	91	242516m	0.988	ppbv	
60) o-Xylene	13.71	91	87250	0.360	ppbv	96
61) Styrene	13.55	104	122502	0.799	ppbv	98

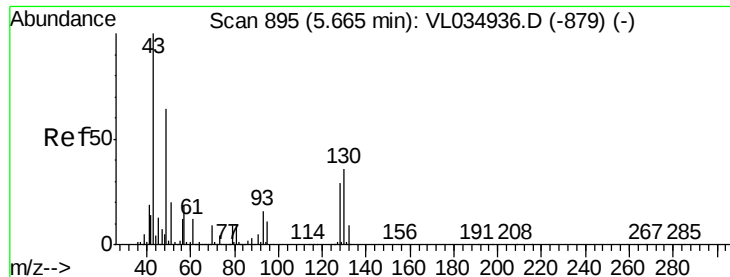
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 890

Delta R.T. -0.02 min

Lab File: VL035090.D

Acq: 22 May 2020 18:44

Instrument :

MSVOA_L

ClientSampleId :

AA-1

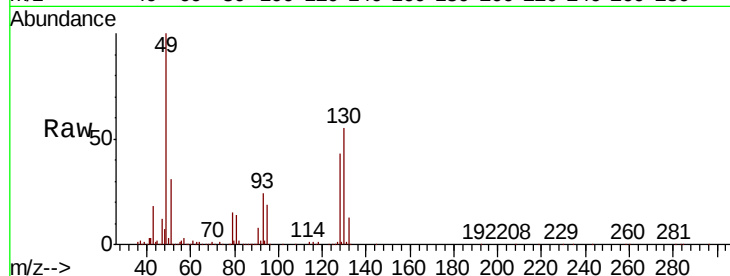
Tot Ion: 49 Resp: 1005558

Ion Ratio Lower Upper

49 100

128 45.2 22.1 66.5

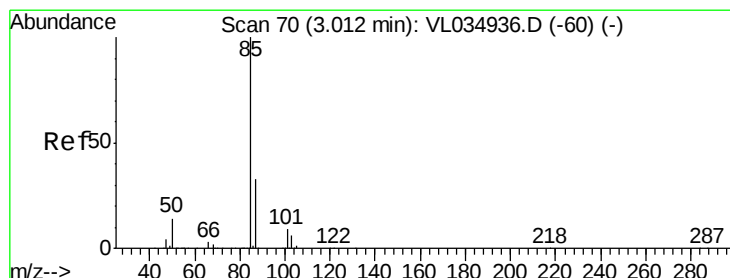
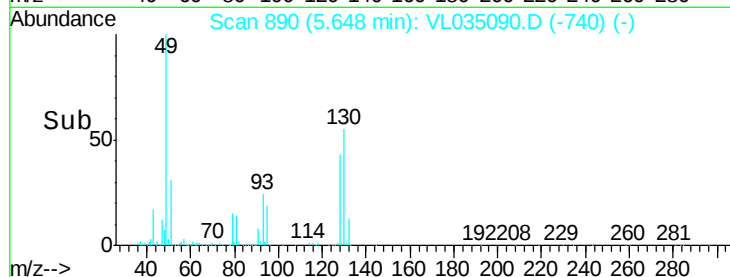
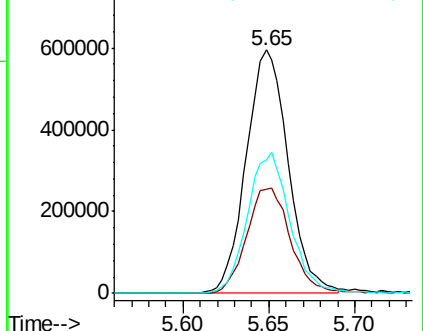
130 59.3 29.1 87.3



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.247 ppbv

RT: 3.00 min Scan# 67

Delta R.T. -0.01 min

Lab File: VL035090.D

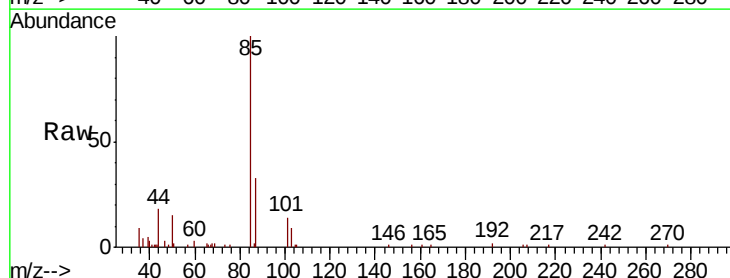
Acq: 22 May 2020 18:44

Tgt Ion: 85 Resp: 35192

Ion Ratio Lower Upper

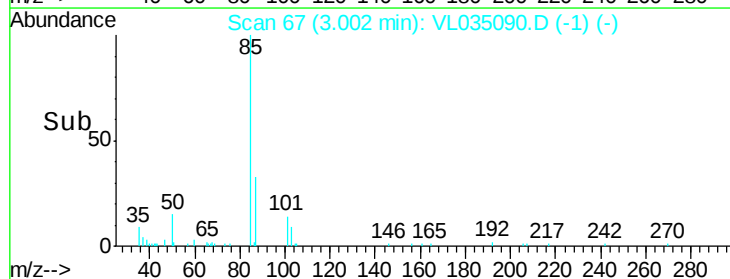
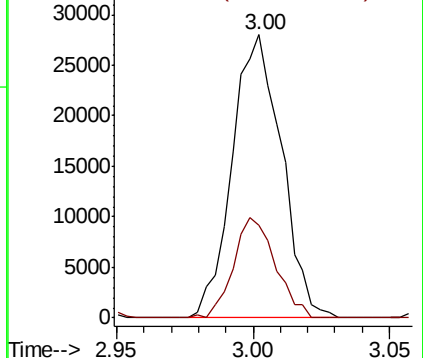
85 100

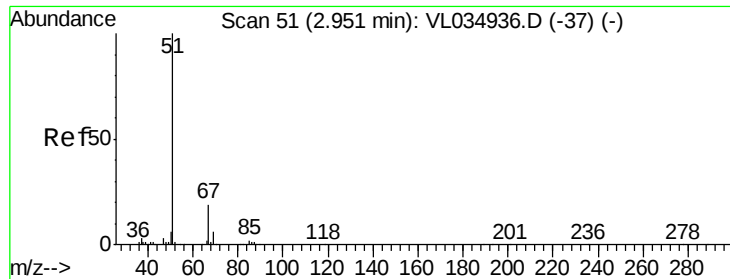
87 32.6 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.300 ppbv

RT: 2.94 min Scan# 48

Delta R.T. -0.01 min

Lab File: VL035090.D

Acq: 22 May 2020 18:44

Instrument :

MSVOA_L

ClientSampleId :

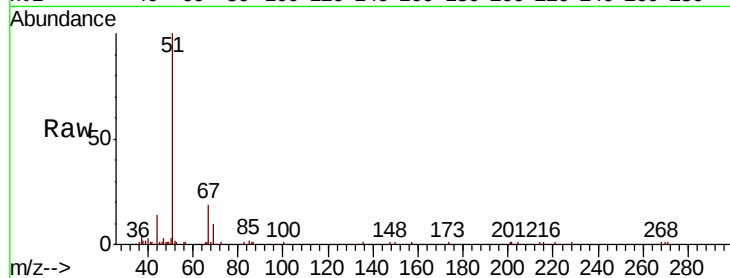
AA-1

Tot Ion: 51 Resp: 34398

Ion Ratio Lower Upper

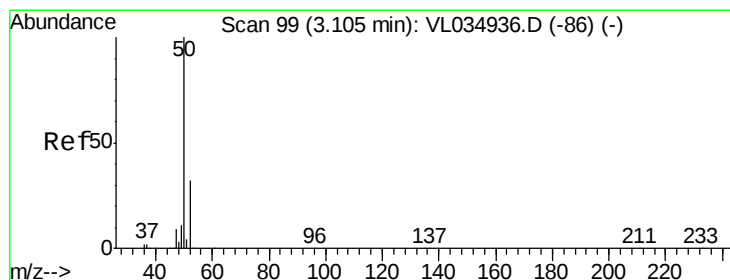
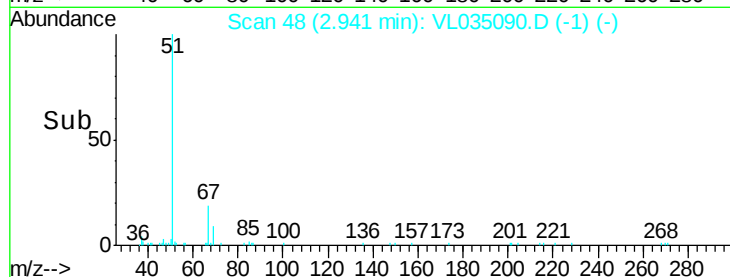
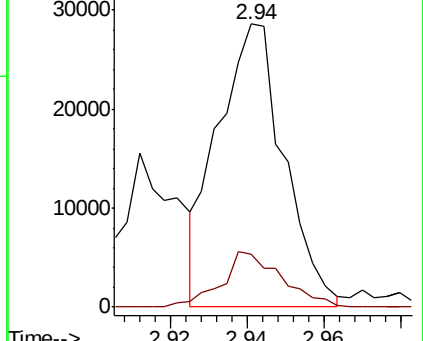
51 100

67 17.6 15.0 22.6



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.572 ppbv

RT: 3.09 min Scan# 95

Delta R.T. -0.01 min

Lab File: VL035090.D

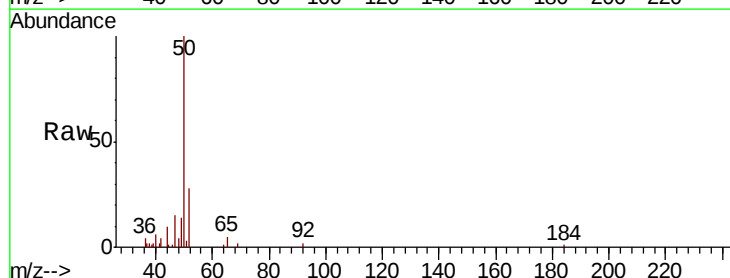
Acq: 22 May 2020 18:44

Tgt Ion: 50 Resp: 37654

Ion Ratio Lower Upper

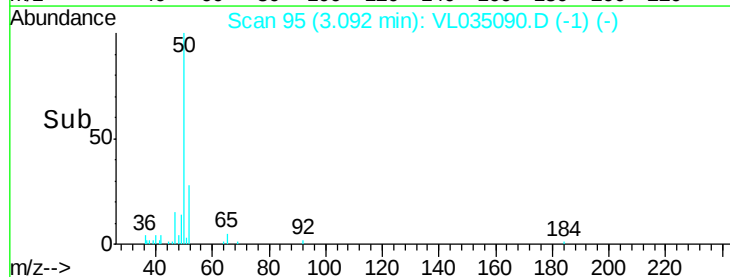
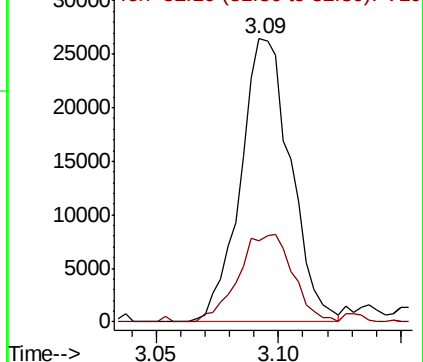
50 100

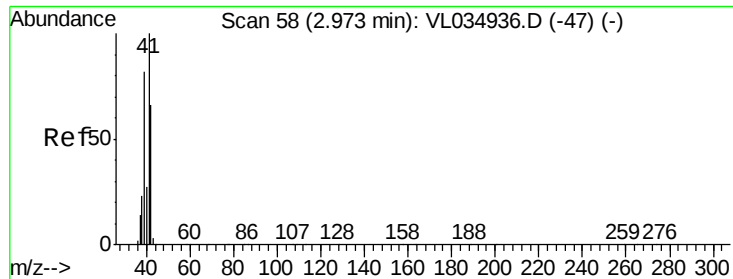
52 28.5 25.4 38.2



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.472 ppbv

RT: 2.97 min Scan# 58

Delta R.T. -0.00 min

Lab File: VL035090.D

Acq: 22 May 2020 18:44

Instrument :

MSVOA_L

ClientSampleId :

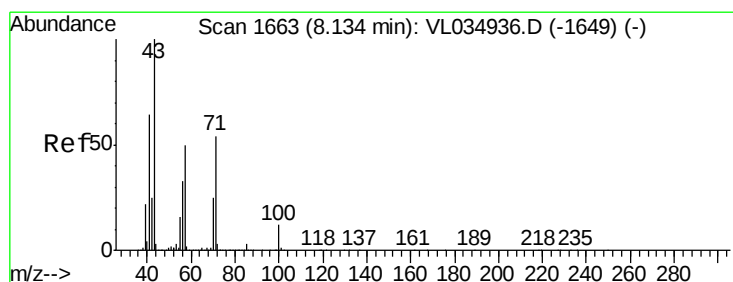
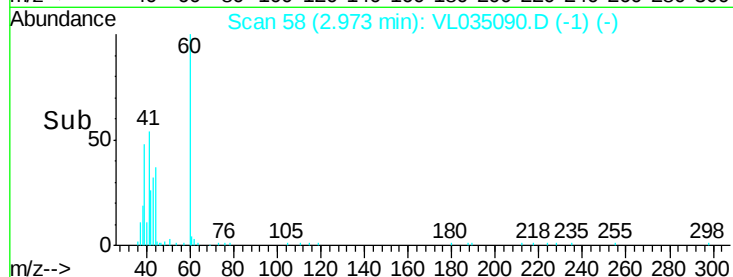
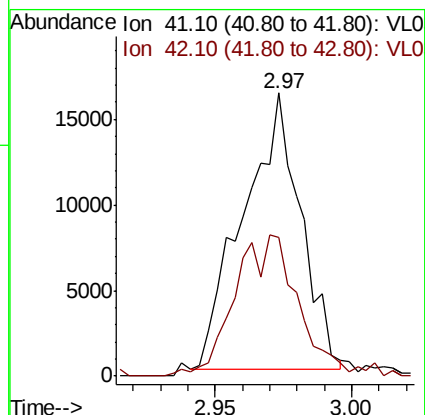
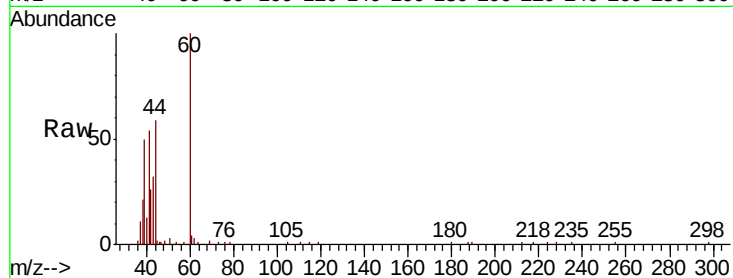
AA-1

Tot Ion: 41 Resp: 23527

Ion Ratio Lower Upper

41 100

42 57.7 54.5 81.7



#10

Heptane

Concen: 0.374 ppbv

RT: 8.12 min Scan# 1658

Delta R.T. -0.02 min

Lab File: VL035090.D

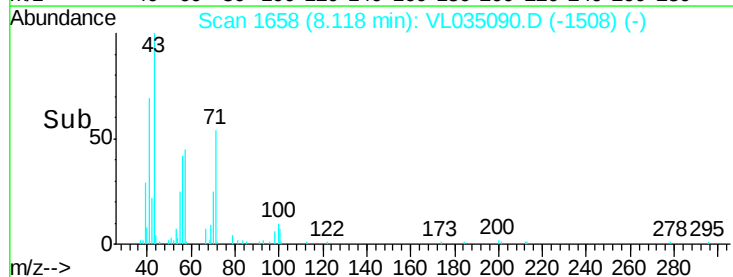
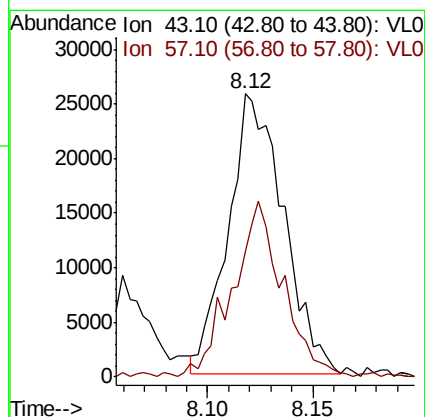
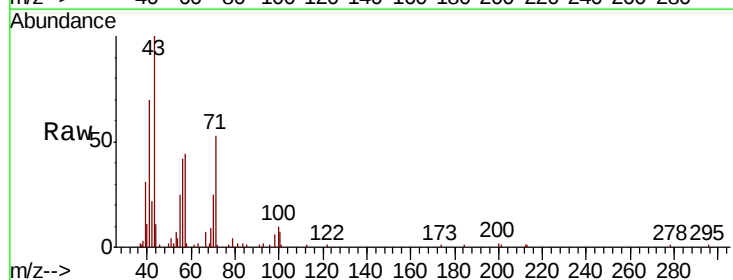
Acq: 22 May 2020 18:44

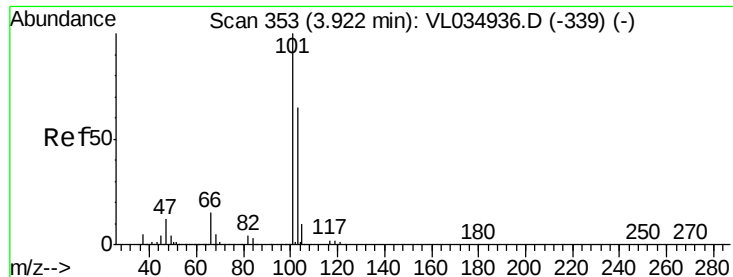
Tgt Ion: 43 Resp: 46721

Ion Ratio Lower Upper

43 100

57 57.6 41.1 61.7

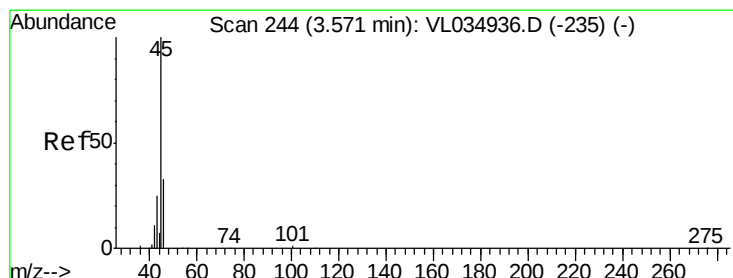
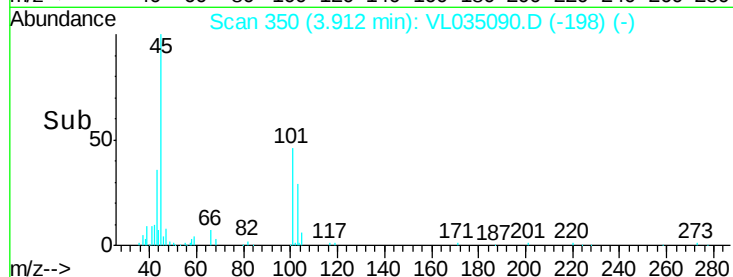
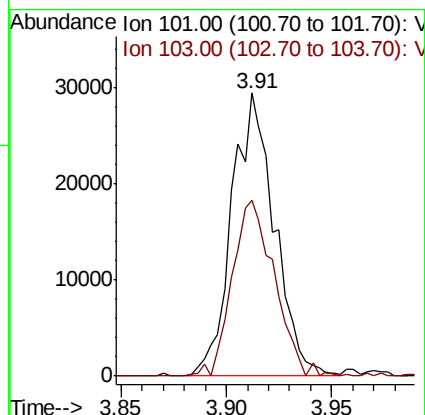
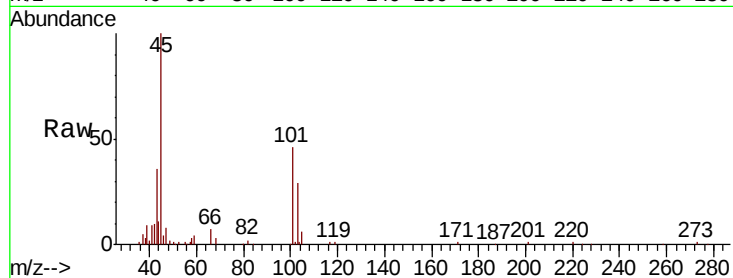




#11
Trichlorofluoromethane
Concen: 0.282 ppbv
RT: 3.91 min Scan# 350
Delta R.T. -0.01 min
Lab File: VL035090.D
Acq: 22 May 2020 18:44

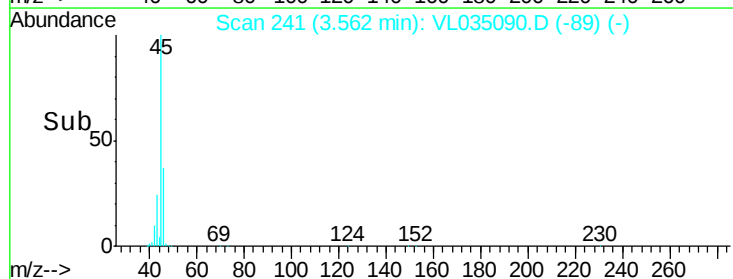
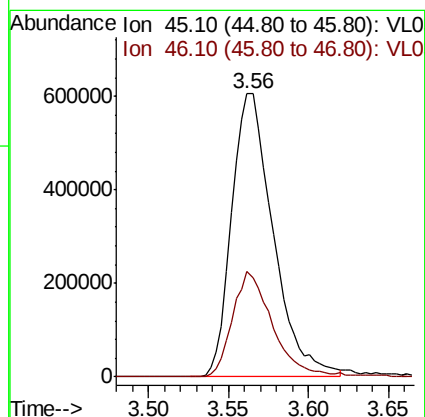
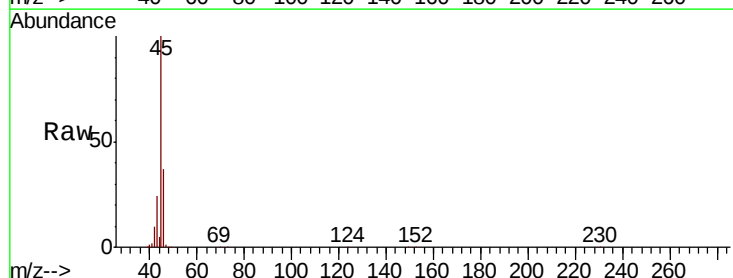
Instrument :
MSVOA_L
ClientSampleId :
AA-1

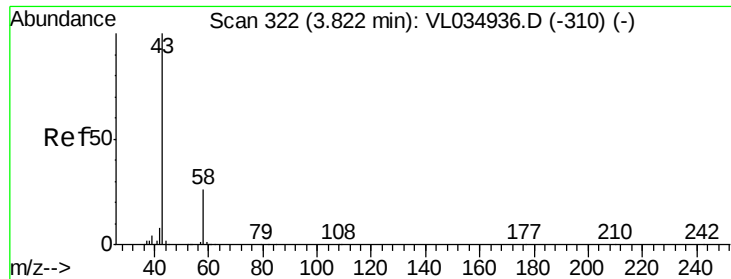
Tot Ion:101 Resp: 41448
Ion Ratio Lower Upper
101 100
103 62.2 51.9 77.9



#13
Ethanol
Concen: 65.111 ppbv
RT: 3.56 min Scan# 241
Delta R.T. -0.01 min
Lab File: VL035090.D
Acq: 22 May 2020 18:44

Tgt Ion: 45 Resp: 1070364
Ion Ratio Lower Upper
45 100
46 37.0 14.3 57.3





#15

Acetone

Concen: 3.103 ppbv

RT: 3.82 min Scan# 320

Delta R.T. -0.01 min

Lab File: VL035090.D

Acq: 22 May 2020 18:44

Instrument :

MSVOA_L

ClientSampleId :

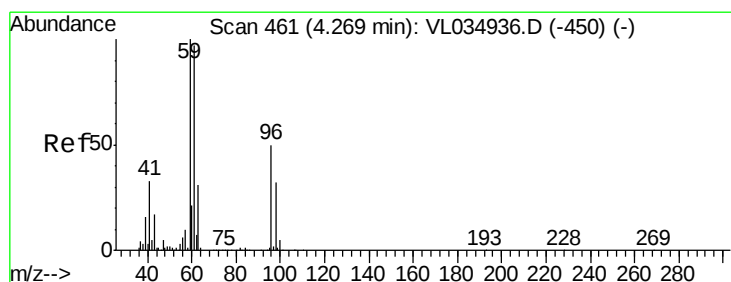
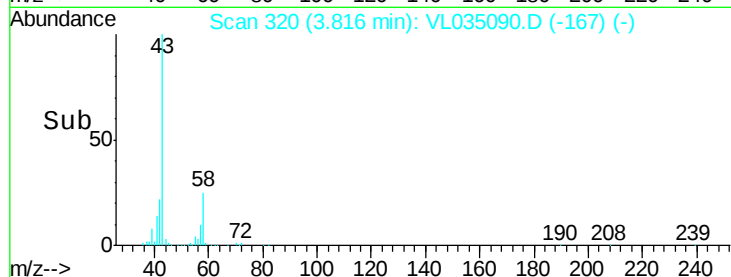
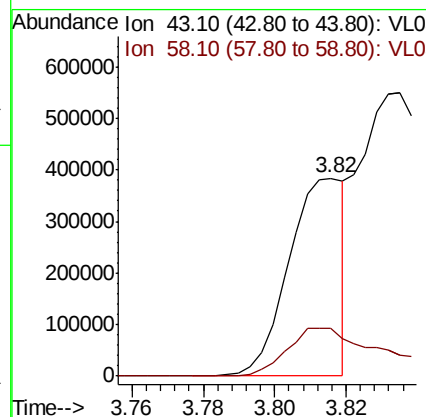
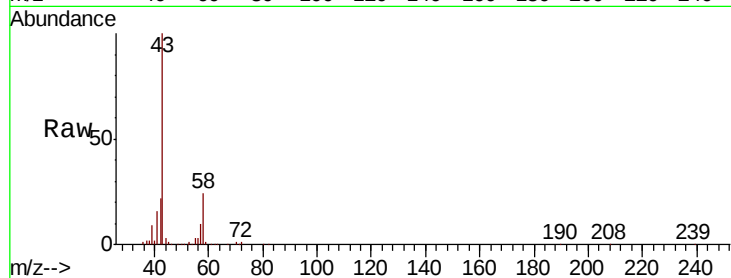
AA-1

Tot Ion: 43 Resp: 412574

Ion Ratio Lower Upper

43 100

58 42.5 21.7 32.5#



#17

tert-Butyl alcohol

Concen: 0.242 ppbv

RT: 4.27 min Scan# 460

Delta R.T. -0.00 min

Lab File: VL035090.D

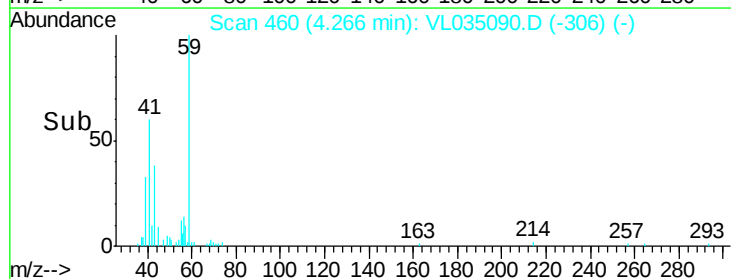
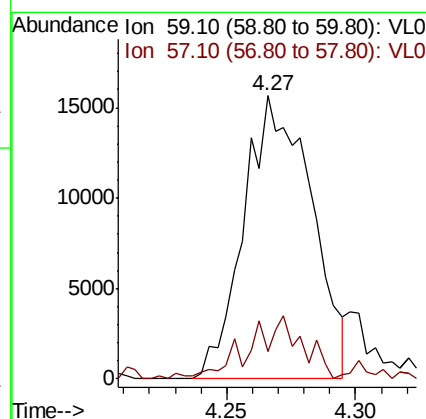
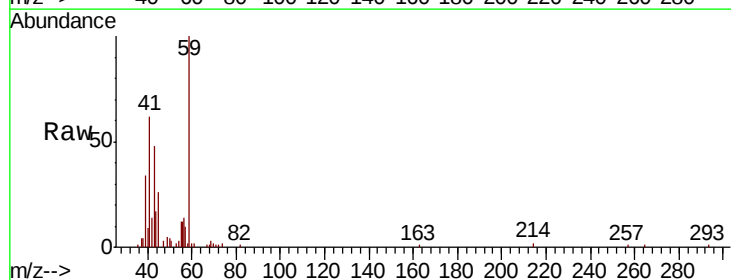
Acq: 22 May 2020 18:44

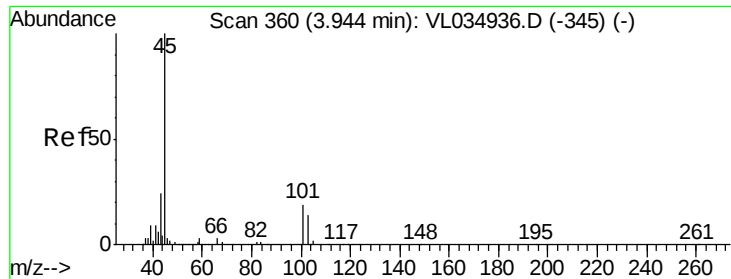
Tgt Ion: 59 Resp: 28581

Ion Ratio Lower Upper

59 100

57 0.0 8.7 13.1#





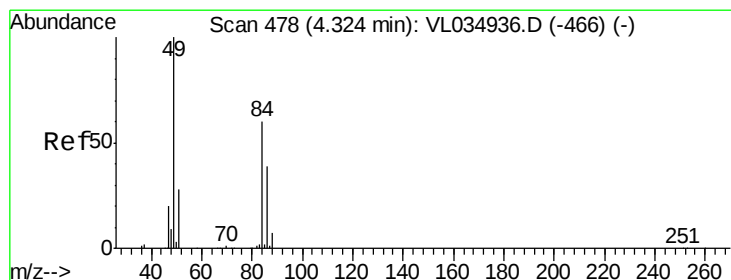
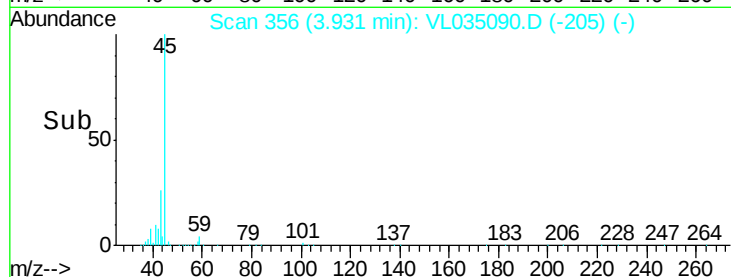
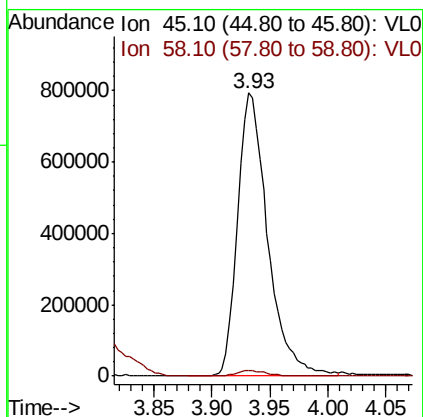
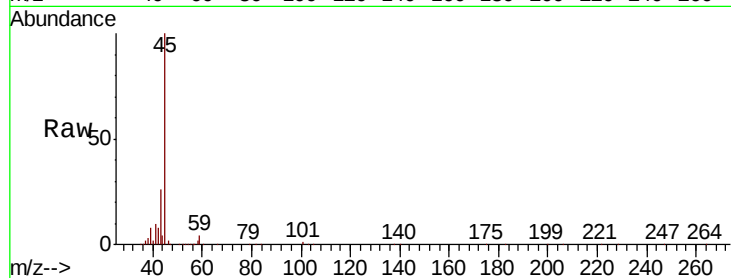
#19

Isopropyl Alcohol
 Concen: 15.976 ppbv
 RT: 3.93 min Scan# 356
 Delta R.T. -0.01 min
 Lab File: VL035090.D
 Acq: 22 May 2020 18:44

Instrument :
 MSVOA_L
 ClientSampleId :
 AA-1

Tot Ion: 45 Resp: 1416372

Ion	Ratio	Lower	Upper
45	100		
58	2.3	1.7	2.5

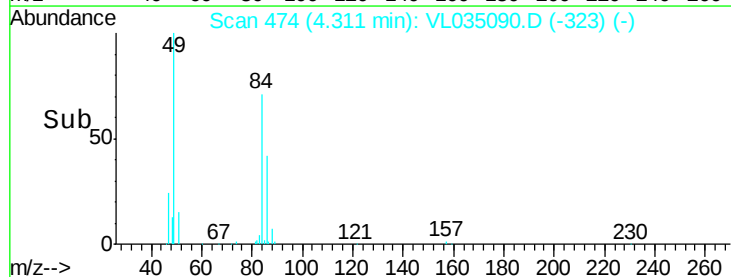
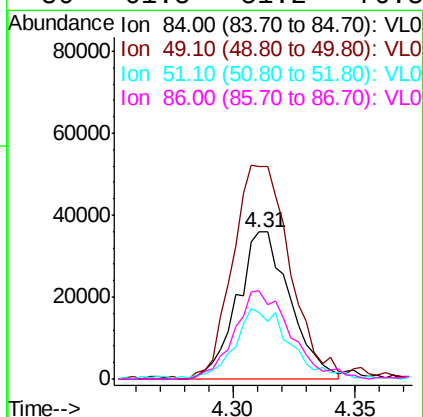
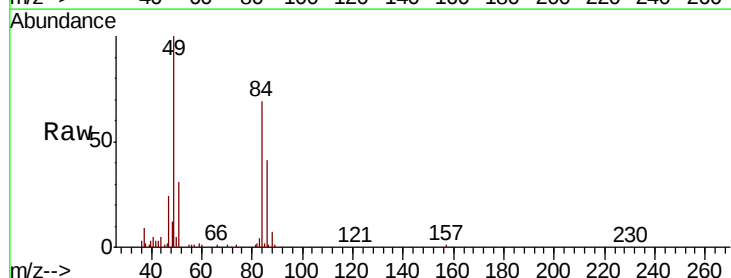


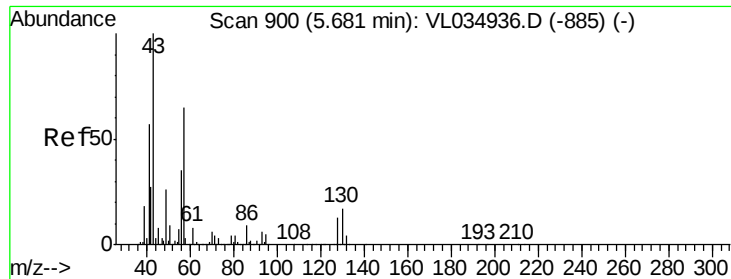
#20

Methylene Chloride
 Concen: 1.221 ppbv
 RT: 4.31 min Scan# 474
 Delta R.T. -0.01 min
 Lab File: VL035090.D
 Acq: 22 May 2020 18:44

Tgt Ion: 84 Resp: 53725

Ion	Ratio	Lower	Upper
84	100		
49	144.8	132.5	198.7
51	43.5	38.4	57.6
86	61.5	51.2	76.8

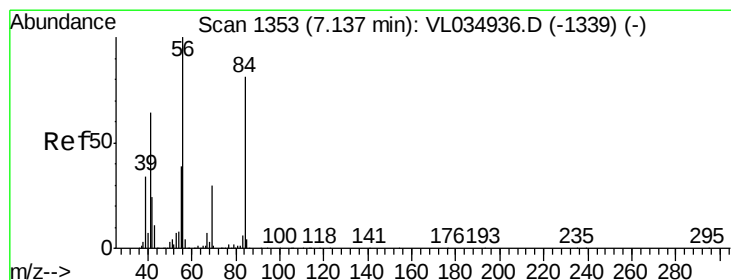
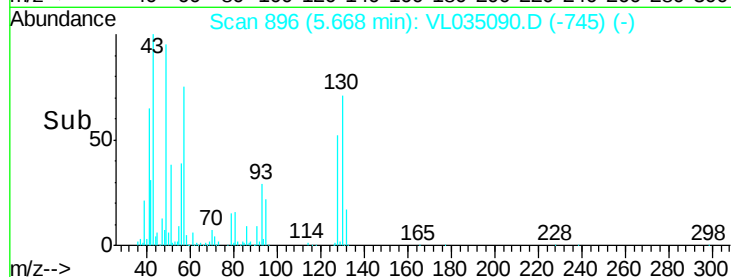
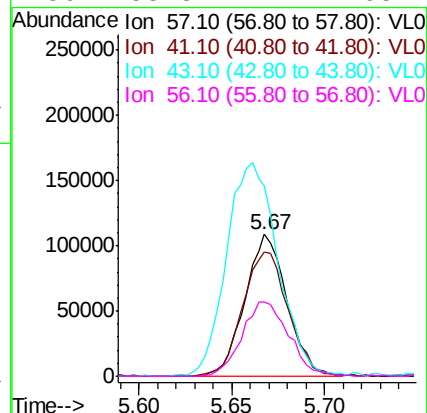
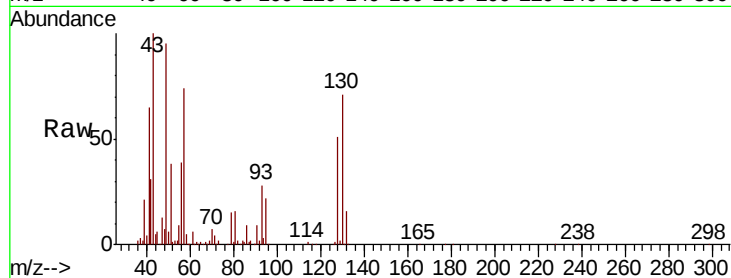




#26
Hexane
Concen: 1.762 ppbv
RT: 5.67 min Scan# 896
Delta R.T. -0.01 min
Lab File: VL035090.D
Acq: 22 May 2020 18:44

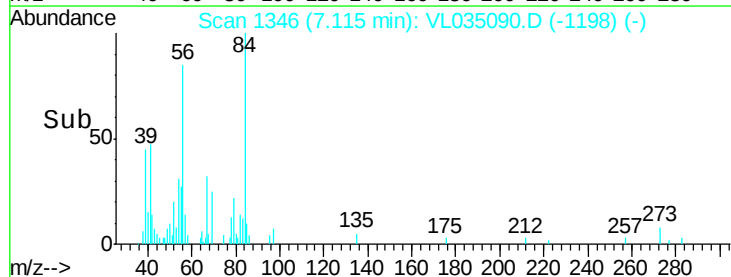
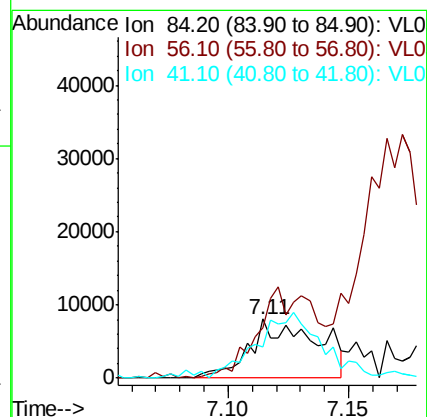
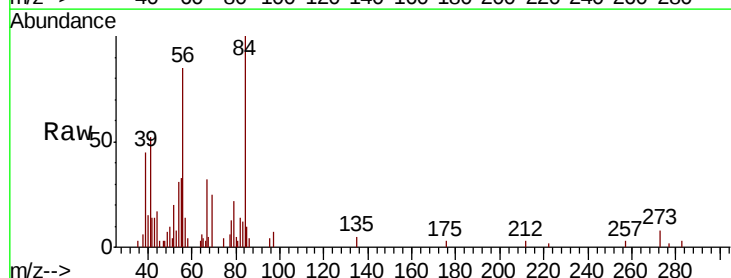
Instrument :
MSVOA_L
ClientSampled :
AA-1

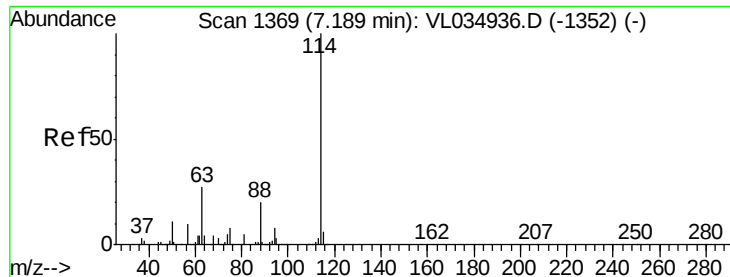
Tot Ion: 57 Resp: 170608
Ion Ratio Lower Upper
57 100
41 95.6 72.7 109.1
43 185.9 182.1 273.1
56 58.8 42.2 63.2



#30
Cyclohexane
Concen: 0.204 ppbv m
RT: 7.11 min Scan# 1346
Delta R.T. -0.02 min
Lab File: VL035090.D
Acq: 22 May 2020 18:44

Tgt Ion: 84 Resp: 15261
Ion Ratio Lower Upper
84 100
56 0.0 111.4 167.2#
41 0.0 66.7 100.1#



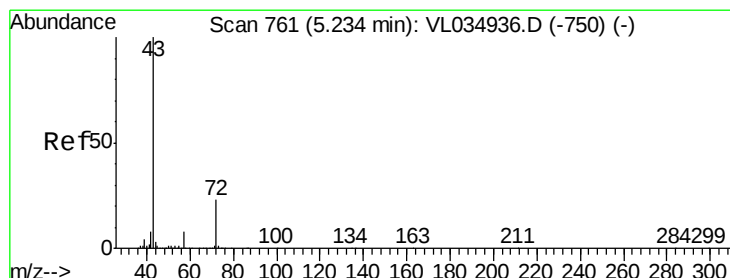
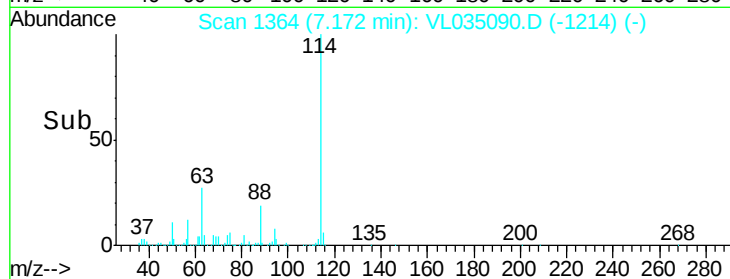
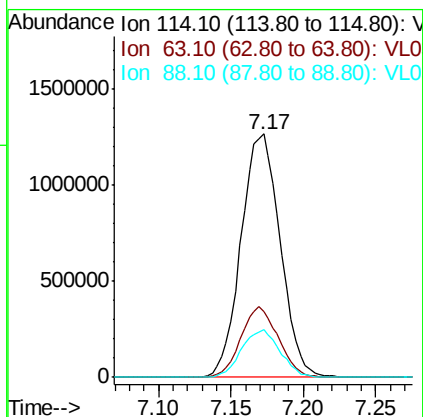
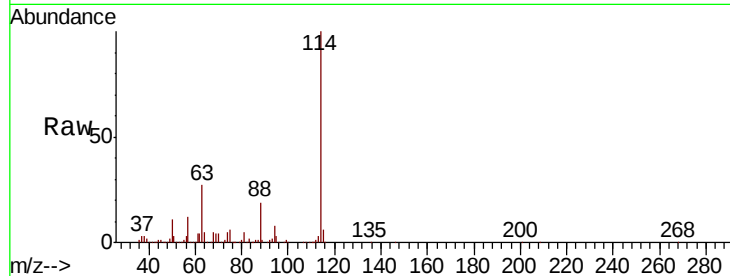


#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1364
 Delta R.T. -0.02 min
 Lab File: VL035090.D
 Acq: 22 May 2020 18:44

Instrument :
 MSVOA_L
 ClientSampleId :
 AA-1

Tot Ion:114 Resp: 2377480

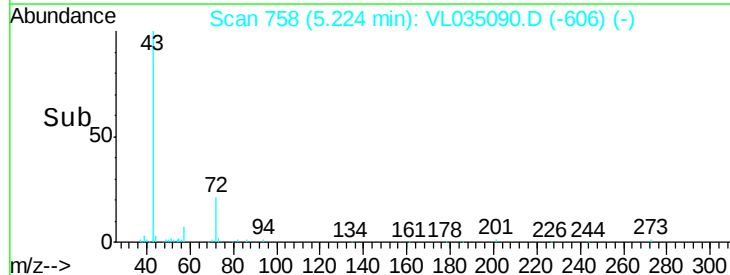
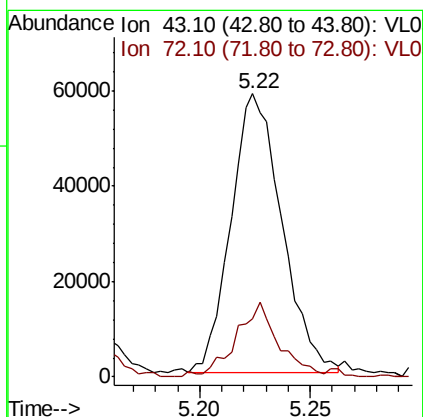
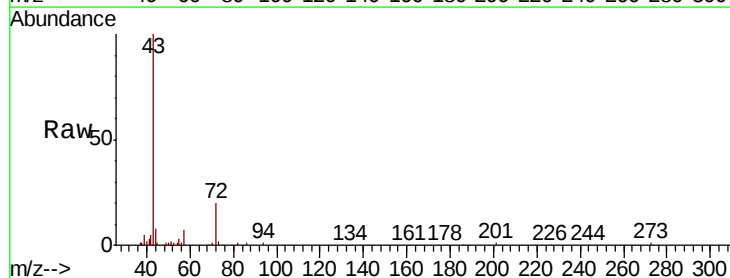
Ion	Ratio	Lower	Upper
114	100		
63	27.8	22.2	33.4
88	19.3	15.5	23.3

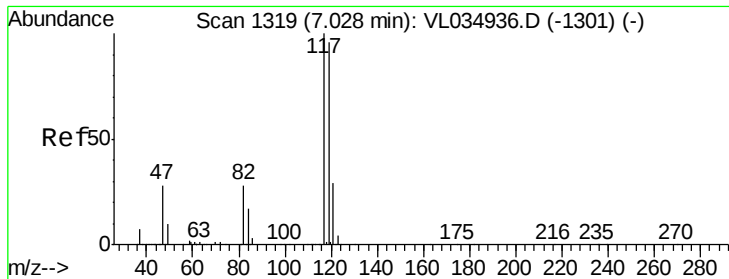


#34
 2-Butanone
 Concen: 0.636 ppbv
 RT: 5.22 min Scan# 758
 Delta R.T. -0.01 min
 Lab File: VL035090.D
 Acq: 22 May 2020 18:44

Tgt Ion: 43 Resp: 94020

Ion	Ratio	Lower	Upper
43	100		
72	23.6	18.0	27.0





#35

Carbon Tetrachloride

Concen: 0.068 ppbv m

RT: 7.02 min Scan# 1316

Delta R.T. -0.01 min

Lab File: VL035090.D

Acq: 22 May 2020 18:44

Instrument :

MSVOA_L

ClientSampleId :

AA-1

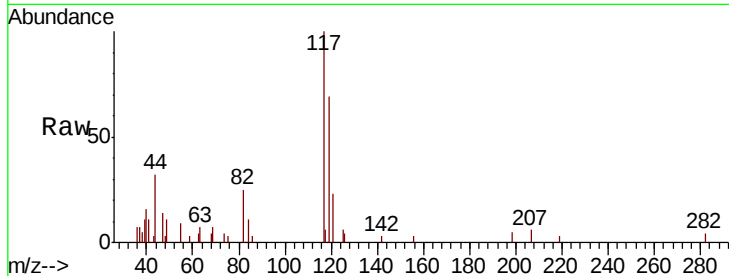
Tot Ion:117 Resp: 10169

Ion Ratio Lower Upper

117 100

119 68.7 77.0 115.6#

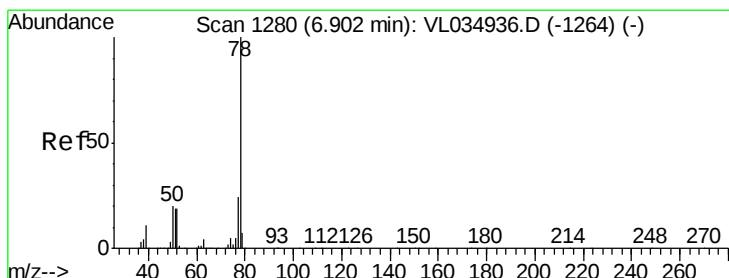
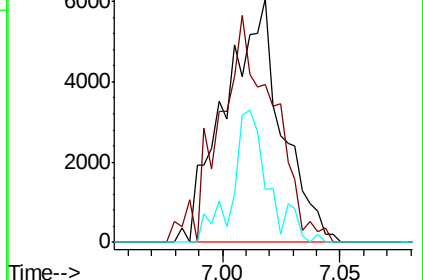
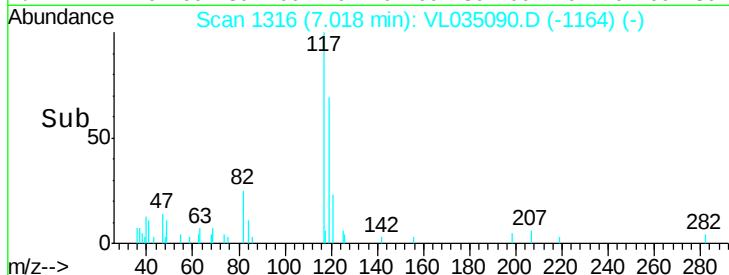
121 23.0 23.0 34.6#



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.275 ppbv

RT: 6.88 min Scan# 1274

Delta R.T. -0.02 min

Lab File: VL035090.D

Acq: 22 May 2020 18:44

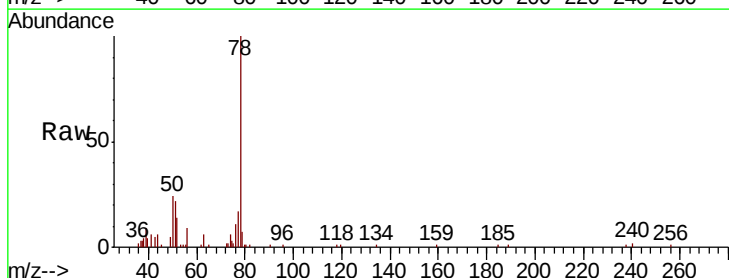
Tgt Ion: 78 Resp: 53934

Ion Ratio Lower Upper

78 100

77 15.9 19.0 28.6#

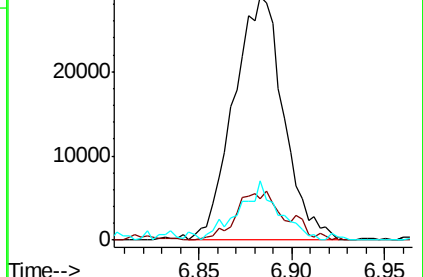
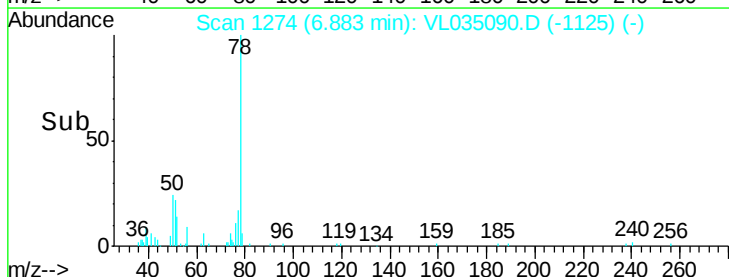
50 20.8 15.8 23.8

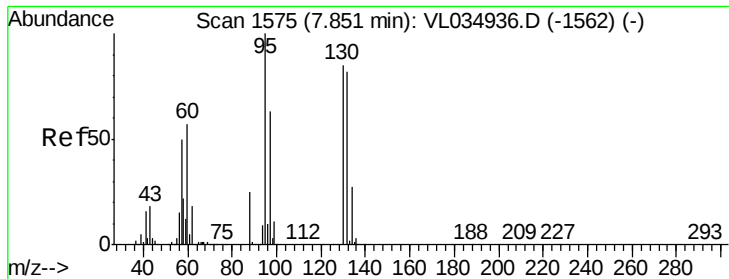


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#38

Trichloroethene

Concen: 0.060 ppbv m

RT: 7.83 min Scan# 1570

Delta R.T. -0.02 min

Lab File: VL035090.D

Acq: 22 May 2020 18:44

Instrument :

MSVOA_L

ClientSampleId :

AA-1

Tot Ion:130 Resp: 4534

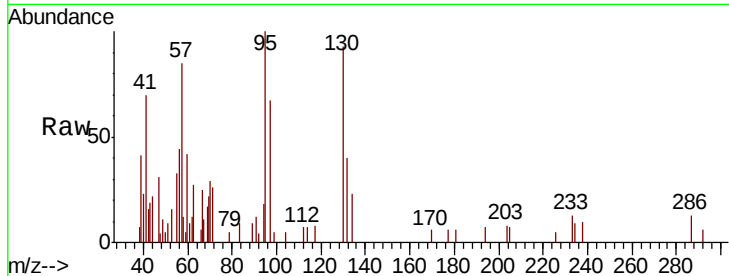
Ion Ratio Lower Upper

130 100

95 107.9 93.4 140.0

132 43.1 76.4 114.6#

97 72.3 58.5 87.7



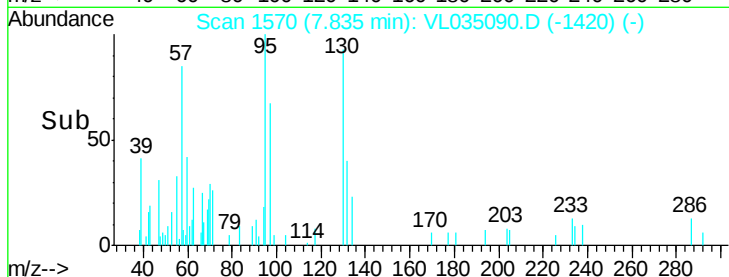
Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

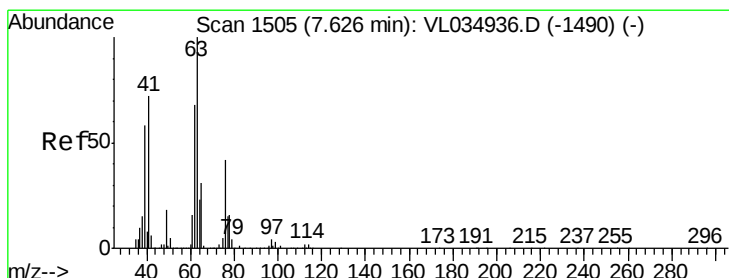
Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0

Time-->



Time-->



#39

1,2-Dichloropropane

Concen: 0.126 ppbv m

RT: 7.60 min Scan# 1498

Delta R.T. -0.02 min

Lab File: VL035090.D

Acq: 22 May 2020 18:44

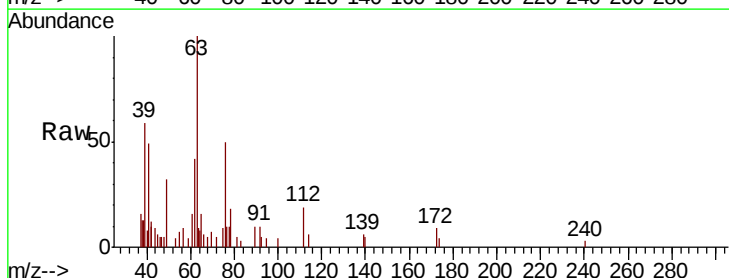
Tgt Ion: 63 Resp: 9891

Ion Ratio Lower Upper

63 100

41 48.9 57.8 86.8#

62 41.5 54.2 81.2#

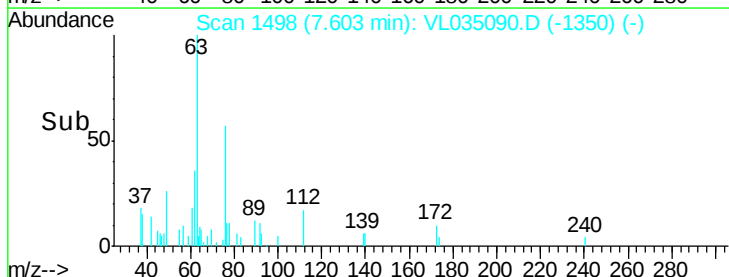


Abundance Ion 63.10 (62.80 to 63.80): VL0

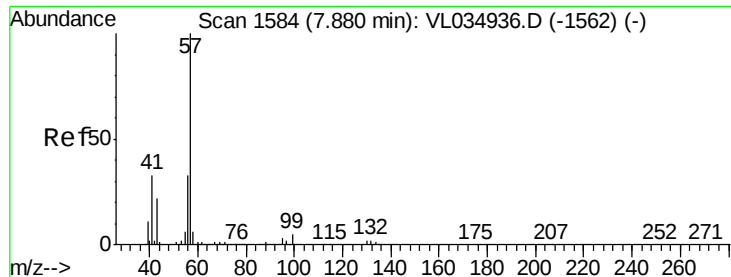
Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0

Time-->



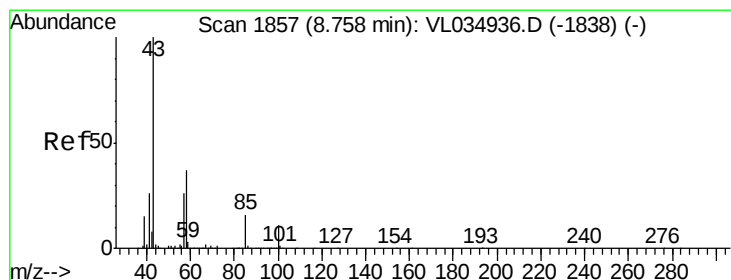
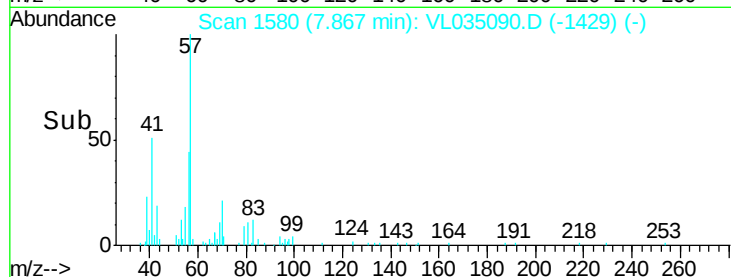
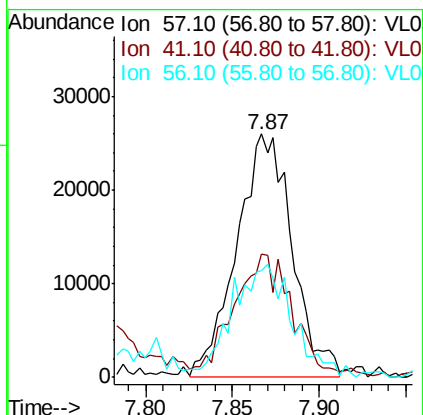
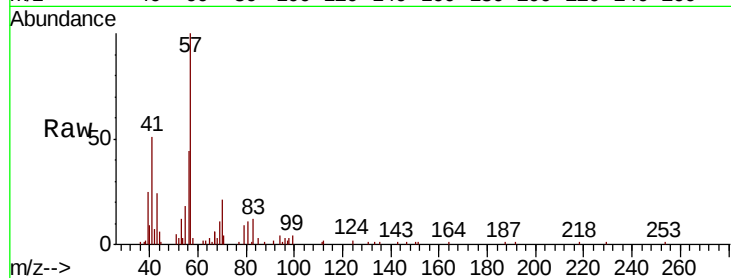
Time-->



#44
 2,2,4-Trimethylpentane
 Concen: 0.167 ppbv m
 RT: 7.87 min Scan# 1580
 Delta R.T. -0.01 min
 Lab File: VL035090.D
 Acq: 22 May 2020 18:44

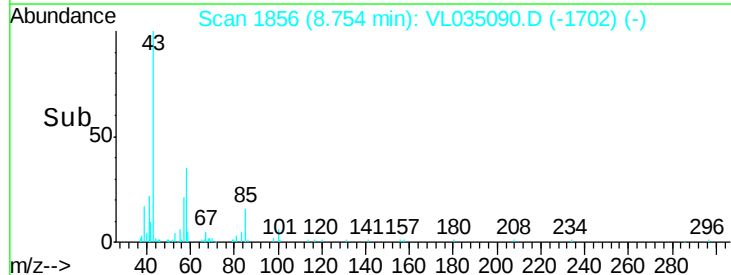
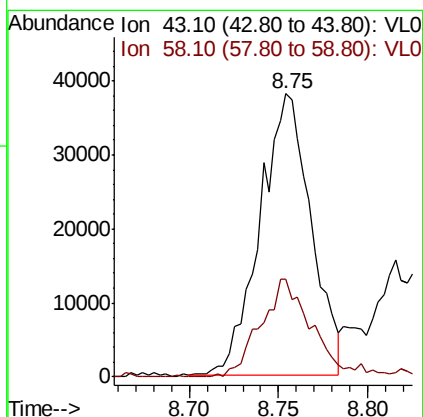
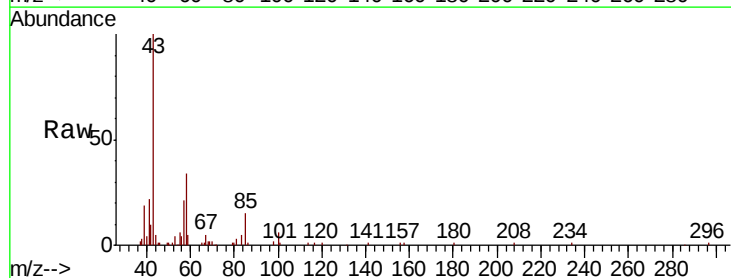
Instrument :
 MSVOA_L
 ClientSampleId :
 AA-1

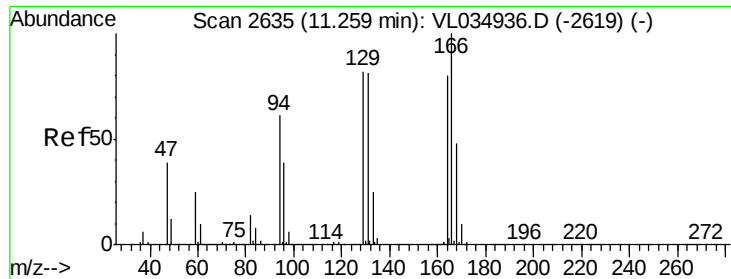
Tot Ion: 57 Resp: 58175
 Ion Ratio Lower Upper
 57 100
 41 54.6 26.4 39.6#
 56 50.3 25.5 38.3#



#50
 4-Methyl-2-Pentanone
 Concen: 0.361 ppbv
 RT: 8.75 min Scan# 1856
 Delta R.T. -0.00 min
 Lab File: VL035090.D
 Acq: 22 May 2020 18:44

Tgt Ion: 43 Resp: 76070
 Ion Ratio Lower Upper
 43 100
 58 34.9 29.1 43.7





#52

Tetrachloroethene

Concen: 0.501 ppbv m

RT: 11.24 min Scan# 2629

Delta R.T. -0.02 min

Lab File: VL035090.D

Acq: 22 May 2020 18:44

Instrument :

MSVOA_L

ClientSampleId :

AA-1

Tot Ion:164 Resp: 34923

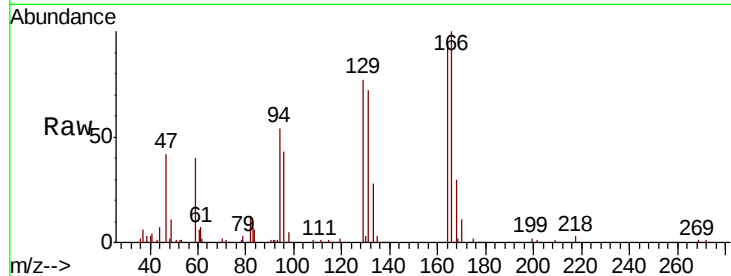
Ion Ratio Lower Upper

164 100

166 106.5 100.7 151.1

129 81.5 83.0 124.4#

131 76.9 81.0 121.4#

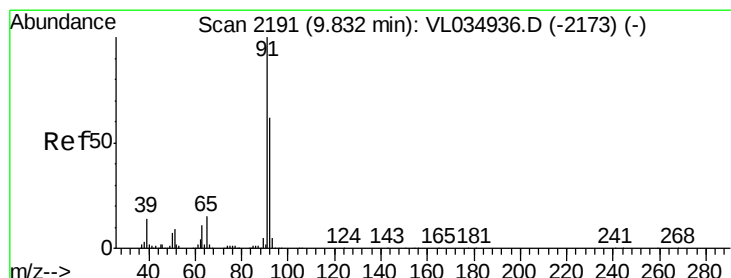
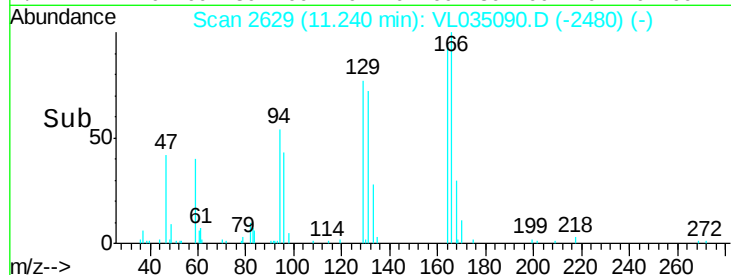
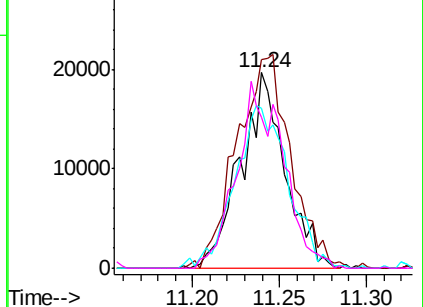


Abundance Ion 163.90 (163.60 to 164.60): V

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: 15.473 ppbv

RT: 9.82 min Scan# 2186

Delta R.T. -0.02 min

Lab File: VL035090.D

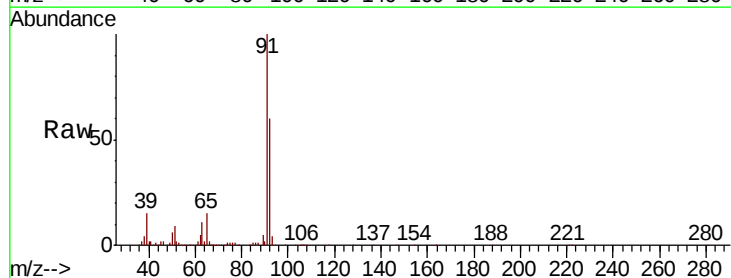
Acq: 22 May 2020 18:44

Tgt Ion: 91 Resp: 3215174

Ion Ratio Lower Upper

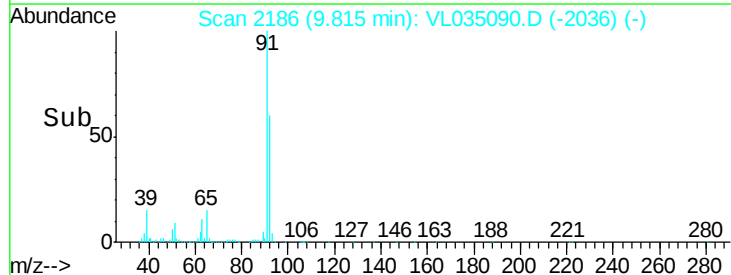
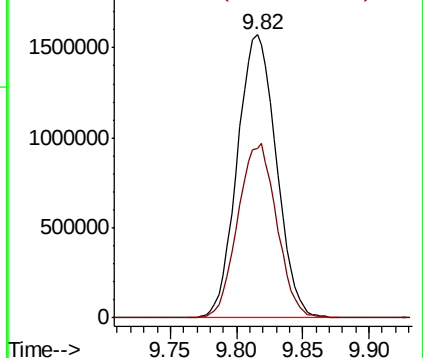
91 100

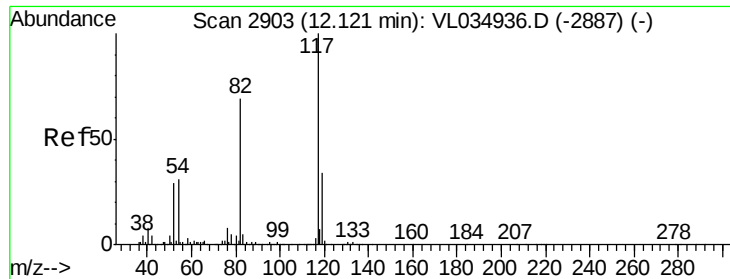
92 61.7 48.6 73.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

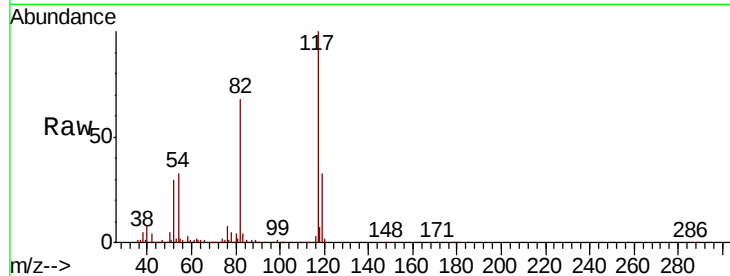




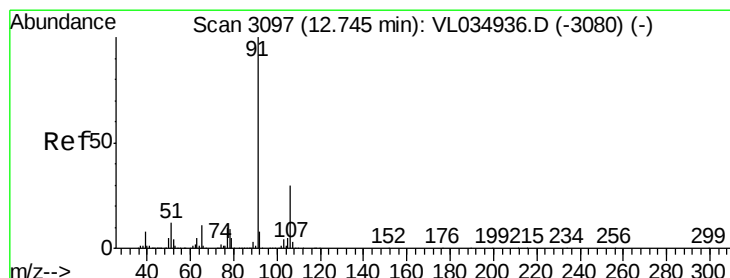
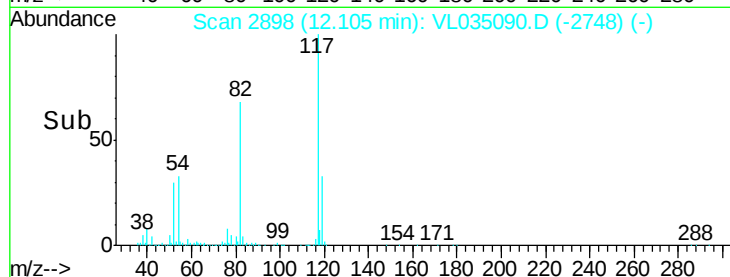
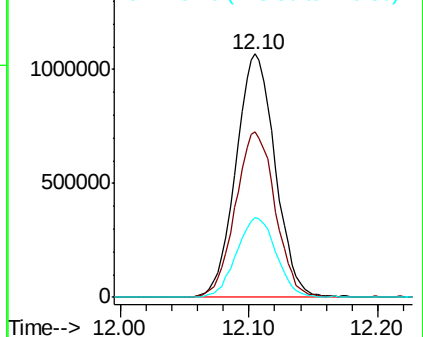
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min Scan# 2898
Delta R.T. -0.02 min
Lab File: VL035090.D
Acq: 22 May 2020 18:44

Instrument :
MSVOA_L
ClientSampled :
AA-1

Tot Ion:117 Resp: 2256703
Ion Ratio Lower Upper
117 100
82 69.4 53.1 79.7
119 33.5 26.7 40.1

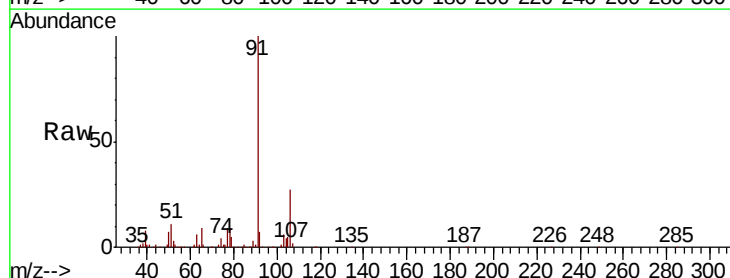


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

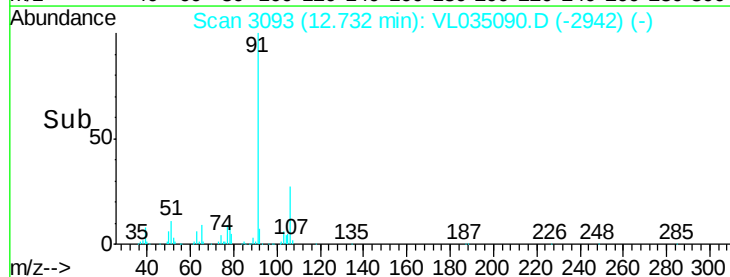
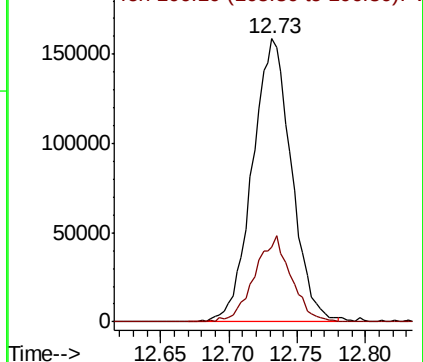


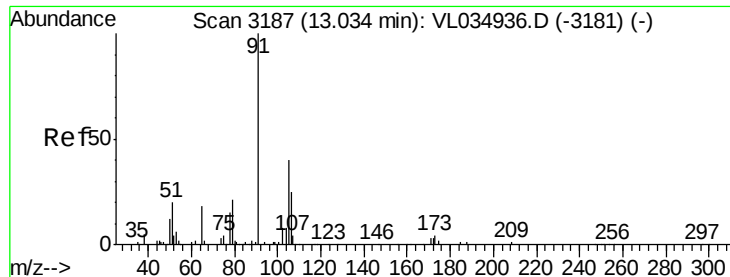
#58
Ethyl Benzene
Concen: 1.127 ppbv
RT: 12.73 min Scan# 3093
Delta R.T. -0.01 min
Lab File: VL035090.D
Acq: 22 May 2020 18:44

Tgt Ion: 91 Resp: 314593
Ion Ratio Lower Upper
91 100
106 26.6 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: 0.988 ppbv m

RT: 12.99 min Scan# 3172

Delta R.T. -0.05 min

Lab File: VL035090.D

Acq: 22 May 2020 18:44

Instrument :

MSVOA_L

ClientSampleId :

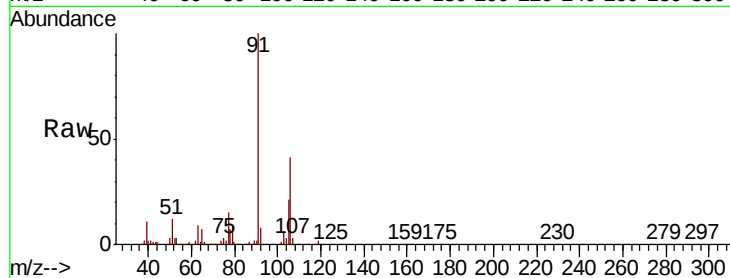
AA-1

Tot Ion: 91 Resp: 242516

Ion Ratio Lower Upper

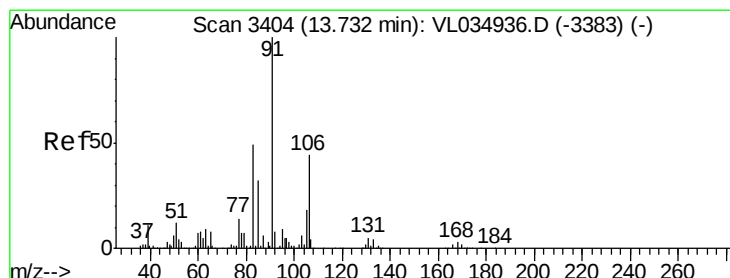
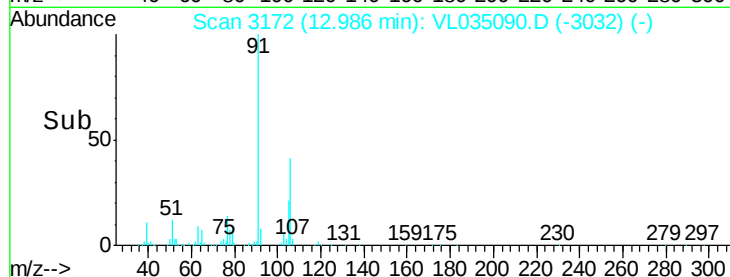
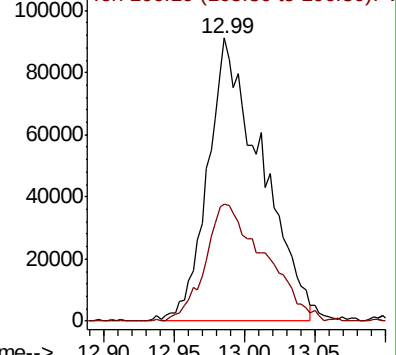
91 100

106 0.0 66.0 99.0#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#60

o-Xylene

Concen: 0.360 ppbv

RT: 13.71 min Scan# 3398

Delta R.T. -0.02 min

Lab File: VL035090.D

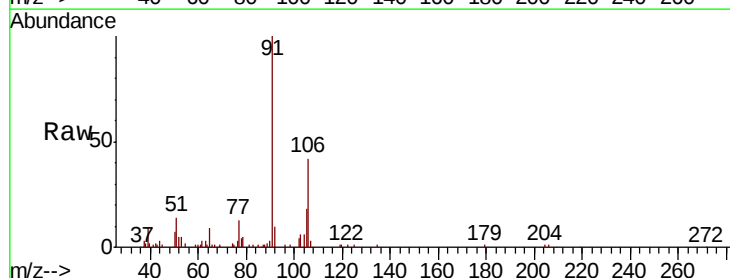
Acq: 22 May 2020 18:44

Tgt Ion: 91 Resp: 87250

Ion Ratio Lower Upper

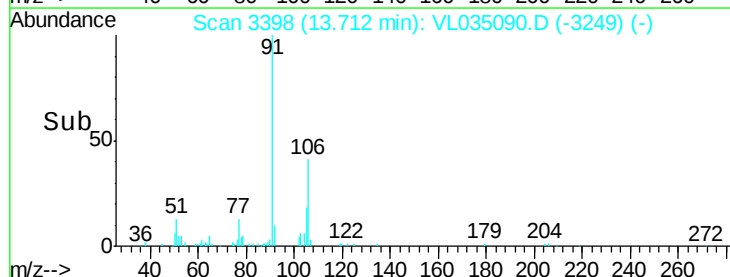
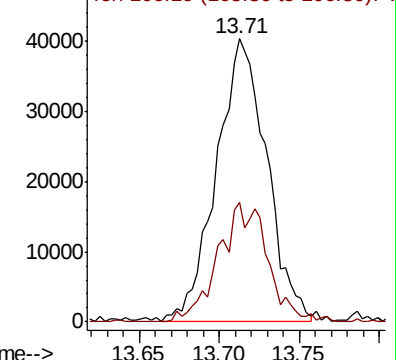
91 100

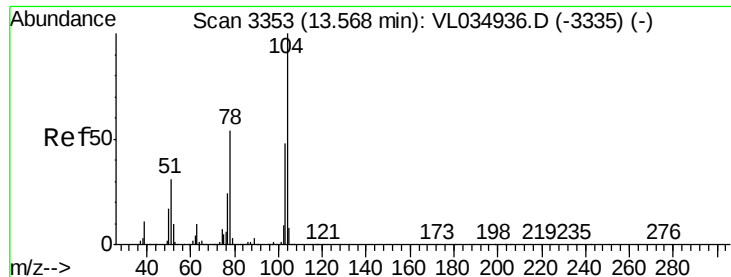
106 41.2 21.9 65.5



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#61

Stvrene

Concen: 0.799 ppbv

RT: 13.55 min Scan# 3349

Delta R.T. -0.01 min

Lab File: VL035090.D

Acq: 22 May 2020 18:44

Instrument :

MSVOA_L

ClientSampled :

AA-1

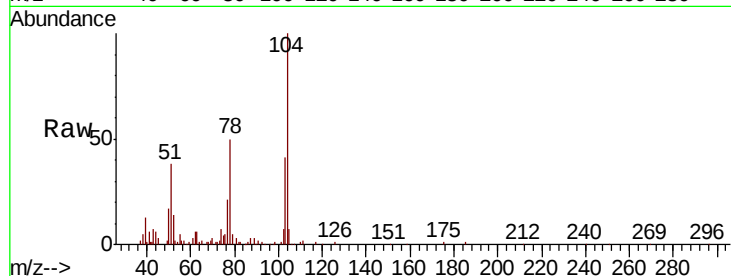
Tot Ion:104 Resp: 122502

Ion Ratio Lower Upper

104 100

78 54.1 43.7 65.5

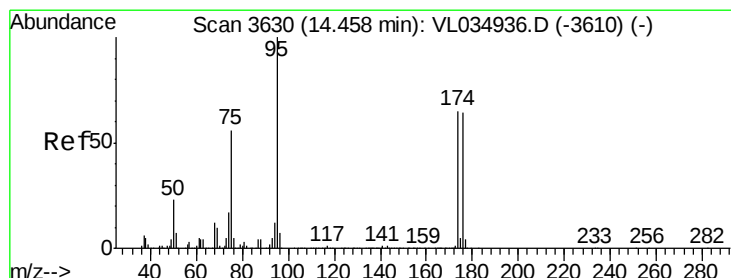
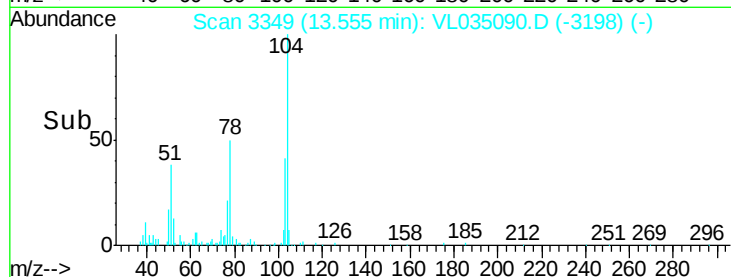
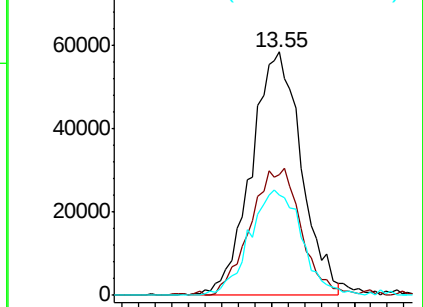
103 45.6 38.8 58.2



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.550 ppbv

RT: 14.44 min Scan# 3625

Delta R.T. -0.02 min

Lab File: VL035090.D

Acq: 22 May 2020 18:44

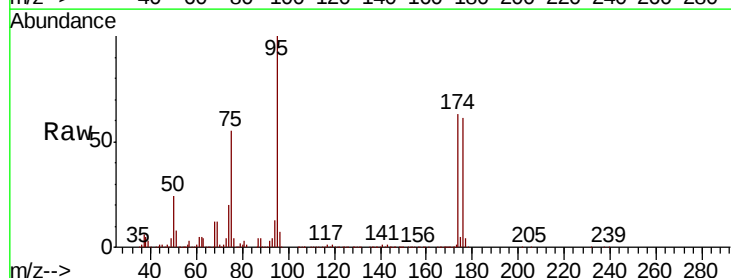
Tgt Ion: 95 Resp: 1927090

Ion Ratio Lower Upper

95 100

174 65.0 51.5 77.3

175 4.7 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

