

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110520\
 Data File : VL035889.D
 Acq On : 6 Nov 2020 10:43
 Operator : SY/AP
 Sample : VL4618-04 2X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SSSG-1

Quant Time: Nov 06 23:44:33 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Nov 04 02:40:06 2020
 QLast Update : Wed Nov 04 02:40:06 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	956993	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.16	114	3546813	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.07	117	3471343	10.00	ppbv	-0.03

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	2550125	10.34	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.40%

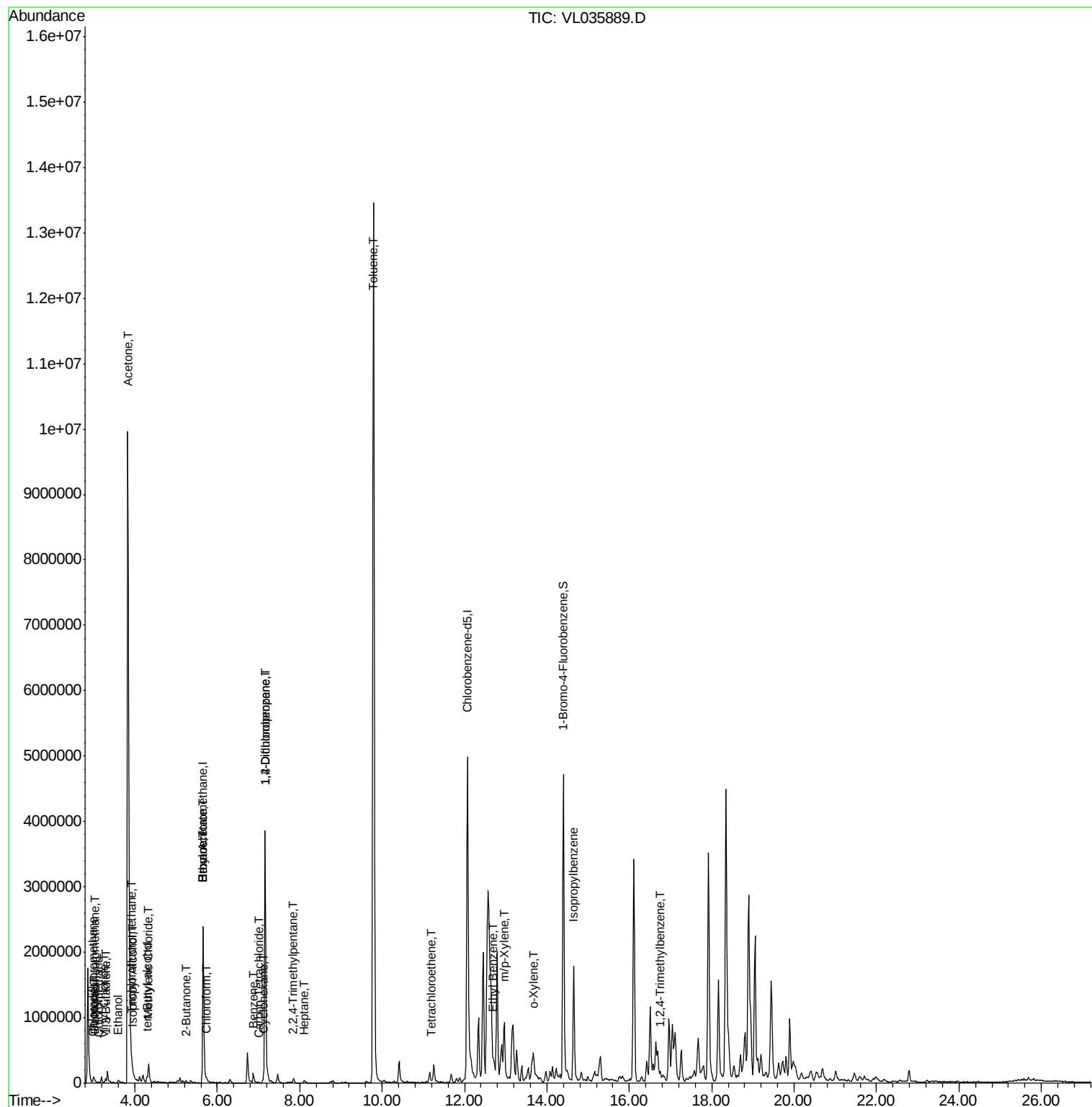
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.03	85	31336	0.174	ppbv	96
3) Chlorodifluoromethane	2.97	51	21436	0.187	ppbv	95
4) Chloromethane	3.12	50	14985	0.269	ppbv	89
5) Vinyl Chloride	3.24	62	2214	0.031	ppbv	96
9) Propene	3.00	41	43296	1.032	ppbv	98
10) Heptane	8.11	43	6732	0.058	ppbv #	19
11) Trichlorofluoromethane	3.93	101	28747	0.127	ppbv #	81
13) Ethanol	3.60	45	54517	5.991	ppbv	97
15) Acetone	3.83	43	14369506	140.449	ppbv #	77
16) 1,3-Butadiene	3.29	39	13939	0.316	ppbv #	62
17) tert-Butyl alcohol	4.29	59	89690	0.661	ppbv #	89
19) Isopropyl Alcohol	3.96	45	2699	0.043	ppbv #	90
20) Methylene Chloride	4.33	84	130494	1.812	ppbv	96
25) Ethyl Acetate	5.66	43	40843	0.203	ppbv #	84
26) Hexane	5.66	57	58687	0.528	ppbv #	45
29) Chloroform	5.74	83	28035	0.128	ppbv	93
30) Cyclohexane	7.11	84	9796	0.081	ppbv #	24
34) 2-Butanone	5.23	43	42802	0.372	ppbv	97
35) Carbon Tetrachloride	7.00	117	6187	0.033	ppbv #	92
36) Benzene	6.88	78	148401	0.563	ppbv	92
39) 1,2-Dichloropropane	7.16	63	714208	8.045	ppbv #	30
44) 2,2,4-Trimethylpentane	7.85	57	45389	0.130	ppbv #	70
52) Tetrachloroethene	11.20	164	4664	0.037	ppbv #	79
53) Toluene	9.79	91	12533274	39.392	ppbv	86
58) Ethyl Benzene	12.69	91	108251	0.256	ppbv	92
59) m/p-Xylene	12.95	91	201747	0.564	ppbv	99
60) o-Xylene	13.67	91	74033	0.213	ppbv	99
62) Isopropylbenzene	14.65	105	1641739	3.002	ppbv	95
74) 1,2,4-Trimethylbenzene	16.74	105	51553	0.125	ppbv #	63

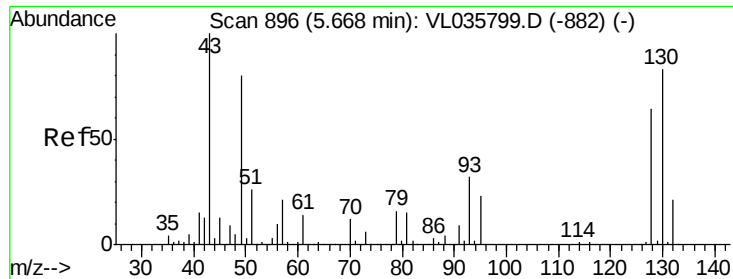
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M
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QLast Update : Wed Nov 04 02:40:06 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 892

Delta R.T. -0.01 min

Lab File: VL035889.D

Acq: 6 Nov 2020 10:43

Instrument :

MSVOA_L

ClientSampleId :

SSSG-1

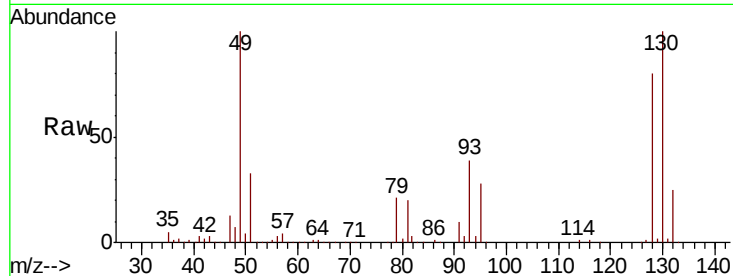
Tot Ion: 49 Resp: 956993

Ion Ratio Lower Upper

49 100

128 79.0 41.5 124.6

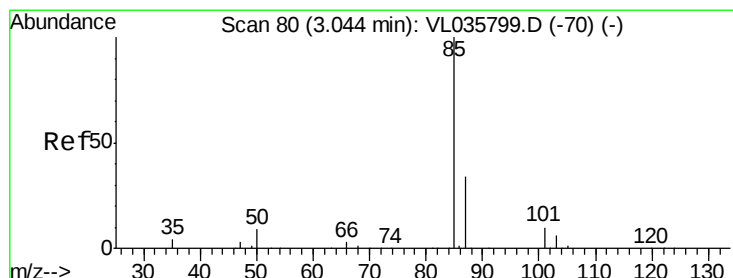
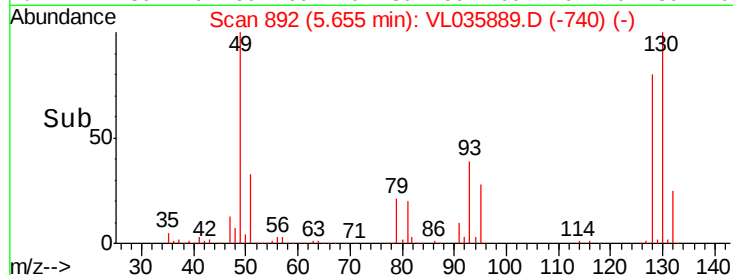
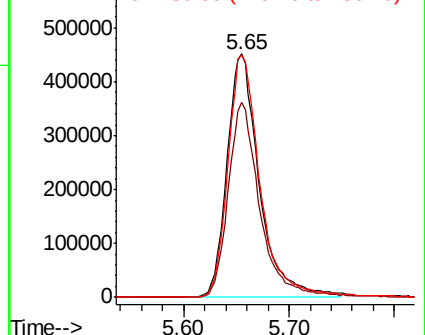
130 100.5 53.7 161.1



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: 0.174 ppbv

RT: 3.03 min Scan# 76

Delta R.T. -0.01 min

Lab File: VL035889.D

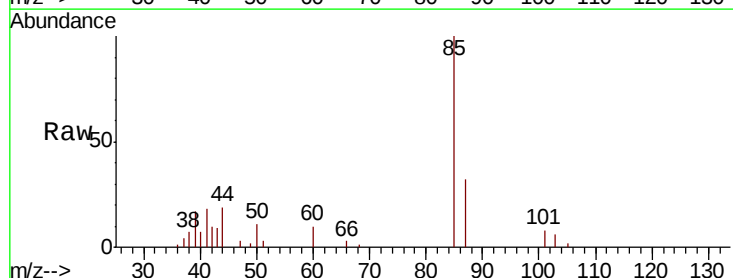
Acq: 6 Nov 2020 10:43

Tgt Ion: 85 Resp: 31336

Ion Ratio Lower Upper

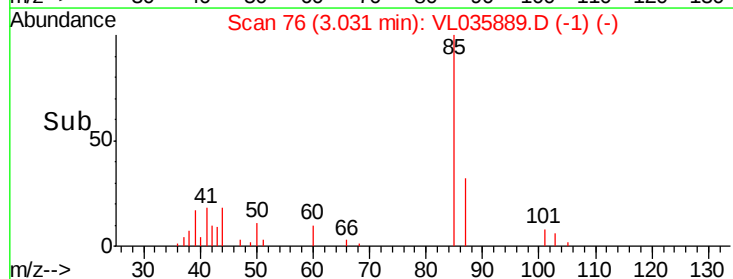
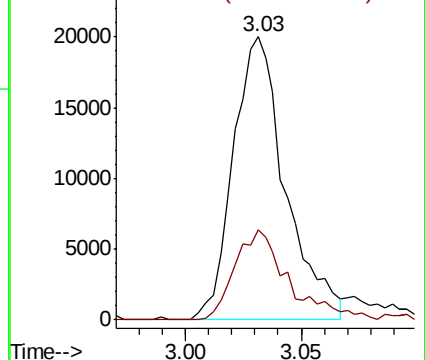
85 100

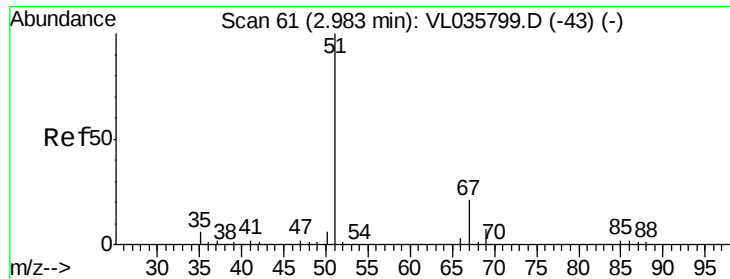
87 31.9 27.1 40.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.187 ppbv

RT: 2.97 min Scan# 56

Delta R.T. -0.02 min

Lab File: VL035889.D

Acq: 6 Nov 2020 10:43

Instrument :

MSVOA_L

ClientSampleId :

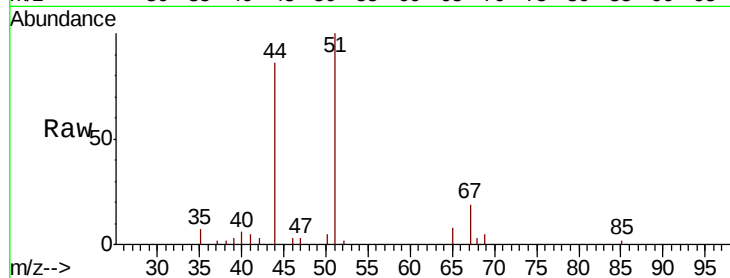
SSSG-1

Tot Ion: 51 Resp: 21436

Ion Ratio Lower Upper

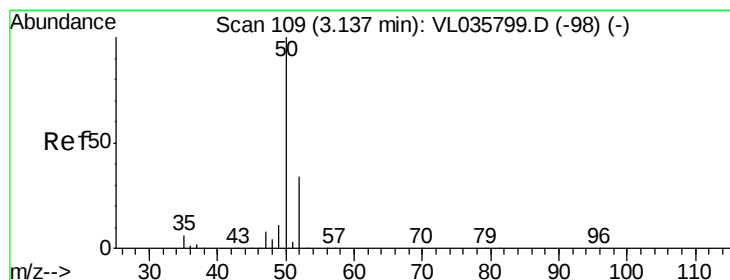
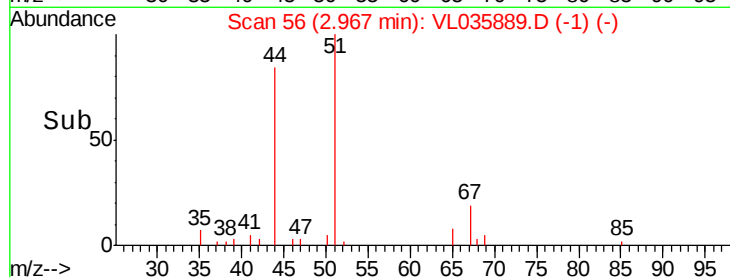
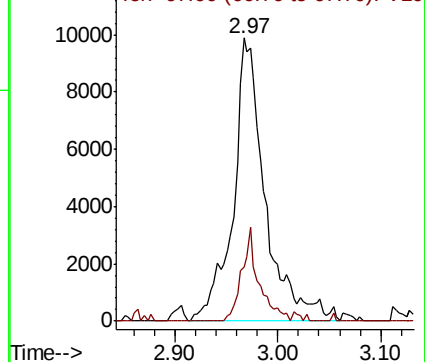
51 100

67 18.7 17.0 25.4



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.269 ppbv

RT: 3.12 min Scan# 105

Delta R.T. -0.01 min

Lab File: VL035889.D

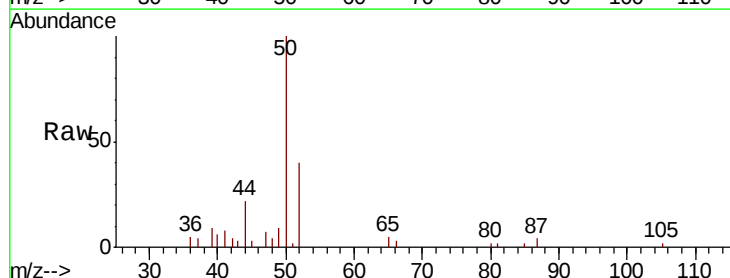
Acq: 6 Nov 2020 10:43

Tgt Ion: 50 Resp: 14985

Ion Ratio Lower Upper

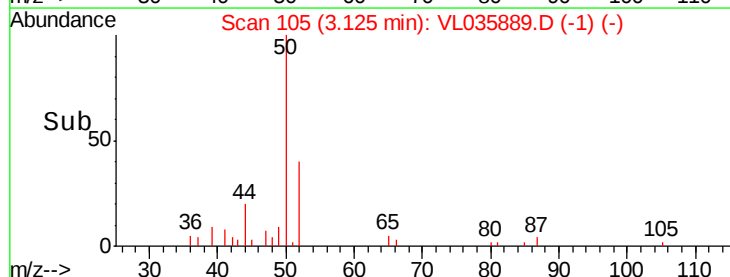
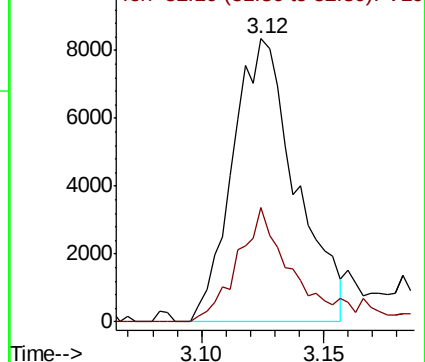
50 100

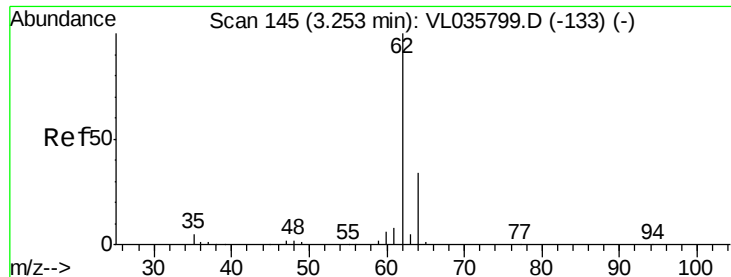
52 40.2 27.1 40.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 0.031 ppbv

RT: 3.24 min Scan# 141

Delta R.T. -0.01 min

Lab File: VL035889.D

Acq: 6 Nov 2020 10:43

Instrument :

MSVOA_L

ClientSampleId :

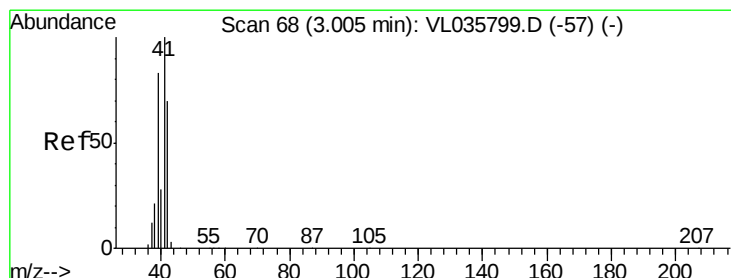
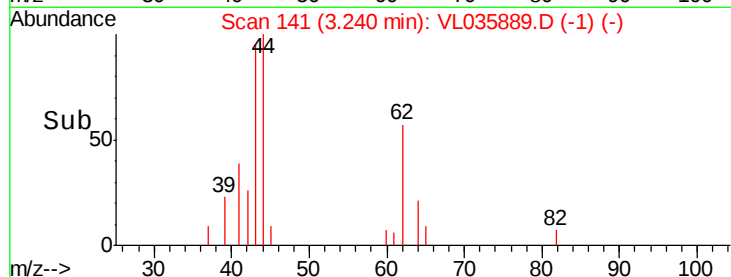
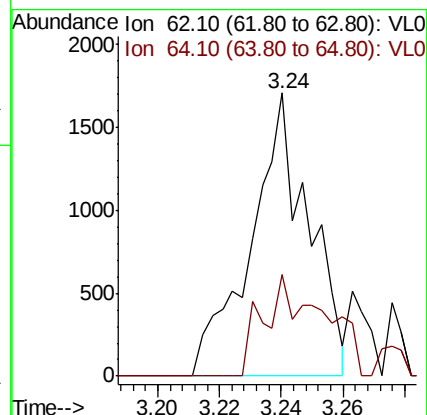
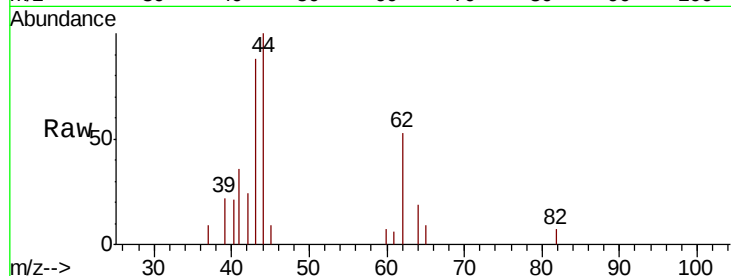
SSSG-1

Tot Ion: 62 Resp: 2214

Ion Ratio Lower Upper

62 100

64 36.0 26.9 40.3



#9

Propene

Concen: 1.032 ppbv

RT: 3.00 min Scan# 65

Delta R.T. -0.01 min

Lab File: VL035889.D

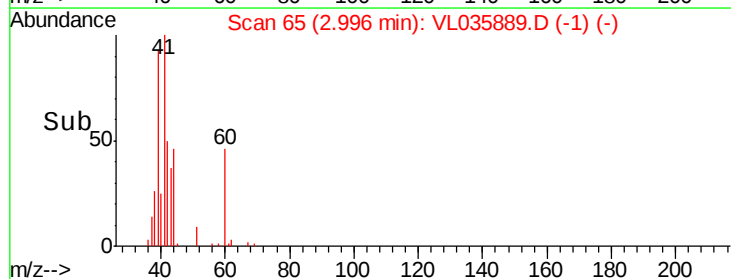
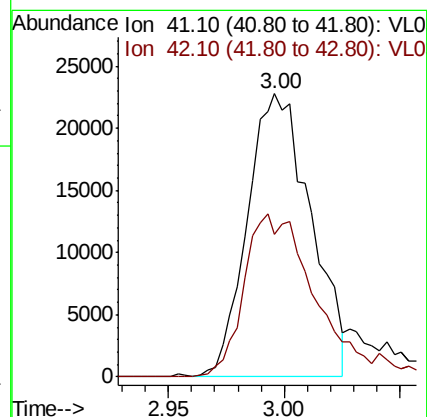
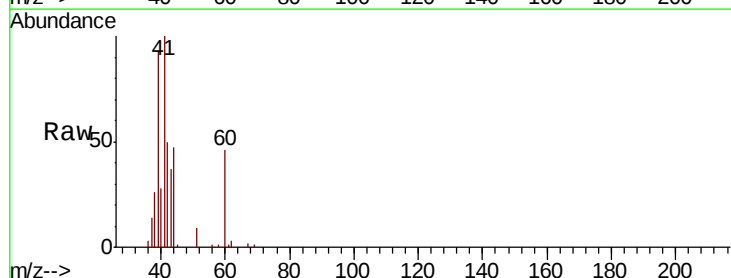
Acq: 6 Nov 2020 10:43

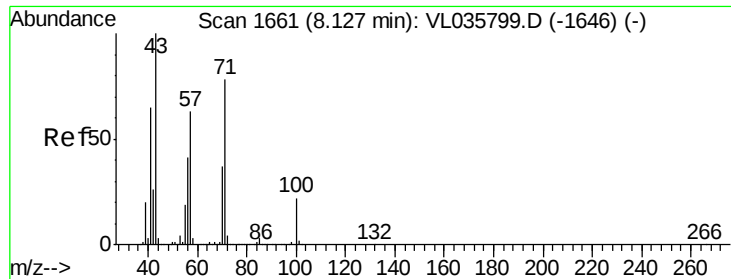
Tgt Ion: 41 Resp: 43296

Ion Ratio Lower Upper

41 100

42 68.6 56.2 84.4





#10

Heptane

Concen: 0.058 ppbv

RT: 8.11 min Scan# 1654

Delta R.T. -0.02 min

Lab File: VL035889.D

Acq: 6 Nov 2020 10:43

Instrument :

MSVOA_L

ClientSampleId :

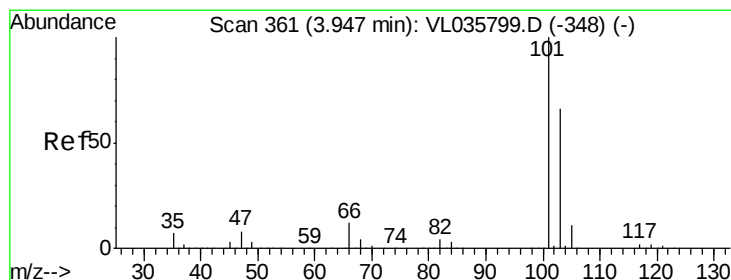
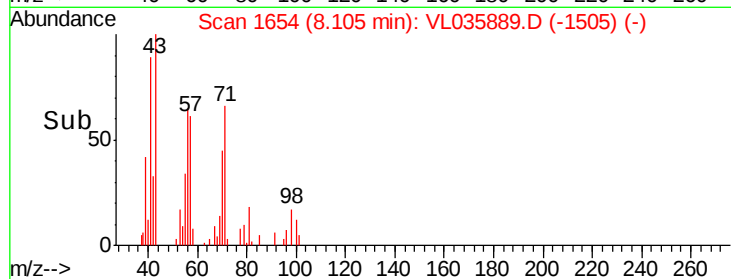
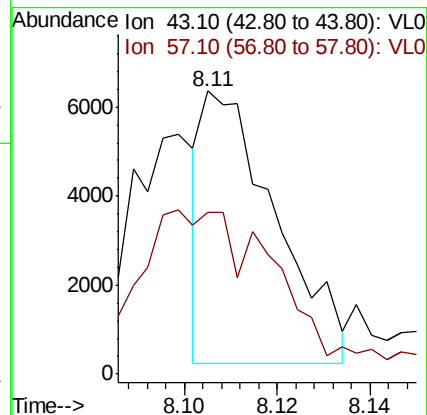
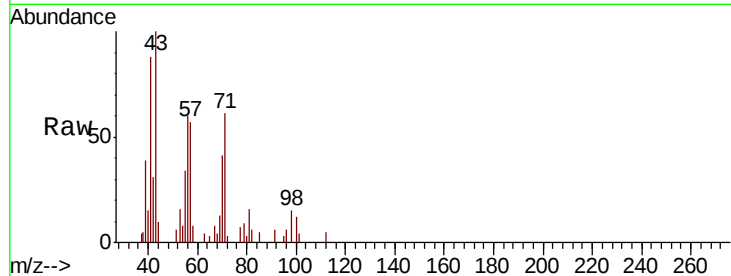
SSSG-1

Tot Ion: 43 Resp: 6732

Ion Ratio Lower Upper

43 100

57 0.0 50.0 75.0#



#11

Trichlorofluoromethane

Concen: 0.127 ppbv

RT: 3.93 min Scan# 355

Delta R.T. -0.02 min

Lab File: VL035889.D

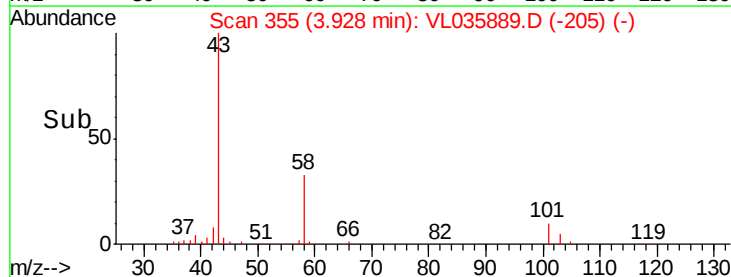
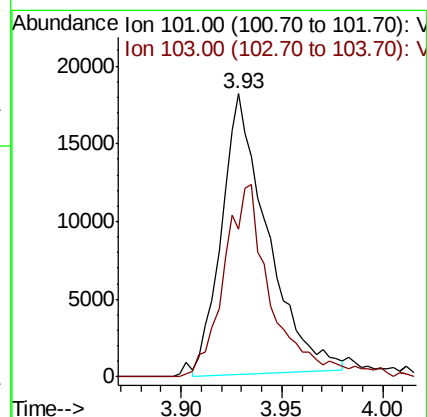
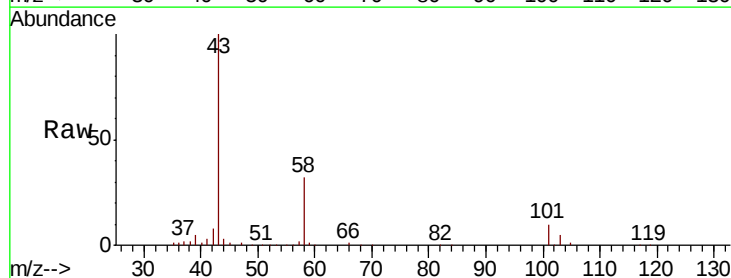
Acq: 6 Nov 2020 10:43

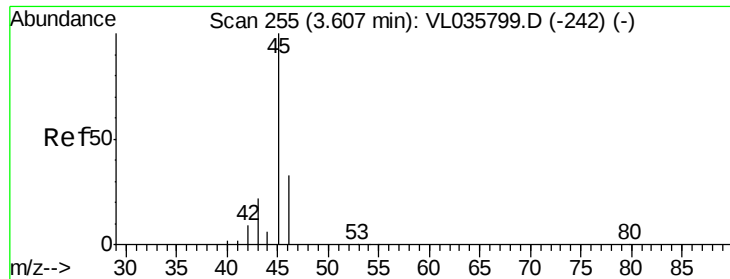
Tgt Ion: 101 Resp: 28747

Ion Ratio Lower Upper

101 100

103 51.2 53.0 79.4#





#13

Ethanol

Concen: 5.991 ppbv

RT: 3.60 min Scan# 252

Delta R.T. -0.01 min

Lab File: VL035889.D

Acq: 6 Nov 2020 10:43

Instrument :

MSVOA_L

ClientSampleId :

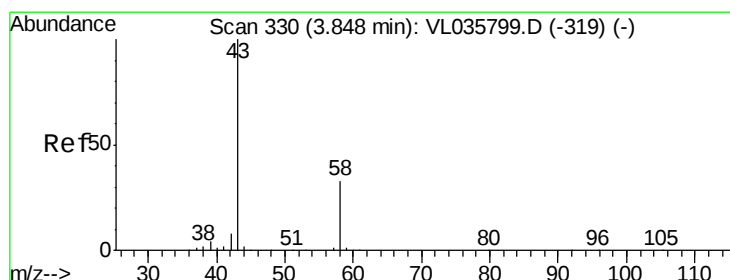
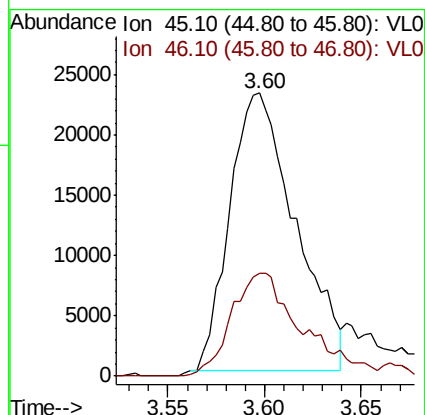
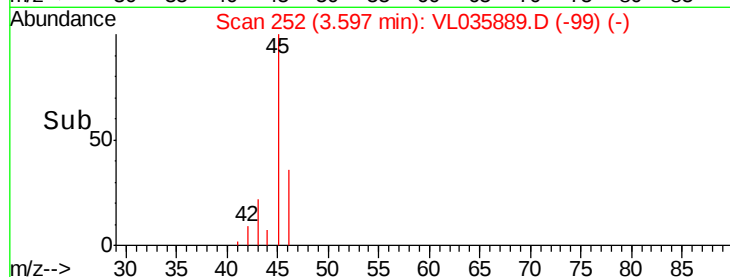
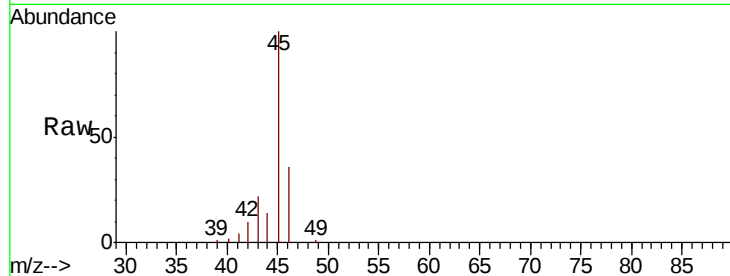
SSSG-1

Tot Ion: 45 Resp: 54517

Ion Ratio Lower Upper

45 100

46 42.0 16.1 64.5



#15

Acetone

Concen: 140.449 ppbv

RT: 3.83 min Scan# 324

Delta R.T. -0.02 min

Lab File: VL035889.D

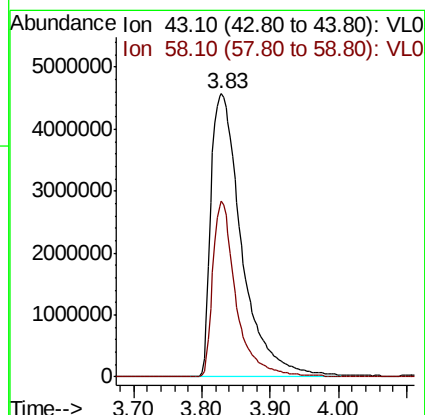
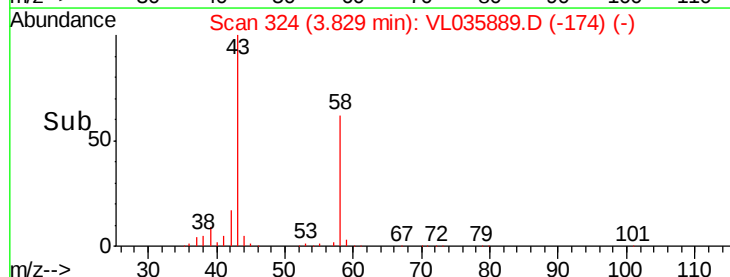
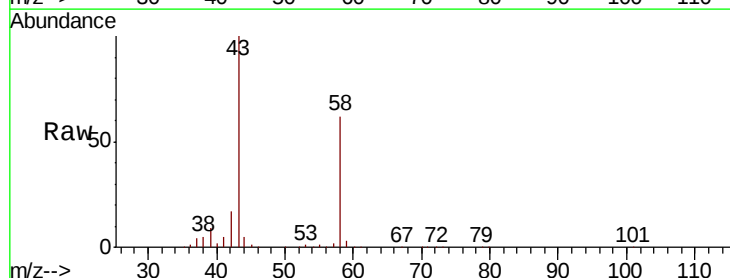
Acq: 6 Nov 2020 10:43

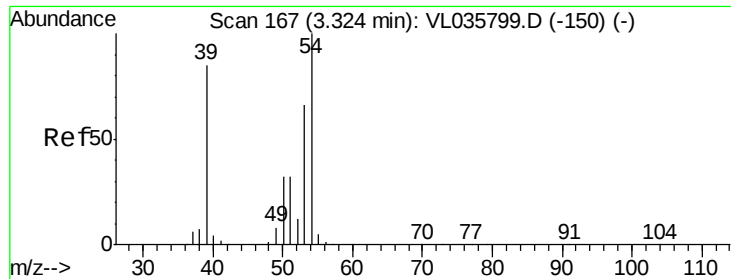
Tgt Ion: 43 Resp: 14369506

Ion Ratio Lower Upper

43 100

58 47.4 27.5 41.3#

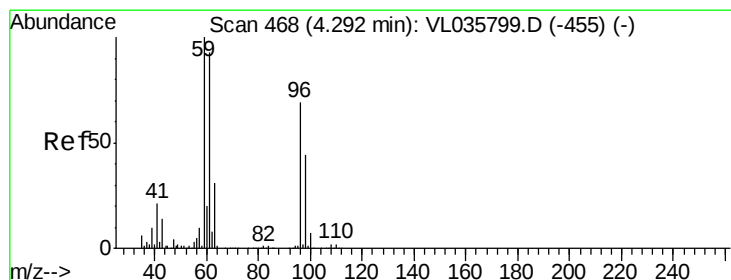
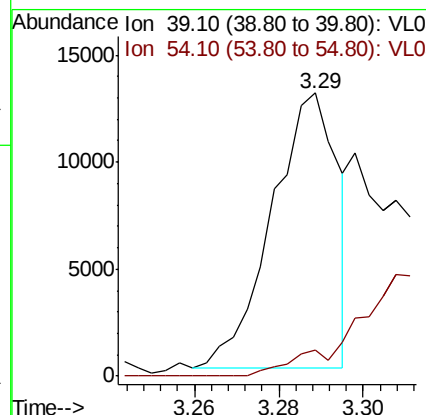
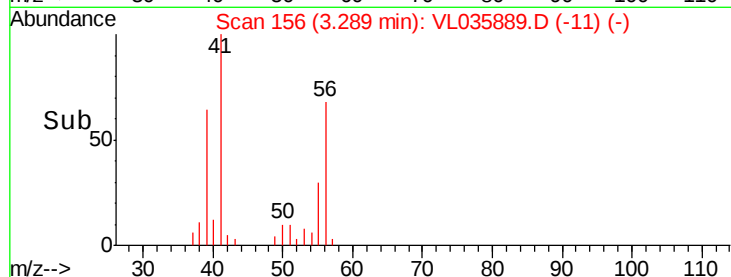
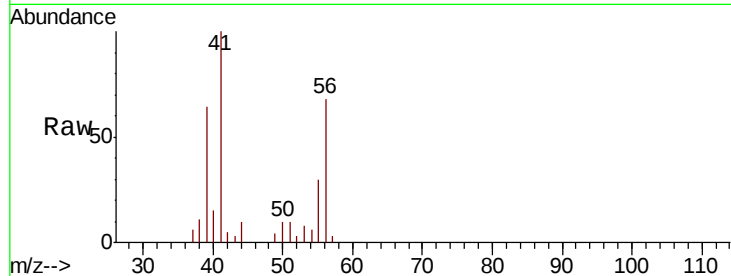




#16
 1,3-Butadiene
 Concen: 0.316 ppbv
 RT: 3.29 min Scan# 156
 Delta R.T. -0.04 min
 Lab File: VL035889.D
 Acq: 6 Nov 2020 10:43

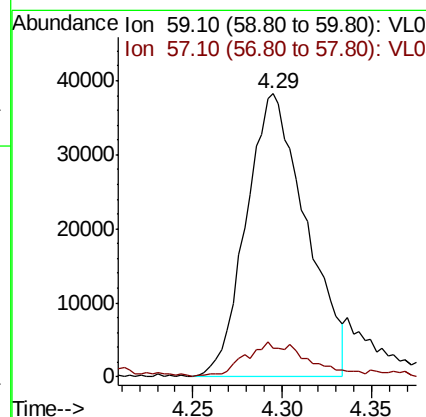
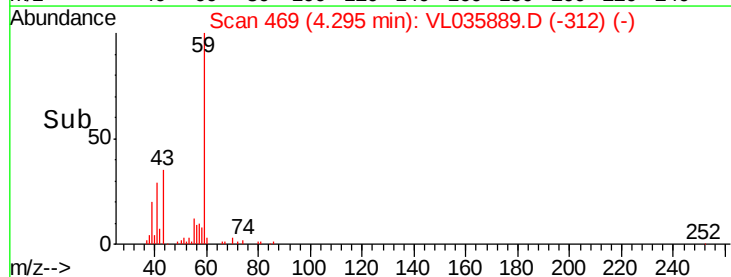
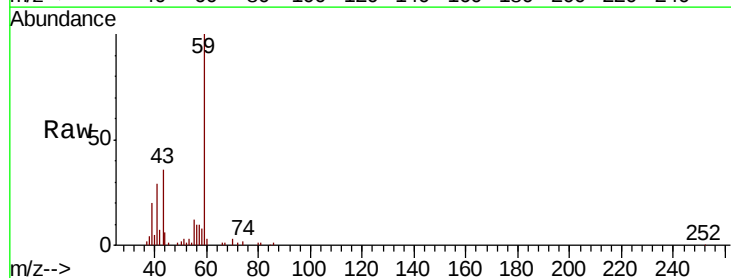
Instrument :
 MSVOA_L
 ClientSampleID :
 SSSG-1

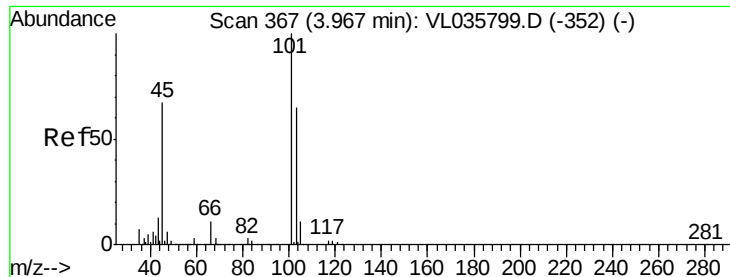
Tot Ion: 39 Resp: 13939
 Ion Ratio Lower Upper
 39 100
 54 68.6 87.1 130.7#



#17
 tert-Butyl alcohol
 Concen: 0.661 ppbv
 RT: 4.29 min Scan# 469
 Delta R.T. 0.00 min
 Lab File: VL035889.D
 Acq: 6 Nov 2020 10:43

Tgt Ion: 59 Resp: 89690
 Ion Ratio Lower Upper
 59 100
 57 14.4 8.2 12.4#





#19

Isopropyl Alcohol

Concen: 0.043 ppbv

RT: 3.96 min Scan# 365

Delta R.T. -0.01 min

Lab File: VL035889.D

Acq: 6 Nov 2020 10:43

Instrument :

MSVOA_L

ClientSampleId :

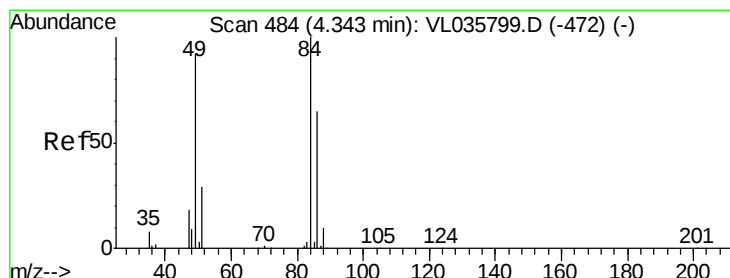
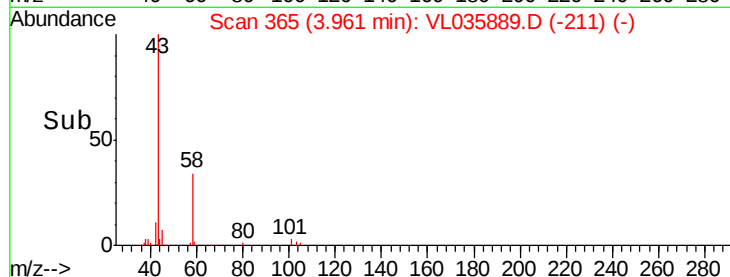
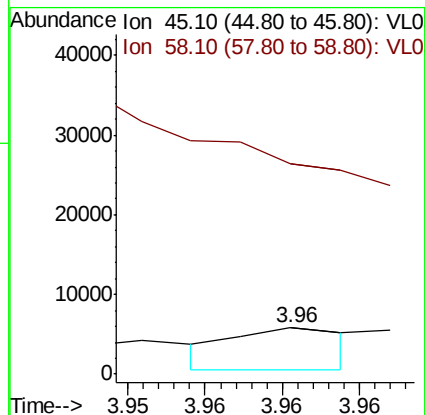
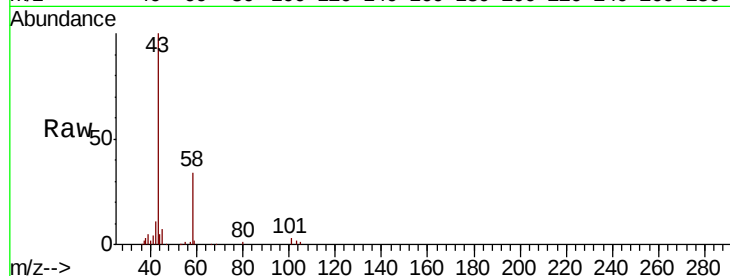
SSSG-1

Tot Ion: 45 Resp: 2699

Ion Ratio Lower Upper

45 100

58 0.0 2.6 3.8#



#20

Methylene Chloride

Concen: 1.812 ppbv

RT: 4.33 min Scan# 480

Delta R.T. -0.01 min

Lab File: VL035889.D

Acq: 6 Nov 2020 10:43

Tgt Ion: 84 Resp: 130494

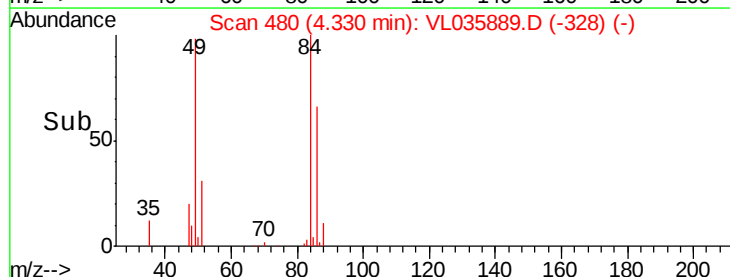
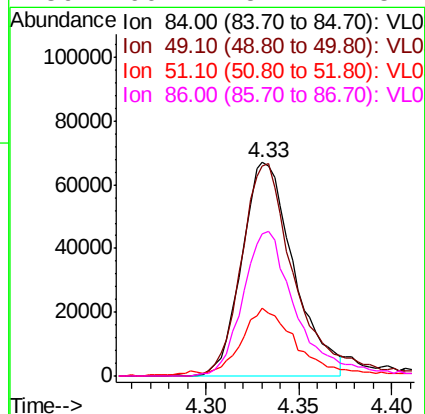
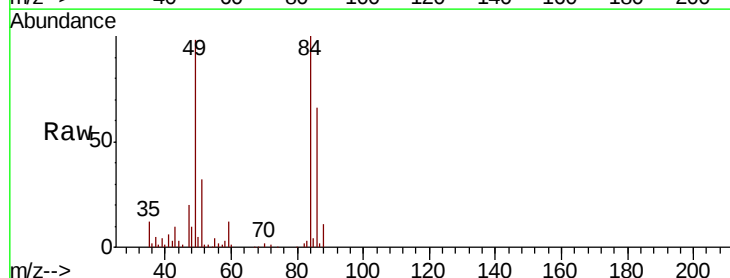
Ion Ratio Lower Upper

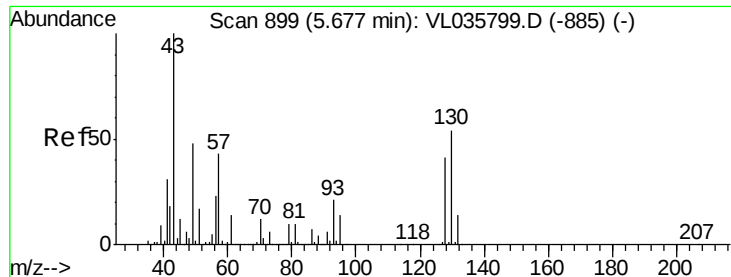
84 100

49 97.9 73.8 110.8

51 29.8 23.0 34.4

86 66.4 52.1 78.1

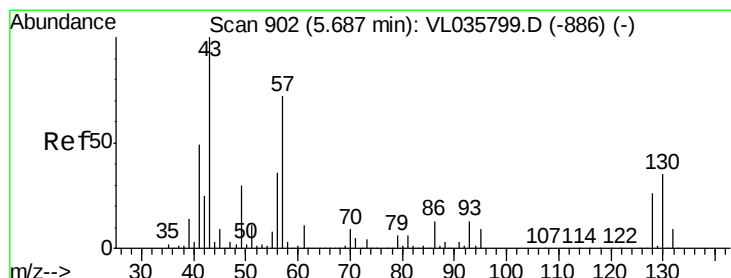
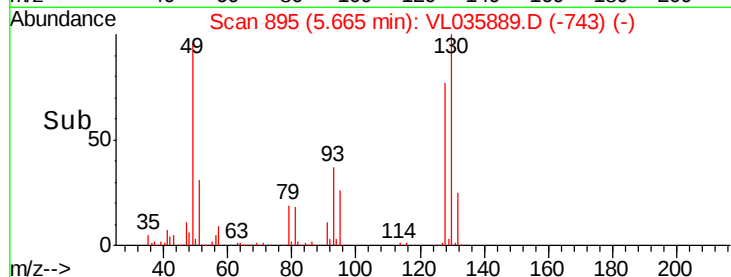
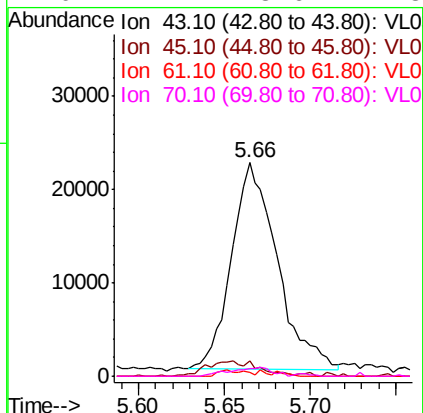
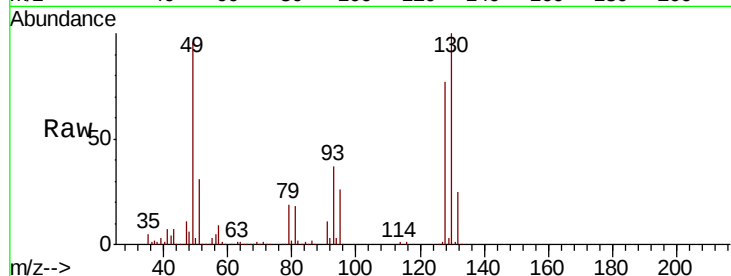




#25
Ethyl Acetate
Concen: 0.203 ppbv
RT: 5.66 min Scan# 895
Delta R.T. -0.01 min
Lab File: VL035889.D
Acq: 6 Nov 2020 10:43

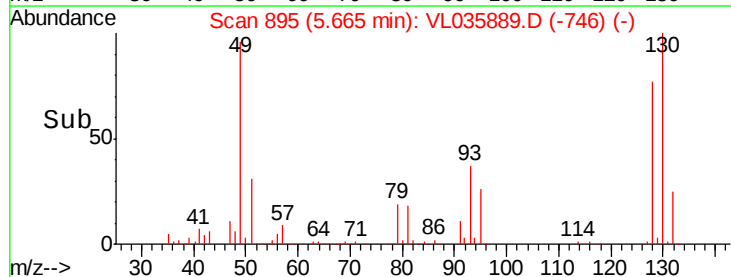
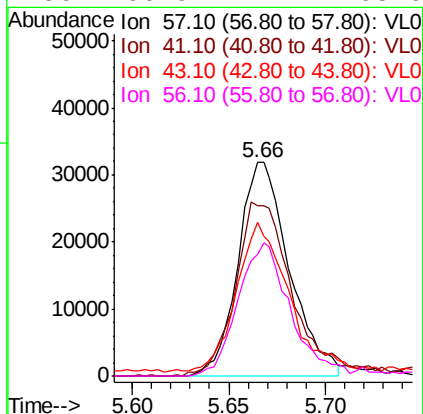
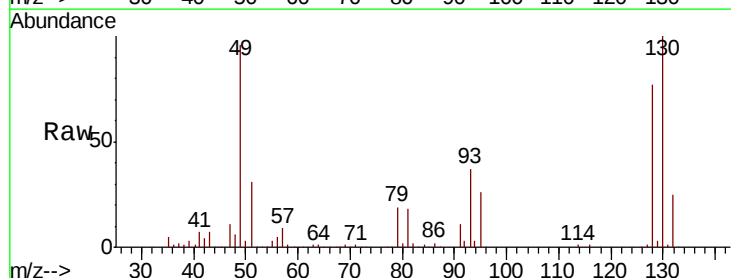
Instrument :
MSVOA_L
ClientSampleId :
SSSG-1

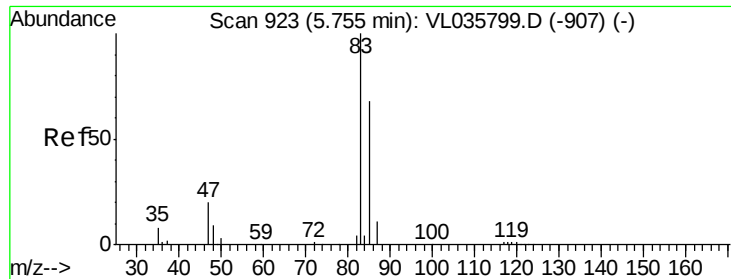
Tot Ion:	43	Resp:	40843
Ion	Ratio	Lower	Upper
43	100		
45	9.3	8.5	12.7
61	2.8	10.7	16.1#
70	4.4	8.6	12.8#



#26
Hexane
Concen: 0.528 ppbv
RT: 5.66 min Scan# 895
Delta R.T. -0.02 min
Lab File: VL035889.D
Acq: 6 Nov 2020 10:43

Tgt Ion:	57	Resp:	58687
Ion	Ratio	Lower	Upper
57	100		
41	91.4	58.9	88.3#
43	73.0	150.2	225.2#
56	66.9	42.4	63.6#

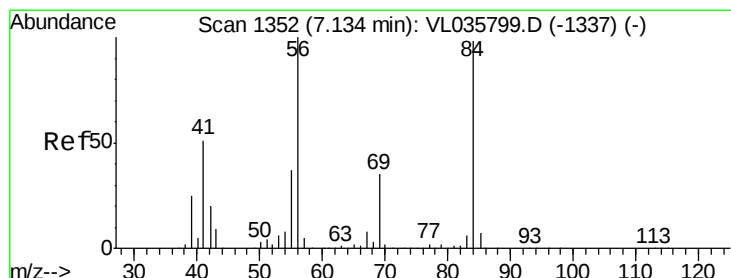
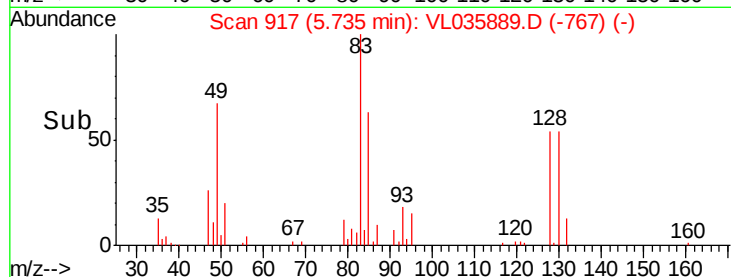
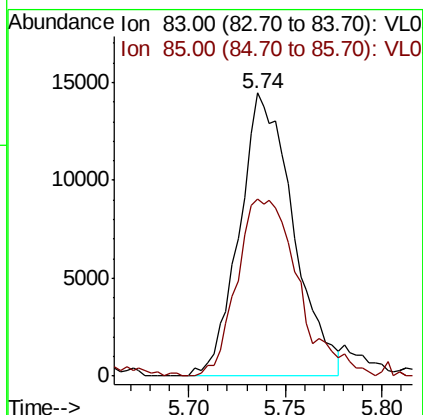
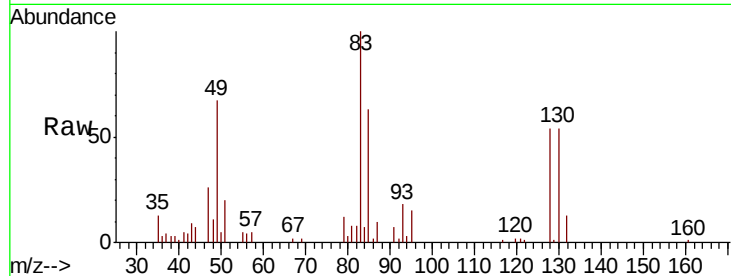




#29
Chloroform
Concen: 0.128 ppbv
RT: 5.74 min Scan# 917
Delta R.T. -0.02 min
Lab File: VL035889.D
Acq: 6 Nov 2020 10:43

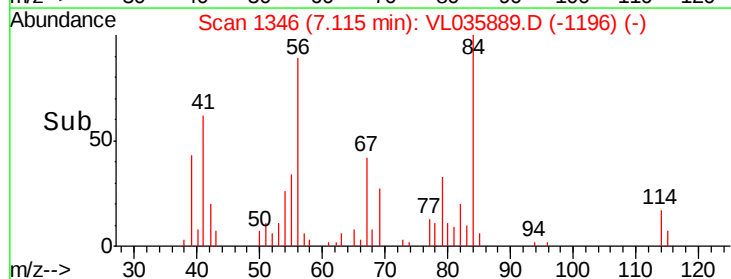
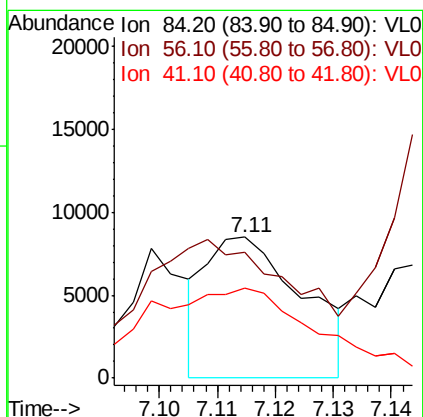
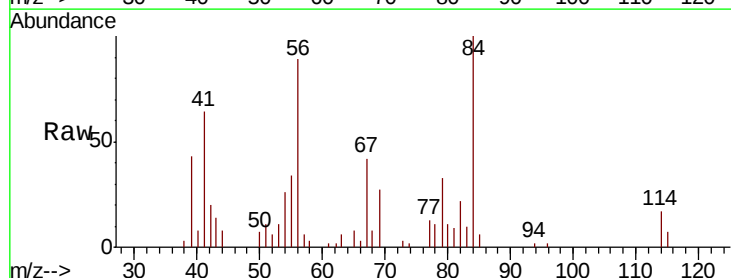
Instrument :
MSVOA_L
ClientSampleId :
SSSG-1

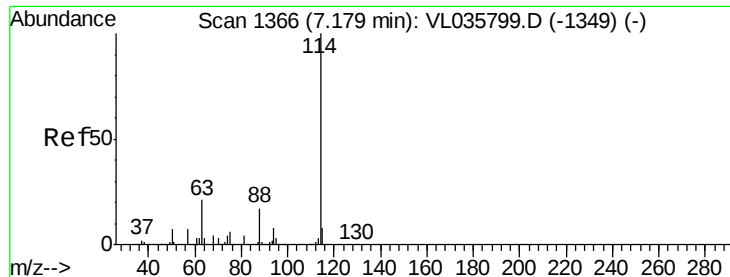
Tot Ion: 83 Resp: 28035
Ion Ratio Lower Upper
83 100
85 62.6 54.6 81.8



#30
Cyclohexane
Concen: 0.081 ppbv
RT: 7.11 min Scan# 1346
Delta R.T. -0.02 min
Lab File: VL035889.D
Acq: 6 Nov 2020 10:43

Tgt Ion: 84 Resp: 9796
Ion Ratio Lower Upper
84 100
56 171.5 86.4 129.6#
41 128.7 42.1 63.1#

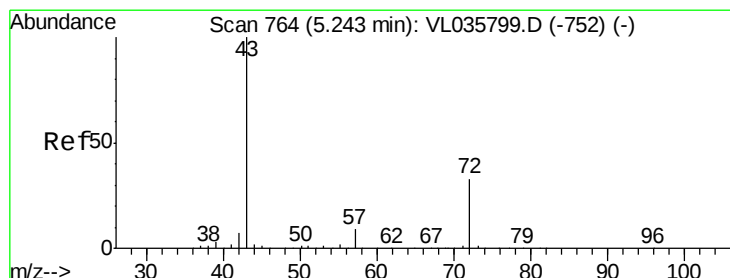
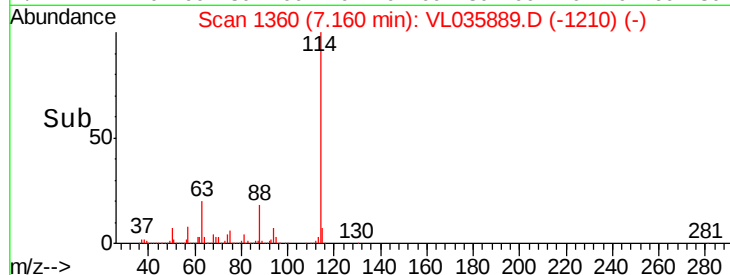
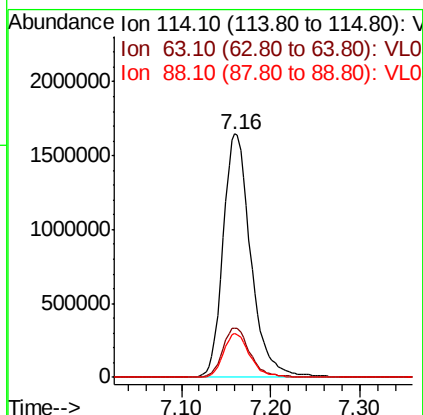
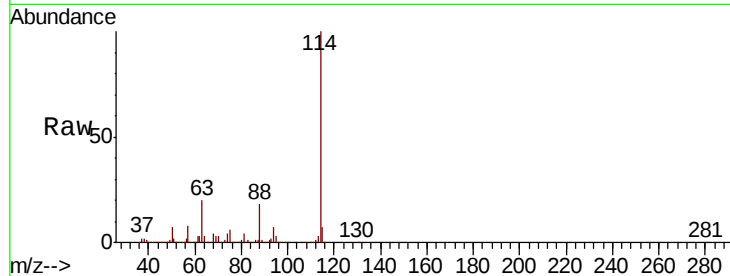




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16 min Scan# 1360
 Delta R.T. -0.02 min
 Lab File: VL035889.D
 Acq: 6 Nov 2020 10:43

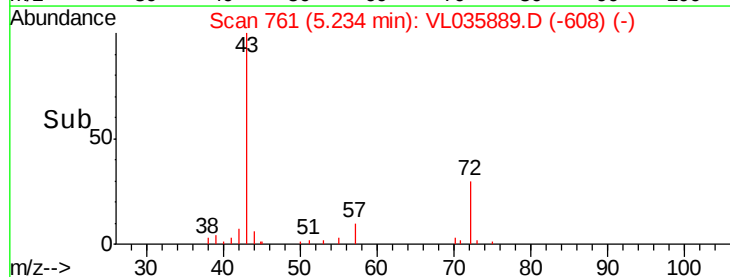
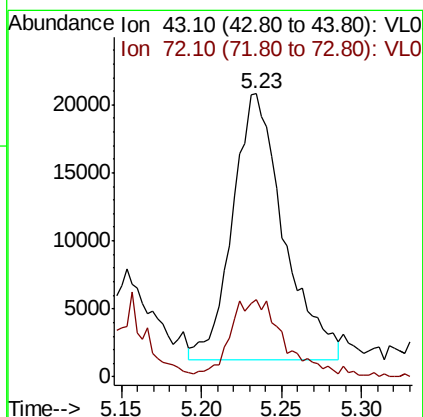
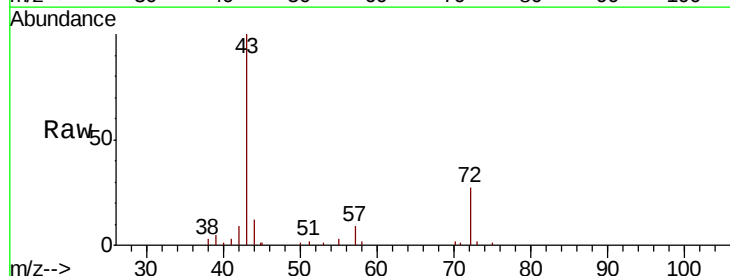
Instrument :
 MSVOA_L
 ClientSampleId :
 SSSG-1

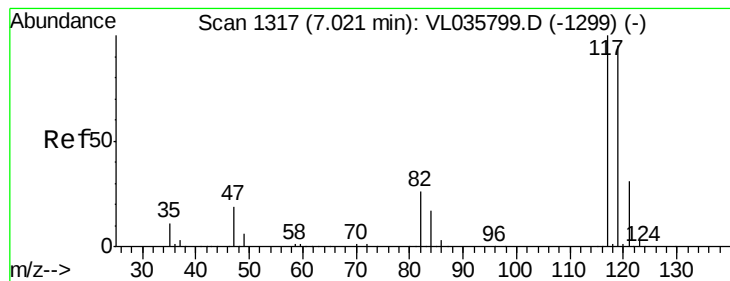
Tot Ion:114 Resp: 3546813
 Ion Ratio Lower Upper
 114 100
 63 20.3 16.1 24.1
 88 17.3 13.7 20.5



#34
 2-Butanone
 Concen: 0.372 ppbv
 RT: 5.23 min Scan# 761
 Delta R.T. -0.01 min
 Lab File: VL035889.D
 Acq: 6 Nov 2020 10:43

Tgt Ion: 43 Resp: 42802
 Ion Ratio Lower Upper
 43 100
 72 31.6 26.5 39.7





#35

Carbon Tetrachloride

Concen: 0.033 ppbv

RT: 7.00 min Scan# 1309

Delta R.T. -0.03 min

Lab File: VL035889.D

Acq: 6 Nov 2020 10:43

Instrument :

MSVOA_L

ClientSampleId :

SSSG-1

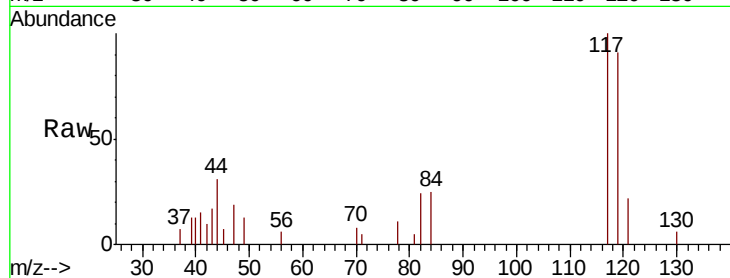
Tot Ion:117 Resp: 6187

Ion Ratio Lower Upper

117 100

119 90.5 75.6 113.4

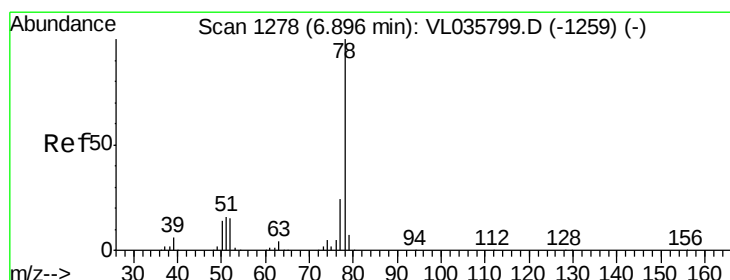
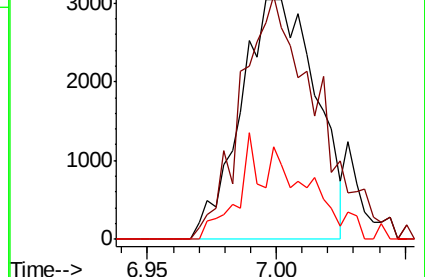
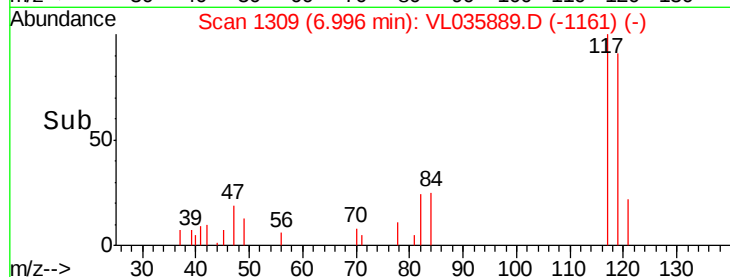
121 21.5 25.1 37.7#



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: 0.563 ppbv

RT: 6.88 min Scan# 1272

Delta R.T. -0.02 min

Lab File: VL035889.D

Acq: 6 Nov 2020 10:43

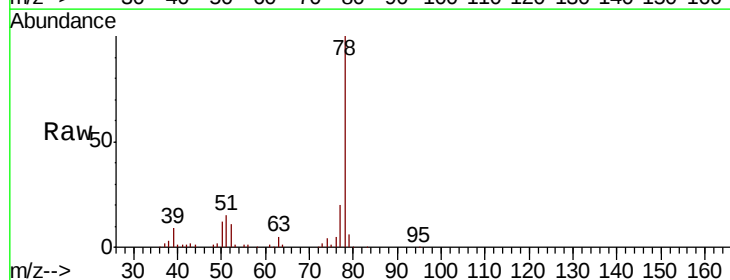
Tgt Ion: 78 Resp: 148401

Ion Ratio Lower Upper

78 100

77 19.6 19.3 28.9

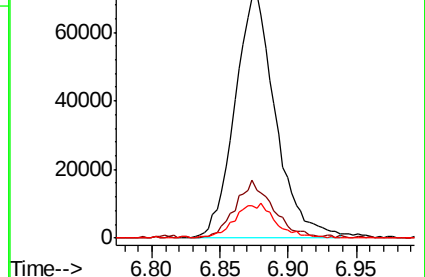
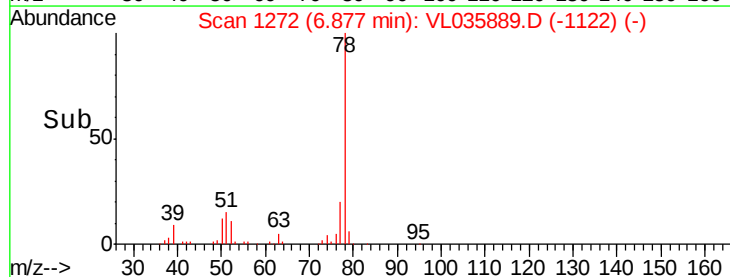
50 12.2 11.4 17.2

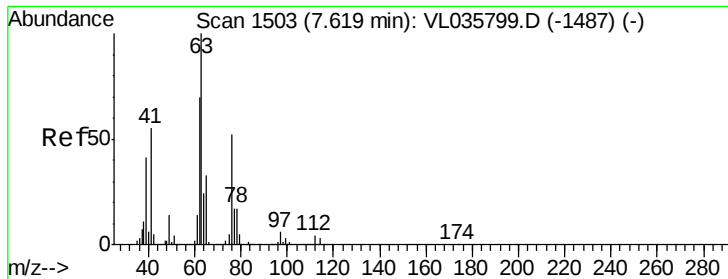


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 8.045 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.46 min

Lab File: VL035889.D

Acq: 6 Nov 2020 10:43

Instrument :

MSVOA_L

ClientSampleId :

SSSG-1

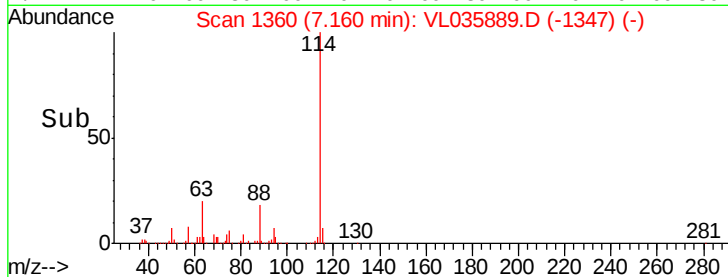
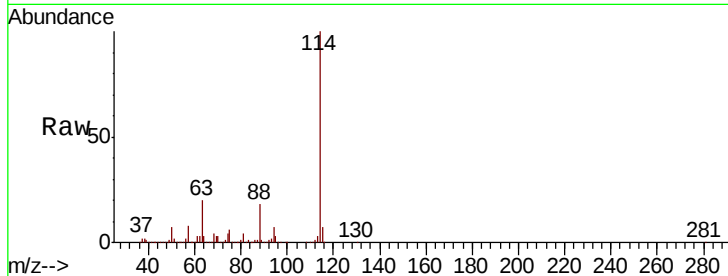
Tot Ion: 63 Resp: 714208

Ion Ratio Lower Upper

63 100

41 0.0 43.8 65.6#

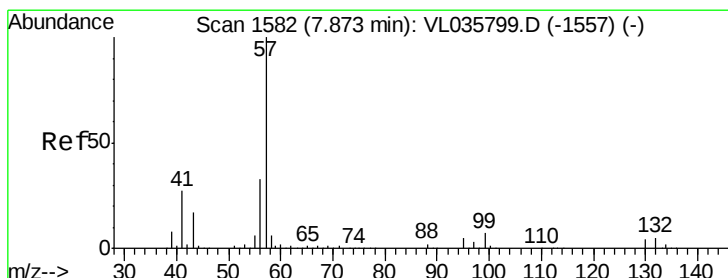
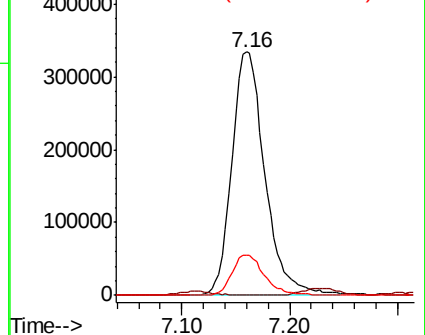
62 16.4 56.2 84.2#



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: 0.130 ppbv

RT: 7.85 min Scan# 1575

Delta R.T. -0.02 min

Lab File: VL035889.D

Acq: 6 Nov 2020 10:43

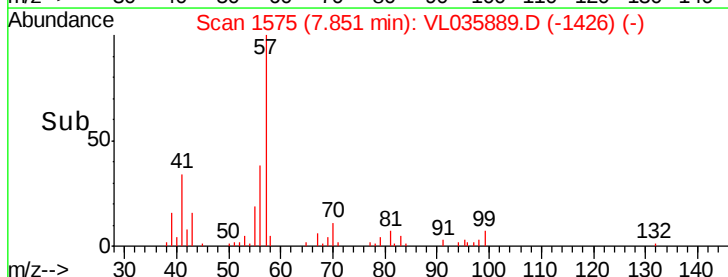
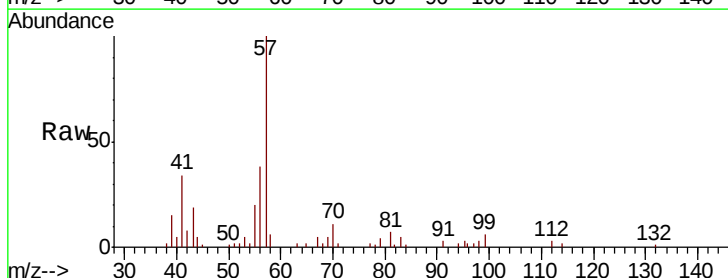
Tgt Ion: 57 Resp: 45389

Ion Ratio Lower Upper

57 100

41 43.4 21.0 31.4#

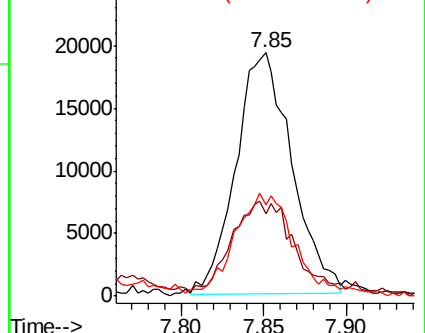
56 46.2 25.4 38.0#

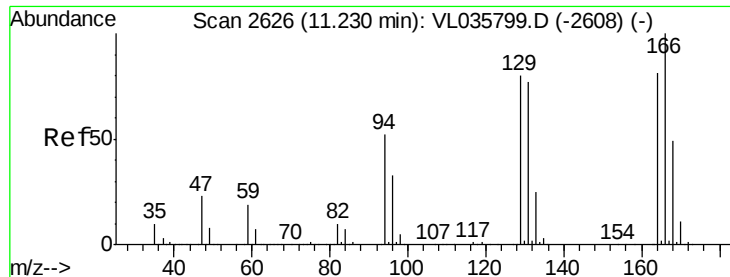


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#52

Tetrachloroethene

Concen: 0.037 ppbv

RT: 11.20 min Scan# 2618

Delta R.T. -0.03 min

Lab File: VL035889.D

Acq: 6 Nov 2020 10:43

Instrument :

MSVOA_L

ClientSampleId :

SSSG-1

Tot Ion:164 Resp: 4664

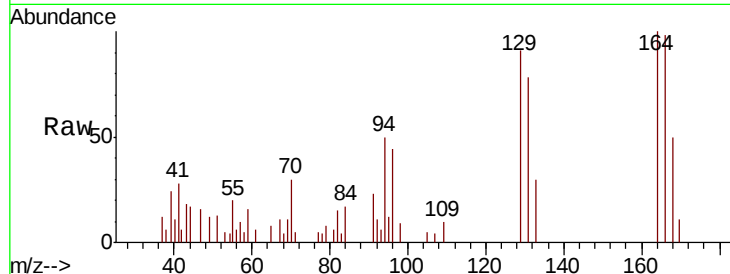
Ion Ratio Lower Upper

164 100

166 88.7 99.3 148.9#

129 86.5 79.3 118.9

131 78.4 76.5 114.7

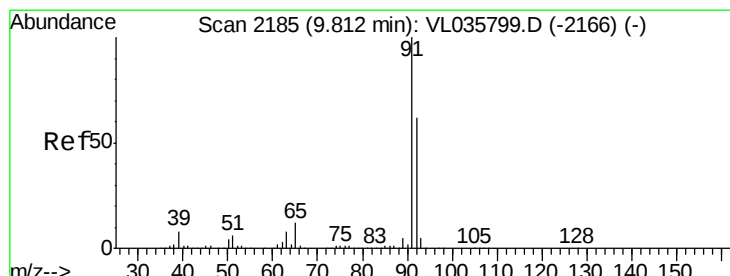
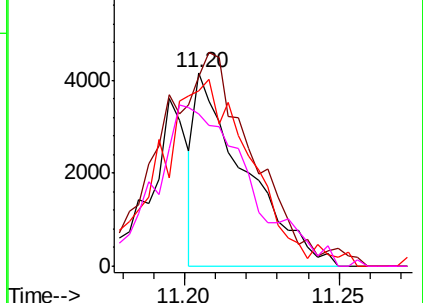
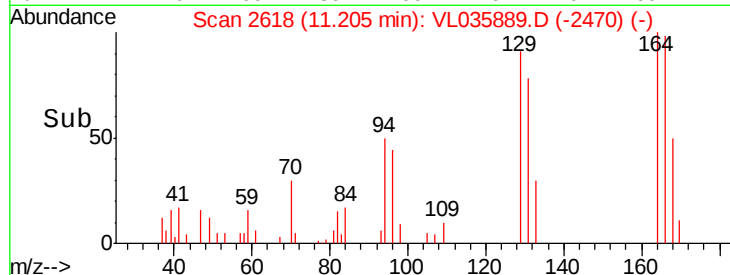


Abundance Ion 163.90 (163.60 to 164.60): V

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: 39.392 ppbv

RT: 9.79 min Scan# 2179

Delta R.T. -0.02 min

Lab File: VL035889.D

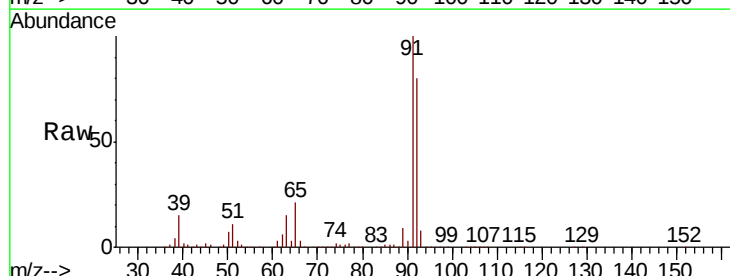
Acq: 6 Nov 2020 10:43

Tgt Ion: 91 Resp:12533274

Ion Ratio Lower Upper

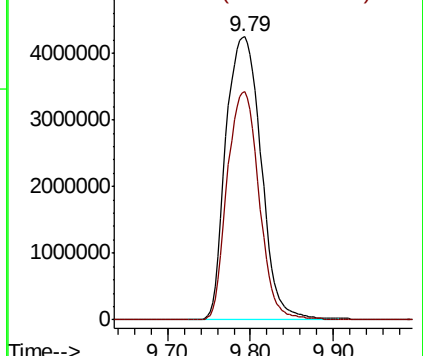
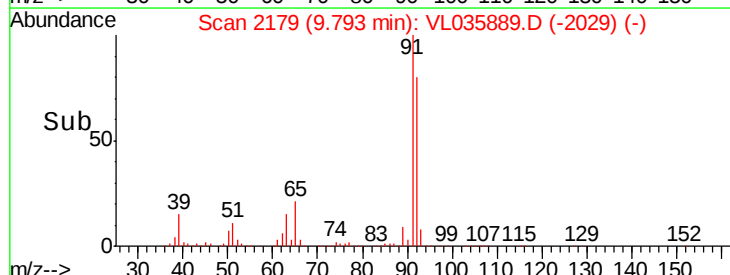
91 100

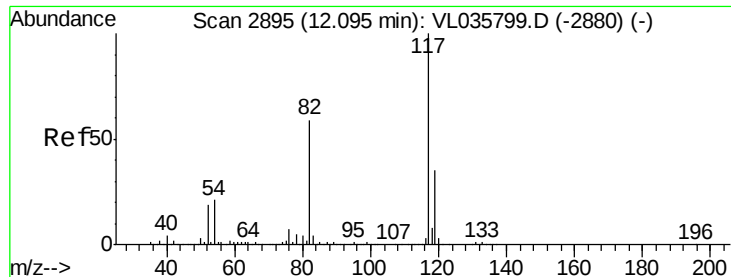
92 73.3 49.8 74.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

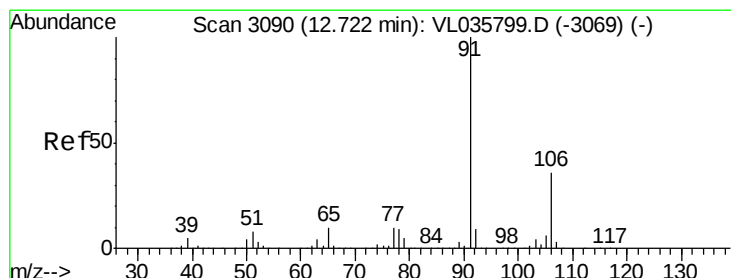
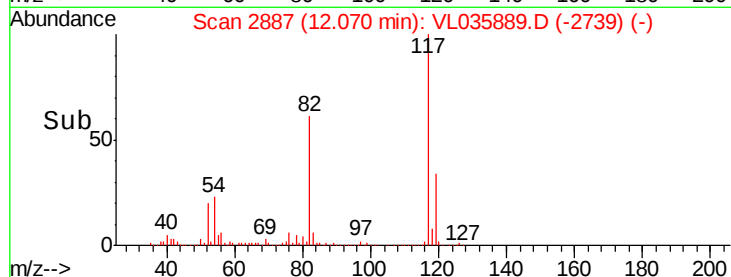
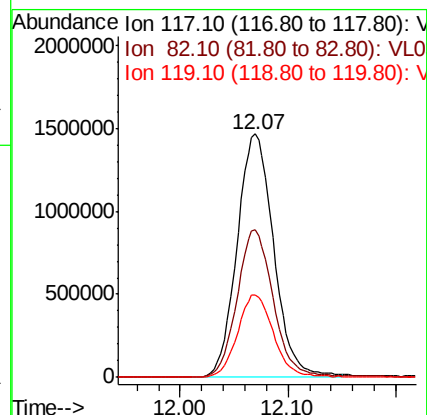
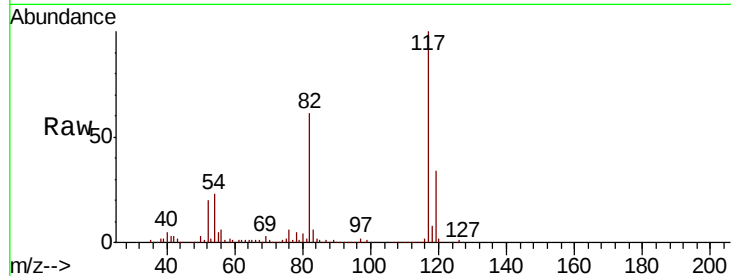




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.07 min Scan# 2887
Delta R.T. -0.03 min
Lab File: VL035889.D
Acq: 6 Nov 2020 10:43

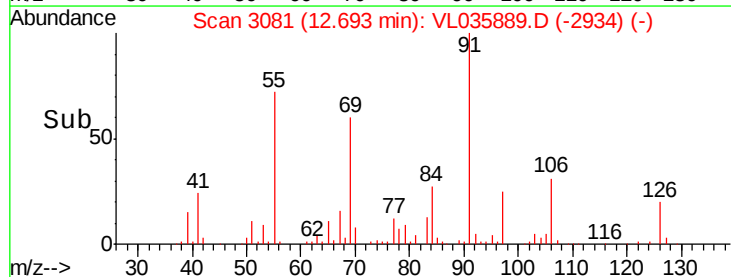
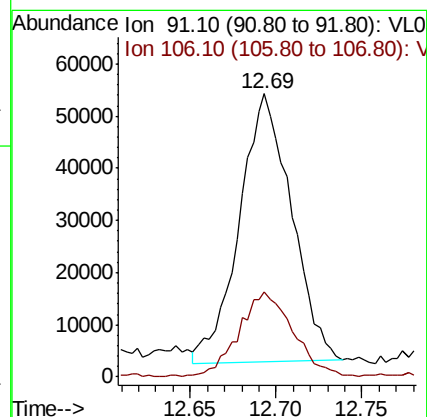
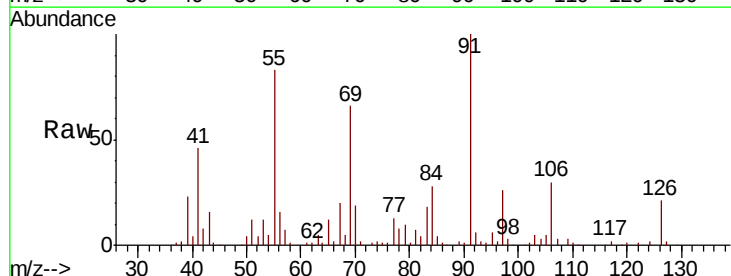
Instrument :
MSVOA_L
ClientSampleId :
SSSG-1

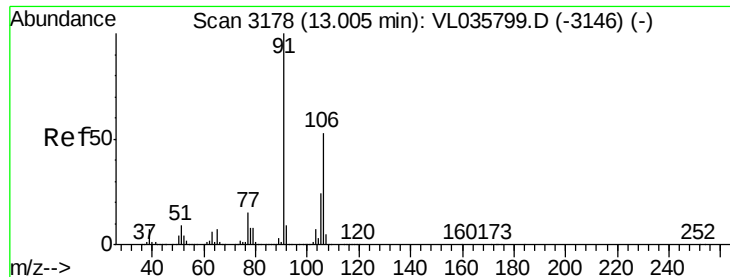
Tot Ion:117 Resp: 3471343
Ion Ratio Lower Upper
117 100
82 61.3 50.6 76.0
119 34.0 52.6 78.8#



#58
Ethyl Benzene
Concen: 0.256 ppbv
RT: 12.69 min Scan# 3081
Delta R.T. -0.03 min
Lab File: VL035889.D
Acq: 6 Nov 2020 10:43

Tgt Ion: 91 Resp: 108251
Ion Ratio Lower Upper
91 100
106 31.2 28.6 43.0

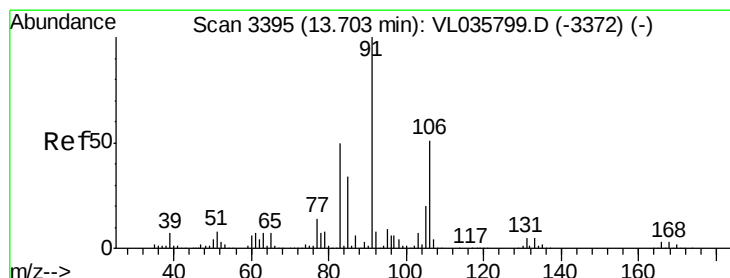
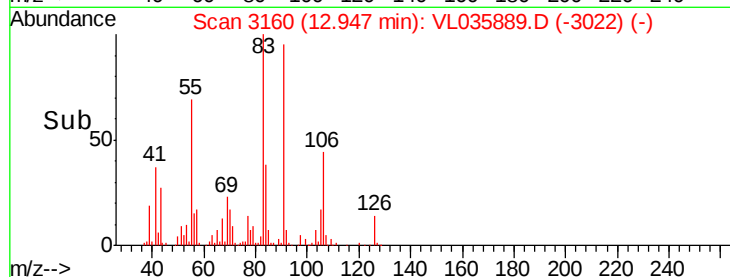
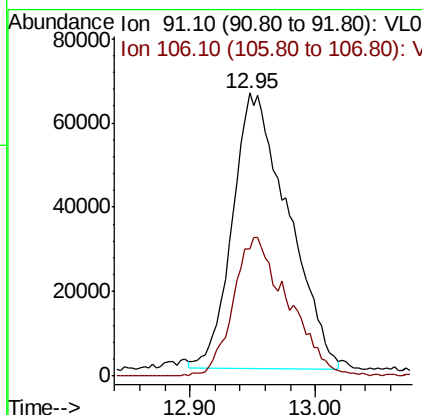
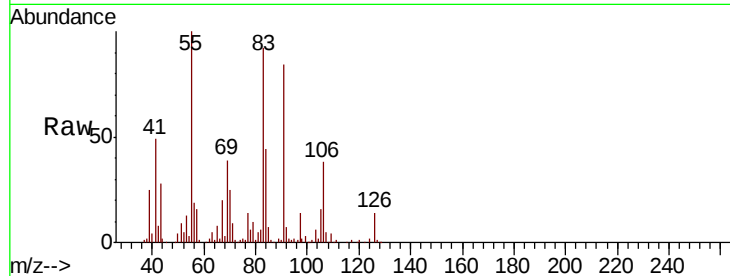




#59
m/p-Xylene
Concen: 0.564 ppbv
RT: 12.95 min Scan# 3160
Delta R.T. -0.06 min
Lab File: VL035889.D
Acq: 6 Nov 2020 10:43

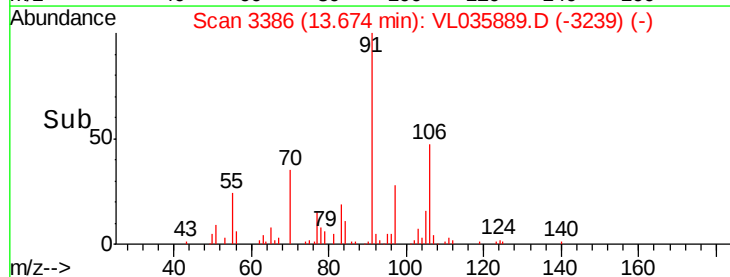
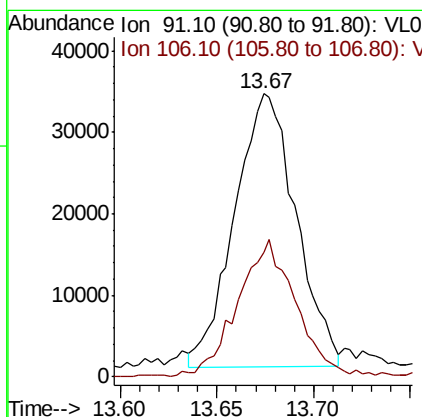
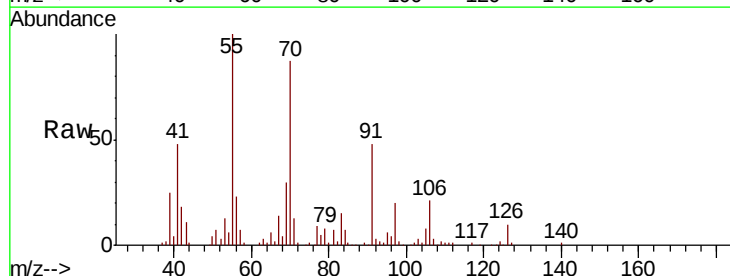
Instrument :
MSVOA_L
ClientSampled :
SSSG-1

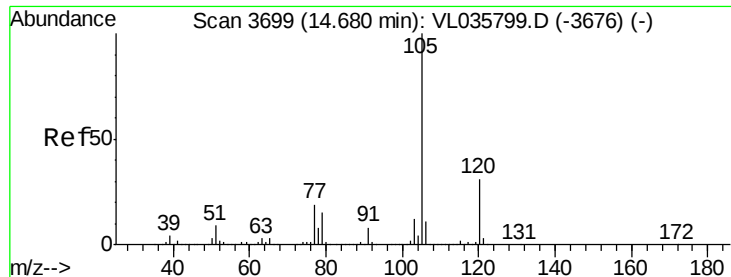
Tot Ion: 91 Resp: 201747
Ion Ratio Lower Upper
91 100
106 50.4 39.5 59.3



#60
o-Xylene
Concen: 0.213 ppbv
RT: 13.67 min Scan# 3386
Delta R.T. -0.03 min
Lab File: VL035889.D
Acq: 6 Nov 2020 10:43

Tgt Ion: 91 Resp: 74033
Ion Ratio Lower Upper
91 100
106 48.9 24.8 74.4





#62

Isopropylbenzene

Concen: 3.002 ppbv

RT: 14.65 min Scan# 3690

Delta R.T. -0.03 min

Lab File: VL035889.D

Acq: 6 Nov 2020 10:43

Instrument :

MSVOA_L

ClientSampleId :

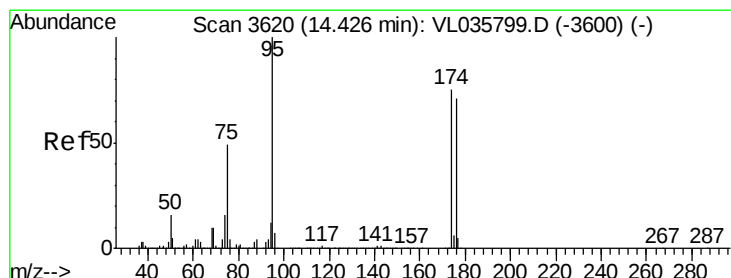
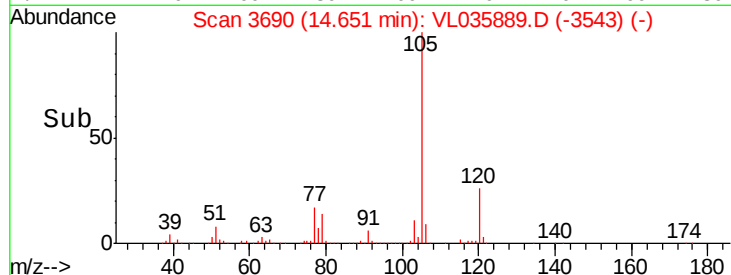
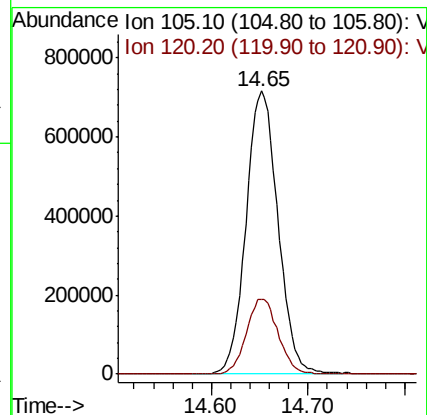
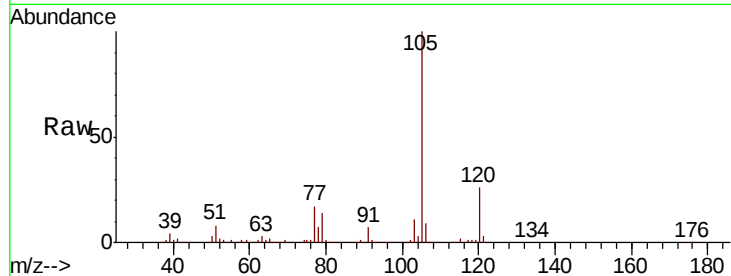
SSSG-1

Tot Ion:105 Resp: 1641739

Ion Ratio Lower Upper

105 100

120 26.7 23.5 35.3



#68

1-Bromo-4-Fluorobenzene

Concen: 10.340 ppbv

RT: 14.40 min Scan# 3612

Delta R.T. -0.03 min

Lab File: VL035889.D

Acq: 6 Nov 2020 10:43

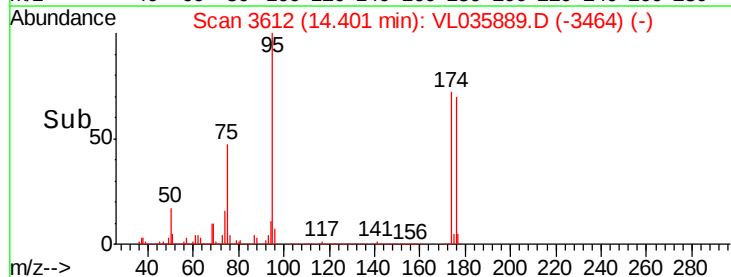
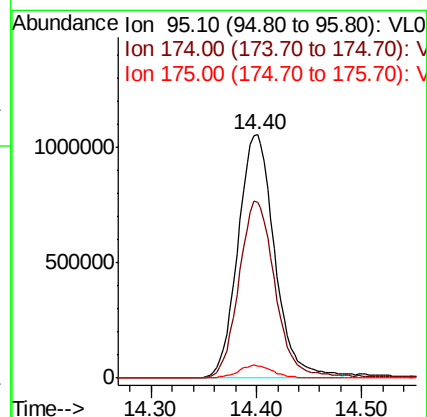
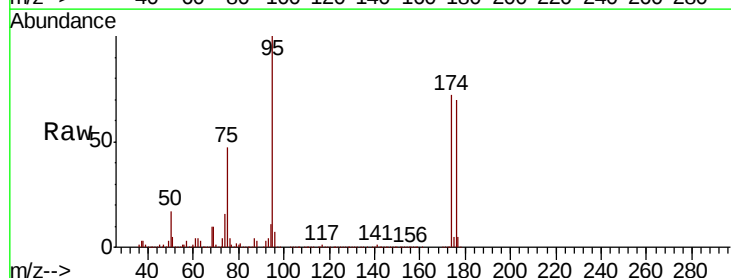
Tgt Ion: 95 Resp: 2550125

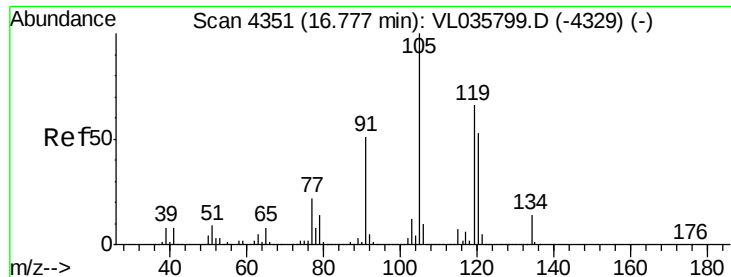
Ion Ratio Lower Upper

95 100

174 73.7 59.8 89.6

175 5.2 4.3 6.5





#74
 1,2,4-Trimethylbenzene
 Concen: 0.125 ppbv
 RT: 16.74 min Scan# 4340
 Delta R.T. -0.04 min
 Lab File: VL035889.D
 Acq: 6 Nov 2020 10:43

Instrument :
 MSVOA_L
 ClientSampleId :
 SSSG-1

Tot Ion	Ratio	Lower	Upper
105	100		
120	37.2	42.0	63.0#
91	10.4	41.0	61.6#
77	11.0	17.3	25.9#

