

Data File : VL033535.D
Acq On : 4 Apr 2019 16:23
Operator : SY/AP
Sample : K2096-01
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
A-1

Quant Time: Apr 05 01:56:51 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL032519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Mar 26 16:00:50 2019
QLast Update : Tue Mar 26 16:00:50 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	1053788	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	2118646	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	2318508	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.57 95 1919130 10.56 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 105.60%

Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.07	85	119715	0.779 ppbv	93
3) Chlorodifluoromethane	2.99	51	201020	1.657 ppbv #	71
4) Chloromethane	3.17	50	15133	0.236 ppbv	95
9) Propene	3.24	41	127747	2.507 ppbv	88
10) Heptane	8.24	43	83164	0.611 ppbv	98
11) Trichlorofluoromethane	4.00	101	44082	0.233 ppbv	96
12) 1,1,2-Trichlorotrifluoroet	4.55	101	6058	0.048 ppbv #	66
13) Ethanol	3.65	45	2150482	163.113 ppbv	65
15) Acetone	3.90	43	1320214	10.419 ppbv	99
16) 1,3-Butadiene	3.35	39	8574	0.171 ppbv #	41
17) tert-Butyl alcohol	4.35	59	1335	0.057 ppbv #	73
19) Isopropyl Alcohol	4.03	45	538879	6.724 ppbv #	98
20) Methylene Chloride	4.41	84	181284	3.370 ppbv	95
23) Vinyl Acetate	5.14	43	41952	0.233 ppbv #	76
25) Ethyl Acetate	5.77	43	488892	2.080 ppbv #	87
26) Hexane	5.78	57	499860	4.782 ppbv #	51
30) Cyclohexane	7.24	84	4356	0.053 ppbv #	1
31) cis-1,2-Dichloroethene	5.76	61	16681	0.161 ppbv #	31
34) 2-Butanone	5.33	43	61075	0.480 ppbv	99
35) Carbon Tetrachloride	7.13	117	7871	0.052 ppbv #	96
36) Benzene	6.99	78	33323	0.187 ppbv #	89
37) 1,2-Dichloroethane	6.41	62	3673	0.031 ppbv #	84
39) 1,2-Dichloropropane	7.29	63	552861	7.939 ppbv #	24
41) Tetrahydrofuran	5.78	42	197764	2.825 ppbv #	51
43) Methyl Methacrylate	8.13	69	7302	0.101 ppbv #	41
53) Toluene	9.94	91	1503167	7.277 ppbv	100
58) Ethyl Benzene	12.86	91	19483	0.063 ppbv	93
59) m/p-Xylene	13.14	91	12300	0.044 ppbv #	100
60) o-Xylene	13.85	91	26943	0.101 ppbv #	48
74) 1,2,4-Trimethylbenzene	16.92	105	53321	0.173 ppbv #	68
79) Naphthalene	22.41	128	18630	0.071 ppbv #	87

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

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A-1

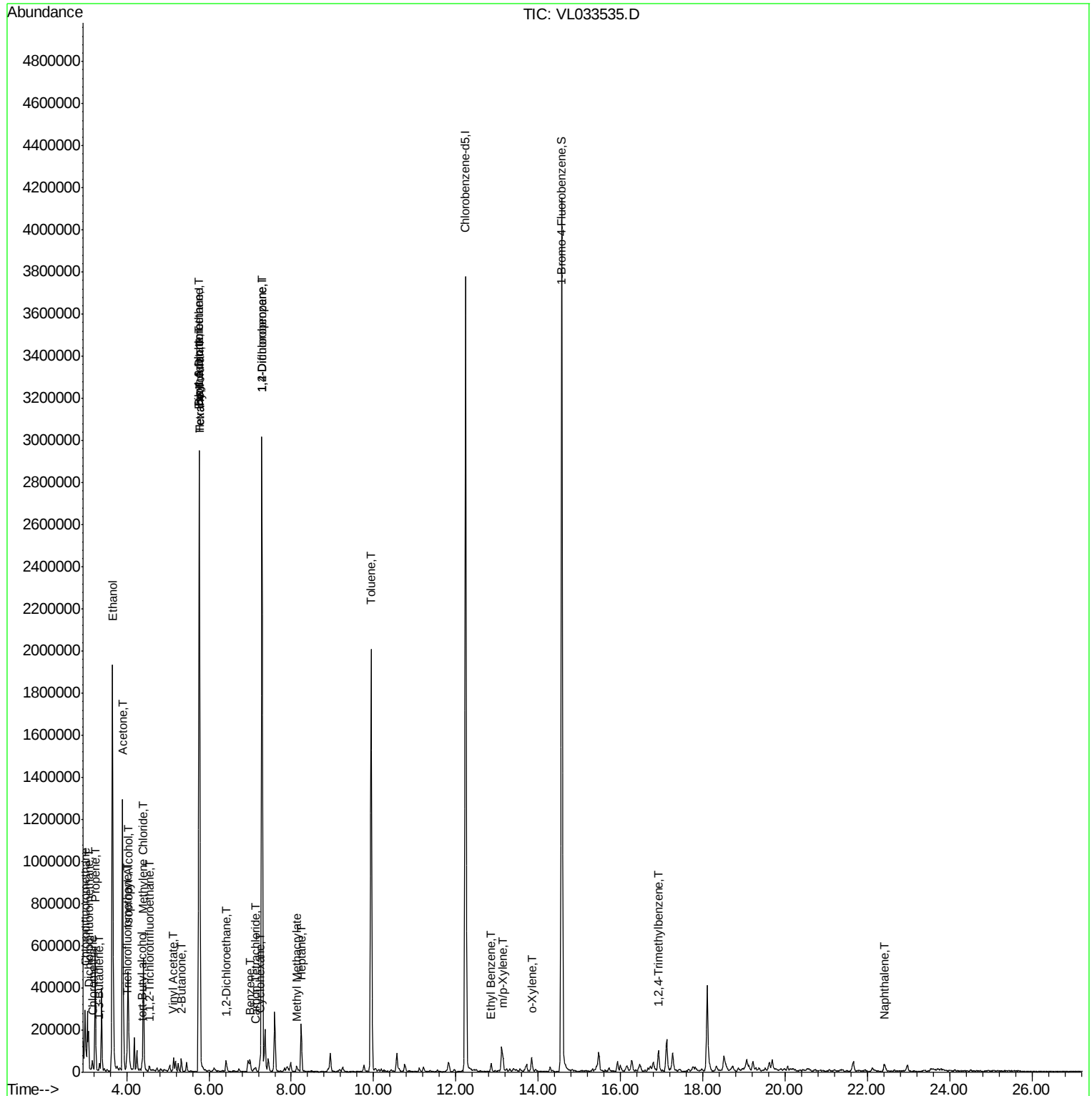
Quant Time: Apr 05 01:56:51 2019

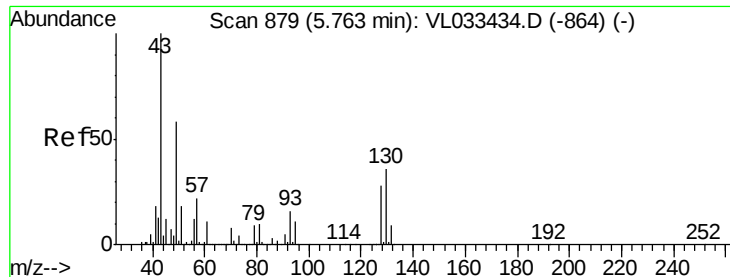
Quant Method : Z:\V0ASRV\HPCHEM1\MSV0A_L\METHODS\VL032519AIR.M

Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_LTue Mar 26 16:00:50 2019

QLast Update : Tue Mar 26 16:00:50 2019

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.01 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Instrument :

MSVOA_L

ClientSampleId :

A-1

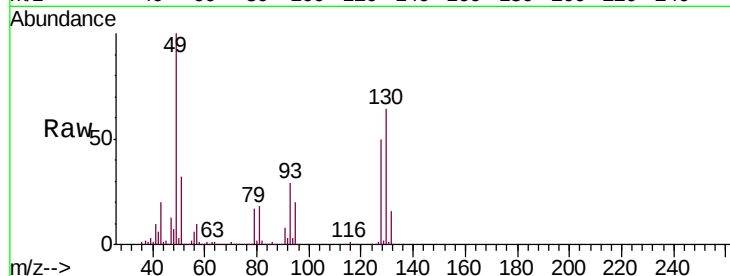
Tgt Ion: 49 Resp: 1053788

Ion Ratio Lower Upper

49 100

128 49.6 24.0 72.0

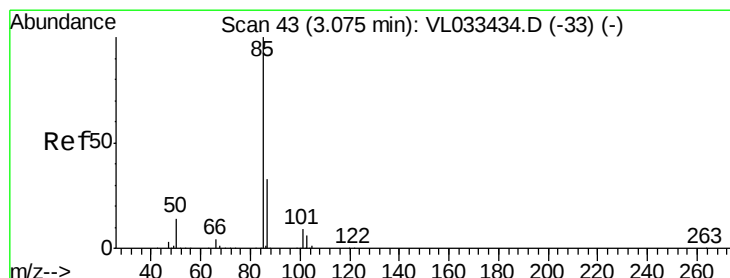
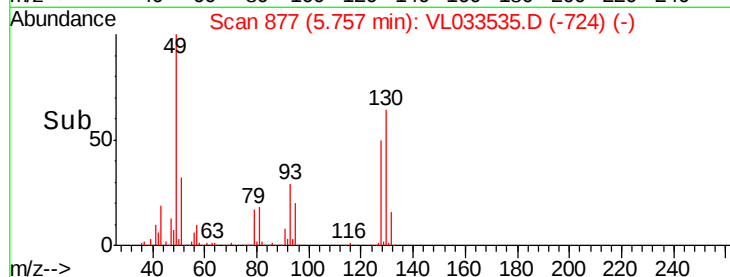
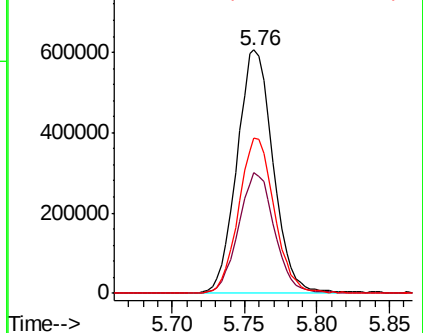
130 63.4 31.2 93.6



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: 0.779 ppbv

RT: 3.07 min Scan# 43

Delta R.T. -0.00 min

Lab File: VL033535.D

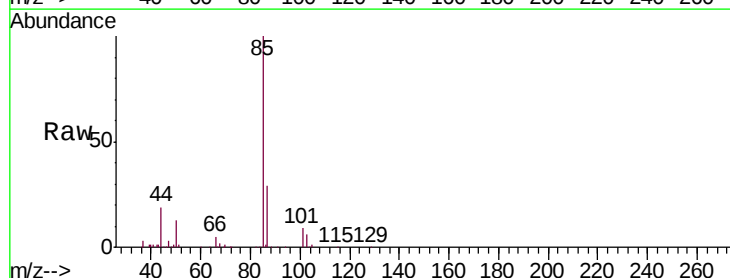
Acq: 4 Apr 2019 16:23

Tgt Ion: 85 Resp: 119715

Ion Ratio Lower Upper

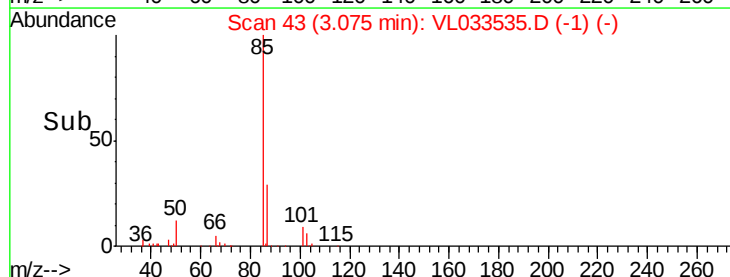
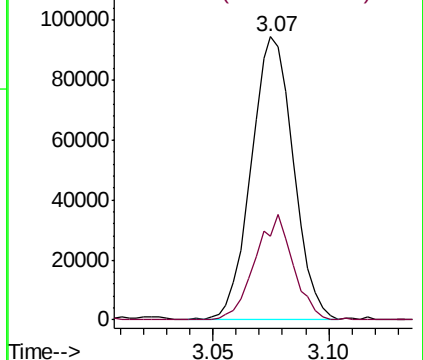
85 100

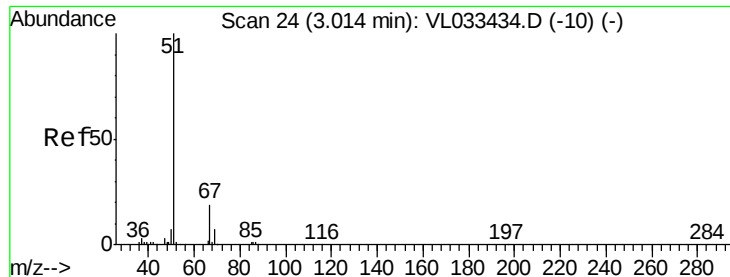
87 29.4 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 1.657 ppbv

RT: 2.99 min Scan# 16

Delta R.T. -0.03 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Instrument :

MSVOA_L

ClientSampleId :

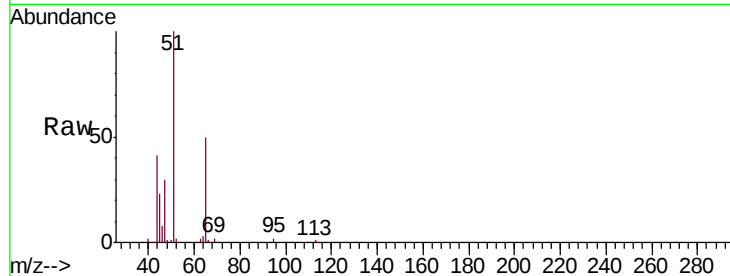
A-1

Tgt Ion: 51 Resp: 201020

Ion Ratio Lower Upper

51 100

67 6.2 15.7 23.5#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

2.99

120000

100000

80000

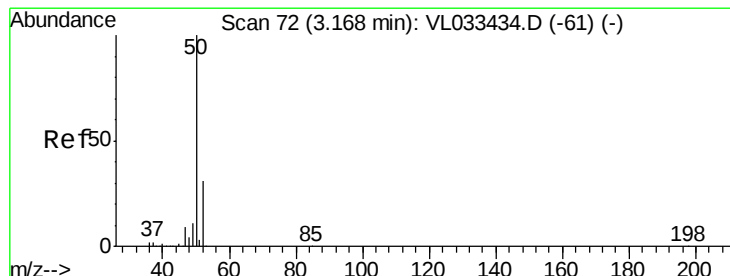
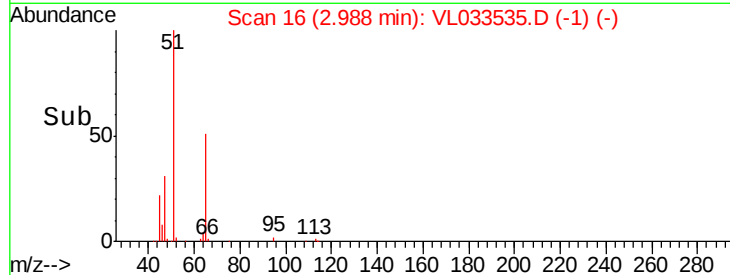
60000

40000

20000

0

Time-->



#4

Chloromethane

Concen: 0.236 ppbv

RT: 3.17 min Scan# 71

Delta R.T. -0.00 min

Lab File: VL033535.D

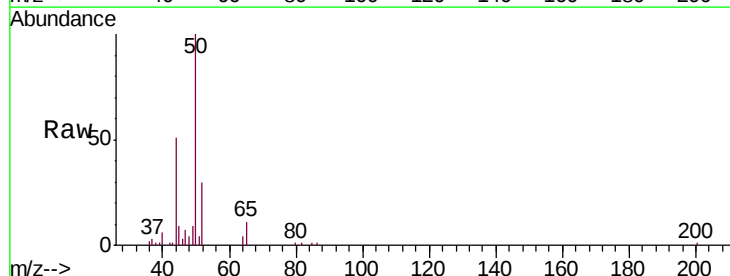
Acq: 4 Apr 2019 16:23

Tgt Ion: 50 Resp: 15133

Ion Ratio Lower Upper

50 100

52 28.4 25.0 37.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

3.17

25000

20000

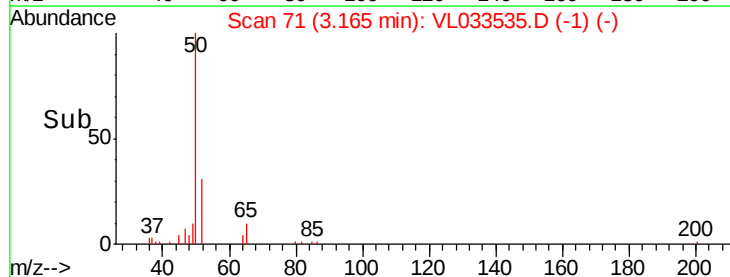
15000

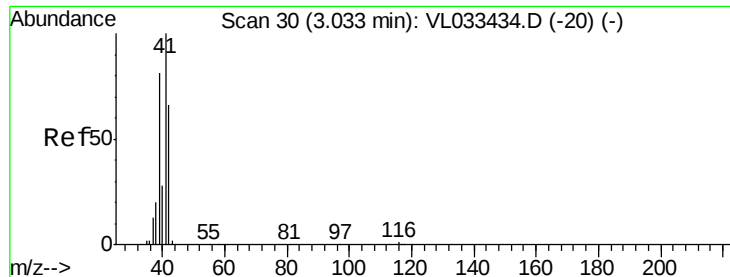
10000

5000

0

Time-->





#9

Propene

Concen: 2.507 ppbv

RT: 3.24 min Scan# 93

Delta R.T. 0.20 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Instrument :

MSVOA_L

ClientSampleId :

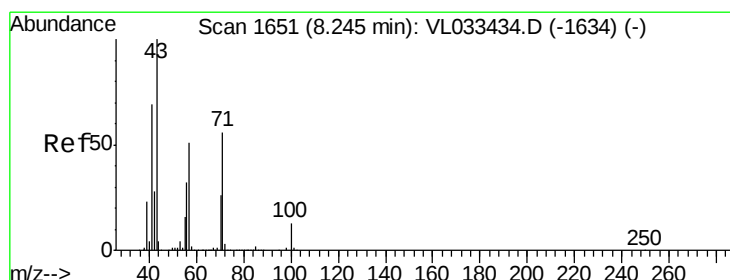
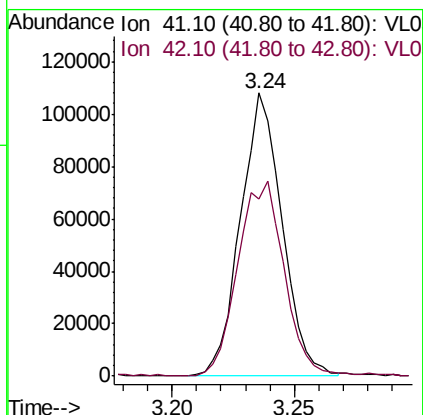
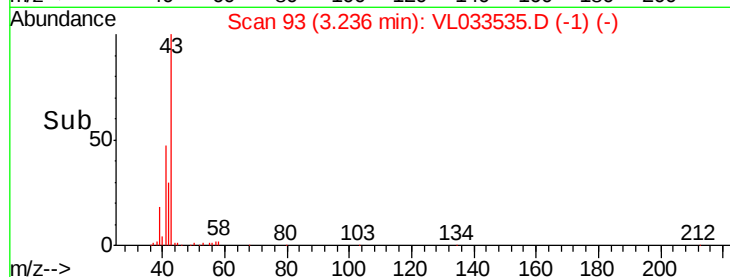
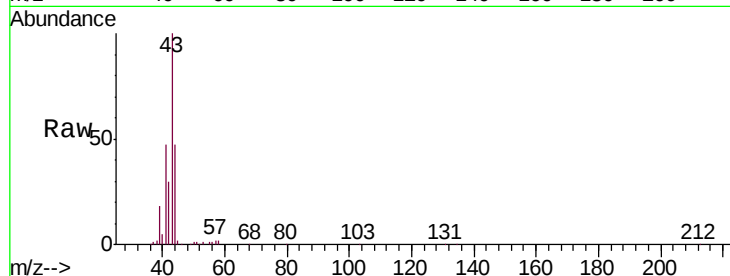
A-1

Tgt Ion: 41 Resp: 127747

Ion Ratio Lower Upper

41 100

42 76.7 53.9 80.9



#10

Heptane

Concen: 0.611 ppbv

RT: 8.24 min Scan# 1650

Delta R.T. -0.00 min

Lab File: VL033535.D

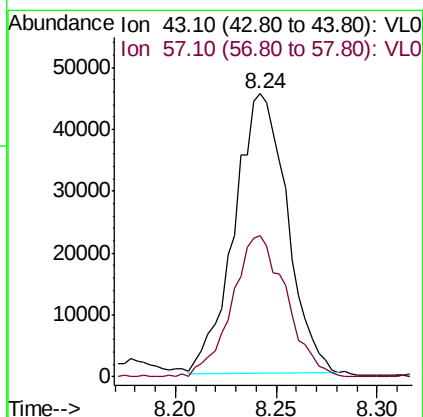
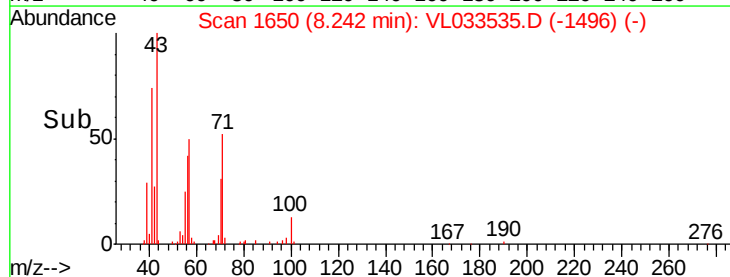
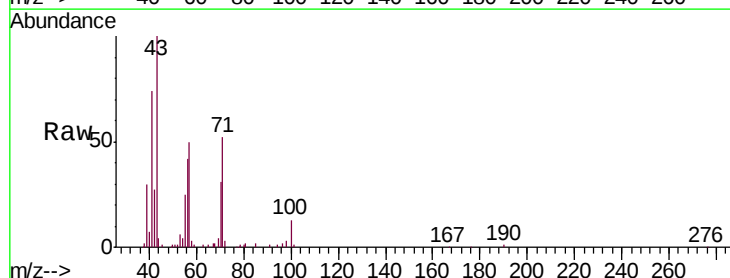
Acq: 4 Apr 2019 16:23

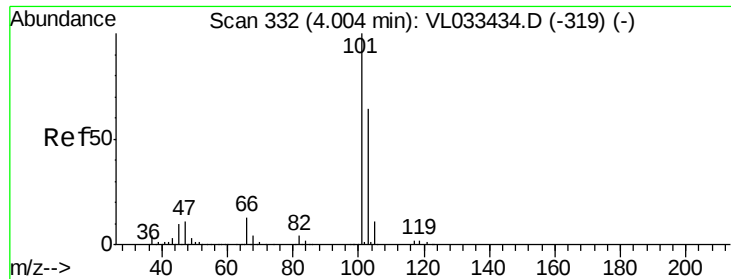
Tgt Ion: 43 Resp: 83164

Ion Ratio Lower Upper

43 100

57 51.7 40.6 60.8

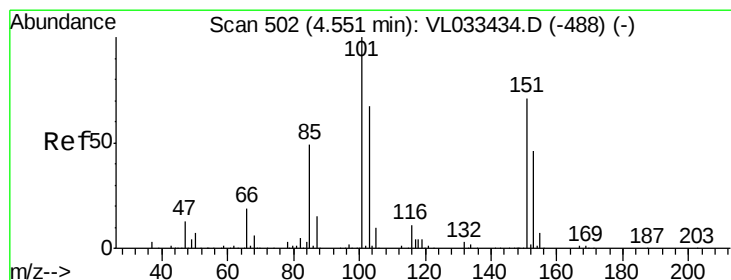
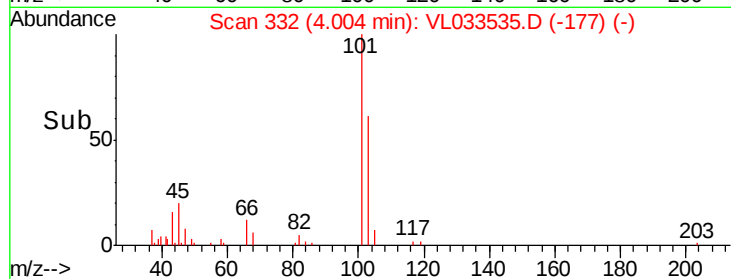
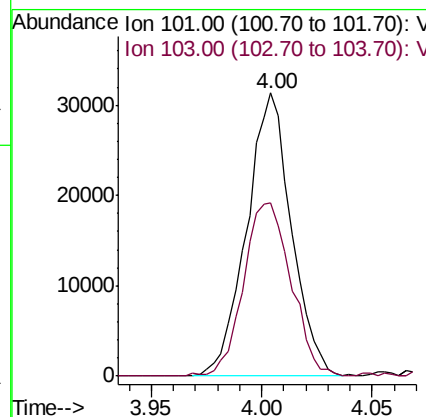
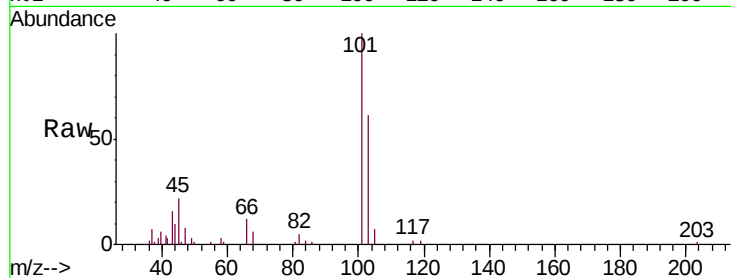




#11
 Trichlorofluoromethane
 Concen: 0.233 ppbv
 RT: 4.00 min Scan# 332
 Delta R.T. -0.00 min
 Lab File: VL033535.D
 Acq: 4 Apr 2019 16:23

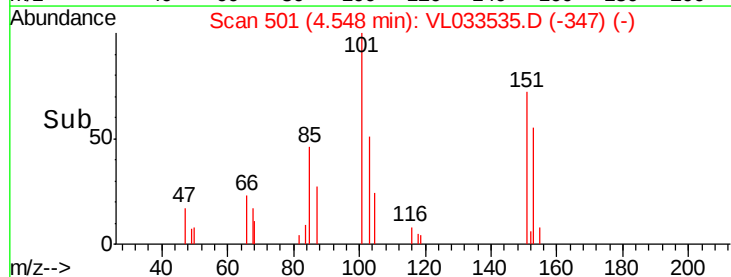
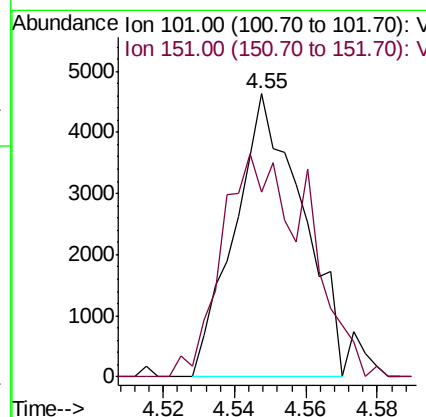
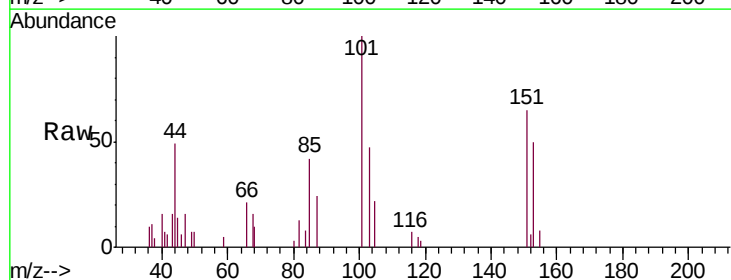
Instrument :
 MSVOA_L
 ClientSampleId :
 A-1

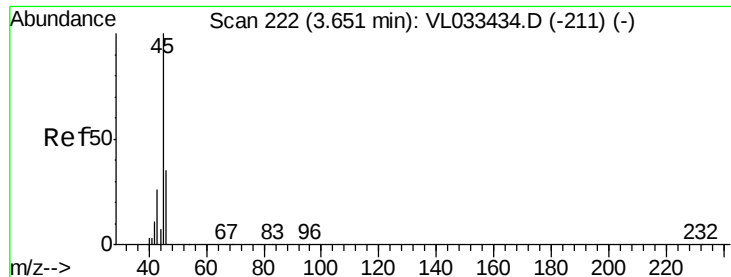
Tgt Ion:101 Resp: 44082
 Ion Ratio Lower Upper
 101 100
 103 61.0 51.3 76.9



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.048 ppbv
 RT: 4.55 min Scan# 501
 Delta R.T. -0.00 min
 Lab File: VL033535.D
 Acq: 4 Apr 2019 16:23

Tgt Ion:101 Resp: 6058
 Ion Ratio Lower Upper
 101 100
 151 100.8 57.7 86.5#

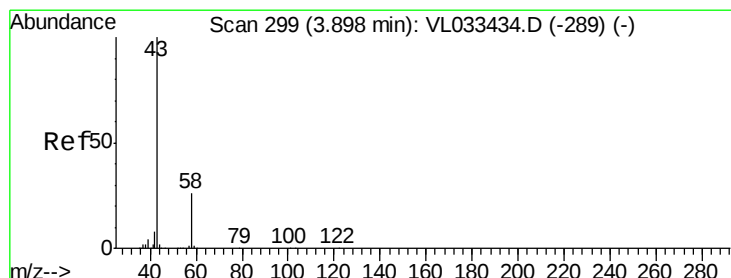
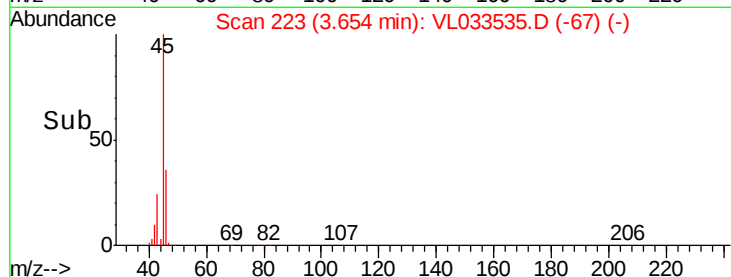
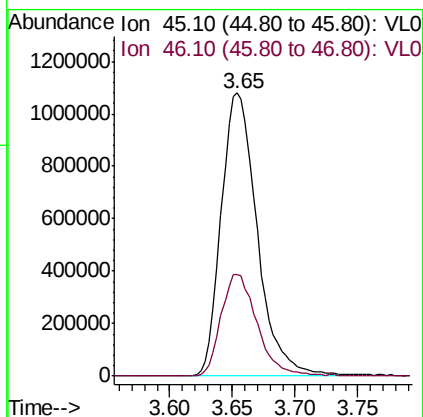
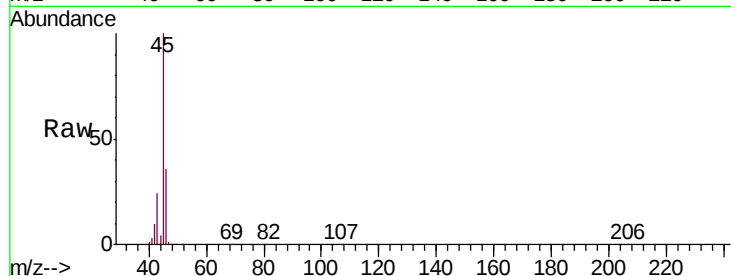




#13
Ethanol
Concen: 163.113 ppbv
RT: 3.65 min Scan# 223
Delta R.T. 0.00 min
Lab File: VL033535.D
Acq: 4 Apr 2019 16:23

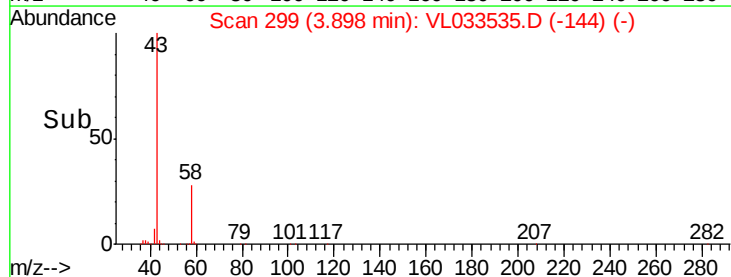
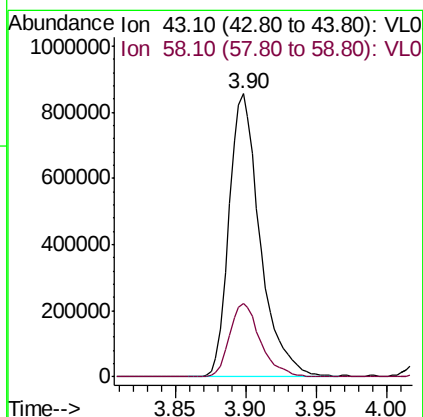
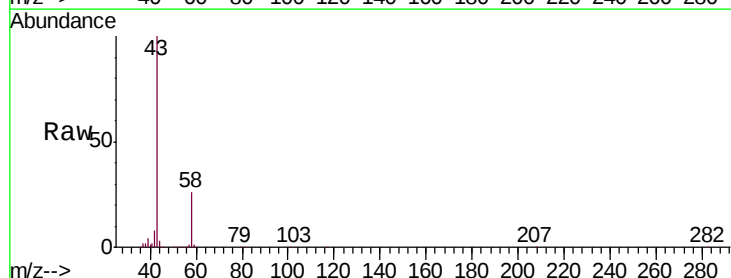
Instrument :
MSVOA_L
ClientSampleId :
A-1

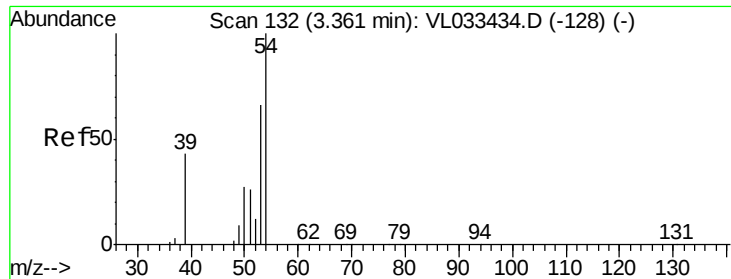
Tgt Ion: 45 Resp: 2150482
Ion Ratio Lower Upper
45 100
46 36.4 25.4 101.8



#15
Acetone
Concen: 10.419 ppbv
RT: 3.90 min Scan# 299
Delta R.T. -0.00 min
Lab File: VL033535.D
Acq: 4 Apr 2019 16:23

Tgt Ion: 43 Resp: 1320214
Ion Ratio Lower Upper
43 100
58 26.1 20.5 30.7

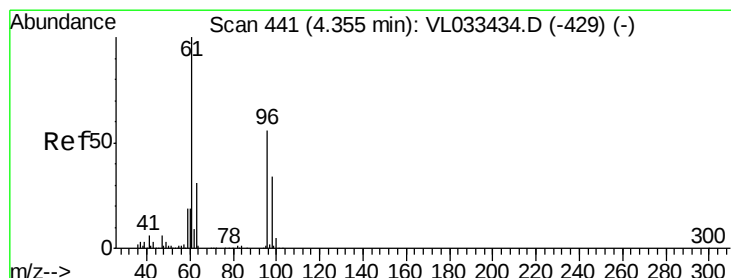
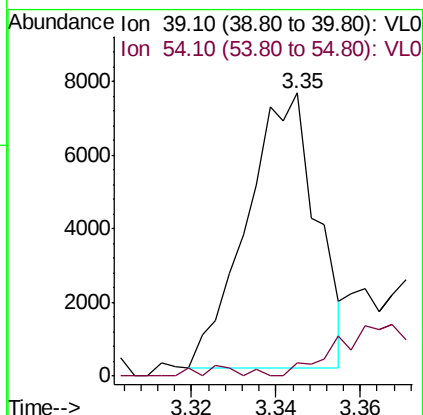
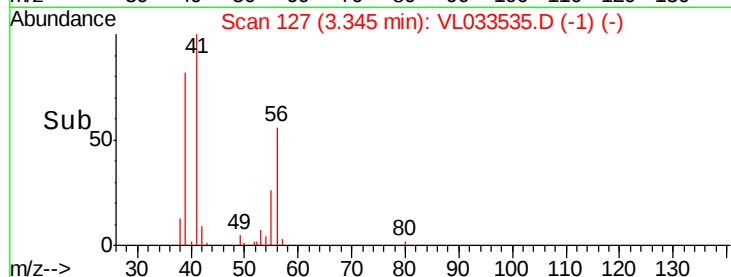
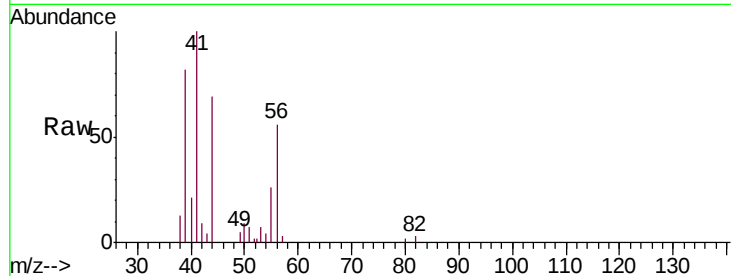




#16
 1,3-Butadiene
 Concen: 0.171 ppbv
 RT: 3.35 min Scan# 127
 Delta R.T. -0.02 min
 Lab File: VL033535.D
 Acq: 4 Apr 2019 16:23

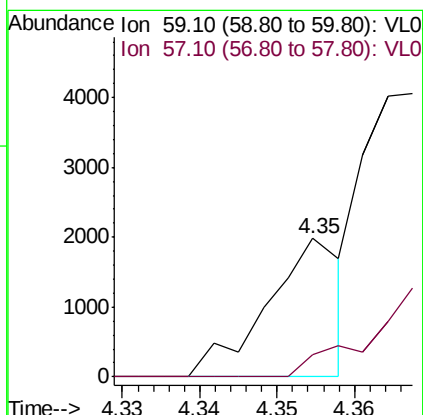
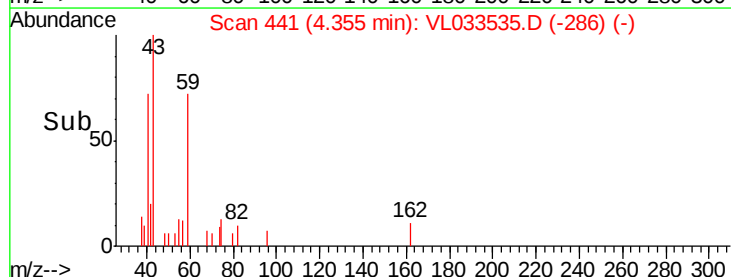
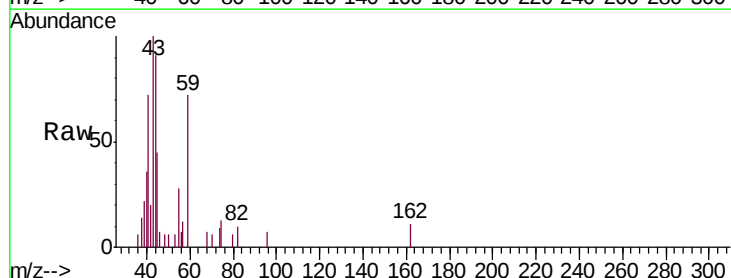
Instrument :
 MSVOA_L
 ClientSampled :
 A-1

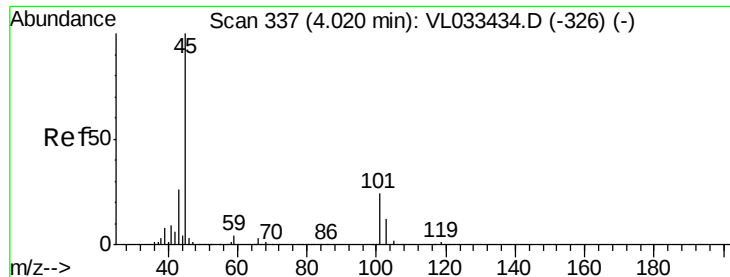
Tgt Ion: 39 Resp: 8574
 Ion Ratio Lower Upper
 39 100
 54 32.7 69.4 104.2#



#17
 tert-Butyl alcohol
 Concen: 0.057 ppbv
 RT: 4.35 min Scan# 441
 Delta R.T. -0.00 min
 Lab File: VL033535.D
 Acq: 4 Apr 2019 16:23

Tgt Ion: 59 Resp: 1335
 Ion Ratio Lower Upper
 59 100
 57 0.0 7.8 11.8#





#19

Isopropyl Alcohol

Concen: 6.724 ppbv

RT: 4.03 min Scan# 341

Delta R.T. 0.01 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Instrument :

MSVOA_L

ClientSampleId :

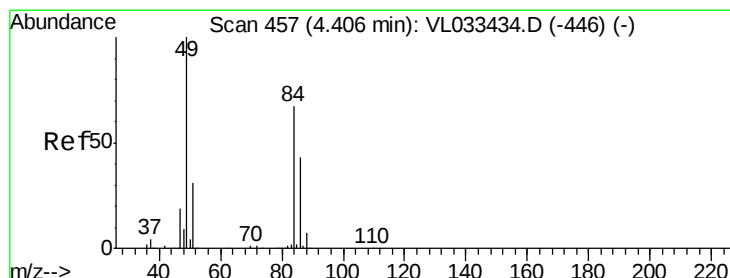
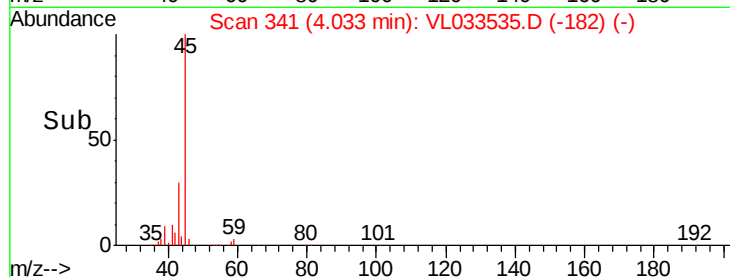
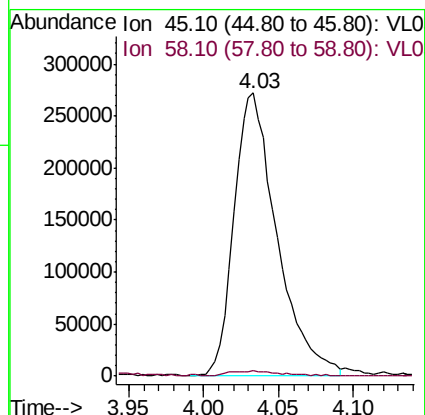
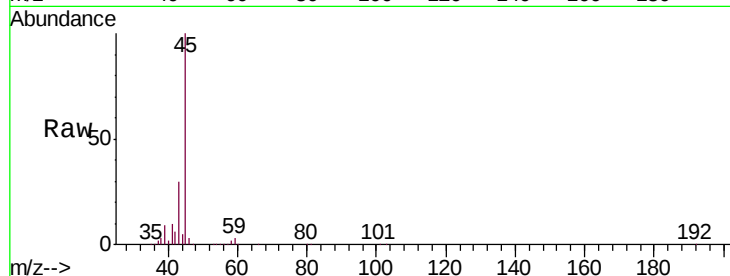
A-1

Tgt Ion: 45 Resp: 538879

Ion Ratio Lower Upper

45 100

58 2.4 1.4 2.2#



#20

Methylene Chloride

Concen: 3.370 ppbv

RT: 4.41 min Scan# 457

Delta R.T. -0.00 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Tgt Ion: 84 Resp: 181284

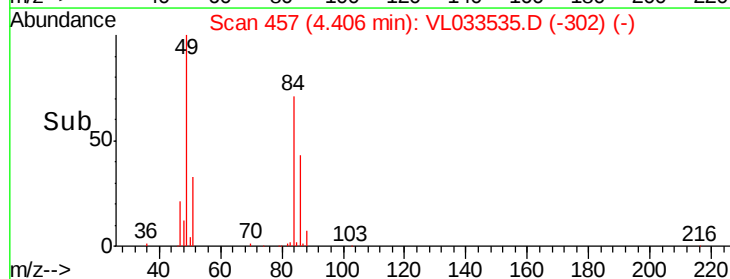
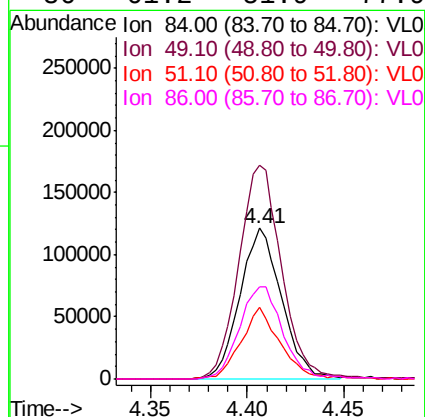
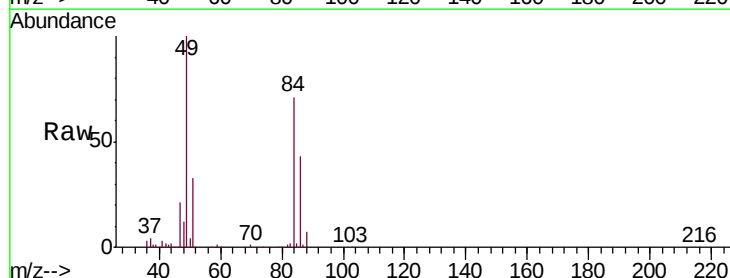
Ion Ratio Lower Upper

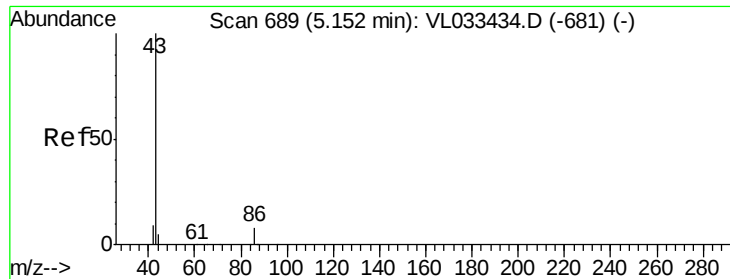
84 100

49 141.5 120.0 180.0

51 47.4 36.7 55.1

86 61.2 51.9 77.9





#23

Vinyl Acetate

Concen: 0.233 ppbv

RT: 5.14 min Scan# 685

Delta R.T. -0.01 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Instrument :

MSVOA_L

ClientSampleId :

A-1

Tgt Ion: 43 Resp: 41952

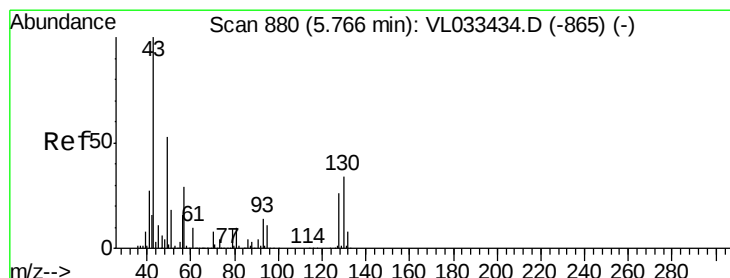
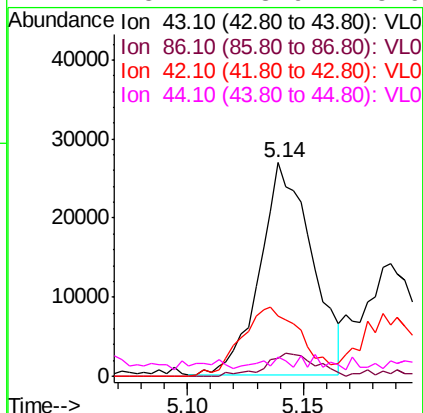
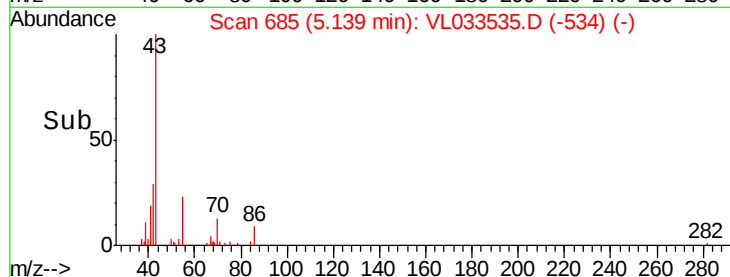
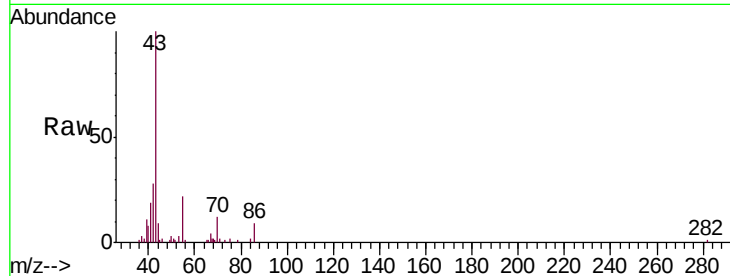
Ion Ratio Lower Upper

43 100

86 8.7 5.6 8.4#

42 28.1 8.0 12.0#

44 5.2 3.9 5.9



#25

Ethyl Acetate

Concen: 2.080 ppbv

RT: 5.77 min Scan# 882

Delta R.T. 0.01 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Tgt Ion: 43 Resp: 488892

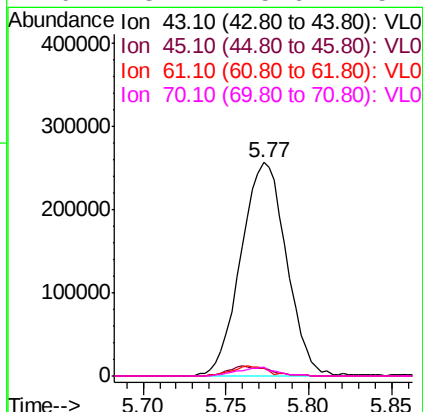
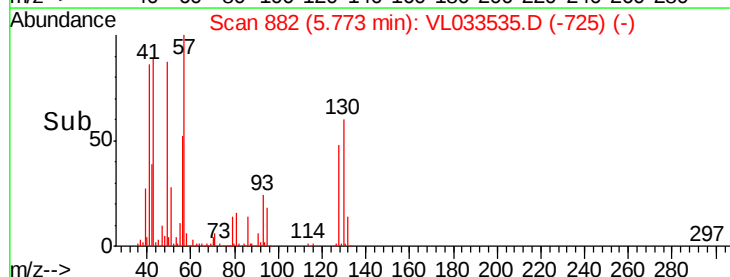
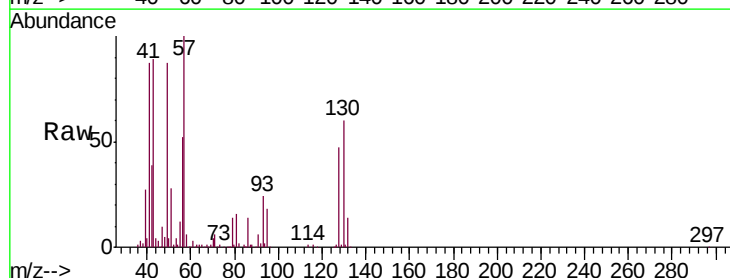
Ion Ratio Lower Upper

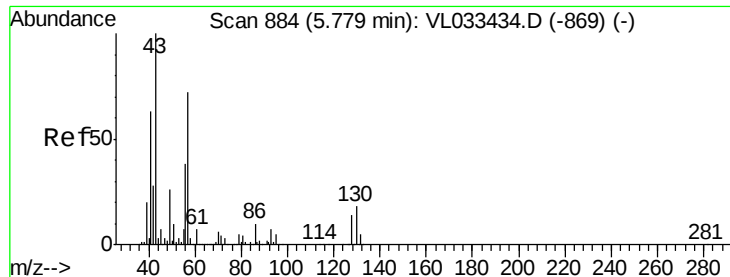
43 100

45 4.4 7.8 11.6#

61 4.0 7.3 10.9#

70 3.4 5.6 8.4#

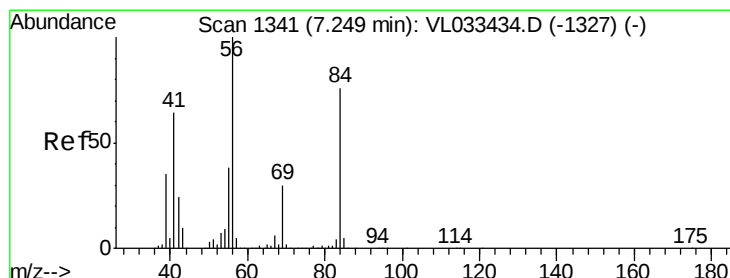
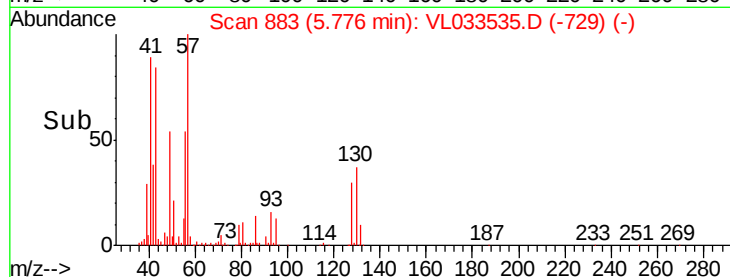
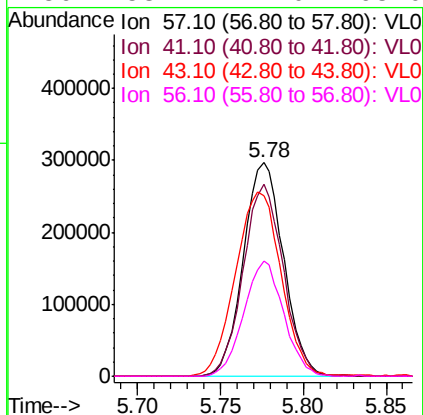
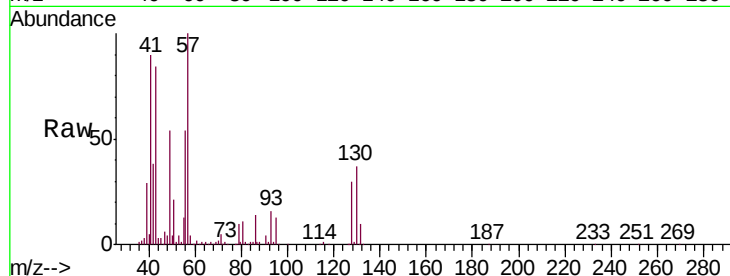




#26
Hexane
Concen: 4.782 ppbv
RT: 5.78 min Scan# 883
Delta R.T. -0.00 min
Lab File: VL033535.D
Acq: 4 Apr 2019 16:23

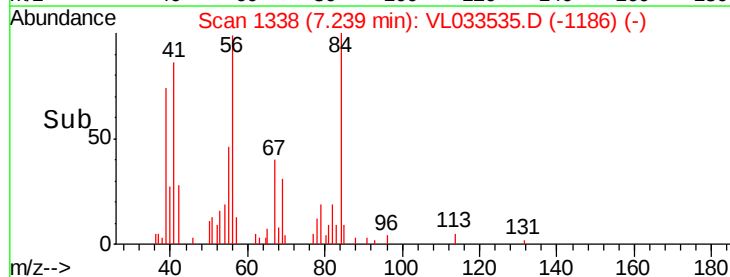
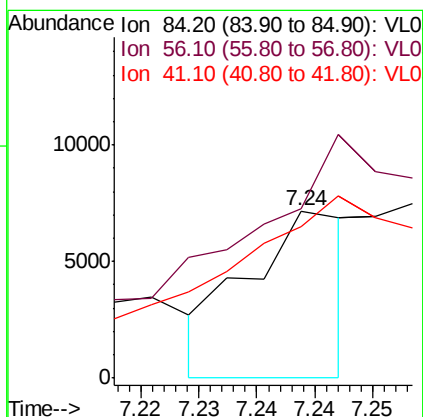
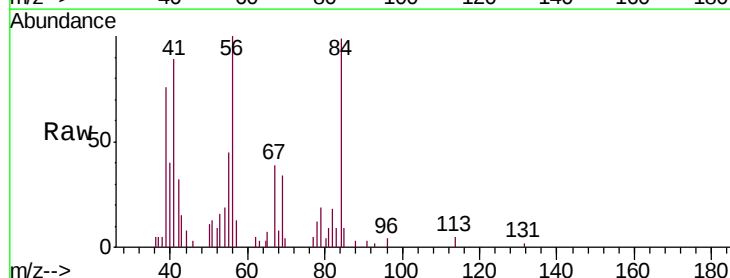
Instrument :
MSVOA_L
ClientSampled :
A-1

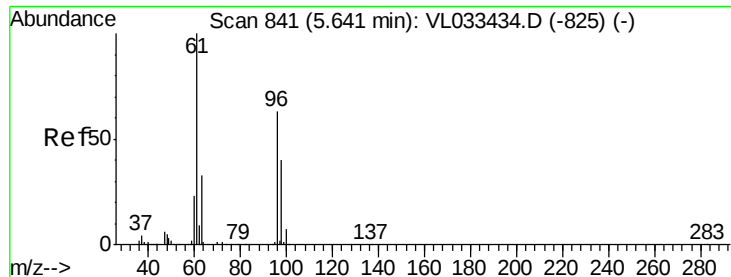
Tgt Ion: 57 Resp: 499860
Ion Ratio Lower Upper
57 100
41 90.6 70.7 106.1
43 98.7 182.6 274.0#
56 53.7 42.0 63.0



#30
Cyclohexane
Concen: 0.053 ppbv
RT: 7.24 min Scan# 1338
Delta R.T. -0.01 min
Lab File: VL033535.D
Acq: 4 Apr 2019 16:23

Tgt Ion: 84 Resp: 4356
Ion Ratio Lower Upper
84 100
56 0.0 109.7 164.5#
41 348.9 68.2 102.2#



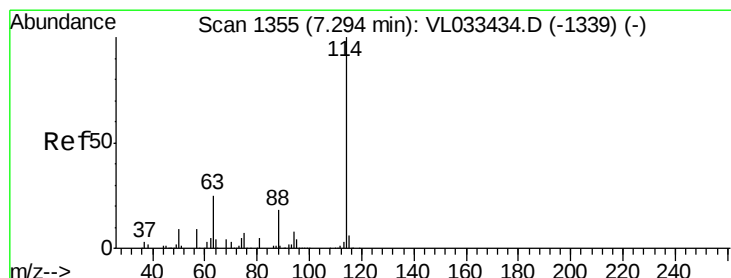
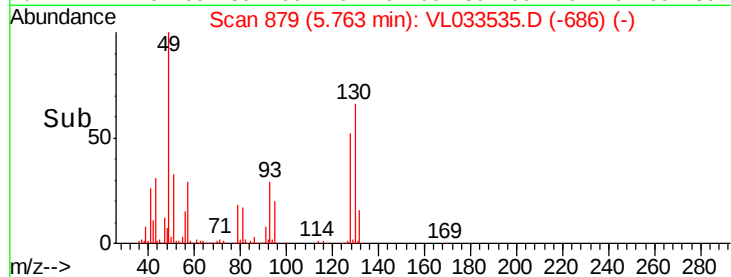
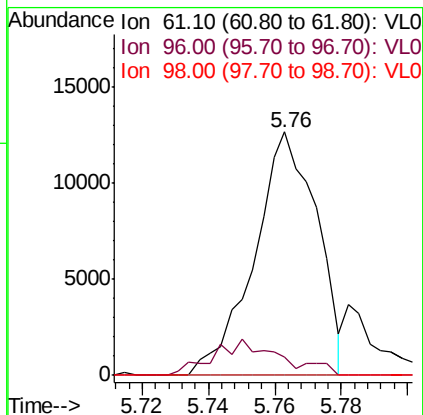
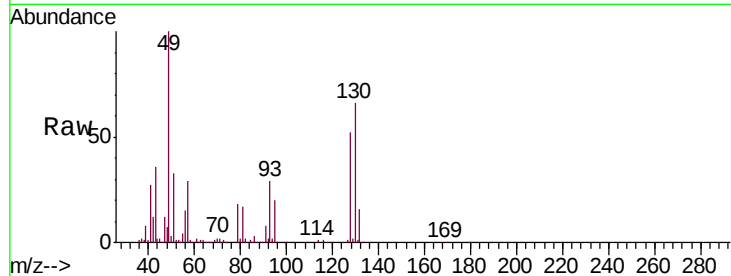


#31

cis-1,2-Dichloroethene
 Concen: 0.161 ppbv
 RT: 5.76 min Scan# 879
 Delta R.T. 0.12 min
 Lab File: VL033535.D
 Acq: 4 Apr 2019 16:23

Instrument :
 MSVOA_L
 ClientSampleId :
 A-1

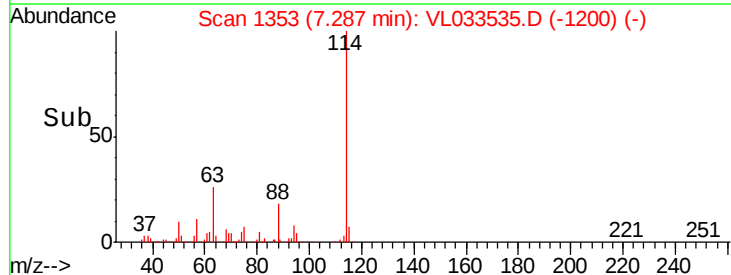
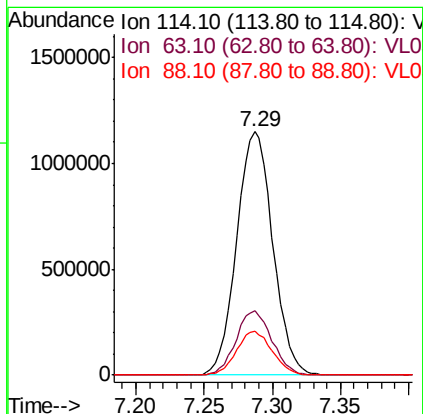
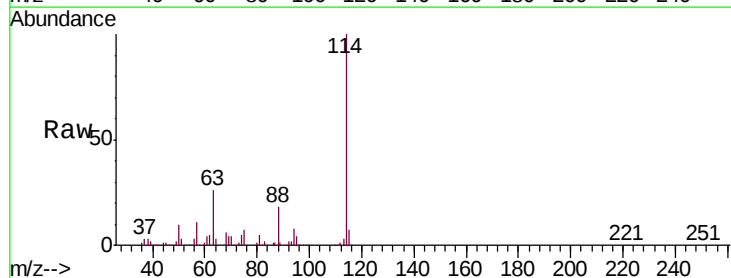
Tgt Ion: 61 Resp: 16681
 Ion Ratio Lower Upper
 61 100
 96 7.3 50.6 76.0#
 98 0.0 32.2 48.2#

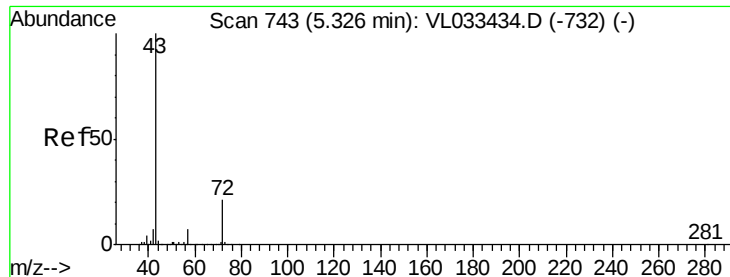


#33

1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.01 min
 Lab File: VL033535.D
 Acq: 4 Apr 2019 16:23

Tgt Ion: 114 Resp: 2118646
 Ion Ratio Lower Upper
 114 100
 63 26.3 21.5 32.3
 88 17.9 14.5 21.7





#34

2-Butanone

Concen: 0.480 ppbv

RT: 5.33 min Scan# 744

Delta R.T. 0.00 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Instrument :

MSVOA_L

ClientSampleId :

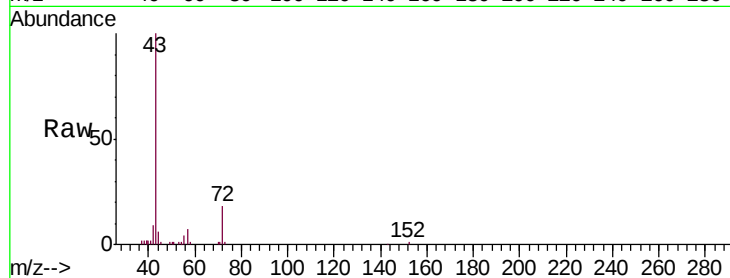
A-1

Tgt Ion: 43 Resp: 61075

Ion Ratio Lower Upper

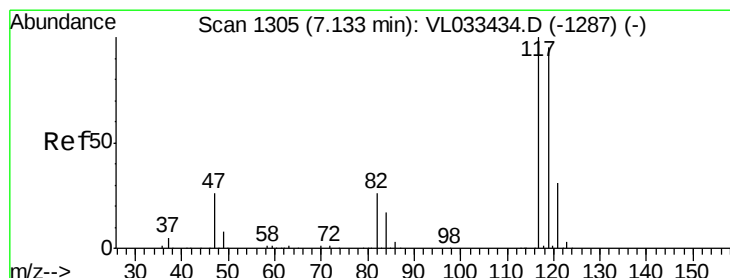
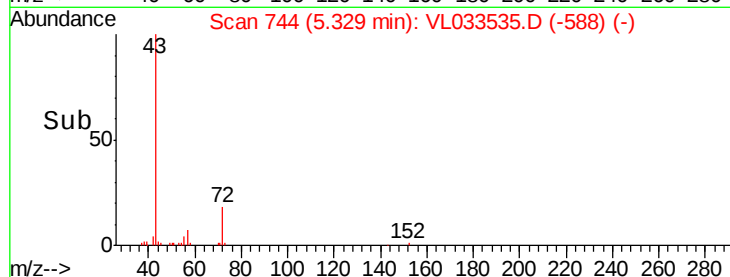
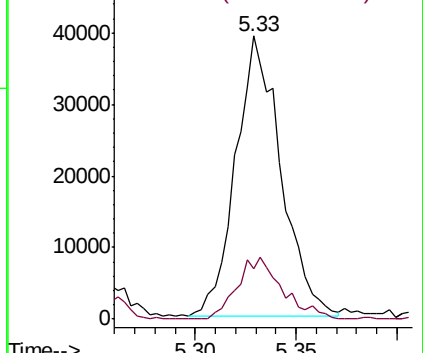
43 100

72 22.2 17.4 26.2



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0



#35

Carbon Tetrachloride

Concen: 0.052 ppbv

RT: 7.13 min Scan# 1305

Delta R.T. -0.00 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

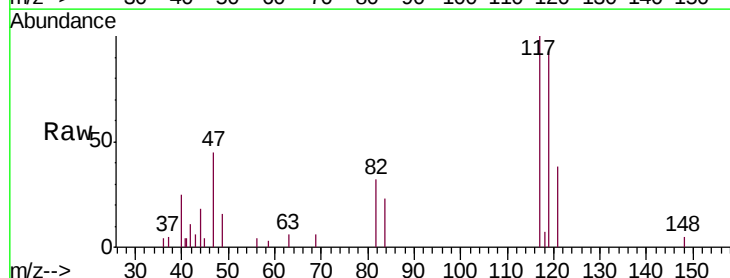
Tgt Ion: 117 Resp: 7871

Ion Ratio Lower Upper

117 100

119 93.0 75.8 113.8

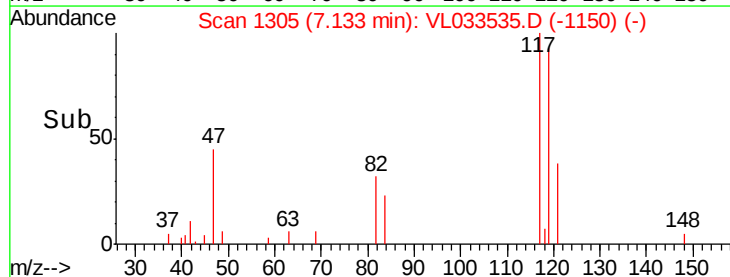
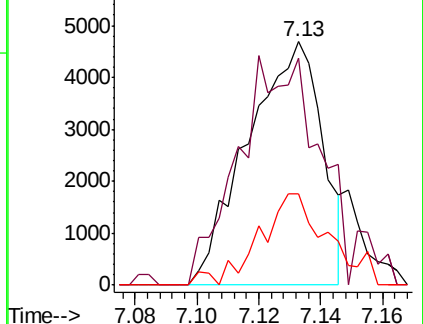
121 37.7 24.7 37.1#

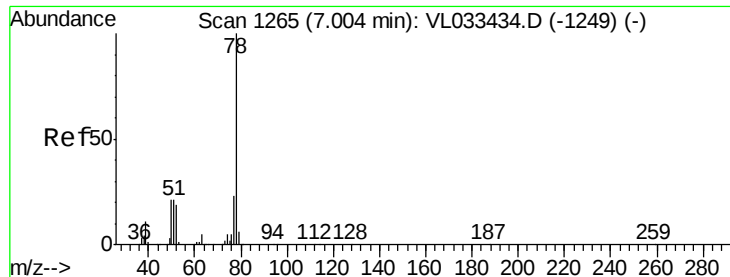


Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V





#36

Benzene

Concen: 0.187 ppbv

RT: 6.99 min Scan# 1262

Delta R.T. -0.01 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Instrument :

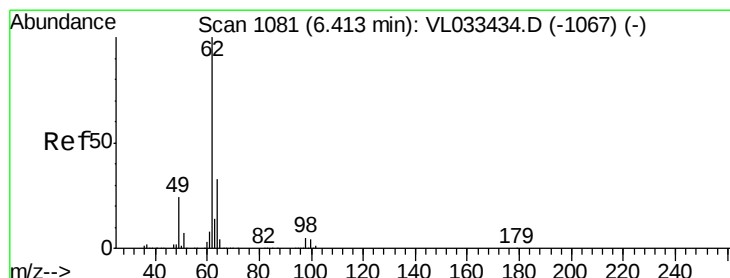
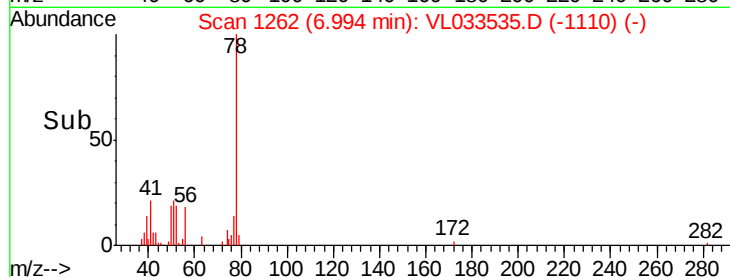
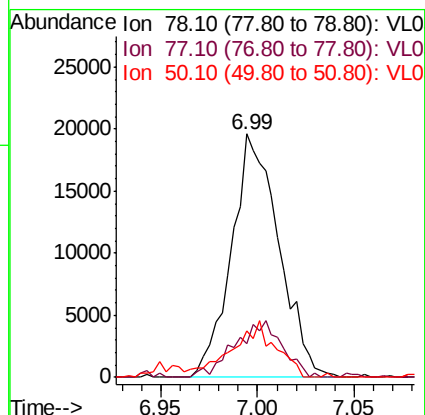
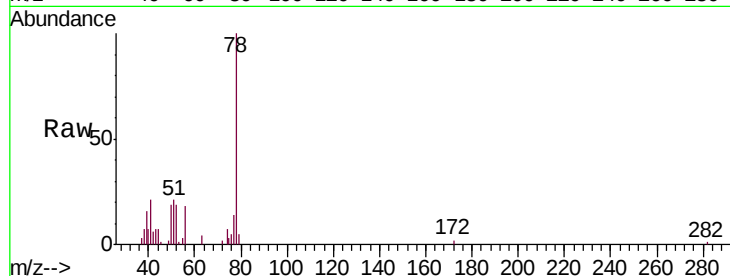
MSVOA_L

ClientSampleId :

A-1

Tgt Ion: 78 Resp: 33323

Ion	Ratio	Lower	Upper
78	100		
77	14.1	18.1	27.1#
50	19.0	16.7	25.1



#37

1,2-Dichloroethane

Concen: 0.031 ppbv

RT: 6.41 min Scan# 1079

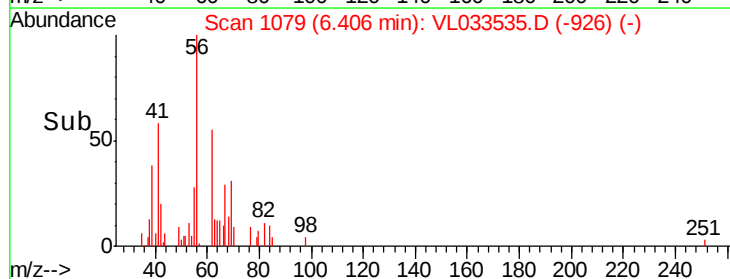
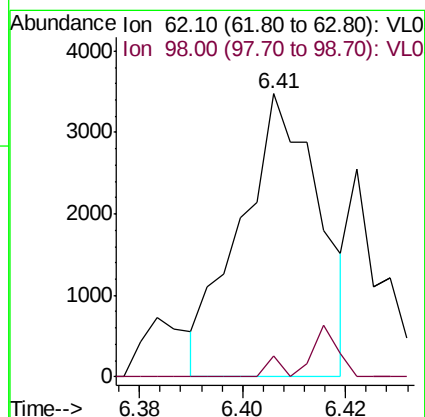
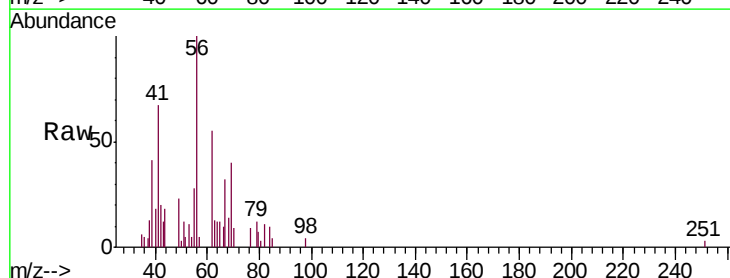
Delta R.T. -0.01 min

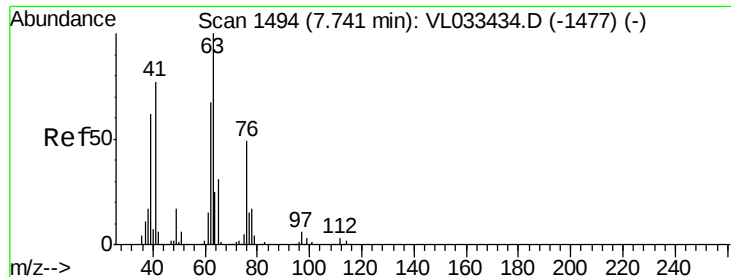
Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Tgt Ion: 62 Resp: 3673

Ion	Ratio	Lower	Upper
62	100		
98	0.0	4.4	6.6#

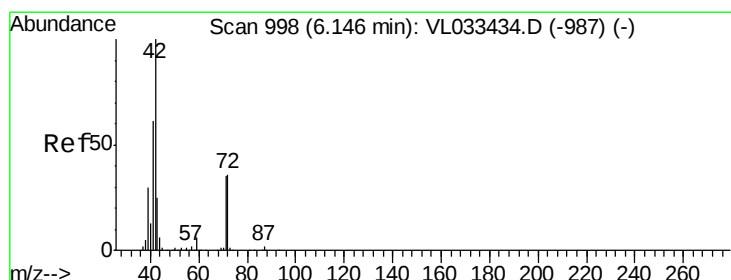
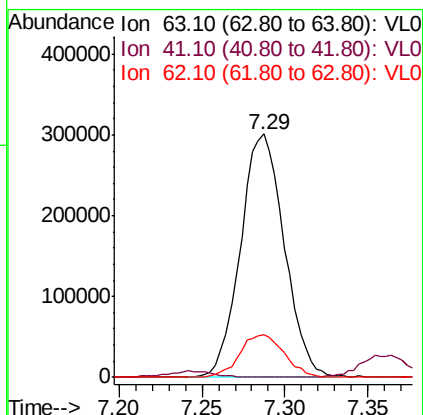
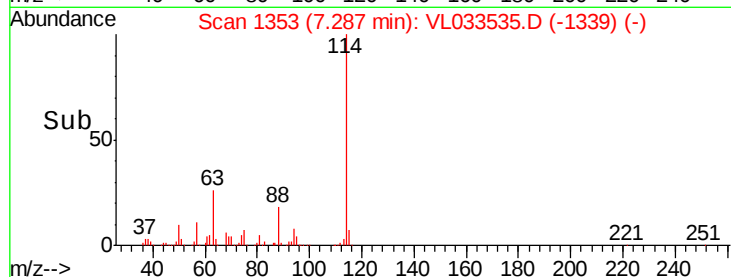
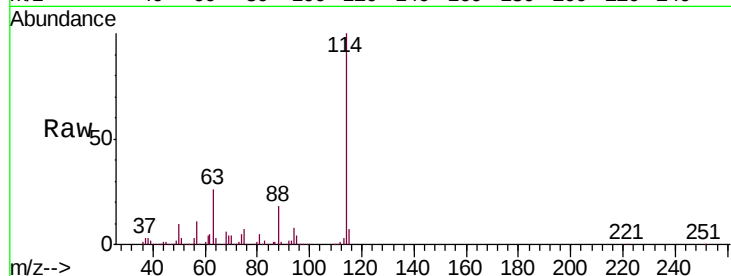




#39
 1,2-Dichloropropane
 Concen: 7.939 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.45 min
 Lab File: VL033535.D
 Acq: 4 Apr 2019 16:23

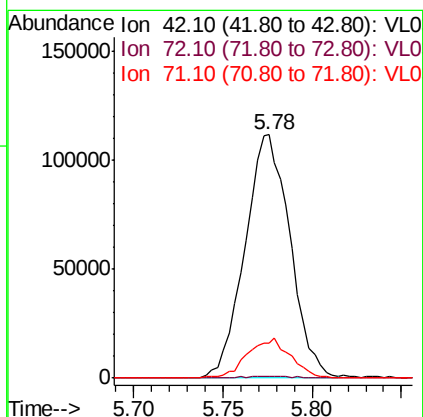
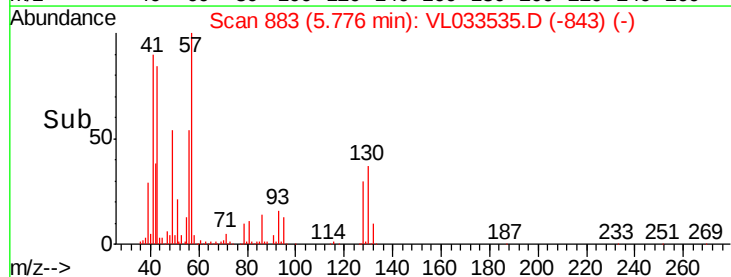
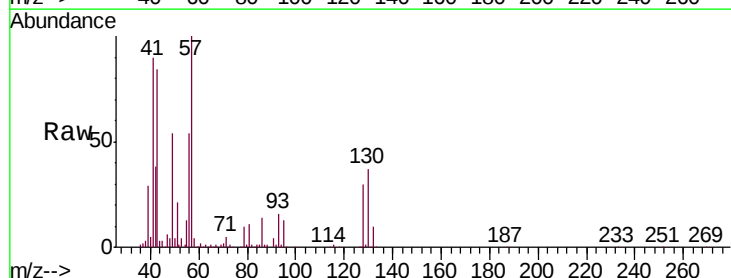
Instrument :
 MSVOA_L
 ClientSampleId :
 A-1

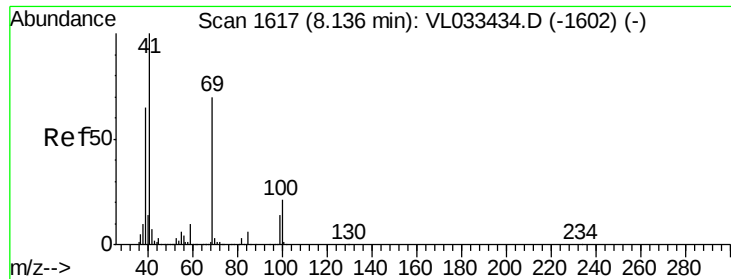
Tgt Ion: 63 Resp: 552861
 Ion Ratio Lower Upper
 63 100
 41 0.0 61.2 91.8#
 62 17.4 54.0 81.0#



#41
 Tetrahydrofuran
 Concen: 2.825 ppbv
 RT: 5.78 min Scan# 883
 Delta R.T. -0.37 min
 Lab File: VL033535.D
 Acq: 4 Apr 2019 16:23

Tgt Ion: 42 Resp: 197764
 Ion Ratio Lower Upper
 42 100
 72 0.9 30.2 45.2#
 71 15.6 29.4 44.2#

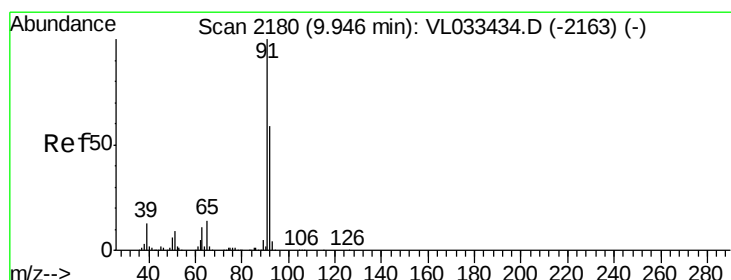
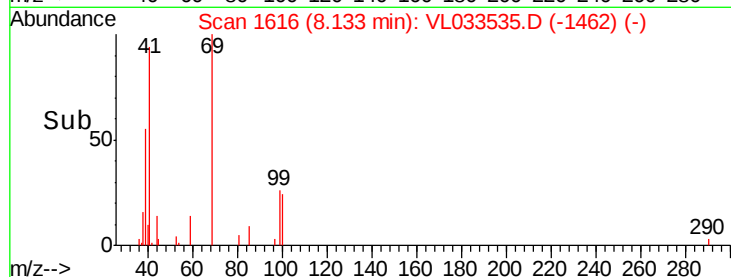
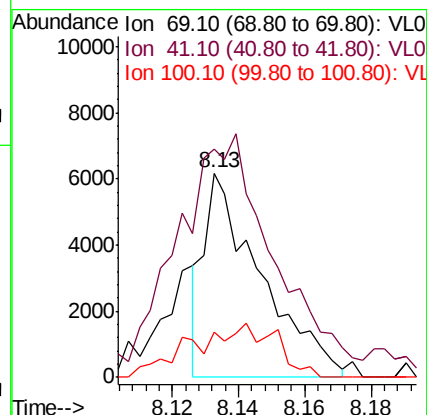
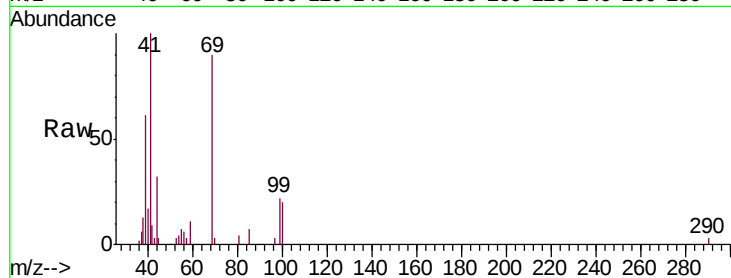




#43
Methyl Methacrylate
Concen: 0.101 ppbv
RT: 8.13 min Scan# 1616
Delta R.T. -0.00 min
Lab File: VL033535.D
Acq: 4 Apr 2019 16:23

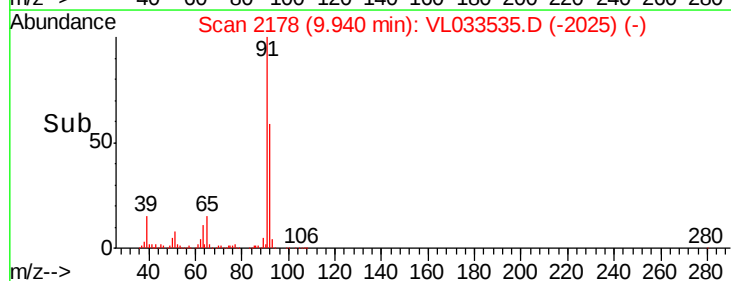
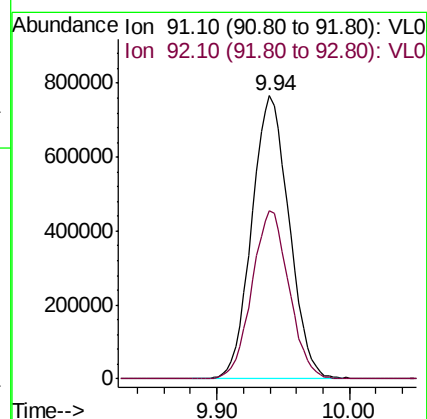
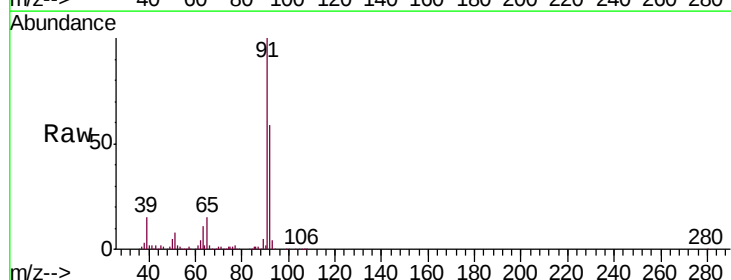
Instrument :
MSVOA_L
ClientSampleId :
A-1

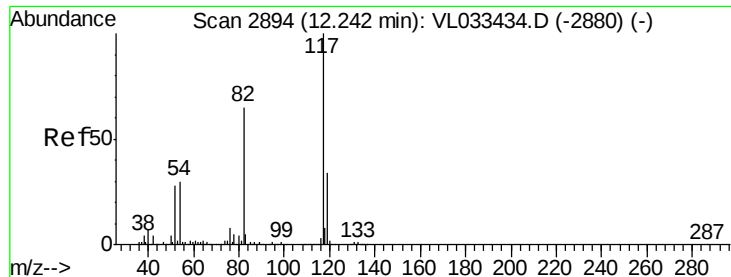
Tgt Ion: 69 Resp: 7302
Ion Ratio Lower Upper
69 100
41 230.3 116.6 174.8#
100 39.5 24.4 36.6#



#53
Toluene
Concen: 7.277 ppbv
RT: 9.94 min Scan# 2178
Delta R.T. -0.01 min
Lab File: VL033535.D
Acq: 4 Apr 2019 16:23

Tgt Ion: 91 Resp: 1503167
Ion Ratio Lower Upper
91 100
92 59.2 47.4 71.0

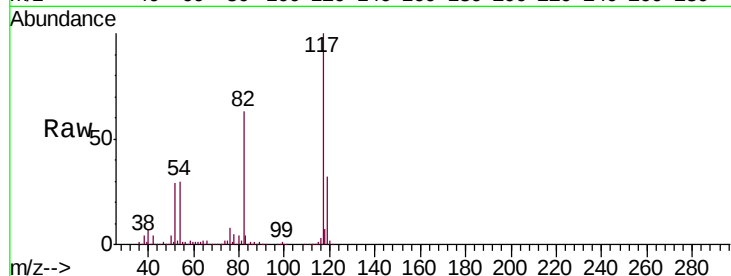




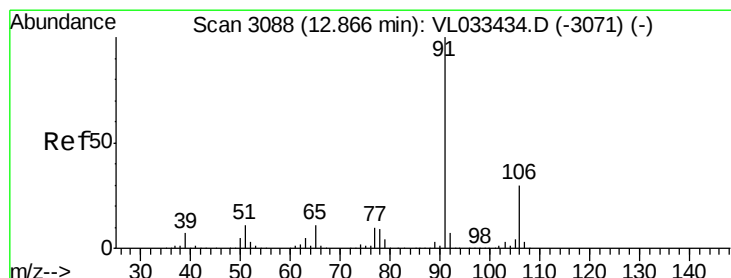
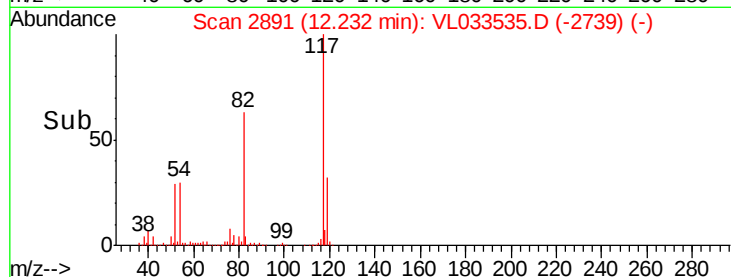
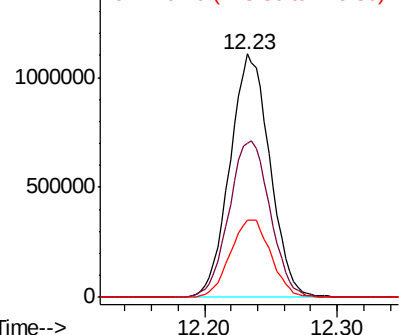
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.23 min Scan# 2891
Delta R.T. -0.01 min
Lab File: VL033535.D
Acq: 4 Apr 2019 16:23

Instrument :
MSVOA_L
ClientSampleId :
A-1

Tgt Ion:117 Resp: 2318508
Ion Ratio Lower Upper
117 100
82 66.8 51.5 77.3
119 32.6 25.5 38.3

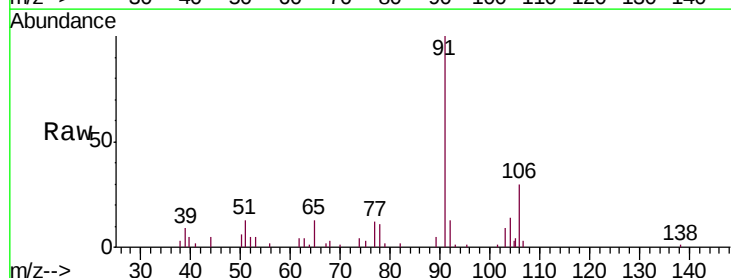


Abundance Ion 117.10 (116.80 to 117.80): V
1500000
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

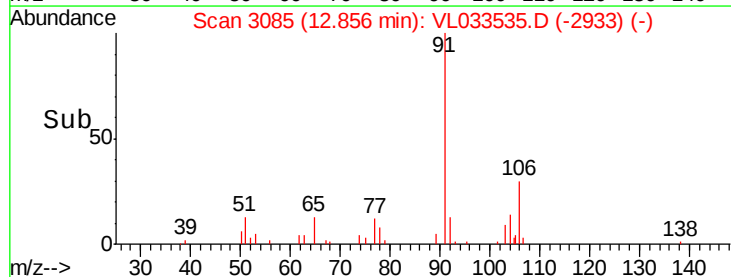
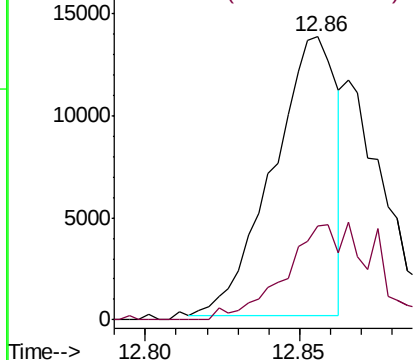


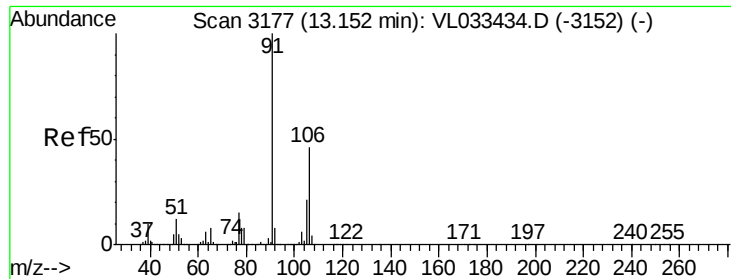
#58
Ethyl Benzene
Concen: 0.063 ppbv
RT: 12.86 min Scan# 3085
Delta R.T. -0.01 min
Lab File: VL033535.D
Acq: 4 Apr 2019 16:23

Tgt Ion: 91 Resp: 19483
Ion Ratio Lower Upper
91 100
106 33.7 23.8 35.6



Abundance Ion 91.10 (90.80 to 91.80): VL0
15000
Ion 106.10 (105.80 to 106.80): V

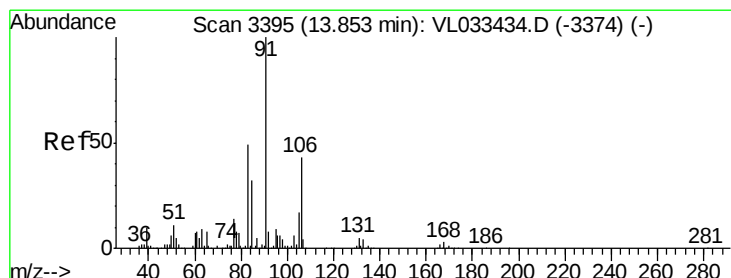
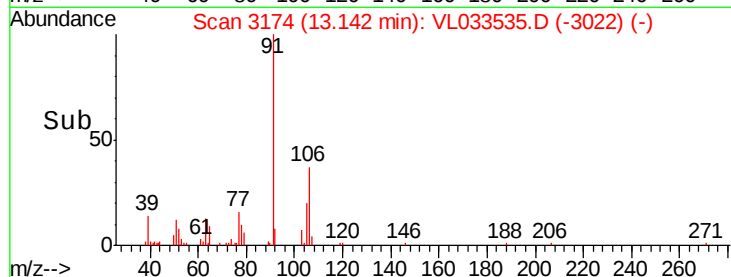
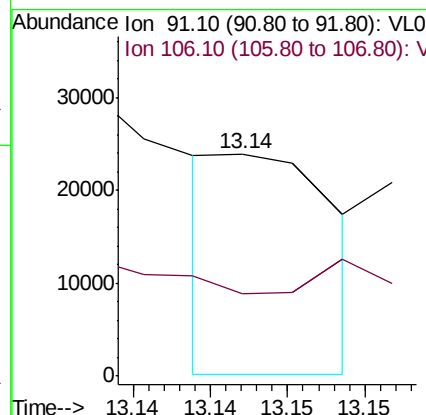
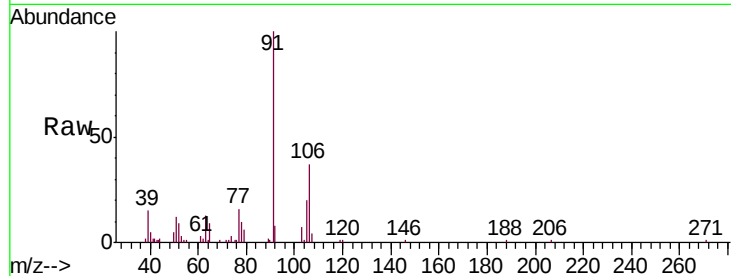




#59
m/p-Xylene
Concen: 0.044 ppbv
RT: 13.14 min Scan# 3174
Delta R.T. -0.01 min
Lab File: VL033535.D
Acq: 4 Apr 2019 16:23

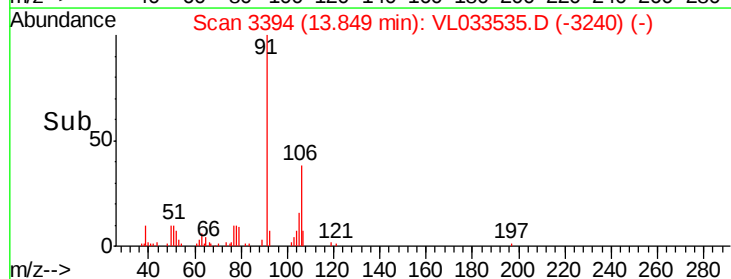
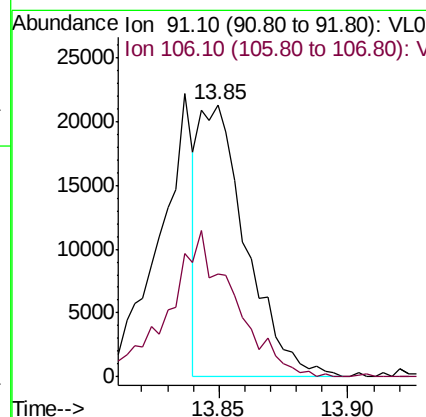
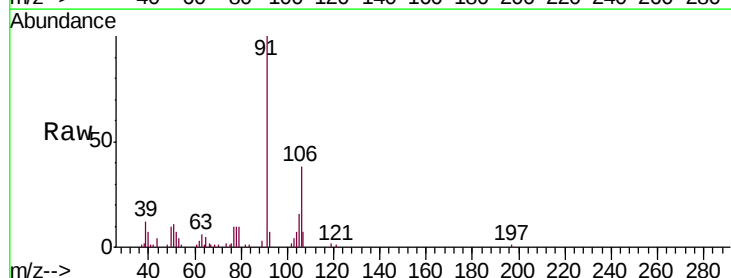
Instrument :
MSVOA_L
ClientSampled :
A-1

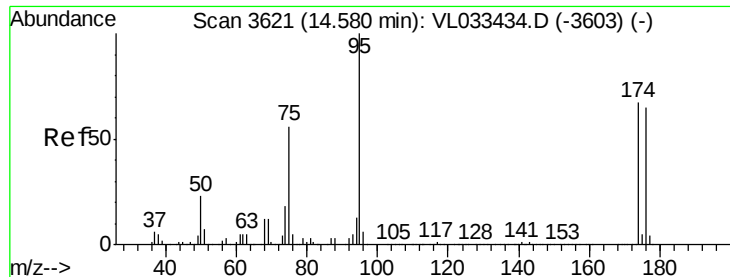
Tgt Ion: 91 Resp: 12300
Ion Ratio Lower Upper
91 100
106 0.0 0.0 0.0



#60
o-Xylene
Concen: 0.101 ppbv
RT: 13.85 min Scan# 3394
Delta R.T. -0.00 min
Lab File: VL033535.D
Acq: 4 Apr 2019 16:23

Tgt Ion: 91 Resp: 26943
Ion Ratio Lower Upper
91 100
106 76.0 21.4 64.3#

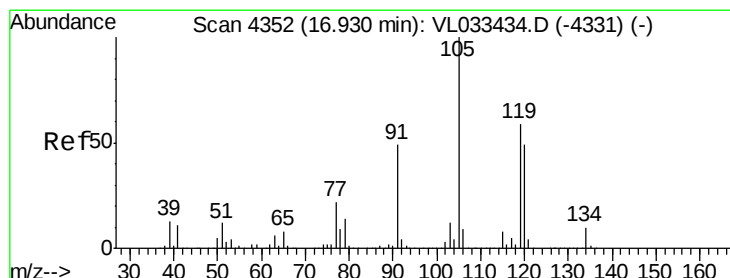
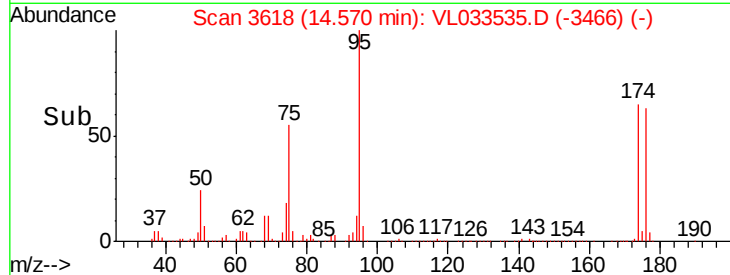
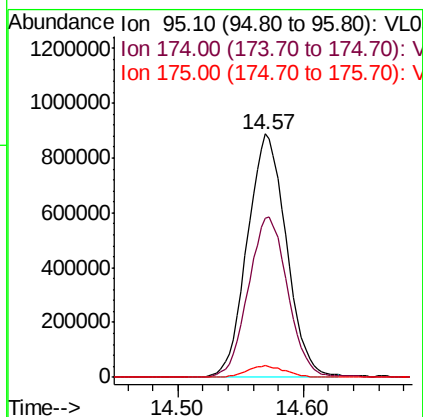
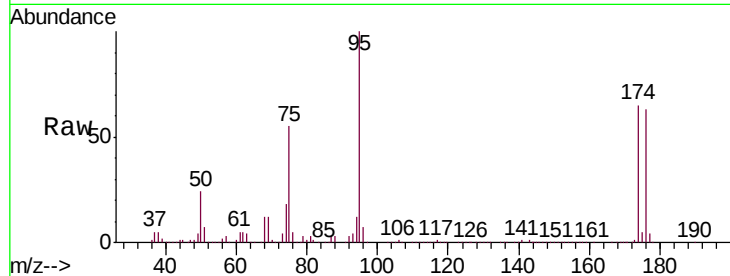




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.558 ppbv
 RT: 14.57 min Scan# 3618
 Delta R.T. -0.01 min
 Lab File: VL033535.D
 Acq: 4 Apr 2019 16:23

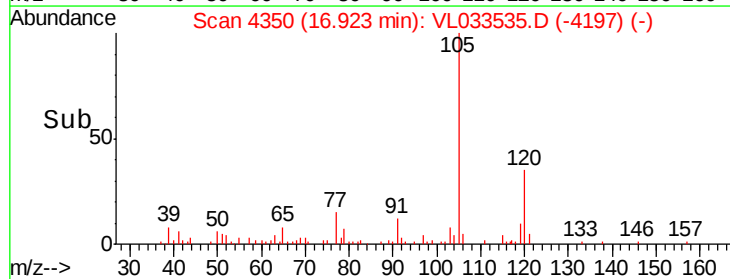
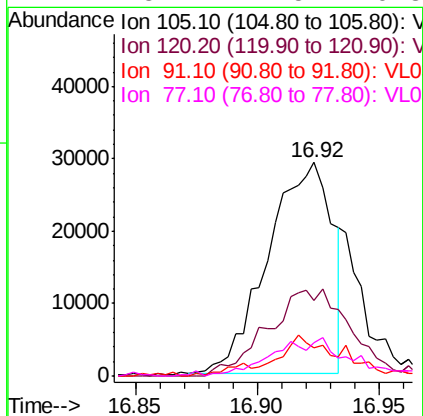
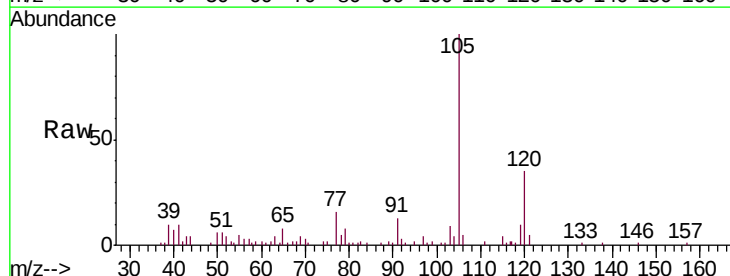
Instrument :
 MSVOA_L
 ClientSampleID :
 A-1

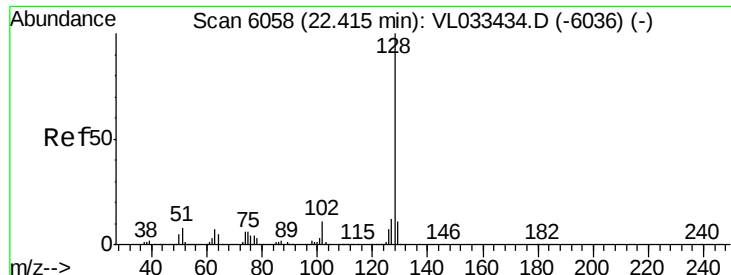
Tgt Ion: 95 Resp: 1919130
 Ion Ratio Lower Upper
 95 100
 174 66.8 52.9 79.3
 175 4.8 3.8 5.6



#74
 1,2,4-Trimethylbenzene
 Concen: 0.173 ppbv
 RT: 16.92 min Scan# 4350
 Delta R.T. -0.01 min
 Lab File: VL033535.D
 Acq: 4 Apr 2019 16:23

Tgt Ion: 105 Resp: 53321
 Ion Ratio Lower Upper
 105 100
 120 35.8 39.0 58.6#
 91 13.3 40.0 60.0#
 77 15.4 17.5 26.3#





#79

Naphthalene

Concen: 0.071 ppbv

RT: 22.41 min Scan# 6055

Delta R.T. -0.01 min

Lab File: VL033535.D

Acq: 4 Apr 2019 16:23

Instrument :

MSVOA_L

ClientSampleId :

A-1

Tgt Ion:128 Resp: 18630

Ion Ratio Lower Upper

128 100

127 3.5 9.8 14.8#

129 9.9 8.6 12.8

