

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032919\
 Data File : VL033500.D
 Acq On : 29 Mar 2019 13:36
 Operator : SY/AP
 Sample : K2042-16
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Mar 30 01:09:29 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	843850	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	2063915	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	1998577	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.57	95	1553351	9.91	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.10%

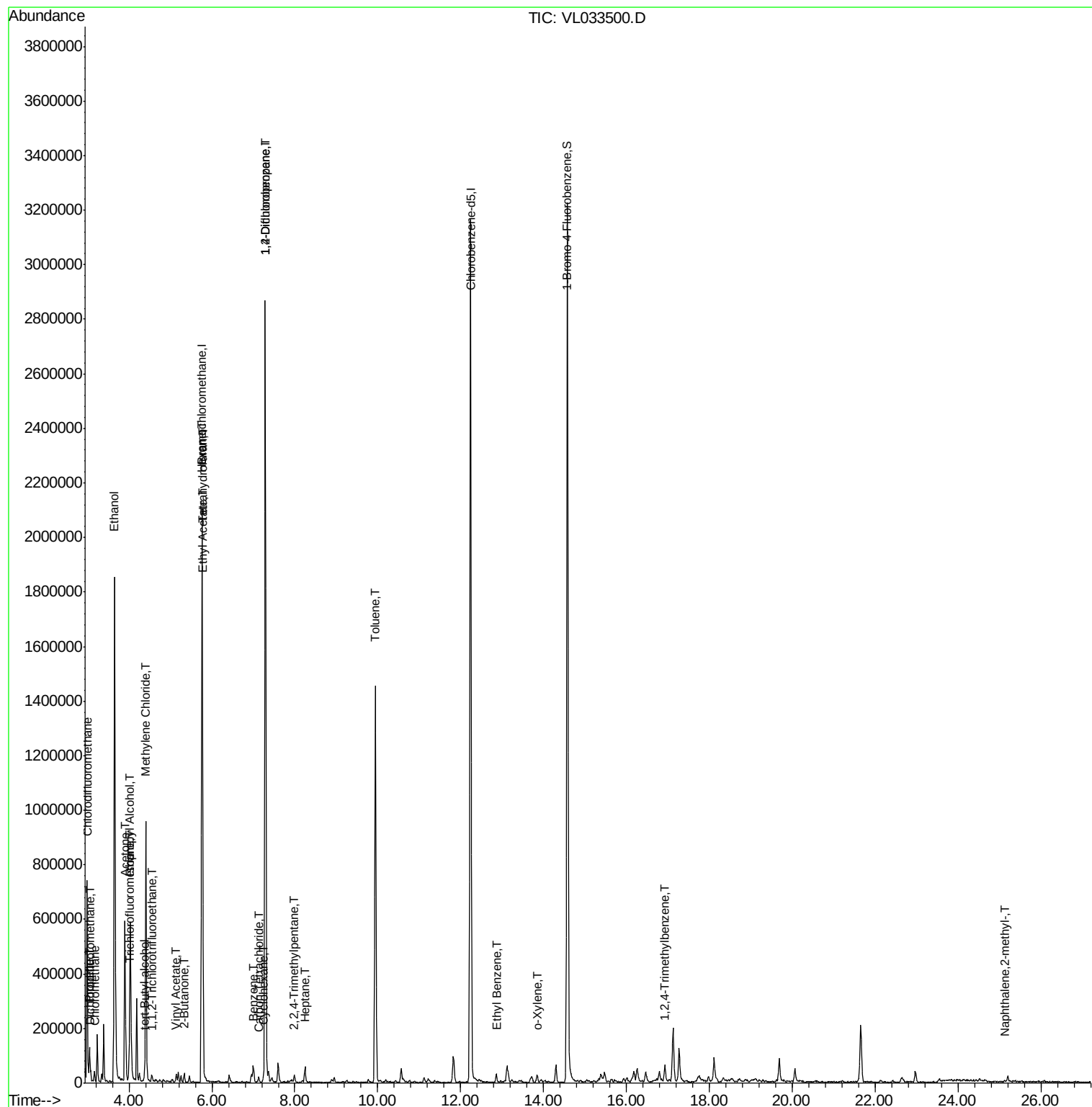
Target Compounds						Ovalue
2) Dichlorodifluoromethane	3.08	85	27336	0.22	ppbv	90
3) Chlorodifluoromethane	2.99	51	447315	4.60	ppbv #	60
4) Chloromethane	3.17	50	29185	0.57	ppbv	99
9) Propene	3.04	41	18195	0.45	ppbv #	16
10) Heptane	8.24	43	9457	0.09	ppbv #	27
11) Trichlorofluoromethane	4.00	101	38142	0.25	ppbv	99
12) 1,1,2-Trichlorotrifluoroet	4.55	101	4212	0.04	ppbv #	14
13) Ethanol	3.65	45	2044451	193.65	ppbv	65
15) Acetone	3.90	43	598117	5.89	ppbv	100
17) tert-Butyl alcohol	4.36	59	4613	0.25	ppbv #	50
19) Isopropyl Alcohol	4.03	45	679247	10.58	ppbv #	98
20) Methylene Chloride	4.41	84	328953	7.64	ppbv	94
23) Vinyl Acetate	5.15	43	8299	0.06	ppbv #	59
25) Ethyl Acetate	5.78	43	211177	1.12	ppbv #	81
26) Hexane	5.77	57	279505	3.34	ppbv #	42
30) Cyclohexane	7.24	84	2035	0.03	ppbv #	1
34) 2-Butanone	5.33	43	35656	0.29	ppbv	93
35) Carbon Tetrachloride	7.13	117	6297	0.04	ppbv	87
36) Benzene	7.00	78	43008	0.25	ppbv	97
39) 1,2-Dichloropropane	7.29	63	535689	7.90	ppbv #	23
41) Tetrahydrofuran	5.78	42	108025	1.58	ppbv #	51
44) 2,2,4-Trimethylpentane	7.99	57	17870	0.06	ppbv #	72
53) Toluene	9.94	91	1109992	5.52	ppbv	100
58) Ethyl Benzene	12.86	91	22971	0.09	ppbv	97
60) o-Xylene	13.85	91	8920	0.04	ppbv #	4
74) 1,2,4-Trimethylbenzene	16.93	105	19570	0.07	ppbv #	63
80) Naphthalene,2-methyl-	25.12	142	2403	0.03	ppbv	95

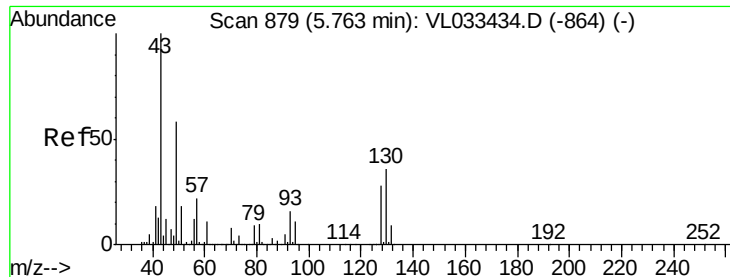
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032919\
Data File : VL033500.D
Acq On : 29 Mar 2019 13:36
Operator : SY/AP
Sample : K2042-16
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :

Quant Time: Mar 30 01:09:29 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





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.01 min

Lab File: VL033500.D

Acq: 29 Mar 2019 13:36

Instrument :
MSVOA_L
ClientSampleId :

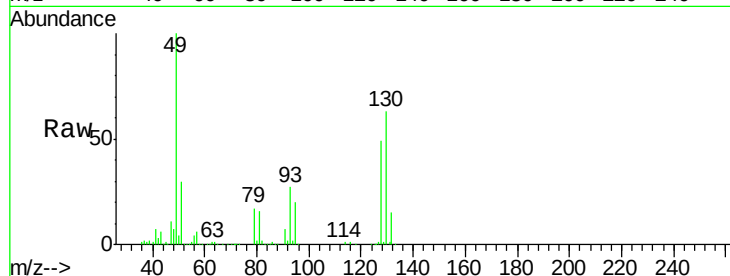
Tot Ion: 49 Resp: 843850

Ion Ratio Lower Upper

49 100

128 49.7 24.0 72.0

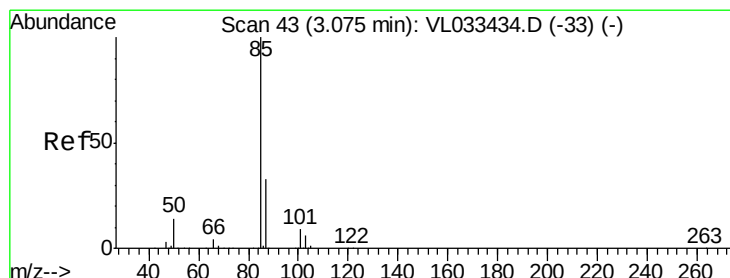
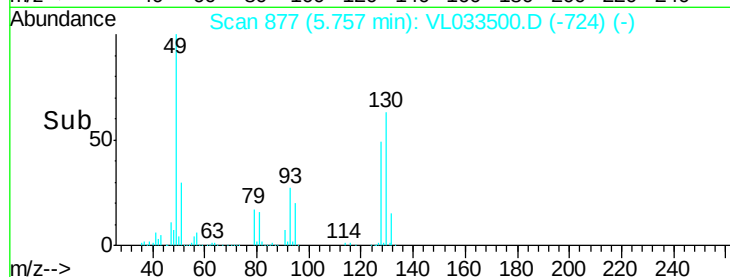
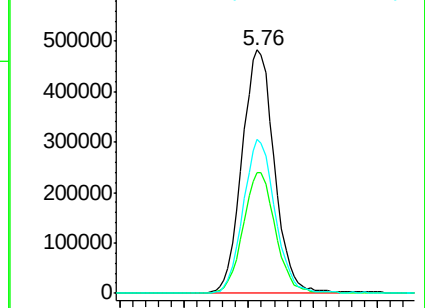
130 62.8 31.2 93.6



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: 0.22 ppbv

RT: 3.08 min Scan# 43

Delta R.T. -0.00 min

Lab File: VL033500.D

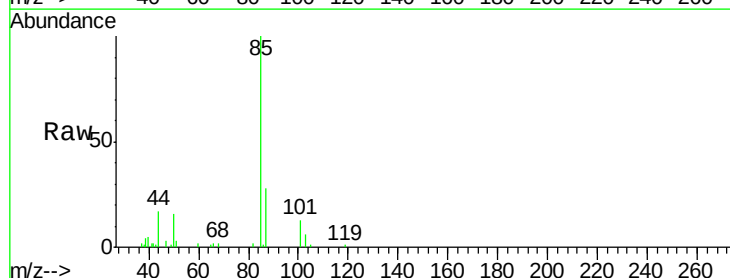
Acq: 29 Mar 2019 13:36

Tgt Ion: 85 Resp: 27336

Ion Ratio Lower Upper

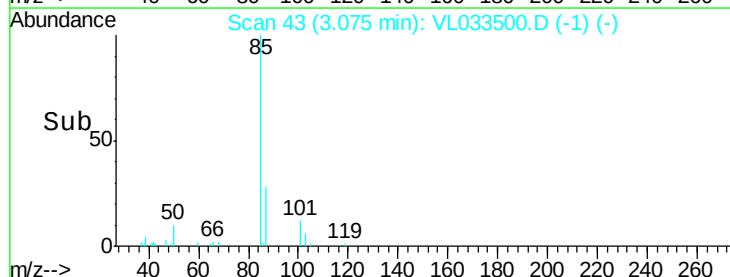
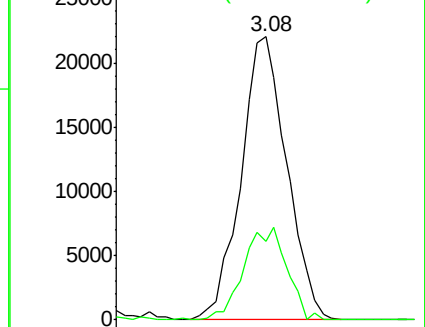
85 100

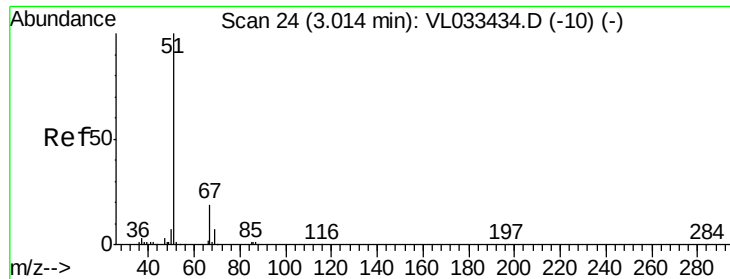
87 27.8 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

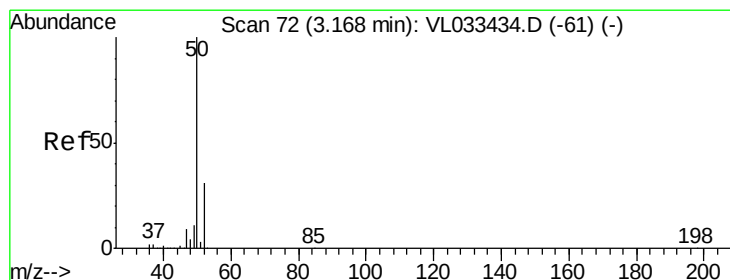
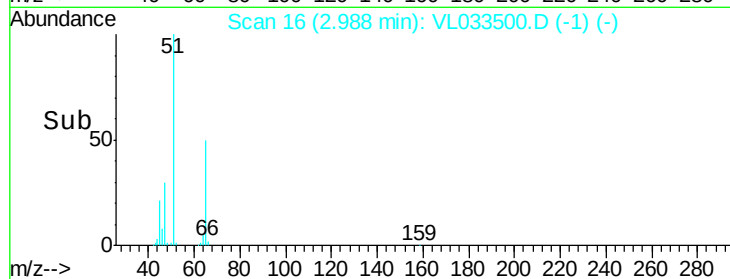
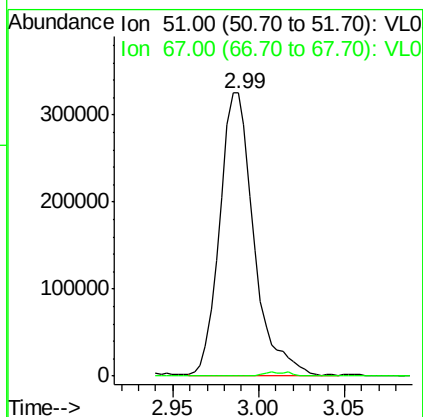
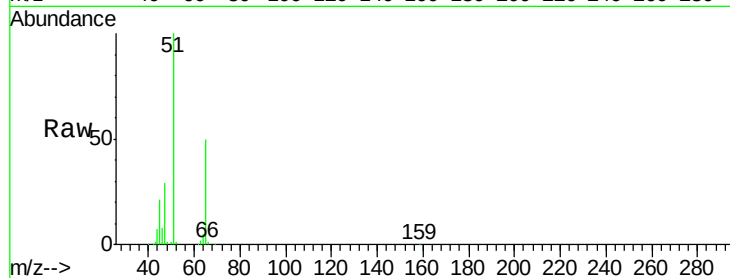




#3
 Chlorodifluoromethane
 Concen: 4.60 ppbv
 RT: 2.99 min Scan# 16
 Delta R.T. -0.03 min
 Lab File: VL033500.D
 Acq: 29 Mar 2019 13:36

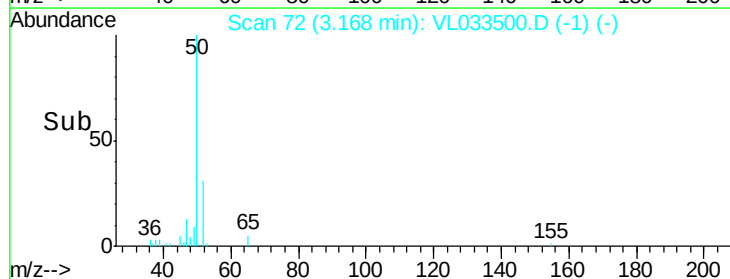
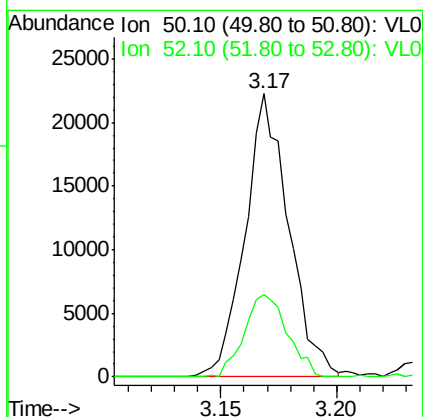
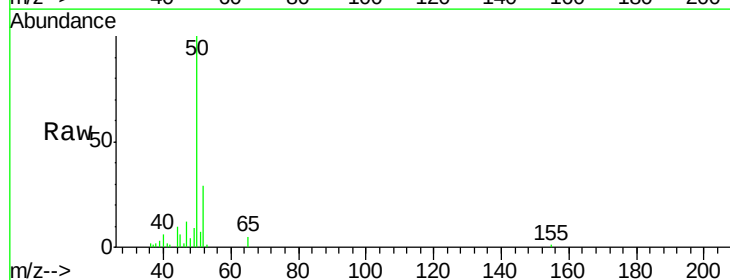
Instrument :
 MSVOA_L
 ClientSampleId :

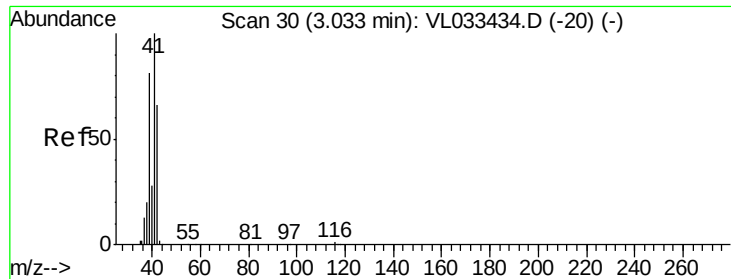
Tot Ion: 51 Resp: 447315
 Ion Ratio Lower Upper
 51 100
 67 1.3 15.7 23.5#



#4
 Chloromethane
 Concen: 0.57 ppbv
 RT: 3.17 min Scan# 72
 Delta R.T. -0.00 min
 Lab File: VL033500.D
 Acq: 29 Mar 2019 13:36

Tgt Ion: 50 Resp: 29185
 Ion Ratio Lower Upper
 50 100
 52 30.6 25.0 37.6





#9

Propene

Concen: 0.45 ppbv

RT: 3.04 min Scan# 33

Delta R.T. 0.01 min

Lab File: VL033500.D

Acq: 29 Mar 2019 13:36

Instrument :

MSVOA_L

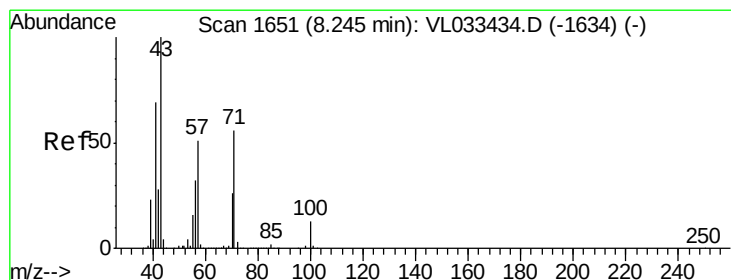
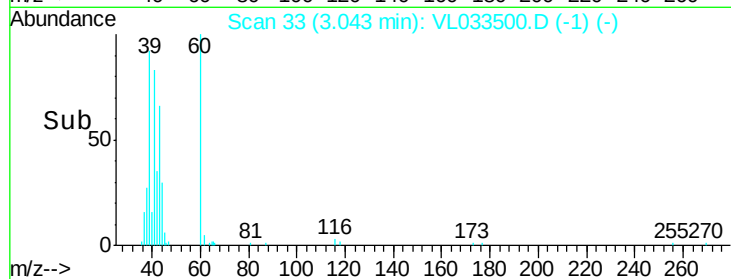
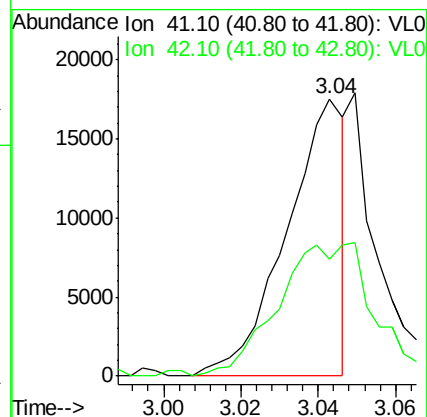
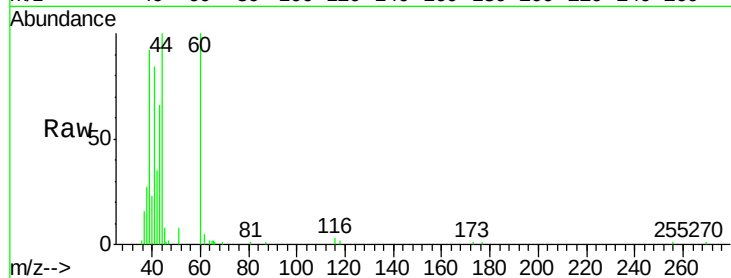
ClientSampleId :

Tot Ion: 41 Resp: 18195

Ion Ratio Lower Upper

41 100

42 0.0 53.9 80.9#



#10

Heptane

Concen: 0.09 ppbv

RT: 8.24 min Scan# 1648

Delta R.T. -0.01 min

Lab File: VL033500.D

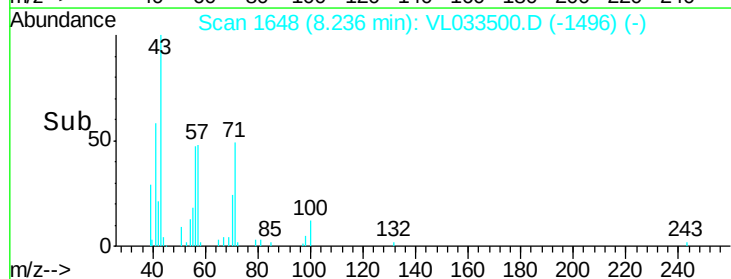
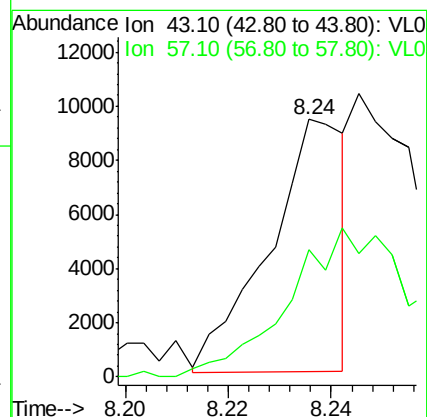
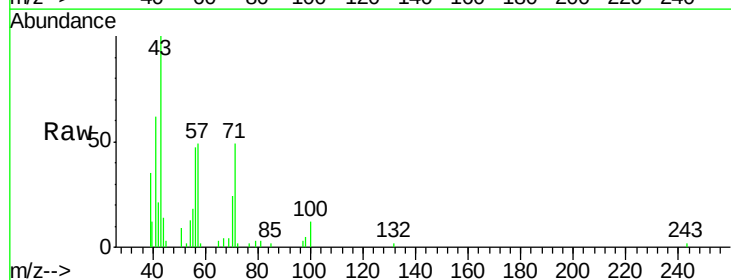
Acq: 29 Mar 2019 13:36

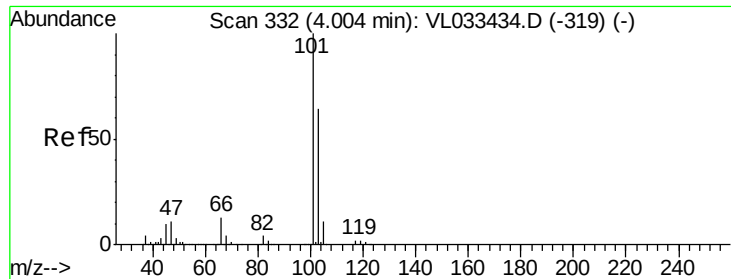
Tgt Ion: 43 Resp: 9457

Ion Ratio Lower Upper

43 100

57 0.0 40.6 60.8#

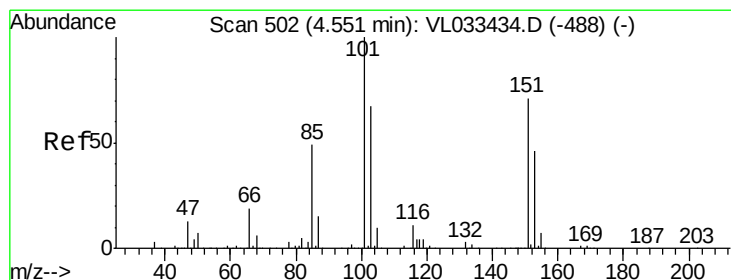
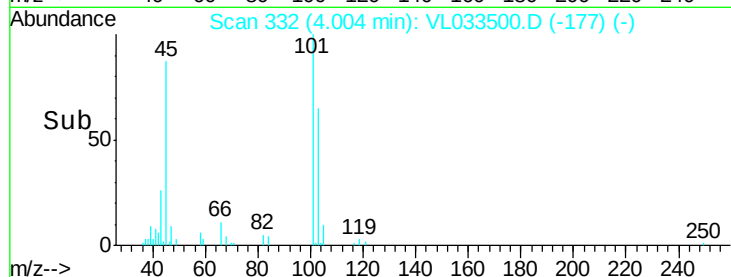
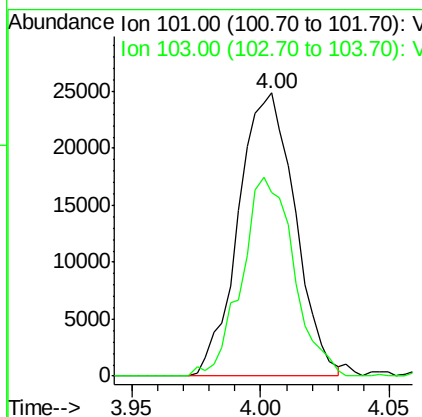
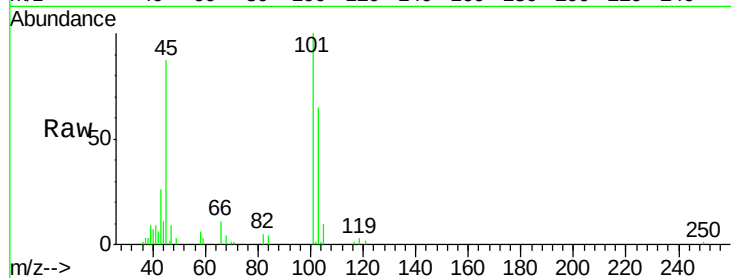




#11
 Trichlorofluoromethane
 Concen: 0.25 ppbv
 RT: 4.00 min Scan# 332
 Delta R.T. -0.00 min
 Lab File: VL033500.D
 Acq: 29 Mar 2019 13:36

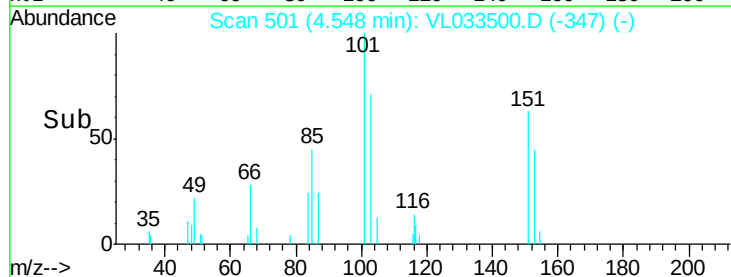
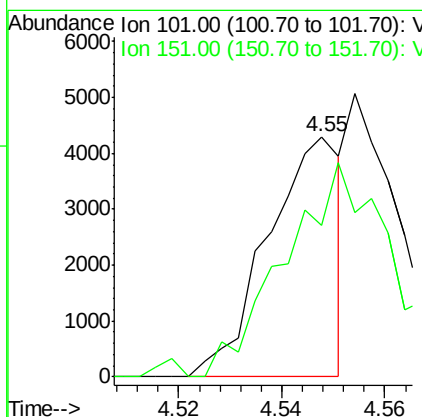
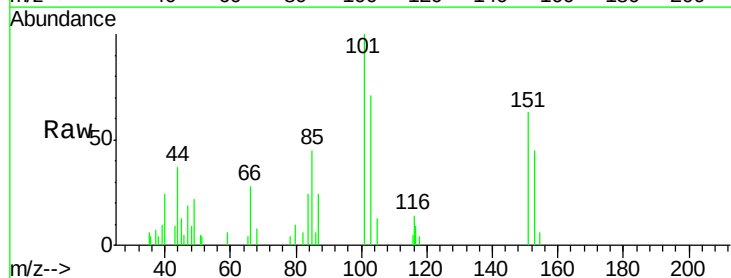
Instrument :
 MSVOA_L
 ClientSampled :

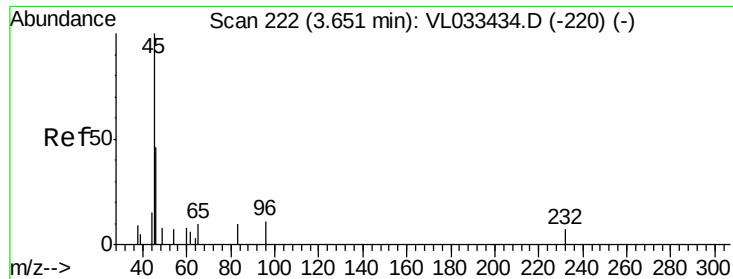
Tot Ion:101 Resp: 38142
 Ion Ratio Lower Upper
 101 100
 103 64.7 51.3 76.9



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.04 ppbv
 RT: 4.55 min Scan# 501
 Delta R.T. -0.00 min
 Lab File: VL033500.D
 Acq: 29 Mar 2019 13:36

Tgt Ion:101 Resp: 4212
 Ion Ratio Lower Upper
 101 100
 151 0.0 57.7 86.5#

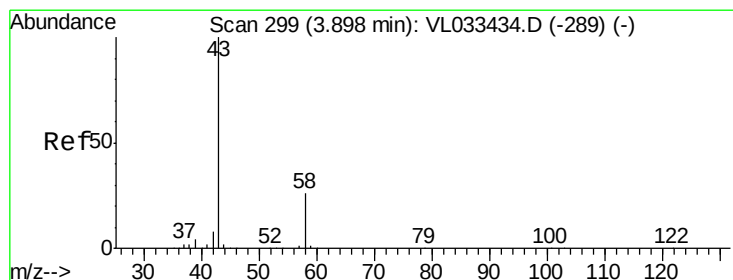
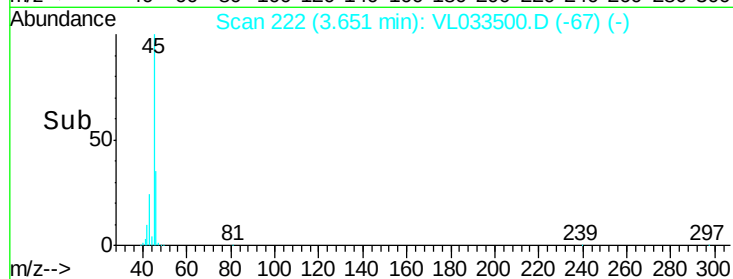
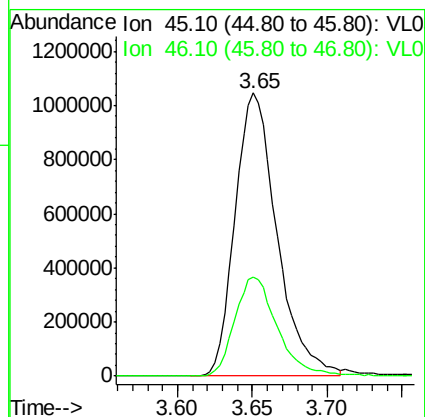
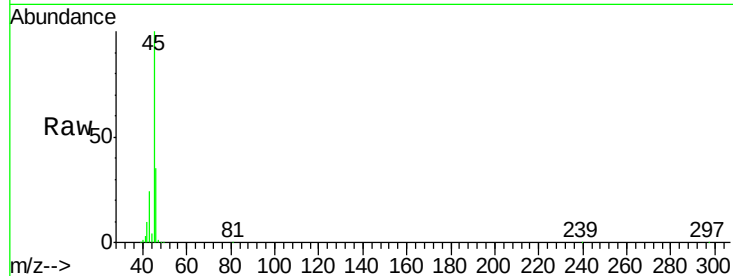




#13
 Ethanol
 Concen: 193.65 ppbv
 RT: 3.65 min Scan# 222
 Delta R.T. -0.00 min
 Lab File: VL033500.D
 Acq: 29 Mar 2019 13:36

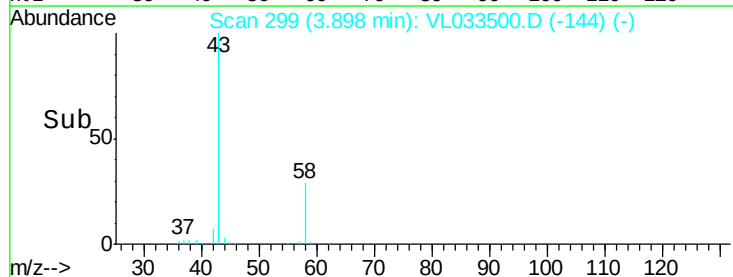
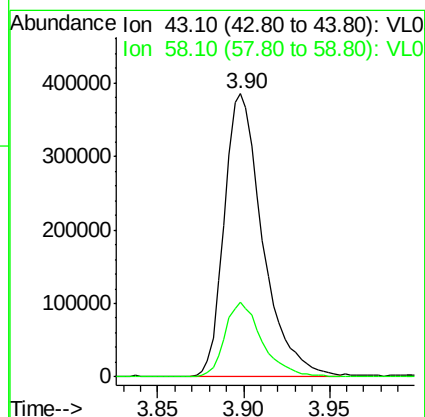
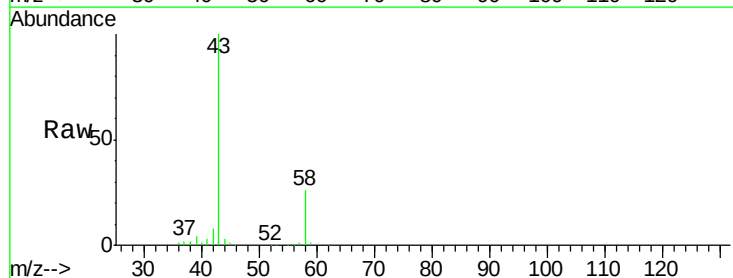
Instrument :
 MSVOA_L
 ClientSampleId :

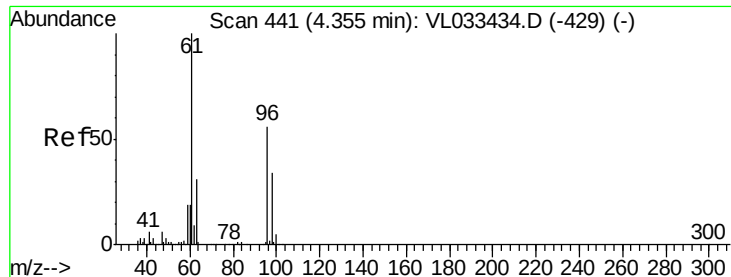
Tot Ion: 45 Resp: 2044451
 Ion Ratio Lower Upper
 45 100
 46 36.0 25.4 101.8



#15
 Acetone
 Concen: 5.89 ppbv
 RT: 3.90 min Scan# 299
 Delta R.T. -0.00 min
 Lab File: VL033500.D
 Acq: 29 Mar 2019 13:36

Tgt Ion: 43 Resp: 598117
 Ion Ratio Lower Upper
 43 100
 58 25.6 20.5 30.7



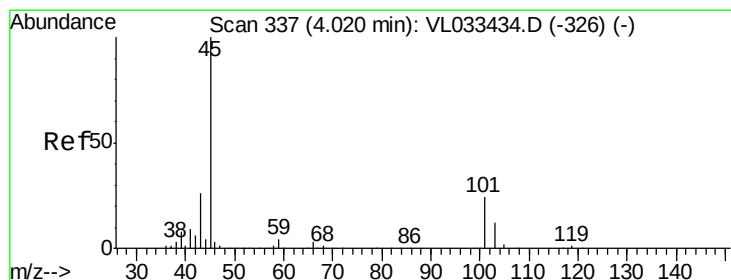
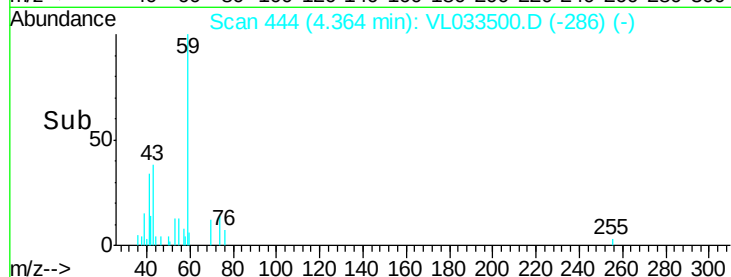
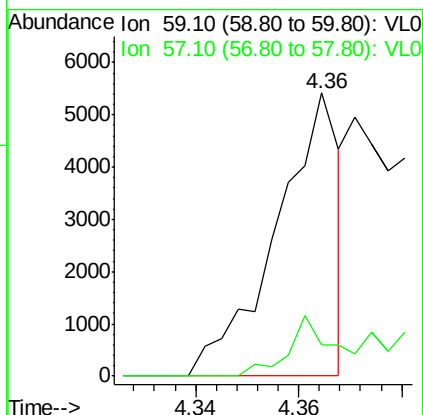
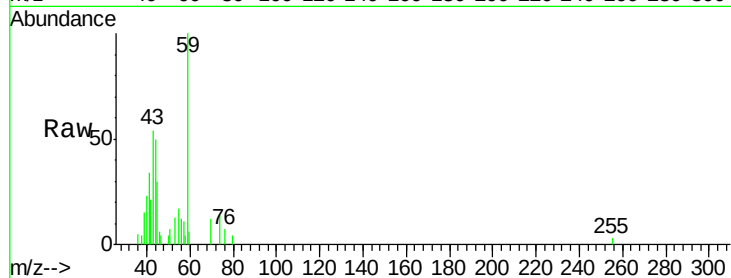


#17

tert-Butyl alcohol
Concen: 0.25 ppbv
RT: 4.36 min Scan# 444
Delta R.T. 0.01 min
Lab File: VL033500.D
Acq: 29 Mar 2019 13:36

Instrument :
MSVOA_L
ClientSampleId :

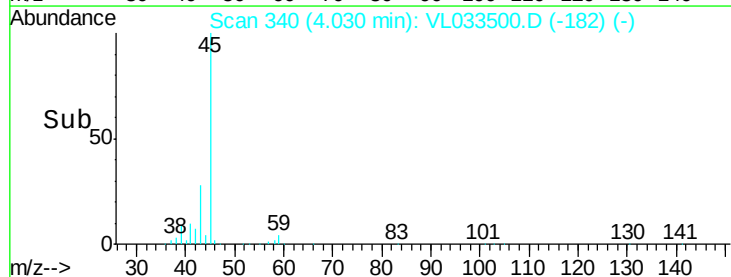
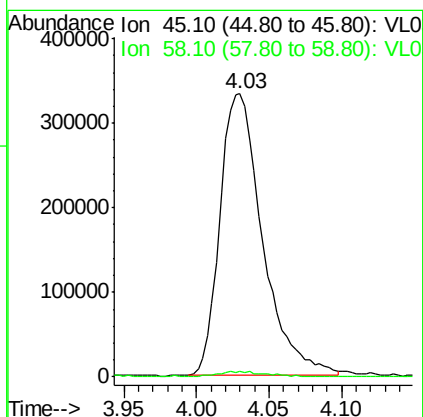
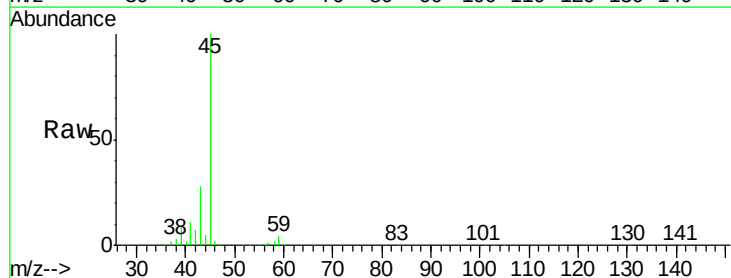
Tot Ion: 59 Resp: 4613
Ion Ratio Lower Upper
59 100
57 28.3 7.8 11.8#

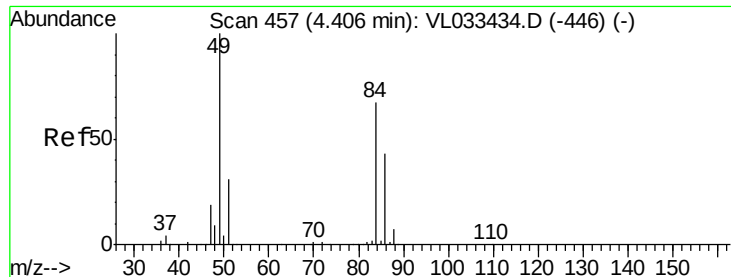


#19

Isopropyl Alcohol
Concen: 10.58 ppbv
RT: 4.03 min Scan# 340
Delta R.T. 0.01 min
Lab File: VL033500.D
Acq: 29 Mar 2019 13:36

Tgt Ion: 45 Resp: 679247
Ion Ratio Lower Upper
45 100
58 2.6 1.4 2.2#

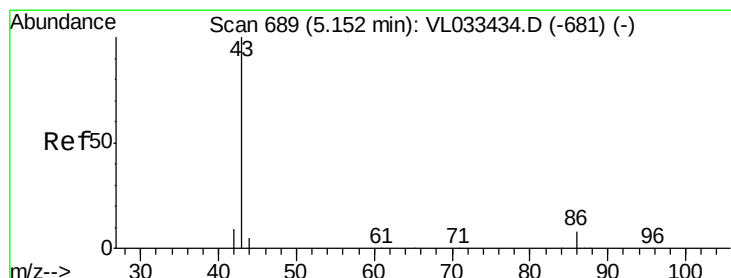
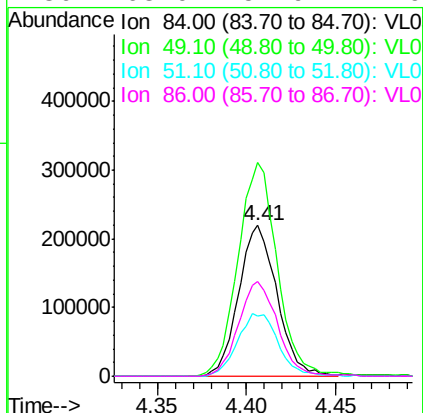
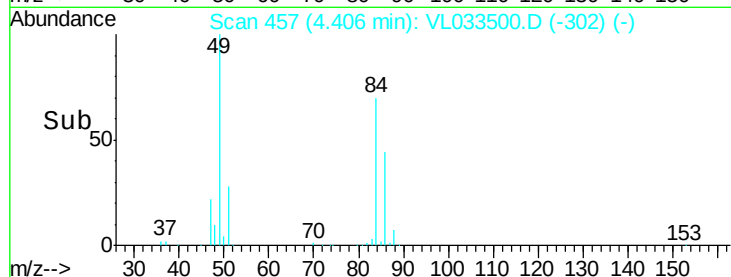
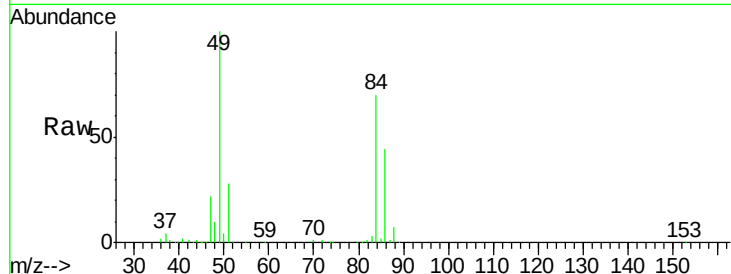




#20
Methvlene Chloride
Concen: 7.64 ppbv
RT: 4.41 min Scan# 457
Delta R.T. -0.00 min
Lab File: VL033500.D
Acq: 29 Mar 2019 13:36

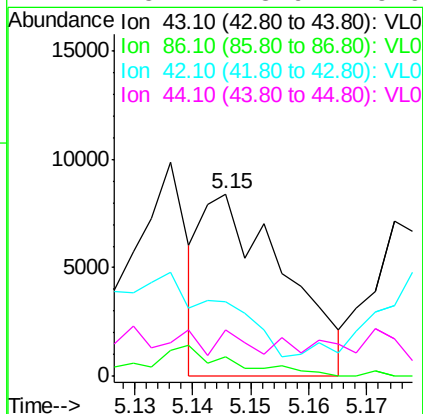
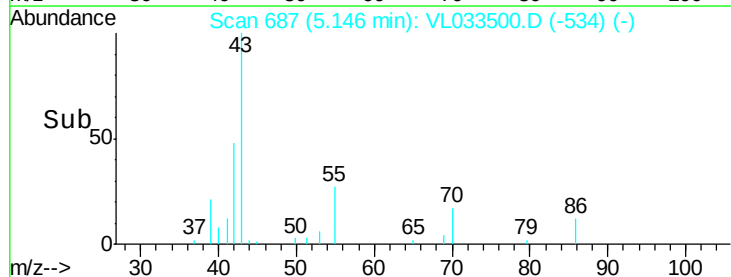
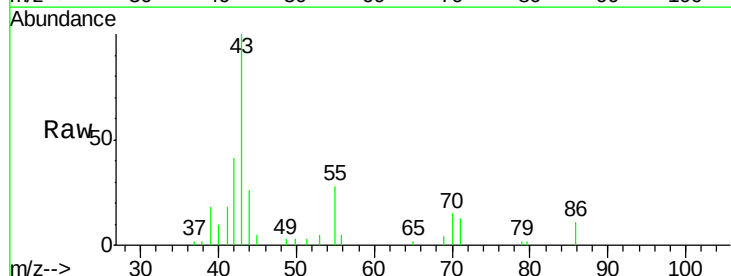
Instrument :
MSVOA_L
ClientSampled :

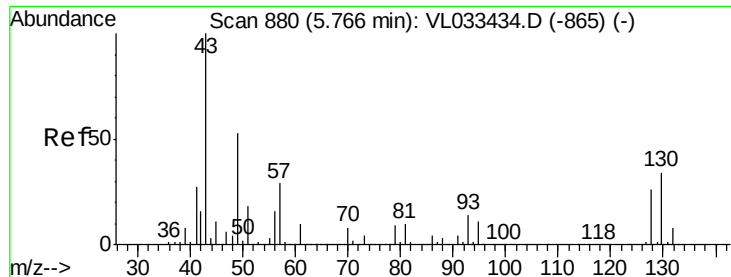
Tot Ion:	84	Resp:	328953
Ion	Ratio	Lower	Upper
84	100		
49	141.8	120.0	180.0
51	40.2	36.7	55.1
86	63.0	51.9	77.9



#23
Vinyl Acetate
Concen: 0.06 ppbv
RT: 5.15 min Scan# 687
Delta R.T. -0.01 min
Lab File: VL033500.D
Acq: 29 Mar 2019 13:36

Tgt Ion:	43	Resp:	8299
Ion	Ratio	Lower	Upper
43	100		
86	14.2	5.6	8.4#
42	37.6	8.0	12.0#
44	5.4	3.9	5.9





#25

Ethyl Acetate

Concen: 1.12 ppbv

RT: 5.78 min Scan# 884

Delta R.T. 0.01 min

Lab File: VL033500.D

Acq: 29 Mar 2019 13:36

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 43 Resp: 211177

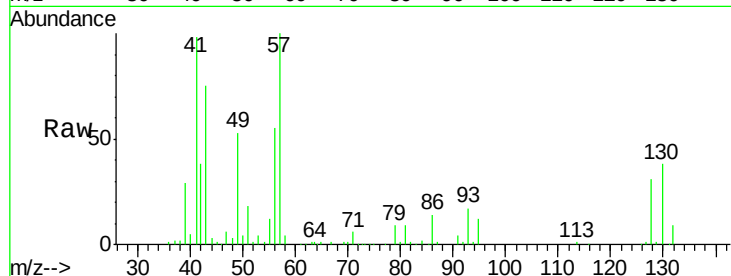
Ion Ratio Lower Upper

43 100

45 2.5 7.8 11.6#

61 1.3 7.3 10.9#

70 2.3 5.6 8.4#

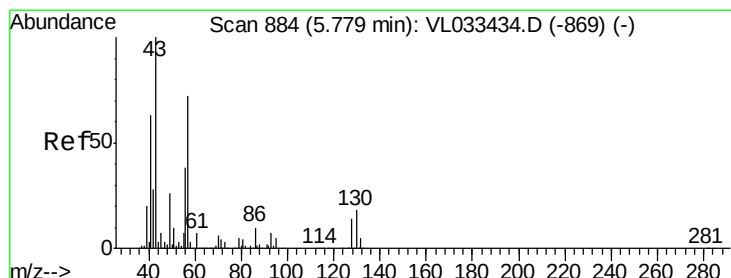
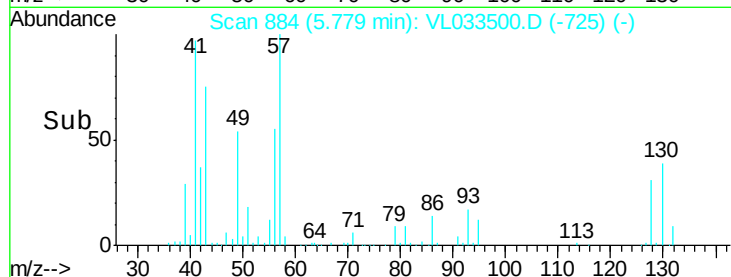
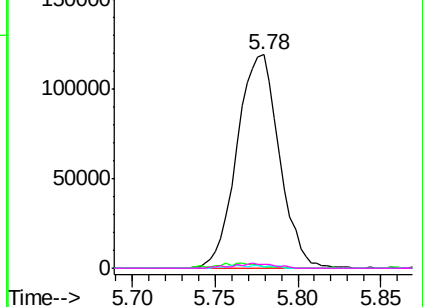


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 3.34 ppbv

RT: 5.77 min Scan# 882

Delta R.T. -0.01 min

Lab File: VL033500.D

Acq: 29 Mar 2019 13:36

Tgt Ion: 57 Resp: 279505

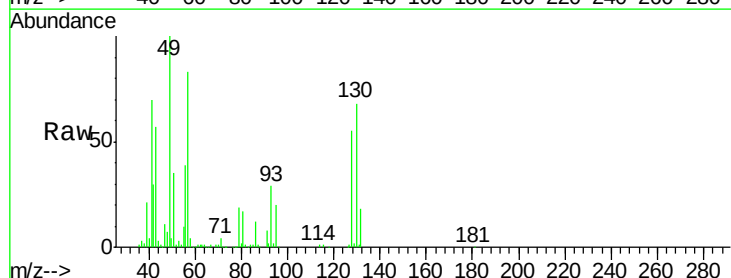
Ion Ratio Lower Upper

57 100

41 91.2 70.7 106.1

43 76.0 182.6 274.0#

56 53.2 42.0 63.0

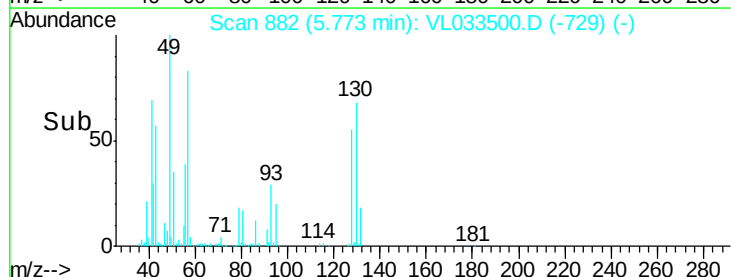
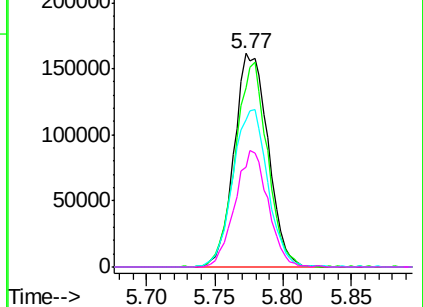


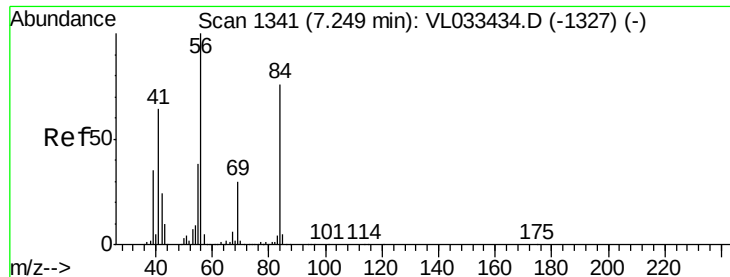
Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0

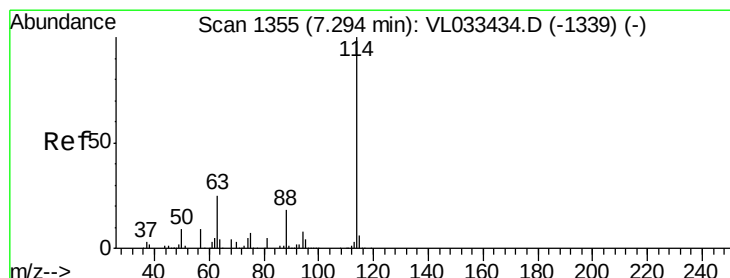
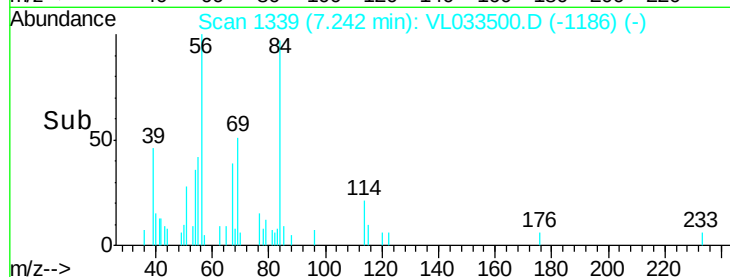
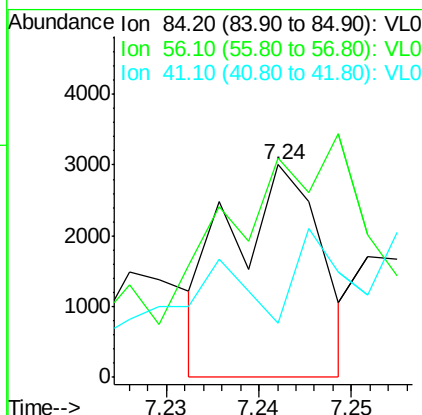
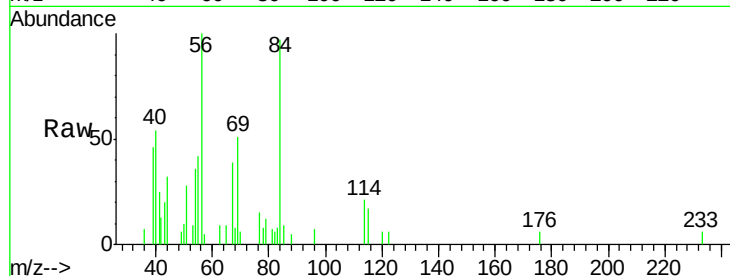




#30
Cyclohexane
Concen: 0.03 ppbv
RT: 7.24 min Scan# 1339
Delta R.T. -0.01 min
Lab File: VL033500.D
Acq: 29 Mar 2019 13:36

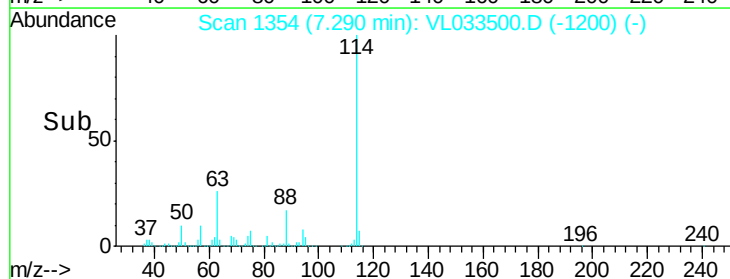
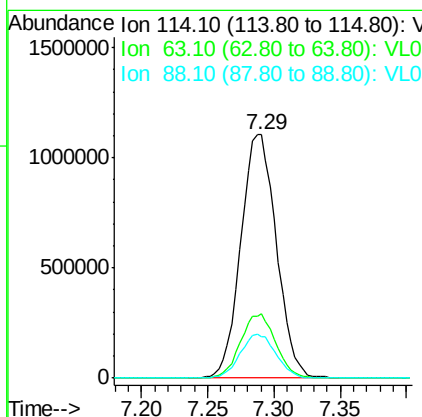
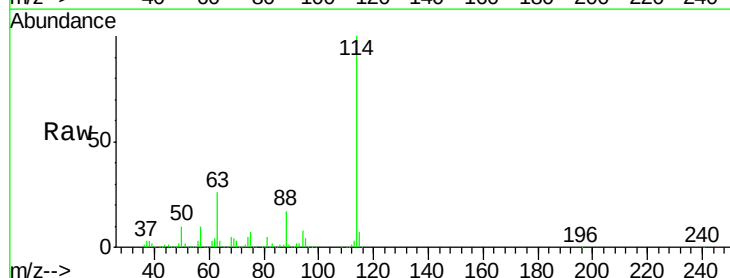
Instrument :
MSVOA_L
ClientSampled :

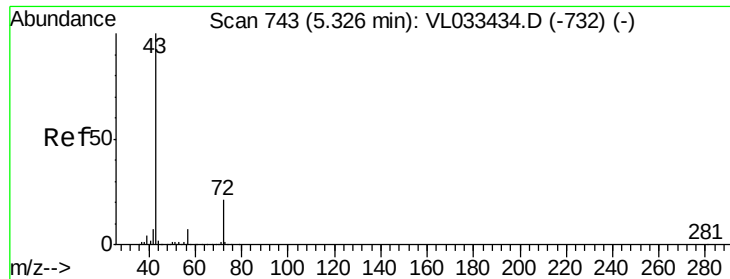
Tot Ion: 84 Resp: 2035
Ion Ratio Lower Upper
84 100
56 0.0 109.7 164.5#
41 233.4 68.2 102.2#



#33
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 7.29 min Scan# 1354
Delta R.T. -0.00 min
Lab File: VL033500.D
Acq: 29 Mar 2019 13:36

Tgt Ion: 114 Resp: 2063915
Ion Ratio Lower Upper
114 100
63 26.1 21.5 32.3
88 18.0 14.5 21.7





#34

2-Butanone

Concen: 0.29 ppbv

RT: 5.33 min Scan# 745

Delta R.T. 0.01 min

Lab File: VL033500.D

Acq: 29 Mar 2019 13:36

Instrument :

MSVOA_L

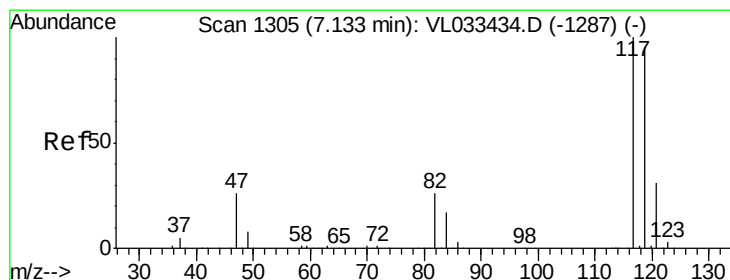
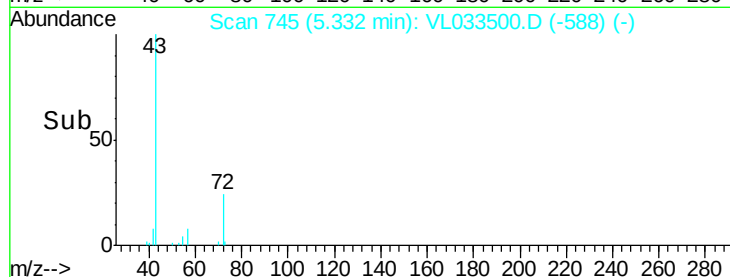
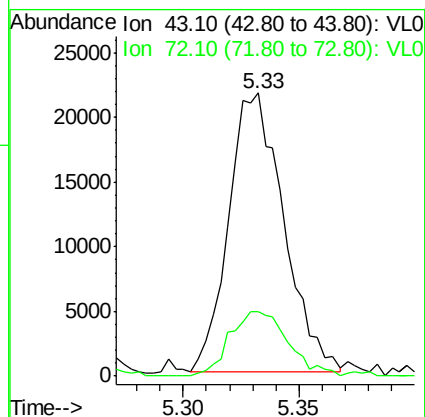
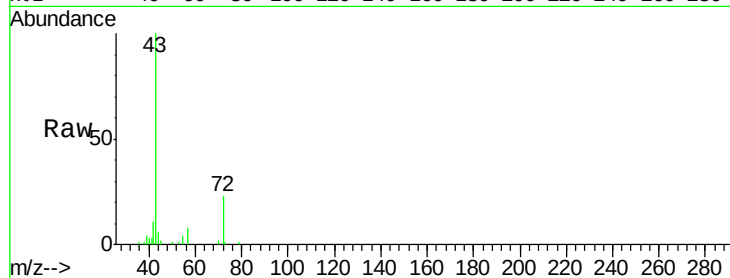
ClientSampleId :

Tot Ion: 43 Resp: 35656

Ion Ratio Lower Upper

43 100

72 25.0 17.4 26.2



#35

Carbon Tetrachloride

Concen: 0.04 ppbv

RT: 7.13 min Scan# 1303

Delta R.T. -0.01 min

Lab File: VL033500.D

Acq: 29 Mar 2019 13:36

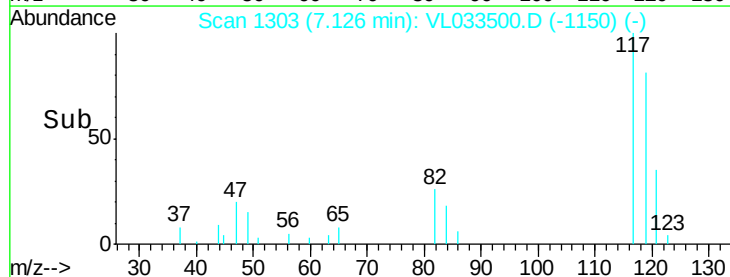
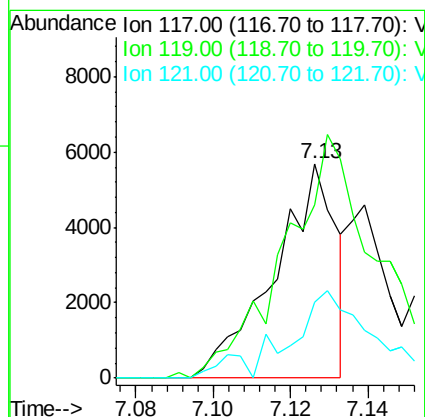
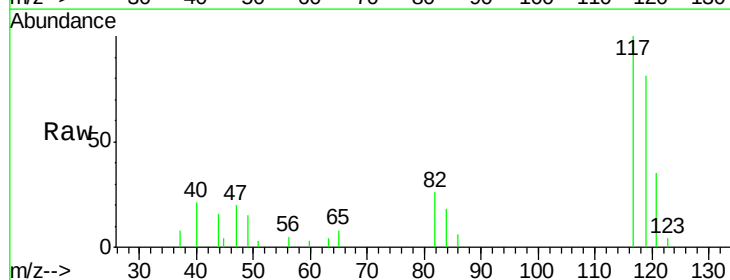
Tgt Ion: 117 Resp: 6297

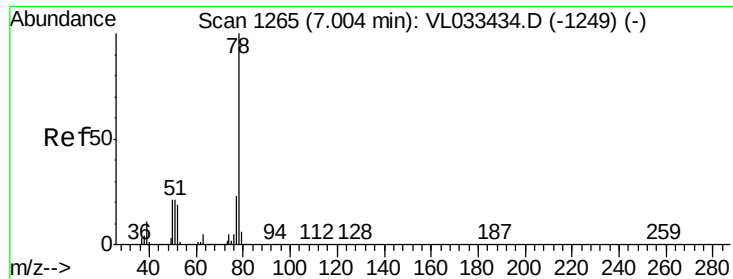
Ion Ratio Lower Upper

117 100

119 80.8 75.8 113.8

121 35.4 24.7 37.1

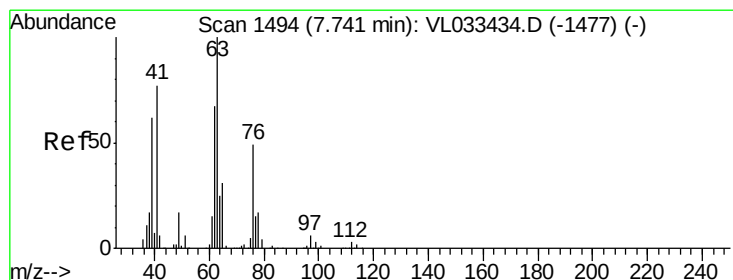
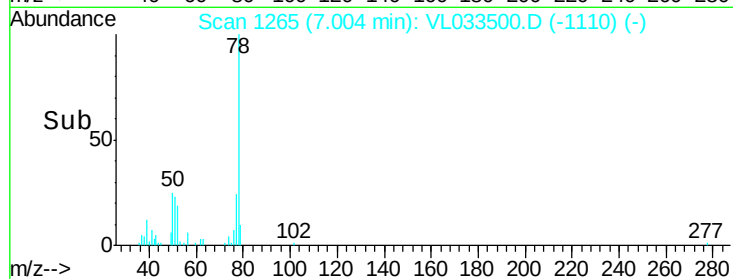
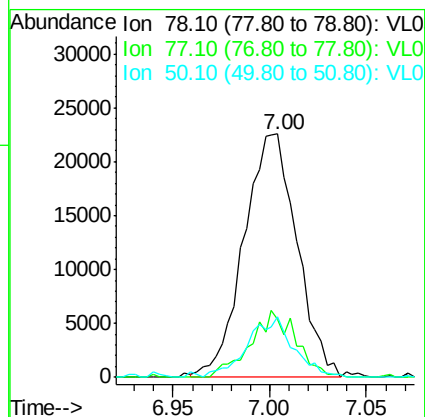
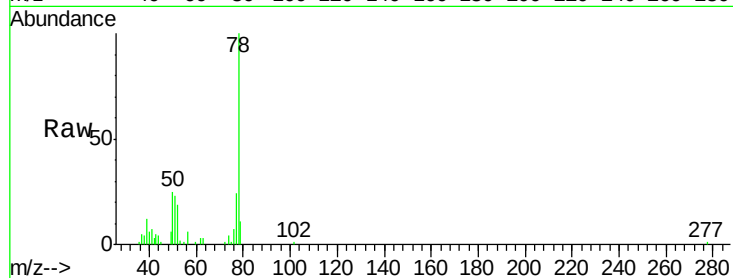




#36
Benzene
Concen: 0.25 ppbv
RT: 7.00 min Scan# 1265
Delta R.T. -0.00 min
Lab File: VL033500.D
Acq: 29 Mar 2019 13:36

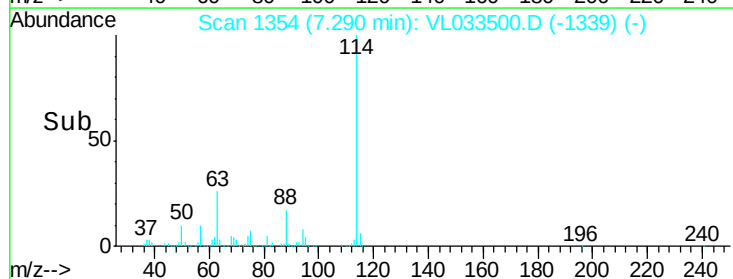
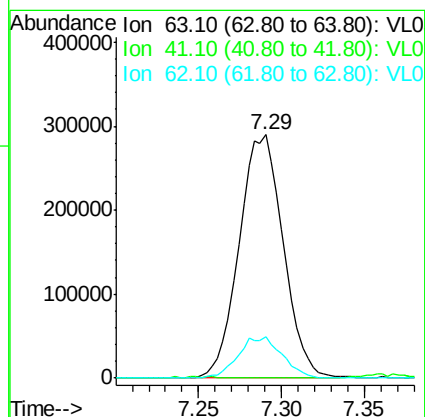
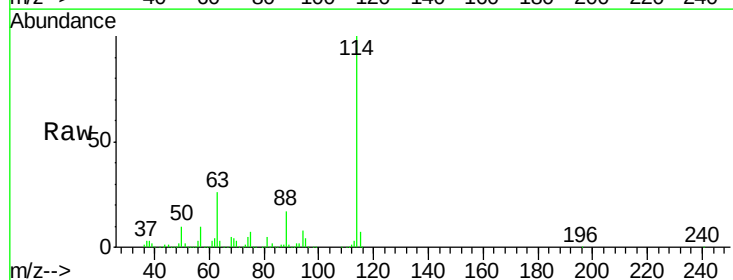
Instrument :
MSVOA_L
ClientSampleId :

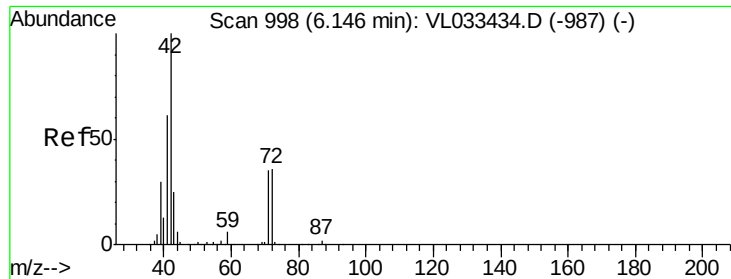
Tot Ion: 78 Resp: 43008
Ion Ratio Lower Upper
78 100
77 24.1 18.1 27.1
50 22.3 16.7 25.1



#39
1,2-Dichloropropane
Concen: 7.90 ppbv
RT: 7.29 min Scan# 1354
Delta R.T. -0.45 min
Lab File: VL033500.D
Acq: 29 Mar 2019 13:36

Tgt Ion: 63 Resp: 535689
Ion Ratio Lower Upper
63 100
41 0.0 61.2 91.8#
62 17.0 54.0 81.0#





#41

Tetrahydrofuran

Concen: 1.58 ppbv

RT: 5.78 min Scan# 883

Delta R.T. -0.37 min

Lab File: VL033500.D

Acq: 29 Mar 2019 13:36

Instrument :
MSVOA_L
ClientSampleId :

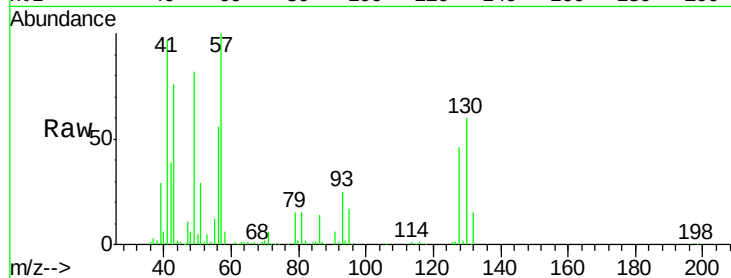
Tot Ion: 42 Resp: 108025

Ion Ratio Lower Upper

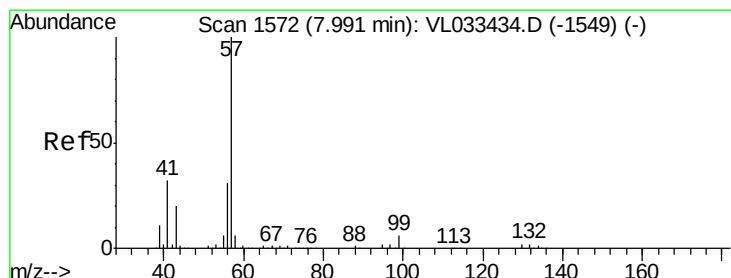
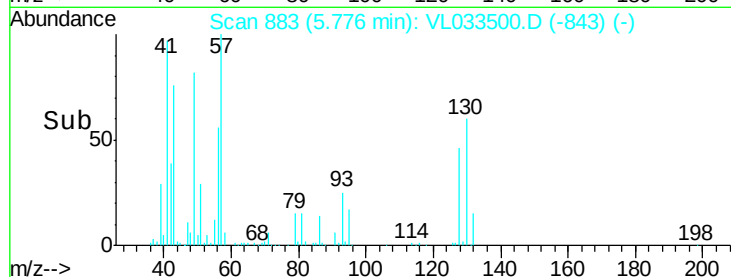
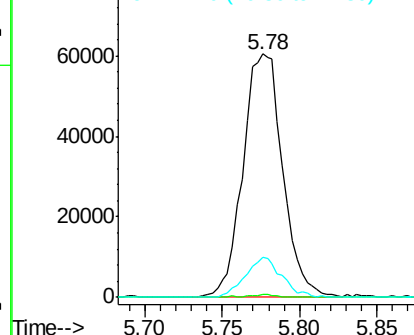
42 100

72 0.8 30.2 45.2#

71 15.0 29.4 44.2#



Abundance Ion 42.10 (41.80 to 42.80): VL0
Ion 72.10 (71.80 to 72.80): VL0
Ion 71.10 (70.80 to 71.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.06 ppbv

RT: 7.99 min Scan# 1571

Delta R.T. -0.00 min

Lab File: VL033500.D

Acq: 29 Mar 2019 13:36

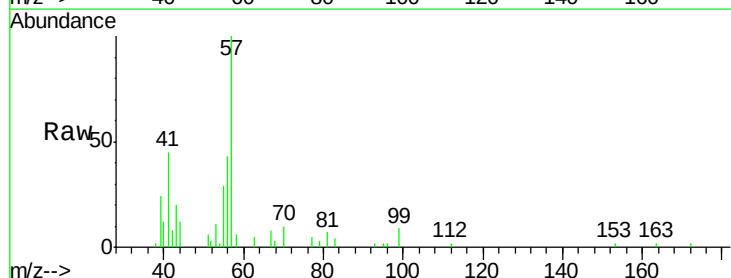
Tgt Ion: 57 Resp: 17870

Ion Ratio Lower Upper

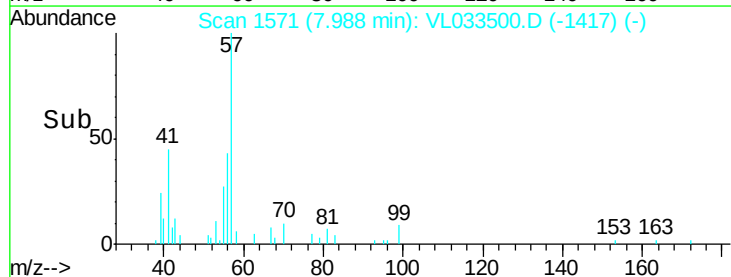
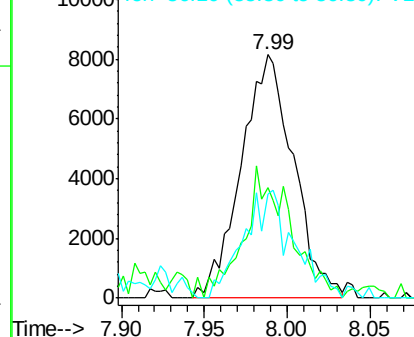
57 100

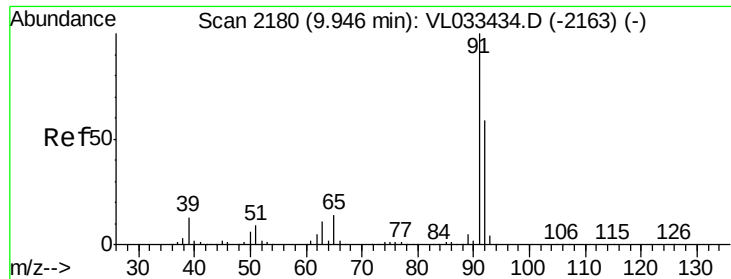
41 50.6 26.0 39.0#

56 44.1 24.6 37.0#



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





#53

Toluene

Concen: 5.52 ppbv

RT: 9.94 min Scan# 2179

Delta R.T. -0.00 min

Lab File: VL033500.D

Acq: 29 Mar 2019 13:36

Instrument :

MSVOA_L

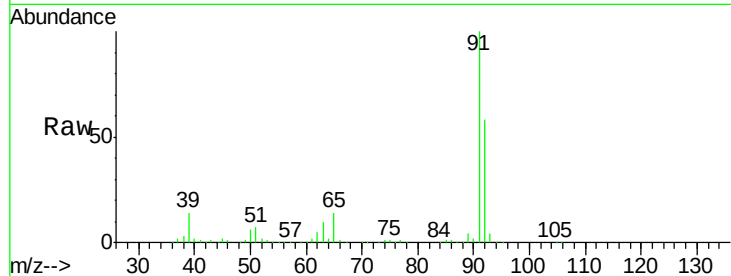
ClientSampleId :

Tot Ion: 91 Resp: 1109992

Ion Ratio Lower Upper

91 100

92 58.9 47.4 71.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

9.94

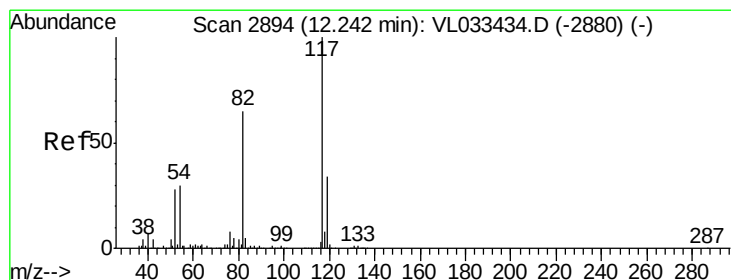
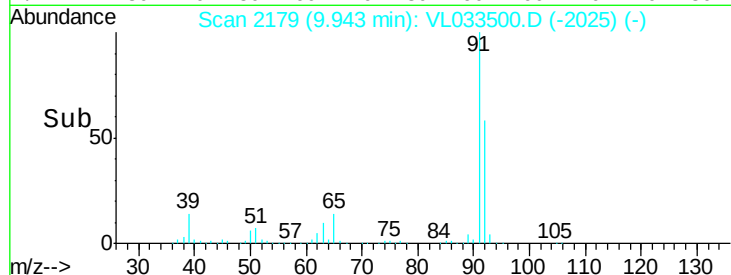
600000

400000

200000

0

Time-->



#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.24 min Scan# 2893

Delta R.T. -0.00 min

Lab File: VL033500.D

Acq: 29 Mar 2019 13:36

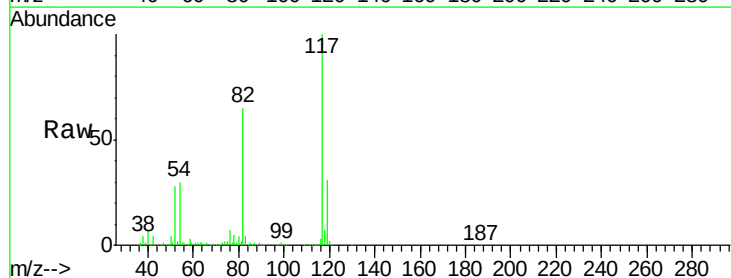
Tgt Ion: 117 Resp: 1998577

Ion Ratio Lower Upper

117 100

82 65.9 51.5 77.3

119 32.2 25.5 38.3



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

12.24

1200000

1000000

800000

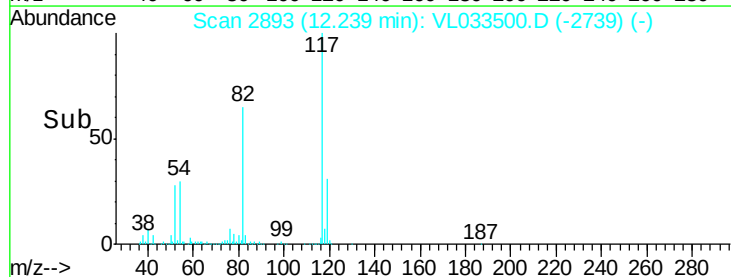
600000

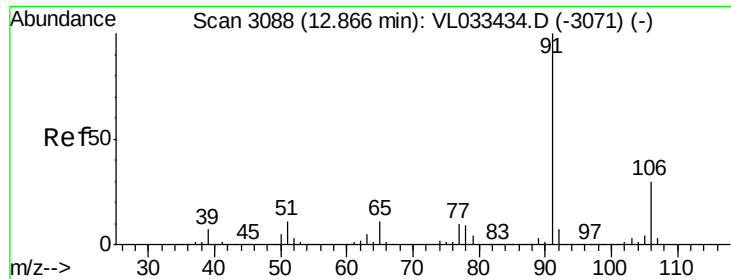
400000

200000

0

Time-->





#58

Ethyl Benzene

Concen: 0.09 ppbv

RT: 12.86 min Scan# 3087

Delta R.T. -0.00 min

Lab File: VL033500.D

Acq: 29 Mar 2019 13:36

Instrument :

MSVOA_L

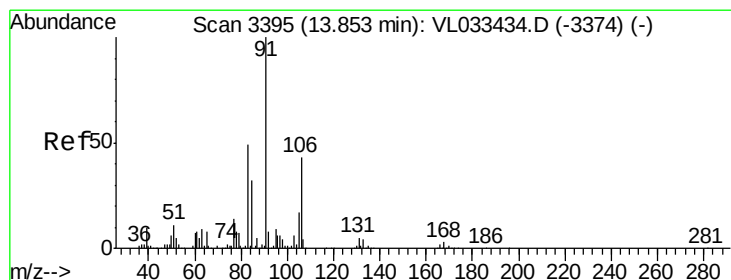
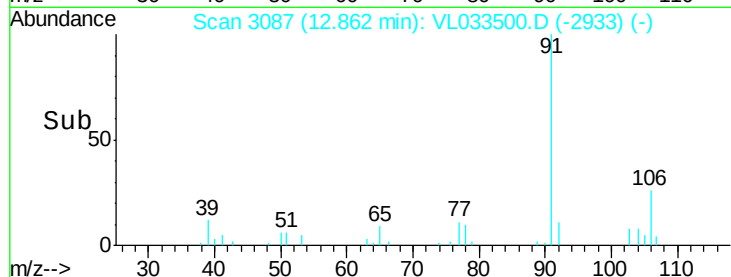
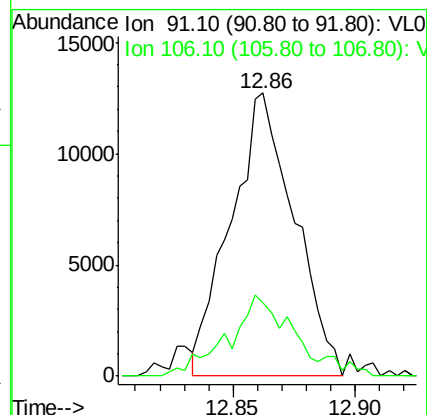
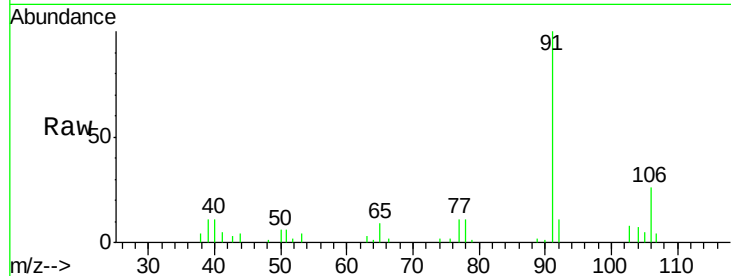
ClientSampleId :

Tot Ion: 91 Resp: 22971

Ion Ratio Lower Upper

91 100

106 28.3 23.8 35.6



#60

o-Xylene

Concen: 0.04 ppbv

RT: 13.85 min Scan# 3394

Delta R.T. -0.00 min

Lab File: VL033500.D

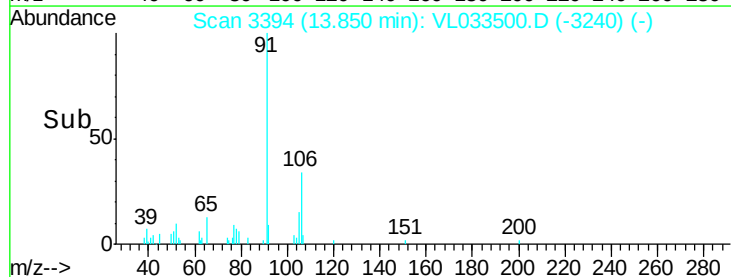
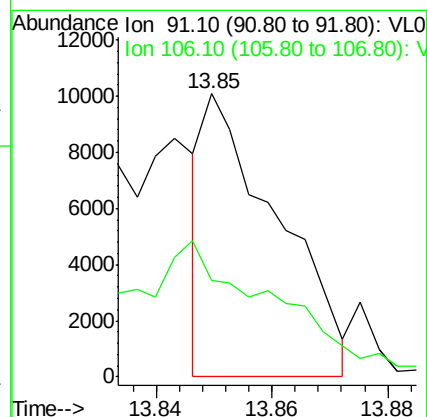
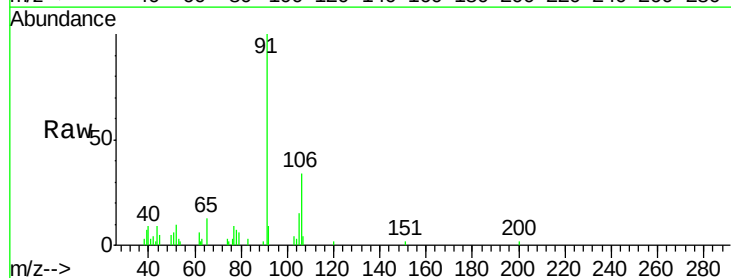
Acq: 29 Mar 2019 13:36

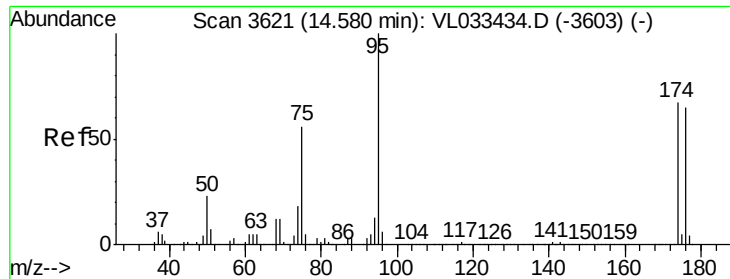
Tgt Ion: 91 Resp: 8920

Ion Ratio Lower Upper

91 100

106 104.0 21.4 64.3#

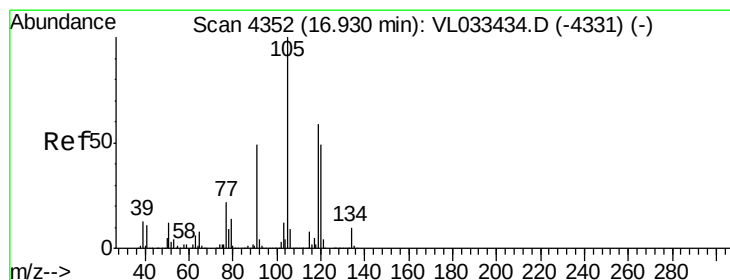
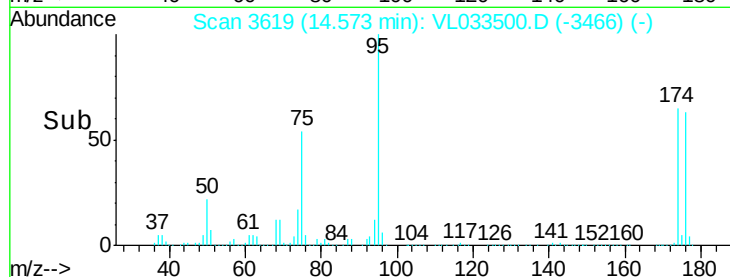
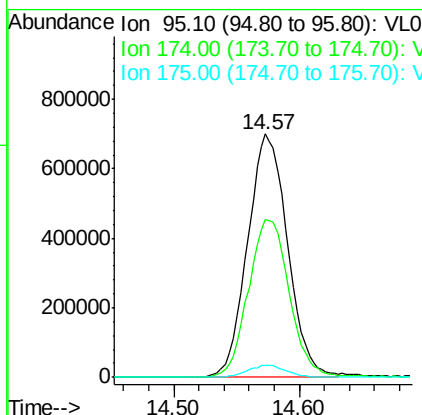
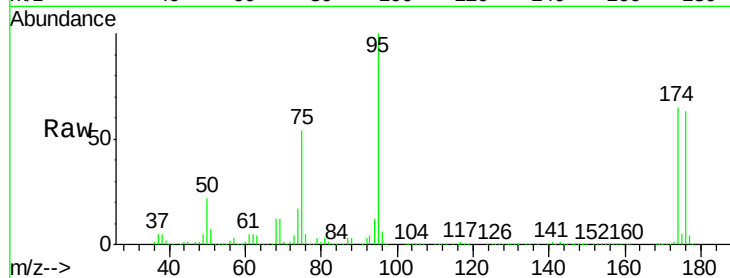




#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.91 ppbv
 RT: 14.57 min Scan# 3619
 Delta R.T. -0.01 min
 Lab File: VL033500.D
 Acq: 29 Mar 2019 13:36

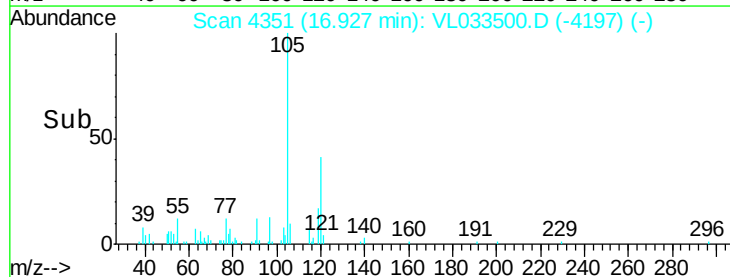
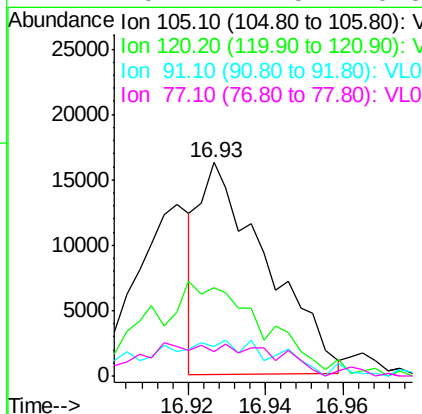
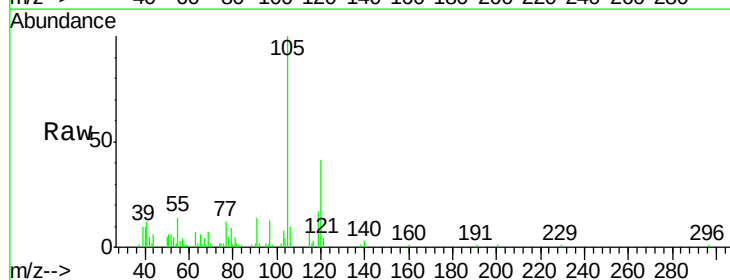
Instrument :
 MSVOA_L
 ClientSampleId :

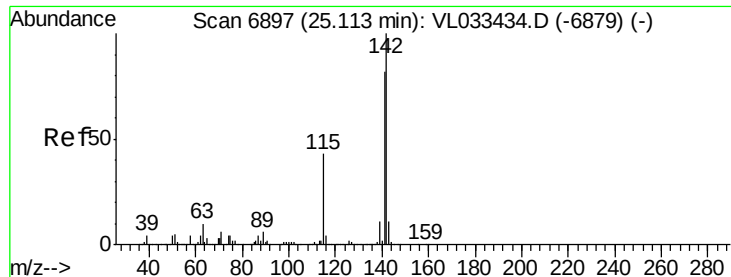
Tot Ion: 95 Resp: 1553351
 Ion Ratio Lower Upper
 95 100
 174 67.3 52.9 79.3
 175 4.8 3.8 5.6



#74
 1,2,4-Trimethylbenzene
 Concen: 0.07 ppbv
 RT: 16.93 min Scan# 4351
 Delta R.T. -0.00 min
 Lab File: VL033500.D
 Acq: 29 Mar 2019 13:36

Tgt Ion: 105 Resp: 19570
 Ion Ratio Lower Upper
 105 100
 120 35.8 39.0 58.6#
 91 8.9 40.0 60.0#
 77 9.7 17.5 26.3#





#80

Naphthalene, 2-methyl-

Concen: 0.03 ppbv

RT: 25.12 min Scan# 6899

Delta R.T. 0.01 min

Lab File: VL033500.D

Acq: 29 Mar 2019 13:36

Instrument :

MSVOA_L

ClientSampleId :

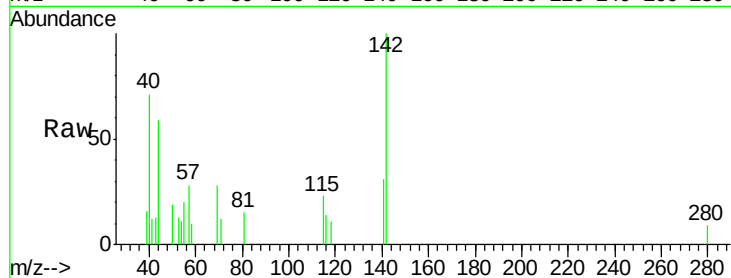
Tot Ion:142 Resp: 2403

Ion Ratio Lower Upper

142 100

141 80.1 66.6 99.8

115 37.3 34.4 51.6



Abundance Ion 142.00 (141.70 to 142.70): V
Ion 141.00 (140.70 to 141.70): V
Ion 115.00 (114.70 to 115.70): V

