

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL011216\
 Data File : VL026678.D
 Acq On : 12 Jan 2016 17:13
 Operator : SY/AP
 Sample : H1075-02DL 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jan 13 03:02:31 2016
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL010816AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Jan 11 17:14:02 2016
 QLast Update : Mon Jan 11 17:14:02 2016
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	6.68	49	668872	10.00	ppbv	0.05
33) 1,4-Difluorobenzene	8.36	114	2122187	10.00	ppbv	0.05
55) Chlorobenzene-d5	13.78	117	2908083	10.00	ppbv	0.05

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	16.32	95	2412138	10.41	ppbv	0.05
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.10%

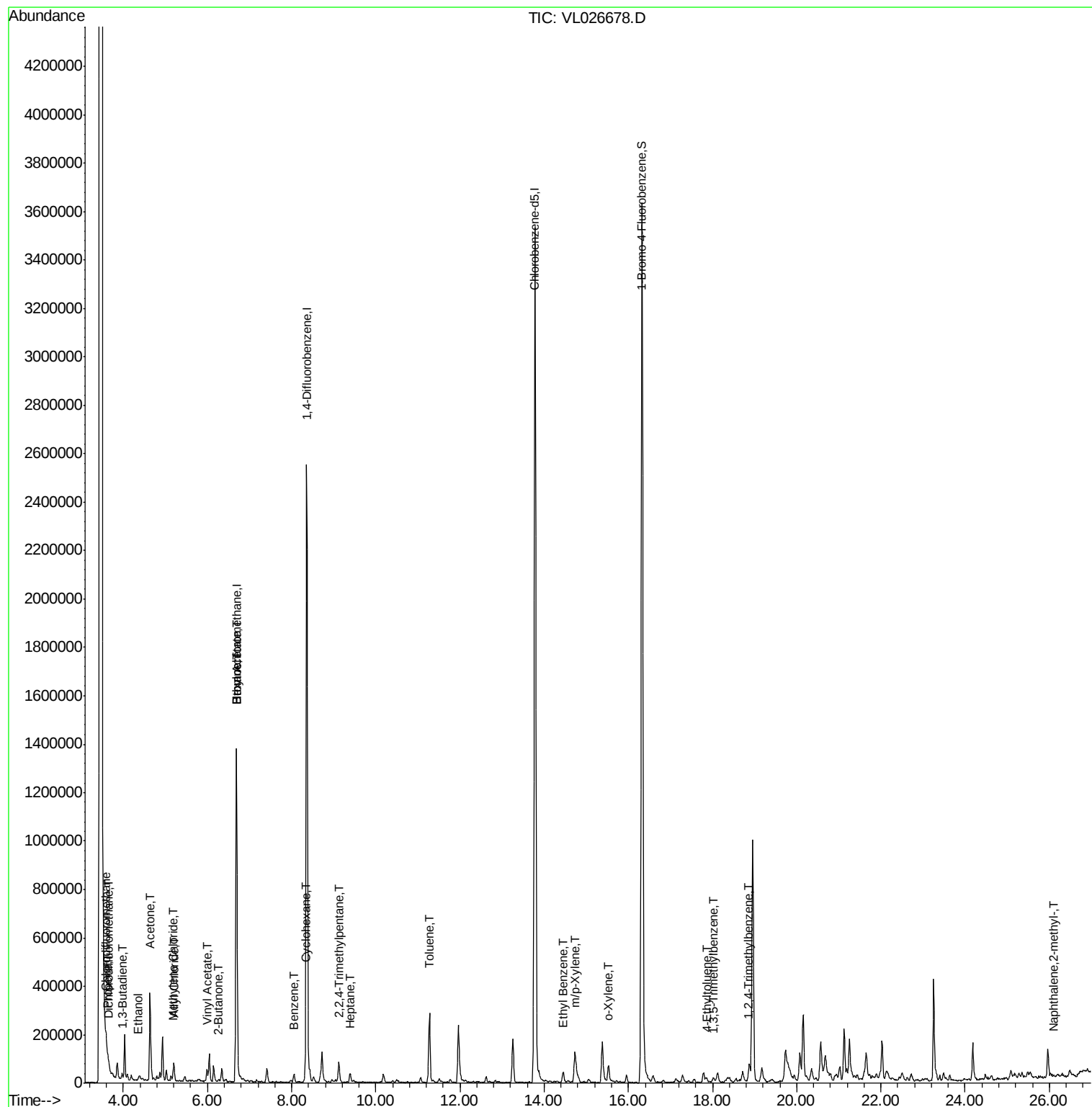
Target Compounds						Ovalue
2) Dichlorodifluoromethane	3.67	85	14020	0.08	ppbv	94
3) Chlorodifluoromethane	3.60	51	37869	0.43	ppbv	95
9) Propene	3.64	41	7420	0.23	ppbv	89
10) Heptane	9.38	43	13707	0.11	ppbv	93
13) Ethanol	4.34	45	661	0.11	ppbv #	34
15) Acetone	4.64	43	178718	1.62	ppbv #	82
16) 1,3-Butadiene	3.98	39	8253	0.19	ppbv #	8
20) Methylene Chloride	5.19	84	9110	0.20	ppbv #	77
21) Allyl Chloride	5.21	41	12160	0.18	ppbv #	44
23) Vinyl Acetate	5.99	43	16283	0.10	ppbv #	1
25) Ethyl Acetate	6.70	43	22016	0.13	ppbv #	80
26) Hexane	6.70	57	32583	0.37	ppbv #	48
30) Cyclohexane	8.32	84	3299	0.04	ppbv #	1
34) 2-Butanone	6.26	43	8176	0.07	ppbv #	70
36) Benzene	8.06	78	32189	0.15	ppbv	97
44) 2,2,4-Trimethylpentane	9.12	57	65621	0.19	ppbv #	76
53) Toluene	11.27	91	269440	0.88	ppbv	99
58) Ethyl Benzene	14.45	91	47530	0.09	ppbv #	87
59) m/p-Xylene	14.73	91	156199	0.36	ppbv	95
60) o-Xylene	15.53	91	65919	0.14	ppbv	100
72) 4-Ethyltoluene	17.86	105	21818	0.04	ppbv #	91
73) 1,3,5-Trimethylbenzene	18.03	105	15084	0.03	ppbv	99
74) 1,2,4-Trimethylbenzene	18.86	105	65256	0.13	ppbv #	74
80) Naphthalene,2-methyl-	26.12	142	1967	0.04	ppbv #	63

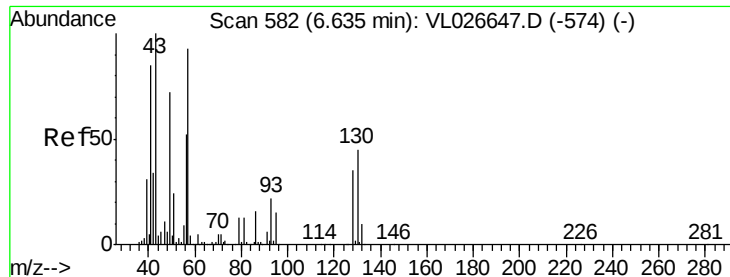
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL010816AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Jan 11 17:14:02 2016
QLast Update : Mon Jan 11 17:14:02 2016
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 6.68 min Scan# 590

Delta R.T. 0.05 min

Lab File: VL026678.D

Acq: 12 Jan 2016 17:13

Instrument :
MSVOA_L
ClientSampleId :

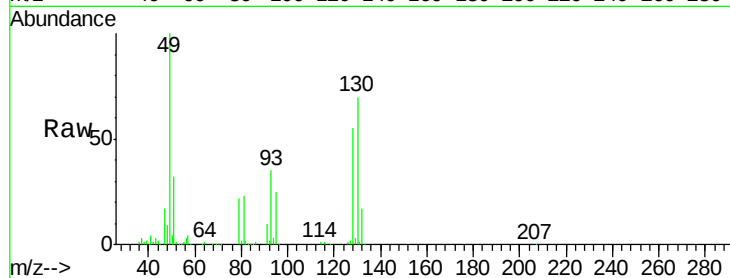
Tot Ion: 49 Resp: 668872

Ion Ratio Lower Upper

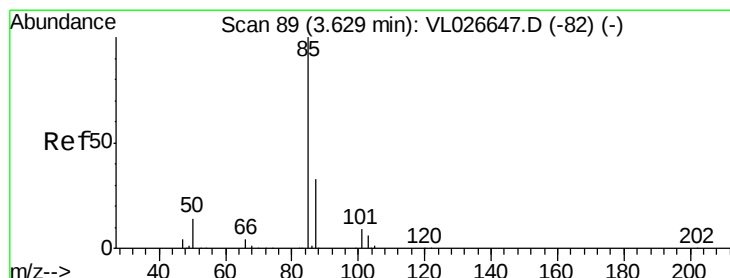
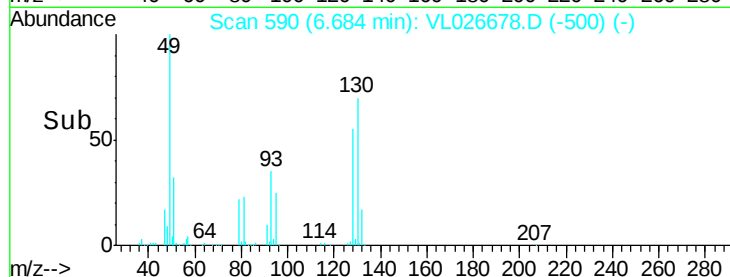
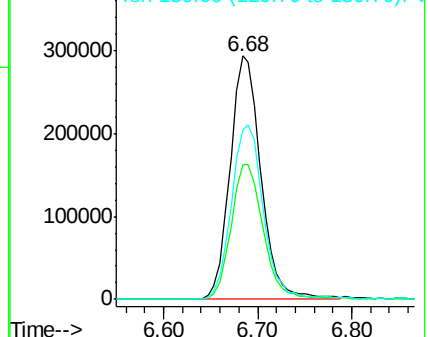
49 100

128 58.5 25.9 77.7

130 74.9 33.6 100.8



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: 0.08 ppbv

RT: 3.67 min Scan# 95

Delta R.T. 0.04 min

Lab File: VL026678.D

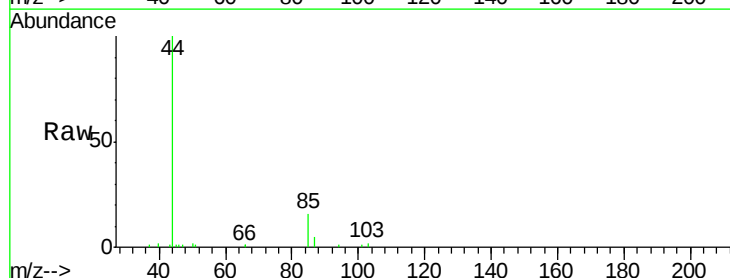
Acq: 12 Jan 2016 17:13

Tgt Ion: 85 Resp: 14020

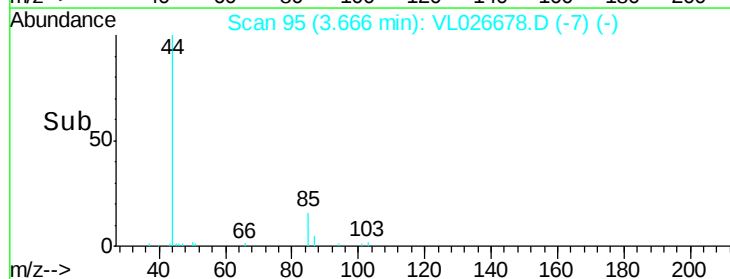
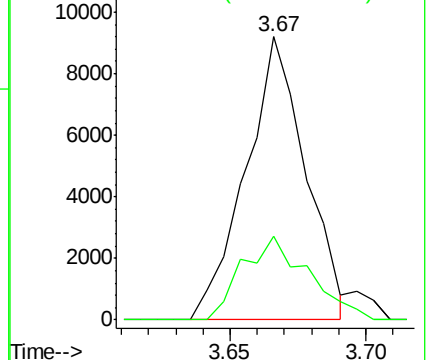
Ion Ratio Lower Upper

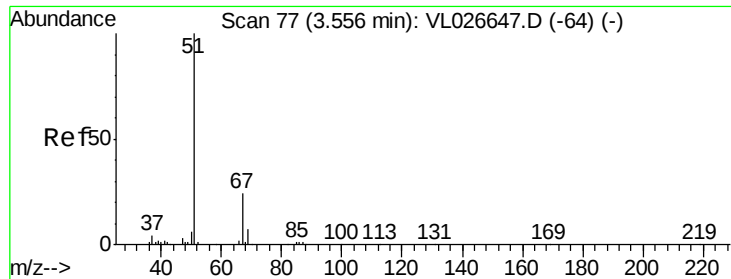
85 100

87 29.5 26.4 39.6



Abundance Ion 85.00 (84.70 to 85.70): VL0
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.43 ppbv

RT: 3.60 min Scan# 84

Delta R.T. 0.04 min

Lab File: VL026678.D

Acq: 12 Jan 2016 17:13

Instrument :

MSVOA_L

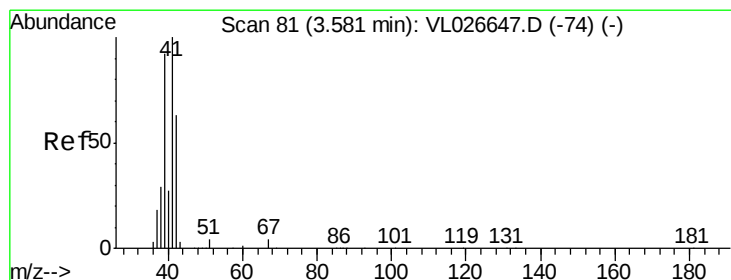
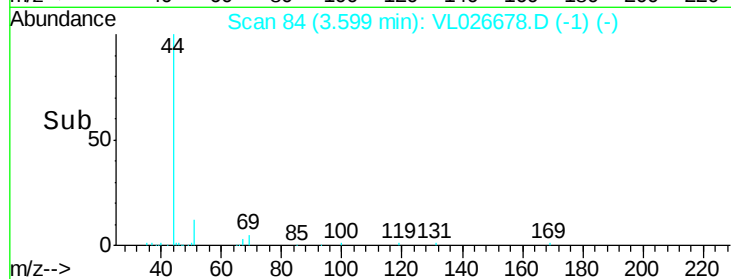
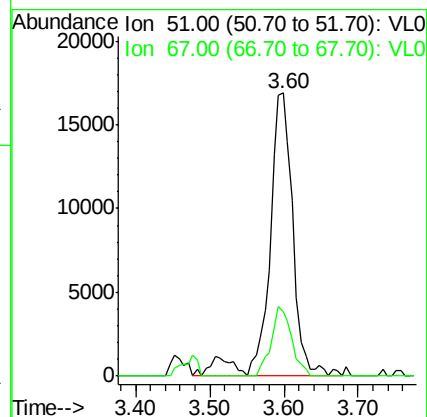
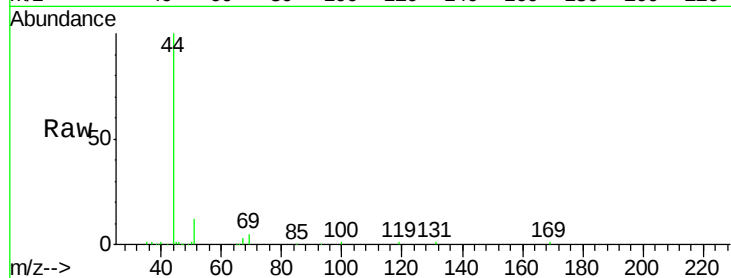
ClientSampleId :

Tot Ion: 51 Resp: 37869

Ion Ratio Lower Upper

51 100

67 21.0 18.6 28.0



#9

Propene

Concen: 0.23 ppbv

RT: 3.64 min Scan# 90

Delta R.T. 0.05 min

Lab File: VL026678.D

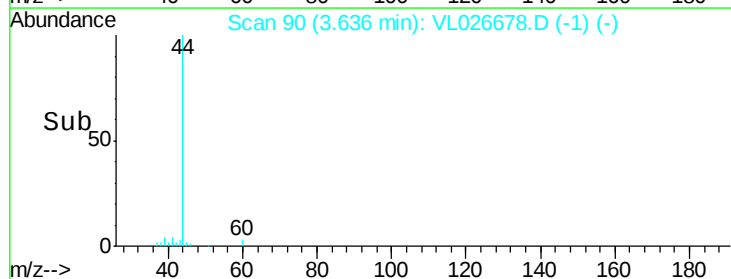
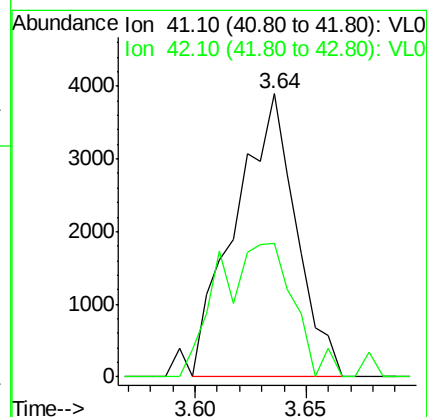
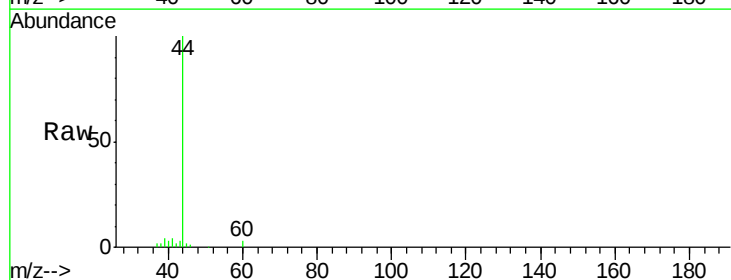
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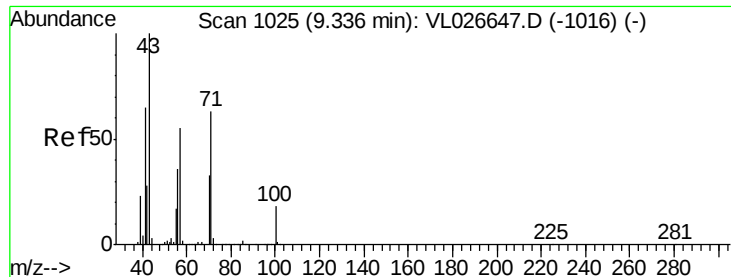
Tgt Ion: 41 Resp: 7420

Ion Ratio Lower Upper

41 100

42 58.3 53.6 80.4

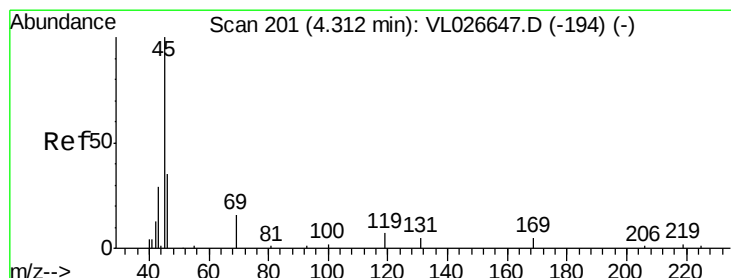
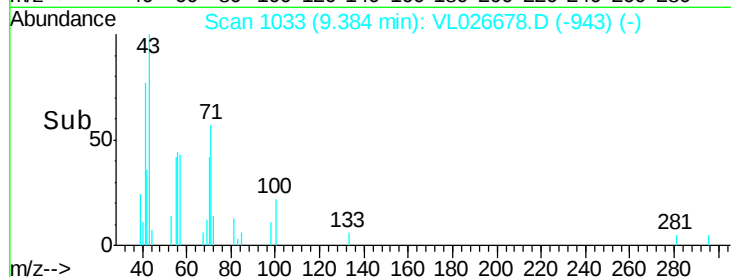
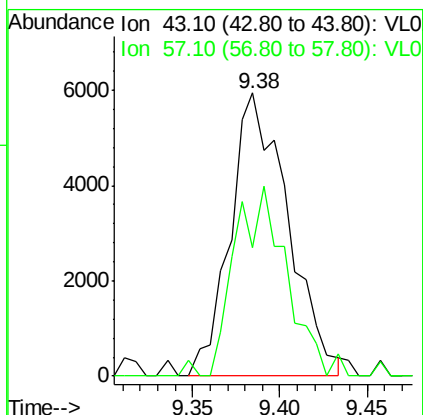
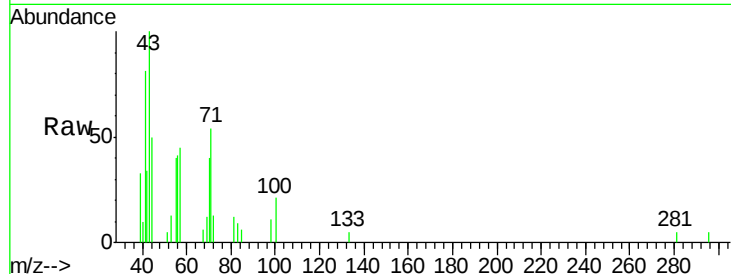




#10
Heptane
Concen: 0.11 ppbv
RT: 9.38 min Scan# 1033
Delta R.T. 0.05 min
Lab File: VL026678.D
Acq: 12 Jan 2016 17:13

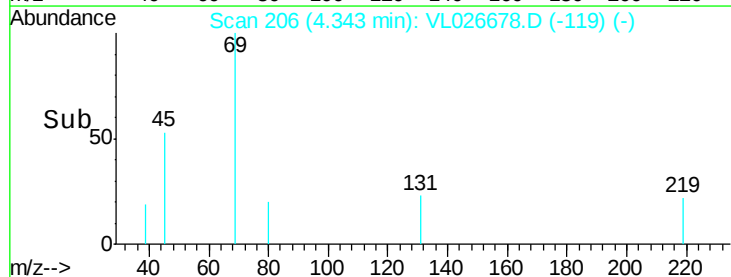
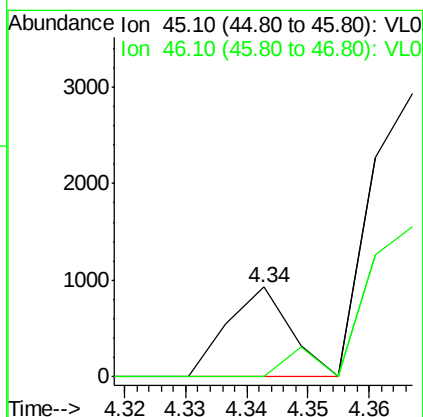
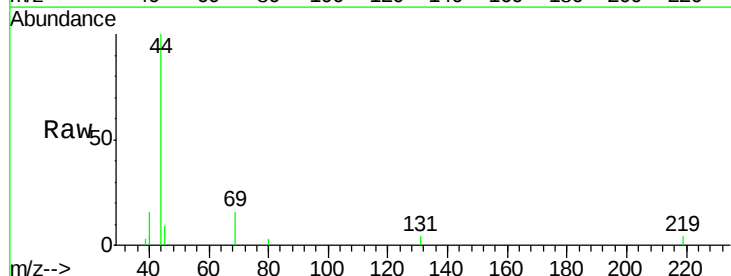
Instrument :
MSVOA_L
ClientSampleId :

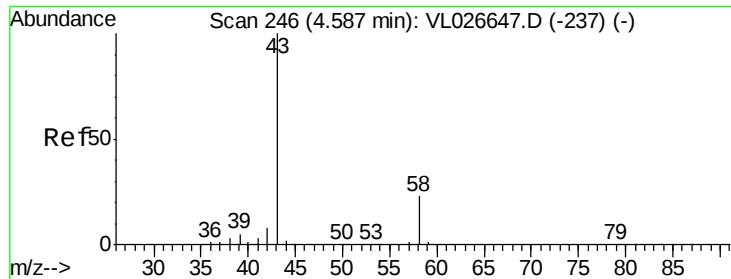
Tot Ion: 43 Resp: 13707
Ion Ratio Lower Upper
43 100
57 62.0 45.8 68.6



#13
Ethanol
Concen: 0.11 ppbv
RT: 4.34 min Scan# 206
Delta R.T. 0.03 min
Lab File: VL026678.D
Acq: 12 Jan 2016 17:13

Tgt Ion: 45 Resp: 661
Ion Ratio Lower Upper
45 100
46 0.0 16.7 66.7#





#15

Acetone

Concen: 1.62 ppbv

RT: 4.64 min Scan# 255

Delta R.T. 0.05 min

Lab File: VL026678.D

Acq: 12 Jan 2016 17:13

Instrument :

MSVOA_L

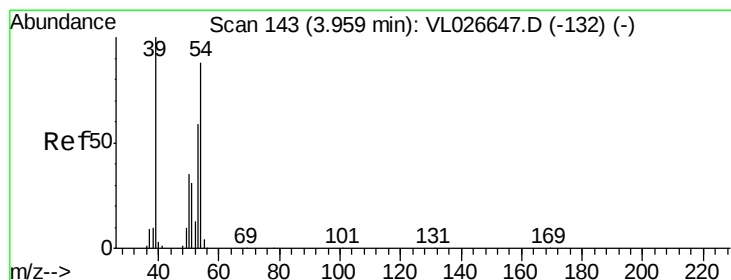
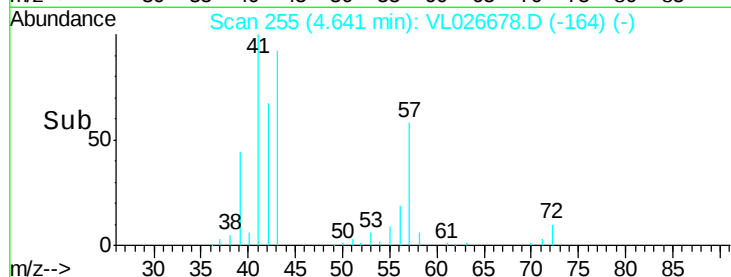
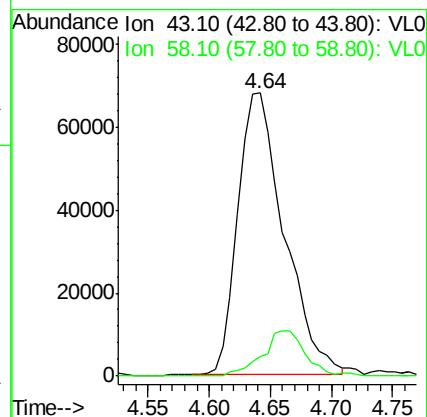
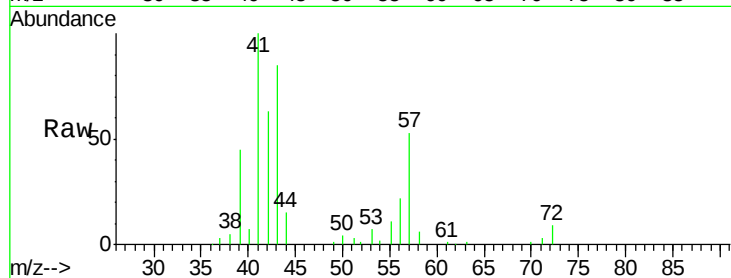
ClientSampleId :

Tot Ion: 43 Resp: 178718

Ion Ratio Lower Upper

43 100

58 15.0 19.2 28.8#



#16

1,3-Butadiene

Concen: 0.19 ppbv

RT: 3.98 min Scan# 146

Delta R.T. 0.02 min

Lab File: VL026678.D

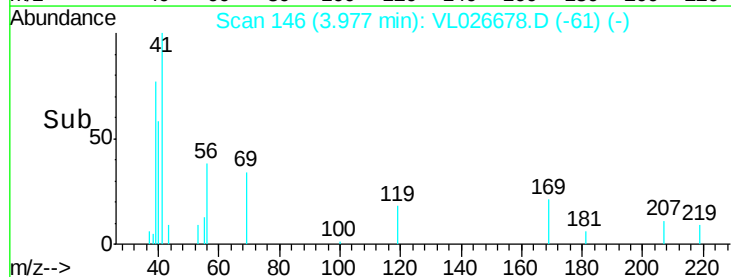
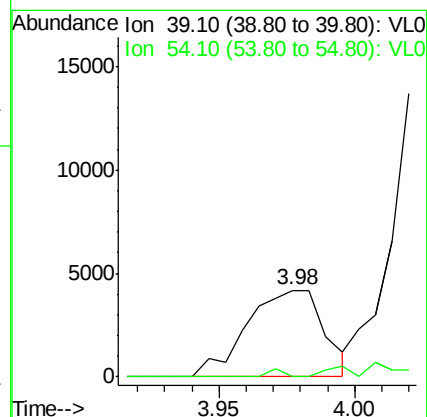
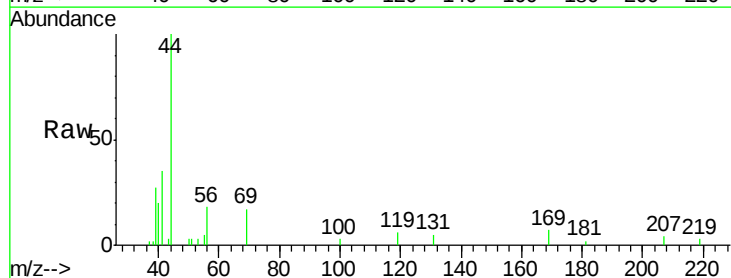
Acq: 12 Jan 2016 17:13

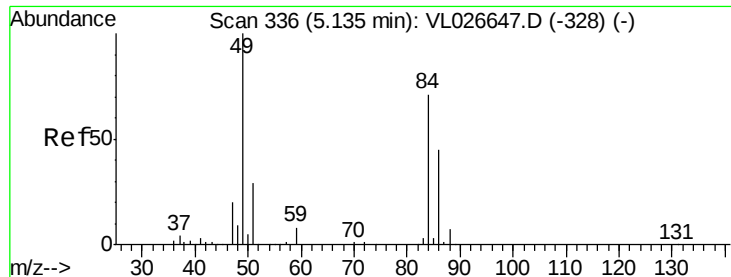
Tgt Ion: 39 Resp: 8253

Ion Ratio Lower Upper

39 100

54 0.0 66.6 100.0#

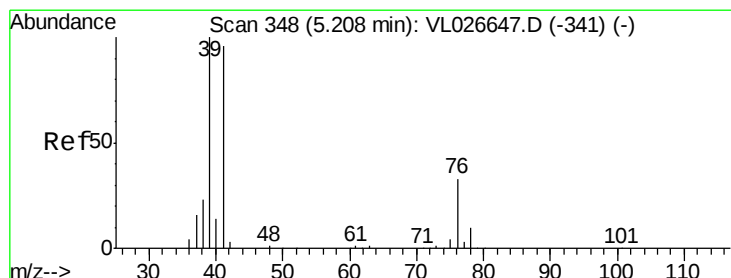
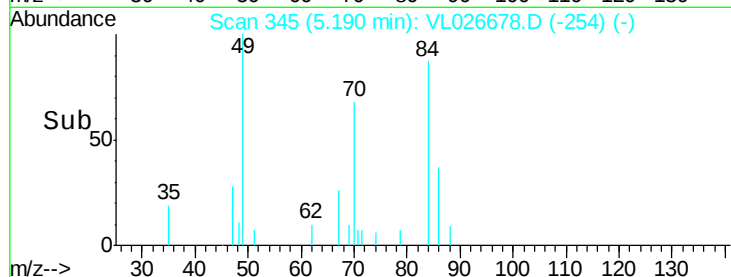
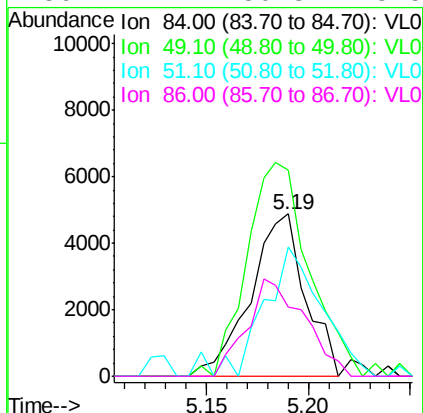
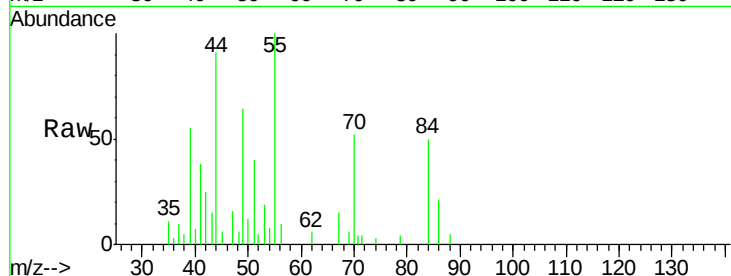




#20
Methylene Chloride
Concen: 0.20 ppbv
RT: 5.19 min Scan# 345
Delta R.T. 0.05 min
Lab File: VL026678.D
Acq: 12 Jan 2016 17:13

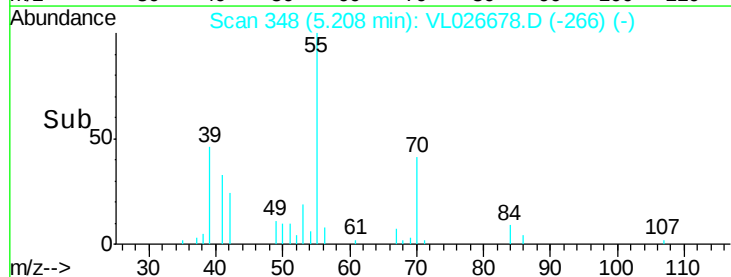
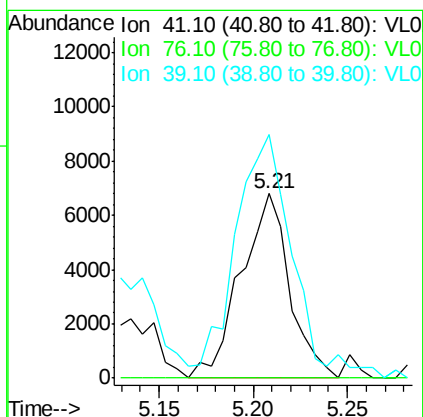
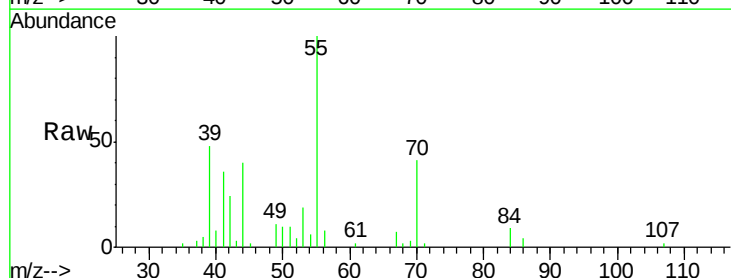
Instrument :
MSVOA_L
ClientSampled :

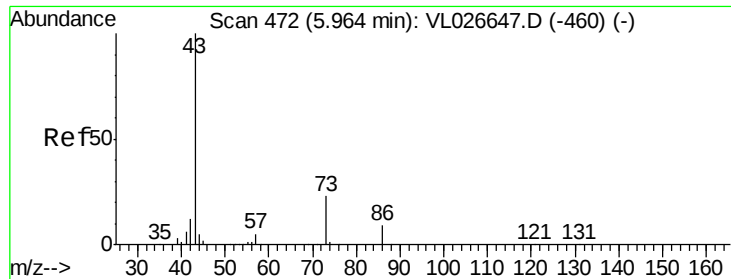
Tot Ion: 84 Resp: 9110
Ion Ratio Lower Upper
84 100
49 127.1 112.3 168.5
51 79.4 32.5 48.7#
86 42.4 50.3 75.5#



#21
Allyl Chloride
Concen: 0.18 ppbv
RT: 5.21 min Scan# 348
Delta R.T. 0.00 min
Lab File: VL026678.D
Acq: 12 Jan 2016 17:13

Tgt Ion: 41 Resp: 12160
Ion Ratio Lower Upper
41 100
76 0.0 27.5 41.3#
39 160.1 83.0 124.6#





#23

Vinyl Acetate

Concen: 0.10 ppbv

RT: 5.99 min Scan# 476

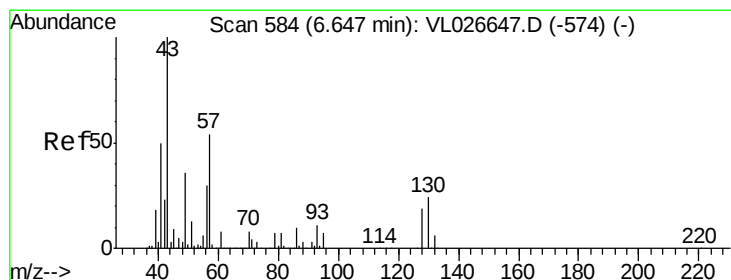
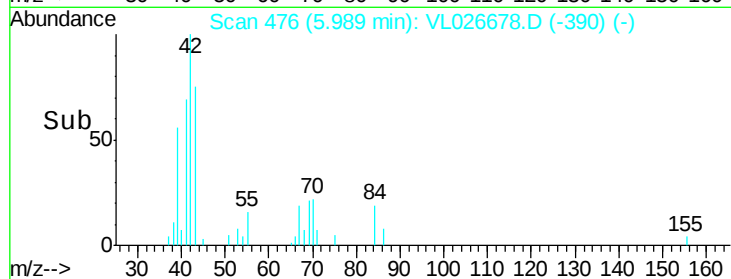
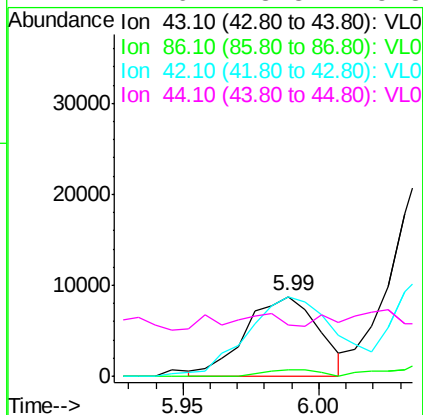
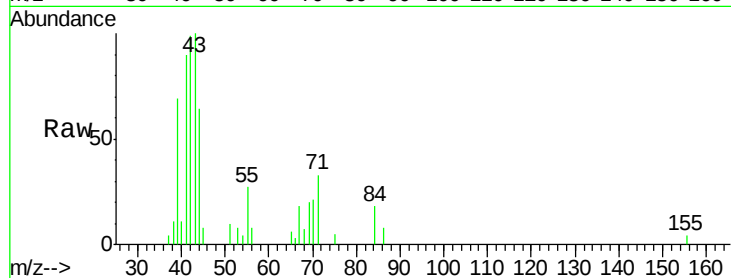
Delta R.T. 0.02 min

Lab File: VL026678.D

Acq: 12 Jan 2016 17:13

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:	43	Resp:	16283
Ion	Ratio	Lower	Upper
43	100		
86	8.5	7.4	11.0
42	100.2	9.2	13.8#
44	4.6	3.8	5.8



#25

Ethyl Acetate

Concen: 0.13 ppbv

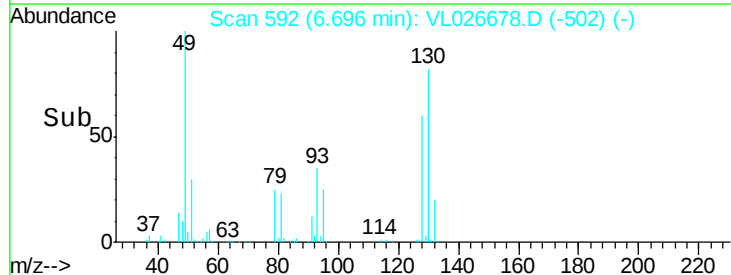
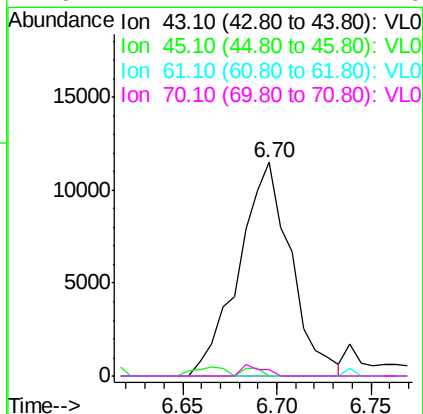
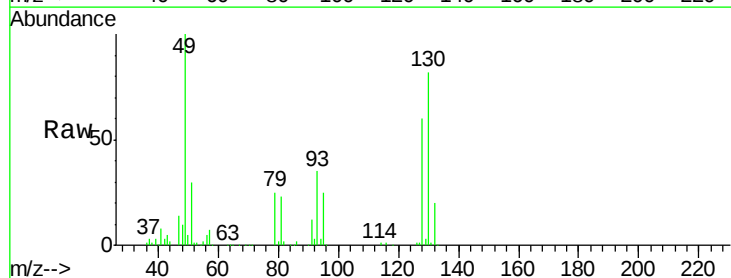
RT: 6.70 min Scan# 592

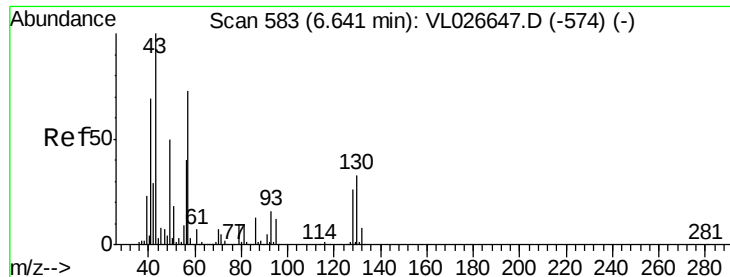
Delta R.T. 0.05 min

Lab File: VL026678.D

Acq: 12 Jan 2016 17:13

Tgt Ion:	43	Resp:	22016
Ion	Ratio	Lower	Upper
43	100		
45	3.8	7.5	11.3#
61	0.0	7.3	10.9#
70	2.2	7.4	11.0#

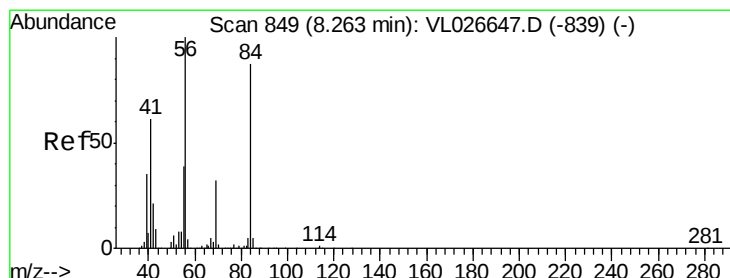
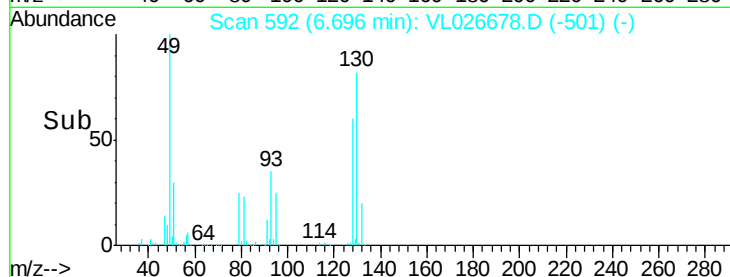
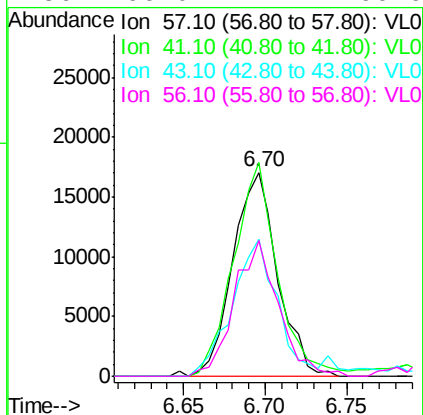
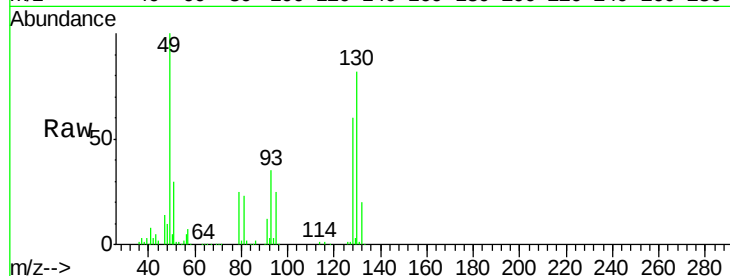




#26
Hexane
Concen: 0.37 ppbv
RT: 6.70 min Scan# 592
Delta R.T. 0.05 min
Lab File: VL026678.D
Acq: 12 Jan 2016 17:13

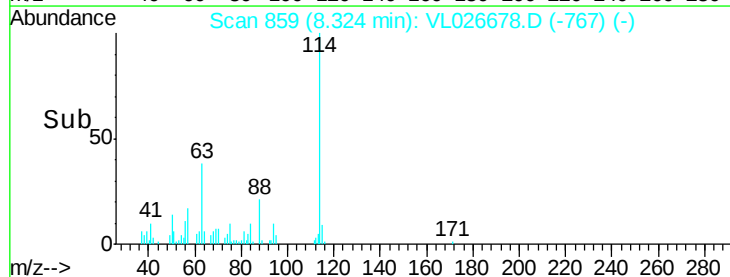
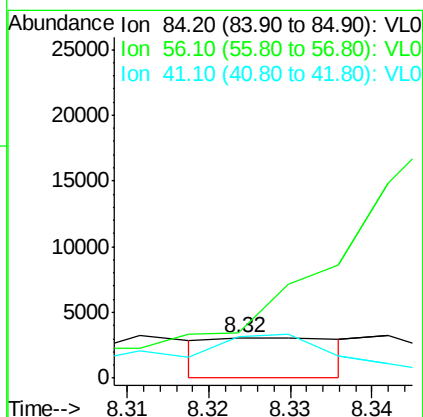
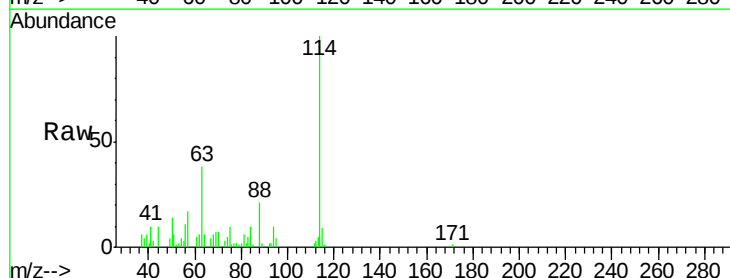
Instrument :
MSVOA_L
ClientSampleId :

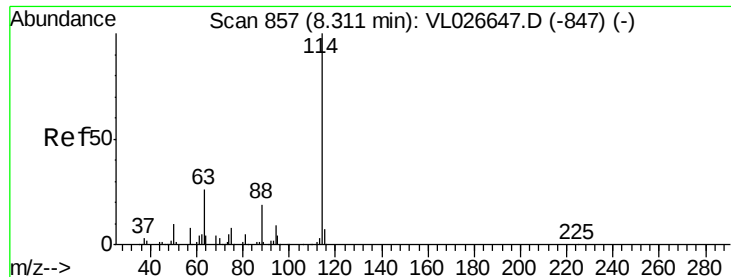
Tot Ion: 57 Resp: 32583
Ion Ratio Lower Upper
57 100
41 103.4 74.8 112.2
43 76.5 161.5 242.3#
56 66.0 44.4 66.6



#30
Cyclohexane
Concen: 0.04 ppbv
RT: 8.32 min Scan# 859
Delta R.T. 0.06 min
Lab File: VL026678.D
Acq: 12 Jan 2016 17:13

Tgt Ion: 84 Resp: 3299
Ion Ratio Lower Upper
84 100
56 0.0 95.9 143.9#
41 200.9 54.8 82.2#

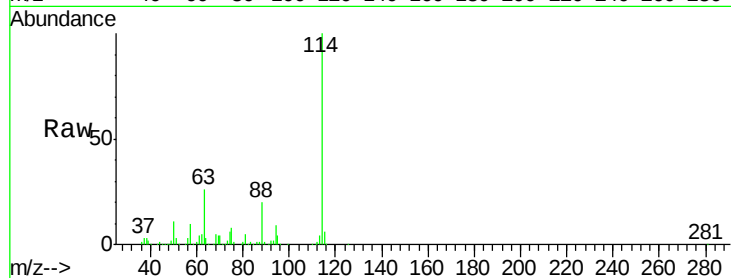




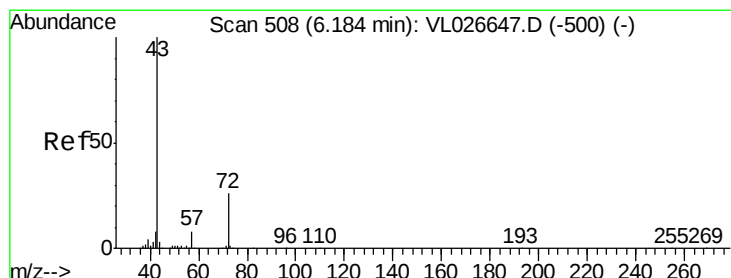
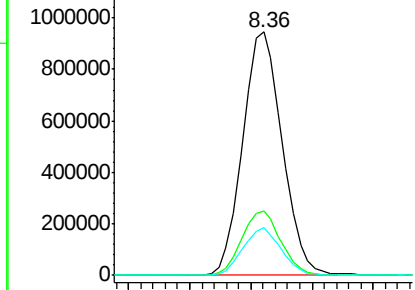
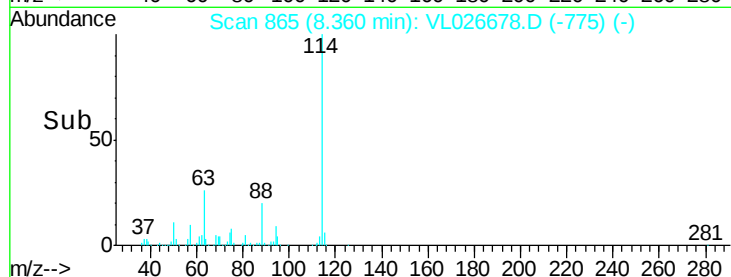
#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 8.36 min Scan# 865
 Delta R.T. 0.05 min
 Lab File: VL026678.D
 Acq: 12 Jan 2016 17:13

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:114 Resp: 2122187
 Ion Ratio Lower Upper
 114 100
 63 26.3 21.7 32.5
 88 19.1 15.2 22.8

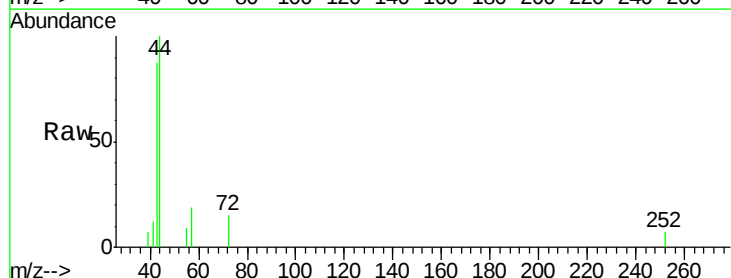


Abundance Ion 114.10 (113.80 to 114.80): V
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

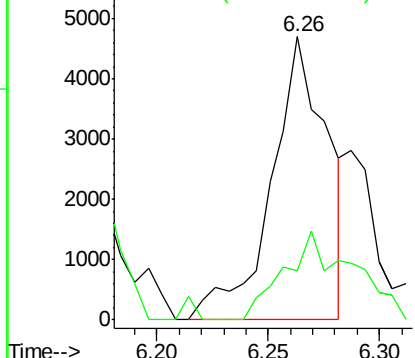
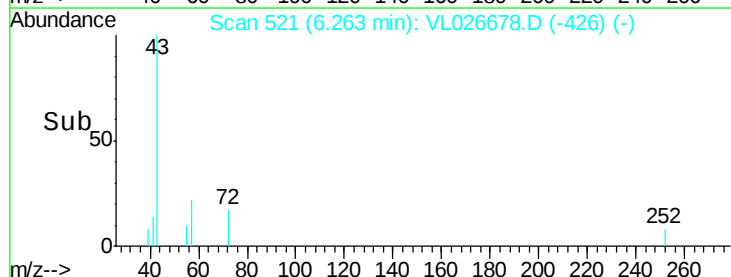


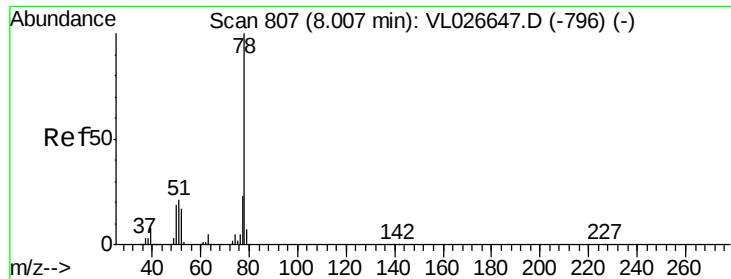
#34
 2-Butanone
 Concen: 0.07 ppbv
 RT: 6.26 min Scan# 521
 Delta R.T. 0.08 min
 Lab File: VL026678.D
 Acq: 12 Jan 2016 17:13

Tgt Ion: 43 Resp: 8176
 Ion Ratio Lower Upper
 43 100
 72 41.5 20.9 31.3#



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#36

Benzene

Concen: 0.15 ppbv

RT: 8.06 min Scan# 815

Delta R.T. 0.05 min

Lab File: VL026678.D

Acq: 12 Jan 2016 17:13

Instrument :
MSVOA_L
ClientSampleId :

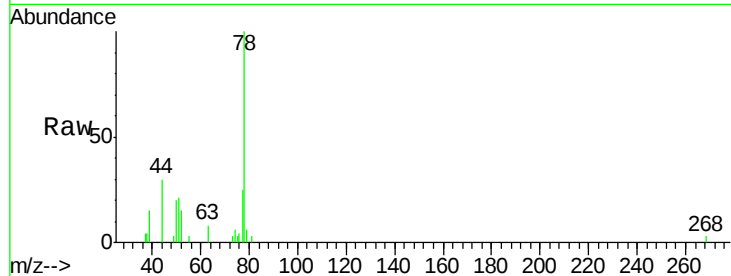
Tot Ion: 78 Resp: 32189

Ion Ratio Lower Upper

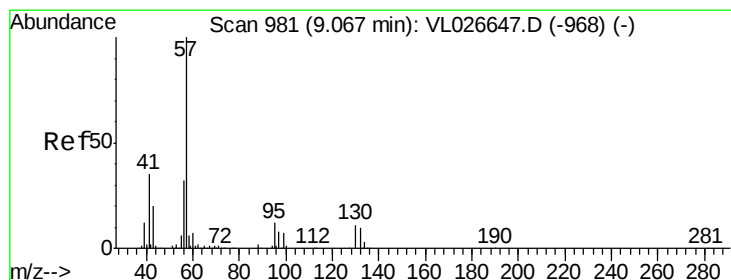
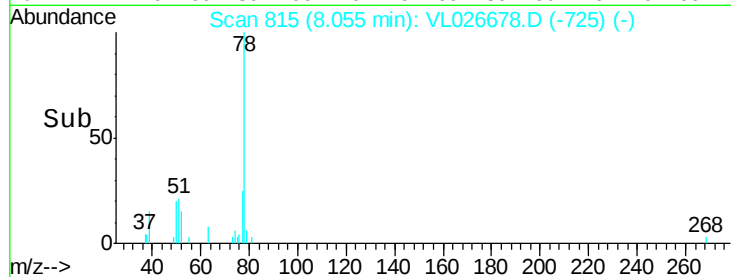
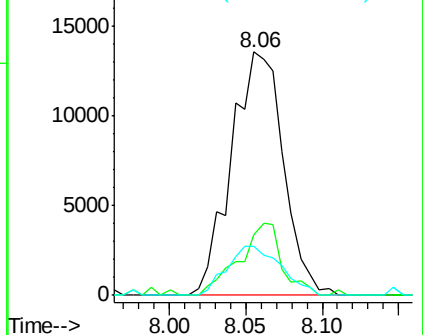
78 100

77 24.7 18.5 27.7

50 20.4 15.4 23.2



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



#44

2,2,4-Trimethylpentane

Concen: 0.19 ppbv

RT: 9.12 min Scan# 989

Delta R.T. 0.05 min

Lab File: VL026678.D

Acq: 12 Jan 2016 17:13

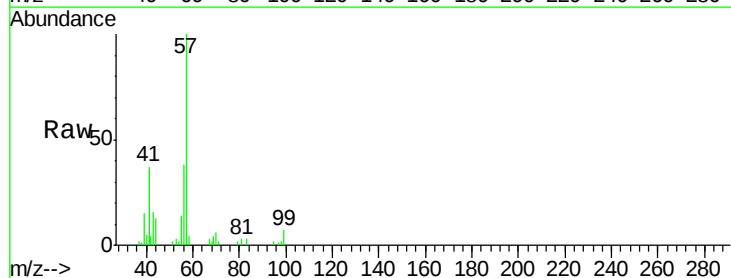
Tgt Ion: 57 Resp: 65621

Ion Ratio Lower Upper

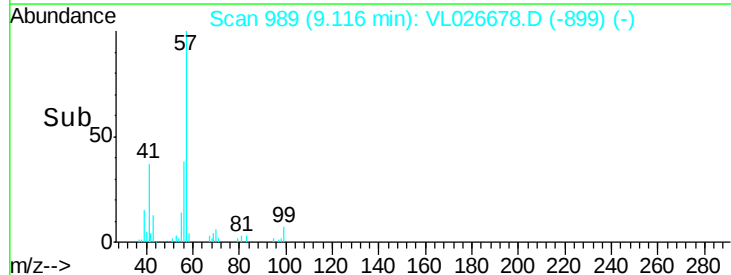
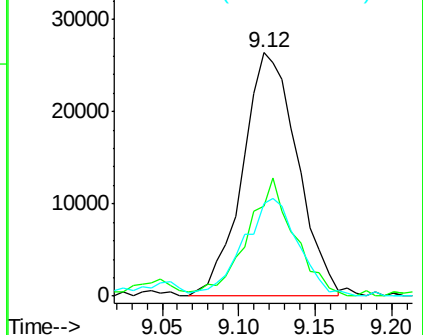
57 100

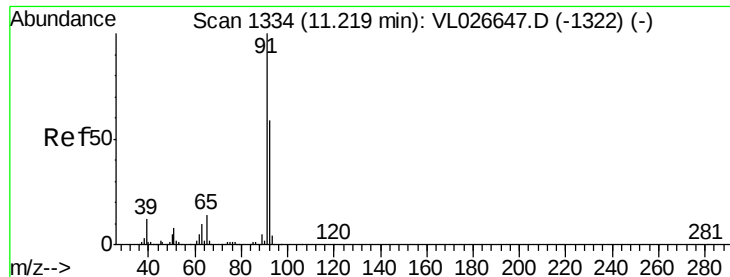
41 47.7 26.9 40.3#

56 45.0 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





#53

Toluene

Concen: 0.88 ppbv

RT: 11.27 min Scan# 1343

Delta R.T. 0.05 min

Lab File: VL026678.D

Acq: 12 Jan 2016 17:13

Instrument :

MSVOA_L

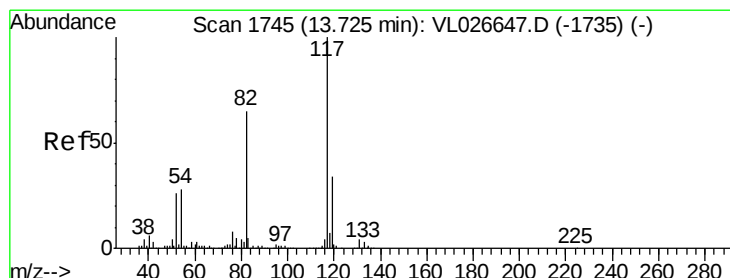
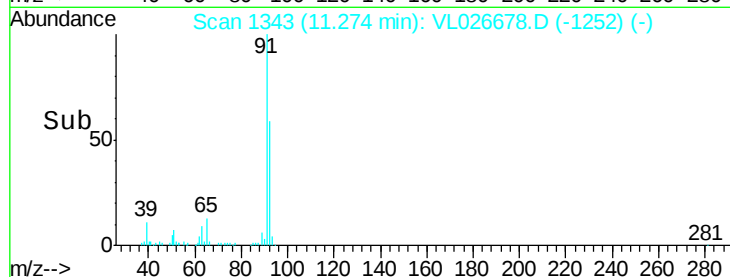
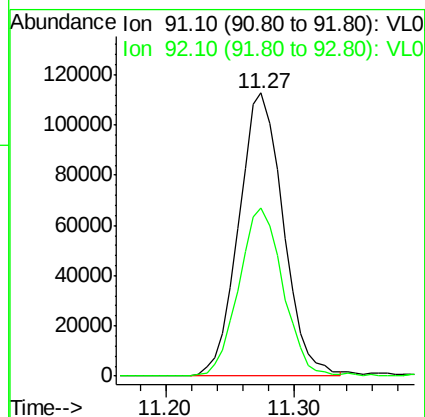
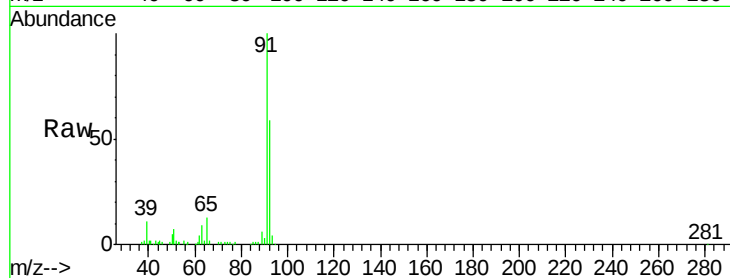
ClientSampleId :

Tot Ion: 91 Resp: 269440

Ion Ratio Lower Upper

91 100

92 59.2 48.2 72.4



#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 13.78 min Scan# 1754

Delta R.T. 0.05 min

Lab File: VL026678.D

Acq: 12 Jan 2016 17:13

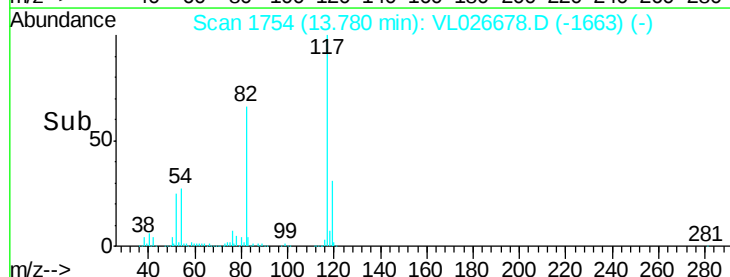
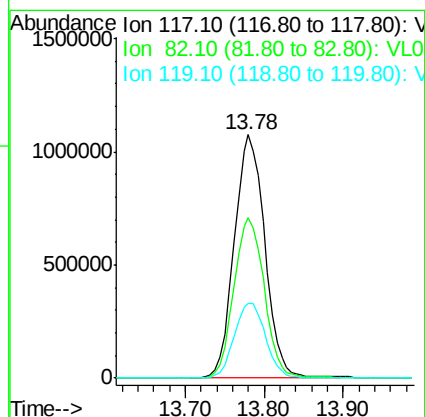
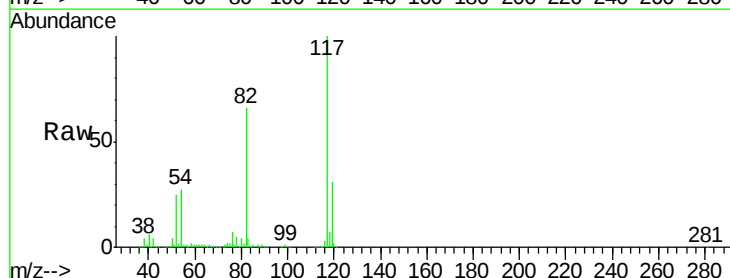
Tgt Ion: 117 Resp: 2908083

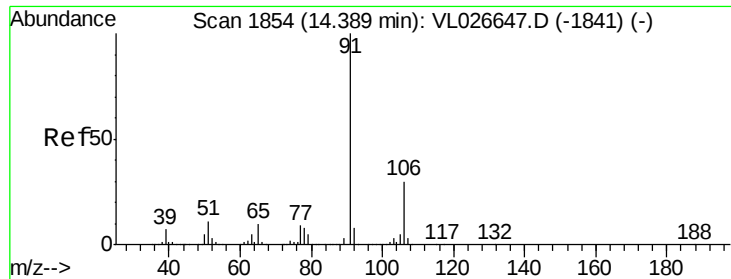
Ion Ratio Lower Upper

117 100

82 66.2 49.7 74.5

119 31.7 43.8 65.8#





#58

Ethyl Benzene

Concen: 0.09 ppbv

RT: 14.45 min Scan# 1864

Delta R.T. 0.06 min

Lab File: VL026678.D

Acq: 12 Jan 2016 17:13

Instrument :

MSVOA_L

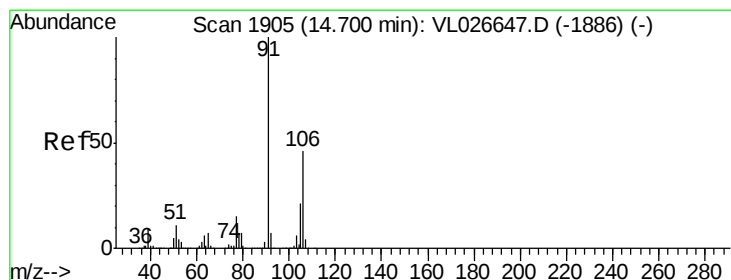
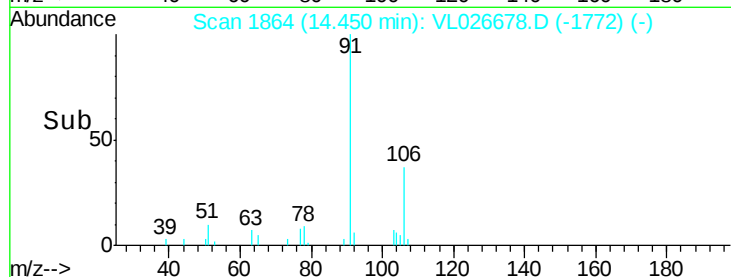
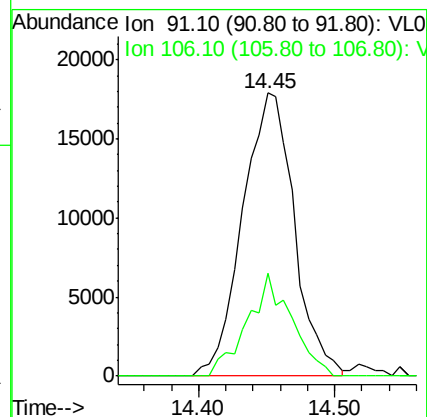
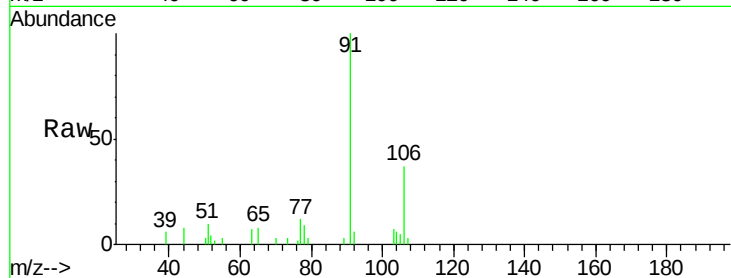
ClientSampled :

Tot Ion: 91 Resp: 47530

Ion Ratio Lower Upper

91 100

106 36.5 23.8 35.6#



#59

m/p-Xylene

Concen: 0.36 ppbv

RT: 14.73 min Scan# 1910

Delta R.T. 0.03 min

Lab File: VL026678.D

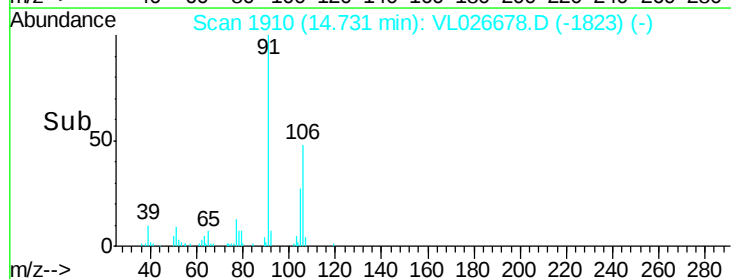
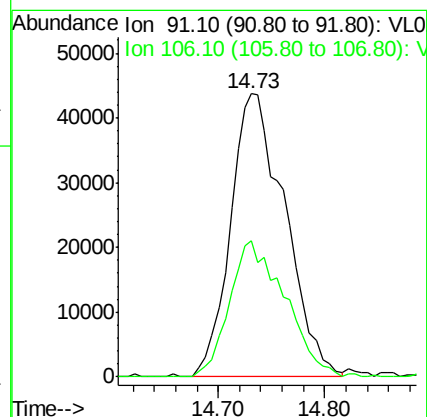
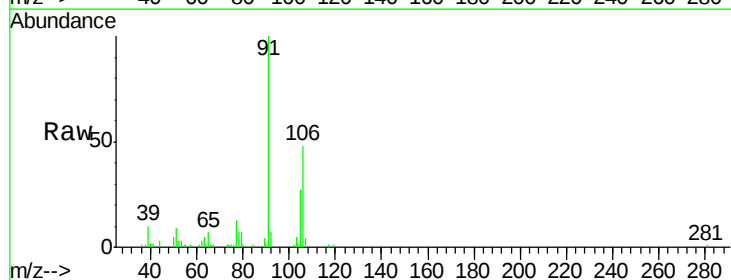
Acq: 12 Jan 2016 17:13

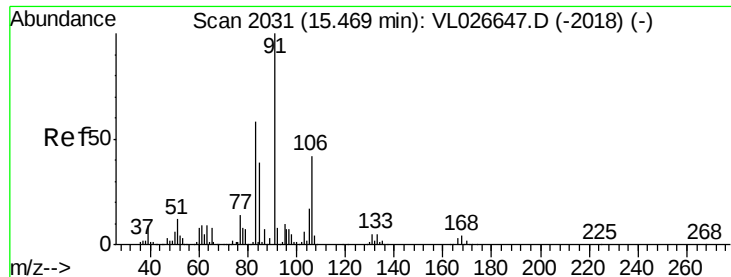
Tgt Ion: 91 Resp: 156199

Ion Ratio Lower Upper

91 100

106 49.0 36.6 55.0

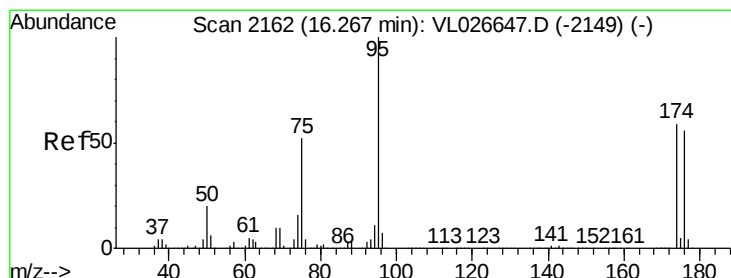
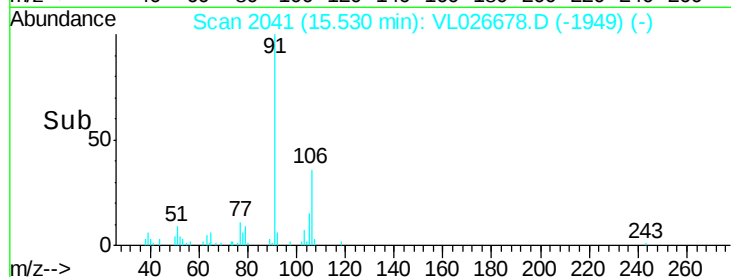
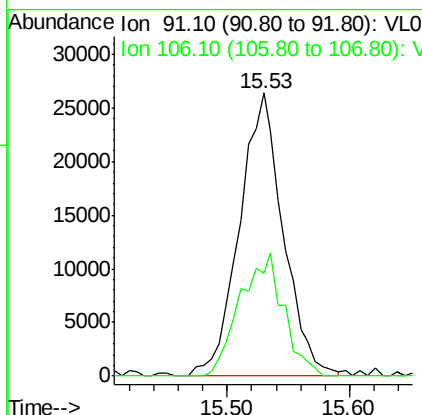
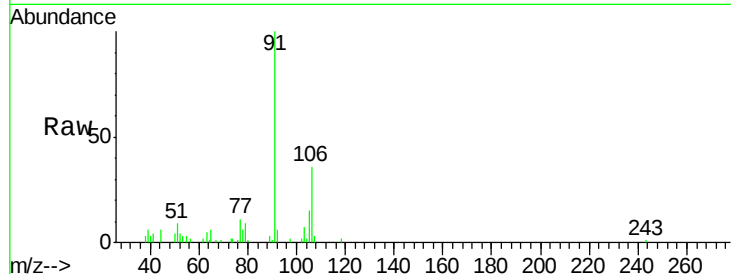




#60
o-Xylene
Concen: 0.14 ppbv
RT: 15.53 min Scan# 2041
Delta R.T. 0.06 min
Lab File: VL026678.D
Acq: 12 Jan 2016 17:13

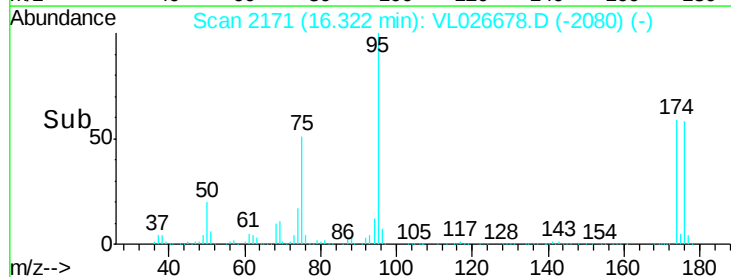
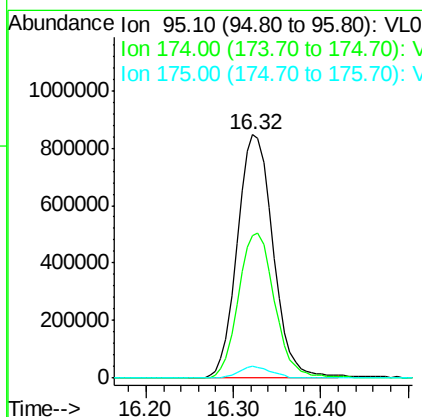
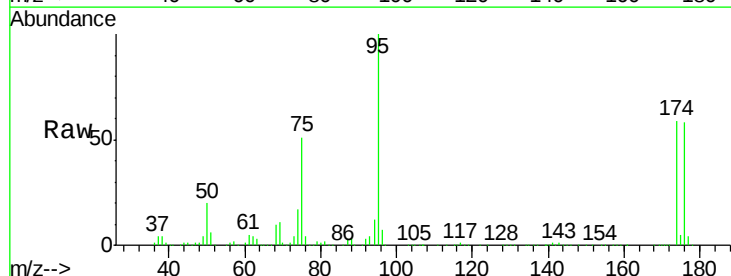
Instrument :
MSVOA_L
ClientSampled :

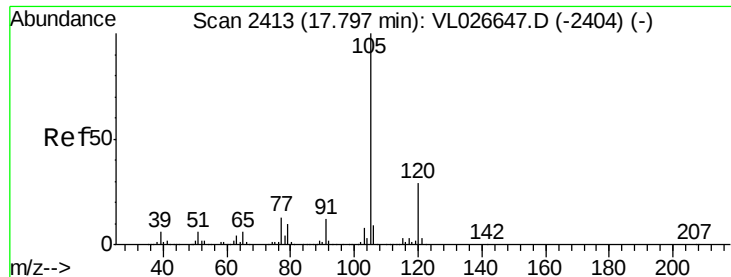
Tot Ion: 91 Resp: 65919
Ion Ratio Lower Upper
91 100
106 42.9 21.5 64.5



#68
1-Bromo-4-Fluorobenzene
Concen: 10.41 ppbv
RT: 16.32 min Scan# 2171
Delta R.T. 0.05 min
Lab File: VL026678.D
Acq: 12 Jan 2016 17:13

Tgt Ion: 95 Resp: 2412138
Ion Ratio Lower Upper
95 100
174 60.8 47.8 71.8
175 4.4 3.6 5.4





#72

4-Ethyltoluene

Concen: 0.04 ppbv

RT: 17.86 min Scan# 2423

Delta R.T. 0.06 min

Lab File: VL026678.D

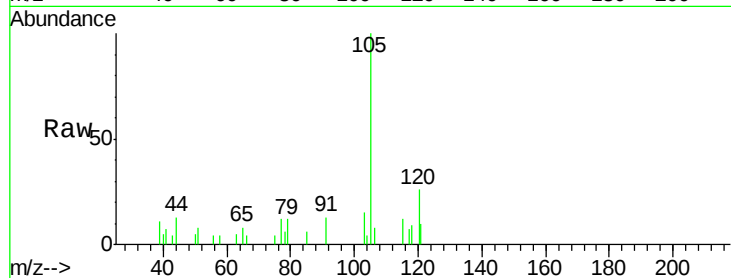
Acq: 12 Jan 2016 17:13

Instrument :

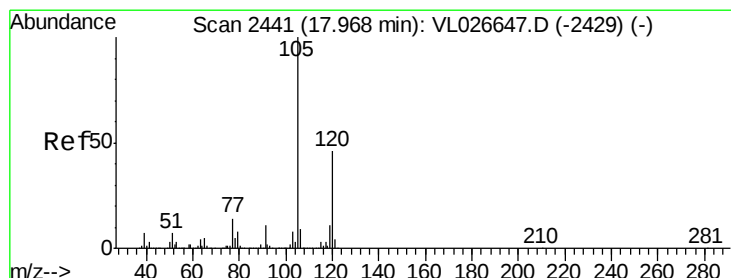
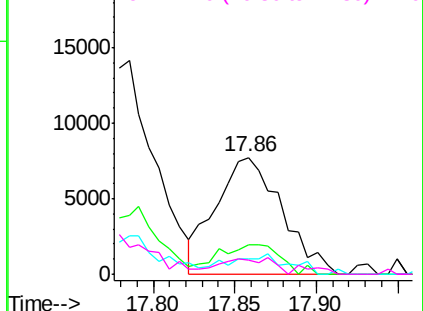
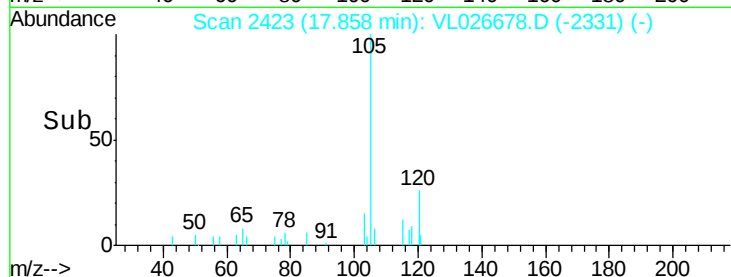
MSVOA_L

ClientSampleId :

Tot Ion:	105	Resp:	21818
Ion	Ratio	Lower	Upper
105	100		
120	24.5	23.7	35.5
91	16.7	9.7	14.5#
77	11.5	10.3	15.5



Abundance Ion 105.10 (104.80 to 105.80): V
 Ion 120.20 (119.90 to 120.90): V
 Ion 91.10 (90.80 to 91.80): VL0
 Ion 77.10 (76.80 to 77.80): VL0



#73

1,3,5-Trimethylbenzene

Concen: 0.03 ppbv

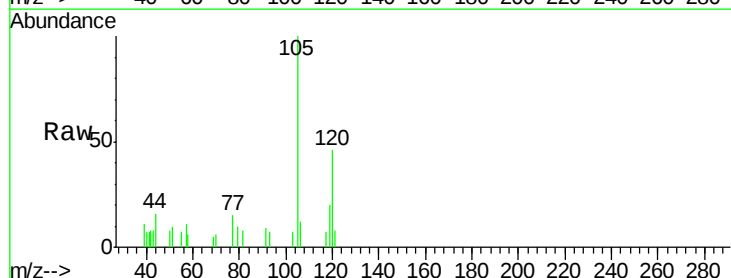
RT: 18.03 min Scan# 2451

Delta R.T. 0.06 min

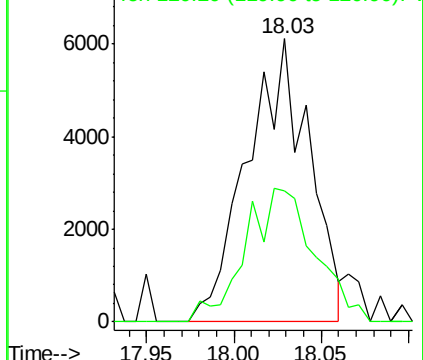
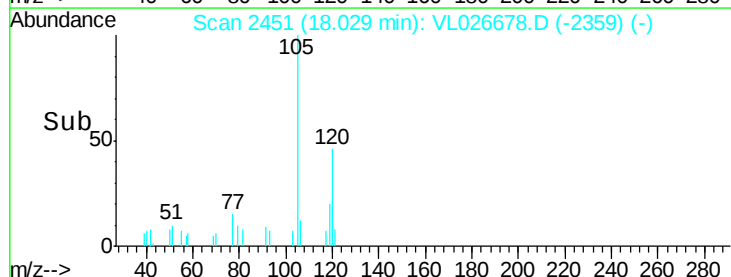
Lab File: VL026678.D

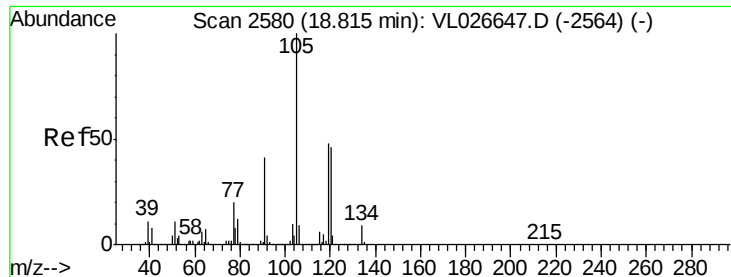
Acq: 12 Jan 2016 17:13

Tgt Ion:	105	Resp:	15084
Ion	Ratio	Lower	Upper
105	100		
120	46.1	36.6	54.8



Abundance Ion 105.10 (104.80 to 105.80): V
 Ion 120.20 (119.90 to 120.90): V





#74

1,2,4-Trimethylbenzene

Concen: 0.13 ppbv

RT: 18.86 min Scan# 2588

Delta R.T. 0.05 min

Lab File: VL026678.D

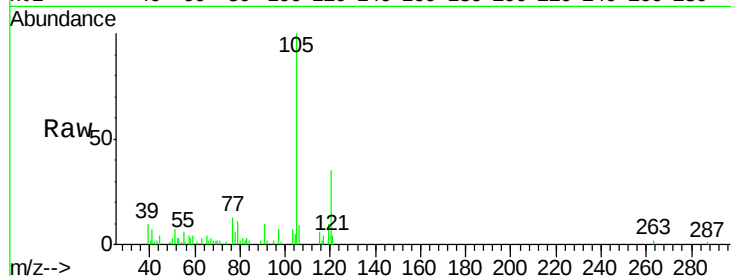
Acq: 12 Jan 2016 17:13

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:	105	Resp:	65256
Ion Ratio	Lower	Upper	
105	100		
120	39.2	36.6	55.0
91	9.0	32.5	48.7#
77	13.2	15.7	23.5#

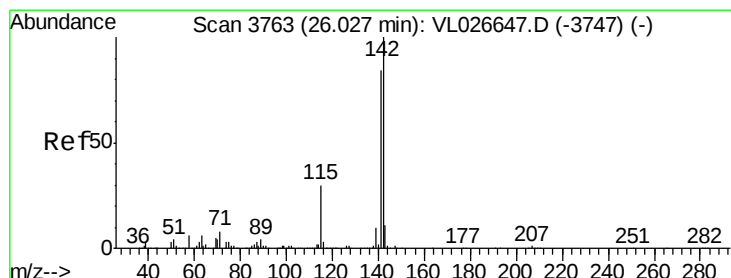
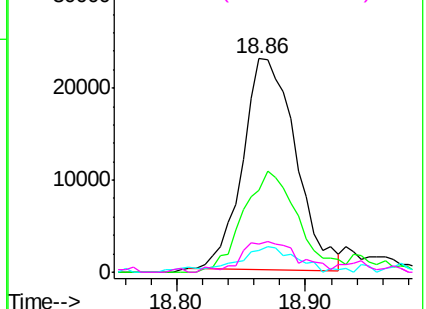
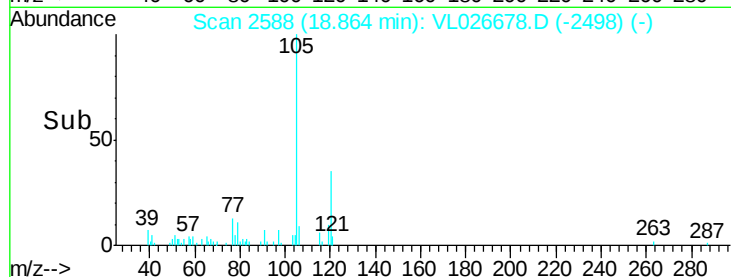


Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



#80

Naphthalene, 2-methyl-

Concen: 0.04 ppbv

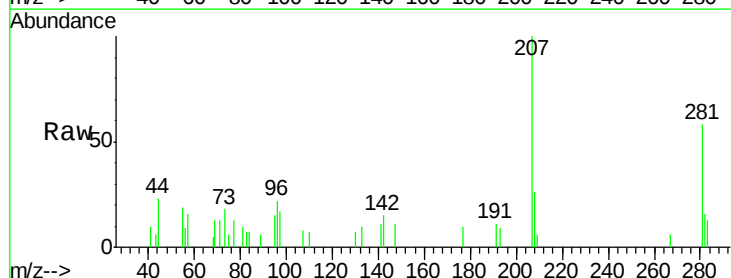
RT: 26.12 min Scan# 3778

Delta R.T. 0.09 min

Lab File: VL026678.D

Acq: 12 Jan 2016 17:13

Tgt Ion:	142	Resp:	1967
Ion Ratio	Lower	Upper	
142	100		
141	56.8	67.0	100.6#
115	62.7	24.7	37.1#



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

