

Data Path : W:\HPCHEM1\MSVOA_L\DATA\VL102115\
 Data File : VL026243.D
 Acq On : 21 Oct 2015 18:24
 Operator : SY/MD
 Sample : G4112-01DL 100X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SUBSLAB-233DL

Quant Time: Oct 22 08:36:00 2015
 Quant Method : W:\HPCHEM1\MSVOA_L\METHODS\VL102015AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Oct 21 01:20:55 2015
 QLast Update : Wed Oct 21 01:20:55 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	6.63	49	459202	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	8.29	114	1330275	10.00	ppbv	-0.02
55) Chlorobenzene-d5	13.71	117	1612535	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	16.25	95	1298084	10.44	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.40%

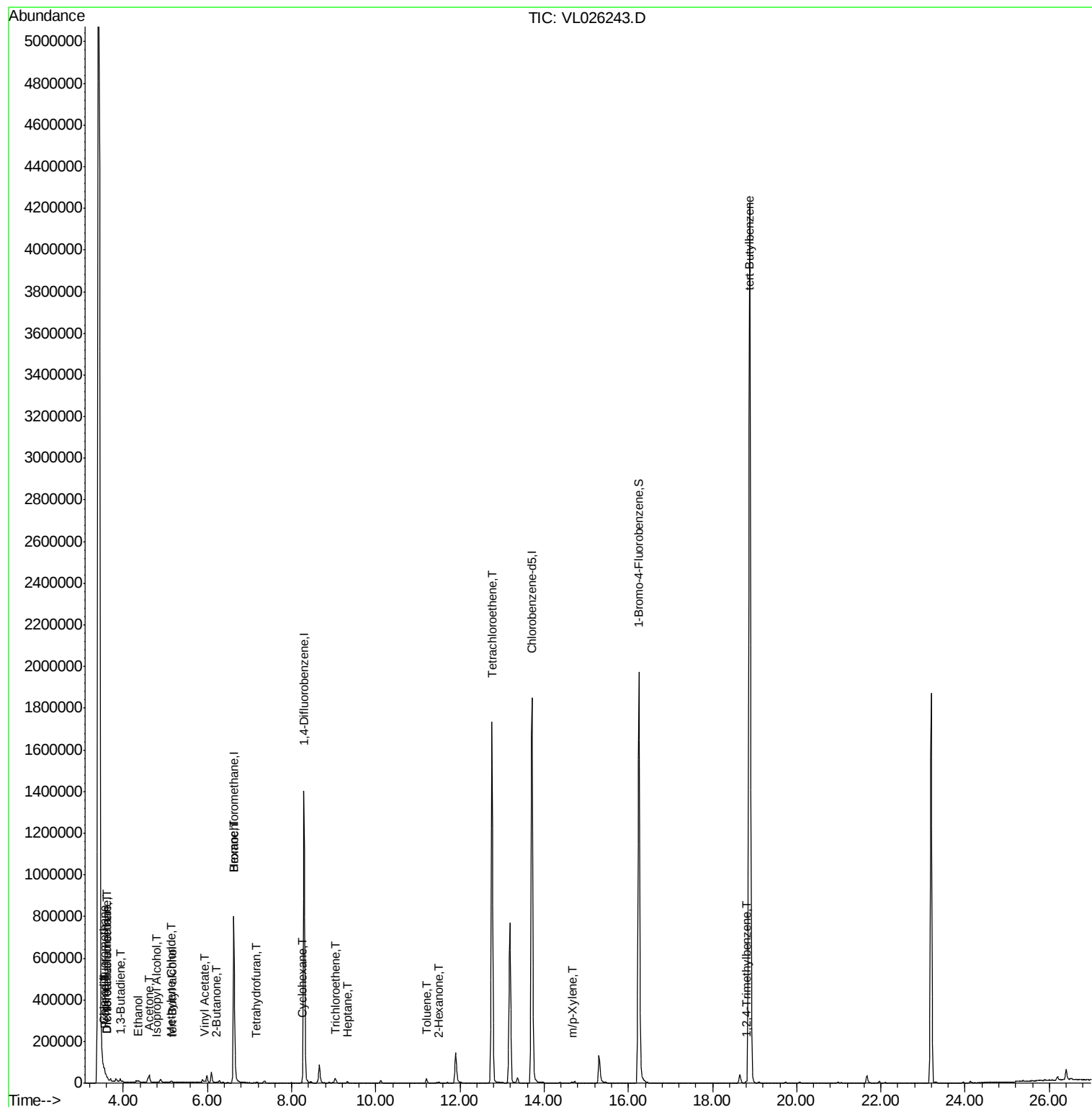
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.62	85	4132	0.04	ppbv #	81
3) Chlorodifluoromethane	3.56	51	10942	0.19	ppbv	98
8) Dichlorotetrafluoroethane	3.62	85	4132	0.05	ppbv #	13
9) Propene	3.58	41	1329	0.05	ppbv	96
10) Heptane	9.33	43	2898	0.03	ppbv	85
13) Ethanol	4.34	45	9671	2.37	ppbv	99
15) Acetone	4.62	43	47147	0.70	ppbv #	76
16) 1,3-Butadiene	3.93	39	2937	0.10	ppbv #	7
17) tert-Butyl alcohol	5.17	59	3031	0.07	ppbv #	72
19) Isopropyl Alcohol	4.78	45	868	0.03	ppbv #	27
20) Methylene Chloride	5.14	84	3210	0.12	ppbv #	92
23) Vinyl Acetate	5.93	43	3219	0.03	ppbv #	1
26) Hexane	6.64	57	9467	0.15	ppbv #	48
30) Cyclohexane	8.26	84	1830	0.03	ppbv #	19
34) 2-Butanone	6.21	43	6710	0.09	ppbv	91
38) Trichloroethene	9.03	130	9709	0.15	ppbv	94
41) Tetrahydrofuran	7.17	42	2187	0.05	ppbv #	72
51) 2-Hexanone	11.49	43	2476	0.03	ppbv #	25
52) Tetrachloroethene	12.76	164	587568	7.56	ppbv	97
53) Toluene	11.21	91	22315	0.12	ppbv	98
59) m/p-Xylene	14.66	91	6748	0.03	ppbv	93
65) tert-Butylbenzene	18.88	119	84502	0.31	ppbv #	26
74) 1,2,4-Trimethylbenzene	18.80	105	9666	0.04	ppbv #	73

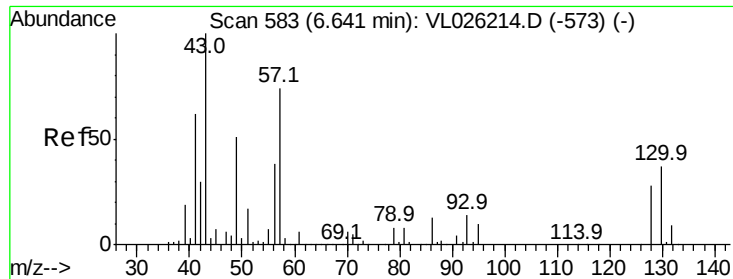
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : W:\HPCHEM1\MSVOA_L\METHODS\VL102015AIR.M
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QLast Update : Wed Oct 21 01:20:55 2015
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 6.63 min Scan# 581

Delta R.T. -0.01 min

Lab File: VL026243.D

Acq: 21 Oct 2015 18:24

Instrument :

MSVOA_L

ClientSampleId :

SUBSLAB-233DL

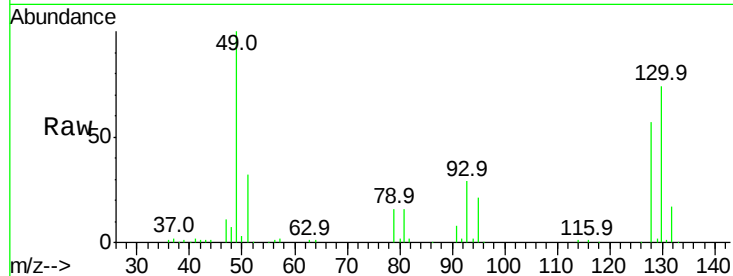
Tgt Ion: 49 Resp: 459202

Ion Ratio Lower Upper

49 100

128 56.8 28.2 84.7

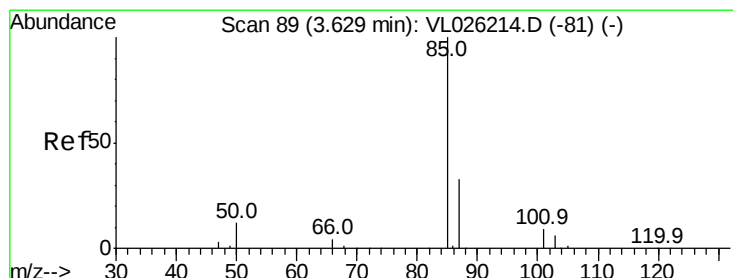
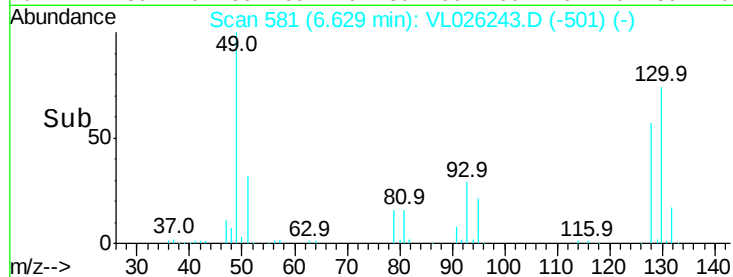
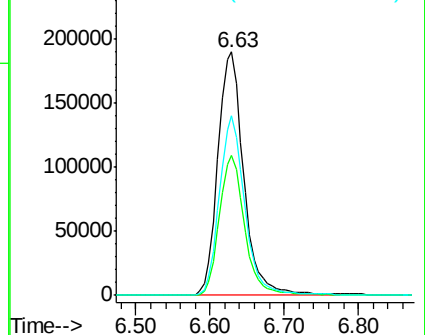
130 72.9 36.0 108.1



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: 0.04 ppbv

RT: 3.62 min Scan# 88

Delta R.T. -0.01 min

Lab File: VL026243.D

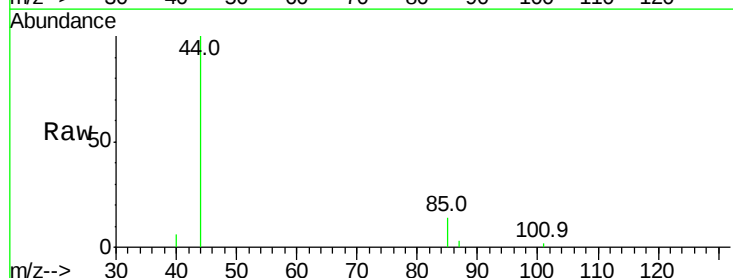
Acq: 21 Oct 2015 18:24

Tgt Ion: 85 Resp: 4132

Ion Ratio Lower Upper

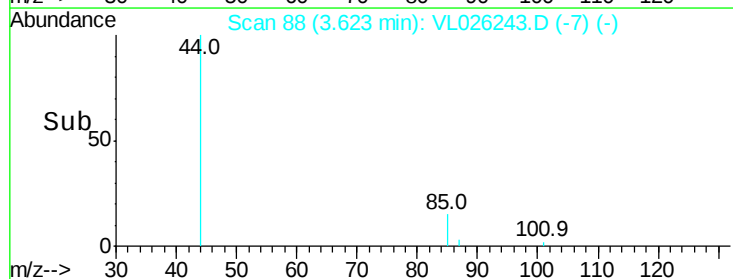
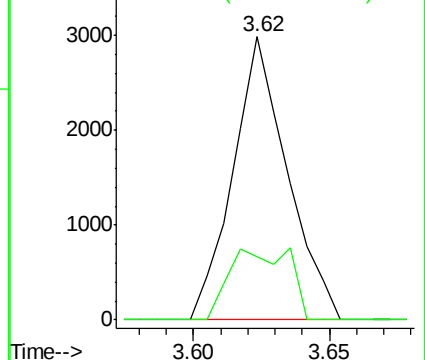
85 100

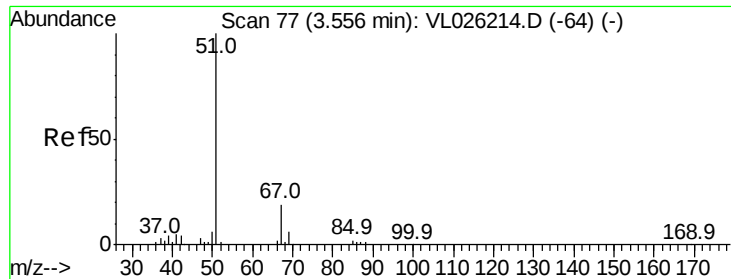
87 22.1 26.1 39.1#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

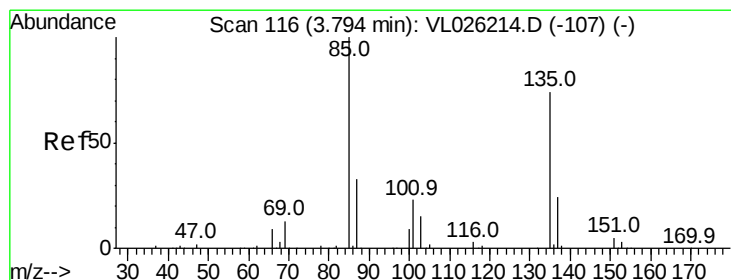
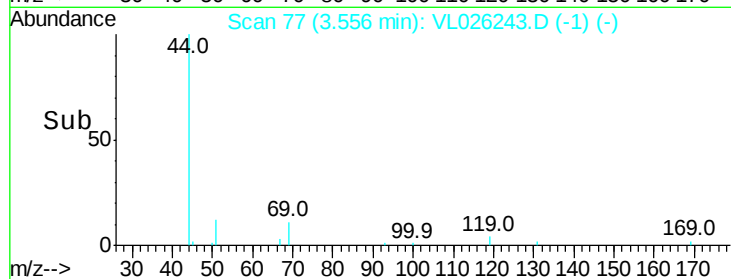
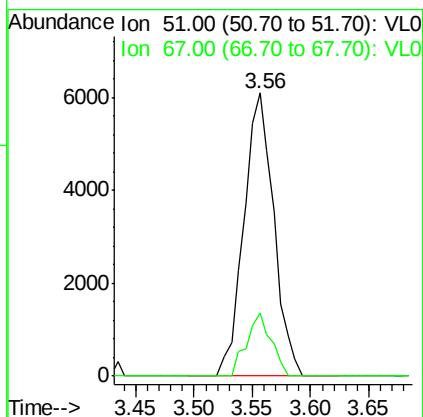
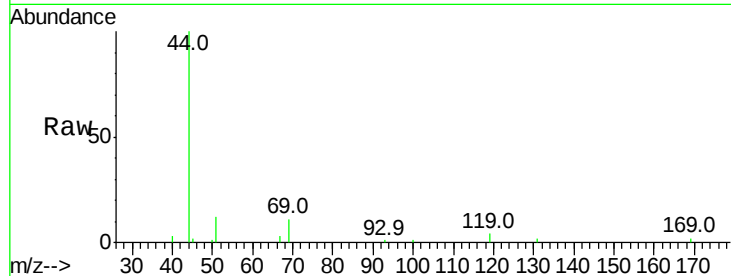




#3
Chlorodifluoromethane
Concen: 0.19 ppbv
RT: 3.56 min Scan# 77
Delta R.T. 0.00 min
Lab File: VL026243.D
Acq: 21 Oct 2015 18:24

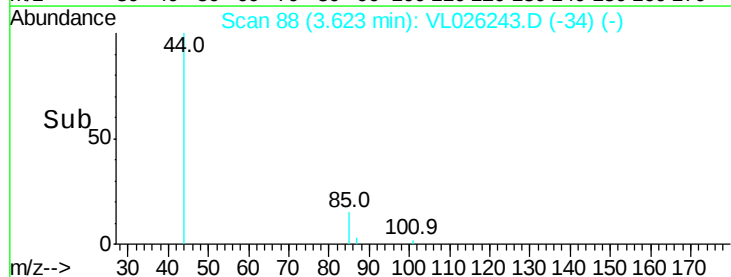
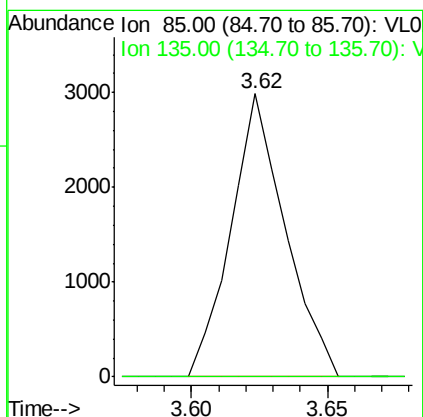
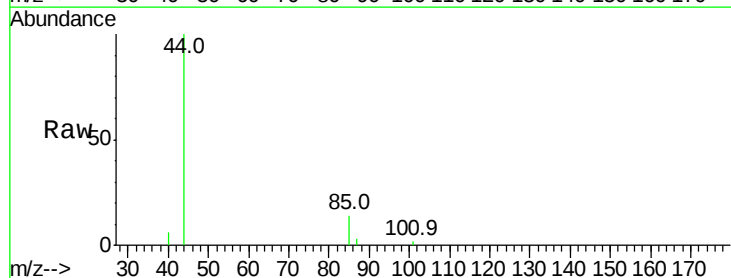
Instrument :
MSVOA_L
ClientSampleId :
SUBSLAB-233DL

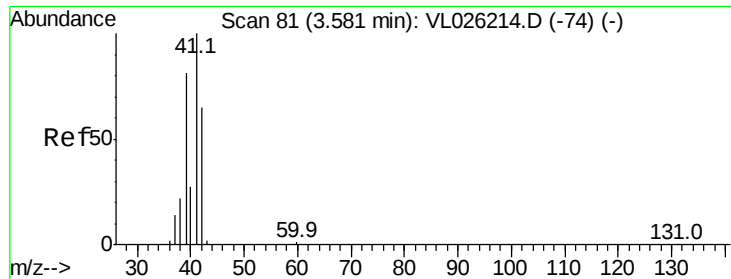
Tgt Ion: 51 Resp: 10942
Ion Ratio Lower Upper
51 100
67 18.3 15.3 22.9



#8
Dichlorotetrafluoroethane
Concen: 0.05 ppbv
RT: 3.62 min Scan# 88
Delta R.T. -0.17 min
Lab File: VL026243.D
Acq: 21 Oct 2015 18:24

Tgt Ion: 85 Resp: 4132
Ion Ratio Lower Upper
85 100
135 0.0 57.8 86.8#





#9

Propene

Concen: 0.05 ppbv

RT: 3.58 min Scan# 81

Delta R.T. 0.00 min

Lab File: VL026243.D

Acq: 21 Oct 2015 18:24

Instrument :

MSVOA_L

ClientSampleId :

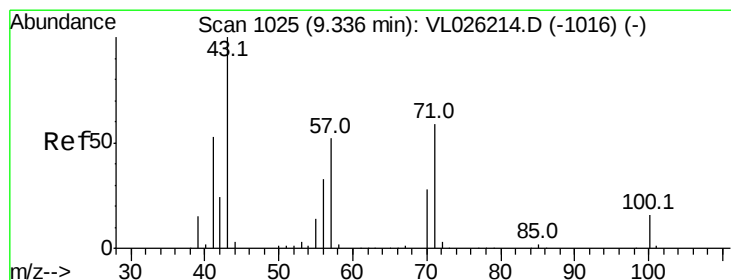
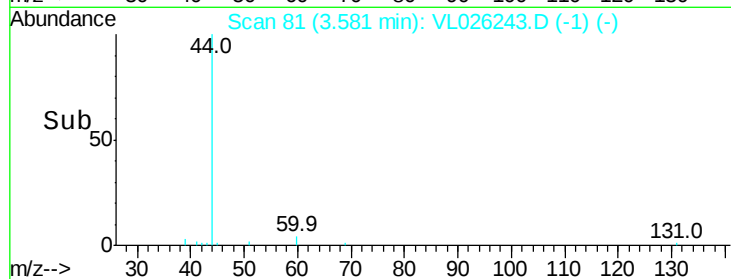
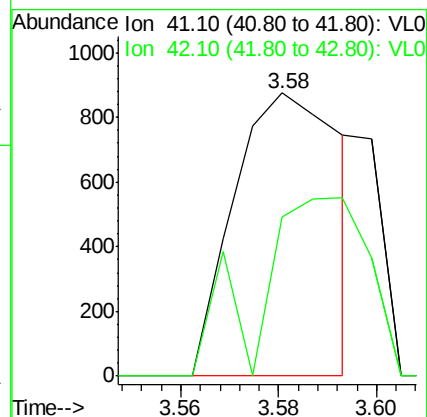
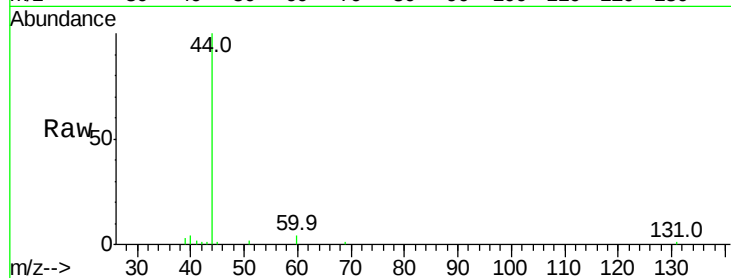
SUBSLAB-233DL

Tgt Ion: 41 Resp: 1329

Ion Ratio Lower Upper

41 100

42 64.4 53.8 80.8



#10

Heptane

Concen: 0.03 ppbv

RT: 9.33 min Scan# 1024

Delta R.T. -0.01 min

Lab File: VL026243.D

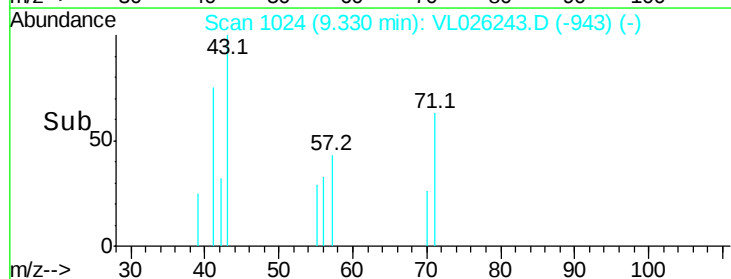
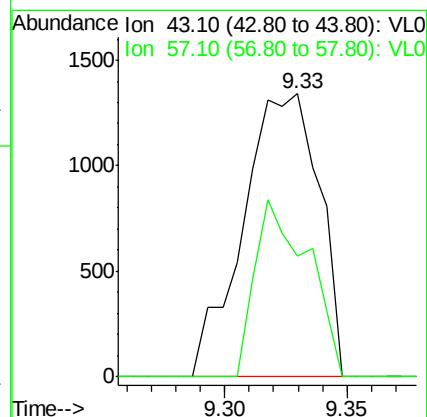
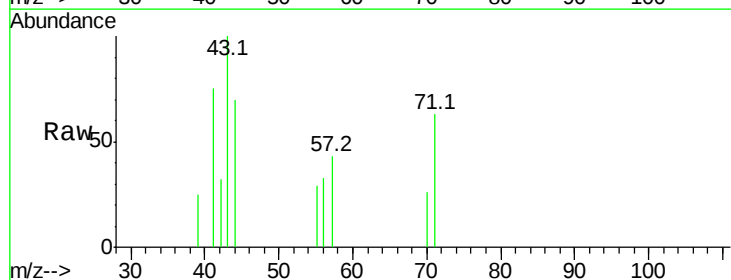
Acq: 21 Oct 2015 18:24

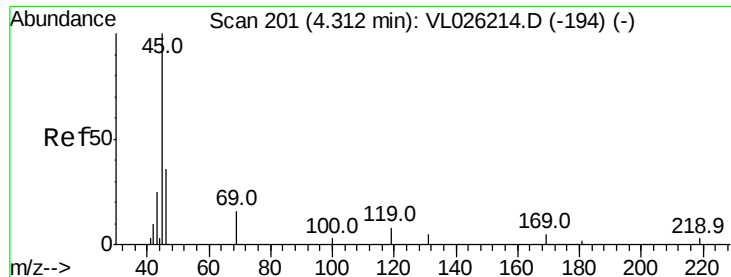
Tgt Ion: 43 Resp: 2898

Ion Ratio Lower Upper

43 100

57 43.9 43.7 65.5

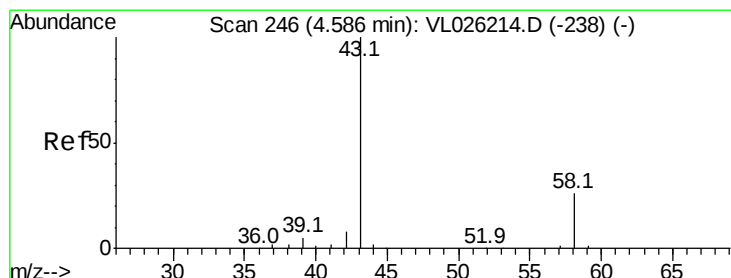
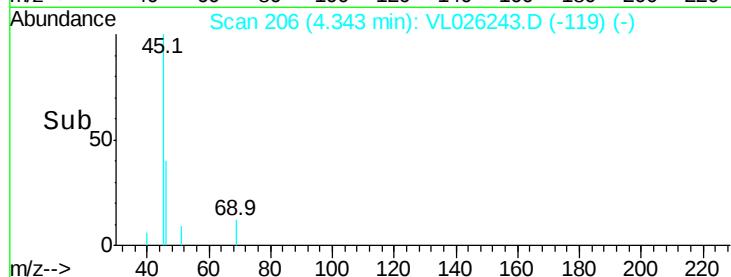
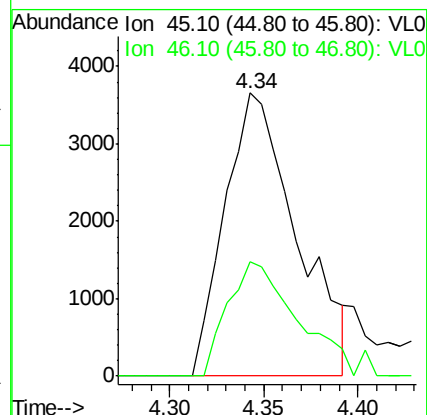
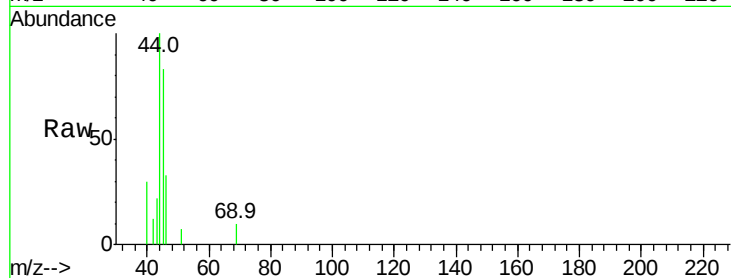




#13
Ethanol
Concen: 2.37 ppbv
RT: 4.34 min Scan# 206
Delta R.T. 0.03 min
Lab File: VL026243.D
Acq: 21 Oct 2015 18:24

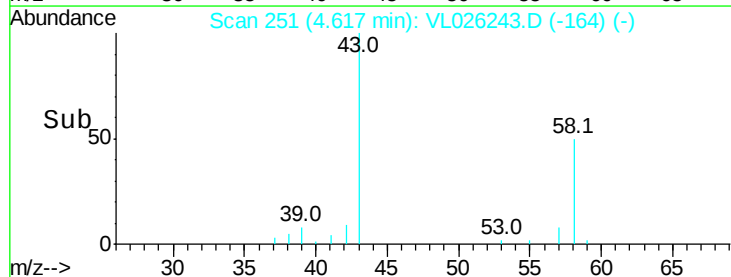
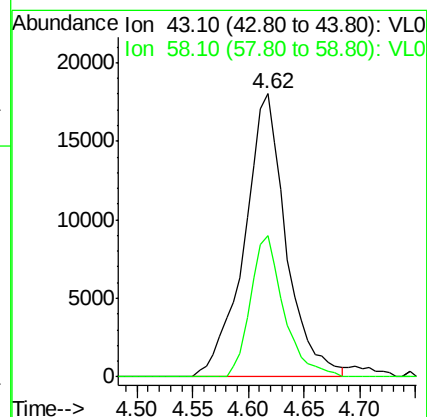
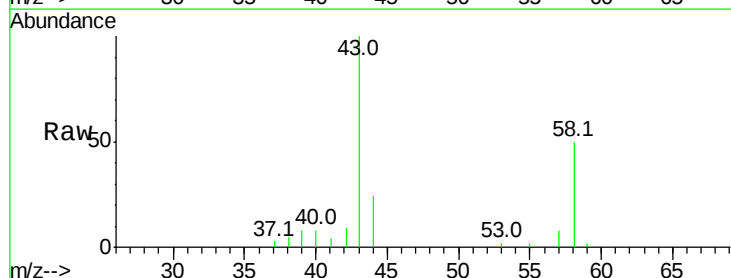
Instrument :
MSVOA_L
ClientSampleId :
SUBSLAB-233DL

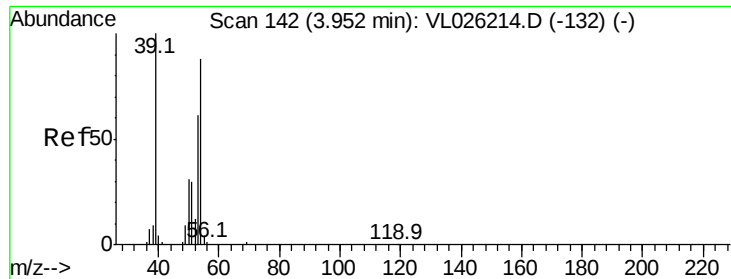
Tgt Ion: 45 Resp: 9671
Ion Ratio Lower Upper
45 100
46 40.2 15.8 63.0



#15
Acetone
Concen: 0.70 ppbv
RT: 4.62 min Scan# 251
Delta R.T. 0.03 min
Lab File: VL026243.D
Acq: 21 Oct 2015 18:24

Tgt Ion: 43 Resp: 47147
Ion Ratio Lower Upper
43 100
58 39.7 21.8 32.6#

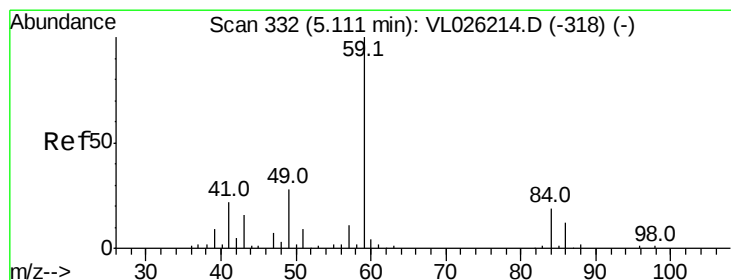
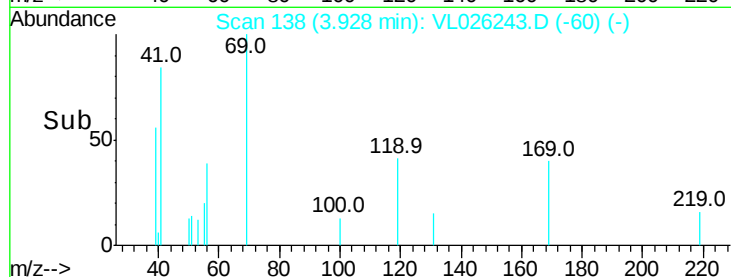
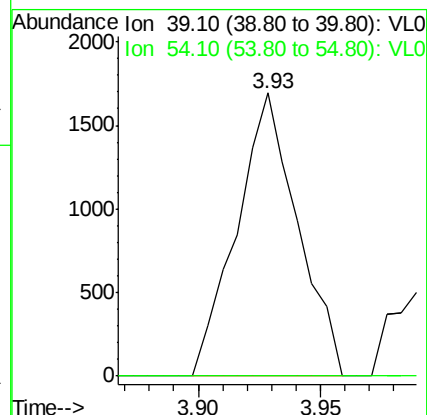
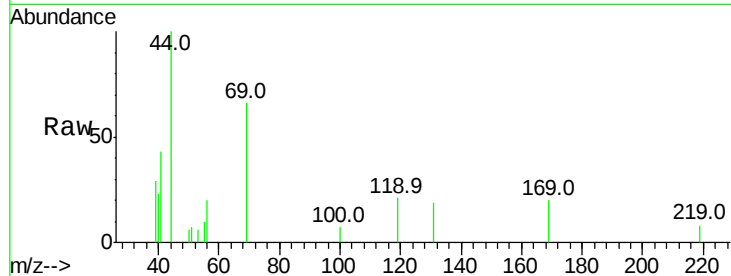




#16
 1,3-Butadiene
 Concen: 0.10 ppbv
 RT: 3.93 min Scan# 138
 Delta R.T. -0.02 min
 Lab File: VL026243.D
 Acq: 21 Oct 2015 18:24

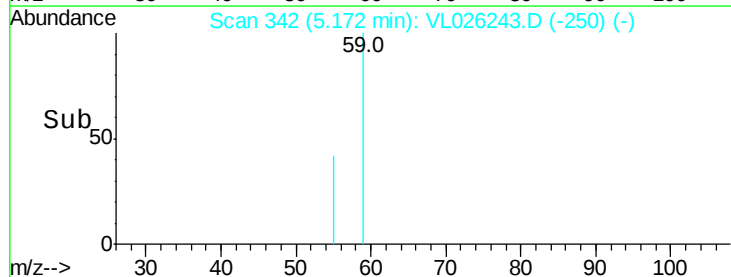
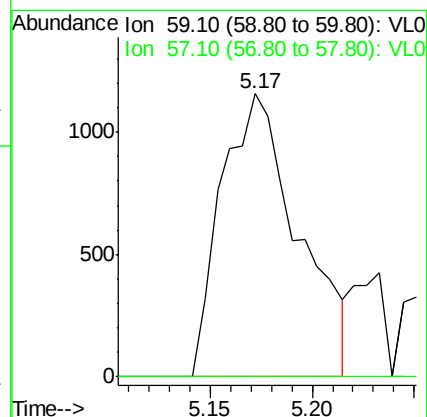
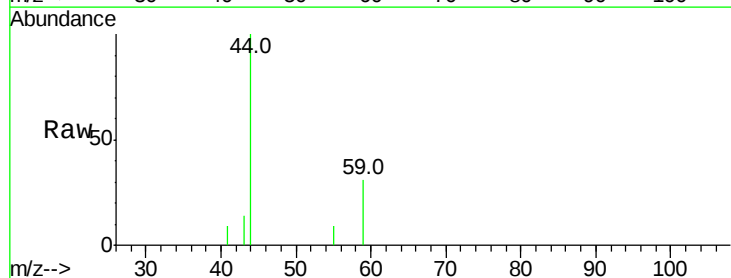
Instrument :
 MSVOA_L
 ClientSampleId :
 SUBSLAB-233DL

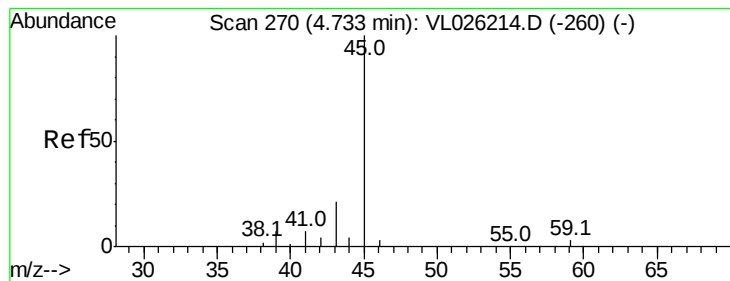
Tgt Ion: 39 Resp: 2937
 Ion Ratio Lower Upper
 39 100
 54 0.0 67.3 100.9#



#17
 tert-Butyl alcohol
 Concen: 0.07 ppbv
 RT: 5.17 min Scan# 342
 Delta R.T. 0.06 min
 Lab File: VL026243.D
 Acq: 21 Oct 2015 18:24

Tgt Ion: 59 Resp: 3031
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.5 12.7#





#19

Isopropyl Alcohol

Concen: 0.03 ppbv

RT: 4.78 min Scan# 277

Delta R.T. 0.04 min

Lab File: VL026243.D

Acq: 21 Oct 2015 18:24

Instrument :

MSVOA_L

ClientSampleId :

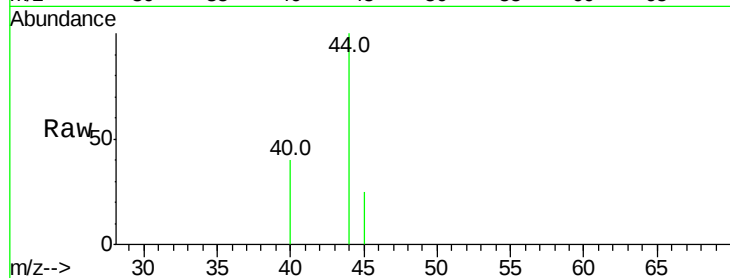
SUBSLAB-233DL

Tgt Ion: 45 Resp: 868

Ion Ratio Lower Upper

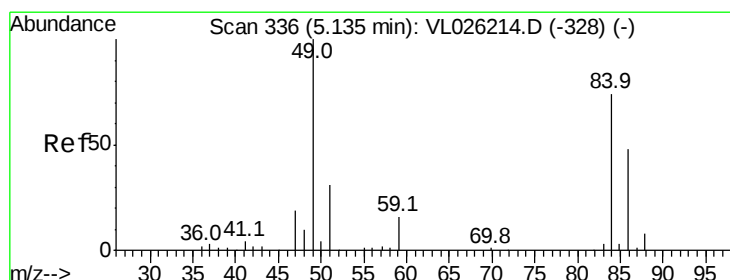
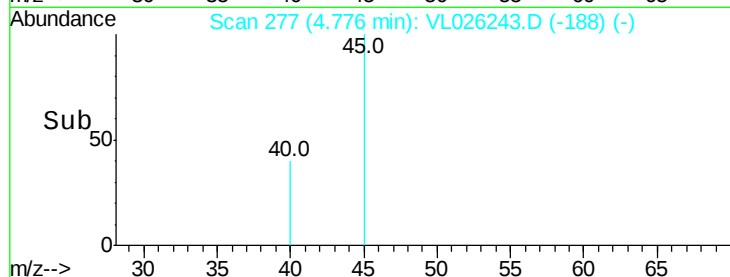
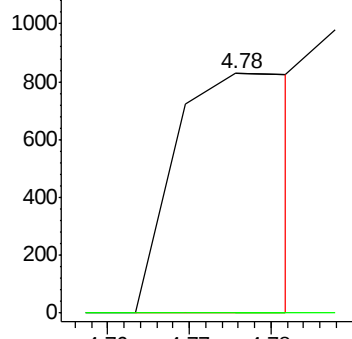
45 100

58 0.0 40.3 60.5#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 0.12 ppbv

RT: 5.14 min Scan# 336

Delta R.T. 0.00 min

Lab File: VL026243.D

Acq: 21 Oct 2015 18:24

Tgt Ion: 84 Resp: 3210

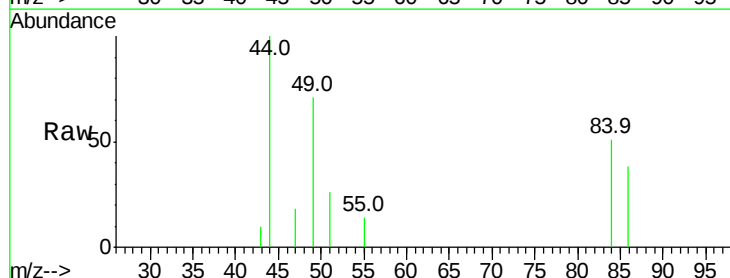
Ion Ratio Lower Upper

84 100

49 139.8 108.7 163.1

51 52.0 33.7 50.5#

86 75.4 52.2 78.2

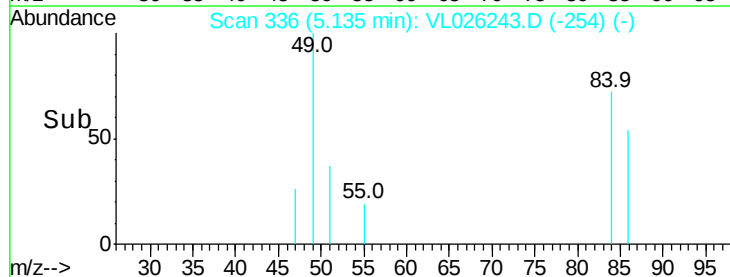
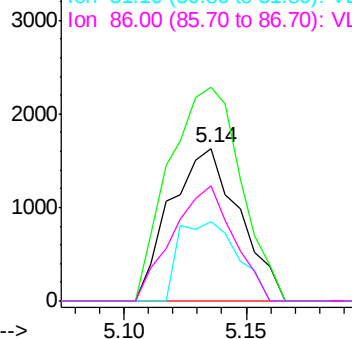


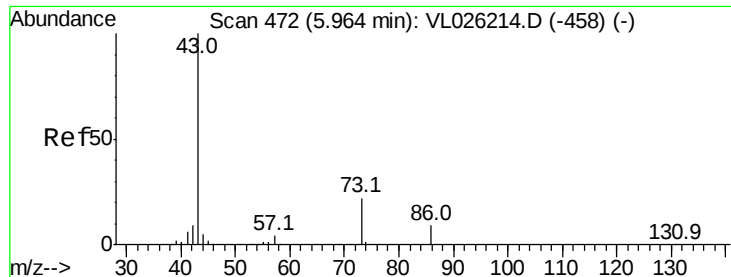
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0





#23

Vinyl Acetate

Concen: 0.03 ppbv

RT: 5.93 min Scan# 466

Delta R.T. -0.04 min

Lab File: VL026243.D

Acq: 21 Oct 2015 18:24

Instrument :

MSVOA_L

ClientSampleId :

SUBSLAB-233DL

Tgt Ion: 43 Resp: 3219

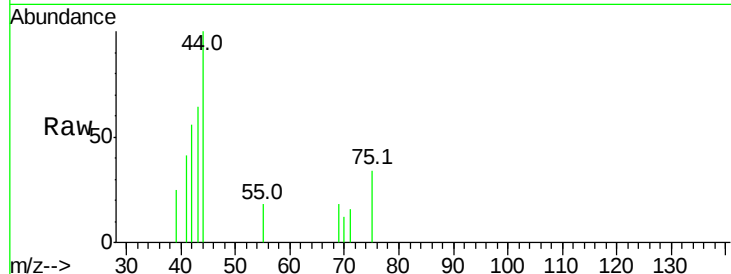
Ion Ratio Lower Upper

43 100

86 0.0 7.0 10.6#

42 88.1 7.5 11.3#

44 6.7 3.6 5.4#

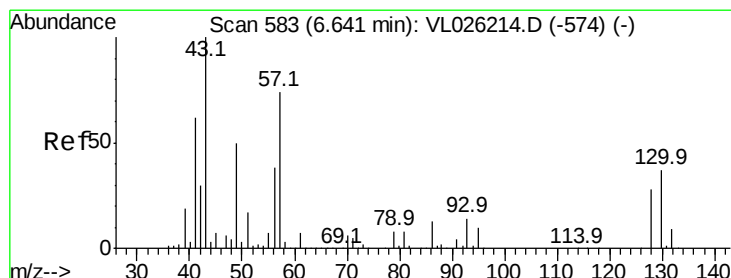
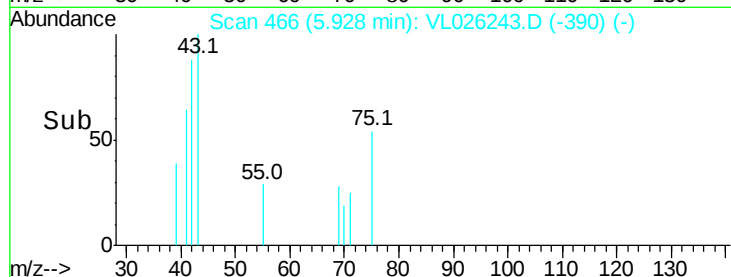
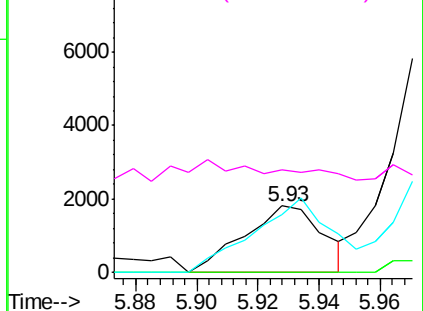


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#26

Hexane

Concen: 0.15 ppbv

RT: 6.64 min Scan# 582

Delta R.T. -0.01 min

Lab File: VL026243.D

Acq: 21 Oct 2015 18:24

Tgt Ion: 57 Resp: 9467

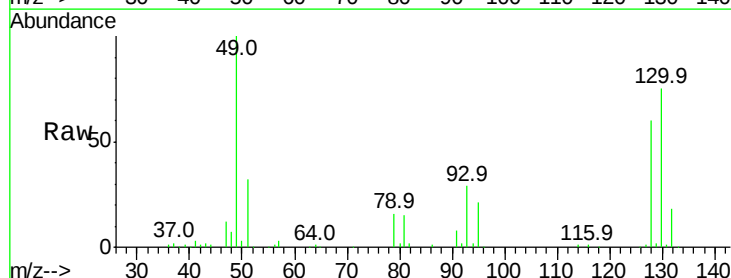
Ion Ratio Lower Upper

57 100

41 84.2 68.1 102.1

43 72.5 163.4 245.2#

56 52.3 42.2 63.4

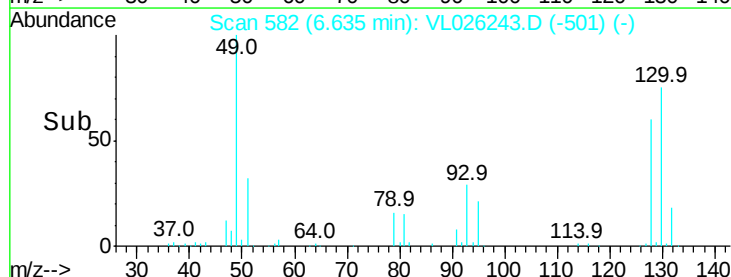
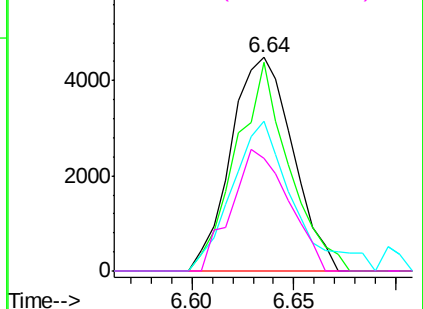


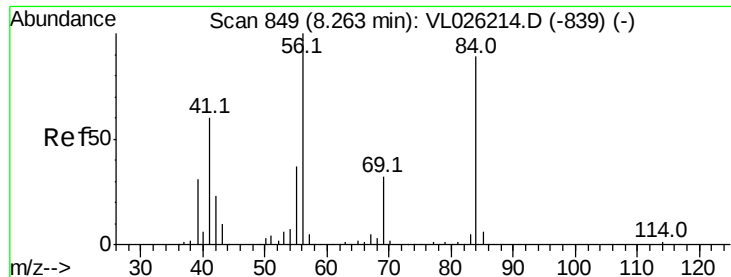
Abundance Ion 57.10 (56.80 to 57.80): VL0

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

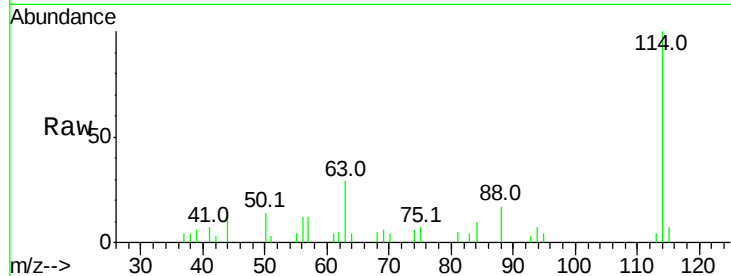




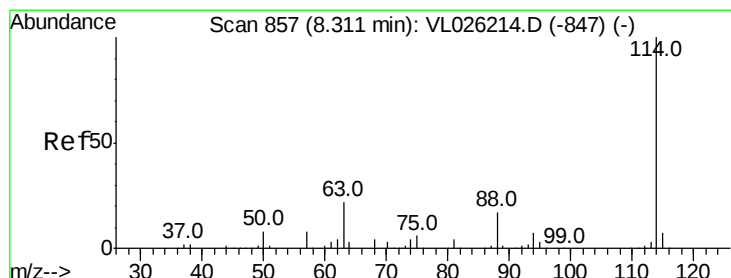
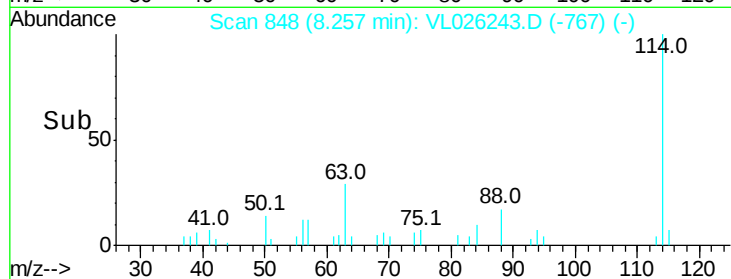
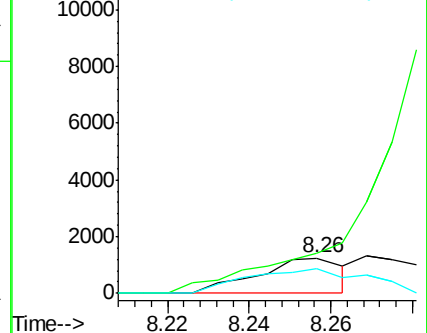
#30
Cyclohexane
Concen: 0.03 ppbv
RT: 8.26 min Scan# 848
Delta R.T. -0.01 min
Lab File: VL026243.D
Acq: 21 Oct 2015 18:24

Instrument :
MSVOA_L
ClientSampleId :
SUBSLAB-233DL

Tgt Ion: 84 Resp: 1830
Ion Ratio Lower Upper
84 100
56 0.0 95.9 143.9#
41 95.0 54.8 82.2#

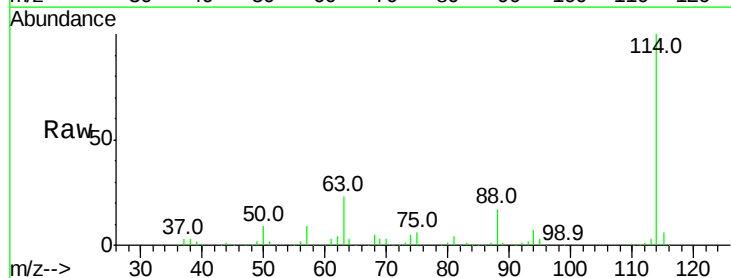


Abundance Ion 84.20 (83.90 to 84.90): VL0
Ion 56.10 (55.80 to 56.80): VL0
Ion 41.10 (40.80 to 41.80): VL0

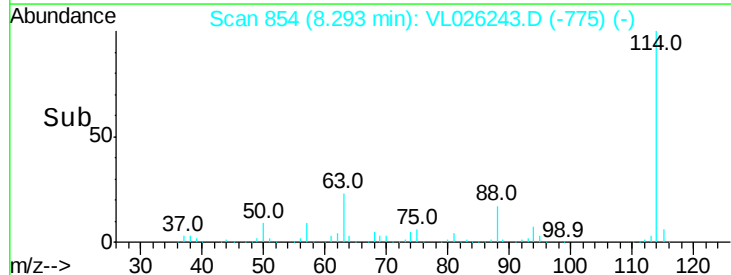
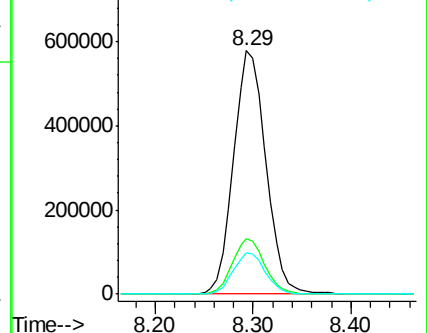


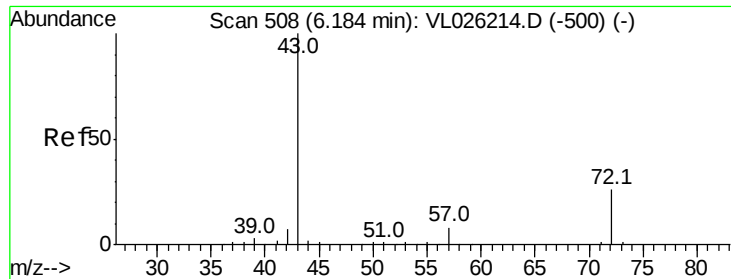
#33
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 8.29 min Scan# 854
Delta R.T. -0.02 min
Lab File: VL026243.D
Acq: 21 Oct 2015 18:24

Tgt Ion: 114 Resp: 1330275
Ion Ratio Lower Upper
114 100
63 22.6 18.2 27.4
88 16.9 13.5 20.3



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

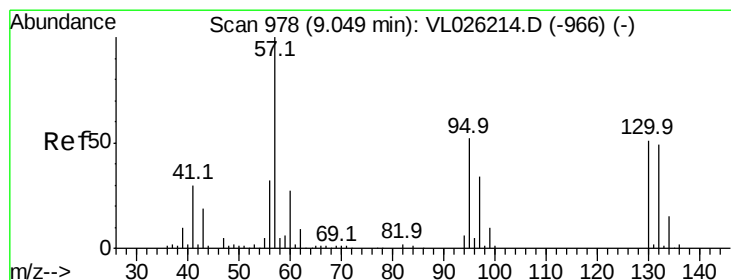
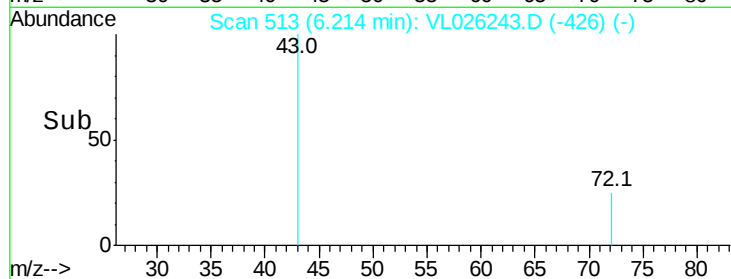
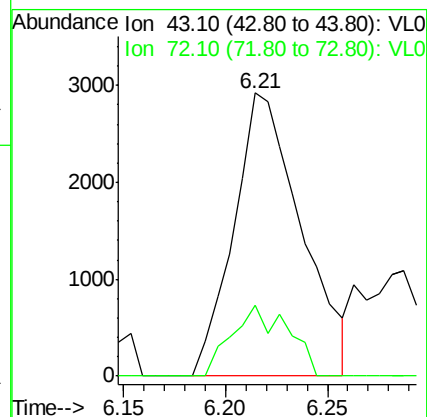
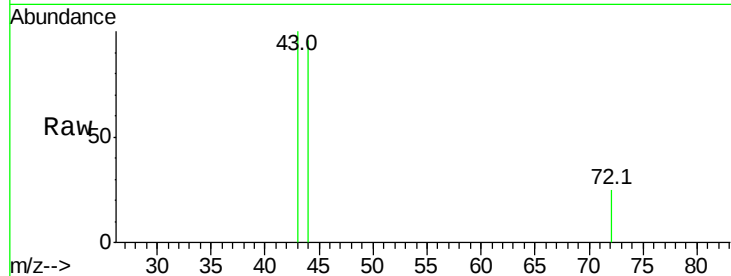




#34
2-Butanone
Concen: 0.09 ppbv
RT: 6.21 min Scan# 513
Delta R.T. 0.03 min
Lab File: VL026243.D
Acq: 21 Oct 2015 18:24

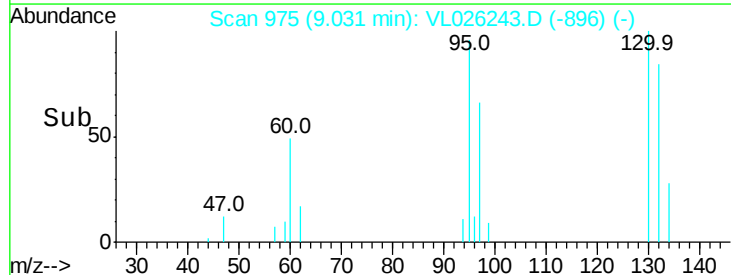
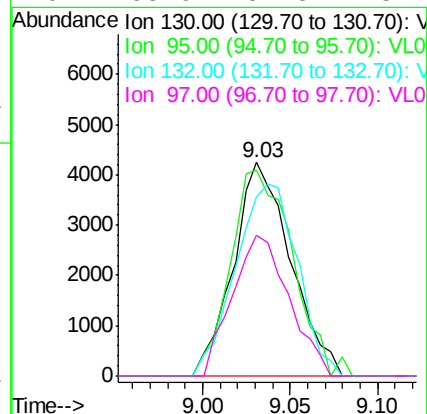
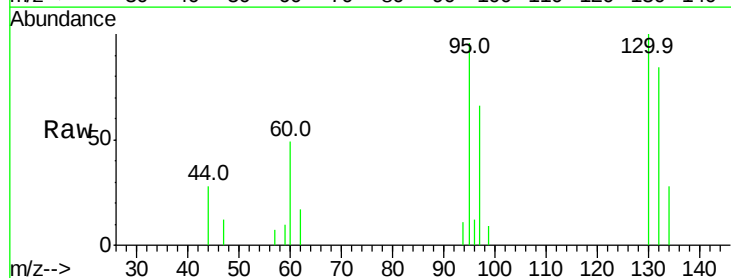
Instrument :
MSVOA_L
ClientSampleId :
SUBSLAB-233DL

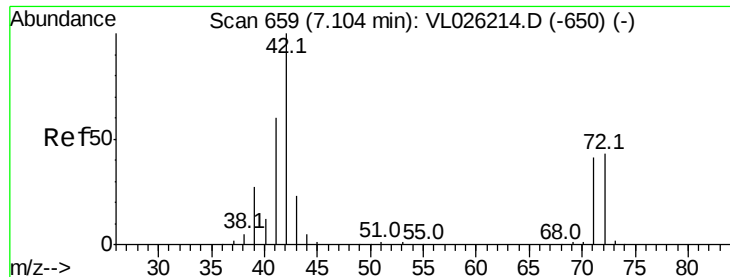
Tgt Ion: 43 Resp: 6710
Ion Ratio Lower Upper
43 100
72 20.7 20.1 30.1



#38
Trichloroethene
Concen: 0.15 ppbv
RT: 9.03 min Scan# 975
Delta R.T. -0.02 min
Lab File: VL026243.D
Acq: 21 Oct 2015 18:24

Tgt Ion: 130 Resp: 9709
Ion Ratio Lower Upper
130 100
95 96.4 81.0 121.4
132 83.7 76.5 114.7
97 65.9 52.5 78.7





#41

Tetrahydrofuran

Concen: 0.05 ppbv

RT: 7.17 min Scan# 669

Delta R.T. 0.06 min

Lab File: VL026243.D

Acq: 21 Oct 2015 18:24

Instrument :

MSVOA_L

ClientSampleId :

SUBSLAB-233DL

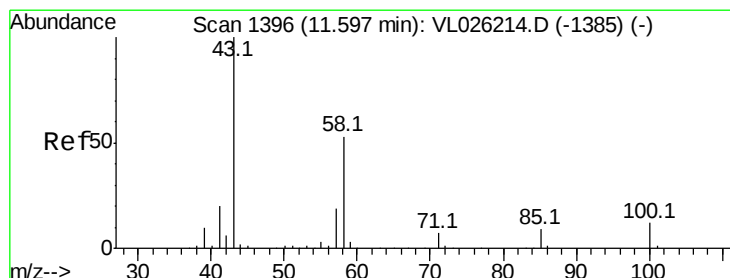
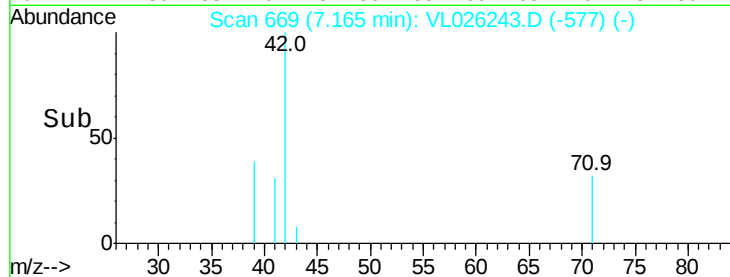
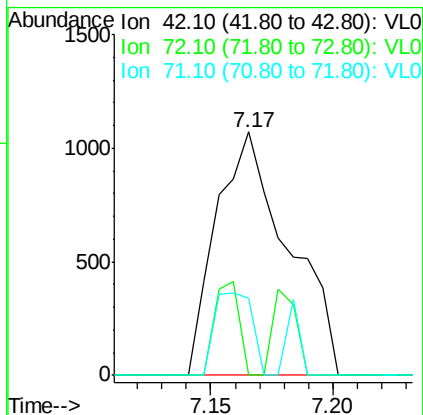
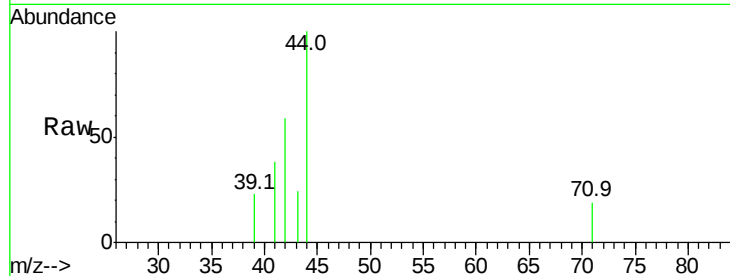
Tgt Ion: 42 Resp: 2187

Ion Ratio Lower Upper

42 100

72 24.9 34.3 51.5#

71 23.4 32.1 48.1#



#51

2-Hexanone

Concen: 0.03 ppbv

RT: 11.49 min Scan# 1379

Delta R.T. -0.10 min

Lab File: VL026243.D

Acq: 21 Oct 2015 18:24

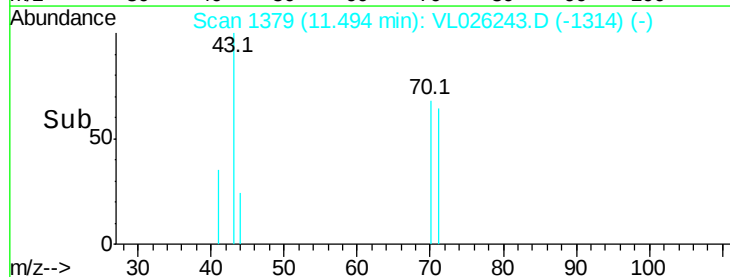
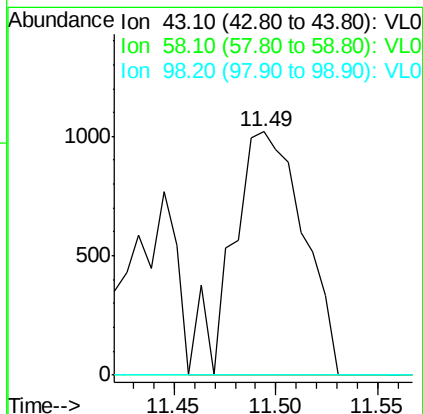
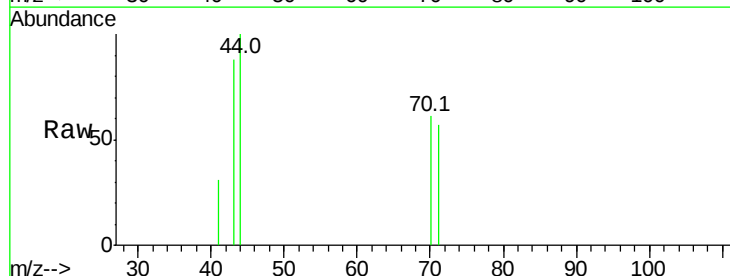
Tgt Ion: 43 Resp: 2476

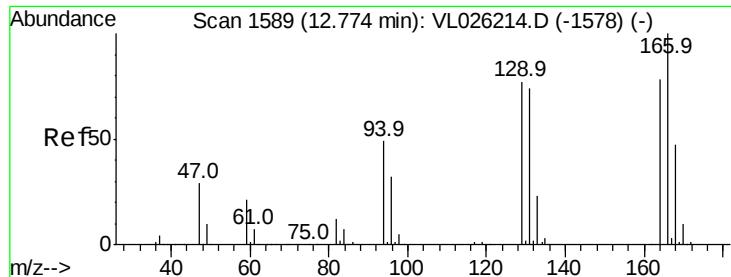
Ion Ratio Lower Upper

43 100

58 0.0 43.2 64.8#

98 0.0 0.0 0.0





#52

Tetrachloroethene

Concen: 7.56 ppbv

RT: 12.76 min Scan# 1587

Delta R.T. -0.01 min

Lab File: VL026243.D

Acq: 21 Oct 2015 18:24

Instrument :

MSVOA_L

ClientSampleId :

SUBSLAB-233DL

Tgt Ion:164 Resp: 587568

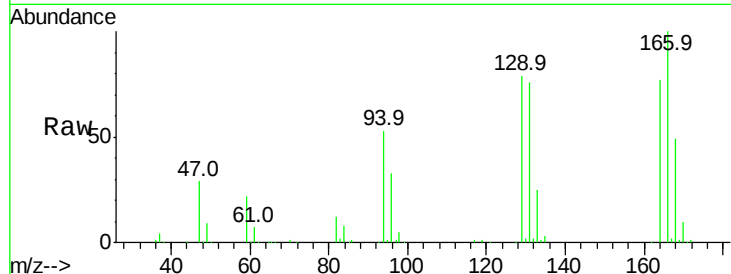
Ion Ratio Lower Upper

164 100

166 129.6 102.3 153.5

129 101.6 78.2 117.4

131 98.0 75.7 113.5

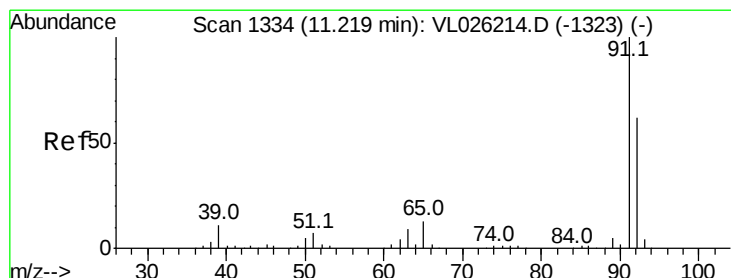
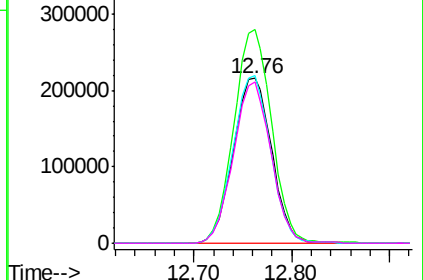
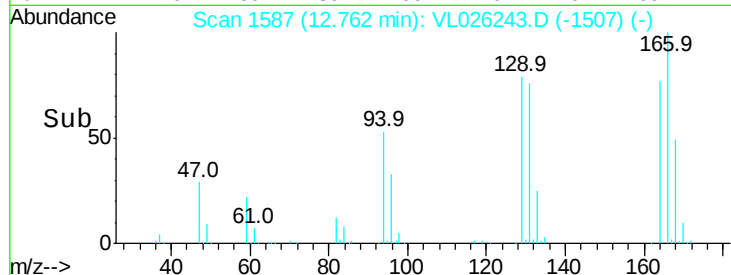


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.12 ppbv

RT: 11.21 min Scan# 1332

Delta R.T. -0.01 min

Lab File: VL026243.D

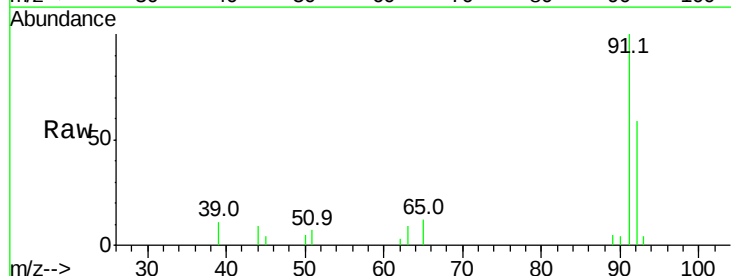
Acq: 21 Oct 2015 18:24

Tgt Ion: 91 Resp: 22315

Ion Ratio Lower Upper

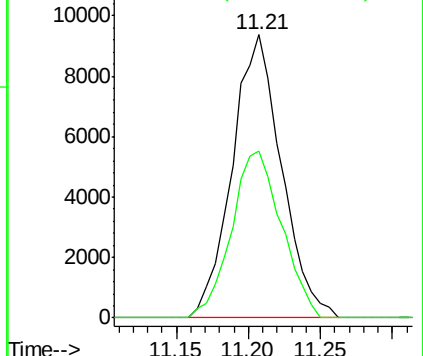
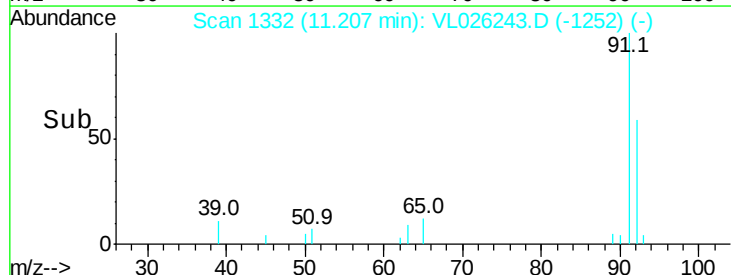
91 100

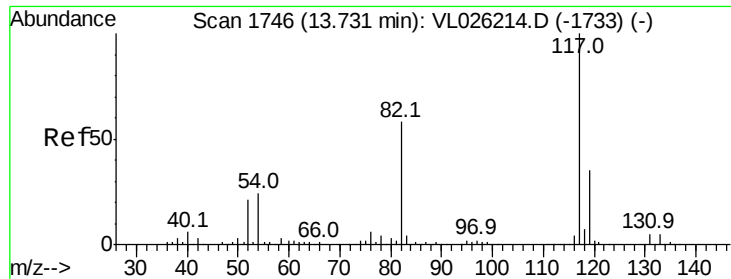
92 59.8 49.2 73.8



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 13.71 min Scan# 1742

Delta R.T. -0.02 min

Lab File: VL026243.D

Acq: 21 Oct 2015 18:24

Instrument :

MSVOA_L

ClientSampleId :

SUBSLAB-233DL

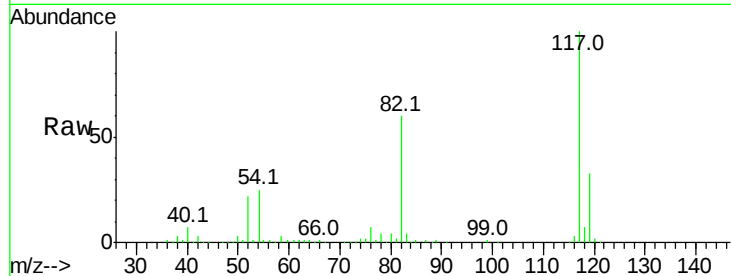
Tgt Ion:117 Resp: 1612535

Ion Ratio Lower Upper

117 100

82 60.5 45.8 68.8

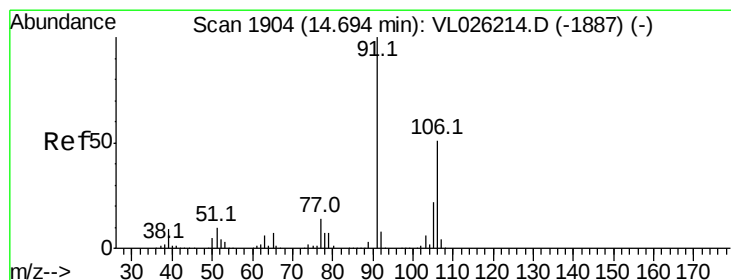
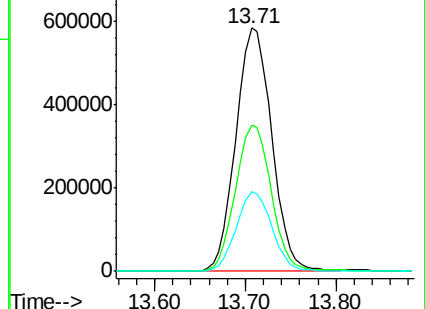
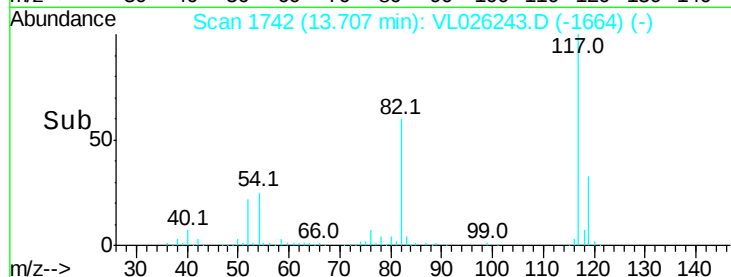
119 32.9 45.0 67.4#



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



#59

m/p-Xylene

Concen: 0.03 ppbv

RT: 14.66 min Scan# 1899

Delta R.T. -0.03 min

Lab File: VL026243.D

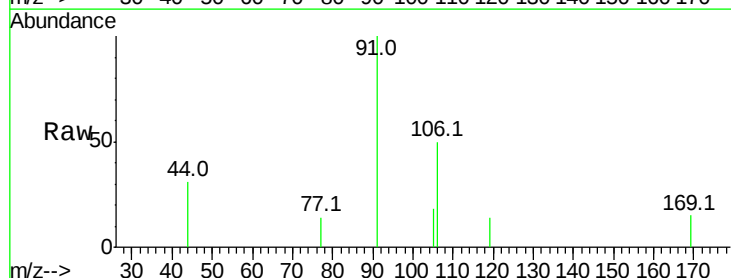
Acq: 21 Oct 2015 18:24

Tgt Ion: 91 Resp: 6748

Ion Ratio Lower Upper

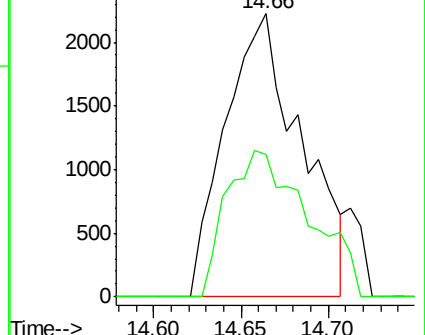
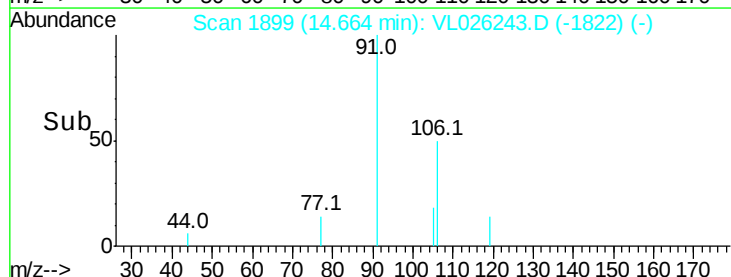
91 100

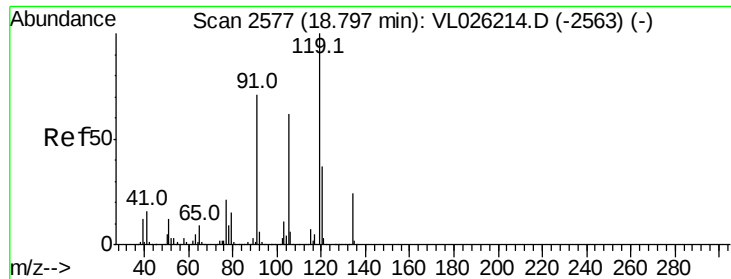
106 55.4 40.6 61.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

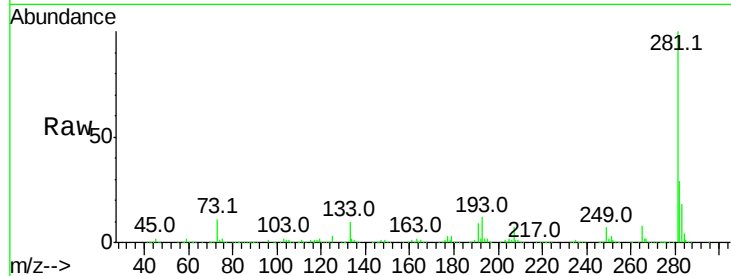




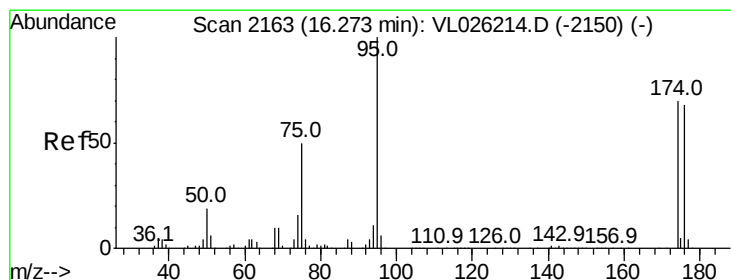
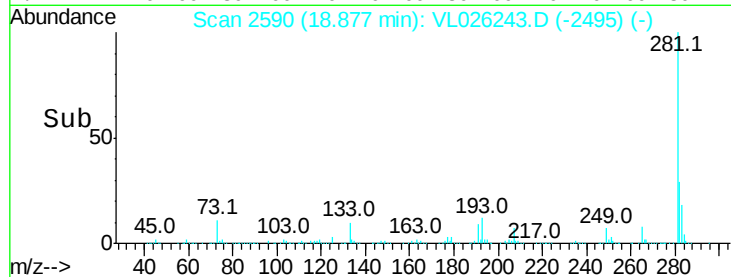
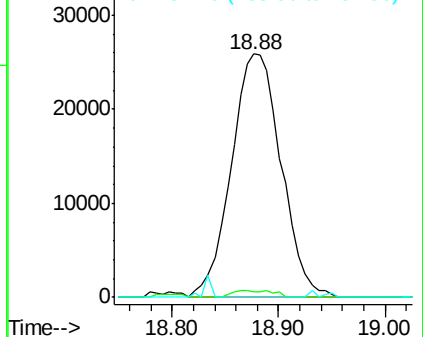
#65
 tert-Butylbenzene
 Concen: 0.31 ppbv
 RT: 18.88 min Scan# 2590
 Delta R.T. 0.08 min
 Lab File: VL026243.D
 Acq: 21 Oct 2015 18:24

Instrument :
 MSVOA_L
 ClientSampleId :
 SUBSLAB-233DL

Tgt Ion: 119 Resp: 84502
 Ion Ratio Lower Upper
 119 100
 91 2.3 57.5 86.3#
 134 0.7 18.1 27.1#

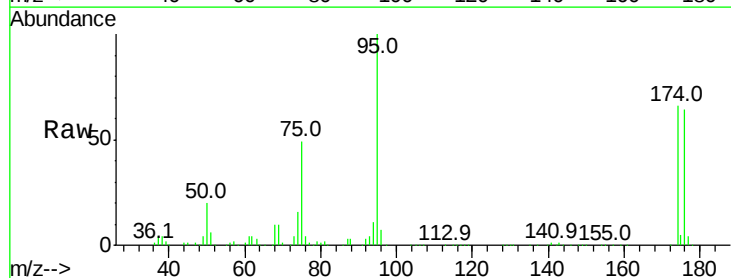


Abundance Ion 119.20 (118.90 to 119.90): V
 Ion 91.10 (90.80 to 91.80): VL0
 Ion 134.20 (133.90 to 134.90): V

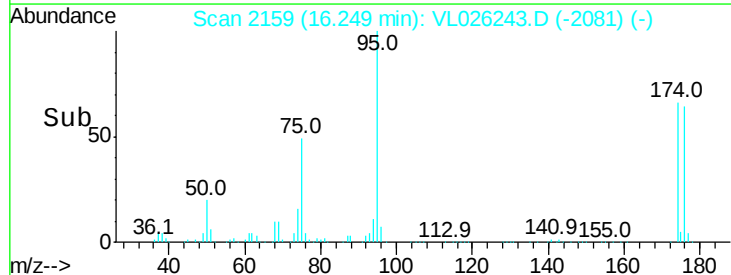
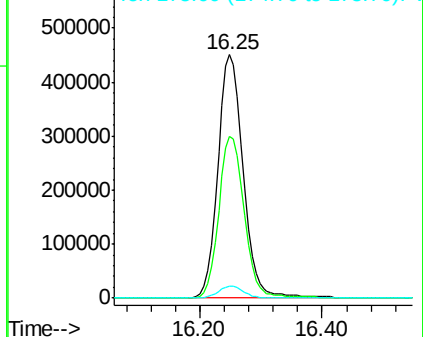


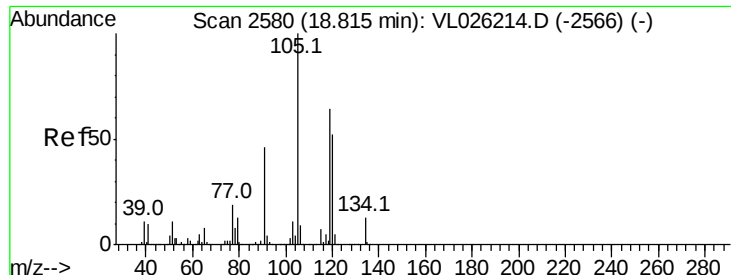
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.44 ppbv
 RT: 16.25 min Scan# 2159
 Delta R.T. -0.02 min
 Lab File: VL026243.D
 Acq: 21 Oct 2015 18:24

Tgt Ion: 95 Resp: 1298084
 Ion Ratio Lower Upper
 95 100
 174 67.4 55.8 83.8
 175 5.0 4.3 6.5



Abundance Ion 95.10 (94.80 to 95.80): VL0
 Ion 174.00 (173.70 to 174.70): V
 Ion 175.00 (174.70 to 175.70): V





#74
 1,2,4-Trimethylbenzene
 Concen: 0.04 ppbv
 RT: 18.80 min Scan# 2578
 Delta R.T. -0.01 min
 Lab File: VL026243.D
 Acq: 21 Oct 2015 18:24

Instrument :
 MSVOA_L
 ClientSampleId :
 SUBSLAB-233DL

Tgt Ion:	105	Resp:	9666
Ion Ratio	Lower	Upper	
105	100		
120	48.1	41.2	61.8
91	10.4	37.2	55.8#
77	10.9	15.6	23.4#

