

Data Path : W:\HPCHEM1\MSVOA_L\DATA\VL102115\
 Data File : VL026236.D
 Acq On : 21 Oct 2015 13:56
 Operator : SY/MD
 Sample : G4112-01 40X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SUBSLAB-233

Quant Time: Oct 22 08:32:35 2015
 Quant Method : W:\HPCHEM1\MSVOA_L\METHODS\VL102015AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 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	6.62	49	503616	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	8.29	114	1474935	10.00	ppbv	-0.02
55) Chlorobenzene-d5	13.71	117	1775301	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	16.25	95	1408951	10.29	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.90%

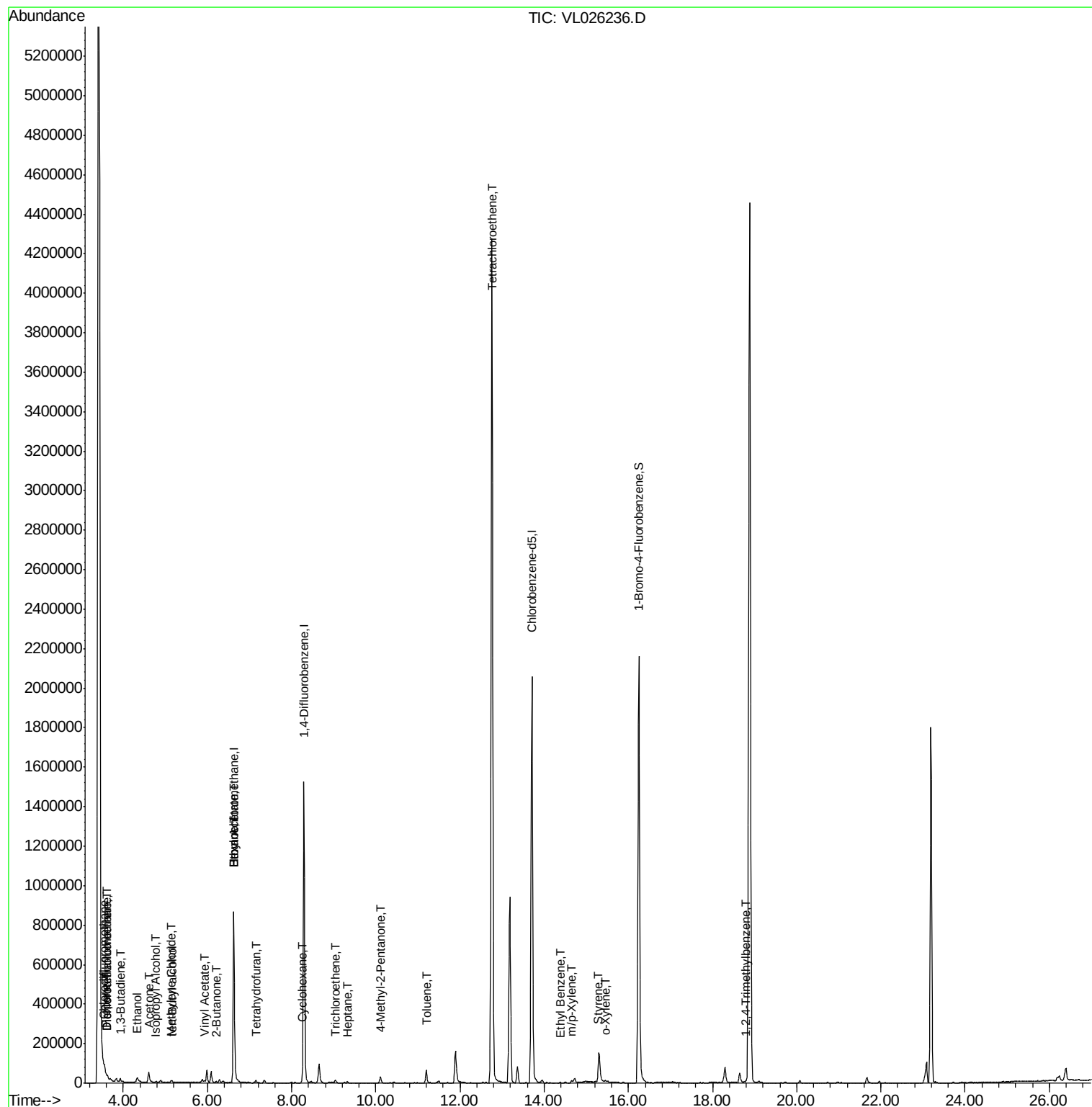
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.62	85	12562	0.12	ppbv	93
3) Chlorodifluoromethane	3.55	51	20029	0.31	ppbv	97
8) Dichlorotetrafluoroethane	3.62	85	12562	0.14	ppbv #	13
9) Propene	3.59	41	2119	0.07	ppbv #	63
10) Heptane	9.32	43	3163	0.03	ppbv #	78
13) Ethanol	4.33	45	30737	6.87	ppbv	88
15) Acetone	4.60	43	66103	0.89	ppbv #	80
16) 1,3-Butadiene	3.93	39	4469	0.14	ppbv #	7
17) tert-Butyl alcohol	5.17	59	9578	0.19	ppbv #	87
19) Isopropyl Alcohol	4.77	45	1737	0.06	ppbv #	27
20) Methylene Chloride	5.13	84	3300	0.11	ppbv #	71
23) Vinyl Acetate	5.93	43	4765	0.03	ppbv #	1
25) Ethyl Acetate	6.63	43	9889	0.07	ppbv #	81
26) Hexane	6.63	57	13107	0.19	ppbv #	55
30) Cyclohexane	8.25	84	5255	0.08	ppbv #	1
34) 2-Butanone	6.21	43	9498	0.11	ppbv	94
38) Trichloroethene	9.03	130	4958	0.07	ppbv	95
41) Tetrahydrofuran	7.15	42	8360	0.17	ppbv	95
50) 4-Methyl-2-Pentanone	10.10	43	2362	0.02	ppbv #	36
52) Tetrachloroethene	12.76	164	1519669	17.64	ppbv	99
53) Toluene	11.20	91	67285	0.33	ppbv	100
58) Ethyl Benzene	14.38	91	7678	0.03	ppbv	92
59) m/p-Xylene	14.65	91	18188	0.08	ppbv	100
60) o-Xylene	15.45	91	8833	0.04	ppbv	93
61) Styrene	15.27	104	6519	0.06	ppbv	90
74) 1,2,4-Trimethylbenzene	18.78	105	12350	0.05	ppbv #	77

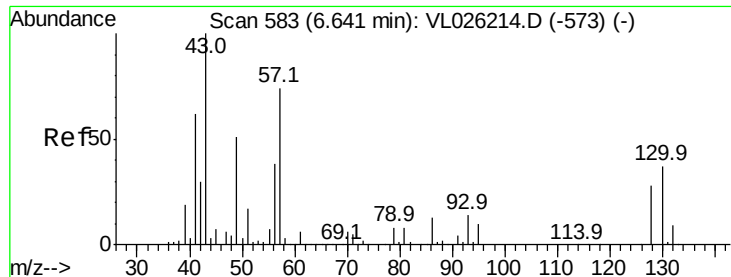
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Oct 22 08:32:35 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

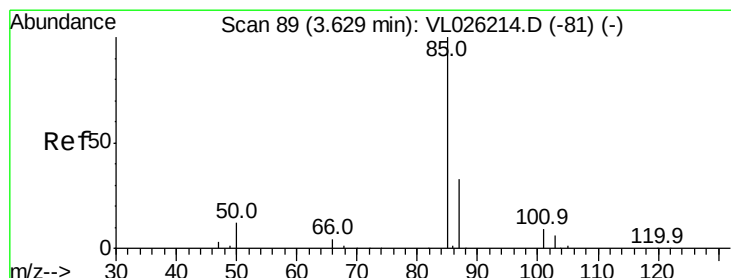
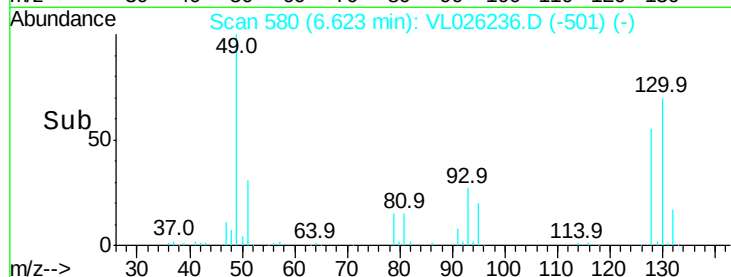
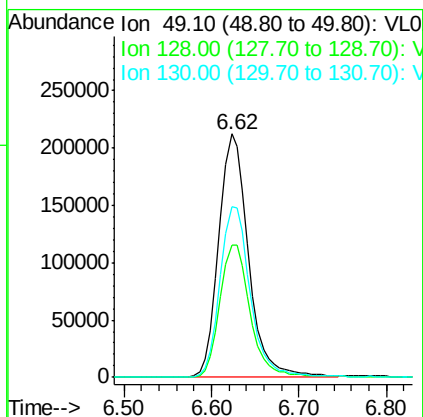
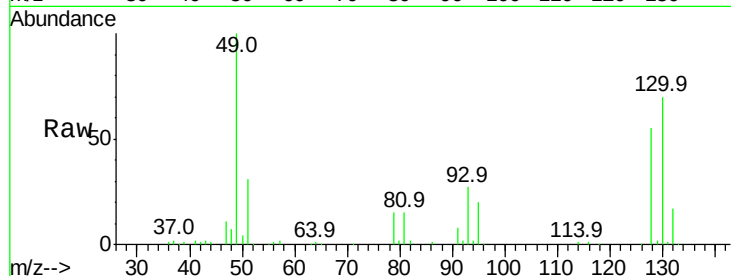




#1
 Bromochloromethane
 Concen: 10.00 ppbv
 RT: 6.62 min Scan# 580
 Delta R.T. -0.02 min
 Lab File: VL026236.D
 Acq: 21 Oct 2015 13:56

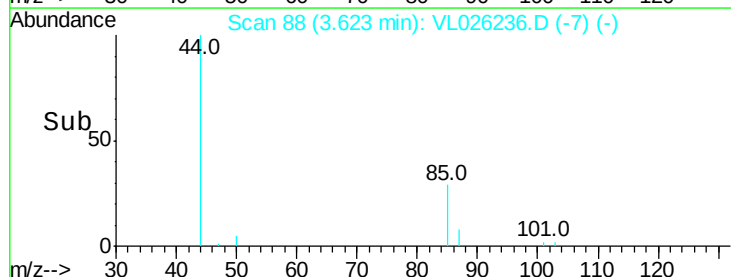
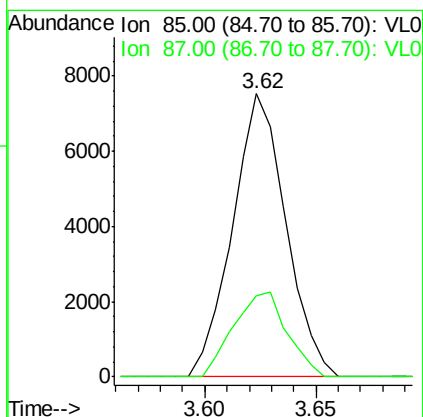
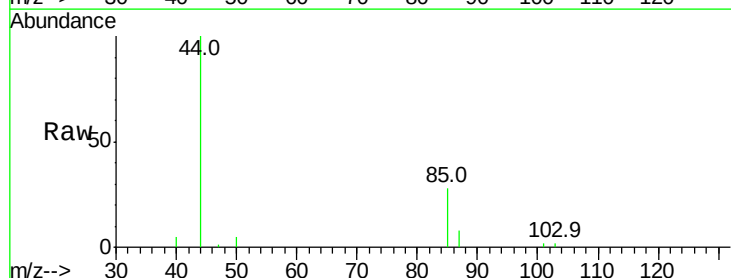
Instrument :
 MSVOA_L
 ClientSampleId :
 SUBSLAB-233

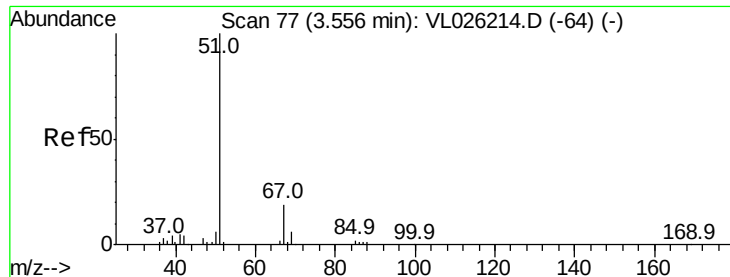
Tgt Ion: 49 Resp: 503616
 Ion Ratio Lower Upper
 49 100
 128 56.5 28.2 84.7
 130 72.4 36.0 108.1



#2
 Dichlorodifluoromethane
 Concen: 0.12 ppbv
 RT: 3.62 min Scan# 88
 Delta R.T. -0.01 min
 Lab File: VL026236.D
 Acq: 21 Oct 2015 13:56

Tgt Ion: 85 Resp: 12562
 Ion Ratio Lower Upper
 85 100
 87 28.5 26.1 39.1





#3

Chlorodifluoromethane

Concen: 0.31 ppbv

RT: 3.55 min Scan# 76

Delta R.T. -0.01 min

Lab File: VL026236.D

Acq: 21 Oct 2015 13:56

Instrument :

MSVOA_L

ClientSampleId :

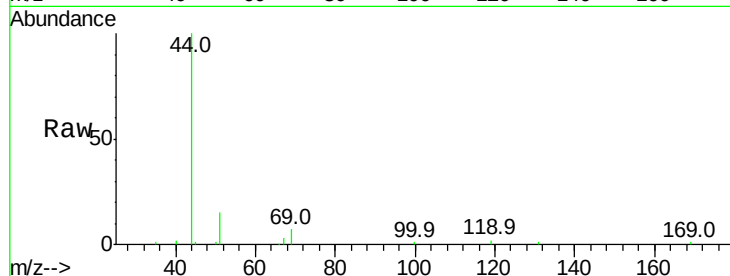
SUBSLAB-233

Tgt Ion: 51 Resp: 20029

Ion Ratio Lower Upper

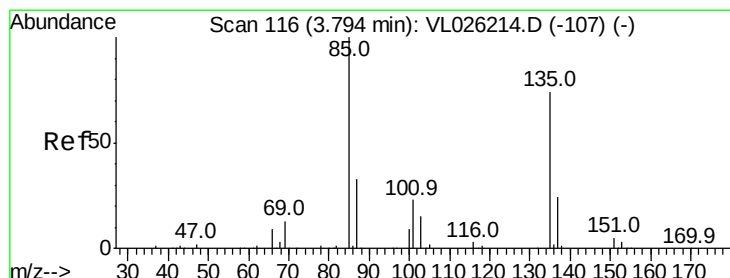
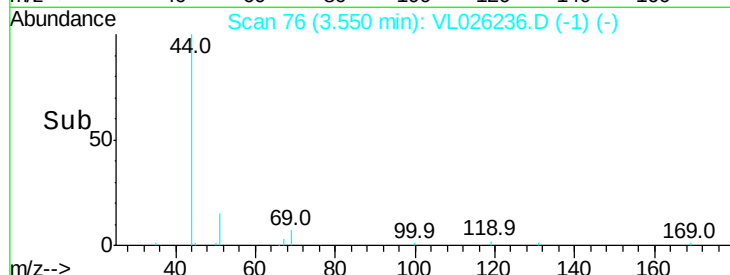
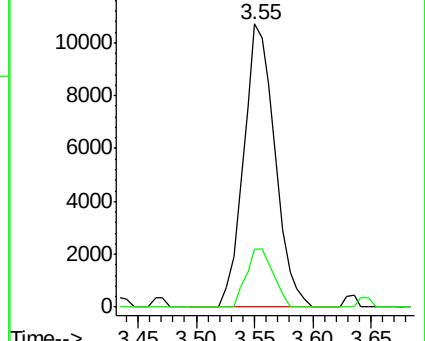
51 100

67 17.7 15.3 22.9



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#8

Dichlorotetrafluoroethane

Concen: 0.14 ppbv

RT: 3.62 min Scan# 88

Delta R.T. -0.17 min

Lab File: VL026236.D

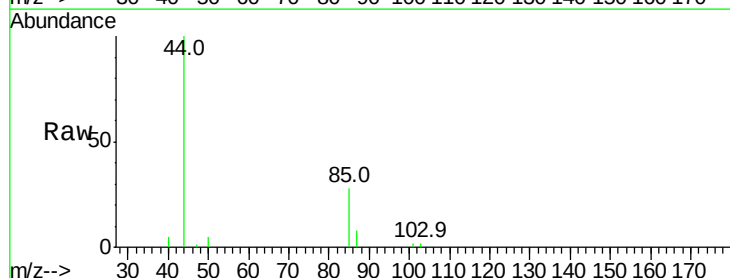
Acq: 21 Oct 2015 13:56

Tgt Ion: 85 Resp: 12562

Ion Ratio Lower Upper

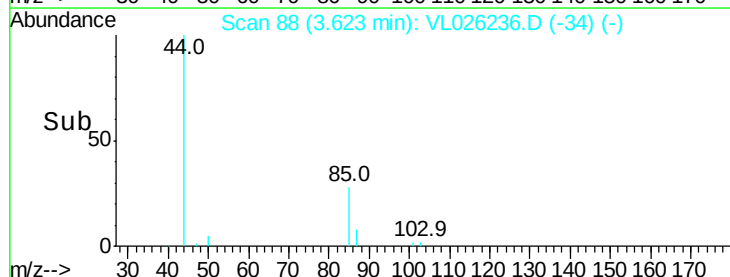
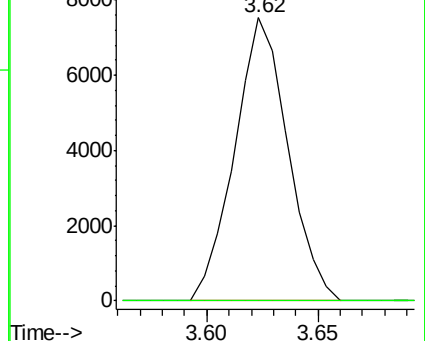
85 100

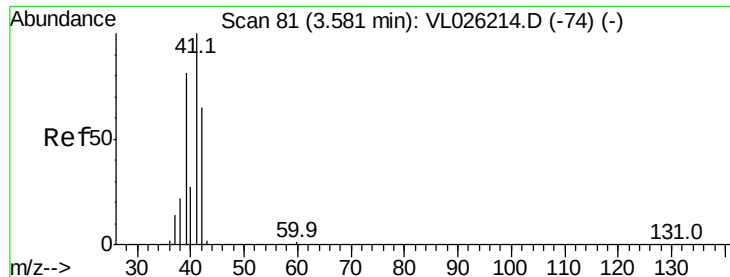
135 0.0 57.8 86.8#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V





#9

Propene

Concen: 0.07 ppbv

RT: 3.59 min Scan# 82

Delta R.T. 0.01 min

Lab File: VL026236.D

Acq: 21 Oct 2015 13:56

Instrument :

MSVOA_L

ClientSampleId :

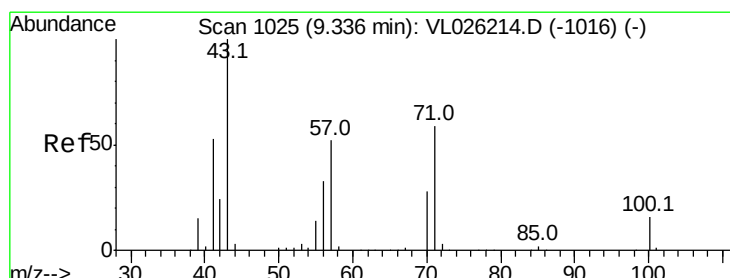
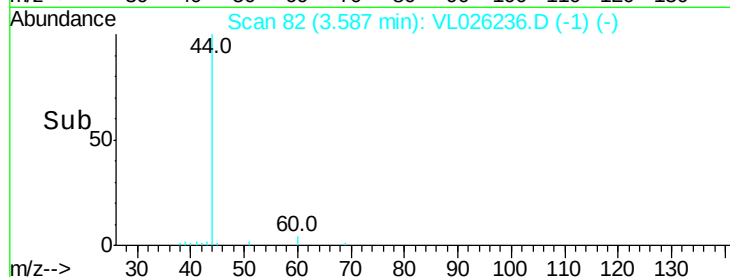
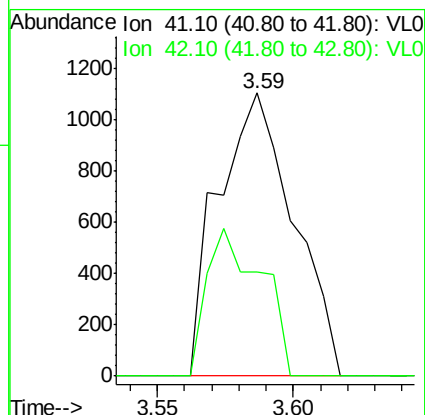
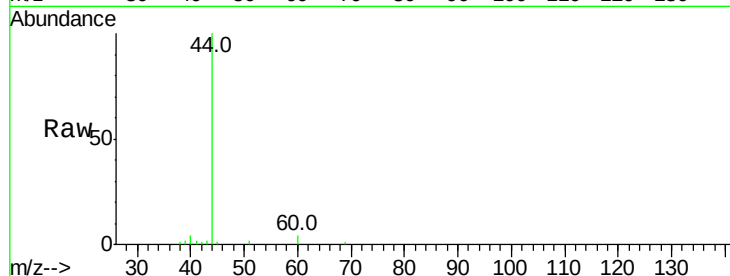
SUBSLAB-233

Tgt Ion: 41 Resp: 2119

Ion Ratio Lower Upper

41 100

42 37.9 53.8 80.8#



#10

Heptane

Concen: 0.03 ppbv

RT: 9.32 min Scan# 1022

Delta R.T. -0.02 min

Lab File: VL026236.D

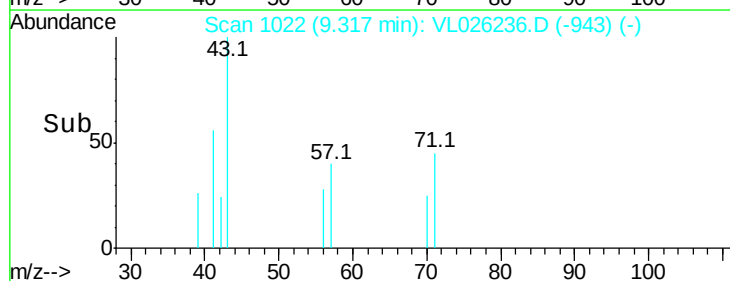
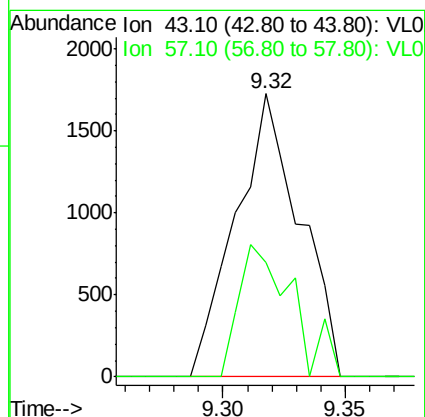
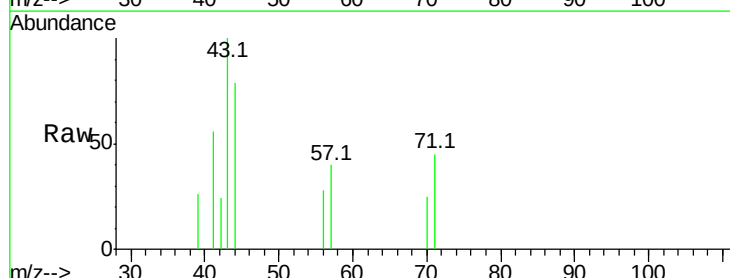
Acq: 21 Oct 2015 13:56

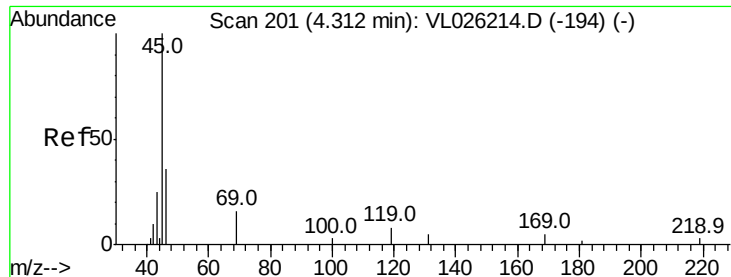
Tgt Ion: 43 Resp: 3163

Ion Ratio Lower Upper

43 100

57 38.8 43.7 65.5#

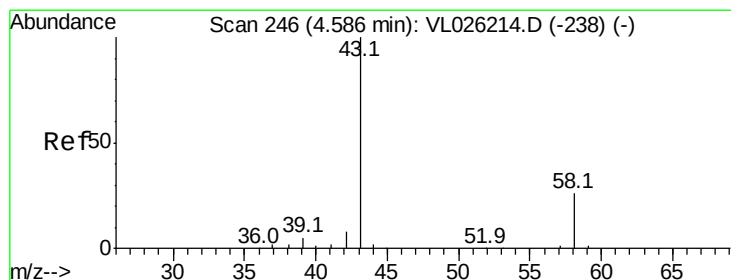
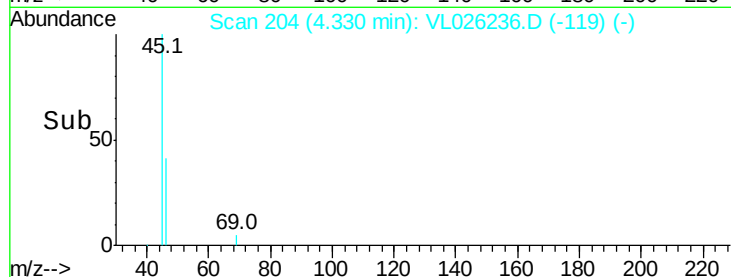
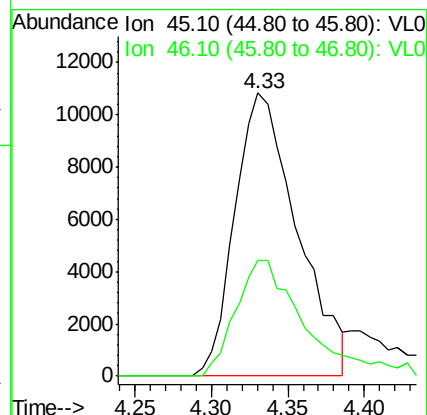
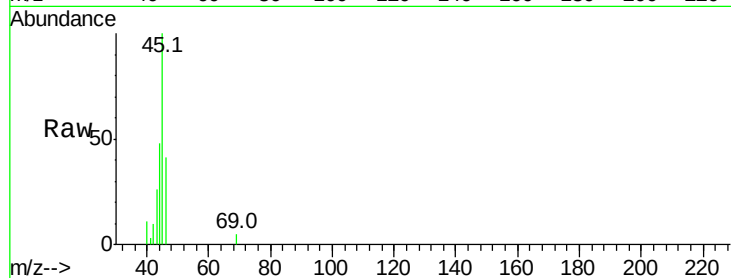




#13
Ethanol
Concen: 6.87 ppbv
RT: 4.33 min Scan# 204
Delta R.T. 0.02 min
Lab File: VL026236.D
Acq: 21 Oct 2015 13:56

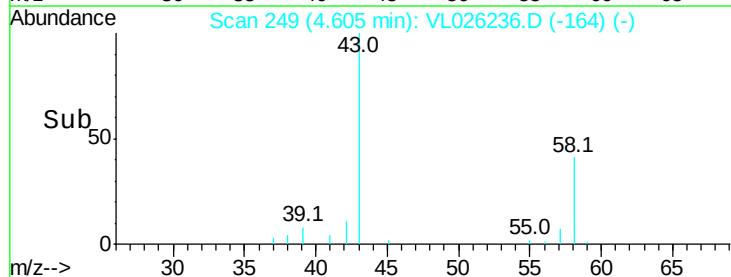
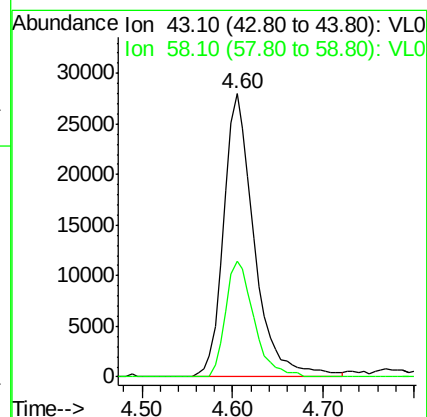
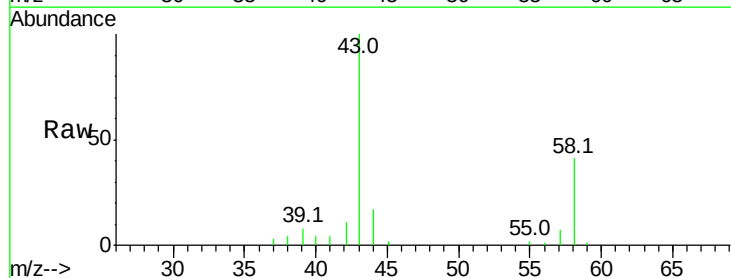
Instrument :
MSVOA_L
ClientSampleId :
SUBSLAB-233

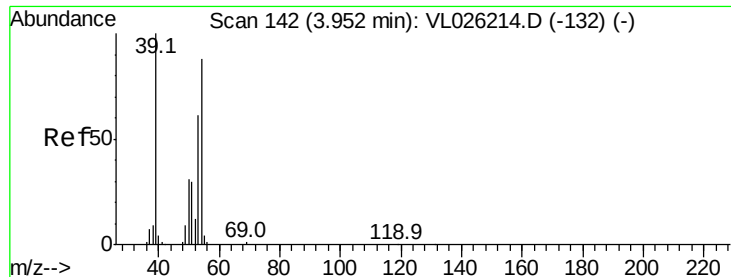
Tgt Ion: 45 Resp: 30737
Ion Ratio Lower Upper
45 100
46 46.9 15.8 63.0



#15
Acetone
Concen: 0.89 ppbv
RT: 4.60 min Scan# 249
Delta R.T. 0.02 min
Lab File: VL026236.D
Acq: 21 Oct 2015 13:56

Tgt Ion: 43 Resp: 66103
Ion Ratio Lower Upper
43 100
58 37.5 21.8 32.6#





#16

1,3-Butadiene

Concen: 0.14 ppbv

RT: 3.93 min Scan# 138

Delta R.T. -0.02 min

Lab File: VL026236.D

Acq: 21 Oct 2015 13:56

Instrument :

MSVOA_L

ClientSampleId :

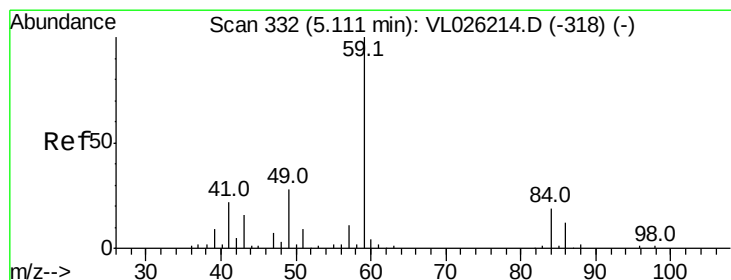
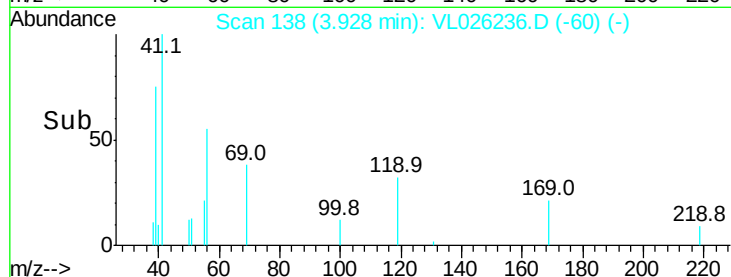
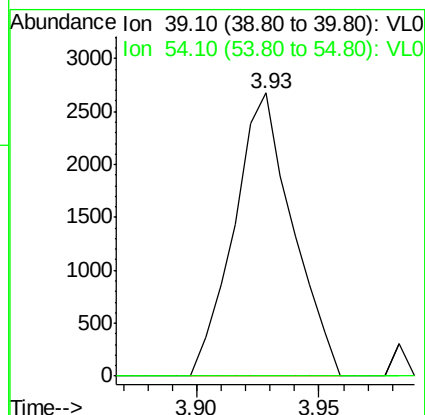
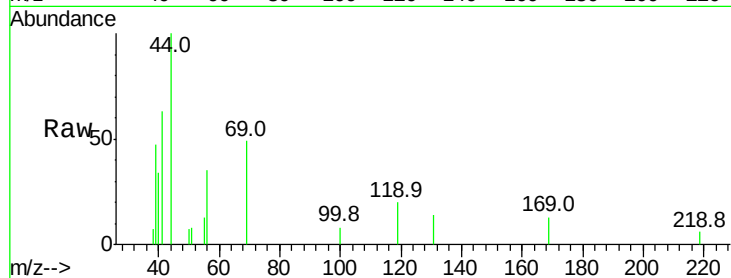
SUBSLAB-233

Tgt Ion: 39 Resp: 4469

Ion Ratio Lower Upper

39 100

54 0.0 67.3 100.9#



#17

tert-Butyl alcohol

Concen: 0.19 ppbv

RT: 5.17 min Scan# 341

Delta R.T. 0.05 min

Lab File: VL026236.D

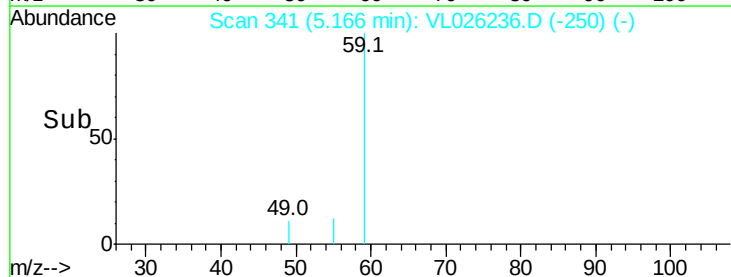
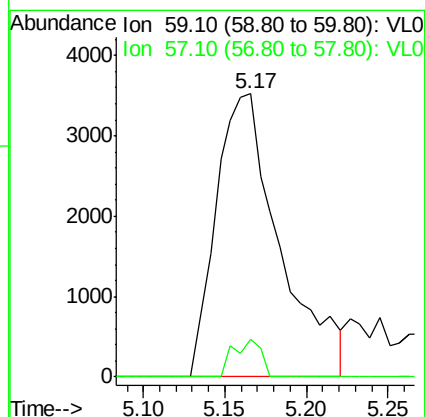
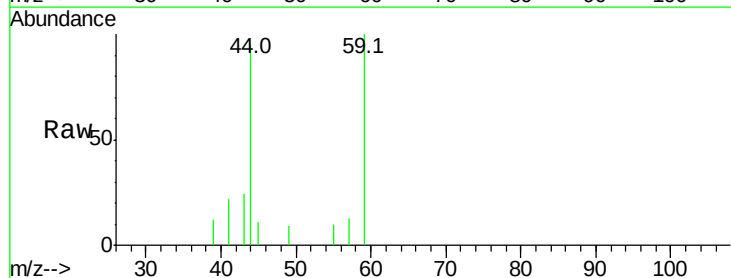
Acq: 21 Oct 2015 13:56

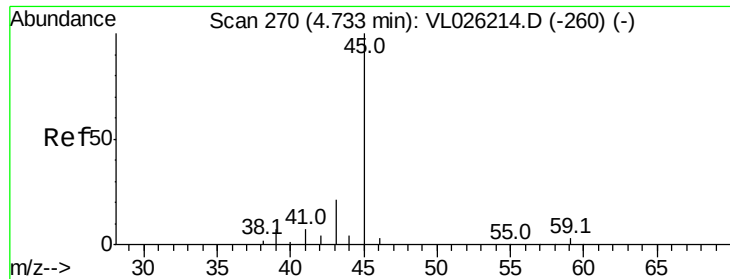
Tgt Ion: 59 Resp: 9578

Ion Ratio Lower Upper

59 100

57 5.8 8.5 12.7#





#19

Isopropyl Alcohol

Concen: 0.06 ppbv

RT: 4.77 min Scan# 276

Delta R.T. 0.04 min

Lab File: VL026236.D

Acq: 21 Oct 2015 13:56

Instrument :

MSVOA_L

ClientSampleId :

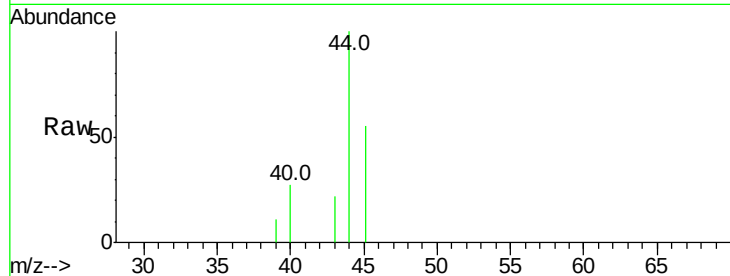
SUBSLAB-233

Tgt Ion: 45 Resp: 1737

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

4.77

2000

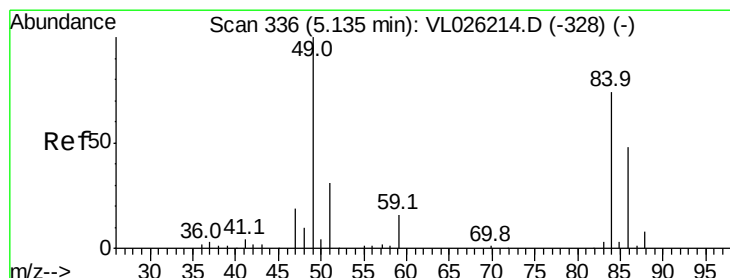
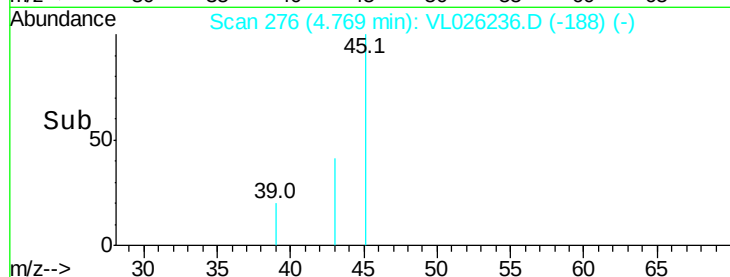
1500

1000

500

0

Time-->



#20

Methylene Chloride

Concen: 0.11 ppbv

RT: 5.13 min Scan# 335

Delta R.T. -0.01 min

Lab File: VL026236.D

Acq: 21 Oct 2015 13:56

Tgt Ion: 84 Resp: 3300

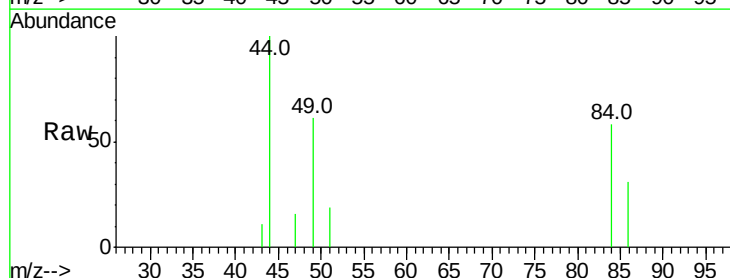
Ion Ratio Lower Upper

84 100

49 86.8 108.7 163.1#

51 33.3 33.7 50.5#

86 53.0 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

5.13

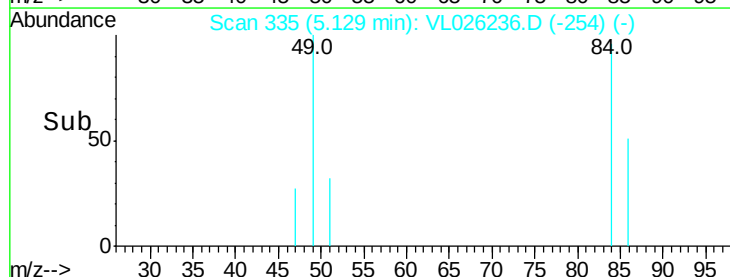
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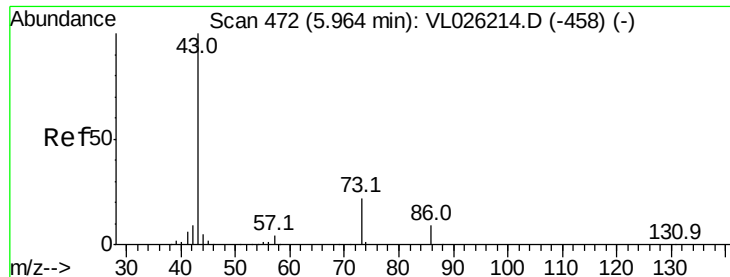
2000

1000

0

Time-->





#23

Vinyl Acetate

Concen: 0.03 ppbv

RT: 5.93 min Scan# 466

Delta R.T. -0.04 min

Lab File: VL026236.D

Acq: 21 Oct 2015 13:56

Instrument :

MSVOA_L

ClientSampleId :

SUBSLAB-233

Tgt Ion: 43 Resp: 4765

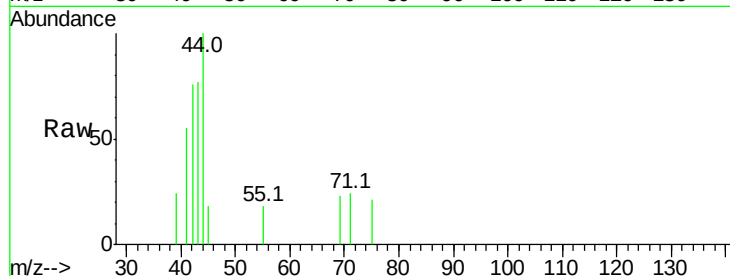
Ion Ratio Lower Upper

43 100

86 0.0 7.0 10.6#

42 111.6 7.5 11.3#

44 12.5 3.6 5.4#

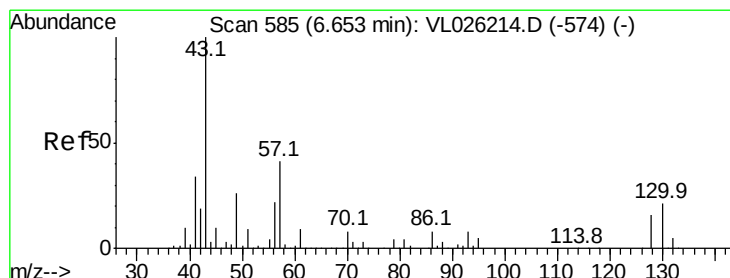
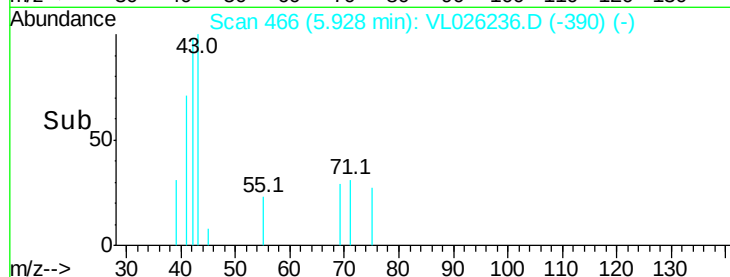
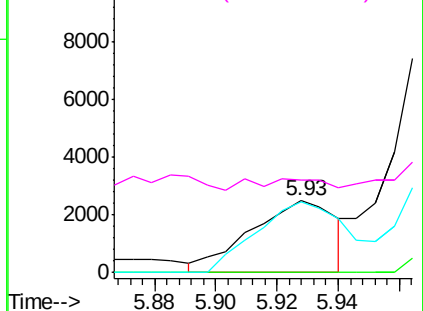


Abundance Ion 43.10 (42.80 to 43.80): VL0

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



#25

Ethyl Acetate

Concen: 0.07 ppbv

RT: 6.63 min Scan# 581

Delta R.T. -0.02 min

Lab File: VL026236.D

Acq: 21 Oct 2015 13:56

Tgt Ion: 43 Resp: 9889

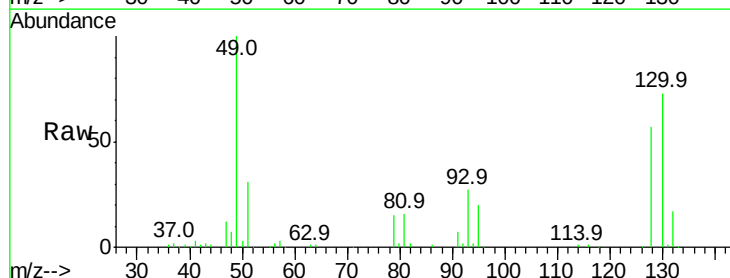
Ion Ratio Lower Upper

43 100

45 12.3 7.7 11.5#

61 0.0 7.5 11.3#

70 0.0 6.9 10.3#

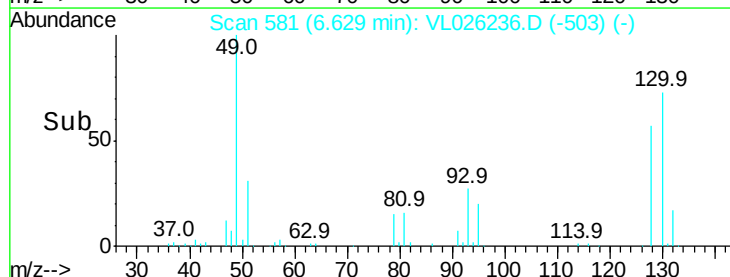
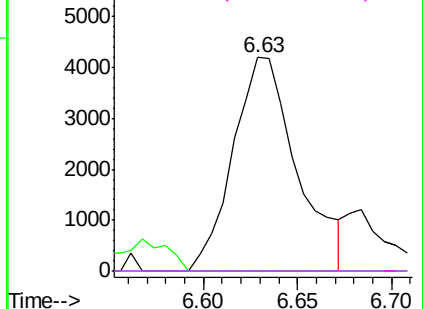


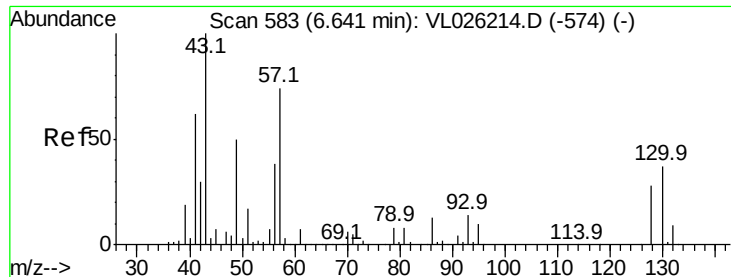
Abundance Ion 43.10 (42.80 to 43.80): VL0

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

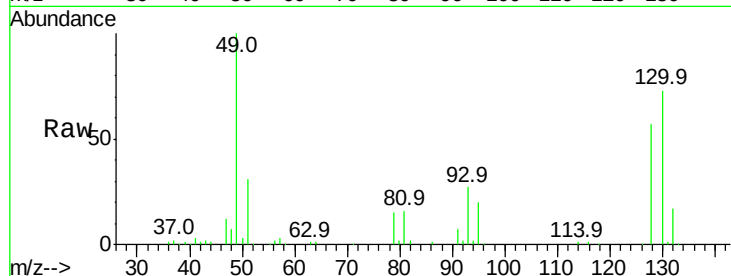




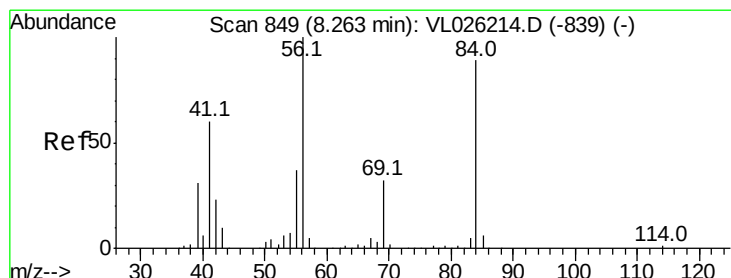
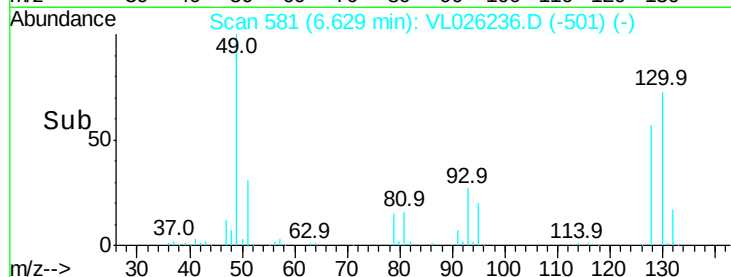
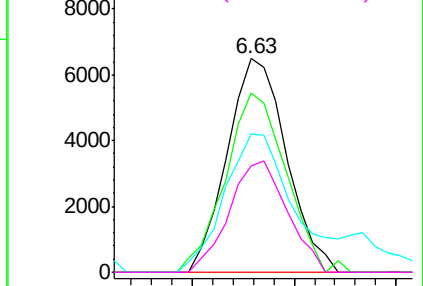
#26
Hexane
Concen: 0.19 ppbv
RT: 6.63 min Scan# 581
Delta R.T. -0.01 min
Lab File: VL026236.D
Acq: 21 Oct 2015 13:56

Instrument :
MSVOA_L
ClientSampleId :
SUBSLAB-233

Tgt Ion: 57 Resp: 13107
Ion Ratio Lower Upper
57 100
41 85.8 68.1 102.1
43 90.2 163.4 245.2#
56 50.7 42.2 63.4

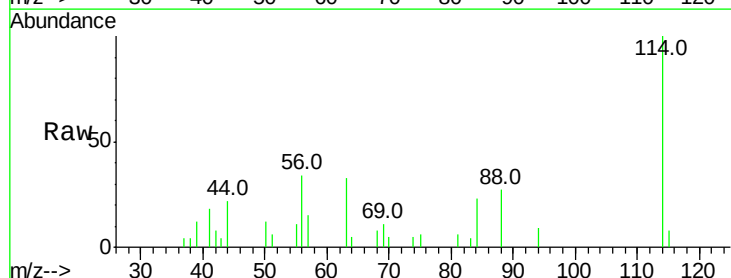


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

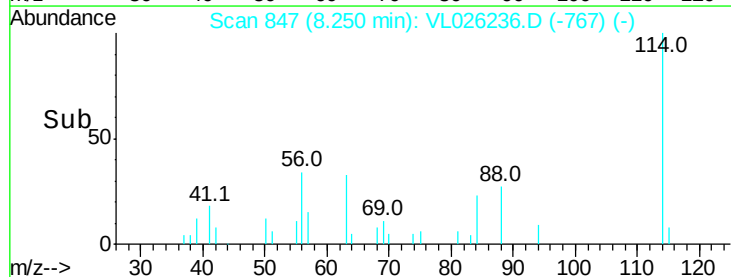
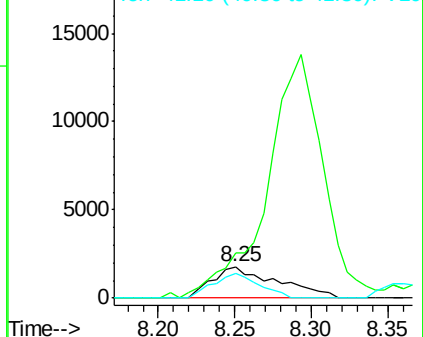


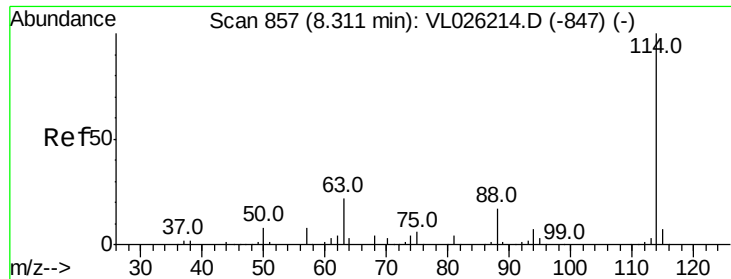
#30
Cyclohexane
Concen: 0.08 ppbv
RT: 8.25 min Scan# 847
Delta R.T. -0.01 min
Lab File: VL026236.D
Acq: 21 Oct 2015 13:56

Tgt Ion: 84 Resp: 5255
Ion Ratio Lower Upper
84 100
56 699.9 95.9 143.9#
41 56.1 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

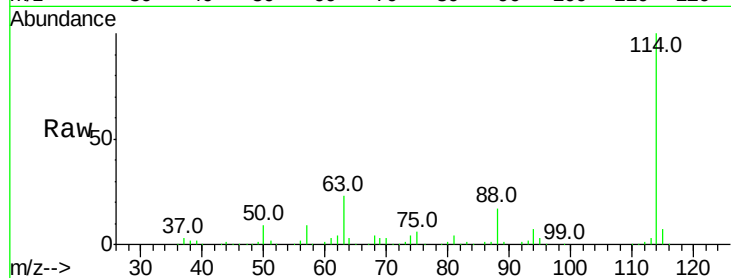




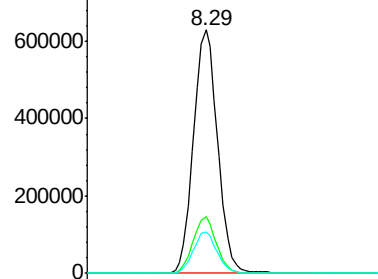
#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 8.29 min Scan# 854
 Delta R.T. -0.02 min
 Lab File: VL026236.D
 Acq: 21 Oct 2015 13:56

Instrument :
 MSVOA_L
 ClientSampleId :
 SUBSLAB-233

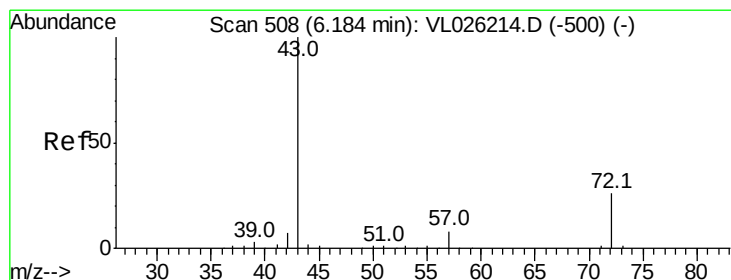
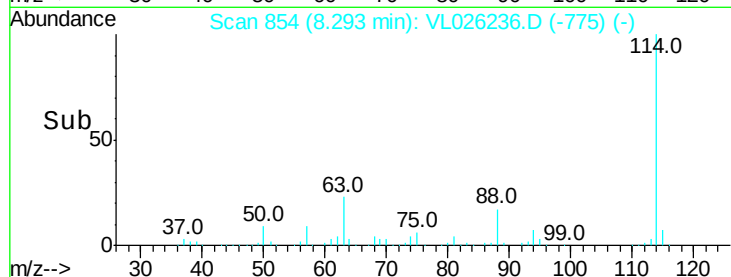
Tgt Ion:114 Resp: 1474935
 Ion Ratio Lower Upper
 114 100
 63 22.5 18.2 27.4
 88 16.8 13.5 20.3



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

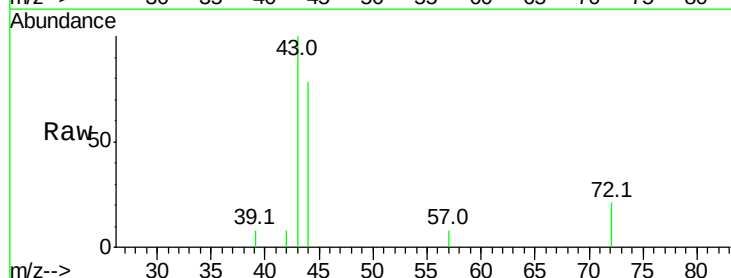


Time-->

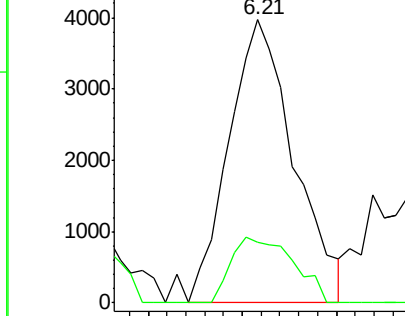


#34
 2-Butanone
 Concen: 0.11 ppbv
 RT: 6.21 min Scan# 512
 Delta R.T. 0.02 min
 Lab File: VL026236.D
 Acq: 21 Oct 2015 13:56

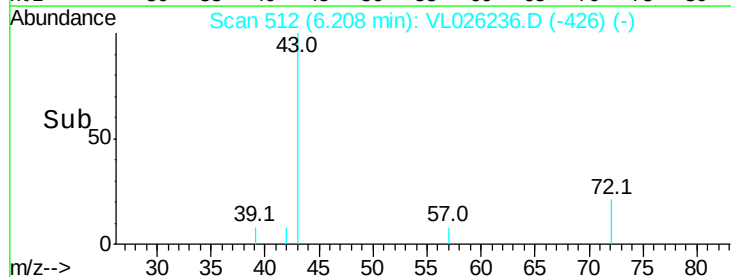
Tgt Ion: 43 Resp: 9498
 Ion Ratio Lower Upper
 43 100
 72 22.1 20.1 30.1

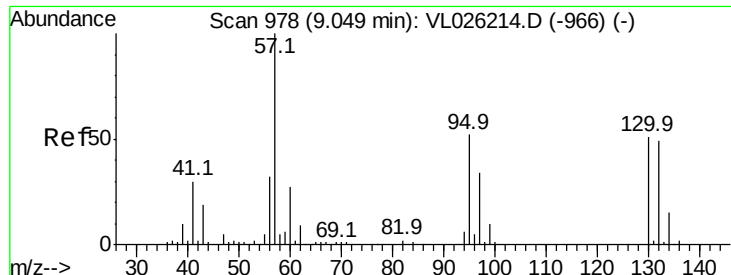


Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0



Time-->





#38

Trichloroethene

Concen: 0.07 ppbv

RT: 9.03 min Scan# 975

Delta R.T. -0.02 min

Lab File: VL026236.D

Acq: 21 Oct 2015 13:56

Instrument :

MSVOA_L

ClientSampleId :

SUBSLAB-233

Tgt Ion:130 Resp: 4958

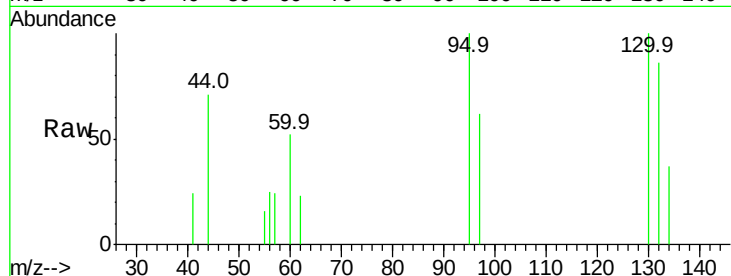
Ion Ratio Lower Upper

130 100

95 100.5 81.0 121.4

132 86.1 76.5 114.7

97 62.2 52.5 78.7

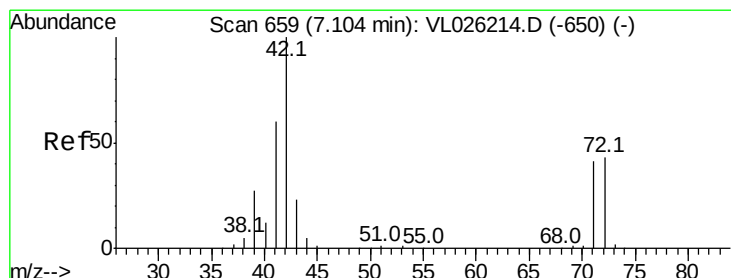
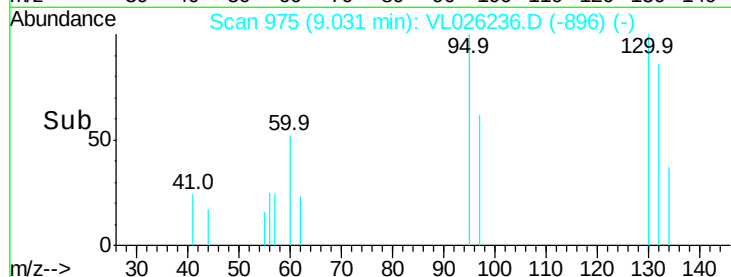
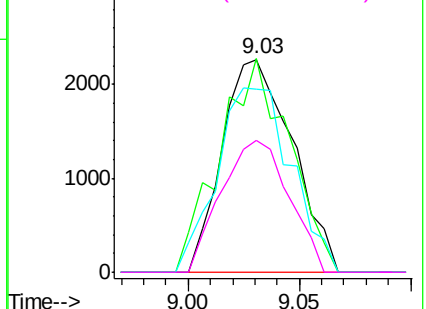


Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0



#41

Tetrahydrofuran

Concen: 0.17 ppbv

RT: 7.15 min Scan# 666

Delta R.T. 0.04 min

Lab File: VL026236.D

Acq: 21 Oct 2015 13:56

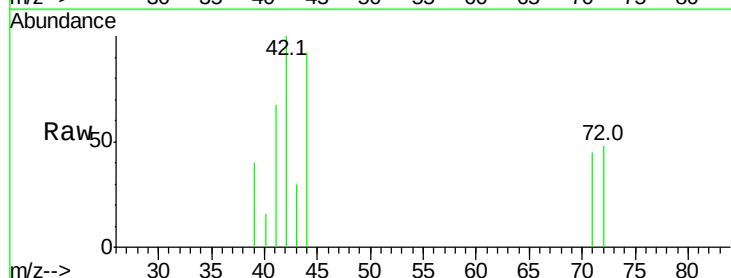
Tgt Ion: 42 Resp: 8360

Ion Ratio Lower Upper

42 100

72 43.3 34.3 51.5

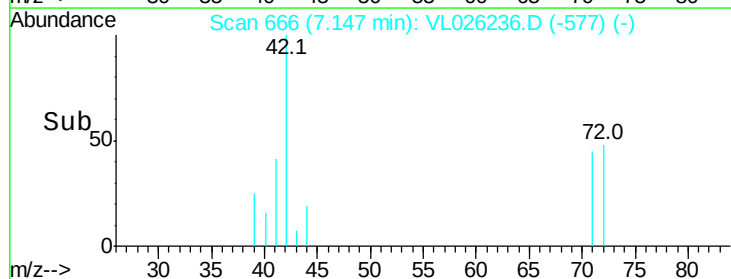
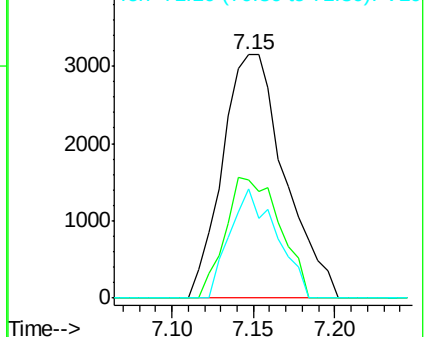
71 33.7 32.1 48.1

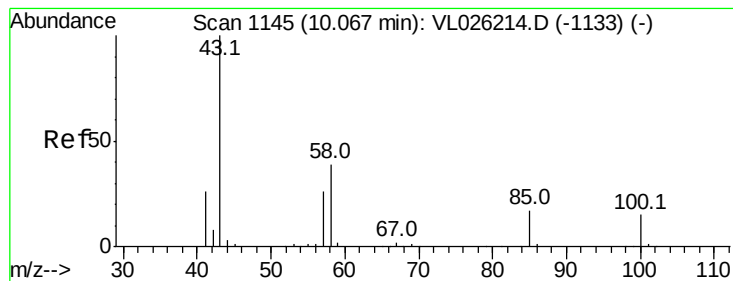


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0





#50

4-Methyl-2-Pentanone

Concen: 0.02 ppbv

RT: 10.10 min Scan# 1151

Delta R.T. 0.04 min

Lab File: VL026236.D

Acq: 21 Oct 2015 13:56

Instrument :

MSVOA_L

ClientSampleId :

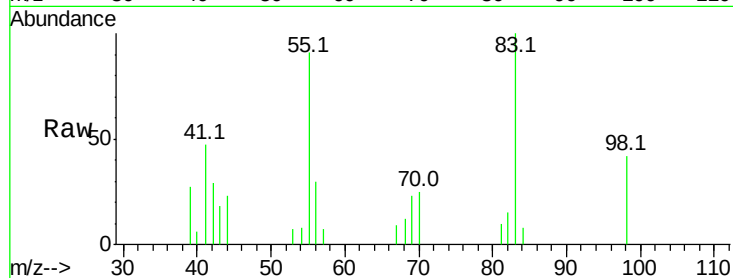
SUBSLAB-233

Tgt Ion: 43 Resp: 2362

Ion Ratio Lower Upper

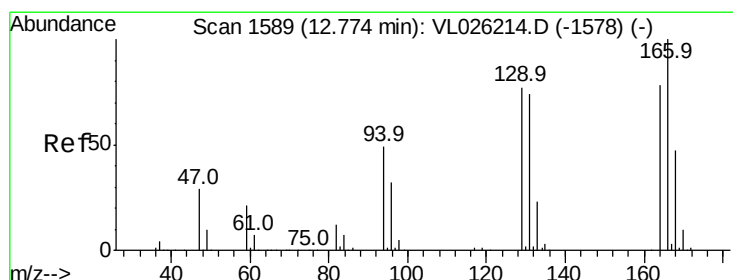
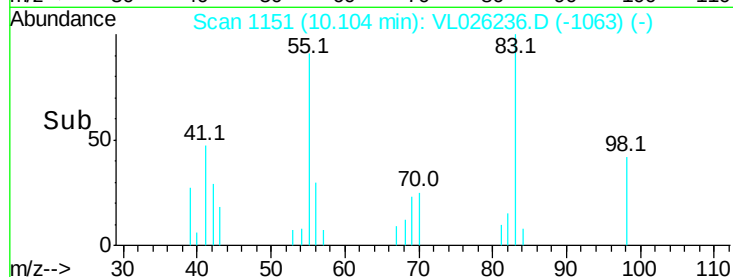
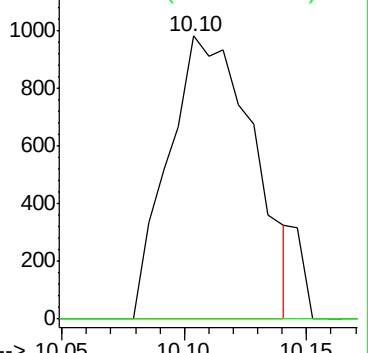
43 100

58 0.0 31.1 46.7#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#52

Tetrachloroethene

Concen: 17.64 ppbv

RT: 12.76 min Scan# 1587

Delta R.T. -0.01 min

Lab File: VL026236.D

Acq: 21 Oct 2015 13:56

Tgt Ion:164 Resp: 1519669

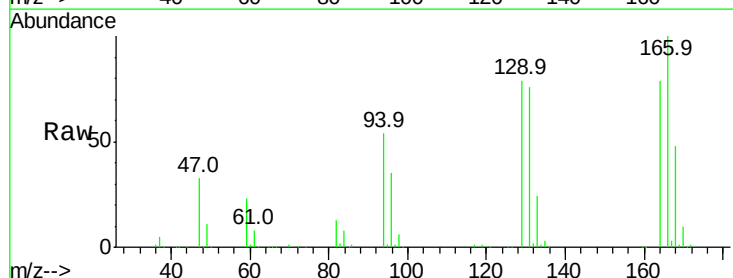
Ion Ratio Lower Upper

164 100

166 125.8 102.3 153.5

129 99.1 78.2 117.4

131 95.0 75.7 113.5

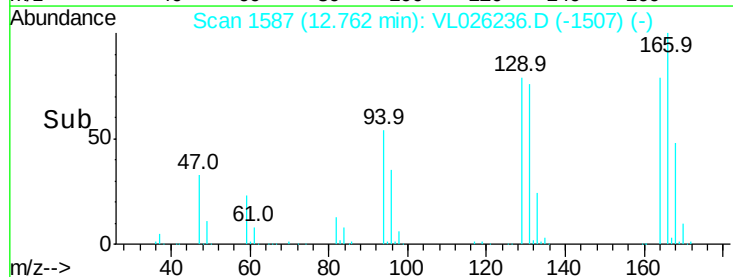
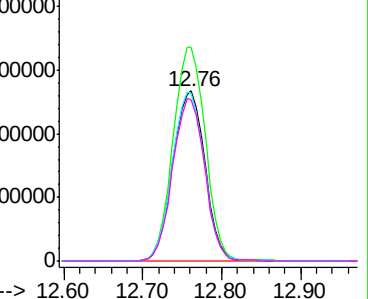


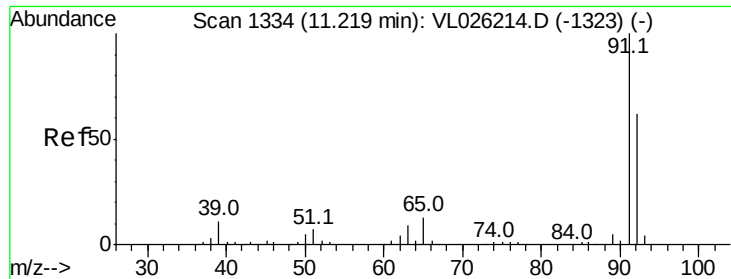
Abundance Ion 163.90 (163.60 to 164.60): V

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

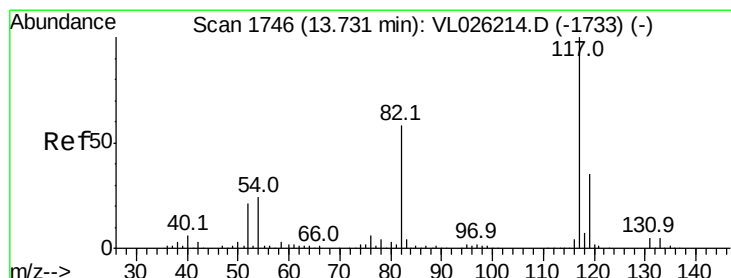
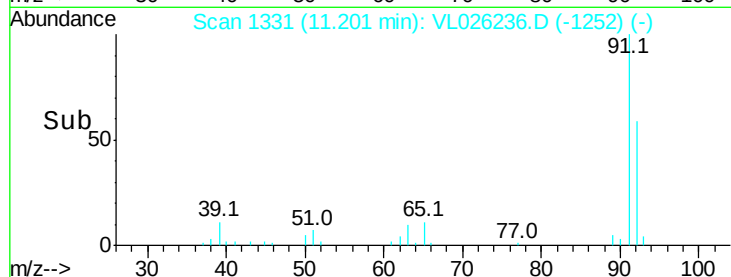
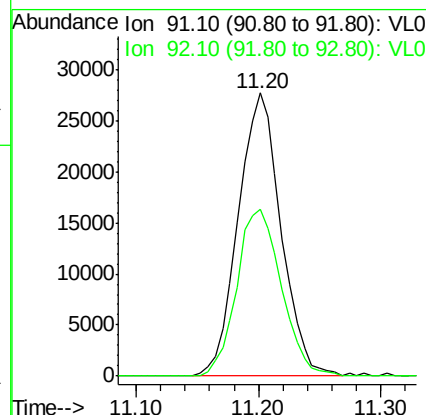
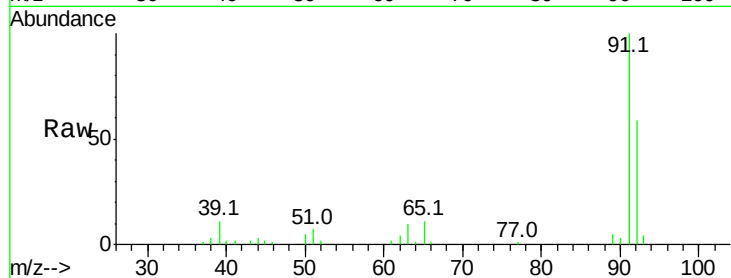




#53
Toluene
Concen: 0.33 ppbv
RT: 11.20 min Scan# 1331
Delta R.T. -0.02 min
Lab File: VL026236.D
Acq: 21 Oct 2015 13:56

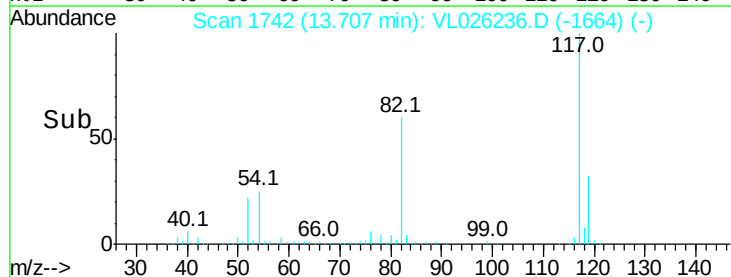
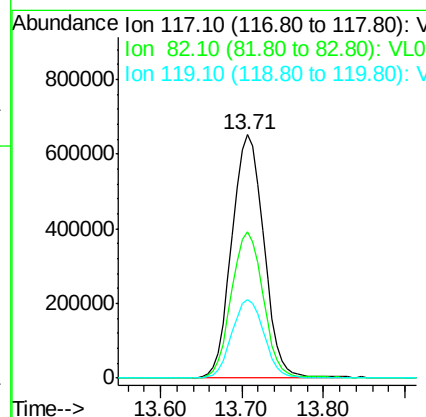
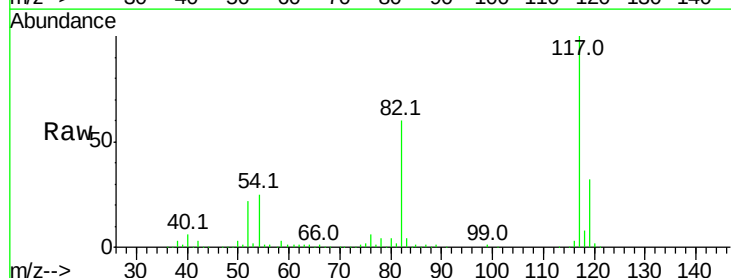
Instrument :
MSVOA_L
ClientSampleId :
SUBSLAB-233

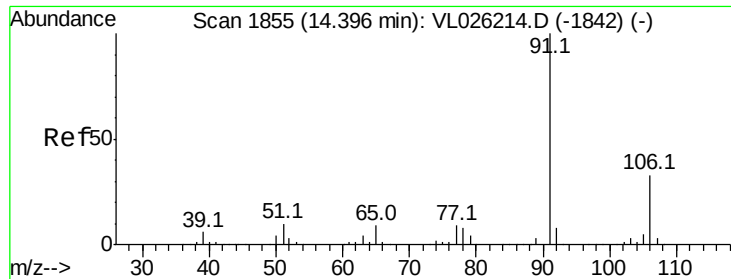
Tgt Ion: 91 Resp: 67285
Ion Ratio Lower Upper
91 100
92 61.5 49.2 73.8



#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 13.71 min Scan# 1742
Delta R.T. -0.02 min
Lab File: VL026236.D
Acq: 21 Oct 2015 13:56

Tgt Ion: 117 Resp: 1775301
Ion Ratio Lower Upper
117 100
82 60.4 45.8 68.8
119 32.6 45.0 67.4#





#58

Ethyl Benzene

Concen: 0.03 ppbv

RT: 14.38 min Scan# 1853

Delta R.T. -0.01 min

Lab File: VL026236.D

Acq: 21 Oct 2015 13:56

Instrument :

MSVOA_L

ClientSampleId :

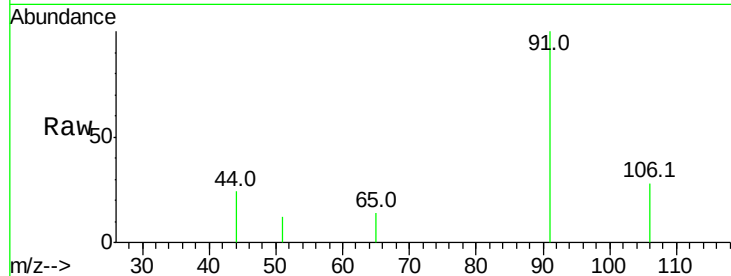
SUBSLAB-233

Tgt Ion: 91 Resp: 7678

Ion Ratio Lower Upper

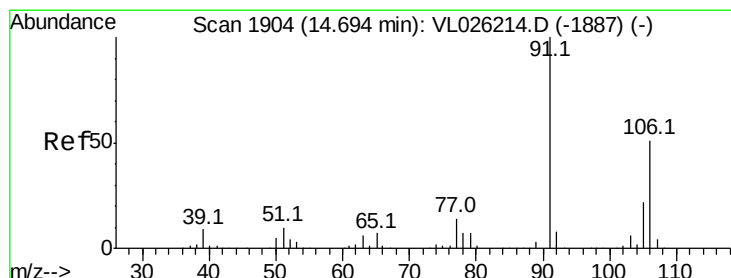
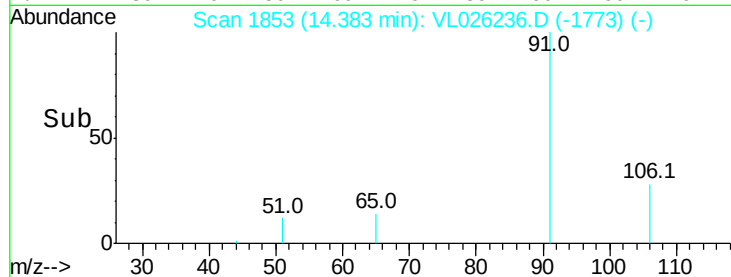
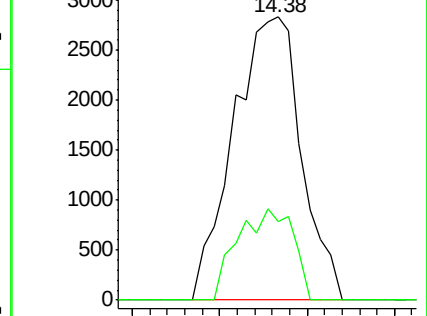
91 100

106 27.9 26.1 39.1



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.08 ppbv

RT: 14.65 min Scan# 1896

Delta R.T. -0.05 min

Lab File: VL026236.D

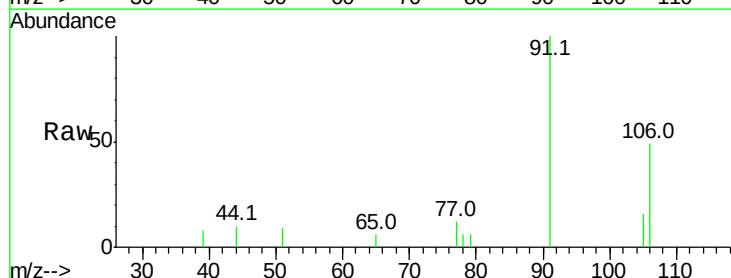
Acq: 21 Oct 2015 13:56

Tgt Ion: 91 Resp: 18188

Ion Ratio Lower Upper

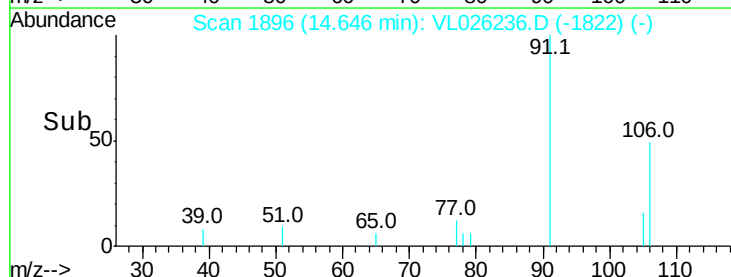
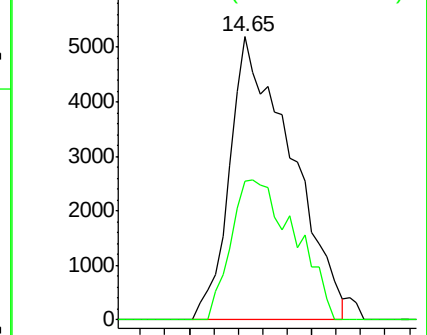
91 100

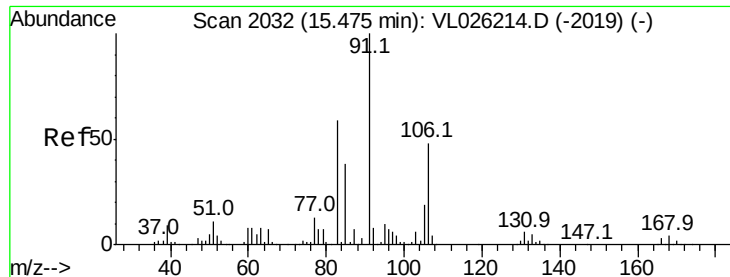
106 51.0 40.6 61.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

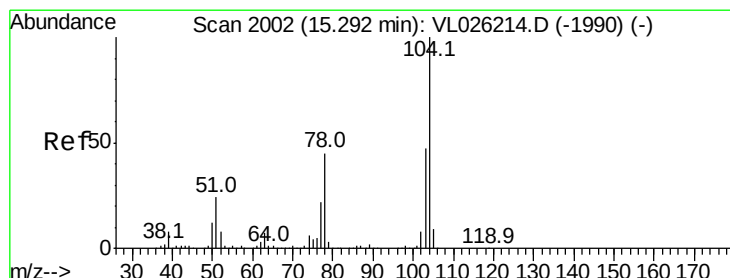
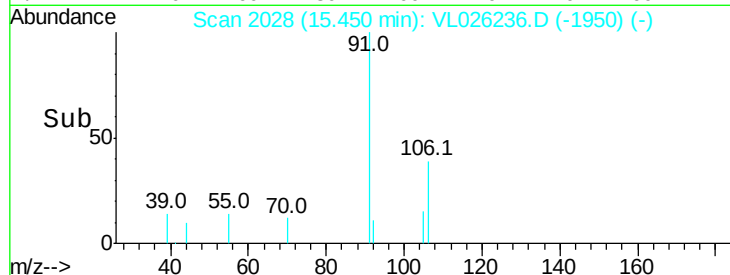
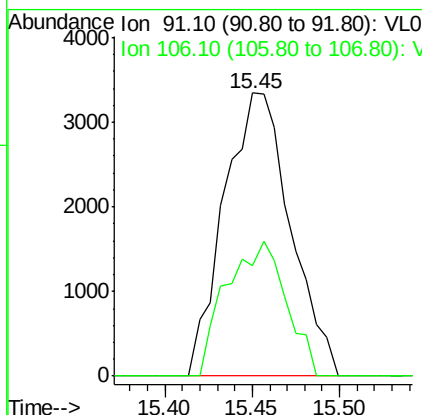
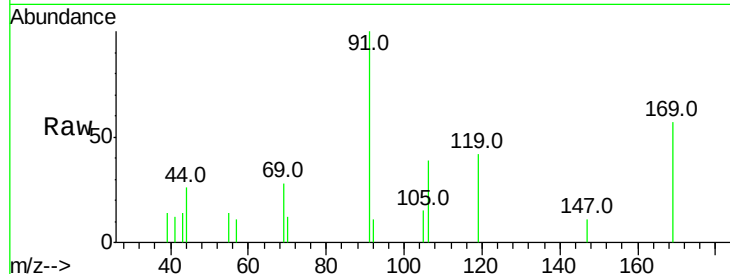




#60
o-Xylene
Concen: 0.04 ppbv
RT: 15.45 min Scan# 2028
Delta R.T. -0.02 min
Lab File: VL026236.D
Acq: 21 Oct 2015 13:56

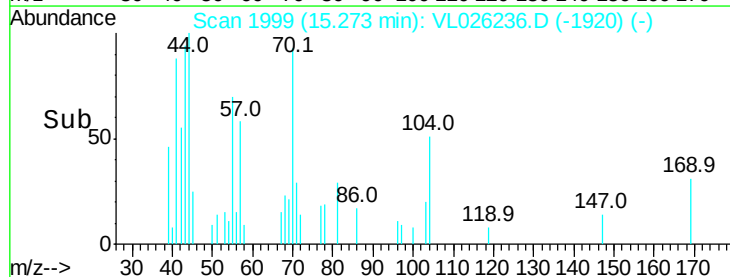
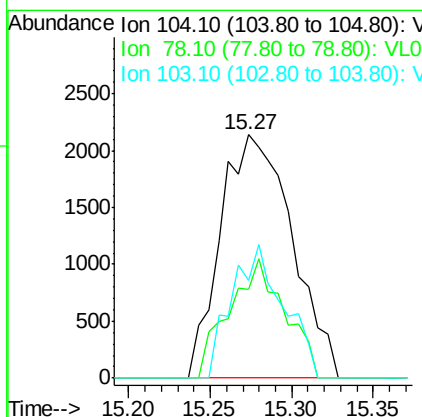
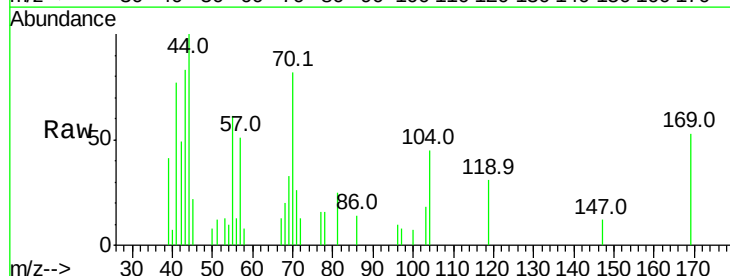
Instrument :
MSVOA_L
ClientSampleId :
SUBSLAB-233

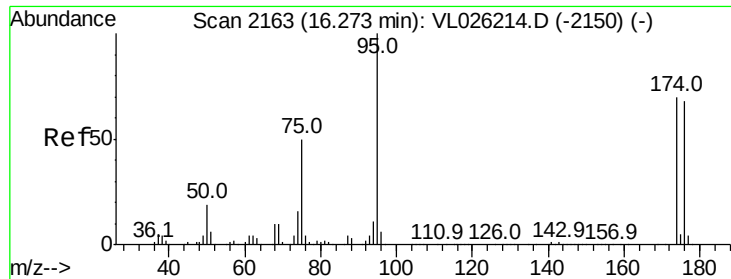
Tgt Ion: 91 Resp: 8833
Ion Ratio Lower Upper
91 100
106 42.8 23.8 71.5



#61
Styrene
Concen: 0.06 ppbv
RT: 15.27 min Scan# 1999
Delta R.T. -0.02 min
Lab File: VL026236.D
Acq: 21 Oct 2015 13:56

Tgt Ion: 104 Resp: 6519
Ion Ratio Lower Upper
104 100
78 38.2 35.3 52.9
103 39.6 37.0 55.4





#68

1-Bromo-4-Fluorobenzene

Concen: 10.29 ppbv

RT: 16.25 min Scan# 2159

Delta R.T. -0.02 min

Lab File: VL026236.D

Acq: 21 Oct 2015 13:56

Instrument :

MSVOA_L

ClientSampleId :

SUBSLAB-233

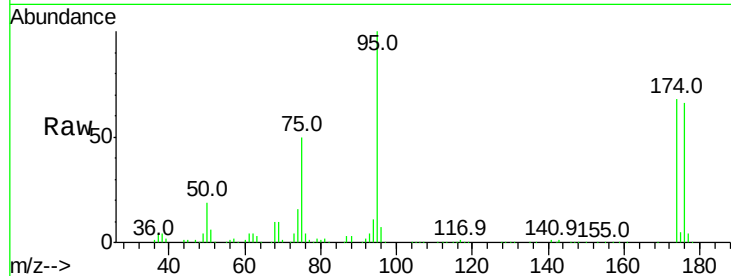
Tgt Ion: 95 Resp: 1408951

Ion Ratio Lower Upper

95 100

174 68.7 55.8 83.8

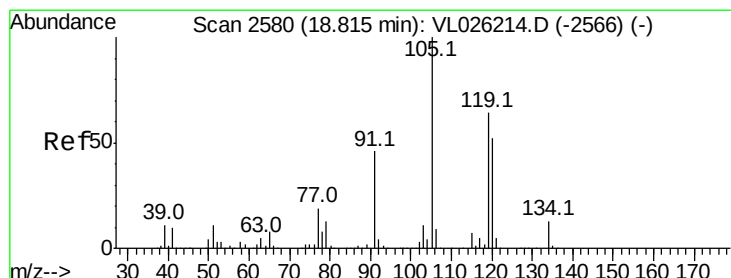
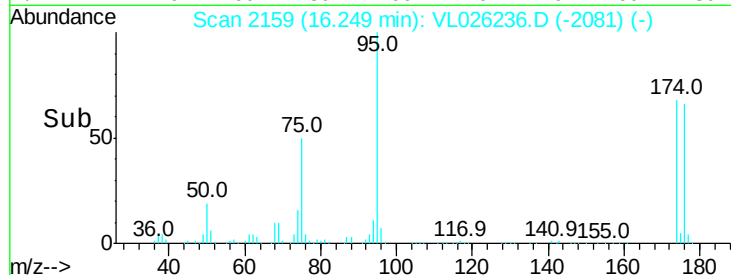
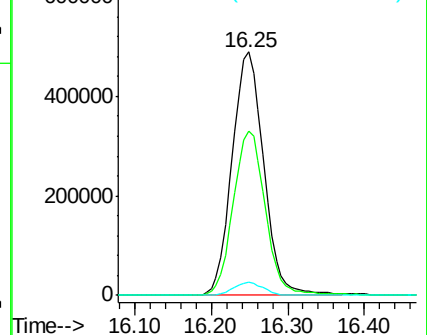
175 5.1 4.3 6.5



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: 0.05 ppbv

RT: 18.78 min Scan# 2575

Delta R.T. -0.03 min

Lab File: VL026236.D

Acq: 21 Oct 2015 13:56

Tgt Ion: 105 Resp: 12350

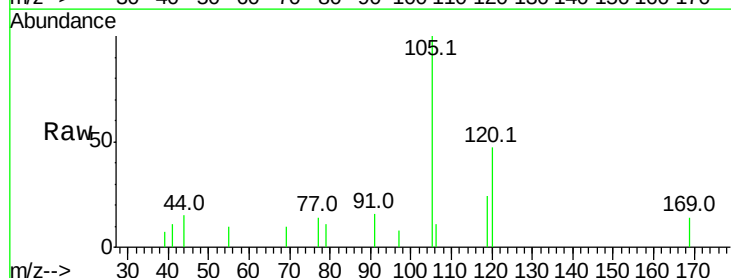
Ion Ratio Lower Upper

105 100

120 47.5 41.2 61.8

91 16.2 37.2 55.8#

77 13.6 15.6 23.4#



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

