

Data File : VL032604.D
Acq On : 11 Oct 2018 14:43
Operator : SY/AP
Sample : J5316-01
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SV-2

Quant Time: Oct 12 01:54:00 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL092418AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Oct 01 06:49:26 2018
QLast Update : Mon Oct 01 06:49:26 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.79	49	1399632	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.32	114	2912902	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.27	117	3104174	10.00	ppbv	-0.03

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.61 95 2283830 9.76 ppbv -0.03
Spiked Amount 10.000 Range 65 - 135 Recovery = 97.60%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.09	85	30500	0.236	ppbv #	85
4) Chloromethane	3.19	50	14986	0.221	ppbv	98
9) Propene	3.05	41	102583	2.031	ppbv	91
11) Trichlorofluoromethane	4.02	101	41624	0.270	ppbv	89
12) 1,1,2-Trichlorotrifluoroet	4.58	101	8211	0.065	ppbv #	75
13) Ethanol	3.67	45	52383	3.451	ppbv	92
15) Acetone	3.91	43	7806963	63.545	ppbv	95
16) 1,3-Butadiene	3.36	39	451153	9.055	ppbv #	7
17) tert-Butyl alcohol	4.40	59	29438	1.907	ppbv #	100
19) Isopropyl Alcohol	4.06	45	20064	0.234	ppbv #	93
20) Methylene Chloride	4.43	84	52851	0.888	ppbv	96
23) Vinyl Acetate	5.17	43	32452	0.149	ppbv #	89
25) Ethyl Acetate	5.80	43	57678	0.193	ppbv #	91
26) Hexane	5.80	57	62714	0.466	ppbv #	43
34) 2-Butanone	5.36	43	234057	1.349	ppbv	99
35) Carbon Tetrachloride	7.16	117	6242	0.031	ppbv	84
36) Benzene	7.03	78	25868	0.110	ppbv #	91
39) 1,2-Dichloropropane	7.32	63	778701	7.340	ppbv #	26
53) Toluene	9.98	91	408749	1.425	ppbv	98
58) Ethyl Benzene	12.89	91	37165	0.099	ppbv	92
59) m/p-Xylene	13.18	91	25610	0.076	ppbv #	31
60) o-Xylene	13.88	91	25819	0.079	ppbv #	63
69) p-Isopropyltoluene	17.84	119	25673	0.057	ppbv #	15
74) 1,2,4-Trimethylbenzene	16.96	105	46965	0.127	ppbv #	63
79) Naphthalene	22.45	128	58119	0.218	ppbv #	93
80) Naphthalene,2-methyl-	25.14	142	8532	0.136	ppbv #	85

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

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MSVOA_L
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SV-2

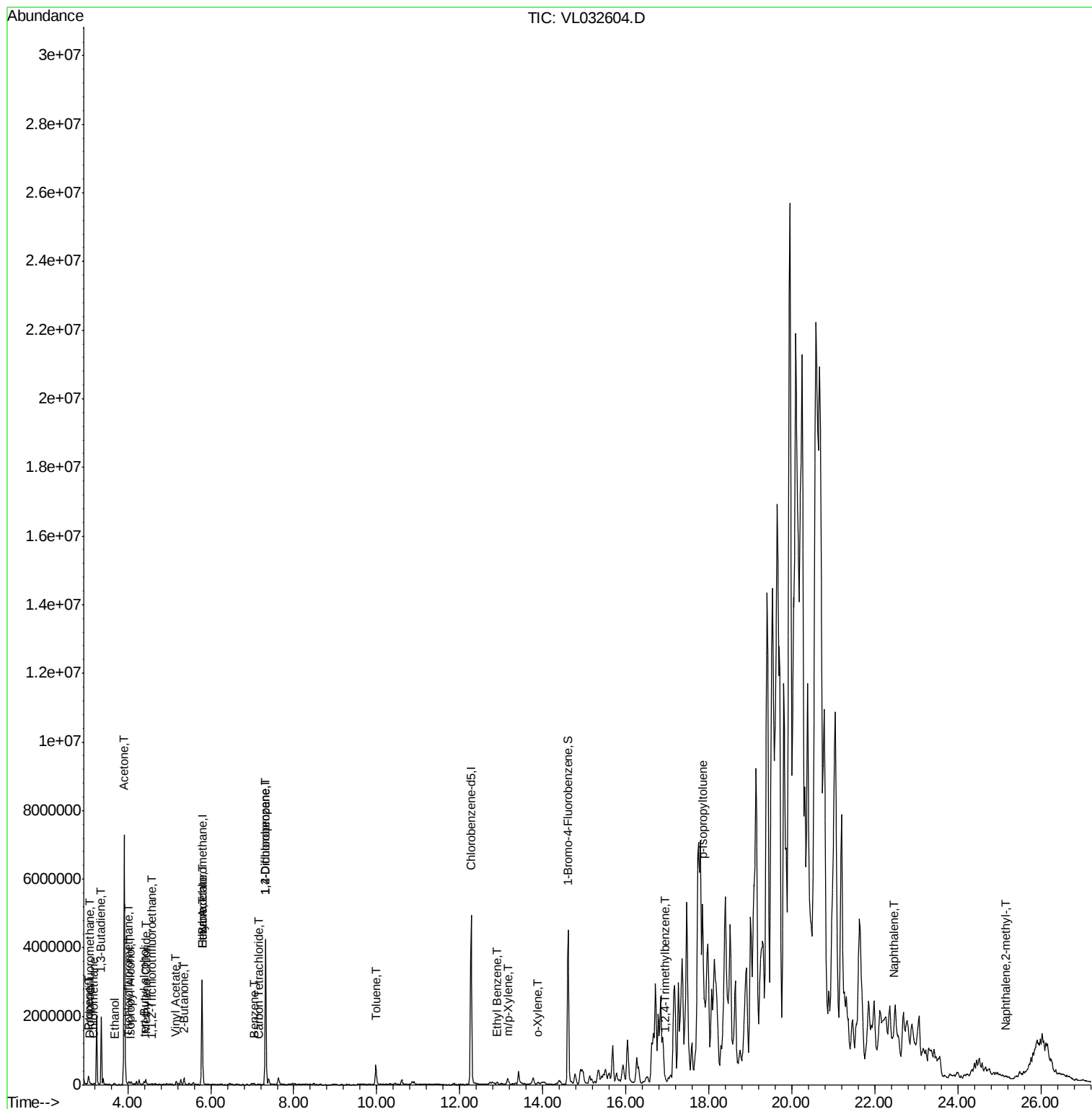
Quant Time: Oct 12 01:54:00 2018

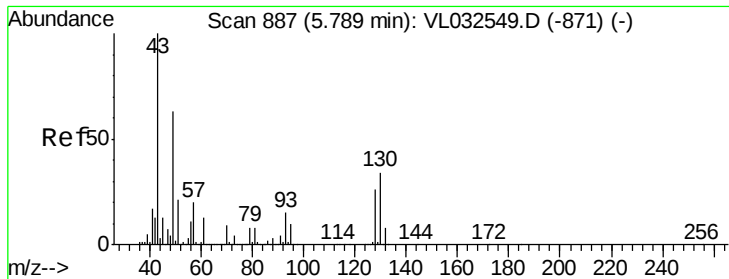
Quant Method : Z:\V0ASRV\HPCHEM1\MSV0A_L\METHODS\VL092418AIR.M

Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Mon Oct 01 06:49:26 2018

QLast Update : Mon Oct 01 06:49:26 2018

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.79 min Scan# 887

Delta R.T. -0.02 min

Lab File: VL032604.D

Acq: 11 Oct 2018 14:43

Instrument :

MSVOA_L

ClientSampleId :

SV-2

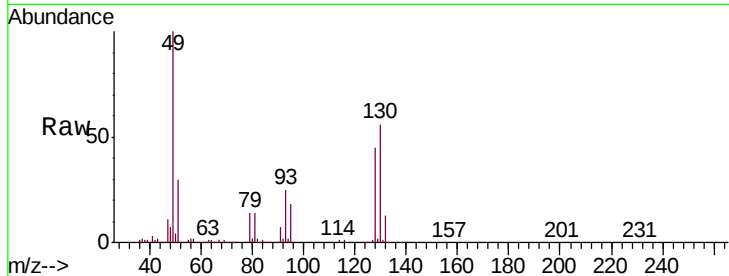
Tgt Ion: 49 Resp: 1399632

Ion Ratio Lower Upper

49 100

128 44.9 20.7 62.1

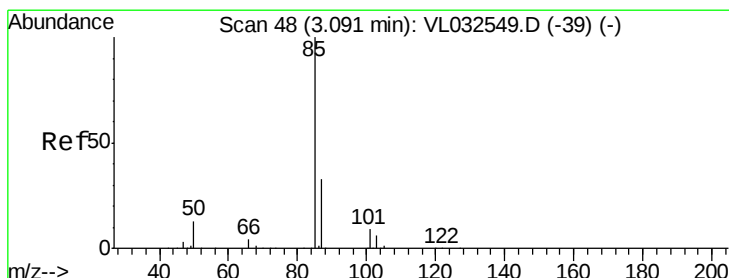
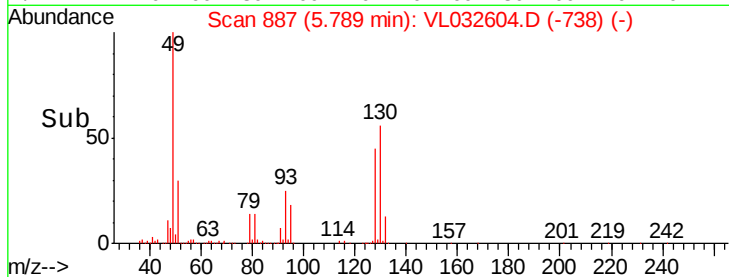
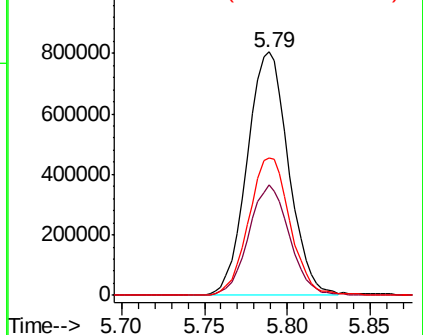
130 57.0 26.6 79.7



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.236 ppbv

RT: 3.09 min Scan# 48

Delta R.T. -0.02 min

Lab File: VL032604.D

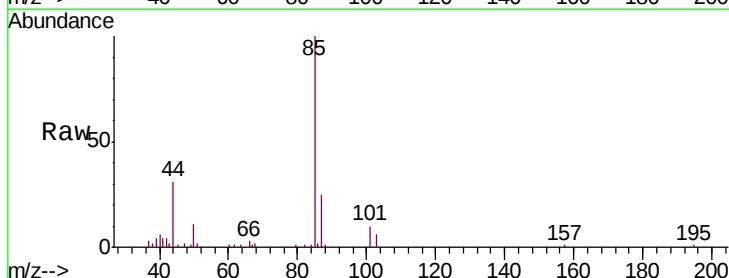
Acq: 11 Oct 2018 14:43

Tgt Ion: 85 Resp: 30500

Ion Ratio Lower Upper

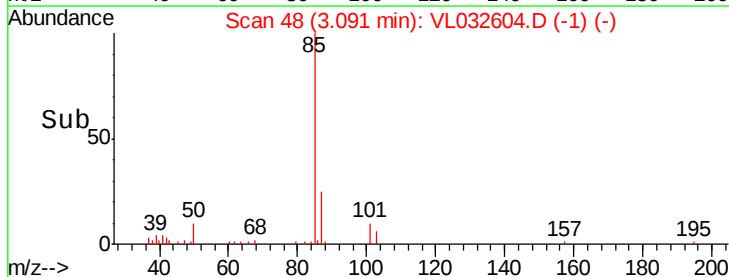
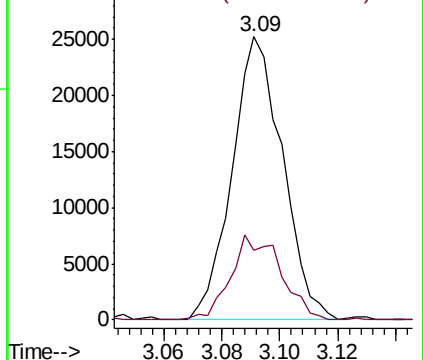
85 100

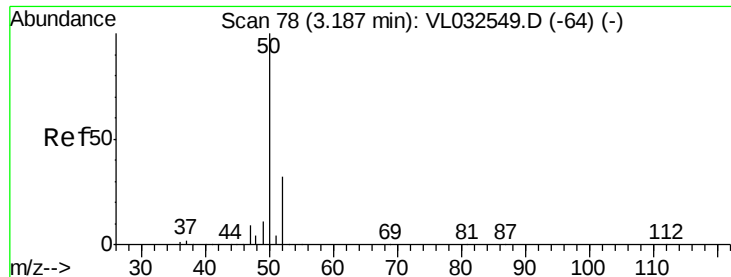
87 24.5 26.2 39.4#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#4

Chloromethane

Concen: 0.221 ppbv

RT: 3.19 min Scan# 79

Delta R.T. -0.01 min

Lab File: VL032604.D

Acq: 11 Oct 2018 14:43

Instrument :

MSVOA_L

ClientSampleId :

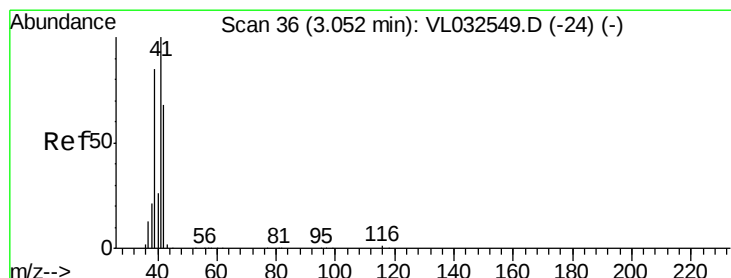
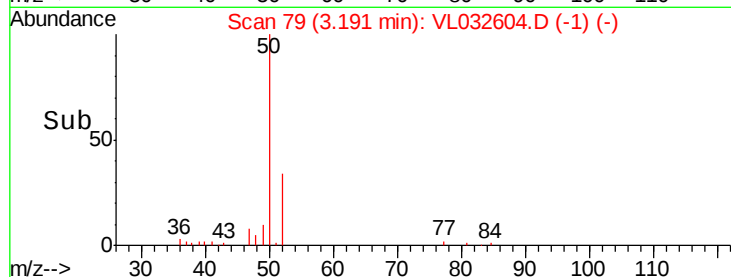
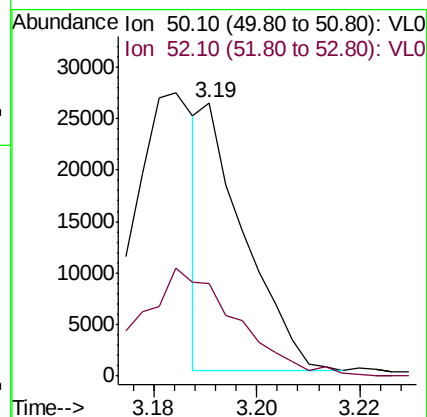
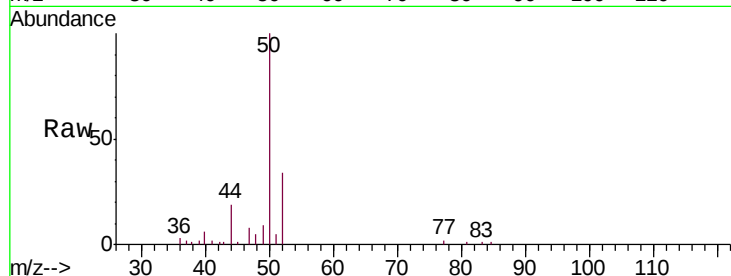
SV-2

Tgt Ion: 50 Resp: 14986

Ion Ratio Lower Upper

50 100

52 33.2 25.6 38.4



#9

Propene

Concen: 2.031 ppbv

RT: 3.05 min Scan# 36

Delta R.T. -0.01 min

Lab File: VL032604.D

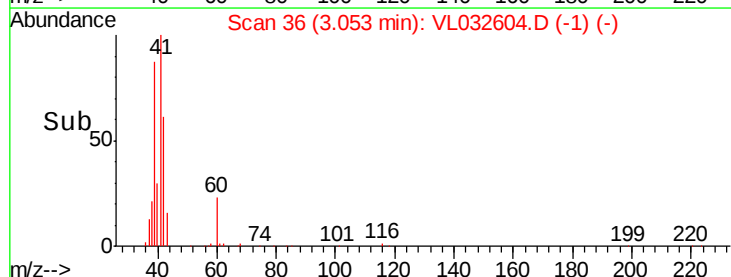
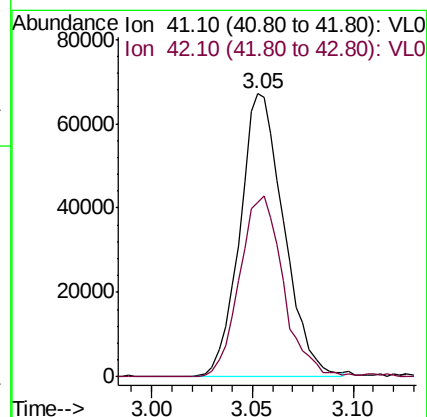
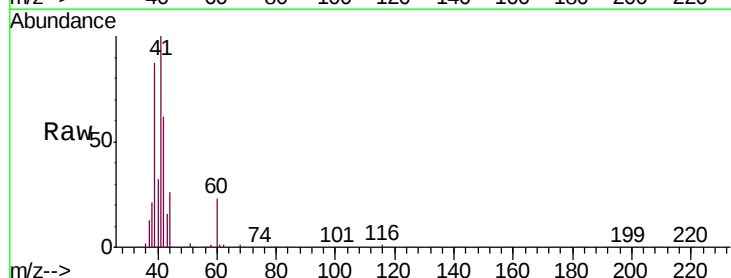
Acq: 11 Oct 2018 14:43

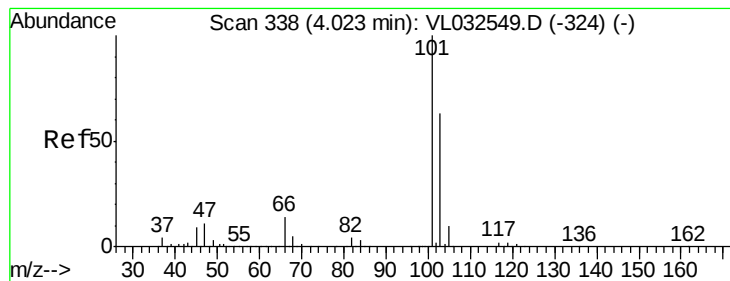
Tgt Ion: 41 Resp: 102583

Ion Ratio Lower Upper

41 100

42 63.4 56.6 84.8





#11

Trichlorofluoromethane

Concen: 0.270 ppbv

RT: 4.02 min Scan# 338

Delta R.T. -0.02 min

Lab File: VL032604.D

Acq: 11 Oct 2018 14:43

Instrument :

MSVOA_L

ClientSampleId :

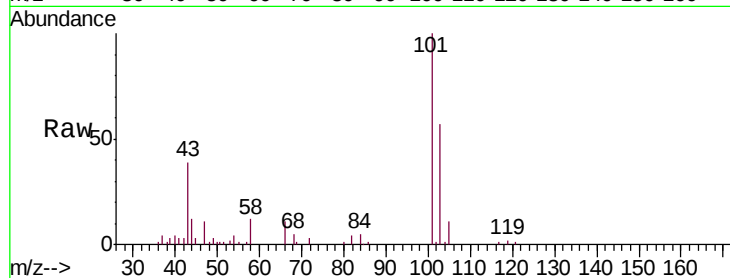
SV-2

Tgt Ion:101 Resp: 41624

Ion Ratio Lower Upper

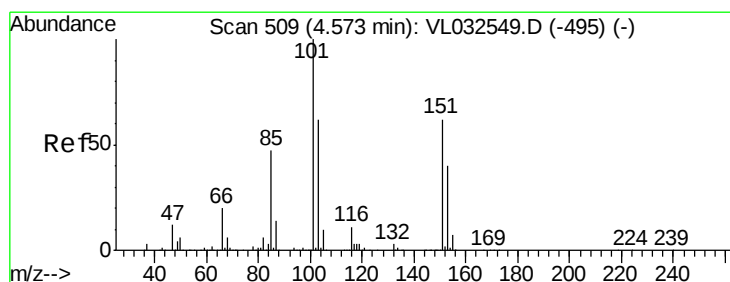
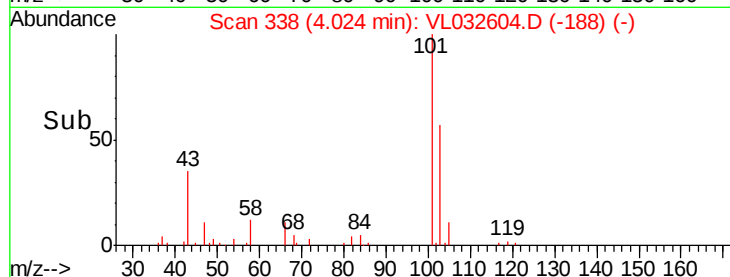
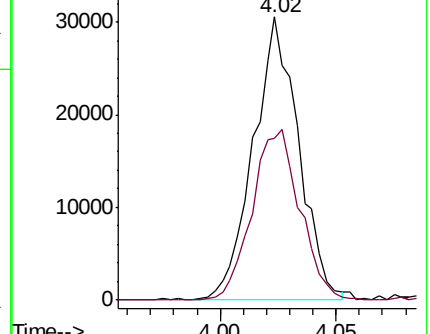
101 100

103 57.1 52.8 79.2



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.065 ppbv

RT: 4.58 min Scan# 510

Delta R.T. -0.02 min

Lab File: VL032604.D

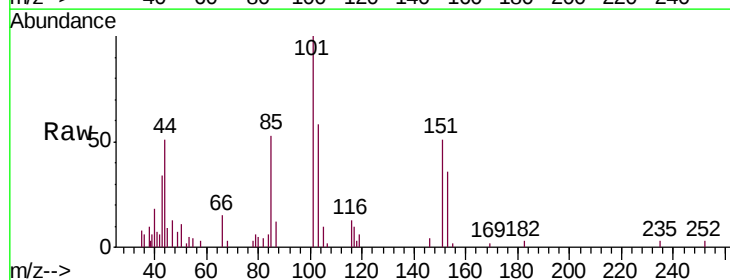
Acq: 11 Oct 2018 14:43

Tgt Ion:101 Resp: 8211

Ion Ratio Lower Upper

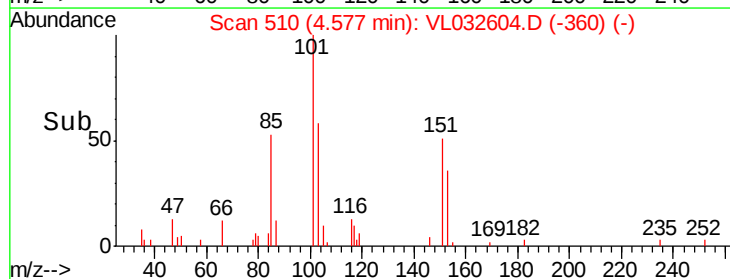
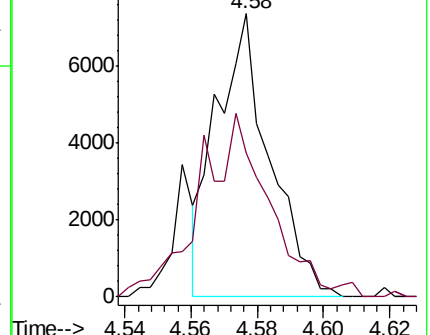
101 100

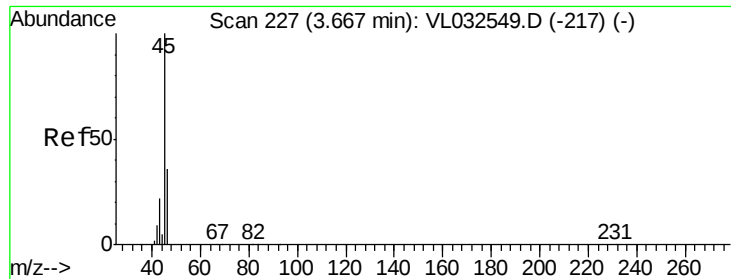
151 85.9 52.6 78.8#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 3.451 ppbv

RT: 3.67 min Scan# 229

Delta R.T. -0.01 min

Lab File: VL032604.D

Acq: 11 Oct 2018 14:43

Instrument :

MSVOA_L

ClientSampleId :

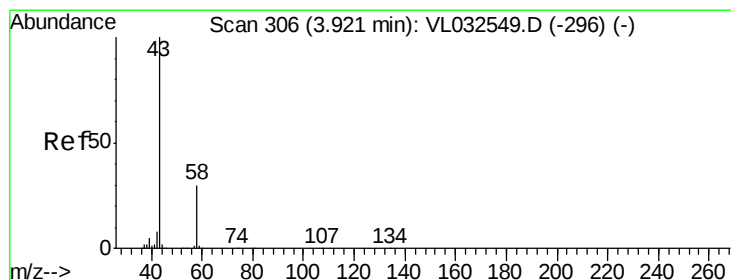
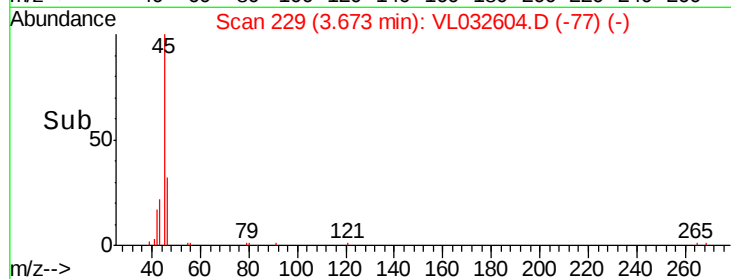
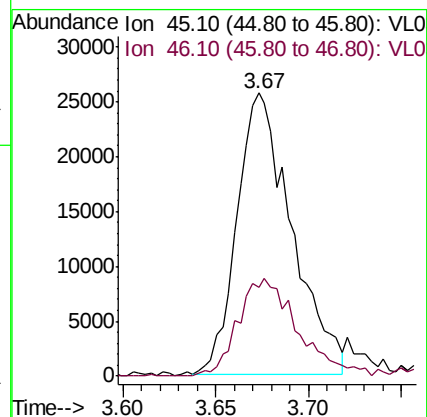
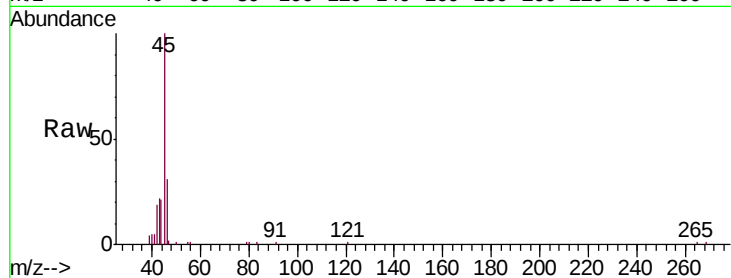
SV-2

Tgt Ion: 45 Resp: 52383

Ion Ratio Lower Upper

45 100

46 39.9 14.2 56.8



#15

Acetone

Concen: 63.545 ppbv

RT: 3.91 min Scan# 304

Delta R.T. -0.02 min

Lab File: VL032604.D

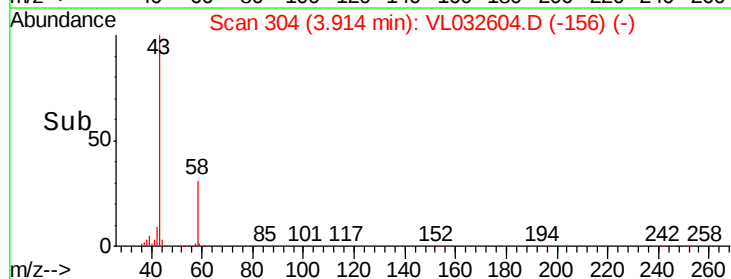
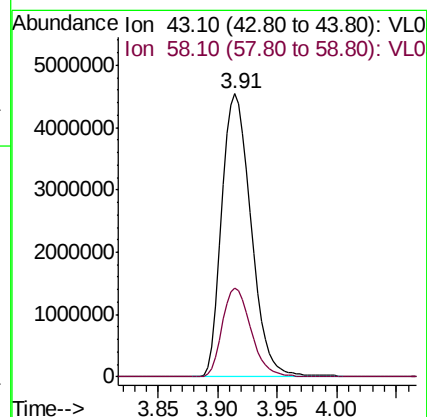
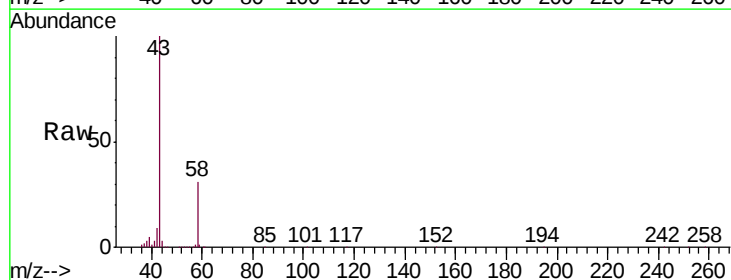
Acq: 11 Oct 2018 14:43

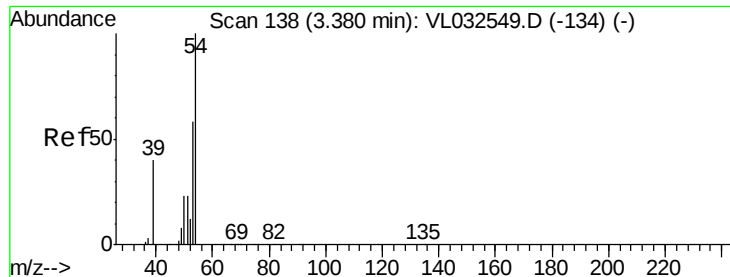
Tgt Ion: 43 Resp: 7806963

Ion Ratio Lower Upper

43 100

58 30.9 22.6 33.8





#16

1,3-Butadiene

Concen: 9.055 ppbv

RT: 3.36 min Scan# 133

Delta R.T. -0.03 min

Lab File: VL032604.D

Acq: 11 Oct 2018 14:43

Instrument :

MSVOA_L

ClientSampleId :

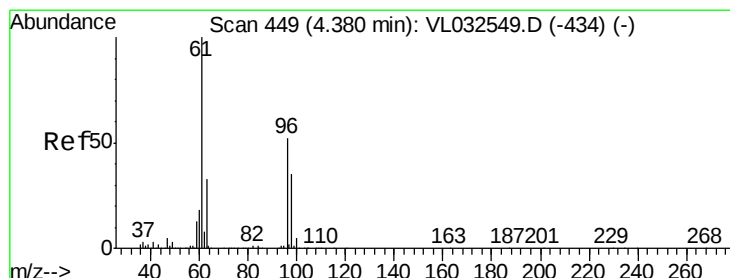
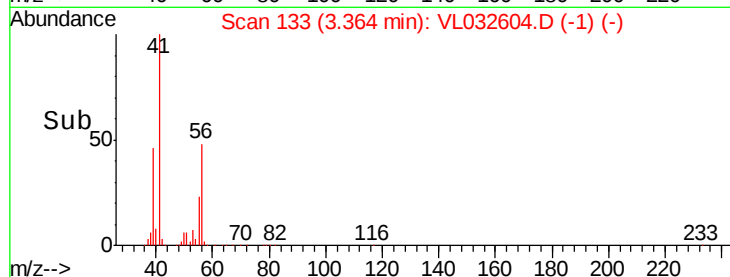
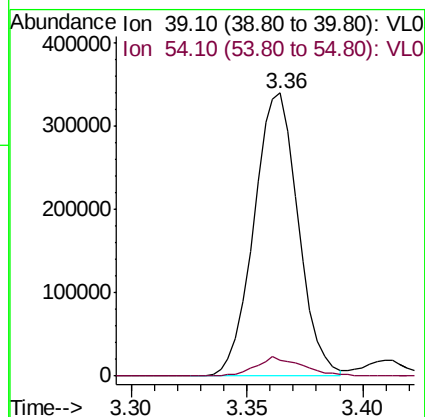
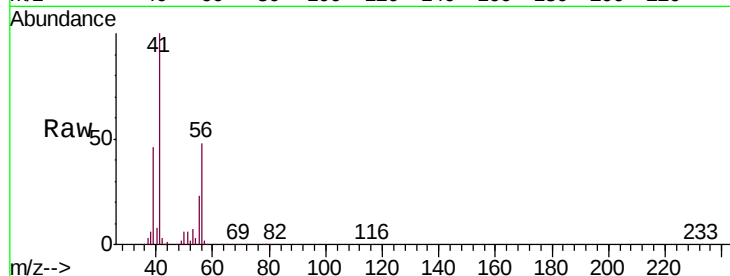
SV-2

Tgt Ion: 39 Resp: 451153

Ion Ratio Lower Upper

39 100

54 7.4 80.8 121.2#



#17

tert-Butyl alcohol

Concen: 1.907 ppbv

RT: 4.40 min Scan# 454

Delta R.T. -0.01 min

Lab File: VL032604.D

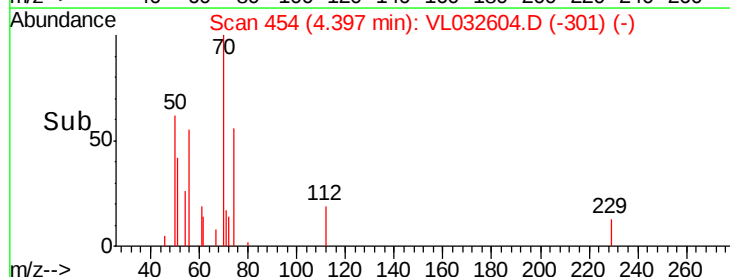
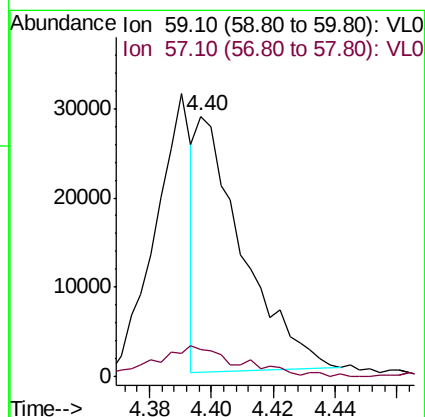
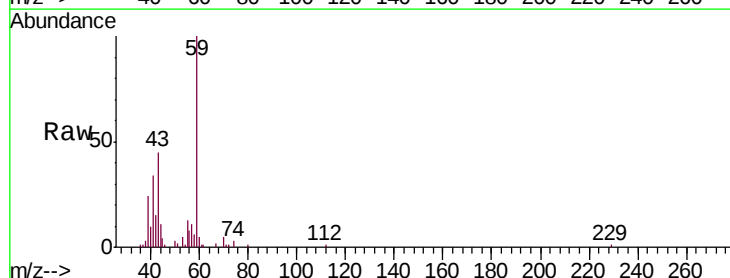
Acq: 11 Oct 2018 14:43

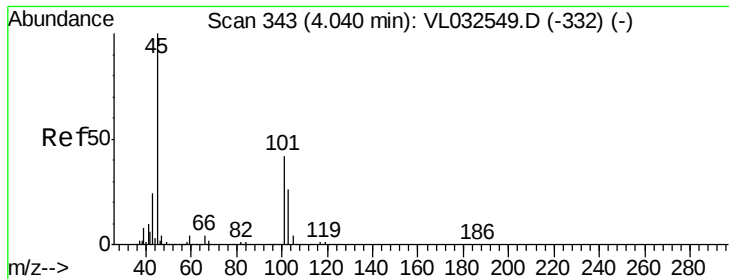
Tgt Ion: 59 Resp: 29438

Ion Ratio Lower Upper

59 100

57 23.0 0.0 0.0#





#19

Isopropyl Alcohol

Concen: 0.234 ppbv

RT: 4.06 min Scan# 348

Delta R.T. -0.01 min

Lab File: VL032604.D

Acq: 11 Oct 2018 14:43

Instrument :

MSVOA_L

ClientSampleId :

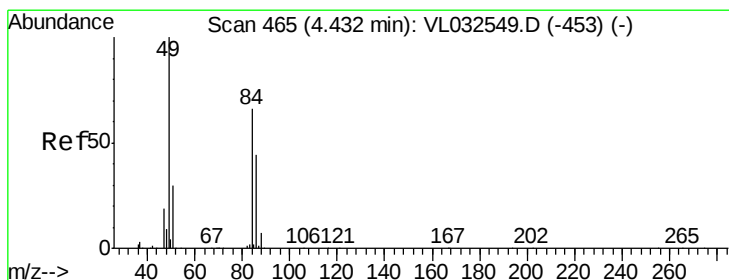
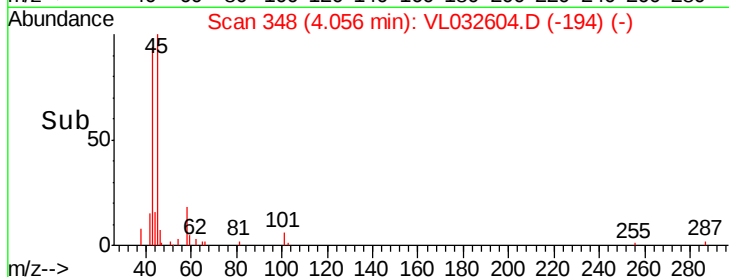
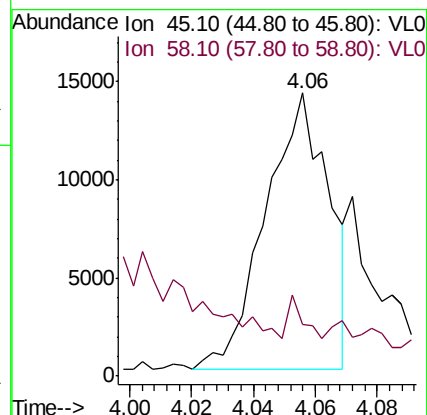
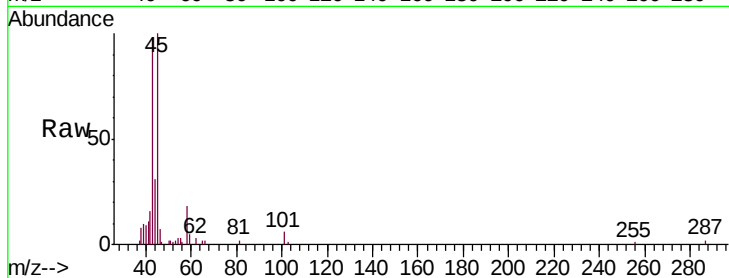
SV-2

Tgt Ion: 45 Resp: 20064

Ion Ratio Lower Upper

45 100

58 0.0 2.0 3.0#



#20

Methylene Chloride

Concen: 0.888 ppbv

RT: 4.43 min Scan# 465

Delta R.T. -0.02 min

Lab File: VL032604.D

Acq: 11 Oct 2018 14:43

Tgt Ion: 84 Resp: 52851

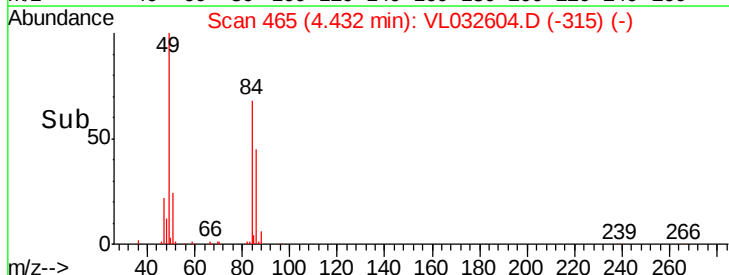
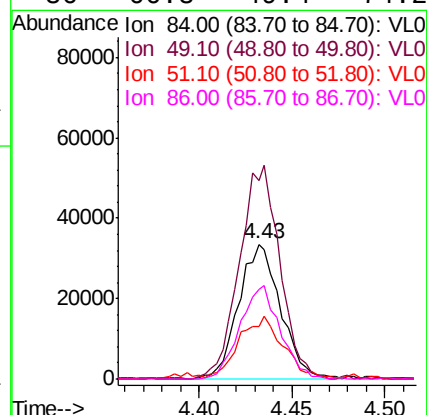
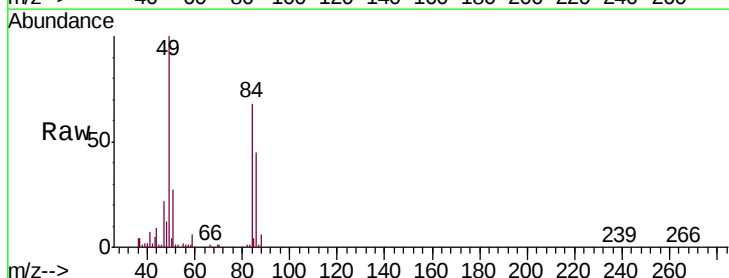
Ion Ratio Lower Upper

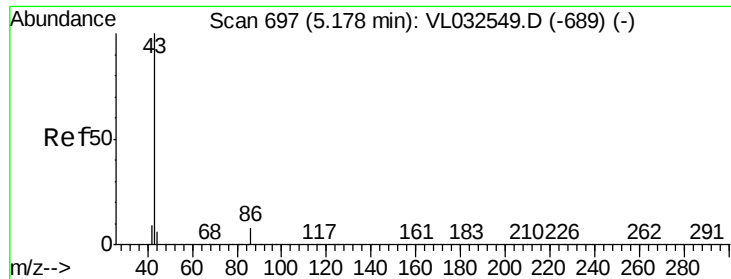
84 100

49 147.7 119.1 178.7

51 38.3 35.2 52.8

86 66.8 49.4 74.2





#23

Vinyl Acetate

Concen: 0.149 ppbv

RT: 5.17 min Scan# 695

Delta R.T. -0.03 min

Lab File: VL032604.D

Acq: 11 Oct 2018 14:43

Instrument :

MSVOA_L

ClientSampleId :

SV-2

Tgt Ion: 43 Resp: 32452

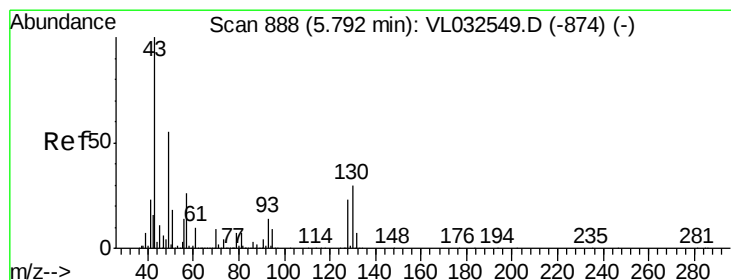
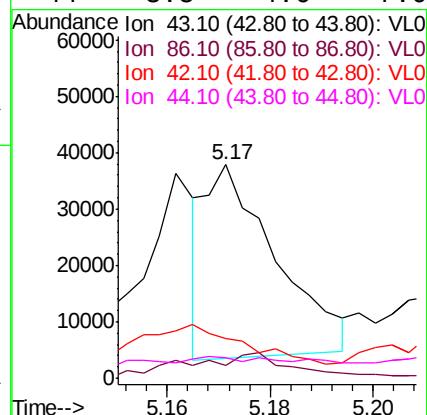
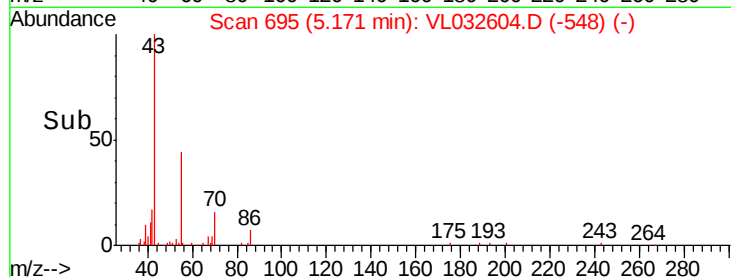
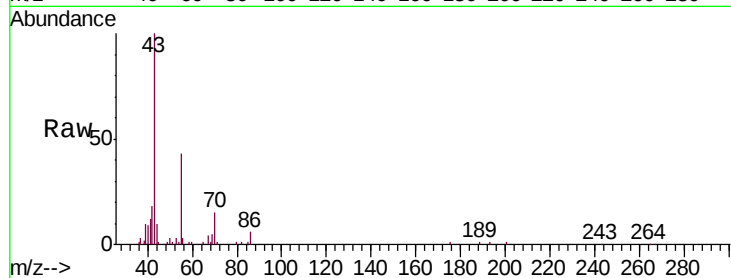
Ion Ratio Lower Upper

43 100

86 5.3 5.9 8.9#

42 15.6 6.9 10.3#

44 3.8 4.6 7.0#



#25

Ethyl Acetate

Concen: 0.193 ppbv

RT: 5.80 min Scan# 892

Delta R.T. -0.01 min

Lab File: VL032604.D

Acq: 11 Oct 2018 14:43

Tgt Ion: 43 Resp: 57678

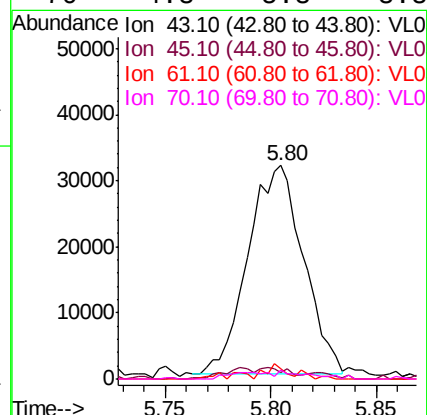
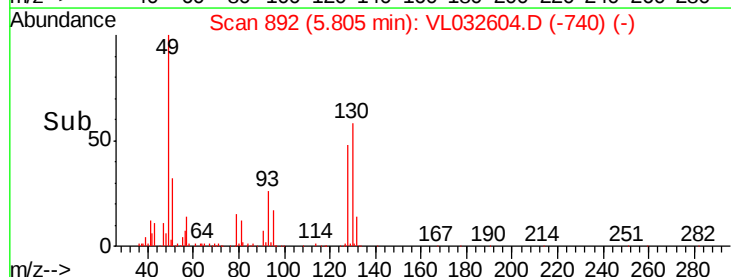
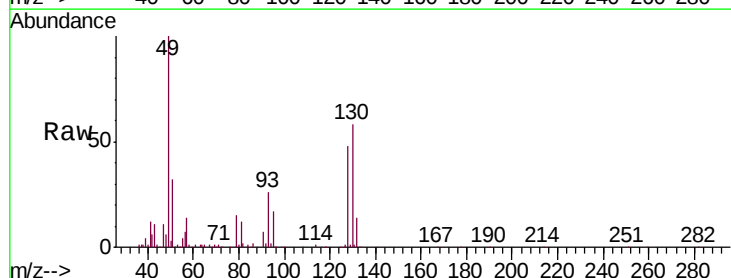
Ion Ratio Lower Upper

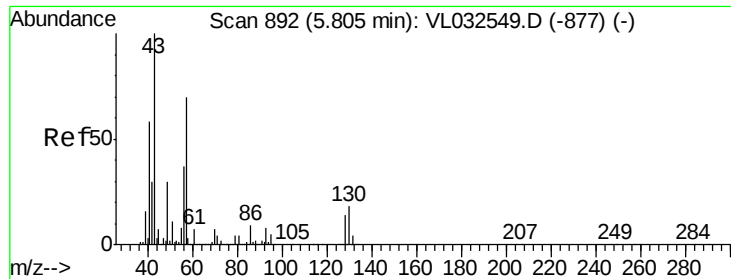
43 100

45 7.6 8.0 12.0#

61 5.0 7.6 11.4#

70 4.8 5.8 8.8#

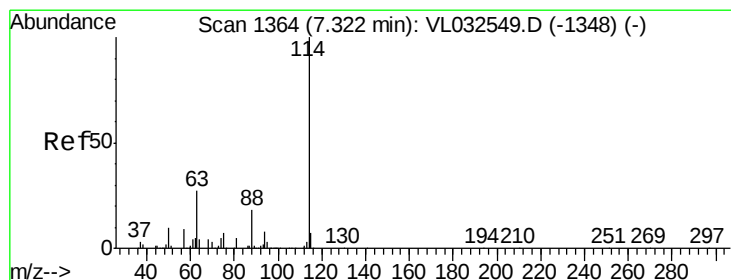
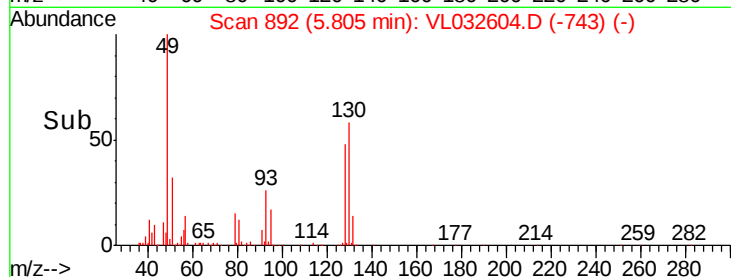
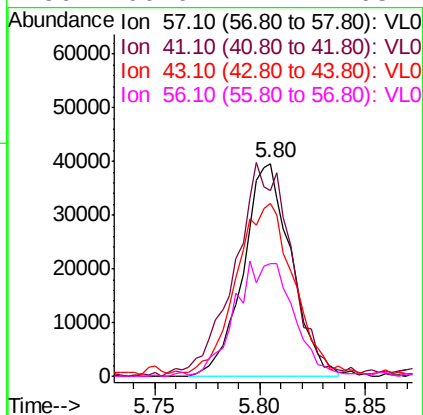
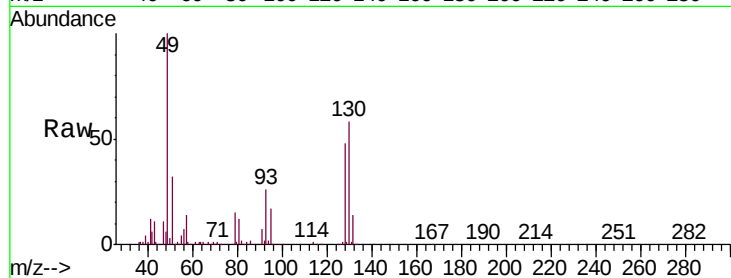




#26
Hexane
Concen: 0.466 ppbv
RT: 5.80 min Scan# 892
Delta R.T. -0.02 min
Lab File: VL032604.D
Acq: 11 Oct 2018 14:43

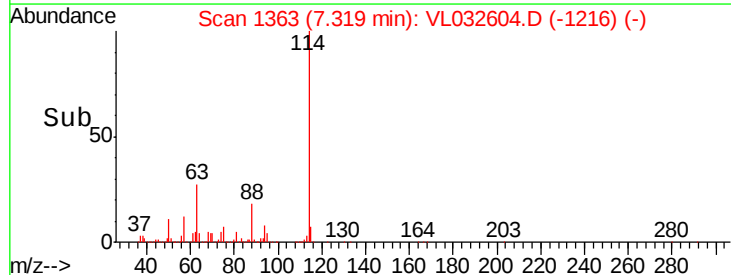
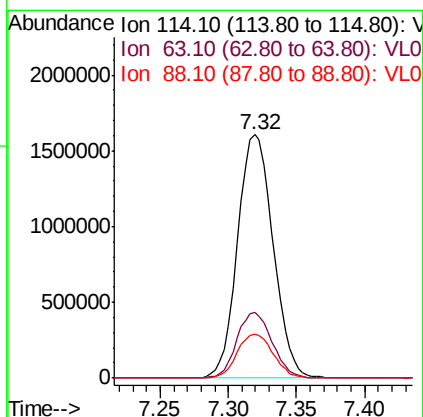
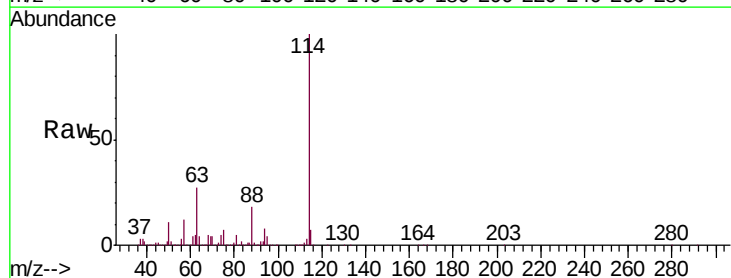
Instrument :
MSVOA_L
ClientSampleId :
SV-2

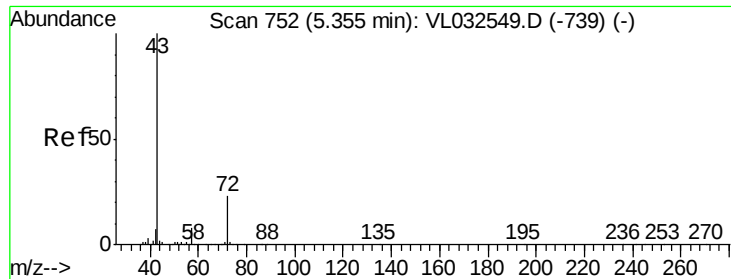
Tgt Ion: 57 Resp: 62714
Ion Ratio Lower Upper
57 100
41 120.5 69.0 103.4#
43 98.8 172.1 258.1#
56 66.6 42.2 63.2#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.32 min Scan# 1363
Delta R.T. -0.03 min
Lab File: VL032604.D
Acq: 11 Oct 2018 14:43

Tgt Ion: 114 Resp: 2912902
Ion Ratio Lower Upper
114 100
63 26.9 22.2 33.4
88 18.3 15.0 22.4

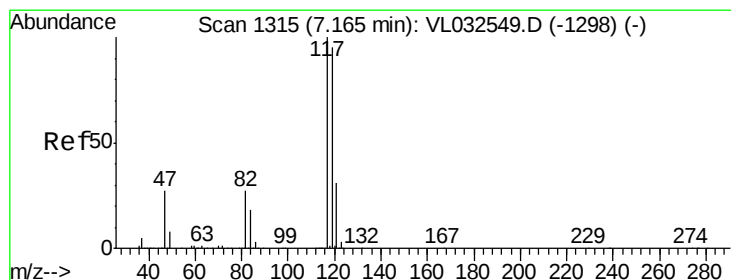
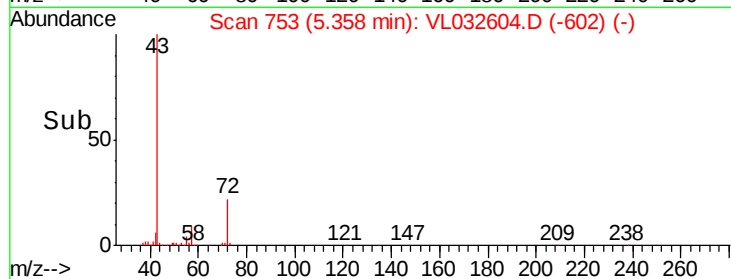
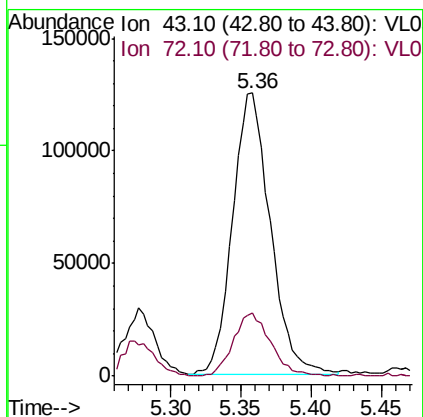
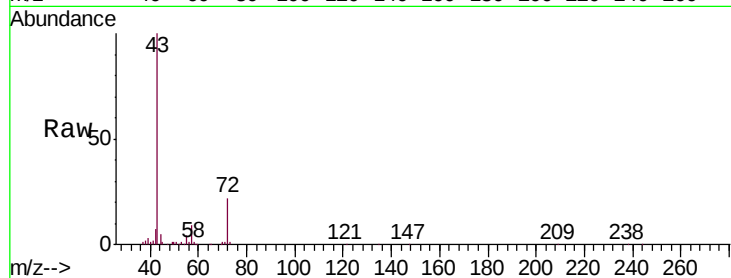




#34
2-Butanone
Concen: 1.349 ppbv
RT: 5.36 min Scan# 753
Delta R.T. -0.01 min
Lab File: VL032604.D
Acq: 11 Oct 2018 14:43

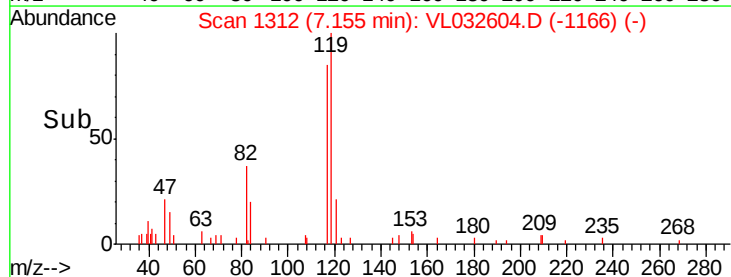
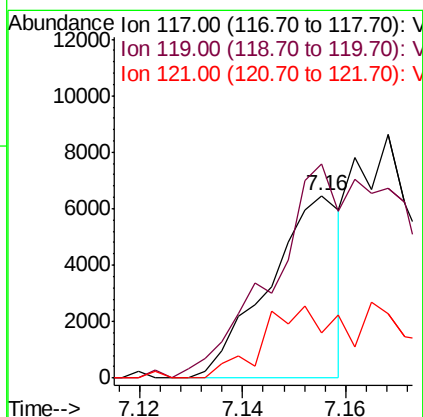
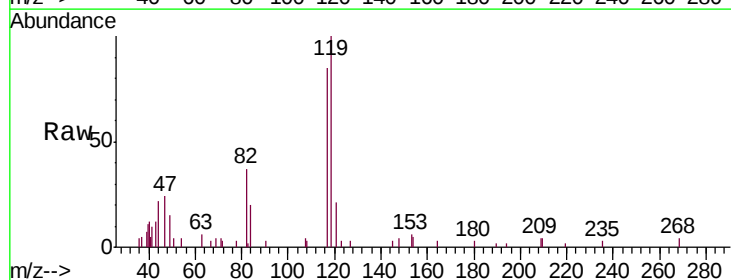
Instrument :
MSVOA_L
ClientSampled :
SV-2

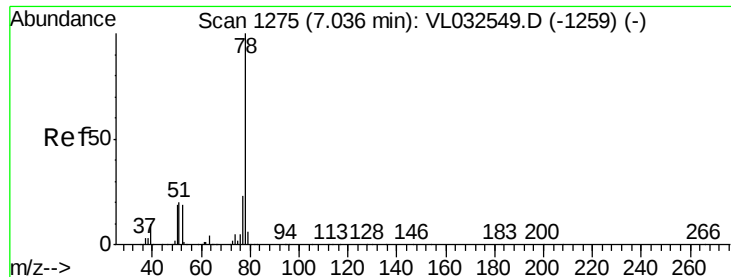
Tgt Ion: 43 Resp: 234057
Ion Ratio Lower Upper
43 100
72 22.6 17.8 26.6



#35
Carbon Tetrachloride
Concen: 0.031 ppbv
RT: 7.16 min Scan# 1312
Delta R.T. -0.03 min
Lab File: VL032604.D
Acq: 11 Oct 2018 14:43

Tgt Ion: 117 Resp: 6242
Ion Ratio Lower Upper
117 100
119 113.0 76.6 115.0
121 24.9 24.6 36.8

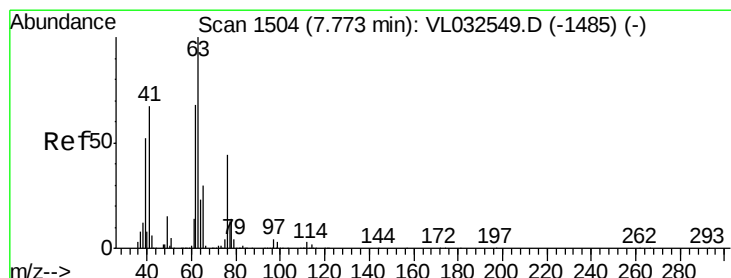
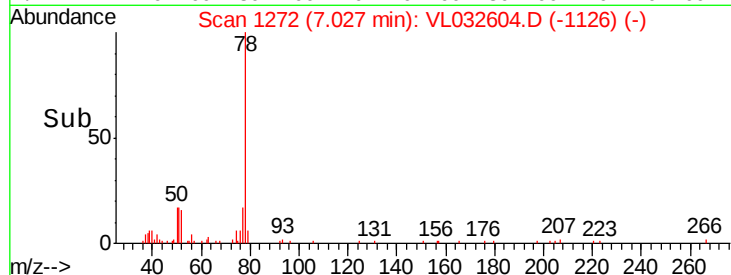
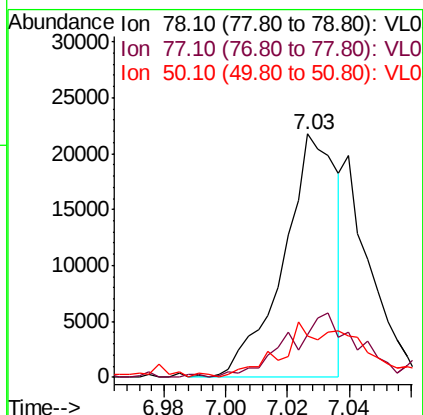
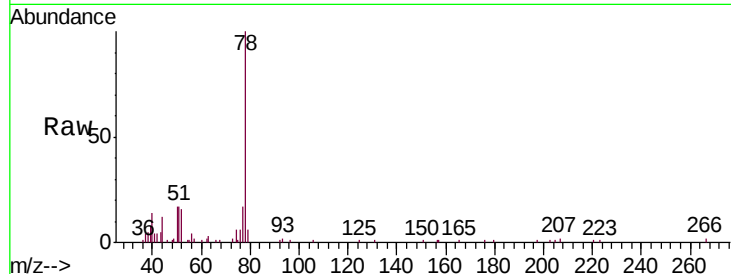




#36
Benzene
Concen: 0.110 ppbv
RT: 7.03 min Scan# 1272
Delta R.T. -0.03 min
Lab File: VL032604.D
Acq: 11 Oct 2018 14:43

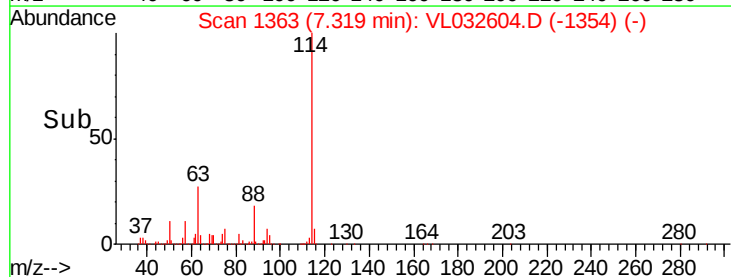
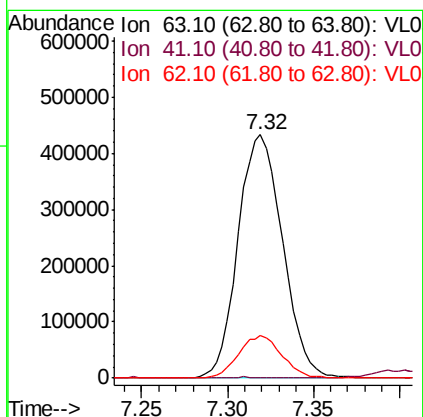
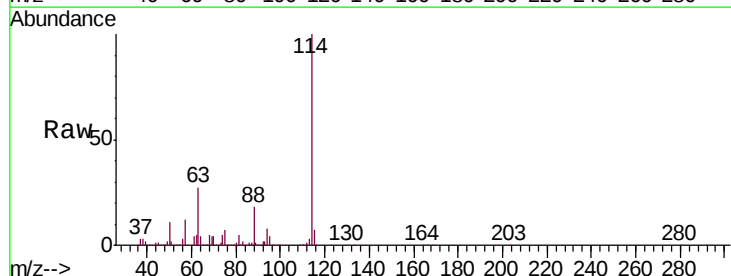
Instrument :
MSVOA_L
ClientSampleId :
SV-2

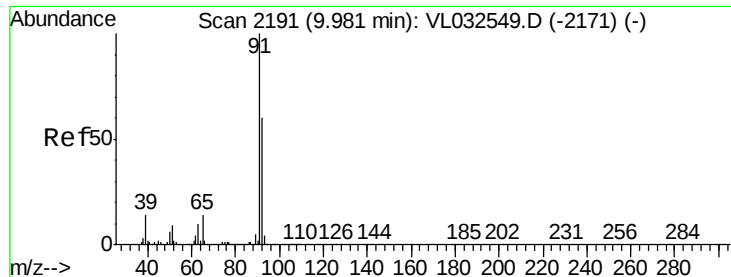
Tgt Ion: 78 Resp: 25868
Ion Ratio Lower Upper
78 100
77 16.3 18.4 27.6#
50 17.2 14.4 21.6



#39
1,2-Dichloropropane
Concen: 7.340 ppbv
RT: 7.32 min Scan# 1363
Delta R.T. -0.47 min
Lab File: VL032604.D
Acq: 11 Oct 2018 14:43

Tgt Ion: 63 Resp: 778701
Ion Ratio Lower Upper
63 100
41 0.1 55.4 83.0#
62 17.6 55.4 83.0#





#53

Toluene

Concen: 1.425 ppbv

RT: 9.98 min Scan# 2190

Delta R.T. -0.03 min

Lab File: VL032604.D

Acq: 11 Oct 2018 14:43

Instrument :

MSVOA_L

ClientSampleId :

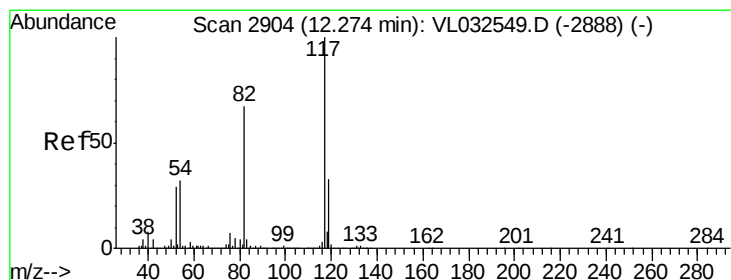
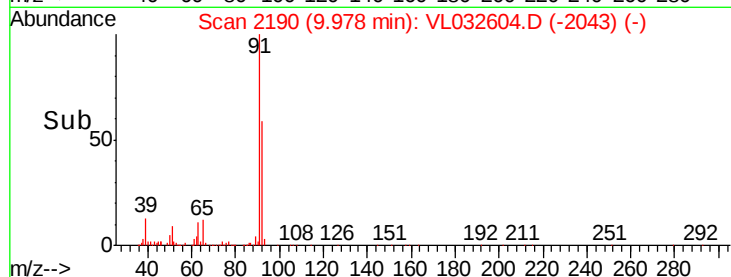
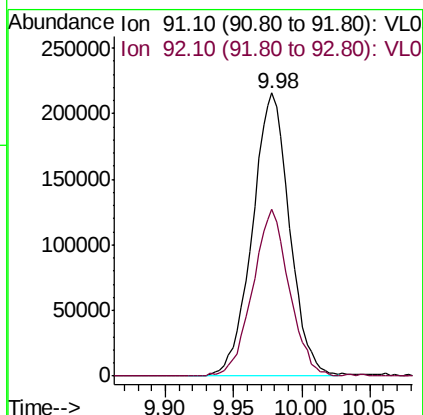
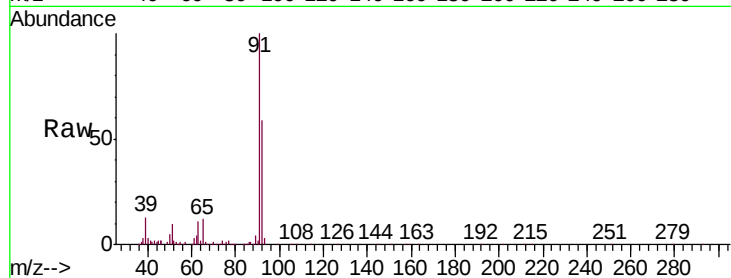
SV-2

Tgt Ion: 91 Resp: 408749

Ion Ratio Lower Upper

91 100

92 58.2 48.1 72.1



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.27 min Scan# 2903

Delta R.T. -0.03 min

Lab File: VL032604.D

Acq: 11 Oct 2018 14:43

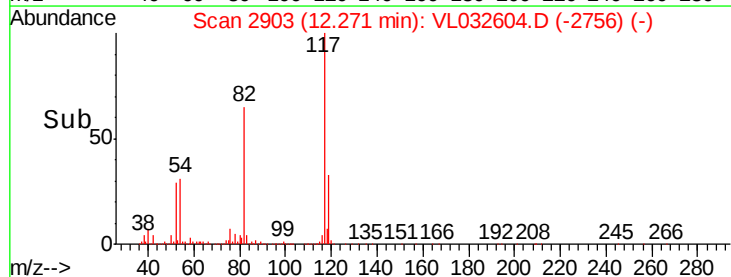
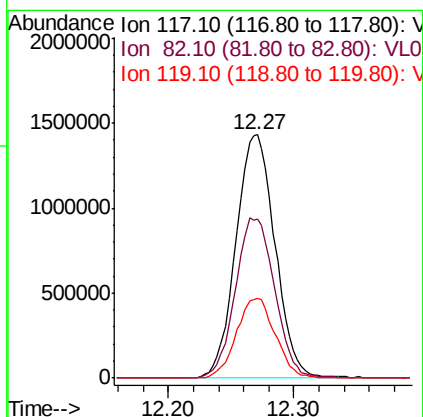
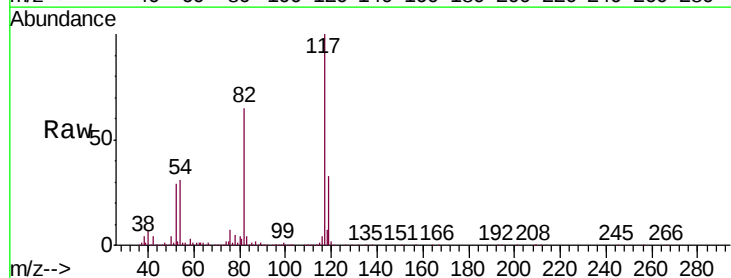
Tgt Ion: 117 Resp: 3104174

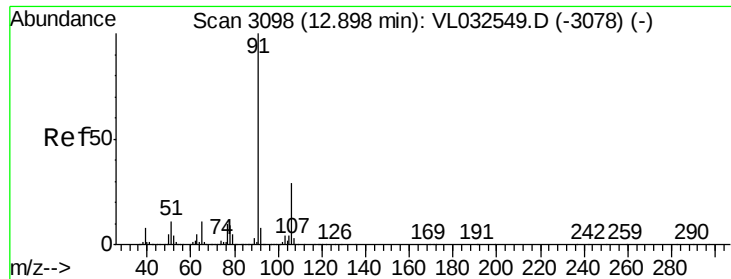
Ion Ratio Lower Upper

117 100

82 66.8 53.0 79.6

119 32.6 45.9 68.9#





#58

Ethyl Benzene

Concen: 0.099 ppbv

RT: 12.89 min Scan# 3096

Delta R.T. -0.03 min

Lab File: VL032604.D

Acq: 11 Oct 2018 14:43

Instrument :

MSVOA_L

ClientSampled :

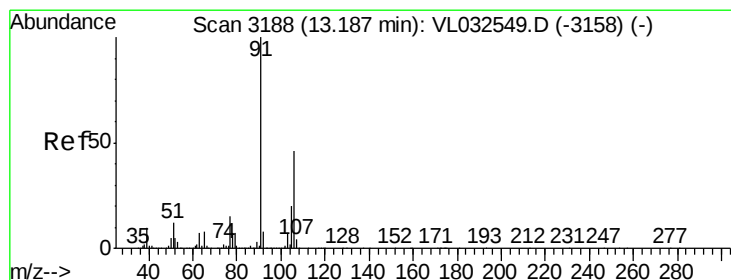
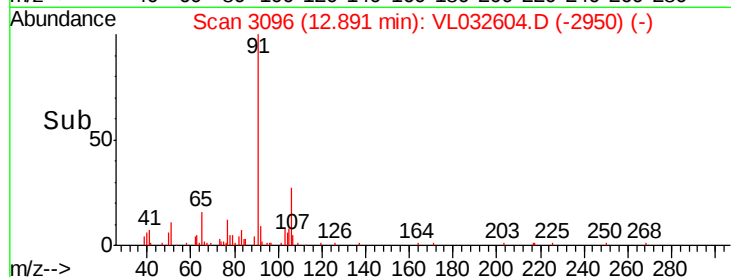
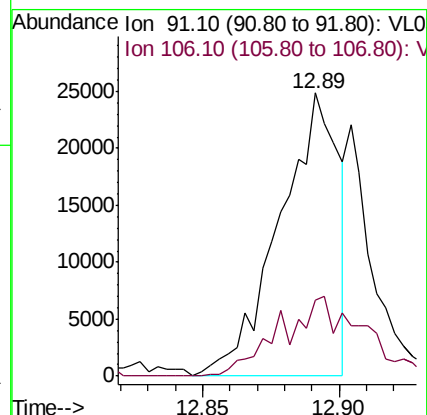
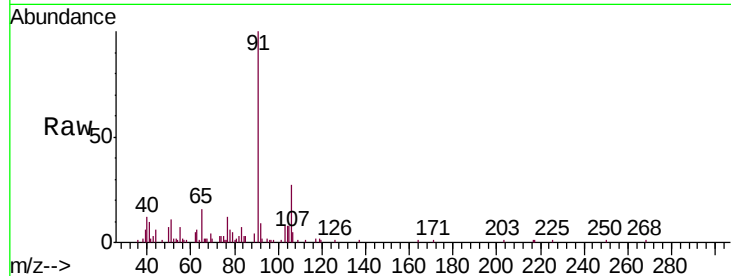
SV-2

Tgt Ion: 91 Resp: 37165

Ion Ratio Lower Upper

91 100

106 26.7 24.8 37.2



#59

m/p-Xylene

Concen: 0.076 ppbv

RT: 13.18 min Scan# 3186

Delta R.T. -0.03 min

Lab File: VL032604.D

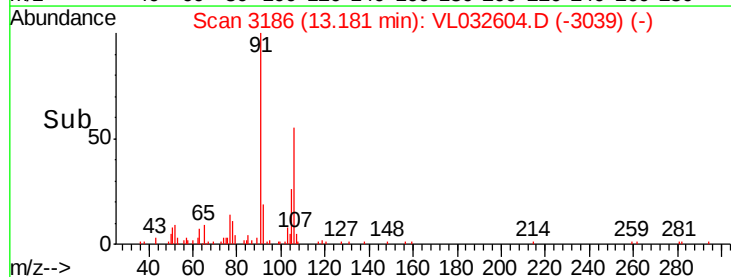
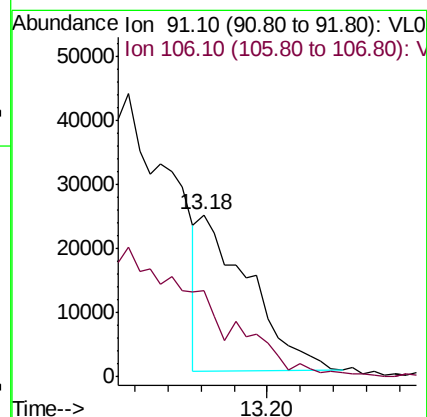
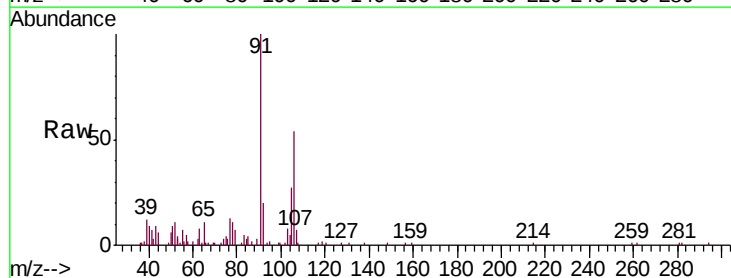
Acq: 11 Oct 2018 14:43

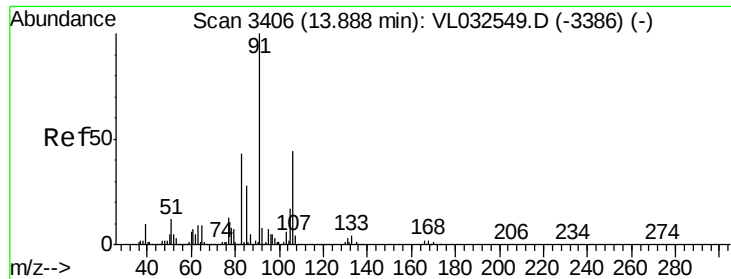
Tgt Ion: 91 Resp: 25610

Ion Ratio Lower Upper

91 100

106 0.0 36.6 55.0#

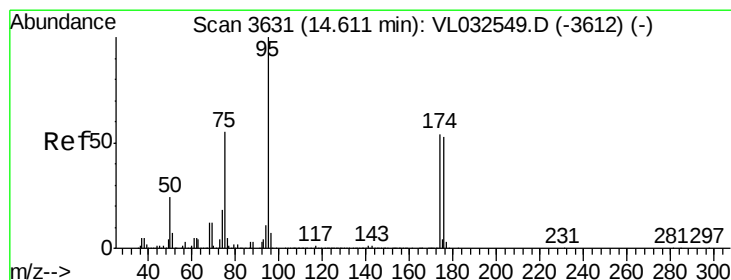
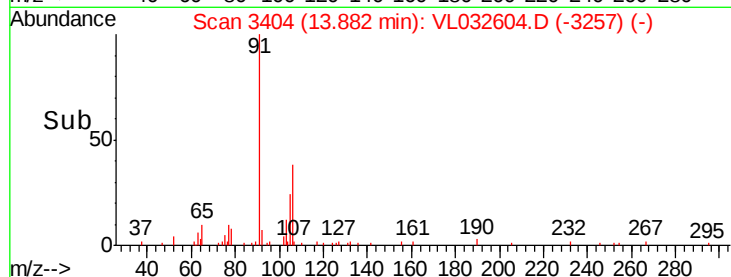
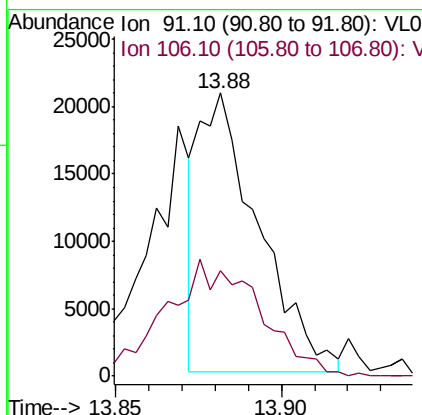
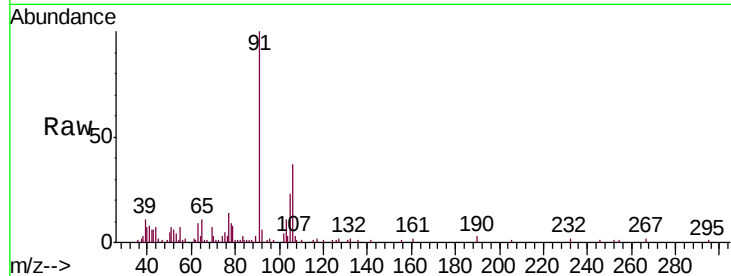




#60
o-Xylene
Concen: 0.079 ppbv
RT: 13.88 min Scan# 3404
Delta R.T. -0.03 min
Lab File: VL032604.D
Acq: 11 Oct 2018 14:43

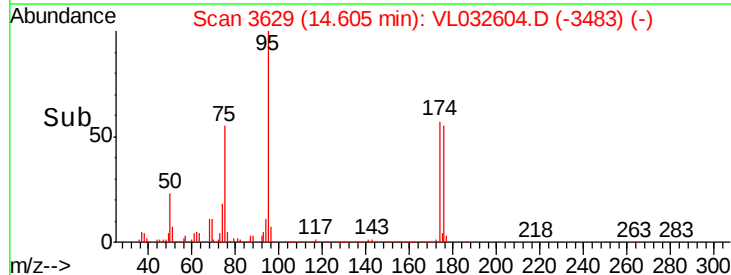
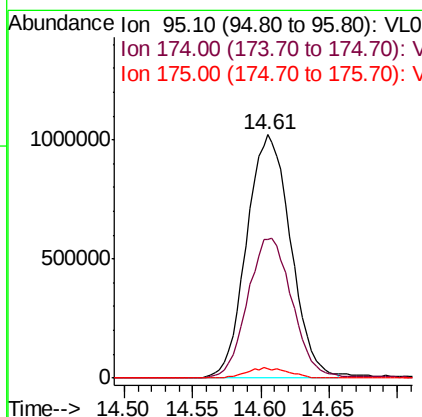
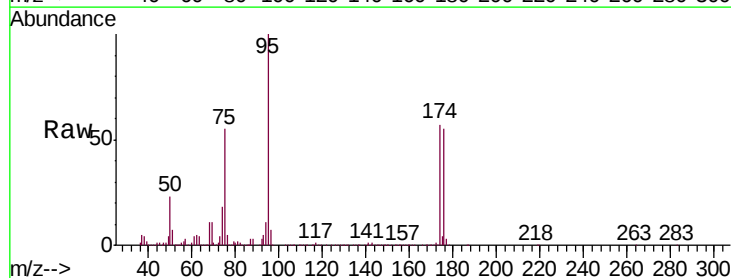
Instrument :
MSVOA_L
ClientSampled :
SV-2

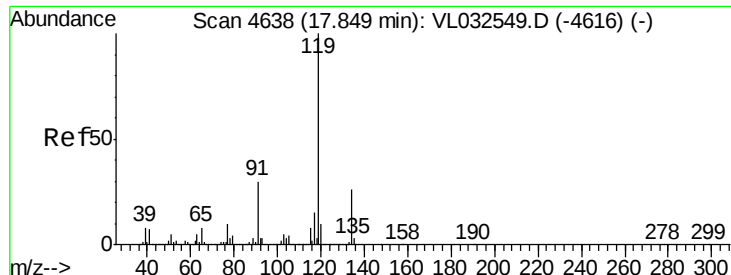
Tgt Ion: 91 Resp: 25819
Ion Ratio Lower Upper
91 100
106 67.8 21.9 65.7#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.756 ppbv
RT: 14.61 min Scan# 3629
Delta R.T. -0.03 min
Lab File: VL032604.D
Acq: 11 Oct 2018 14:43

Tgt Ion: 95 Resp: 2283830
Ion Ratio Lower Upper
95 100
174 59.4 46.3 69.5
175 4.2 3.4 5.0





#69

p-Isopropyltoluene

Concen: 0.057 ppbv

RT: 17.84 min Scan# 4636

Delta R.T. -0.03 min

Lab File: VL032604.D

Acq: 11 Oct 2018 14:43

Instrument :

MSVOA_L

ClientSampleId :

SV-2

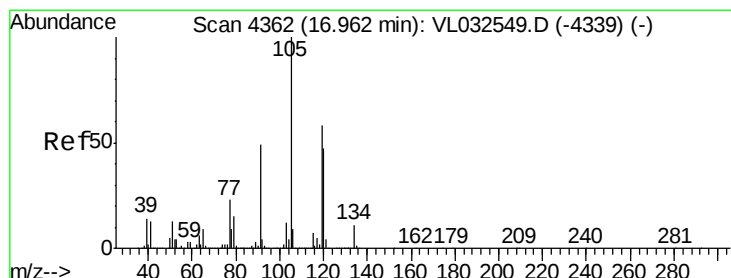
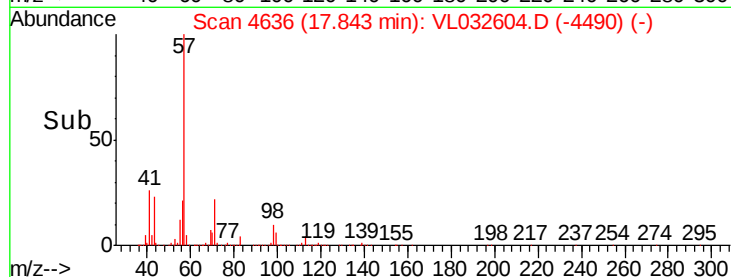
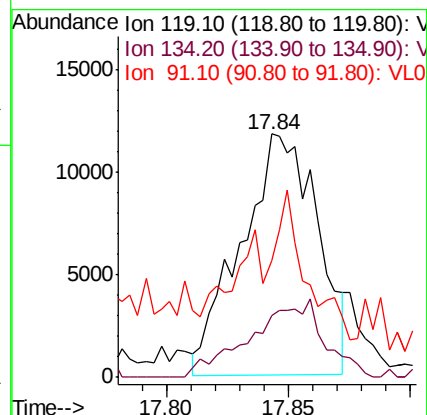
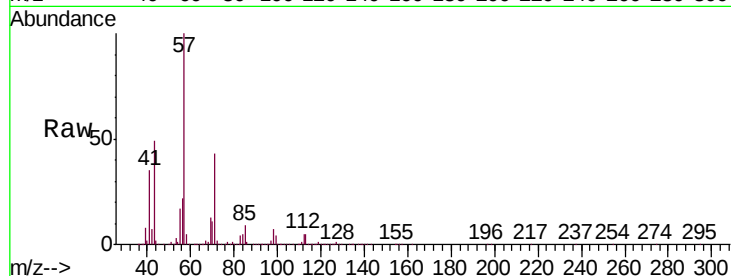
Tgt Ion:119 Resp: 25673

Ion Ratio Lower Upper

119 100

134 0.0 20.4 30.6#

91 91.2 23.4 35.2#



#74

1,2,4-Trimethylbenzene

Concen: 0.127 ppbv

RT: 16.96 min Scan# 4360

Delta R.T. -0.03 min

Lab File: VL032604.D

Acq: 11 Oct 2018 14:43

Tgt Ion:105 Resp: 46965

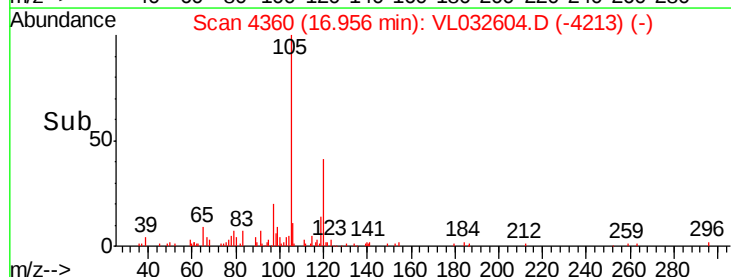
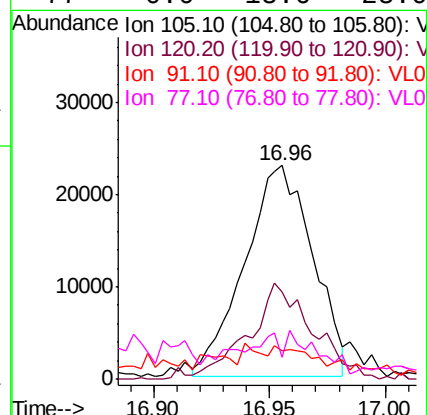
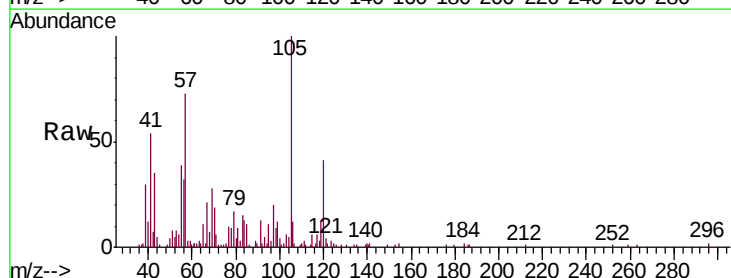
Ion Ratio Lower Upper

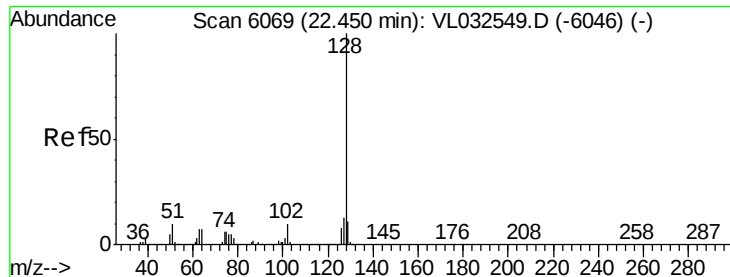
105 100

120 40.1 37.8 56.8

91 11.8 41.4 62.0#

77 0.0 18.6 28.0#





#79

Naphthalene

Concen: 0.218 ppbv

RT: 22.45 min Scan# 6070

Delta R.T. -0.02 min

Lab File: VL032604.D

Acq: 11 Oct 2018 14:43

Instrument :

MSVOA_L

ClientSampleId :

SV-2

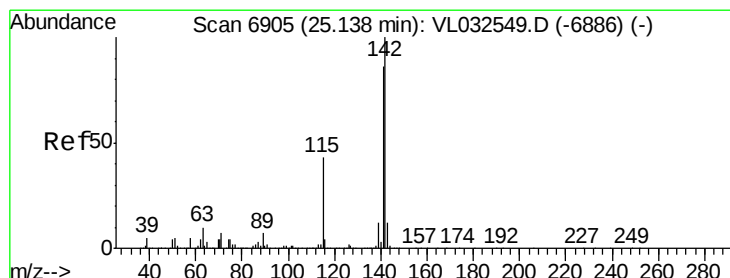
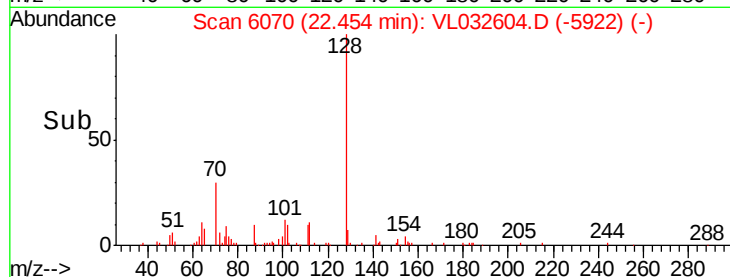
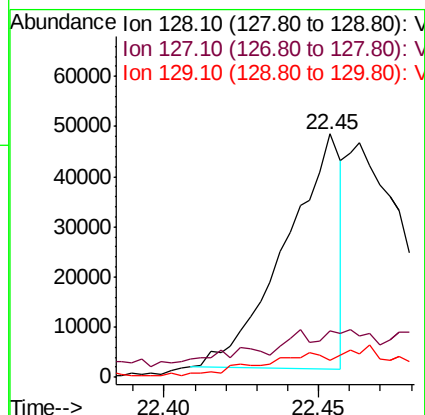
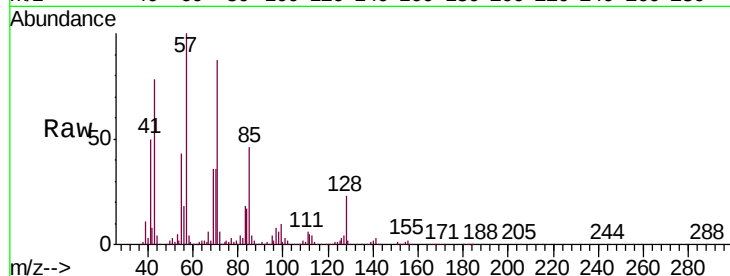
Tgt Ion:128 Resp: 58119

Ion Ratio Lower Upper

128 100

127 11.9 10.2 15.2

129 5.7 8.5 12.7#



#80

Naphthalene, 2-methyl-

Concen: 0.136 ppbv

RT: 25.14 min Scan# 6907

Delta R.T. -0.01 min

Lab File: VL032604.D

Acq: 11 Oct 2018 14:43

Tgt Ion:142 Resp: 8532

Ion Ratio Lower Upper

142 100

141 86.5 67.0 100.6

115 63.2 31.3 46.9#

