

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_F\DATA\VF072318\
 Data File : VF059621.D
 Acq On : 23 Jul 2018 18:36
 Operator : VA/AP
 Sample : J4099-01
 Misc : 4.19g/5mL/MSVOA_F/SOIL
 ALS Vial : 92 Sample Multiplier: 1

Instrument :
 MSVOA_F
 ClientSampleId :
 GL-TOPSOIL-01

Quant Time: Jul 24 04:50:49 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_F\METHODS\82F072318S.M
 Quant Title : SW846 8260
 QLast Update : Tue Jul 24 04:17:55 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.02	168	231107	50.00	ug/l	-0.01
34) 1,4-Difluorobenzene	5.75	114	324064	50.00	ug/l	0.00
63) Chlorobenzene-d5	9.91	117	243067	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.62	152	80143	50.00	ug/l	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	5.01	65	110112	30.28	ug/l	0.00
Spiked Amount 50.000			Recovery	=	60.56%	
35) Dibromofluoromethane	4.28	113	99861	33.40	ug/l	-0.01
Spiked Amount 50.000			Recovery	=	66.80%	
50) Toluene-d8	7.71	98	178797	23.88	ug/l	0.00
Spiked Amount 50.000			Recovery	=	47.76%	
62) 4-Bromofluorobenzene	11.50	95	73300	16.96	ug/l	-0.01
Spiked Amount 50.000			Recovery	=	33.92%	

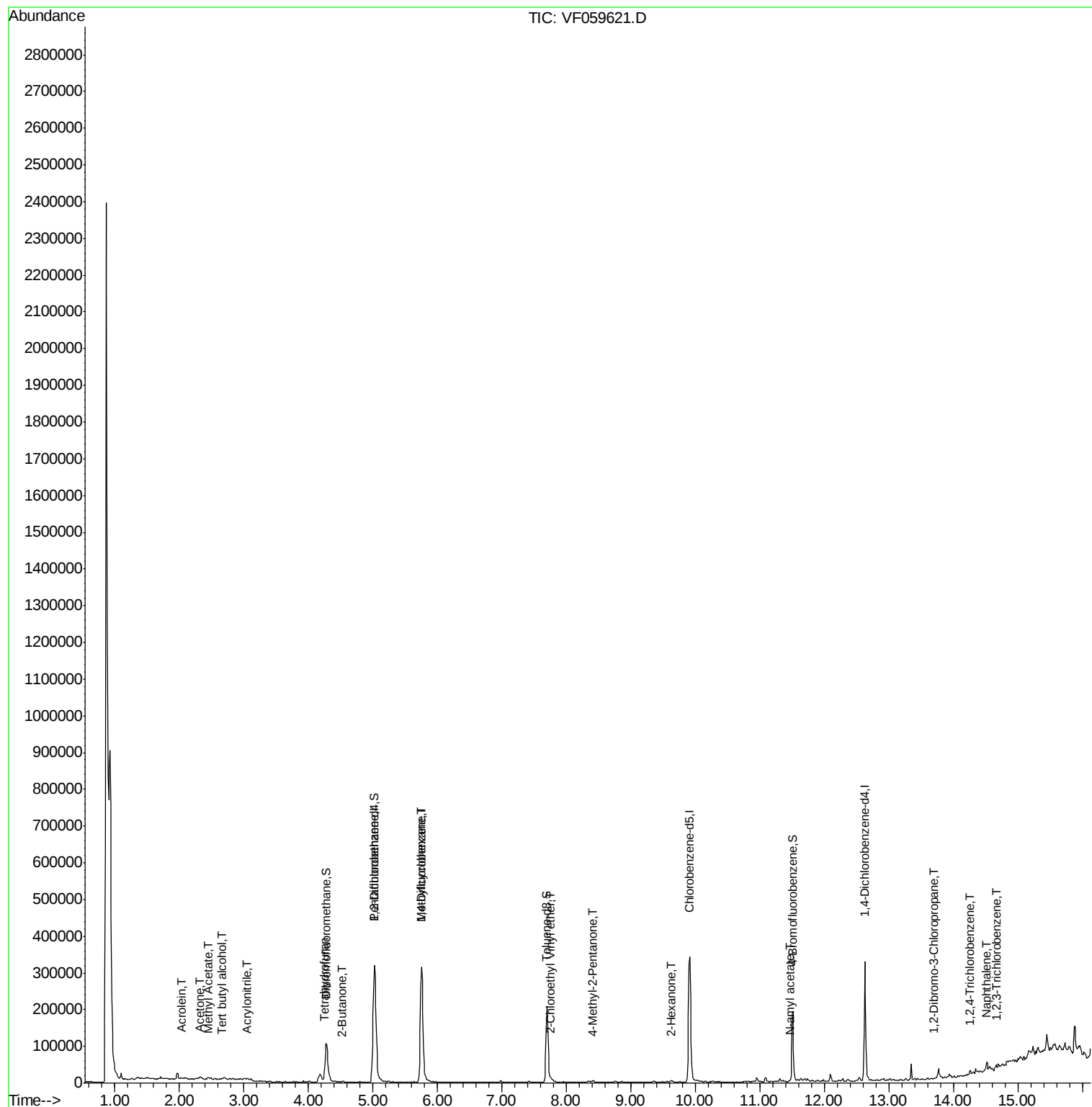
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
11) Tert butyl alcohol	2.66	59	252	1.702	ug/l #	72
13) Acrolein	2.02	56	165	2.223	ug/l	83
15) Acrylonitrile	3.05	53	428	1.874	ug/l #	49
16) Acetone	2.33	43	7512	12.047	ug/l	98
18) Methyl Acetate	2.44	43	5417	1.180	ug/l #	87
20) Methylene Chloride	2.27	84	1419	Below Cal	#	68
25) 2-Butanone	4.51	43	1799	2.798	ug/l	96
29) Tetrahydrofuran	4.25	42	534	2.050	ug/l #	78
39) Methylcyclohexane	5.75	83	3730	1.401	ug/l #	33
49) 1,4-Dioxane	7.03	88	68	Below Cal	#	16
51) 4-Methyl-2-Pentanone	8.40	43	4153	3.381	ug/l #	69
58) 2-Chloroethyl Vinyl ether	7.76	63	572	2.842	ug/l	100
59) 2-Hexanone	9.63	43	3173	3.183	ug/l	96
74) N-amyl acetate	11.46	43	2397	2.094	ug/l #	76
92) 1,2-Dibromo-3-Chloropropan	13.71	75	251	1.220	ug/l	89
93) 1,2,4-Trichlorobenzene	14.27	180	3304	1.875	ug/l #	52
95) Naphthalene	14.52	128	11868	4.148	ug/l	97
96) 1,2,3-Trichlorobenzene	14.66	180	2602	1.625	ug/l #	77

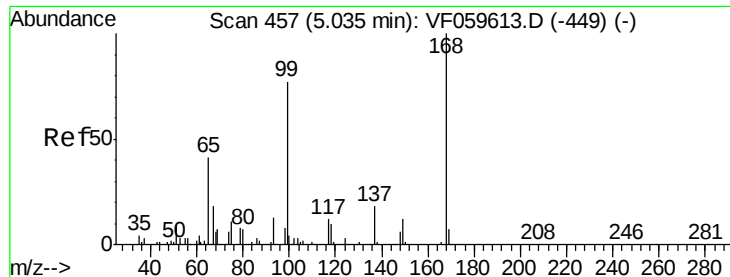
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.02 min Scan# 456

Delta R.T. -0.01 min

Lab File: VF059621.D

Acq: 23 Jul 2018 18:36

Instrument :

MSVOA_F

ClientSampleId :

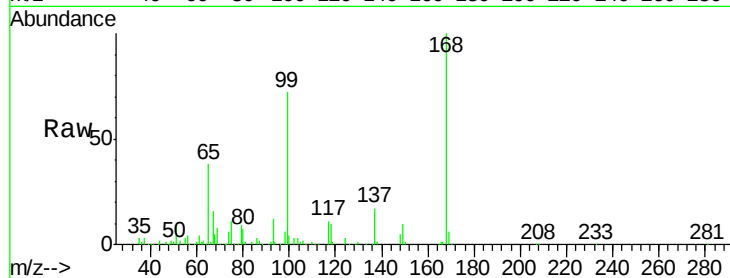
GL-TOPSOIL-01

Tgt Ion:168 Resp: 231107

Ion Ratio Lower Upper

168 100

99 72.4 61.5 92.3



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

5.02

80000

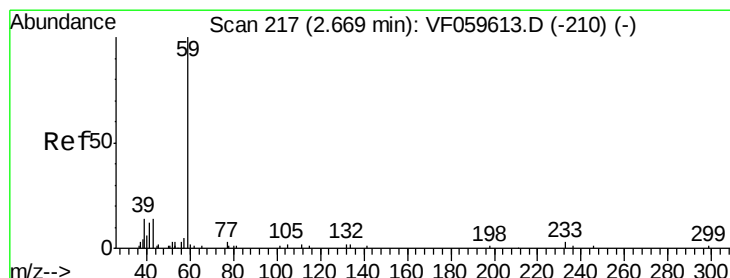
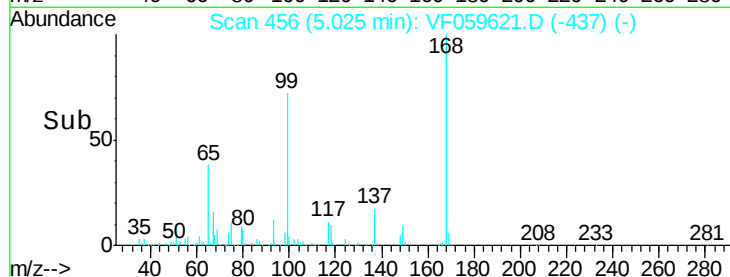
60000

40000

20000

0

Time-->



#11

Tert butyl alcohol

Concen: 1.702 ug/l

RT: 2.66 min Scan# 216

Delta R.T. -0.01 min

Lab File: VF059621.D

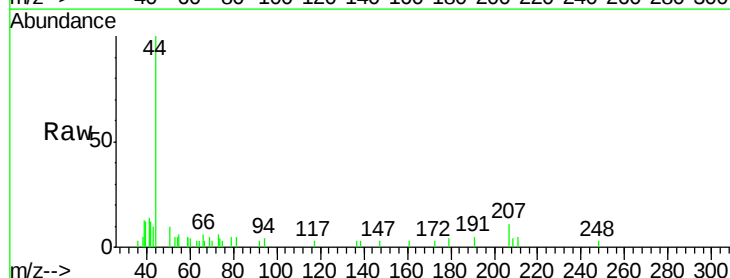
Acq: 23 Jul 2018 18:36

Tgt Ion: 59 Resp: 252

Ion Ratio Lower Upper

59 100

57 0.0 8.6 12.8#



Abundance Ion 59.00 (58.70 to 59.70): VF0

Ion 57.00 (56.70 to 57.70): VF0

2.66

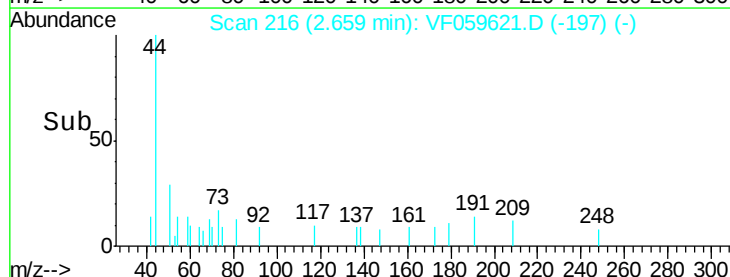
300

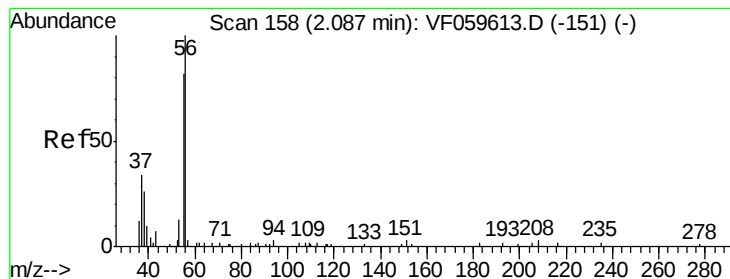
200

100

0

Time-->





#13

Acrolein

Concen: 2.223 ug/l

RT: 2.02 min Scan# 151

Delta R.T. -0.07 min

Lab File: VF059621.D

Acq: 23 Jul 2018 18:36

Instrument :

MSVOA_F

ClientSampleId :

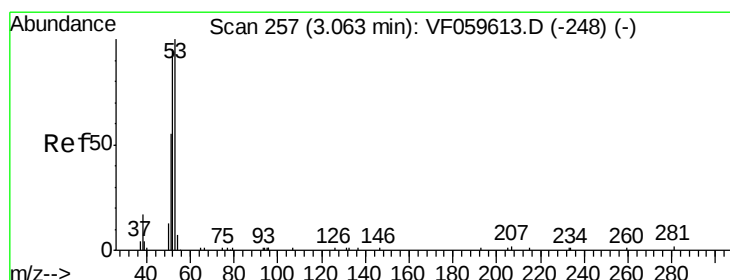
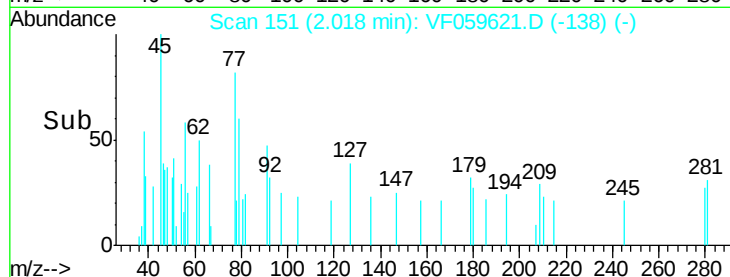
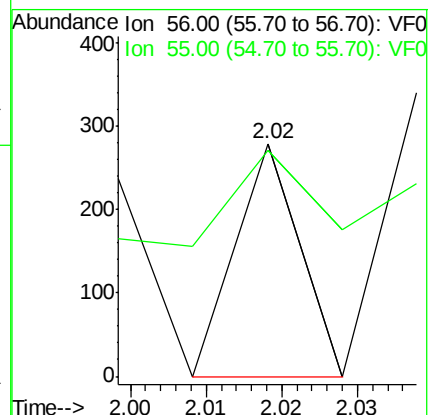
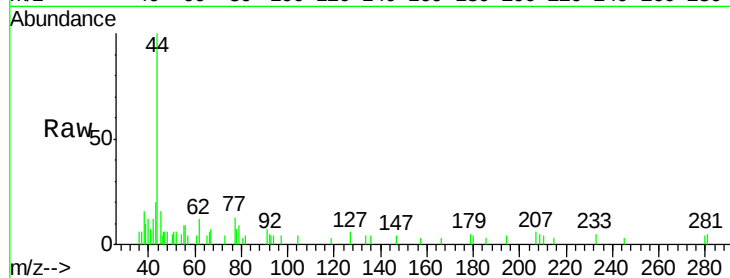
GL-TOPSOIL-01

Tgt Ion: 56 Resp: 165

Ion Ratio Lower Upper

56 100

55 96.8 65.6 98.4



#15

Acrylonitrile

Concen: 1.874 ug/l

RT: 3.05 min Scan# 256

Delta R.T. -0.01 min

Lab File: VF059621.D

Acq: 23 Jul 2018 18:36

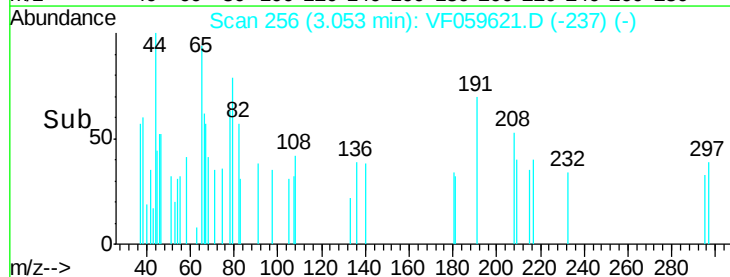
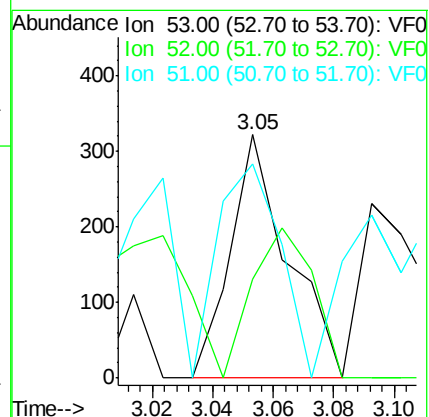
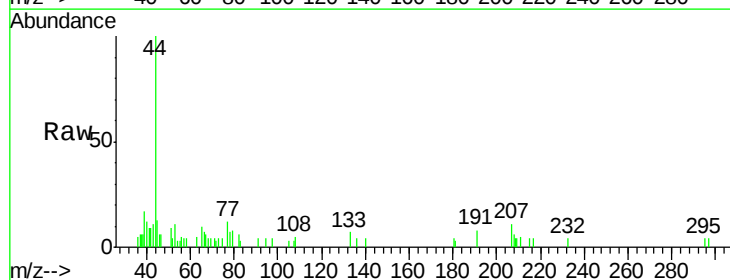
Tgt Ion: 53 Resp: 428

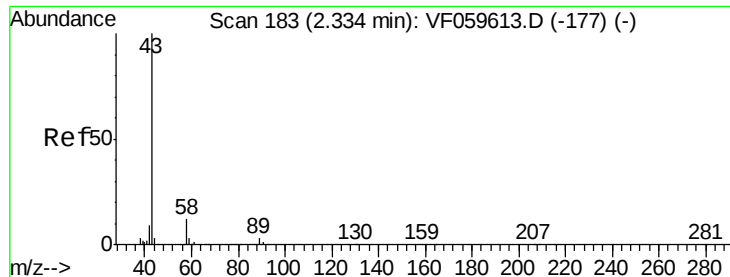
Ion Ratio Lower Upper

53 100

52 40.7 76.2 114.2#

51 87.9 45.8 68.8#





#16

Acetone

Concen: 12.047 ug/l

RT: 2.33 min Scan# 183

Delta R.T. 0.00 min

Lab File: VF059621.D

Acq: 23 Jul 2018 18:36

Instrument :

MSVOA_F

ClientSampleId :

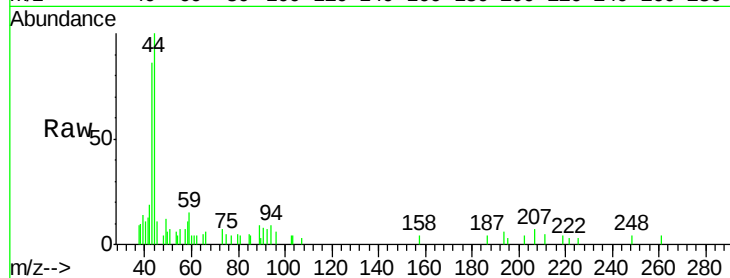
GL-TOPSOIL-01

Tgt Ion: 43 Resp: 7512

Ion Ratio Lower Upper

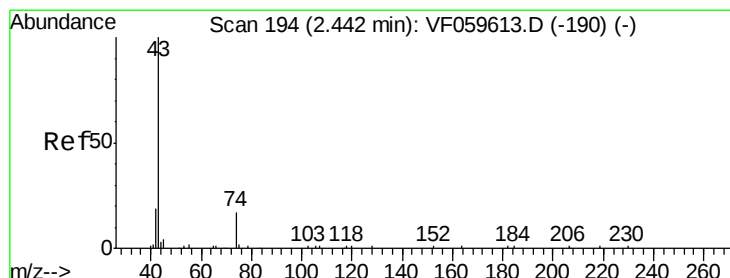
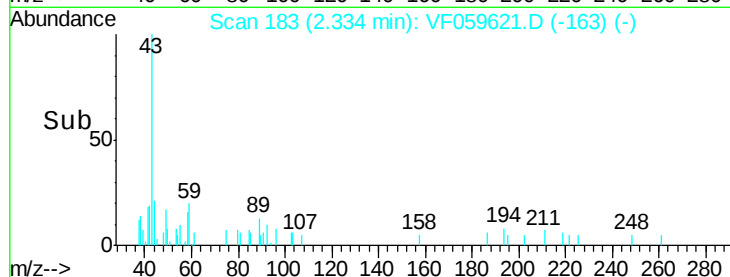
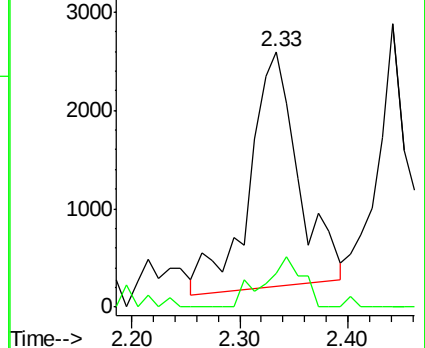
43 100

58 13.2 9.8 14.8



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0



#18

Methyl Acetate

Concen: 1.180 ug/l

RT: 2.44 min Scan# 194

Delta R.T. -0.00 min

Lab File: VF059621.D

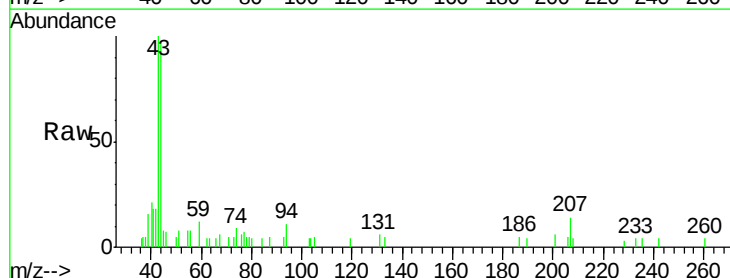
Acq: 23 Jul 2018 18:36

Tgt Ion: 43 Resp: 5417

Ion Ratio Lower Upper

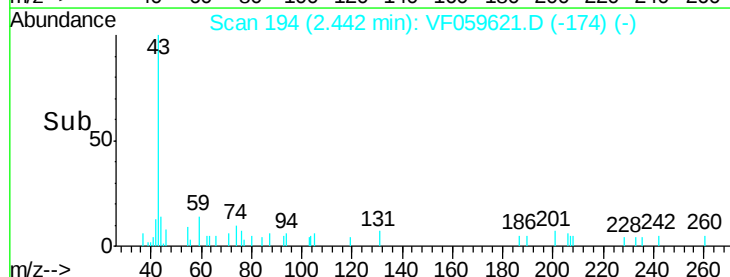
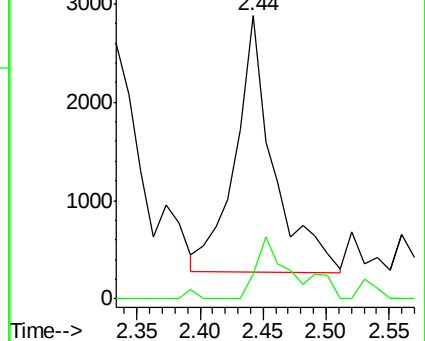
43 100

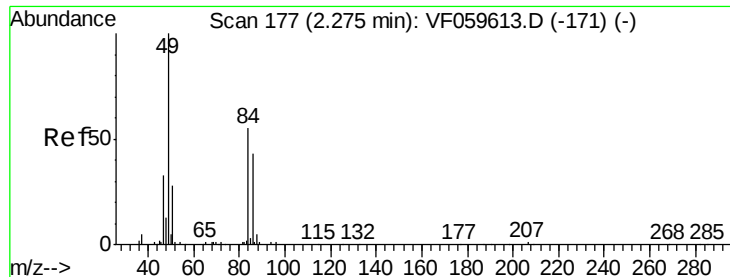
74 9.0 11.4 17.0#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 74.00 (73.70 to 74.70): VF0





#20

Methylene Chloride

Concen: Below Cal

RT: 2.27 min Scan# 177

Delta R.T. 0.00 min

Lab File: VF059621.D

Acq: 23 Jul 2018 18:36

Instrument :

MSVOA_F

ClientSampleId :

GL-TOPSOIL-01

Tgt Ion: 84 Resp: 1419

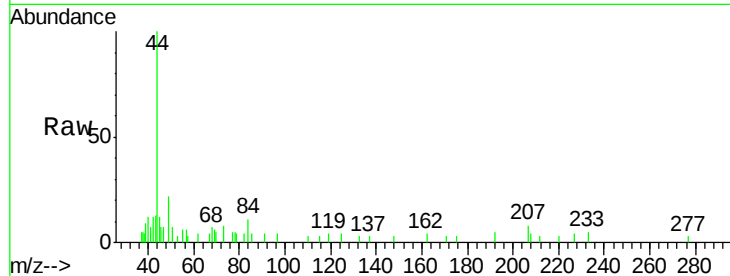
Ion Ratio Lower Upper

84 100

49 203.1 148.6 222.8

51 66.4 42.7 64.1#

86 0.0 63.0 94.6#

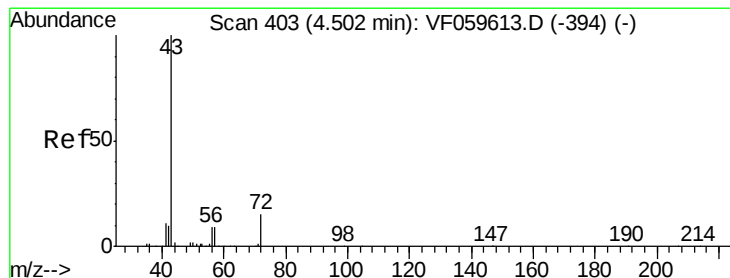
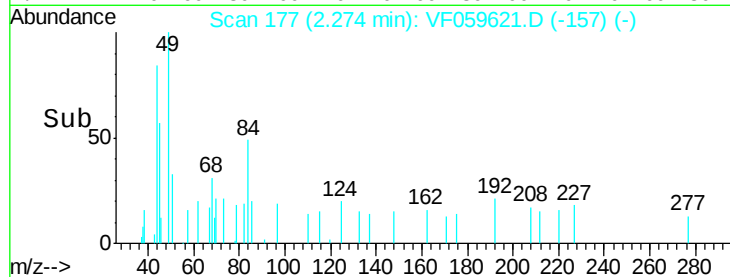
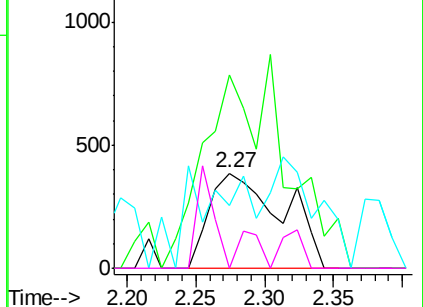


Abundance Ion 84.00 (83.70 to 84.70): VF0

Ion 49.00 (48.70 to 49.70): VF0

Ion 51.00 (50.70 to 51.70): VF0

Ion 86.00 (85.70 to 86.70): VF0



#25

2-Butanone

Concen: 2.798 ug/l

RT: 4.51 min Scan# 404

Delta R.T. 0.01 min

Lab File: VF059621.D

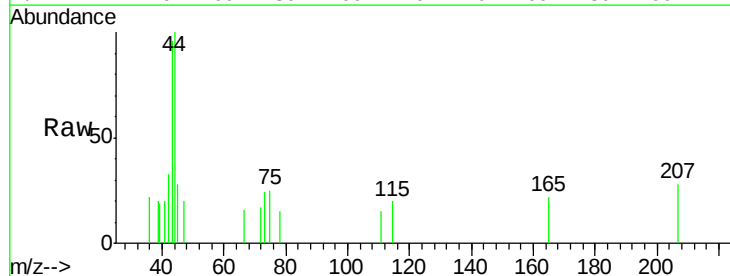
Acq: 23 Jul 2018 18:36

Tgt Ion: 43 Resp: 1799

Ion Ratio Lower Upper

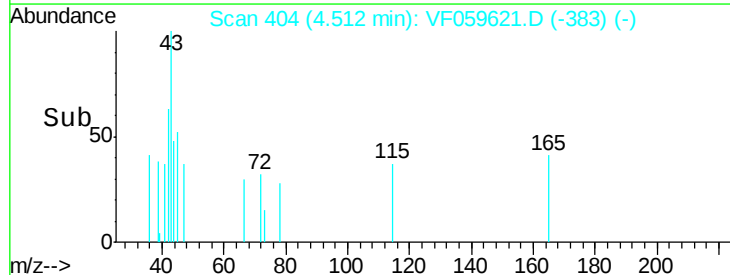
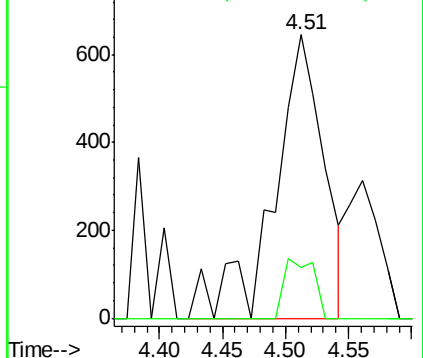
43 100

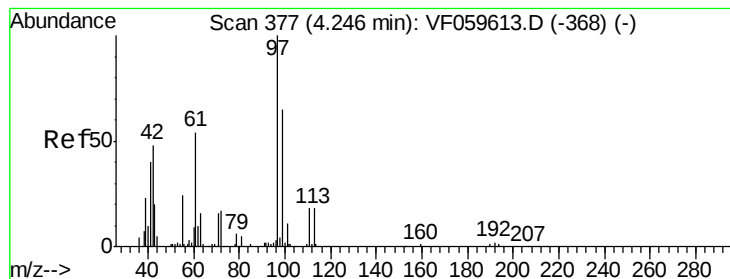
72 17.8 12.9 19.3



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 72.00 (71.70 to 72.70): VF0





#29

Tetrahydrofuran

Concen: 2.050 ug/l

RT: 4.25 min Scan# 377

Delta R.T. -0.00 min

Lab File: VF059621.D

Acq: 23 Jul 2018 18:36

Instrument :

MSVOA_F

ClientSampleId :

GL-TOPSOIL-01

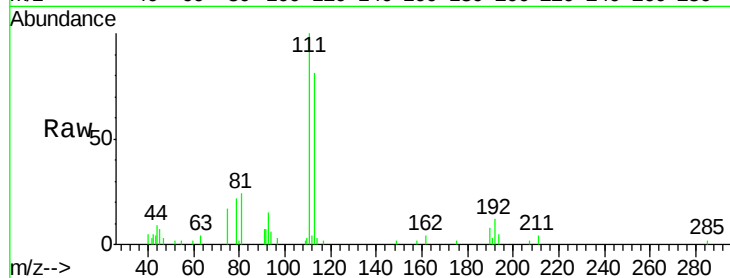
Tgt Ion: 42 Resp: 534

Ion Ratio Lower Upper

42 100

72 12.4 27.9 41.9#

71 33.3 29.3 43.9



Abundance Ion 42.00 (41.70 to 42.70): VF0

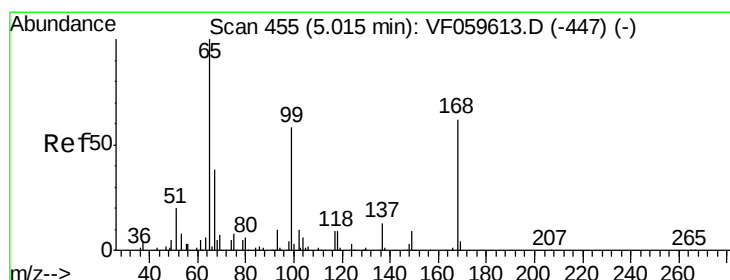
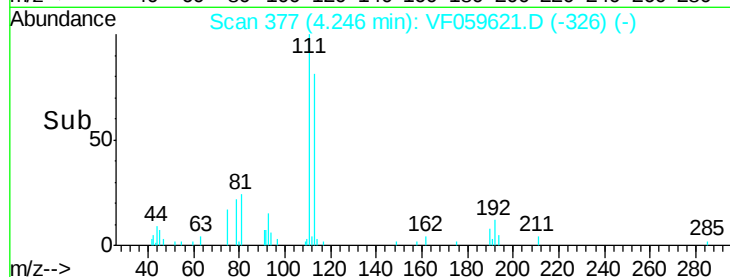
Ion 72.00 (71.70 to 72.70): VF0

Ion 71.00 (70.70 to 71.70): VF0

4.25

4.22 4.24 4.26 4.28

Time-->



#33

1,2-Dichloroethane-d4

Concen: 30.278 ug/l

RT: 5.01 min Scan# 455

Delta R.T. -0.00 min

Lab File: VF059621.D

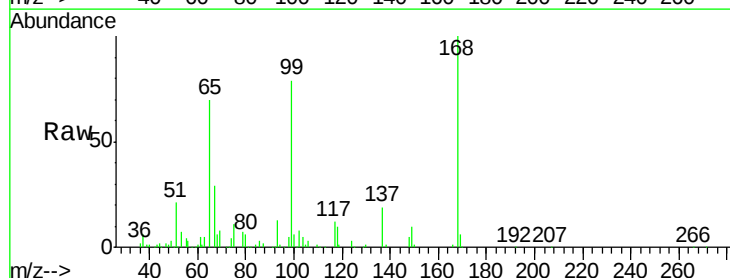
Acq: 23 Jul 2018 18:36

Tgt Ion: 65 Resp: 110112

Ion Ratio Lower Upper

65 100

67 41.6 0.0 83.8



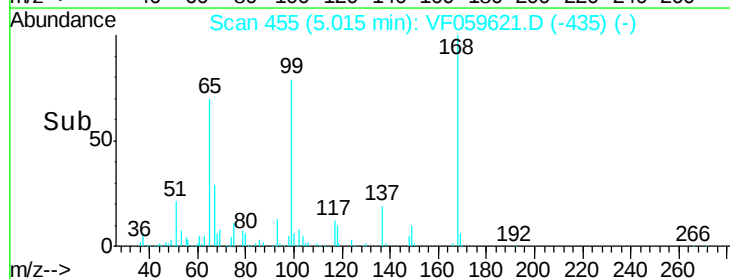
Abundance Ion 65.00 (64.70 to 65.70): VF0

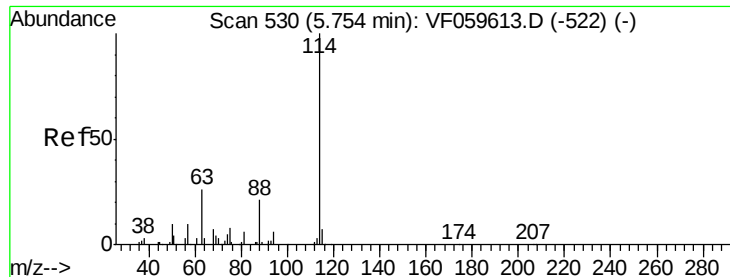
Ion 67.00 (66.70 to 67.70): VF0

5.01

4.90 5.00 5.10 5.20

Time-->





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.75 min Scan# 530

Delta R.T. -0.00 min

Lab File: VF059621.D

Acq: 23 Jul 2018 18:36

Instrument :

MSVOA_F

ClientSampleId :

GL-TOPSOIL-01

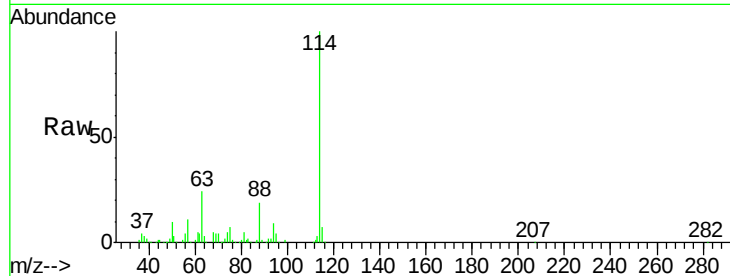
Tgt Ion:114 Resp: 324064

Ion Ratio Lower Upper

114 100

63 24.3 0.0 51.8

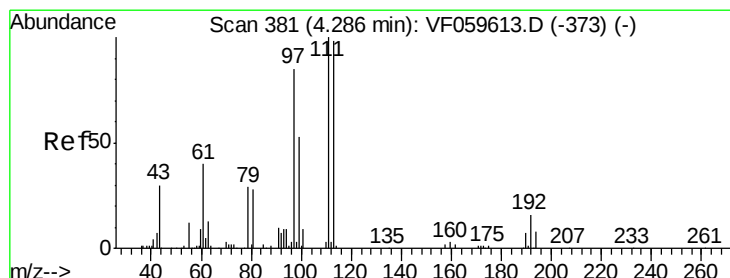
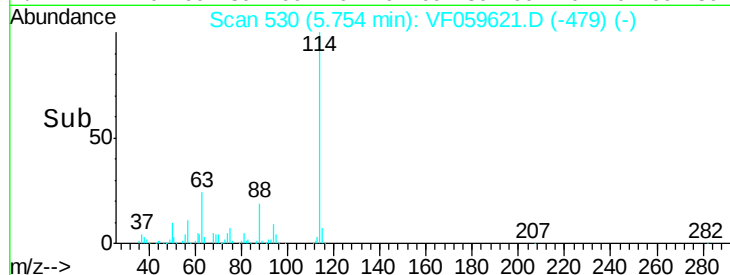
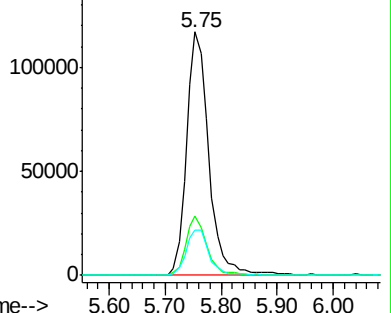
88 18.7 0.0 42.8



Abundance Ion 114.00 (113.70 to 114.70): V

Ion 63.00 (62.70 to 63.70): VF0

Ion 88.00 (87.70 to 88.70): VF0



#35

Dibromofluoromethane

Concen: 33.399 ug/l

RT: 4.28 min Scan# 380

Delta R.T. -0.01 min

Lab File: VF059621.D

Acq: 23 Jul 2018 18:36

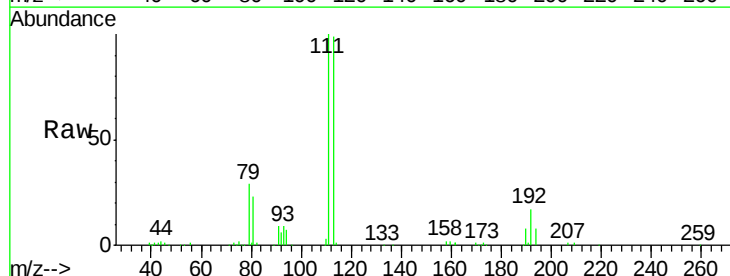
Tgt Ion:113 Resp: 99861

Ion Ratio Lower Upper

113 100

111 100.6 81.5 122.3

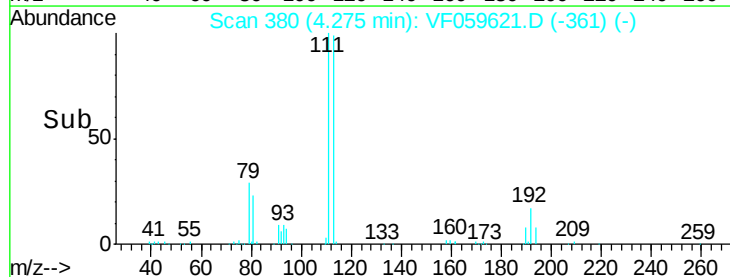
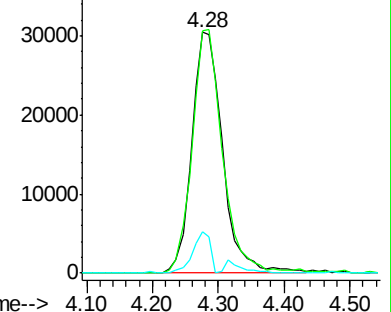
192 17.4 13.4 20.2

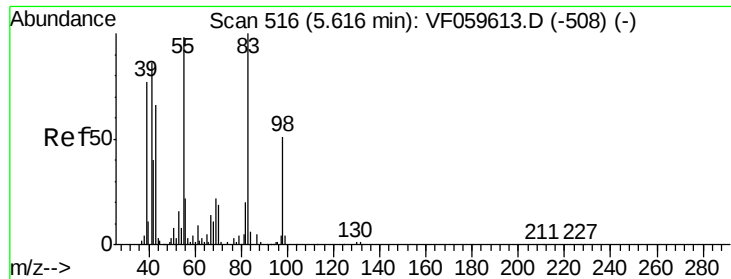


Abundance Ion 113.00 (112.70 to 113.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 192.00 (191.70 to 192.70): V

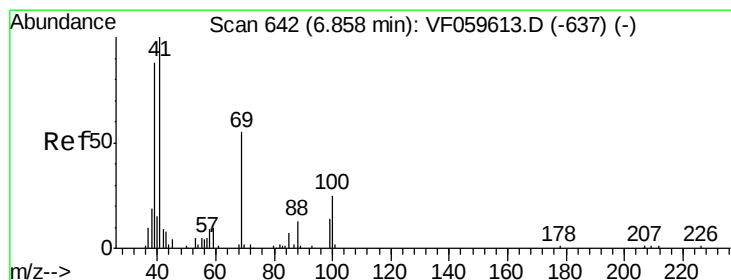
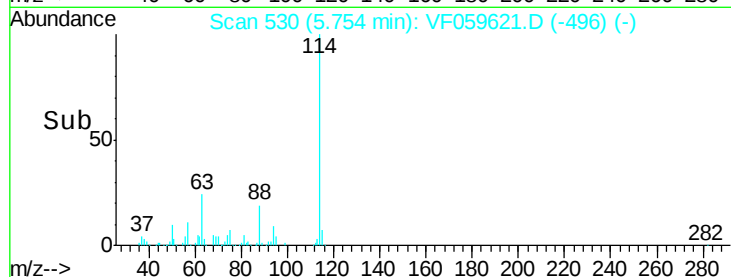
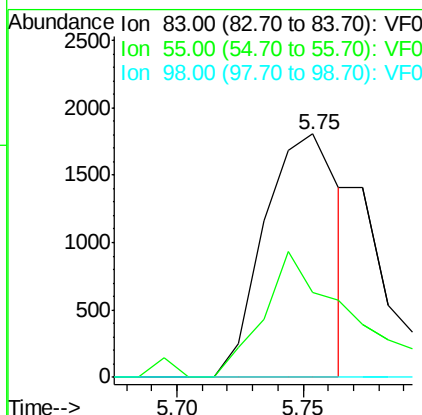
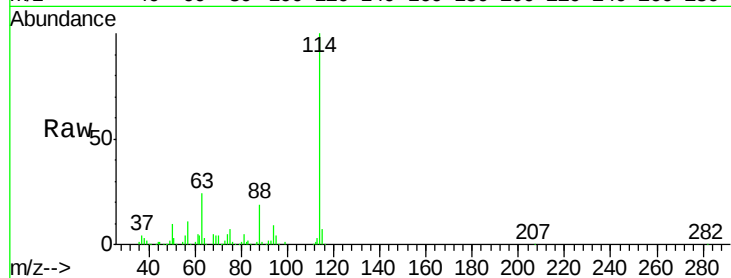




#39
Methylcyclohexane
Concen: 1.401 ug/l
RT: 5.75 min Scan# 530
Delta R.T. 0.14 min
Lab File: VF059621.D
Acq: 23 Jul 2018 18:36

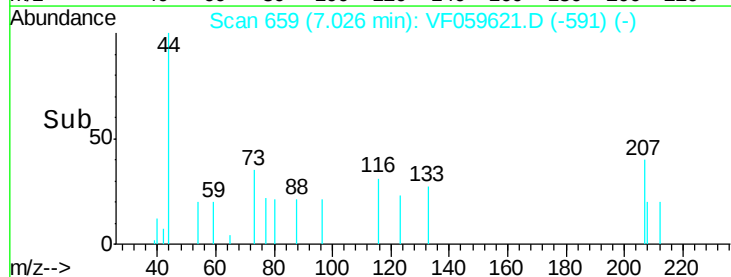
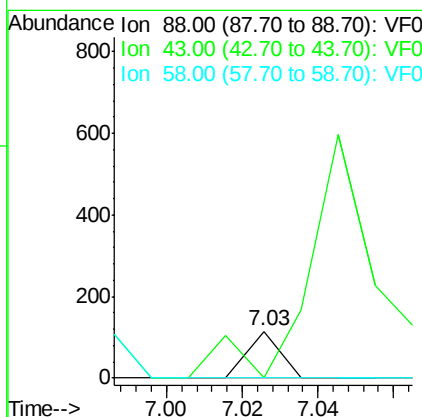
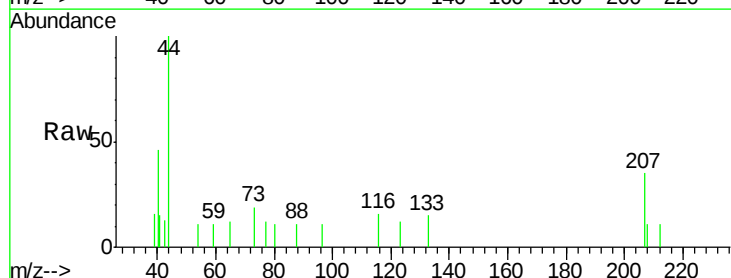
Instrument :
MSVOA_F
ClientSampleId :
GL-TOPSOIL-01

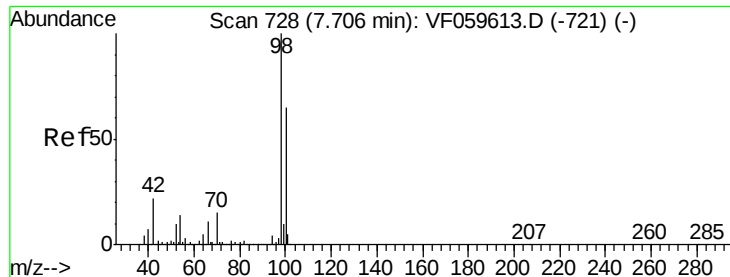
Tgt Ion: 83 Resp: 3730
Ion Ratio Lower Upper
83 100
55 35.0 78.5 117.7#
98 0.0 41.1 61.7#



#49
1,4-Dioxane
Concen: Below Cal
RT: 7.03 min Scan# 659
Delta R.T. 0.17 min
Lab File: VF059621.D
Acq: 23 Jul 2018 18:36

Tgt Ion: 88 Resp: 68
Ion Ratio Lower Upper
88 100
43 0.0 54.2 81.4#
58 0.0 54.3 81.5#





#50

Toluene-d8

Concen: 23.884 ug/l

RT: 7.71 min Scan# 728

Delta R.T. -0.00 min

Lab File: VF059621.D

Acq: 23 Jul 2018 18:36

Instrument :

MSVOA_F

ClientSampleId :

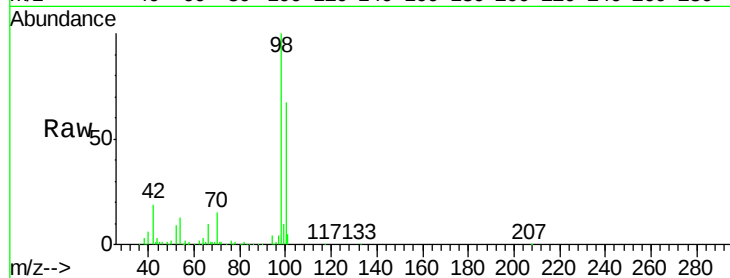
GL-TOPSOIL-01

Tgt Ion: 98 Resp: 178797

Ion Ratio Lower Upper

98 100

100 66.7 51.6 77.4



Abundance Ion 98.00 (97.70 to 98.70): VF0

Ion 100.00 (99.70 to 100.70): VF0

7.71

80000

60000

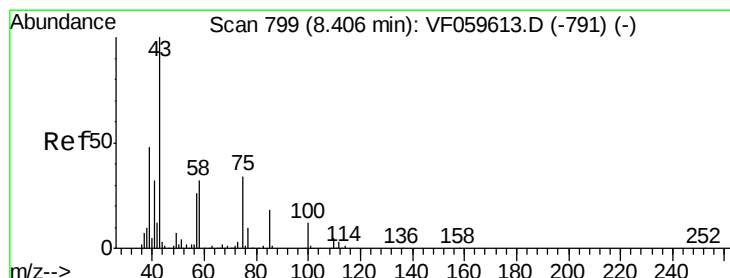
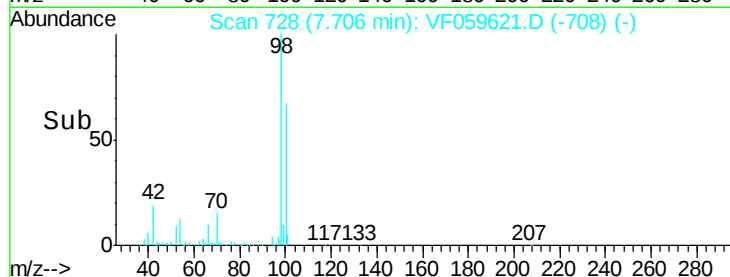
40000

20000

0

Time-->

7.60 7.70 7.80 7.90



#51

4-Methyl-2-Pentanone

Concen: 3.381 ug/l

RT: 8.40 min Scan# 798

Delta R.T. -0.01 min

Lab File: VF059621.D

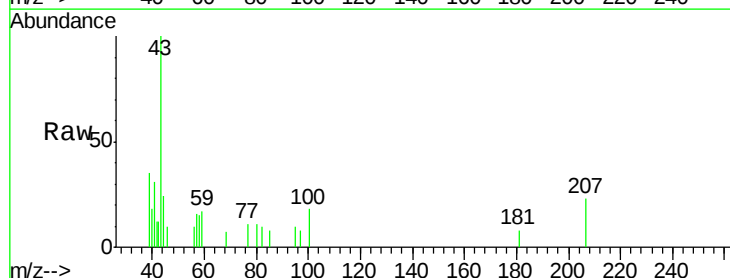
Acq: 23 Jul 2018 18:36

Tgt Ion: 43 Resp: 4153

Ion Ratio Lower Upper

43 100

58 14.7 25.8 38.6#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

8.40

1500

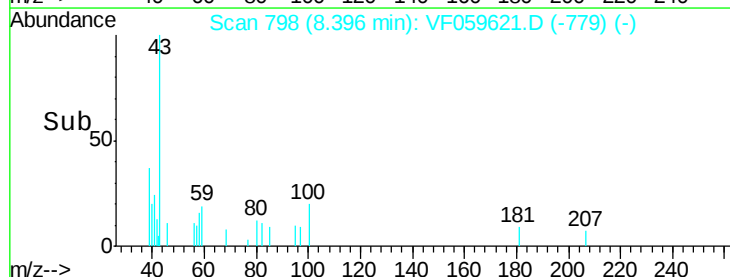
1000

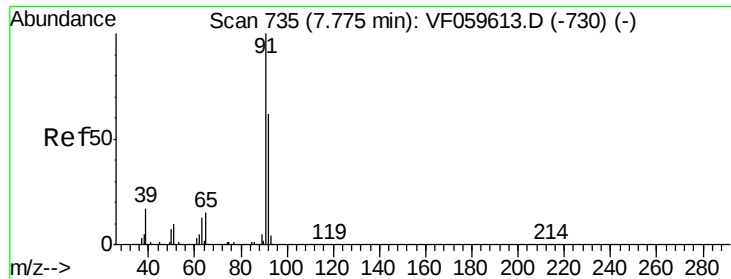
500

0

Time-->

8.30 8.40 8.50

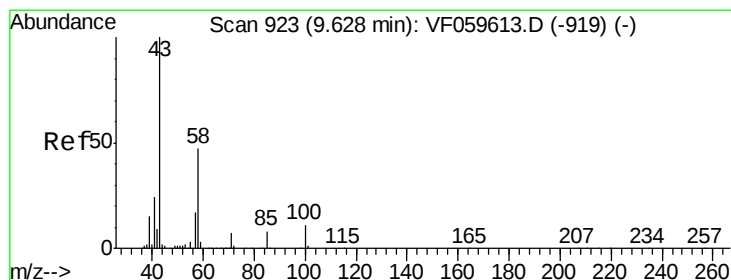
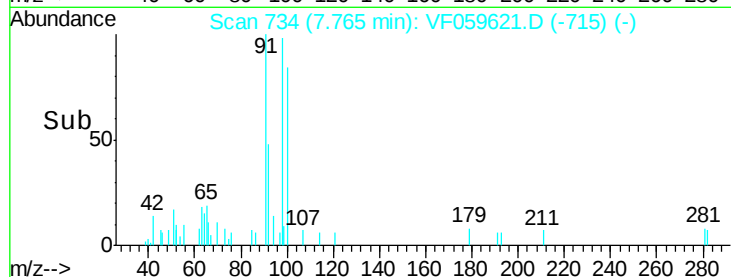
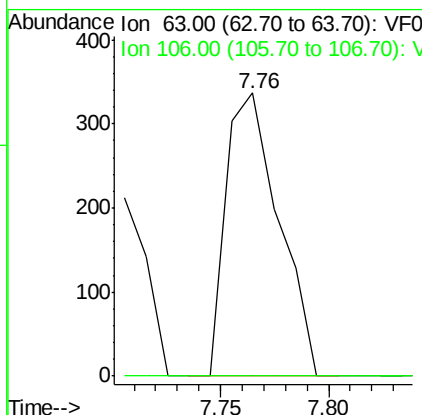
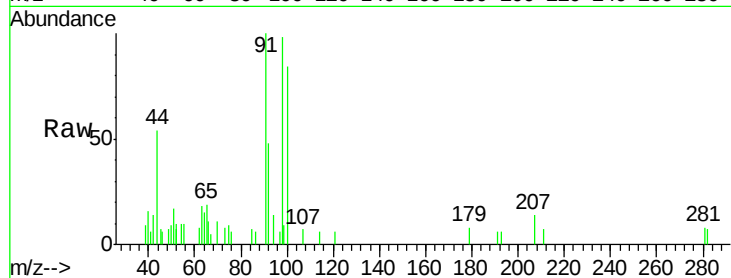




#58
2-Chloroethyl Vinyl ether
Concen: 2.842 ug/l
RT: 7.76 min Scan# 734
Delta R.T. -0.01 min
Lab File: VF059621.D
Acq: 23 Jul 2018 18:36

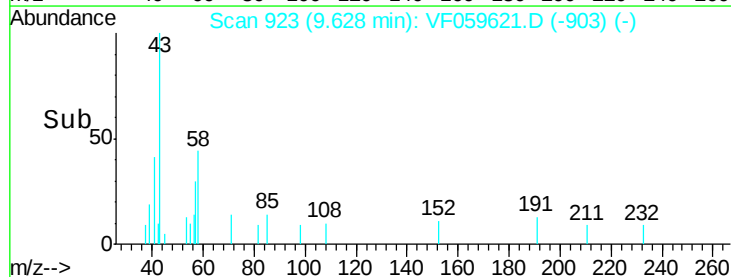
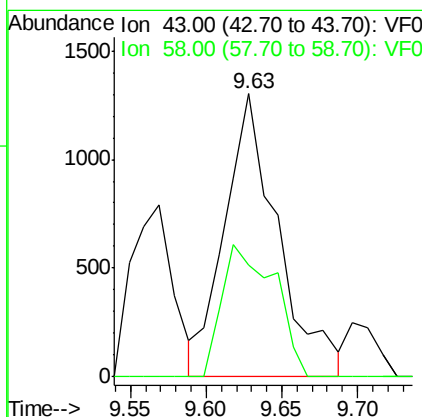
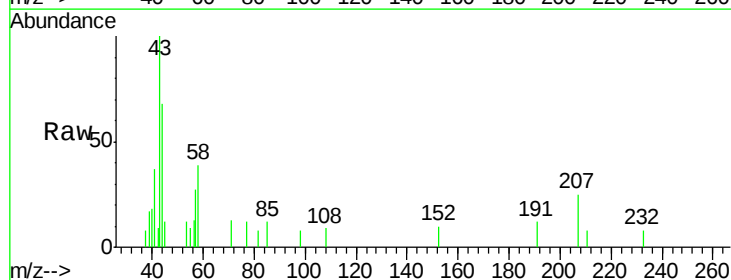
Instrument :
MSVOA_F
ClientSampleId :
GL-TOPSOIL-01

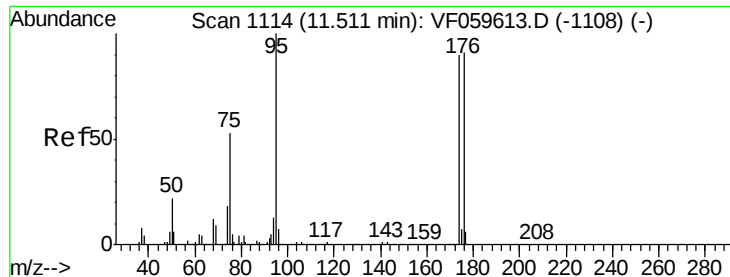
Tgt Ion: 63 Resp: 572
Ion Ratio Lower Upper
63 100
106 0.0 0.0 0.0



#59
2-Hexanone
Concen: 3.183 ug/l
RT: 9.63 min Scan# 923
Delta R.T. -0.00 min
Lab File: VF059621.D
Acq: 23 Jul 2018 18:36

Tgt Ion: 43 Resp: 3173
Ion Ratio Lower Upper
43 100
58 39.5 21.1 63.4





#62

4-Bromofluorobenzene

Concen: 16.962 ug/l

RT: 11.50 min Scan# 1113

Delta R.T. -0.01 min

Lab File: VF059621.D

Acq: 23 Jul 2018 18:36

Instrument :

MSVOA_F

ClientSampled :

GL-TOPSOIL-01

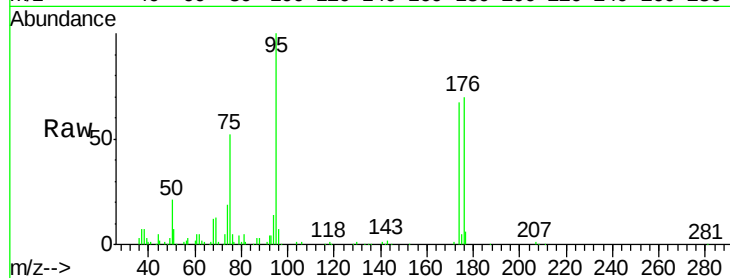
Tgt Ion: 95 Resp: 73300

Ion Ratio Lower Upper

95 100

174 67.1 0.0 180.6

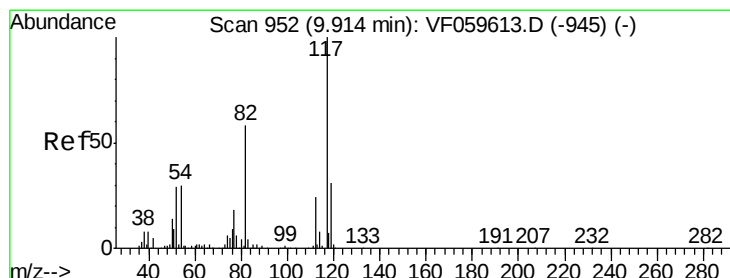
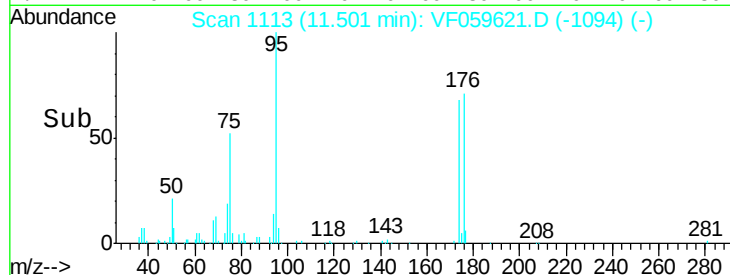
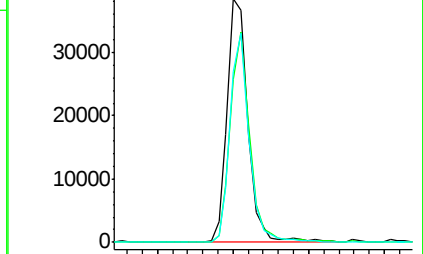
176 69.9 0.0 182.4



Abundance Ion 95.00 (94.70 to 95.70): VF0

Ion 174.00 (173.70 to 174.70): VF0

Ion 176.00 (175.70 to 176.70): VF0



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 9.91 min Scan# 952

Delta R.T. -0.00 min

Lab File: VF059621.D

Acq: 23 Jul 2018 18:36

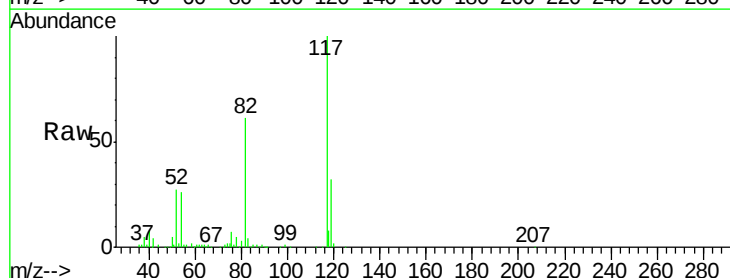
Tgt Ion: 117 Resp: 243067

Ion Ratio Lower Upper

117 100

82 60.7 46.5 69.7

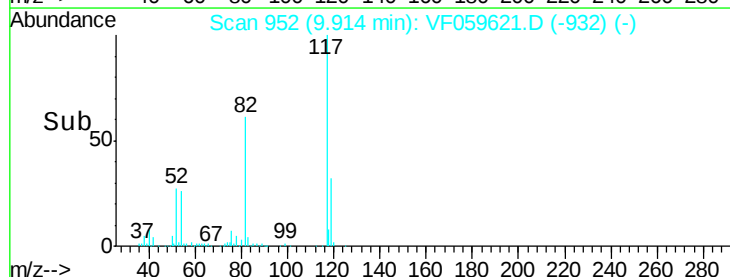
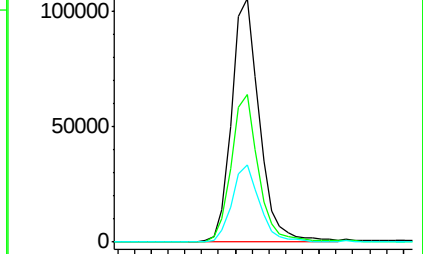
119 32.0 24.4 36.6

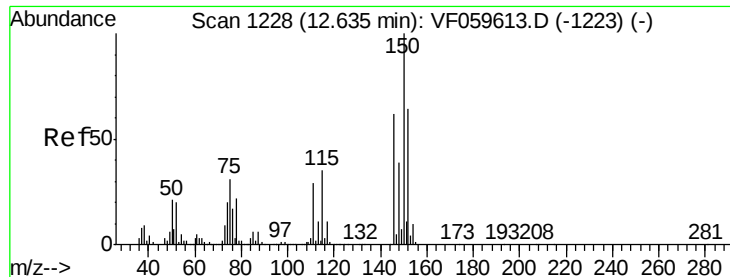


Abundance Ion 117.00 (116.70 to 117.70): VF0

Ion 82.00 (81.70 to 82.70): VF0

Ion 119.00 (118.70 to 119.70): VF0





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.62 min Scan# 1227

Delta R.T. -0.01 min

Lab File: VF059621.D

Acq: 23 Jul 2018 18:36

Instrument :

MSVOA_F

ClientSampleId :

GL-TOPSOIL-01

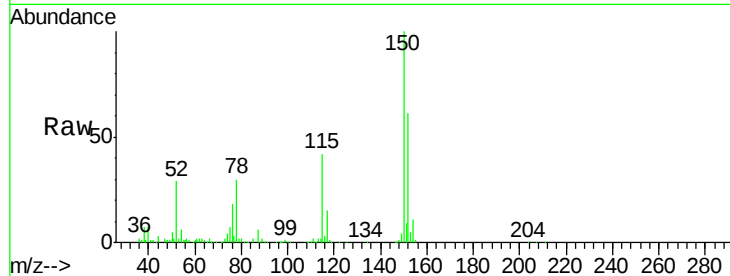
Tgt Ion:152 Resp: 80143

Ion Ratio Lower Upper

152 100

115 69.9 27.8 83.4

150 164.5 0.0 314.6

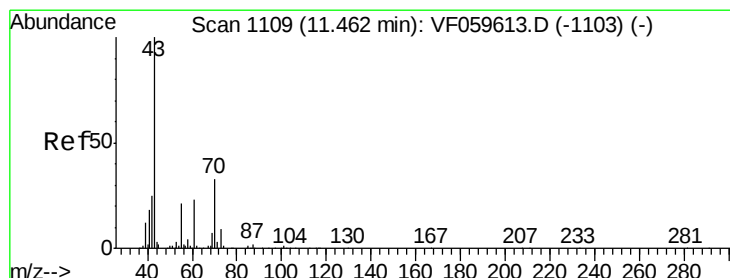
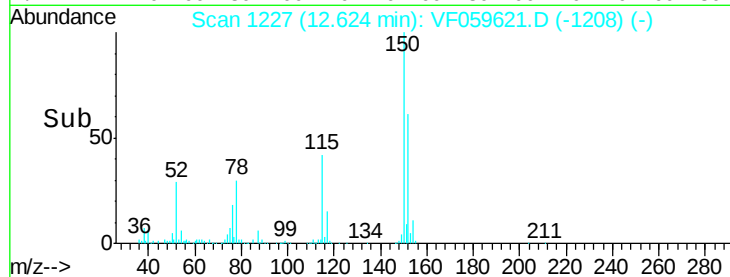
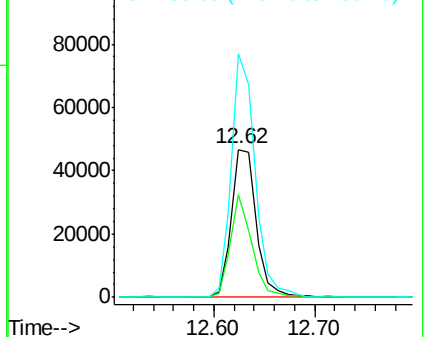


Abundance

Ion 152.00 (151.70 to 152.70): V

Ion 115.00 (114.70 to 115.70): V

Ion 150.00 (149.70 to 150.70): V



#74

N-ethyl acetate

Concen: 2.094 ug/l

RT: 11.46 min Scan# 1109

Delta R.T. -0.00 min

Lab File: VF059621.D

Acq: 23 Jul 2018 18:36

Tgt Ion: 43 Resp: 2397

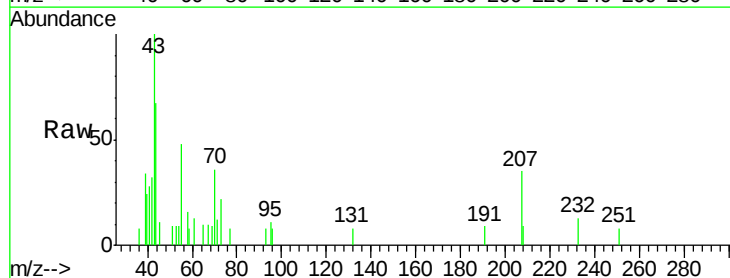
Ion Ratio Lower Upper

43 100

70 36.5 26.6 40.0

55 48.2 17.0 25.6#

61 12.6 18.3 27.5#



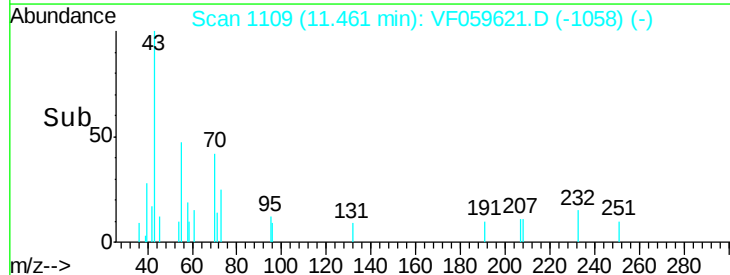
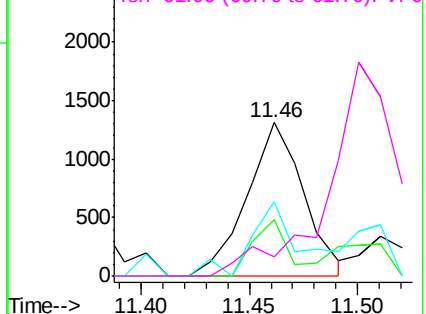
Abundance

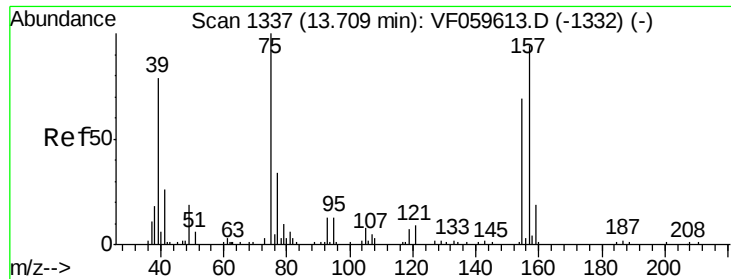
Ion 43.00 (42.70 to 43.70): VF0

Ion 70.00 (69.70 to 70.70): VF0

Ion 55.00 (54.70 to 55.70): VF0

Ion 61.00 (60.70 to 61.70): VF0





#92

1,2-Dibromo-3-Chloropropane

Concen: 1.220 ug/l

RT: 13.71 min Scan# 1337

Delta R.T. -0.00 min

Lab File: VF059621.D

Acq: 23 Jul 2018 18:36

Instrument :

MSVOA_F

ClientSampleId :

GL-TOPSOIL-01

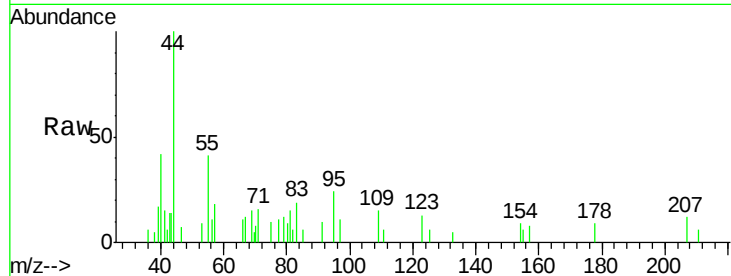
Tgt Ion: 75 Resp: 251

Ion Ratio Lower Upper

75 100

155 65.0 34.6 103.8

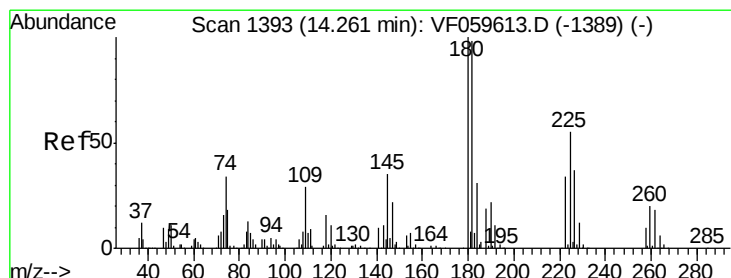
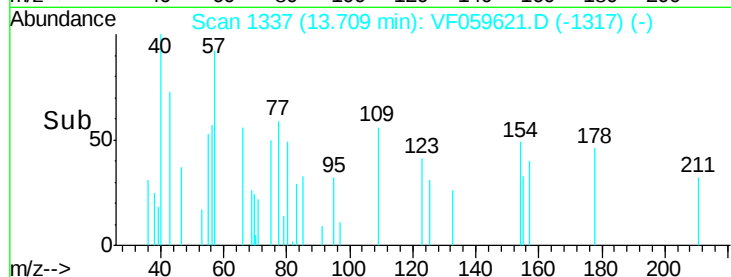
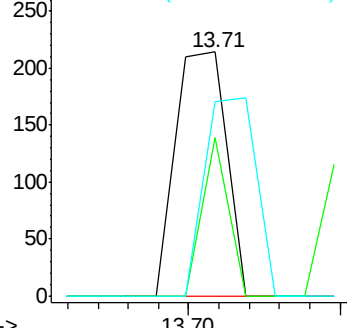
157 79.9 47.0 141.0



Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 155.00 (154.70 to 155.70): V

Ion 157.00 (156.70 to 157.70): V



#93

1,2,4-Trichlorobenzene

Concen: 1.875 ug/l

RT: 14.27 min Scan# 1394

Delta R.T. 0.01 min

Lab File: VF059621.D

Acq: 23 Jul 2018 18:36

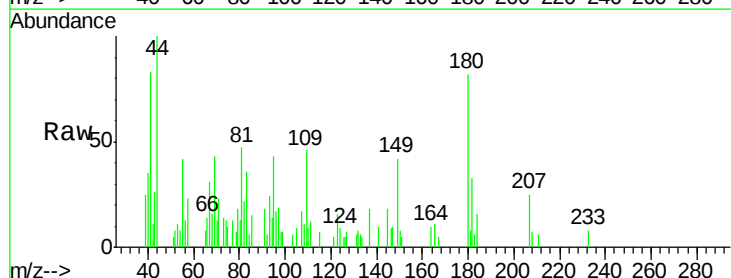
Tgt Ion: 180 Resp: 3304

Ion Ratio Lower Upper

180 100

182 40.9 48.8 146.3#

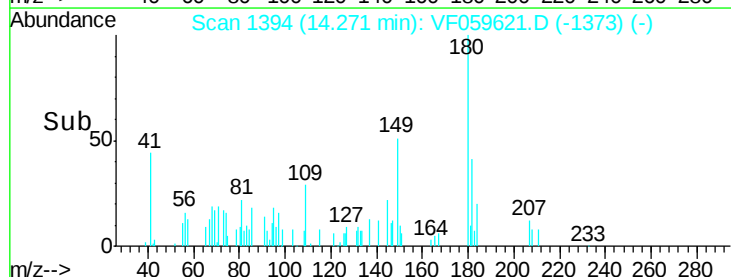
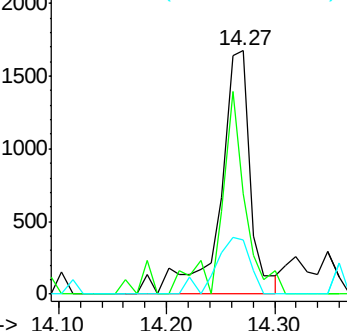
145 22.5 17.5 52.6

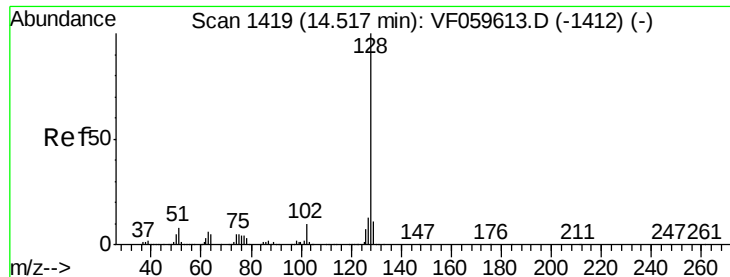


Abundance Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V

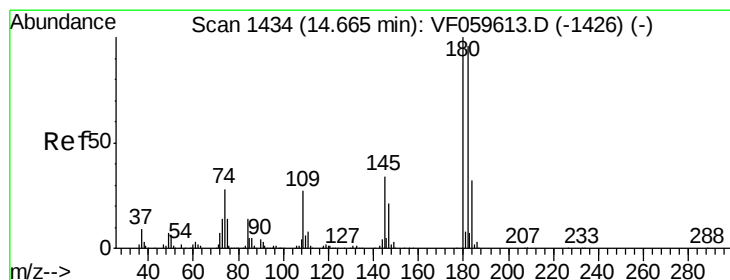
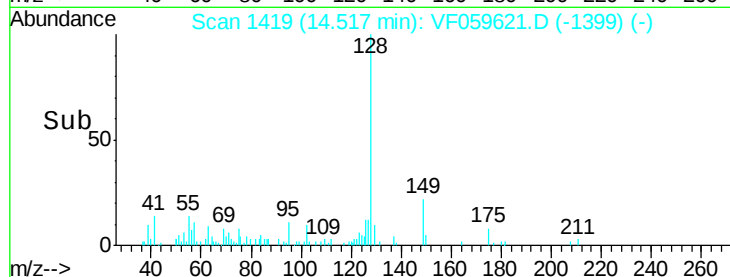
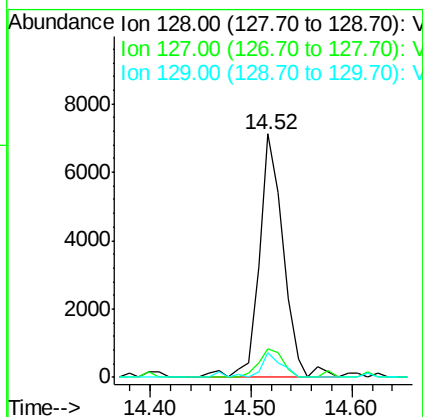
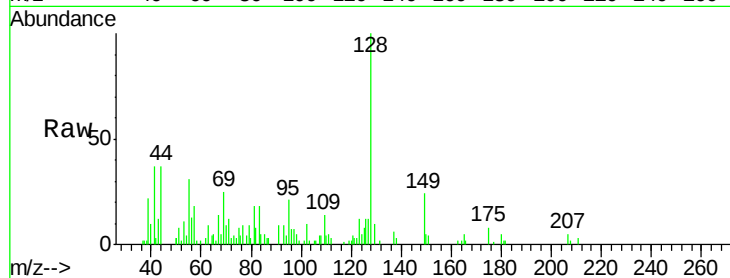




#95
Naphthalene
Concen: 4.148 ug/l
RT: 14.52 min Scan# 1419
Delta R.T. -0.00 min
Lab File: VF059621.D
Acq: 23 Jul 2018 18:36

Instrument :
MSVOA_F
ClientSampleId :
GL-TOPSOIL-01

Tgt Ion:128 Resp: 11868
Ion Ratio Lower Upper
128 100
127 11.6 10.2 15.2
129 10.1 9.1 13.7



#96
1,2,3-Trichlorobenzene
Concen: 1.625 ug/l
RT: 14.66 min Scan# 1434
Delta R.T. -0.00 min
Lab File: VF059621.D
Acq: 23 Jul 2018 18:36

Tgt Ion:180 Resp: 2602
Ion Ratio Lower Upper
180 100
182 113.3 48.0 144.2
145 55.6 17.1 51.2#

