

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF031119\
 Data File : VF061897.D
 Acq On : 11 Mar 2019 18:52
 Operator : VA/AP
 Sample : K1824-19
 Misc : 5.06g/5mL/MSVOA-F/SOIL
 ALS Vial : 16 Sample Multiplier: 1

Instrument :
 MSVOA_F
 ClientSampleId :
 P-4

Quant Time: Mar 12 05:13:28 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_F\METHODS\82F030419S.M
 Quant Title : SW846 8260
 QLast Update : Tue Mar 05 04:50:44 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.88	168	22340	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	5.60	114	24330	50.00	ug/l	0.00
63) Chlorobenzene-d5	9.78	117	15701	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.55	152	5814	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	4.84	65	3832	23.55	ug/l	0.00
Spiked Amount	50.000		Recovery	=	47.10%	
35) Dibromofluoromethane	4.11	113	6640	39.11	ug/l	0.00
Spiked Amount	50.000		Recovery	=	78.22%	
50) Toluene-d8	7.55	98	24175	47.90	ug/l	0.00
Spiked Amount	50.000		Recovery	=	95.80%	
62) 4-Bromofluorobenzene	11.41	95	5836	29.52	ug/l	0.00
Spiked Amount	50.000		Recovery	=	59.04%	

Target Compounds

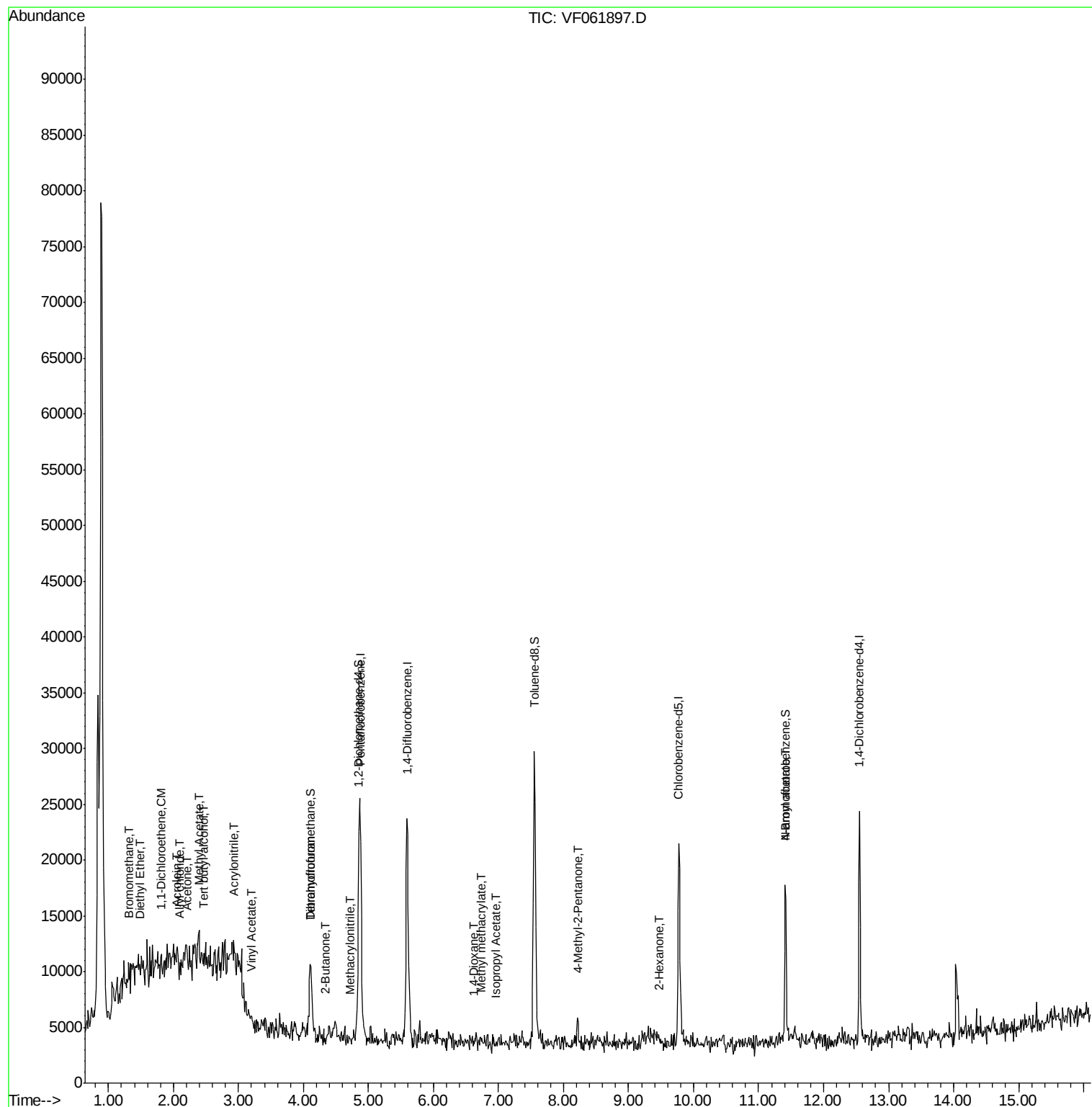
						Qvalue
5) Bromomethane	1.30	94	292	1.698	ug/l #	3
8) Diethyl Ether	1.48	74	93	1.327	ug/l	99
11) Tert butyl alcohol	2.47	59	66	7.147	ug/l #	1
12) 1,1-Dichloroethene	1.81	96	211	1.104	ug/l #	1
13) Acrolein	2.04	56	209	17.862	ug/l	85
14) Allyl chloride	2.10	41	537	2.551	ug/l #	65
15) Acrylonitrile	2.94	53	464	15.780	ug/l #	27
16) Acetone	2.22	43	428	12.559	ug/l #	50
18) Methyl Acetate	2.40	43	940	9.563	ug/l #	62
20) Methylene Chloride	2.17	84	637	Below Cal	#	78
23) Vinyl Acetate	3.20	43	539	2.204	ug/l #	76
25) 2-Butanone	4.34	43	215	3.102	ug/l #	56
29) Tetrahydrofuran	4.11	42	141	4.716	ug/l #	33
41) Methacrylonitrile	4.73	41	130	2.460	ug/l #	24
43) Isopropyl Acetate	6.95	43	231	1.943	ug/l #	42
48) Methyl methacrylate	6.72	41	131	1.741	ug/l #	18
49) 1,4-Dioxane	6.62	88	85	123.558	ug/l #	26
51) 4-Methyl-2-Pentanone	8.22	43	122	1.485	ug/l #	35
59) 2-Hexanone	9.48	43	232	3.913	ug/l #	22
74) N-amyl acetate	11.40	43	186	2.019	ug/l #	42

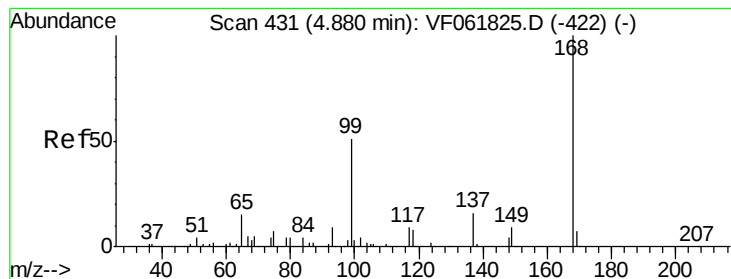
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.88 min Scan# 431

Delta R.T. 0.00 min

Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

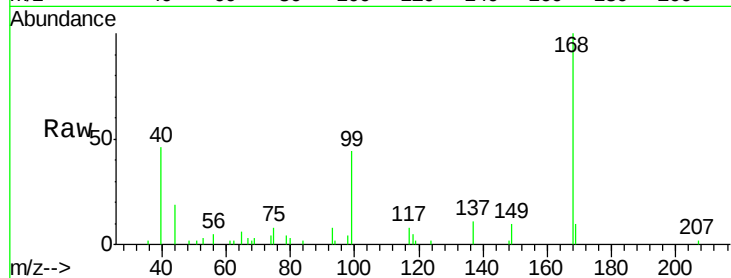
Instrument :
MSVOA_F
ClientSampleId :
P-4

Tot Ion:168 Resp: 22340

Ion Ratio Lower Upper

168 100

99 43.8 40.8 61.2



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

4.88

6000

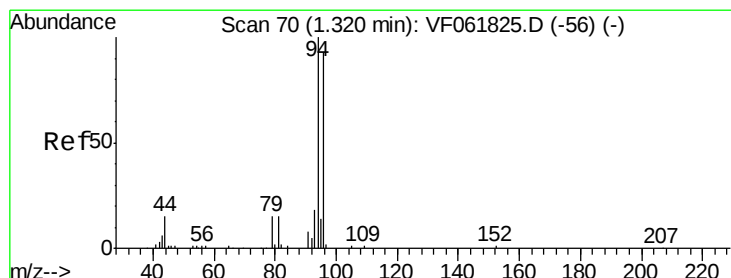
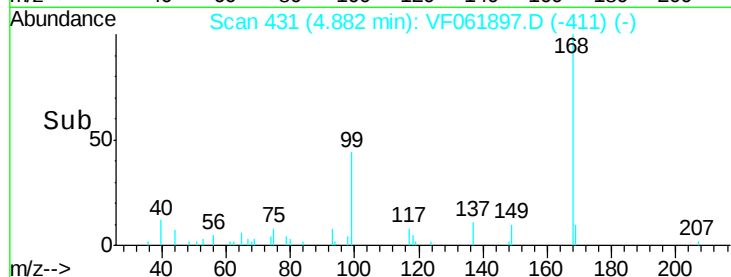
4000

2000

0

Time-->

4.80 4.90 5.00



#5

Bromomethane

Concen: 1.698 ug/l

RT: 1.30 min Scan# 68

Delta R.T. -0.02 min

Lab File: VF061897.D

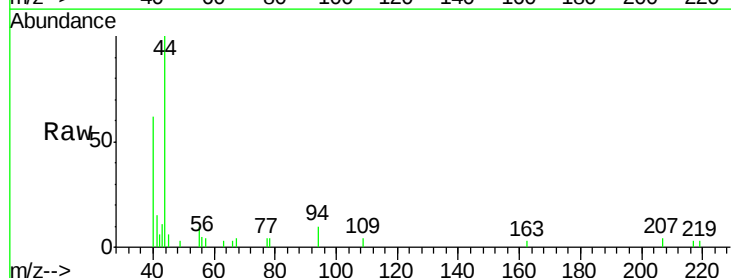
Acq: 11 Mar 2019 18:52

Tgt Ion: 94 Resp: 292

Ion Ratio Lower Upper

94 100

96 0.0 75.2 112.8#



Abundance Ion 94.00 (93.70 to 94.70): VF0

Ion 96.00 (95.70 to 96.70): VF0

1.30

400

300

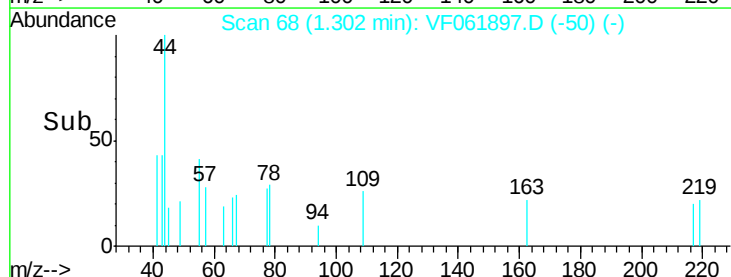
200

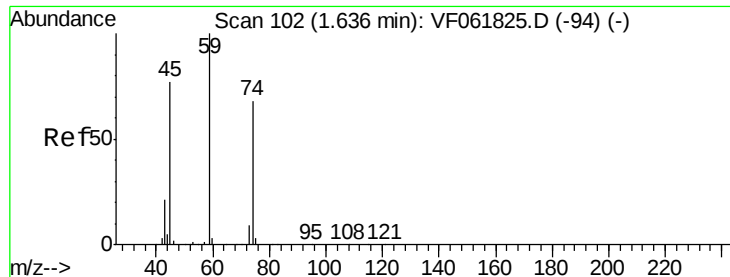
100

0

Time-->

1.25 1.30





#8

Diethyl Ether

Concen: 1.327 ug/l

RT: 1.48 min Scan# 86

Delta R.T. -0.16 min

Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

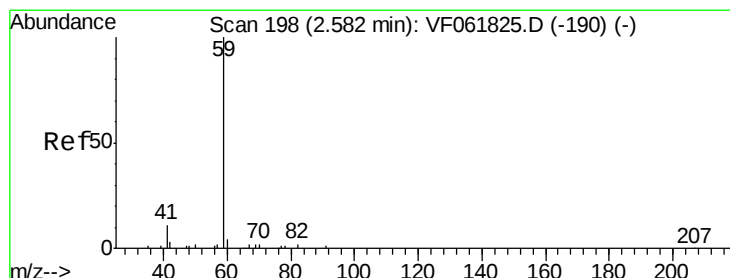
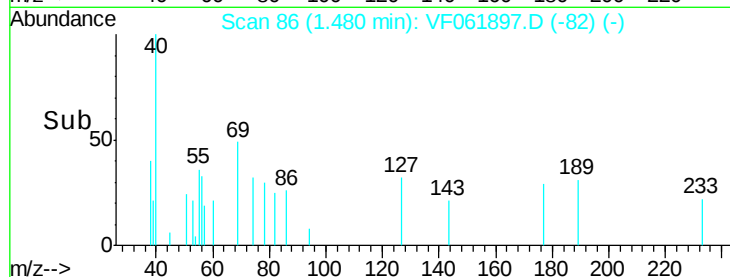
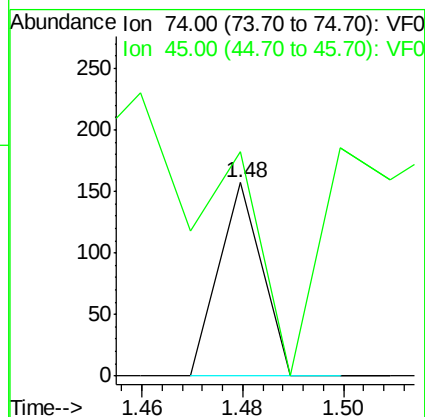
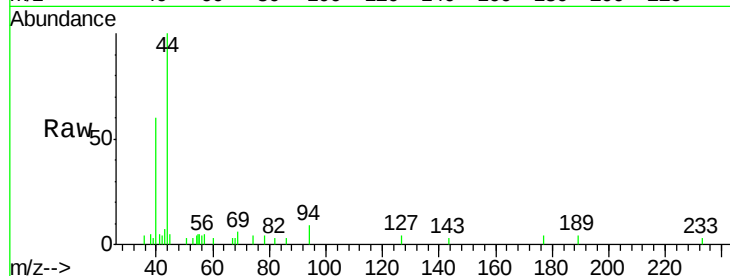
Instrument :
MSVOA_F
ClientSampleId :
P-4

Tot Ion: 74 Resp: 93

Ion Ratio Lower Upper

74 100

45 115.9 57.2 171.6



#11

Tert butyl alcohol

Concen: 7.147 ug/l

RT: 2.47 min Scan# 186

Delta R.T. -0.12 min

Lab File: VF061897.D

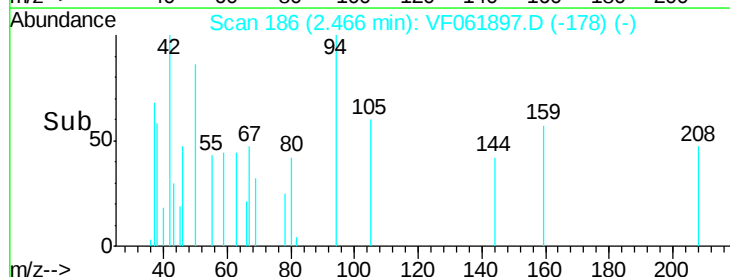
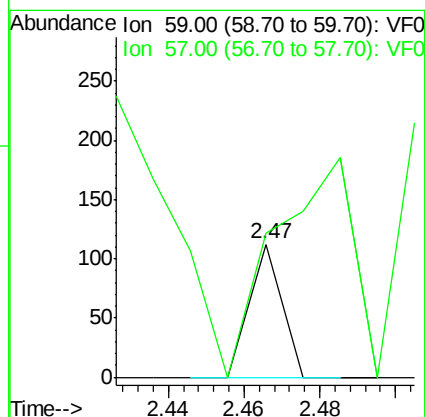
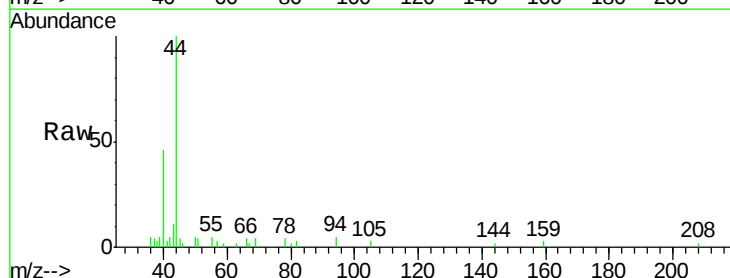
Acq: 11 Mar 2019 18:52

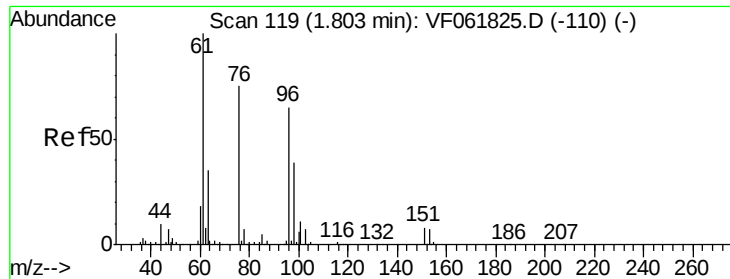
Tgt Ion: 59 Resp: 66

Ion Ratio Lower Upper

59 100

57 108.9 11.8 17.6#





#12

1,1-Dichloroethene

Concen: 1.104 ug/l

RT: 1.81 min Scan# 120

Delta R.T. 0.01 min

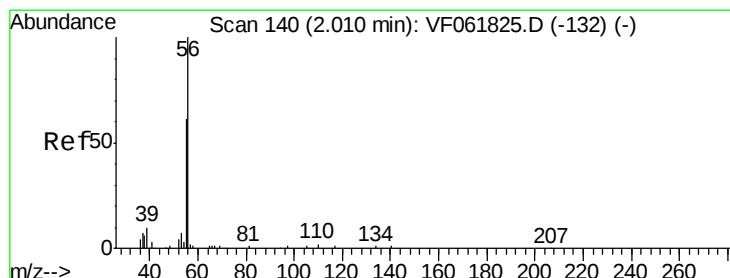
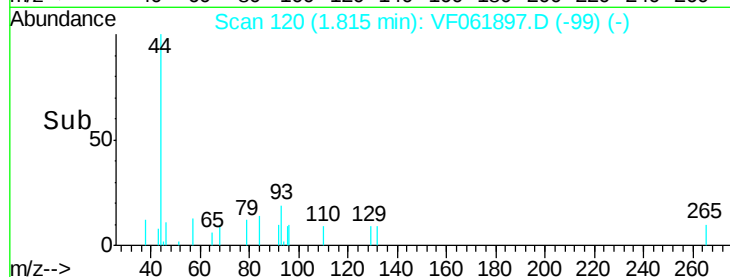
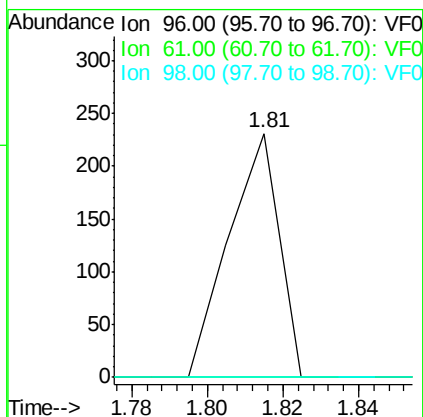
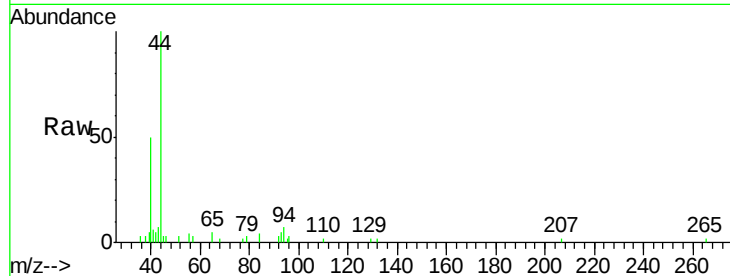
Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

Instrument :
MSVOA_F
ClientSampled :
P-4

Tot Ion: 96 Resp: 211

Ion	Ratio	Lower	Upper
96	100		
61	0.0	122.5	183.7#
98	0.0	47.1	70.7#



#13

Acrolein

Concen: 17.862 ug/l

RT: 2.04 min Scan# 143

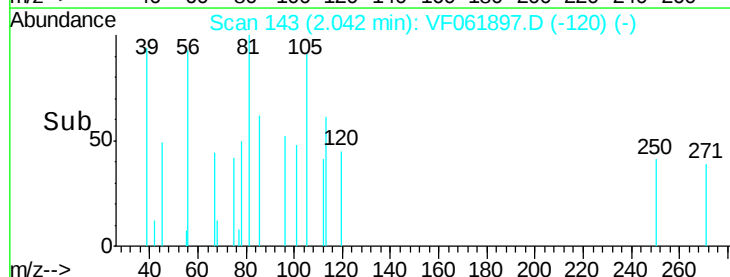
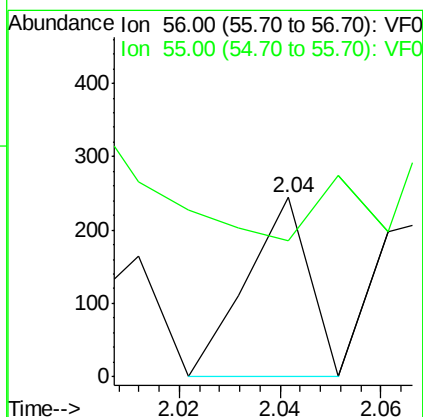
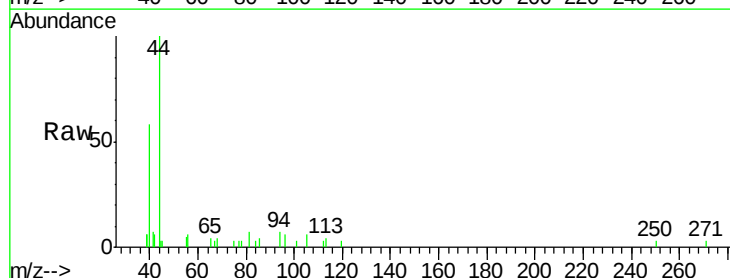
Delta R.T. 0.03 min

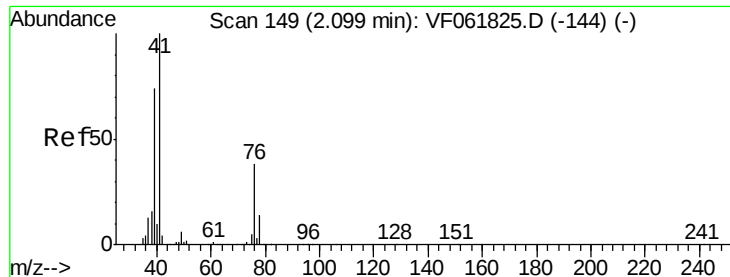
Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

Tgt Ion: 56 Resp: 209

Ion	Ratio	Lower	Upper
56	100		
55	76.2	51.3	76.9

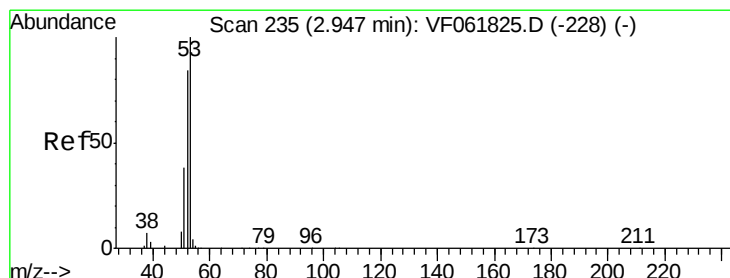
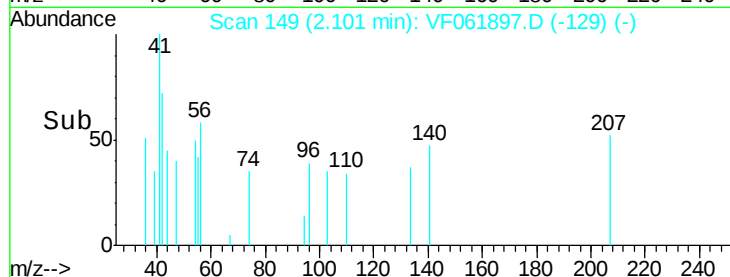
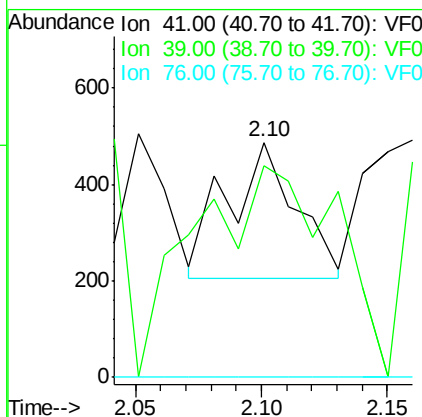
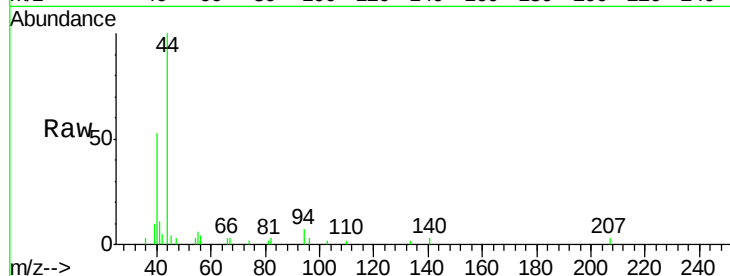




#14
Allvl chloride
Concen: 2.551 ug/l
RT: 2.10 min Scan# 149
Delta R.T. 0.00 min
Lab File: VF061897.D
Acq: 11 Mar 2019 18:52

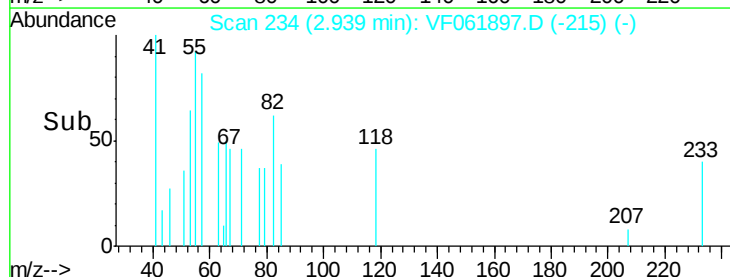
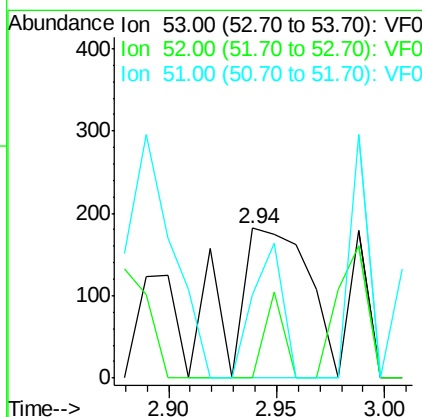
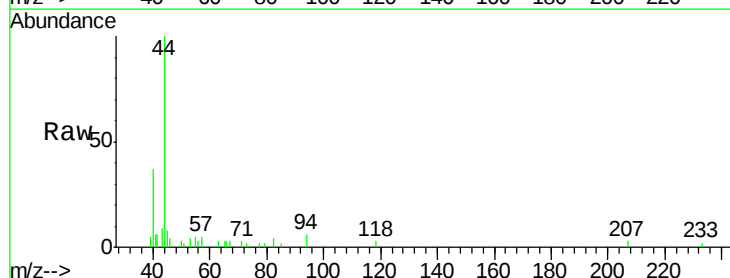
Instrument :
MSVOA_F
ClientSampleId :
P-4

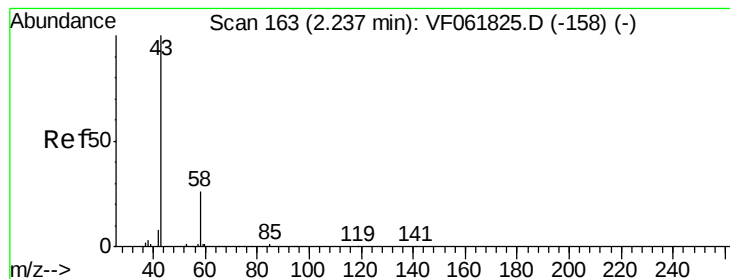
Tot Ion: 41 Resp: 537
Ion Ratio Lower Upper
41 100
39 90.1 59.6 89.4#
76 0.0 32.3 48.5#



#15
Acrylonitrile
Concen: 15.780 ug/l
RT: 2.94 min Scan# 234
Delta R.T. -0.01 min
Lab File: VF061897.D
Acq: 11 Mar 2019 18:52

Tgt Ion: 53 Resp: 464
Ion Ratio Lower Upper
53 100
52 0.0 67.4 101.0#
51 55.5 30.7 46.1#





#16

Acetone

Concen: 12.559 ug/l

RT: 2.22 min Scan# 161

Delta R.T. -0.02 min

Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

Instrument :

MSVOA_F

ClientSampleId :

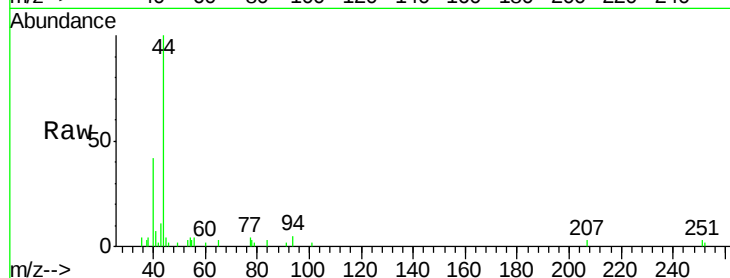
P-4

Tot Ion: 43 Resp: 428

Ion Ratio Lower Upper

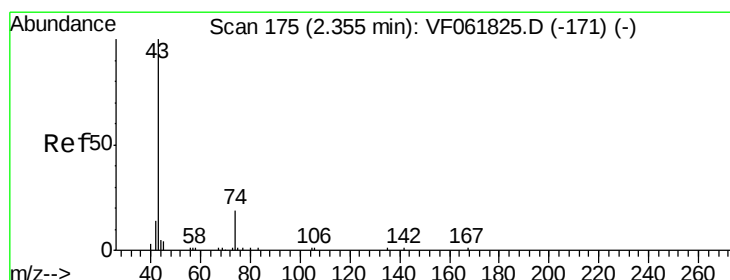
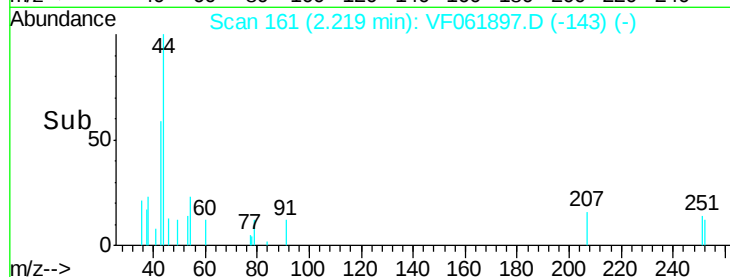
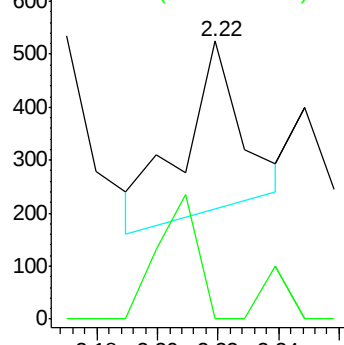
43 100

58 0.0 20.3 30.5#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0



#18

Methyl Acetate

Concen: 9.563 ug/l

RT: 2.40 min Scan# 179

Delta R.T. 0.04 min

Lab File: VF061897.D

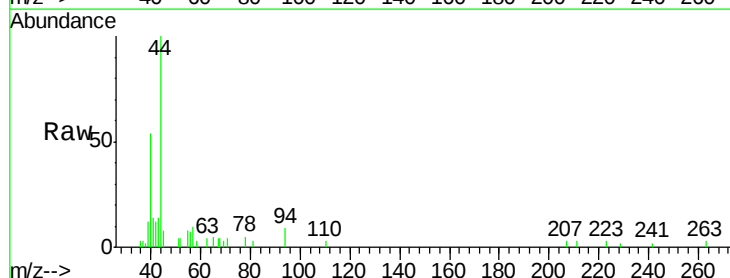
Acq: 11 Mar 2019 18:52

Tgt Ion: 43 Resp: 940

Ion Ratio Lower Upper

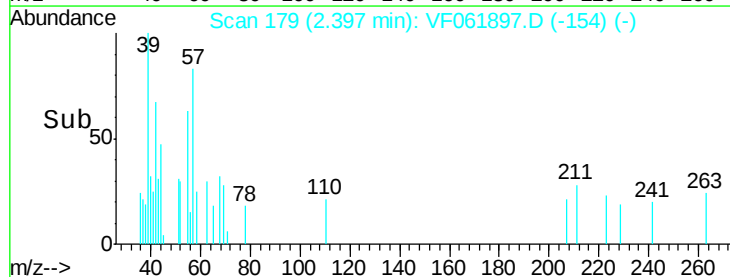
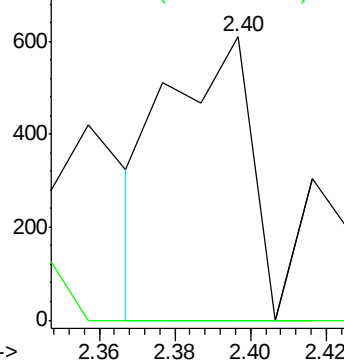
43 100

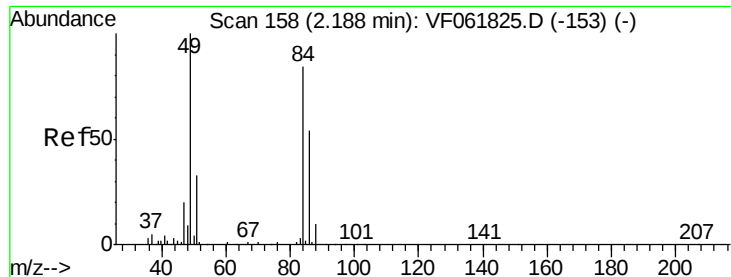
74 0.0 13.2 19.8#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 74.00 (73.70 to 74.70): VF0

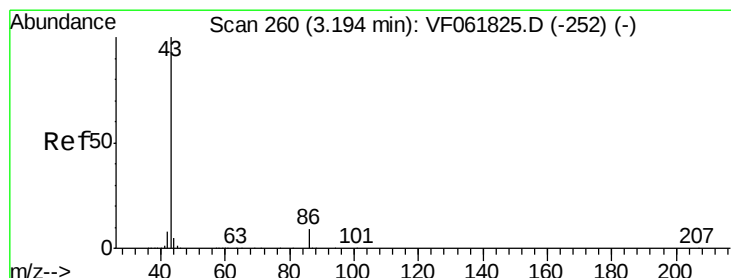
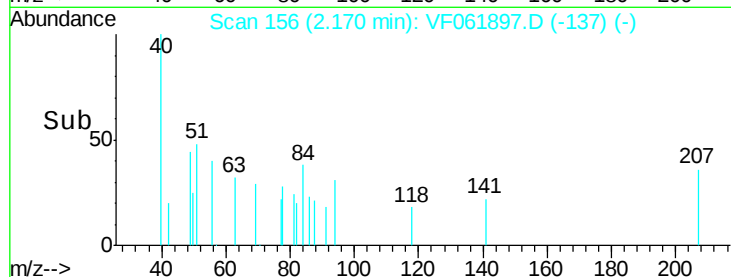
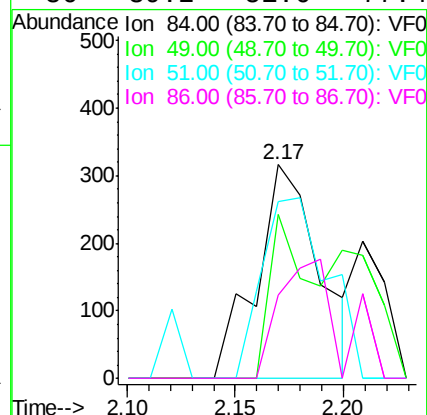
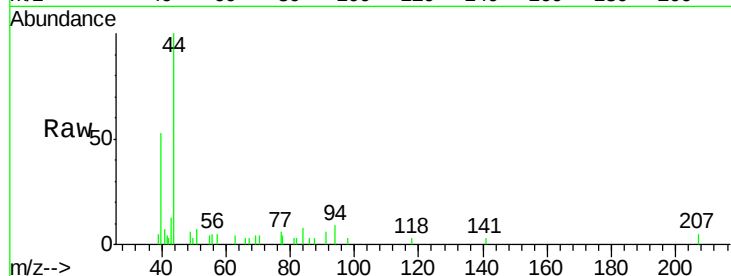




#20
Methvlene Chloride
Concen: Below Cal
RT: 2.17 min Scan# 156
Delta R.T. -0.02 min
Lab File: VF061897.D
Acq: 11 Mar 2019 18:52

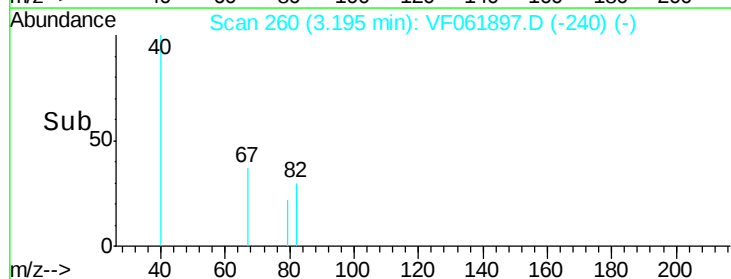
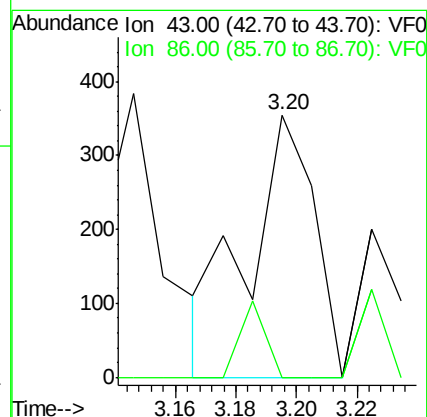
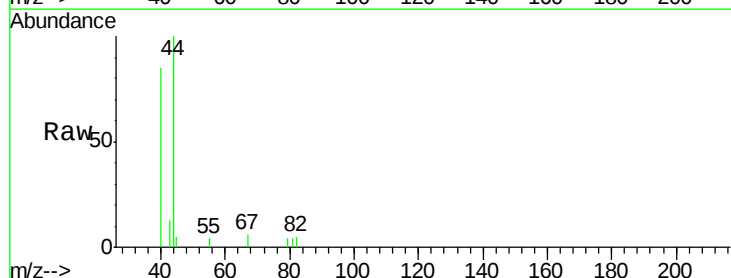
Instrument :
MSVOA_F
ClientSampleId :
P-4

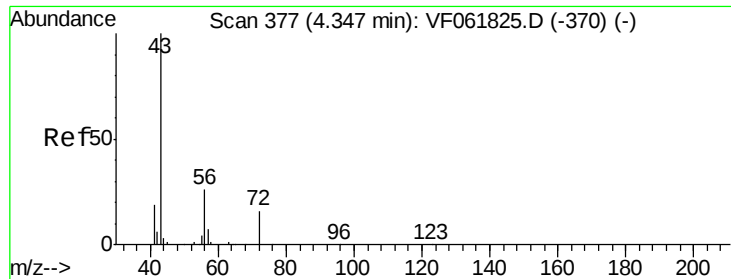
Tot Ion: 84 Resp: 637
Ion Ratio Lower Upper
84 100
49 120.9 96.8 145.2
51 82.6 31.8 47.6#
86 39.2 51.6 77.4#



#23
Vinyl Acetate
Concen: 2.204 ug/l
RT: 3.20 min Scan# 260
Delta R.T. 0.00 min
Lab File: VF061897.D
Acq: 11 Mar 2019 18:52

Tgt Ion: 43 Resp: 539
Ion Ratio Lower Upper
43 100
86 0.0 7.0 10.4#

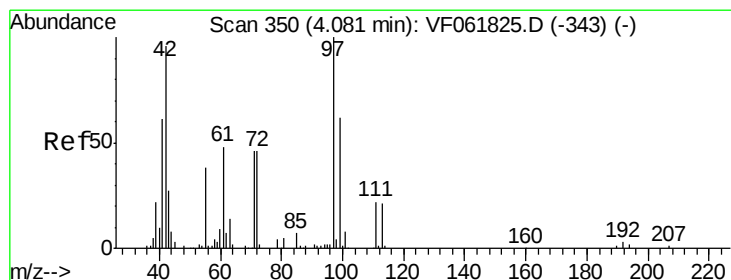
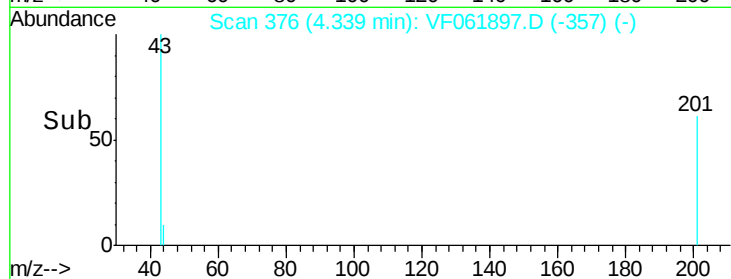
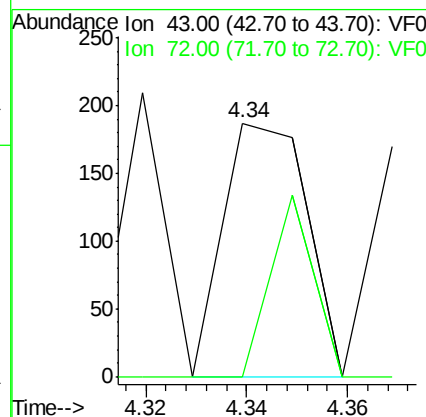
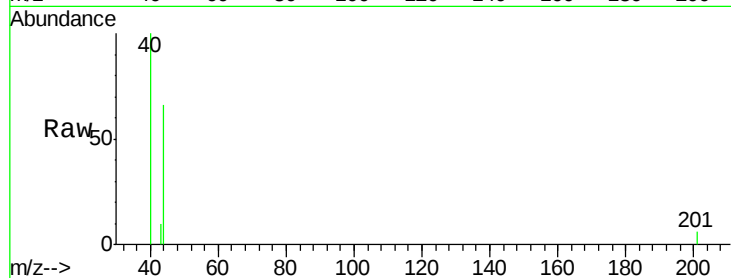




#25
2-Butanone
Concen: 3.102 ug/l
RT: 4.34 min Scan# 376
Delta R.T. -0.01 min
Lab File: VF061897.D
Acq: 11 Mar 2019 18:52

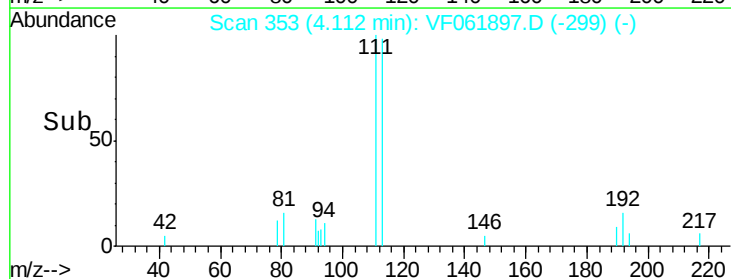
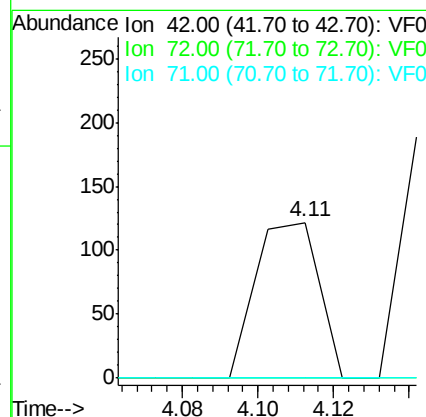
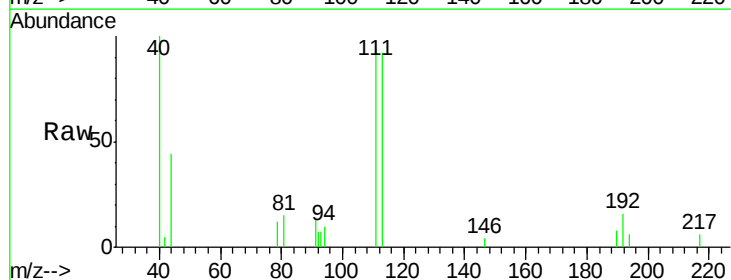
Instrument :
MSVOA_F
ClientSampleId :
P-4

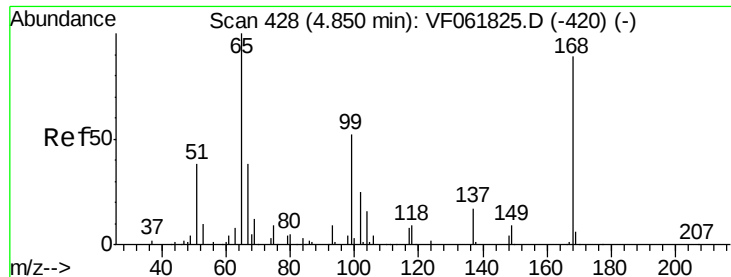
Tot Ion: 43 Resp: 215
Ion Ratio Lower Upper
43 100
72 0.0 16.2 24.4#



#29
Tetrahydrofuran
Concen: 4.716 ug/l
RT: 4.11 min Scan# 353
Delta R.T. 0.03 min
Lab File: VF061897.D
Acq: 11 Mar 2019 18:52

Tgt Ion: 42 Resp: 141
Ion Ratio Lower Upper
42 100
72 0.0 34.4 51.6#
71 0.0 34.6 52.0#





#33

1,2-Dichloroethane-d4

Concen: 23.554 ug/l

RT: 4.84 min Scan# 427

Delta R.T. -0.01 min

Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

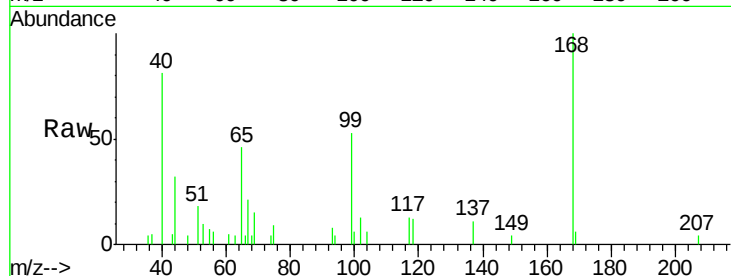
Instrument :
MSVOA_F
ClientSampled :
P-4

Tot Ion: 65 Resp: 3832

Ion Ratio Lower Upper

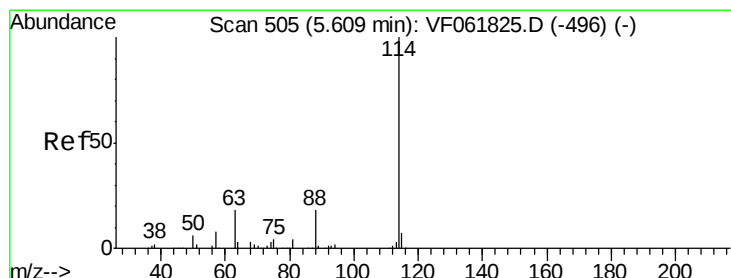
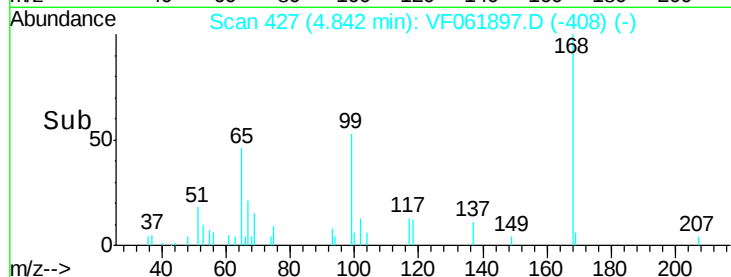
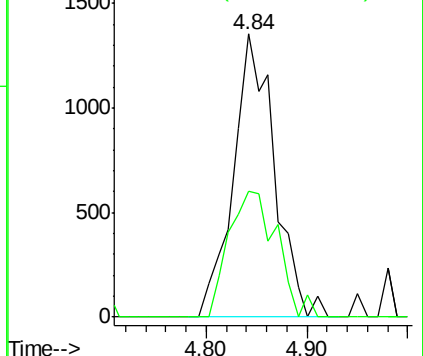
65 100

67 44.6 0.0 108.6



Abundance Ion 65.00 (64.70 to 65.70): VF0

Ion 67.00 (66.70 to 67.70): VF0



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.60 min Scan# 504

Delta R.T. -0.01 min

Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

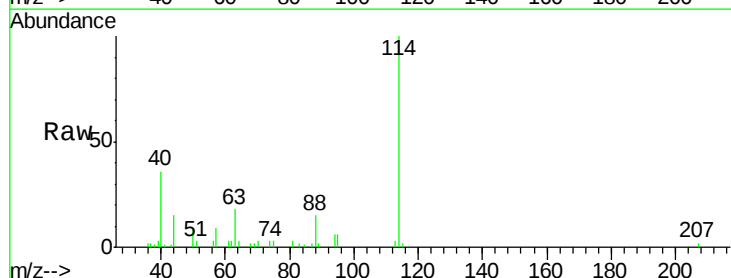
Tgt Ion: 114 Resp: 24330

Ion Ratio Lower Upper

114 100

63 17.8 0.0 35.6

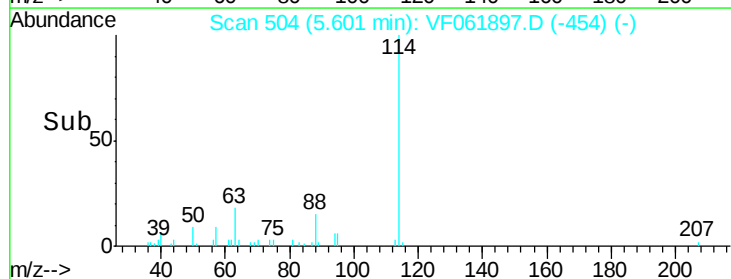
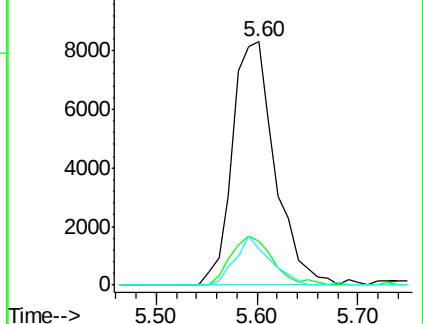
88 15.2 0.0 35.6

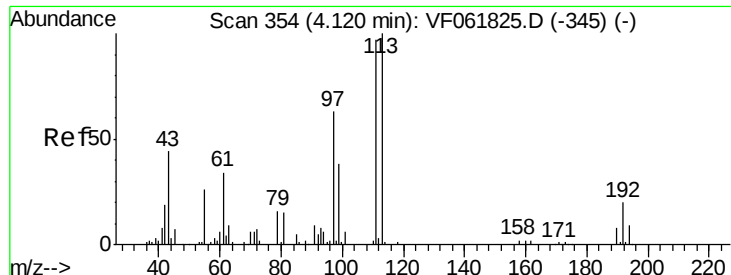


Abundance Ion 114.00 (113.70 to 114.70): V

Ion 63.00 (62.70 to 63.70): VF0

Ion 88.00 (87.70 to 88.70): VF0





#35

Dibromofluoromethane

Concen: 39.107 ug/l

RT: 4.11 min Scan# 353

Delta R.T. -0.01 min

Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

Instrument :
MSVOA_F
ClientSampleId :
P-4

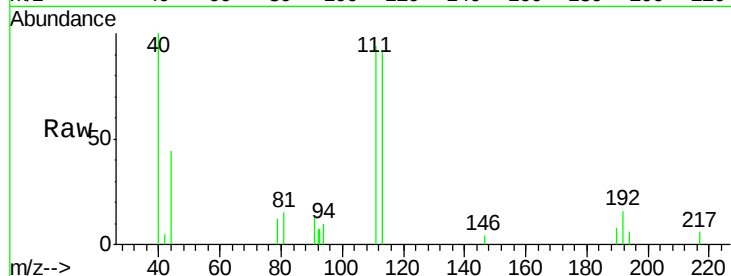
Tot Ion:113 Resp: 6640

Ion Ratio Lower Upper

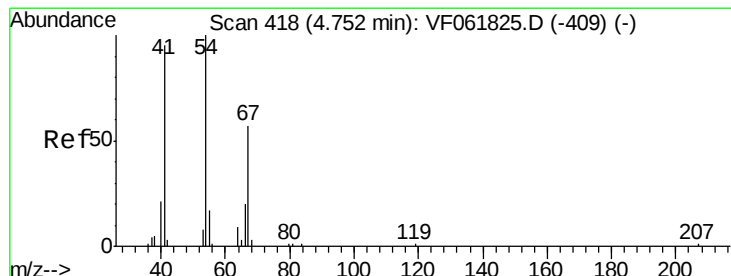
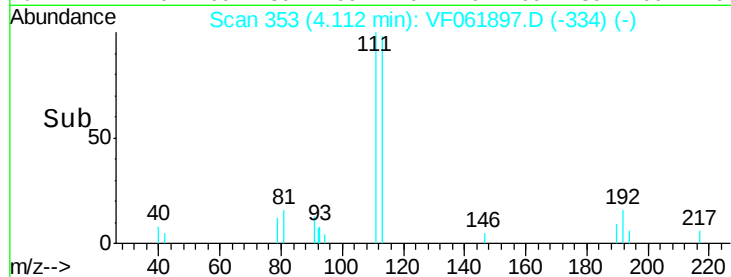
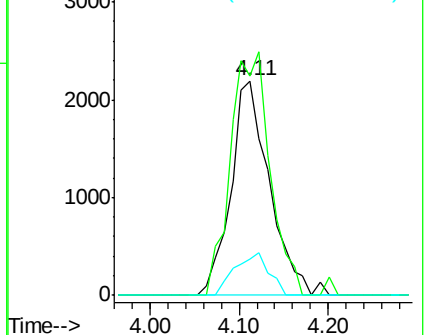
113 100

111 102.5 77.6 116.4

192 16.8 15.9 23.9



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



#41

Methacrylonitrile

Concen: 2.460 ug/l

RT: 4.73 min Scan# 416

Delta R.T. -0.02 min

Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

Tgt Ion: 41 Resp: 130

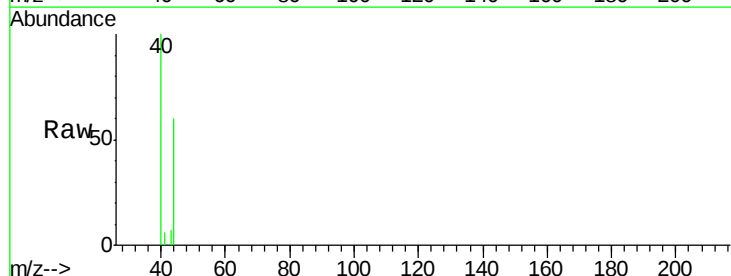
Ion Ratio Lower Upper

41 100

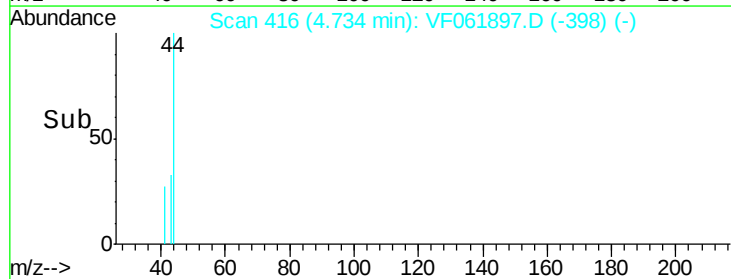
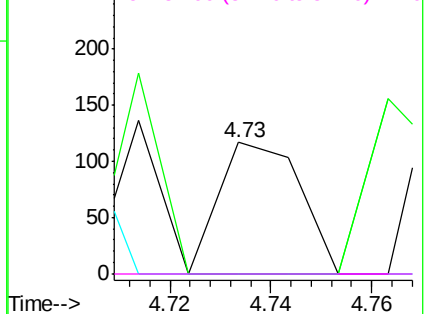
39 0.0 43.0 64.6#

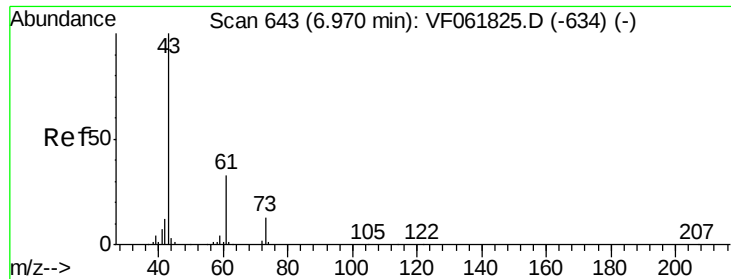
67 0.0 47.8 71.8#

52 0.0 40.5 60.7#



Abundance Ion 41.00 (40.70 to 41.70): VF0
Ion 39.00 (38.70 to 39.70): VF0
Ion 67.00 (66.70 to 67.70): VF0
Ion 52.00 (51.70 to 52.70): VF0





#43

Isopropyl Acetate

Concen: 1.943 ug/l

RT: 6.95 min Scan# 641

Delta R.T. -0.02 min

Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

Instrument :

MSVOA_F

ClientSampleId :

P-4

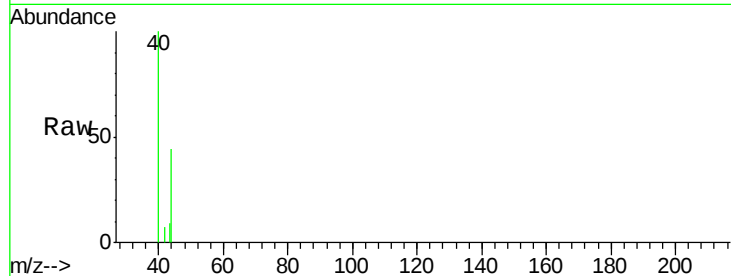
Tot Ion: 43 Resp: 231

Ion Ratio Lower Upper

43 100

61 0.0 26.1 39.1#

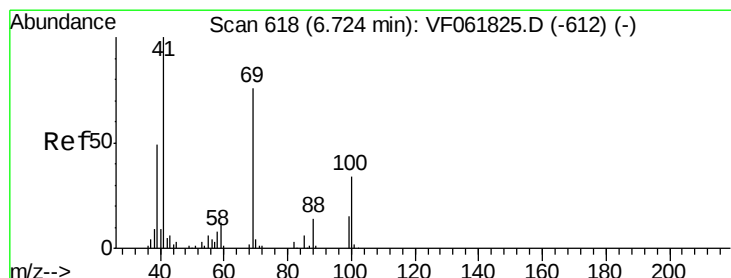
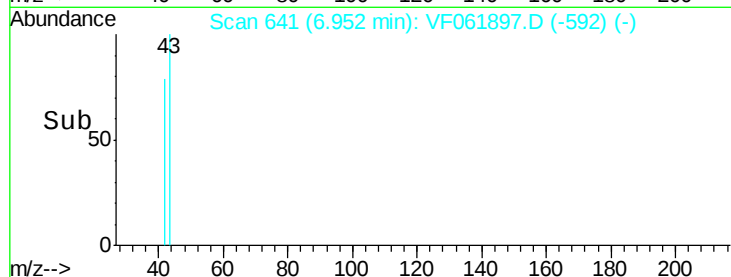
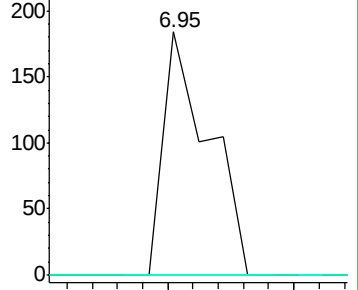
87 0.0 0.0 0.0



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 61.00 (60.70 to 61.70): VF0

Ion 87.00 (86.70 to 87.70): VF0



#48

Methyl methacrylate

Concen: 1.741 ug/l

RT: 6.72 min Scan# 617

Delta R.T. -0.01 min

Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

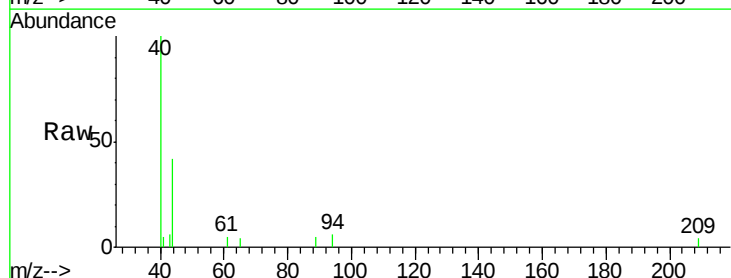
Tgt Ion: 41 Resp: 131

Ion Ratio Lower Upper

41 100

69 0.0 60.4 90.6#

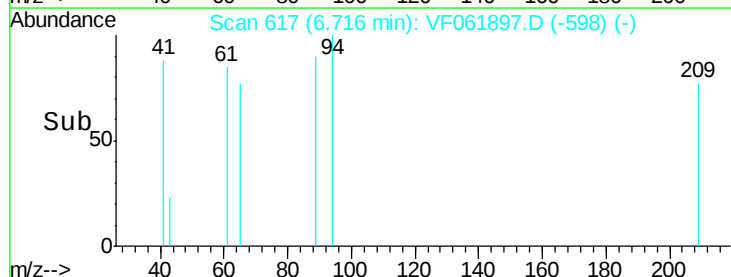
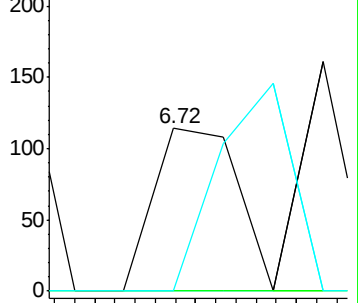
39 0.0 39.7 59.5#

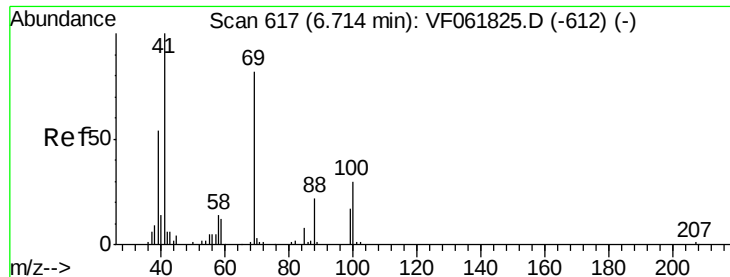


Abundance Ion 41.00 (40.70 to 41.70): VF0

Ion 69.00 (68.70 to 69.70): VF0

Ion 39.00 (38.70 to 39.70): VF0





#49

1,4-Dioxane

Concen: 123.558 ug/l

RT: 6.62 min Scan# 607

Delta R.T. -0.10 min

Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

Instrument :

MSVOA_F

ClientSampleId :

P-4

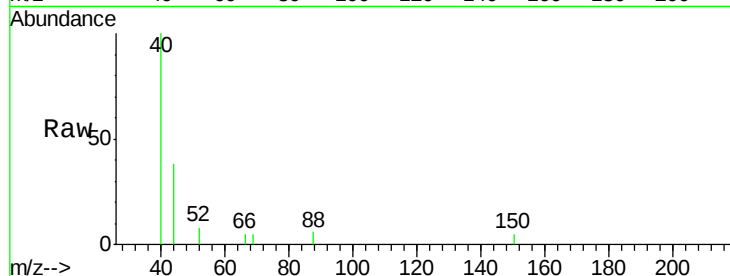
Tot Ion: 88 Resp: 85

Ion Ratio Lower Upper

88 100

43 0.0 28.4 42.6#

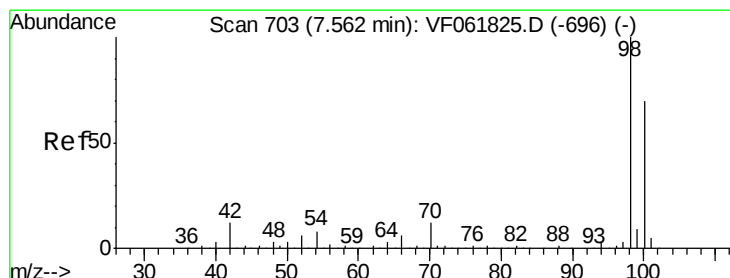
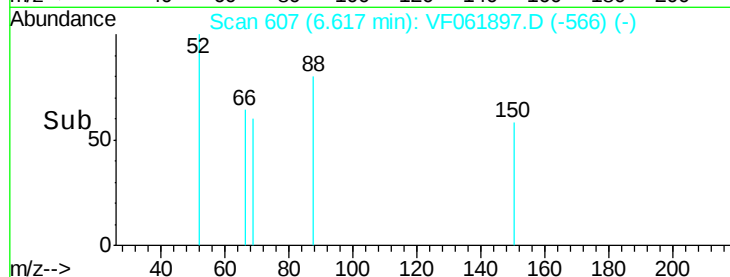
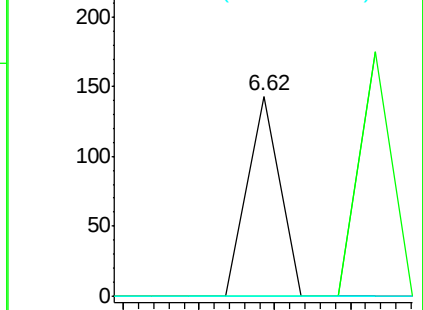
58 0.0 50.7 76.1#



Abundance Ion 88.00 (87.70 to 88.70): VF0

Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0



#50

Toluene-d8

Concen: 47.902 ug/l

RT: 7.55 min Scan# 702

Delta R.T. -0.01 min

Lab File: VF061897.D

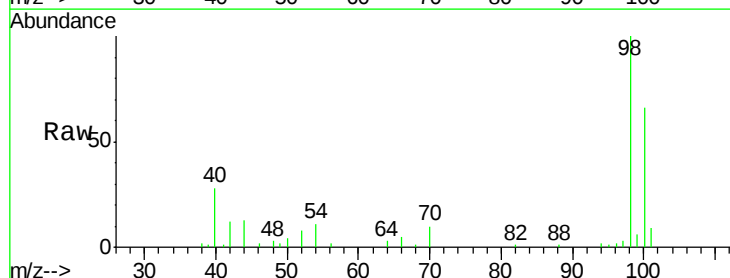
Acq: 11 Mar 2019 18:52

Tgt Ion: 98 Resp: 24175

Ion Ratio Lower Upper

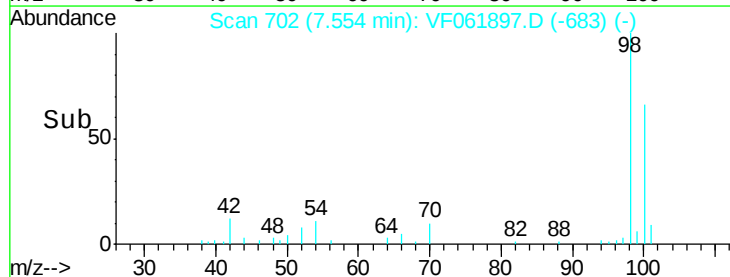
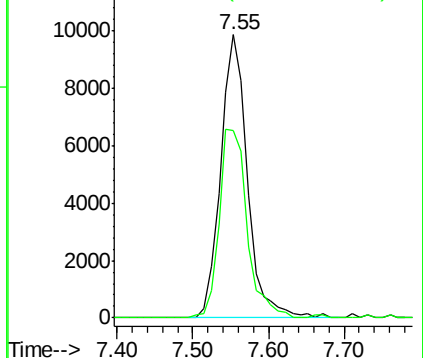
98 100

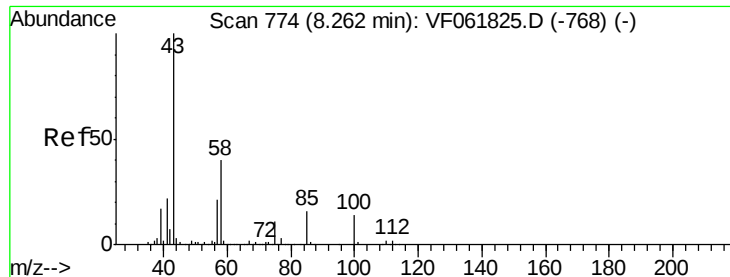
100 66.3 56.0 84.0



Abundance Ion 98.00 (97.70 to 98.70): VF0

Ion 100.00 (99.70 to 100.70): VF0





#51

4-Methyl-2-Pentanone

Concen: 1.485 ug/l

RT: 8.22 min Scan# 770

Delta R.T. -0.04 min

Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

Instrument :

MSVOA_F

ClientSampled :

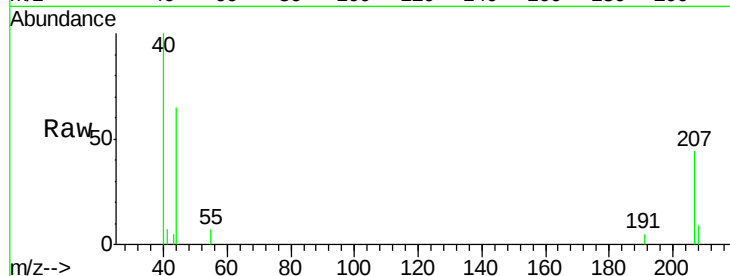
P-4

Tot Ion: 43 Resp: 122

Ion Ratio Lower Upper

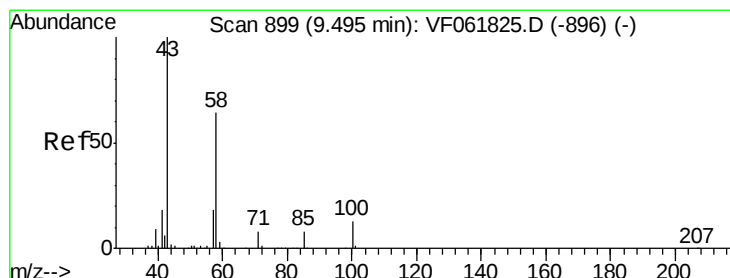
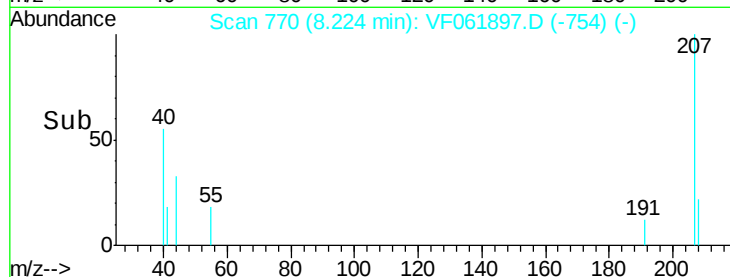
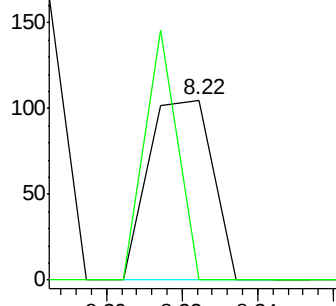
43 100

58 0.0 31.8 47.8#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0



#59

2-Hexanone

Concen: 3.913 ug/l

RT: 9.48 min Scan# 897

Delta R.T. -0.02 min

Lab File: VF061897.D

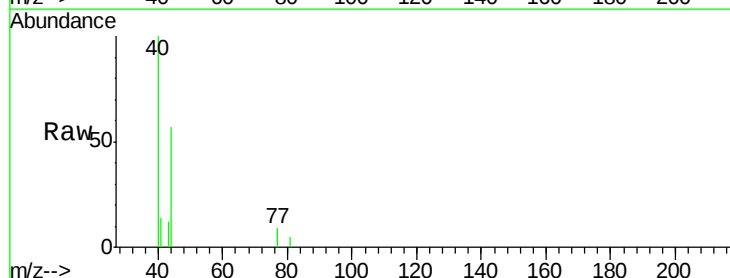
Acq: 11 Mar 2019 18:52

Tgt Ion: 43 Resp: 232

Ion Ratio Lower Upper

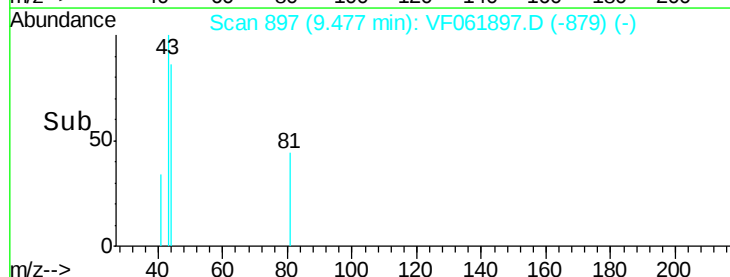
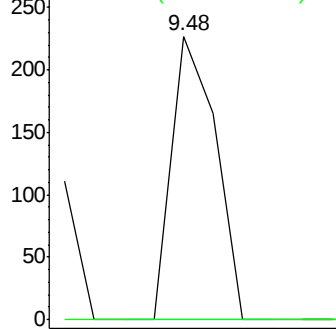
43 100

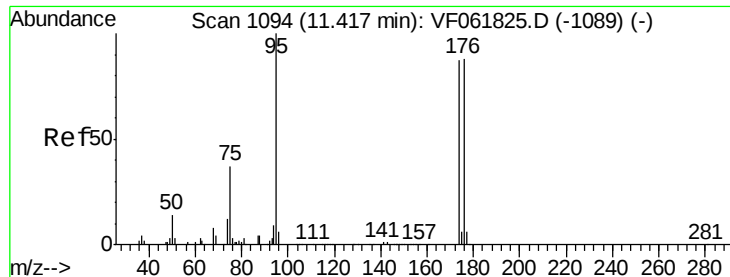
58 0.0 28.8 86.4#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0





#62

4-Bromofluorobenzene

Concen: 29.521 ug/l

RT: 11.41 min Scan# 1093

Delta R.T. -0.01 min

Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

Instrument :

MSVOA_F

ClientSampleId :

P-4

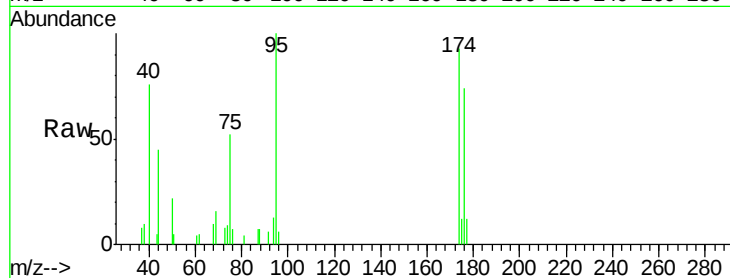
Tot Ion: 95 Resp: 5836

Ion Ratio Lower Upper

95 100

174 92.9 0.0 174.0

176 73.6 0.0 175.2



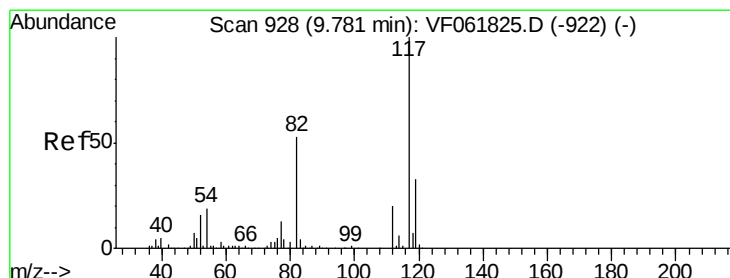
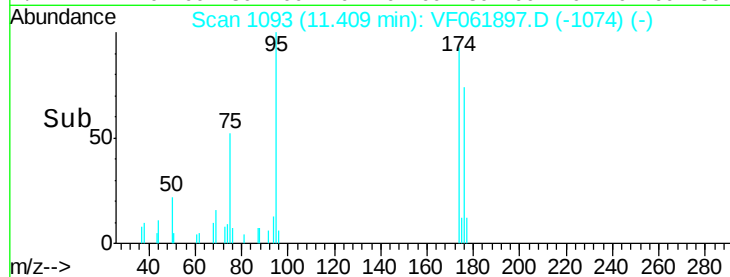
Abundance Ion 95.00 (94.70 to 95.70): VF061825.D (-1089) (-)

Ion 174.00 (173.70 to 174.70): VF061825.D (-1089) (-)

Ion 176.00 (175.70 to 176.70): VF061825.D (-1089) (-)

Time-->

11.35 11.40 11.45 11.50



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 9.78 min Scan# 928

Delta R.T. 0.00 min

Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

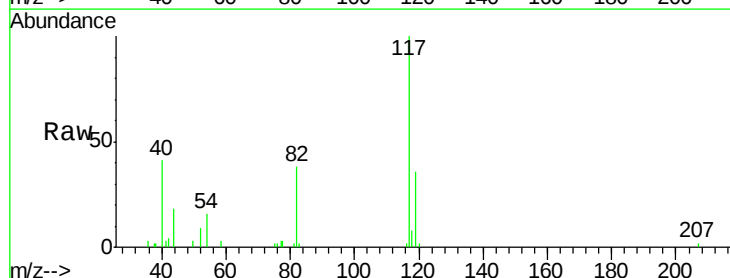
Tgt Ion: 117 Resp: 15701

Ion Ratio Lower Upper

117 100

82 38.2 42.6 63.8#

119 35.6 26.0 39.0



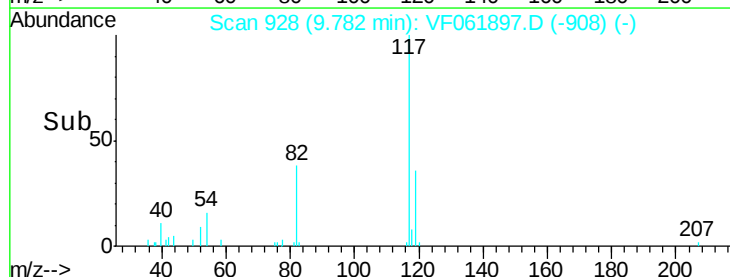
Abundance Ion 117.00 (116.70 to 117.70): VF061825.D (-922) (-)

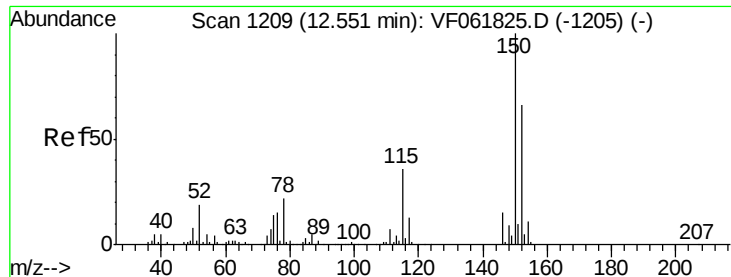
Ion 82.00 (81.70 to 82.70): VF061825.D (-922) (-)

Ion 119.00 (118.70 to 119.70): VF061825.D (-922) (-)

Time-->

9.70 9.80 9.90





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.55 min Scan# 1209

Delta R.T. 0.00 min

Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

Instrument :

MSVOA_F

ClientSampleId :

P-4

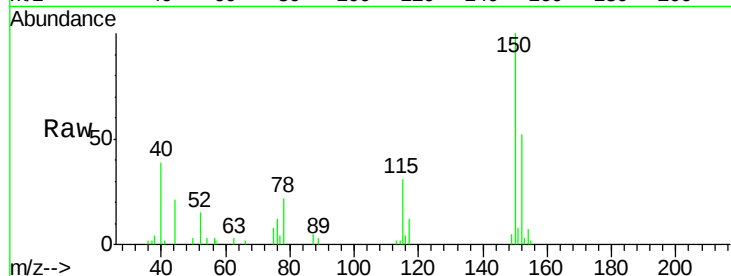
Tot Ion:152 Resp: 5814

Ion Ratio Lower Upper

152 100

115 58.6 27.7 83.1

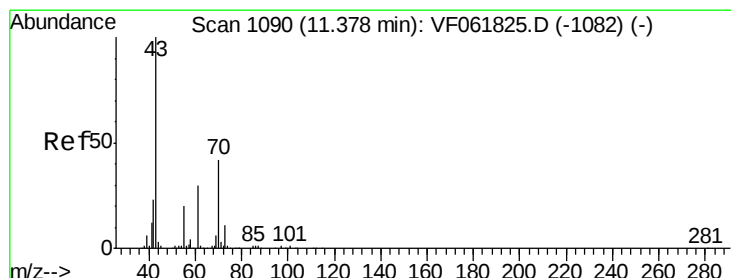
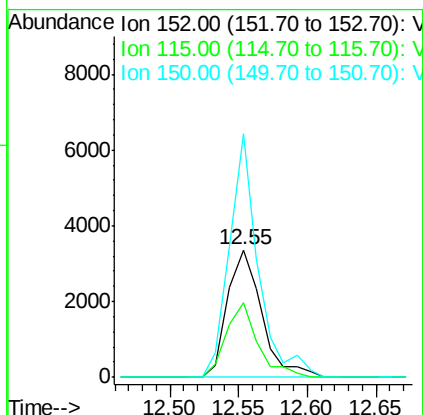
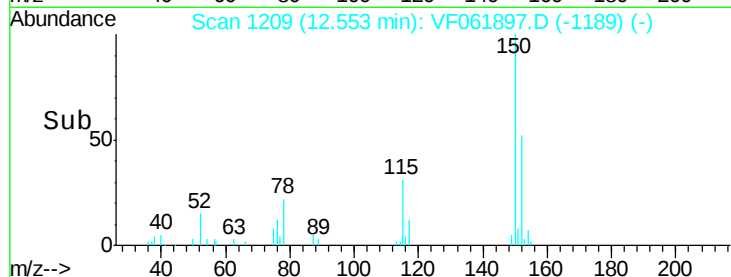
150 191.4 0.0 304.2



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: 2.019 ug/l

RT: 11.40 min Scan# 1092

Delta R.T. 0.02 min

Lab File: VF061897.D

Acq: 11 Mar 2019 18:52

Tgt Ion: 43 Resp: 186

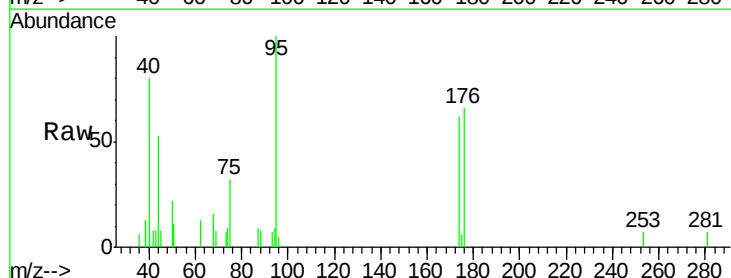
Ion Ratio Lower Upper

43 100

70 0.0 33.4 50.0#

55 0.0 16.3 24.5#

61 0.0 24.0 36.0#



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

