

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF031219\
 Data File : VF061913.D
 Acq On : 12 Mar 2019 19:04
 Operator : VA/AP
 Sample : K1697-05
 Misc : 5.75u/5mL/MSVOA-F/SOIL
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_F
 ClientSampleId :
 SU-04-031119-A

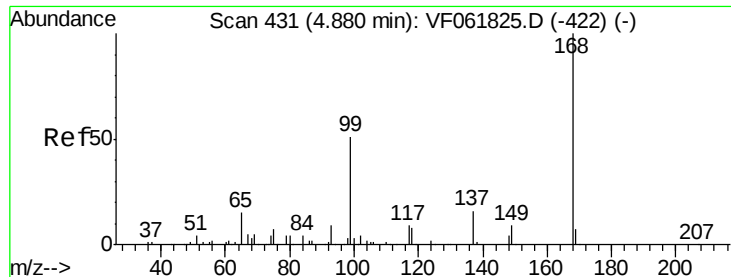
Quant Time: Mar 13 02:09:05 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_F\METHODS\82F030419S.M
 Quant Title : SW846 8260
 QLast Update : Tue Mar 05 04:50:44 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.85	168	16673	50.00	ug/l	-0.03
34) 1,4-Difluorobenzene	5.58	114	19787	50.00	ug/l	-0.03
63) Chlorobenzene-d5	9.76	117	11460	50.00	ug/l	-0.02
72) 1,4-Dichlorobenzene-d4	12.53	152	4406	50.00	ug/l	-0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	4.83	65	2398	19.75	ug/l	-0.02
Spiked Amount			Recovery	=	39.50%	
35) Dibromofluoromethane	4.09	113	5213	37.75	ug/l	-0.03
Spiked Amount			Recovery	=	75.50%	
50) Toluene-d8	7.54	98	16747	40.80	ug/l	-0.03
Spiked Amount			Recovery	=	81.60%	
62) 4-Bromofluorobenzene	11.40	95	4523	28.13	ug/l	-0.02
Spiked Amount			Recovery	=	56.26%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) Bromomethane	1.28	94	617	4.807	ug/l #	3
8) Diethyl Ether	1.62	74	63	1.205	ug/l #	28
11) Tert butyl alcohol	2.51	59	67	9.722	ug/l #	64
13) Acrolein	1.96	56	305	34.927	ug/l	98
14) Allyl chloride	2.09	41	321	2.043	ug/l #	37
15) Acrylonitrile	2.93	53	318	14.491	ug/l #	64
16) Acetone	2.22	43	1229	48.321	ug/l #	50
18) Methyl Acetate	2.32	43	1052	19.527	ug/l #	62
20) Methylene Chloride	2.19	84	430	Below Cal	#	20
21) trans-1,2-Dichloroethene	2.30	96	238	1.773	ug/l #	1
23) Vinyl Acetate	3.19	43	642	3.517	ug/l #	76
25) 2-Butanone	4.34	43	91	1.759	ug/l #	56
29) Tetrahydrofuran	4.06	42	67	3.003	ug/l #	33
37) Ethyl Acetate	4.09	43	162	2.065	ug/l #	20
41) Methacrylonitrile	4.71	41	67	1.559	ug/l #	24
43) Isopropyl Acetate	6.89	43	213	2.203	ug/l #	42
48) Methyl methacrylate	6.70	41	69	1.127	ug/l #	18
51) 4-Methyl-2-Pentanone	8.24	43	86	1.287	ug/l #	35
52) Toluene	7.60	92	1873	6.480	ug/l #	69
59) 2-Hexanone	9.45	43	68	1.410	ug/l #	22
90) Hexachloroethane	12.77	117	77	1.118	ug/l #	24
93) 1,2,4-Trichlorobenzene	14.18	180	131	1.423	ug/l #	11
94) Hexachlorobutadiene	14.15	225	68	1.067	ug/l #	20

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



#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.85 min Scan# 428

Delta R.T. -0.03 min

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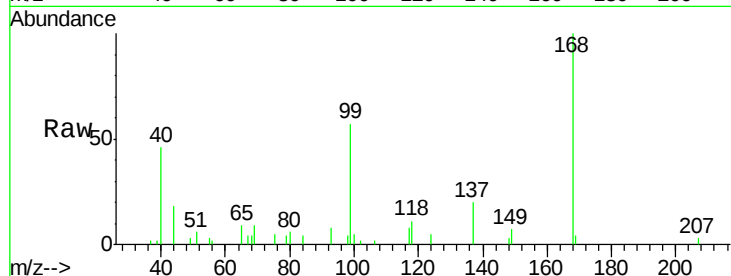
SU-04-031119-A

Tot Ion:168 Resp: 16673

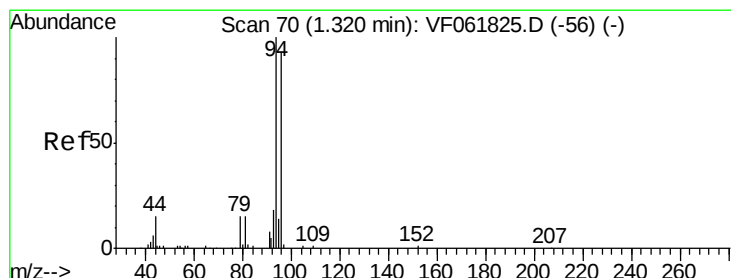
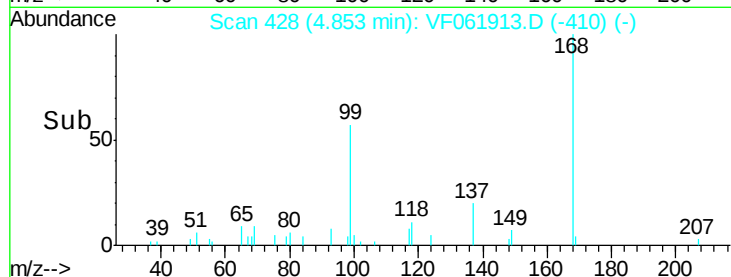
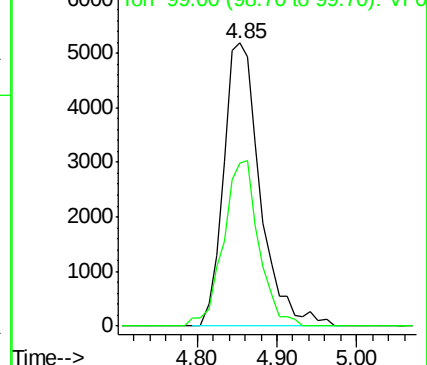
Ion Ratio Lower Upper

168 100

99 57.4 40.8 61.2



Abundance Ion 168.00 (167.70 to 168.70): VF0



#5

Bromomethane

Concen: 4.807 ug/l

RT: 1.28 min Scan# 66

Delta R.T. -0.04 min

Lab File: VF061913.D

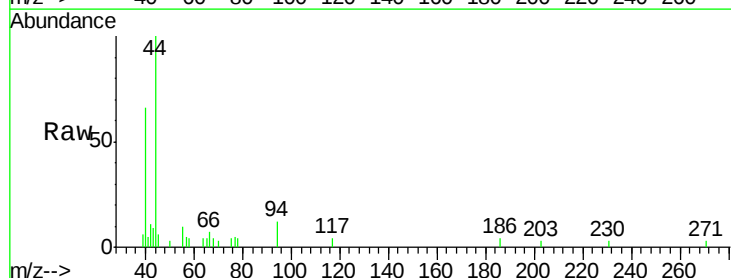
Acq: 12 Mar 2019 19:04

Tgt Ion: 94 Resp: 617

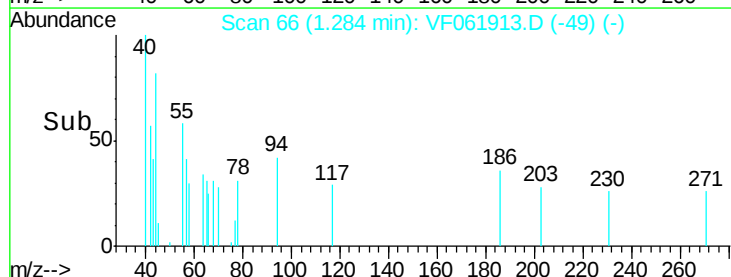
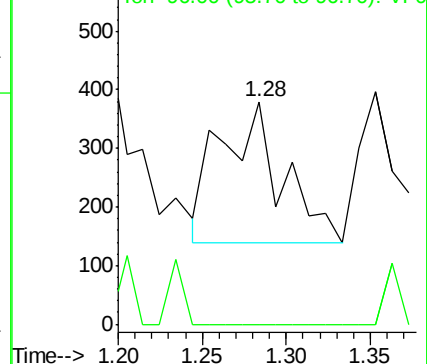
Ion Ratio Lower Upper

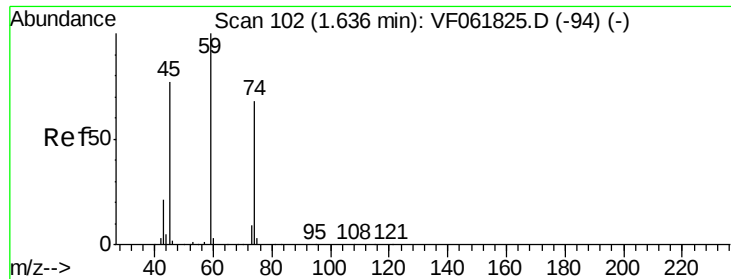
94 100

96 0.0 75.2 112.8#



Abundance Ion 94.00 (93.70 to 94.70): VF0





#8

Diethyl Ether

Concen: 1.205 ug/l

RT: 1.62 min Scan# 100

Delta R.T. -0.02 min

Lab File: VF061913.D

Acq: 12 Mar 2019 19:04

Instrument :

MSVOA_F

ClientSampleId :

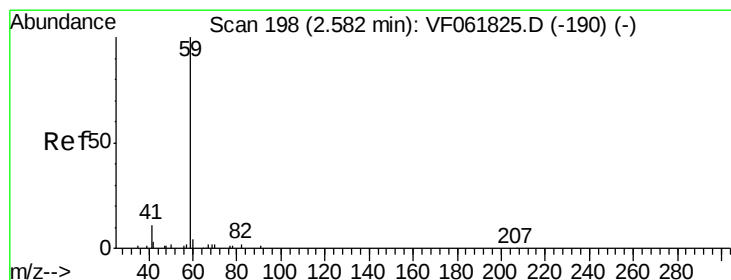
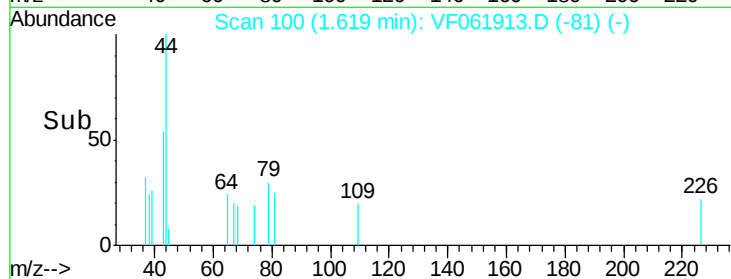
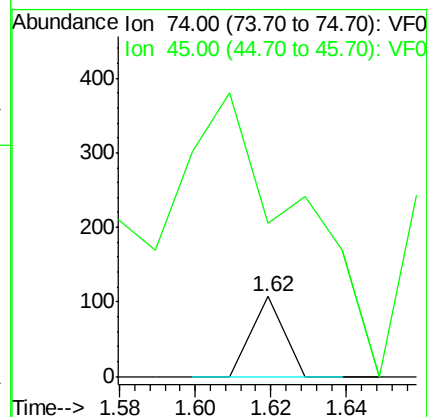
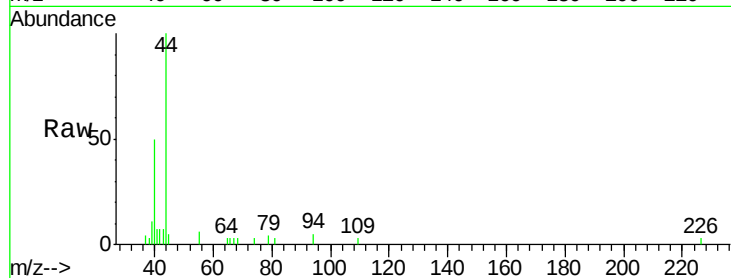
SU-04-031119-A

Tot Ion: 74 Resp: 63

Ion Ratio Lower Upper

74 100

45 192.5 57.2 171.6#



#11

Tert butyl alcohol

Concen: 9.722 ug/l

RT: 2.51 min Scan# 190

Delta R.T. -0.08 min

Lab File: VF061913.D

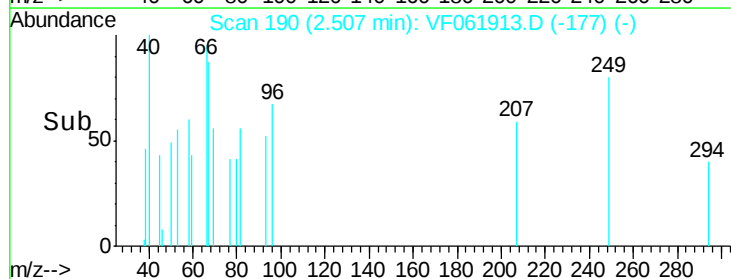
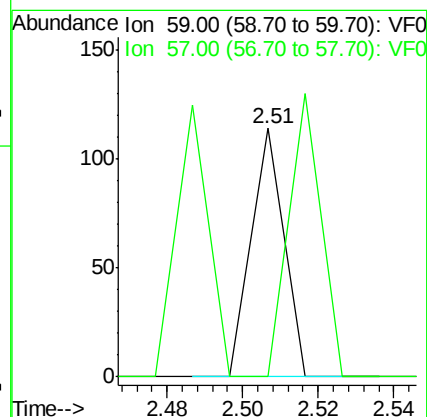
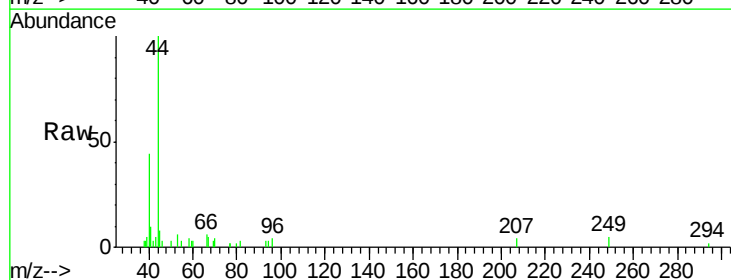
Acq: 12 Mar 2019 19:04

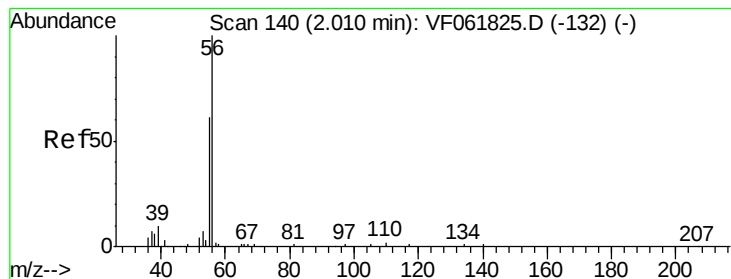
Tgt Ion: 59 Resp: 67

Ion Ratio Lower Upper

59 100

57 0.0 11.8 17.6#





#13

Acrolein

Concen: 34.927 ug/l

RT: 1.96 min Scan# 135

Delta R.T. -0.05 min

Lab File: VF061913.D

Acq: 12 Mar 2019 19:04

Instrument :

MSVOA_F

ClientSampleId :

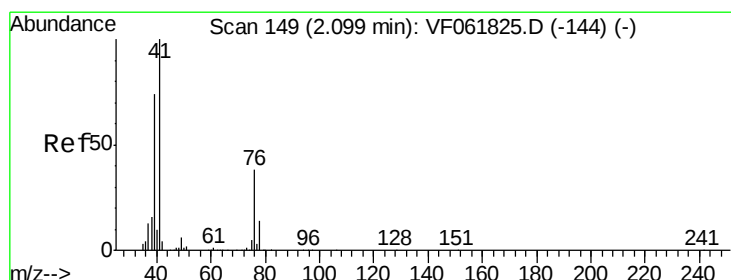
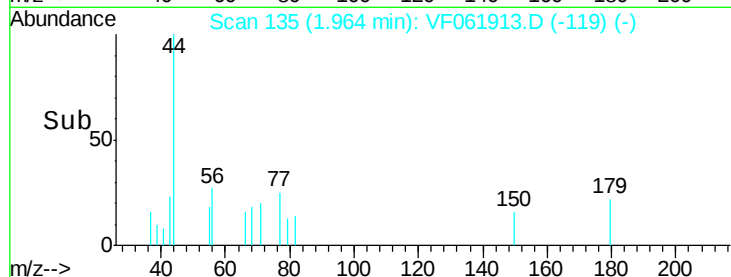
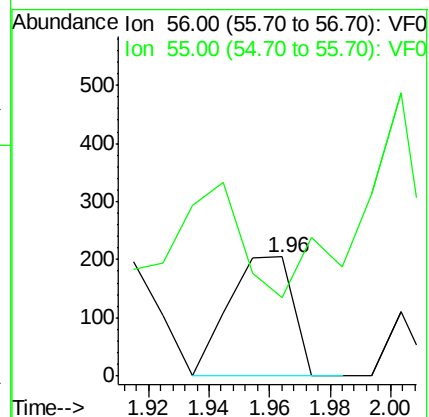
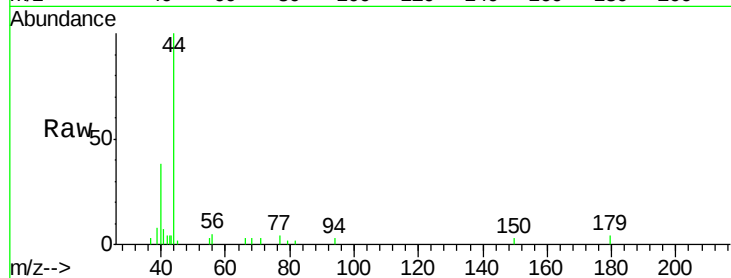
SU-04-031119-A

Tot Ion: 56 Resp: 305

Ion Ratio Lower Upper

56 100

55 65.9 51.3 76.9



#14

Allyl chloride

Concen: 2.043 ug/l

RT: 2.09 min Scan# 148

Delta R.T. -0.01 min

Lab File: VF061913.D

Acq: 12 Mar 2019 19:04

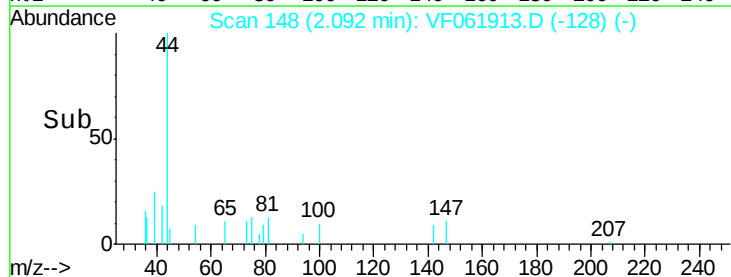
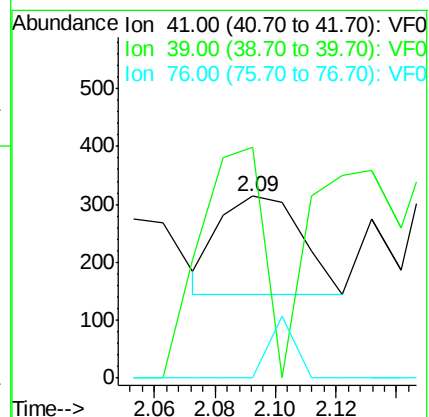
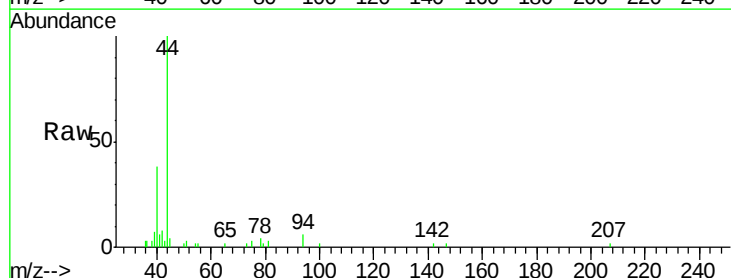
Tgt Ion: 41 Resp: 321

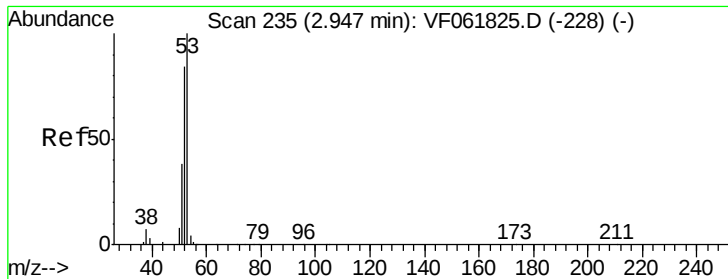
Ion Ratio Lower Upper

41 100

39 127.1 59.6 89.4#

76 0.0 32.3 48.5#





#15

Acrylonitrile

Concen: 14.491 ug/l

RT: 2.93 min Scan# 233

Delta R.T. -0.02 min

Lab File: VF061913.D

Acq: 12 Mar 2019 19:04

Instrument :

MSVOA_F

ClientSampleId :

SU-04-031119-A

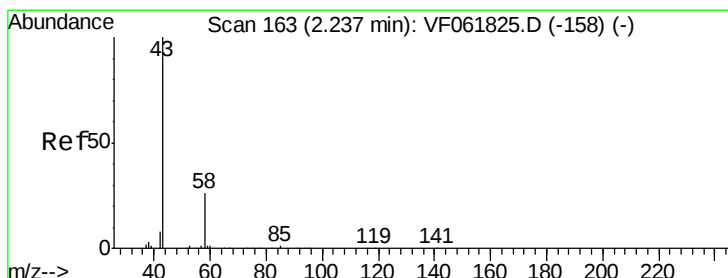
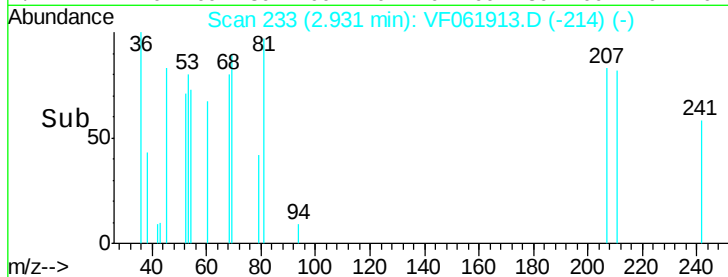
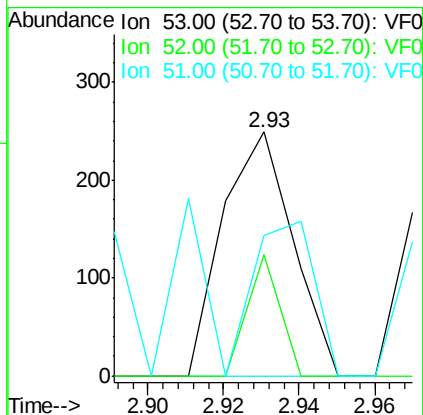
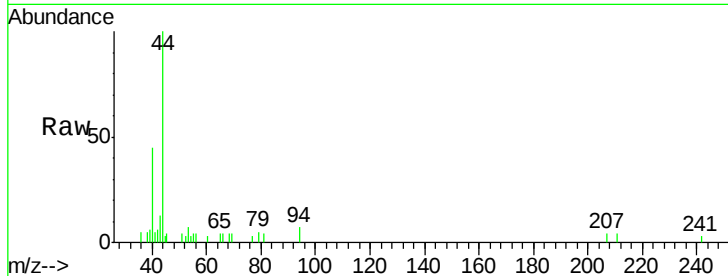
Tot Ion: 53 Resp: 318

Ion Ratio Lower Upper

53 100

52 49.8 67.4 101.0#

51 57.4 30.7 46.1#



#16

Acetone

Concen: 48.321 ug/l

RT: 2.22 min Scan# 161

Delta R.T. -0.02 min

Lab File: VF061913.D

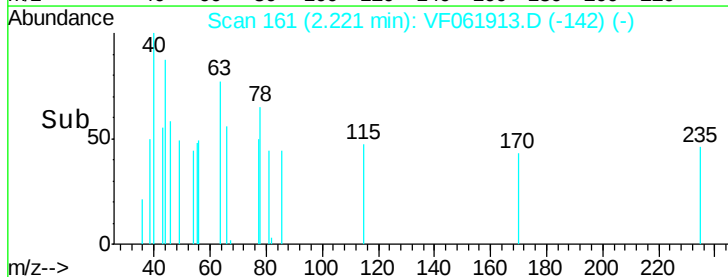
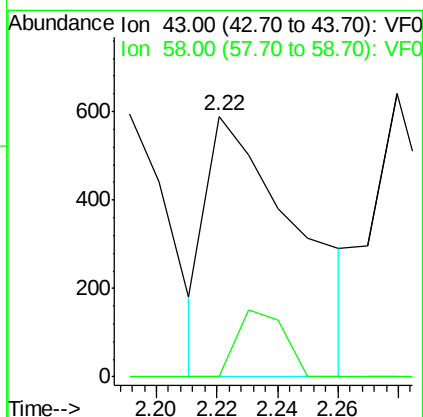
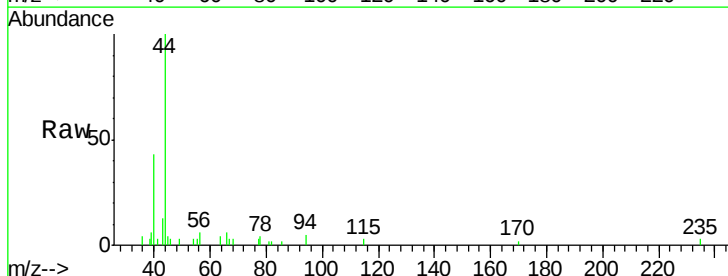
Acq: 12 Mar 2019 19:04

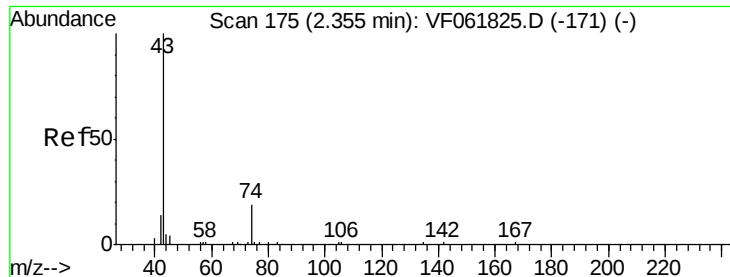
Tgt Ion: 43 Resp: 1229

Ion Ratio Lower Upper

43 100

58 0.0 20.3 30.5#

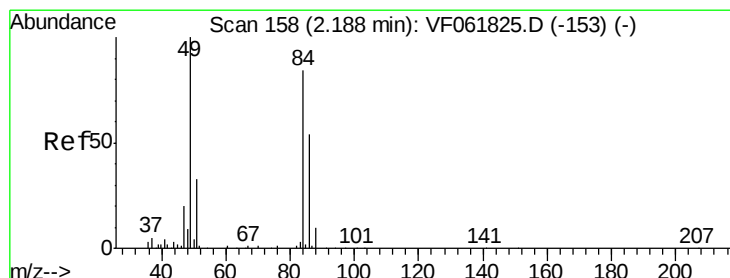
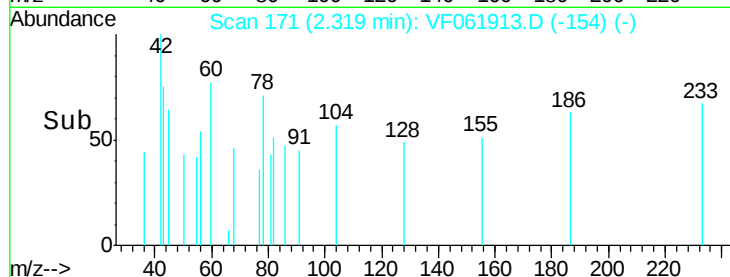
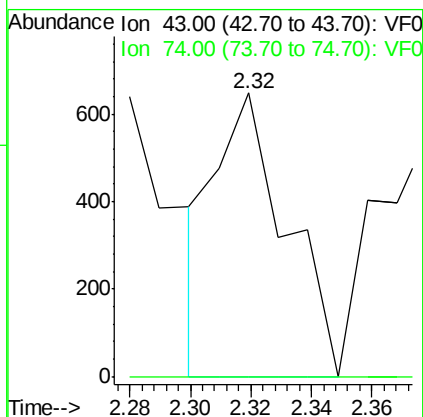
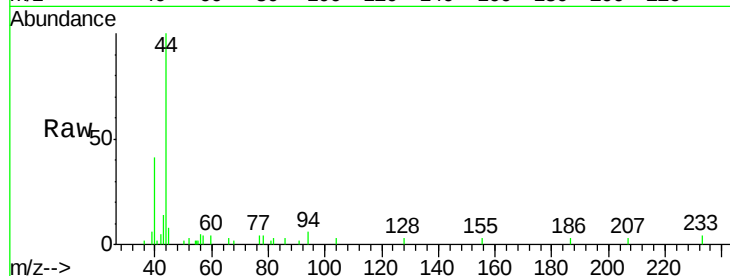




#18
Methyl Acetate
Concen: 19.527 ug/l
RT: 2.32 min Scan# 171
Delta R.T. -0.04 min
Lab File: VF061913.D
Acq: 12 Mar 2019 19:04

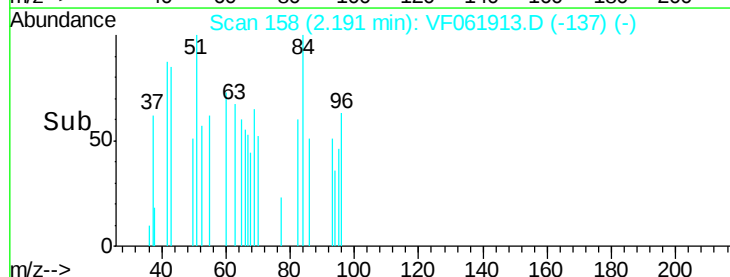
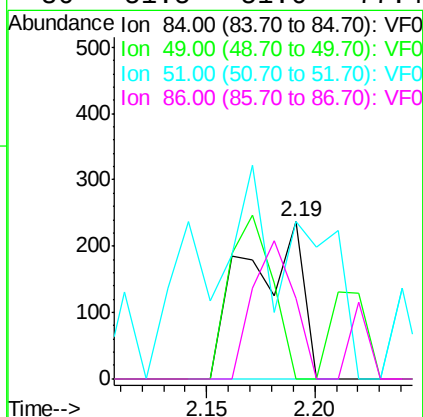
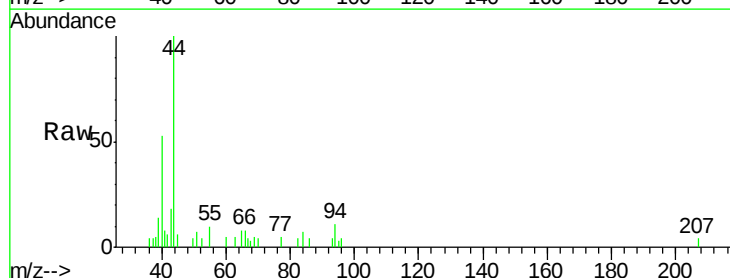
Instrument :
MSVOA_F
ClientSampleId :
SU-04-031119-A

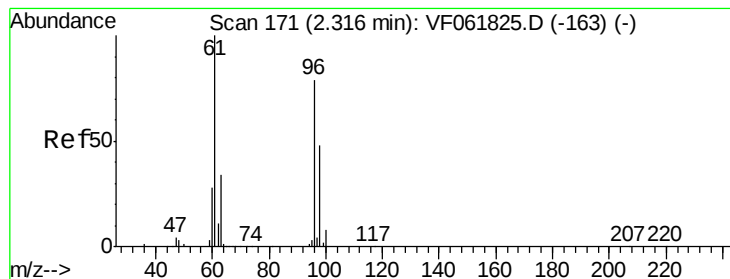
Tot Ion: 43 Resp: 1052
Ion Ratio Lower Upper
43 100
74 0.0 13.2 19.8#



#20
Methylene Chloride
Concen: Below Cal
RT: 2.19 min Scan# 158
Delta R.T. 0.00 min
Lab File: VF061913.D
Acq: 12 Mar 2019 19:04

Tgt Ion: 84 Resp: 430
Ion Ratio Lower Upper
84 100
49 0.0 96.8 145.2#
51 100.0 31.8 47.6#
86 51.5 51.6 77.4#





#21

trans-1,2-Dichloroethene

Concen: 1.773 ug/l

RT: 2.30 min Scan# 169

Delta R.T. -0.02 min

Lab File: VF061913.D

Acq: 12 Mar 2019 19:04

Instrument :

MSVOA_F

ClientSampleId :

SU-04-031119-A

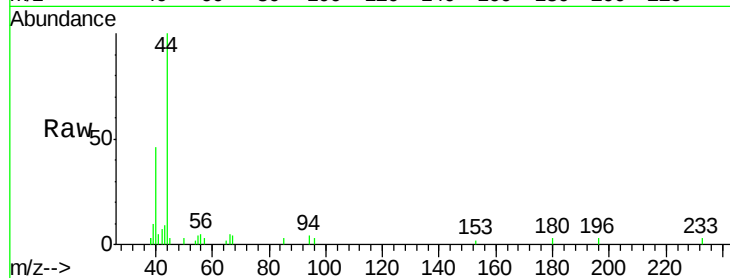
Tot Ion: 96 Resp: 238

Ion Ratio Lower Upper

96 100

61 0.0 101.0 151.6#

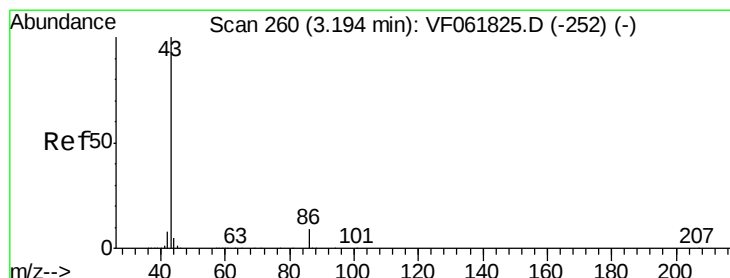
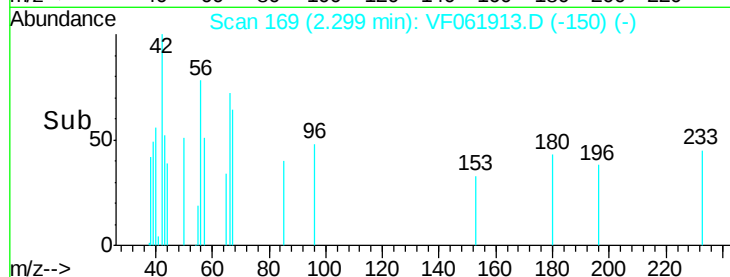
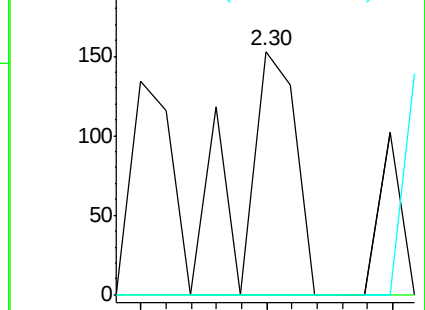
98 0.0 48.8 73.2#



Abundance Ion 96.00 (95.70 to 96.70): VF0

Ion 61.00 (60.70 to 61.70): VF0

Ion 98.00 (97.70 to 98.70): VF0



#23

Vinyl Acetate

Concen: 3.517 ug/l

RT: 3.19 min Scan# 259

Delta R.T. -0.01 min

Lab File: VF061913.D

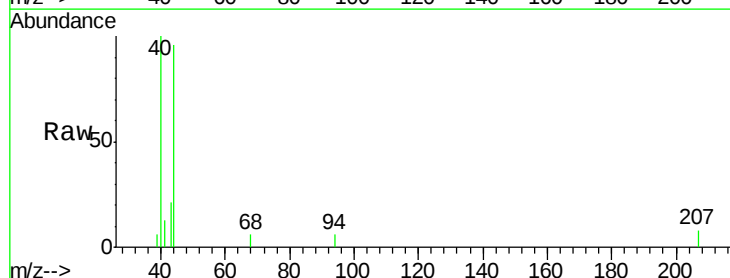
Acq: 12 Mar 2019 19:04

Tgt Ion: 43 Resp: 642

Ion Ratio Lower Upper

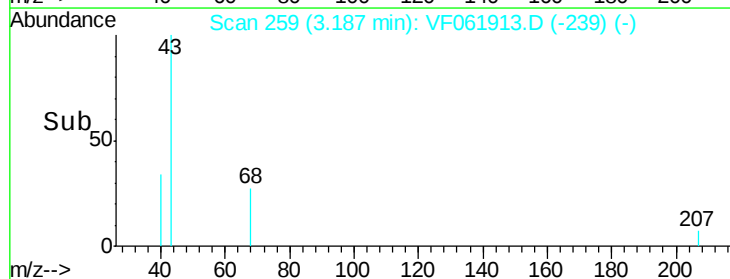
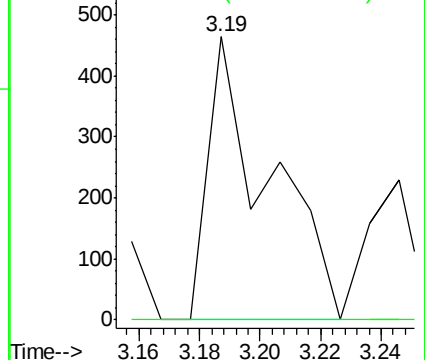
43 100

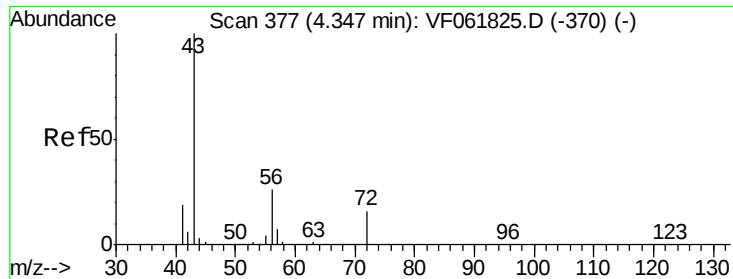
86 0.0 7.0 10.4#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 86.00 (85.70 to 86.70): VF0

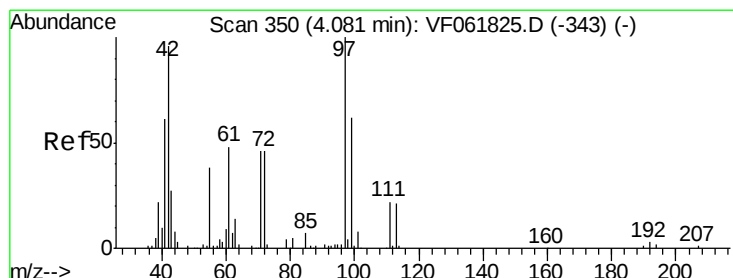
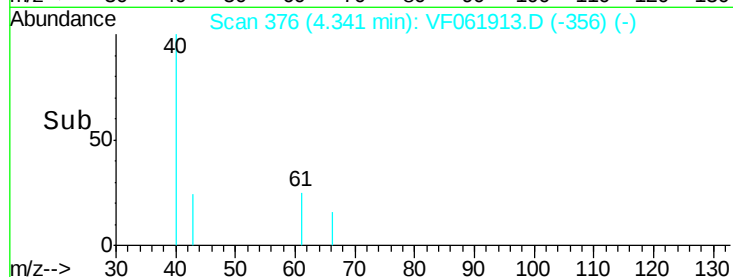
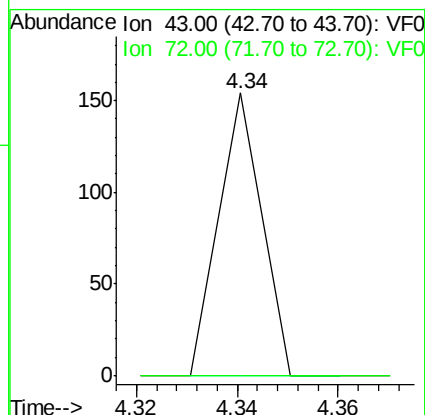
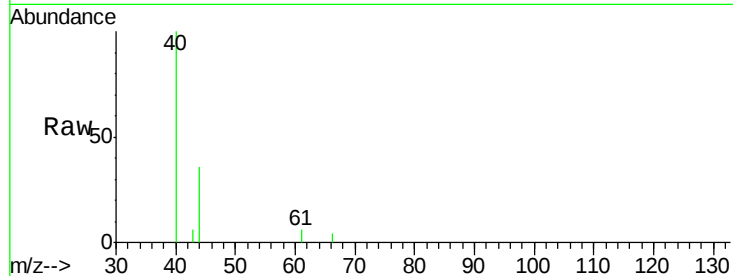




#25
2-Butanone
Concen: 1.759 ug/l
RT: 4.34 min Scan# 376
Delta R.T. -0.01 min
Lab File: VF061913.D
Acq: 12 Mar 2019 19:04

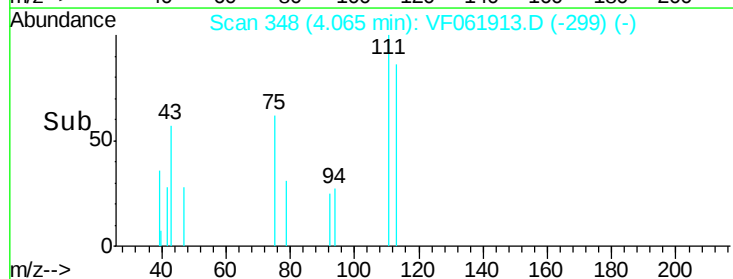
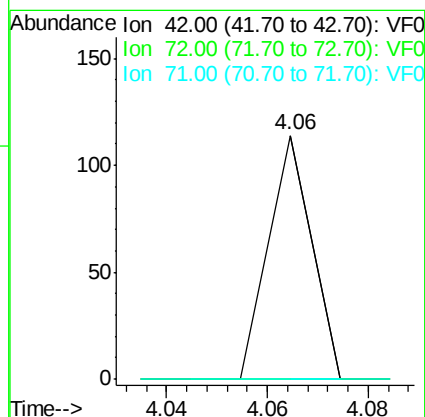
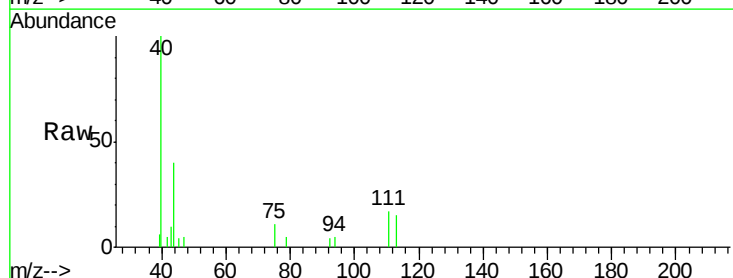
Instrument :
MSVOA_F
ClientSampleId :
SU-04-031119-A

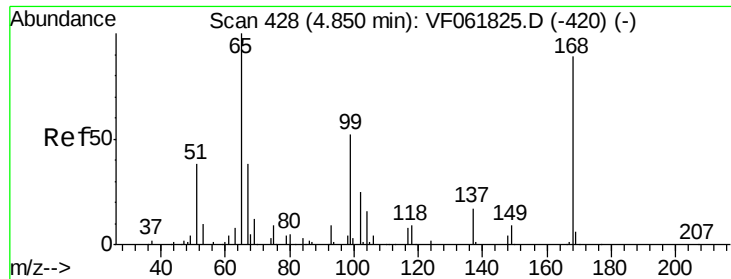
Tot Ion: 43 Resp: 91
Ion Ratio Lower Upper
43 100
72 0.0 16.2 24.4#



#29
Tetrahydrofuran
Concen: 3.003 ug/l
RT: 4.06 min Scan# 348
Delta R.T. -0.02 min
Lab File: VF061913.D
Acq: 12 Mar 2019 19:04

Tgt Ion: 42 Resp: 67
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: 19.750 ug/l

RT: 4.83 min Scan# 426

Delta R.T. -0.02 min

Lab File: VF061913.D

Acq: 12 Mar 2019 19:04

Instrument :

MSVOA_F

ClientSampleId :

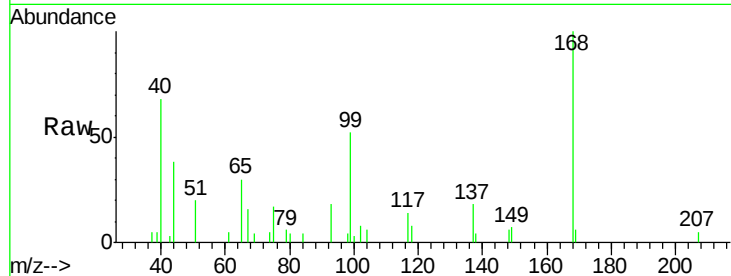
SU-04-031119-A

Tot Ion: 65 Resp: 2398

Ion Ratio Lower Upper

65 100

67 52.0 0.0 108.6



Abundance Ion 65.00 (64.70 to 65.70): VF0

Ion 67.00 (66.70 to 67.70): VF0

4.83

800

600

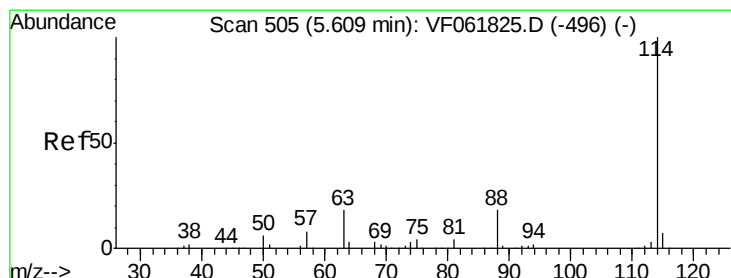
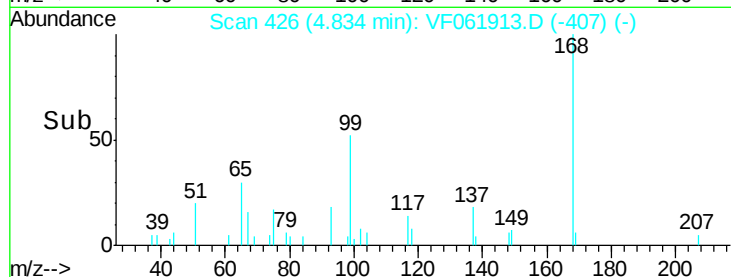
400

200

0

4.75 4.80 4.85 4.90

Time-->



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.58 min Scan# 502

Delta R.T. -0.03 min

Lab File: VF061913.D

Acq: 12 Mar 2019 19:04

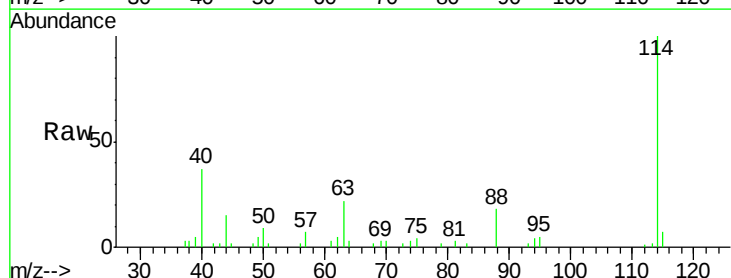
Tgt Ion: 114 Resp: 19787

Ion Ratio Lower Upper

114 100

63 21.9 0.0 35.6

88 17.9 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

10000

8000

6000

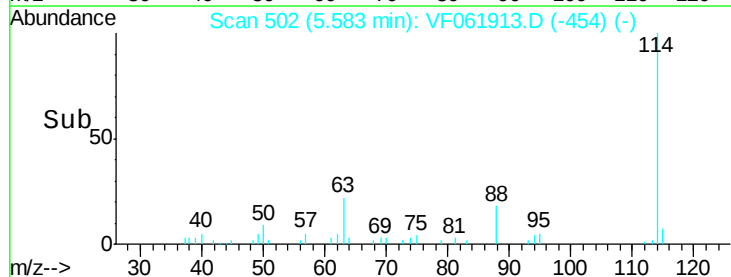
4000

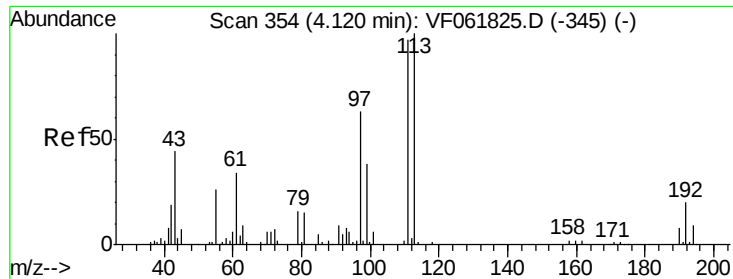
2000

0

5.50 5.60 5.70

Time-->

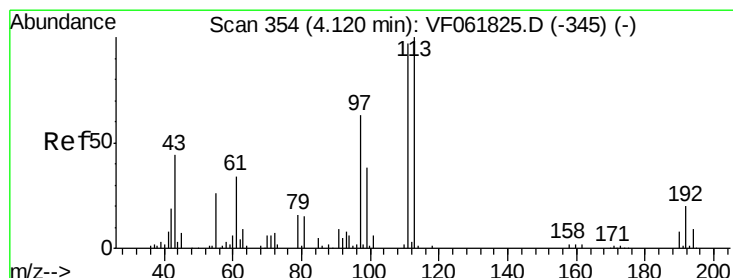
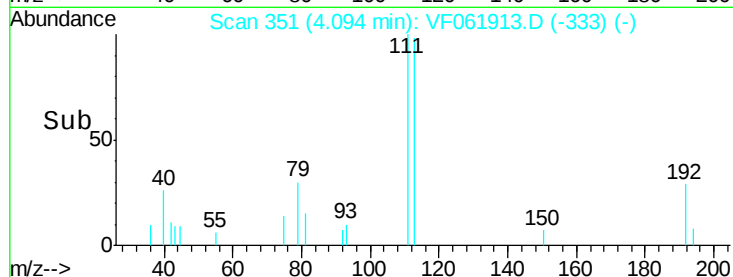
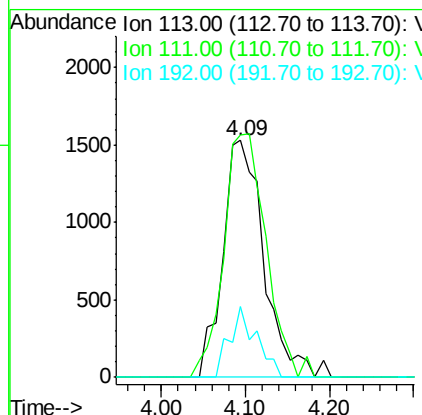
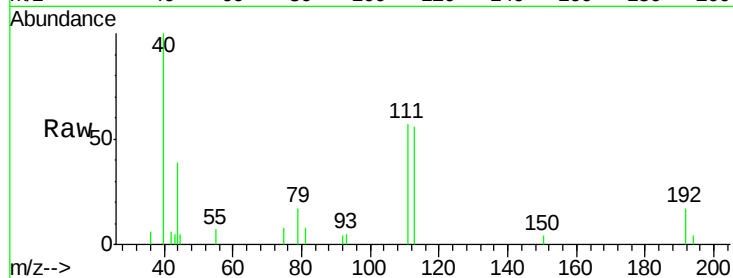




#35
Dibromofluoromethane
Concen: 37.751 ug/l
RT: 4.09 min Scan# 351
Delta R.T. -0.03 min
Lab File: VF061913.D
Acq: 12 Mar 2019 19:04

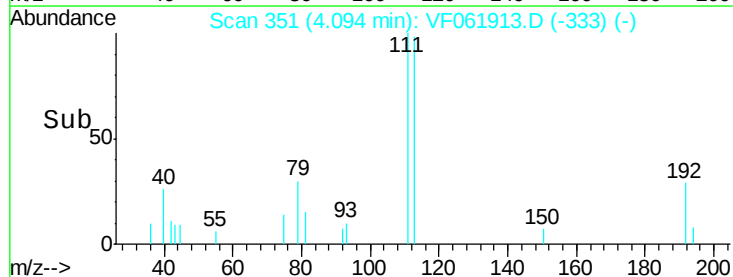
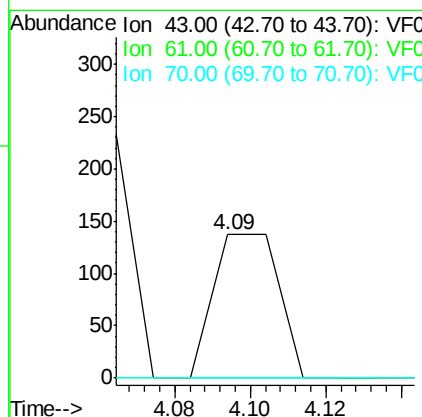
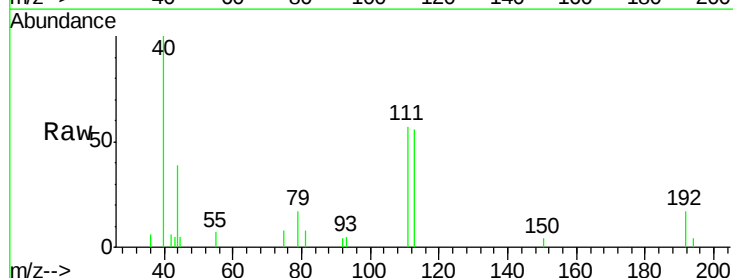
Instrument :
MSVOA_F
ClientSampleId :
SU-04-031119-A

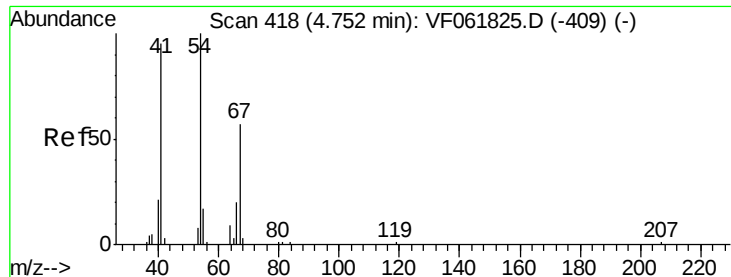
Tot Ion:113 Resp: 5213
Ion Ratio Lower Upper
113 100
111 102.5 77.6 116.4
192 29.7 15.9 23.9#



#37
Ethyl Acetate
Concen: 2.065 ug/l
RT: 4.09 min Scan# 351
Delta R.T. -0.03 min
Lab File: VF061913.D
Acq: 12 Mar 2019 19:04

Tgt Ion: 43 Resp: 162
Ion Ratio Lower Upper
43 100
61 0.0 60.7 91.1#
70 0.0 10.6 15.8#

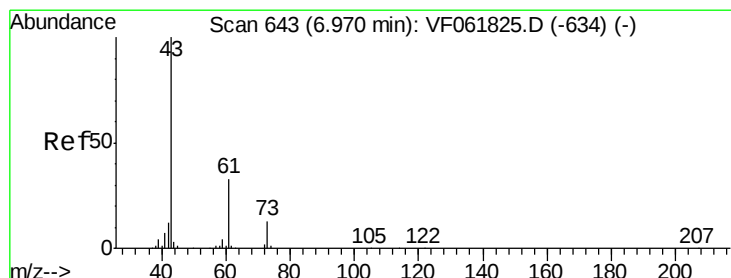
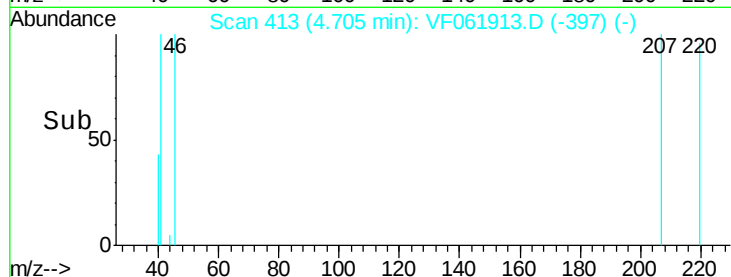
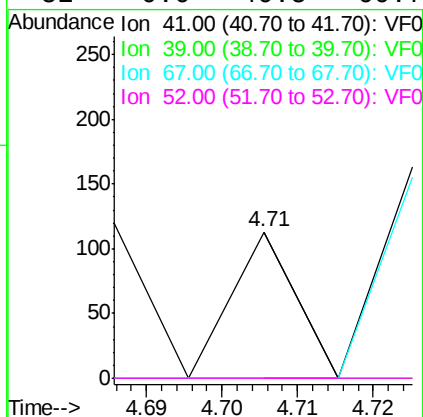
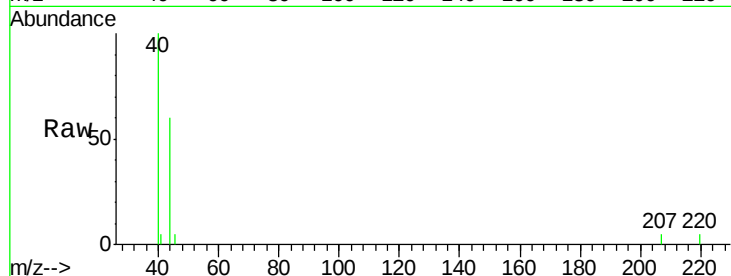




#41
Methacrylonitrile
Concen: 1.559 ug/l
RT: 4.71 min Scan# 413
Delta R.T. -0.05 min
Lab File: VF061913.D
Acq: 12 Mar 2019 19:04

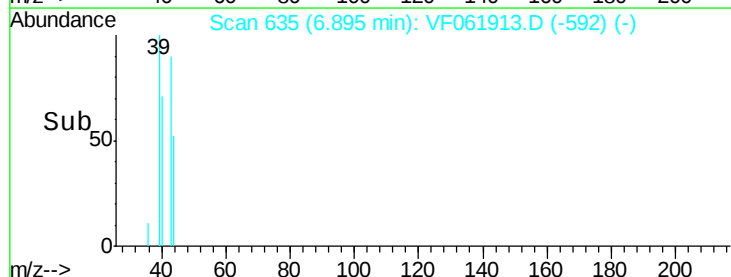
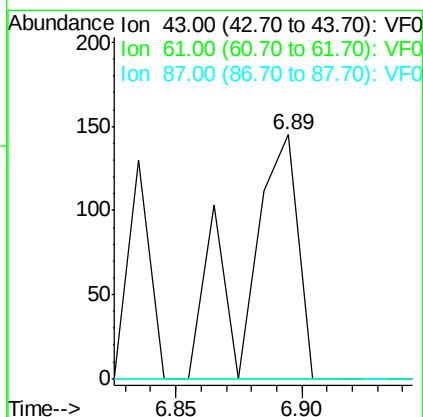
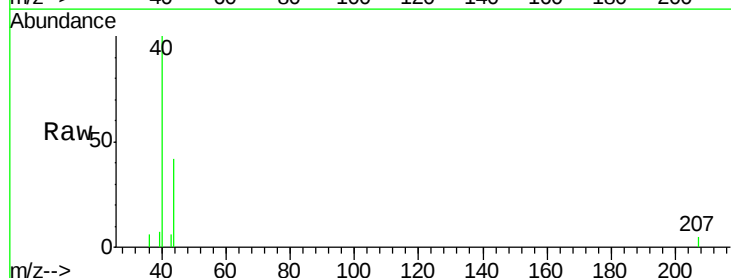
Instrument :
MSVOA_F
ClientSampleId :
SU-04-031119-A

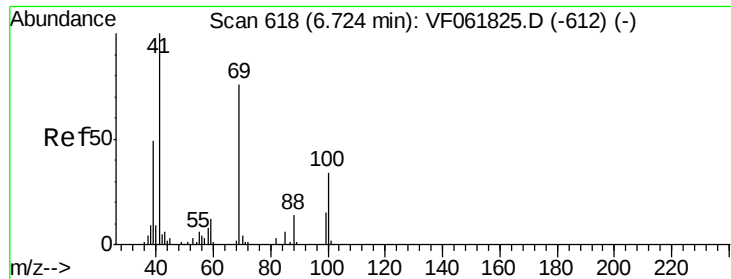
Tot Ion:	41	Resp:	67
Ion	Ratio	Lower	Upper
41	100		
39	0.0	43.0	64.6#
67	0.0	47.8	71.8#
52	0.0	40.5	60.7#



#43
Isopropyl Acetate
Concen: 2.203 ug/l
RT: 6.89 min Scan# 635
Delta R.T. -0.08 min
Lab File: VF061913.D
Acq: 12 Mar 2019 19:04

Tgt Ion:	43	Resp:	213
Ion	Ratio	Lower	Upper
43	100		
61	0.0	26.1	39.1#
87	0.0	0.0	0.0





#48

Methvl methacrylate

Concen: 1.127 ug/l

RT: 6.70 min Scan# 615

Delta R.T. -0.03 min

Lab File: VF061913.D

Acq: 12 Mar 2019 19:04

Instrument :

MSVOA_F

ClientSampleId :

SU-04-031119-A

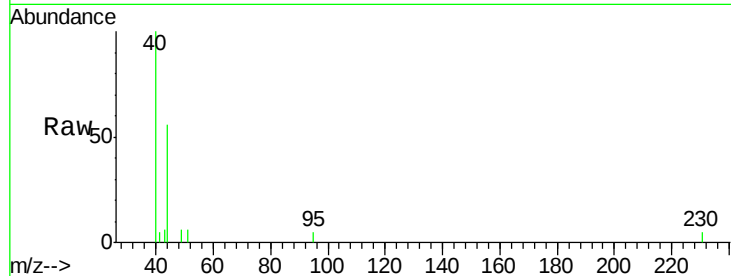
Tot Ion: 41 Resp: 69

Ion Ratio Lower Upper

41 100

69 0.0 60.4 90.6#

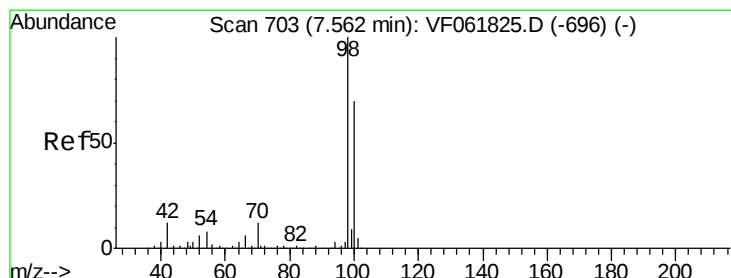
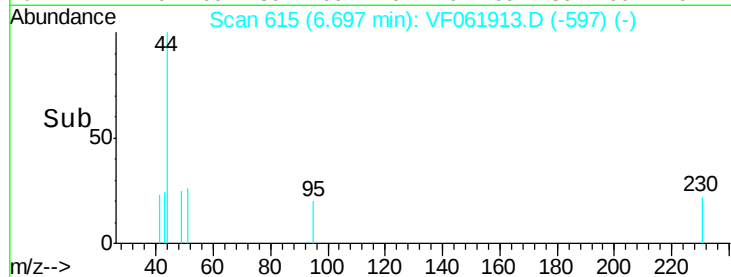
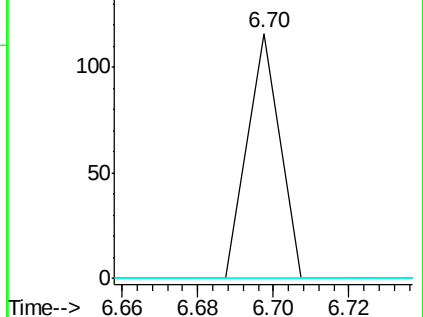
39 0.0 39.7 59.5#



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



#50

Toluene-d8

Concen: 40.803 ug/l

RT: 7.54 min Scan# 700

Delta R.T. -0.03 min

Lab File: VF061913.D

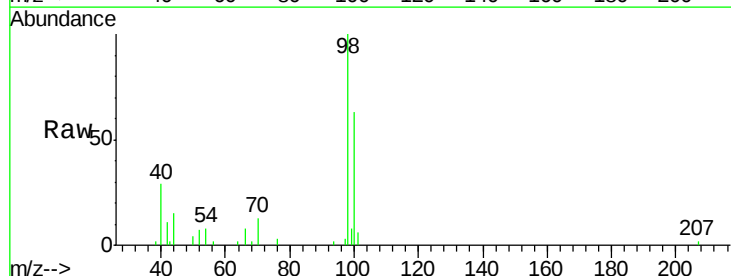
Acq: 12 Mar 2019 19:04

Tgt Ion: 98 Resp: 16747

Ion Ratio Lower Upper

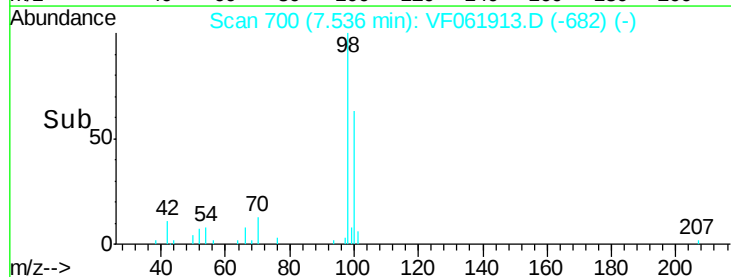
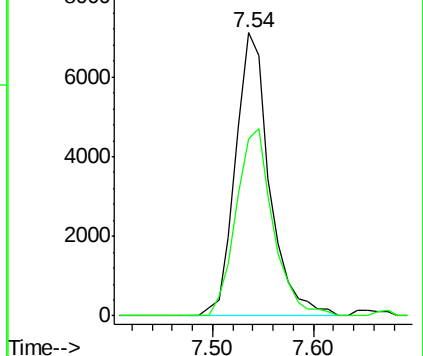
98 100

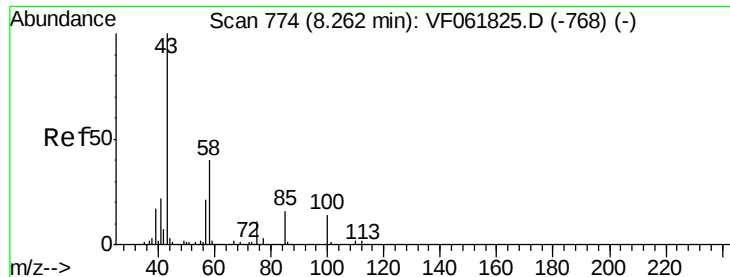
100 62.6 56.0 84.0



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: 1.287 ug/l

RT: 8.24 min Scan# 771

Delta R.T. -0.03 min

Lab File: VF061913.D

Acq: 12 Mar 2019 19:04

Instrument :

MSVOA_F

ClientSampleId :

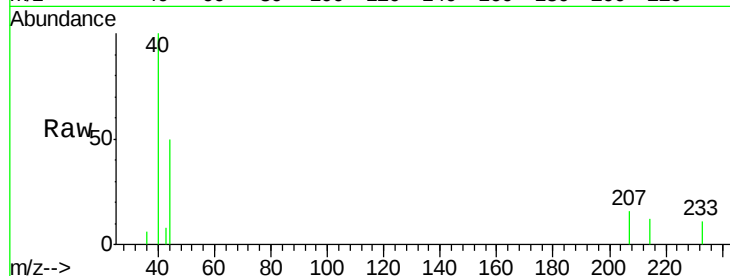
SU-04-031119-A

Tot Ion: 43 Resp: 86

Ion Ratio Lower Upper

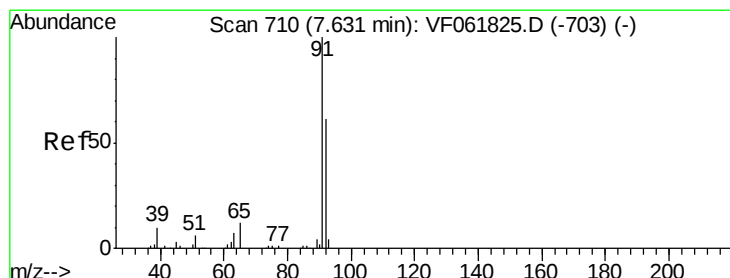
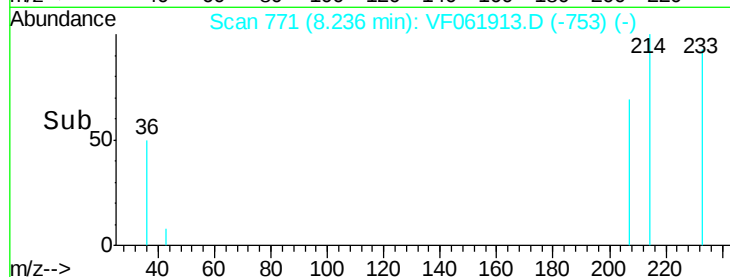
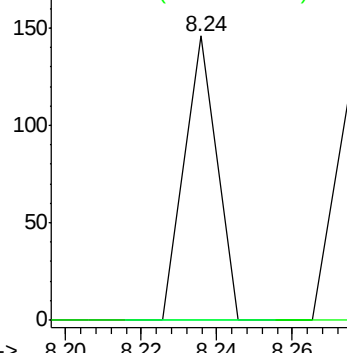
43 100

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



#52

Toluene

Concen: 6.480 ug/l

RT: 7.60 min Scan# 707

Delta R.T. -0.03 min

Lab File: VF061913.D

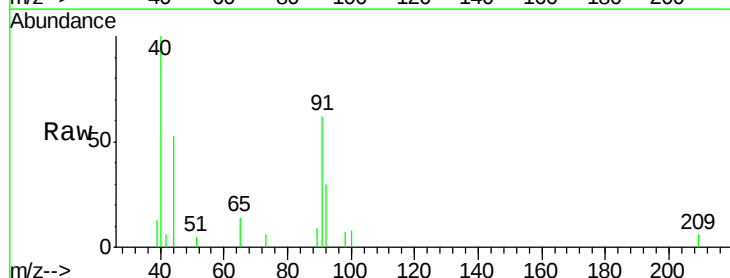
Acq: 12 Mar 2019 19:04

Tgt Ion: 92 Resp: 1873

Ion Ratio Lower Upper

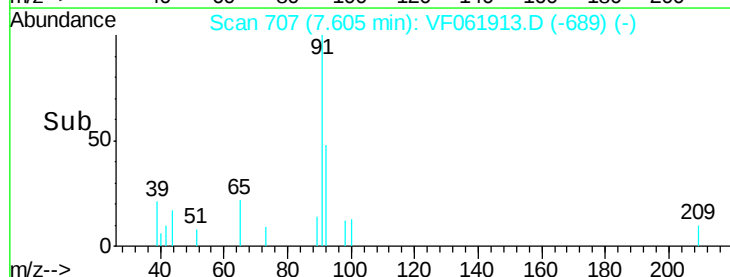
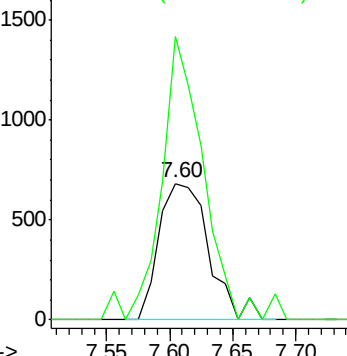
92 100

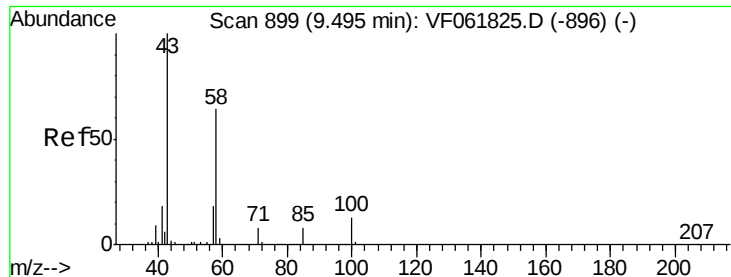
91 207.2 132.0 198.0#



Abundance Ion 92.00 (91.70 to 92.70): VF0

Ion 91.00 (90.70 to 91.70): VF0

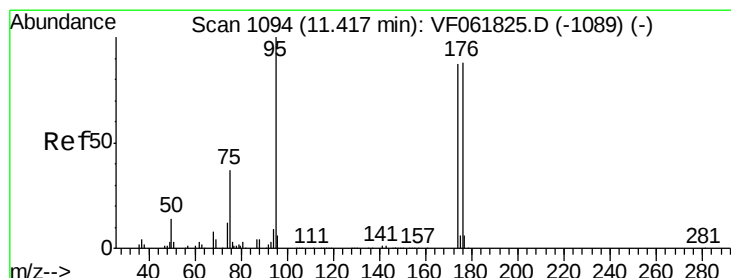
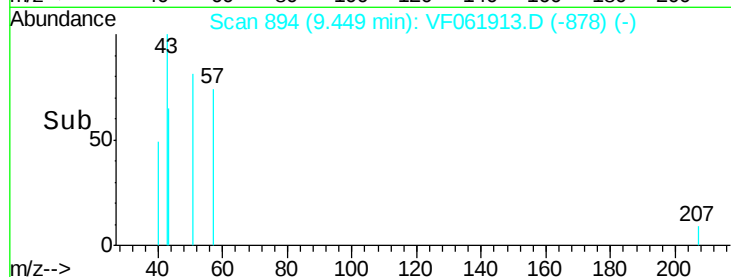
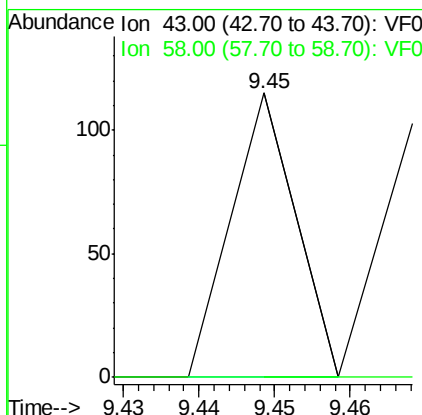
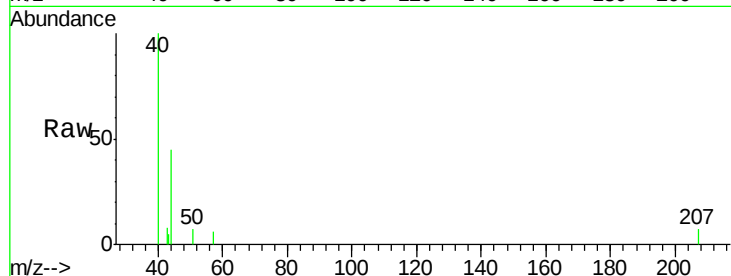




#59
2-Hexanone
Concen: 1.410 ug/l
RT: 9.45 min Scan# 894
Delta R.T. -0.05 min
Lab File: VF061913.D
Acq: 12 Mar 2019 19:04

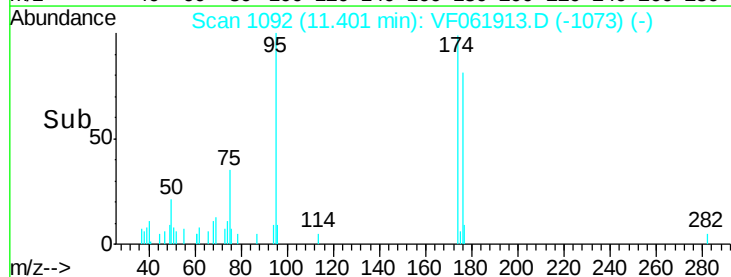
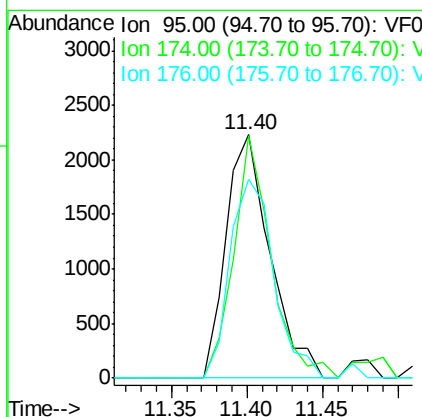
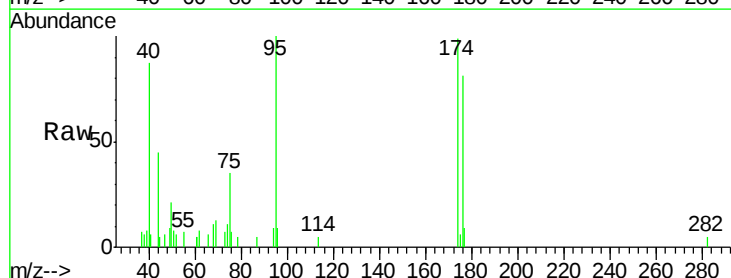
Instrument :
MSVOA_F
ClientSampleId :
SU-04-031119-A

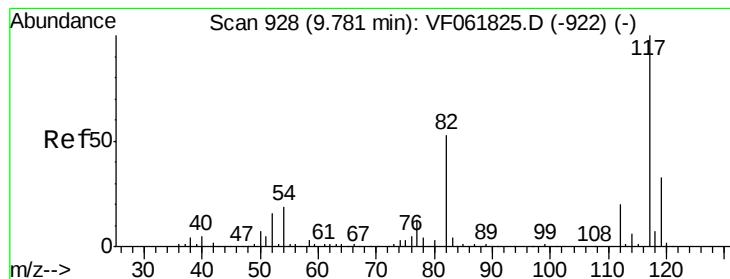
Tot Ion: 43 Resp: 68
Ion Ratio Lower Upper
43 100
58 0.0 28.8 86.4#



#62
4-Bromofluorobenzene
Concen: 28.132 ug/l
RT: 11.40 min Scan# 1092
Delta R.T. -0.02 min
Lab File: VF061913.D
Acq: 12 Mar 2019 19:04

Tgt Ion: 95 Resp: 4523
Ion Ratio Lower Upper
95 100
174 99.3 0.0 174.0
176 81.5 0.0 175.2





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 9.76 min Scan# 926

Delta R.T. -0.02 min

Lab File: VF061913.D

Acq: 12 Mar 2019 19:04

Instrument :

MSVOA_F

ClientSampleId :

SU-04-031119-A

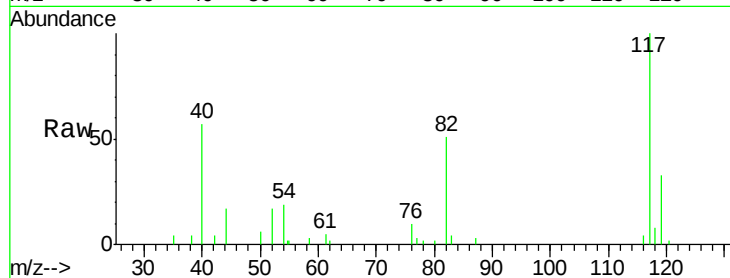
Tot Ion:117 Resp: 11460

Ion Ratio Lower Upper

117 100

82 51.4 42.6 63.8

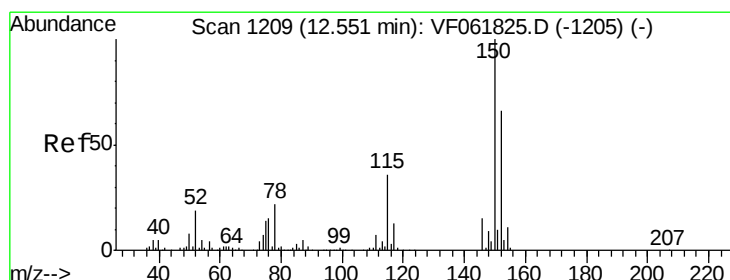
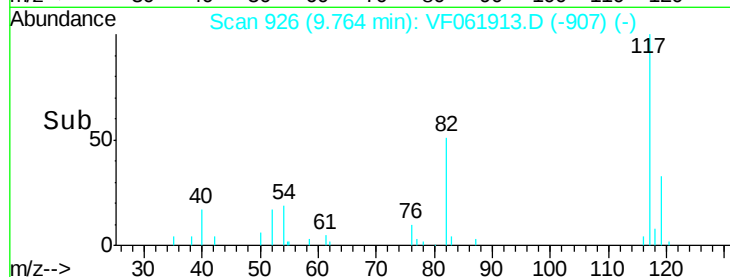
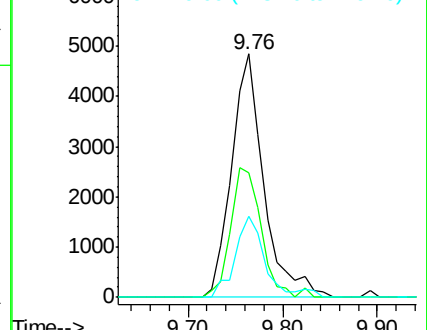
119 33.4 26.0 39.0



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 82.00 (81.70 to 82.70): VF0

Ion 119.00 (118.70 to 119.70): V



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.53 min Scan# 1207

Delta R.T. -0.02 min

Lab File: VF061913.D

Acq: 12 Mar 2019 19:04

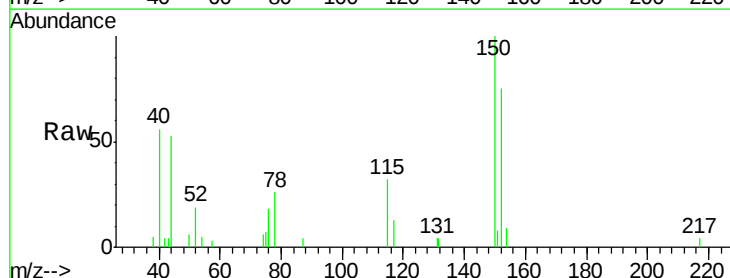
Tgt Ion:152 Resp: 4406

Ion Ratio Lower Upper

152 100

115 43.0 27.7 83.1

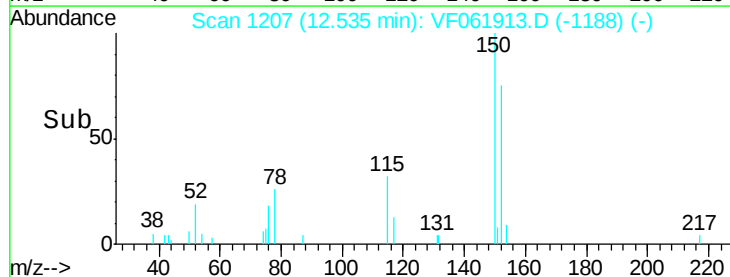
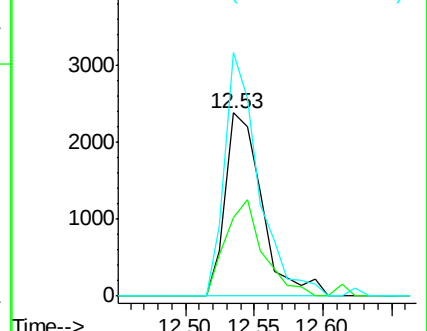
150 132.8 0.0 304.2

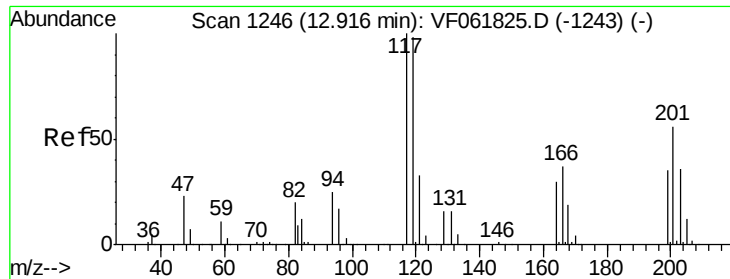


Abundance Ion 152.00 (151.70 to 152.70): V

Ion 115.00 (114.70 to 115.70): V

Ion 150.00 (149.70 to 150.70): V





#90

Hexachloroethane

Concen: 1.118 ug/l

RT: 12.77 min Scan# 1231

Delta R.T. -0.14 min

Lab File: VF061913.D

Acq: 12 Mar 2019 19:04

Instrument :

MSVOA_F

ClientSampleId :

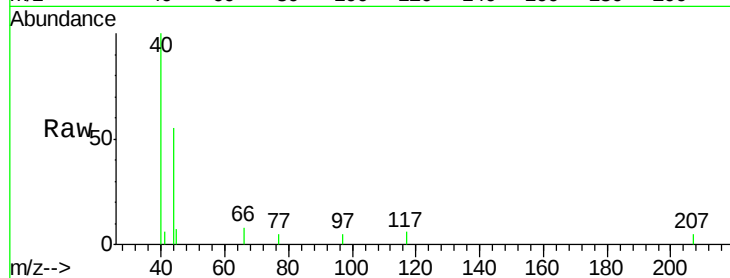
SU-04-031119-A

Tot Ion:117 Resp: 77

Ion Ratio Lower Upper

117 100

201 0.0 27.8 83.4#



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 201.00 (200.70 to 201.70): V

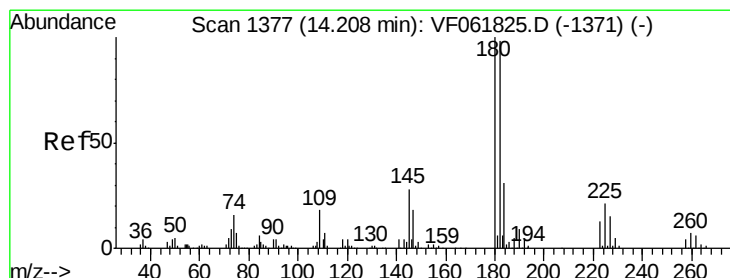
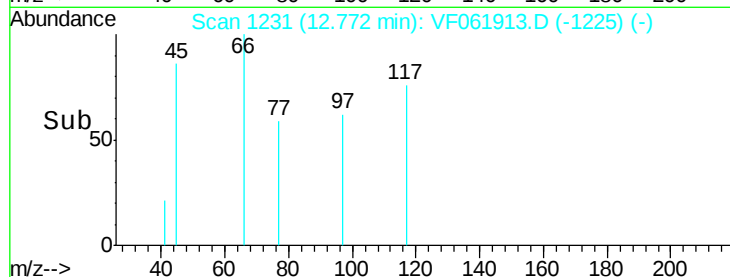
12.77

100

50

0

Time--> 12.74 12.76 12.78 12.80



#93

1,2,4-Trichlorobenzene

Concen: 1.423 ug/l

RT: 14.18 min Scan# 1374

Delta R.T. -0.03 min

Lab File: VF061913.D

Acq: 12 Mar 2019 19:04

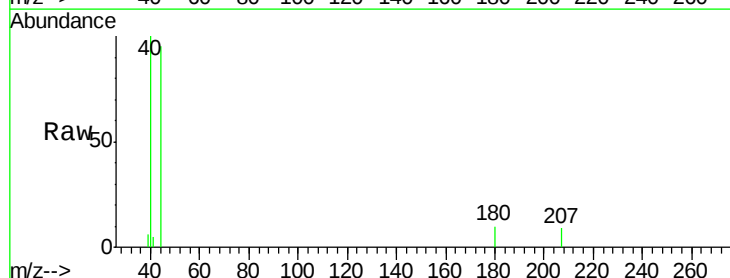
Tgt Ion:180 Resp: 131

Ion Ratio Lower Upper

180 100

182 0.0 49.0 147.2#

145 0.0 14.1 42.4#



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

14.18

200

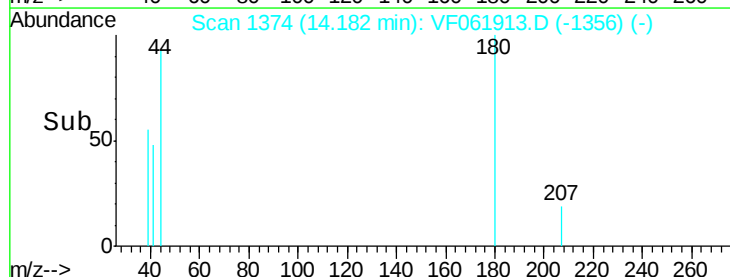
150

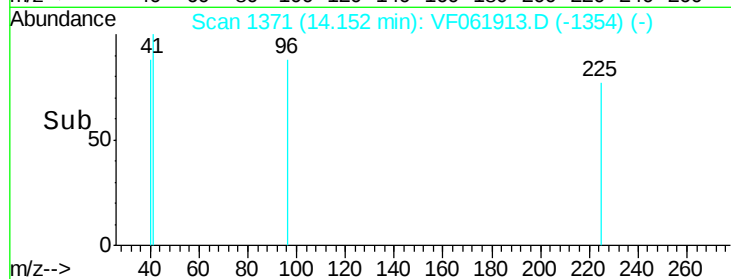
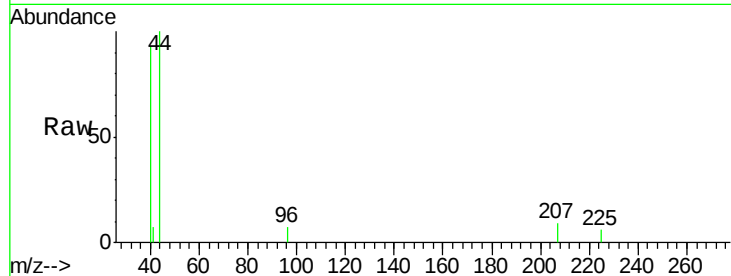
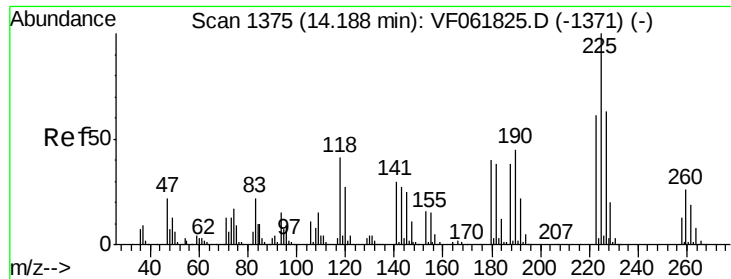
100

50

0

Time--> 14.16 14.18 14.20





#94

Hexachlorobutadiene

Concen: 1.067 ug/l

RT: 14.15 min Scan# 1371

Delta R.T. -0.04 min

Lab File: VF061913.D

Acq: 12 Mar 2019 19:04

Instrument :

MSVOA_F

ClientSampleId :

SU-04-031119-A

Tot Ion:225 Resp: 68

Ion Ratio Lower Upper

225 100

223 0.0 30.3 90.9#

227 0.0 31.3 93.8#

