

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF031919\
 Data File : VF062015.D
 Acq On : 19 Mar 2019 13:47
 Operator : VA/AP
 Sample : K1693-09
 Misc : 6.50g/5mL/MSVOA-F/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_F
 ClientSampleId :

Quant Time: Mar 20 05:20:29 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_F\METHODS\82F031619S.M
 Quant Title : SW846 8260
 QLast Update : Mon Mar 18 07:28:40 2019
 Response via : Initial Calibration

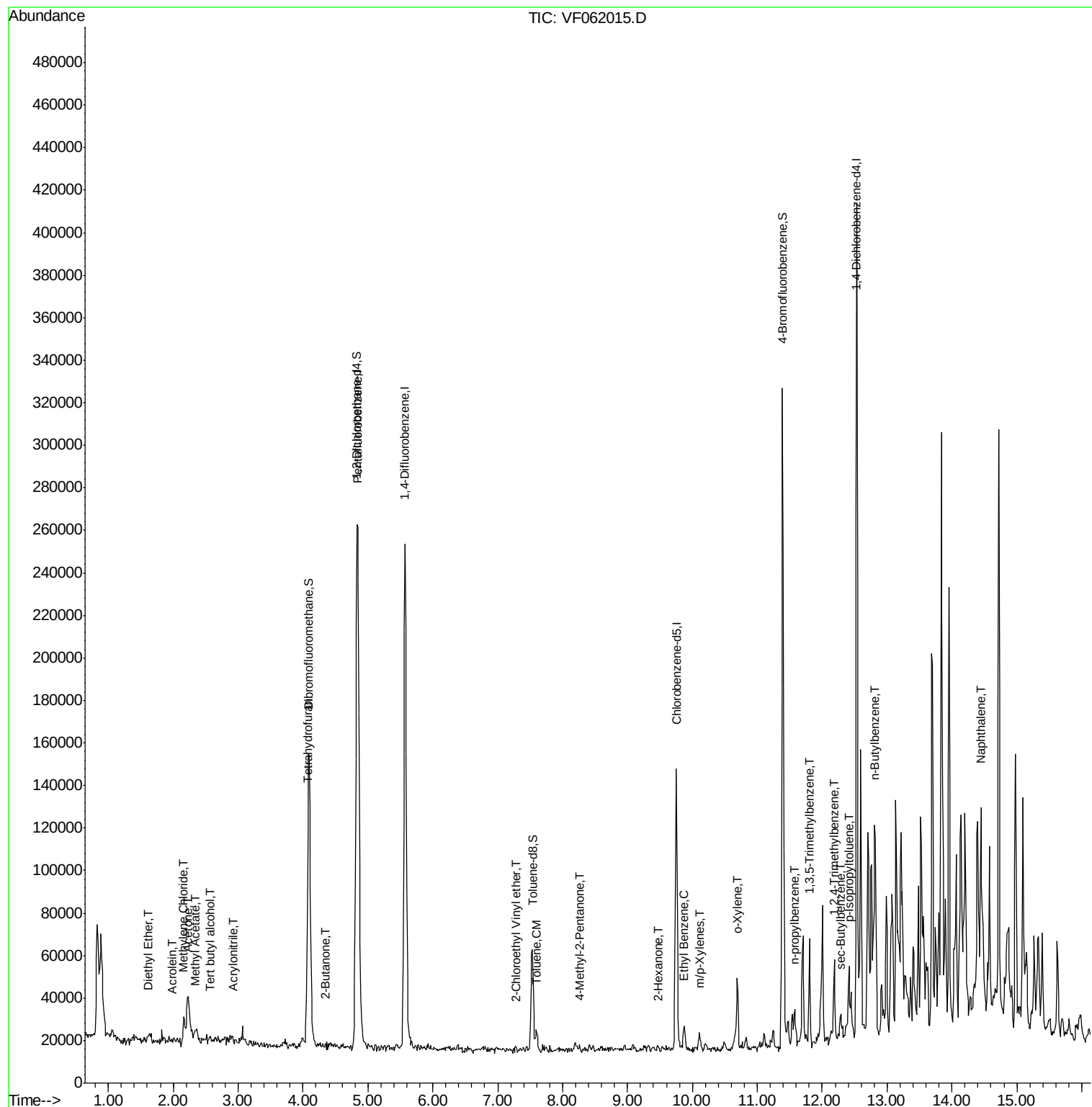
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.85	168	230579	50.00	ug/l	-0.02
34) 1,4-Difluorobenzene	5.57	114	293344	50.00	ug/l	-0.03
63) Chlorobenzene-d5	9.75	117	106156	50.00	ug/l	-0.02
72) 1,4-Dichlorobenzene-d4	12.53	152	108258	50.00	ug/l	-0.02
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	4.82	65	101785	61.32	ug/l	-0.02
Spiked Amount 50.000			Recovery	=	122.64%	
35) Dibromofluoromethane	4.09	113	143834	73.02	ug/l	-0.02
Spiked Amount 50.000			Recovery	=	146.04%	
50) Toluene-d8	7.53	98	42788	7.43	ug/l	-0.02
Spiked Amount 50.000			Recovery	=	14.86%	
62) 4-Bromofluorobenzene	11.39	95	121275	53.01	ug/l	-0.02
Spiked Amount 50.000			Recovery	=	106.02%	
Target Compounds						
					Qvalue	
8) Diethyl Ether	1.62	74	1552	2.181	ug/l	86
11) Tert butyl alcohol	2.56	59	782	7.700	ug/l #	71
13) Acrolein	1.98	56	452	4.123	ug/l #	48
15) Acrylonitrile	2.93	53	756	2.448	ug/l #	61
16) Acetone	2.23	43	25958	69.646	ug/l	100
18) Methyl Acetate	2.33	43	5647	7.406	ug/l	96
20) Methylene Chloride	2.17	84	3860	2.012	ug/l	90
25) 2-Butanone	4.34	43	2329	3.155	ug/l #	51
29) Tetrahydrofuran	4.06	42	821	2.557	ug/l #	54
51) 4-Methyl-2-Pentanone	8.26	43	2045	2.046	ug/l #	68
52) Toluene	7.59	92	5189	1.210	ug/l	97
58) 2-Chloroethyl Vinyl ether	7.28	63	696	2.824	ug/l #	86
59) 2-Hexanone	9.47	43	1491	2.062	ug/l	91
67) Ethyl Benzene	9.88	91	10356	3.060	ug/l	99
68) m/p-Xylenes	10.11	106	2573	2.022	ug/l #	31
69) o-Xylene	10.69	106	10241	7.520	ug/l	88
78) n-propylbenzene	11.58	91	12747	1.482	ug/l	95
80) 1,3,5-Trimethylbenzene	11.80	105	24263	4.016	ug/l	96
84) 1,2,4-Trimethylbenzene	12.19	105	11326	1.872	ug/l	97
85) sec-Butylbenzene	12.29	105	8916	1.044	ug/l	98
86) p-Isopropyltoluene	12.42	119	23228	3.261	ug/l	97
89) n-Butylbenzene	12.82	91	20107	3.004	ug/l #	33
95) Naphthalene	14.44	128	21020	5.323	ug/l #	81

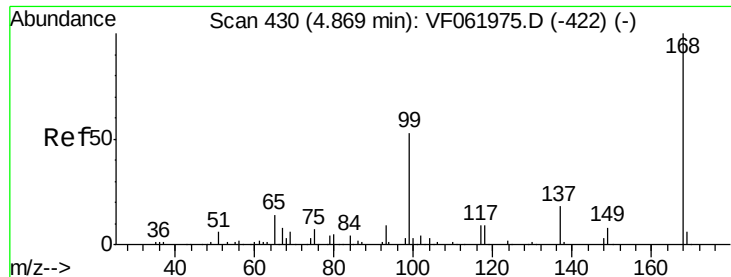
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.85 min Scan# 428

Delta R.T. -0.02 min

Lab File: VF062015.D

Acq: 19 Mar 2019 13:47

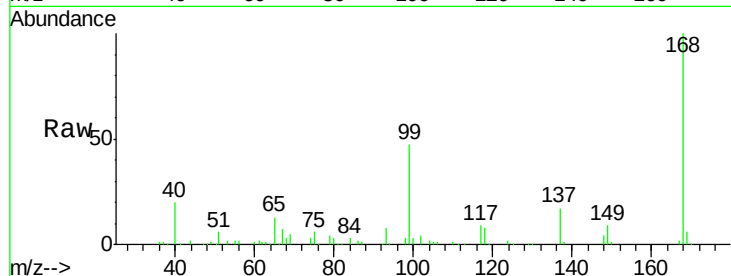
Instrument :
MSVOA_F
ClientSampleId :

Tot Ion:168 Resp: 230579

Ion Ratio Lower Upper

168 100

99 46.9 42.4 63.6



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

4.85

80000

60000

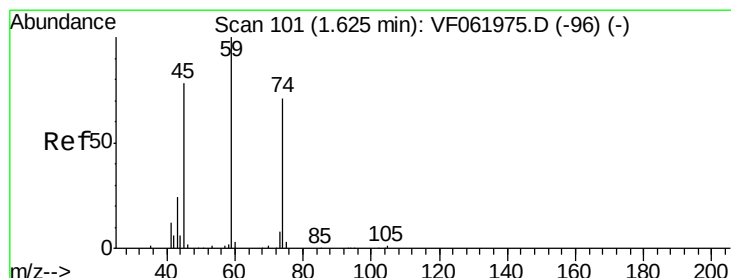
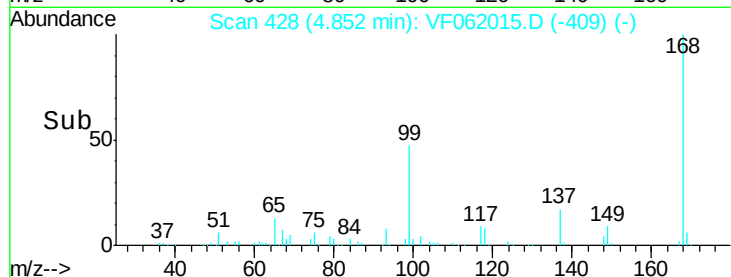
40000

20000

0

Time-->

4.70 4.80 4.90 5.00 5.10



#8

Diethyl Ether

Concen: 2.181 ug/l

RT: 1.62 min Scan# 100

Delta R.T. -0.01 min

Lab File: VF062015.D

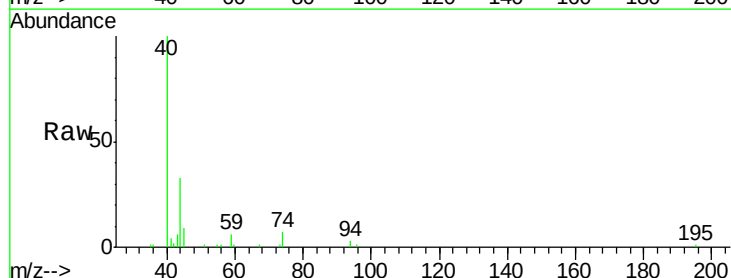
Acq: 19 Mar 2019 13:47

Tgt Ion: 74 Resp: 1552

Ion Ratio Lower Upper

74 100

45 127.2 56.3 168.8



Abundance Ion 74.00 (73.70 to 74.70): VF0

Ion 45.00 (44.70 to 45.70): VF0

1.62

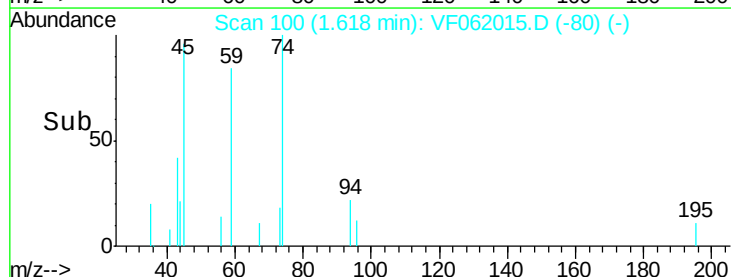
1000

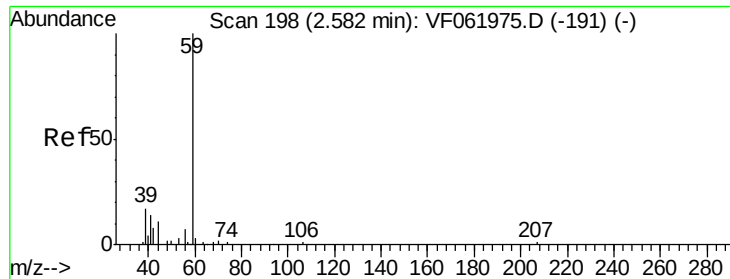
500

0

Time-->

1.55 1.60 1.65 1.70

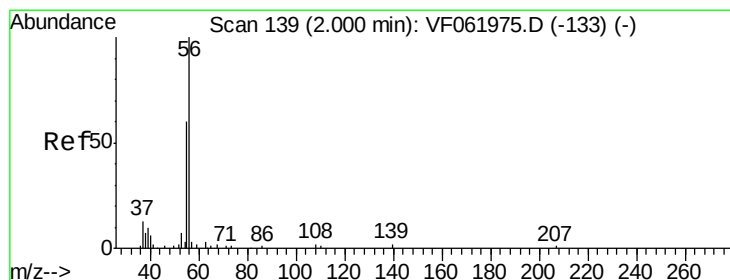
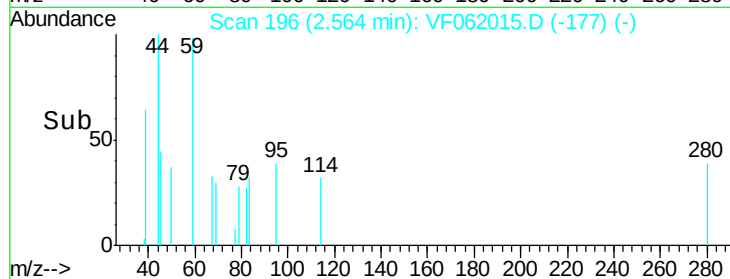
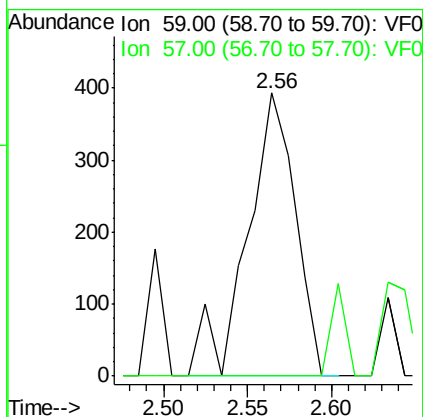
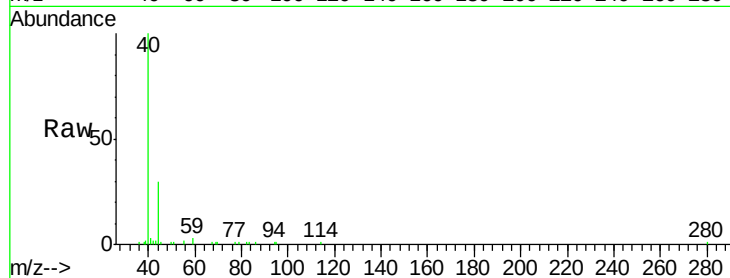




#11
Tert butyl alcohol
Concen: 7.700 ug/l
RT: 2.56 min Scan# 196
Delta R.T. -0.02 min
Lab File: VF062015.D
Acq: 19 Mar 2019 13:47

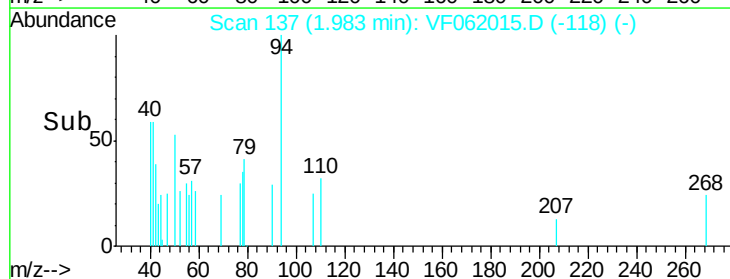
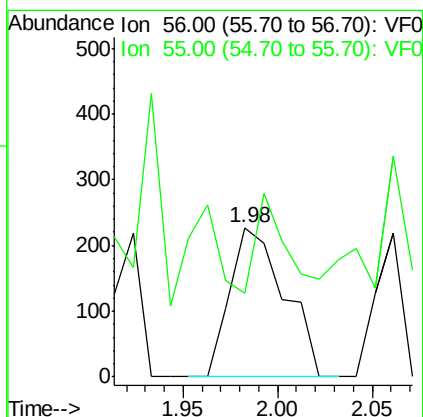
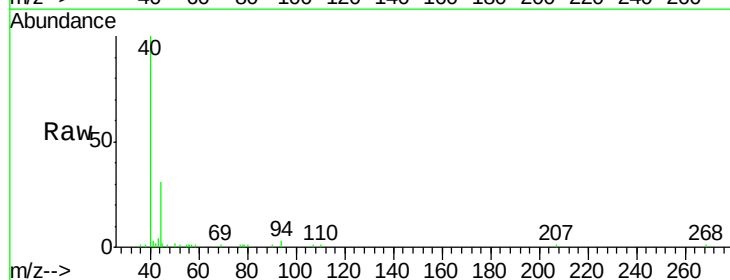
Instrument :
MSVOA_F
ClientSampled :

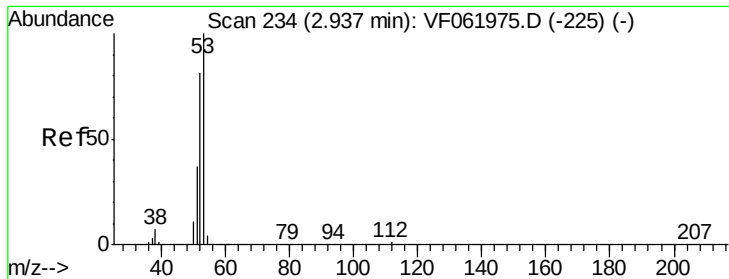
Tot Ion: 59 Resp: 782
Ion Ratio Lower Upper
59 100
57 0.0 8.7 13.1#



#13
Acrolein
Concen: 4.123 ug/l
RT: 1.98 min Scan# 137
Delta R.T. -0.02 min
Lab File: VF062015.D
Acq: 19 Mar 2019 13:47

Tgt Ion: 56 Resp: 452
Ion Ratio Lower Upper
56 100
55 100.9 49.1 73.7#





#15

Acrylonitrile

Concen: 2.448 ug/l

RT: 2.93 min Scan# 233

Delta R.T. -0.01 min

Lab File: VF062015.D

Acq: 19 Mar 2019 13:47

Instrument :

MSVOA_F

ClientSampled :

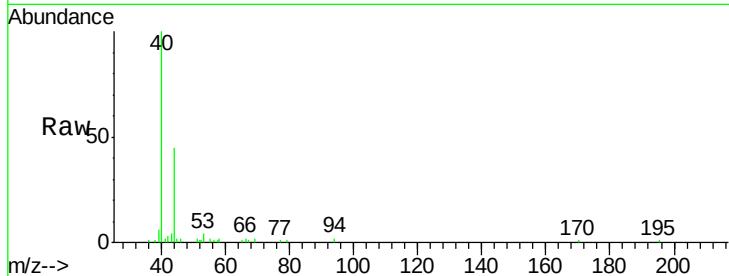
Tot Ion: 53 Resp: 756

Ion Ratio Lower Upper

53 100

52 55.7 64.4 96.6#

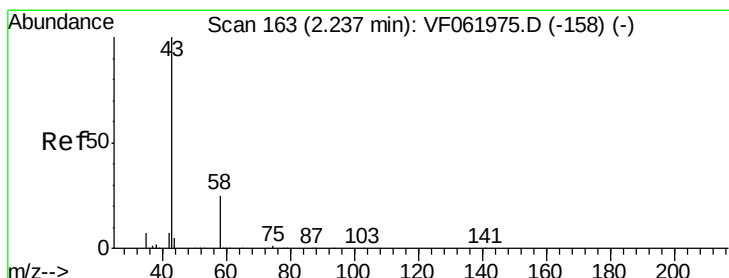
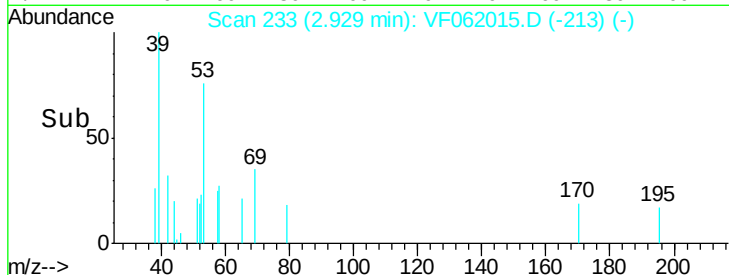
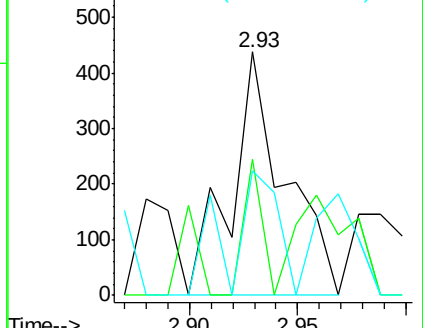
51 76.3 30.3 45.5#



Abundance Ion 53.00 (52.70 to 53.70): VF0

Ion 52.00 (51.70 to 52.70): VF0

Ion 51.00 (50.70 to 51.70): VF0



#16

Acetone

Concen: 69.646 ug/l

RT: 2.23 min Scan# 162

Delta R.T. -0.01 min

Lab File: VF062015.D

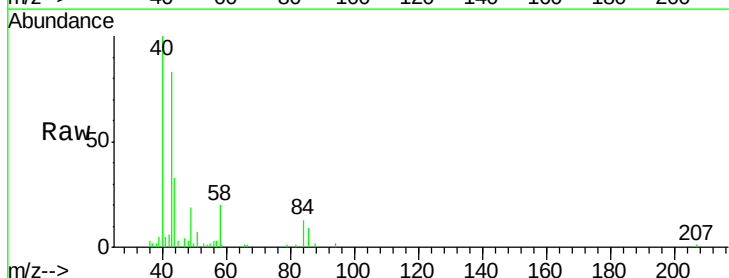
Acq: 19 Mar 2019 13:47

Tgt Ion: 43 Resp: 25958

Ion Ratio Lower Upper

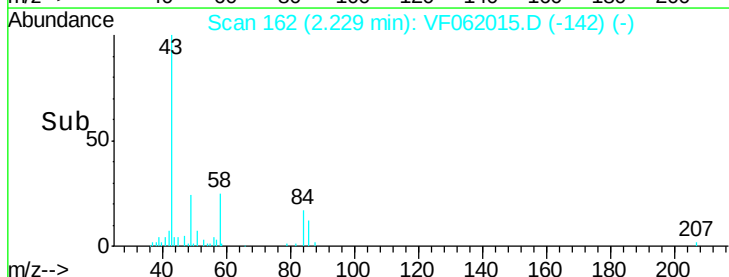
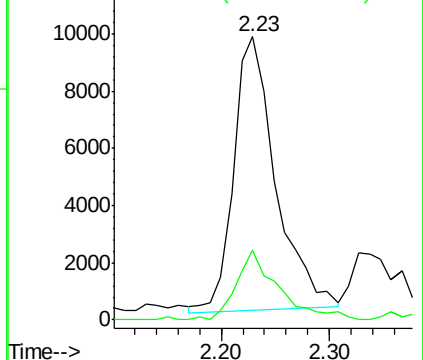
43 100

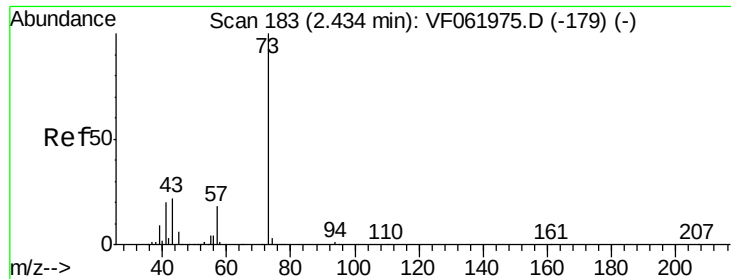
58 24.8 19.9 29.9



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

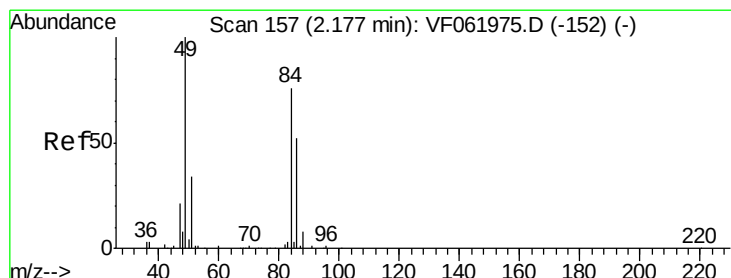
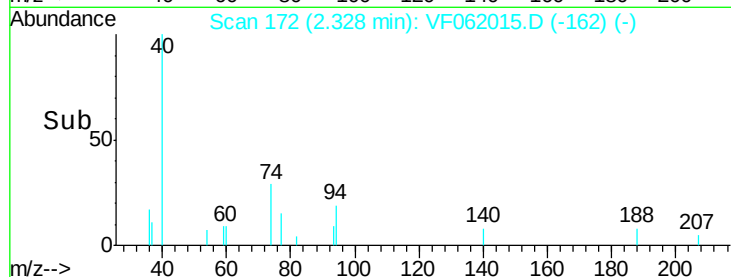
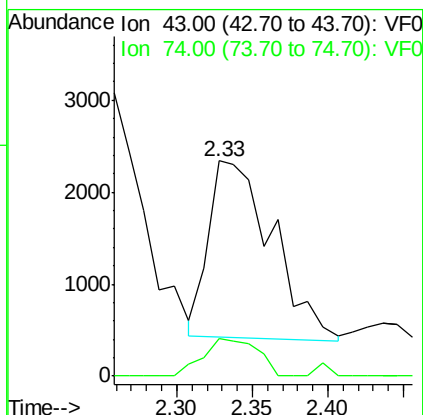
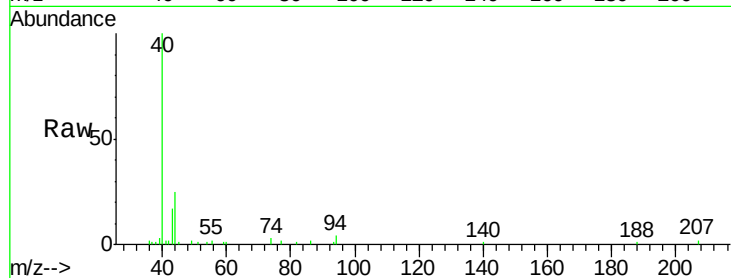




#18
Methvl Acetate
Concen: 7.406 ug/l
RT: 2.33 min Scan# 172
Delta R.T. -0.11 min
Lab File: VF062015.D
Acq: 19 Mar 2019 13:47

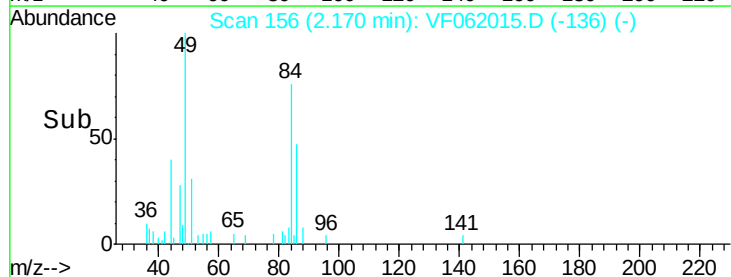
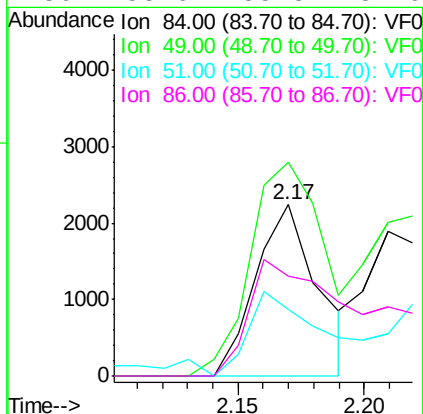
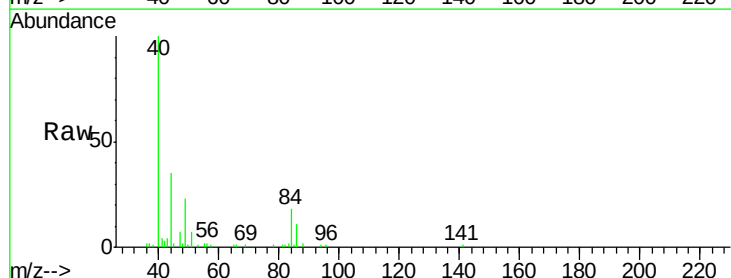
Instrument :
MSVOA_F
ClientSampleId :

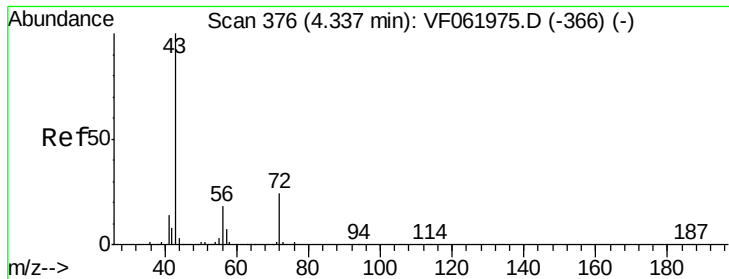
Tot Ion: 43 Resp: 5647
Ion Ratio Lower Upper
43 100
74 17.6 12.6 18.8



#20
Methylene Chloride
Concen: 2.012 ug/l
RT: 2.17 min Scan# 156
Delta R.T. -0.01 min
Lab File: VF062015.D
Acq: 19 Mar 2019 13:47

Tgt Ion: 84 Resp: 3860
Ion Ratio Lower Upper
84 100
49 124.7 107.0 160.6
51 38.7 37.2 55.8
86 58.6 55.3 82.9





#25

2-Butanone

Concen: 3.155 ug/l

RT: 4.34 min Scan# 376

Delta R.T. 0.00 min

Lab File: VF062015.D

Acq: 19 Mar 2019 13:47

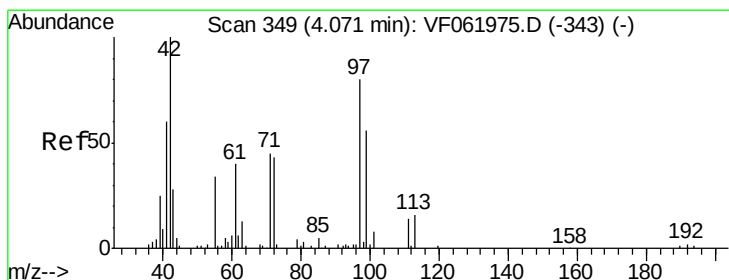
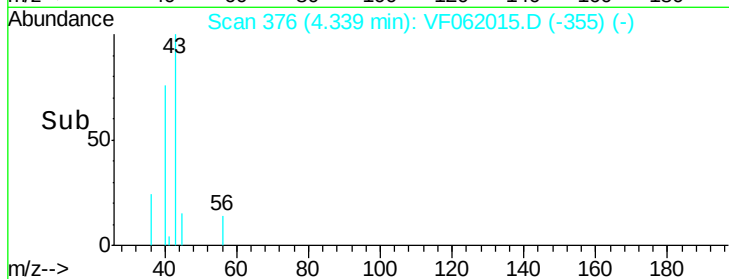
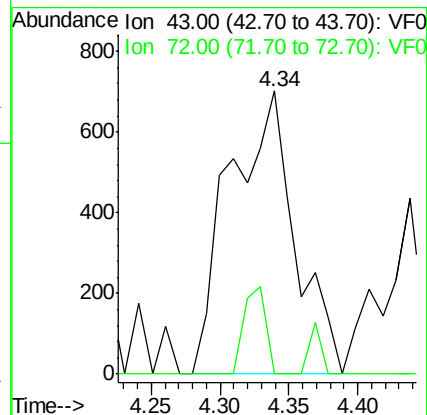
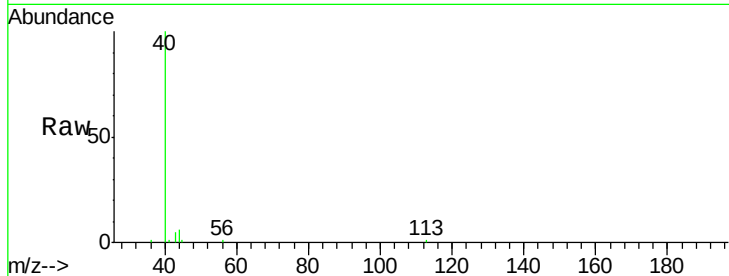
Instrument :
MSVOA_F
ClientSampleId :

Tot Ion: 43 Resp: 2329

Ion Ratio Lower Upper

43 100

72 0.0 19.8 29.6#



#29

Tetrahydrofuran

Concen: 2.557 ug/l

RT: 4.06 min Scan# 348

Delta R.T. -0.01 min

Lab File: VF062015.D

Acq: 19 Mar 2019 13:47

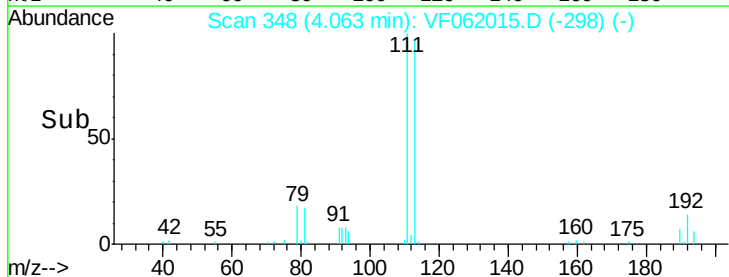
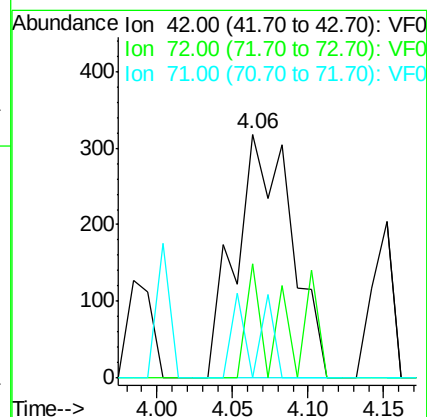
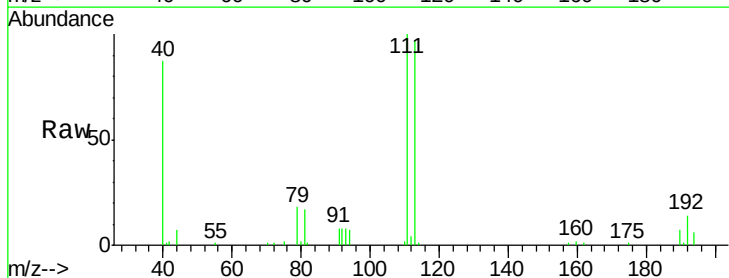
Tgt Ion: 42 Resp: 821

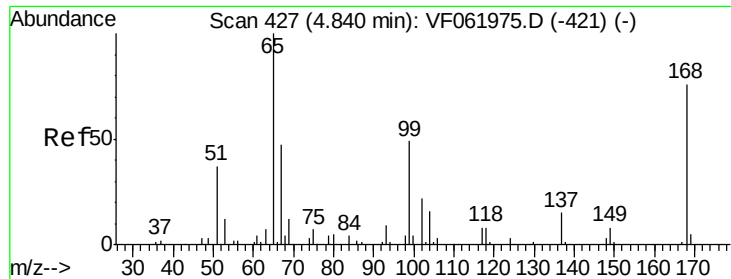
Ion Ratio Lower Upper

42 100

72 10.7 34.0 51.0#

71 15.8 34.2 51.4#

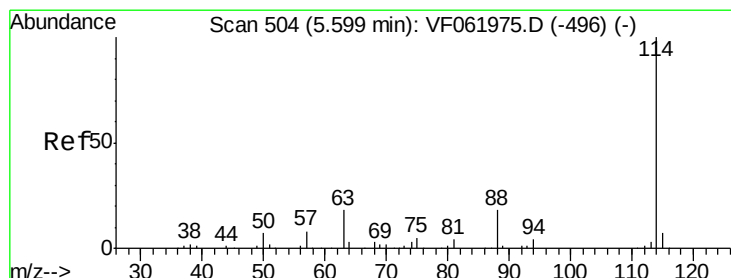
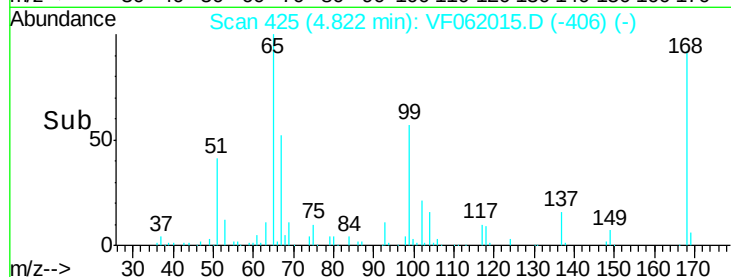
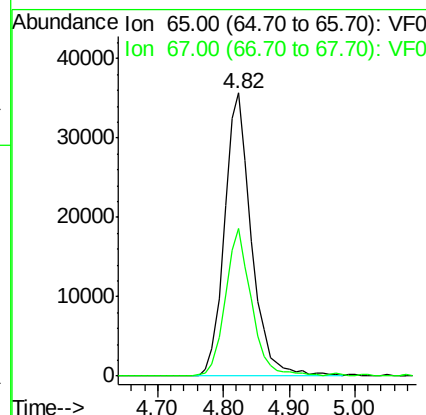
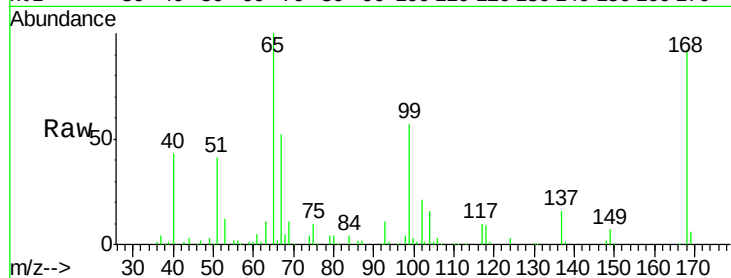




#33
 1,2-Dichloroethane-d4
 Concen: 61.324 ug/l
 RT: 4.82 min Scan# 425
 Delta R.T. -0.02 min
 Lab File: VF062015.D
 Acq: 19 Mar 2019 13:47

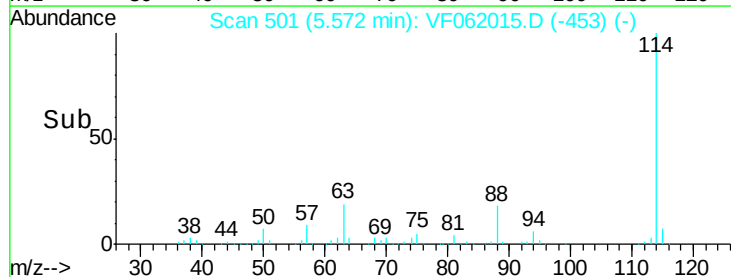
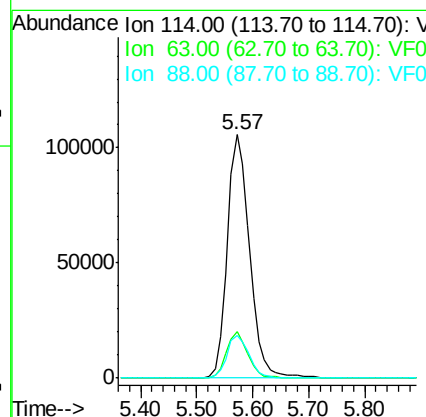
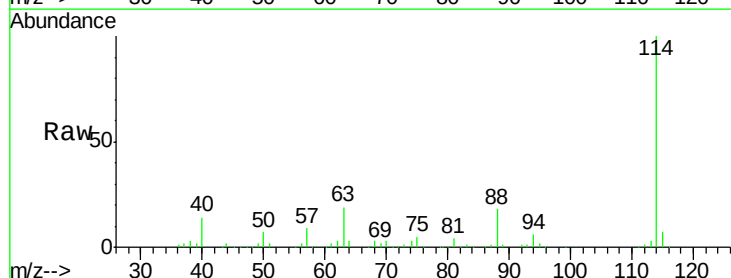
Instrument :
 MSVOA_F
 ClientSampled :

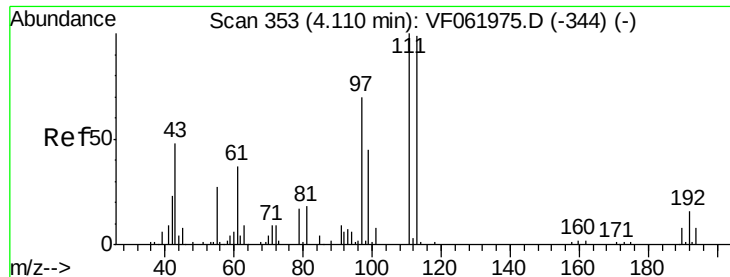
Tot Ion: 65 Resp: 101785
 Ion Ratio Lower Upper
 65 100
 67 52.1 0.0 109.4



#34
 1,4-Difluorobenzene
 Concen: 50.000 ug/l
 RT: 5.57 min Scan# 501
 Delta R.T. -0.03 min
 Lab File: VF062015.D
 Acq: 19 Mar 2019 13:47

Tgt Ion: 114 Resp: 293344
 Ion Ratio Lower Upper
 114 100
 63 19.1 0.0 36.4
 88 17.6 0.0 36.4





#35

Dibromofluoromethane

Concen: 73.017 ug/l

RT: 4.09 min Scan# 351

Delta R.T. -0.02 min

Lab File: VF062015.D

Acq: 19 Mar 2019 13:47

Instrument :
MSVOA_F
ClientSampleId :

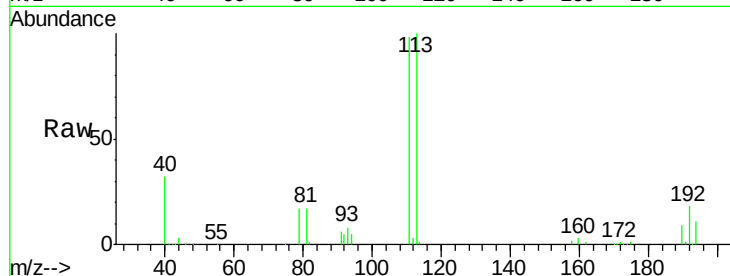
Tot Ion:113 Resp: 143834

Ion Ratio Lower Upper

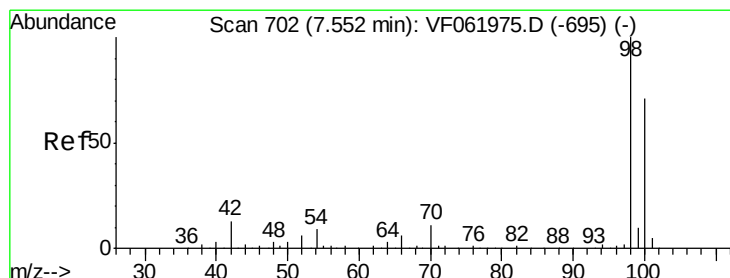
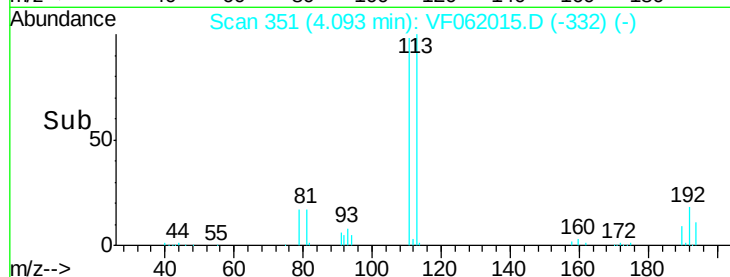
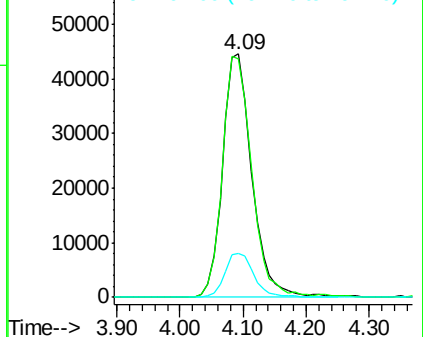
113 100

111 97.8 80.8 121.2

192 18.3 13.0 19.6



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



#50

Toluene-d8

Concen: 7.430 ug/l

RT: 7.53 min Scan# 700

Delta R.T. -0.02 min

Lab File: VF062015.D

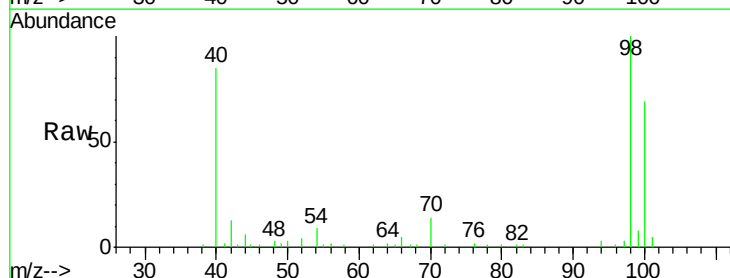
Acq: 19 Mar 2019 13:47

Tgt Ion: 98 Resp: 42788

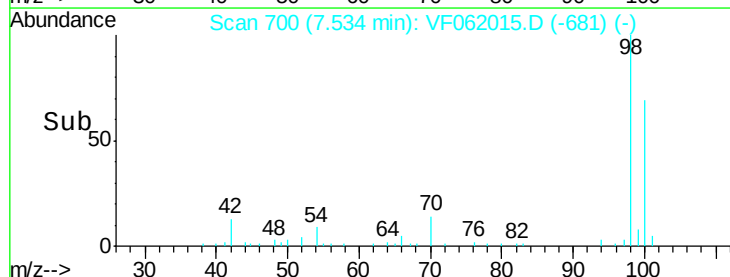
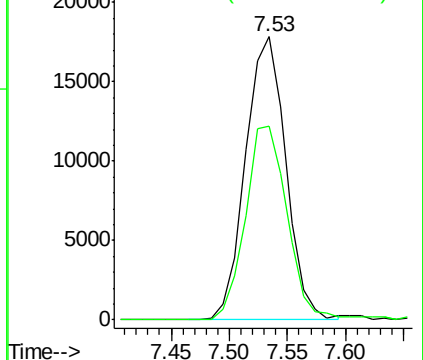
Ion Ratio Lower Upper

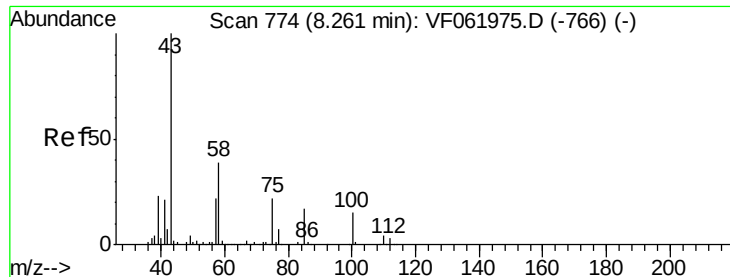
98 100

100 68.5 56.8 85.2



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: 2.046 ug/l

RT: 8.26 min Scan# 774

Delta R.T. 0.00 min

Lab File: VF062015.D

Acq: 19 Mar 2019 13:47

Instrument :

MSVOA_F

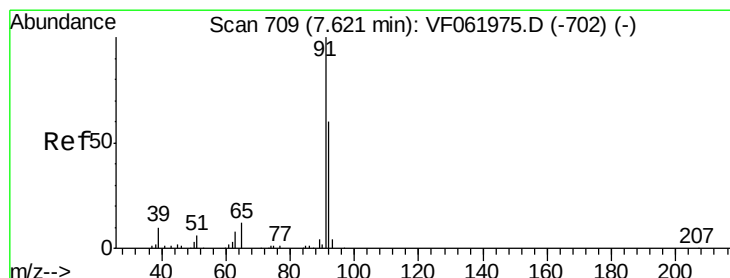
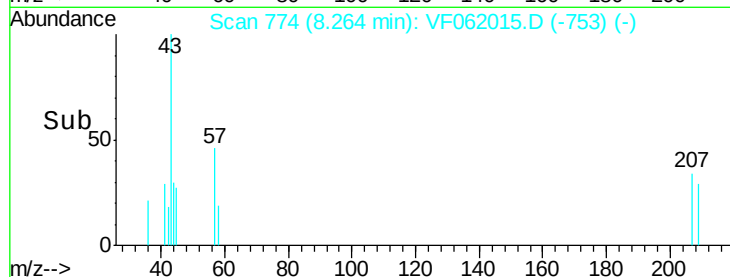
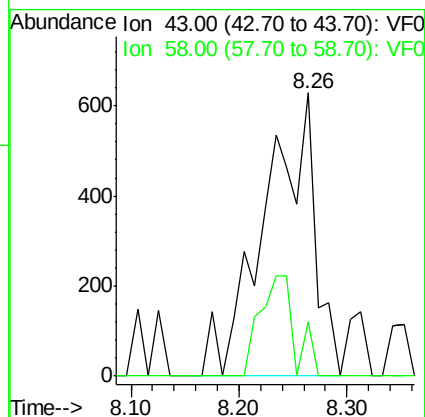
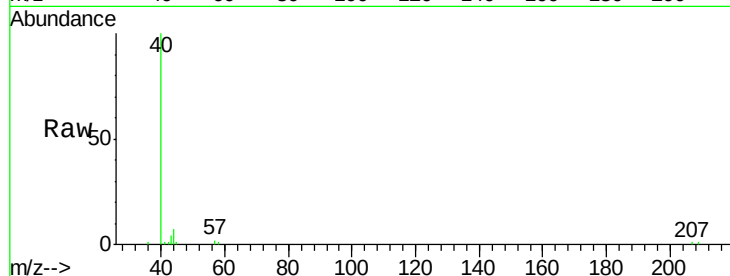
ClientSampleId :

Tot Ion: 43 Resp: 2045

Ion Ratio Lower Upper

43 100

58 19.3 31.1 46.7#



#52

Toluene

Concen: 1.210 ug/l

RT: 7.59 min Scan# 706

Delta R.T. -0.03 min

Lab File: VF062015.D

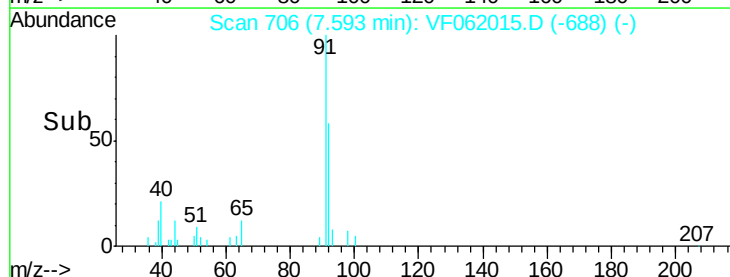
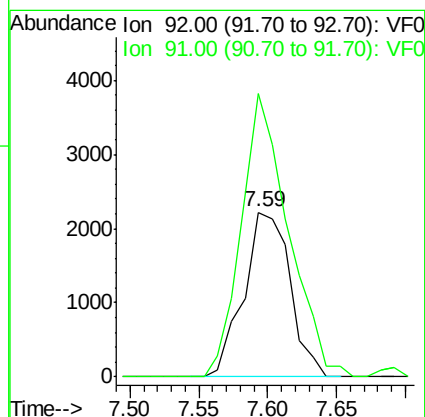
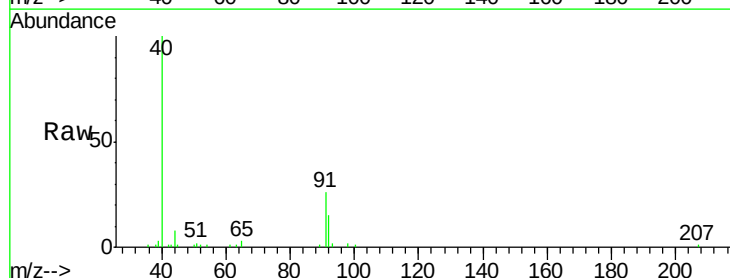
Acq: 19 Mar 2019 13:47

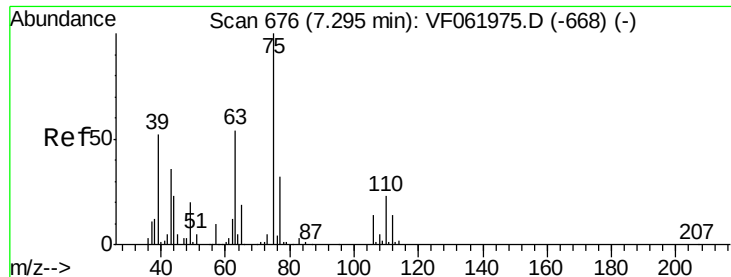
Tgt Ion: 92 Resp: 5189

Ion Ratio Lower Upper

92 100

91 172.1 134.0 201.0





#58

2-Chloroethyl Vinyl ether

Concen: 2.824 ug/l

RT: 7.28 min Scan# 674

Delta R.T. -0.02 min

Lab File: VF062015.D

Acq: 19 Mar 2019 13:47

Instrument :

MSVOA_F

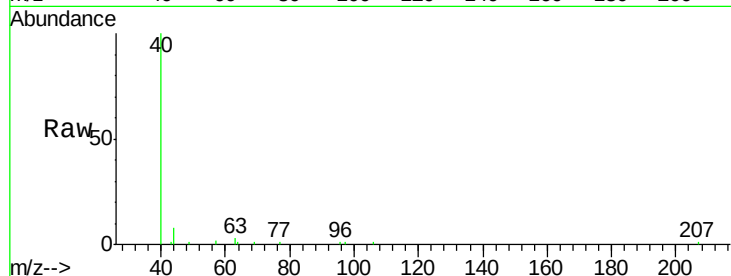
ClientSampleId :

Tot Ion: 63 Resp: 696

Ion Ratio Lower Upper

63 100

106 33.4 20.9 31.3#



Abundance Ion 63.00 (62.70 to 63.70): VF0

Ion 106.00 (105.70 to 106.70): V

7.28

400

300

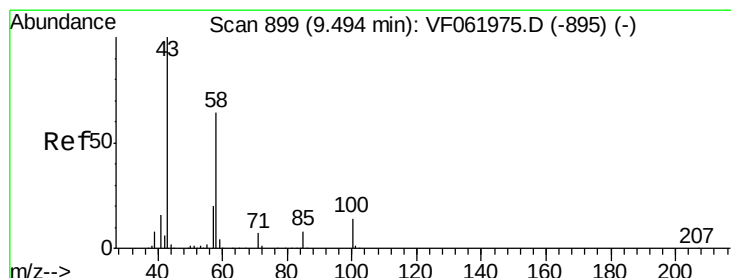
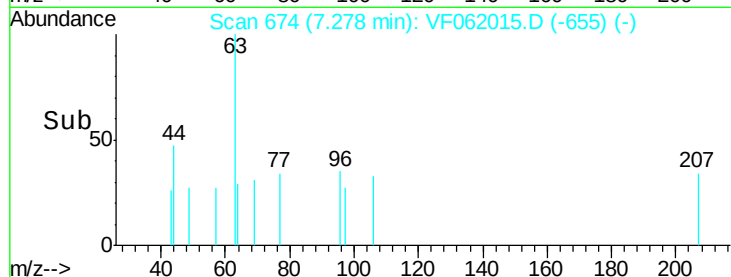
200

100

0

7.25 7.30

Time-->



#59

2-Hexanone

Concen: 2.062 ug/l

RT: 9.47 min Scan# 896

Delta R.T. -0.03 min

Lab File: VF062015.D

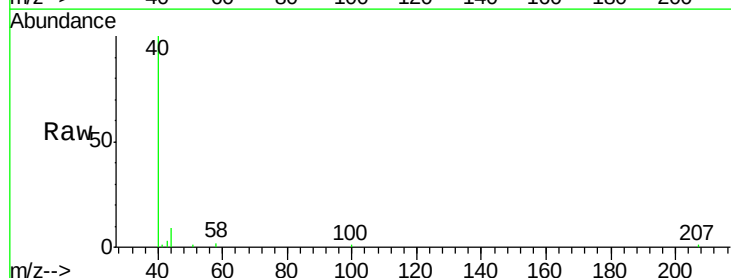
Acq: 19 Mar 2019 13:47

Tgt Ion: 43 Resp: 1491

Ion Ratio Lower Upper

43 100

58 63.6 28.4 85.2



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

9.47

500

400

300

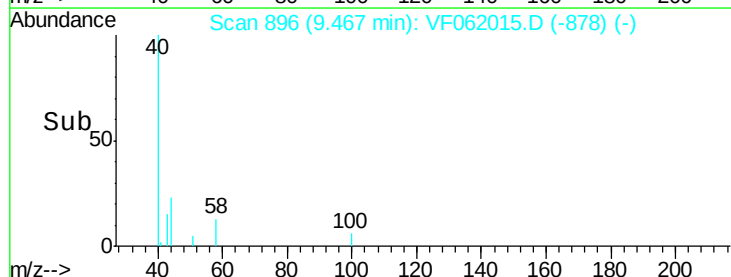
200

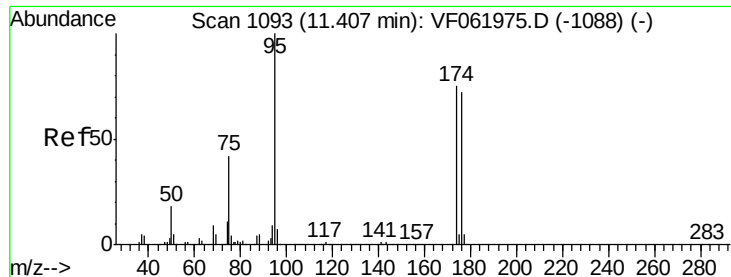
100

0

9.40 9.45 9.50 9.55

Time-->





#62

4-Bromofluorobenzene

Concen: 53.013 ug/l

RT: 11.39 min Scan# 1091

Delta R.T. -0.02 min

Lab File: VF062015.D

Acq: 19 Mar 2019 13:47

Instrument :

MSVOA_F

ClientSampleId :

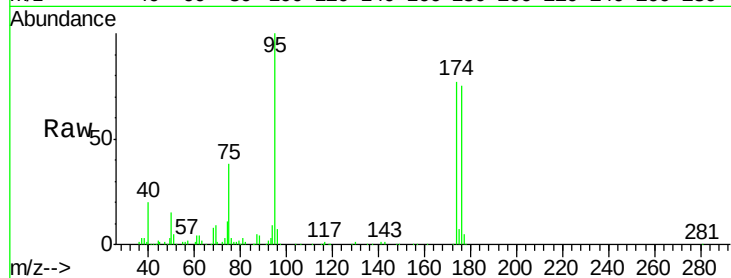
Tot Ion: 95 Resp: 121275

Ion Ratio Lower Upper

95 100

174 77.1 0.0 149.4

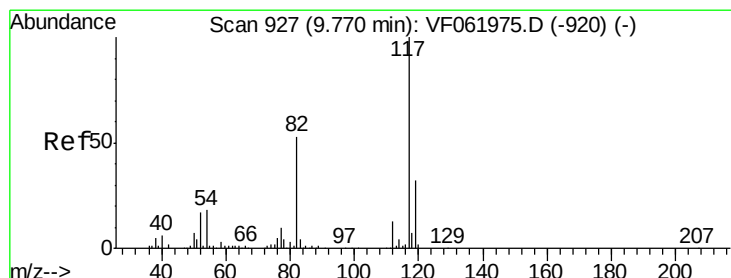
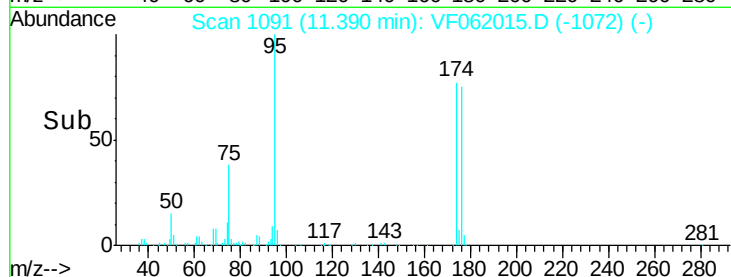
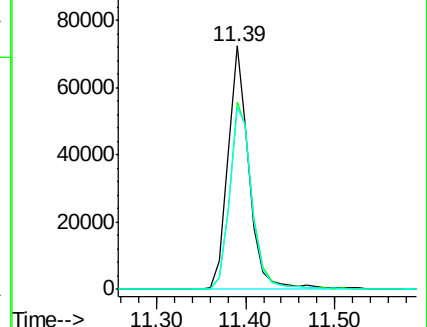
176 74.8 0.0 143.4



Abundance Ion 95.00 (94.70 to 95.70): VF061975.D (-1088) (-)

Ion 174.00 (173.70 to 174.70): VF061975.D (-1088) (-)

Ion 176.00 (175.70 to 176.70): VF061975.D (-1088) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 9.75 min Scan# 925

Delta R.T. -0.02 min

Lab File: VF062015.D

Acq: 19 Mar 2019 13:47

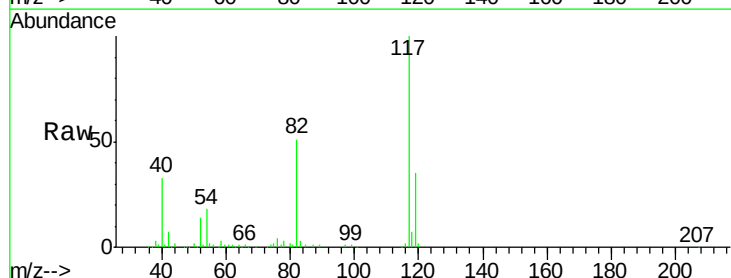
Tgt Ion: 117 Resp: 106156

Ion Ratio Lower Upper

117 100

82 51.5 42.5 63.7

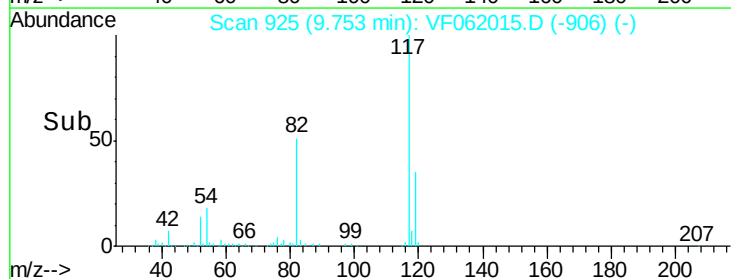
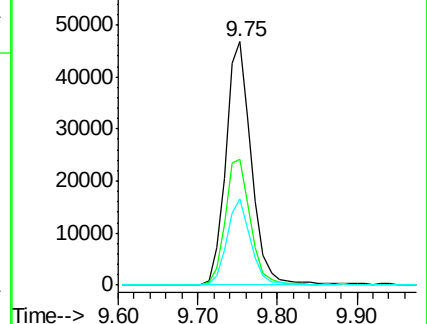
119 35.4 25.4 38.0

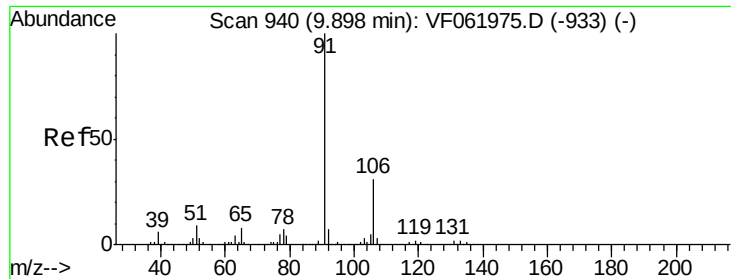


Abundance Ion 117.00 (116.70 to 117.70): VF061975.D (-920) (-)

Ion 82.00 (81.70 to 82.70): VF061975.D (-920) (-)

Ion 119.00 (118.70 to 119.70): VF061975.D (-920) (-)





#67

Ethyl Benzene

Concen: 3.060 ug/l

RT: 9.88 min Scan# 938

Delta R.T. -0.02 min

Lab File: VF062015.D

Acq: 19 Mar 2019 13:47

Instrument :

MSVOA_F

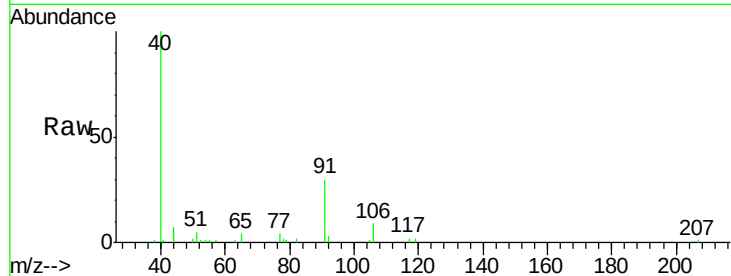
ClientSampleId :

Tot Ion: 91 Resp: 10356

Ion Ratio Lower Upper

91 100

106 30.9 24.4 36.6



Abundance Ion 91.00 (90.70 to 91.70): VF0

Ion 106.00 (105.70 to 106.70): V

9.88

4000

3000

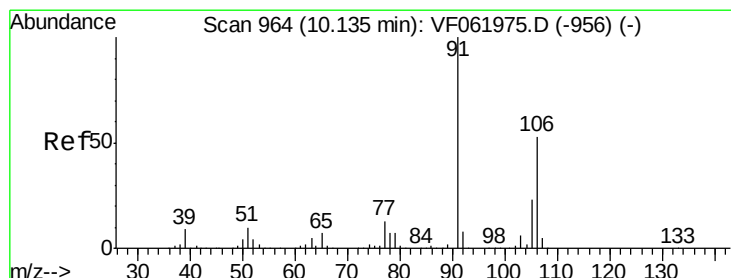
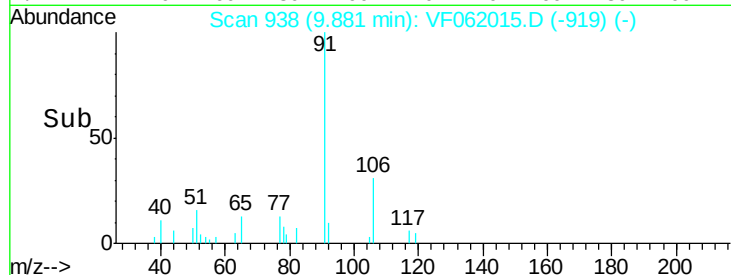
2000

1000

0

Time-->

9.80 9.90



#68

m/p-Xylenes

Concen: 2.022 ug/l

RT: 10.11 min Scan# 961

Delta R.T. -0.03 min

Lab File: VF062015.D

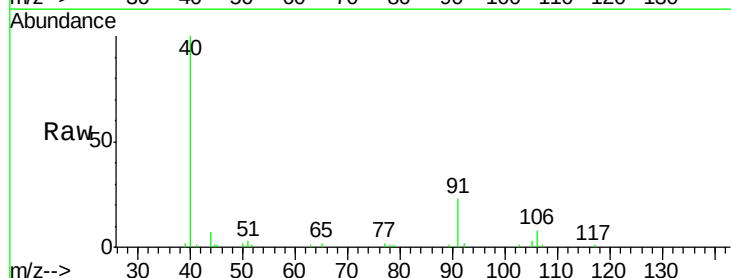
Acq: 19 Mar 2019 13:47

Tgt Ion: 106 Resp: 2573

Ion Ratio Lower Upper

106 100

91 291.3 151.9 227.9#



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VF0

10.11

3000

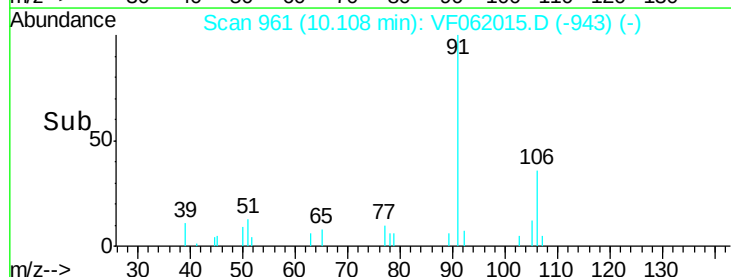
2000

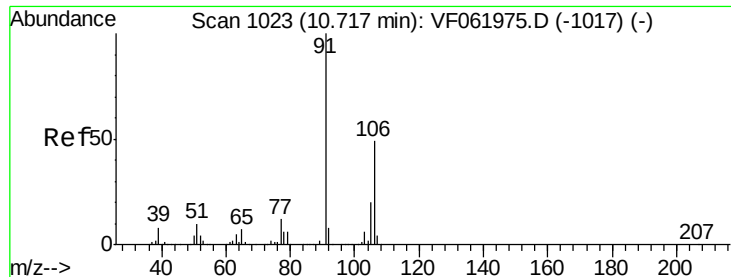
1000

0

Time-->

10.05 10.10 10.15

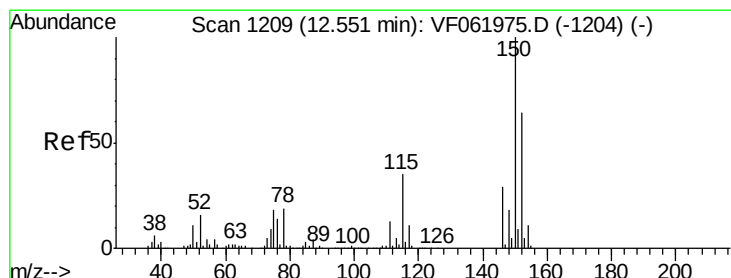
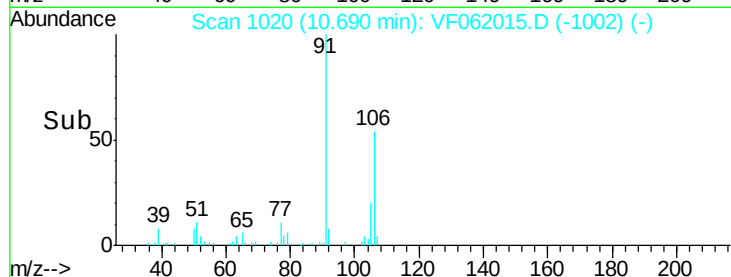
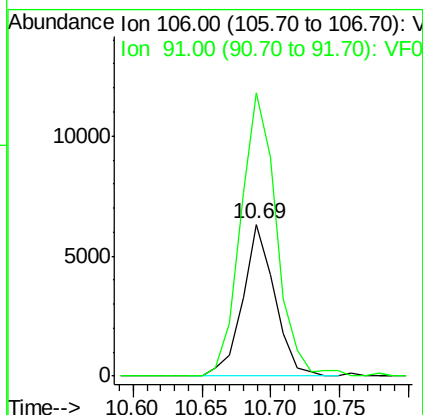
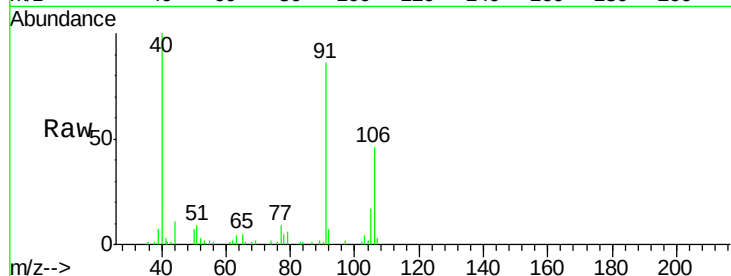




#69
o-Xylene
Concen: 7.520 ug/l
RT: 10.69 min Scan# 1020
Delta R.T. -0.03 min
Lab File: VF062015.D
Acq: 19 Mar 2019 13:47

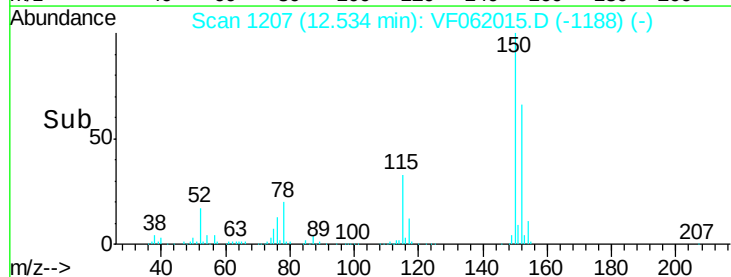
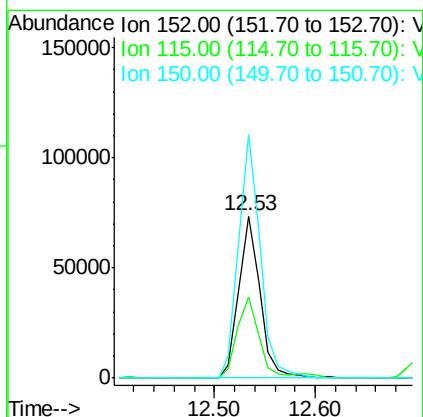
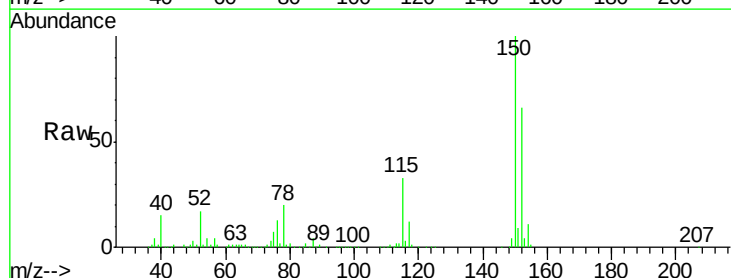
Instrument :
MSVOA_F
ClientSampled :

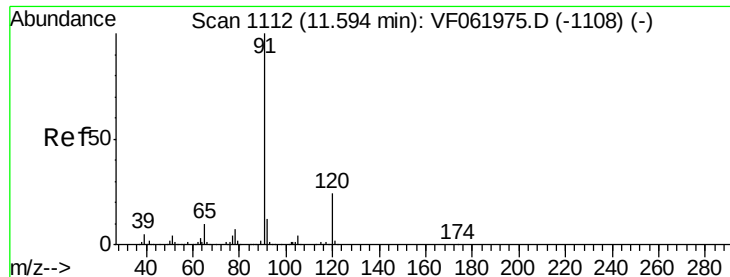
Tot Ion:106 Resp: 10241
Ion Ratio Lower Upper
106 100
91 186.5 102.3 306.8



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.53 min Scan# 1207
Delta R.T. -0.02 min
Lab File: VF062015.D
Acq: 19 Mar 2019 13:47

Tgt Ion:152 Resp: 108258
Ion Ratio Lower Upper
152 100
115 49.8 27.3 81.9
150 150.4 0.0 316.2





#78

n-propylbenzene

Concen: 1.482 ug/l

RT: 11.58 min Scan# 1110

Delta R.T. -0.02 min

Lab File: VF062015.D

Acq: 19 Mar 2019 13:47

Instrument :

MSVOA_F

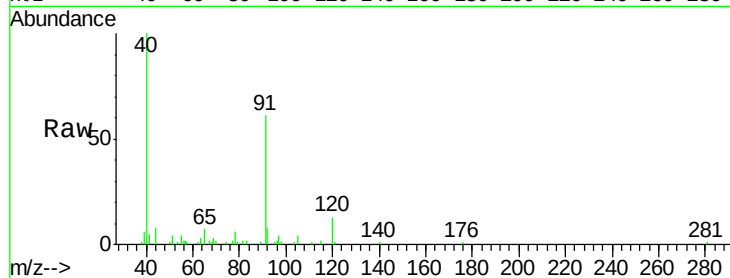
ClientSampled :

Tot Ion: 91 Resp: 12747

Ion Ratio Lower Upper

91 100

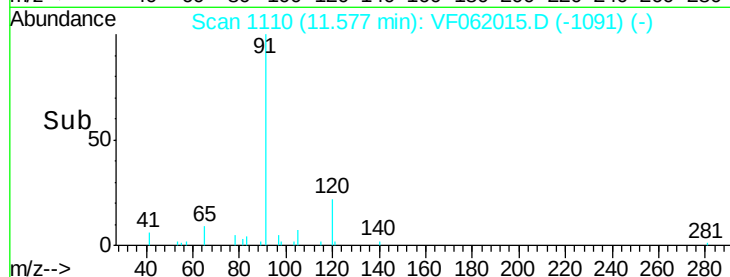
120 21.2 11.8 35.3



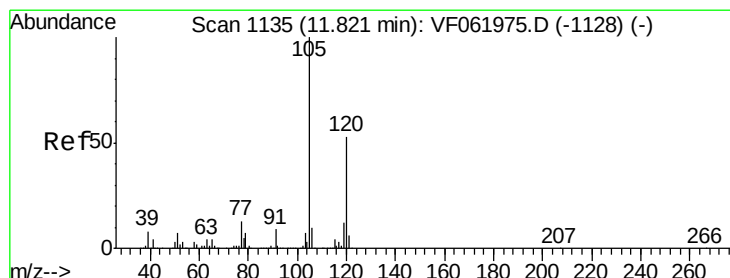
Abundance Ion 91.00 (90.70 to 91.70): VF061975.D (-1108) (-)

Ion 120.00 (119.70 to 120.70): VF061975.D (-1108) (-)

Time-->



Time-->



#80

1,3,5-Trimethylbenzene

Concen: 4.016 ug/l

RT: 11.80 min Scan# 1133

Delta R.T. -0.02 min

Lab File: VF062015.D

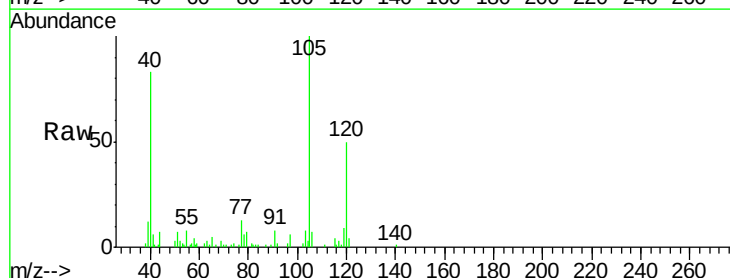
Acq: 19 Mar 2019 13:47

Tgt Ion: 105 Resp: 24263

Ion Ratio Lower Upper

105 100

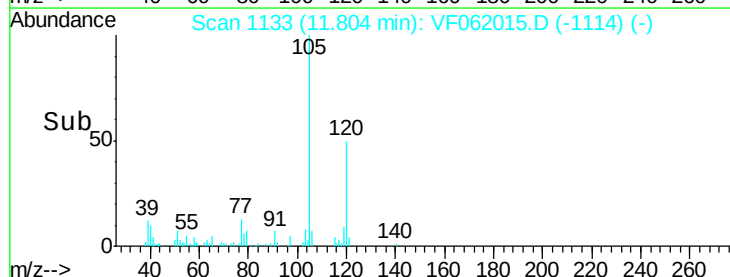
120 50.3 26.6 79.7



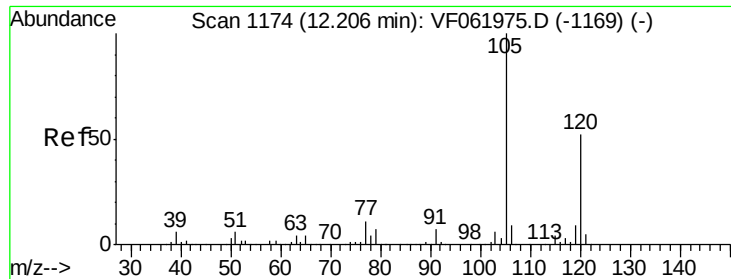
Abundance Ion 105.00 (104.70 to 105.70): VF061975.D (-1128) (-)

Ion 120.00 (119.70 to 120.70): VF061975.D (-1128) (-)

Time-->



Time-->



#84

1,2,4-Trimethylbenzene

Concen: 1.872 ug/l

RT: 12.19 min Scan# 1172

Delta R.T. -0.02 min

Lab File: VF062015.D

Acq: 19 Mar 2019 13:47

Instrument :

MSVOA_F

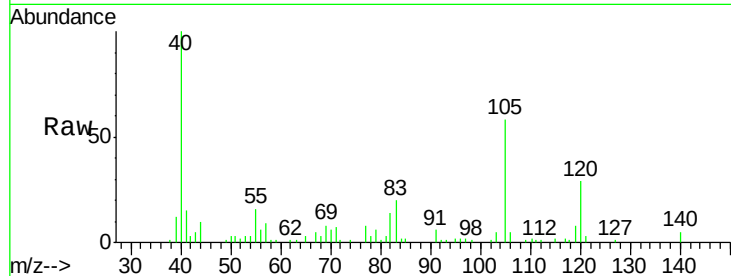
ClientSampleId :

Tot Ion:105 Resp: 11326

Ion Ratio Lower Upper

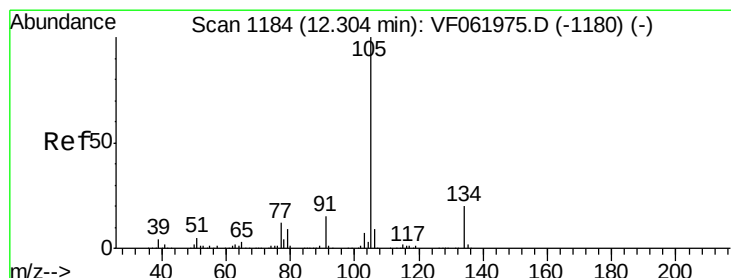
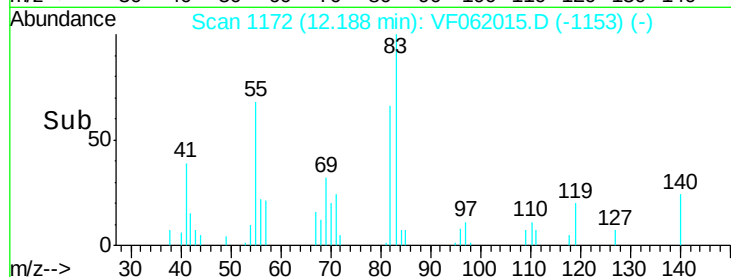
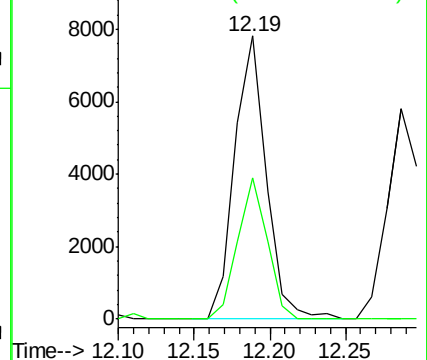
105 100

120 49.7 25.9 77.8



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V



#85

sec-Butylbenzene

Concen: 1.044 ug/l

RT: 12.29 min Scan# 1182

Delta R.T. -0.02 min

Lab File: VF062015.D

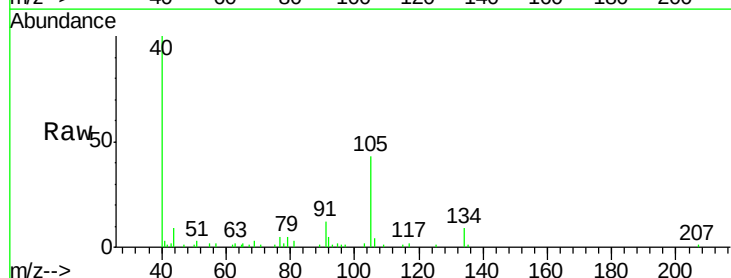
Acq: 19 Mar 2019 13:47

Tgt Ion:105 Resp: 8916

Ion Ratio Lower Upper

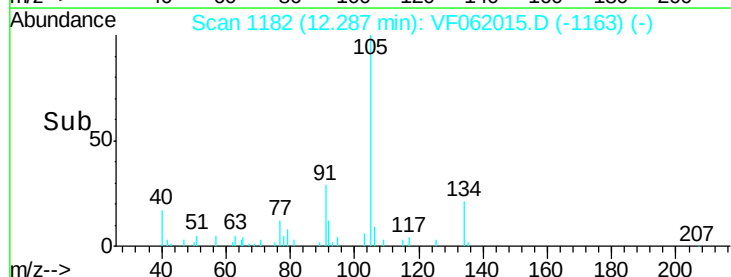
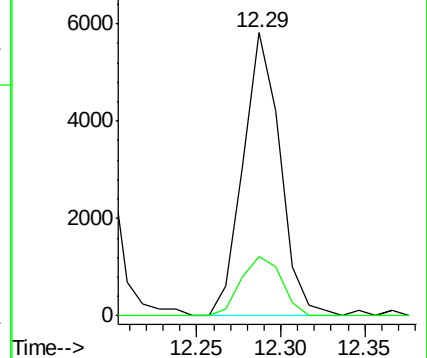
105 100

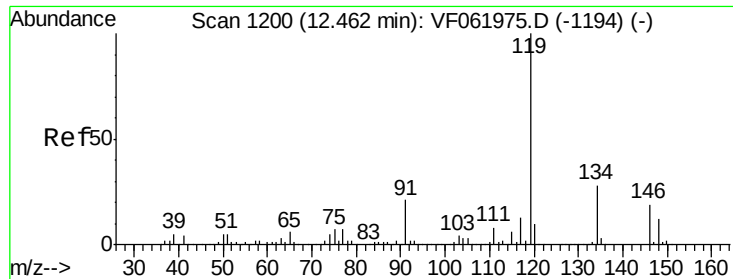
134 20.8 10.0 29.8



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 134.00 (133.70 to 134.70): V

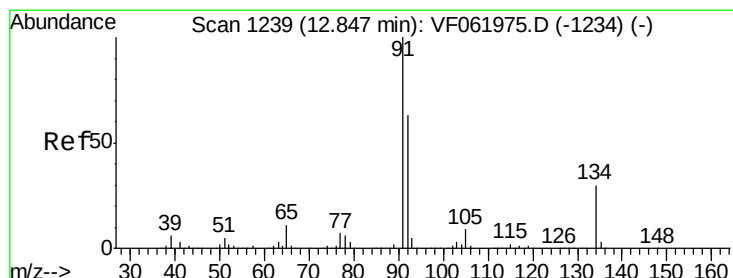
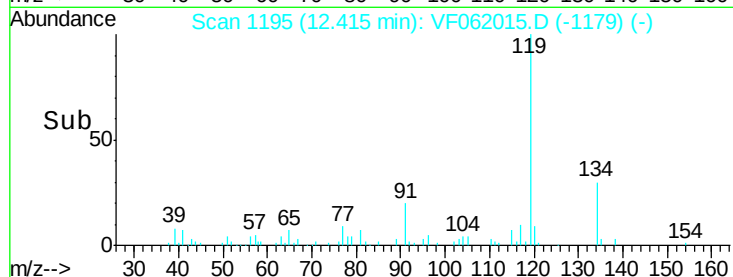
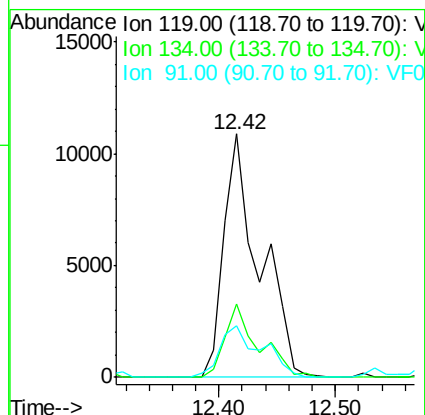
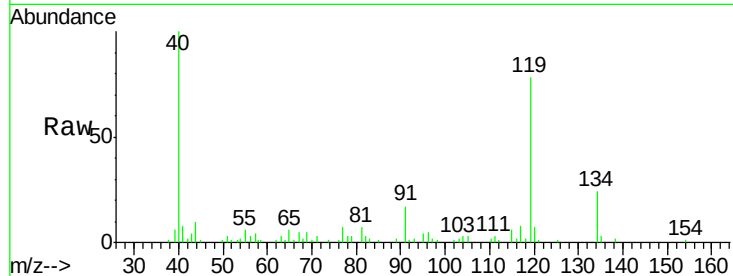




#86
p-Isopropyltoluene
Concen: 3.261 ug/l
RT: 12.42 min Scan# 1195
Delta R.T. -0.05 min
Lab File: VF062015.D
Acq: 19 Mar 2019 13:47

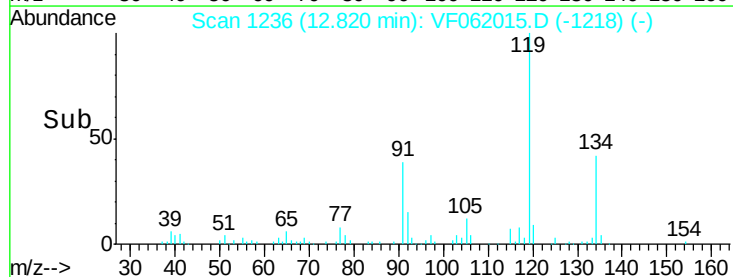
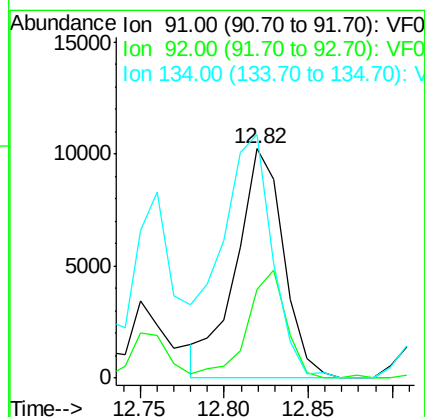
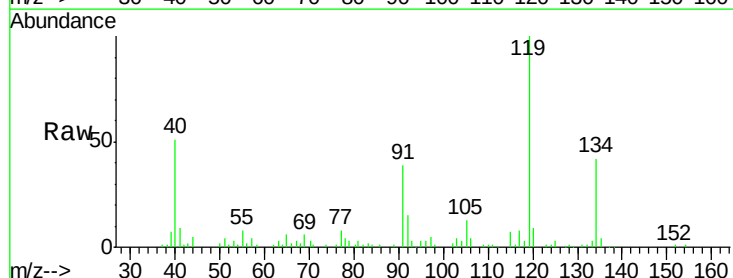
Instrument :
MSVOA_F
ClientSampled :

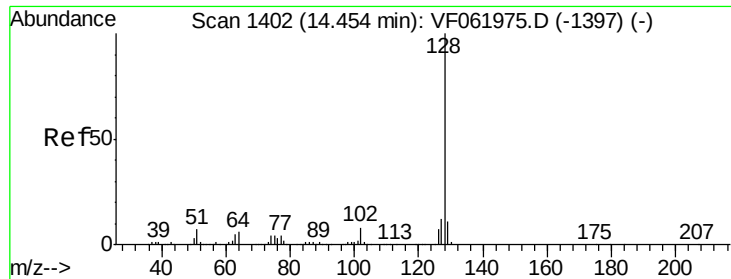
Tot Ion	Ratio	Lower	Upper
119	100		
134	30.1	13.9	41.7
91	21.3	10.4	31.1



#89
n-Butylbenzene
Concen: 3.004 ug/l
RT: 12.82 min Scan# 1236
Delta R.T. -0.03 min
Lab File: VF062015.D
Acq: 19 Mar 2019 13:47

Tgt Ion	Ratio	Lower	Upper
91	100		
92	38.6	31.7	95.1
134	106.2	15.1	45.3





#95
 Naphthalene
 Concen: 5.323 ug/l
 RT: 14.44 min Scan# 1400
 Delta R.T. -0.02 min
 Lab File: VF062015.D
 Acq: 19 Mar 2019 13:47

Instrument :
 MSVOA_F
 ClientSampleId :

Tot Ion	Ratio	Lower	Upper
128	100		
127	17.2	9.3	13.9#
129	20.5	9.1	13.7#

