

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_F\DATA\VF111418\
 Data File : VF060728.D
 Acq On : 14 Nov 2018 17:02
 Operator : VA/AP
 Sample : J5923-01RE
 Misc : 5.06g/5mL/MSVOA-F/SOIL
 ALS Vial : 12 Sample Multiplier: 1

Instrument :
 MSVOA_F
 ClientSampleId :
 MS-OILY-STONE

Quant Time: Nov 15 06:37:50 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_F\METHODS\82F111318S.M
 Quant Title : SW846 8260
 QLast Update : Wed Nov 14 03:11:14 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.85	168	206244	50.00	ug/l	-0.04
34) 1,4-Difluorobenzene	5.58	114	371240	50.00	ug/l	-0.04
63) Chlorobenzene-d5	9.75	117	301905	50.00	ug/l	-0.04
72) 1,4-Dichlorobenzene-d4	12.53	152	150540	50.00	ug/l	-0.03

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	4.82	65	101955	43.34	ug/l	-0.04
Spiked Amount			Recovery	=	86.68%	
35) Dibromofluoromethane	4.09	113	116627	41.79	ug/l	-0.04
Spiked Amount			Recovery	=	83.58%	
50) Toluene-d8	7.53	98	274921	37.47	ug/l	-0.04
Spiked Amount			Recovery	=	74.94%	
62) 4-Bromofluorobenzene	11.40	95	130136	38.47	ug/l	-0.02
Spiked Amount			Recovery	=	76.94%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
11) Tert butyl alcohol	2.57	59	415	3.876	ug/l #	1
13) Acrolein	1.99	56	275	2.809	ug/l #	29
16) Acetone	2.36	43	1149	2.285	ug/l	100
18) Methyl Acetate	2.36	43	1653	2.002	ug/l #	64
25) 2-Butanone	4.34	43	1126	1.361	ug/l	94
28) Bromochloromethane	3.84	49	2240	1.251	ug/l #	12
29) Tetrahydrofuran	4.05	42	483	1.416	ug/l #	50
30) Chloroform	3.84	83	19746	3.572	ug/l	98
41) Methacrylonitrile	4.73	41	583	Below Cal	#	44
49) 1,4-Dioxane	6.30	88	80	6.090	ug/l #	1
51) 4-Methyl-2-Pentanone	8.24	43	3399	2.214	ug/l #	74
56) Ethyl methacrylate	8.60	69	2561	1.227	ug/l #	74
59) 2-Hexanone	9.48	43	5085	4.714	ug/l	71
74) N-amyl acetate	11.38	43	5464	1.981	ug/l #	7
75) 1,1,2,2-Tetrachloroethane	11.74	83	3131	1.563	ug/l #	42
80) 1,3,5-Trimethylbenzene	11.81	105	16393	1.704	ug/l	89
84) 1,2,4-Trimethylbenzene	12.19	105	20838	2.094	ug/l	92
86) p-Isopropyltoluene	12.42	119	26956	2.329	ug/l	94
89) n-Butylbenzene	12.82	91	20144	1.706	ug/l #	1
92) 1,2-Dibromo-3-Chloropropan	13.61	75	671	1.782	ug/l #	31
93) 1,2,4-Trichlorobenzene	14.35	180	9553	2.812	ug/l	59
95) Naphthalene	14.45	128	10968	1.769	ug/l #	1
96) 1,2,3-Trichlorobenzene	14.63	180	24175	7.702	ug/l #	30

(#) = 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. -0.04 min

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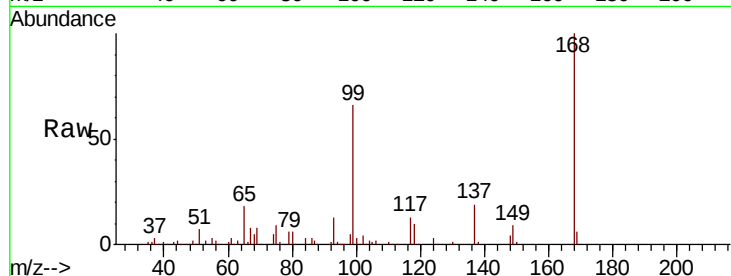
MS-OILY-STONE

Tgt Ion: 168 Resp: 206244

Ion Ratio Lower Upper

168 100

99 65.7 57.2 85.8



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

4.85

60000

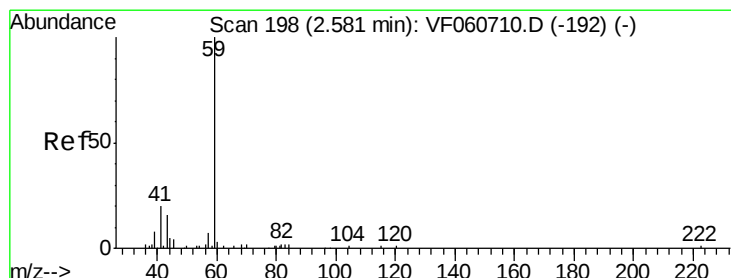
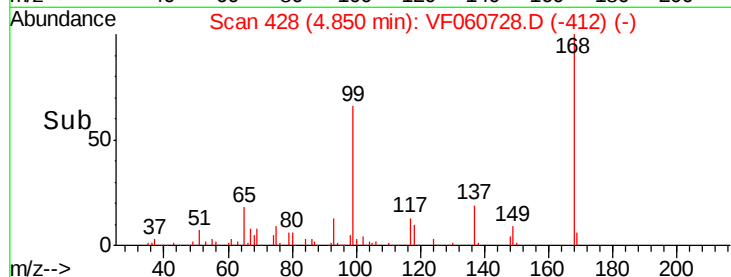
40000

20000

0

Time-->

4.70 4.80 4.90 5.00



#11

Tert butyl alcohol

Concen: 3.876 ug/l

RT: 2.57 min Scan# 197

Delta R.T. -0.01 min

Lab File: VF060728.D

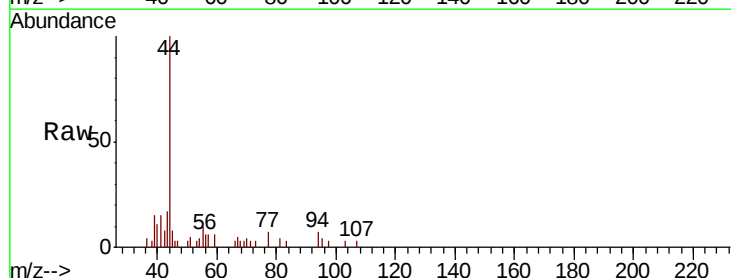
Acq: 14 Nov 2018 17:02

Tgt Ion: 59 Resp: 415

Ion Ratio Lower Upper

59 100

57 102.0 10.5 15.7#



Abundance Ion 59.00 (58.70 to 59.70): VF0

Ion 57.00 (56.70 to 57.70): VF0

400

300

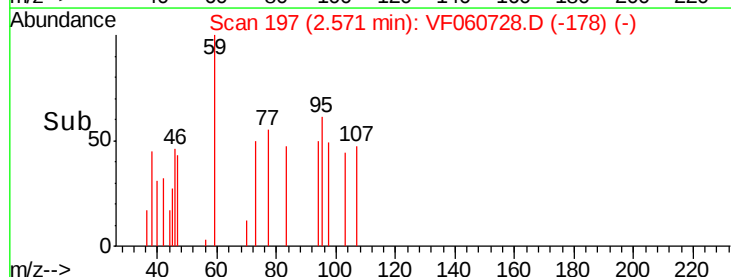
200

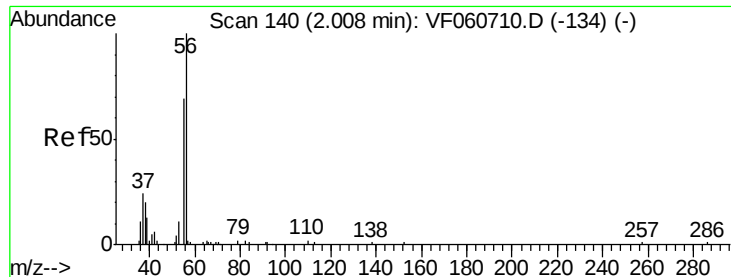
100

0

Time-->

2.50 2.55 2.60





#13

Acrolein

Concen: 2.809 ug/l

RT: 1.99 min Scan# 138

Delta R.T. -0.02 min

Lab File: VF060728.D

Acq: 14 Nov 2018 17:02

Instrument :

MSVOA_F

ClientSampleId :

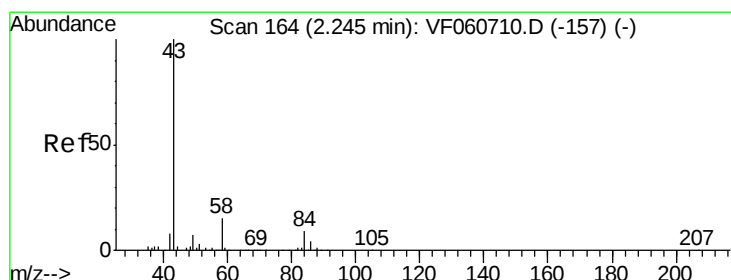
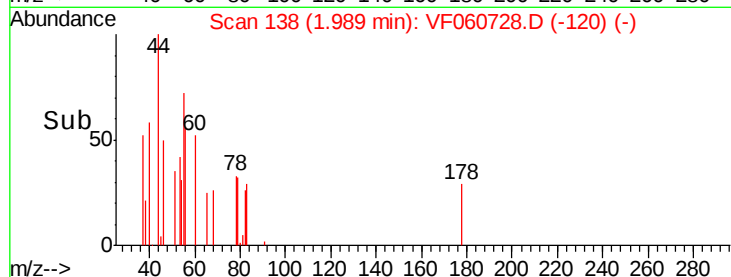
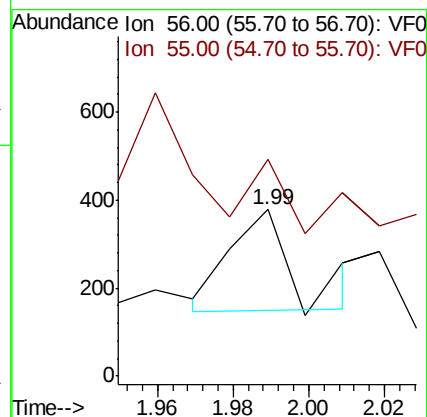
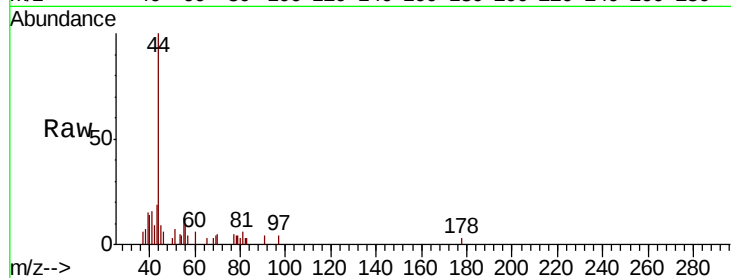
MS-OILY-STONE

Tgt Ion: 56 Resp: 275

Ion Ratio Lower Upper

56 100

55 129.8 56.6 85.0#



#16

Acetone

Concen: 2.285 ug/l

RT: 2.36 min Scan# 176

Delta R.T. 0.12 min

Lab File: VF060728.D

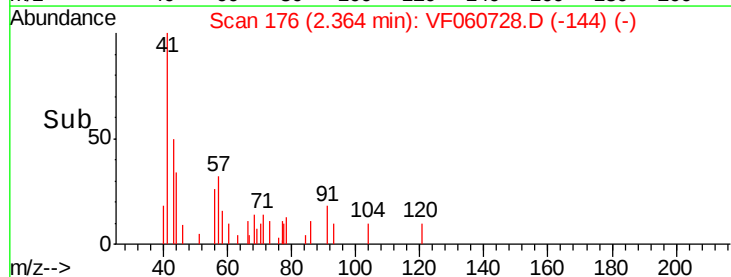
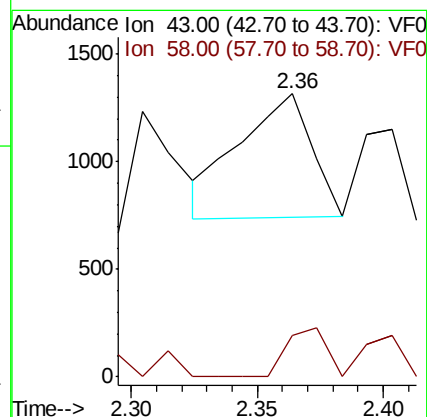
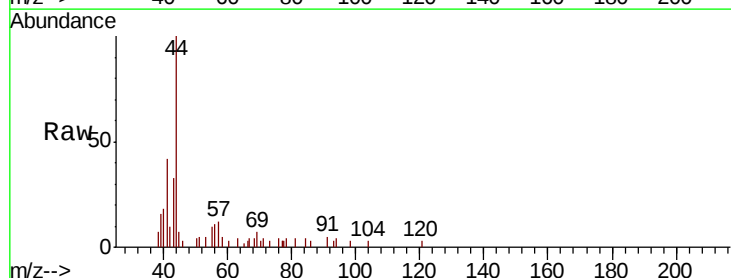
Acq: 14 Nov 2018 17:02

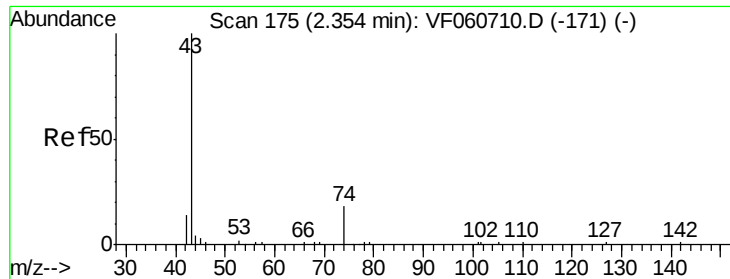
Tgt Ion: 43 Resp: 1149

Ion Ratio Lower Upper

43 100

58 14.5 11.6 17.4





#18

Methyl Acetate

Concen: 2.002 ug/l

RT: 2.36 min Scan# 176

Delta R.T. 0.01 min

Lab File: VF060728.D

Acq: 14 Nov 2018 17:02

Instrument :

MSVOA_F

ClientSampleId :

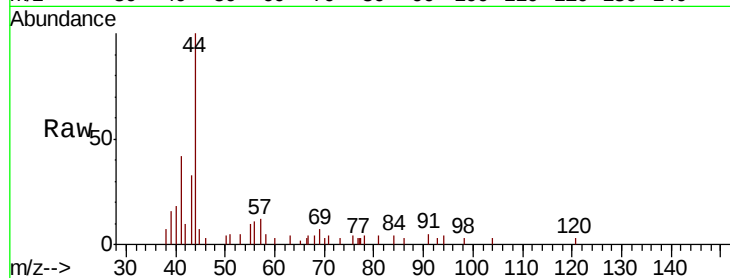
MS-OILY-STONE

Tgt Ion: 43 Resp: 1653

Ion Ratio Lower Upper

43 100

74 0.0 11.8 17.8#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 74.00 (73.70 to 74.70): VF0

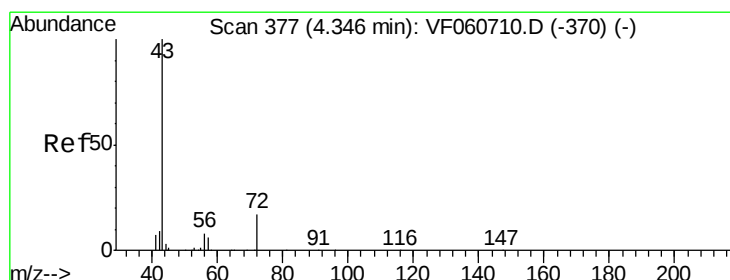
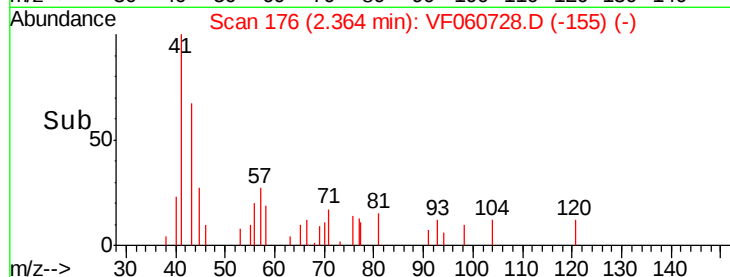
1500

1000

500

0

Time--> 2.30 2.35 2.40



#25

2-Butanone

Concen: 1.361 ug/l

RT: 4.34 min Scan# 376

Delta R.T. -0.01 min

Lab File: VF060728.D

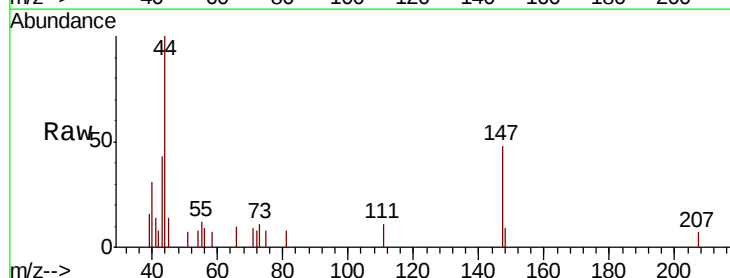
Acq: 14 Nov 2018 17:02

Tgt Ion: 43 Resp: 1126

Ion Ratio Lower Upper

43 100

72 17.5 16.1 24.1



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 72.00 (71.70 to 72.70): VF0

800

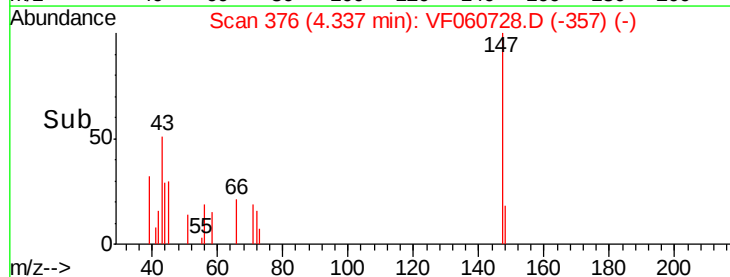
600

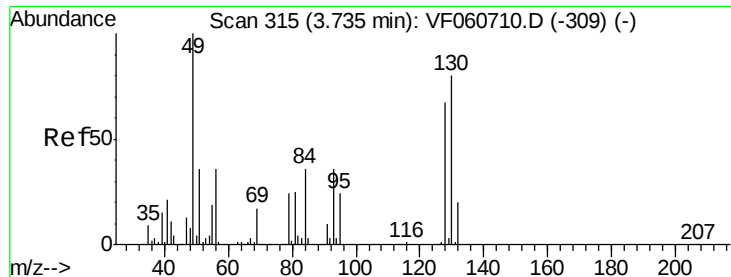
400

200

0

Time--> 4.25 4.30 4.35





#28

Bromochloromethane

Concen: 1.251 ug/l

RT: 3.84 min Scan# 326

Delta R.T. 0.11 min

Lab File: VF060728.D

Acq: 14 Nov 2018 17:02

Instrument :

MSVOA_F

ClientSampleId :

MS-OILY-STONE

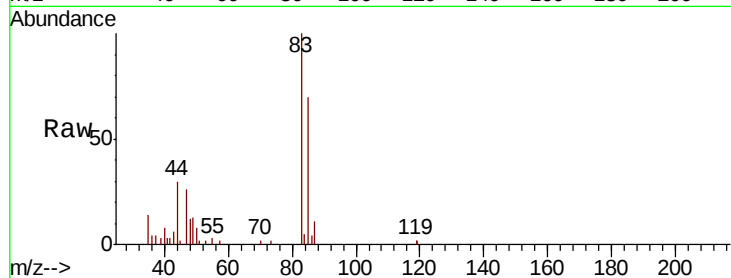
Tgt Ion: 49 Resp: 2240

Ion Ratio Lower Upper

49 100

129 0.0 0.0 5.2

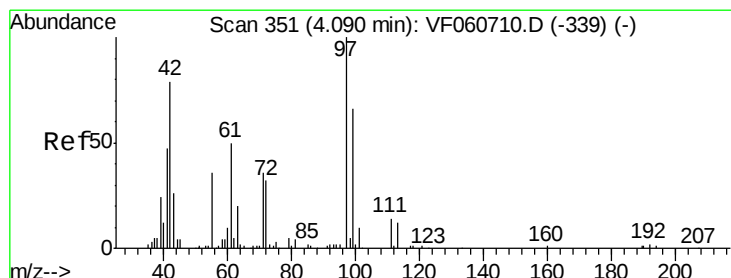
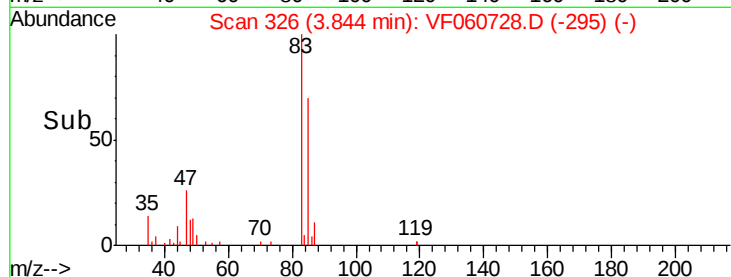
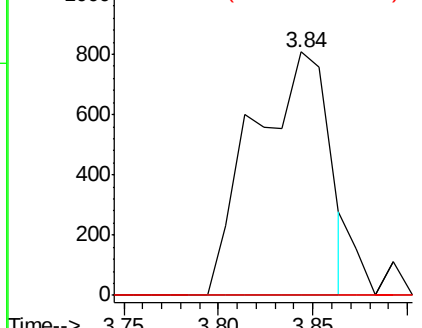
130 0.0 63.9 95.9#



Abundance Ion 49.00 (48.70 to 49.70): VF0

Ion 129.00 (128.70 to 129.70): VF0

Ion 130.00 (129.70 to 130.70): VF0



#29

Tetrahydrofuran

Concen: 1.416 ug/l

RT: 4.05 min Scan# 347

Delta R.T. -0.04 min

Lab File: VF060728.D

Acq: 14 Nov 2018 17:02

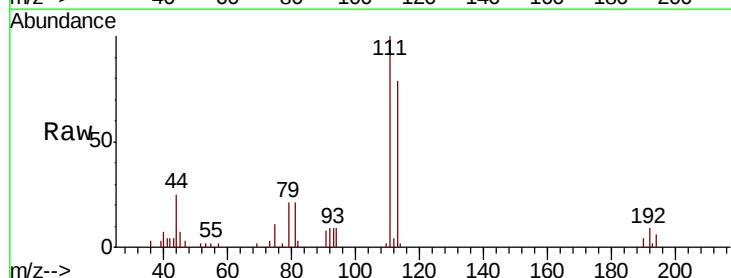
Tgt Ion: 42 Resp: 483

Ion Ratio Lower Upper

42 100

72 0.0 30.3 45.5#

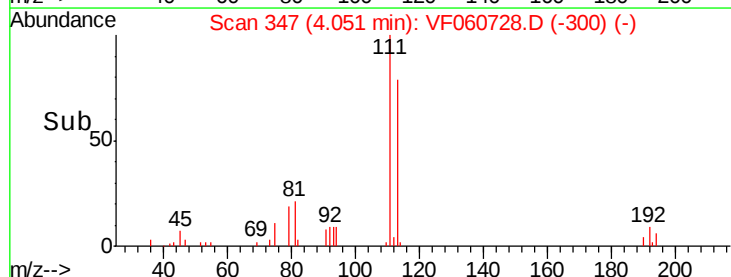
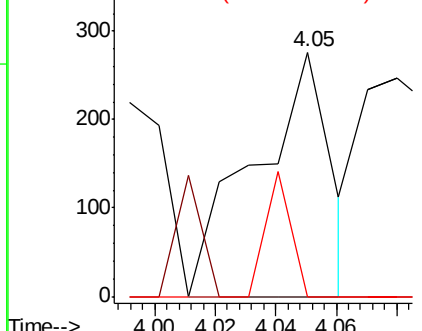
71 17.2 32.2 48.2#

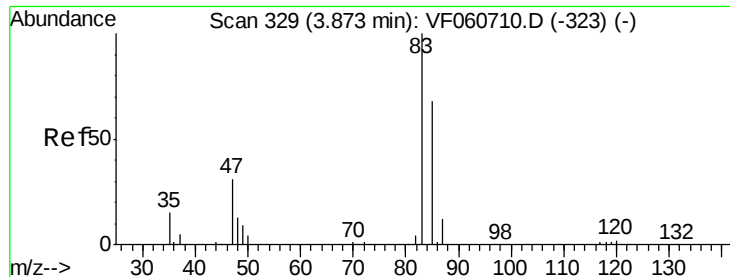


Abundance Ion 42.00 (41.70 to 42.70): VF0

Ion 72.00 (71.70 to 72.70): VF0

Ion 71.00 (70.70 to 71.70): VF0

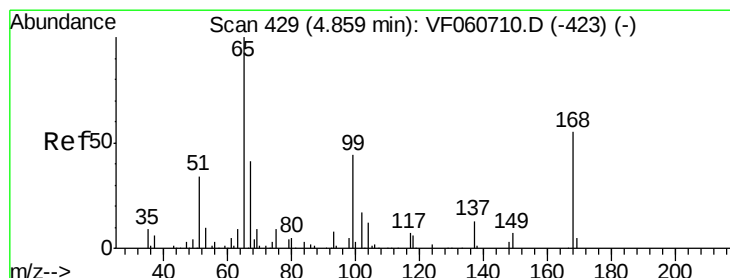
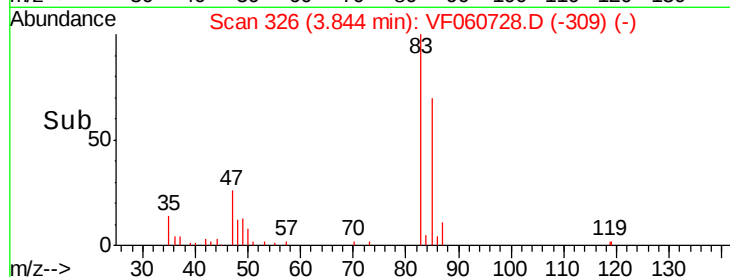
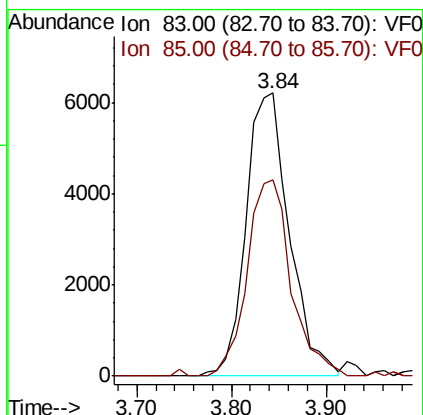
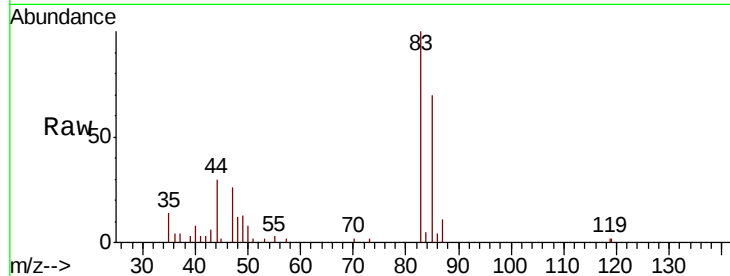




#30
Chloroform
Concen: 3.572 ug/l
RT: 3.84 min Scan# 326
Delta R.T. -0.03 min
Lab File: VF060728.D
Acq: 14 Nov 2018 17:02

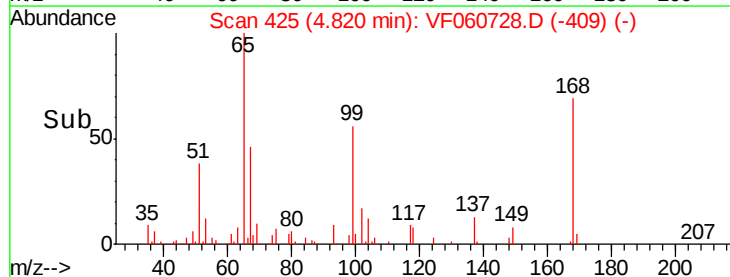
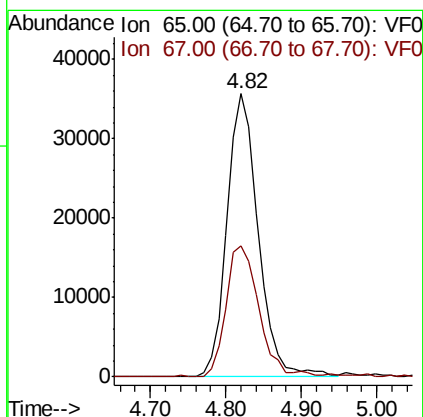
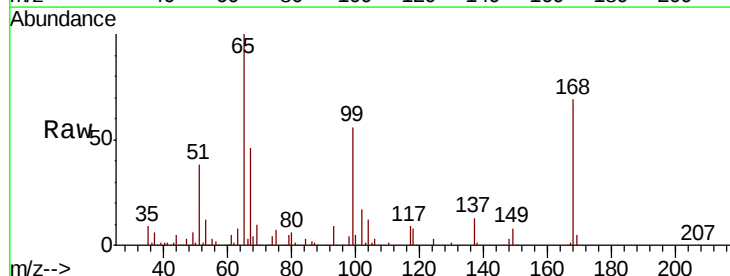
Instrument :
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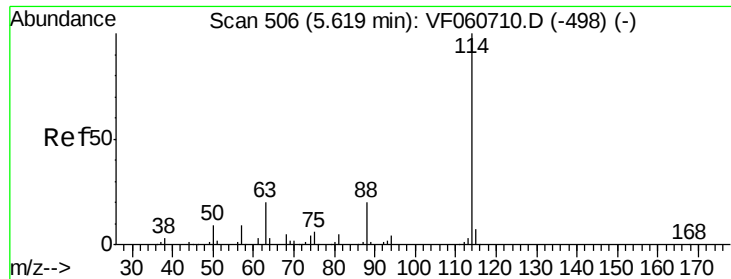
Tgt Ion: 83 Resp: 19746
Ion Ratio Lower Upper
83 100
85 69.5 54.6 82.0



#33
1,2-Dichloroethane-d4
Concen: 43.340 ug/l
RT: 4.82 min Scan# 425
Delta R.T. -0.04 min
Lab File: VF060728.D
Acq: 14 Nov 2018 17:02

Tgt Ion: 65 Resp: 101955
Ion Ratio Lower Upper
65 100
67 46.1 0.0 90.2

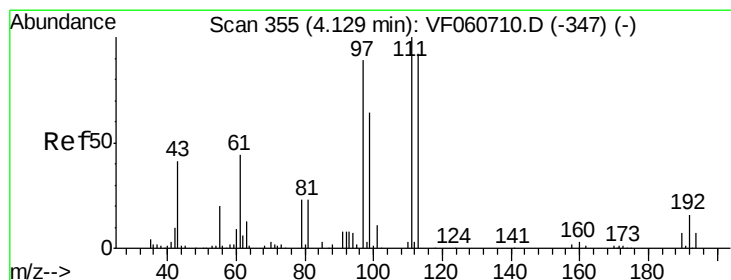
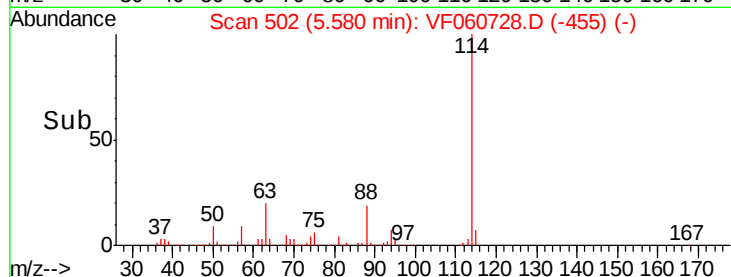
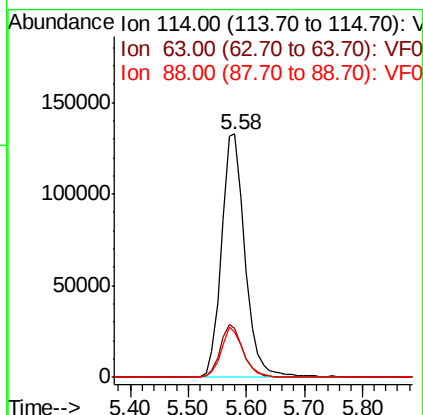
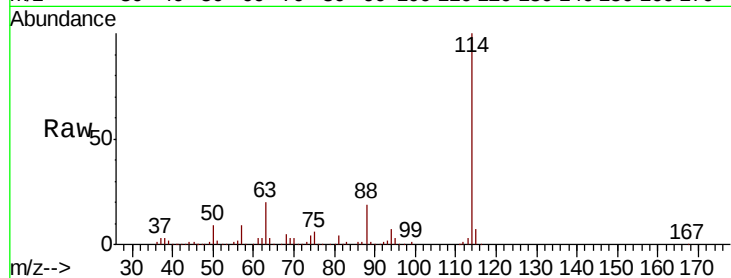




#34
 1,4-Difluorobenzene
 Concen: 50.000 ug/l
 RT: 5.58 min Scan# 502
 Delta R.T. -0.04 min
 Lab File: VF060728.D
 Acq: 14 Nov 2018 17:02

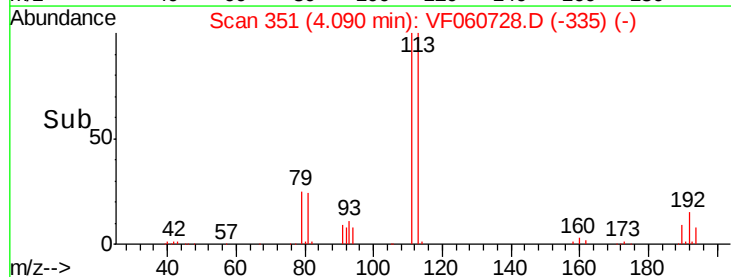
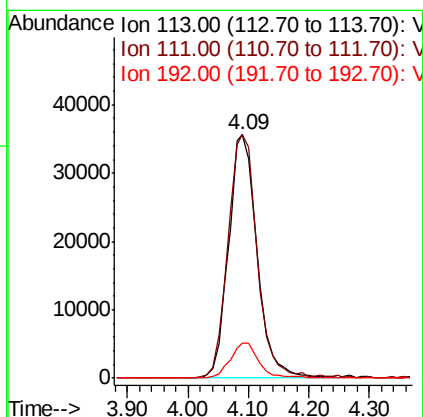
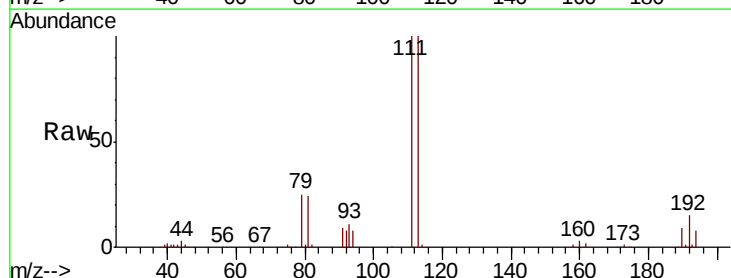
Instrument :
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 MS-OILY-STONE

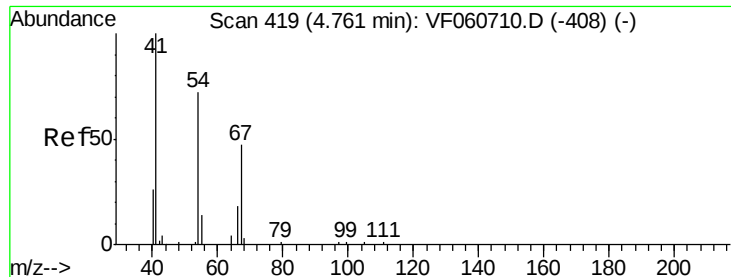
Tgt Ion:114 Resp: 371240
 Ion Ratio Lower Upper
 114 100
 63 20.2 0.0 40.8
 88 18.7 0.0 39.6



#35
 Dibromofluoromethane
 Concen: 41.793 ug/l
 RT: 4.09 min Scan# 351
 Delta R.T. -0.04 min
 Lab File: VF060728.D
 Acq: 14 Nov 2018 17:02

Tgt Ion:113 Resp: 116627
 Ion Ratio Lower Upper
 113 100
 111 99.9 87.1 130.7
 192 15.3 13.8 20.6

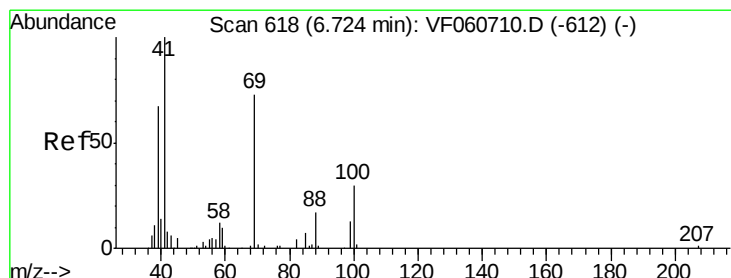
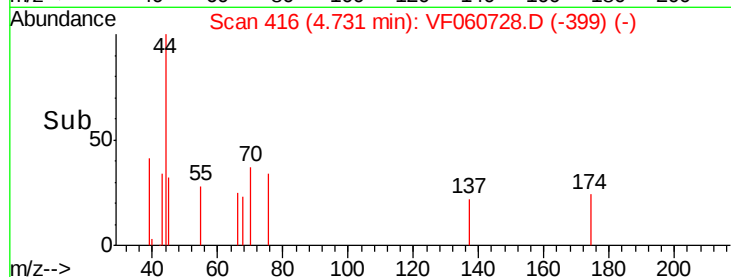
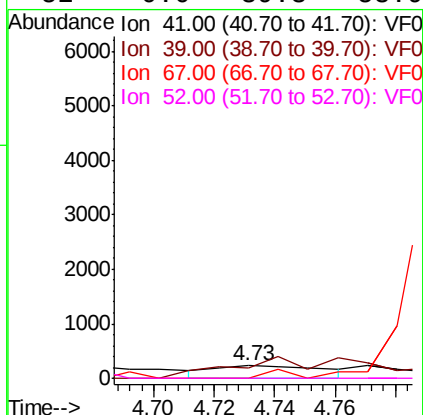
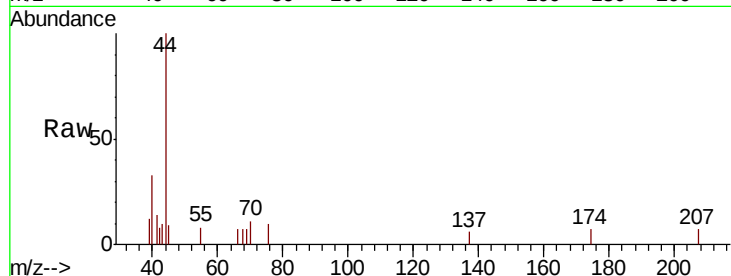




#41
Methacrylonitrile
Concen: Below Cal
RT: 4.73 min Scan# 416
Delta R.T. -0.03 min
Lab File: VF060728.D
Acq: 14 Nov 2018 17:02

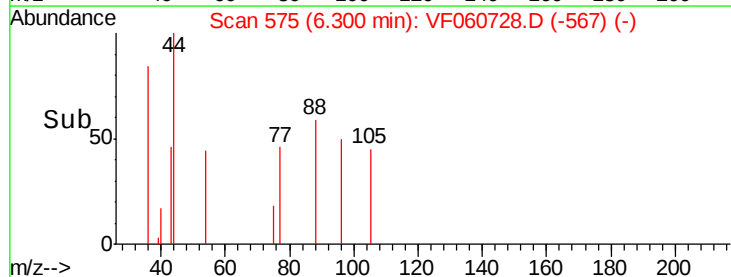
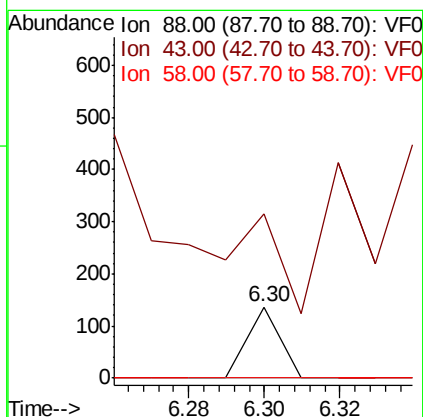
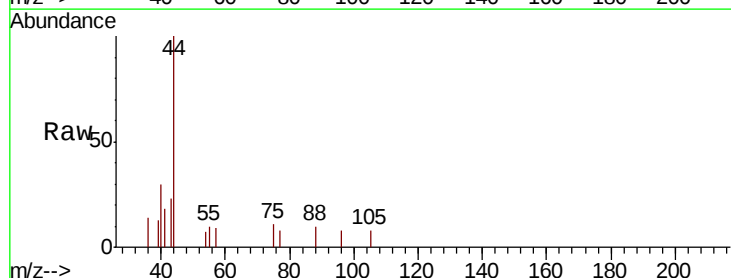
Instrument :
MSVOA_F
ClientSampleId :
MS-OILY-STONE

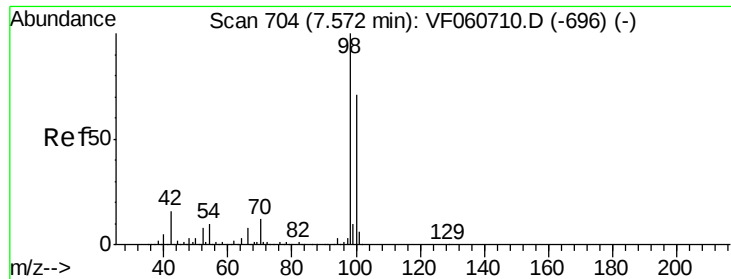
Tgt Ion: 41 Resp: 583
Ion Ratio Lower Upper
41 100
39 82.4 47.1 70.7#
67 0.0 37.1 55.7#
52 0.0 39.3 58.9#



#49
1,4-Dioxane
Concen: 6.090 ug/l
RT: 6.30 min Scan# 575
Delta R.T. -0.42 min
Lab File: VF060728.D
Acq: 14 Nov 2018 17:02

Tgt Ion: 88 Resp: 80
Ion Ratio Lower Upper
88 100
43 230.9 44.6 66.8#
58 0.0 54.5 81.7#





#50

Toluene-d8

Concen: 37.470 ug/l

RT: 7.53 min Scan# 700

Delta R.T. -0.04 min

Lab File: VF060728.D

Acq: 14 Nov 2018 17:02

Instrument :

MSVOA_F

ClientSampleId :

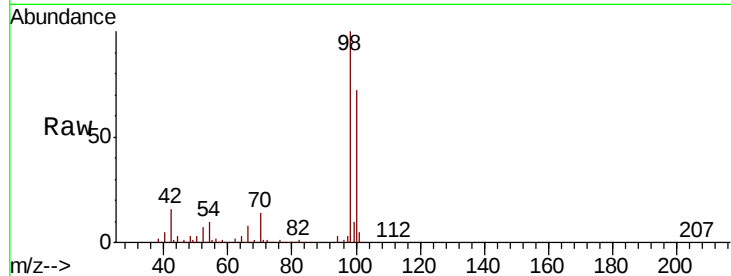
MS-OILY-STONE

Tgt Ion: 98 Resp: 274921

Ion Ratio Lower Upper

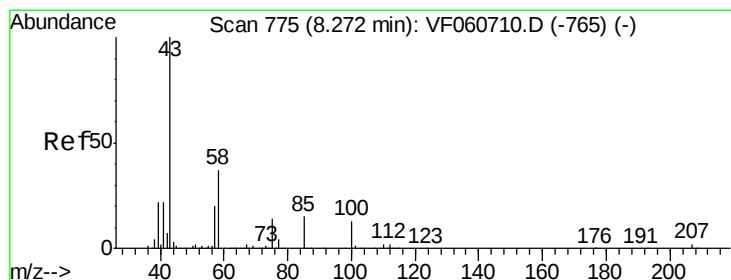
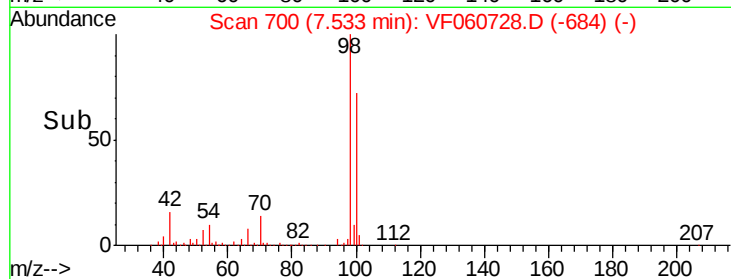
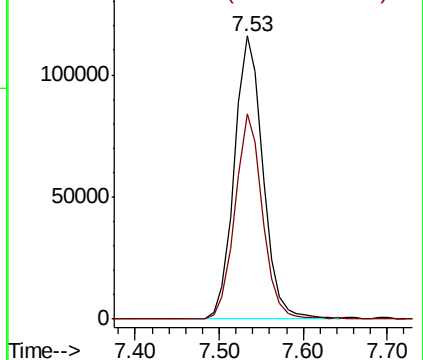
98 100

100 72.5 56.5 84.7



Abundance Ion 98.00 (97.70 to 98.70): VF0

Ion 100.00 (99.70 to 100.70): VF



#51

4-Methyl-2-Pentanone

Concen: 2.214 ug/l

RT: 8.24 min Scan# 772

Delta R.T. -0.03 min

Lab File: VF060728.D

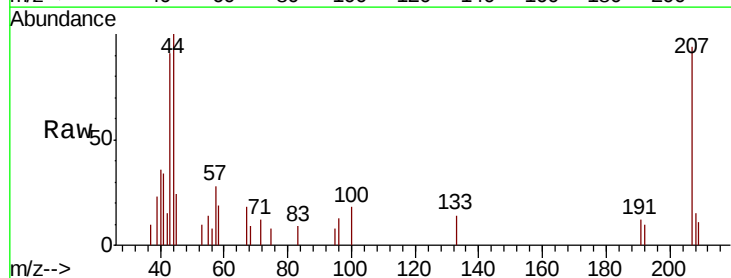
Acq: 14 Nov 2018 17:02

Tgt Ion: 43 Resp: 3399

Ion Ratio Lower Upper

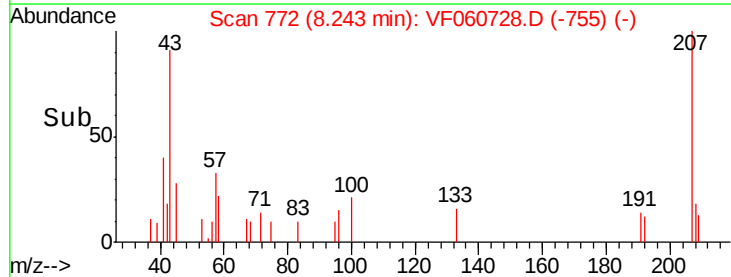
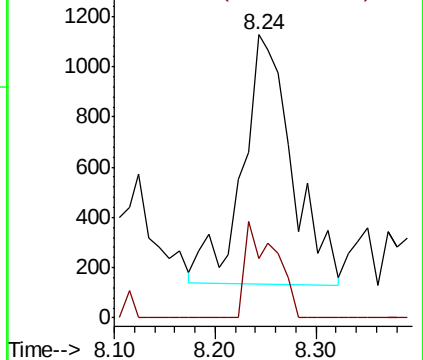
43 100

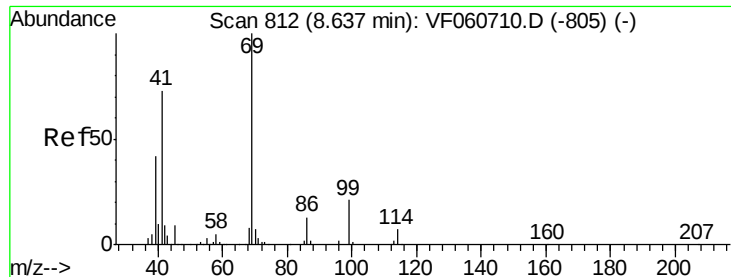
58 21.0 29.2 43.8#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0





#56

Ethyl methacrylate

Concen: 1.227 ug/l

RT: 8.60 min Scan# 808

Delta R.T. -0.04 min

Lab File: VF060728.D

Acq: 14 Nov 2018 17:02

Instrument :

MSVOA_F

ClientSampleId :

MS-OILY-STONE

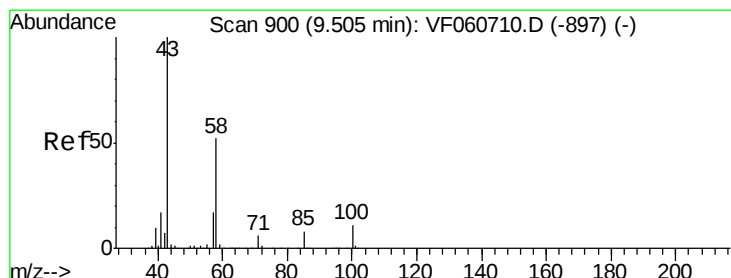
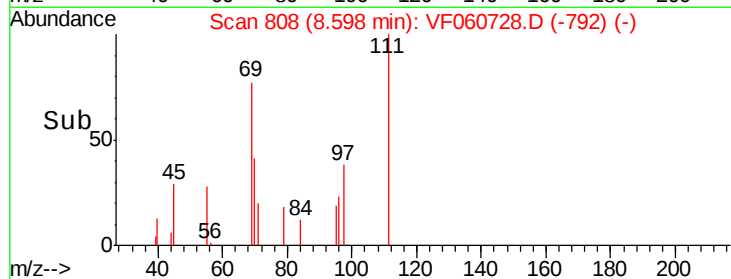
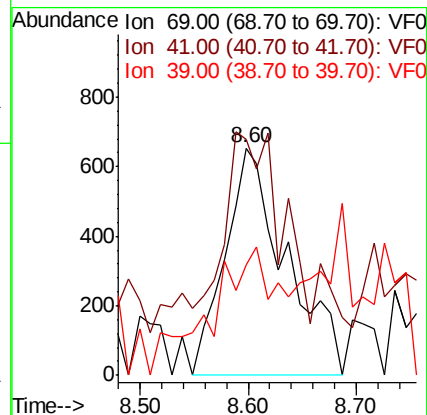
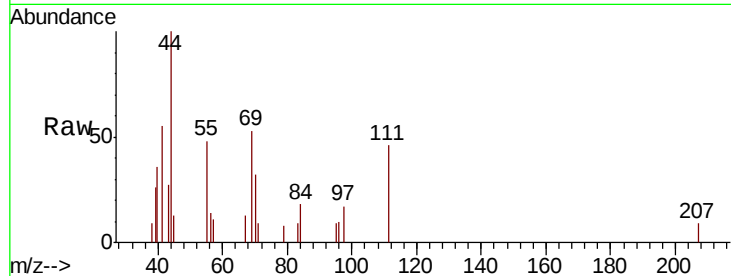
Tgt Ion: 69 Resp: 2561

Ion Ratio Lower Upper

69 100

41 103.7 59.0 88.6#

39 48.9 34.0 51.0



#59

2-Hexanone

Concen: 4.714 ug/l

RT: 9.48 min Scan# 897

Delta R.T. -0.03 min

Lab File: VF060728.D

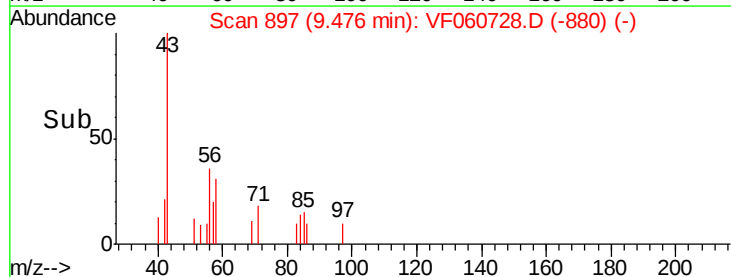
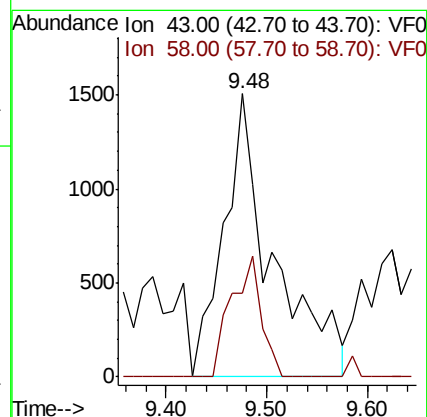
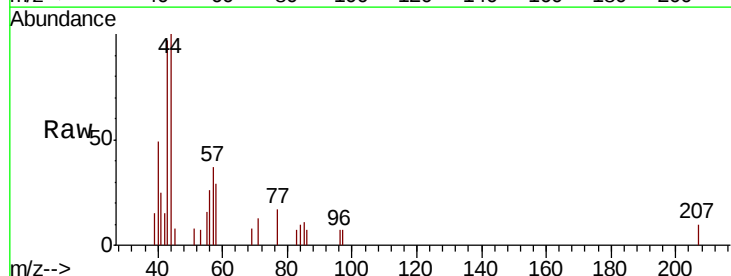
Acq: 14 Nov 2018 17:02

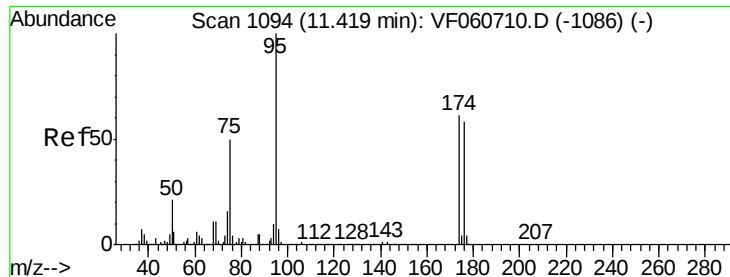
Tgt Ion: 43 Resp: 5085

Ion Ratio Lower Upper

43 100

58 29.7 24.9 74.7





#62

4-Bromofluorobenzene

Concen: 38.475 ug/l

RT: 11.40 min Scan# 1092

Delta R.T. -0.02 min

Lab File: VF060728.D

Acq: 14 Nov 2018 17:02

Instrument :

MSVOA_F

ClientSampleId :

MS-OILY-STONE

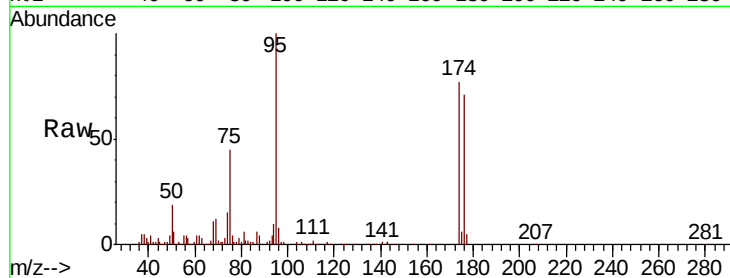
Tgt Ion: 95 Resp: 130136

Ion Ratio Lower Upper

95 100

174 76.7 0.0 121.6

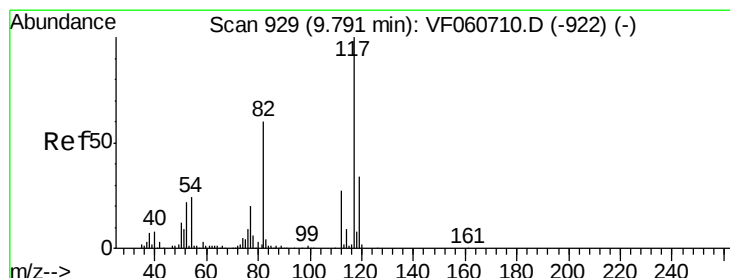
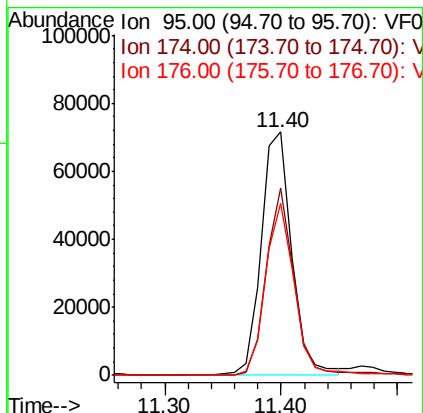
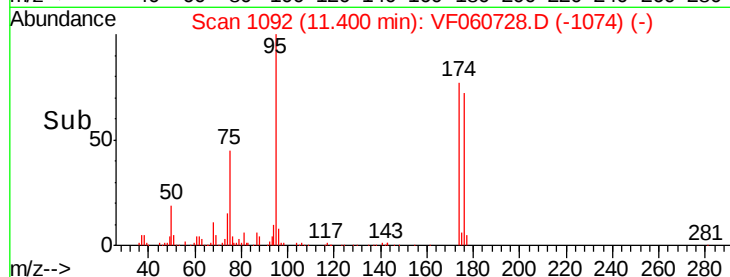
176 70.9 0.0 115.2



Abundance Ion 95.00 (94.70 to 95.70): VF0

Ion 174.00 (173.70 to 174.70): VF0

Ion 176.00 (175.70 to 176.70): VF0



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 9.75 min Scan# 925

Delta R.T. -0.04 min

Lab File: VF060728.D

Acq: 14 Nov 2018 17:02

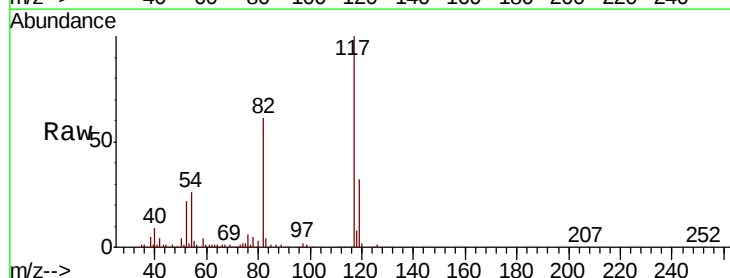
Tgt Ion: 117 Resp: 301905

Ion Ratio Lower Upper

117 100

82 61.5 47.9 71.9

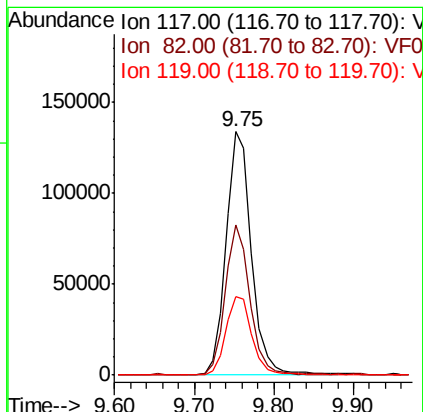
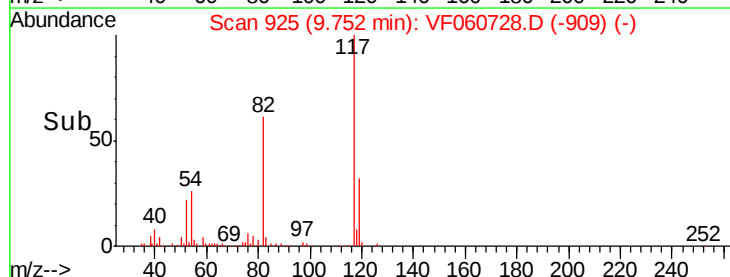
119 32.2 26.8 40.2

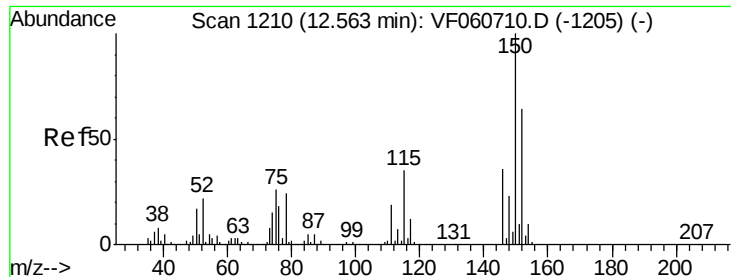


Abundance Ion 117.00 (116.70 to 117.70): VF0

Ion 82.00 (81.70 to 82.70): VF0

Ion 119.00 (118.70 to 119.70): VF0





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.53 min Scan# 1207

Delta R.T. -0.03 min

Lab File: VF060728.D

Acq: 14 Nov 2018 17:02

Instrument :

MSVOA_F

ClientSampleId :

MS-OILY-STONE

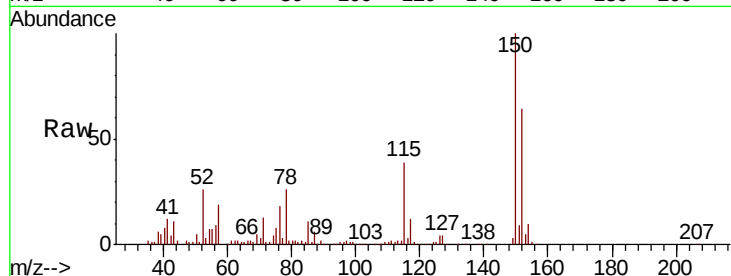
Tgt Ion:152 Resp: 150540

Ion Ratio Lower Upper

152 100

115 60.7 27.9 83.7

150 156.2 0.0 316.4

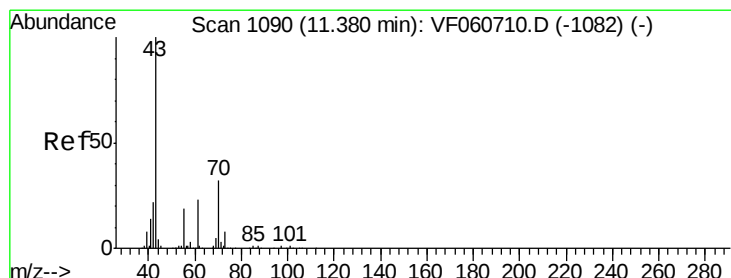
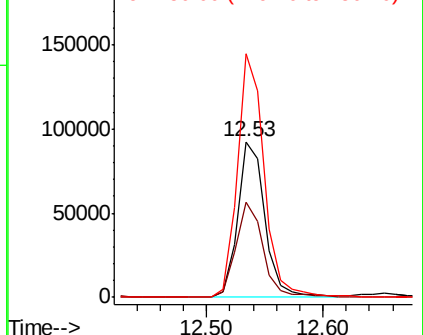
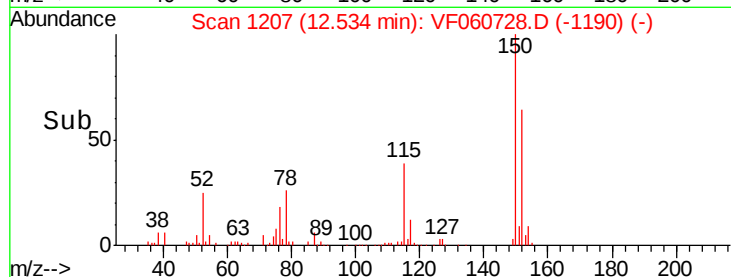


Abundance

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-amil acetate

Concen: 1.981 ug/l

RT: 11.38 min Scan# 1090

Delta R.T. 0.00 min

Lab File: VF060728.D

Acq: 14 Nov 2018 17:02

Tgt Ion: 43 Resp: 5464

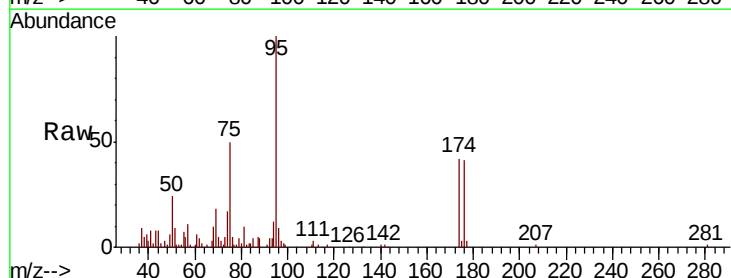
Ion Ratio Lower Upper

43 100

70 63.0 25.5 38.3#

55 84.6 14.9 22.3#

61 71.4 18.6 27.8#



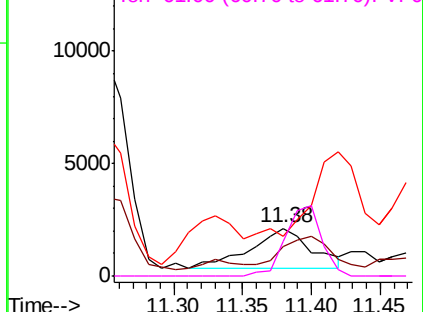
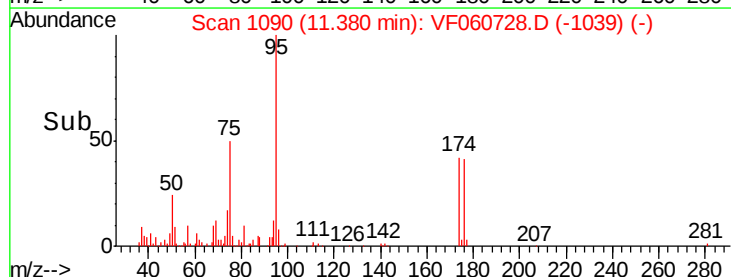
Abundance

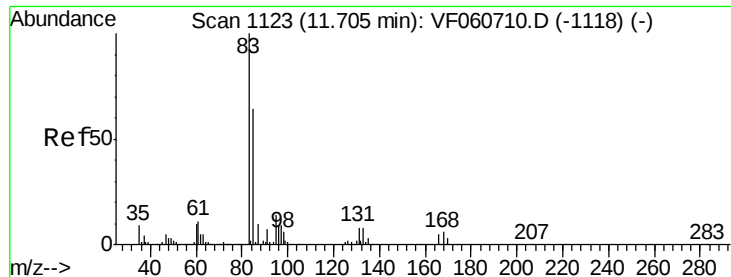
Ion 43.00 (42.70 to 43.70): VF0

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





#75

1,1,2,2-Tetrachloroethane

Concen: 1.563 ug/l

RT: 11.74 min Scan# 1127

Delta R.T. 0.04 min

Lab File: VF060728.D

Acq: 14 Nov 2018 17:02

Instrument :

MSVOA_F

ClientSampleId :

MS-OILY-STONE

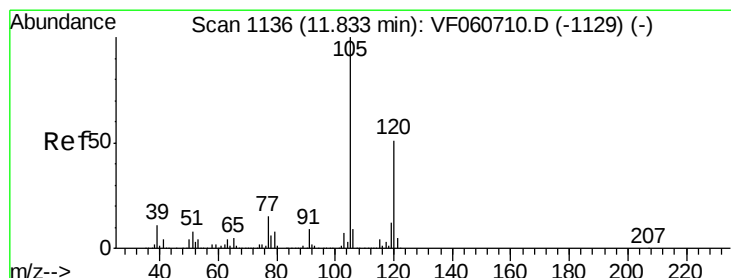
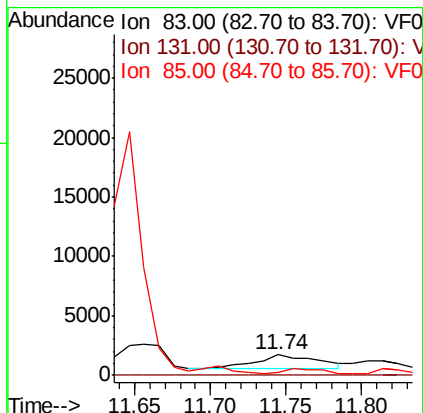
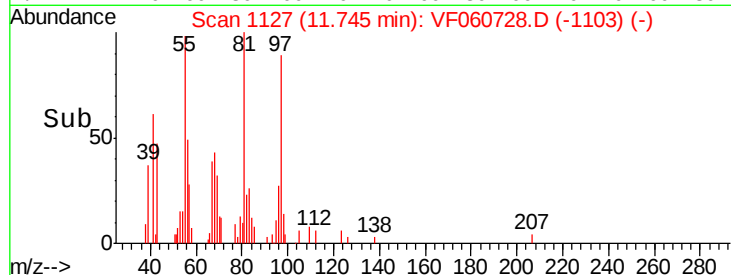
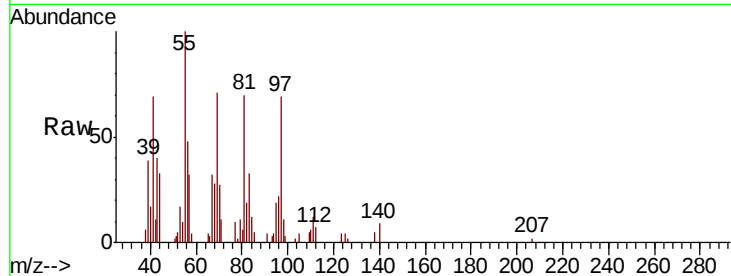
Tgt Ion: 83 Resp: 3131

Ion Ratio Lower Upper

83 100

131 0.0 4.2 12.4#

85 15.2 32.0 96.2#



#80

1,3,5-Trimethylbenzene

Concen: 1.704 ug/l

RT: 11.81 min Scan# 1134

Delta R.T. -0.02 min

Lab File: VF060728.D

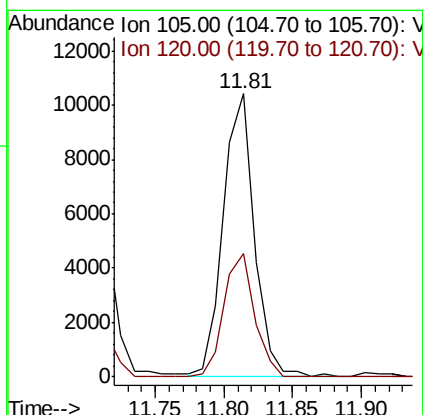
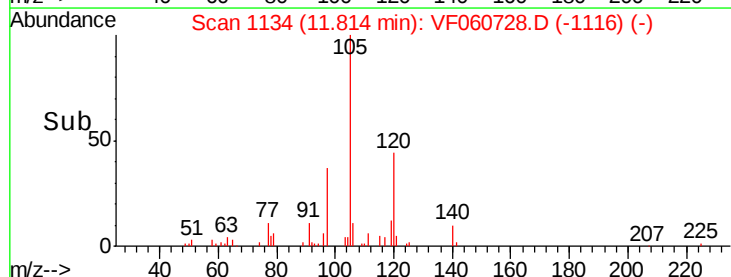
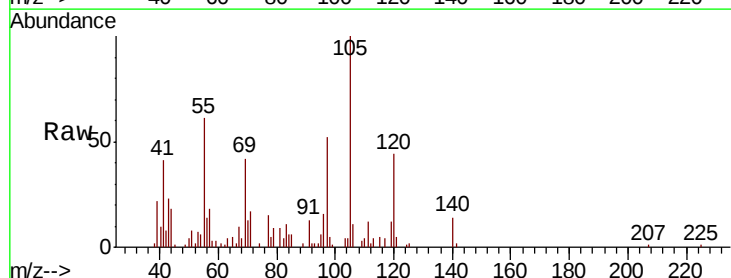
Acq: 14 Nov 2018 17:02

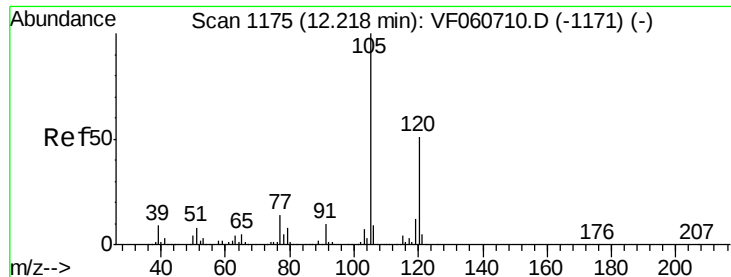
Tgt Ion: 105 Resp: 16393

Ion Ratio Lower Upper

105 100

120 43.6 25.6 76.8

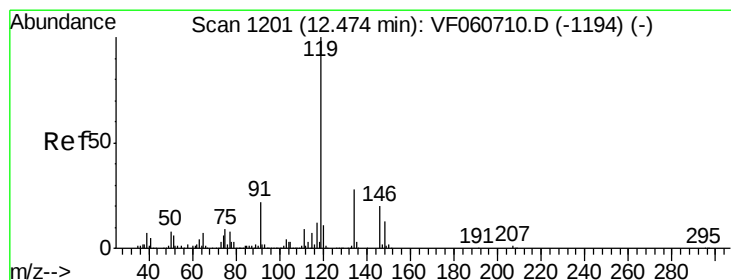
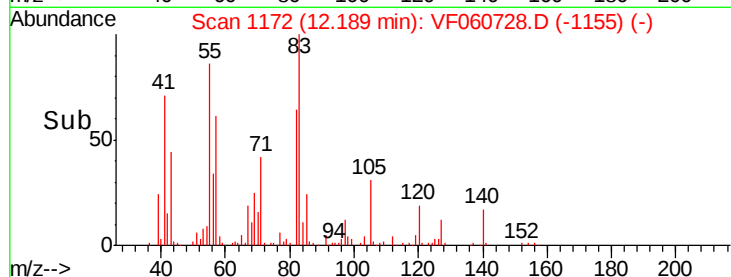
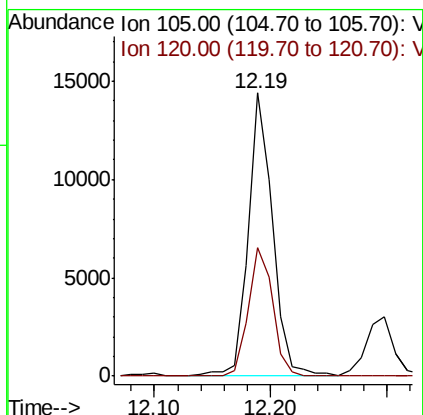
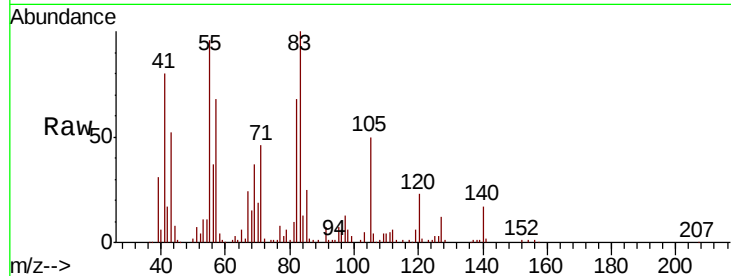




#84
 1,2,4-Trimethylbenzene
 Concen: 2.094 ug/l
 RT: 12.19 min Scan# 1172
 Delta R.T. -0.03 min
 Lab File: VF060728.D
 Acq: 14 Nov 2018 17:02

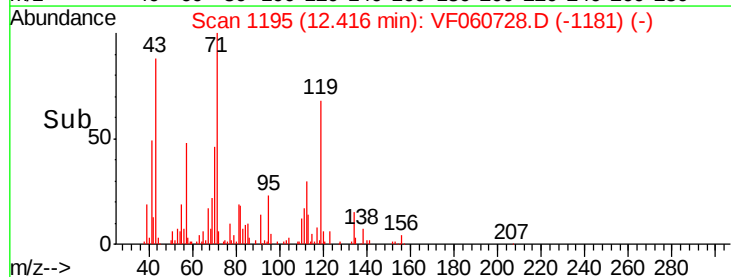
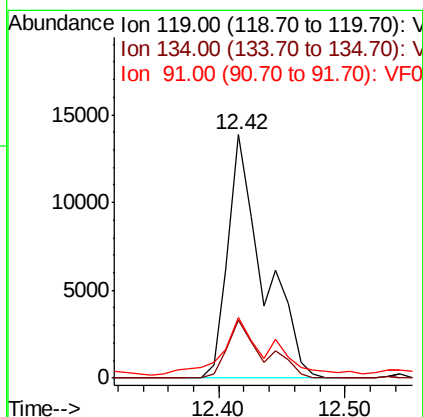
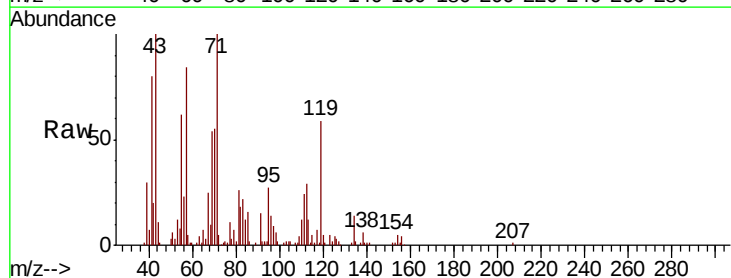
Instrument :
 MSVOA_F
 ClientSampleId :
 MS-OILY-STONE

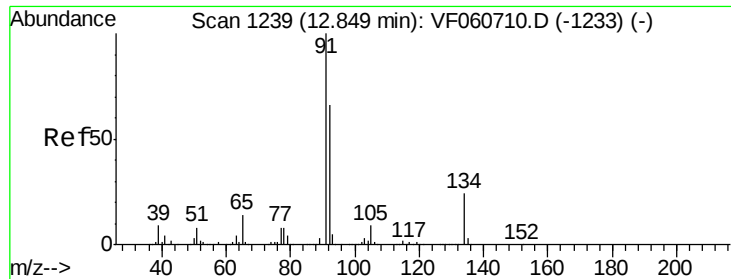
Tgt Ion:105 Resp: 20838
 Ion Ratio Lower Upper
 105 100
 120 45.5 25.5 76.5



#86
 p-Isopropyltoluene
 Concen: 2.329 ug/l
 RT: 12.42 min Scan# 1195
 Delta R.T. -0.06 min
 Lab File: VF060728.D
 Acq: 14 Nov 2018 17:02

Tgt Ion:119 Resp: 26956
 Ion Ratio Lower Upper
 119 100
 134 24.0 13.9 41.7
 91 24.9 11.3 33.9





#89

n-Butylbenzene

Concen: 1.706 ug/l

RT: 12.82 min Scan# 1236

Delta R.T. -0.03 min

Lab File: VF060728.D

Acq: 14 Nov 2018 17:02

Instrument :

MSVOA_F

ClientSampleId :

MS-OILY-STONE

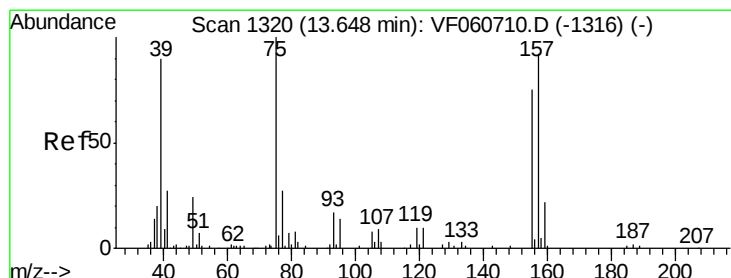
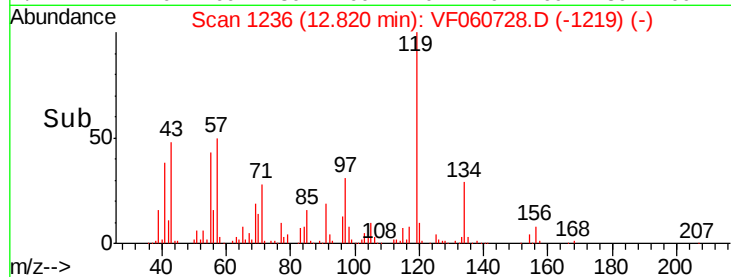
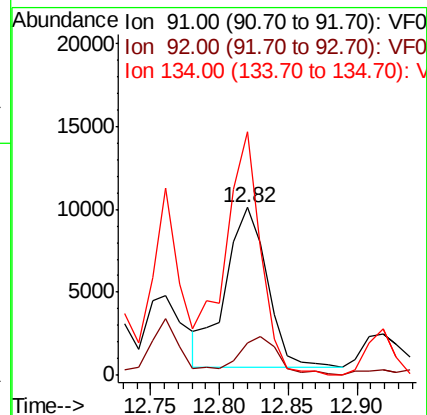
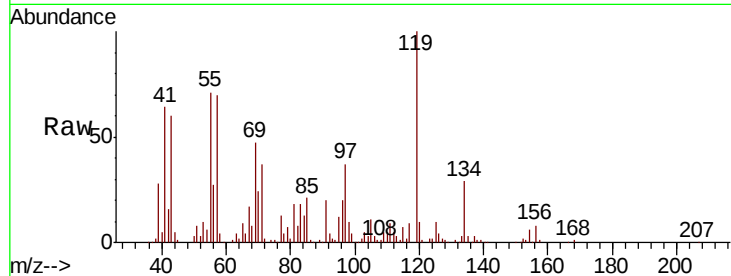
Tgt Ion: 91 Resp: 20144

Ion Ratio Lower Upper

91 100

92 19.0 33.1 99.2#

134 145.2 11.9 35.9#



#92

1,2-Dibromo-3-Chloropropane

Concen: 1.782 ug/l

RT: 13.61 min Scan# 1316

Delta R.T. -0.04 min

Lab File: VF060728.D

Acq: 14 Nov 2018 17:02

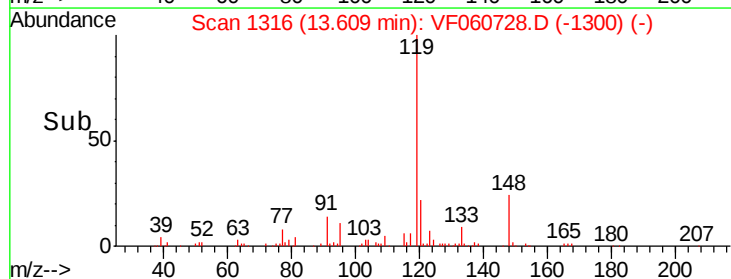
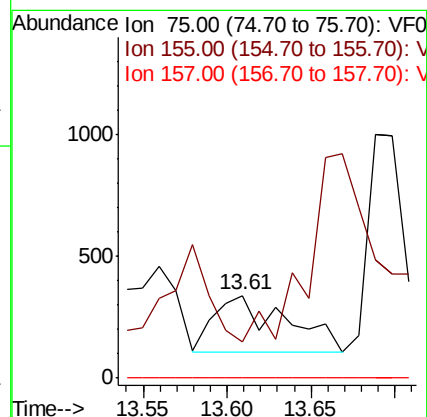
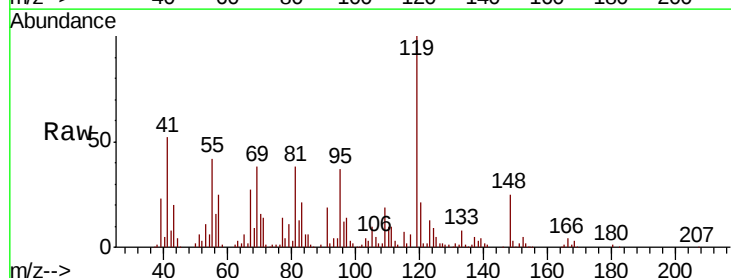
Tgt Ion: 75 Resp: 671

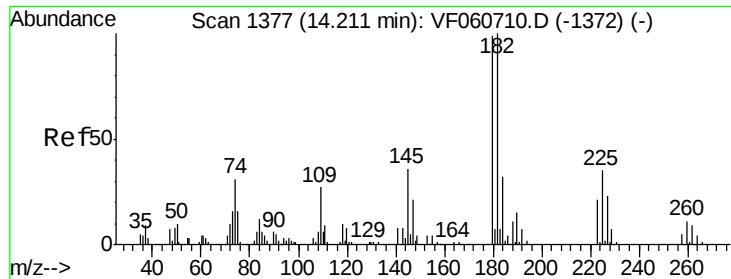
Ion Ratio Lower Upper

75 100

155 44.4 37.4 112.2

157 0.0 46.0 138.0#

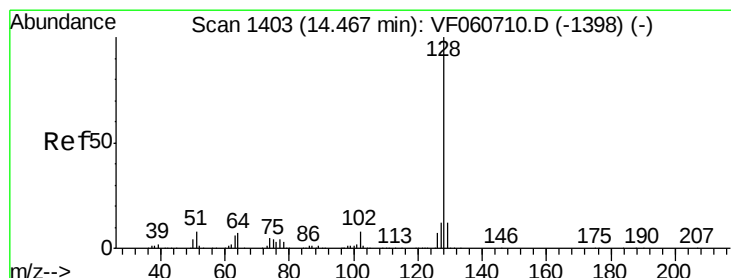
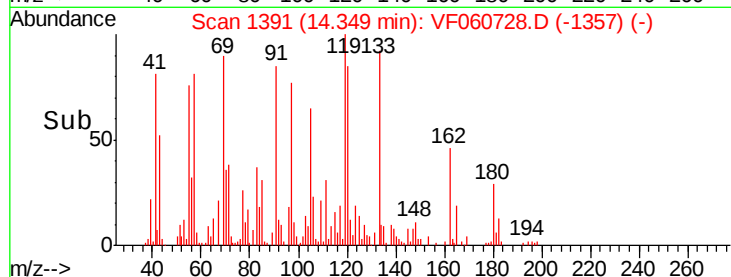
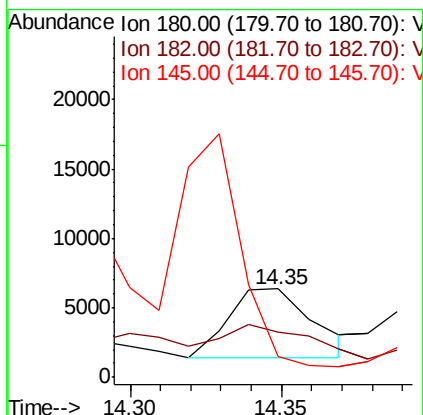
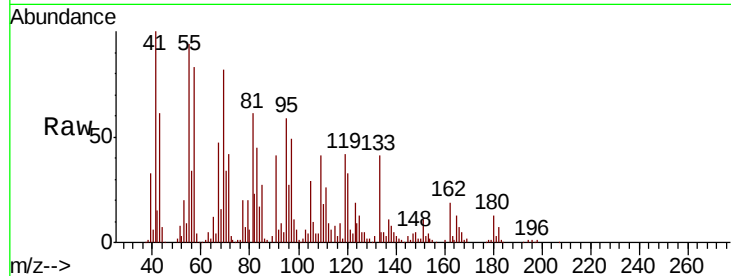




#93
 1,2,4-Trichlorobenzene
 Concen: 2.812 ug/l
 RT: 14.35 min Scan# 1391
 Delta R.T. 0.14 min
 Lab File: VF060728.D
 Acq: 14 Nov 2018 17:02

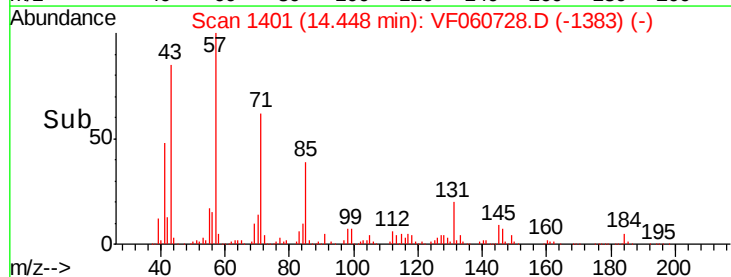
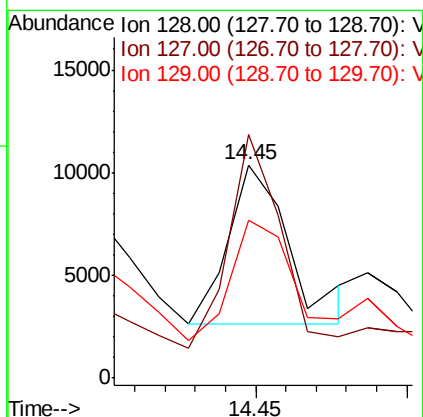
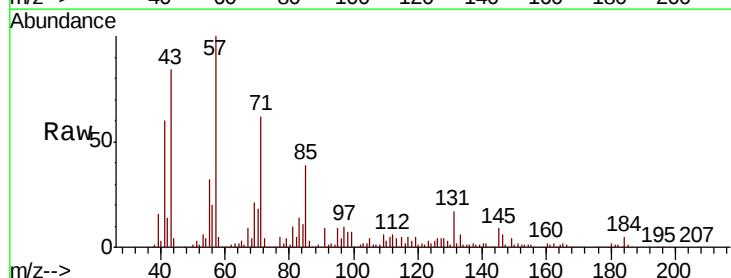
Instrument :
 MSVOA_F
 ClientSampleId :
 MS-OILY-STONE

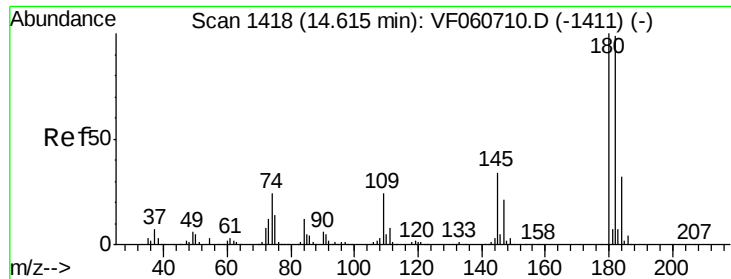
Tgt Ion:180 Resp: 9553
 Ion Ratio Lower Upper
 180 100
 182 51.9 50.3 151.0
 145 24.3 18.3 54.9



#95
 Naphthalene
 Concen: 1.769 ug/l
 RT: 14.45 min Scan# 1401
 Delta R.T. -0.02 min
 Lab File: VF060728.D
 Acq: 14 Nov 2018 17:02

Tgt Ion:128 Resp: 10968
 Ion Ratio Lower Upper
 128 100
 127 114.1 9.8 14.6#
 129 74.1 9.3 13.9#





#96
 1,2,3-Trichlorobenzene
 Concen: 7.702 ug/l
 RT: 14.63 min Scan# 1419
 Delta R.T. 0.01 min
 Lab File: VF060728.D
 Acq: 14 Nov 2018 17:02

Instrument :
 MSVOA_F
 ClientSampleId :
 MS-OILY-STONE

Tgt Ion:180 Resp: 24175
 Ion Ratio Lower Upper
 180 100
 182 24.1 49.6 149.0#
 145 64.9 16.9 50.7#

