

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF041619\
 Data File : VF062180.D
 Acq On : 16 Apr 2019 17:15
 Operator : FY/SY
 Sample : K2345-04
 Misc : 7.62g/5mL/MSVOA F/SOIL
 ALS Vial : 14 Sample Multiplier: 1

Instrument :
 MSVOA_F
 ClientSampleId :
 TP-2

Quant Time: Apr 17 08:06:52 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_F\METHODS\82F041619S.M
 Quant Title : SW846 8260
 QLast Update : Wed Apr 17 07:56:48 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.06	168	95423	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	5.78	114	243390	50.00	ug/l	0.00
63) Chlorobenzene-d5	9.91	117	229354	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.61	152	107748	50.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	5.03	65	141843	165.07	ug/l	0.00
Spiked Amount			Recovery	=	330.14%	
35) Dibromofluoromethane	4.31	113	155098	80.78	ug/l	0.00
Spiked Amount			Recovery	=	161.56%	
50) Toluene-d8	7.71	98	232919	41.51	ug/l	0.00
Spiked Amount			Recovery	=	83.02%	
62) 4-Bromofluorobenzene	11.50	95	124996	56.42	ug/l	0.00
Spiked Amount			Recovery	=	112.84%	

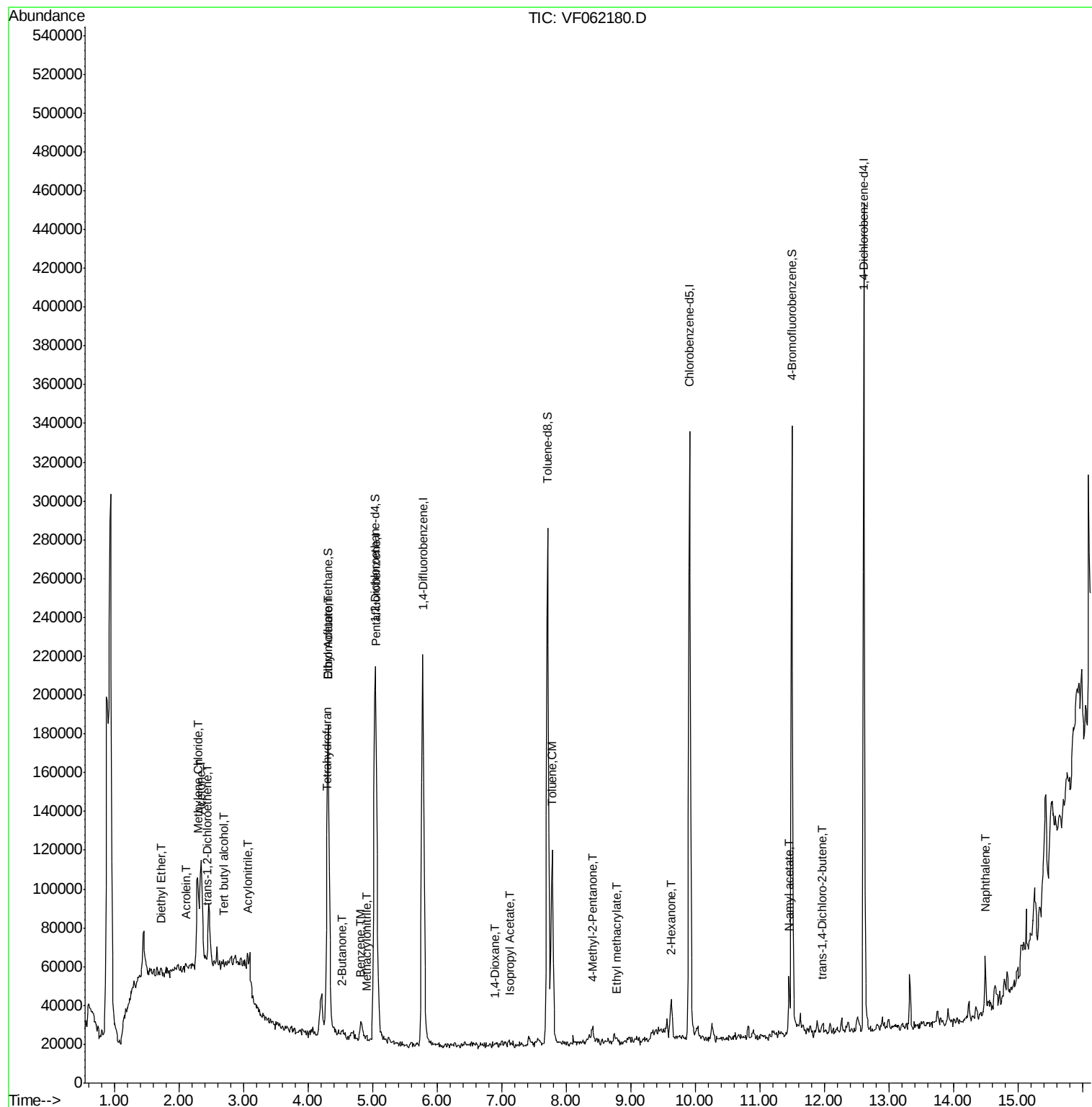
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
8) Diethyl Ether	1.72	74	1765	5.546	ug/l #	1
11) Tert butyl alcohol	2.69	59	1653	34.705	ug/l #	1
13) Acrolein	2.11	56	377	10.048	ug/l #	42
15) Acrylonitrile	3.08	53	2075	11.724	ug/l #	58
16) Acetone	2.35	43	43835	226.256	ug/l	94
18) Methyl Acetate	2.46	43	52616	Below Cal		92
20) Methylene Chloride	2.29	84	21442	19.745	ug/l	92
21) trans-1,2-Dichloroethene	2.43	96	1023	1.021	ug/l #	20
25) 2-Butanone	4.52	43	8376	20.126	ug/l #	78
29) Tetrahydrofuran	4.28	42	1786	9.649	ug/l	91
37) Ethyl Acetate	4.31	43	2087	1.675	ug/l #	25
40) Benzene	4.82	78	10088	1.412	ug/l #	88
41) Methacrylonitrile	4.90	41	1009	1.348	ug/l #	60
43) Isopropyl Acetate	7.12	43	3195	2.219	ug/l #	81
49) 1,4-Dioxane	6.88	88	320	43.565	ug/l #	1
51) 4-Methyl-2-Pentanone	8.40	43	10249	9.238	ug/l	88
52) Toluene	7.78	92	55617	13.254	ug/l	93
56) Ethyl methacrylate	8.77	69	3446	2.411	ug/l	87
59) 2-Hexanone	9.62	43	21020	29.813	ug/l	91
74) N-amyl acetate	11.45	43	20553	5.910	ug/l	95
81) trans-1,4-Dichloro-2-buten	11.96	75	1200	2.140	ug/l #	76
89) n-Butylbenzene	12.90	91	3458	Below Cal		96
95) Naphthalene	14.49	128	19588	4.404	ug/l #	96

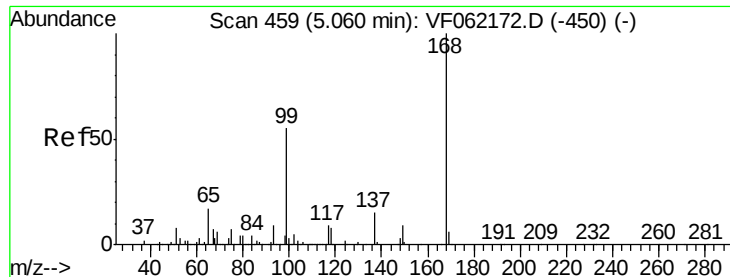
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260
QLast Update : Wed Apr 17 07:56:48 2019
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.06 min Scan# 459

Delta R.T. 0.00 min

Lab File: VF062180.D

Acq: 16 Apr 2019 17:15

Instrument :

MSVOA_F

ClientSampleId :

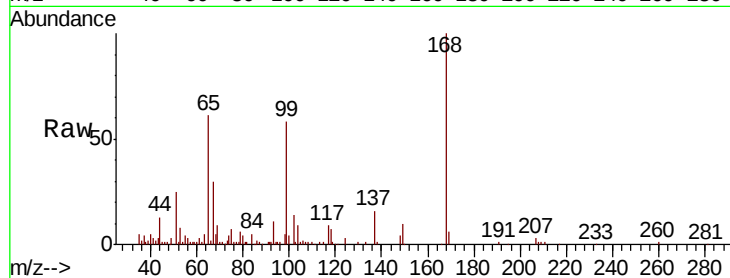
TP-2

Tot Ion:168 Resp: 95423

Ion Ratio Lower Upper

168 100

99 57.6 44.2 66.4



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

5.06

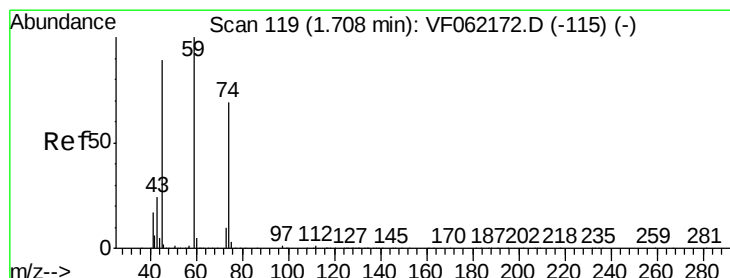
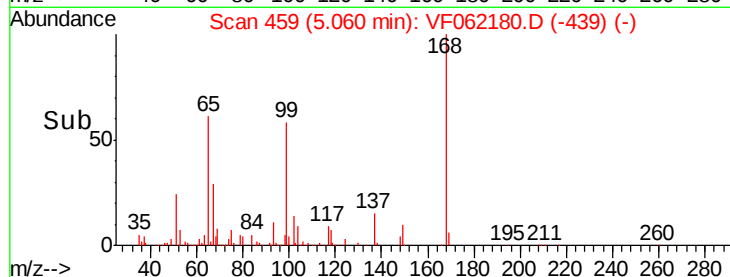
30000

20000

10000

0

Time-->



#8

Diethyl Ether

Concen: 5.546 ug/l

RT: 1.72 min Scan# 120

Delta R.T. 0.01 min

Lab File: VF062180.D

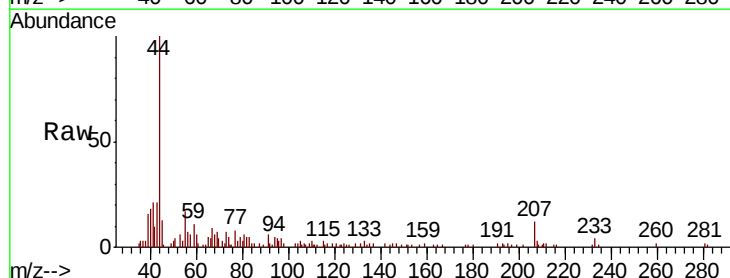
Acq: 16 Apr 2019 17:15

Tgt Ion: 74 Resp: 1765

Ion Ratio Lower Upper

74 100

45 283.3 64.7 194.1#



Abundance Ion 74.00 (73.70 to 74.70): VF0

Ion 45.00 (44.70 to 45.70): VF0

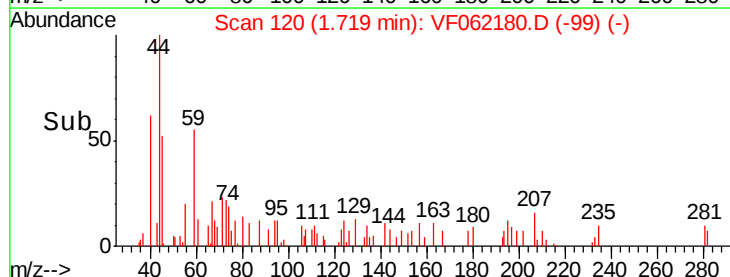
1500

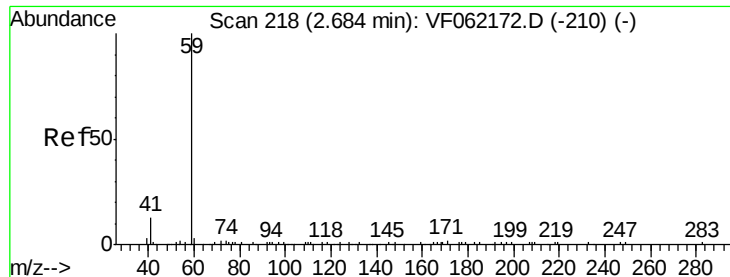
1000

500

0

Time-->



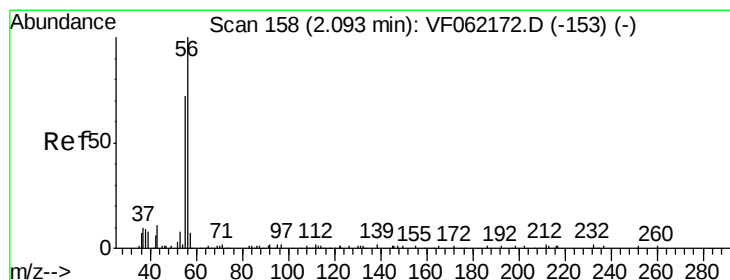
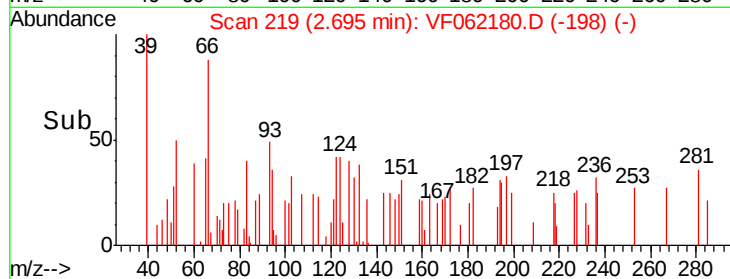
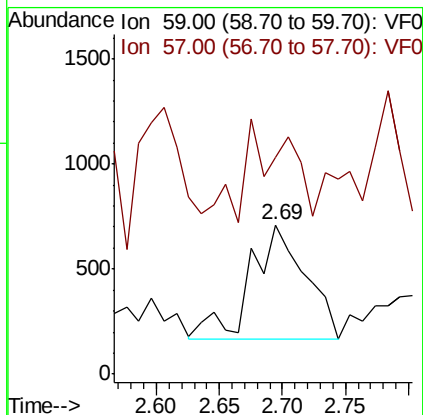
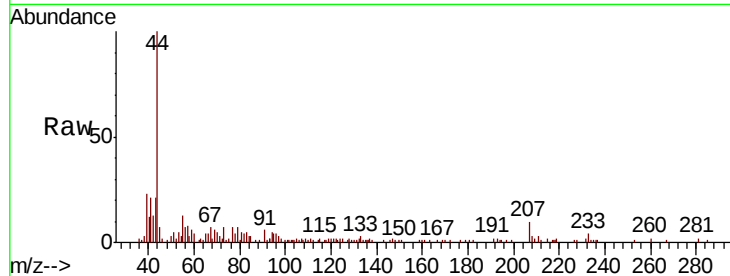


#11

Tert butyl alcohol
Concen: 34.705 ug/l
RT: 2.69 min Scan# 219
Delta R.T. 0.01 min
Lab File: VF062180.D
Acq: 16 Apr 2019 17:15

Instrument :
MSVOA_F
ClientSampled :
TP-2

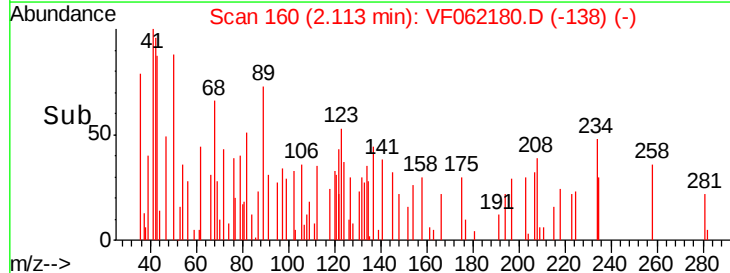
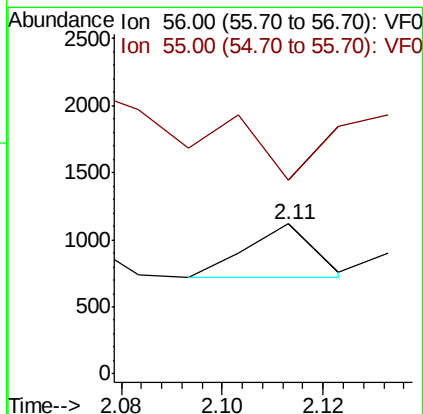
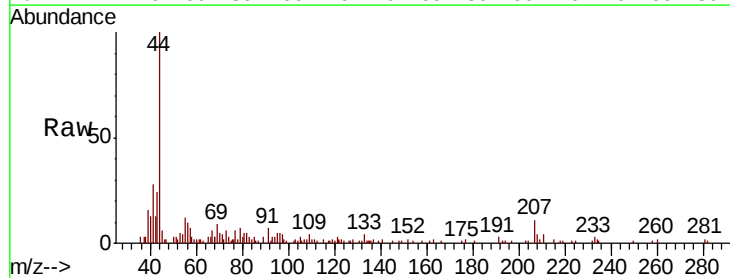
Tot Ion: 59 Resp: 1653
Ion Ratio Lower Upper
59 100
57 145.1 14.2 21.4#

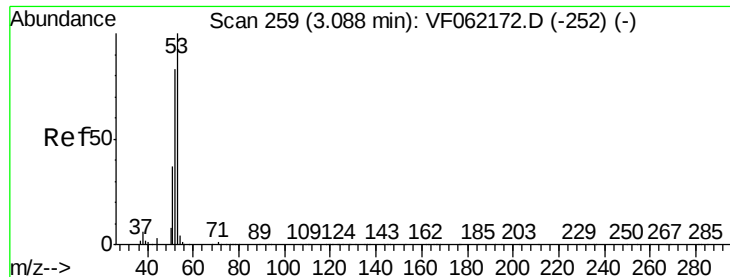


#13

Acrolein
Concen: 10.048 ug/l
RT: 2.11 min Scan# 160
Delta R.T. 0.02 min
Lab File: VF062180.D
Acq: 16 Apr 2019 17:15

Tgt Ion: 56 Resp: 377
Ion Ratio Lower Upper
56 100
55 129.4 62.9 94.3#





#15

Acrylonitrile

Concen: 11.724 ug/l

RT: 3.08 min Scan# 258

Delta R.T. -0.01 min

Lab File: VF062180.D

Acq: 16 Apr 2019 17:15

Instrument :

MSVOA_F

ClientSampleId :

TP-2

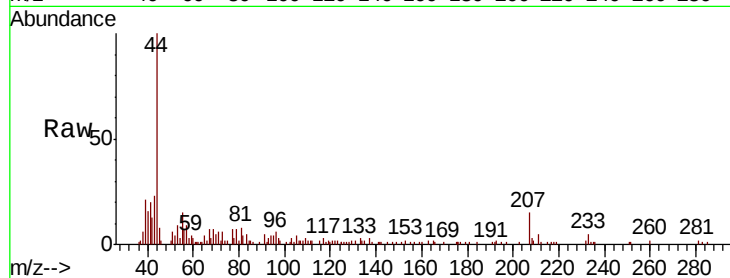
Tot Ion: 53 Resp: 2075

Ion Ratio Lower Upper

53 100

52 43.9 66.6 99.8#

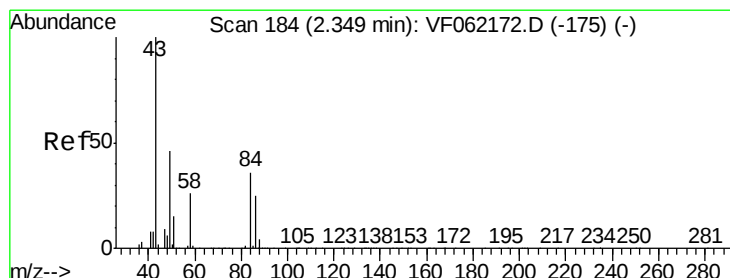
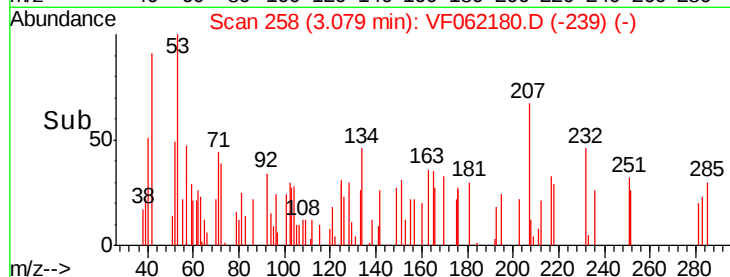
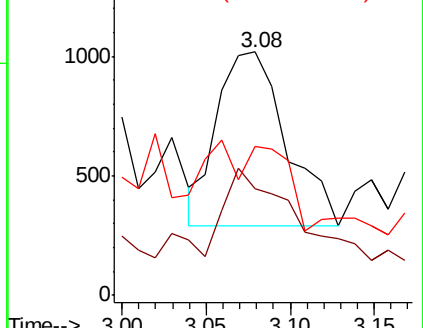
51 61.2 30.1 45.1#



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: 226.256 ug/l

RT: 2.35 min Scan# 184

Delta R.T. 0.00 min

Lab File: VF062180.D

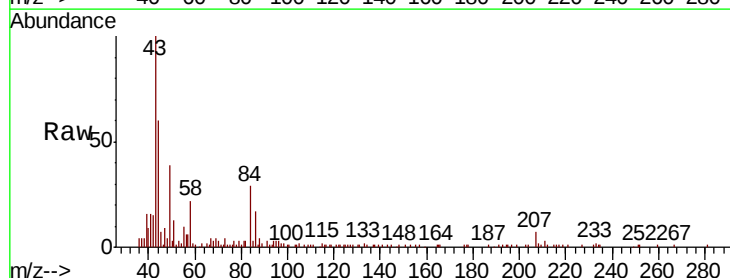
Acq: 16 Apr 2019 17:15

Tgt Ion: 43 Resp: 43835

Ion Ratio Lower Upper

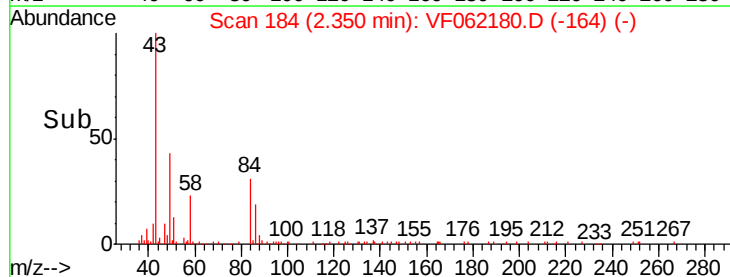
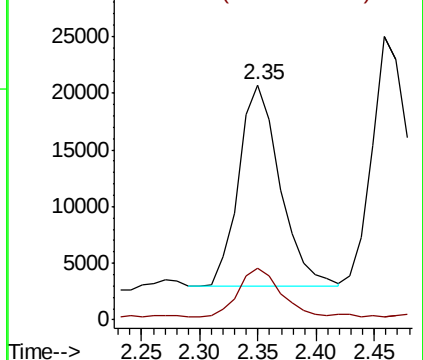
43 100

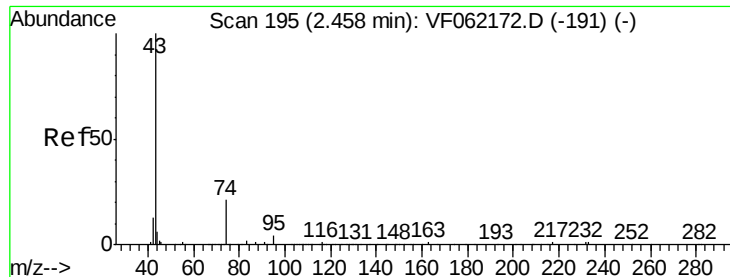
58 22.1 20.2 30.2



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

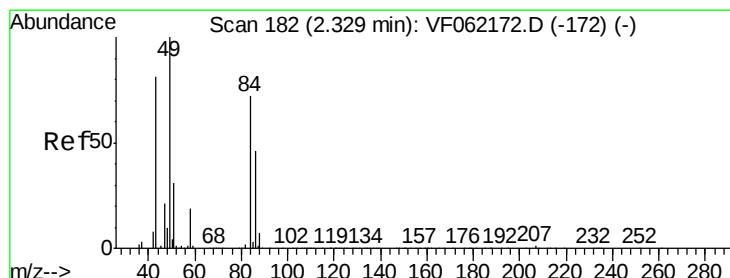
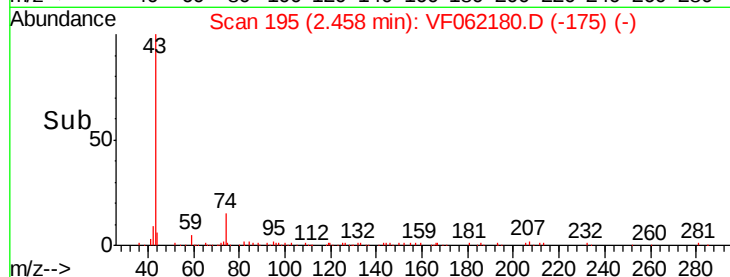
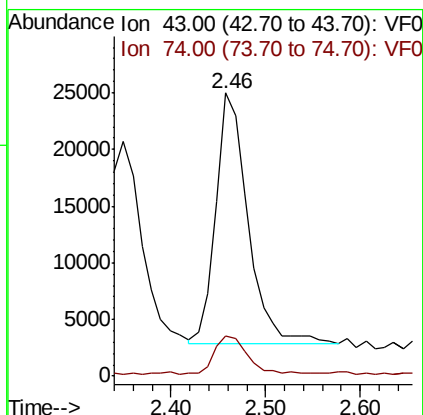
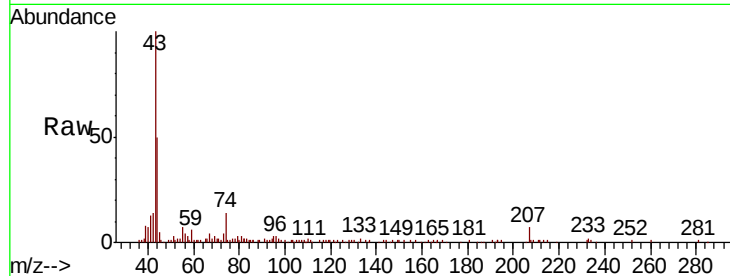




#18
Methvl Acetate
Concen: Below Cal
RT: 2.46 min Scan# 195
Delta R.T. 0.00 min
Lab File: VF062180.D
Acq: 16 Apr 2019 17:15

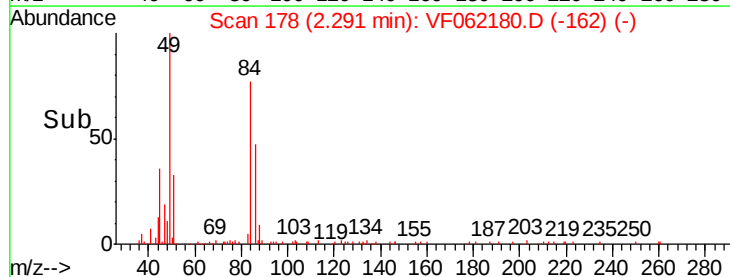
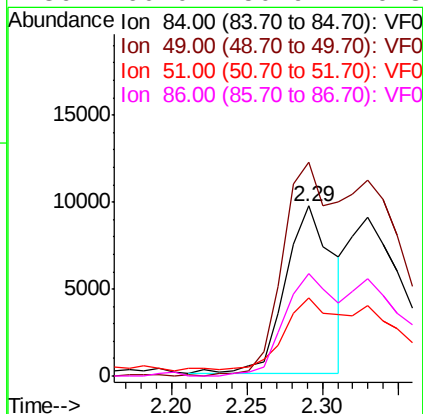
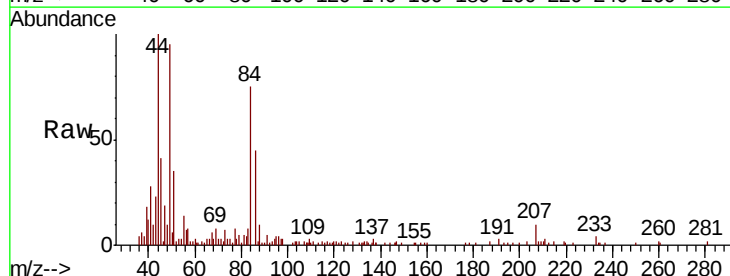
Instrument :
MSVOA_F
ClientSampleId :
TP-2

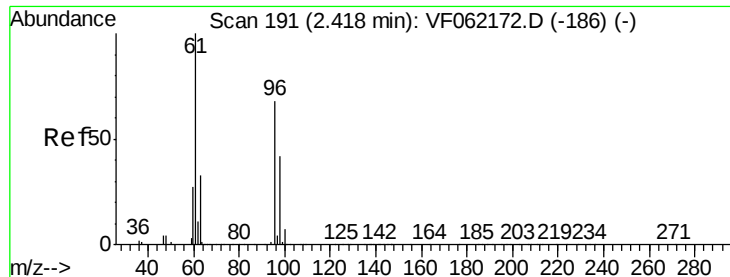
Tot Ion: 43 Resp: 52616
Ion Ratio Lower Upper
43 100
74 14.3 14.2 21.4



#20
Methylene Chloride
Concen: 19.745 ug/l
RT: 2.29 min Scan# 178
Delta R.T. -0.04 min
Lab File: VF062180.D
Acq: 16 Apr 2019 17:15

Tgt Ion: 84 Resp: 21442
Ion Ratio Lower Upper
84 100
49 125.8 111.5 167.3
51 45.9 34.9 52.3
86 60.0 50.9 76.3





#21

trans-1,2-Dichloroethene

Concen: 1.021 ug/l

RT: 2.43 min Scan# 192

Delta R.T. 0.01 min

Lab File: VF062180.D

Acq: 16 Apr 2019 17:15

Instrument :

MSVOA_F

ClientSampleId :

TP-2

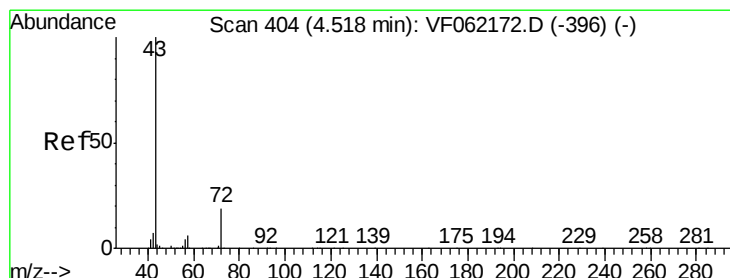
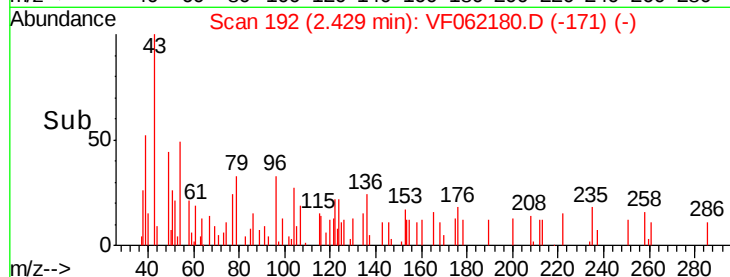
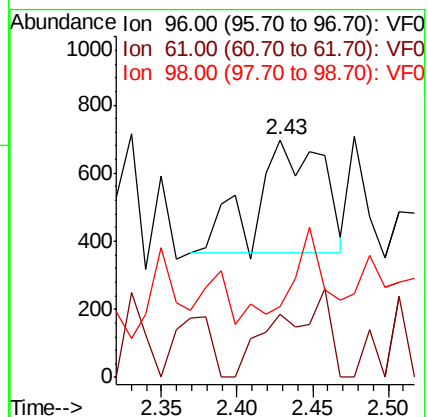
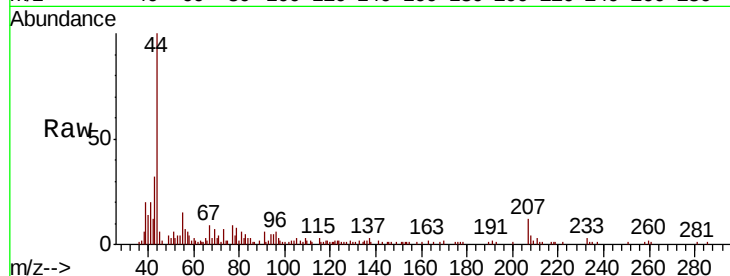
Tot Ion: 96 Resp: 1023

Ion Ratio Lower Upper

96 100

61 26.8 117.4 176.2#

98 30.1 49.8 74.8#



#25

2-Butanone

Concen: 20.126 ug/l

RT: 4.52 min Scan# 404

Delta R.T. 0.00 min

Lab File: VF062180.D

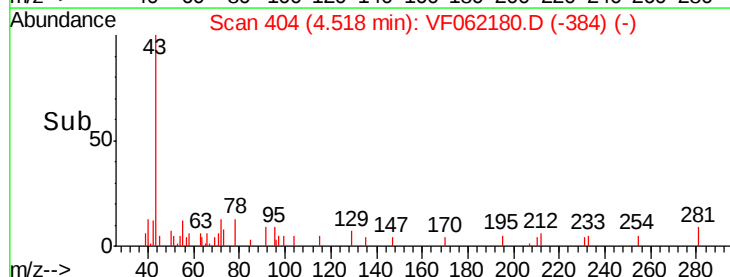
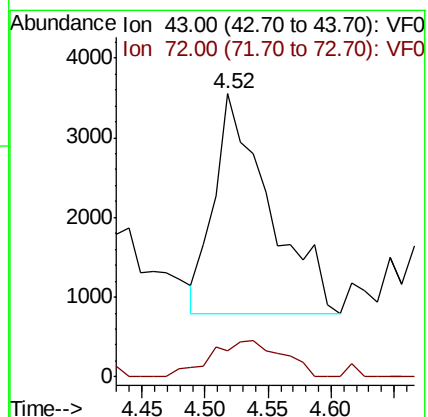
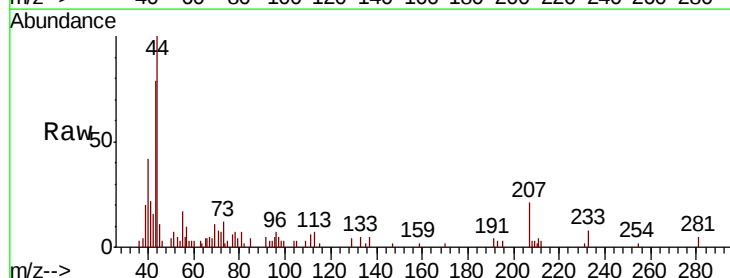
Acq: 16 Apr 2019 17:15

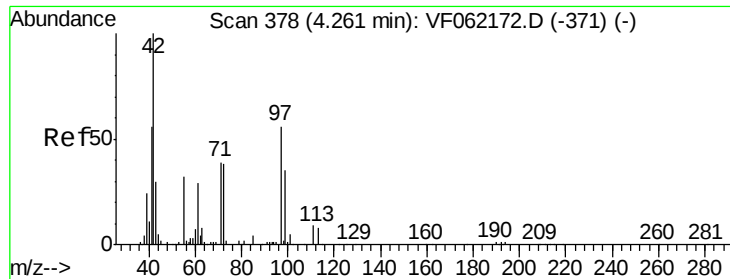
Tgt Ion: 43 Resp: 8376

Ion Ratio Lower Upper

43 100

72 9.3 15.4 23.2#





#29

Tetrahydrofuran

Concen: 9.649 ug/l

RT: 4.28 min Scan# 380

Delta R.T. 0.02 min

Lab File: VF062180.D

Acq: 16 Apr 2019 17:15

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ClientSampleId :

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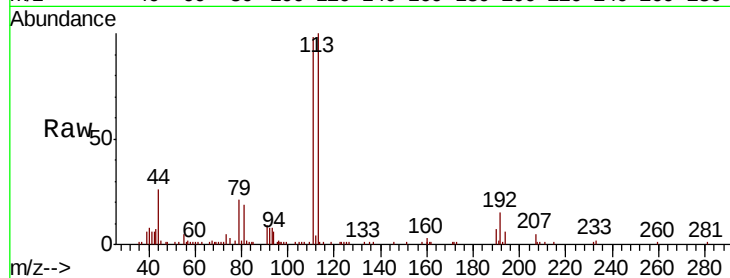
Tot Ion: 42 Resp: 1786

Ion Ratio Lower Upper

42 100

72 29.8 28.7 43.1

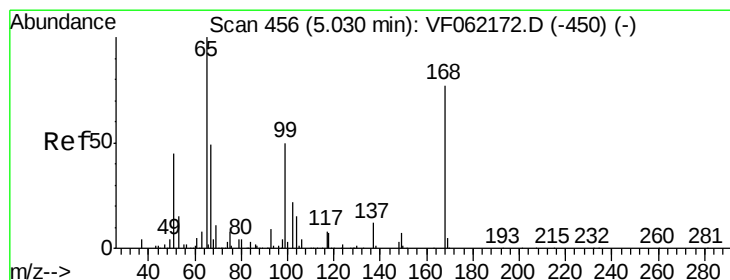
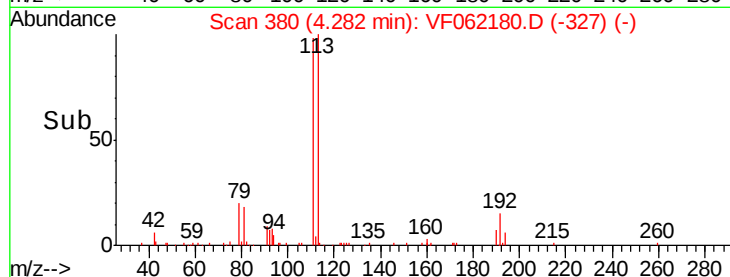
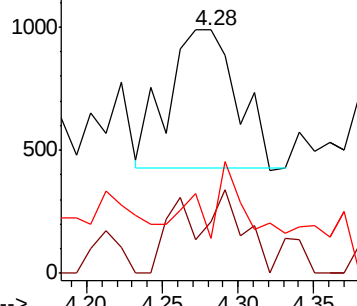
71 33.7 30.8 46.2



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



#33

1,2-Dichloroethane-d4

Concen: 165.075 ug/l

RT: 5.03 min Scan# 456

Delta R.T. 0.00 min

Lab File: VF062180.D

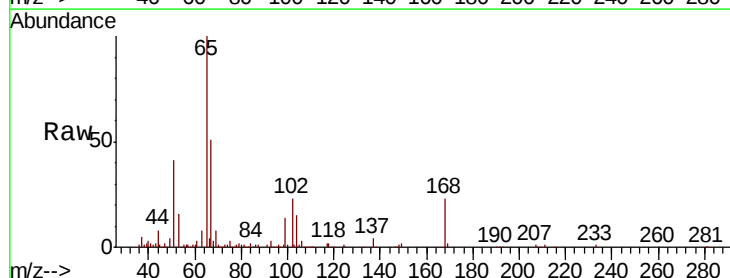
Acq: 16 Apr 2019 17:15

Tgt Ion: 65 Resp: 141843

Ion Ratio Lower Upper

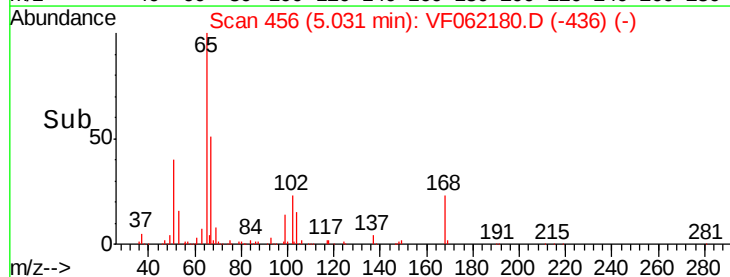
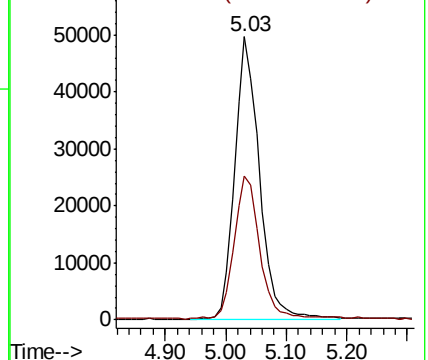
65 100

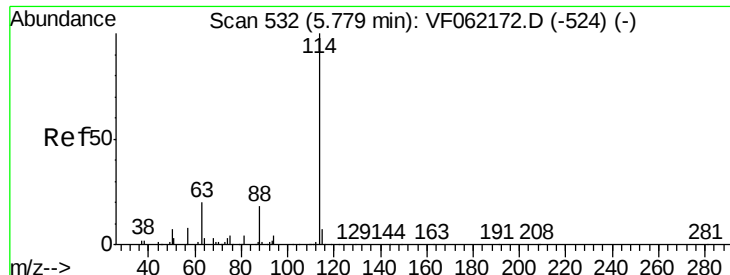
67 51.0 0.0 107.8



Abundance Ion 65.00 (64.70 to 65.70): VF0

Ion 67.00 (66.70 to 67.70): VF0





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.78 min Scan# 532

Delta R.T. 0.00 min

Lab File: VF062180.D

Acq: 16 Apr 2019 17:15

Instrument :

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ClientSampleId :

TP-2

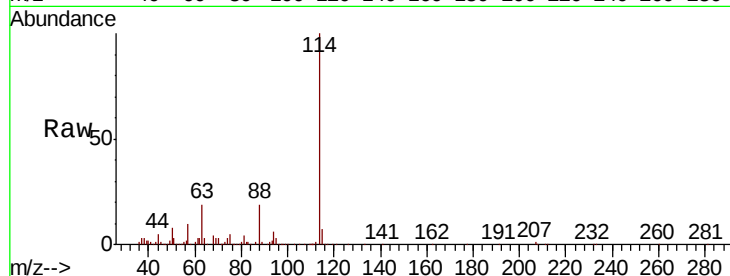
Tot Ion:114 Resp: 243390

Ion Ratio Lower Upper

114 100

63 19.4 0.0 40.0

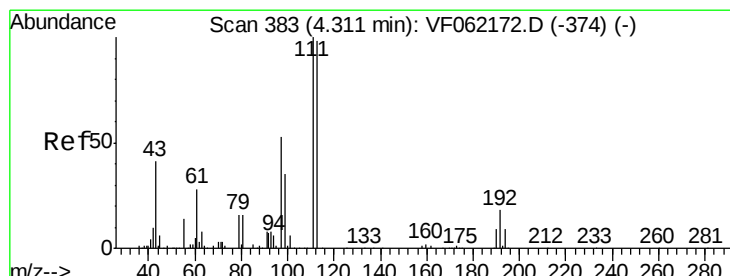
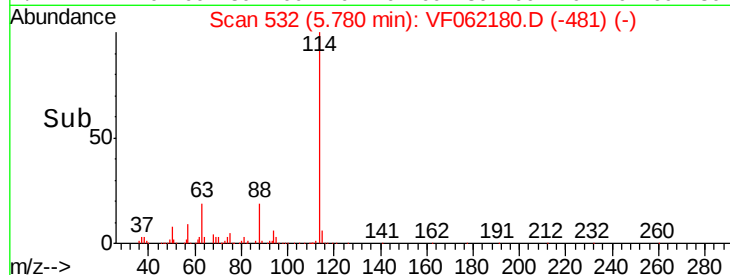
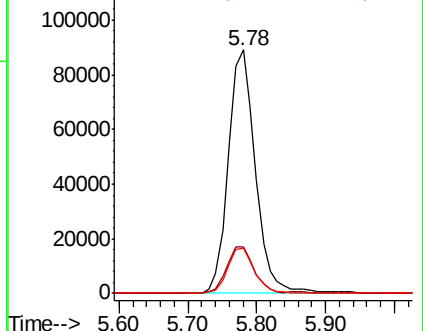
88 18.6 0.0 36.6



Abundance Ion 114.00 (113.70 to 114.70): V

Ion 63.00 (62.70 to 63.70): VF0

Ion 88.00 (87.70 to 88.70): VF0



#35

Dibromofluoromethane

Concen: 80.783 ug/l

RT: 4.31 min Scan# 383

Delta R.T. 0.00 min

Lab File: VF062180.D

Acq: 16 Apr 2019 17:15

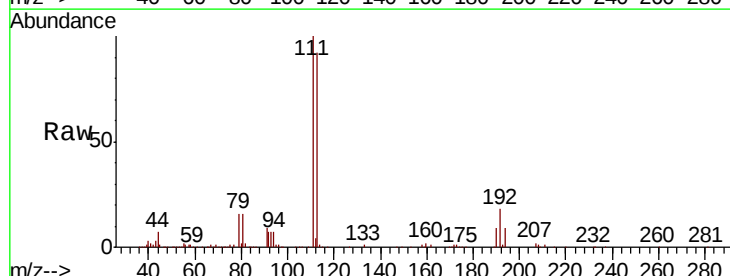
Tgt Ion:113 Resp: 155098

Ion Ratio Lower Upper

113 100

111 108.8 81.6 122.4

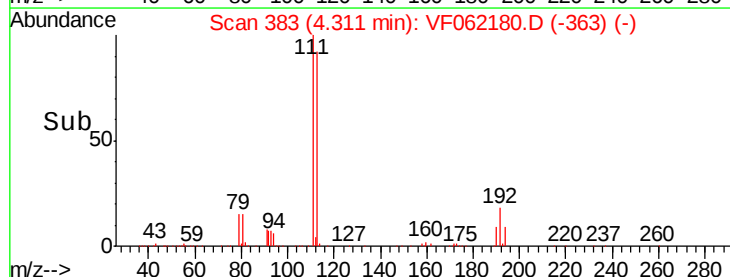
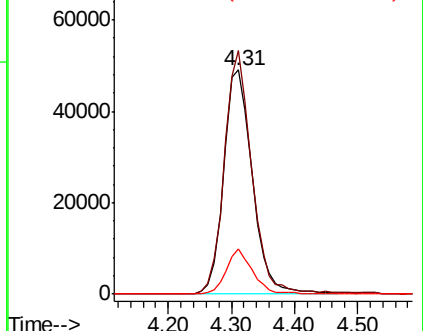
192 19.9 15.0 22.4

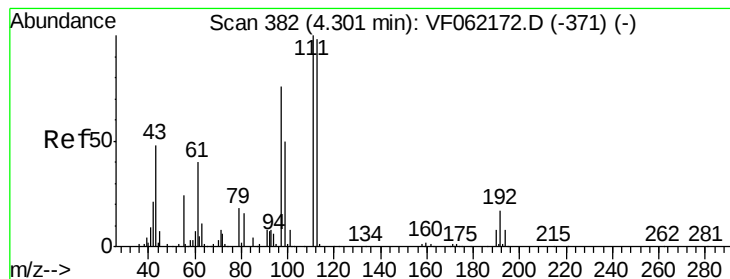


Abundance Ion 113.00 (112.70 to 113.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 192.00 (191.70 to 192.70): V





#37

Ethyl Acetate

Concen: 1.675 ug/l

RT: 4.31 min Scan# 383

Delta R.T. 0.01 min

Lab File: VF062180.D

Acq: 16 Apr 2019 17:15

Instrument :

MSVOA_F

ClientSampleId :

TP-2

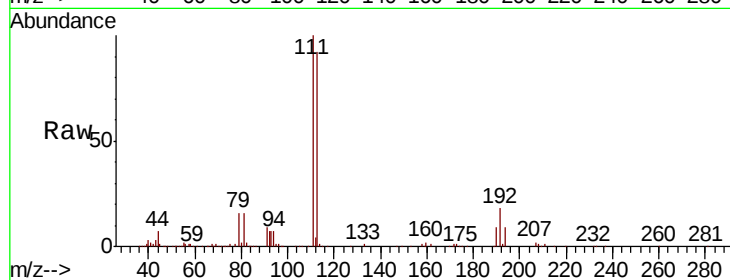
Tot Ion: 43 Resp: 2087

Ion Ratio Lower Upper

43 100

61 8.3 64.9 97.3#

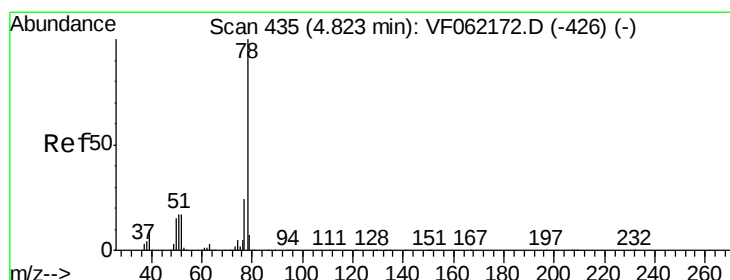
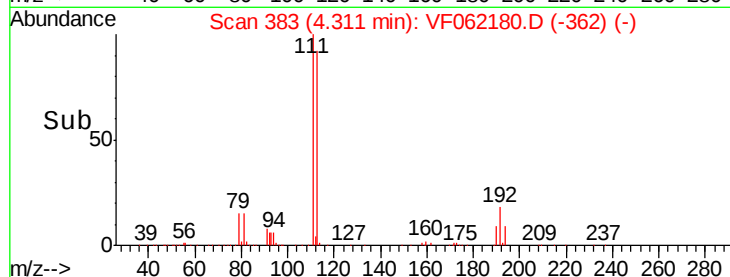
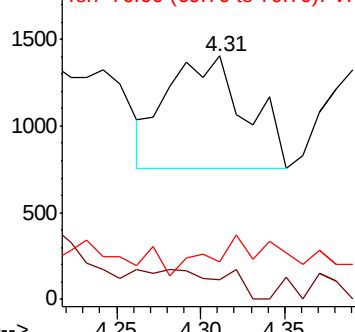
70 15.3 7.8 11.8#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 61.00 (60.70 to 61.70): VF0

Ion 70.00 (69.70 to 70.70): VF0



#40

Benzene

Concen: 1.412 ug/l

RT: 4.82 min Scan# 435

Delta R.T. 0.00 min

Lab File: VF062180.D

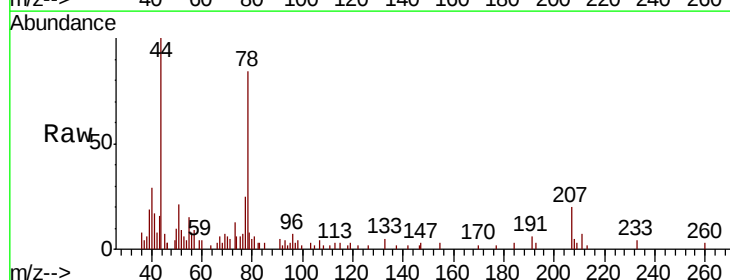
Acq: 16 Apr 2019 17:15

Tgt Ion: 78 Resp: 10088

Ion Ratio Lower Upper

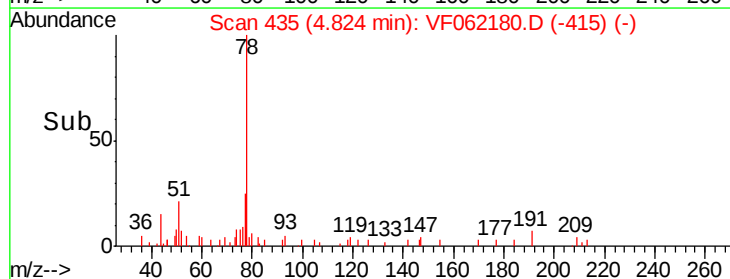
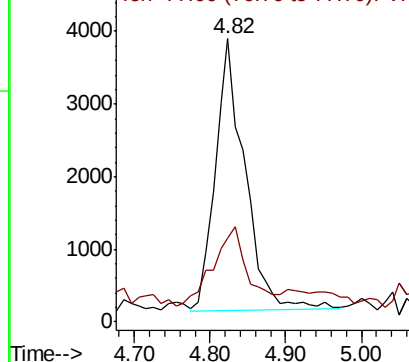
78 100

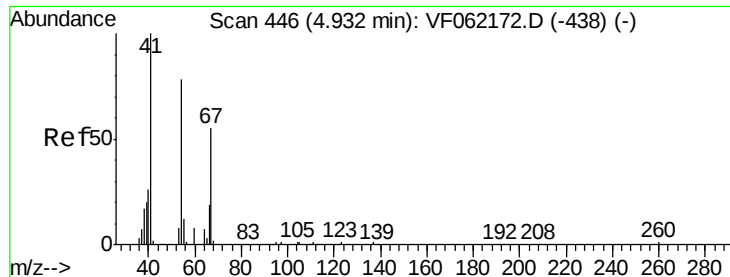
77 29.8 19.1 28.7#



Abundance Ion 78.10 (77.80 to 78.80): VF0

Ion 77.00 (76.70 to 77.70): VF0





#41

Methacrylonitrile

Concen: 1.348 ug/l

RT: 4.90 min Scan# 443

Delta R.T. -0.03 min

Lab File: VF062180.D

Acq: 16 Apr 2019 17:15

Instrument :

MSVOA_F

ClientSampled :

TP-2

Tot Ion: 41 Resp: 1009

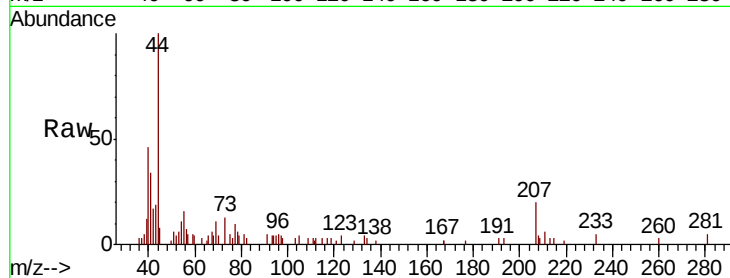
Ion Ratio Lower Upper

41 100

39 34.1 43.5 65.3#

67 18.8 42.9 64.3#

52 11.9 30.4 45.6#

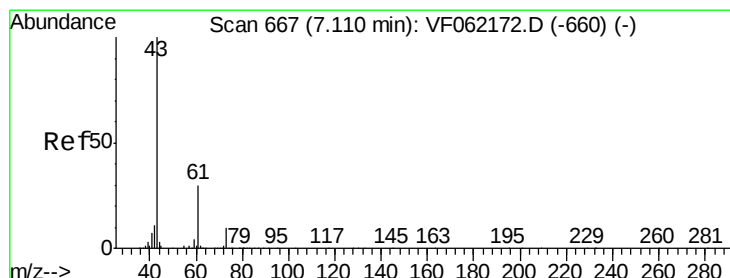
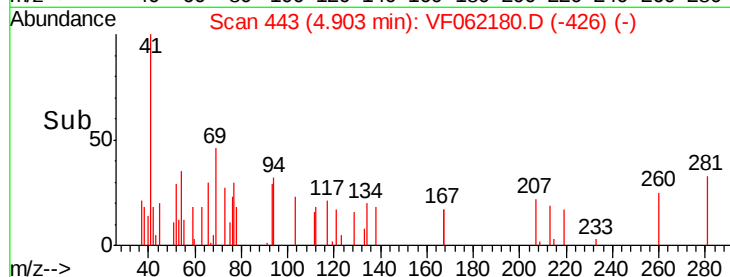
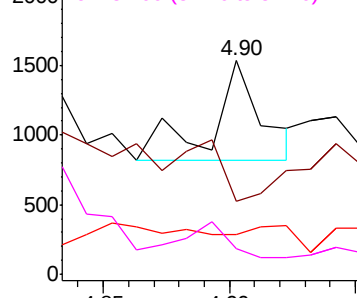


Abundance Ion 41.00 (40.70 to 41.70): VF0

Ion 39.00 (38.70 to 39.70): VF0

Ion 67.00 (66.70 to 67.70): VF0

Ion 52.00 (51.70 to 52.70): VF0



#43

Isopropyl Acetate

Concen: 2.219 ug/l

RT: 7.12 min Scan# 668

Delta R.T. 0.01 min

Lab File: VF062180.D

Acq: 16 Apr 2019 17:15

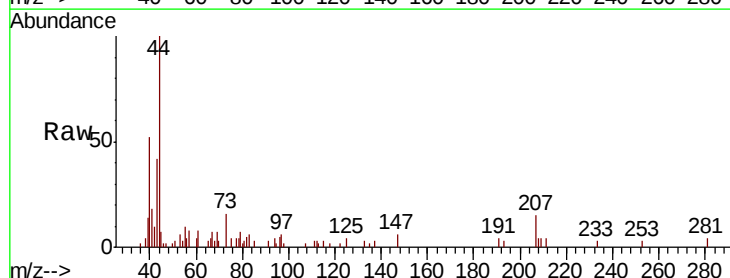
Tgt Ion: 43 Resp: 3195

Ion Ratio Lower Upper

43 100

61 19.2 23.7 35.5#

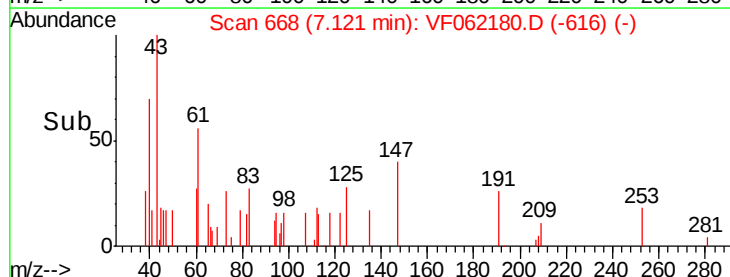
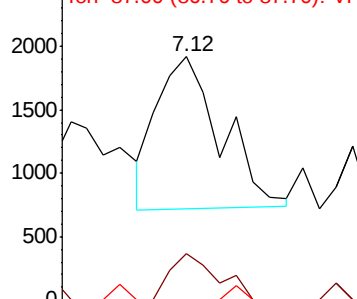
87 0.0 0.3 0.5#

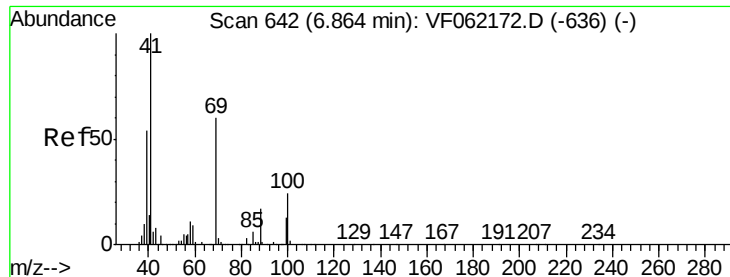


Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 61.00 (60.70 to 61.70): VF0

Ion 87.00 (86.70 to 87.70): VF0





#49

1,4-Dioxane

Concen: 43.565 ug/l

RT: 6.88 min Scan# 644

Delta R.T. 0.02 min

Lab File: VF062180.D

Acq: 16 Apr 2019 17:15

Instrument :

MSVOA_F

ClientSampleId :

TP-2

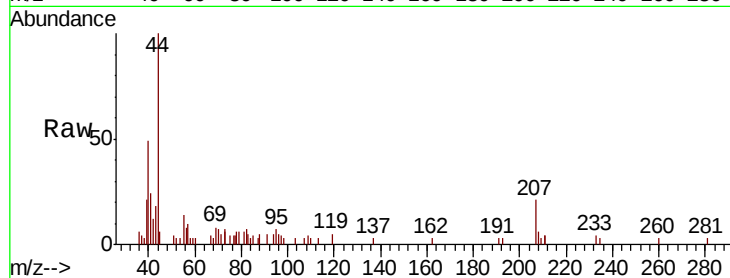
Tot Ion: 88 Resp: 320

Ion Ratio Lower Upper

88 100

43 375.6 49.5 74.3#

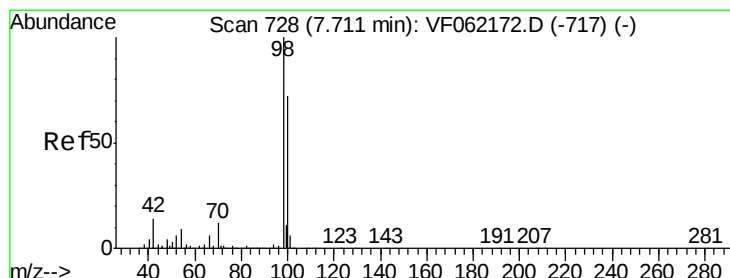
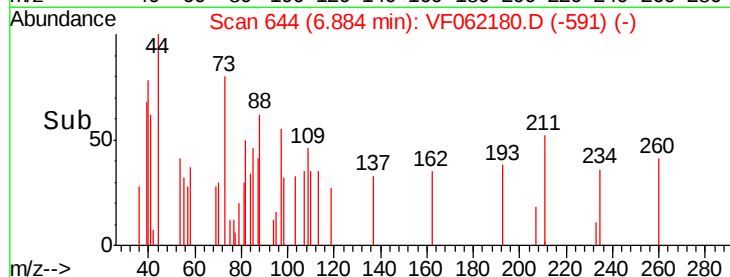
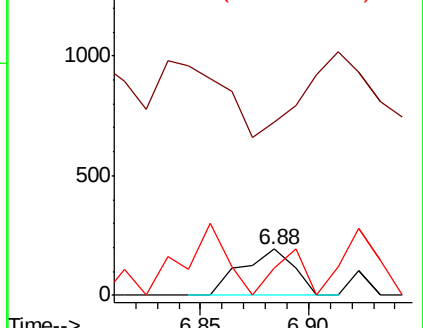
58 60.1 52.6 79.0



Abundance Ion 88.00 (87.70 to 88.70): VF0

Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0



#50

Toluene-d8

Concen: 41.515 ug/l

RT: 7.71 min Scan# 728

Delta R.T. 0.00 min

Lab File: VF062180.D

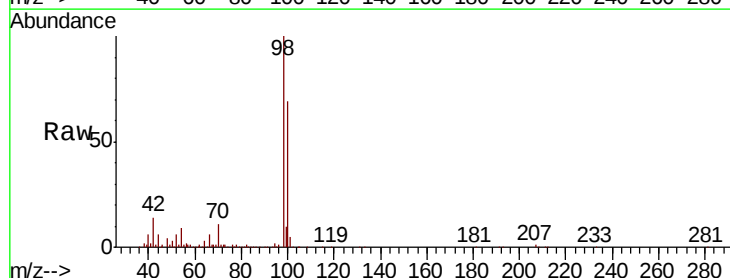
Acq: 16 Apr 2019 17:15

Tgt Ion: 98 Resp: 232919

Ion Ratio Lower Upper

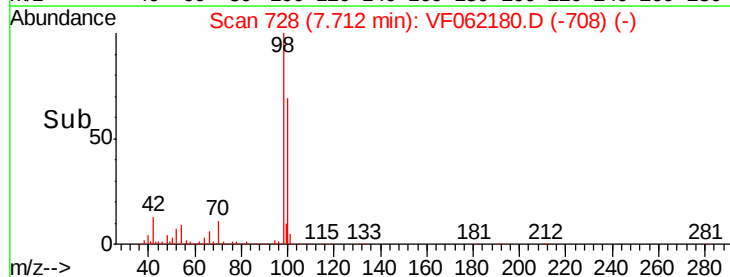
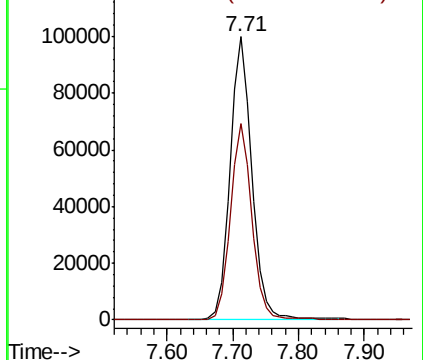
98 100

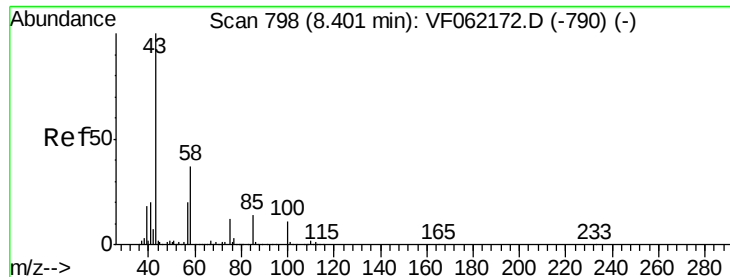
100 69.3 57.4 86.0



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: 9.238 ug/l

RT: 8.40 min Scan# 798

Delta R.T. 0.00 min

Lab File: VF062180.D

Acq: 16 Apr 2019 17:15

Instrument :

MSVOA_F

ClientSampleId :

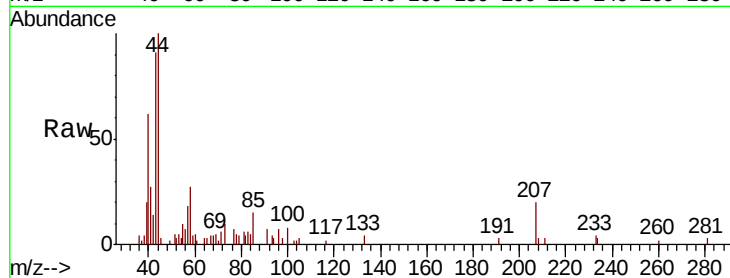
TP-2

Tot Ion: 43 Resp: 10249

Ion Ratio Lower Upper

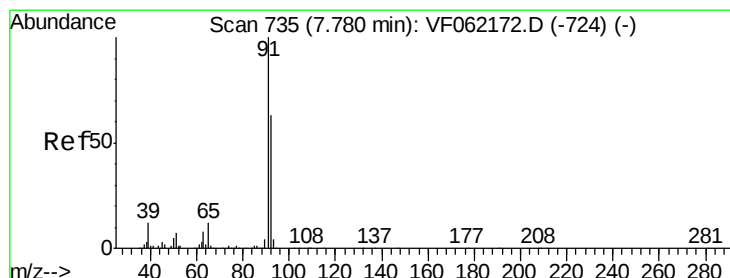
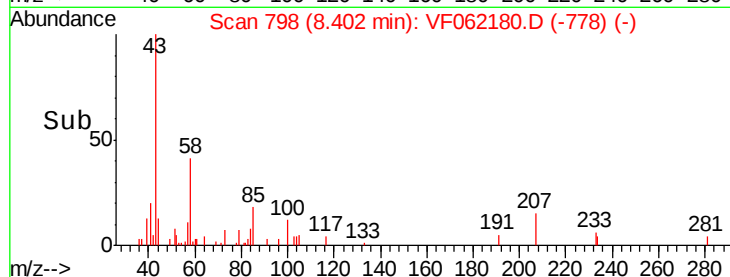
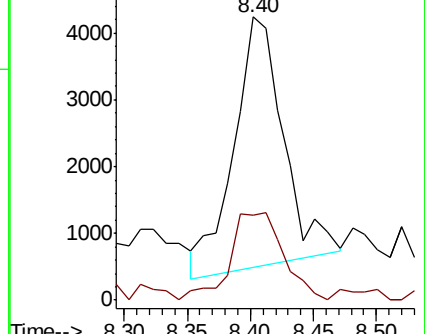
43 100

58 29.9 29.7 44.5



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0



#52

Toluene

Concen: 13.254 ug/l

RT: 7.78 min Scan# 735

Delta R.T. 0.00 min

Lab File: VF062180.D

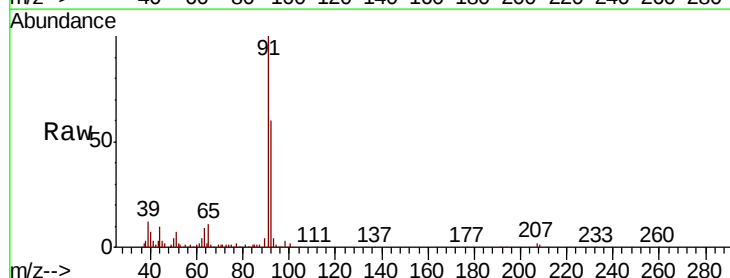
Acq: 16 Apr 2019 17:15

Tgt Ion: 92 Resp: 55617

Ion Ratio Lower Upper

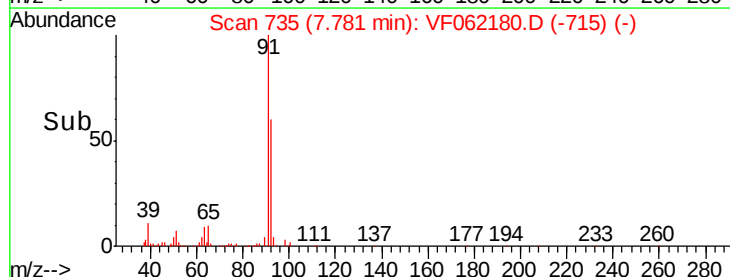
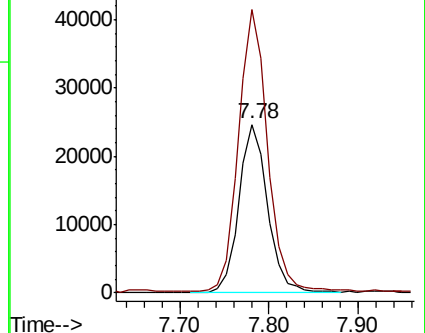
92 100

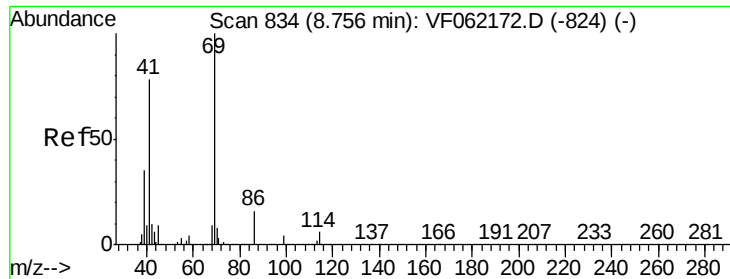
91 168.0 126.9 190.3



Abundance Ion 92.00 (91.70 to 92.70): VF0

Ion 91.00 (90.70 to 91.70): VF0





#56

Ethyl methacrylate

Concen: 2.411 ug/l

RT: 8.77 min Scan# 835

Delta R.T. 0.01 min

Lab File: VF062180.D

Acq: 16 Apr 2019 17:15

Instrument :
MSVOA_F
ClientSampled :
TP-2

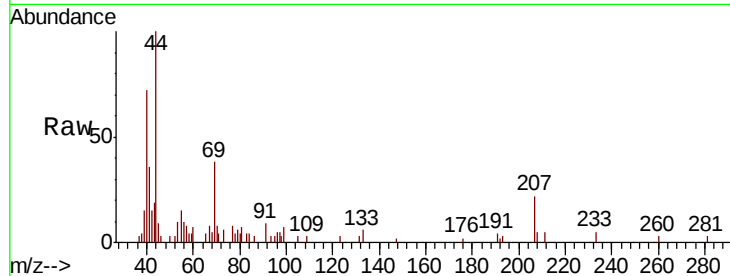
Tot Ion: 69 Resp: 3446

Ion Ratio Lower Upper

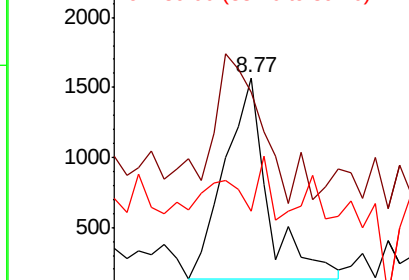
69 100

41 93.6 63.4 95.0

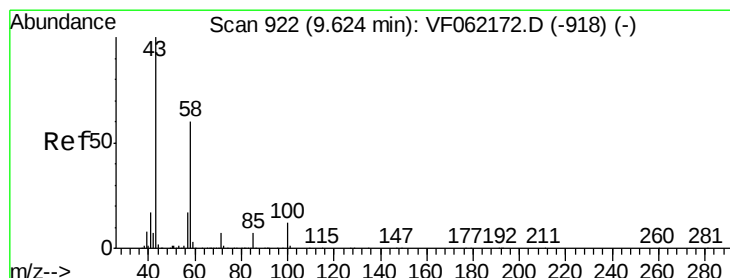
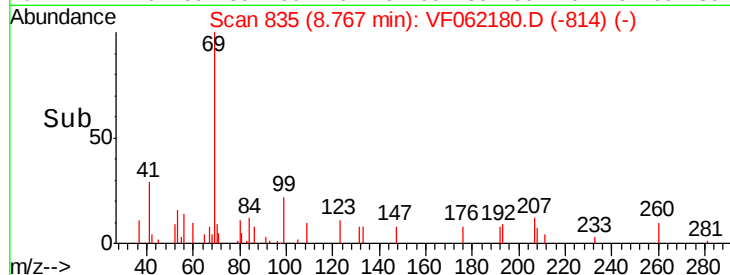
39 39.1 29.0 43.6



Abundance Ion 69.00 (68.70 to 69.70): VF0
Ion 41.00 (40.70 to 41.70): VF0
Ion 39.00 (38.70 to 39.70): VF0



Time-->



#59

2-Hexanone

Concen: 29.813 ug/l

RT: 9.62 min Scan# 922

Delta R.T. 0.00 min

Lab File: VF062180.D

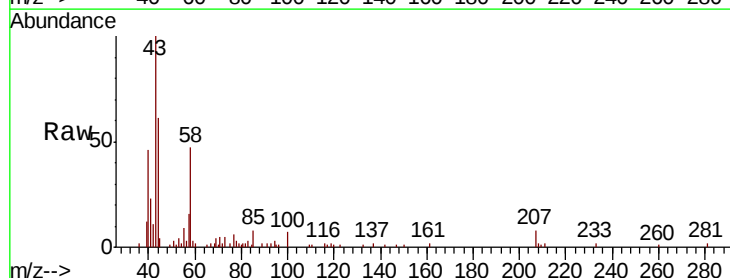
Acq: 16 Apr 2019 17:15

Tgt Ion: 43 Resp: 21020

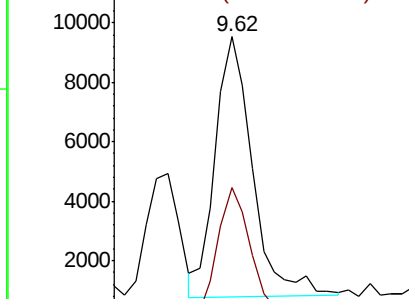
Ion Ratio Lower Upper

43 100

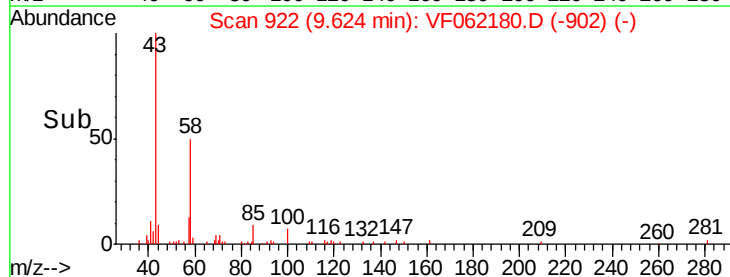
58 46.9 26.8 80.4

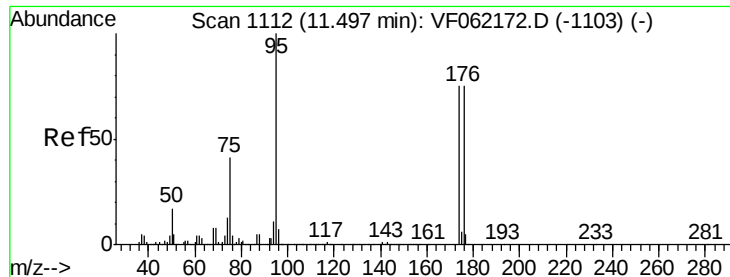


Abundance Ion 43.00 (42.70 to 43.70): VF0
Ion 58.00 (57.70 to 58.70): VF0



Time-->





#62

4-Bromofluorobenzene

Concen: 56.416 ug/l

RT: 11.50 min Scan# 1112

Delta R.T. 0.00 min

Lab File: VF062180.D

Acq: 16 Apr 2019 17:15

Instrument :

MSVOA_F

ClientSampled :

TP-2

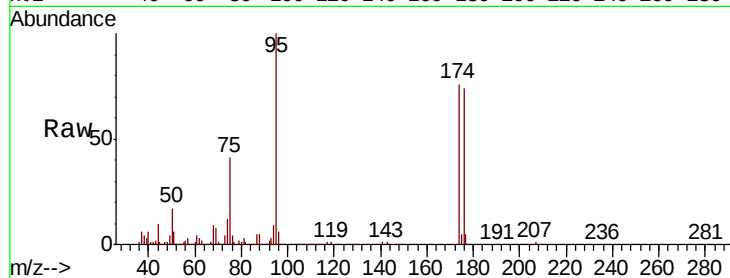
Tot Ion: 95 Resp: 124996

Ion Ratio Lower Upper

95 100

174 76.1 0.0 150.2

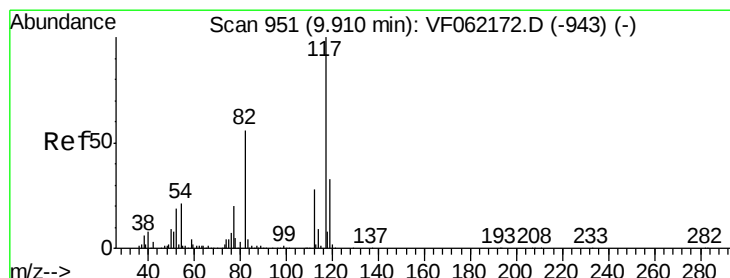
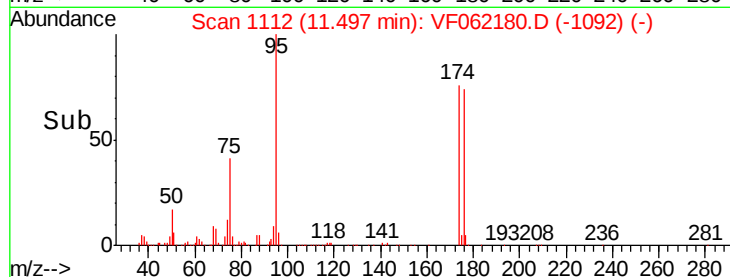
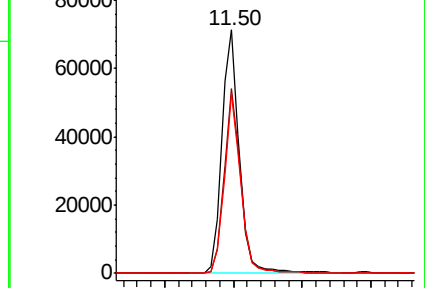
176 74.0 0.0 149.4



Abundance Ion 95.00 (94.70 to 95.70): VF0

Ion 174.00 (173.70 to 174.70): V

Ion 176.00 (175.70 to 176.70): V



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 9.91 min Scan# 951

Delta R.T. 0.00 min

Lab File: VF062180.D

Acq: 16 Apr 2019 17:15

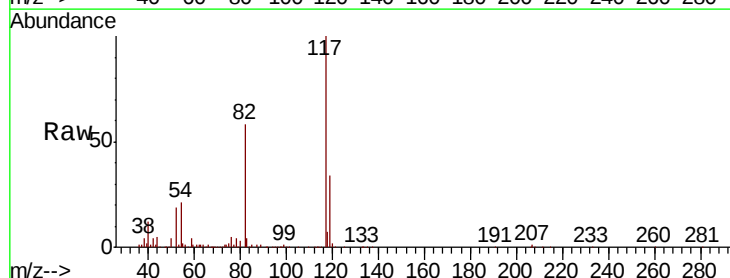
Tgt Ion: 117 Resp: 229354

Ion Ratio Lower Upper

117 100

82 58.2 45.2 67.8

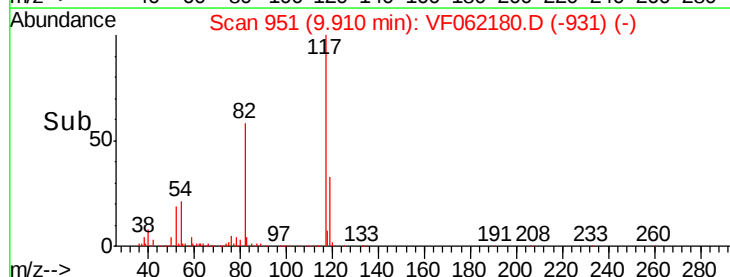
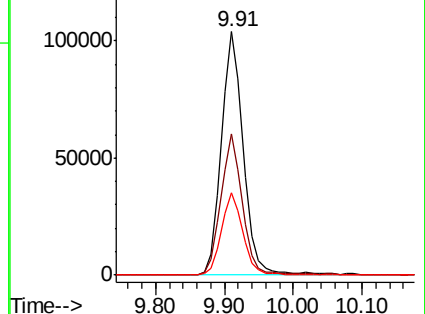
119 33.6 26.6 39.8

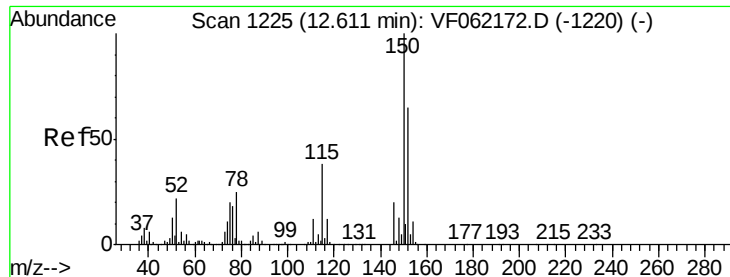


Abundance Ion 117.00 (116.70 to 117.70): V

Ion 82.00 (81.70 to 82.70): VF0

Ion 119.00 (118.70 to 119.70): V



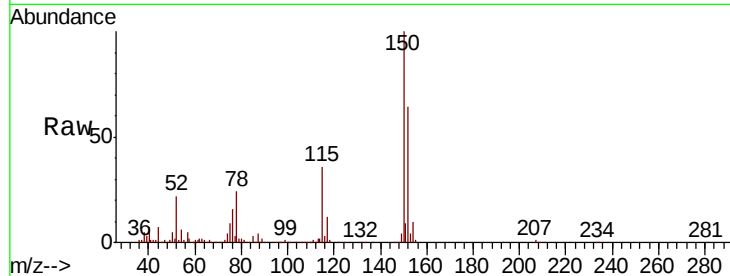


#72

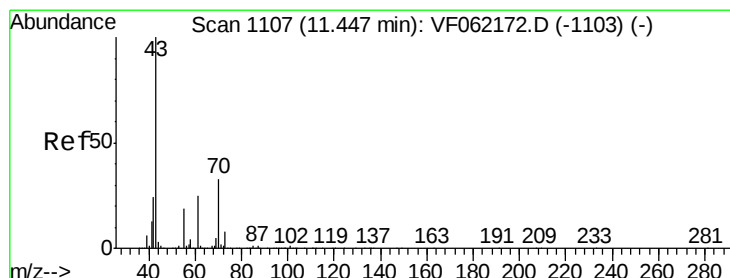
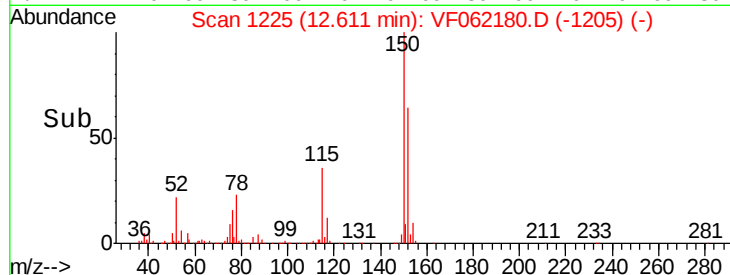
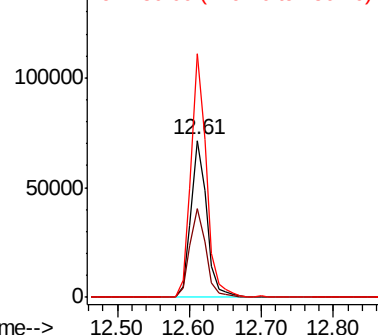
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.61 min Scan# 1225
Delta R.T. 0.00 min
Lab File: VF062180.D
Acq: 16 Apr 2019 17:15

Instrument :
MSVOA_F
ClientSampled :
TP-2

Tot Ion:152 Resp: 107748
Ion Ratio Lower Upper
152 100
115 56.5 29.0 87.1
150 155.2 0.0 309.2



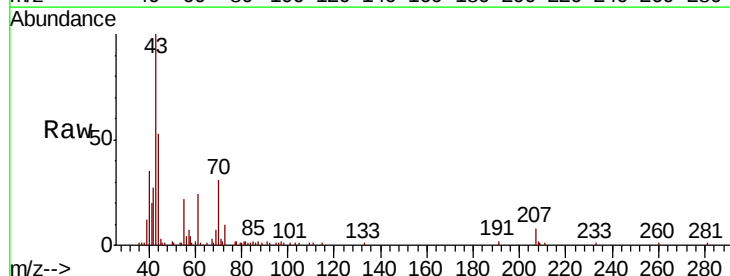
Abundance Ion 152.00 (151.70 to 152.70): V
Ion 115.00 (114.70 to 115.70): V
Ion 150.00 (149.70 to 150.70): V



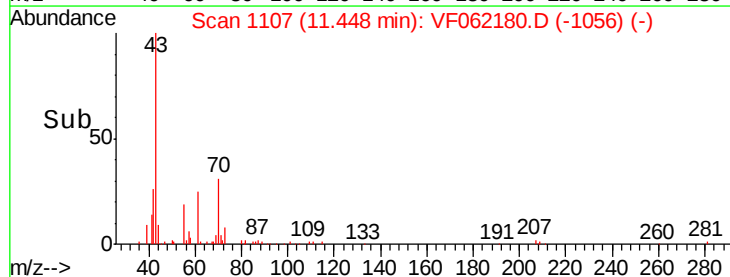
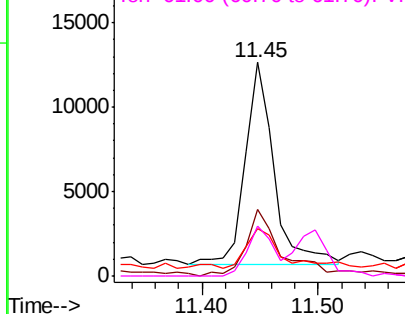
#74

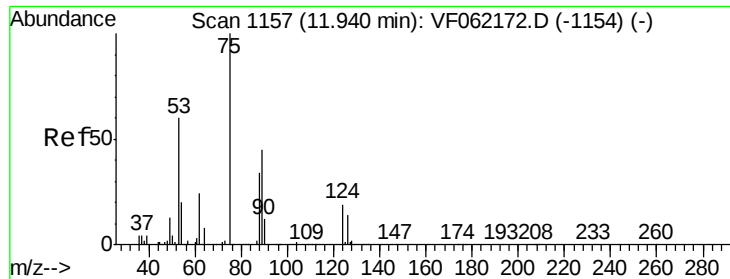
N-ethyl acetate
Concen: 5.910 ug/l
RT: 11.45 min Scan# 1107
Delta R.T. 0.00 min
Lab File: VF062180.D
Acq: 16 Apr 2019 17:15

Tgt Ion: 43 Resp: 20553
Ion Ratio Lower Upper
43 100
70 31.0 26.6 39.8
55 22.4 15.0 22.6
61 23.5 20.0 30.0



Abundance Ion 43.00 (42.70 to 43.70): VF0
Ion 70.00 (69.70 to 70.70): VF0
Ion 55.00 (54.70 to 55.70): VF0
Ion 61.00 (60.70 to 61.70): VF0





#81

trans-1,4-Dichloro-2-butene

Concen: 2.140 ug/l

RT: 11.96 min Scan# 1159

Delta R.T. 0.02 min

Lab File: VF062180.D

Acq: 16 Apr 2019 17:15

Instrument :

MSVOA_F

ClientSampled :

TP-2

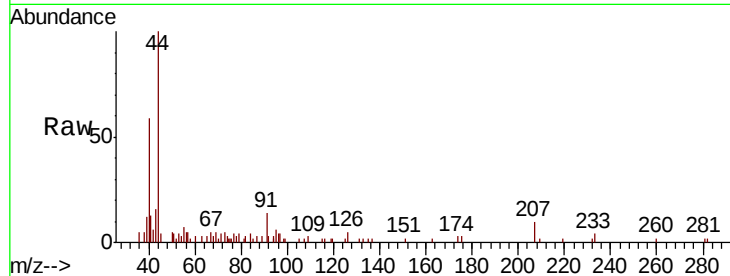
Tot Ion: 75 Resp: 1200

Ion Ratio Lower Upper

75 100

53 85.2 53.4 80.0#

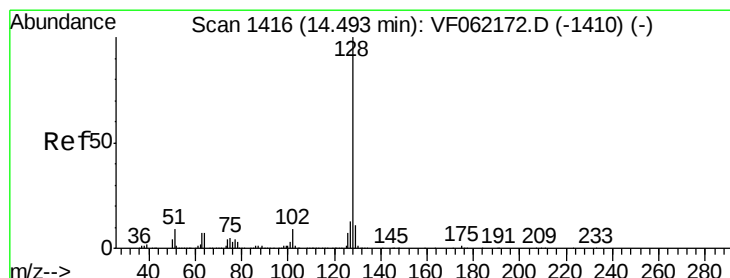
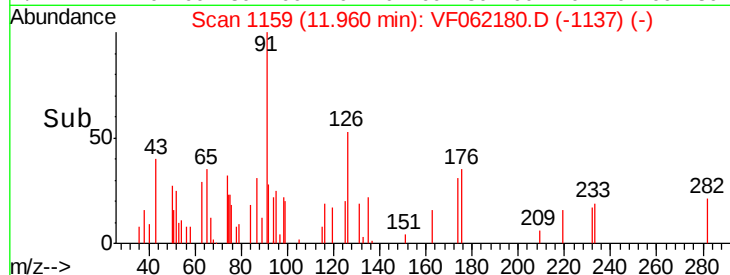
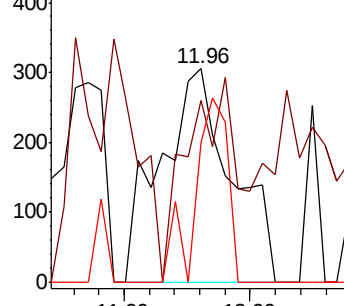
89 65.2 38.7 58.1#



Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 53.00 (52.70 to 53.70): VF0

Ion 89.00 (88.70 to 89.70): VF0



#95

Naphthalene

Concen: 4.404 ug/l

RT: 14.49 min Scan# 1416

Delta R.T. 0.00 min

Lab File: VF062180.D

Acq: 16 Apr 2019 17:15

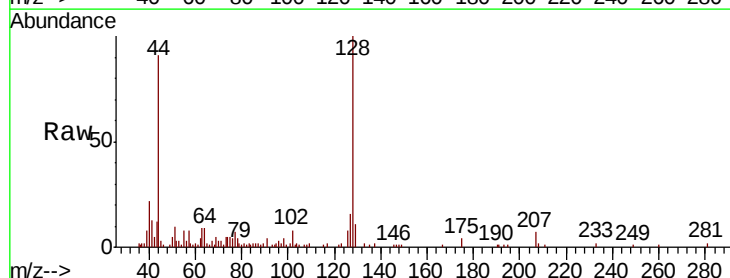
Tgt Ion: 128 Resp: 19588

Ion Ratio Lower Upper

128 100

127 15.7 10.3 15.5#

129 11.2 9.2 13.8



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

