

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD041019\
 Data File : VD061721.D
 Acq On : 10 Apr 2019 19:01
 Operator : VA/AP
 Sample : K2316-09RE
 Misc : 5.04g/5ml/MSVOA D/SOIL
 ALS Vial : 16 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :

Quant Time: Apr 11 01:08:40 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_D\METHOD\82D040619S.M
 Quant Title : SW846 8260
 QLast Update : Mon Apr 08 10:04:03 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.06	168	488234	50.00	ug/l	0.02
34) 1,4-Difluorobenzene	8.23	114	818581	50.00	ug/l	0.02
63) Chlorobenzene-d5	12.38	117	620061	50.00	ug/l	0.01
72) 1,4-Dichlorobenzene-d4	14.52	152	208291	50.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	7.47	65	216932	58.62	ug/l	0.01
Spiked Amount			Recovery	=	117.24%	
35) Dibromofluoromethane	6.93	113	13353	2.35	ug/l	0.01
Spiked Amount			Recovery	=	4.70%	
50) Toluene-d8	10.42	98	691180	48.51	ug/l	0.01
Spiked Amount			Recovery	=	97.02%	
62) 4-Bromofluorobenzene	13.56	95	262233	53.03	ug/l	0.00
Spiked Amount			Recovery	=	106.06%	

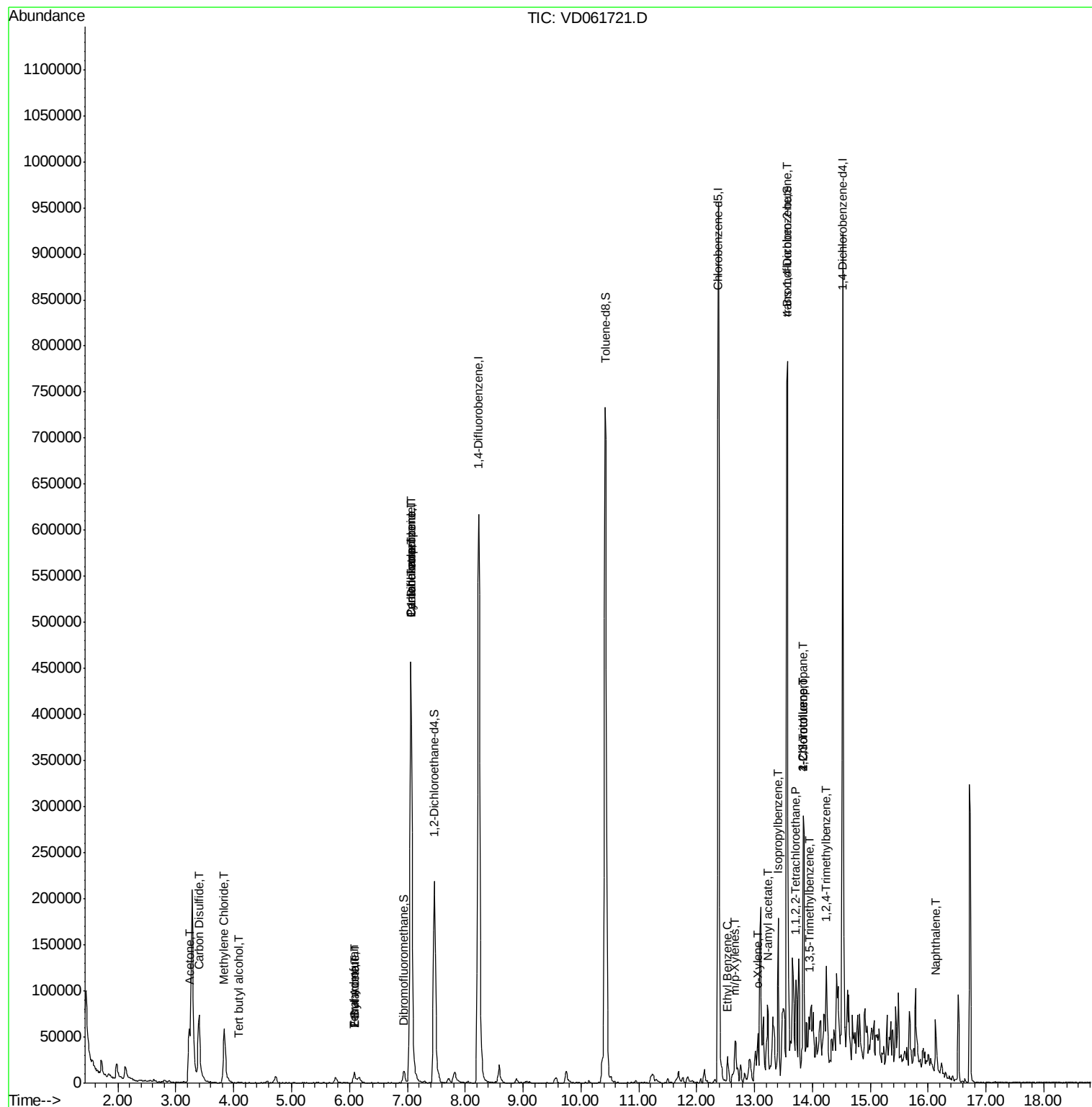
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
11) Tert butyl alcohol	4.07	59	761	3.068	ug/l #	72
16) Acetone	3.23	43	112904	102.057	ug/l	98
17) Carbon Disulfide	3.40	76	148356	8.970	ug/l	97
20) Methylene Chloride	3.83	84	46795	7.454	ug/l	94
25) 2-Butanone	6.09	43	25933	20.334	ug/l	98
29) Tetrahydrofuran	6.07	42	1241	2.016	ug/l #	1
31) Cyclohexane	7.06	56	9701	1.392	ug/l #	1
36) 1,1-Dichloropropene	7.06	75	33785	4.716	ug/l #	47
37) Ethyl Acetate	6.09	43	25933	8.887	ug/l #	68
38) Carbon Tetrachloride	7.06	117	47203	5.622	ug/l #	14
67) Ethyl Benzene	12.54	91	19091	1.020	ug/l	98
68) m/p-Xylenes	12.67	106	13662	1.893	ug/l	81
69) o-Xylene	13.06	106	11284	1.619	ug/l	98
73) Isopropylbenzene	13.41	105	99104	7.141	ug/l	98
74) N-amyl acetate	13.22	43	18234	4.835	ug/l #	59
75) 1,1,2,2-Tetrachloroethane	13.72	83	4764	1.660	ug/l #	75
76) 1,2,3-Trichloropropane	13.84	75	3033	1.070	ug/l	84
79) 2-Chlorotoluene	13.84	91	133458	14.057	ug/l	92
80) 1,3,5-Trimethylbenzene	13.94	105	17666	1.604	ug/l	100
81) trans-1,4-Dichloro-2-buten	13.56	75	98864	114.968	ug/l #	20
82) 4-Chlorotoluene	13.84	91	132326	12.720	ug/l	95
84) 1,2,4-Trimethylbenzene	14.25	105	33643	3.026	ug/l	98
95) Naphthalene	16.13	128	37008	8.034	ug/l	99

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

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QLast Update : Mon Apr 08 10:04:03 2019
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#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.06 min Scan# 573

Delta R.T. 0.02 min

Lab File: VD061721.D

Acq: 10 Apr 2019 19:01

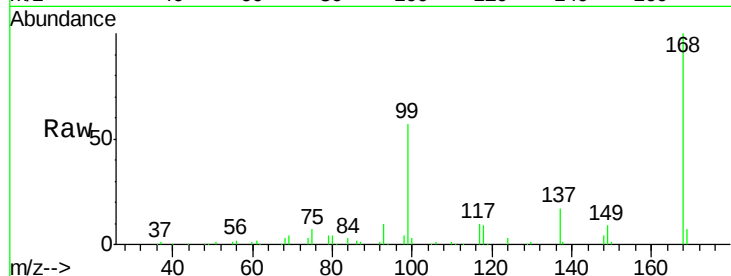
Instrument :
MSVOA_D
ClientSampleId :

Tot Ion:168 Resp: 488234

Ion Ratio Lower Upper

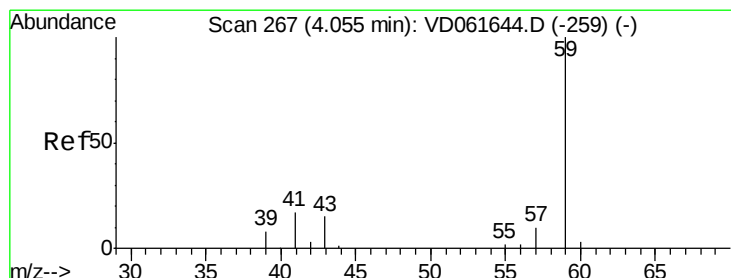
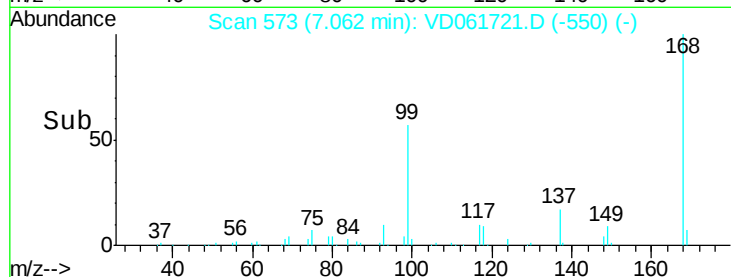
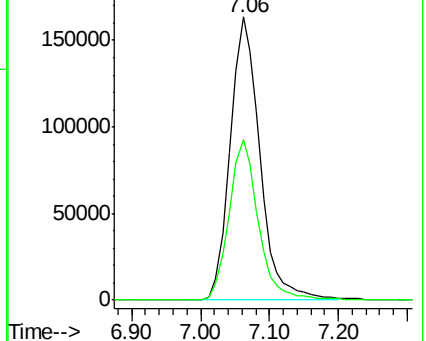
168 100

99 56.7 46.8 70.2



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC



#11

Tert butyl alcohol

Concen: 3.068 ug/l

RT: 4.07 min Scan# 269

Delta R.T. 0.01 min

Lab File: VD061721.D

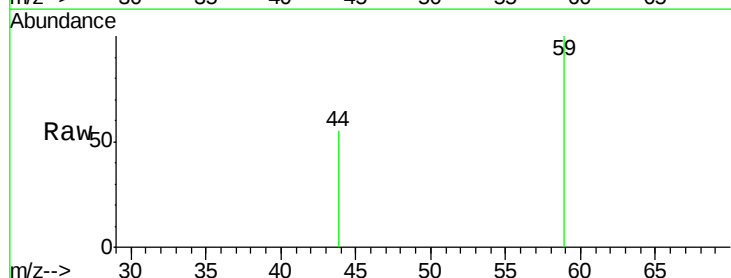
Acq: 10 Apr 2019 19:01

Tgt Ion: 59 Resp: 761

Ion Ratio Lower Upper

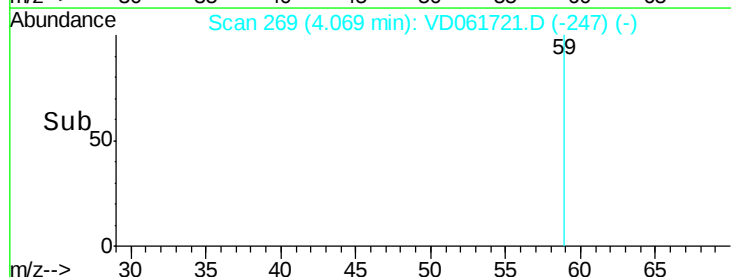
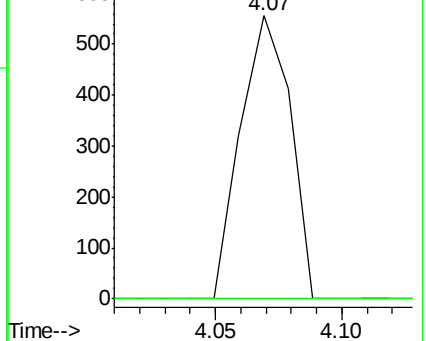
59 100

57 0.0 8.4 12.6#



Abundance Ion 58.95 (58.65 to 59.65): VDC

Ion 56.95 (56.65 to 57.65): VDC





#16

Acetone

Concen: 102.057 ug/l

RT: 3.23 min Scan# 184

Delta R.T. 0.01 min

Lab File: VD061721.D

Acq: 10 Apr 2019 19:01

Instrument :

MSVOA_D

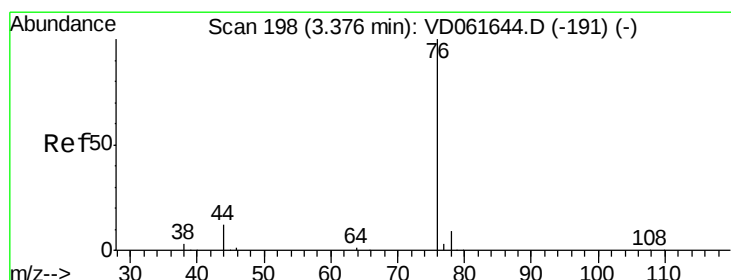
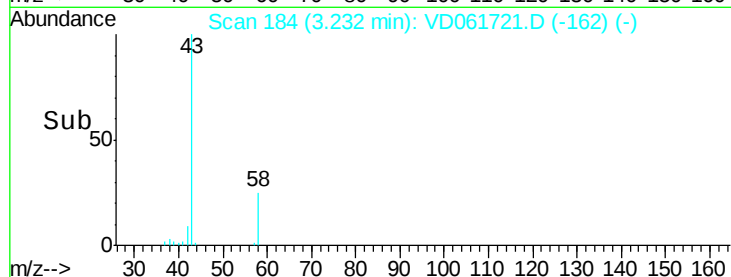
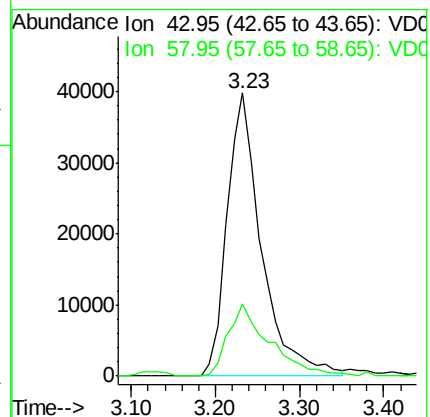
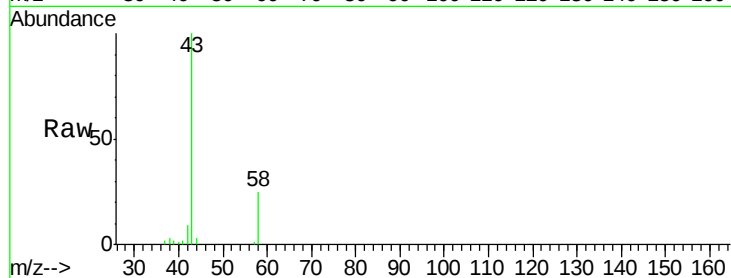
ClientSampleId :

Tot Ion: 43 Resp: 112904

Ion Ratio Lower Upper

43 100

58 25.5 19.7 29.5



#17

Carbon Disulfide

Concen: 8.970 ug/l

RT: 3.40 min Scan# 201

Delta R.T. 0.02 min

Lab File: VD061721.D

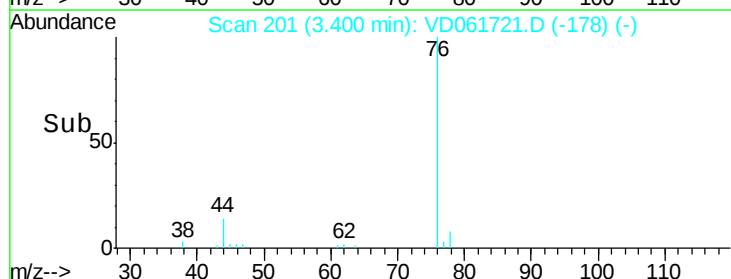
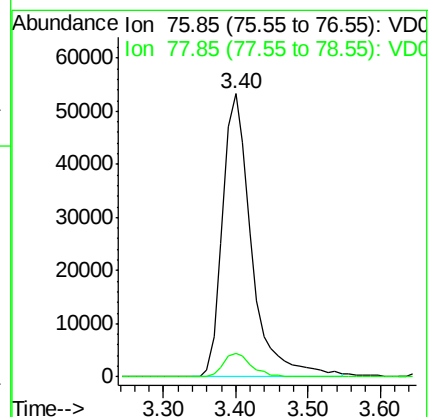
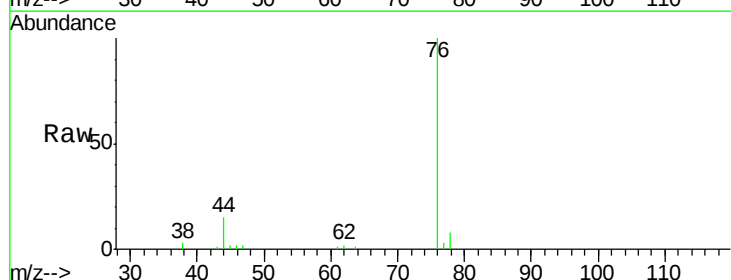
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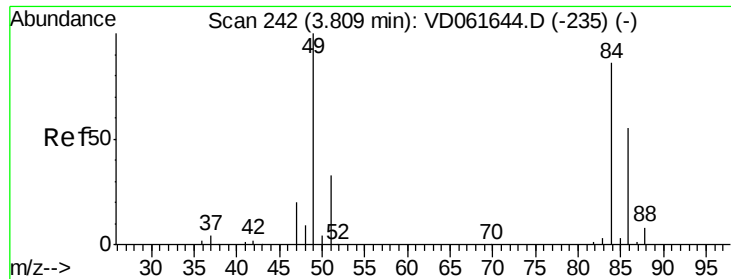
Tgt Ion: 76 Resp: 148356

Ion Ratio Lower Upper

76 100

78 8.2 7.4 11.2

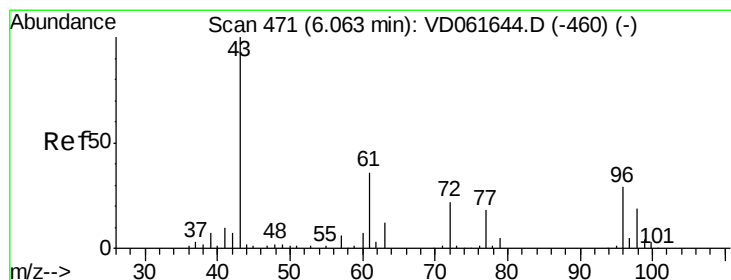
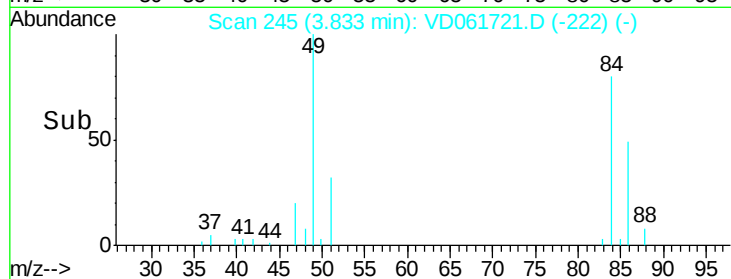
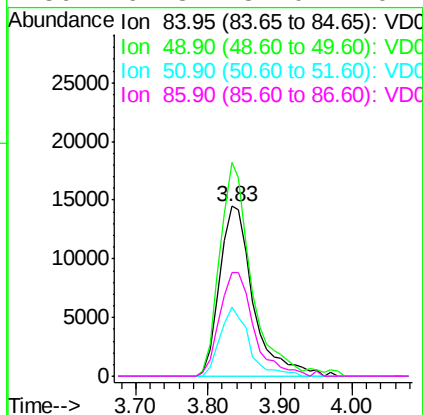
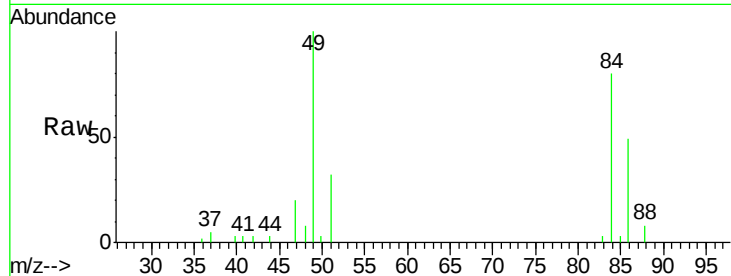




#20
Methvlene Chloride
Concen: 7.454 ug/l
RT: 3.83 min Scan# 245
Delta R.T. 0.02 min
Lab File: VD061721.D
Acq: 10 Apr 2019 19:01

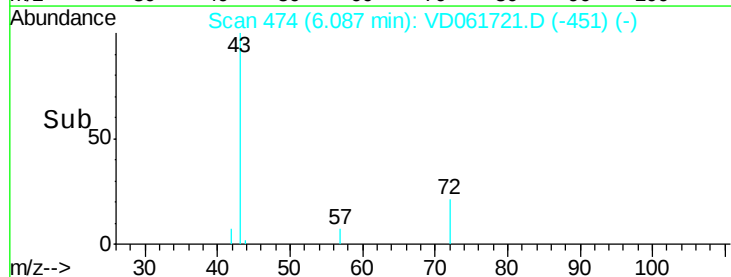
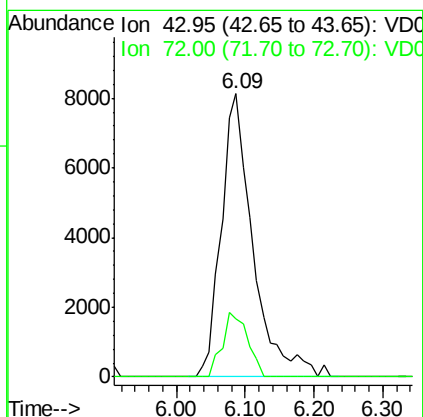
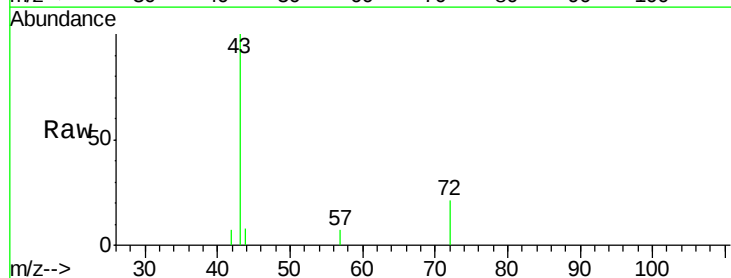
Instrument :
MSVOA_D
ClientSampleId :

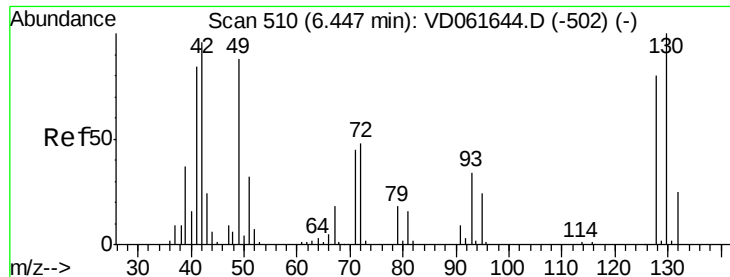
Tot Ion: 84 Resp: 46795
Ion Ratio Lower Upper
84 100
49 125.6 93.0 139.4
51 40.7 30.4 45.6
86 61.3 51.0 76.4



#25
2-Butanone
Concen: 20.334 ug/l
RT: 6.09 min Scan# 474
Delta R.T. 0.02 min
Lab File: VD061721.D
Acq: 10 Apr 2019 19:01

Tgt Ion: 43 Resp: 25933
Ion Ratio Lower Upper
43 100
72 20.7 17.4 26.2

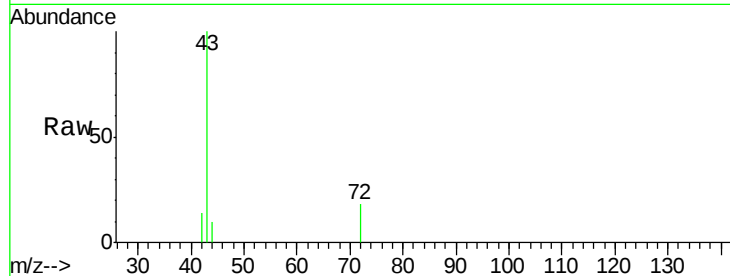




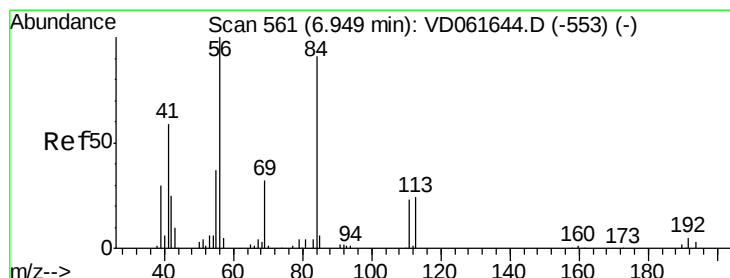
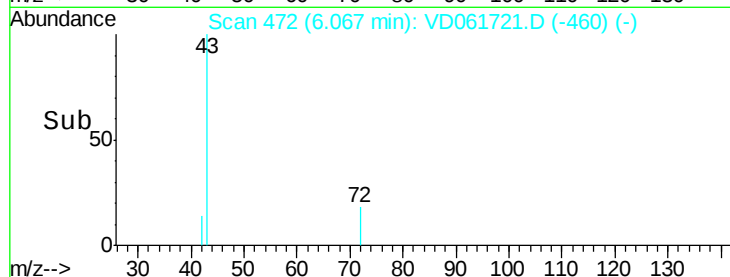
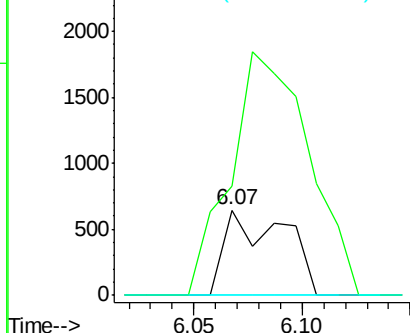
#29
Tetrahydrofuran
Concen: 2.016 ug/l
RT: 6.07 min Scan# 472
Delta R.T. -0.38 min
Lab File: VD061721.D
Acq: 10 Apr 2019 19:01

Instrument :
MSVOA_D
ClientSampled :

Tot Ion: 42 Resp: 1241
Ion Ratio Lower Upper
42 100
72 374.6 37.0 55.6#
71 0.0 36.5 54.7#

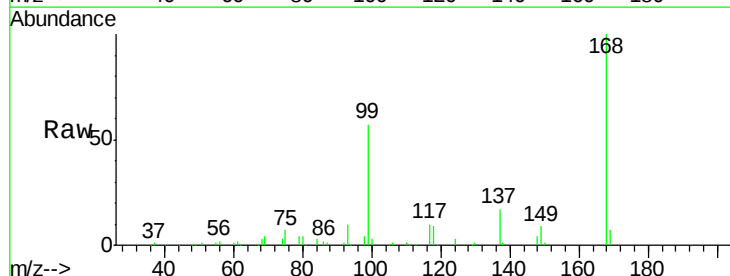


Abundance Ion 42.00 (41.70 to 42.70): VDC
Ion 72.00 (71.70 to 72.70): VDC
Ion 71.00 (70.70 to 71.70): VDC

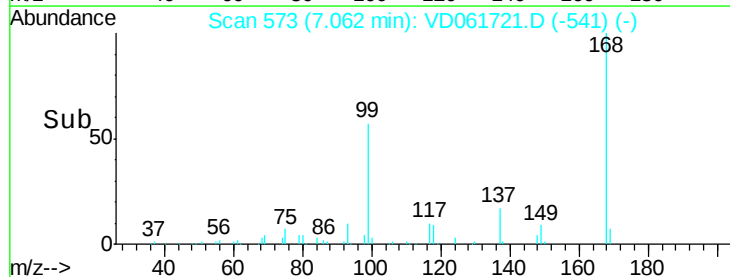
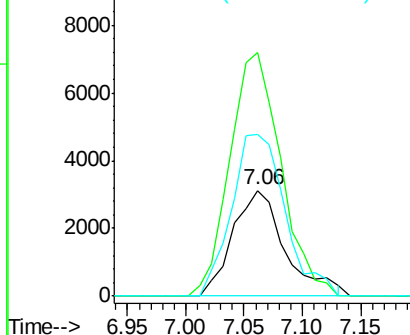


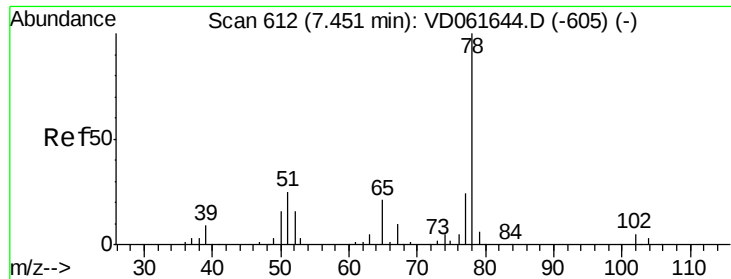
#31
Cyclohexane
Concen: 1.392 ug/l
RT: 7.06 min Scan# 573
Delta R.T. 0.11 min
Lab File: VD061721.D
Acq: 10 Apr 2019 19:01

Tgt Ion: 56 Resp: 9701
Ion Ratio Lower Upper
56 100
69 230.4 25.8 38.6#
84 153.1 74.2 111.2#



Abundance Ion 55.95 (55.65 to 56.65): VDC
Ion 69.00 (68.70 to 69.70): VDC
Ion 84.05 (83.75 to 84.75): VDC

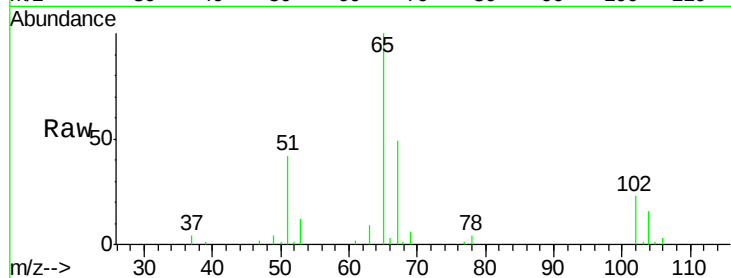




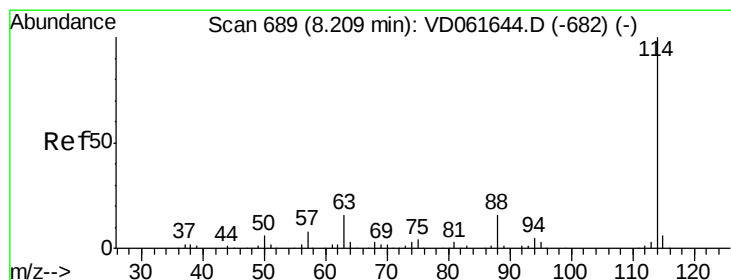
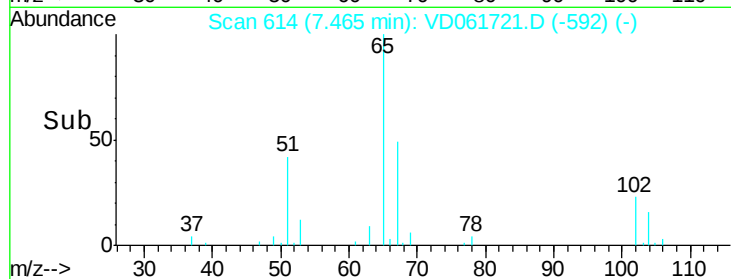
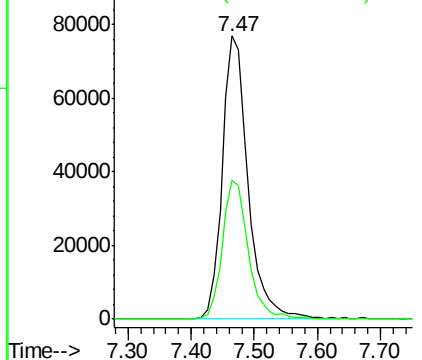
#33
 1,2-Dichloroethane-d4
 Concen: N.D. ug/l
 RT: 7.47 min Scan# 614
 Delta R.T. 0.01 min
 Lab File: VD061721.D
 Acq: 10 Apr 2019 19:01

Instrument :
 MSVOA_D
 ClientSampled :

Tot Ion: 65 Resp: 216932
 Ion Ratio Lower Upper
 65 100
 67 48.8 0.0 99.4

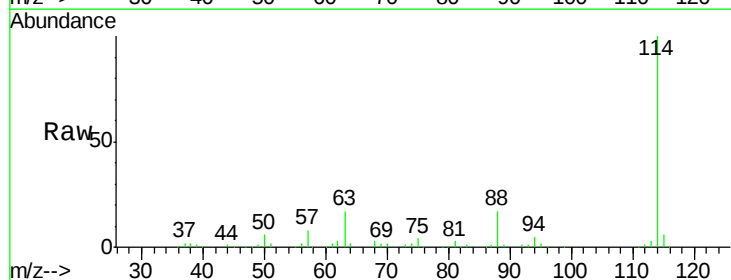


Abundance Ion 64.95 (64.65 to 65.65): VDC
 Ion 66.90 (66.60 to 67.60): VDC

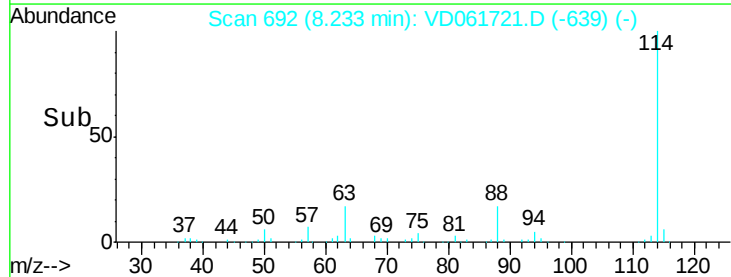
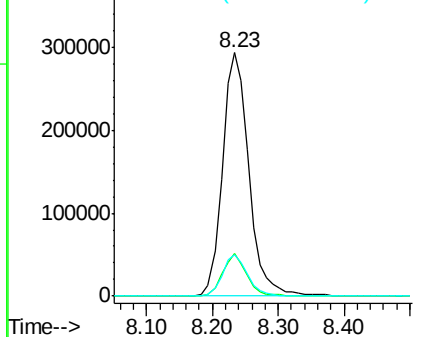


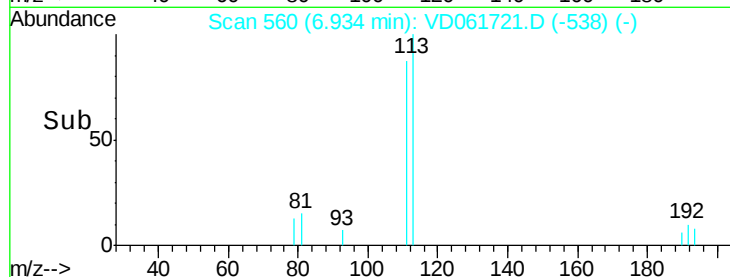
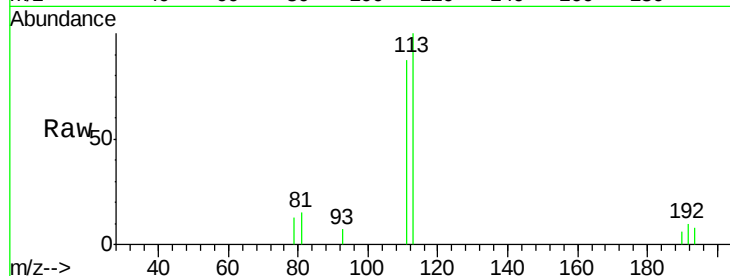
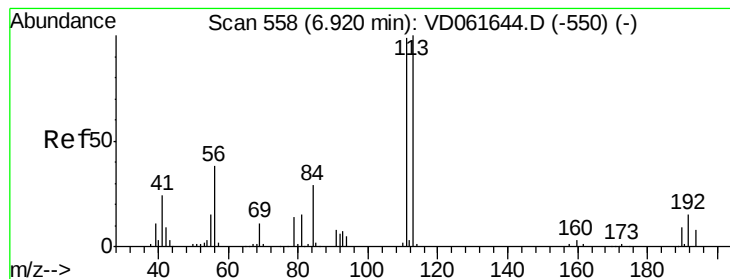
#34
 1,4-Difluorobenzene
 Concen: 50.000 ug/l
 RT: 8.23 min Scan# 692
 Delta R.T. 0.02 min
 Lab File: VD061721.D
 Acq: 10 Apr 2019 19:01

Tgt Ion: 114 Resp: 818581
 Ion Ratio Lower Upper
 114 100
 63 17.3 0.0 31.2
 88 17.1 0.0 31.8



Abundance Ion 114.00 (113.70 to 114.70): VDC
 Ion 62.95 (62.65 to 63.65): VDC
 Ion 87.90 (87.60 to 88.60): VDC





#35

Dibromofluoromethane

Concen: 50.000 ug/l

RT: 6.93 min Scan# 560

Delta R.T. 0.01 min

Lab File: VD061721.D

Acq: 10 Apr 2019 19:01

Instrument :

MSVOA_D

ClientSampleId :

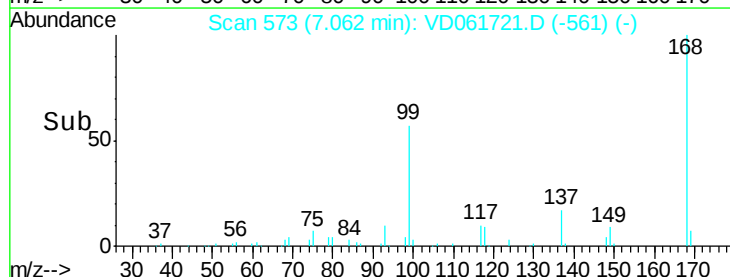
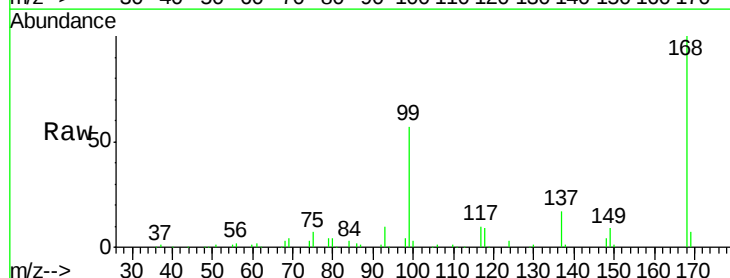
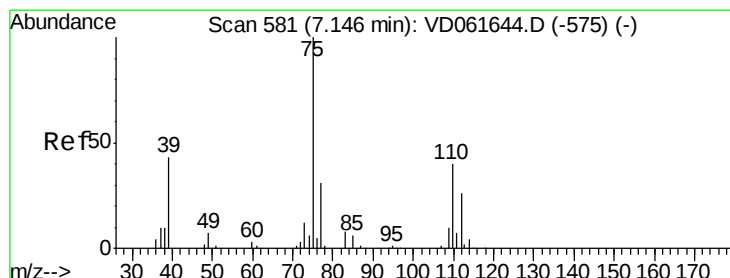
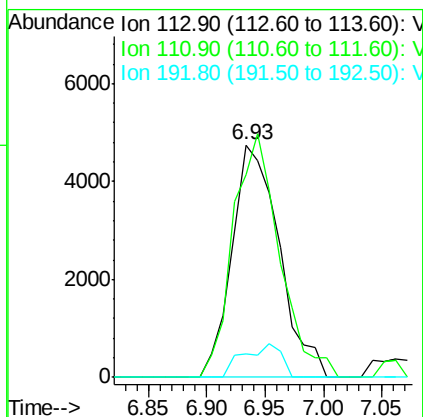
Tot Ion:113 Resp: 13353

Ion Ratio Lower Upper

113 100

111 87.3 79.3 118.9

192 10.2 12.3 18.5#



#36

1,1-Dichloropropene

Concen: 4.716 ug/l

RT: 7.06 min Scan# 573

Delta R.T. -0.08 min

Lab File: VD061721.D

Acq: 10 Apr 2019 19:01

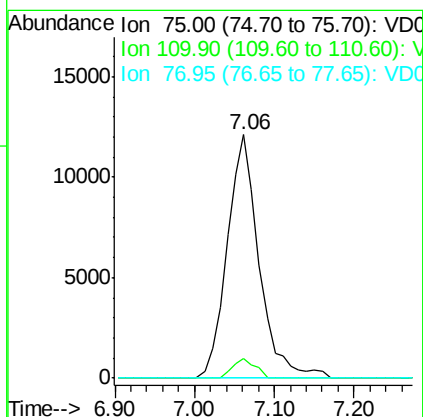
Tgt Ion: 75 Resp: 33785

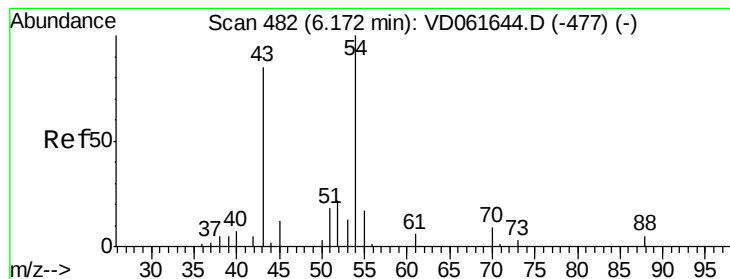
Ion Ratio Lower Upper

75 100

110 8.2 19.7 59.0#

77 0.0 24.8 37.2#





#37

Ethyl Acetate

Concen: 8.887 ug/l

RT: 6.09 min Scan# 474

Delta R.T. -0.08 min

Lab File: VD061721.D

Acq: 10 Apr 2019 19:01

Instrument :

MSVOA_D

ClientSampled :

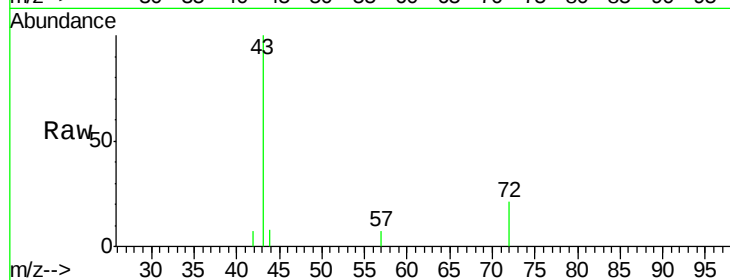
Tot Ion: 43 Resp: 25933

Ion Ratio Lower Upper

43 100

61 0.0 11.9 17.9#

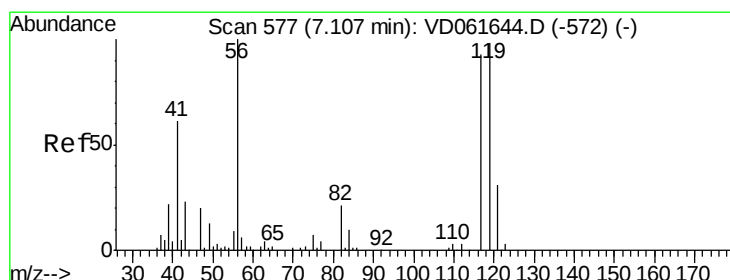
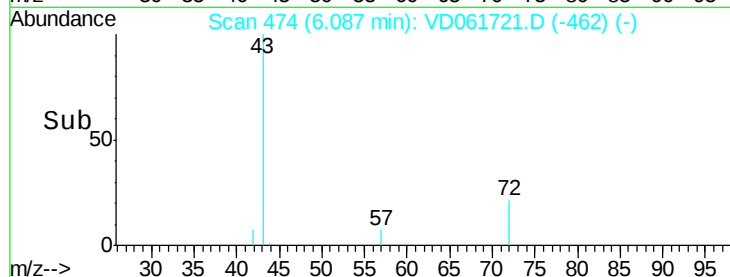
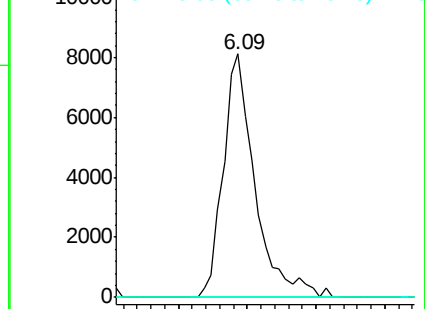
70 0.0 6.9 10.3#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 60.95 (60.65 to 61.65): VDC

Ion 70.00 (69.70 to 70.70): VDC



#38

Carbon Tetrachloride

Concen: 5.622 ug/l

RT: 7.06 min Scan# 573

Delta R.T. -0.05 min

Lab File: VD061721.D

Acq: 10 Apr 2019 19:01

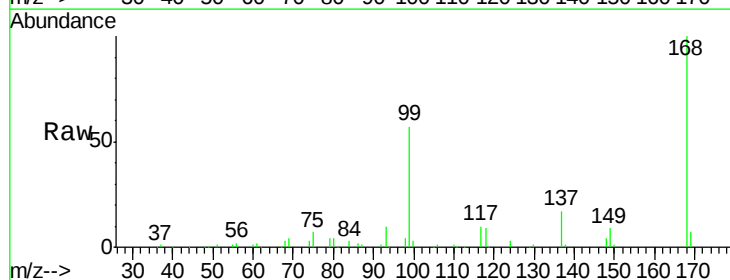
Tgt Ion: 117 Resp: 47203

Ion Ratio Lower Upper

117 100

119 3.4 77.9 116.9#

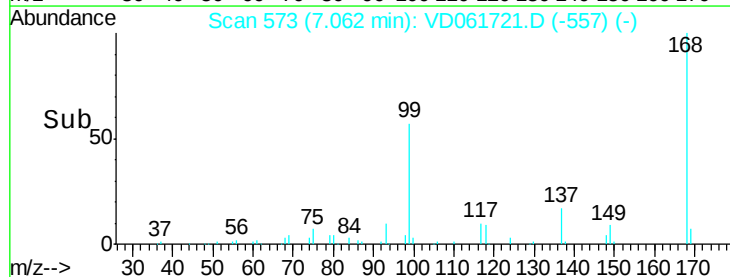
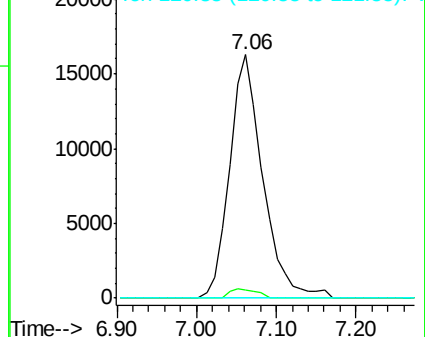
121 0.0 24.7 37.1#

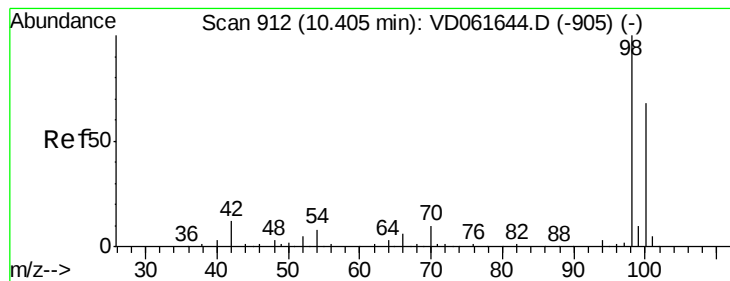


Abundance Ion 116.85 (116.55 to 117.55): V

Ion 118.85 (118.55 to 119.55): V

Ion 120.85 (120.55 to 121.55): V





#50

Toluene-d8

Concen: N.D. ug/l

RT: 10.42 min Scan# 914

Delta R.T. 0.01 min

Lab File: VD061721.D

Acq: 10 Apr 2019 19:01

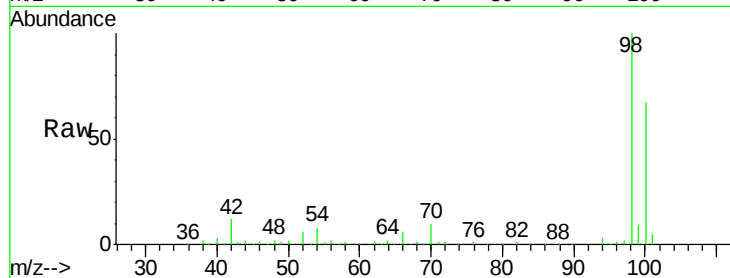
Instrument :
MSVOA_D
ClientSampleId :

Tot Ion: 98 Resp: 691180

Ion Ratio Lower Upper

98 100

100 67.3 55.4 83.0



Abundance Ion 98.05 (97.75 to 98.75): VD061644.D (-905) (-)

Ion 100.05 (99.75 to 100.75): VD061644.D (-905) (-)

10.42

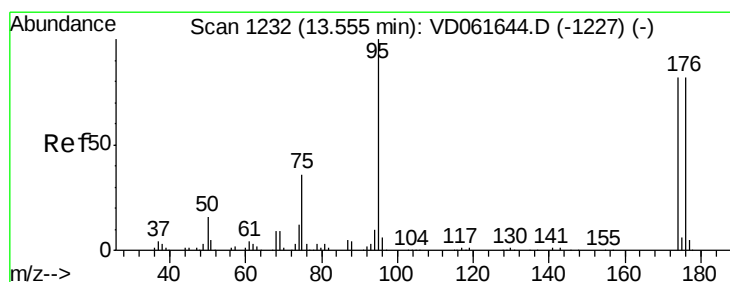
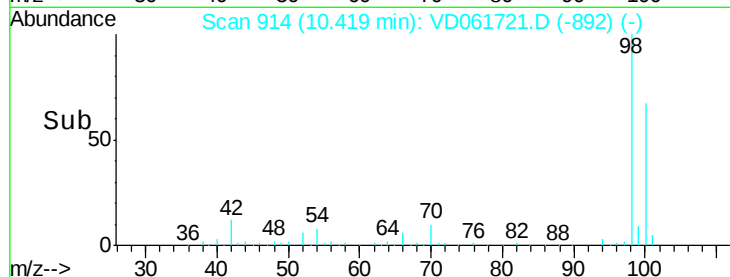
300000

200000

100000

0

Time-->



#62

4-Bromofluorobenzene

Concen: N.D. ug/l

RT: 13.56 min Scan# 1233

Delta R.T. 0.00 min

Lab File: VD061721.D

Acq: 10 Apr 2019 19:01

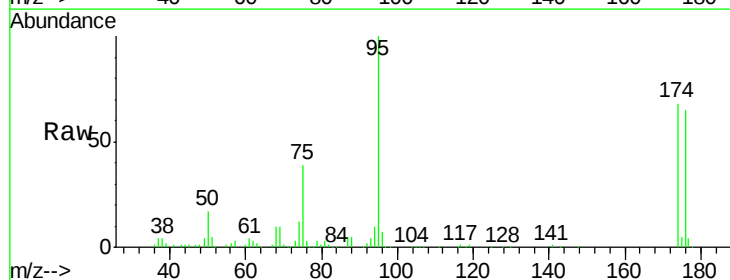
Tgt Ion: 95 Resp: 262233

Ion Ratio Lower Upper

95 100

174 67.6 0.0 164.6

176 65.4 0.0 165.0



Abundance Ion 95.00 (94.70 to 95.70): VD061644.D (-1227) (-)

Ion 173.90 (173.60 to 174.60): VD061644.D (-1227) (-)

Ion 175.90 (175.60 to 176.60): VD061644.D (-1227) (-)

200000

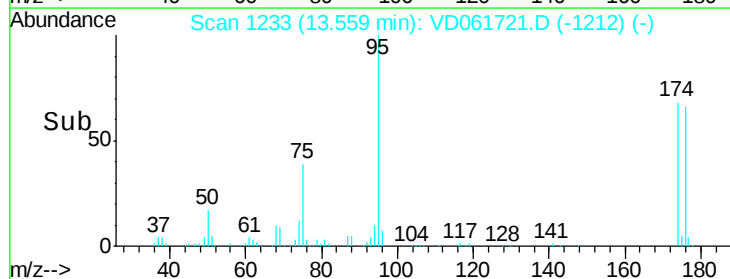
150000

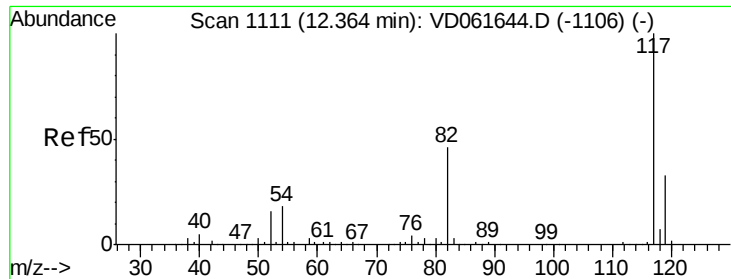
100000

50000

0

Time-->

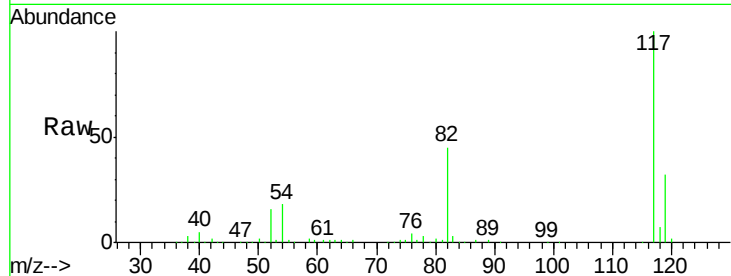




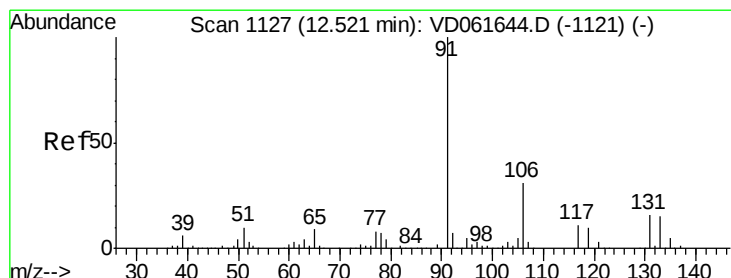
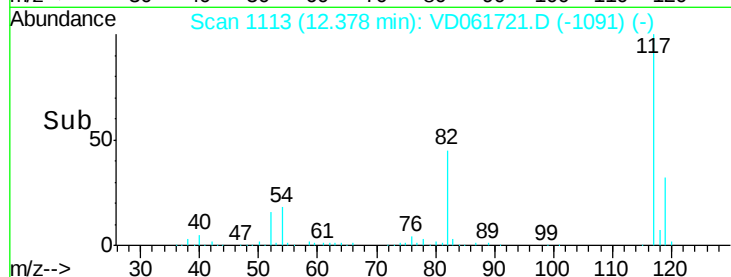
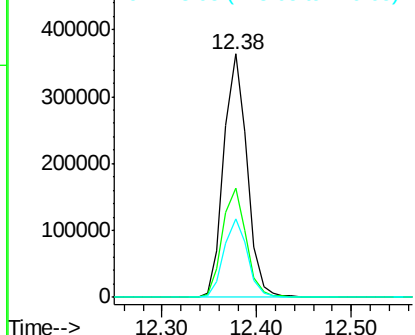
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 12.38 min Scan# 1113
Delta R.T. 0.01 min
Lab File: VD061721.D
Acq: 10 Apr 2019 19:01

Instrument :
MSVOA_D
ClientSampled :

Tot Ion:117 Resp: 620061
Ion Ratio Lower Upper
117 100
82 44.8 36.8 55.2
119 32.2 26.1 39.1

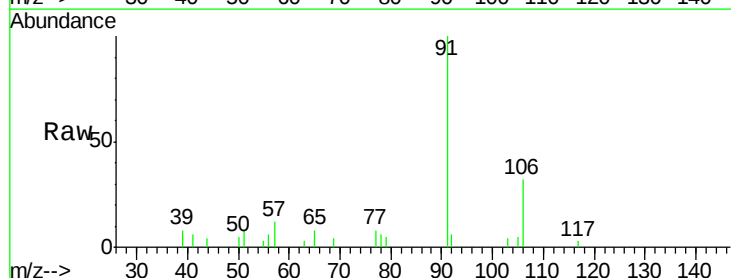


Abundance Ion 116.95 (116.65 to 117.65): V
Ion 82.05 (81.75 to 82.75): V
Ion 118.95 (118.65 to 119.65): V

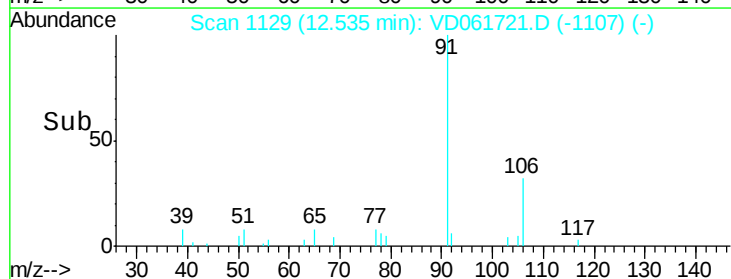
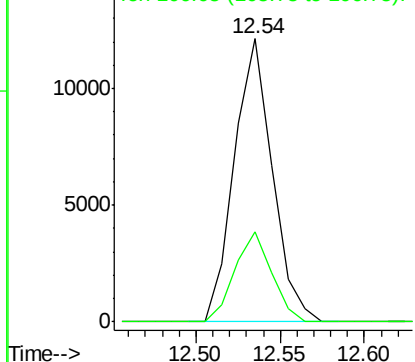


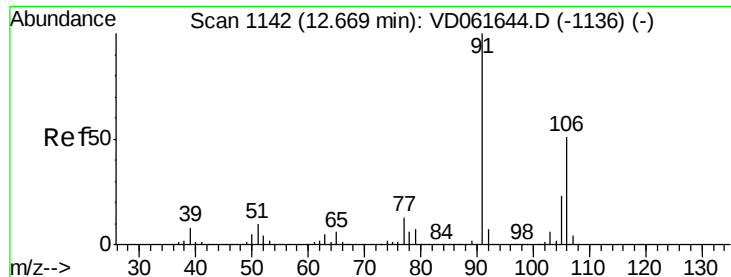
#67
Ethyl Benzene
Concen: 1.020 ug/l
RT: 12.54 min Scan# 1129
Delta R.T. 0.01 min
Lab File: VD061721.D
Acq: 10 Apr 2019 19:01

Tgt Ion: 91 Resp: 19091
Ion Ratio Lower Upper
91 100
106 31.9 24.6 37.0



Abundance Ion 91.00 (90.70 to 91.70): V
Ion 106.05 (105.75 to 106.75): V

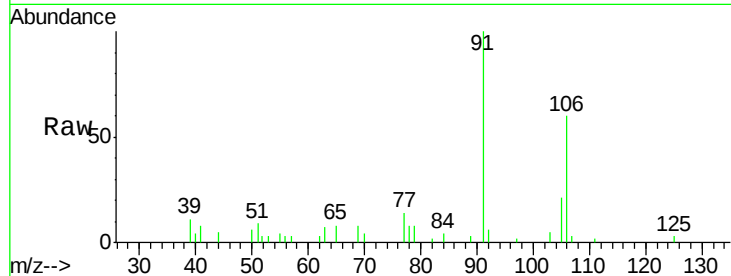




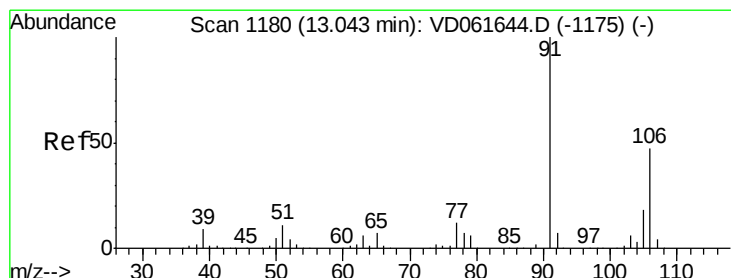
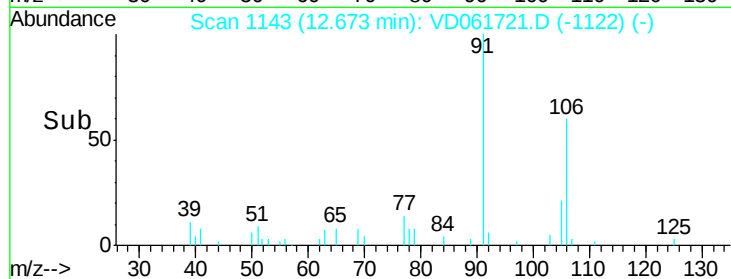
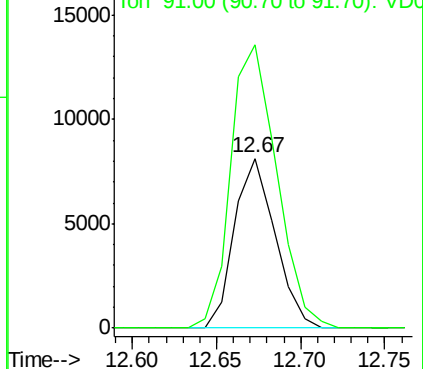
#68
m/p-Xylenes
Concen: 1.893 ug/l
RT: 12.67 min Scan# 1143
Delta R.T. 0.00 min
Lab File: VD061721.D
Acq: 10 Apr 2019 19:01

Instrument :
MSVOA_D
ClientSampled :

Tot Ion:106 Resp: 13662
Ion Ratio Lower Upper
106 100
91 167.0 156.7 235.1

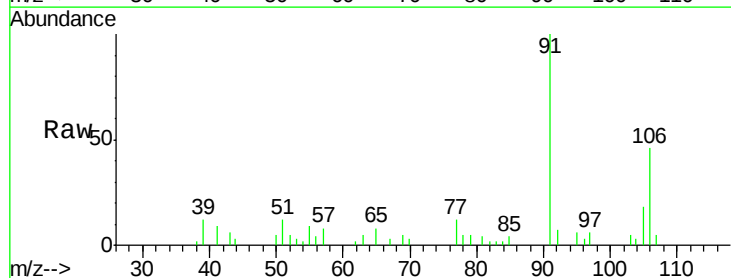


Abundance Ion 106.05 (105.75 to 106.75): V
Ion 91.00 (90.70 to 91.70): VDC

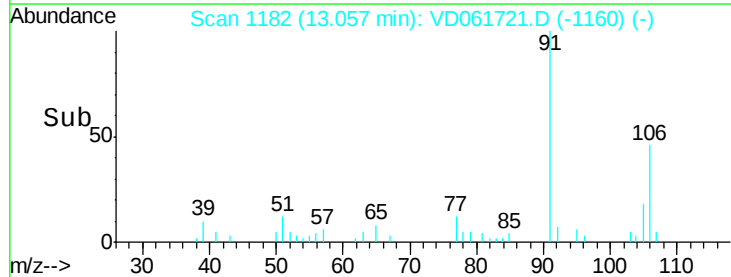
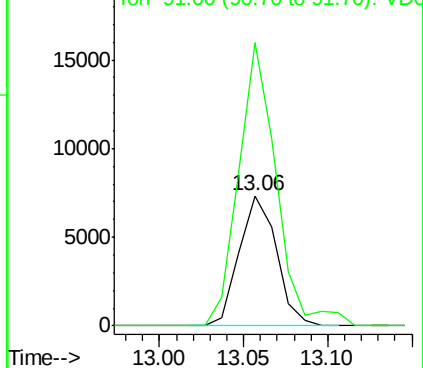


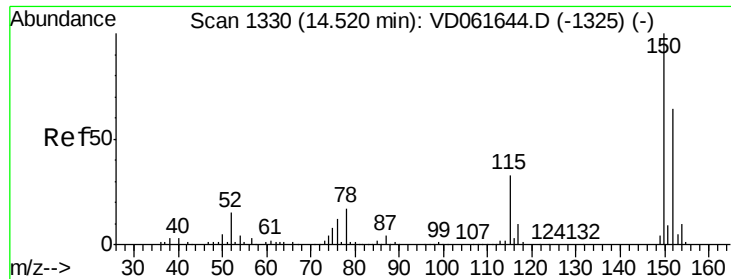
#69
o-Xylene
Concen: 1.619 ug/l
RT: 13.06 min Scan# 1182
Delta R.T. 0.01 min
Lab File: VD061721.D
Acq: 10 Apr 2019 19:01

Tgt Ion:106 Resp: 11284
Ion Ratio Lower Upper
106 100
91 217.9 107.3 321.9



Abundance Ion 106.05 (105.75 to 106.75): V
Ion 91.00 (90.70 to 91.70): VDC





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 14.52 min Scan# 1331

Delta R.T. 0.00 min

Lab File: VD061721.D

Acq: 10 Apr 2019 19:01

Instrument :

MSVOA_D

ClientSampleId :

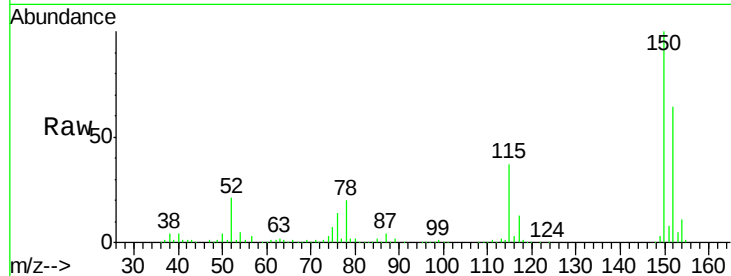
Tot Ion:152 Resp: 208291

Ion Ratio Lower Upper

152 100

115 58.0 26.4 79.2

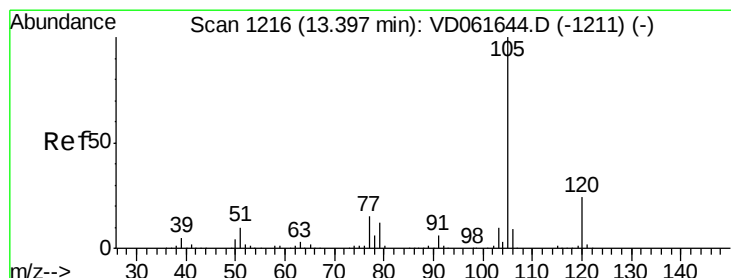
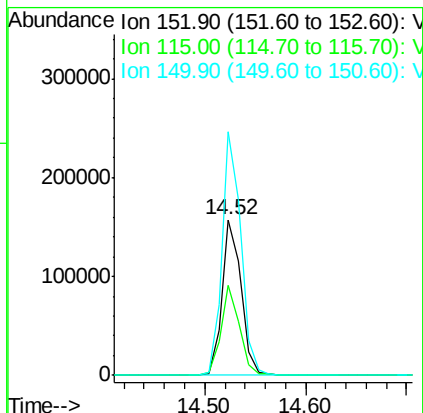
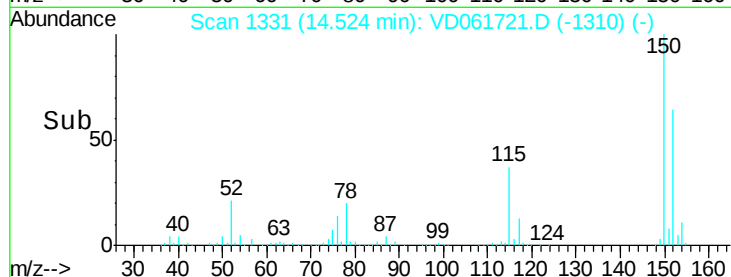
150 156.4 0.0 320.6



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 115.00 (114.70 to 115.70): V

Ion 149.90 (149.60 to 150.60): V



#73

Isopropylbenzene

Concen: 7.141 ug/l

RT: 13.41 min Scan# 1218

Delta R.T. 0.01 min

Lab File: VD061721.D

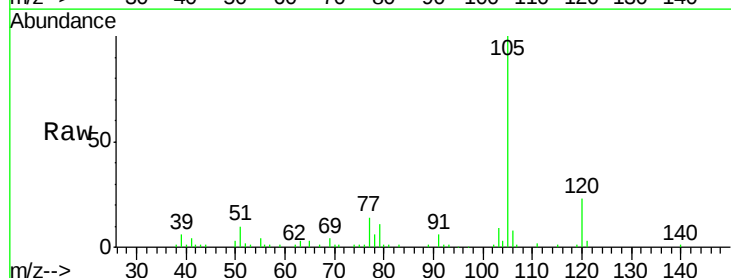
Acq: 10 Apr 2019 19:01

Tgt Ion:105 Resp: 99104

Ion Ratio Lower Upper

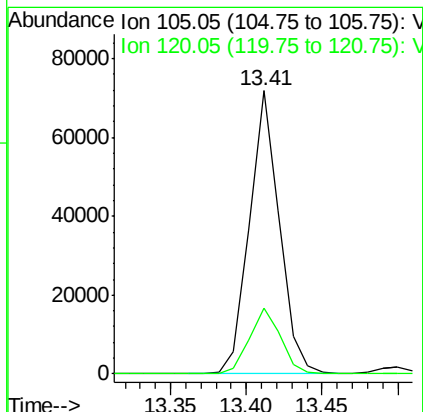
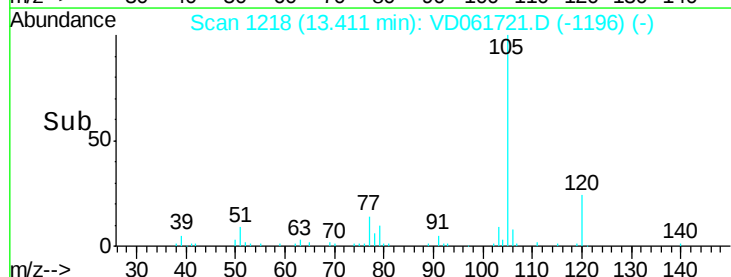
105 100

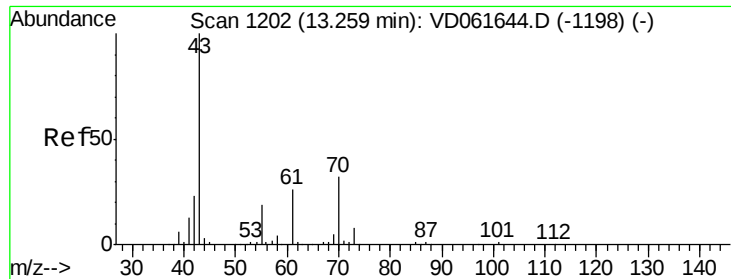
120 23.3 12.2 36.4



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.05 (119.75 to 120.75): V





#74

N-amvl acetate

Concen: 4.835 ug/l

RT: 13.22 min Scan# 1199

Delta R.T. -0.04 min

Lab File: VD061721.D

Acq: 10 Apr 2019 19:01

Instrument :

MSVOA_D

ClientSampleId :

Tot Ion: 43 Resp: 18234

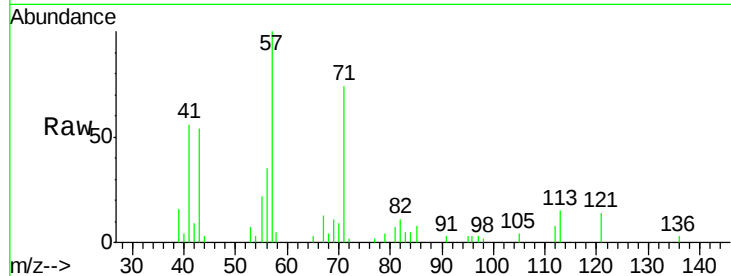
Ion Ratio Lower Upper

43 100

70 15.8 25.4 38.2#

55 40.6 15.0 22.4#

61 0.0 20.9 31.3#

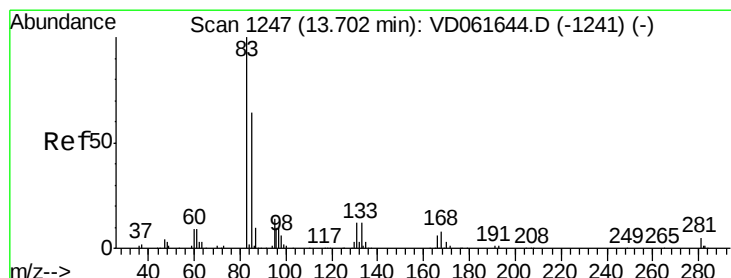
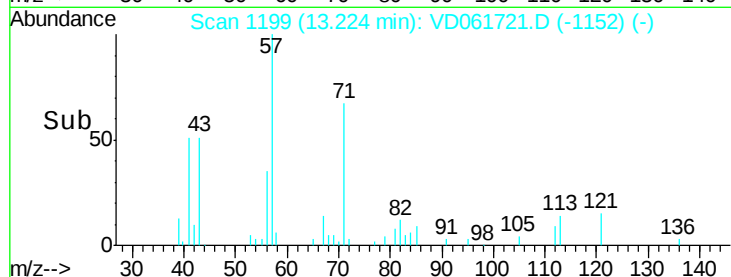
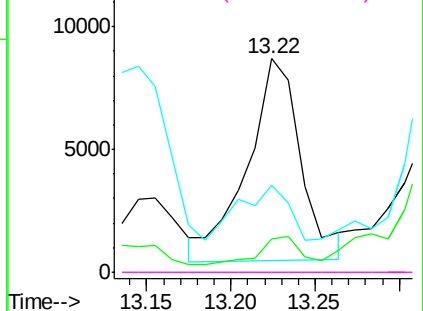


Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 70.00 (69.70 to 70.70): VDC

Ion 55.00 (54.70 to 55.70): VDC

Ion 60.95 (60.65 to 61.65): VDC



#75

1,1,2,2-Tetrachloroethane

Concen: 1.660 ug/l

RT: 13.72 min Scan# 1249

Delta R.T. 0.01 min

Lab File: VD061721.D

Acq: 10 Apr 2019 19:01

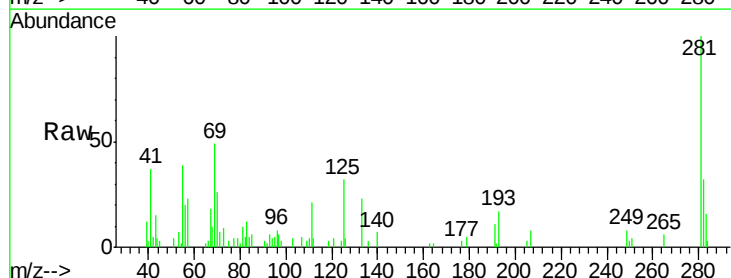
Tgt Ion: 83 Resp: 4764

Ion Ratio Lower Upper

83 100

131 0.0 5.9 17.6#

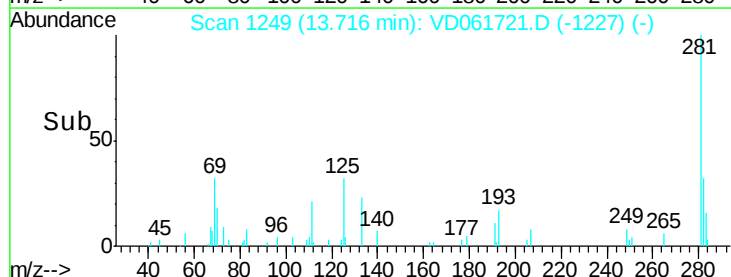
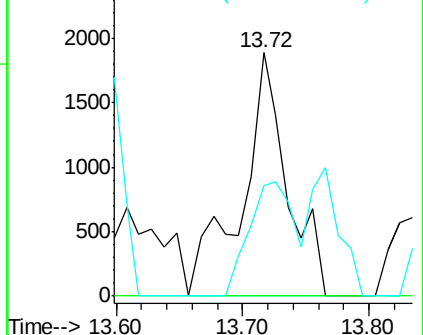
85 45.5 32.0 96.2

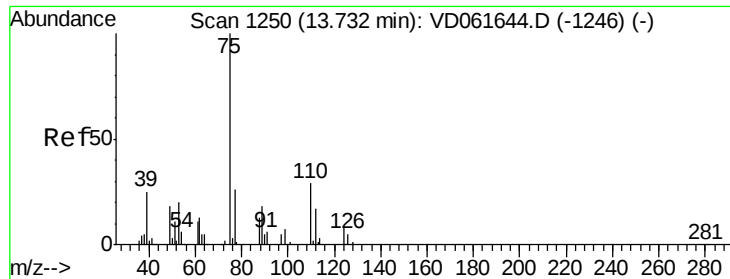


Abundance Ion 82.95 (82.65 to 83.65): VDC

Ion 130.90 (130.60 to 131.60): VDC

Ion 84.95 (84.65 to 85.65): VDC





#76

1,2,3-Trichloropropane

Concen: 1.070 ug/l

RT: 13.84 min Scan# 1262

Delta R.T. 0.11 min

Lab File: VD061721.D

Acq: 10 Apr 2019 19:01

Instrument :

MSVOA_D

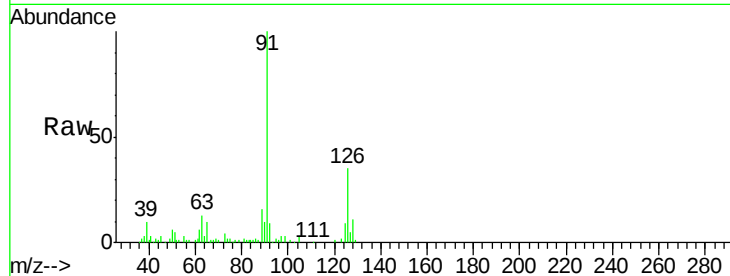
ClientSampleId :

Tot Ion: 75 Resp: 3033

Ion Ratio Lower Upper

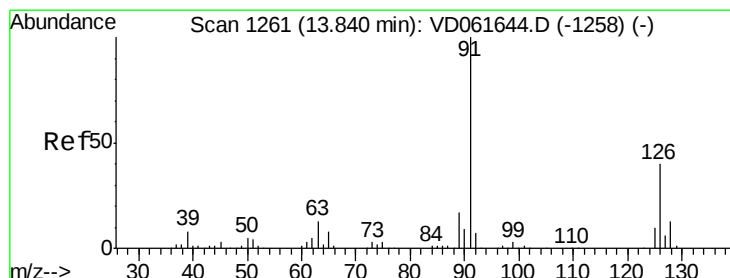
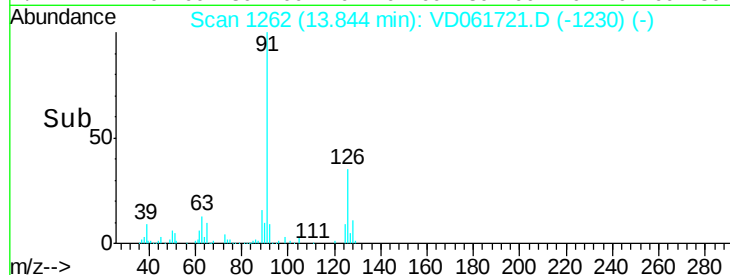
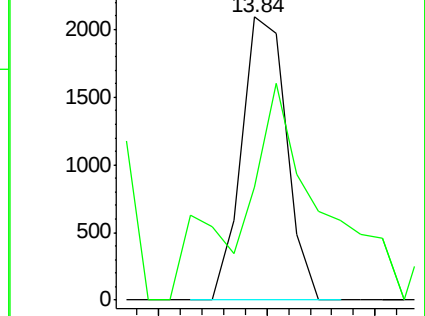
75 100

77 40.1 15.7 47.1



Abundance Ion 75.00 (74.70 to 75.70): VDC

Ion 76.95 (76.65 to 77.65): VDC



#79

2-Chlorotoluene

Concen: 14.057 ug/l

RT: 13.84 min Scan# 1262

Delta R.T. 0.00 min

Lab File: VD061721.D

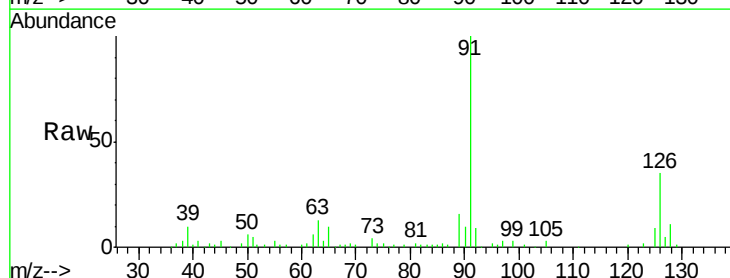
Acq: 10 Apr 2019 19:01

Tgt Ion: 91 Resp: 133458

Ion Ratio Lower Upper

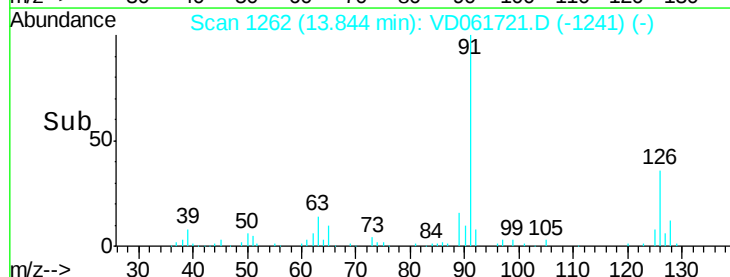
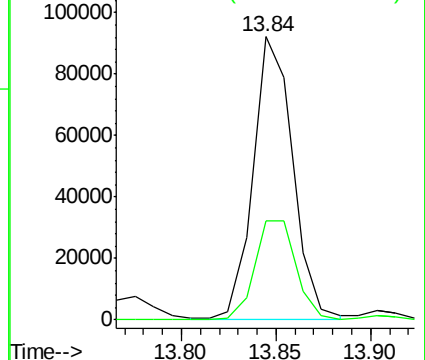
91 100

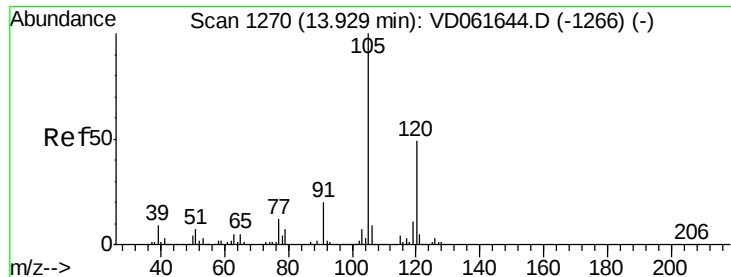
126 35.2 20.0 59.9



Abundance Ion 91.00 (90.70 to 91.70): VDC

Ion 125.95 (125.65 to 126.65): V





#80

1,3,5-Trimethylbenzene

Concen: 1.604 ug/l

RT: 13.94 min Scan# 1272

Delta R.T. 0.01 min

Lab File: VD061721.D

Acq: 10 Apr 2019 19:01

Instrument :

MSVOA_D

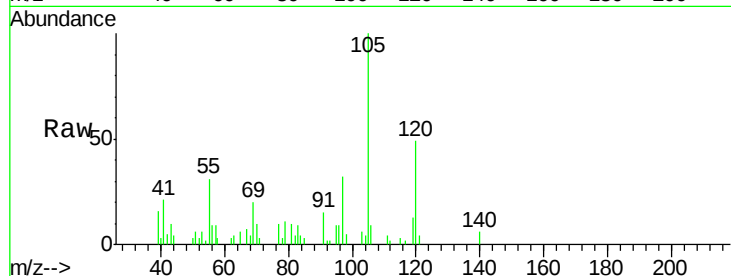
ClientSampleId :

Tot Ion:105 Resp: 17666

Ion Ratio Lower Upper

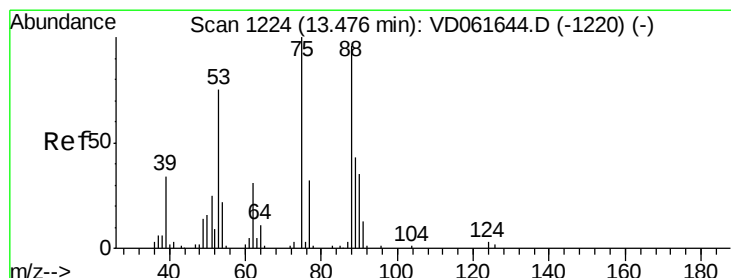
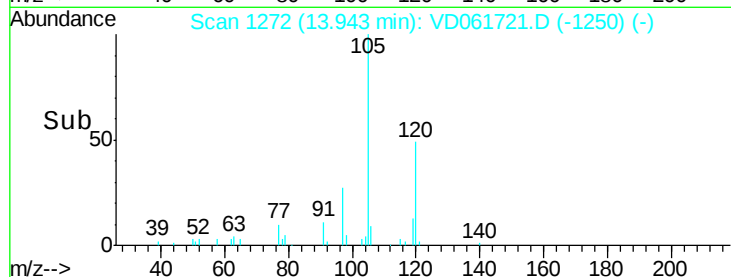
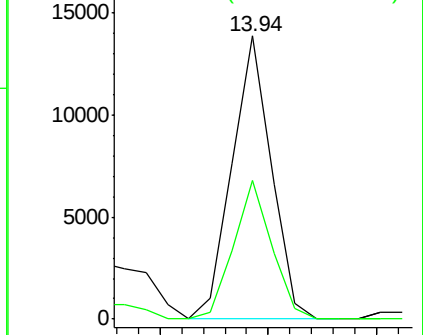
105 100

120 48.9 24.4 73.2



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.05 (119.75 to 120.75): V



#81

trans-1,4-Dichloro-2-butene

Concen: 114.968 ug/l

RT: 13.56 min Scan# 1233

Delta R.T. 0.08 min

Lab File: VD061721.D

Acq: 10 Apr 2019 19:01

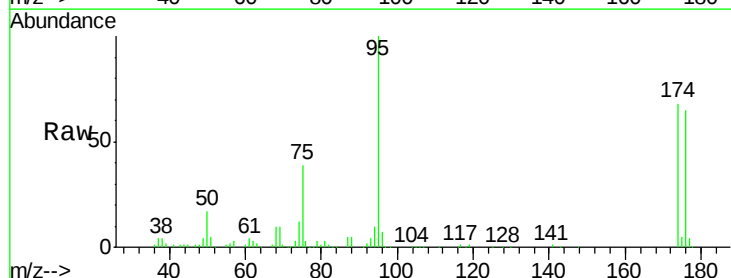
Tgt Ion: 75 Resp: 98864

Ion Ratio Lower Upper

75 100

53 0.0 60.2 90.2#

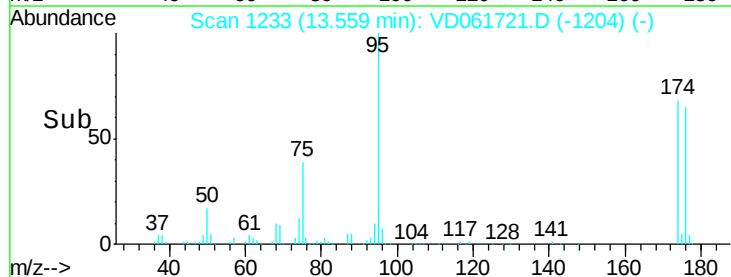
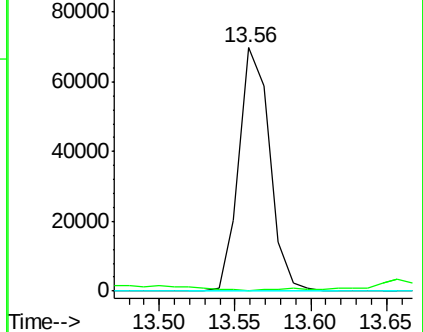
89 0.0 34.2 51.2#

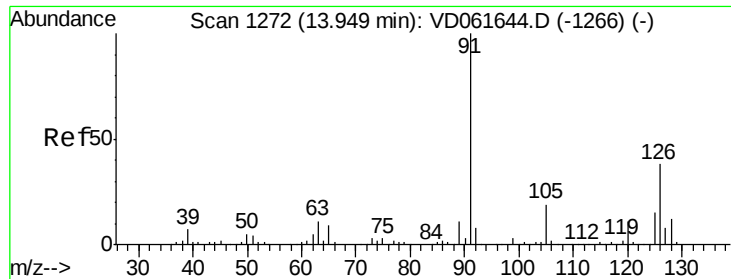


Abundance Ion 75.00 (74.70 to 75.70): VDC

Ion 53.00 (52.70 to 53.70): VDC

Ion 89.00 (88.70 to 89.70): VDC





#82

4-Chlorotoluene

Concen: 12.720 ug/l

RT: 13.84 min Scan# 1262

Delta R.T. -0.10 min

Lab File: VD061721.D

Acq: 10 Apr 2019 19:01

Instrument :

MSVOA_D

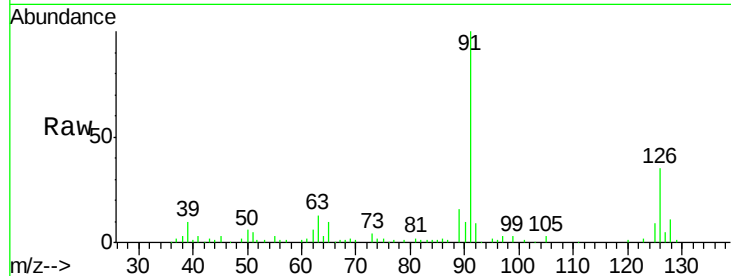
ClientSampled :

Tot Ion: 91 Resp: 132326

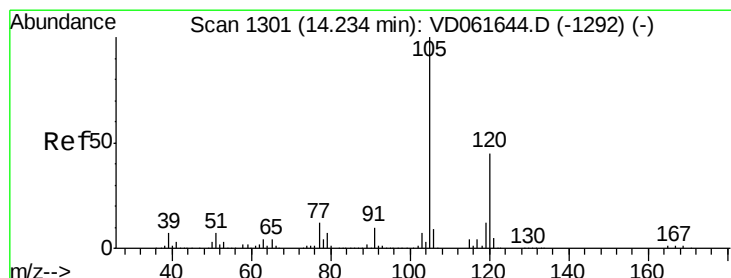
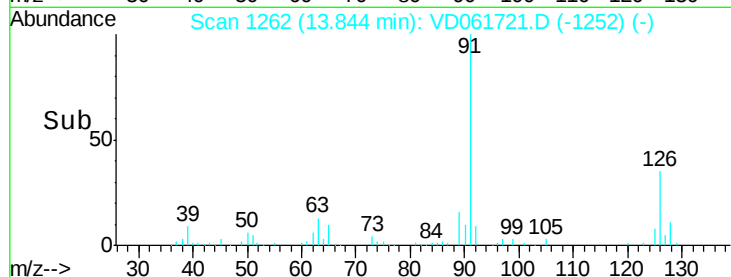
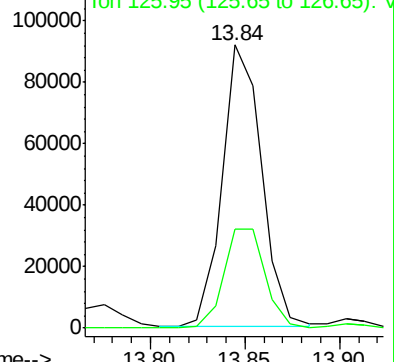
Ion Ratio Lower Upper

91 100

126 35.2 19.0 57.0



Abundance Ion 91.00 (90.70 to 91.70): VD061644.D (-1266) (-)



#84

1,2,4-Trimethylbenzene

Concen: 3.026 ug/l

RT: 14.25 min Scan# 1303

Delta R.T. 0.01 min

Lab File: VD061721.D

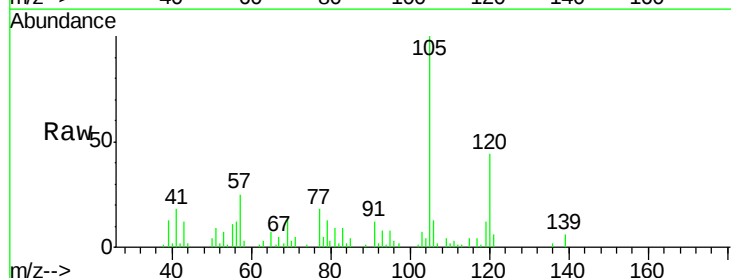
Acq: 10 Apr 2019 19:01

Tgt Ion:105 Resp: 33643

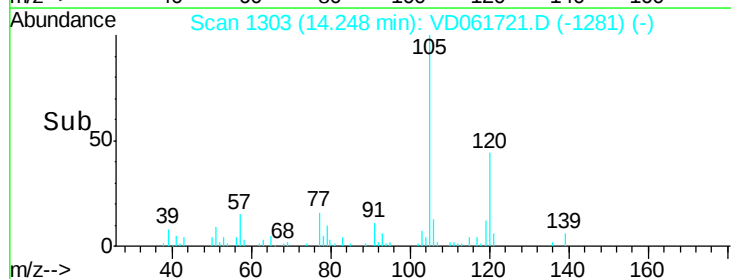
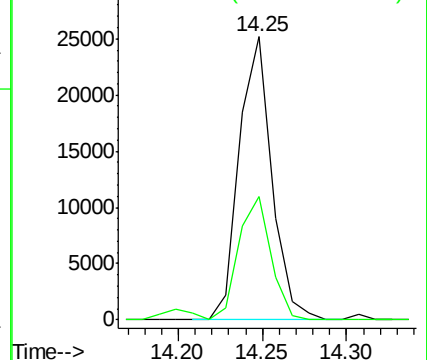
Ion Ratio Lower Upper

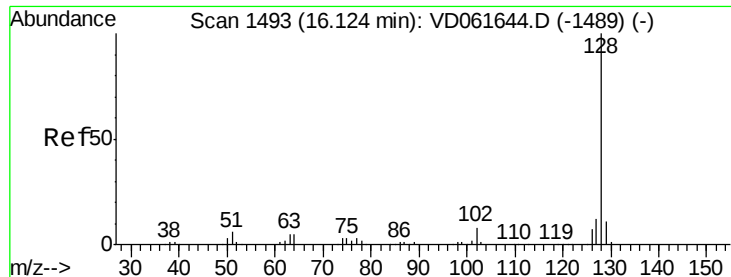
105 100

120 43.7 22.6 67.8



Abundance Ion 105.05 (104.75 to 105.75): VD061644.D (-1292) (-)





#95

Naphthalene

Concen: 8.034 ug/l

RT: 16.13 min Scan# 1494

Delta R.T. 0.00 min

Lab File: VD061721.D

Acq: 10 Apr 2019 19:01

Instrument :

MSVOA_D

ClientSampleId :

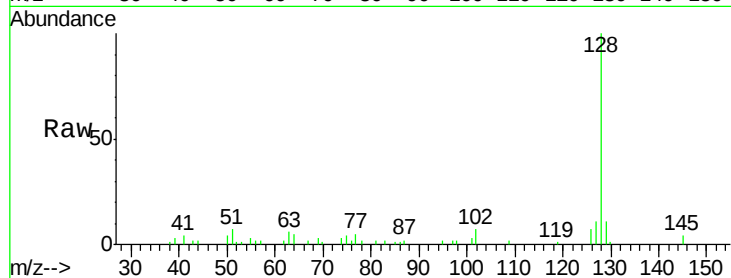
Tot Ion:128 Resp: 37008

Ion Ratio Lower Upper

128 100

127 11.4 9.4 14.2

129 11.3 8.8 13.2



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

