

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD052319\
 Data File : VD062521.D
 Acq On : 23 May 2019 14:47
 Operator : VA/AP
 Sample : K2996-06RE
 Misc : 5.24g/5ml/MSVOA D/SOIL
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :

Quant Time: May 24 01:20:58 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_D\METHOD\82D052019S.M
 Quant Title : SW846 8260
 QLast Update : Tue May 21 03:32:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.04	168	436505	50.00	ug/l	-0.03
34) 1,4-Difluorobenzene	8.21	114	591980	50.00	ug/l	-0.03
63) Chlorobenzene-d5	12.36	117	452252	50.00	ug/l	-0.02
72) 1,4-Dichlorobenzene-d4	14.51	152	149758	50.00	ug/l	-0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	7.44	65	170740	36.54	ug/l	-0.03
Spiked Amount			Recovery	=	73.08%	
35) Dibromofluoromethane	6.91	113	98468	18.44	ug/l	-0.04
Spiked Amount			Recovery	=	36.88%	
50) Toluene-d8	10.40	98	451223	38.61	ug/l	-0.03
Spiked Amount			Recovery	=	77.22%	
62) 4-Bromofluorobenzene	13.55	95	142855	27.94	ug/l	-0.02
Spiked Amount			Recovery	=	55.88%	

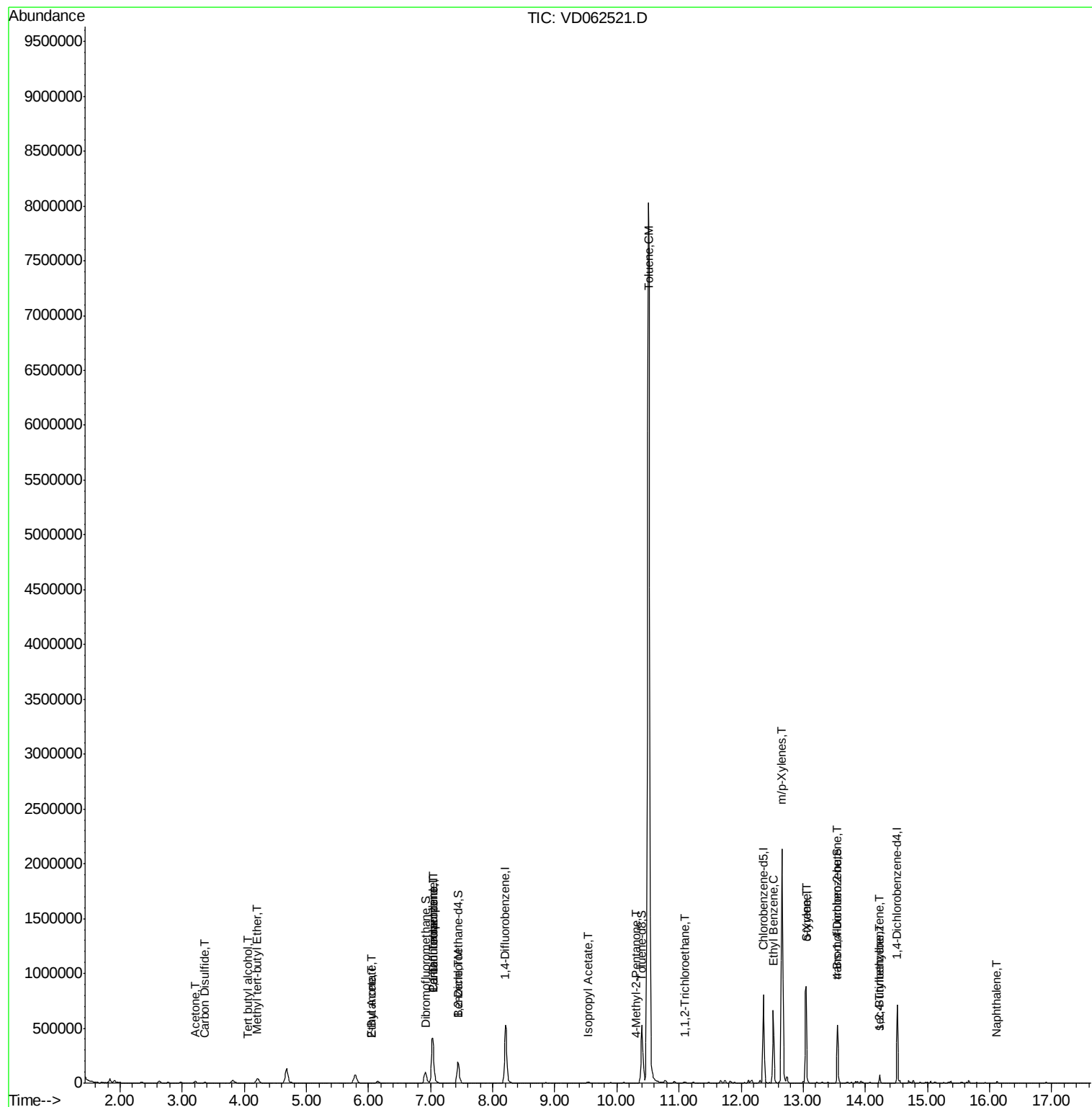
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
11) Tert butyl alcohol	4.05	59	3589	16.641	ug/l #	76
16) Acetone	3.21	43	31878	38.072	ug/l #	89
17) Carbon Disulfide	3.36	76	14637	1.495	ug/l	99
19) Methyl tert-butyl Ether	4.21	73	14953	2.003	ug/l #	1
20) Methylene Chloride	3.81	84	7695	Below Cal		96
25) 2-Butanone	6.05	43	8358	9.544	ug/l #	86
36) 1,1-Dichloropropene	7.03	75	30595	5.406	ug/l #	51
37) Ethyl Acetate	6.05	43	8358	3.801	ug/l #	64
38) Carbon Tetrachloride	7.03	117	42766	5.084	ug/l #	16
40) Benzene	7.44	78	45451	4.094	ug/l	100
43) Isopropyl Acetate	9.54	43	8554	2.933	ug/l #	43
51) 4-Methyl-2-Pentanone	10.30	43	2314	1.201	ug/l	99
52) Toluene	10.51	92	4593961	604.467	ug/l	97
55) 1,1,2-Trichloroethane	11.09	97	6474	2.513	ug/l #	16
67) Ethyl Benzene	12.52	91	435972	29.104	ug/l	97
68) m/p-Xylenes	12.65	106	651917	121.236	ug/l	91
69) o-Xylene	13.05	106	221812	43.719	ug/l	93
70) Styrene	13.05	104	13426	1.556	ug/l #	1
81) trans-1,4-Dichloro-2-buten	13.55	75	65162	130.982	ug/l #	16
84) 1,2,4-Trimethylbenzene	14.23	105	35655	4.257	ug/l	87
85) sec-Butylbenzene	14.23	105	35655	3.772	ug/l #	60
95) Naphthalene	16.12	128	10254	2.370	ug/l	97

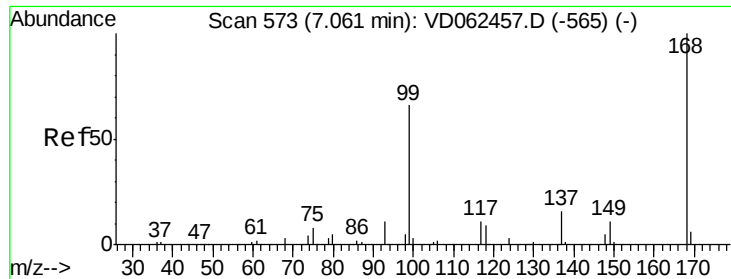
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260
QLast Update : Tue May 21 03:32:39 2019
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.04 min Scan# 570

Delta R.T. -0.03 min

Lab File: VD062521.D

Acq: 23 May 2019 14:47

Instrument :

MSVOA_D

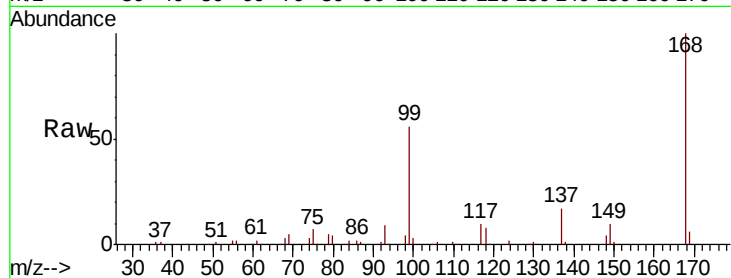
ClientSampleId :

Tot Ion:168 Resp: 436505

Ion Ratio Lower Upper

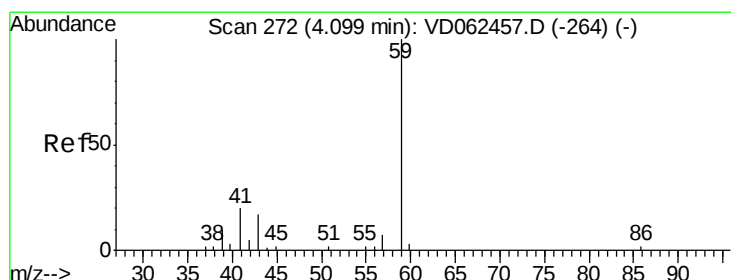
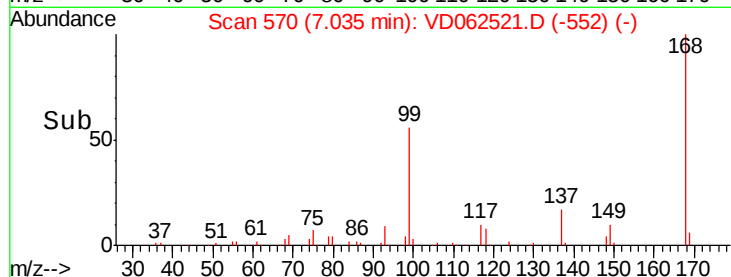
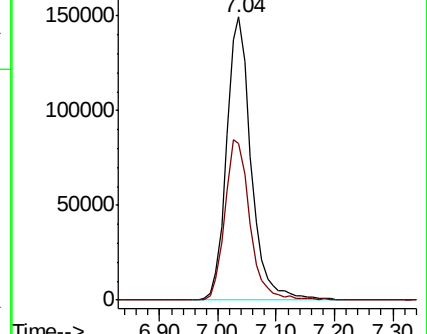
168 100

99 55.5 46.5 69.7



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC



#11

Tert butyl alcohol

Concen: 16.641 ug/l

RT: 4.05 min Scan# 267

Delta R.T. -0.05 min

Lab File: VD062521.D

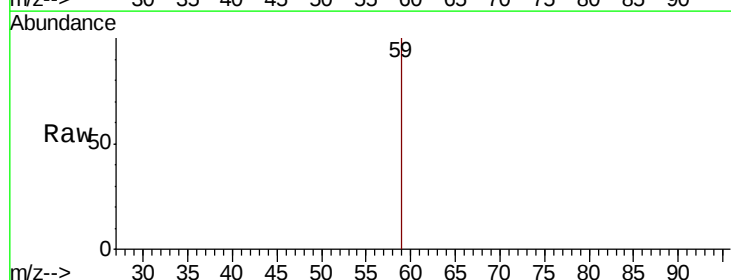
Acq: 23 May 2019 14:47

Tgt Ion: 59 Resp: 3589

Ion Ratio Lower Upper

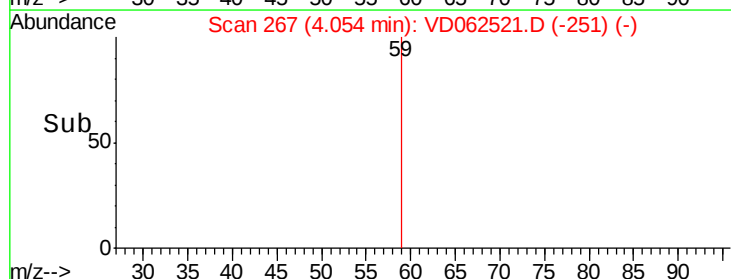
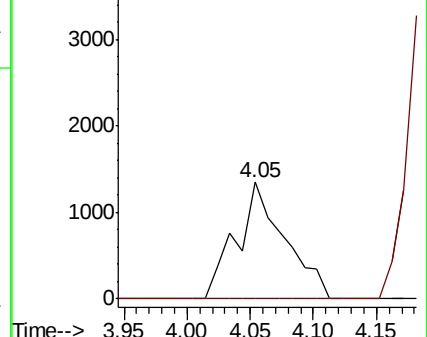
59 100

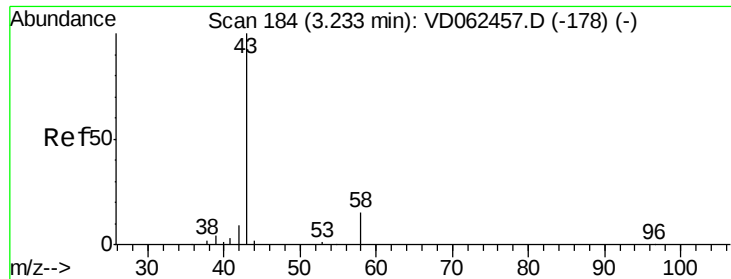
57 0.0 6.9 10.3#



Abundance Ion 58.95 (58.65 to 59.65): VDC

Ion 56.95 (56.65 to 57.65): VDC





#16

Acetone

Concen: 38.072 ug/l

RT: 3.21 min Scan# 181

Delta R.T. -0.03 min

Lab File: VD062521.D

Acq: 23 May 2019 14:47

Instrument :

MSVOA_D

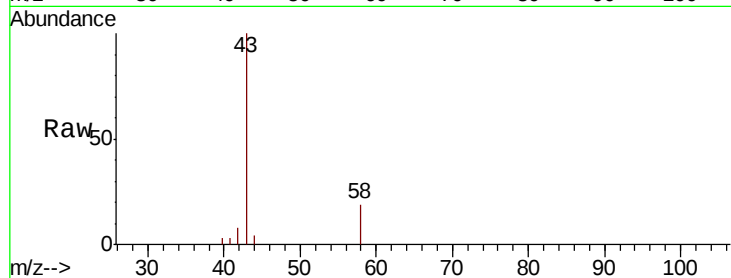
ClientSampleId :

Tot Ion: 43 Resp: 31878

Ion Ratio Lower Upper

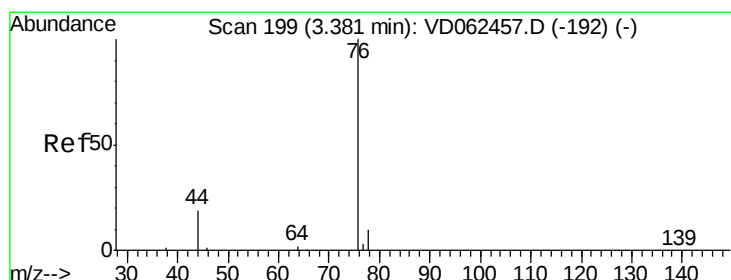
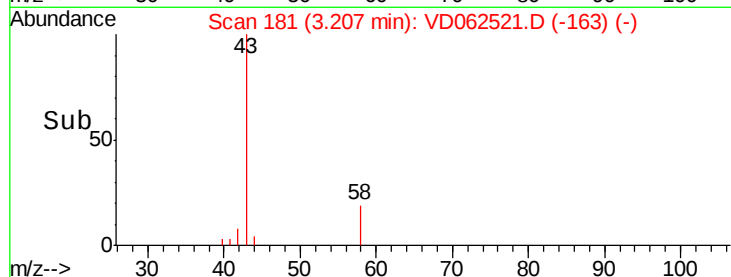
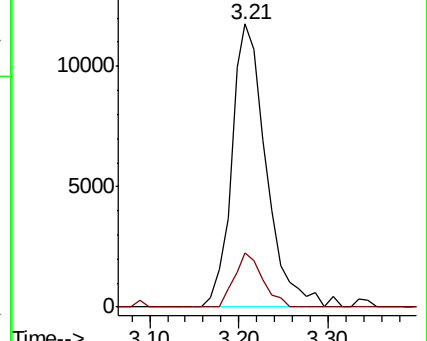
43 100

58 19.1 19.9 29.9#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC



#17

Carbon Disulfide

Concen: 1.495 ug/l

RT: 3.36 min Scan# 197

Delta R.T. -0.02 min

Lab File: VD062521.D

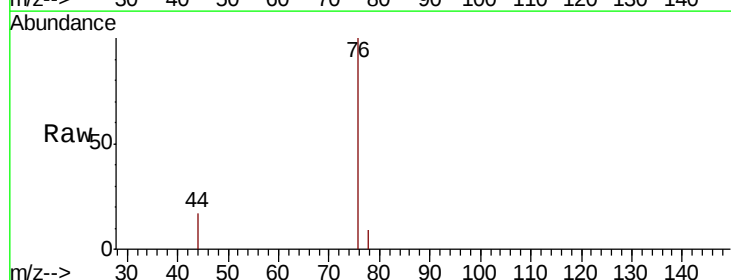
Acq: 23 May 2019 14:47

Tgt Ion: 76 Resp: 14637

Ion Ratio Lower Upper

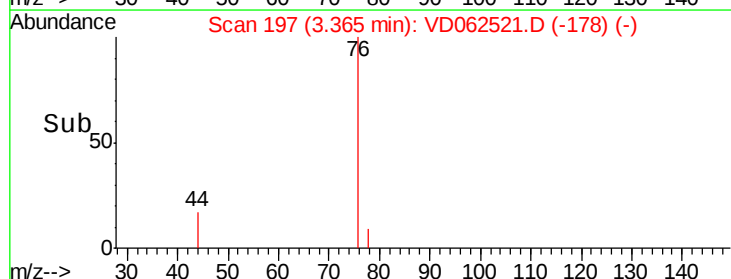
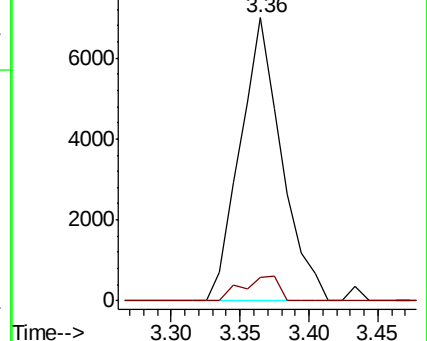
76 100

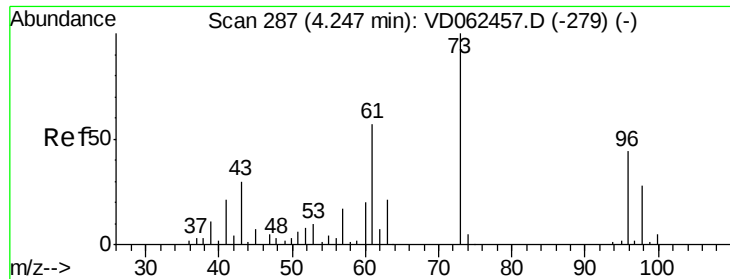
78 8.5 7.2 10.8



Abundance Ion 75.85 (75.55 to 76.55): VDC

Ion 77.85 (77.55 to 78.55): VDC

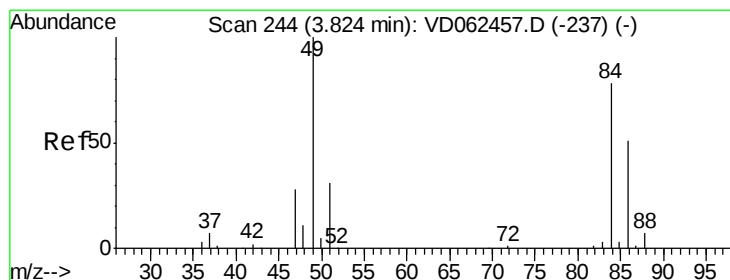
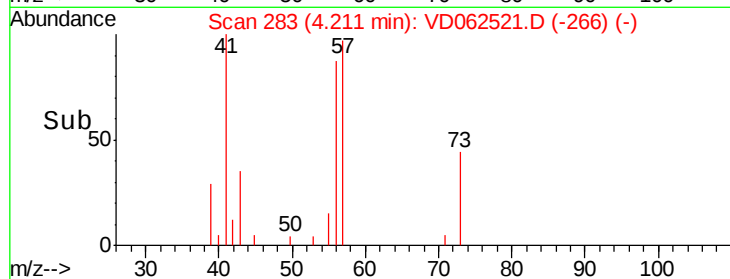
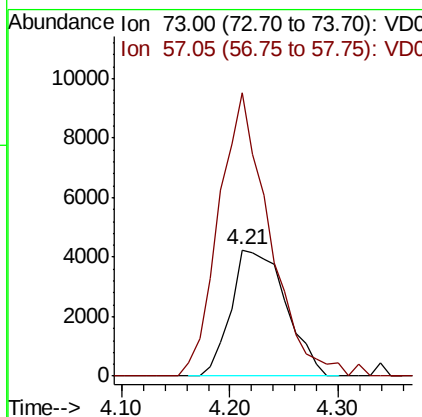
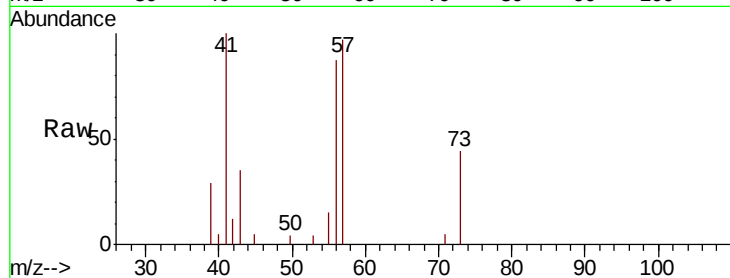




#19
Methyl tert-butyl Ether
Concen: 2.003 ug/l
RT: 4.21 min Scan# 283
Delta R.T. -0.04 min
Lab File: VD062521.D
Acq: 23 May 2019 14:47

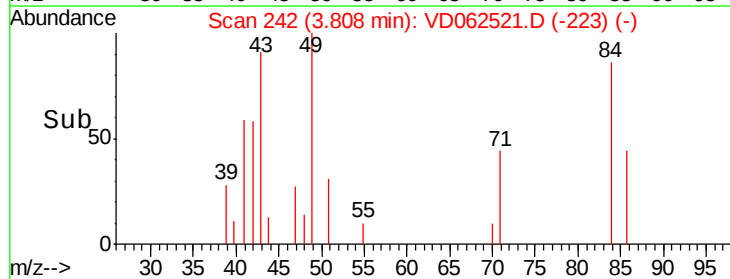
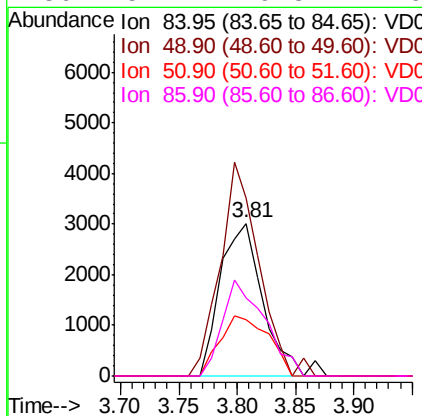
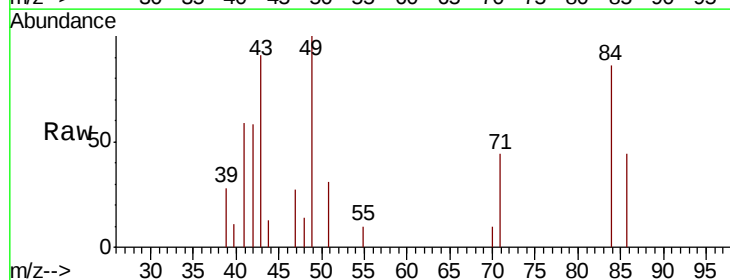
Instrument :
MSVOA_D
ClientSampled :

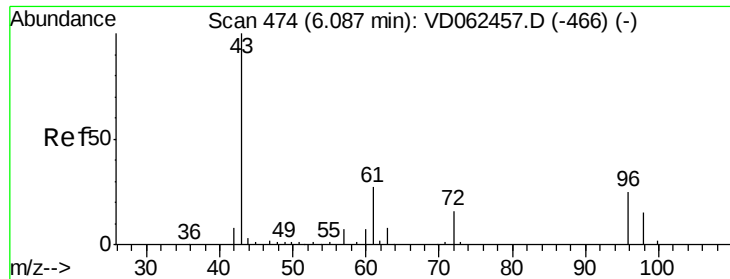
Tot Ion: 73 Resp: 14953
Ion Ratio Lower Upper
73 100
57 223.7 16.3 24.5#



#20
Methylene Chloride
Concen: Below Cal
RT: 3.81 min Scan# 242
Delta R.T. -0.02 min
Lab File: VD062521.D
Acq: 23 May 2019 14:47

Tgt Ion: 84 Resp: 7695
Ion Ratio Lower Upper
84 100
49 116.9 94.0 141.0
51 36.5 29.0 43.4
86 51.4 49.8 74.6





#25

2-Butanone

Concen: 9.544 ug/l

RT: 6.05 min Scan# 470

Delta R.T. -0.04 min

Lab File: VD062521.D

Acq: 23 May 2019 14:47

Instrument :

MSVOA_D

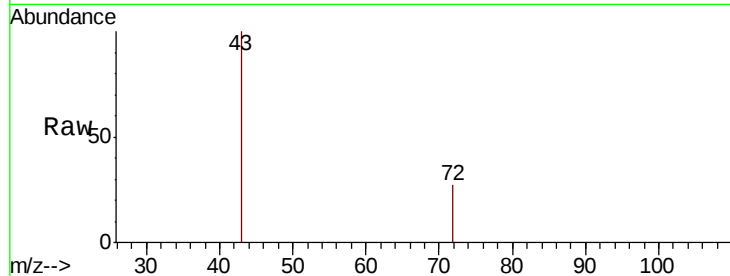
ClientSampled :

Tot Ion: 43 Resp: 8358

Ion Ratio Lower Upper

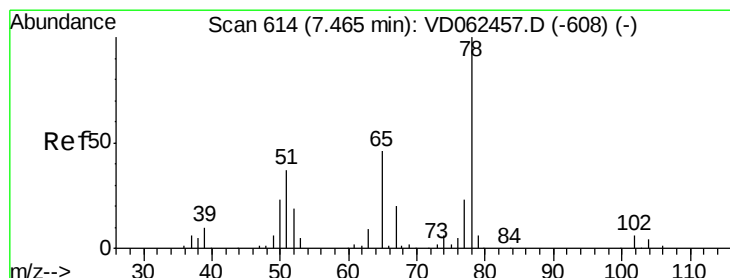
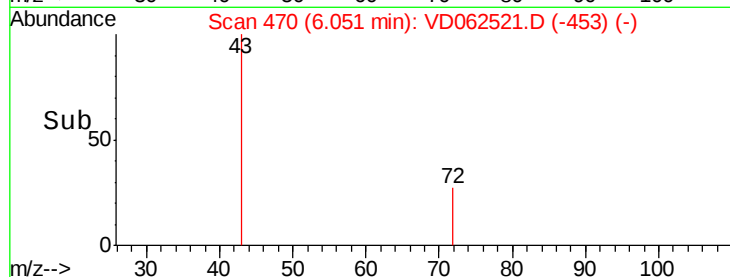
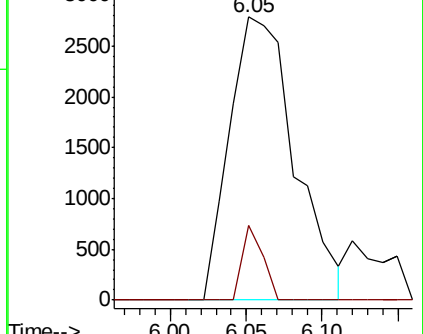
43 100

72 26.6 16.2 24.4#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 72.00 (71.70 to 72.70): VDC



#33

1,2-Dichloroethane-d4

Concen: 36.541 ug/l

RT: 7.44 min Scan# 611

Delta R.T. -0.03 min

Lab File: VD062521.D

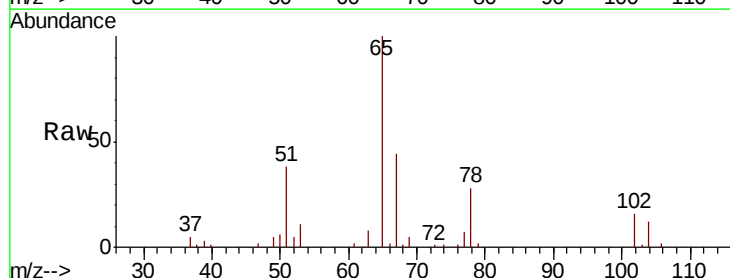
Acq: 23 May 2019 14:47

Tgt Ion: 65 Resp: 170740

Ion Ratio Lower Upper

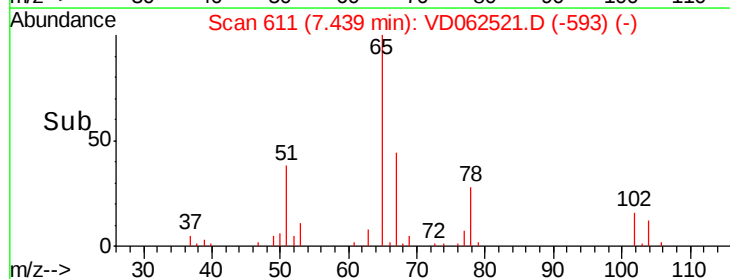
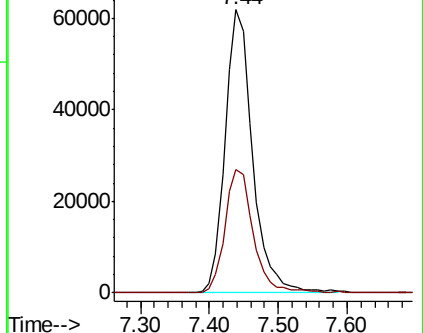
65 100

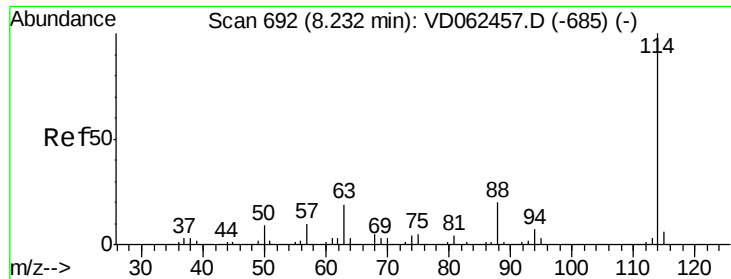
67 43.6 0.0 98.0



Abundance Ion 64.95 (64.65 to 65.65): VDC

Ion 66.90 (66.60 to 67.60): VDC

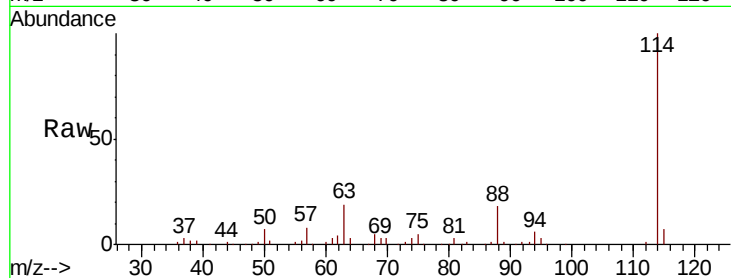




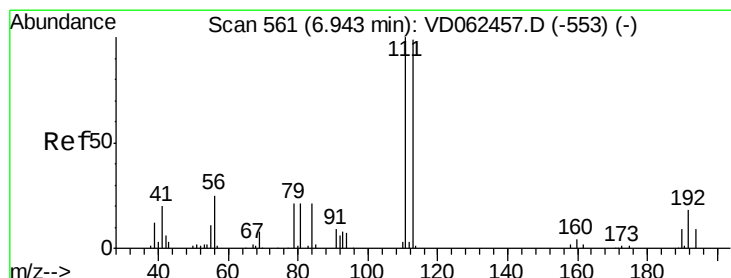
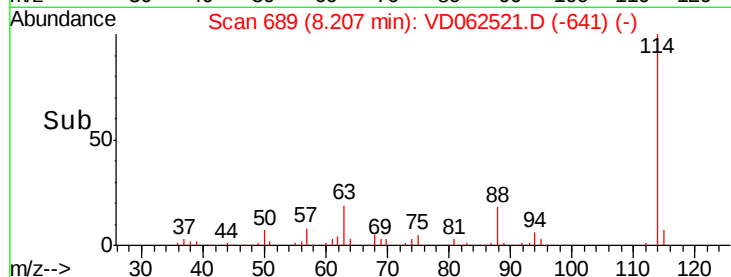
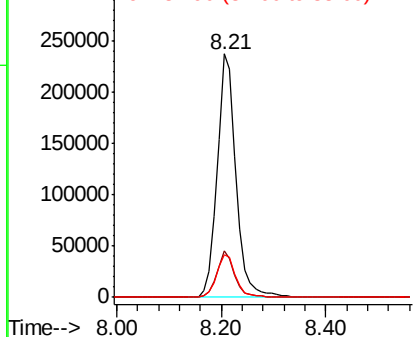
#34
 1,4-Difluorobenzene
 Concen: 50.000 ug/l
 RT: 8.21 min Scan# 689
 Delta R.T. -0.03 min
 Lab File: VD062521.D
 Acq: 23 May 2019 14:47

Instrument :
 MSVOA_D
 ClientSampleId :

Tot Ion:114 Resp: 591980
 Ion Ratio Lower Upper
 114 100
 63 19.0 0.0 32.4
 88 17.5 0.0 33.6

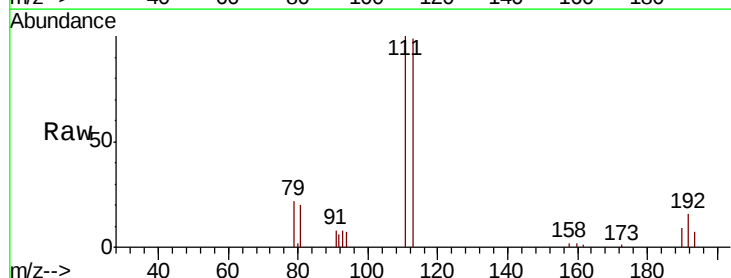


Abundance Ion 114.00 (113.70 to 114.70): V
 Ion 62.95 (62.65 to 63.65): V
 Ion 87.90 (87.60 to 88.60): V

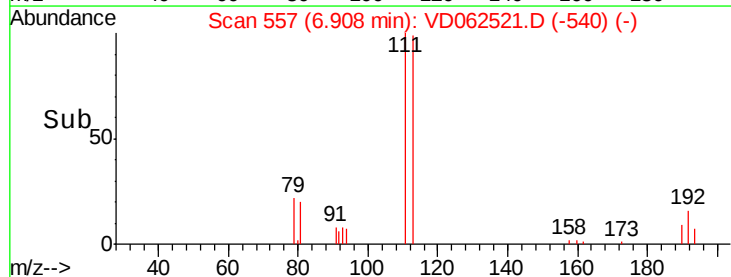
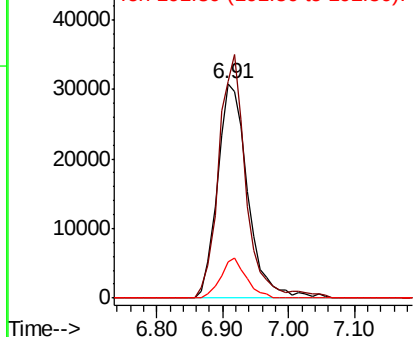


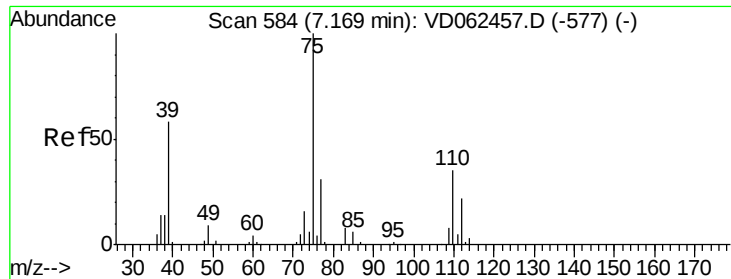
#35
 Dibromofluoromethane
 Concen: 18.438 ug/l
 RT: 6.91 min Scan# 557
 Delta R.T. -0.04 min
 Lab File: VD062521.D
 Acq: 23 May 2019 14:47

Tgt Ion:113 Resp: 98468
 Ion Ratio Lower Upper
 113 100
 111 101.3 78.5 117.7
 192 16.6 13.0 19.4



Abundance Ion 112.90 (112.60 to 113.60): V
 Ion 110.90 (110.60 to 111.60): V
 Ion 191.80 (191.50 to 192.50): V





#36

1,1-Dichloropropene

Concen: 5.406 ug/l

RT: 7.03 min Scan# 569

Delta R.T. -0.14 min

Lab File: VD062521.D

Acq: 23 May 2019 14:47

Instrument :

MSVOA_D

ClientSampleId :

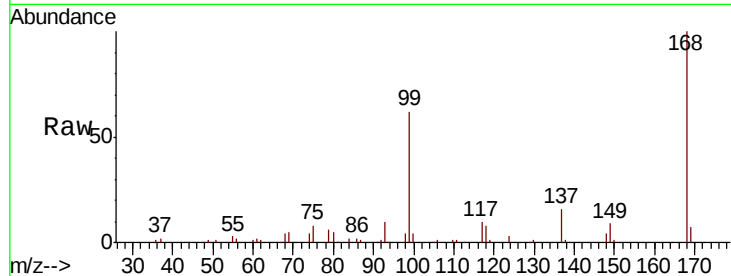
Tot Ion: 75 Resp: 30595

Ion Ratio Lower Upper

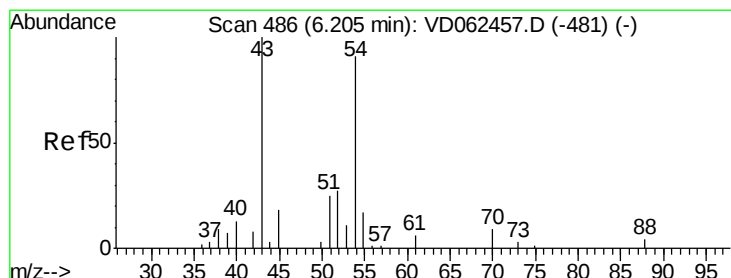
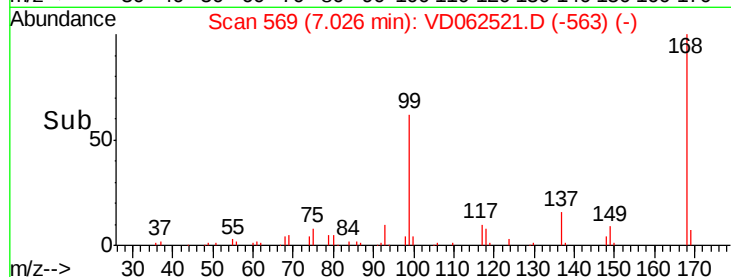
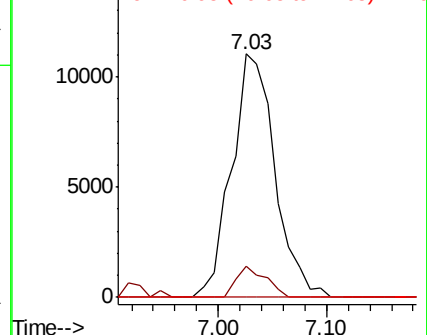
75 100

110 12.7 19.1 57.1#

77 0.0 25.6 38.4#



Abundance Ion 75.00 (74.70 to 75.70): VDC
Ion 109.90 (109.60 to 110.60): VDC
Ion 76.95 (76.65 to 77.65): VDC



#37

Ethyl Acetate

Concen: 3.801 ug/l

RT: 6.05 min Scan# 470

Delta R.T. -0.15 min

Lab File: VD062521.D

Acq: 23 May 2019 14:47

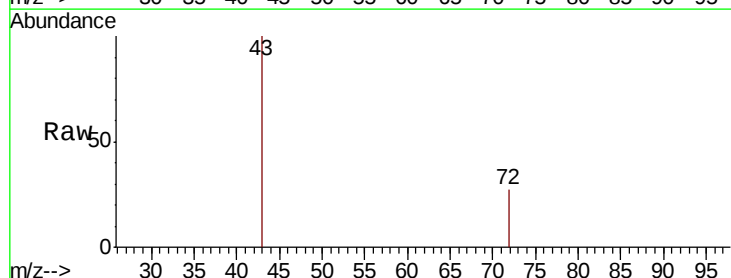
Tgt Ion: 43 Resp: 8358

Ion Ratio Lower Upper

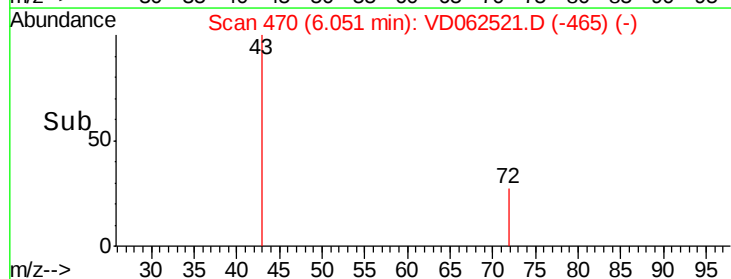
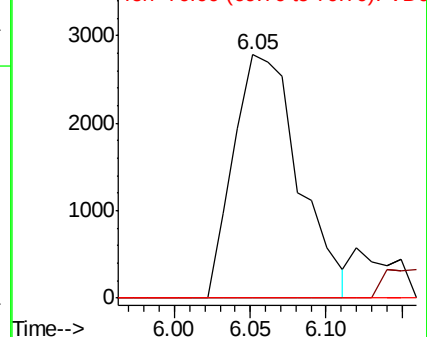
43 100

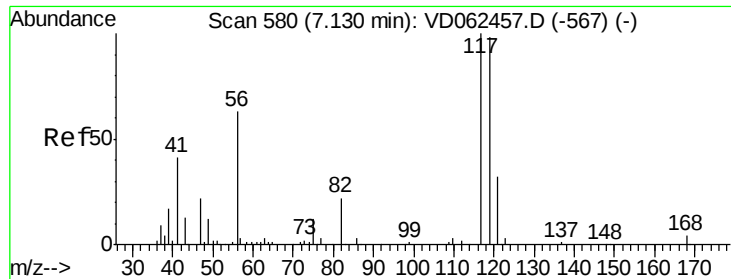
61 0.0 14.7 22.1#

70 0.0 7.8 11.6#



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: 5.084 ug/l

RT: 7.03 min Scan# 569

Delta R.T. -0.10 min

Lab File: VD062521.D

Acq: 23 May 2019 14:47

Instrument :

MSVOA_D

ClientSampleId :

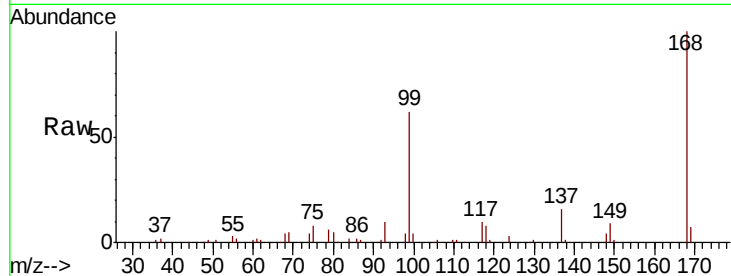
Tot Ion:117 Resp: 42766

Ion Ratio Lower Upper

117 100

119 5.1 75.8 113.8#

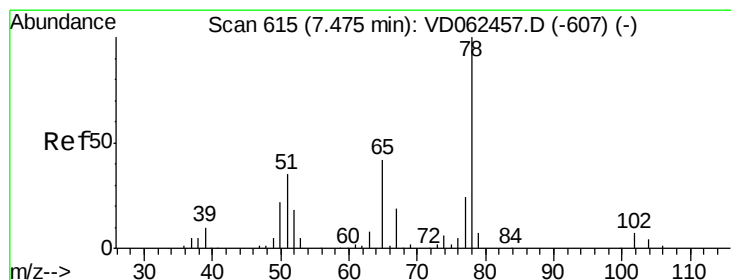
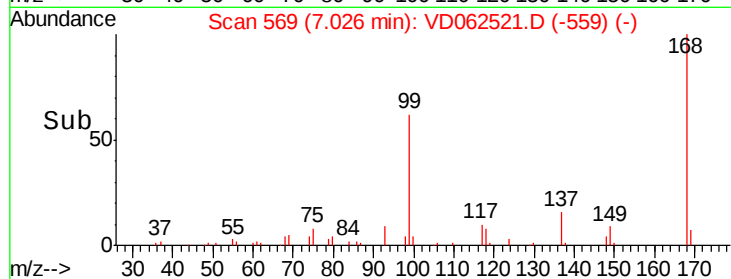
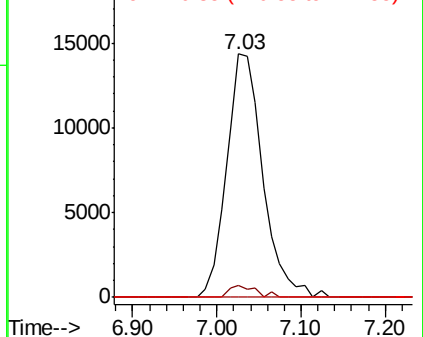
121 0.0 25.9 38.9#



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



#40

Benzene

Concen: 4.094 ug/l

RT: 7.44 min Scan# 611

Delta R.T. -0.04 min

Lab File: VD062521.D

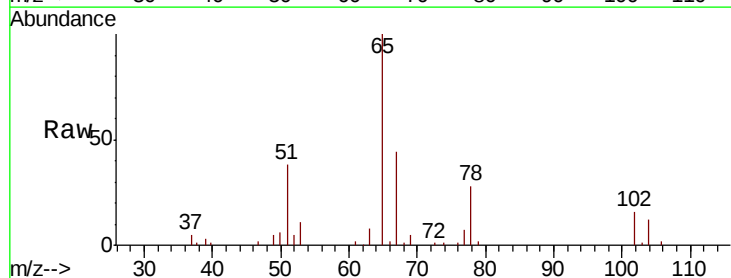
Acq: 23 May 2019 14:47

Tgt Ion: 78 Resp: 45451

Ion Ratio Lower Upper

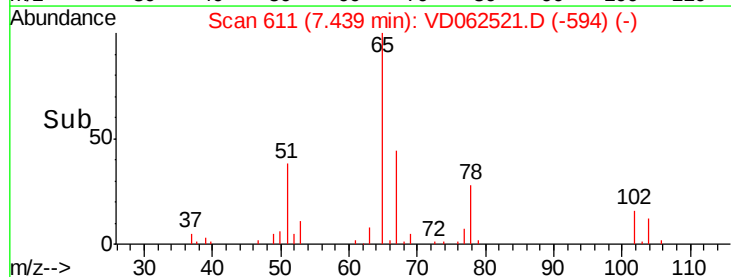
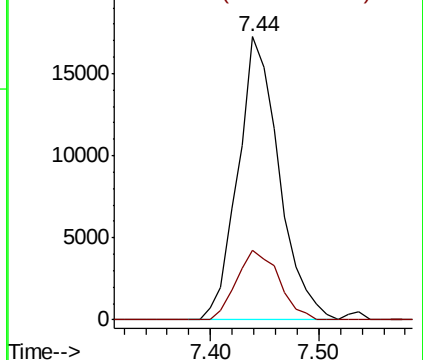
78 100

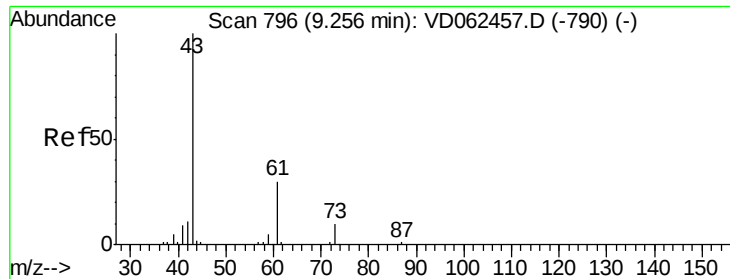
77 24.6 19.7 29.5



Abundance Ion 77.95 (77.65 to 78.65): V

Ion 76.95 (76.65 to 77.65): V





#43

Isopropyl Acetate

Concen: 2.933 ug/l

RT: 9.54 min Scan# 824

Delta R.T. 0.28 min

Lab File: VD062521.D

Acq: 23 May 2019 14:47

Instrument :

MSVOA_D

ClientSampleId :

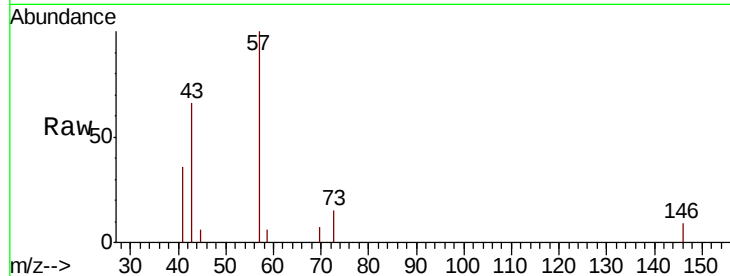
Tot Ion: 43 Resp: 8554

Ion Ratio Lower Upper

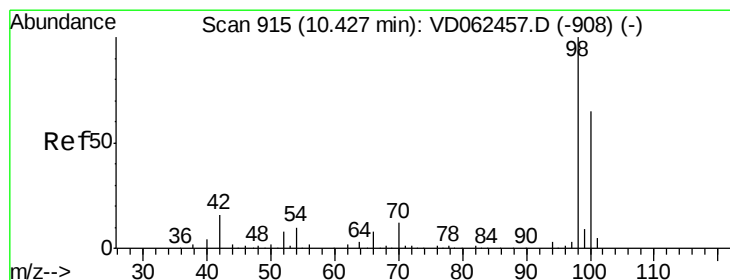
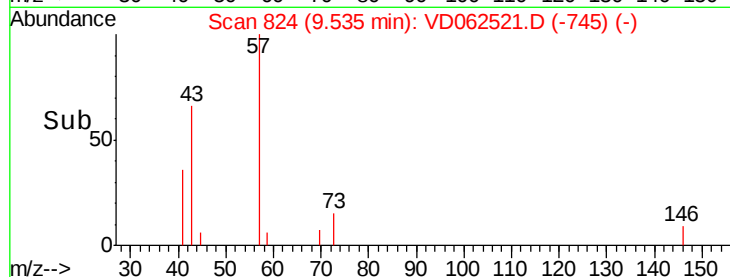
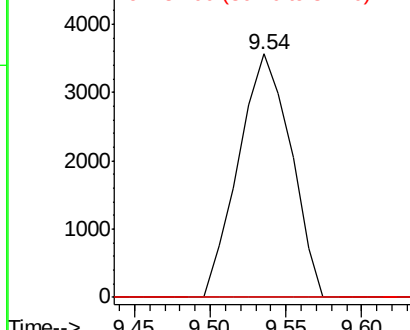
43 100

61 0.0 25.1 37.7#

87 0.0 0.0 0.0



Abundance Ion 42.95 (42.65 to 43.65): VDC
Ion 60.95 (60.65 to 61.65): VDC
Ion 87.00 (86.70 to 87.70): VDC



#50

Toluene-d8

Concen: 38.609 ug/l

RT: 10.40 min Scan# 912

Delta R.T. -0.03 min

Lab File: VD062521.D

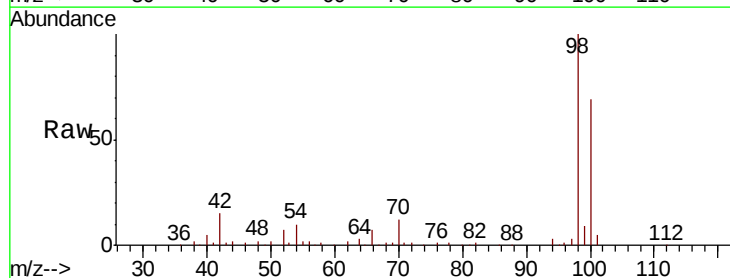
Acq: 23 May 2019 14:47

Tgt Ion: 98 Resp: 451223

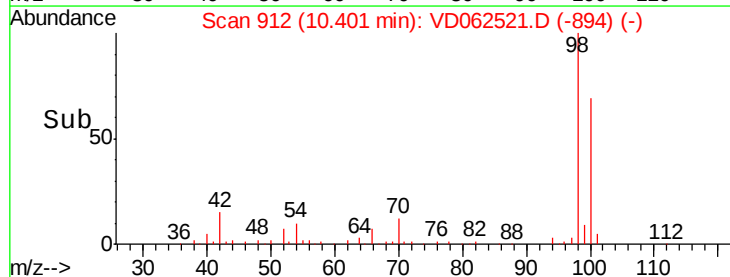
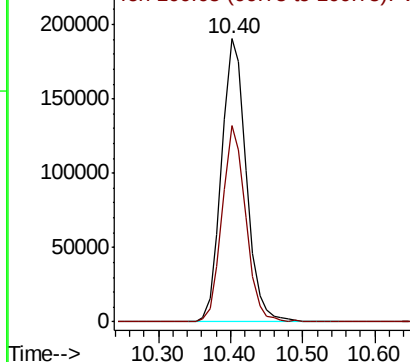
Ion Ratio Lower Upper

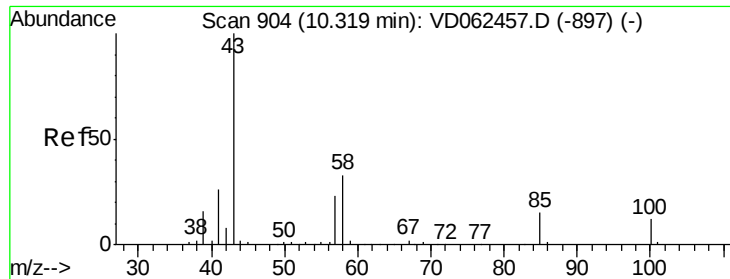
98 100

100 69.2 53.8 80.8



Abundance Ion 98.05 (97.75 to 98.75): VDC
Ion 100.05 (99.75 to 100.75): VDC





#51

4-Methyl-2-Pentanone

Concen: 1.201 ug/l

RT: 10.30 min Scan# 902

Delta R.T. -0.02 min

Lab File: VD062521.D

Acq: 23 May 2019 14:47

Instrument :

MSVOA_D

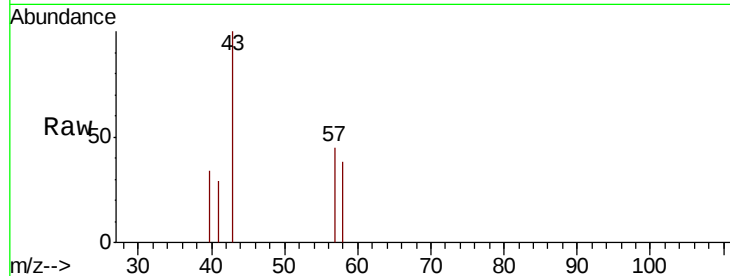
ClientSampleId :

Tot Ion: 43 Resp: 2314

Ion Ratio Lower Upper

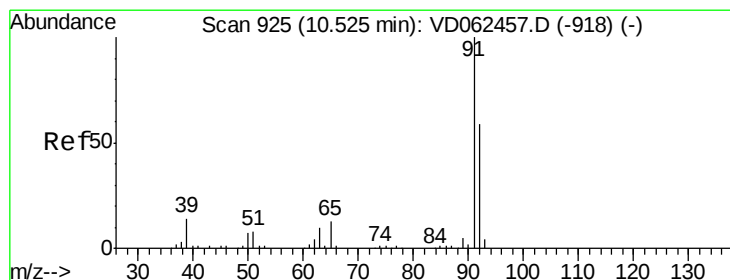
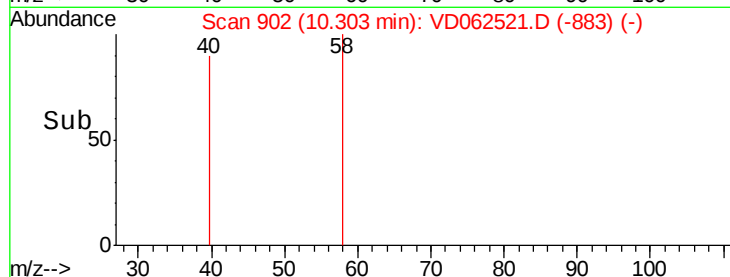
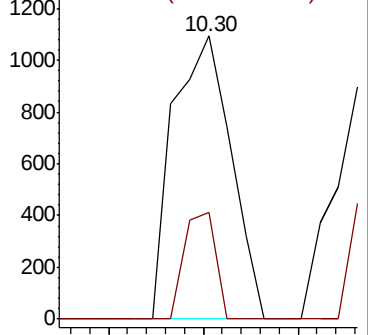
43 100

58 37.7 30.4 45.6



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC



#52

Toluene

Concen: 604.467 ug/l

RT: 10.51 min Scan# 923

Delta R.T. -0.02 min

Lab File: VD062521.D

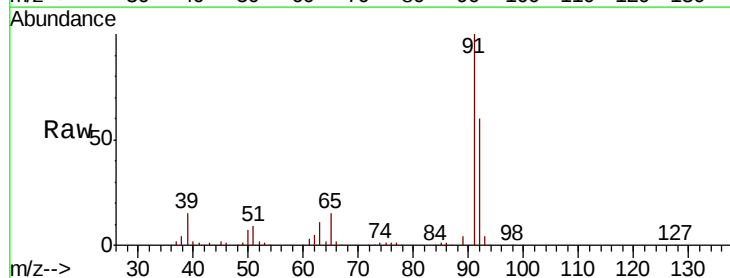
Acq: 23 May 2019 14:47

Tgt Ion: 92 Resp: 4593961

Ion Ratio Lower Upper

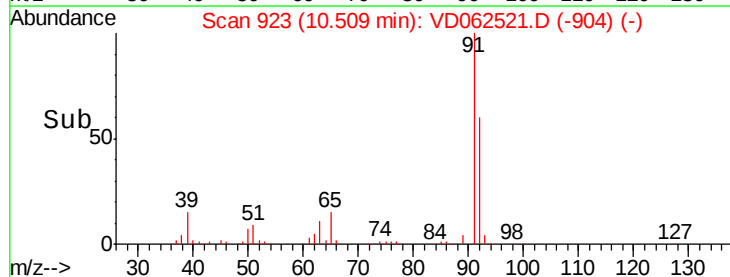
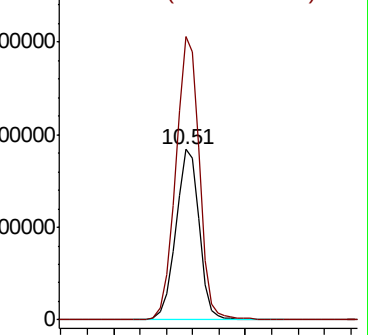
92 100

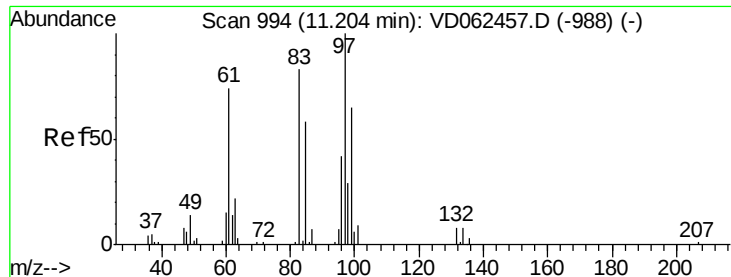
91 166.0 136.6 204.8



Abundance Ion 92.00 (91.70 to 92.70): VDC

Ion 91.00 (90.70 to 91.70): VDC





#55

1,1,2-Trichloroethane

Concen: 2.513 ug/l

RT: 11.09 min Scan# 982

Delta R.T. -0.11 min

Lab File: VD062521.D

Acq: 23 May 2019 14:47

Instrument :

MSVOA_D

ClientSampleId :

Tot Ion: 97 Resp: 6474

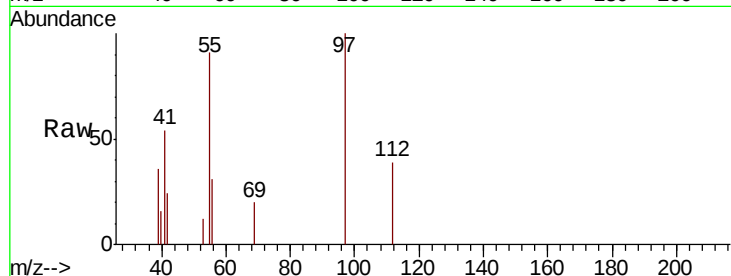
Ion Ratio Lower Upper

97 100

83 0.0 65.7 98.5#

85 0.0 45.6 68.4#

99 0.0 48.4 72.6#

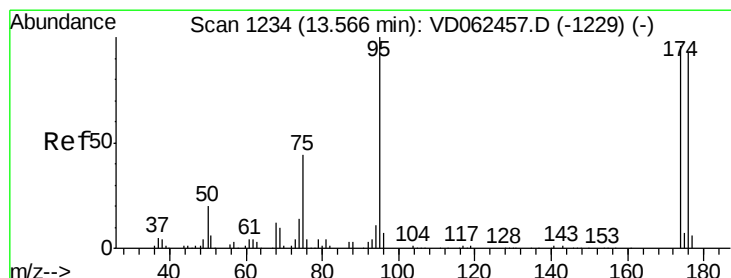
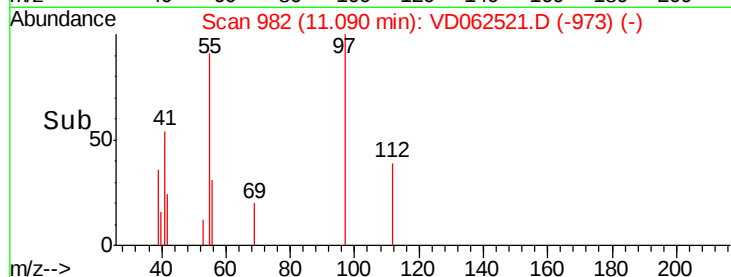
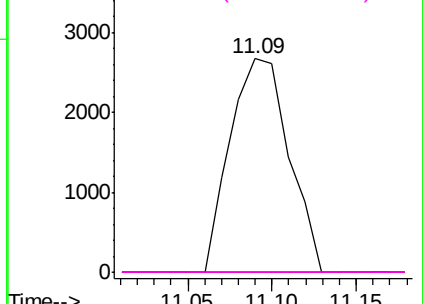


Abundance Ion 96.85 (96.55 to 97.55): VDC

Ion 82.95 (82.65 to 83.65): VDC

Ion 84.95 (84.65 to 85.65): VDC

Ion 98.85 (98.55 to 99.55): VDC



#62

4-Bromofluorobenzene

Concen: 27.944 ug/l

RT: 13.55 min Scan# 1232

Delta R.T. -0.02 min

Lab File: VD062521.D

Acq: 23 May 2019 14:47

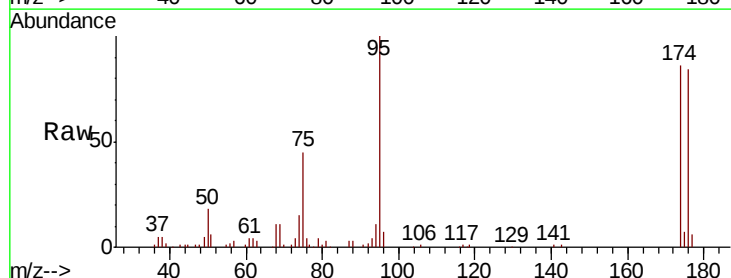
Tgt Ion: 95 Resp: 142855

Ion Ratio Lower Upper

95 100

174 86.4 0.0 181.8

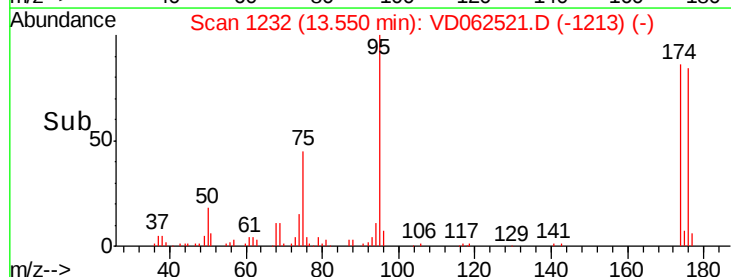
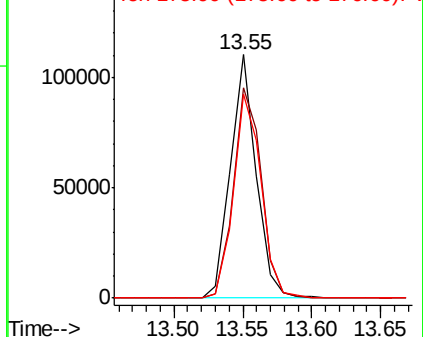
176 83.7 0.0 174.4

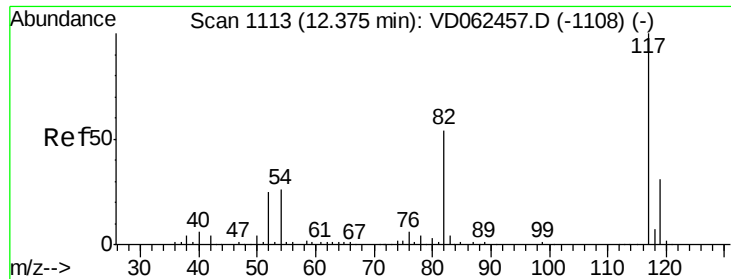


Abundance Ion 95.00 (94.70 to 95.70): VDC

Ion 173.90 (173.60 to 174.60): V

Ion 175.90 (175.60 to 176.60): V

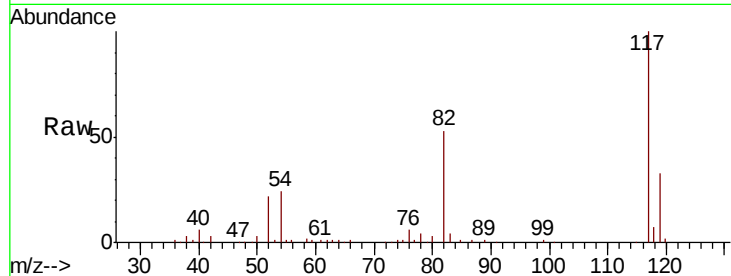




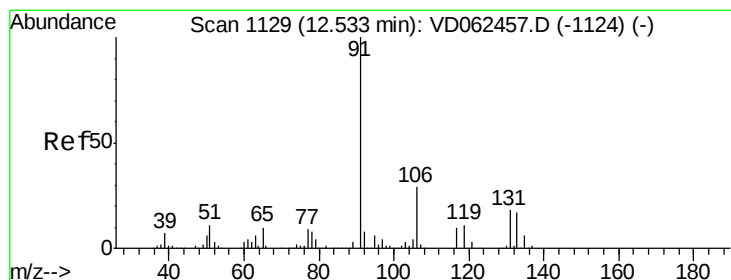
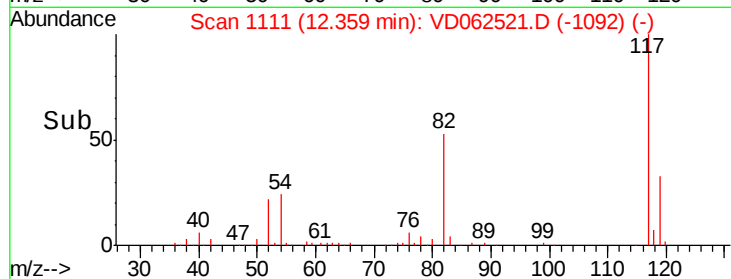
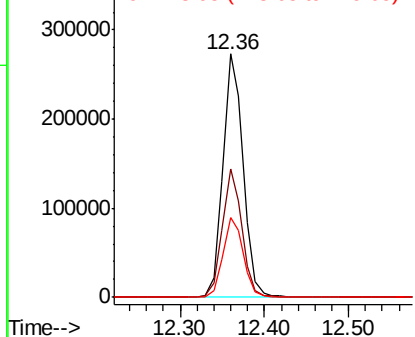
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 12.36 min Scan# 1111
Delta R.T. -0.02 min
Lab File: VD062521.D
Acq: 23 May 2019 14:47

Instrument :
MSVOA_D
ClientSampleId :

Tot Ion:117 Resp: 452252
Ion Ratio Lower Upper
117 100
82 52.8 36.2 54.2
119 32.5 26.2 39.4

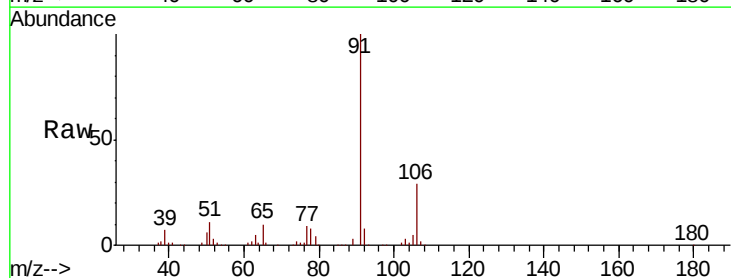


Abundance Ion 116.95 (116.65 to 117.65): V
Ion 82.05 (81.75 to 82.75): V
Ion 118.95 (118.65 to 119.65): V

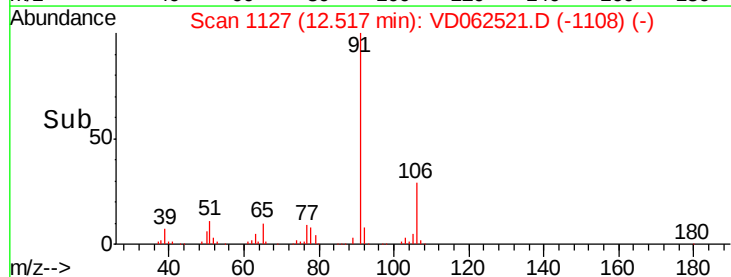
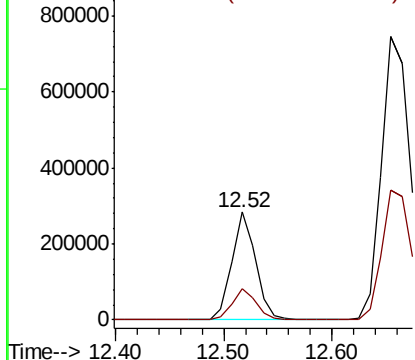


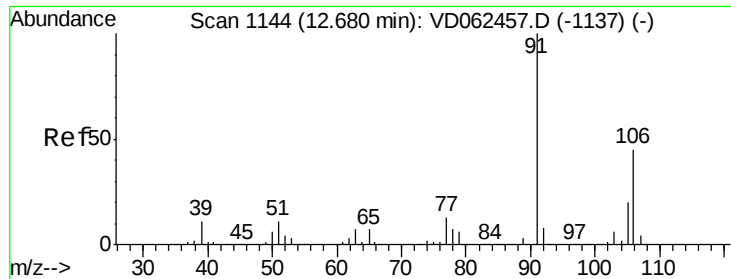
#67
Ethyl Benzene
Concen: 29.104 ug/l
RT: 12.52 min Scan# 1127
Delta R.T. -0.02 min
Lab File: VD062521.D
Acq: 23 May 2019 14:47

Tgt Ion: 91 Resp: 435972
Ion Ratio Lower Upper
91 100
106 29.2 24.7 37.1



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

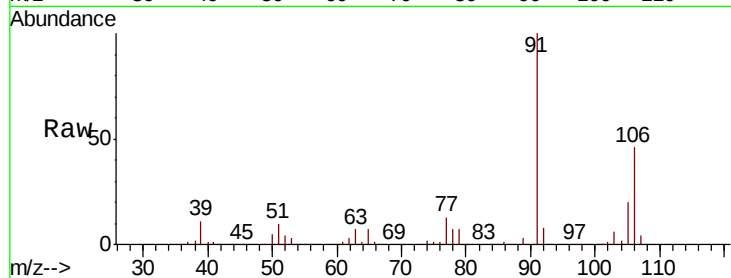




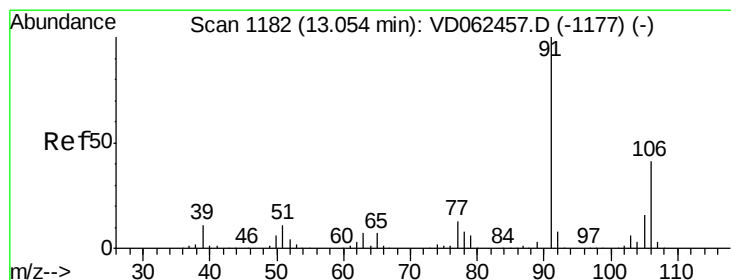
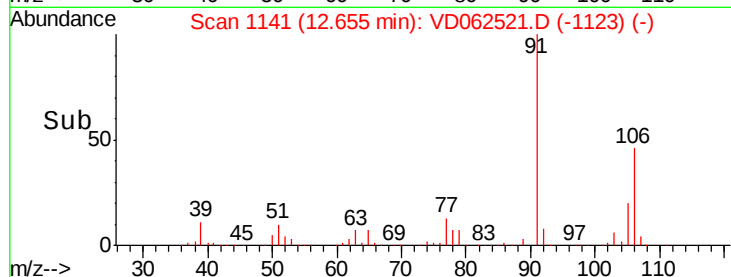
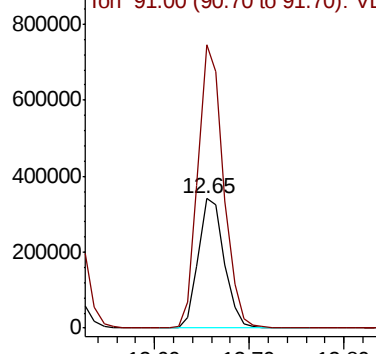
#68
m/p-Xvlenes
Concen: 121.236 ug/l
RT: 12.65 min Scan# 1141
Delta R.T. -0.03 min
Lab File: VD062521.D
Acq: 23 May 2019 14:47

Instrument :
MSVOA_D
ClientSampled :

Tot Ion:106 Resp: 651917
Ion Ratio Lower Upper
106 100
91 218.6 164.0 246.0

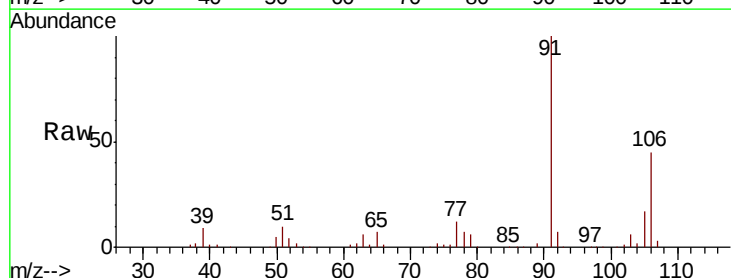


Abundance Ion 106.05 (105.75 to 106.75): V
Ion 91.00 (90.70 to 91.70): VDC

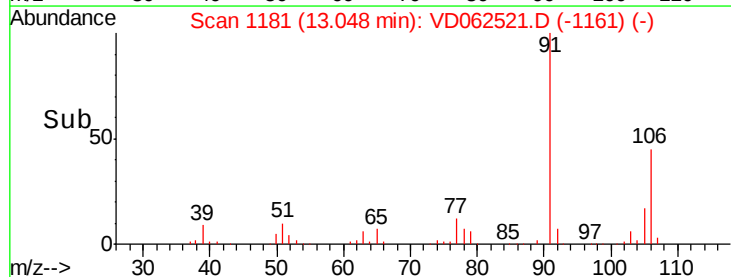
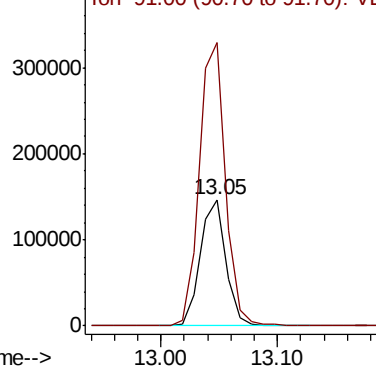


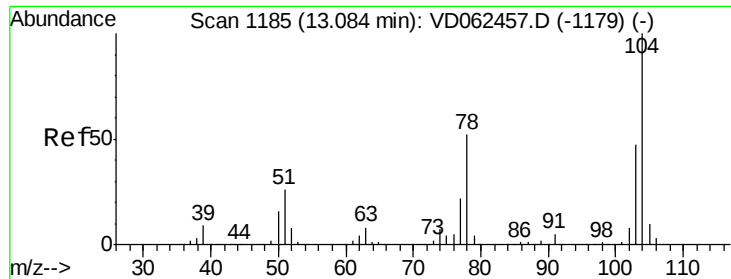
#69
o-Xylene
Concen: 43.719 ug/l
RT: 13.05 min Scan# 1181
Delta R.T. -0.01 min
Lab File: VD062521.D
Acq: 23 May 2019 14:47

Tgt Ion:106 Resp: 221812
Ion Ratio Lower Upper
106 100
91 224.2 106.7 319.9



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

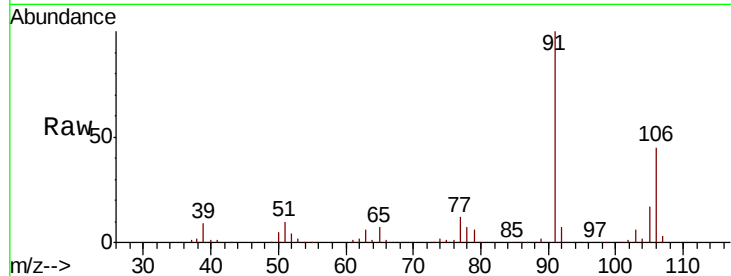




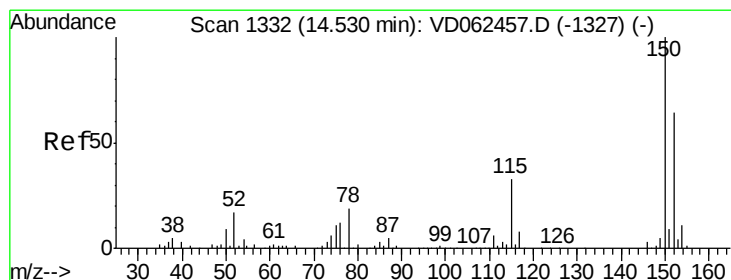
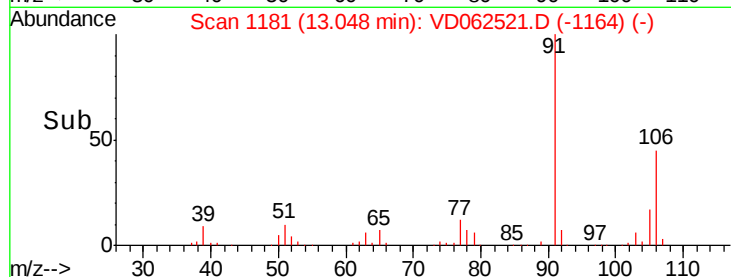
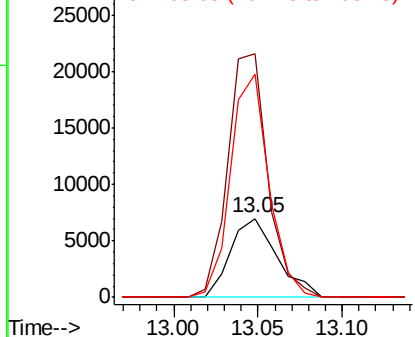
#70
Stvrene
Concen: 1.556 ug/l
RT: 13.05 min Scan# 1181
Delta R.T. -0.04 min
Lab File: VD062521.D
Acq: 23 May 2019 14:47

Instrument :
MSVOA_D
ClientSampled :

Tot Ion:104 Resp: 13426
Ion Ratio Lower Upper
104 100
78 307.9 35.4 53.2#
103 282.3 37.5 56.3#

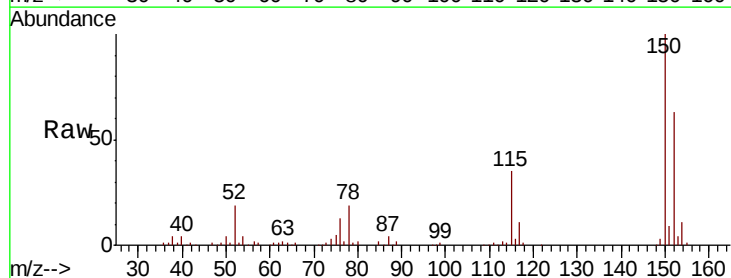


Abundance Ion 104.05 (103.75 to 104.75): V
Ion 77.95 (77.65 to 78.65): V
Ion 103.05 (102.75 to 103.75): V

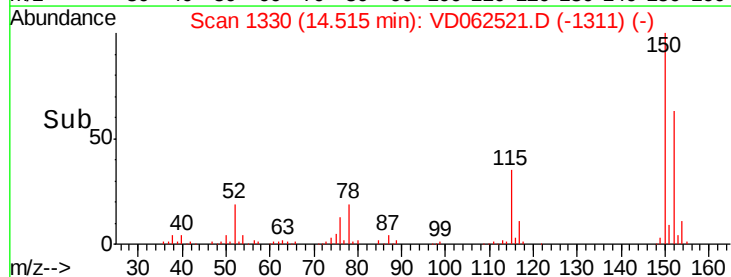
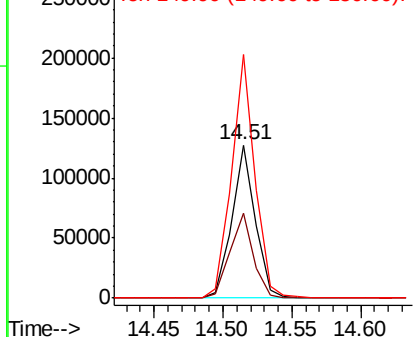


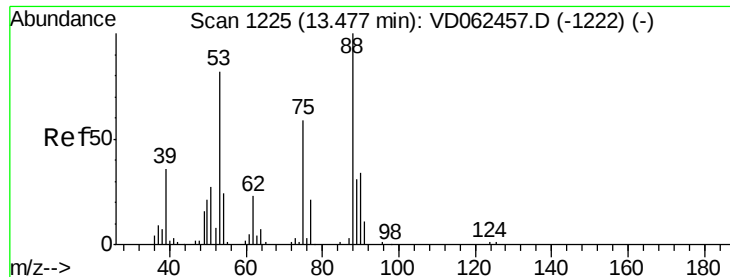
#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 14.51 min Scan# 1330
Delta R.T. -0.02 min
Lab File: VD062521.D
Acq: 23 May 2019 14:47

Tgt Ion:152 Resp: 149758
Ion Ratio Lower Upper
152 100
115 55.6 30.9 92.7
150 159.1 0.0 314.8



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





#81

trans-1,4-Dichloro-2-butene

Concen: 130.982 ug/l

RT: 13.55 min Scan# 1232

Delta R.T. 0.07 min

Lab File: VD062521.D

Acq: 23 May 2019 14:47

Instrument :

MSVOA_D

ClientSampleId :

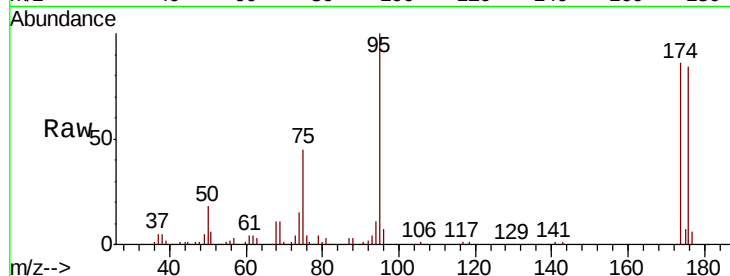
Tot Ion: 75 Resp: 65162

Ion Ratio Lower Upper

75 100

53 0.0 65.8 98.8#

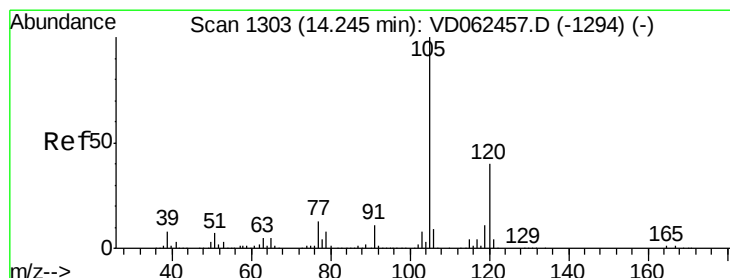
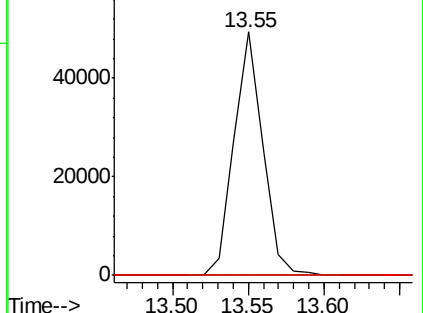
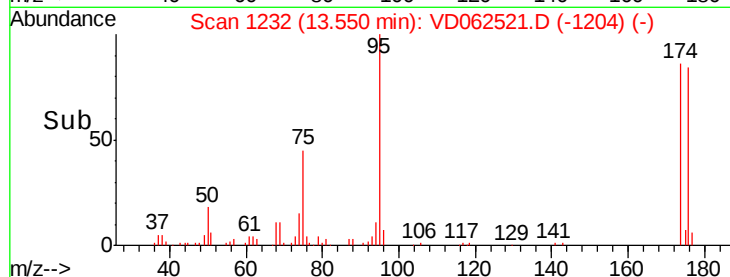
89 0.0 35.0 52.6#



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



#84

1,2,4-Trimethylbenzene

Concen: 4.257 ug/l

RT: 14.23 min Scan# 1301

Delta R.T. -0.02 min

Lab File: VD062521.D

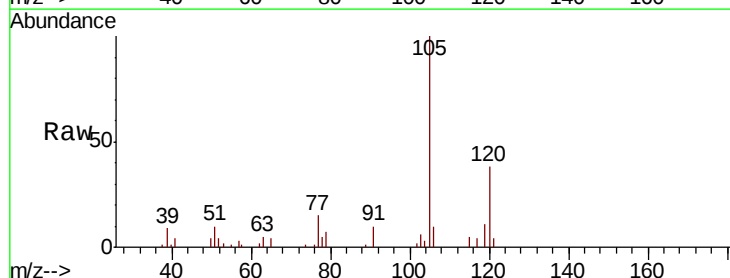
Acq: 23 May 2019 14:47

Tgt Ion:105 Resp: 35655

Ion Ratio Lower Upper

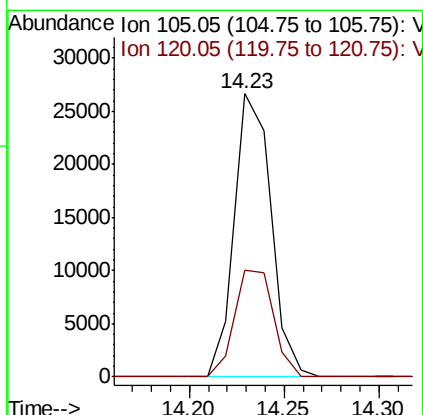
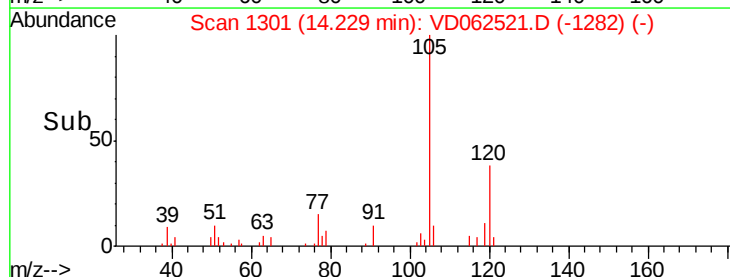
105 100

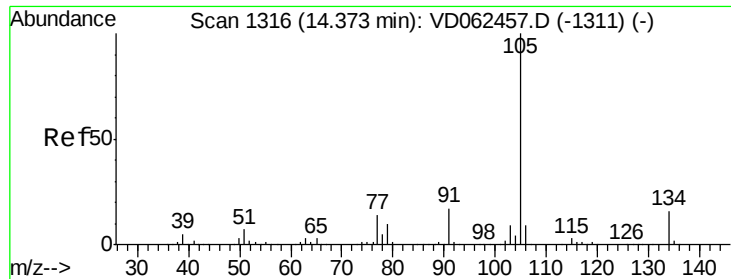
120 37.6 23.1 69.2



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.05 (119.75 to 120.75): V





#85

sec-Butylbenzene

Concen: 3.772 ug/l

RT: 14.23 min Scan# 1301

Delta R.T. -0.14 min

Lab File: VD062521.D

Acq: 23 May 2019 14:47

Instrument :

MSVOA_D

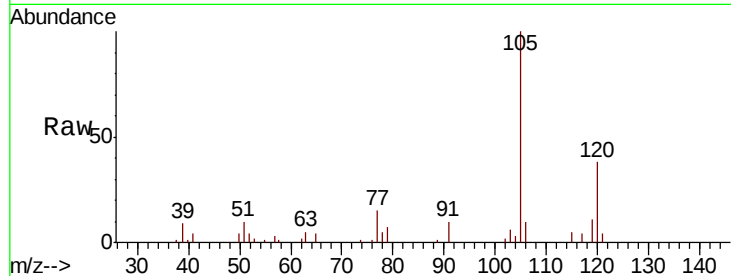
ClientSampleId :

Tot Ion:105 Resp: 35655

Ion Ratio Lower Upper

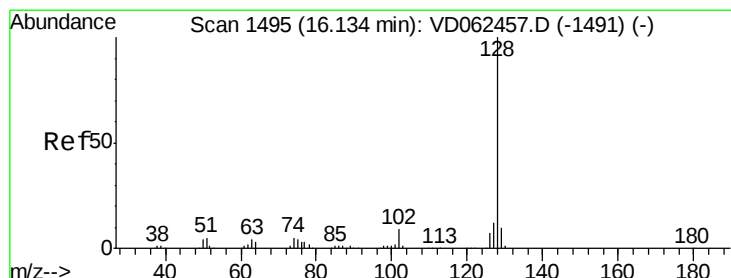
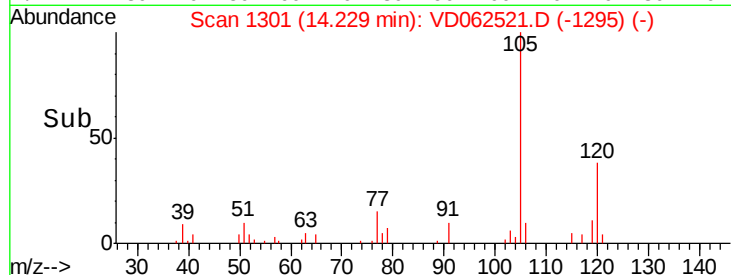
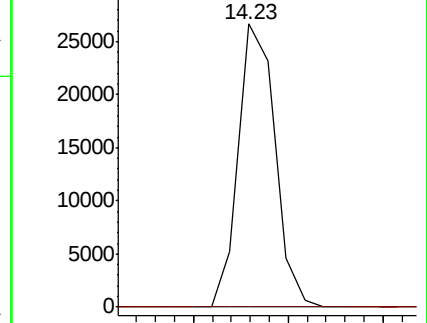
105 100

134 0.0 8.9 26.7#



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 134.10 (133.80 to 134.80): V



#95

Naphthalene

Concen: 2.370 ug/l

RT: 16.12 min Scan# 1493

Delta R.T. -0.02 min

Lab File: VD062521.D

Acq: 23 May 2019 14:47

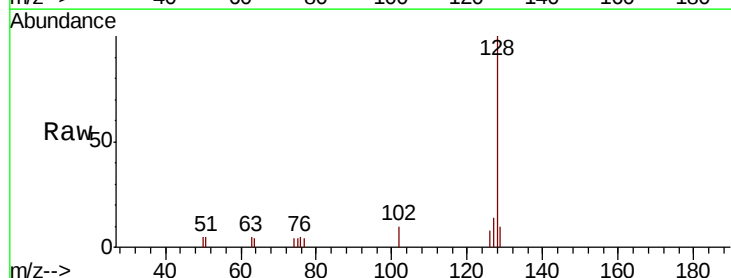
Tgt Ion:128 Resp: 10254

Ion Ratio Lower Upper

128 100

127 13.7 9.8 14.8

129 10.3 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

