

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX072419\
 Data File : VX011061.D
 Acq On : 24 Jul 2019 16:49
 Operator : JC/SP
 Sample : K3991-01
 Misc : 5.0mL/MSVOA X/WATER
 ALS Vial : 13 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :

Quant Time: Jul 25 03:23:47 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X071919W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Jul 19 03:27:28 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.02	128	32953	30.00	ug/l	0.00
28) 1,4-Difluorobenzene	6.86	114	182358	30.00	ug/l	0.00
57) Chlorobenzene-d5	10.11	117	159428	30.00	ug/l	0.00

System Monitoring Compounds

27) 1,2-Dichloroethane-d4	6.06	65	66287	29.67	ug/l	0.00
Spiked Amount	30.000	Range	50 - 169	Recovery	=	98.90%
60) 4-Bromofluorobenzene	11.13	95	73237	27.91	ug/l	0.00
Spiked Amount	30.000	Range	56 - 143	Recovery	=	93.03%
63) Toluene-d8	8.71	98	211042	30.12	ug/l	0.00
Spiked Amount	30.000	Range	66 - 137	Recovery	=	100.40%

Target Compounds

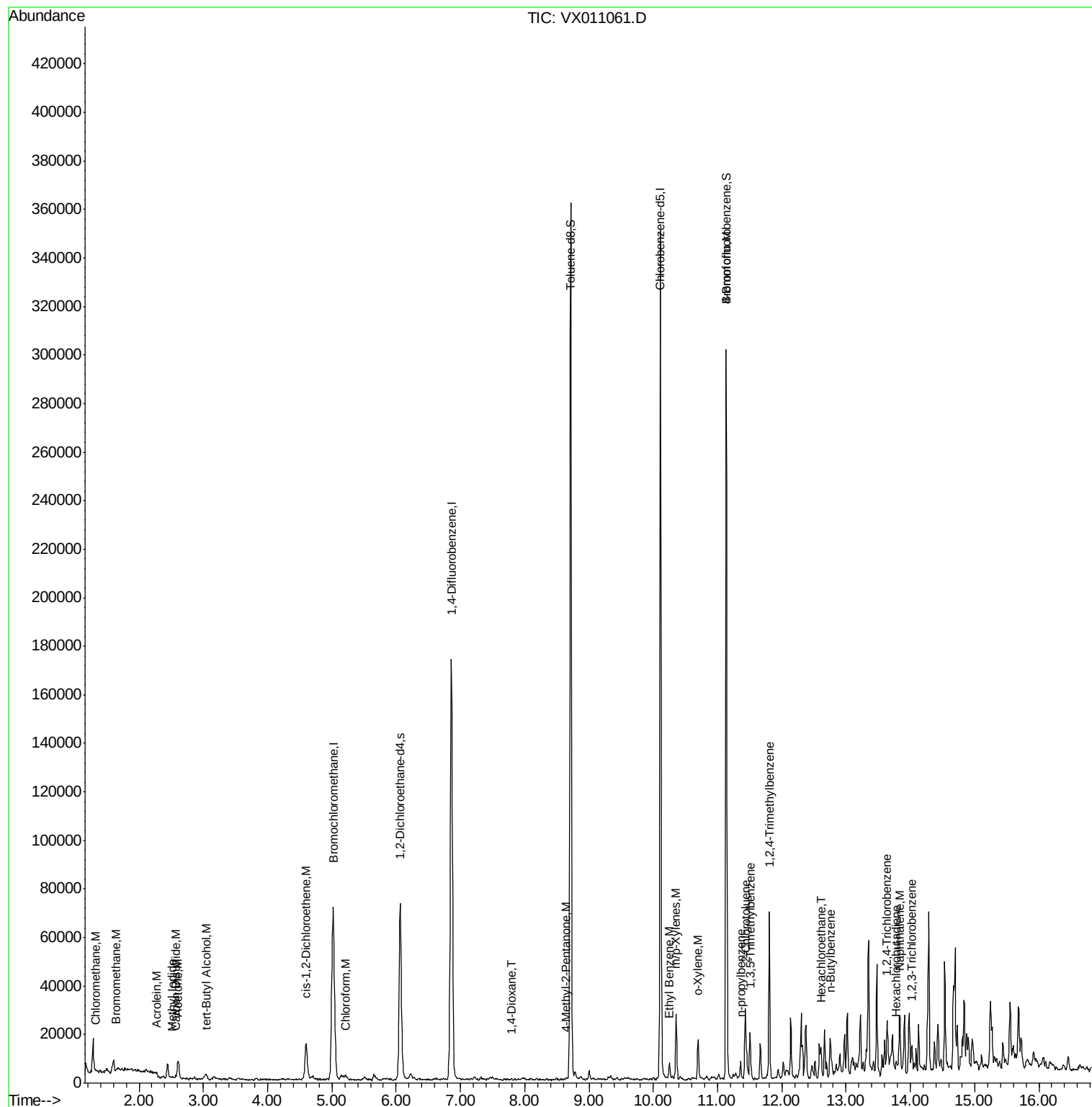
					Ovalue
3) Chloromethane	1.33	50	440	0.230 ug/l #	77
5) Bromomethane	1.65	94	427	0.388 ug/l	97
11) Methyl Iodide	2.51	142	980	0.396 ug/l	93
13) Acrolein	2.28	56	235	0.757 ug/l	93
15) Acetone	2.60	58	168	0.596 ug/l	82
16) Carbon Disulfide	2.57	76	1190	0.251 ug/l	99
22) cis-1,2-Dichloroethene	4.59	96	10010	4.471 ug/l	93
23) tert-Butyl Alcohol	3.04	59	2497	4.721 ug/l #	99
25) Chloroform	5.21	83	1389	0.391 ug/l	86
45) 1,4-Dioxane	7.79	88	39	0.692 ug/l #	1
56) Bromoform	11.13	173	850	0.511 ug/l #	1
58) 4-Methyl-2-Pentanone	8.64	43	683	0.254 ug/l #	93
66) Ethyl Benzene	10.25	91	3833	0.402 ug/l	97
67) m/p-Xylenes	10.35	106	6496	1.781 ug/l	95
68) o-Xylene	10.70	106	3417	0.956 ug/l	91
74) n-propylbenzene	11.36	91	3565	0.333 ug/l	92
75) 2-Chlorotoluene	11.43	91	2808	0.440 ug/l	46
76) 1,3,5-Trimethylbenzene	11.51	105	7372	0.915 ug/l	97
80) 1,2,4-Trimethylbenzene	11.80	105	29175	3.596 ug/l	98
85) n-Butylbenzene	12.75	91	1633	0.224 ug/l	60
86) Hexachloroethane	12.61	117	561	0.416 ug/l #	7
89) 1,2,4-Trichlorobenzene	13.64	180	900	0.294 ug/l #	78
90) Hexachlorobutadiene	13.78	225	353	0.238 ug/l	94
91) Naphthalene	13.83	128	15224	1.630 ug/l	97
92) 1,2,3-Trichlorobenzene	14.02	180	963	0.314 ug/l #	49

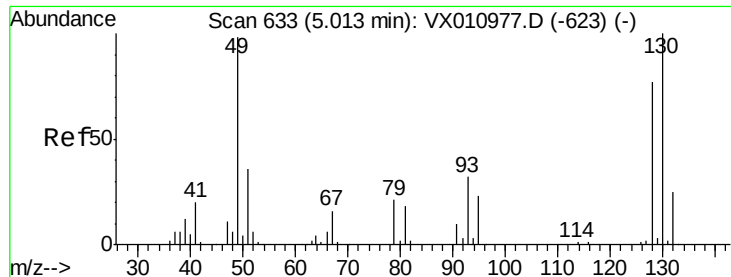
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X071919W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Jul 19 03:27:28 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 30.000 ug/l

RT: 5.02 min Scan# 634

Delta R.T. 0.01 min

Lab File: VX011061.D

Acq: 24 Jul 2019 16:49

Instrument :

MSVOA_X

ClientSampleId :

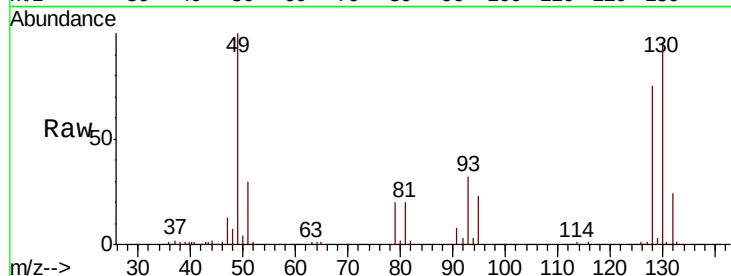
Tot Ion:128 Resp: 32953

Ion Ratio Lower Upper

128 100

49 133.7 0.0 343.5

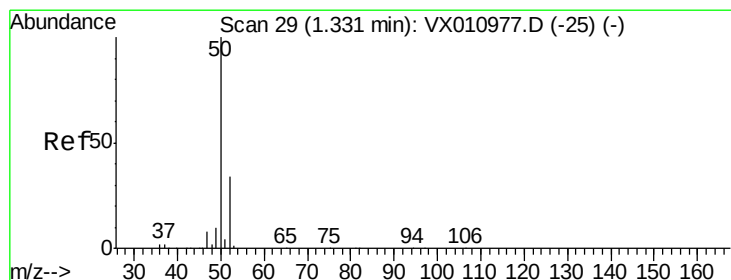
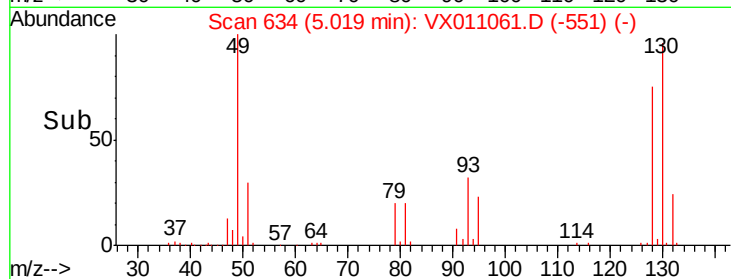
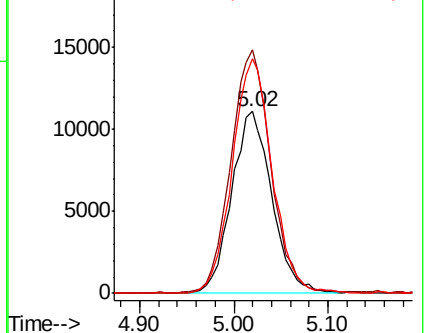
130 128.1 0.0 324.7



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 49.00 (48.70 to 49.70): VX0

Ion 130.00 (129.70 to 130.70): V



#3

Chloromethane

Concen: 0.230 ug/l

RT: 1.33 min Scan# 29

Delta R.T. 0.00 min

Lab File: VX011061.D

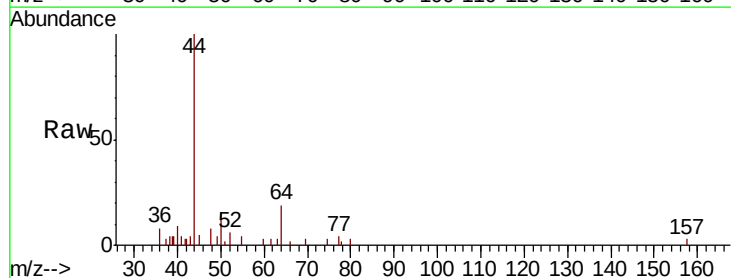
Acq: 24 Jul 2019 16:49

Tgt Ion: 50 Resp: 440

Ion Ratio Lower Upper

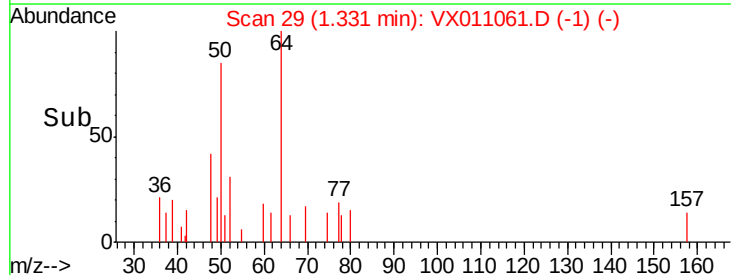
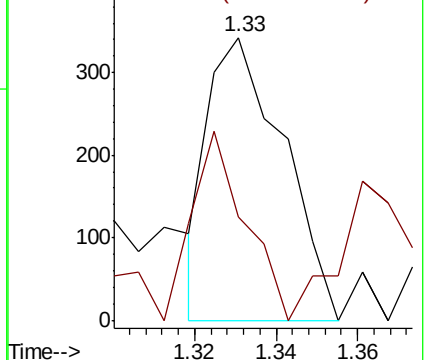
50 100

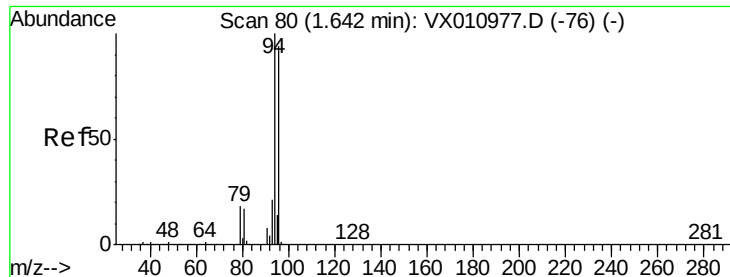
52 20.7 27.3 40.9#



Abundance Ion 50.00 (49.70 to 50.70): VX0

Ion 52.00 (51.70 to 52.70): VX0





#5

Bromomethane

Concen: 0.388 ug/l

RT: 1.65 min Scan# 81

Delta R.T. 0.01 min

Lab File: VX011061.D

Acq: 24 Jul 2019 16:49

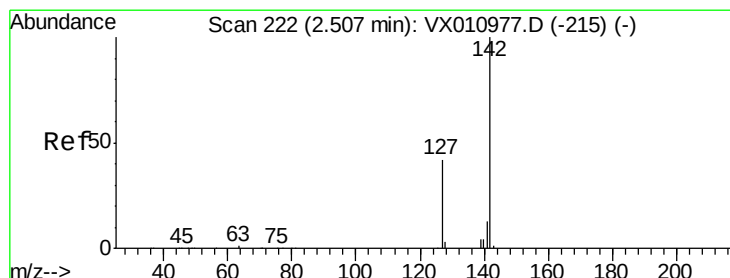
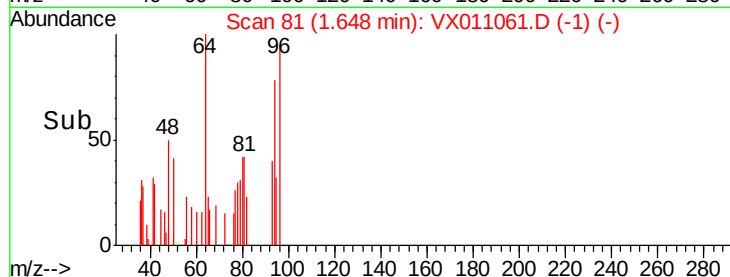
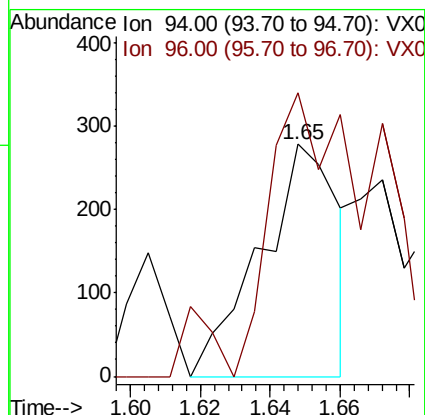
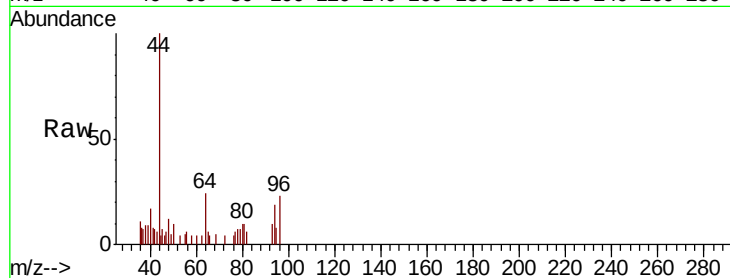
Instrument :
MSVOA_X
ClientSampleId :

Tot Ion: 94 Resp: 427

Ion Ratio Lower Upper

94 100

96 91.7 75.4 113.2



#11

Methyl Iodide

Concen: 0.396 ug/l

RT: 2.51 min Scan# 223

Delta R.T. 0.01 min

Lab File: VX011061.D

Acq: 24 Jul 2019 16:49

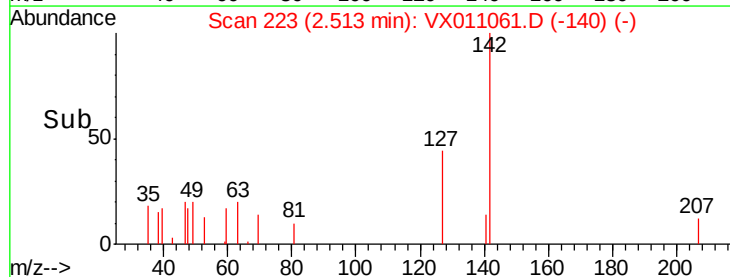
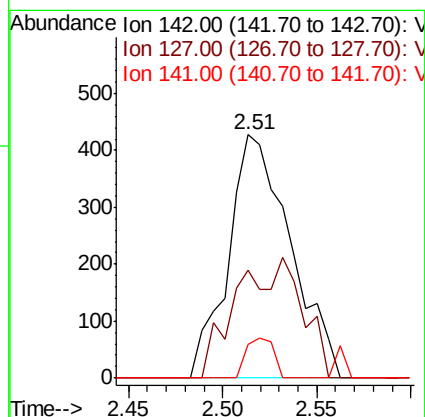
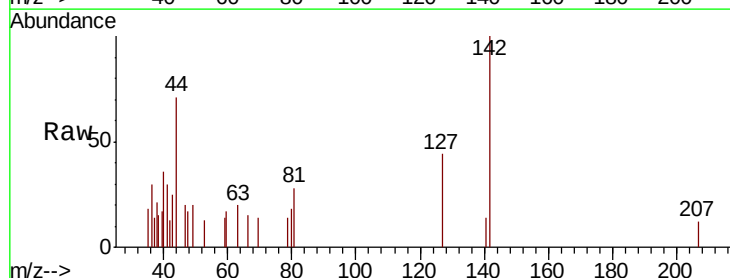
Tgt Ion: 142 Resp: 980

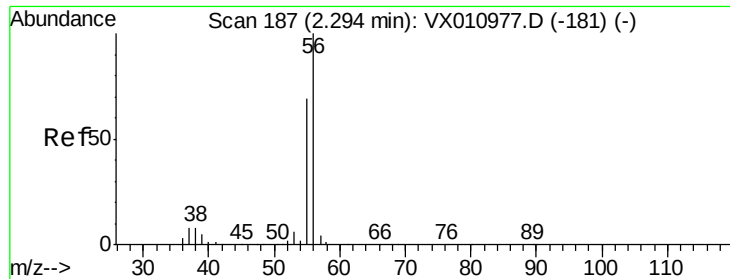
Ion Ratio Lower Upper

142 100

127 44.4 20.7 62.1

141 7.2 6.7 20.0

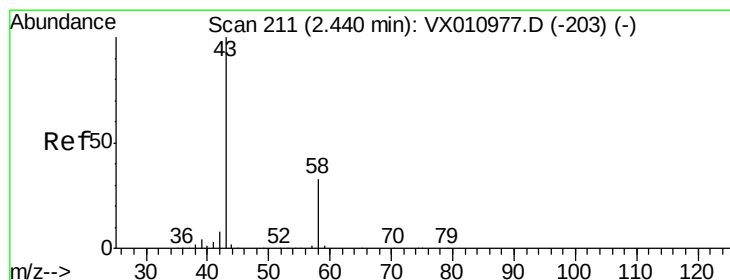
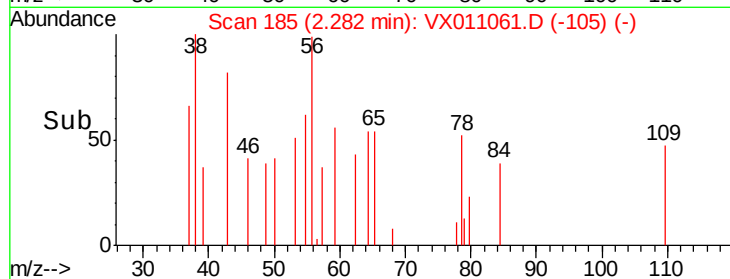
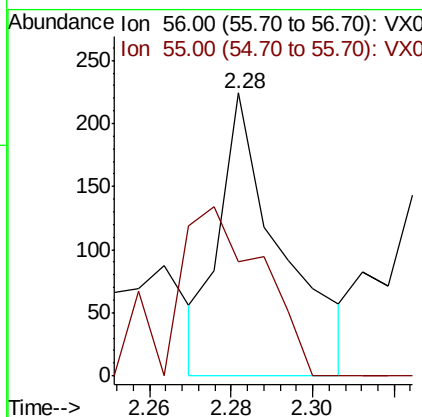
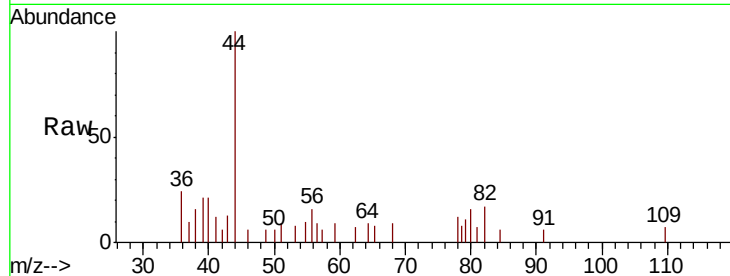




#13
Acrolein
Concen: 0.757 ug/l
RT: 2.28 min Scan# 185
Delta R.T. -0.01 min
Lab File: VX011061.D
Acq: 24 Jul 2019 16:49

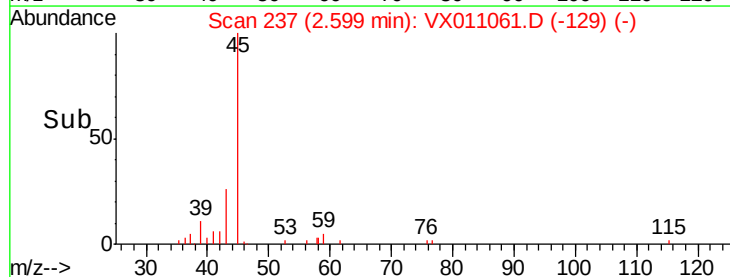
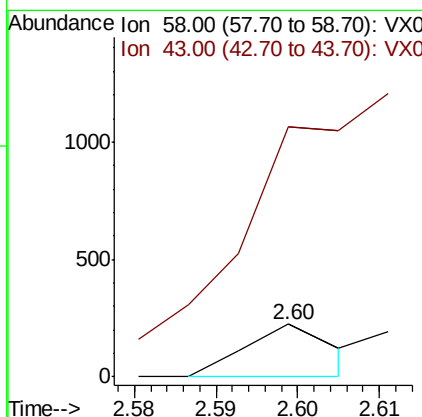
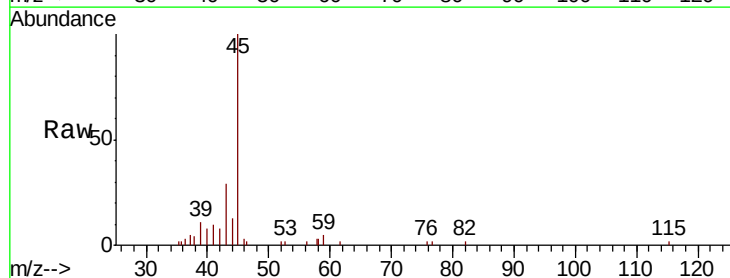
Instrument :
MSVOA_X
ClientSampled :

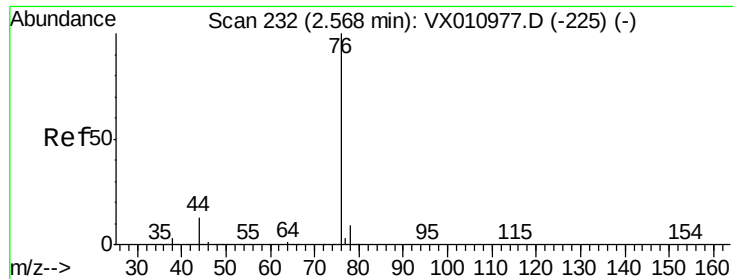
Tot Ion: 56 Resp: 235
Ion Ratio Lower Upper
56 100
55 76.2 56.1 84.1



#15
Acetone
Concen: 0.596 ug/l
RT: 2.60 min Scan# 237
Delta R.T. 0.16 min
Lab File: VX011061.D
Acq: 24 Jul 2019 16:49

Tgt Ion: 58 Resp: 168
Ion Ratio Lower Upper
58 100
43 339.9 243.8 365.6

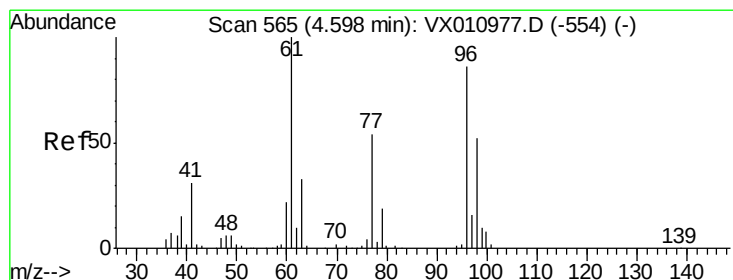
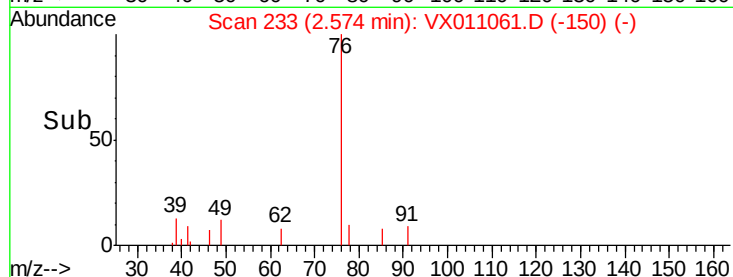
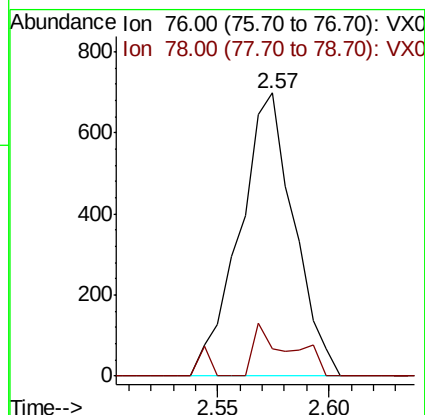
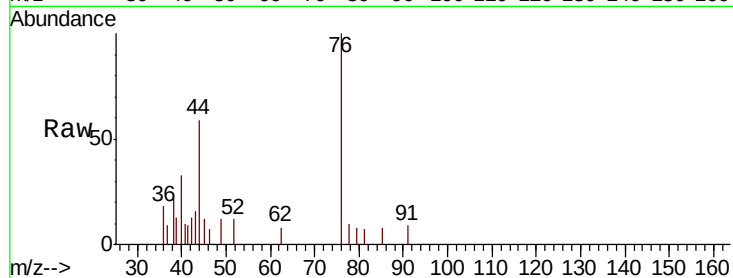




#16
Carbon Disulfide
Concen: 0.251 ug/l
RT: 2.57 min Scan# 233
Delta R.T. 0.01 min
Lab File: VX011061.D
Acq: 24 Jul 2019 16:49

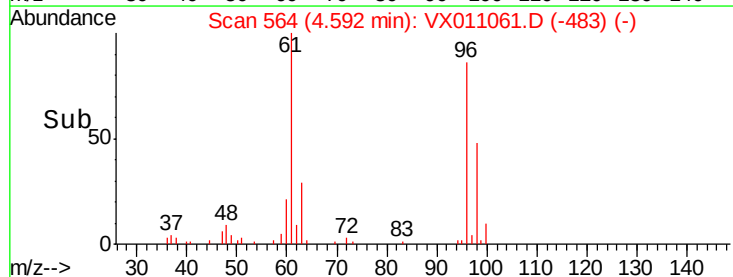
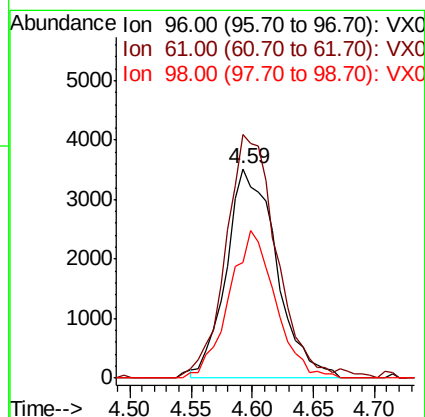
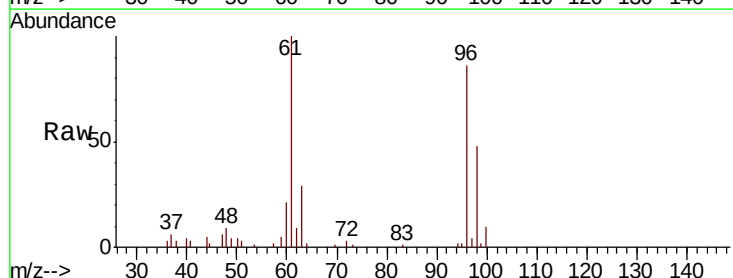
Instrument :
MSVOA_X
ClientSampleId :

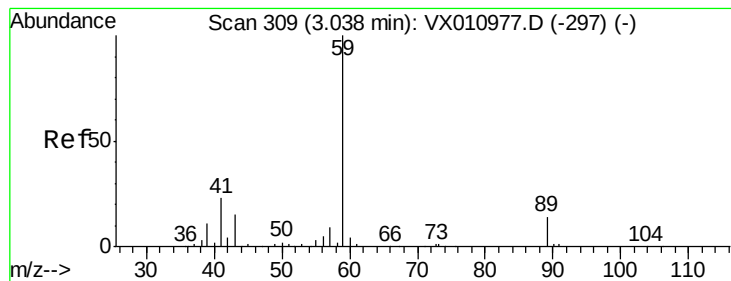
Tot Ion: 76 Resp: 1190
Ion Ratio Lower Upper
76 100
78 9.6 7.3 10.9



#22
cis-1,2-Dichloroethene
Concen: 4.471 ug/l
RT: 4.59 min Scan# 564
Delta R.T. -0.01 min
Lab File: VX011061.D
Acq: 24 Jul 2019 16:49

Tgt Ion: 96 Resp: 10010
Ion Ratio Lower Upper
96 100
61 116.8 102.9 154.3
98 64.3 50.9 76.3





#23

tert-Butyl Alcohol

Concen: 4.721 ug/l

RT: 3.04 min Scan# 310

Delta R.T. 0.01 min

Lab File: VX011061.D

Acq: 24 Jul 2019 16:49

Instrument :

MSVOA_X

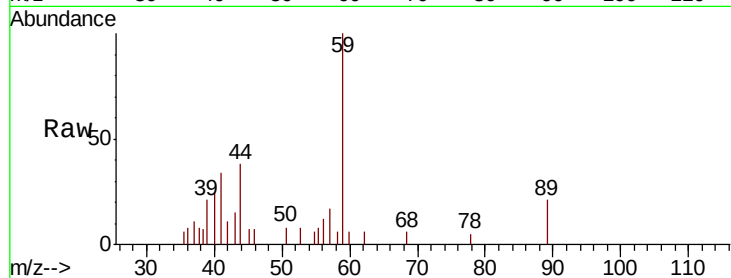
ClientSampled :

Tot Ion: 59 Resp: 2497

Ion Ratio Lower Upper

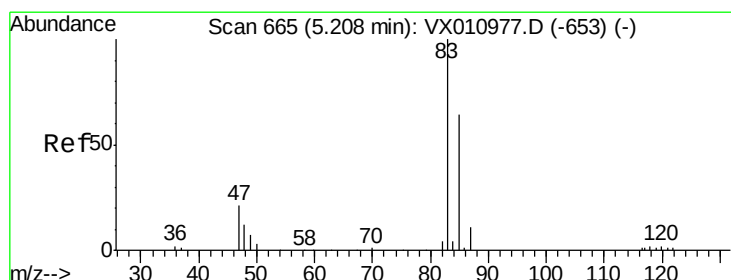
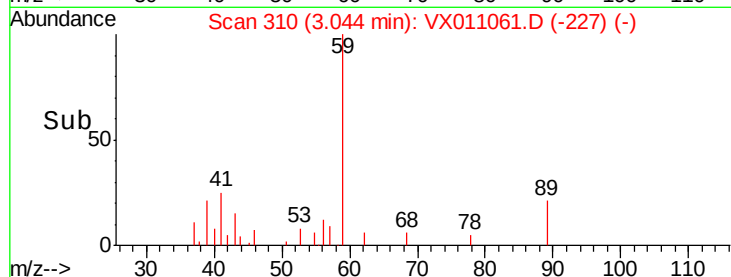
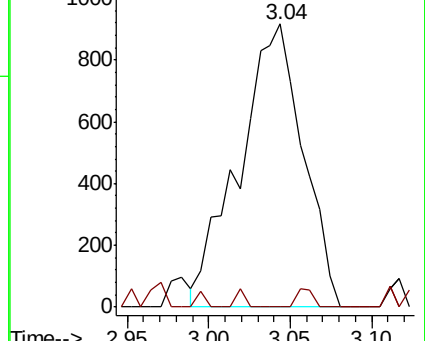
59 100

52 1.7 0.2 0.4#



Abundance Ion 59.00 (58.70 to 59.70): VX0

Ion 52.00 (51.70 to 52.70): VX0



#25

Chloroform

Concen: 0.391 ug/l

RT: 5.21 min Scan# 665

Delta R.T. 0.00 min

Lab File: VX011061.D

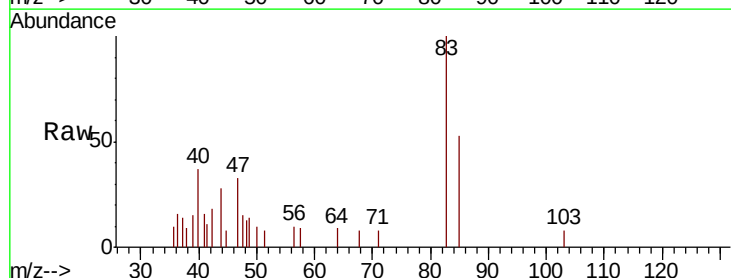
Acq: 24 Jul 2019 16:49

Tgt Ion: 83 Resp: 1389

Ion Ratio Lower Upper

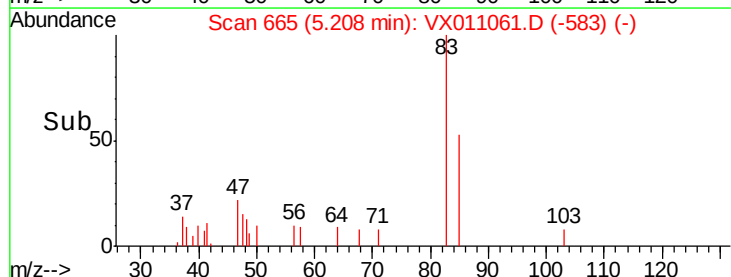
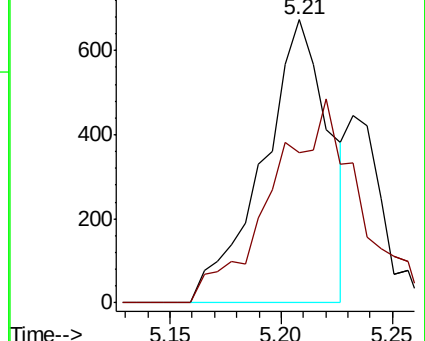
83 100

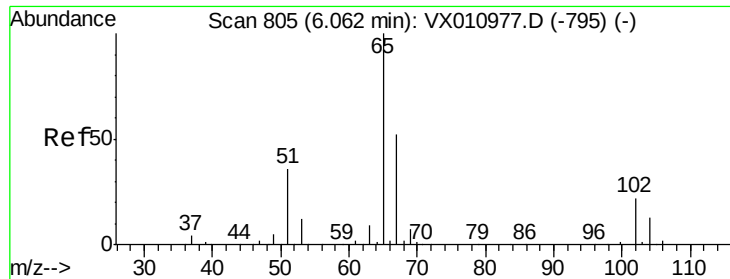
85 53.0 50.9 76.3



Abundance Ion 83.00 (82.70 to 83.70): VX0

Ion 85.00 (84.70 to 85.70): VX0

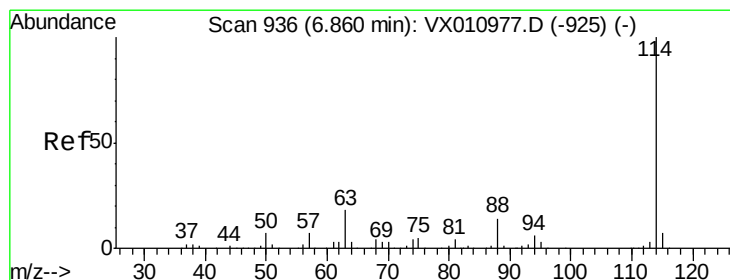
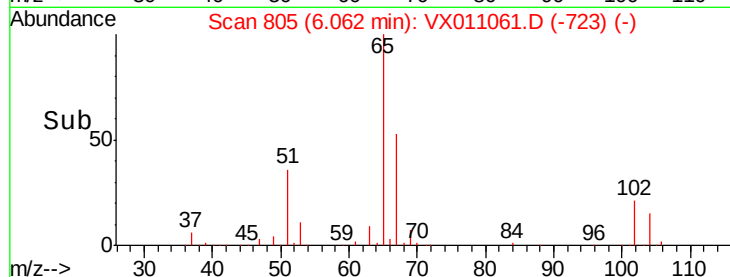
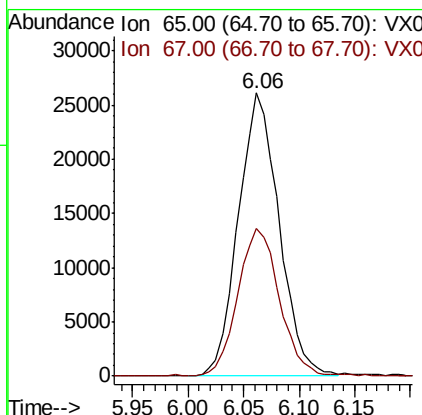
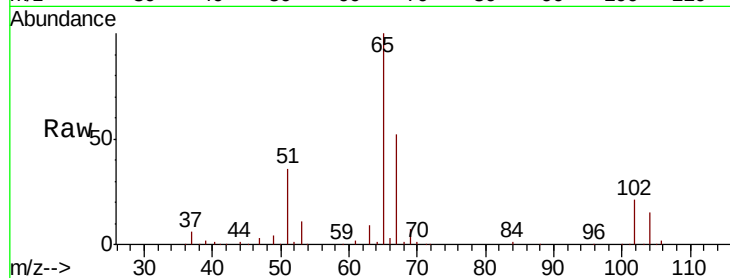




#27
 1,2-Dichloroethane-d4
 Concen: 29.671 ug/l
 RT: 6.06 min Scan# 805
 Delta R.T. 0.00 min
 Lab File: VX011061.D
 Acq: 24 Jul 2019 16:49

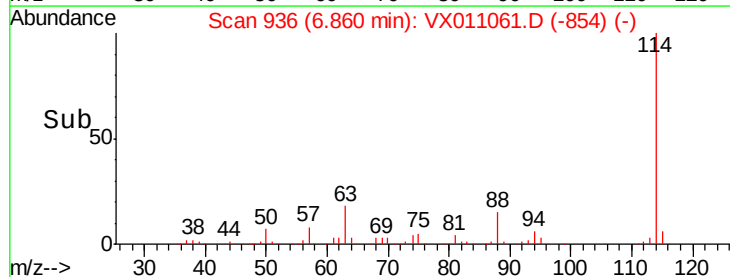
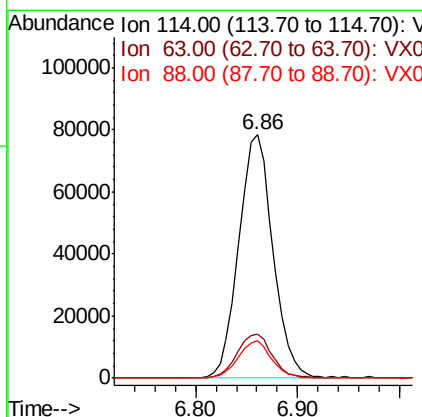
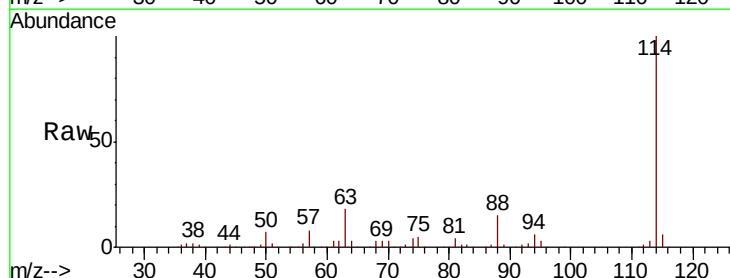
Instrument :
 MSVOA_X
 ClientSampleId :

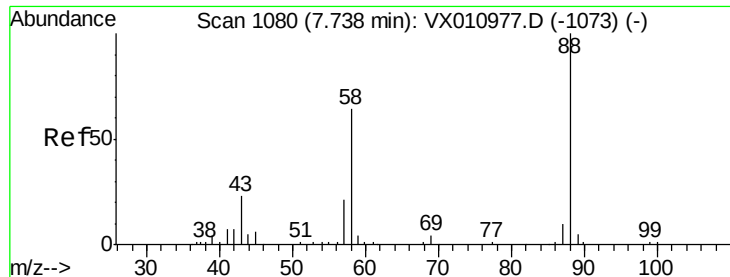
Tot Ion: 65 Resp: 66287
 Ion Ratio Lower Upper
 65 100
 67 53.6 41.7 62.5



#28
 1,4-Difluorobenzene
 Concen: 30.000 ug/l
 RT: 6.86 min Scan# 936
 Delta R.T. 0.00 min
 Lab File: VX011061.D
 Acq: 24 Jul 2019 16:49

Tgt Ion: 114 Resp: 182358
 Ion Ratio Lower Upper
 114 100
 63 18.5 14.6 22.0
 88 15.1 11.8 17.8





#45

1,4-Dioxane

Concen: 0.692 ug/l

RT: 7.79 min Scan# 1088

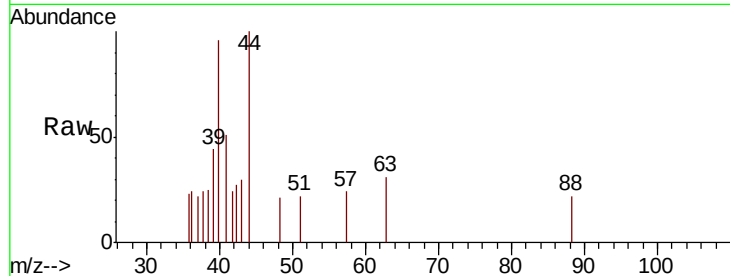
Delta R.T. 0.05 min

Lab File: VX011061.D

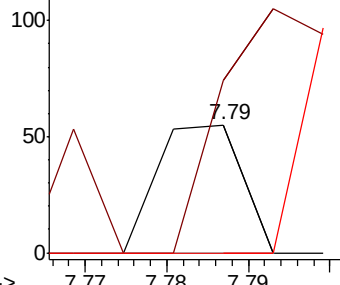
Acq: 24 Jul 2019 16:49

Instrument :
MSVOA_X
ClientSampled :

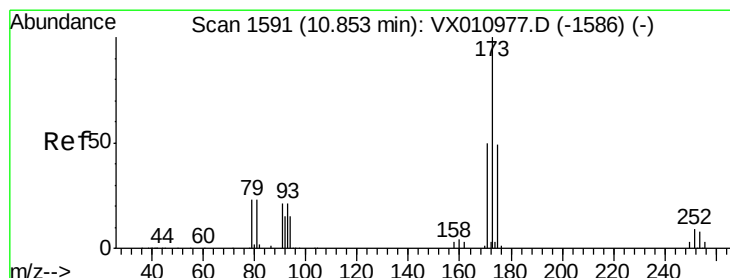
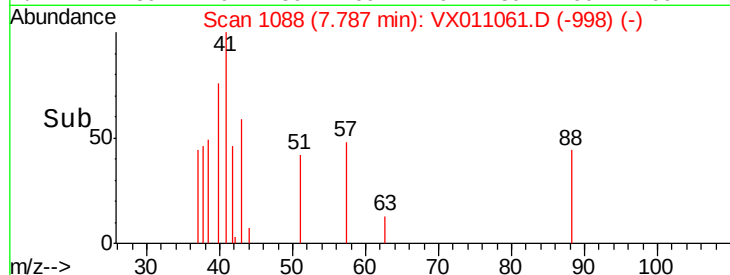
Tot Ion:	88	Resp:	39
Ion	Ratio	Lower	Upper
88	100		
43	307.7	21.6	32.4#
58	0.0	52.2	78.2#



Abundance Ion 88.00 (87.70 to 88.70): VX0
Ion 43.00 (42.70 to 43.70): VX0
Ion 58.00 (57.70 to 58.70): VX0



Time-->



#56

Bromoform

Concen: 0.511 ug/l

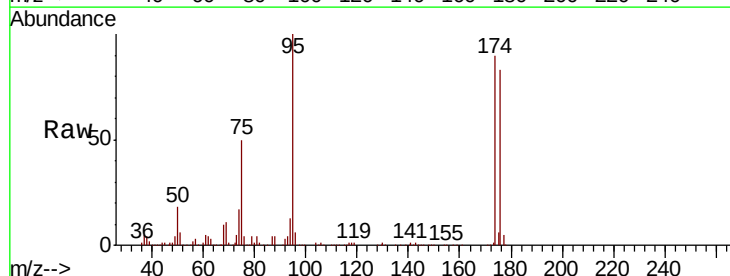
RT: 11.13 min Scan# 1637

Delta R.T. 0.28 min

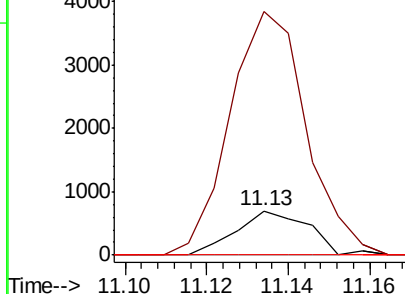
Lab File: VX011061.D

Acq: 24 Jul 2019 16:49

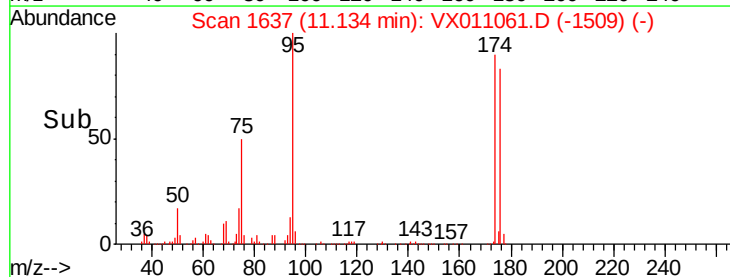
Tgt Ion:	173	Resp:	850
Ion	Ratio	Lower	Upper
173	100		
175	590.2	39.0	58.6#
254	0.0	7.9	11.9#

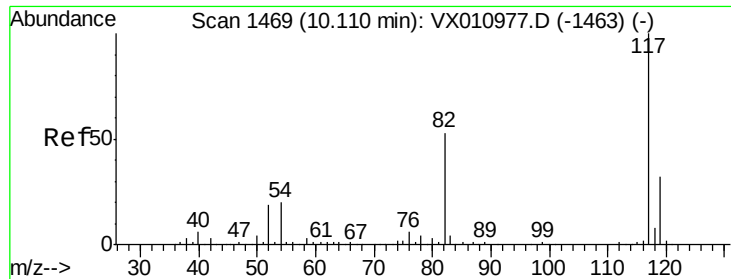


Abundance Ion 173.00 (172.70 to 173.70): V
Ion 175.00 (174.70 to 175.70): V
Ion 254.00 (253.70 to 254.70): V



Time-->

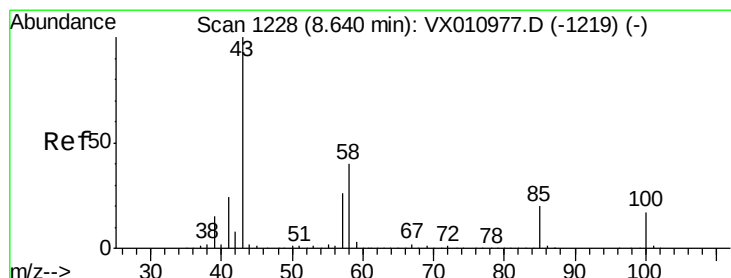
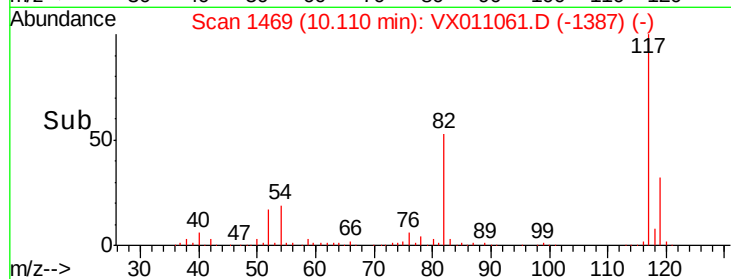
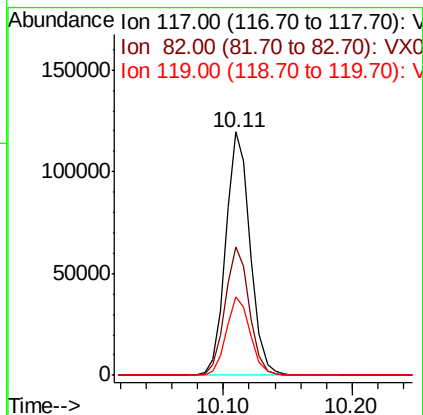
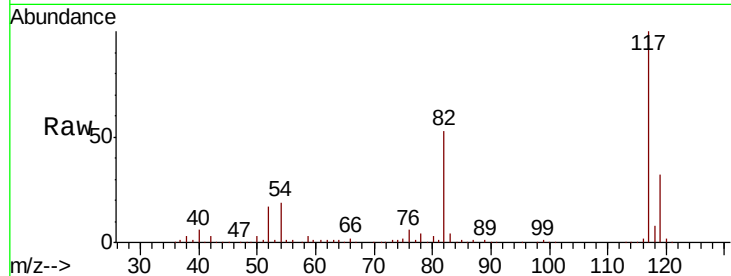




#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. 0.00 min
Lab File: VX011061.D
Acq: 24 Jul 2019 16:49

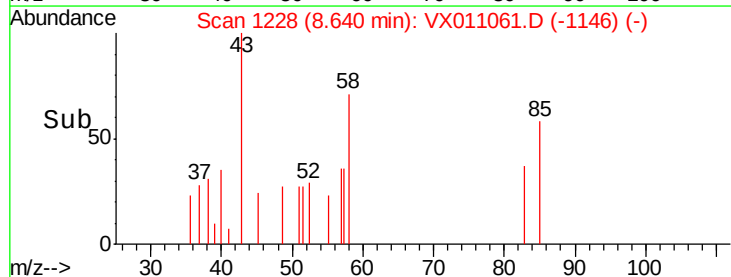
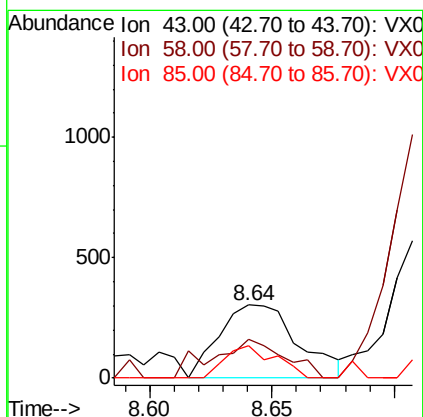
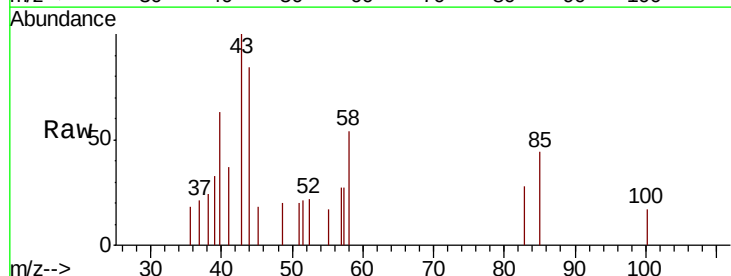
Instrument :
MSVOA_X
ClientSampleId :

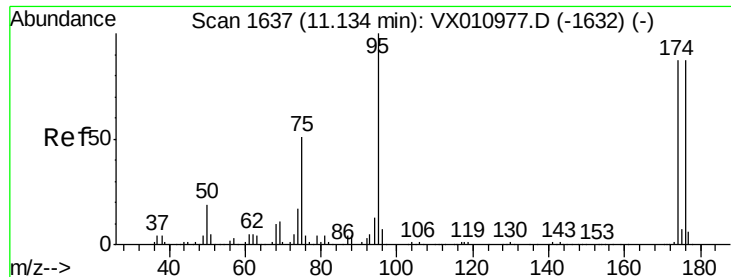
Tot Ion:117 Resp: 159428
Ion Ratio Lower Upper
117 100
82 52.5 41.6 62.4
119 31.9 26.0 39.0



#58
4-Methyl-2-Pentanone
Concen: 0.254 ug/l
RT: 8.64 min Scan# 1228
Delta R.T. 0.00 min
Lab File: VX011061.D
Acq: 24 Jul 2019 16:49

Tgt Ion: 43 Resp: 683
Ion Ratio Lower Upper
43 100
58 39.7 32.6 48.8
85 27.8 15.8 23.6#





#60

4-Bromofluorobenzene

Concen: 27.910 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.00 min

Lab File: VX011061.D

Acq: 24 Jul 2019 16:49

Instrument :

MSVOA_X

ClientSampleId :

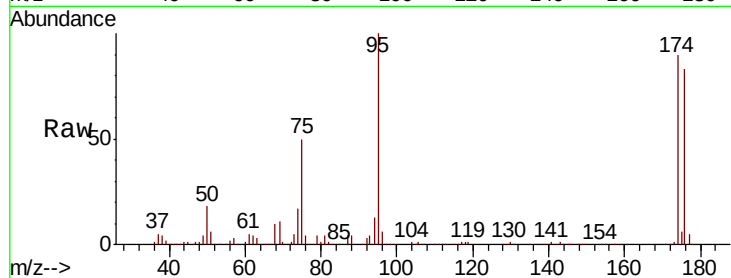
Tot Ion: 95 Resp: 73237

Ion	Ratio	Lower	Upper
95	100		
174	91.7	73.3	109.9
176	86.6	71.2	106.8

95 100

174 91.7 73.3 109.9

176 86.6 71.2 106.8

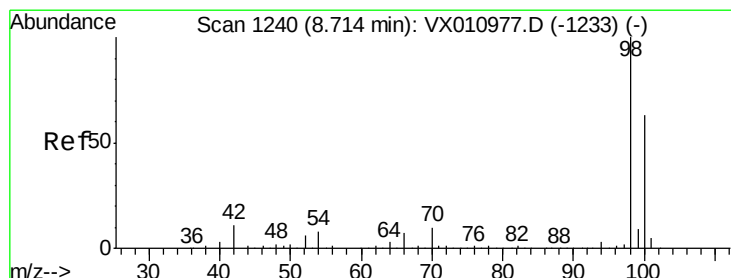
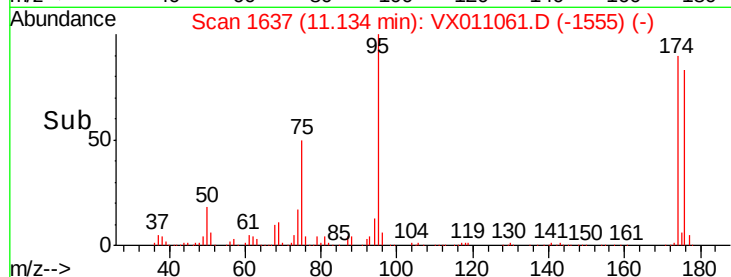
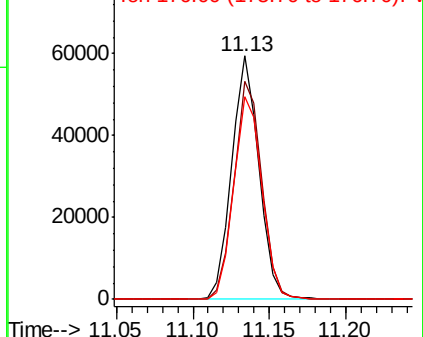


Abundance

Ion 95.00 (94.70 to 95.70): VX0

Ion 174.00 (173.70 to 174.70): V

Ion 176.00 (175.70 to 176.70): V



#63

Toluene-d8

Concen: 30.117 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. 0.00 min

Lab File: VX011061.D

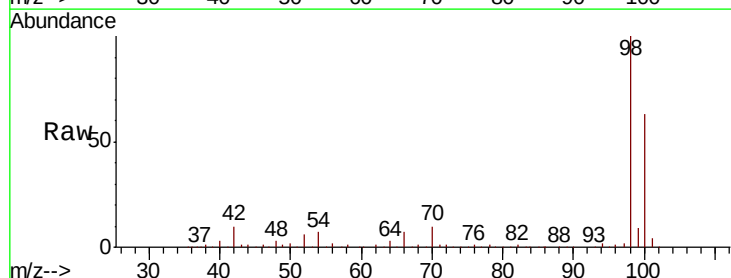
Acq: 24 Jul 2019 16:49

Tgt Ion: 98 Resp: 211042

Ion	Ratio	Lower	Upper
98	100		
100	64.1	51.4	77.0

98 100

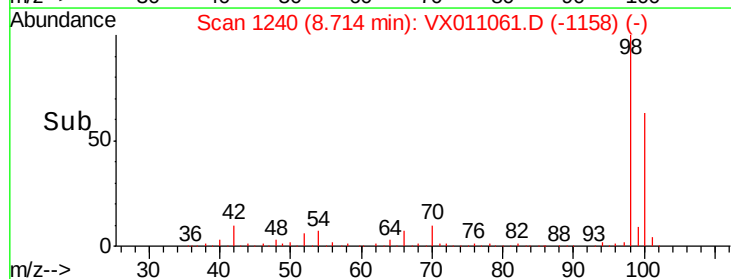
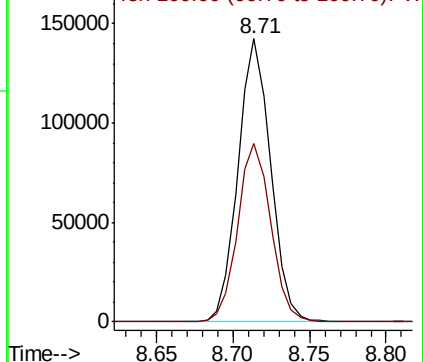
100 64.1 51.4 77.0

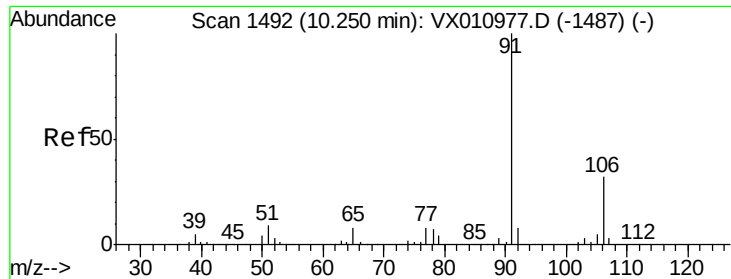


Abundance

Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): V

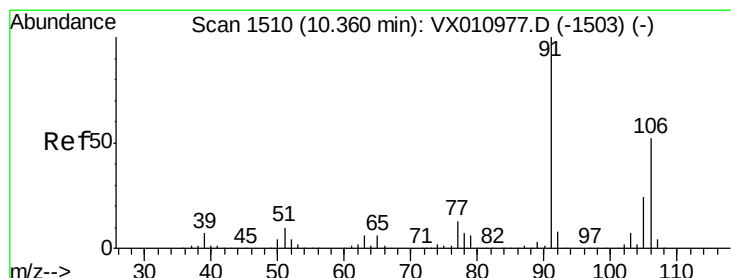
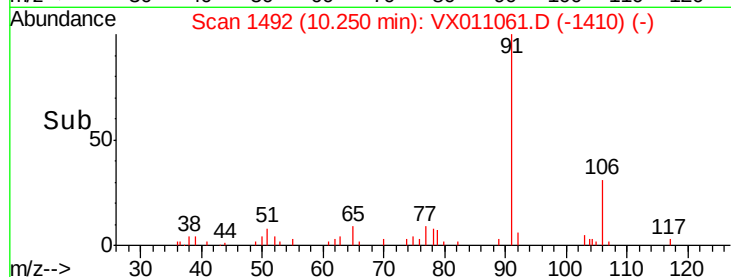
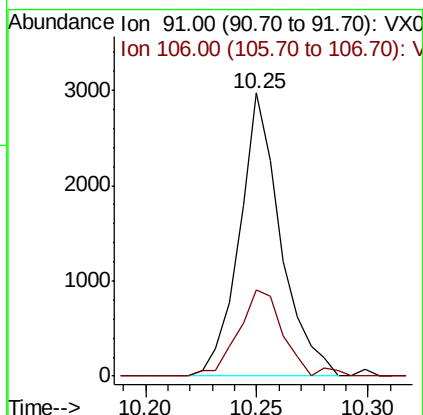
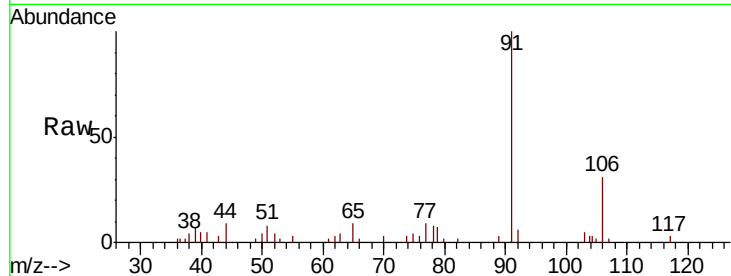




#66
Ethyl Benzene
Concen: 0.402 ug/l
RT: 10.25 min Scan# 1492
Delta R.T. 0.00 min
Lab File: VX011061.D
Acq: 24 Jul 2019 16:49

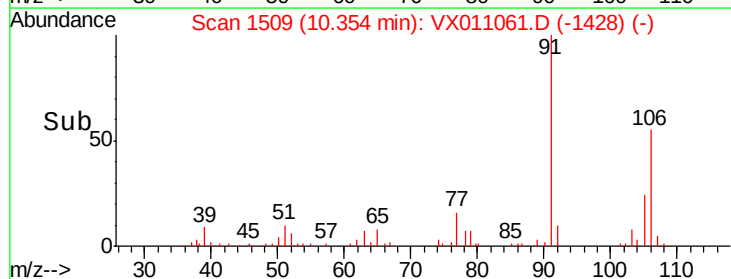
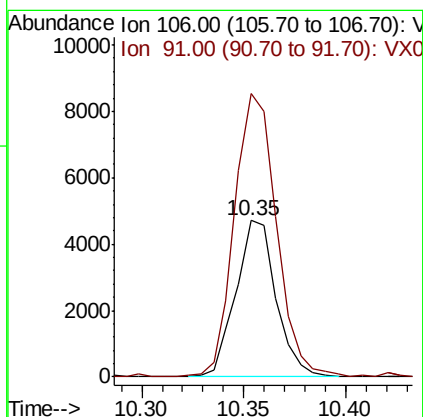
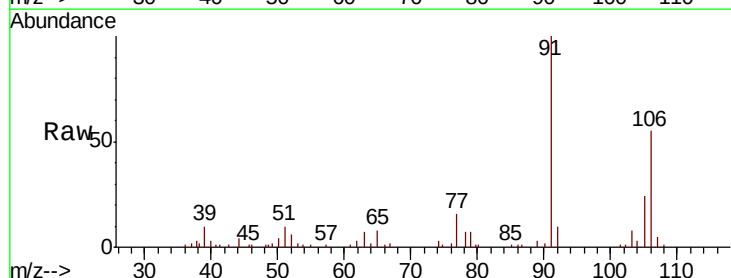
Instrument :
MSVOA_X
ClientSampleId :

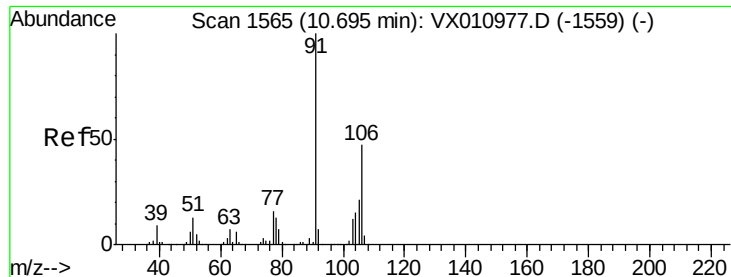
Tot Ion: 91 Resp: 3833
Ion Ratio Lower Upper
91 100
106 30.6 25.8 38.8



#67
m/p-Xylenes
Concen: 1.781 ug/l
RT: 10.35 min Scan# 1509
Delta R.T. -0.01 min
Lab File: VX011061.D
Acq: 24 Jul 2019 16:49

Tgt Ion: 106 Resp: 6496
Ion Ratio Lower Upper
106 100
91 188.5 156.6 235.0

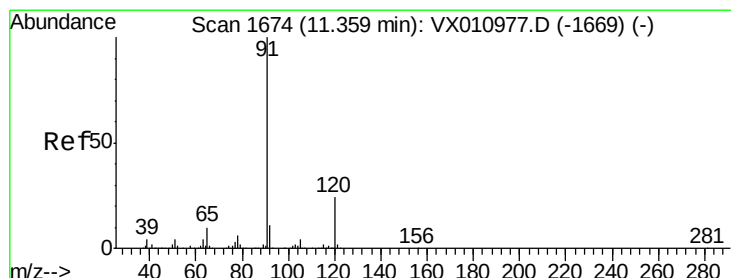
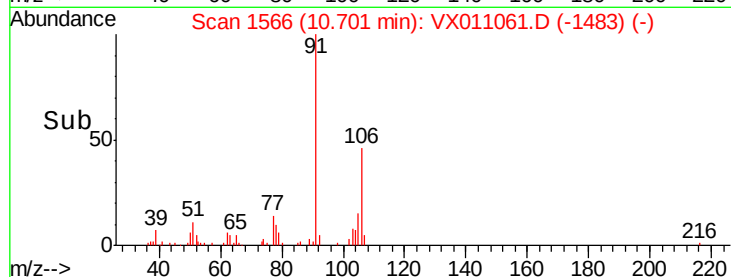
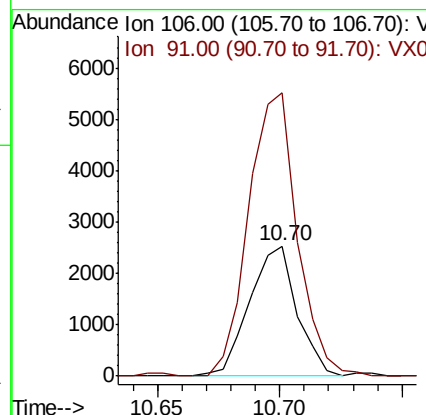
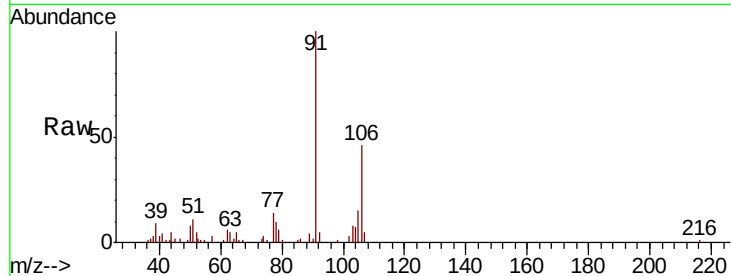




#68
o-Xylene
Concen: 0.956 ug/l
RT: 10.70 min Scan# 1566
Delta R.T. 0.01 min
Lab File: VX011061.D
Acq: 24 Jul 2019 16:49

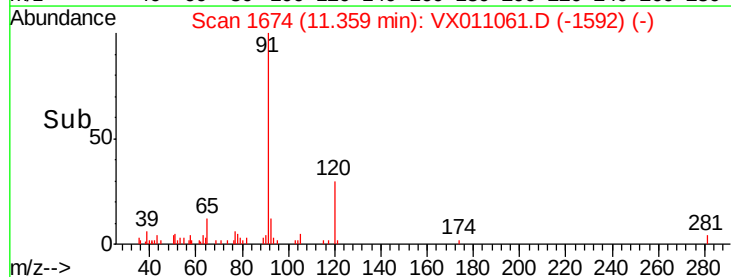
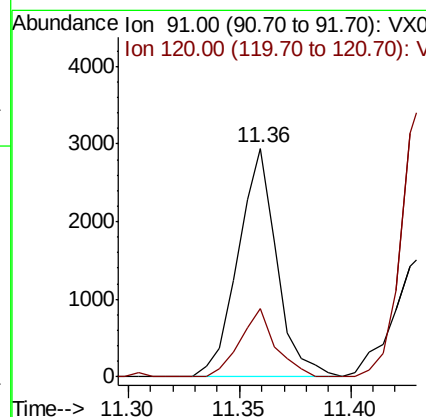
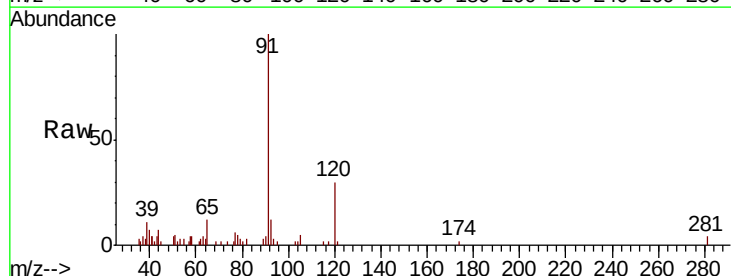
Instrument :
MSVOA_X
ClientSampled :

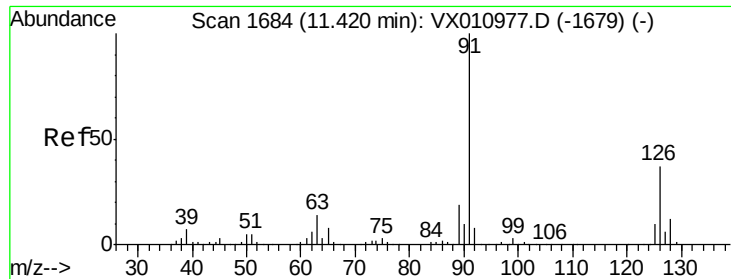
Tot Ion: 106 Resp: 3417
Ion Ratio Lower Upper
106 100
91 222.7 104.0 312.0



#74
n-propylbenzene
Concen: 0.333 ug/l
RT: 11.36 min Scan# 1674
Delta R.T. 0.00 min
Lab File: VX011061.D
Acq: 24 Jul 2019 16:49

Tgt Ion: 91 Resp: 3565
Ion Ratio Lower Upper
91 100
120 27.5 0.0 47.6





#75

2-Chlorotoluene

Concen: 0.440 ug/l

RT: 11.43 min Scan# 1686

Delta R.T. 0.01 min

Lab File: VX011061.D

Acq: 24 Jul 2019 16:49

Instrument :

MSVOA_X

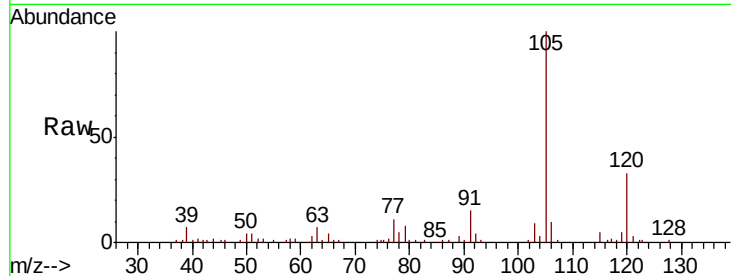
ClientSampleId :

Tot Ion: 91 Resp: 2808

Ion Ratio Lower Upper

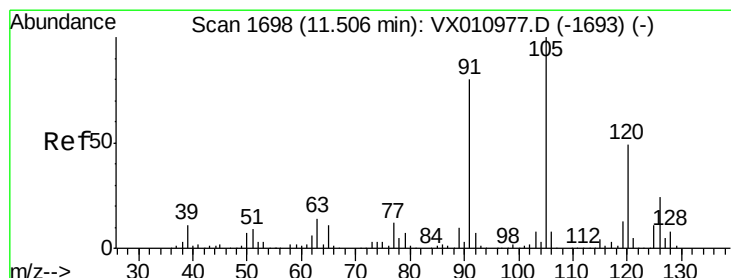
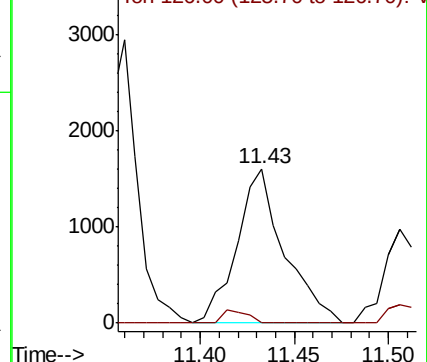
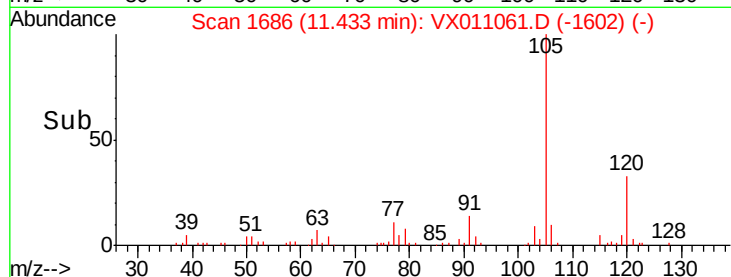
91 100

126 4.2 0.0 72.4



Abundance Ion 91.00 (90.70 to 91.70): VX0

Ion 126.00 (125.70 to 126.70): V



#76

1,3,5-Trimethylbenzene

Concen: 0.915 ug/l

RT: 11.51 min Scan# 1698

Delta R.T. 0.00 min

Lab File: VX011061.D

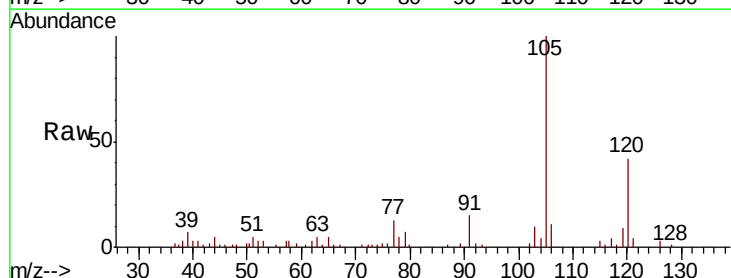
Acq: 24 Jul 2019 16:49

Tgt Ion:105 Resp: 7372

Ion Ratio Lower Upper

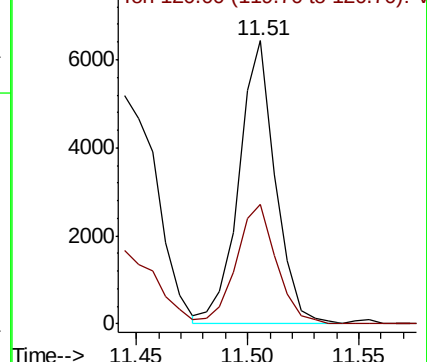
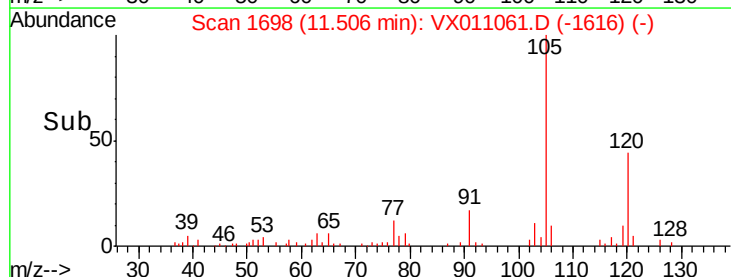
105 100

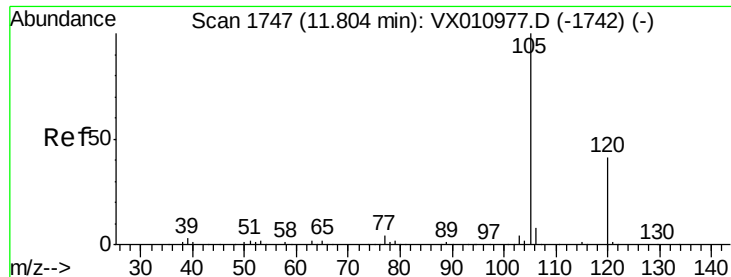
120 46.1 0.0 96.6



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

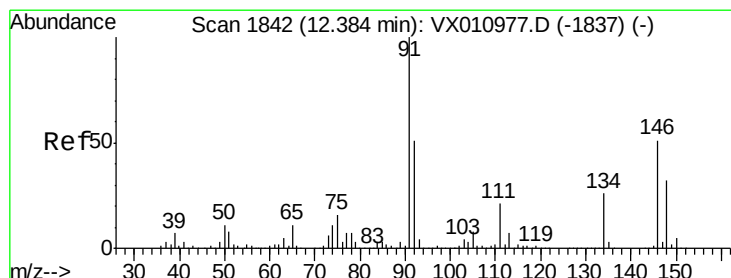
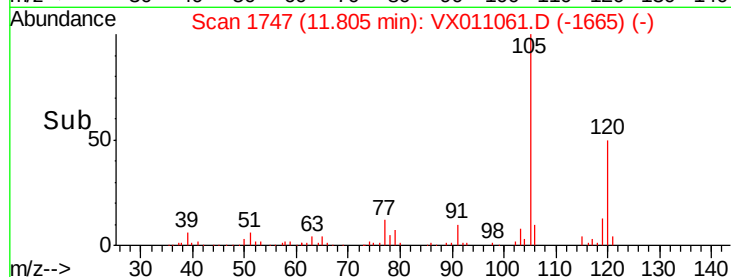
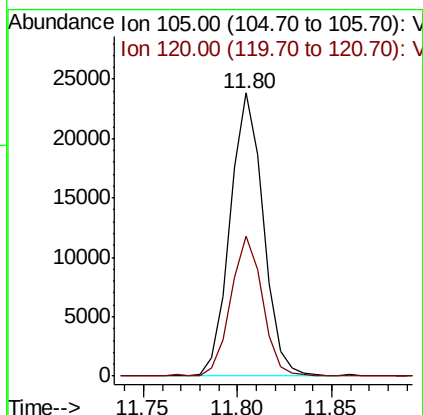
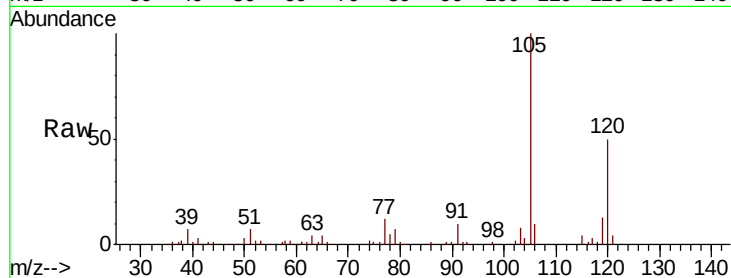




#80
1,2,4-Trimethylbenzene
Concen: 3.596 ug/l
RT: 11.80 min Scan# 1747
Delta R.T. 0.00 min
Lab File: VX011061.D
Acq: 24 Jul 2019 16:49

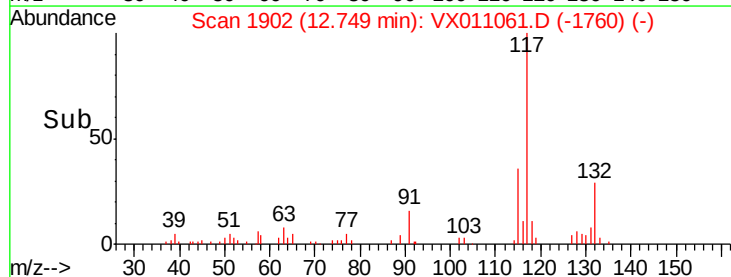
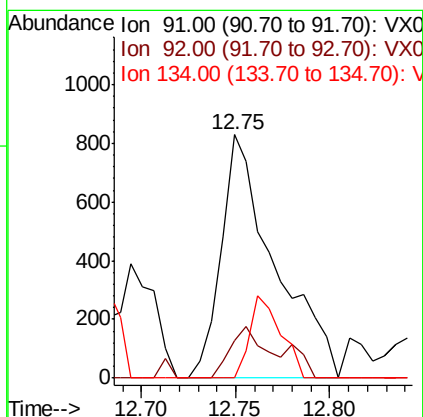
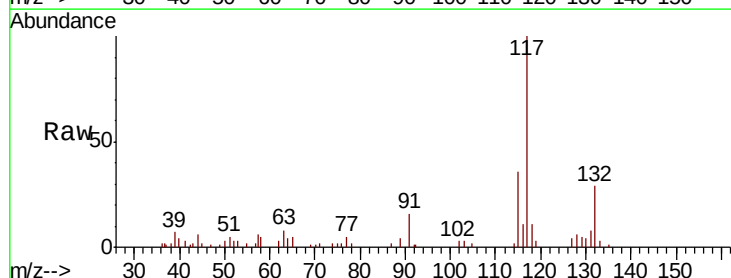
Instrument :
MSVOA_X
ClientSampled :

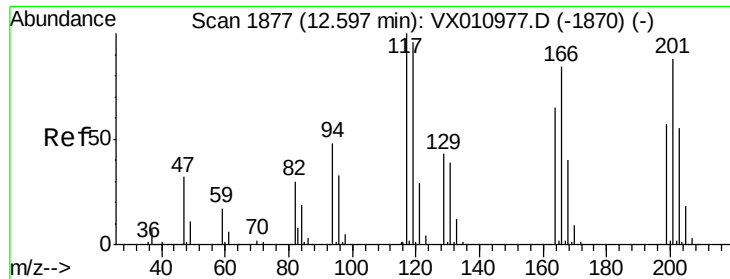
Tot Ion:105 Resp: 29175
Ion Ratio Lower Upper
105 100
120 47.1 0.0 91.6



#85
n-Butylbenzene
Concen: 0.224 ug/l
RT: 12.75 min Scan# 1902
Delta R.T. 0.37 min
Lab File: VX011061.D
Acq: 24 Jul 2019 16:49

Tgt Ion: 91 Resp: 1633
Ion Ratio Lower Upper
91 100
92 14.1 0.0 103.6
134 19.5 0.0 54.2

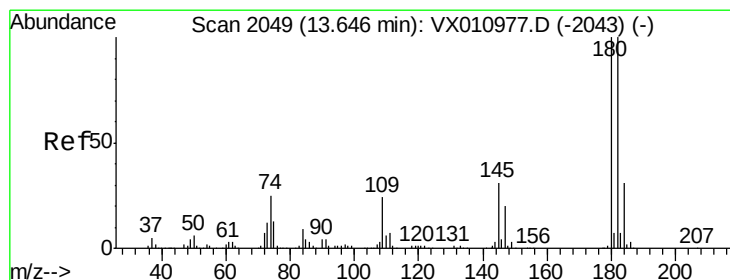
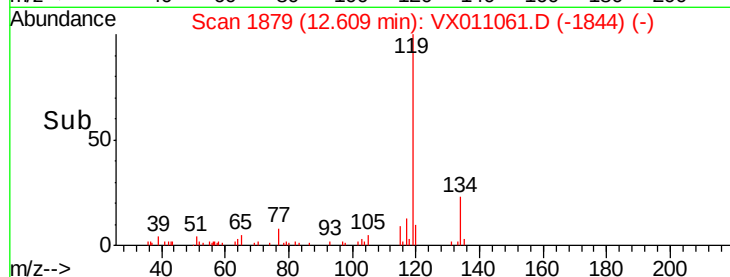
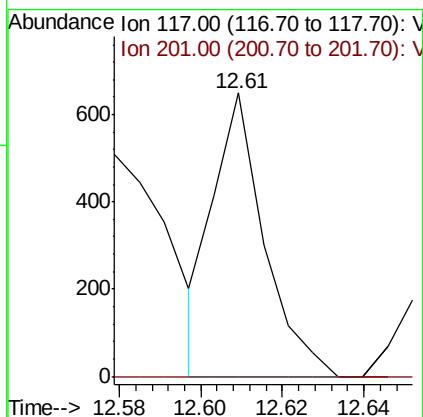
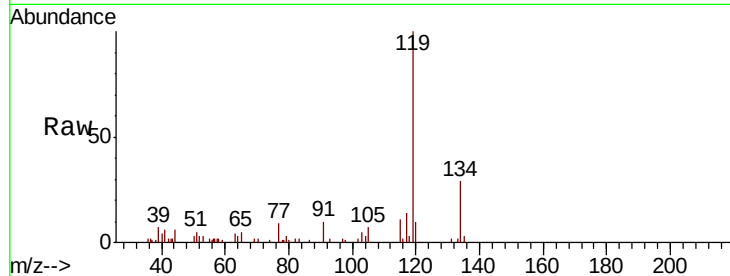




#86
Hexachloroethane
Concen: 0.416 ug/l
RT: 12.61 min Scan# 1879
Delta R.T. 0.01 min
Lab File: VX011061.D
Acq: 24 Jul 2019 16:49

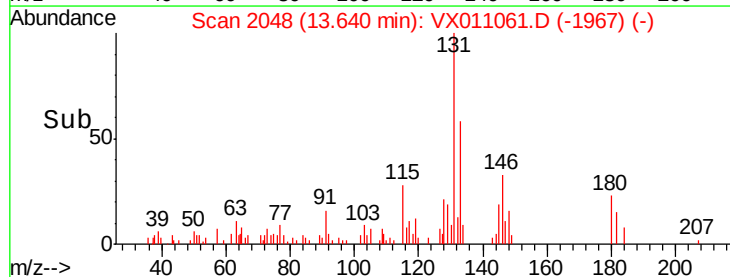
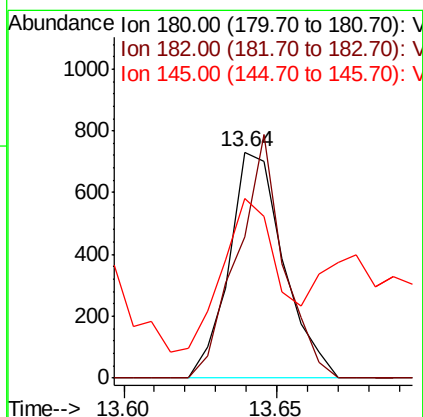
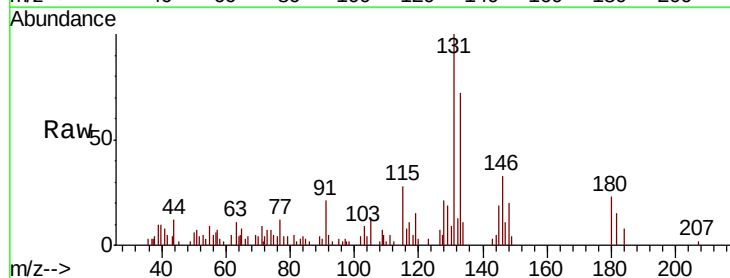
Instrument :
MSVOA_X
ClientSampleId :

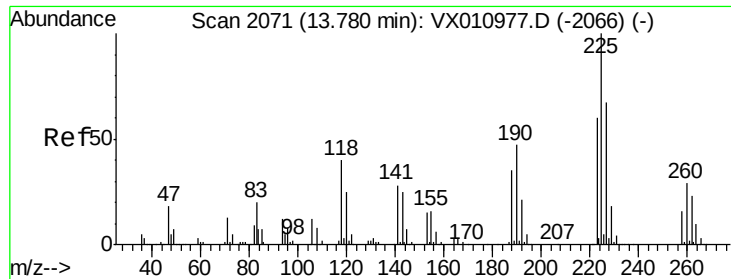
Tot Ion:117 Resp: 561
Ion Ratio Lower Upper
117 100
201 0.0 42.1 126.3#



#89
1,2,4-Trichlorobenzene
Concen: 0.294 ug/l
RT: 13.64 min Scan# 2048
Delta R.T. -0.01 min
Lab File: VX011061.D
Acq: 24 Jul 2019 16:49

Tgt Ion:180 Resp: 900
Ion Ratio Lower Upper
180 100
182 91.1 77.6 116.4
145 70.4 23.8 35.6#

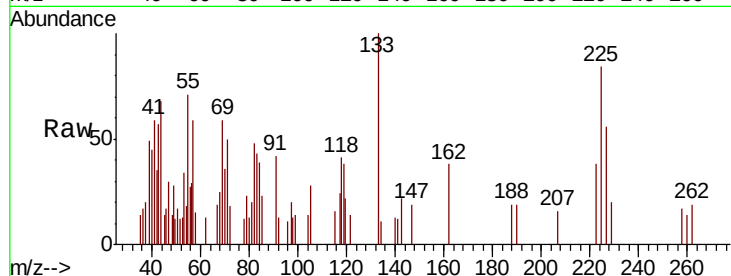




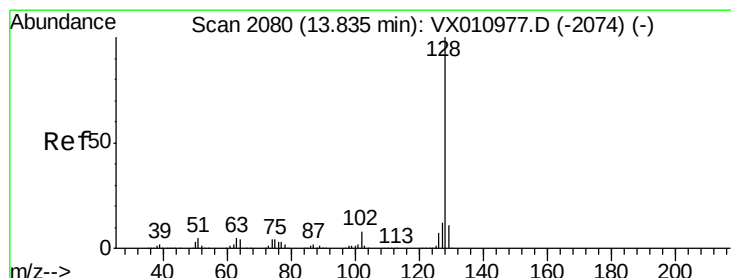
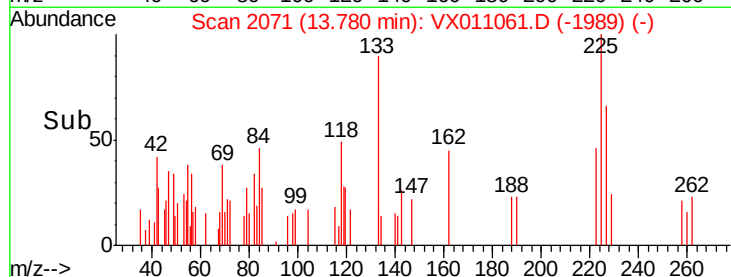
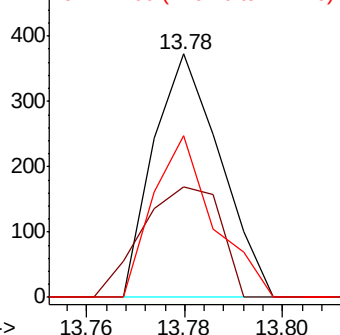
#90
Hexachlorobutadiene
Concen: 0.238 ug/l
RT: 13.78 min Scan# 2071
Delta R.T. 0.00 min
Lab File: VX011061.D
Acq: 24 Jul 2019 16:49

Instrument :
MSVOA_X
ClientSampled :

Tot Ion:225 Resp: 353
Ion Ratio Lower Upper
225 100
223 53.8 0.0 121.4
227 60.6 0.0 126.6

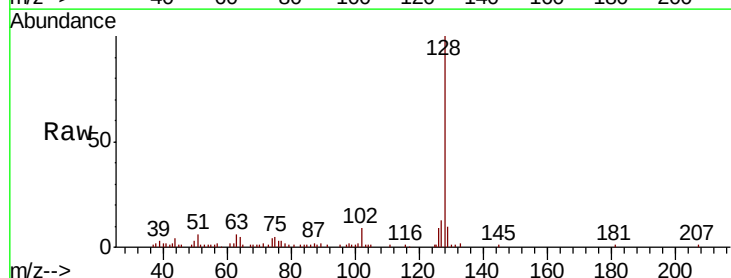


Abundance Ion 225.00 (224.70 to 225.70): V
Ion 223.00 (222.70 to 223.70): V
Ion 227.00 (226.70 to 227.70): V

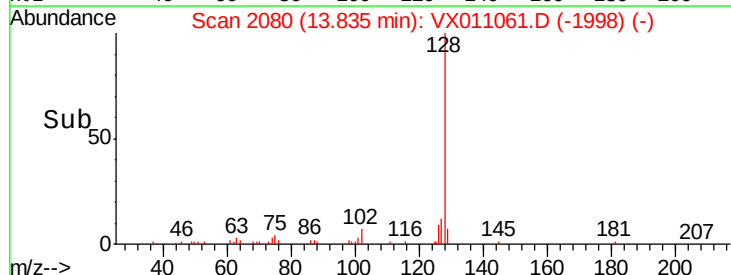
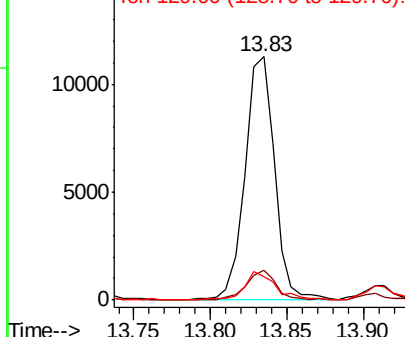


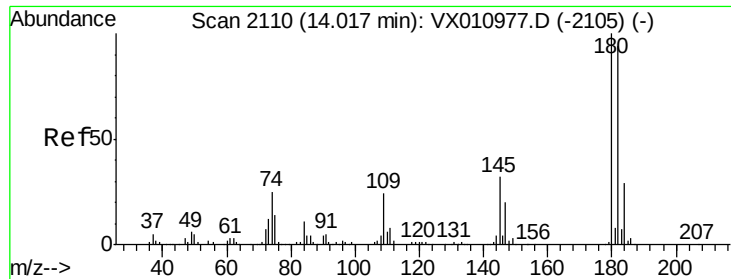
#91
Naphthalene
Concen: 1.630 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX011061.D
Acq: 24 Jul 2019 16:49

Tgt Ion:128 Resp: 15224
Ion Ratio Lower Upper
128 100
127 12.1 10.2 15.2
129 12.2 8.5 12.7



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





#92
 1,2,3-Trichlorobenzene
 Concen: 0.314 ug/l
 RT: 14.02 min Scan# 2110
 Delta R.T. 0.00 min
 Lab File: VX011061.D
 Acq: 24 Jul 2019 16:49

Instrument :
 MSVOA_X
 ClientSampleId :

Tot Ion:180 Resp: 963
 Ion Ratio Lower Upper
 180 100
 182 107.5 0.0 190.2
 145 124.5 0.0 63.8#

