

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_X\DATA\VX122319\  
 Data File : VX014204.D  
 Acq On : 23 Dec 2019 15:59  
 Operator : JC/SP  
 Sample : K6393-03  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 15 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 MH-20A

Quant Time: Dec 24 01:31:15 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X121319W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Dec 17 03:01:07 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 564408   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.85  | 114  | 865025   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 770957   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 347627   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.06  | 65   | 309163   | 48.33 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.66% |          |
| 35) Dibromofluoromethane    | 5.49  | 113  | 258391   | 49.14 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.28% |          |
| 50) Toluene-d8              | 8.71  | 98   | 1015784  | 49.62 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.24% |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 340984   | 45.56 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 91.12% |          |

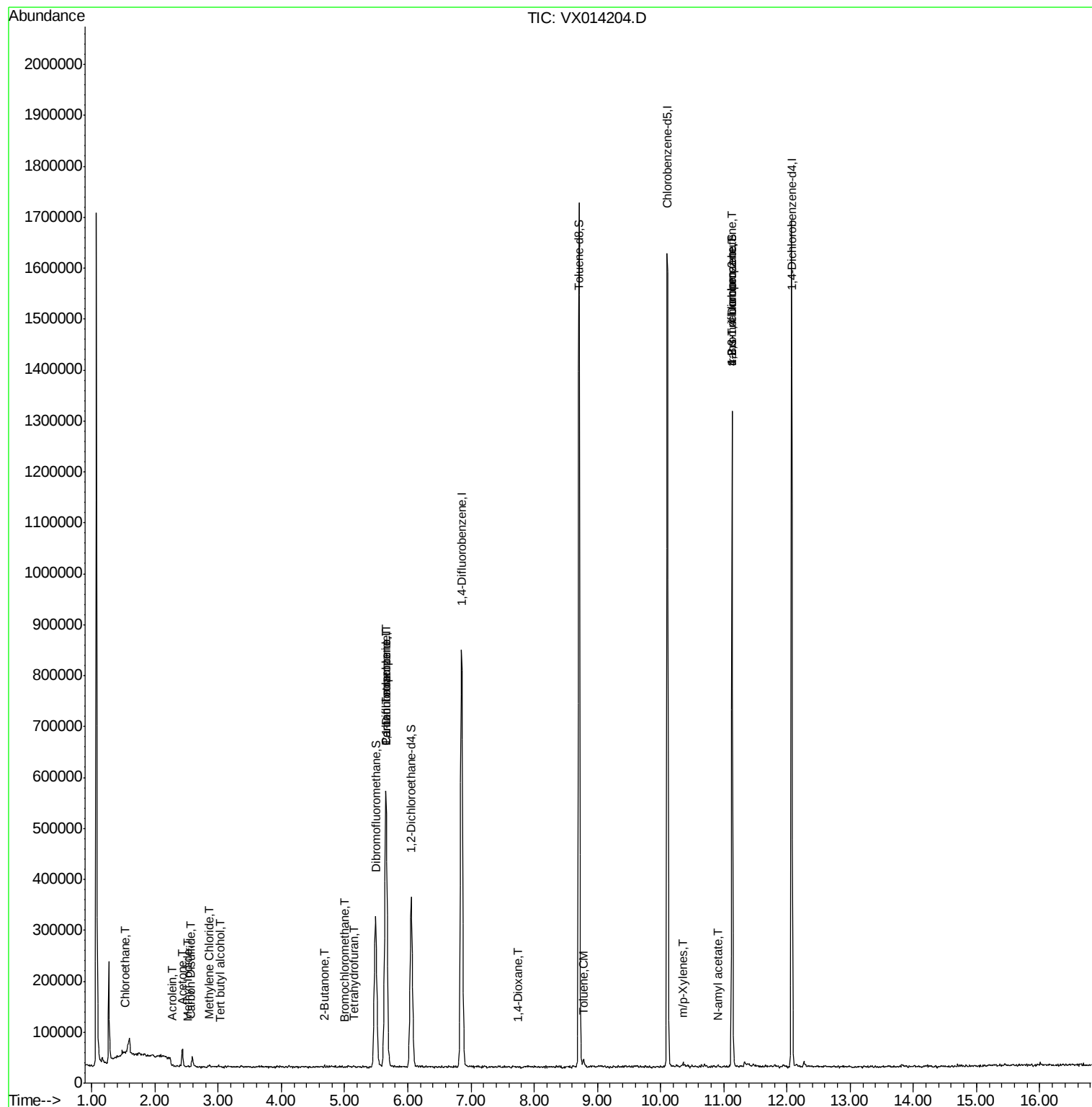
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 6) Chloroethane                | 1.53  | 64   | 11507    | 2.608  | ug/l # | 57     |
| 10) Methyl Iodide              | 2.52  | 142  | 695      | 2.714  | ug/l # | 74     |
| 11) Tert butyl alcohol         | 3.03  | 59   | 1290     | 0.933  | ug/l   | 99     |
| 13) Acrolein                   | 2.27  | 56   | 673      | 0.851  | ug/l # | 52     |
| 16) Acetone                    | 2.43  | 43   | 37324    | 8.987  | ug/l   | 97     |
| 17) Carbon Disulfide           | 2.56  | 76   | 1577     | 0.853  | ug/l # | 40     |
| 20) Methylene Chloride         | 2.85  | 84   | 2827     | 0.432  | ug/l # | 88     |
| 25) 2-Butanone                 | 4.68  | 43   | 1678     | 0.328  | ug/l # | 49     |
| 28) Bromochloromethane         | 5.00  | 49   | 544      | 0.584  | ug/l # | 72     |
| 29) Tetrahydrofuran            | 5.14  | 42   | 648      | 0.226  | ug/l # | 49     |
| 36) 1,1-Dichloropropene        | 5.65  | 75   | 36602    | 4.612  | ug/l # | 52     |
| 38) Carbon Tetrachloride       | 5.65  | 117  | 48914    | 6.765  | ug/l # | 17     |
| 49) 1,4-Dioxane                | 7.75  | 88   | 454      | 3.141  | ug/l # | 85     |
| 52) Toluene                    | 8.78  | 92   | 5588     | 0.362  | ug/l   | 93     |
| 68) m/p-Xylenes                | 10.36 | 106  | 3088     | 0.285  | ug/l   | 90     |
| 74) N-amyl acetate             | 10.91 | 43   | 3041     | 0.265  | ug/l # | 89     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 167202   | 22.155 | ug/l # | 39     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 167202   | 62.533 | ug/l # | 11     |

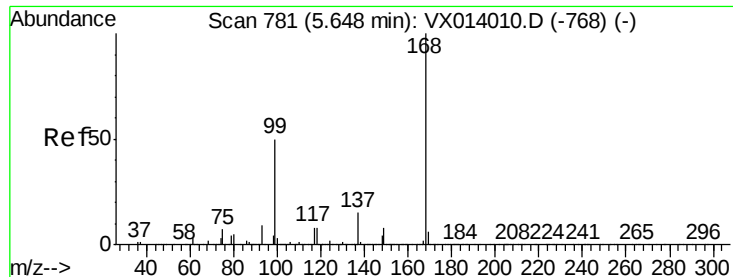
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_X\DATA\VX122319\  
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Instrument :  
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MH-20A

Quant Time: Dec 24 01:31:15 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X121319W.M  
Quant Title : SW846 8260  
QLast Update : Tue Dec 17 03:01:07 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.65 min Scan# 782

Delta R.T. 0.01 min

Lab File: VX014204.D

Acq: 23 Dec 2019 15:59

Instrument :

MSVOA\_X

ClientSampleId :

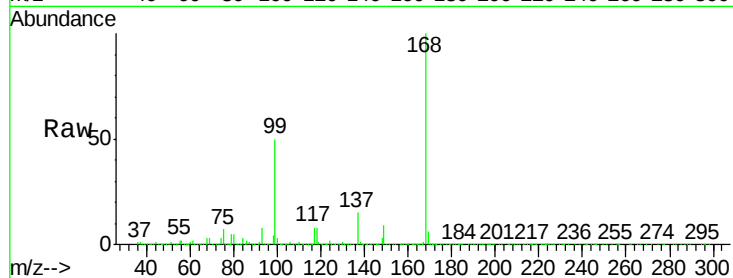
MH-20A

Tgt Ion:168 Resp: 564408

Ion Ratio Lower Upper

168 100

99 49.6 40.3 60.5



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.65

200000

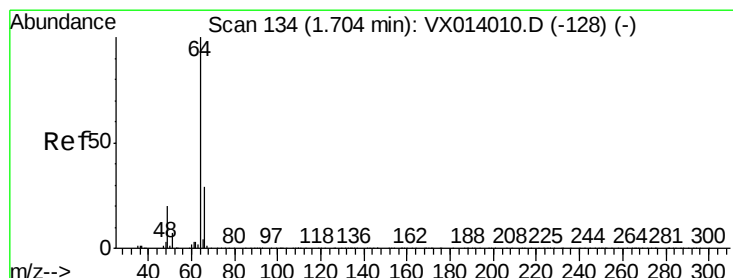
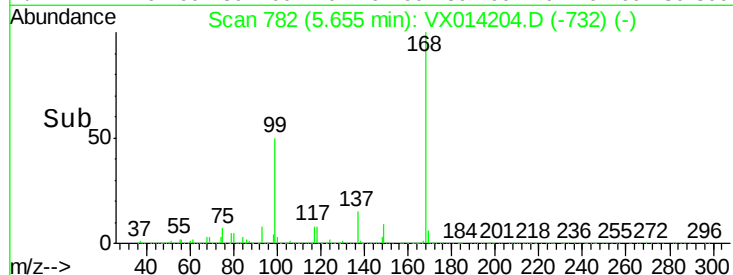
150000

100000

50000

0

Time-->



#6

Chloroethane

Concen: 2.608 ug/l

RT: 1.53 min Scan# 105

Delta R.T. -0.18 min

Lab File: VX014204.D

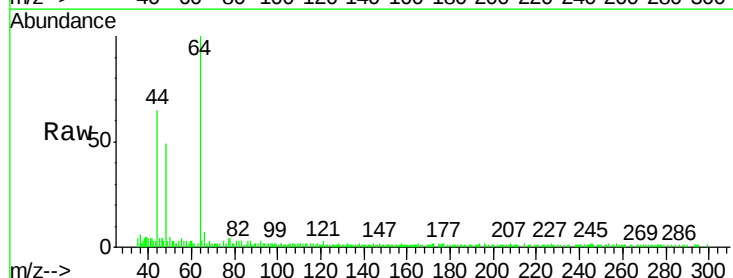
Acq: 23 Dec 2019 15:59

Tgt Ion: 64 Resp: 11507

Ion Ratio Lower Upper

64 100

66 6.3 23.4 35.2#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0

1.53

10000

8000

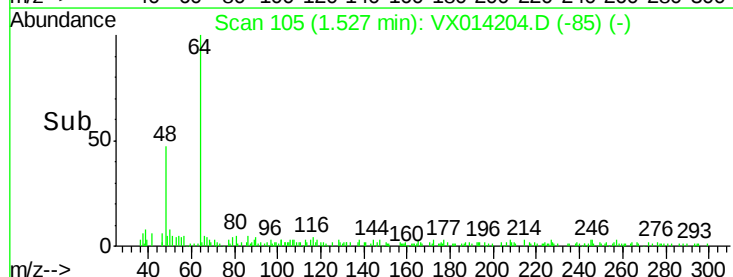
6000

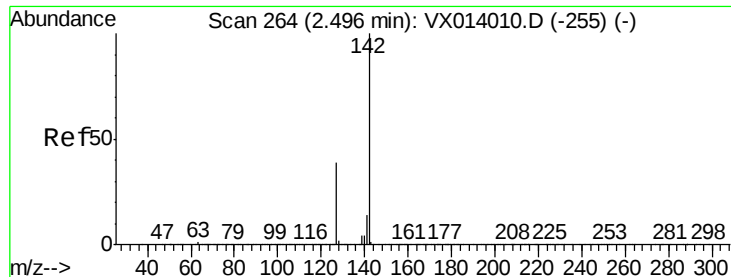
4000

2000

0

Time-->





#10

Methyl Iodide

Concen: 2.714 ug/l

RT: 2.52 min Scan# 267

Delta R.T. 0.02 min

Lab File: VX014204.D

Acq: 23 Dec 2019 15:59

Instrument :

MSVOA\_X

ClientSampleId :

MH-20A

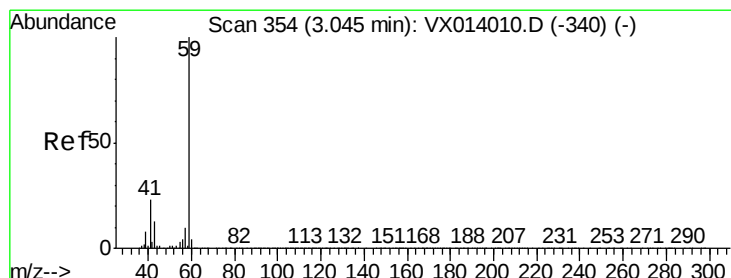
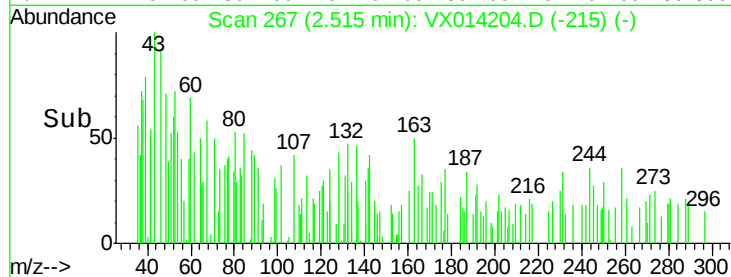
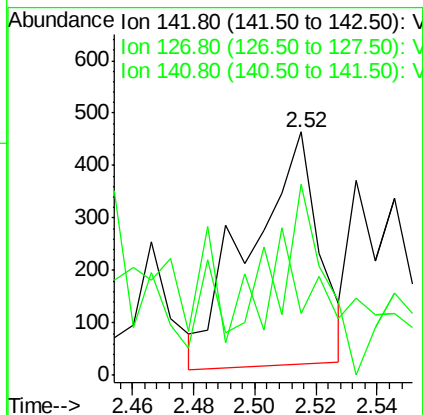
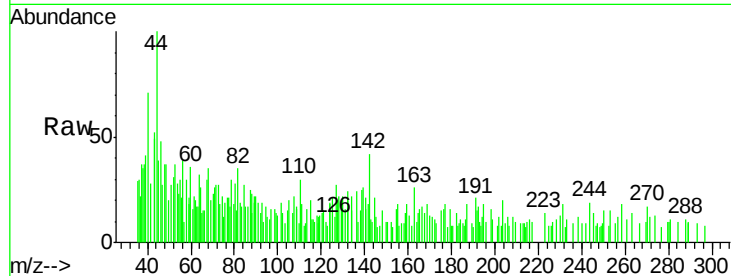
Tgt Ion: 142 Resp: 695

Ion Ratio Lower Upper

142 100

127 56.5 31.6 47.4#

141 23.0 11.6 17.4#



#11

Tert butyl alcohol

Concen: 0.933 ug/l

RT: 3.03 min Scan# 352

Delta R.T. -0.01 min

Lab File: VX014204.D

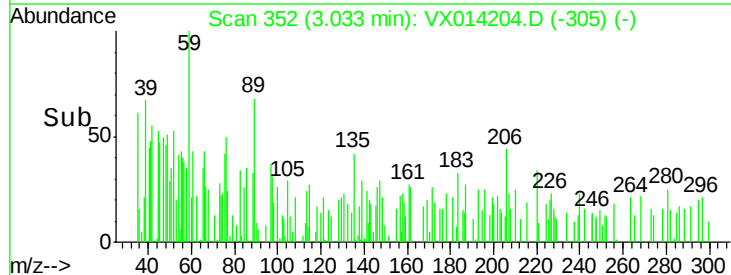
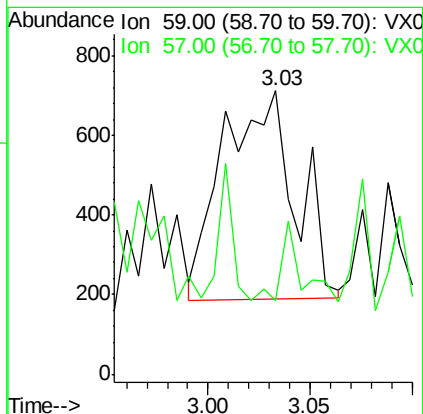
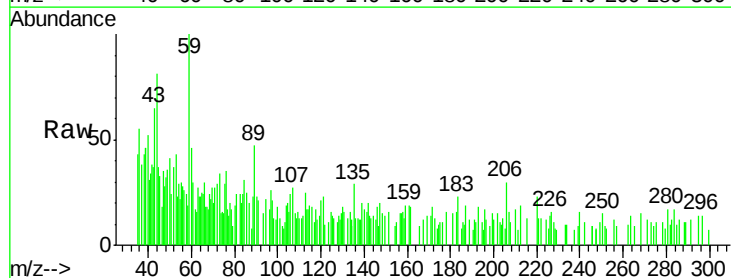
Acq: 23 Dec 2019 15:59

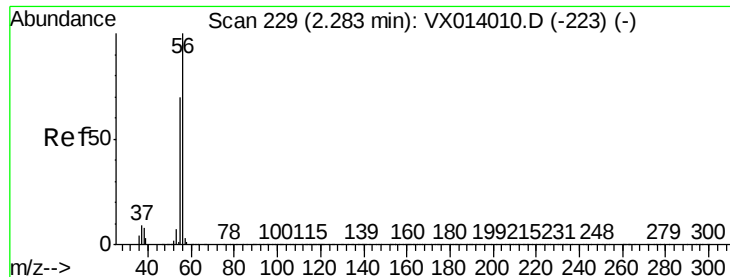
Tgt Ion: 59 Resp: 1290

Ion Ratio Lower Upper

59 100

57 10.8 8.4 12.6





#13

Acrolein

Concen: 0.851 ug/l

RT: 2.27 min Scan# 226

Delta R.T. -0.02 min

Lab File: VX014204.D

Acq: 23 Dec 2019 15:59

Instrument :

MSVOA\_X

ClientSampled :

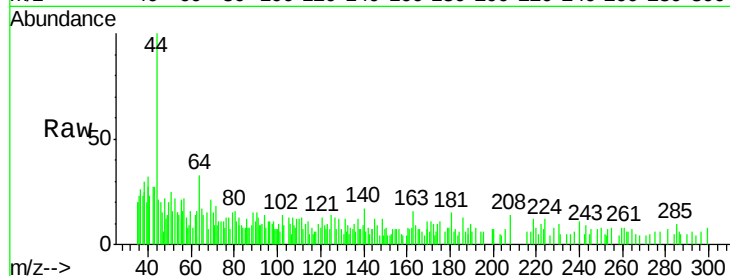
MH-20A

Tgt Ion: 56 Resp: 673

Ion Ratio Lower Upper

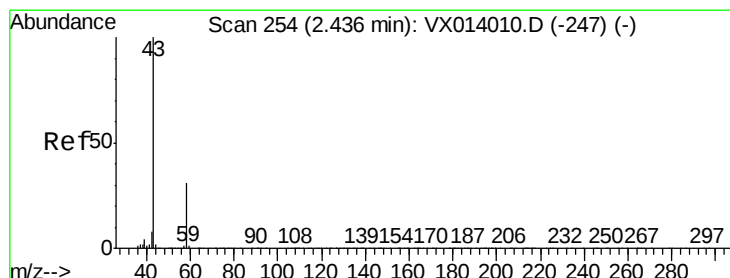
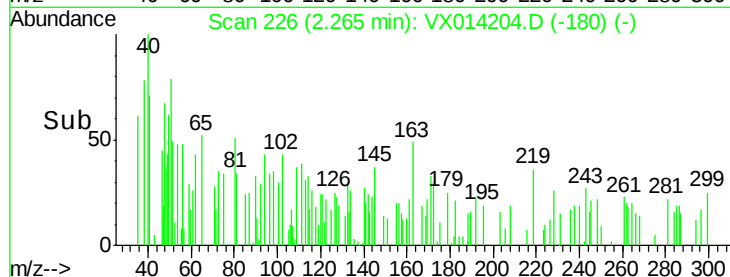
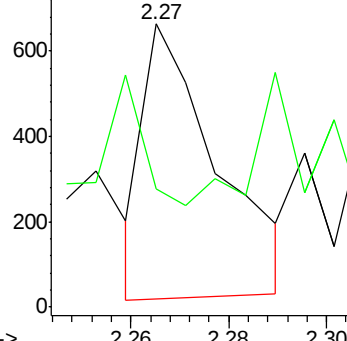
56 100

55 31.5 56.9 85.3#



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 55.00 (54.70 to 55.70): VX0



#16

Acetone

Concen: 8.987 ug/l

RT: 2.43 min Scan# 253

Delta R.T. -0.01 min

Lab File: VX014204.D

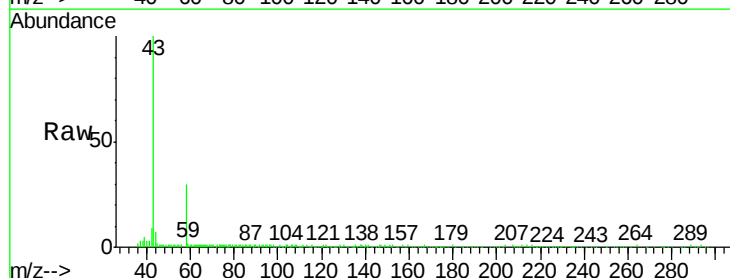
Acq: 23 Dec 2019 15:59

Tgt Ion: 43 Resp: 37324

Ion Ratio Lower Upper

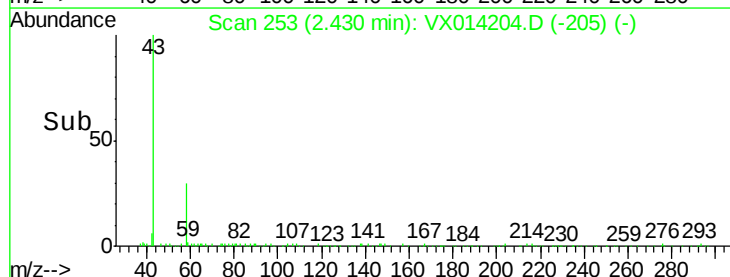
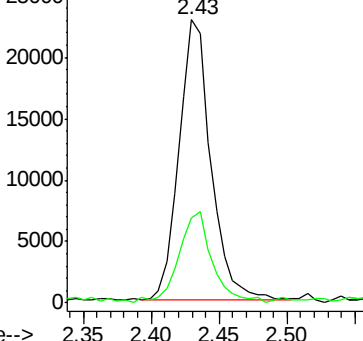
43 100

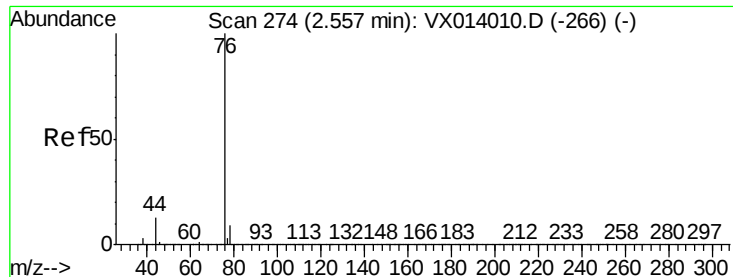
58 29.3 24.9 37.3



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0





#17

Carbon Disulfide

Concen: 0.853 ug/l

RT: 2.56 min Scan# 275

Delta R.T. 0.01 min

Lab File: VX014204.D

Acq: 23 Dec 2019 15:59

Instrument :

MSVOA\_X

ClientSampleId :

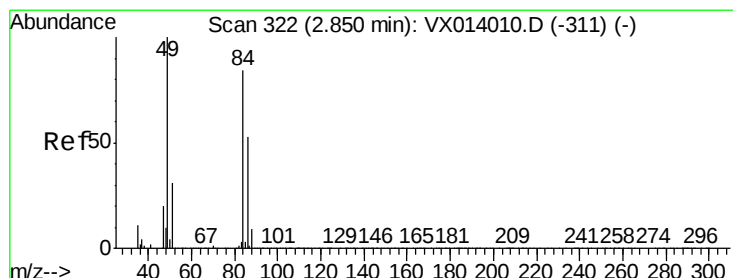
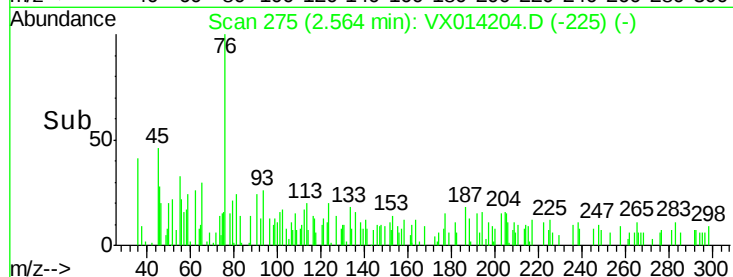
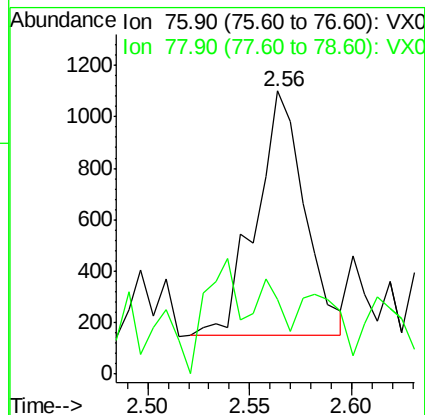
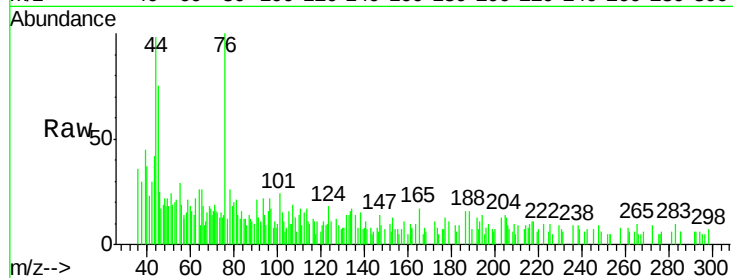
MH-20A

Tgt Ion: 76 Resp: 1577

Ion Ratio Lower Upper

76 100

78 30.5 7.2 10.8#



#20

Methylene Chloride

Concen: 0.432 ug/l

RT: 2.85 min Scan# 322

Delta R.T. 0.00 min

Lab File: VX014204.D

Acq: 23 Dec 2019 15:59

Tgt Ion: 84 Resp: 2827

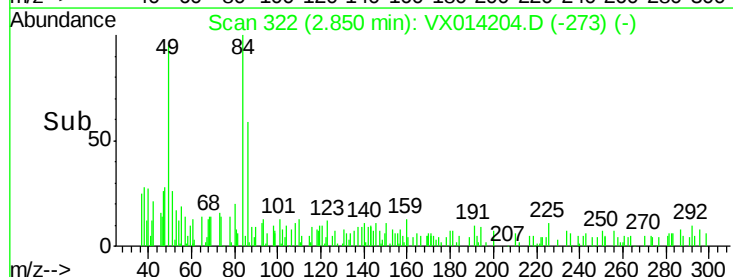
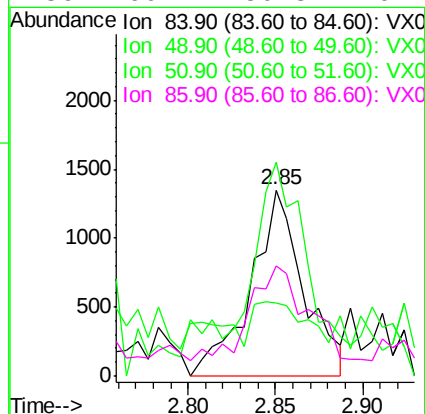
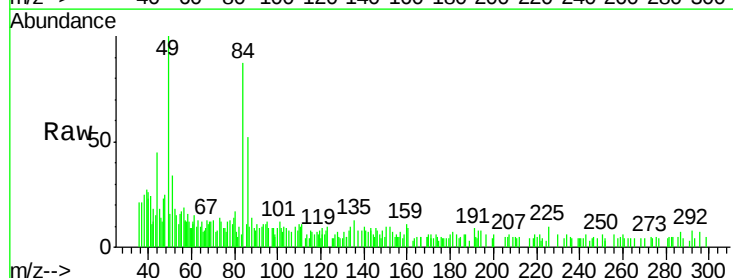
Ion Ratio Lower Upper

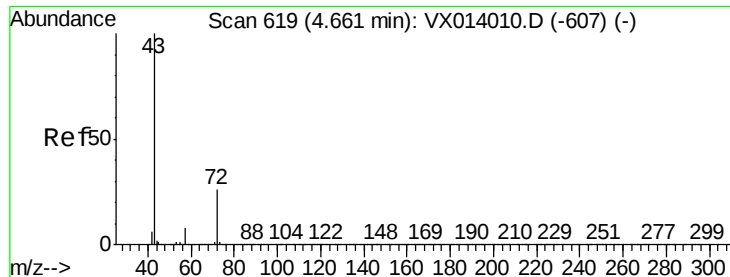
84 100

49 111.4 95.8 143.6

51 13.3 29.8 44.8#

86 60.7 50.8 76.2

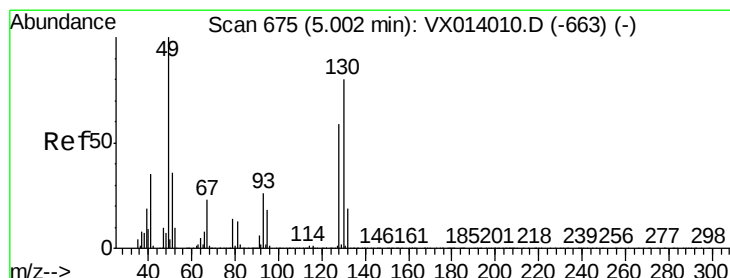
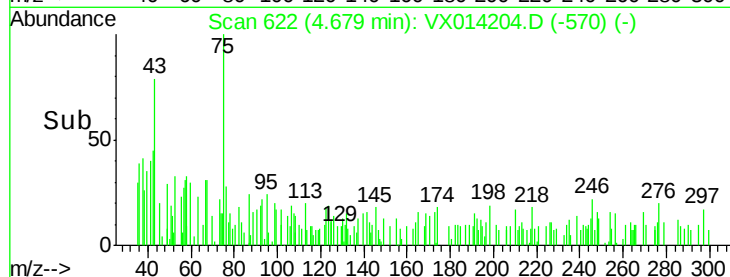
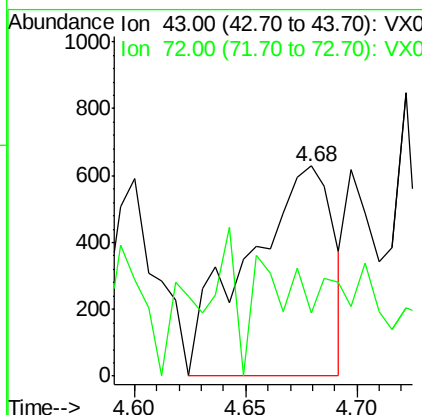
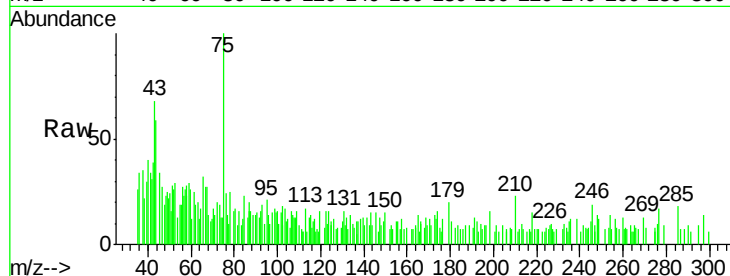




#25  
2-Butanone  
Concen: 0.328 ug/l  
RT: 4.68 min Scan# 622  
Delta R.T. 0.02 min  
Lab File: VX014204.D  
Acq: 23 Dec 2019 15:59

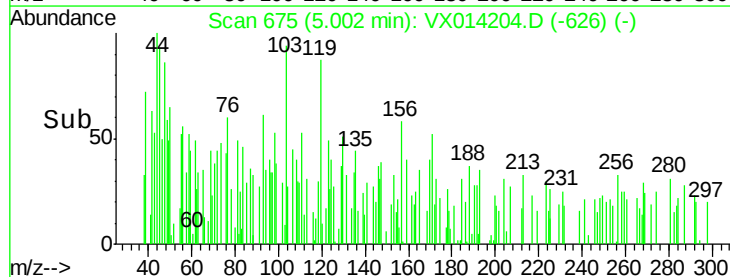
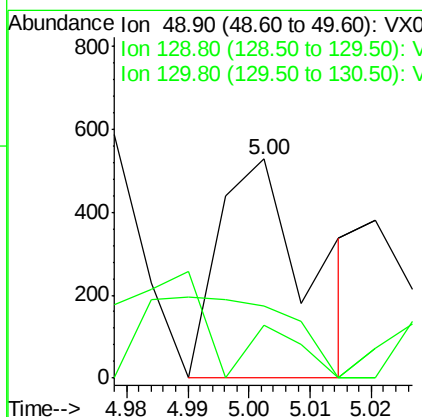
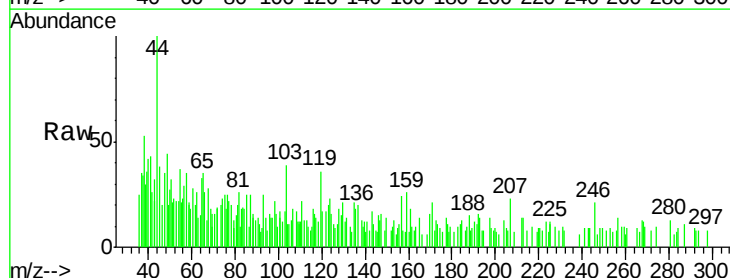
Instrument :  
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ClientSampleId :  
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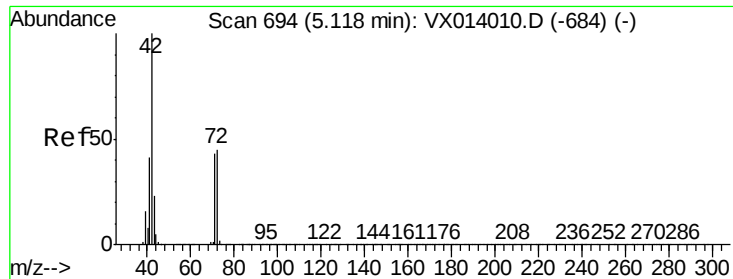
Tgt Ion: 43 Resp: 1678  
Ion Ratio Lower Upper  
43 100  
72 0.0 21.0 31.4#



#28  
Bromochloromethane  
Concen: 0.584 ug/l  
RT: 5.00 min Scan# 675  
Delta R.T. 0.00 min  
Lab File: VX014204.D  
Acq: 23 Dec 2019 15:59

Tgt Ion: 49 Resp: 544  
Ion Ratio Lower Upper  
49 100  
129 57.7 0.0 5.0#  
130 59.4 64.6 97.0#





#29

Tetrahydrofuran

Concen: 0.226 ug/l

RT: 5.14 min Scan# 697

Delta R.T. 0.02 min

Lab File: VX014204.D

Acq: 23 Dec 2019 15:59

Instrument :

MSVOA\_X

ClientSampled :

MH-20A

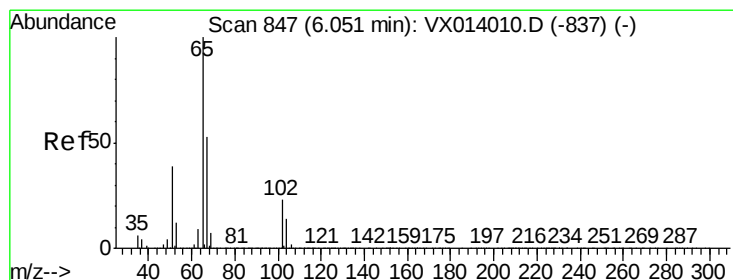
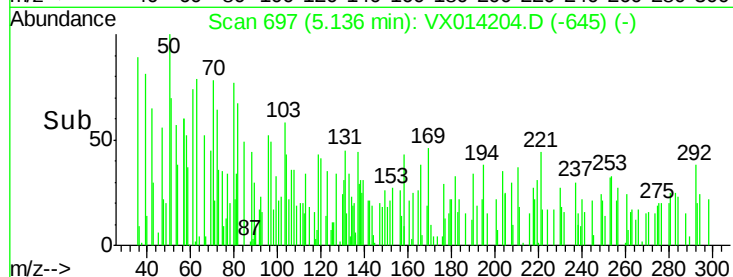
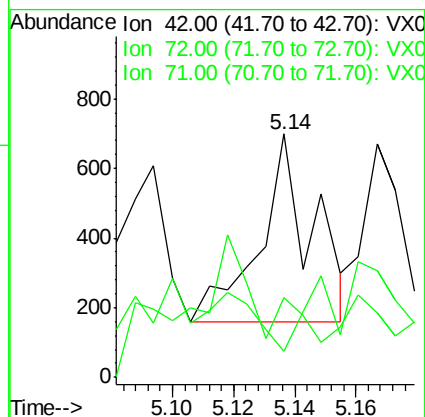
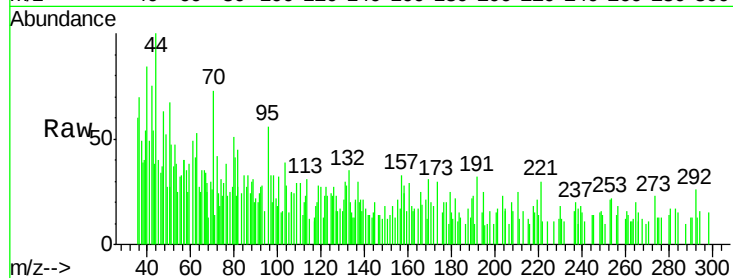
Tgt Ion: 42 Resp: 648

Ion Ratio Lower Upper

42 100

72 0.0 35.8 53.8#

71 21.1 33.6 50.4#



#33

1,2-Dichloroethane-d4

Concen: 48.331 ug/l

RT: 6.06 min Scan# 848

Delta R.T. 0.01 min

Lab File: VX014204.D

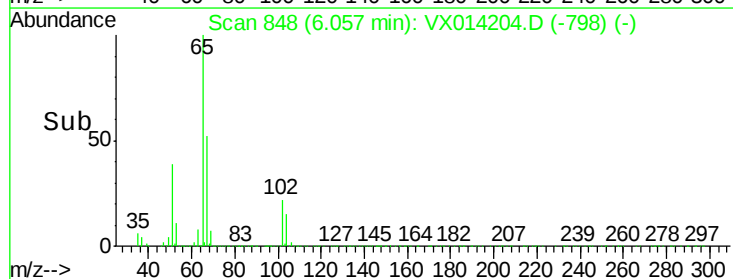
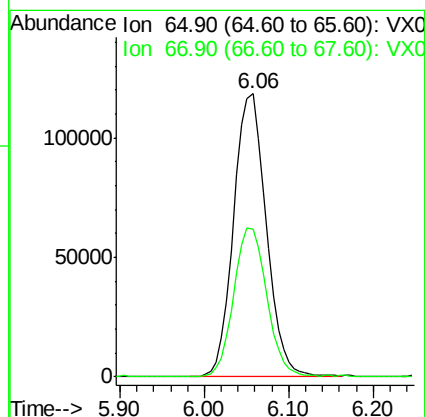
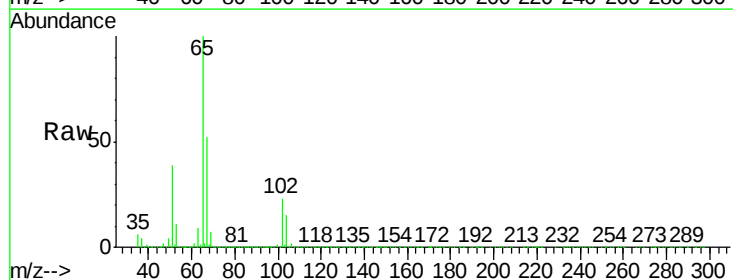
Acq: 23 Dec 2019 15:59

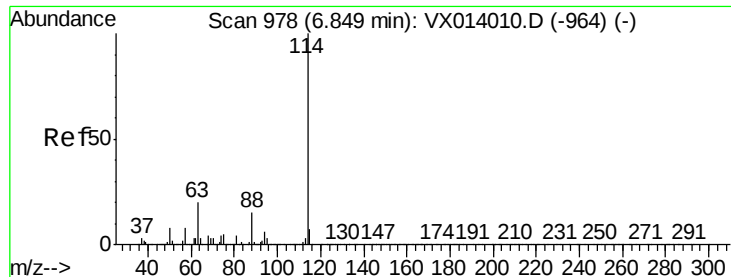
Tgt Ion: 65 Resp: 309163

Ion Ratio Lower Upper

65 100

67 53.4 0.0 106.4





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.85 min Scan# 978

Delta R.T. 0.00 min

Lab File: VX014204.D

Acq: 23 Dec 2019 15:59

Instrument :

MSVOA\_X

ClientSampleId :

MH-20A

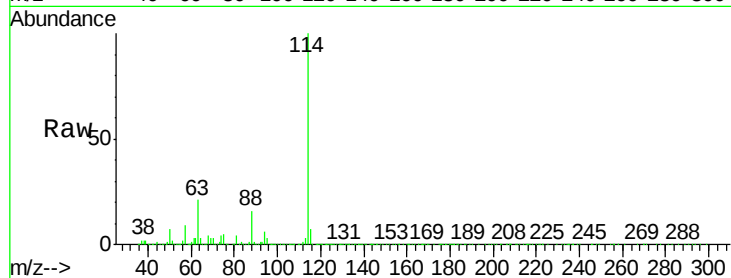
Tgt Ion:114 Resp: 865025

Ion Ratio Lower Upper

114 100

63 20.7 0.0 40.8

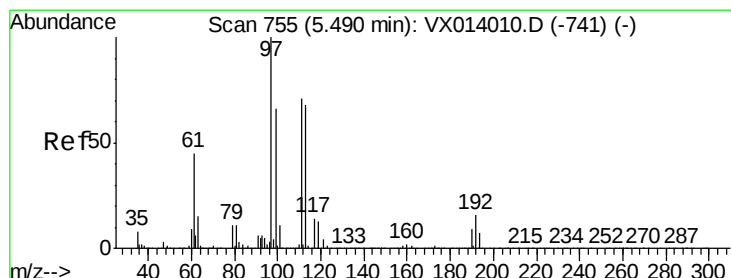
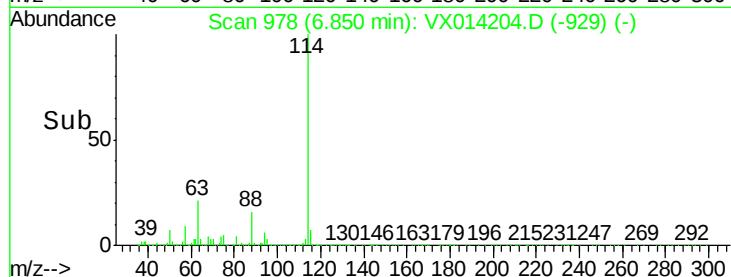
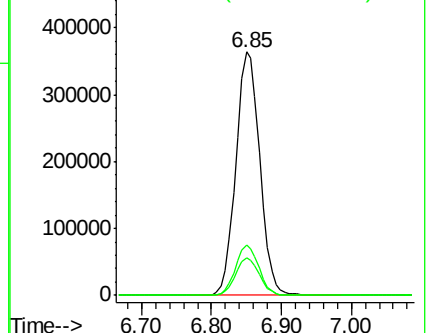
88 15.6 0.0 30.4



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0



#35

Dibromofluoromethane

Concen: 49.139 ug/l

RT: 5.49 min Scan# 755

Delta R.T. 0.00 min

Lab File: VX014204.D

Acq: 23 Dec 2019 15:59

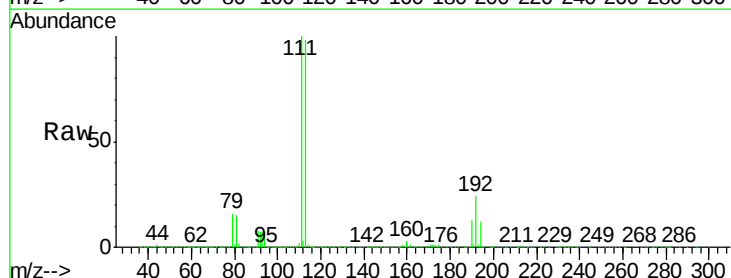
Tgt Ion:113 Resp: 258391

Ion Ratio Lower Upper

113 100

111 101.8 82.0 123.0

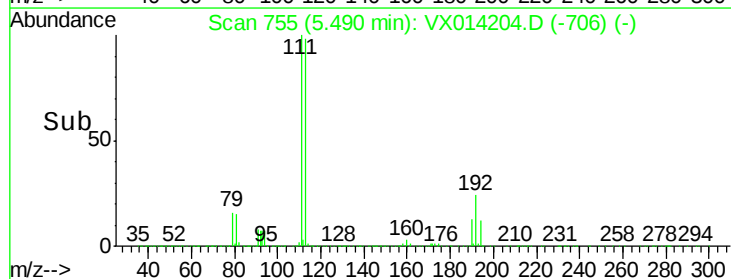
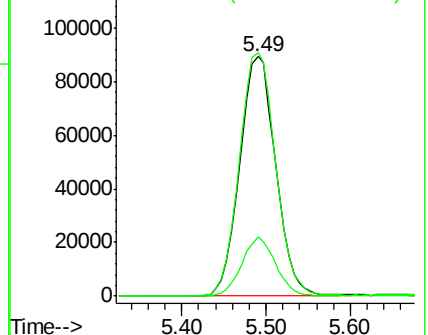
192 22.8 19.3 28.9

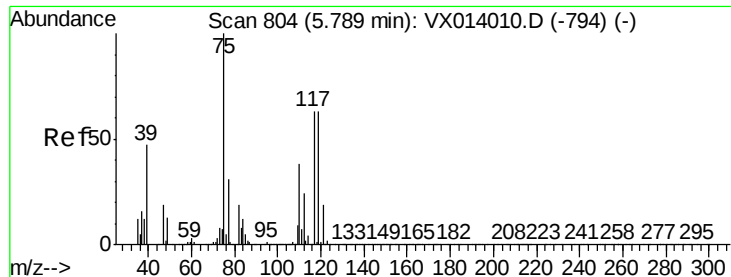


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V





#36

1,1-Dichloropropene

Concen: 4.612 ug/l

RT: 5.65 min Scan# 782

Delta R.T. -0.13 min

Lab File: VX014204.D

Acq: 23 Dec 2019 15:59

Instrument :

MSVOA\_X

ClientSampleId :

MH-20A

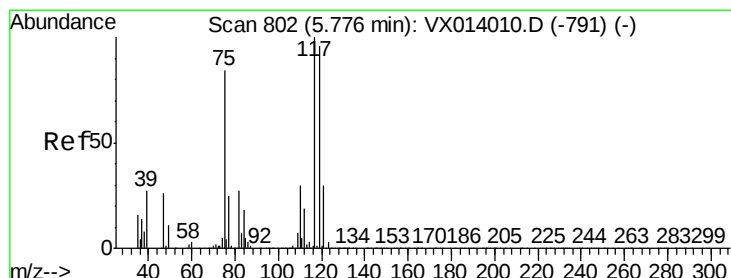
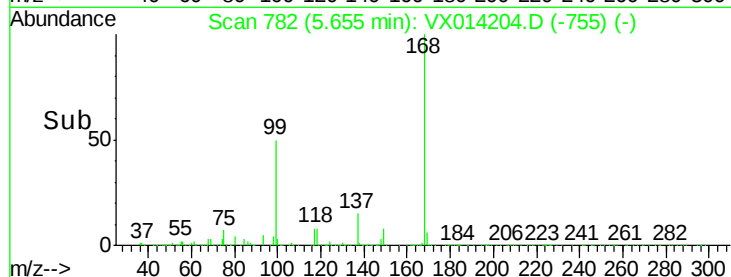
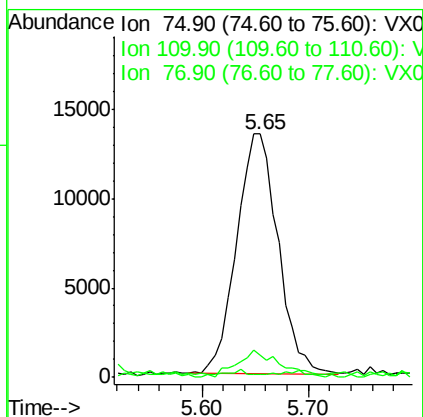
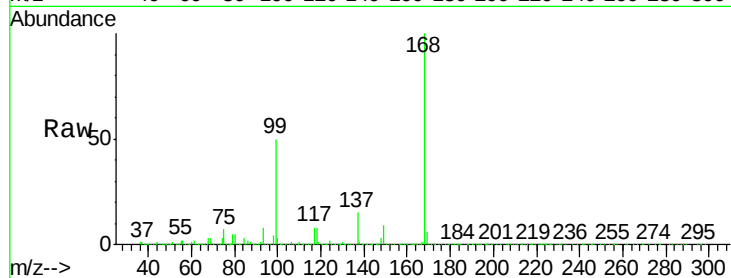
Tgt Ion: 75 Resp: 36602

Ion Ratio Lower Upper

75 100

110 11.4 18.3 54.9#

77 0.7 24.8 37.2#



#38

Carbon Tetrachloride

Concen: 6.765 ug/l

RT: 5.65 min Scan# 782

Delta R.T. -0.12 min

Lab File: VX014204.D

Acq: 23 Dec 2019 15:59

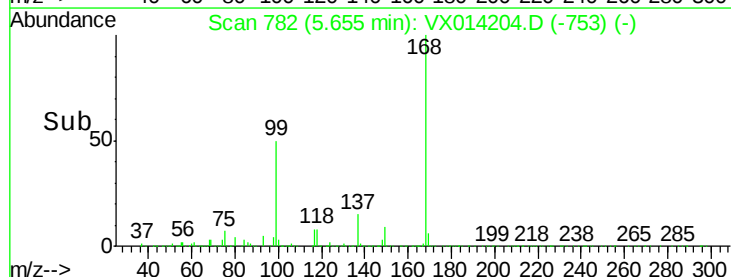
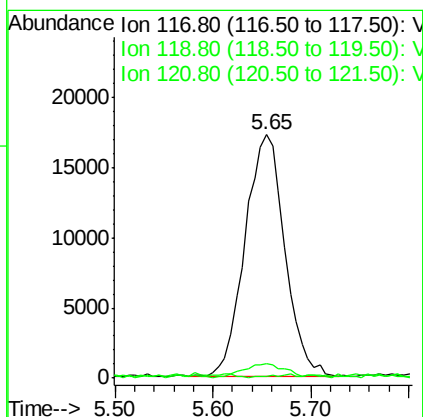
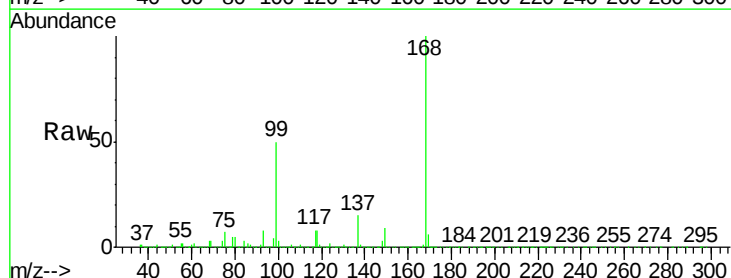
Tgt Ion: 117 Resp: 48914

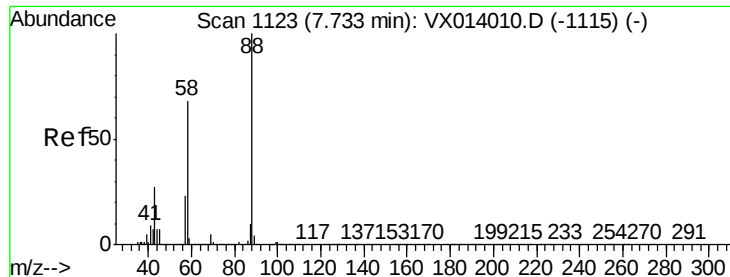
Ion Ratio Lower Upper

117 100

119 5.5 76.2 114.4#

121 0.0 23.6 35.4#

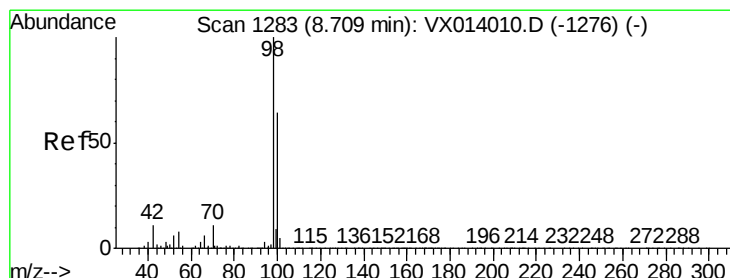
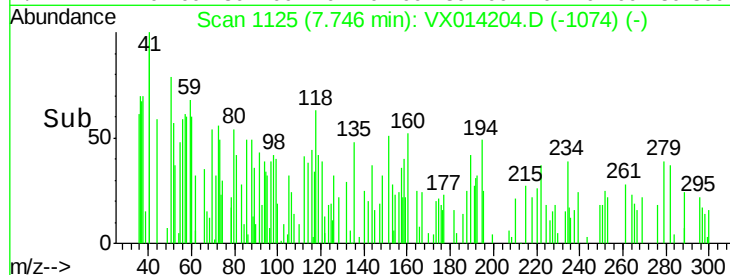
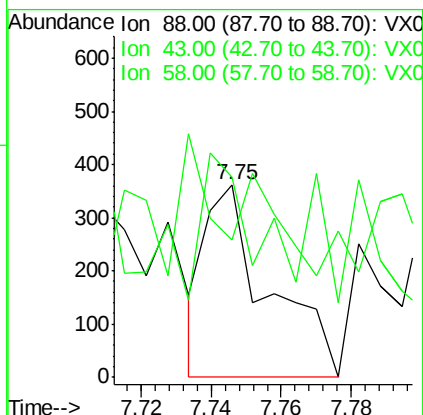
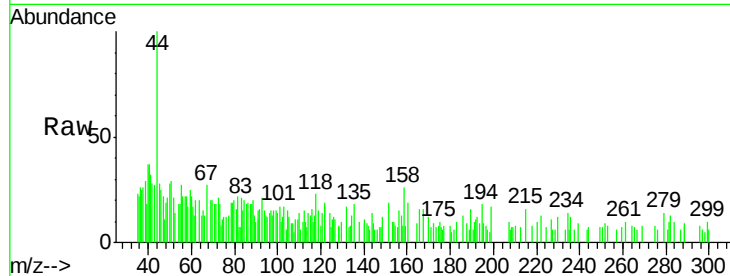




#49  
1,4-Dioxane  
Concen: 3.141 ug/l  
RT: 7.75 min Scan# 1125  
Delta R.T. 0.01 min  
Lab File: VX014204.D  
Acq: 23 Dec 2019 15:59

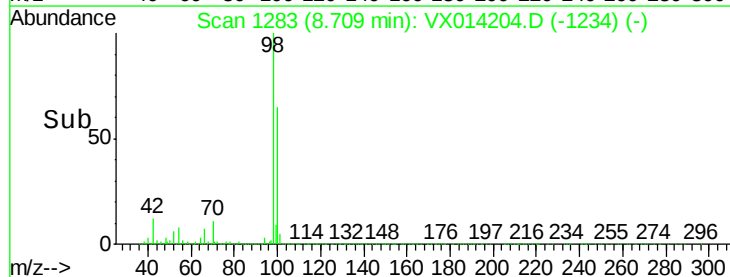
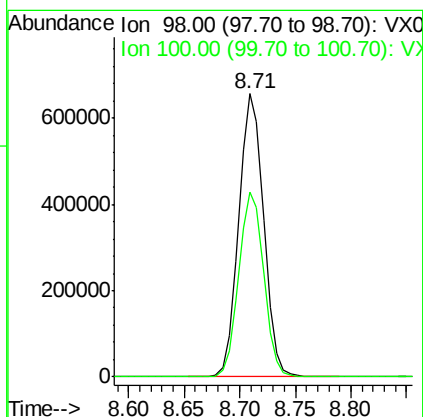
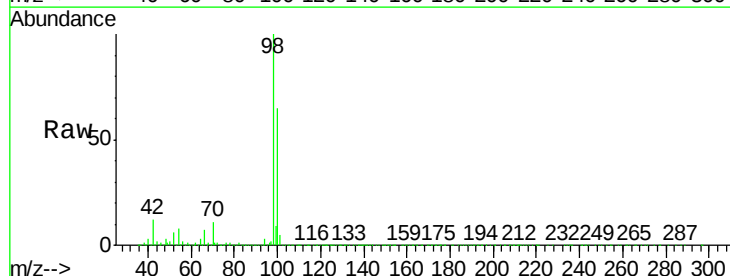
Instrument :  
MSVOA\_X  
ClientSampleId :  
MH-20A

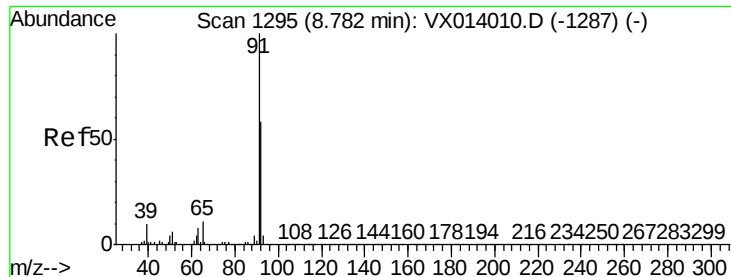
Tgt Ion: 88 Resp: 454  
Ion Ratio Lower Upper  
88 100  
43 35.5 26.5 39.7  
58 54.8 56.8 85.2#



#50  
Toluene-d8  
Concen: 49.618 ug/l  
RT: 8.71 min Scan# 1283  
Delta R.T. 0.00 min  
Lab File: VX014204.D  
Acq: 23 Dec 2019 15:59

Tgt Ion: 98 Resp: 1015784  
Ion Ratio Lower Upper  
98 100  
100 65.6 52.9 79.3





#52

Toluene

Concen: 0.362 ug/l

RT: 8.78 min Scan# 1295

Delta R.T. 0.00 min

Lab File: VX014204.D

Acq: 23 Dec 2019 15:59

Instrument :

MSVOA\_X

ClientSampleId :

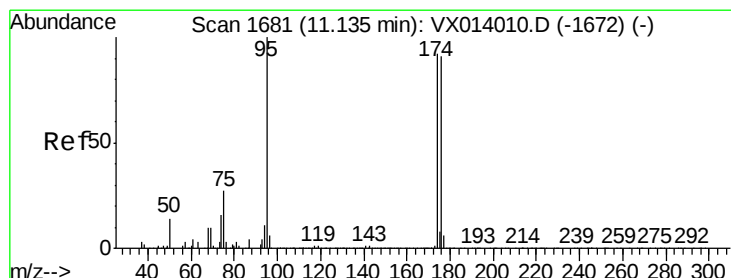
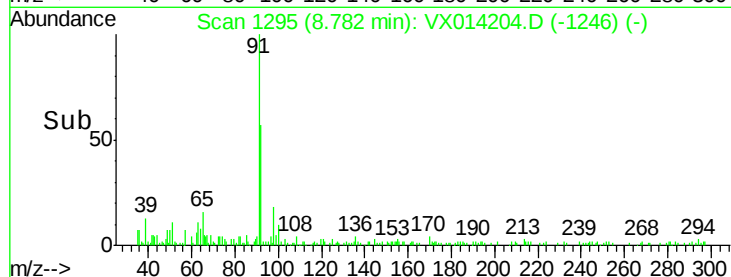
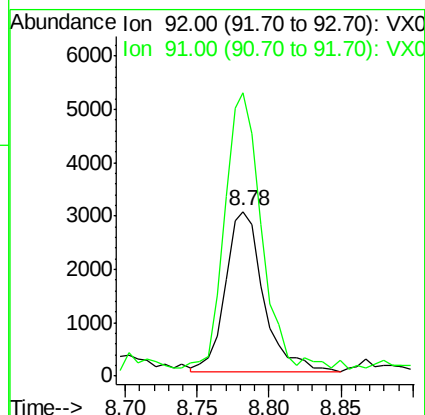
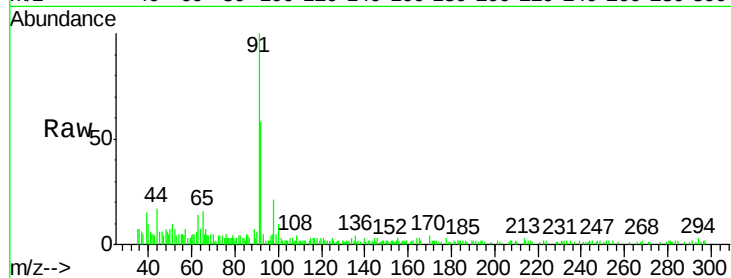
MH-20A

Tgt Ion: 92 Resp: 5588

Ion Ratio Lower Upper

92 100

91 160.1 136.2 204.4



#62

4-Bromofluorobenzene

Concen: 45.565 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. -0.01 min

Lab File: VX014204.D

Acq: 23 Dec 2019 15:59

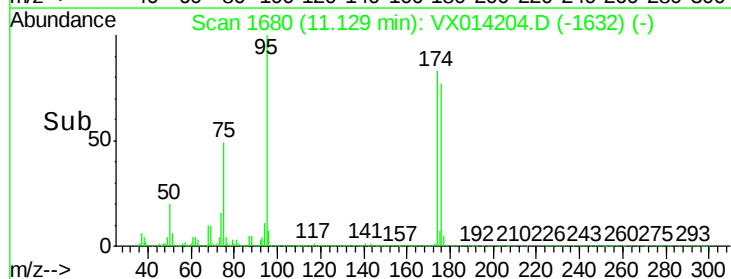
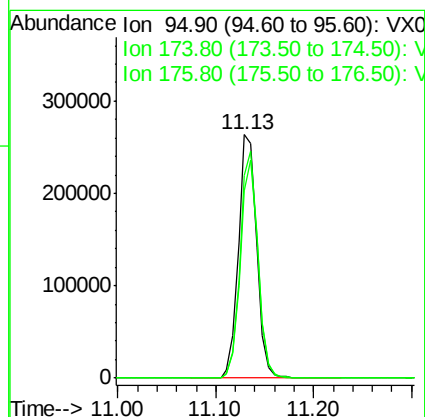
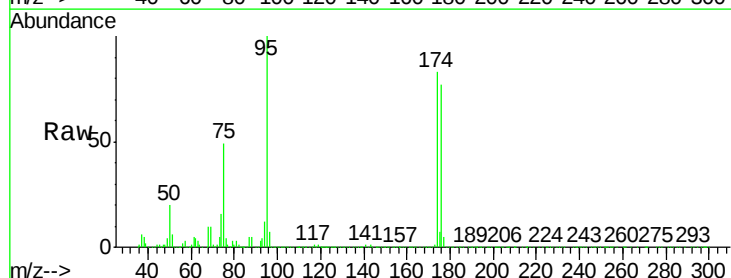
Tgt Ion: 95 Resp: 340984

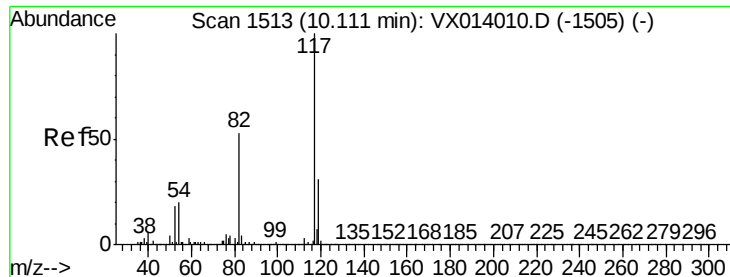
Ion Ratio Lower Upper

95 100

174 90.8 0.0 175.8

176 86.4 0.0 173.0

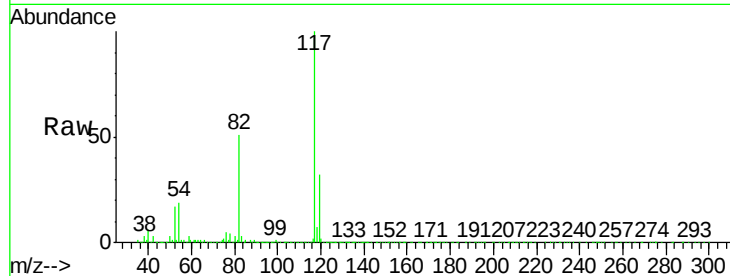




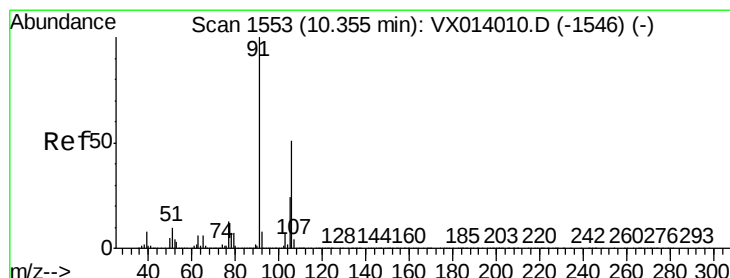
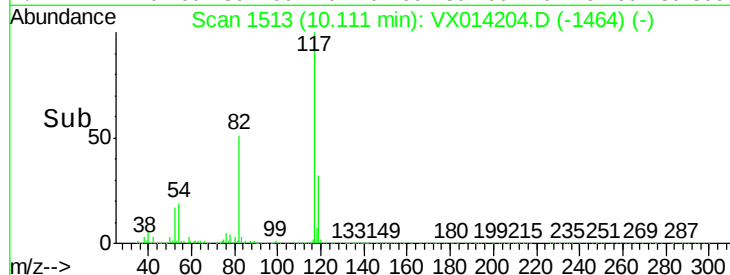
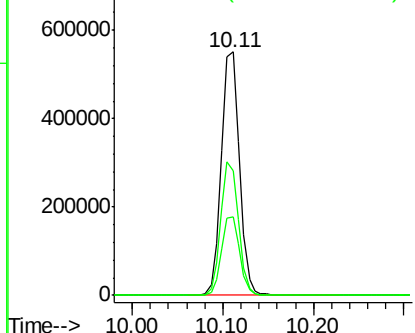
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.11 min Scan# 1513  
Delta R.T. 0.00 min  
Lab File: VX014204.D  
Acq: 23 Dec 2019 15:59

Instrument :  
MSVOA\_X  
ClientSampleId :  
MH-20A

Tgt Ion:117 Resp: 770957  
Ion Ratio Lower Upper  
117 100  
82 51.4 42.2 63.4  
119 32.3 25.1 37.7

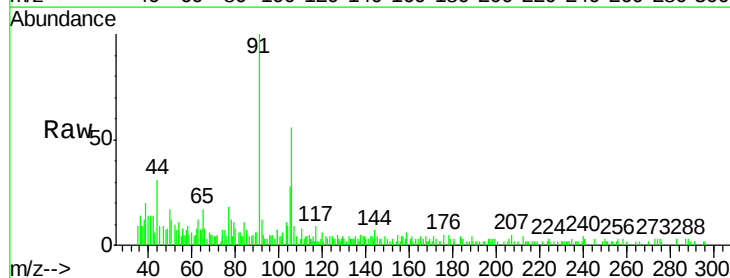


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VX0  
Ion 118.90 (118.60 to 119.60): V

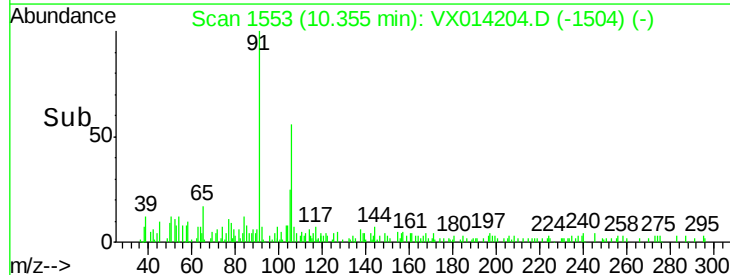
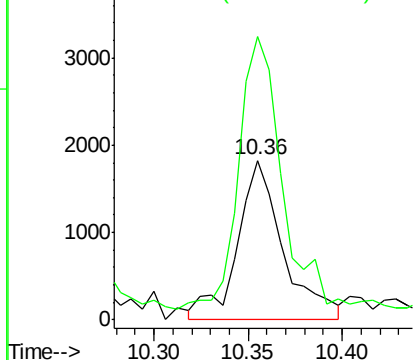


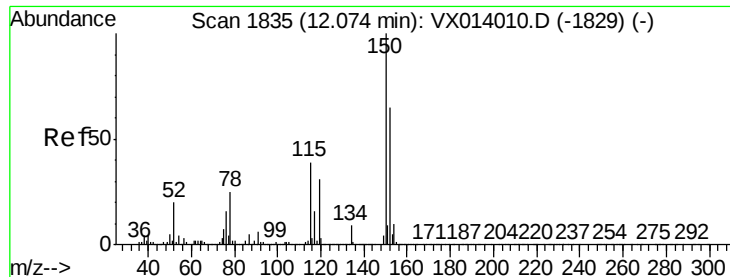
#68  
m/p-Xylenes  
Concen: 0.285 ug/l  
RT: 10.36 min Scan# 1553  
Delta R.T. 0.00 min  
Lab File: VX014204.D  
Acq: 23 Dec 2019 15:59

Tgt Ion:106 Resp: 3088  
Ion Ratio Lower Upper  
106 100  
91 183.1 158.6 238.0



Abundance Ion 106.00 (105.70 to 106.70): V  
Ion 91.00 (90.70 to 91.70): VX0





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.07 min Scan# 1835

Delta R.T. 0.00 min

Lab File: VX014204.D

Acq: 23 Dec 2019 15:59

Instrument :

MSVOA\_X

ClientSampleId :

MH-20A

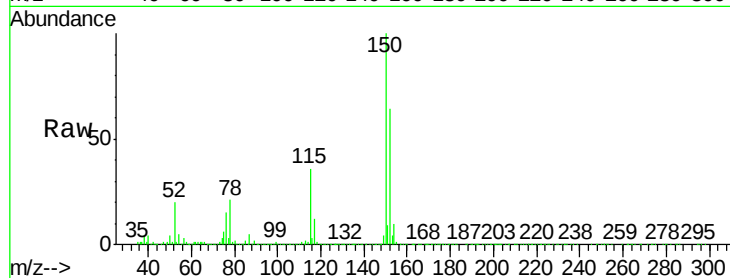
Tgt Ion: 152 Resp: 347627

Ion Ratio Lower Upper

152 100

115 55.5 38.3 114.9

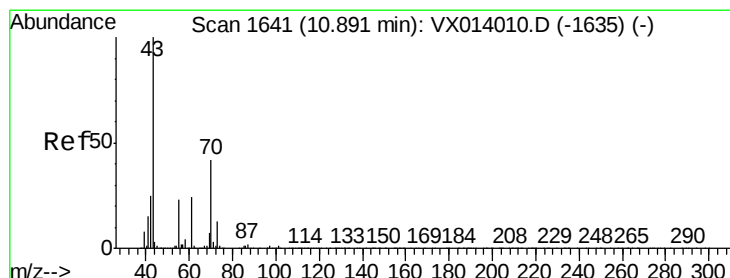
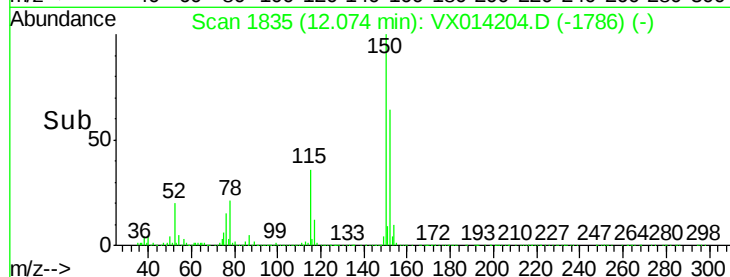
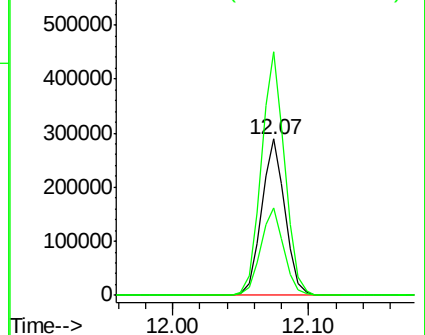
150 156.3 0.0 345.4



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#74

N-ethyl acetate

Concen: 0.265 ug/l

RT: 10.91 min Scan# 1644

Delta R.T. 0.02 min

Lab File: VX014204.D

Acq: 23 Dec 2019 15:59

Tgt Ion: 43 Resp: 3041

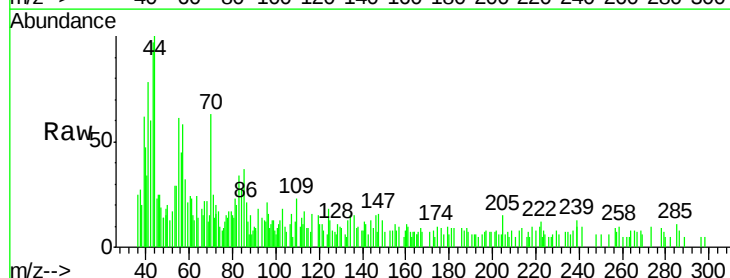
Ion Ratio Lower Upper

43 100

70 38.4 34.4 51.6

55 15.8 19.1 28.7#

61 18.5 19.7 29.5#

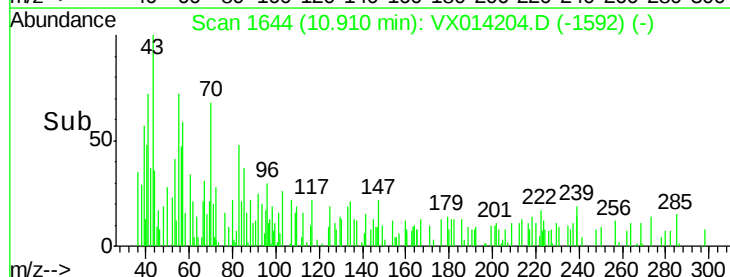
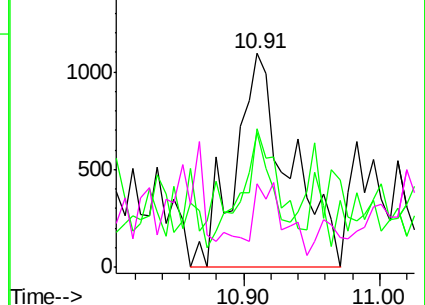


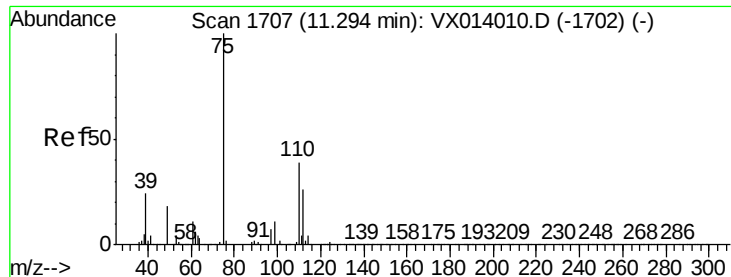
Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 70.00 (69.70 to 70.70): VX0

Ion 55.00 (54.70 to 55.70): VX0

Ion 61.00 (60.70 to 61.70): VX0





#76

1,2,3-Trichloropropane

Concen: 22.155 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. -0.16 min

Lab File: VX014204.D

Acq: 23 Dec 2019 15:59

Instrument :

MSVOA\_X

ClientSampleId :

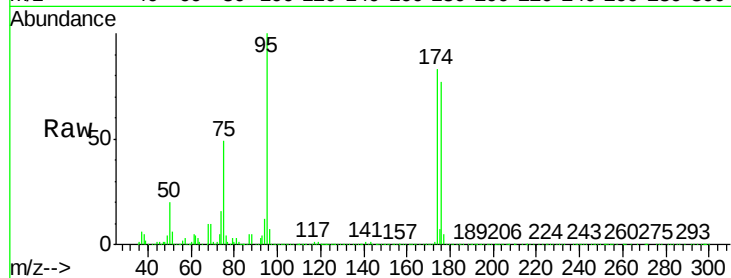
MH-20A

Tgt Ion: 75 Resp: 167202

Ion Ratio Lower Upper

75 100

77 1.7 19.3 57.8#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0

11.13

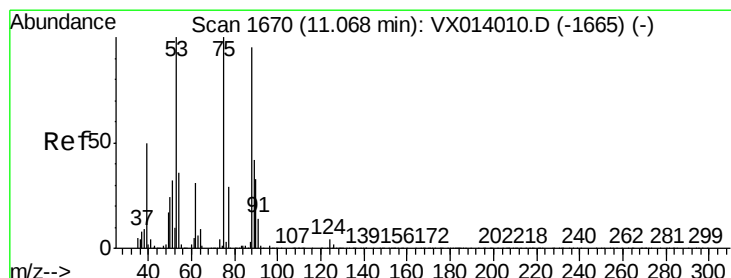
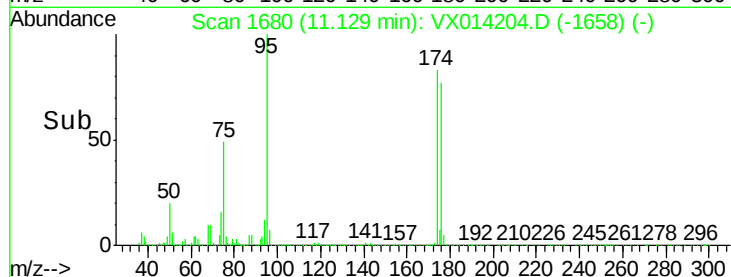
150000

100000

50000

0

Time-->



#81

trans-1,4-Dichloro-2-butene

Concen: 62.533 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. 0.06 min

Lab File: VX014204.D

Acq: 23 Dec 2019 15:59

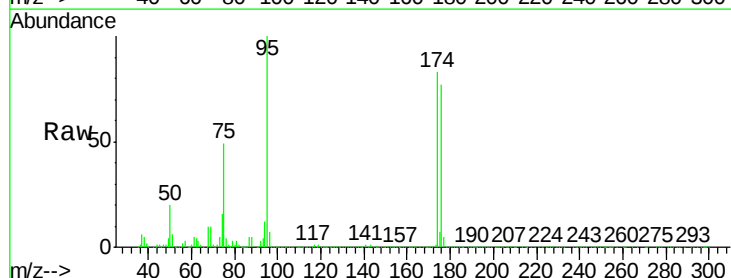
Tgt Ion: 75 Resp: 167202

Ion Ratio Lower Upper

75 100

53 0.0 76.7 115.1#

89 0.1 34.6 51.8#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0

150000

100000

50000

0

Time-->

