

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX041020\  
 Data File : VX015628.D  
 Acq On : 10 Apr 2020 17:49  
 Operator : JC/SP  
 Sample : L2190-05DL 5X  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Apr 11 00:34:19 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X032720W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Mar 27 09:35:51 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.64  | 168  | 1075009  | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.83  | 114  | 1673633  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.10 | 117  | 1626146  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.06 | 152  | 872036   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 6.03   | 65  | 681172   | 44.93 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 89.86%  |      |
| 35) Dibromofluoromethane  | 5.47   | 113 | 504306   | 47.14 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.28%  |      |
| 50) Toluene-d8            | 8.70   | 98  | 2005640  | 50.92 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.84% |      |
| 62) 4-Bromofluorobenzene  | 11.12  | 95  | 856463   | 53.50 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 107.00% |      |

## Target Compounds

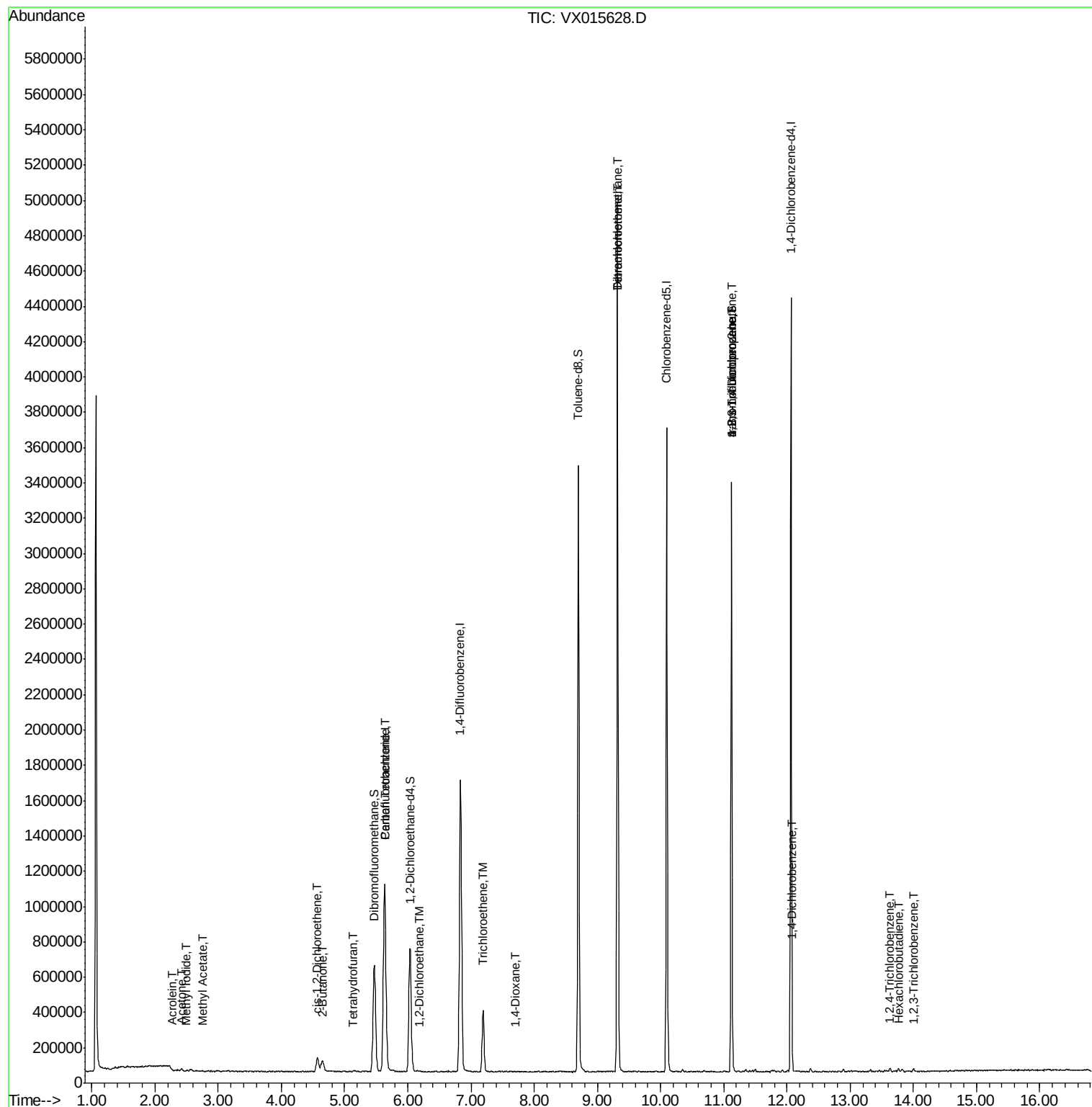
|                                |       |     |        |             | Qvalue |
|--------------------------------|-------|-----|--------|-------------|--------|
| 5) Bromomethane                | 1.62  | 94  | 251    | Below Cal   | # 80   |
| 10) Methyl Iodide              | 2.50  | 142 | 2675   | 0.205 ug/l  | # 70   |
| 13) Acrolein                   | 2.28  | 56  | 1602   | 0.775 ug/l  | # 14   |
| 16) Acetone                    | 2.42  | 43  | 17027  | 2.614 ug/l  | # 89   |
| 18) Methyl Acetate             | 2.75  | 43  | 4484   | 0.270 ug/l  | # 56   |
| 25) 2-Butanone                 | 4.65  | 43  | 5934   | 0.566 ug/l  | # 72   |
| 27) cis-1,2-Dichloroethene     | 4.58  | 96  | 50959  | 3.910 ug/l  | # 92   |
| 29) Tetrahydrofuran            | 5.12  | 42  | 2190   | 0.325 ug/l  | # 83   |
| 38) Carbon Tetrachloride       | 5.63  | 117 | 103015 | 6.168 ug/l  | # 15   |
| 42) 1,2-Dichloroethane         | 6.17  | 62  | 3859   | 0.213 ug/l  | # 96   |
| 44) Trichloroethene            | 7.20  | 130 | 135721 | 11.017 ug/l | # 90   |
| 49) 1,4-Dioxane                | 7.70  | 88  | 271    | 0.858 ug/l  | # 1    |
| 60) Dibromochloromethane       | 9.32  | 129 | 869250 | 63.400 ug/l | # 11   |
| 64) Tetrachloroethene          | 9.32  | 164 | 970252 | 79.061 ug/l | # 93   |
| 76) 1,2,3-Trichloropropane     | 11.12 | 75  | 441239 | 24.605 ug/l | # 35   |
| 81) trans-1,4-Dichloro-2-buten | 11.12 | 75  | 441239 | 59.039 ug/l | # 10   |
| 88) 1,4-Dichlorobenzene        | 12.09 | 146 | 6312   | 0.227 ug/l  | # 25   |
| 93) 1,2,4-Trichlorobenzene     | 13.63 | 180 | 6243   | 0.296 ug/l  | # 96   |
| 94) Hexachlorobutadiene        | 13.76 | 225 | 3824   | 0.380 ug/l  | # 92   |
| 96) 1,2,3-Trichlorobenzene     | 14.00 | 180 | 5301   | 0.261 ug/l  | # 94   |

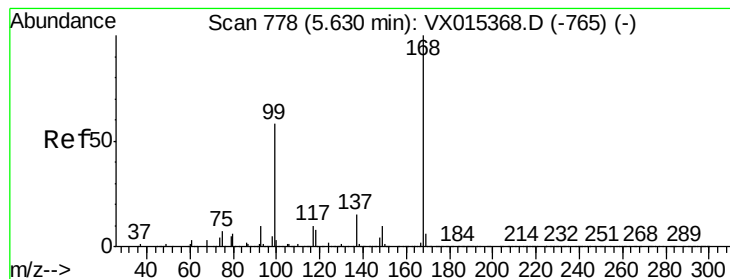
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Fri Mar 27 09:35:51 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.64 min Scan# 779

Delta R.T. 0.01 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

Instrument :

MSVOA\_X

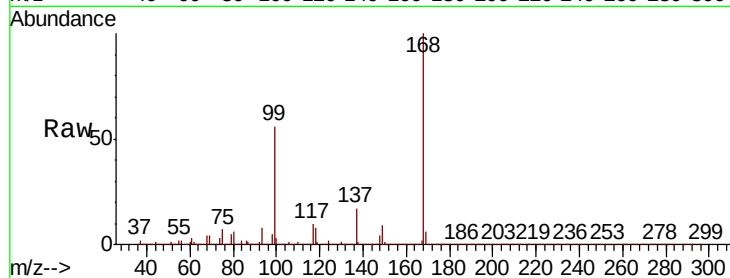
ClientSampleId :

Tot Ion:168 Resp: 1075009

Ion Ratio Lower Upper

168 100

99 56.2 46.4 69.6



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.64

400000

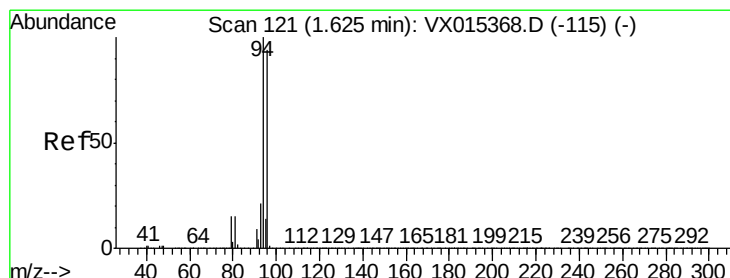
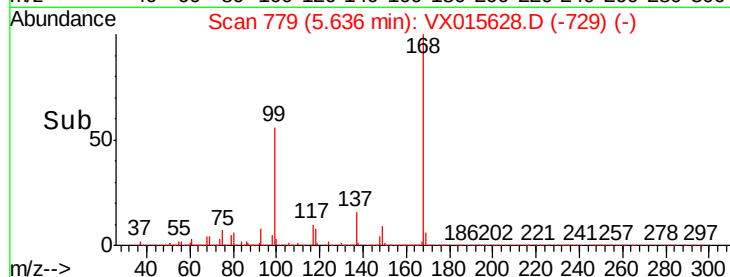
300000

200000

100000

0

Time-->



#5

Bromomethane

Concen: Below Cal

RT: 1.62 min Scan# 120

Delta R.T. -0.01 min

Lab File: VX015628.D

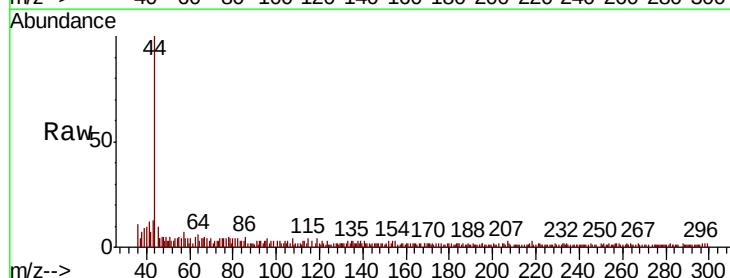
Acq: 10 Apr 2020 17:49

Tgt Ion: 94 Resp: 251

Ion Ratio Lower Upper

94 100

96 112.3 74.8 112.2#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

1200

1000

800

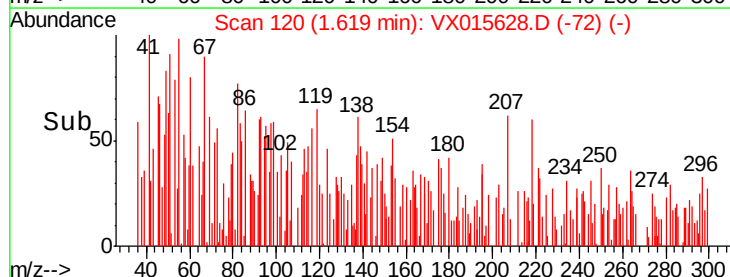
600

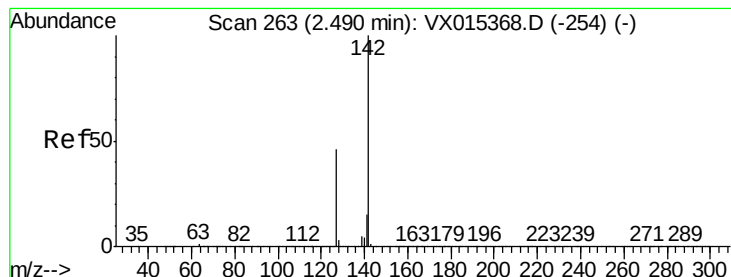
400

200

0

Time-->





#10

Methyl Iodide

Concen: 0.205 ug/l

RT: 2.50 min Scan# 264

Delta R.T. 0.01 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

Instrument :

MSVOA\_X

ClientSampled :

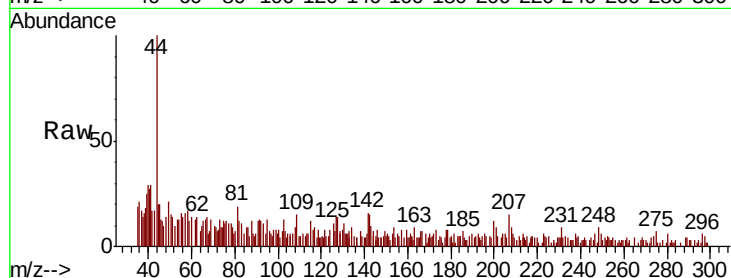
Tot Ion:142 Resp: 2675

Ion Ratio Lower Upper

142 100

127 30.2 35.9 53.9#

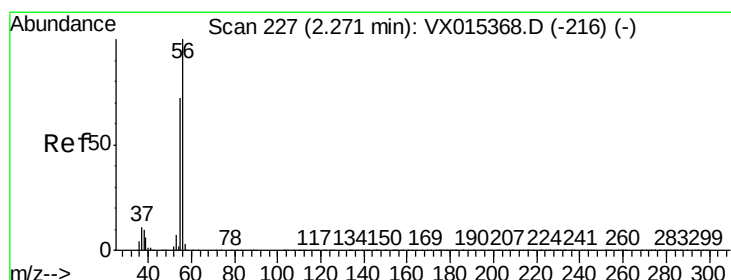
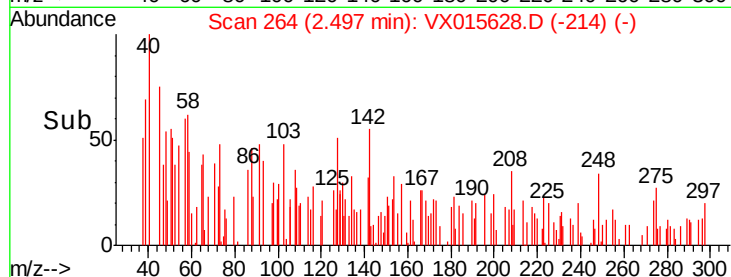
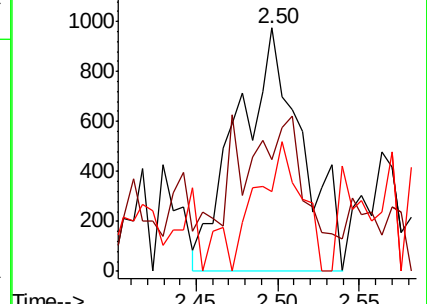
141 35.9 11.6 17.4#



Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V



#13

Acrolein

Concen: 0.775 ug/l

RT: 2.28 min Scan# 228

Delta R.T. 0.01 min

Lab File: VX015628.D

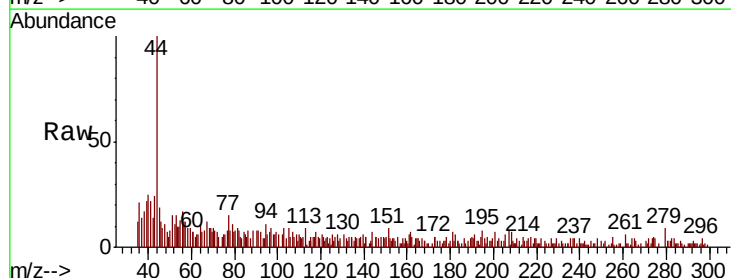
Acq: 10 Apr 2020 17:49

Tgt Ion: 56 Resp: 1602

Ion Ratio Lower Upper

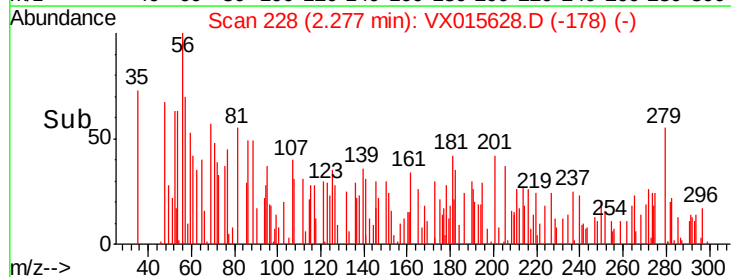
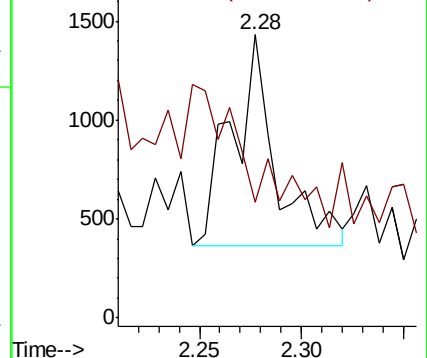
56 100

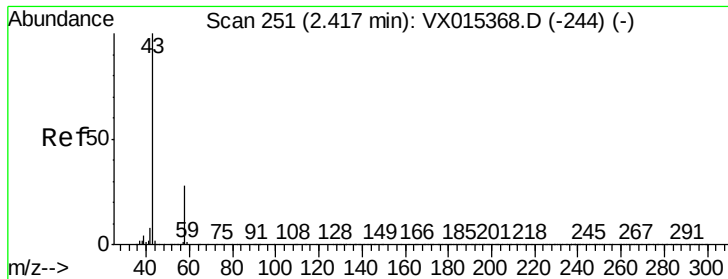
55 0.0 57.0 85.4#



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 55.00 (54.70 to 55.70): VX0

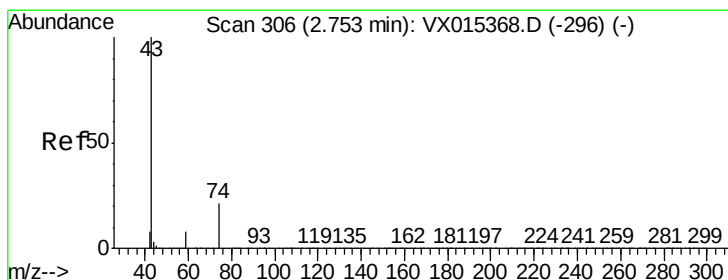
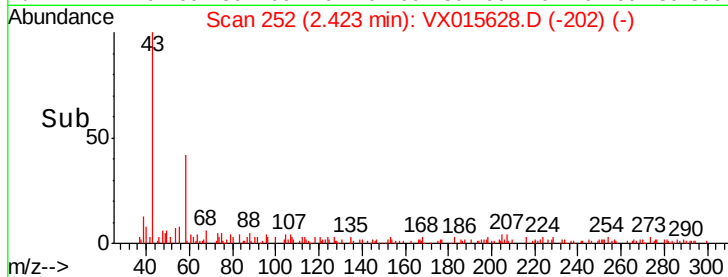
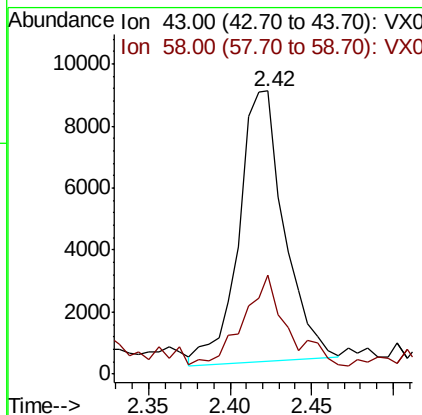
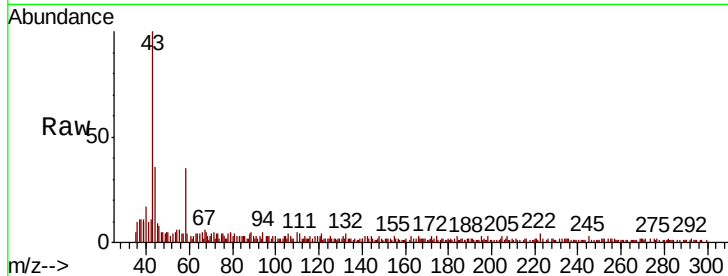




#16  
Acetone  
Concen: 2.614 ug/l  
RT: 2.42 min Scan# 252  
Delta R.T. 0.01 min  
Lab File: VX015628.D  
Acq: 10 Apr 2020 17:49

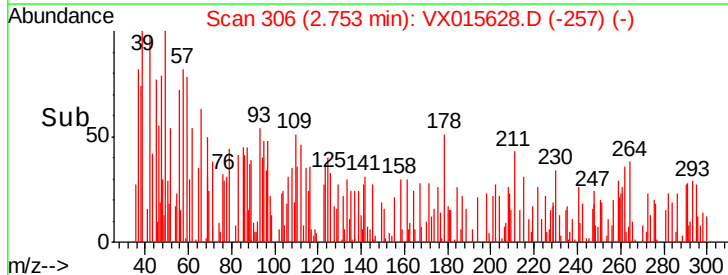
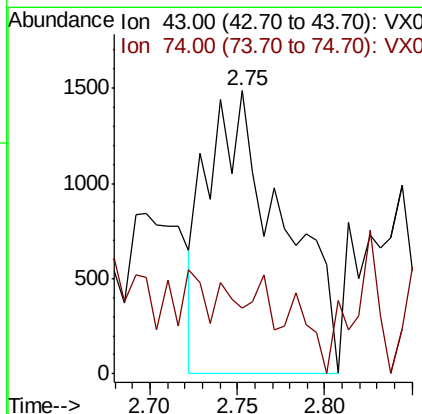
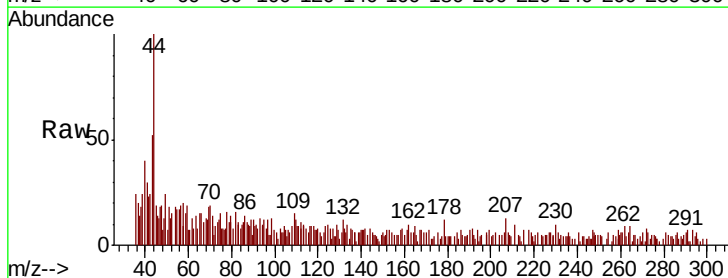
Instrument :  
MSVOA\_X  
ClientSampled :

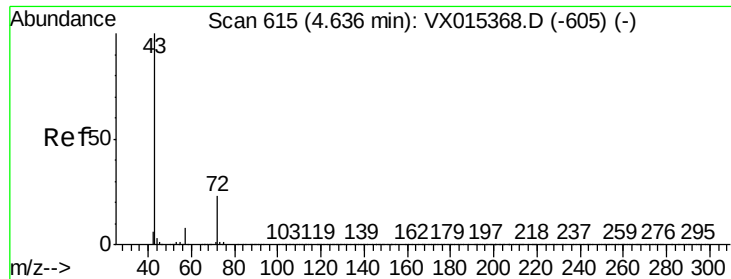
Tot Ion: 43 Resp: 17027  
Ion Ratio Lower Upper  
43 100  
58 33.5 22.1 33.1#



#18  
Methyl Acetate  
Concen: 0.270 ug/l  
RT: 2.75 min Scan# 306  
Delta R.T. 0.00 min  
Lab File: VX015628.D  
Acq: 10 Apr 2020 17:49

Tgt Ion: 43 Resp: 4484  
Ion Ratio Lower Upper  
43 100  
74 0.0 16.5 24.7#





#25

2-Butanone

Concen: 0.566 ug/l

RT: 4.65 min Scan# 618

Delta R.T. 0.02 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

Instrument :

MSVOA\_X

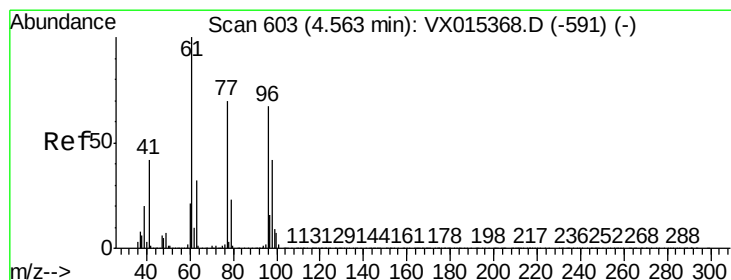
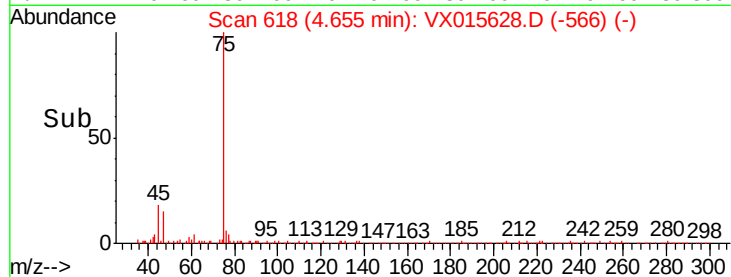
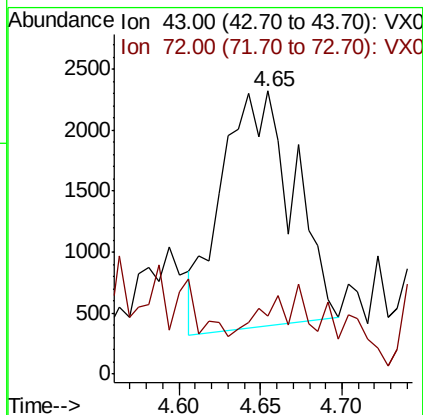
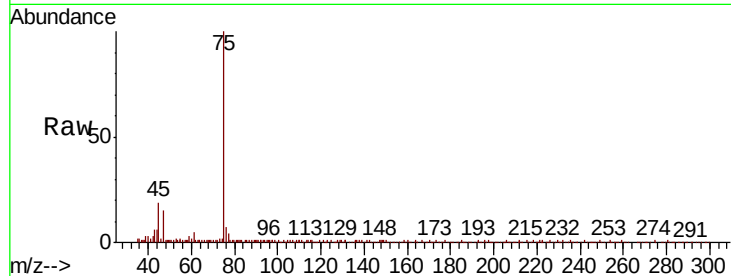
ClientSampled :

Tot Ion: 43 Resp: 5934

Ion Ratio Lower Upper

43 100

72 9.9 19.0 28.4#



#27

cis-1,2-Dichloroethene

Concen: 3.910 ug/l

RT: 4.58 min Scan# 605

Delta R.T. 0.01 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

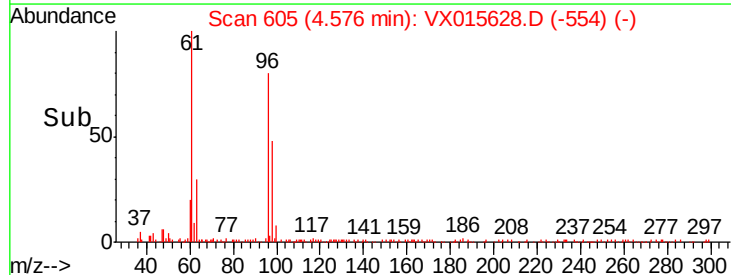
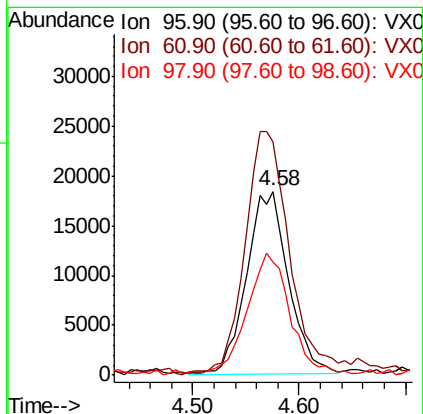
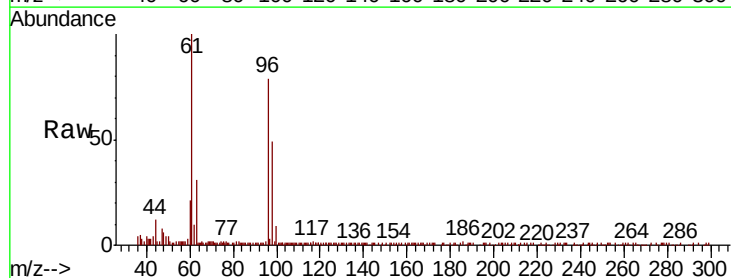
Tgt Ion: 96 Resp: 50959

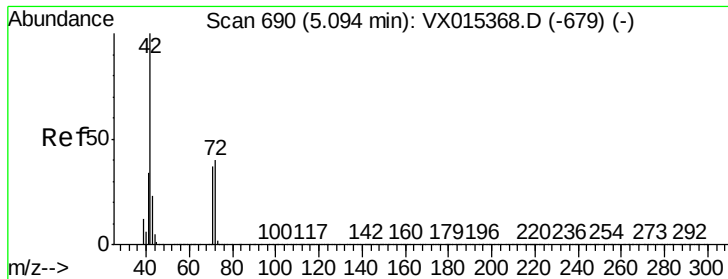
Ion Ratio Lower Upper

96 100

61 141.1 0.0 308.4

98 66.4 0.0 129.2

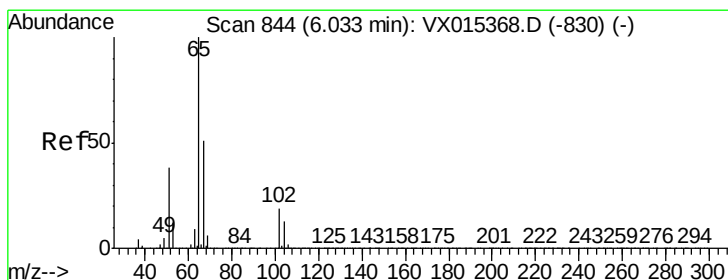
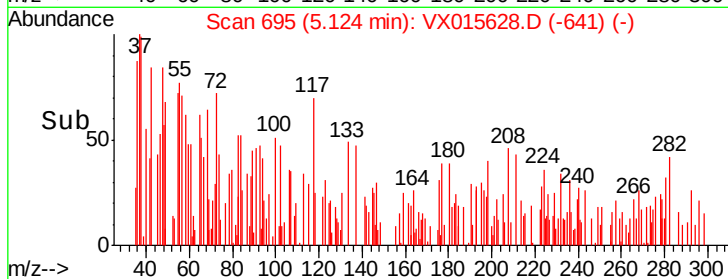
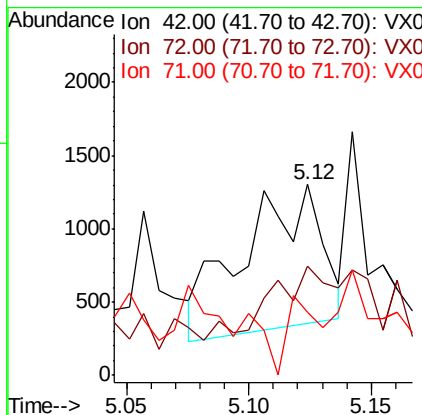
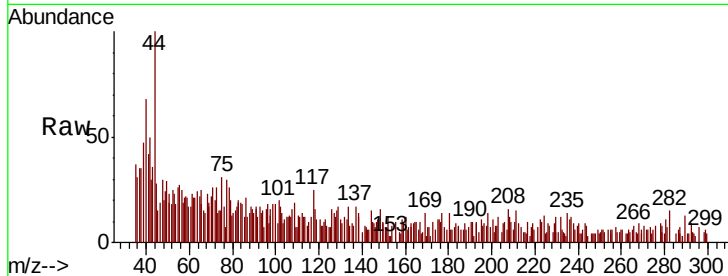




#29  
Tetrahydrofuran  
Concen: 0.325 ug/l  
RT: 5.12 min Scan# 695  
Delta R.T. 0.03 min  
Lab File: VX015628.D  
Acq: 10 Apr 2020 17:49

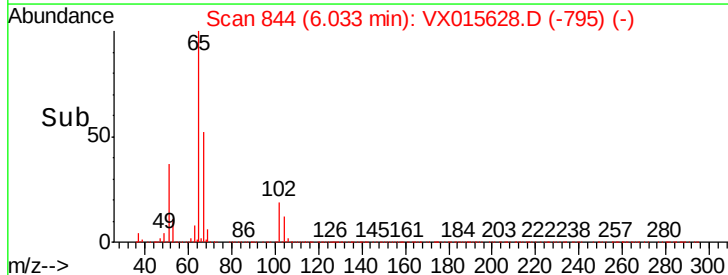
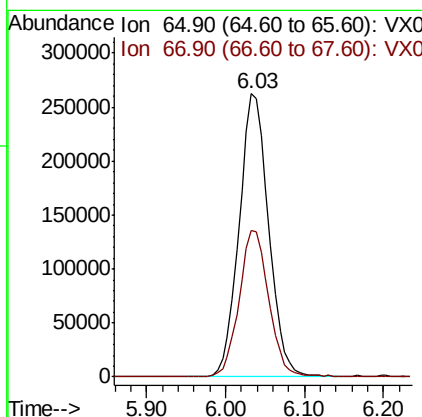
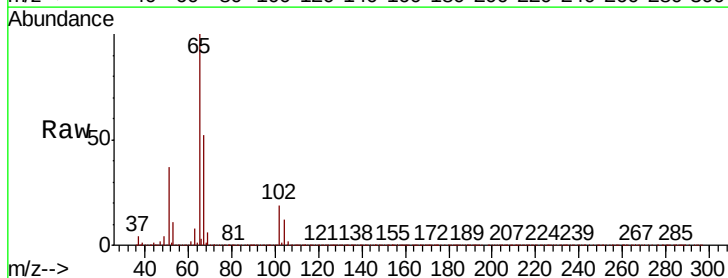
Instrument :  
MSVOA\_X  
ClientSampleId :

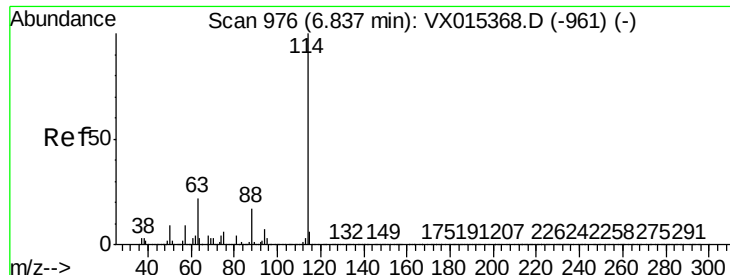
Tot Ion: 42 Resp: 2190  
Ion Ratio Lower Upper  
42 100  
72 45.6 31.7 47.5  
71 21.7 29.6 44.4#



#33  
1,2-Dichloroethane-d4  
Concen: 44.927 ug/l  
RT: 6.03 min Scan# 844  
Delta R.T. 0.00 min  
Lab File: VX015628.D  
Acq: 10 Apr 2020 17:49

Tgt Ion: 65 Resp: 681172  
Ion Ratio Lower Upper  
65 100  
67 52.0 0.0 102.6

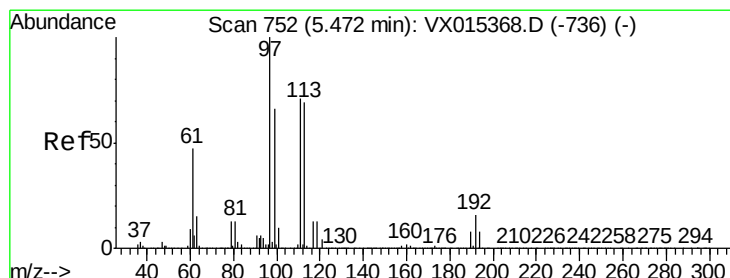
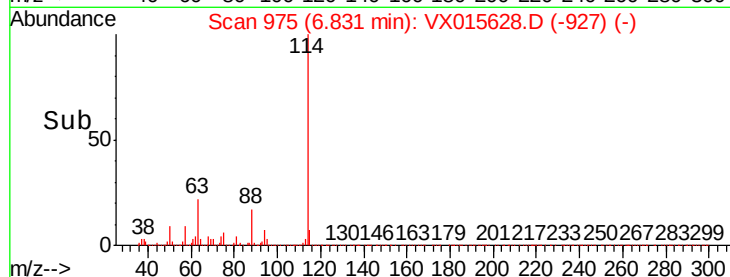
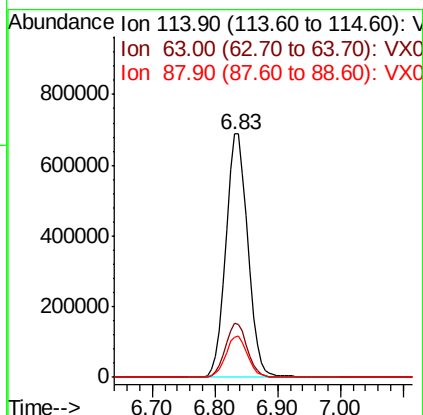
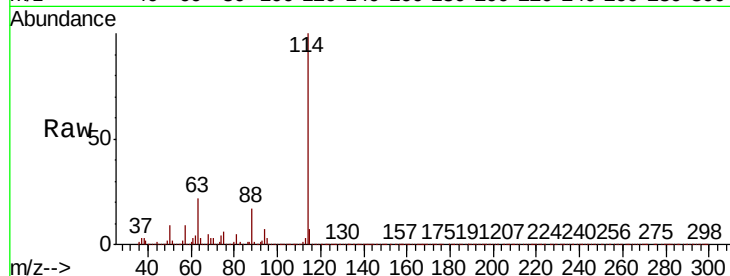




#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.83 min Scan# 975  
 Delta R.T. -0.01 min  
 Lab File: VX015628.D  
 Acq: 10 Apr 2020 17:49

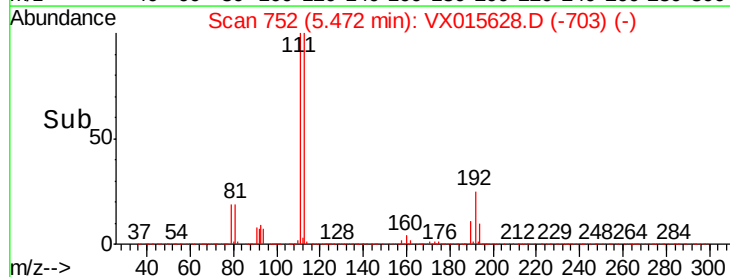
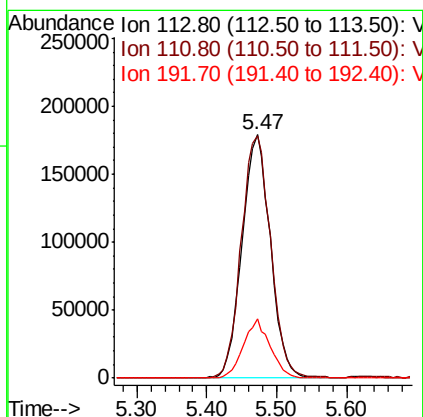
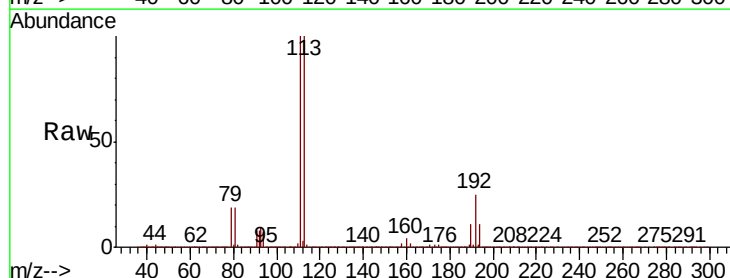
Instrument :  
 MSVOA\_X  
 ClientSampleId :

Tot Ion:114 Resp: 1673633  
 Ion Ratio Lower Upper  
 114 100  
 63 22.2 0.0 44.2  
 88 16.6 0.0 33.8

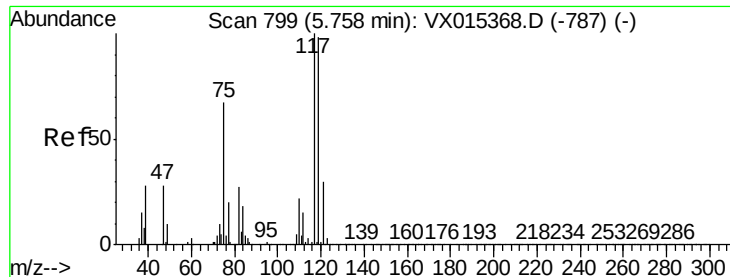


#35  
 Dibromofluoromethane  
 Concen: 47.139 ug/l  
 RT: 5.47 min Scan# 752  
 Delta R.T. 0.00 min  
 Lab File: VX015628.D  
 Acq: 10 Apr 2020 17:49

Tgt Ion:113 Resp: 504306  
 Ion Ratio Lower Upper  
 113 100  
 111 102.9 81.5 122.3  
 192 23.1 17.8 26.6







#38

Carbon Tetrachloride

Concen: 6.168 ug/l

RT: 5.63 min Scan# 778

Delta R.T. -0.13 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

Instrument :

MSVOA\_X

ClientSampleId :

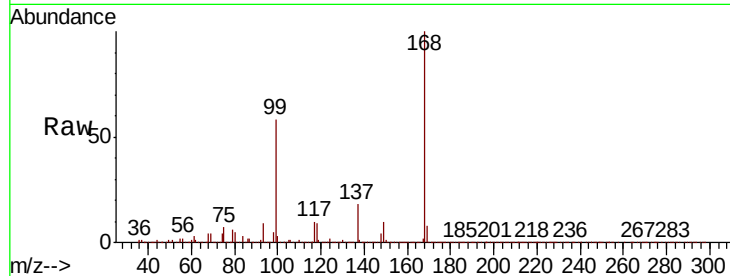
Tot Ion:117 Resp: 103015

Ion Ratio Lower Upper

117 100

119 4.5 78.0 117.0#

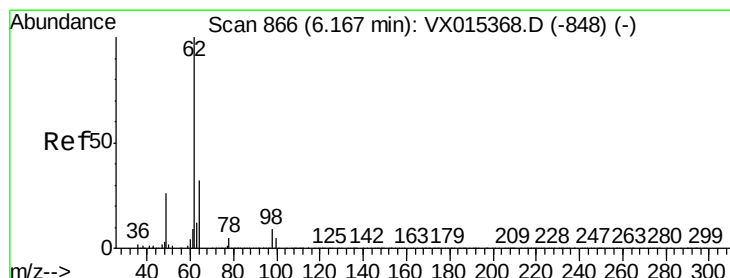
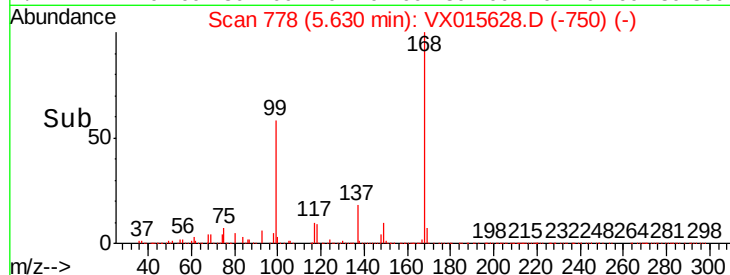
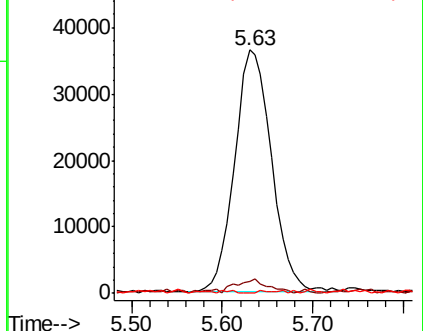
121 0.1 23.8 35.8#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V



#42

1,2-Dichloroethane

Concen: 0.213 ug/l

RT: 6.17 min Scan# 867

Delta R.T. 0.01 min

Lab File: VX015628.D

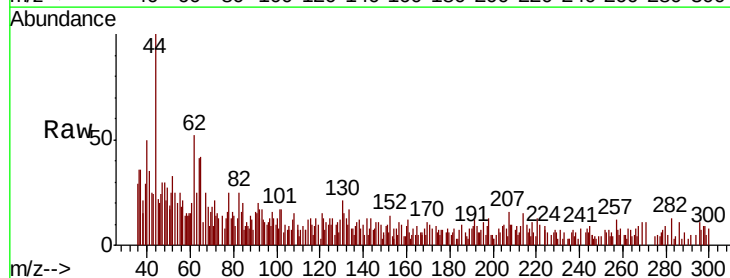
Acq: 10 Apr 2020 17:49

Tgt Ion: 62 Resp: 3859

Ion Ratio Lower Upper

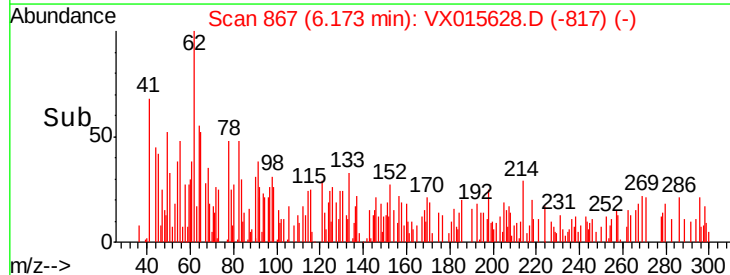
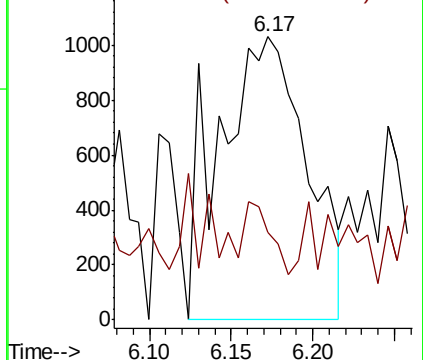
62 100

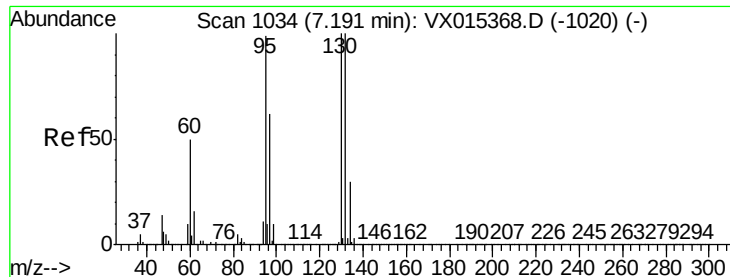
98 7.3 0.0 17.6



Abundance Ion 61.90 (61.60 to 62.60): VX0

Ion 97.90 (97.60 to 98.60): VX0





#44

Trichloroethene

Concen: 11.017 ug/l

RT: 7.20 min Scan# 1035

Delta R.T. 0.01 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

Instrument :

MSVOA\_X

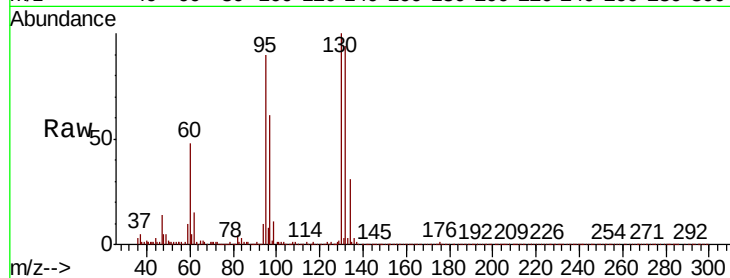
ClientSampled :

Tot Ion:130 Resp: 135721

Ion Ratio Lower Upper

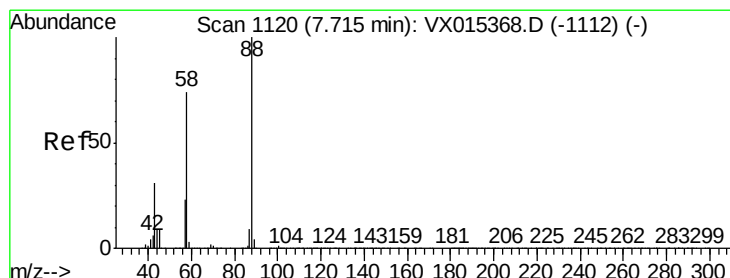
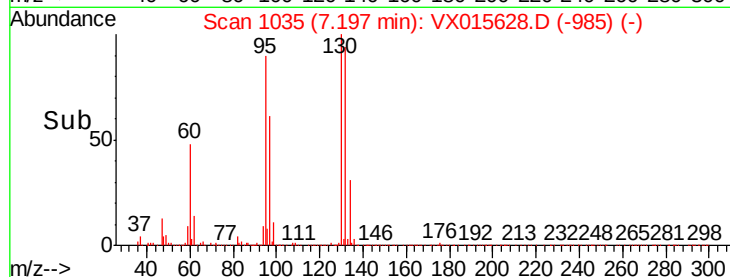
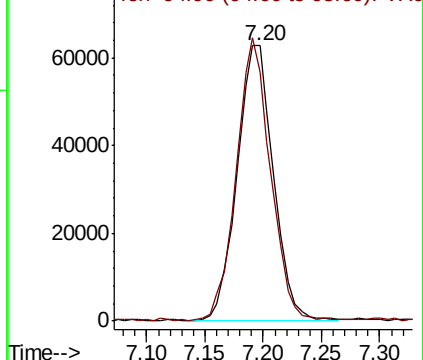
130 100

95 89.7 0.0 199.0



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0



#49

1,4-Dioxane

Concen: 0.858 ug/l

RT: 7.70 min Scan# 1118

Delta R.T. -0.01 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

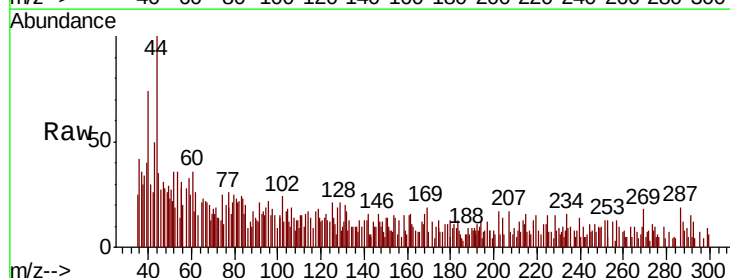
Tgt Ion: 88 Resp: 271

Ion Ratio Lower Upper

88 100

43 538.4 30.1 45.1#

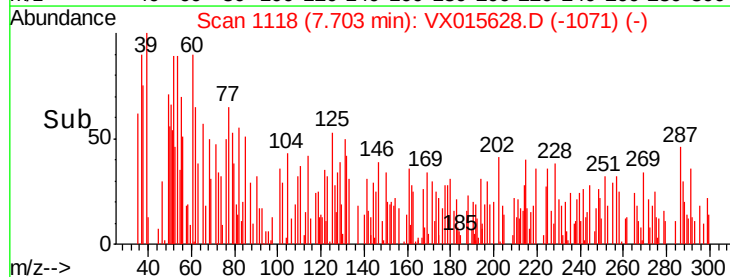
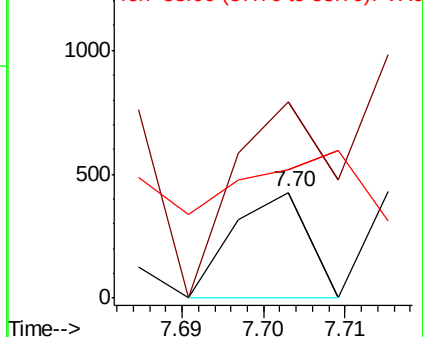
58 94.8 60.6 90.8#

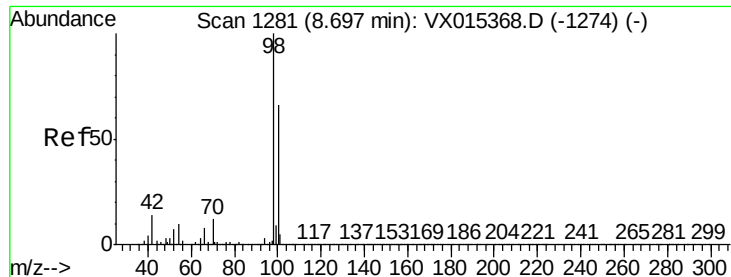


Abundance Ion 88.00 (87.70 to 88.70): VX0

Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

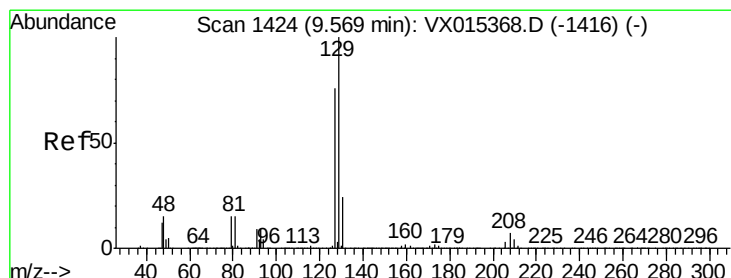
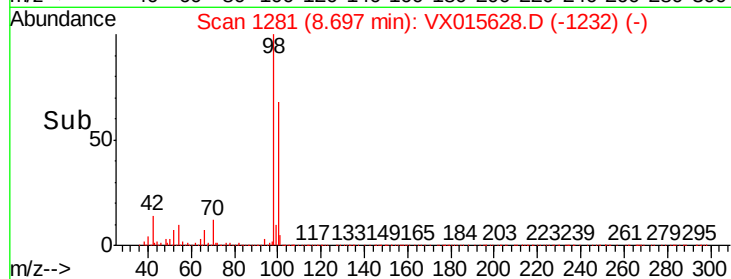
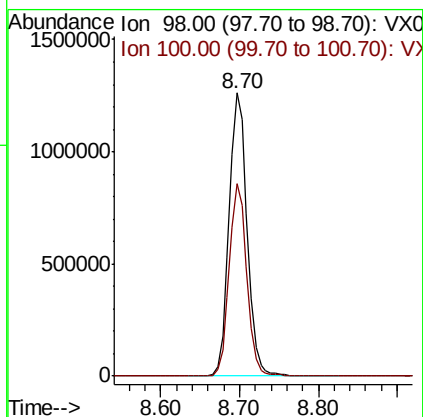
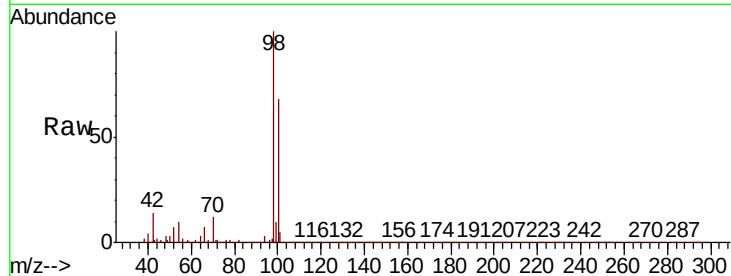




#50  
Toluene-d8  
Concen: 50.920 ug/l  
RT: 8.70 min Scan# 1281  
Delta R.T. 0.00 min  
Lab File: VX015628.D  
Acq: 10 Apr 2020 17:49

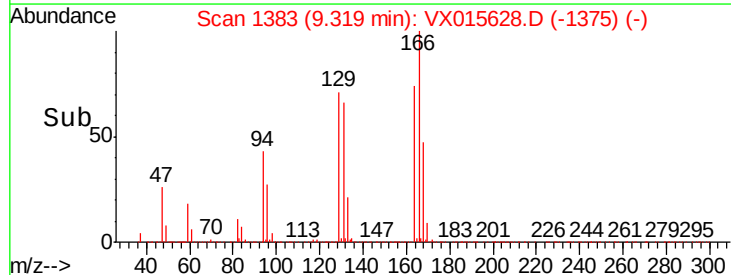
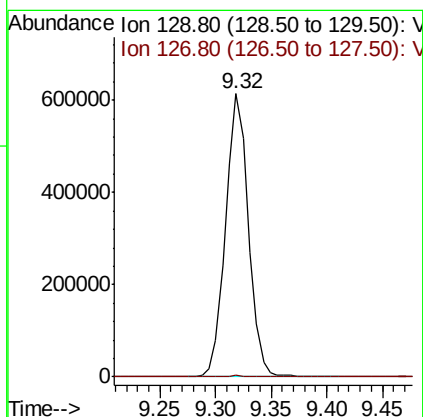
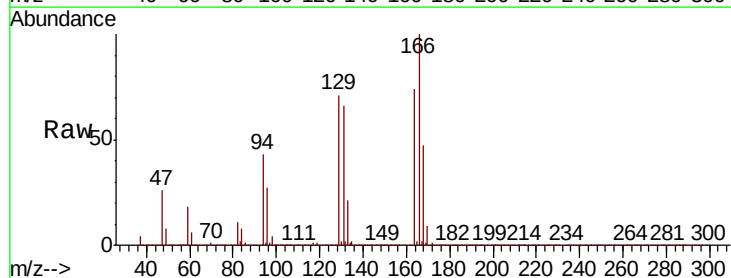
Instrument :  
MSVOA\_X  
ClientSampled :

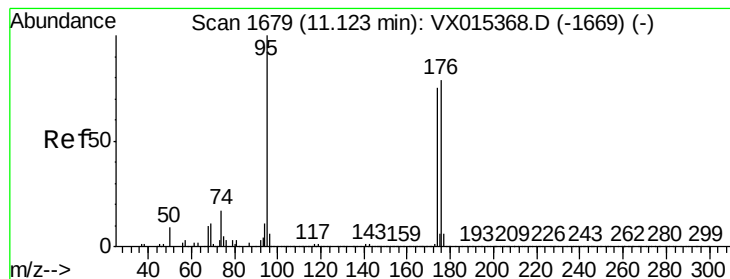
Tot Ion: 98 Resp: 2005640  
Ion Ratio Lower Upper  
98 100  
100 66.6 53.5 80.3



#60  
Dibromochloromethane  
Concen: 63.400 ug/l  
RT: 9.32 min Scan# 1383  
Delta R.T. -0.25 min  
Lab File: VX015628.D  
Acq: 10 Apr 2020 17:49

Tgt Ion: 129 Resp: 869250  
Ion Ratio Lower Upper  
129 100  
127 0.2 38.2 114.6#





#62

4-Bromofluorobenzene

Concen: 53.504 ug/l

RT: 11.12 min Scan# 1679

Delta R.T. 0.00 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

Instrument :

MSVOA\_X

ClientSampleId :

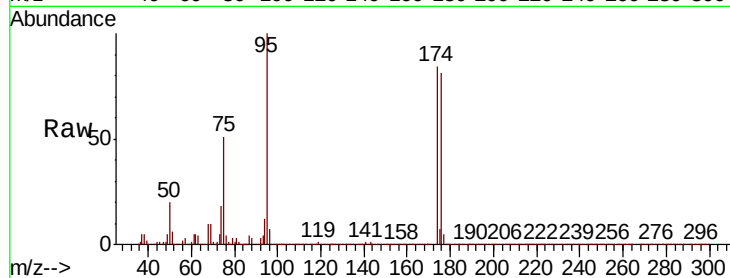
Tot Ion: 95 Resp: 856463

Ion Ratio Lower Upper

95 100

174 84.2 0.0 158.6

176 80.2 0.0 159.0

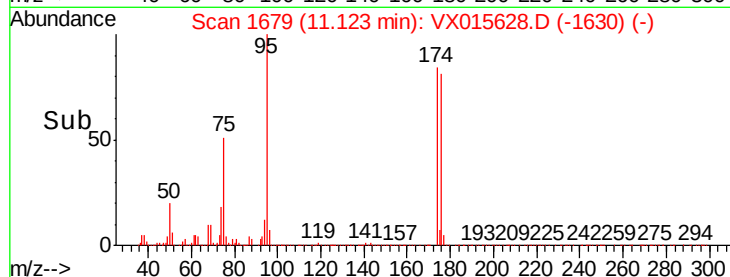


Abundance Ion 94.90 (94.60 to 95.60): VX015628.D (-1669) (-)

Ion 173.80 (173.50 to 174.50): VX015628.D (-1669) (-)

Ion 175.80 (175.50 to 176.50): VX015628.D (-1669) (-)

Time-->

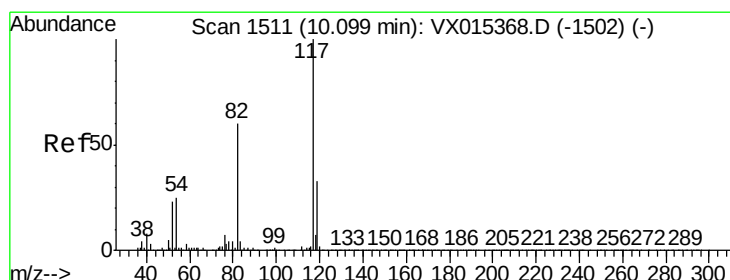


Abundance Ion 94.90 (94.60 to 95.60): VX015628.D (-1669) (-)

Ion 173.80 (173.50 to 174.50): VX015628.D (-1669) (-)

Ion 175.80 (175.50 to 176.50): VX015628.D (-1669) (-)

Time-->



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.10 min Scan# 1511

Delta R.T. 0.00 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

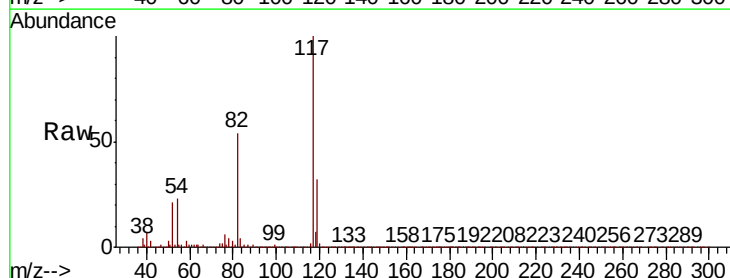
Tgt Ion: 117 Resp: 1626146

Ion Ratio Lower Upper

117 100

82 54.5 47.8 71.8

119 31.9 26.8 40.2

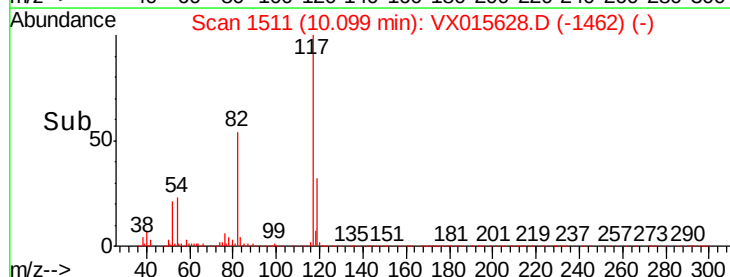


Abundance Ion 116.90 (116.60 to 117.60): VX015628.D (-1462) (-)

Ion 82.00 (81.70 to 82.70): VX015628.D (-1462) (-)

Ion 118.90 (118.60 to 119.60): VX015628.D (-1462) (-)

Time-->

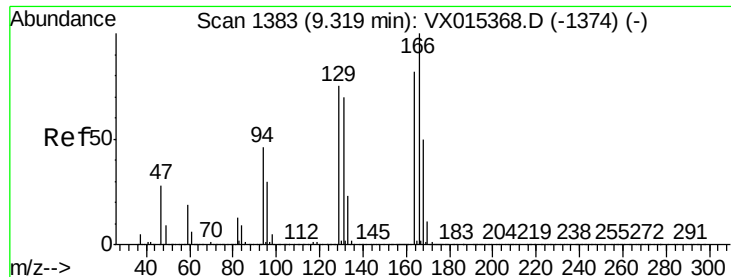


Abundance Ion 116.90 (116.60 to 117.60): VX015628.D (-1462) (-)

Ion 82.00 (81.70 to 82.70): VX015628.D (-1462) (-)

Ion 118.90 (118.60 to 119.60): VX015628.D (-1462) (-)

Time-->



#64

Tetrachloroethene

Concen: 79.061 ug/l

RT: 9.32 min Scan# 1383

Delta R.T. 0.00 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

Instrument :

MSVOA\_X

ClientSampleId :

Tot Ion:164 Resp: 970252

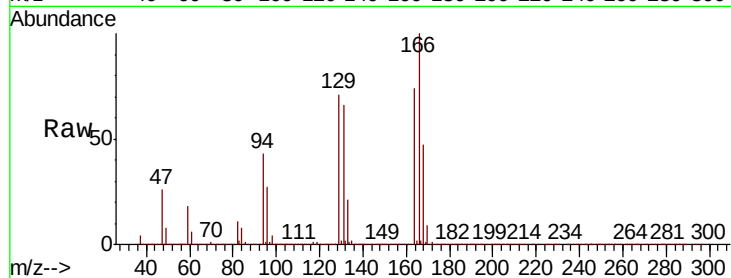
Ion Ratio Lower Upper

164 100

166 134.9 97.8 146.6

129 95.2 73.0 109.4

131 89.5 68.6 103.0

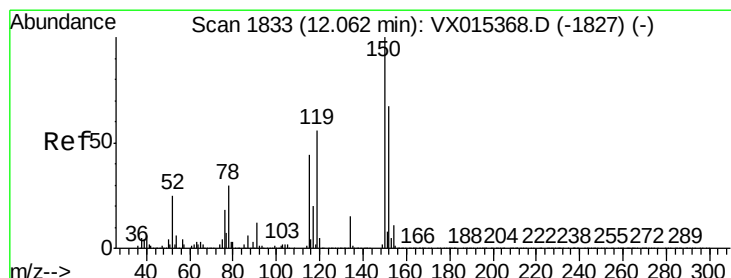
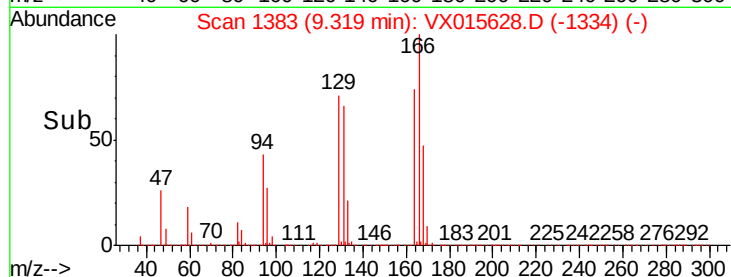
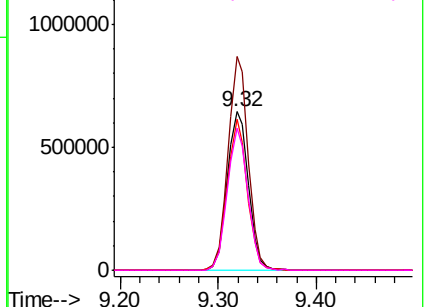


Abundance Ion 163.80 (163.50 to 164.50): V

Ion 165.80 (165.50 to 166.50): V

Ion 128.80 (128.50 to 129.50): V

Ion 130.80 (130.50 to 131.50): V



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.06 min Scan# 1833

Delta R.T. 0.00 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

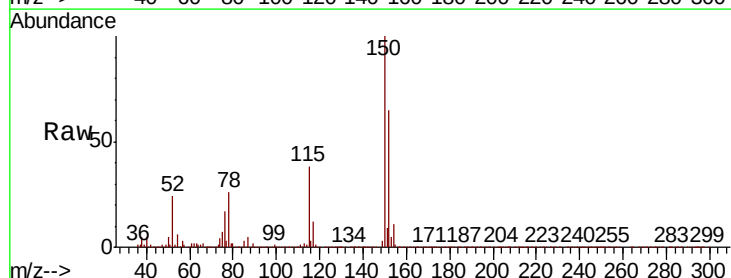
Tgt Ion:152 Resp: 872036

Ion Ratio Lower Upper

152 100

115 57.9 39.0 116.9

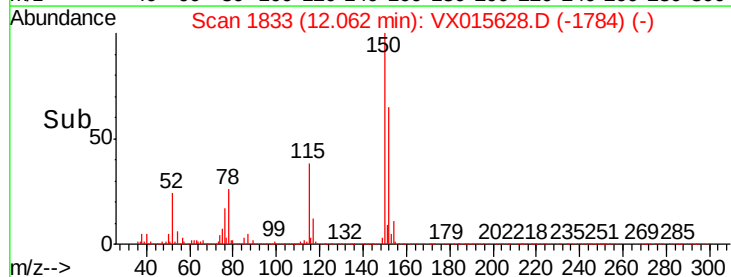
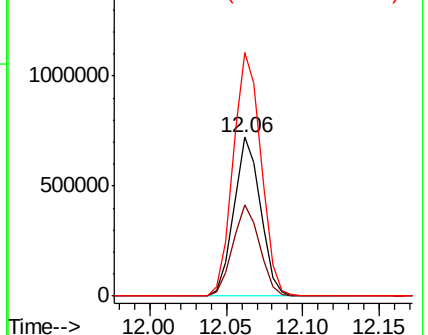
150 159.8 0.0 340.8

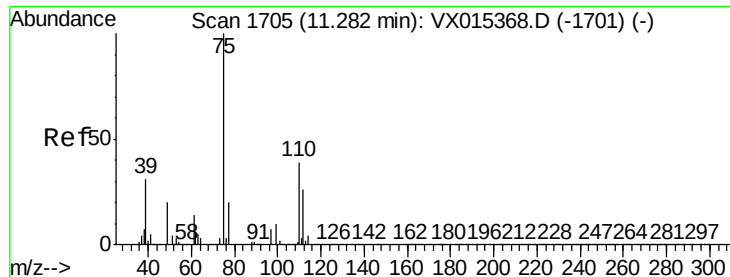


Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V





#76

1,2,3-Trichloropropane

Concen: 24.605 ug/l

RT: 11.12 min Scan# 1679

Delta R.T. -0.16 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

Instrument :

MSVOA\_X

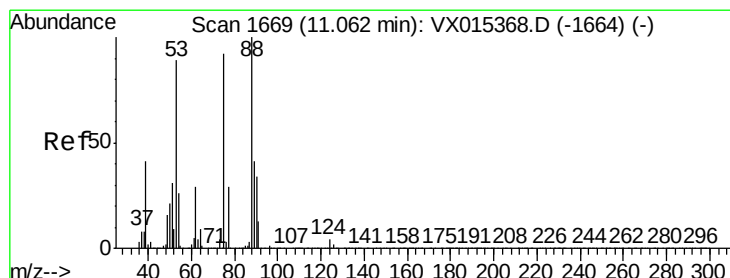
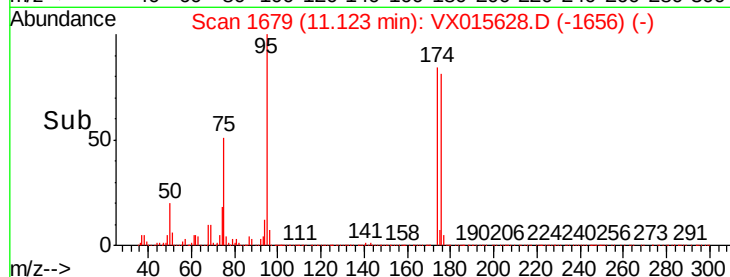
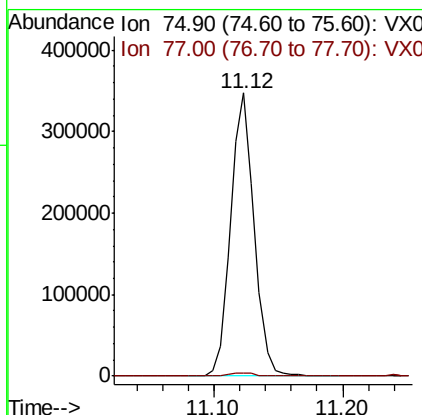
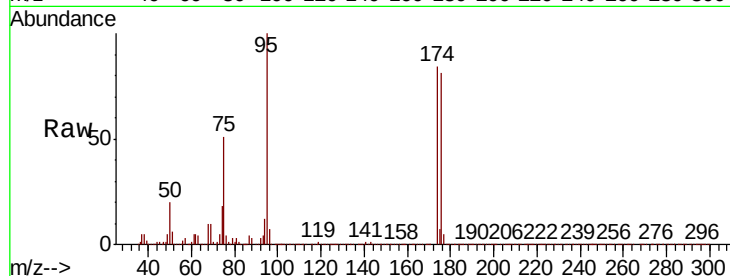
ClientSampleId :

Tot Ion: 75 Resp: 441239

Ion Ratio Lower Upper

75 100

77 1.4 21.2 63.6#



#81

trans-1,4-Dichloro-2-butene

Concen: 59.039 ug/l

RT: 11.12 min Scan# 1679

Delta R.T. 0.06 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

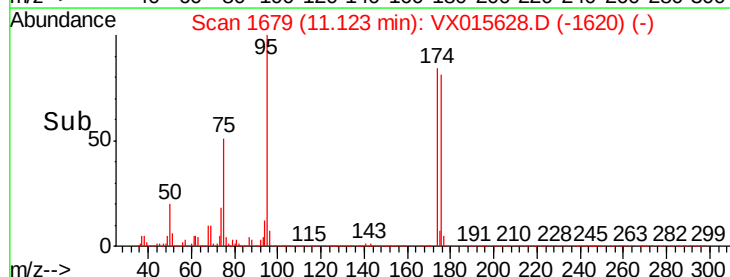
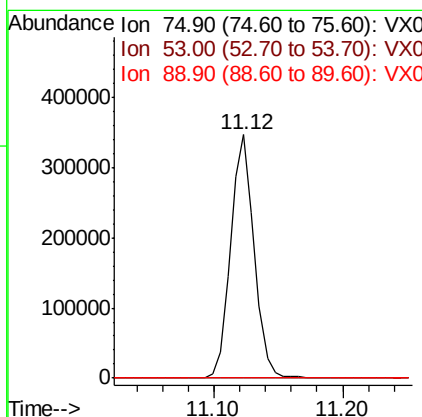
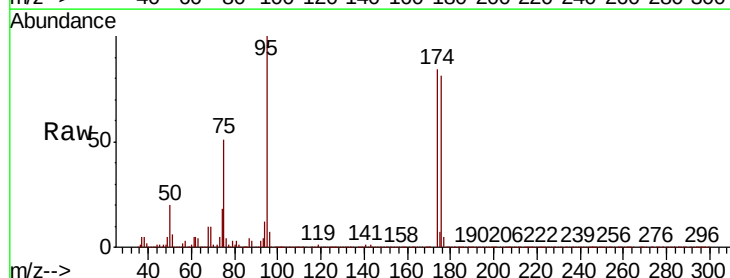
Tgt Ion: 75 Resp: 441239

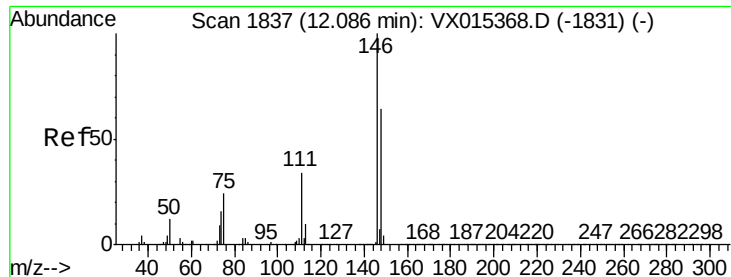
Ion Ratio Lower Upper

75 100

53 0.0 80.1 120.1#

89 0.0 36.1 54.1#





#88

1,4-Dichlorobenzene

Concen: 0.227 ug/l

RT: 12.09 min Scan# 1837

Delta R.T. 0.00 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

Instrument :

MSVOA\_X

ClientSampled :

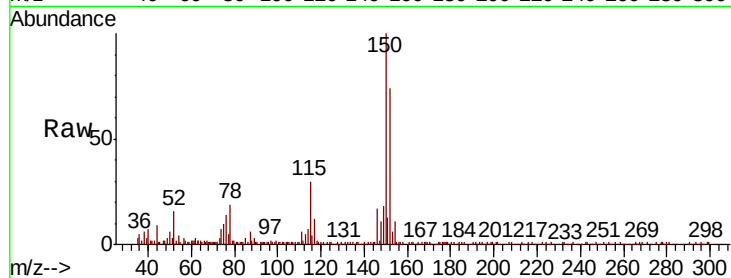
Tot Ion:146 Resp: 6312

Ion Ratio Lower Upper

146 100

111 0.0 19.1 57.5#

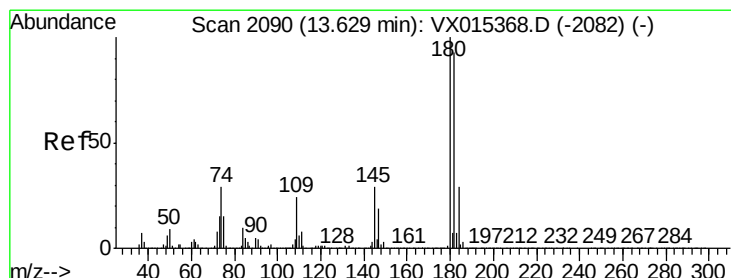
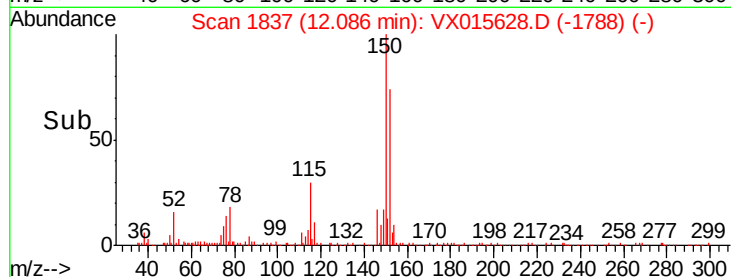
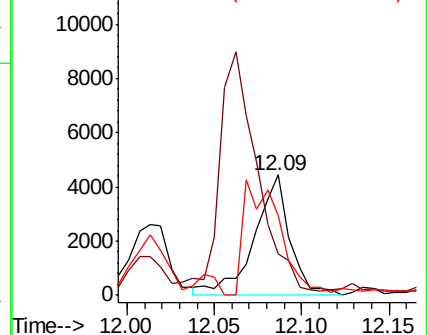
148 0.0 32.4 97.2#



Abundance Ion 145.90 (145.60 to 146.60): V

Ion 110.90 (110.60 to 111.60): V

Ion 147.90 (147.60 to 148.60): V



#93

1,2,4-Trichlorobenzene

Concen: 0.296 ug/l

RT: 13.63 min Scan# 2090

Delta R.T. 0.00 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

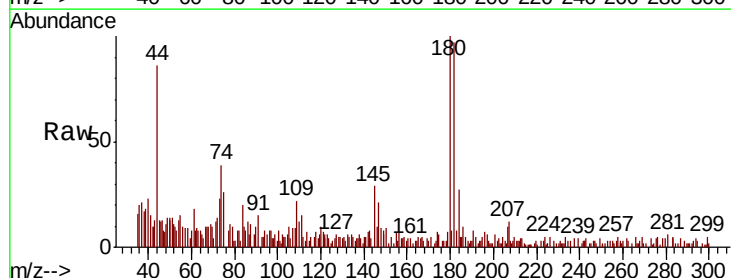
Tgt Ion:180 Resp: 6243

Ion Ratio Lower Upper

180 100

182 93.1 46.9 140.7

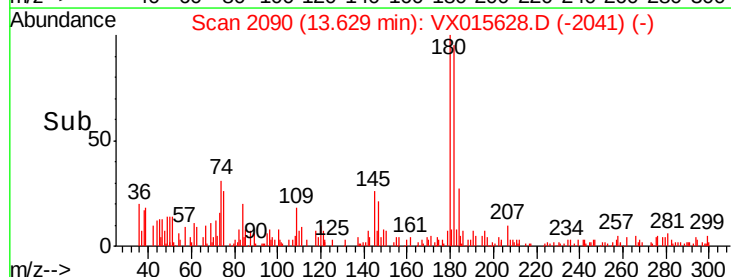
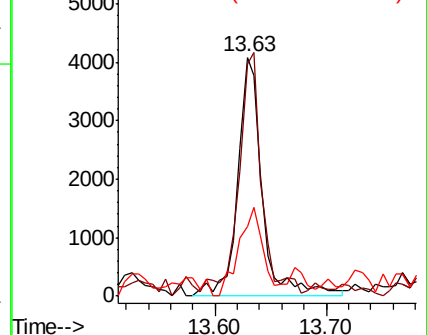
145 38.2 14.9 44.5

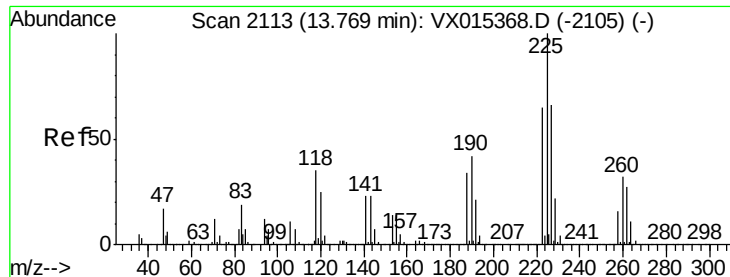


Abundance Ion 179.80 (179.50 to 180.50): V

Ion 181.80 (181.50 to 182.50): V

Ion 144.80 (144.50 to 145.50): V





#94

Hexachlorobutadiene

Concen: 0.380 ug/l

RT: 13.76 min Scan# 2112

Delta R.T. -0.01 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

Instrument :

MSVOA\_X

ClientSampleId :

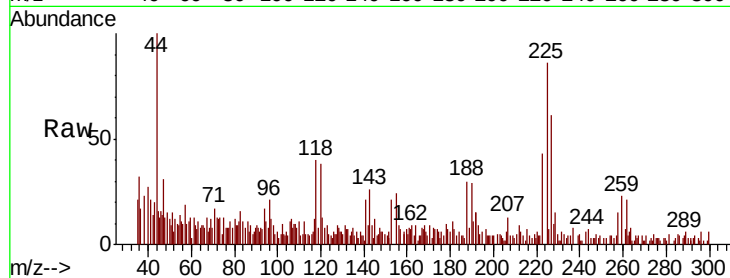
Tot Ion:225 Resp: 3824

Ion Ratio Lower Upper

225 100

223 58.2 31.9 95.7

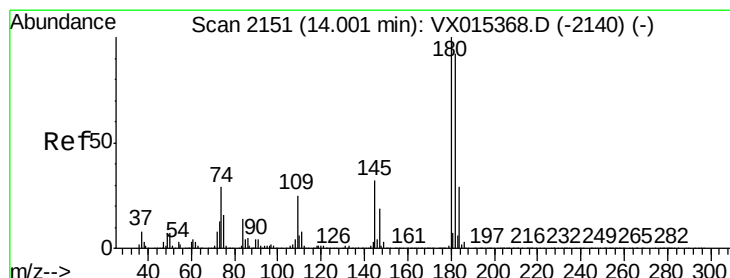
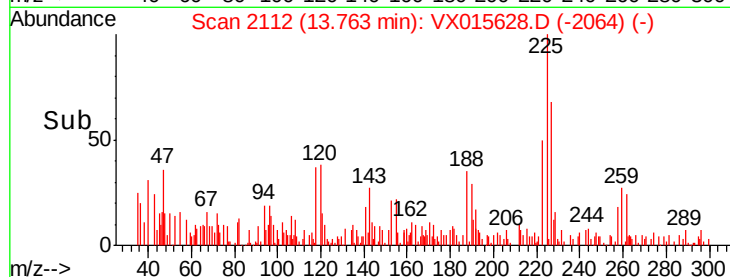
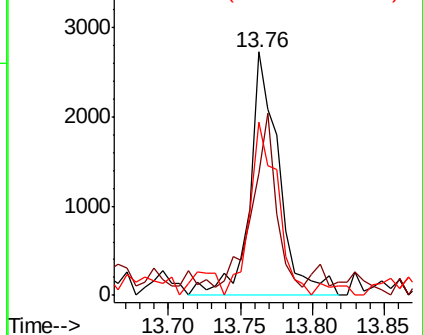
227 66.9 30.4 91.3



Abundance Ion 224.70 (224.40 to 225.40): V

Ion 222.70 (222.40 to 223.40): V

Ion 226.70 (226.40 to 227.40): V



#96

1,2,3-Trichlorobenzene

Concen: 0.261 ug/l

RT: 14.00 min Scan# 2151

Delta R.T. 0.00 min

Lab File: VX015628.D

Acq: 10 Apr 2020 17:49

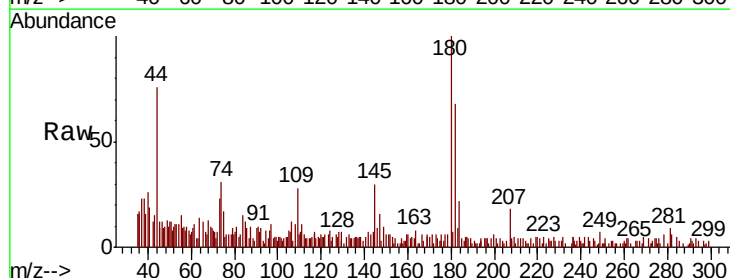
Tgt Ion:180 Resp: 5301

Ion Ratio Lower Upper

180 100

182 87.6 46.7 140.0

145 34.9 15.8 47.3



Abundance Ion 179.80 (179.50 to 180.50): V

Ion 181.80 (181.50 to 182.50): V

Ion 144.90 (144.60 to 145.60): V

