

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX120619\  
 Data File : VX013795.D  
 Acq On : 06 Dec 2019 13:32  
 Operator : JC/SP  
 Sample : K6184-08  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 RE123D2-20191203

Quant Time: Dec 07 02:36:32 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X112619W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Nov 26 15:53:00 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 636064   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.85  | 114  | 976880   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 855376   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 376868   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.05  | 65   | 349388   | 47.32 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 94.64% |          |
| 35) Dibromofluoromethane    | 5.49  | 113  | 289050   | 47.86 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 95.72% |          |
| 50) Toluene-d8              | 8.71  | 98   | 1141436  | 48.51 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.02% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 378484   | 44.61 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 89.22% |          |

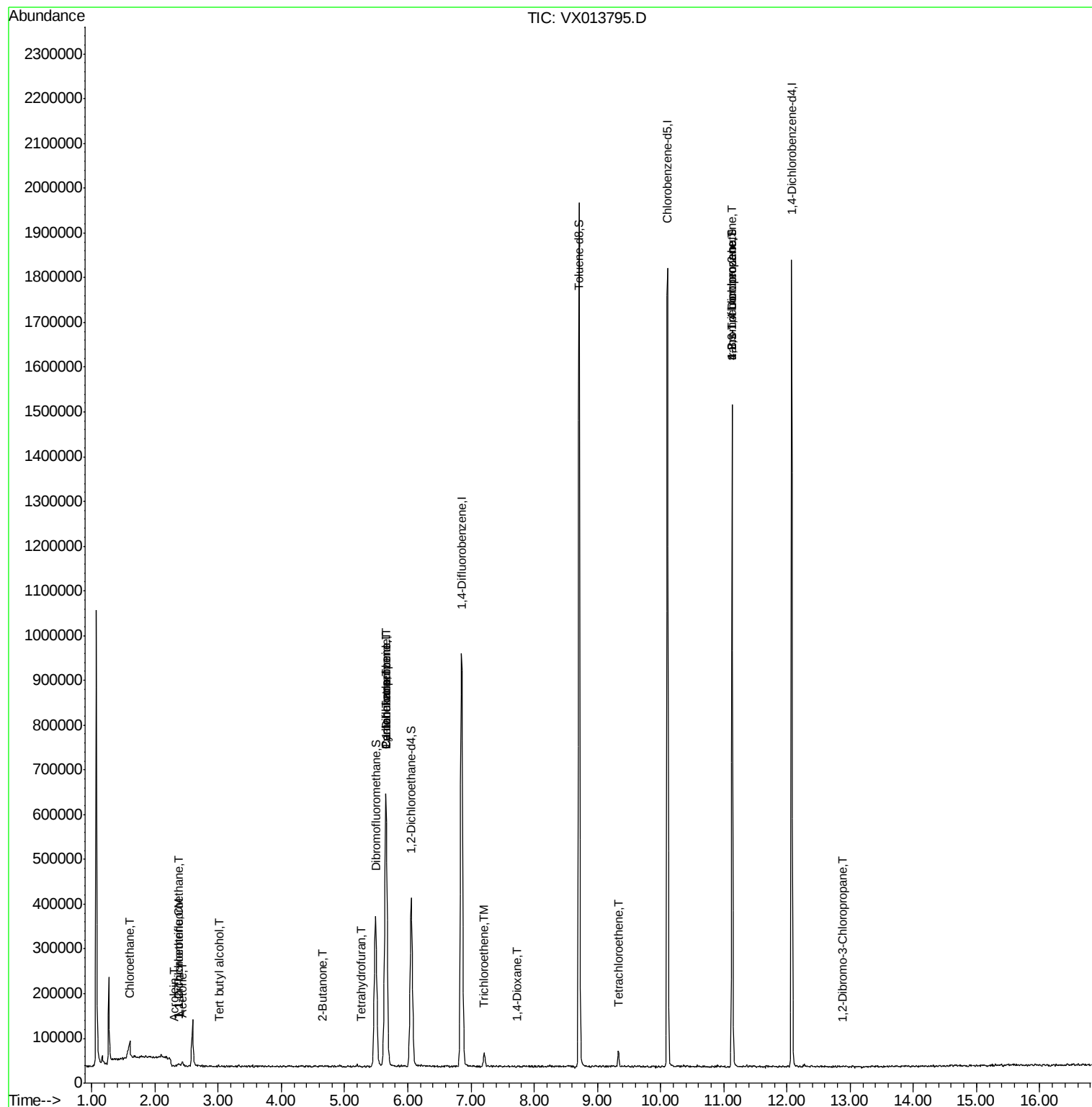
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 6) Chloroethane                | 1.59  | 64   | 4535     | 0.891  | ug/l # | 48     |
| 9) 1,1,2-Trichlorotrifluoroet  | 2.38  | 101  | 2395     | 0.395  | ug/l # | 75     |
| 11) Tert butyl alcohol         | 3.02  | 59   | 1446     | 0.793  | ug/l # | 76     |
| 12) 1,1-Dichloroethene         | 2.36  | 96   | 1294     | 0.214  | ug/l # | 49     |
| 13) Acrolein                   | 2.30  | 56   | 443      | 6.359  | ug/l # | 44     |
| 16) Acetone                    | 2.44  | 43   | 10524    | 2.887  | ug/l   | 99     |
| 25) 2-Butanone                 | 4.65  | 43   | 1417     | 0.262  | ug/l # | 62     |
| 29) Tetrahydrofuran            | 5.26  | 42   | 761      | 0.228  | ug/l   | 93     |
| 31) Cyclohexane                | 5.65  | 56   | 11140    | 1.021  | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.65  | 75   | 41104    | 4.635  | ug/l # | 53     |
| 38) Carbon Tetrachloride       | 5.65  | 117  | 55042    | 6.732  | ug/l # | 14     |
| 44) Trichloroethene            | 7.21  | 130  | 12741    | 1.719  | ug/l   | 99     |
| 49) 1,4-Dioxane                | 7.72  | 88   | 61       | 0.342  | ug/l # | 24     |
| 64) Tetrachloroethene          | 9.33  | 164  | 7408     | 1.161  | ug/l # | 87     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 184865   | 21.809 | ug/l # | 39     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 184865   | 59.666 | ug/l # | 11     |
| 92) 1,2-Dibromo-3-Chloropropan | 12.87 | 75   | 441      | 0.221  | ug/l   | 59     |

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

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Instrument :  
MSVOA\_X  
ClientSampleId :  
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Quant Time: Dec 07 02:36:32 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X112619W.M  
Quant Title : SW846 8260  
QLast Update : Tue Nov 26 15:53:00 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: VX013795.D

Acq: 06 Dec 2019 13:32

Instrument :

MSVOA\_X

ClientSampleId :

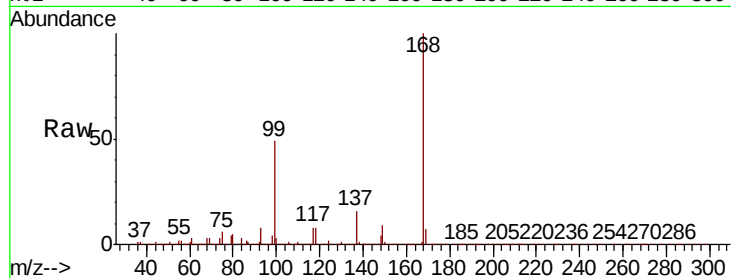
RE123D2-20191203

Tot Ion:168 Resp: 636064

Ion Ratio Lower Upper

168 100

99 49.2 39.8 59.8



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.65

250000

200000

150000

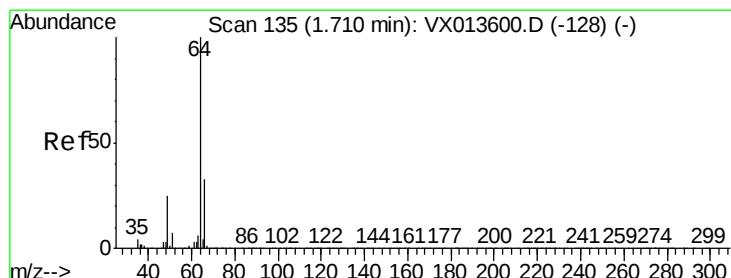
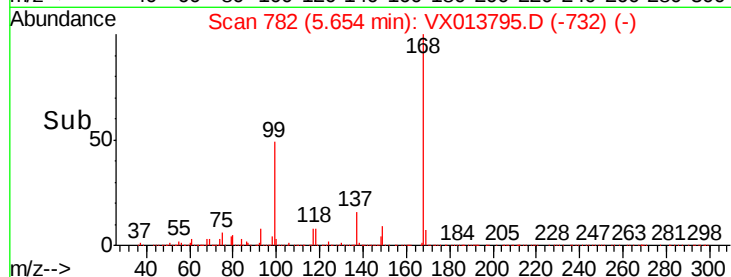
100000

50000

0

5.60 5.80

Time-->



#6

Chloroethane

Concen: 0.891 ug/l

RT: 1.59 min Scan# 115

Delta R.T. -0.12 min

Lab File: VX013795.D

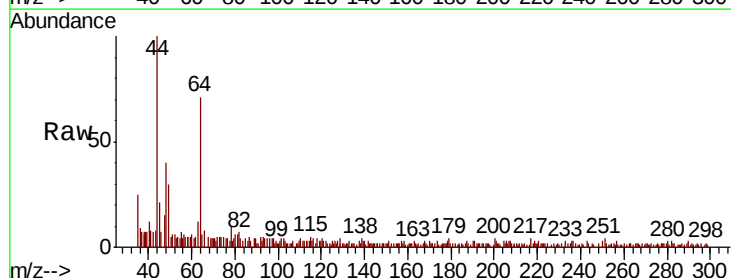
Acq: 06 Dec 2019 13:32

Tgt Ion: 64 Resp: 4535

Ion Ratio Lower Upper

64 100

66 3.7 26.7 40.1#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0

1.59

6000

5000

4000

3000

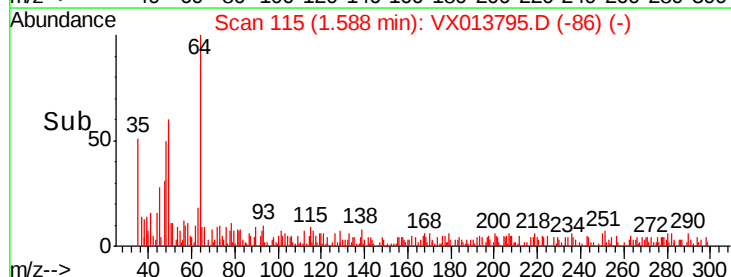
2000

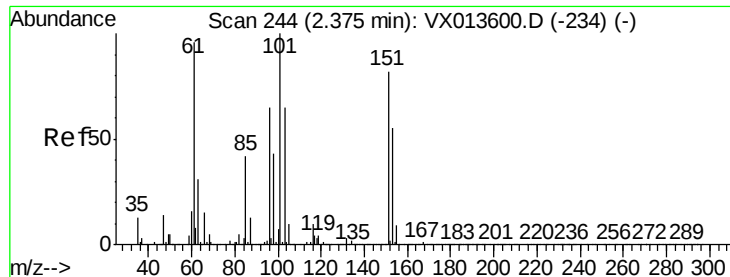
1000

0

1.55 1.60

Time-->





#9

1,1,2-Trichlorotrifluoroethane

Concen: 0.395 ug/l

RT: 2.38 min Scan# 245

Delta R.T. 0.01 min

Lab File: VX013795.D

Acq: 06 Dec 2019 13:32

Instrument :

MSVOA\_X

ClientSampleId :

RE123D2-20191203

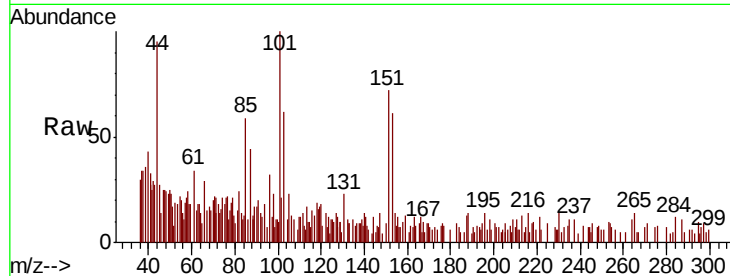
Tot Ion:101 Resp: 2395

Ion Ratio Lower Upper

101 100

85 64.3 33.9 50.9#

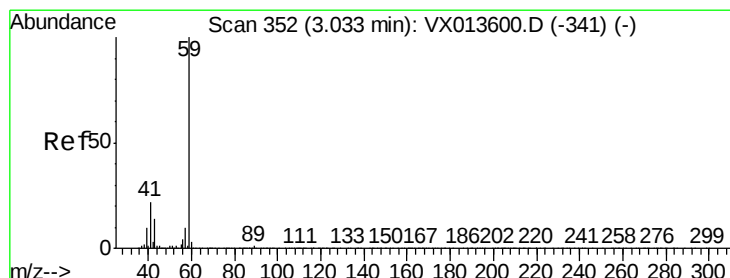
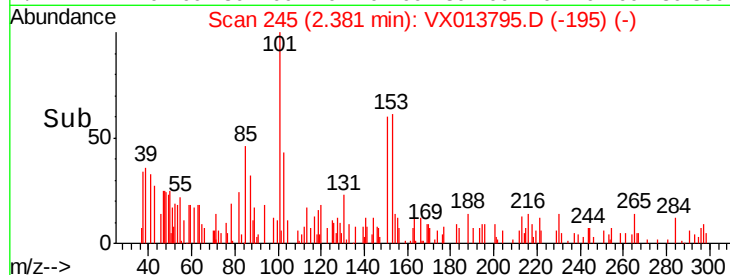
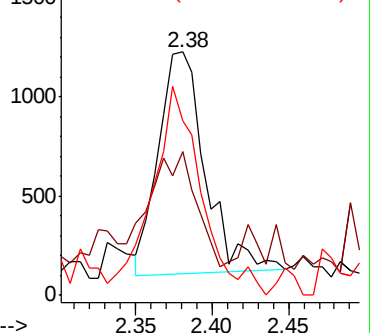
151 97.8 64.2 96.2#



Abundance Ion 100.90 (100.60 to 101.60): V

Ion 84.90 (84.60 to 85.60): VX0

Ion 150.80 (150.50 to 151.50): V



#11

Tert butyl alcohol

Concen: 0.793 ug/l

RT: 3.02 min Scan# 350

Delta R.T. -0.01 min

Lab File: VX013795.D

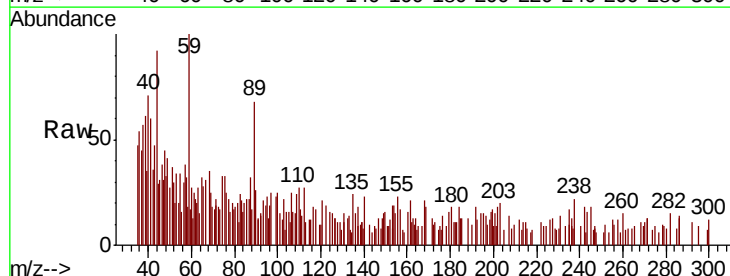
Acq: 06 Dec 2019 13:32

Tgt Ion: 59 Resp: 1446

Ion Ratio Lower Upper

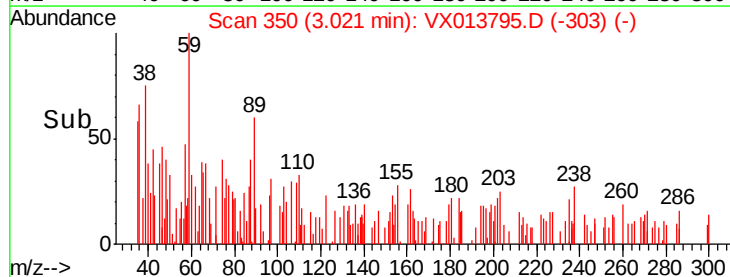
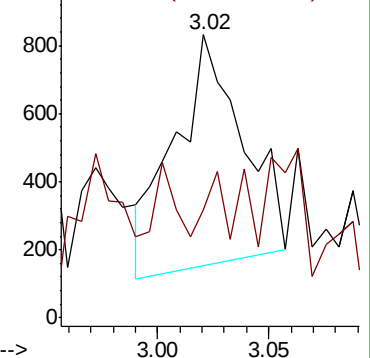
59 100

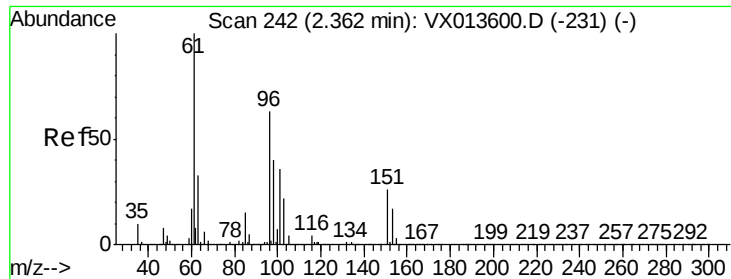
57 18.4 7.8 11.6#



Abundance Ion 59.00 (58.70 to 59.70): VX0

Ion 57.00 (56.70 to 57.70): VX0





#12

1,1-Dichloroethene

Concen: 0.214 ug/l

RT: 2.36 min Scan# 242

Delta R.T. -0.00 min

Lab File: VX013795.D

Acq: 06 Dec 2019 13:32

Instrument :

MSVOA\_X

ClientSampleId :

RE123D2-20191203

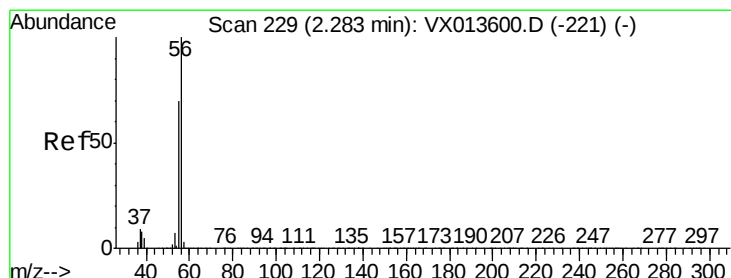
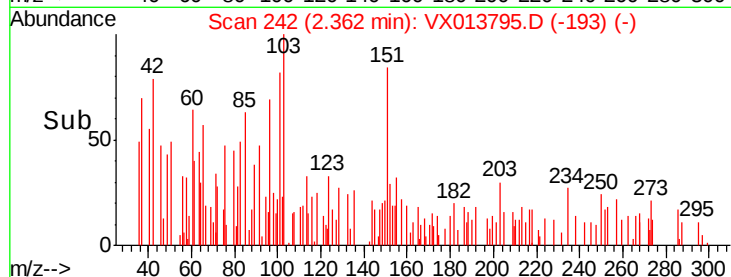
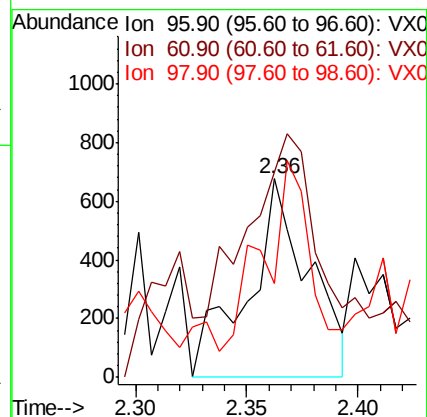
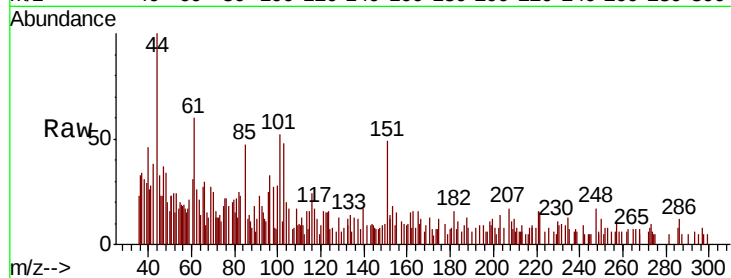
Tot Ion: 96 Resp: 1294

Ion Ratio Lower Upper

96 100

61 87.2 126.6 190.0#

98 29.5 50.6 76.0#



#13

Acrolein

Concen: 6.359 ug/l

RT: 2.30 min Scan# 232

Delta R.T. 0.02 min

Lab File: VX013795.D

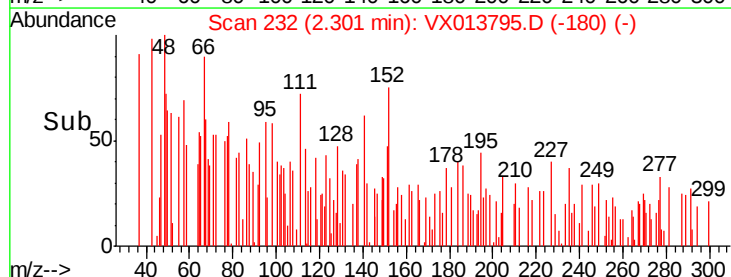
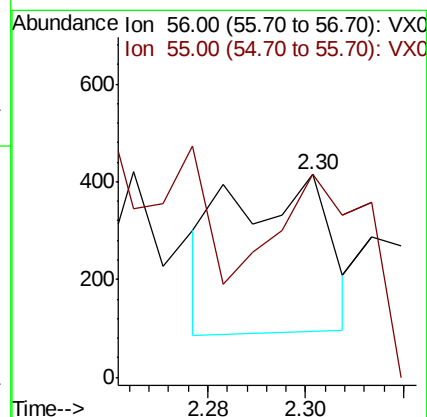
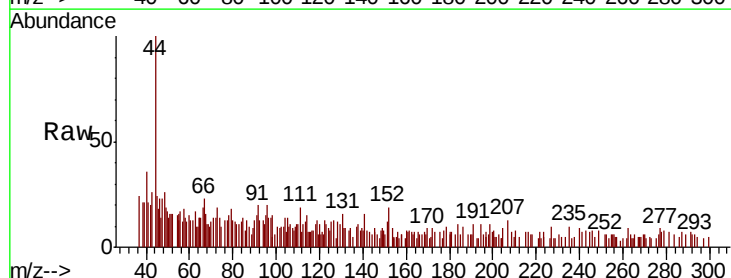
Acq: 06 Dec 2019 13:32

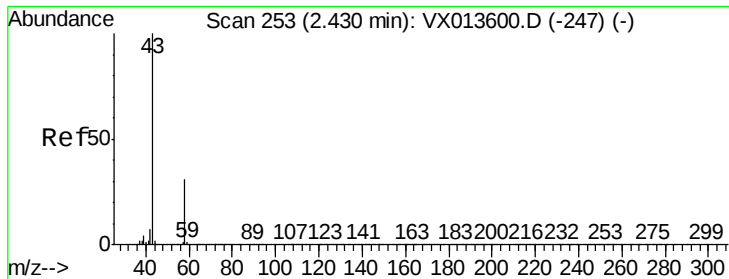
Tgt Ion: 56 Resp: 443

Ion Ratio Lower Upper

56 100

55 116.0 56.2 84.4#

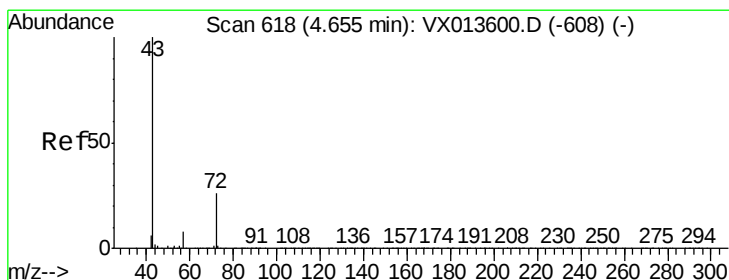
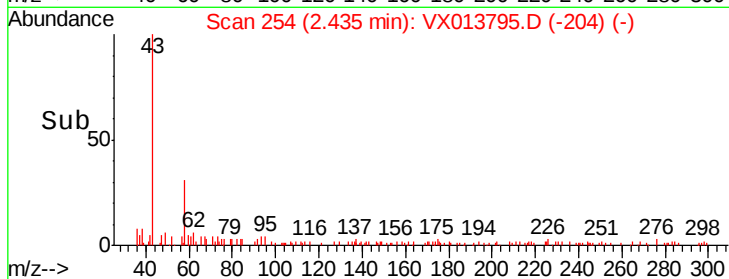
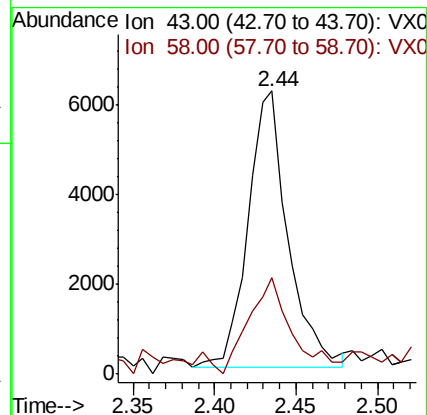
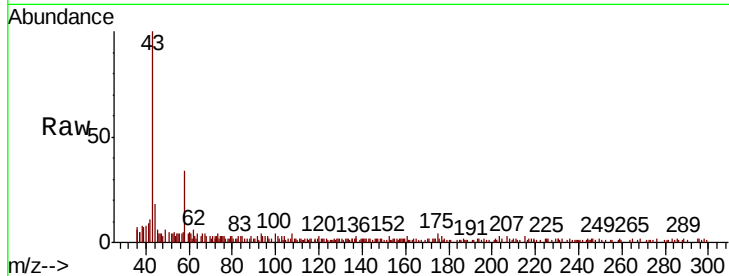




#16  
Acetone  
Concen: 2.887 ug/l  
RT: 2.44 min Scan# 254  
Delta R.T. 0.01 min  
Lab File: VX013795.D  
Acq: 06 Dec 2019 13:32

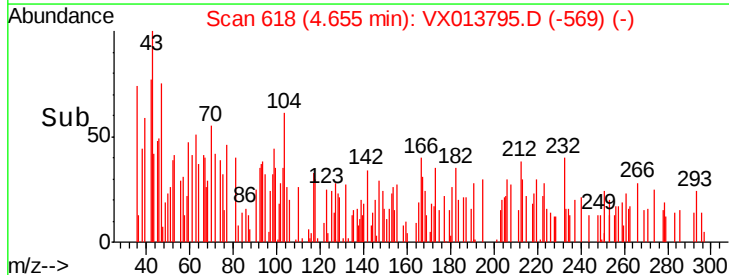
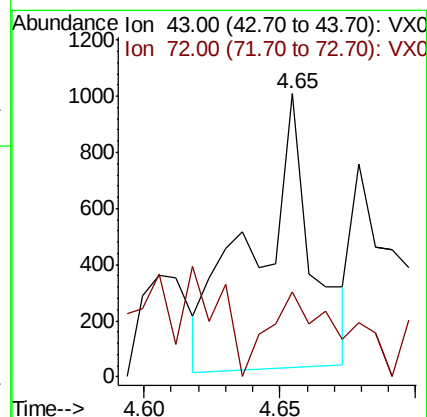
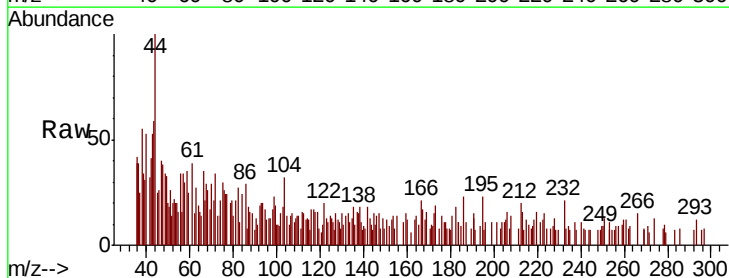
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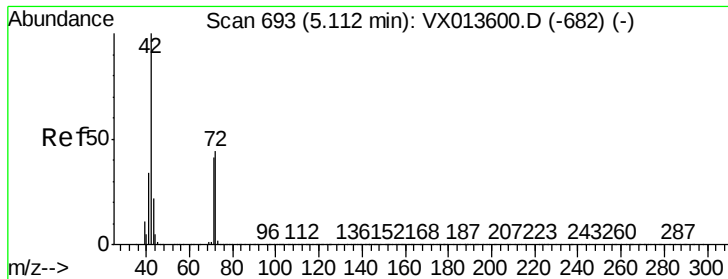
Tot Ion: 43 Resp: 10524  
Ion Ratio Lower Upper  
43 100  
58 31.3 24.6 36.8



#25  
2-Butanone  
Concen: 0.262 ug/l  
RT: 4.65 min Scan# 618  
Delta R.T. -0.00 min  
Lab File: VX013795.D  
Acq: 06 Dec 2019 13:32

Tgt Ion: 43 Resp: 1417  
Ion Ratio Lower Upper  
43 100  
72 6.3 20.6 31.0#





#29

Tetrahydrofuran

Concen: 0.228 ug/l

RT: 5.26 min Scan# 717

Delta R.T. 0.15 min

Lab File: VX013795.D

Acq: 06 Dec 2019 13:32

Instrument :

MSVOA\_X

ClientSampleId :

RE123D2-20191203

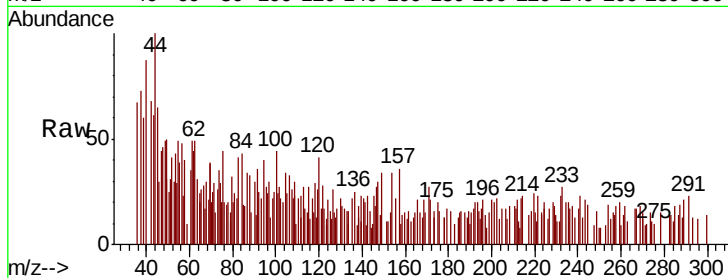
Tot Ion: 42 Resp: 761

Ion Ratio Lower Upper

42 100

72 37.6 36.3 54.5

71 41.1 33.2 49.8



Abundance Ion 42.00 (41.70 to 42.70): VX0

Ion 72.00 (71.70 to 72.70): VX0

Ion 71.00 (70.70 to 71.70): VX0

800

600

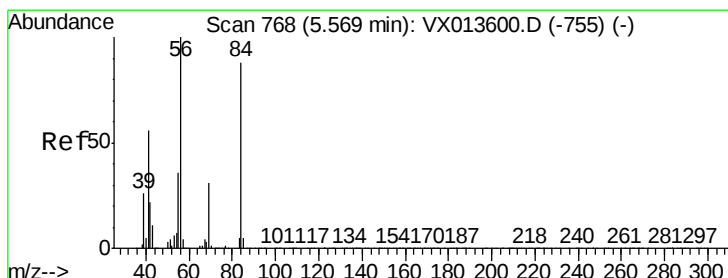
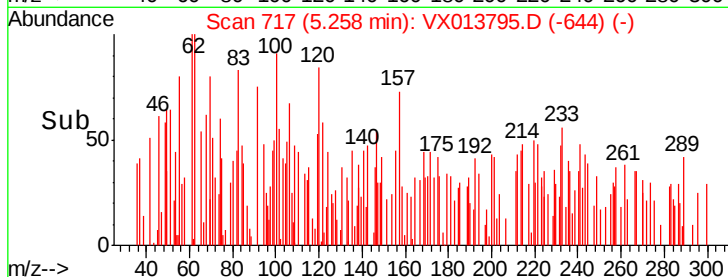
400

200

0

5.22 5.24 5.26 5.28

Time-->



#31

Cyclohexane

Concen: 1.021 ug/l

RT: 5.65 min Scan# 781

Delta R.T. 0.08 min

Lab File: VX013795.D

Acq: 06 Dec 2019 13:32

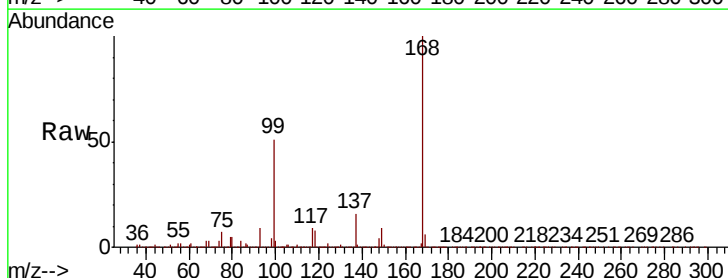
Tgt Ion: 56 Resp: 11140

Ion Ratio Lower Upper

56 100

69 183.1 24.6 36.8#

84 190.5 70.0 105.0#



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 69.00 (68.70 to 69.70): VX0

Ion 84.00 (83.70 to 84.70): VX0

10000

8000

6000

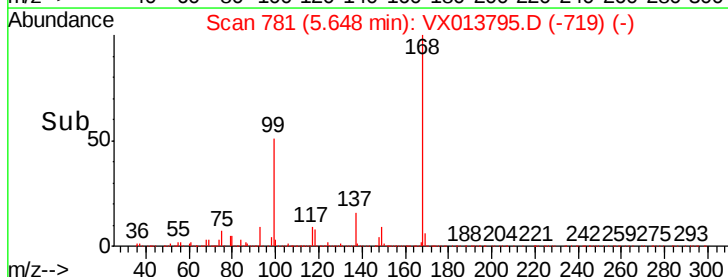
4000

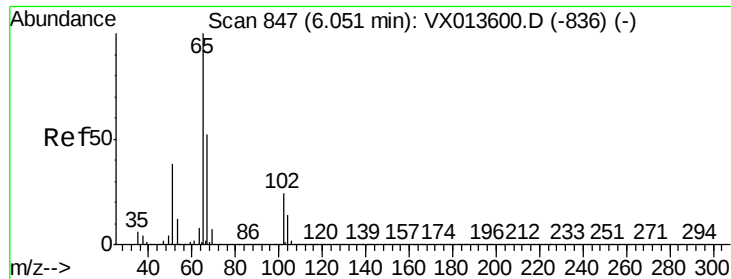
2000

0

5.60 5.70

Time-->

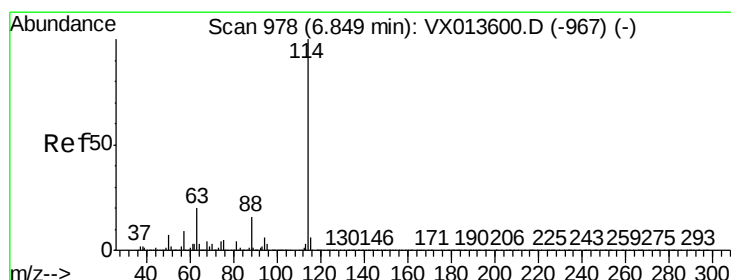
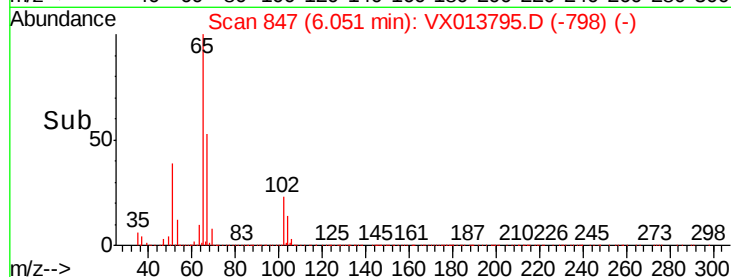
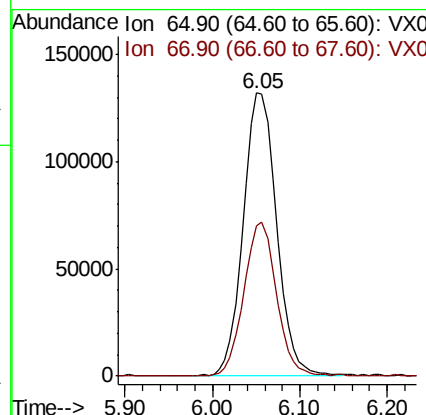
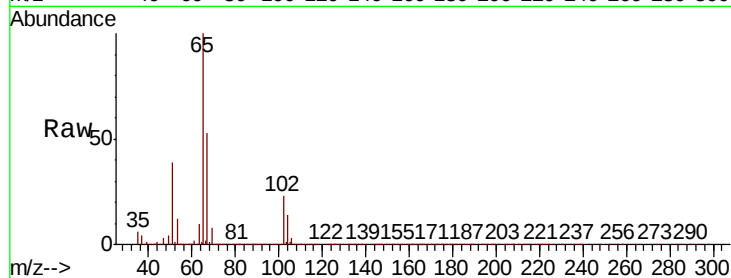




#33  
 1,2-Dichloroethane-d4  
 Concen: 47.322 ug/l  
 RT: 6.05 min Scan# 847  
 Delta R.T. -0.00 min  
 Lab File: VX013795.D  
 Acq: 06 Dec 2019 13:32

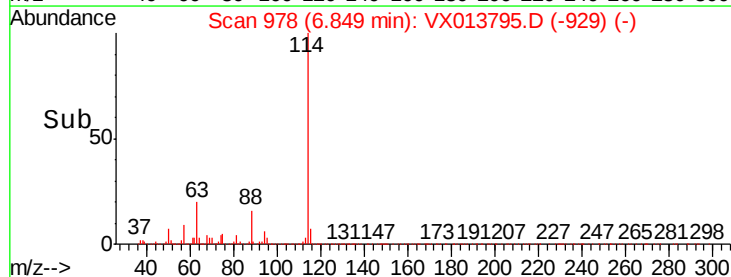
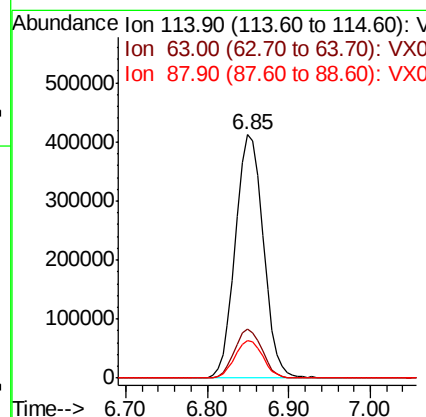
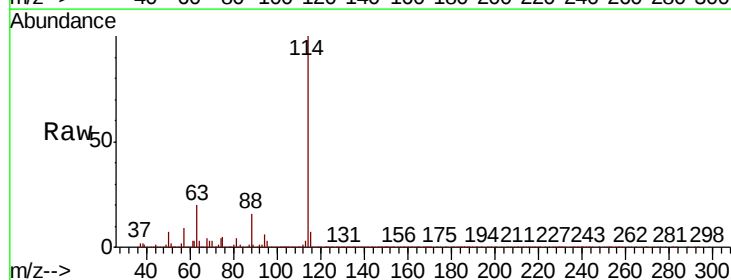
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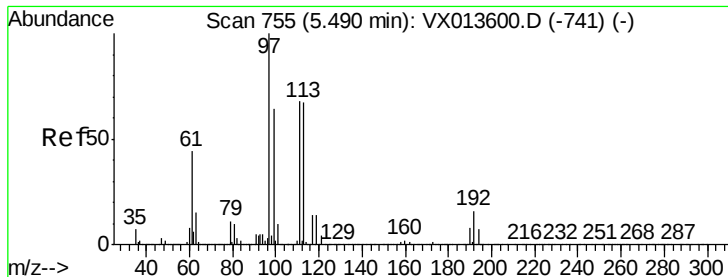
Tot Ion: 65 Resp: 349388  
 Ion Ratio Lower Upper  
 65 100  
 67 53.3 0.0 104.4



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.85 min Scan# 978  
 Delta R.T. -0.00 min  
 Lab File: VX013795.D  
 Acq: 06 Dec 2019 13:32

Tgt Ion: 114 Resp: 976880  
 Ion Ratio Lower Upper  
 114 100  
 63 20.0 0.0 39.6  
 88 15.5 0.0 31.4





#35

Dibromofluoromethane

Concen: 47.862 ug/l

RT: 5.49 min Scan# 755

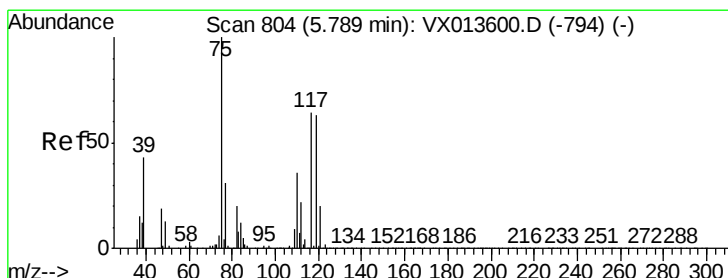
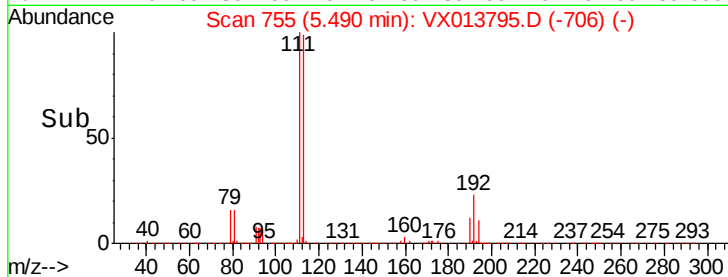
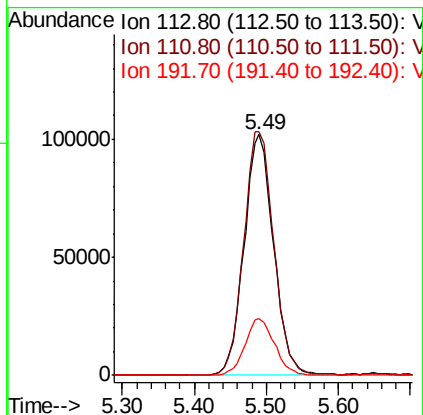
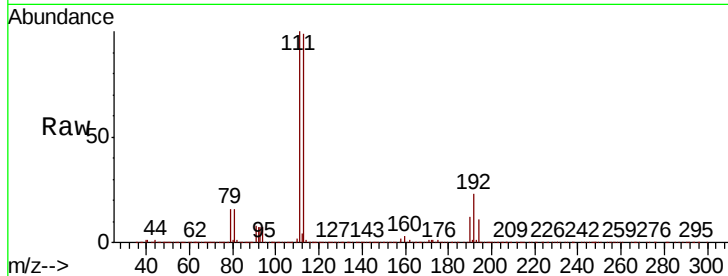
Delta R.T. -0.00 min

Lab File: VX013795.D

Acq: 06 Dec 2019 13:32

Instrument :  
MSVOA\_X  
ClientSampleId :  
RE123D2-20191203

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 113   | Resp: | 289050 |
| Ion      | Ratio | Lower | Upper  |
| 113      | 100   |       |        |
| 111      | 103.7 | 83.6  | 125.4  |
| 192      | 23.6  | 19.2  | 28.8   |



#36

1,1-Dichloropropene

Concen: 4.635 ug/l

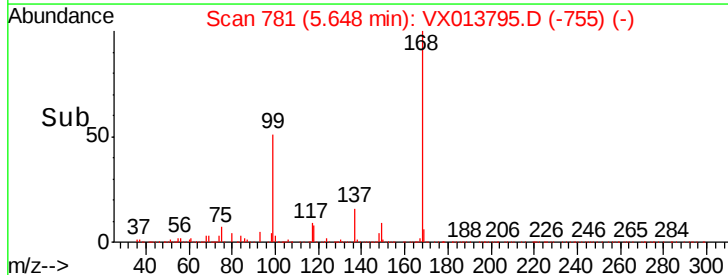
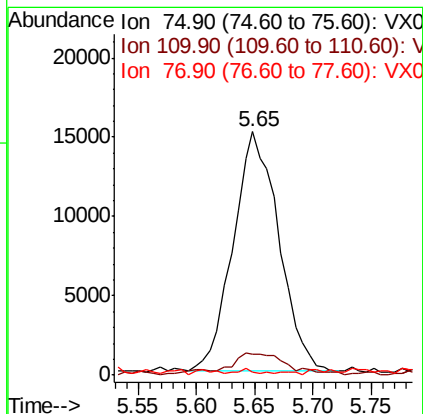
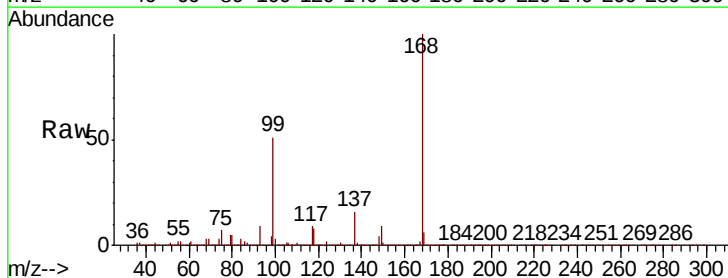
RT: 5.65 min Scan# 781

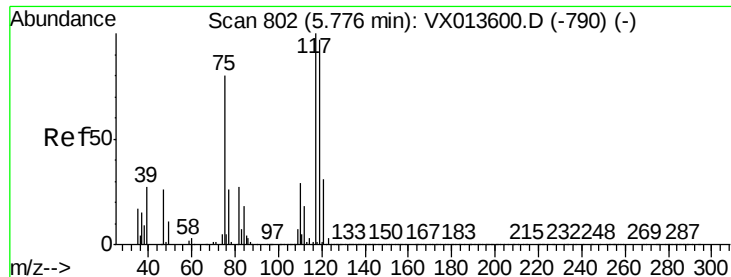
Delta R.T. -0.14 min

Lab File: VX013795.D

Acq: 06 Dec 2019 13:32

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 41104 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 110      | 12.3  | 18.1  | 54.1# |
| 77       | 0.5   | 24.5  | 36.7# |





#38

Carbon Tetrachloride

Concen: 6.732 ug/l

RT: 5.65 min Scan# 782

Delta R.T. -0.12 min

Lab File: VX013795.D

Acq: 06 Dec 2019 13:32

Instrument :

MSVOA\_X

ClientSampleId :

RE123D2-20191203

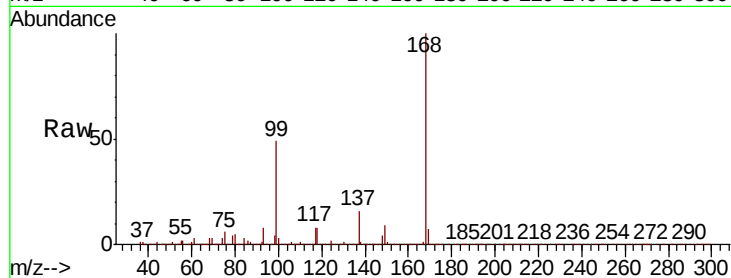
Tot Ion:117 Resp: 55042

Ion Ratio Lower Upper

117 100

119 2.3 77.5 116.3#

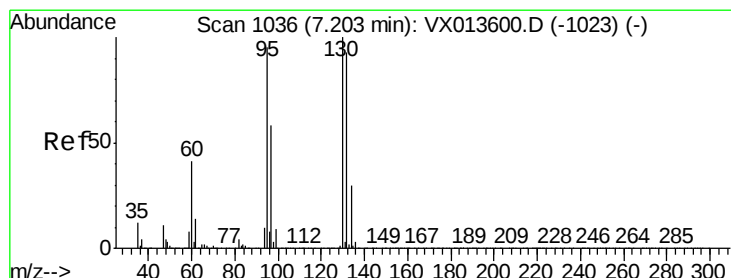
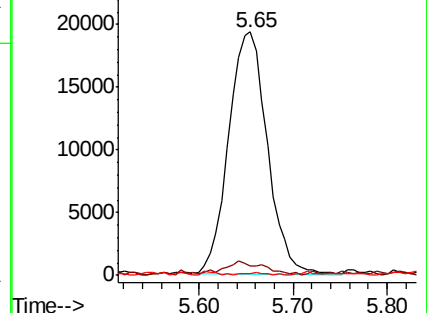
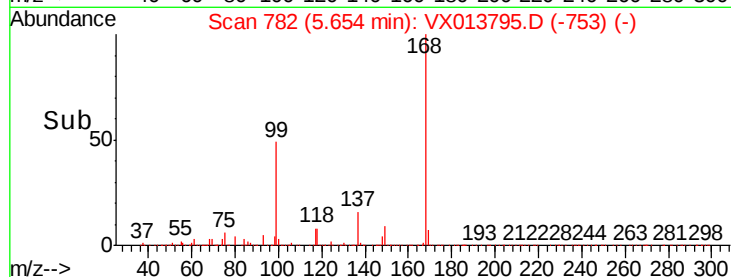
121 1.5 25.0 37.6#



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



#44

Trichloroethene

Concen: 1.719 ug/l

RT: 7.21 min Scan# 1037

Delta R.T. 0.01 min

Lab File: VX013795.D

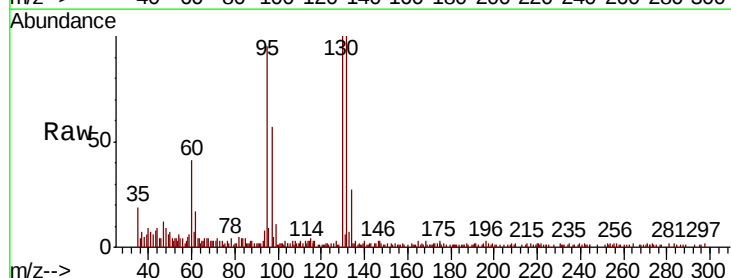
Acq: 06 Dec 2019 13:32

Tgt Ion:130 Resp: 12741

Ion Ratio Lower Upper

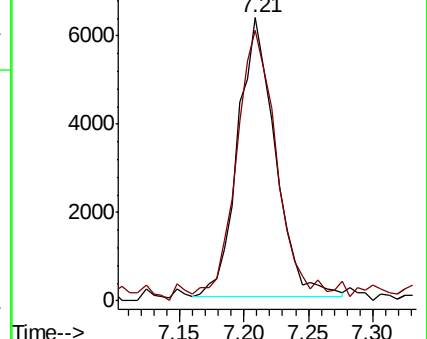
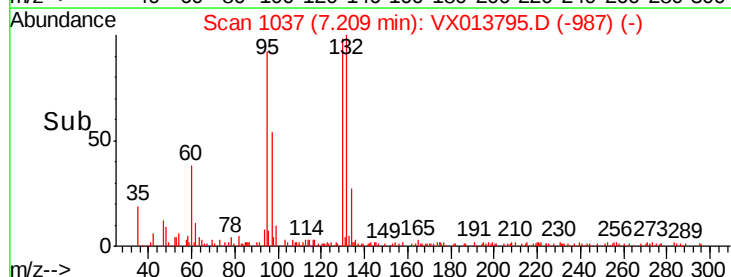
130 100

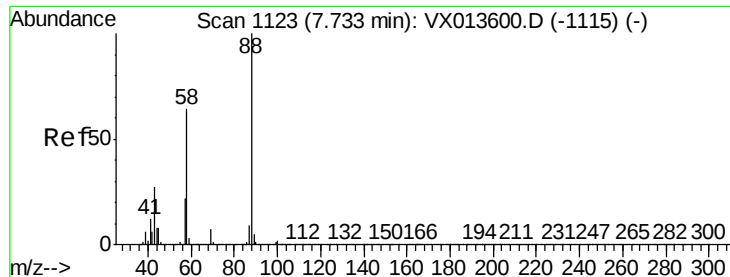
95 94.3 0.0 190.8



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0

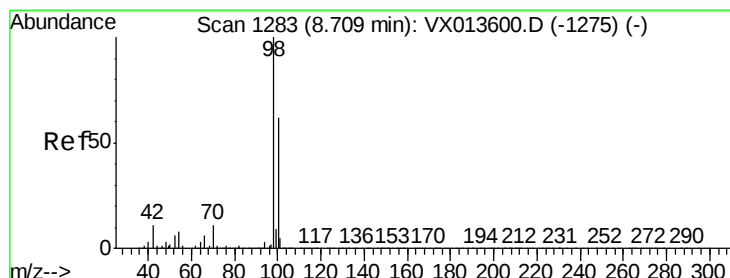
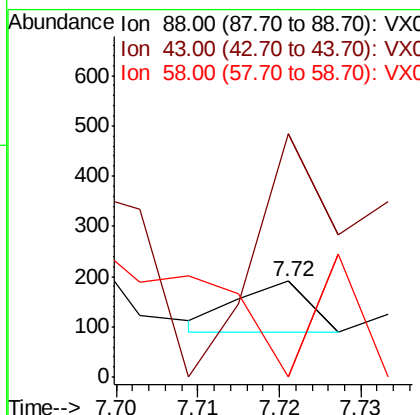
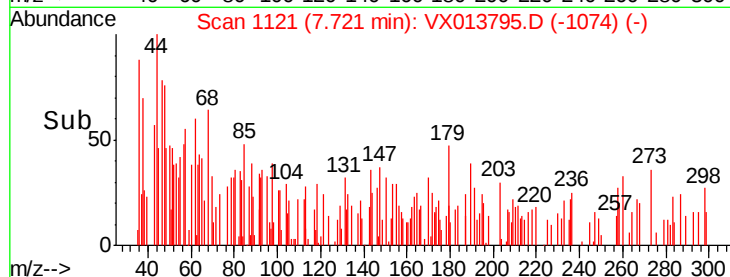
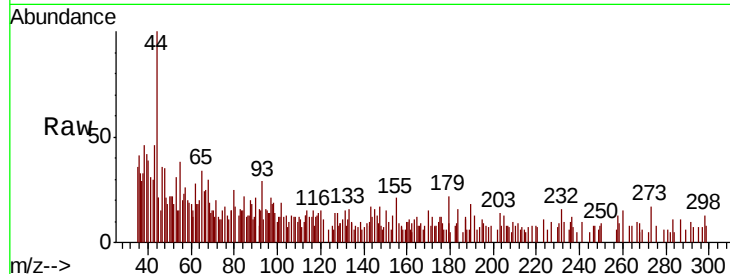




#49  
1,4-Dioxane  
Concen: 0.342 ug/l  
RT: 7.72 min Scan# 1121  
Delta R.T. -0.01 min  
Lab File: VX013795.D  
Acq: 06 Dec 2019 13:32

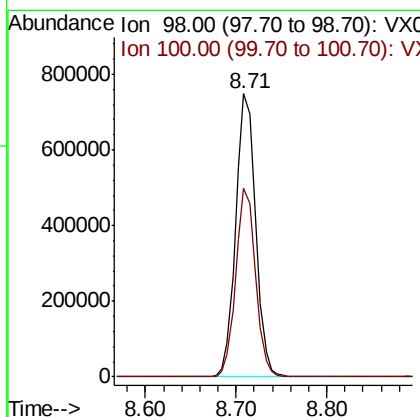
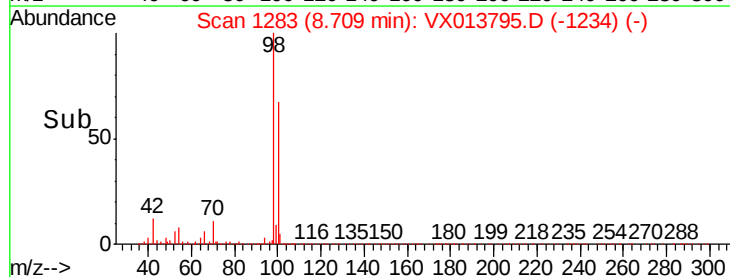
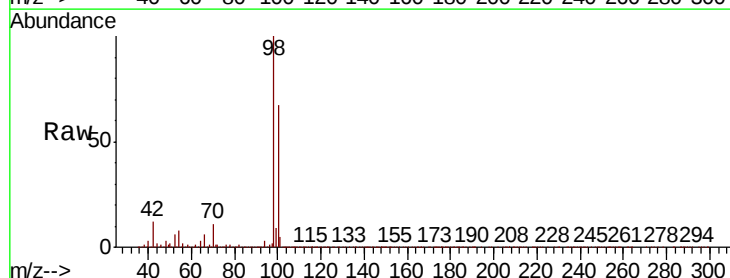
Instrument :  
MSVOA\_X  
ClientSampleId :  
RE123D2-20191203

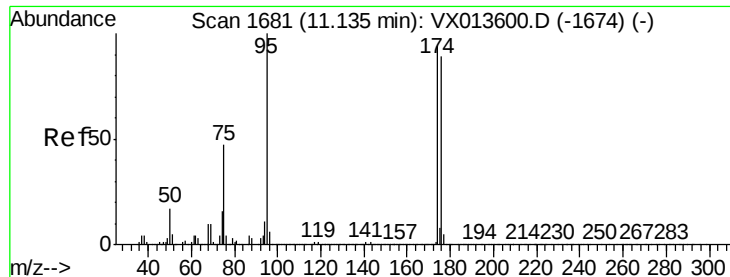
Tot Ion: 88 Resp: 61  
Ion Ratio Lower Upper  
88 100  
43 0.0 25.8 38.6#  
58 0.0 54.6 82.0#



#50  
Toluene-d8  
Concen: 48.511 ug/l  
RT: 8.71 min Scan# 1283  
Delta R.T. -0.00 min  
Lab File: VX013795.D  
Acq: 06 Dec 2019 13:32

Tgt Ion: 98 Resp: 1141436  
Ion Ratio Lower Upper  
98 100  
100 66.0 53.1 79.7





#62

4-Bromofluorobenzene

Concen: 44.607 ug/l

RT: 11.14 min Scan# 1681

Delta R.T. -0.00 min

Lab File: VX013795.D

Acq: 06 Dec 2019 13:32

Instrument :

MSVOA\_X

ClientSampleId :

RE123D2-20191203

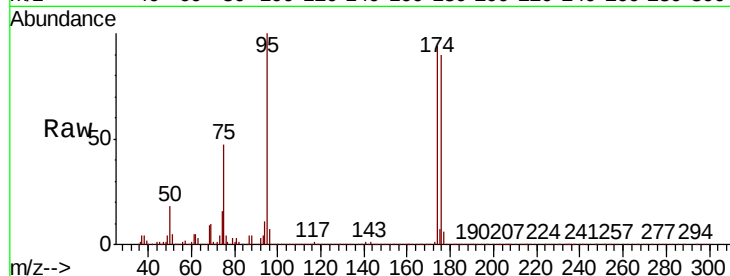
Tot Ion: 95 Resp: 378484

Ion Ratio Lower Upper

95 100

174 91.0 0.0 180.0

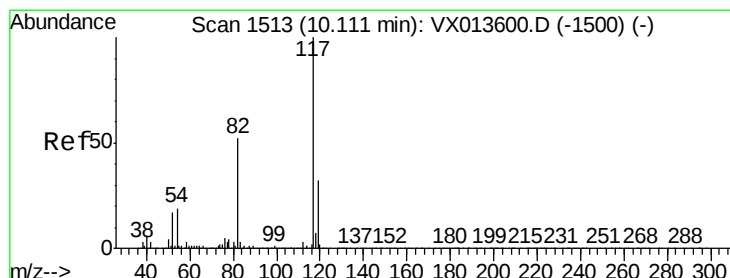
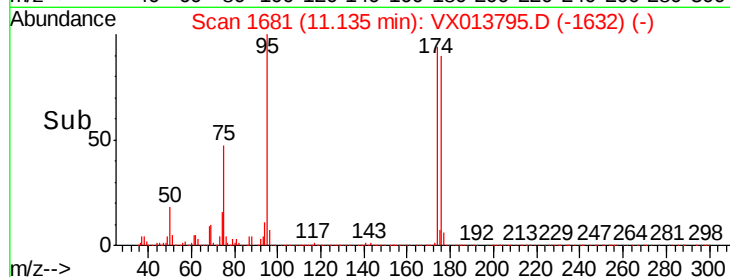
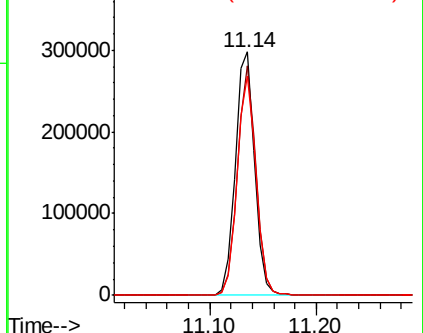
176 88.6 0.0 173.6



Abundance Ion 94.90 (94.60 to 95.60): VX0

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.11 min Scan# 1513

Delta R.T. -0.00 min

Lab File: VX013795.D

Acq: 06 Dec 2019 13:32

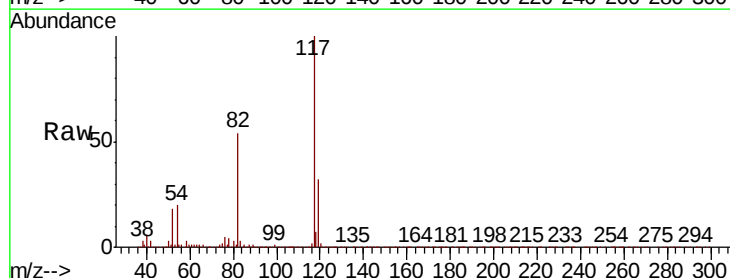
Tgt Ion: 117 Resp: 855376

Ion Ratio Lower Upper

117 100

82 53.8 41.8 62.8

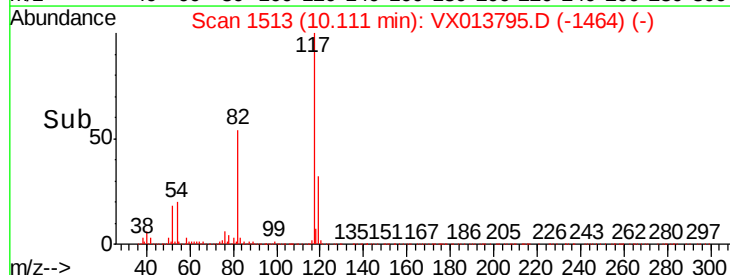
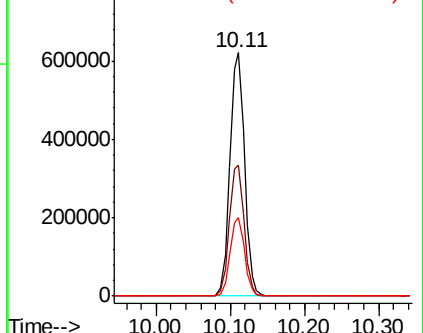
119 32.4 25.8 38.8

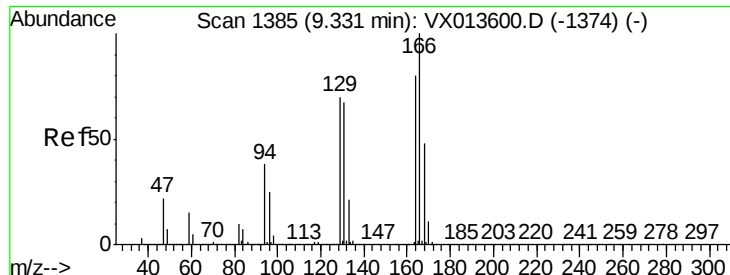


Abundance Ion 116.90 (116.60 to 117.60): V

Ion 82.00 (81.70 to 82.70): VX0

Ion 118.90 (118.60 to 119.60): V





#64

Tetrachloroethene

Concen: 1.161 ug/l

RT: 9.33 min Scan# 1385

Delta R.T. -0.00 min

Lab File: VX013795.D

Acq: 06 Dec 2019 13:32

Instrument :

MSVOA\_X

ClientSampleId :

RE123D2-20191203

Tot Ion:164 Resp: 7408

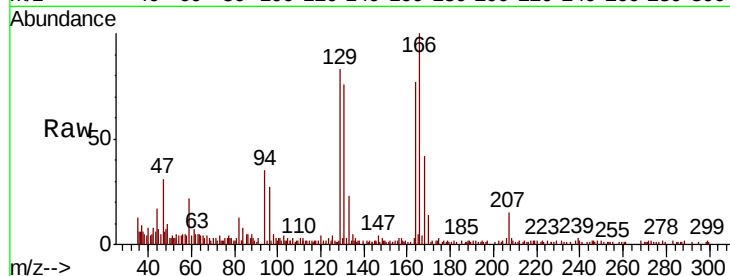
Ion Ratio Lower Upper

164 100

166 131.3 99.7 149.5

129 107.2 70.1 105.1#

131 96.9 66.9 100.3

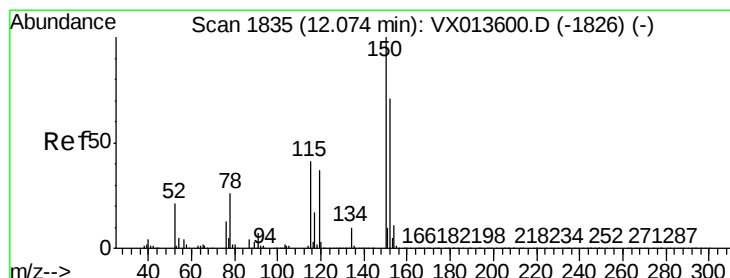
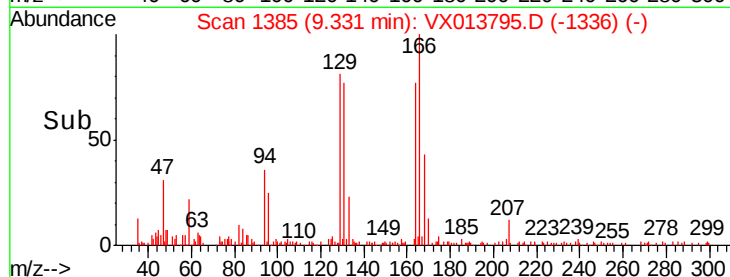
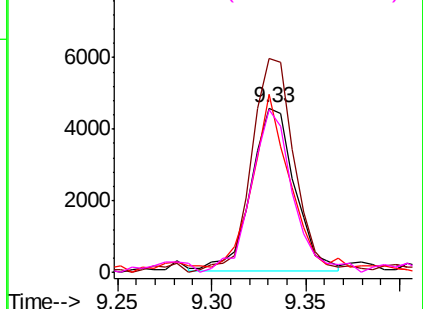


Abundance Ion 163.80 (163.50 to 164.50): V

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: 12.07 min Scan# 1835

Delta R.T. -0.00 min

Lab File: VX013795.D

Acq: 06 Dec 2019 13:32

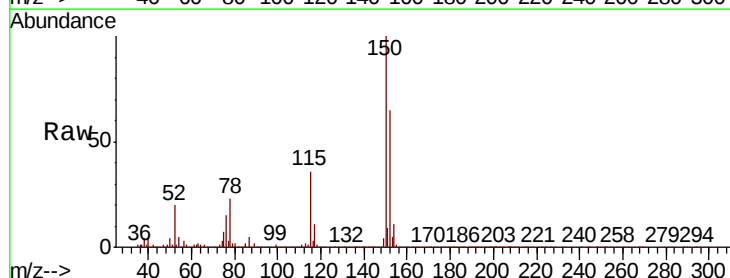
Tgt Ion:152 Resp: 376868

Ion Ratio Lower Upper

152 100

115 54.9 38.4 115.1

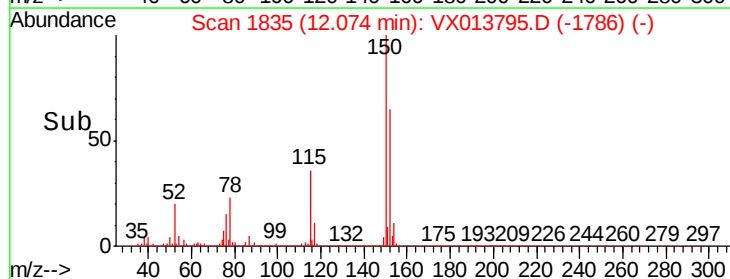
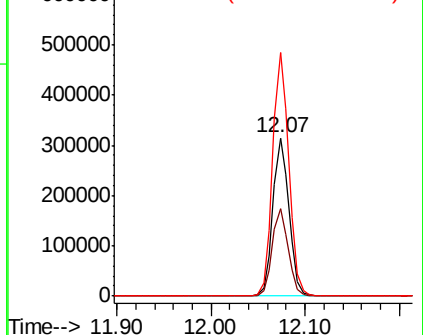
150 154.7 0.0 346.8

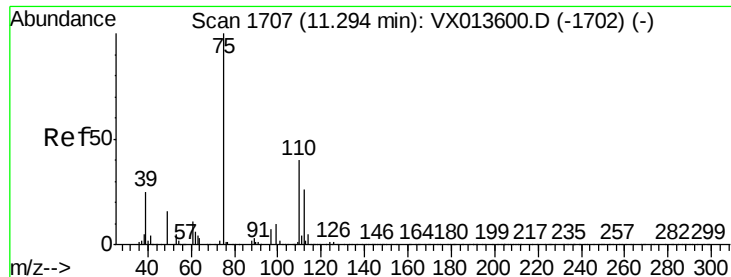


Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V

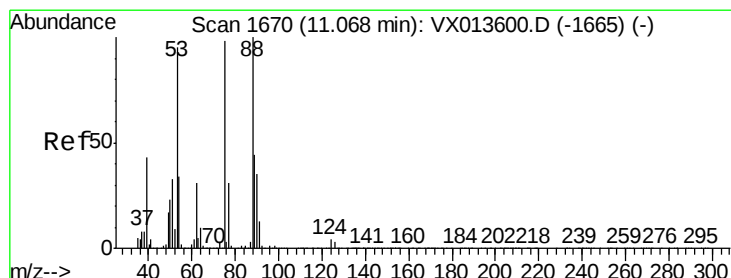
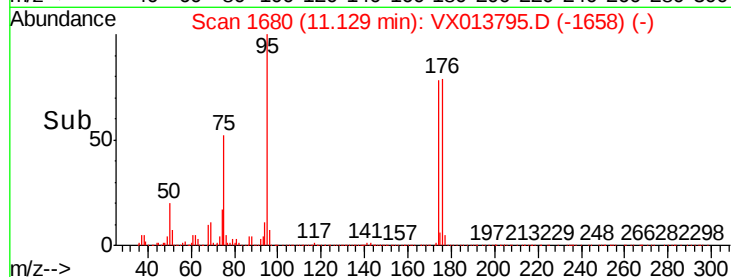
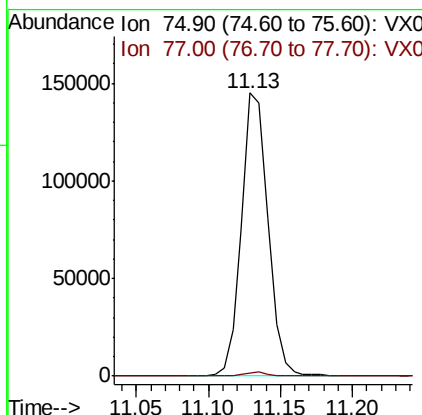
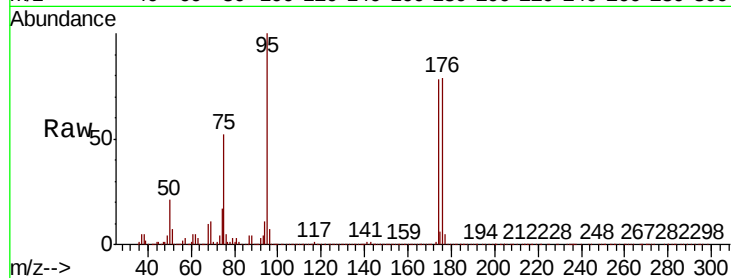




#76  
 1,2,3-Trichloropropane  
 Concen: 21.809 ug/l  
 RT: 11.13 min Scan# 1680  
 Delta R.T. -0.16 min  
 Lab File: VX013795.D  
 Acq: 06 Dec 2019 13:32

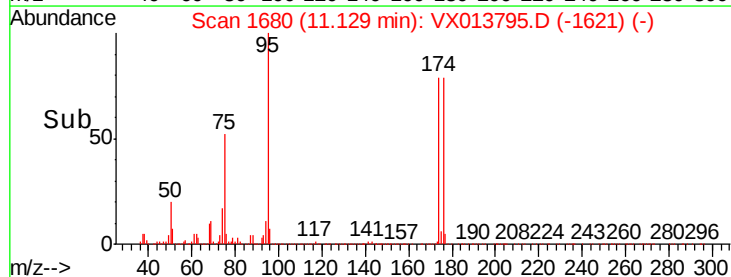
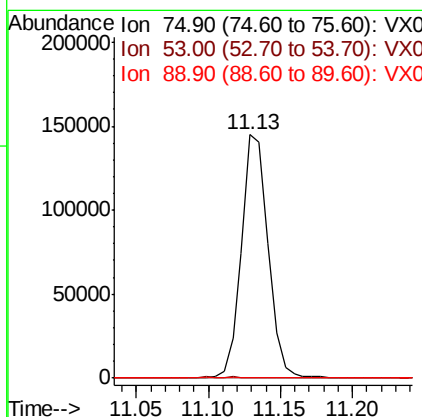
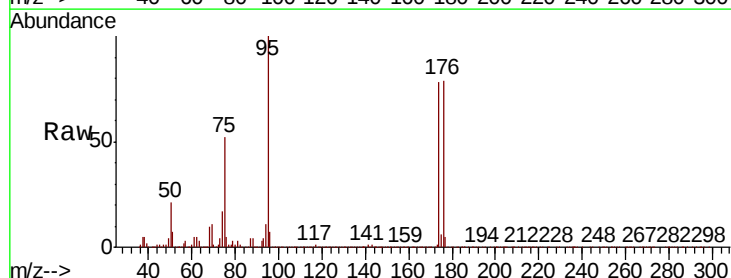
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 RE123D2-20191203

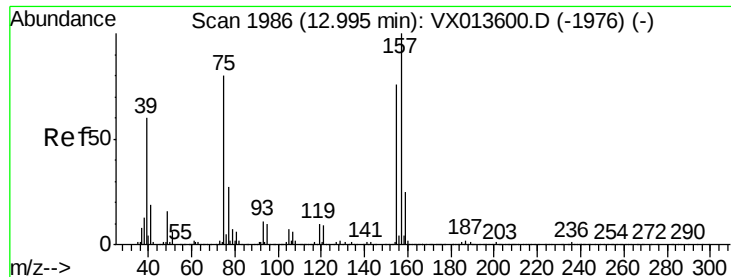
Tot Ion: 75 Resp: 184865  
 Ion Ratio Lower Upper  
 75 100  
 77 1.3 19.1 57.5#



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 59.666 ug/l  
 RT: 11.13 min Scan# 1680  
 Delta R.T. 0.06 min  
 Lab File: VX013795.D  
 Acq: 06 Dec 2019 13:32

Tgt Ion: 75 Resp: 184865  
 Ion Ratio Lower Upper  
 75 100  
 53 0.1 78.2 117.2#  
 89 0.2 35.4 53.2#





#92

1,2-Dibromo-3-Chloropropane

Concen: 0.221 ug/l

RT: 12.87 min Scan# 1965

Delta R.T. -0.13 min

Lab File: VX013795.D

Acq: 06 Dec 2019 13:32

Instrument :

MSVOA\_X

ClientSampleId :

RE123D2-20191203

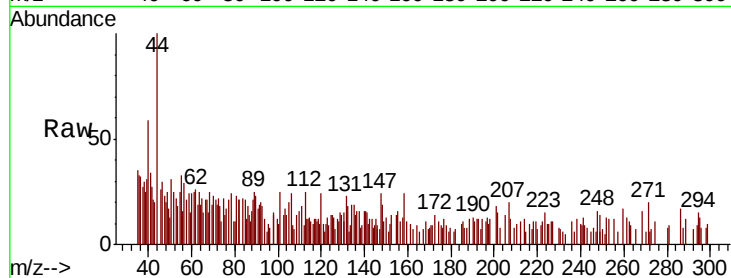
Tot Ion: 75 Resp: 441

Ion Ratio Lower Upper

75 100

155 69.8 47.6 142.8

157 63.9 62.1 186.2



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 154.80 (154.50 to 155.50): V

Ion 156.80 (156.50 to 157.50): V

