

Data Path : Z:\VOASRV\HPCHEM1\MSVOA R\DATA\VR092618\  
 Data File : VR025856.D  
 Acq On : 26 Sep 2018 10:34  
 Operator : SY/MD  
 Sample : VSTDCCC005  
 Misc : 25mL/MSVOA R/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_R  
 ClientSampleId :

Quant Time: Sep 27 07:47:38 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_R\METHODS\SOMRTR092118WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Wed Sep 26 06:56:32 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 8.46  | 114  | 409372   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 11.29 | 117  | 334882   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 13.22 | 152  | 120364   | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 2.15   | 65    | 130188   | 4.44     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 88.80%  |
| 7) Chloroethane-d5             | 2.63   | 69    | 117374   | 5.10     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 102.00% |
| 11) 1,1-Dichloroethene-d2      | 3.64   | 63    | 343420   | 4.84     | ug/L | 0.01    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 96.80%  |
| 20) 2-Butanone-d5              | 6.59   | 46    | 209938   | 53.72    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 107.44% |
| 24) Chloroform-d               | 7.20   | 84    | 296415   | 4.82     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 96.40%  |
| 26) 1,2-Dichloroethane-d4      | 7.90   | 65    | 127933   | 4.83     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 96.60%  |
| 32) Benzene-d6                 | 7.85   | 84    | 556922   | 4.48     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 89.60%  |
| 36) 1,2-Dichloropropane-d6     | 8.90   | 67    | 160489   | 4.73     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 94.60%  |
| 41) Toluene-d8                 | 9.97   | 98    | 492352   | 4.40     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 88.00%  |
| 43) trans-1,3-Dichloropropene- | 10.23  | 79    | 39148    | 4.17     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 83.40%  |
| 46) 2-Hexanone-d5              | 10.59  | 63    | 159375   | 50.86    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 101.72% |
| 57) 1,1,2,2-Tetrachloroethane- | 12.36  | 84    | 69918    | 5.42     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 108.40% |
| 64) 1,2-Dichlorobenzene-d4     | 13.52  | 152   | 94923    | 4.61     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 92.20%  |

## Target Compounds

|                                |      |     |        |        | Ovalue    |
|--------------------------------|------|-----|--------|--------|-----------|
| 2) Dichlorodifluoromethane     | 1.84 | 85  | 171258 | 4.017  | ug/L 96   |
| 3) Chloromethane               | 2.01 | 50  | 220361 | 4.747  | ug/L 98   |
| 5) Vinyl chloride              | 2.17 | 62  | 214612 | 4.881  | ug/L 98   |
| 6) Bromomethane                | 2.53 | 94  | 121985 | 4.881  | ug/L 99   |
| 8) Chloroethane                | 2.66 | 64  | 123446 | 4.941  | ug/L 95   |
| 9) Trichlorofluoromethane      | 2.93 | 101 | 90596  | 1.662  | ug/L # 15 |
| 10) 1,1,2-Trichloro-1,2,2-trif | 3.69 | 101 | 193966 | 5.839  | ug/L 98   |
| 12) 1,1-Dichloroethene         | 3.66 | 96  | 185014 | 5.239  | ug/L 84   |
| 13) Acetone                    | 3.70 | 43  | 169508 | 65.735 | ug/L 97   |
| 14) Carbon disulfide           | 3.96 | 76  | 441223 | 4.440  | ug/L 98   |
| 15) Methyl Acetate             | 4.20 | 43  | 41684  | 5.039  | ug/L 100  |
| 16) Methylene chloride         | 4.41 | 84  | 161510 | 5.087  | ug/L 97   |
| 17) Methyl tert-butyl Ether    | 4.90 | 73  | 245769 | 3.979  | ug/L 98   |
| 18) trans-1,2-Dichloroethene   | 4.88 | 96  | 179764 | 4.499  | ug/L 94   |
| 19) 1,1-Dichloroethane         | 5.69 | 63  | 367627 | 4.501  | ug/L 98   |
| 21) 2-Butanone                 | 6.69 | 43  | 256075 | 47.648 | ug/L 98   |
| 22) cis-1,2-Dichloroethene     | 6.67 | 96  | 177222 | 4.404  | ug/L # 99 |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA R\DATA\VR092618\  
 Data File : VR025856.D  
 Acq On : 26 Sep 2018 10:34  
 Operator : SY/MD  
 Sample : VSTDCCC005  
 Misc : 25mL/MSVOA R/WATER  
 ALS Vial : 2 Sample Multiplier: 1

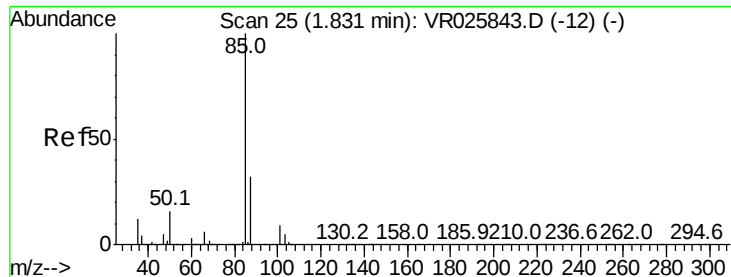
Instrument :  
 MSVOA\_R  
 ClientSampleId :

Quant Time: Sep 27 07:47:38 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_R\METHODS\SOMRTR092118WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Wed Sep 26 06:56:32 2018  
 Response via : Initial Calibration

| Internal Standards              | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|---------------------------------|-------|------|----------|--------|--------|----------|
| 23) Bromochloromethane          | 7.05  | 128  | 44818    | 4.226  | ug/L   | 90       |
| 25) Chloroform                  | 7.23  | 83   | 339806   | 4.524  | ug/L   | 96       |
| 27) 1,2-Dichloroethane          | 7.99  | 62   | 166066   | 4.278  | ug/L   | 97       |
| 29) 1,1,1-Trichloroethane       | 7.43  | 97   | 279183   | 4.128  | ug/L   | 97       |
| 30) Cyclohexane                 | 7.51  | 56   | 363253   | 4.505  | ug/L   | 98       |
| 31) Carbon tetrachloride        | 7.63  | 117  | 239317   | 4.300  | ug/L   | 99       |
| 33) Benzene                     | 7.90  | 78   | 804624   | 4.577  | ug/L   | 100      |
| 34) Trichloroethene             | 8.71  | 95   | 207376   | 4.444  | ug/L   | 95       |
| 35) Methylcyclohexane           | 8.95  | 83   | 343091   | 4.484  | ug/L   | 98       |
| 37) 1,2-Dichloropropane         | 8.99  | 63   | 178751   | 4.560  | ug/L   | 98       |
| 38) Bromodichloromethane        | 9.28  | 83   | 194768   | 4.501  | ug/L   | 98       |
| 39) cis-1,3-Dichloropropene     | 9.72  | 75   | 208598   | 4.347  | ug/L   | 98       |
| 40) 4-Methyl-2-pentanone        | 9.87  | 43   | 634518   | 46.497 | ug/L   | 98       |
| 42) Toluene                     | 10.03 | 91   | 839107   | 4.683  | ug/L   | 97       |
| 44) trans-1,3-Dichloropropene   | 10.26 | 75   | 139413   | 4.192  | ug/L   | 95       |
| 45) 1,1,2-Trichloroethane       | 10.45 | 97   | 71472    | 4.349  | ug/L   | 86       |
| 47) Tetrachloroethene           | 10.51 | 164  | 115760   | 4.338  | ug/L   | 92       |
| 48) 2-Hexanone                  | 10.63 | 43   | 422513   | 47.079 | ug/L   | 98       |
| 49) Dibromochloromethane        | 10.79 | 129  | 77406    | 4.521  | ug/L   | 89       |
| 50) 1,2-Dibromoethane           | 10.89 | 107  | 61221    | 4.233  | ug/L # | 95       |
| 51) Chlorobenzene               | 11.32 | 112  | 429985   | 4.575  | ug/L   | 98       |
| 52) Ethylbenzene                | 11.39 | 91   | 977616   | 4.742  | ug/L   | 100      |
| 53) m,p-Xylene                  | 11.50 | 106  | 336638   | 4.529  | ug/L   | 97       |
| 54) o-Xylene                    | 11.83 | 106  | 322089   | 4.732  | ug/L   | 98       |
| 55) Styrene                     | 11.84 | 104  | 501241   | 4.753  | ug/L   | 98       |
| 56) Isopropylbenzene            | 12.13 | 105  | 918479   | 4.822  | ug/L   | 99       |
| 58) 1,1,1,2,2-Tetrachloroethane | 12.39 | 83   | 76380    | 4.737  | ug/L   | 95       |
| 59) 1,2,3-Trichloropropane      | 12.43 | 75   | 56479    | 4.412  | ug/L   | 99       |
| 61) Bromoform                   | 12.01 | 173  | 23144    | 4.121  | ug/L   | 96       |
| 62) 1,3-Dichlorobenzene         | 13.16 | 146  | 242633   | 4.356  | ug/L   | 97       |
| 63) 1,4-Dichlorobenzene         | 13.24 | 146  | 235638   | 4.383  | ug/L   | 98       |
| 65) 1,2-Dichlorobenzene         | 13.53 | 146  | 188591   | 4.448  | ug/L   | 94       |
| 66) 1,2-Dibromo-3-chloropropan  | 14.14 | 75   | 7359     | 3.796  | ug/L   | 98       |
| 67) 1,3,5-Trichlorobenzene      | 14.29 | 180  | 136812   | 4.354  | ug/L   | 98       |
| 68) 1,2,4-trichlorobenzene      | 14.78 | 180  | 86188    | 4.312  | ug/L   | 100      |
| 69) Naphthalene                 | 15.00 | 128  | 122199   | 4.200  | ug/L   | 97       |
| 70) 1,2,3-Trichlorobenzene      | 15.18 | 180  | 59413    | 4.184  | ug/L   | 95       |

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





#2

Dichlorodifluoromethane

Concen: 4.017 ug/L

RT: 1.84 min Scan# 26

Delta R.T. 0.01 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

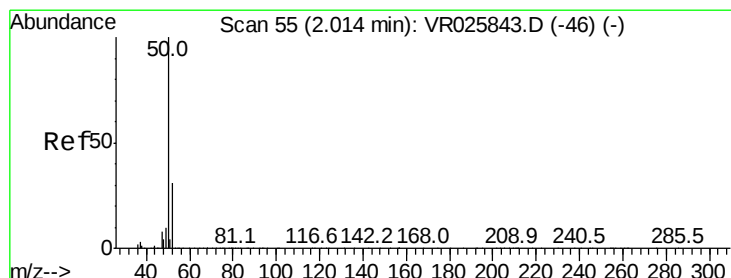
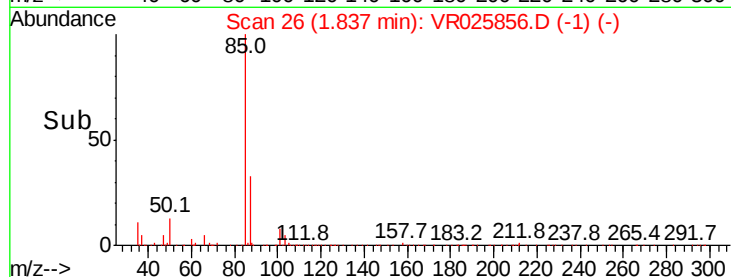
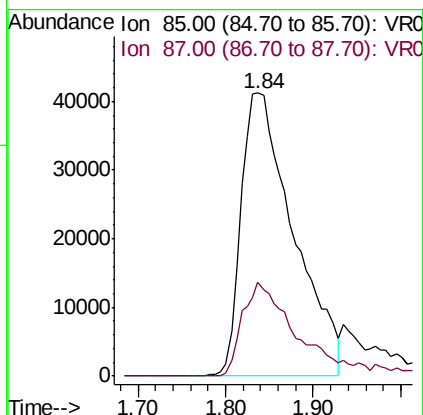
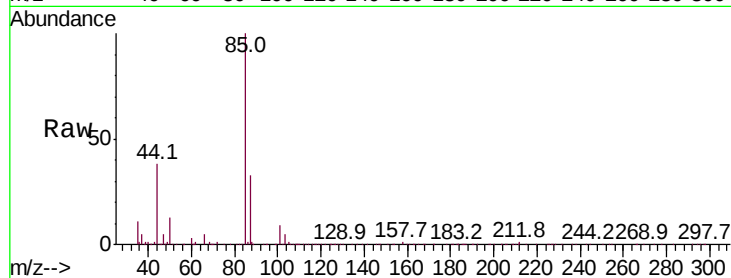
Instrument :  
MSVOA\_R  
ClientSampleId :

Tot Ion: 85 Resp: 171258

Ion Ratio Lower Upper

85 100

87 33.6 25.1 37.7



#3

Chloromethane

Concen: 4.747 ug/L

RT: 2.01 min Scan# 55

Delta R.T. -0.00 min

Lab File: VR025856.D

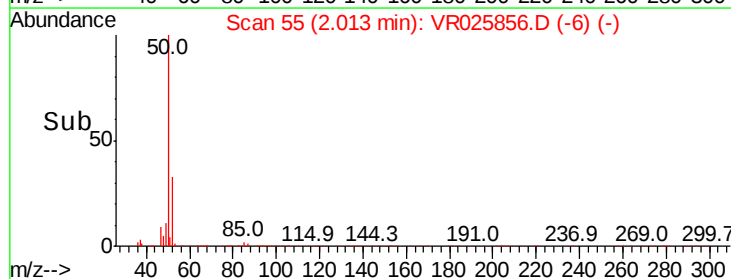
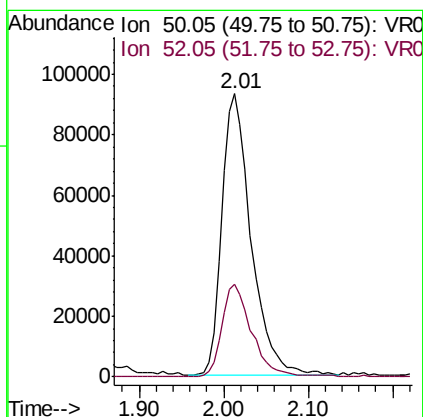
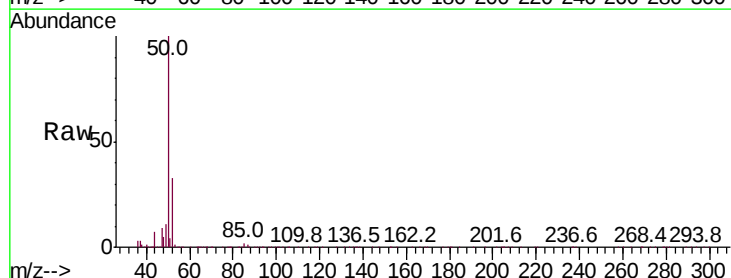
Acq: 26 Sep 2018 10:34

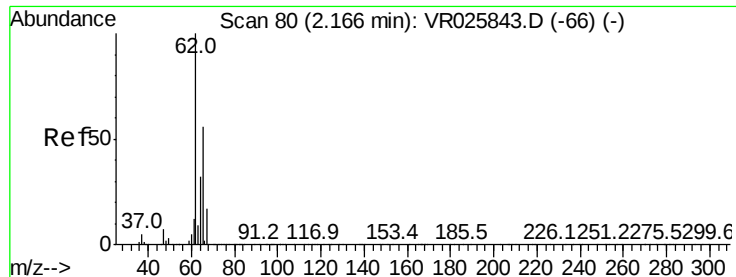
Tgt Ion: 50 Resp: 220361

Ion Ratio Lower Upper

50 100

52 32.9 22.1 41.1





#5

Vinyl chloride

Concen: 4.881 ug/L

RT: 2.17 min Scan# 80

Delta R.T. -0.00 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

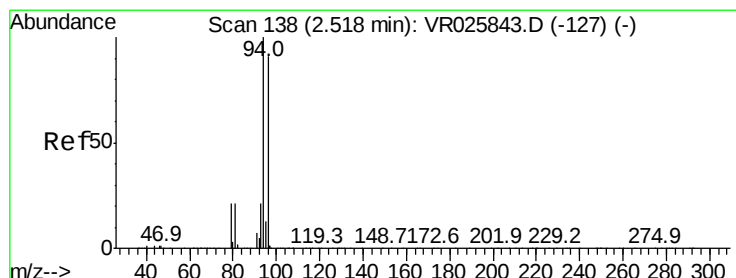
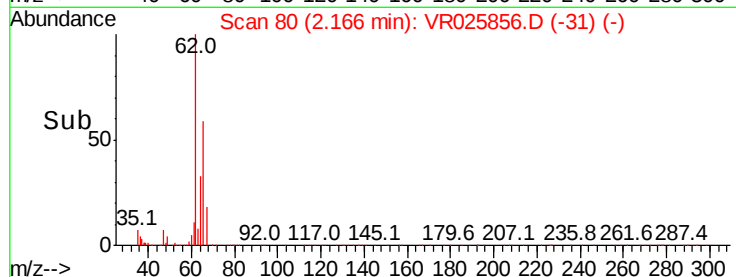
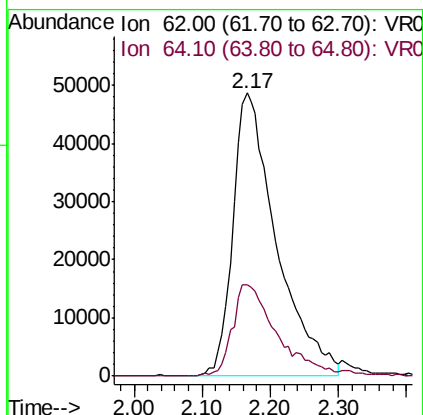
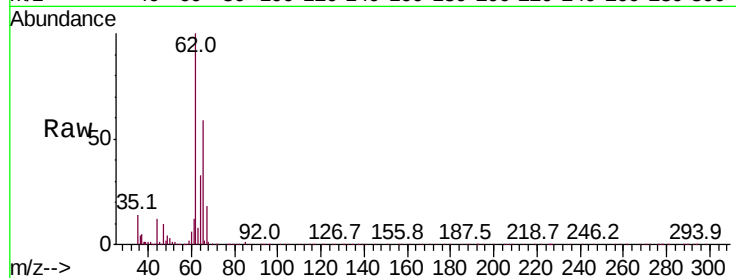
Instrument :  
MSVOA\_R  
ClientSampled :

Tot Ion: 62 Resp: 214612

Ion Ratio Lower Upper

62 100

64 32.5 23.5 43.7



#6

Bromomethane

Concen: 4.881 ug/L

RT: 2.53 min Scan# 140

Delta R.T. 0.01 min

Lab File: VR025856.D

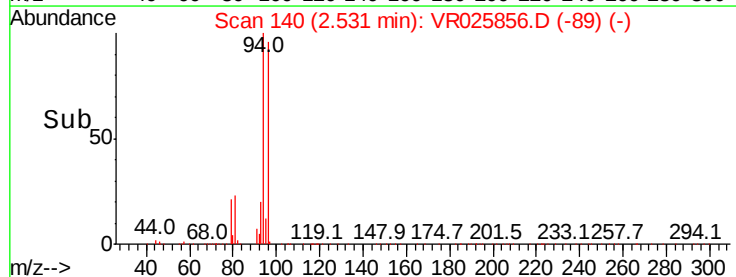
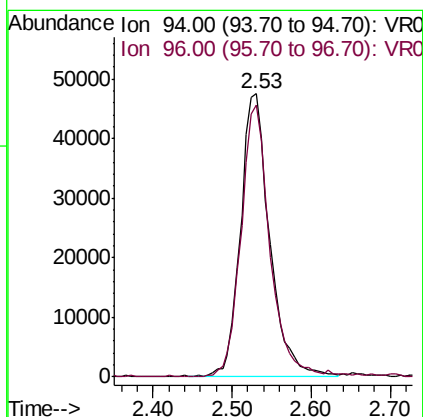
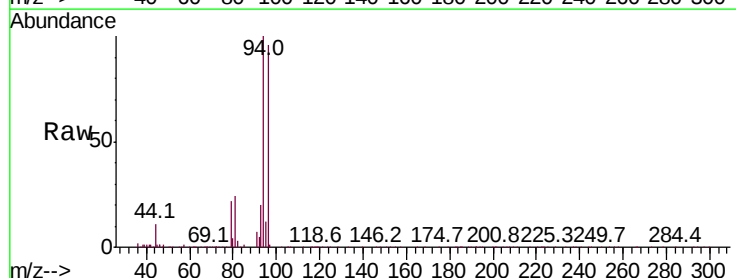
Acq: 26 Sep 2018 10:34

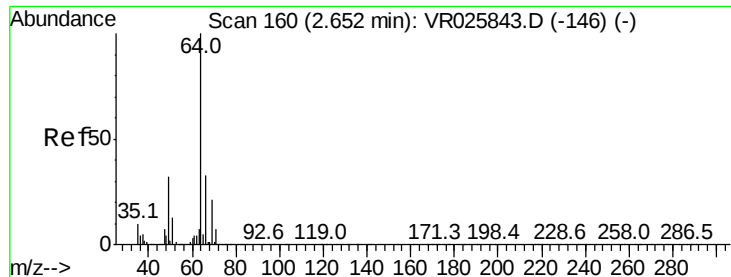
Tgt Ion: 94 Resp: 121985

Ion Ratio Lower Upper

94 100

96 95.9 66.1 122.8





#8

Chloroethane

Concen: 4.941 ug/L

RT: 2.66 min Scan# 162

Delta R.T. 0.01 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

Instrument :

MSVOA\_R

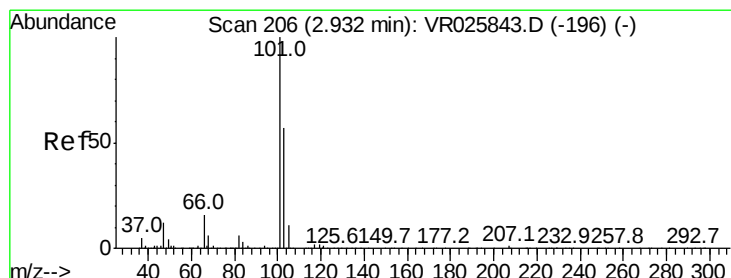
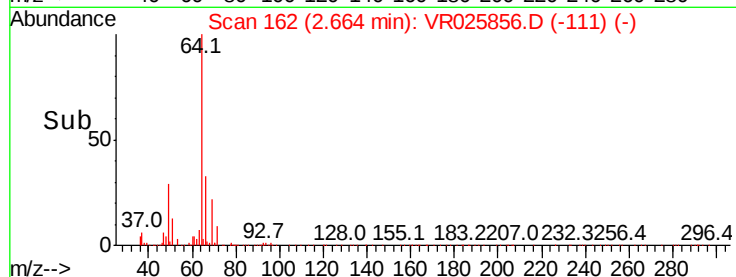
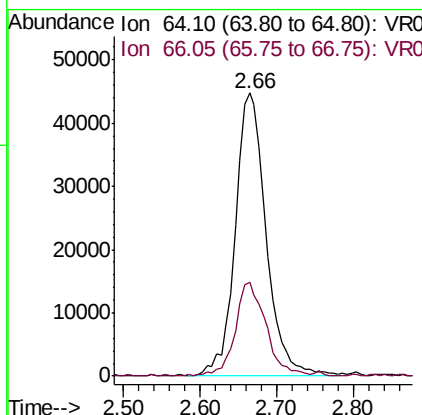
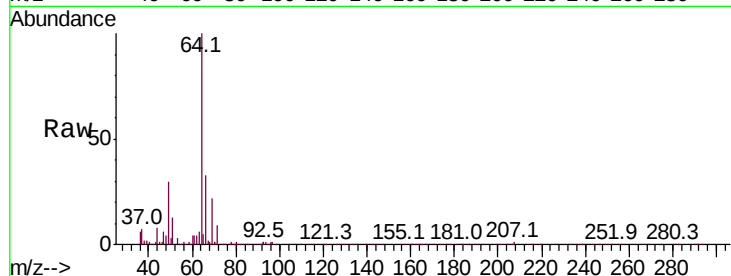
ClientSampleId :

Tot Ion: 64 Resp: 123446

Ion Ratio Lower Upper

64 100

66 33.4 21.3 39.5



#9

Trichlorofluoromethane

Concen: 1.662 ug/L

RT: 2.93 min Scan# 206

Delta R.T. -0.00 min

Lab File: VR025856.D

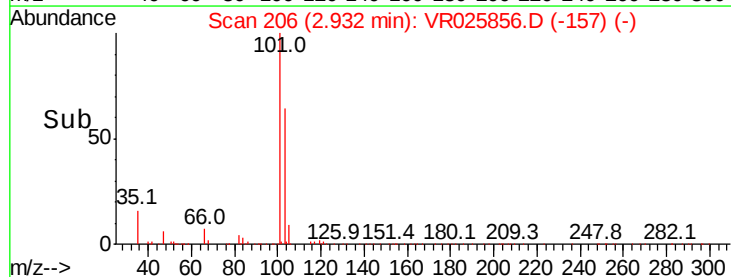
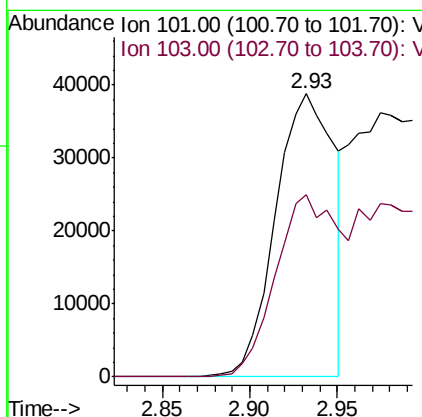
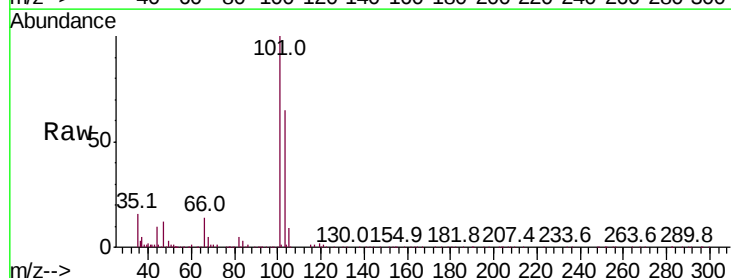
Acq: 26 Sep 2018 10:34

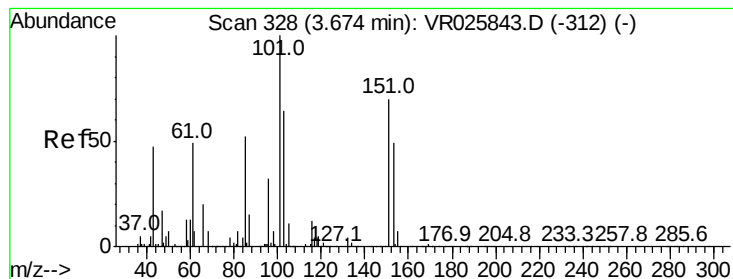
Tgt Ion: 101 Resp: 90596

Ion Ratio Lower Upper

101 100

103 72.2 22.1 33.1#





#10

1,1,2-Trichloro-1,2,2-trifluoroethane

Concen: 5.839 ug/L

RT: 3.69 min Scan# 330

Delta R.T. 0.01 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

Instrument :

MSVOA\_R

ClientSampleId :

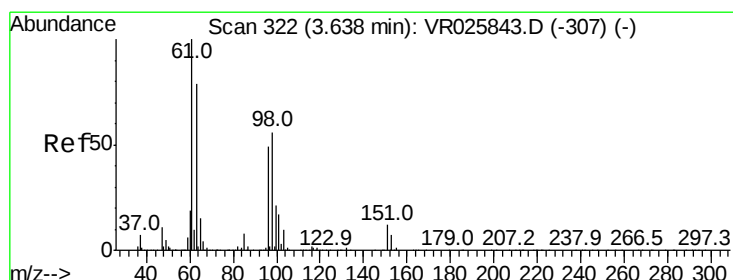
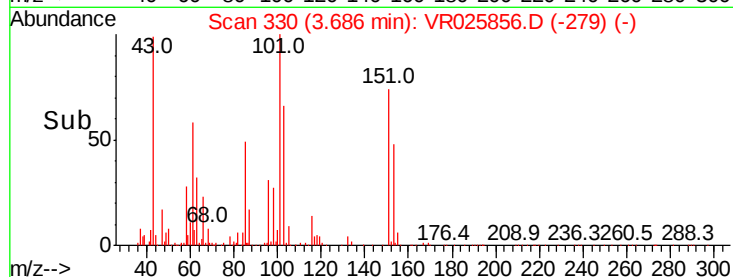
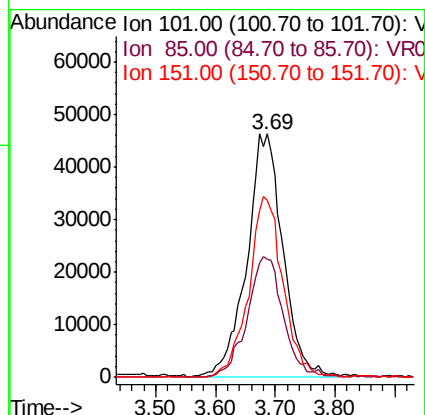
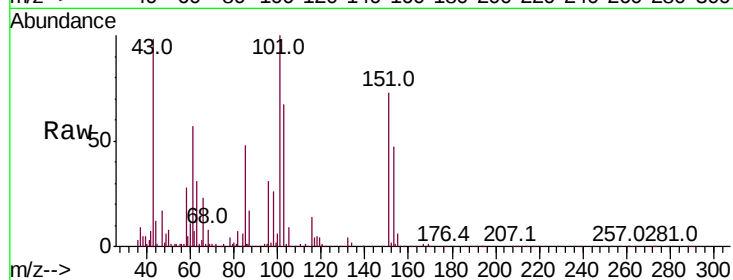
Tot Ion:101 Resp: 193966

Ion Ratio Lower Upper

101 100

85 48.8 38.2 57.4

151 70.6 58.4 87.6



#12

1,1-Dichloroethene

Concen: 5.239 ug/L

RT: 3.66 min Scan# 325

Delta R.T. 0.02 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

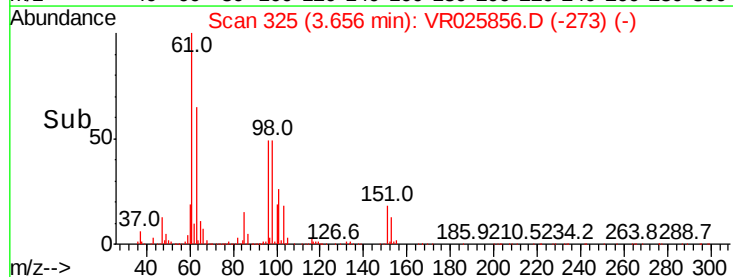
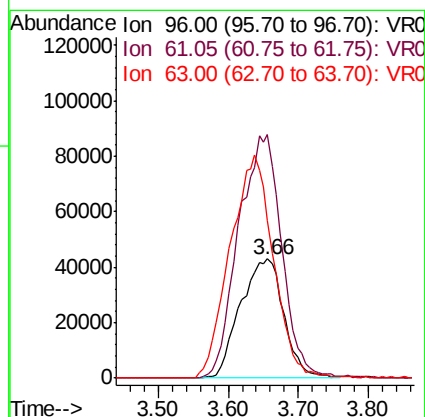
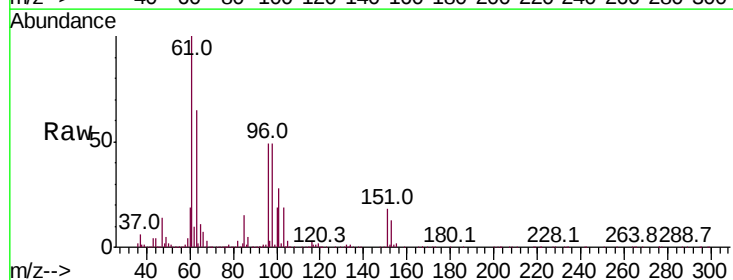
Tgt Ion: 96 Resp: 185014

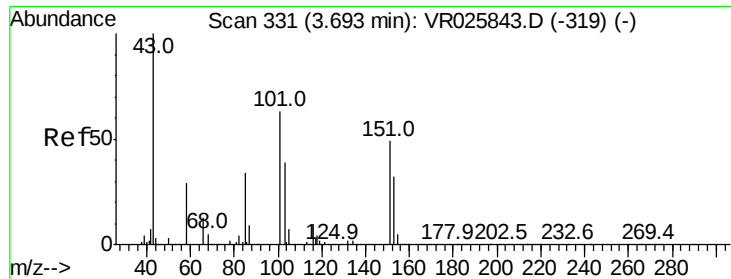
Ion Ratio Lower Upper

96 100

61 204.3 145.0 269.4

63 132.6 123.8 230.0

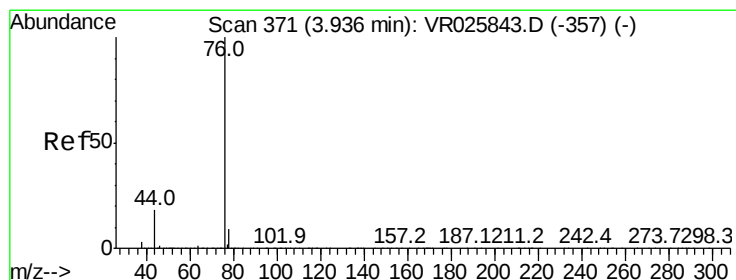
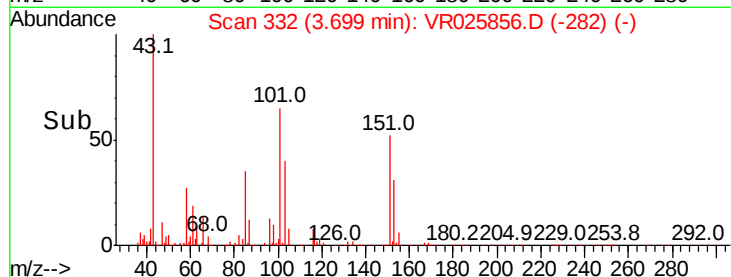
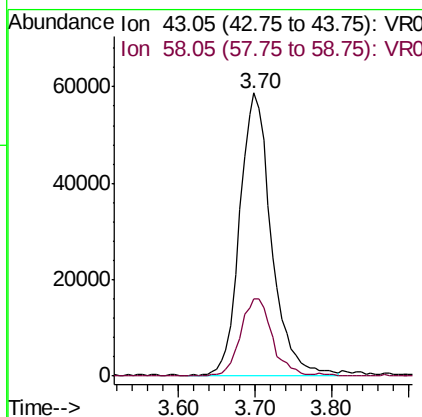
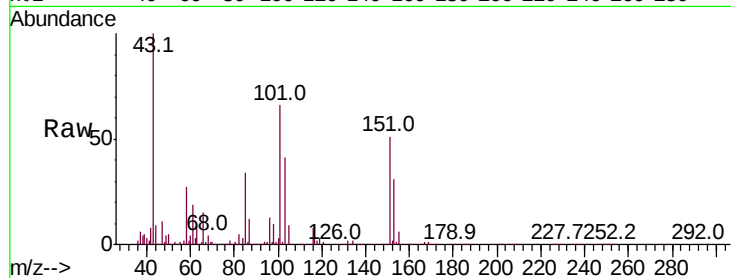




#13  
Acetone  
Concen: 65.735 ug/L  
RT: 3.70 min Scan# 332  
Delta R.T. 0.01 min  
Lab File: VR025856.D  
Acq: 26 Sep 2018 10:34

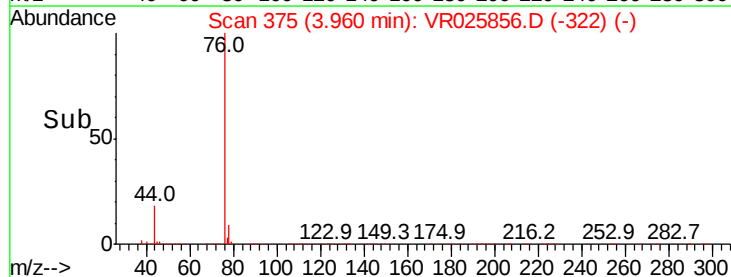
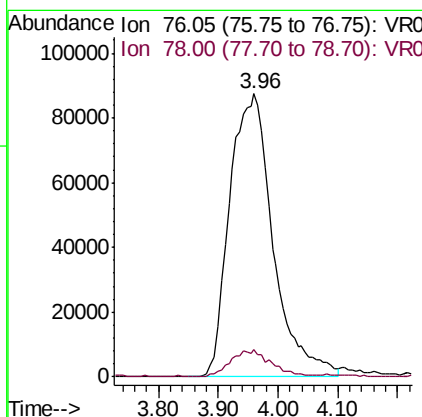
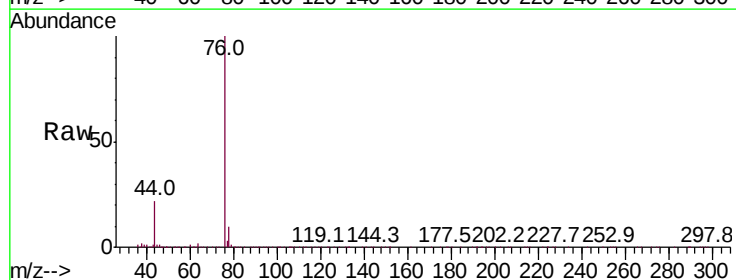
Instrument :  
MSVOA\_R  
ClientSampleId :

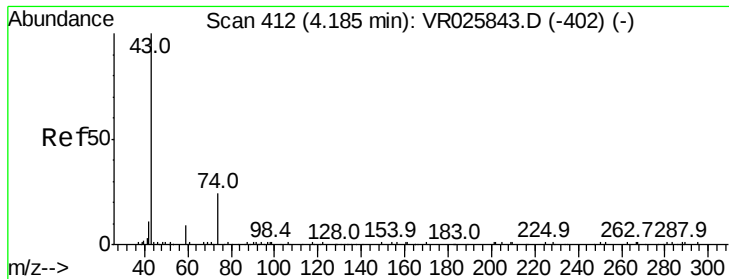
Tot Ion: 43 Resp: 169508  
Ion Ratio Lower Upper  
43 100  
58 27.2 0.0 51.4



#14  
Carbon disulfide  
Concen: 4.440 ug/L  
RT: 3.96 min Scan# 375  
Delta R.T. 0.02 min  
Lab File: VR025856.D  
Acq: 26 Sep 2018 10:34

Tgt Ion: 76 Resp: 441223  
Ion Ratio Lower Upper  
76 100  
78 9.6 7.0 10.6

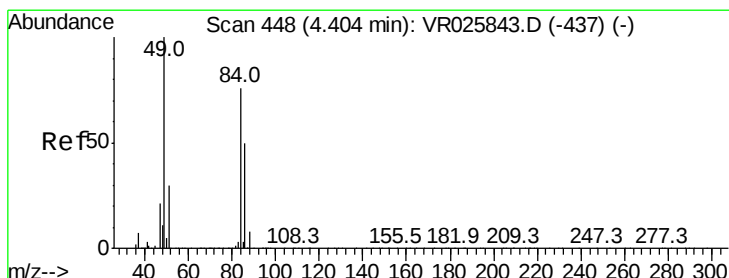
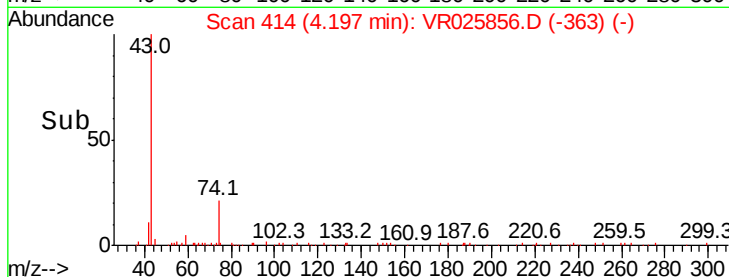
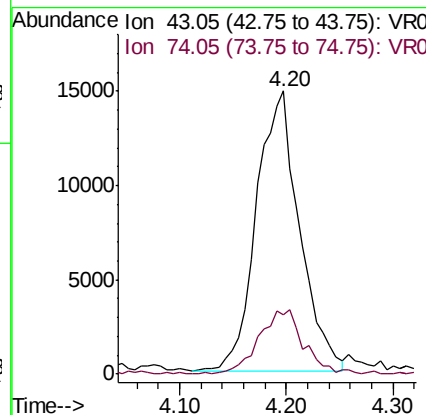
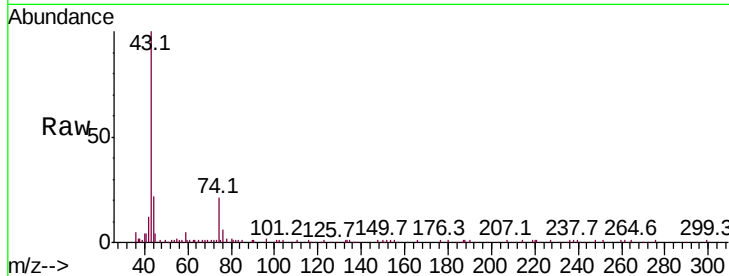




#15  
Methyl Acetate  
Concen: 5.039 ug/L  
RT: 4.20 min Scan# 414  
Delta R.T. 0.01 min  
Lab File: VR025856.D  
Acq: 26 Sep 2018 10:34

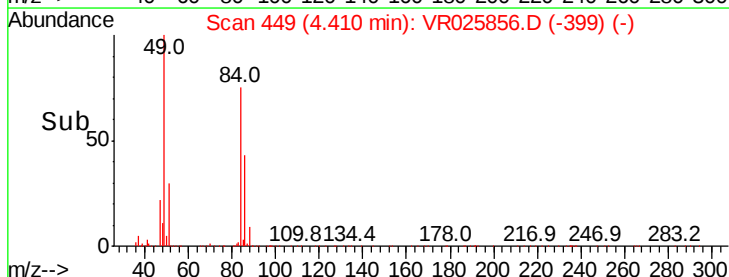
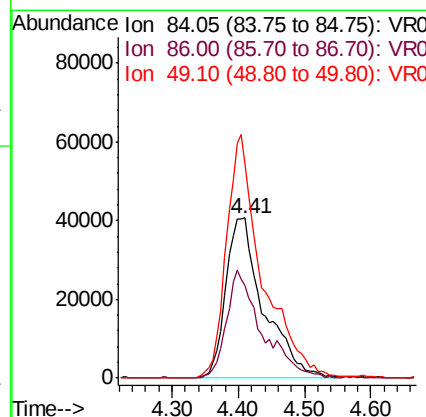
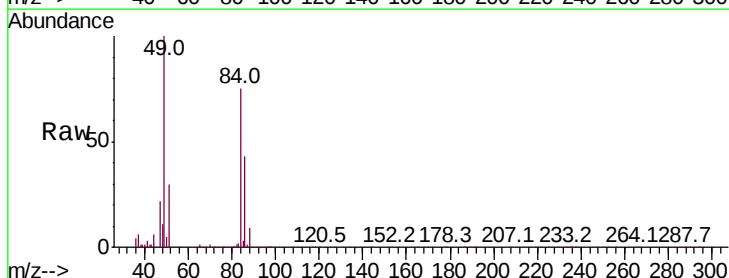
Instrument :  
MSVOA\_R  
ClientSampleId :

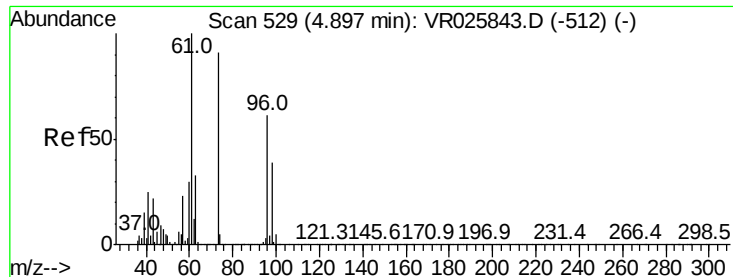
Tot Ion: 43 Resp: 41684  
Ion Ratio Lower Upper  
43 100  
74 23.9 19.0 28.4



#16  
Methylene chloride  
Concen: 5.087 ug/L  
RT: 4.41 min Scan# 449  
Delta R.T. 0.01 min  
Lab File: VR025856.D  
Acq: 26 Sep 2018 10:34

Tgt Ion: 84 Resp: 161510  
Ion Ratio Lower Upper  
84 100  
86 57.8 43.1 80.1  
49 133.2 95.5 177.3





#17

Methvl tert-butvl Ether

Concen: 3.979 ug/L

RT: 4.90 min Scan# 529

Delta R.T. -0.00 min

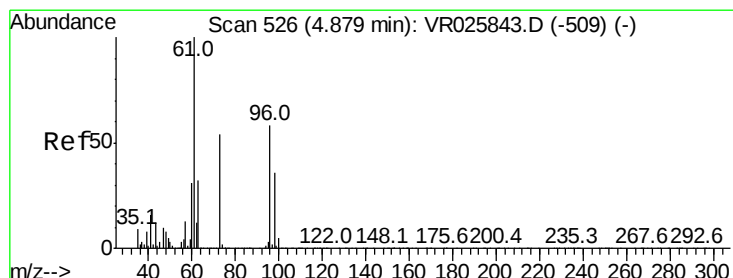
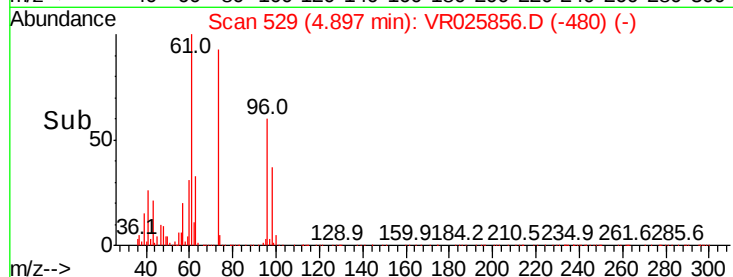
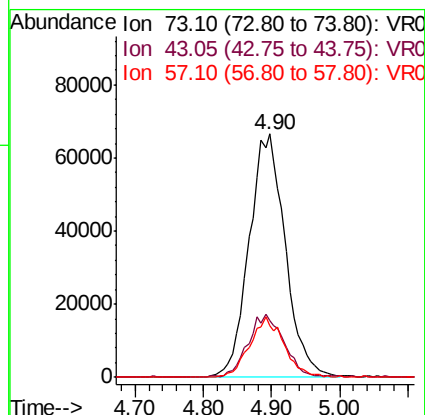
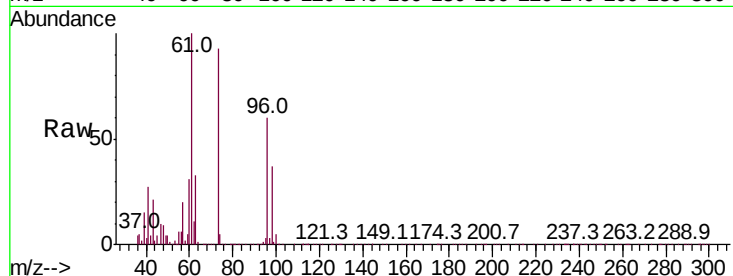
Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

Instrument :  
MSVOA\_R  
ClientSampled :

Tot Ion: 73 Resp: 245769

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 73  | 100   |       |       |
| 43  | 26.0  | 19.8  | 29.8  |
| 57  | 23.5  | 17.9  | 26.9  |



#18

trans-1,2-Dichloroethene

Concen: 4.499 ug/L

RT: 4.88 min Scan# 526

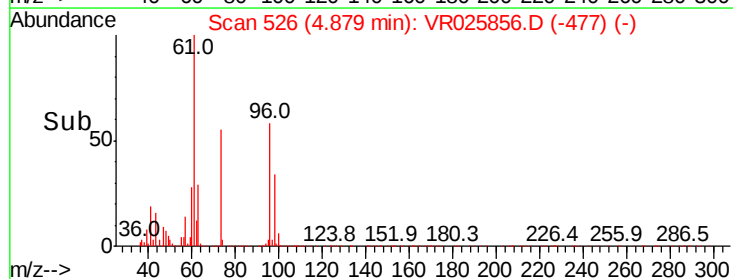
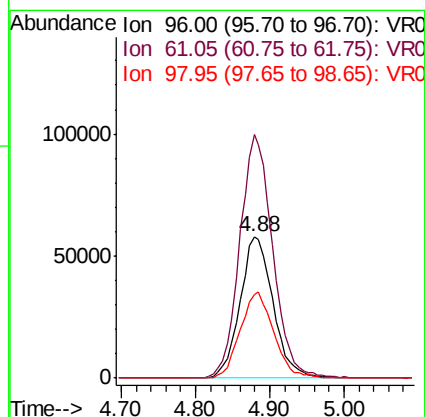
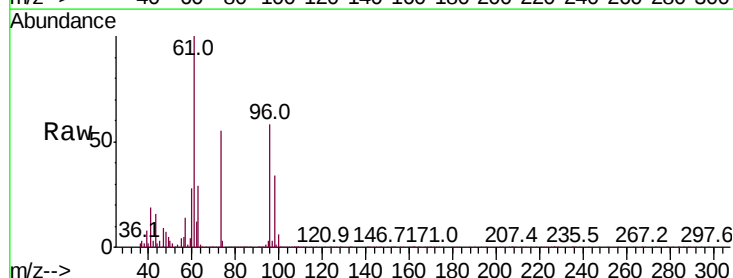
Delta R.T. -0.00 min

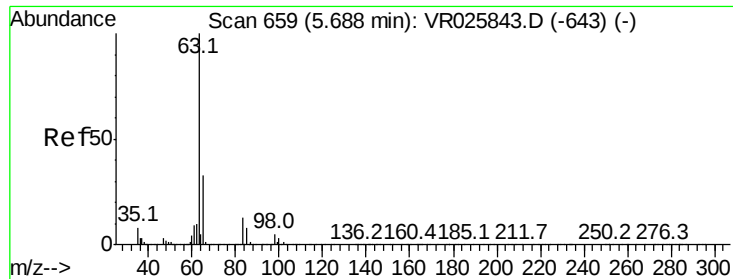
Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

Tgt Ion: 96 Resp: 179764

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 96  | 100   |       |       |
| 61  | 172.0 | 127.4 | 236.6 |
| 98  | 59.1  | 43.8  | 81.3  |

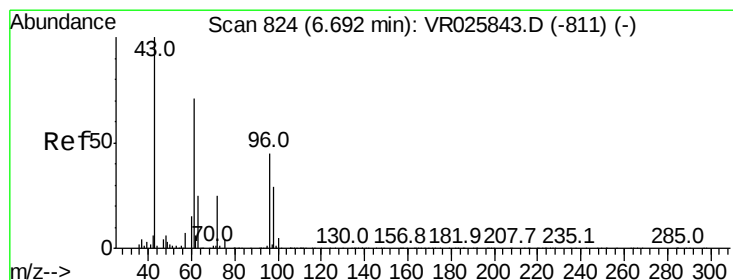
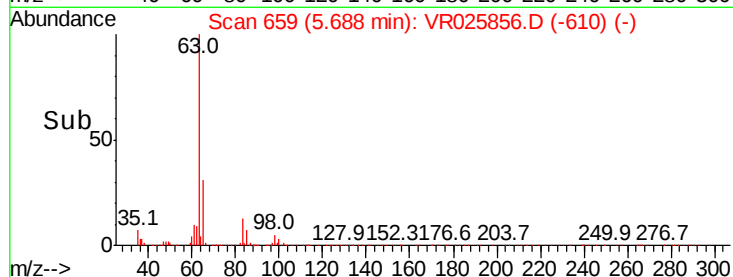
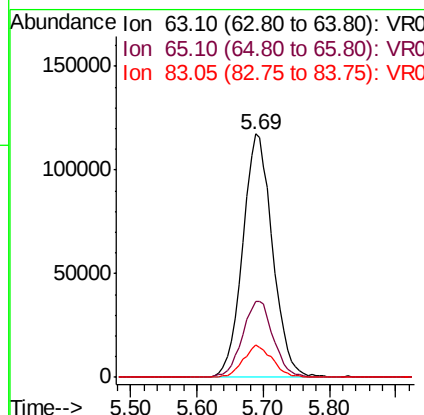
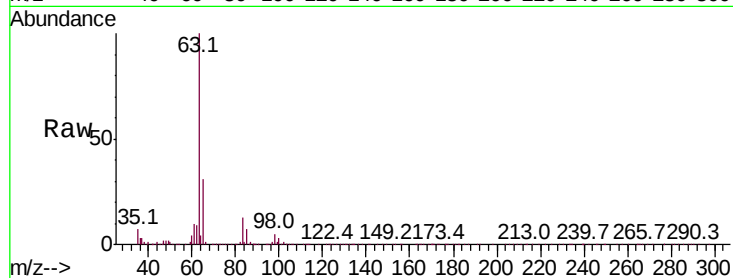




#19  
 1,1-Dichloroethane  
 Concen: 4.501 ug/L  
 RT: 5.69 min Scan# 659  
 Delta R.T. -0.00 min  
 Lab File: VR025856.D  
 Acq: 26 Sep 2018 10:34

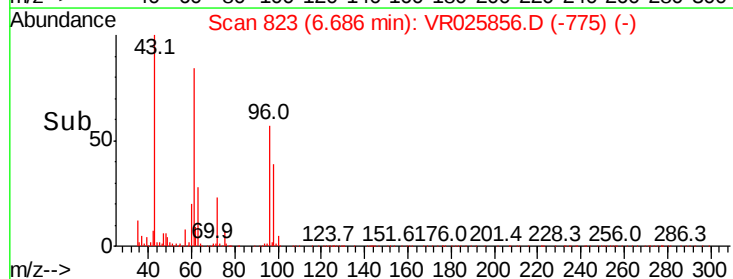
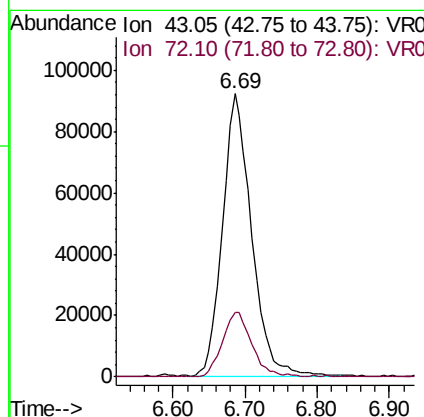
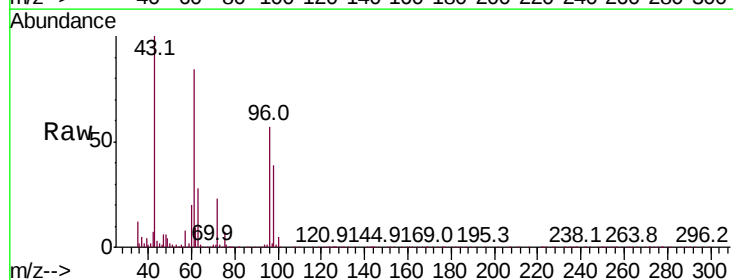
Instrument :  
 MSVOA\_R  
 ClientSampleId :

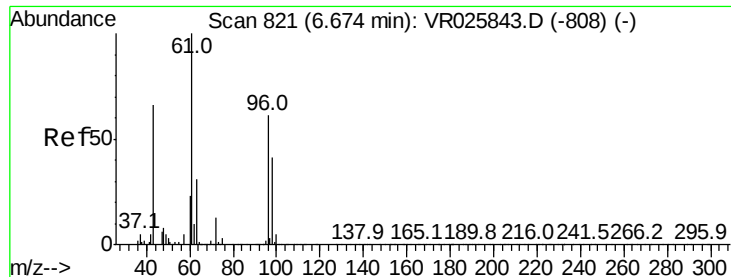
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 65      | 31.4  | 21.1  | 39.1  |
| 83      | 13.2  | 8.9   | 16.5  |



#21  
 2-Butanone  
 Concen: 47.648 ug/L  
 RT: 6.69 min Scan# 823  
 Delta R.T. -0.01 min  
 Lab File: VR025856.D  
 Acq: 26 Sep 2018 10:34

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 23.1  | 11.9  | 35.7  |



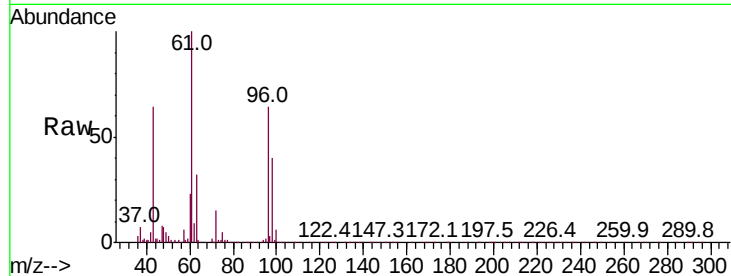


#22

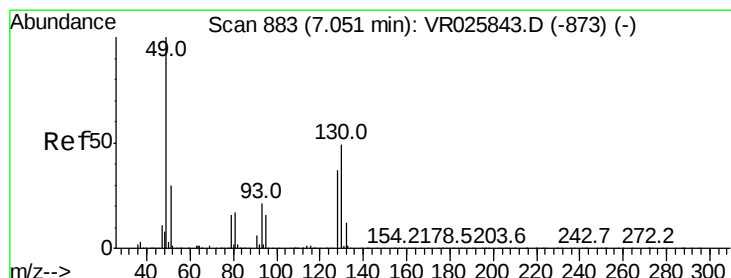
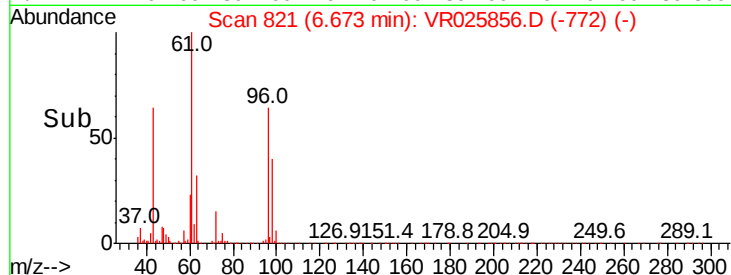
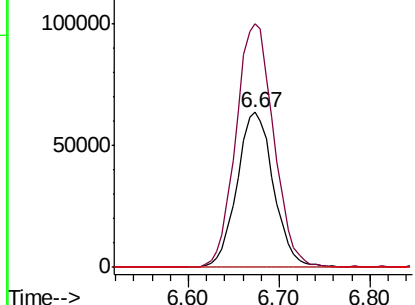
cis-1,2-Dichloroethene  
Concen: 4.404 ug/L  
RT: 6.67 min Scan# 821  
Delta R.T. -0.00 min  
Lab File: VR025856.D  
Acq: 26 Sep 2018 10:34

Instrument :  
MSVOA\_R  
ClientSampled :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 157.2 | 108.7 | 201.9 |
| 68      | 0.0   | 0.1   | 0.1#  |



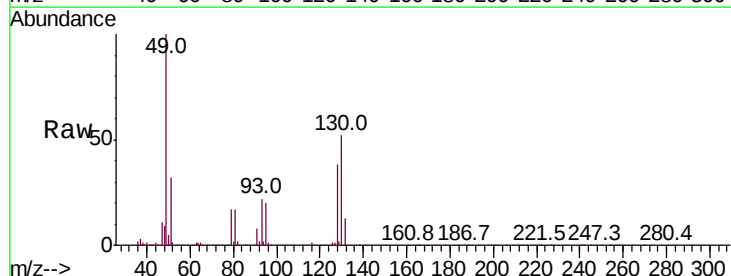
Abundance Ion 96.00 (95.70 to 96.70): VR0  
Ion 61.05 (60.75 to 61.75): VR0  
Ion 68.15 (67.85 to 68.85): VR0



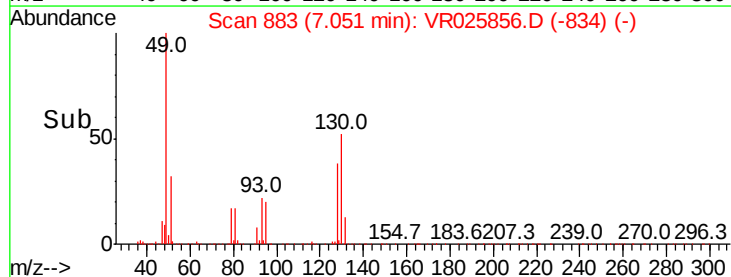
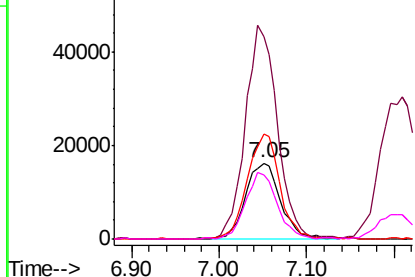
#23

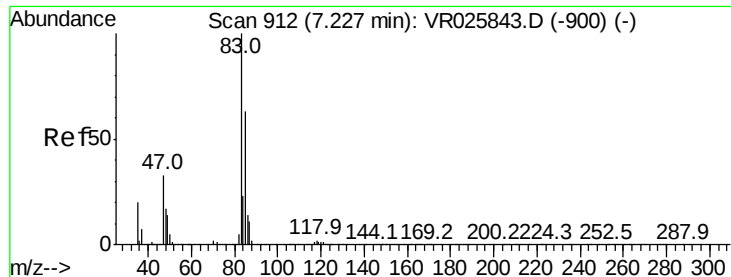
Bromochloromethane  
Concen: 4.226 ug/L  
RT: 7.05 min Scan# 883  
Delta R.T. -0.00 min  
Lab File: VR025856.D  
Acq: 26 Sep 2018 10:34

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 49      | 265.2 | 175.0 | 325.0 |
| 130     | 138.1 | 85.6  | 159.0 |
| 51      | 83.9  | 62.2  | 93.2  |



Abundance Ion 127.90 (127.60 to 128.60): V  
Ion 49.10 (48.80 to 49.80): VR0  
Ion 129.95 (129.65 to 130.65): V  
Ion 51.05 (50.75 to 51.75): VR0





#25

Chloroform

Concen: 4.524 ug/L

RT: 7.23 min Scan# 912

Delta R.T. -0.00 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

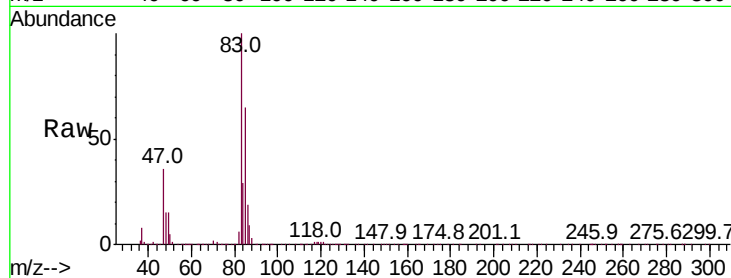
Instrument :  
MSVOA\_R  
ClientSampleId :

Tot Ion: 83 Resp: 339806

Ion Ratio Lower Upper

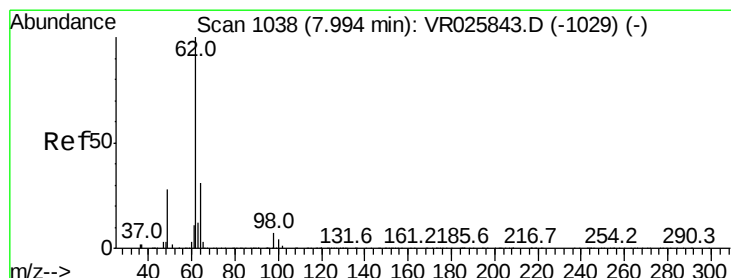
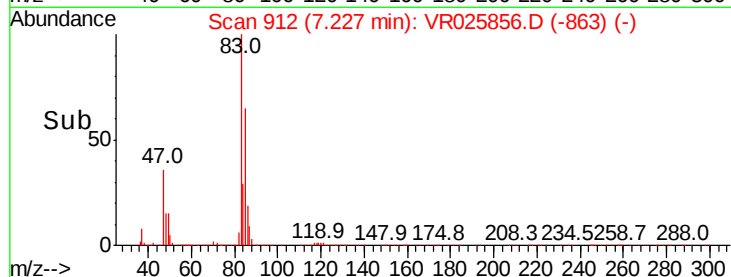
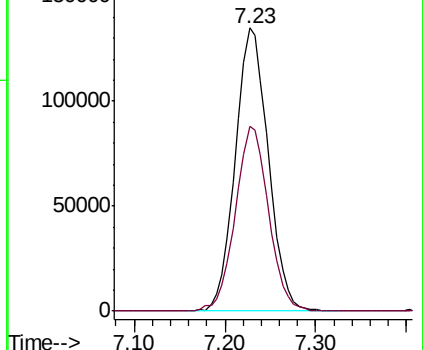
83 100

85 65.4 43.8 81.4



Abundance Ion 83.05 (82.75 to 83.75): VR0

Ion 85.00 (84.70 to 85.70): VR0



#27

1,2-Dichloroethane

Concen: 4.278 ug/L

RT: 7.99 min Scan# 1038

Delta R.T. -0.00 min

Lab File: VR025856.D

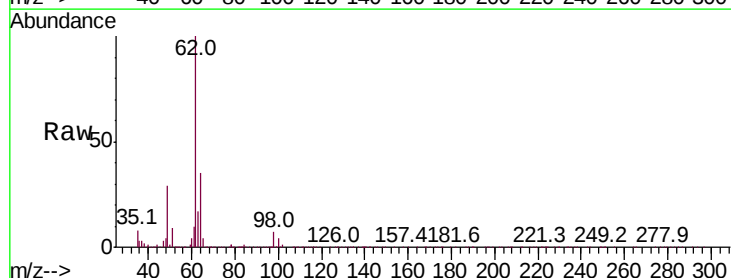
Acq: 26 Sep 2018 10:34

Tgt Ion: 62 Resp: 166066

Ion Ratio Lower Upper

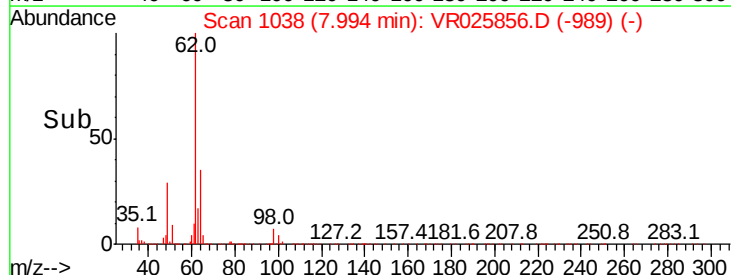
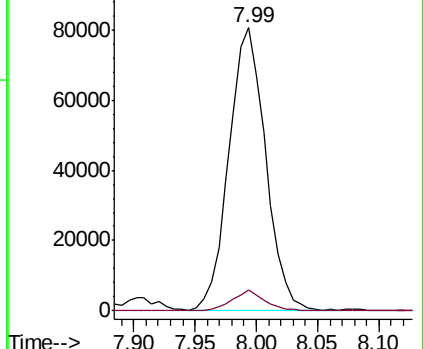
62 100

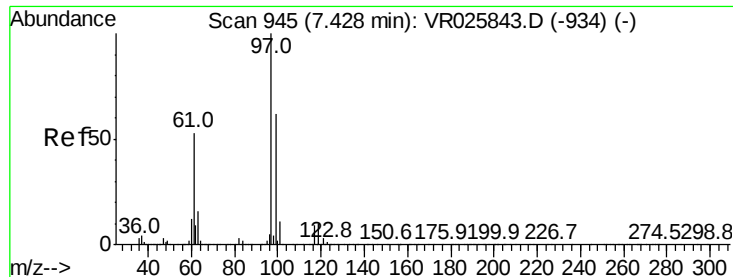
98 7.4 5.2 7.8



Abundance Ion 62.00 (61.70 to 62.70): VR0

Ion 98.05 (97.75 to 98.75): VR0

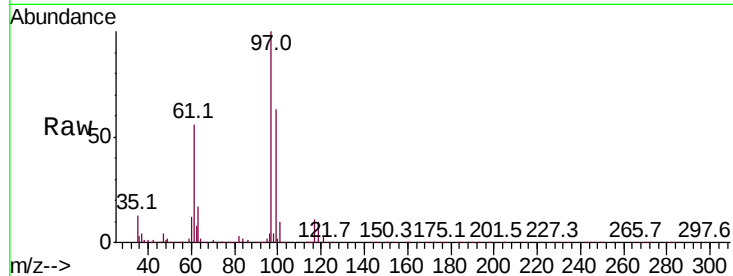




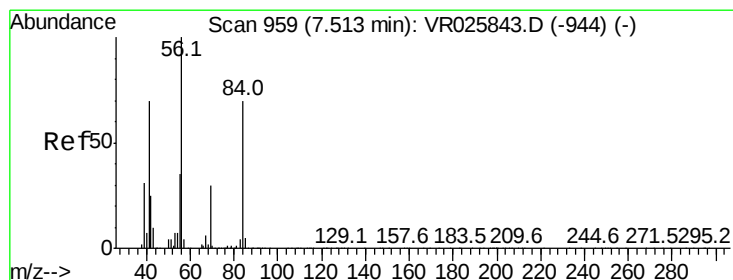
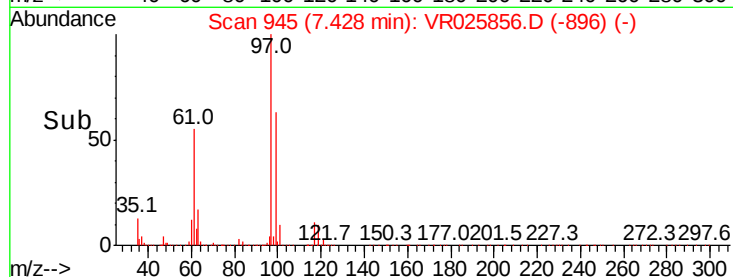
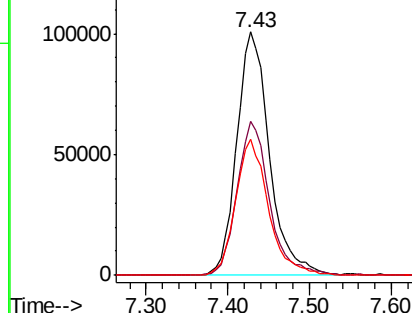
#29  
1,1,1-Trichloroethane  
Concen: 4.128 ug/L  
RT: 7.43 min Scan# 945  
Delta R.T. -0.00 min  
Lab File: VR025856.D  
Acq: 26 Sep 2018 10:34

Instrument :  
MSVOA\_R  
ClientSampled :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 62.8  | 51.0  | 76.6  |
| 61      | 56.2  | 41.6  | 62.4  |

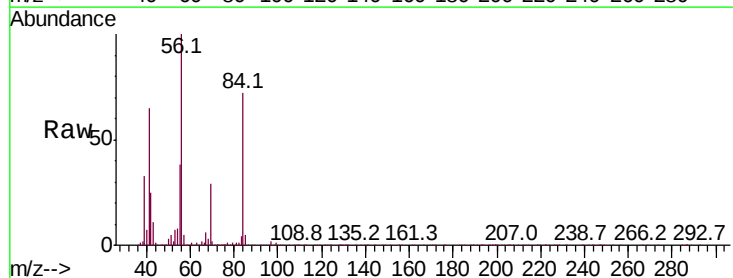


Abundance Ion 96.95 (96.65 to 97.65): VR0  
Ion 99.05 (98.75 to 99.75): VR0  
Ion 61.05 (60.75 to 61.75): VR0

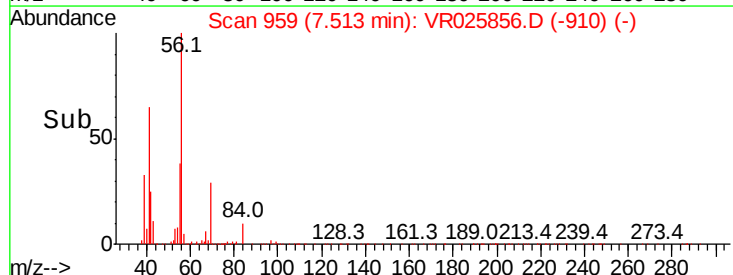
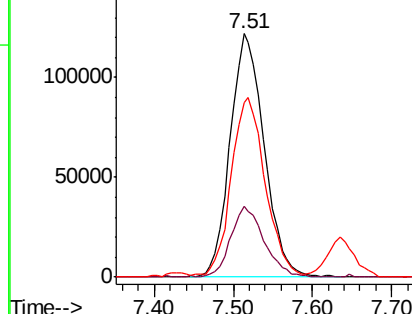


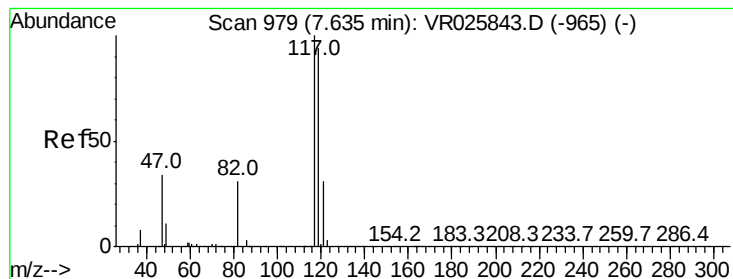
#30  
Cyclohexane  
Concen: 4.505 ug/L  
RT: 7.51 min Scan# 959  
Delta R.T. -0.00 min  
Lab File: VR025856.D  
Acq: 26 Sep 2018 10:34

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 56      | 100   |       |       |
| 69      | 28.6  | 24.8  | 37.2  |
| 84      | 74.0  | 59.8  | 89.8  |



Abundance Ion 56.10 (55.80 to 56.80): VR0  
Ion 69.15 (68.85 to 69.85): VR0  
Ion 84.15 (83.85 to 84.85): VR0





#31

Carbon tetrachloride

Concen: 4.300 ug/L

RT: 7.63 min Scan# 979

Delta R.T. -0.00 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

Instrument :

MSVOA\_R

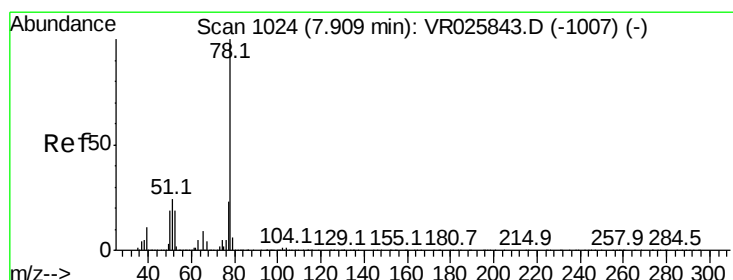
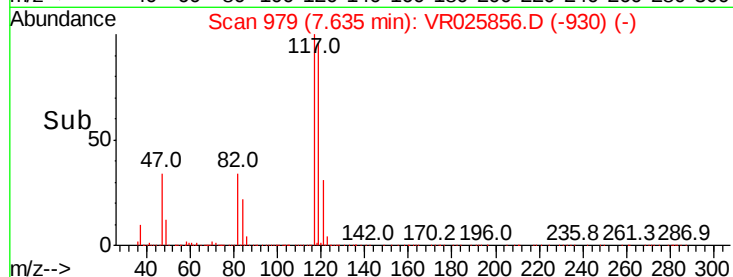
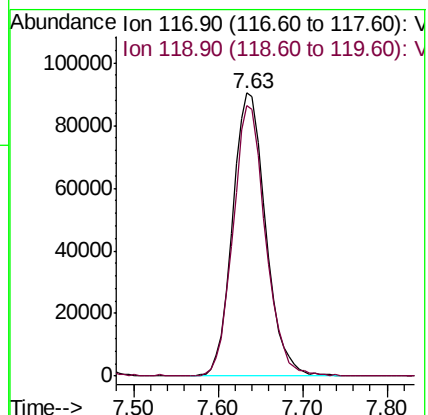
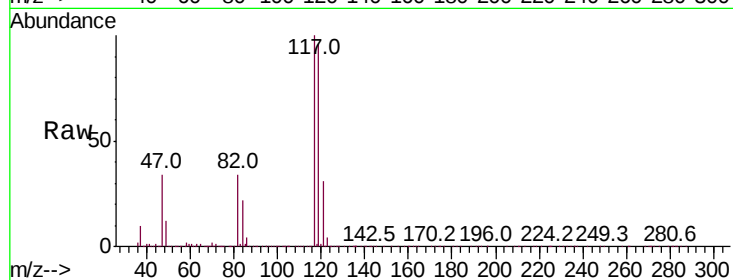
ClientSampled :

Tot Ion:117 Resp: 239317

Ion Ratio Lower Upper

117 100

119 93.9 75.6 113.4



#33

Benzene

Concen: 4.577 ug/L

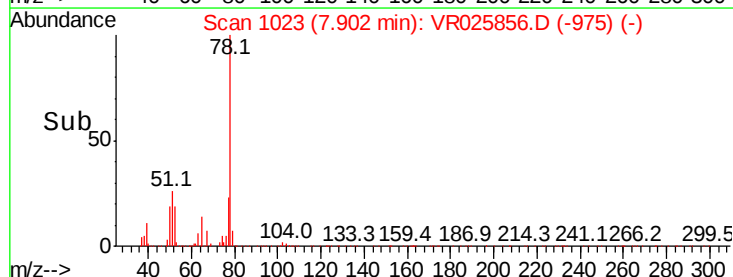
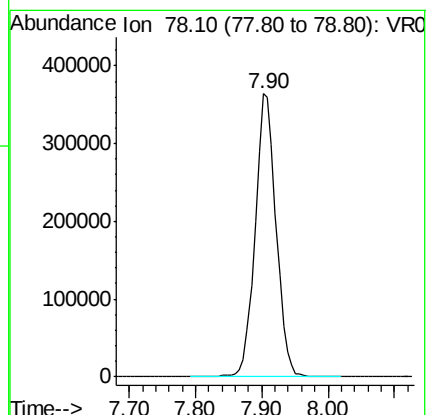
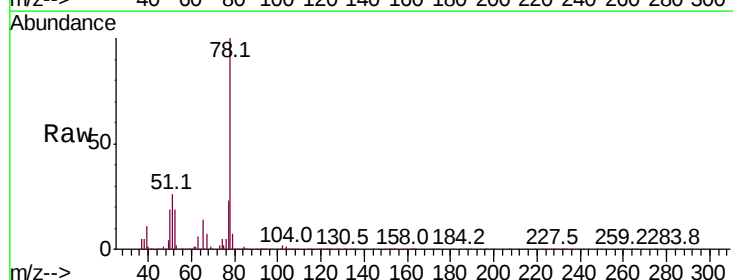
RT: 7.90 min Scan# 1023

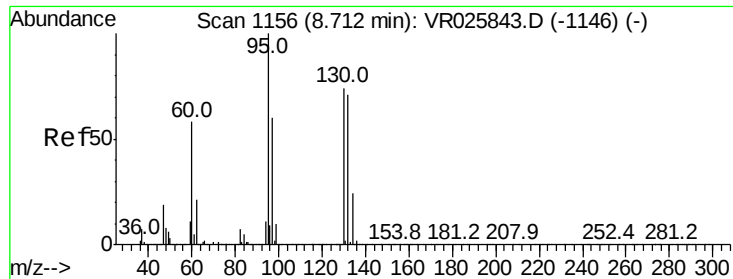
Delta R.T. -0.01 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

Tgt Ion: 78 Resp: 804624

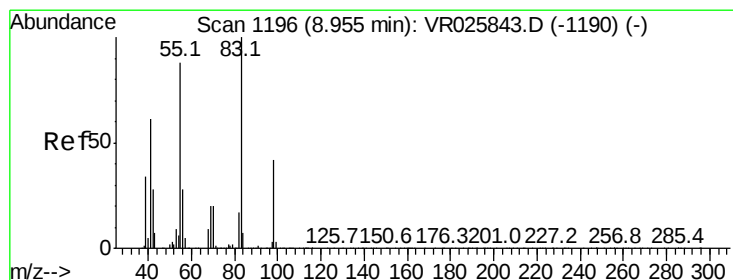
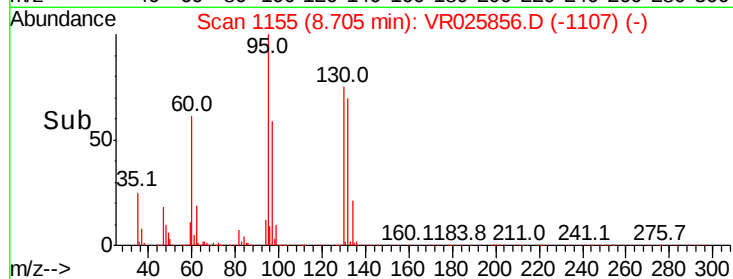
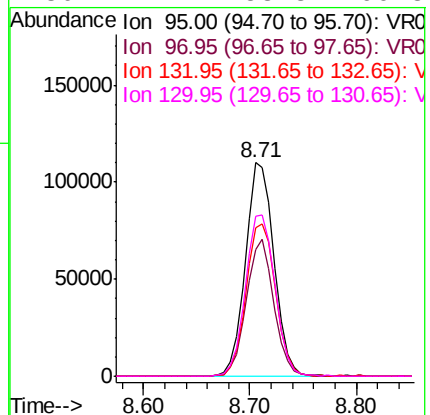
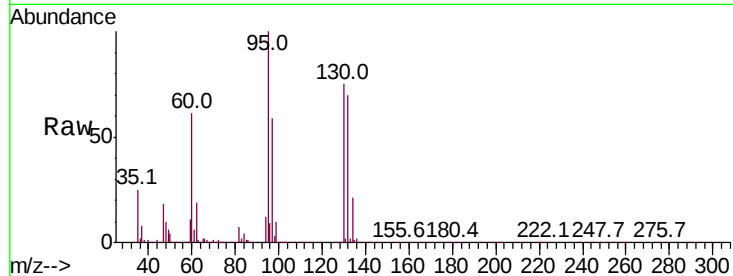




#34  
 Trichloroethene  
 Concen: 4.444 ug/L  
 RT: 8.71 min Scan# 1155  
 Delta R.T. -0.01 min  
 Lab File: VR025856.D  
 Acq: 26 Sep 2018 10:34

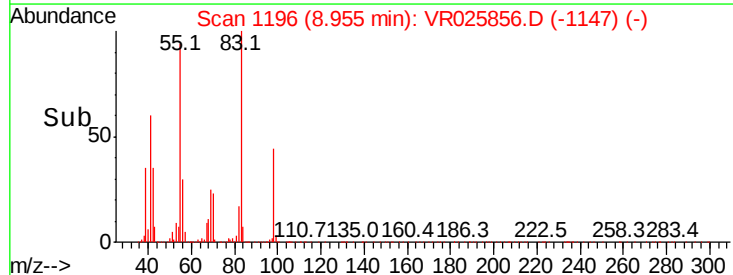
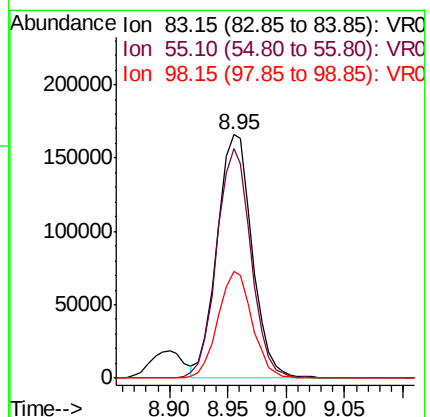
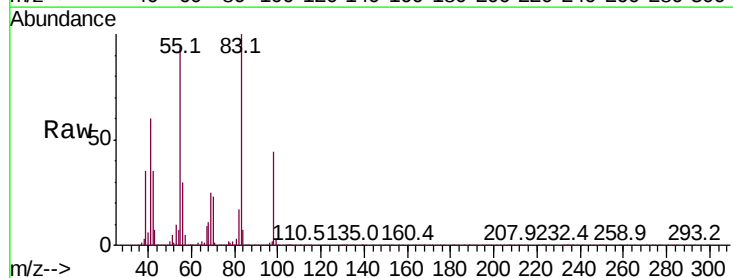
Instrument :  
 MSVOA\_R  
 ClientSampleId :

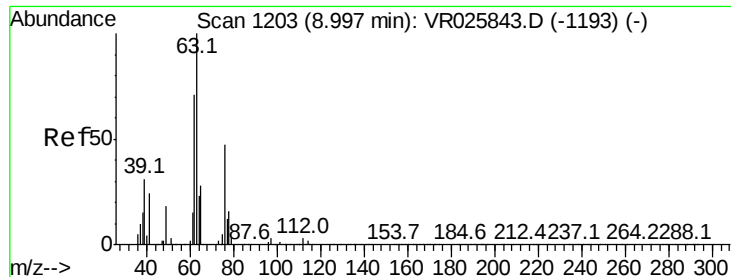
|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 95    | Resp: | 207376 |
| Ion      | Ratio | Lower | Upper  |
| 95       | 100   |       |        |
| 97       | 59.1  | 43.9  | 81.5   |
| 132      | 69.7  | 53.3  | 98.9   |
| 130      | 74.7  | 53.8  | 99.8   |



#35  
 Methylcyclohexane  
 Concen: 4.484 ug/L  
 RT: 8.95 min Scan# 1196  
 Delta R.T. -0.00 min  
 Lab File: VR025856.D  
 Acq: 26 Sep 2018 10:34

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 83    | Resp: | 343091 |
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 55       | 92.2  | 71.8  | 107.6  |
| 98       | 43.0  | 34.2  | 51.4   |

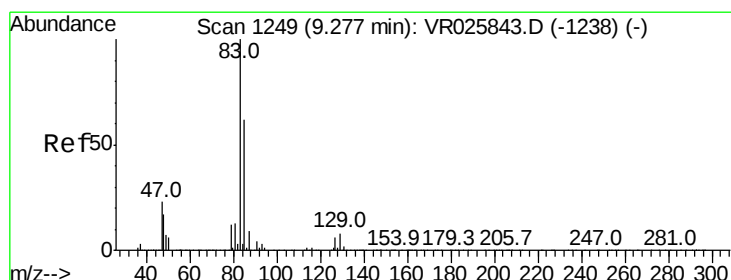
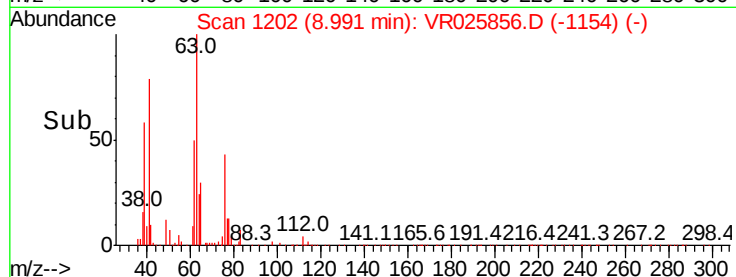
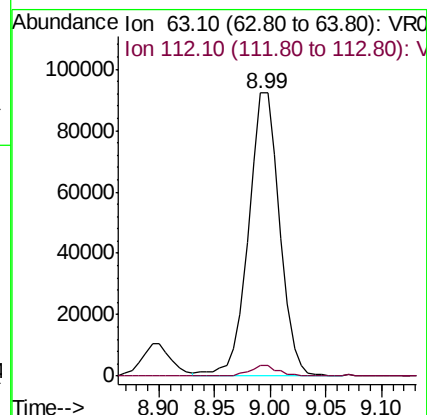
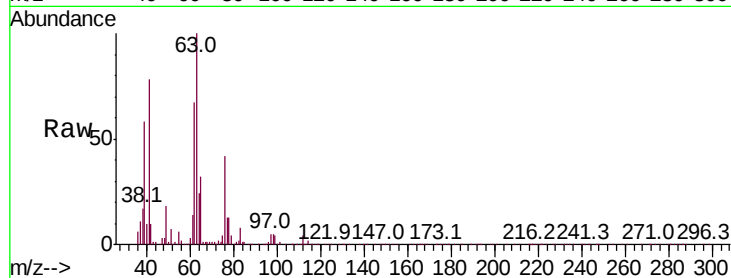




#37  
 1,2-Dichloropropane  
 Concen: 4.560 ug/L  
 RT: 8.99 min Scan# 1202  
 Delta R.T. -0.01 min  
 Lab File: VR025856.D  
 Acq: 26 Sep 2018 10:34

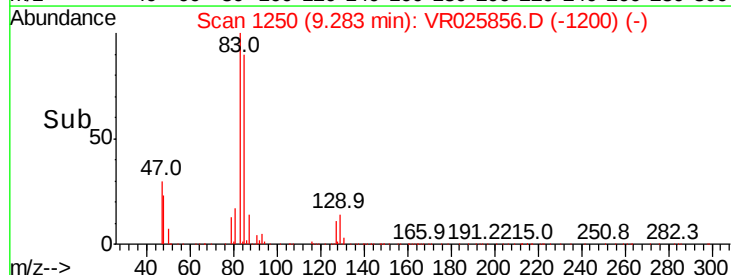
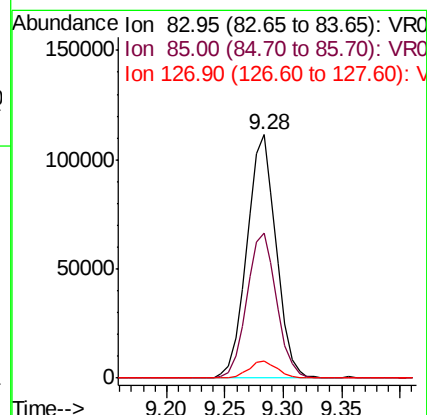
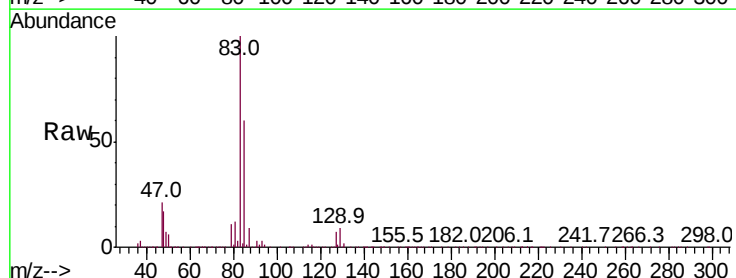
Instrument :  
 MSVOA\_R  
 ClientSampleId :

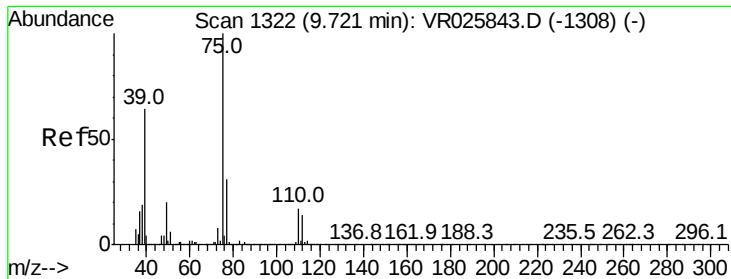
Tot Ion: 63 Resp: 178751  
 Ion Ratio Lower Upper  
 63 100  
 112 3.6 2.5 3.7



#38  
 Bromodichloromethane  
 Concen: 4.501 ug/L  
 RT: 9.28 min Scan# 1250  
 Delta R.T. 0.01 min  
 Lab File: VR025856.D  
 Acq: 26 Sep 2018 10:34

Tgt Ion: 83 Resp: 194768  
 Ion Ratio Lower Upper  
 83 100  
 85 59.7 42.8 79.4  
 127 7.1 5.6 8.4



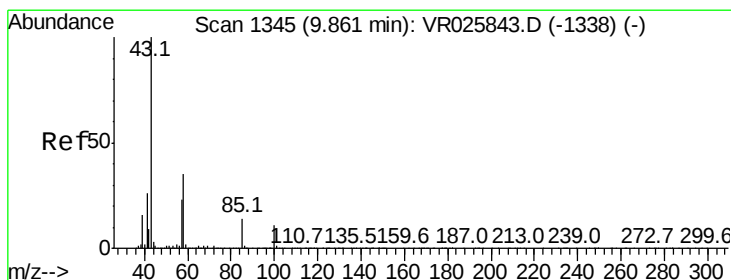
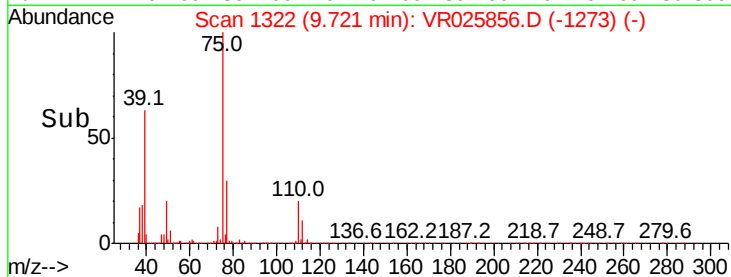
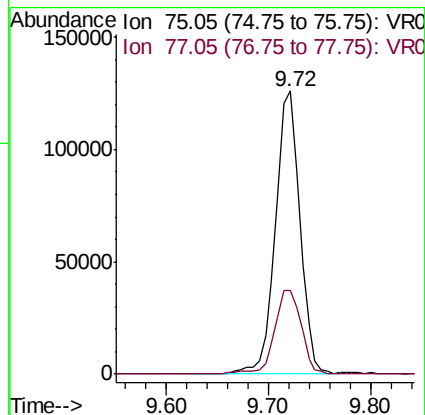
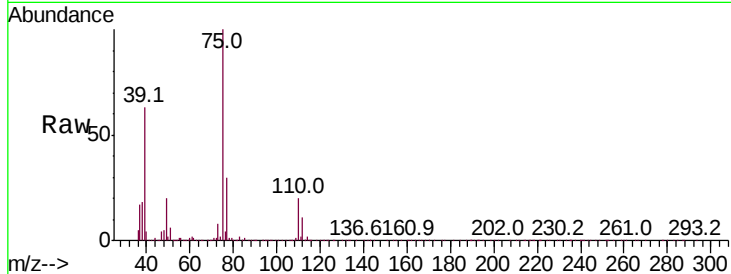


#39

cis-1,3-Dichloropropene  
Concen: 4.347 ug/L  
RT: 9.72 min Scan# 1322  
Delta R.T. -0.00 min  
Lab File: VR025856.D  
Acq: 26 Sep 2018 10:34

Instrument :  
MSVOA\_R  
ClientSampleId :

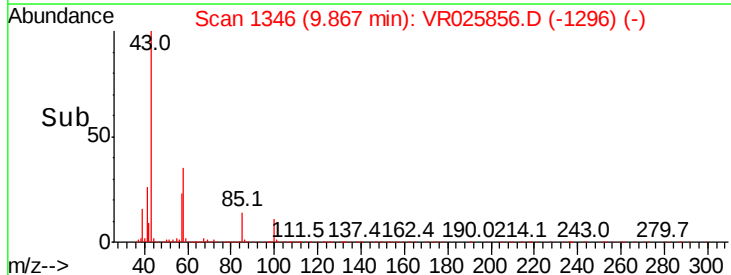
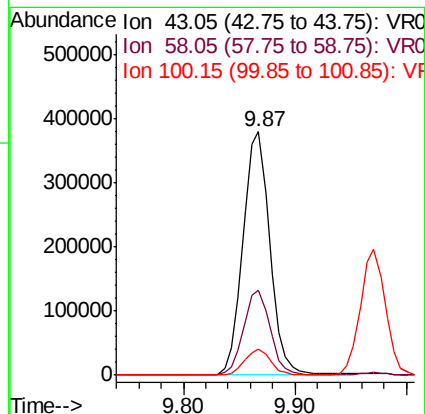
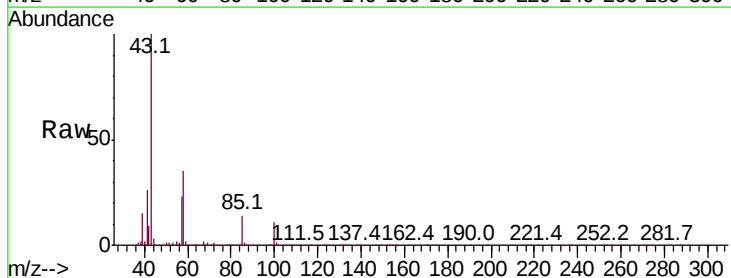
Tot Ion: 75 Resp: 208598  
Ion Ratio Lower Upper  
75 100  
77 29.7 21.5 39.9

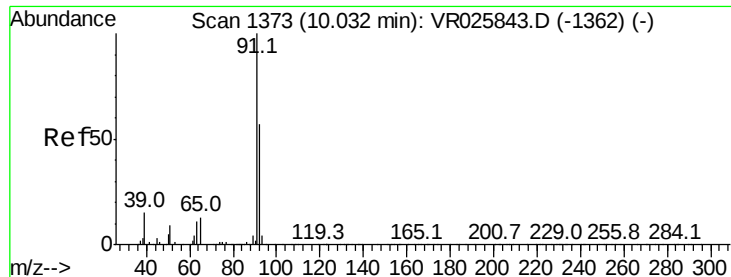


#40

4-Methyl-2-pentanone  
Concen: 46.497 ug/L  
RT: 9.87 min Scan# 1346  
Delta R.T. 0.01 min  
Lab File: VR025856.D  
Acq: 26 Sep 2018 10:34

Tgt Ion: 43 Resp: 634518  
Ion Ratio Lower Upper  
43 100  
58 34.8 28.6 43.0  
100 10.5 9.0 13.4





#42

Toluene

Concen: 4.683 ug/L

RT: 10.03 min Scan# 1373

Delta R.T. -0.00 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

Instrument :

MSVOA\_R

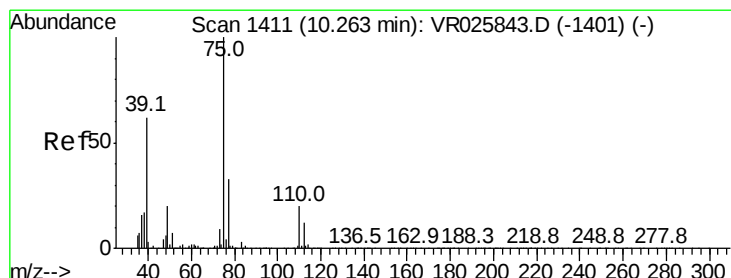
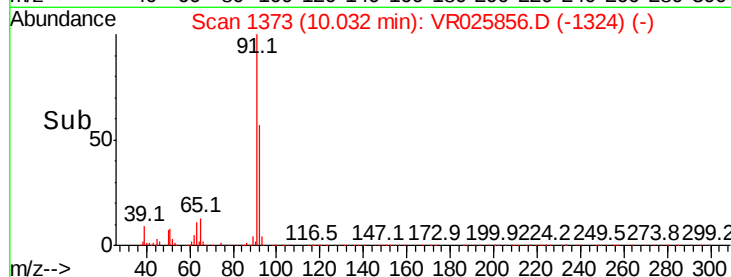
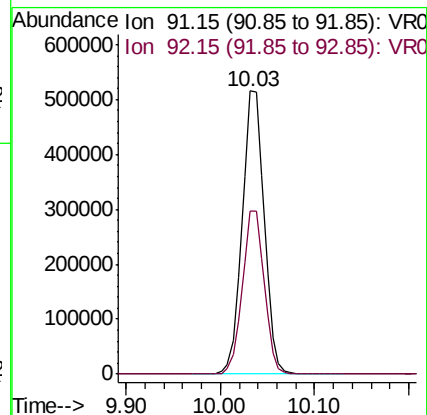
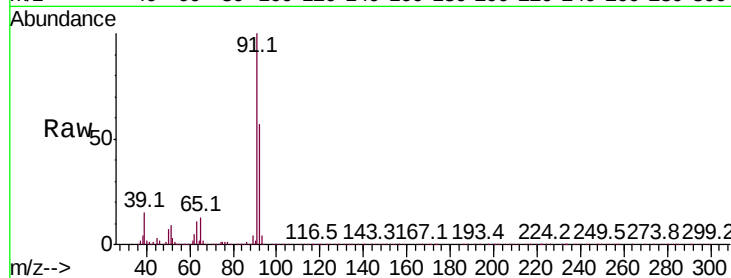
ClientSampleId :

Tot Ion: 91 Resp: 839107

Ion Ratio Lower Upper

91 100

92 57.4 41.8 77.6



#44

trans-1,3-Dichloropropene

Concen: 4.192 ug/L

RT: 10.26 min Scan# 1411

Delta R.T. -0.00 min

Lab File: VR025856.D

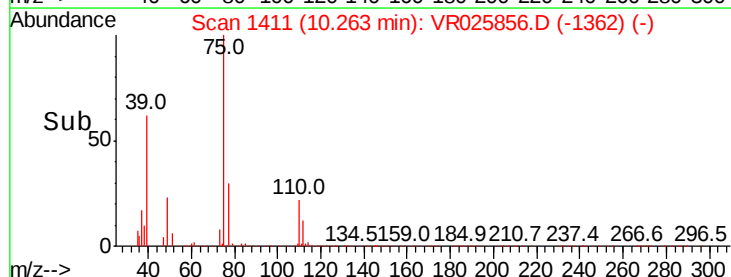
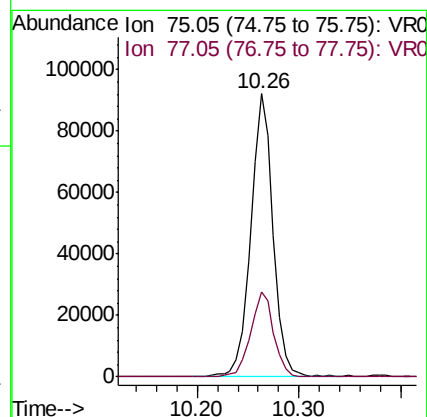
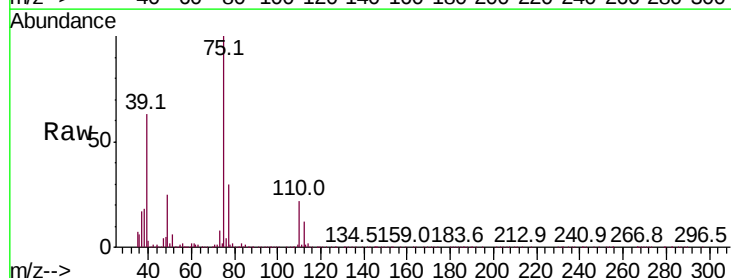
Acq: 26 Sep 2018 10:34

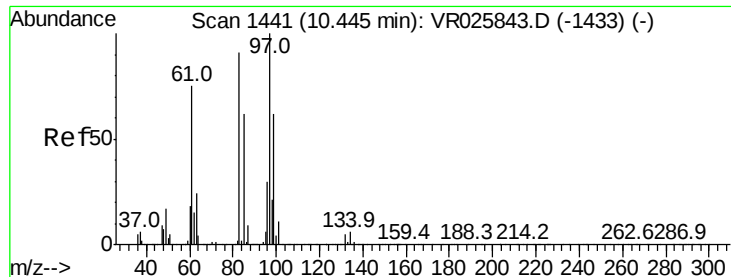
Tgt Ion: 75 Resp: 139413

Ion Ratio Lower Upper

75 100

77 30.1 23.0 42.8





#45

1,1,2-Trichloroethane

Concen: 4.349 ug/L

RT: 10.45 min Scan# 1441

Delta R.T. -0.00 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

Instrument :

MSVOA\_R

ClientSampleId :

Tot Ion: 97 Resp: 71472

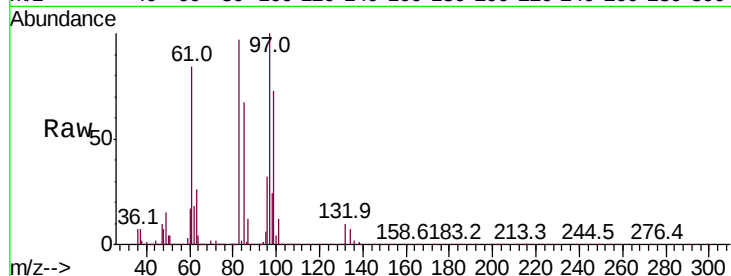
Ion Ratio Lower Upper

97 100

99 72.6 39.6 73.6

83 97.1 62.2 115.6

85 67.3 39.1 72.7

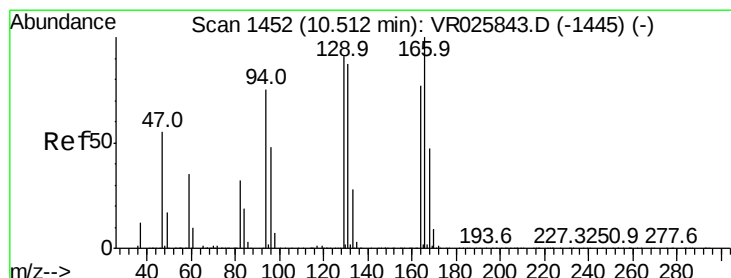
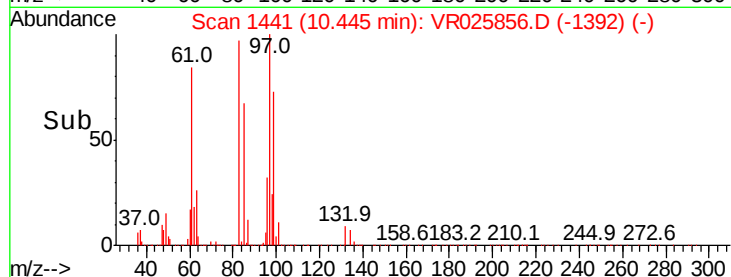
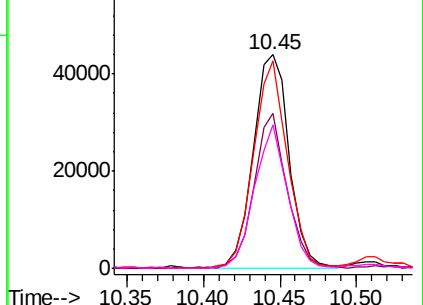


Abundance Ion 96.95 (96.65 to 97.65): VR0

Ion 99.05 (98.75 to 99.75): VR0

Ion 82.95 (82.65 to 83.65): VR0

Ion 85.00 (84.70 to 85.70): VR0



#47

Tetrachloroethene

Concen: 4.338 ug/L

RT: 10.51 min Scan# 1452

Delta R.T. -0.00 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

Tgt Ion: 164 Resp: 115760

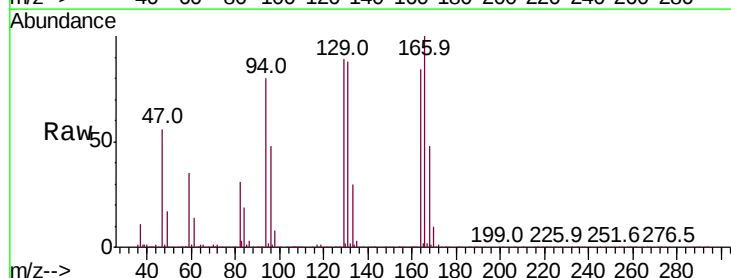
Ion Ratio Lower Upper

164 100

129 105.7 80.8 150.2

131 104.2 74.5 138.3

166 119.1 92.5 171.7

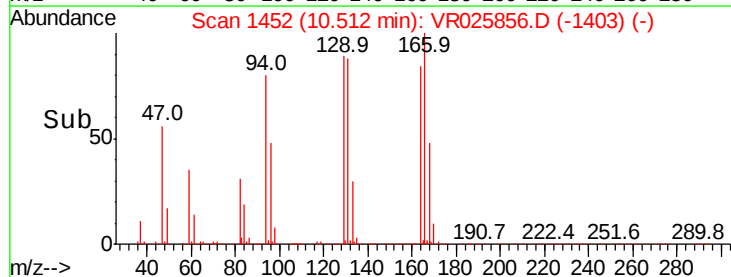
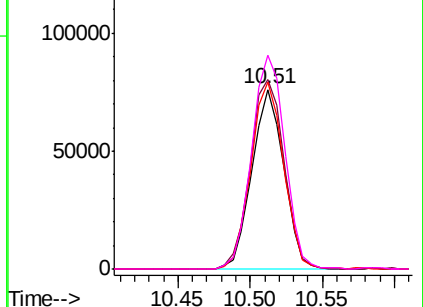


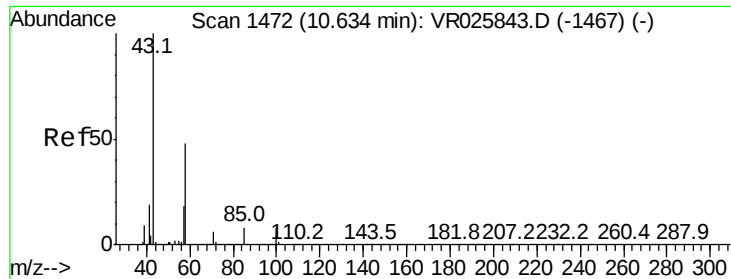
Abundance Ion 163.90 (163.60 to 164.60): V

Ion 128.95 (128.65 to 129.65): V

Ion 130.95 (130.65 to 131.65): V

Ion 165.90 (165.60 to 166.60): V

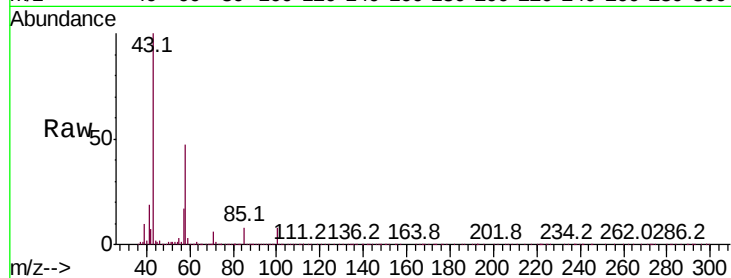




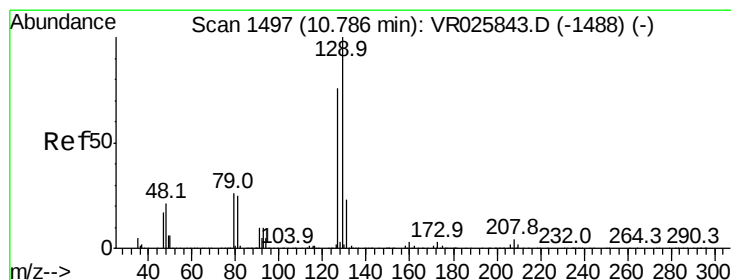
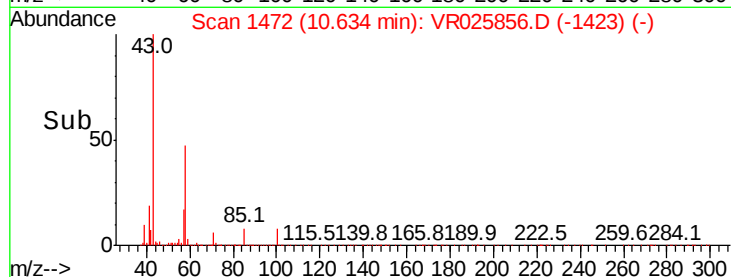
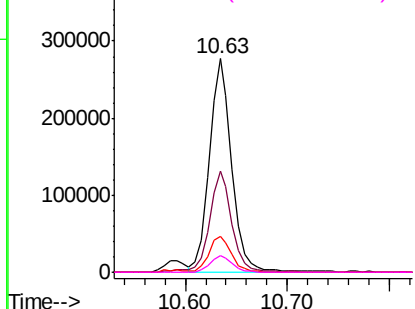
#48  
2-Hexanone  
Concen: 47.079 ug/L  
RT: 10.63 min Scan# 1472  
Delta R.T. -0.00 min  
Lab File: VR025856.D  
Acq: 26 Sep 2018 10:34

Instrument :  
MSVOA\_R  
ClientSampleId :

Tot Ion: 43 Resp: 422513  
Ion Ratio Lower Upper  
43 100  
58 48.0 39.5 59.3  
57 17.0 14.6 21.8  
100 7.8 6.7 10.1

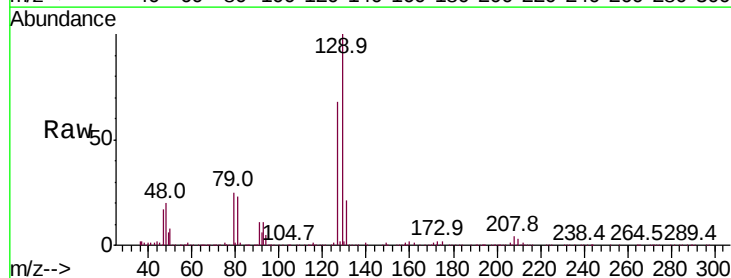


Abundance Ion 43.05 (42.75 to 43.75): VR0  
Ion 58.05 (57.75 to 58.75): VR0  
Ion 57.20 (56.90 to 57.90): VR0  
Ion 100.15 (99.85 to 100.85): VR0

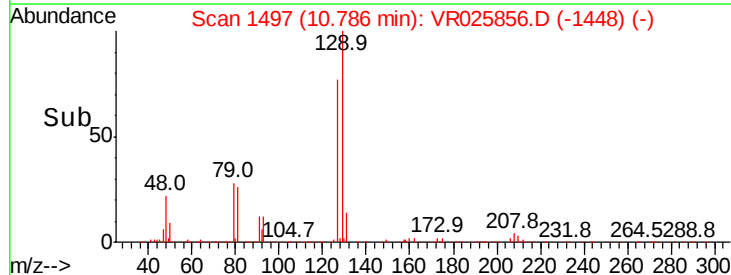
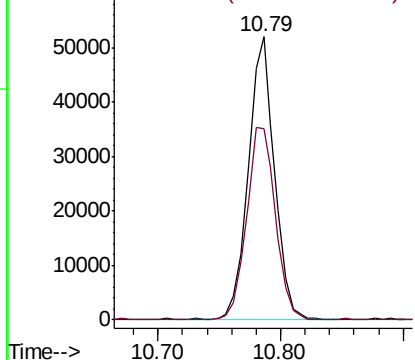


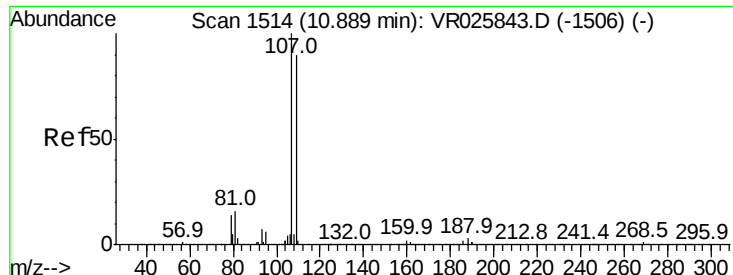
#49  
Dibromochloromethane  
Concen: 4.521 ug/L  
RT: 10.79 min Scan# 1497  
Delta R.T. -0.00 min  
Lab File: VR025856.D  
Acq: 26 Sep 2018 10:34

Tgt Ion: 129 Resp: 77406  
Ion Ratio Lower Upper  
129 100  
127 67.7 54.1 100.5



Abundance Ion 128.95 (128.65 to 129.65): V  
Ion 126.90 (126.60 to 127.60): V

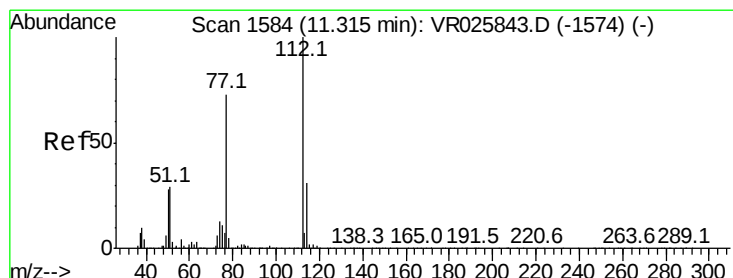
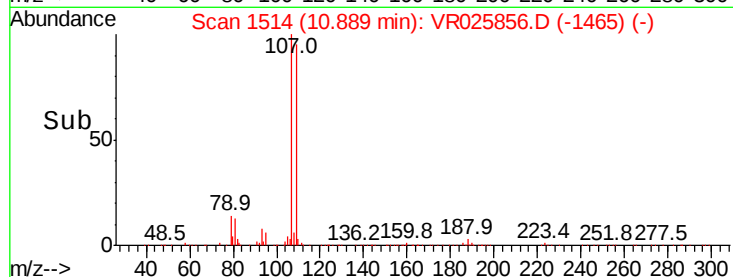
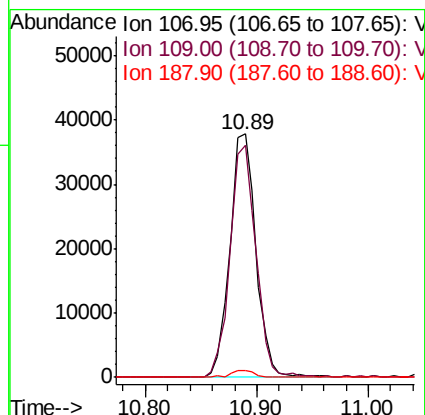
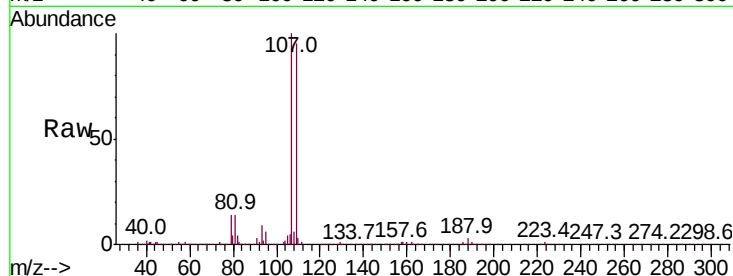




#50  
1,2-Dibromoethane  
Concen: 4.233 ug/L  
RT: 10.89 min Scan# 1514  
Delta R.T. -0.00 min  
Lab File: VR025856.D  
Acq: 26 Sep 2018 10:34

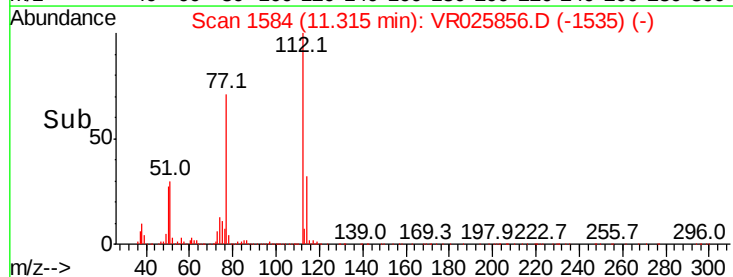
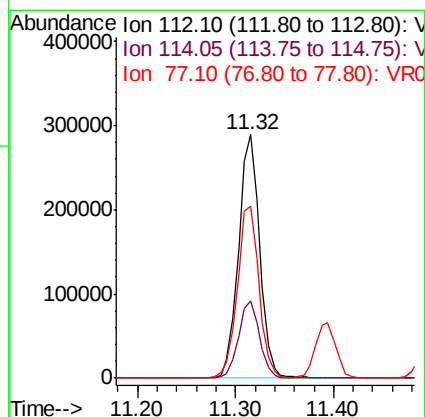
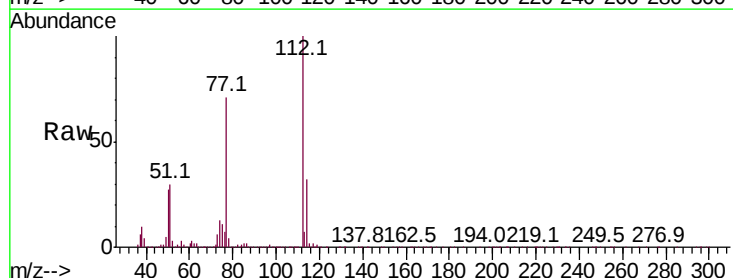
Instrument :  
MSVOA\_R  
ClientSampleId :

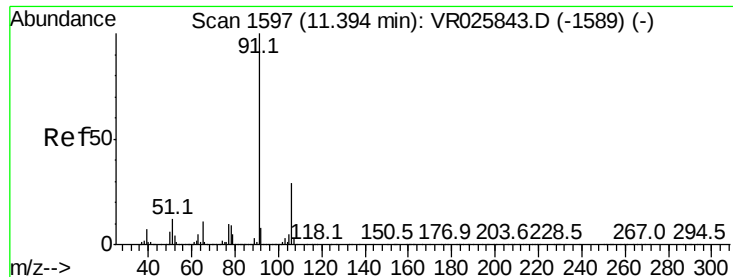
Tot Ion:107 Resp: 61221  
Ion Ratio Lower Upper  
107 100  
109 95.1 63.5 117.9  
188 2.7 1.7 2.5#



#51  
Chlorobenzene  
Concen: 4.575 ug/L  
RT: 11.32 min Scan# 1584  
Delta R.T. -0.00 min  
Lab File: VR025856.D  
Acq: 26 Sep 2018 10:34

Tgt Ion:112 Resp: 429985  
Ion Ratio Lower Upper  
112 100  
114 31.7 22.7 42.3  
77 70.8 58.5 87.7





#52

Ethylbenzene

Concen: 4.742 ug/L

RT: 11.39 min Scan# 1597

Delta R.T. -0.00 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

Instrument :

MSVOA\_R

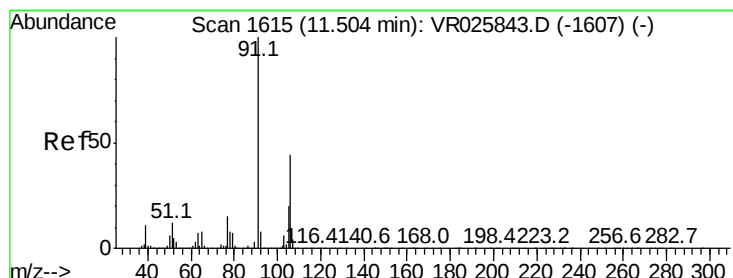
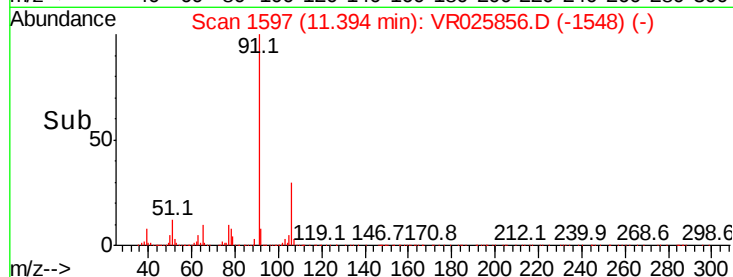
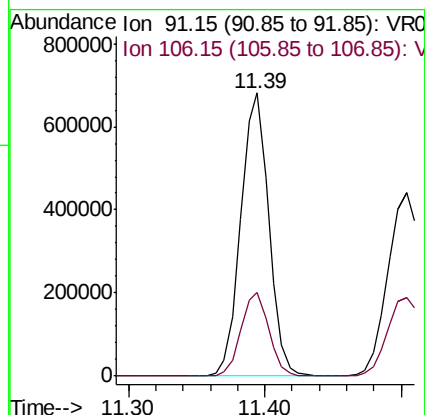
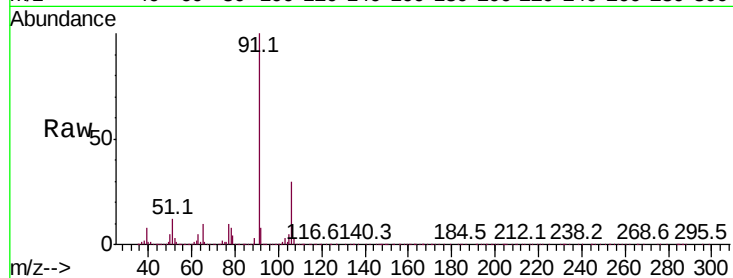
ClientSampleId :

Tot Ion: 91 Resp: 977616

Ion Ratio Lower Upper

91 100

106 29.6 20.6 38.4



#53

m,p-Xylene

Concen: 4.529 ug/L

RT: 11.50 min Scan# 1615

Delta R.T. -0.00 min

Lab File: VR025856.D

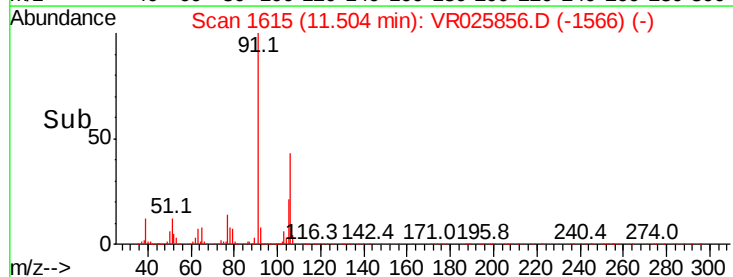
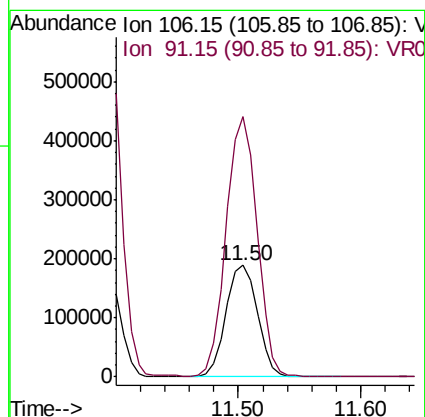
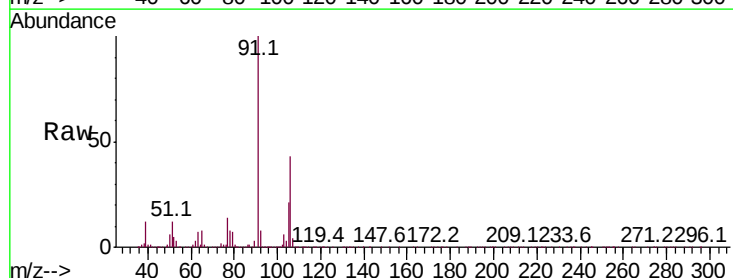
Acq: 26 Sep 2018 10:34

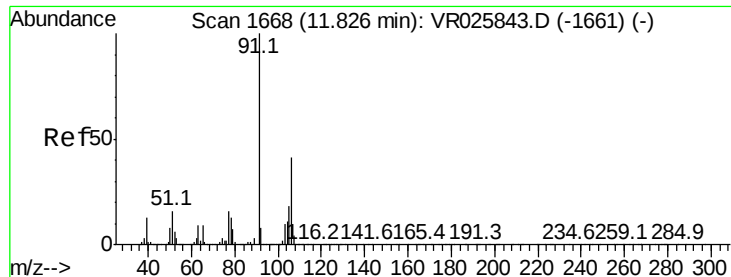
Tgt Ion: 106 Resp: 336638

Ion Ratio Lower Upper

106 100

91 232.7 159.7 296.5

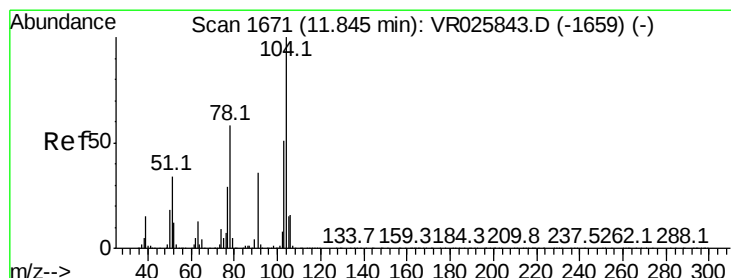
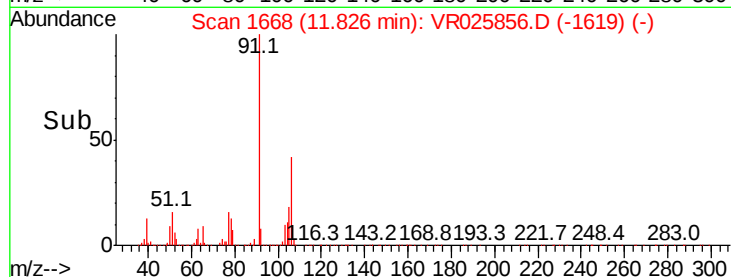
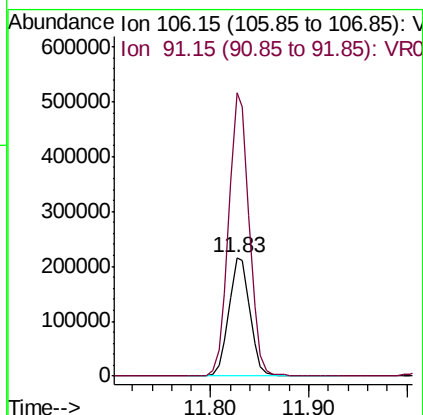
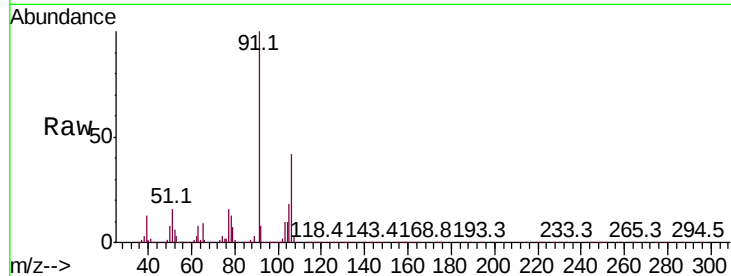




#54  
o-Xylene  
Concen: 4.732 ug/L  
RT: 11.83 min Scan# 1668  
Delta R.T. -0.00 min  
Lab File: VR025856.D  
Acq: 26 Sep 2018 10:34

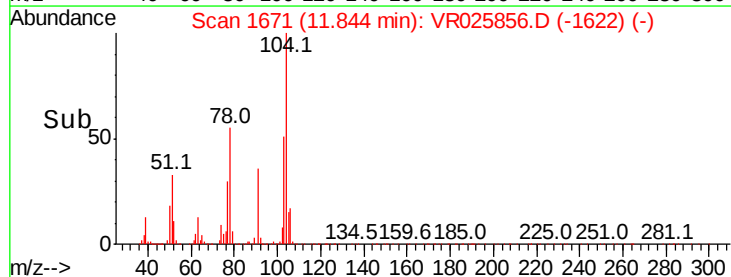
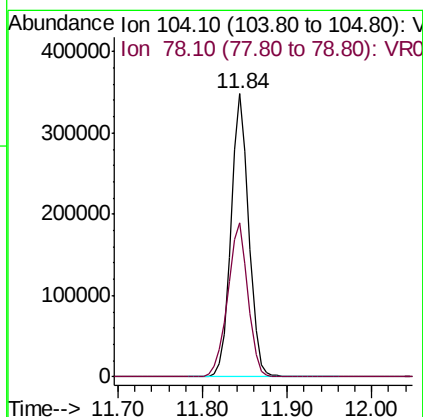
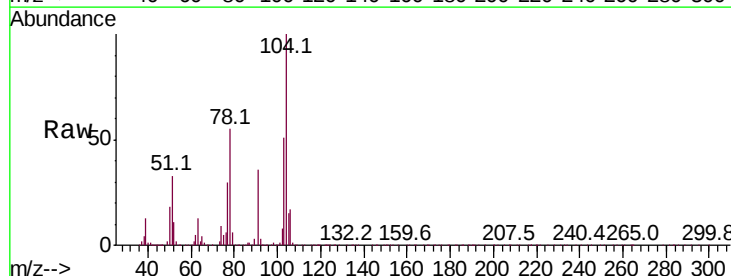
Instrument :  
MSVOA\_R  
ClientSampled :

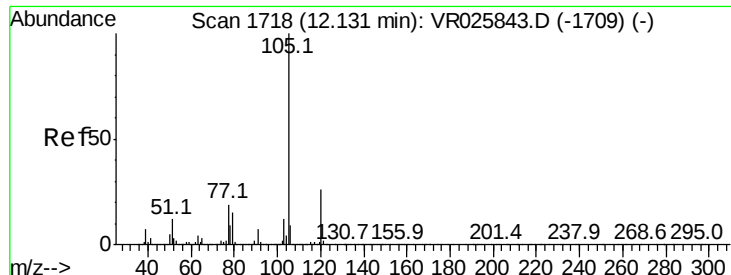
Tot Ion:106 Resp: 322089  
Ion Ratio Lower Upper  
106 100  
91 238.4 164.5 305.5



#55  
Styrene  
Concen: 4.753 ug/L  
RT: 11.84 min Scan# 1671  
Delta R.T. -0.00 min  
Lab File: VR025856.D  
Acq: 26 Sep 2018 10:34

Tgt Ion:104 Resp: 501241  
Ion Ratio Lower Upper  
104 100  
78 54.6 39.3 72.9





#56

Isopropylbenzene

Concen: 4.822 ug/L

RT: 12.13 min Scan# 1718

Delta R.T. -0.00 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

Instrument :

MSVOA\_R

ClientSampled :

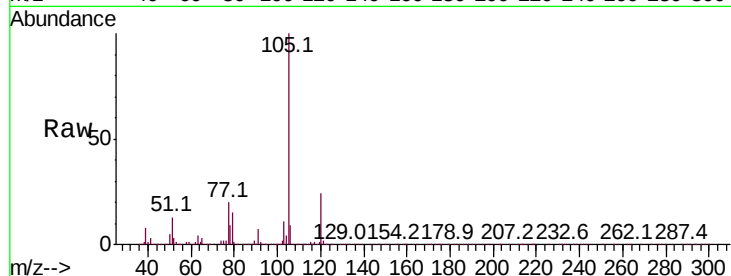
Tot Ion:105 Resp: 918479

Ion Ratio Lower Upper

105 100

120 24.2 19.8 29.8

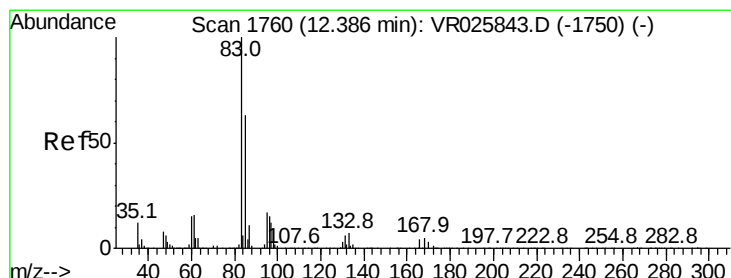
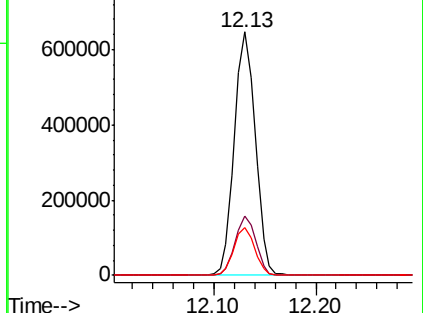
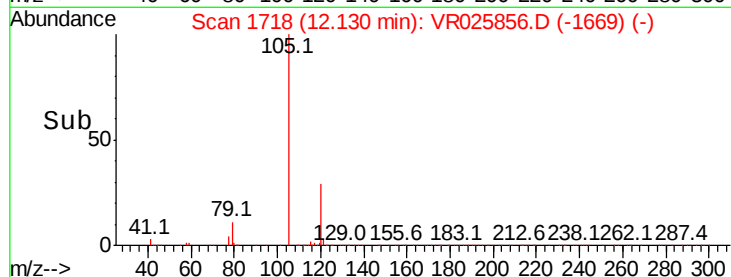
77 19.3 15.5 23.3



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.10 (119.80 to 120.80): V

Ion 77.10 (76.80 to 77.80): VR0



#58

1,1,2,2-Tetrachloroethane

Concen: 4.737 ug/L

RT: 12.39 min Scan# 1760

Delta R.T. -0.00 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

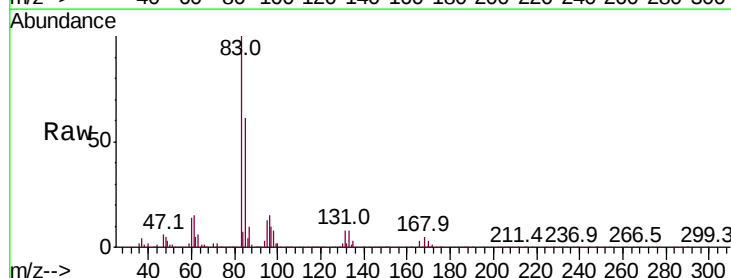
Tgt Ion: 83 Resp: 76380

Ion Ratio Lower Upper

83 100

85 61.1 45.8 85.0

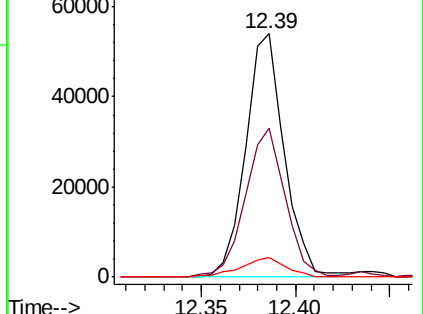
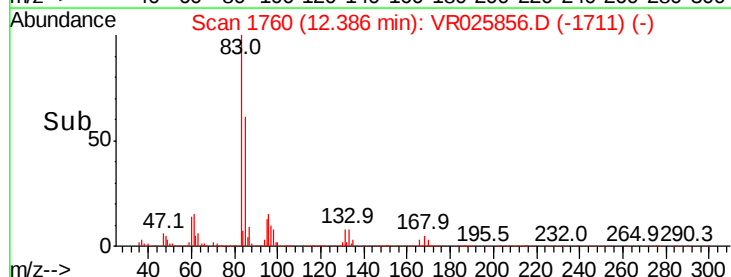
131 7.9 6.6 9.8

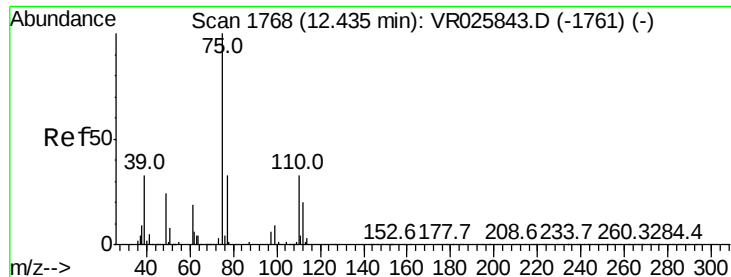


Abundance Ion 82.95 (82.65 to 83.65): VR0

Ion 85.00 (84.70 to 85.70): VR0

Ion 130.95 (130.65 to 131.65): V





#59

1,2,3-Trichloropropane

Concen: 4.412 ug/L

RT: 12.43 min Scan# 1768

Delta R.T. -0.00 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

Instrument :

MSVOA\_R

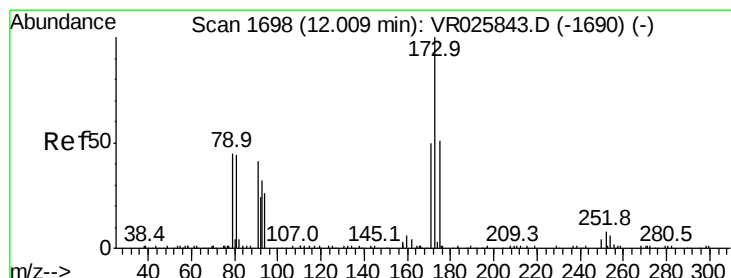
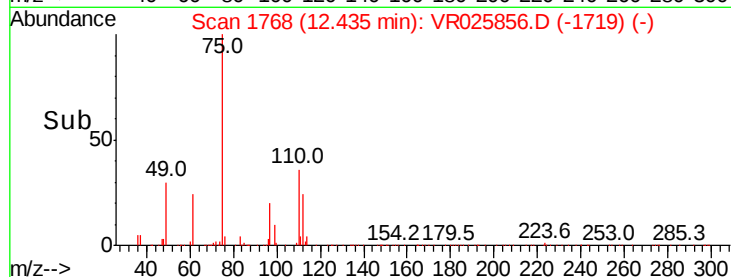
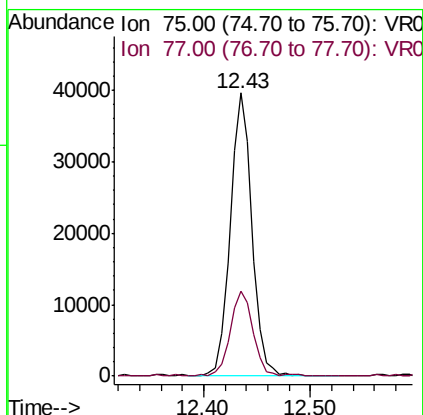
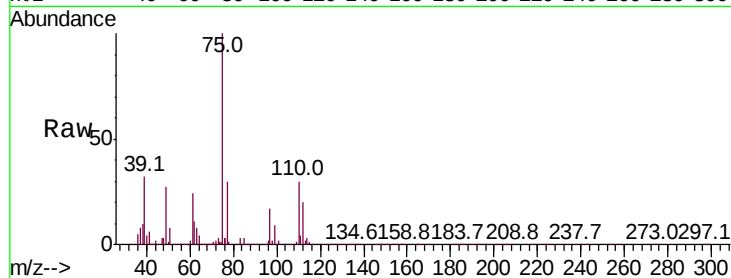
ClientSampleId :

Tot Ion: 75 Resp: 56479

Ion Ratio Lower Upper

75 100

77 31.6 25.8 38.6



#61

Bromoform

Concen: 4.121 ug/L

RT: 12.01 min Scan# 1698

Delta R.T. -0.00 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

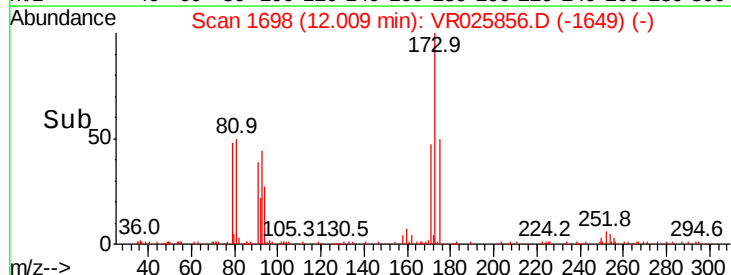
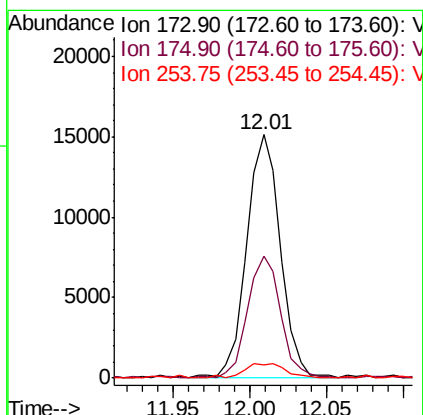
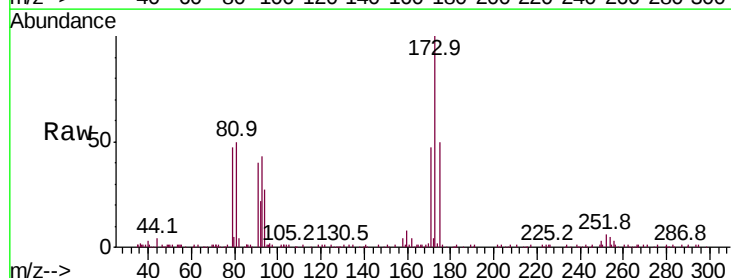
Tgt Ion: 173 Resp: 23144

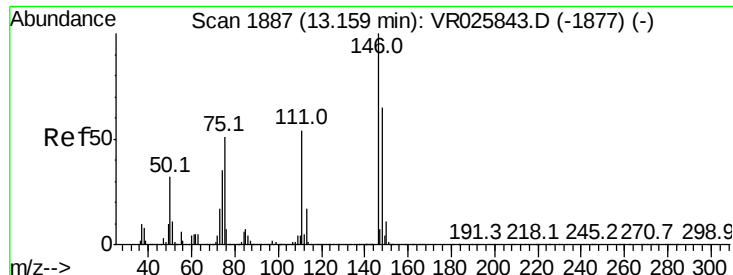
Ion Ratio Lower Upper

173 100

175 49.1 36.9 55.3

254 7.3 6.6 10.0





#62

1,3-Dichlorobenzene

Concen: 4.356 ug/L

RT: 13.16 min Scan# 1887

Delta R.T. -0.00 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

Instrument :

MSVOA\_R

ClientSampled :

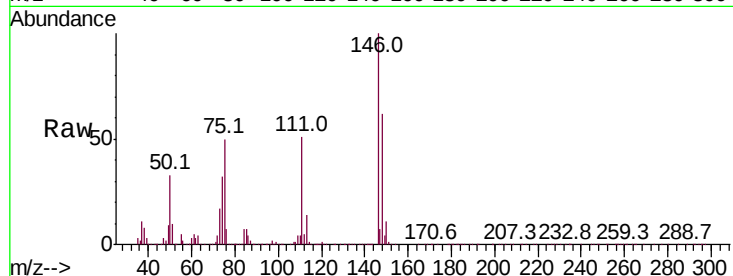
Tot Ion:146 Resp: 242633

Ion Ratio Lower Upper

146 100

111 50.7 36.6 68.0

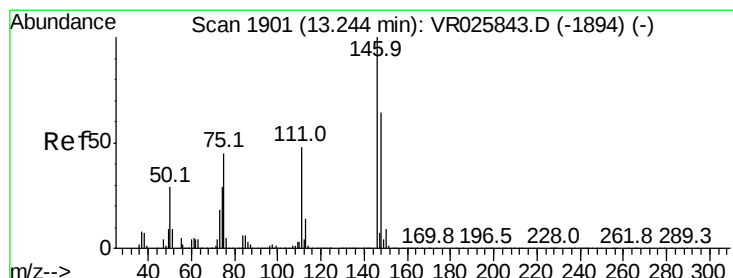
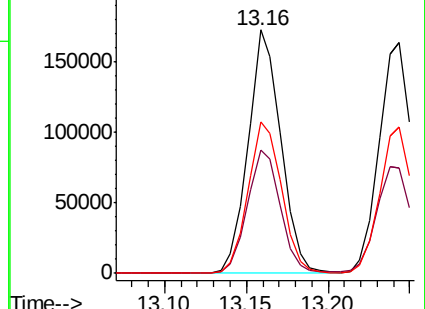
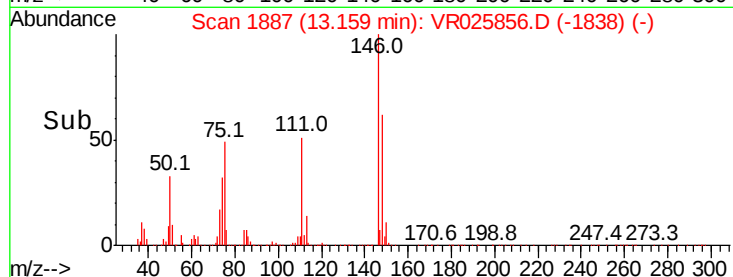
148 62.2 41.9 77.7



Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#63

1,4-Dichlorobenzene

Concen: 4.383 ug/L

RT: 13.24 min Scan# 1901

Delta R.T. -0.00 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

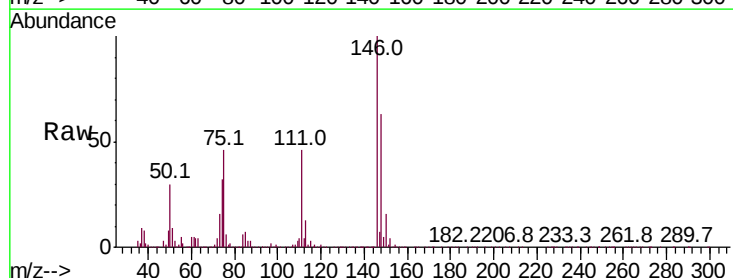
Tgt Ion:146 Resp: 235638

Ion Ratio Lower Upper

146 100

111 45.7 32.9 61.1

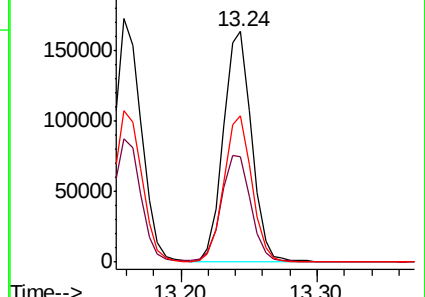
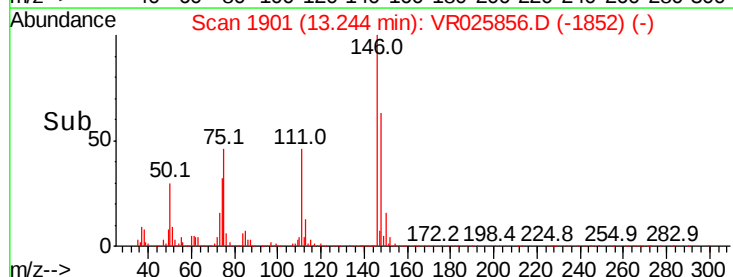
148 63.5 45.5 84.5

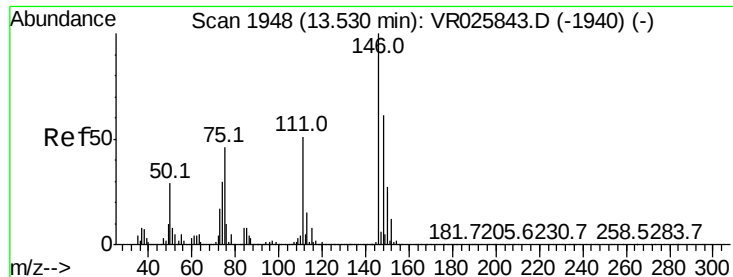


Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V

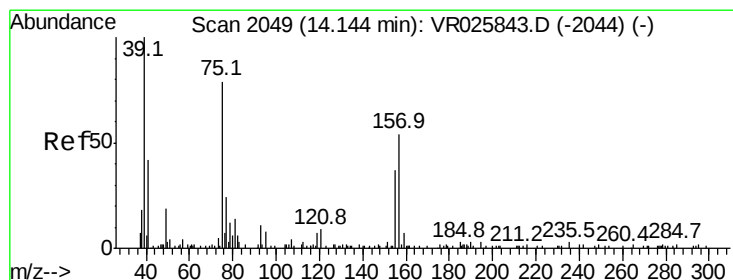
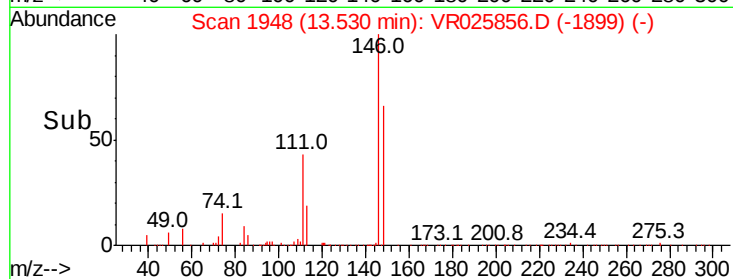
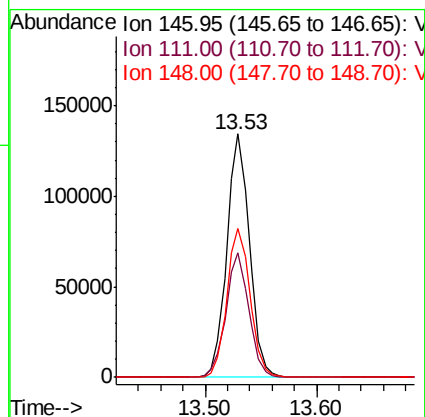
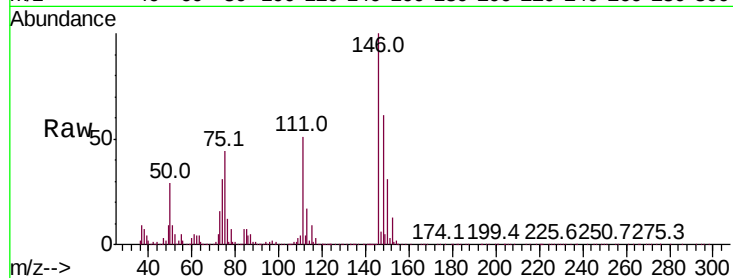




#65  
 1,2-Dichlorobenzene  
 Concen: 4.448 ug/L  
 RT: 13.53 min Scan# 1948  
 Delta R.T. -0.00 min  
 Lab File: VR025856.D  
 Acq: 26 Sep 2018 10:34

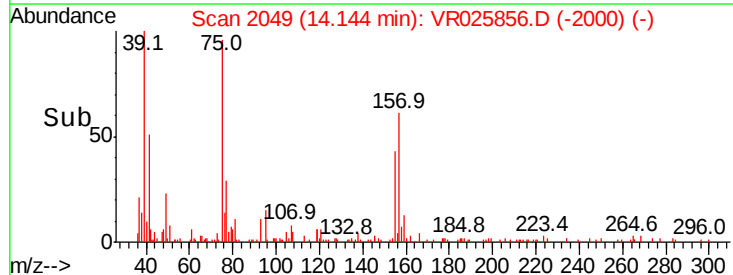
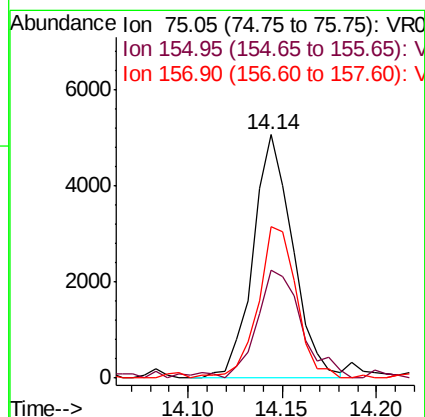
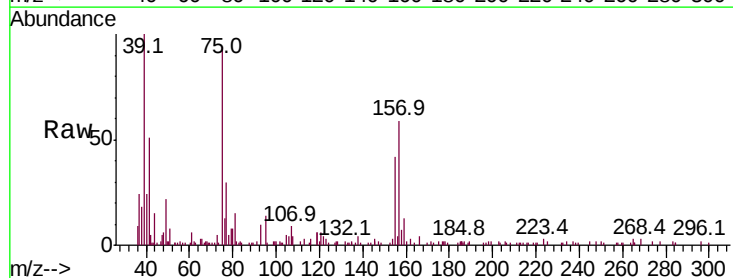
Instrument :  
 MSVOA\_R  
 ClientSampleId :

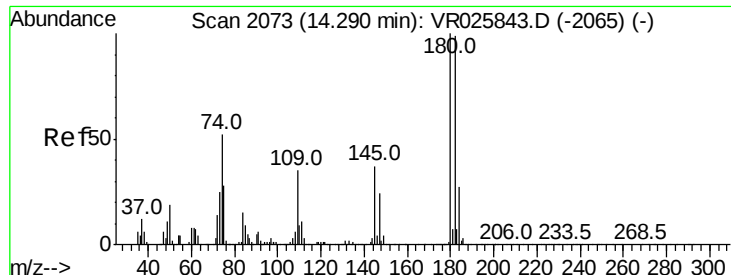
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 51.3  | 39.4  | 59.0  |
| 148     | 61.0  | 53.5  | 80.3  |



#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 3.796 ug/L  
 RT: 14.14 min Scan# 2049  
 Delta R.T. -0.00 min  
 Lab File: VR025856.D  
 Acq: 26 Sep 2018 10:34

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 155     | 44.1  | 37.8  | 56.6  |
| 157     | 62.4  | 49.7  | 74.5  |

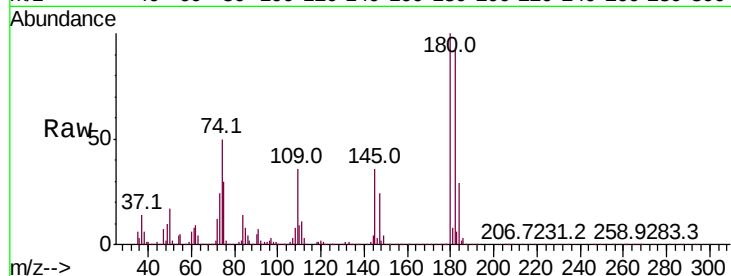




#67  
 1,3,5-Trichlorobenzene  
 Concen: 4.354 ug/L  
 RT: 14.29 min Scan# 2073  
 Delta R.T. -0.00 min  
 Lab File: VR025856.D  
 Acq: 26 Sep 2018 10:34

Instrument :  
 MSVOA\_R  
 ClientSampleId :

|             |       |            |
|-------------|-------|------------|
| Tot Ion:180 | Resp: | 136812     |
| Ion Ratio   | Lower | Upper      |
| 180         | 100   |            |
| 182         | 95.0  | 77.2 115.8 |
| 184         | 29.8  | 24.5 36.7  |
| 145         | 37.8  | 31.1 46.7  |



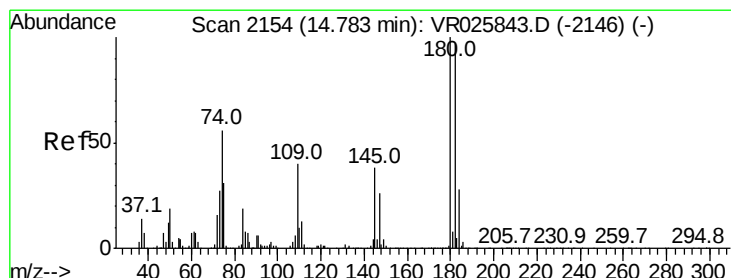
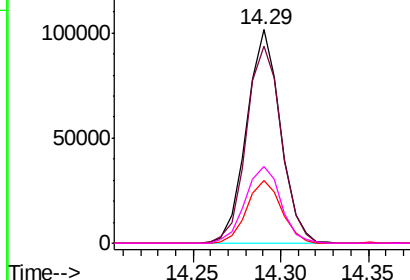
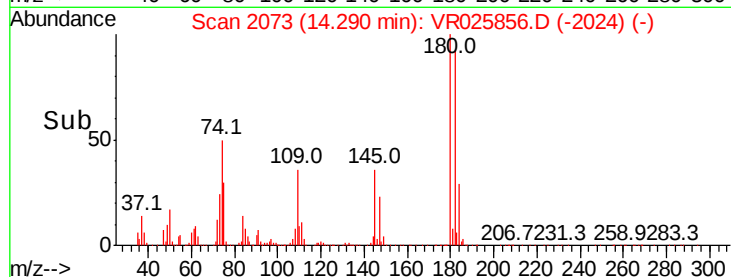
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

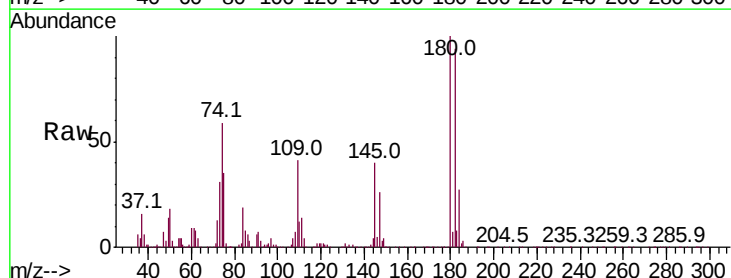
Ion 184.00 (183.70 to 184.70): V

Ion 145.00 (144.70 to 145.70): V



#68  
 1,2,4-trichlorobenzene  
 Concen: 4.312 ug/L  
 RT: 14.78 min Scan# 2154  
 Delta R.T. -0.00 min  
 Lab File: VR025856.D  
 Acq: 26 Sep 2018 10:34

|             |       |            |
|-------------|-------|------------|
| Tgt Ion:180 | Resp: | 86188      |
| Ion Ratio   | Lower | Upper      |
| 180         | 100   |            |
| 182         | 93.9  | 75.2 112.8 |
| 145         | 37.9  | 30.5 45.7  |

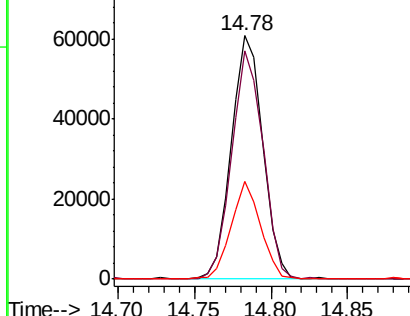
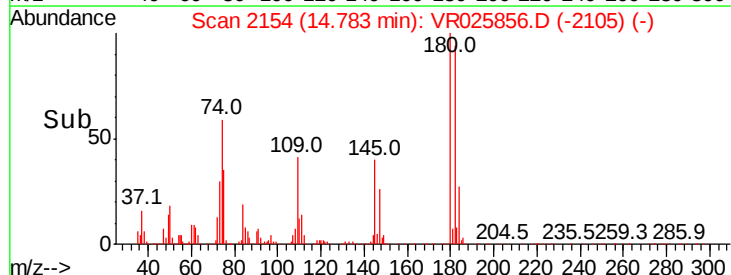


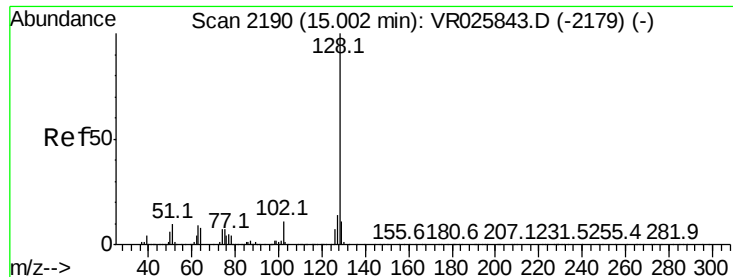
Abundance

Ion 179.90 (179.60 to 180.60): V

Ion 182.00 (181.70 to 182.70): V

Ion 144.95 (144.65 to 145.65): V





#69

Naphthalene

Concen: 4.200 ug/L

RT: 15.00 min Scan# 2190

Delta R.T. -0.00 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

Instrument :

MSVOA\_R

ClientSampled :

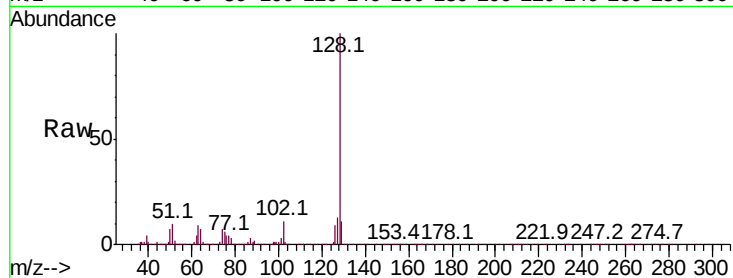
Tot Ion:128 Resp: 122199

Ion Ratio Lower Upper

128 100

127 14.4 10.5 15.7

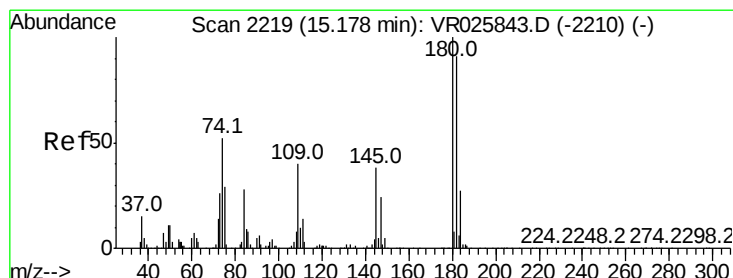
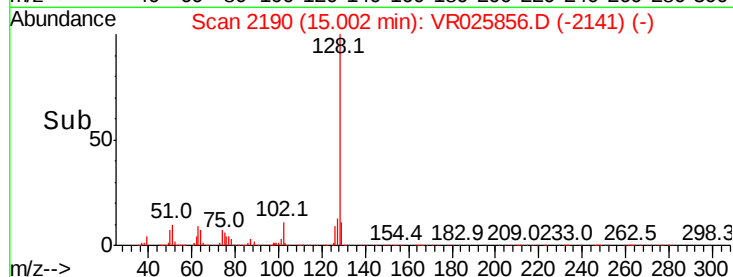
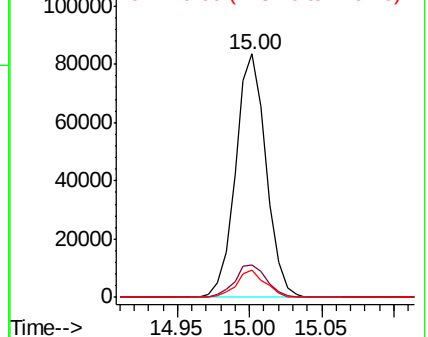
129 10.8 9.4 14.2



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V



#70

1,2,3-Trichlorobenzene

Concen: 4.184 ug/L

RT: 15.18 min Scan# 2219

Delta R.T. -0.00 min

Lab File: VR025856.D

Acq: 26 Sep 2018 10:34

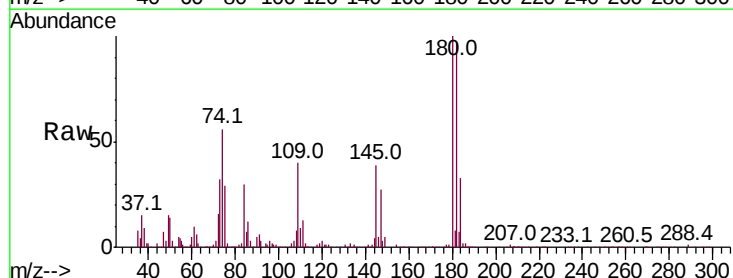
Tgt Ion:180 Resp: 59413

Ion Ratio Lower Upper

180 100

182 97.4 74.7 112.1

145 42.6 31.3 46.9



Abundance Ion 179.90 (179.60 to 180.60): V

Ion 181.90 (181.60 to 182.60): V

Ion 144.95 (144.65 to 145.65): V

