

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW040219\  
 Data File : VW009657.D  
 Acq On : 02 Apr 2019 18:05  
 Operator : SY/VA  
 Sample : VSTDCCC025EC  
 Misc : 5.77G/10ML/MSVOA W/SOIL  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :

Quant Time: Apr 03 08:44:53 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\SOM2WLM031419S.M  
 Quant Title : VOC Analysis  
 QLast Update : Wed Apr 03 04:08:07 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 8.84  | 114  | 462377   | 25.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 11.63 | 117  | 438050   | 25.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 13.56 | 152  | 234372   | 25.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |        |
|--------------------------------|--------|-------|----------|----------|------|--------|
| 4) Vinyl Chloride-d3           | 2.35   | 65    | 92279    | 16.70    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 66.80% |
| 7) Chloroethane-d5             | 2.89   | 69    | 102630   | 15.87    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 63.48% |
| 10) 1,1-Dichloroethene-d2      | 4.02   | 63    | 253413   | 21.22    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 45 - 110 | Recovery | =    | 84.88% |
| 20) 2-Butanone-d5              | 7.07   | 46    | 111232   | 48.68    | ug/L | 0.00   |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 97.36% |
| 24) Chloroform-d               | 7.64   | 84    | 284304   | 22.53    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 40 - 150 | Recovery | =    | 90.12% |
| 26) 1,2-Dichloroethane-d4      | 8.30   | 65    | 170600   | 22.44    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 70 - 130 | Recovery | =    | 89.76% |
| 29) Benzene-d6                 | 8.27   | 84    | 484027   | 20.04    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 20 - 135 | Recovery | =    | 80.16% |
| 33) 1,2-Dichloropropane-d6     | 9.27   | 67    | 157613   | 21.72    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 70 - 120 | Recovery | =    | 86.88% |
| 37) Toluene-d8                 | 10.32  | 98    | 446604   | 19.99    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 30 - 130 | Recovery | =    | 79.96% |
| 38) trans-1,3-Dichloropropene- | 10.57  | 79    | 72770    | 19.97    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 30 - 135 | Recovery | =    | 79.88% |
| 39) 2-Hexanone-d5              | 10.92  | 63    | 79264    | 45.10    | ug/L | 0.00   |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 90.20% |
| 48) 1,1,2,2-Tetrachloroethane- | 12.69  | 84    | 174600   | 24.43    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 45 - 120 | Recovery | =    | 97.72% |
| 61) 1,2-Dichlorobenzene-d4     | 13.86  | 152   | 181544   | 20.20    | ug/L | 0.00   |
| Spiked Amount                  | 25.000 | Range | 75 - 120 | Recovery | =    | 80.80% |

## Target Compounds

|                                |      |     |        |             | Ovalue |
|--------------------------------|------|-----|--------|-------------|--------|
| 2) Dichlorodifluoromethane     | 2.01 | 85  | 133862 | 21.977 ug/L | 98     |
| 3) Chloromethane               | 2.21 | 50  | 140537 | 21.747 ug/L | 100    |
| 5) Vinyl chloride              | 2.37 | 62  | 193024 | 29.019 ug/L | 100    |
| 6) Bromomethane                | 2.78 | 94  | 130596 | 23.435 ug/L | 99     |
| 8) Chloroethane                | 2.93 | 64  | 130021 | 23.626 ug/L | 91     |
| 9) Trichlorofluoromethane      | 3.25 | 101 | 125187 | 23.826 ug/L | 100    |
| 11) 1,1,2-Trichloro-1,2,2-trif | 4.05 | 101 | 162802 | 26.830 ug/L | 91     |
| 12) 1,1-Dichloroethene         | 4.03 | 96  | 154527 | 27.140 ug/L | 83     |
| 13) Acetone                    | 4.12 | 43  | 113227 | 60.423 ug/L | 98     |
| 14) Carbon disulfide           | 4.38 | 76  | 407480 | 26.591 ug/L | 99     |
| 15) Methyl Acetate             | 4.67 | 43  | 93369  | 25.363 ug/L | 98     |
| 16) Methylene chloride         | 4.91 | 84  | 172310 | 25.555 ug/L | 97     |
| 17) Methyl tert-butyl Ether    | 5.42 | 73  | 221522 | 27.496 ug/L | 98     |
| 18) trans-1,2-Dichloroethene   | 5.41 | 96  | 156209 | 26.094 ug/L | 96     |
| 19) 1,1-Dichloroethane         | 6.21 | 63  | 313958 | 28.764 ug/L | 97     |
| 21) 2-Butanone                 | 7.16 | 43  | 138279 | 53.443 ug/L | 96     |
| 22) cis-1,2-Dichloroethene     | 7.16 | 96  | 175937 | 27.130 ug/L | 99     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW040219\  
 Data File : VW009657.D  
 Acq On : 02 Apr 2019 18:05  
 Operator : SY/VA  
 Sample : VSTDCCC025EC  
 Misc : 5.77G/10ML/MSVOA W/SOIL  
 ALS Vial : 1 Sample Multiplier: 1

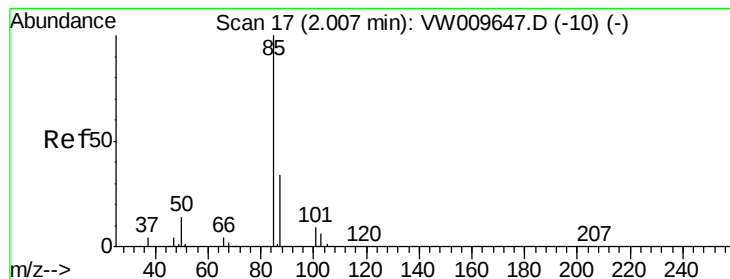
Instrument :  
 MSVOA\_W  
 ClientSampleId :

Quant Time: Apr 03 08:44:53 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\SOM2WLM031419S.M  
 Quant Title : VOC Analysis  
 QLast Update : Wed Apr 03 04:08:07 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 23) Bromochloromethane         | 7.51  | 128  | 79451    | 25.544 | uq/L   | 97       |
| 25) Chloroform                 | 7.67  | 83   | 326105   | 28.529 | uq/L   | 100      |
| 27) 1,2-Dichloroethane         | 8.40  | 62   | 239548   | 28.108 | uq/L   | 97       |
| 30) Cyclohexane                | 7.95  | 56   | 264941   | 26.631 | uq/L   | 98       |
| 31) 1,1,1-Trichloroethane      | 7.87  | 97   | 258098   | 29.501 | uq/L   | 99       |
| 32) Carbon tetrachloride       | 8.06  | 117  | 259855   | 29.438 | uq/L   | 98       |
| 34) Benzene                    | 8.32  | 78   | 673934   | 28.108 | uq/L   | 100      |
| 35) Trichloroethene            | 9.09  | 95   | 176902   | 27.689 | uq/L   | 97       |
| 36) Methylcyclohexane          | 9.33  | 83   | 292521   | 26.465 | uq/L   | 98       |
| 40) 1,2-Dichloropropane        | 9.37  | 63   | 173216   | 28.153 | uq/L   | 99       |
| 41) Bromodichloromethane       | 9.64  | 83   | 240638   | 28.228 | uq/L   | 99       |
| 42) cis-1,3-Dichloropropene    | 10.07 | 75   | 273452   | 27.288 | uq/L   | 99       |
| 43) 4-Methyl-2-pentanone       | 10.21 | 43   | 283632   | 50.874 | uq/L   | 99       |
| 44) Toluene                    | 10.38 | 91   | 736564   | 28.097 | uq/L   | 100      |
| 45) trans-1,3-Dichloropropene  | 10.60 | 75   | 238385   | 27.347 | uq/L   | 99       |
| 46) 1,1,2-Trichloroethane      | 10.79 | 97   | 133667   | 27.232 | uq/L   | 98       |
| 47) Tetrachloroethene          | 10.86 | 164  | 142448   | 26.388 | uq/L   | 96       |
| 49) 2-Hexanone                 | 10.97 | 43   | 218363   | 55.611 | uq/L   | 98       |
| 50) Dibromochloromethane       | 11.13 | 129  | 162035   | 26.742 | uq/L   | 98       |
| 51) 1,2-Dibromoethane          | 11.23 | 107  | 129253   | 25.975 | uq/L # | 100      |
| 52) Chlorobenzene              | 11.66 | 112  | 461155   | 27.427 | uq/L   | 97       |
| 53) Ethylbenzene               | 11.73 | 91   | 849248   | 28.815 | uq/L   | 98       |
| 54) m,p-Xylene                 | 11.84 | 106  | 320554   | 28.628 | uq/L   | 94       |
| 55) o-xylene                   | 12.16 | 106  | 300538   | 27.513 | uq/L   | 96       |
| 56) Styrene                    | 12.18 | 104  | 531148   | 28.498 | uq/L   | 94       |
| 57) Isopropylbenzene           | 12.46 | 105  | 856279   | 29.262 | uq/L   | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 12.71 | 83   | 180270   | 27.224 | uq/L   | 96       |
| 59) 1,2,3-Trichloropropane     | 12.77 | 75   | 132207   | 26.903 | uq/L   | 99       |
| 62) Bromoform                  | 12.35 | 173  | 98920    | 24.980 | uq/L   | 99       |
| 63) 1,3-Dichlorobenzene        | 13.50 | 146  | 365282   | 26.151 | uq/L   | 99       |
| 64) 1,4-Dichlorobenzene        | 13.58 | 146  | 379531   | 26.281 | uq/L   | 96       |
| 65) 1,2-Dichlorobenzene        | 13.87 | 146  | 348060   | 26.129 | uq/L   | 97       |
| 66) 1,2-Dibromo-3-chloropropan | 14.49 | 75   | 32332    | 24.765 | uq/L # | 83       |
| 67) 1,3,5-Trichlorobenzene     | 14.63 | 180  | 281896   | 25.874 | uq/L   | 99       |
| 68) 1,2,4-trichlorobenzene     | 15.14 | 180  | 229272   | 25.053 | uq/L   | 100      |
| 69) Naphthalene                | 15.37 | 128  | 468480   | 24.691 | uq/L   | 99       |
| 70) 1,2,3-Trichlorobenzene     | 15.56 | 180  | 215790   | 25.175 | uq/L   | 98       |

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





#2

Dichlorodifluoromethane

Concen: 21.977 ug/L

RT: 2.01 min Scan# 18

Delta R.T. 0.01 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

Instrument :

MSVOA\_W

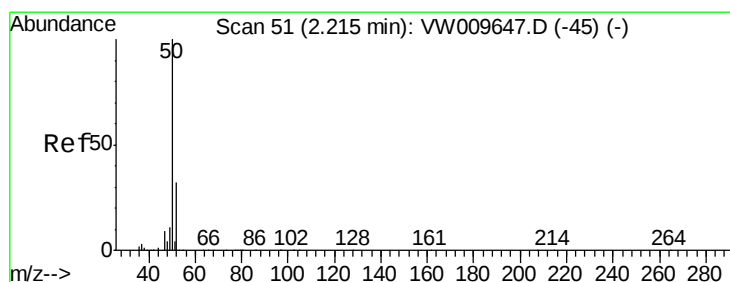
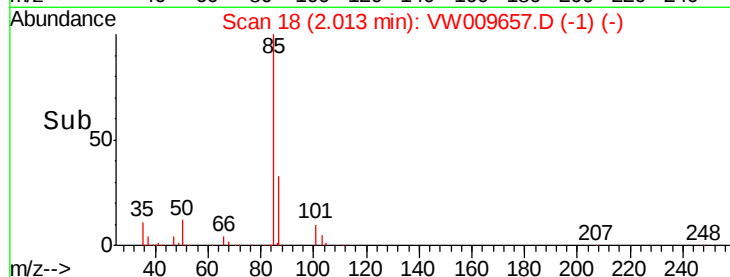
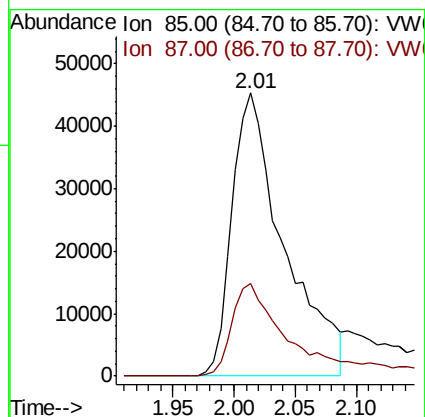
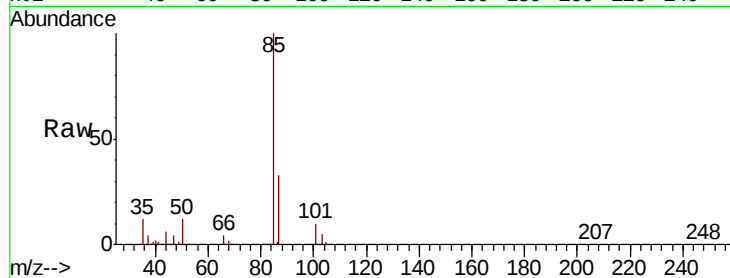
ClientSampled :

Tot Ion: 85 Resp: 133862

Ion Ratio Lower Upper

85 100

87 29.0 19.5 36.3



#3

Chloromethane

Concen: 21.747 ug/L

RT: 2.21 min Scan# 51

Delta R.T. -0.00 min

Lab File: VW009657.D

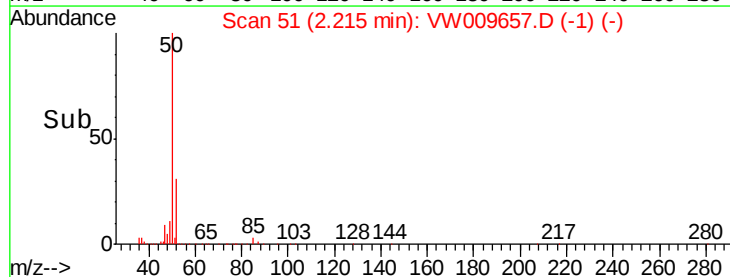
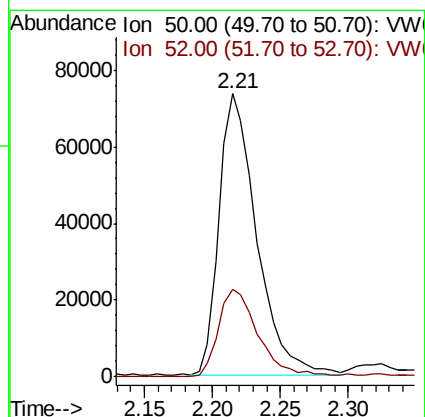
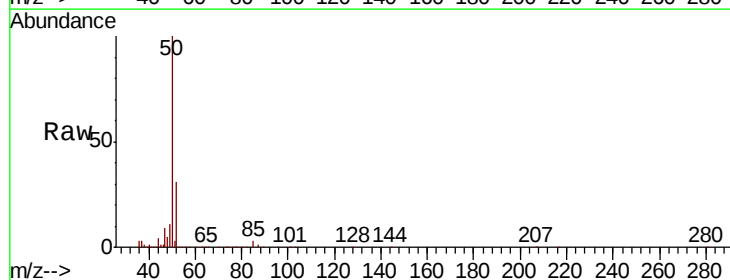
Acq: 02 Apr 2019 18:05

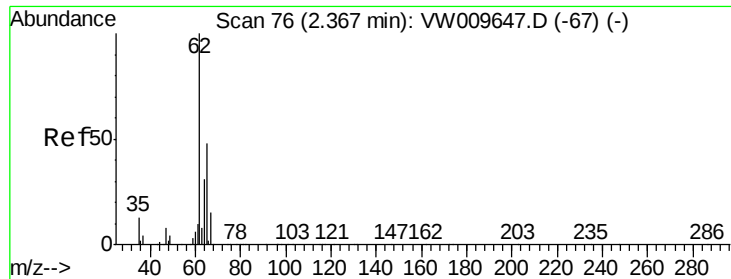
Tgt Ion: 50 Resp: 140537

Ion Ratio Lower Upper

50 100

52 30.8 21.6 40.2





#5

Vinyl chloride

Concen: 29.019 ug/L

RT: 2.37 min Scan# 76

Delta R.T. 0.00 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

Instrument :

MSVOA\_W

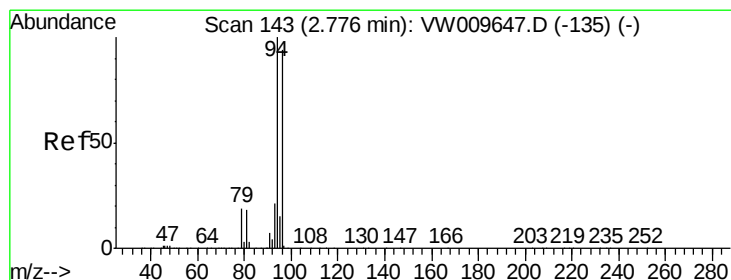
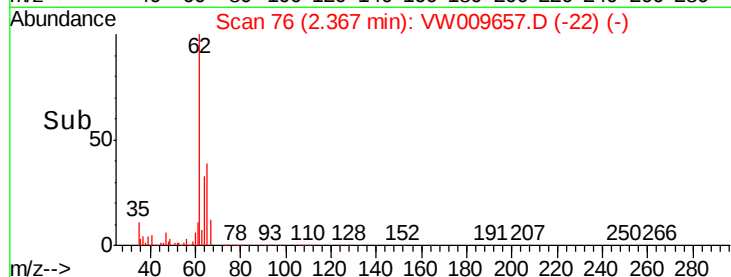
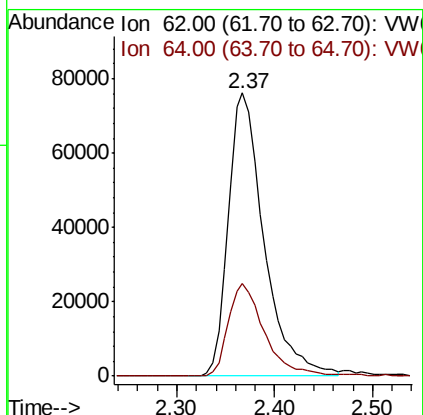
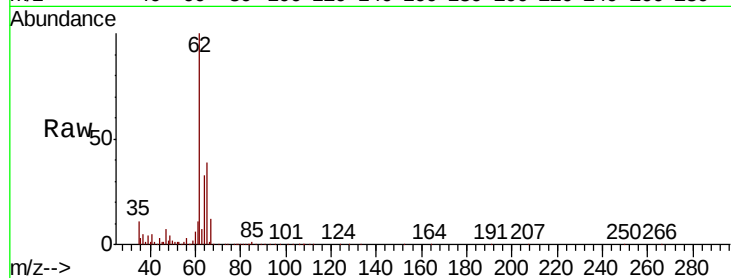
ClientSampleId :

Tot Ion: 62 Resp: 193024

Ion Ratio Lower Upper

62 100

64 32.7 23.0 42.6



#6

Bromomethane

Concen: 23.435 ug/L

RT: 2.78 min Scan# 143

Delta R.T. -0.00 min

Lab File: VW009657.D

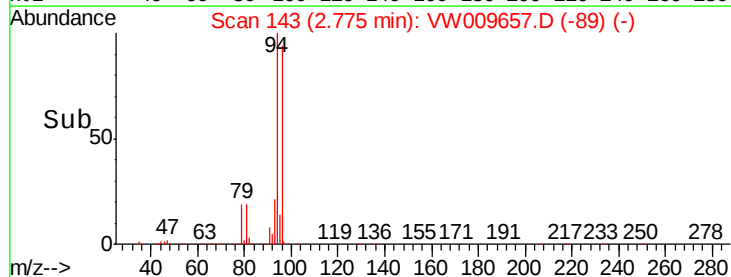
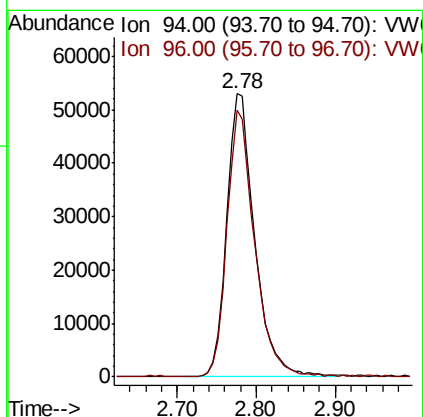
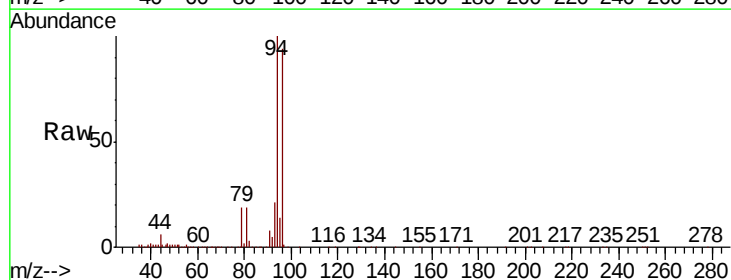
Acq: 02 Apr 2019 18:05

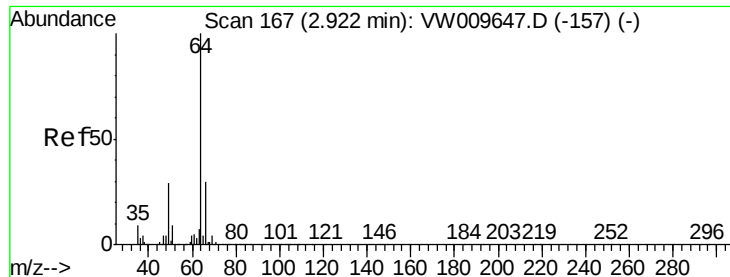
Tgt Ion: 94 Resp: 130596

Ion Ratio Lower Upper

94 100

96 92.8 9.4 178.4





#8

Chloroethane

Concen: 23.626 ug/L

RT: 2.93 min Scan# 168

Delta R.T. 0.01 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

Instrument :

MSVOA\_W

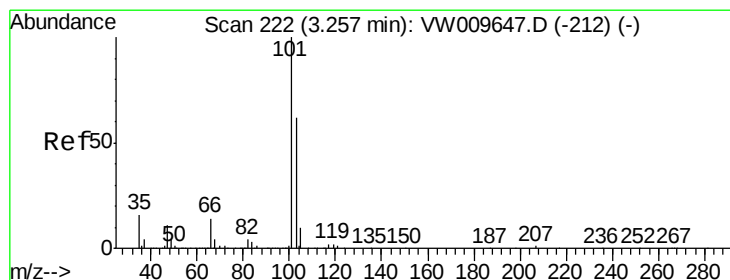
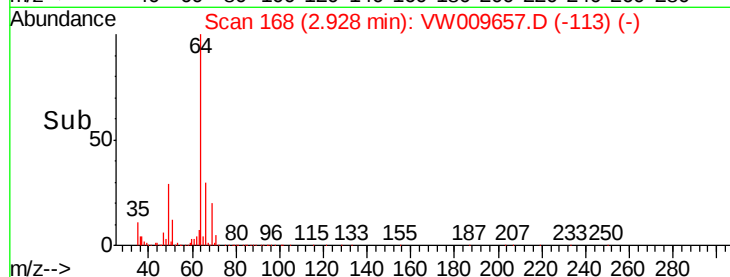
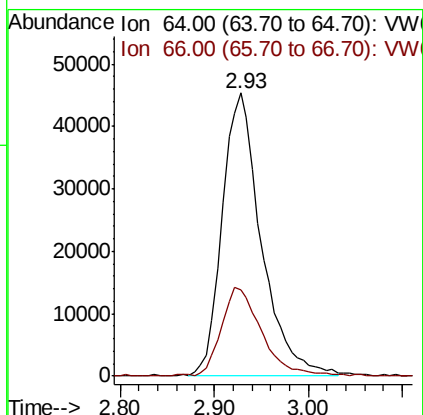
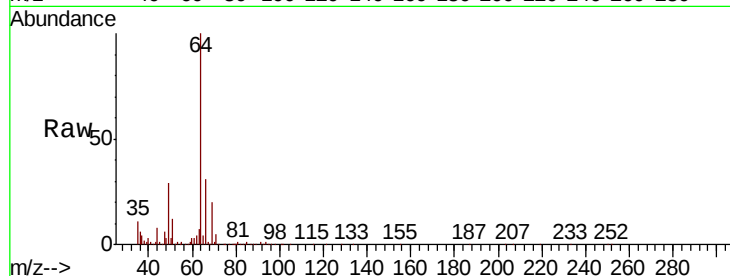
ClientSampled :

Tot Ion: 64 Resp: 130021

Ion Ratio Lower Upper

64 100

66 30.5 25.1 46.7



#9

Trichlorofluoromethane

Concen: 23.826 ug/L

RT: 3.25 min Scan# 221

Delta R.T. -0.01 min

Lab File: VW009657.D

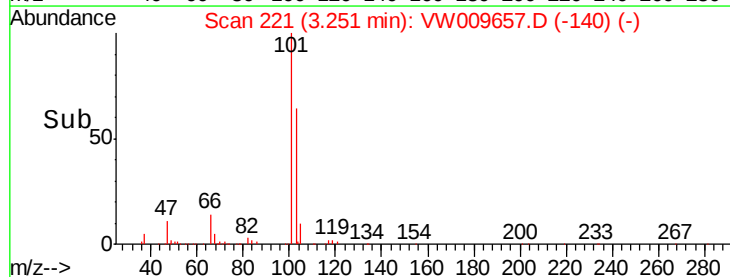
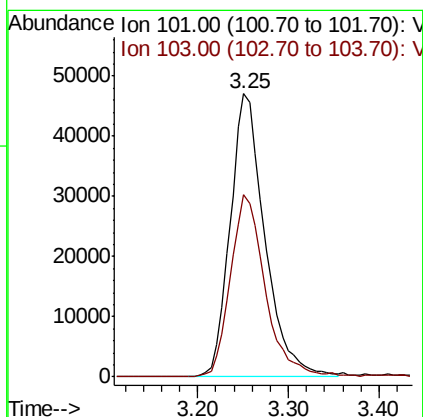
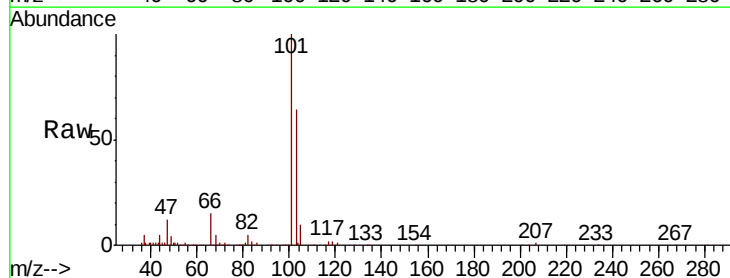
Acq: 02 Apr 2019 18:05

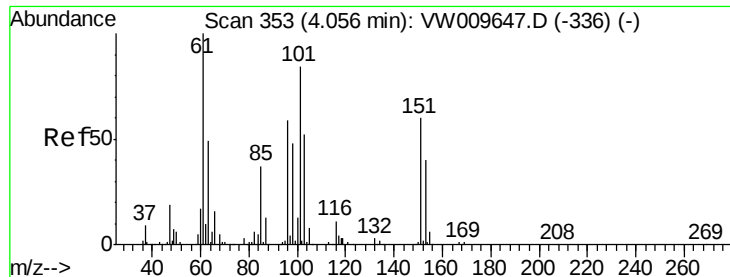
Tgt Ion: 101 Resp: 125187

Ion Ratio Lower Upper

101 100

103 64.0 45.0 83.6





#11

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

Concen: 26.830 ug/L

RT: 4.05 min Scan# 352

Delta R.T. -0.01 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

Instrument :

MSVOA\_W

ClientSampled :

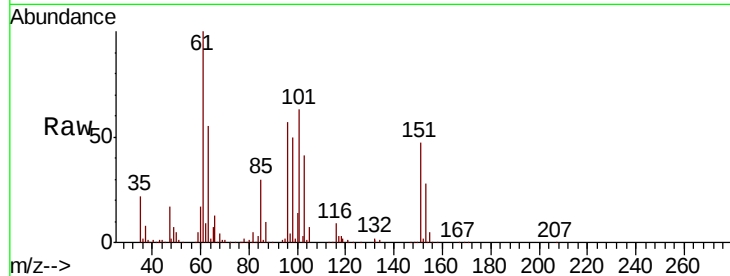
Tot Ion:101 Resp: 162802

Ion Ratio Lower Upper

101 100

85 42.7 32.6 48.8

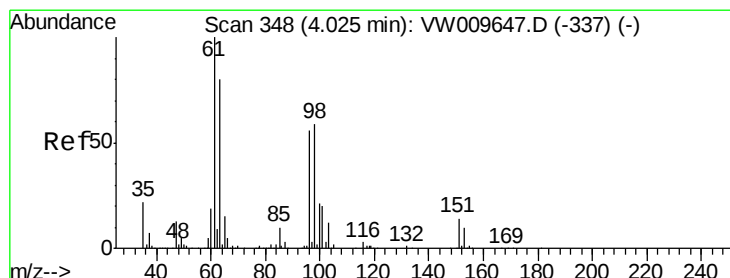
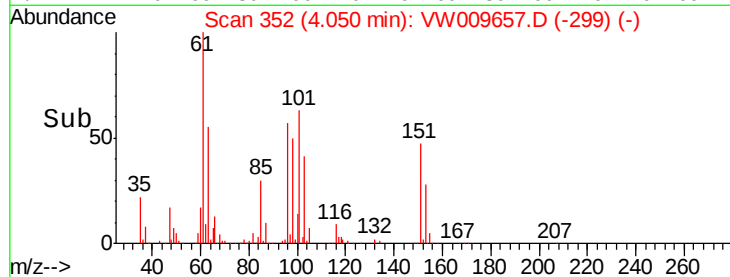
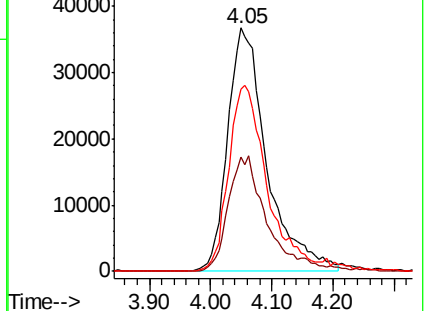
151 68.9 63.3 94.9



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VW

Ion 151.00 (150.70 to 151.70): V



#12

1,1-Dichloroethene

Concen: 27.140 ug/L

RT: 4.03 min Scan# 349

Delta R.T. 0.01 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

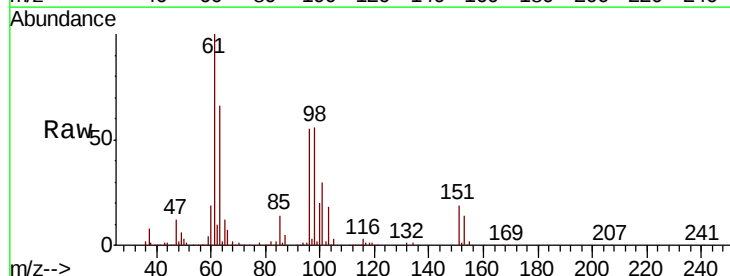
Tgt Ion: 96 Resp: 154527

Ion Ratio Lower Upper

96 100

61 181.7 129.4 240.2

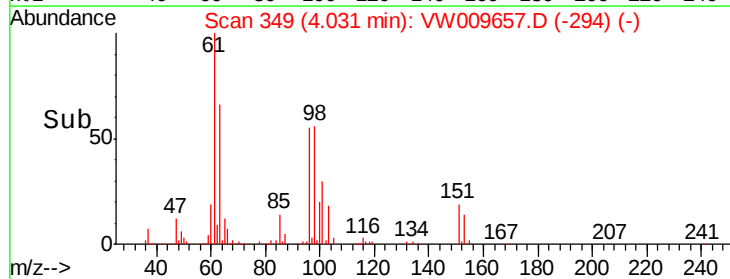
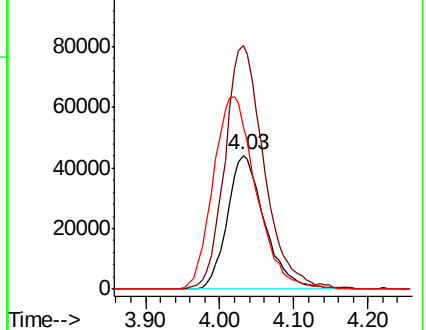
63 120.8 116.8 217.0

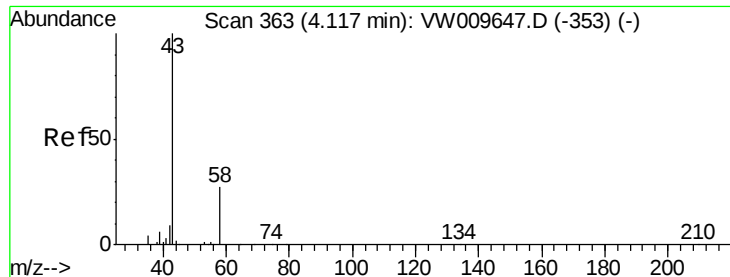


Abundance Ion 96.00 (95.70 to 96.70): VW

Ion 61.00 (60.70 to 61.70): VW

Ion 63.00 (62.70 to 63.70): VW





#13

Acetone

Concen: 60.423 ug/L

RT: 4.12 min Scan# 363

Delta R.T. 0.00 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

Instrument :

MSVOA\_W

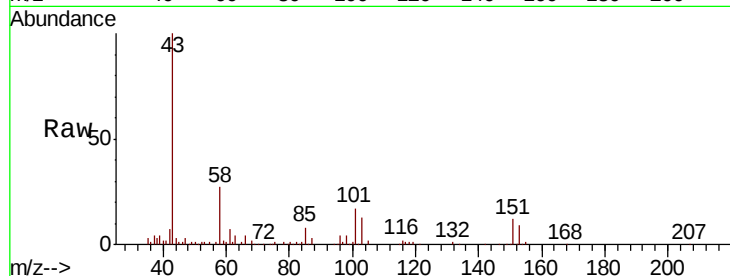
ClientSampleId :

Tot Ion: 43 Resp: 113227

Ion Ratio Lower Upper

43 100

58 27.3 0.0 56.2



Abundance Ion 43.00 (42.70 to 43.70): VW

Ion 58.00 (57.70 to 58.70): VW

4.12

50000

40000

30000

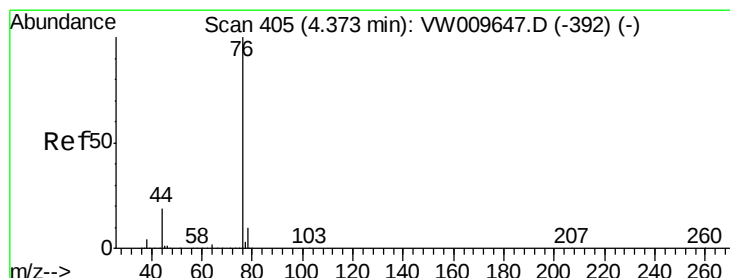
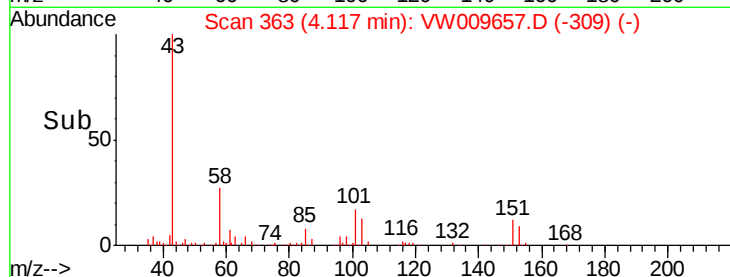
20000

10000

0

Time-->

4.00 4.10 4.20



#14

Carbon disulfide

Concen: 26.591 ug/L

RT: 4.38 min Scan# 406

Delta R.T. 0.01 min

Lab File: VW009657.D

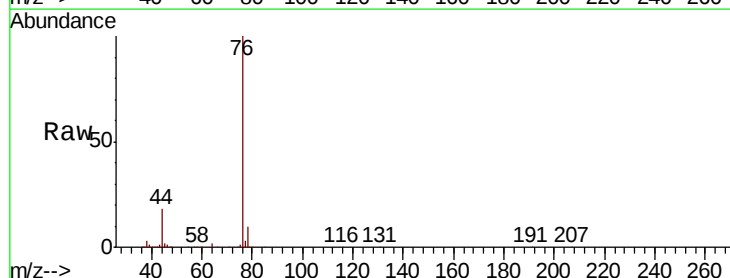
Acq: 02 Apr 2019 18:05

Tgt Ion: 76 Resp: 407480

Ion Ratio Lower Upper

76 100

78 9.5 7.3 10.9



Abundance Ion 76.00 (75.70 to 76.70): VW

Ion 78.00 (77.70 to 78.70): VW

4.38

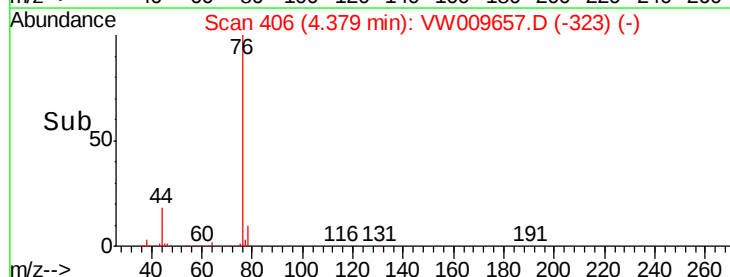
100000

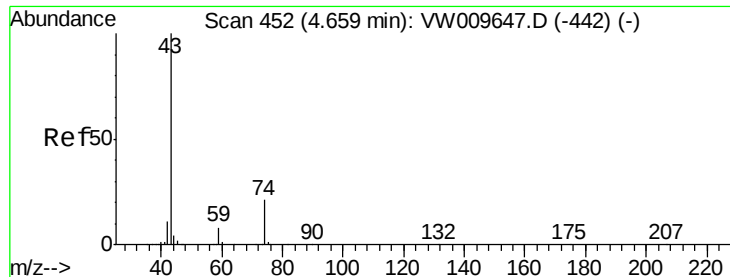
50000

0

Time-->

4.30 4.40 4.50





#15

Methyl Acetate

Concen: 25.363 ug/L

RT: 4.67 min Scan# 453

Delta R.T. 0.01 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

Instrument :

MSVOA\_W

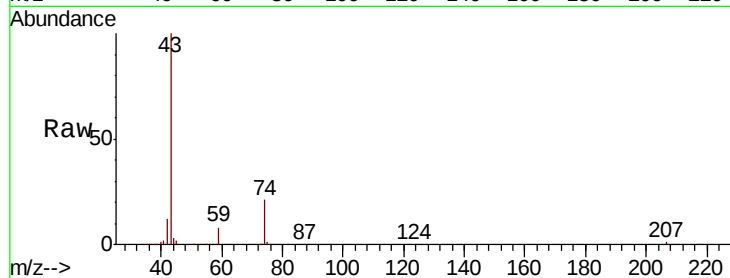
ClientSampled :

Tot Ion: 43 Resp: 93369

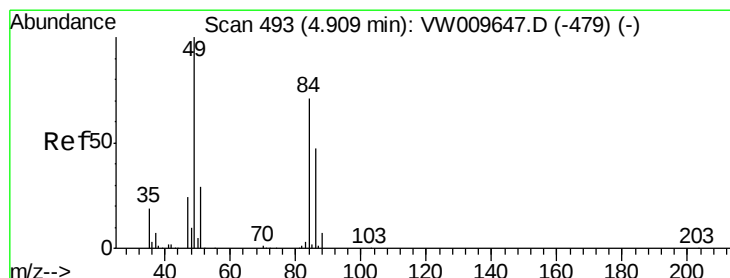
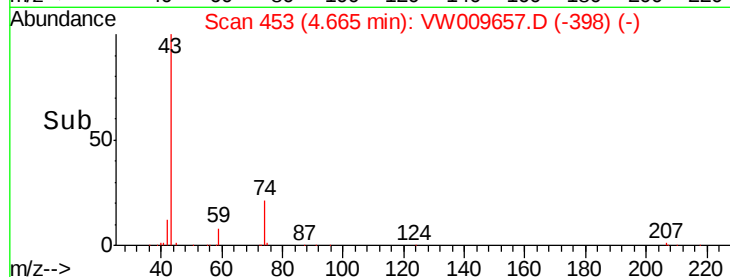
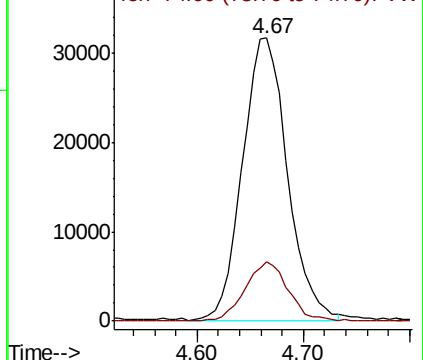
Ion Ratio Lower Upper

43 100

74 20.1 16.7 25.1



Abundance Ion 43.00 (42.70 to 43.70): VW  
Ion 74.00 (73.70 to 74.70): VW



#16

Methylene chloride

Concen: 25.555 ug/L

RT: 4.91 min Scan# 493

Delta R.T. -0.00 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

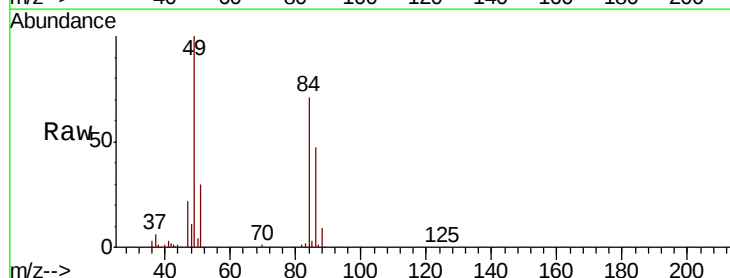
Tgt Ion: 84 Resp: 172310

Ion Ratio Lower Upper

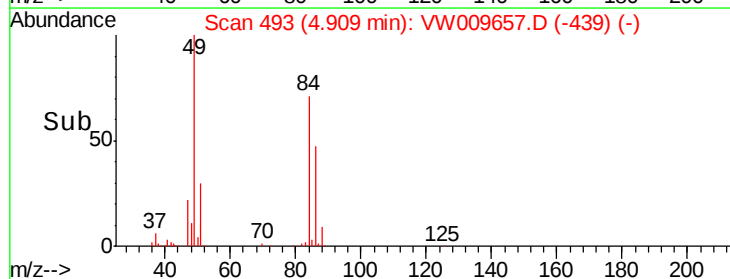
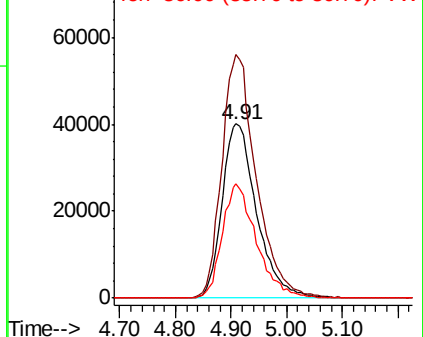
84 100

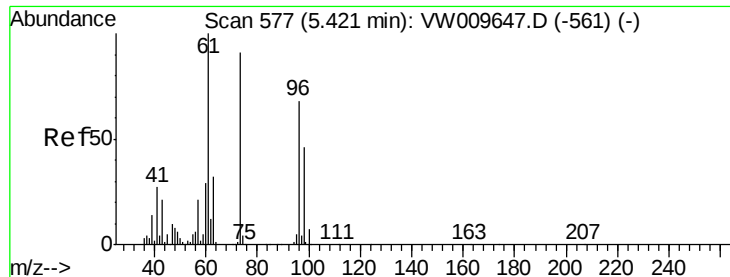
49 140.0 96.0 178.2

86 65.9 44.4 82.5



Abundance Ion 84.00 (83.70 to 84.70): VW  
Ion 49.00 (48.70 to 49.70): VW  
Ion 86.00 (85.70 to 86.70): VW

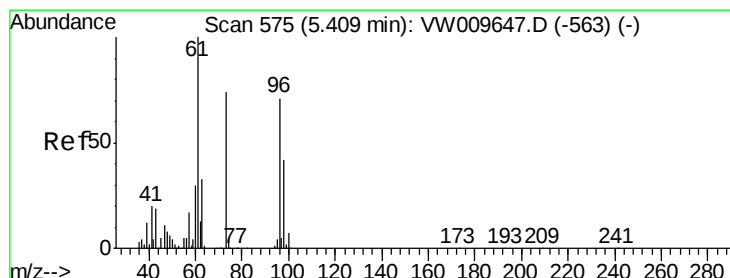
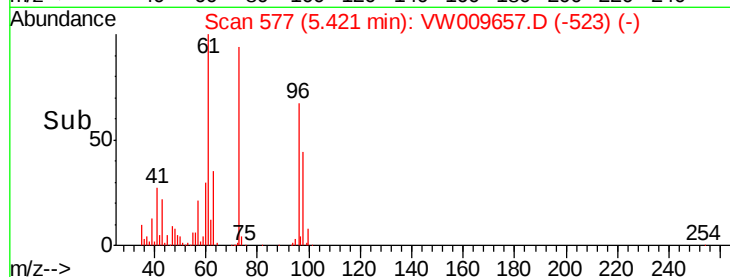
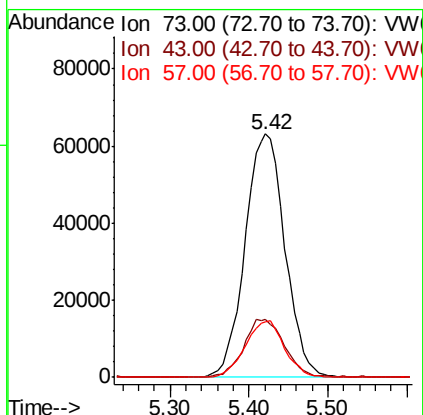
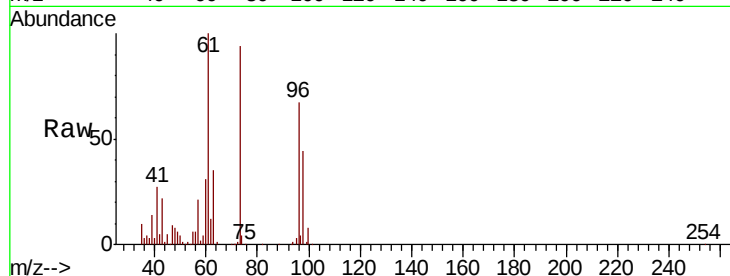




#17  
Methvl tert-butvl Ether  
Concen: 27.496 ug/L  
RT: 5.42 min Scan# 577  
Delta R.T. -0.00 min  
Lab File: VW009657.D  
Acq: 02 Apr 2019 18:05

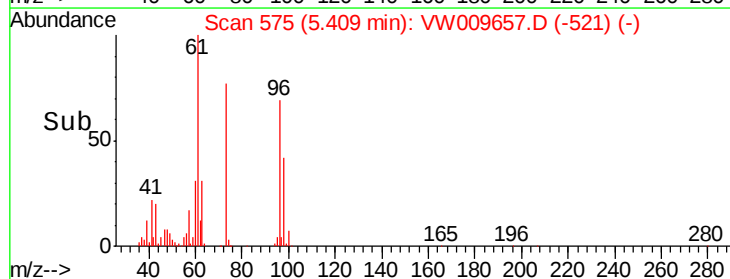
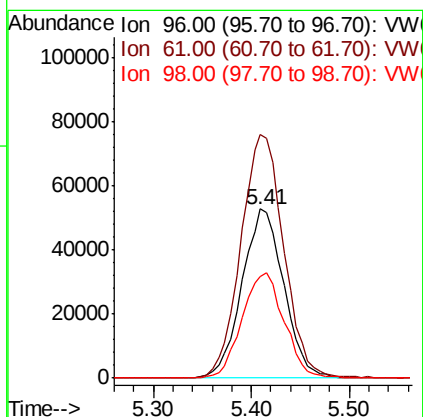
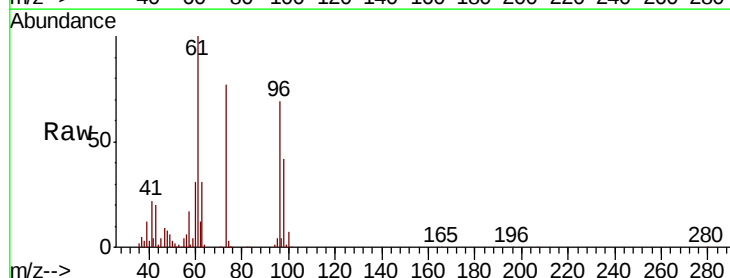
Instrument :  
MSVOA\_W  
ClientSampleId :

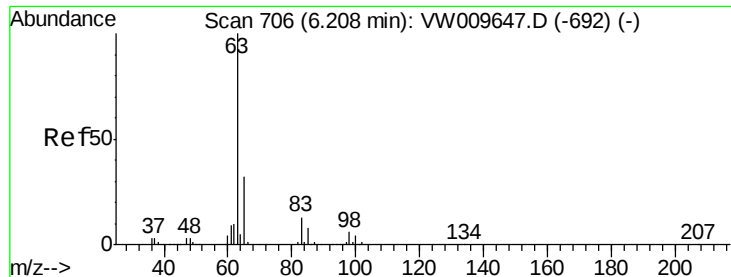
Tot Ion: 73 Resp: 221522  
Ion Ratio Lower Upper  
73 100  
43 24.0 18.2 27.4  
57 22.9 17.8 26.8



#18  
trans-1,2-Dichloroethene  
Concen: 26.094 ug/L  
RT: 5.41 min Scan# 575  
Delta R.T. 0.00 min  
Lab File: VW009657.D  
Acq: 02 Apr 2019 18:05

Tgt Ion: 96 Resp: 156209  
Ion Ratio Lower Upper  
96 100  
61 144.1 96.7 179.5  
98 60.1 43.8 81.4

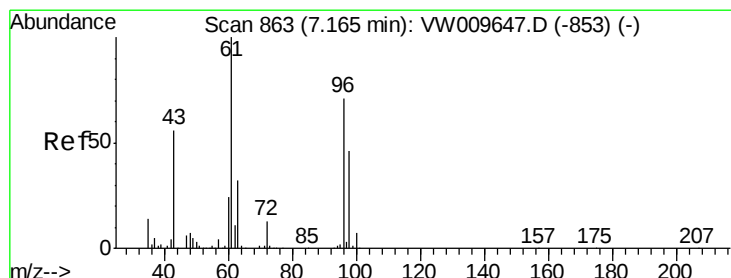
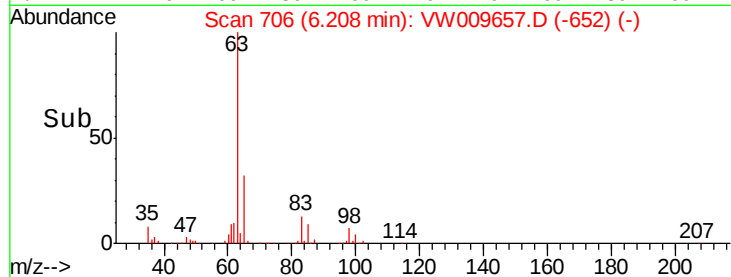
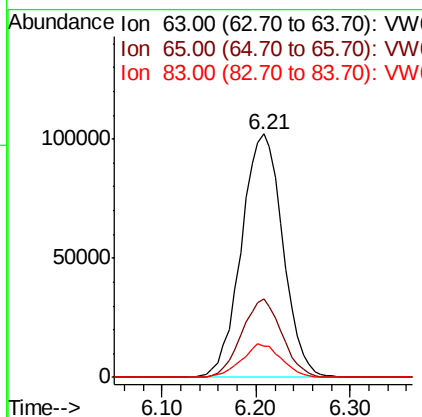
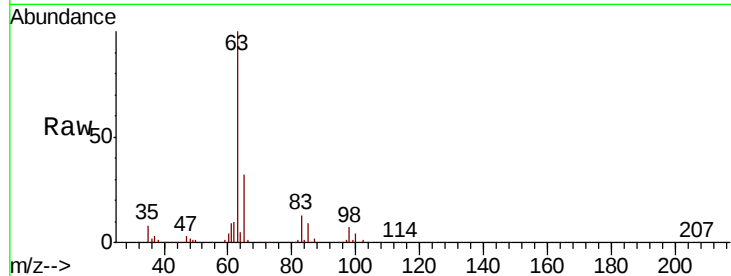




#19  
 1,1-Dichloroethane  
 Concen: 28.764 ug/L  
 RT: 6.21 min Scan# 706  
 Delta R.T. -0.00 min  
 Lab File: VW009657.D  
 Acq: 02 Apr 2019 18:05

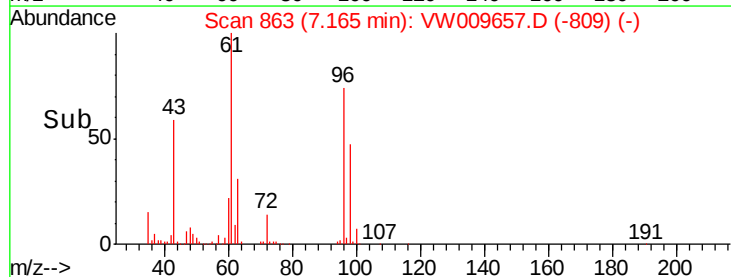
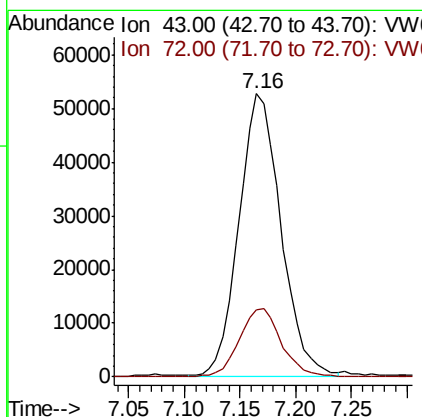
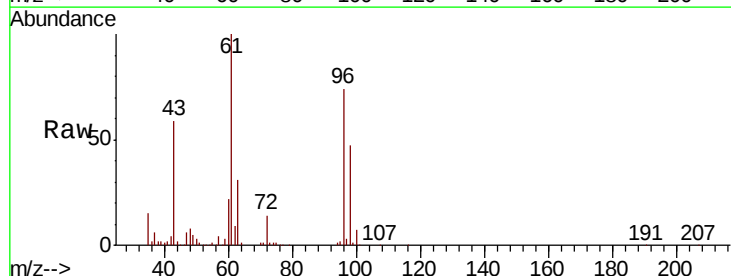
Instrument :  
 MSVOA\_W  
 ClientSampled :

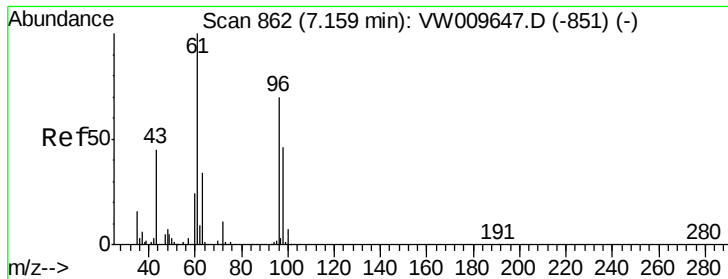
| Tot Ion   | 63    | Resp  | 313958 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 63        | 100   |       |        |
| 65        | 32.2  | 21.6  | 40.0   |
| 83        | 12.8  | 10.1  | 18.7   |



#21  
 2-Butanone  
 Concen: 53.443 ug/L  
 RT: 7.16 min Scan# 863  
 Delta R.T. 0.00 min  
 Lab File: VW009657.D  
 Acq: 02 Apr 2019 18:05

| Tgt Ion   | 43    | Resp  | 138279 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 43        | 100   |       |        |
| 72        | 24.2  | 13.1  | 39.1   |



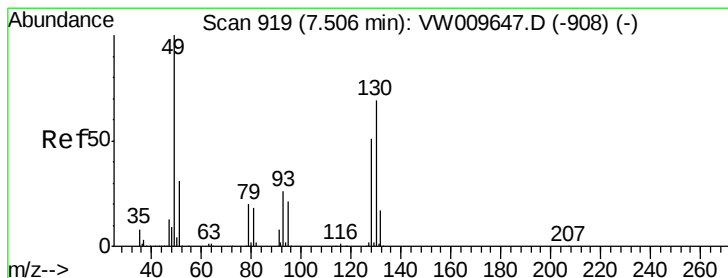
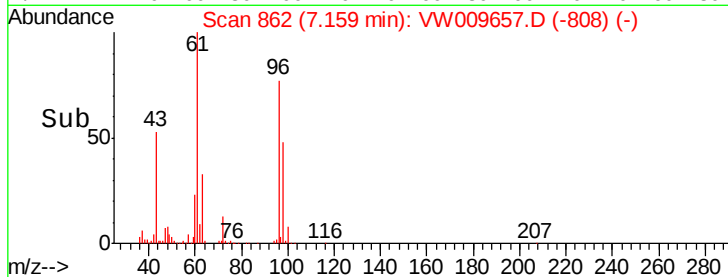
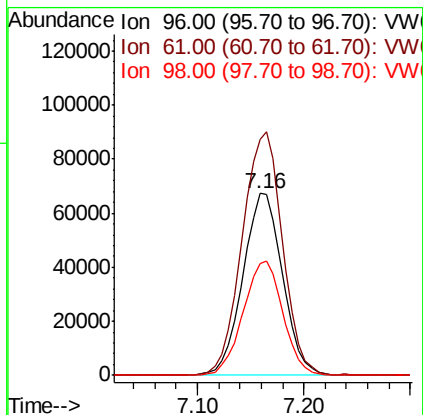
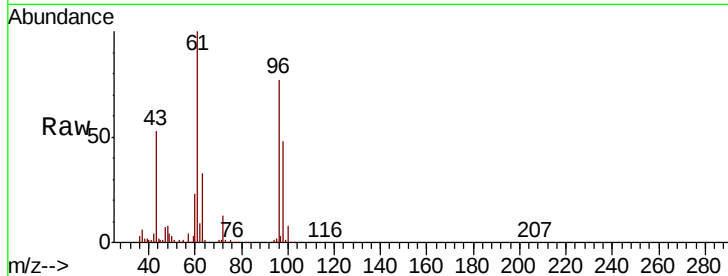


#22

cis-1,2-Dichloroethene  
 Concen: 27.130 ug/L  
 RT: 7.16 min Scan# 862  
 Delta R.T. -0.00 min  
 Lab File: VW009657.D  
 Acq: 02 Apr 2019 18:05

Instrument :  
 MSVOA\_W  
 ClientSampleId :

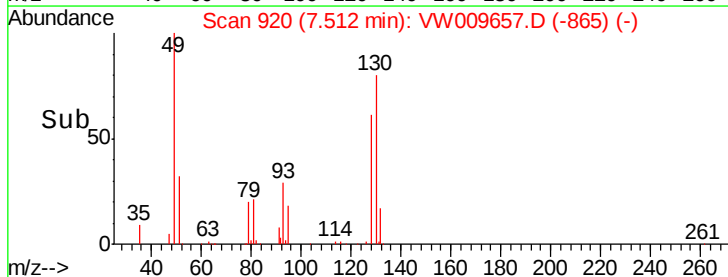
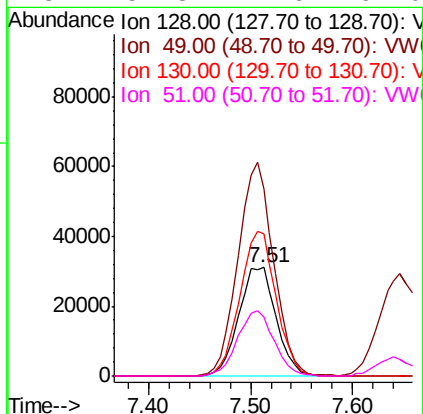
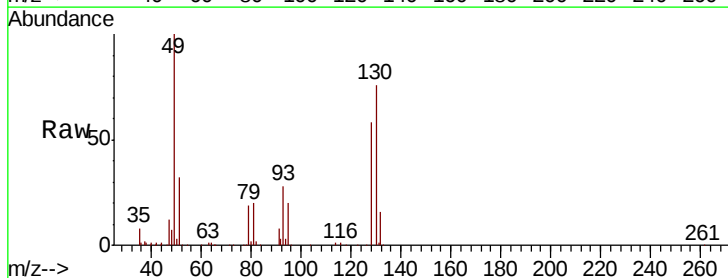
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 129.6 | 90.6  | 168.3 |
| 98      | 61.6  | 44.0  | 81.8  |

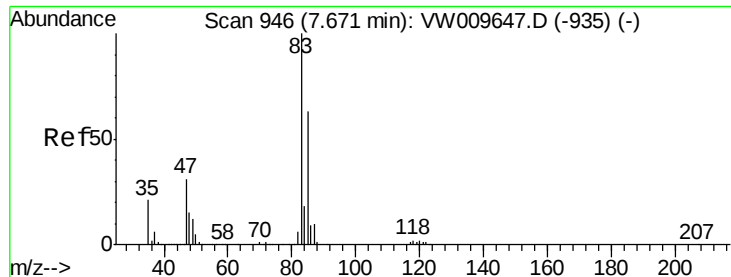


#23

Bromochloromethane  
 Concen: 25.544 ug/L  
 RT: 7.51 min Scan# 920  
 Delta R.T. 0.01 min  
 Lab File: VW009657.D  
 Acq: 02 Apr 2019 18:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 49      | 172.3 | 118.4 | 219.8 |
| 130     | 130.8 | 87.8  | 163.2 |
| 51      | 54.3  | 44.6  | 67.0  |





#25

Chloroform

Concen: 28.529 ug/L

RT: 7.67 min Scan# 946

Delta R.T. -0.00 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

Instrument :

MSVOA\_W

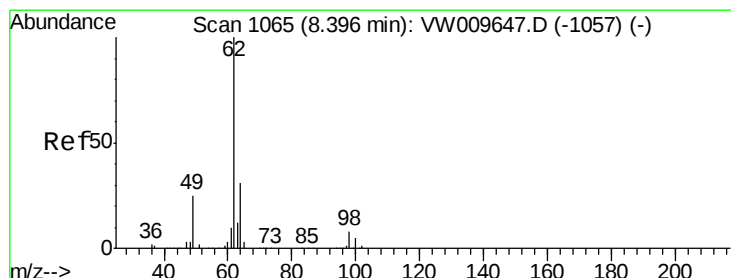
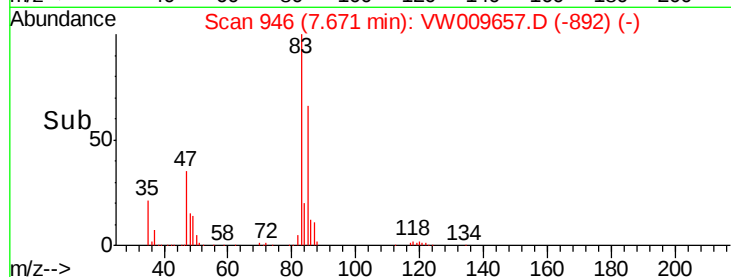
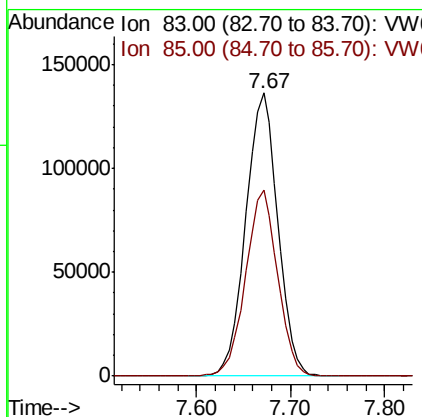
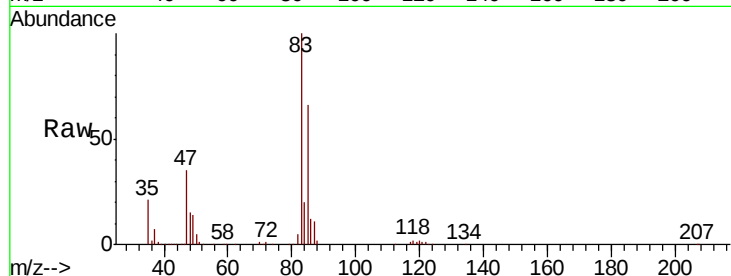
ClientSampled :

Tot Ion: 83 Resp: 326105

Ion Ratio Lower Upper

83 100

85 65.5 46.0 85.4



#27

1,2-Dichloroethane

Concen: 28.108 ug/L

RT: 8.40 min Scan# 1065

Delta R.T. -0.00 min

Lab File: VW009657.D

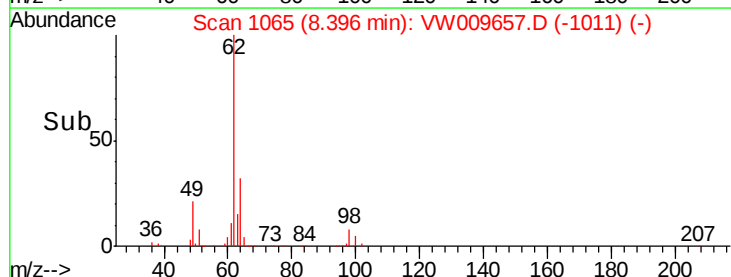
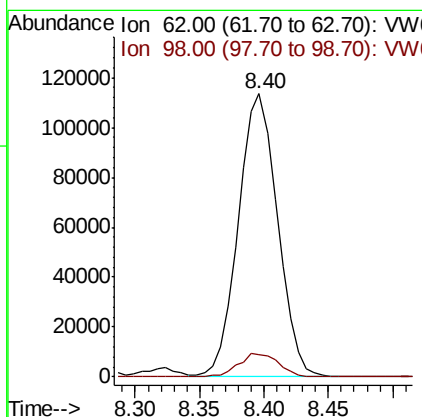
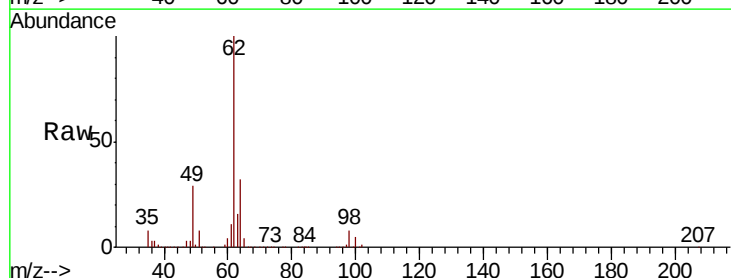
Acq: 02 Apr 2019 18:05

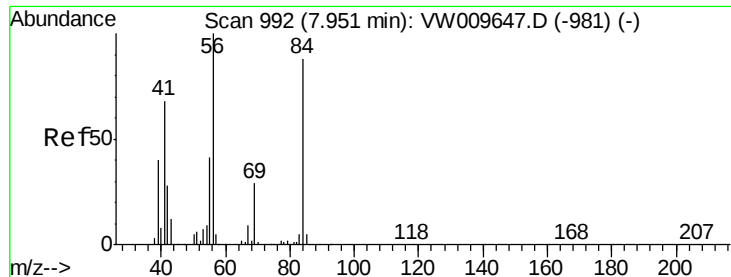
Tgt Ion: 62 Resp: 239548

Ion Ratio Lower Upper

62 100

98 8.0 7.3 10.9

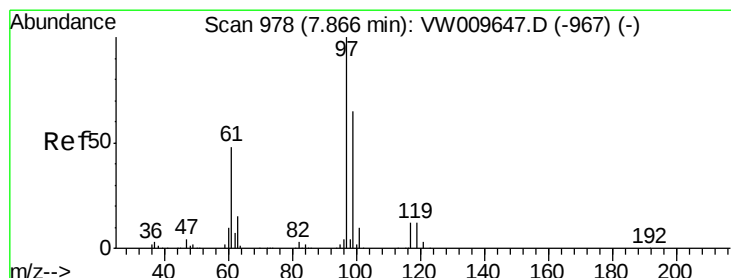
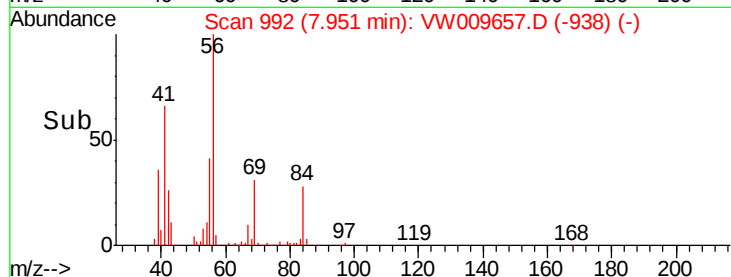
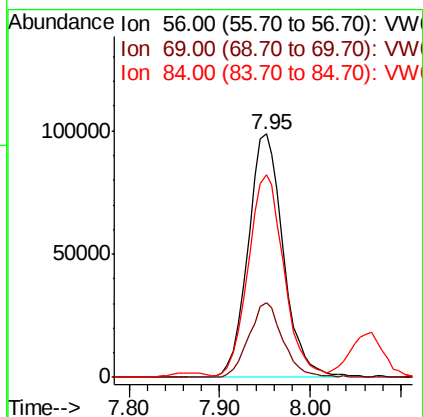
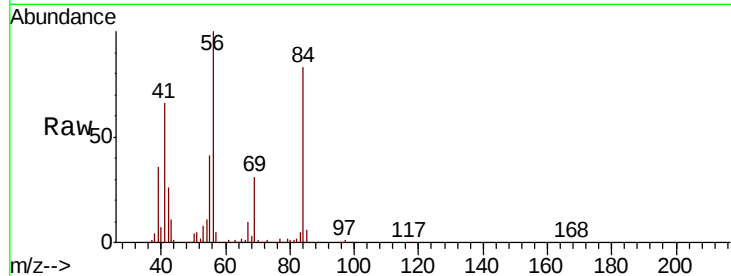




#30  
Cyclohexane  
Concen: 26.631 ug/L  
RT: 7.95 min Scan# 992  
Delta R.T. -0.00 min  
Lab File: VW009657.D  
Acq: 02 Apr 2019 18:05

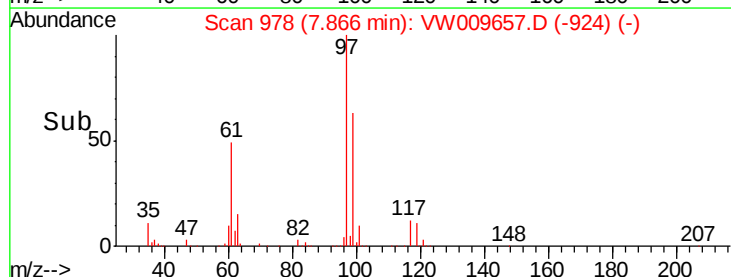
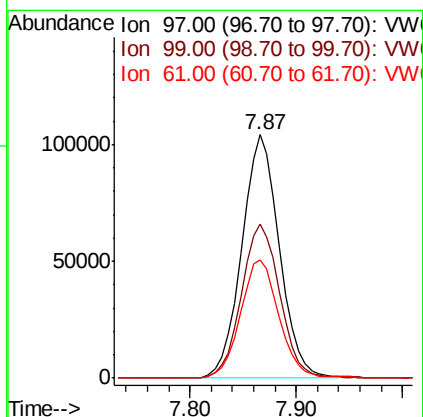
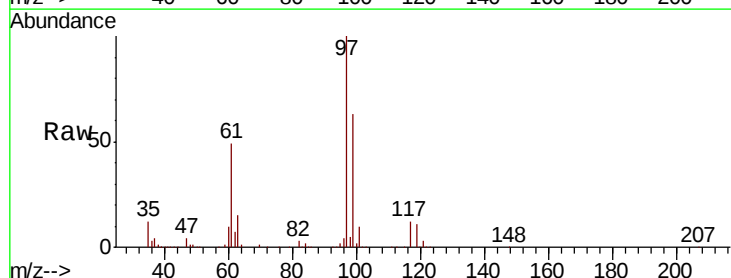
Instrument :  
MSVOA\_W  
ClientSampled :

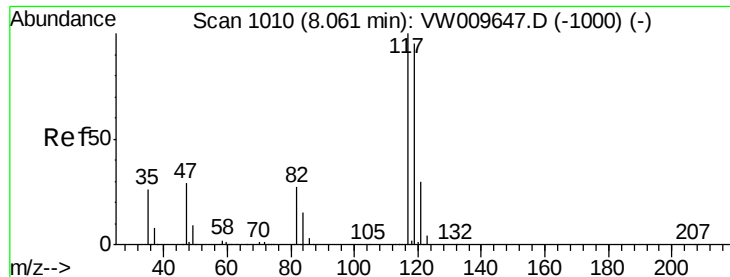
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 56      | 100   |       |       |
| 69      | 29.7  | 24.0  | 36.0  |
| 84      | 84.7  | 69.2  | 103.8 |



#31  
1,1,1-Trichloroethane  
Concen: 29.501 ug/L  
RT: 7.87 min Scan# 978  
Delta R.T. -0.00 min  
Lab File: VW009657.D  
Acq: 02 Apr 2019 18:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 64.5  | 51.2  | 76.8  |
| 61      | 49.1  | 38.4  | 57.6  |





#32

Carbon tetrachloride

Concen: 29.438 ug/L

RT: 8.06 min Scan# 1010

Delta R.T. 0.00 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

Instrument :

MSVOA\_W

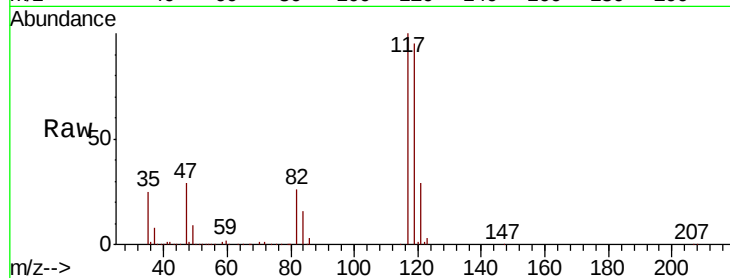
ClientSampleId :

Tot Ion:117 Resp: 259855

Ion Ratio Lower Upper

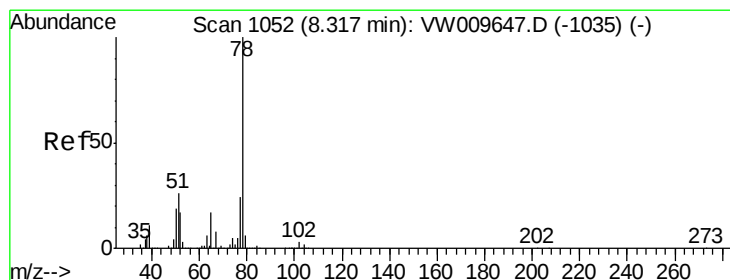
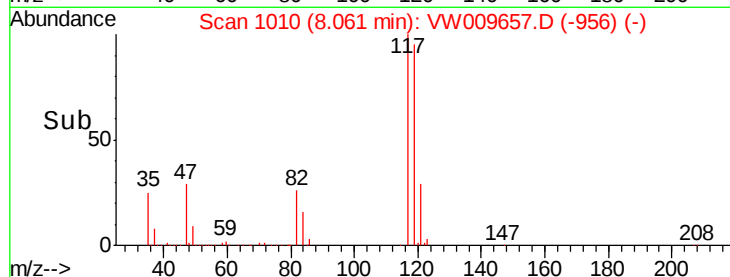
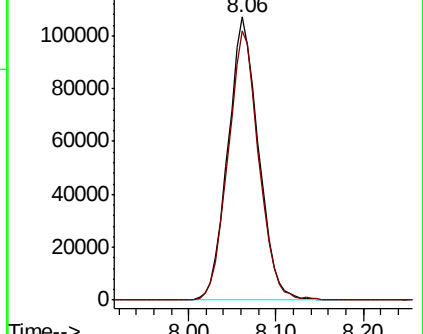
117 100

119 95.8 78.0 117.0



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V



#34

Benzene

Concen: 28.108 ug/L

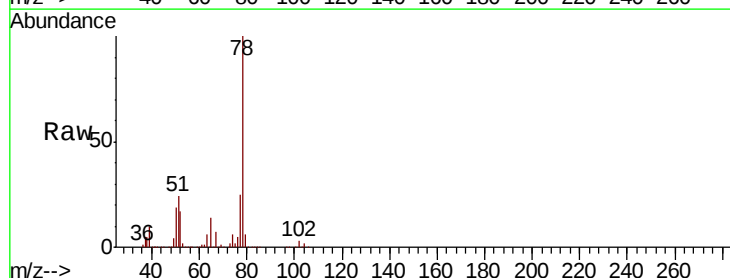
RT: 8.32 min Scan# 1052

Delta R.T. 0.00 min

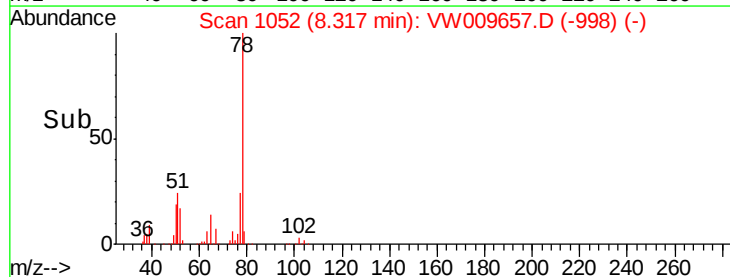
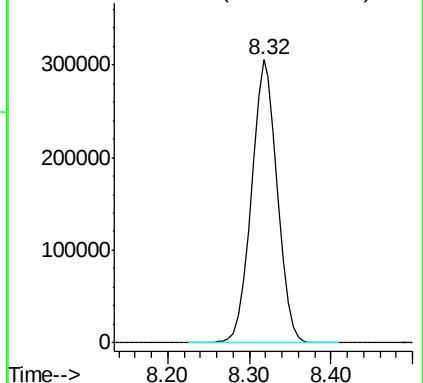
Lab File: VW009657.D

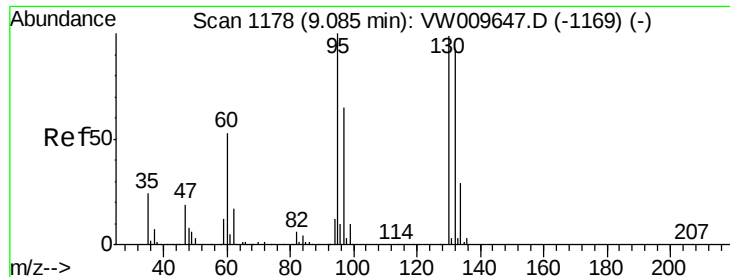
Acq: 02 Apr 2019 18:05

Tgt Ion: 78 Resp: 673934



Abundance Ion 78.00 (77.70 to 78.70): VW





#35

Trichloroethene

Concen: 27.689 ug/L

RT: 9.09 min Scan# 1178

Delta R.T. -0.00 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

Instrument :

MSVOA\_W

ClientSampleId :

Tot Ion: 95 Resp: 176902

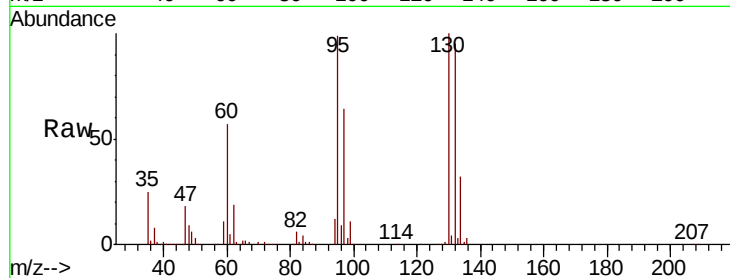
Ion Ratio Lower Upper

95 100

97 63.8 44.7 82.9

132 94.5 69.0 128.2

130 99.2 72.7 134.9

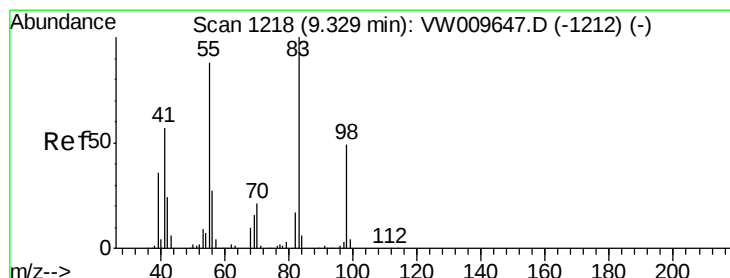
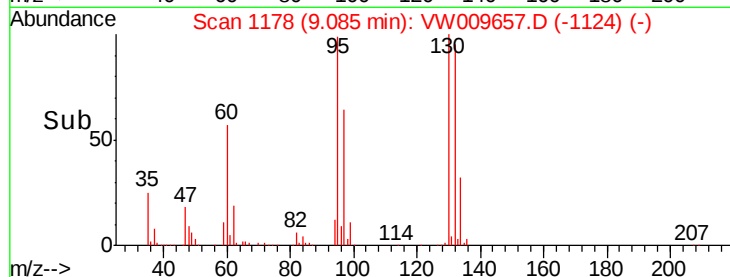
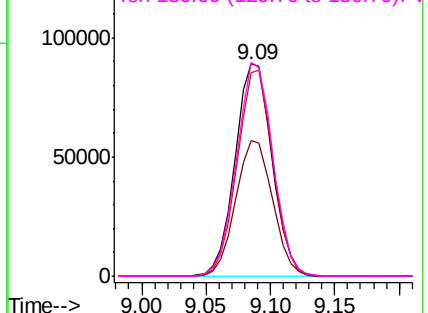


Abundance Ion 95.00 (94.70 to 95.70): VW

Ion 97.00 (96.70 to 97.70): VW

Ion 132.00 (131.70 to 132.70): V

Ion 130.00 (129.70 to 130.70): V



#36

Methylcyclohexane

Concen: 26.465 ug/L

RT: 9.33 min Scan# 1218

Delta R.T. -0.00 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

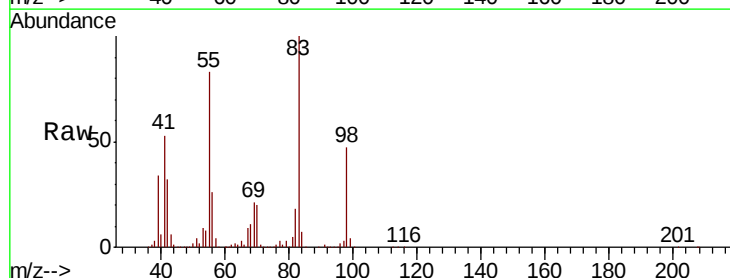
Tgt Ion: 83 Resp: 292521

Ion Ratio Lower Upper

83 100

55 81.6 63.5 95.3

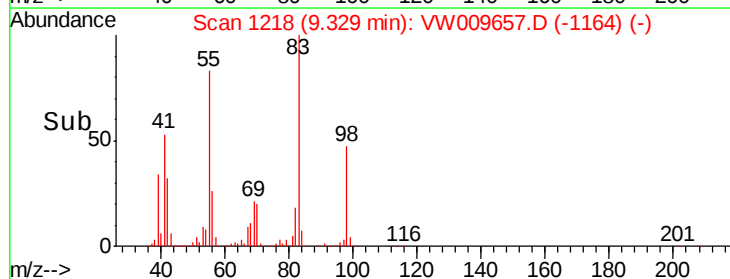
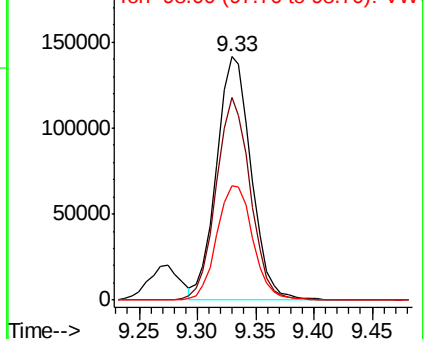
98 48.5 39.8 59.8

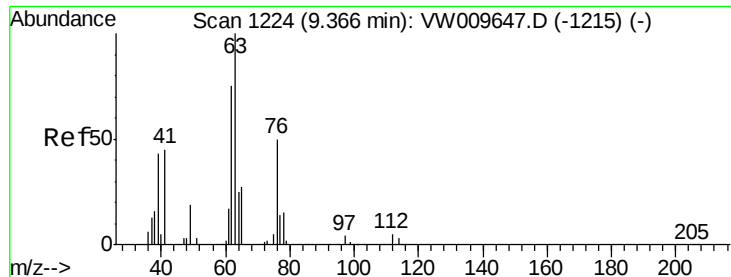


Abundance Ion 83.00 (82.70 to 83.70): VW

Ion 55.00 (54.70 to 55.70): VW

Ion 98.00 (97.70 to 98.70): VW

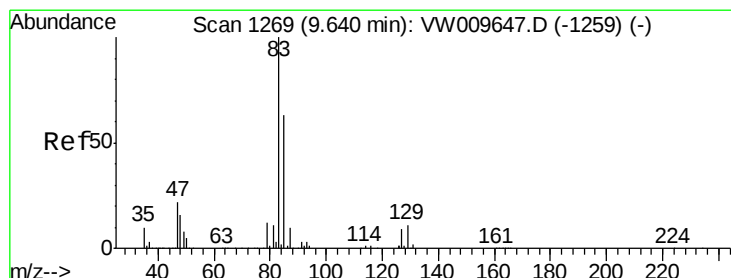
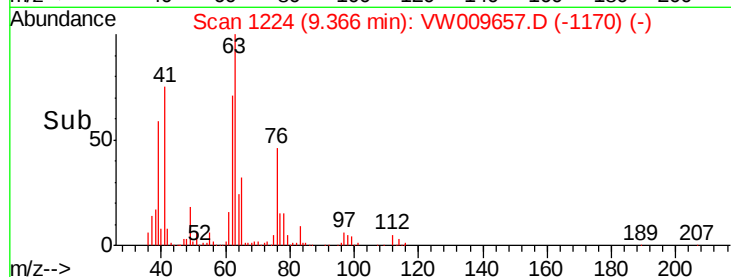
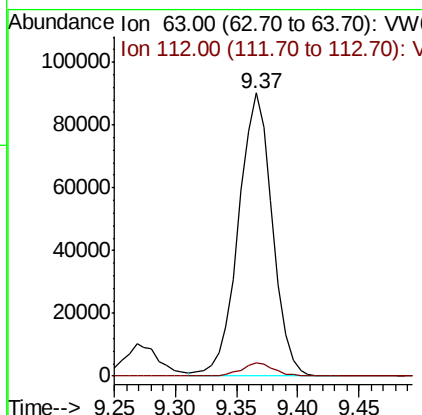
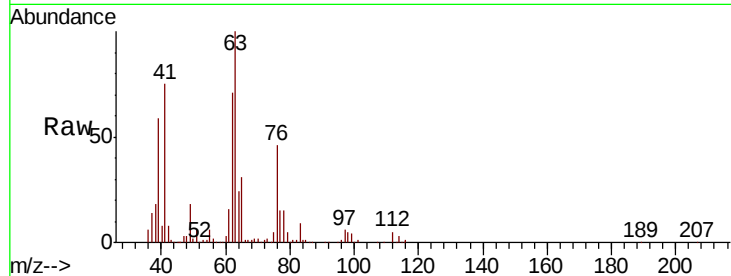




#40  
 1,2-Dichloropropane  
 Concen: 28.153 ug/L  
 RT: 9.37 min Scan# 1224  
 Delta R.T. -0.00 min  
 Lab File: VW009657.D  
 Acq: 02 Apr 2019 18:05

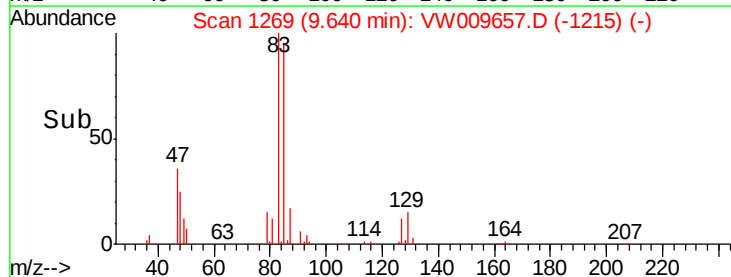
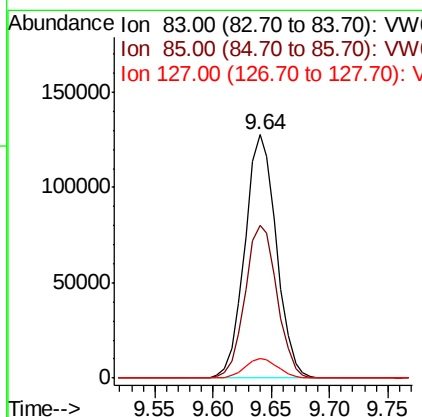
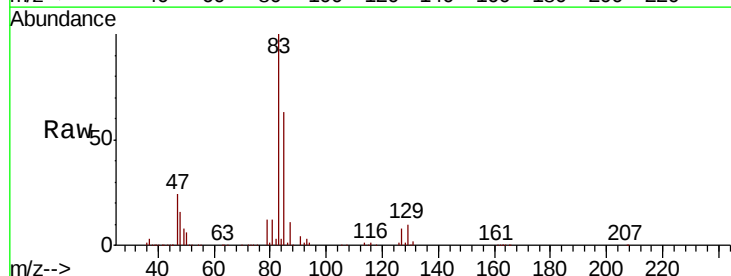
Instrument :  
 MSVOA\_W  
 ClientSampled :

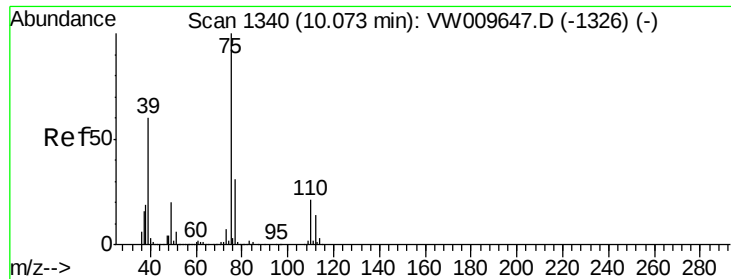
Tot Ion: 63 Resp: 173216  
 Ion Ratio Lower Upper  
 63 100  
 112 4.5 4.0 6.0



#41  
 Bromodichloromethane  
 Concen: 28.228 ug/L  
 RT: 9.64 min Scan# 1269  
 Delta R.T. 0.00 min  
 Lab File: VW009657.D  
 Acq: 02 Apr 2019 18:05

Tgt Ion: 83 Resp: 240638  
 Ion Ratio Lower Upper  
 83 100  
 85 62.8 43.5 80.7  
 127 8.2 6.2 9.4

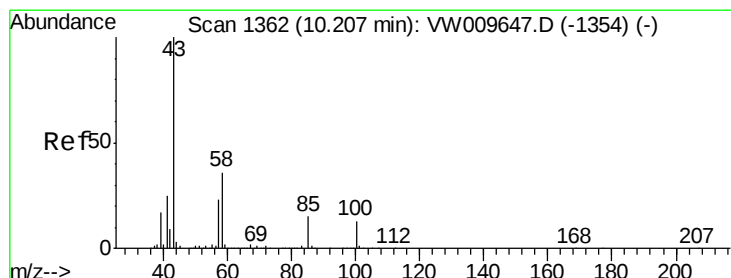
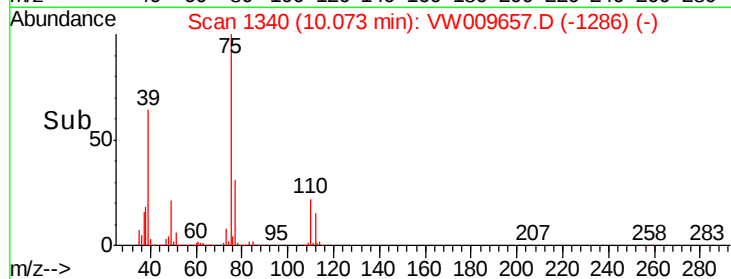
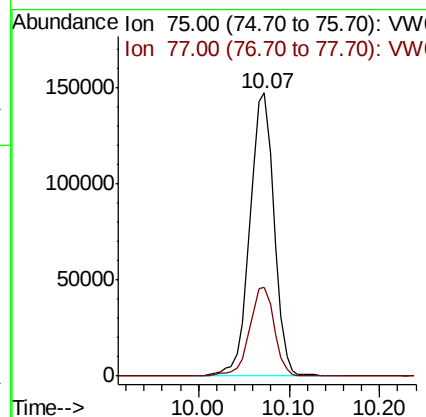
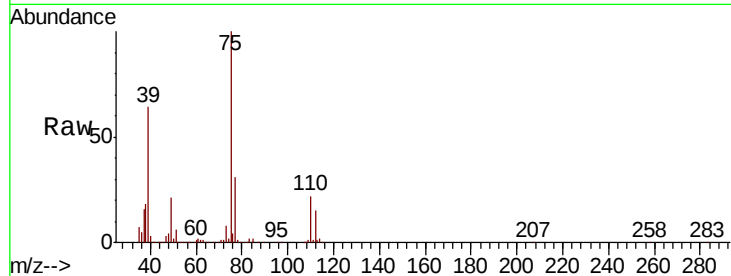




#42  
 cis-1,3-Dichloropropene  
 Concen: 27.288 ug/L  
 RT: 10.07 min Scan# 1340  
 Delta R.T. 0.00 min  
 Lab File: VW009657.D  
 Acq: 02 Apr 2019 18:05

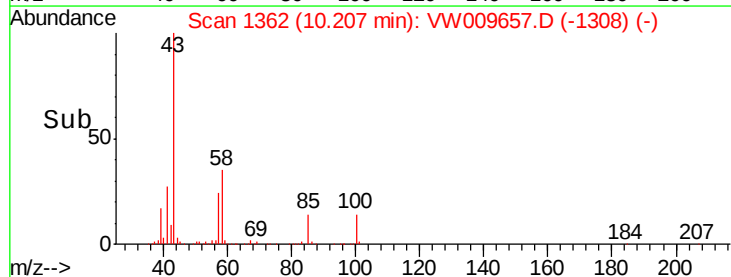
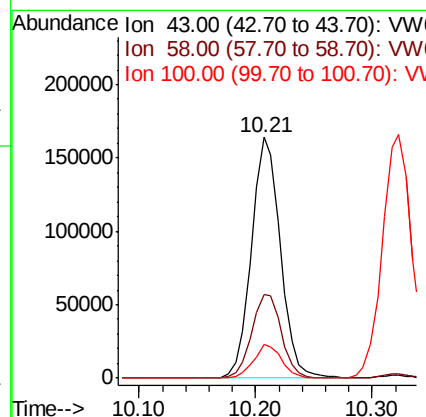
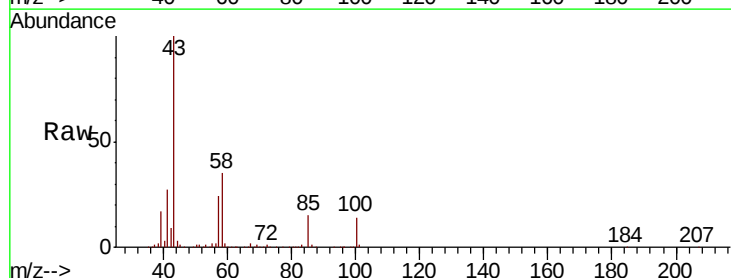
Instrument :  
 MSVOA\_W  
 ClientSampleId :

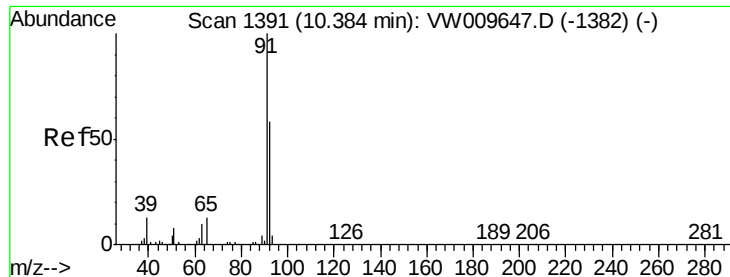
Tot Ion: 75 Resp: 273452  
 Ion Ratio Lower Upper  
 75 100  
 77 31.4 21.6 40.2



#43  
 4-Methyl-2-pentanone  
 Concen: 50.874 ug/L  
 RT: 10.21 min Scan# 1362  
 Delta R.T. -0.00 min  
 Lab File: VW009657.D  
 Acq: 02 Apr 2019 18:05

Tgt Ion: 43 Resp: 283632  
 Ion Ratio Lower Upper  
 43 100  
 58 36.0 28.2 42.2  
 100 13.7 11.4 17.2





#44

Toluene

Concen: 28.097 ug/L

RT: 10.38 min Scan# 1391

Delta R.T. 0.00 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

Instrument :

MSVOA\_W

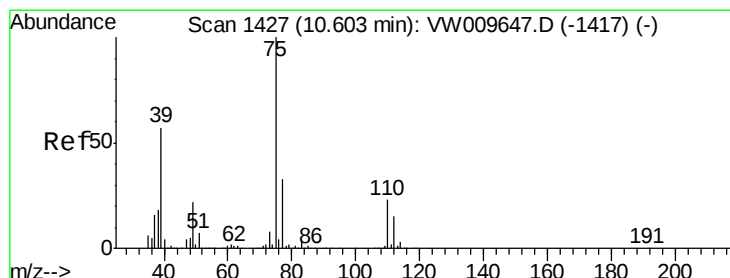
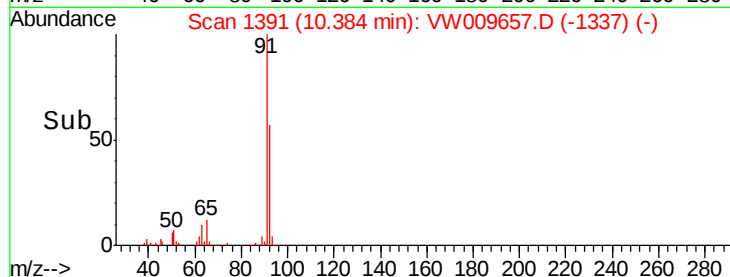
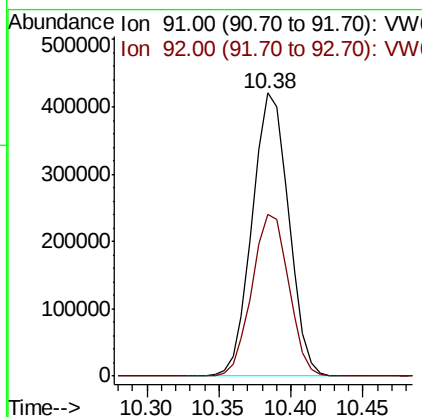
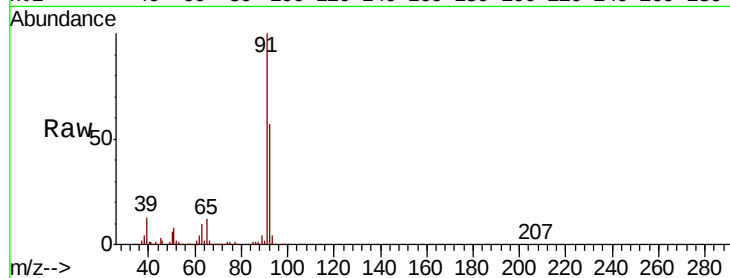
ClientSampleId :

Tot Ion: 91 Resp: 736564

Ion Ratio Lower Upper

91 100

92 57.1 39.8 73.8



#45

trans-1,3-Dichloropropene

Concen: 27.347 ug/L

RT: 10.60 min Scan# 1427

Delta R.T. -0.00 min

Lab File: VW009657.D

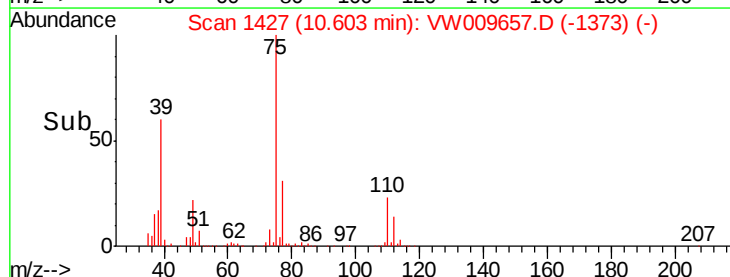
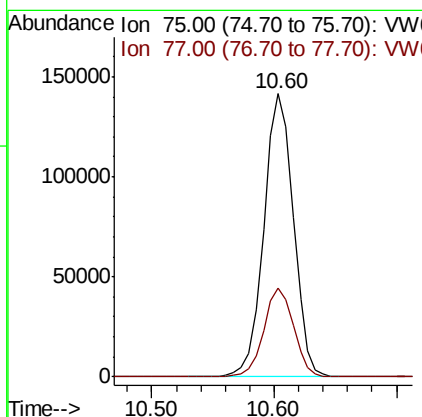
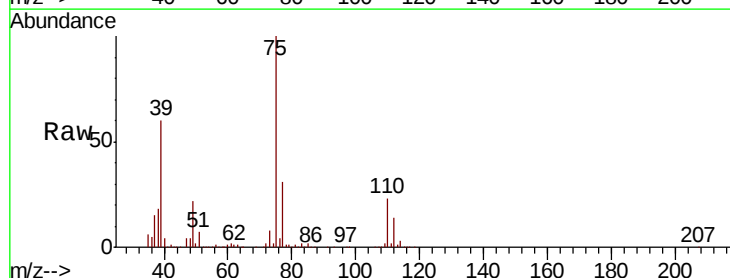
Acq: 02 Apr 2019 18:05

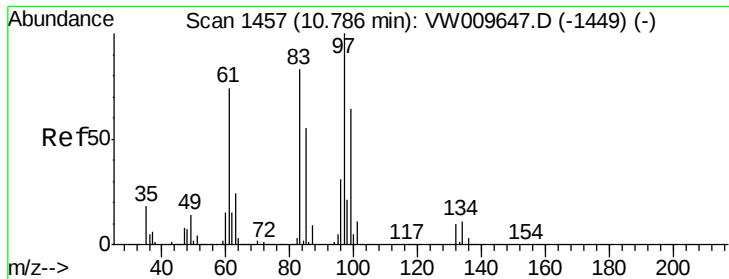
Tgt Ion: 75 Resp: 238385

Ion Ratio Lower Upper

75 100

77 31.5 22.5 41.7





#46

1,1,2-Trichloroethane

Concen: 27.232 ug/L

RT: 10.79 min Scan# 1457

Delta R.T. 0.00 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

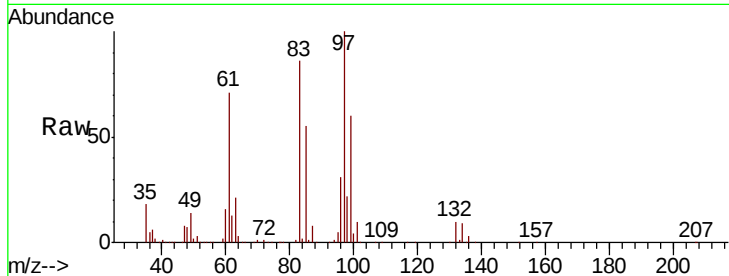
Instrument :

MSVOA\_W

ClientSampled :

Tot Ion: 97 Resp: 133667

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 97  | 100   |       |       |
| 83  | 85.6  | 60.7  | 112.7 |
| 85  | 55.1  | 40.1  | 74.5  |
| 99  | 59.7  | 43.8  | 81.3  |



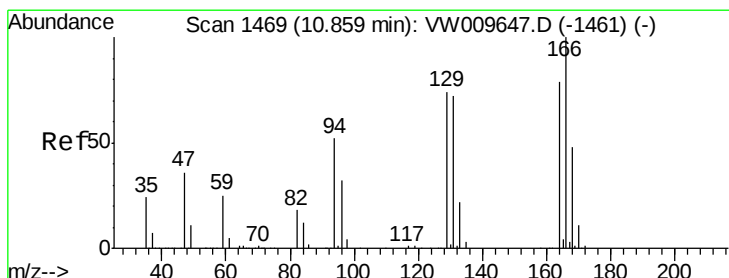
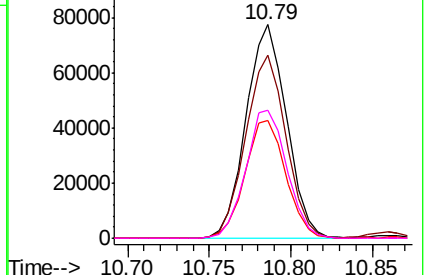
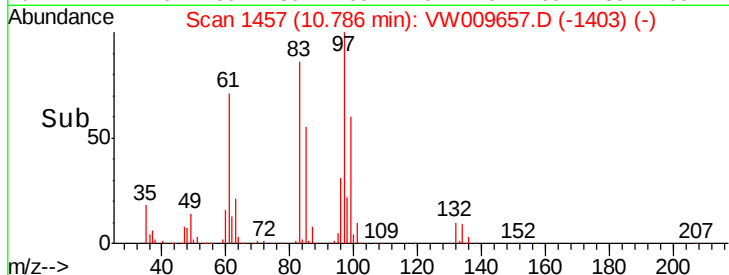
Abundance

Ion 97.00 (96.70 to 97.70): VW

Ion 83.00 (82.70 to 83.70): VW

Ion 85.00 (84.70 to 85.70): VW

Ion 99.00 (98.70 to 99.70): VW



#47

Tetrachloroethene

Concen: 26.388 ug/L

RT: 10.86 min Scan# 1469

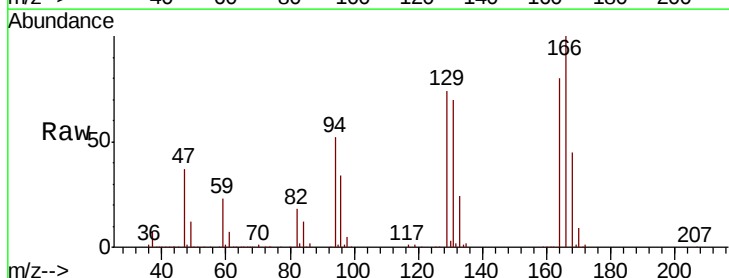
Delta R.T. -0.00 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

Tgt Ion: 164 Resp: 142448

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 164 | 100   |       |       |
| 129 | 92.1  | 66.5  | 123.5 |
| 131 | 87.5  | 62.6  | 116.3 |
| 166 | 124.6 | 91.6  | 170.0 |



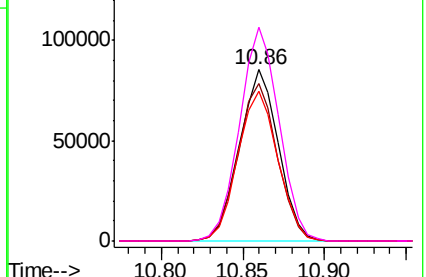
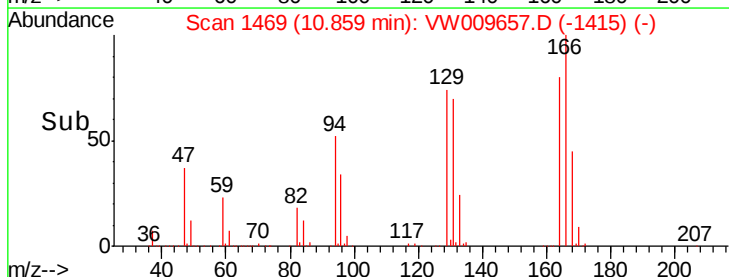
Abundance

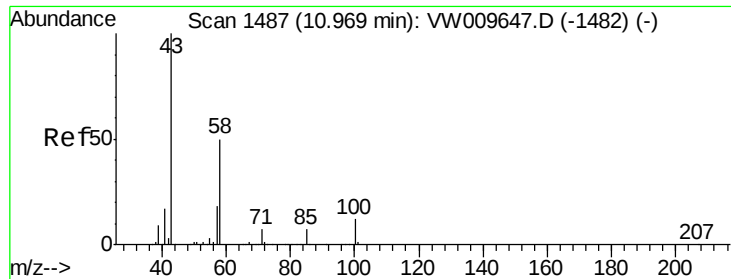
Ion 164.00 (163.70 to 164.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V

Ion 166.00 (165.70 to 166.70): V

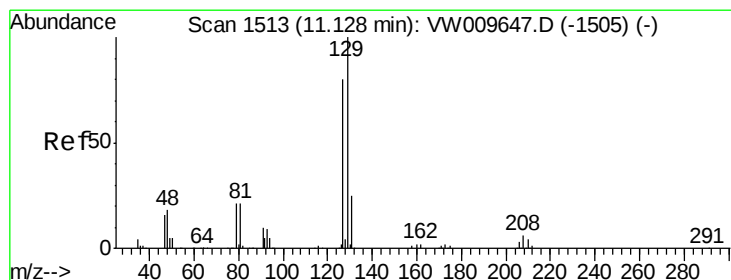
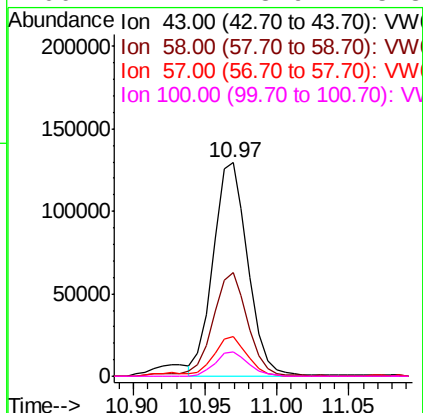
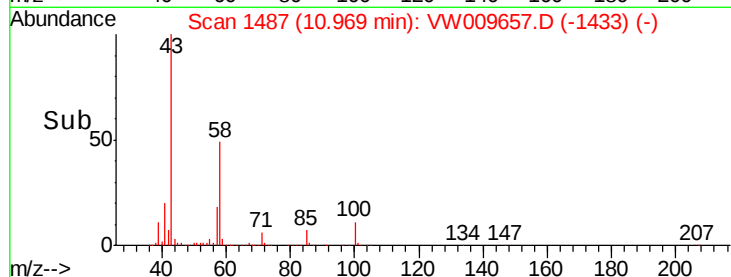
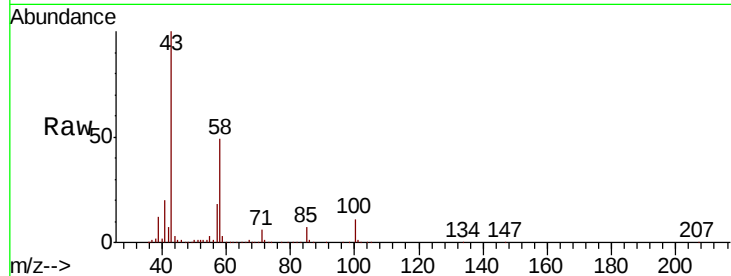




#49  
2-Hexanone  
Concen: 55.611 ug/L  
RT: 10.97 min Scan# 1487  
Delta R.T. -0.00 min  
Lab File: VW009657.D  
Acq: 02 Apr 2019 18:05

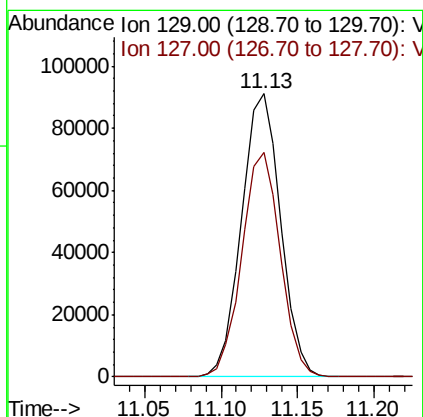
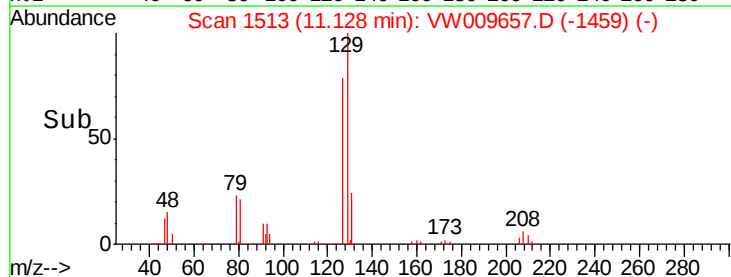
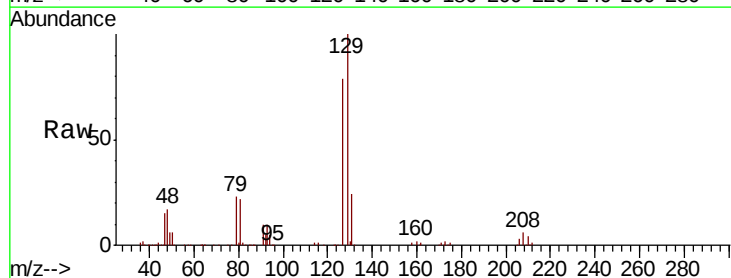
Instrument :  
MSVOA\_W  
ClientSampleId :

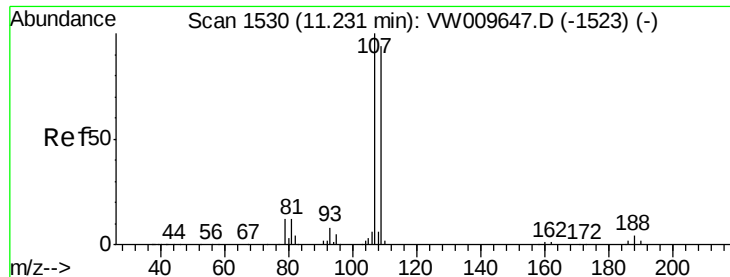
Tot Ion: 43 Resp: 218363  
Ion Ratio Lower Upper  
43 100  
58 47.5 39.2 58.8  
57 18.0 14.2 21.2  
100 11.2 8.9 13.3



#50  
Dibromochloromethane  
Concen: 26.742 ug/L  
RT: 11.13 min Scan# 1513  
Delta R.T. -0.00 min  
Lab File: VW009657.D  
Acq: 02 Apr 2019 18:05

Tgt Ion: 129 Resp: 162035  
Ion Ratio Lower Upper  
129 100  
127 79.2 56.8 105.6

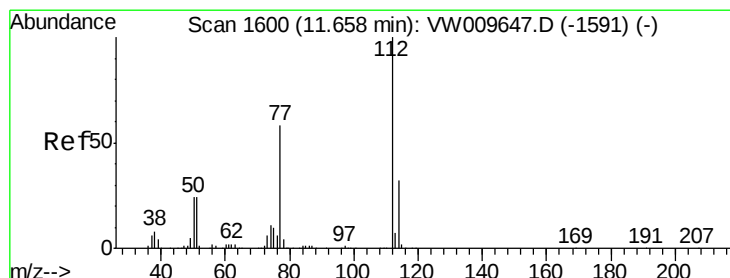
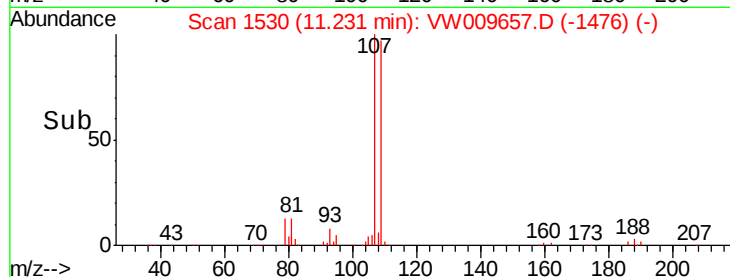
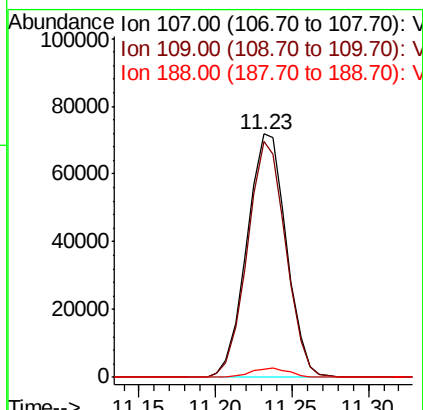
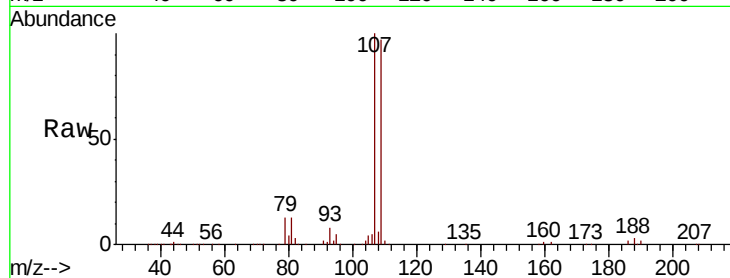




#51  
 1,2-Dibromoethane  
 Concen: 25.975 ug/L  
 RT: 11.23 min Scan# 1530  
 Delta R.T. -0.00 min  
 Lab File: VW009657.D  
 Acq: 02 Apr 2019 18:05

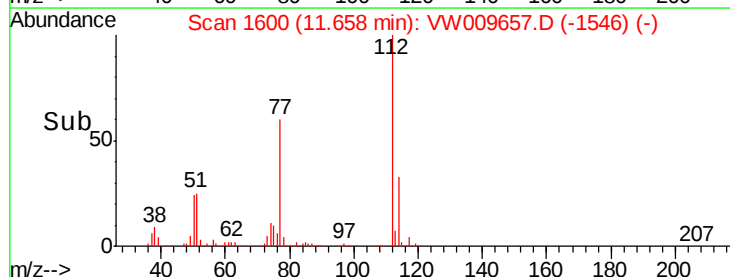
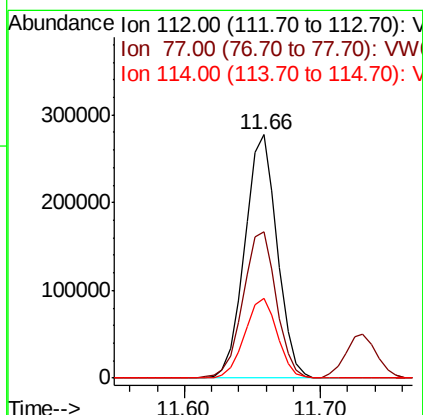
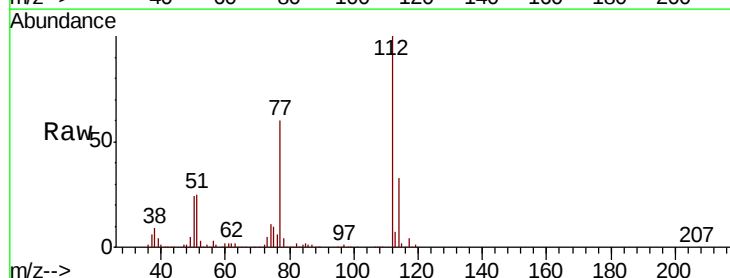
Instrument :  
 MSVOA\_W  
 ClientSampleId :

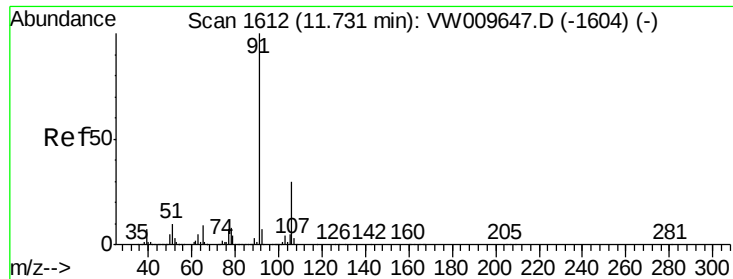
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 107     | 100   |       |       |
| 109     | 96.9  | 68.0  | 126.4 |
| 188     | 3.1   | 3.5   | 5.3#  |



#52  
 Chlorobenzene  
 Concen: 27.427 ug/L  
 RT: 11.66 min Scan# 1600  
 Delta R.T. -0.00 min  
 Lab File: VW009657.D  
 Acq: 02 Apr 2019 18:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 77      | 60.3  | 45.7  | 68.5  |
| 114     | 32.6  | 22.8  | 42.4  |

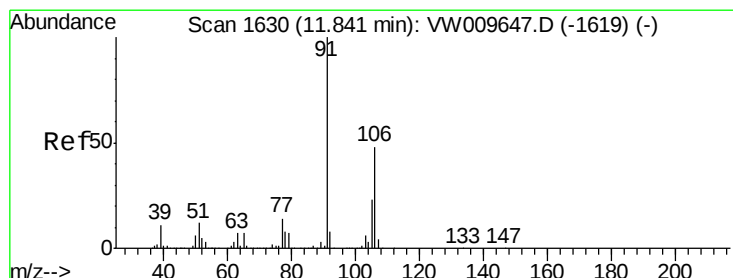
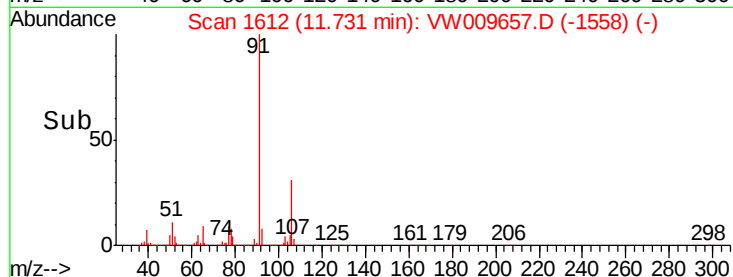
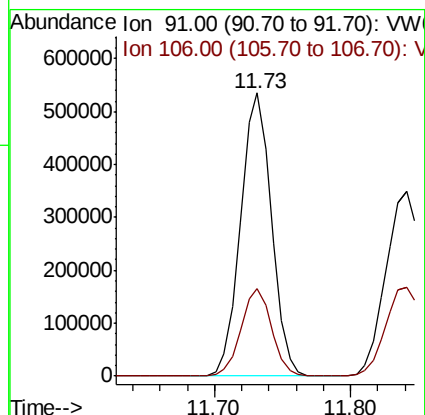
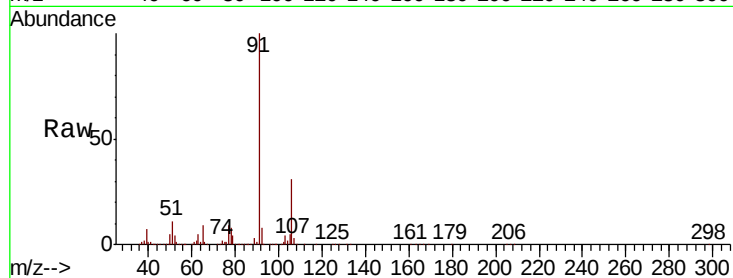




#53  
Ethylbenzene  
Concen: 28.815 ug/L  
RT: 11.73 min Scan# 1612  
Delta R.T. -0.00 min  
Lab File: VW009657.D  
Acq: 02 Apr 2019 18:05

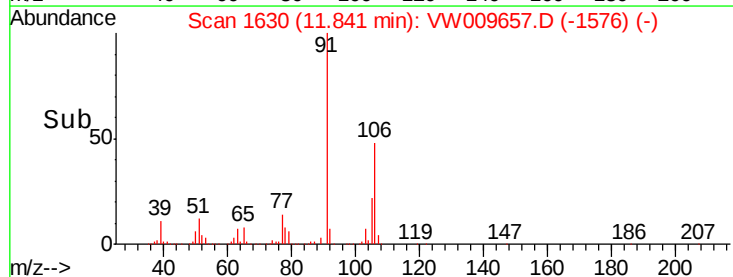
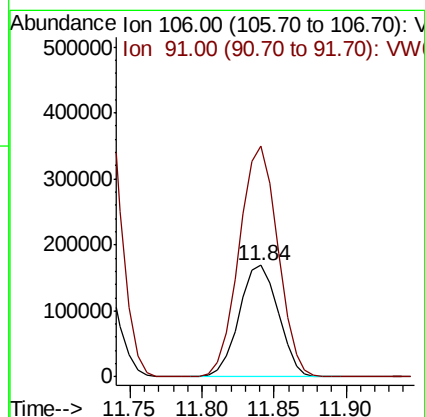
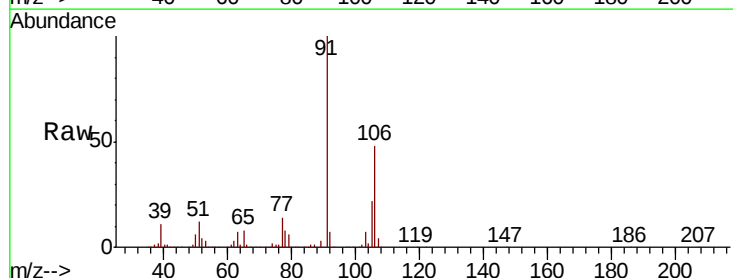
Instrument :  
MSVOA\_W  
ClientSampled :

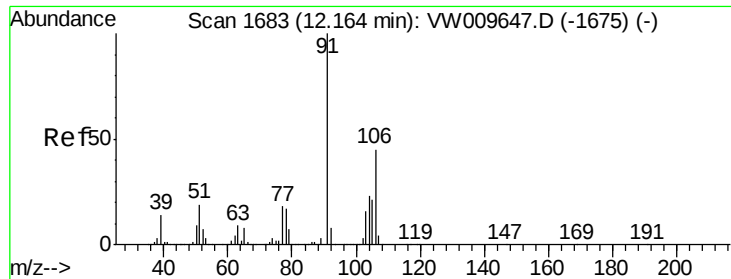
Tot Ion: 91 Resp: 849248  
Ion Ratio Lower Upper  
91 100  
106 31.0 21.0 39.0



#54  
m,p-Xylene  
Concen: 28.628 ug/L  
RT: 11.84 min Scan# 1630  
Delta R.T. -0.00 min  
Lab File: VW009657.D  
Acq: 02 Apr 2019 18:05

Tgt Ion:106 Resp: 320554  
Ion Ratio Lower Upper  
106 100  
91 207.5 138.4 257.0

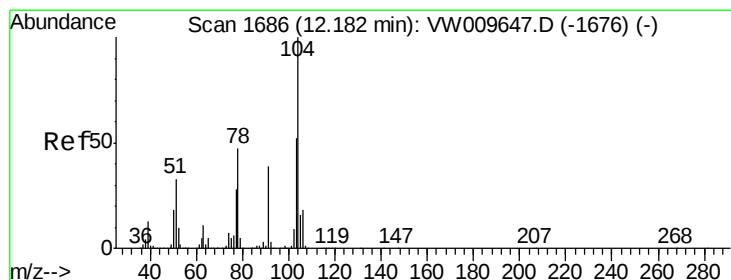
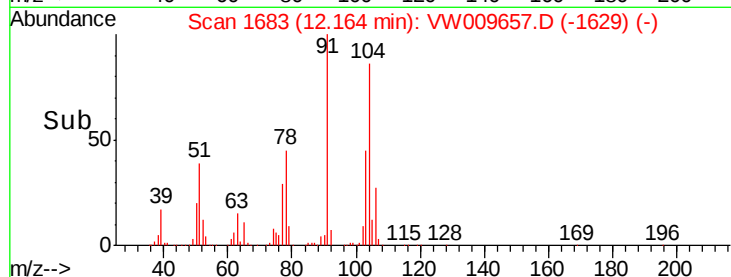
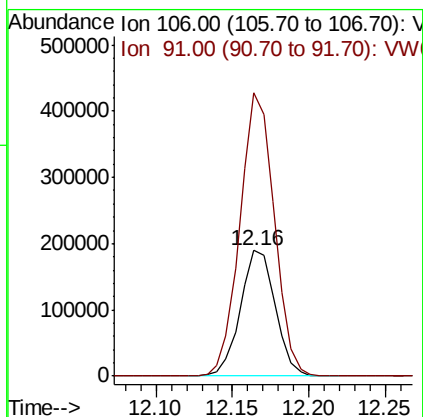
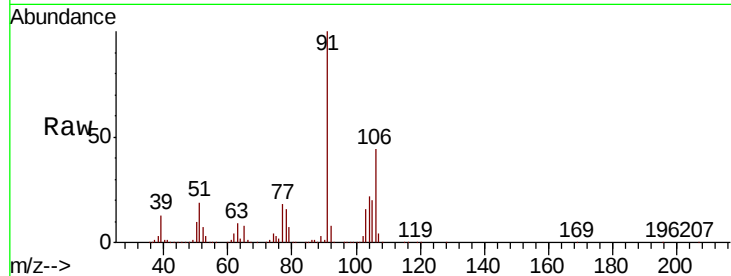




#55  
o-xylene  
Concen: 27.513 ug/L  
RT: 12.16 min Scan# 1683  
Delta R.T. 0.00 min  
Lab File: VW009657.D  
Acq: 02 Apr 2019 18:05

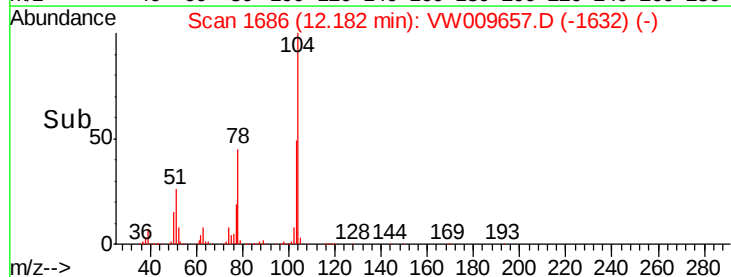
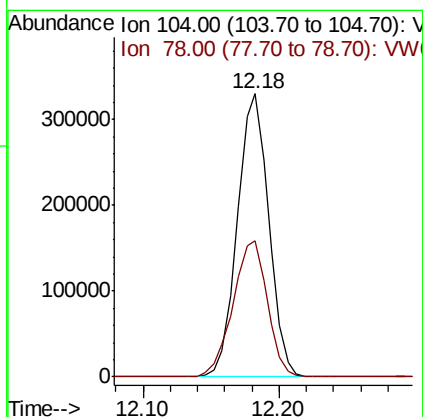
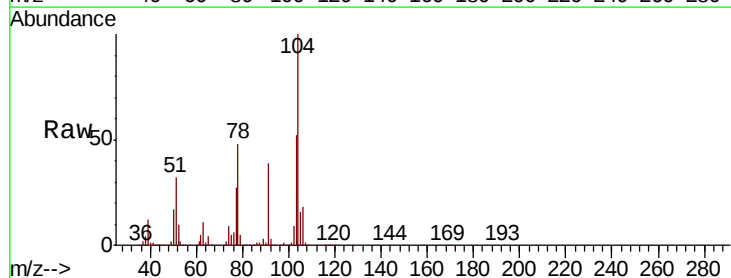
Instrument :  
MSVOA\_W  
ClientSampled :

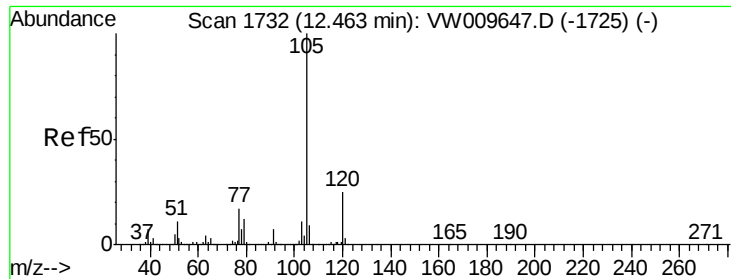
Tot Ion:106 Resp: 300538  
Ion Ratio Lower Upper  
106 100  
91 225.8 153.2 284.4



#56  
Styrene  
Concen: 28.498 ug/L  
RT: 12.18 min Scan# 1686  
Delta R.T. -0.00 min  
Lab File: VW009657.D  
Acq: 02 Apr 2019 18:05

Tgt Ion:104 Resp: 531148  
Ion Ratio Lower Upper  
104 100  
78 48.1 30.9 57.3





#57

Isopropylbenzene

Concen: 29.262 ug/L

RT: 12.46 min Scan# 1732

Delta R.T. -0.00 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

Instrument :

MSVOA\_W

ClientSampled :

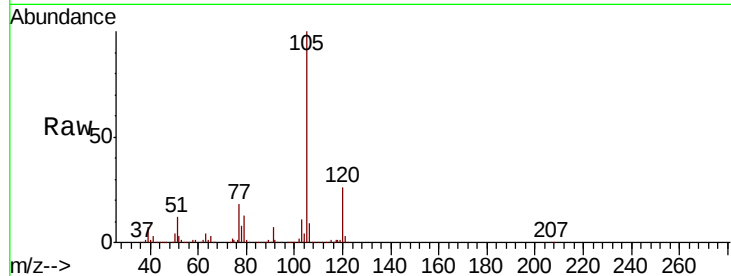
Tot Ion:105 Resp: 856279

Ion Ratio Lower Upper

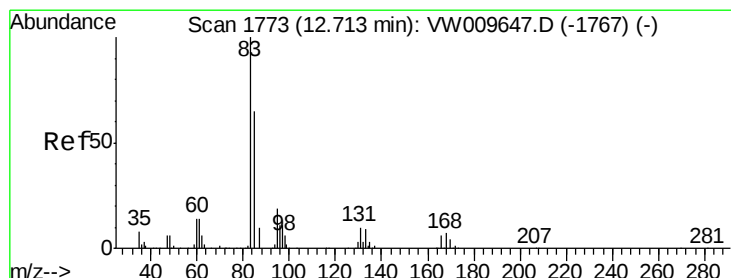
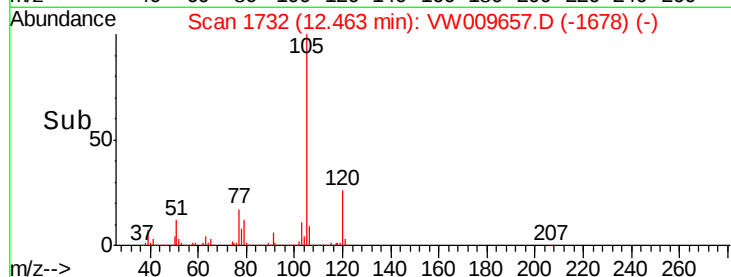
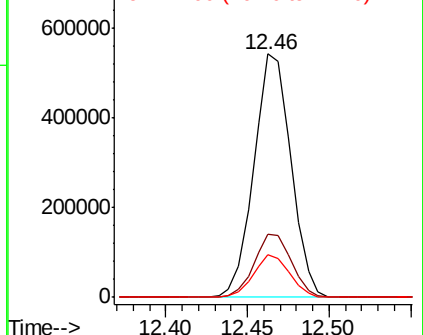
105 100

120 26.0 21.3 31.9

77 17.0 13.1 19.7



Abundance Ion 105.00 (104.70 to 105.70): V  
Ion 120.00 (119.70 to 120.70): V  
Ion 77.00 (76.70 to 77.70): V



#58

1,1,2,2-Tetrachloroethane

Concen: 27.224 ug/L

RT: 12.71 min Scan# 1773

Delta R.T. 0.00 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

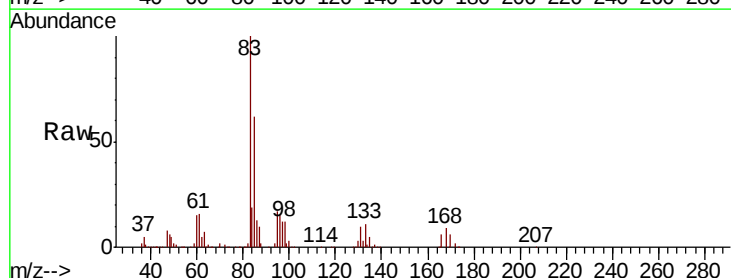
Tgt Ion: 83 Resp: 180270

Ion Ratio Lower Upper

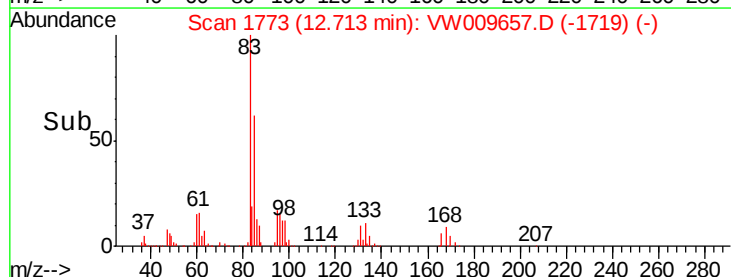
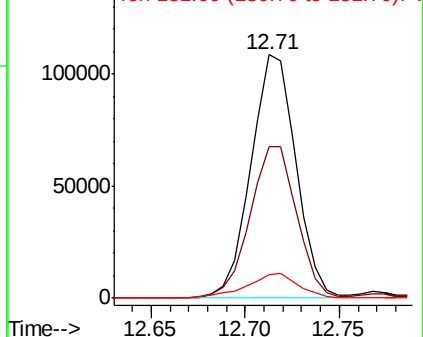
83 100

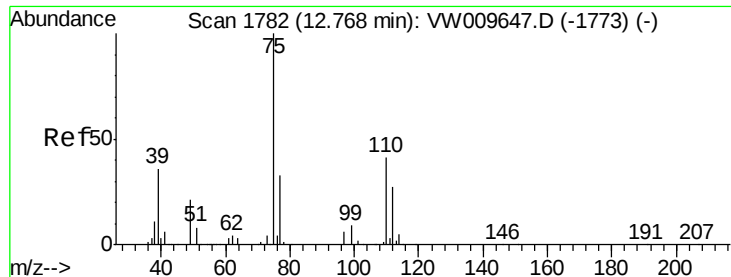
85 62.1 45.6 84.8

131 9.8 9.2 13.8



Abundance Ion 83.00 (82.70 to 83.70): VW  
Ion 85.00 (84.70 to 85.70): VW  
Ion 131.00 (130.70 to 131.70): V

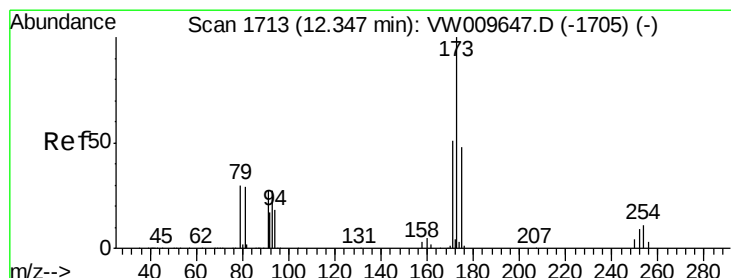
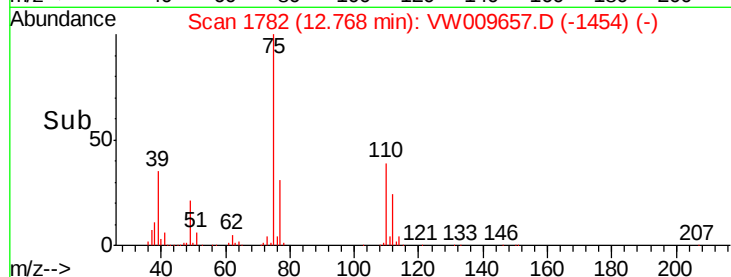
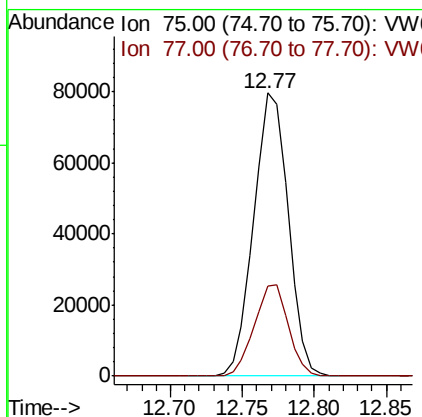
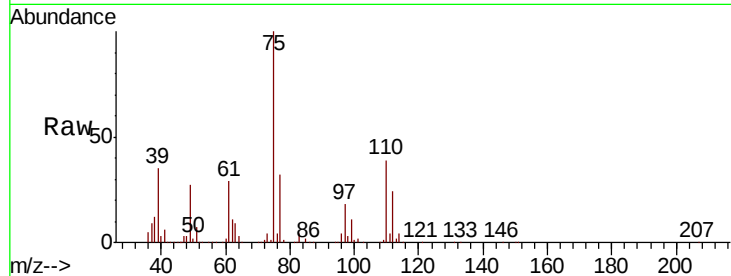




#59  
1,2,3-Trichloropropane  
Concen: 26.903 ug/L  
RT: 12.77 min Scan# 1782  
Delta R.T. 0.00 min  
Lab File: VW009657.D  
Acq: 02 Apr 2019 18:05

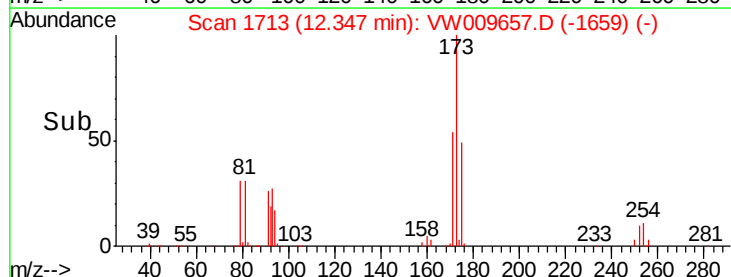
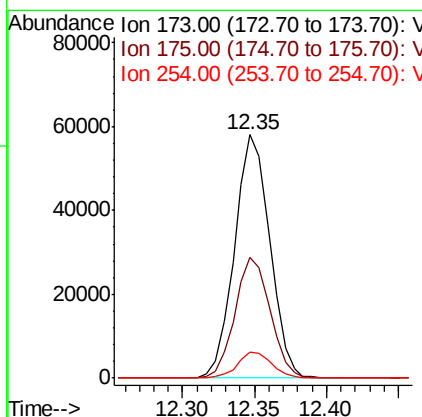
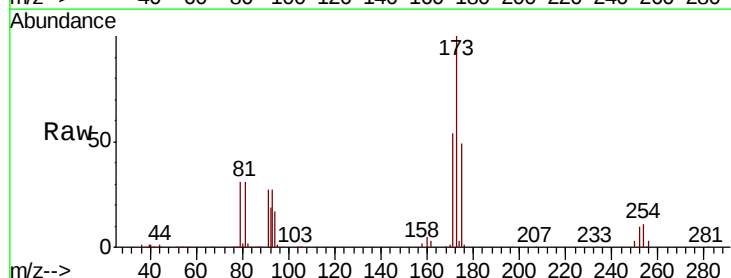
Instrument :  
MSVOA\_W  
ClientSampled :

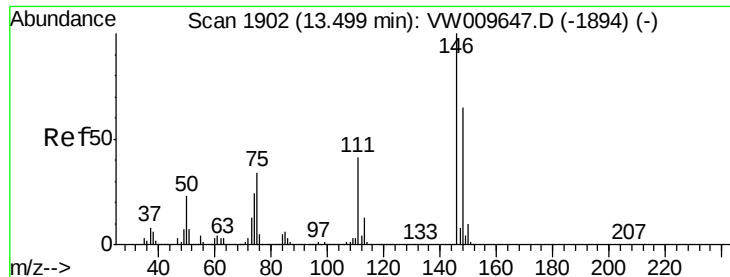
Tot Ion: 75 Resp: 132207  
Ion Ratio Lower Upper  
75 100  
77 31.9 26.2 39.2



#62  
Bromoform  
Concen: 24.980 ug/L  
RT: 12.35 min Scan# 1713  
Delta R.T. -0.00 min  
Lab File: VW009657.D  
Acq: 02 Apr 2019 18:05

Tgt Ion:173 Resp: 98920  
Ion Ratio Lower Upper  
173 100  
175 49.3 39.7 59.5  
254 10.3 8.5 12.7

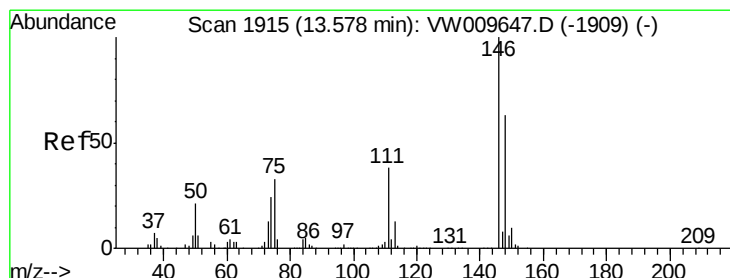
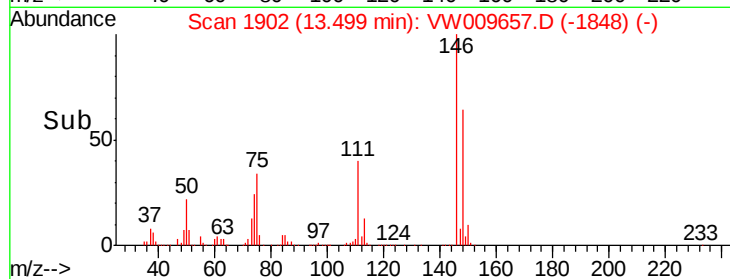
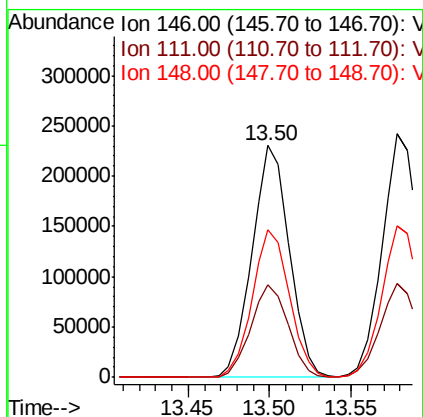
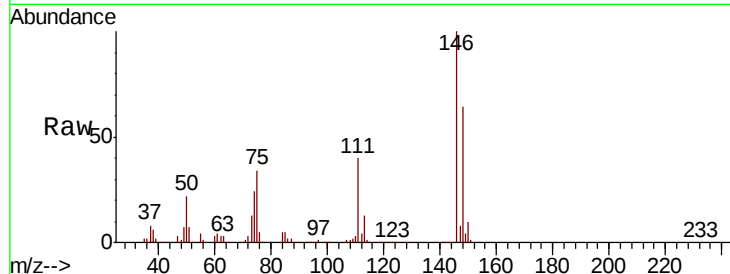




#63  
 1,3-Dichlorobenzene  
 Concen: 26.151 ug/L  
 RT: 13.50 min Scan# 1902  
 Delta R.T. -0.00 min  
 Lab File: VW009657.D  
 Acq: 02 Apr 2019 18:05

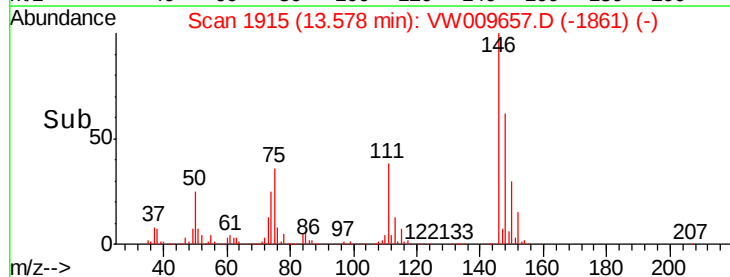
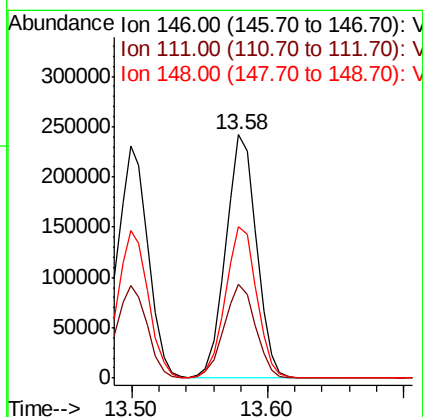
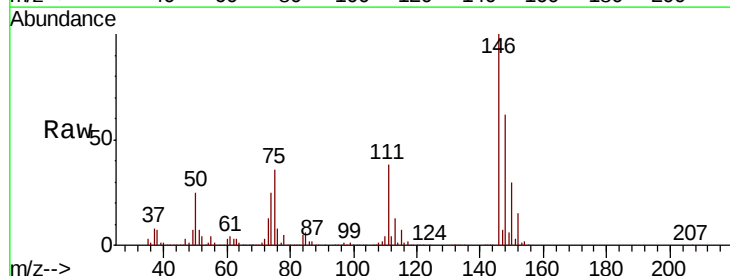
Instrument :  
 MSVOA\_W  
 ClientSampleId :

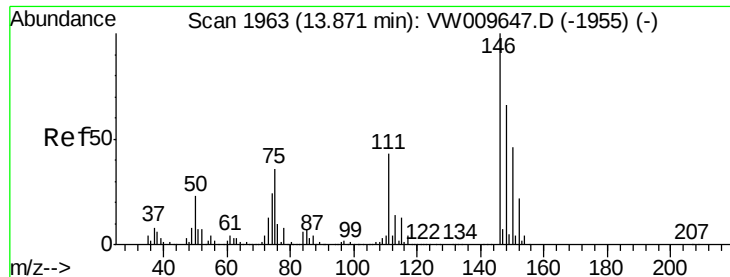
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 39.9  | 26.9  | 49.9  |
| 148     | 63.7  | 45.1  | 83.7  |



#64  
 1,4-Dichlorobenzene  
 Concen: 26.281 ug/L  
 RT: 13.58 min Scan# 1915  
 Delta R.T. 0.00 min  
 Lab File: VW009657.D  
 Acq: 02 Apr 2019 18:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 38.4  | 27.8  | 51.6  |
| 148     | 62.4  | 46.3  | 86.1  |





#65

1,2-Dichlorobenzene

Concen: 26.129 ug/L

RT: 13.87 min Scan# 1963

Delta R.T. -0.00 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

Instrument :

MSVOA\_W

ClientSampleId :

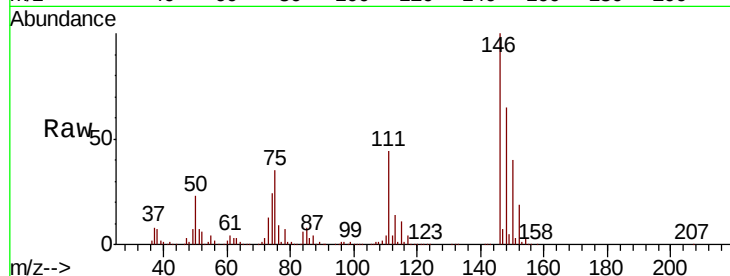
Tot Ion:146 Resp: 348060

Ion Ratio Lower Upper

146 100

111 44.5 33.5 50.3

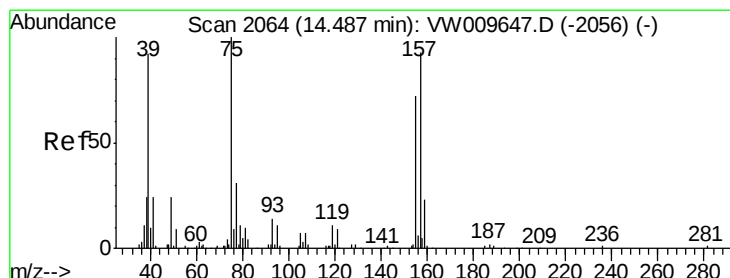
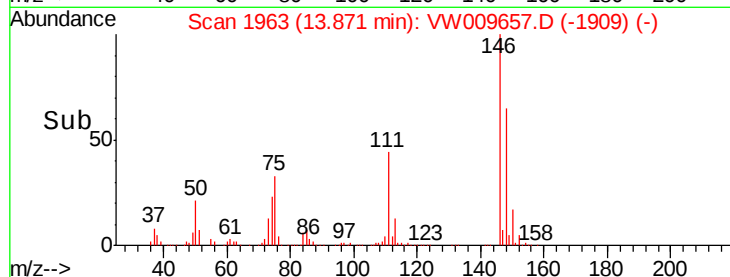
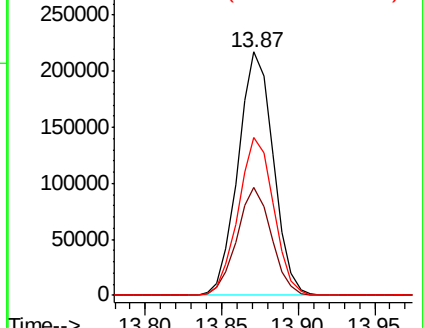
148 64.7 50.2 75.2



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#66

1,2-Dibromo-3-chloropropane

Concen: 24.765 ug/L

RT: 14.49 min Scan# 2064

Delta R.T. -0.00 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

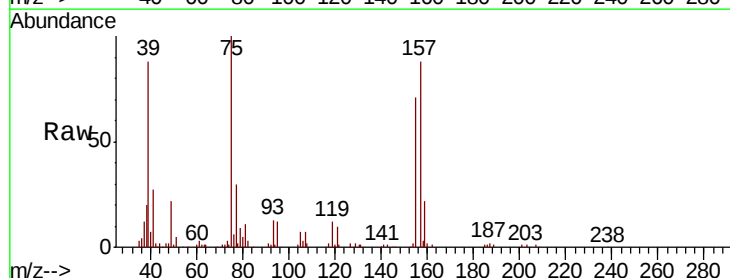
Tgt Ion: 75 Resp: 32332

Ion Ratio Lower Upper

75 100

157 87.8 89.0 133.4#

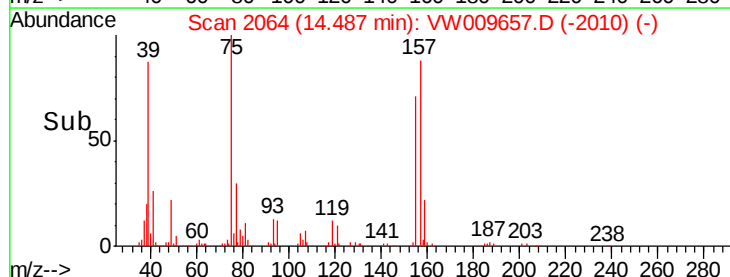
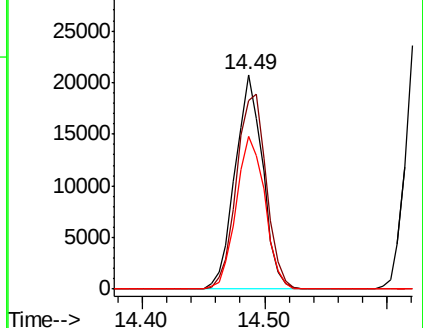
155 71.0 64.2 96.2

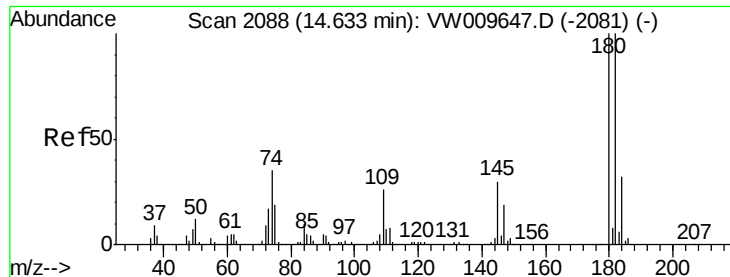


Abundance Ion 75.00 (74.70 to 75.70): VW

Ion 157.00 (156.70 to 157.70): V

Ion 155.00 (154.70 to 155.70): V

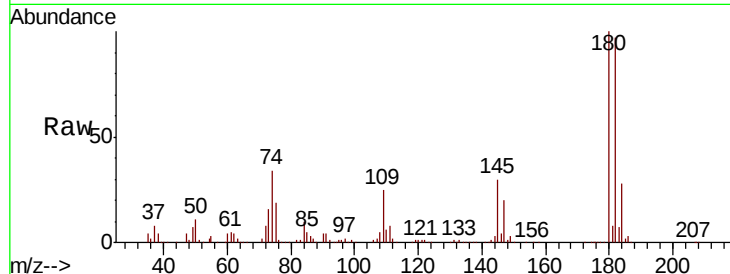




#67  
 1,3,5-Trichlorobenzene  
 Concen: 25.874 ug/L  
 RT: 14.63 min Scan# 2088  
 Delta R.T. -0.00 min  
 Lab File: VW009657.D  
 Acq: 02 Apr 2019 18:05

Instrument :  
 MSVOA\_W  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 95.3  | 76.1  | 114.1 |
| 184     | 29.9  | 23.8  | 35.6  |
| 145     | 30.1  | 23.4  | 35.2  |



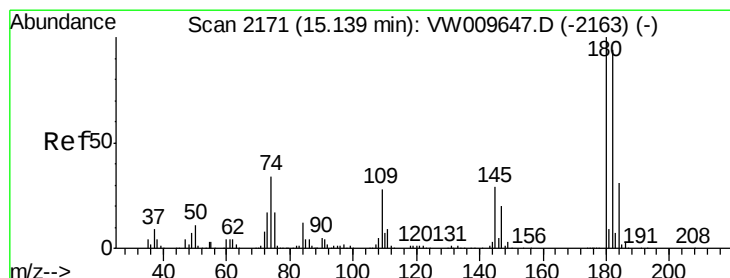
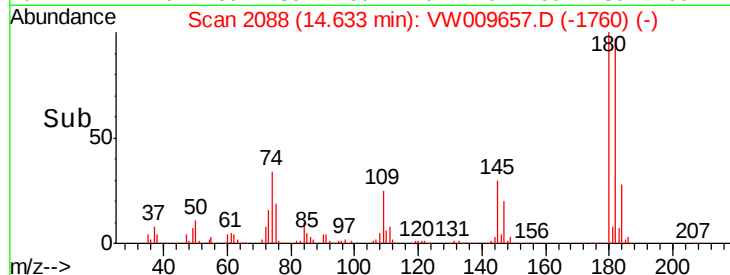
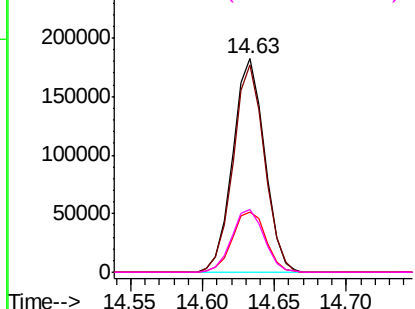
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

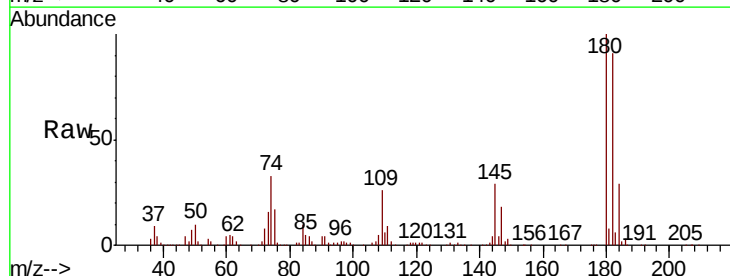
Ion 184.00 (183.70 to 184.70): V

Ion 145.00 (144.70 to 145.70): V



#68  
 1,2,4-trichlorobenzene  
 Concen: 25.053 ug/L  
 RT: 15.14 min Scan# 2171  
 Delta R.T. -0.00 min  
 Lab File: VW009657.D  
 Acq: 02 Apr 2019 18:05

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 94.5  | 75.5  | 113.3 |
| 145     | 30.3  | 24.1  | 36.1  |

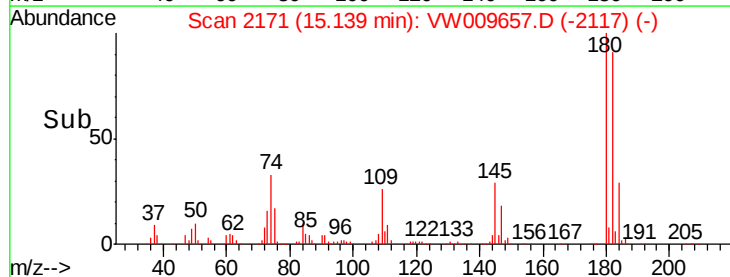
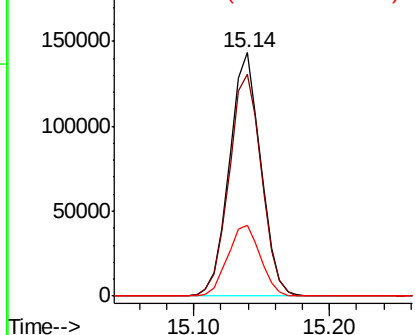


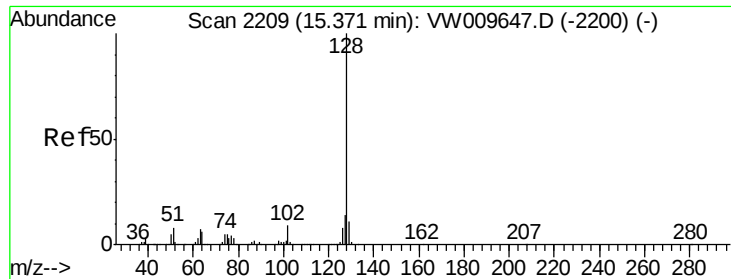
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V





#69

Naphthalene

Concen: 24.691 ug/L

RT: 15.37 min Scan# 2209

Delta R.T. -0.00 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

Instrument :

MSVOA\_W

ClientSampleId :

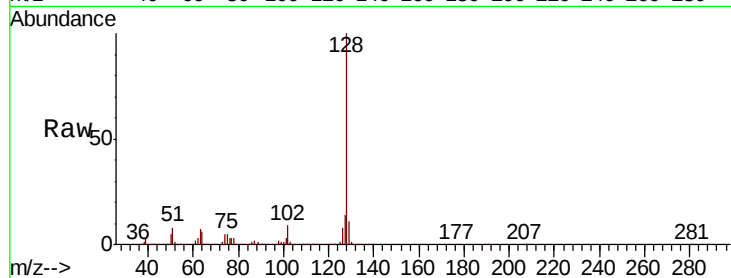
Tot Ion:128 Resp: 468480

Ion Ratio Lower Upper

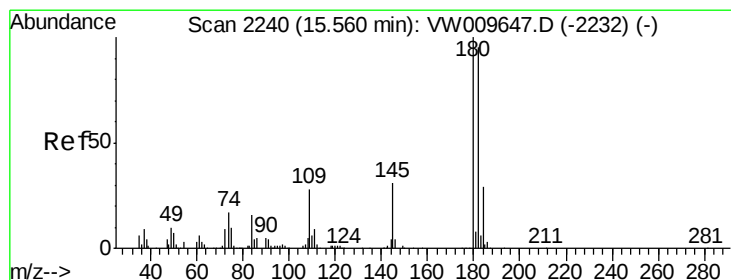
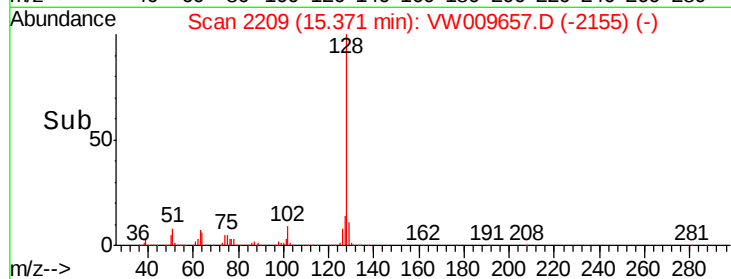
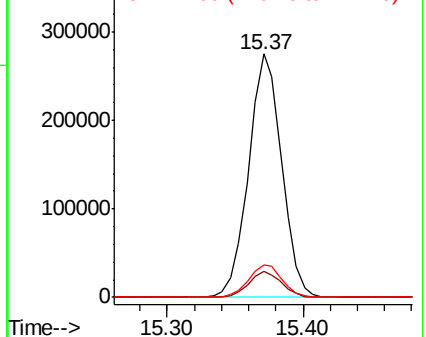
128 100

129 10.6 8.7 13.1

127 13.5 11.1 16.7



Abundance Ion 128.00 (127.70 to 128.70): V  
Ion 129.00 (128.70 to 129.70): V  
Ion 127.00 (126.70 to 127.70): V



#70

1,2,3-Trichlorobenzene

Concen: 25.175 ug/L

RT: 15.56 min Scan# 2240

Delta R.T. 0.00 min

Lab File: VW009657.D

Acq: 02 Apr 2019 18:05

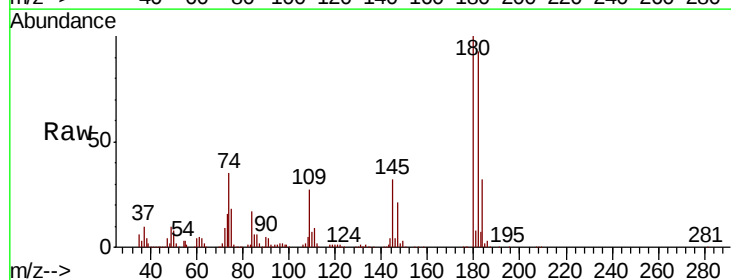
Tgt Ion:180 Resp: 215790

Ion Ratio Lower Upper

180 100

182 93.9 77.2 115.8

145 32.5 25.8 38.6



Abundance Ion 180.00 (179.70 to 180.70): V  
Ion 182.00 (181.70 to 182.70): V  
Ion 145.00 (144.70 to 145.70): V

