

Data Path : Z:\VOASRV\HPCHEM1\MSVOA V\DATA\VV101719\  
 Data File : VV013179.D  
 Acq On : 17 Oct 2019 18:24  
 Operator : SY/MD  
 Sample : IBLK  
 Misc : 25.00ML/MSVOA V/WATER  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :

Quant Time: Oct 18 03:41:12 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR101719WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Fri Oct 18 03:32:46 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.66  | 114  | 474260   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.89  | 117  | 507073   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.29 | 152  | 244398   | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 242029   | 4.82     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 96.40%  |
| 7) Chloroethane-d5             | 1.58   | 69    | 179972   | 4.75     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 95.00%  |
| 11) 1,1-Dichloroethene-d2      | 2.13   | 63    | 260667   | 3.60     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 72.00%  |
| 20) 2-Butanone-d5              | 3.97   | 46    | 559441   | 56.65    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 113.30% |
| 24) Chloroform-d               | 4.40   | 84    | 429051   | 4.86     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 97.20%  |
| 26) 1,2-Dichloroethane-d4      | 5.08   | 65    | 224874   | 5.36     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 107.20% |
| 32) Benzene-d6                 | 5.10   | 84    | 894678   | 5.05     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 101.00% |
| 36) 1,2-Dichloropropane-d6     | 6.12   | 67    | 274169   | 5.10     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 102.00% |
| 41) Toluene-d8                 | 7.36   | 98    | 750121   | 4.69     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 93.80%  |
| 43) trans-1,3-Dichloropropene- | 7.66   | 79    | 96470    | 4.96     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 99.20%  |
| 46) 2-Hexanone-d5              | 8.13   | 63    | 462927   | 57.76    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 115.52% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.26  | 84    | 217198   | 5.33     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 106.60% |
| 64) 1,2-Dichlorobenzene-d4     | 11.67  | 152   | 276632   | 5.56     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 111.20% |

## Target Compounds

|                                |       |     |       |              | Ovalue |
|--------------------------------|-------|-----|-------|--------------|--------|
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.13  | 101 | 4725  | 0.115 ug/L # | 50     |
| 12) 1,1-Dichloroethene         | 2.14  | 96  | 4090  | 0.105 ug/L # | 1      |
| 14) Carbon disulfide           | 2.32  | 76  | 18065 | 0.129 ug/L   | 98     |
| 16) Methylene chloride         | 2.54  | 84  | 11250 | 0.187 ug/L   | 91     |
| 25) Chloroform                 | 4.42  | 83  | 15957 | 0.167 ug/L   | 98     |
| 27) 1,2-Dichloroethane         | 5.10  | 62  | 3238  | 0.062 ug/L   | 98     |
| 35) Methylcyclohexane          | 6.12  | 83  | 63737 | 0.769 ug/L # | 18     |
| 37) 1,2-Dichloropropane        | 6.12  | 63  | 28929 | 0.589 ug/L # | 86     |
| 48) 2-Hexanone                 | 8.19  | 43  | 14733 | 0.746 ug/L # | 89     |
| 51) Chlorobenzene              | 8.92  | 112 | 7958  | 0.059 ug/L # | 79     |
| 55) Styrene                    | 9.61  | 104 | 7295  | 0.054 ug/L   | 98     |
| 62) 1,3-Dichlorobenzene        | 11.22 | 146 | 10872 | 0.121 ug/L   | 88     |
| 63) 1,4-Dichlorobenzene        | 11.31 | 146 | 13419 | 0.151 ug/L   | 98     |
| 65) 1,2-Dichlorobenzene        | 11.69 | 146 | 9288  | 0.111 ug/L   | 99     |
| 67) 1,3,5-Trichlorobenzene     | 12.69 | 180 | 10252 | 0.162 ug/L   | 98     |
| 68) 1,2,4-trichlorobenzene     | 13.31 | 180 | 13150 | 0.243 ug/L   | 90     |
| 69) Naphthalene                | 13.55 | 128 | 24483 | 0.310 ug/L # | 95     |

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MSVOA\_V  
ClientSampleId :

Quant Time: Oct 18 03:41:12 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR101719WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Fri Oct 18 03:32:46 2019  
Response via : Initial Calibration

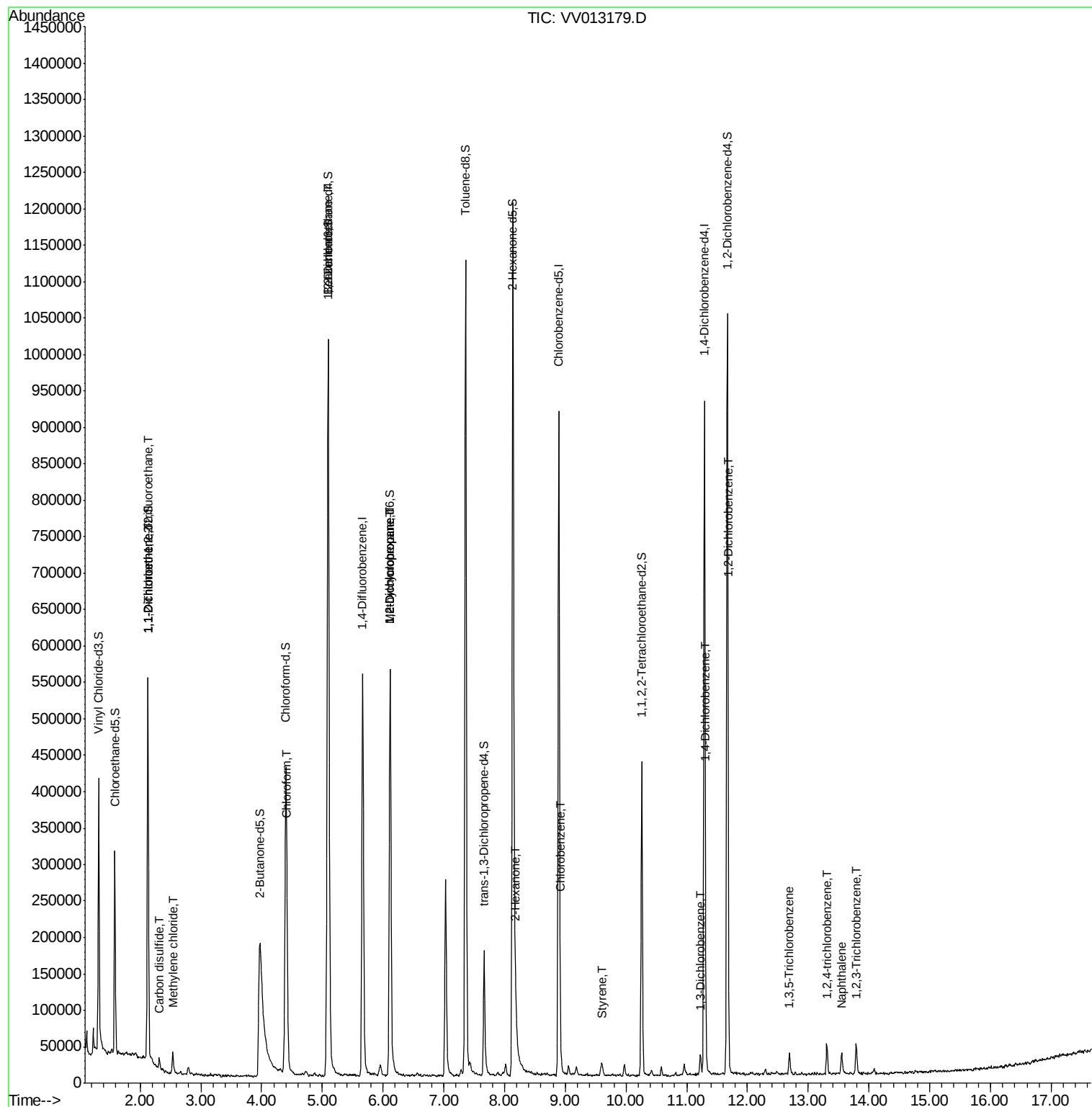
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 70) 1,2,3-Trichlorobenzene | 13.79 | 180  | 12799    | 0.248 | ug/L  | 97       |

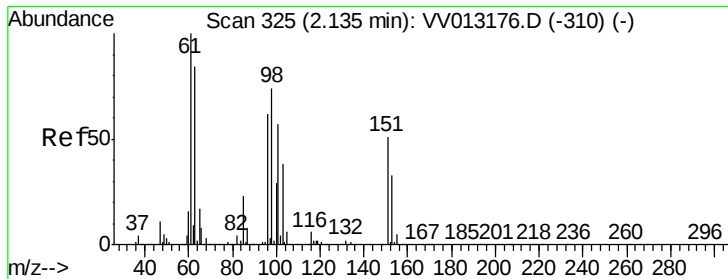
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Oct 18 03:41:12 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR101719WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Fri Oct 18 03:32:46 2019  
Response via : Initial Calibration





#10

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

Concen: 0.115 ug/L

RT: 2.13 min Scan# 323

Delta R.T. -0.01 min

Lab File: VV013179.D

Acq: 17 Oct 2019 18:24

Instrument :

MSVOA\_V

ClientSampleId :

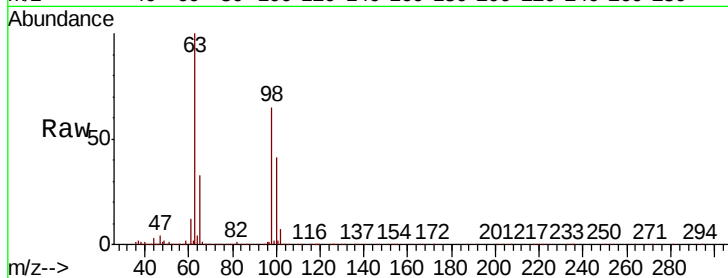
Tot Ion:101 Resp: 4725

Ion Ratio Lower Upper

101 100

85 15.4 32.4 48.6#

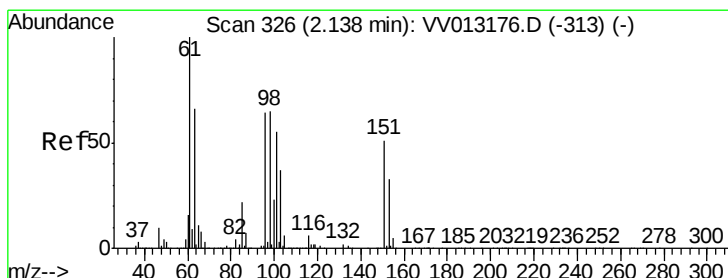
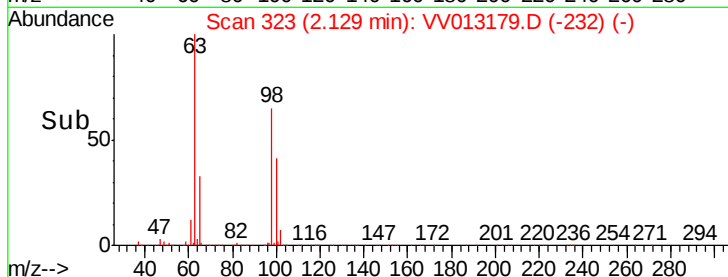
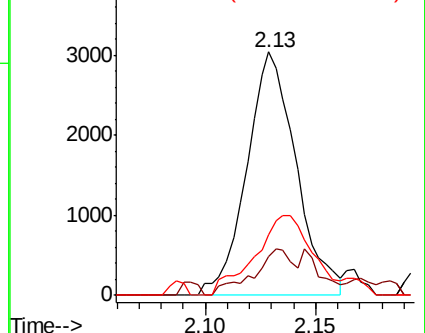
151 38.2 71.9 107.9#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VV0

Ion 151.00 (150.70 to 151.70): V



#12

1,1-Dichloroethene

Concen: 0.105 ug/L

RT: 2.14 min Scan# 325

Delta R.T. -0.00 min

Lab File: VV013179.D

Acq: 17 Oct 2019 18:24

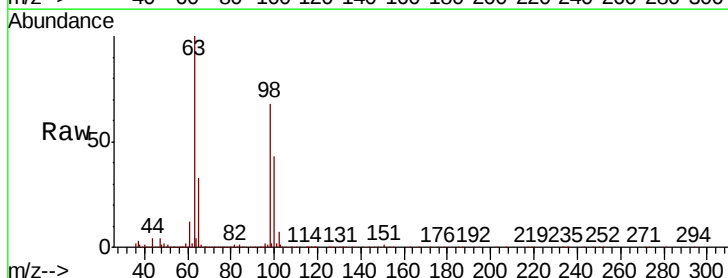
Tgt Ion: 96 Resp: 4090

Ion Ratio Lower Upper

96 100

61 717.4 109.8 204.0#

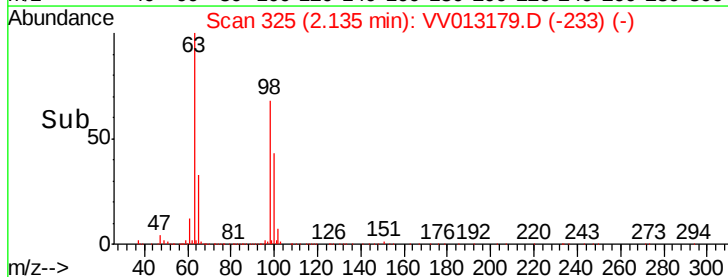
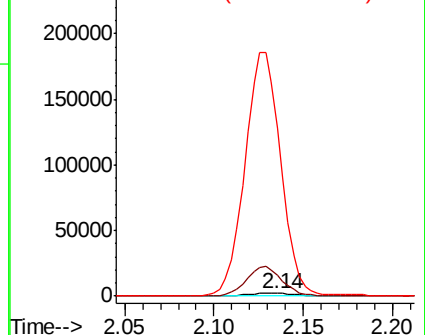
63 5850.8 72.6 134.8#

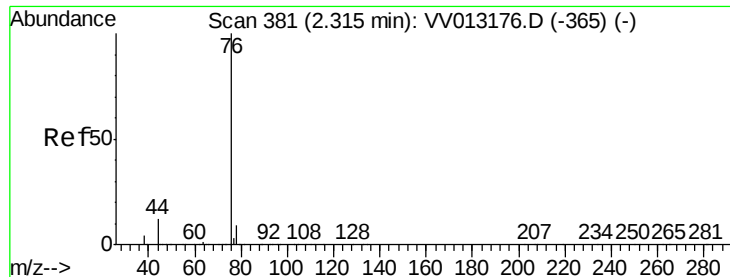


Abundance Ion 96.00 (95.70 to 96.70): VV0

Ion 61.05 (60.75 to 61.75): VV0

Ion 63.00 (62.70 to 63.70): VV0





#14

Carbon disulfide

Concen: 0.129 ug/L

RT: 2.32 min Scan# 381

Delta R.T. -0.00 min

Lab File: VV013179.D

Acq: 17 Oct 2019 18:24

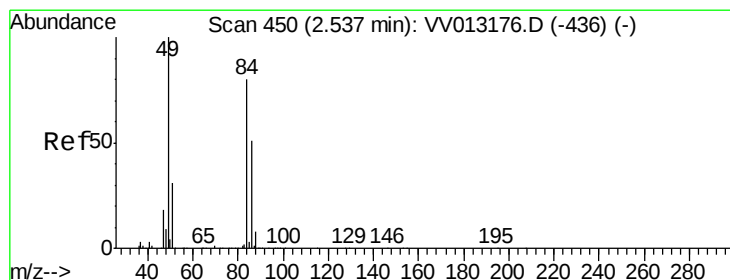
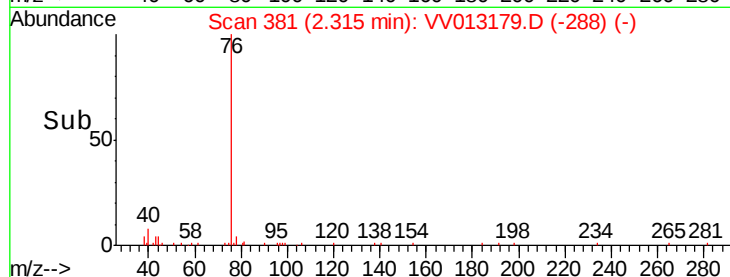
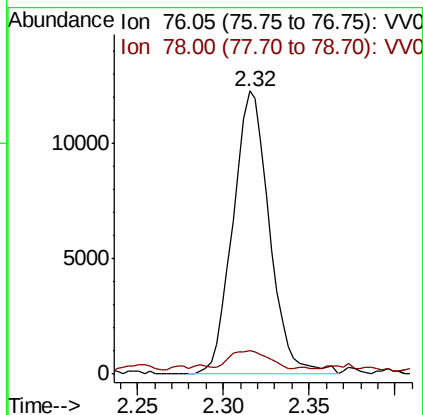
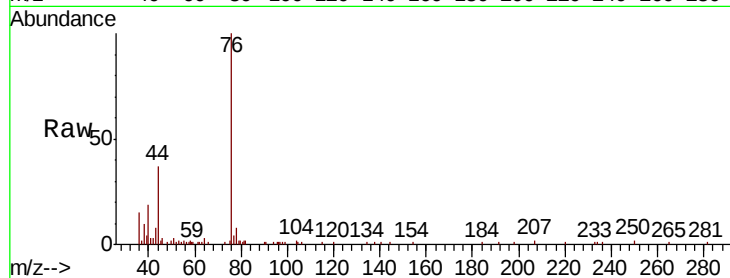
Instrument :  
MSVOA\_V  
ClientSampleId :

Tot Ion: 76 Resp: 18065

Ion Ratio Lower Upper

76 100

78 8.1 7.1 10.7



#16

Methylene chloride

Concen: 0.187 ug/L

RT: 2.54 min Scan# 451

Delta R.T. 0.00 min

Lab File: VV013179.D

Acq: 17 Oct 2019 18:24

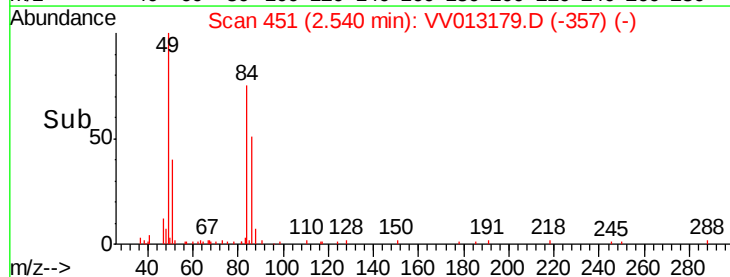
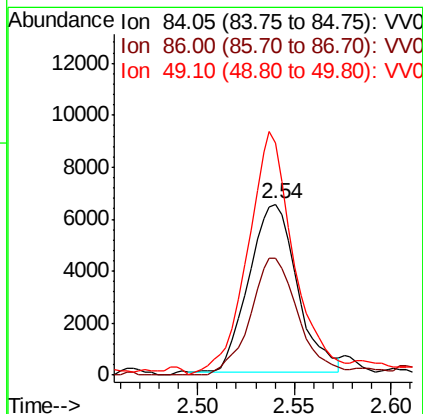
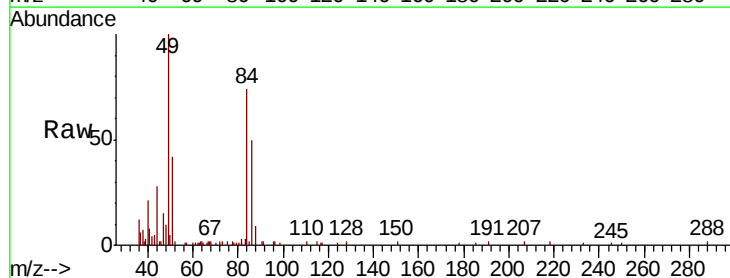
Tgt Ion: 84 Resp: 11250

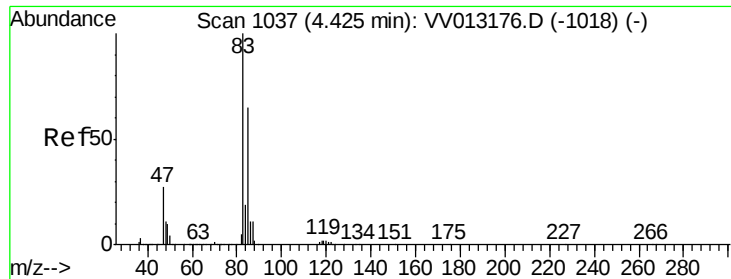
Ion Ratio Lower Upper

84 100

86 68.3 44.5 82.7

49 135.8 87.3 162.1





#25

Chloroform

Concen: 0.167 ug/L

RT: 4.42 min Scan# 1037

Delta R.T. -0.00 min

Lab File: VV013179.D

Acq: 17 Oct 2019 18:24

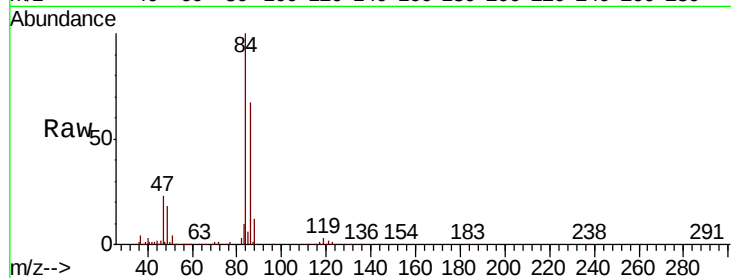
Instrument :  
MSVOA\_V  
ClientSampleId :

Tot Ion: 83 Resp: 15957

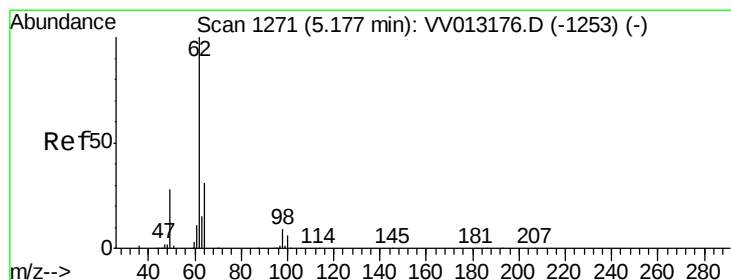
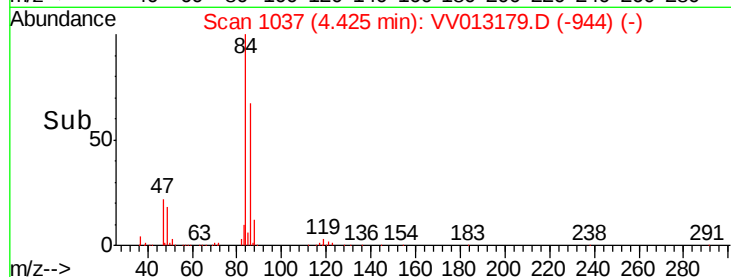
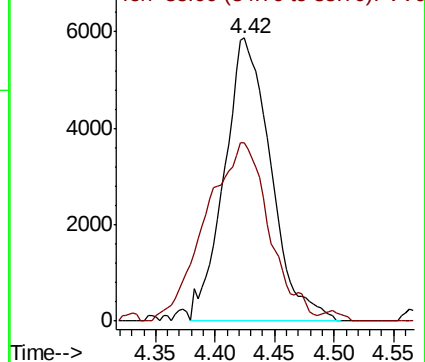
Ion Ratio Lower Upper

83 100

85 63.1 45.5 84.5



Abundance Ion 83.05 (82.75 to 83.75): VV0  
Ion 85.00 (84.70 to 85.70): VV0



#27

1,2-Dichloroethane

Concen: 0.062 ug/L

RT: 5.10 min Scan# 1246

Delta R.T. -0.08 min

Lab File: VV013179.D

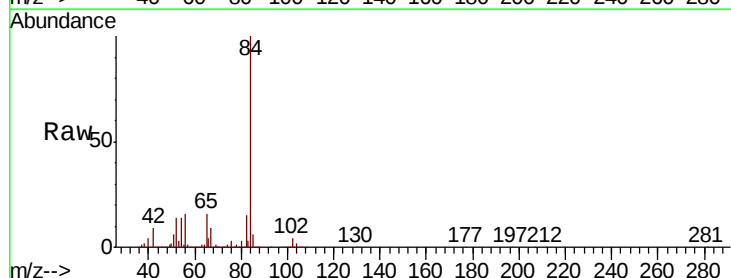
Acq: 17 Oct 2019 18:24

Tgt Ion: 62 Resp: 3238

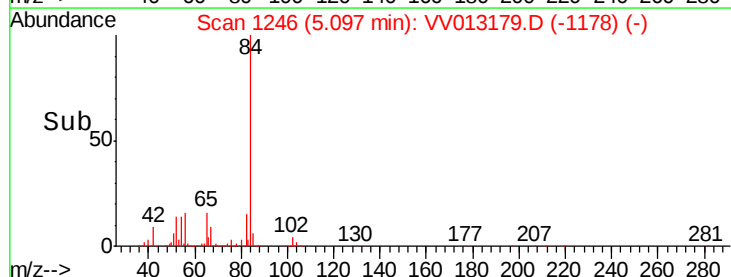
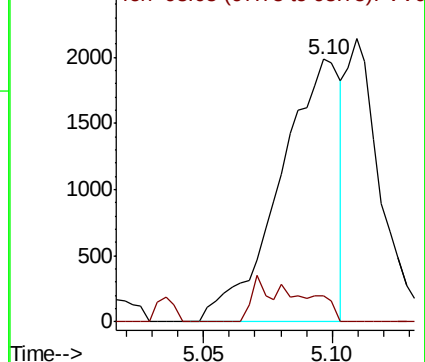
Ion Ratio Lower Upper

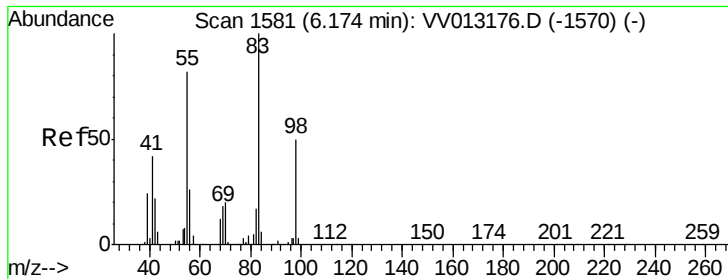
62 100

98 10.2 7.4 11.2



Abundance Ion 62.00 (61.70 to 62.70): VV0  
Ion 98.05 (97.75 to 98.75): VV0

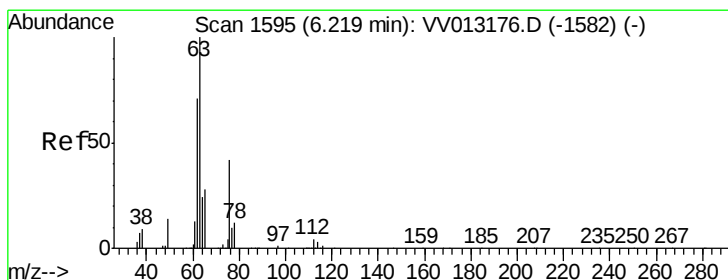
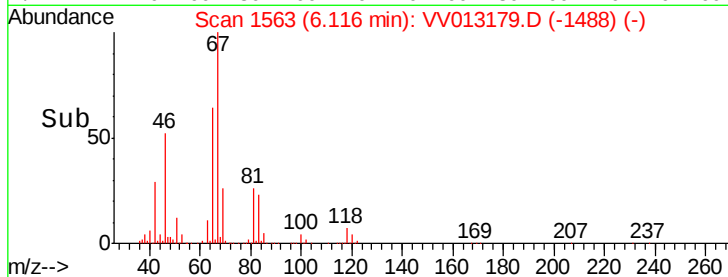
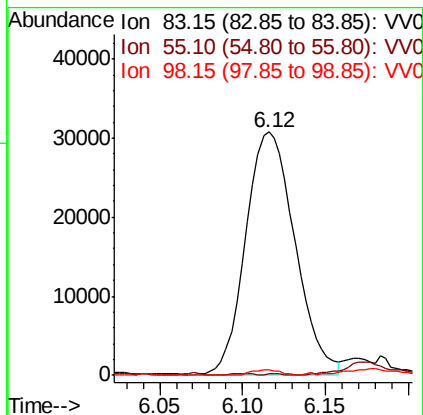
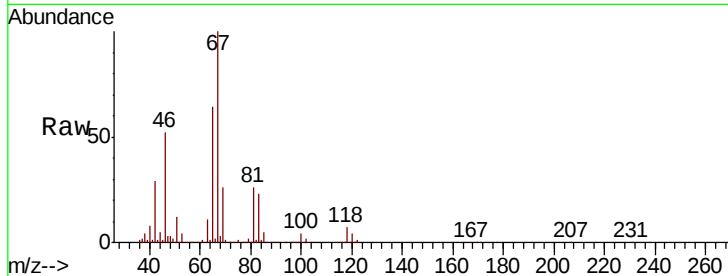




#35  
Methvlcvclohexane  
Concen: 0.769 ug/L  
RT: 6.12 min Scan# 1563  
Delta R.T. -0.06 min  
Lab File: VV013179.D  
Acq: 17 Oct 2019 18:24

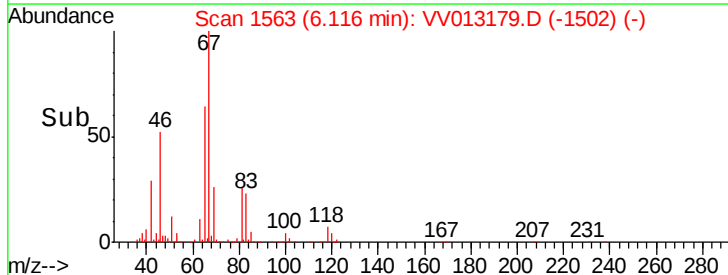
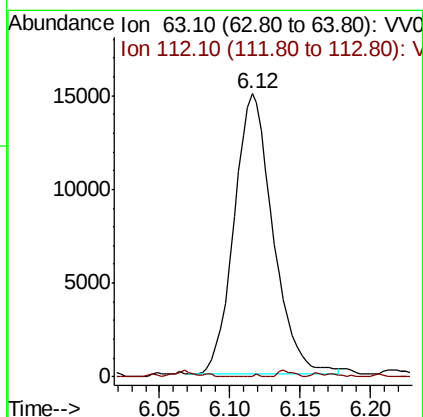
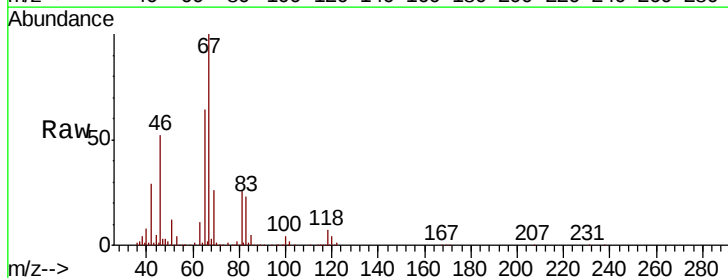
Instrument :  
MSVOA\_V  
ClientSampleId :

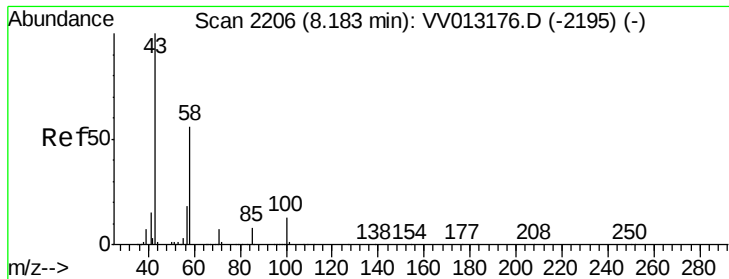
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 55      | 0.2   | 64.0  | 96.0# |
| 98      | 1.3   | 38.6  | 57.8# |



#37  
1,2-Dichloropropane  
Concen: 0.589 ug/L  
RT: 6.12 min Scan# 1563  
Delta R.T. -0.10 min  
Lab File: VV013179.D  
Acq: 17 Oct 2019 18:24

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 112     | 0.1   | 3.8   | 5.8#  |

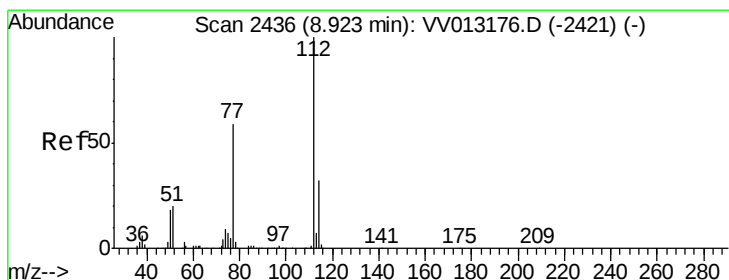
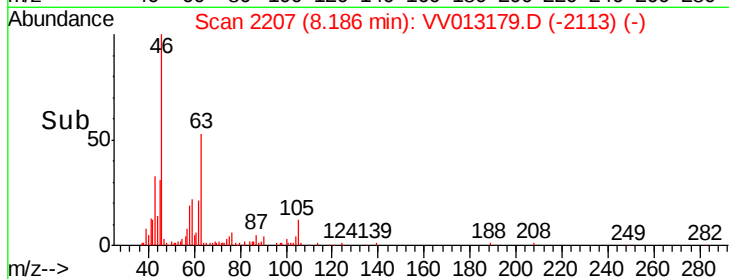
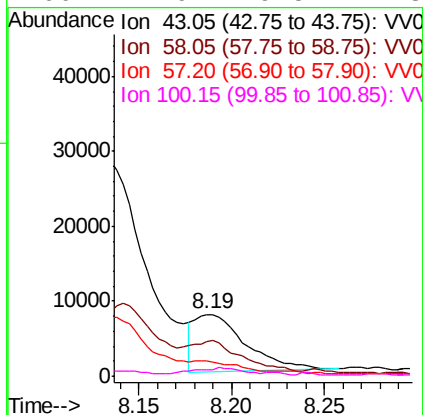
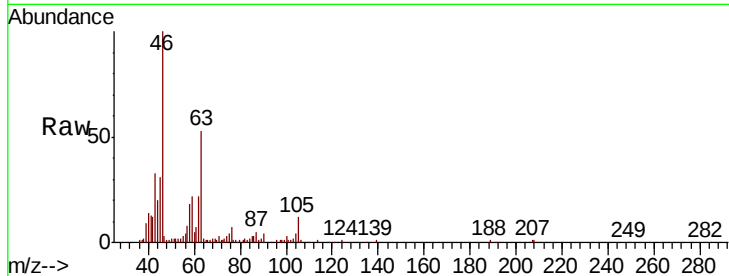




#48  
2-Hexanone  
Concen: 0.746 ug/L  
RT: 8.19 min Scan# 2207  
Delta R.T. 0.00 min  
Lab File: VV013179.D  
Acq: 17 Oct 2019 18:24

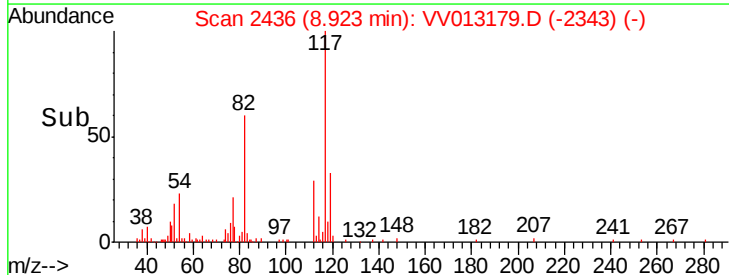
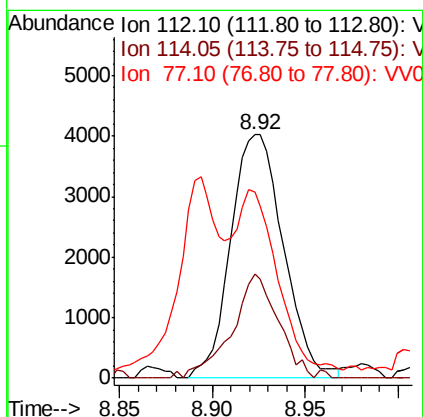
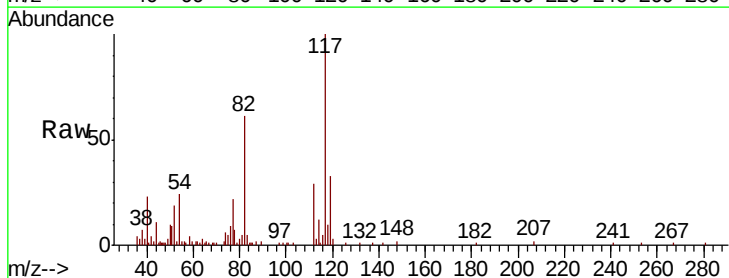
Instrument :  
MSVOA\_V  
ClientSampleId :

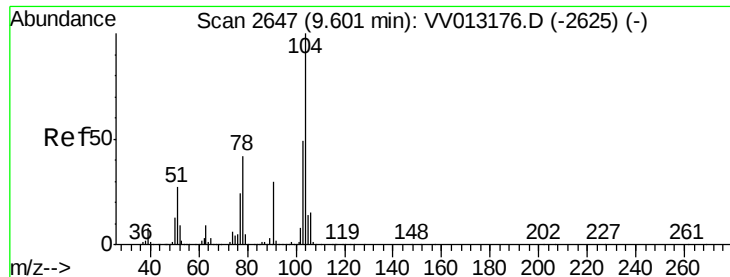
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 43    | Resp: | 14733 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 58       | 53.9  | 44.2  | 66.2  |
| 57       | 0.0   | 14.5  | 21.7# |
| 100      | 14.9  | 9.5   | 14.3# |



#51  
Chlorobenzene  
Concen: 0.059 ug/L  
RT: 8.92 min Scan# 2436  
Delta R.T. -0.00 min  
Lab File: VV013179.D  
Acq: 17 Oct 2019 18:24

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 112   | Resp: | 7958  |
| Ion      | Ratio | Lower | Upper |
| 112      | 100   |       |       |
| 114      | 42.6  | 22.6  | 42.0# |
| 77       | 76.6  | 47.5  | 71.3# |





#55

Stvrene

Concen: 0.054 ug/L

RT: 9.61 min Scan# 2649

Delta R.T. 0.01 min

Lab File: VV013179.D

Acq: 17 Oct 2019 18:24

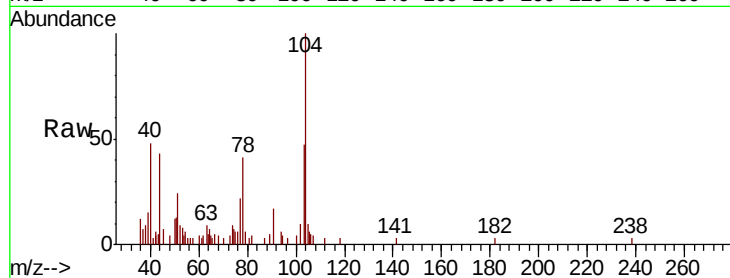
Instrument :  
MSVOA\_V  
ClientSampled :

Tot Ion:104 Resp: 7295

Ion Ratio Lower Upper

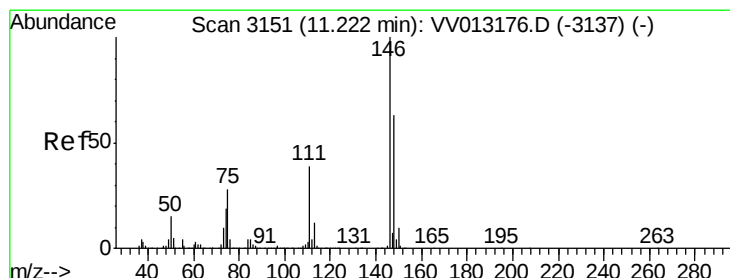
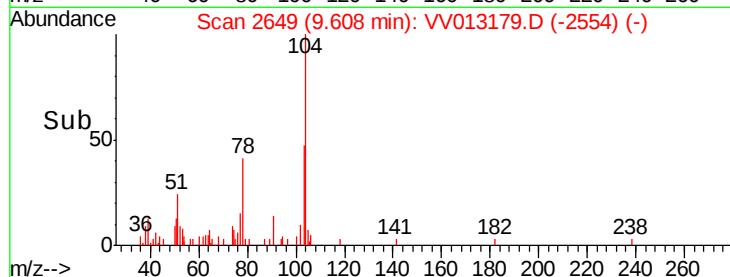
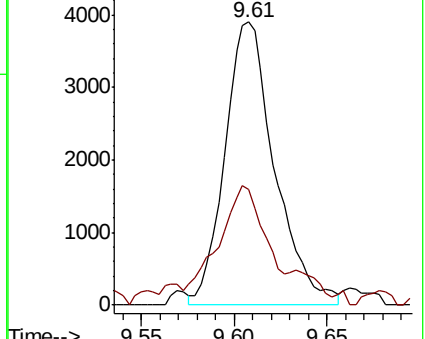
104 100

78 40.9 29.5 54.9



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VV0



#62

1,3-Dichlorobenzene

Concen: 0.121 ug/L

RT: 11.22 min Scan# 3152

Delta R.T. 0.00 min

Lab File: VV013179.D

Acq: 17 Oct 2019 18:24

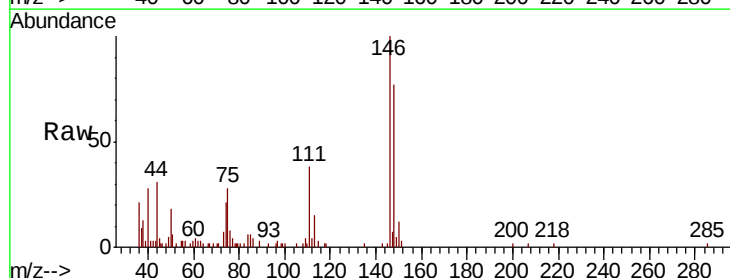
Tgt Ion:146 Resp: 10872

Ion Ratio Lower Upper

146 100

111 37.8 27.1 50.3

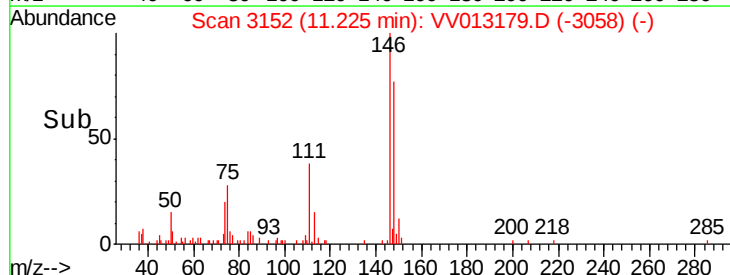
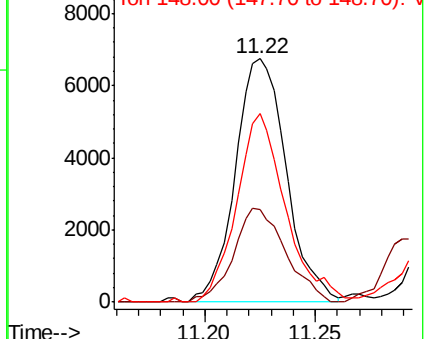
148 77.3 44.4 82.5

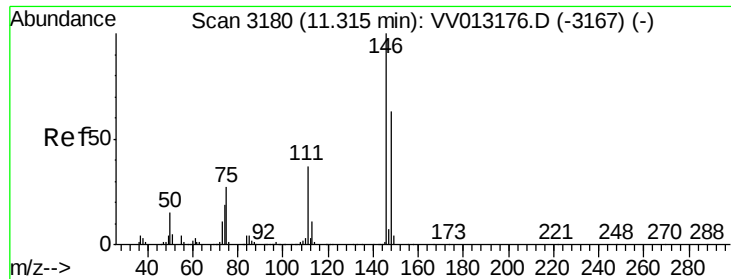


Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V





#63

1,4-Dichlorobenzene

Concen: 0.151 ug/L

RT: 11.31 min Scan# 3180

Delta R.T. -0.00 min

Lab File: VV013179.D

Acq: 17 Oct 2019 18:24

Instrument :

MSVOA\_V

ClientSampleId :

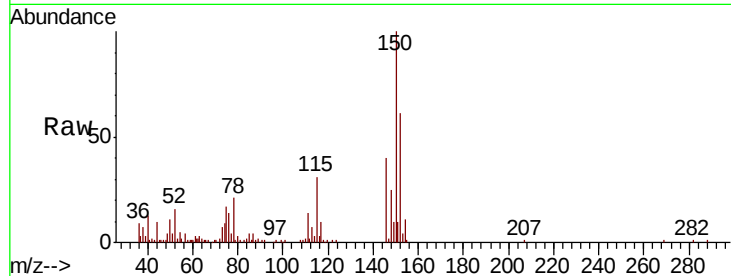
Tot Ion:146 Resp: 13419

Ion Ratio Lower Upper

146 100

111 33.7 25.7 47.7

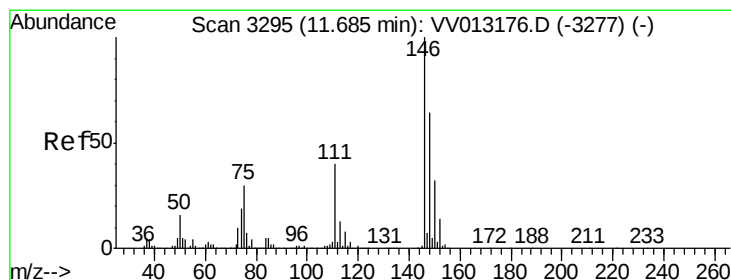
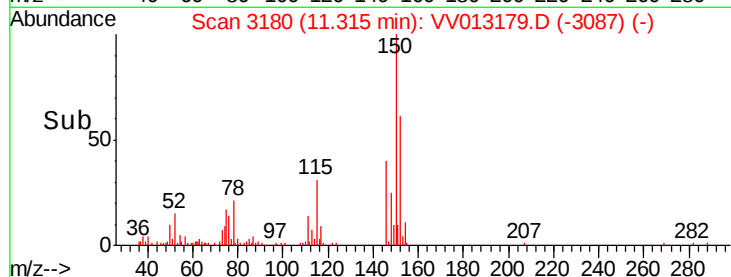
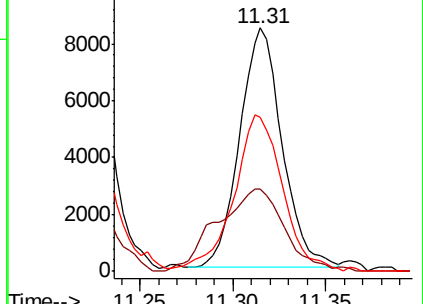
148 63.2 44.4 82.5



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: 0.111 ug/L

RT: 11.69 min Scan# 3296

Delta R.T. 0.00 min

Lab File: VV013179.D

Acq: 17 Oct 2019 18:24

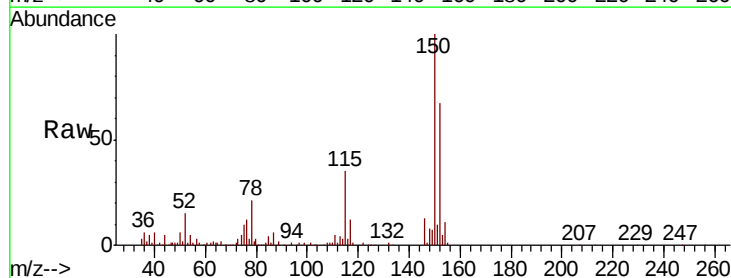
Tgt Ion:146 Resp: 9288

Ion Ratio Lower Upper

146 100

111 39.5 31.9 47.9

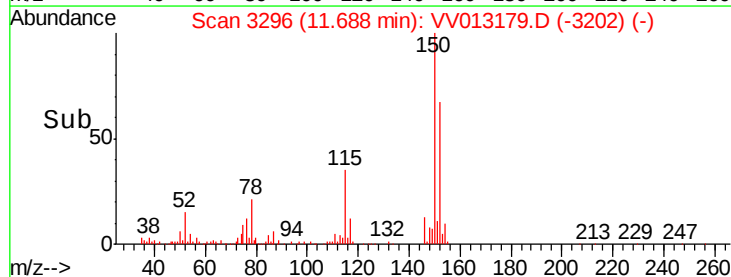
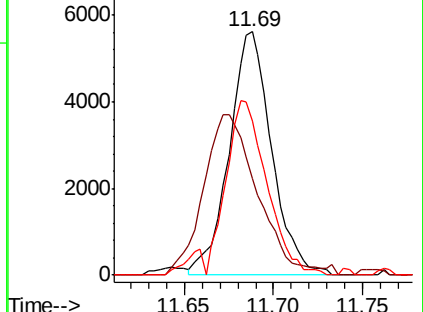
148 63.0 51.4 77.2

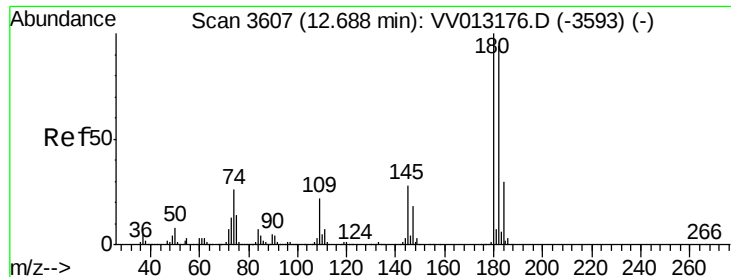


Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V

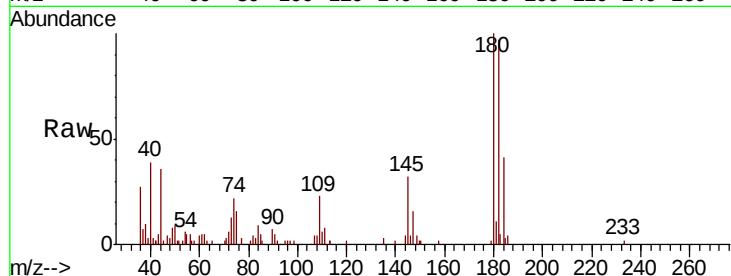




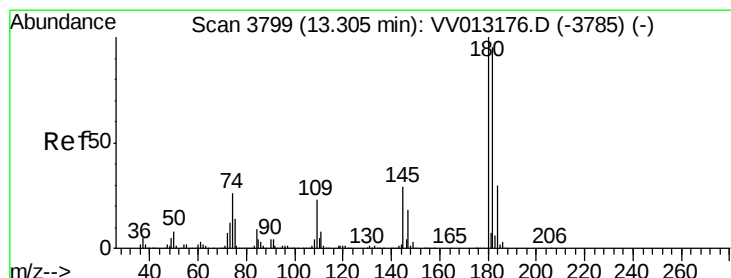
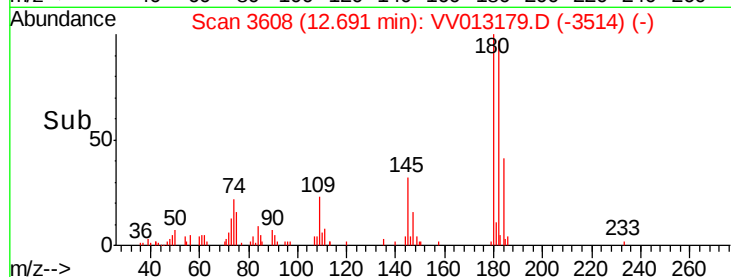
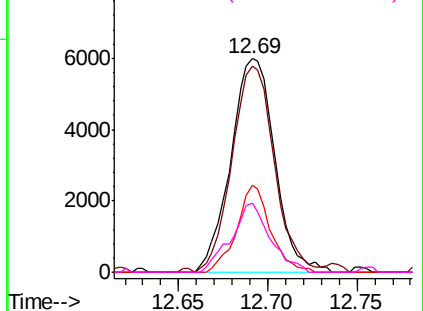
#67  
 1,3,5-Trichlorobenzene  
 Concen: 0.162 ug/L  
 RT: 12.69 min Scan# 3608  
 Delta R.T. 0.00 min  
 Lab File: VV013179.D  
 Acq: 17 Oct 2019 18:24

Instrument :  
 MSVOA\_V  
 ClientSampleId :

|             |       |            |
|-------------|-------|------------|
| Tot Ion:180 | Resp: | 10252      |
| Ion Ratio   | Lower | Upper      |
| 180         | 100   |            |
| 182         | 93.0  | 75.8 113.6 |
| 184         | 31.2  | 24.2 36.4  |
| 145         | 28.8  | 22.1 33.1  |

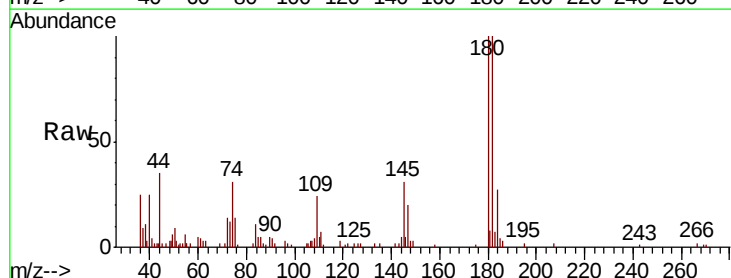


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

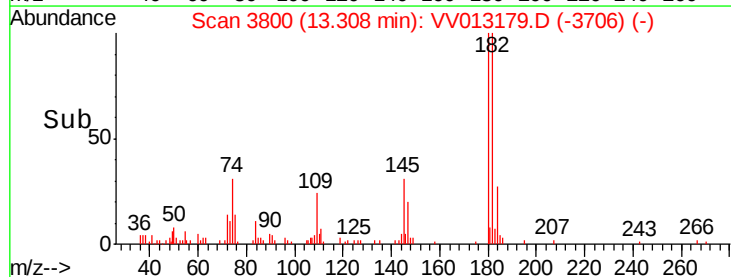
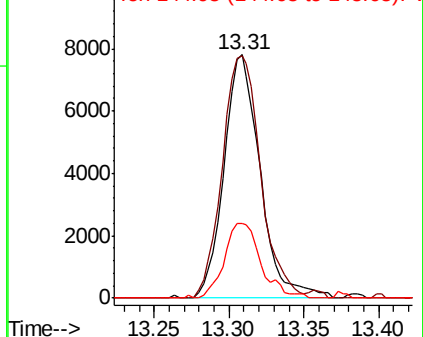


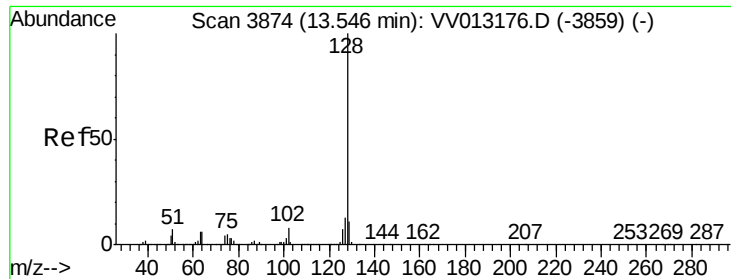
#68  
 1,2,4-trichlorobenzene  
 Concen: 0.243 ug/L  
 RT: 13.31 min Scan# 3800  
 Delta R.T. 0.00 min  
 Lab File: VV013179.D  
 Acq: 17 Oct 2019 18:24

|             |       |            |
|-------------|-------|------------|
| Tgt Ion:180 | Resp: | 13150      |
| Ion Ratio   | Lower | Upper      |
| 180         | 100   |            |
| 182         | 105.2 | 75.9 113.9 |
| 145         | 31.1  | 22.4 33.6  |



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: 0.310 ug/L

RT: 13.55 min Scan# 3875

Delta R.T. 0.00 min

Lab File: VV013179.D

Acq: 17 Oct 2019 18:24

Instrument :

MSVOA\_V

ClientSampleId :

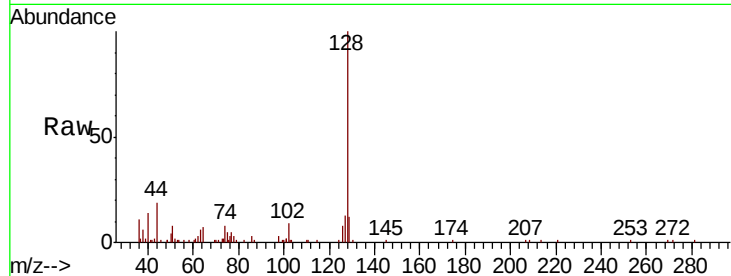
Tot Ion:128 Resp: 24483

Ion Ratio Lower Upper

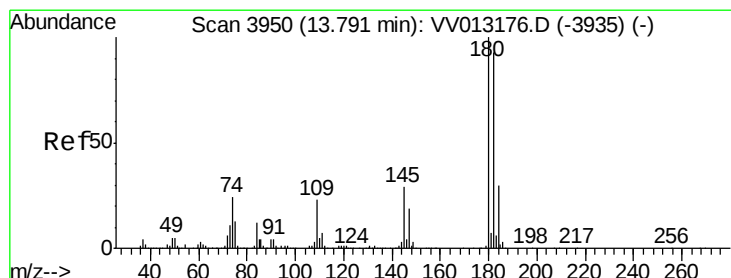
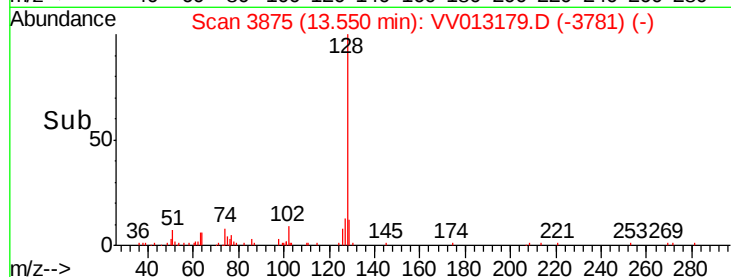
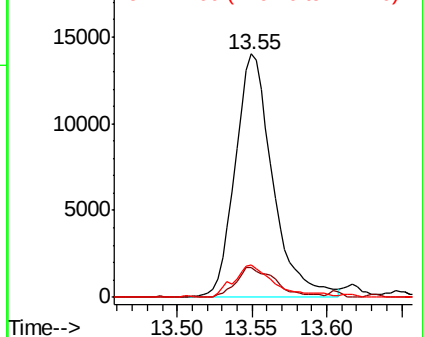
128 100

129 13.0 8.6 13.0#

127 14.6 10.4 15.6



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: 0.248 ug/L

RT: 13.79 min Scan# 3950

Delta R.T. -0.00 min

Lab File: VV013179.D

Acq: 17 Oct 2019 18:24

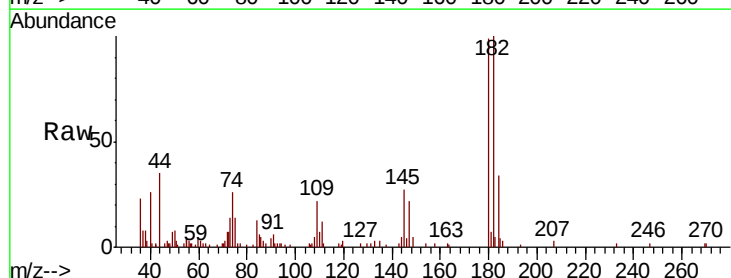
Tgt Ion:180 Resp: 12799

Ion Ratio Lower Upper

180 100

182 98.8 76.5 114.7

145 29.2 23.8 35.6



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

