

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_V\DATA\VV112018\  
 Data File : VV008686.D  
 Acq On : 20 Nov 2018 20:37  
 Operator : SY/MD  
 Sample : J5997-18  
 Misc : 5.0 mL/MSVOA\_V/WATER  
 ALS Vial : 24 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VHBLK02

Quant Time: Nov 21 01:37:15 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVLM112018WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Wed Nov 21 01:28:05 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.67  | 114  | 247751   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.90  | 117  | 216666   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.30 | 152  | 83702    | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |         |
|--------------------------------|---------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.32    | 65    | 75104    | 42.97    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 85.94%  |
| 7) Chloroethane-d5             | 1.57    | 69    | 53826    | 56.37    | ug/L | -0.01   |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 112.74% |
| 11) 1,1-Dichloroethene-d2      | 2.13    | 63    | 105717   | 36.65    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 73.30%  |
| 21) 2-Butanone-d5              | 3.94    | 46    | 134825   | 94.64    | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 94.64%  |
| 24) Chloroform-d               | 4.41    | 84    | 159424   | 45.03    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 90.06%  |
| 26) 1,2-Dichloroethane-d4      | 5.09    | 65    | 105913   | 46.77    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 93.54%  |
| 32) Benzene-d6                 | 5.10    | 84    | 337820   | 50.12    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 100.24% |
| 36) 1,2-Dichloropropane-d6     | 6.12    | 67    | 104146   | 49.43    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 98.86%  |
| 41) Toluene-d8                 | 7.36    | 98    | 294999   | 48.77    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 97.54%  |
| 43) trans-1,3-Dichloropropene- | 7.67    | 79    | 39941    | 42.39    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 84.78%  |
| 47) 2-Hexanone-d5              | 8.14    | 63    | 86810    | 91.13    | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 91.13%  |
| 57) 1,1,2,2-Tetrachloroethane- | 10.26   | 84    | 125438   | 43.65    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 87.30%  |
| 64) 1,2-Dichlorobenzene-d4     | 11.68   | 152   | 91023    | 49.82    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 99.64%  |

## Target Compounds

|                                |       |     |       |              | Qvalue |
|--------------------------------|-------|-----|-------|--------------|--------|
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.13  | 101 | 1226  | 0.875 ug/L # | 30     |
| 12) 1,1-Dichloroethene         | 2.13  | 96  | 1443  | 1.147 ug/L # | 1      |
| 16) Methylene chloride         | 2.54  | 84  | 782   | 0.401 ug/L   | 93     |
| 17) trans-1,2-Dichloroethene   | 2.79  | 96  | 651   | 0.373 ug/L   | 75     |
| 39) cis-1,3-Dichloropropene    | 7.04  | 75  | 2629  | 0.983 ug/L # | 53     |
| 42) Toluene                    | 7.43  | 91  | 23335 | 3.221 ug/L   | 95     |
| 44) trans-1,3-Dichloropropene  | 7.67  | 75  | 2101  | 0.864 ug/L # | 81     |
| 53) m,p-Xylene                 | 9.18  | 106 | 1406  | 0.481 ug/L   | 80     |
| 58) 1,1,2,2-Tetrachloroethane  | 10.28 | 83  | 1026  | 0.353 ug/L # | 3      |
| 62) 1,3-Dichlorobenzene        | 11.23 | 146 | 1462  | 0.521 ug/L   | 94     |
| 63) 1,4-Dichlorobenzene        | 11.32 | 146 | 1649  | 0.577 ug/L   | 91     |
| 67) 1,3,5-Trichlorobenzene     | 12.70 | 180 | 1134  | 0.581 ug/L   | 95     |
| 68) 1,2,4-trichlorobenzene     | 13.31 | 180 | 1016  | 0.686 ug/L # | 18     |
| 69) Naphthalene                | 13.55 | 128 | 3538  | 0.839 ug/L # | 94     |
| 70) 1,2,3-Trichlorobenzene     | 13.80 | 180 | 883   | 0.580 ug/L # | 96     |

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Misc : 5.0 mL/MSVOA\_V/WATER  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
VHBLK02

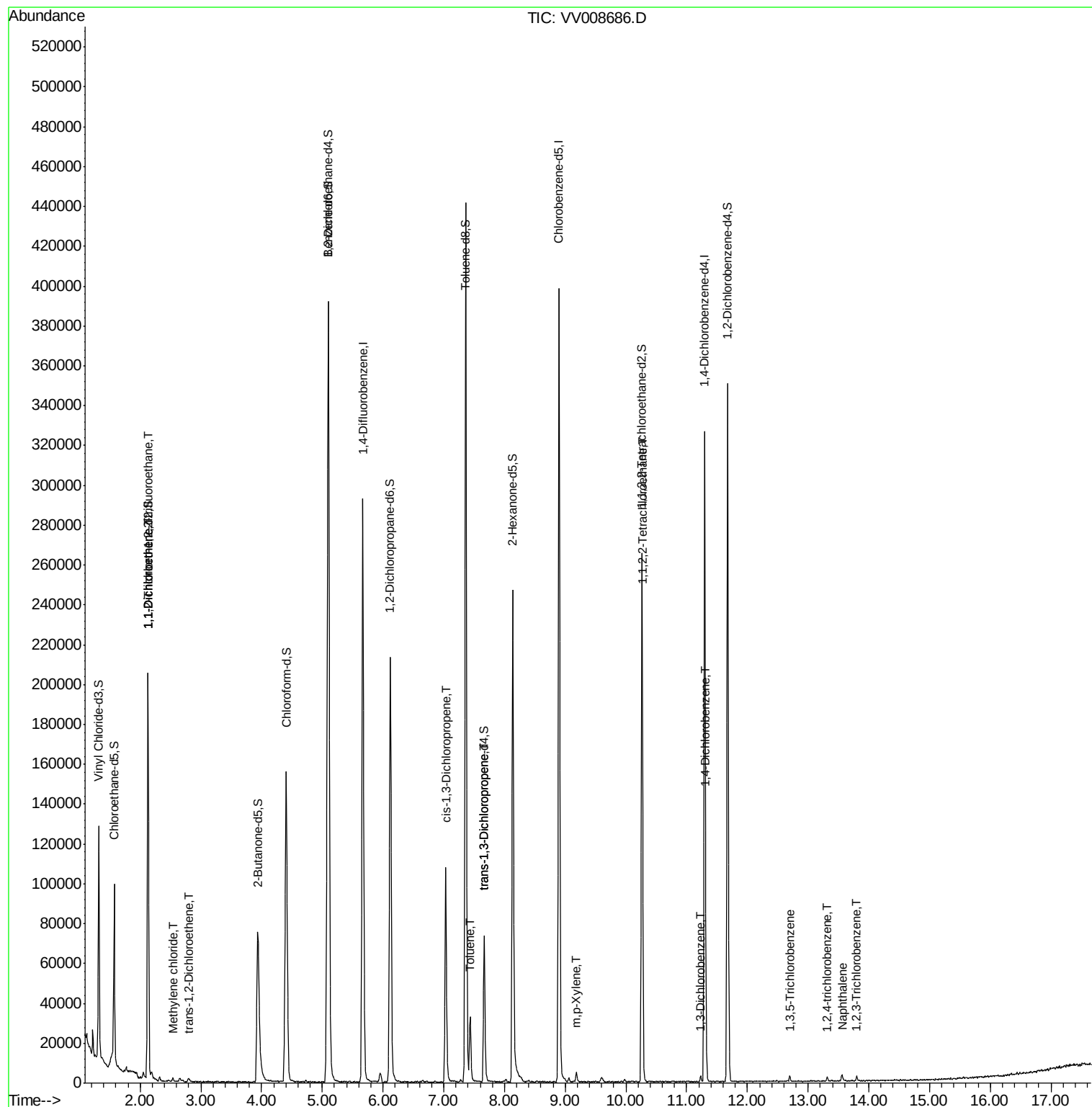
Quant Time: Nov 21 01:37:15 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVLM112018WMA.M  
Quant Title : VOC Analysis  
QLast Update : Wed Nov 21 01:28:05 2018  
Response via : Initial Calibration

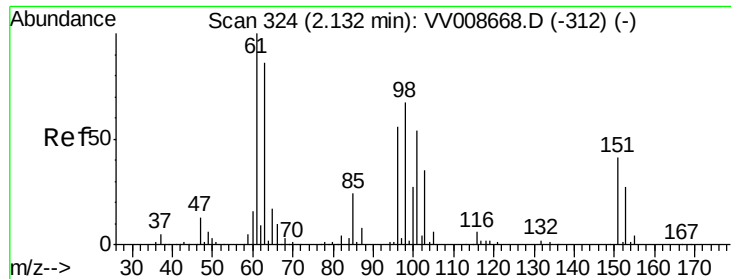
| Internal Standards                                                         | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------------------------------------------------------|------|------|----------|------|-------|----------|
| -----                                                                      |      |      |          |      |       |          |
| (#) = qualifier out of range (m) = manual integration (+) = signals summed |      |      |          |      |       |          |

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA\_V\DATA\VV112018\  
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Quant Title : VOC Analysis  
QLast Update : Wed Nov 21 01:28:05 2018  
Response via : Initial Calibration





#10

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

Concen: 0.875 ug/L

RT: 2.13 min Scan# 323

Delta R.T. -0.01 min

Lab File: VV008686.D

Acq: 20 Nov 2018 20:37

Instrument :

MSVOA\_V

ClientSampleId :

VHBLK02

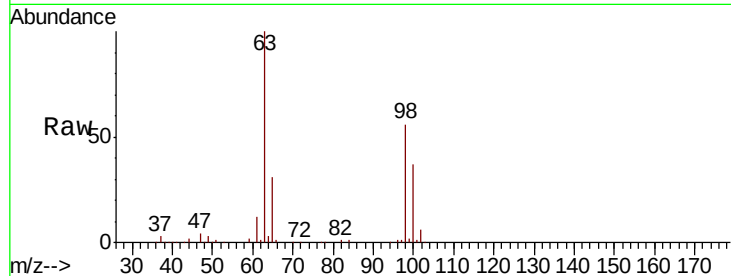
Tgt Ion:101 Resp: 1226

Ion Ratio Lower Upper

101 100

85 5.5 37.0 55.6#

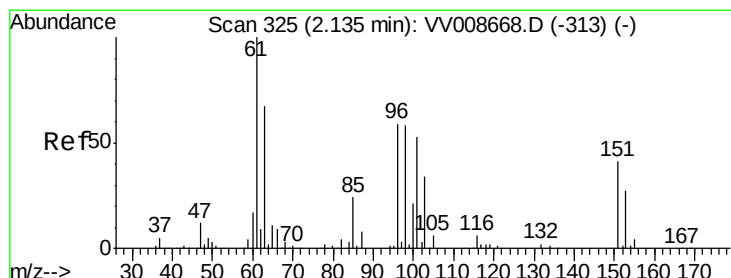
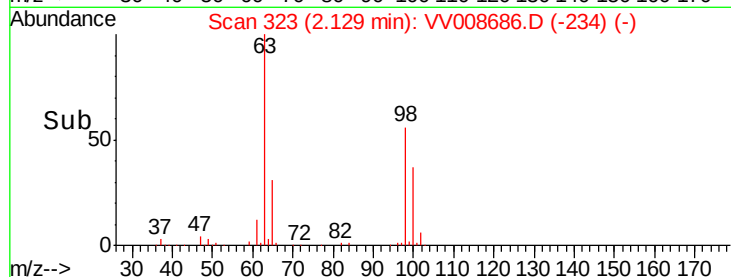
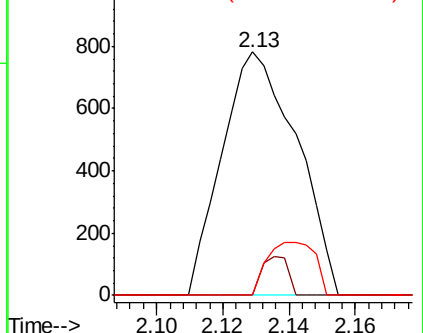
151 14.0 63.8 95.8#



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: 1.147 ug/L

RT: 2.13 min Scan# 324

Delta R.T. -0.01 min

Lab File: VV008686.D

Acq: 20 Nov 2018 20:37

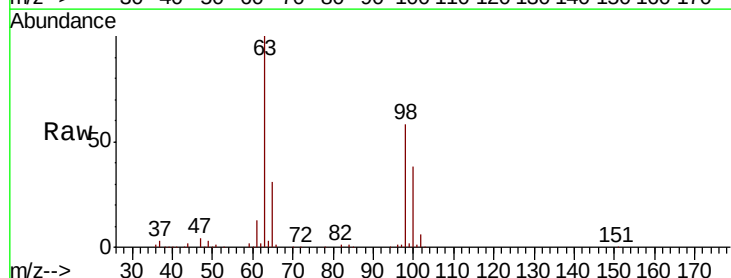
Tgt Ion: 96 Resp: 1443

Ion Ratio Lower Upper

96 100

61 996.6 120.3 223.3#

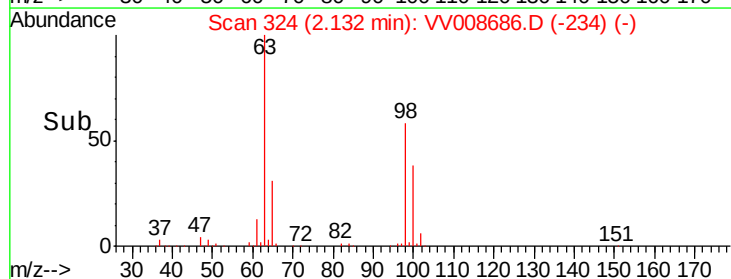
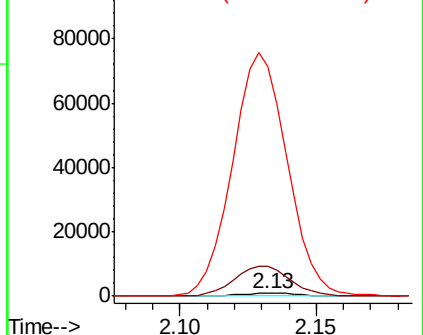
63 7827.4 113.3 210.5#

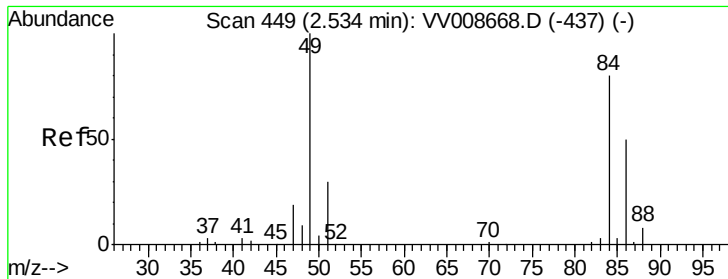


Abundance Ion 96.00 (95.70 to 96.70): VV0

Ion 61.00 (60.70 to 61.70): VV0

Ion 63.00 (62.70 to 63.70): VV0

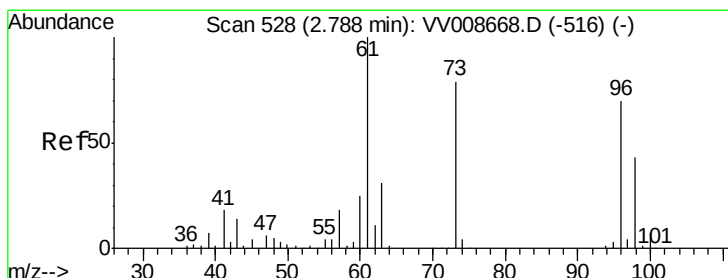
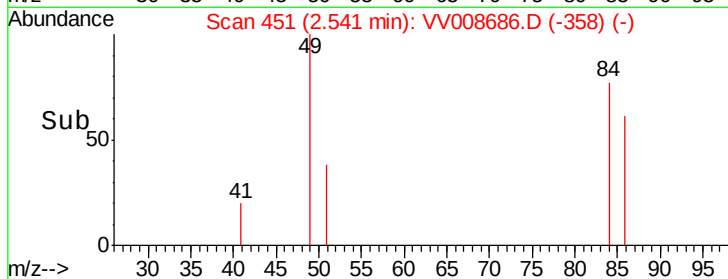
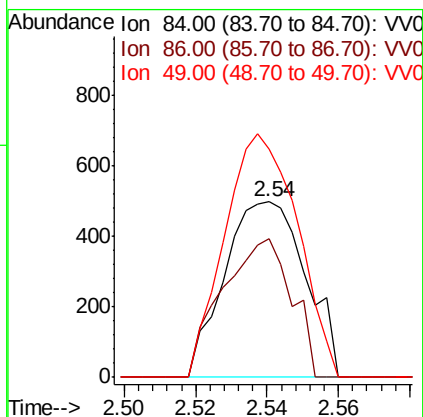
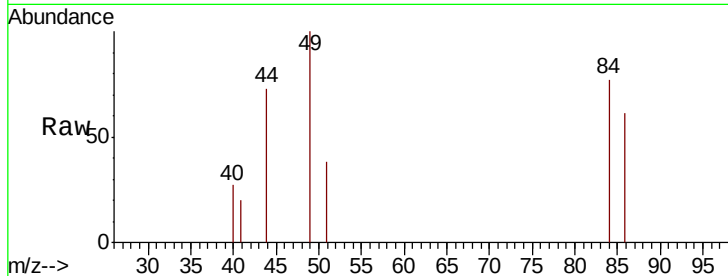




#16  
Methylene chloride  
Concen: 0.401 ug/L  
RT: 2.54 min Scan# 451  
Delta R.T. 0.00 min  
Lab File: VV008686.D  
Acq: 20 Nov 2018 20:37

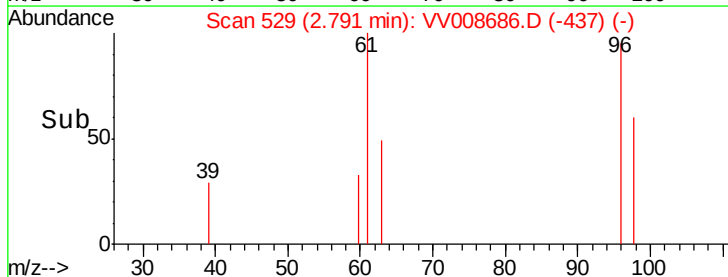
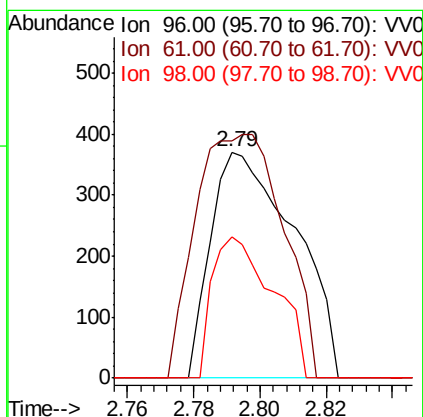
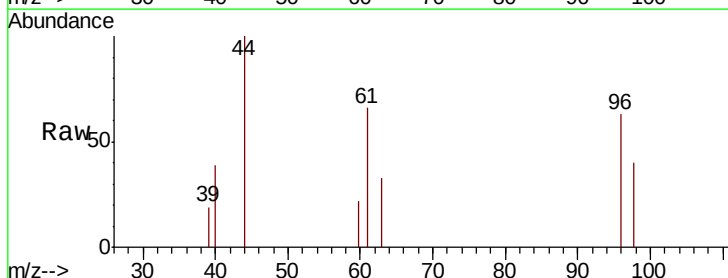
Instrument :  
MSVOA\_V  
ClientSampled :  
VHBLK02

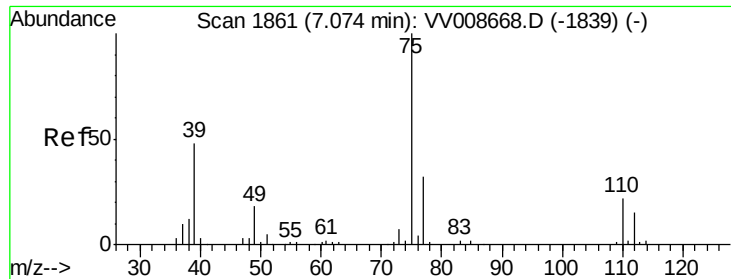
Tgt Ion: 84 Resp: 782  
Ion Ratio Lower Upper  
84 100  
86 79.3 50.6 94.0  
49 130.1 86.5 160.7



#17  
trans-1,2-Dichloroethene  
Concen: 0.373 ug/L  
RT: 2.79 min Scan# 529  
Delta R.T. -0.00 min  
Lab File: VV008686.D  
Acq: 20 Nov 2018 20:37

Tgt Ion: 96 Resp: 651  
Ion Ratio Lower Upper  
96 100  
61 104.9 100.4 186.4  
98 62.5 39.5 73.3

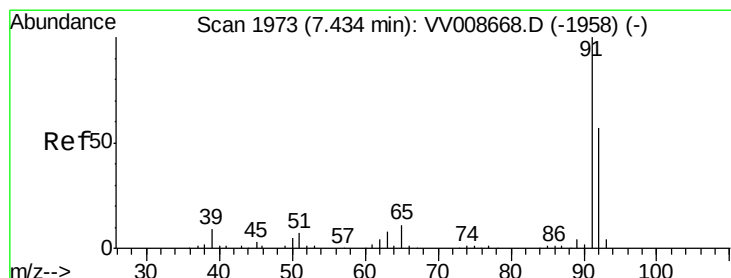
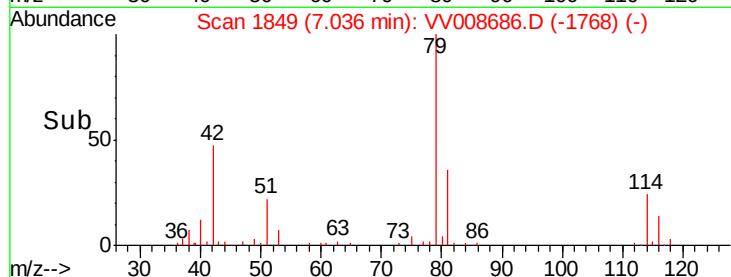
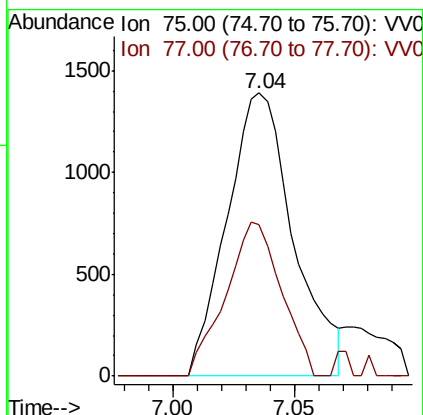
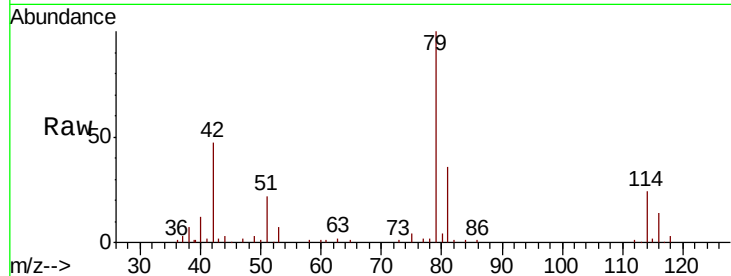




#39  
 cis-1,3-Dichloropropene  
 Concen: 0.983 ug/L  
 RT: 7.04 min Scan# 1849  
 Delta R.T. -0.04 min  
 Lab File: VV008686.D  
 Acq: 20 Nov 2018 20:37

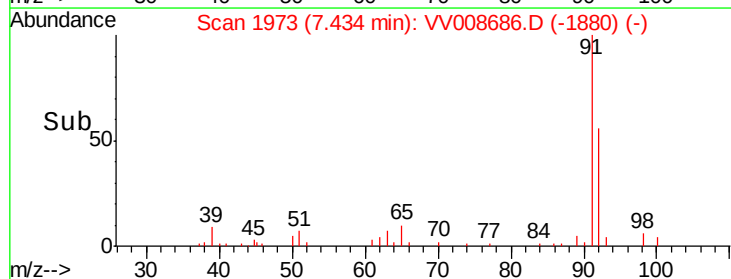
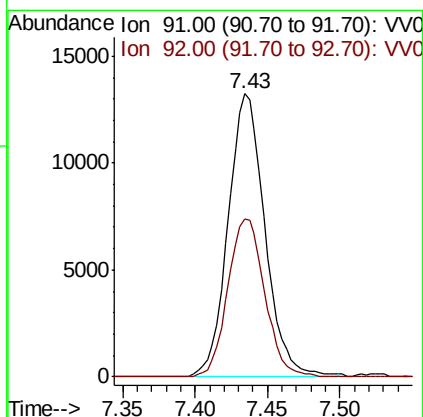
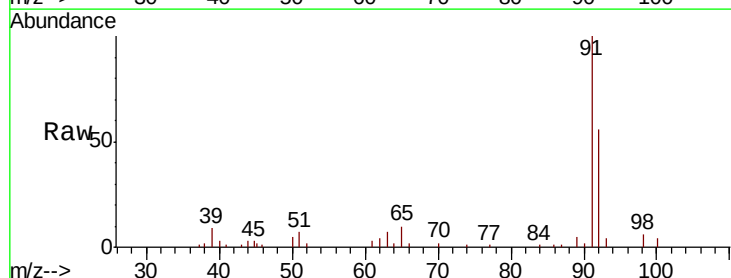
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VHBLK02

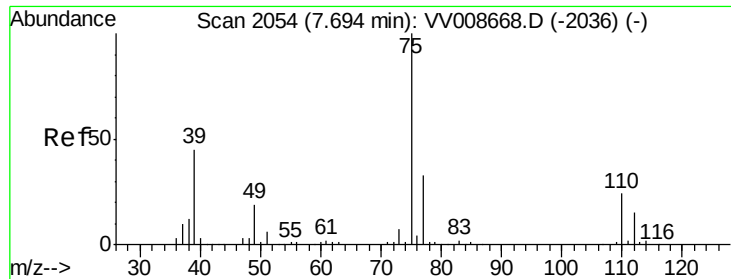
Tgt Ion: 75 Resp: 2629  
 Ion Ratio Lower Upper  
 75 100  
 77 53.7 20.2 37.4#



#42  
 Toluene  
 Concen: 3.221 ug/L  
 RT: 7.43 min Scan# 1973  
 Delta R.T. 0.00 min  
 Lab File: VV008686.D  
 Acq: 20 Nov 2018 20:37

Tgt Ion: 91 Resp: 23335  
 Ion Ratio Lower Upper  
 91 100  
 92 55.7 41.6 77.2





#44

trans-1,3-Dichloropropene

Concen: 0.864 ug/L

RT: 7.67 min Scan# 2045

Delta R.T. -0.03 min

Lab File: VV008668.D

Acq: 20 Nov 2018 20:37

Instrument :

MSVOA\_V

ClientSampleId :

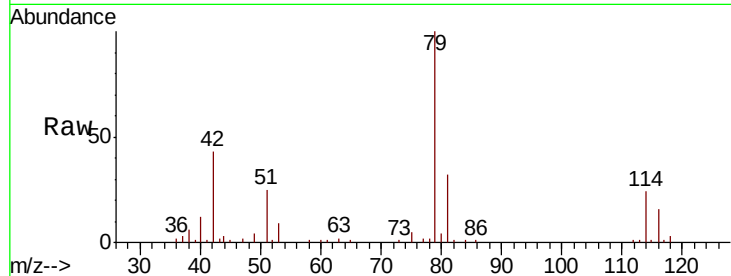
VHBLK02

Tgt Ion: 75 Resp: 2101

Ion Ratio Lower Upper

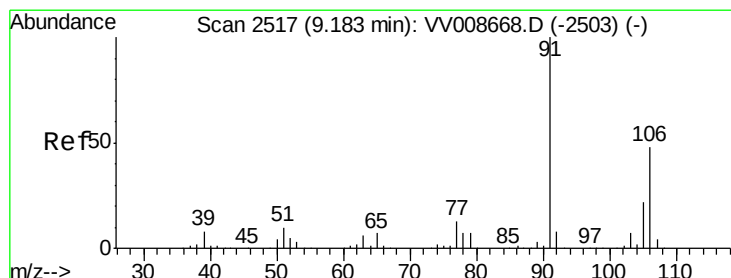
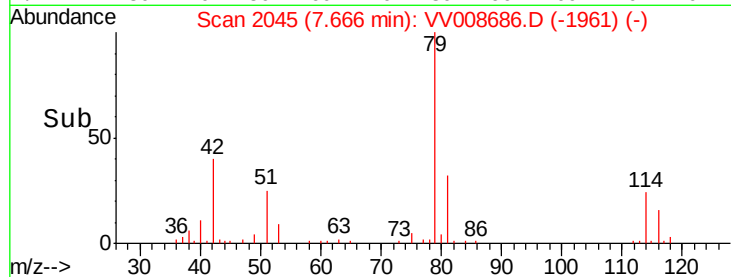
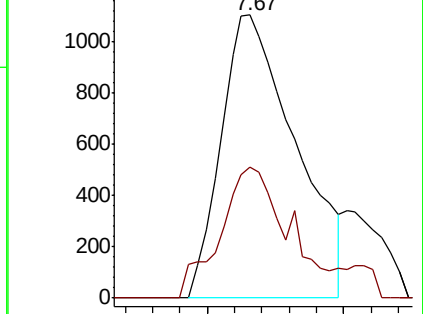
75 100

77 46.3 24.6 45.8#



Abundance Ion 75.00 (74.70 to 75.70): VV008668.D (-2036) (-)

Ion 77.00 (76.70 to 77.70): VV008668.D (-2036) (-)



#53

m,p-Xylene

Concen: 0.481 ug/L

RT: 9.18 min Scan# 2517

Delta R.T. 0.00 min

Lab File: VV008668.D

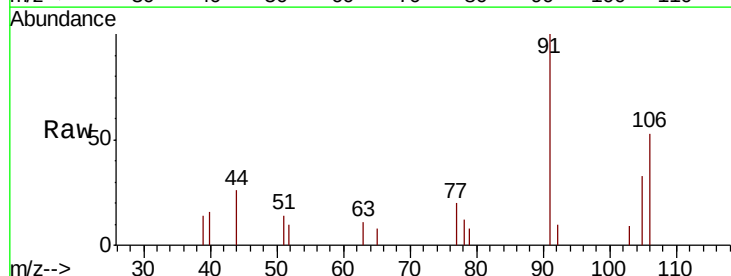
Acq: 20 Nov 2018 20:37

Tgt Ion: 106 Resp: 1406

Ion Ratio Lower Upper

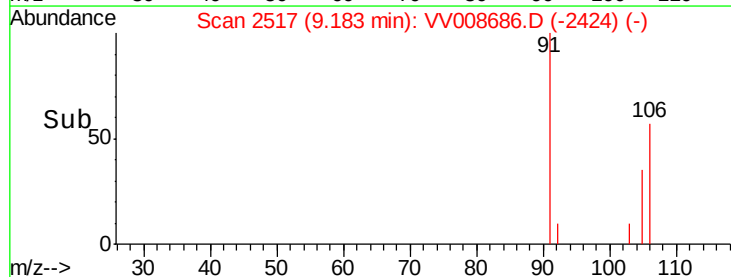
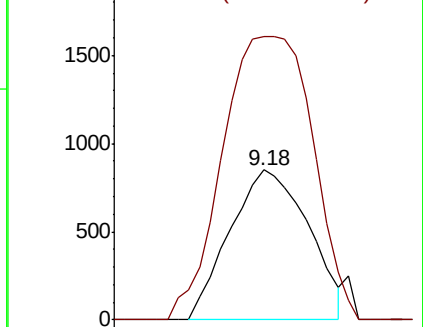
106 100

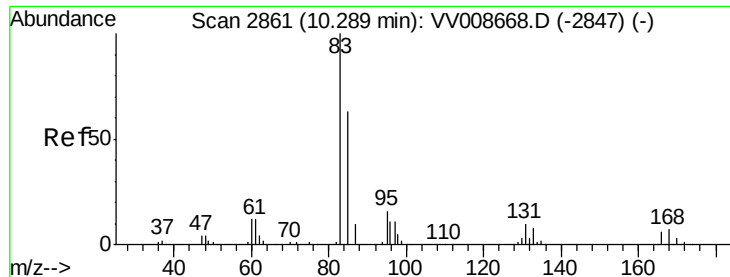
91 189.0 154.7 287.3



Abundance Ion 106.00 (105.70 to 106.70): VV008668.D (-2503) (-)

Ion 91.00 (90.70 to 91.70): VV008668.D (-2503) (-)





#58

1,1,2,2-Tetrachloroethane

Concen: 0.353 ug/L

RT: 10.28 min Scan# 2858

Delta R.T. -0.01 min

Lab File: VV008668.D

Acq: 20 Nov 2018 20:37

Instrument :

MSVOA\_V

ClientSampleId :

VHBLK02

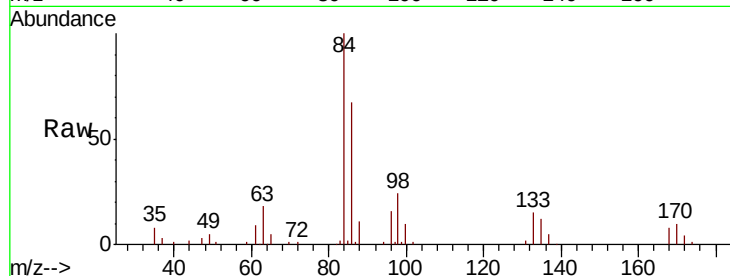
Tgt Ion: 83 Resp: 1026

Ion Ratio Lower Upper

83 100

85 112.2 44.8 83.2#

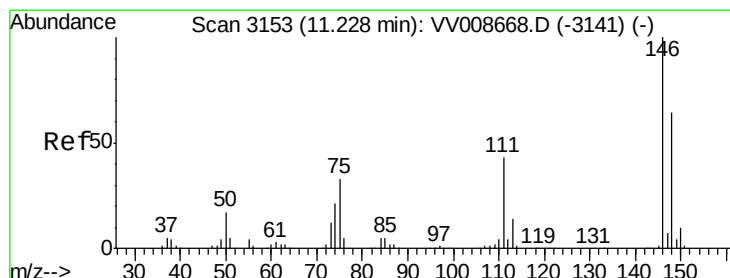
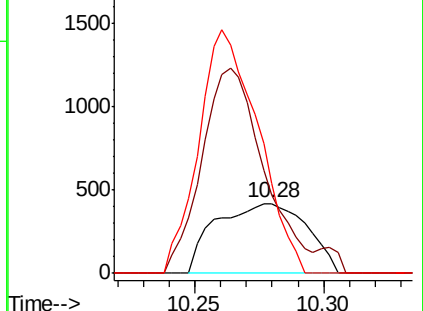
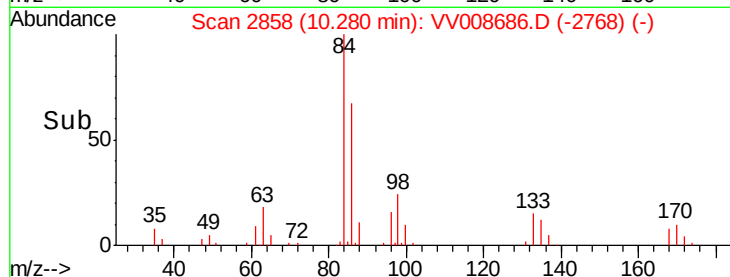
131 128.9 8.1 12.1#



Abundance Ion 83.00 (82.70 to 83.70): VV008668.D (-2847) (-)

Ion 85.00 (84.70 to 85.70): VV008668.D (-2847) (-)

Ion 131.00 (130.70 to 131.70): VV008668.D (-2847) (-)



#62

1,3-Dichlorobenzene

Concen: 0.521 ug/L

RT: 11.23 min Scan# 3153

Delta R.T. -0.00 min

Lab File: VV008668.D

Acq: 20 Nov 2018 20:37

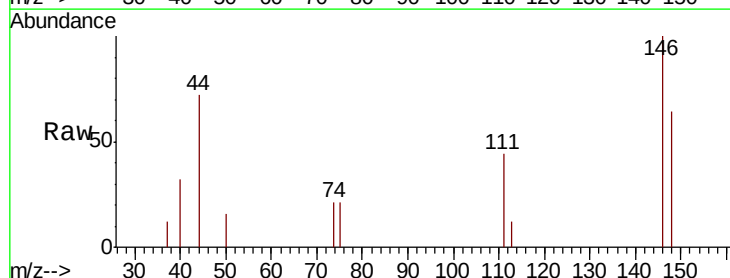
Tgt Ion: 146 Resp: 1462

Ion Ratio Lower Upper

146 100

111 44.5 27.9 51.7

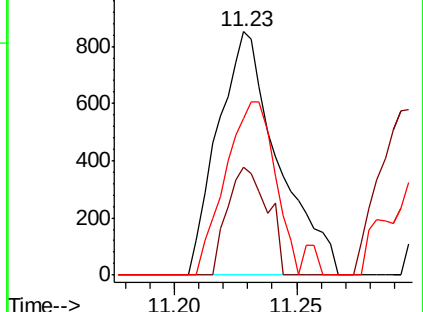
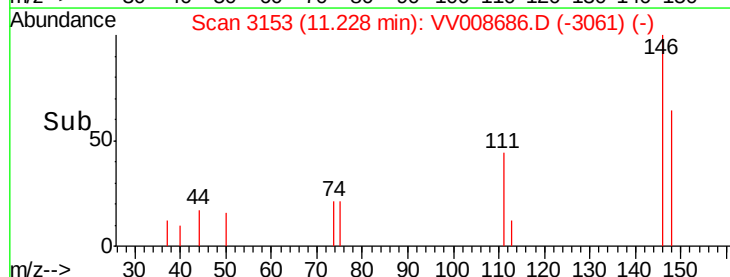
148 64.2 42.7 79.3



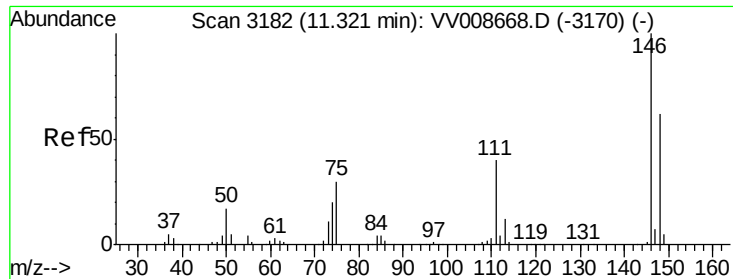
Abundance Ion 146.00 (145.70 to 146.70): VV008668.D (-3141) (-)

Ion 111.00 (110.70 to 111.70): VV008668.D (-3141) (-)

Ion 148.00 (147.70 to 148.70): VV008668.D (-3141) (-)







#63

1,4-Dichlorobenzene

Concen: 0.577 ug/L

RT: 11.32 min Scan# 3182

Delta R.T. 0.00 min

Lab File: VV008668.D

Acq: 20 Nov 2018 20:37

Instrument :

MSVOA\_V

ClientSampleId :

VHBLK02

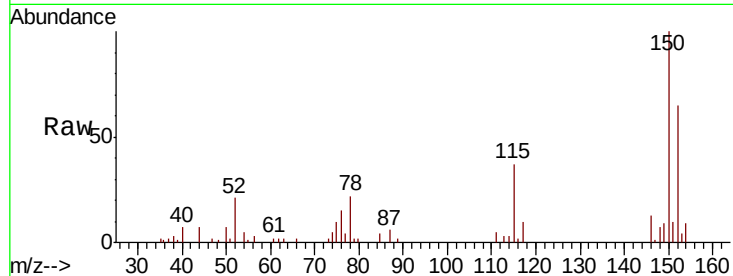
Tgt Ion:146 Resp: 1649

Ion Ratio Lower Upper

146 100

111 42.5 27.7 51.5

148 57.4 46.4 86.2

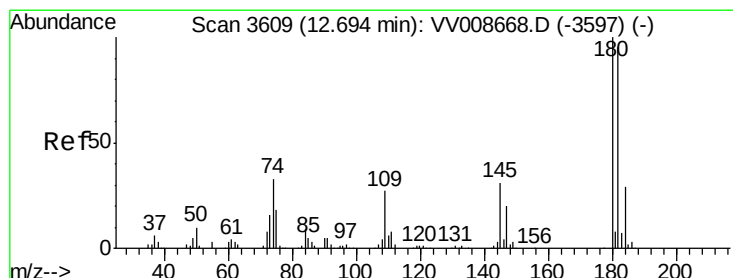
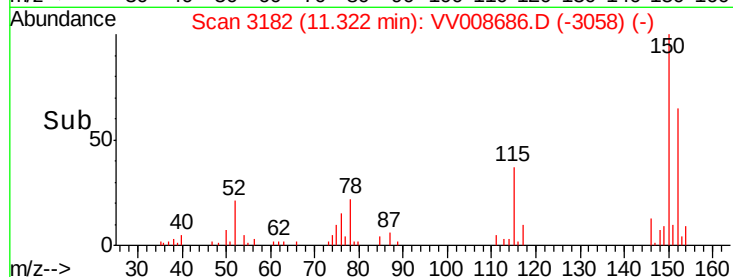
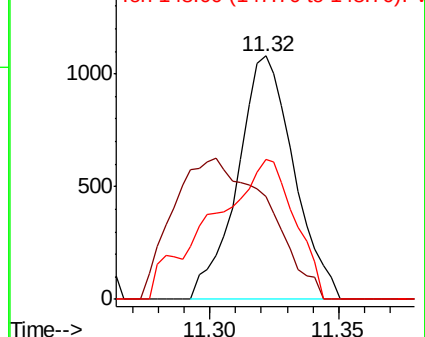


Abundance

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



#67

1,3,5-Trichlorobenzene

Concen: 0.581 ug/L

RT: 12.70 min Scan# 3610

Delta R.T. 0.00 min

Lab File: VV008668.D

Acq: 20 Nov 2018 20:37

Tgt Ion:180 Resp: 1134

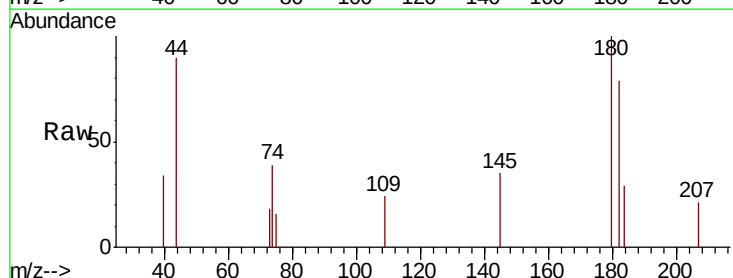
Ion Ratio Lower Upper

180 100

182 87.9 73.2 109.8

184 28.3 23.6 35.4

145 27.6 26.6 39.8



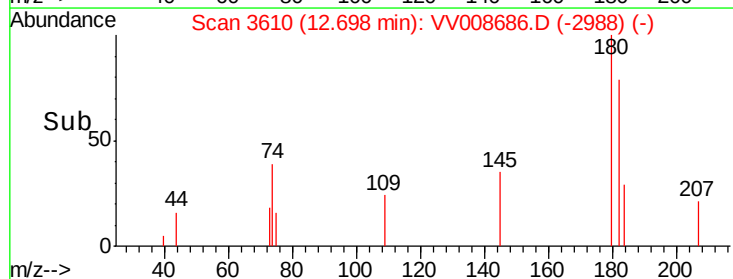
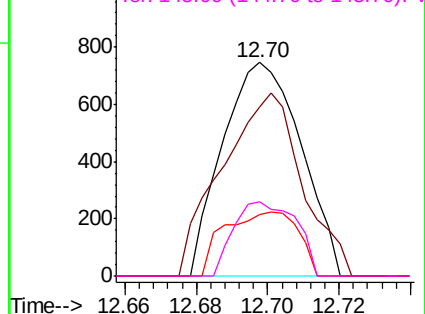
Abundance

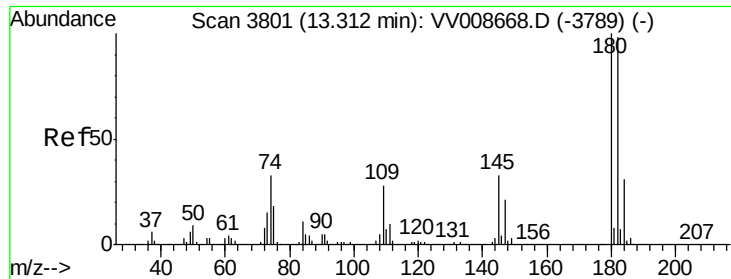
Ion 180.00 (179.70 to 180.70): V

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

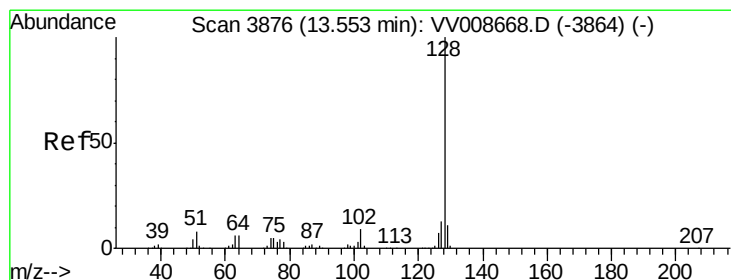
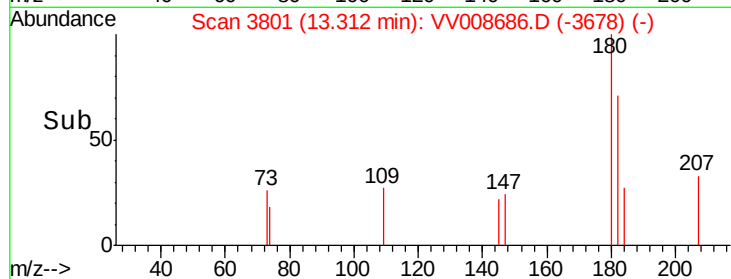
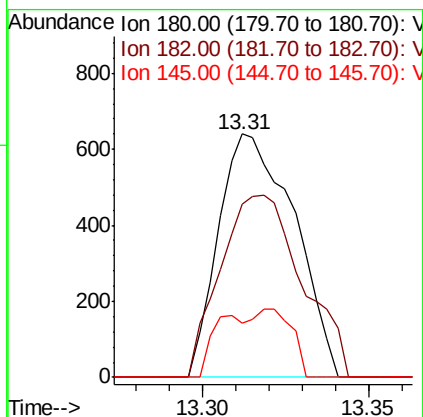
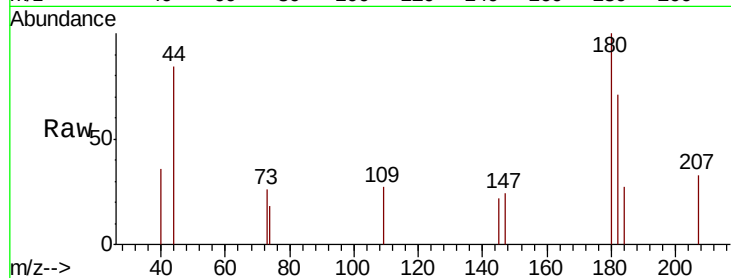




#68  
 1,2,4-trichlorobenzene  
 Concen: 0.686 ug/L  
 RT: 13.31 min Scan# 3801  
 Delta R.T. -0.00 min  
 Lab File: VV008686.D  
 Acq: 20 Nov 2018 20:37

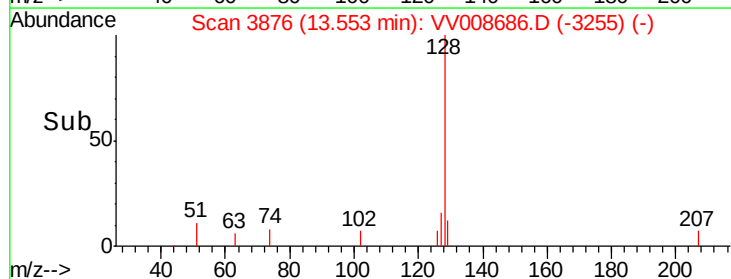
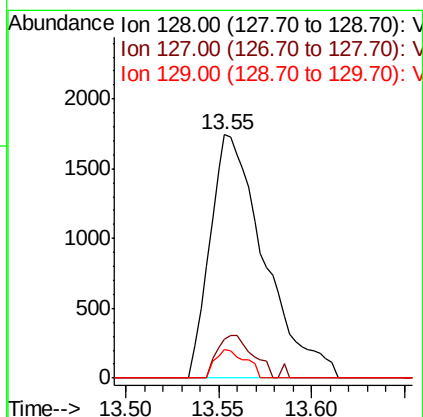
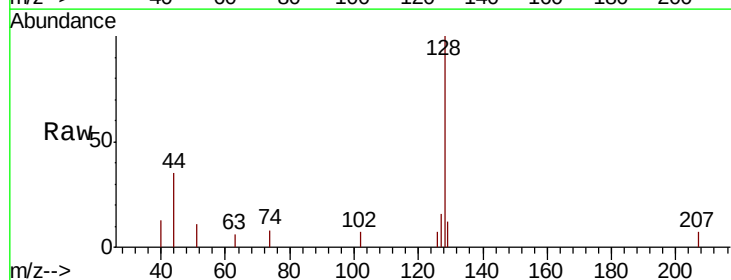
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VHBLK02

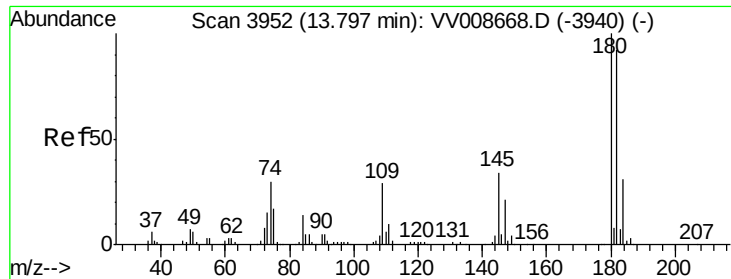
Tgt Ion:180 Resp: 1016  
 Ion Ratio Lower Upper  
 180 100  
 182 0.0 75.7 113.5#  
 145 10.9 28.0 42.0#



#69  
 Naphthalene  
 Concen: 0.839 ug/L  
 RT: 13.55 min Scan# 3876  
 Delta R.T. -0.00 min  
 Lab File: VV008686.D  
 Acq: 20 Nov 2018 20:37

Tgt Ion:128 Resp: 3538  
 Ion Ratio Lower Upper  
 128 100  
 127 11.4 9.4 14.0  
 129 6.6 8.9 13.3#





#70  
 1,2,3-Trichlorobenzene  
 Concen: 0.580 ug/L  
 RT: 13.80 min Scan# 3953  
 Delta R.T. 0.00 min  
 Lab File: VV008686.D  
 Acq: 20 Nov 2018 20:37

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VHBLK02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 97.1  | 77.5  | 116.3 |
| 145     | 28.7  | 28.9  | 43.3  |

