

Data File : VV009530.D  
Acq On : 07 Mar 2019 15:40  
Operator : SY/MD  
Sample : K1789-03  
Misc : 6.03G/10ML/MSVOA\_V/SOIL  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
BF0N9

Quant Time: Mar 08 03:05:36 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM030519S.M  
Quant Title : VOC Analysis  
QLast Update : Fri Mar 08 03:01:51 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.67  | 114  | 139046   | 25.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.90  | 117  | 135409   | 25.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.30 | 152  | 63746    | 25.00 | ug/L  | 0.00     |

#### System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 33652    | 20.11    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 80.44%  |
| 7) Chloroethane-d5             | 1.58   | 69    | 61695    | 25.49    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 101.96% |
| 10) 1,1-Dichloroethene-d2      | 2.13   | 63    | 70791    | 16.25    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 110 | Recovery | =    | 65.00%  |
| 20) 2-Butanone-d5              | 3.95   | 46    | 29027    | 50.89    | ug/L | 0.01    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 101.78% |
| 24) Chloroform-d               | 4.40   | 84    | 76650    | 23.14    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 40 - 150 | Recovery | =    | 92.56%  |
| 26) 1,2-Dichloroethane-d4      | 5.08   | 65    | 49666    | 26.36    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 130 | Recovery | =    | 105.44% |
| 29) Benzene-d6                 | 5.10   | 84    | 159623   | 23.80    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 20 - 135 | Recovery | =    | 95.20%  |
| 33) 1,2-Dichloropropane-d6     | 6.12   | 67    | 51065    | 25.80    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 120 | Recovery | =    | 103.20% |
| 37) Toluene-d8                 | 7.36   | 98    | 150035   | 22.95    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 130 | Recovery | =    | 91.80%  |
| 38) trans-1,3-Dichloropropene- | 7.66   | 79    | 22153    | 23.10    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 135 | Recovery | =    | 92.40%  |
| 39) 2-Hexanone-d5              | 8.14   | 63    | 22355    | 48.40    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 96.80%  |
| 48) 1,1,2,2-Tetrachloroethane- | 10.26  | 84    | 53124    | 25.19    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 120 | Recovery | =    | 100.76% |
| 61) 1,2-Dichlorobenzene-d4     | 11.68  | 152   | 56807    | 24.41    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 75 - 120 | Recovery | =    | 97.64%  |

#### Target Compounds

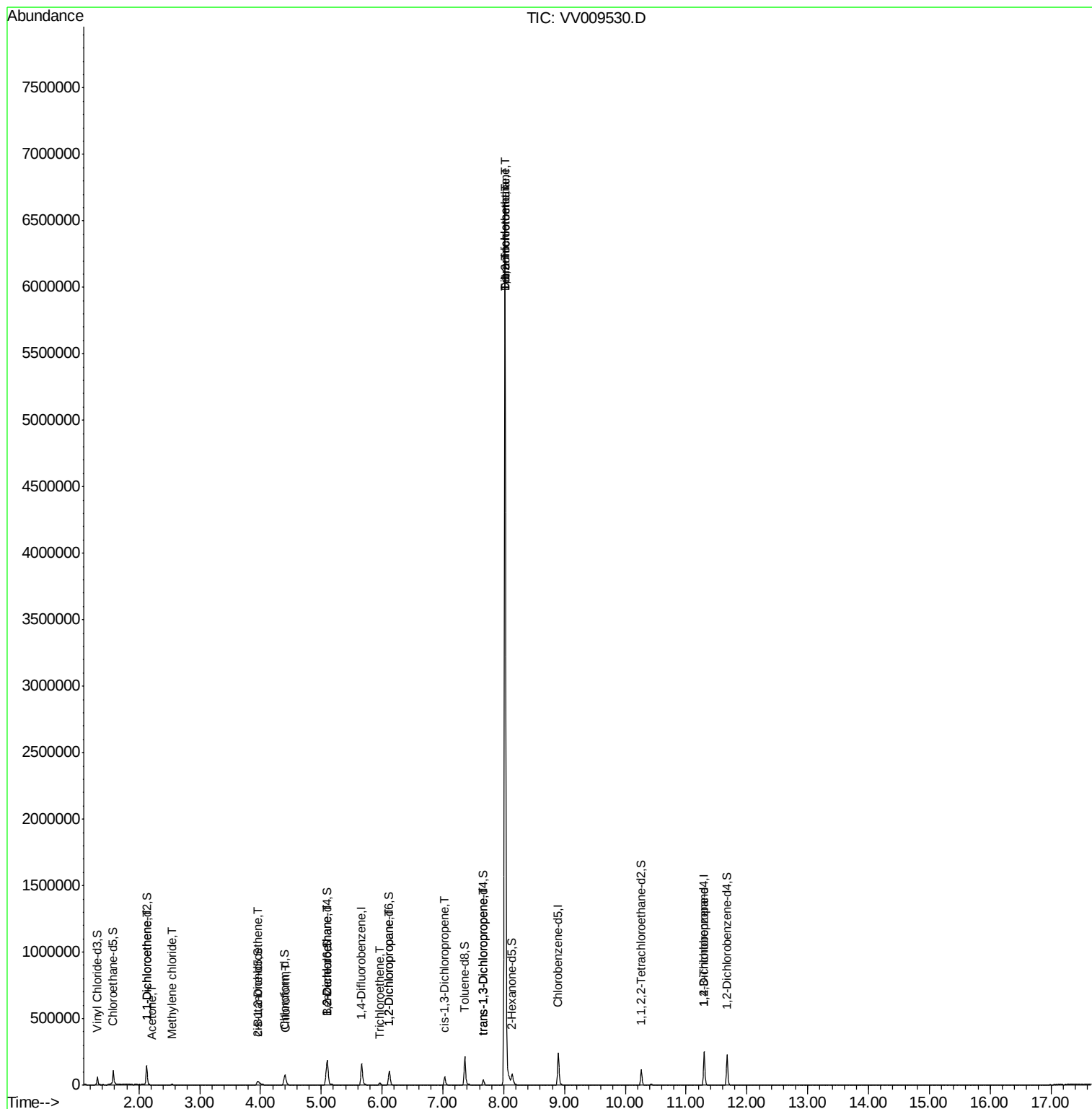
|                               |       |     |         |         | Qvalue |    |
|-------------------------------|-------|-----|---------|---------|--------|----|
| 12) 1,1-Dichloroethene        | 2.14  | 96  | 1987    | 1.075   | ug/L # | 1  |
| 13) Acetone                   | 2.21  | 43  | 1209    | 2.085   | ug/L   | 92 |
| 16) Methylene chloride        | 2.54  | 84  | 3277    | 1.796   | ug/L   | 94 |
| 22) cis-1,2-Dichloroethene    | 3.96  | 96  | 5953    | 3.176   | ug/L   | 89 |
| 25) Chloroform                | 4.42  | 83  | 1730    | 0.530   | ug/L # | 23 |
| 27) 1,2-Dichloroethane        | 5.10  | 62  | 760     | 0.335   | ug/L # | 77 |
| 35) Trichloroethene           | 5.96  | 95  | 4751    | 2.363   | ug/L   | 93 |
| 40) 1,2-Dichloropropane       | 6.12  | 63  | 5685    | 3.151   | ug/L # | 89 |
| 42) cis-1,3-Dichloropropene   | 7.03  | 75  | 1899    | 0.678   | ug/L # | 56 |
| 45) trans-1,3-Dichloropropene | 7.67  | 75  | 1214    | 0.496   | ug/L   | 96 |
| 46) 1,1,2-Trichloroethane     | 8.02  | 97  | 13287   | 8.865   | ug/L # | 19 |
| 47) Tetrachloroethene         | 8.02  | 164 | 1305601 | 856.055 | ug/L   | 94 |
| 50) Dibromochloromethane      | 8.02  | 129 | 1318470 | 726.600 | ug/L # | 11 |
| 59) 1,2,3-Trichloropropane    | 11.30 | 75  | 9086    | 5.956   | ug/L # | 84 |

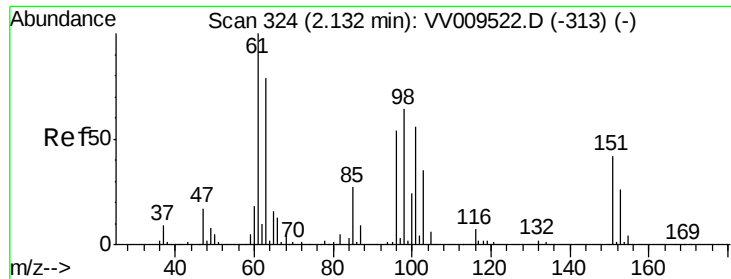
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM030519S.M  
Quant Title : VOC Analysis  
QLast Update : Fri Mar 08 03:01:51 2019  
Response via : Initial Calibration

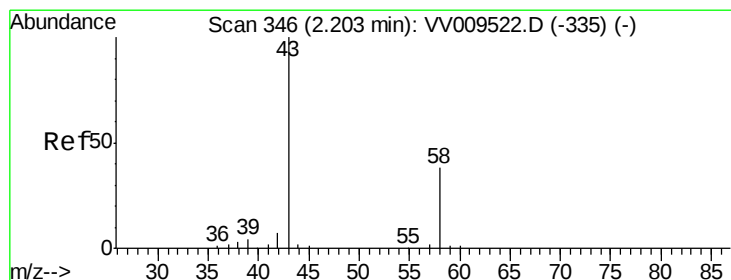
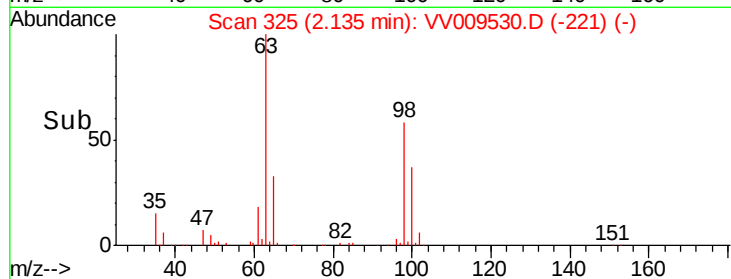
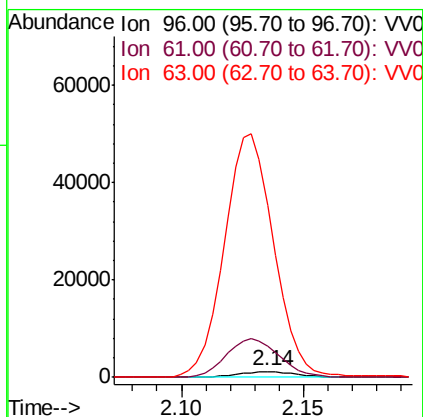
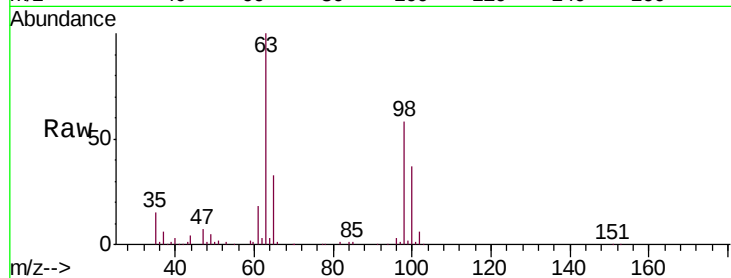




#12  
 1,1-Dichloroethene  
 Concen: 1.075 ug/L  
 RT: 2.14 min Scan# 325  
 Delta R.T. 0.00 min  
 Lab File: VV009530.D  
 Acq: 07 Mar 2019 15:40

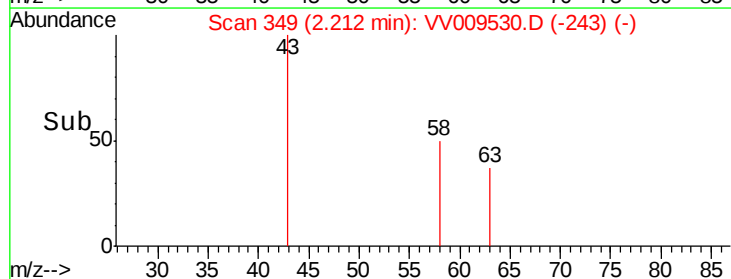
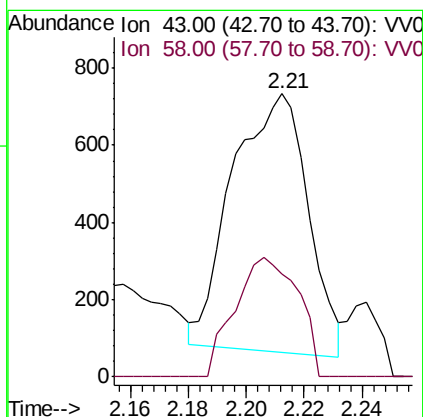
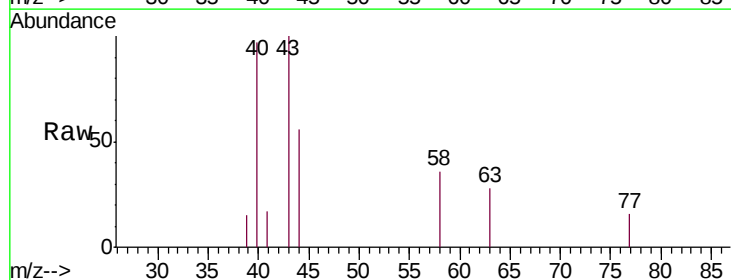
Instrument :  
 MSVOA\_V  
 ClientSampled :  
 BF0N9

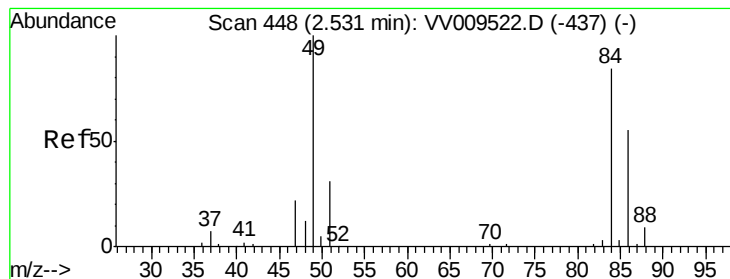
Tgt Ion: 96 Resp: 1987  
 Ion Ratio Lower Upper  
 96 100  
 61 551.1 136.9 254.3#  
 63 3112.8 108.7 201.9#



#13  
 Acetone  
 Concen: 2.085 ug/L  
 RT: 2.21 min Scan# 349  
 Delta R.T. 0.01 min  
 Lab File: VV009530.D  
 Acq: 07 Mar 2019 15:40

Tgt Ion: 43 Resp: 1209  
 Ion Ratio Lower Upper  
 43 100  
 58 38.8 0.0 68.8





#16

Methylene chloride

Concen: 1.796 ug/L

RT: 2.54 min Scan# 450

Delta R.T. 0.01 min

Lab File: VV009530.D

Acq: 07 Mar 2019 15:40

Instrument :

MSVOA\_V

ClientSampleId :

BF0N9

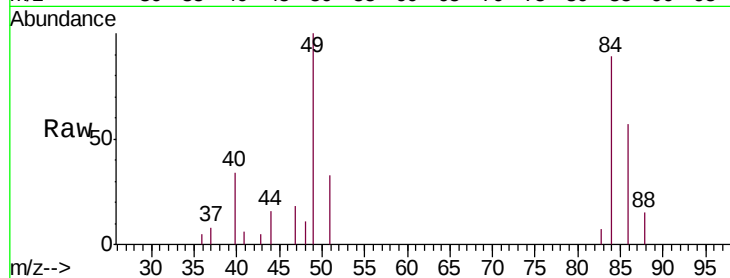
Tgt Ion: 84 Resp: 3277

Ion Ratio Lower Upper

84 100

49 111.9 84.6 157.0

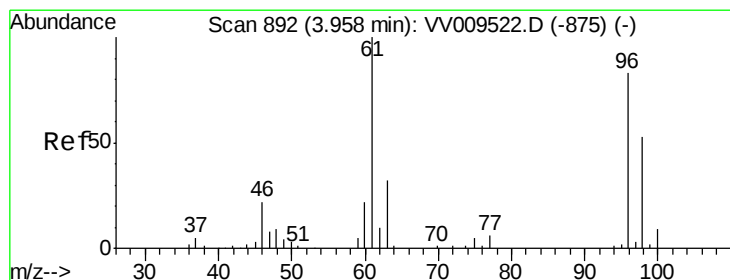
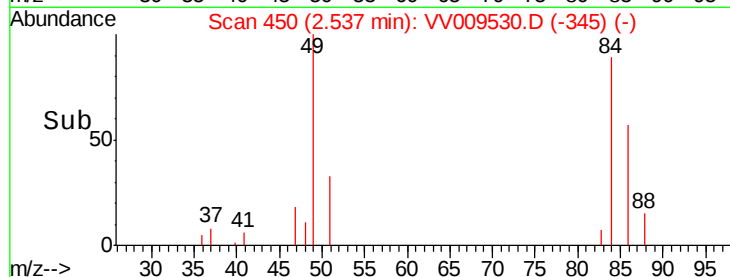
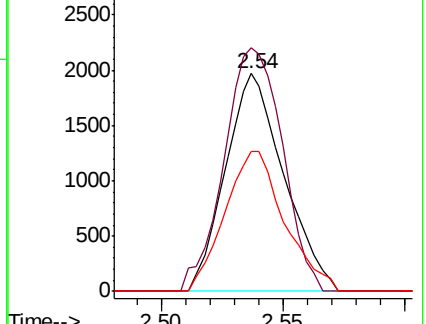
86 64.1 46.1 85.7



Abundance Ion 84.00 (83.70 to 84.70): VV009530.D (-450) (-)

Ion 49.00 (48.70 to 49.70): VV009530.D (-450) (-)

Ion 86.00 (85.70 to 86.70): VV009530.D (-450) (-)



#22

cis-1,2-Dichloroethene

Concen: 3.176 ug/L

RT: 3.96 min Scan# 894

Delta R.T. 0.01 min

Lab File: VV009530.D

Acq: 07 Mar 2019 15:40

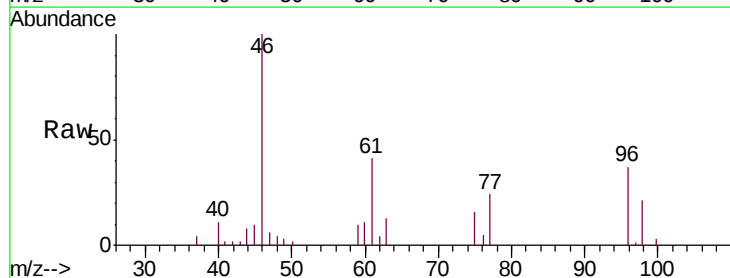
Tgt Ion: 96 Resp: 5953

Ion Ratio Lower Upper

96 100

61 111.1 87.2 161.9

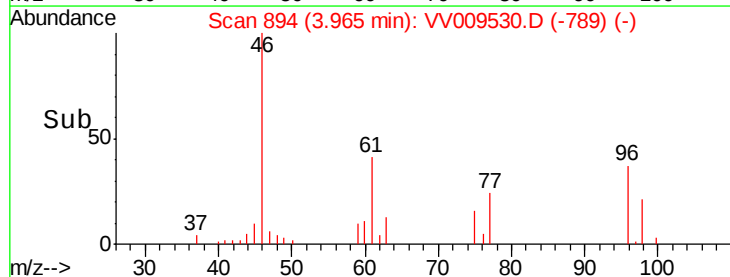
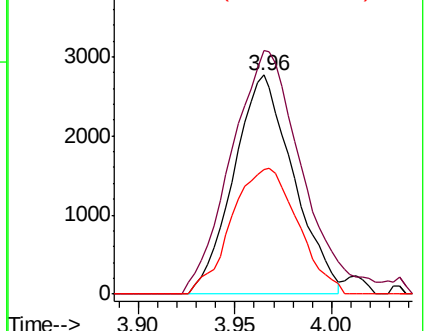
98 56.9 44.6 82.8

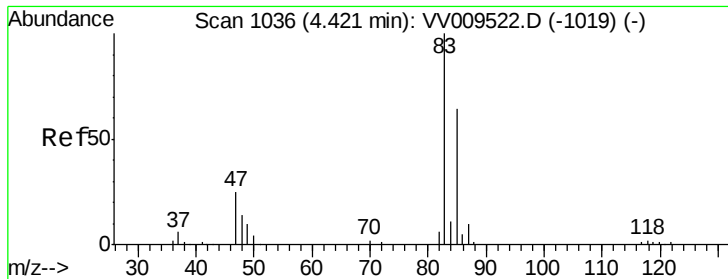


Abundance Ion 96.00 (95.70 to 96.70): VV009530.D (-789) (-)

Ion 61.00 (60.70 to 61.70): VV009530.D (-789) (-)

Ion 98.00 (97.70 to 98.70): VV009530.D (-789) (-)





#25

Chloroform

Concen: 0.530 ug/L

RT: 4.42 min Scan# 1037

Delta R.T. 0.00 min

Lab File: VV009530.D

Acq: 07 Mar 2019 15:40

Instrument :

MSVOA\_V

ClientSampled :

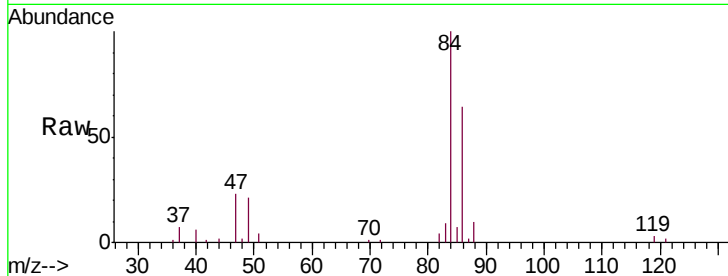
BF0N9

Tgt Ion: 83 Resp: 1730

Ion Ratio Lower Upper

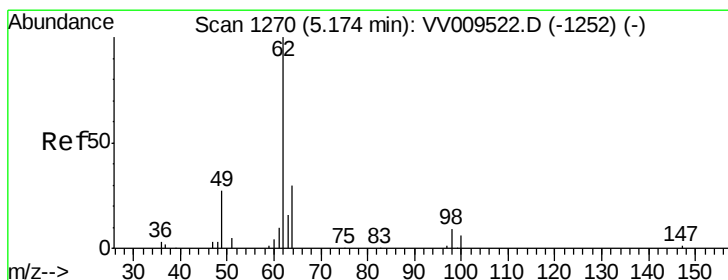
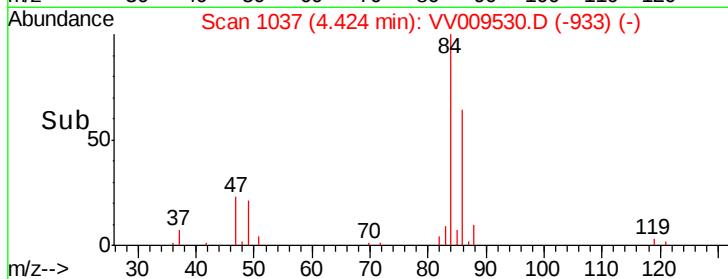
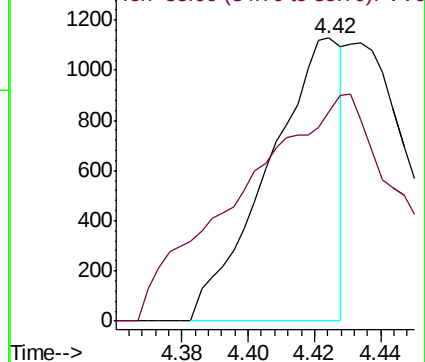
83 100

85 3.8 45.4 84.2#



Abundance Ion 83.00 (82.70 to 83.70): VV0

Ion 85.00 (84.70 to 85.70): VV0



#27

1,2-Dichloroethane

Concen: 0.335 ug/L

RT: 5.10 min Scan# 1248

Delta R.T. -0.07 min

Lab File: VV009530.D

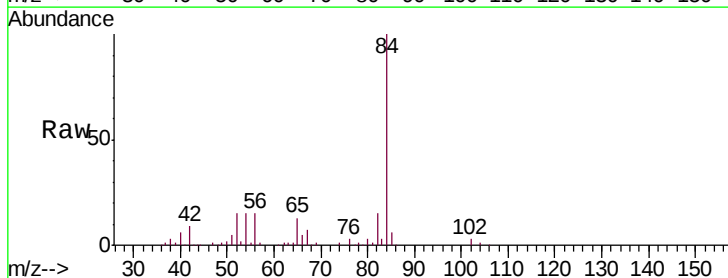
Acq: 07 Mar 2019 15:40

Tgt Ion: 62 Resp: 760

Ion Ratio Lower Upper

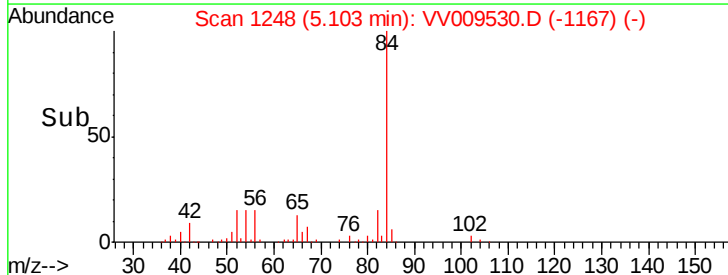
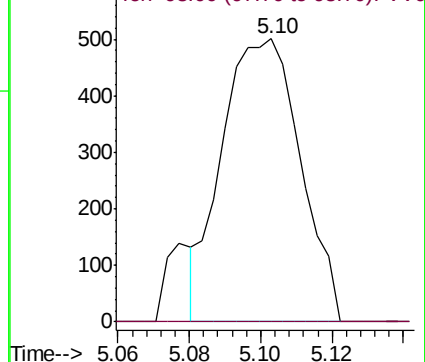
62 100

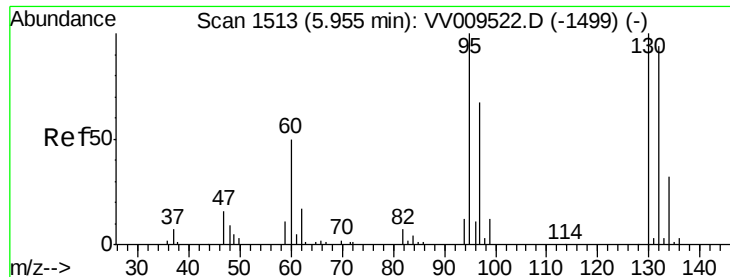
98 0.0 6.6 10.0#



Abundance Ion 62.00 (61.70 to 62.70): VV0

Ion 98.00 (97.70 to 98.70): VV0





#35

Trichloroethene

Concen: 2.363 ug/L

RT: 5.96 min Scan# 1515

Delta R.T. 0.01 min

Lab File: VV009530.D

Acq: 07 Mar 2019 15:40

Instrument :

MSVOA\_V

ClientSampleId :

BF0N9

Tgt Ion: 95 Resp: 4751

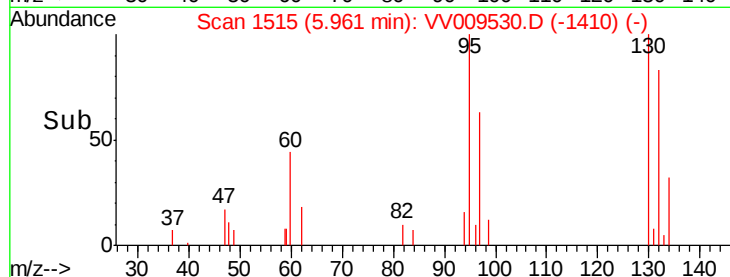
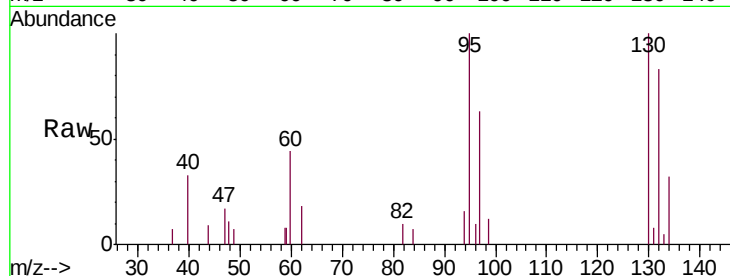
Ion Ratio Lower Upper

95 100

97 61.8 44.3 82.3

132 84.9 64.4 119.6

130 88.9 69.4 128.8

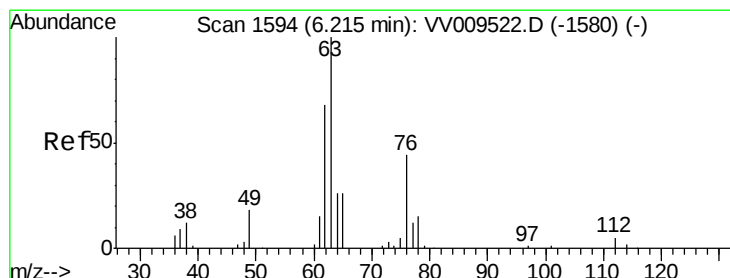
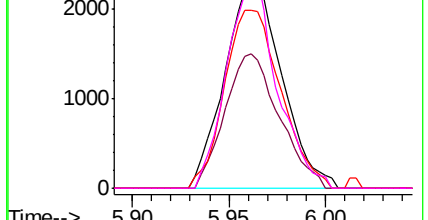


Abundance Ion 95.00 (94.70 to 95.70): VV009530.D (-1410) (-)

Ion 97.00 (96.70 to 97.70): VV009530.D (-1410) (-)

Ion 132.00 (131.70 to 132.70): VV009530.D (-1410) (-)

Ion 130.00 (129.70 to 130.70): VV009530.D (-1410) (-)



#40

1,2-Dichloropropane

Concen: 3.151 ug/L

RT: 6.12 min Scan# 1564

Delta R.T. -0.10 min

Lab File: VV009530.D

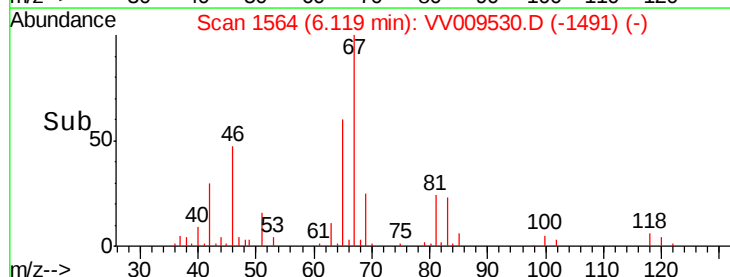
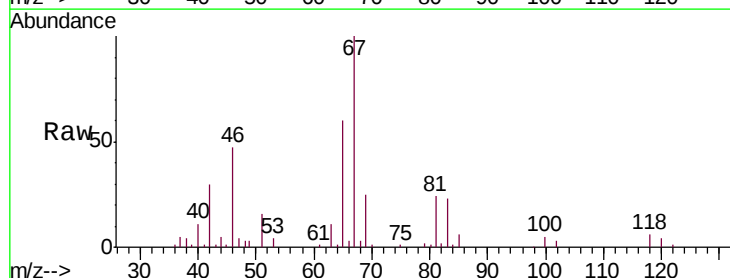
Acq: 07 Mar 2019 15:40

Tgt Ion: 63 Resp: 5685

Ion Ratio Lower Upper

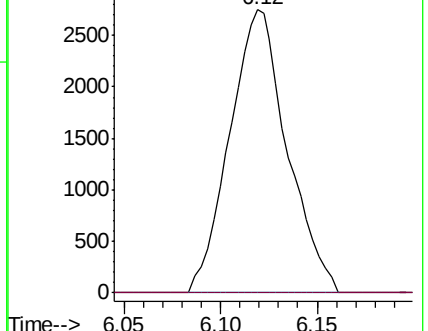
63 100

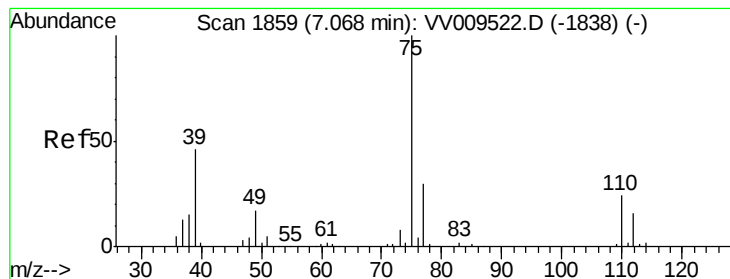
112 0.0 3.0 4.4#



Abundance Ion 63.00 (62.70 to 63.70): VV009530.D (-1491) (-)

Ion 112.00 (111.70 to 112.70): VV009530.D (-1491) (-)



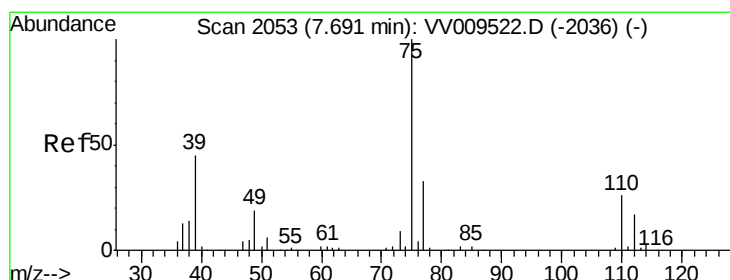
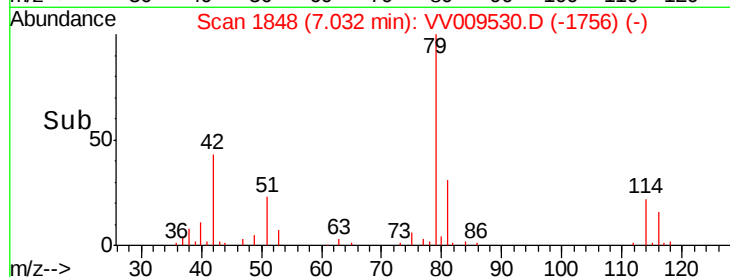
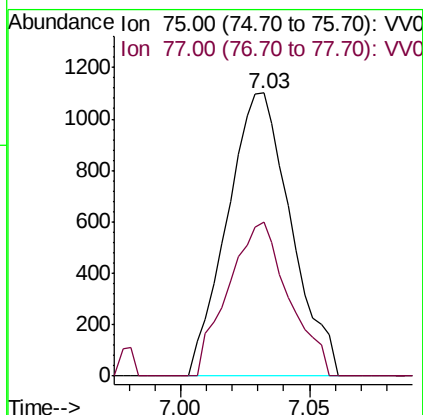
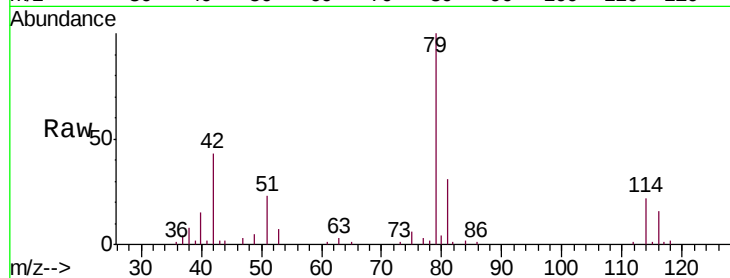


#42

cis-1,3-Dichloropropene  
Concen: 0.678 ug/L  
RT: 7.03 min Scan# 1848  
Delta R.T. -0.04 min  
Lab File: VV009530.D  
Acq: 07 Mar 2019 15:40

Instrument :  
MSVOA\_V  
ClientSampled :  
BF0N9

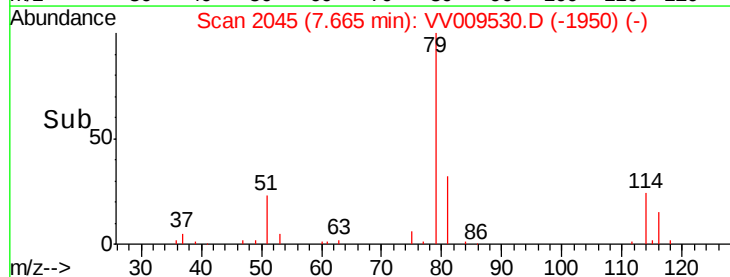
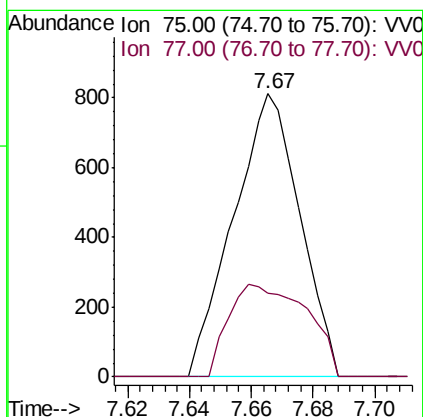
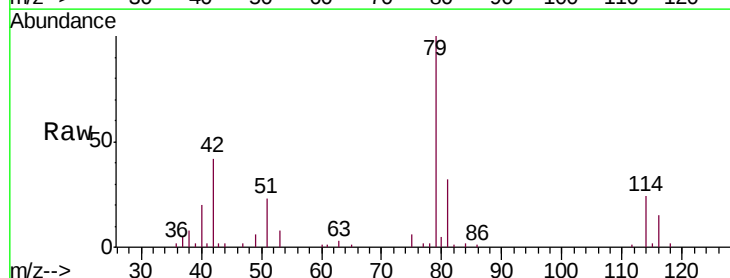
Tgt Ion: 75 Resp: 1899  
Ion Ratio Lower Upper  
75 100  
77 54.5 21.4 39.8#

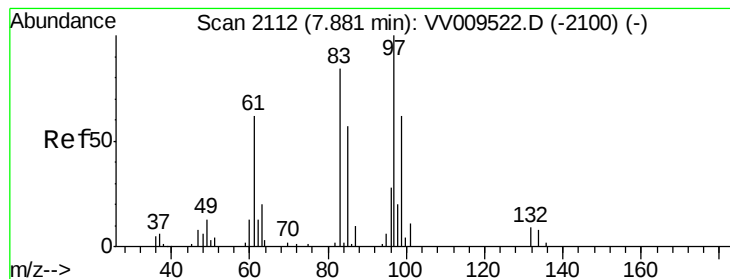


#45

trans-1,3-Dichloropropene  
Concen: 0.496 ug/L  
RT: 7.67 min Scan# 2045  
Delta R.T. -0.03 min  
Lab File: VV009530.D  
Acq: 07 Mar 2019 15:40

Tgt Ion: 75 Resp: 1214  
Ion Ratio Lower Upper  
75 100  
77 29.8 22.5 41.7





#46

1,1,2-Trichloroethane

Concen: 8.865 ug/L

RT: 8.02 min Scan# 2155

Delta R.T. 0.14 min

Lab File: VV009530.D

Acq: 07 Mar 2019 15:40

Instrument :

MSVOA\_V

ClientSampleId :

BF0N9

Tgt Ion: 97 Resp: 13287

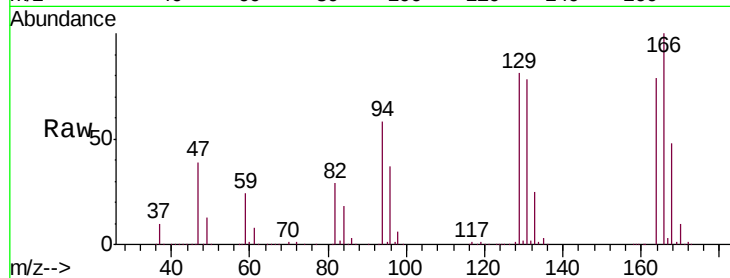
Ion Ratio Lower Upper

97 100

83 216.0 63.8 118.6#

85 42.2 39.5 73.4

99 15.7 45.9 85.3#

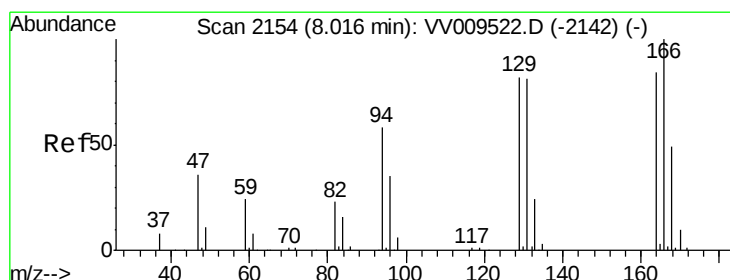
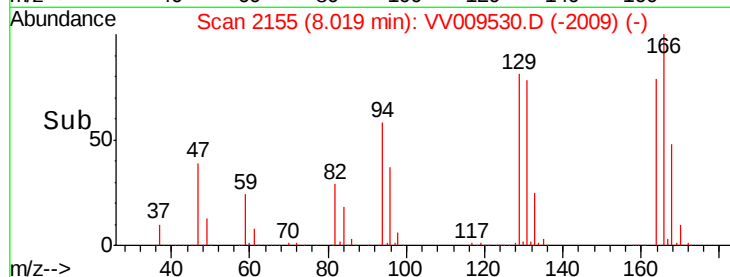
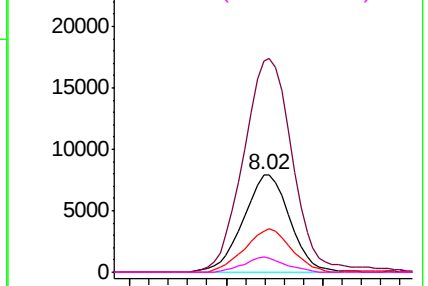


Abundance Ion 97.00 (96.70 to 97.70): VV0

Ion 83.00 (82.70 to 83.70): VV0

Ion 85.00 (84.70 to 85.70): VV0

Ion 99.00 (98.70 to 99.70): VV0



#47

Tetrachloroethene

Concen: 856.055 ug/L

RT: 8.02 min Scan# 2156

Delta R.T. 0.01 min

Lab File: VV009530.D

Acq: 07 Mar 2019 15:40

Tgt Ion: 164 Resp: 1305601

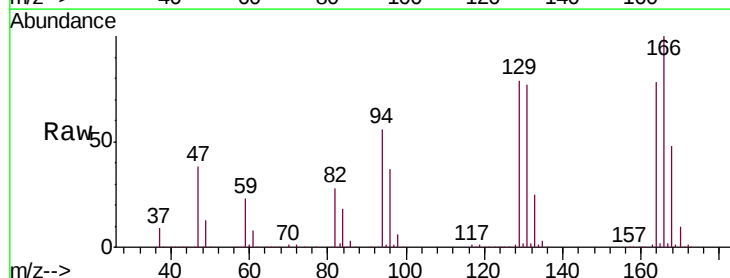
Ion Ratio Lower Upper

164 100

129 101.0 67.7 125.7

131 98.2 67.5 125.3

166 127.5 81.6 151.6

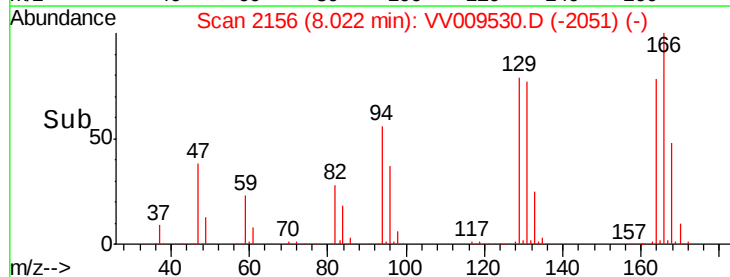
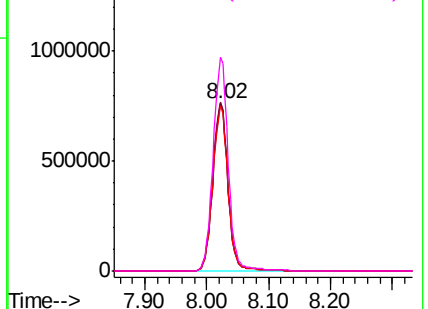


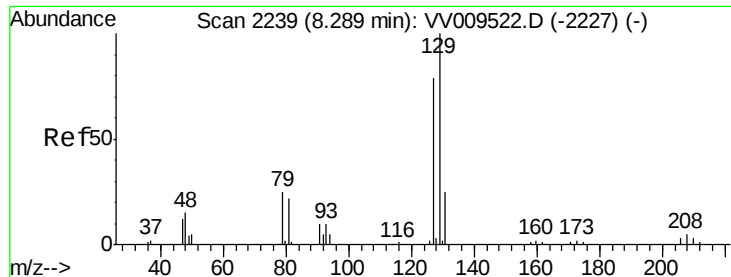
Abundance Ion 164.00 (163.70 to 164.70): V

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





#50

Dibromochloromethane

Concen: 726.600 ug/L

RT: 8.02 min Scan# 2156

Delta R.T. -0.27 min

Lab File: VV009530.D

Acq: 07 Mar 2019 15:40

Instrument :

MSVOA\_V

ClientSampleId :

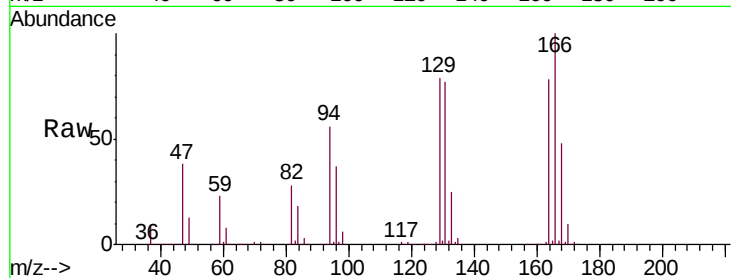
BF0N9

Tgt Ion:129 Resp: 1318470

Ion Ratio Lower Upper

129 100

127 0.0 53.7 99.7#



Abundance Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V

8.02

600000

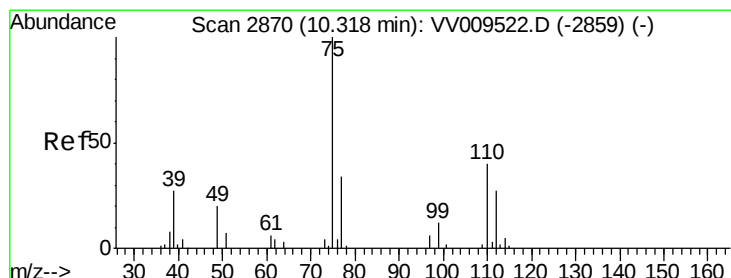
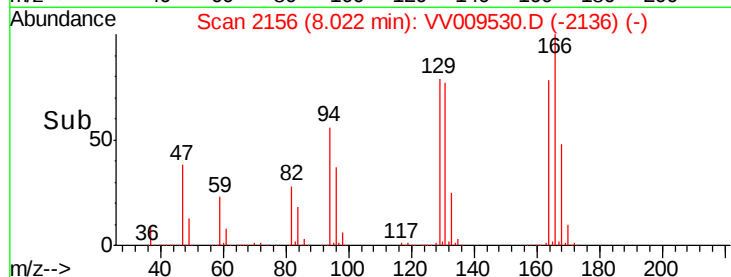
400000

200000

0

7.90 8.00 8.10 8.20

Time-->



#59

1,2,3-Trichloropropane

Concen: 5.956 ug/L

RT: 11.30 min Scan# 3175

Delta R.T. 0.98 min

Lab File: VV009530.D

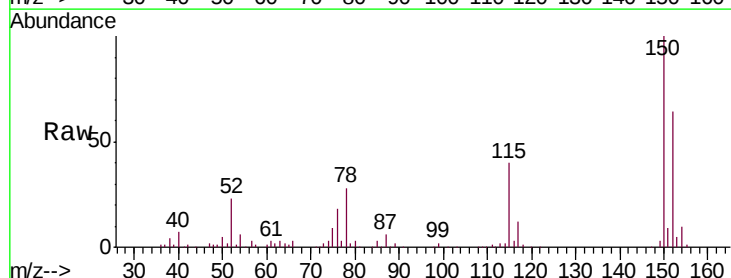
Acq: 07 Mar 2019 15:40

Tgt Ion: 75 Resp: 9086

Ion Ratio Lower Upper

75 100

77 41.2 25.9 38.9#



Abundance Ion 75.00 (74.70 to 75.70): VV0

Ion 77.00 (76.70 to 77.70): VV0

11.30

6000

4000

2000

0

11.25 11.30 11.35

Time-->

