

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_V\DATA\VV082318\  
 Data File : VV007166.D  
 Acq On : 24 Aug 2018 02:21  
 Operator : SY/MD  
 Sample : VSTDCCC050EC  
 Misc : 5.0 mL/MSVOA\_V/WATER  
 ALS Vial : 39 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD05063

Quant Time: Aug 24 04:32:44 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVLM082218WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Aug 24 02:07:07 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.67  | 114  | 616545   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.90  | 117  | 604516   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.30 | 152  | 297021   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |         |
|--------------------------------|---------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.32    | 65    | 154995   | 40.00    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 80.00%  |
| 7) Chloroethane-d5             | 1.57    | 69    | 138480   | 55.57    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 111.14% |
| 11) 1,1-Dichloroethene-d2      | 2.13    | 63    | 327550   | 45.66    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 91.32%  |
| 21) 2-Butanone-d5              | 3.95    | 46    | 325567   | 98.73    | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 98.73%  |
| 24) Chloroform-d               | 4.40    | 84    | 400357   | 48.30    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 96.60%  |
| 26) 1,2-Dichloroethane-d4      | 5.09    | 65    | 242062   | 48.17    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 96.34%  |
| 32) Benzene-d6                 | 5.10    | 84    | 784086   | 46.67    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 93.34%  |
| 36) 1,2-Dichloropropane-d6     | 6.12    | 67    | 264199   | 47.54    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 95.08%  |
| 41) Toluene-d8                 | 7.36    | 98    | 716843   | 48.49    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 96.98%  |
| 43) trans-1,3-Dichloropropene- | 7.67    | 79    | 108578   | 45.63    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 91.26%  |
| 47) 2-Hexanone-d5              | 8.14    | 63    | 201262   | 101.84   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 101.84% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.27   | 84    | 386148   | 47.76    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 95.52%  |
| 64) 1,2-Dichlorobenzene-d4     | 11.68   | 152   | 287013   | 48.06    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 96.12%  |

## Target Compounds

|                                |      |     |        |        | Qvalue   |
|--------------------------------|------|-----|--------|--------|----------|
| 2) Dichlorodifluoromethane     | 1.14 | 85  | 275958 | 48.983 | ug/L 100 |
| 3) Chloromethane               | 1.25 | 50  | 325646 | 45.655 | ug/L 99  |
| 5) Vinyl chloride              | 1.32 | 62  | 288402 | 49.255 | ug/L 99  |
| 6) Bromomethane                | 1.52 | 94  | 63834  | 45.840 | ug/L 99  |
| 8) Chloroethane                | 1.58 | 64  | 162360 | 51.004 | ug/L 98  |
| 9) Trichlorofluoromethane      | 1.76 | 101 | 351034 | 49.850 | ug/L 100 |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.14 | 101 | 211169 | 49.142 | ug/L 100 |
| 12) 1,1-Dichloroethene         | 2.14 | 96  | 200991 | 48.971 | ug/L 98  |
| 13) Acetone                    | 2.19 | 43  | 195321 | 75.505 | ug/L 100 |
| 14) Carbon disulfide           | 2.31 | 76  | 604838 | 48.309 | ug/L 99  |
| 15) Methyl Acetate             | 2.46 | 43  | 234387 | 49.872 | ug/L 100 |
| 16) Methylene chloride         | 2.54 | 84  | 233958 | 49.594 | ug/L 100 |
| 17) trans-1,2-Dichloroethene   | 2.79 | 96  | 219071 | 49.221 | ug/L 99  |
| 18) Methyl tert-butyl Ether    | 2.81 | 73  | 673728 | 49.324 | ug/L 99  |
| 19) 1,1-Dichloroethane         | 3.23 | 63  | 453911 | 49.552 | ug/L 99  |
| 20) cis-1,2-Dichloroethene     | 3.96 | 96  | 265579 | 51.344 | ug/L 97  |
| 22) 2-Butanone                 | 4.03 | 43  | 381263 | 93.290 | ug/L 99  |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_V\DATA\VV082318\  
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 Acq On : 24 Aug 2018 02:21  
 Operator : SY/MD  
 Sample : VSTDCCC050EC  
 Misc : 5.0 mL/MSVOA\_V/WATER  
 ALS Vial : 39 Sample Multiplier: 1

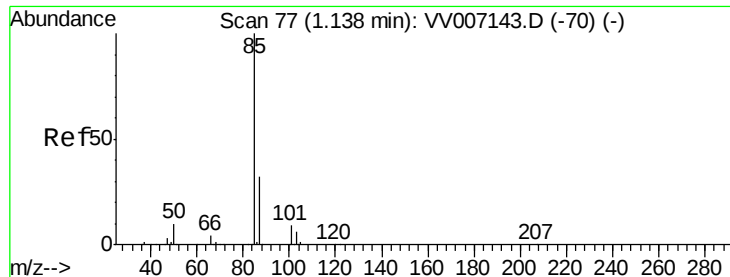
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD05063

Quant Time: Aug 24 04:32:44 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVLM082218WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Aug 24 02:07:07 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 23) Bromochloromethane         | 4.30  | 128  | 131818   | 49.563  | ug/L  | 95       |
| 25) Chloroform                 | 4.43  | 83   | 449067   | 49.998  | ug/L  | 97       |
| 27) 1,2-Dichloroethane         | 5.19  | 62   | 342578   | 50.276  | ug/L  | 99       |
| 29) Cyclohexane                | 4.73  | 56   | 357366   | 47.023  | ug/L  | 98       |
| 30) 1,1,1-Trichloroethane      | 4.66  | 97   | 373024   | 48.698  | ug/L  | 99       |
| 31) Carbon tetrachloride       | 4.88  | 117  | 320015   | 49.605  | ug/L  | 98       |
| 33) Benzene                    | 5.15  | 78   | 1035350  | 49.996  | ug/L  | 100      |
| 34) Trichloroethene            | 5.96  | 95   | 235582   | 47.999  | ug/L  | 97       |
| 35) Methylcyclohexane          | 6.18  | 83   | 378540   | 48.474  | ug/L  | 98       |
| 37) 1,2-Dichloropropane        | 6.23  | 63   | 270953   | 49.316  | ug/L  | 100      |
| 38) Bromodichloromethane       | 6.56  | 83   | 326263   | 49.331  | ug/L  | 99       |
| 39) cis-1,3-Dichloropropene    | 7.08  | 75   | 350177   | 47.170  | ug/L  | 99       |
| 40) 4-Methyl-2-pentanone       | 7.28  | 43   | 674908   | 100.617 | ug/L  | 99       |
| 42) Toluene                    | 7.44  | 91   | 1038267  | 52.007  | ug/L  | 100      |
| 44) trans-1,3-Dichloropropene  | 7.70  | 75   | 332392   | 48.052  | ug/L  | 100      |
| 45) 1,1,2-Trichloroethane      | 7.89  | 97   | 252224   | 48.891  | ug/L  | 98       |
| 46) Tetrachloroethene          | 8.02  | 164  | 197992   | 49.485  | ug/L  | 98       |
| 48) 2-Hexanone                 | 8.19  | 43   | 565232   | 104.029 | ug/L  | 97       |
| 49) Dibromochloromethane       | 8.30  | 129  | 258878   | 50.129  | ug/L  | 99       |
| 50) 1,2-Dibromoethane          | 8.40  | 107  | 255632   | 50.227  | ug/L  | 100      |
| 51) Chlorobenzene              | 8.93  | 112  | 656559   | 49.646  | ug/L  | 99       |
| 52) Ethylbenzene               | 9.06  | 91   | 1039425  | 51.372  | ug/L  | 99       |
| 53) m,p-Xylene                 | 9.19  | 106  | 408903   | 52.887  | ug/L  | 100      |
| 54) o-xylene                   | 9.59  | 106  | 388180   | 51.605  | ug/L  | 100      |
| 55) Styrene                    | 9.61  | 104  | 709934   | 54.656  | ug/L  | 99       |
| 56) Isopropylbenzene           | 9.98  | 105  | 997480   | 52.588  | ug/L  | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.29 | 83   | 435948   | 48.697  | ug/L  | 100      |
| 59) 1,2,3-Trichloropropane     | 10.32 | 75   | 344124   | 48.198  | ug/L  | 99       |
| 61) Bromoform                  | 9.78  | 173  | 189132   | 46.925  | ug/L  | 100      |
| 62) 1,3-Dichlorobenzene        | 11.23 | 146  | 466486   | 48.365  | ug/L  | 99       |
| 63) 1,4-Dichlorobenzene        | 11.32 | 146  | 506810   | 49.628  | ug/L  | 100      |
| 65) 1,2-Dichlorobenzene        | 11.70 | 146  | 533642   | 50.338  | ug/L  | 99       |
| 66) 1,2-Dibromo-3-chloropropan | 12.48 | 75   | 72303    | 48.055  | ug/L  | 97       |
| 67) 1,3,5-Trichlorobenzene     | 12.70 | 180  | 350389   | 53.371  | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.32 | 180  | 251852   | 56.520  | ug/L  | 99       |
| 69) Naphthalene                | 13.56 | 128  | 658490   | 54.217  | ug/L  | 99       |
| 70) 1,2,3-Trichlorobenzene     | 13.80 | 180  | 284346   | 58.326  | ug/L  | 99       |

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





#2

Dichlorodifluoromethane

Concen: 48.983 ug/L

RT: 1.14 min Scan# 77

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

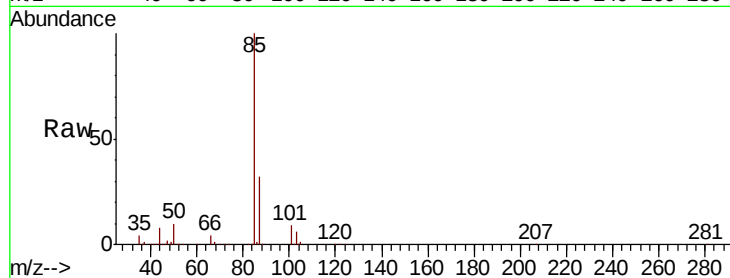
VSTD05063

Tgt Ion: 85 Resp: 275958

Ion Ratio Lower Upper

85 100

87 31.8 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VV007143.D (-70) (-)

Ion 87.00 (86.70 to 87.70): VV007143.D (-70) (-)

1.14

300000

250000

200000

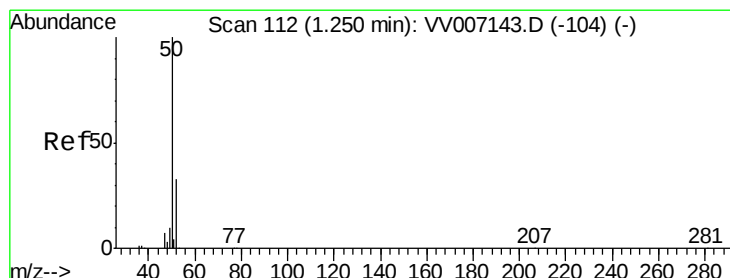
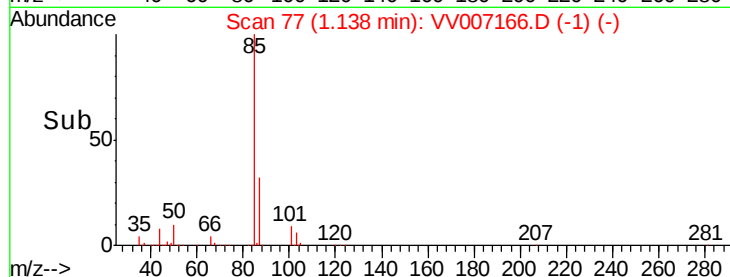
150000

100000

50000

0

Time-->



#3

Chloromethane

Concen: 45.655 ug/L

RT: 1.25 min Scan# 112

Delta R.T. 0.00 min

Lab File: VV007166.D

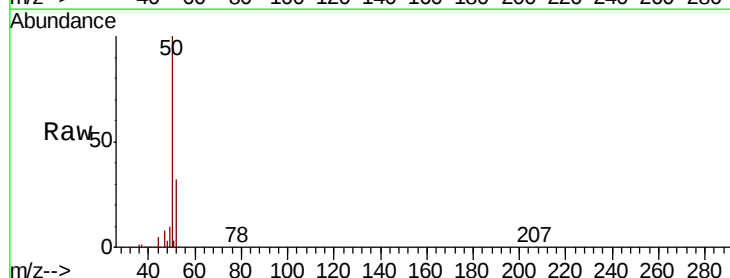
Acq: 24 Aug 2018 02:21

Tgt Ion: 50 Resp: 325646

Ion Ratio Lower Upper

50 100

52 32.3 23.0 42.8



Abundance Ion 50.00 (49.70 to 50.70): VV007143.D (-104) (-)

Ion 52.00 (51.70 to 52.70): VV007143.D (-104) (-)

1.25

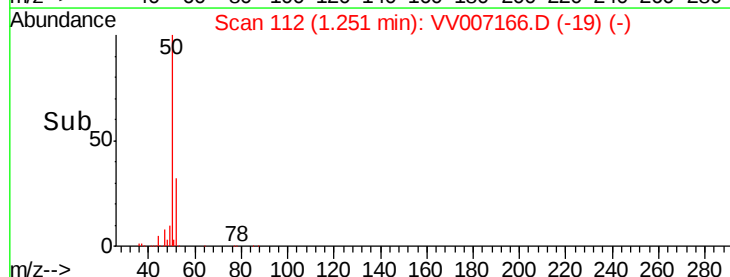
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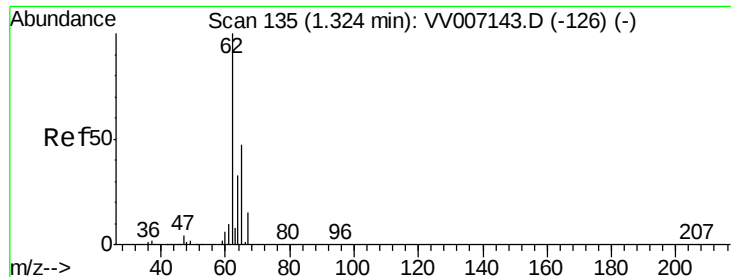
200000

100000

0

Time-->





#5

Vinyl chloride

Concen: 49.255 ug/L

RT: 1.32 min Scan# 134

Delta R.T. -0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

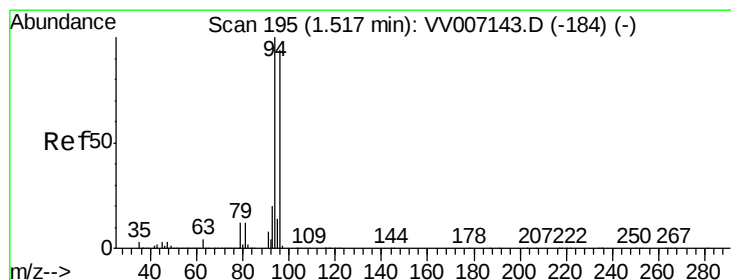
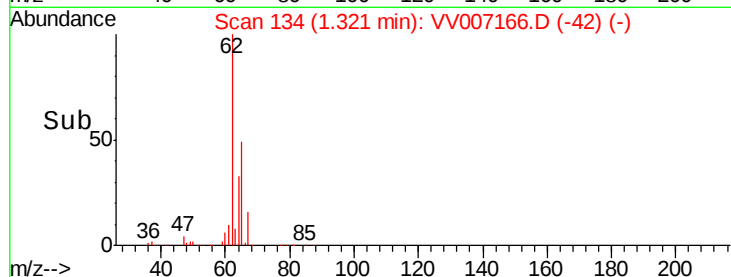
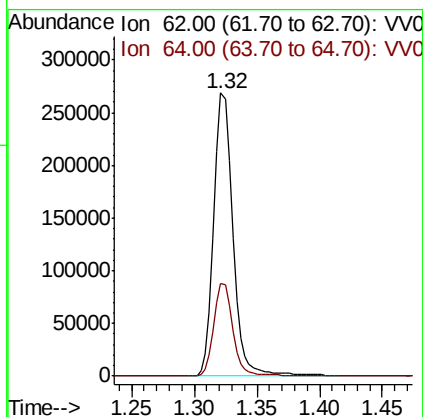
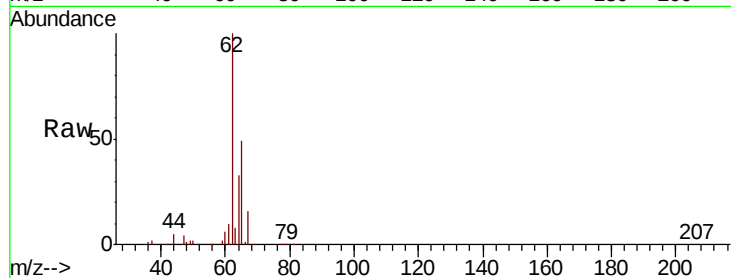
VSTD05063

Tgt Ion: 62 Resp: 288402

Ion Ratio Lower Upper

62 100

64 32.9 23.4 43.4



#6

Bromomethane

Concen: 45.840 ug/L

RT: 1.52 min Scan# 195

Delta R.T. 0.00 min

Lab File: VV007166.D

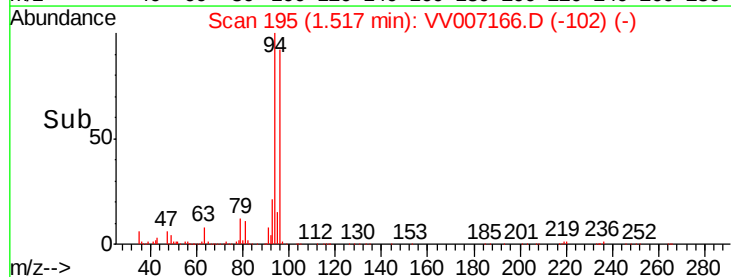
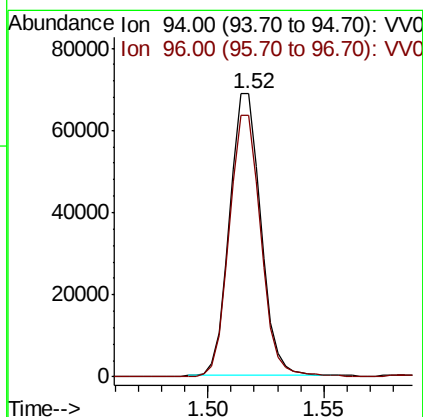
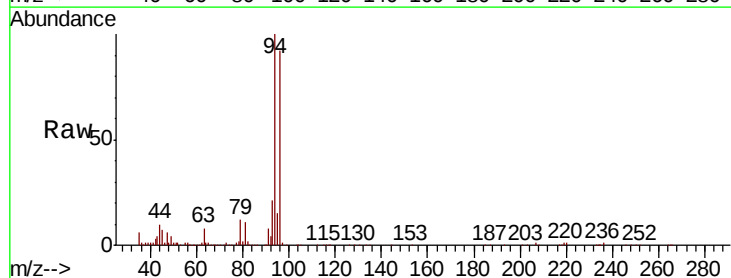
Acq: 24 Aug 2018 02:21

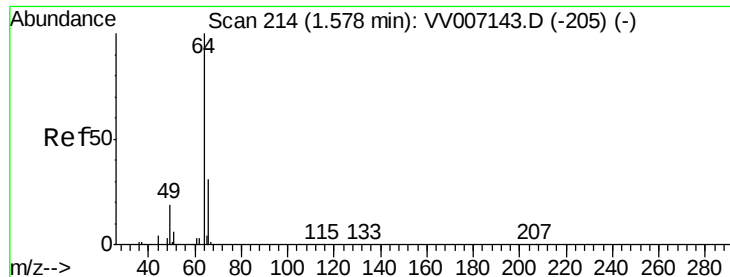
Tgt Ion: 94 Resp: 63834

Ion Ratio Lower Upper

94 100

96 92.3 65.5 121.6





#8

Chloroethane

Concen: 51.004 ug/L

RT: 1.58 min Scan# 216

Delta R.T. 0.01 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampled :

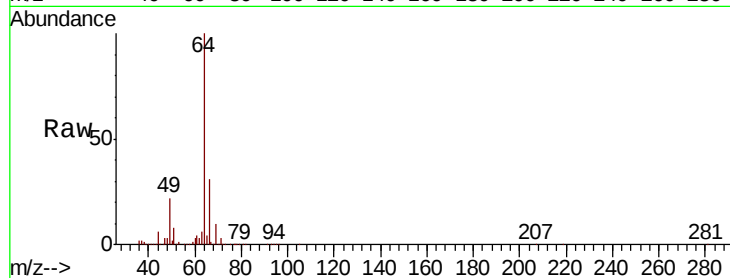
VSTD05063

Tgt Ion: 64 Resp: 162360

Ion Ratio Lower Upper

64 100

66 31.5 22.8 42.4



Abundance Ion 64.00 (63.70 to 64.70): VV007143.D (-205) (-)

Ion 66.00 (65.70 to 66.70): VV007143.D (-205) (-)

1.58

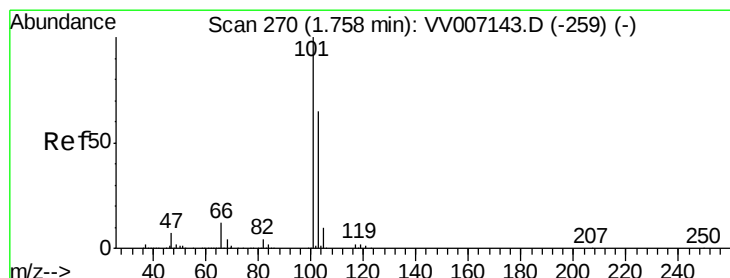
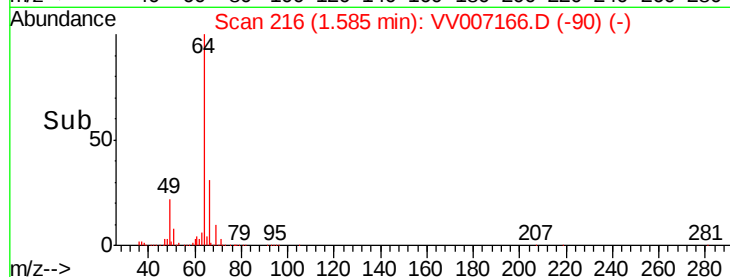
150000

100000

50000

0

Time-->



#9

Trichlorofluoromethane

Concen: 49.850 ug/L

RT: 1.76 min Scan# 271

Delta R.T. 0.00 min

Lab File: VV007166.D

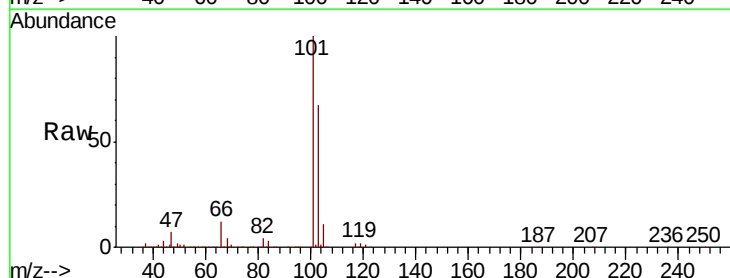
Acq: 24 Aug 2018 02:21

Tgt Ion: 101 Resp: 351034

Ion Ratio Lower Upper

101 100

103 65.7 52.5 78.7



Abundance Ion 101.00 (100.70 to 101.70): VV007143.D (-259) (-)

Ion 103.00 (102.70 to 103.70): VV007143.D (-259) (-)

1.76

300000

250000

200000

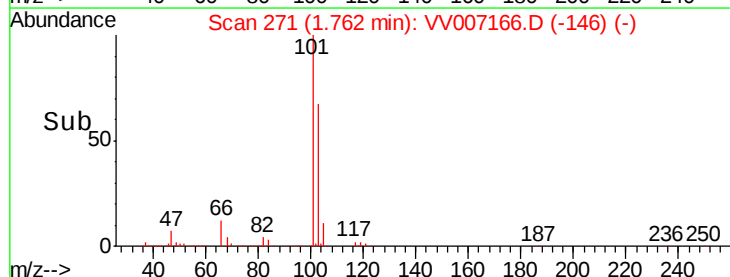
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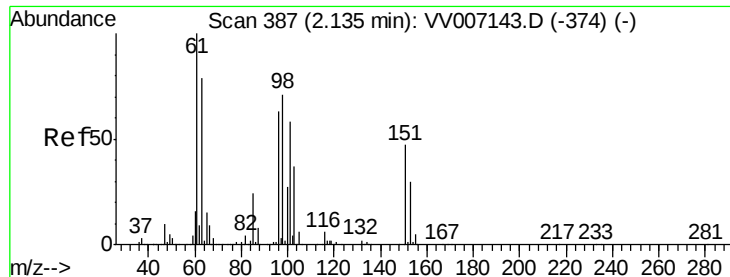
100000

50000

0

Time-->





#10

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

Concen: 49.142 ug/L

RT: 2.14 min Scan# 388

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

VSTD05063

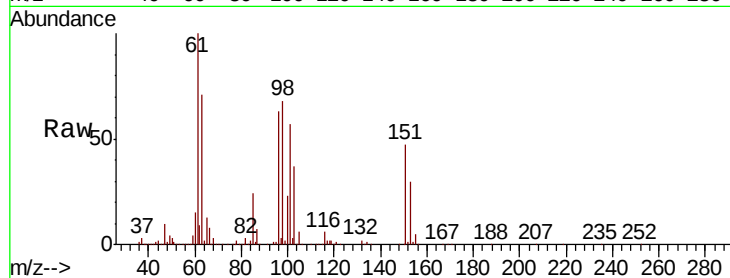
Tgt Ion: 101 Resp: 211169

Ion Ratio Lower Upper

101 100

85 40.9 32.5 48.7

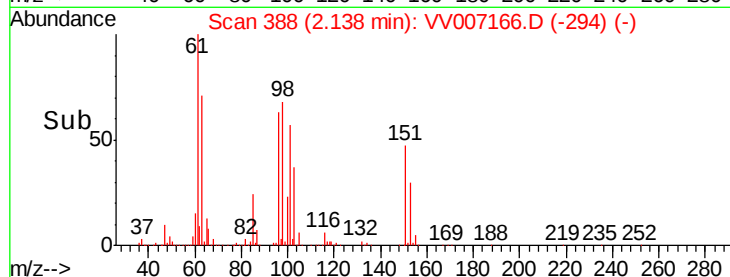
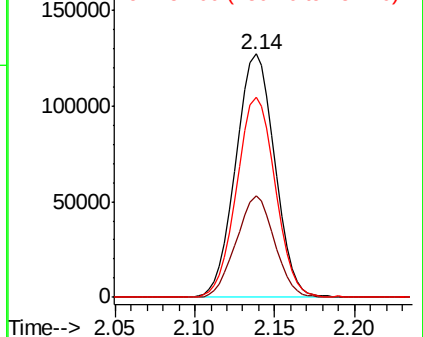
151 81.4 65.2 97.8



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: 48.971 ug/L

RT: 2.14 min Scan# 388

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

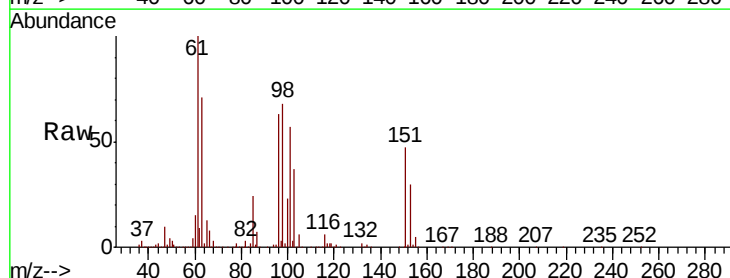
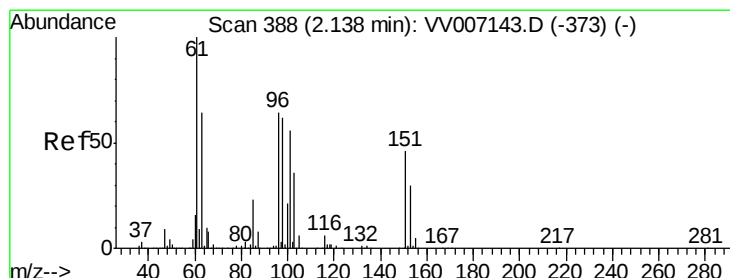
Tgt Ion: 96 Resp: 200991

Ion Ratio Lower Upper

96 100

61 158.7 110.0 204.2

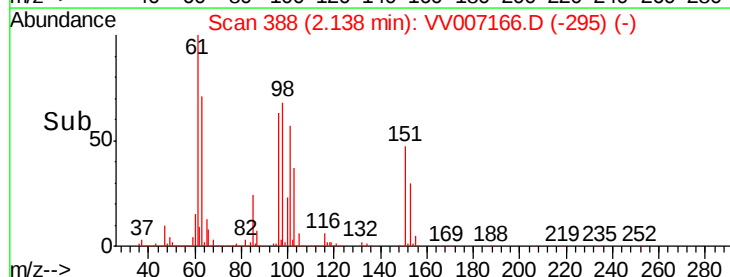
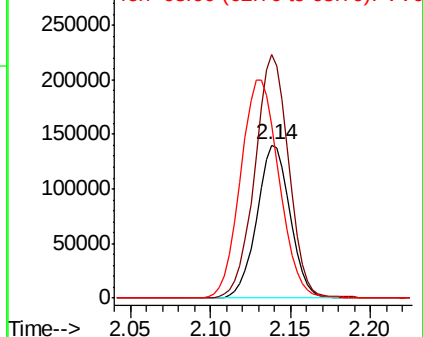
63 112.6 81.8 152.0

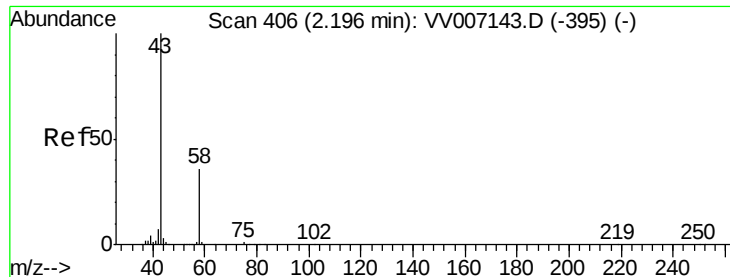


Abundance Ion 96.00 (95.70 to 96.70): VV0

Ion 61.00 (60.70 to 61.70): VV0

Ion 63.00 (62.70 to 63.70): VV0





#13

Acetone

Concen: 75.505 ug/L

RT: 2.19 min Scan# 405

Delta R.T. -0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

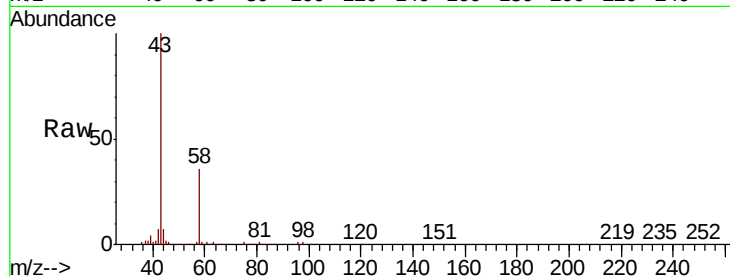
VSTD05063

Tgt Ion: 43 Resp: 195321

Ion Ratio Lower Upper

43 100

58 36.8 0.0 73.0



Abundance Ion 43.00 (42.70 to 43.70): VV007143.D (-395) (-)

Ion 58.00 (57.70 to 58.70): VV007143.D (-395) (-)

2.19

150000

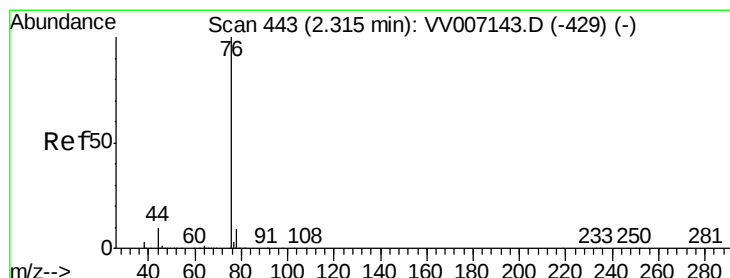
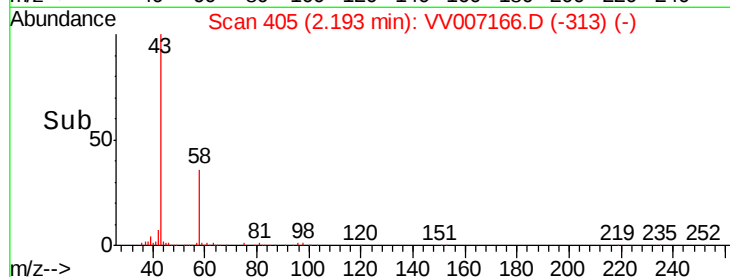
100000

50000

0

Time-->

2.15 2.20 2.25



#14

Carbon disulfide

Concen: 48.309 ug/L

RT: 2.31 min Scan# 443

Delta R.T. 0.00 min

Lab File: VV007166.D

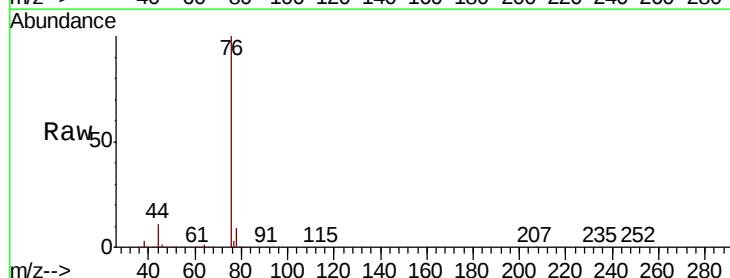
Acq: 24 Aug 2018 02:21

Tgt Ion: 76 Resp: 604838

Ion Ratio Lower Upper

76 100

78 9.2 7.2 10.8



Abundance Ion 76.00 (75.70 to 76.70): VV007143.D (-429) (-)

Ion 78.00 (77.70 to 78.70): VV007143.D (-429) (-)

2.31

500000

400000

300000

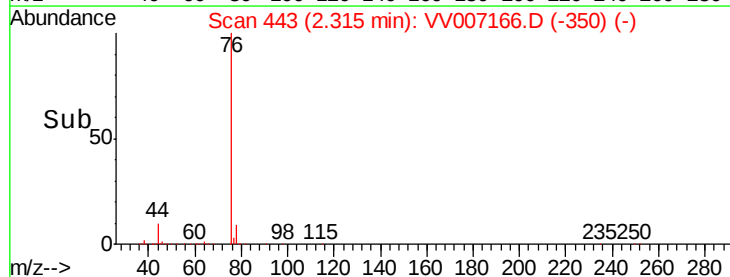
200000

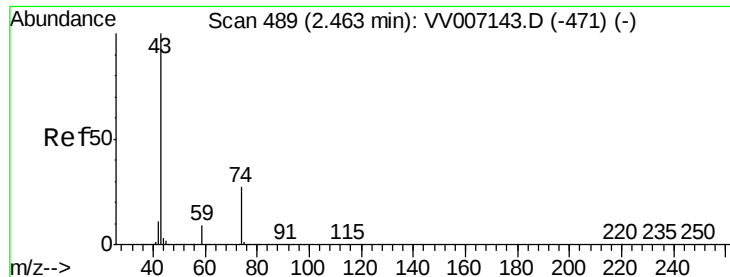
100000

0

Time-->

2.25 2.30 2.35

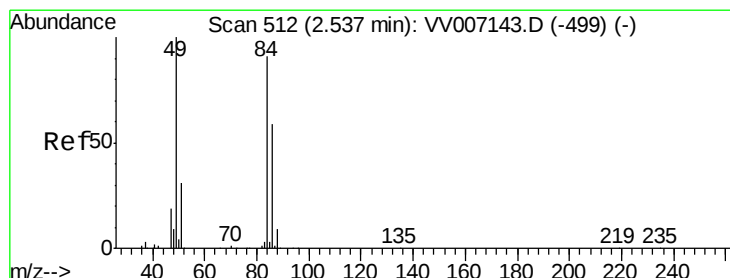
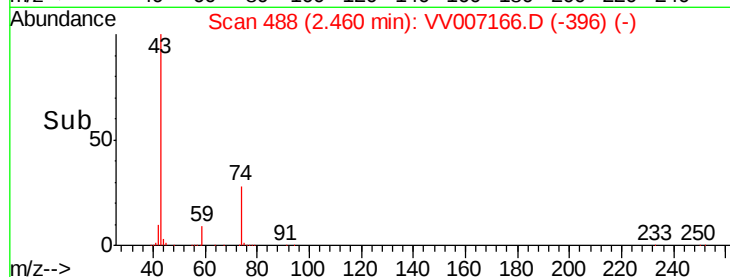
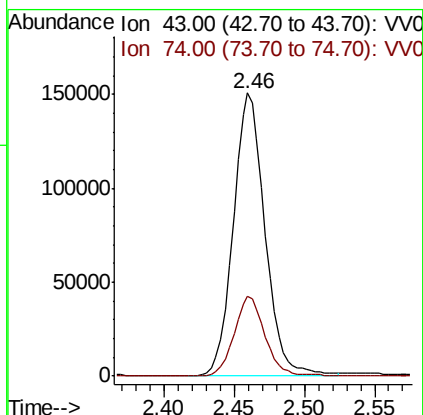
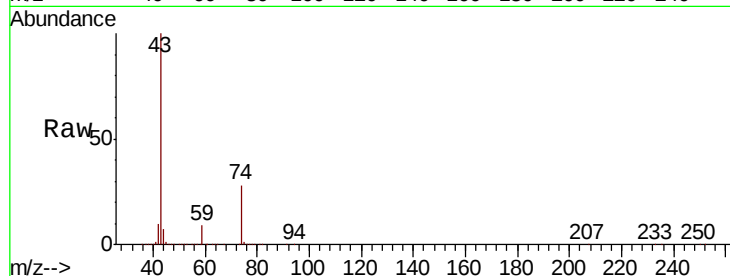




#15  
Methyl Acetate  
Concen: 49.872 ug/L  
RT: 2.46 min Scan# 488  
Delta R.T. -0.00 min  
Lab File: VV007166.D  
Acq: 24 Aug 2018 02:21

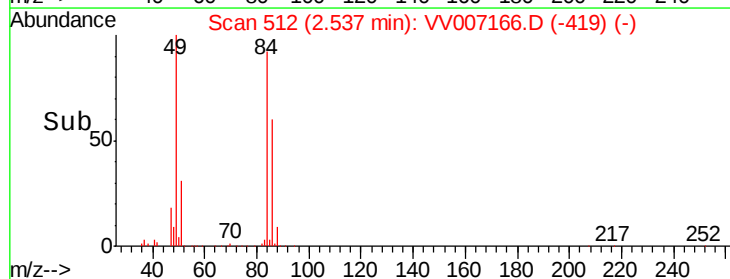
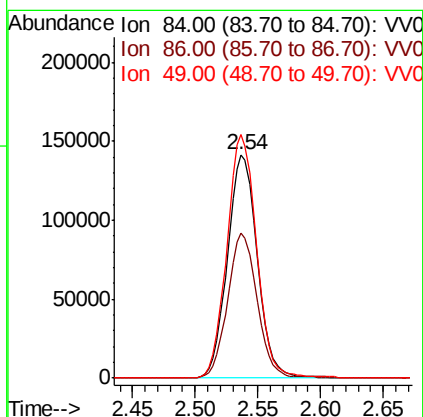
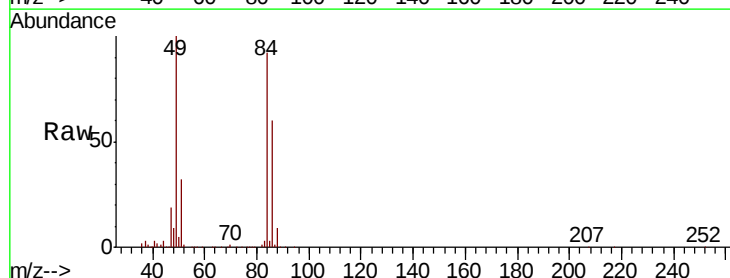
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD05063

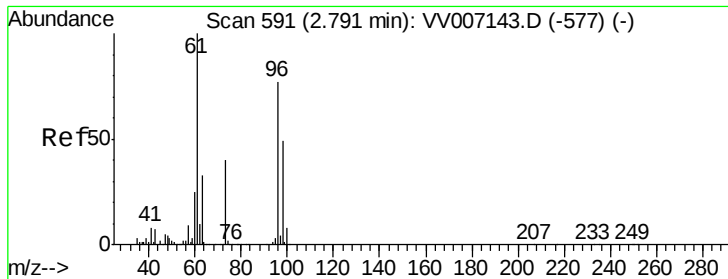
Tgt Ion: 43 Resp: 234387  
Ion Ratio Lower Upper  
43 100  
74 27.9 22.2 33.2



#16  
Methylene chloride  
Concen: 49.594 ug/L  
RT: 2.54 min Scan# 512  
Delta R.T. 0.00 min  
Lab File: VV007166.D  
Acq: 24 Aug 2018 02:21

Tgt Ion: 84 Resp: 233958  
Ion Ratio Lower Upper  
84 100  
86 64.9 45.4 84.4  
49 109.0 76.7 142.5





#17

trans-1,2-Dichloroethene

Concen: 49.221 ug/L

RT: 2.79 min Scan# 591

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

VSTD05063

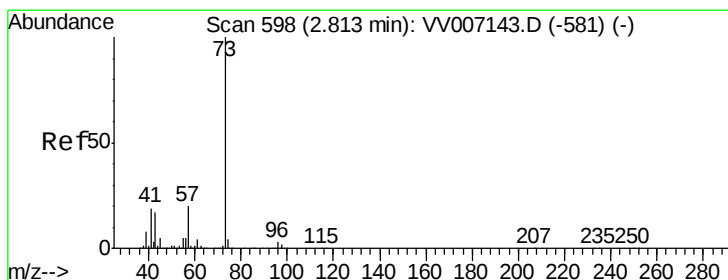
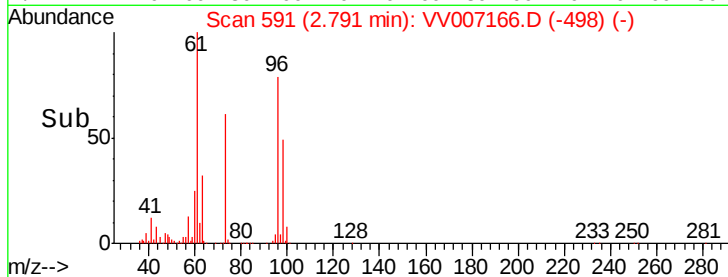
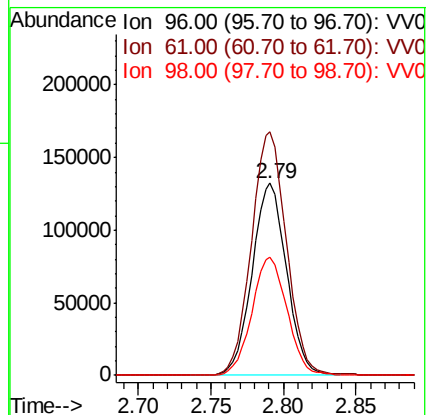
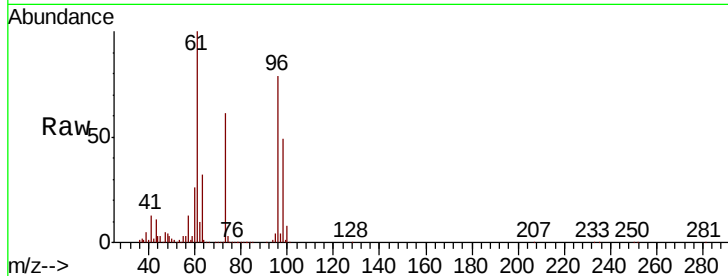
Tgt Ion: 96 Resp: 219071

Ion Ratio Lower Upper

96 100

61 126.7 89.1 165.5

98 61.5 43.6 81.0



#18

Methyl tert-butyl Ether

Concen: 49.324 ug/L

RT: 2.81 min Scan# 597

Delta R.T. -0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

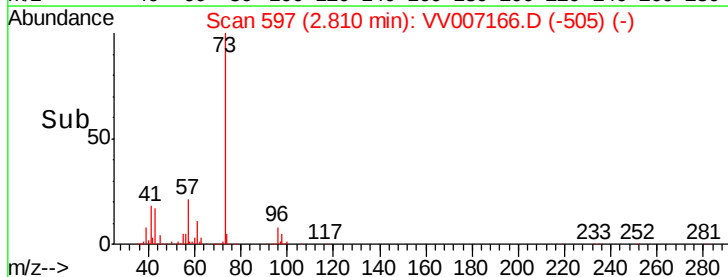
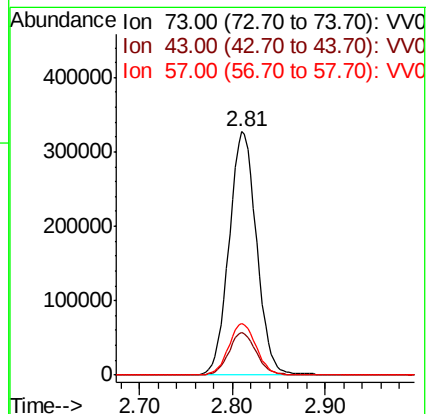
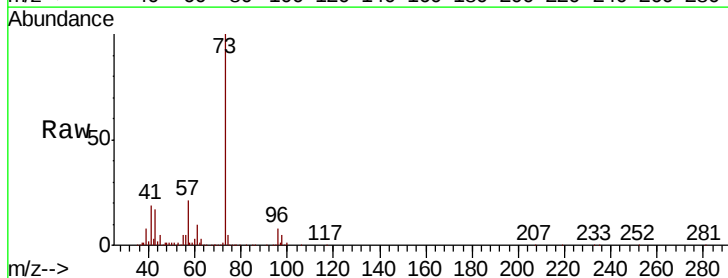
Tgt Ion: 73 Resp: 673728

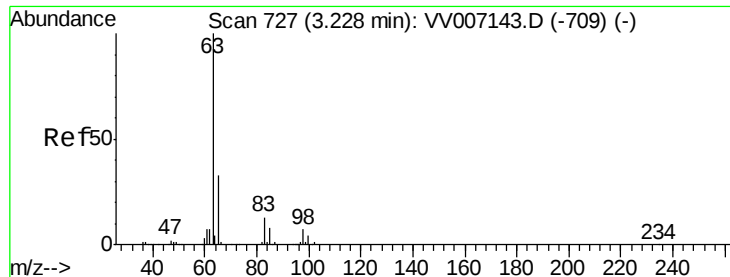
Ion Ratio Lower Upper

73 100

43 17.1 13.6 20.4

57 21.3 16.6 25.0

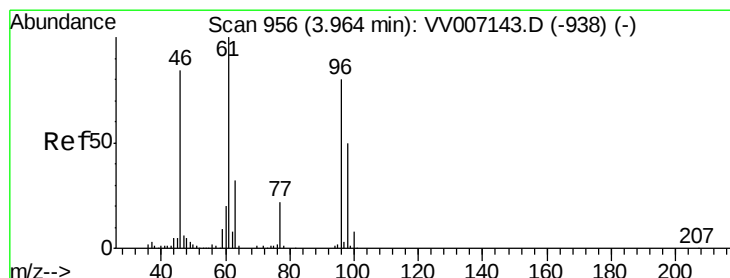
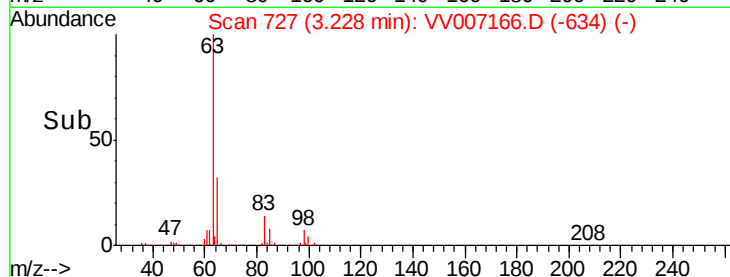
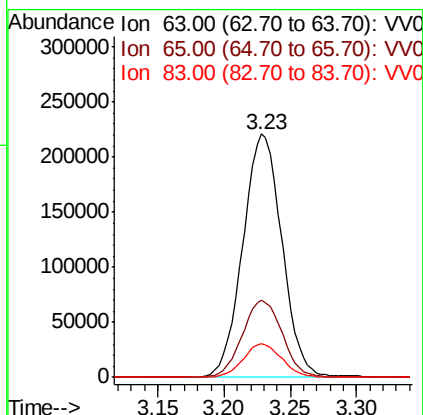
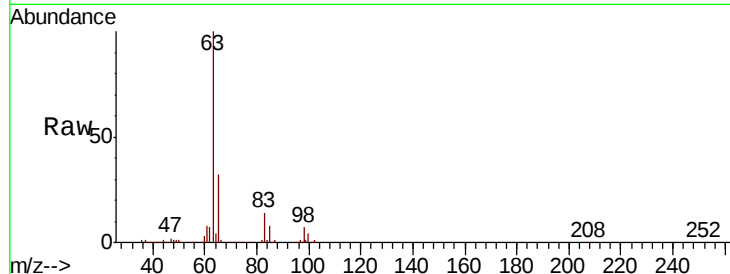




#19  
 1,1-Dichloroethane  
 Concen: 49.552 ug/L  
 RT: 3.23 min Scan# 727  
 Delta R.T. 0.00 min  
 Lab File: VV007166.D  
 Acq: 24 Aug 2018 02:21

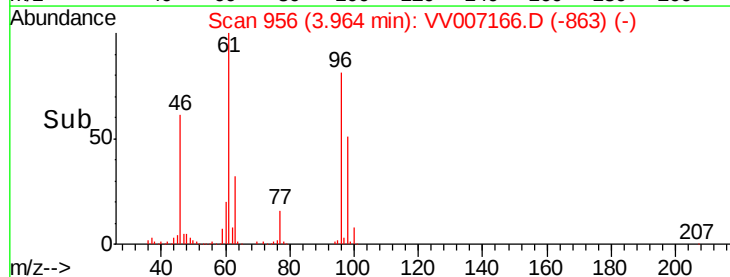
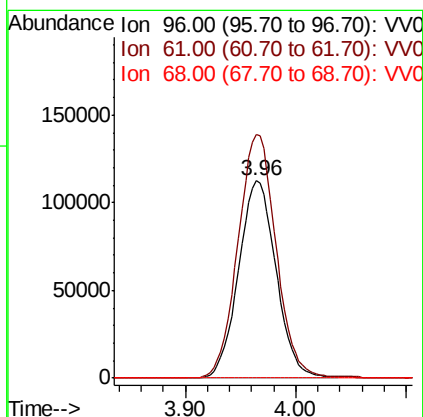
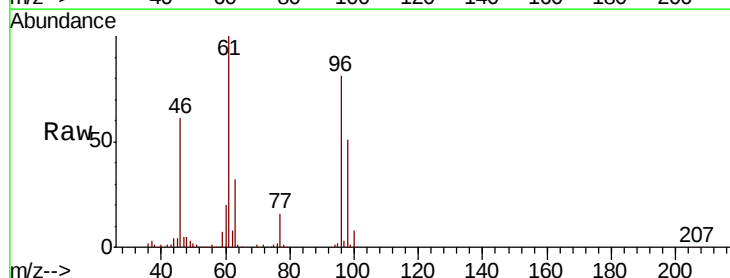
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD05063

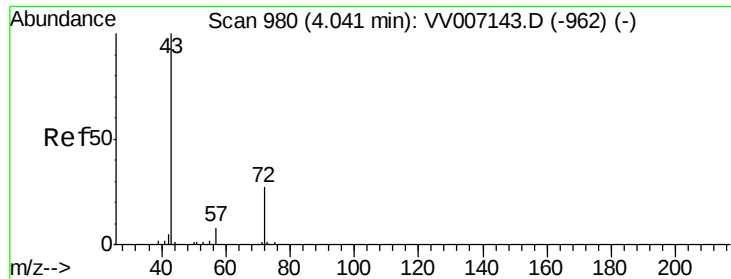
Tgt Ion: 63 Resp: 453911  
 Ion Ratio Lower Upper  
 63 100  
 65 31.6 22.7 42.3  
 83 13.6 9.4 17.6



#20  
 cis-1,2-Dichloroethene  
 Concen: 51.344 ug/L  
 RT: 3.96 min Scan# 956  
 Delta R.T. 0.00 min  
 Lab File: VV007166.D  
 Acq: 24 Aug 2018 02:21

Tgt Ion: 96 Resp: 265579  
 Ion Ratio Lower Upper  
 96 100  
 61 123.5 89.0 165.4  
 68 0.0 0.0 0.0





#22

2-Butanone

Concen: 93.290 ug/L

RT: 4.03 min Scan# 977

Delta R.T. -0.01 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

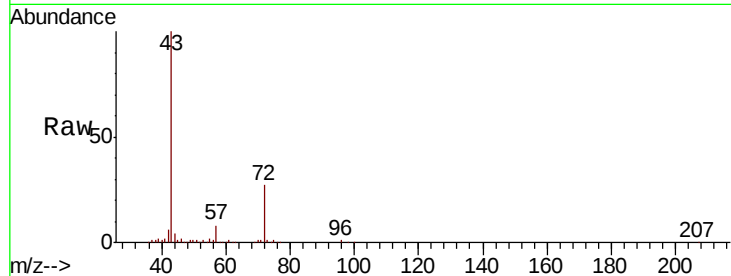
VSTD05063

Tgt Ion: 43 Resp: 381263

Ion Ratio Lower Upper

43 100

72 26.6 13.6 40.8



Abundance Ion 43.00 (42.70 to 43.70): VV007143.D (-962) (-)

Ion 72.00 (71.70 to 72.70): VV007143.D (-962) (-)

4.03

150000

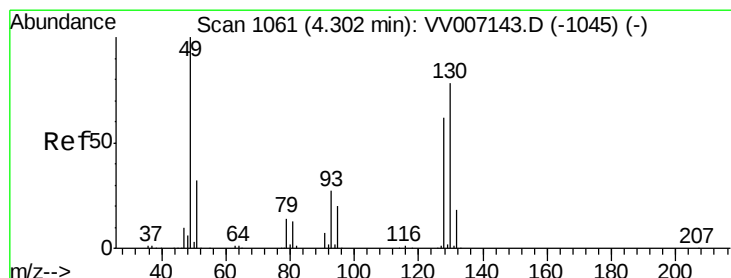
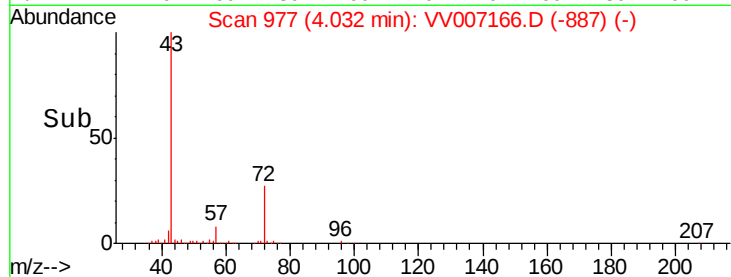
100000

50000

0

4.00 4.10

Time-->



#23

Bromochloromethane

Concen: 49.563 ug/L

RT: 4.30 min Scan# 1061

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Tgt Ion: 128 Resp: 131818

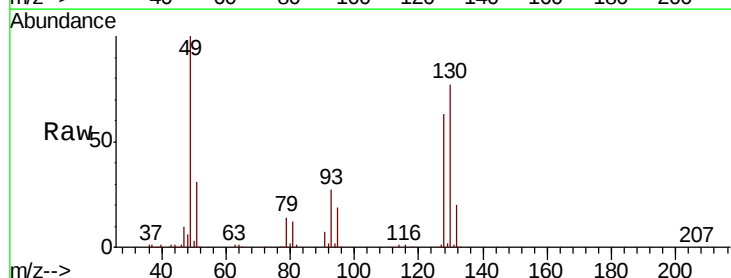
Ion Ratio Lower Upper

128 100

49 159.4 116.4 216.2

130 122.4 91.6 170.2

51 50.2 41.4 62.2



Abundance Ion 128.00 (127.70 to 128.70): VV007166.D (-968) (-)

Ion 49.00 (48.70 to 49.70): VV007166.D (-968) (-)

Ion 130.00 (129.70 to 130.70): VV007166.D (-968) (-)

Ion 51.00 (50.70 to 51.70): VV007166.D (-968) (-)

4.30

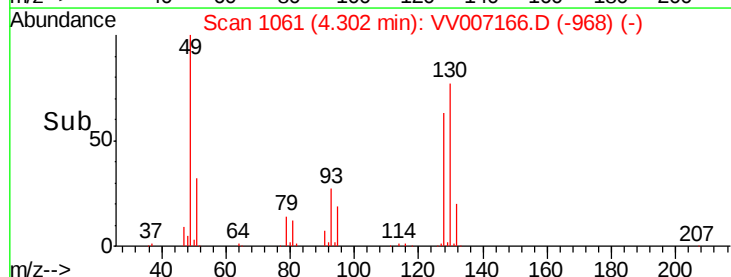
100000

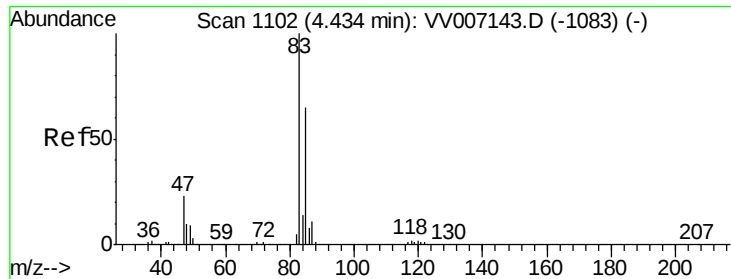
50000

0

4.20 4.25 4.30 4.35 4.40

Time-->





#25

Chloroform

Concen: 49.998 ug/L

RT: 4.43 min Scan# 1102

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

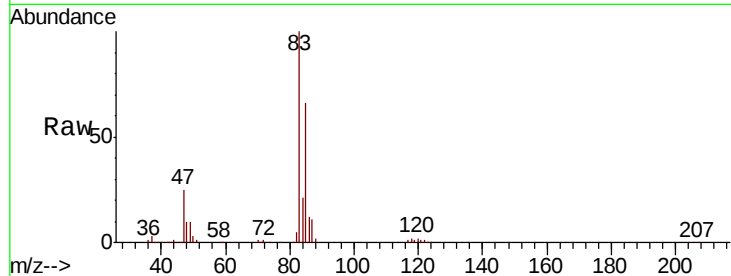
VSTD05063

Tgt Ion: 83 Resp: 449067

Ion Ratio Lower Upper

83 100

85 65.9 44.4 82.5



Abundance Ion 83.00 (82.70 to 83.70): VV007143.D (-1083) (-)

Ion 85.00 (84.70 to 85.70): VV007143.D (-1083) (-)

4.43

200000

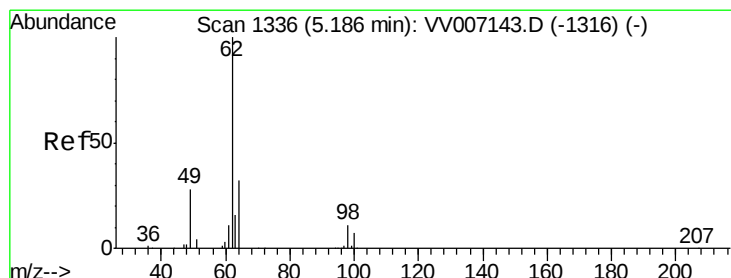
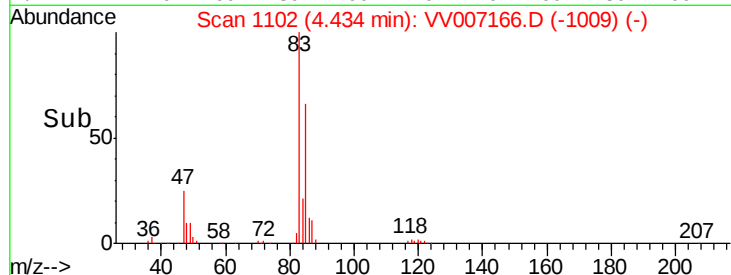
150000

100000

50000

0

Time-->



#27

1,2-Dichloroethane

Concen: 50.276 ug/L

RT: 5.19 min Scan# 1336

Delta R.T. 0.00 min

Lab File: VV007166.D

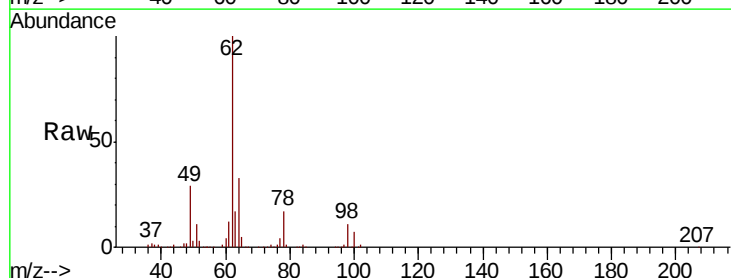
Acq: 24 Aug 2018 02:21

Tgt Ion: 62 Resp: 342578

Ion Ratio Lower Upper

62 100

98 10.7 8.7 13.1



Abundance Ion 62.00 (61.70 to 62.70): VV007143.D (-1316) (-)

Ion 98.00 (97.70 to 98.70): VV007143.D (-1316) (-)

5.19

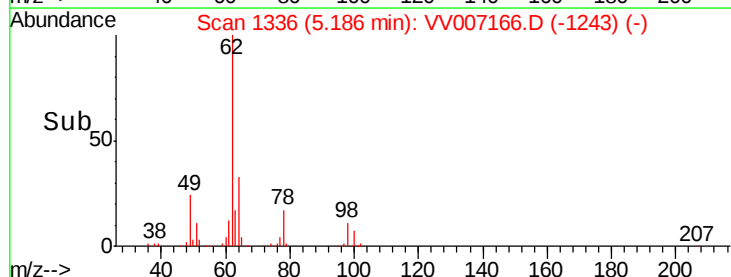
150000

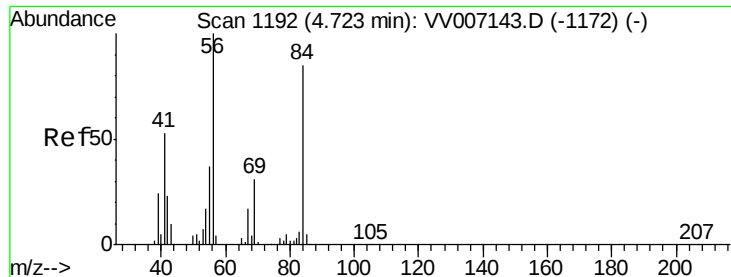
100000

50000

0

Time-->

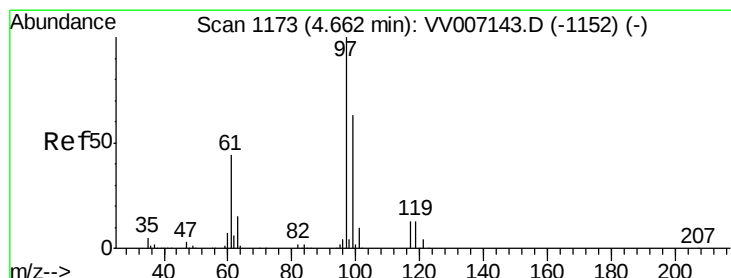
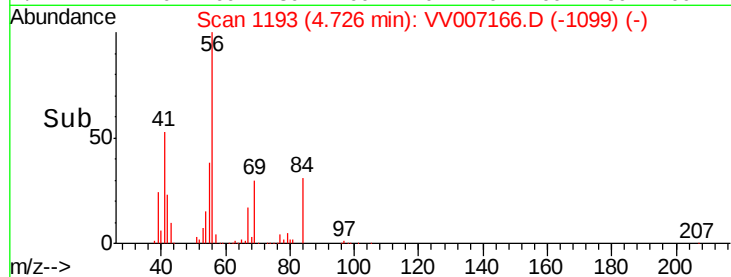
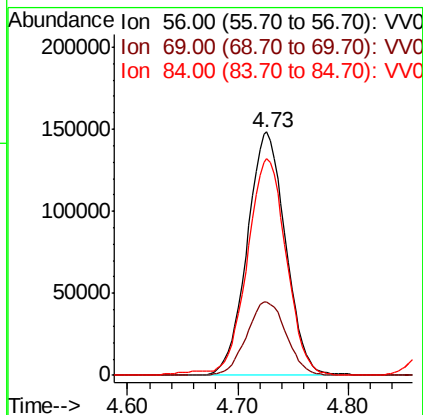
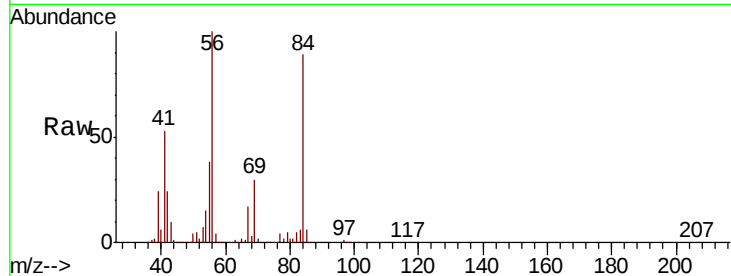




#29  
Cyclohexane  
Concen: 47.023 ug/L  
RT: 4.73 min Scan# 1193  
Delta R.T. 0.00 min  
Lab File: VV007166.D  
Acq: 24 Aug 2018 02:21

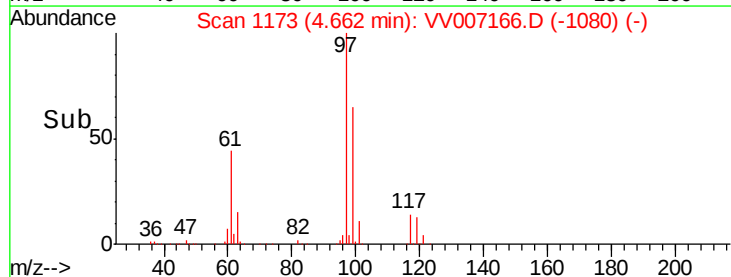
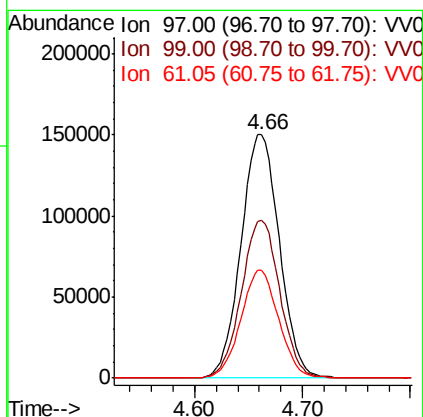
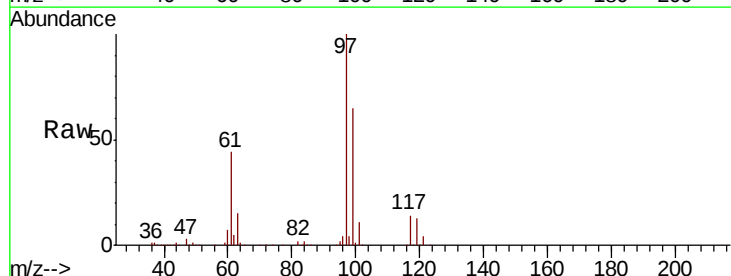
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD05063

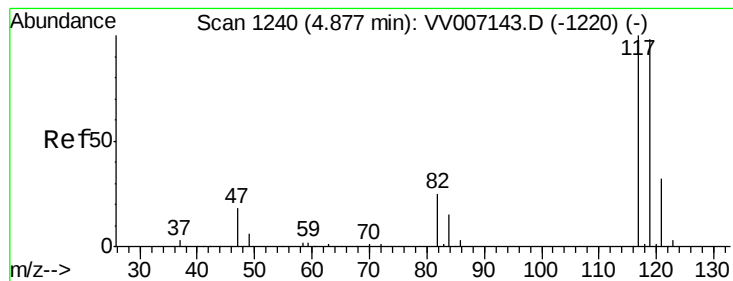
Tgt Ion: 56 Resp: 357366  
Ion Ratio Lower Upper  
56 100  
69 31.1 24.5 36.7  
84 89.0 69.0 103.6



#30  
1,1,1-Trichloroethane  
Concen: 48.698 ug/L  
RT: 4.66 min Scan# 1173  
Delta R.T. 0.00 min  
Lab File: VV007166.D  
Acq: 24 Aug 2018 02:21

Tgt Ion: 97 Resp: 373024  
Ion Ratio Lower Upper  
97 100  
99 64.7 51.3 76.9  
61 43.7 34.8 52.2





#31

Carbon tetrachloride

Concen: 49.605 ug/L

RT: 4.88 min Scan# 1240

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

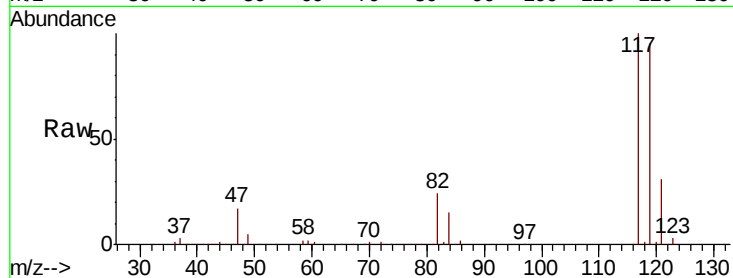
VSTD05063

Tgt Ion:117 Resp: 320015

Ion Ratio Lower Upper

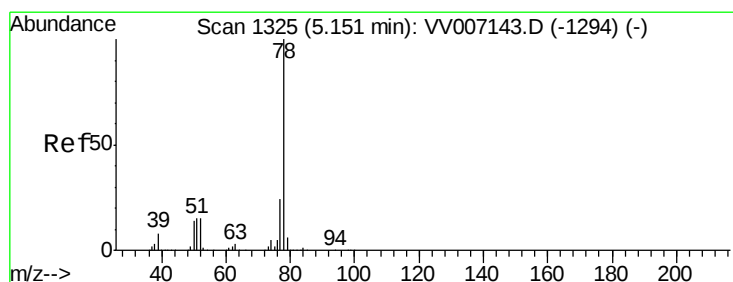
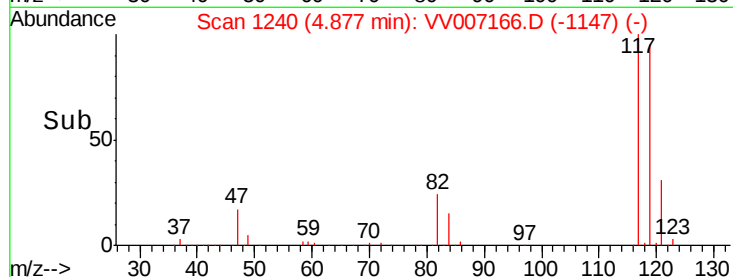
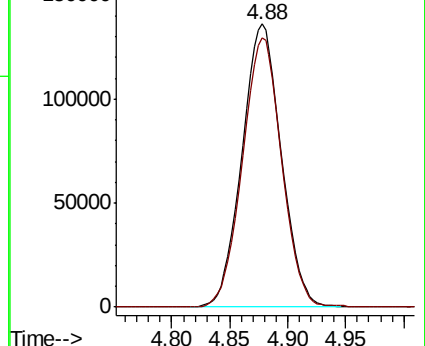
117 100

119 95.1 77.4 116.2



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V



#33

Benzene

Concen: 49.996 ug/L

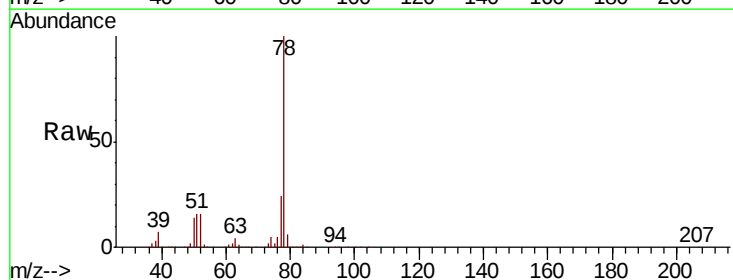
RT: 5.15 min Scan# 1325

Delta R.T. 0.00 min

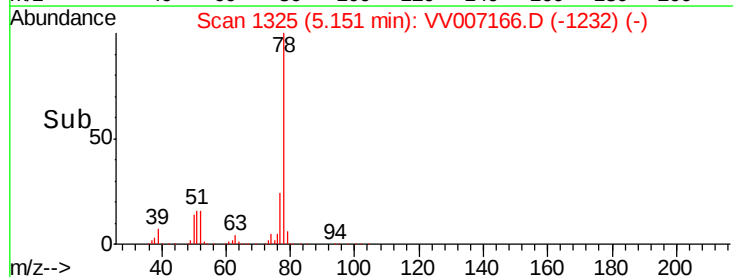
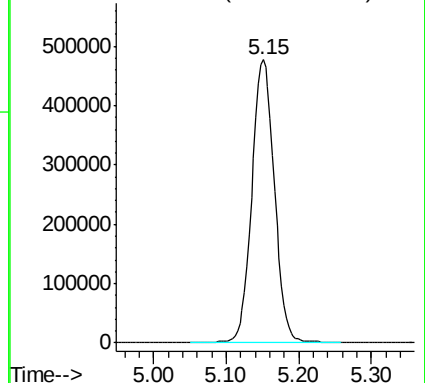
Lab File: VV007166.D

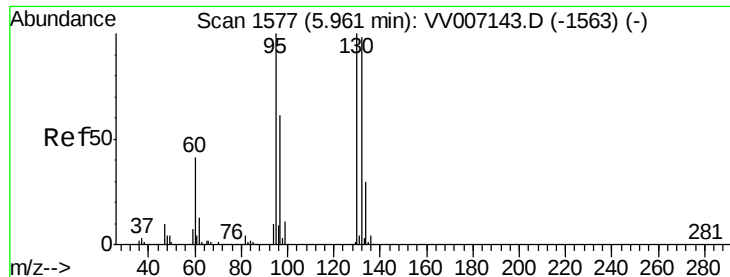
Acq: 24 Aug 2018 02:21

Tgt Ion: 78 Resp: 1035350



Abundance Ion 78.00 (77.70 to 78.70): VV0

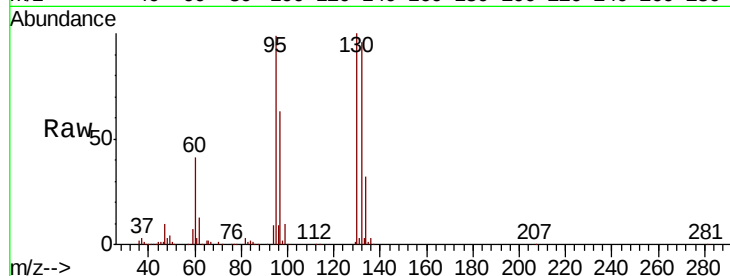




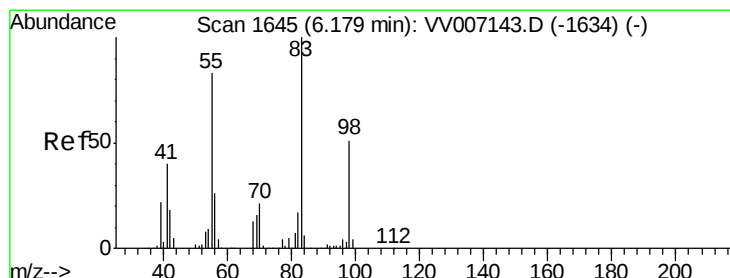
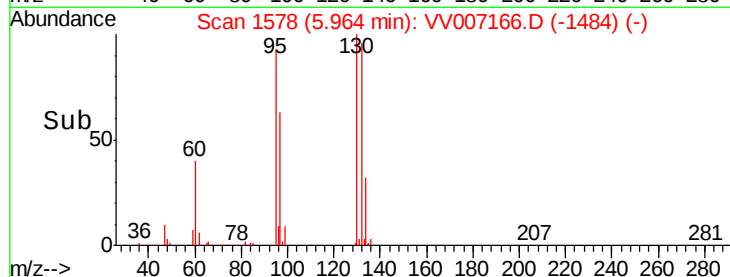
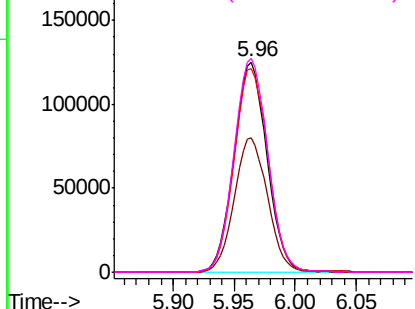
#34  
 Trichloroethene  
 Concen: 47.999 ug/L  
 RT: 5.96 min Scan# 1578  
 Delta R.T. 0.00 min  
 Lab File: VV007166.D  
 Acq: 24 Aug 2018 02:21

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD05063

Tgt Ion: 95 Resp: 235582  
 Ion Ratio Lower Upper  
 95 100  
 97 63.9 45.1 83.9  
 132 96.9 69.7 129.4  
 130 101.5 73.6 136.6

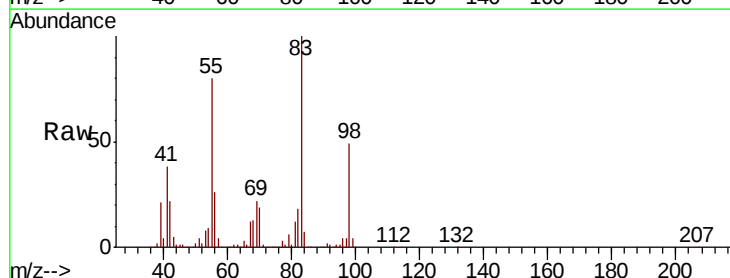


Abundance Ion 95.00 (94.70 to 95.70): VV0  
 200000 Ion 97.00 (96.70 to 97.70): VV0  
 150000 Ion 132.00 (131.70 to 132.70): VV0  
 100000 Ion 130.00 (129.70 to 130.70): VV0

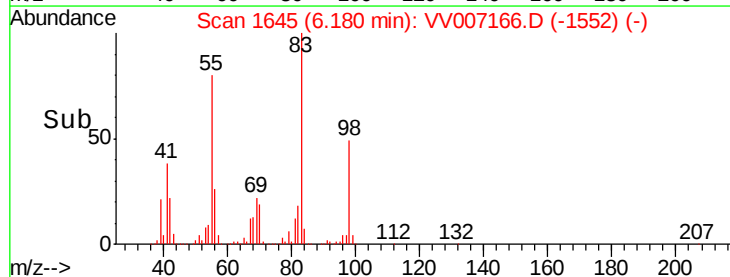
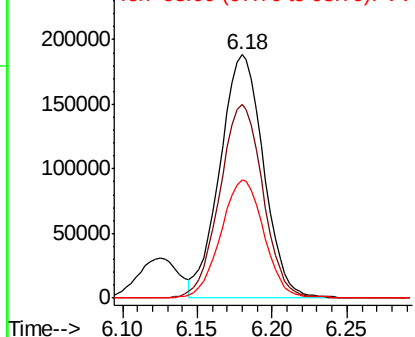


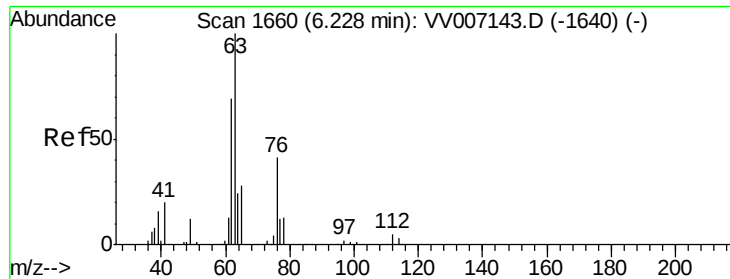
#35  
 Methylcyclohexane  
 Concen: 48.474 ug/L  
 RT: 6.18 min Scan# 1645  
 Delta R.T. 0.00 min  
 Lab File: VV007166.D  
 Acq: 24 Aug 2018 02:21

Tgt Ion: 83 Resp: 378540  
 Ion Ratio Lower Upper  
 83 100  
 55 79.7 65.5 98.3  
 98 48.8 39.2 58.8



Abundance Ion 83.00 (82.70 to 83.70): VV0  
 250000 Ion 55.00 (54.70 to 55.70): VV0  
 200000 Ion 98.00 (97.70 to 98.70): VV0





#37

1,2-Dichloropropane

Concen: 49.316 ug/L

RT: 6.23 min Scan# 1660

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

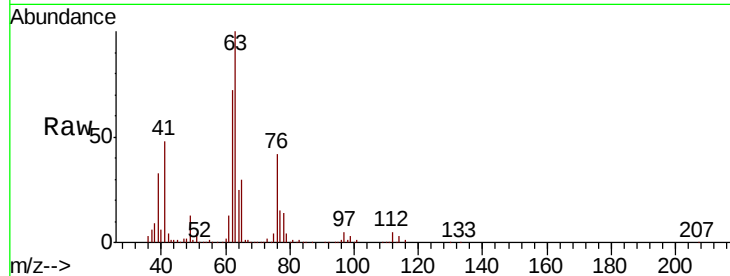
VSTD05063

Tgt Ion: 63 Resp: 270953

Ion Ratio Lower Upper

63 100

112 5.0 4.0 6.0



Abundance Ion 63.00 (62.70 to 63.70): VV007143.D (-1640) (-)

Ion 112.00 (111.70 to 112.70): VV007143.D (-1640) (-)

6.23

150000

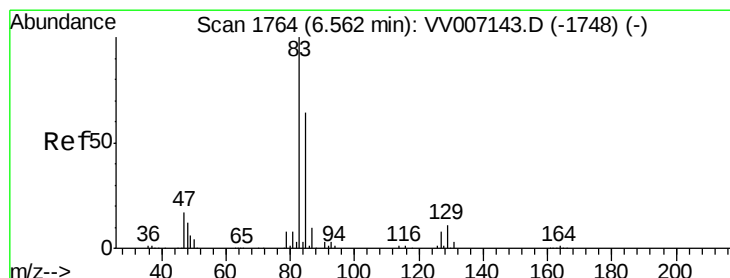
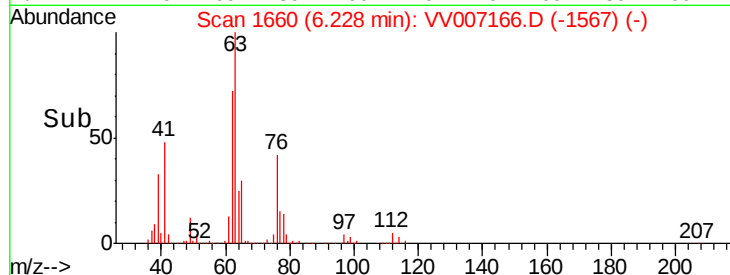
100000

50000

0

6.15 6.20 6.25 6.30 6.35

Time-->



#38

Bromodichloromethane

Concen: 49.331 ug/L

RT: 6.56 min Scan# 1764

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

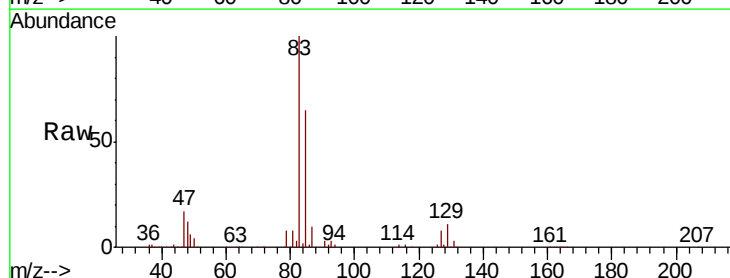
Tgt Ion: 83 Resp: 326263

Ion Ratio Lower Upper

83 100

85 64.9 44.9 83.3

127 8.5 7.0 10.4



Abundance Ion 83.00 (82.70 to 83.70): VV007143.D (-1748) (-)

Ion 85.00 (84.70 to 85.70): VV007143.D (-1748) (-)

Ion 127.00 (126.70 to 127.70): VV007143.D (-1748) (-)

6.56

200000

150000

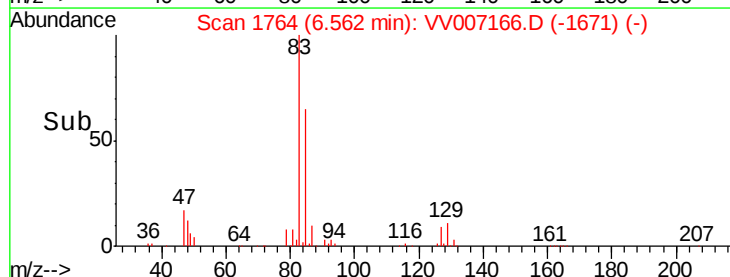
100000

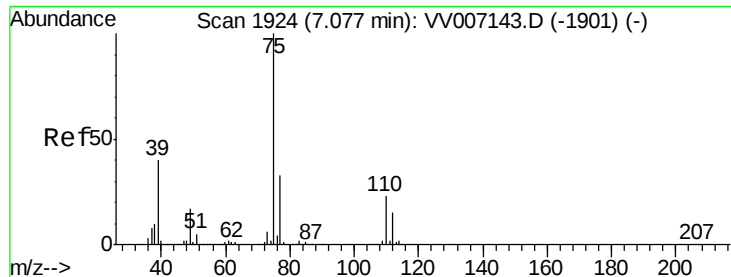
50000

0

6.45 6.50 6.55 6.60 6.65

Time-->

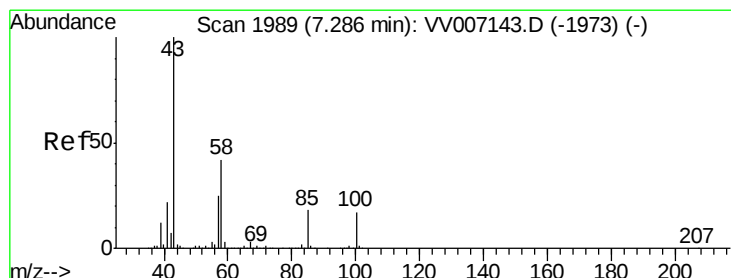
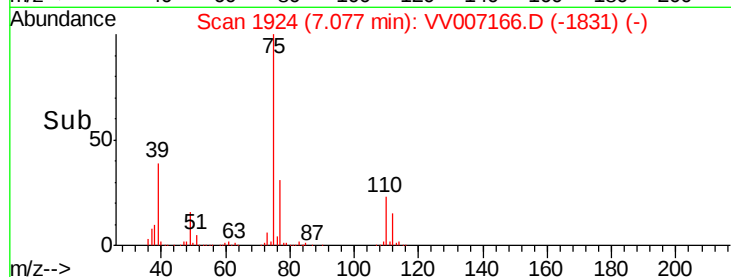
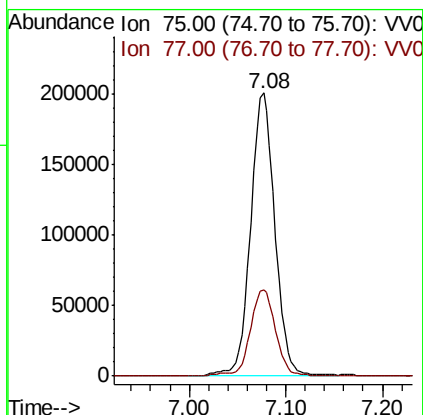
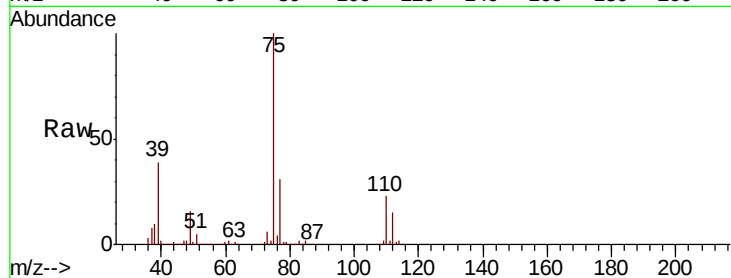




#39  
 cis-1,3-Dichloropropene  
 Concen: 47.170 ug/L  
 RT: 7.08 min Scan# 1924  
 Delta R.T. 0.00 min  
 Lab File: VV007166.D  
 Acq: 24 Aug 2018 02:21

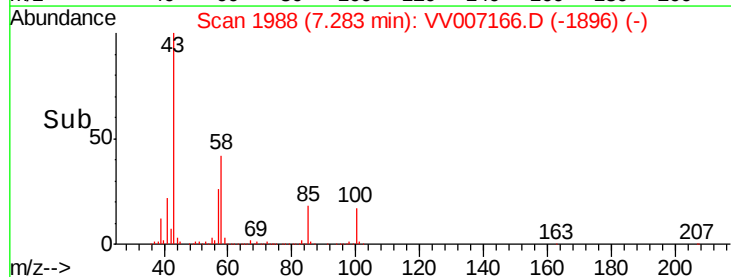
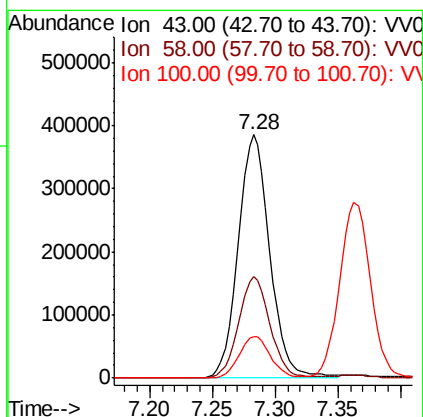
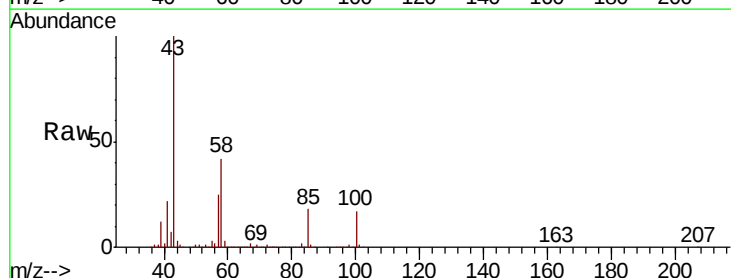
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD05063

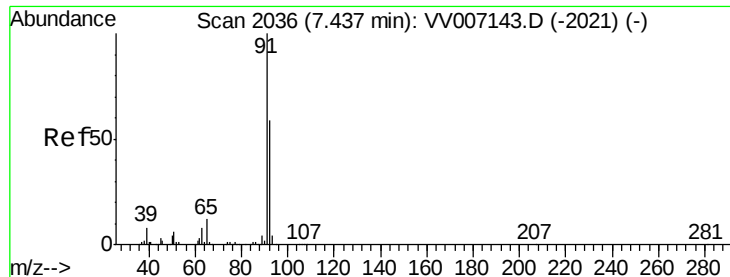
Tgt Ion: 75 Resp: 350177  
 Ion Ratio Lower Upper  
 75 100  
 77 30.7 21.8 40.4



#40  
 4-Methyl-2-pentanone  
 Concen: 100.617 ug/L  
 RT: 7.28 min Scan# 1988  
 Delta R.T. -0.00 min  
 Lab File: VV007166.D  
 Acq: 24 Aug 2018 02:21

Tgt Ion: 43 Resp: 674908  
 Ion Ratio Lower Upper  
 43 100  
 58 41.4 33.4 50.0  
 100 17.0 13.1 19.7





#42

Toluene

Concen: 52.007 ug/L

RT: 7.44 min Scan# 2036

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

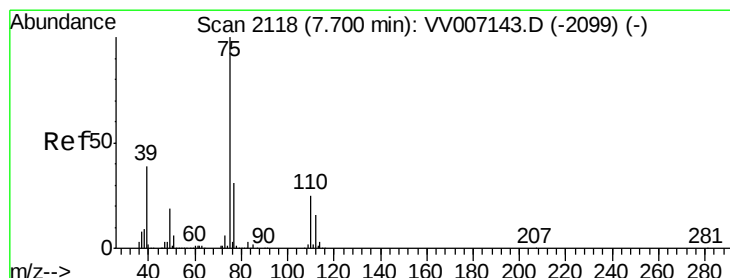
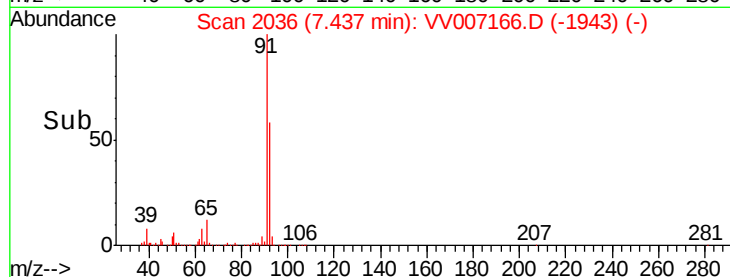
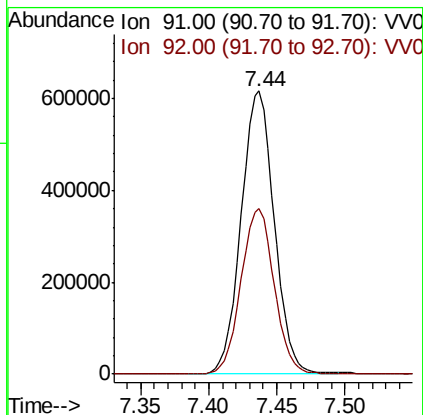
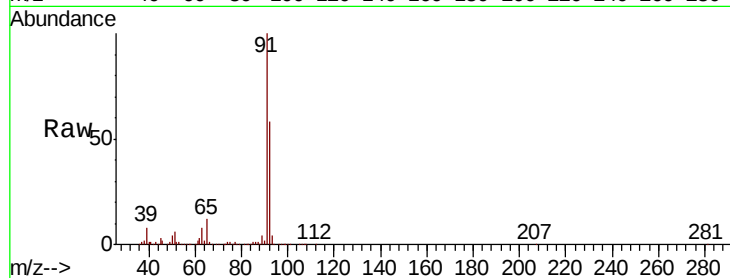
VSTD05063

Tgt Ion: 91 Resp: 1038267

Ion Ratio Lower Upper

91 100

92 58.4 40.9 75.9



#44

trans-1,3-Dichloropropene

Concen: 48.052 ug/L

RT: 7.70 min Scan# 2117

Delta R.T. -0.00 min

Lab File: VV007166.D

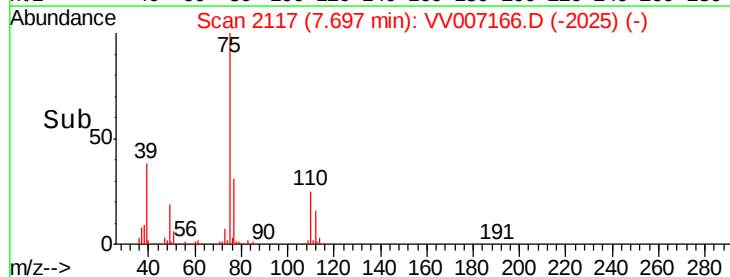
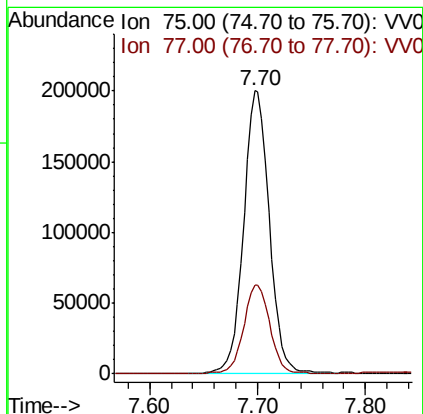
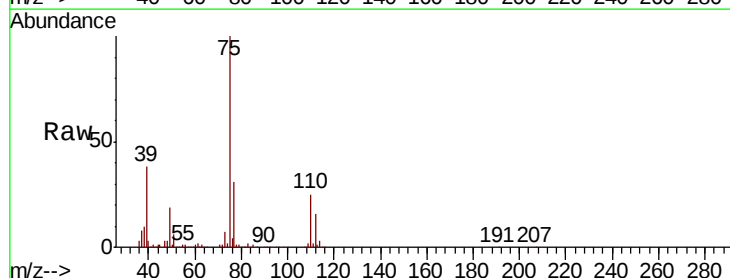
Acq: 24 Aug 2018 02:21

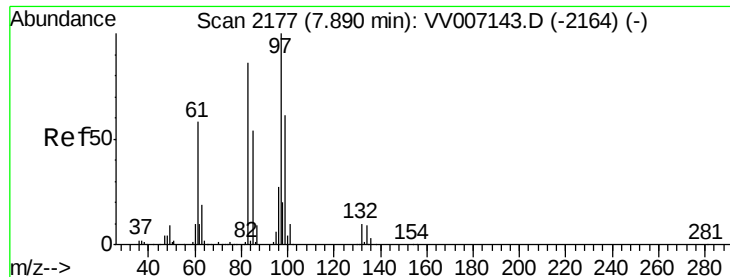
Tgt Ion: 75 Resp: 332392

Ion Ratio Lower Upper

75 100

77 31.3 22.0 41.0

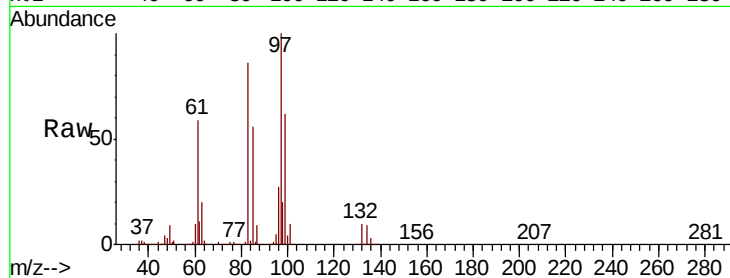




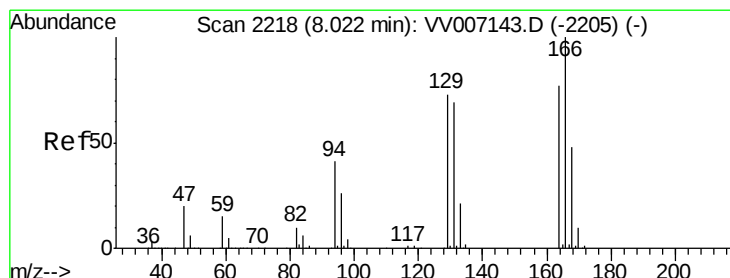
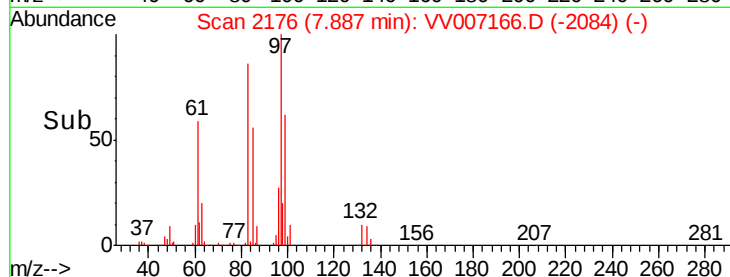
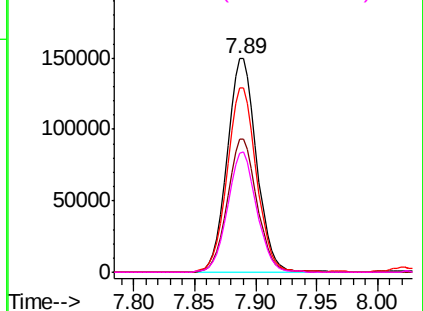
#45  
 1,1,2-Trichloroethane  
 Concen: 48.891 ug/L  
 RT: 7.89 min Scan# 2176  
 Delta R.T. -0.00 min  
 Lab File: VV007166.D  
 Acq: 24 Aug 2018 02:21

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD05063

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 97    | Resp: | 252224 |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 99       | 62.4  | 42.8  | 79.4   |
| 83       | 86.2  | 59.6  | 110.8  |
| 85       | 55.9  | 37.6  | 69.8   |

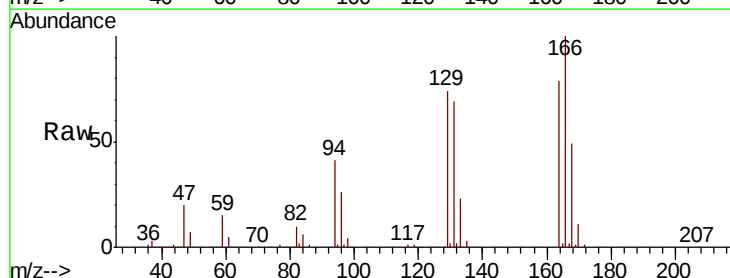


Abundance Ion 97.00 (96.70 to 97.70): VV007143.D (-2164) (-)  
 Ion 99.00 (98.70 to 99.70): VV007143.D (-2164) (-)  
 Ion 83.00 (82.70 to 83.70): VV007143.D (-2164) (-)  
 Ion 85.00 (84.70 to 85.70): VV007143.D (-2164) (-)

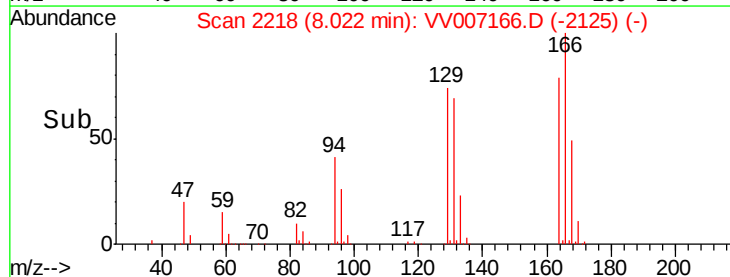
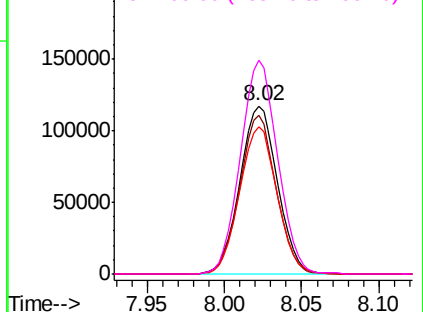


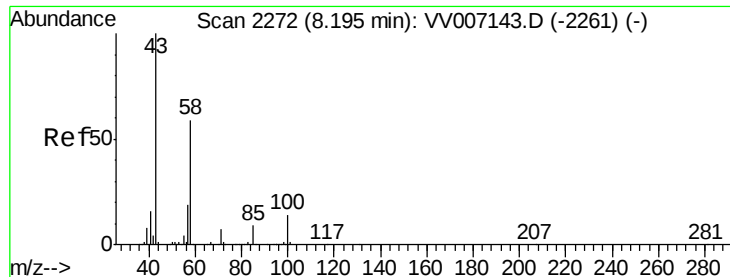
#46  
 Tetrachloroethene  
 Concen: 49.485 ug/L  
 RT: 8.02 min Scan# 2218  
 Delta R.T. 0.00 min  
 Lab File: VV007166.D  
 Acq: 24 Aug 2018 02:21

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 164   | Resp: | 197992 |
| Ion      | Ratio | Lower | Upper  |
| 164      | 100   |       |        |
| 129      | 94.7  | 64.5  | 119.9  |
| 131      | 87.8  | 61.7  | 114.7  |
| 166      | 127.2 | 86.5  | 160.6  |



Abundance Ion 164.00 (163.70 to 164.70): VV007143.D (-2205) (-)  
 Ion 129.00 (128.70 to 129.70): VV007143.D (-2205) (-)  
 Ion 131.00 (130.70 to 131.70): VV007143.D (-2205) (-)  
 Ion 166.00 (165.70 to 166.70): VV007143.D (-2205) (-)

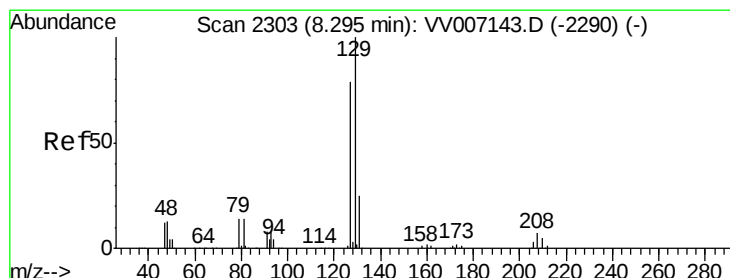
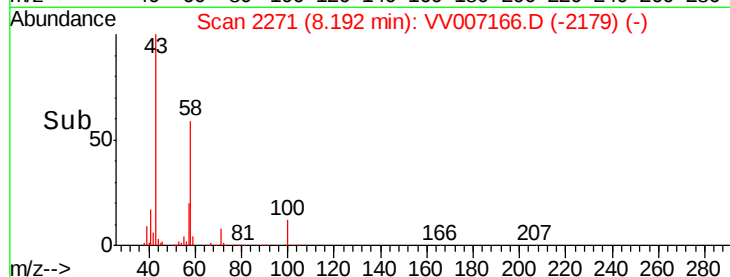
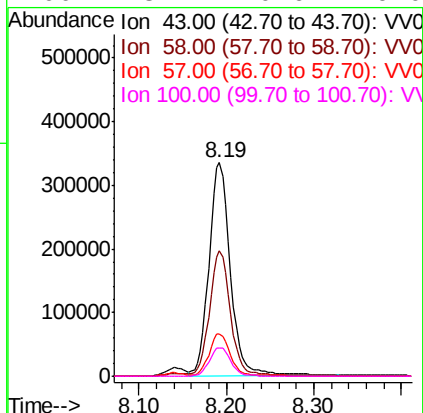
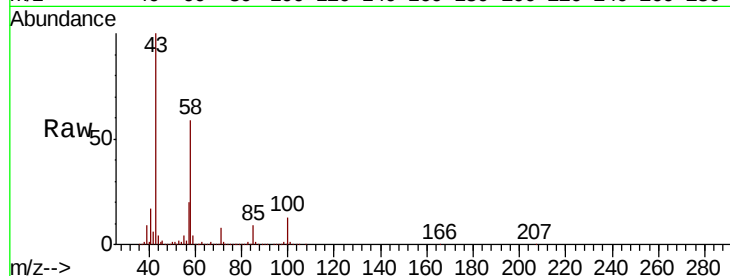




#48  
2-Hexanone  
Concen: 104.029 ug/L  
RT: 8.19 min Scan# 2271  
Delta R.T. -0.00 min  
Lab File: VV007166.D  
Acq: 24 Aug 2018 02:21

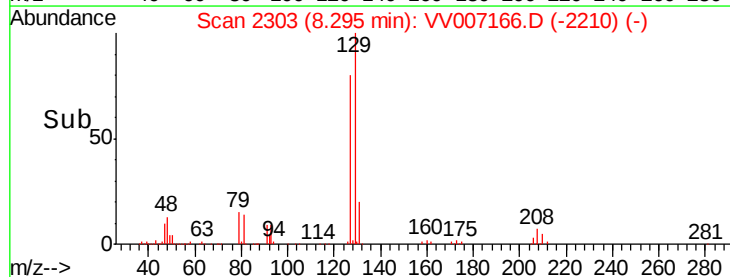
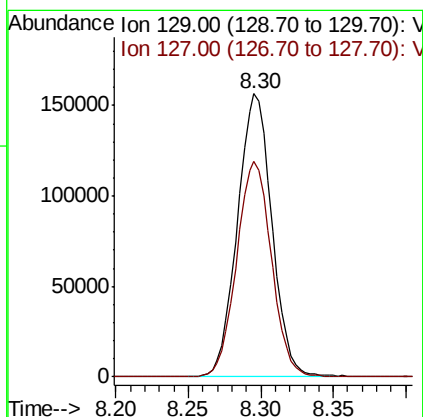
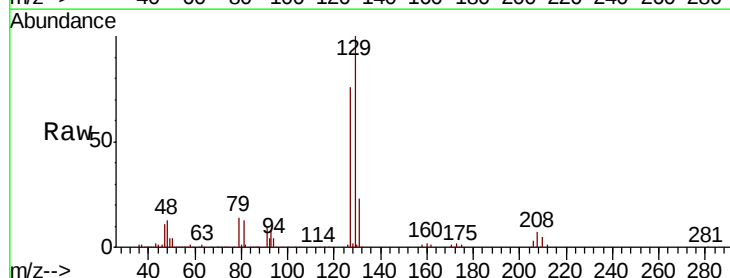
Instrument :  
MSVOA\_V  
ClientSampled :  
VSTD05063

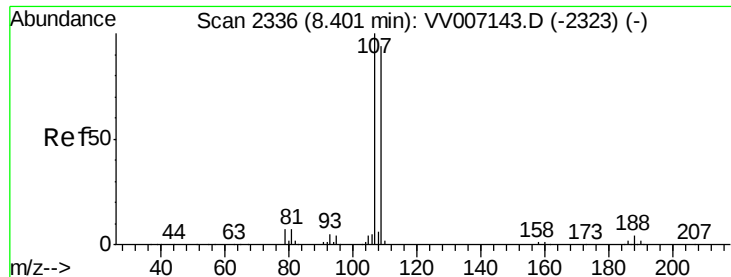
Tgt Ion: 43 Resp: 565232  
Ion Ratio Lower Upper  
43 100  
58 56.4 47.9 71.9  
57 19.1 15.8 23.8  
100 13.4 10.6 16.0



#49  
Dibromochloromethane  
Concen: 50.129 ug/L  
RT: 8.30 min Scan# 2303  
Delta R.T. 0.00 min  
Lab File: VV007166.D  
Acq: 24 Aug 2018 02:21

Tgt Ion: 129 Resp: 258878  
Ion Ratio Lower Upper  
129 100  
127 76.3 54.3 100.8





#50

1,2-Dibromoethane

Concen: 50.227 ug/L

RT: 8.40 min Scan# 2336

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

VSTD05063

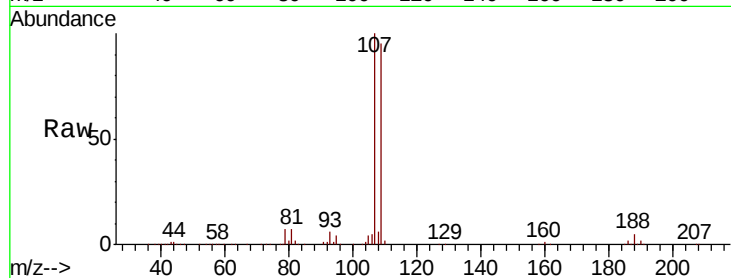
Tgt Ion:107 Resp: 255632

Ion Ratio Lower Upper

107 100

109 94.6 66.5 123.5

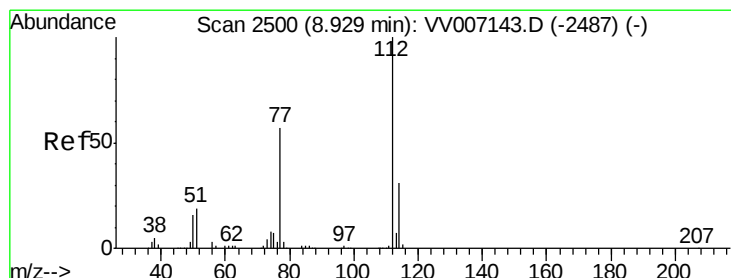
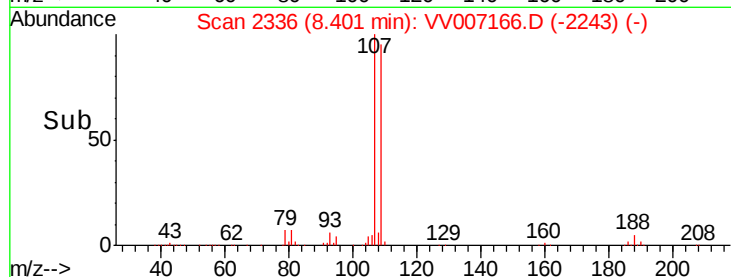
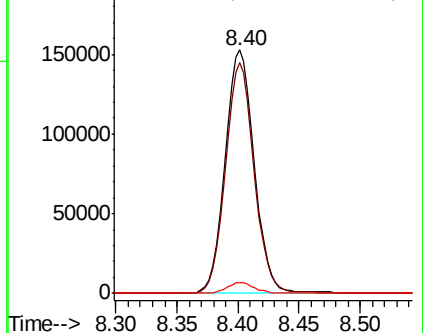
188 4.6 3.3 4.9



Abundance Ion 107.00 (106.70 to 107.70): V

Ion 109.00 (108.70 to 109.70): V

Ion 188.00 (187.70 to 188.70): V



#51

Chlorobenzene

Concen: 49.646 ug/L

RT: 8.93 min Scan# 2500

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

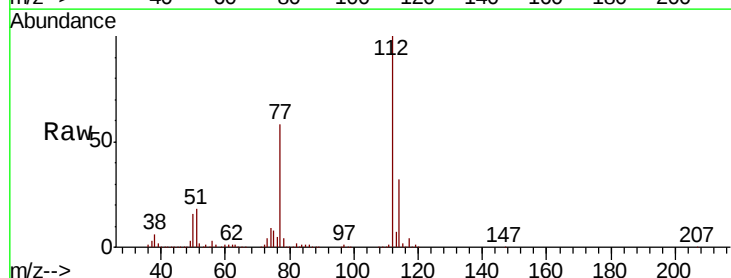
Tgt Ion:112 Resp: 656559

Ion Ratio Lower Upper

112 100

114 32.0 22.3 41.3

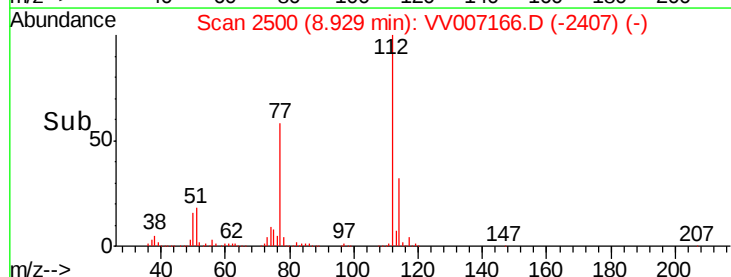
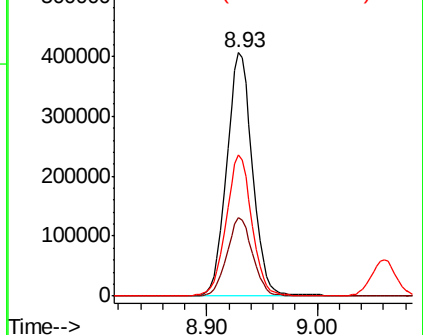
77 57.8 46.6 70.0

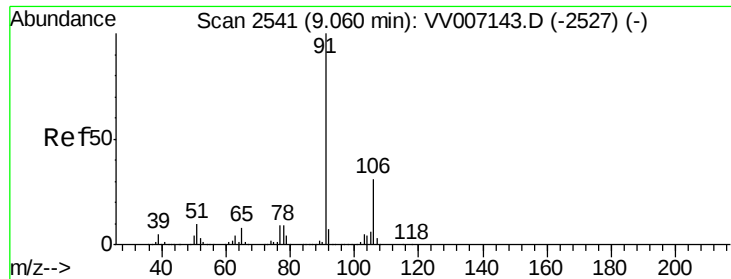


Abundance Ion 112.00 (111.70 to 112.70): V

Ion 114.00 (113.70 to 114.70): V

Ion 77.00 (76.70 to 77.70): VV0





#52

Ethylbenzene

Concen: 51.372 ug/L

RT: 9.06 min Scan# 2541

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

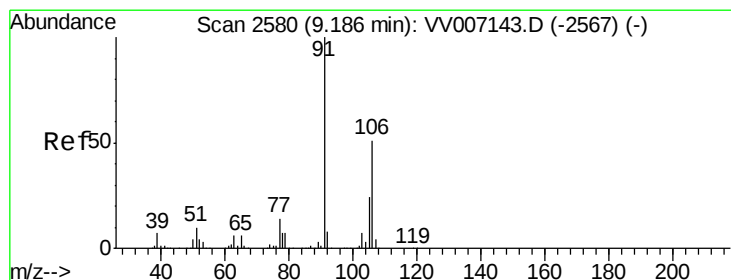
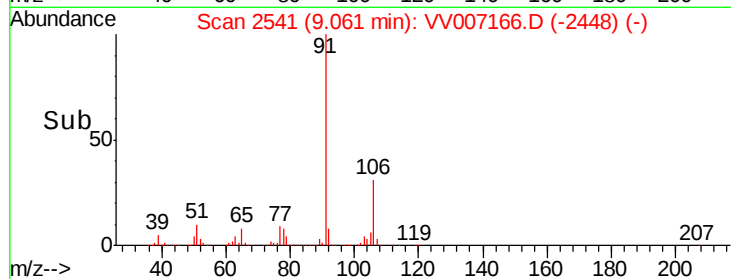
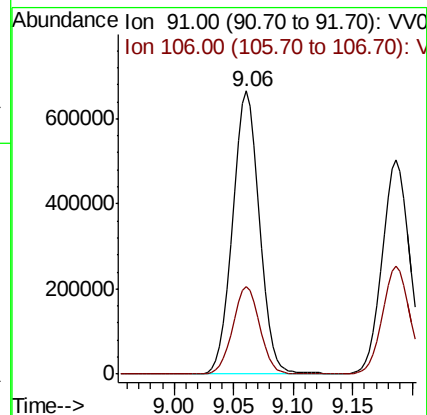
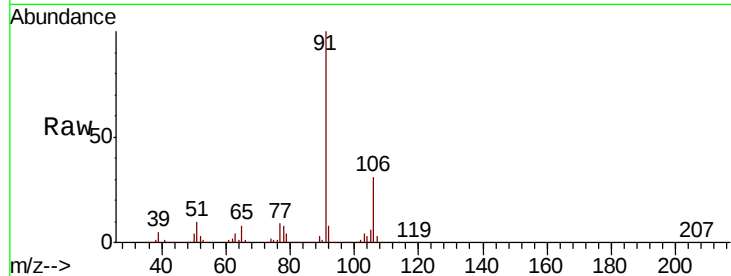
VSTD05063

Tgt Ion: 91 Resp: 1039425

Ion Ratio Lower Upper

91 100

106 31.0 21.4 39.8



#53

m,p-Xylene

Concen: 52.887 ug/L

RT: 9.19 min Scan# 2580

Delta R.T. 0.00 min

Lab File: VV007166.D

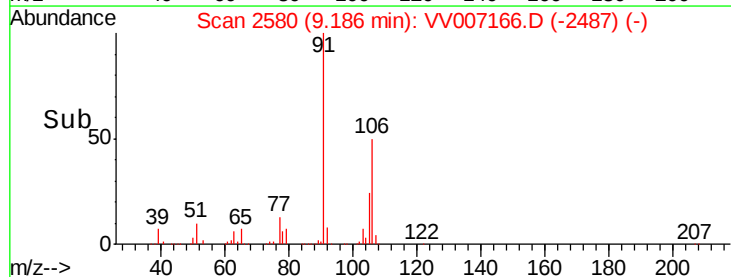
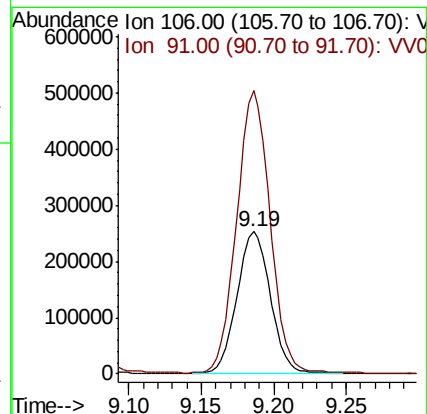
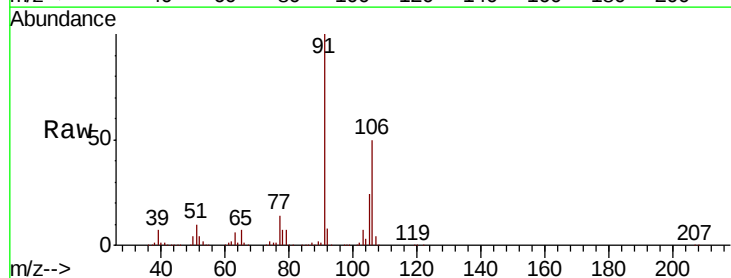
Acq: 24 Aug 2018 02:21

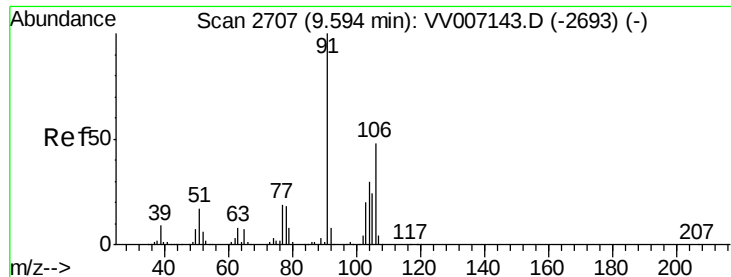
Tgt Ion: 106 Resp: 408903

Ion Ratio Lower Upper

106 100

91 198.6 138.7 257.5





#54

o-xylene

Concen: 51.605 ug/L

RT: 9.59 min Scan# 2706

Delta R.T. -0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

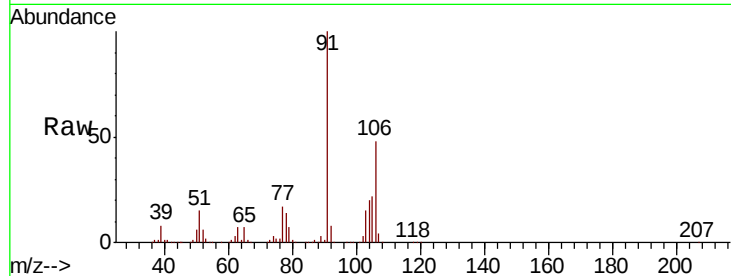
VSTD05063

Tgt Ion:106 Resp: 388180

Ion Ratio Lower Upper

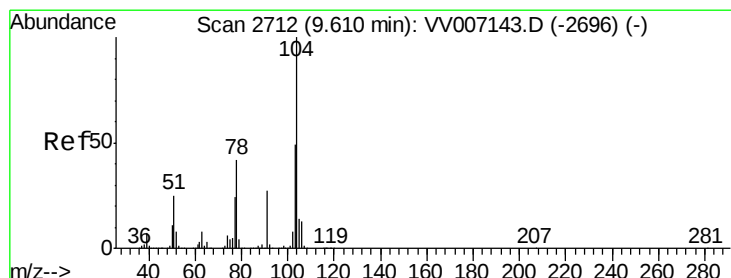
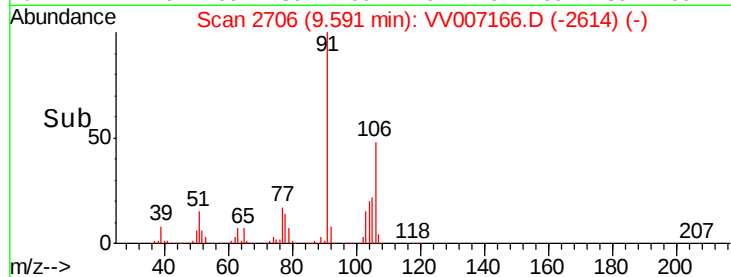
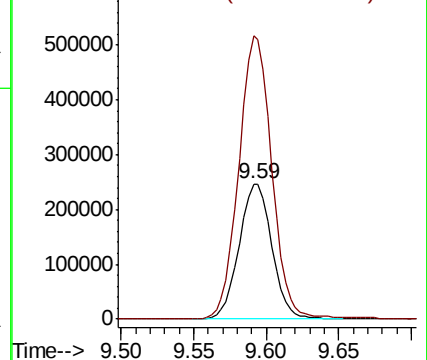
106 100

91 209.4 146.3 271.7



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VV0



#55

Styrene

Concen: 54.656 ug/L

RT: 9.61 min Scan# 2711

Delta R.T. -0.00 min

Lab File: VV007166.D

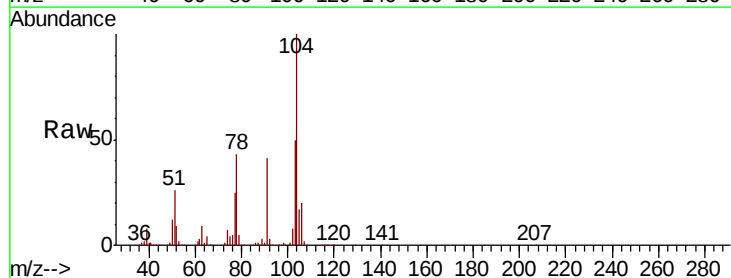
Acq: 24 Aug 2018 02:21

Tgt Ion:104 Resp: 709934

Ion Ratio Lower Upper

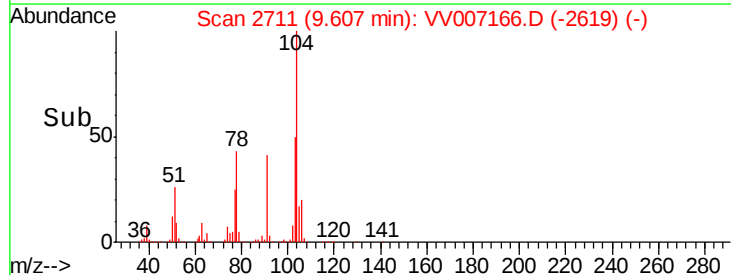
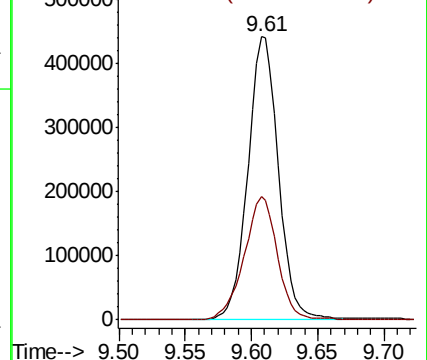
104 100

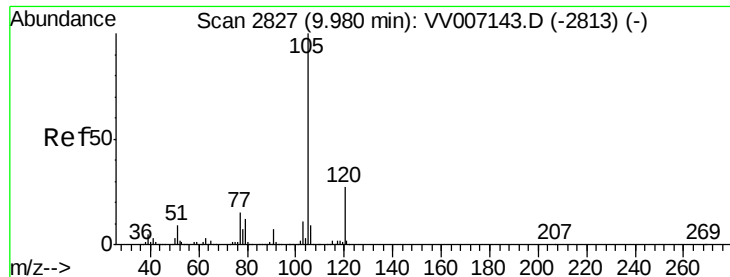
78 43.4 30.0 55.6



Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VV0





#56

Isopropylbenzene

Concen: 52.588 ug/L

RT: 9.98 min Scan# 2827

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

VSTD05063

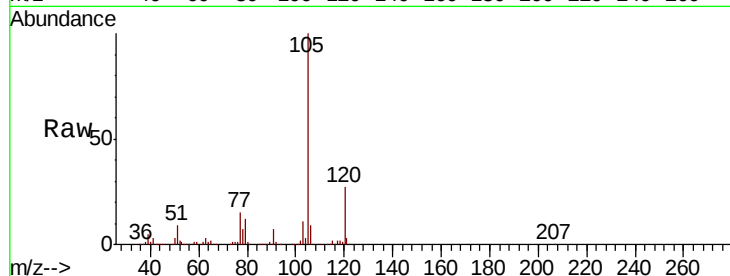
Tgt Ion:105 Resp: 997480

Ion Ratio Lower Upper

105 100

120 26.5 21.0 31.4

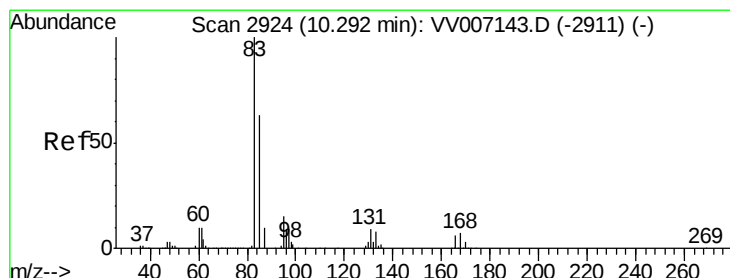
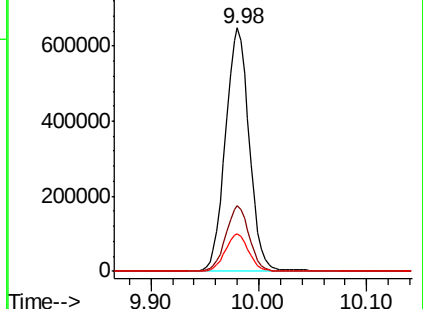
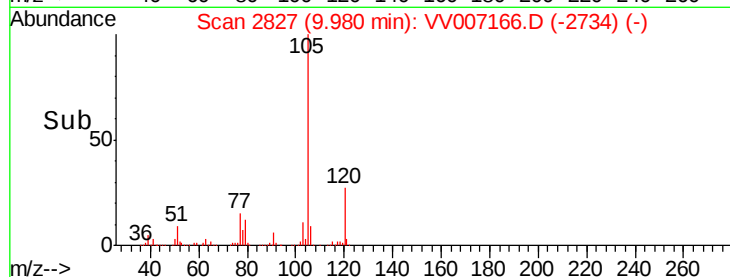
77 15.1 12.4 18.6



Abundance Ion 105.00 (104.70 to 105.70): VV007166.D (-2734) (-)

Ion 120.00 (119.70 to 120.70): VV007166.D (-2734) (-)

Ion 77.00 (76.70 to 77.70): VV007166.D (-2734) (-)



#58

1,1,2,2-Tetrachloroethane

Concen: 48.697 ug/L

RT: 10.29 min Scan# 2924

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

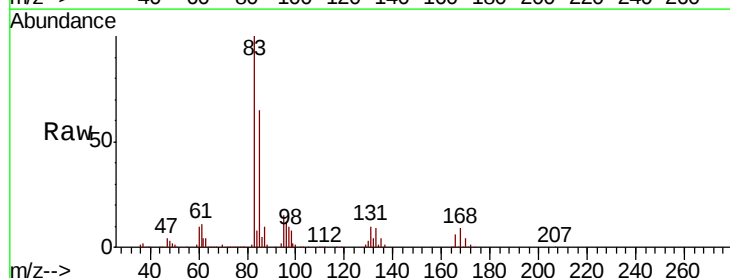
Tgt Ion: 83 Resp: 435948

Ion Ratio Lower Upper

83 100

85 64.9 45.2 84.0

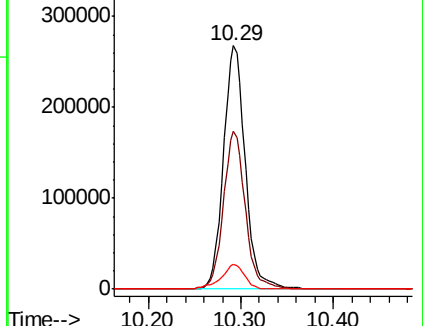
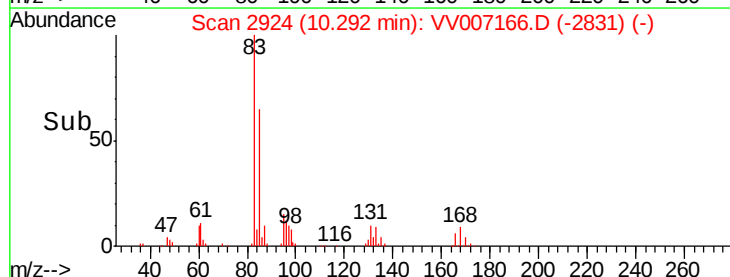
131 10.1 7.8 11.8

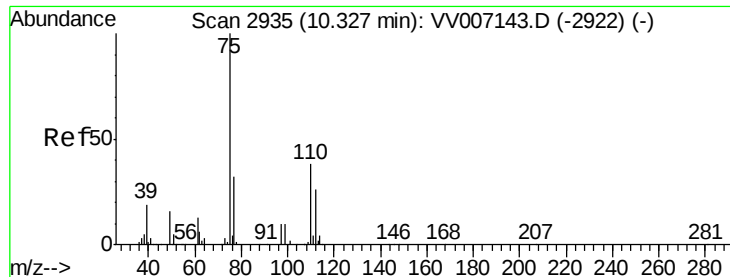


Abundance Ion 83.00 (82.70 to 83.70): VV007166.D (-2831) (-)

Ion 85.00 (84.70 to 85.70): VV007166.D (-2831) (-)

Ion 131.00 (130.70 to 131.70): VV007166.D (-2831) (-)

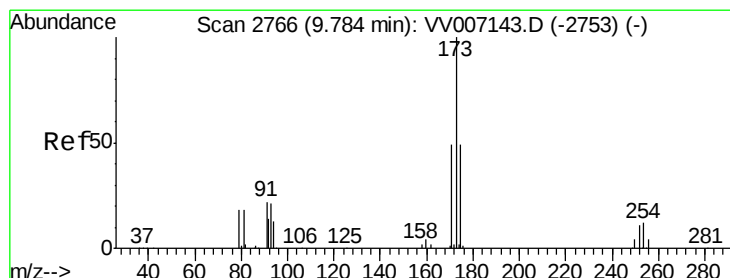
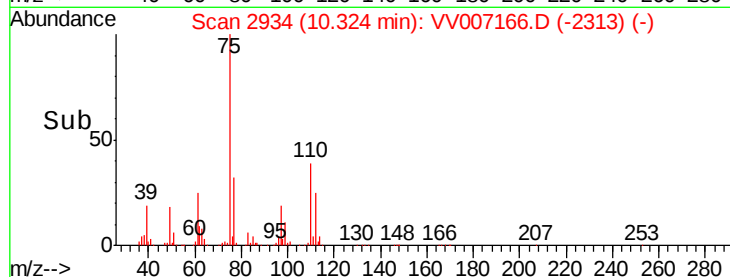
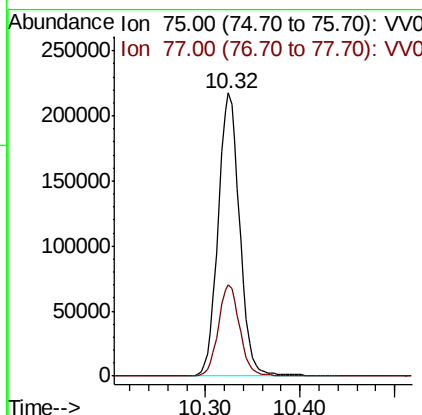
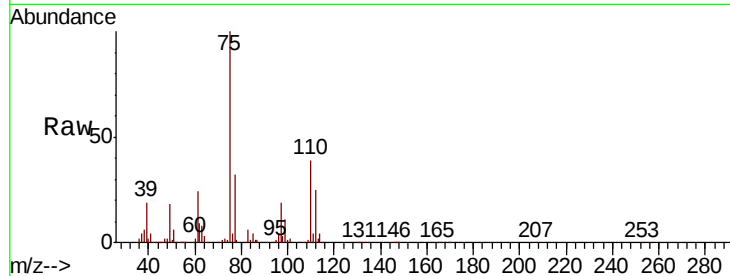




#59  
 1,2,3-Trichloropropane  
 Concen: 48.198 ug/L  
 RT: 10.32 min Scan# 2934  
 Delta R.T. -0.00 min  
 Lab File: VV007166.D  
 Acq: 24 Aug 2018 02:21

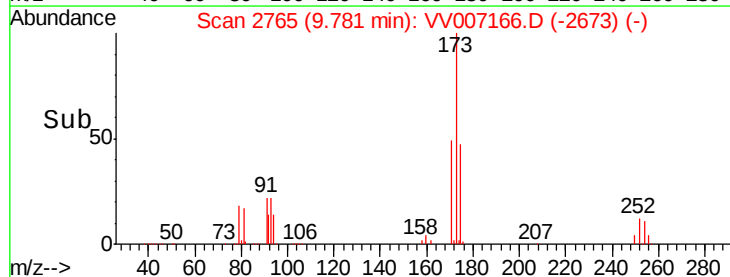
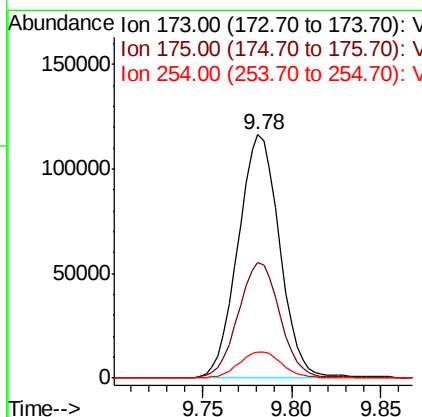
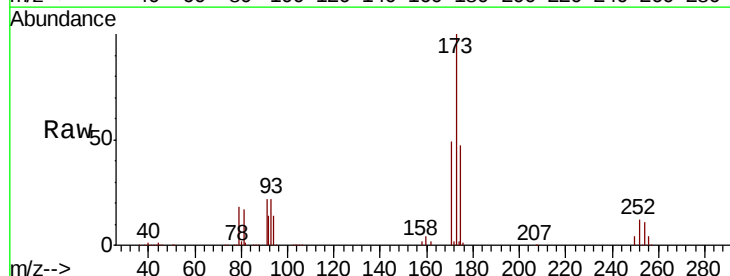
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD05063

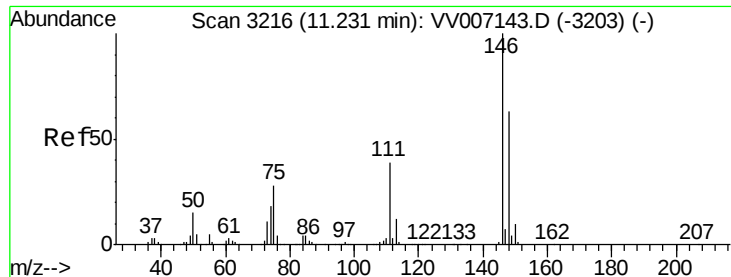
Tgt Ion: 75 Resp: 344124  
 Ion Ratio Lower Upper  
 75 100  
 77 31.7 25.8 38.8



#61  
 Bromoform  
 Concen: 46.925 ug/L  
 RT: 9.78 min Scan# 2765  
 Delta R.T. -0.00 min  
 Lab File: VV007166.D  
 Acq: 24 Aug 2018 02:21

Tgt Ion: 173 Resp: 189132  
 Ion Ratio Lower Upper  
 173 100  
 175 47.7 37.9 56.9  
 254 11.2 9.2 13.8





#62

1,3-Dichlorobenzene

Concen: 48.365 ug/L

RT: 11.23 min Scan# 3216

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

VSTD05063

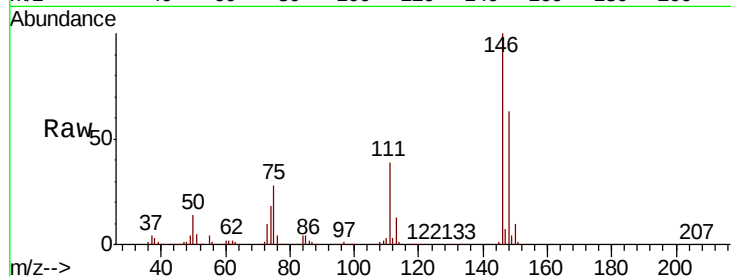
Tgt Ion:146 Resp: 466486

Ion Ratio Lower Upper

146 100

111 39.1 27.1 50.3

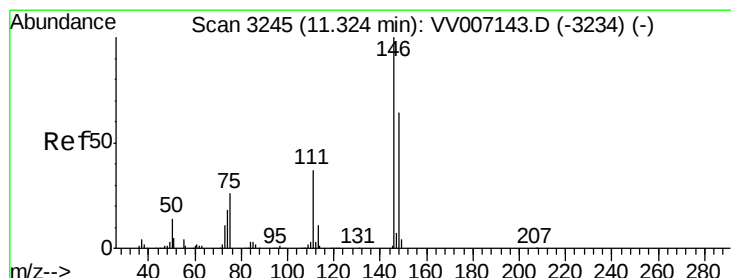
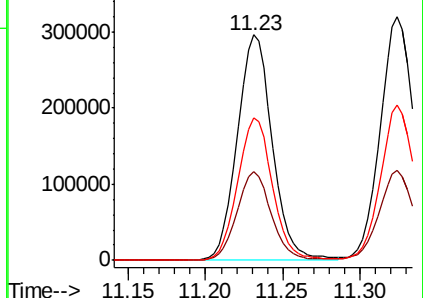
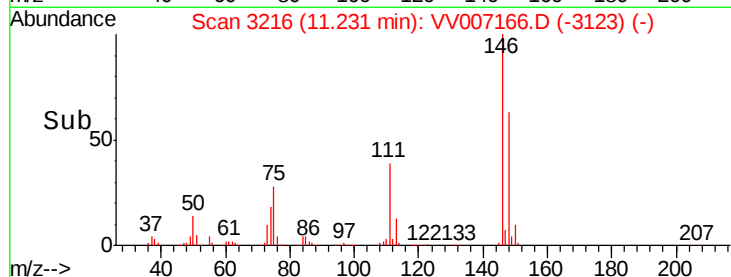
148 63.0 44.5 82.7



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



#63

1,4-Dichlorobenzene

Concen: 49.628 ug/L

RT: 11.32 min Scan# 3245

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

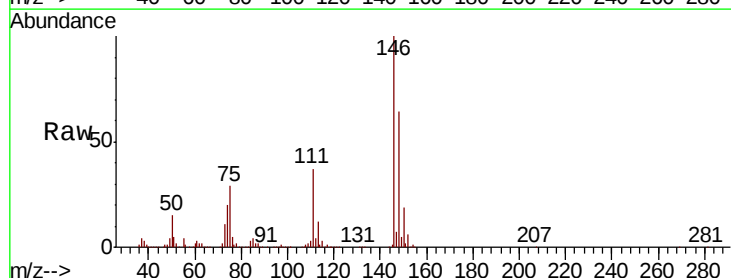
Tgt Ion:146 Resp: 506810

Ion Ratio Lower Upper

146 100

111 36.8 26.2 48.6

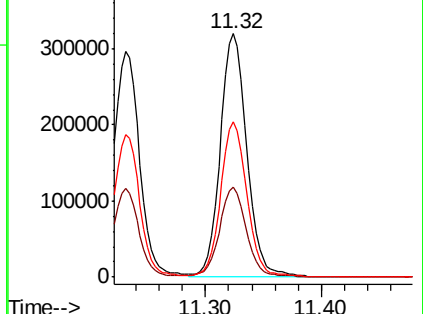
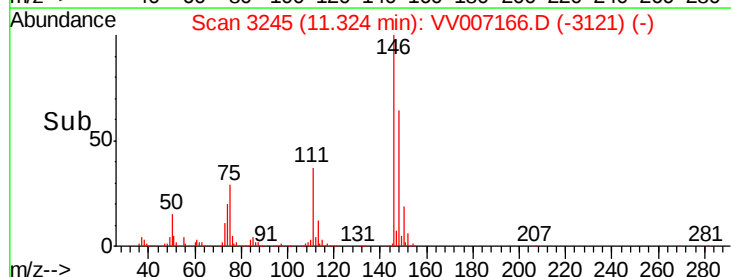
148 63.8 44.7 82.9

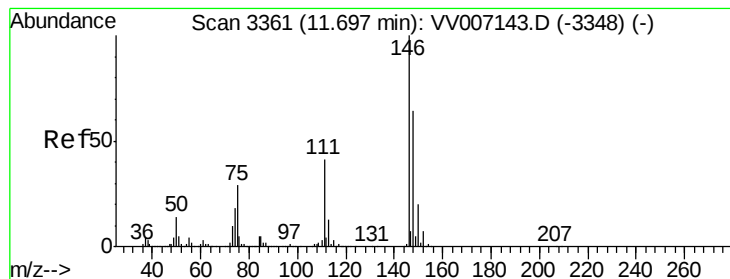


Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V





#65

1,2-Dichlorobenzene

Concen: 50.338 ug/L

RT: 11.70 min Scan# 3361

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

VSTD05063

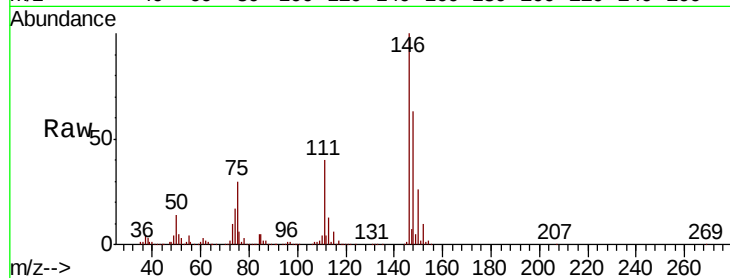
Tgt Ion:146 Resp: 533642

Ion Ratio Lower Upper

146 100

111 40.0 32.5 48.7

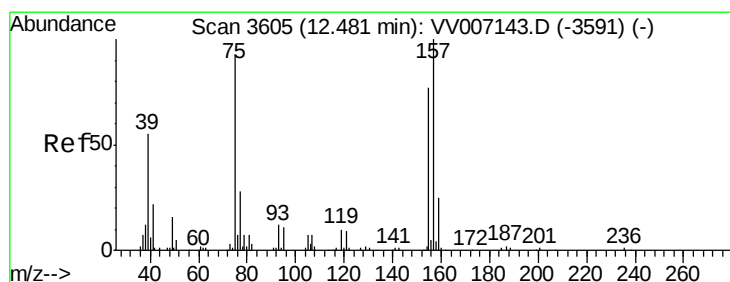
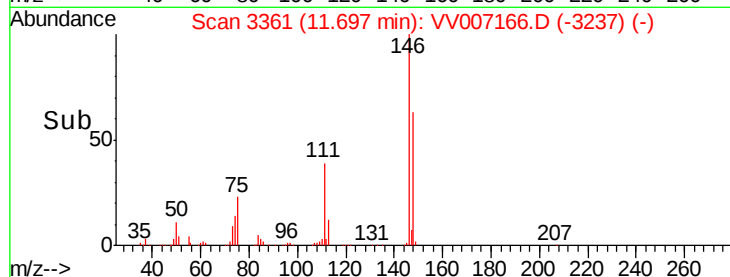
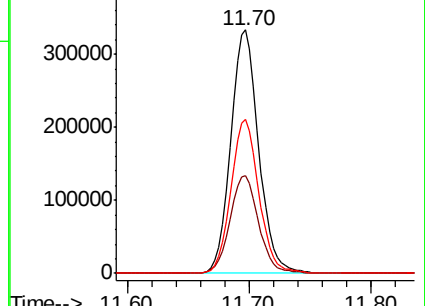
148 63.0 50.8 76.2



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: 48.055 ug/L

RT: 12.48 min Scan# 3605

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

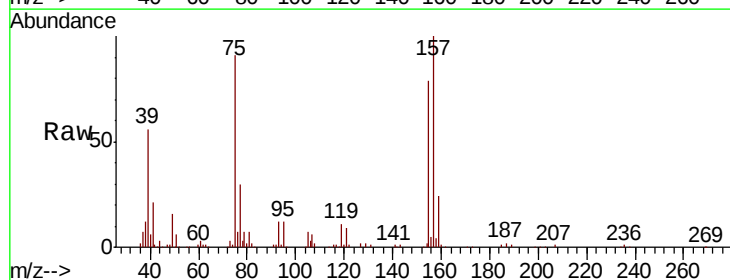
Tgt Ion: 75 Resp: 72303

Ion Ratio Lower Upper

75 100

155 86.6 66.8 100.2

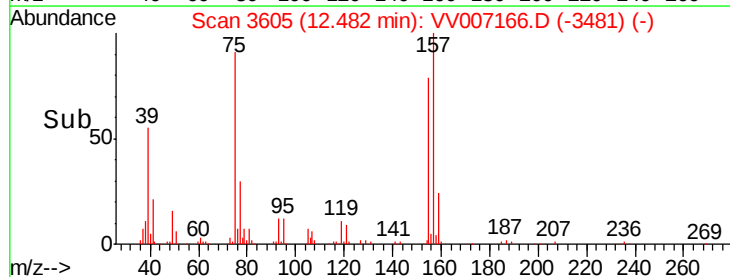
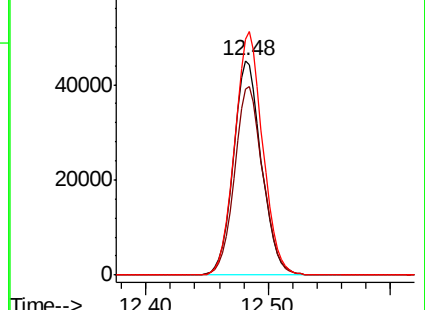
157 109.7 85.8 128.8

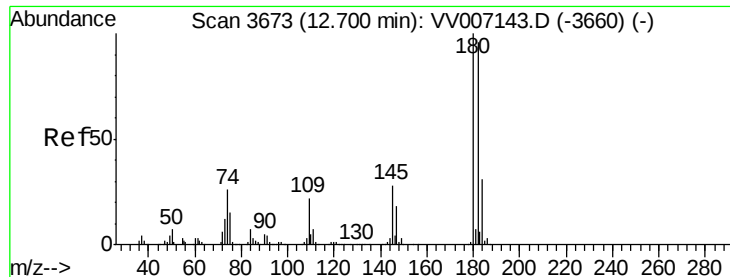


Abundance Ion 75.00 (74.70 to 75.70): VV0

Ion 155.00 (154.70 to 155.70): V

Ion 157.00 (156.70 to 157.70): V

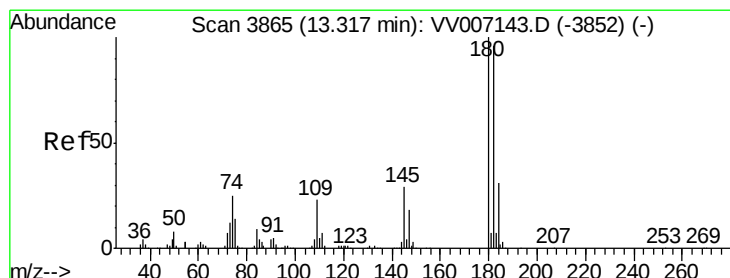
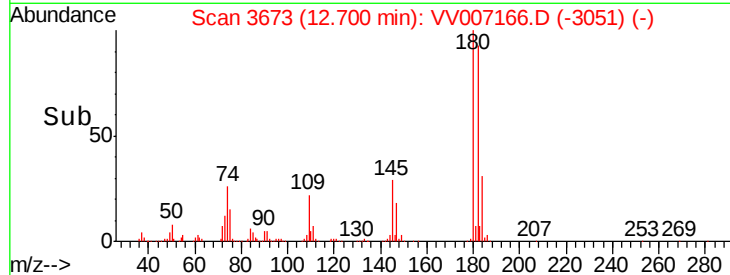
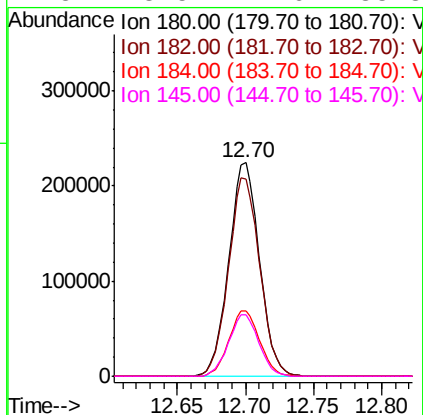
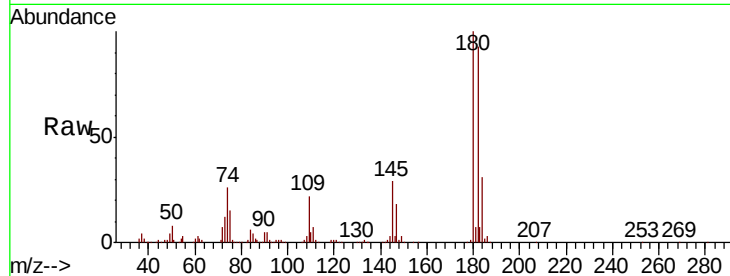




#67  
 1,3,5-Trichlorobenzene  
 Concen: 53.371 ug/L  
 RT: 12.70 min Scan# 3673  
 Delta R.T. 0.00 min  
 Lab File: VV007166.D  
 Acq: 24 Aug 2018 02:21

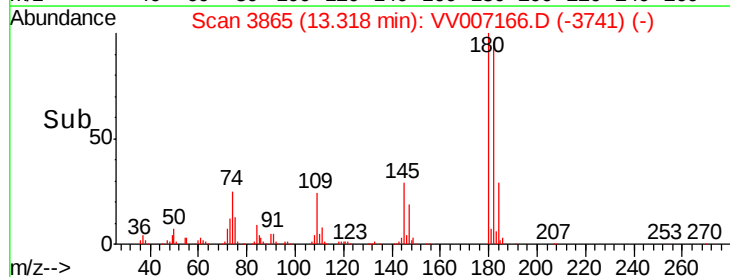
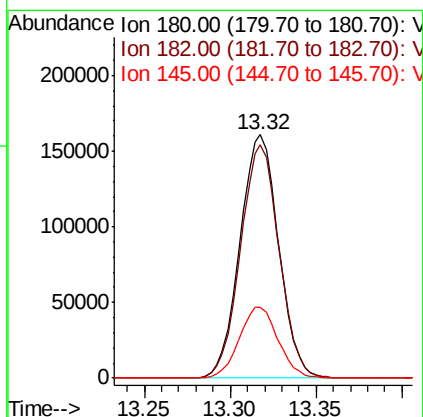
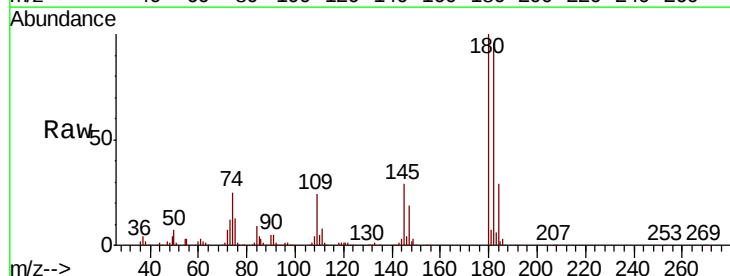
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD05063

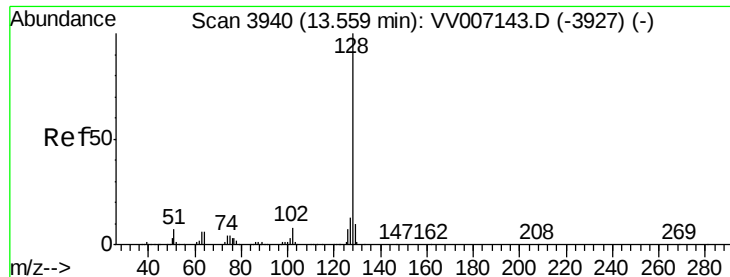
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 180   | Resp: | 350389 |
| Ion      | Ratio | Lower | Upper  |
| 180      | 100   |       |        |
| 182      | 94.7  | 76.4  | 114.6  |
| 184      | 30.7  | 24.6  | 37.0   |
| 145      | 28.5  | 22.6  | 33.8   |



#68  
 1,2,4-trichlorobenzene  
 Concen: 56.520 ug/L  
 RT: 13.32 min Scan# 3865  
 Delta R.T. 0.00 min  
 Lab File: VV007166.D  
 Acq: 24 Aug 2018 02:21

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 180   | Resp: | 251852 |
| Ion      | Ratio | Lower | Upper  |
| 180      | 100   |       |        |
| 182      | 95.8  | 77.0  | 115.6  |
| 145      | 29.4  | 22.7  | 34.1   |





#69

Naphthalene

Concen: 54.217 ug/L

RT: 13.56 min Scan# 3940

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

Instrument :

MSVOA\_V

ClientSampleId :

VSTD05063

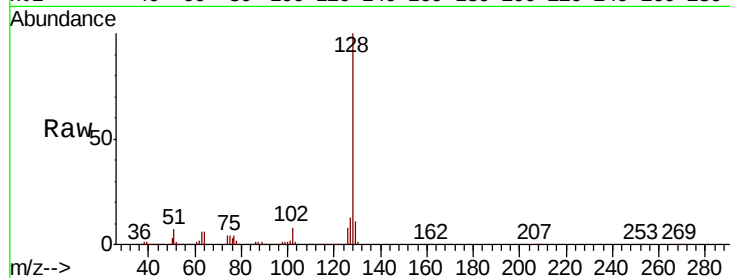
Tgt Ion:128 Resp: 658490

Ion Ratio Lower Upper

128 100

127 12.7 10.5 15.7

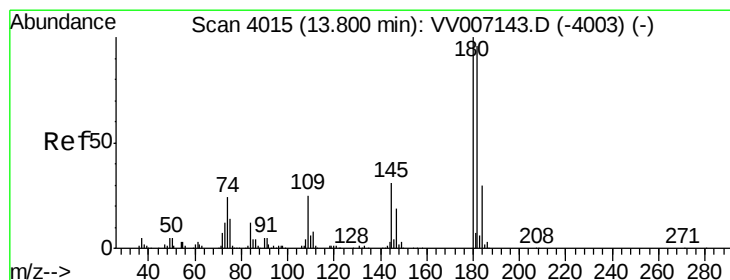
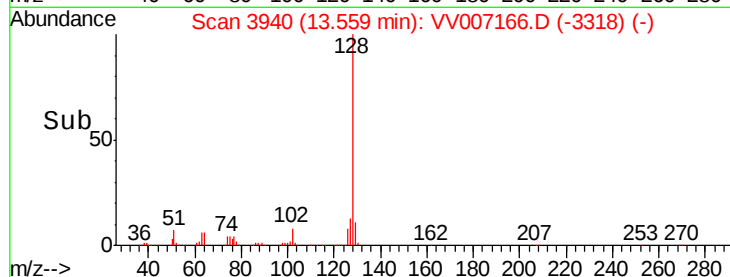
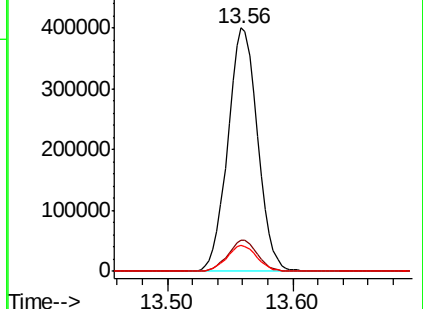
129 10.8 8.7 13.1



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V



#70

1,2,3-Trichlorobenzene

Concen: 58.326 ug/L

RT: 13.80 min Scan# 4015

Delta R.T. 0.00 min

Lab File: VV007166.D

Acq: 24 Aug 2018 02:21

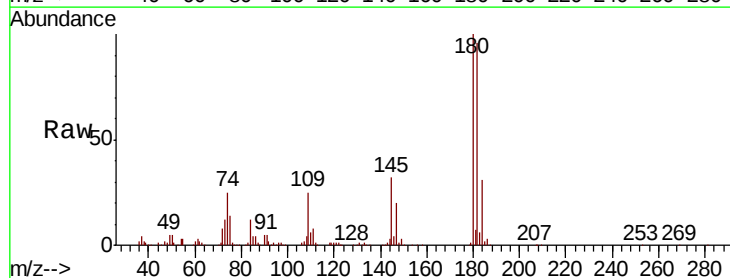
Tgt Ion:180 Resp: 284346

Ion Ratio Lower Upper

180 100

182 96.0 76.2 114.2

145 31.2 24.2 36.4



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

