

Data File : VU030817.D  
Acq On : 06 Apr 2019 21:40  
Operator : JC/SP  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_U/WATER  
ALS Vial : 26 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05054

Quant Time: Apr 08 05:08:29 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM040519WMA.M  
Quant Title : VOC Analysis  
QLast Update : Mon Apr 08 05:01:06 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.88  | 114  | 488499   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.09  | 117  | 477710   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 221038   | 50.00 | ug/L  | 0.00     |

#### System Monitoring Compounds

|                                |         |       |          |          |      |         |
|--------------------------------|---------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.39    | 65    | 216436   | 49.63    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 99.26%  |
| 7) Chloroethane-d5             | 1.67    | 69    | 180264   | 54.47    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 108.94% |
| 11) 1,1-Dichloroethene-d2      | 2.27    | 63    | 411629   | 52.19    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 104.38% |
| 21) 2-Butanone-d5              | 4.17    | 46    | 390610   | 113.02   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 113.02% |
| 24) Chloroform-d               | 4.64    | 84    | 372111   | 55.86    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 111.72% |
| 26) 1,2-Dichloroethane-d4      | 5.30    | 65    | 245377   | 53.98    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 107.96% |
| 32) Benzene-d6                 | 5.33    | 84    | 723904   | 51.91    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 103.82% |
| 36) 1,2-Dichloropropane-d6     | 6.32    | 67    | 250273   | 52.37    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 104.74% |
| 41) Toluene-d8                 | 7.56    | 98    | 657383   | 53.18    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 106.36% |
| 43) trans-1,3-Dichloropropene- | 7.85    | 79    | 111777   | 51.29    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 102.58% |
| 47) 2-Hexanone-d5              | 8.31    | 63    | 239216   | 109.51   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 109.51% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.43   | 84    | 341037   | 52.90    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 105.80% |
| 64) 1,2-Dichlorobenzene-d4     | 11.85   | 152   | 228924   | 52.66    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 105.32% |

#### Target Compounds

|                                |      |     |        |         | Qvalue   |
|--------------------------------|------|-----|--------|---------|----------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 210103 | 48.964  | ug/L 99  |
| 3) Chloromethane               | 1.32 | 50  | 276557 | 49.828  | ug/L 100 |
| 5) Vinyl chloride              | 1.40 | 62  | 269471 | 50.156  | ug/L 96  |
| 6) Bromomethane                | 1.62 | 94  | 133367 | 47.913  | ug/L 100 |
| 8) Chloroethane                | 1.69 | 64  | 158697 | 51.788  | ug/L 98  |
| 9) Trichlorofluoromethane      | 1.88 | 101 | 324614 | 51.853  | ug/L 99  |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.28 | 101 | 171554 | 49.045  | ug/L 98  |
| 12) 1,1-Dichloroethene         | 2.28 | 96  | 174514 | 51.681  | ug/L 94  |
| 13) Acetone                    | 2.32 | 43  | 282391 | 79.849  | ug/L 98  |
| 14) Carbon disulfide           | 2.47 | 76  | 511841 | 48.793  | ug/L 100 |
| 15) Methyl Acetate             | 2.61 | 43  | 298437 | 54.426  | ug/L 96  |
| 16) Methylene chloride         | 2.69 | 84  | 209993 | 51.192  | ug/L 98  |
| 17) trans-1,2-Dichloroethene   | 2.98 | 96  | 178616 | 49.818  | ug/L 98  |
| 18) Methyl tert-butyl Ether    | 2.99 | 73  | 618802 | 51.524  | ug/L 99  |
| 19) 1,1-Dichloroethane         | 3.44 | 63  | 392045 | 52.985  | ug/L 99  |
| 20) cis-1,2-Dichloroethene     | 4.22 | 96  | 200594 | 50.670  | ug/L 98  |
| 22) 2-Butanone                 | 4.26 | 43  | 421713 | 101.703 | ug/L 96  |

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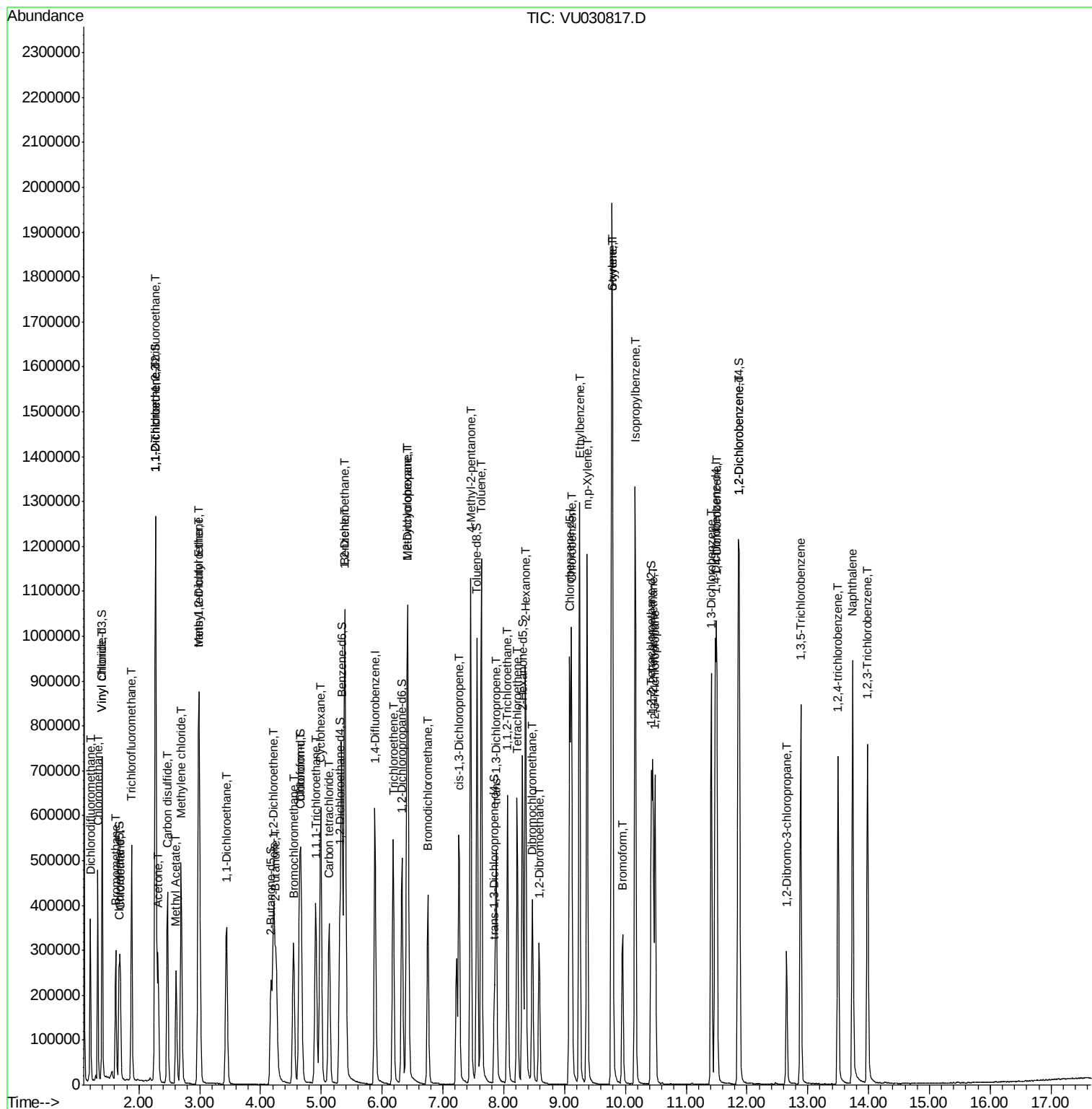
| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 23) Bromochloromethane         | 4.54  | 128  | 99042    | 52.918  | ug/L  | 98       |
| 25) Chloroform                 | 4.67  | 83   | 383897   | 51.622  | ug/L  | 100      |
| 27) 1,2-Dichloroethane         | 5.40  | 62   | 305192   | 53.770  | ug/L  | 97       |
| 29) Cyclohexane                | 4.99  | 56   | 332225   | 48.794  | ug/L  | 99       |
| 30) 1,1,1-Trichloroethane      | 4.91  | 97   | 312232   | 53.631  | ug/L  | 99       |
| 31) Carbon tetrachloride       | 5.13  | 117  | 258477   | 51.521  | ug/L  | 99       |
| 33) Benzene                    | 5.38  | 78   | 828431   | 52.993  | ug/L  | 100      |
| 34) Trichloroethene            | 6.18  | 95   | 200056   | 52.177  | ug/L  | 98       |
| 35) Methylcyclohexane          | 6.41  | 83   | 291324   | 49.233  | ug/L  | 100      |
| 37) 1,2-Dichloropropane        | 6.43  | 63   | 234389   | 52.950  | ug/L  | 100      |
| 38) Bromodichloromethane       | 6.75  | 83   | 277951   | 52.050  | ug/L  | 98       |
| 39) cis-1,3-Dichloropropene    | 7.26  | 75   | 326113   | 51.759  | ug/L  | 97       |
| 40) 4-Methyl-2-pentanone       | 7.46  | 43   | 780262   | 109.613 | ug/L  | 100      |
| 42) Toluene                    | 7.63  | 91   | 845937   | 53.012  | ug/L  | 100      |
| 44) trans-1,3-Dichloropropene  | 7.87  | 75   | 293049   | 52.778  | ug/L  | 99       |
| 45) 1,1,2-Trichloroethane      | 8.06  | 97   | 199314   | 53.091  | ug/L  | 97       |
| 46) Tetrachloroethene          | 8.22  | 164  | 139116   | 49.906  | ug/L  | 97       |
| 48) 2-Hexanone                 | 8.36  | 43   | 616987   | 111.096 | ug/L  | 99       |
| 49) Dibromochloromethane       | 8.47  | 129  | 207029   | 51.971  | ug/L  | 100      |
| 50) 1,2-Dibromoethane          | 8.58  | 107  | 213296   | 52.505  | ug/L  | 98       |
| 51) Chlorobenzene              | 9.12  | 112  | 503629   | 51.459  | ug/L  | 98       |
| 52) Ethylbenzene               | 9.25  | 91   | 900216   | 51.754  | ug/L  | 99       |
| 53) m,p-Xylene                 | 9.37  | 106  | 319953   | 52.742  | ug/L  | 95       |
| 54) o-xylene                   | 9.77  | 106  | 317839   | 52.673  | ug/L  | 96       |
| 55) Styrene                    | 9.79  | 104  | 558663   | 53.976  | ug/L  | 99       |
| 56) Isopropylbenzene           | 10.16 | 105  | 837404   | 52.709  | ug/L  | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.45 | 83   | 357593   | 52.661  | ug/L  | 99       |
| 59) 1,2,3-Trichloropropane     | 10.49 | 75   | 287716   | 54.270  | ug/L  | 99       |
| 61) Bromoform                  | 9.95  | 173  | 151151   | 51.764  | ug/L  | 99       |
| 62) 1,3-Dichlorobenzene        | 11.41 | 146  | 355169   | 50.841  | ug/L  | 99       |
| 63) 1,4-Dichlorobenzene        | 11.50 | 146  | 357714   | 50.340  | ug/L  | 98       |
| 65) 1,2-Dichlorobenzene        | 11.87 | 146  | 368313   | 52.560  | ug/L  | 99       |
| 66) 1,2-Dibromo-3-chloropropan | 12.65 | 75   | 80863    | 54.282  | ug/L  | 95       |
| 67) 1,3,5-Trichlorobenzene     | 12.88 | 180  | 258618   | 50.656  | ug/L  | 97       |
| 68) 1,2,4-trichlorobenzene     | 13.50 | 180  | 216110   | 49.786  | ug/L  | 98       |
| 69) Naphthalene                | 13.74 | 128  | 759310   | 53.959  | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene     | 13.98 | 180  | 242365   | 53.440  | ug/L  | 97       |

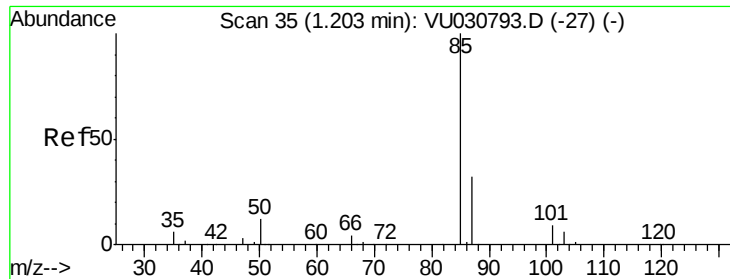
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#2

Dichlorodifluoromethane

Concen: 48.964 ug/L

RT: 1.20 min Scan# 35

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Instrument :

MSVOA\_U

ClientSampleId :

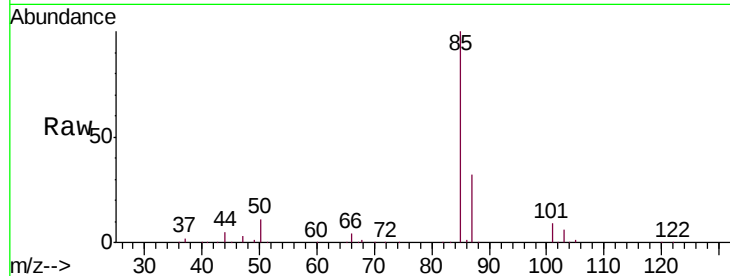
VSTD05054

Tgt Ion: 85 Resp: 210103

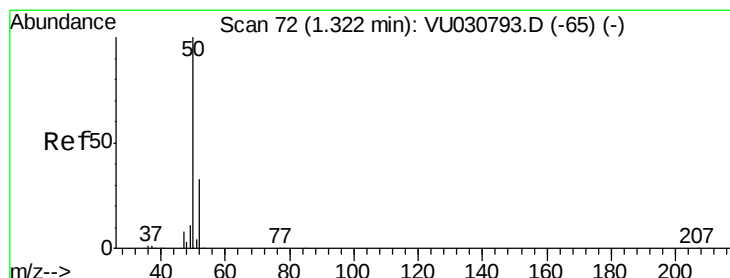
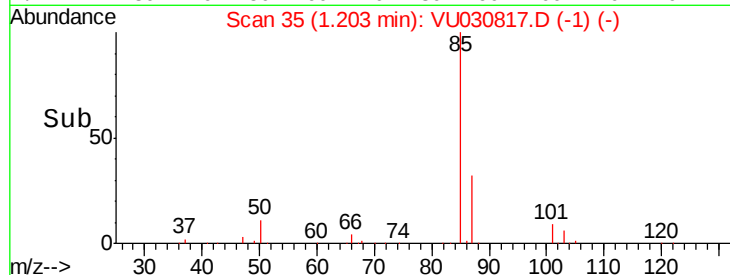
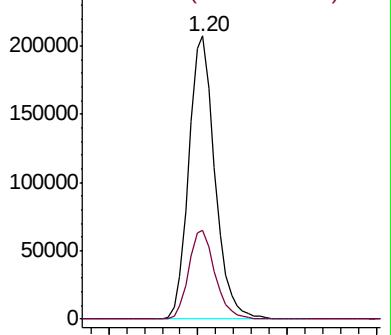
Ion Ratio Lower Upper

85 100

87 31.7 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VU030817.D (-1) (-)



#3

Chloromethane

Concen: 49.828 ug/L

RT: 1.32 min Scan# 72

Delta R.T. -0.00 min

Lab File: VU030817.D

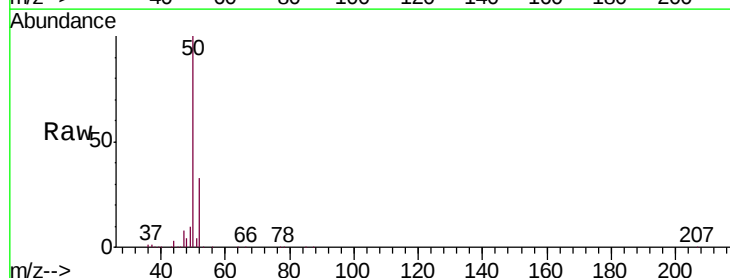
Acq: 06 Apr 2019 21:40

Tgt Ion: 50 Resp: 276557

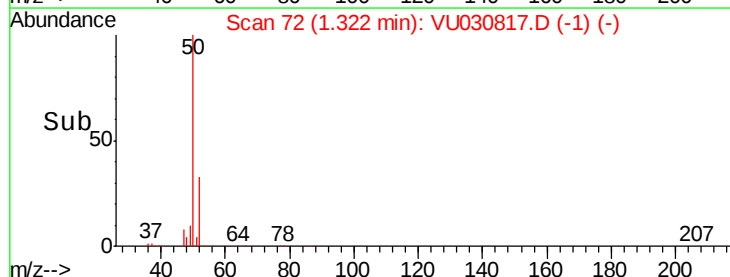
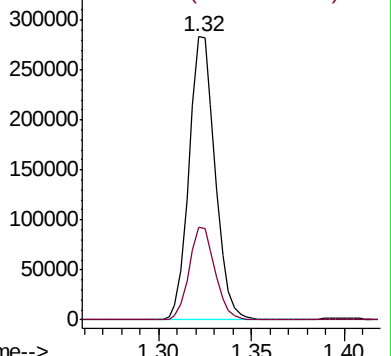
Ion Ratio Lower Upper

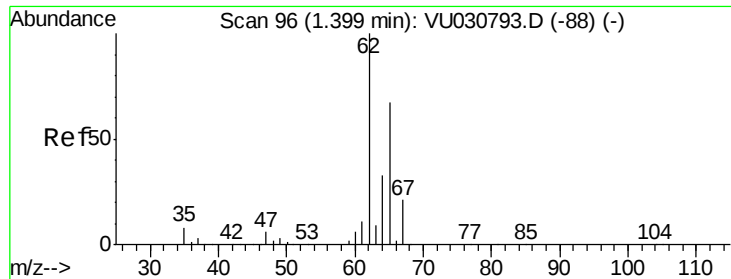
50 100

52 32.7 22.7 42.1



Abundance Ion 50.00 (49.70 to 50.70): VU030817.D (-1) (-)





#5

Vinyl chloride

Concen: 50.156 ug/L

RT: 1.40 min Scan# 96

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Instrument :

MSVOA\_U

ClientSampleId :

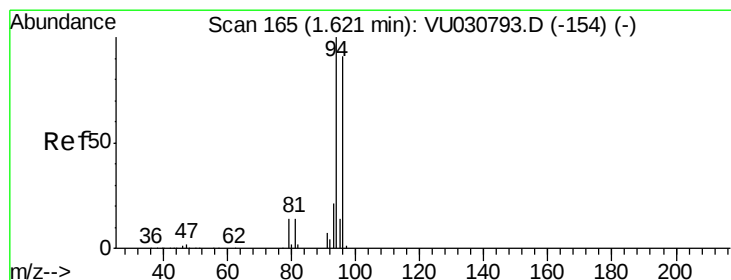
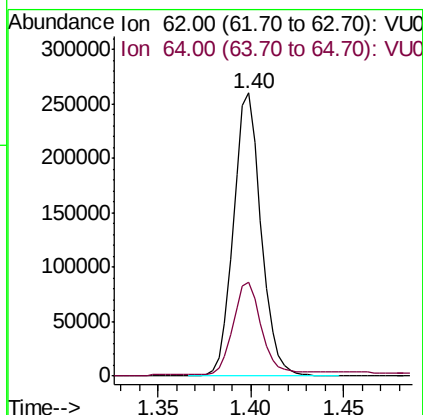
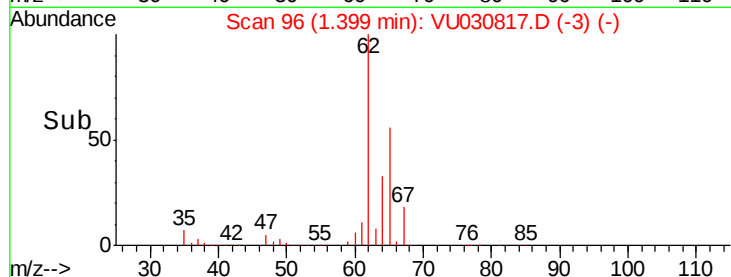
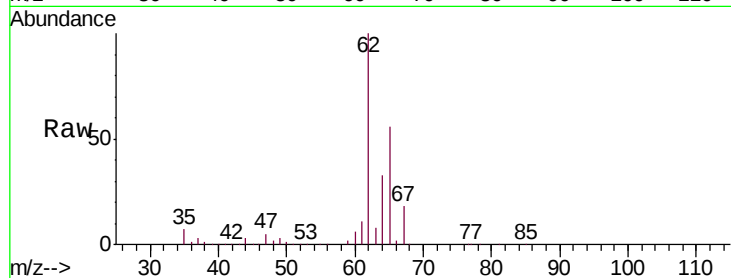
VSTD05054

Tgt Ion: 62 Resp: 269471

Ion Ratio Lower Upper

62 100

64 33.1 21.5 39.9



#6

Bromomethane

Concen: 47.913 ug/L

RT: 1.62 min Scan# 164

Delta R.T. -0.00 min

Lab File: VU030817.D

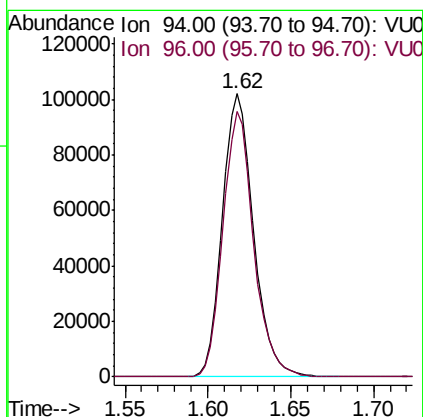
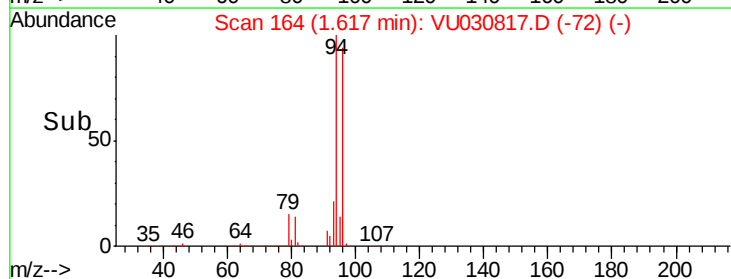
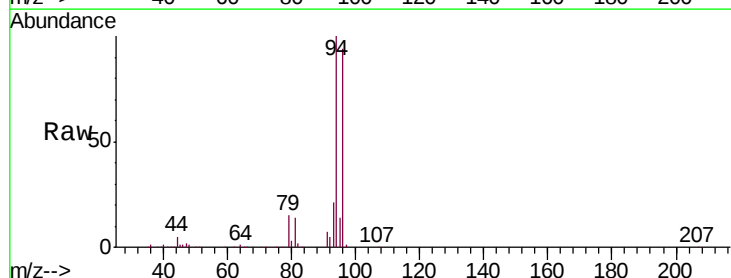
Acq: 06 Apr 2019 21:40

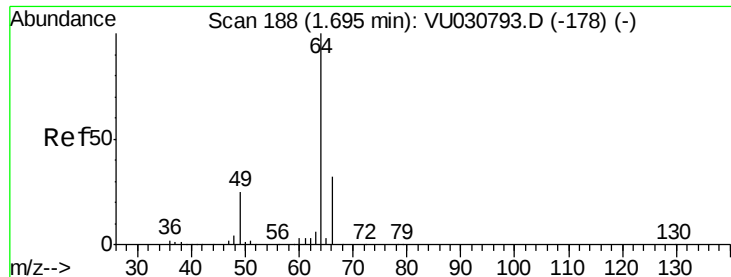
Tgt Ion: 94 Resp: 133367

Ion Ratio Lower Upper

94 100

96 93.8 65.5 121.7





#8

Chloroethane

Concen: 51.788 ug/L

RT: 1.69 min Scan# 187

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Instrument :

MSVOA\_U

ClientSampleId :

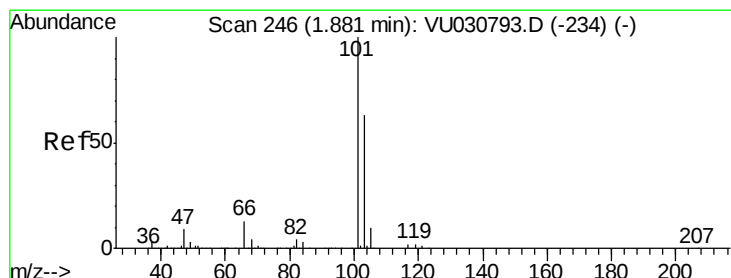
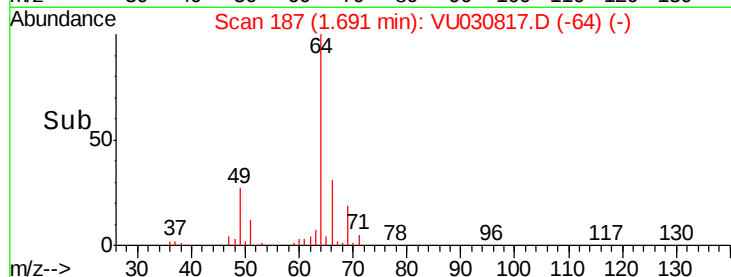
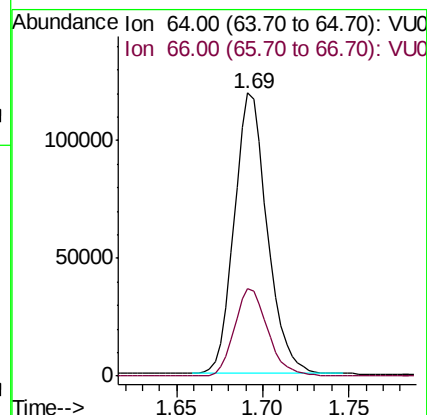
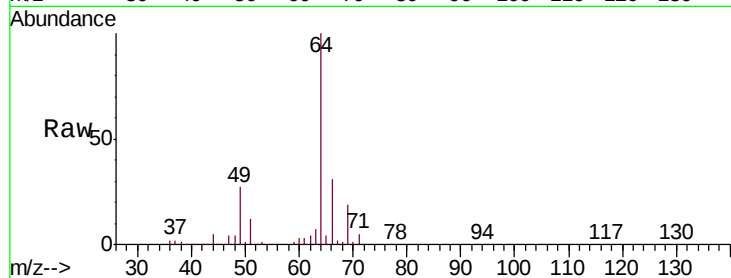
VSTD05054

Tgt Ion: 64 Resp: 158697

Ion Ratio Lower Upper

64 100

66 31.0 22.4 41.6



#9

Trichlorofluoromethane

Concen: 51.853 ug/L

RT: 1.88 min Scan# 246

Delta R.T. -0.00 min

Lab File: VU030817.D

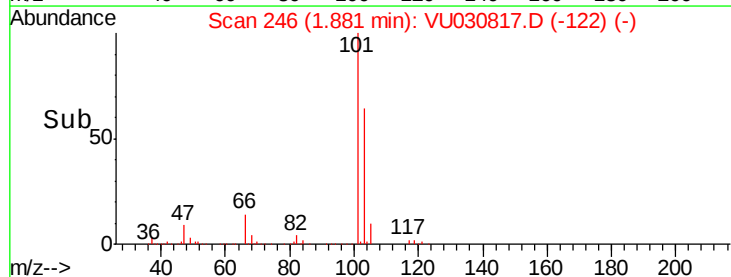
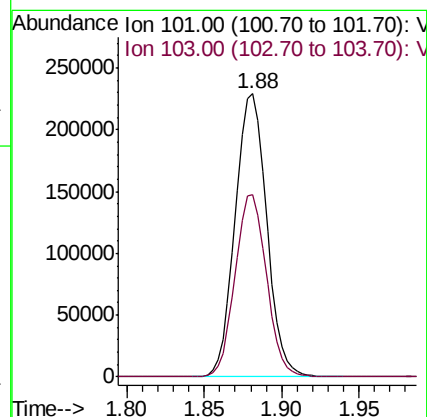
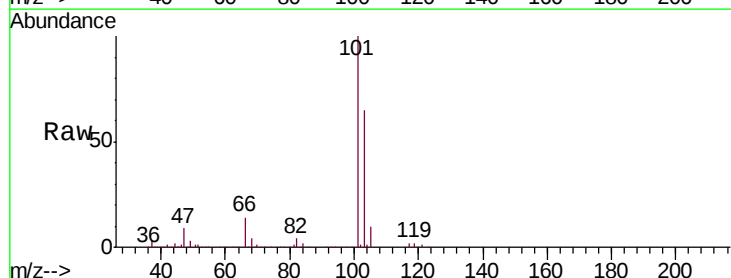
Acq: 06 Apr 2019 21:40

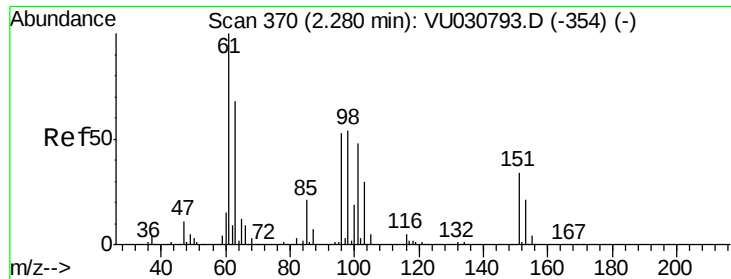
Tgt Ion: 101 Resp: 324614

Ion Ratio Lower Upper

101 100

103 64.0 51.8 77.8





#10

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

Concen: 49.045 ug/L

RT: 2.28 min Scan# 370

Delta R.T. -0.00 min

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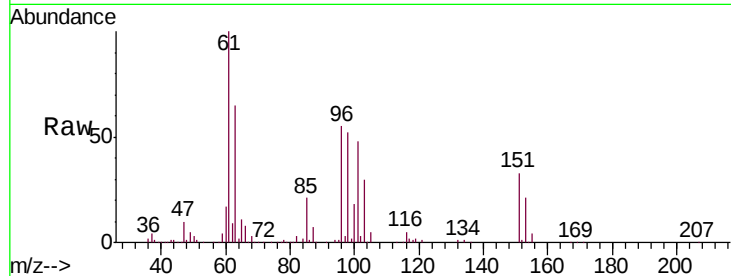
Tgt Ion:101 Resp: 171554

Ion Ratio Lower Upper

101 100

85 44.4 36.8 55.2

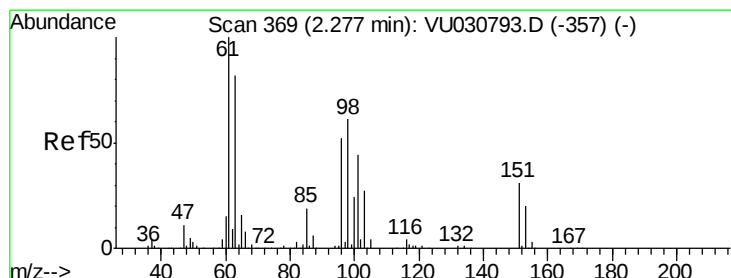
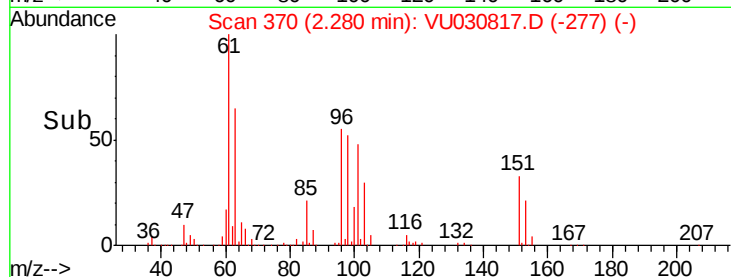
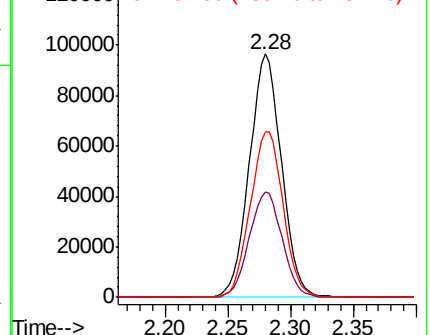
151 69.9 57.4 86.0



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VU0

Ion 151.00 (150.70 to 151.70): V



#12

1,1-Dichloroethene

Concen: 51.681 ug/L

RT: 2.28 min Scan# 369

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

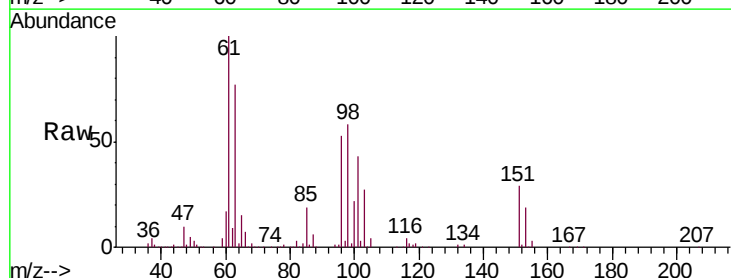
Tgt Ion: 96 Resp: 174514

Ion Ratio Lower Upper

96 100

61 189.7 132.0 245.2

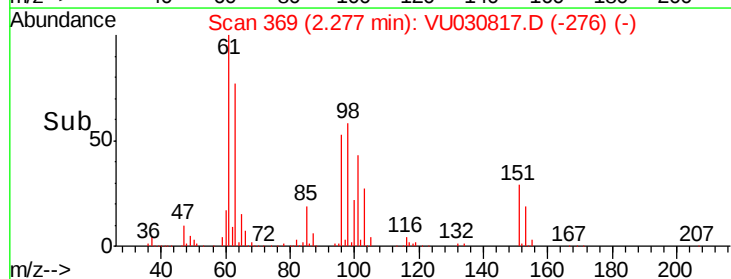
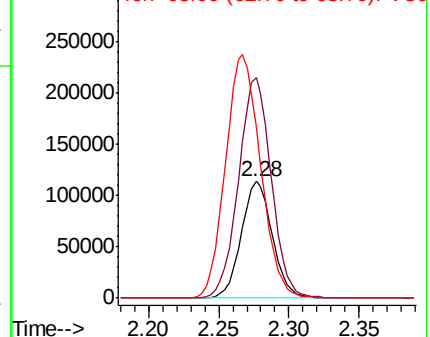
63 146.9 90.9 168.9

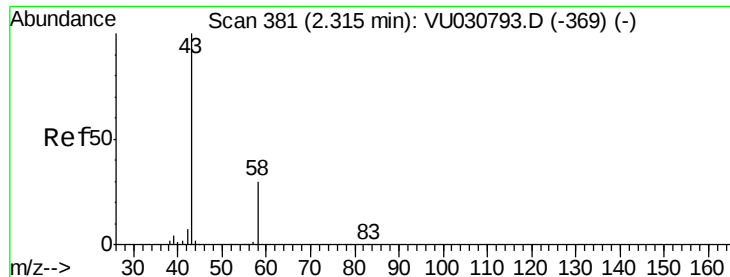


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 79.849 ug/L

RT: 2.32 min Scan# 381

Delta R.T. -0.00 min

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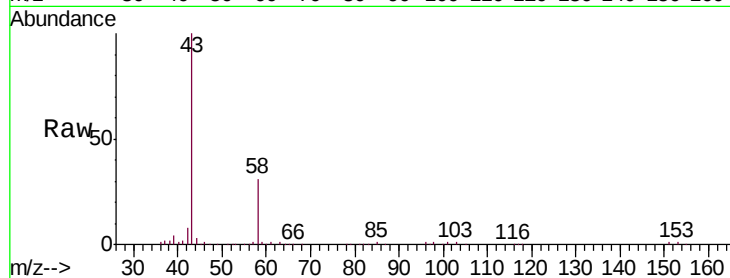
VSTD05054

Tgt Ion: 43 Resp: 282391

Ion Ratio Lower Upper

43 100

58 30.9 0.0 64.0



Abundance Ion 43.00 (42.70 to 43.70): VU0

Ion 58.00 (57.70 to 58.70): VU0

200000

150000

100000

50000

0

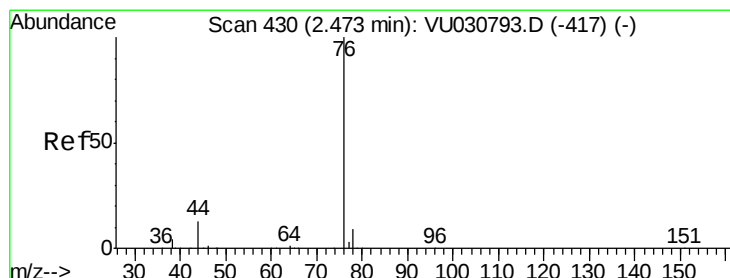
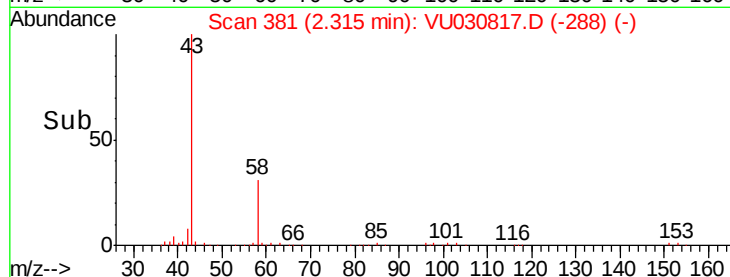
2.32

2.30

2.35

2.40

Time-->



#14

Carbon disulfide

Concen: 48.793 ug/L

RT: 2.47 min Scan# 429

Delta R.T. -0.00 min

Lab File: VU030817.D

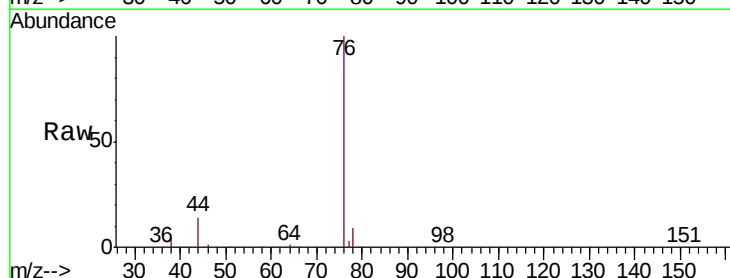
Acq: 06 Apr 2019 21:40

Tgt Ion: 76 Resp: 511841

Ion Ratio Lower Upper

76 100

78 8.7 7.0 10.4



Abundance Ion 76.00 (75.70 to 76.70): VU0

Ion 78.00 (77.70 to 78.70): VU0

300000

200000

100000

0

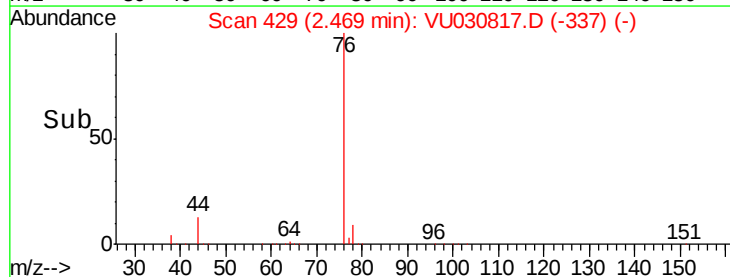
2.47

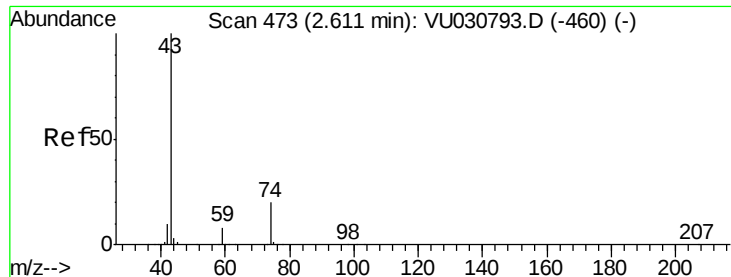
2.45

2.50

2.55

Time-->

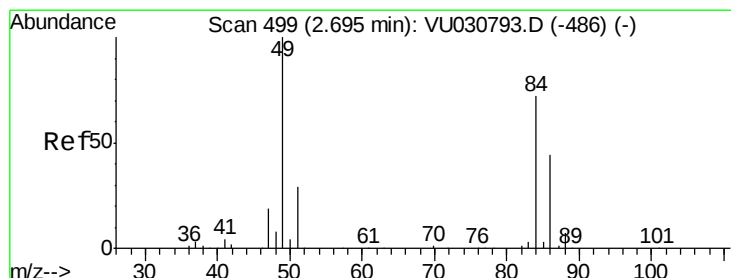
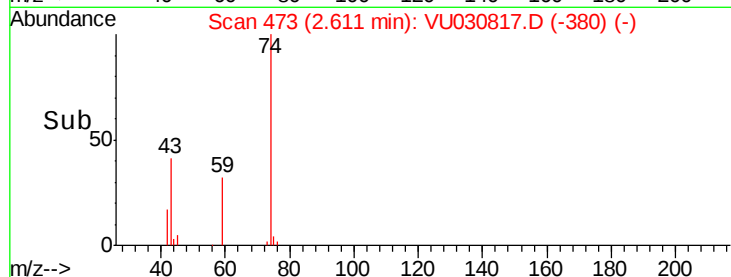
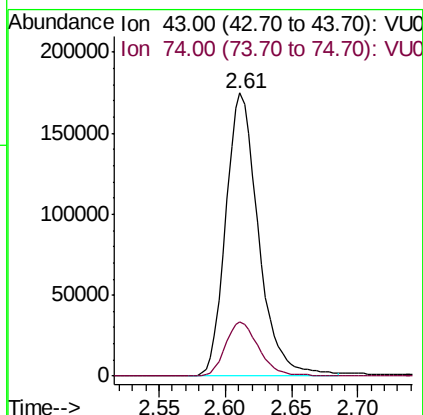
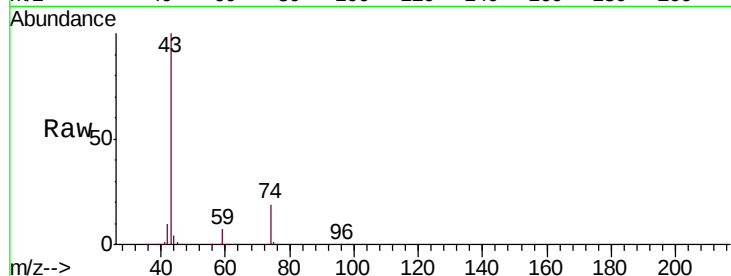




#15  
Methyl Acetate  
Concen: 54.426 ug/L  
RT: 2.61 min Scan# 473  
Delta R.T. -0.00 min  
Lab File: VU030817.D  
Acq: 06 Apr 2019 21:40

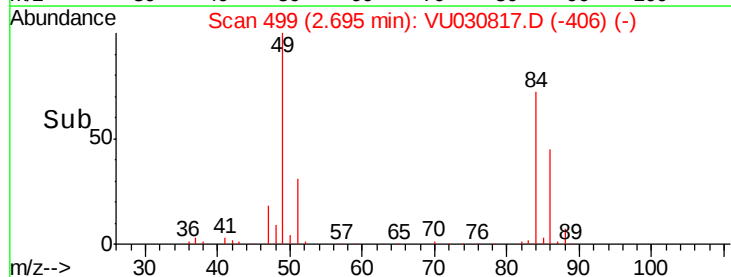
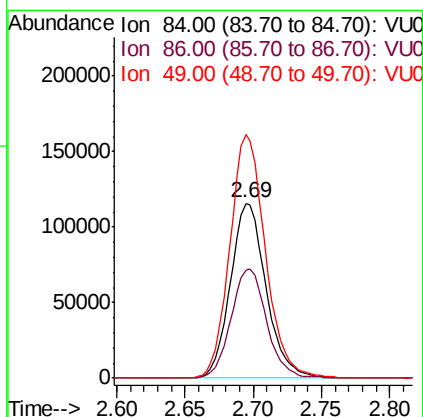
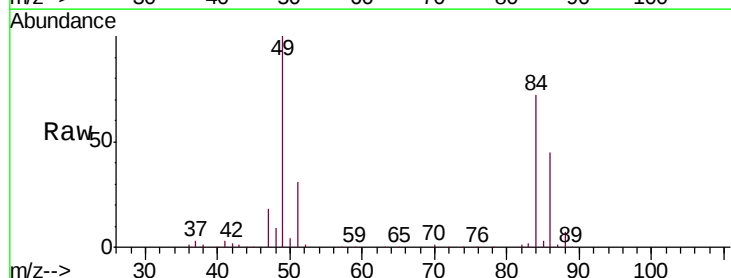
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05054

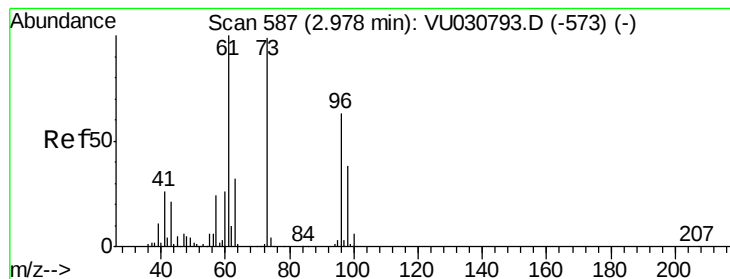
Tgt Ion: 43 Resp: 298437  
Ion Ratio Lower Upper  
43 100  
74 19.7 17.1 25.7



#16  
Methylene chloride  
Concen: 51.192 ug/L  
RT: 2.69 min Scan# 499  
Delta R.T. -0.00 min  
Lab File: VU030817.D  
Acq: 06 Apr 2019 21:40

Tgt Ion: 84 Resp: 209993  
Ion Ratio Lower Upper  
84 100  
86 62.1 45.1 83.7  
49 139.4 96.5 179.1





#17

trans-1,2-Dichloroethene

Concen: 49.818 ug/L

RT: 2.98 min Scan# 587

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05054

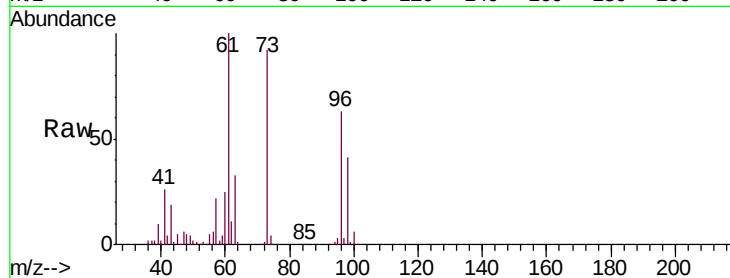
Tgt Ion: 96 Resp: 178616

Ion Ratio Lower Upper

96 100

61 158.3 109.5 203.3

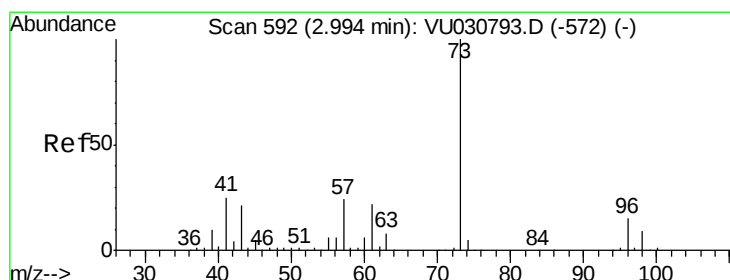
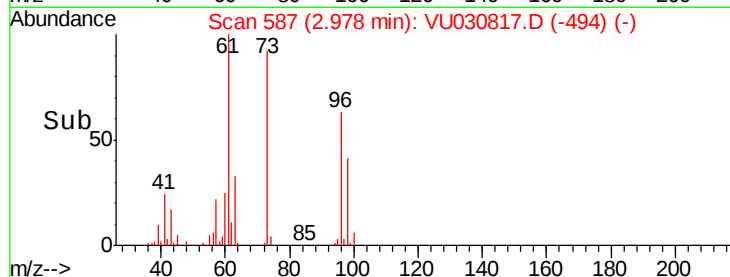
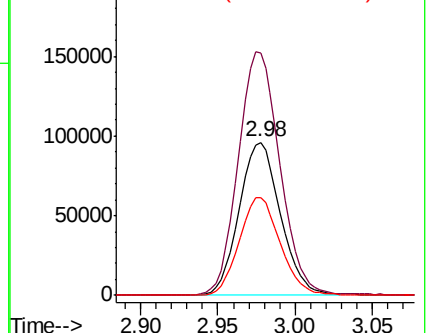
98 64.2 44.0 81.6



Abundance Ion 96.00 (95.70 to 96.70): VU030817.D (-494) (-)

Ion 61.00 (60.70 to 61.70): VU030817.D (-494) (-)

Ion 98.00 (97.70 to 98.70): VU030817.D (-494) (-)



#18

Methyl tert-butyl Ether

Concen: 51.524 ug/L

RT: 2.99 min Scan# 592

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

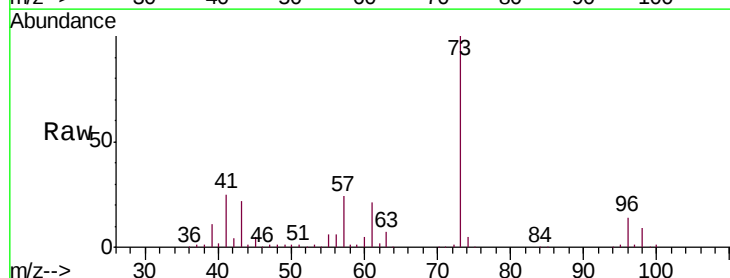
Tgt Ion: 73 Resp: 618802

Ion Ratio Lower Upper

73 100

43 20.9 16.4 24.6

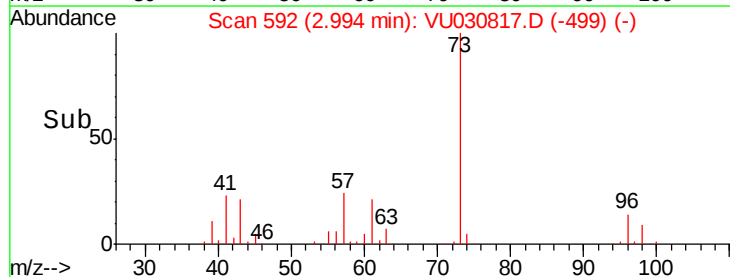
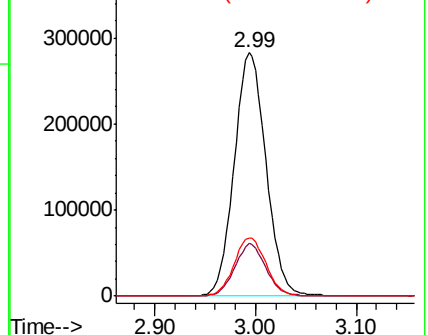
57 24.1 19.0 28.4

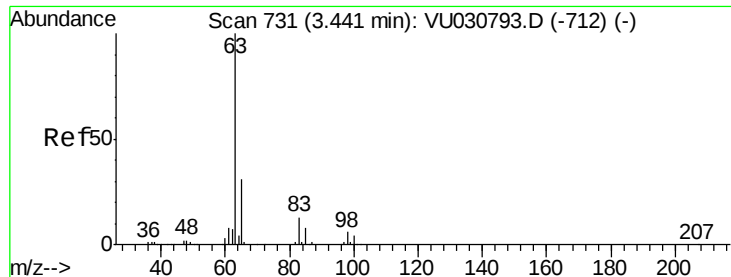


Abundance Ion 73.00 (72.70 to 73.70): VU030817.D (-499) (-)

Ion 43.00 (42.70 to 43.70): VU030817.D (-499) (-)

Ion 57.00 (56.70 to 57.70): VU030817.D (-499) (-)

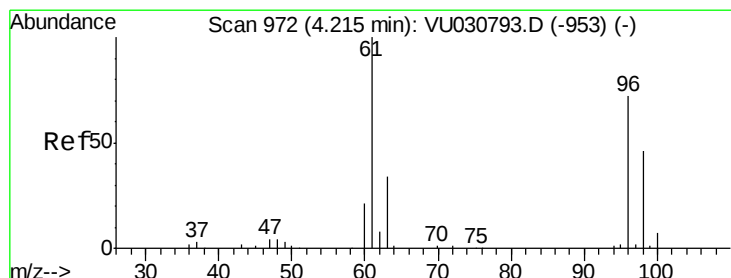
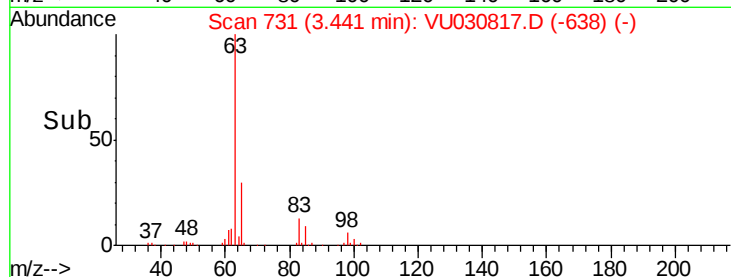
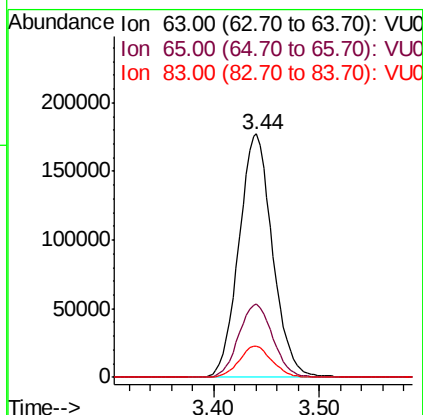
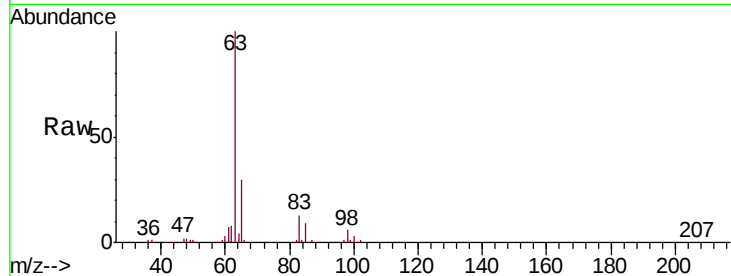




#19  
 1,1-Dichloroethane  
 Concen: 52.985 ug/L  
 RT: 3.44 min Scan# 731  
 Delta R.T. -0.00 min  
 Lab File: VU030817.D  
 Acq: 06 Apr 2019 21:40

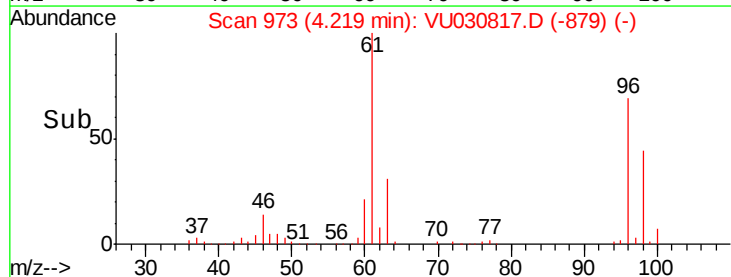
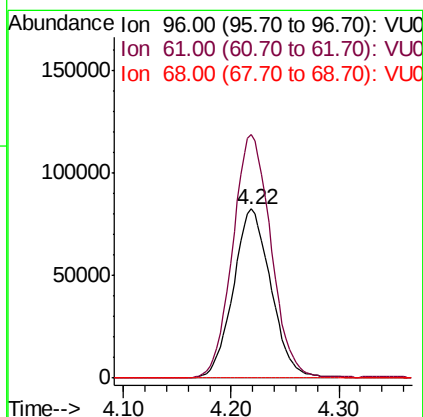
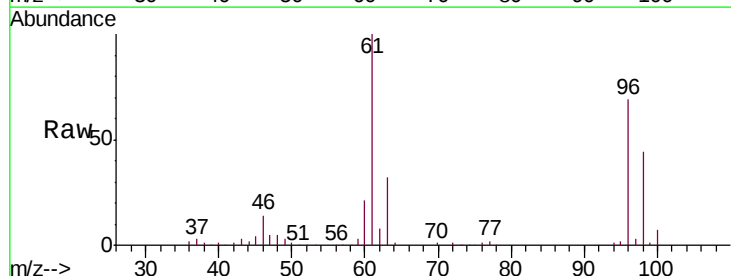
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05054

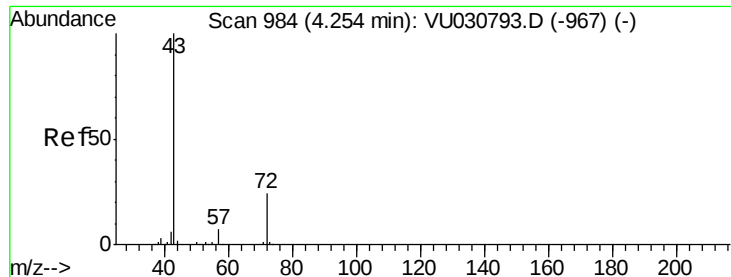
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 65      | 29.9  | 21.4  | 39.8  |
| 83      | 12.7  | 8.5   | 15.7  |



#20  
 cis-1,2-Dichloroethene  
 Concen: 50.670 ug/L  
 RT: 4.22 min Scan# 973  
 Delta R.T. 0.00 min  
 Lab File: VU030817.D  
 Acq: 06 Apr 2019 21:40

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 144.2 | 102.9 | 191.1 |
| 68      | 0.0   | 0.0   | 0.0   |





#22

2-Butanone

Concen: 101.703 ug/L

RT: 4.26 min Scan# 985

Delta R.T. 0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Instrument :

MSVOA\_U

ClientSampleId :

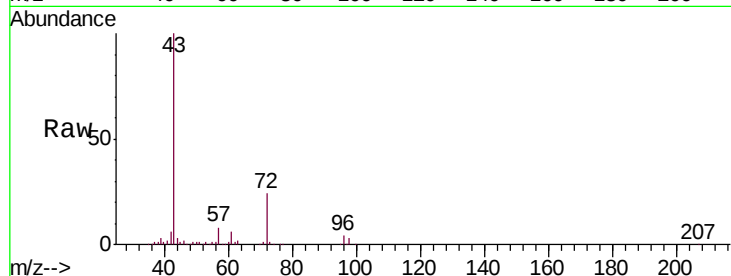
VSTD05054

Tgt Ion: 43 Resp: 421713

Ion Ratio Lower Upper

43 100

72 23.3 10.8 32.4



Abundance Ion 43.00 (42.70 to 43.70): VU030793.D (-967) (-)

Ion 72.00 (71.70 to 72.70): VU030793.D (-967) (-)

4.26

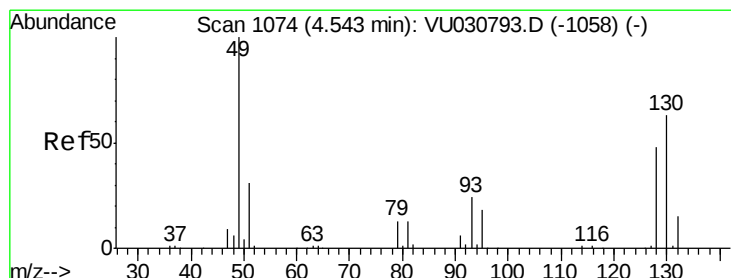
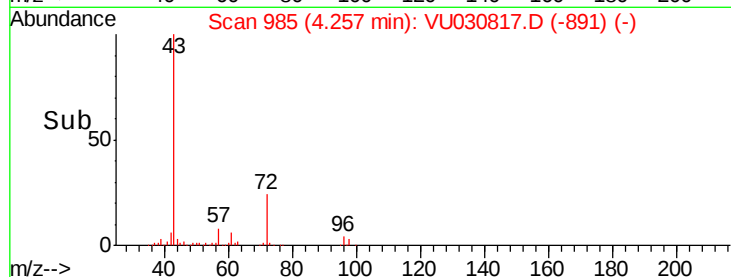
150000

100000

50000

0

Time-->



#23

Bromochloromethane

Concen: 52.918 ug/L

RT: 4.54 min Scan# 1074

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Tgt Ion: 128 Resp: 99042

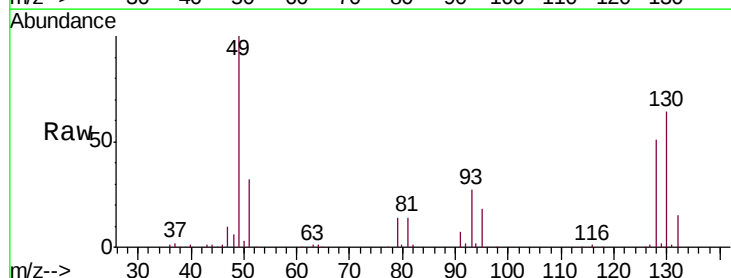
Ion Ratio Lower Upper

128 100

49 196.7 139.9 259.7

130 126.2 86.6 160.8

51 62.9 52.2 78.4



Abundance Ion 128.00 (127.70 to 128.70): VU030793.D (-1058) (-)

Ion 49.00 (48.70 to 49.70): VU030793.D (-1058) (-)

Ion 130.00 (129.70 to 130.70): VU030793.D (-1058) (-)

Ion 51.00 (50.70 to 51.70): VU030793.D (-1058) (-)

4.54

120000

100000

80000

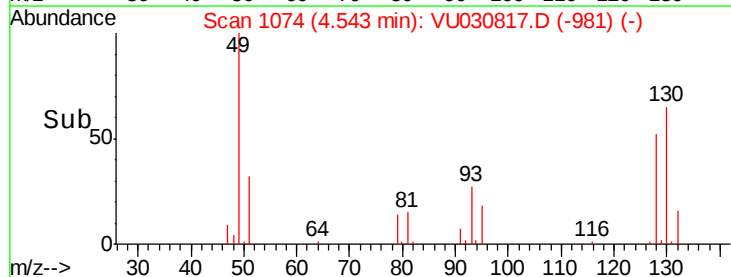
60000

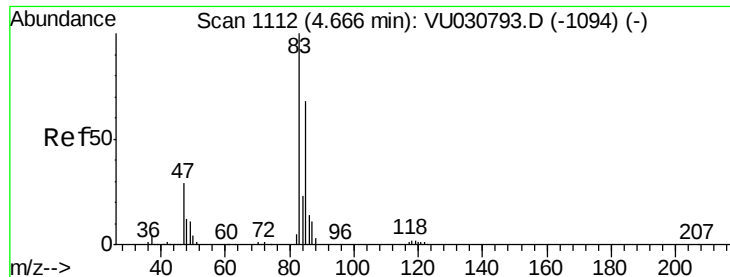
40000

20000

0

Time-->





#25

Chloroform

Concen: 51.622 ug/L

RT: 4.67 min Scan# 1112

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Instrument :

MSVOA\_U

ClientSampleId :

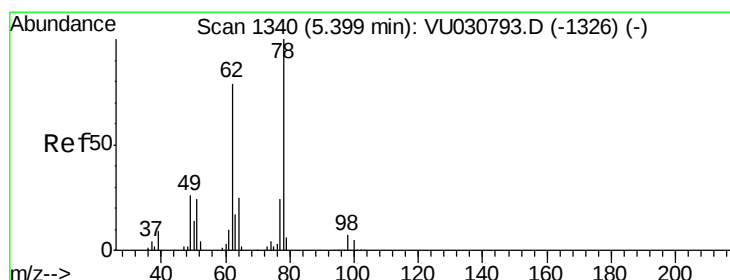
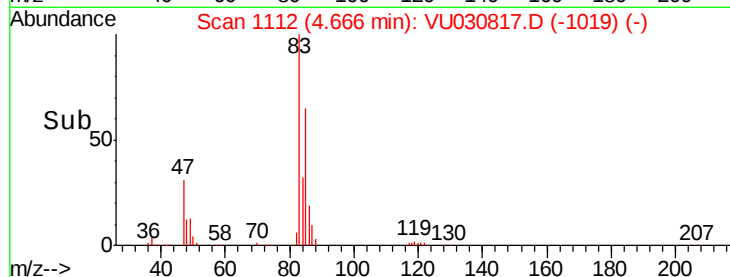
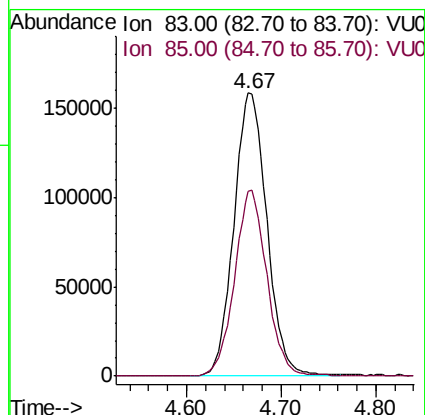
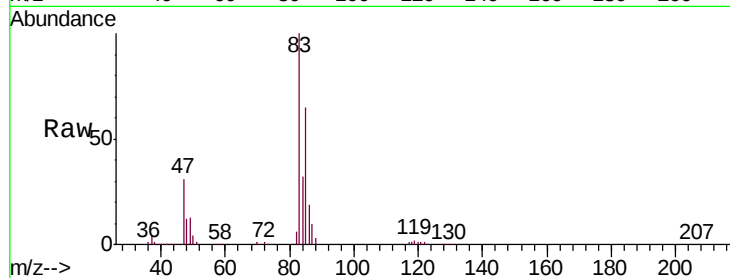
VSTD05054

Tgt Ion: 83 Resp: 383897

Ion Ratio Lower Upper

83 100

85 65.2 45.8 85.0



#27

1,2-Dichloroethane

Concen: 53.770 ug/L

RT: 5.40 min Scan# 1340

Delta R.T. -0.00 min

Lab File: VU030817.D

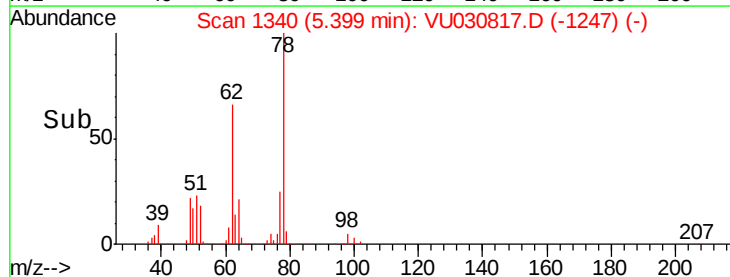
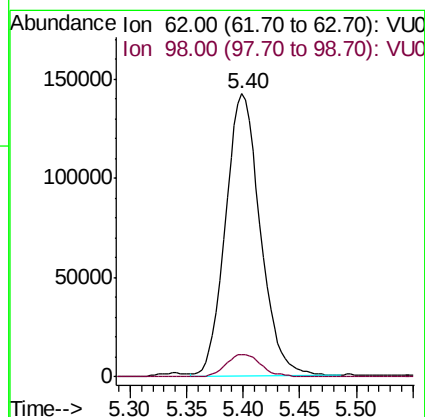
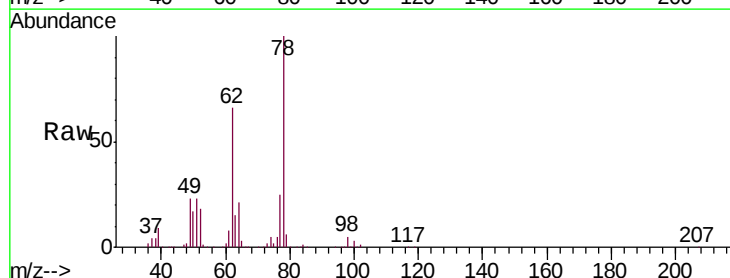
Acq: 06 Apr 2019 21:40

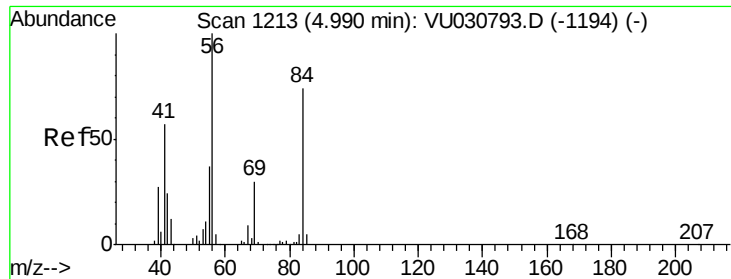
Tgt Ion: 62 Resp: 305192

Ion Ratio Lower Upper

62 100

98 8.0 7.2 10.8

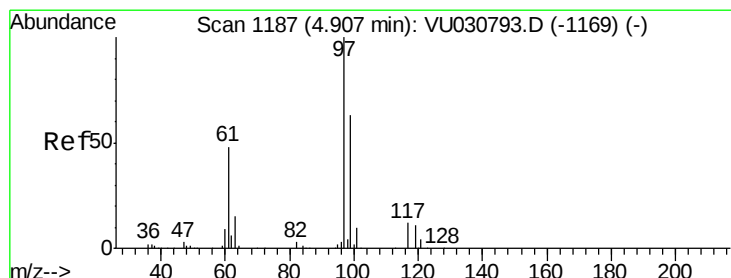
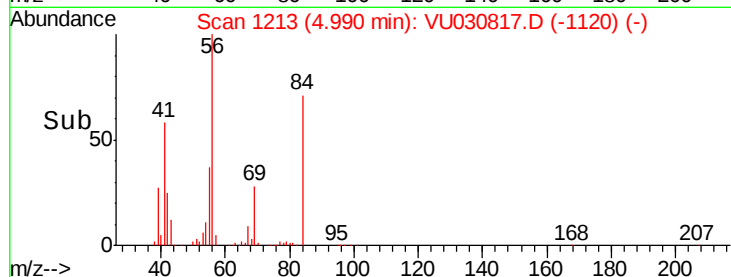
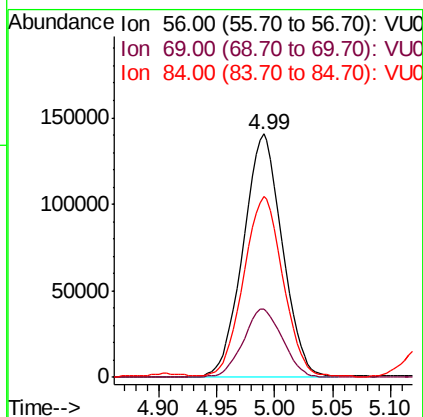
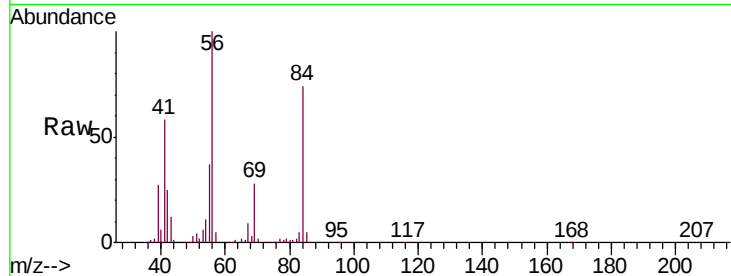




#29  
Cyclohexane  
Concen: 48.794 ug/L  
RT: 4.99 min Scan# 1213  
Delta R.T. -0.00 min  
Lab File: VU030817.D  
Acq: 06 Apr 2019 21:40

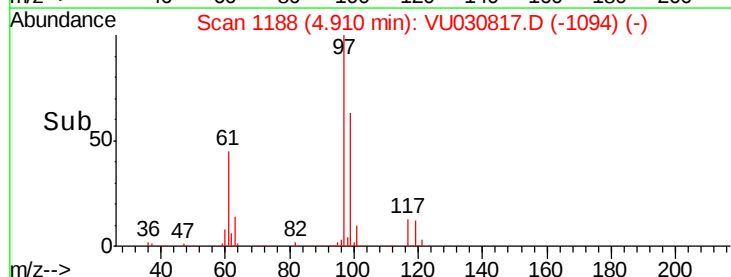
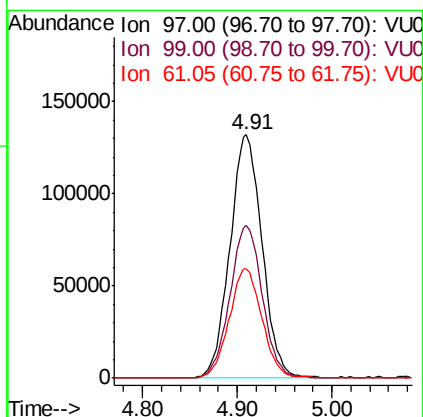
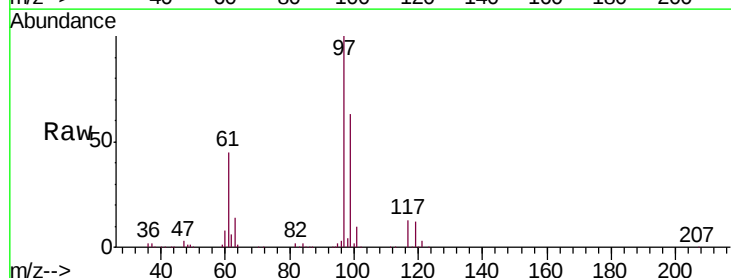
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05054

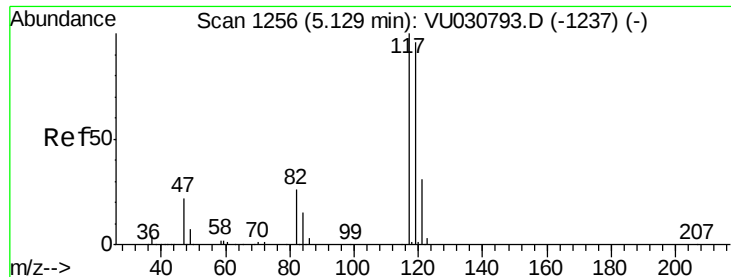
Tgt Ion: 56 Resp: 332225  
Ion Ratio Lower Upper  
56 100  
69 28.0 22.0 33.0  
84 73.3 58.2 87.2



#30  
1,1,1-Trichloroethane  
Concen: 53.631 ug/L  
RT: 4.91 min Scan# 1188  
Delta R.T. 0.00 min  
Lab File: VU030817.D  
Acq: 06 Apr 2019 21:40

Tgt Ion: 97 Resp: 312232  
Ion Ratio Lower Upper  
97 100  
99 63.1 51.4 77.2  
61 45.7 37.1 55.7





#31

Carbon tetrachloride

Concen: 51.521 ug/L

RT: 5.13 min Scan# 1256

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Instrument :

MSVOA\_U

ClientSampleId :

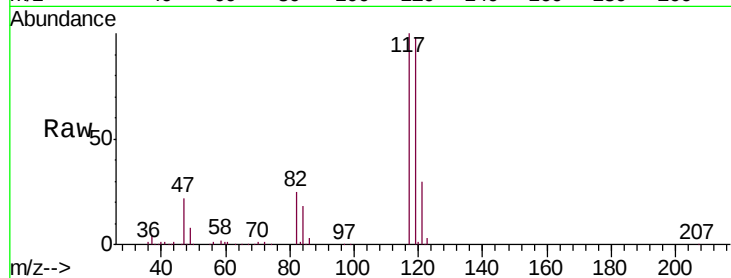
VSTD05054

Tgt Ion:117 Resp: 258477

Ion Ratio Lower Upper

117 100

119 96.3 76.2 114.2



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

5.13

120000

100000

80000

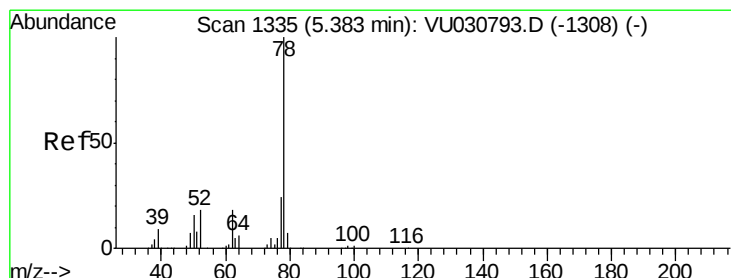
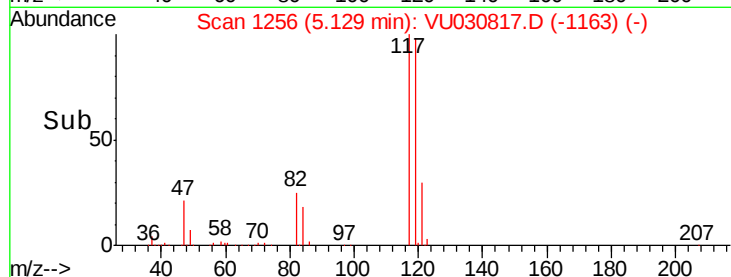
60000

40000

20000

0

Time--> 5.00 5.10 5.20



#33

Benzene

Concen: 52.993 ug/L

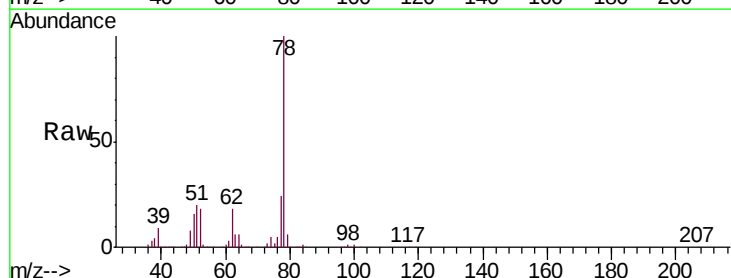
RT: 5.38 min Scan# 1335

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Tgt Ion: 78 Resp: 828431



Abundance Ion 78.00 (77.70 to 78.70): VU0

5.38

400000

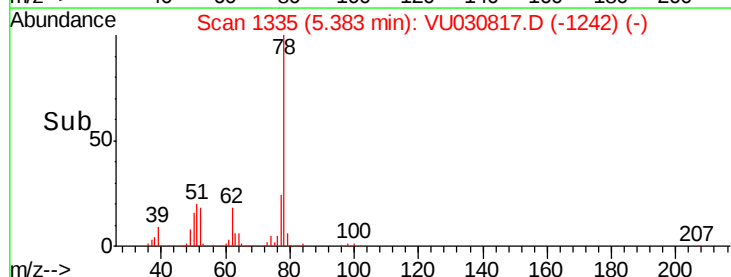
300000

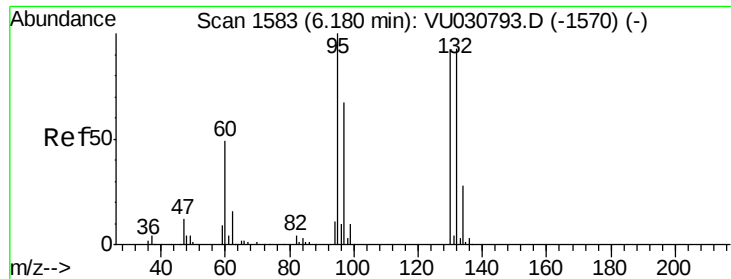
200000

100000

0

Time--> 5.30 5.40 5.50

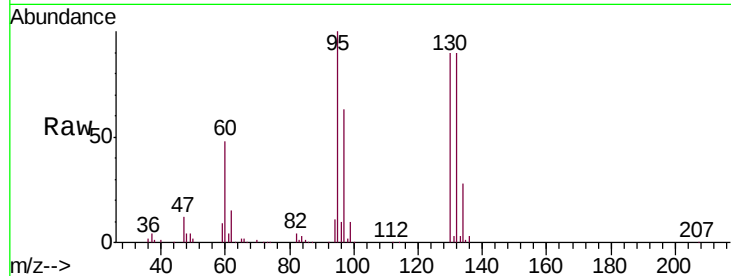




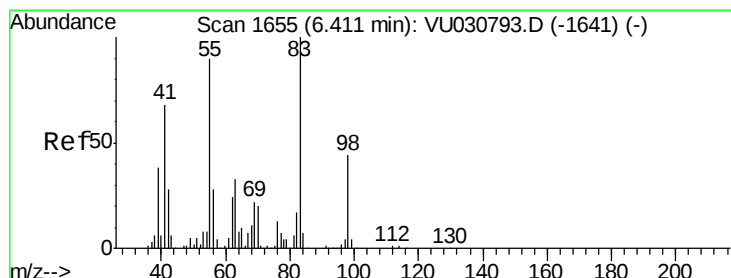
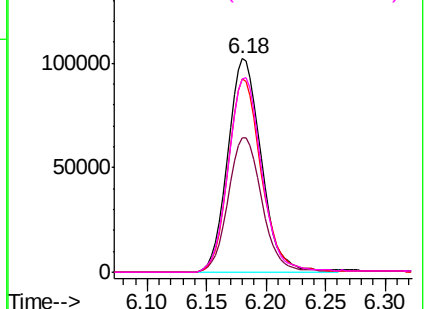
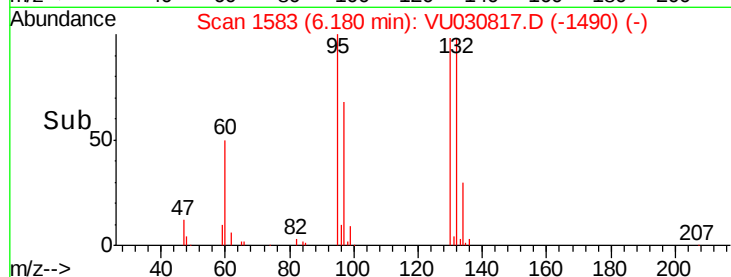
#34  
 Trichloroethene  
 Concen: 52.177 ug/L  
 RT: 6.18 min Scan# 1583  
 Delta R.T. -0.00 min  
 Lab File: VU030817.D  
 Acq: 06 Apr 2019 21:40

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05054

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 95    | Resp: | 200056 |
| Ion      | Ratio | Lower | Upper  |
| 95       | 100   |       |        |
| 97       | 62.9  | 44.5  | 82.7   |
| 132      | 90.2  | 61.5  | 114.1  |
| 130      | 90.5  | 64.9  | 120.5  |

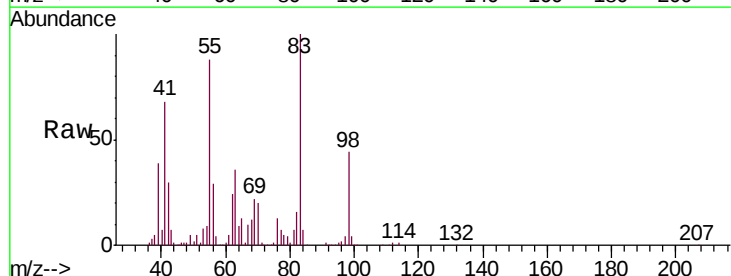


Abundance Ion 95.00 (94.70 to 95.70): VU0  
 Ion 97.00 (96.70 to 97.70): VU0  
 Ion 132.00 (131.70 to 132.70): V  
 Ion 130.00 (129.70 to 130.70): V

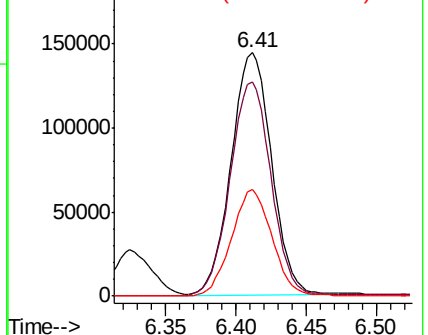
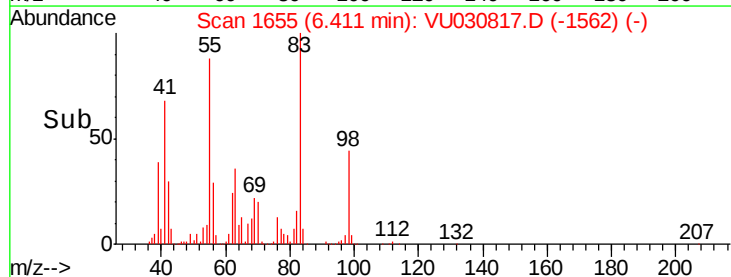


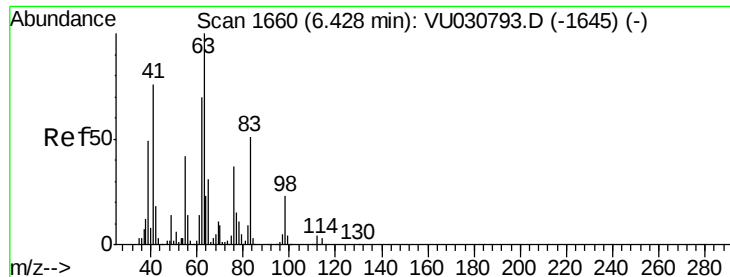
#35  
 Methylcyclohexane  
 Concen: 49.233 ug/L  
 RT: 6.41 min Scan# 1655  
 Delta R.T. -0.00 min  
 Lab File: VU030817.D  
 Acq: 06 Apr 2019 21:40

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 83    | Resp: | 291324 |
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 55       | 89.3  | 71.6  | 107.4  |
| 98       | 43.9  | 35.4  | 53.0   |



Abundance Ion 83.00 (82.70 to 83.70): VU0  
 Ion 55.00 (54.70 to 55.70): VU0  
 Ion 98.00 (97.70 to 98.70): VU0





#37

1,2-Dichloropropane

Concen: 52.950 ug/L

RT: 6.43 min Scan# 1660

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Instrument :

MSVOA\_U

ClientSampled :

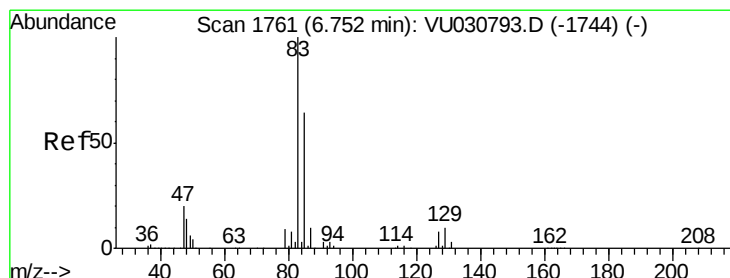
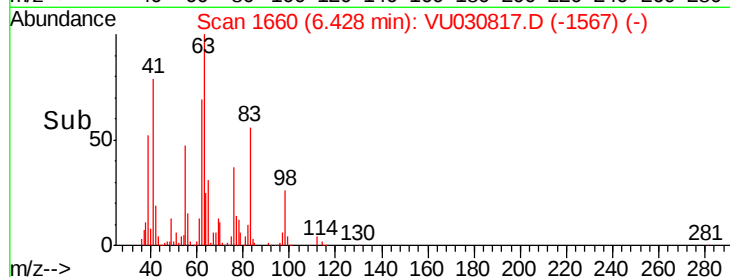
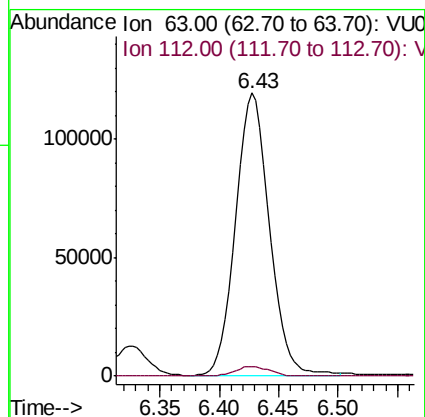
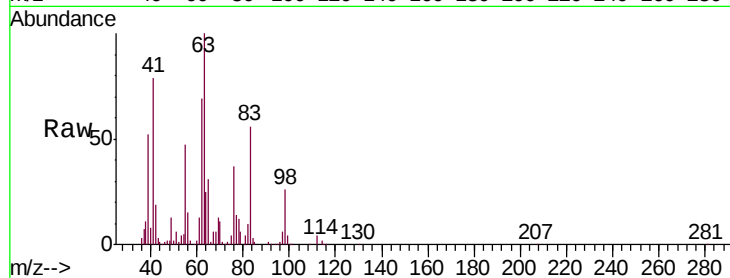
VSTD05054

Tgt Ion: 63 Resp: 234389

Ion Ratio Lower Upper

63 100

112 3.6 3.0 4.4



#38

Bromodichloromethane

Concen: 52.050 ug/L

RT: 6.75 min Scan# 1761

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

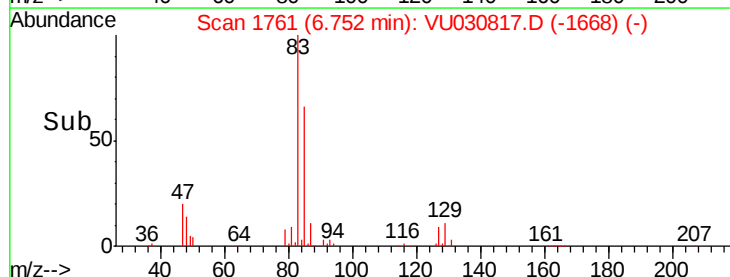
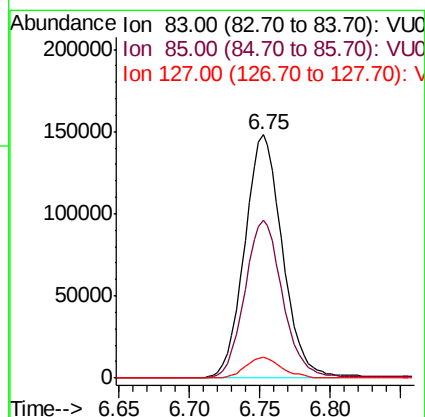
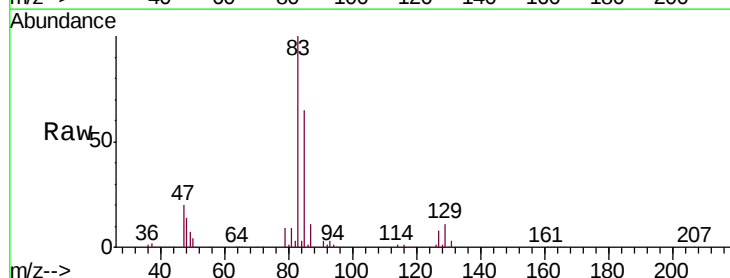
Tgt Ion: 83 Resp: 277951

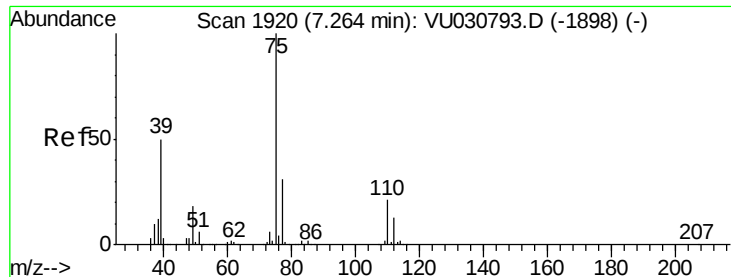
Ion Ratio Lower Upper

83 100

85 64.6 46.5 86.3

127 8.5 6.6 10.0

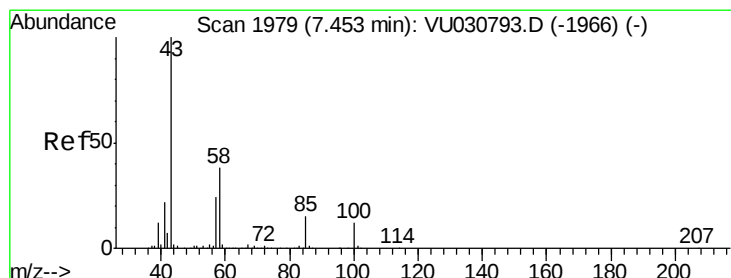
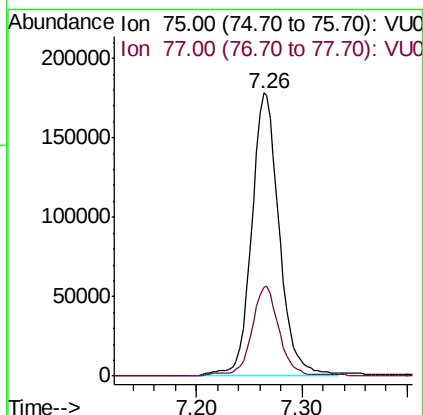
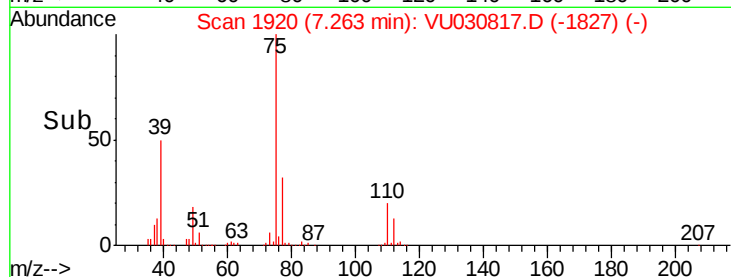
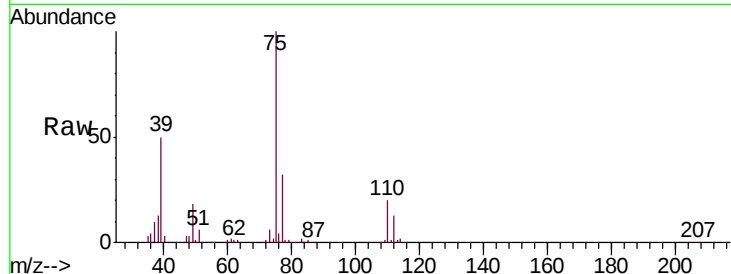




#39  
 cis-1,3-Dichloropropene  
 Concen: 51.759 ug/L  
 RT: 7.26 min Scan# 1920  
 Delta R.T. -0.00 min  
 Lab File: VU030817.D  
 Acq: 06 Apr 2019 21:40

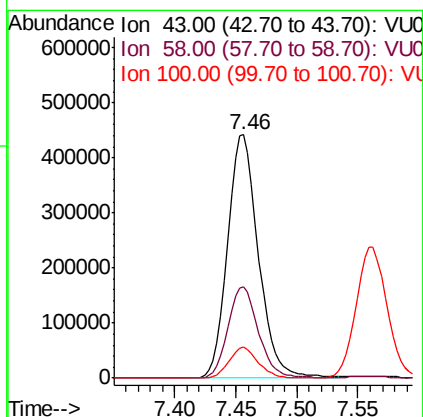
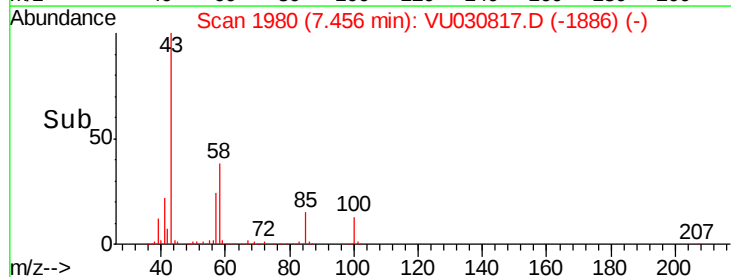
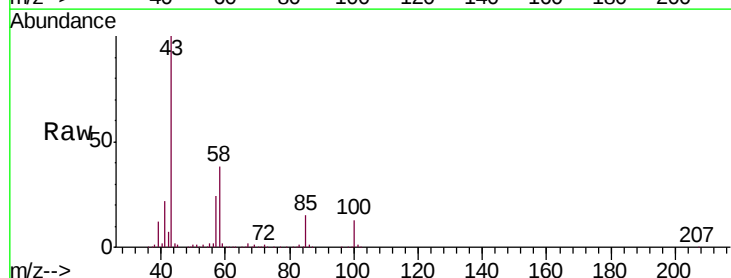
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05054

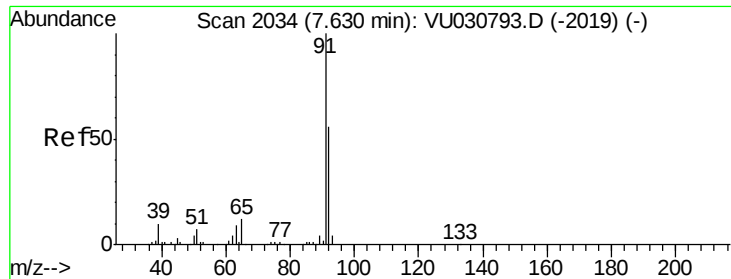
Tgt Ion: 75 Resp: 326113  
 Ion Ratio Lower Upper  
 75 100  
 77 31.5 23.1 42.9



#40  
 4-Methyl-2-pentanone  
 Concen: 109.613 ug/L  
 RT: 7.46 min Scan# 1980  
 Delta R.T. 0.00 min  
 Lab File: VU030817.D  
 Acq: 06 Apr 2019 21:40

Tgt Ion: 43 Resp: 780262  
 Ion Ratio Lower Upper  
 43 100  
 58 37.2 29.7 44.5  
 100 12.1 9.8 14.6





#42

Toluene

Concen: 53.012 ug/L

RT: 7.63 min Scan# 2035

Delta R.T. 0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Instrument :

MSVOA\_U

ClientSampleId :

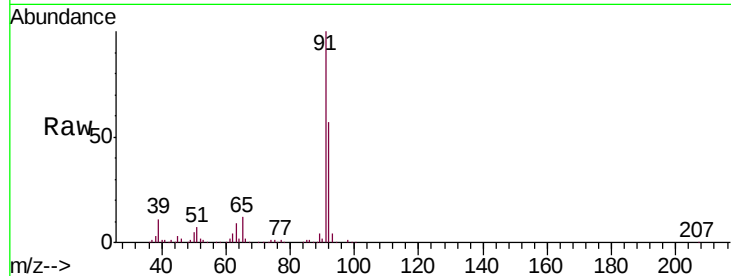
VSTD05054

Tgt Ion: 91 Resp: 845937

Ion Ratio Lower Upper

91 100

92 57.3 40.0 74.4



Abundance Ion 91.00 (90.70 to 91.70): VU030817.D (-2017) (-)

Ion 92.00 (91.70 to 92.70): VU030817.D (-2017) (-)

7.63

500000

400000

300000

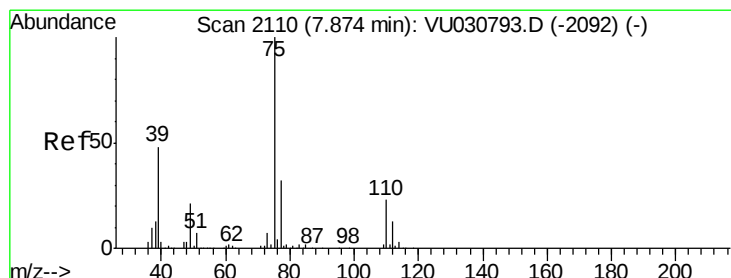
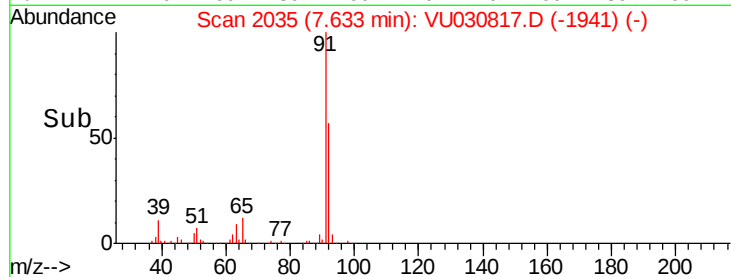
200000

100000

0

7.60 7.70

Time-->



#44

trans-1,3-Dichloropropene

Concen: 52.778 ug/L

RT: 7.87 min Scan# 2110

Delta R.T. -0.00 min

Lab File: VU030817.D

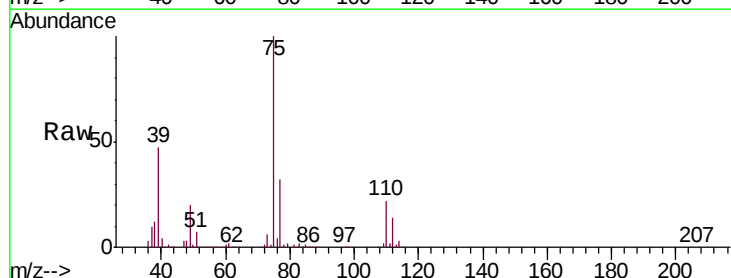
Acq: 06 Apr 2019 21:40

Tgt Ion: 75 Resp: 293049

Ion Ratio Lower Upper

75 100

77 31.6 21.6 40.0



Abundance Ion 75.00 (74.70 to 75.70): VU030817.D (-2017) (-)

Ion 77.00 (76.70 to 77.70): VU030817.D (-2017) (-)

7.87

150000

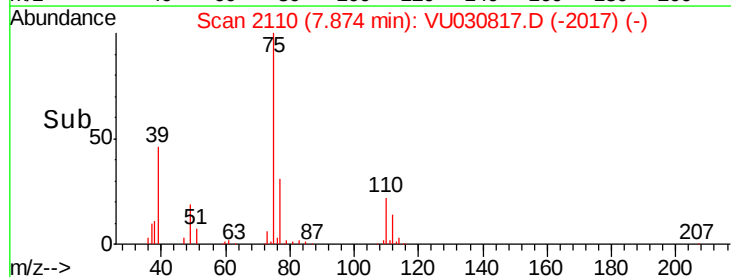
100000

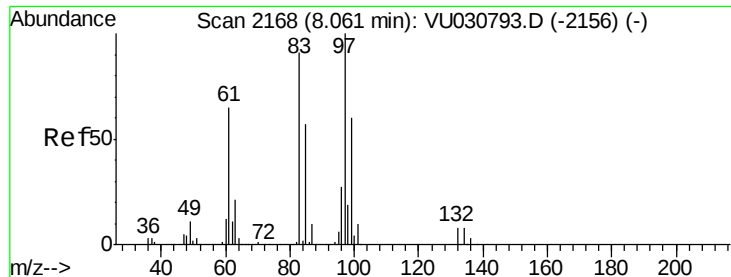
50000

0

7.80 7.85 7.90 7.95

Time-->

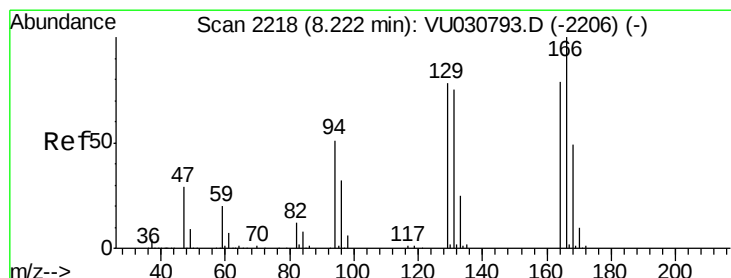
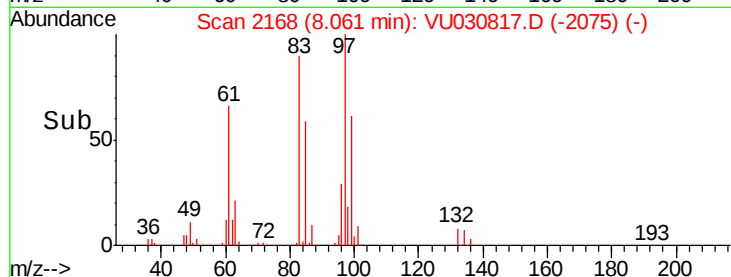
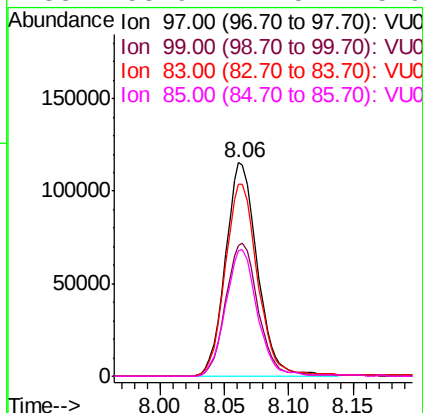
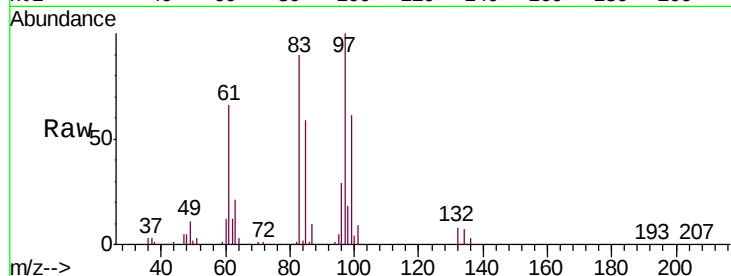




#45  
 1,1,2-Trichloroethane  
 Concen: 53.091 ug/L  
 RT: 8.06 min Scan# 2168  
 Delta R.T. -0.00 min  
 Lab File: VU030817.D  
 Acq: 06 Apr 2019 21:40

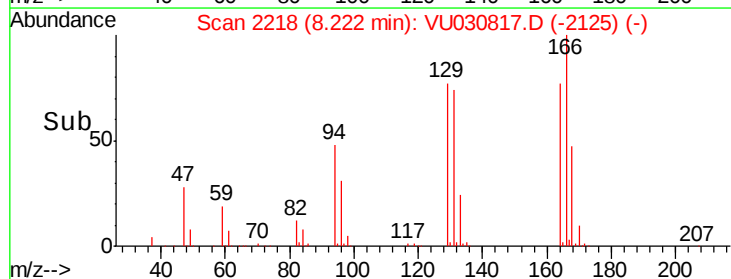
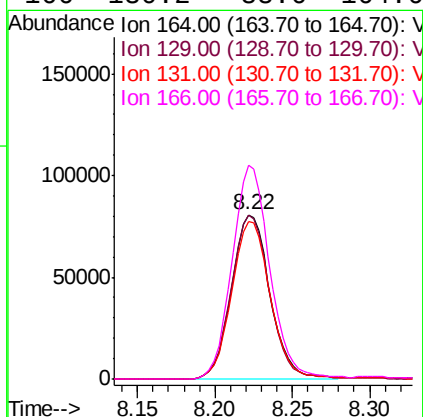
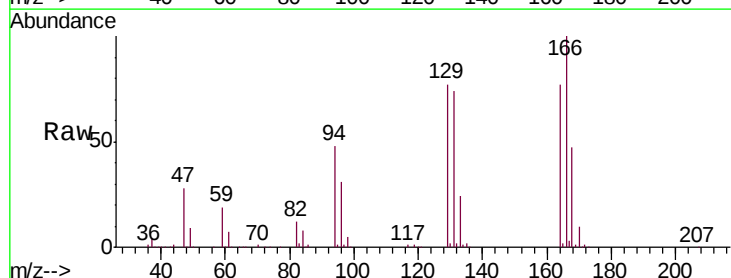
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05054

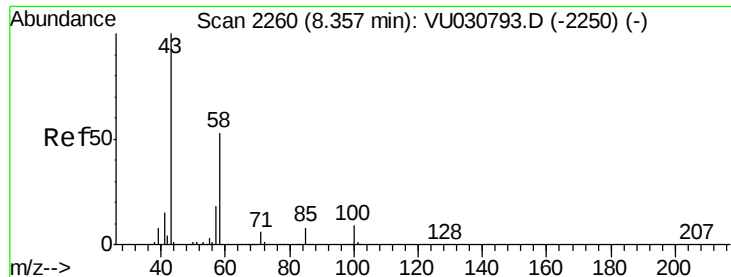
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 97    | Resp: | 199314 |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 99       | 61.3  | 44.0  | 81.8   |
| 83       | 90.0  | 65.3  | 121.3  |
| 85       | 58.9  | 42.5  | 78.9   |



#46  
 Tetrachloroethene  
 Concen: 49.906 ug/L  
 RT: 8.22 min Scan# 2218  
 Delta R.T. -0.00 min  
 Lab File: VU030817.D  
 Acq: 06 Apr 2019 21:40

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 164   | Resp: | 139116 |
| Ion      | Ratio | Lower | Upper  |
| 164      | 100   |       |        |
| 129      | 99.9  | 67.4  | 125.2  |
| 131      | 96.4  | 65.9  | 122.5  |
| 166      | 130.2 | 88.6  | 164.6  |

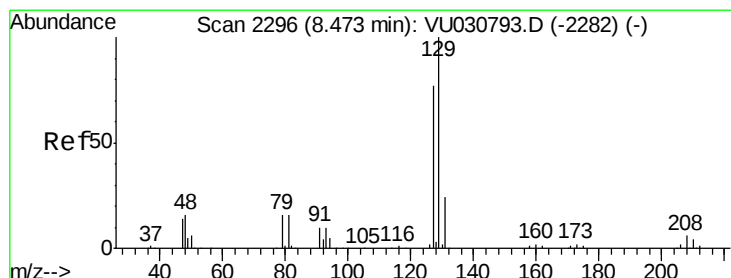
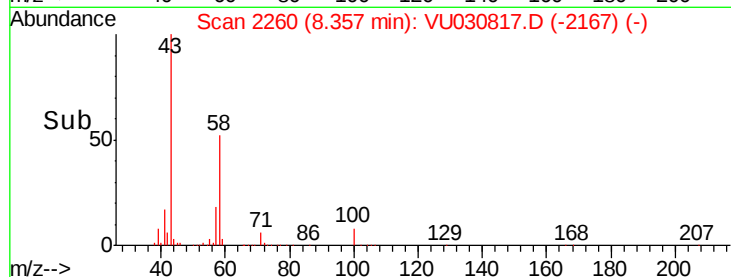
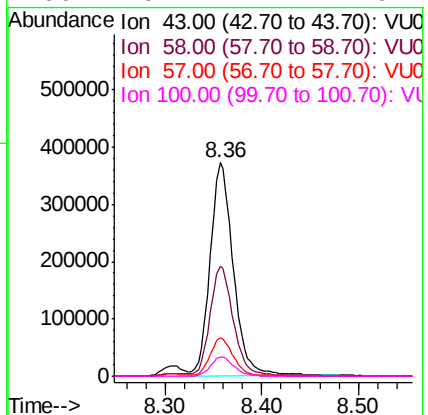
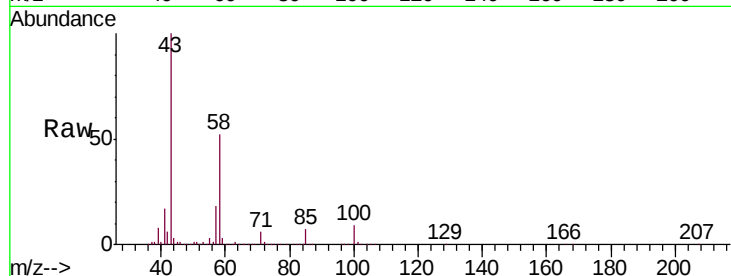




#48  
2-Hexanone  
Concen: 111.096 ug/L  
RT: 8.36 min Scan# 2260  
Delta R.T. -0.00 min  
Lab File: VU030817.D  
Acq: 06 Apr 2019 21:40

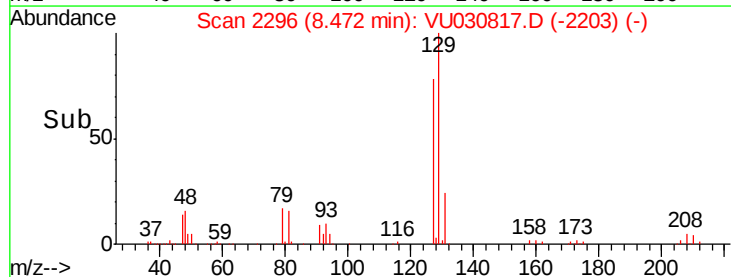
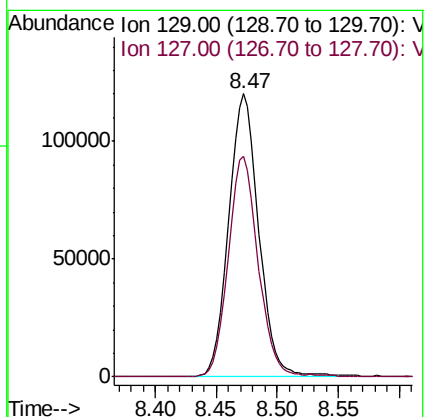
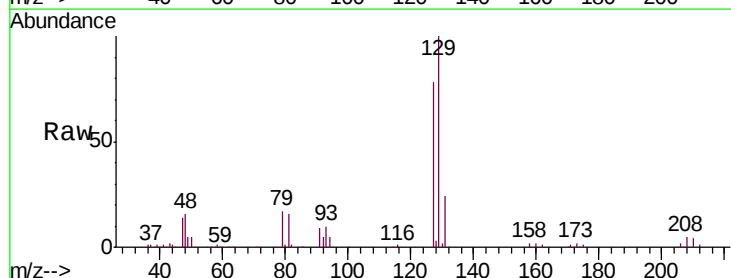
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05054

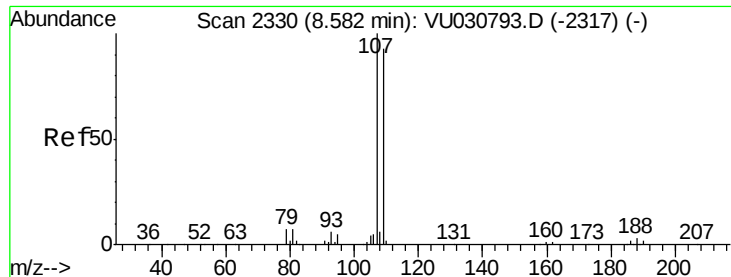
Tgt Ion: 43 Resp: 616987  
Ion Ratio Lower Upper  
43 100  
58 51.3 41.9 62.9  
57 17.6 14.3 21.5  
100 9.2 7.1 10.7



#49  
Dibromochloromethane  
Concen: 51.971 ug/L  
RT: 8.47 min Scan# 2296  
Delta R.T. -0.00 min  
Lab File: VU030817.D  
Acq: 06 Apr 2019 21:40

Tgt Ion: 129 Resp: 207029  
Ion Ratio Lower Upper  
129 100  
127 77.9 54.5 101.3

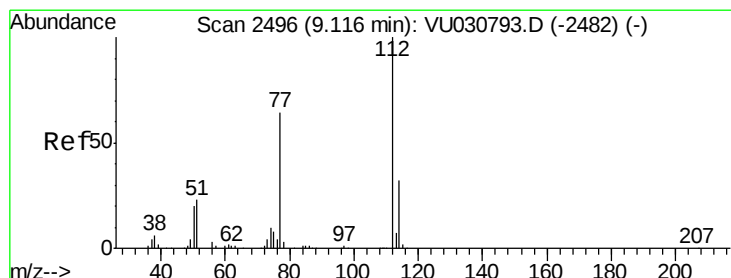
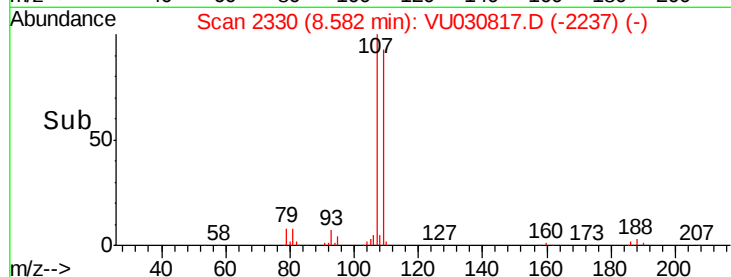
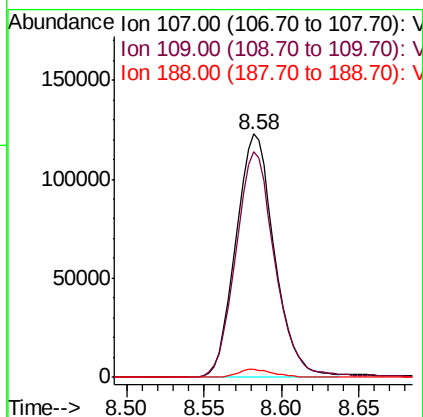
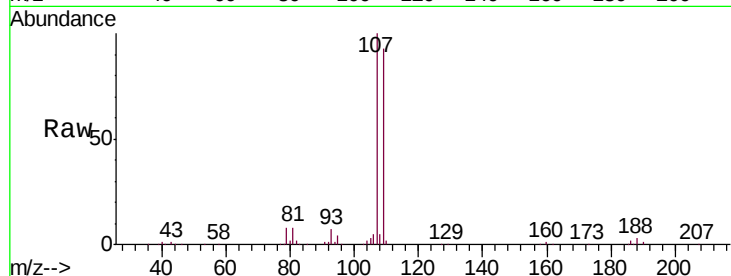




#50  
 1,2-Dibromoethane  
 Concen: 52.505 ug/L  
 RT: 8.58 min Scan# 2330  
 Delta R.T. -0.00 min  
 Lab File: VU030817.D  
 Acq: 06 Apr 2019 21:40

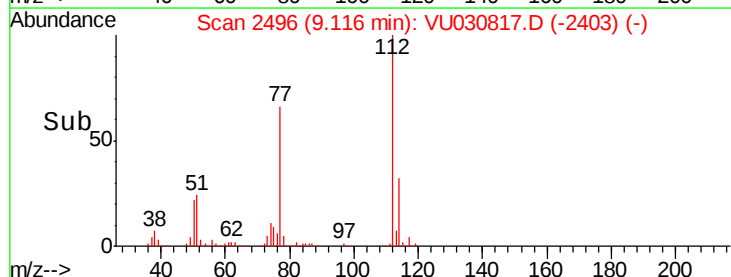
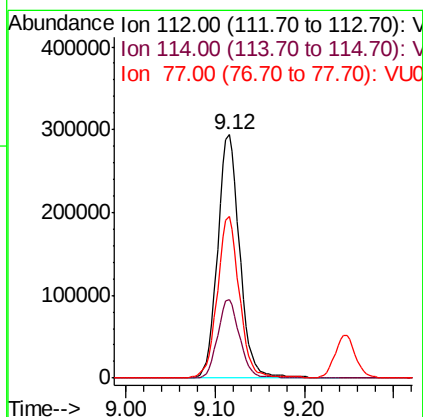
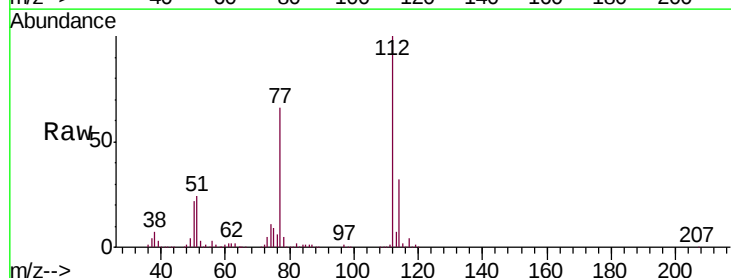
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05054

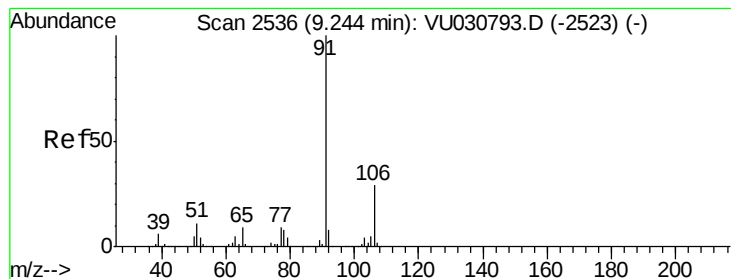
Tgt Ion: 107 Resp: 213296  
 Ion Ratio Lower Upper  
 107 100  
 109 92.8 66.4 123.2  
 188 3.2 2.6 4.0



#51  
 Chlorobenzene  
 Concen: 51.459 ug/L  
 RT: 9.12 min Scan# 2496  
 Delta R.T. -0.00 min  
 Lab File: VU030817.D  
 Acq: 06 Apr 2019 21:40

Tgt Ion: 112 Resp: 503629  
 Ion Ratio Lower Upper  
 112 100  
 114 32.2 22.2 41.2  
 77 66.2 51.7 77.5





#52

Ethylbenzene

Concen: 51.754 ug/L

RT: 9.25 min Scan# 2537

Delta R.T. 0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Instrument :

MSVOA\_U

ClientSampleId :

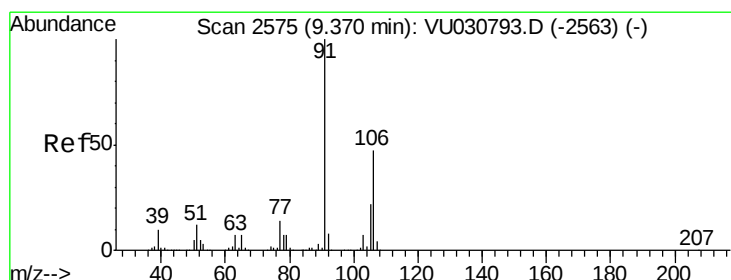
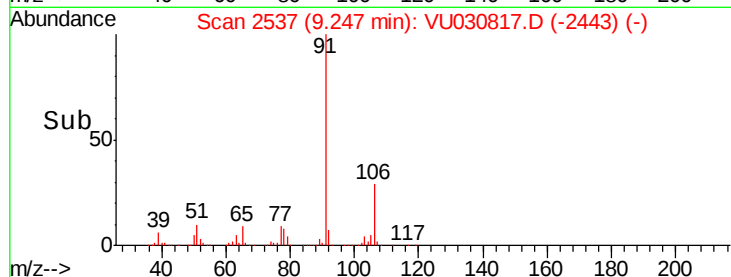
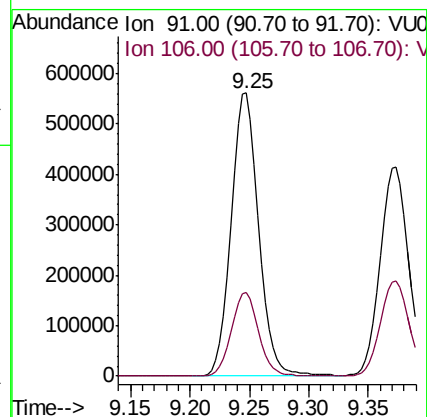
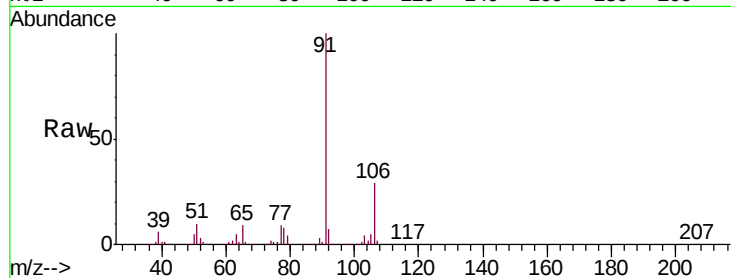
VSTD05054

Tgt Ion: 91 Resp: 900216

Ion Ratio Lower Upper

91 100

106 29.4 20.4 37.8



#53

m,p-Xylene

Concen: 52.742 ug/L

RT: 9.37 min Scan# 2576

Delta R.T. 0.00 min

Lab File: VU030817.D

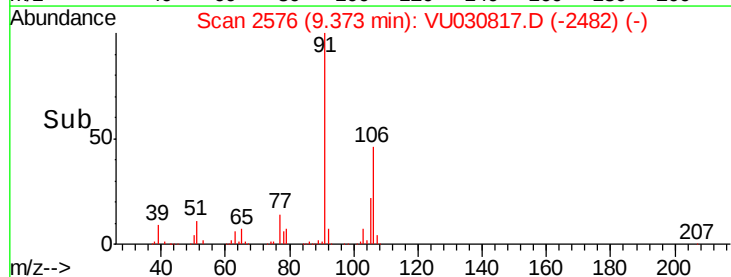
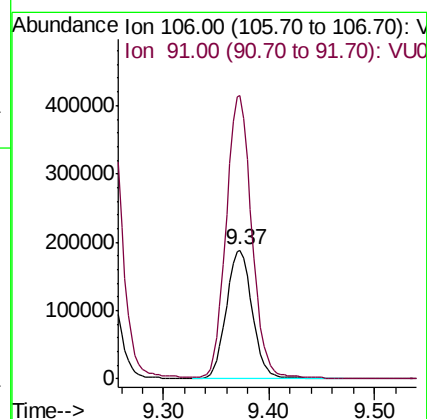
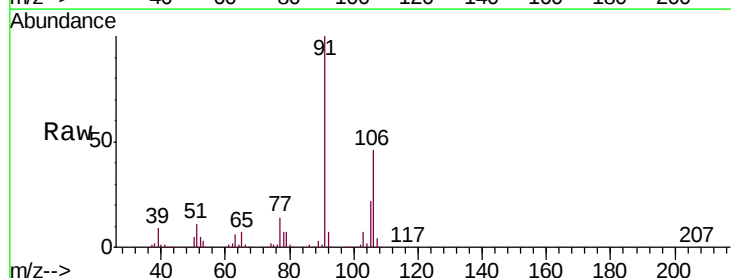
Acq: 06 Apr 2019 21:40

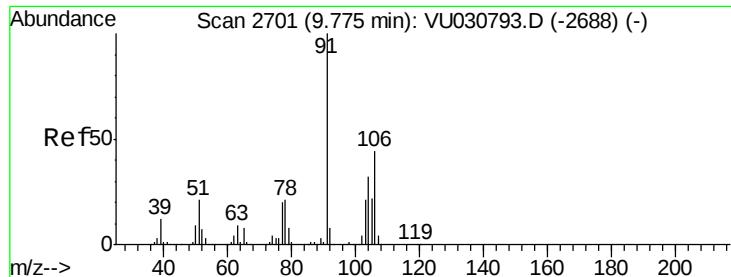
Tgt Ion: 106 Resp: 319953

Ion Ratio Lower Upper

106 100

91 219.5 148.0 274.8





#54

o-xylene

Concen: 52.673 ug/L

RT: 9.77 min Scan# 2701

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Instrument :

MSVOA\_U

ClientSampleId :

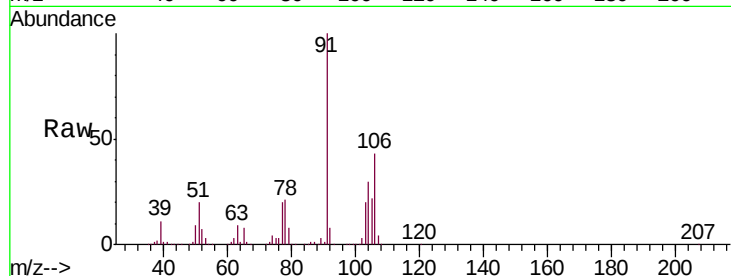
VSTD05054

Tgt Ion:106 Resp: 317839

Ion Ratio Lower Upper

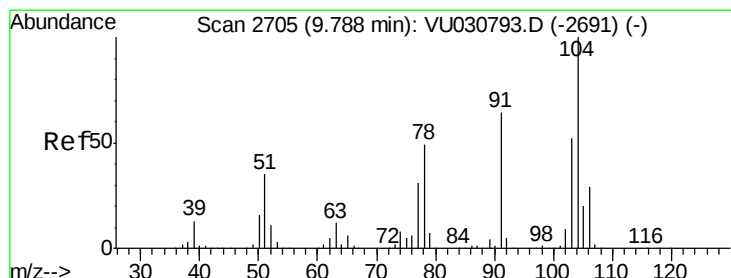
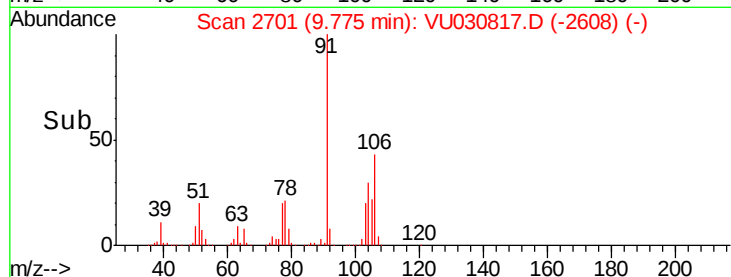
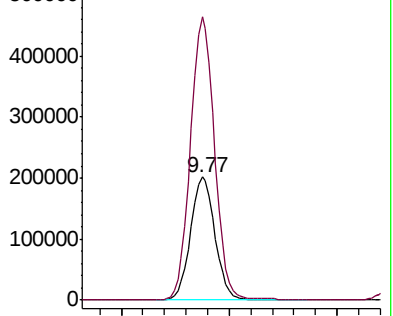
106 100

91 230.5 156.7 290.9



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VU0



#55

Styrene

Concen: 53.976 ug/L

RT: 9.79 min Scan# 2705

Delta R.T. -0.00 min

Lab File: VU030817.D

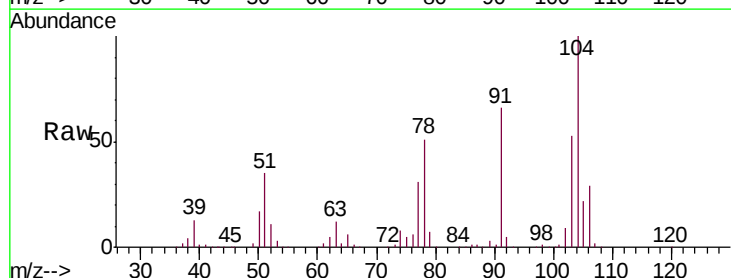
Acq: 06 Apr 2019 21:40

Tgt Ion:104 Resp: 558663

Ion Ratio Lower Upper

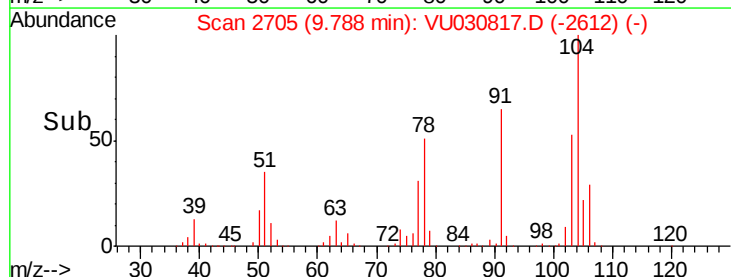
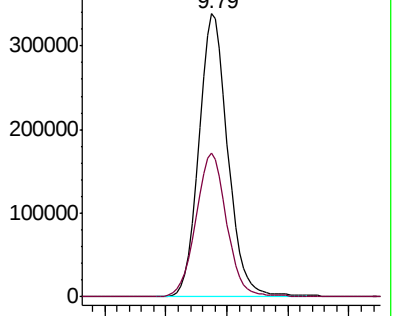
104 100

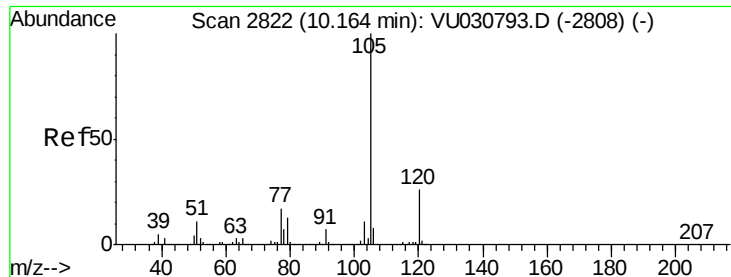
78 50.8 35.1 65.1



Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VU0





#56

Isopropylbenzene

Concen: 52.709 ug/L

RT: 10.16 min Scan# 2822

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05054

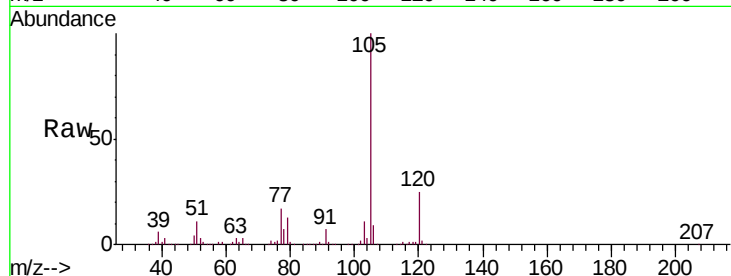
Tgt Ion: 105 Resp: 837404

Ion Ratio Lower Upper

105 100

120 25.1 20.4 30.6

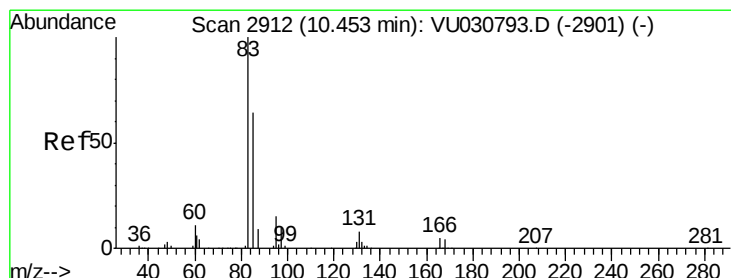
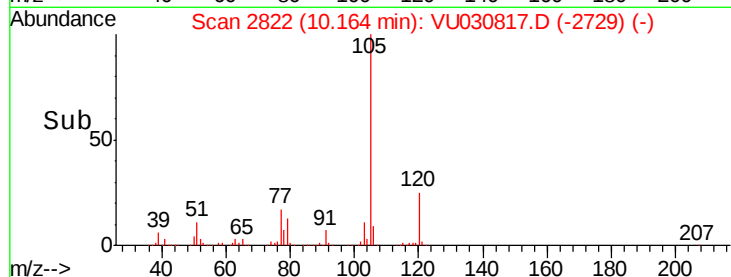
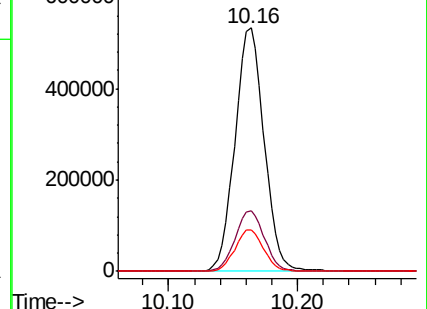
77 16.7 13.4 20.2



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

Ion 77.00 (76.70 to 77.70): V



#58

1,1,2,2-Tetrachloroethane

Concen: 52.661 ug/L

RT: 10.45 min Scan# 2912

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

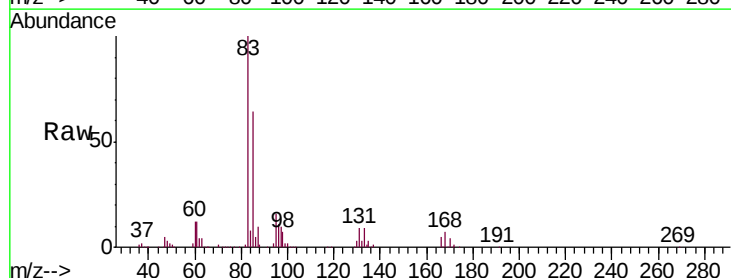
Tgt Ion: 83 Resp: 357593

Ion Ratio Lower Upper

83 100

85 63.5 45.3 84.1

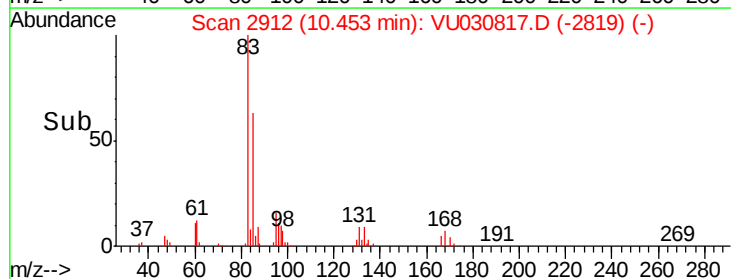
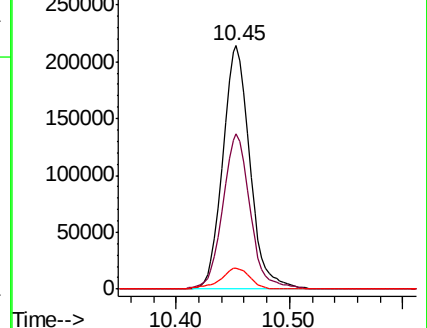
131 8.8 6.7 10.1

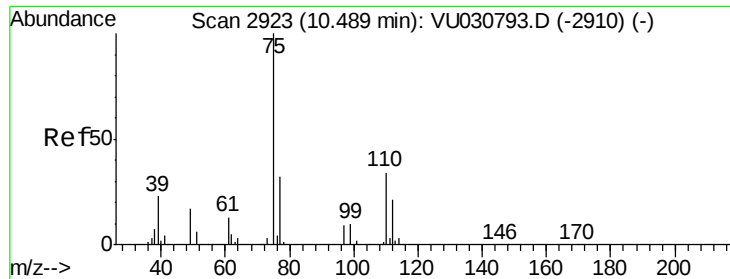


Abundance Ion 83.00 (82.70 to 83.70): V

Ion 85.00 (84.70 to 85.70): V

Ion 131.00 (130.70 to 131.70): V





#59

1,2,3-Trichloropropane

Concen: 54.270 ug/L

RT: 10.49 min Scan# 2923

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Instrument :

MSVOA\_U

ClientSampleId :

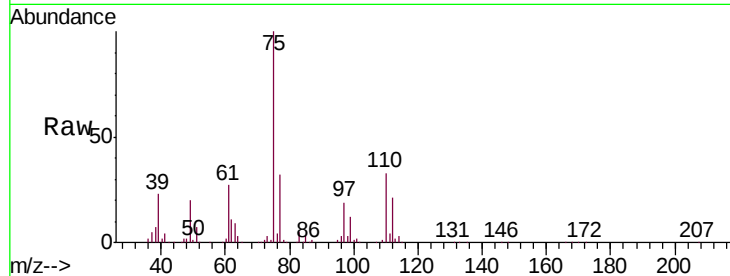
VSTD05054

Tgt Ion: 75 Resp: 287716

Ion Ratio Lower Upper

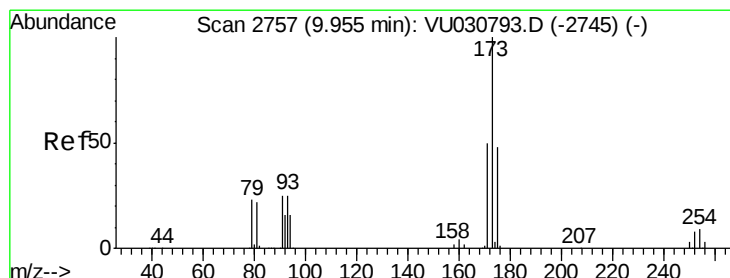
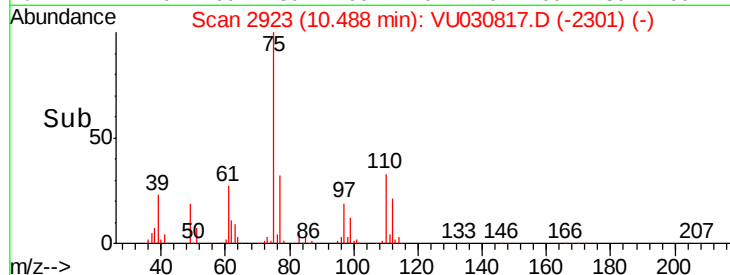
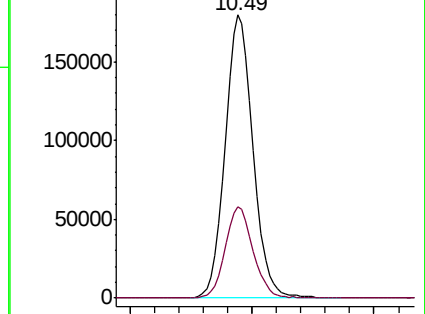
75 100

77 32.2 26.1 39.1



Abundance Ion 75.00 (74.70 to 75.70): VU030793.D (-2910) (-)

Ion 77.00 (76.70 to 77.70): VU030793.D (-2910) (-)



#61

Bromoform

Concen: 51.764 ug/L

RT: 9.95 min Scan# 2757

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

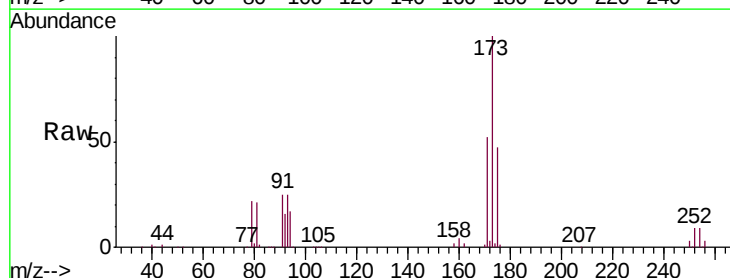
Tgt Ion: 173 Resp: 151151

Ion Ratio Lower Upper

173 100

175 48.3 39.1 58.7

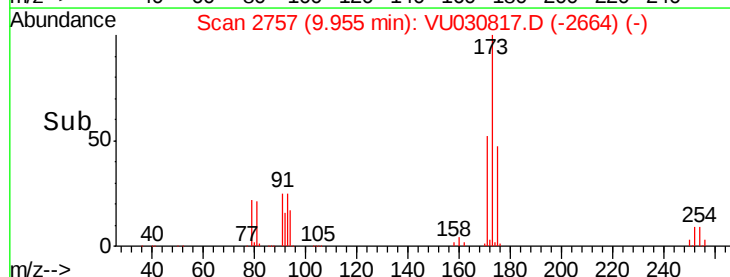
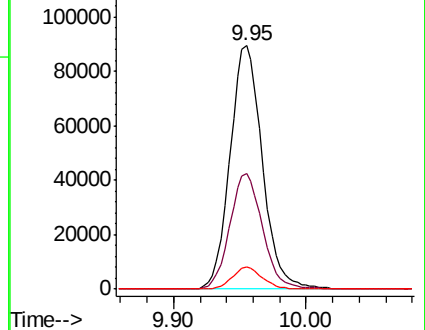
254 8.4 7.3 10.9

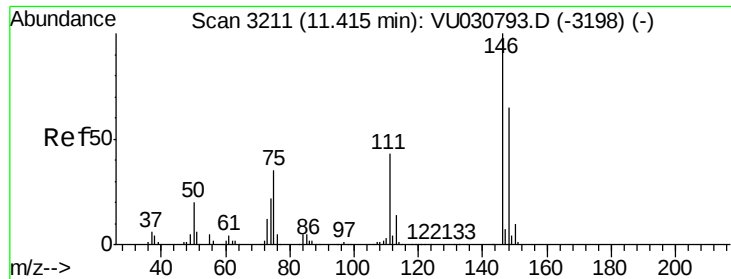


Abundance Ion 173.00 (172.70 to 173.70): VU030793.D (-2745) (-)

Ion 175.00 (174.70 to 175.70): VU030793.D (-2745) (-)

Ion 254.00 (253.70 to 254.70): VU030793.D (-2745) (-)





#62

1,3-Dichlorobenzene

Concen: 50.841 ug/L

RT: 11.41 min Scan# 3211

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05054

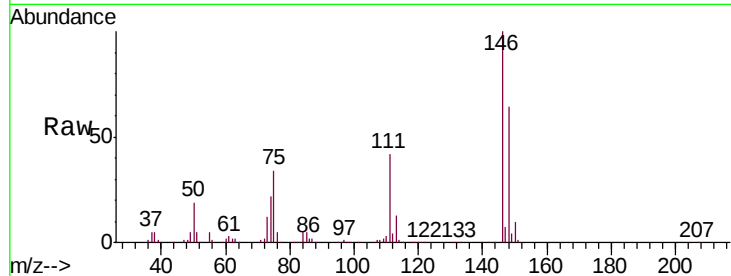
Tgt Ion:146 Resp: 355169

Ion Ratio Lower Upper

146 100

111 42.4 30.9 57.5

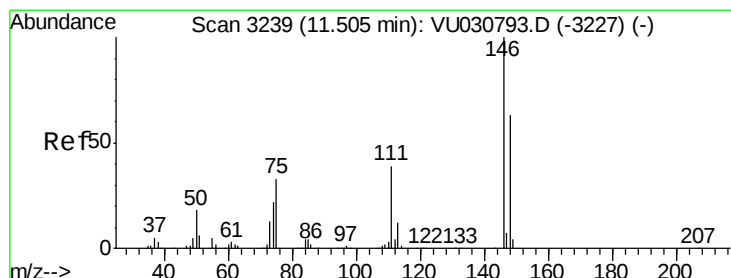
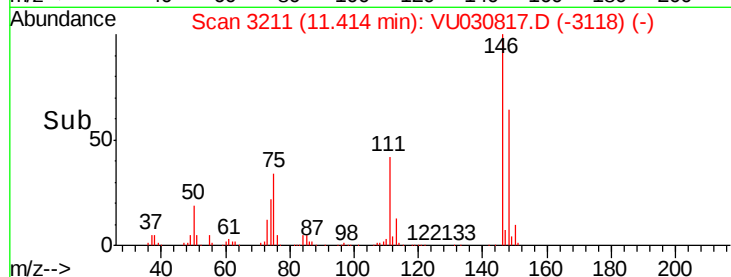
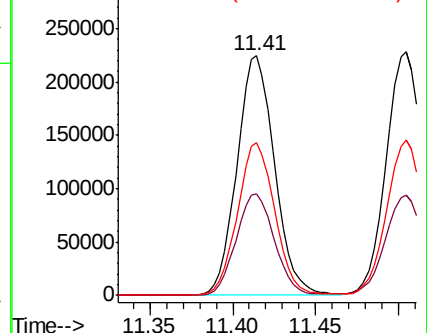
148 63.8 44.7 82.9



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



#63

1,4-Dichlorobenzene

Concen: 50.340 ug/L

RT: 11.50 min Scan# 3239

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

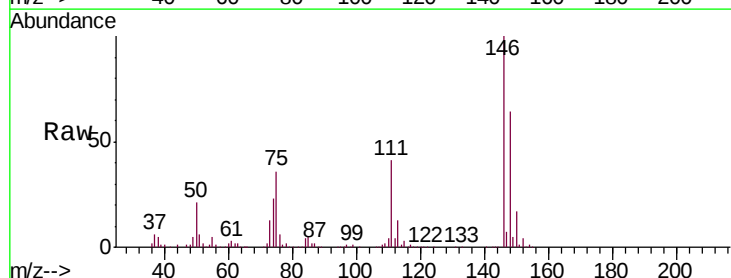
Tgt Ion:146 Resp: 357714

Ion Ratio Lower Upper

146 100

111 41.2 27.7 51.5

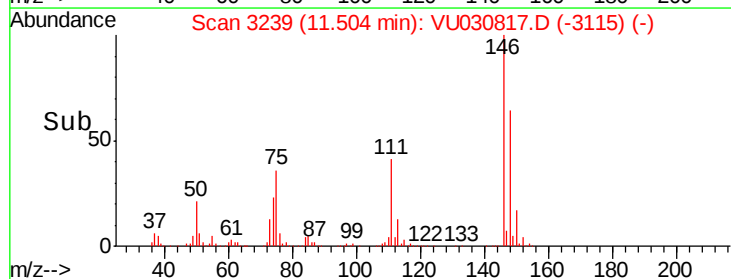
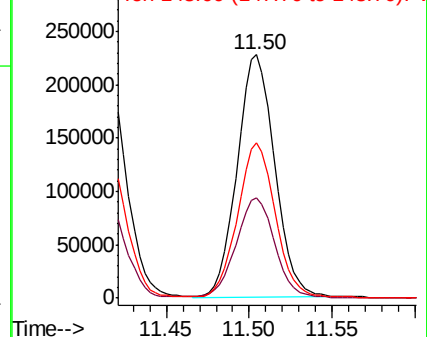
148 63.9 45.4 84.4

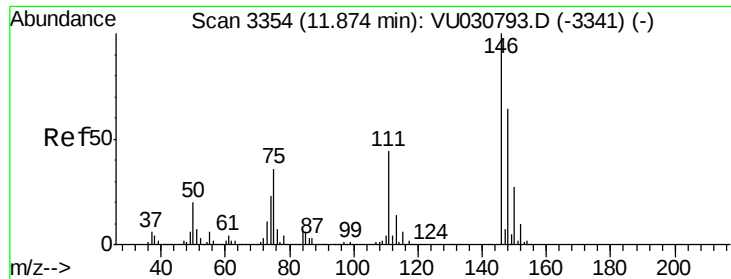


Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V





#65

1,2-Dichlorobenzene

Concen: 52.560 ug/L

RT: 11.87 min Scan# 3354

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05054

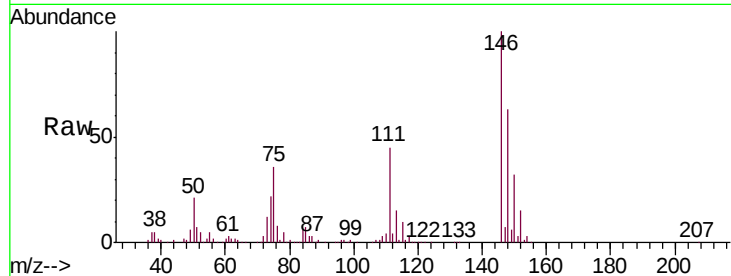
Tgt Ion:146 Resp: 368313

Ion Ratio Lower Upper

146 100

111 44.8 34.9 52.3

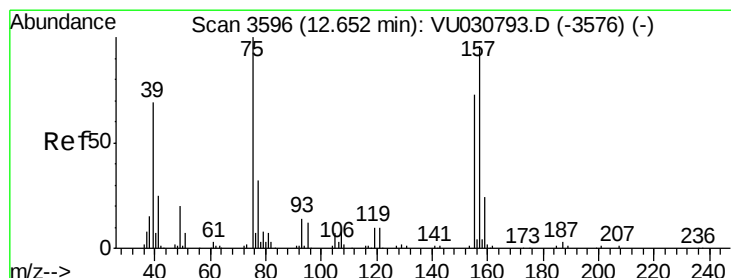
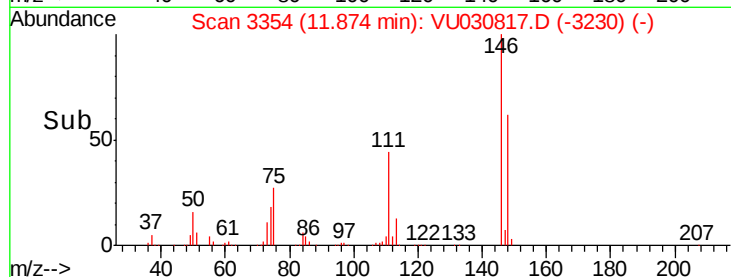
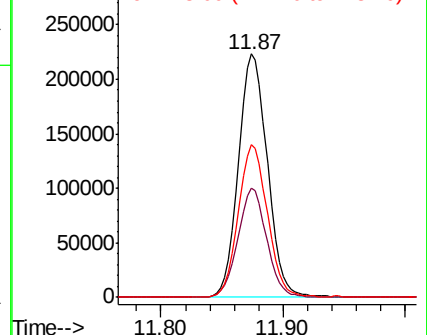
148 62.5 50.4 75.6



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: 54.282 ug/L

RT: 12.65 min Scan# 3596

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

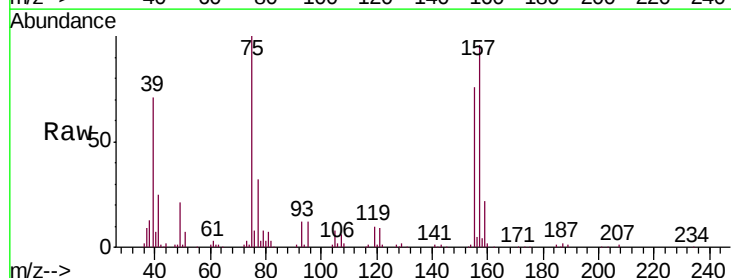
Tgt Ion: 75 Resp: 80863

Ion Ratio Lower Upper

75 100

155 75.7 64.1 96.1

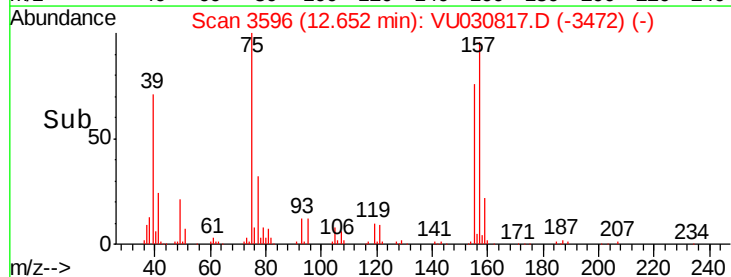
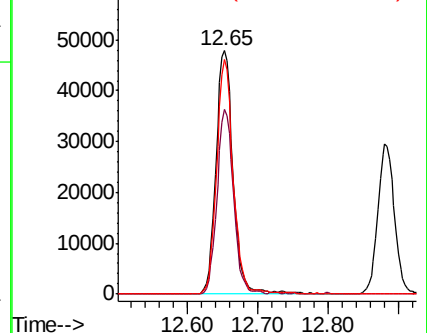
157 96.1 80.6 120.8

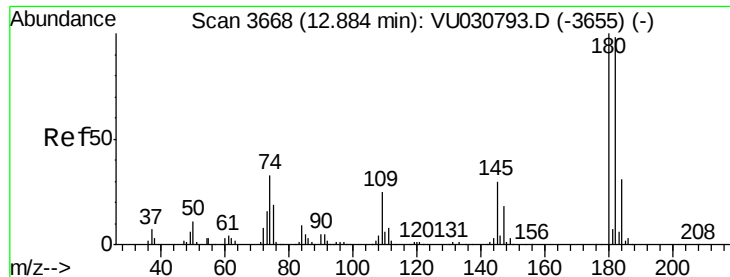


Abundance Ion 75.00 (74.70 to 75.70): VU0

Ion 155.00 (154.70 to 155.70): V

Ion 157.00 (156.70 to 157.70): V

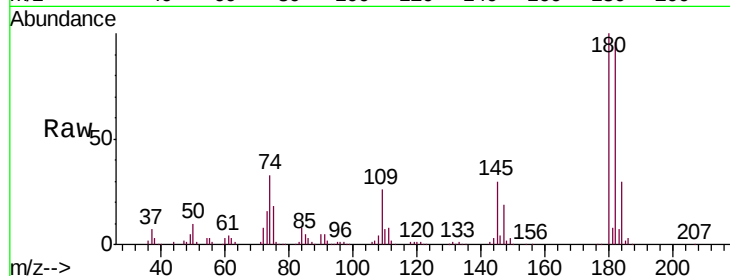




#67  
 1,3,5-Trichlorobenzene  
 Concen: 50.656 ug/L  
 RT: 12.88 min Scan# 3668  
 Delta R.T. -0.00 min  
 Lab File: VU030817.D  
 Acq: 06 Apr 2019 21:40

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05054

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 94.6  | 78.3  | 117.5 |
| 184     | 29.8  | 24.7  | 37.1  |
| 145     | 30.0  | 24.2  | 36.4  |



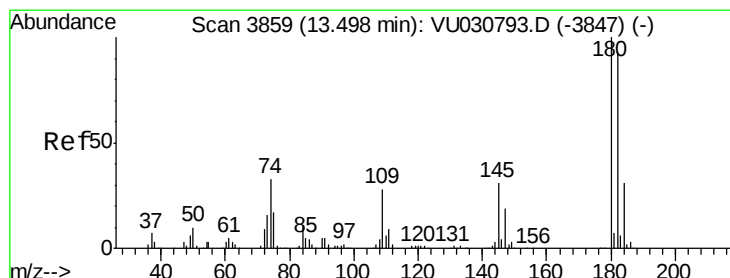
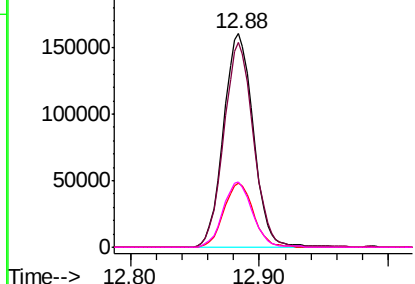
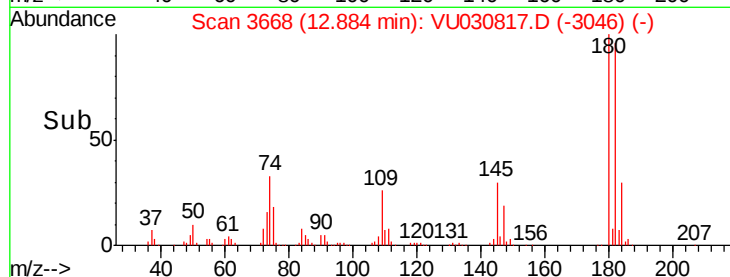
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

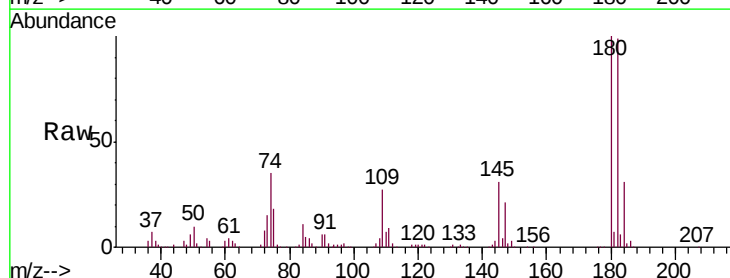
Ion 184.00 (183.70 to 184.70): V

Ion 145.00 (144.70 to 145.70): V



#68  
 1,2,4-trichlorobenzene  
 Concen: 49.786 ug/L  
 RT: 13.50 min Scan# 3859  
 Delta R.T. -0.00 min  
 Lab File: VU030817.D  
 Acq: 06 Apr 2019 21:40

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 97.8  | 76.7  | 115.1 |
| 145     | 30.4  | 24.4  | 36.6  |

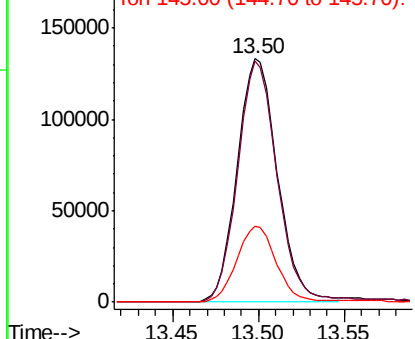
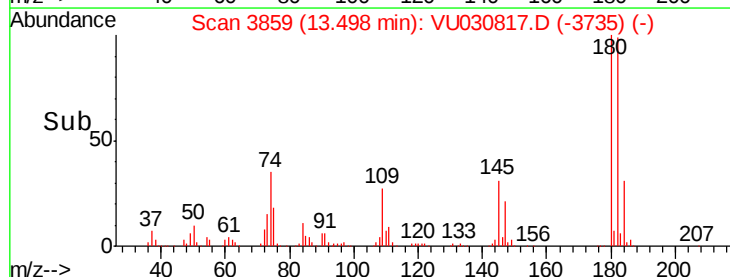


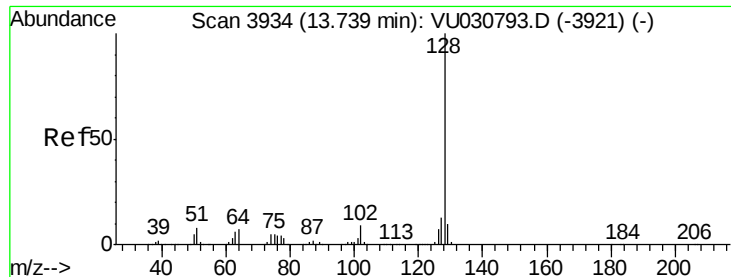
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V





#69

Naphthalene

Concen: 53.959 ug/L

RT: 13.74 min Scan# 3934

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05054

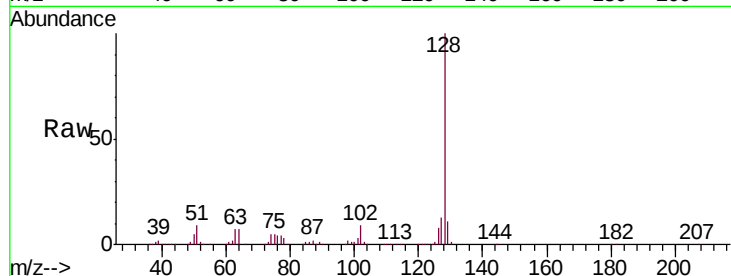
Tgt Ion:128 Resp: 759310

Ion Ratio Lower Upper

128 100

127 13.1 10.4 15.6

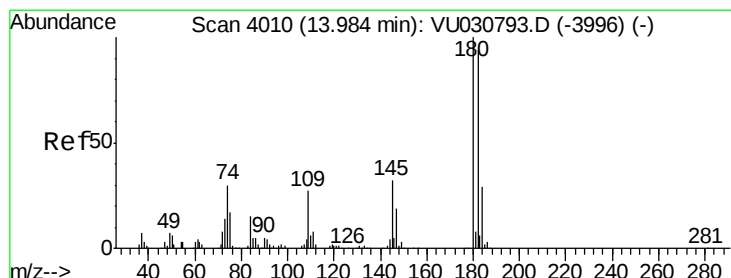
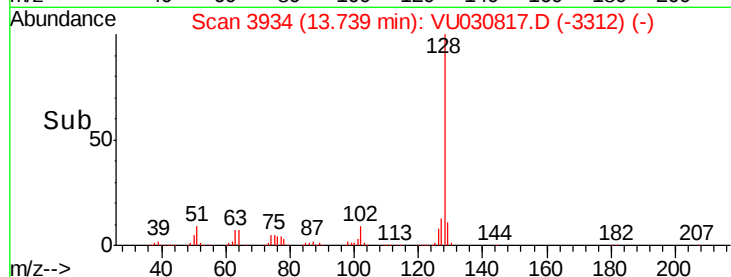
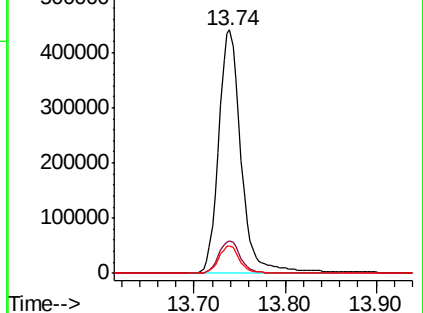
129 10.5 8.6 12.8



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: 53.440 ug/L

RT: 13.98 min Scan# 4010

Delta R.T. -0.00 min

Lab File: VU030817.D

Acq: 06 Apr 2019 21:40

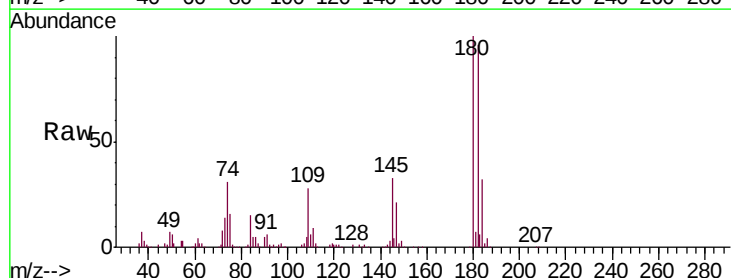
Tgt Ion:180 Resp: 242365

Ion Ratio Lower Upper

180 100

182 93.7 78.1 117.1

145 33.0 26.6 40.0



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

