

Data File : VU026153.D  
Acq On : 15 Aug 2018 17:57  
Operator : MD/SY  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_U/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05066

Quant Time: Aug 16 02:22:53 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM081518WMA.M  
Quant Title : VOC Analysis  
QLast Update : Thu Aug 16 02:19:07 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.89  | 114  | 303683   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.09  | 117  | 290552   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.49 | 152  | 148486   | 50.00 | ug/L  | 0.00     |

#### System Monitoring Compounds

|                                |         |       |          |          |      |         |
|--------------------------------|---------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.40    | 65    | 85406    | 47.90    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 95.80%  |
| 7) Chloroethane-d5             | 1.67    | 69    | 70681    | 48.22    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 96.44%  |
| 11) 1,1-Dichloroethene-d2      | 2.27    | 63    | 167753   | 47.91    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 95.82%  |
| 21) 2-Butanone-d5              | 4.18    | 46    | 152850   | 111.71   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 111.71% |
| 24) Chloroform-d               | 4.65    | 84    | 200797   | 50.27    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 100.54% |
| 26) 1,2-Dichloroethane-d4      | 5.31    | 65    | 132910   | 50.84    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 101.68% |
| 32) Benzene-d6                 | 5.35    | 84    | 385408   | 51.45    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 102.90% |
| 36) 1,2-Dichloropropane-d6     | 6.33    | 67    | 126237   | 51.26    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 102.52% |
| 41) Toluene-d8                 | 7.57    | 98    | 372700   | 51.98    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 103.96% |
| 43) trans-1,3-Dichloropropene- | 7.85    | 79    | 59392    | 50.94    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 101.88% |
| 47) 2-Hexanone-d5              | 8.31    | 63    | 115287   | 114.26   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 114.26% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.43   | 84    | 182501   | 52.65    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 105.30% |
| 64) 1,2-Dichlorobenzene-d4     | 11.86   | 152   | 152271   | 49.28    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 98.56%  |

#### Target Compounds

|                                |      |     |        |              | Qvalue |
|--------------------------------|------|-----|--------|--------------|--------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 118382 | 49.236 ug/L  | 99     |
| 3) Chloromethane               | 1.33 | 50  | 109370 | 49.951 ug/L  | 99     |
| 5) Vinyl chloride              | 1.40 | 62  | 107627 | 49.230 ug/L  | 99     |
| 6) Bromomethane                | 1.62 | 94  | 57985  | 51.474 ug/L  | 99     |
| 8) Chloroethane                | 1.69 | 64  | 64406  | 49.204 ug/L  | 100    |
| 9) Trichlorofluoromethane      | 1.88 | 101 | 155350 | 48.124 ug/L  | 99     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.29 | 101 | 81931  | 46.846 ug/L  | 99     |
| 12) 1,1-Dichloroethene         | 2.28 | 96  | 77030  | 47.996 ug/L  | 98     |
| 13) Acetone                    | 2.32 | 43  | 98896  | 78.978 ug/L  | 98     |
| 14) Carbon disulfide           | 2.48 | 76  | 266472 | 47.881 ug/L  | 100    |
| 15) Methyl Acetate             | 2.62 | 43  | 118189 | 54.410 ug/L  | 99     |
| 16) Methylene chloride         | 2.70 | 84  | 105521 | 49.080 ug/L  | 98     |
| 17) trans-1,2-Dichloroethene   | 2.98 | 96  | 93304  | 49.009 ug/L  | 97     |
| 18) Methyl tert-butyl Ether    | 3.00 | 73  | 312554 | 51.720 ug/L  | 98     |
| 19) 1,1-Dichloroethane         | 3.45 | 63  | 183050 | 49.943 ug/L  | 97     |
| 20) cis-1,2-Dichloroethene     | 4.23 | 96  | 105776 | 49.554 ug/L  | 93     |
| 22) 2-Butanone                 | 4.27 | 43  | 160942 | 103.165 ug/L | 100    |

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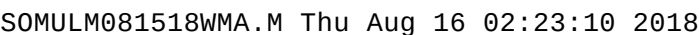
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05066

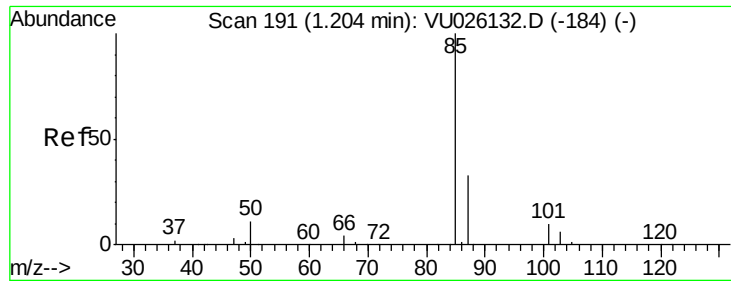
Quant Time: Aug 16 02:22:53 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM081518WMA.M  
Quant Title : VOC Analysis  
QLast Update : Thu Aug 16 02:19:07 2018  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 23) Bromochloromethane         | 4.55  | 128  | 58564    | 50.755  | ug/L  | 99       |
| 25) Chloroform                 | 4.68  | 83   | 194403   | 50.523  | ug/L  | 97       |
| 27) 1,2-Dichloroethane         | 5.41  | 62   | 157377   | 50.588  | ug/L  | 99       |
| 29) Cyclohexane                | 5.00  | 56   | 148508   | 51.153  | ug/L  | 98       |
| 30) 1,1,1-Trichloroethane      | 4.92  | 97   | 173083   | 49.858  | ug/L  | 100      |
| 31) Carbon tetrachloride       | 5.14  | 117  | 158376   | 50.356  | ug/L  | 100      |
| 33) Benzene                    | 5.39  | 78   | 400450   | 50.899  | ug/L  | 100      |
| 34) Trichloroethene            | 6.19  | 95   | 101702   | 49.622  | ug/L  | 96       |
| 35) Methylcyclohexane          | 6.42  | 83   | 154849   | 50.330  | ug/L  | 99       |
| 37) 1,2-Dichloropropane        | 6.44  | 63   | 113538   | 51.673  | ug/L  | 98       |
| 38) Bromodichloromethane       | 6.76  | 83   | 149045   | 51.233  | ug/L  | 96       |
| 39) cis-1,3-Dichloropropene    | 7.27  | 75   | 165806   | 50.834  | ug/L  | 98       |
| 40) 4-Methyl-2-pentanone       | 7.46  | 43   | 304446   | 111.696 | ug/L  | 98       |
| 42) Toluene                    | 7.64  | 91   | 435161   | 52.083  | ug/L  | 98       |
| 44) trans-1,3-Dichloropropene  | 7.88  | 75   | 159166   | 50.644  | ug/L  | 97       |
| 45) 1,1,2-Trichloroethane      | 8.07  | 97   | 108228   | 51.950  | ug/L  | 98       |
| 46) Tetrachloroethene          | 8.23  | 164  | 87137    | 49.297  | ug/L  | 98       |
| 48) 2-Hexanone                 | 8.36  | 43   | 240369   | 112.552 | ug/L  | 99       |
| 49) Dibromochloromethane       | 8.48  | 129  | 130180   | 51.883  | ug/L  | 96       |
| 50) 1,2-Dibromoethane          | 8.59  | 107  | 114376   | 52.873  | ug/L  | 99       |
| 51) Chlorobenzene              | 9.12  | 112  | 285404   | 49.983  | ug/L  | 100      |
| 52) Ethylbenzene               | 9.25  | 91   | 470632   | 51.710  | ug/L  | 100      |
| 53) m,p-Xylene                 | 9.38  | 106  | 181994   | 51.889  | ug/L  | 98       |
| 54) o-xylene                   | 9.78  | 106  | 184566   | 52.736  | ug/L  | 97       |
| 55) Styrene                    | 9.80  | 104  | 313142   | 53.738  | ug/L  | 99       |
| 56) Isopropylbenzene           | 10.17 | 105  | 467575   | 52.037  | ug/L  | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.46 | 83   | 183085   | 52.624  | ug/L  | 99       |
| 59) 1,2,3-Trichloropropane     | 10.50 | 75   | 143510   | 53.019  | ug/L  | 99       |
| 61) Bromoform                  | 9.96  | 173  | 97866    | 50.411  | ug/L  | 99       |
| 62) 1,3-Dichlorobenzene        | 11.42 | 146  | 217081   | 48.785  | ug/L  | 99       |
| 63) 1,4-Dichlorobenzene        | 11.51 | 146  | 222302   | 48.443  | ug/L  | 99       |
| 65) 1,2-Dichlorobenzene        | 11.88 | 146  | 236704   | 49.774  | ug/L  | 99       |
| 66) 1,2-Dibromo-3-chloropropan | 12.66 | 75   | 39766    | 52.740  | ug/L  | 99       |
| 67) 1,3,5-Trichlorobenzene     | 12.89 | 180  | 161660   | 49.196  | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.51 | 180  | 129884   | 52.173  | ug/L  | 100      |
| 69) Naphthalene                | 13.74 | 128  | 412391   | 58.208  | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene     | 13.99 | 180  | 143419   | 53.727  | ug/L  | 100      |

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

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Response via : Initial Calibration





#2

Dichlorodifluoromethane

Concen: 49.236 ug/L

RT: 1.20 min Scan# 191

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Instrument :

MSVOA\_U

ClientSampled :

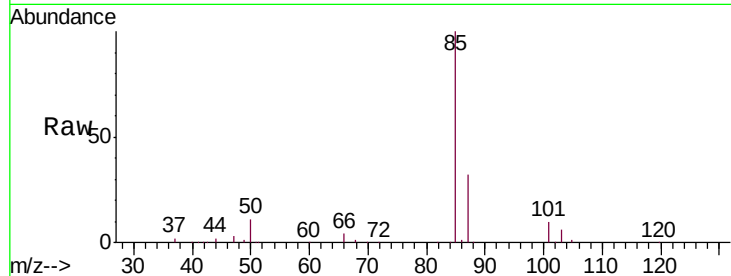
VSTD05066

Tgt Ion: 85 Resp: 118382

Ion Ratio Lower Upper

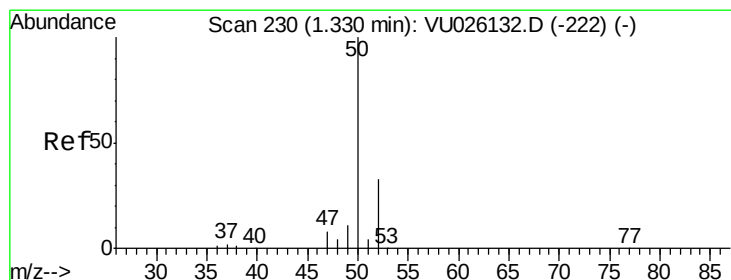
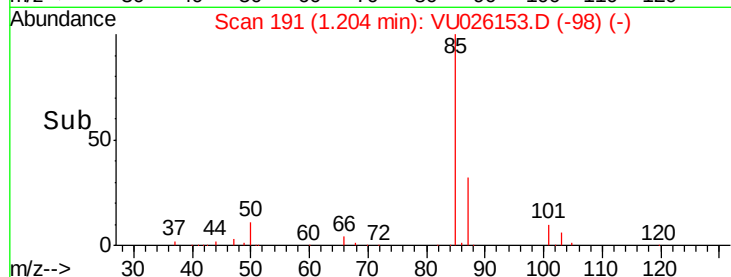
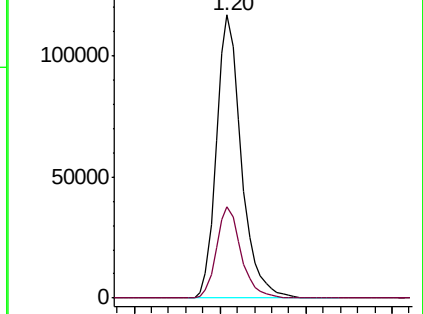
85 100

87 31.8 26.1 39.1



Abundance Ion 85.00 (84.70 to 85.70): VU026153.D (-98) (-)

Ion 87.00 (86.70 to 87.70): VU026153.D (-98) (-)



#3

Chloromethane

Concen: 49.951 ug/L

RT: 1.33 min Scan# 230

Delta R.T. 0.00 min

Lab File: VU026153.D

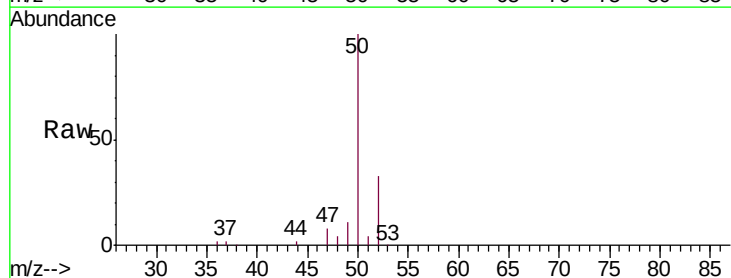
Acq: 15 Aug 2018 17:57

Tgt Ion: 50 Resp: 109370

Ion Ratio Lower Upper

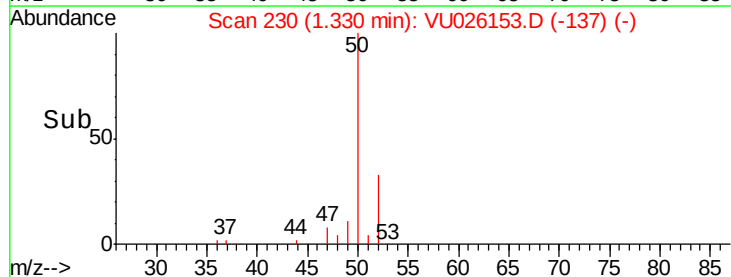
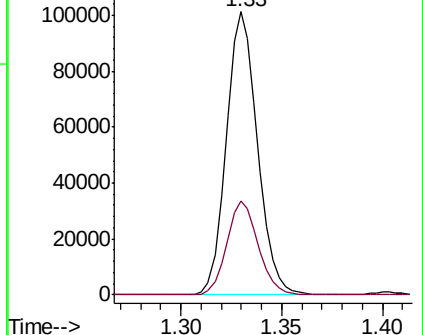
50 100

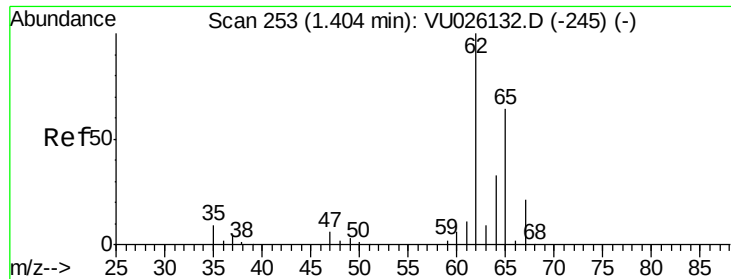
52 33.2 23.0 42.8



Abundance Ion 50.00 (49.70 to 50.70): VU026153.D (-137) (-)

Ion 52.00 (51.70 to 52.70): VU026153.D (-137) (-)





#5

Vinyl chloride

Concen: 49.230 ug/L

RT: 1.40 min Scan# 253

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Instrument :

MSVOA\_U

ClientSampleId :

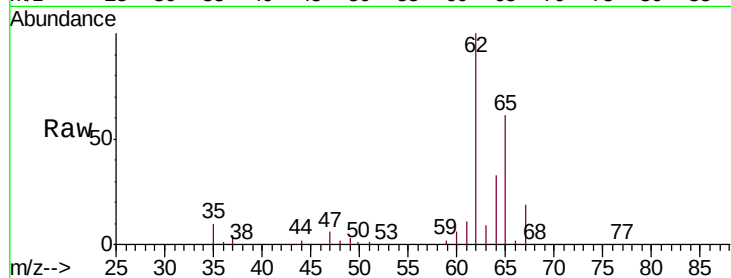
VSTD05066

Tgt Ion: 62 Resp: 107627

Ion Ratio Lower Upper

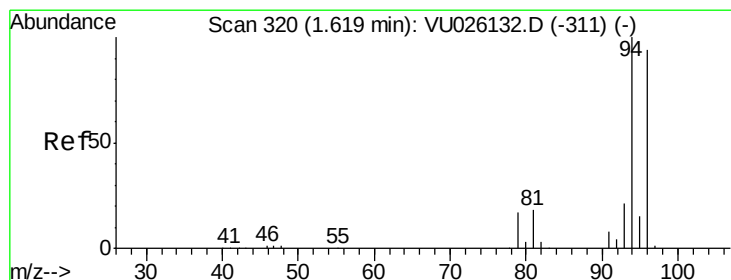
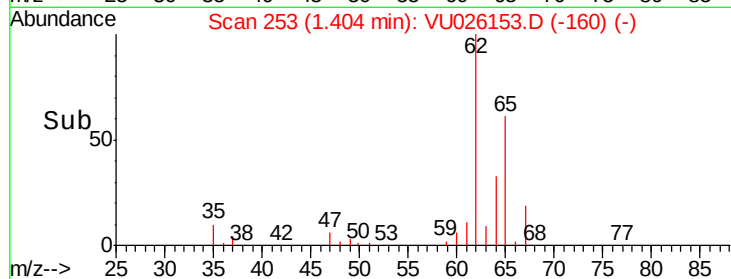
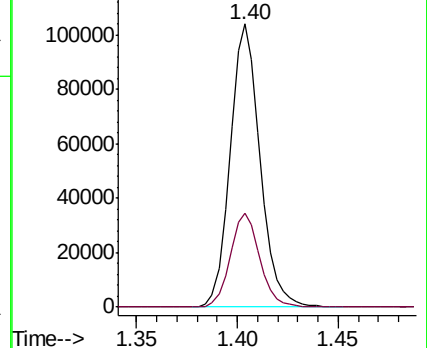
62 100

64 33.3 23.0 42.8



Abundance Ion 62.00 (61.70 to 62.70): VU0

Ion 64.00 (63.70 to 64.70): VU0



#6

Bromomethane

Concen: 51.474 ug/L

RT: 1.62 min Scan# 319

Delta R.T. -0.00 min

Lab File: VU026153.D

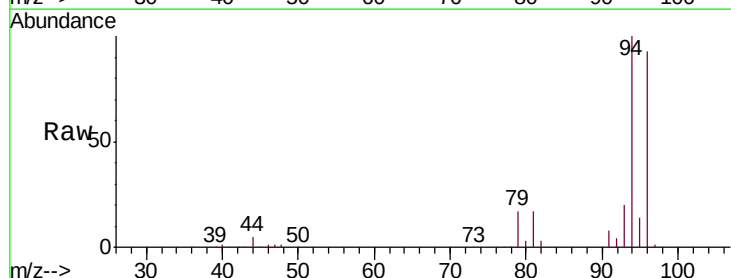
Acq: 15 Aug 2018 17:57

Tgt Ion: 94 Resp: 57985

Ion Ratio Lower Upper

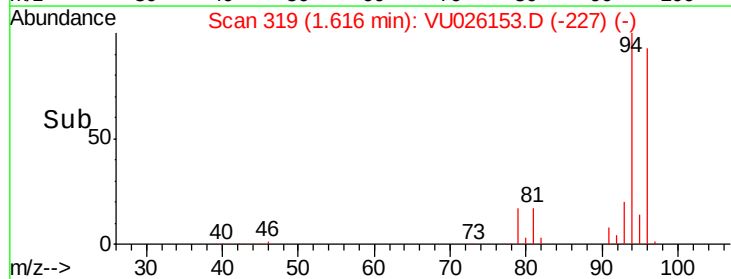
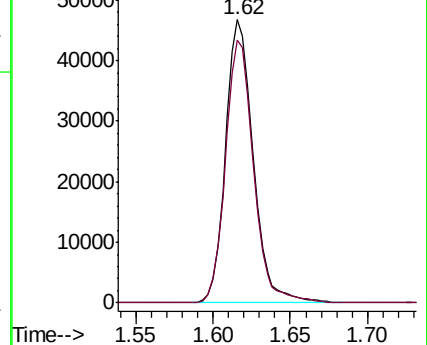
94 100

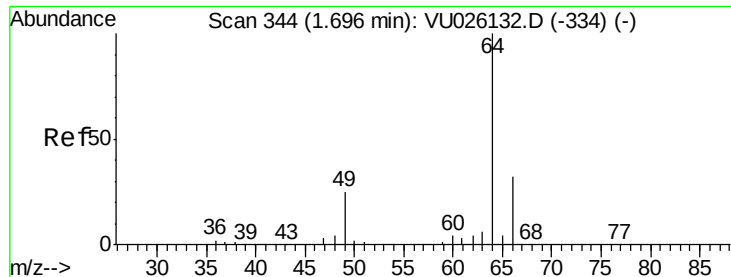
96 93.0 65.9 122.5



Abundance Ion 94.00 (93.70 to 94.70): VU0

Ion 96.00 (95.70 to 96.70): VU0





#8

Chloroethane

Concen: 49.204 ug/L

RT: 1.69 min Scan# 343

Delta R.T. -0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Instrument :

MSVOA\_U

ClientSampleId :

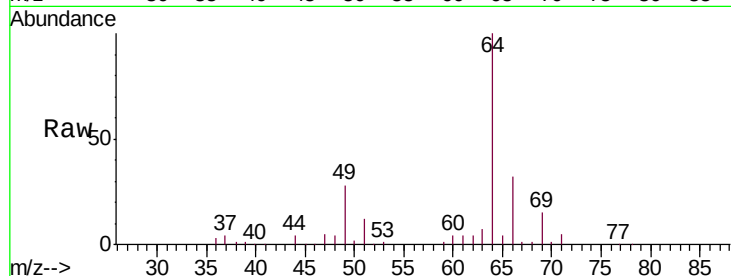
VSTD05066

Tgt Ion: 64 Resp: 64406

Ion Ratio Lower Upper

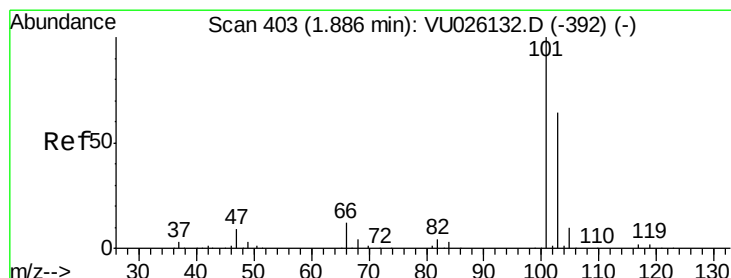
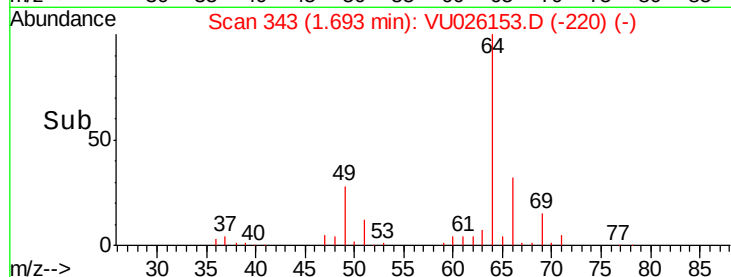
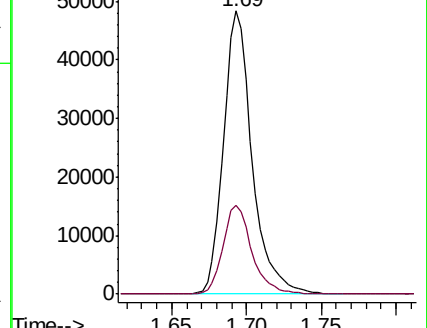
64 100

66 31.5 22.2 41.2



Abundance Ion 64.00 (63.70 to 64.70): VU026153.D (-220) (-)

Ion 66.00 (65.70 to 66.70): VU026153.D (-220) (-)



#9

Trichlorofluoromethane

Concen: 48.124 ug/L

RT: 1.88 min Scan# 402

Delta R.T. -0.00 min

Lab File: VU026153.D

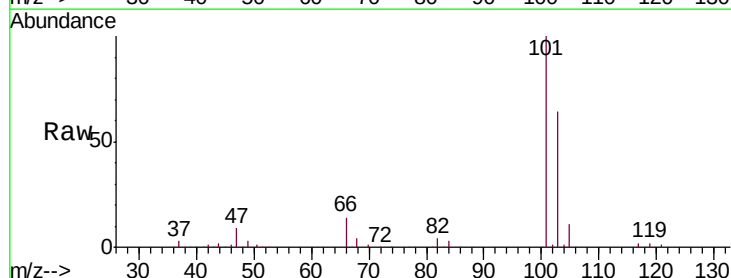
Acq: 15 Aug 2018 17:57

Tgt Ion: 101 Resp: 155350

Ion Ratio Lower Upper

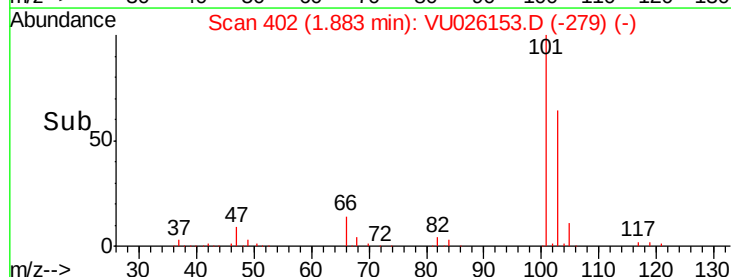
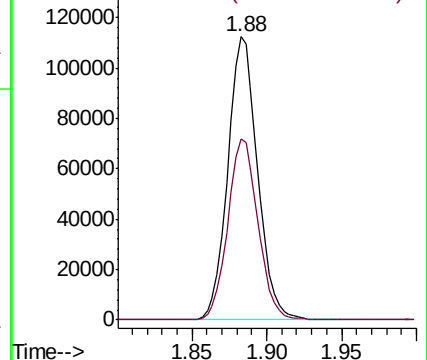
101 100

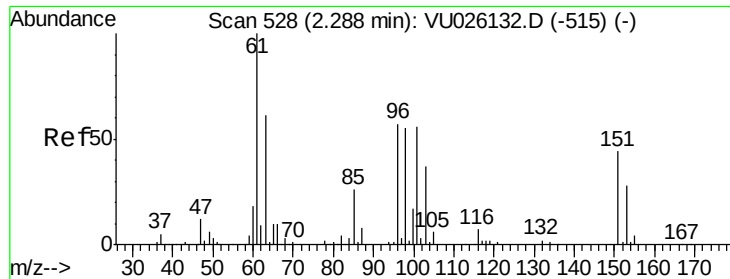
103 64.8 51.4 77.2



Abundance Ion 101.00 (100.70 to 101.70): VU026153.D (-279) (-)

Ion 103.00 (102.70 to 103.70): VU026153.D (-279) (-)





#10

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

Concen: 46.846 ug/L

RT: 2.29 min Scan# 528

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05066

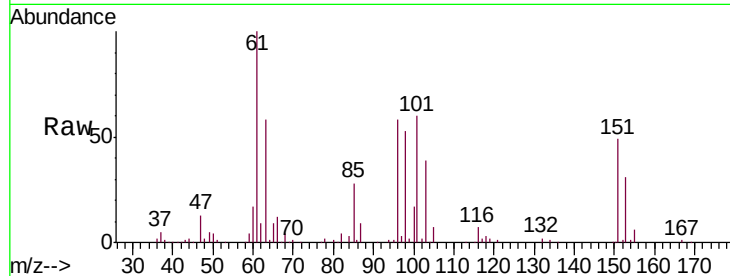
Tgt Ion:101 Resp: 81931

Ion Ratio Lower Upper

101 100

85 45.5 36.6 55.0

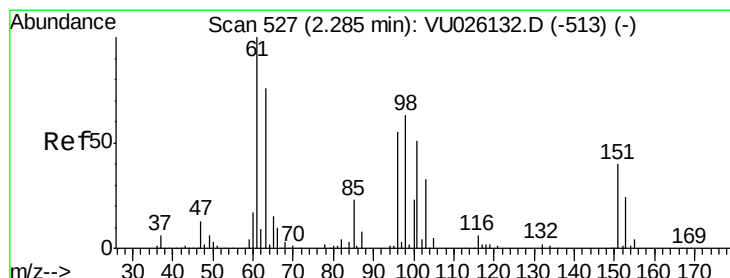
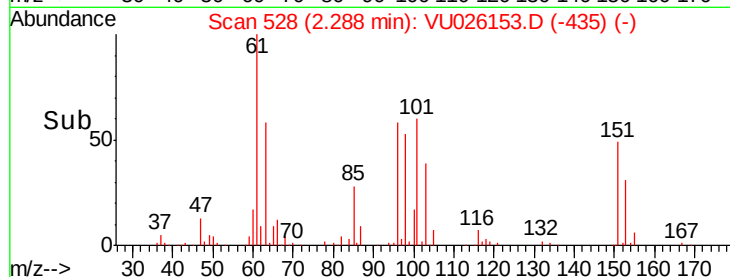
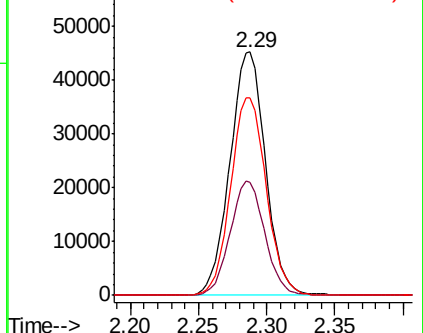
151 81.2 63.8 95.8



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: 47.996 ug/L

RT: 2.28 min Scan# 526

Delta R.T. -0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

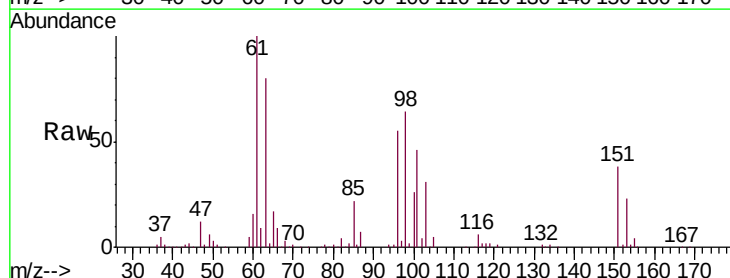
Tgt Ion: 96 Resp: 77030

Ion Ratio Lower Upper

96 100

61 181.0 126.8 235.4

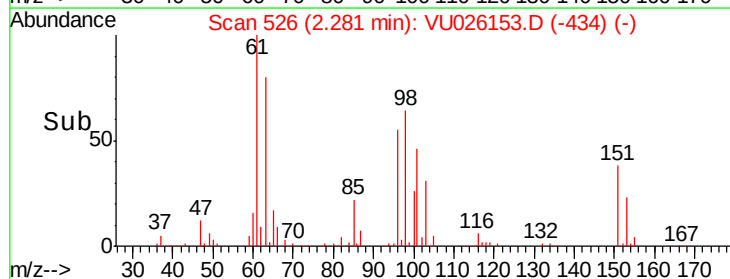
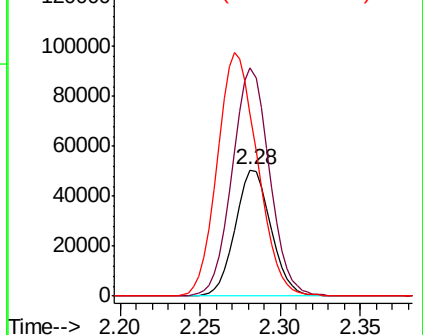
63 144.7 97.0 180.2

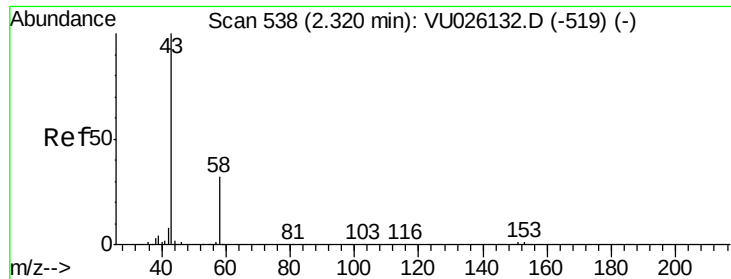


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 78.978 ug/L

RT: 2.32 min Scan# 539

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Instrument :

MSVOA\_U

ClientSampleId :

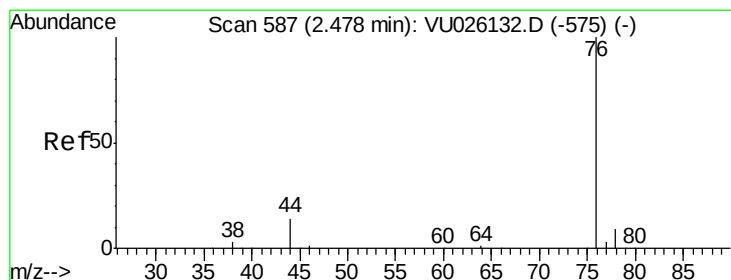
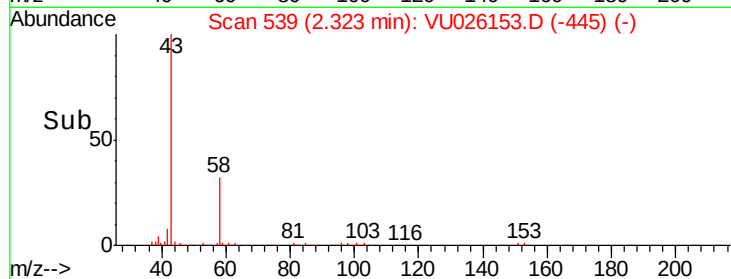
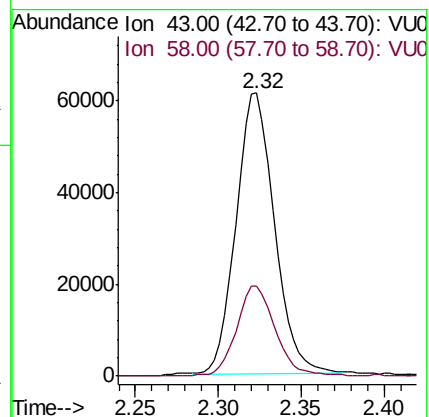
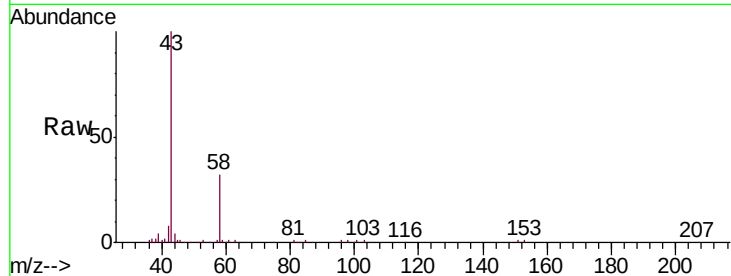
VSTD05066

Tgt Ion: 43 Resp: 98896

Ion Ratio Lower Upper

43 100

58 32.5 0.0 62.6



#14

Carbon disulfide

Concen: 47.881 ug/L

RT: 2.48 min Scan# 587

Delta R.T. 0.00 min

Lab File: VU026153.D

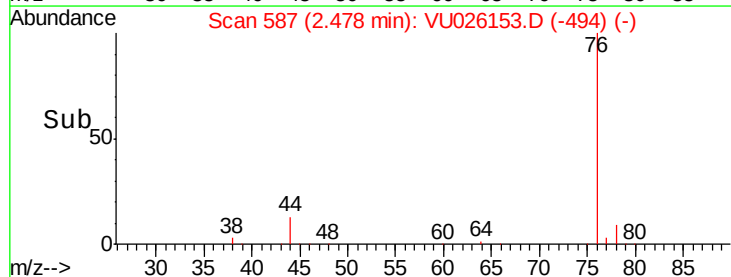
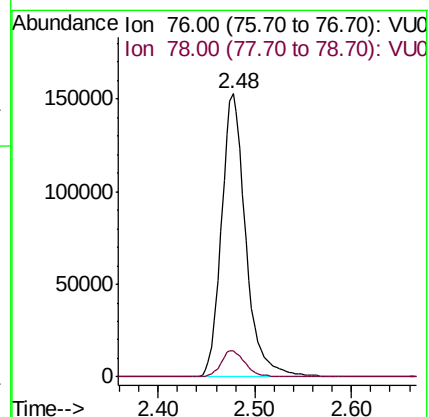
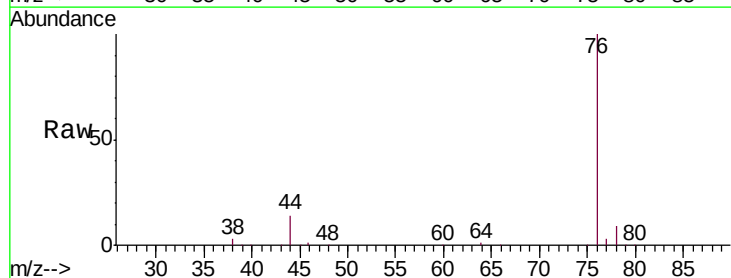
Acq: 15 Aug 2018 17:57

Tgt Ion: 76 Resp: 266472

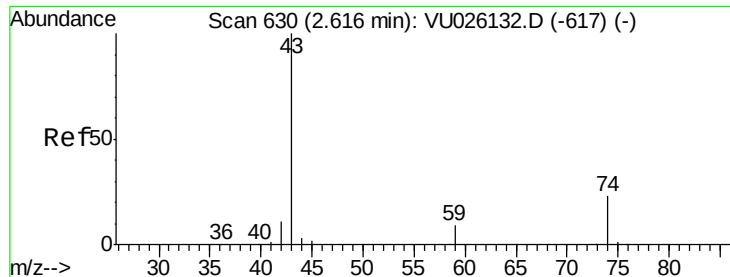
Ion Ratio Lower Upper

76 100

78 9.2 7.4 11.2



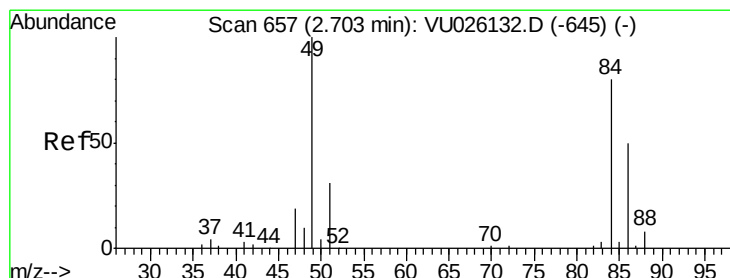
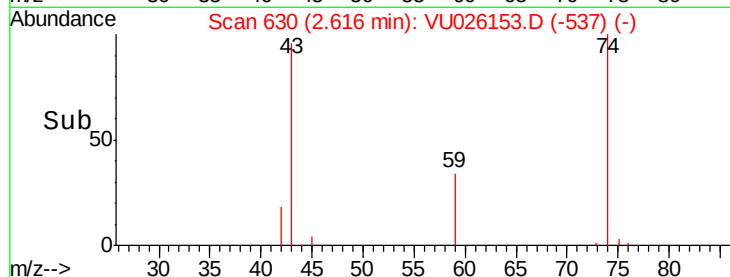
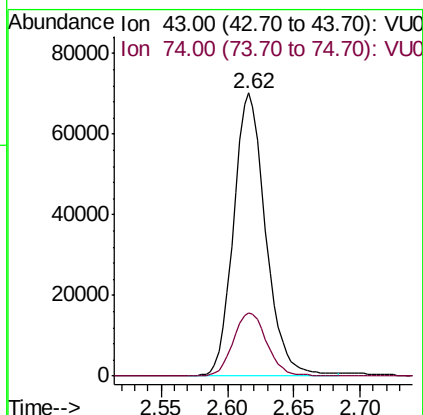
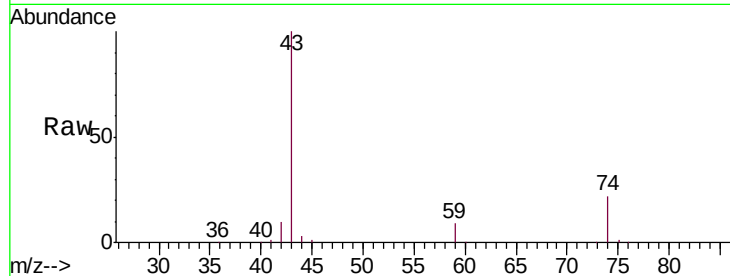




#15  
Methyl Acetate  
Concen: 54.410 ug/L  
RT: 2.62 min Scan# 630  
Delta R.T. 0.00 min  
Lab File: VU026153.D  
Acq: 15 Aug 2018 17:57

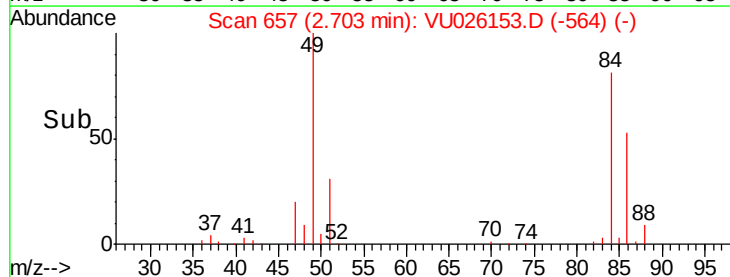
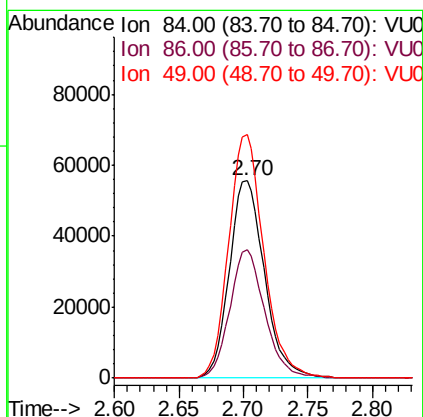
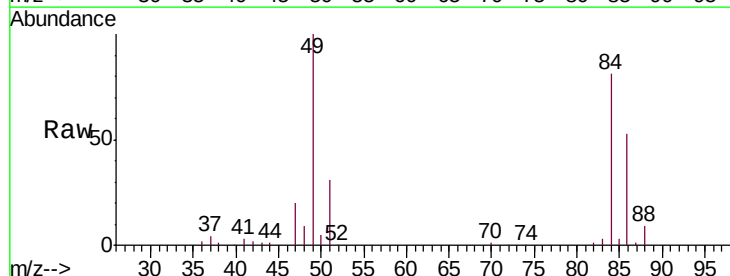
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05066

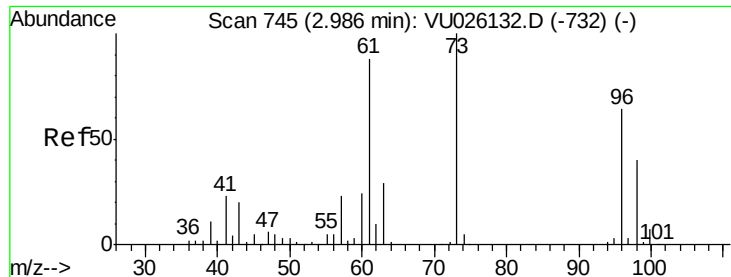
Tgt Ion: 43 Resp: 118189  
Ion Ratio Lower Upper  
43 100  
74 23.6 18.6 28.0



#16  
Methylene chloride  
Concen: 49.080 ug/L  
RT: 2.70 min Scan# 657  
Delta R.T. 0.00 min  
Lab File: VU026153.D  
Acq: 15 Aug 2018 17:57

Tgt Ion: 84 Resp: 105521  
Ion Ratio Lower Upper  
84 100  
86 65.4 44.0 81.6  
49 123.3 87.7 162.9





#17

trans-1,2-Dichloroethene

Concen: 49.009 ug/L

RT: 2.98 min Scan# 744

Delta R.T. -0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05066

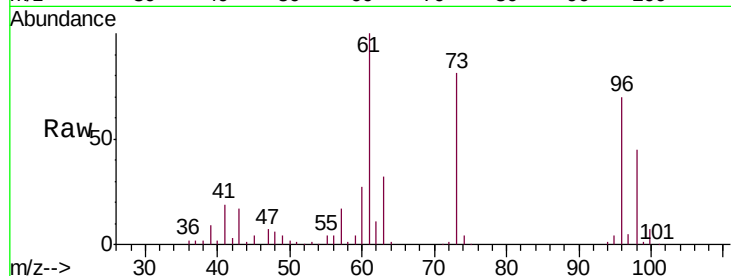
Tgt Ion: 96 Resp: 93304

Ion Ratio Lower Upper

96 100

61 142.1 96.7 179.5

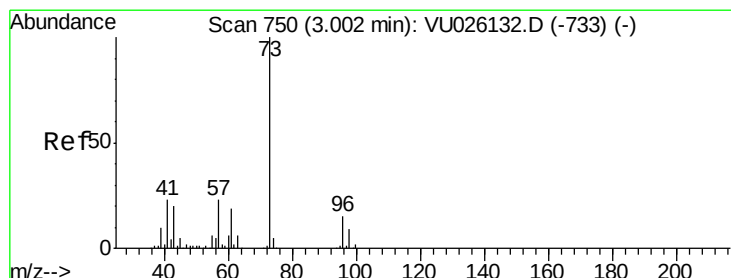
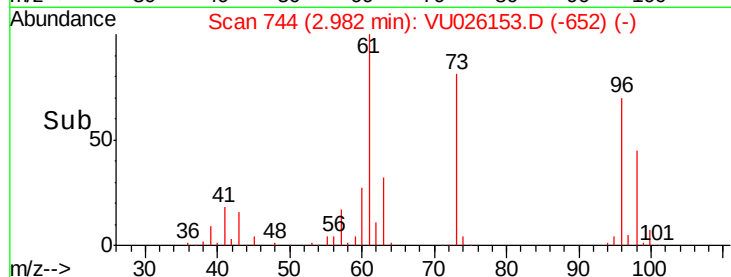
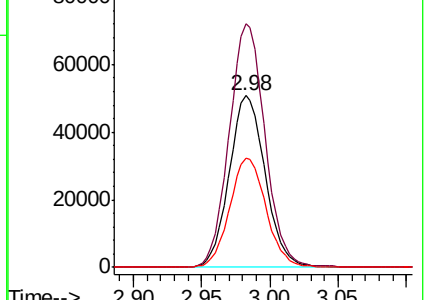
98 63.5 43.6 81.0



Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 98.00 (97.70 to 98.70): VU0



#18

Methyl tert-butyl Ether

Concen: 51.720 ug/L

RT: 3.00 min Scan# 750

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

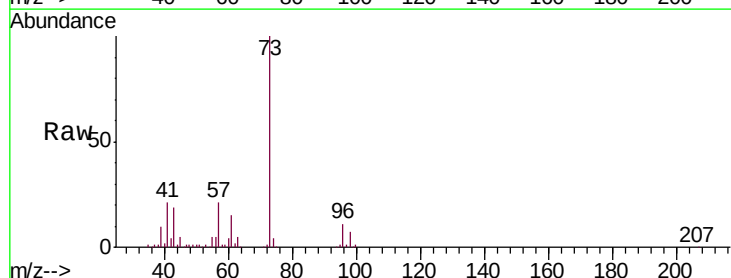
Tgt Ion: 73 Resp: 312554

Ion Ratio Lower Upper

73 100

43 19.8 16.2 24.4

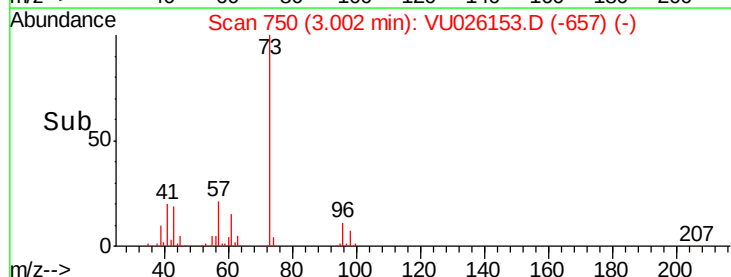
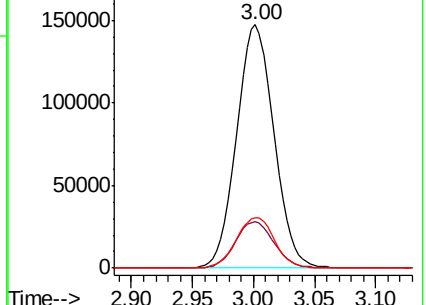
57 21.2 18.2 27.2

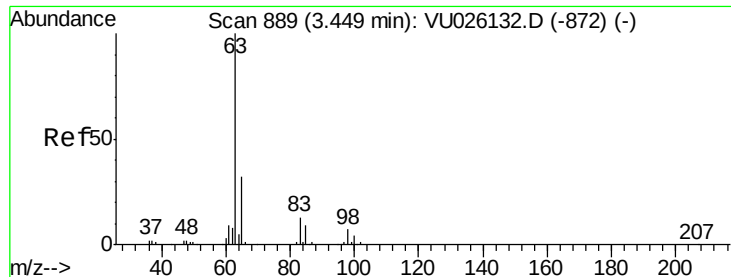


Abundance Ion 73.00 (72.70 to 73.70): VU0

Ion 43.00 (42.70 to 43.70): VU0

Ion 57.00 (56.70 to 57.70): VU0

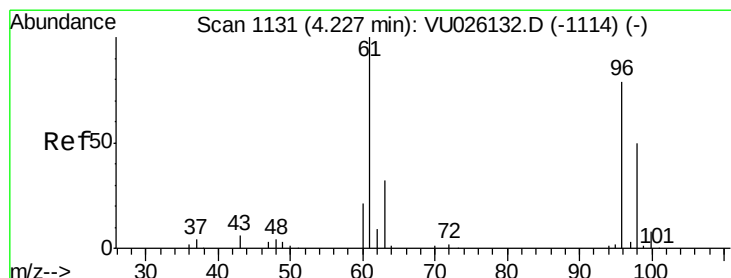
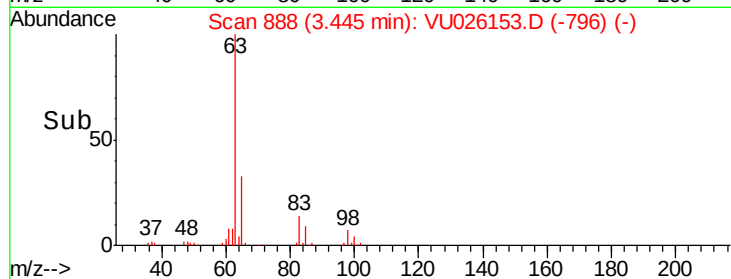
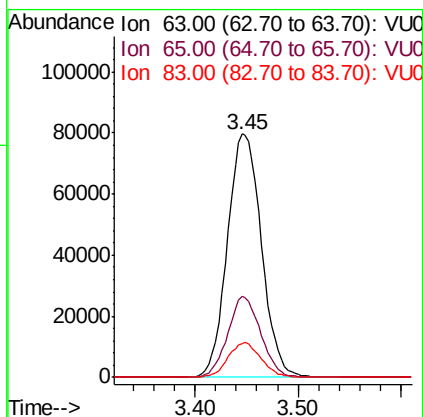
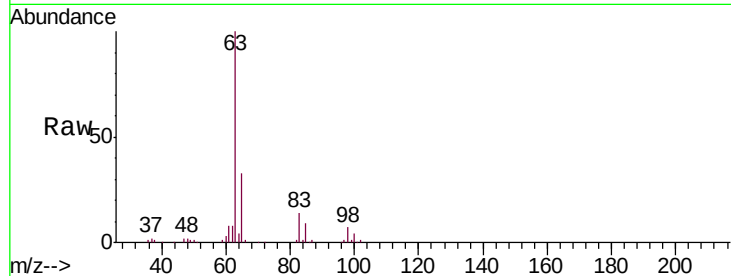




#19  
 1,1-Dichloroethane  
 Concen: 49.943 ug/L  
 RT: 3.45 min Scan# 888  
 Delta R.T. -0.00 min  
 Lab File: VU026153.D  
 Acq: 15 Aug 2018 17:57

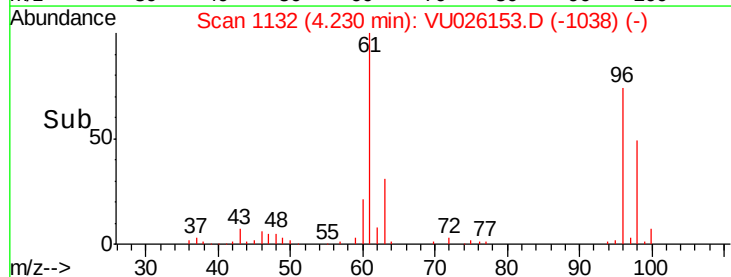
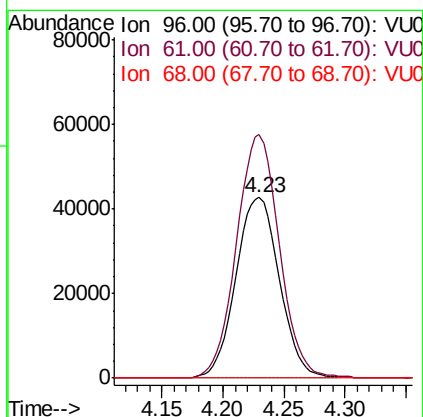
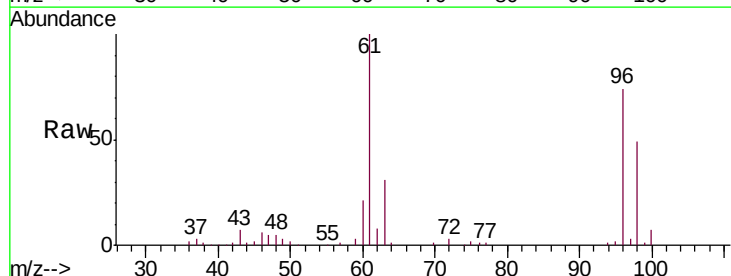
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05066

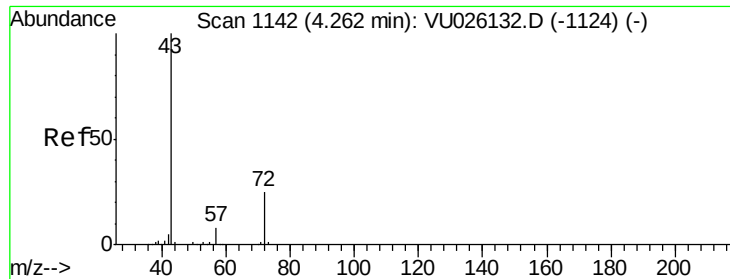
Tgt Ion: 63 Resp: 183050  
 Ion Ratio Lower Upper  
 63 100  
 65 33.3 22.1 41.1  
 83 14.1 9.4 17.4



#20  
 cis-1,2-Dichloroethene  
 Concen: 49.554 ug/L  
 RT: 4.23 min Scan# 1132  
 Delta R.T. 0.00 min  
 Lab File: VU026153.D  
 Acq: 15 Aug 2018 17:57

Tgt Ion: 96 Resp: 105776  
 Ion Ratio Lower Upper  
 96 100  
 61 134.8 88.6 164.6  
 68 0.0 0.0 0.0





#22

2-Butanone

Concen: 103.165 ug/L

RT: 4.27 min Scan# 1143

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Instrument :

MSVOA\_U

ClientSampleId :

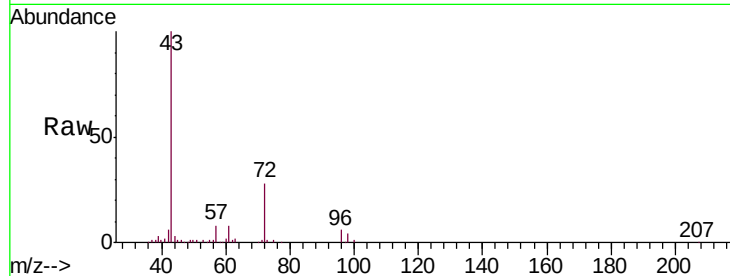
VSTD05066

Tgt Ion: 43 Resp: 160942

Ion Ratio Lower Upper

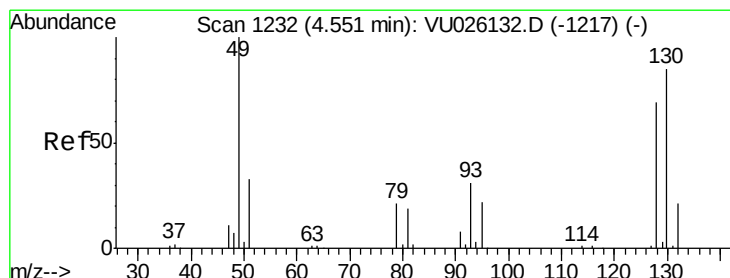
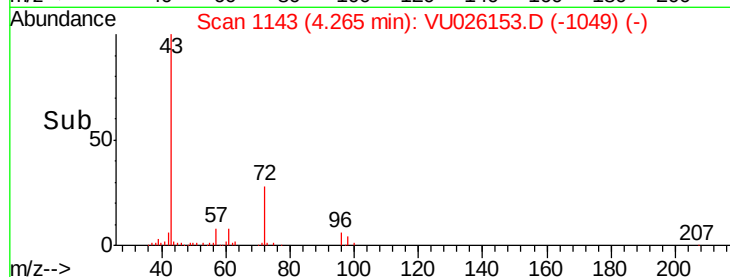
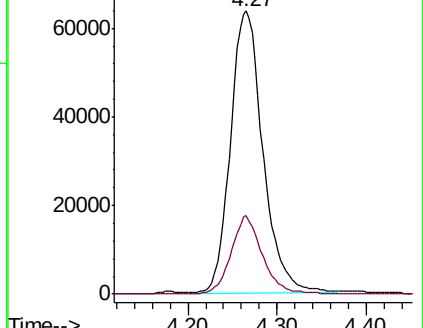
43 100

72 26.6 13.4 40.1



Abundance Ion 43.00 (42.70 to 43.70): VU026153.D (-1142) (-)

Ion 72.00 (71.70 to 72.70): VU026153.D (-1142) (-)



#23

Bromochloromethane

Concen: 50.755 ug/L

RT: 4.55 min Scan# 1232

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Tgt Ion: 128 Resp: 58564

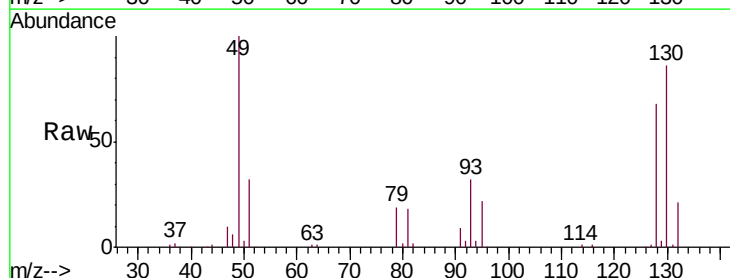
Ion Ratio Lower Upper

128 100

49 146.2 101.3 188.1

130 125.8 86.4 160.4

51 47.2 38.1 57.1

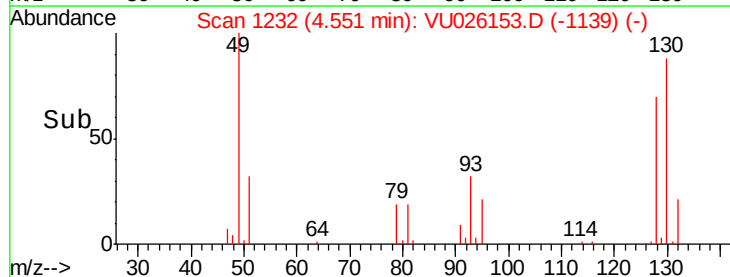
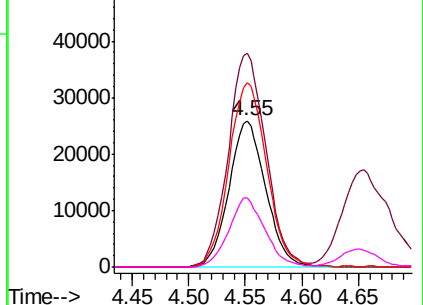


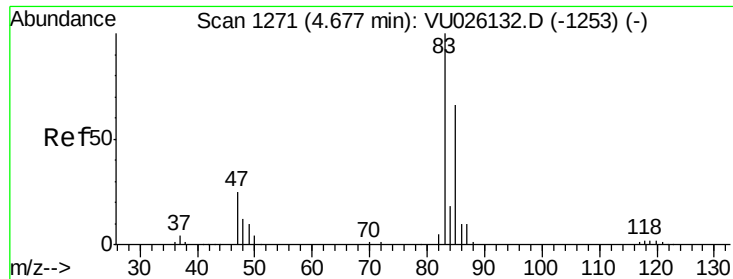
Abundance Ion 128.00 (127.70 to 128.70): VU026153.D (-1232) (-)

Ion 49.00 (48.70 to 49.70): VU026153.D (-1232) (-)

Ion 130.00 (129.70 to 130.70): VU026153.D (-1232) (-)

Ion 51.00 (50.70 to 51.70): VU026153.D (-1232) (-)

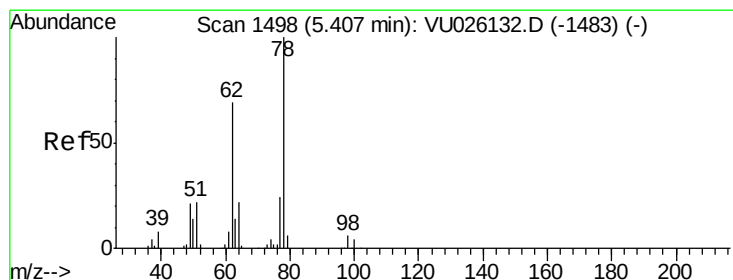
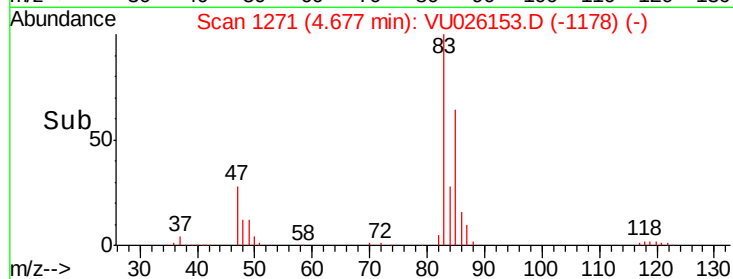
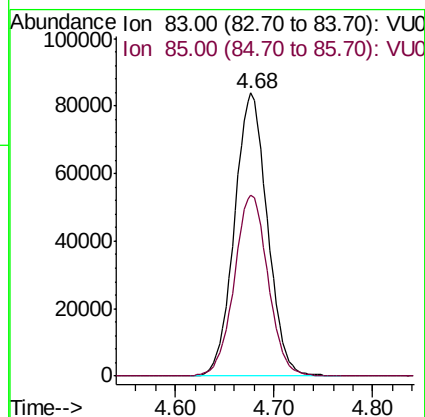
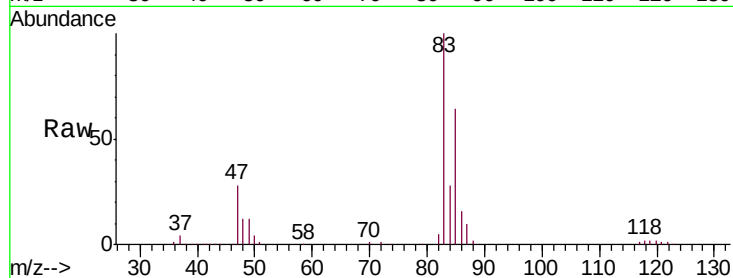




#25  
Chloroform  
Concen: 50.523 ug/L  
RT: 4.68 min Scan# 1271  
Delta R.T. 0.00 min  
Lab File: VU026153.D  
Acq: 15 Aug 2018 17:57

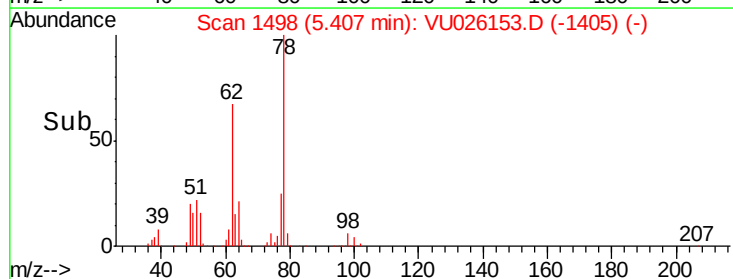
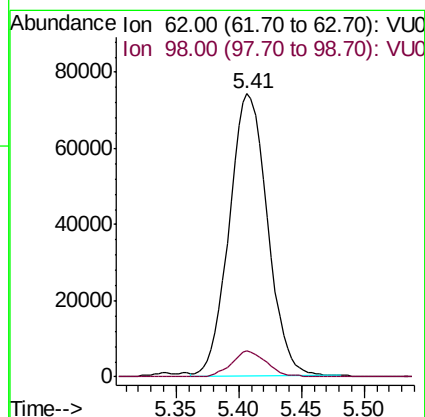
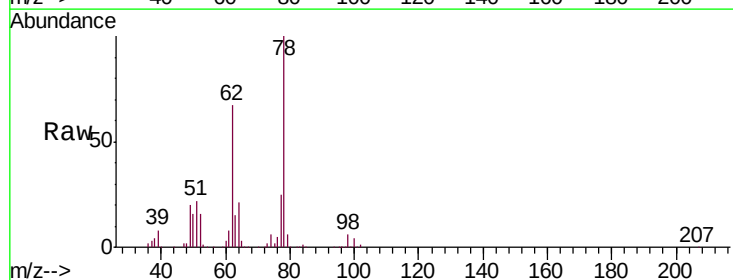
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05066

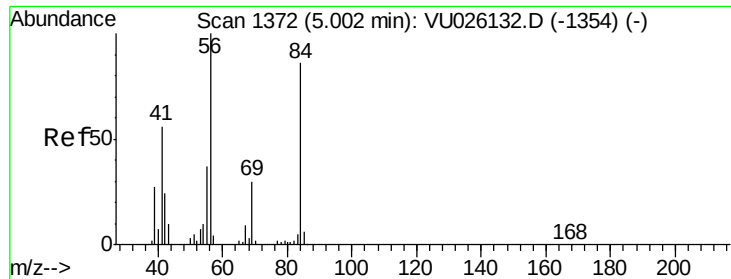
Tgt Ion: 83 Resp: 194403  
Ion Ratio Lower Upper  
83 100  
85 63.8 46.3 86.1



#27  
1,2-Dichloroethane  
Concen: 50.588 ug/L  
RT: 5.41 min Scan# 1498  
Delta R.T. 0.00 min  
Lab File: VU026153.D  
Acq: 15 Aug 2018 17:57

Tgt Ion: 62 Resp: 157377  
Ion Ratio Lower Upper  
62 100  
98 9.1 7.0 10.4

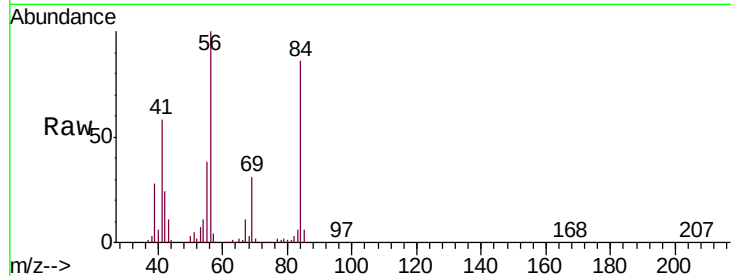




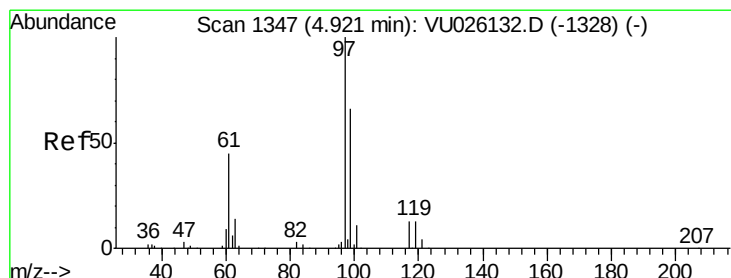
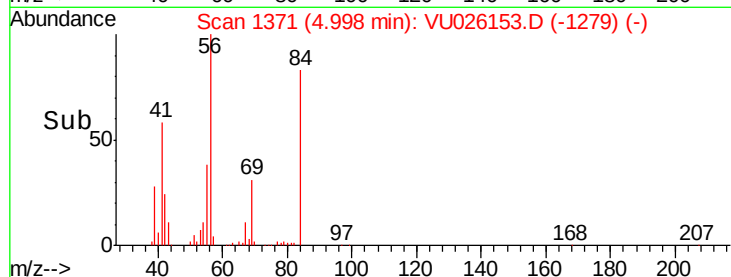
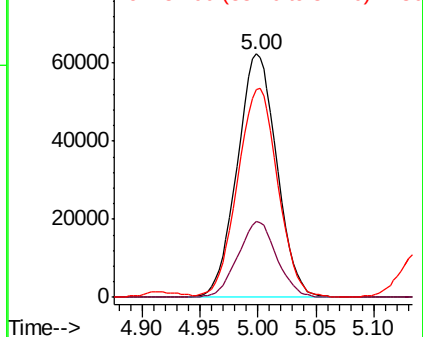
#29  
Cyclohexane  
Concen: 51.153 ug/L  
RT: 5.00 min Scan# 1371  
Delta R.T. -0.00 min  
Lab File: VU026153.D  
Acq: 15 Aug 2018 17:57

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05066

Tgt Ion: 56 Resp: 148508  
Ion Ratio Lower Upper  
56 100  
69 30.5 24.1 36.1  
84 87.6 68.6 102.8

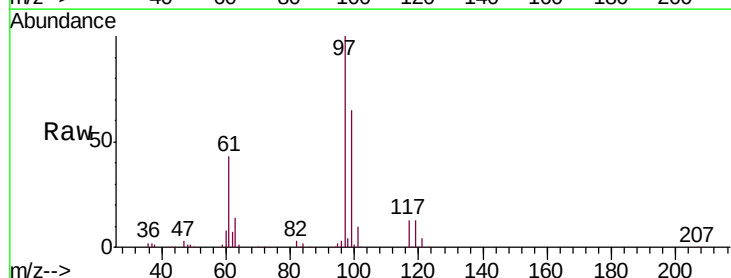


Abundance Ion 56.00 (55.70 to 56.70): VU0  
Ion 69.00 (68.70 to 69.70): VU0  
Ion 84.00 (83.70 to 84.70): VU0

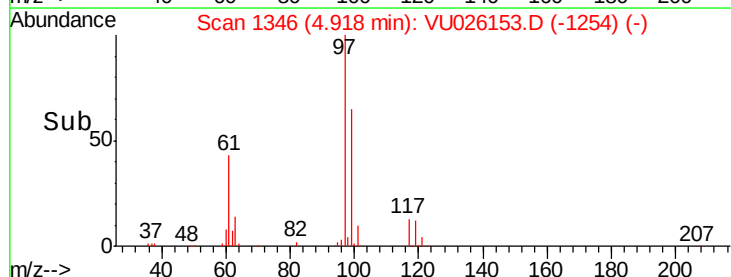
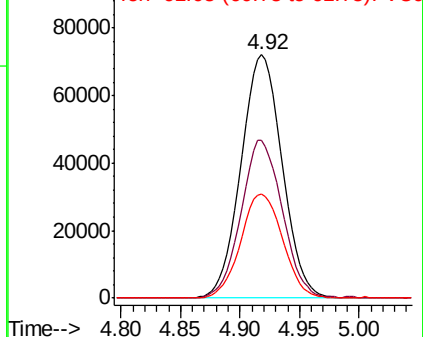


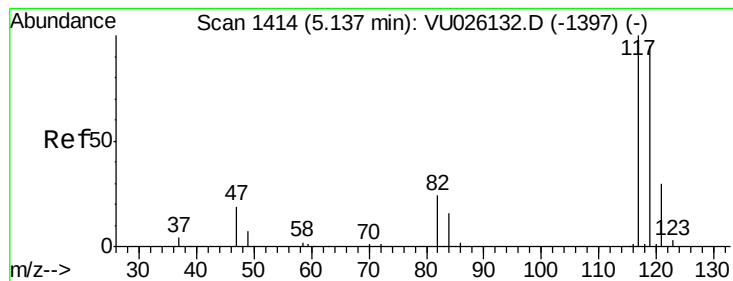
#30  
1,1,1-Trichloroethane  
Concen: 49.858 ug/L  
RT: 4.92 min Scan# 1346  
Delta R.T. -0.00 min  
Lab File: VU026153.D  
Acq: 15 Aug 2018 17:57

Tgt Ion: 97 Resp: 173083  
Ion Ratio Lower Upper  
97 100  
99 65.0 52.2 78.2  
61 43.7 35.4 53.0



Abundance Ion 97.00 (96.70 to 97.70): VU0  
Ion 99.00 (98.70 to 99.70): VU0  
Ion 61.05 (60.75 to 61.75): VU0





#31

Carbon tetrachloride

Concen: 50.356 ug/L

RT: 5.14 min Scan# 1414

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Instrument :

MSVOA\_U

ClientSampleId :

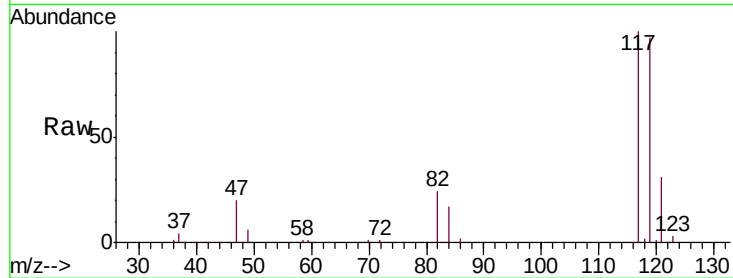
VSTD05066

Tgt Ion:117 Resp: 158376

Ion Ratio Lower Upper

117 100

119 96.7 77.4 116.2



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

5.14

80000

60000

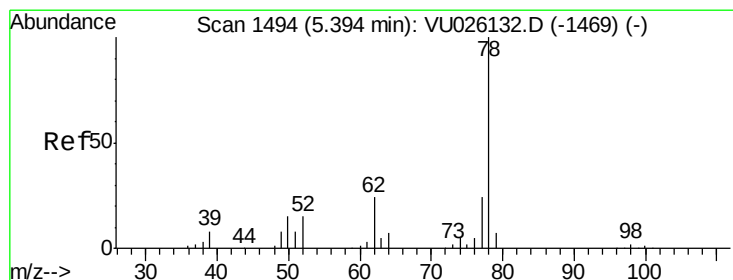
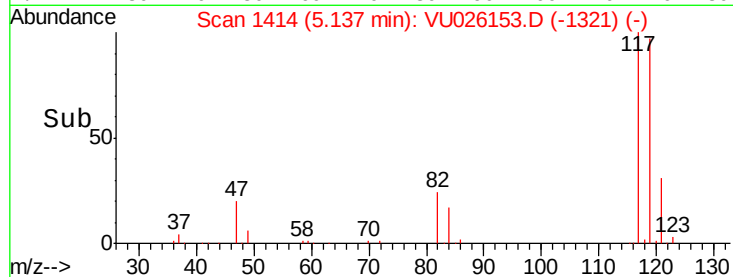
40000

20000

0

Time-->

5.05 5.10 5.15 5.20 5.25



#33

Benzene

Concen: 50.899 ug/L

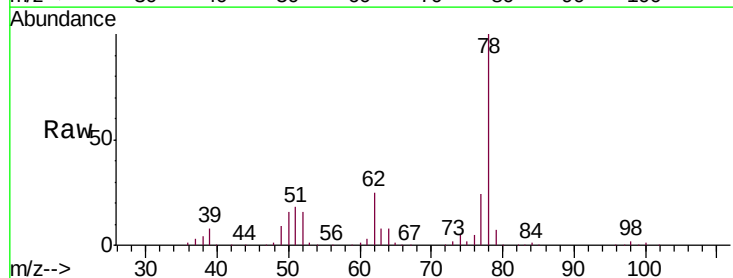
RT: 5.39 min Scan# 1494

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Tgt Ion: 78 Resp: 400450



Abundance Ion 78.00 (77.70 to 78.70): VU0

200000

150000

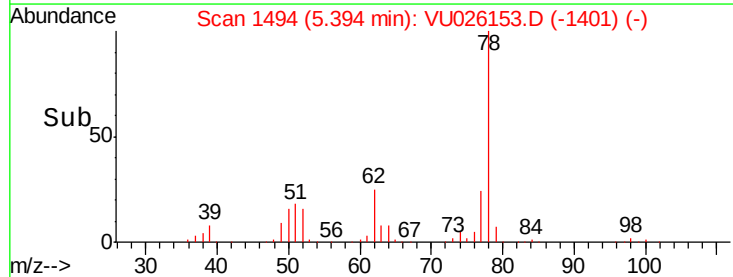
100000

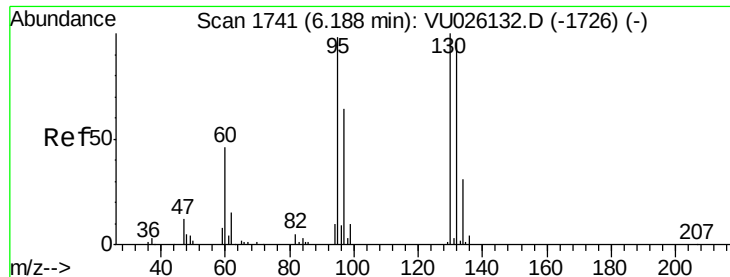
50000

0

Time-->

5.30 5.40 5.50





#34

Trichloroethene

Concen: 49.622 ug/L

RT: 6.19 min Scan# 1742

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05066

Tgt Ion: 95 Resp: 101702

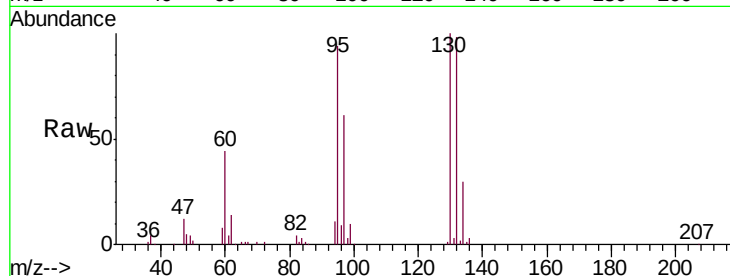
Ion Ratio Lower Upper

95 100

97 64.6 45.7 84.9

132 103.4 68.8 127.8

130 105.8 71.5 132.7

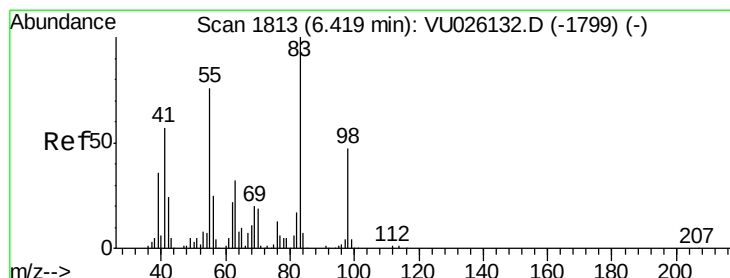
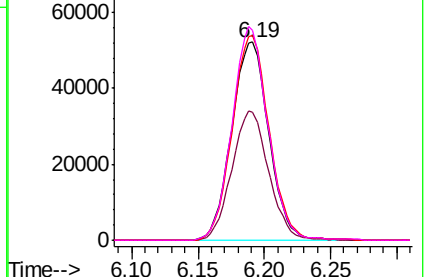
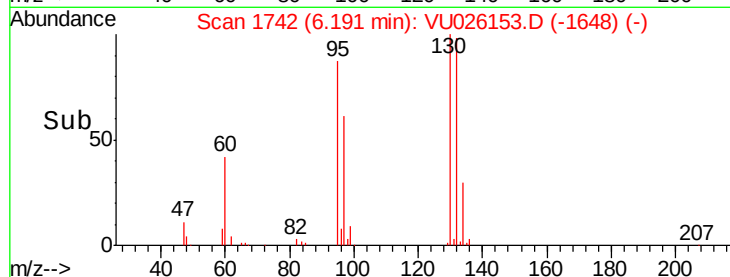


Abundance Ion 95.00 (94.70 to 95.70): VU0

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: 50.330 ug/L

RT: 6.42 min Scan# 1813

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

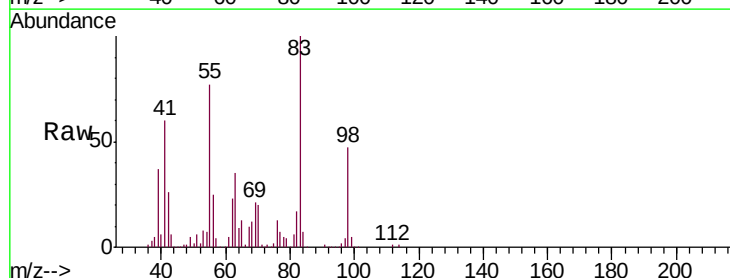
Tgt Ion: 83 Resp: 154849

Ion Ratio Lower Upper

83 100

55 77.0 61.0 91.6

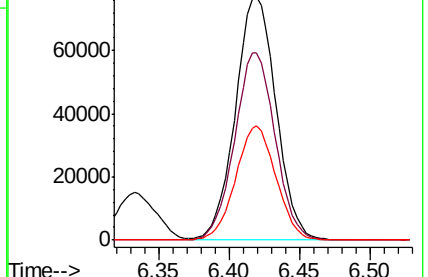
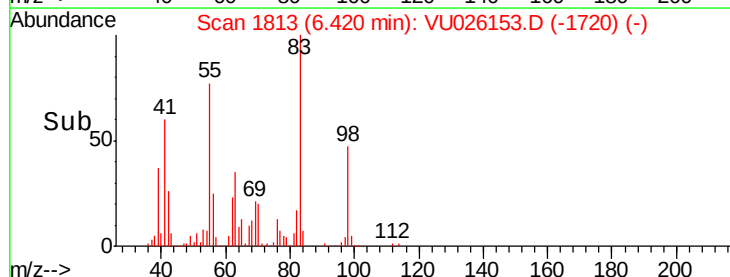
98 46.8 37.6 56.4



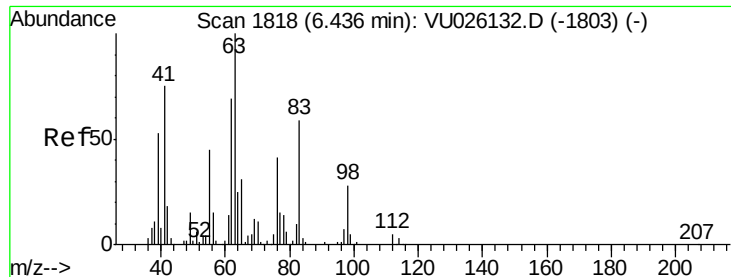
Abundance Ion 83.00 (82.70 to 83.70): VU0

Ion 55.00 (54.70 to 55.70): VU0

Ion 98.00 (97.70 to 98.70): VU0



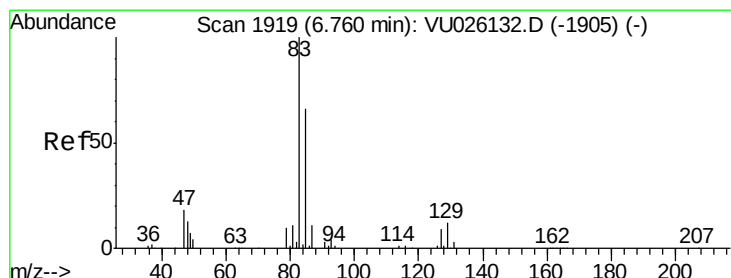
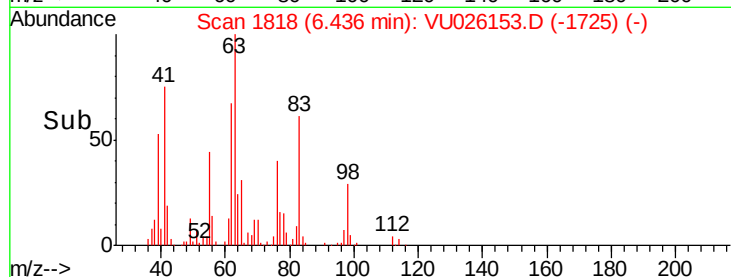
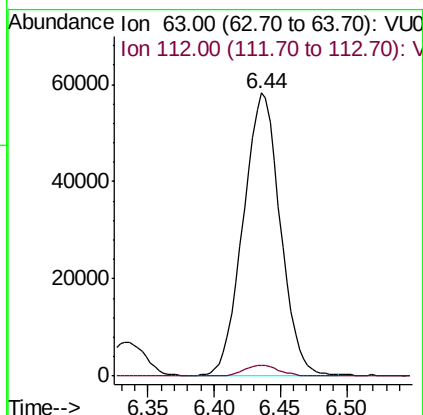
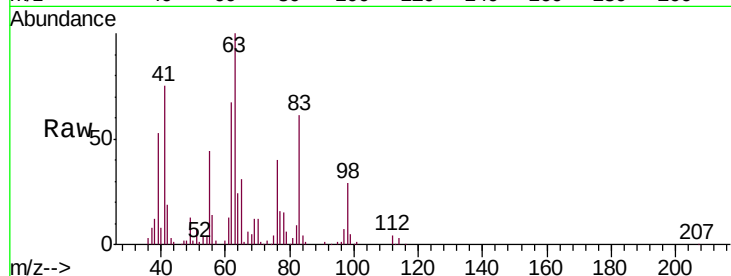




#37  
 1,2-Dichloropropane  
 Concen: 51.673 ug/L  
 RT: 6.44 min Scan# 1818  
 Delta R.T. 0.00 min  
 Lab File: VU026153.D  
 Acq: 15 Aug 2018 17:57

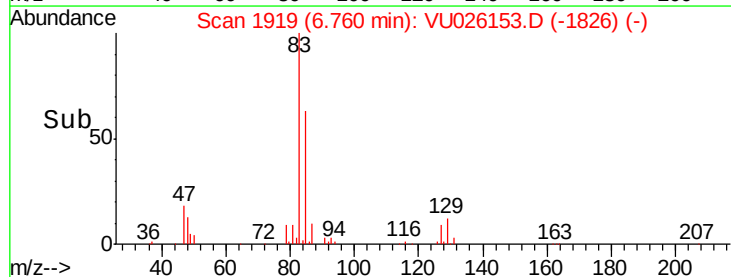
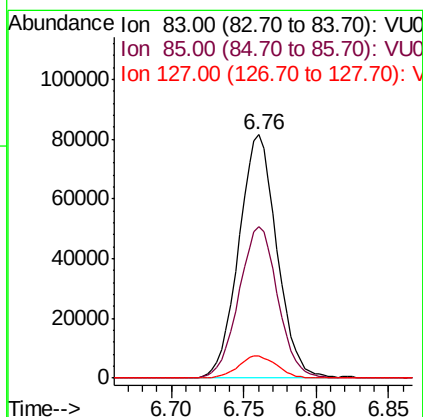
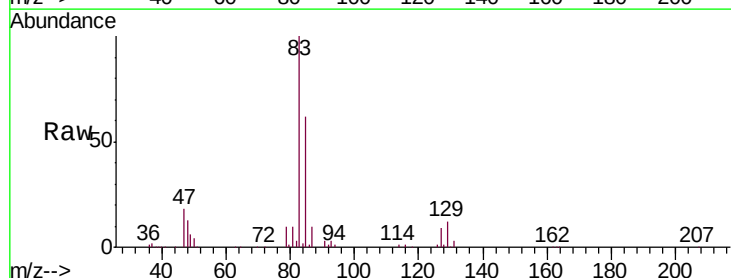
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05066

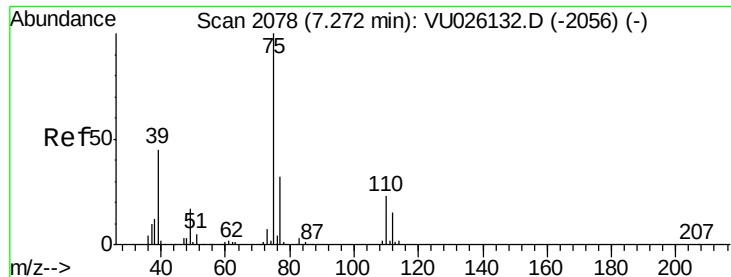
Tgt Ion: 63 Resp: 113538  
 Ion Ratio Lower Upper  
 63 100  
 112 3.6 3.5 5.3



#38  
 Bromodichloromethane  
 Concen: 51.233 ug/L  
 RT: 6.76 min Scan# 1919  
 Delta R.T. 0.00 min  
 Lab File: VU026153.D  
 Acq: 15 Aug 2018 17:57

Tgt Ion: 83 Resp: 149045  
 Ion Ratio Lower Upper  
 83 100  
 85 62.4 46.0 85.4  
 127 9.0 7.5 11.3

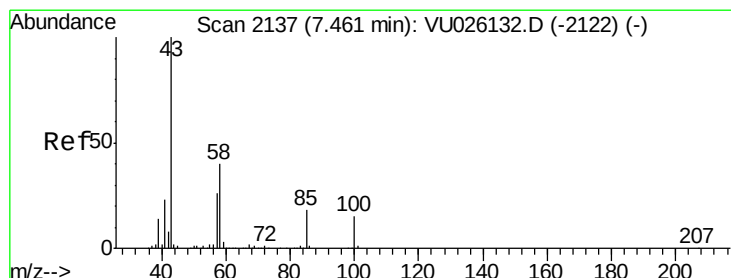
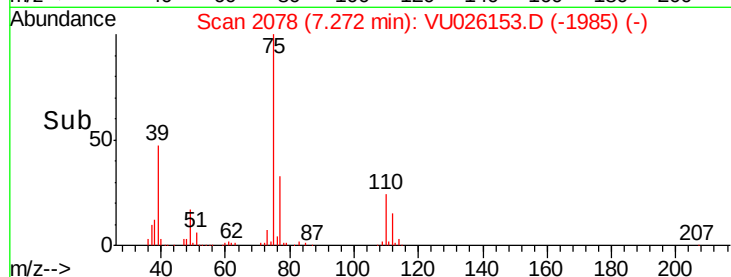
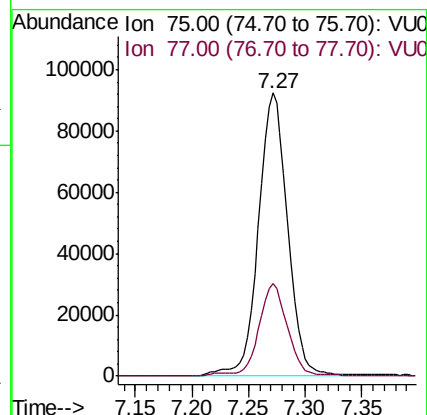
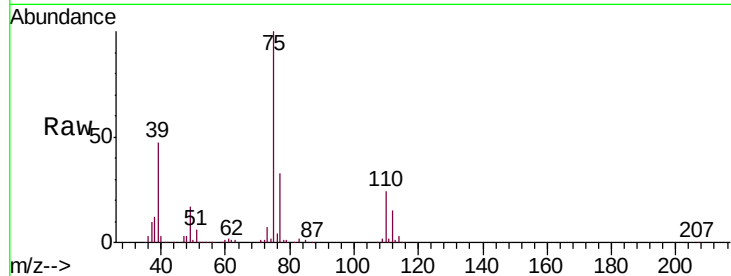




#39  
 cis-1,3-Dichloropropene  
 Concen: 50.834 ug/L  
 RT: 7.27 min Scan# 2078  
 Delta R.T. 0.00 min  
 Lab File: VU026153.D  
 Acq: 15 Aug 2018 17:57

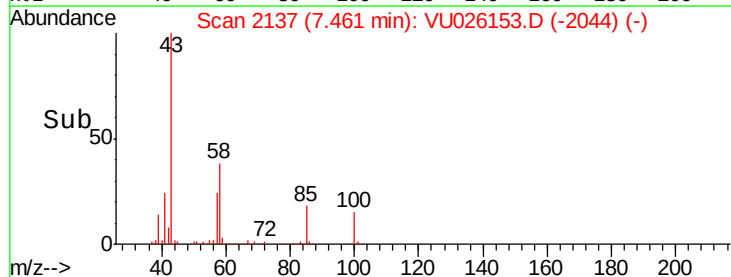
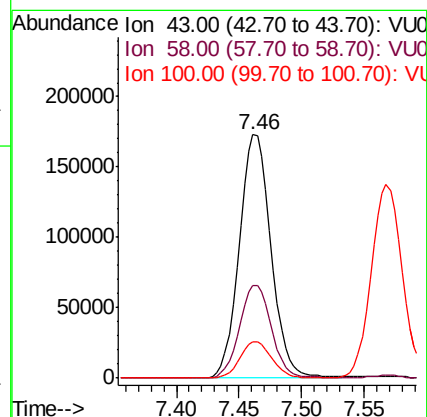
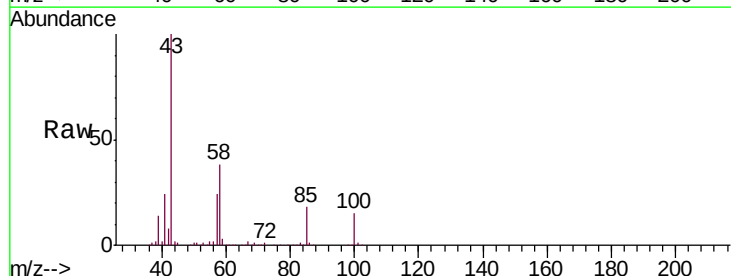
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05066

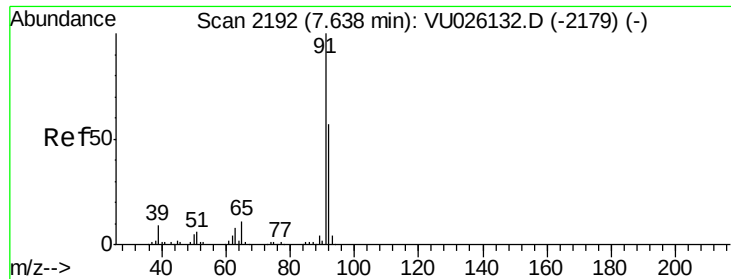
Tgt Ion: 75 Resp: 165806  
 Ion Ratio Lower Upper  
 75 100  
 77 32.6 22.2 41.2



#40  
 4-Methyl-2-pentanone  
 Concen: 111.696 ug/L  
 RT: 7.46 min Scan# 2137  
 Delta R.T. 0.00 min  
 Lab File: VU026153.D  
 Acq: 15 Aug 2018 17:57

Tgt Ion: 43 Resp: 304446  
 Ion Ratio Lower Upper  
 43 100  
 58 38.6 31.8 47.8  
 100 15.0 12.2 18.2





#42

Toluene

Concen: 52.083 ug/L

RT: 7.64 min Scan# 2192

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Instrument :

MSVOA\_U

ClientSampleId :

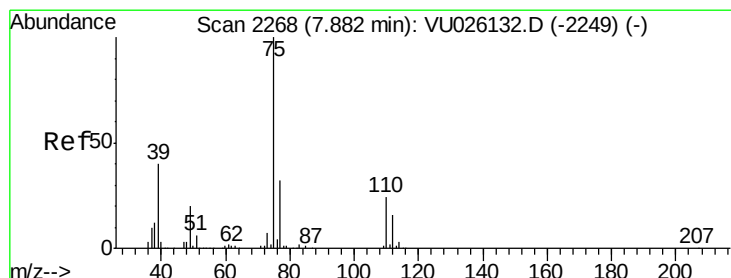
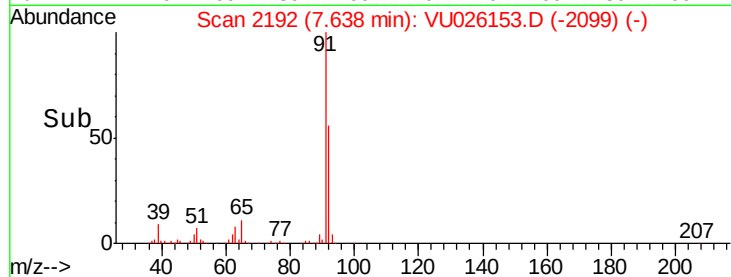
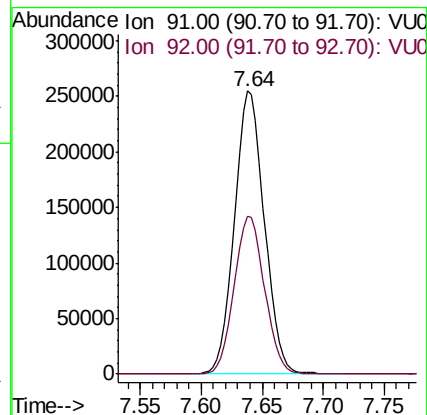
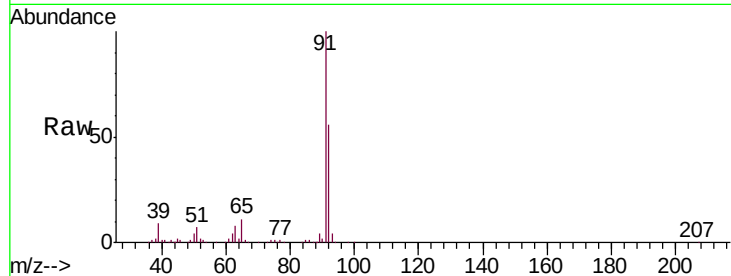
VSTD05066

Tgt Ion: 91 Resp: 435161

Ion Ratio Lower Upper

91 100

92 55.7 40.0 74.4



#44

trans-1,3-Dichloropropene

Concen: 50.644 ug/L

RT: 7.88 min Scan# 2268

Delta R.T. 0.00 min

Lab File: VU026153.D

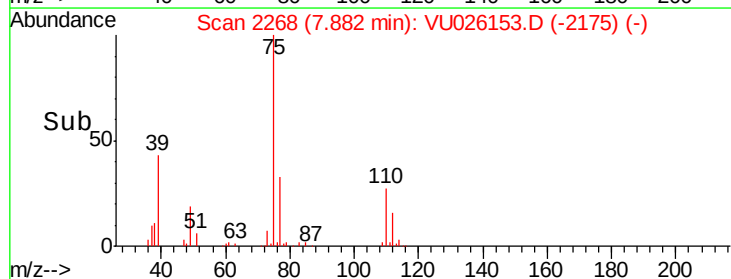
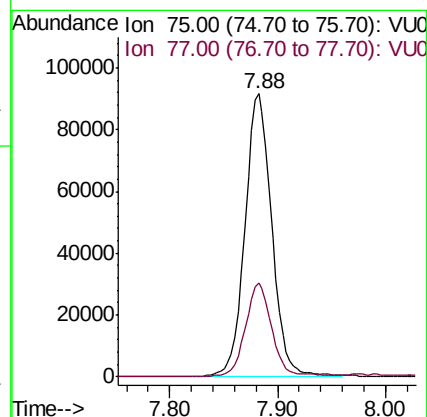
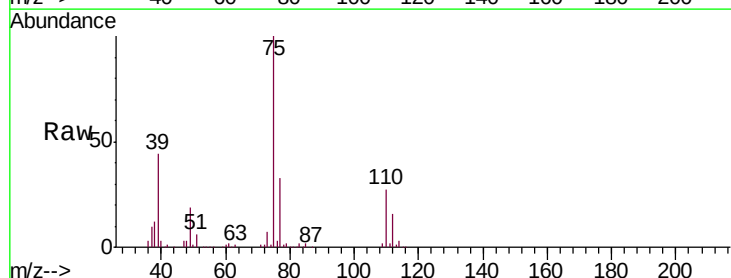
Acq: 15 Aug 2018 17:57

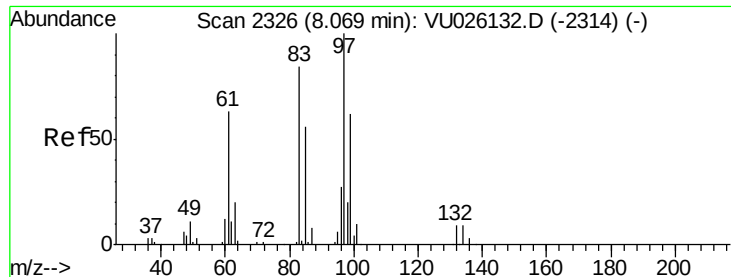
Tgt Ion: 75 Resp: 159166

Ion Ratio Lower Upper

75 100

77 33.2 22.0 41.0

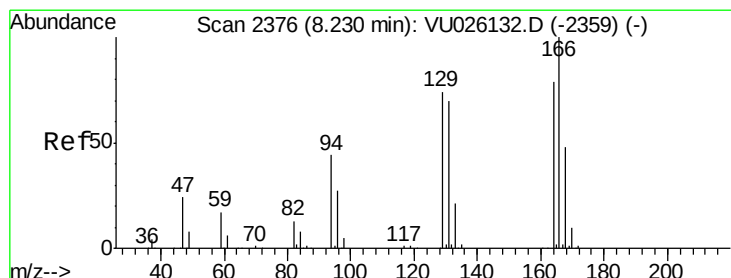
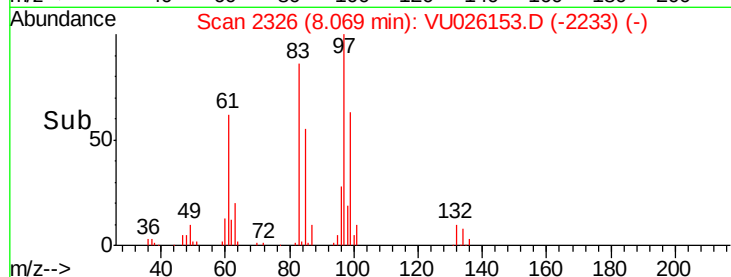
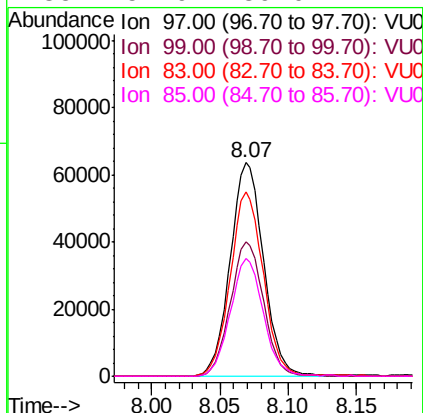
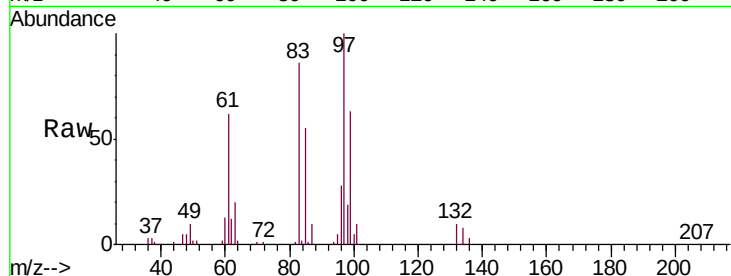




#45  
 1,1,2-Trichloroethane  
 Concen: 51.950 ug/L  
 RT: 8.07 min Scan# 2326  
 Delta R.T. 0.00 min  
 Lab File: VU026153.D  
 Acq: 15 Aug 2018 17:57

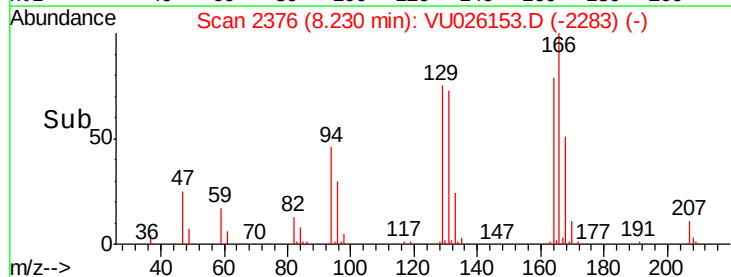
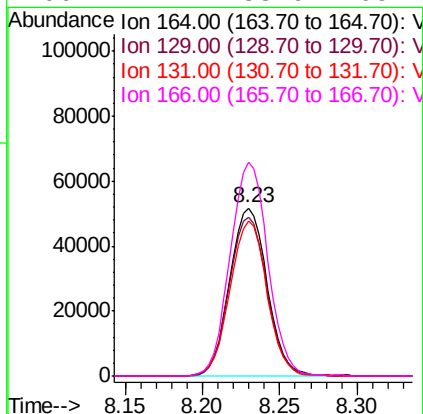
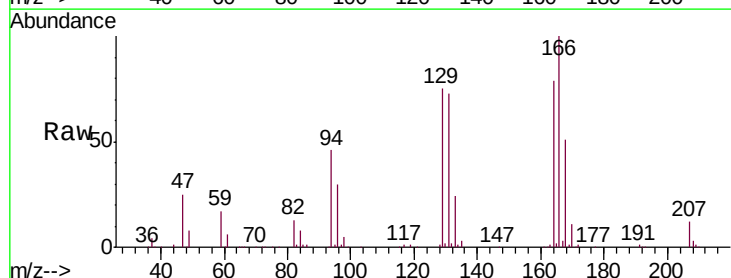
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05066

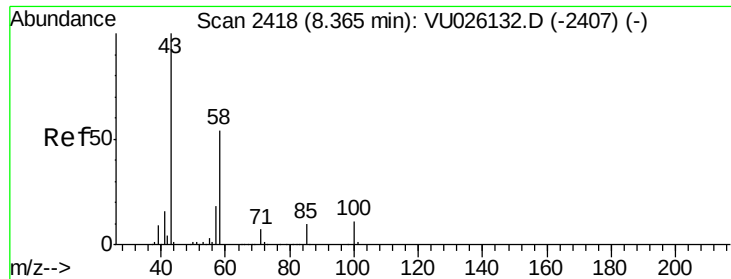
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 97    | Resp: | 108228 |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 99       | 62.8  | 43.3  | 80.5   |
| 83       | 86.4  | 58.4  | 108.6  |
| 85       | 54.9  | 39.0  | 72.4   |



#46  
 Tetrachloroethene  
 Concen: 49.297 ug/L  
 RT: 8.23 min Scan# 2376  
 Delta R.T. 0.00 min  
 Lab File: VU026153.D  
 Acq: 15 Aug 2018 17:57

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 164   | Resp: | 87137 |
| Ion      | Ratio | Lower | Upper |
| 164      | 100   |       |       |
| 129      | 94.9  | 65.7  | 121.9 |
| 131      | 92.2  | 62.0  | 115.2 |
| 166      | 127.2 | 88.9  | 165.1 |

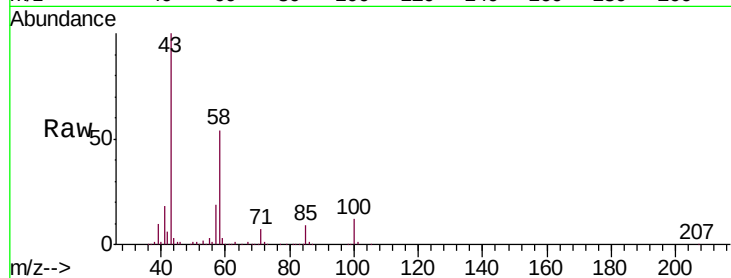




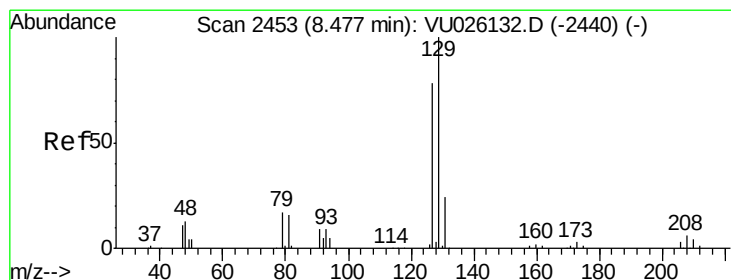
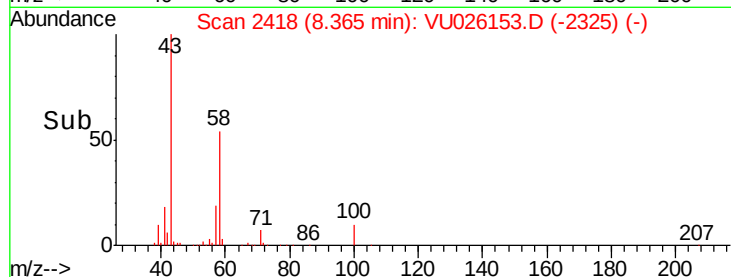
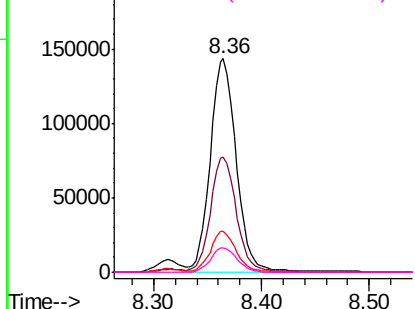
#48  
2-Hexanone  
Concen: 112.552 ug/L  
RT: 8.36 min Scan# 2418  
Delta R.T. 0.00 min  
Lab File: VU026153.D  
Acq: 15 Aug 2018 17:57

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05066

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 240369 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 58       | 52.5  | 42.9  | 64.3   |
| 57       | 18.7  | 15.1  | 22.7   |
| 100      | 11.7  | 9.2   | 13.8   |

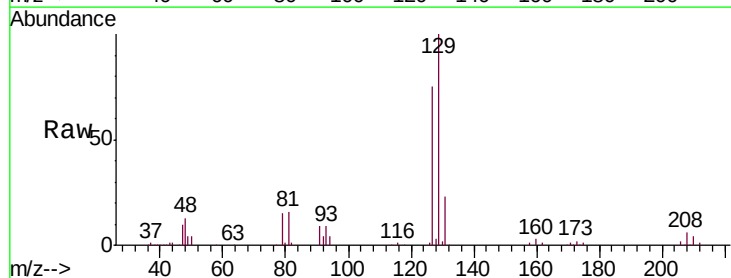


Abundance Ion 43.00 (42.70 to 43.70): VU0  
Ion 58.00 (57.70 to 58.70): VU0  
Ion 57.00 (56.70 to 57.70): VU0  
Ion 100.00 (99.70 to 100.70): VU0

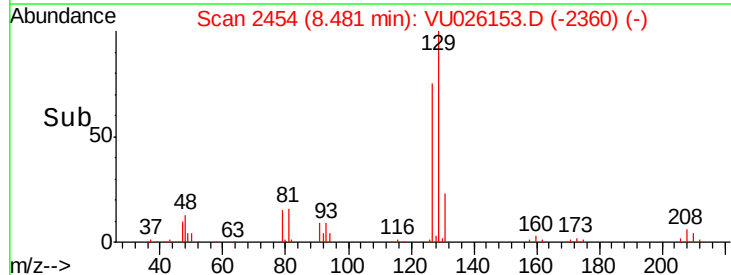
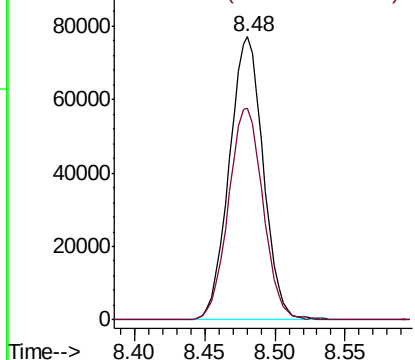


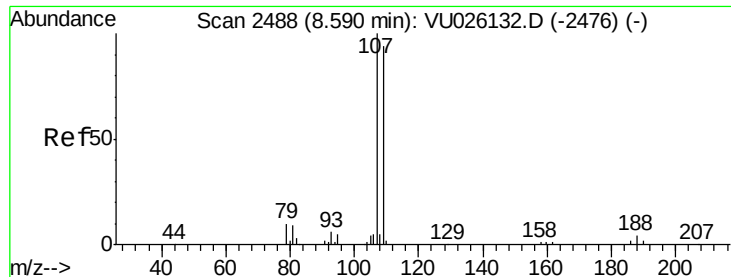
#49  
Dibromochloromethane  
Concen: 51.883 ug/L  
RT: 8.48 min Scan# 2454  
Delta R.T. 0.00 min  
Lab File: VU026153.D  
Acq: 15 Aug 2018 17:57

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 129   | Resp: | 130180 |
| Ion      | Ratio | Lower | Upper  |
| 129      | 100   |       |        |
| 127      | 74.7  | 54.6  | 101.4  |



Abundance Ion 129.00 (128.70 to 129.70): V  
Ion 127.00 (126.70 to 127.70): V

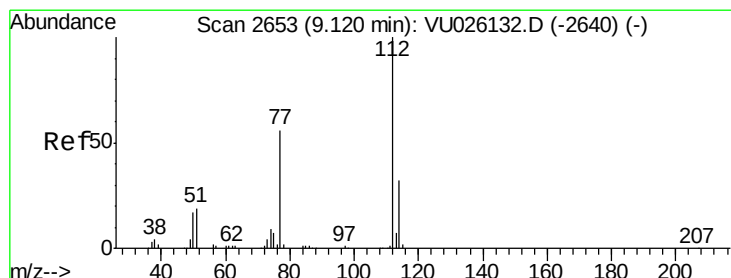
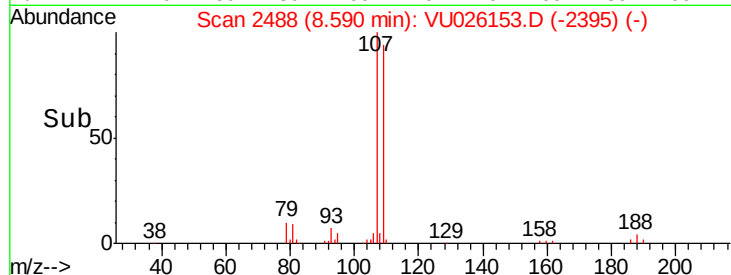
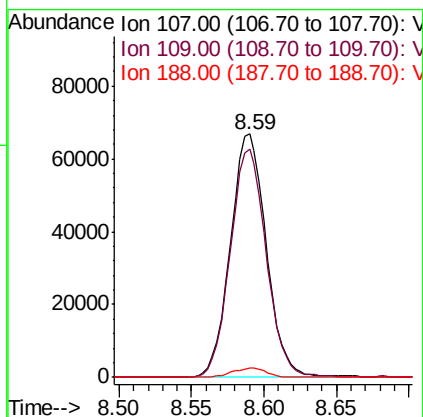
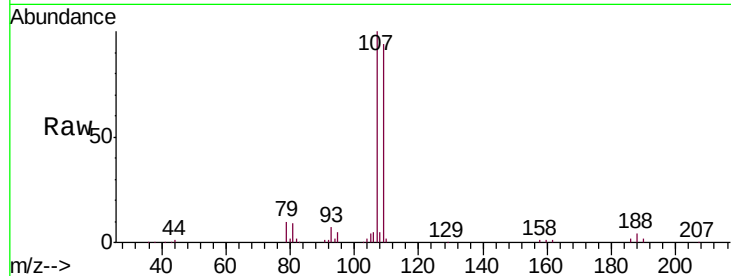




#50  
 1,2-Dibromoethane  
 Concen: 52.873 ug/L  
 RT: 8.59 min Scan# 2488  
 Delta R.T. 0.00 min  
 Lab File: VU026153.D  
 Acq: 15 Aug 2018 17:57

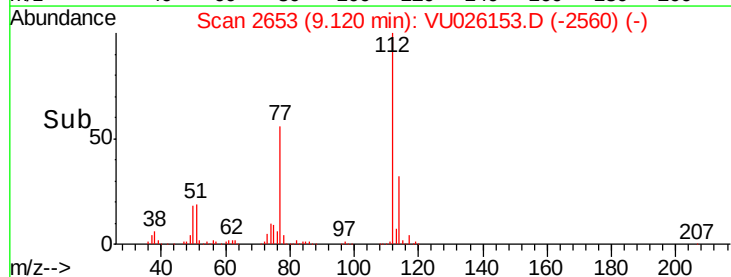
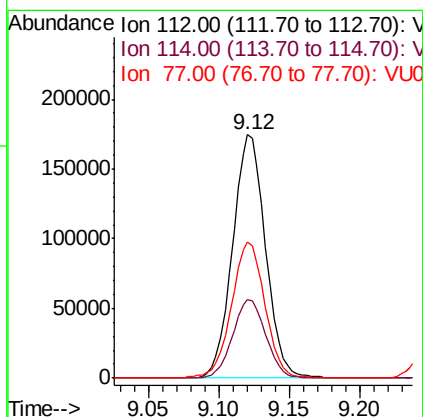
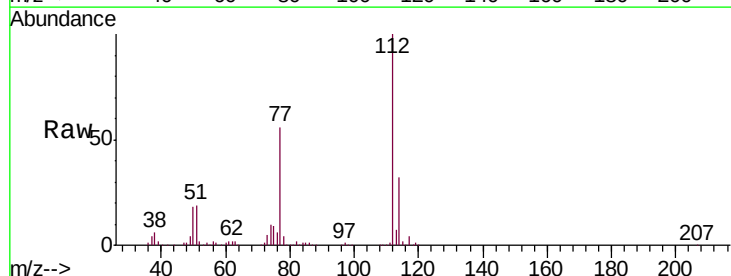
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05066

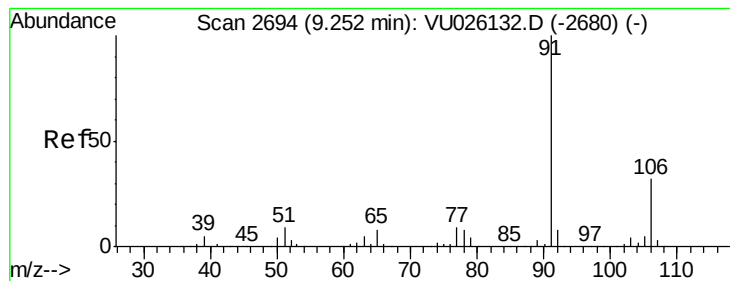
Tgt Ion:107 Resp: 114376  
 Ion Ratio Lower Upper  
 107 100  
 109 93.9 66.1 122.7  
 188 3.7 3.2 4.8



#51  
 Chlorobenzene  
 Concen: 49.983 ug/L  
 RT: 9.12 min Scan# 2653  
 Delta R.T. 0.00 min  
 Lab File: VU026153.D  
 Acq: 15 Aug 2018 17:57

Tgt Ion:112 Resp: 285404  
 Ion Ratio Lower Upper  
 112 100  
 114 32.5 22.5 41.9  
 77 56.1 45.0 67.4





#52

Ethylbenzene

Concen: 51.710 ug/L

RT: 9.25 min Scan# 2694

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Instrument :

MSVOA\_U

ClientSampleId :

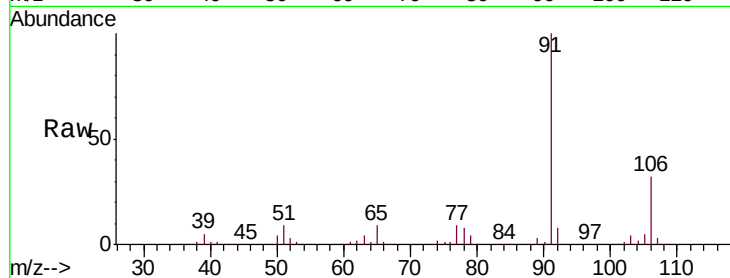
VSTD05066

Tgt Ion: 91 Resp: 470632

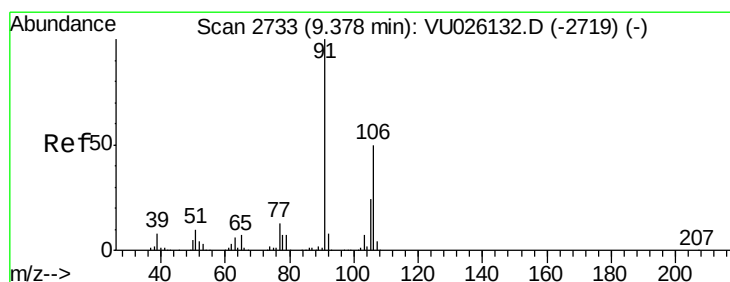
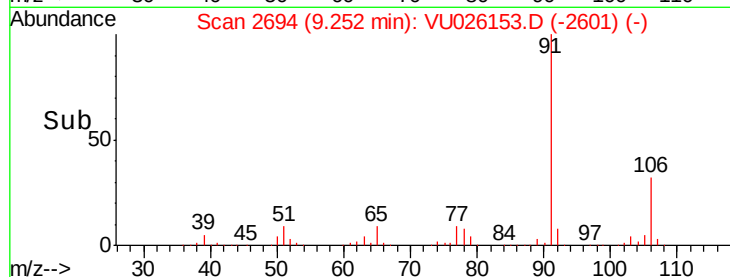
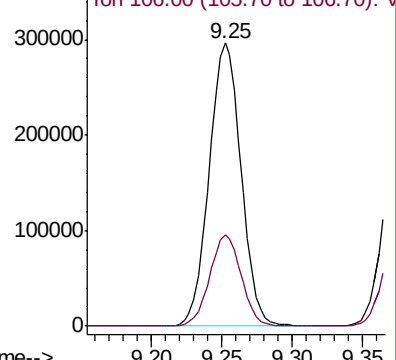
Ion Ratio Lower Upper

91 100

106 32.2 22.3 41.5



Abundance Ion 91.00 (90.70 to 91.70): VU026153.D (-2601) (-)



#53

m,p-Xylene

Concen: 51.889 ug/L

RT: 9.38 min Scan# 2733

Delta R.T. 0.00 min

Lab File: VU026153.D

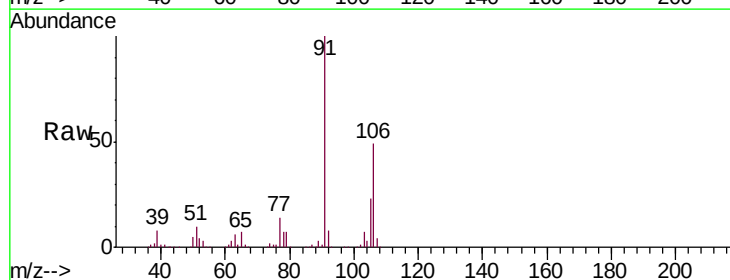
Acq: 15 Aug 2018 17:57

Tgt Ion: 106 Resp: 181994

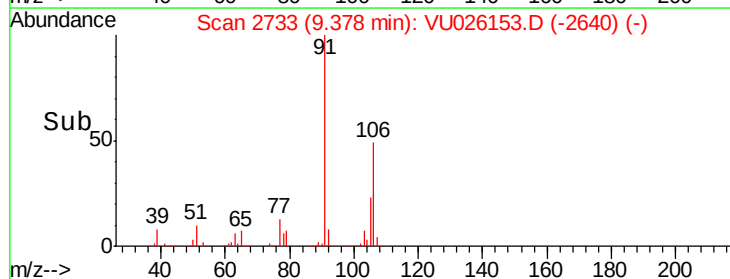
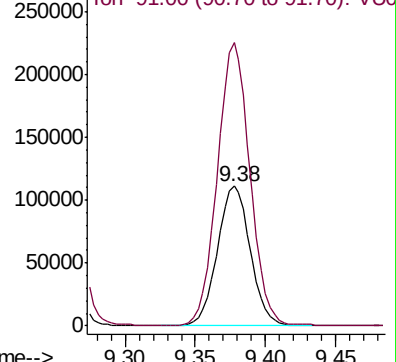
Ion Ratio Lower Upper

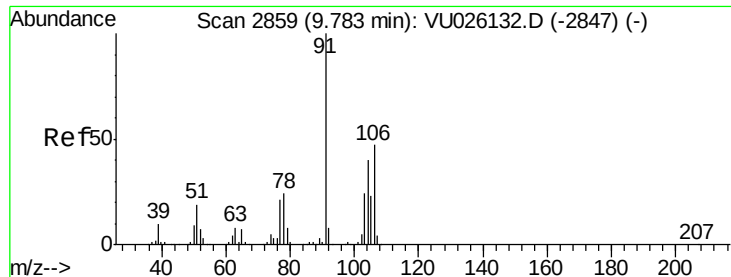
106 100

91 202.5 139.2 258.4



Abundance Ion 106.00 (105.70 to 106.70): VU026153.D (-2640) (-)

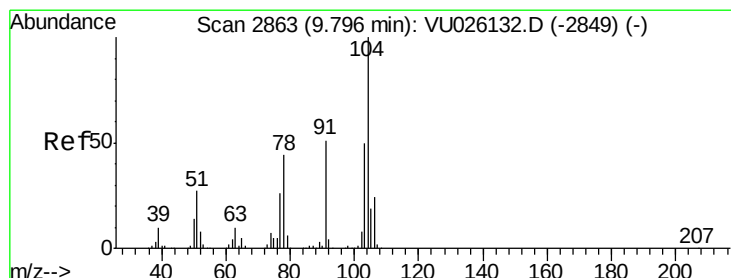
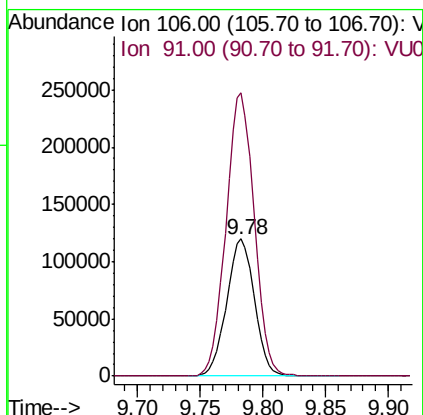
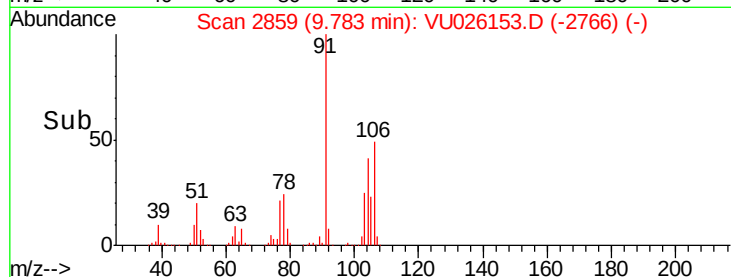
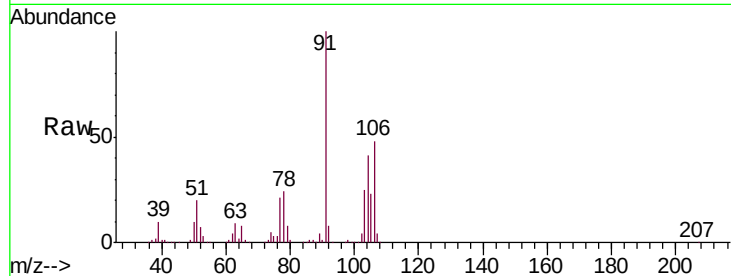




#54  
o-xylene  
Concen: 52.736 ug/L  
RT: 9.78 min Scan# 2859  
Delta R.T. 0.00 min  
Lab File: VU026153.D  
Acq: 15 Aug 2018 17:57

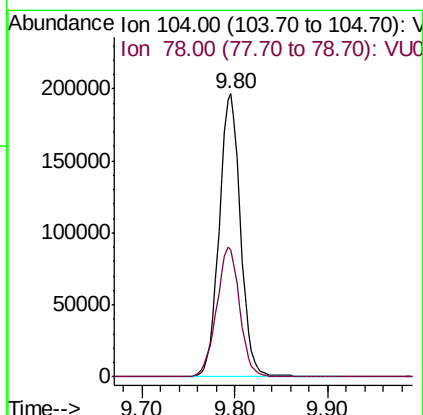
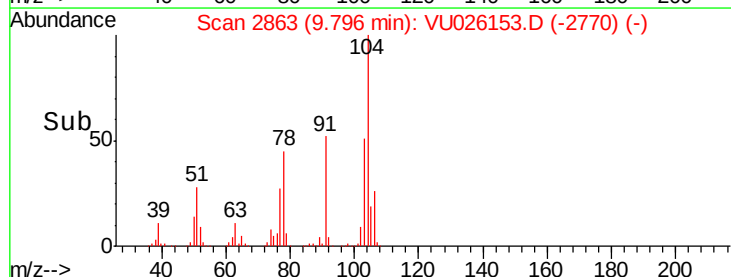
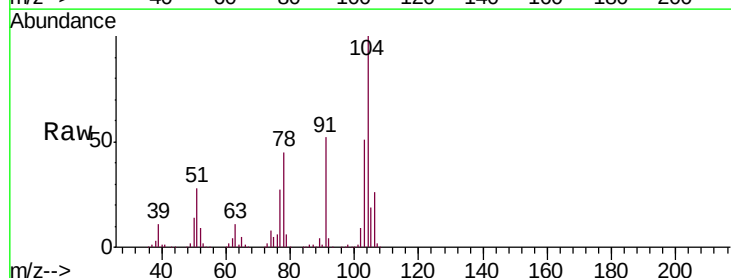
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05066

Tgt Ion:106 Resp: 184566  
Ion Ratio Lower Upper  
106 100  
91 206.3 148.0 274.8

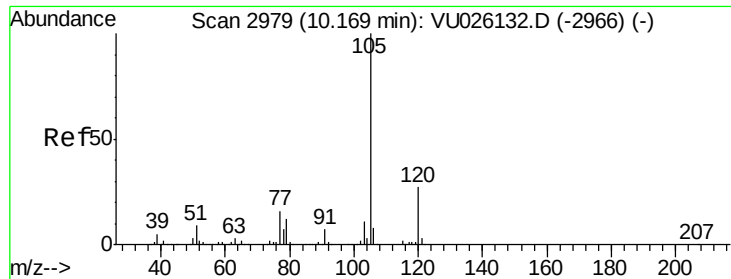


#55  
Styrene  
Concen: 53.738 ug/L  
RT: 9.80 min Scan# 2863  
Delta R.T. 0.00 min  
Lab File: VU026153.D  
Acq: 15 Aug 2018 17:57

Tgt Ion:104 Resp: 313142  
Ion Ratio Lower Upper  
104 100  
78 44.9 30.9 57.5







#56

Isopropylbenzene

Concen: 52.037 ug/L

RT: 10.17 min Scan# 2979

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05066

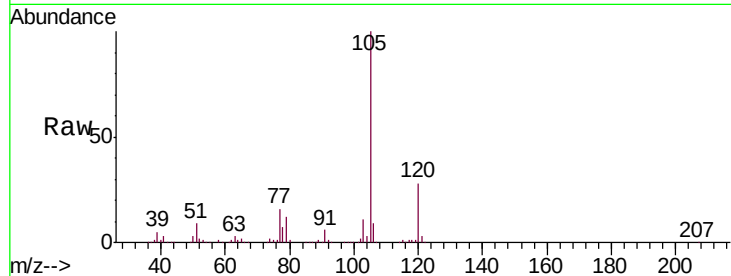
Tgt Ion: 105 Resp: 467575

Ion Ratio Lower Upper

105 100

120 27.4 21.5 32.3

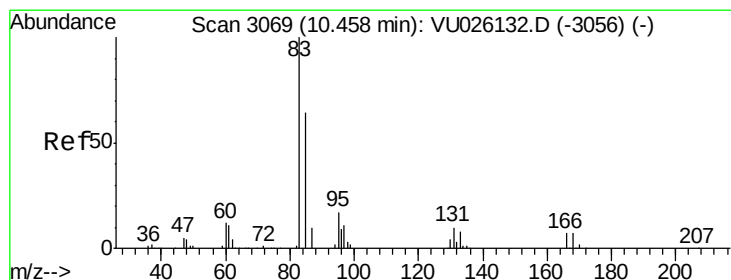
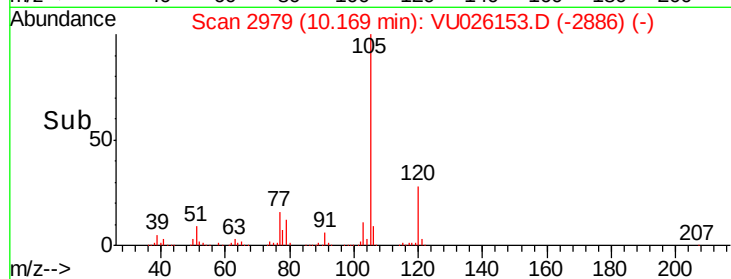
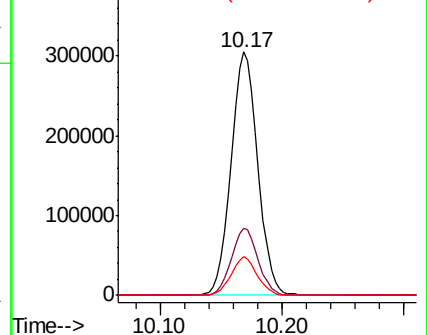
77 15.5 12.3 18.5



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: 52.624 ug/L

RT: 10.46 min Scan# 3069

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

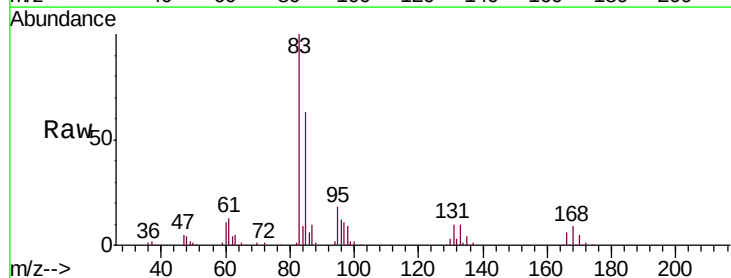
Tgt Ion: 83 Resp: 183085

Ion Ratio Lower Upper

83 100

85 63.2 45.0 83.6

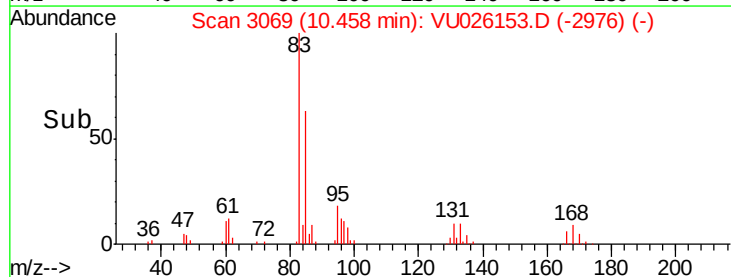
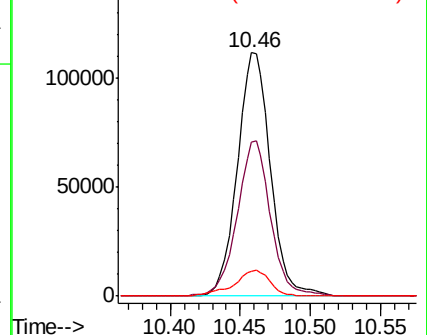
131 10.3 8.4 12.6

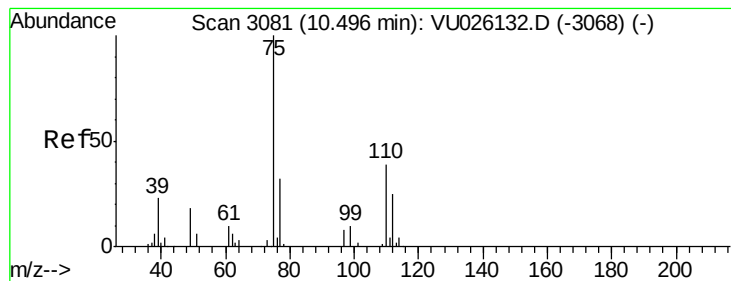


Abundance Ion 83.00 (82.70 to 83.70): V

Ion 85.00 (84.70 to 85.70): V

Ion 131.00 (130.70 to 131.70): V





#59

1,2,3-Trichloropropane

Concen: 53.019 ug/L

RT: 10.50 min Scan# 3081

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Instrument :

MSVOA\_U

ClientSampleId :

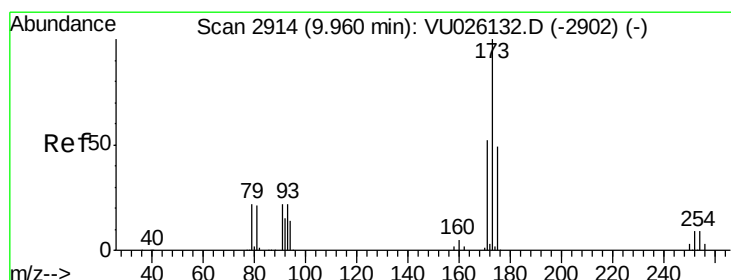
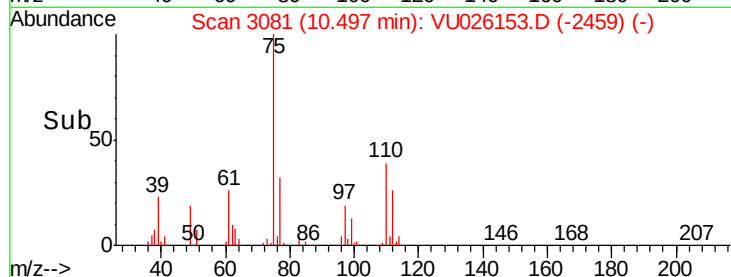
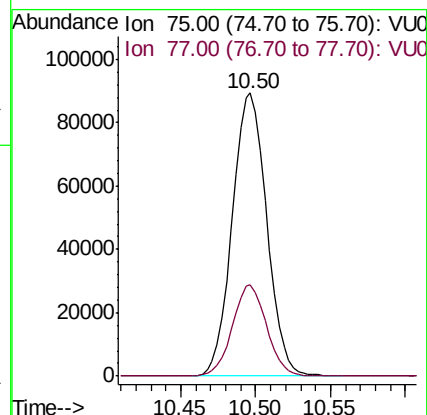
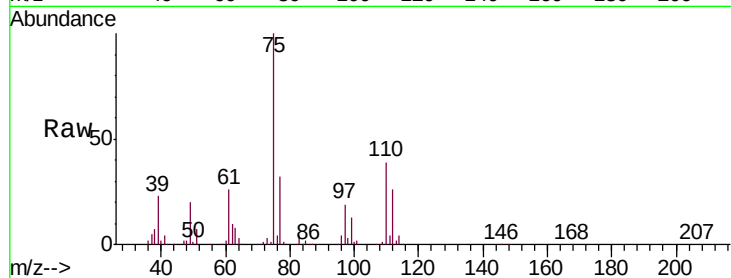
VSTD05066

Tgt Ion: 75 Resp: 143510

Ion Ratio Lower Upper

75 100

77 31.9 26.1 39.1



#61

Bromoform

Concen: 50.411 ug/L

RT: 9.96 min Scan# 2914

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

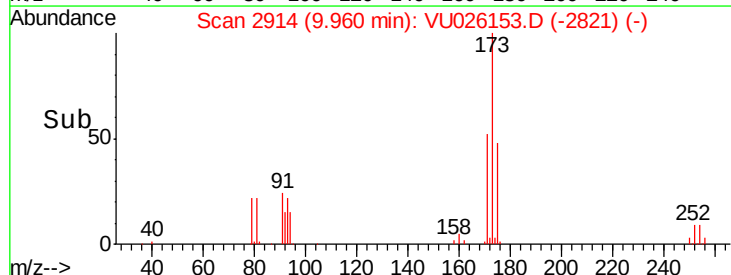
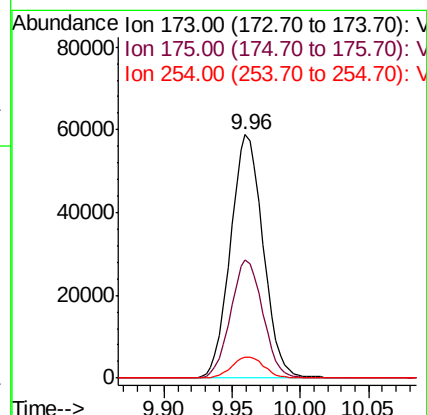
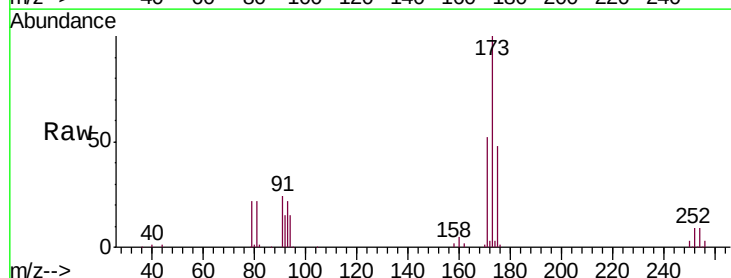
Tgt Ion: 173 Resp: 97866

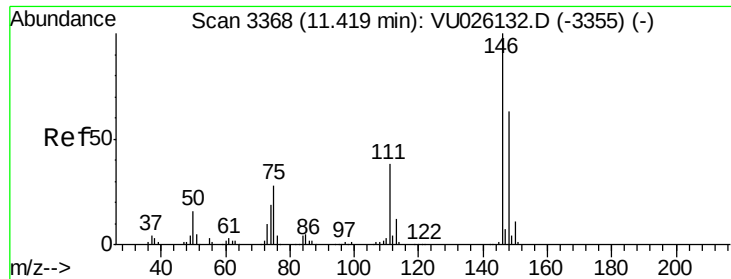
Ion Ratio Lower Upper

173 100

175 48.0 38.8 58.2

254 8.7 7.3 10.9

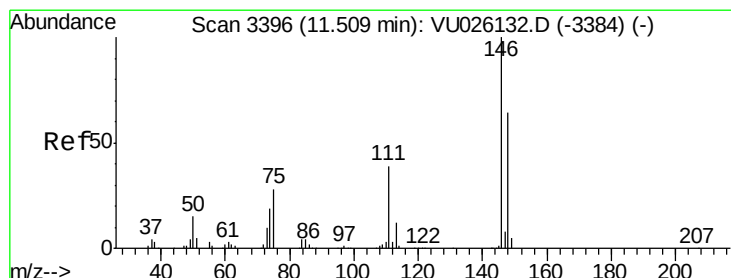
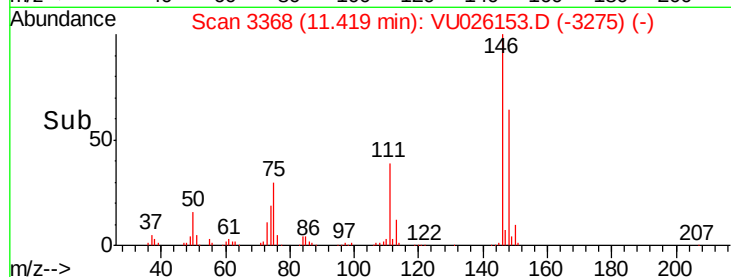
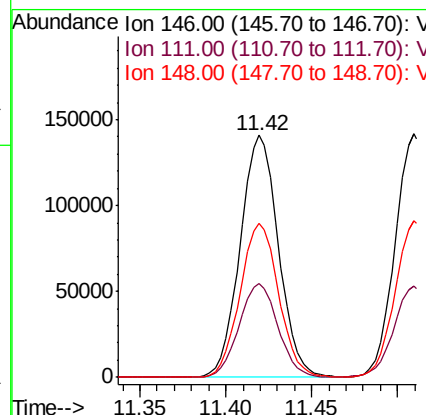
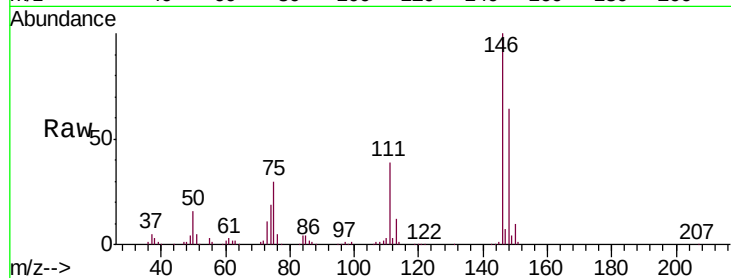




#62  
 1,3-Dichlorobenzene  
 Concen: 48.785 ug/L  
 RT: 11.42 min Scan# 3368  
 Delta R.T. 0.00 min  
 Lab File: VU026153.D  
 Acq: 15 Aug 2018 17:57

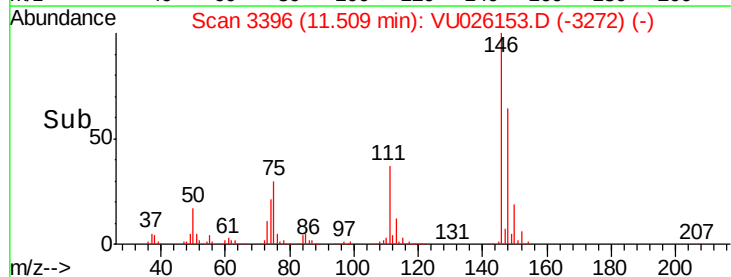
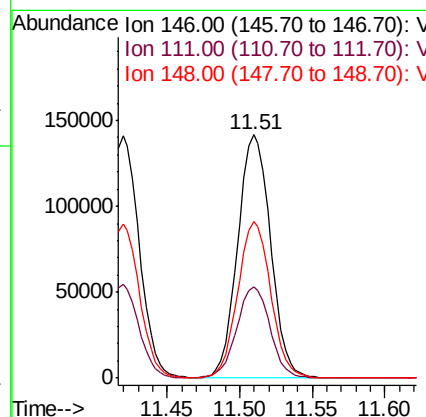
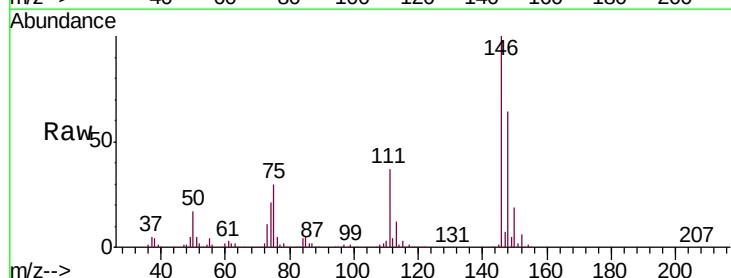
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05066

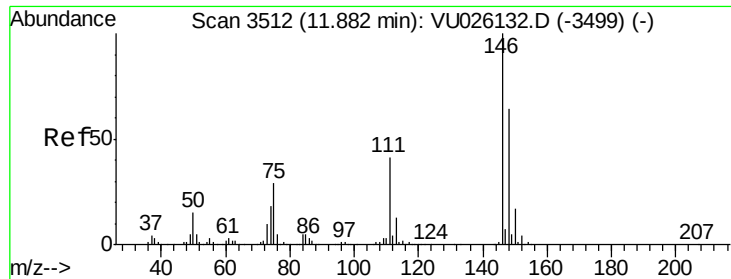
Tgt Ion:146 Resp: 217081  
 Ion Ratio Lower Upper  
 146 100  
 111 39.1 26.7 49.7  
 148 63.8 44.1 81.9



#63  
 1,4-Dichlorobenzene  
 Concen: 48.443 ug/L  
 RT: 11.51 min Scan# 3396  
 Delta R.T. 0.00 min  
 Lab File: VU026153.D  
 Acq: 15 Aug 2018 17:57

Tgt Ion:146 Resp: 222302  
 Ion Ratio Lower Upper  
 146 100  
 111 37.3 27.5 51.1  
 148 64.2 44.8 83.2





#65

1,2-Dichlorobenzene

Concen: 49.774 ug/L

RT: 11.88 min Scan# 3512

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05066

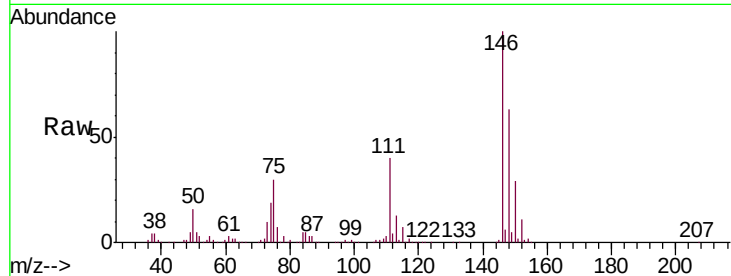
Tgt Ion:146 Resp: 236704

Ion Ratio Lower Upper

146 100

111 40.4 32.7 49.1

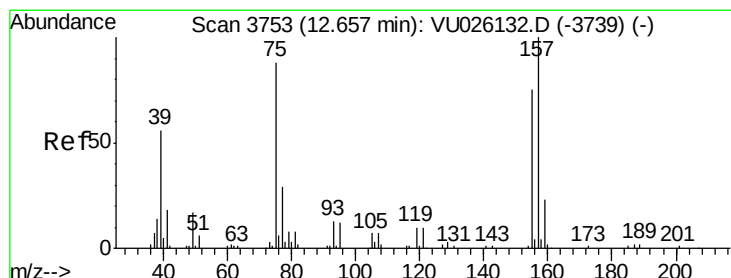
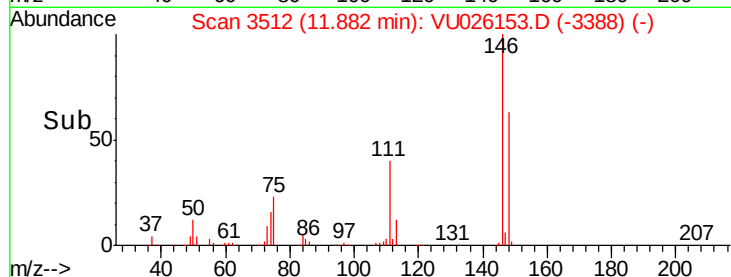
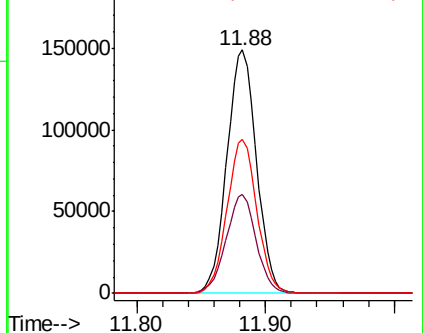
148 63.3 51.4 77.2



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: 52.740 ug/L

RT: 12.66 min Scan# 3753

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

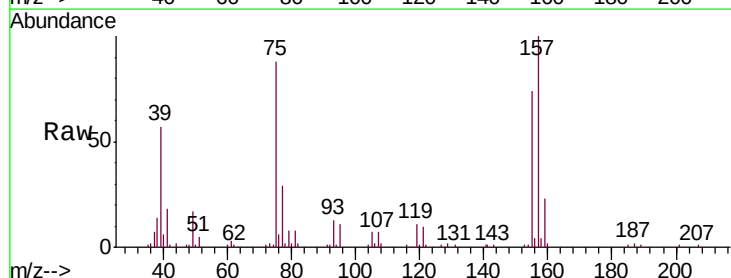
Tgt Ion: 75 Resp: 39766

Ion Ratio Lower Upper

75 100

155 83.7 68.2 102.2

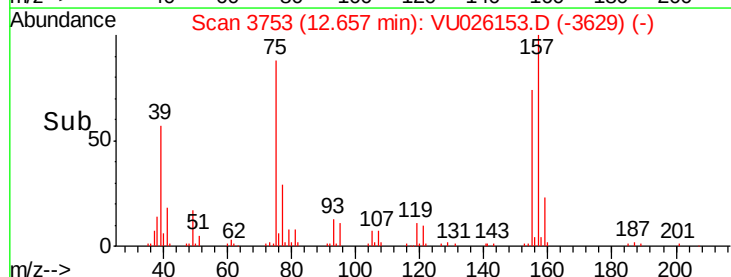
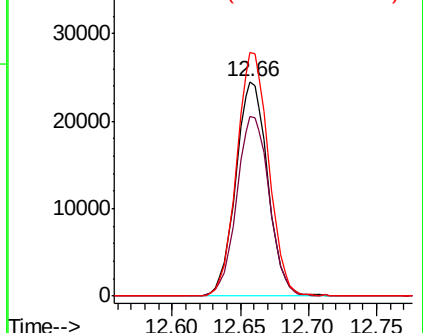
157 113.5 90.5 135.7

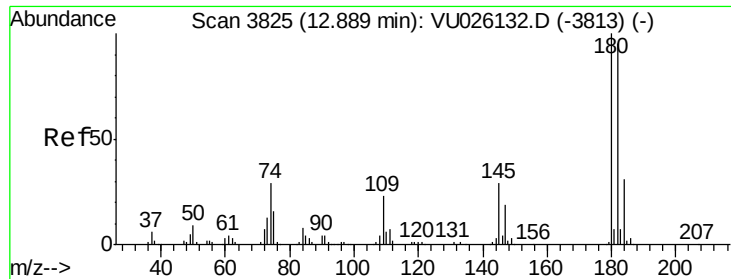


Abundance Ion 75.00 (74.70 to 75.70): VU0

Ion 155.00 (154.70 to 155.70): V

Ion 157.00 (156.70 to 157.70): V

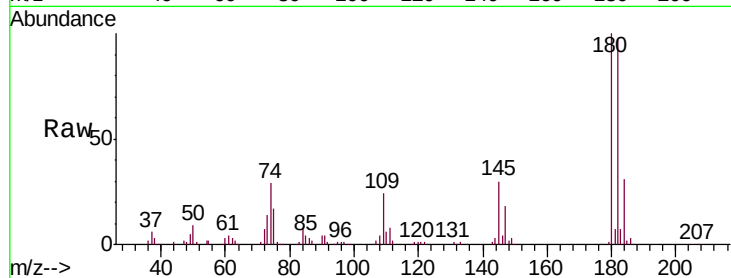




#67  
 1,3,5-Trichlorobenzene  
 Concen: 49.196 ug/L  
 RT: 12.89 min Scan# 3825  
 Delta R.T. 0.00 min  
 Lab File: VU026153.D  
 Acq: 15 Aug 2018 17:57

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05066

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 95.4  | 75.6  | 113.4 |
| 184     | 30.9  | 24.3  | 36.5  |
| 145     | 29.1  | 23.3  | 34.9  |



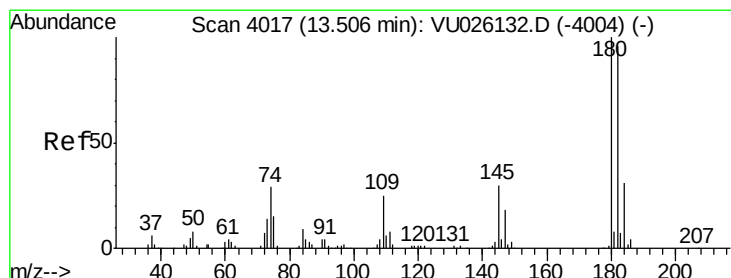
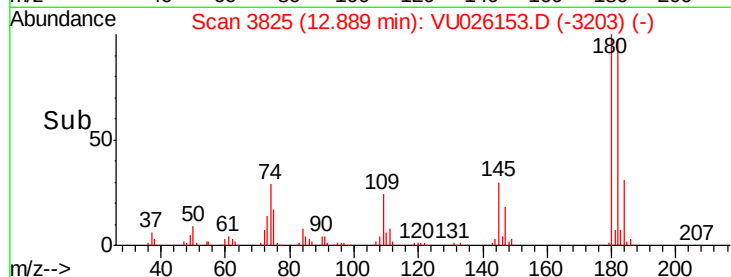
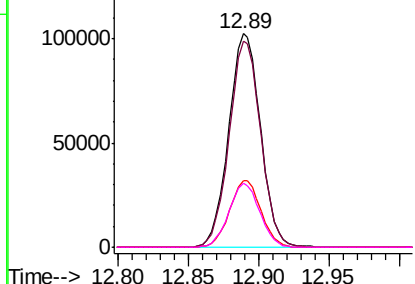
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

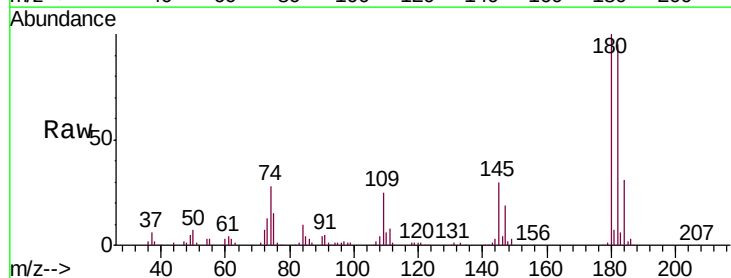
Ion 184.00 (183.70 to 184.70): V

Ion 145.00 (144.70 to 145.70): V



#68  
 1,2,4-trichlorobenzene  
 Concen: 52.173 ug/L  
 RT: 13.51 min Scan# 4017  
 Delta R.T. 0.00 min  
 Lab File: VU026153.D  
 Acq: 15 Aug 2018 17:57

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 95.9  | 76.8  | 115.2 |
| 145     | 29.4  | 23.8  | 35.6  |

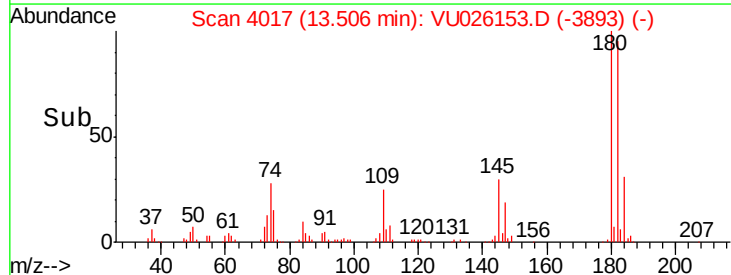
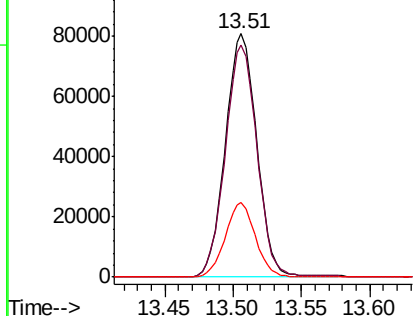


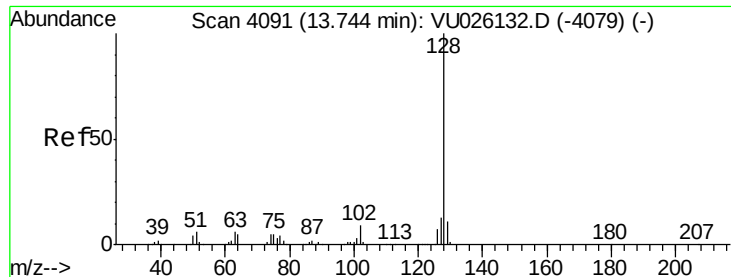
Abundance

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: 58.208 ug/L

RT: 13.74 min Scan# 4091

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05066

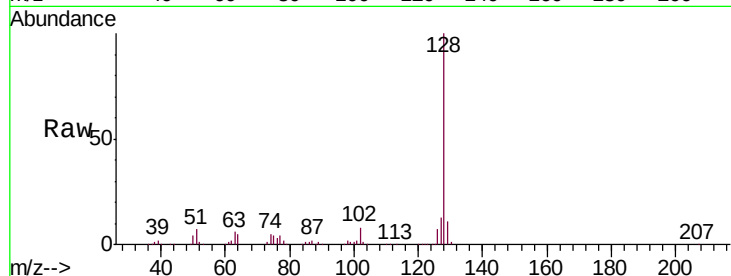
Tgt Ion:128 Resp: 412391

Ion Ratio Lower Upper

128 100

127 13.1 10.3 15.5

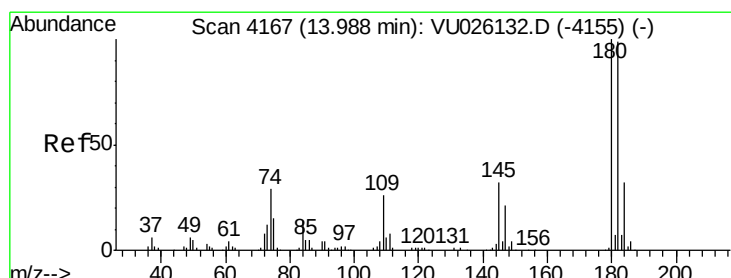
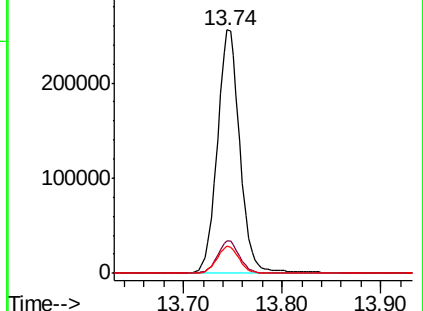
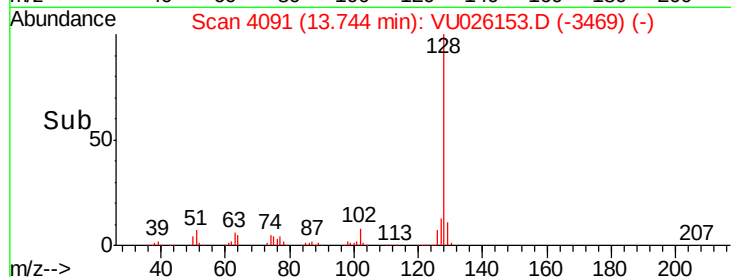
129 10.8 8.6 13.0



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: 53.727 ug/L

RT: 13.99 min Scan# 4167

Delta R.T. 0.00 min

Lab File: VU026153.D

Acq: 15 Aug 2018 17:57

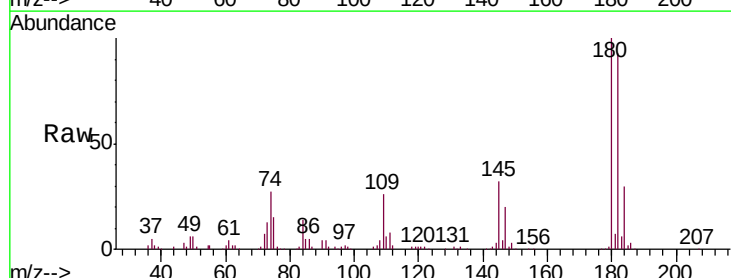
Tgt Ion:180 Resp: 143419

Ion Ratio Lower Upper

180 100

182 96.3 77.1 115.7

145 31.7 25.1 37.7



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

