

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_U\DATA\VU032219\  
 Data File : VU030295.D  
 Acq On : 22 Mar 2019 10:06  
 Operator : JC/SP  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_U/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05053

Quant Time: Mar 23 02:31:38 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM031919WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Mar 22 05:14:44 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.88  | 114  | 528453   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.09  | 117  | 511426   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 261370   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |         |
|--------------------------------|---------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.40    | 65    | 163986   | 45.89    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 91.78%  |
| 7) Chloroethane-d5             | 1.68    | 69    | 138497   | 48.47    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 96.94%  |
| 11) 1,1-Dichloroethene-d2      | 2.27    | 63    | 311814   | 47.83    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 95.66%  |
| 21) 2-Butanone-d5              | 4.17    | 46    | 275619   | 103.97   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 103.97% |
| 24) Chloroform-d               | 4.64    | 84    | 324218   | 49.44    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 98.88%  |
| 26) 1,2-Dichloroethane-d4      | 5.31    | 65    | 186851   | 49.96    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 99.92%  |
| 32) Benzene-d6                 | 5.34    | 84    | 675305   | 50.11    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 100.22% |
| 36) 1,2-Dichloropropane-d6     | 6.33    | 67    | 210217   | 50.41    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 100.82% |
| 41) Toluene-d8                 | 7.56    | 98    | 623997   | 49.24    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 98.48%  |
| 43) trans-1,3-Dichloropropene- | 7.85    | 79    | 102095   | 50.28    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 100.56% |
| 47) 2-Hexanone-d5              | 8.31    | 63    | 223481   | 103.34   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 103.34% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.43   | 84    | 329444   | 51.50    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 103.00% |
| 64) 1,2-Dichlorobenzene-d4     | 11.86   | 152   | 259647   | 49.48    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 98.96%  |

## Target Compounds

|                                |      |     |        |         | Qvalue   |
|--------------------------------|------|-----|--------|---------|----------|
| 2) Dichlorodifluoromethane     | 1.21 | 85  | 225213 | 50.336  | ug/L 100 |
| 3) Chloromethane               | 1.33 | 50  | 218865 | 50.537  | ug/L 99  |
| 5) Vinyl chloride              | 1.40 | 62  | 233392 | 50.767  | ug/L 99  |
| 6) Bromomethane                | 1.62 | 94  | 133766 | 53.766  | ug/L 98  |
| 8) Chloroethane                | 1.70 | 64  | 138171 | 50.833  | ug/L 99  |
| 9) Trichlorofluoromethane      | 1.88 | 101 | 297647 | 50.981  | ug/L 100 |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.29 | 101 | 182831 | 51.500  | ug/L 99  |
| 12) 1,1-Dichloroethene         | 2.28 | 96  | 178475 | 50.622  | ug/L 97  |
| 13) Acetone                    | 2.32 | 43  | 288525 | 104.159 | ug/L 99  |
| 14) Carbon disulfide           | 2.48 | 76  | 505344 | 47.990  | ug/L 99  |
| 15) Methyl Acetate             | 2.61 | 43  | 202074 | 50.165  | ug/L 98  |
| 16) Methylene chloride         | 2.70 | 84  | 199048 | 49.780  | ug/L 98  |
| 17) trans-1,2-Dichloroethene   | 2.98 | 96  | 186390 | 50.166  | ug/L 98  |
| 18) Methyl tert-butyl Ether    | 3.00 | 73  | 549496 | 51.413  | ug/L 99  |
| 19) 1,1-Dichloroethane         | 3.44 | 63  | 330489 | 51.714  | ug/L 98  |
| 20) cis-1,2-Dichloroethene     | 4.22 | 96  | 206377 | 50.697  | ug/L 98  |
| 22) 2-Butanone                 | 4.26 | 43  | 346441 | 106.413 | ug/L 98  |

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 Operator : JC/SP  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_U/WATER  
 ALS Vial : 2 Sample Multiplier: 1

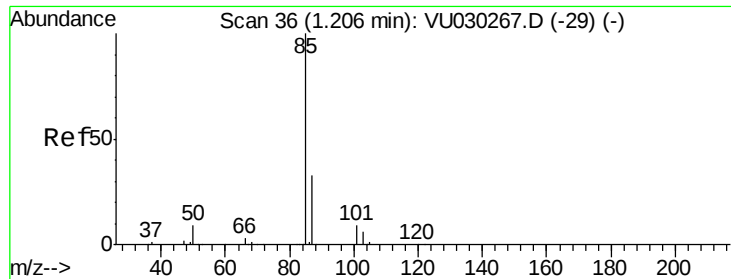
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05053

Quant Time: Mar 23 02:31:38 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM031919WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Mar 22 05:14:44 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 23) Bromochloromethane         | 4.55  | 128  | 111075   | 50.981  | ug/L  | 99       |
| 25) Chloroform                 | 4.67  | 83   | 342528   | 51.447  | ug/L  | 97       |
| 27) 1,2-Dichloroethane         | 5.40  | 62   | 243832   | 51.670  | ug/L  | 99       |
| 29) Cyclohexane                | 4.99  | 56   | 295515   | 53.180  | ug/L  | 99       |
| 30) 1,1,1-Trichloroethane      | 4.91  | 97   | 286637   | 52.005  | ug/L  | 99       |
| 31) Carbon tetrachloride       | 5.13  | 117  | 249604   | 51.154  | ug/L  | 100      |
| 33) Benzene                    | 5.39  | 78   | 774409   | 52.483  | ug/L  | 100      |
| 34) Trichloroethene            | 6.18  | 95   | 198547   | 51.052  | ug/L  | 98       |
| 35) Methylcyclohexane          | 6.41  | 83   | 324409   | 53.195  | ug/L  | 100      |
| 37) 1,2-Dichloropropane        | 6.43  | 63   | 201306   | 53.270  | ug/L  | 99       |
| 38) Bromodichloromethane       | 6.75  | 83   | 254227   | 52.324  | ug/L  | 97       |
| 39) cis-1,3-Dichloropropene    | 7.27  | 75   | 320901   | 52.928  | ug/L  | 99       |
| 40) 4-Methyl-2-pentanone       | 7.46  | 43   | 532857   | 102.599 | ug/L  | 99       |
| 42) Toluene                    | 7.63  | 91   | 853833   | 53.164  | ug/L  | 99       |
| 44) trans-1,3-Dichloropropene  | 7.88  | 75   | 278042   | 52.997  | ug/L  | 97       |
| 45) 1,1,2-Trichloroethane      | 8.06  | 97   | 203512   | 52.464  | ug/L  | 99       |
| 46) Tetrachloroethene          | 8.22  | 164  | 172531   | 52.506  | ug/L  | 99       |
| 48) 2-Hexanone                 | 8.36  | 43   | 445107   | 103.258 | ug/L  | 99       |
| 49) Dibromochloromethane       | 8.47  | 129  | 224135   | 51.527  | ug/L  | 100      |
| 50) 1,2-Dibromoethane          | 8.58  | 107  | 222098   | 51.643  | ug/L  | 100      |
| 51) Chlorobenzene              | 9.12  | 112  | 550105   | 51.773  | ug/L  | 100      |
| 52) Ethylbenzene               | 9.25  | 91   | 921021   | 52.807  | ug/L  | 100      |
| 53) m,p-Xylene                 | 9.37  | 106  | 358616   | 53.368  | ug/L  | 99       |
| 54) o-xylene                   | 9.78  | 106  | 352992   | 53.439  | ug/L  | 100      |
| 55) Styrene                    | 9.79  | 104  | 608029   | 54.328  | ug/L  | 98       |
| 56) Isopropylbenzene           | 10.16 | 105  | 913438   | 53.486  | ug/L  | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.45 | 83   | 338592   | 51.189  | ug/L  | 99       |
| 59) 1,2,3-Trichloropropane     | 10.49 | 75   | 256950   | 50.309  | ug/L  | 100      |
| 61) Bromoform                  | 9.95  | 173  | 177775   | 52.670  | ug/L  | 100      |
| 62) 1,3-Dichlorobenzene        | 11.41 | 146  | 437212   | 52.430  | ug/L  | 98       |
| 63) 1,4-Dichlorobenzene        | 11.50 | 146  | 449408   | 51.956  | ug/L  | 100      |
| 65) 1,2-Dichlorobenzene        | 11.87 | 146  | 444777   | 52.205  | ug/L  | 99       |
| 66) 1,2-Dibromo-3-chloropropan | 12.65 | 75   | 72506    | 50.902  | ug/L  | 97       |
| 67) 1,3,5-Trichlorobenzene     | 12.88 | 180  | 343039   | 52.636  | ug/L  | 98       |
| 68) 1,2,4-trichlorobenzene     | 13.50 | 180  | 292565   | 50.764  | ug/L  | 100      |
| 69) Naphthalene                | 13.74 | 128  | 864157   | 47.261  | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene     | 13.98 | 180  | 303425   | 50.457  | ug/L  | 99       |

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





#2

Dichlorodifluoromethane

Concen: 50.336 ug/L

RT: 1.21 min Scan# 36

Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Instrument :

MSVOA\_U

ClientSampleId :

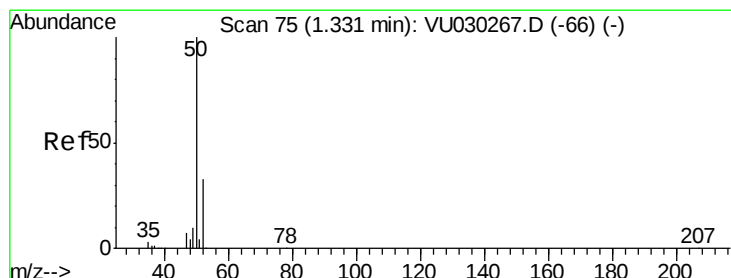
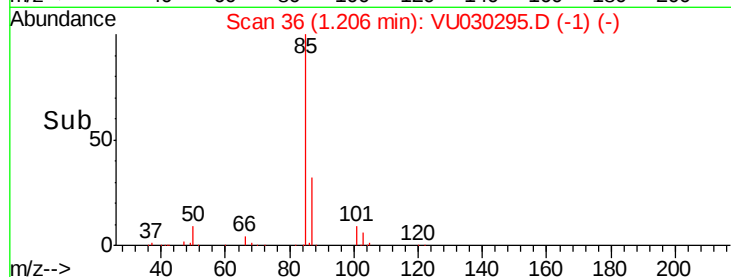
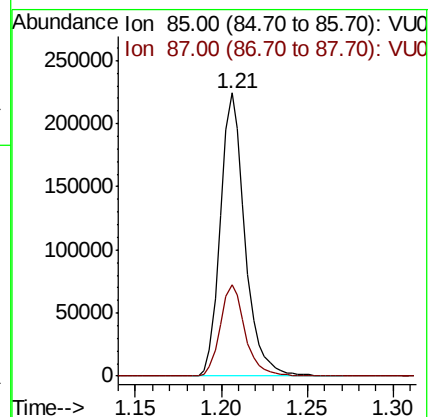
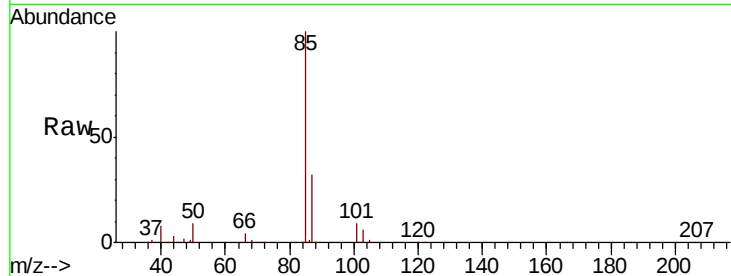
VSTD05053

Tgt Ion: 85 Resp: 225213

Ion Ratio Lower Upper

85 100

87 32.5 26.1 39.1



#3

Chloromethane

Concen: 50.537 ug/L

RT: 1.33 min Scan# 75

Delta R.T. 0.00 min

Lab File: VU030295.D

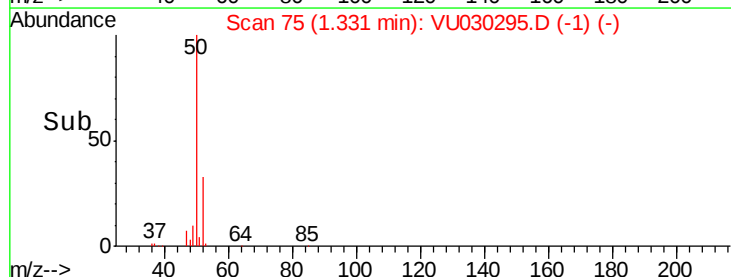
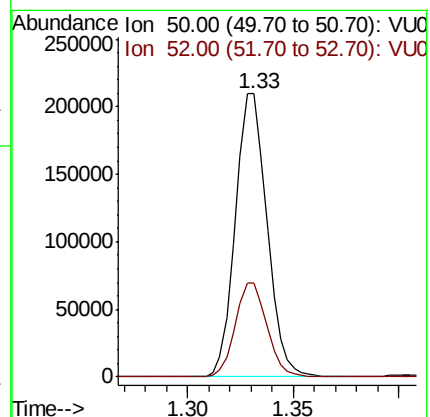
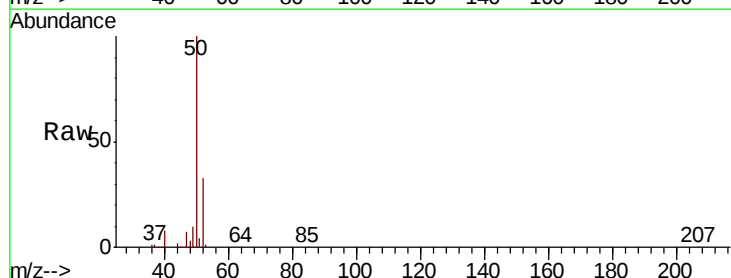
Acq: 22 Mar 2019 10:06

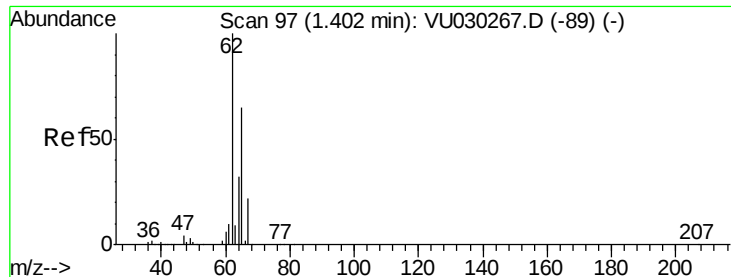
Tgt Ion: 50 Resp: 218865

Ion Ratio Lower Upper

50 100

52 33.2 23.4 43.6





#5

Vinyl chloride

Concen: 50.767 ug/L

RT: 1.40 min Scan# 97

Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Instrument :

MSVOA\_U

ClientSampleId :

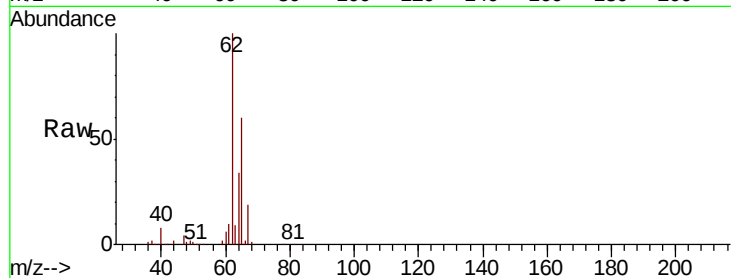
VSTD05053

Tgt Ion: 62 Resp: 233392

Ion Ratio Lower Upper

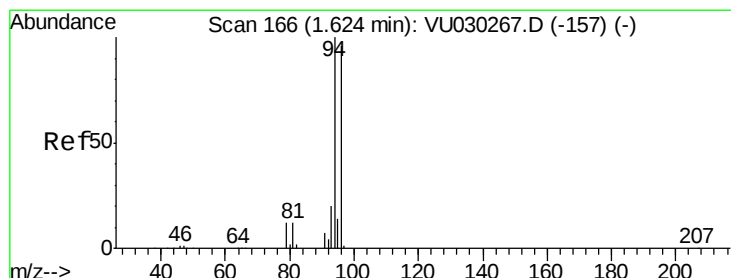
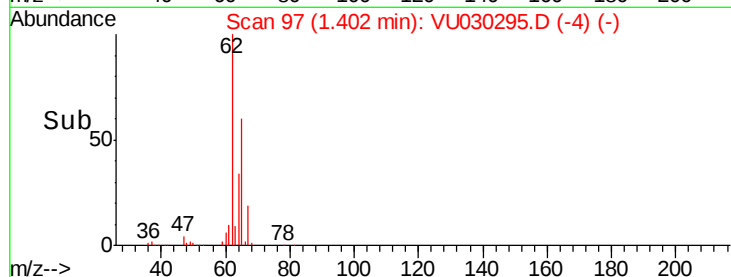
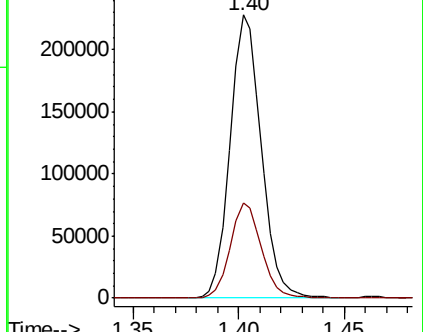
62 100

64 33.5 22.9 42.5



Abundance Ion 62.00 (61.70 to 62.70): VU030267.D (-89) (-)

Ion 64.00 (63.70 to 64.70): VU030267.D (-89) (-)



#6

Bromomethane

Concen: 53.766 ug/L

RT: 1.62 min Scan# 166

Delta R.T. 0.00 min

Lab File: VU030295.D

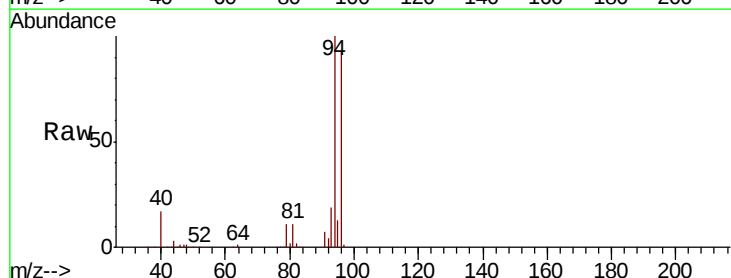
Acq: 22 Mar 2019 10:06

Tgt Ion: 94 Resp: 133766

Ion Ratio Lower Upper

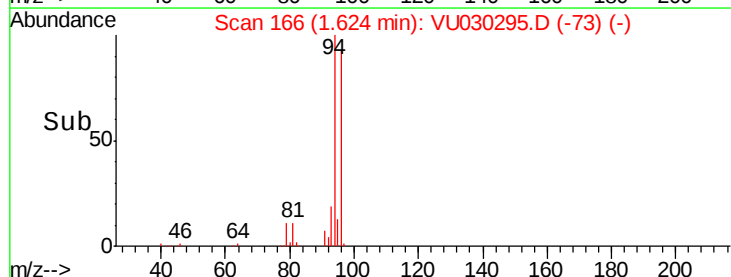
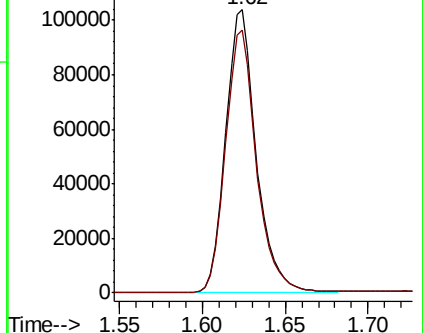
94 100

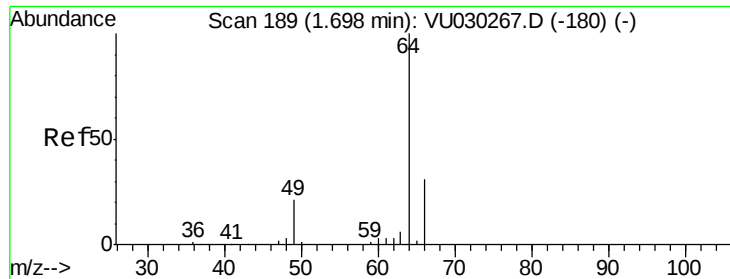
96 92.9 66.6 123.6



Abundance Ion 94.00 (93.70 to 94.70): VU030267.D (-157) (-)

Ion 96.00 (95.70 to 96.70): VU030267.D (-157) (-)

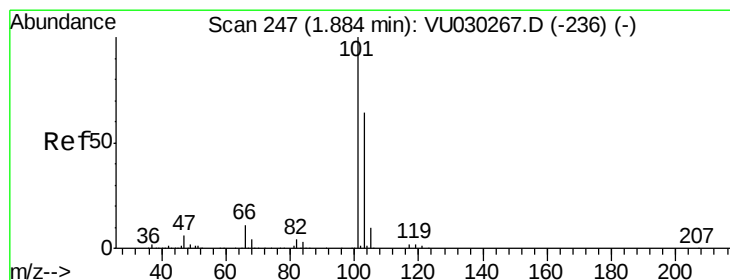
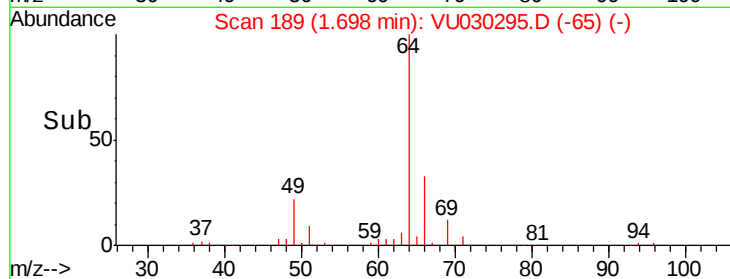
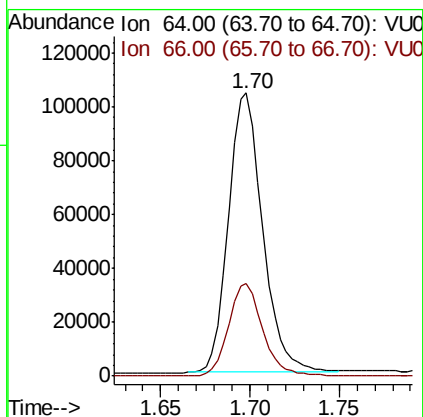
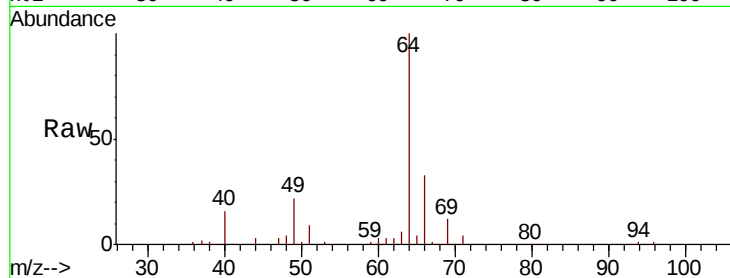




#8  
Chloroethane  
Concen: 50.833 ug/L  
RT: 1.70 min Scan# 189  
Delta R.T. 0.00 min  
Lab File: VU030295.D  
Acq: 22 Mar 2019 10:06

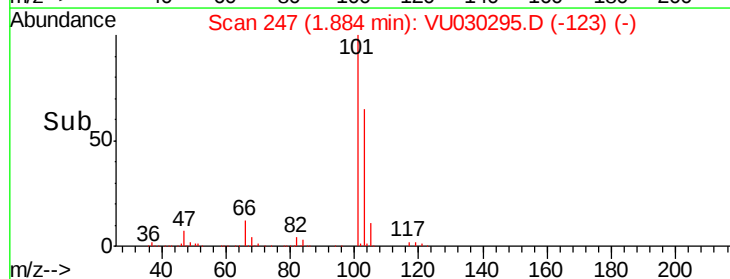
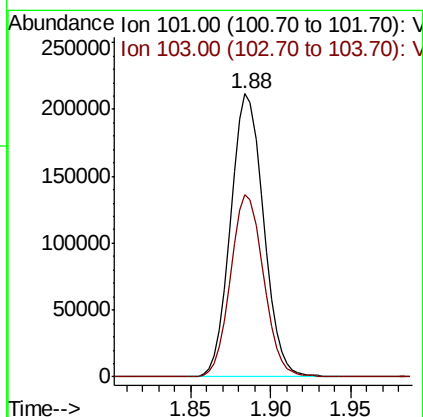
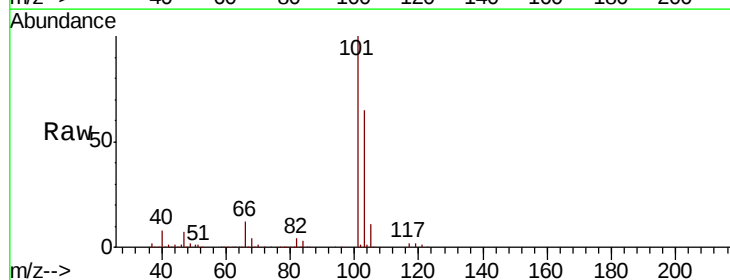
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05053

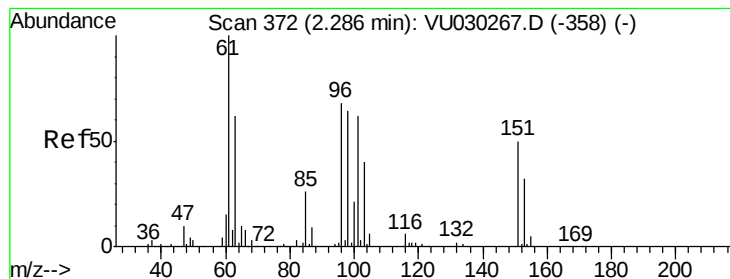
Tgt Ion: 64 Resp: 138171  
Ion Ratio Lower Upper  
64 100  
66 32.7 23.2 43.0



#9  
Trichlorofluoromethane  
Concen: 50.981 ug/L  
RT: 1.88 min Scan# 247  
Delta R.T. 0.00 min  
Lab File: VU030295.D  
Acq: 22 Mar 2019 10:06

Tgt Ion: 101 Resp: 297647  
Ion Ratio Lower Upper  
101 100  
103 64.5 51.6 77.4





#10

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

Concen: 51.500 ug/L

RT: 2.29 min Scan# 372

Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Instrument :

MSVOA\_U

ClientSampled :

VSTD05053

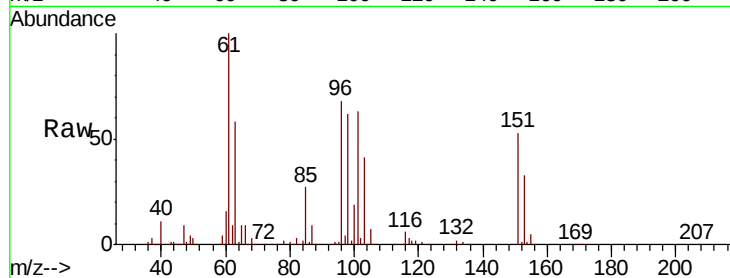
Tgt Ion: 101 Resp: 182831

Ion Ratio Lower Upper

101 100

85 41.5 32.5 48.7

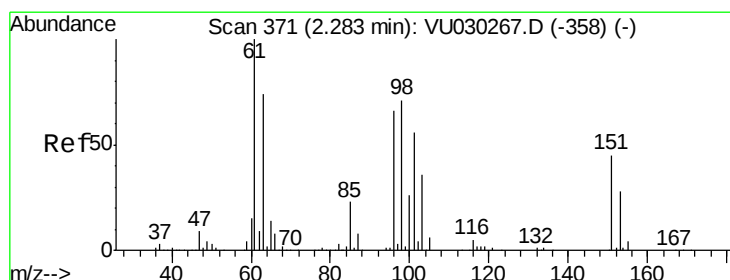
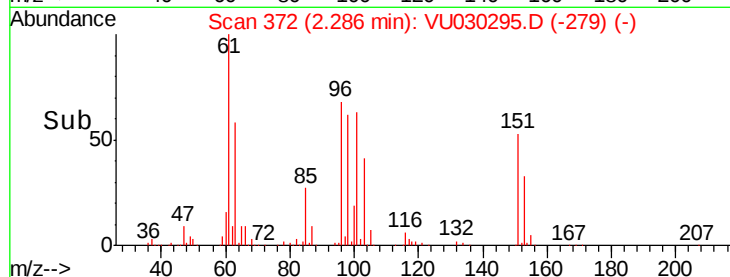
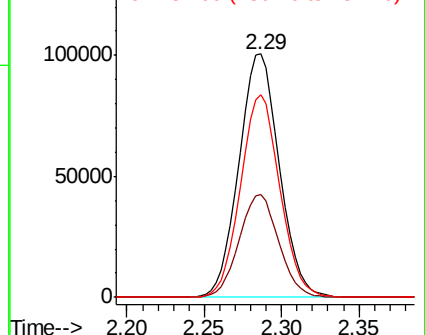
151 81.1 64.7 97.1



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: 50.622 ug/L

RT: 2.28 min Scan# 371

Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

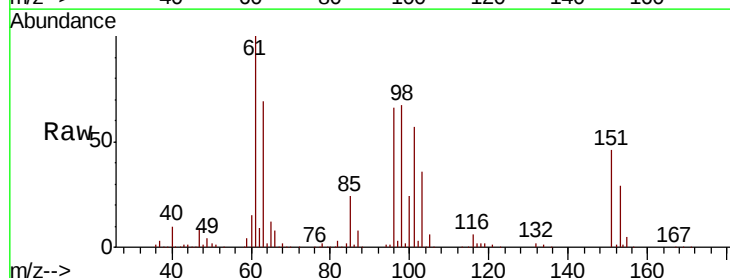
Tgt Ion: 96 Resp: 178475

Ion Ratio Lower Upper

96 100

61 151.4 104.6 194.2

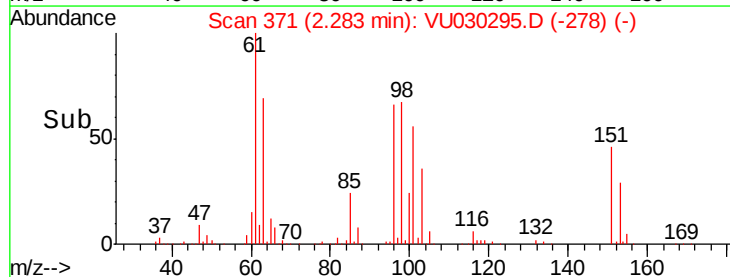
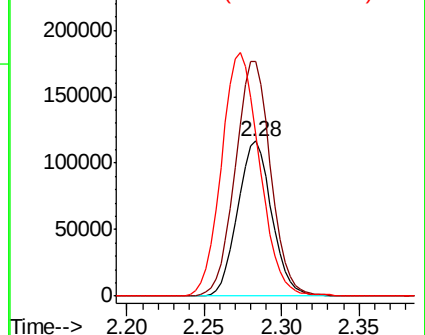
63 104.0 77.2 143.4

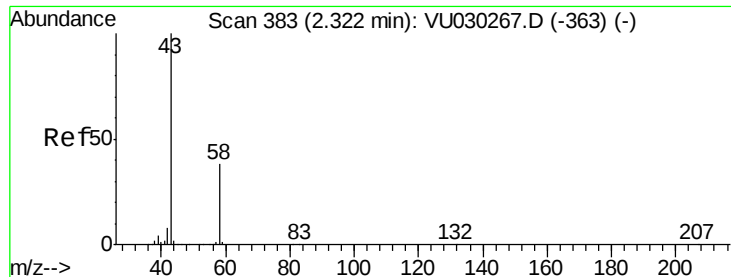


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 104.159 ug/L

RT: 2.32 min Scan# 382

Delta R.T. -0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Instrument :

MSVOA\_U

ClientSampleId :

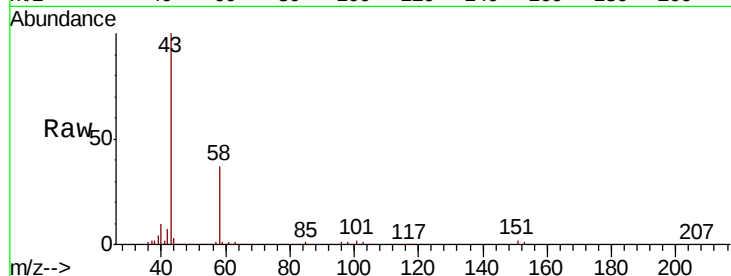
VSTD05053

Tgt Ion: 43 Resp: 288525

Ion Ratio Lower Upper

43 100

58 36.0 0.0 73.4



Abundance Ion 43.00 (42.70 to 43.70): VU030267.D (-363) (-)

Ion 58.00 (57.70 to 58.70): VU030267.D (-363) (-)

2.32

200000

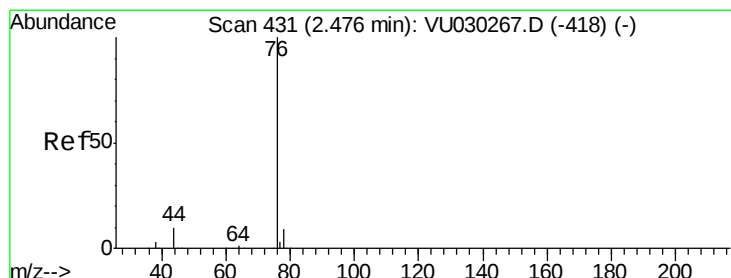
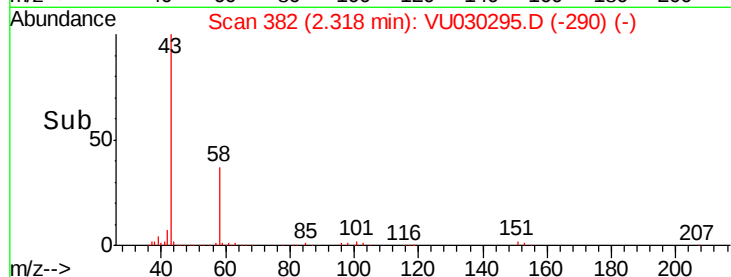
150000

100000

50000

0

Time--> 2.20 2.30 2.40



#14

Carbon disulfide

Concen: 47.990 ug/L

RT: 2.48 min Scan# 431

Delta R.T. 0.00 min

Lab File: VU030295.D

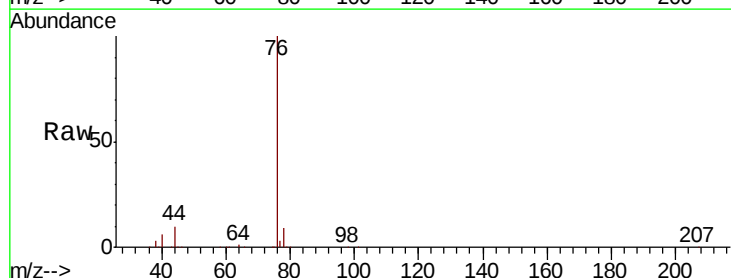
Acq: 22 Mar 2019 10:06

Tgt Ion: 76 Resp: 505344

Ion Ratio Lower Upper

76 100

78 9.2 7.0 10.6



Abundance Ion 76.00 (75.70 to 76.70): VU030267.D (-418) (-)

Ion 78.00 (77.70 to 78.70): VU030267.D (-418) (-)

2.48

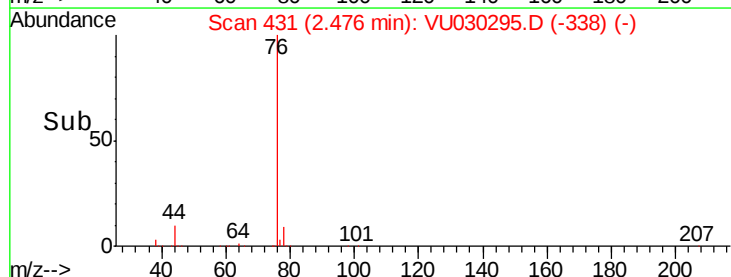
300000

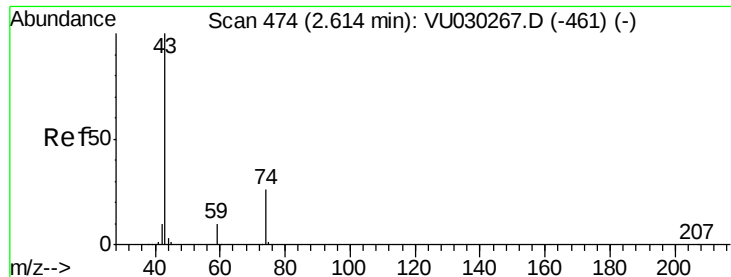
200000

100000

0

Time--> 2.40 2.45 2.50 2.55





#15

Methyl Acetate

Concen: 50.165 ug/L

RT: 2.61 min Scan# 474

Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Instrument :

MSVOA\_U

ClientSampleId :

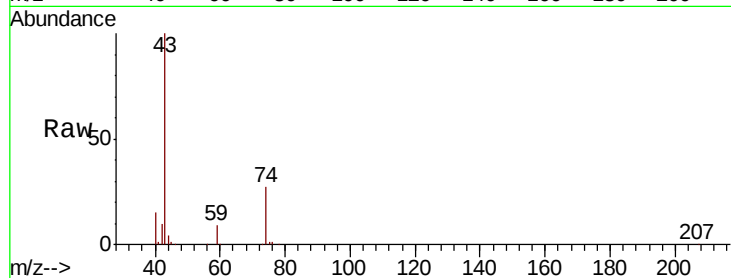
VSTD05053

Tgt Ion: 43 Resp: 202074

Ion Ratio Lower Upper

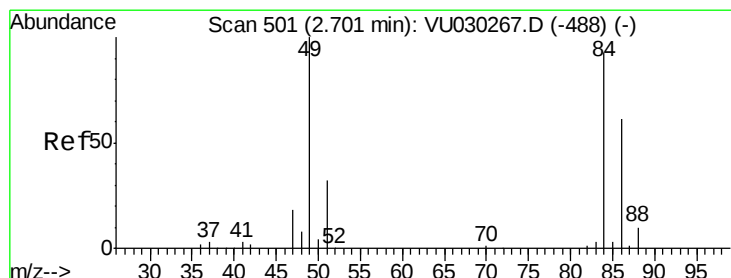
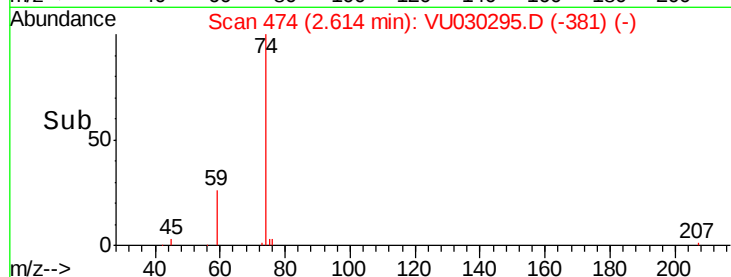
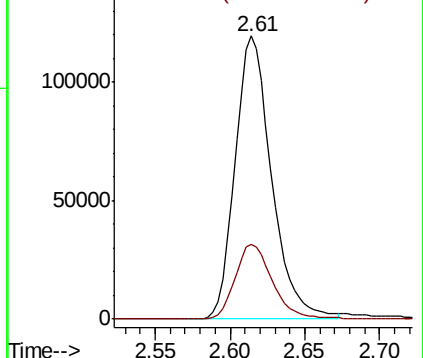
43 100

74 27.1 20.9 31.3



Abundance Ion 43.00 (42.70 to 43.70): VU030267.D (-461) (-)

Ion 74.00 (73.70 to 74.70): VU030267.D (-461) (-)



#16

Methylene chloride

Concen: 49.780 ug/L

RT: 2.70 min Scan# 500

Delta R.T. -0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

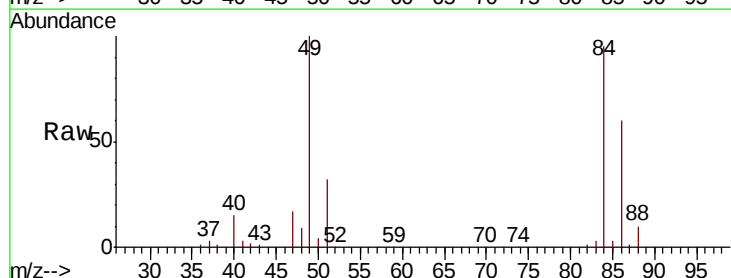
Tgt Ion: 84 Resp: 199048

Ion Ratio Lower Upper

84 100

86 63.1 45.6 84.6

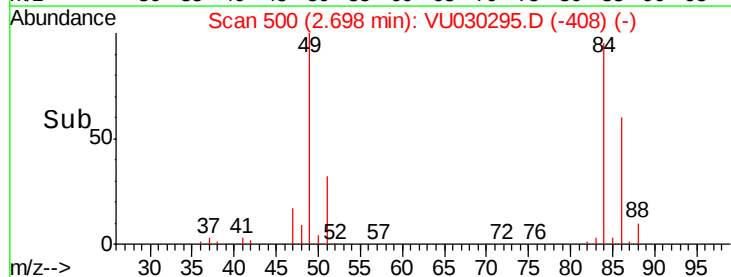
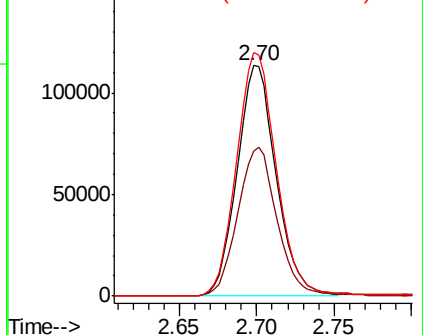
49 105.5 75.2 139.6

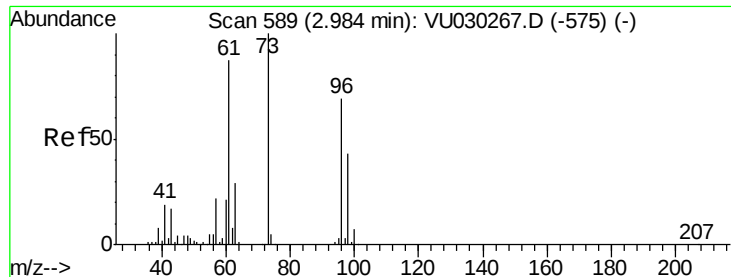


Abundance Ion 84.00 (83.70 to 84.70): VU030267.D (-488) (-)

Ion 86.00 (85.70 to 86.70): VU030267.D (-488) (-)

Ion 49.00 (48.70 to 49.70): VU030267.D (-488) (-)





#17

trans-1,2-Dichloroethene

Concen: 50.166 ug/L

RT: 2.98 min Scan# 588

Delta R.T. -0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05053

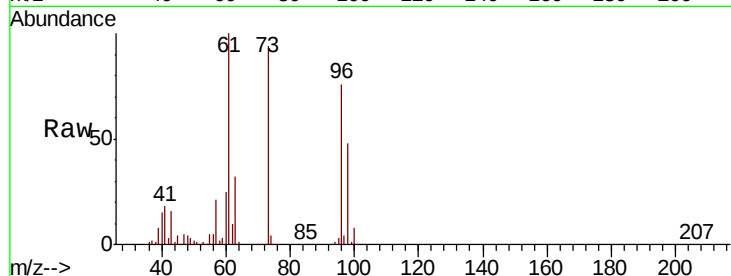
Tgt Ion: 96 Resp: 186390

Ion Ratio Lower Upper

96 100

61 132.3 90.9 168.9

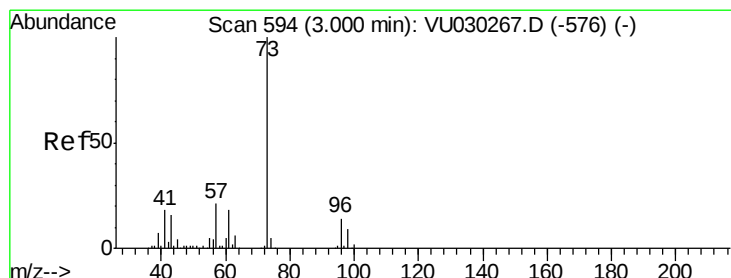
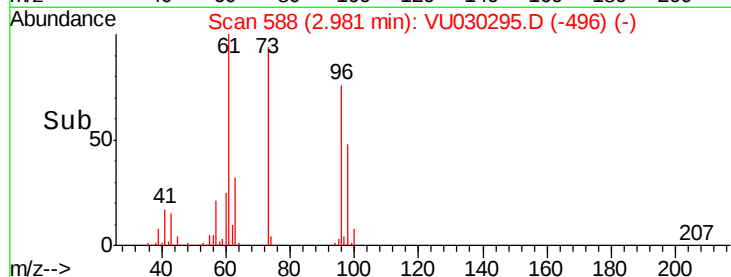
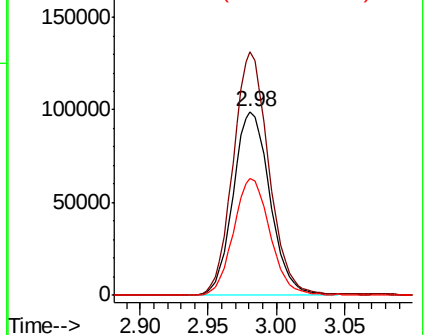
98 63.8 45.6 84.6



Abundance Ion 96.00 (95.70 to 96.70): VU030267.D (-575) (-)

Ion 61.00 (60.70 to 61.70): VU030267.D (-575) (-)

Ion 98.00 (97.70 to 98.70): VU030267.D (-575) (-)



#18

Methyl tert-butyl Ether

Concen: 51.413 ug/L

RT: 3.00 min Scan# 593

Delta R.T. -0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

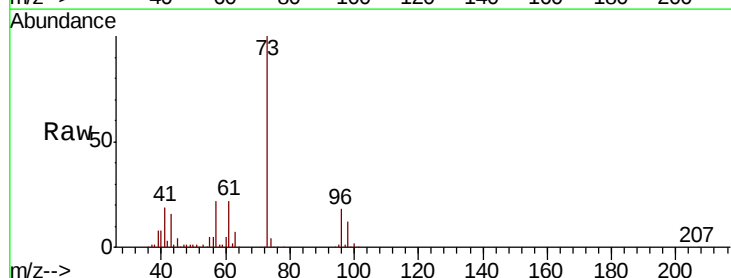
Tgt Ion: 73 Resp: 549496

Ion Ratio Lower Upper

73 100

43 16.1 13.1 19.7

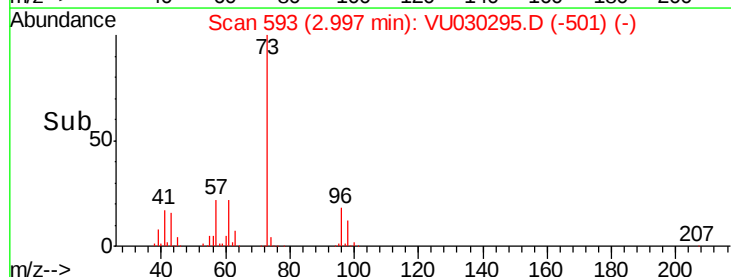
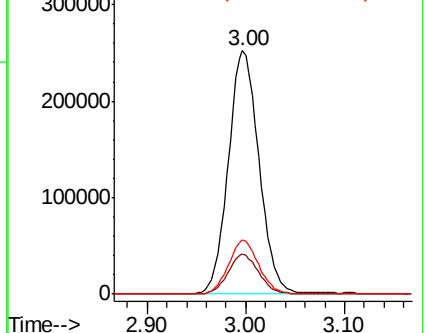
57 21.9 17.1 25.7

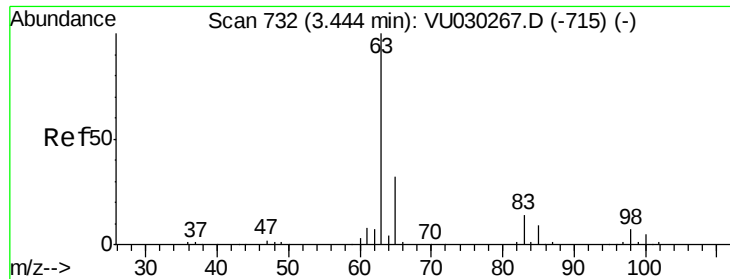


Abundance Ion 73.00 (72.70 to 73.70): VU030267.D (-576) (-)

Ion 43.00 (42.70 to 43.70): VU030267.D (-576) (-)

Ion 57.00 (56.70 to 57.70): VU030267.D (-576) (-)

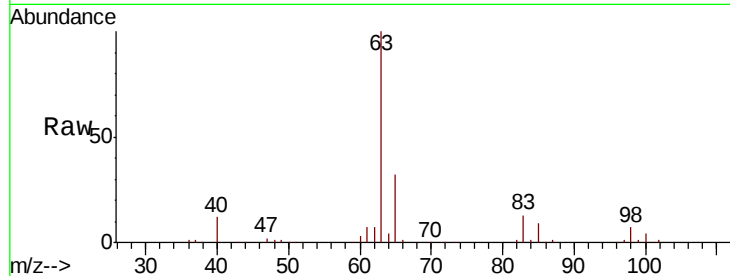




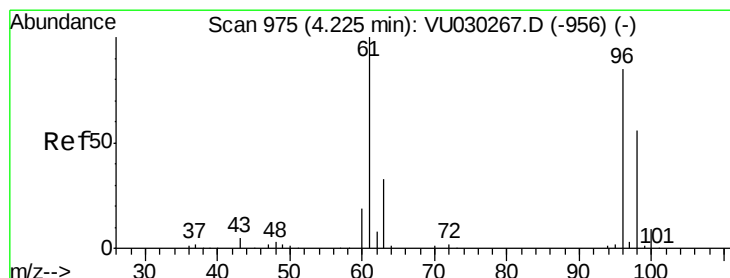
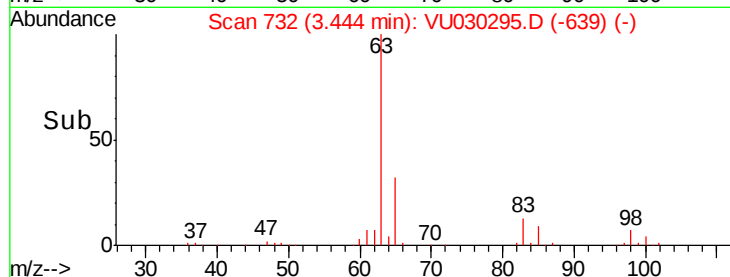
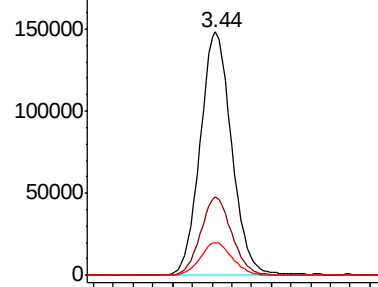
#19  
 1,1-Dichloroethane  
 Concen: 51.714 ug/L  
 RT: 3.44 min Scan# 732  
 Delta R.T. 0.00 min  
 Lab File: VU030295.D  
 Acq: 22 Mar 2019 10:06

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05053

Tgt Ion: 63 Resp: 330489  
 Ion Ratio Lower Upper  
 63 100  
 65 32.1 21.8 40.4  
 83 13.4 9.9 18.3

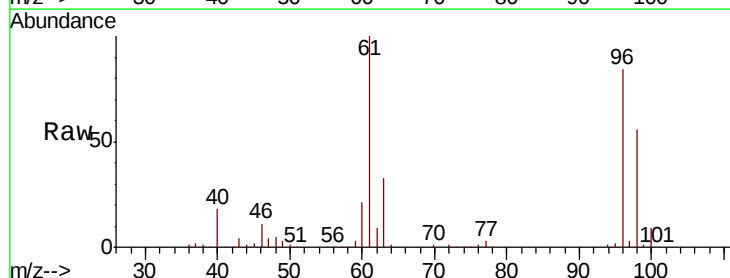


Abundance Ion 63.00 (62.70 to 63.70): VU0  
 Ion 65.00 (64.70 to 65.70): VU0  
 Ion 83.00 (82.70 to 83.70): VU0

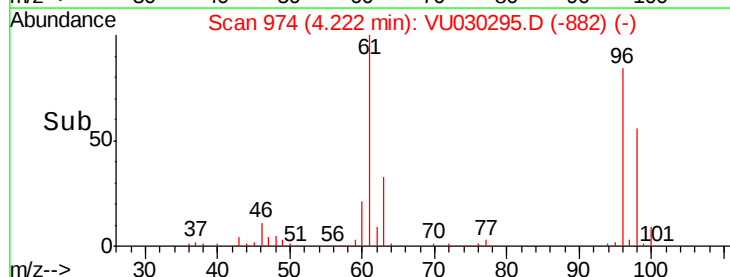
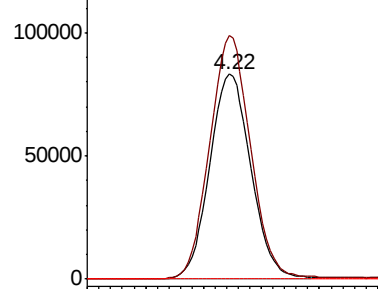


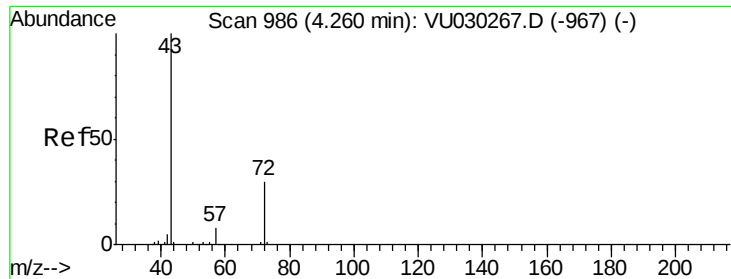
#20  
 cis-1,2-Dichloroethene  
 Concen: 50.697 ug/L  
 RT: 4.22 min Scan# 974  
 Delta R.T. -0.00 min  
 Lab File: VU030295.D  
 Acq: 22 Mar 2019 10:06

Tgt Ion: 96 Resp: 206377  
 Ion Ratio Lower Upper  
 96 100  
 61 118.7 81.5 151.3  
 68 0.0 0.0 0.0



Abundance Ion 96.00 (95.70 to 96.70): VU0  
 Ion 61.00 (60.70 to 61.70): VU0  
 Ion 68.00 (67.70 to 68.70): VU0





#22

2-Butanone

Concen: 106.413 ug/L

RT: 4.26 min Scan# 985

Delta R.T. -0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Instrument :

MSVOA\_U

ClientSampled :

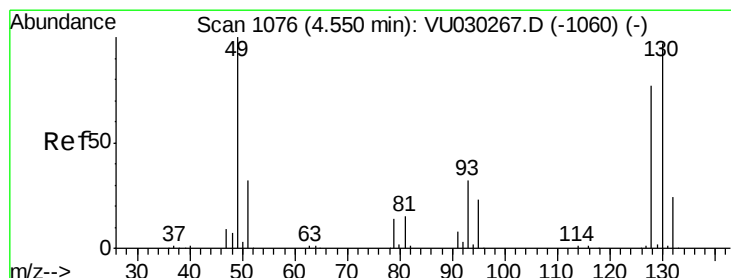
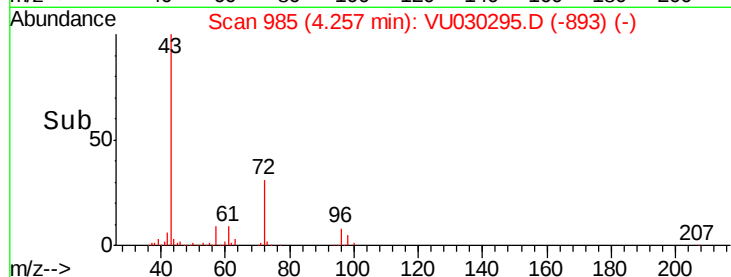
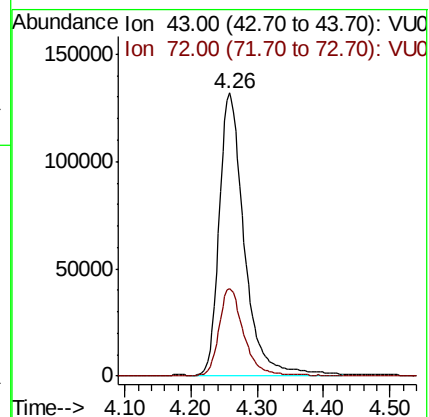
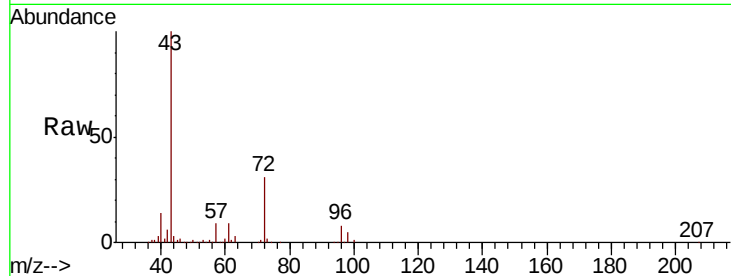
VSTD05053

Tgt Ion: 43 Resp: 346441

Ion Ratio Lower Upper

43 100

72 30.5 15.7 47.1



#23

Bromochloromethane

Concen: 50.981 ug/L

RT: 4.55 min Scan# 1075

Delta R.T. -0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Tgt Ion: 128 Resp: 111075

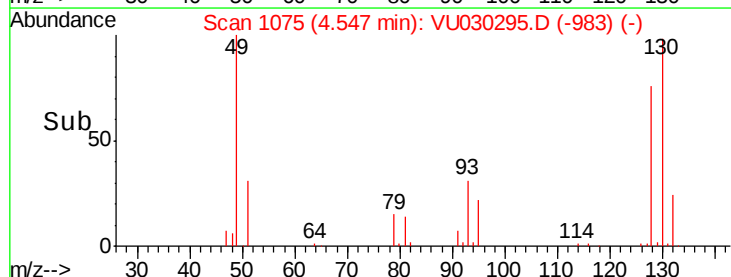
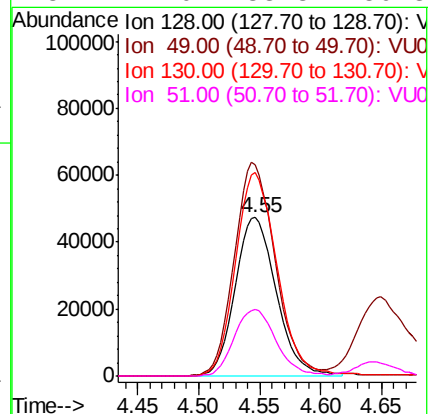
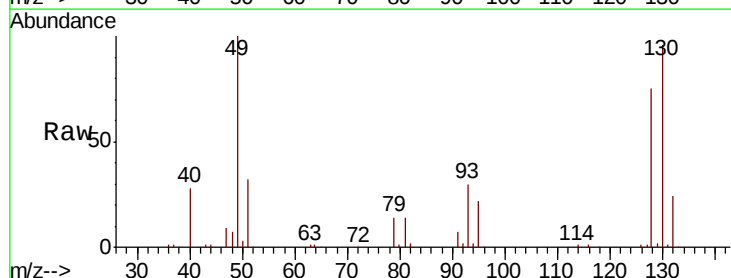
Ion Ratio Lower Upper

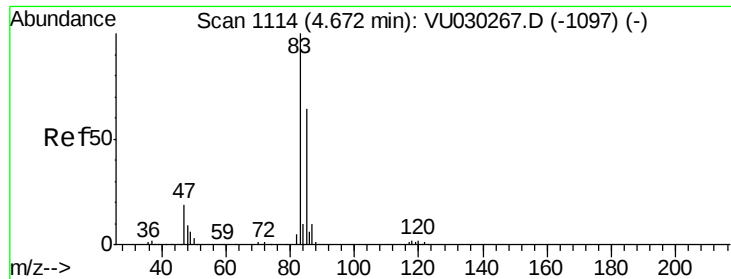
128 100

49 133.0 92.5 171.9

130 128.0 90.1 167.3

51 42.0 33.8 50.8





#25

Chloroform

Concen: 51.447 ug/L

RT: 4.67 min Scan# 1113

Delta R.T. -0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Instrument :

MSVOA\_U

ClientSampleId :

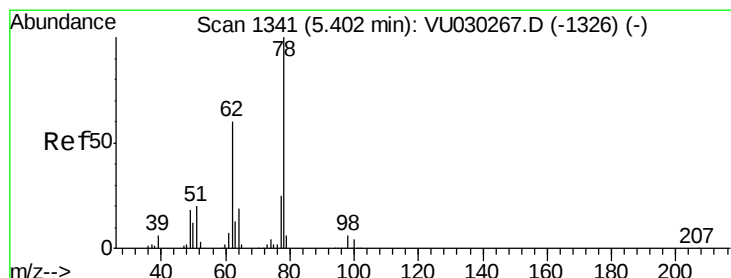
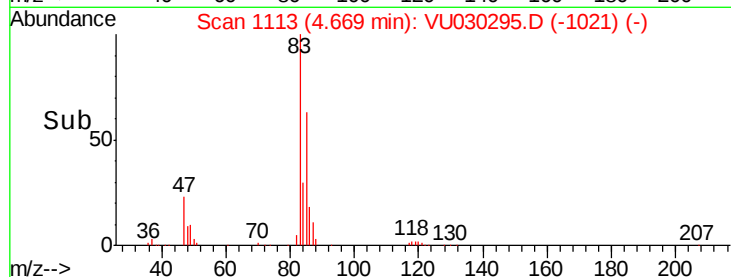
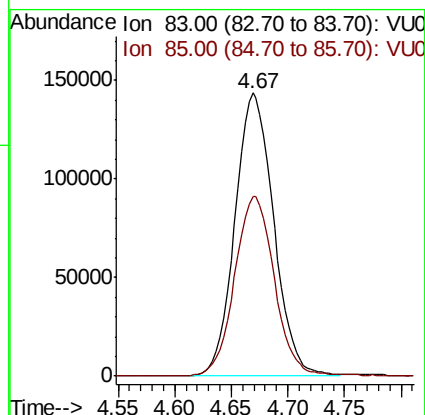
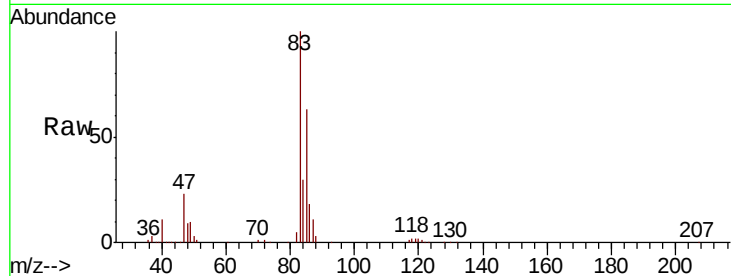
VSTD05053

Tgt Ion: 83 Resp: 342528

Ion Ratio Lower Upper

83 100

85 63.4 45.8 85.2



#27

1,2-Dichloroethane

Concen: 51.670 ug/L

RT: 5.40 min Scan# 1341

Delta R.T. 0.00 min

Lab File: VU030295.D

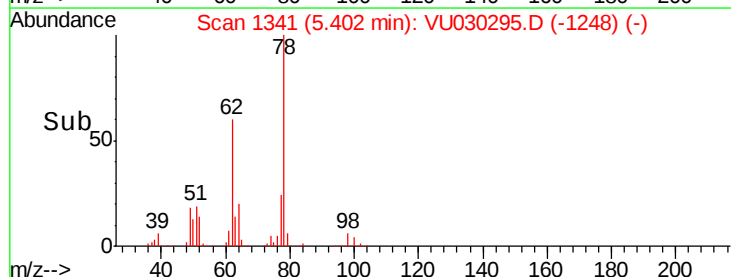
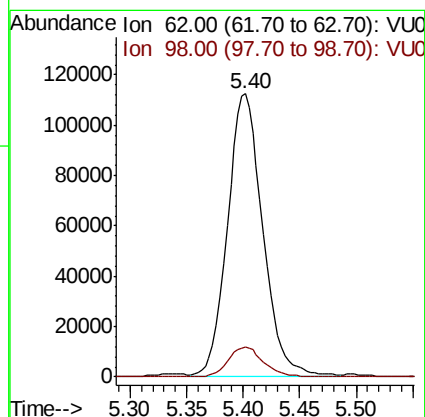
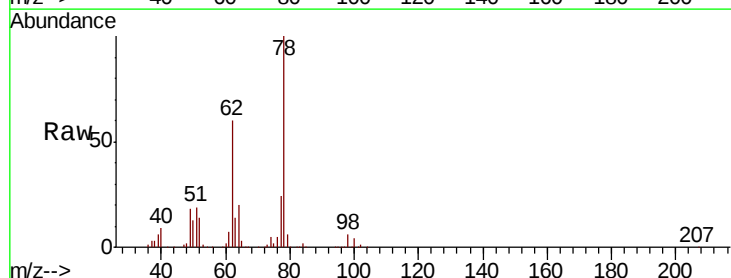
Acq: 22 Mar 2019 10:06

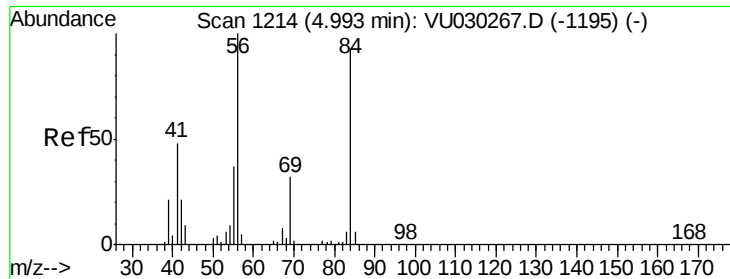
Tgt Ion: 62 Resp: 243832

Ion Ratio Lower Upper

62 100

98 10.4 8.6 12.8

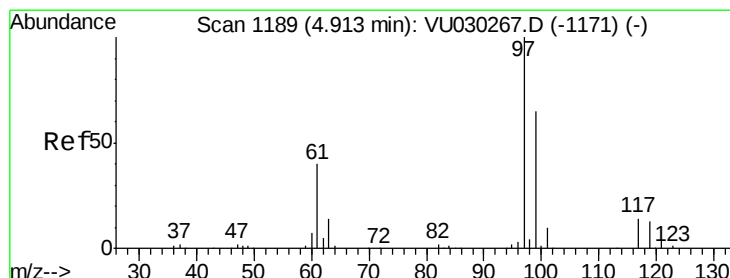
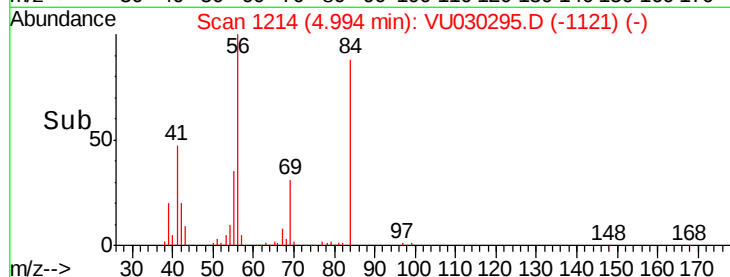
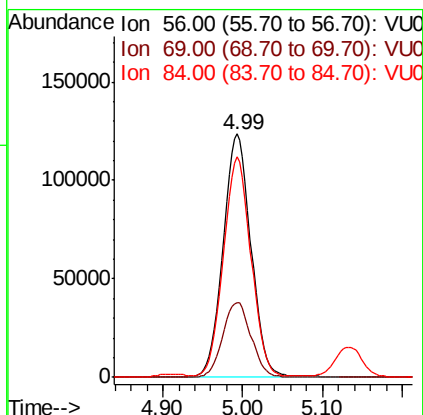
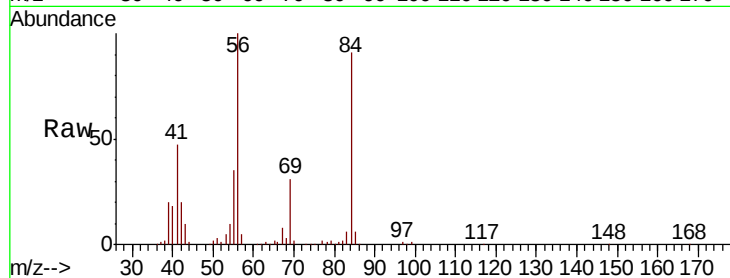




#29  
Cyclohexane  
Concen: 53.180 ug/L  
RT: 4.99 min Scan# 1214  
Delta R.T. 0.00 min  
Lab File: VU030295.D  
Acq: 22 Mar 2019 10:06

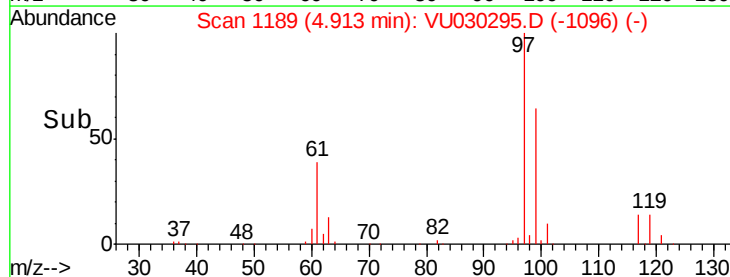
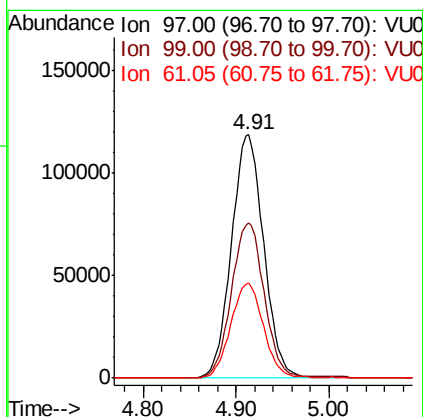
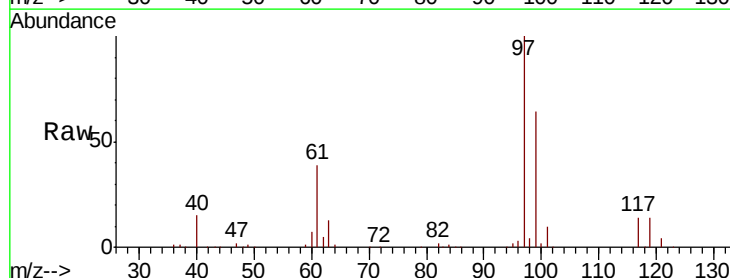
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05053

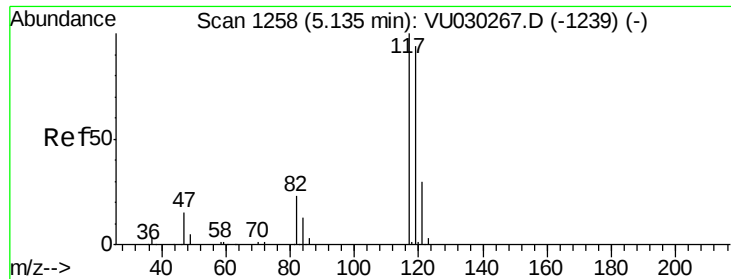
Tgt Ion: 56 Resp: 295515  
Ion Ratio Lower Upper  
56 100  
69 31.1 25.4 38.2  
84 88.2 71.5 107.3



#30  
1,1,1-Trichloroethane  
Concen: 52.005 ug/L  
RT: 4.91 min Scan# 1189  
Delta R.T. 0.00 min  
Lab File: VU030295.D  
Acq: 22 Mar 2019 10:06

Tgt Ion: 97 Resp: 286637  
Ion Ratio Lower Upper  
97 100  
99 64.9 51.8 77.6  
61 39.6 32.7 49.1





#31

Carbon tetrachloride

Concen: 51.154 ug/L

RT: 5.13 min Scan# 1257

Delta R.T. -0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Instrument :

MSVOA\_U

ClientSampleId :

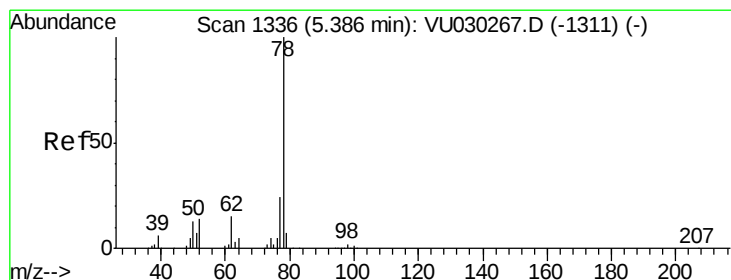
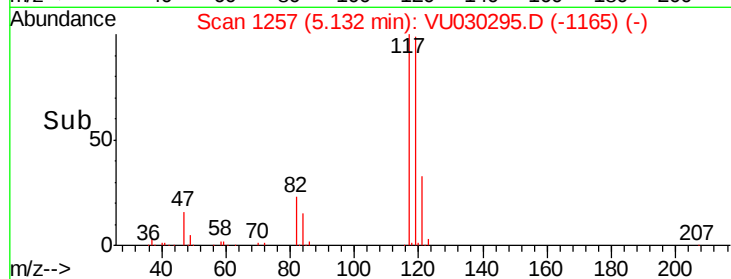
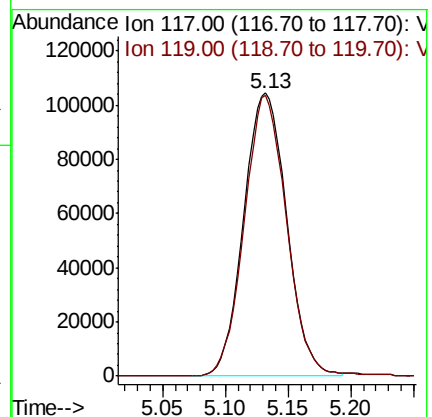
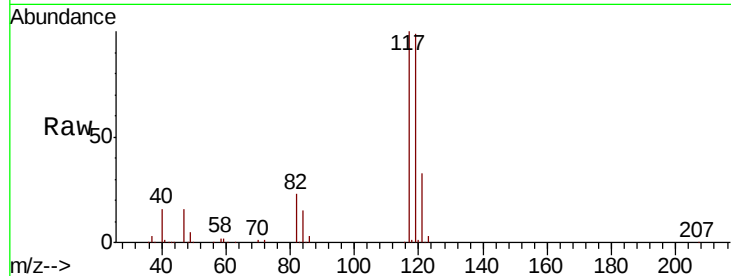
VSTD05053

Tgt Ion:117 Resp: 249604

Ion Ratio Lower Upper

117 100

119 96.8 77.1 115.7



#33

Benzene

Concen: 52.483 ug/L

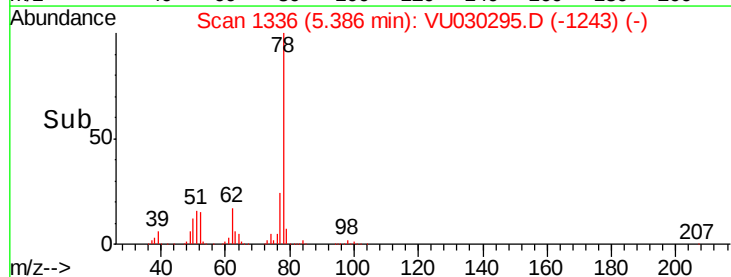
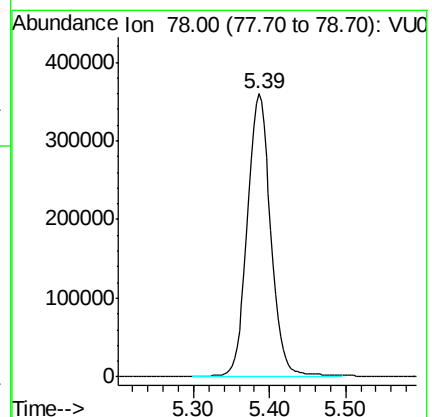
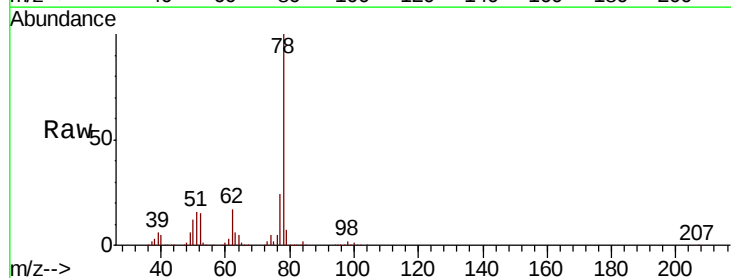
RT: 5.39 min Scan# 1336

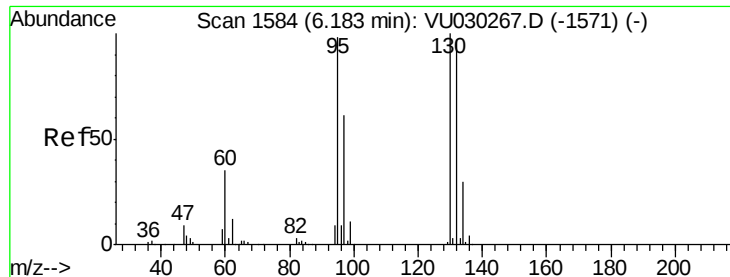
Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Tgt Ion: 78 Resp: 774409





#34

Trichloroethene

Concen: 51.052 ug/L

RT: 6.18 min Scan# 1584

Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05053

Tgt Ion: 95 Resp: 198547

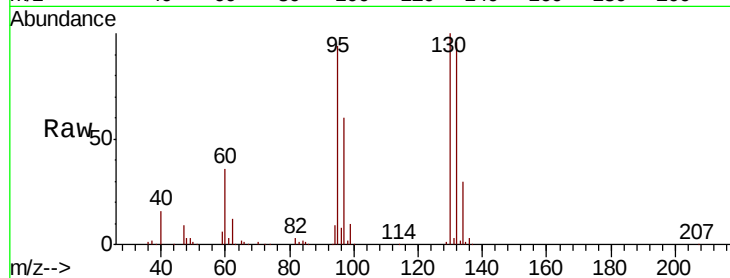
Ion Ratio Lower Upper

95 100

97 64.1 46.2 85.8

132 101.8 69.3 128.7

130 106.0 73.6 136.6

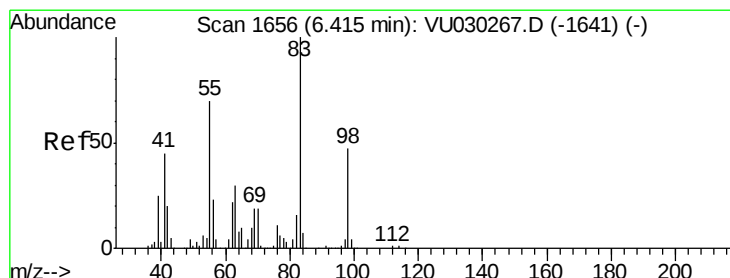
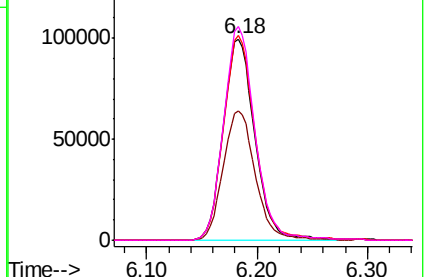
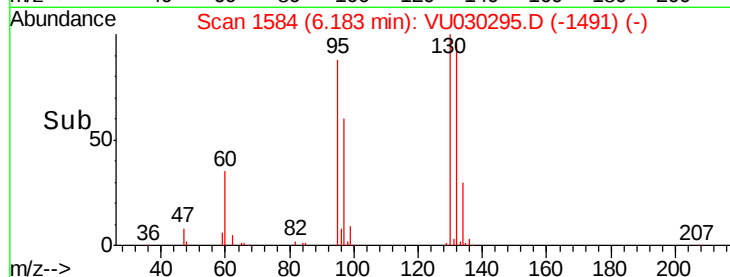


Abundance Ion 95.00 (94.70 to 95.70): VU0

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: 53.195 ug/L

RT: 6.41 min Scan# 1655

Delta R.T. -0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

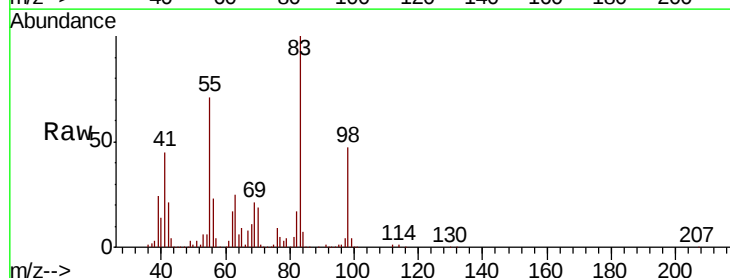
Tgt Ion: 83 Resp: 324409

Ion Ratio Lower Upper

83 100

55 71.0 56.6 85.0

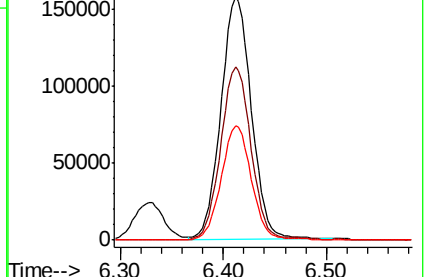
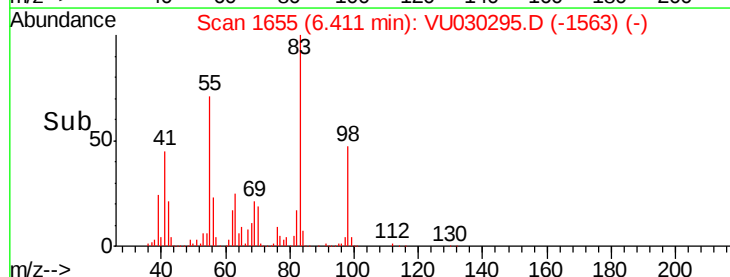
98 46.5 37.0 55.4

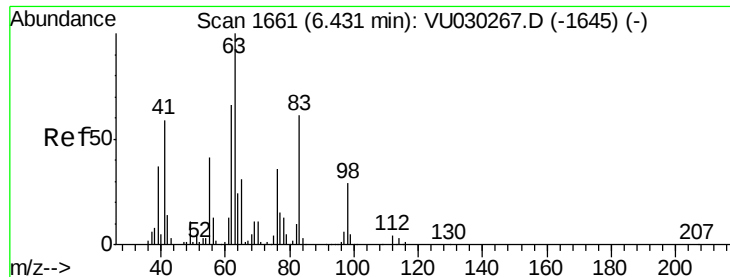


Abundance Ion 83.00 (82.70 to 83.70): VU0

Ion 55.00 (54.70 to 55.70): VU0

Ion 98.00 (97.70 to 98.70): VU0

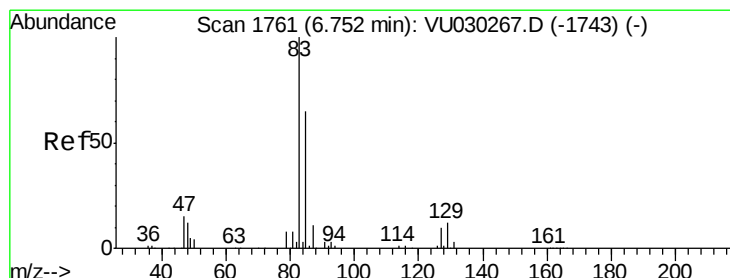
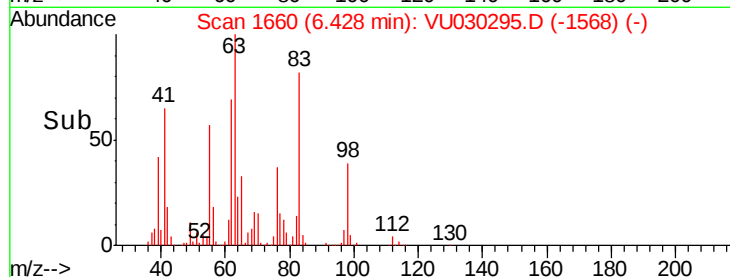
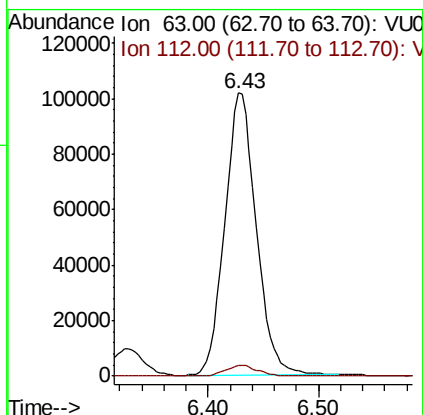
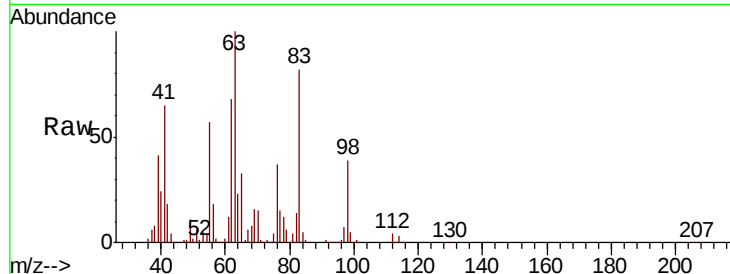




#37  
 1,2-Dichloropropane  
 Concen: 53.270 ug/L  
 RT: 6.43 min Scan# 1660  
 Delta R.T. -0.00 min  
 Lab File: VU030295.D  
 Acq: 22 Mar 2019 10:06

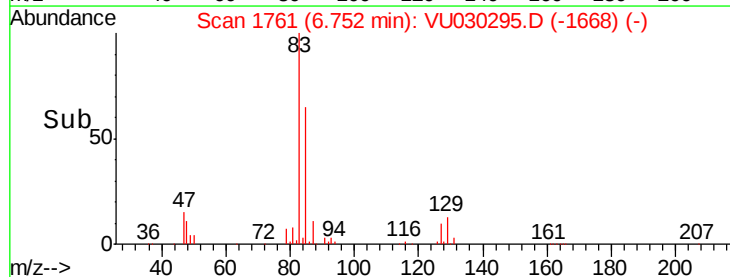
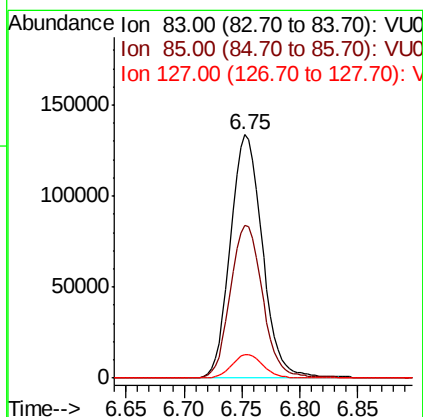
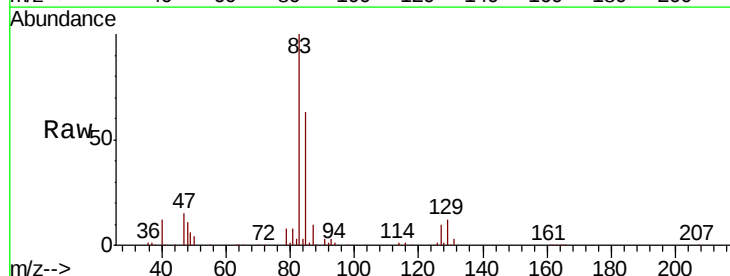
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05053

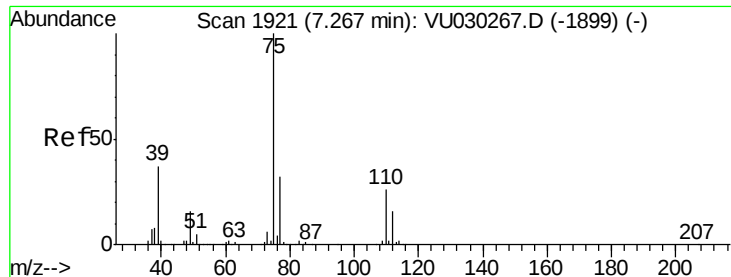
Tgt Ion: 63 Resp: 201306  
 Ion Ratio Lower Upper  
 63 100  
 112 3.9 3.3 4.9



#38  
 Bromodichloromethane  
 Concen: 52.324 ug/L  
 RT: 6.75 min Scan# 1761  
 Delta R.T. 0.00 min  
 Lab File: VU030295.D  
 Acq: 22 Mar 2019 10:06

Tgt Ion: 83 Resp: 254227  
 Ion Ratio Lower Upper  
 83 100  
 85 62.7 45.8 85.2  
 127 9.7 7.4 11.0

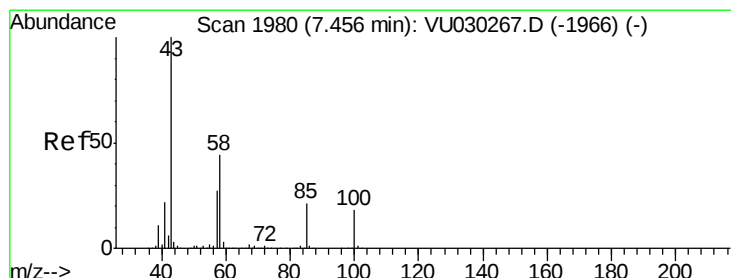
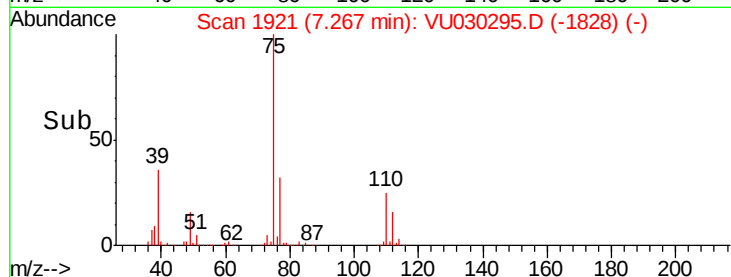
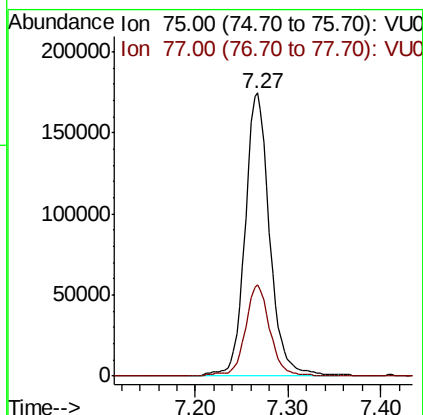
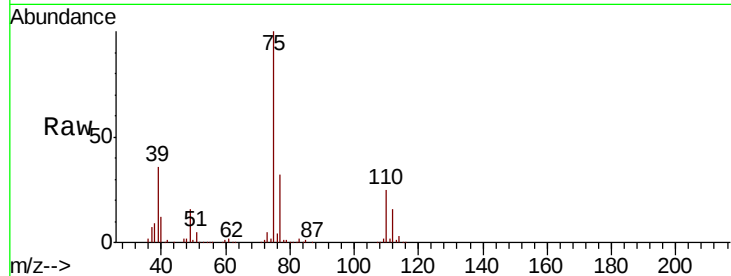




#39  
 cis-1,3-Dichloropropene  
 Concen: 52.928 ug/L  
 RT: 7.27 min Scan# 1921  
 Delta R.T. 0.00 min  
 Lab File: VU030295.D  
 Acq: 22 Mar 2019 10:06

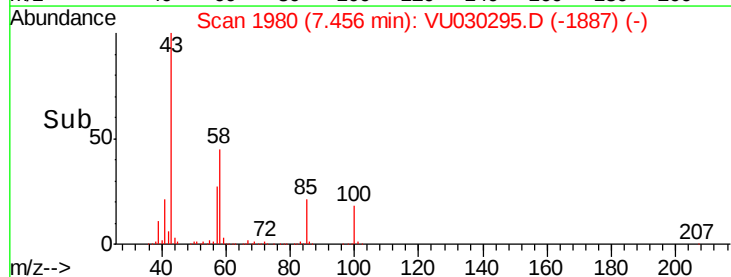
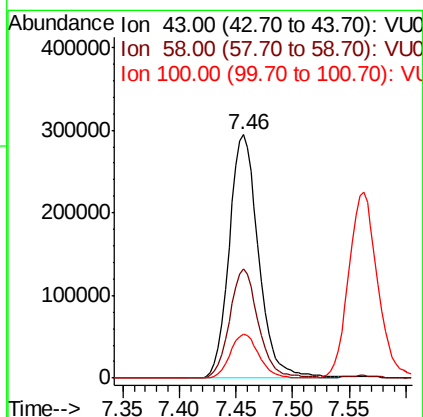
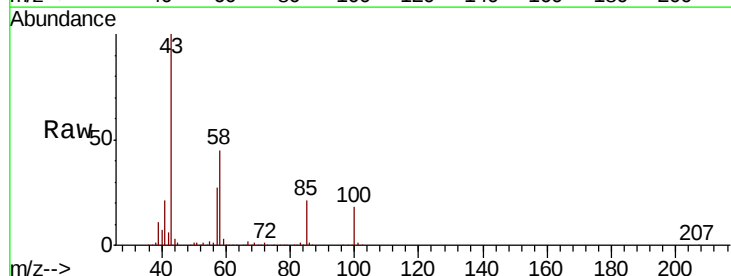
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05053

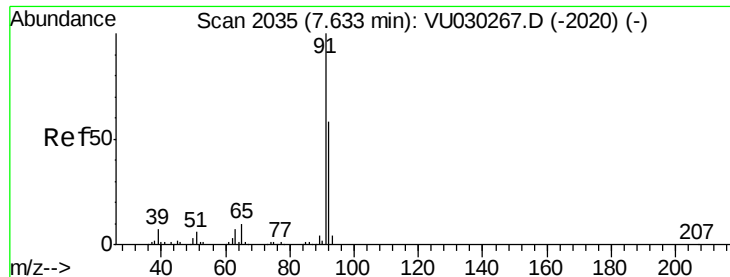
Tgt Ion: 75 Resp: 320901  
 Ion Ratio Lower Upper  
 75 100  
 77 32.3 22.1 41.1



#40  
 4-Methyl-2-pentanone  
 Concen: 102.599 ug/L  
 RT: 7.46 min Scan# 1980  
 Delta R.T. 0.00 min  
 Lab File: VU030295.D  
 Acq: 22 Mar 2019 10:06

Tgt Ion: 43 Resp: 532857  
 Ion Ratio Lower Upper  
 43 100  
 58 43.9 34.4 51.6  
 100 17.7 13.9 20.9





#42

Toluene

Concen: 53.164 ug/L

RT: 7.63 min Scan# 2035

Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Instrument :

MSVOA\_U

ClientSampleId :

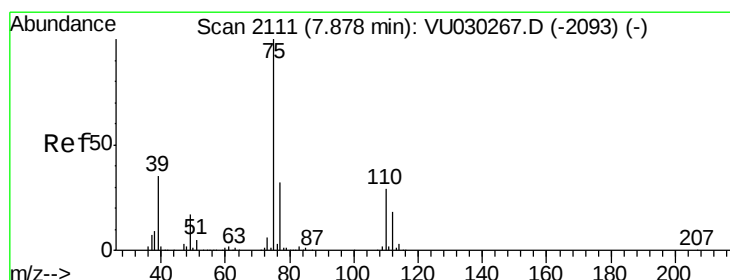
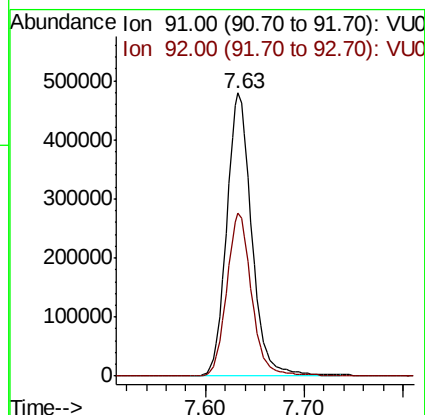
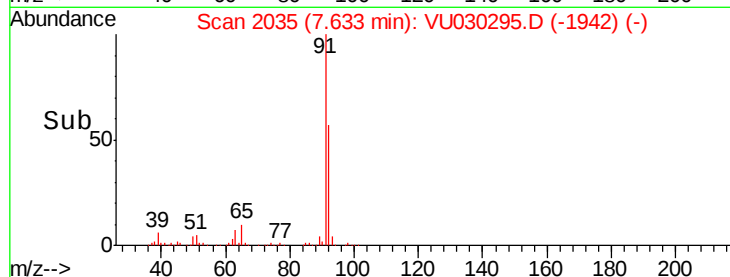
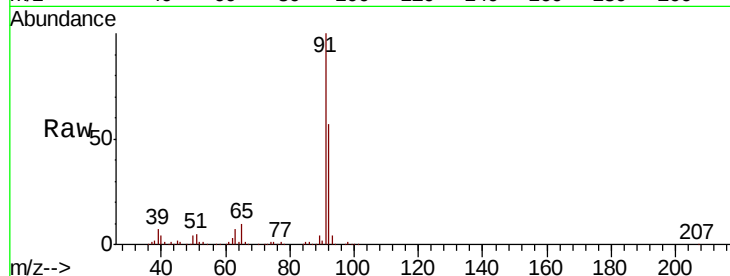
VSTD05053

Tgt Ion: 91 Resp: 853833

Ion Ratio Lower Upper

91 100

92 57.4 40.7 75.7



#44

trans-1,3-Dichloropropene

Concen: 52.997 ug/L

RT: 7.88 min Scan# 2111

Delta R.T. 0.00 min

Lab File: VU030295.D

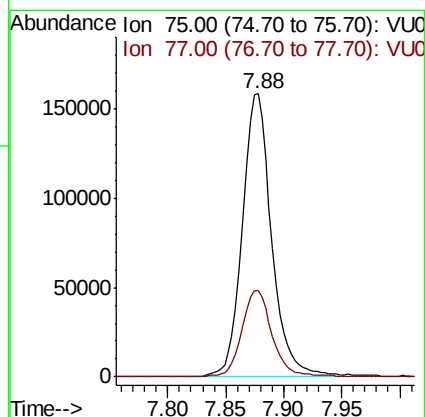
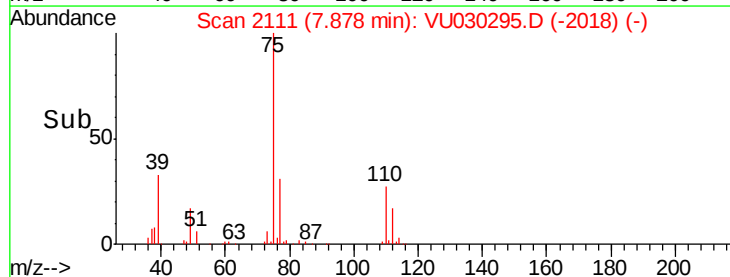
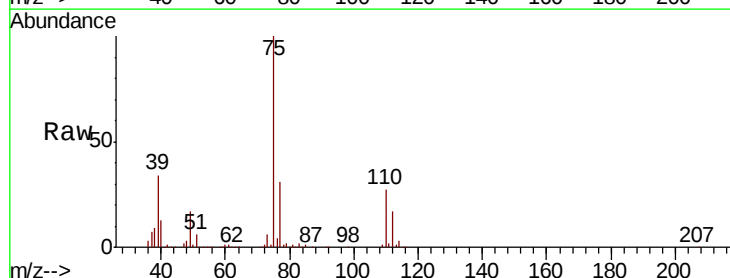
Acq: 22 Mar 2019 10:06

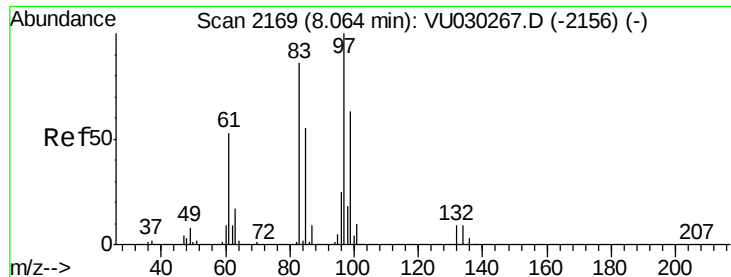
Tgt Ion: 75 Resp: 278042

Ion Ratio Lower Upper

75 100

77 30.6 22.7 42.1

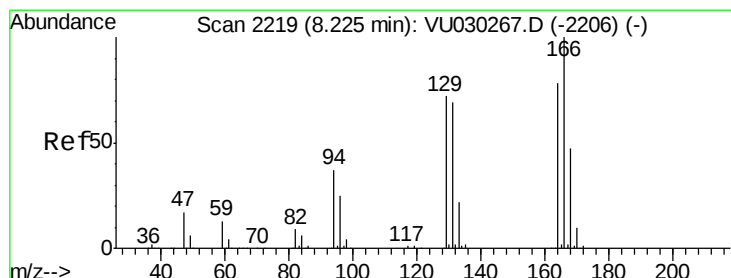
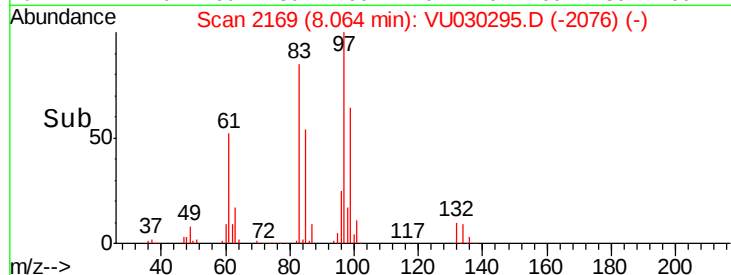
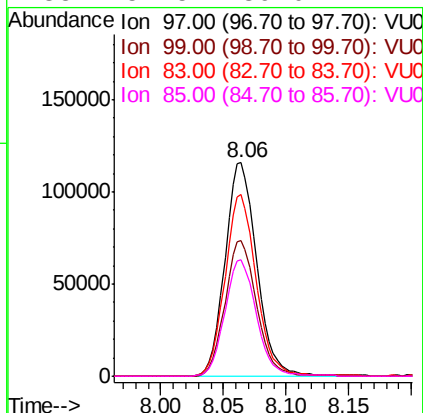
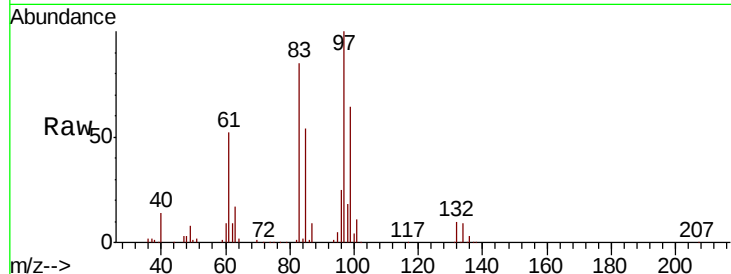




#45  
 1,1,2-Trichloroethane  
 Concen: 52.464 ug/L  
 RT: 8.06 min Scan# 2169  
 Delta R.T. 0.00 min  
 Lab File: VU030295.D  
 Acq: 22 Mar 2019 10:06

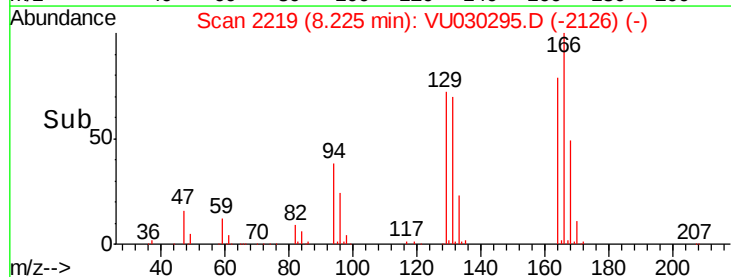
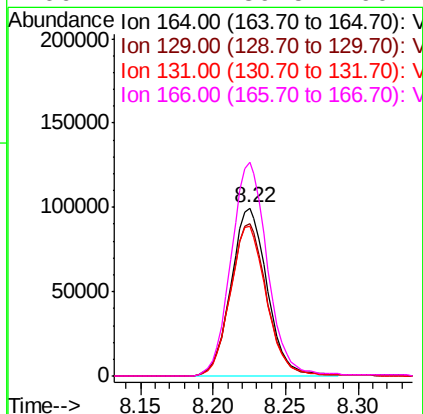
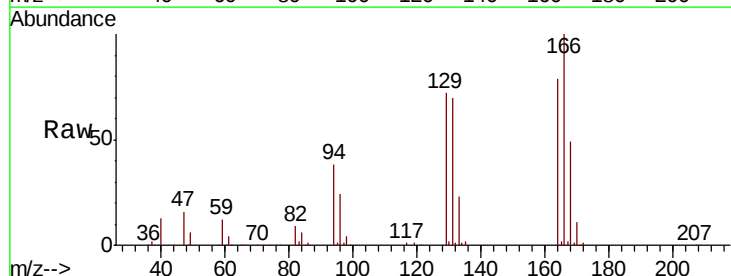
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05053

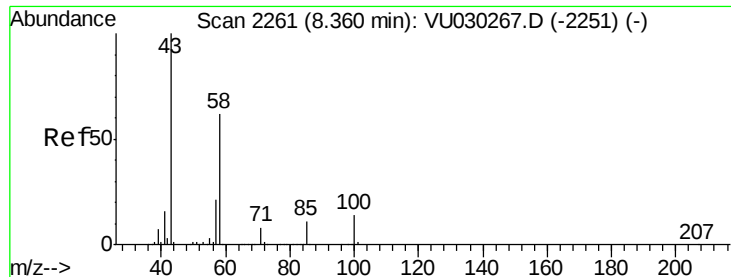
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 97    | Resp: | 203512 |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 99       | 63.7  | 43.3  | 80.5   |
| 83       | 85.1  | 59.3  | 110.1  |
| 85       | 54.5  | 39.0  | 72.4   |



#46  
 Tetrachloroethene  
 Concen: 52.506 ug/L  
 RT: 8.22 min Scan# 2219  
 Delta R.T. 0.00 min  
 Lab File: VU030295.D  
 Acq: 22 Mar 2019 10:06

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 164   | Resp: | 172531 |
| Ion      | Ratio | Lower | Upper  |
| 164      | 100   |       |        |
| 129      | 91.2  | 64.4  | 119.6  |
| 131      | 89.1  | 63.2  | 117.4  |
| 166      | 127.4 | 89.5  | 166.1  |

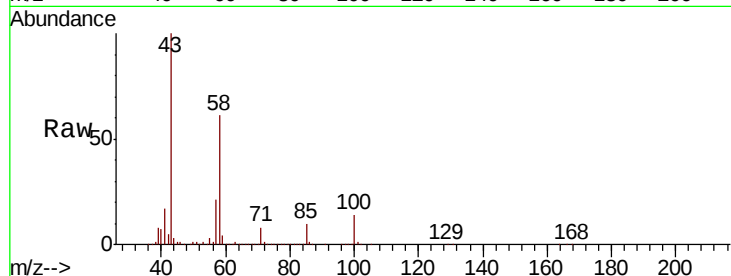




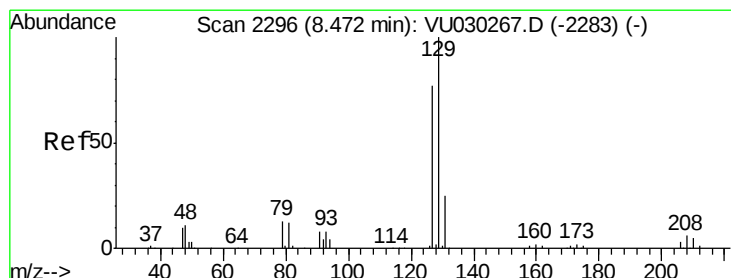
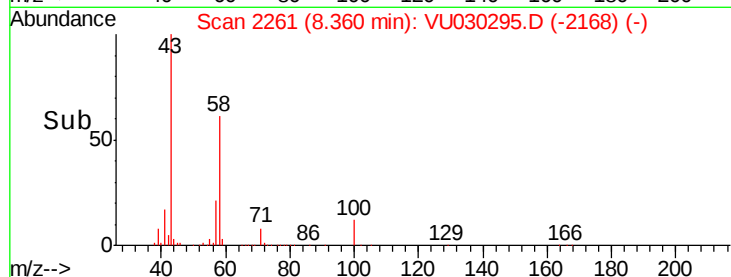
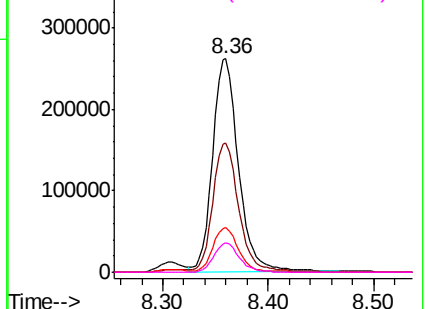
#48  
2-Hexanone  
Concen: 103.258 ug/L  
RT: 8.36 min Scan# 2261  
Delta R.T. 0.00 min  
Lab File: VU030295.D  
Acq: 22 Mar 2019 10:06

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05053

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 445107 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 58       | 60.6  | 49.3  | 73.9   |
| 57       | 20.1  | 17.0  | 25.4   |
| 100      | 13.7  | 11.0  | 16.4   |

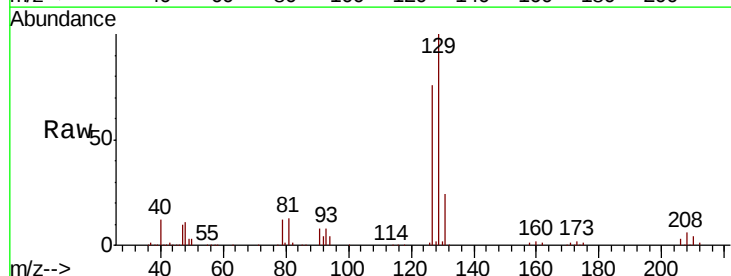


Abundance Ion 43.00 (42.70 to 43.70): VU0  
Ion 58.00 (57.70 to 58.70): VU0  
Ion 57.00 (56.70 to 57.70): VU0  
Ion 100.00 (99.70 to 100.70): VU0

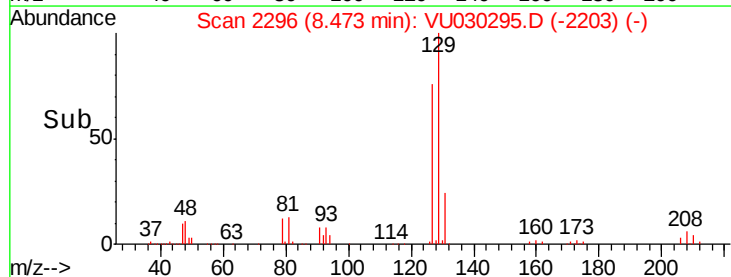
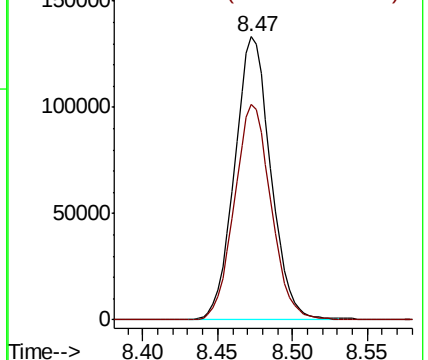


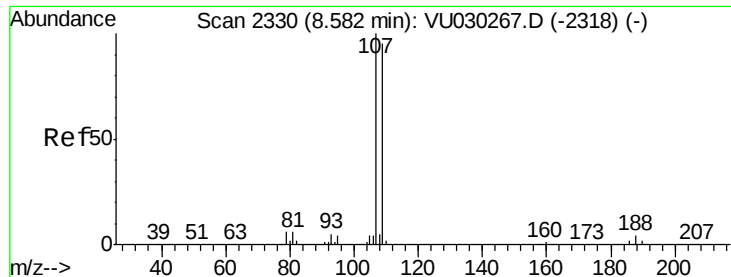
#49  
Dibromochloromethane  
Concen: 51.527 ug/L  
RT: 8.47 min Scan# 2296  
Delta R.T. 0.00 min  
Lab File: VU030295.D  
Acq: 22 Mar 2019 10:06

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 129   | Resp: | 224135 |
| Ion      | Ratio | Lower | Upper  |
| 129      | 100   |       |        |
| 127      | 76.3  | 53.4  | 99.2   |



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

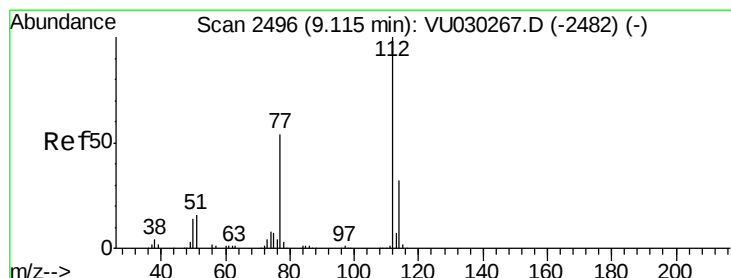
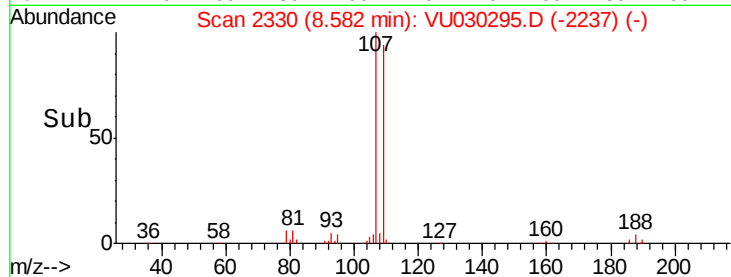
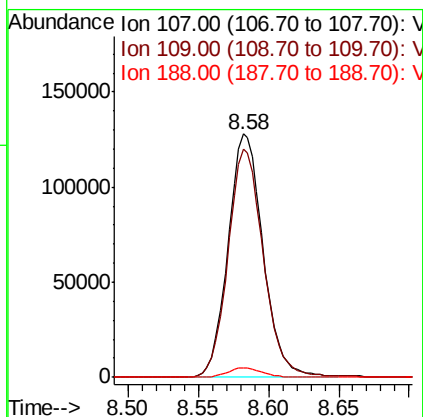
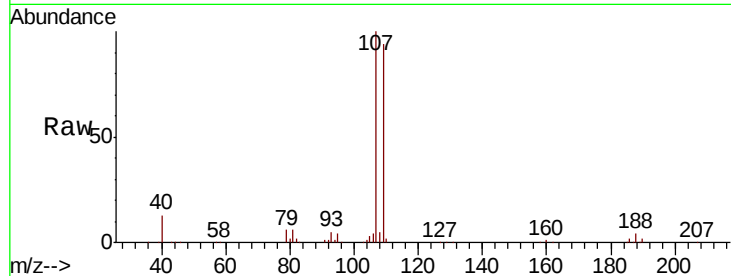




#50  
 1,2-Dibromoethane  
 Concen: 51.643 ug/L  
 RT: 8.58 min Scan# 2330  
 Delta R.T. 0.00 min  
 Lab File: VU030295.D  
 Acq: 22 Mar 2019 10:06

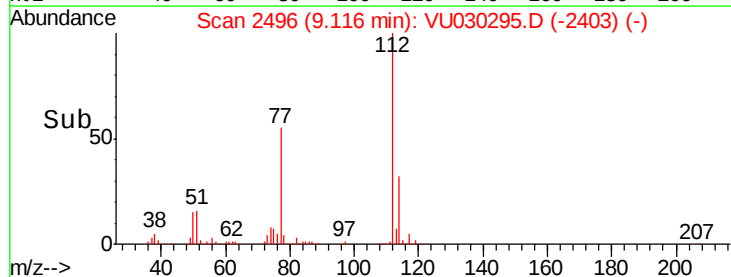
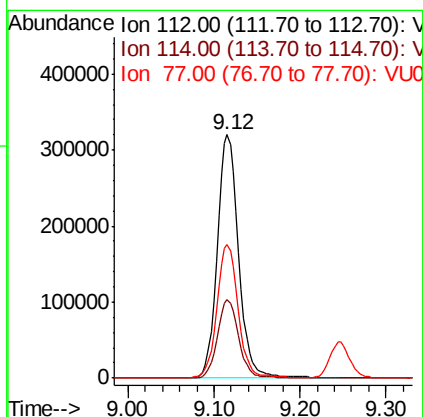
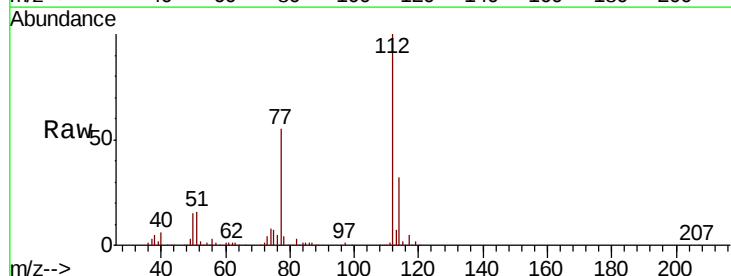
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05053

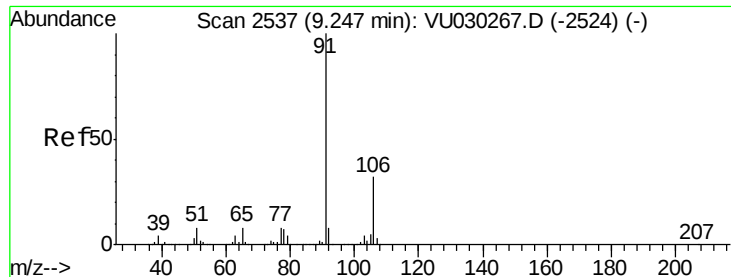
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 107     | 100   |       |       |
| 109     | 93.6  | 65.4  | 121.4 |
| 188     | 3.9   | 2.7   | 4.1   |



#51  
 Chlorobenzene  
 Concen: 51.773 ug/L  
 RT: 9.12 min Scan# 2496  
 Delta R.T. 0.00 min  
 Lab File: VU030295.D  
 Acq: 22 Mar 2019 10:06

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 114     | 32.1  | 22.5  | 41.7  |
| 77      | 54.7  | 43.4  | 65.0  |





#52

Ethylbenzene

Concen: 52.807 ug/L

RT: 9.25 min Scan# 2537

Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Instrument :

MSVOA\_U

ClientSampleId :

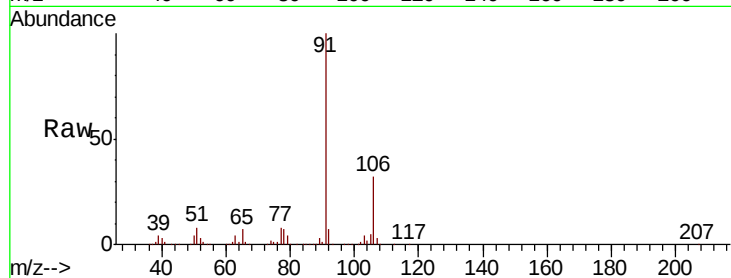
VSTD05053

Tgt Ion: 91 Resp: 921021

Ion Ratio Lower Upper

91 100

106 32.0 22.5 41.7



Abundance Ion 91.00 (90.70 to 91.70): VU030267.D (-2524) (-)

Ion 106.00 (105.70 to 106.70): VU030267.D (-2524) (-)

9.25

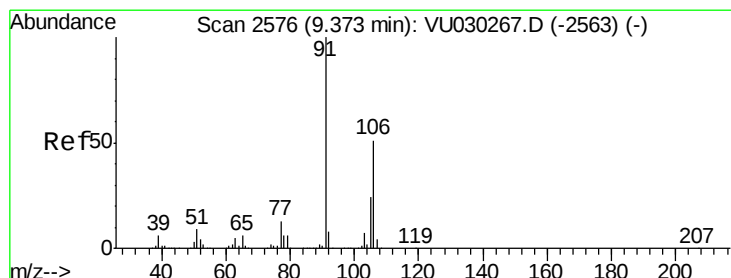
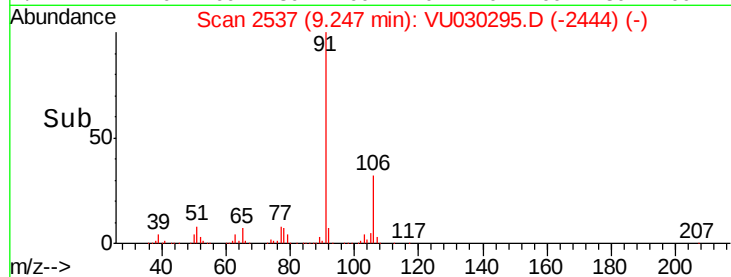
600000

400000

200000

0

Time-->



#53

m,p-Xylene

Concen: 53.368 ug/L

RT: 9.37 min Scan# 2576

Delta R.T. 0.00 min

Lab File: VU030295.D

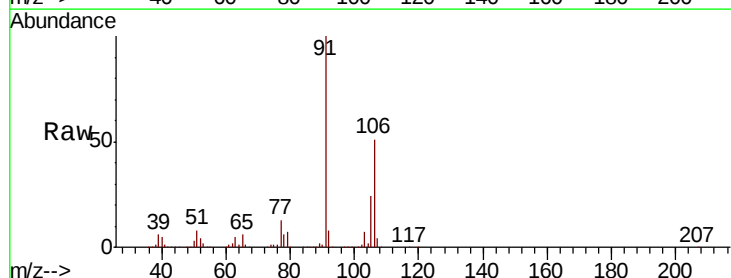
Acq: 22 Mar 2019 10:06

Tgt Ion: 106 Resp: 358616

Ion Ratio Lower Upper

106 100

91 195.8 138.2 256.6



Abundance Ion 106.00 (105.70 to 106.70): VU030267.D (-2563) (-)

Ion 91.00 (90.70 to 91.70): VU030267.D (-2563) (-)

9.37

500000

400000

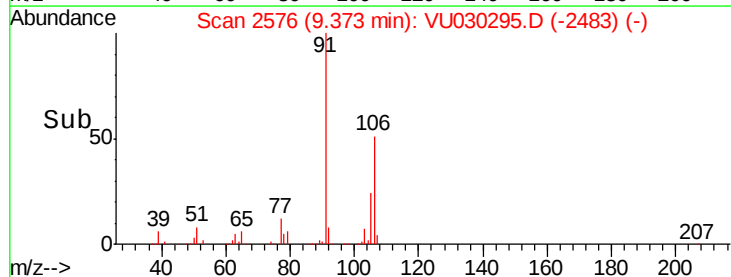
300000

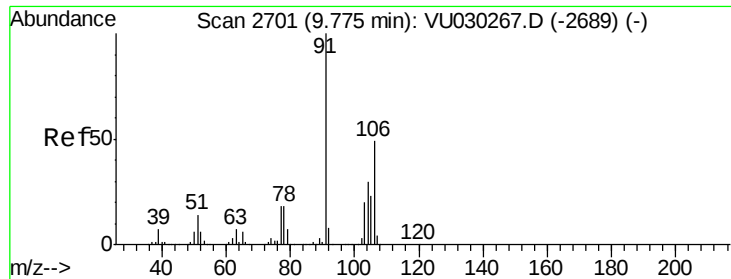
200000

100000

0

Time-->

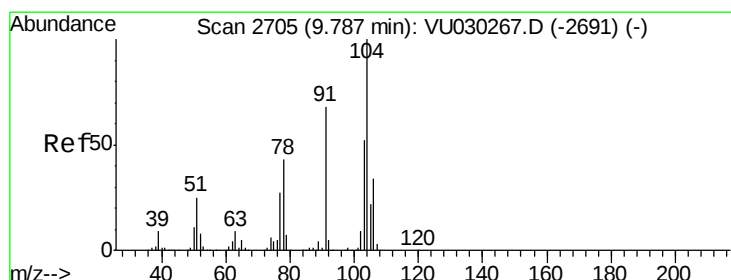
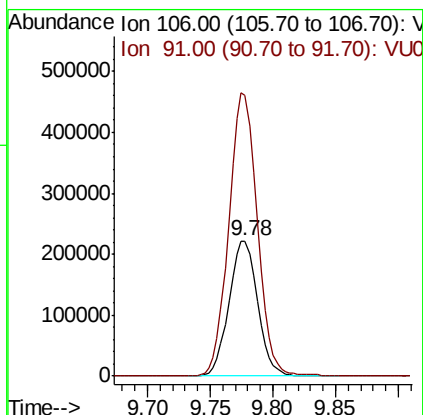
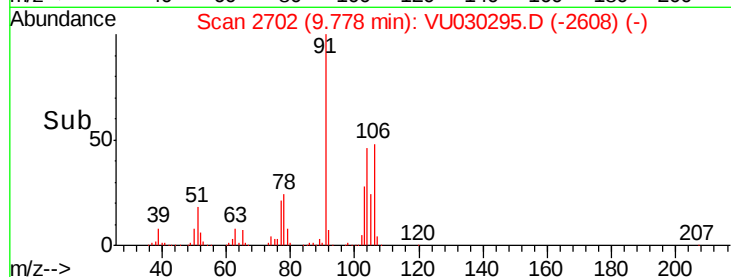
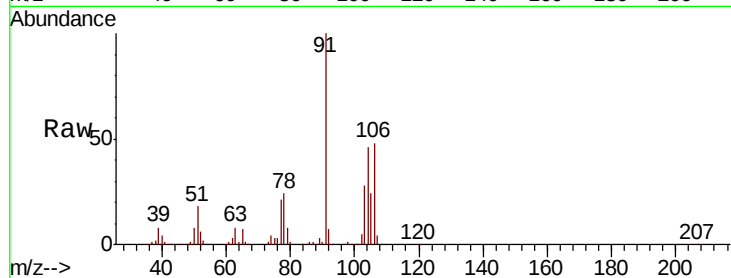




#54  
o-xylene  
Concen: 53.439 ug/L  
RT: 9.78 min Scan# 2702  
Delta R.T. 0.00 min  
Lab File: VU030295.D  
Acq: 22 Mar 2019 10:06

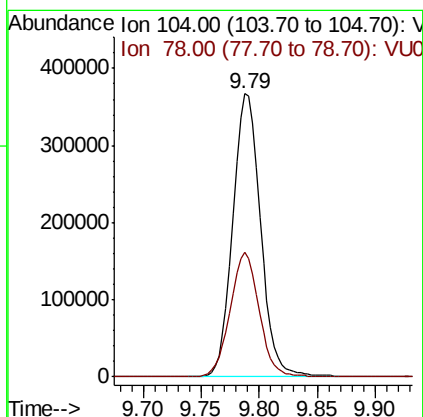
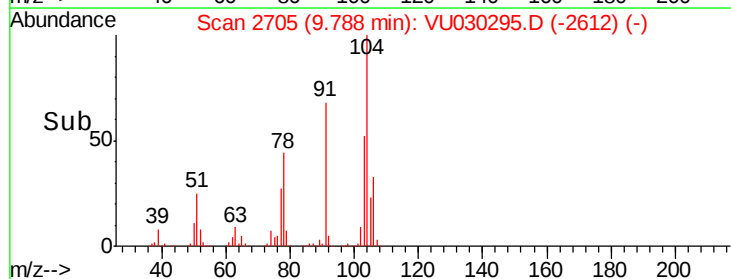
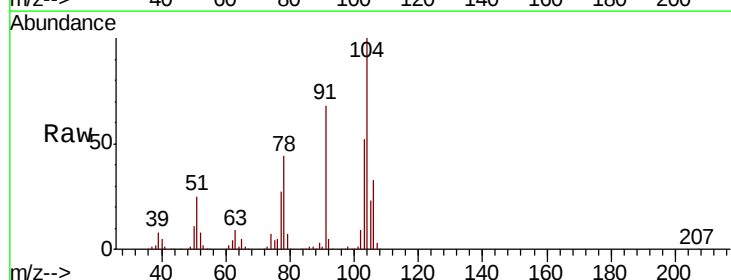
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05053

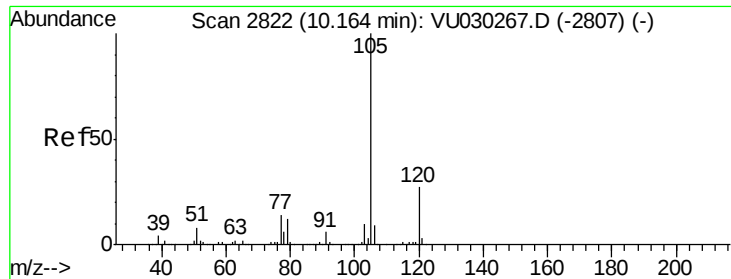
Tgt Ion:106 Resp: 352992  
Ion Ratio Lower Upper  
106 100  
91 207.7 145.5 270.3



#55  
Styrene  
Concen: 54.328 ug/L  
RT: 9.79 min Scan# 2705  
Delta R.T. 0.00 min  
Lab File: VU030295.D  
Acq: 22 Mar 2019 10:06

Tgt Ion:104 Resp: 608029  
Ion Ratio Lower Upper  
104 100  
78 43.9 29.8 55.4





#56

Isopropylbenzene

Concen: 53.486 ug/L

RT: 10.16 min Scan# 2822

Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05053

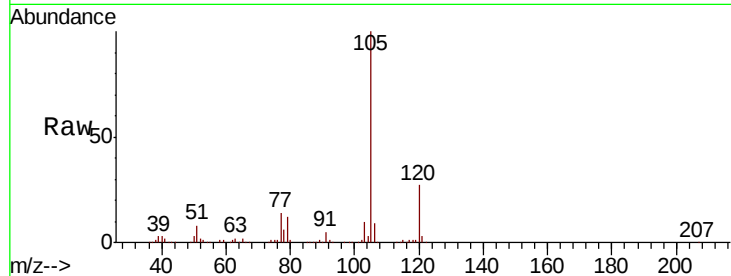
Tgt Ion: 105 Resp: 913438

Ion Ratio Lower Upper

105 100

120 26.8 21.8 32.8

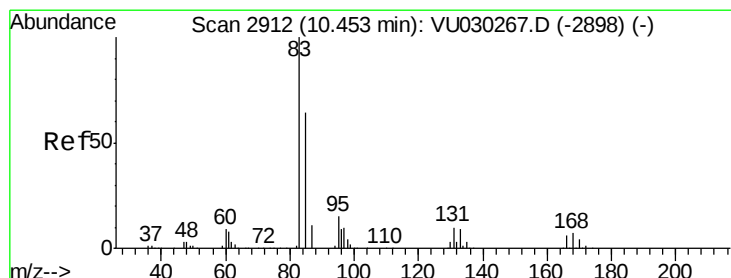
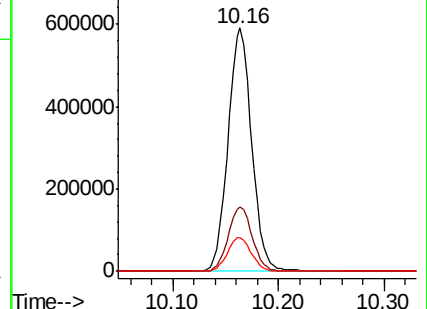
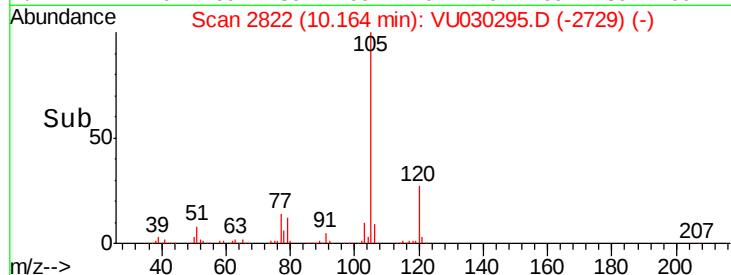
77 14.2 11.3 16.9



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: 51.189 ug/L

RT: 10.45 min Scan# 2912

Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

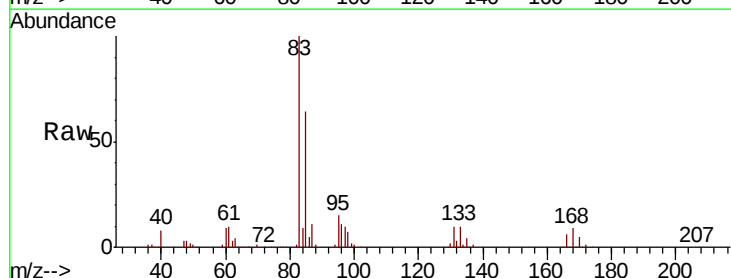
Tgt Ion: 83 Resp: 338592

Ion Ratio Lower Upper

83 100

85 64.1 45.7 84.9

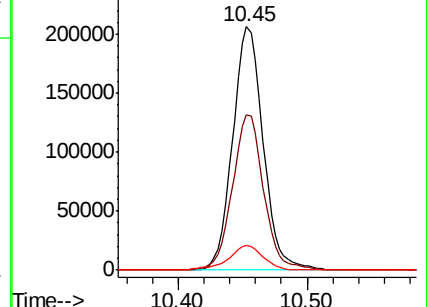
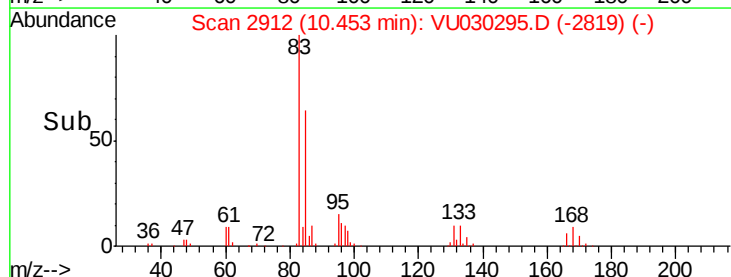
131 10.0 7.8 11.6

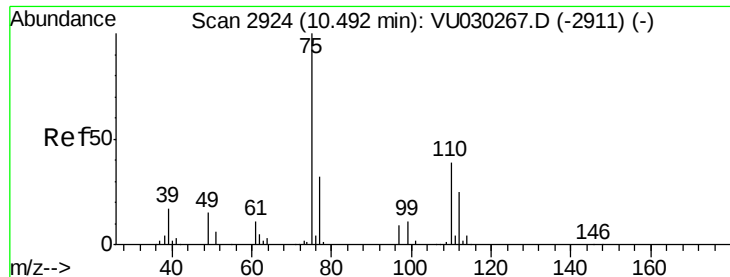


Abundance Ion 83.00 (82.70 to 83.70): V

Ion 85.00 (84.70 to 85.70): V

Ion 131.00 (130.70 to 131.70): V





#59

1,2,3-Trichloropropane

Concen: 50.309 ug/L

RT: 10.49 min Scan# 2924

Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Instrument :

MSVOA\_U

ClientSampleId :

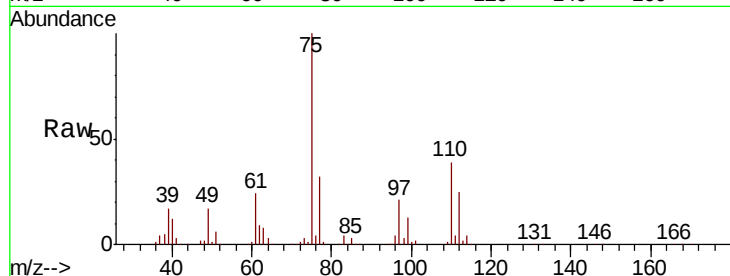
VSTD05053

Tgt Ion: 75 Resp: 256950

Ion Ratio Lower Upper

75 100

77 32.0 25.8 38.8



Abundance Ion 75.00 (74.70 to 75.70): VU030267.D (-2911) (-)

Ion 77.00 (76.70 to 77.70): VU030267.D (-2911) (-)

10.49

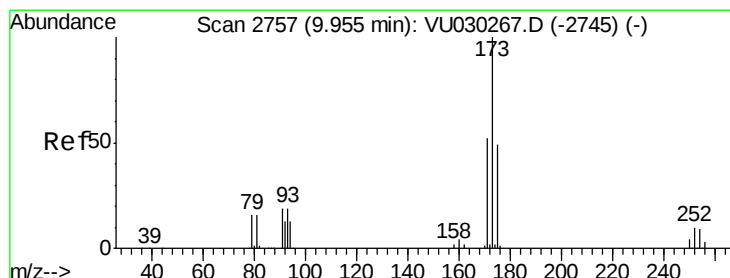
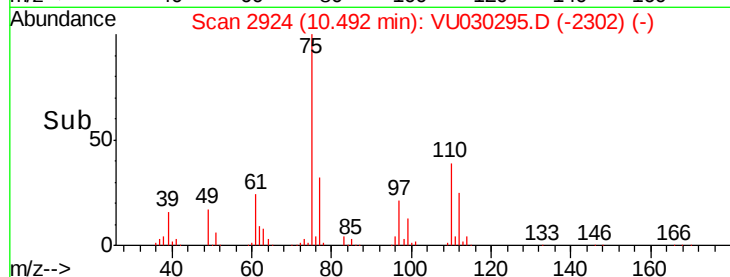
150000

100000

50000

0

Time--> 10.40 10.45 10.50 10.55



#61

Bromoform

Concen: 52.670 ug/L

RT: 9.95 min Scan# 2757

Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

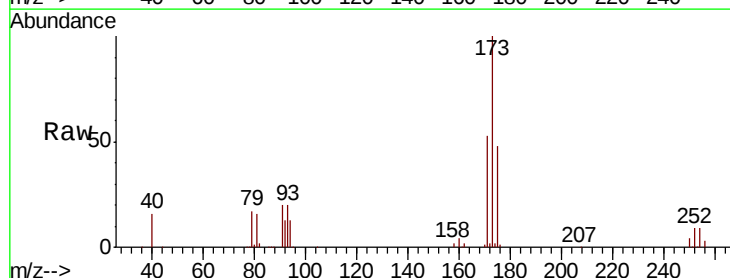
Tgt Ion: 173 Resp: 177775

Ion Ratio Lower Upper

173 100

175 48.2 38.9 58.3

254 9.3 7.4 11.0



Abundance Ion 173.00 (172.70 to 173.70): VU030267.D (-2745) (-)

Ion 175.00 (174.70 to 175.70): VU030267.D (-2745) (-)

Ion 254.00 (253.70 to 254.70): VU030267.D (-2745) (-)

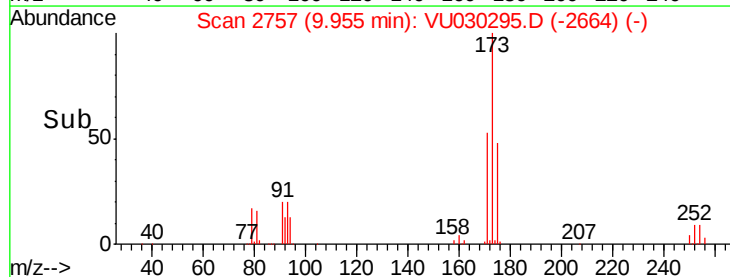
9.95

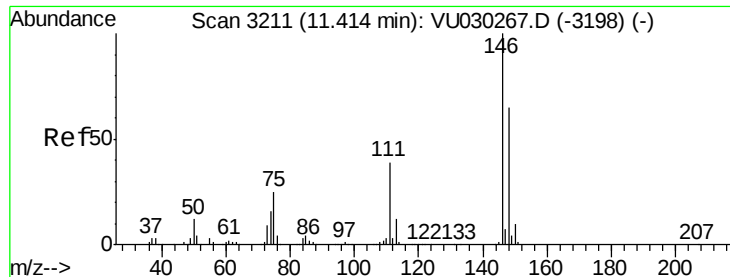
100000

50000

0

Time--> 9.90 10.00





#62

1,3-Dichlorobenzene

Concen: 52.430 ug/L

RT: 11.41 min Scan# 3211

Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05053

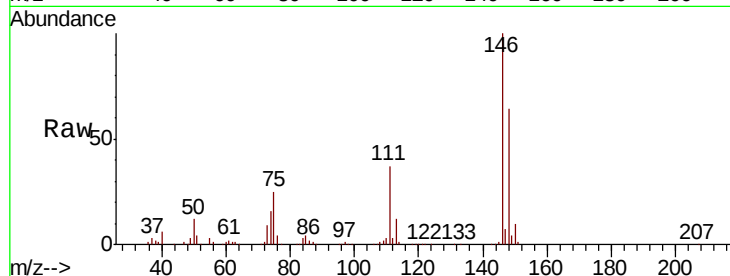
Tgt Ion:146 Resp: 437212

Ion Ratio Lower Upper

146 100

111 36.9 27.2 50.4

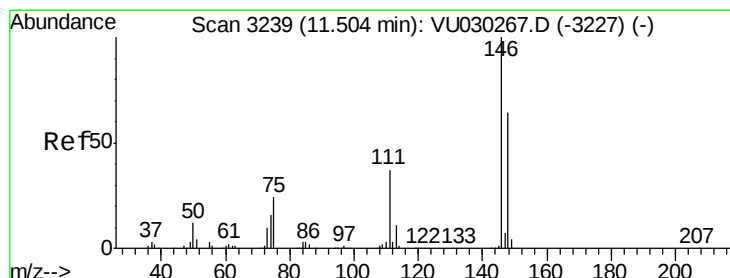
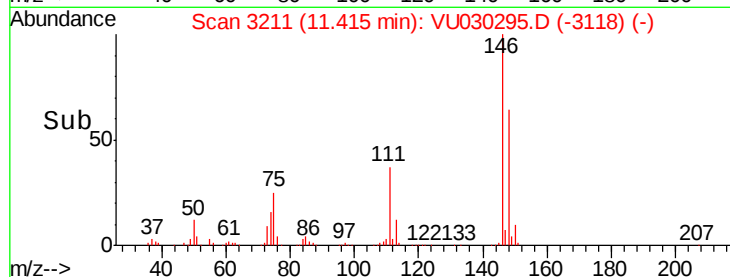
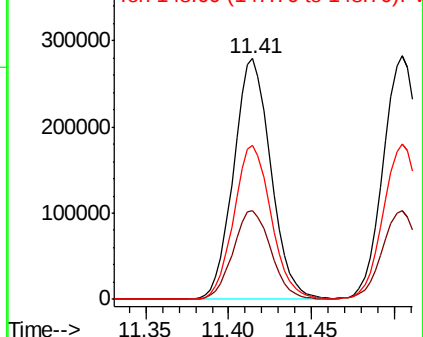
148 64.1 44.4 82.5



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: 51.956 ug/L

RT: 11.50 min Scan# 3239

Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

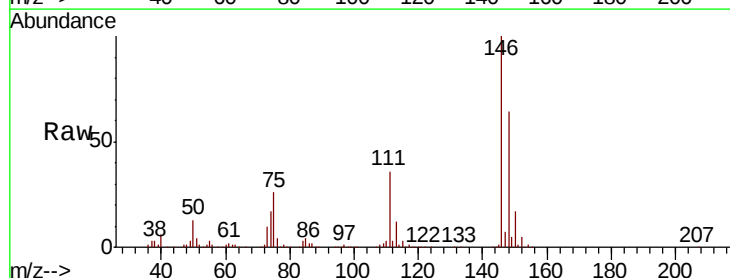
Tgt Ion:146 Resp: 449408

Ion Ratio Lower Upper

146 100

111 36.2 25.3 46.9

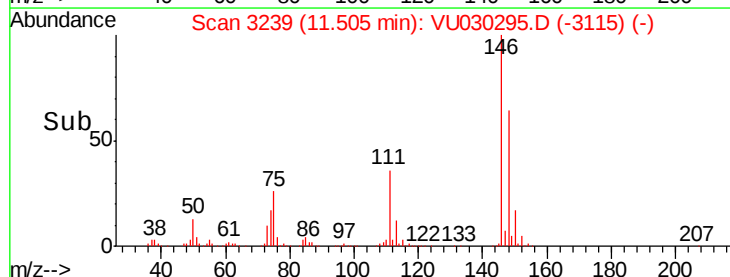
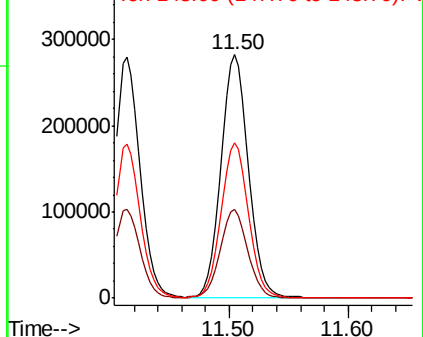
148 64.0 44.7 82.9

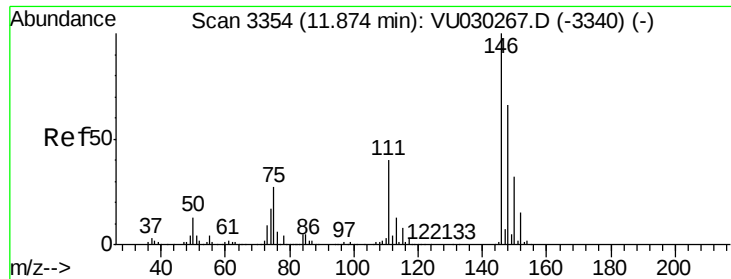


Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V

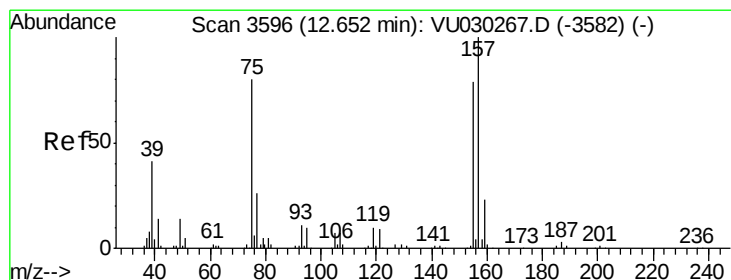
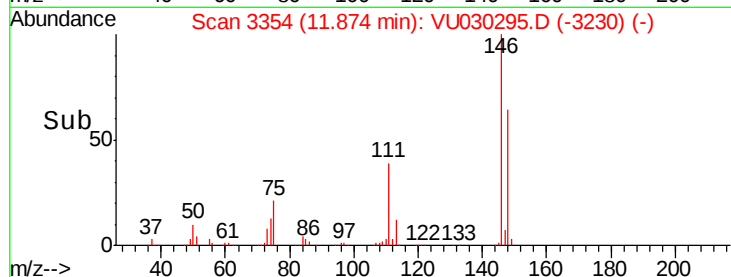
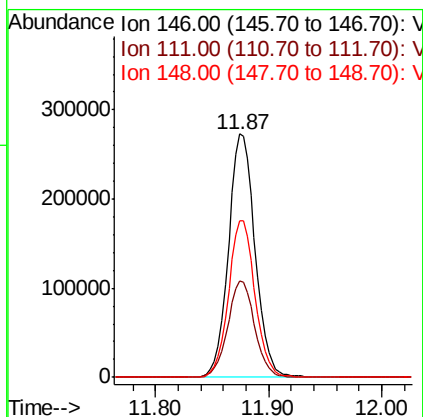
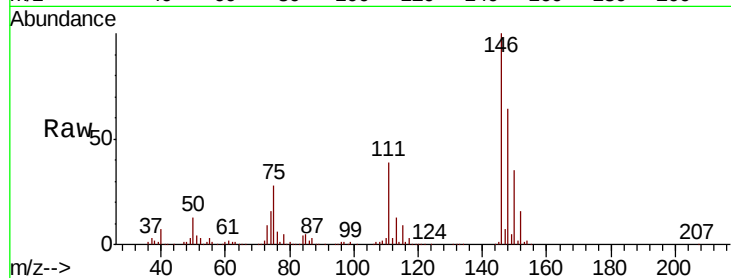




#65  
 1,2-Dichlorobenzene  
 Concen: 52.205 ug/L  
 RT: 11.87 min Scan# 3354  
 Delta R.T. 0.00 min  
 Lab File: VU030295.D  
 Acq: 22 Mar 2019 10:06

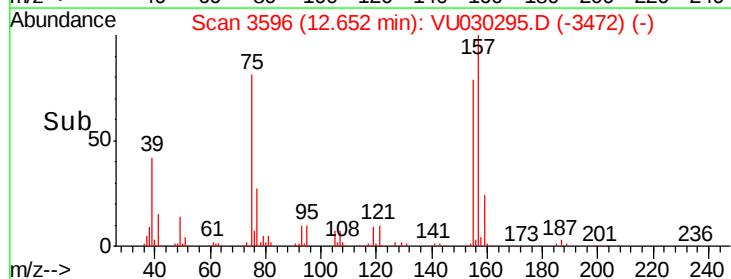
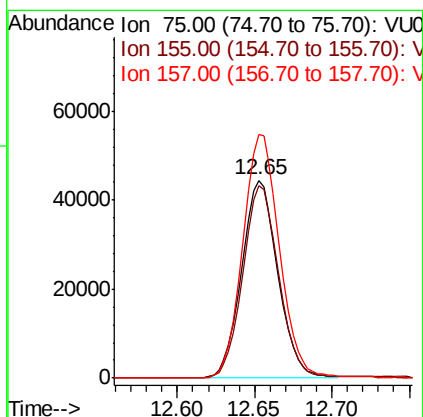
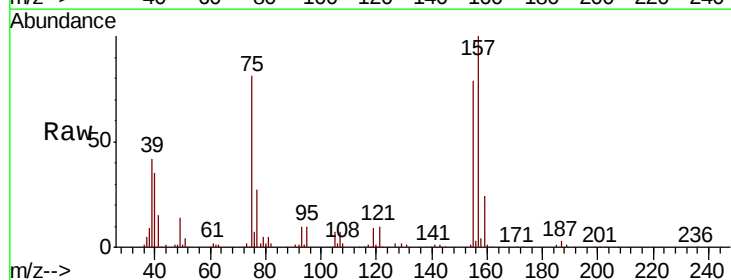
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05053

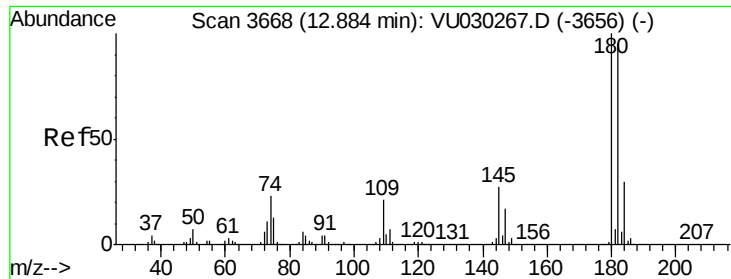
Tgt Ion: 146 Resp: 444777  
 Ion Ratio Lower Upper  
 146 100  
 111 39.4 31.7 47.5  
 148 64.5 52.0 78.0



#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 50.902 ug/L  
 RT: 12.65 min Scan# 3596  
 Delta R.T. 0.00 min  
 Lab File: VU030295.D  
 Acq: 22 Mar 2019 10:06

Tgt Ion: 75 Resp: 72506  
 Ion Ratio Lower Upper  
 75 100  
 155 97.3 80.7 121.1  
 157 123.1 100.8 151.2

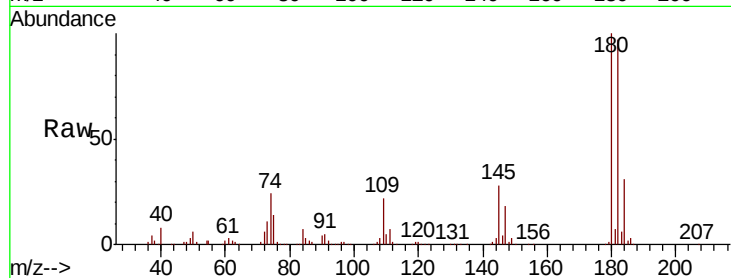




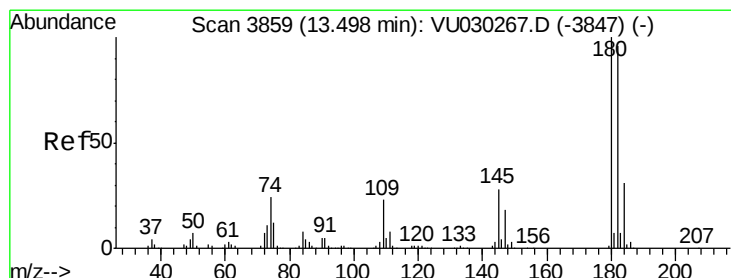
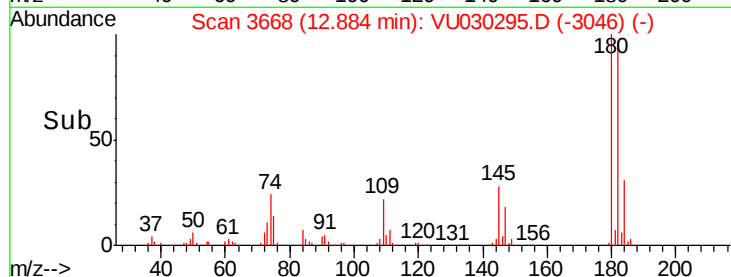
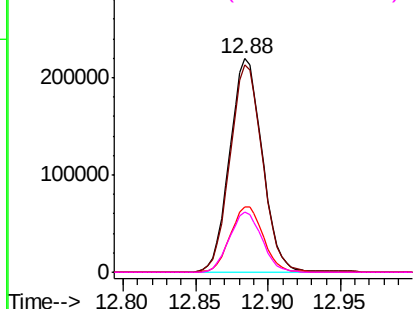
#67  
 1,3,5-Trichlorobenzene  
 Concen: 52.636 ug/L  
 RT: 12.88 min Scan# 3668  
 Delta R.T. 0.00 min  
 Lab File: VU030295.D  
 Acq: 22 Mar 2019 10:06

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05053

Tgt Ion:180 Resp: 343039  
 Ion Ratio Lower Upper  
 180 100  
 182 97.0 76.0 114.0  
 184 31.0 24.2 36.4  
 145 28.1 22.1 33.1

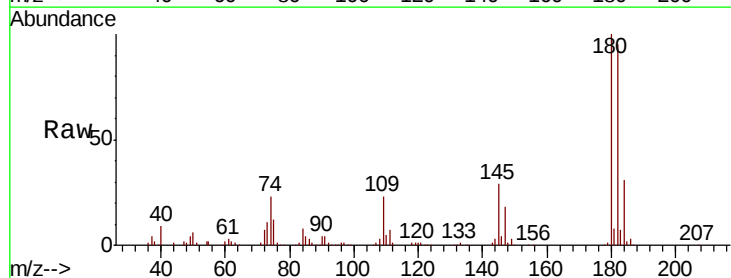


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

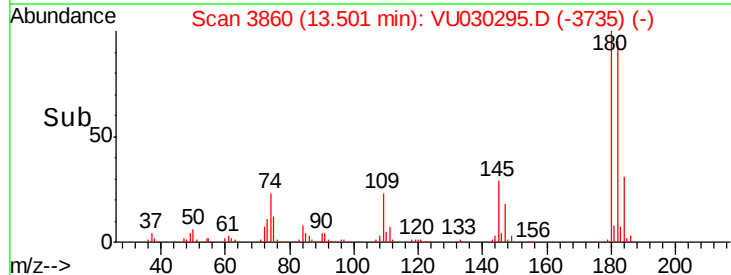
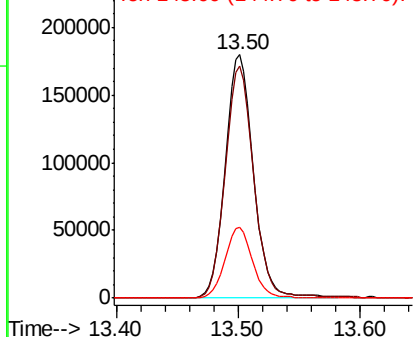


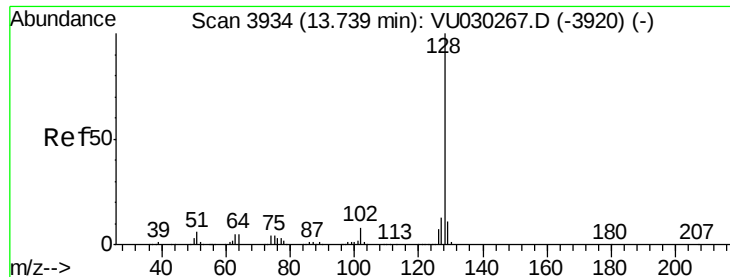
#68  
 1,2,4-trichlorobenzene  
 Concen: 50.764 ug/L  
 RT: 13.50 min Scan# 3860  
 Delta R.T. 0.00 min  
 Lab File: VU030295.D  
 Acq: 22 Mar 2019 10:06

Tgt Ion:180 Resp: 292565  
 Ion Ratio Lower Upper  
 180 100  
 182 96.0 76.4 114.6  
 145 28.5 22.7 34.1



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: 47.261 ug/L

RT: 13.74 min Scan# 3934

Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05053

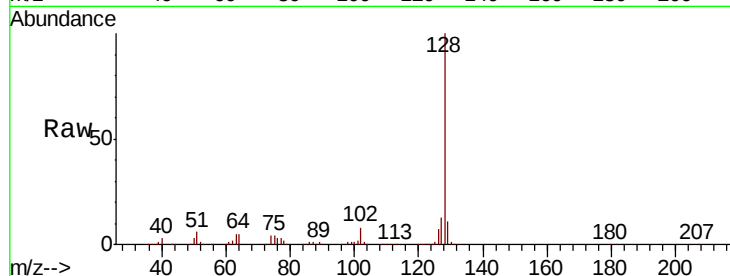
Tgt Ion:128 Resp: 864157

Ion Ratio Lower Upper

128 100

127 12.7 10.2 15.2

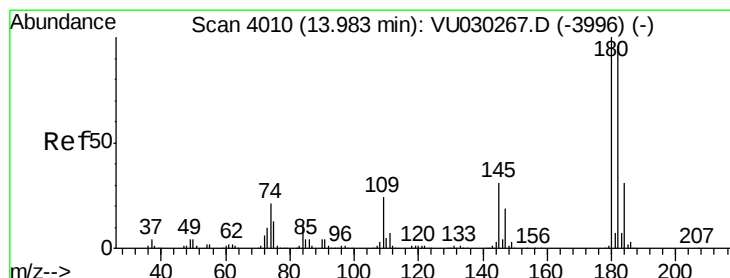
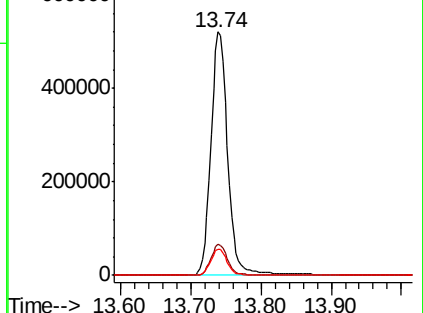
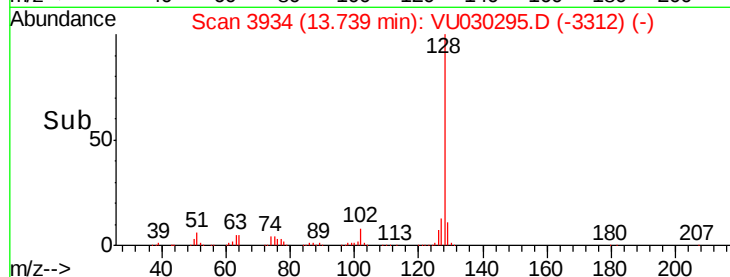
129 10.4 8.5 12.7



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: 50.457 ug/L

RT: 13.98 min Scan# 4010

Delta R.T. 0.00 min

Lab File: VU030295.D

Acq: 22 Mar 2019 10:06

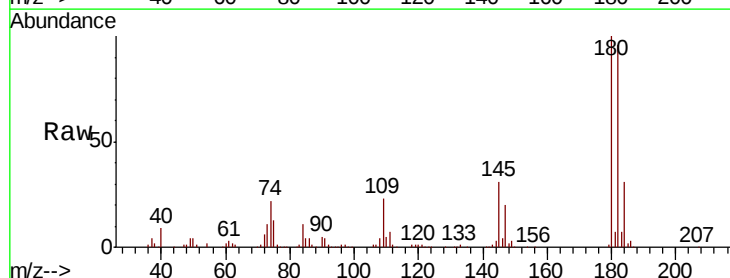
Tgt Ion:180 Resp: 303425

Ion Ratio Lower Upper

180 100

182 95.5 75.9 113.9

145 31.1 24.1 36.1



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

