

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU081920\  
 Data File : VU039910.D  
 Acq On : 19 Aug 2020 16:23  
 Operator : SY/MD  
 Sample : VSTDCCC005EC  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 17 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00525

Quant Time: Aug 20 08:17:45 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR081920WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Thu Aug 20 08:13:41 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.26  | 114  | 75402    | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.42  | 117  | 71265    | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.81 | 152  | 36743    | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.60   | 65    | 31471    | 4.78     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 95.60%  |
| 7) Chloroethane-d5             | 1.92   | 69    | 26249    | 4.82     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 96.40%  |
| 11) 1,1-Dichloroethene-d2      | 2.58   | 63    | 60122    | 4.72     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 94.40%  |
| 20) 2-Butanone-d5              | 4.67   | 46    | 95935    | 45.58    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 91.16%  |
| 24) Chloroform-d               | 5.08   | 84    | 56689    | 4.77     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 95.40%  |
| 26) 1,2-Dichloroethane-d4      | 5.72   | 65    | 32076    | 4.56     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 91.20%  |
| 32) Benzene-d6                 | 5.74   | 84    | 110575   | 5.21     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 104.20% |
| 36) 1,2-Dichloropropane-d6     | 6.70   | 67    | 35277    | 5.04     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 100.80% |
| 41) Toluene-d8                 | 7.91   | 98    | 98664    | 5.31     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 106.20% |
| 43) trans-1,3-Dichloropropene- | 8.19   | 79    | 14445    | 4.92     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 98.40%  |
| 46) 2-Hexanone-d5              | 8.64   | 63    | 73802    | 49.52    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 99.04%  |
| 57) 1,1,2,2-Tetrachloroethane- | 10.75  | 84    | 29477    | 4.74     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 94.80%  |
| 64) 1,2-Dichlorobenzene-d4     | 12.19  | 152   | 38419    | 5.30     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 106.00% |

## Target Compounds

|                                |      |     |        |              | Ovalue |
|--------------------------------|------|-----|--------|--------------|--------|
| 2) Dichlorodifluoromethane     | 1.39 | 85  | 37909  | 4.837 ug/L   | 98     |
| 3) Chloromethane               | 1.53 | 50  | 40955  | 4.619 ug/L   | 96     |
| 5) Vinyl chloride              | 1.61 | 62  | 41881  | 4.992 ug/L   | 98     |
| 6) Bromomethane                | 1.87 | 94  | 23286  | 4.862 ug/L   | 99     |
| 8) Chloroethane                | 1.94 | 64  | 24845  | 4.631 ug/L   | 99     |
| 9) Trichlorofluoromethane      | 2.15 | 101 | 63597  | 5.068 ug/L   | 100    |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.59 | 101 | 33245  | 4.816 ug/L   | 98     |
| 12) 1,1-Dichloroethene         | 2.59 | 96  | 30737  | 4.661 ug/L   | 92     |
| 13) Acetone                    | 2.67 | 43  | 61200  | 42.552 ug/L  | 93     |
| 14) Carbon disulfide           | 2.81 | 76  | 104770 | 4.916 ug/L   | 100    |
| 15) Methyl Acetate             | 2.97 | 43  | 15254  | 4.132 ug/L # | 90     |
| 16) Methylene chloride         | 3.06 | 84  | 37517  | 4.137 ug/L   | 91     |
| 17) Methyl tert-butyl Ether    | 3.39 | 73  | 79876  | 4.803 ug/L   | 99     |
| 18) trans-1,2-Dichloroethene   | 3.37 | 96  | 34543  | 5.044 ug/L   | 94     |
| 19) 1,1-Dichloroethane         | 3.89 | 63  | 61338  | 4.831 ug/L   | 98     |
| 21) 2-Butanone                 | 4.75 | 43  | 103645 | 41.475 ug/L  | 99     |
| 22) cis-1,2-Dichloroethene     | 4.69 | 96  | 34851  | 4.861 ug/L   | 93     |

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 Acq On : 19 Aug 2020 16:23  
 Operator : SY/MD  
 Sample : VSTDCCC005EC  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 17 Sample Multiplier: 1

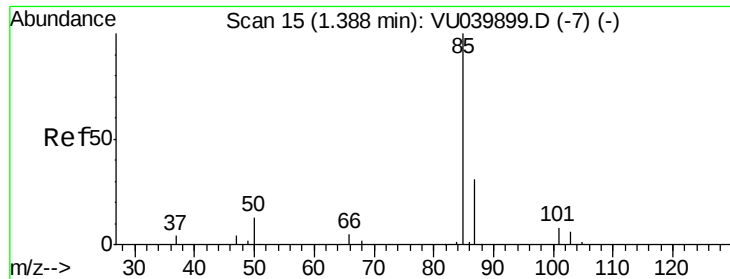
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00525

Quant Time: Aug 20 08:17:45 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR081920WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Thu Aug 20 08:13:41 2020  
 Response via : Initial Calibration

| Internal Standards              | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|---------------------------------|-------|------|----------|--------|--------|----------|
| 23) Bromochloromethane          | 4.99  | 128  | 15699    | 4.655  | ug/L   | 95       |
| 25) Chloroform                  | 5.11  | 83   | 62191    | 4.832  | ug/L   | 99       |
| 27) 1,2-Dichloroethane          | 5.81  | 62   | 42950    | 4.756  | ug/L   | 98       |
| 29) 1,1,1-Trichloroethane       | 5.34  | 97   | 53733    | 5.126  | ug/L   | 99       |
| 30) Cyclohexane                 | 5.41  | 56   | 56570    | 5.451  | ug/L   | 97       |
| 31) Carbon tetrachloride        | 5.54  | 117  | 48278    | 5.216  | ug/L   | 98       |
| 33) Benzene                     | 5.79  | 78   | 137720   | 5.318  | ug/L   | 100      |
| 34) Trichloroethene             | 6.56  | 95   | 34692    | 5.162  | ug/L   | 94       |
| 35) Methylcyclohexane           | 6.78  | 83   | 56384    | 5.476  | ug/L   | 98       |
| 37) 1,2-Dichloropropane         | 6.80  | 63   | 36280    | 5.271  | ug/L # | 96       |
| 38) Bromodichloromethane        | 7.12  | 83   | 45474    | 5.199  | ug/L   | 99       |
| 39) cis-1,3-Dichloropropene     | 7.62  | 75   | 48959    | 5.090  | ug/L   | 100      |
| 40) 4-Methyl-2-pentanone        | 7.80  | 43   | 261536   | 47.984 | ug/L   | 99       |
| 42) Toluene                     | 7.98  | 91   | 142109   | 5.366  | ug/L   | 98       |
| 44) trans-1,3-Dichloropropene   | 8.21  | 75   | 44346    | 4.906  | ug/L   | 98       |
| 45) 1,1,2-Trichloroethane       | 8.41  | 97   | 26531    | 5.073  | ug/L   | 99       |
| 47) Tetrachloroethene           | 8.56  | 164  | 26531    | 5.351  | ug/L   | 93       |
| 48) 2-Hexanone                  | 8.69  | 43   | 190308   | 48.723 | ug/L   | 100      |
| 49) Dibromochloromethane        | 8.81  | 129  | 30667    | 4.912  | ug/L   | 99       |
| 50) 1,2-Dibromoethane           | 8.93  | 107  | 25676    | 5.156  | ug/L # | 93       |
| 51) Chlorobenzene               | 9.45  | 112  | 91855    | 5.311  | ug/L   | 96       |
| 52) Ethylbenzene                | 9.57  | 91   | 151655   | 5.264  | ug/L   | 99       |
| 53) m,p-Xylene                  | 9.69  | 106  | 60132    | 5.437  | ug/L   | 91       |
| 54) o-Xylene                    | 10.10 | 106  | 55835    | 5.341  | ug/L   | 98       |
| 55) Styrene                     | 10.11 | 104  | 97159    | 5.362  | ug/L   | 99       |
| 56) Isopropylbenzene            | 10.48 | 105  | 149309   | 5.329  | ug/L   | 99       |
| 58) 1,1,1,2,2-Tetrachloroethane | 10.78 | 83   | 30387    | 4.500  | ug/L   | 94       |
| 59) 1,2,3-Trichloropropane      | 10.82 | 75   | 23078    | 4.680  | ug/L   | 96       |
| 61) Bromoform                   | 10.29 | 173  | 16868    | 5.212  | ug/L   | 99       |
| 62) 1,3-Dichlorobenzene         | 11.74 | 146  | 72624    | 5.338  | ug/L   | 99       |
| 63) 1,4-Dichlorobenzene         | 11.83 | 146  | 72327    | 5.222  | ug/L   | 93       |
| 65) 1,2-Dichlorobenzene         | 12.20 | 146  | 68704    | 5.233  | ug/L   | 99       |
| 66) 1,2-Dibromo-3-chloropropan  | 12.99 | 75   | 5349     | 4.982  | ug/L # | 79       |
| 67) 1,3,5-Trichlorobenzene      | 13.21 | 180  | 51396    | 5.087  | ug/L   | 99       |
| 68) 1,2,4-trichlorobenzene      | 13.83 | 180  | 45942    | 5.331  | ug/L   | 98       |
| 69) Naphthalene                 | 14.08 | 128  | 82982    | 5.212  | ug/L   | 100      |
| 70) 1,2,3-Trichlorobenzene      | 14.32 | 180  | 41325    | 5.131  | ug/L   | 96       |

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





#2

Dichlorodifluoromethane

Concen: 4.837 ug/L

RT: 1.39 min Scan# 16

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

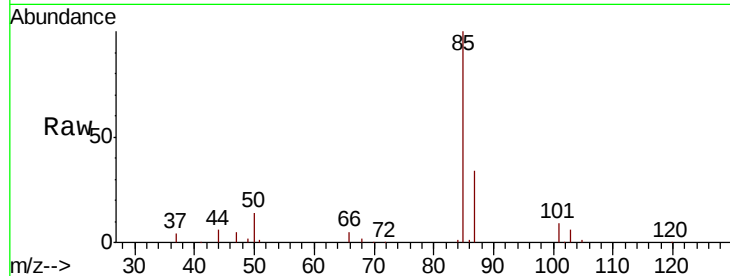
VSTD00525

Tot Ion: 85 Resp: 37909

Ion Ratio Lower Upper

85 100

87 32.5 25.2 37.8



Abundance Ion 85.00 (84.70 to 85.70): VU039899.D (-7) (-)

Ion 87.00 (86.70 to 87.70): VU039899.D (-7) (-)

1.39

40000

30000

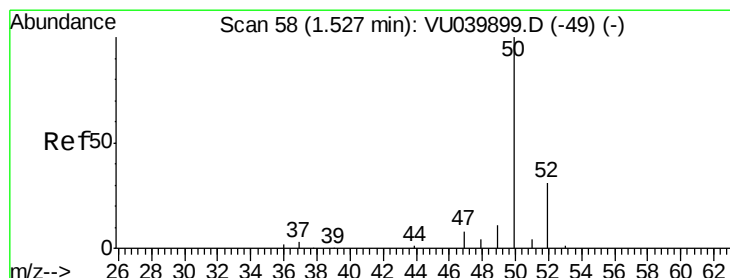
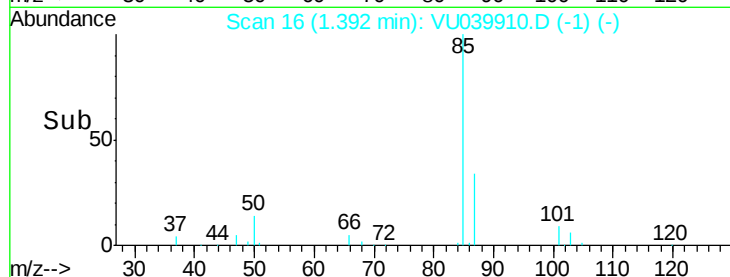
20000

10000

0

1.35 1.40 1.45

Time-->



#3

Chloromethane

Concen: 4.619 ug/L

RT: 1.53 min Scan# 58

Delta R.T. 0.00 min

Lab File: VU039910.D

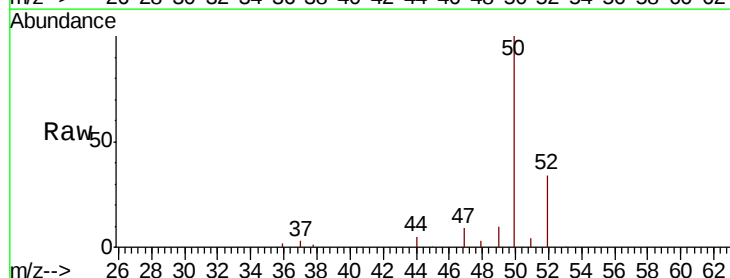
Acq: 19 Aug 2020 16:23

Tgt Ion: 50 Resp: 40955

Ion Ratio Lower Upper

50 100

52 33.7 21.9 40.7



Abundance Ion 50.05 (49.75 to 50.75): VU039899.D (-49) (-)

Ion 52.05 (51.75 to 52.75): VU039899.D (-49) (-)

1.53

40000

30000

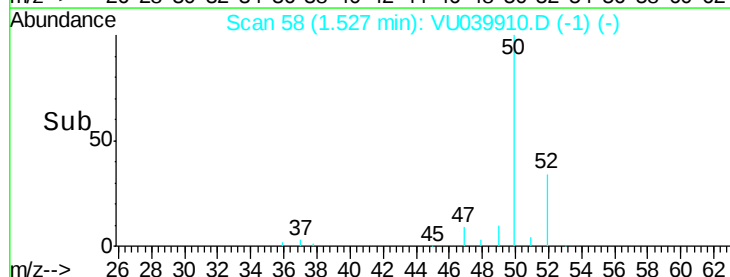
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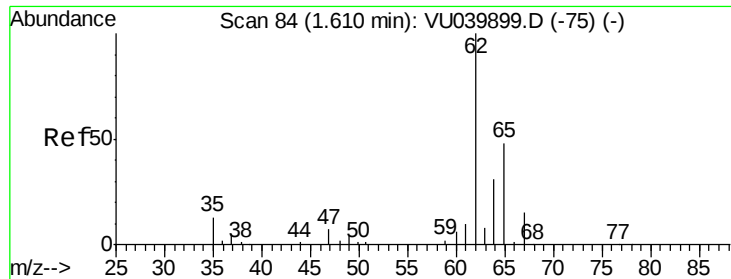
10000

0

1.50 1.55 1.60

Time-->





#5

Vinyl chloride

Concen: 4.992 ug/L

RT: 1.61 min Scan# 84

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

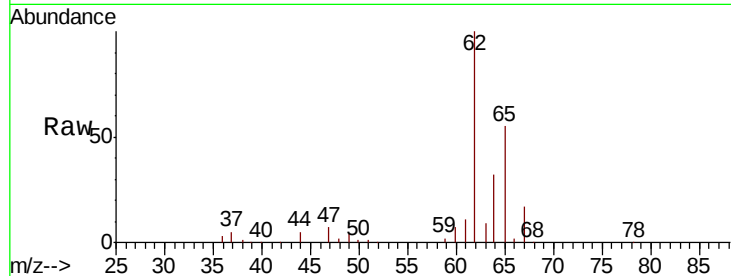
VSTD00525

Tot Ion: 62 Resp: 41881

Ion Ratio Lower Upper

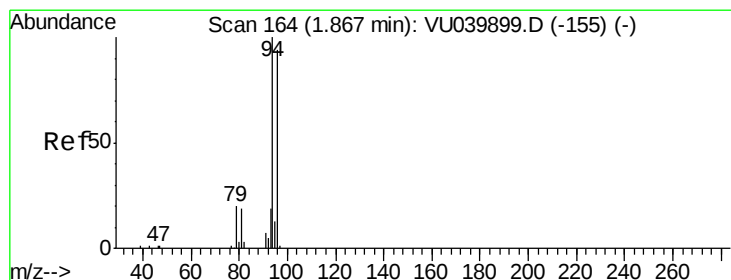
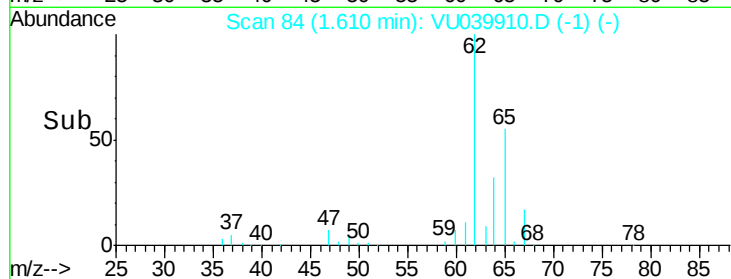
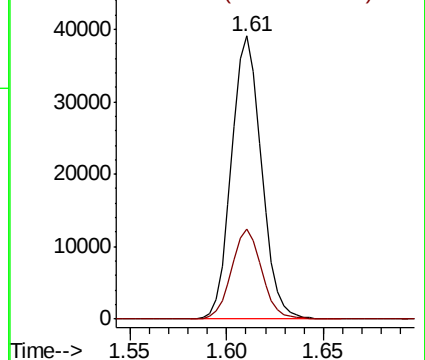
62 100

64 31.7 21.6 40.2



Abundance Ion 62.00 (61.70 to 62.70): VU0

Ion 64.10 (63.80 to 64.80): VU0



#6

Bromomethane

Concen: 4.862 ug/L

RT: 1.87 min Scan# 164

Delta R.T. 0.00 min

Lab File: VU039910.D

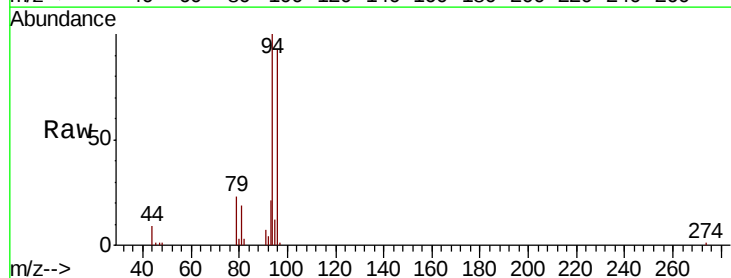
Acq: 19 Aug 2020 16:23

Tgt Ion: 94 Resp: 23286

Ion Ratio Lower Upper

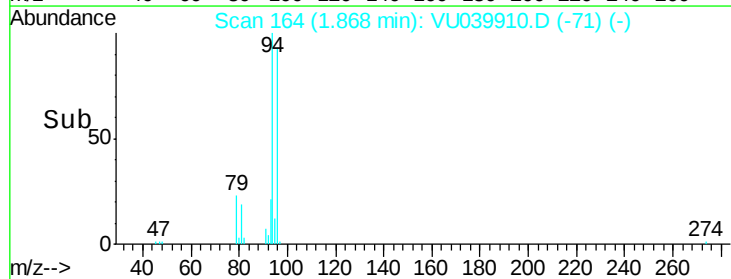
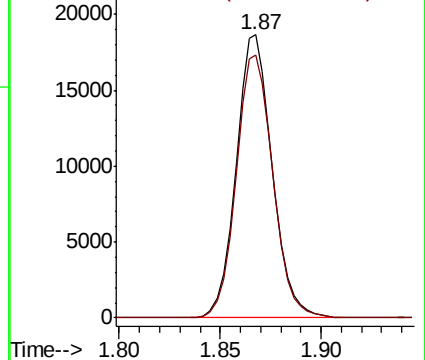
94 100

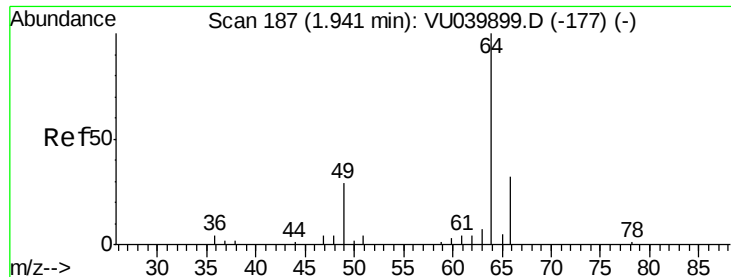
96 92.7 65.5 121.7



Abundance Ion 94.00 (93.70 to 94.70): VU0

Ion 96.00 (95.70 to 96.70): VU0





#8

Chloroethane

Concen: 4.631 ug/L

RT: 1.94 min Scan# 188

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

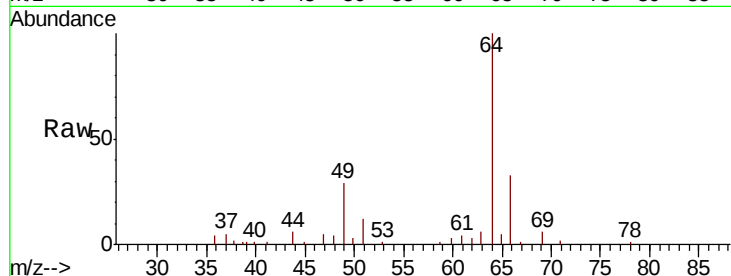
VSTD00525

Tot Ion: 64 Resp: 24845

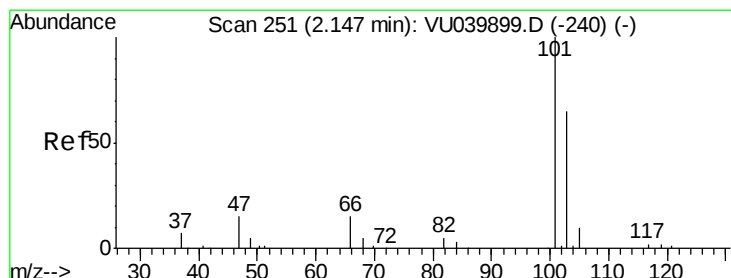
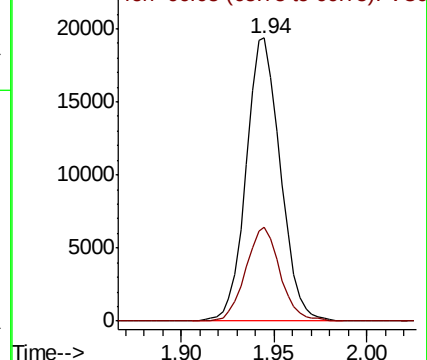
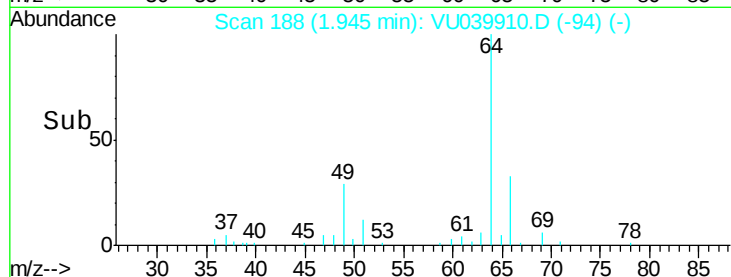
Ion Ratio Lower Upper

64 100

66 33.0 22.6 42.0



Abundance Ion 64.10 (63.80 to 64.80): VU039910.D (-94) (-)



#9

Trichlorofluoromethane

Concen: 5.068 ug/L

RT: 2.15 min Scan# 251

Delta R.T. 0.00 min

Lab File: VU039910.D

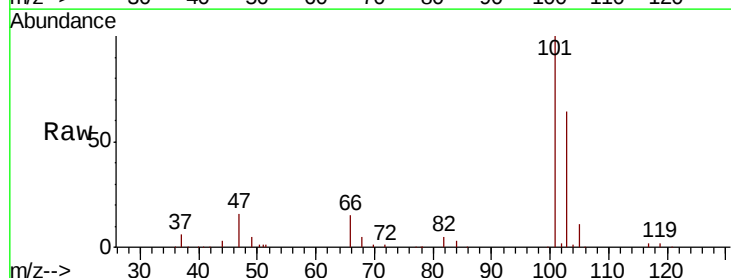
Acq: 19 Aug 2020 16:23

Tgt Ion:101 Resp: 63597

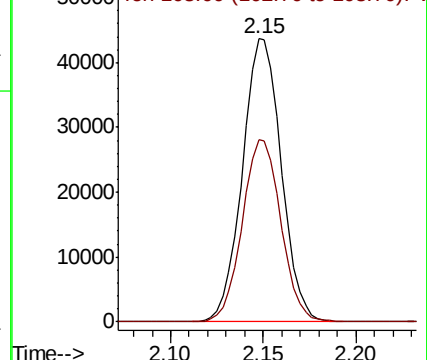
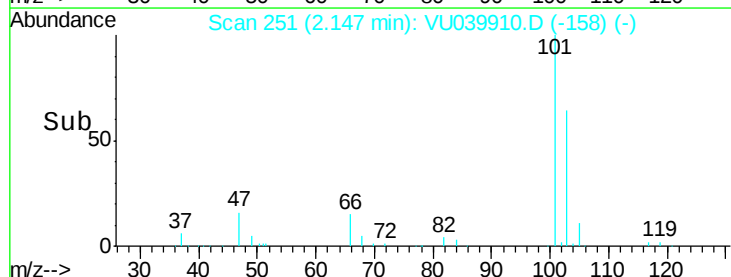
Ion Ratio Lower Upper

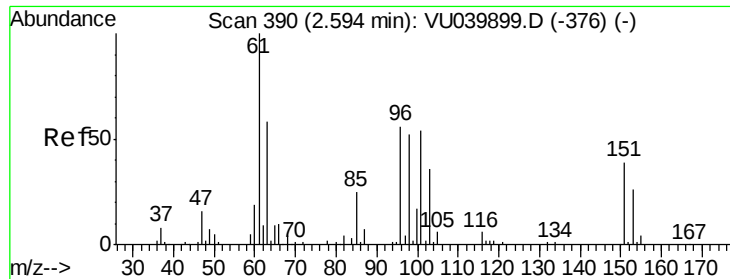
101 100

103 64.0 51.0 76.4



Abundance Ion 101.00 (100.70 to 101.70): VU039910.D (-158) (-)





#10

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

Concen: 4.816 ug/L

RT: 2.59 min Scan# 389

Delta R.T. -0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00525

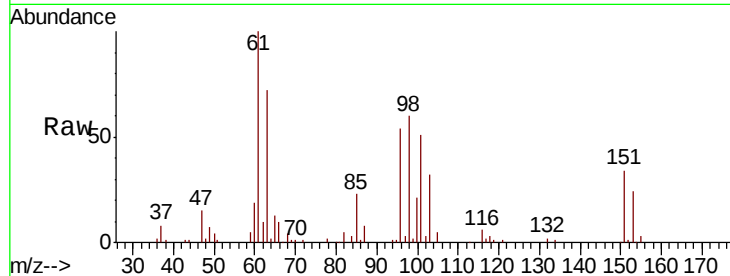
Tot Ion:101 Resp: 33245

Ion Ratio Lower Upper

101 100

85 46.0 34.5 51.7

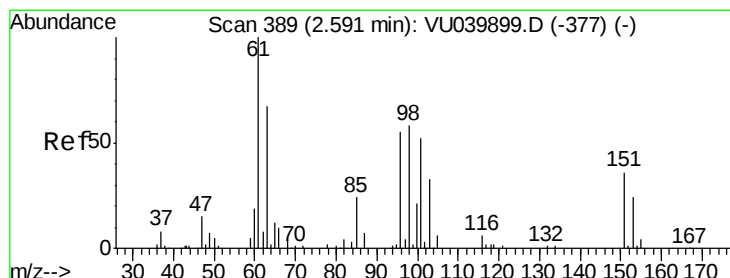
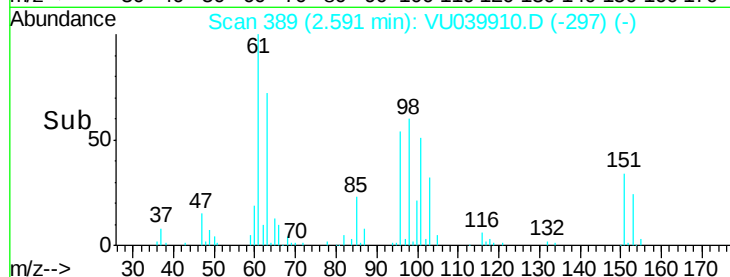
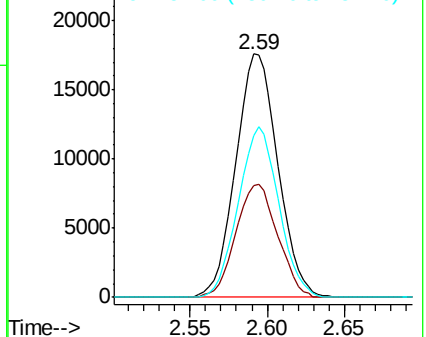
151 67.4 54.4 81.6



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: 4.661 ug/L

RT: 2.59 min Scan# 390

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

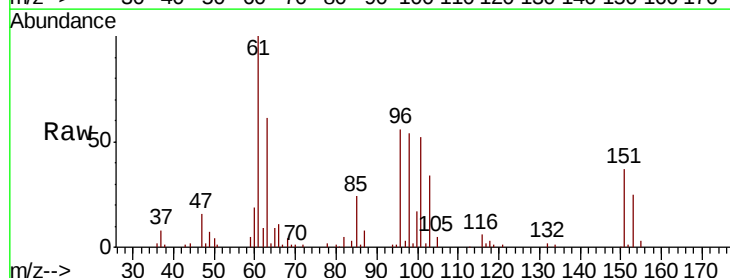
Tgt Ion: 96 Resp: 30737

Ion Ratio Lower Upper

96 100

61 178.2 126.8 235.4

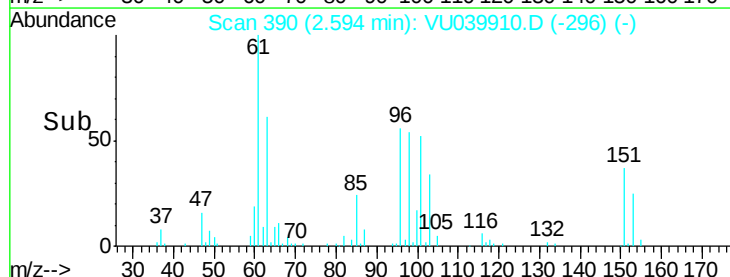
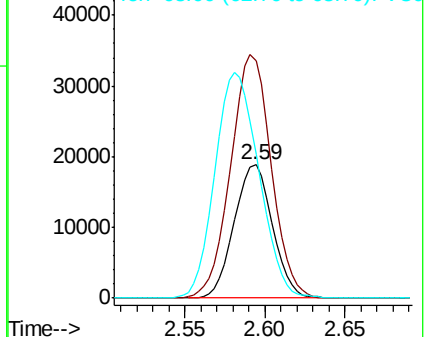
63 108.2 88.6 164.6

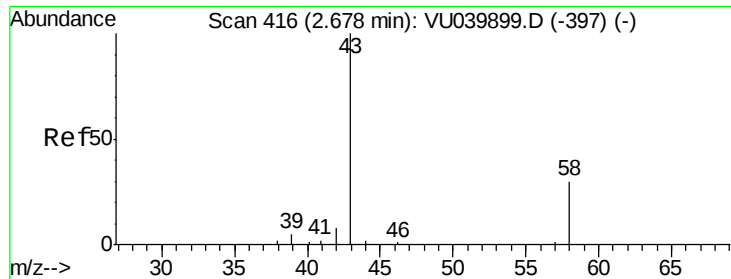


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.05 (60.75 to 61.75): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 42.552 ug/L

RT: 2.67 min Scan# 415

Delta R.T. -0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampled :

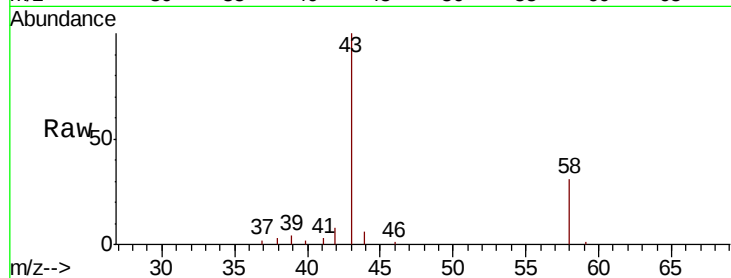
VSTD00525

Tot Ion: 43 Resp: 61200

Ion Ratio Lower Upper

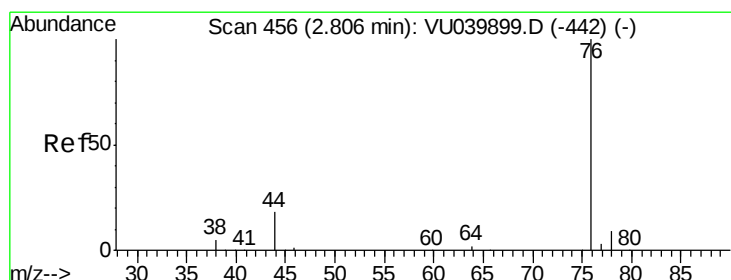
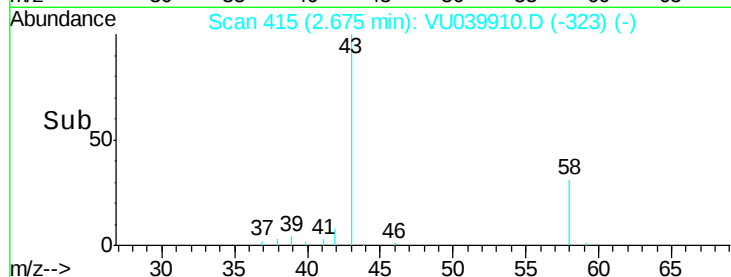
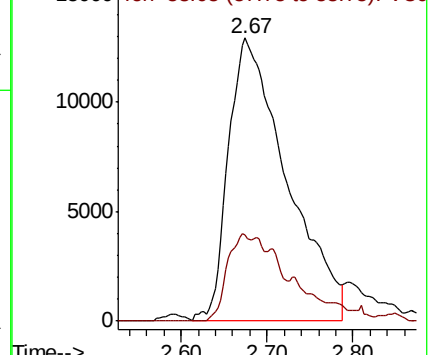
43 100

58 12.2 0.0 19.0



Abundance Ion 43.05 (42.75 to 43.75): VU039910.D (-323) (-)

Ion 58.05 (57.75 to 58.75): VU039910.D (-323) (-)



#14

Carbon disulfide

Concen: 4.916 ug/L

RT: 2.81 min Scan# 456

Delta R.T. 0.00 min

Lab File: VU039910.D

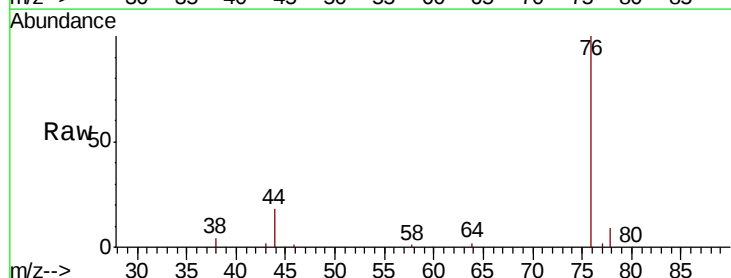
Acq: 19 Aug 2020 16:23

Tgt Ion: 76 Resp: 104770

Ion Ratio Lower Upper

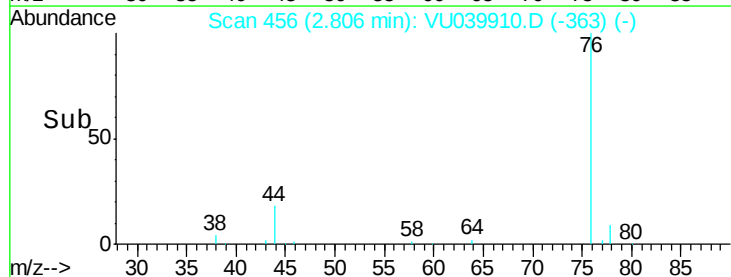
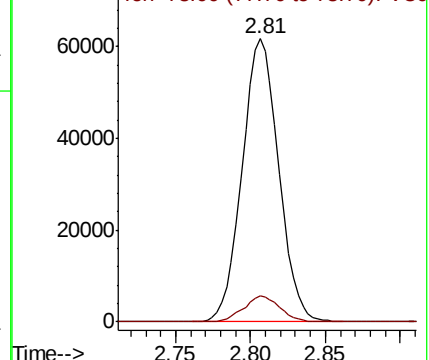
76 100

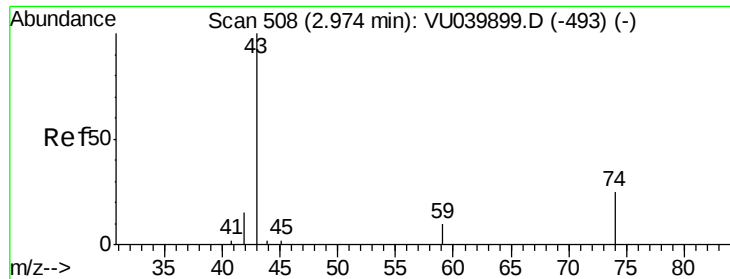
78 9.1 7.4 11.0



Abundance Ion 76.05 (75.75 to 76.75): VU039910.D (-363) (-)

Ion 78.00 (77.70 to 78.70): VU039910.D (-363) (-)





#15

Methvl Acetate

Concen: 4.132 ug/L

RT: 2.97 min Scan# 508

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

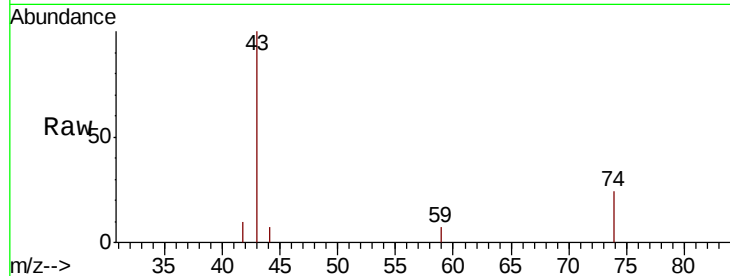
VSTD00525

Tot Ion: 43 Resp: 15254

Ion Ratio Lower Upper

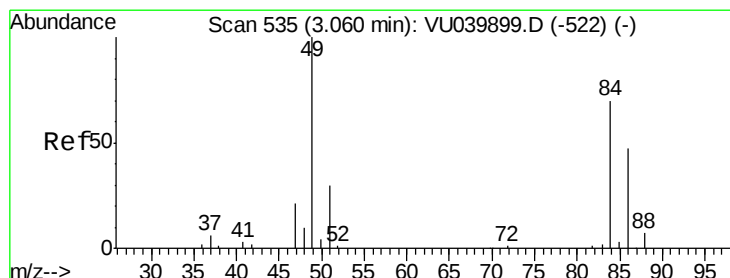
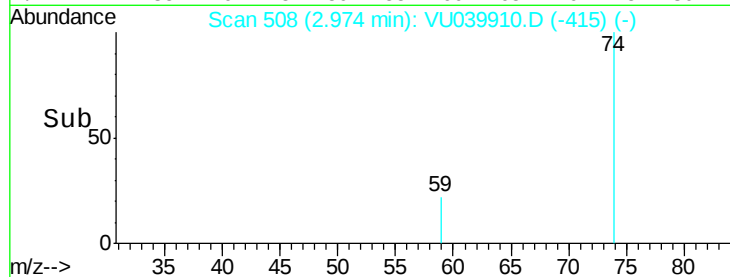
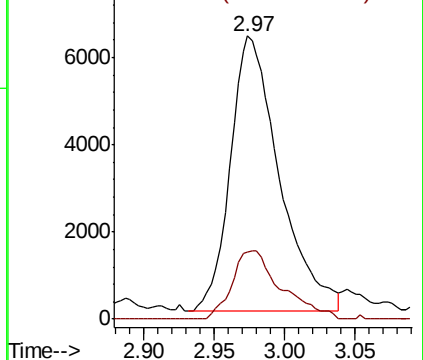
43 100

74 25.2 16.3 24.5#



Abundance Ion 43.05 (42.75 to 43.75): VU0

Ion 74.05 (73.75 to 74.75): VU0



#16

Methylene chloride

Concen: 4.137 ug/L

RT: 3.06 min Scan# 536

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

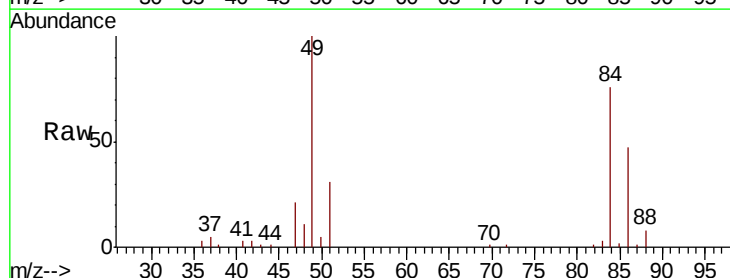
Tgt Ion: 84 Resp: 37517

Ion Ratio Lower Upper

84 100

86 61.2 47.2 87.6

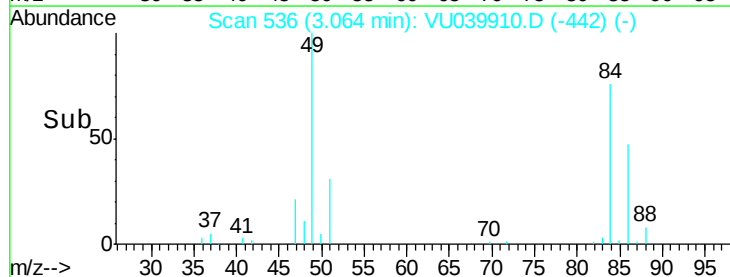
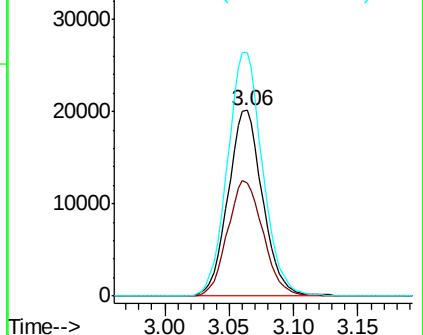
49 131.3 99.8 185.4

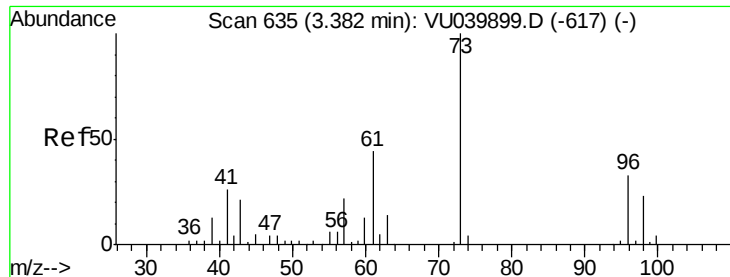


Abundance Ion 84.05 (83.75 to 84.75): VU0

Ion 86.00 (85.70 to 86.70): VU0

Ion 49.10 (48.80 to 49.80): VU0

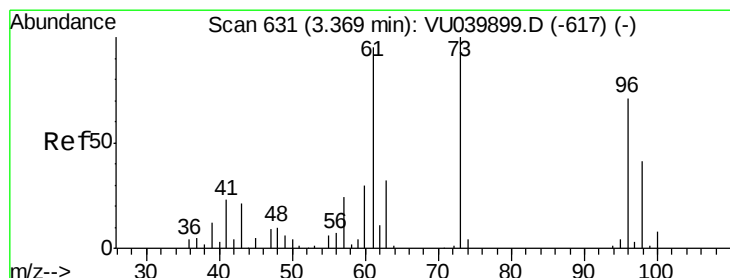
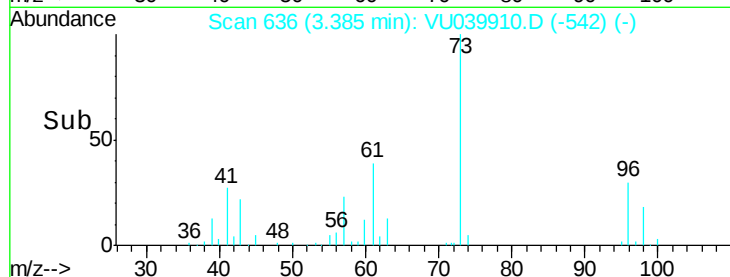
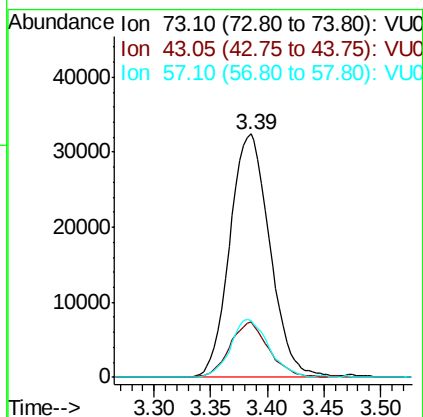
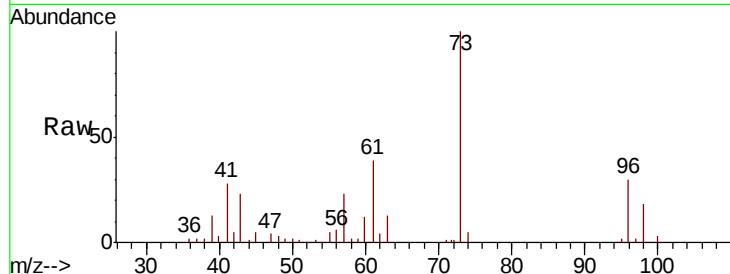




#17  
Methvl tert-butvl Ether  
Concen: 4.803 ug/L  
RT: 3.39 min Scan# 636  
Delta R.T. 0.00 min  
Lab File: VU039910.D  
Acq: 19 Aug 2020 16:23

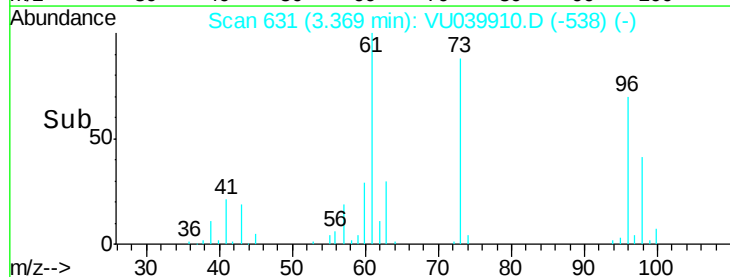
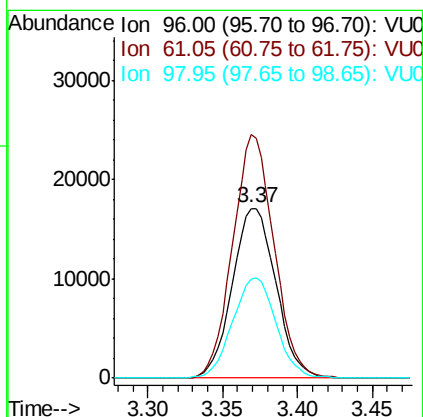
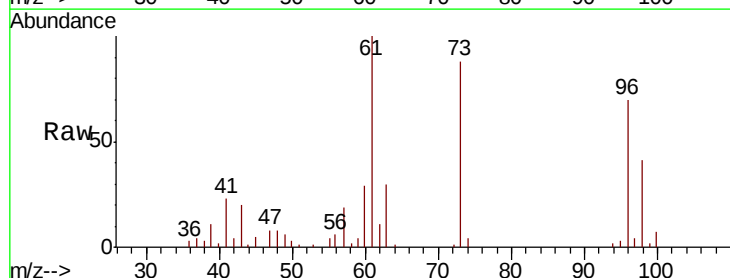
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00525

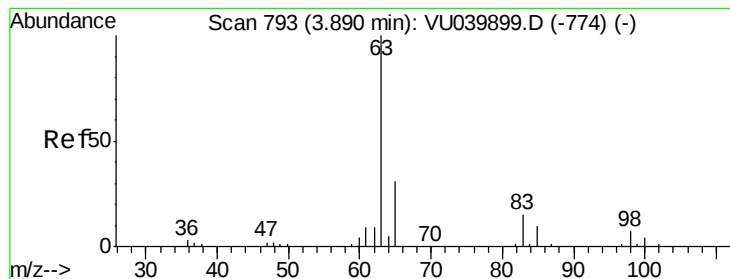
Tot Ion: 73 Resp: 79876  
Ion Ratio Lower Upper  
73 100  
43 22.0 16.6 24.8  
57 22.7 18.2 27.4



#18  
trans-1,2-Dichloroethene  
Concen: 5.044 ug/L  
RT: 3.37 min Scan# 631  
Delta R.T. 0.00 min  
Lab File: VU039910.D  
Acq: 19 Aug 2020 16:23

Tgt Ion: 96 Resp: 34543  
Ion Ratio Lower Upper  
96 100  
61 143.4 93.7 173.9  
98 58.4 40.7 75.5





#19

1,1-Dichloroethane

Concen: 4.831 ug/L

RT: 3.89 min Scan# 794

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00525

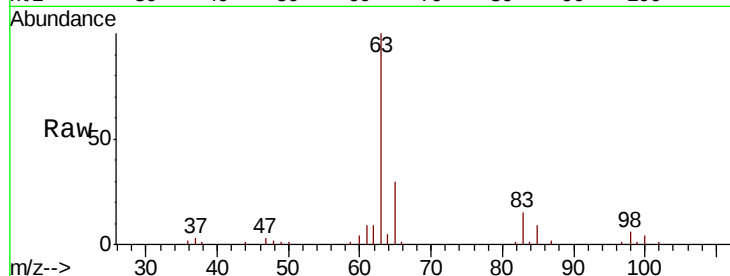
Tot Ion: 63 Resp: 61338

Ion Ratio Lower Upper

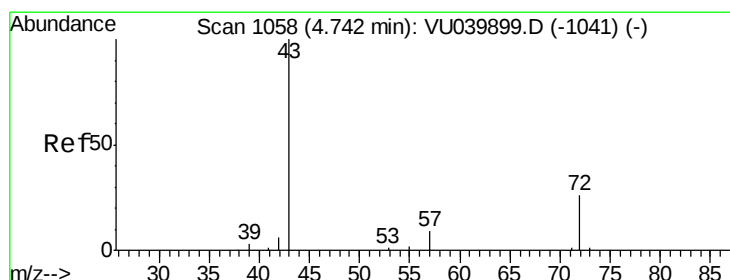
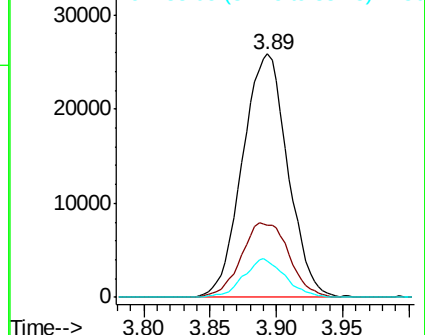
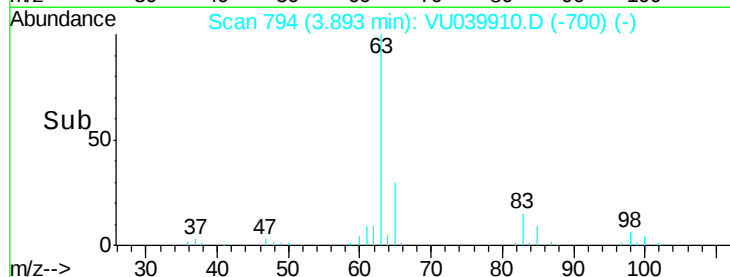
63 100

65 29.5 21.6 40.0

83 14.9 10.3 19.1



Abundance Ion 63.10 (62.80 to 63.80): VU039910.D (-700) (-)



#21

2-Butanone

Concen: 41.475 ug/L

RT: 4.75 min Scan# 1059

Delta R.T. 0.00 min

Lab File: VU039910.D

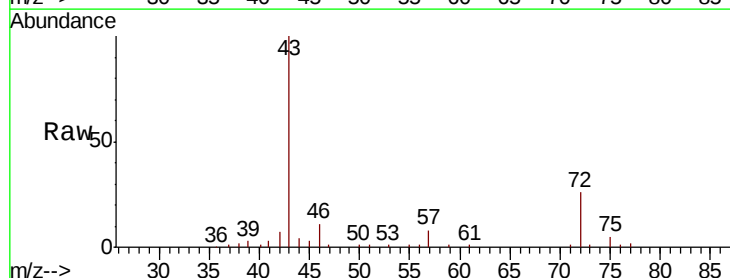
Acq: 19 Aug 2020 16:23

Tgt Ion: 43 Resp: 103645

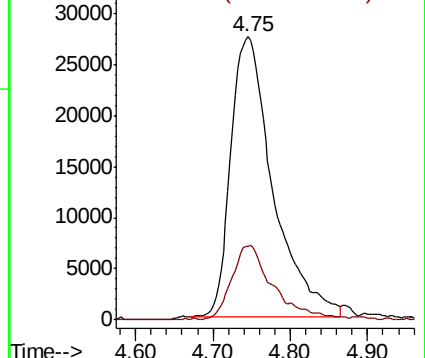
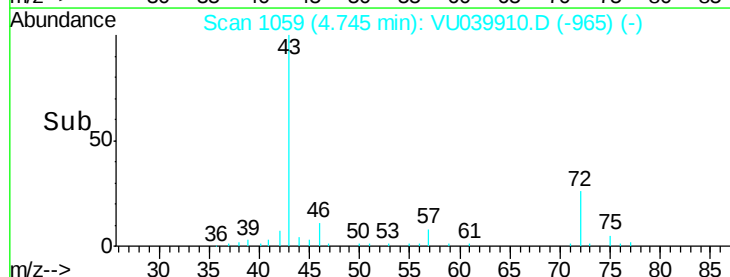
Ion Ratio Lower Upper

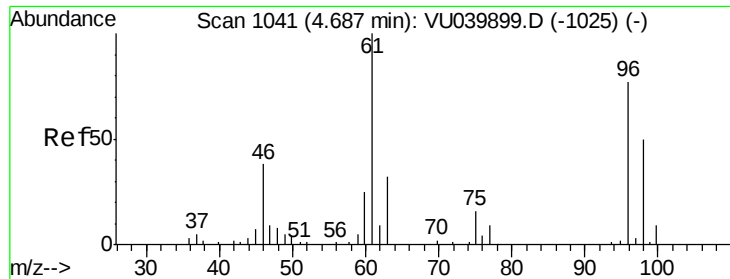
43 100

72 26.0 12.7 38.0



Abundance Ion 43.05 (42.75 to 43.75): VU039910.D (-965) (-)

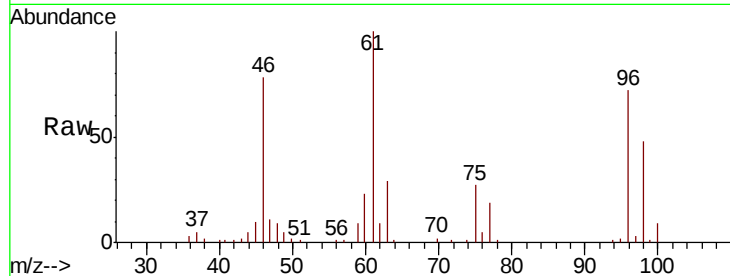




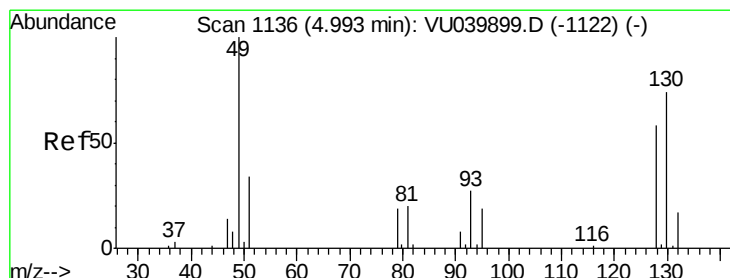
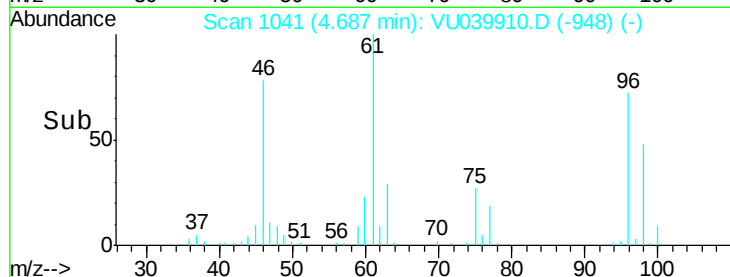
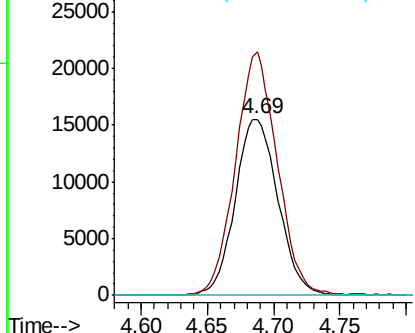
#22  
 cis-1,2-Dichloroethene  
 Concen: 4.861 ug/L  
 RT: 4.69 min Scan# 1041  
 Delta R.T. 0.00 min  
 Lab File: VU039910.D  
 Acq: 19 Aug 2020 16:23

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00525

Tot Ion: 96 Resp: 34851  
 Ion Ratio Lower Upper  
 96 100  
 61 138.4 90.9 168.9  
 68 0.0 0.0 0.0

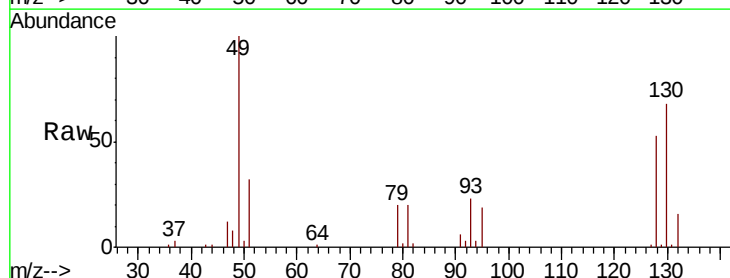


Abundance Ion 96.00 (95.70 to 96.70): VU0  
 Ion 61.05 (60.75 to 61.75): VU0  
 Ion 68.15 (67.85 to 68.85): VU0

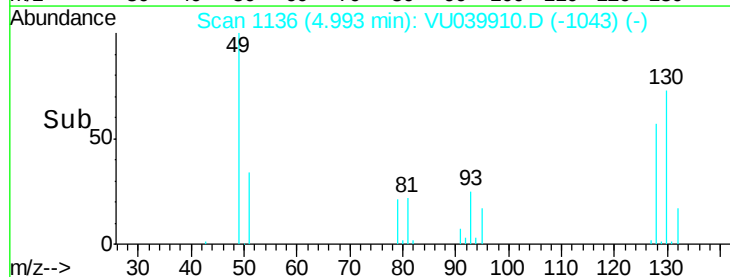
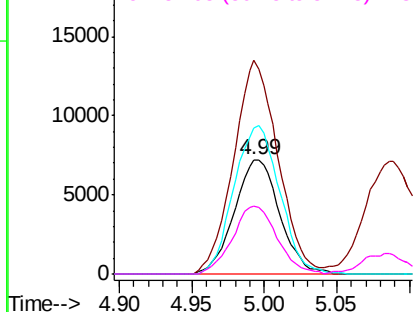


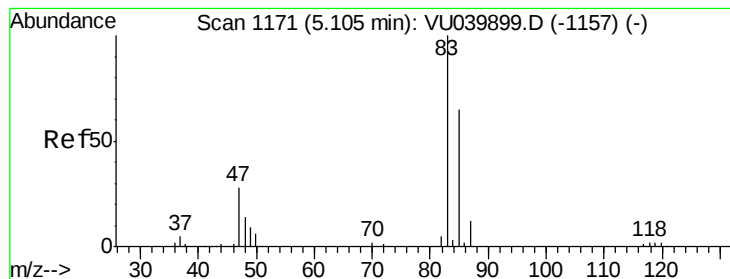
#23  
 Bromochloromethane  
 Concen: 4.655 ug/L  
 RT: 4.99 min Scan# 1136  
 Delta R.T. 0.00 min  
 Lab File: VU039910.D  
 Acq: 19 Aug 2020 16:23

Tgt Ion: 128 Resp: 15699  
 Ion Ratio Lower Upper  
 128 100  
 49 187.1 121.2 225.2  
 130 127.7 90.2 167.6  
 51 59.5 47.2 70.8



Abundance Ion 127.90 (127.60 to 128.60): V  
 Ion 49.10 (48.80 to 49.80): VU0  
 Ion 129.95 (129.65 to 130.65): V  
 Ion 51.05 (50.75 to 51.75): VU0





#25

Chloroform

Concen: 4.832 ug/L

RT: 5.11 min Scan# 1172

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

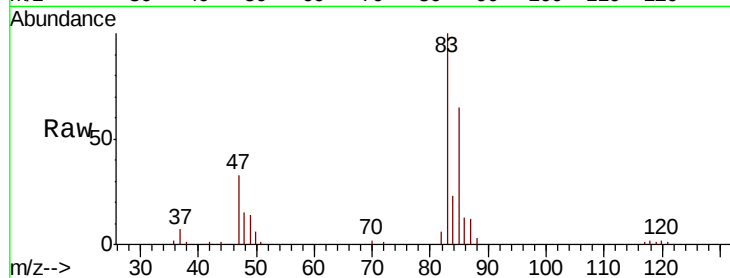
VSTD00525

Tot Ion: 83 Resp: 62191

Ion Ratio Lower Upper

83 100

85 65.5 46.4 86.2



Abundance Ion 83.05 (82.75 to 83.75): VU039899.D (-1157) (-)

Ion 85.00 (84.70 to 85.70): VU039910.D (-1078) (-)

5.11

30000

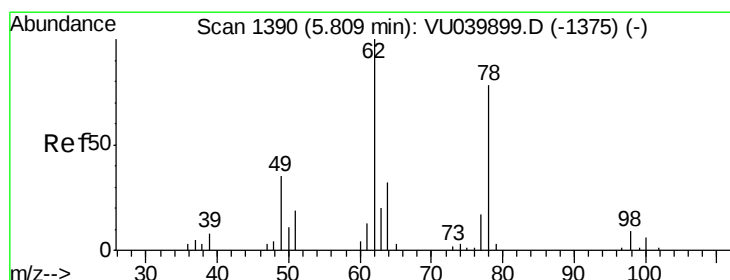
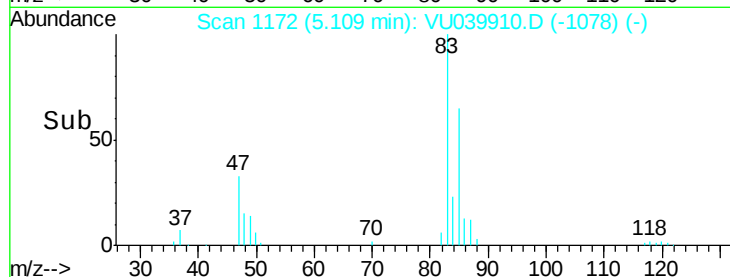
20000

10000

0

Time-->

5.00 5.05 5.10 5.15 5.20



#27

1,2-Dichloroethane

Concen: 4.756 ug/L

RT: 5.81 min Scan# 1390

Delta R.T. 0.00 min

Lab File: VU039910.D

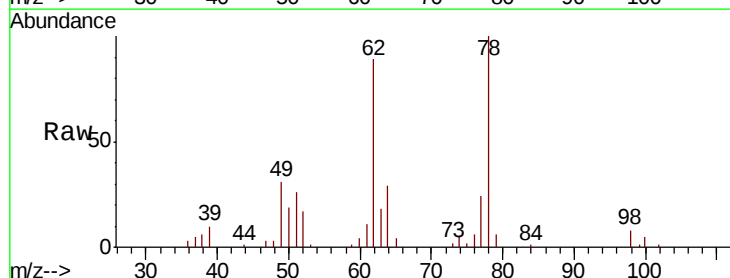
Acq: 19 Aug 2020 16:23

Tgt Ion: 62 Resp: 42950

Ion Ratio Lower Upper

62 100

98 8.7 7.4 11.2



Abundance Ion 62.00 (61.70 to 62.70): VU039899.D (-1375) (-)

Ion 98.05 (97.75 to 98.75): VU039910.D (-1297) (-)

5.81

25000

20000

15000

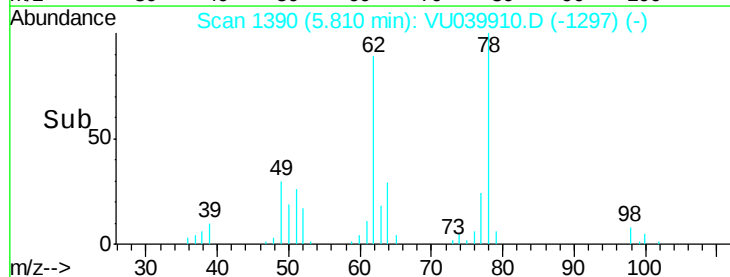
10000

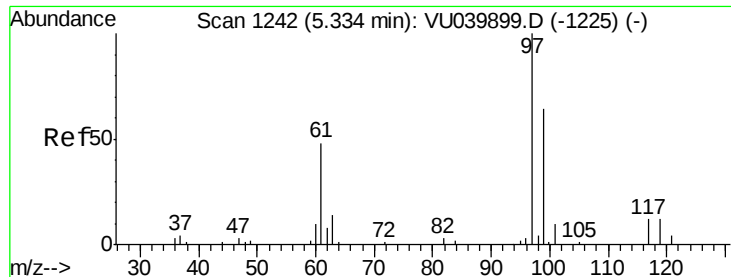
5000

0

Time-->

5.70 5.75 5.80 5.85 5.90

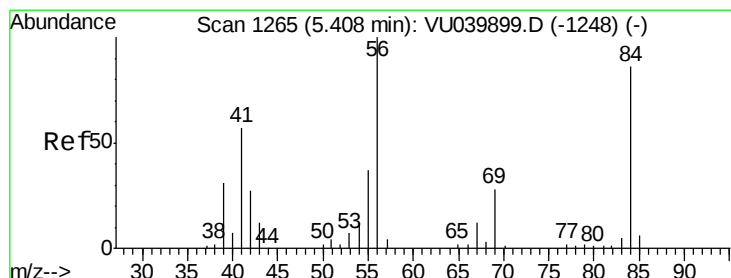
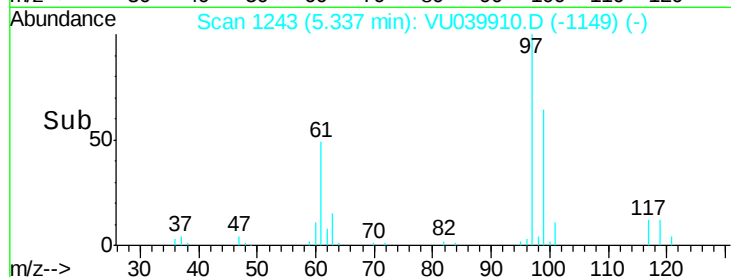
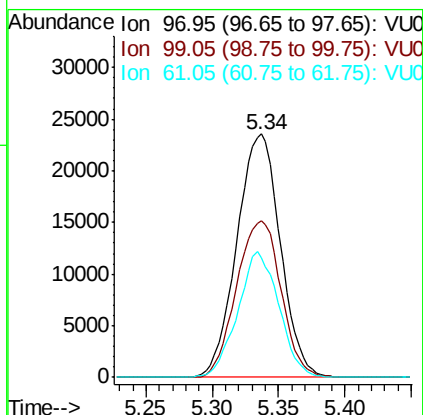
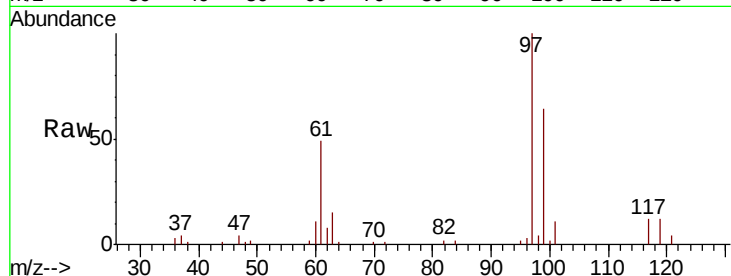




#29  
 1,1,1-Trichloroethane  
 Concen: 5.126 ug/L  
 RT: 5.34 min Scan# 1243  
 Delta R.T. 0.00 min  
 Lab File: VU039910.D  
 Acq: 19 Aug 2020 16:23

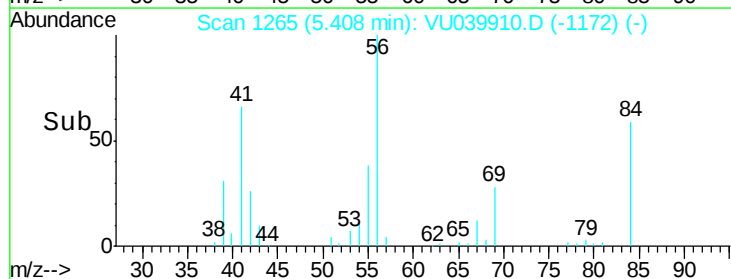
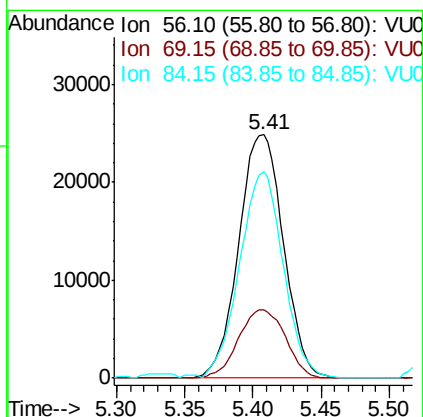
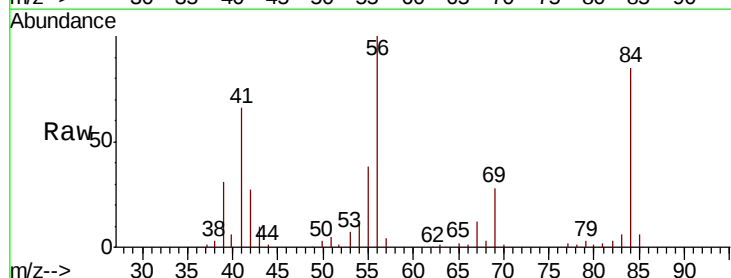
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00525

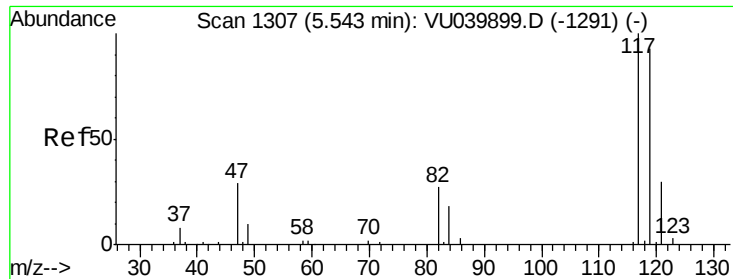
Tot Ion: 97 Resp: 53733  
 Ion Ratio Lower Upper  
 97 100  
 99 65.8 51.4 77.2  
 61 48.8 39.1 58.7



#30  
 Cyclohexane  
 Concen: 5.451 ug/L  
 RT: 5.41 min Scan# 1265  
 Delta R.T. 0.00 min  
 Lab File: VU039910.D  
 Acq: 19 Aug 2020 16:23

Tgt Ion: 56 Resp: 56570  
 Ion Ratio Lower Upper  
 56 100  
 69 29.4 23.1 34.7  
 84 82.8 69.0 103.6





#31

Carbon tetrachloride

Concen: 5.216 ug/L

RT: 5.54 min Scan# 1307

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

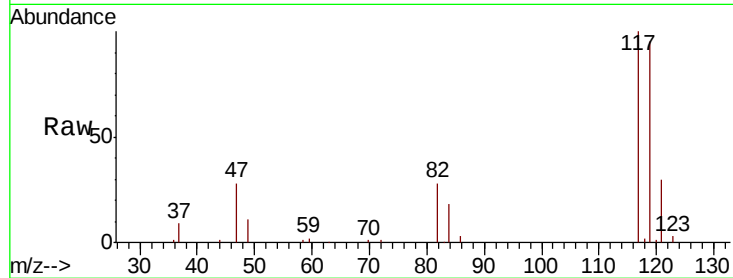
VSTD00525

Tot Ion:117 Resp: 48278

Ion Ratio Lower Upper

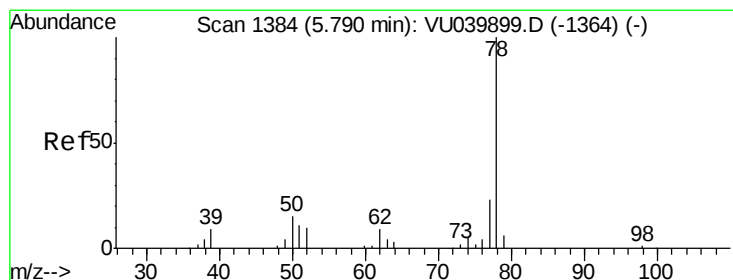
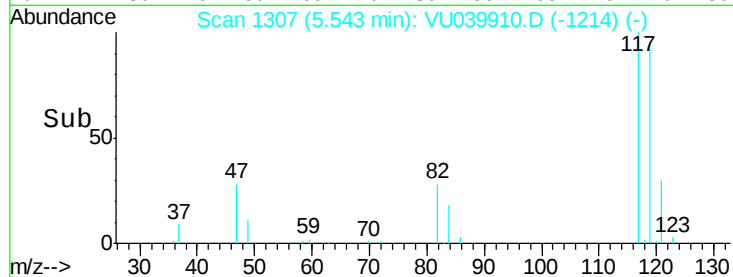
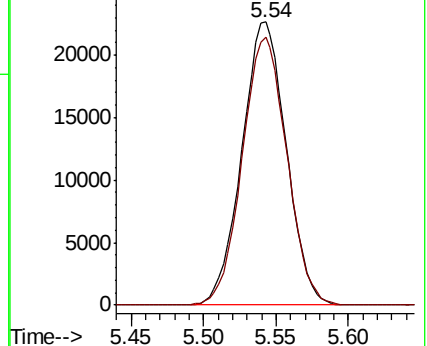
117 100

119 94.7 77.6 116.4



Abundance Ion 116.90 (116.60 to 117.60): V

Ion 118.90 (118.60 to 119.60): V



#33

Benzene

Concen: 5.318 ug/L

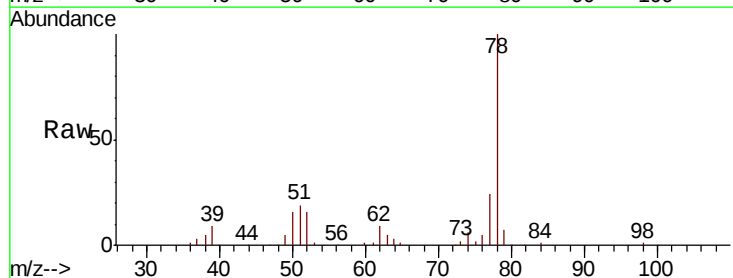
RT: 5.79 min Scan# 1384

Delta R.T. 0.00 min

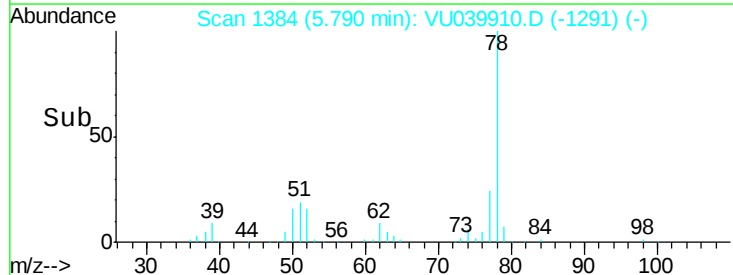
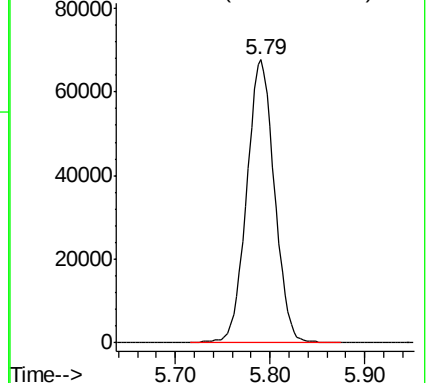
Lab File: VU039910.D

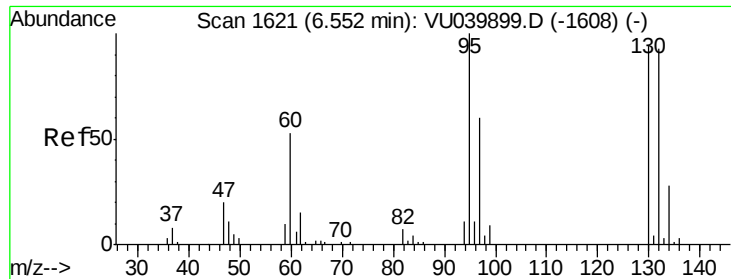
Acq: 19 Aug 2020 16:23

Tgt Ion: 78 Resp: 137720



Abundance Ion 78.10 (77.80 to 78.80): VU0

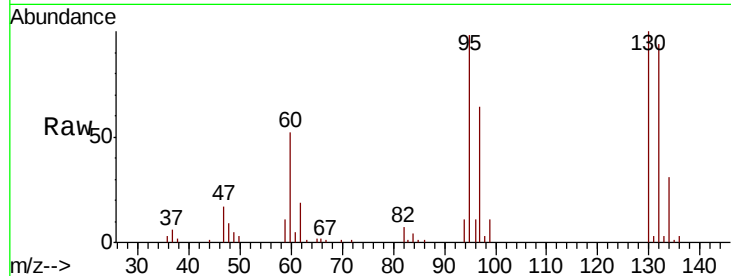




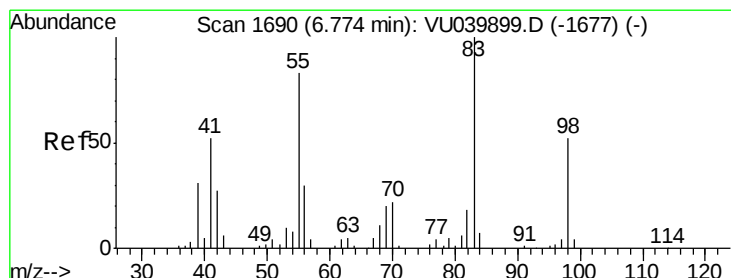
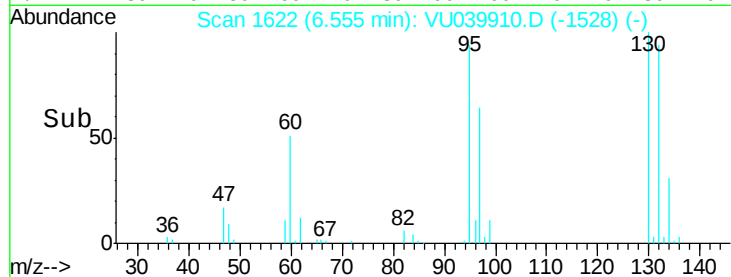
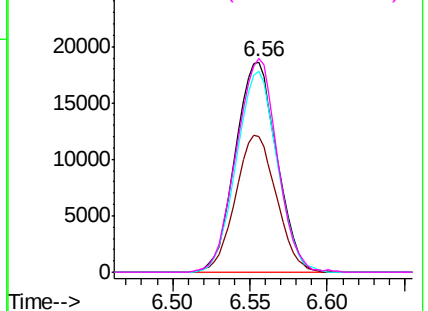
#34  
 Trichloroethene  
 Concen: 5.162 ug/L  
 RT: 6.56 min Scan# 1622  
 Delta R.T. 0.00 min  
 Lab File: VU039910.D  
 Acq: 19 Aug 2020 16:23

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00525

Tot Ion: 95 Resp: 34692  
 Ion Ratio Lower Upper  
 95 100  
 97 64.7 42.0 78.0  
 132 95.4 65.0 120.8  
 130 101.7 65.5 121.7

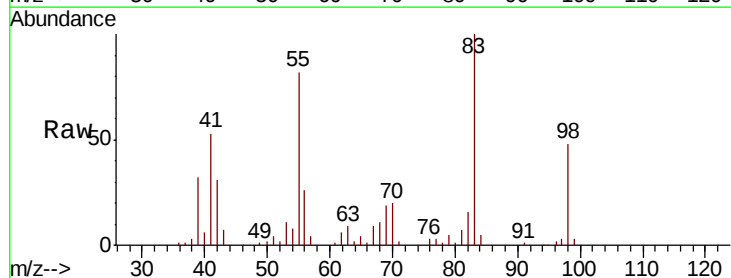


Abundance Ion 95.00 (94.70 to 95.70): VU0  
 Ion 96.95 (96.65 to 97.65): VU0  
 Ion 131.95 (131.65 to 132.65): V  
 Ion 129.95 (129.65 to 130.65): V

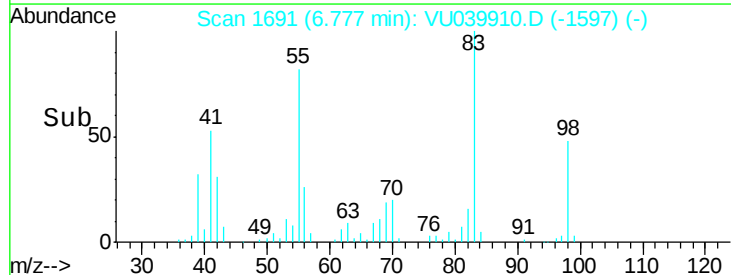
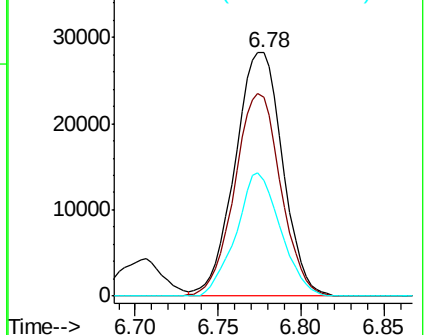


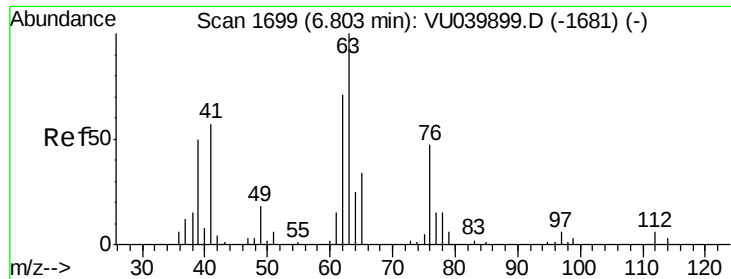
#35  
 Methylcyclohexane  
 Concen: 5.476 ug/L  
 RT: 6.78 min Scan# 1691  
 Delta R.T. 0.00 min  
 Lab File: VU039910.D  
 Acq: 19 Aug 2020 16:23

Tgt Ion: 83 Resp: 56384  
 Ion Ratio Lower Upper  
 83 100  
 55 80.7 64.1 96.1  
 98 47.1 39.4 59.0



Abundance Ion 83.15 (82.85 to 83.85): VU0  
 Ion 55.10 (54.80 to 55.80): VU0  
 Ion 98.15 (97.85 to 98.85): VU0

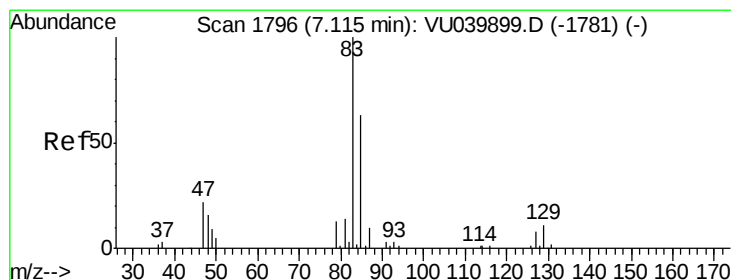
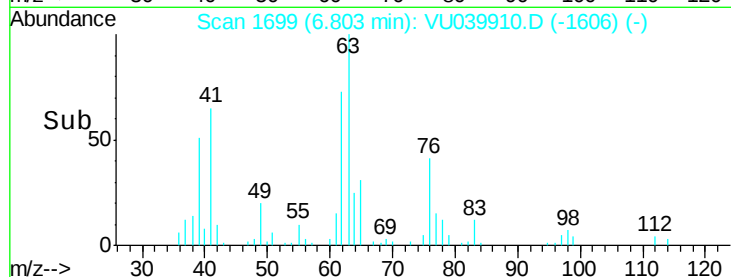
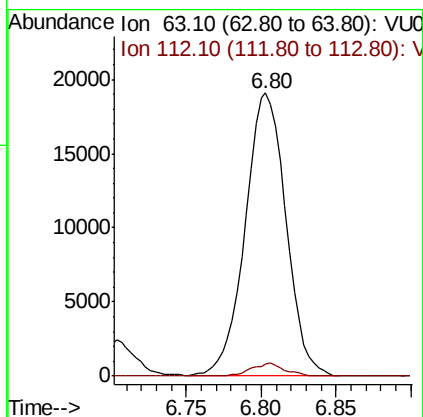
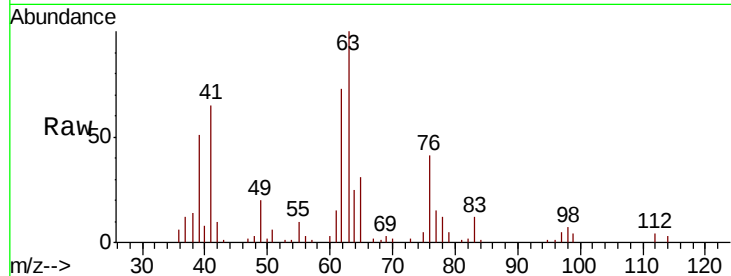




#37  
 1,2-Dichloropropane  
 Concen: 5.271 ug/L  
 RT: 6.80 min Scan# 1699  
 Delta R.T. 0.00 min  
 Lab File: VU039910.D  
 Acq: 19 Aug 2020 16:23

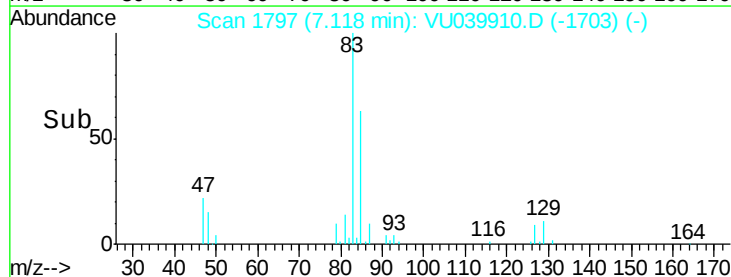
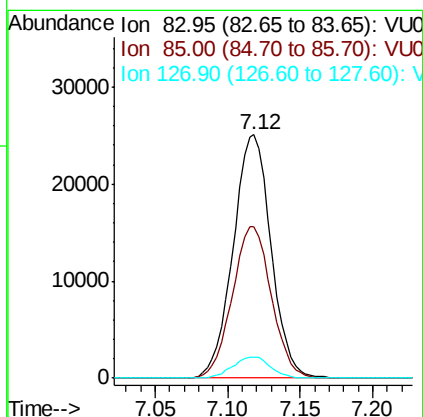
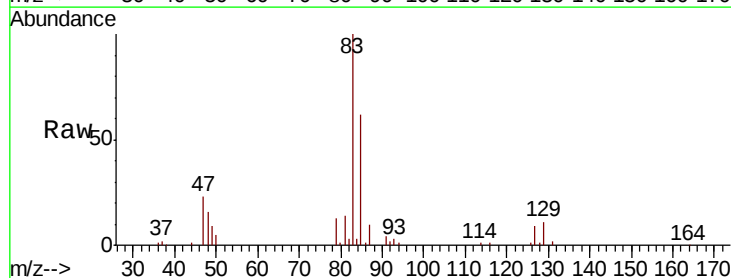
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00525

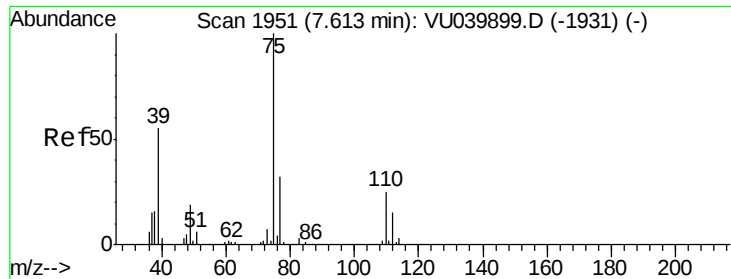
Tot Ion: 63 Resp: 36280  
 Ion Ratio Lower Upper  
 63 100  
 112 3.8 4.1 6.1#



#38  
 Bromodichloromethane  
 Concen: 5.199 ug/L  
 RT: 7.12 min Scan# 1797  
 Delta R.T. 0.00 min  
 Lab File: VU039910.D  
 Acq: 19 Aug 2020 16:23

Tgt Ion: 83 Resp: 45474  
 Ion Ratio Lower Upper  
 83 100  
 85 62.4 44.3 82.3  
 127 8.7 6.7 10.1

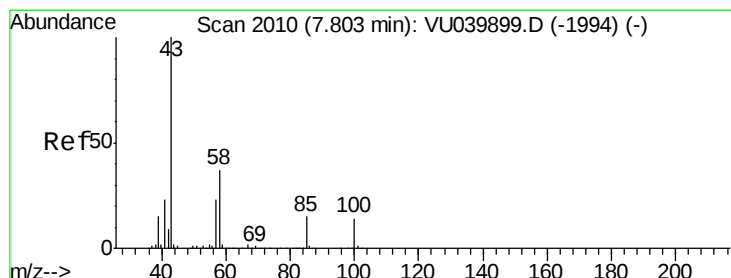
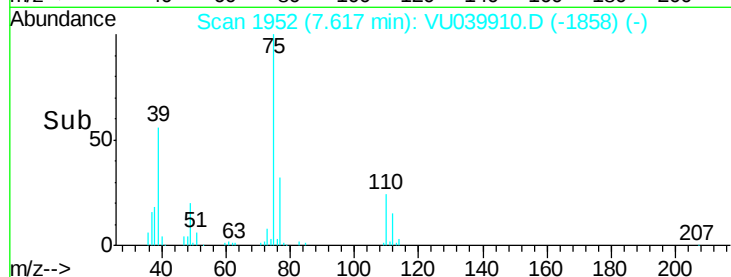
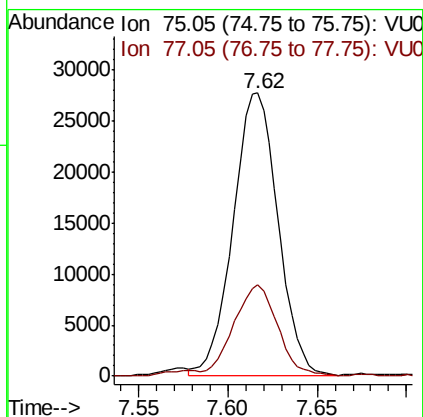
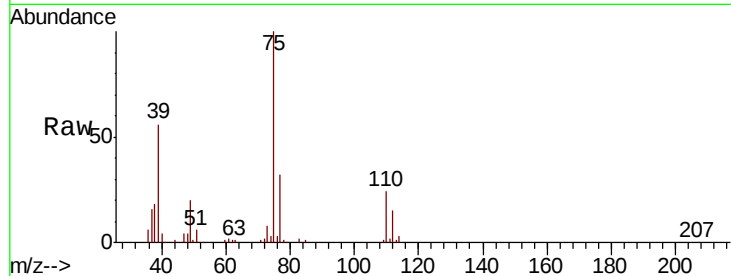




#39  
 cis-1,3-Dichloropropene  
 Concen: 5.090 ug/L  
 RT: 7.62 min Scan# 1952  
 Delta R.T. 0.00 min  
 Lab File: VU039910.D  
 Acq: 19 Aug 2020 16:23

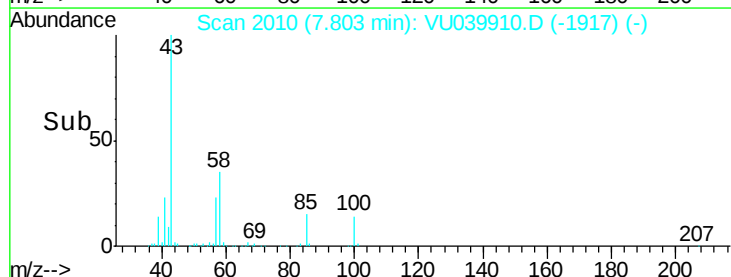
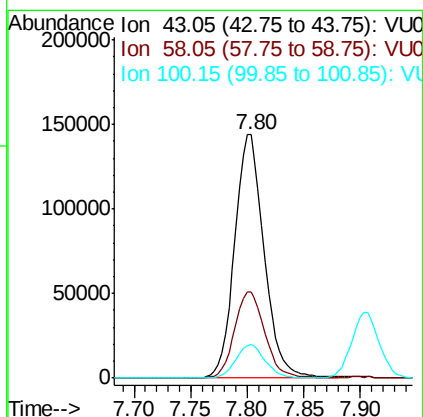
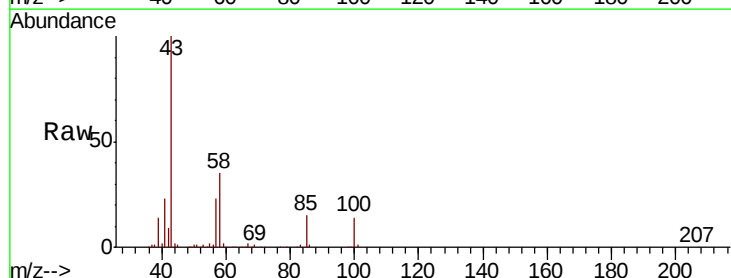
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00525

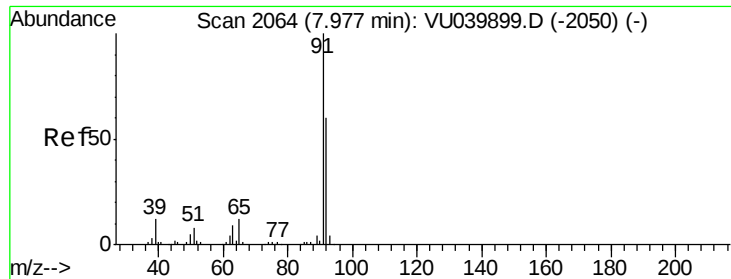
Tot Ion: 75 Resp: 48959  
 Ion Ratio Lower Upper  
 75 100  
 77 32.4 22.6 42.0



#40  
 4-Methyl-2-pentanone  
 Concen: 47.984 ug/L  
 RT: 7.80 min Scan# 2010  
 Delta R.T. 0.00 min  
 Lab File: VU039910.D  
 Acq: 19 Aug 2020 16:23

Tgt Ion: 43 Resp: 261536  
 Ion Ratio Lower Upper  
 43 100  
 58 36.5 29.7 44.5  
 100 13.7 11.2 16.8





#42

Toluene

Concen: 5.366 ug/L

RT: 7.98 min Scan# 2064

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

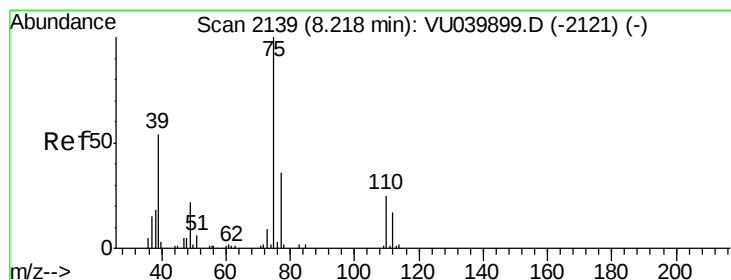
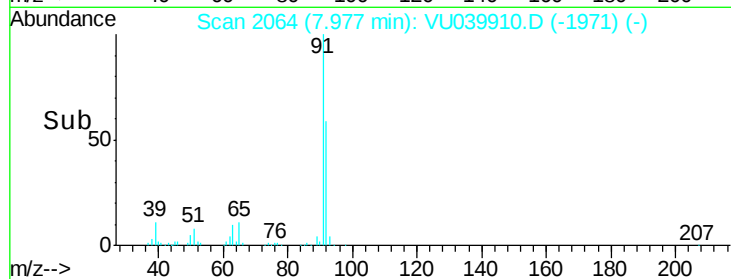
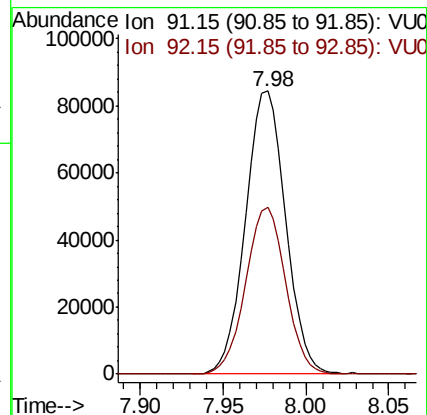
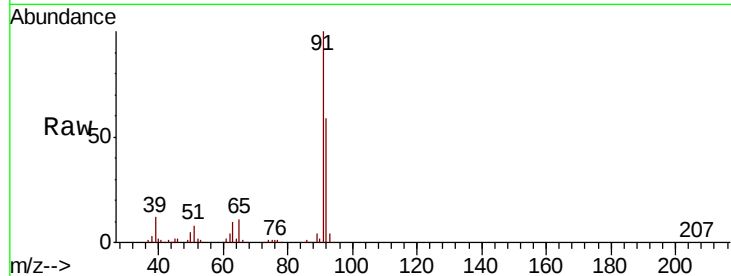
VSTD00525

Tot Ion: 91 Resp: 142109

Ion Ratio Lower Upper

91 100

92 58.8 42.3 78.5



#44

trans-1,3-Dichloropropene

Concen: 4.906 ug/L

RT: 8.21 min Scan# 2138

Delta R.T. -0.00 min

Lab File: VU039910.D

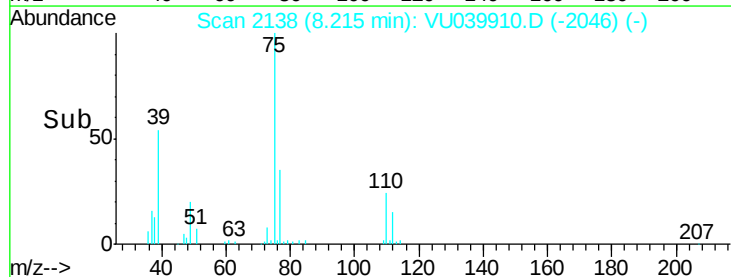
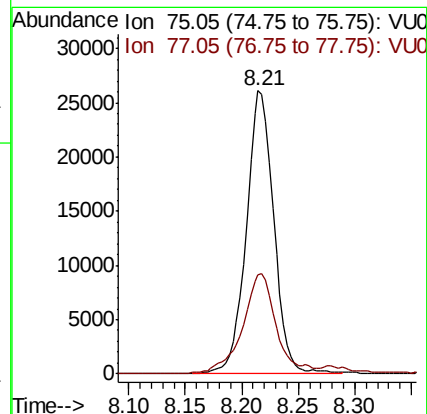
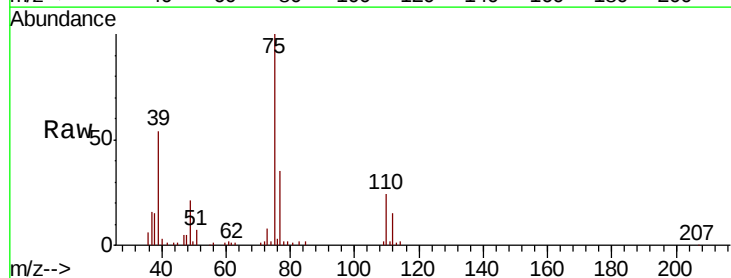
Acq: 19 Aug 2020 16:23

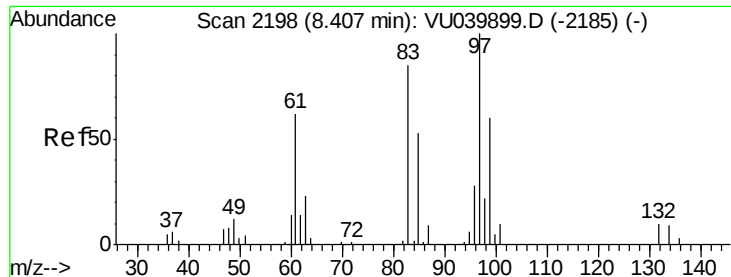
Tgt Ion: 75 Resp: 44346

Ion Ratio Lower Upper

75 100

77 35.2 25.3 46.9

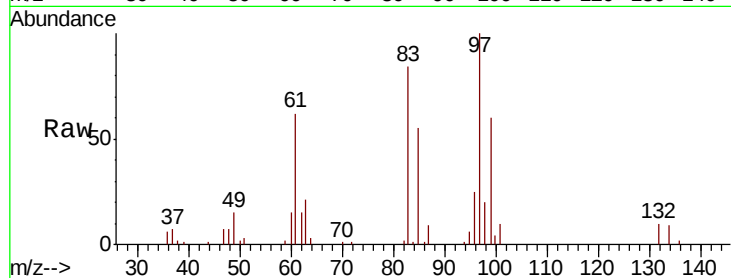




#45  
 1,1,2-Trichloroethane  
 Concen: 5.073 ug/L  
 RT: 8.41 min Scan# 2198  
 Delta R.T. 0.00 min  
 Lab File: VU039910.D  
 Acq: 19 Aug 2020 16:23

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00525

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 97    | Resp: | 26531 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 99       | 60.4  | 42.1  | 78.3  |
| 83       | 84.2  | 59.3  | 110.1 |
| 85       | 55.2  | 37.2  | 69.2  |



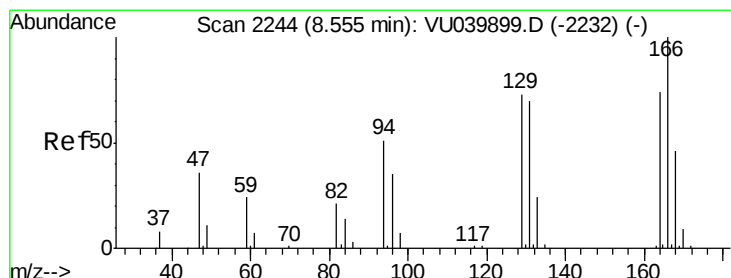
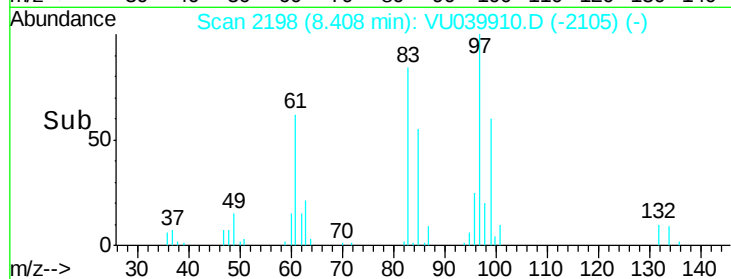
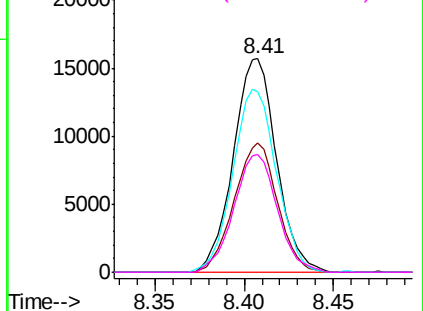
Abundance

Ion 96.95 (96.65 to 97.65): VU039910.D (-2105) (-)

Ion 99.05 (98.75 to 99.75): VU039910.D (-2105) (-)

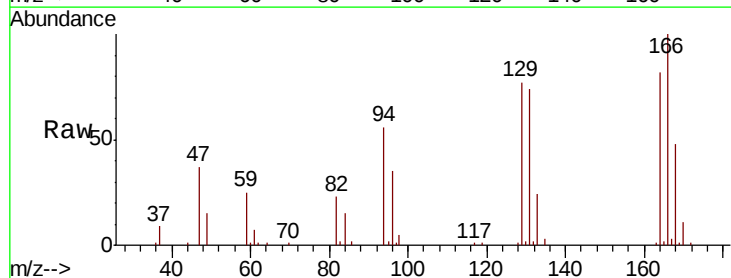
Ion 82.95 (82.65 to 83.65): VU039910.D (-2105) (-)

Ion 85.00 (84.70 to 85.70): VU039910.D (-2105) (-)



#47  
 Tetrachloroethene  
 Concen: 5.351 ug/L  
 RT: 8.56 min Scan# 2245  
 Delta R.T. 0.00 min  
 Lab File: VU039910.D  
 Acq: 19 Aug 2020 16:23

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 164   | Resp: | 26531 |
| Ion      | Ratio | Lower | Upper |
| 164      | 100   |       |       |
| 129      | 93.7  | 69.1  | 128.3 |
| 131      | 89.6  | 66.0  | 122.6 |
| 166      | 121.4 | 94.0  | 174.6 |



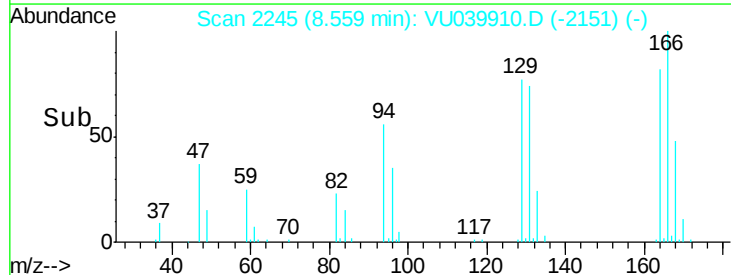
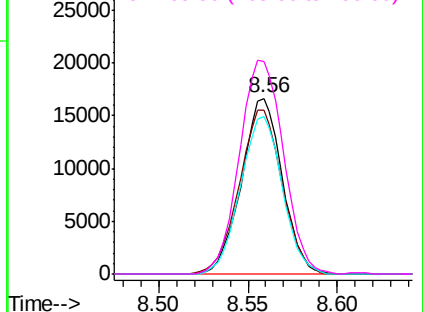
Abundance

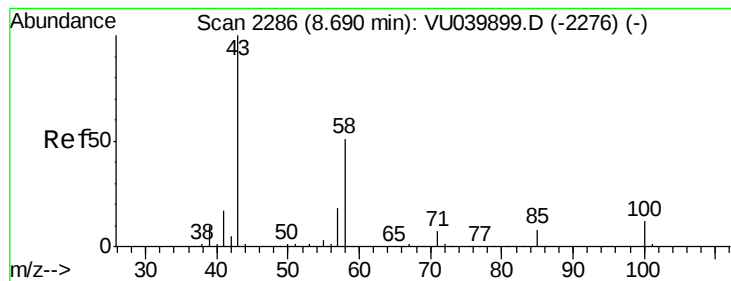
Ion 163.90 (163.60 to 164.60): VU039910.D (-2151) (-)

Ion 128.95 (128.65 to 129.65): VU039910.D (-2151) (-)

Ion 130.95 (130.65 to 131.65): VU039910.D (-2151) (-)

Ion 165.90 (165.60 to 166.60): VU039910.D (-2151) (-)





#48

2-Hexanone

Concen: 48.723 ug/L

RT: 8.69 min Scan# 2286

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00525

Tot Ion: 43 Resp: 190308

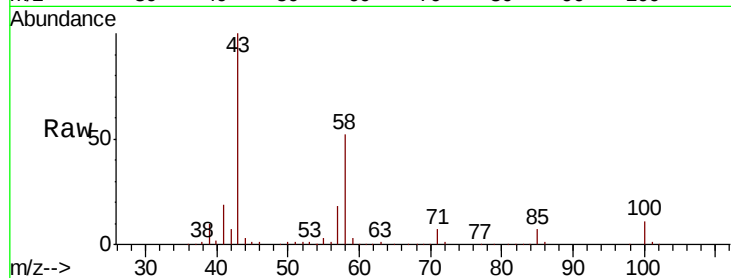
Ion Ratio Lower Upper

43 100

58 52.0 41.3 61.9

57 17.5 14.1 21.1

100 11.5 9.1 13.7

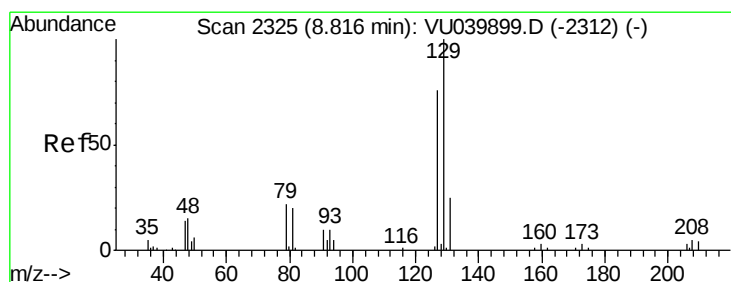
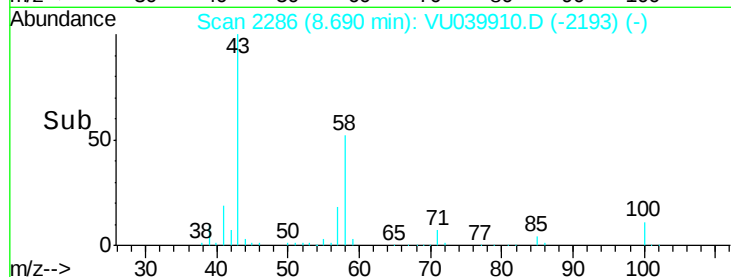
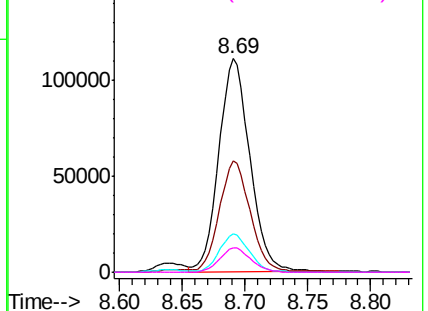


Abundance Ion 43.05 (42.75 to 43.75): VU0

Ion 58.05 (57.75 to 58.75): VU0

Ion 57.20 (56.90 to 57.90): VU0

Ion 100.15 (99.85 to 100.85): VU0



#49

Dibromochloromethane

Concen: 4.912 ug/L

RT: 8.81 min Scan# 2324

Delta R.T. -0.00 min

Lab File: VU039910.D

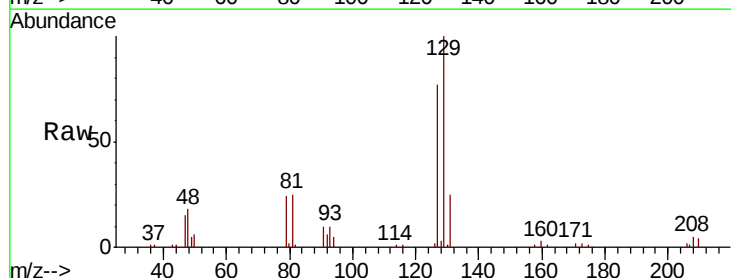
Acq: 19 Aug 2020 16:23

Tgt Ion: 129 Resp: 30667

Ion Ratio Lower Upper

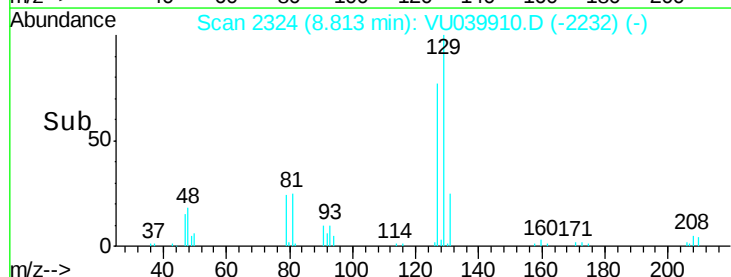
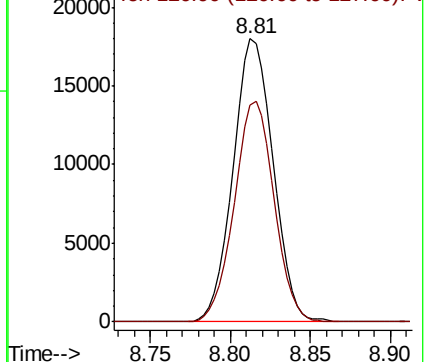
129 100

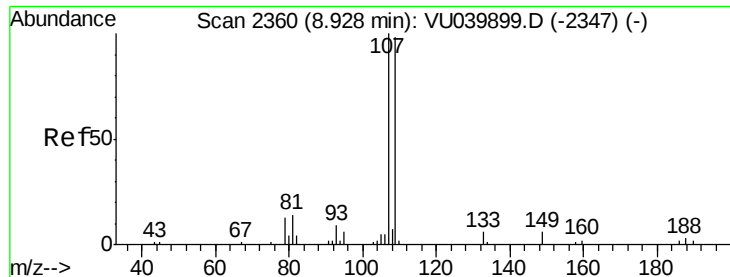
127 76.7 53.1 98.7



Abundance Ion 128.95 (128.65 to 129.65): V

Ion 126.90 (126.60 to 127.60): V

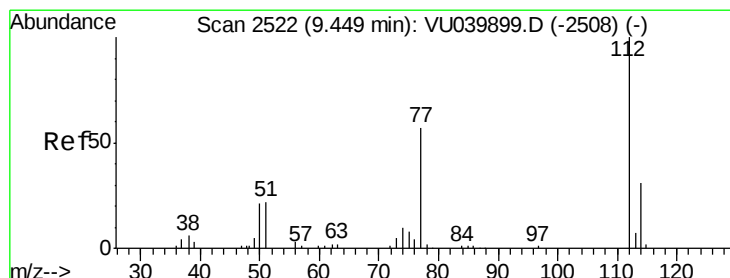
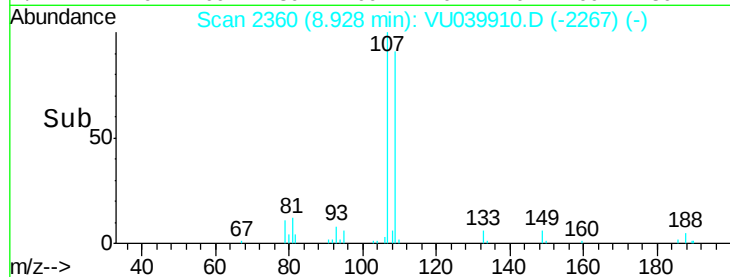
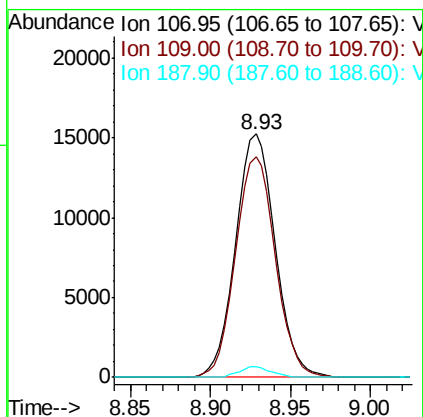
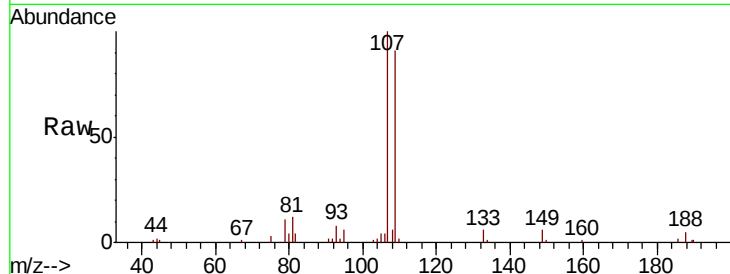




#50  
 1,2-Dibromoethane  
 Concen: 5.156 ug/L  
 RT: 8.93 min Scan# 2360  
 Delta R.T. 0.00 min  
 Lab File: VU039910.D  
 Acq: 19 Aug 2020 16:23

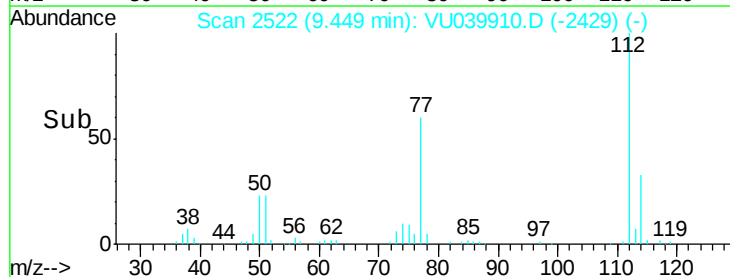
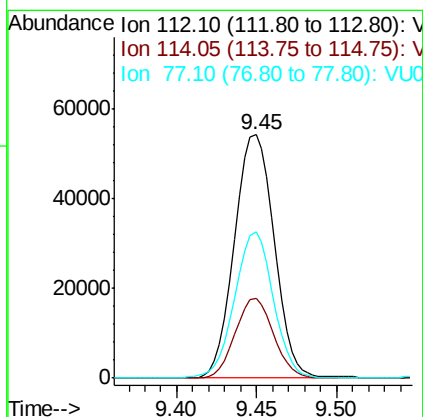
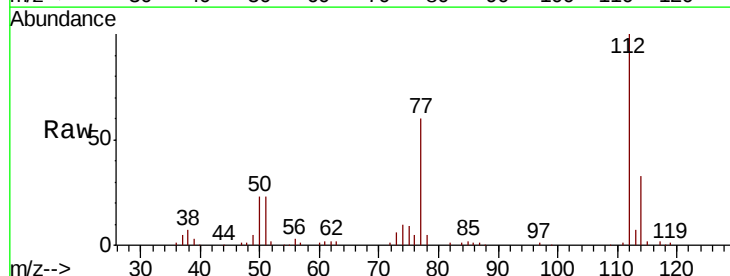
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00525

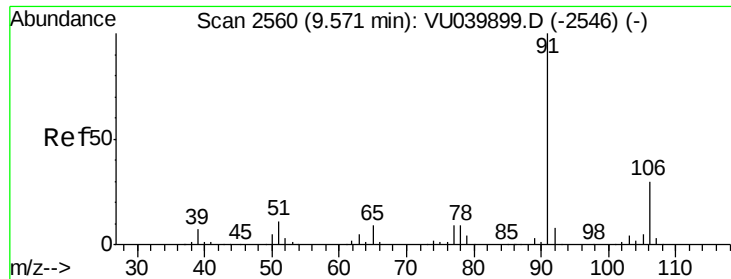
Tot Ion:107 Resp: 25676  
 Ion Ratio Lower Upper  
 107 100  
 109 90.6 68.3 126.9  
 188 4.5 2.2 3.4#



#51  
 Chlorobenzene  
 Concen: 5.311 ug/L  
 RT: 9.45 min Scan# 2522  
 Delta R.T. 0.00 min  
 Lab File: VU039910.D  
 Acq: 19 Aug 2020 16:23

Tgt Ion:112 Resp: 91855  
 Ion Ratio Lower Upper  
 112 100  
 114 33.0 21.8 40.4  
 77 59.9 45.4 68.0





#52

Ethylbenzene

Concen: 5.264 ug/L

RT: 9.57 min Scan# 2560

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

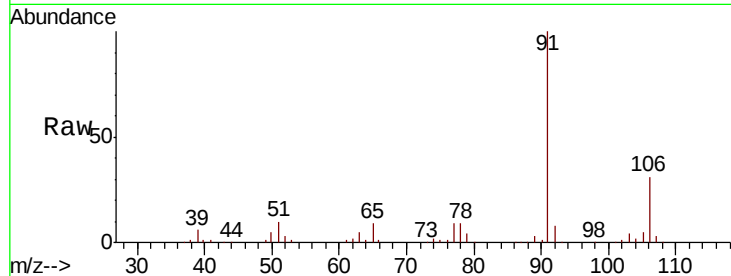
VSTD00525

Tot Ion: 91 Resp: 151655

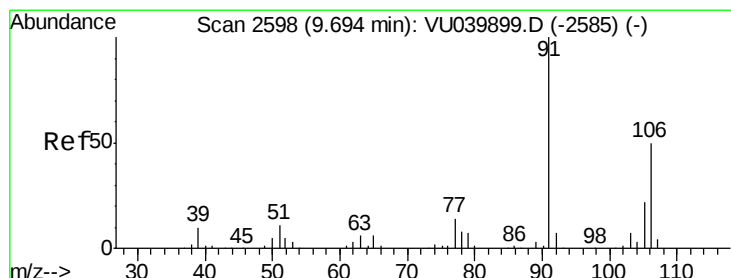
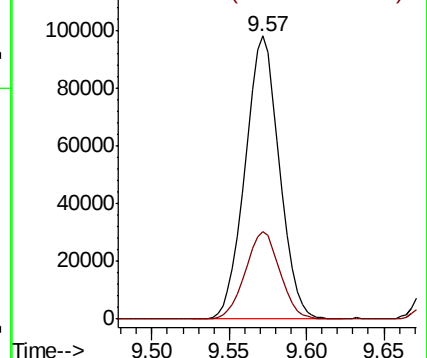
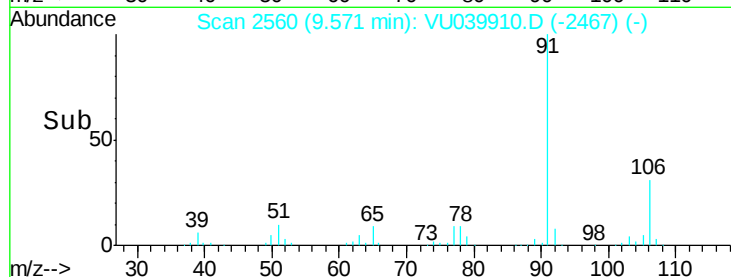
Ion Ratio Lower Upper

91 100

106 31.1 21.2 39.4



Abundance Ion 91.15 (90.85 to 91.85): VU039910.D (-2467) (-)



#53

m,p-Xylene

Concen: 5.437 ug/L

RT: 9.69 min Scan# 2598

Delta R.T. 0.00 min

Lab File: VU039910.D

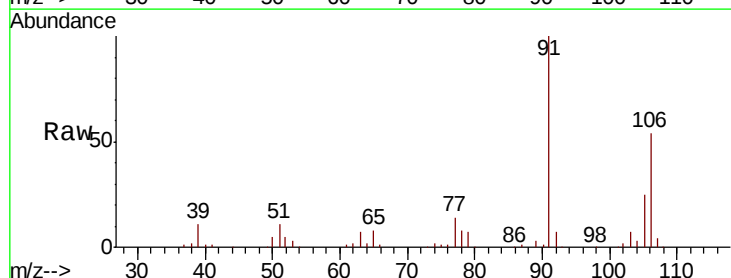
Acq: 19 Aug 2020 16:23

Tgt Ion: 106 Resp: 60132

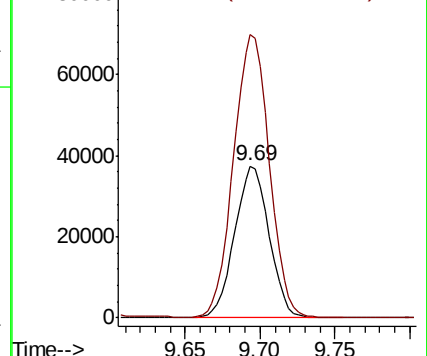
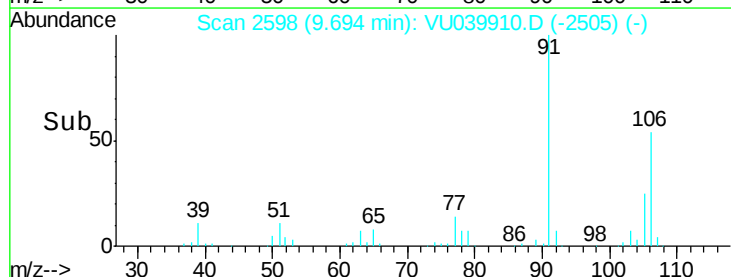
Ion Ratio Lower Upper

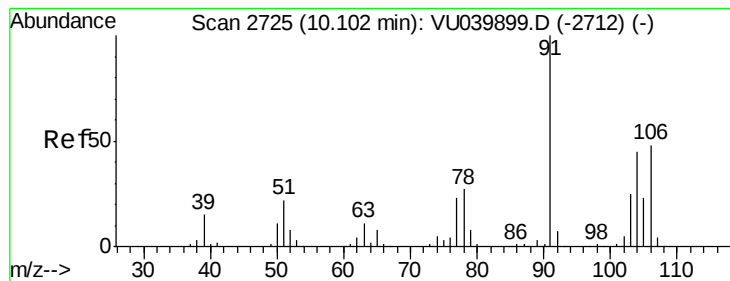
106 100

91 186.4 139.8 259.6



Abundance Ion 106.15 (105.85 to 106.85): VU039910.D (-2505) (-)





#54

o-Xylene

Concen: 5.341 ug/L

RT: 10.10 min Scan# 2725

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

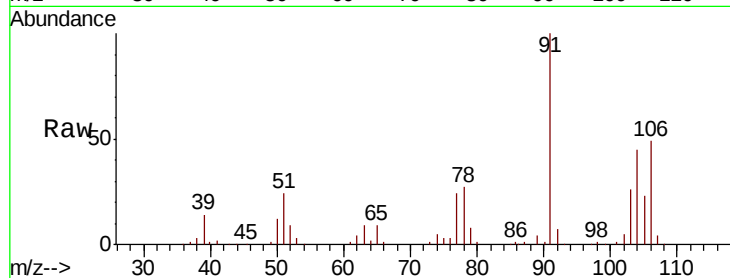
VSTD00525

Tot Ion:106 Resp: 55835

Ion Ratio Lower Upper

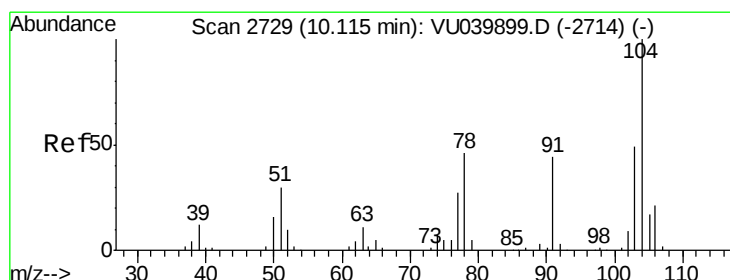
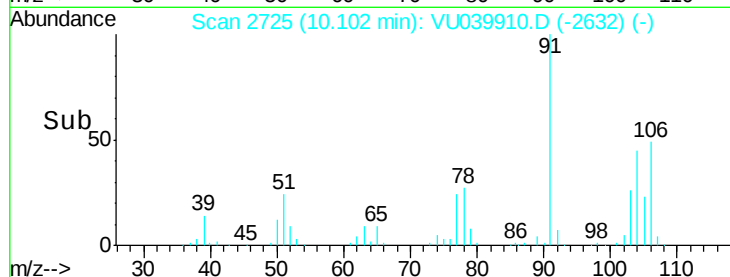
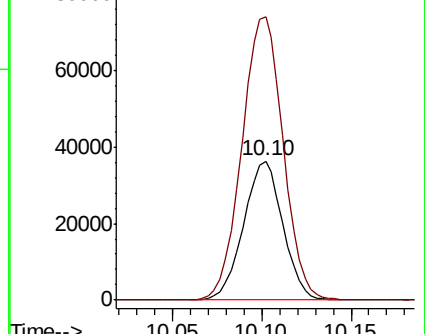
106 100

91 203.3 144.6 268.6



Abundance Ion 106.15 (105.85 to 106.85): V

Ion 91.15 (90.85 to 91.85): VU0



#55

Styrene

Concen: 5.362 ug/L

RT: 10.11 min Scan# 2729

Delta R.T. 0.00 min

Lab File: VU039910.D

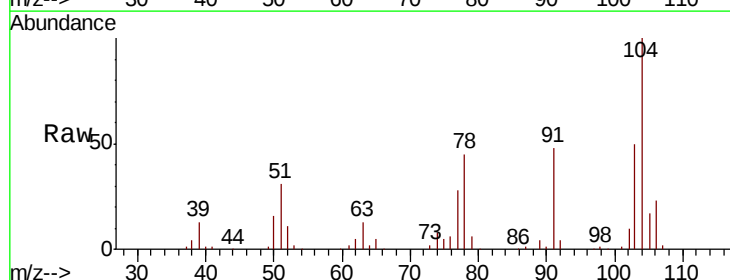
Acq: 19 Aug 2020 16:23

Tgt Ion:104 Resp: 97159

Ion Ratio Lower Upper

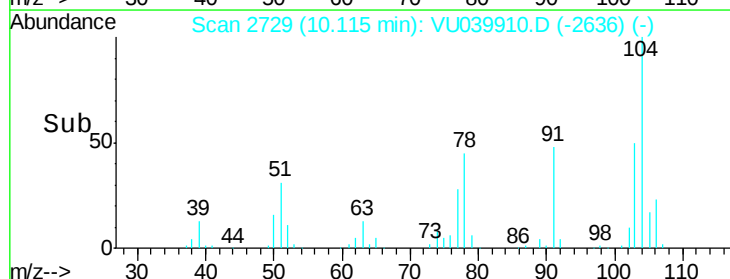
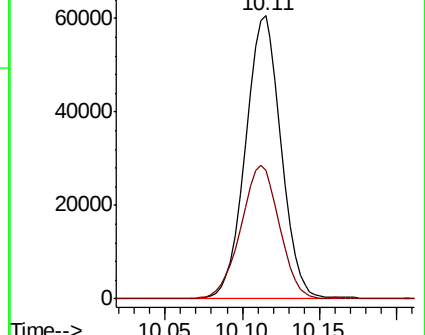
104 100

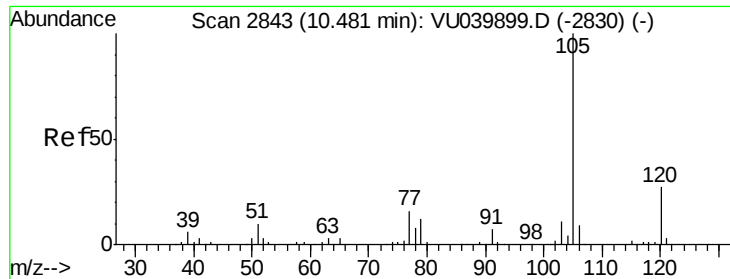
78 45.4 32.3 59.9



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VU0





#56

Isopropylbenzene

Concen: 5.329 ug/L

RT: 10.48 min Scan# 2844

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00525

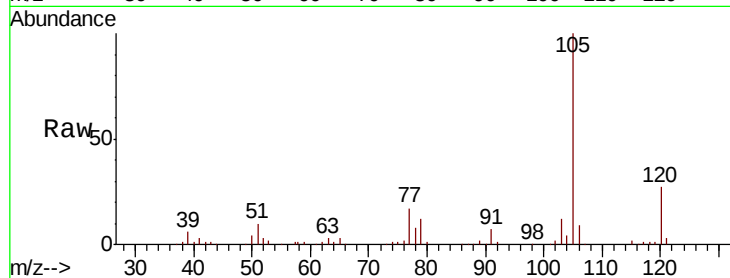
Tot Ion:105 Resp: 149309

Ion Ratio Lower Upper

105 100

120 27.3 21.5 32.3

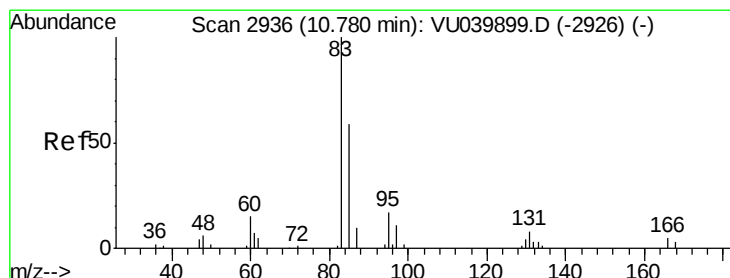
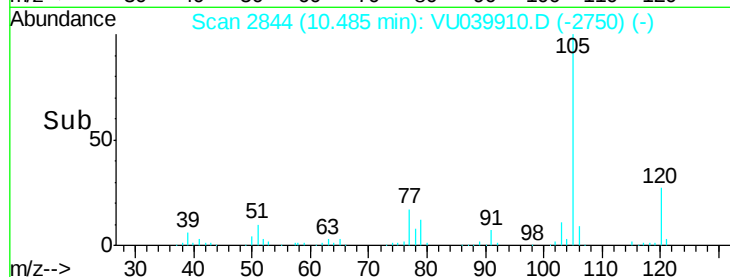
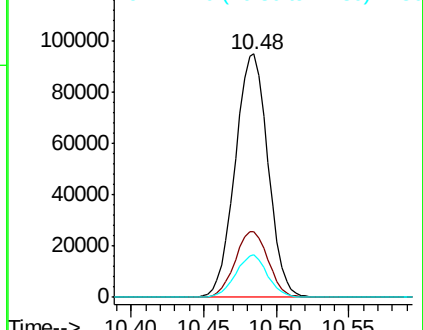
77 16.7 13.0 19.6



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.10 (119.80 to 120.80): V

Ion 77.10 (76.80 to 77.80): V



#58

1,1,2,2-Tetrachloroethane

Concen: 4.500 ug/L

RT: 10.78 min Scan# 2936

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

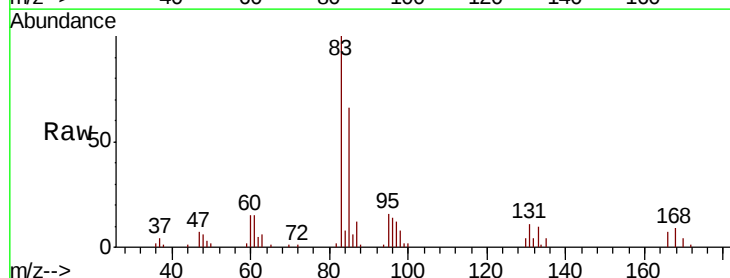
Tgt Ion: 83 Resp: 30387

Ion Ratio Lower Upper

83 100

85 65.6 42.8 79.6

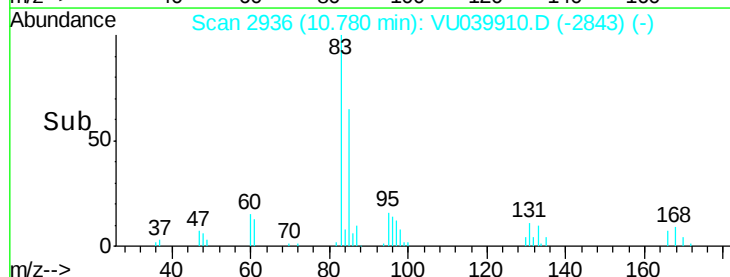
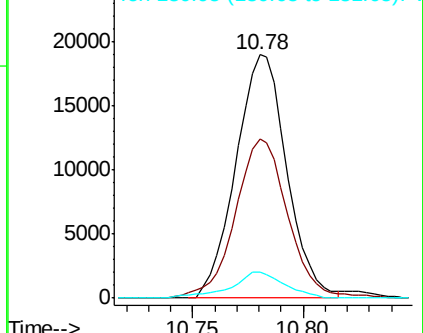
131 10.9 7.4 11.2

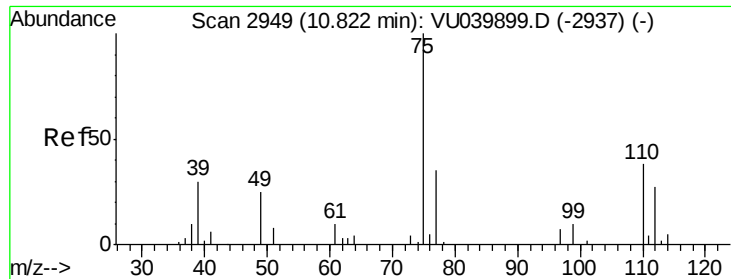


Abundance Ion 82.95 (82.65 to 83.65): VU0

Ion 85.00 (84.70 to 85.70): VU0

Ion 130.95 (130.65 to 131.65): V





#59

1,2,3-Trichloropropane

Concen: 4.680 ug/L

RT: 10.82 min Scan# 2949

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

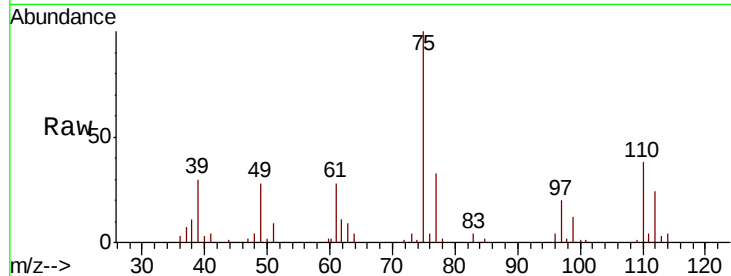
VSTD00525

Tot Ion: 75 Resp: 23078

Ion Ratio Lower Upper

75 100

77 32.2 27.4 41.2



Abundance Ion 75.00 (74.70 to 75.70): VU039899.D (-2937) (-)

Ion 77.00 (76.70 to 77.70): VU039899.D (-2937) (-)

10.82

15000

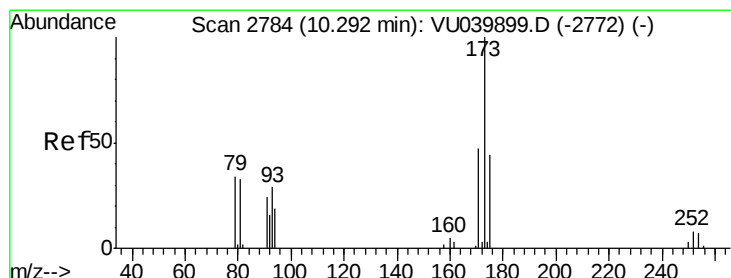
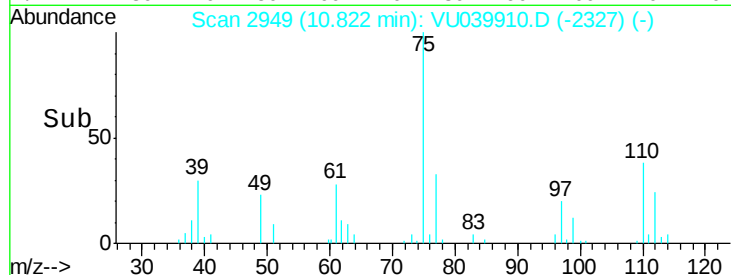
10000

5000

0

Time-->

10.75 10.80 10.85



#61

Bromoform

Concen: 5.212 ug/L

RT: 10.29 min Scan# 2784

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

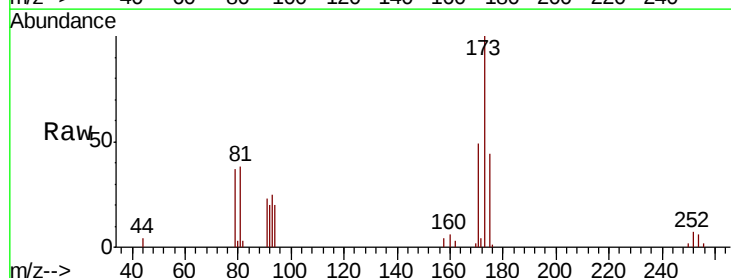
Tgt Ion: 173 Resp: 16868

Ion Ratio Lower Upper

173 100

175 46.2 37.6 56.4

254 6.6 5.8 8.8



Abundance Ion 172.90 (172.60 to 173.60): VU039899.D (-2772) (-)

Ion 174.90 (174.60 to 175.60): VU039899.D (-2772) (-)

Ion 253.75 (253.45 to 254.45): VU039899.D (-2772) (-)

10.29

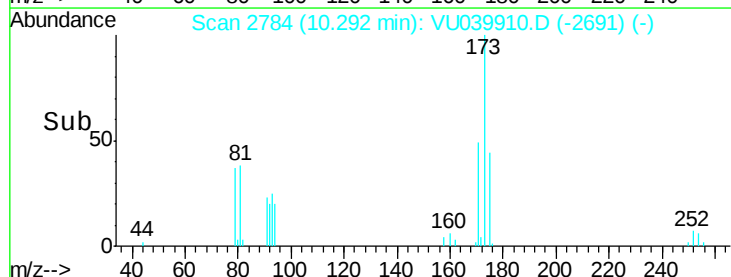
10000

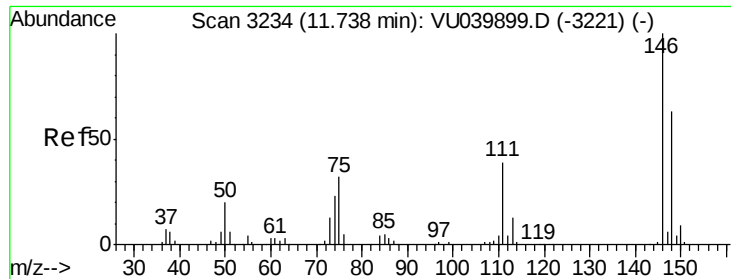
5000

0

Time-->

10.25 10.30 10.35





#62

1,3-Dichlorobenzene

Concen: 5.338 ug/L

RT: 11.74 min Scan# 3234

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00525

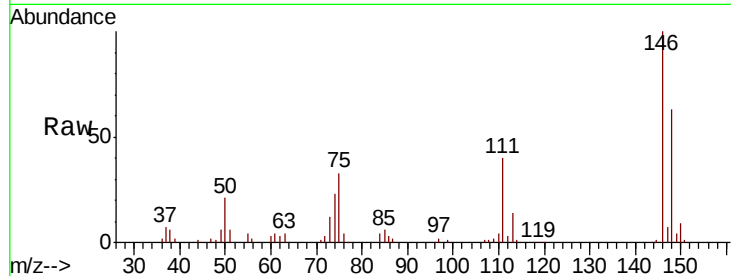
Tot Ion:146 Resp: 72624

Ion Ratio Lower Upper

146 100

111 40.0 27.6 51.4

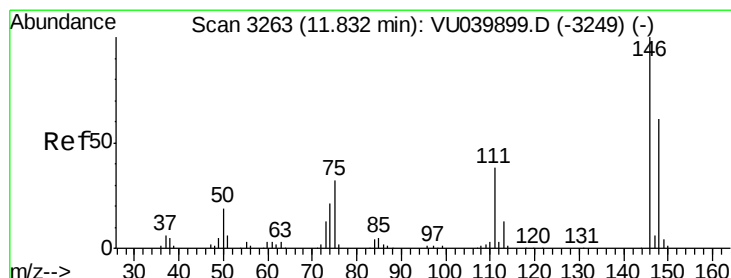
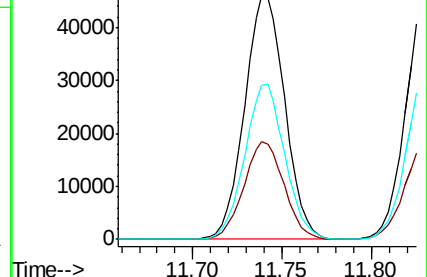
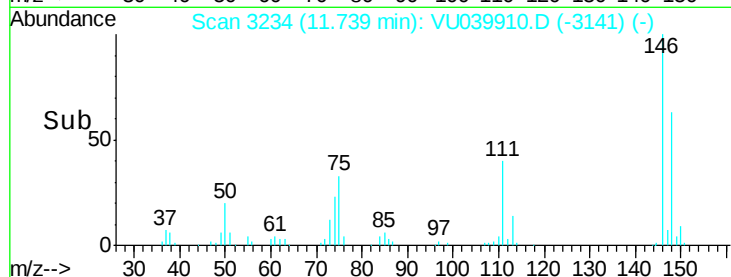
148 63.5 43.8 81.4



Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#63

1,4-Dichlorobenzene

Concen: 5.222 ug/L

RT: 11.83 min Scan# 3263

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

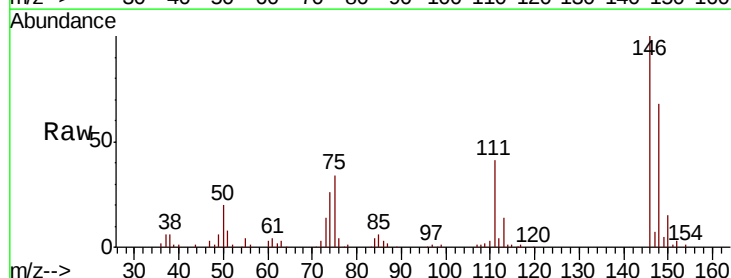
Tgt Ion:146 Resp: 72327

Ion Ratio Lower Upper

146 100

111 41.0 26.5 49.1

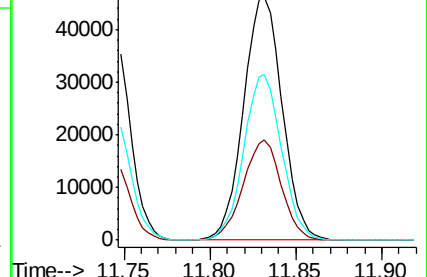
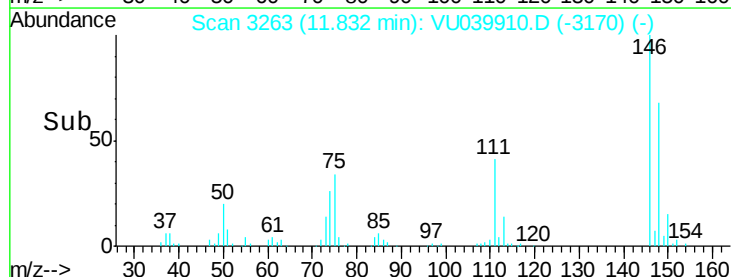
148 67.8 42.8 79.4

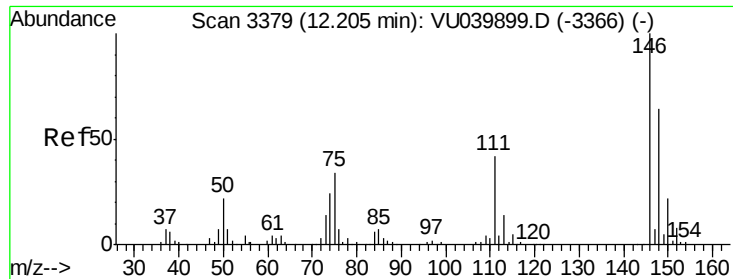


Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V





#65

1,2-Dichlorobenzene

Concen: 5.233 ug/L

RT: 12.20 min Scan# 3379

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00525

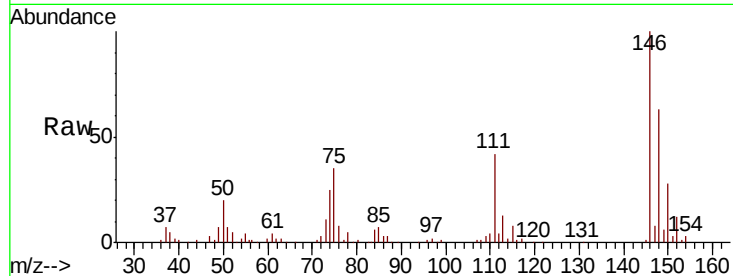
Tot Ion:146 Resp: 68704

Ion Ratio Lower Upper

146 100

111 41.9 33.4 50.0

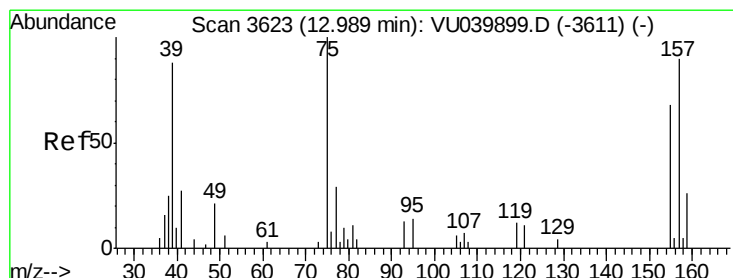
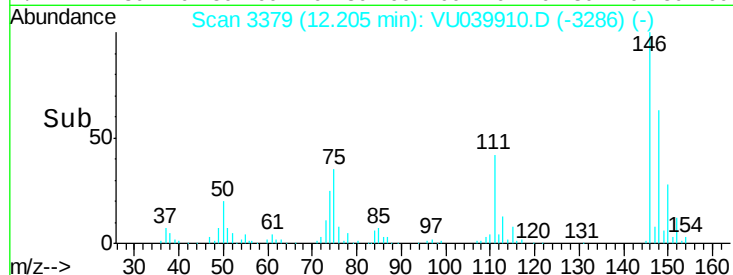
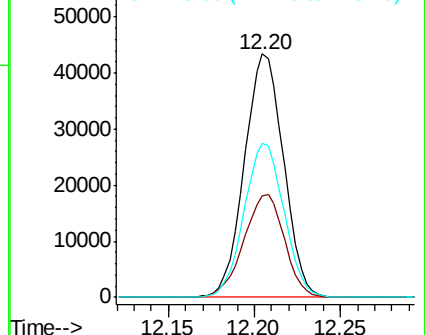
148 63.4 51.4 77.0



Abundance Ion 145.95 (145.65 to 146.65): 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: 4.982 ug/L

RT: 12.99 min Scan# 3623

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

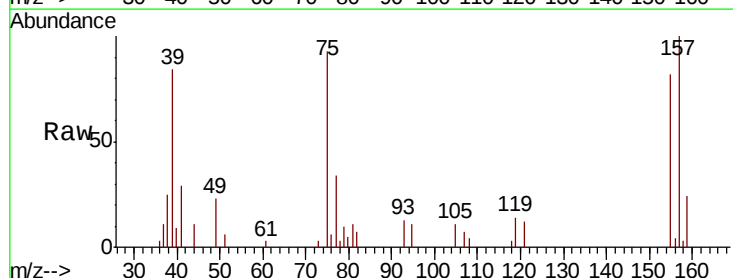
Tgt Ion: 75 Resp: 5349

Ion Ratio Lower Upper

75 100

155 87.9 54.6 82.0#

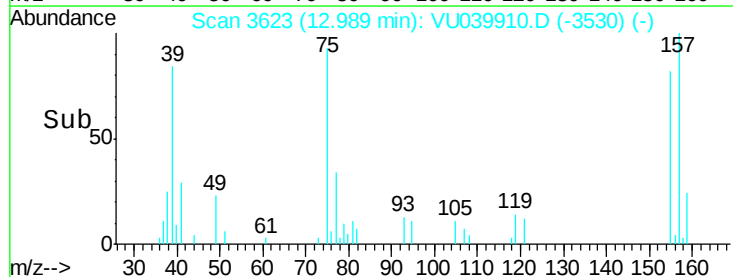
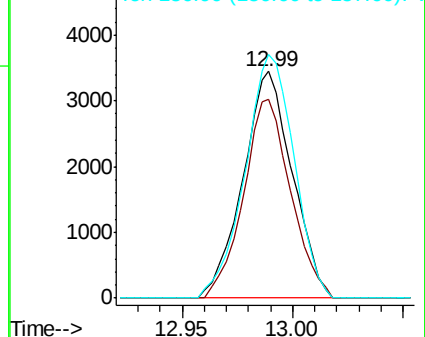
157 107.4 72.2 108.4

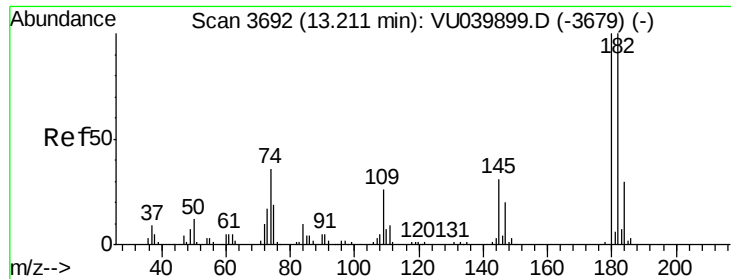


Abundance Ion 75.05 (74.75 to 75.75): VU0

Ion 154.95 (154.65 to 155.65): V

Ion 156.90 (156.60 to 157.60): V

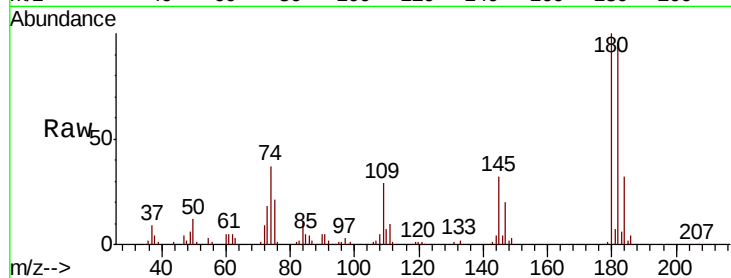




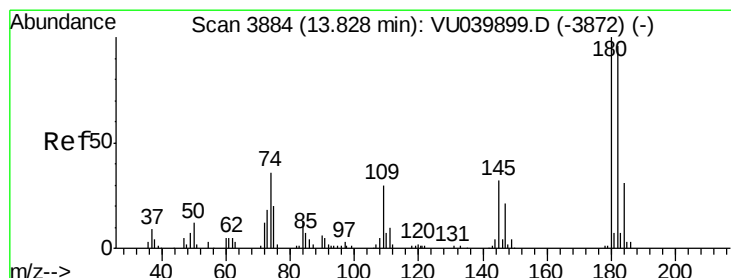
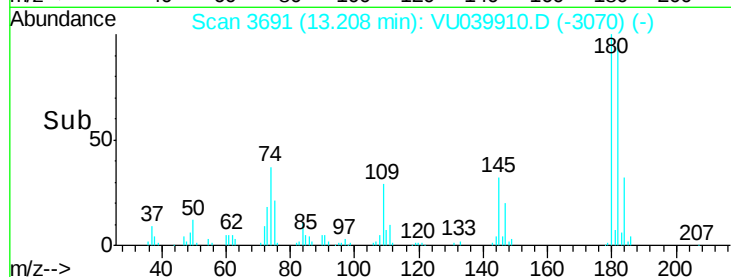
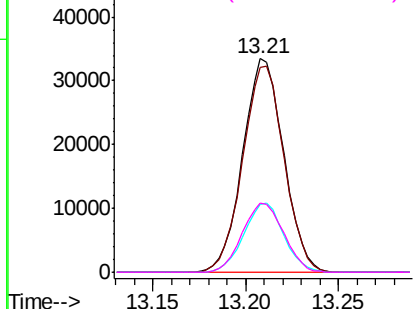
#67  
 1,3,5-Trichlorobenzene  
 Concen: 5.087 ug/L  
 RT: 13.21 min Scan# 3691  
 Delta R.T. -0.00 min  
 Lab File: VU039910.D  
 Acq: 19 Aug 2020 16:23

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00525

Tot Ion:180 Resp: 51396  
 Ion Ratio Lower Upper  
 180 100  
 182 97.6 79.2 118.8  
 184 31.7 24.6 36.8  
 145 32.7 25.7 38.5

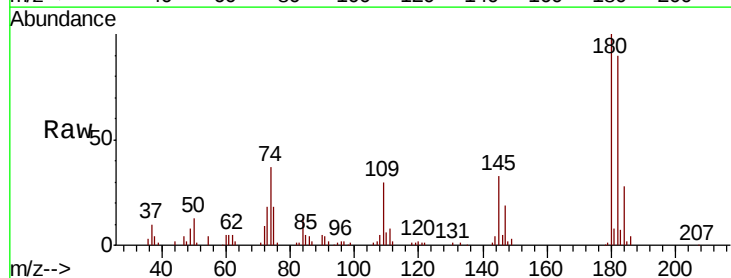


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

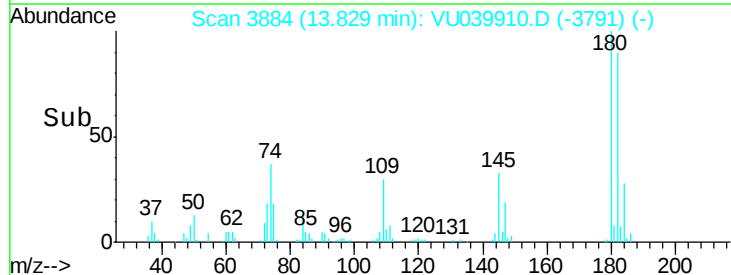
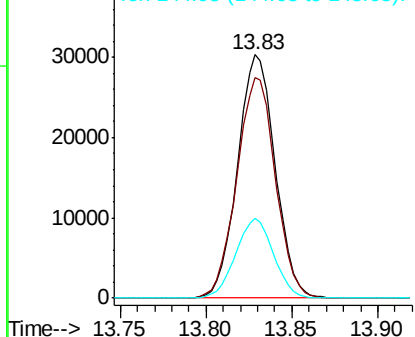


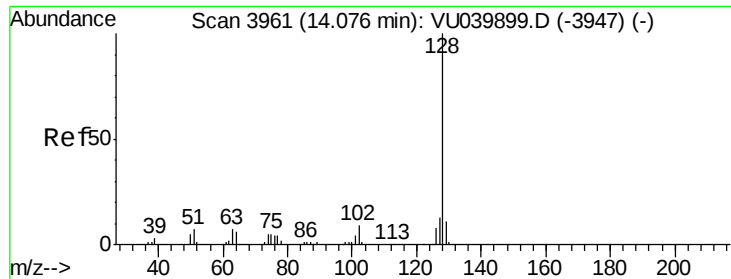
#68  
 1,2,4-trichlorobenzene  
 Concen: 5.331 ug/L  
 RT: 13.83 min Scan# 3884  
 Delta R.T. 0.00 min  
 Lab File: VU039910.D  
 Acq: 19 Aug 2020 16:23

Tgt Ion:180 Resp: 45942  
 Ion Ratio Lower Upper  
 180 100  
 182 93.1 75.2 112.8  
 145 32.8 24.6 36.8



Abundance Ion 179.90 (179.60 to 180.60): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 144.95 (144.65 to 145.65): V





#69

Naphthalene

Concen: 5.212 ug/L

RT: 14.08 min Scan# 3961

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00525

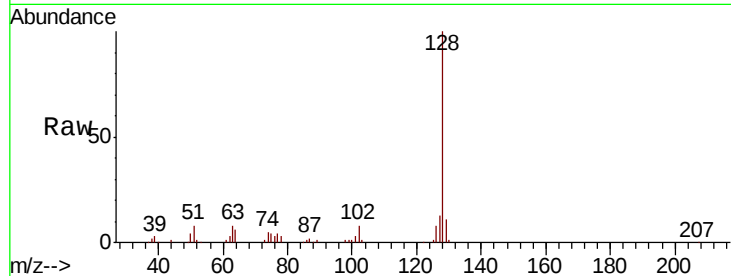
Tot Ion:128 Resp: 82982

Ion Ratio Lower Upper

128 100

129 10.8 8.5 12.7

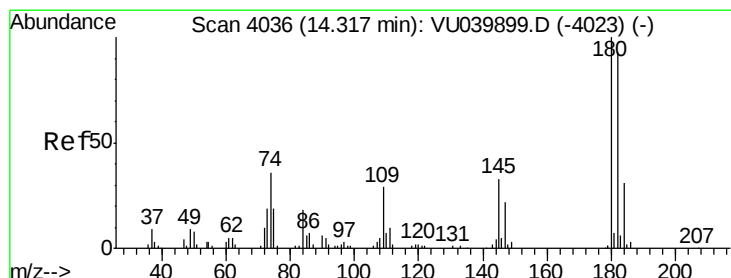
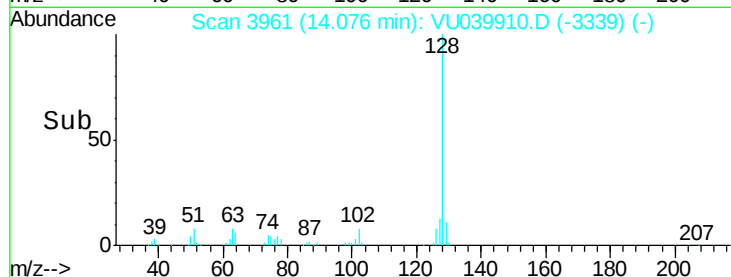
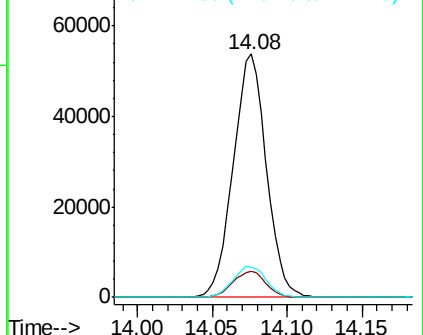
127 12.8 10.2 15.4



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V



#70

1,2,3-Trichlorobenzene

Concen: 5.131 ug/L

RT: 14.32 min Scan# 4036

Delta R.T. 0.00 min

Lab File: VU039910.D

Acq: 19 Aug 2020 16:23

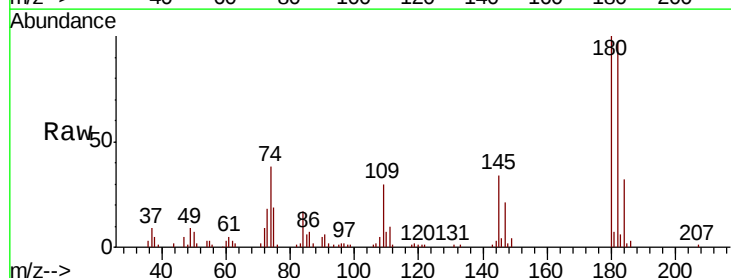
Tgt Ion:180 Resp: 41325

Ion Ratio Lower Upper

180 100

182 97.4 75.0 112.6

145 35.2 26.4 39.6



Abundance Ion 179.90 (179.60 to 180.60): V

Ion 181.90 (181.60 to 182.60): V

Ion 144.95 (144.65 to 145.65): V

