

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU031220\  
 Data File : VU037189.D  
 Acq On : 12 Mar 2020 14:56  
 Operator : JC/MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Mar 13 07:33:29 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM031220WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Mar 13 07:30:58 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.28  | 114  | 430514   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.44  | 117  | 425304   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.83 | 152  | 212835   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |         |
|--------------------------------|---------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.61    | 65    | 167305   | 50.21    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 100.42% |
| 7) Chloroethane-d5             | 1.93    | 69    | 135507   | 50.44    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 100.88% |
| 11) 1,1-Dichloroethene-d2      | 2.59    | 63    | 311343   | 50.93    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 101.86% |
| 21) 2-Butanone-d5              | 4.67    | 46    | 272572   | 103.37   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 103.37% |
| 24) Chloroform-d               | 5.11    | 84    | 329344   | 51.41    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 102.82% |
| 26) 1,2-Dichloroethane-d4      | 5.74    | 65    | 234570   | 50.03    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 100.06% |
| 32) Benzene-d6                 | 5.76    | 84    | 593863   | 50.73    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 101.46% |
| 36) 1,2-Dichloropropane-d6     | 6.72    | 67    | 192395   | 50.20    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 100.40% |
| 41) Toluene-d8                 | 7.92    | 98    | 568243   | 50.77    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 101.54% |
| 43) trans-1,3-Dichloropropene- | 8.20    | 79    | 104147   | 49.93    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 99.86%  |
| 47) 2-Hexanone-d5              | 8.66    | 63    | 204623   | 103.13   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 103.13% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.77   | 84    | 287003   | 48.35    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 96.70%  |
| 64) 1,2-Dichlorobenzene-d4     | 12.21   | 152   | 220943   | 50.05    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 100.10% |

## Target Compounds

|                                |      |     |        |        | Ovalue   |
|--------------------------------|------|-----|--------|--------|----------|
| 2) Dichlorodifluoromethane     | 1.39 | 85  | 216031 | 49.103 | ug/L 98  |
| 3) Chloromethane               | 1.54 | 50  | 184679 | 51.326 | ug/L 100 |
| 5) Vinyl chloride              | 1.62 | 62  | 201294 | 51.050 | ug/L 100 |
| 6) Bromomethane                | 1.87 | 94  | 89528  | 59.150 | ug/L 98  |
| 8) Chloroethane                | 1.95 | 64  | 113897 | 49.305 | ug/L 98  |
| 9) Trichlorofluoromethane      | 2.16 | 101 | 299848 | 49.805 | ug/L 99  |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.60 | 101 | 140573 | 49.995 | ug/L 98  |
| 12) 1,1-Dichloroethene         | 2.60 | 96  | 128280 | 50.490 | ug/L 97  |
| 13) Acetone                    | 2.65 | 43  | 239904 | 95.895 | ug/L 99  |
| 14) Carbon disulfide           | 2.82 | 76  | 361404 | 50.172 | ug/L 98  |
| 15) Methyl Acetate             | 2.98 | 43  | 200714 | 51.010 | ug/L 98  |
| 16) Methylene chloride         | 3.08 | 84  | 157675 | 49.720 | ug/L 99  |
| 17) trans-1,2-Dichloroethene   | 3.39 | 96  | 133160 | 50.025 | ug/L 96  |
| 18) Methyl tert-butyl Ether    | 3.40 | 73  | 524868 | 51.059 | ug/L 99  |
| 19) 1,1-Dichloroethane         | 3.91 | 63  | 297420 | 49.934 | ug/L 98  |
| 20) cis-1,2-Dichloroethene     | 4.71 | 96  | 161744 | 50.236 | ug/L 99  |
| 22) 2-Butanone                 | 4.75 | 43  | 314332 | 99.342 | ug/L 98  |

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 Operator : JC/MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 8 Sample Multiplier: 1

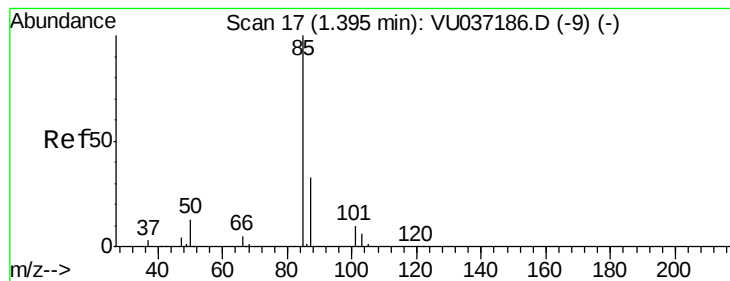
Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Mar 13 07:33:29 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM031220WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Mar 13 07:30:58 2020  
 Response via : Initial Calibration

| Internal Standards              | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|---------------------------------|-------|------|----------|---------|-------|----------|
| 23) Bromochloromethane          | 5.02  | 128  | 81289    | 50.065  | ug/L  | 96       |
| 25) Chloroform                  | 5.13  | 83   | 316097   | 49.077  | ug/L  | 99       |
| 27) 1,2-Dichloroethane          | 5.83  | 62   | 285015   | 49.665  | ug/L  | 99       |
| 29) Cyclohexane                 | 5.43  | 56   | 254060   | 50.529  | ug/L  | 99       |
| 30) 1,1,1-Trichloroethane       | 5.36  | 97   | 282891   | 50.112  | ug/L  | 99       |
| 31) Carbon tetrachloride        | 5.56  | 117  | 249346   | 49.990  | ug/L  | 100      |
| 33) Benzene                     | 5.81  | 78   | 628884   | 50.166  | ug/L  | 100      |
| 34) Trichloroethene             | 6.57  | 95   | 163628   | 50.231  | ug/L  | 99       |
| 35) Methylcyclohexane           | 6.79  | 83   | 253825   | 51.467  | ug/L  | 97       |
| 37) 1,2-Dichloropropane         | 6.82  | 63   | 175613   | 49.283  | ug/L  | 99       |
| 38) Bromodichloromethane        | 7.13  | 83   | 245585   | 49.297  | ug/L  | 99       |
| 39) cis-1,3-Dichloropropene     | 7.63  | 75   | 274328   | 49.651  | ug/L  | 98       |
| 40) 4-Methyl-2-pentanone        | 7.82  | 43   | 589601   | 101.645 | ug/L  | 99       |
| 42) Toluene                     | 8.00  | 91   | 685721   | 50.091  | ug/L  | 99       |
| 44) trans-1,3-Dichloropropene   | 8.23  | 75   | 270653   | 51.882  | ug/L  | 98       |
| 45) 1,1,2-Trichloroethane       | 8.42  | 97   | 161057   | 49.639  | ug/L  | 98       |
| 46) Tetrachloroethene           | 8.57  | 164  | 121703   | 50.289  | ug/L  | 98       |
| 48) 2-Hexanone                  | 8.71  | 43   | 480753   | 105.170 | ug/L  | 99       |
| 49) Dibromochloromethane        | 8.83  | 129  | 190101   | 49.802  | ug/L  | 98       |
| 50) 1,2-Dibromoethane           | 8.95  | 107  | 173786   | 49.633  | ug/L  | 97       |
| 51) Chlorobenzene               | 9.47  | 112  | 425929   | 49.473  | ug/L  | 99       |
| 52) Ethylbenzene                | 9.59  | 91   | 782479   | 49.364  | ug/L  | 98       |
| 53) m,p-Xylene                  | 9.71  | 106  | 283645   | 50.592  | ug/L  | 98       |
| 54) o-xylene                    | 10.12 | 106  | 278714   | 50.317  | ug/L  | 95       |
| 55) Styrene                     | 10.13 | 104  | 483782   | 51.502  | ug/L  | 99       |
| 56) Isopropylbenzene            | 10.50 | 105  | 769236   | 49.963  | ug/L  | 100      |
| 58) 1,1,1,2,2-Tetrachloroethane | 10.80 | 83   | 293399   | 49.540  | ug/L  | 99       |
| 59) 1,2,3-Trichloropropane      | 10.84 | 75   | 246175   | 49.699  | ug/L  | 99       |
| 61) Bromoform                   | 10.31 | 173  | 147624   | 49.660  | ug/L  | 100      |
| 62) 1,3-Dichlorobenzene         | 11.76 | 146  | 339322   | 50.300  | ug/L  | 98       |
| 63) 1,4-Dichlorobenzene         | 11.85 | 146  | 338781   | 49.688  | ug/L  | 99       |
| 65) 1,2-Dichlorobenzene         | 12.23 | 146  | 338185   | 49.083  | ug/L  | 97       |
| 66) 1,2-Dibromo-3-chloropropan  | 13.02 | 75   | 76396    | 50.293  | ug/L  | 94       |
| 67) 1,3,5-Trichlorobenzene      | 13.24 | 180  | 244598   | 49.753  | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene      | 13.87 | 180  | 205303   | 53.479  | ug/L  | 99       |
| 69) Naphthalene                 | 14.11 | 128  | 322245   | 55.350  | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene      | 14.36 | 180  | 218300   | 54.187  | ug/L  | 97       |

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





#2

Dichlorodifluoromethane

Concen: 49.103 ug/L

RT: 1.39 min Scan# 17

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

Instrument :

MSVOA\_U

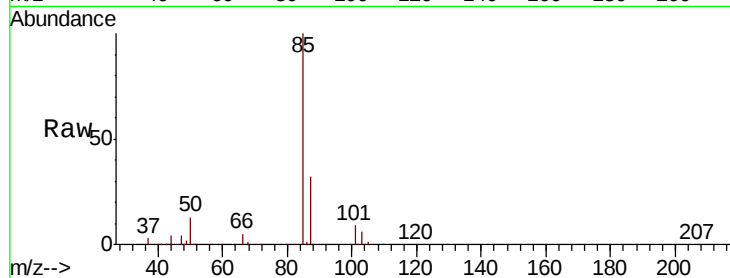
ClientSampleId :

Tot Ion: 85 Resp: 216031

Ion Ratio Lower Upper

85 100

87 31.7 26.1 39.1



Abundance Ion 85.00 (84.70 to 85.70): VU037189.D (-9) (-)

Ion 87.00 (86.70 to 87.70): VU037189.D (-9) (-)

1.39

250000

200000

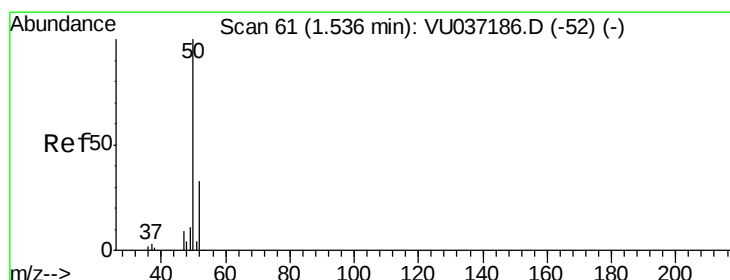
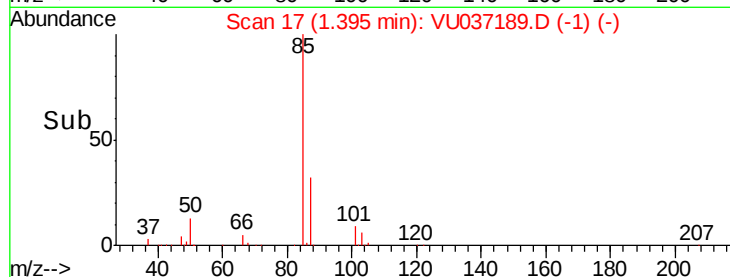
150000

100000

50000

0

Time-->



#3

Chloromethane

Concen: 51.326 ug/L

RT: 1.54 min Scan# 61

Delta R.T. 0.00 min

Lab File: VU037189.D

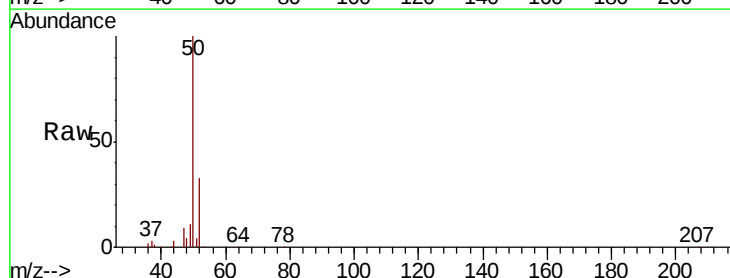
Acq: 12 Mar 2020 14:56

Tgt Ion: 50 Resp: 184679

Ion Ratio Lower Upper

50 100

52 32.9 23.2 43.0



Abundance Ion 50.00 (49.70 to 50.70): VU037189.D (-52) (-)

Ion 52.00 (51.70 to 52.70): VU037189.D (-52) (-)

1.54

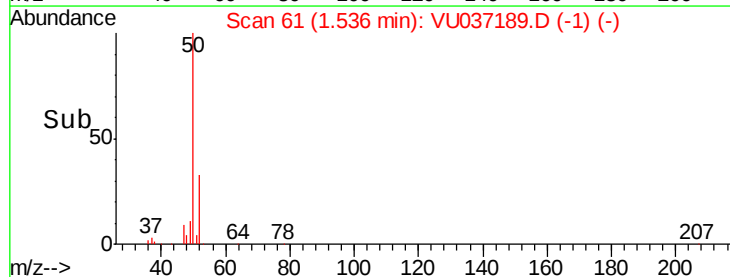
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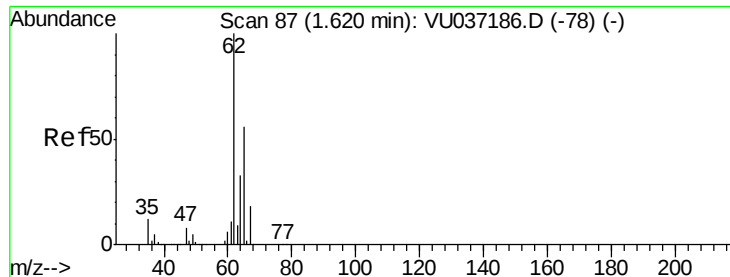
100000

50000

0

Time-->





#5

Vinyl chloride

Concen: 51.050 ug/L

RT: 1.62 min Scan# 87

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

Instrument :

MSVOA\_U

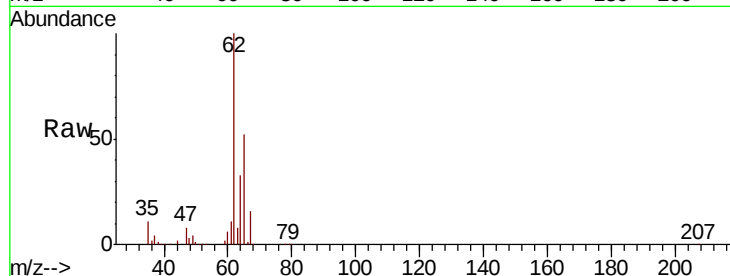
ClientSampleId :

Tot Ion: 62 Resp: 201294

Ion Ratio Lower Upper

62 100

64 33.0 23.1 42.9



Abundance Ion 62.00 (61.70 to 62.70): VU037189.D (-78) (-)

Ion 64.00 (63.70 to 64.70): VU037189.D (-78) (-)

1.62

200000

150000

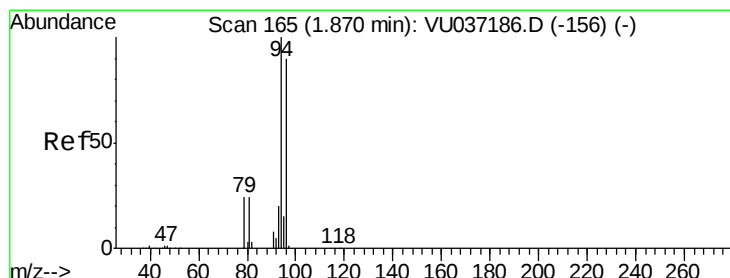
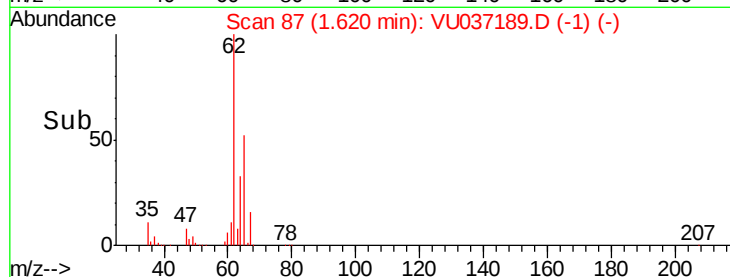
100000

50000

0

1.60 1.65

Time-->



#6

Bromomethane

Concen: 59.150 ug/L

RT: 1.87 min Scan# 165

Delta R.T. 0.00 min

Lab File: VU037189.D

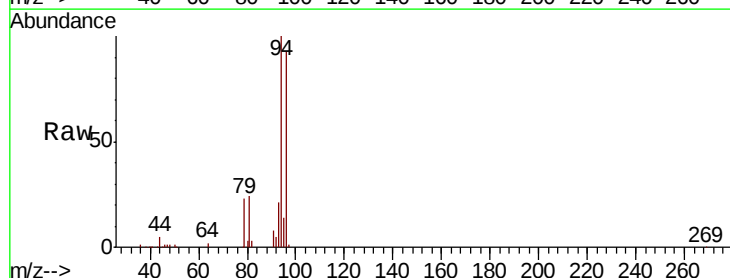
Acq: 12 Mar 2020 14:56

Tgt Ion: 94 Resp: 89528

Ion Ratio Lower Upper

94 100

96 92.6 63.5 117.9



Abundance Ion 94.00 (93.70 to 94.70): VU037189.D (-156) (-)

Ion 96.00 (95.70 to 96.70): VU037189.D (-156) (-)

1.87

60000

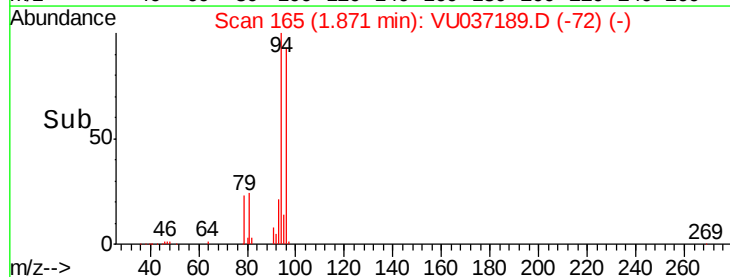
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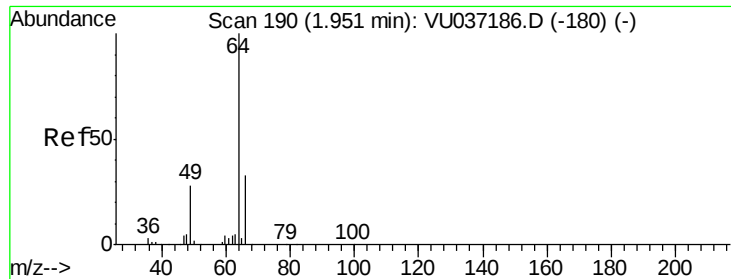
20000

0

1.80 1.85 1.90

Time-->





#8

Chloroethane

Concen: 49.305 ug/L

RT: 1.95 min Scan# 190

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

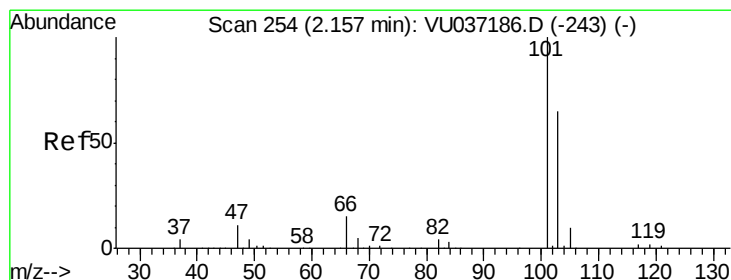
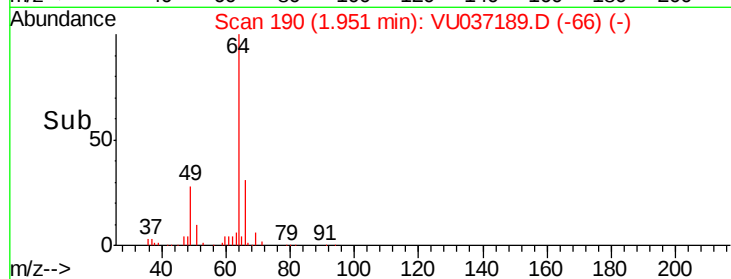
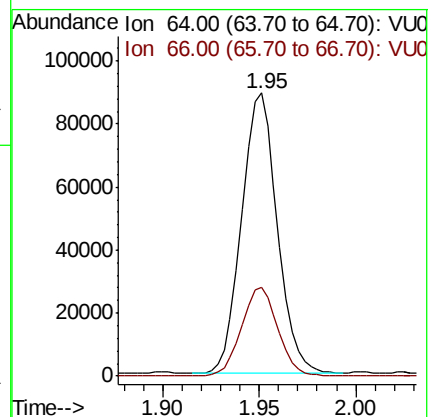
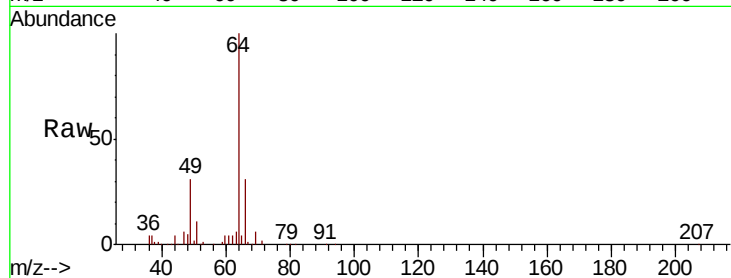
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 64 Resp: 113897

Ion Ratio Lower Upper

64 100

66 31.3 22.6 42.0



#9

Trichlorofluoromethane

Concen: 49.805 ug/L

RT: 2.16 min Scan# 254

Delta R.T. 0.00 min

Lab File: VU037189.D

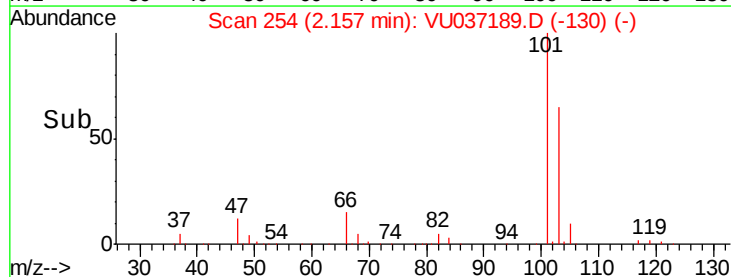
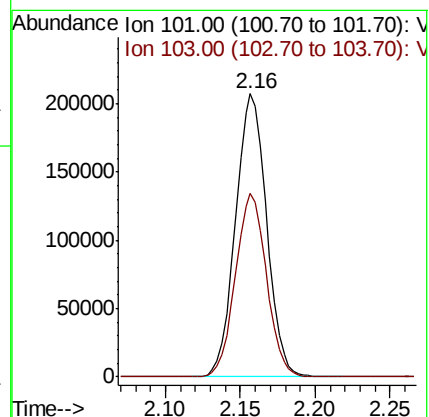
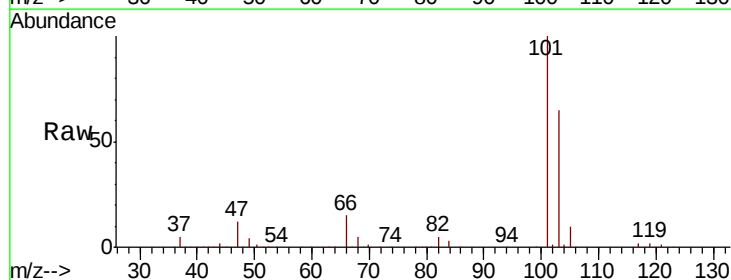
Acq: 12 Mar 2020 14:56

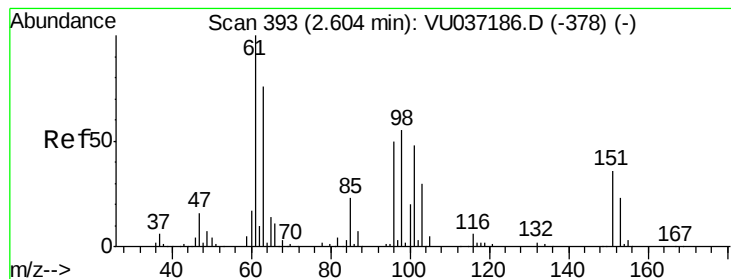
Tgt Ion:101 Resp: 299848

Ion Ratio Lower Upper

101 100

103 64.8 51.1 76.7





#10

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

Concen: 49.995 ug/L

RT: 2.60 min Scan# 393

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

Instrument :

MSVOA\_U

ClientSampled :

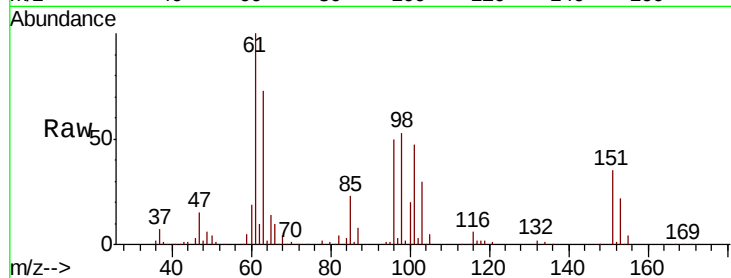
Tot Ion:101 Resp: 140573

Ion Ratio Lower Upper

101 100

85 48.0 37.8 56.6

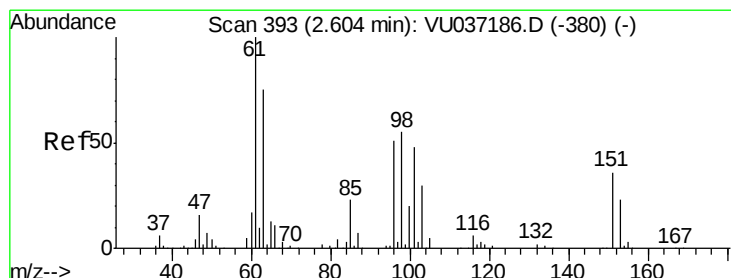
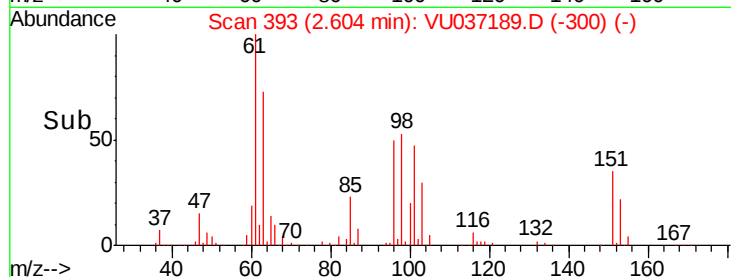
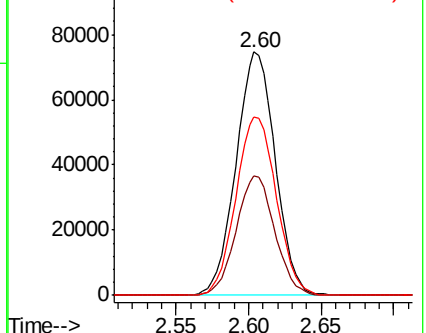
151 75.4 58.5 87.7



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: 50.490 ug/L

RT: 2.60 min Scan# 393

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

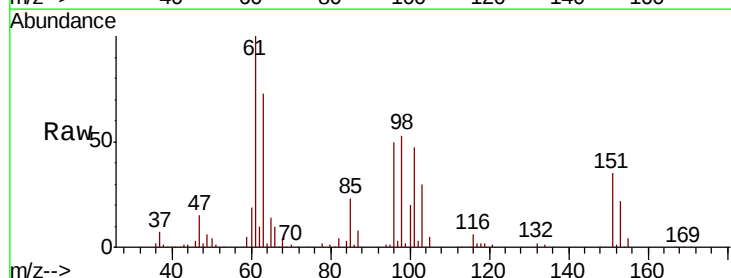
Tgt Ion: 96 Resp: 128280

Ion Ratio Lower Upper

96 100

61 201.1 138.8 257.8

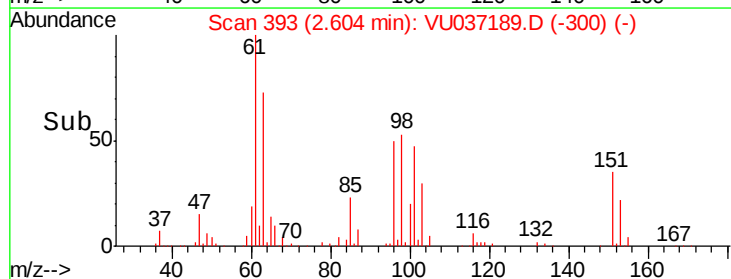
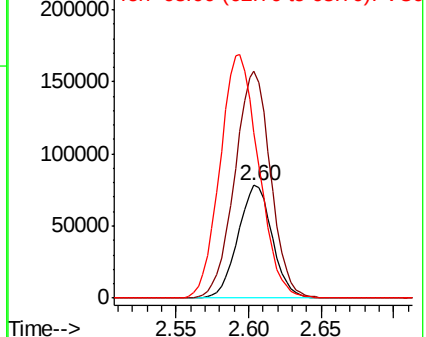
63 146.7 106.4 197.6

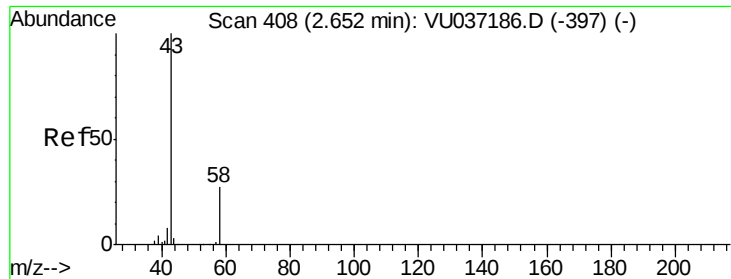


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 95.895 ug/L

RT: 2.65 min Scan# 408

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

Instrument :

MSVOA\_U

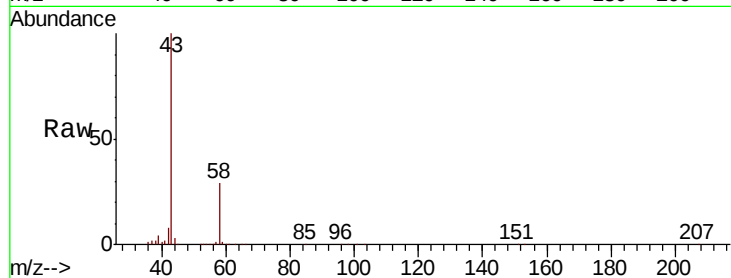
ClientSampleId :

Tot Ion: 43 Resp: 239904

Ion Ratio Lower Upper

43 100

58 28.3 0.0 57.2



Abundance Ion 43.00 (42.70 to 43.70): VU037186.D (-397) (-)

Ion 58.00 (57.70 to 58.70): VU037186.D (-397) (-)

2.65

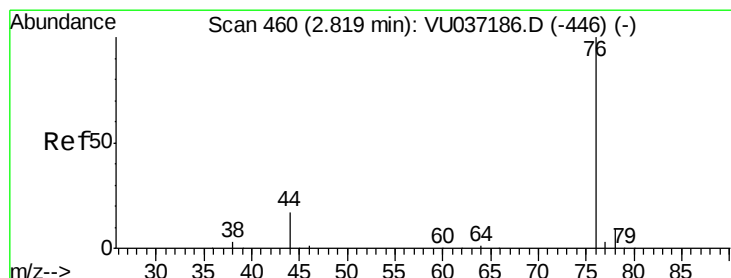
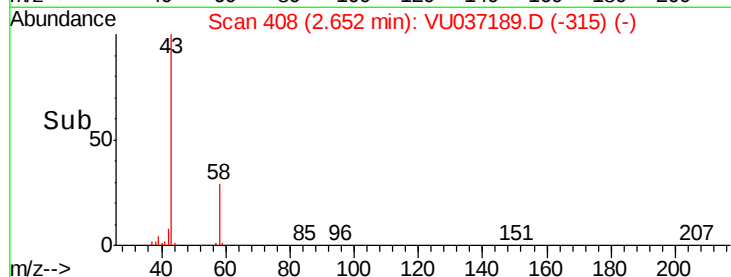
150000

100000

50000

0

Time-->



#14

Carbon disulfide

Concen: 50.172 ug/L

RT: 2.82 min Scan# 460

Delta R.T. 0.00 min

Lab File: VU037189.D

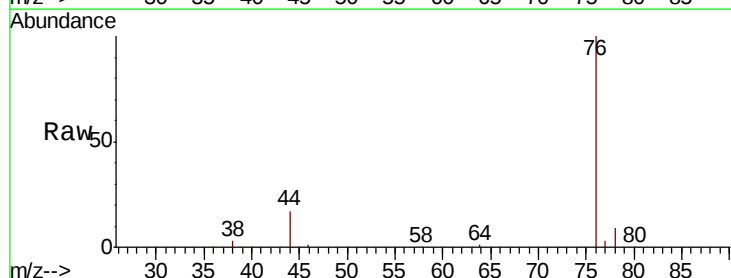
Acq: 12 Mar 2020 14:56

Tgt Ion: 76 Resp: 361404

Ion Ratio Lower Upper

76 100

78 9.4 7.0 10.6



Abundance Ion 76.00 (75.70 to 76.70): VU037186.D (-446) (-)

Ion 78.00 (77.70 to 78.70): VU037186.D (-446) (-)

250000

200000

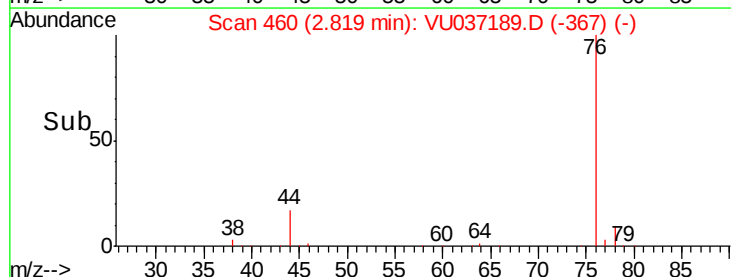
150000

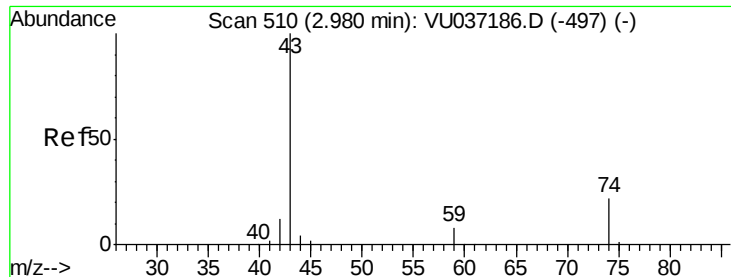
100000

50000

0

Time-->

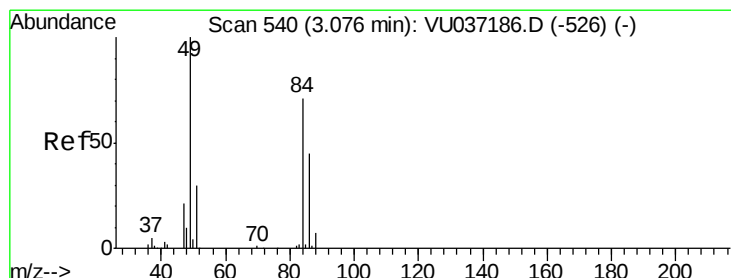
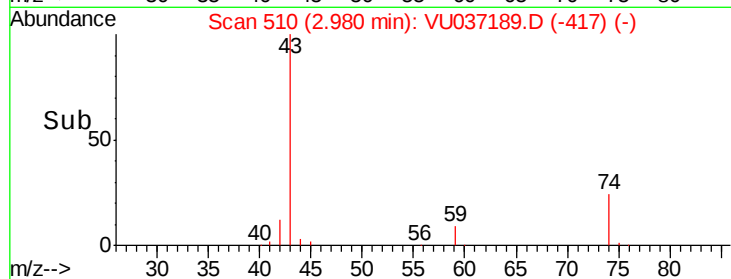
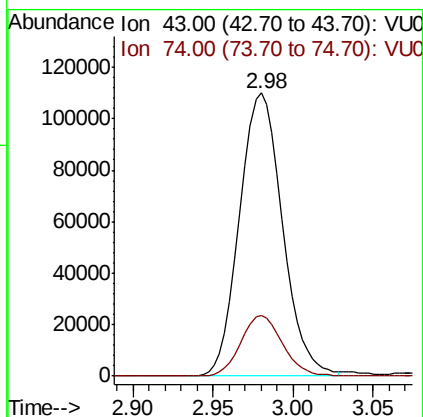
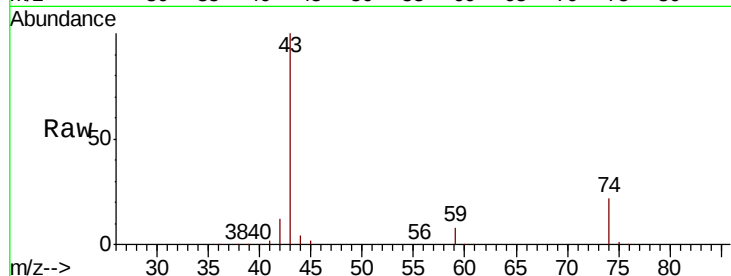




#15  
Methyl Acetate  
Concen: 51.010 ug/L  
RT: 2.98 min Scan# 510  
Delta R.T. 0.00 min  
Lab File: VU037189.D  
Acq: 12 Mar 2020 14:56

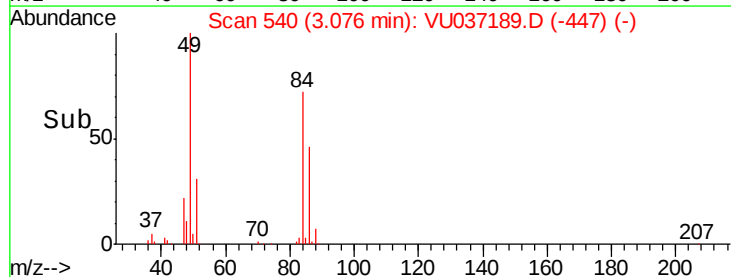
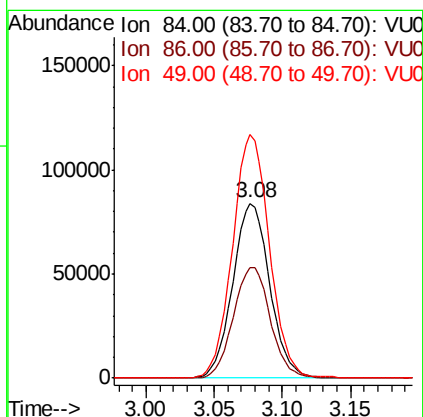
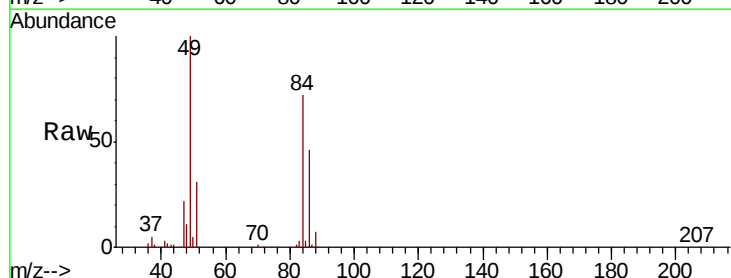
Instrument :  
MSVOA\_U  
ClientSampled :

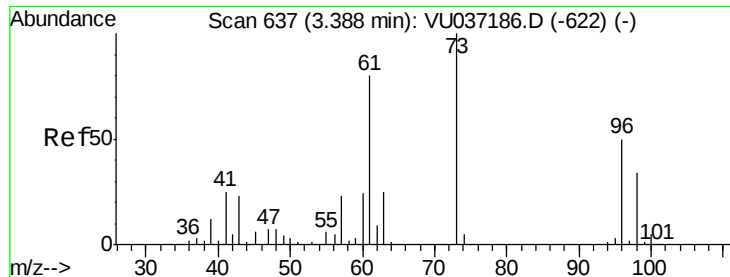
Tot Ion: 43 Resp: 200714  
Ion Ratio Lower Upper  
43 100  
74 20.9 17.4 26.0



#16  
Methylene chloride  
Concen: 49.720 ug/L  
RT: 3.08 min Scan# 540  
Delta R.T. 0.00 min  
Lab File: VU037189.D  
Acq: 12 Mar 2020 14:56

Tgt Ion: 84 Resp: 157675  
Ion Ratio Lower Upper  
84 100  
86 63.6 44.0 81.6  
49 139.6 98.6 183.2





#17

trans-1,2-Dichloroethene

Concen: 50.025 ug/L

RT: 3.39 min Scan# 637

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

Instrument :

MSVOA\_U

ClientSampled :

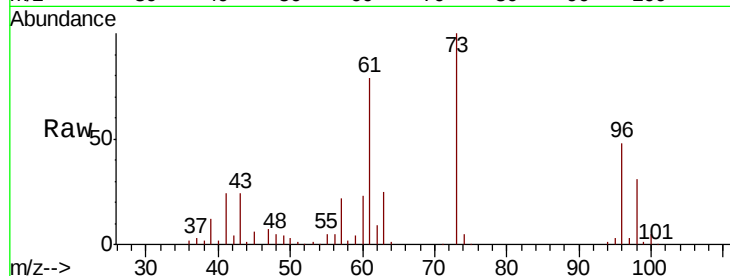
Tot Ion: 96 Resp: 133160

Ion Ratio Lower Upper

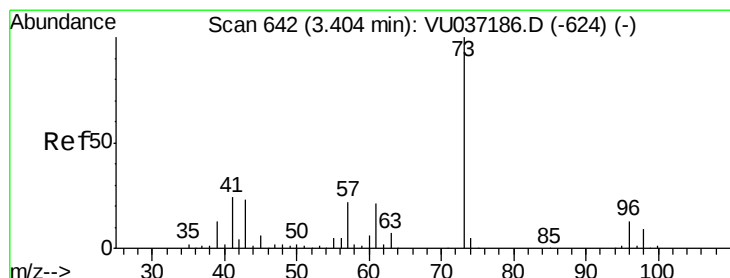
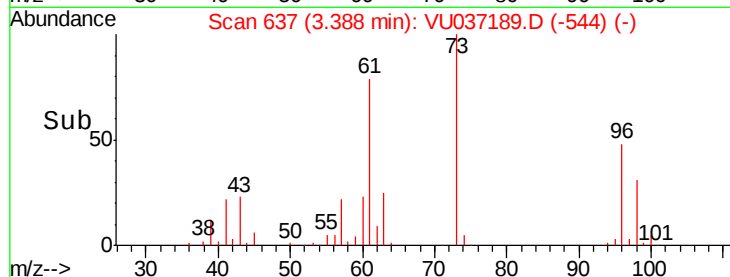
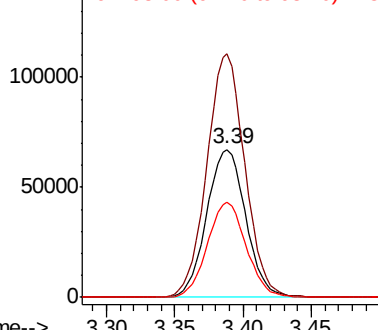
96 100

61 164.5 112.3 208.5

98 63.9 48.0 89.2



Abundance Ion 96.00 (95.70 to 96.70): VU0  
Ion 61.00 (60.70 to 61.70): VU0  
Ion 98.00 (97.70 to 98.70): VU0



#18

Methyl tert-butyl Ether

Concen: 51.059 ug/L

RT: 3.40 min Scan# 642

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

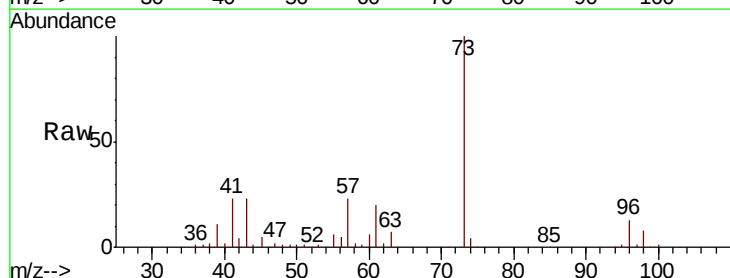
Tgt Ion: 73 Resp: 524868

Ion Ratio Lower Upper

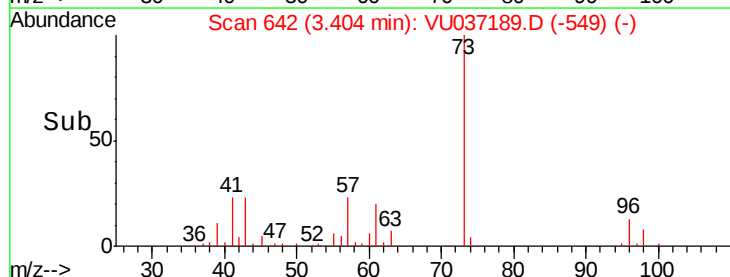
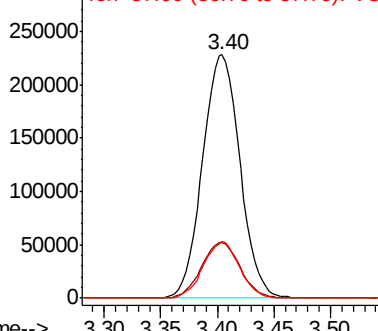
73 100

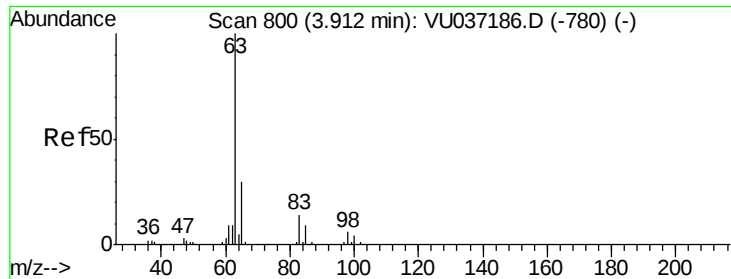
43 23.5 18.5 27.7

57 22.5 17.7 26.5



Abundance Ion 73.00 (72.70 to 73.70): VU0  
Ion 43.00 (42.70 to 43.70): VU0  
Ion 57.00 (56.70 to 57.70): VU0





#19

1,1-Dichloroethane

Concen: 49.934 ug/L

RT: 3.91 min Scan# 800

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

Instrument :

MSVOA\_U

ClientSampleId :

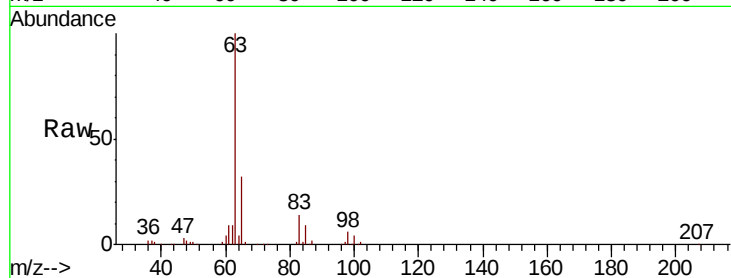
Tot Ion: 63 Resp: 297420

Ion Ratio Lower Upper

63 100

65 31.6 20.8 38.6

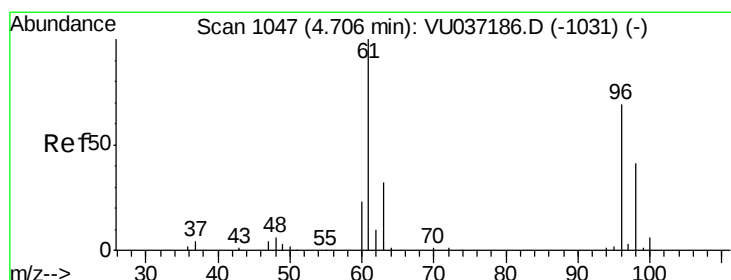
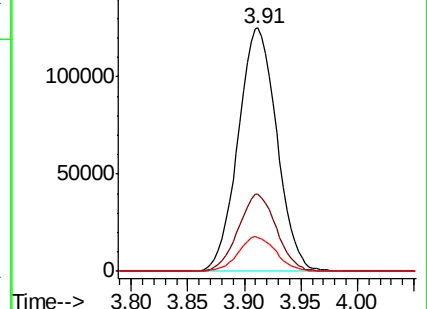
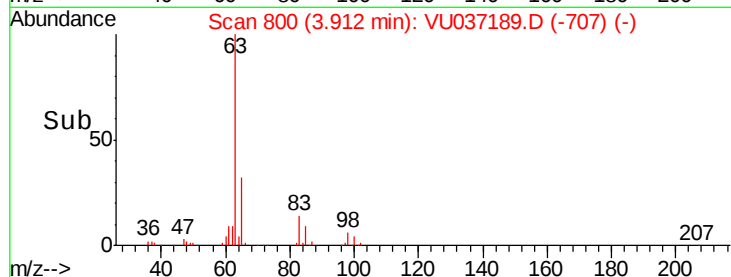
83 14.1 9.9 18.3



Abundance Ion 63.00 (62.70 to 63.70): VU037189.D (-954) (-)

Ion 65.00 (64.70 to 65.70): VU037189.D (-954) (-)

Ion 83.00 (82.70 to 83.70): VU037189.D (-954) (-)



#20

cis-1,2-Dichloroethene

Concen: 50.236 ug/L

RT: 4.71 min Scan# 1048

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

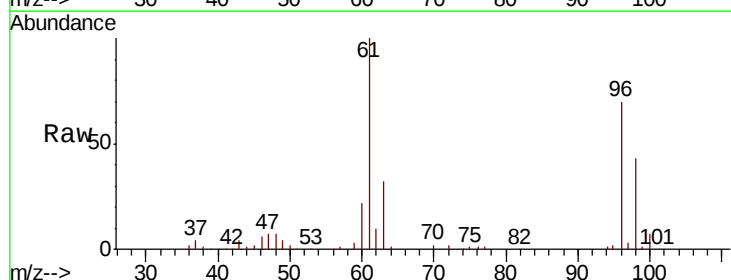
Tgt Ion: 96 Resp: 161744

Ion Ratio Lower Upper

96 100

61 143.6 101.2 187.8

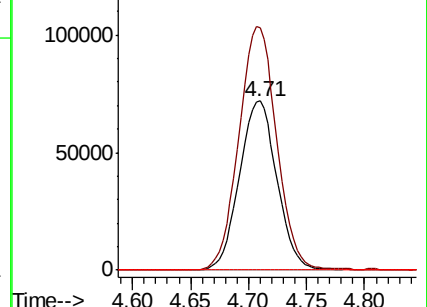
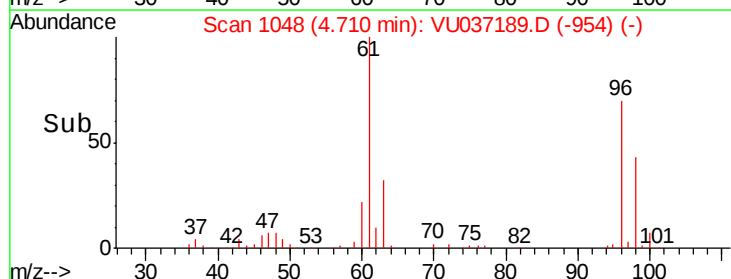
68 0.0 0.0 0.0

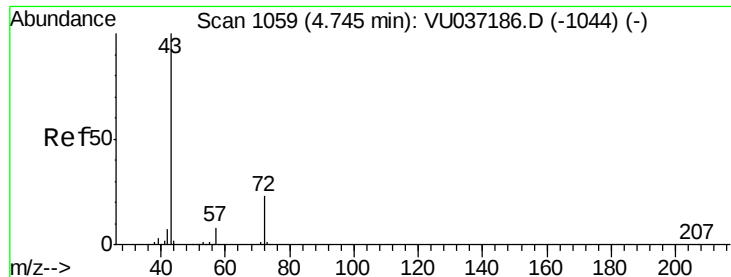


Abundance Ion 96.00 (95.70 to 96.70): VU037189.D (-954) (-)

Ion 61.00 (60.70 to 61.70): VU037189.D (-954) (-)

Ion 68.00 (67.70 to 68.70): VU037189.D (-954) (-)





#22

2-Butanone

Concen: 99.342 ug/L

RT: 4.75 min Scan# 1059

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

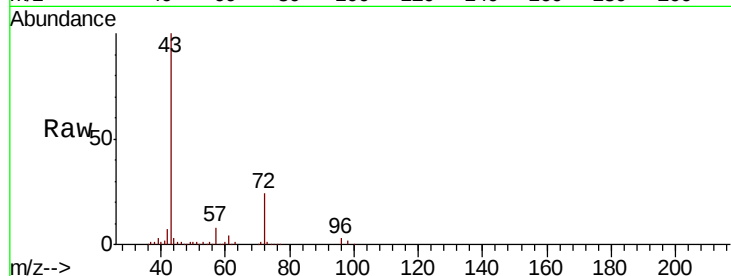
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 43 Resp: 314332

Ion Ratio Lower Upper

43 100

72 25.4 12.3 36.9



Abundance Ion 43.00 (42.70 to 43.70): VU037189.D (-1044) (-)

Ion 72.00 (71.70 to 72.70): VU037189.D (-1044) (-)

4.75

150000

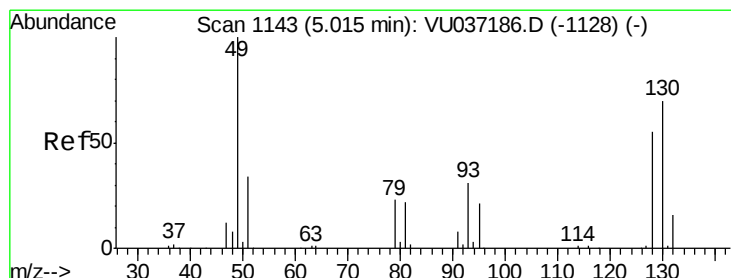
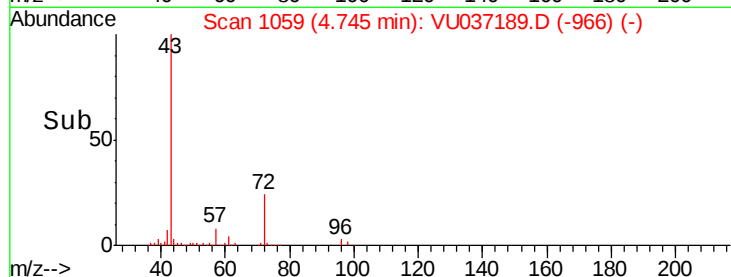
100000

50000

0

4.70 4.80

Time-->



#23

Bromochloromethane

Concen: 50.065 ug/L

RT: 5.02 min Scan# 1143

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

Tgt Ion: 128 Resp: 81289

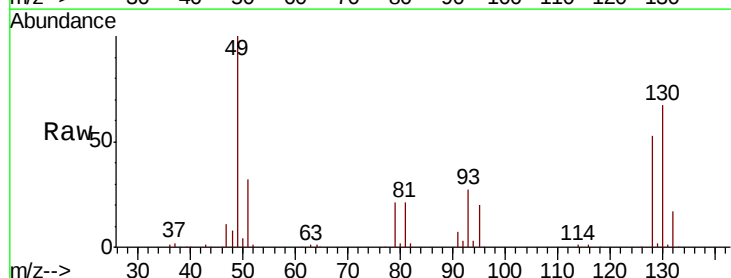
Ion Ratio Lower Upper

128 100

49 190.3 128.4 238.5

130 126.7 90.6 168.2

51 60.1 50.0 75.0



Abundance Ion 128.00 (127.70 to 128.70): VU037189.D (-1128) (-)

Ion 49.00 (48.70 to 49.70): VU037189.D (-1128) (-)

Ion 130.00 (129.70 to 130.70): VU037189.D (-1128) (-)

Ion 51.00 (50.70 to 51.70): VU037189.D (-1128) (-)

100000

80000

60000

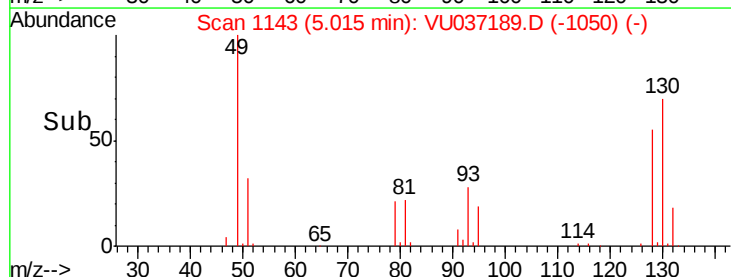
40000

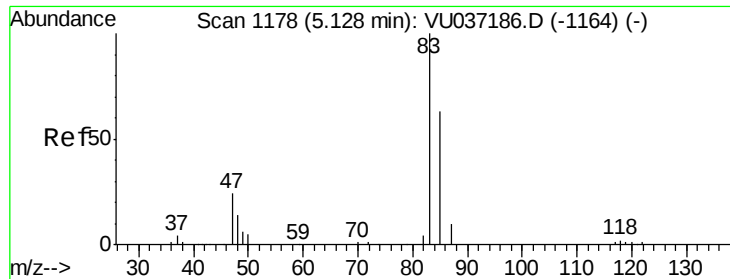
20000

0

4.95 5.00 5.05 5.10

Time-->

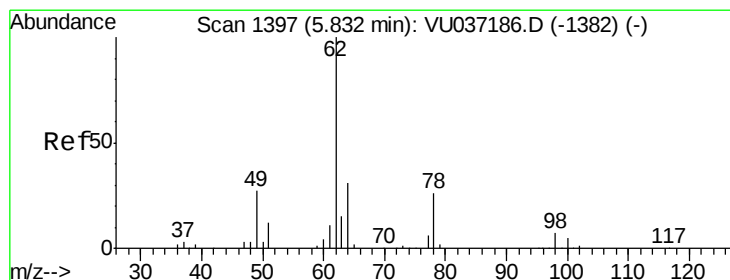
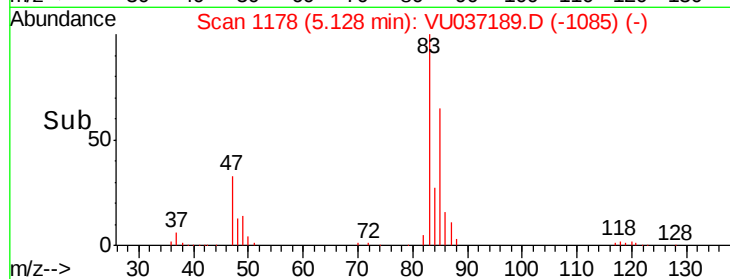
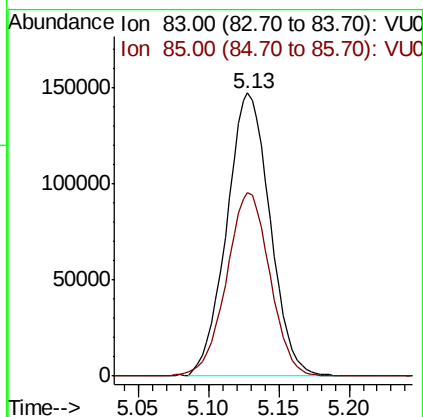
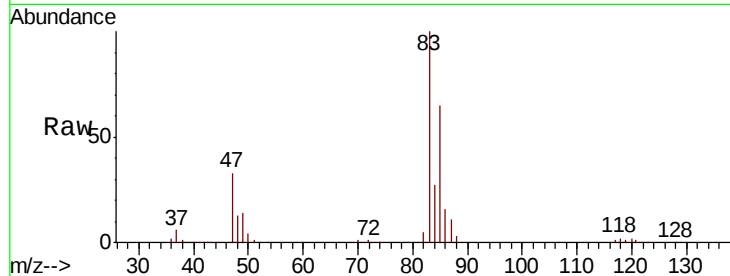




#25  
Chloroform  
Concen: 49.077 ug/L  
RT: 5.13 min Scan# 1178  
Delta R.T. 0.00 min  
Lab File: VU037189.D  
Acq: 12 Mar 2020 14:56

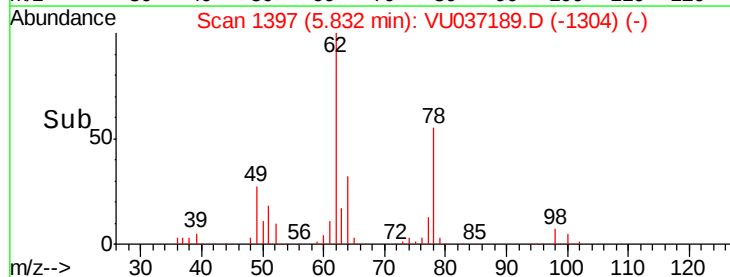
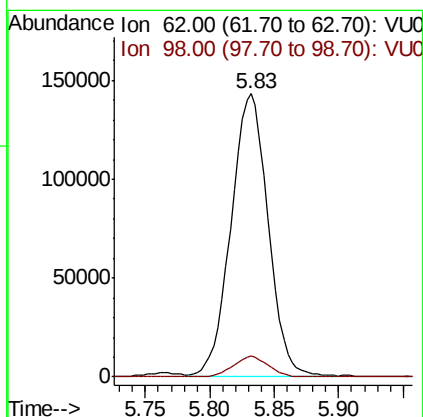
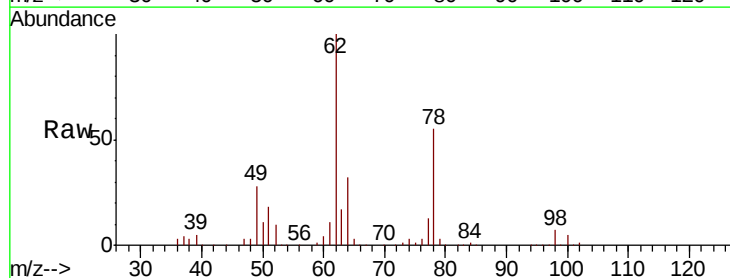
Instrument :  
MSVOA\_U  
ClientSampleId :

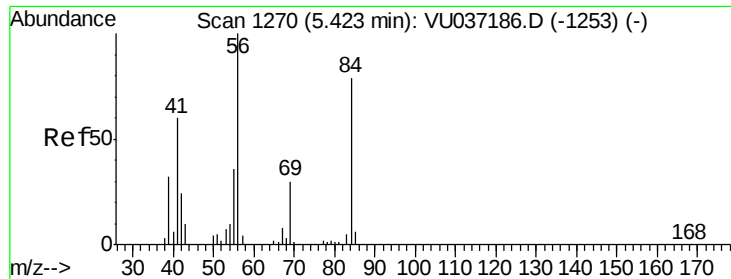
Tot Ion: 83 Resp: 316097  
Ion Ratio Lower Upper  
83 100  
85 64.9 45.0 83.6



#27  
1,2-Dichloroethane  
Concen: 49.665 ug/L  
RT: 5.83 min Scan# 1397  
Delta R.T. 0.00 min  
Lab File: VU037189.D  
Acq: 12 Mar 2020 14:56

Tgt Ion: 62 Resp: 285015  
Ion Ratio Lower Upper  
62 100  
98 7.3 5.6 8.4

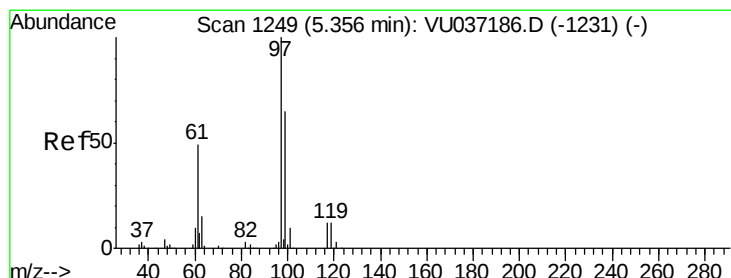
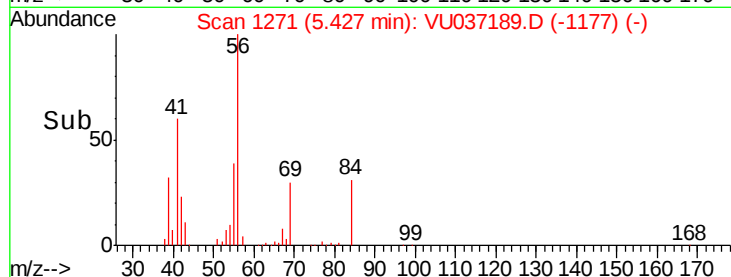
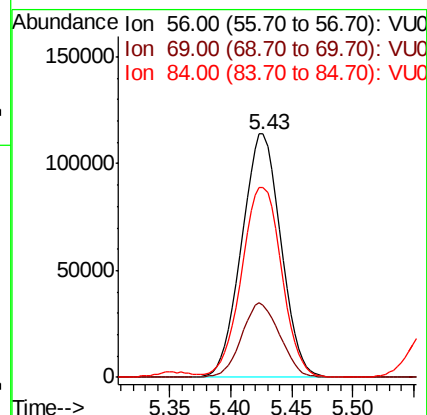
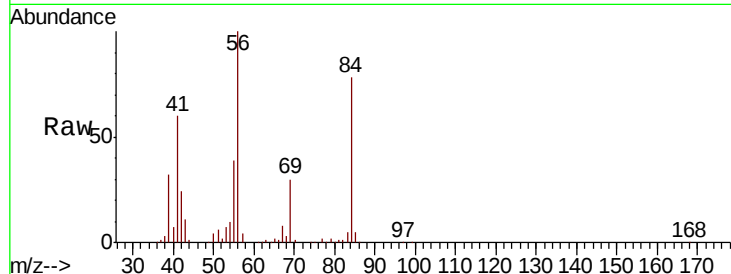




#29  
Cyclohexane  
Concen: 50.529 ug/L  
RT: 5.43 min Scan# 1271  
Delta R.T. 0.00 min  
Lab File: VU037189.D  
Acq: 12 Mar 2020 14:56

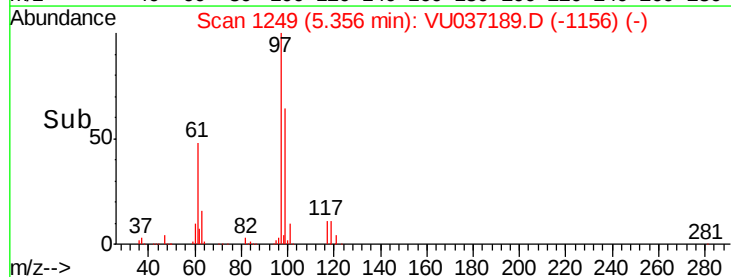
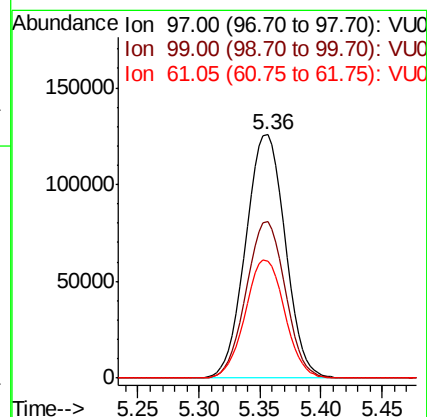
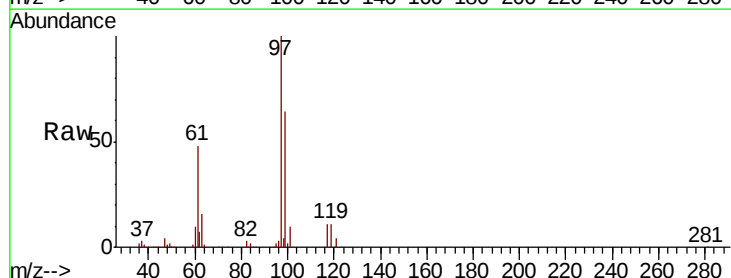
Instrument :  
MSVOA\_U  
ClientSampled :

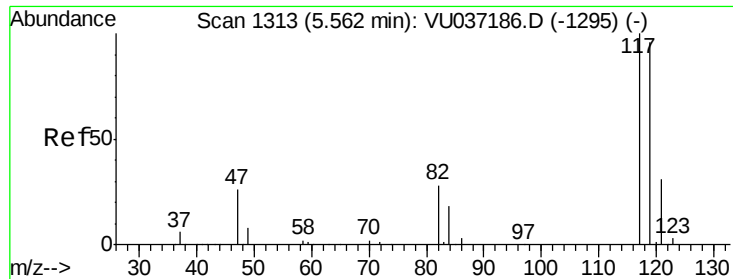
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 56      | 100   |       |       |
| 69      | 29.7  | 23.9  | 35.9  |
| 84      | 79.3  | 64.0  | 96.0  |



#30  
1,1,1-Trichloroethane  
Concen: 50.112 ug/L  
RT: 5.36 min Scan# 1249  
Delta R.T. 0.00 min  
Lab File: VU037189.D  
Acq: 12 Mar 2020 14:56

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 63.5  | 51.4  | 77.0  |
| 61      | 48.4  | 39.0  | 58.4  |

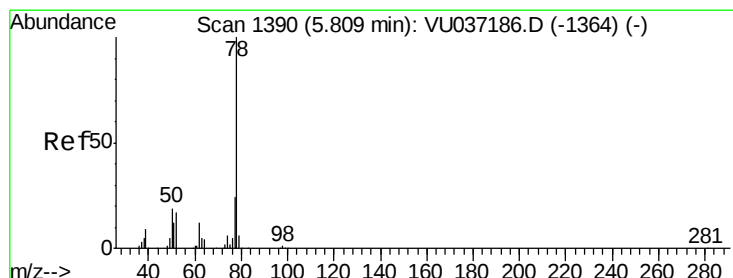
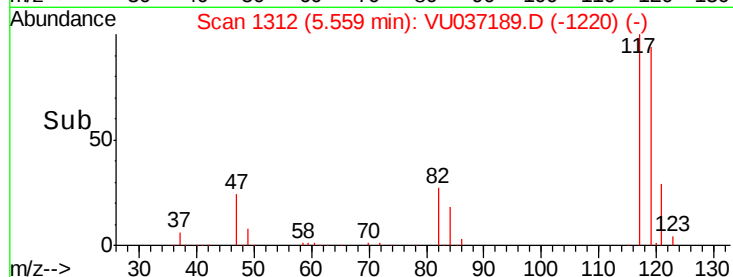
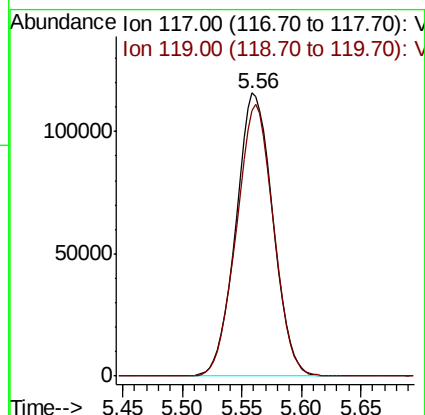
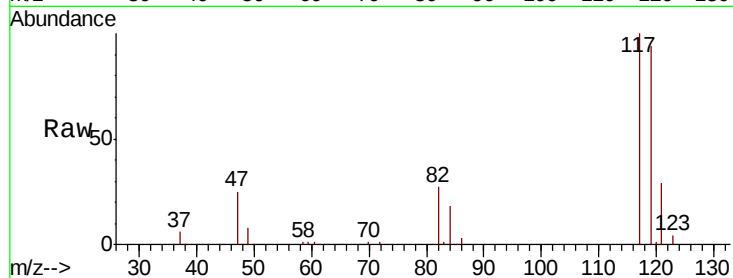




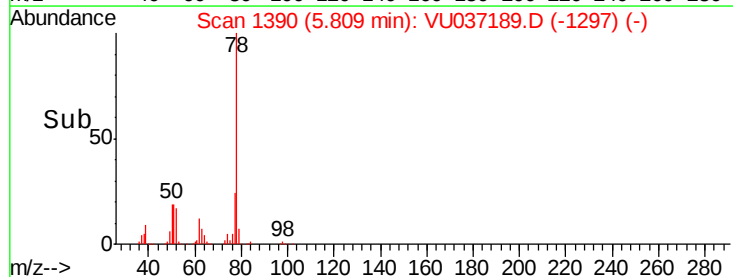
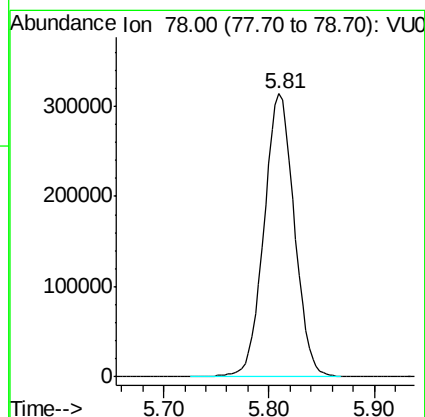
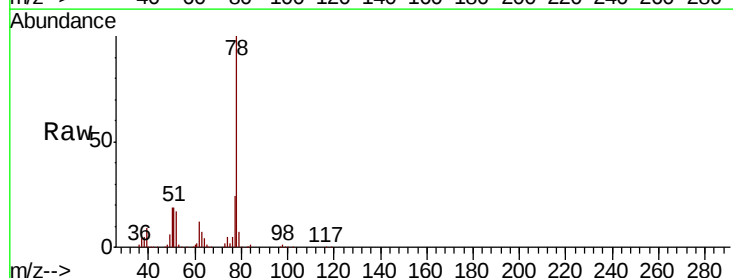
#31  
Carbon tetrachloride  
Concen: 49.990 ug/L  
RT: 5.56 min Scan# 1312  
Delta R.T. -0.00 min  
Lab File: VU037189.D  
Acq: 12 Mar 2020 14:56

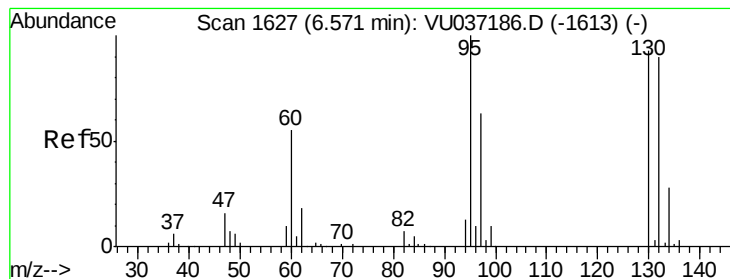
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion:117 Resp: 249346  
Ion Ratio Lower Upper  
117 100  
119 96.3 76.8 115.2



#33  
Benzene  
Concen: 50.166 ug/L  
RT: 5.81 min Scan# 1390  
Delta R.T. 0.00 min  
Lab File: VU037189.D  
Acq: 12 Mar 2020 14:56  
Tgt Ion: 78 Resp: 628884





#34

Trichloroethene

Concen: 50.231 ug/L

RT: 6.57 min Scan# 1627

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

Instrument :

MSVOA\_U

ClientSampled :

Tot Ion: 95 Resp: 163628

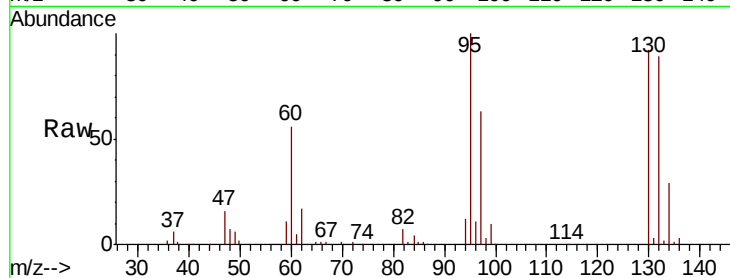
Ion Ratio Lower Upper

95 100

97 63.3 43.8 81.4

132 89.3 62.6 116.3

130 91.7 64.8 120.4

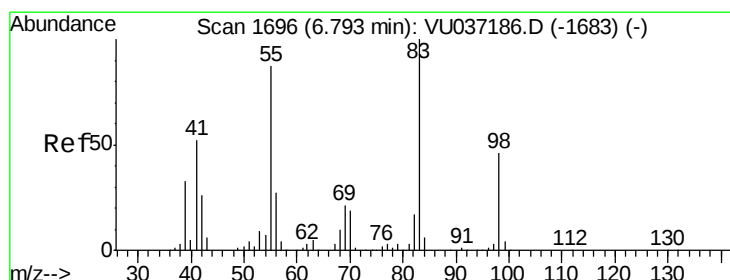
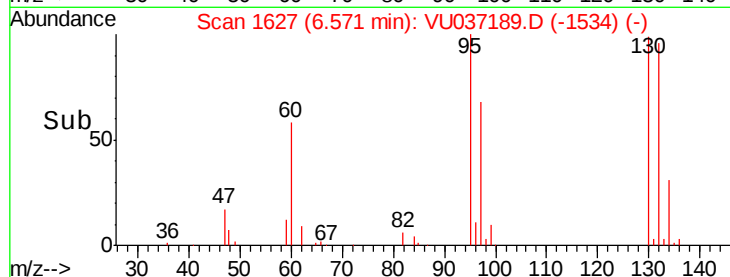
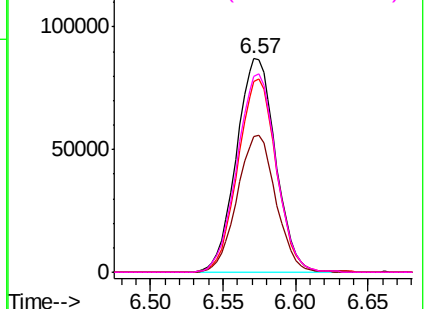


Abundance Ion 95.00 (94.70 to 95.70): VU037189.D (-1613) (-)

Ion 97.00 (96.70 to 97.70): VU037189.D (-1613) (-)

Ion 132.00 (131.70 to 132.70): VU037189.D (-1613) (-)

Ion 130.00 (129.70 to 130.70): VU037189.D (-1613) (-)



#35

Methylcyclohexane

Concen: 51.467 ug/L

RT: 6.79 min Scan# 1696

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

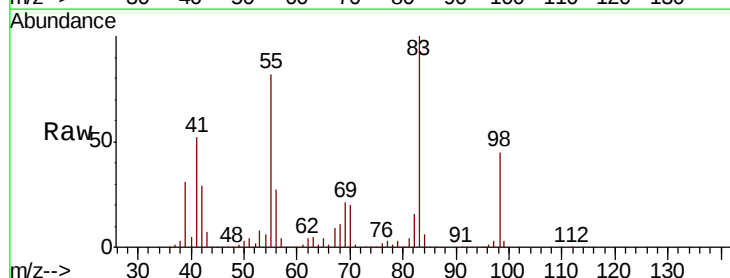
Tgt Ion: 83 Resp: 253825

Ion Ratio Lower Upper

83 100

55 82.5 68.2 102.2

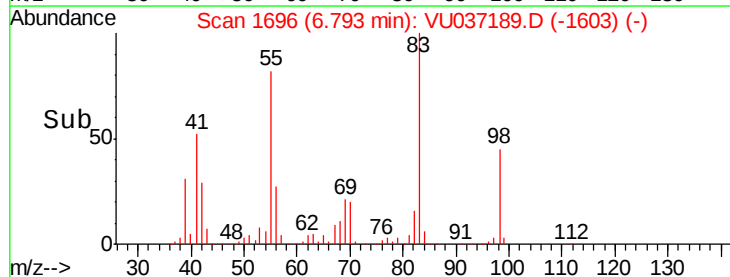
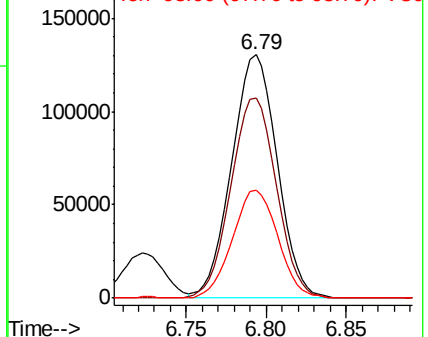
98 44.3 36.4 54.6

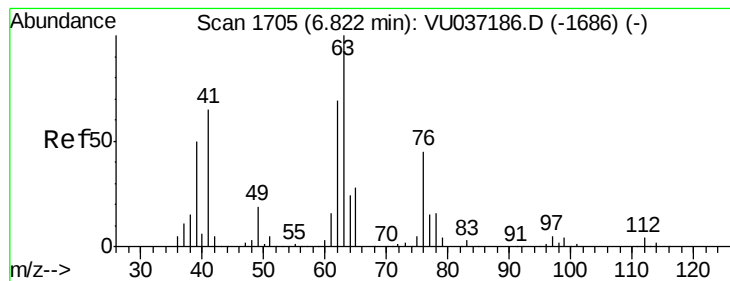


Abundance Ion 83.00 (82.70 to 83.70): VU037189.D (-1683) (-)

Ion 55.00 (54.70 to 55.70): VU037189.D (-1683) (-)

Ion 98.00 (97.70 to 98.70): VU037189.D (-1683) (-)





#37

1,2-Dichloropropane

Concen: 49.283 ug/L

RT: 6.82 min Scan# 1705

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

Instrument :

MSVOA\_U

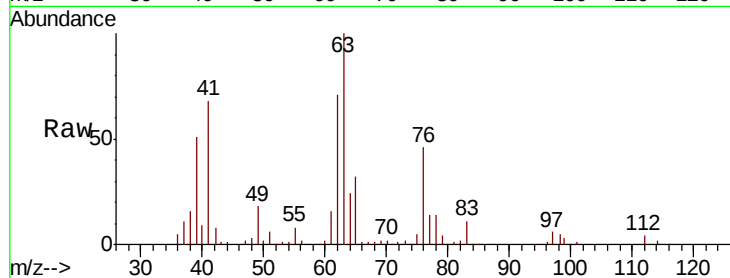
ClientSampled :

Tot Ion: 63 Resp: 175613

Ion Ratio Lower Upper

63 100

112 3.6 3.1 4.7



Abundance Ion 63.00 (62.70 to 63.70): VU037186.D (-1686) (-)

Ion 112.00 (111.70 to 112.70): VU037186.D (-1686) (-)

6.82

100000

80000

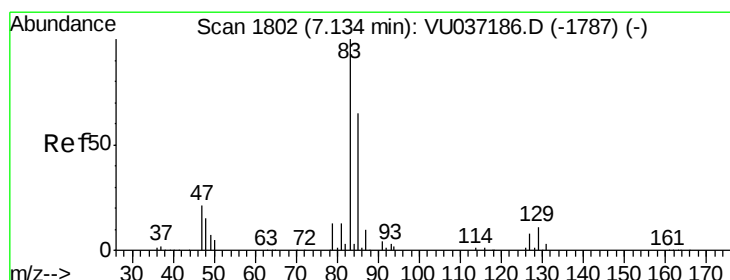
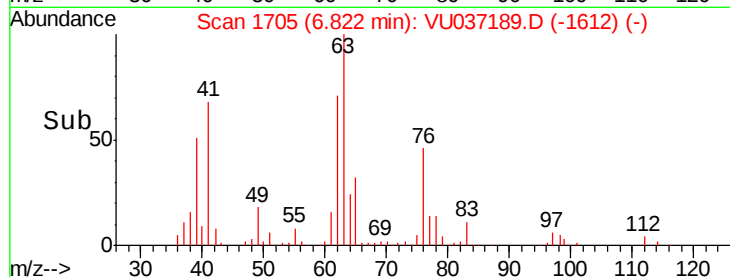
60000

40000

20000

0

Time-->



#38

Bromodichloromethane

Concen: 49.297 ug/L

RT: 7.13 min Scan# 1802

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

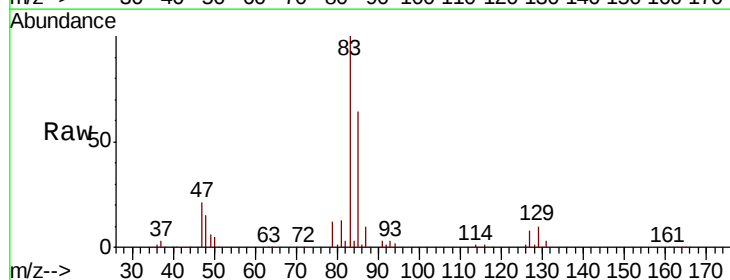
Tgt Ion: 83 Resp: 245585

Ion Ratio Lower Upper

83 100

85 64.4 45.7 84.9

127 8.1 6.7 10.1



Abundance Ion 83.00 (82.70 to 83.70): VU037186.D (-1787) (-)

Ion 85.00 (84.70 to 85.70): VU037186.D (-1787) (-)

Ion 127.00 (126.70 to 127.70): VU037186.D (-1787) (-)

7.13

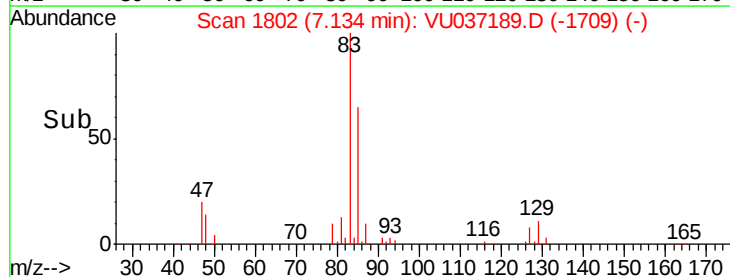
150000

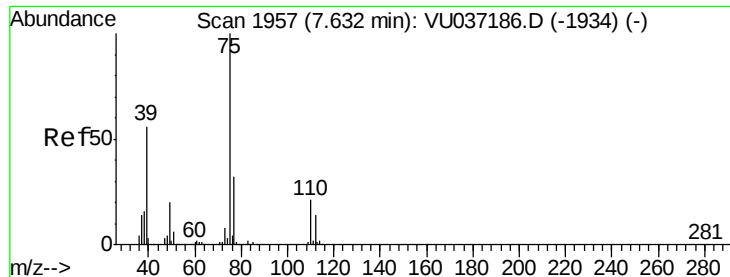
100000

50000

0

Time-->

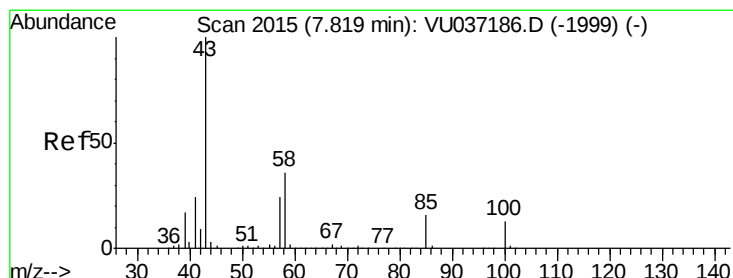
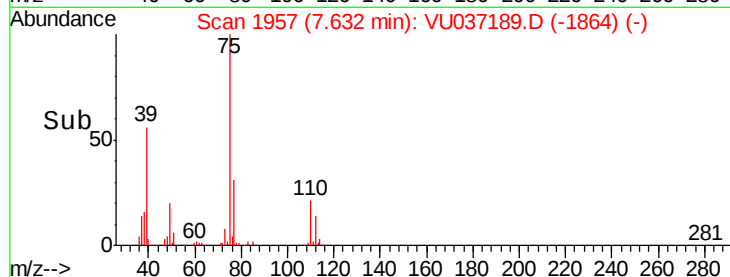
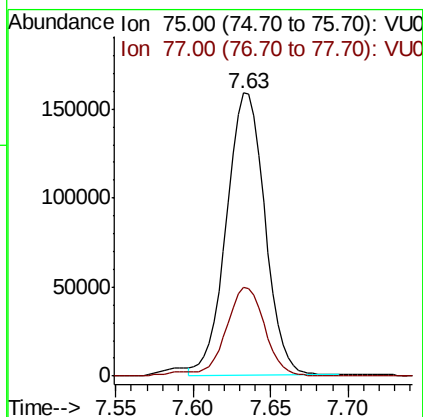
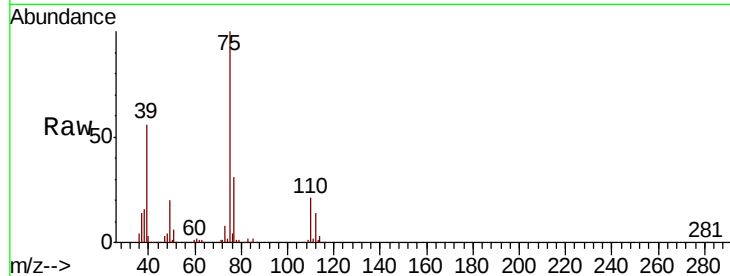




#39  
 cis-1,3-Dichloropropene  
 Concen: 49.651 ug/L  
 RT: 7.63 min Scan# 1957  
 Delta R.T. 0.00 min  
 Lab File: VU037189.D  
 Acq: 12 Mar 2020 14:56

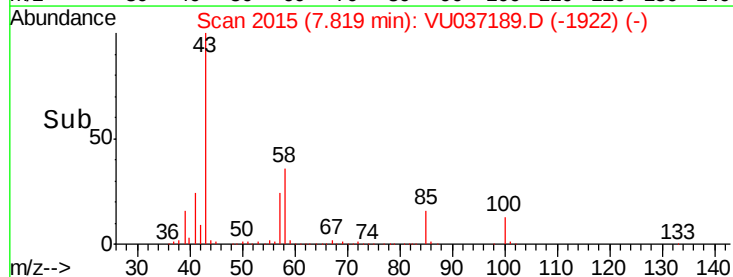
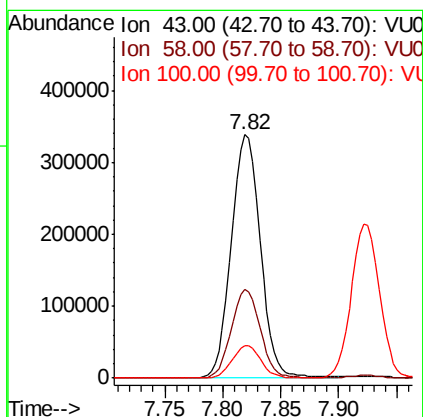
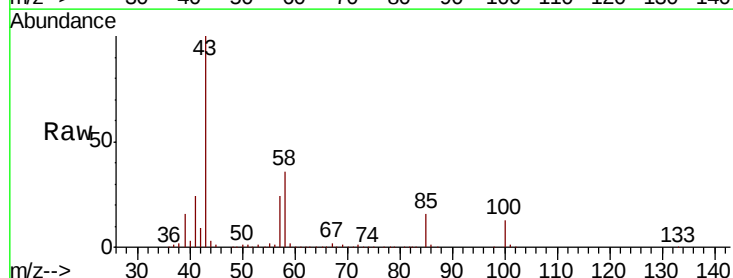
Instrument :  
 MSVOA\_U  
 ClientSampleId :

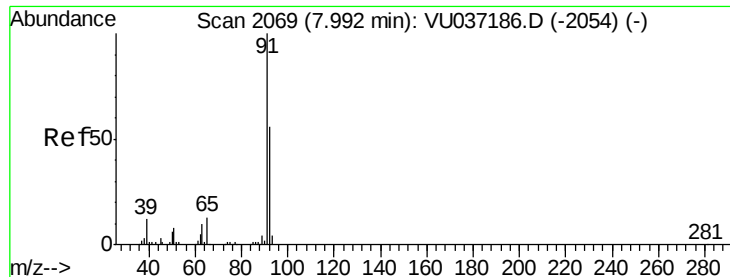
Tot Ion: 75 Resp: 274328  
 Ion Ratio Lower Upper  
 75 100  
 77 31.3 22.5 41.9



#40  
 4-Methyl-2-pentanone  
 Concen: 101.645 ug/L  
 RT: 7.82 min Scan# 2015  
 Delta R.T. 0.00 min  
 Lab File: VU037189.D  
 Acq: 12 Mar 2020 14:56

Tgt Ion: 43 Resp: 589601  
 Ion Ratio Lower Upper  
 43 100  
 58 36.2 29.3 43.9  
 100 13.2 10.3 15.5





#42

Toluene

Concen: 50.091 ug/L

RT: 8.00 min Scan# 2070

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

Instrument :

MSVOA\_U

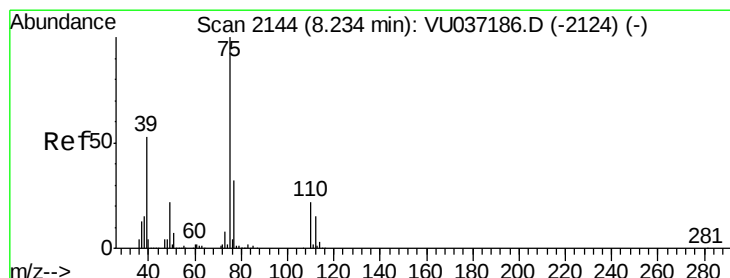
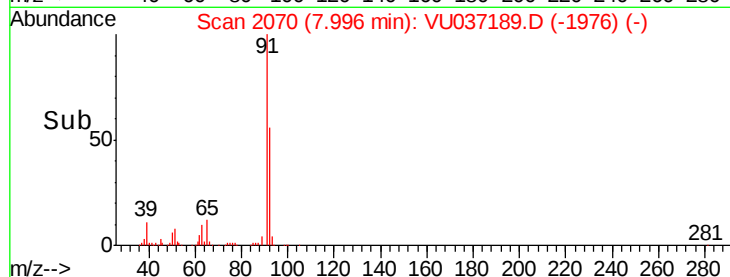
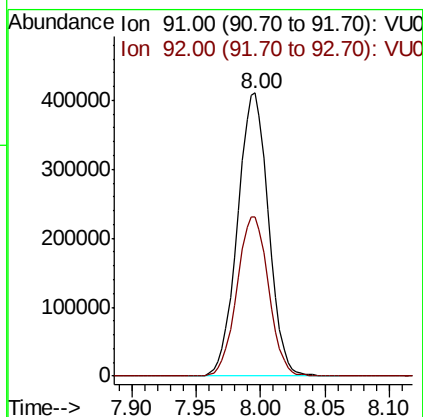
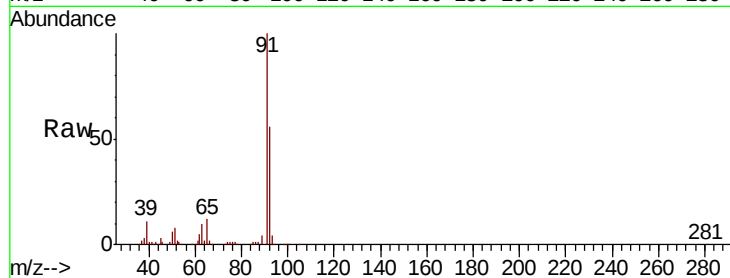
ClientSampled :

Tot Ion: 91 Resp: 685721

Ion Ratio Lower Upper

91 100

92 56.2 39.1 72.5



#44

trans-1,3-Dichloropropene

Concen: 51.882 ug/L

RT: 8.23 min Scan# 2144

Delta R.T. 0.00 min

Lab File: VU037189.D

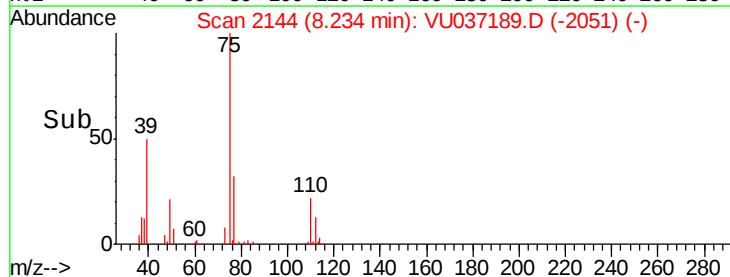
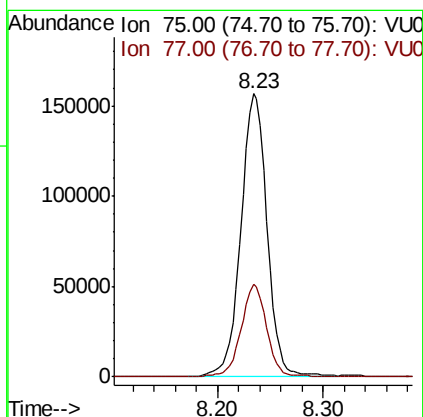
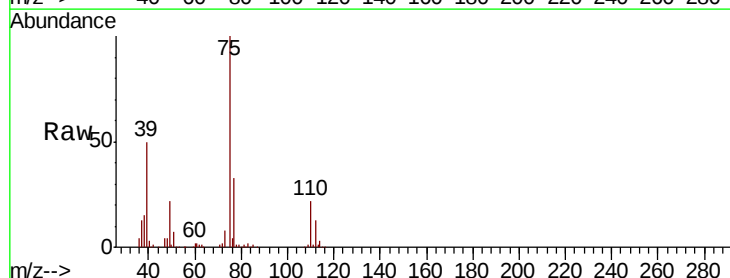
Acq: 12 Mar 2020 14:56

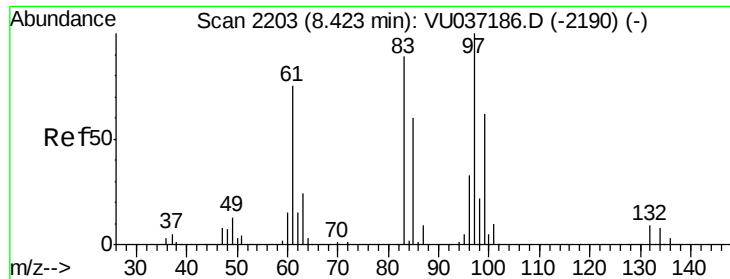
Tgt Ion: 75 Resp: 270653

Ion Ratio Lower Upper

75 100

77 32.6 22.1 41.1

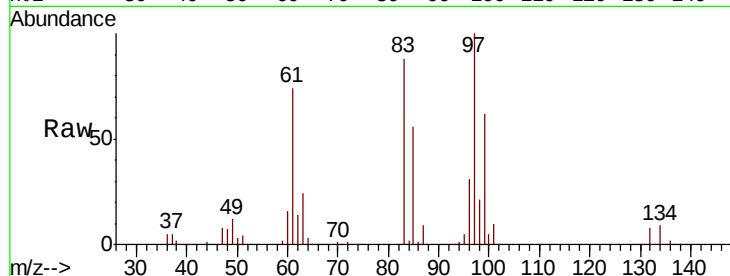




#45  
1,1,2-Trichloroethane  
Concen: 49.639 ug/L  
RT: 8.42 min Scan# 2203  
Delta R.T. 0.00 min  
Lab File: VU037189.D  
Acq: 12 Mar 2020 14:56

Instrument :  
MSVOA\_U  
ClientSampled :

| Tot Ion | 97    | Resp  | 161057 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 97      | 100   |       |        |
| 99      | 61.7  | 43.5  | 80.9   |
| 83      | 88.5  | 62.4  | 116.0  |
| 85      | 55.9  | 41.9  | 77.7   |



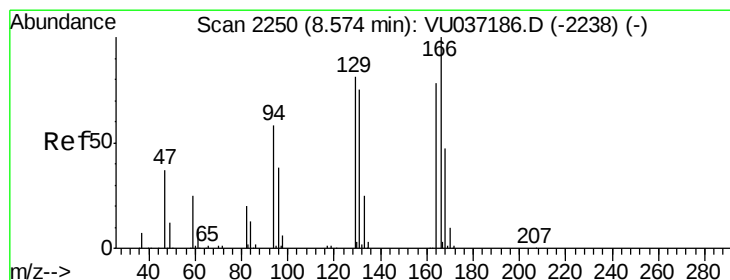
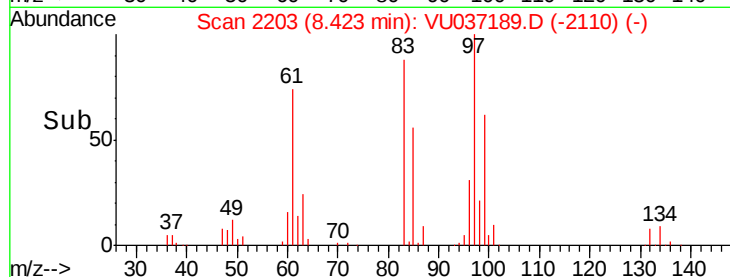
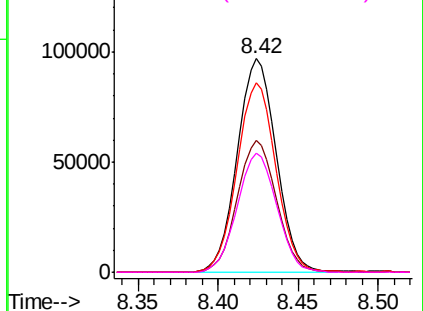
Abundance

Ion 97.00 (96.70 to 97.70): VU0

Ion 99.00 (98.70 to 99.70): VU0

Ion 83.00 (82.70 to 83.70): VU0

Ion 85.00 (84.70 to 85.70): VU0



#46  
Tetrachloroethene  
Concen: 50.289 ug/L  
RT: 8.57 min Scan# 2250  
Delta R.T. 0.00 min  
Lab File: VU037189.D  
Acq: 12 Mar 2020 14:56

| Tgt Ion | 164   | Resp  | 121703 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 164     | 100   |       |        |
| 129     | 99.3  | 72.4  | 134.5  |
| 131     | 95.5  | 67.1  | 124.7  |
| 166     | 128.7 | 89.5  | 166.1  |

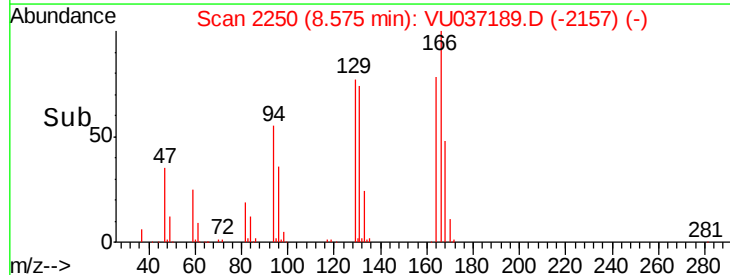
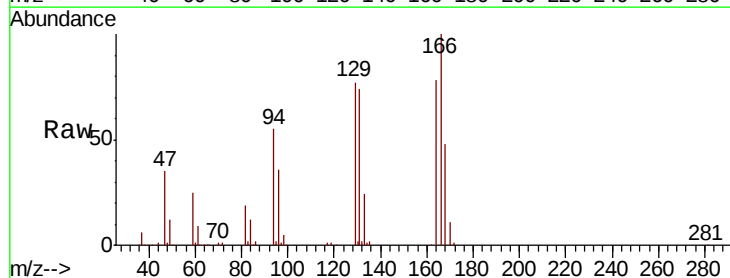
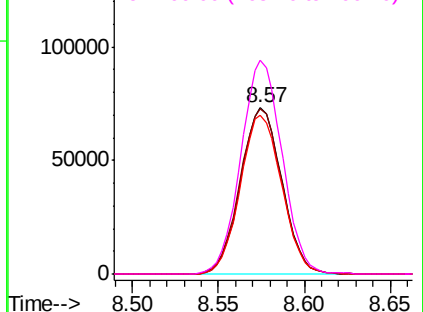
Abundance

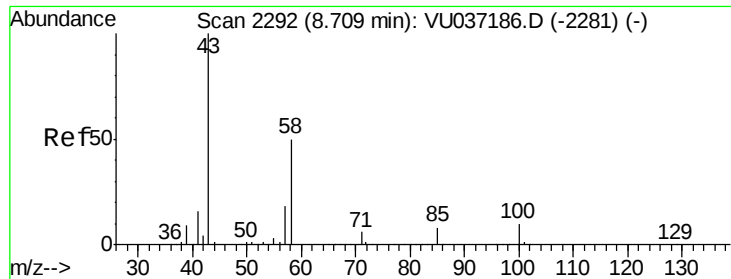
Ion 164.00 (163.70 to 164.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V

Ion 166.00 (165.70 to 166.70): V

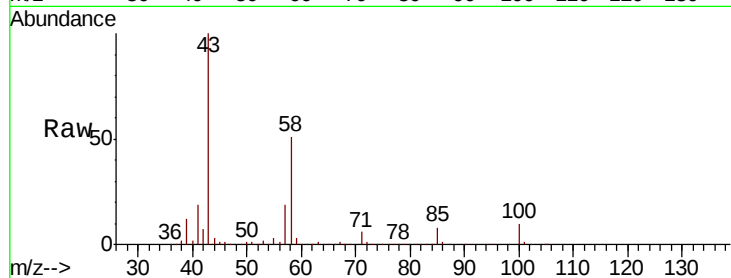




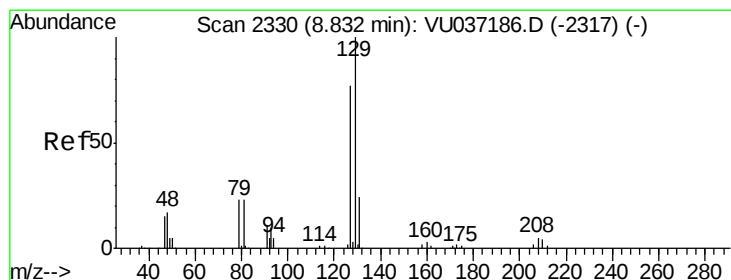
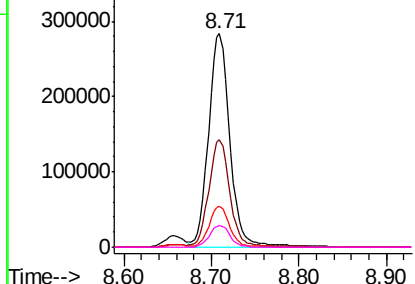
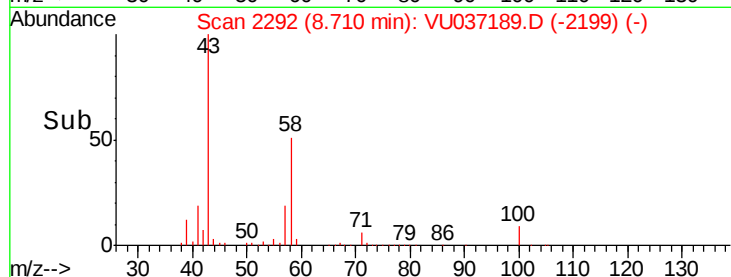
#48  
2-Hexanone  
Concen: 105.170 ug/L  
RT: 8.71 min Scan# 2292  
Delta R.T. 0.00 min  
Lab File: VU037189.D  
Acq: 12 Mar 2020 14:56

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 43 Resp: 480753  
Ion Ratio Lower Upper  
43 100  
58 48.6 39.8 59.6  
57 17.6 14.5 21.7  
100 10.1 7.9 11.9

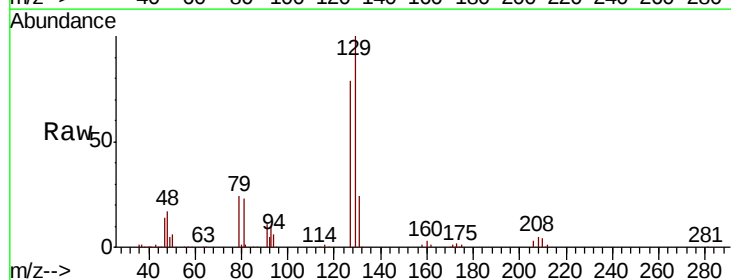


Abundance Ion 43.00 (42.70 to 43.70): VU0  
Ion 58.00 (57.70 to 58.70): VU0  
Ion 57.00 (56.70 to 57.70): VU0  
Ion 100.00 (99.70 to 100.70): VU0

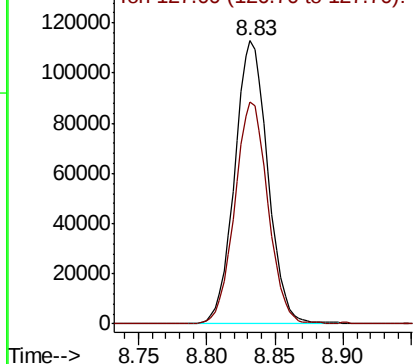
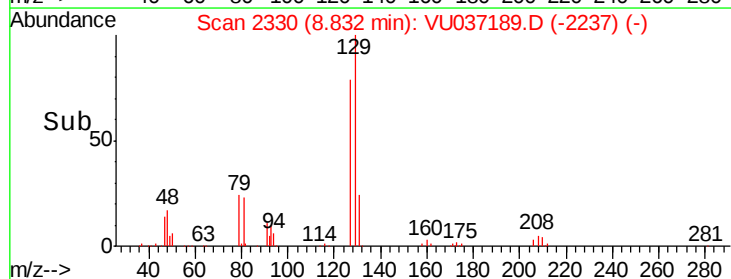


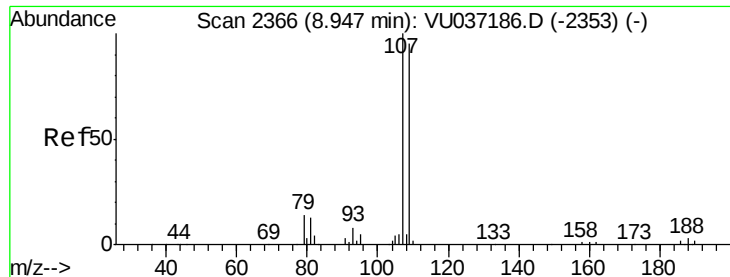
#49  
Dibromochloromethane  
Concen: 49.802 ug/L  
RT: 8.83 min Scan# 2330  
Delta R.T. 0.00 min  
Lab File: VU037189.D  
Acq: 12 Mar 2020 14:56

Tgt Ion: 129 Resp: 190101  
Ion Ratio Lower Upper  
129 100  
127 78.6 53.8 100.0



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

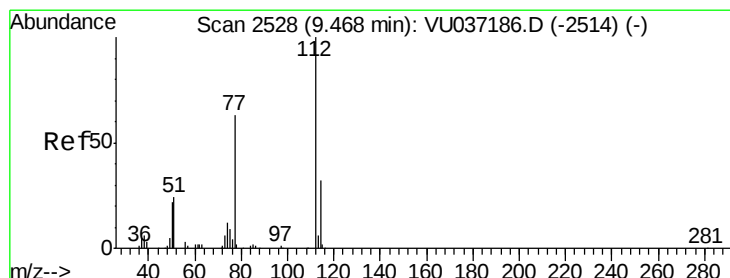
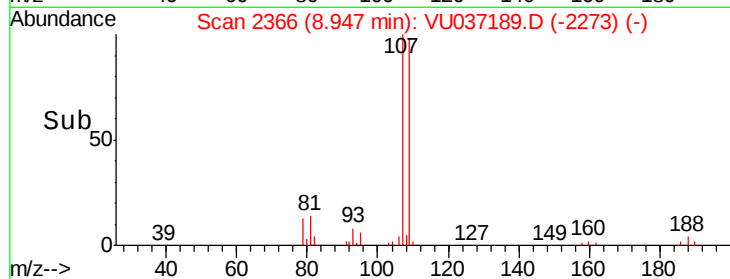
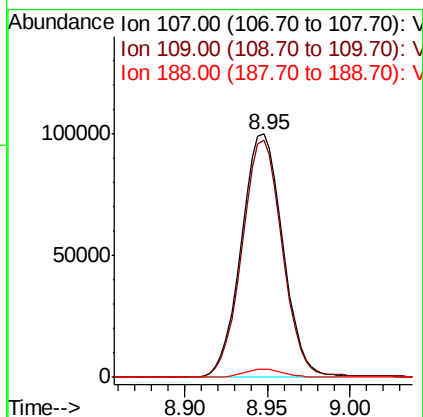
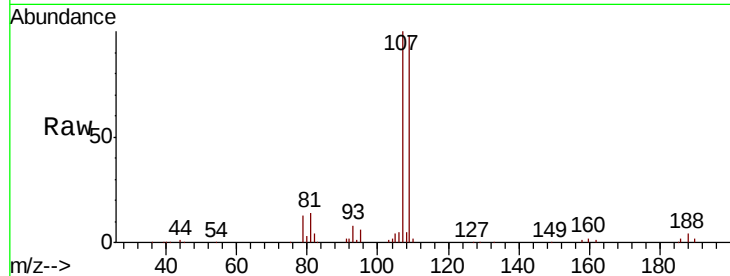




#50  
 1,2-Dibromoethane  
 Concen: 49.633 ug/L  
 RT: 8.95 min Scan# 2366  
 Delta R.T. 0.00 min  
 Lab File: VU037189.D  
 Acq: 12 Mar 2020 14:56

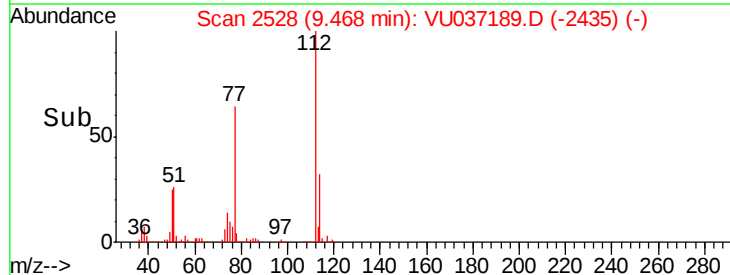
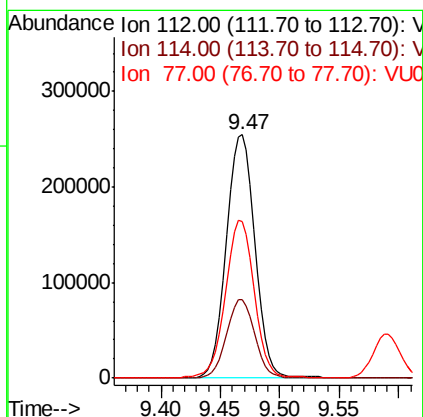
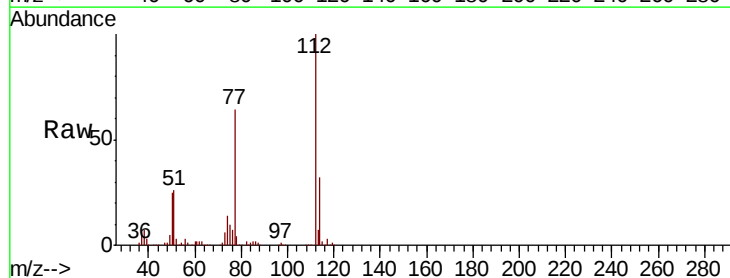
Instrument :  
 MSVOA\_U  
 ClientSampleId :

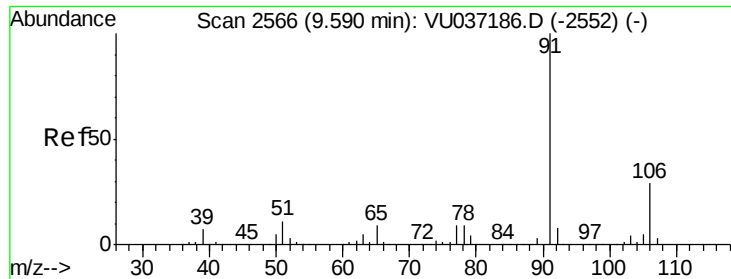
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 107     | 100   |       |       |
| 109     | 97.5  | 66.5  | 123.5 |
| 188     | 3.6   | 2.6   | 4.0   |



#51  
 Chlorobenzene  
 Concen: 49.473 ug/L  
 RT: 9.47 min Scan# 2528  
 Delta R.T. 0.00 min  
 Lab File: VU037189.D  
 Acq: 12 Mar 2020 14:56

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 114     | 32.1  | 22.6  | 42.0  |
| 77      | 64.5  | 51.0  | 76.4  |

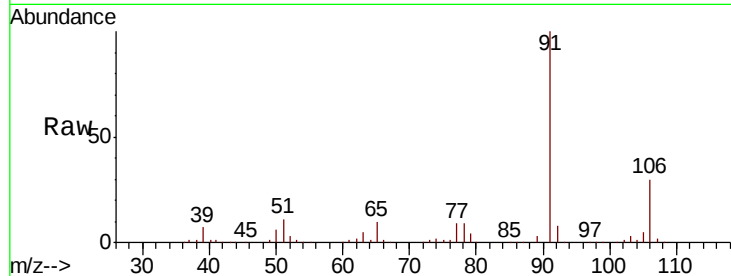




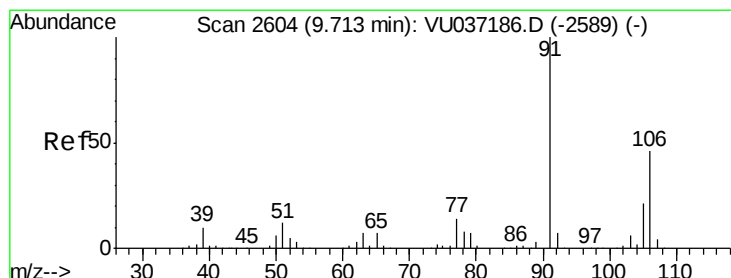
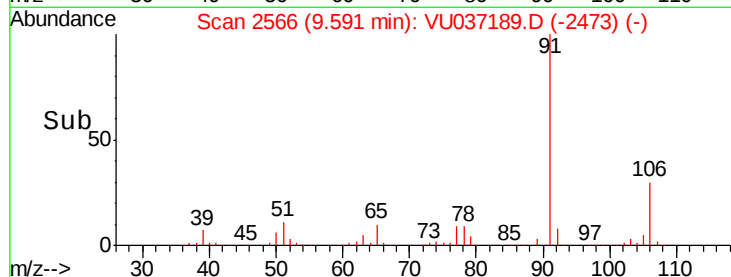
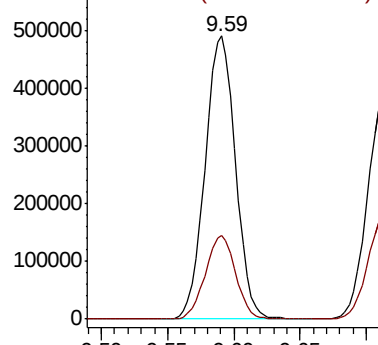
#52  
Ethylbenzene  
Concen: 49.364 ug/L  
RT: 9.59 min Scan# 2566  
Delta R.T. 0.00 min  
Lab File: VU037189.D  
Acq: 12 Mar 2020 14:56

Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 91 Resp: 782479  
Ion Ratio Lower Upper  
91 100  
106 29.7 20.2 37.6

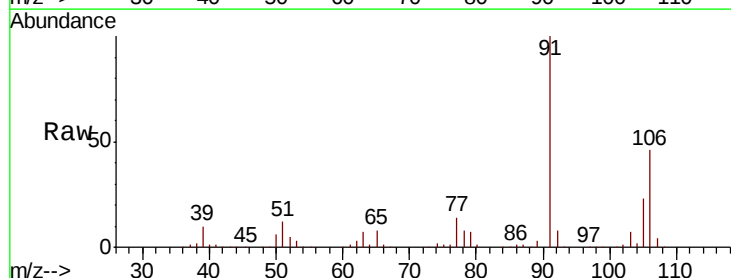


Abundance Ion 91.00 (90.70 to 91.70): VU0  
Ion 106.00 (105.70 to 106.70): V

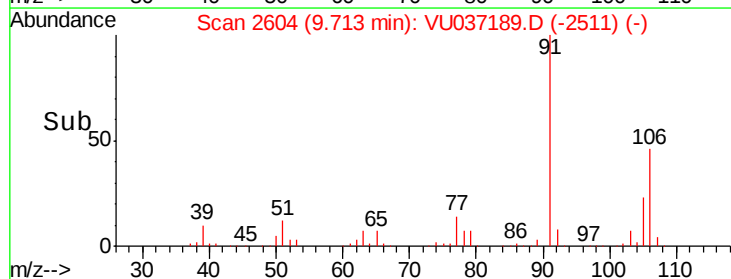
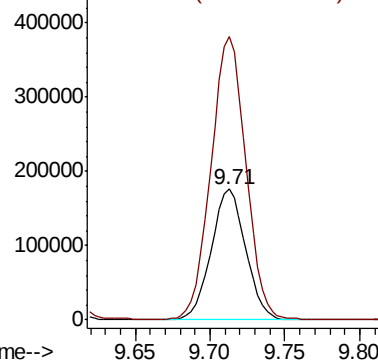


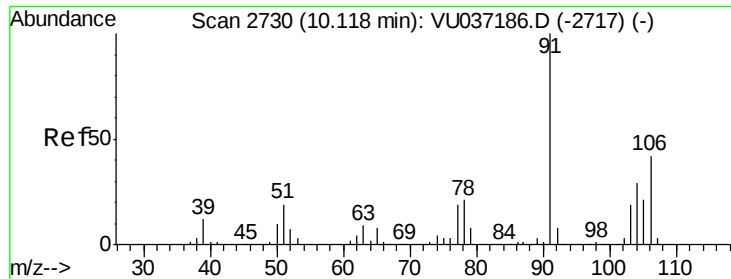
#53  
m,p-Xylene  
Concen: 50.592 ug/L  
RT: 9.71 min Scan# 2604  
Delta R.T. 0.00 min  
Lab File: VU037189.D  
Acq: 12 Mar 2020 14:56

Tgt Ion: 106 Resp: 283645  
Ion Ratio Lower Upper  
106 100  
91 216.7 154.0 286.0



Abundance Ion 106.00 (105.70 to 106.70): V  
Ion 91.00 (90.70 to 91.70): VU0





#54

o-xylene

Concen: 50.317 ug/L

RT: 10.12 min Scan# 2730

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

Instrument :

MSVOA\_U

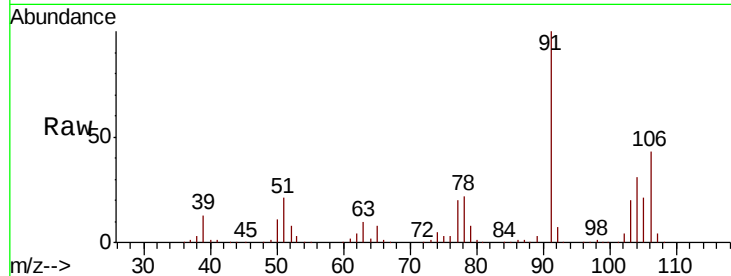
ClientSampleId :

Tot Ion:106 Resp: 278714

Ion Ratio Lower Upper

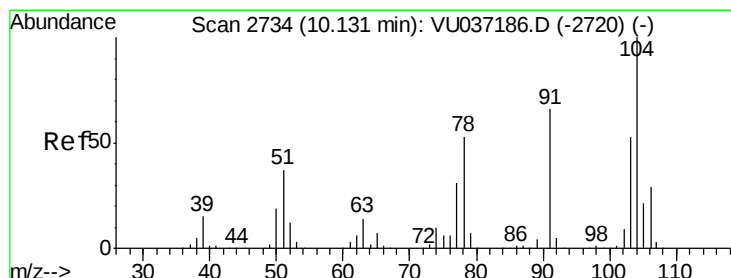
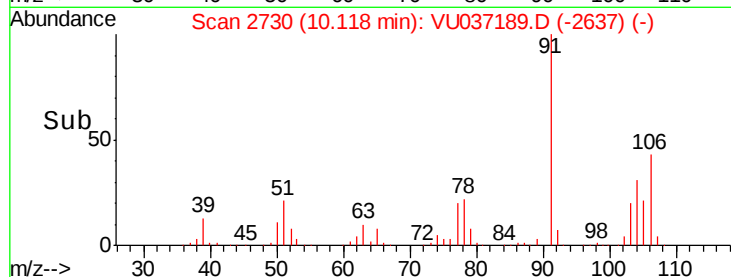
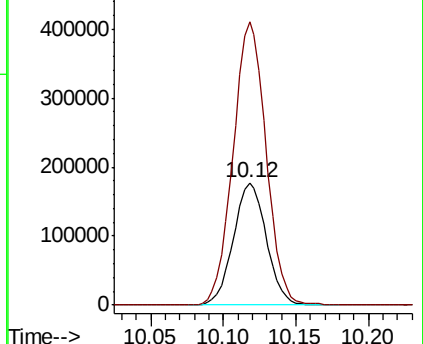
106 100

91 231.7 167.6 311.2



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VU0



#55

Styrene

Concen: 51.502 ug/L

RT: 10.13 min Scan# 2734

Delta R.T. 0.00 min

Lab File: VU037189.D

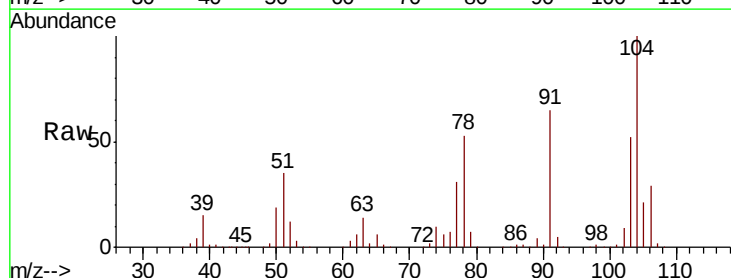
Acq: 12 Mar 2020 14:56

Tgt Ion:104 Resp: 483782

Ion Ratio Lower Upper

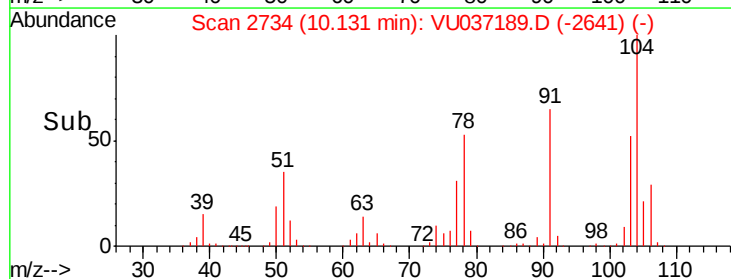
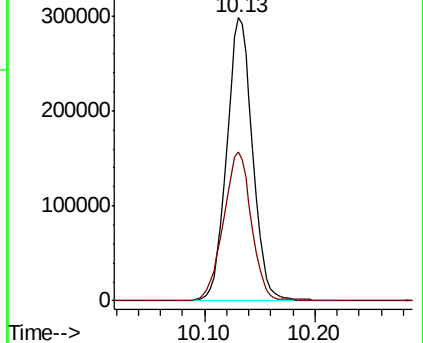
104 100

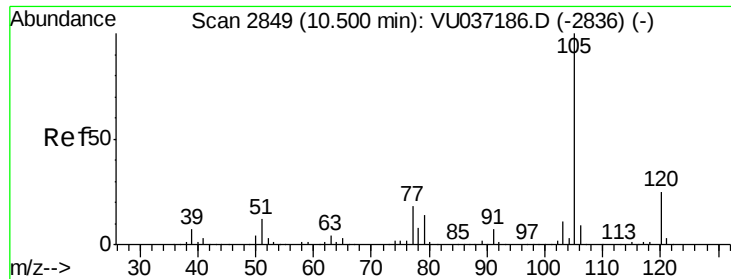
78 52.8 37.4 69.4



Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VU0





#56

Isopropylbenzene

Concen: 49.963 ug/L

RT: 10.50 min Scan# 2849

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

Instrument :

MSVOA\_U

ClientSampleId :

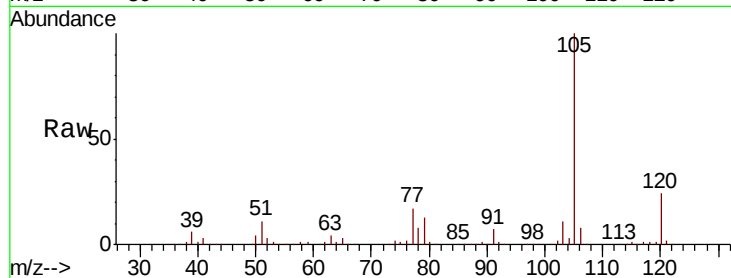
Tot Ion:105 Resp: 769236

Ion Ratio Lower Upper

105 100

120 24.7 19.9 29.9

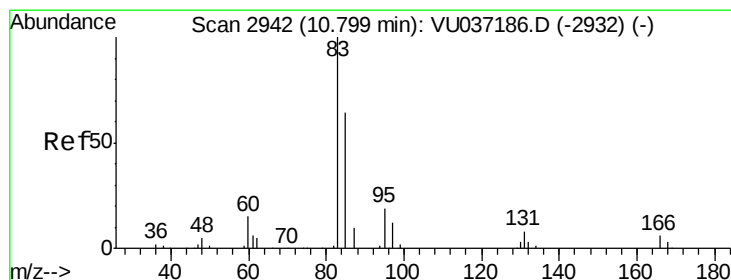
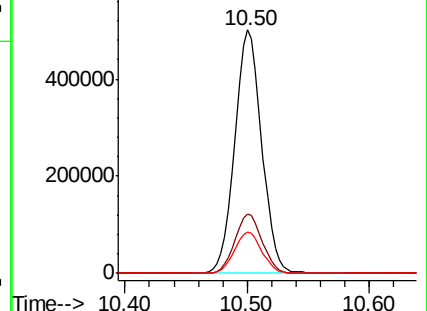
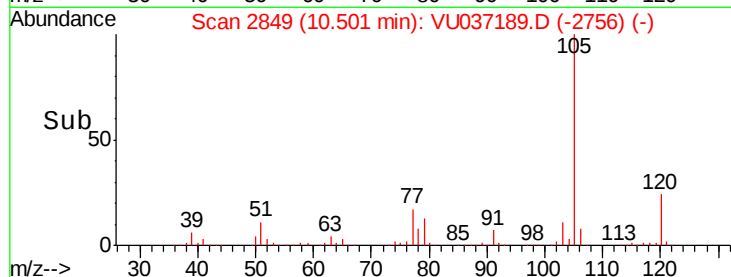
77 17.3 14.1 21.1



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: 49.540 ug/L

RT: 10.80 min Scan# 2942

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

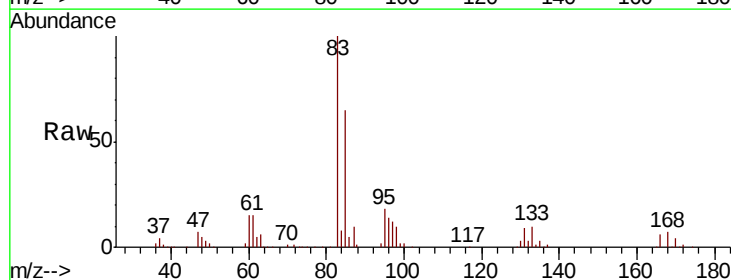
Tgt Ion: 83 Resp: 293399

Ion Ratio Lower Upper

83 100

85 65.0 45.8 85.2

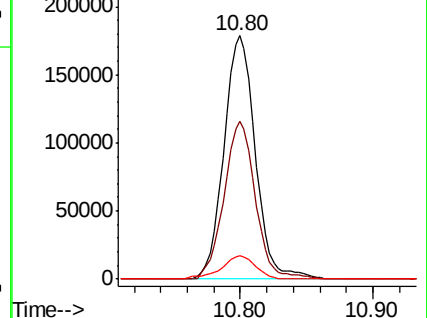
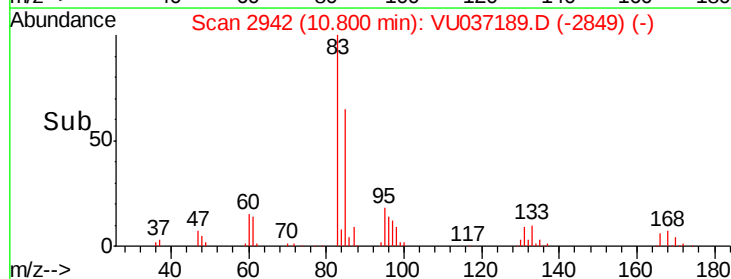
131 9.4 7.7 11.5

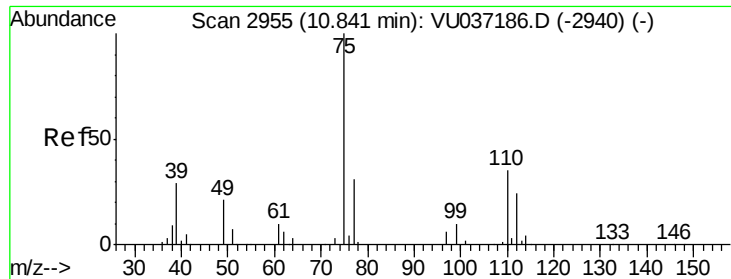


Abundance Ion 83.00 (82.70 to 83.70): V

Ion 85.00 (84.70 to 85.70): V

Ion 131.00 (130.70 to 131.70): V





#59

1,2,3-Trichloropropane

Concen: 49.699 ug/L

RT: 10.84 min Scan# 2955

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

Instrument :

MSVOA\_U

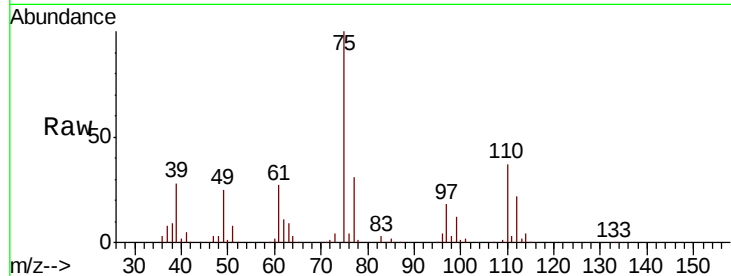
ClientSampleId :

Tot Ion: 75 Resp: 246175

Ion Ratio Lower Upper

75 100

77 31.8 25.0 37.6



Abundance Ion 75.00 (74.70 to 75.70): VU037186.D (-2940) (-)

Ion 77.00 (76.70 to 77.70): VU037186.D (-2940) (-)

10.84

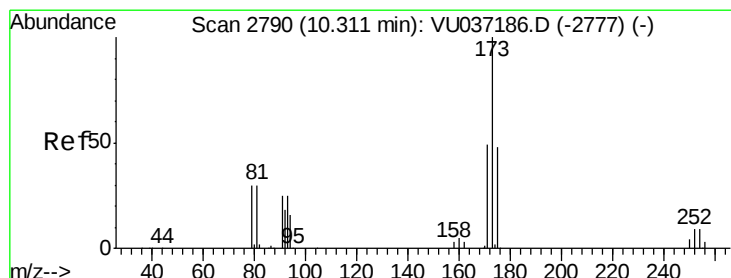
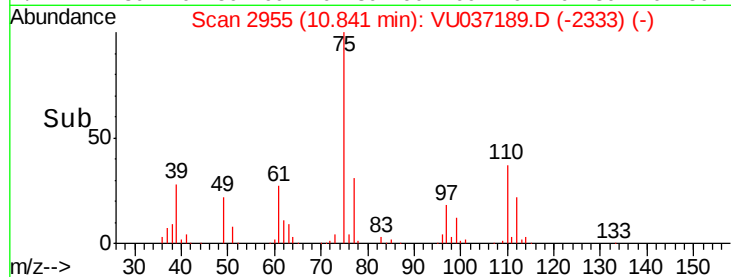
150000

100000

50000

0

Time--> 10.75 10.80 10.85 10.90



#61

Bromoform

Concen: 49.660 ug/L

RT: 10.31 min Scan# 2789

Delta R.T. -0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

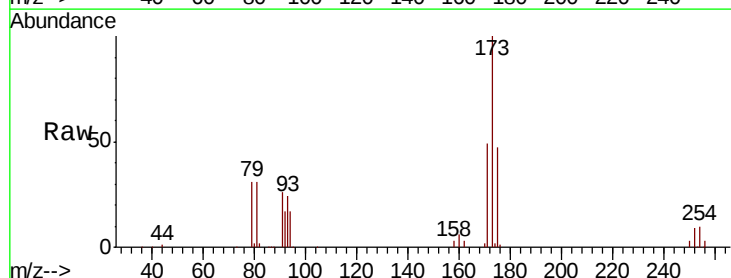
Tgt Ion: 173 Resp: 147624

Ion Ratio Lower Upper

173 100

175 48.2 38.3 57.5

254 9.6 7.6 11.4



Abundance Ion 173.00 (172.70 to 173.70): VU037186.D (-2777) (-)

Ion 175.00 (174.70 to 175.70): VU037186.D (-2777) (-)

Ion 254.00 (253.70 to 254.70): VU037186.D (-2777) (-)

120000

100000

80000

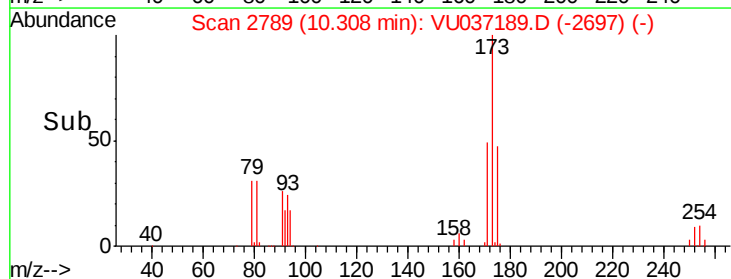
60000

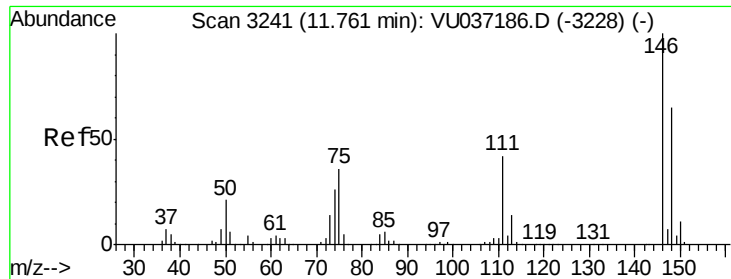
40000

20000

0

Time--> 10.30 10.40

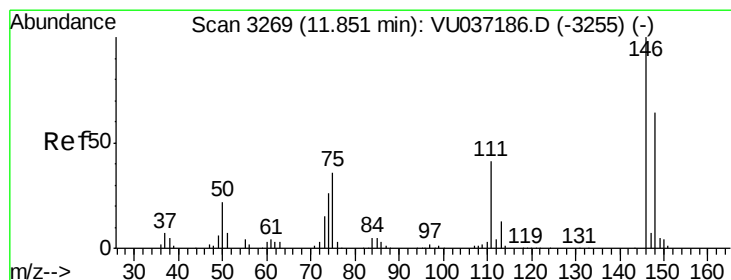
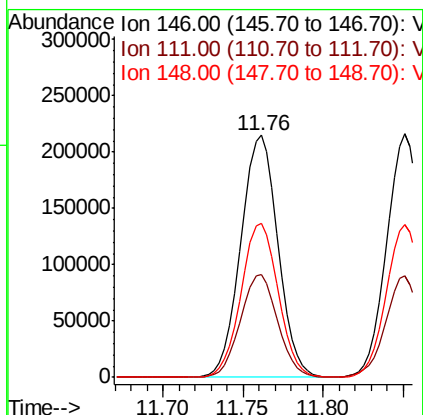
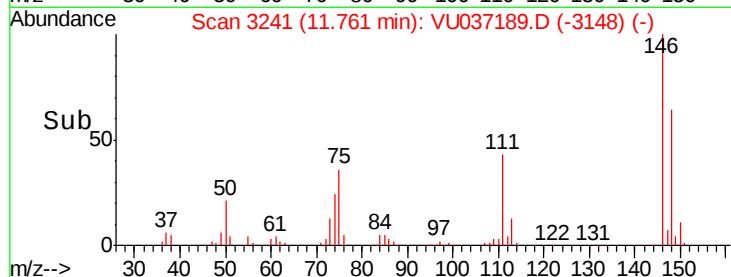
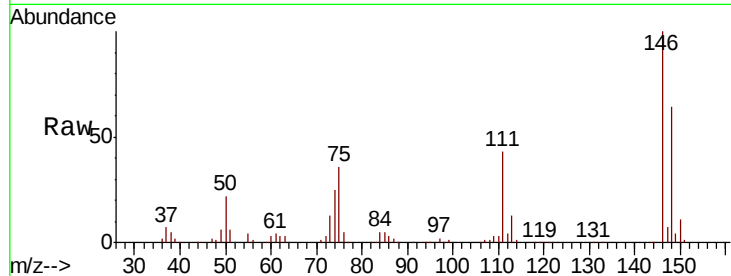




#62  
 1,3-Dichlorobenzene  
 Concen: 50.300 ug/L  
 RT: 11.76 min Scan# 3241  
 Delta R.T. 0.00 min  
 Lab File: VU037189.D  
 Acq: 12 Mar 2020 14:56

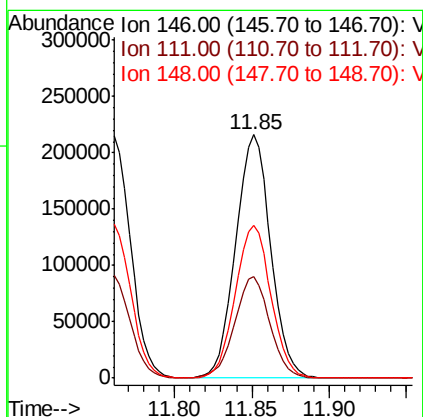
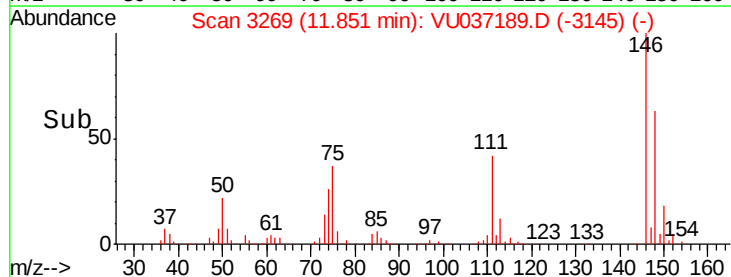
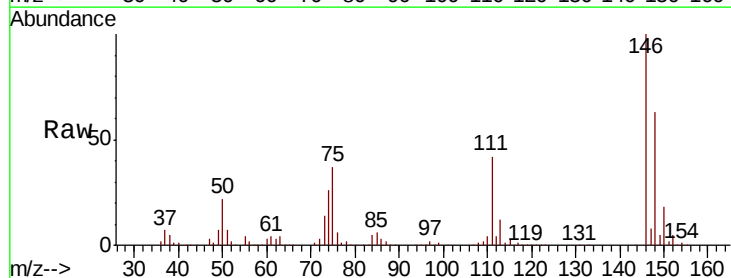
Instrument :  
 MSVOA\_U  
 ClientSampled :

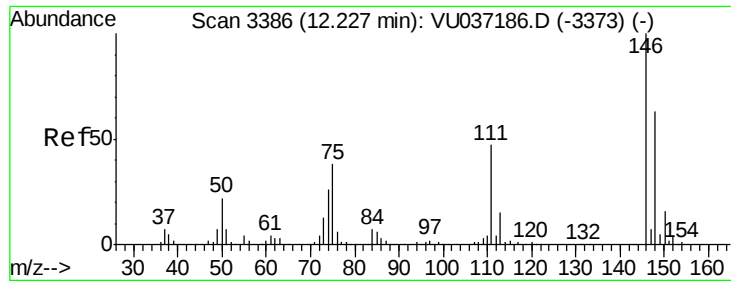
Tot Ion:146 Resp: 339322  
 Ion Ratio Lower Upper  
 146 100  
 111 42.6 29.2 54.2  
 148 63.5 45.8 85.0



#63  
 1,4-Dichlorobenzene  
 Concen: 49.688 ug/L  
 RT: 11.85 min Scan# 3269  
 Delta R.T. 0.00 min  
 Lab File: VU037189.D  
 Acq: 12 Mar 2020 14:56

Tgt Ion:146 Resp: 338781  
 Ion Ratio Lower Upper  
 146 100  
 111 41.6 28.5 52.9  
 148 62.9 44.8 83.2

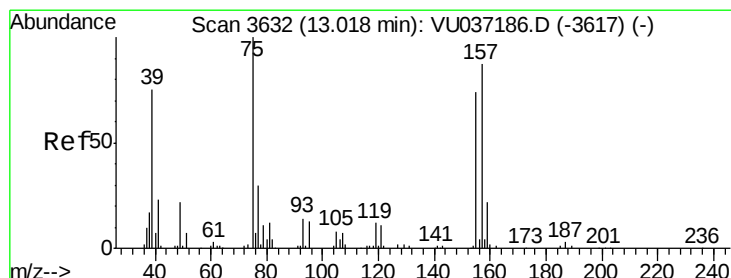
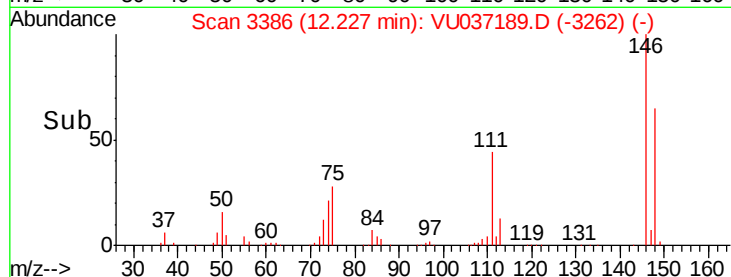
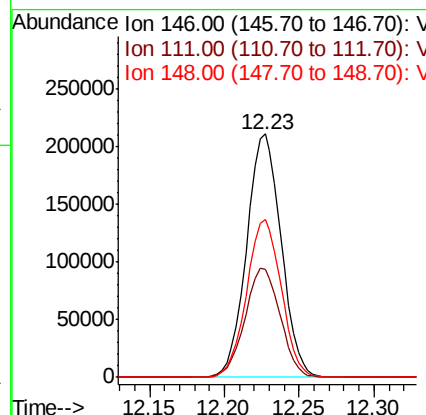
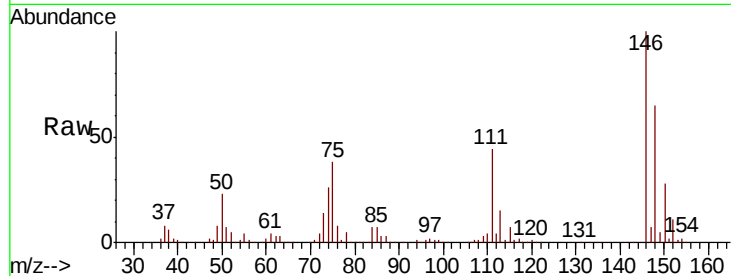




#65  
 1,2-Dichlorobenzene  
 Concen: 49.083 ug/L  
 RT: 12.23 min Scan# 3386  
 Delta R.T. 0.00 min  
 Lab File: VU037189.D  
 Acq: 12 Mar 2020 14:56

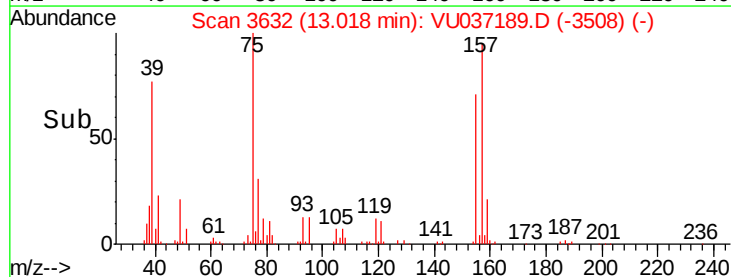
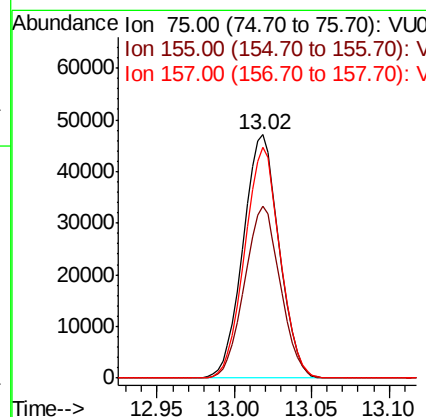
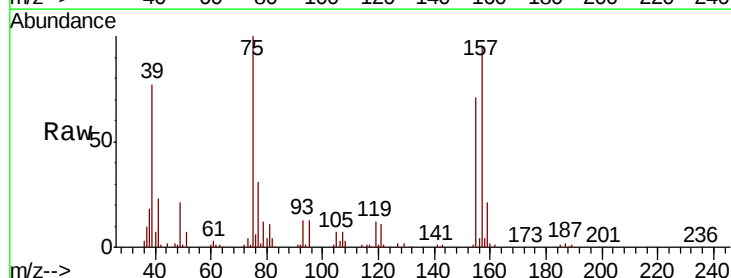
Instrument :  
 MSVOA\_U  
 ClientSampleId :

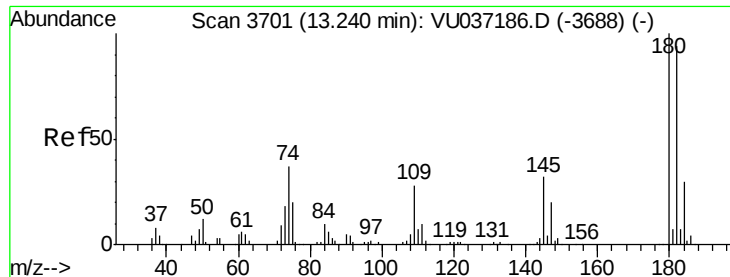
Tot Ion:146 Resp: 338185  
 Ion Ratio Lower Upper  
 146 100  
 111 44.4 37.4 56.2  
 148 64.8 50.8 76.2



#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 50.293 ug/L  
 RT: 13.02 min Scan# 3632  
 Delta R.T. 0.00 min  
 Lab File: VU037189.D  
 Acq: 12 Mar 2020 14:56

Tgt Ion: 75 Resp: 76396  
 Ion Ratio Lower Upper  
 75 100  
 155 70.6 59.0 88.4  
 157 94.6 69.9 104.9

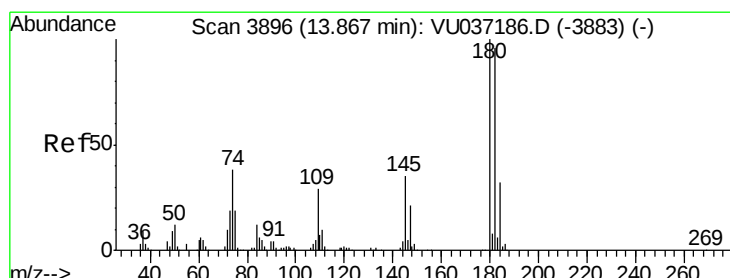
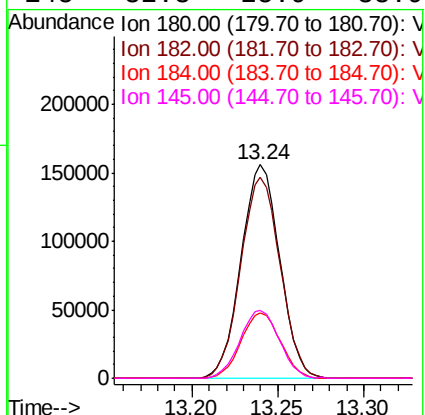
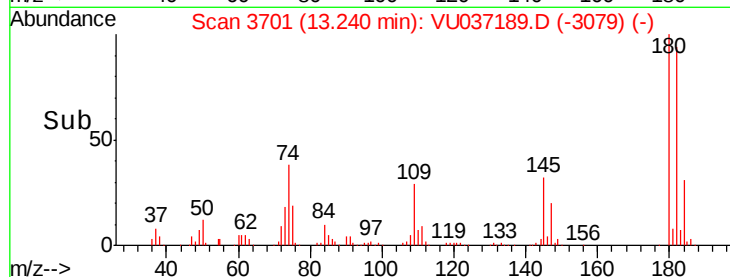
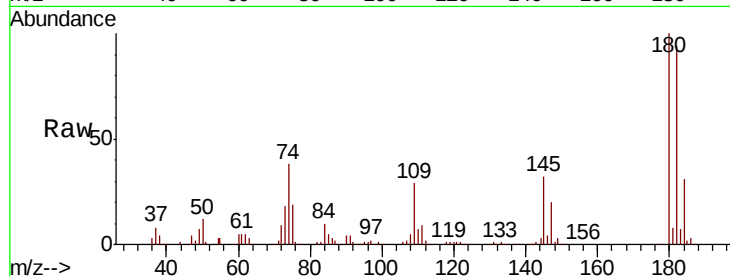




#67  
 1,3,5-Trichlorobenzene  
 Concen: 49.753 ug/L  
 RT: 13.24 min Scan# 3701  
 Delta R.T. 0.00 min  
 Lab File: VU037189.D  
 Acq: 12 Mar 2020 14:56

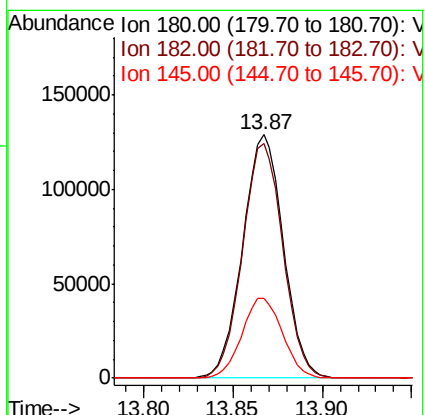
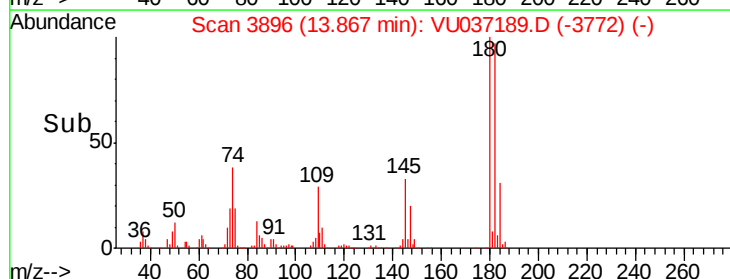
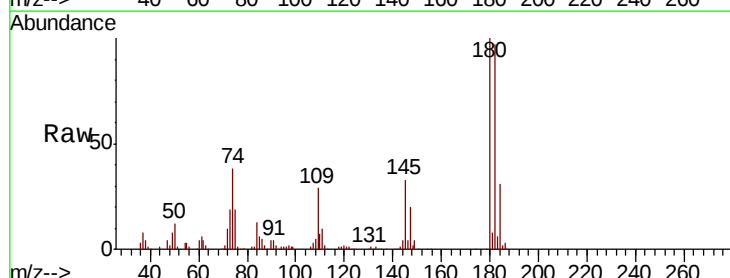
Instrument :  
 MSVOA\_U  
 ClientSampleId :

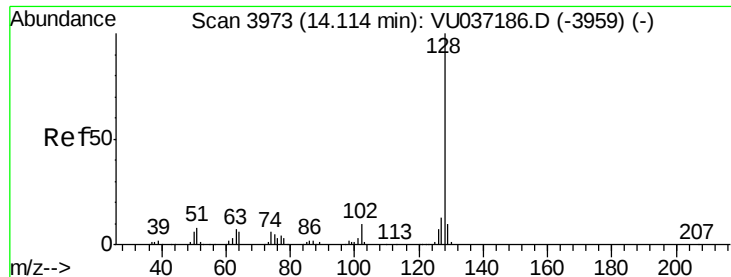
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 95.7  | 75.8  | 113.8 |
| 184     | 31.1  | 24.5  | 36.7  |
| 145     | 32.3  | 25.9  | 38.9  |



#68  
 1,2,4-trichlorobenzene  
 Concen: 53.479 ug/L  
 RT: 13.87 min Scan# 3896  
 Delta R.T. 0.00 min  
 Lab File: VU037189.D  
 Acq: 12 Mar 2020 14:56

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 95.7  | 75.9  | 113.9 |
| 145     | 32.9  | 26.7  | 40.1  |





#69

Naphthalene

Concen: 55.350 ug/L

RT: 14.11 min Scan# 3973

Delta R.T. 0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

Instrument :

MSVOA\_U

ClientSampled :

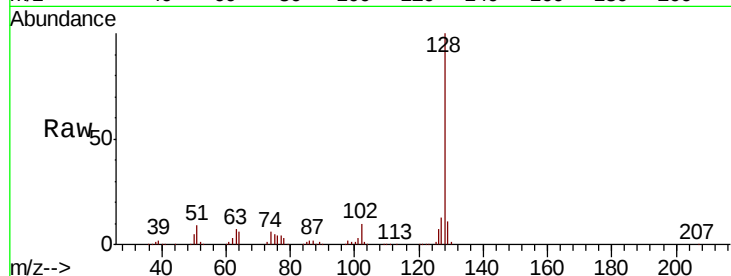
Tot Ion:128 Resp: 322245

Ion Ratio Lower Upper

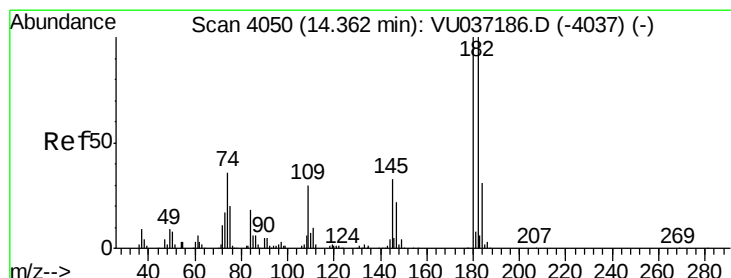
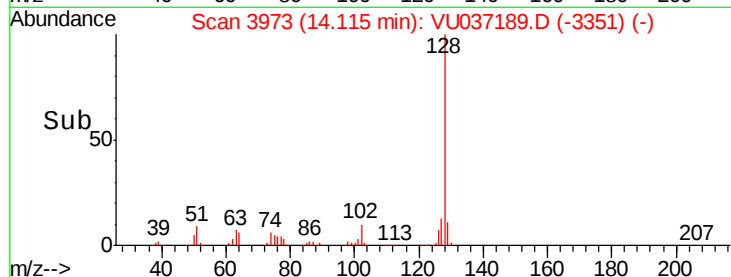
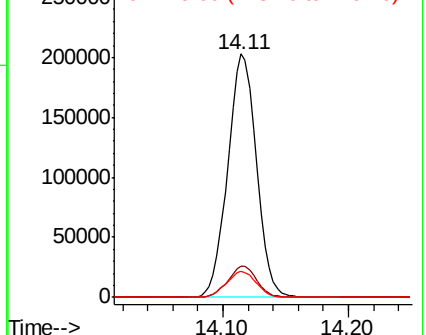
128 100

127 12.9 10.2 15.4

129 10.8 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: 54.187 ug/L

RT: 14.36 min Scan# 4049

Delta R.T. -0.00 min

Lab File: VU037189.D

Acq: 12 Mar 2020 14:56

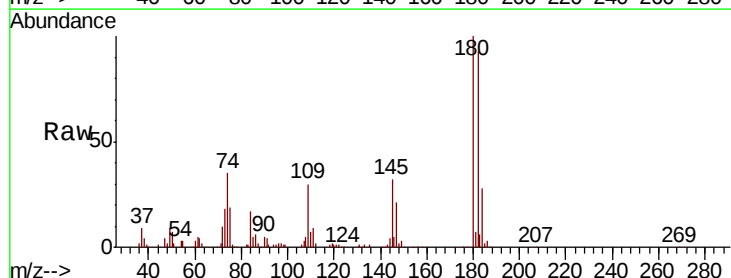
Tgt Ion:180 Resp: 218300

Ion Ratio Lower Upper

180 100

182 94.4 77.8 116.6

145 32.5 27.4 41.0



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

