

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU032820\  
 Data File : VU037437.D  
 Acq On : 28 Mar 2020 23:32  
 Operator : JC/MD  
 Sample : VSTDCCC005  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Mar 30 00:26:06 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR032820WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Mon Mar 30 00:15:54 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.28  | 114  | 111963   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.44  | 117  | 108148   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.83 | 152  | 54143    | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.61   | 65    | 39458    | 4.78     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 95.60%  |
| 7) Chloroethane-d5             | 1.93   | 69    | 33324    | 5.38     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 107.60% |
| 11) 1,1-Dichloroethene-d2      | 2.59   | 63    | 80902    | 5.01     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 100.20% |
| 20) 2-Butanone-d5              | 4.67   | 46    | 96639    | 42.90    | ug/L | -0.02   |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 85.80%  |
| 24) Chloroform-d               | 5.10   | 84    | 73523    | 4.50     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 90.00%  |
| 26) 1,2-Dichloroethane-d4      | 5.74   | 65    | 43295    | 4.82     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 96.40%  |
| 32) Benzene-d6                 | 5.76   | 84    | 149909   | 4.80     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 96.00%  |
| 36) 1,2-Dichloropropane-d6     | 6.72   | 67    | 49723    | 4.81     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 96.20%  |
| 41) Toluene-d8                 | 7.92   | 98    | 142448   | 4.81     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 96.20%  |
| 43) trans-1,3-Dichloropropene- | 8.20   | 79    | 21842    | 4.49     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 89.80%  |
| 46) 2-Hexanone-d5              | 8.66   | 63    | 92483    | 47.84    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 95.68%  |
| 57) 1,1,2,2-Tetrachloroethane- | 10.77  | 84    | 39920    | 4.60     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 92.00%  |
| 64) 1,2-Dichlorobenzene-d4     | 12.21  | 152   | 51704    | 4.85     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 97.00%  |

## Target Compounds

|                                |      |     |        |        | Ovalue   |
|--------------------------------|------|-----|--------|--------|----------|
| 2) Dichlorodifluoromethane     | 1.39 | 85  | 45427  | 4.835  | ug/L 99  |
| 3) Chloromethane               | 1.54 | 50  | 41851  | 5.026  | ug/L 97  |
| 5) Vinyl chloride              | 1.62 | 62  | 44779  | 5.109  | ug/L 100 |
| 6) Bromomethane                | 1.87 | 94  | 25393  | 5.141  | ug/L 98  |
| 8) Chloroethane                | 1.95 | 64  | 24245  | 4.959  | ug/L 93  |
| 9) Trichlorofluoromethane      | 2.16 | 101 | 58505  | 4.986  | ug/L 97  |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.60 | 101 | 35365  | 4.946  | ug/L 96  |
| 12) 1,1-Dichloroethene         | 2.60 | 96  | 35798  | 4.861  | ug/L 98  |
| 13) Acetone                    | 2.65 | 43  | 60373  | 46.643 | ug/L 100 |
| 14) Carbon disulfide           | 2.82 | 76  | 123197 | 4.890  | ug/L 99  |
| 15) Methyl Acetate             | 2.98 | 43  | 17513  | 4.843  | ug/L 98  |
| 16) Methylene chloride         | 3.08 | 84  | 39222  | 4.766  | ug/L 93  |
| 17) Methyl tert-butyl Ether    | 3.40 | 73  | 103285 | 5.154  | ug/L 100 |
| 18) trans-1,2-Dichloroethene   | 3.39 | 96  | 38229  | 4.964  | ug/L 96  |
| 19) 1,1-Dichloroethane         | 3.91 | 63  | 70985  | 4.932  | ug/L 97  |
| 21) 2-Butanone                 | 4.75 | 43  | 108914 | 49.496 | ug/L 99  |
| 22) cis-1,2-Dichloroethene     | 4.71 | 96  | 42691  | 4.947  | ug/L 95  |

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 Operator : JC/MD  
 Sample : VSTDCCC005  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 1 Sample Multiplier: 1

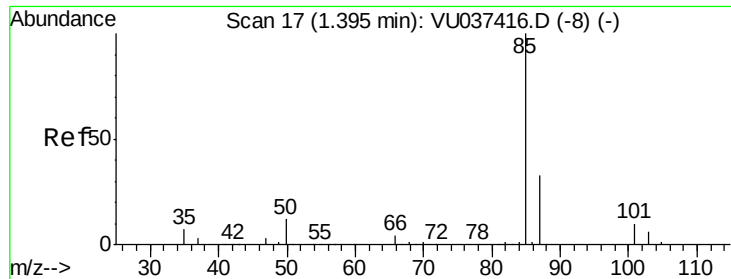
Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Mar 30 00:26:06 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR032820WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Mon Mar 30 00:15:54 2020  
 Response via : Initial Calibration

| Internal Standards              | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|---------------------------------|-------|------|----------|--------|--------|----------|
| 23) Bromochloromethane          | 5.02  | 128  | 17923    | 4.702  | ug/L   | 94       |
| 25) Chloroform                  | 5.13  | 83   | 80028    | 5.286  | ug/L   | 99       |
| 27) 1,2-Dichloroethane          | 5.83  | 62   | 50314    | 4.975  | ug/L   | 97       |
| 29) 1,1,1-Trichloroethane       | 5.35  | 97   | 68037    | 5.005  | ug/L   | 99       |
| 30) Cyclohexane                 | 5.43  | 56   | 69945    | 5.021  | ug/L   | 100      |
| 31) Carbon tetrachloride        | 5.56  | 117  | 59031    | 5.030  | ug/L   | 97       |
| 33) Benzene                     | 5.81  | 78   | 158123   | 4.937  | ug/L   | 100      |
| 34) Trichloroethene             | 6.57  | 95   | 41442    | 4.543  | ug/L   | 98       |
| 35) Methylcyclohexane           | 6.79  | 83   | 67432    | 4.671  | ug/L   | 99       |
| 37) 1,2-Dichloropropane         | 6.82  | 63   | 42280    | 5.107  | ug/L # | 96       |
| 38) Bromodichloromethane        | 7.13  | 83   | 55640    | 4.914  | ug/L   | 94       |
| 39) cis-1,3-Dichloropropene     | 7.64  | 75   | 65595    | 4.858  | ug/L   | 99       |
| 40) 4-Methyl-2-pentanone        | 7.82  | 43   | 274758   | 49.846 | ug/L   | 100      |
| 42) Toluene                     | 8.00  | 91   | 170717   | 4.946  | ug/L   | 99       |
| 44) trans-1,3-Dichloropropene   | 8.23  | 75   | 56389    | 4.672  | ug/L   | 99       |
| 45) 1,1,2-Trichloroethane       | 8.42  | 97   | 30927    | 4.995  | ug/L   | 98       |
| 47) Tetrachloroethene           | 8.58  | 164  | 30698    | 4.886  | ug/L   | 96       |
| 48) 2-Hexanone                  | 8.71  | 43   | 198636   | 49.995 | ug/L   | 99       |
| 49) Dibromochloromethane        | 8.83  | 129  | 37467    | 4.903  | ug/L   | 97       |
| 50) 1,2-Dibromoethane           | 8.95  | 107  | 29816    | 4.961  | ug/L   | 98       |
| 51) Chlorobenzene               | 9.47  | 112  | 106265   | 4.457  | ug/L   | 100      |
| 52) Ethylbenzene                | 9.59  | 91   | 195540   | 4.937  | ug/L   | 99       |
| 53) m,p-Xylene                  | 9.71  | 106  | 73835    | 4.933  | ug/L   | 100      |
| 54) o-Xylene                    | 10.12 | 106  | 71846    | 4.919  | ug/L   | 99       |
| 55) Styrene                     | 10.13 | 104  | 121093   | 4.852  | ug/L   | 99       |
| 56) Isopropylbenzene            | 10.50 | 105  | 190881   | 4.905  | ug/L   | 99       |
| 58) 1,1,1,2,2-Tetrachloroethane | 10.80 | 83   | 39045    | 4.940  | ug/L   | 94       |
| 59) 1,2,3-Trichloropropane      | 10.84 | 75   | 27948    | 4.853  | ug/L   | 96       |
| 61) Bromoform                   | 10.31 | 173  | 22461    | 4.991  | ug/L   | 98       |
| 62) 1,3-Dichlorobenzene         | 11.76 | 146  | 83900    | 4.819  | ug/L   | 98       |
| 63) 1,4-Dichlorobenzene         | 11.85 | 146  | 86453    | 4.651  | ug/L   | 100      |
| 65) 1,2-Dichlorobenzene         | 12.23 | 146  | 80310    | 4.778  | ug/L   | 100      |
| 66) 1,2-Dibromo-3-chloropropan  | 13.02 | 75   | 8067     | 5.455  | ug/L   | 94       |
| 67) 1,3,5-Trichlorobenzene      | 13.24 | 180  | 62817    | 4.653  | ug/L   | 98       |
| 68) 1,2,4-trichlorobenzene      | 13.87 | 180  | 58637    | 4.505  | ug/L   | 98       |
| 69) Naphthalene                 | 14.11 | 128  | 123176   | 4.875  | ug/L   | 99       |
| 70) 1,2,3-Trichlorobenzene      | 14.36 | 180  | 52967    | 4.525  | ug/L   | 99       |

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





#2

Dichlorodifluoromethane

Concen: 4.835 ug/L

RT: 1.39 min Scan# 17

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

Instrument :

MSVOA\_U

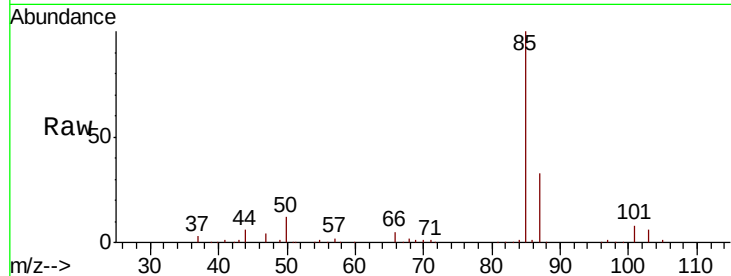
ClientSampleId :

Tot Ion: 85 Resp: 45427

Ion Ratio Lower Upper

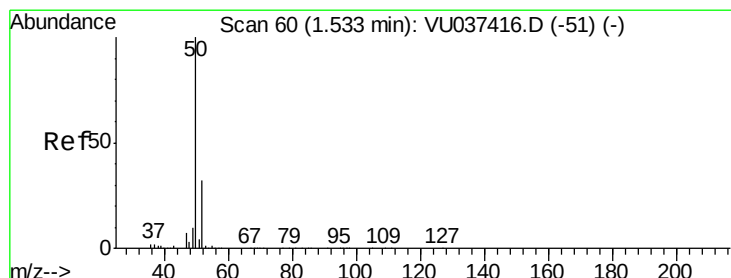
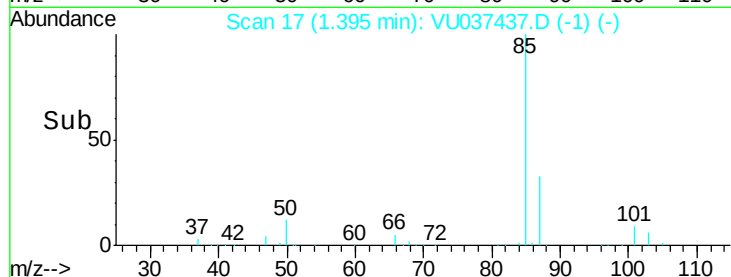
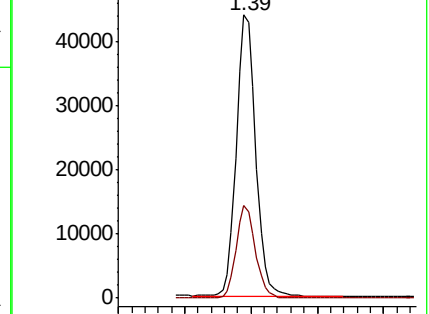
85 100

87 31.8 24.9 37.3



Abundance Ion 85.00 (84.70 to 85.70): VU037416.D (-8) (-)

Ion 87.00 (86.70 to 87.70): VU037416.D (-8) (-)



#3

Chloromethane

Concen: 5.026 ug/L

RT: 1.54 min Scan# 61

Delta R.T. 0.00 min

Lab File: VU037437.D

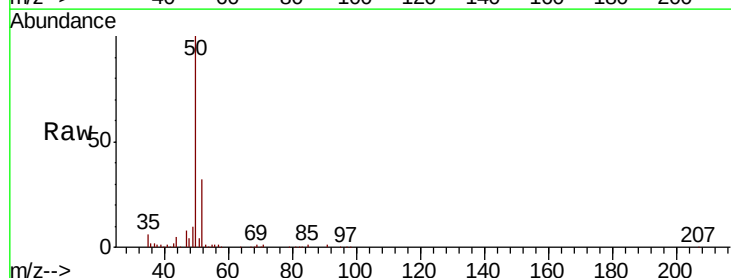
Acq: 28 Mar 2020 23:32

Tgt Ion: 50 Resp: 41851

Ion Ratio Lower Upper

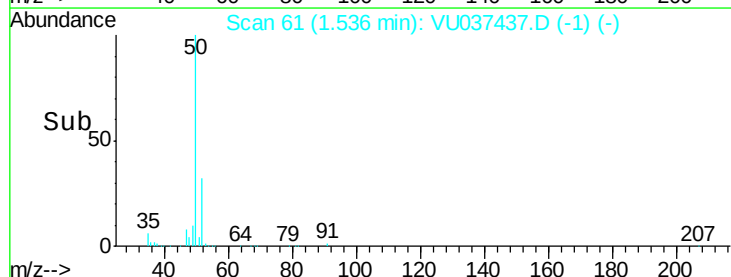
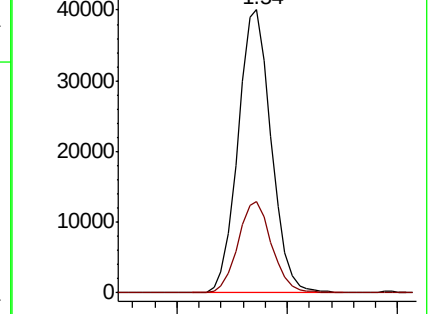
50 100

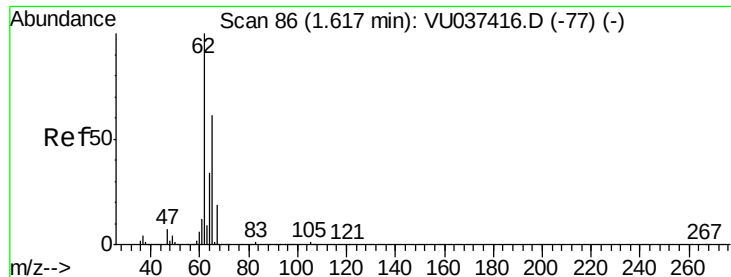
52 32.2 23.6 43.8



Abundance Ion 50.05 (49.75 to 50.75): VU037416.D (-51) (-)

Ion 52.05 (51.75 to 52.75): VU037416.D (-51) (-)





#5

Vinyl chloride

Concen: 5.109 ug/L

RT: 1.62 min Scan# 86

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

Instrument :

MSVOA\_U

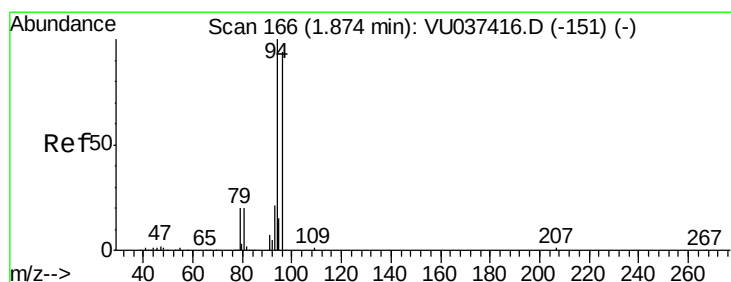
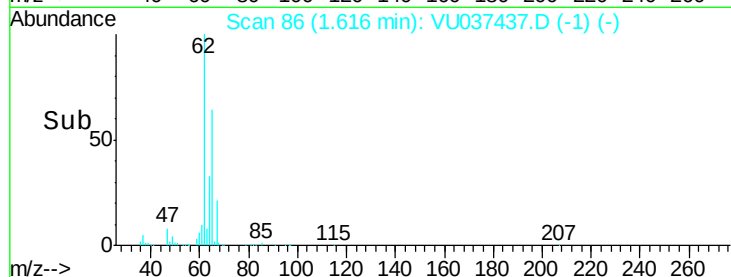
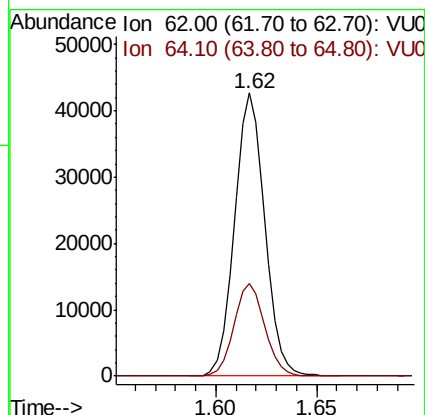
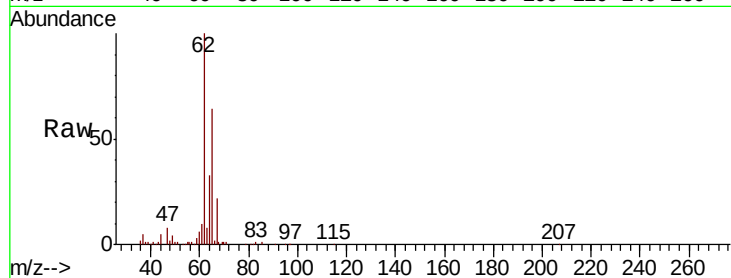
ClientSampleId :

Tot Ion: 62 Resp: 44779

Ion Ratio Lower Upper

62 100

64 32.8 22.9 42.5



#6

Bromomethane

Concen: 5.141 ug/L

RT: 1.87 min Scan# 165

Delta R.T. -0.00 min

Lab File: VU037437.D

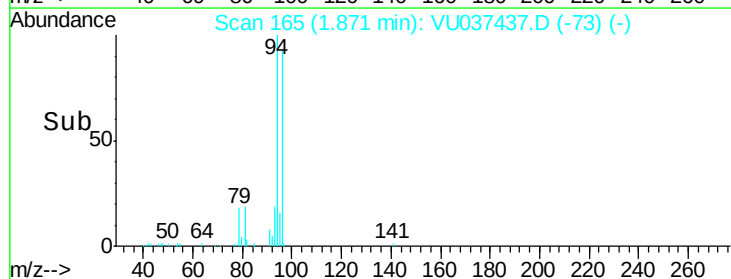
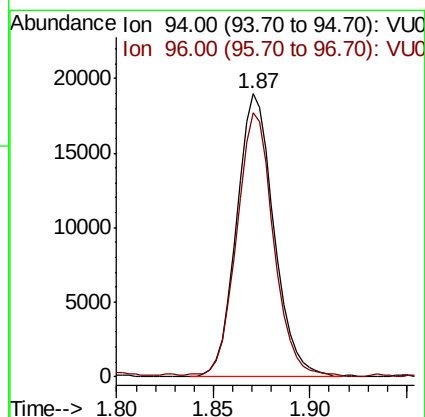
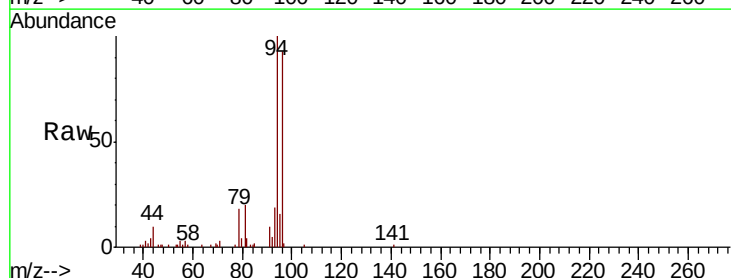
Acq: 28 Mar 2020 23:32

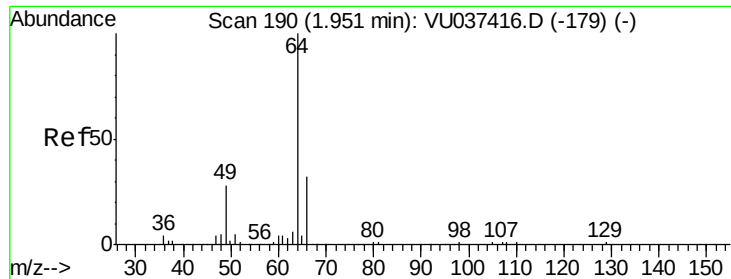
Tgt Ion: 94 Resp: 25393

Ion Ratio Lower Upper

94 100

96 93.3 66.8 124.2

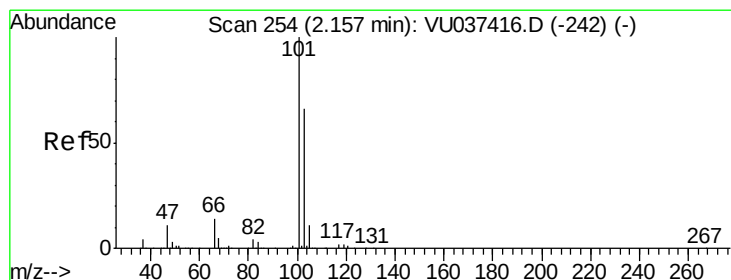
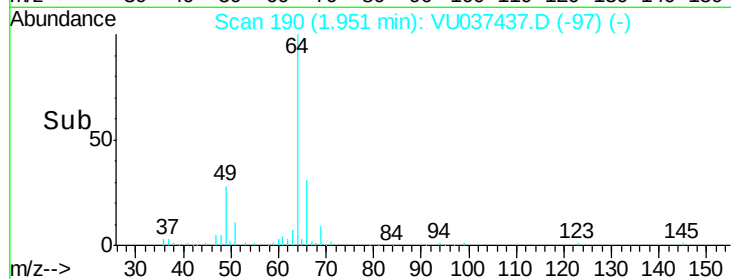
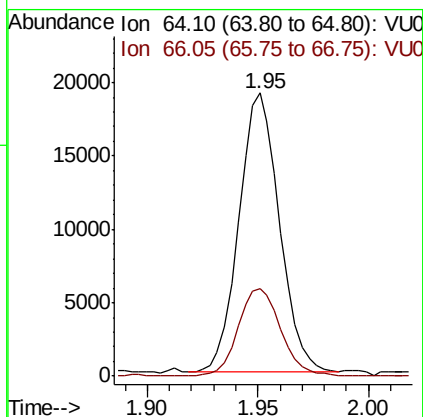
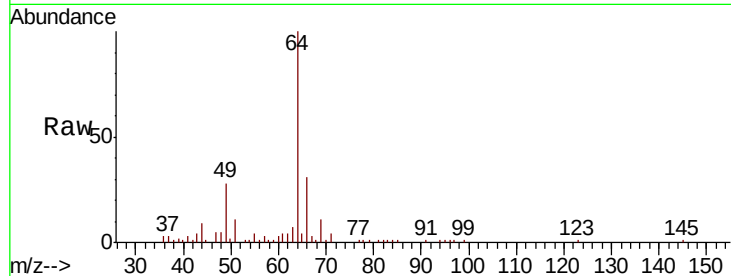




#8  
Chloroethane  
Concen: 4.959 ug/L  
RT: 1.95 min Scan# 190  
Delta R.T. -0.00 min  
Lab File: VU037437.D  
Acq: 28 Mar 2020 23:32

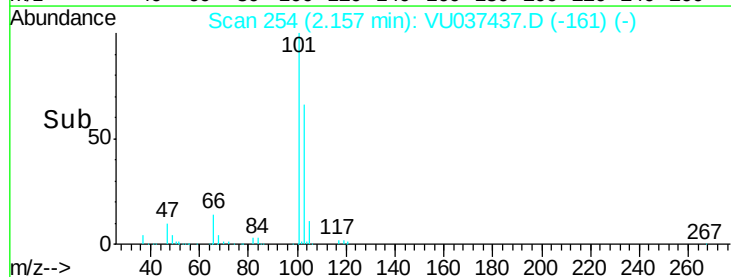
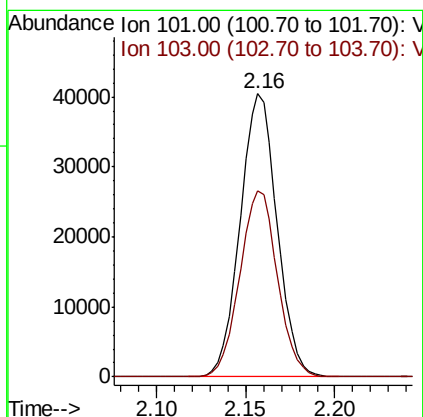
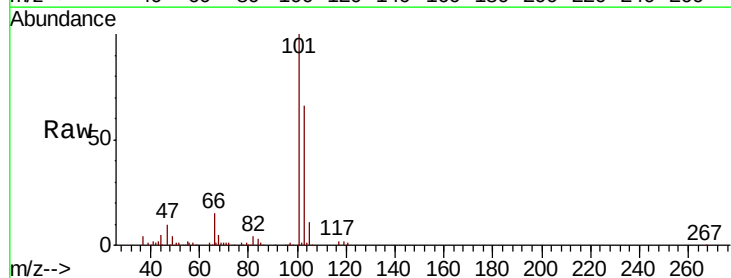
Instrument :  
MSVOA\_U  
ClientSampleId :

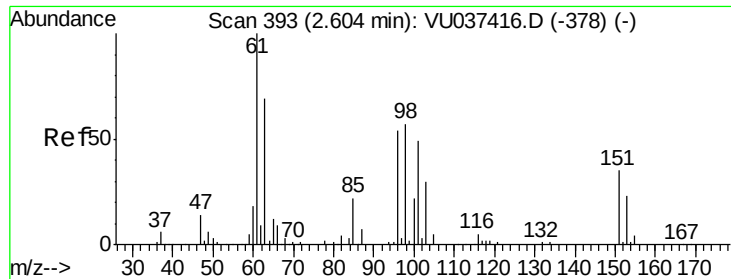
Tot Ion: 64 Resp: 24245  
Ion Ratio Lower Upper  
64 100  
66 31.1 24.8 46.0



#9  
Trichlorofluoromethane  
Concen: 4.986 ug/L  
RT: 2.16 min Scan# 254  
Delta R.T. -0.00 min  
Lab File: VU037437.D  
Acq: 28 Mar 2020 23:32

Tgt Ion: 101 Resp: 58505  
Ion Ratio Lower Upper  
101 100  
103 67.0 51.8 77.6





#10

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

Concen: 4.946 ug/L

RT: 2.60 min Scan# 393

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

Instrument :

MSVOA\_U

ClientSampled :

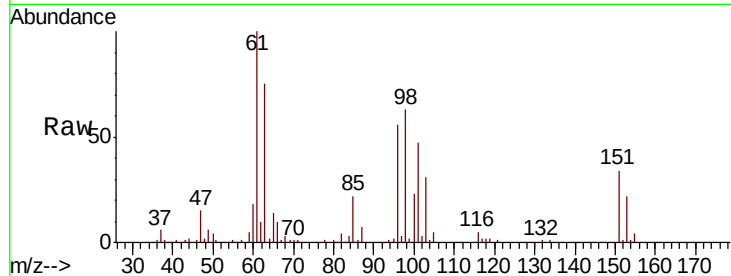
Tot Ion:101 Resp: 35365

Ion Ratio Lower Upper

101 100

85 46.1 39.0 58.6

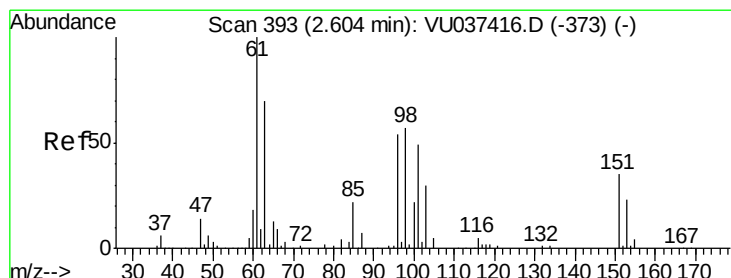
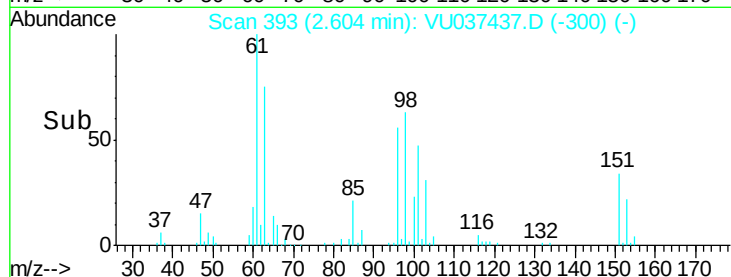
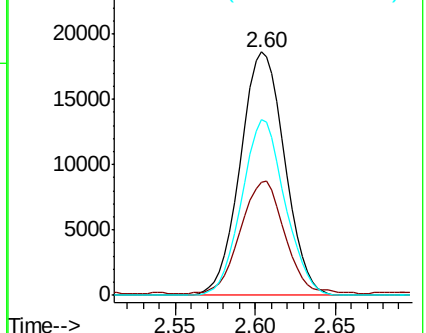
151 70.0 58.8 88.2



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: 4.861 ug/L

RT: 2.60 min Scan# 393

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

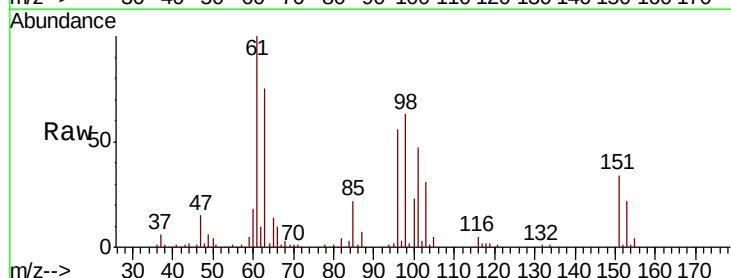
Tgt Ion: 96 Resp: 35798

Ion Ratio Lower Upper

96 100

61 178.7 125.4 232.8

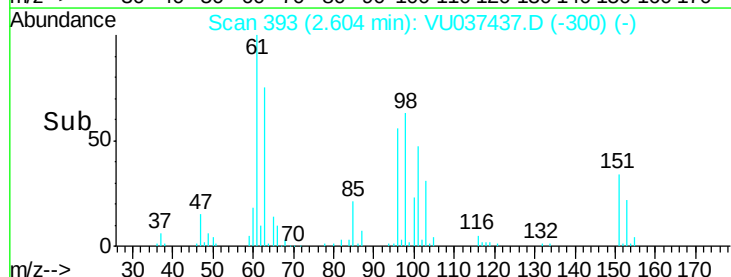
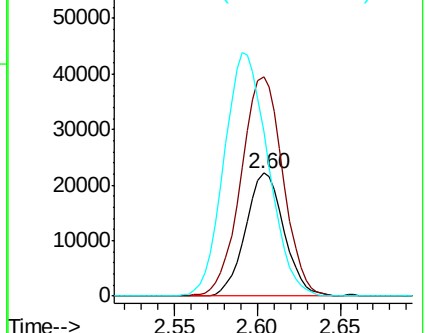
63 133.6 90.9 168.7

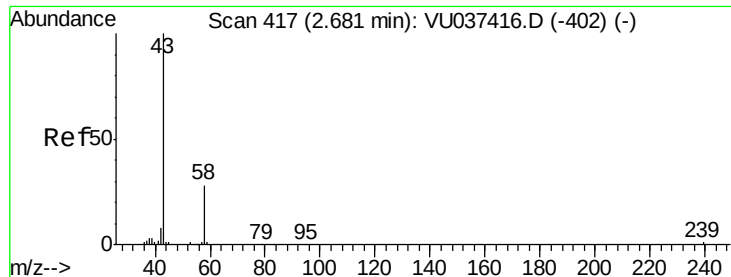


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.05 (60.75 to 61.75): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 46.643 ug/L

RT: 2.65 min Scan# 408

Delta R.T. -0.03 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

Instrument :

MSVOA\_U

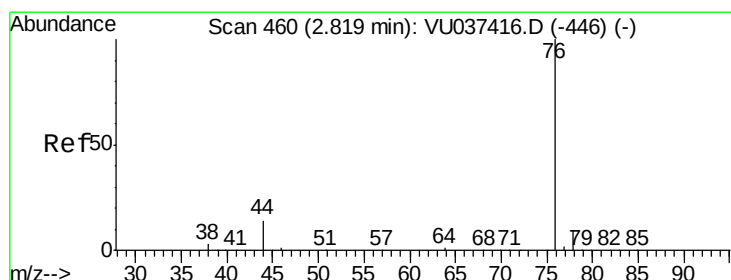
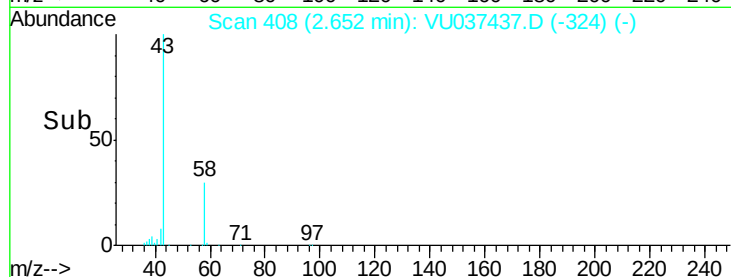
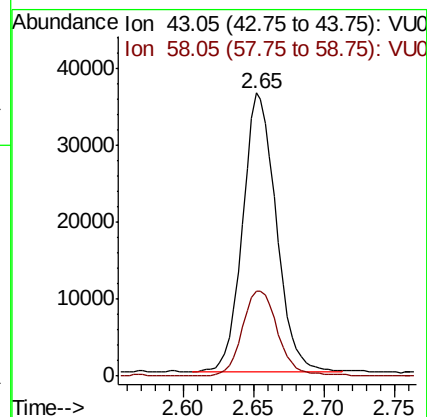
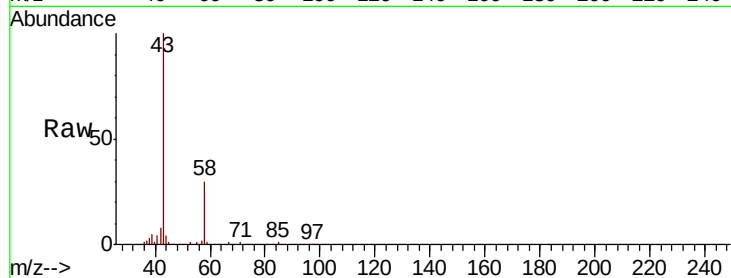
ClientSampleId :

Tot Ion: 43 Resp: 60373

Ion Ratio Lower Upper

43 100

58 32.8 0.0 66.0



#14

Carbon disulfide

Concen: 4.890 ug/L

RT: 2.82 min Scan# 460

Delta R.T. -0.00 min

Lab File: VU037437.D

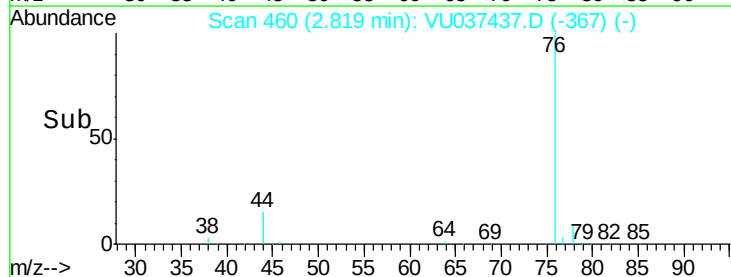
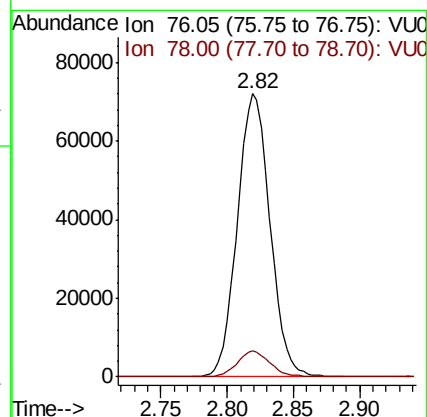
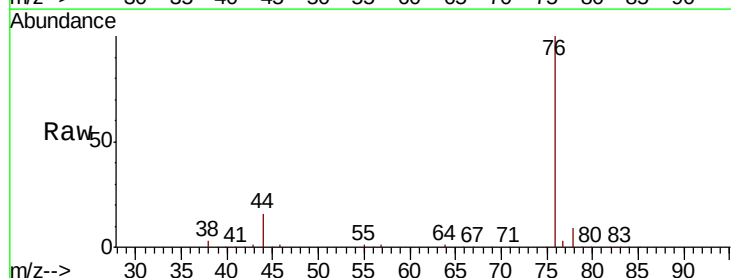
Acq: 28 Mar 2020 23:32

Tgt Ion: 76 Resp: 123197

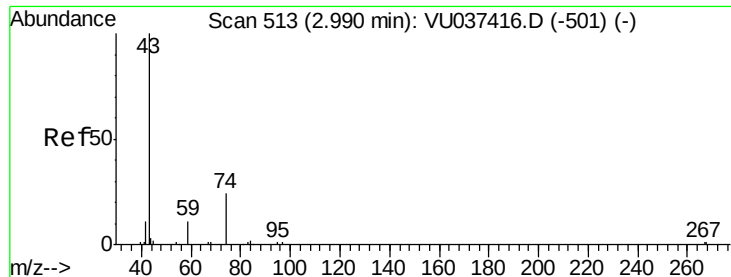
Ion Ratio Lower Upper

76 100

78 9.1 7.1 10.7



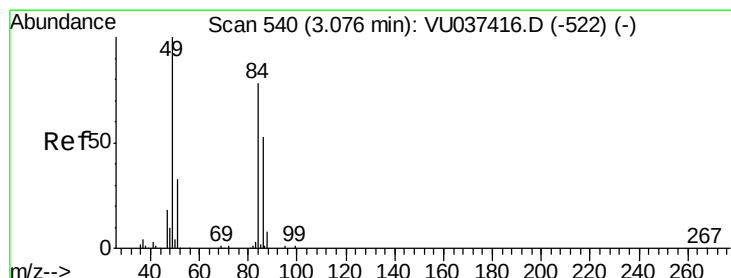
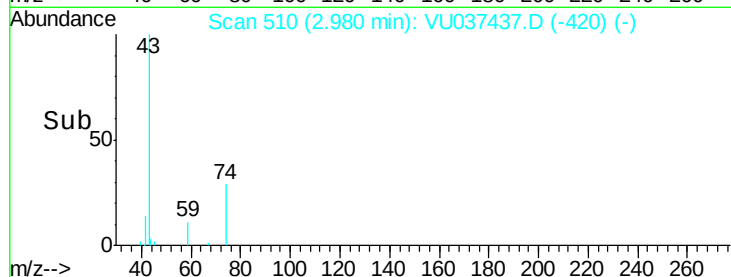
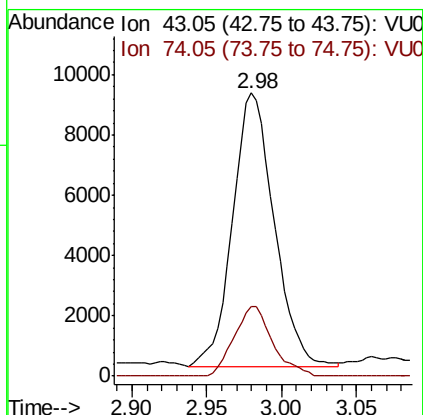
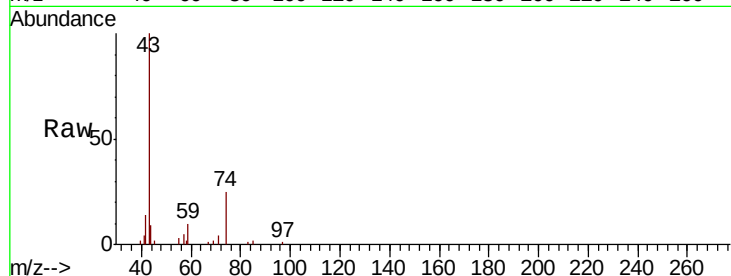




#15  
Methvl Acetate  
Concen: 4.843 ug/L  
RT: 2.98 min Scan# 510  
Delta R.T. -0.01 min  
Lab File: VU037437.D  
Acq: 28 Mar 2020 23:32

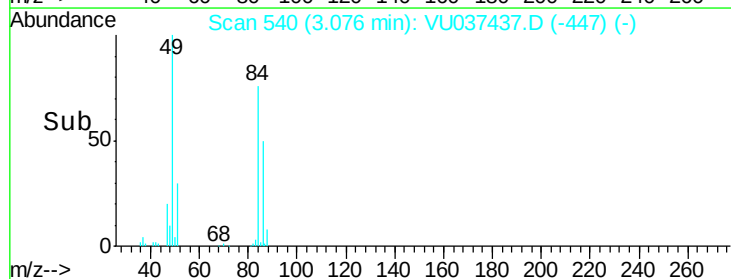
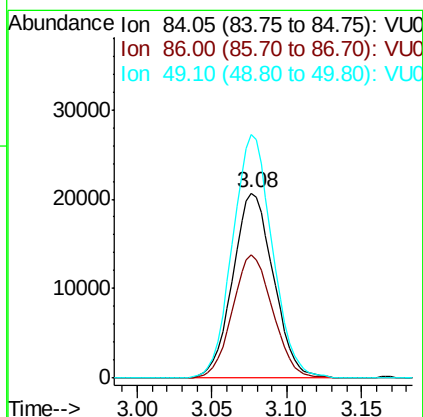
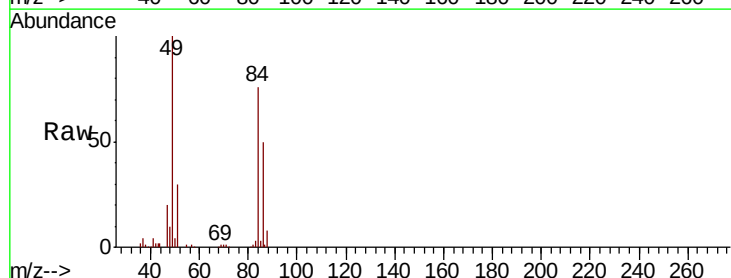
Instrument :  
MSVOA\_U  
ClientSampled :

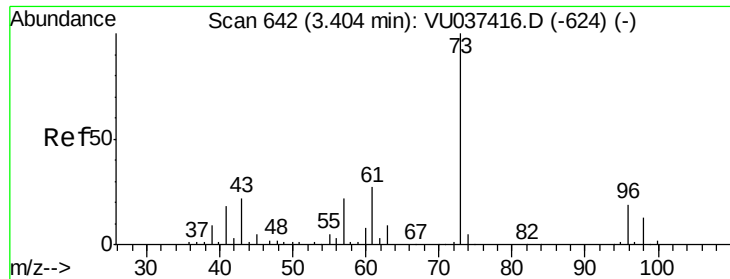
Tot Ion: 43 Resp: 17513  
Ion Ratio Lower Upper  
43 100  
74 23.7 19.8 29.6



#16  
Methylene chloride  
Concen: 4.766 ug/L  
RT: 3.08 min Scan# 540  
Delta R.T. -0.00 min  
Lab File: VU037437.D  
Acq: 28 Mar 2020 23:32

Tgt Ion: 84 Resp: 39222  
Ion Ratio Lower Upper  
84 100  
86 66.5 43.6 81.0  
49 131.7 86.4 160.4

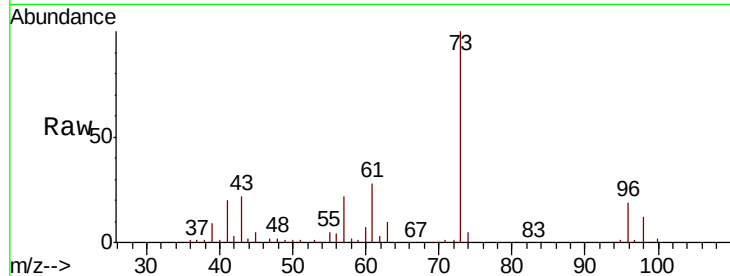




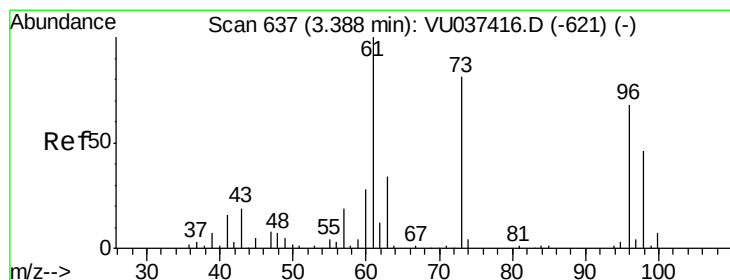
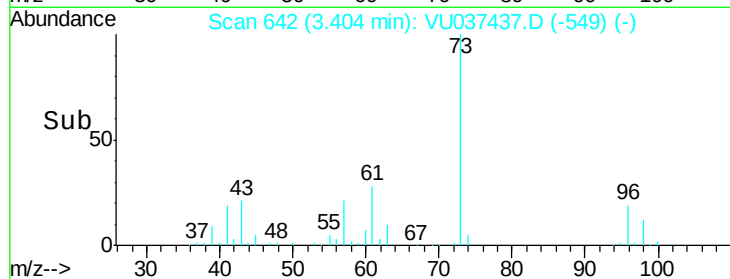
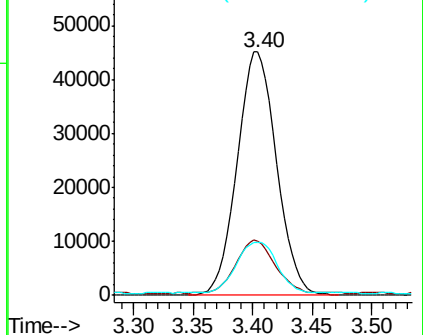
#17  
Methyl tert-butyl Ether  
Concen: 5.154 ug/L  
RT: 3.40 min Scan# 642  
Delta R.T. -0.00 min  
Lab File: VU037437.D  
Acq: 28 Mar 2020 23:32

Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 73 Resp: 103285  
Ion Ratio Lower Upper  
73 100  
43 21.9 17.4 26.2  
57 21.5 17.3 25.9

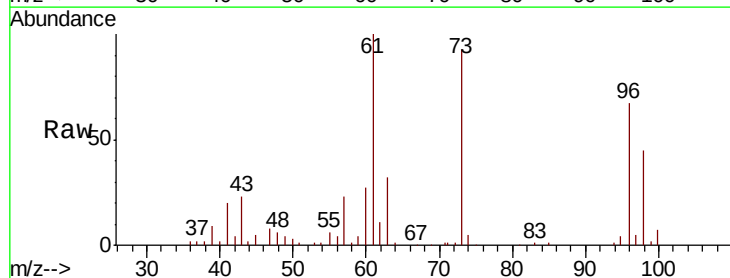


Abundance Ion 73.10 (72.80 to 73.80): VU0  
Ion 43.05 (42.75 to 43.75): VU0  
Ion 57.10 (56.80 to 57.80): VU0

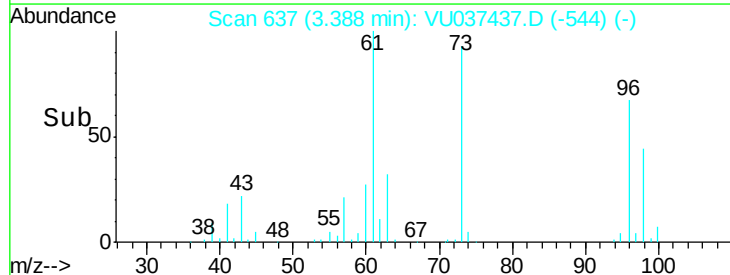
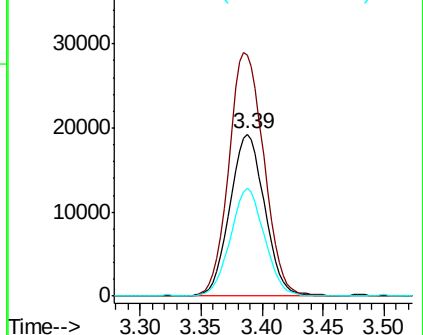


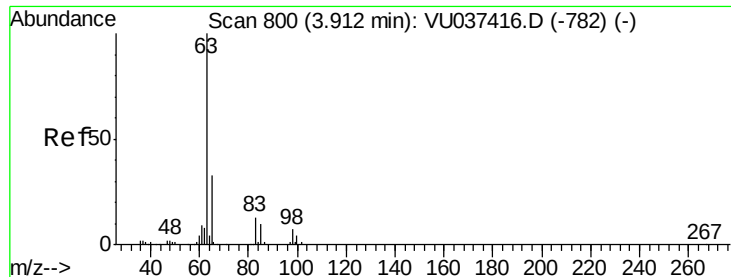
#18  
trans-1,2-Dichloroethene  
Concen: 4.964 ug/L  
RT: 3.39 min Scan# 637  
Delta R.T. -0.00 min  
Lab File: VU037437.D  
Acq: 28 Mar 2020 23:32

Tgt Ion: 96 Resp: 38229  
Ion Ratio Lower Upper  
96 100  
61 148.8 99.9 185.5  
98 66.5 45.4 84.4



Abundance Ion 96.00 (95.70 to 96.70): VU0  
Ion 61.05 (60.75 to 61.75): VU0  
Ion 97.95 (97.65 to 98.65): VU0

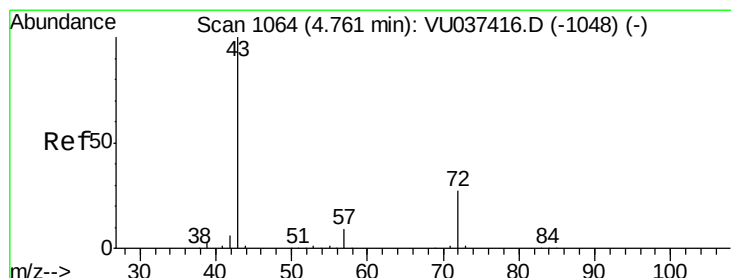
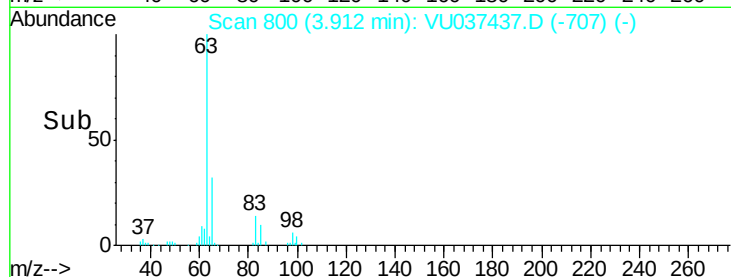
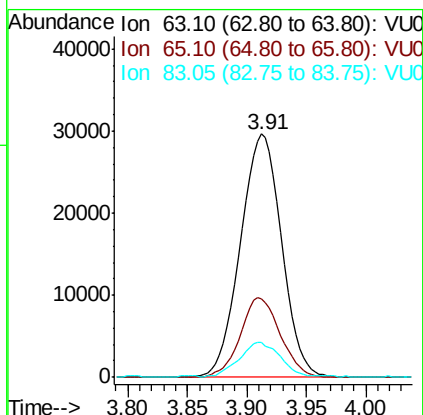
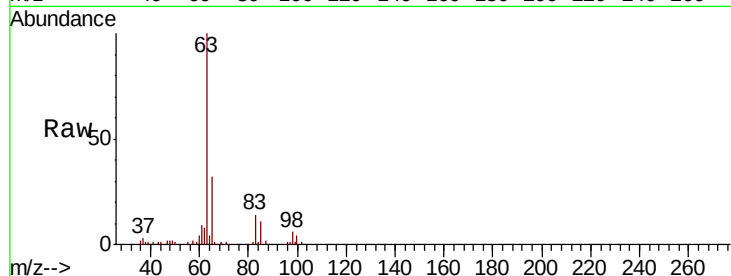




#19  
 1,1-Dichloroethane  
 Concen: 4.932 ug/L  
 RT: 3.91 min Scan# 800  
 Delta R.T. -0.00 min  
 Lab File: VU037437.D  
 Acq: 28 Mar 2020 23:32

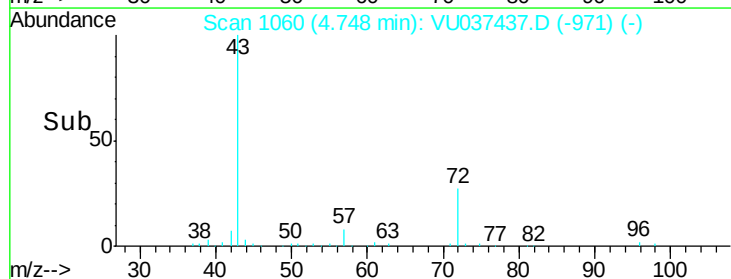
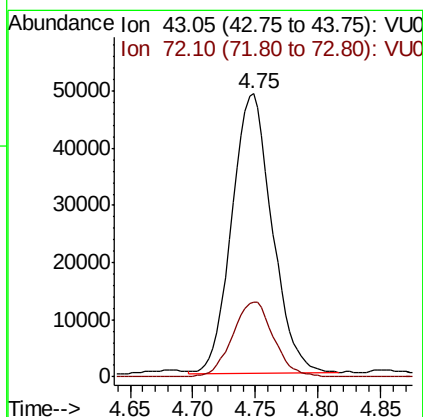
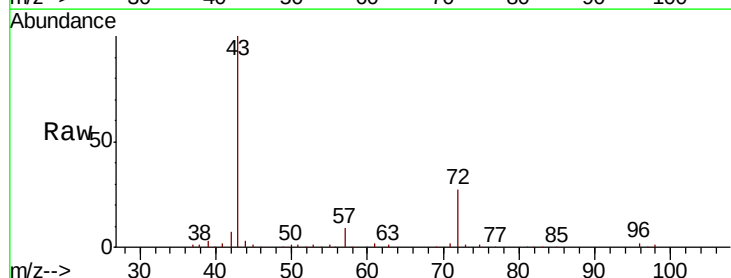
Instrument :  
 MSVOA\_U  
 ClientSampleId :

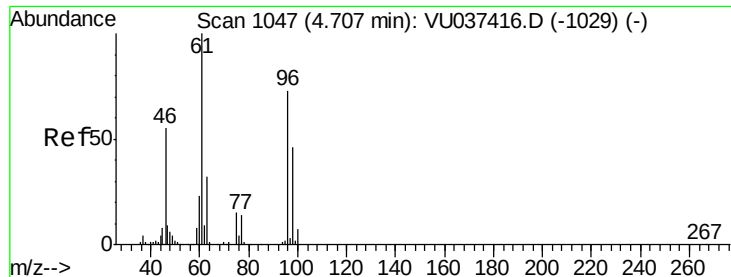
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 63      | 100   |       |       |
| 65      | 32.1  | 23.7  | 43.9  |
| 83      | 14.1  | 10.6  | 19.6  |



#21  
 2-Butanone  
 Concen: 49.496 ug/L  
 RT: 4.75 min Scan# 1060  
 Delta R.T. -0.01 min  
 Lab File: VU037437.D  
 Acq: 28 Mar 2020 23:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 27.6  | 14.2  | 42.6  |





#22

cis-1,2-Dichloroethene

Concen: 4.947 ug/L

RT: 4.71 min Scan# 1048

Delta R.T. 0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

Instrument :

MSVOA\_U

ClientSampleId :

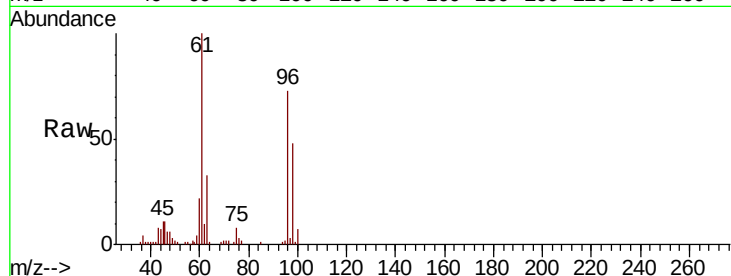
Tot Ion: 96 Resp: 42691

Ion Ratio Lower Upper

96 100

61 136.2 91.6 170.2

68 0.0 0.0 0.0

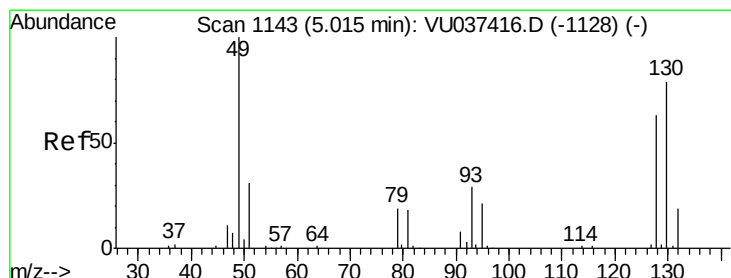
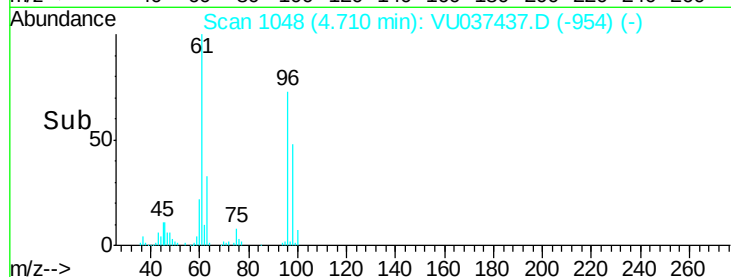


Abundance Ion 96.00 (95.70 to 96.70): VU037437.D (-954) (-)

Ion 61.05 (60.75 to 61.75): VU037437.D (-954) (-)

Ion 68.15 (67.85 to 68.85): VU037437.D (-954) (-)

Time-->



#23

Bromochloromethane

Concen: 4.702 ug/L

RT: 5.02 min Scan# 1143

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

Tgt Ion: 128 Resp: 17923

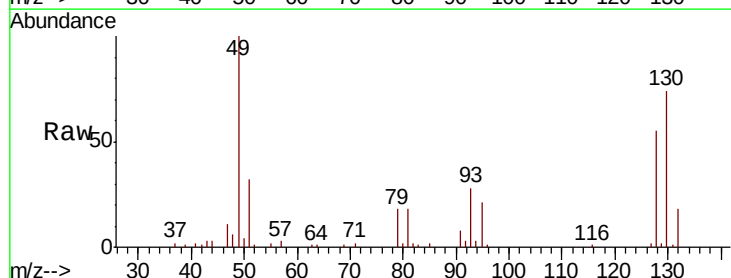
Ion Ratio Lower Upper

128 100

49 183.2 119.1 221.3

130 135.3 92.6 172.0

51 59.2 43.7 65.5



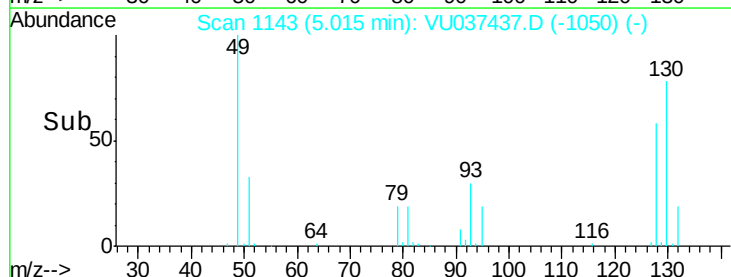
Abundance Ion 127.90 (127.60 to 128.60): VU037437.D (-1050) (-)

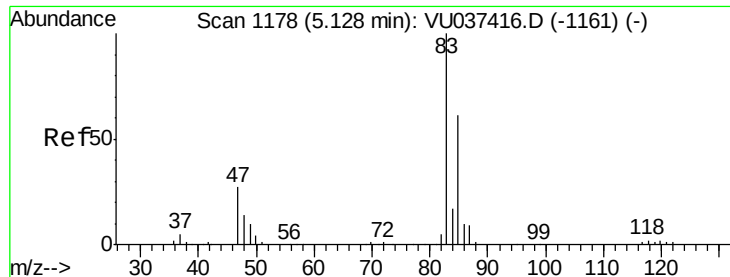
Ion 49.10 (48.80 to 49.80): VU037437.D (-1050) (-)

Ion 129.95 (129.65 to 130.65): VU037437.D (-1050) (-)

Ion 51.05 (50.75 to 51.75): VU037437.D (-1050) (-)

Time-->

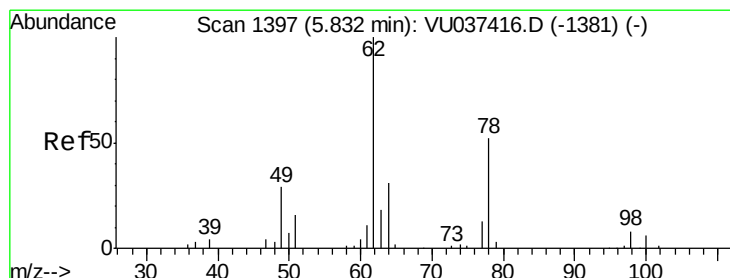
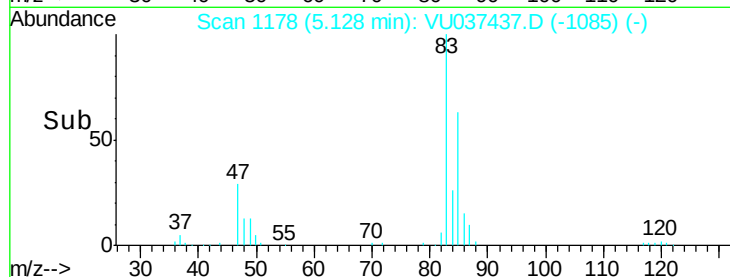
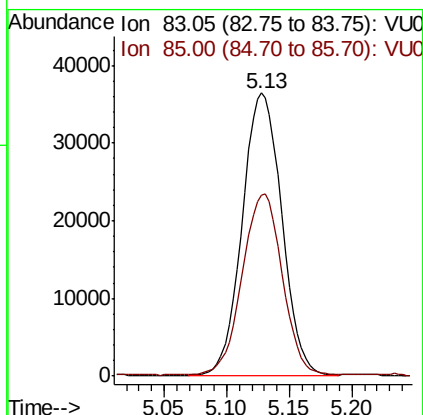
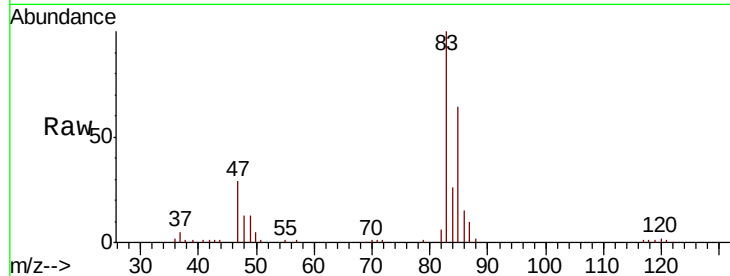




#25  
Chloroform  
Concen: 5.286 ug/L  
RT: 5.13 min Scan# 1178  
Delta R.T. -0.00 min  
Lab File: VU037437.D  
Acq: 28 Mar 2020 23:32

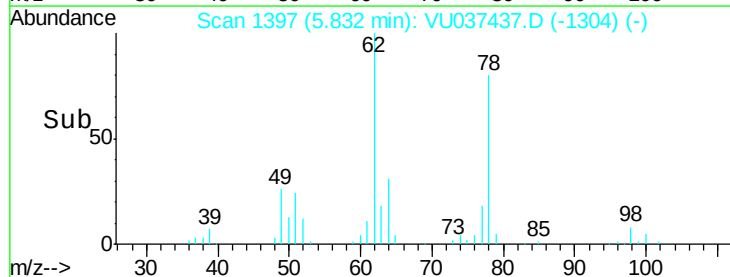
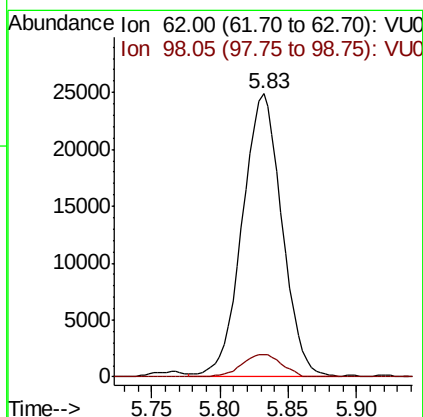
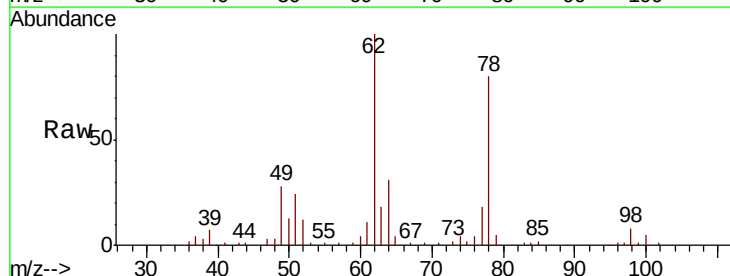
Instrument :  
MSVOA\_U  
ClientSampled :

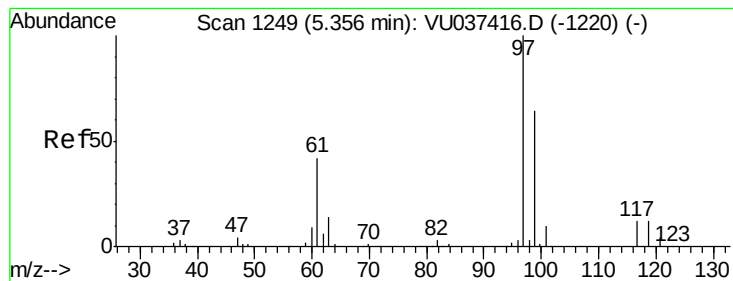
Tot Ion: 83 Resp: 80028  
Ion Ratio Lower Upper  
83 100  
85 63.9 45.4 84.4



#27  
1,2-Dichloroethane  
Concen: 4.975 ug/L  
RT: 5.83 min Scan# 1397  
Delta R.T. -0.00 min  
Lab File: VU037437.D  
Acq: 28 Mar 2020 23:32

Tgt Ion: 62 Resp: 50314  
Ion Ratio Lower Upper  
62 100  
98 8.0 7.3 10.9





#29

1,1,1-Trichloroethane

Concen: 5.005 ug/L

RT: 5.35 min Scan# 1248

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

Instrument :

MSVOA\_U

ClientSampleId :

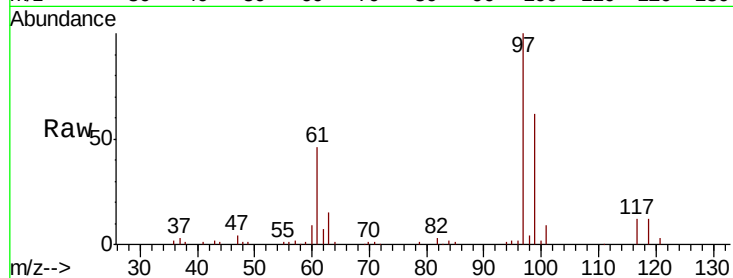
Tot Ion: 97 Resp: 68037

Ion Ratio Lower Upper

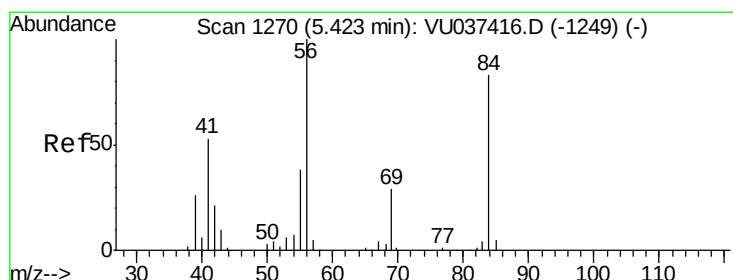
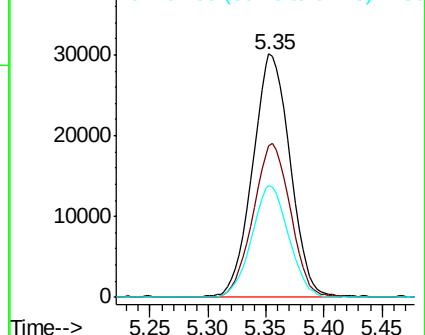
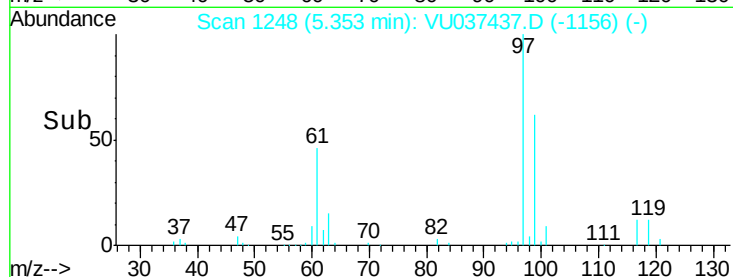
97 100

99 62.7 51.0 76.6

61 45.1 36.7 55.1



Abundance Ion 96.95 (96.65 to 97.65): VU037437.D (-1156) (-)



#30

Cyclohexane

Concen: 5.021 ug/L

RT: 5.43 min Scan# 1271

Delta R.T. 0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

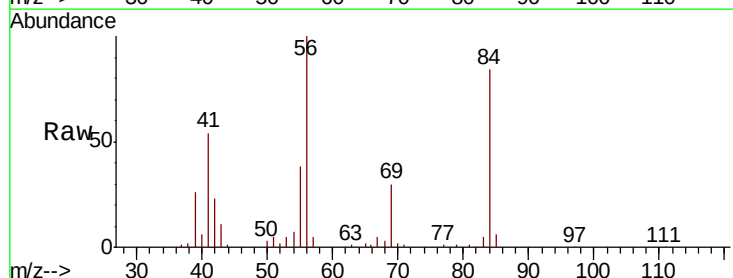
Tgt Ion: 56 Resp: 69945

Ion Ratio Lower Upper

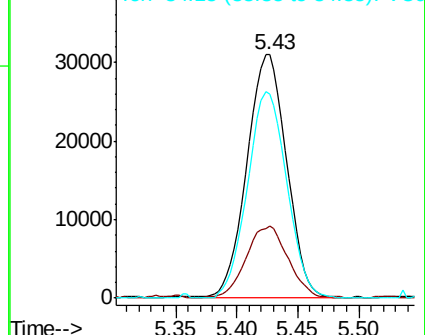
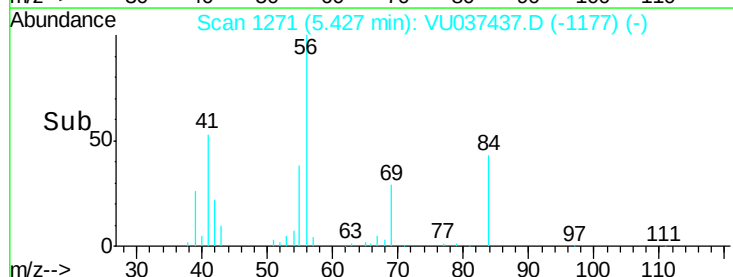
56 100

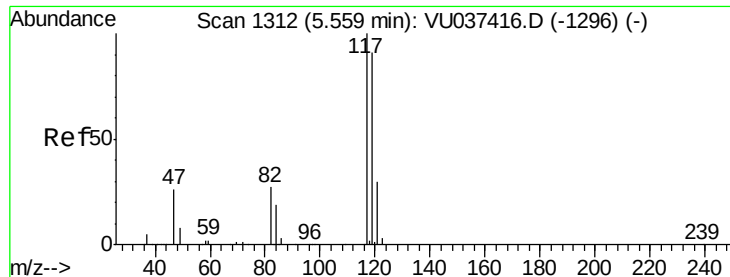
69 31.2 25.7 38.5

84 83.9 67.1 100.7



Abundance Ion 56.10 (55.80 to 56.80): VU037437.D (-1177) (-)

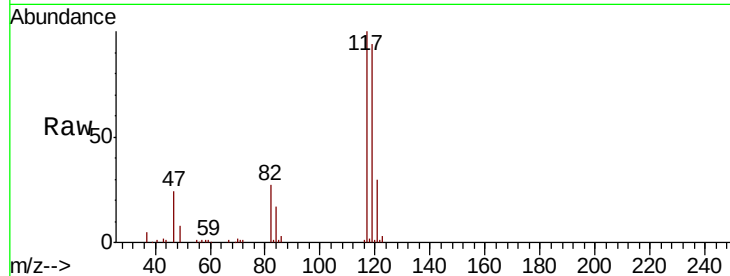




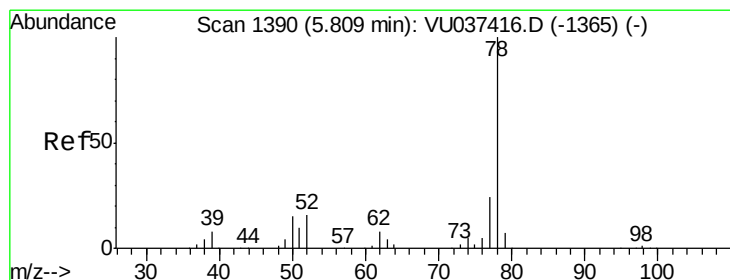
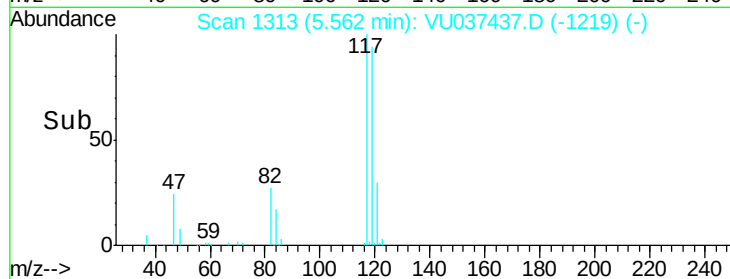
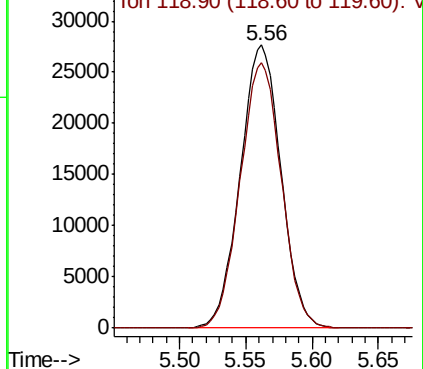
#31  
Carbon tetrachloride  
Concen: 5.030 ug/L  
RT: 5.56 min Scan# 1313  
Delta R.T. 0.00 min  
Lab File: VU037437.D  
Acq: 28 Mar 2020 23:32

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion:117 Resp: 59031  
Ion Ratio Lower Upper  
117 100  
119 94.6 77.7 116.5

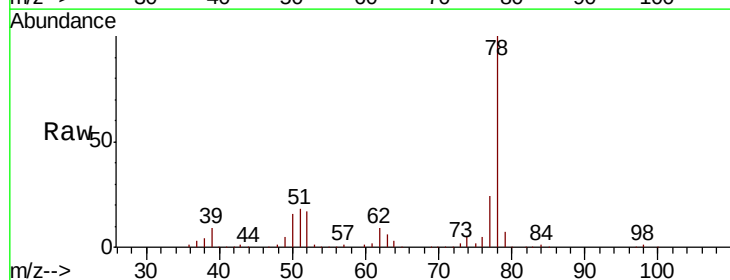


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 118.90 (118.60 to 119.60): V

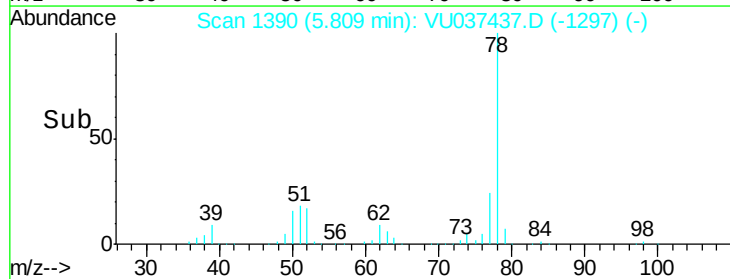
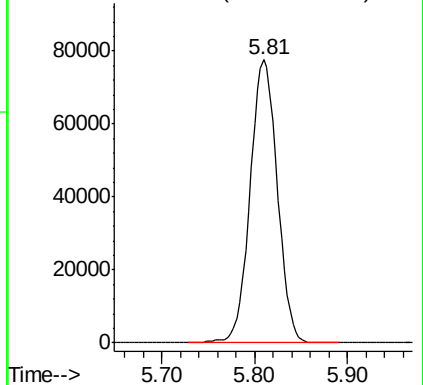


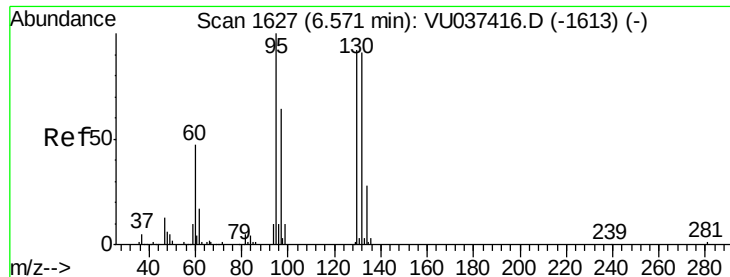
#33  
Benzene  
Concen: 4.937 ug/L  
RT: 5.81 min Scan# 1390  
Delta R.T. -0.00 min  
Lab File: VU037437.D  
Acq: 28 Mar 2020 23:32

Tgt Ion: 78 Resp: 158123



Abundance Ion 78.10 (77.80 to 78.80): VU0

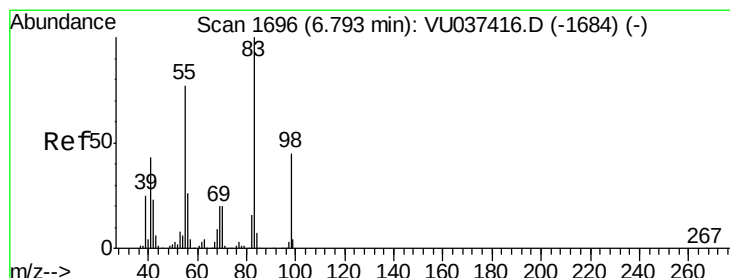
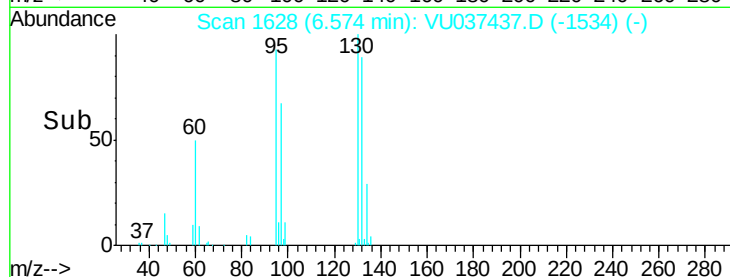
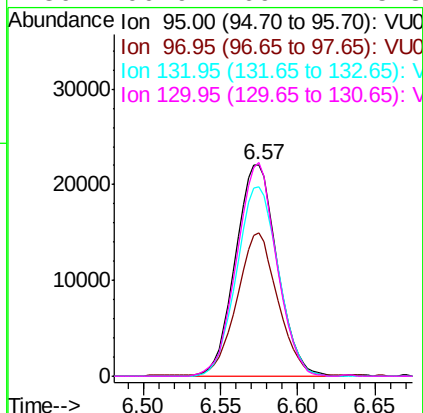
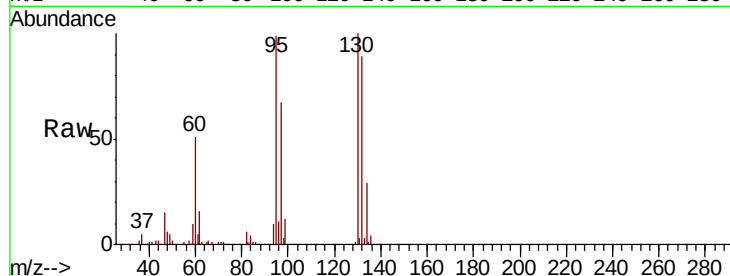




#34  
 Trichloroethene  
 Concen: 4.543 ug/L  
 RT: 6.57 min Scan# 1628  
 Delta R.T. 0.00 min  
 Lab File: VU037437.D  
 Acq: 28 Mar 2020 23:32

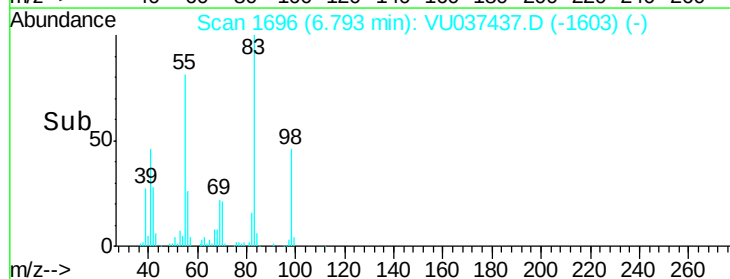
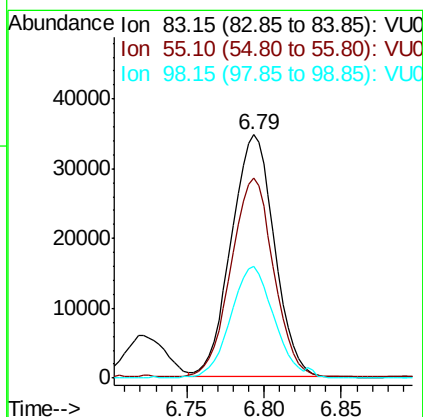
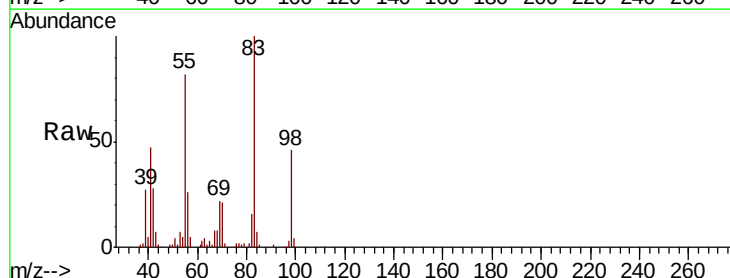
Instrument :  
 MSVOA\_U  
 ClientSampleId :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 95    | Resp: | 41442 |
| Ion      | Ratio | Lower | Upper |
| 95       | 100   |       |       |
| 97       | 68.0  | 45.3  | 84.1  |
| 132      | 89.5  | 62.7  | 116.5 |
| 130      | 100.9 | 69.1  | 128.3 |

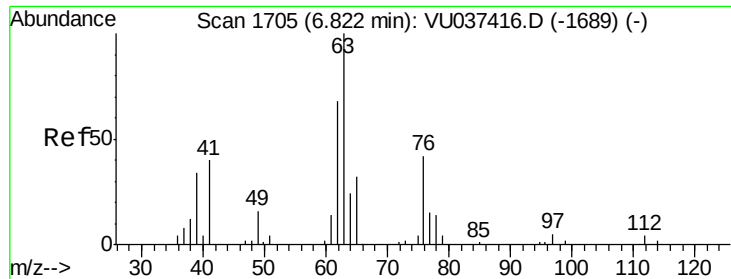


#35  
 Methylcyclohexane  
 Concen: 4.671 ug/L  
 RT: 6.79 min Scan# 1696  
 Delta R.T. -0.00 min  
 Lab File: VU037437.D  
 Acq: 28 Mar 2020 23:32

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 67432 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 55       | 81.2  | 64.2  | 96.4  |
| 98       | 46.7  | 36.3  | 54.5  |



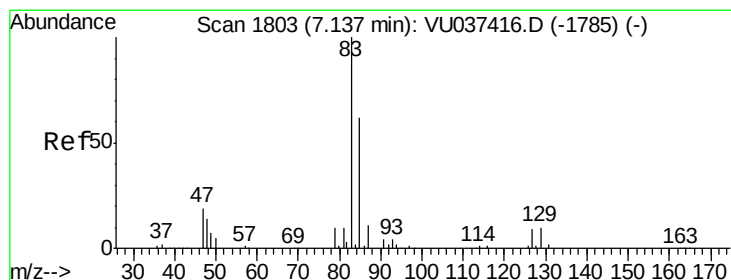
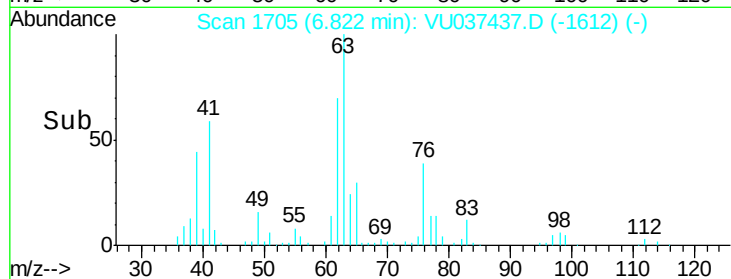
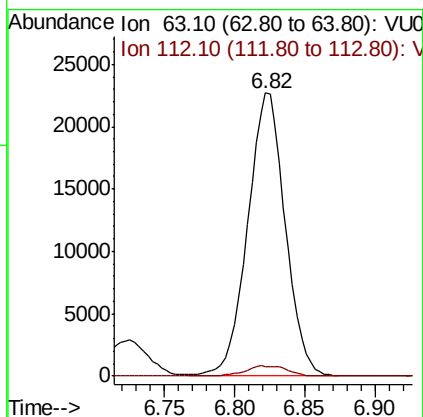
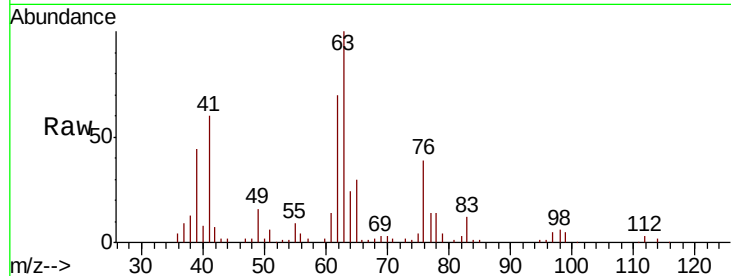




#37  
 1,2-Dichloropropane  
 Concen: 5.107 ug/L  
 RT: 6.82 min Scan# 1705  
 Delta R.T. -0.00 min  
 Lab File: VU037437.D  
 Acq: 28 Mar 2020 23:32

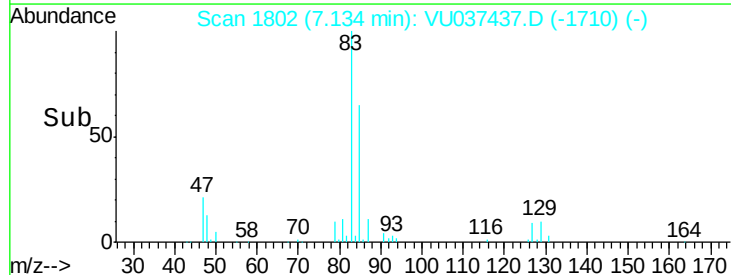
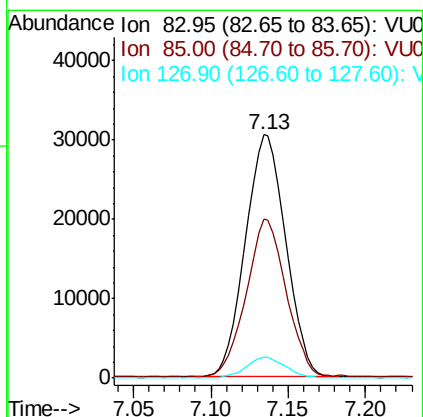
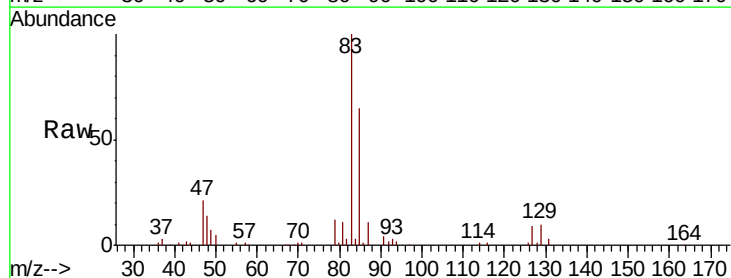
Instrument :  
 MSVOA\_U  
 ClientSampled :

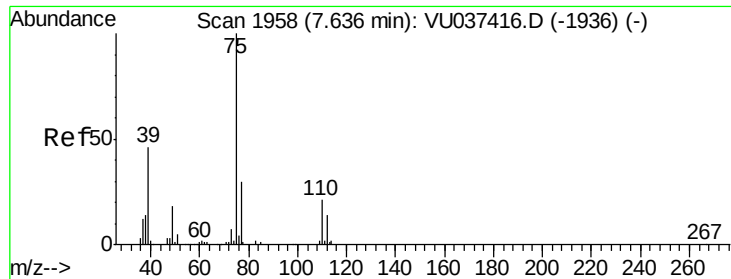
Tot Ion: 63 Resp: 42280  
 Ion Ratio Lower Upper  
 63 100  
 112 2.4 3.0 4.6#



#38  
 Bromodichloromethane  
 Concen: 4.914 ug/L  
 RT: 7.13 min Scan# 1802  
 Delta R.T. -0.00 min  
 Lab File: VU037437.D  
 Acq: 28 Mar 2020 23:32

Tgt Ion: 83 Resp: 55640  
 Ion Ratio Lower Upper  
 83 100  
 85 65.3 42.4 78.8  
 127 8.5 7.0 10.6

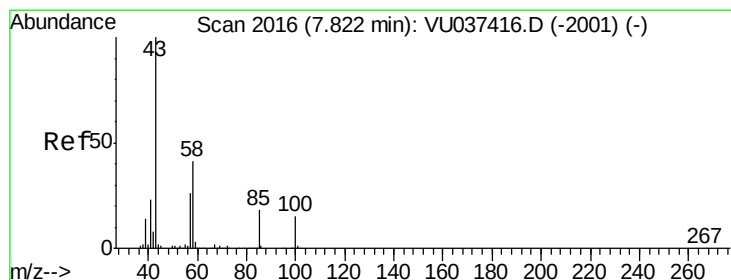
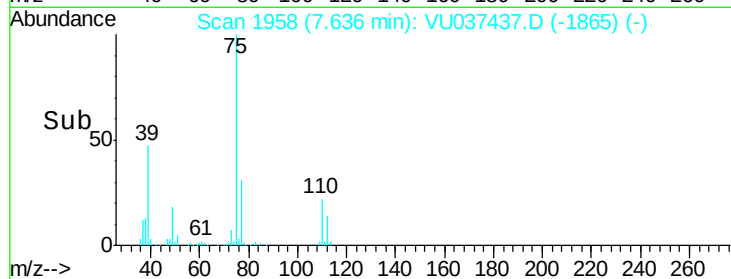
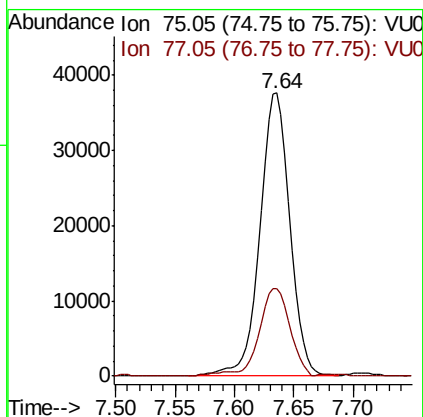
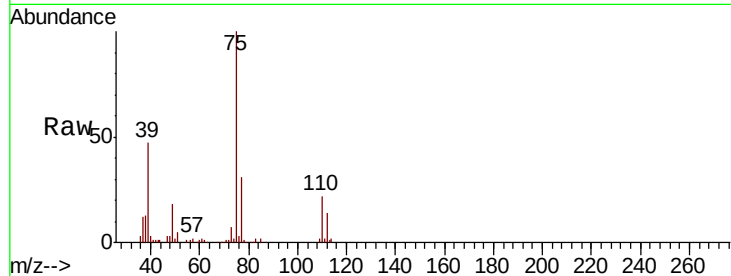




#39  
 cis-1,3-Dichloropropene  
 Concen: 4.858 ug/L  
 RT: 7.64 min Scan# 1958  
 Delta R.T. -0.00 min  
 Lab File: VU037437.D  
 Acq: 28 Mar 2020 23:32

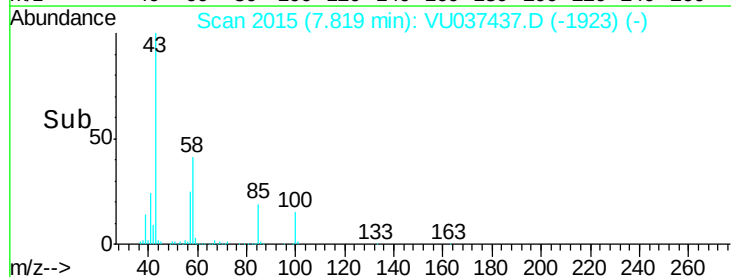
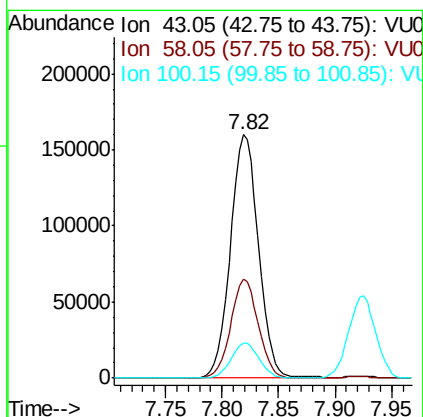
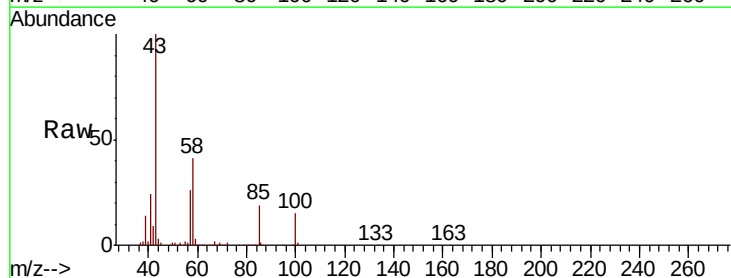
Instrument :  
 MSVOA\_U  
 ClientSampleId :

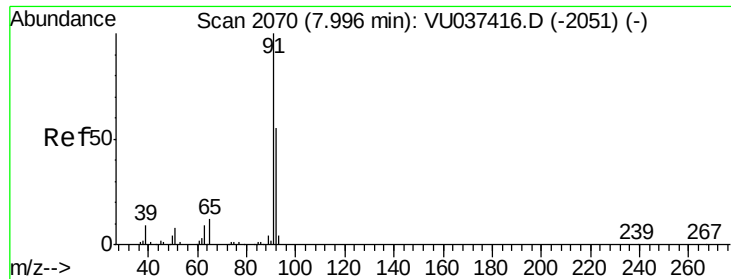
Tot Ion: 75 Resp: 65595  
 Ion Ratio Lower Upper  
 75 100  
 77 30.9 21.1 39.3



#40  
 4-Methyl-2-pentanone  
 Concen: 49.846 ug/L  
 RT: 7.82 min Scan# 2015  
 Delta R.T. -0.00 min  
 Lab File: VU037437.D  
 Acq: 28 Mar 2020 23:32

Tgt Ion: 43 Resp: 274758  
 Ion Ratio Lower Upper  
 43 100  
 58 40.0 32.1 48.1  
 100 14.4 11.6 17.4





#42

Toluene

Concen: 4.946 ug/L

RT: 8.00 min Scan# 2070

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

Instrument :

MSVOA\_U

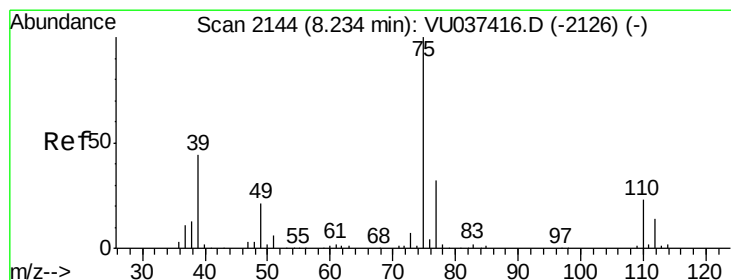
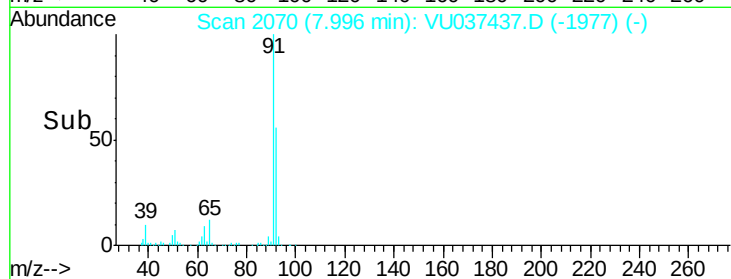
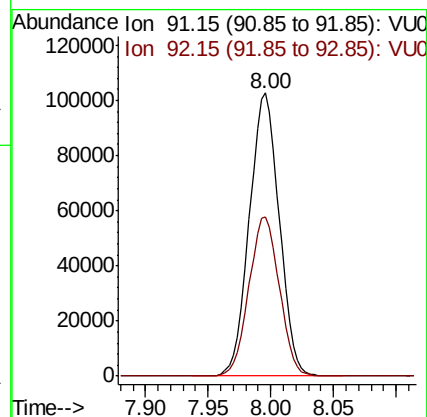
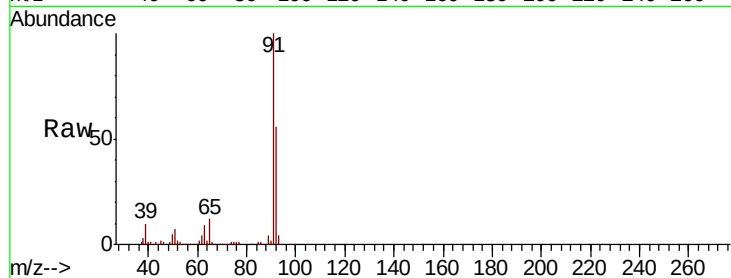
ClientSampled :

Tot Ion: 91 Resp: 170717

Ion Ratio Lower Upper

91 100

92 56.4 39.8 73.8



#44

trans-1,3-Dichloropropene

Concen: 4.672 ug/L

RT: 8.23 min Scan# 2144

Delta R.T. -0.00 min

Lab File: VU037437.D

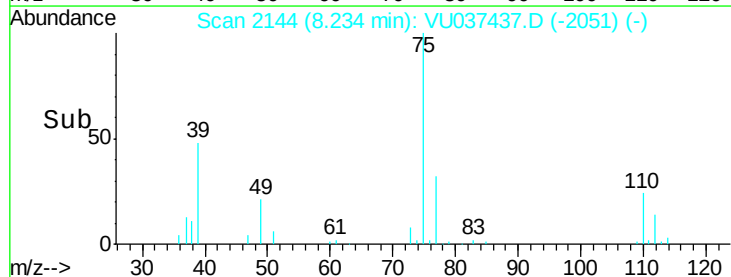
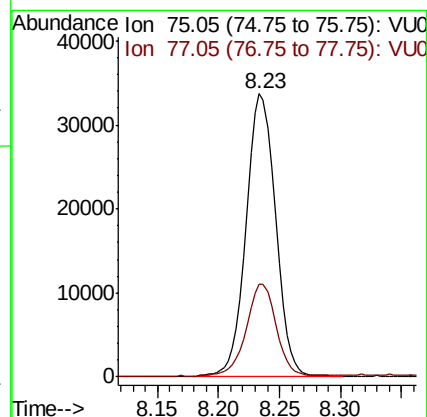
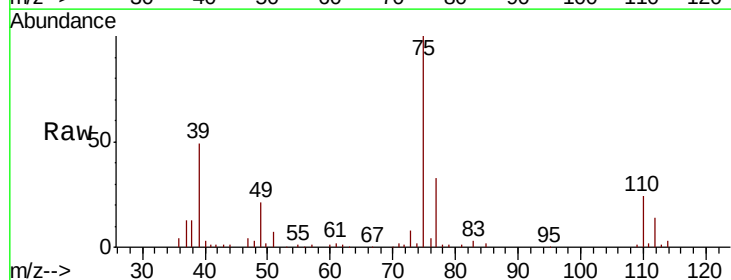
Acq: 28 Mar 2020 23:32

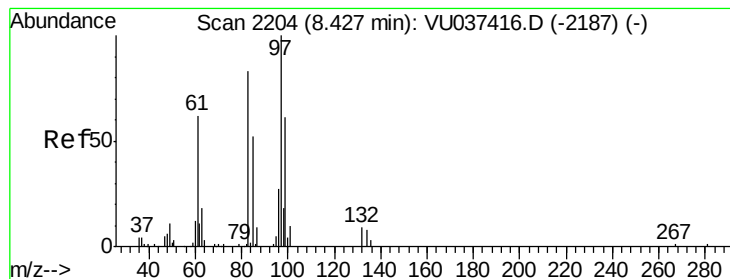
Tgt Ion: 75 Resp: 56389

Ion Ratio Lower Upper

75 100

77 32.7 22.7 42.1





#45

1,1,2-Trichloroethane

Concen: 4.995 ug/L

RT: 8.42 min Scan# 2203

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

Instrument :

MSVOA\_U

ClientSampleId :

Tot Ion: 97 Resp: 30927

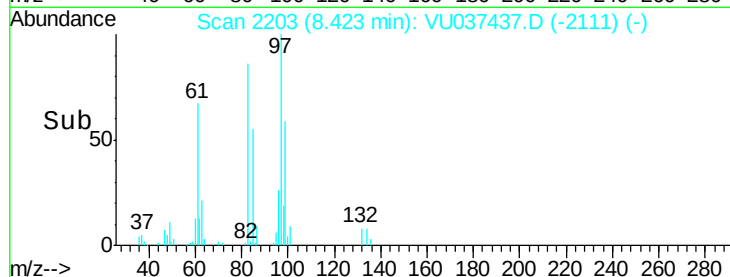
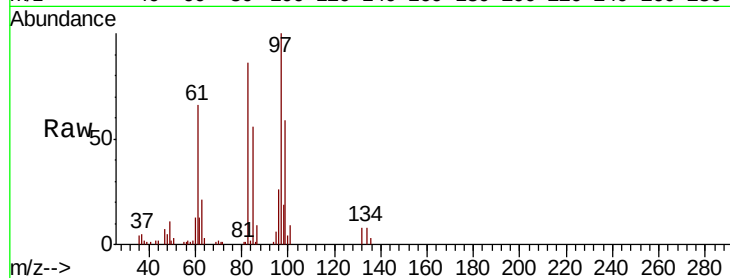
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 97  | 100   |       |       |
| 99  | 58.7  | 41.1  | 76.3  |
| 83  | 86.3  | 58.7  | 108.9 |
| 85  | 55.8  | 38.2  | 71.0  |

97 100

99 58.7 41.1 76.3

83 86.3 58.7 108.9

85 55.8 38.2 71.0

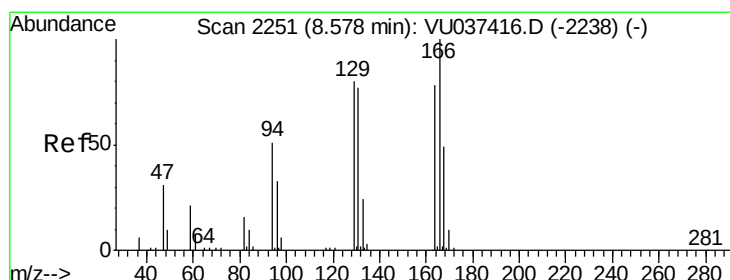
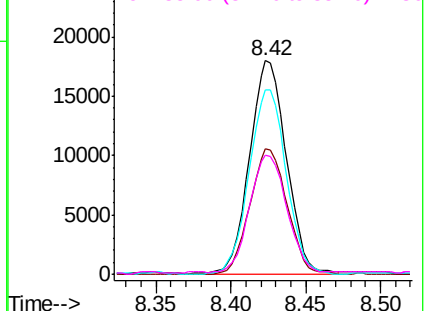


Abundance Ion 96.95 (96.65 to 97.65): VU037437.D (-2111) (-)

Ion 99.05 (98.75 to 99.75): VU037437.D (-2111) (-)

Ion 82.95 (82.65 to 83.65): VU037437.D (-2111) (-)

Ion 85.00 (84.70 to 85.70): VU037437.D (-2111) (-)



#47

Tetrachloroethene

Concen: 4.886 ug/L

RT: 8.58 min Scan# 2251

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

Tgt Ion: 164 Resp: 30698

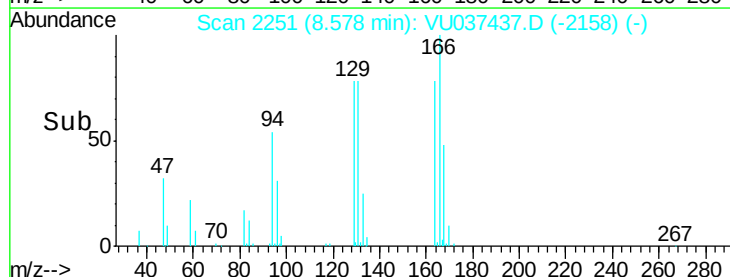
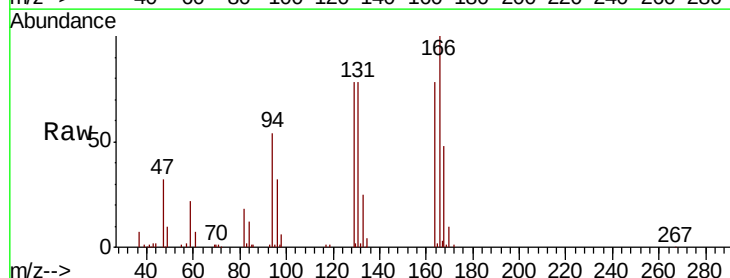
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 164 | 100   |       |       |
| 129 | 100.5 | 68.8  | 127.8 |
| 131 | 100.0 | 66.9  | 124.3 |
| 166 | 128.8 | 86.3  | 160.3 |

164 100

129 100.5 68.8 127.8

131 100.0 66.9 124.3

166 128.8 86.3 160.3

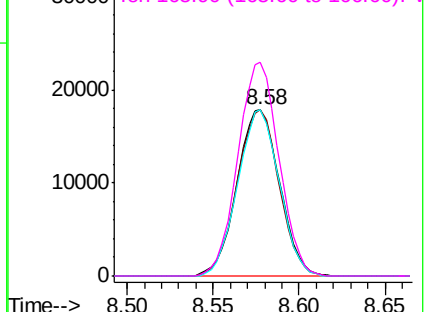


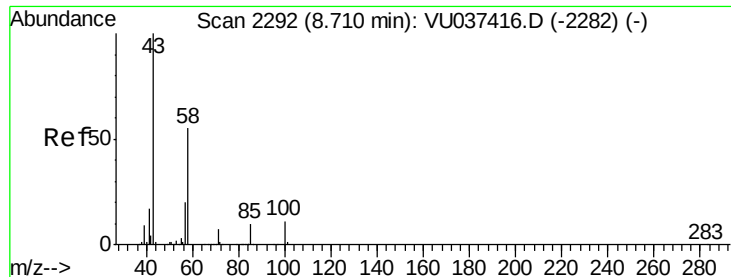
Abundance Ion 163.90 (163.60 to 164.60): VU037437.D (-2158) (-)

Ion 128.95 (128.65 to 129.65): VU037437.D (-2158) (-)

Ion 130.95 (130.65 to 131.65): VU037437.D (-2158) (-)

Ion 165.90 (165.60 to 166.60): VU037437.D (-2158) (-)

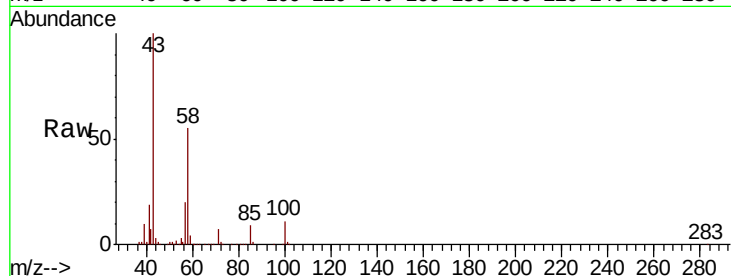




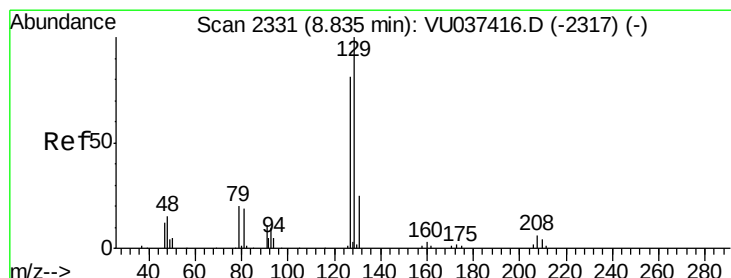
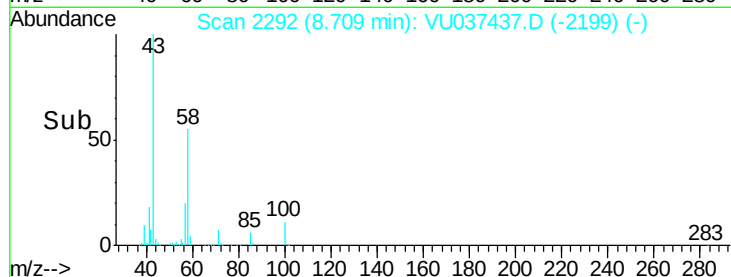
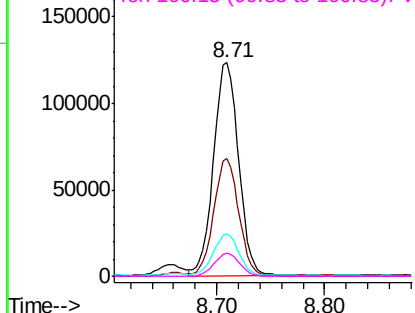
#48  
2-Hexanone  
Concen: 49.995 ug/L  
RT: 8.71 min Scan# 2292  
Delta R.T. -0.00 min  
Lab File: VU037437.D  
Acq: 28 Mar 2020 23:32

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 43 Resp: 198636  
Ion Ratio Lower Upper  
43 100  
58 55.1 44.2 66.2  
57 20.0 15.3 22.9  
100 11.0 9.4 14.0

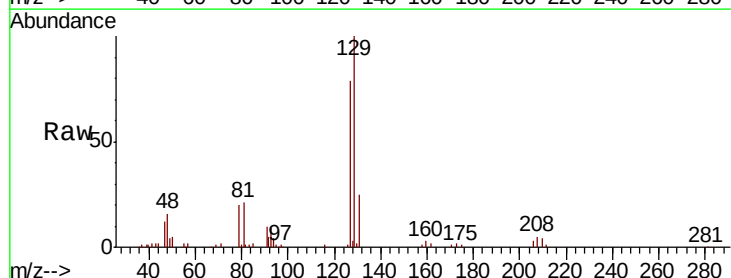


Abundance Ion 43.05 (42.75 to 43.75): VU037416.D (-2282) (-)  
Ion 58.05 (57.75 to 58.75): VU037416.D (-2282) (-)  
Ion 57.20 (56.90 to 57.90): VU037416.D (-2282) (-)  
Ion 100.15 (99.85 to 100.85): VU037416.D (-2282) (-)

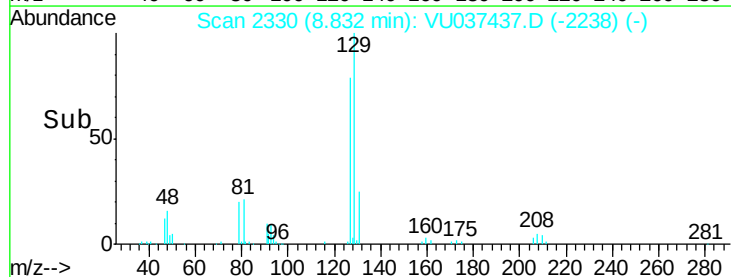
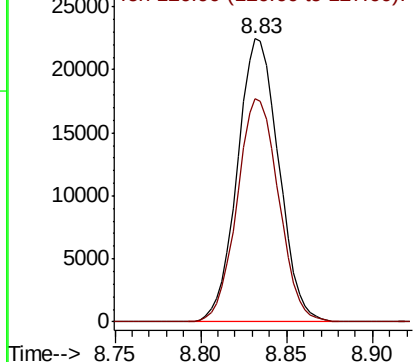


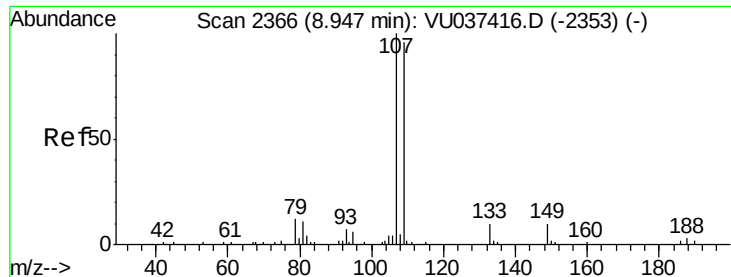
#49  
Dibromochloromethane  
Concen: 4.903 ug/L  
RT: 8.83 min Scan# 2330  
Delta R.T. -0.00 min  
Lab File: VU037437.D  
Acq: 28 Mar 2020 23:32

Tgt Ion: 129 Resp: 37467  
Ion Ratio Lower Upper  
129 100  
127 79.1 53.5 99.3



Abundance Ion 128.95 (128.65 to 129.65): VU037416.D (-2317) (-)  
Ion 126.90 (126.60 to 127.60): VU037416.D (-2317) (-)

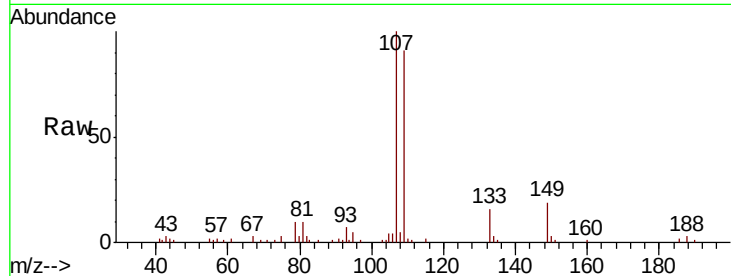




#50  
1,2-Dibromoethane  
Concen: 4.961 ug/L  
RT: 8.95 min Scan# 2366  
Delta R.T. -0.00 min  
Lab File: VU037437.D  
Acq: 28 Mar 2020 23:32

Instrument :  
MSVOA\_U  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 107     | 100   |       |       |
| 109     | 91.1  | 64.8  | 120.4 |
| 188     | 3.0   | 2.6   | 4.0   |

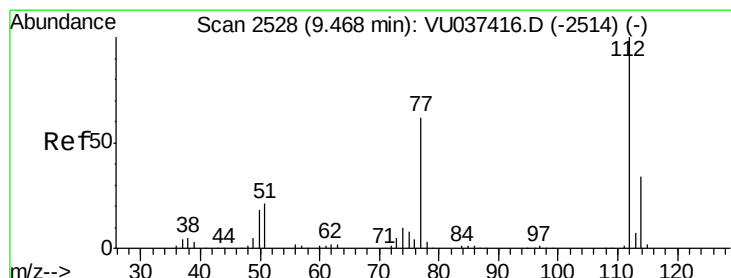
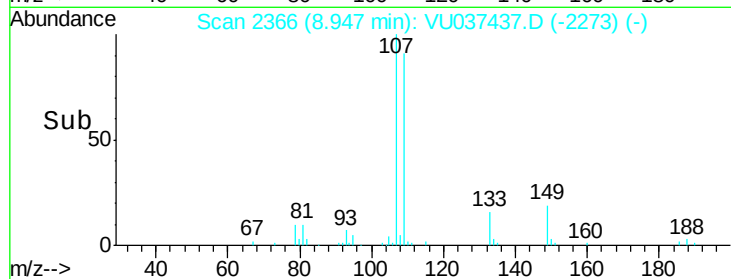
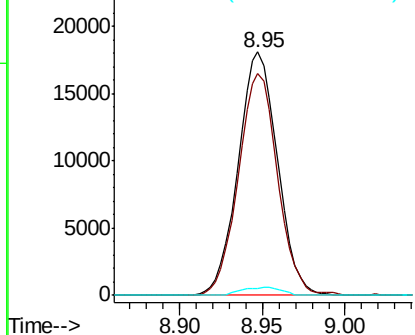


Abundance

Ion 106.95 (106.65 to 107.65): V

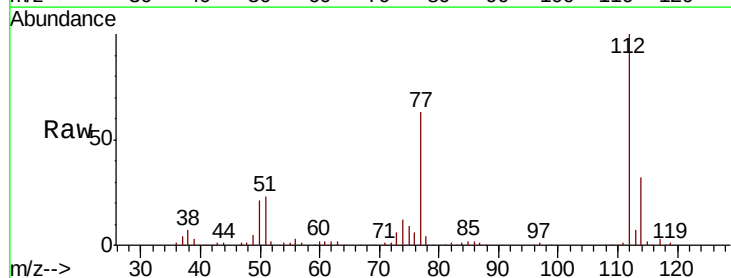
Ion 109.00 (108.70 to 109.70): V

Ion 187.90 (187.60 to 188.60): V



#51  
Chlorobenzene  
Concen: 4.457 ug/L  
RT: 9.47 min Scan# 2528  
Delta R.T. -0.00 min  
Lab File: VU037437.D  
Acq: 28 Mar 2020 23:32

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 114     | 32.1  | 22.4  | 41.6  |
| 77      | 63.1  | 50.5  | 75.7  |

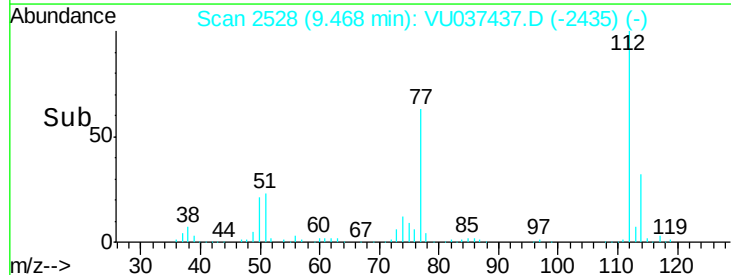
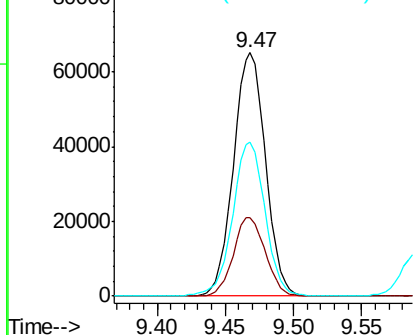


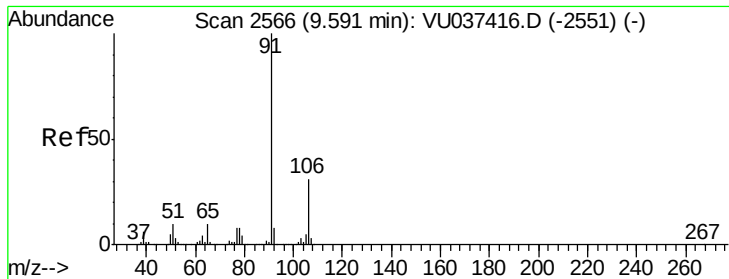
Abundance

Ion 112.10 (111.80 to 112.80): V

Ion 114.05 (113.75 to 114.75): V

Ion 77.10 (76.80 to 77.80): VU





#52

Ethylbenzene

Concen: 4.937 ug/L

RT: 9.59 min Scan# 2566

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

Instrument :

MSVOA\_U

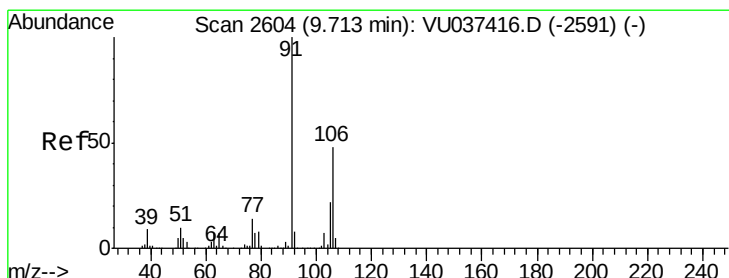
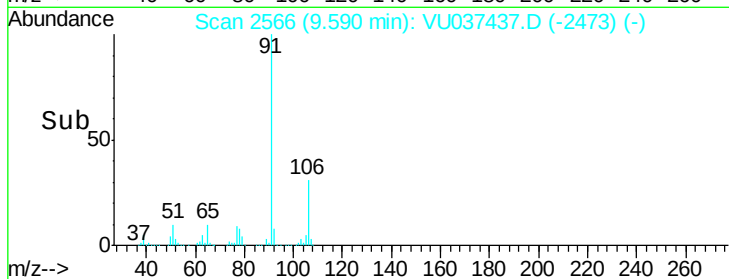
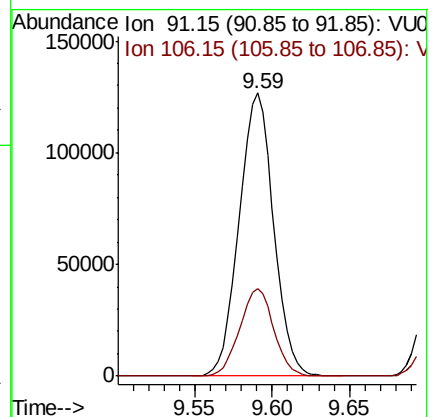
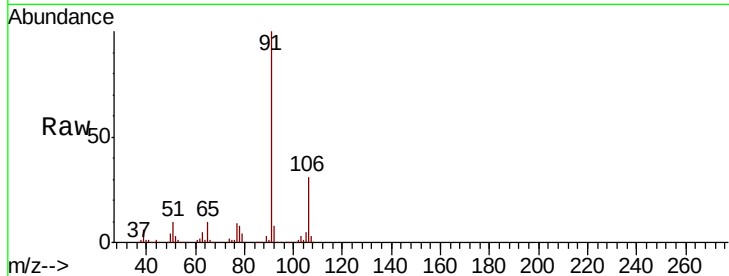
ClientSampleId :

Tot Ion: 91 Resp: 195540

Ion Ratio Lower Upper

91 100

106 31.1 21.3 39.6



#53

m,p-Xylene

Concen: 4.933 ug/L

RT: 9.71 min Scan# 2604

Delta R.T. -0.00 min

Lab File: VU037437.D

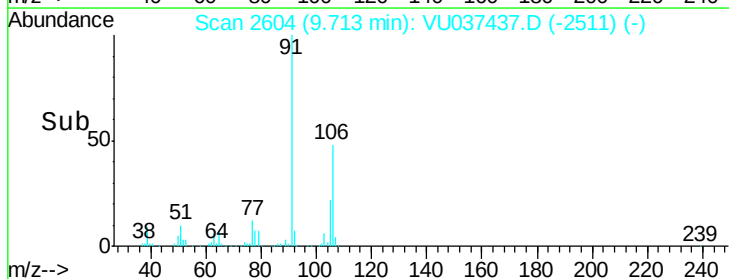
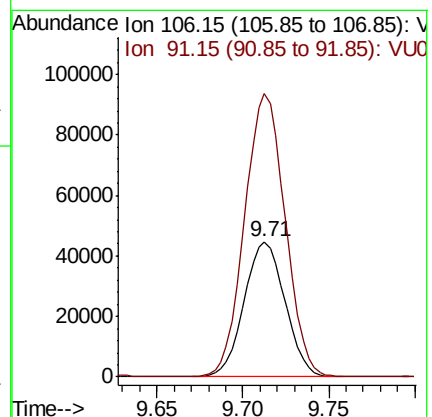
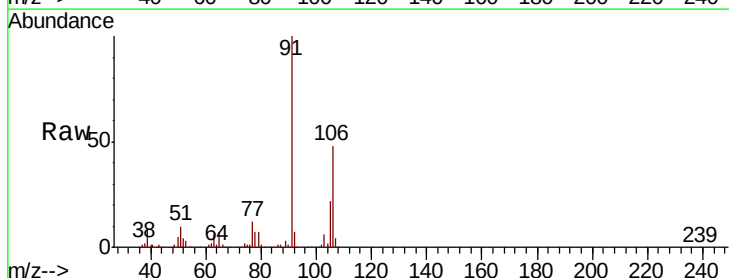
Acq: 28 Mar 2020 23:32

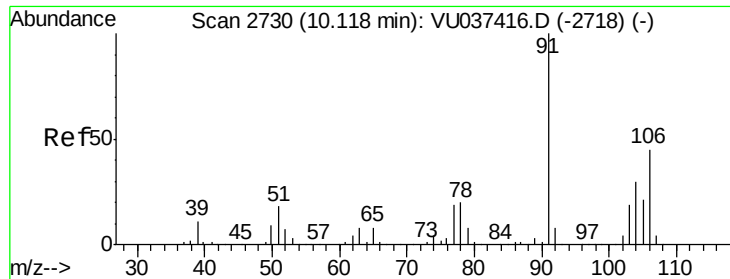
Tgt Ion: 106 Resp: 73835

Ion Ratio Lower Upper

106 100

91 209.9 147.3 273.6

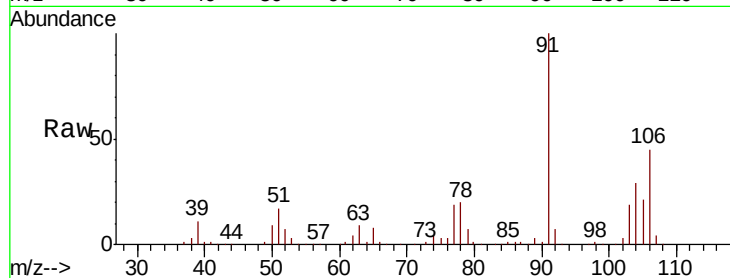




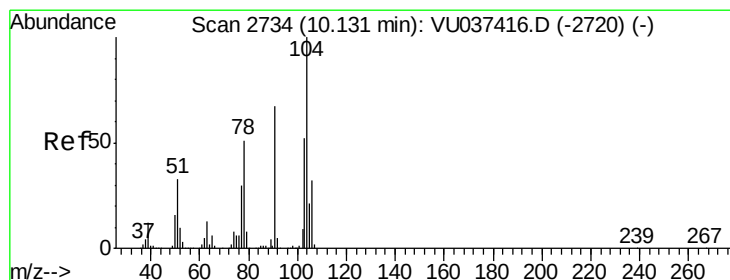
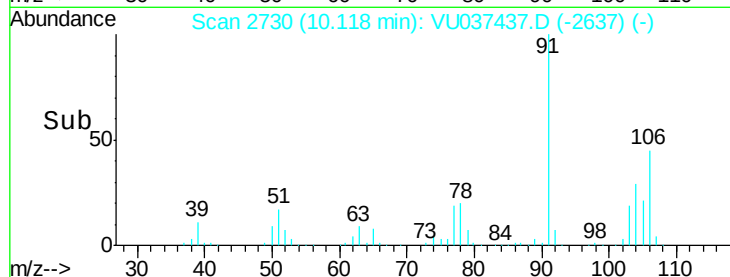
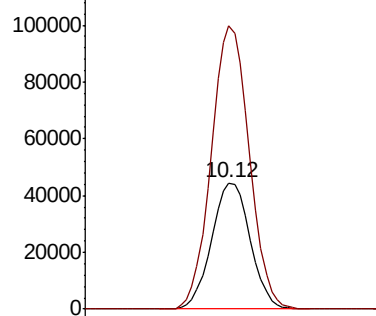
#54  
o-Xylene  
Concen: 4.919 ug/L  
RT: 10.12 min Scan# 2730  
Delta R.T. -0.00 min  
Lab File: VU037437.D  
Acq: 28 Mar 2020 23:32

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion:106 Resp: 71846  
Ion Ratio Lower Upper  
106 100  
91 224.2 157.7 292.9

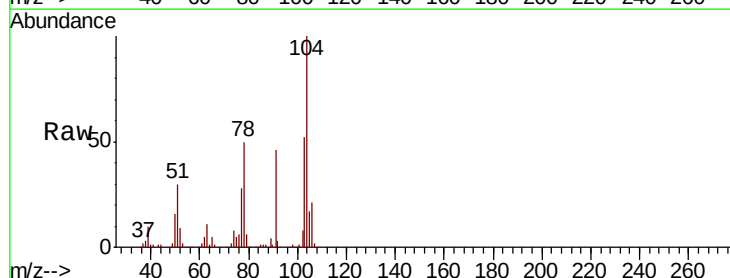


Abundance Ion 106.15 (105.85 to 106.85): V  
Ion 91.15 (90.85 to 91.85): VU0

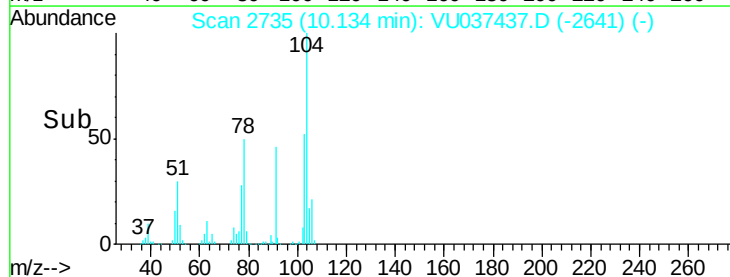
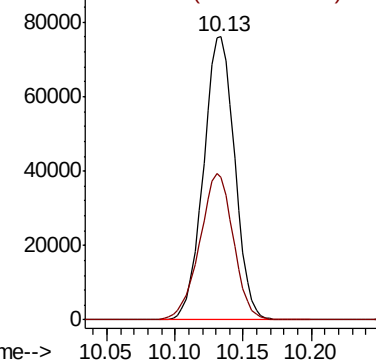


#55  
Styrene  
Concen: 4.852 ug/L  
RT: 10.13 min Scan# 2735  
Delta R.T. 0.00 min  
Lab File: VU037437.D  
Acq: 28 Mar 2020 23:32

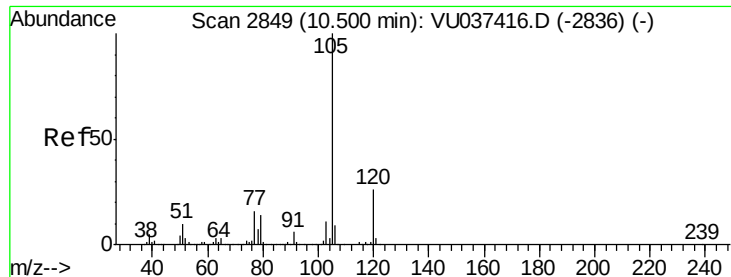
Tgt Ion:104 Resp: 121093  
Ion Ratio Lower Upper  
104 100  
78 50.3 35.8 66.6



Abundance Ion 104.10 (103.80 to 104.80): V  
Ion 78.10 (77.80 to 78.80): VU0







#56

Isopropylbenzene

Concen: 4.905 ug/L

RT: 10.50 min Scan# 2849

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

Instrument :

MSVOA\_U

ClientSampleId :

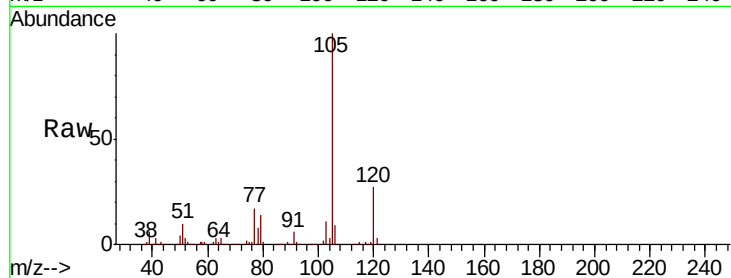
Tot Ion:105 Resp: 190881

Ion Ratio Lower Upper

105 100

120 26.6 21.0 31.4

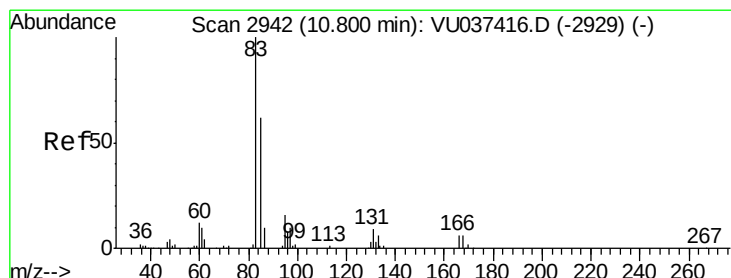
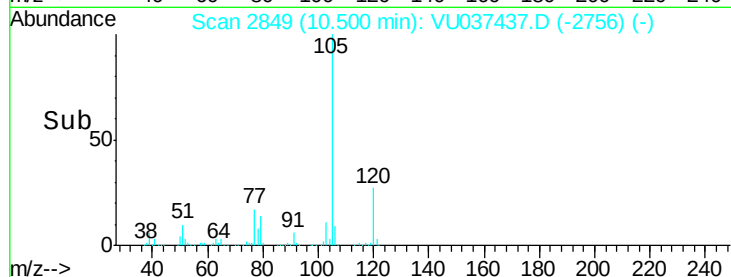
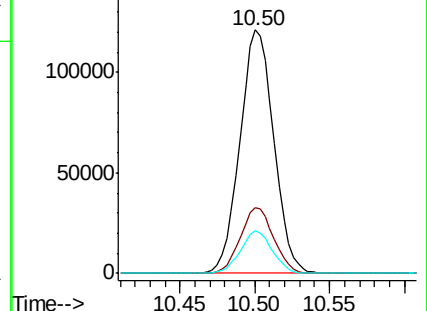
77 16.5 13.4 20.0



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: 4.940 ug/L

RT: 10.80 min Scan# 2942

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

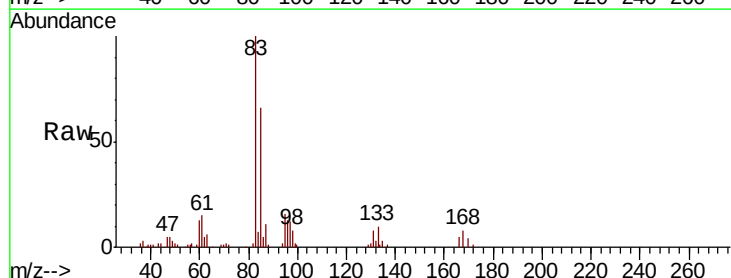
Tgt Ion: 83 Resp: 39045

Ion Ratio Lower Upper

83 100

85 65.6 42.9 79.7

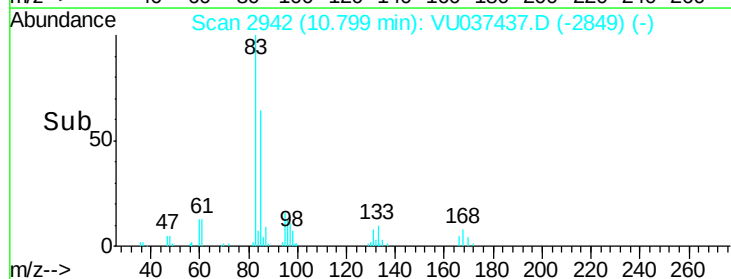
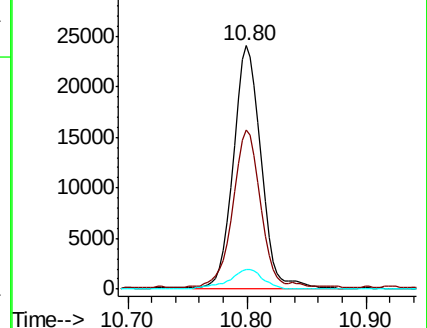
131 8.2 8.1 12.1

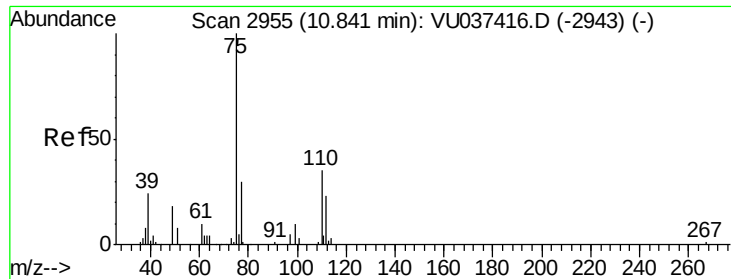


Abundance Ion 82.95 (82.65 to 83.65): V

Ion 85.00 (84.70 to 85.70): V

Ion 130.95 (130.65 to 131.65): V





#59

1,2,3-Trichloropropane

Concen: 4.853 ug/L

RT: 10.84 min Scan# 2954

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

Instrument :

MSVOA\_U

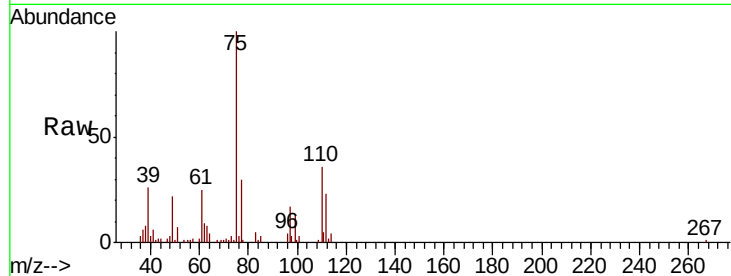
ClientSampleId :

Tot Ion: 75 Resp: 27948

Ion Ratio Lower Upper

75 100

77 31.8 27.4 41.2



Abundance Ion 75.00 (74.70 to 75.70): VU037416.D (-2943) (-)

Ion 77.00 (76.70 to 77.70): VU037416.D (-2943) (-)

10.84

20000

15000

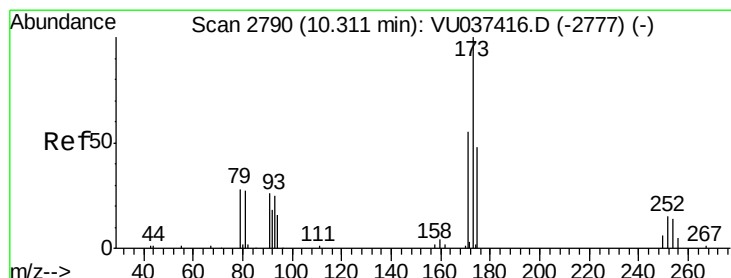
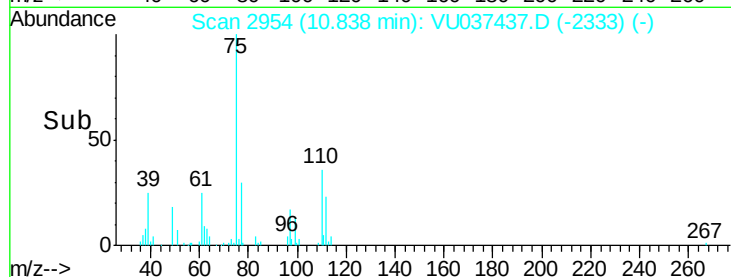
10000

5000

0

Time-->

10.80 10.85 10.90



#61

Bromoform

Concen: 4.991 ug/L

RT: 10.31 min Scan# 2790

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

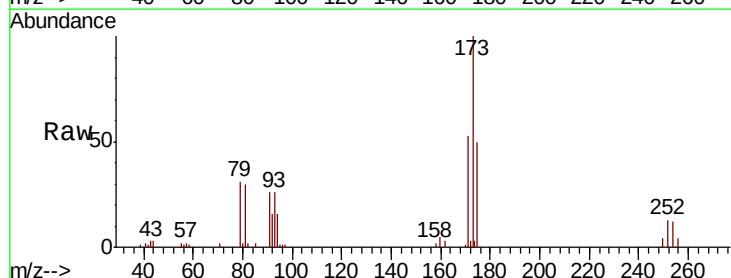
Tgt Ion: 173 Resp: 22461

Ion Ratio Lower Upper

173 100

175 49.7 40.2 60.4

254 11.7 11.4 17.2



Abundance Ion 172.90 (172.60 to 173.60): VU037416.D (-2777) (-)

Ion 174.90 (174.60 to 175.60): VU037416.D (-2777) (-)

Ion 253.75 (253.45 to 254.45): VU037416.D (-2777) (-)

10.31

15000

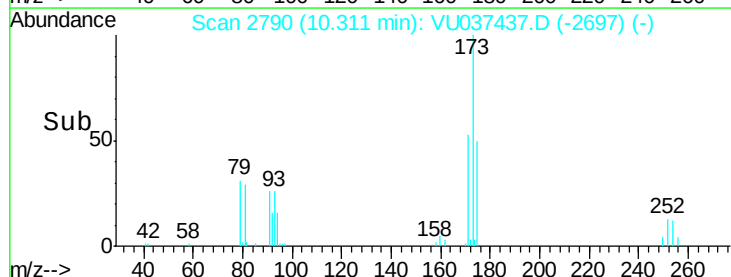
10000

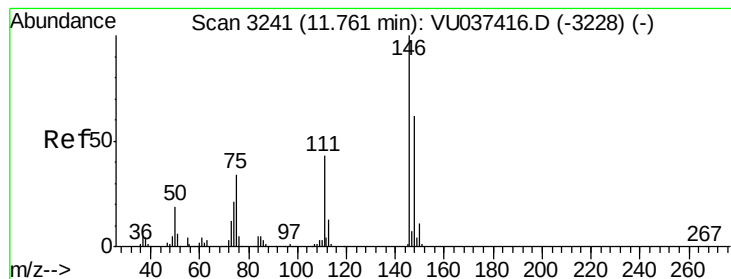
5000

0

Time-->

10.25 10.30 10.35





#62

1,3-Dichlorobenzene

Concen: 4.819 ug/L

RT: 11.76 min Scan# 3241

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

Instrument :

MSVOA\_U

ClientSampleId :

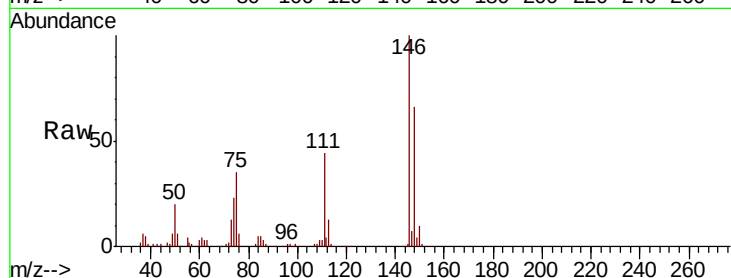
Tot Ion:146 Resp: 83900

Ion Ratio Lower Upper

146 100

111 44.5 29.4 54.6

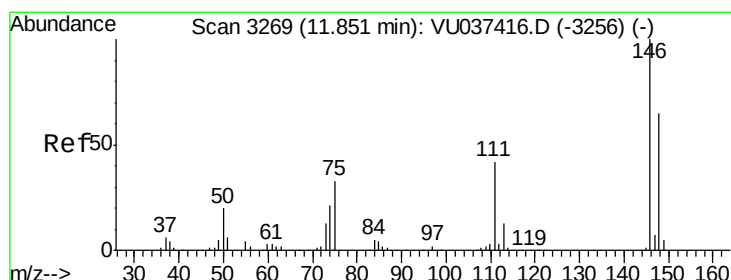
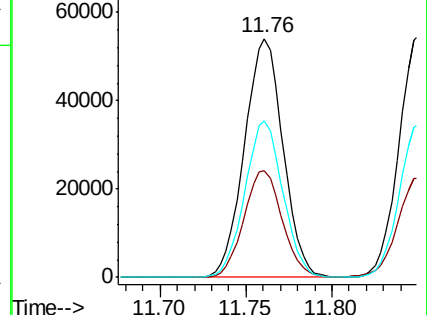
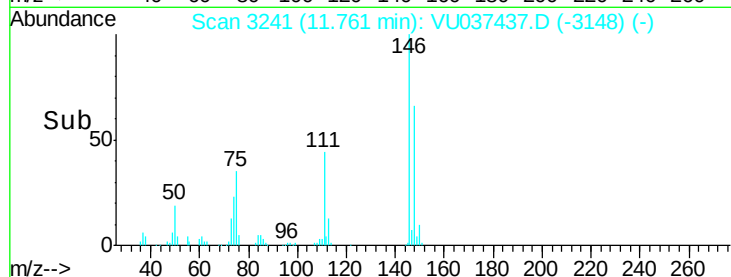
148 65.8 46.1 85.5



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: 4.651 ug/L

RT: 11.85 min Scan# 3269

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

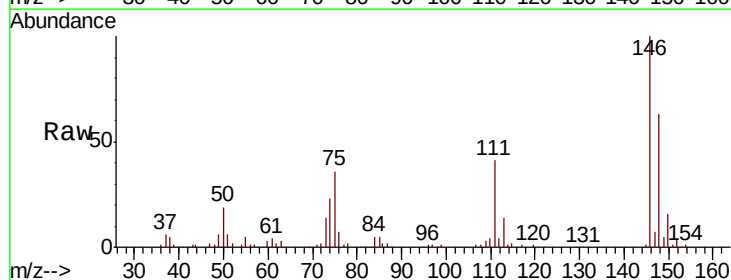
Tgt Ion:146 Resp: 86453

Ion Ratio Lower Upper

146 100

111 41.1 28.8 53.6

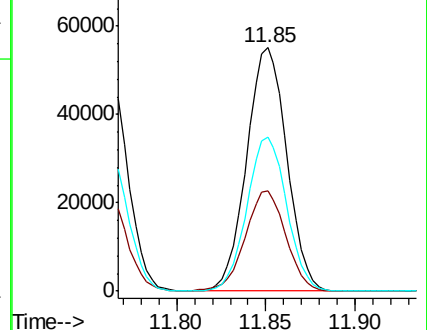
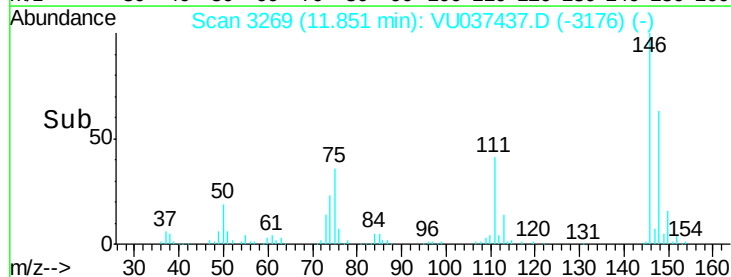
148 63.1 44.5 82.7

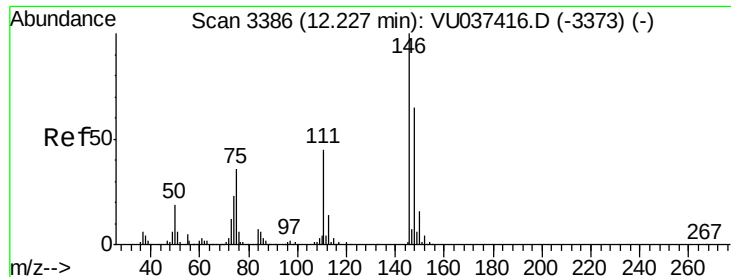


Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V





#65

1,2-Dichlorobenzene

Concen: 4.778 ug/L

RT: 12.23 min Scan# 3386

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

Instrument :

MSVOA\_U

ClientSampleId :

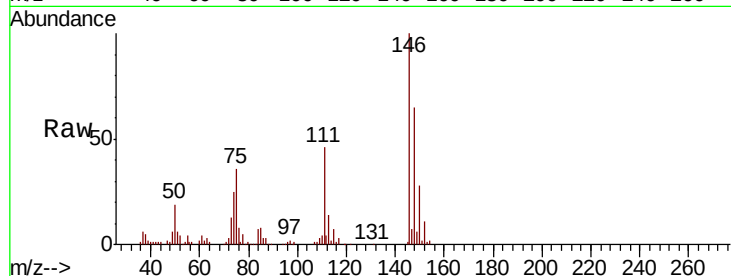
Tot Ion:146 Resp: 80310

Ion Ratio Lower Upper

146 100

111 46.0 36.2 54.2

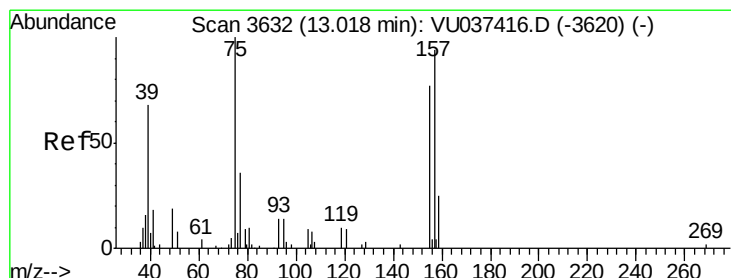
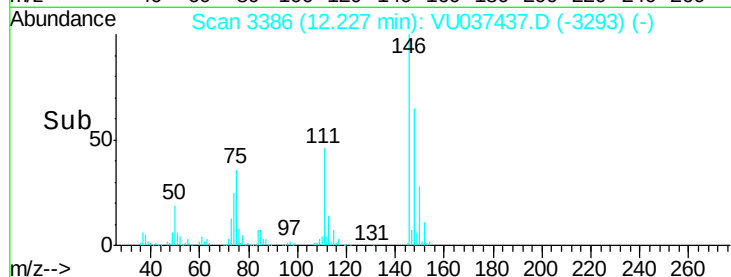
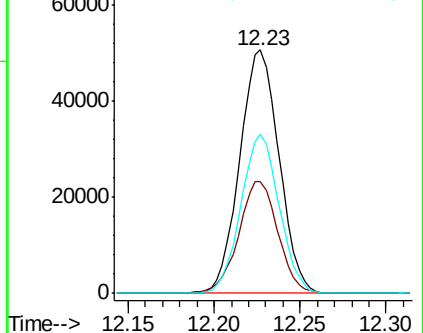
148 65.1 52.1 78.1



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: 5.455 ug/L

RT: 13.02 min Scan# 3632

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

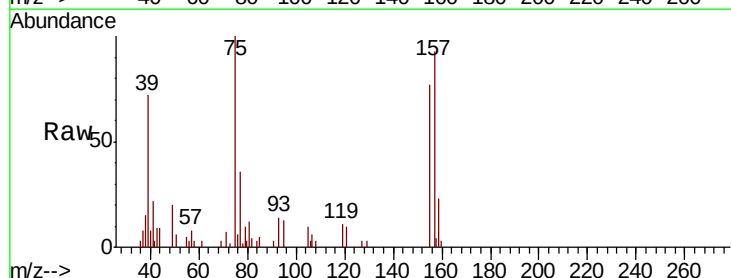
Tgt Ion: 75 Resp: 8067

Ion Ratio Lower Upper

75 100

155 76.7 56.0 84.0

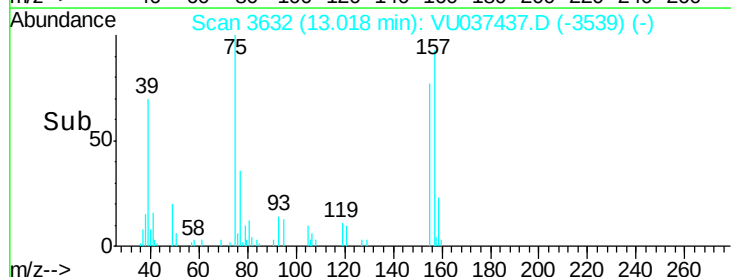
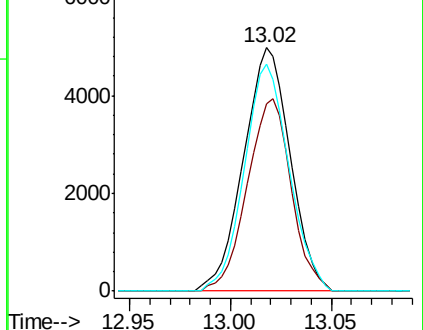
157 93.4 78.3 117.5

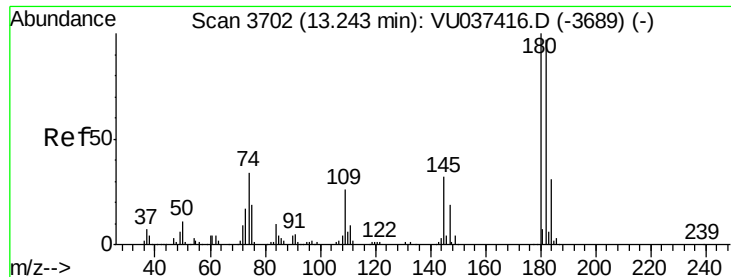


Abundance Ion 75.05 (74.75 to 75.75): VU0

Ion 154.95 (154.65 to 155.65): V

Ion 156.90 (156.60 to 157.60): V

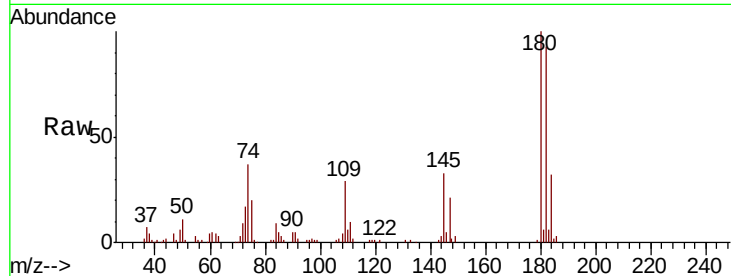




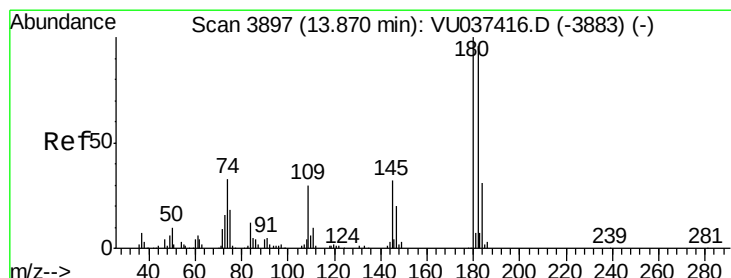
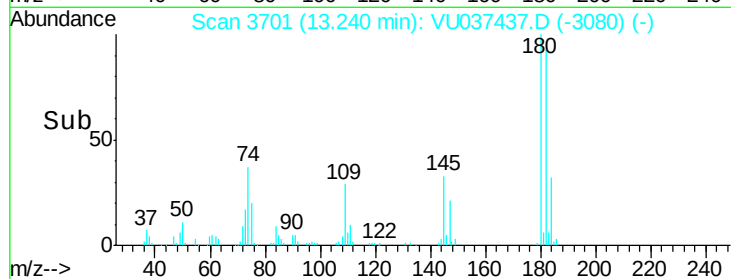
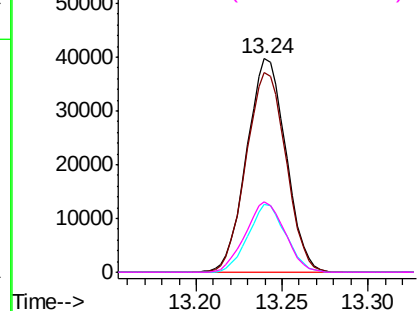
#67  
 1,3,5-Trichlorobenzene  
 Concen: 4.653 ug/L  
 RT: 13.24 min Scan# 3701  
 Delta R.T. -0.00 min  
 Lab File: VU037437.D  
 Acq: 28 Mar 2020 23:32

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Tot Ion:180 Resp: 62817  
 Ion Ratio Lower Upper  
 180 100  
 182 94.8 77.7 116.5  
 184 30.4 24.6 36.8  
 145 33.0 25.7 38.5

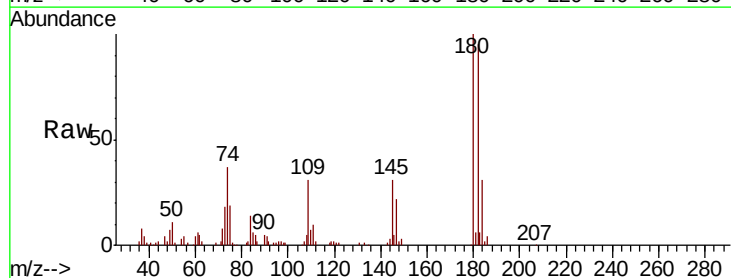


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

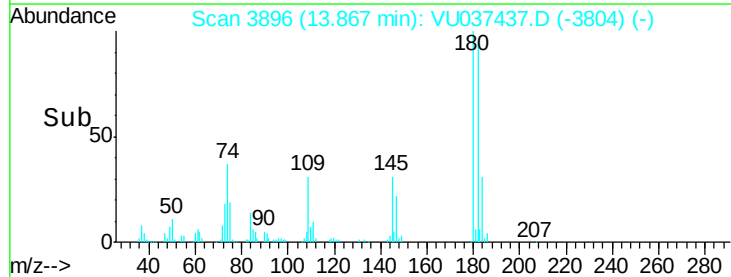
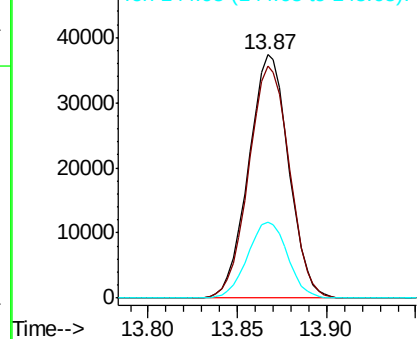


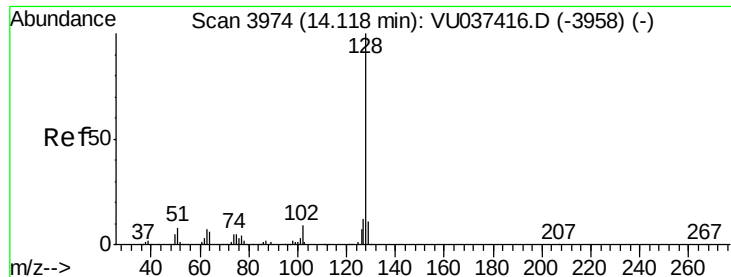
#68  
 1,2,4-trichlorobenzene  
 Concen: 4.505 ug/L  
 RT: 13.87 min Scan# 3896  
 Delta R.T. -0.00 min  
 Lab File: VU037437.D  
 Acq: 28 Mar 2020 23:32

Tgt Ion:180 Resp: 58637  
 Ion Ratio Lower Upper  
 180 100  
 182 97.0 75.8 113.6  
 145 31.1 25.5 38.3



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: 4.875 ug/L

RT: 14.11 min Scan# 3973

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

Instrument :

MSVOA\_U

ClientSampleId :

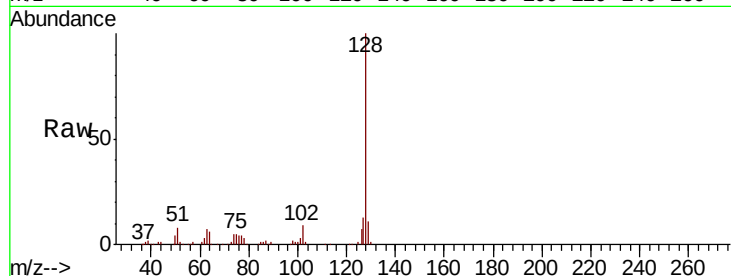
Tot Ion:128 Resp: 123176

Ion Ratio Lower Upper

128 100

129 11.3 8.9 13.3

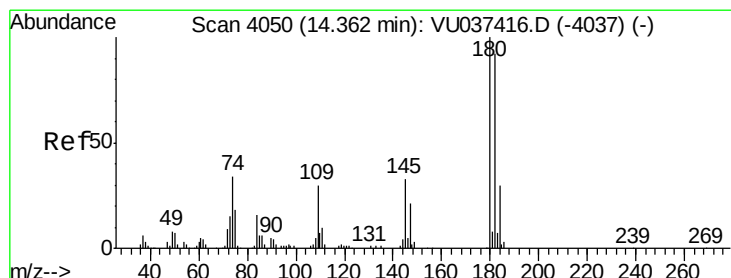
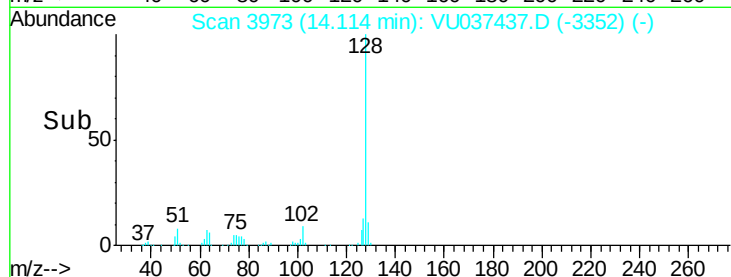
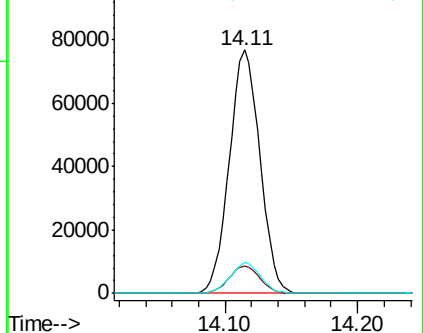
127 12.5 10.4 15.6



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: 4.525 ug/L

RT: 14.36 min Scan# 4050

Delta R.T. -0.00 min

Lab File: VU037437.D

Acq: 28 Mar 2020 23:32

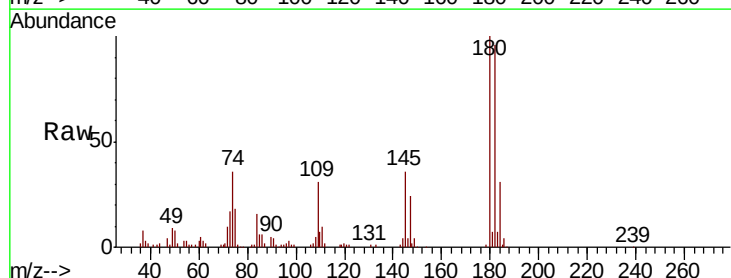
Tgt Ion:180 Resp: 52967

Ion Ratio Lower Upper

180 100

182 97.2 77.8 116.8

145 36.3 27.8 41.8



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

