

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\U112018\  
 Data File : VU028296.D  
 Acq On : 20 Nov 2018 22:31  
 Operator : MD/SY  
 Sample : J5986-19  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 29 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Nov 21 07:12:45 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR111718WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Wed Nov 21 07:07:52 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.89  | 114  | 136088   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.09  | 117  | 131928   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 57071    | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.40   | 65    | 36472    | 3.56     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 71.20%  |
| 7) Chloroethane-d5             | 1.68   | 69    | 35691    | 4.04     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 80.80%  |
| 11) 1,1-Dichloroethene-d2      | 2.28   | 63    | 53934    | 2.65     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 53.00%# |
| 20) 2-Butanone-d5              | 4.20   | 46    | 188874   | 55.11    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 110.22% |
| 24) Chloroform-d               | 4.65   | 84    | 80700    | 4.22     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 84.40%  |
| 26) 1,2-Dichloroethane-d4      | 5.31   | 65    | 46890    | 4.44     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 88.80%  |
| 32) Benzene-d6                 | 5.34   | 84    | 148188   | 3.90     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 78.00%  |
| 36) 1,2-Dichloropropane-d6     | 6.33   | 67    | 60395    | 4.38     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 87.60%  |
| 41) Toluene-d8                 | 7.57   | 98    | 118954   | 3.50     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 70.00%  |
| 43) trans-1,3-Dichloropropene- | 7.85   | 79    | 16700    | 3.79     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 75.80%  |
| 46) 2-Hexanone-d5              | 8.31   | 63    | 129943   | 49.19    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 98.38%  |
| 57) 1,1,2,2-Tetrachloroethane- | 10.43  | 84    | 48724    | 4.89     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 97.80%  |
| 64) 1,2-Dichlorobenzene-d4     | 11.86  | 152   | 48255    | 4.55     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 91.00%  |

## Target Compounds

| Target Compounds             | R.T.  | QIon | Response | Conc    | Units  | Ovalue |
|------------------------------|-------|------|----------|---------|--------|--------|
| 5) Vinyl chloride            | 1.40  | 62   | 20729    | 1.501   | ug/L   | 94     |
| 12) 1,1-Dichloroethene       | 2.28  | 96   | 625      | 0.075   | ug/L # | 1      |
| 13) Acetone                  | 2.31  | 43   | 1899     | 0.806   | ug/L   | 62     |
| 17) Methyl tert-butyl Ether  | 3.01  | 73   | 3913059  | 155.482 | ug/L   | 98     |
| 18) trans-1,2-Dichloroethene | 2.98  | 96   | 6837     | 0.766   | ug/L   | 87     |
| 19) 1,1-Dichloroethane       | 3.44  | 63   | 6330     | 0.306   | ug/L   | 96     |
| 22) cis-1,2-Dichloroethene   | 4.23  | 96   | 199564   | 18.918  | ug/L   | 92     |
| 25) Chloroform               | 4.67  | 83   | 1356     | 0.061   | ug/L # | 66     |
| 33) Benzene                  | 5.39  | 78   | 9255     | 0.213   | ug/L   | 100    |
| 34) Trichloroethene          | 6.19  | 95   | 4254     | 0.399   | ug/L   | 86     |
| 35) Methylcyclohexane        | 6.33  | 83   | 11974    | 0.713   | ug/L # | 14     |
| 37) 1,2-Dichloropropane      | 6.33  | 63   | 6368     | 0.513   | ug/L # | 92     |
| 39) cis-1,3-Dichloropropene  | 7.23  | 75   | 1265     | 0.080   | ug/L # | 82     |
| 48) 2-Hexanone               | 8.37  | 43   | 3537     | 0.559   | ug/L # | 95     |
| 56) Isopropylbenzene         | 10.17 | 105  | 2210     | 0.050   | ug/L # | 89     |
| 59) 1,2,3-Trichloropropane   | 11.48 | 75   | 8016     | 1.117   | ug/L # | 86     |

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ALS Vial : 29 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :

Quant Time: Nov 21 07:12:45 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR111718WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Wed Nov 21 07:07:52 2018  
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|------|------|----------|------|-------|----------|
|--------------------|------|------|----------|------|-------|----------|

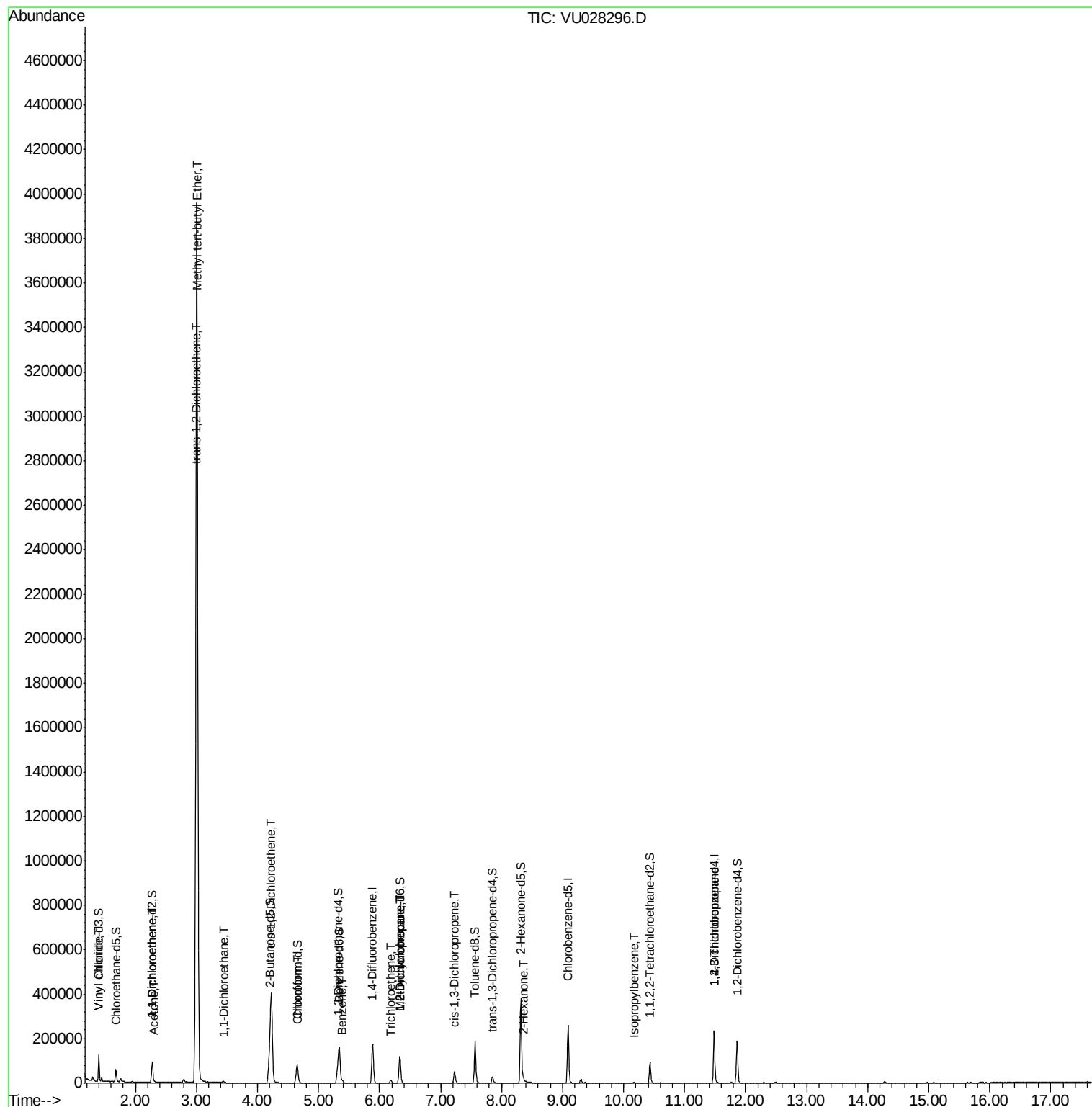
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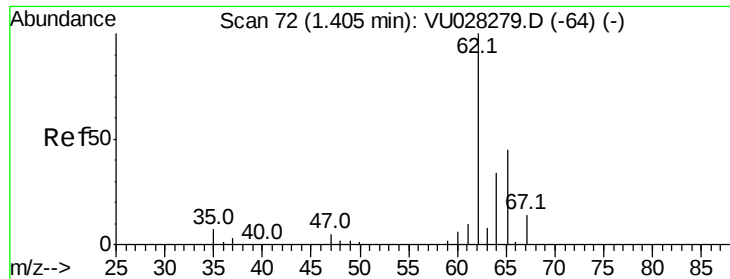
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : TRACE VOA SOM01.0  
QLast Update : Wed Nov 21 07:07:52 2018  
Response via : Initial Calibration





#5

Vinyl chloride

Concen: 1.501 ug/L

RT: 1.40 min Scan# 72

Delta R.T. -0.00 min

Lab File: VU028296.D

Acq: 20 Nov 2018 22:31

Instrument :

MSVOA\_U

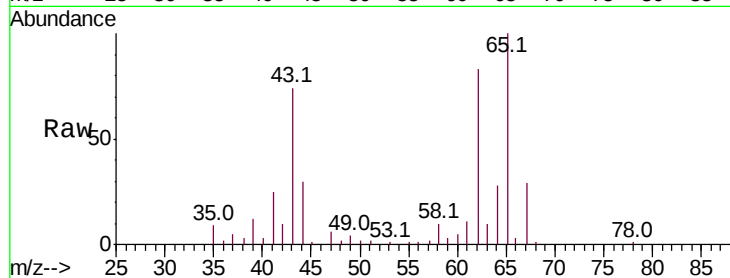
ClientSampled :

Tot Ion: 62 Resp: 20729

Ion Ratio Lower Upper

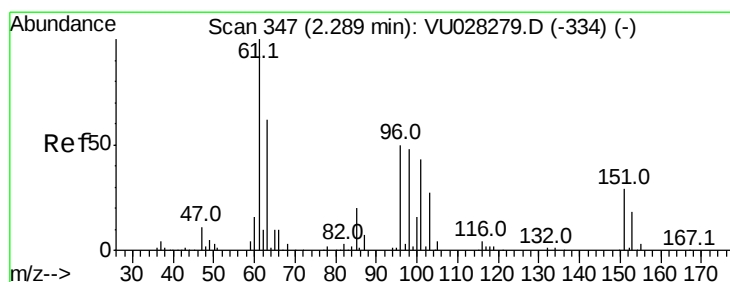
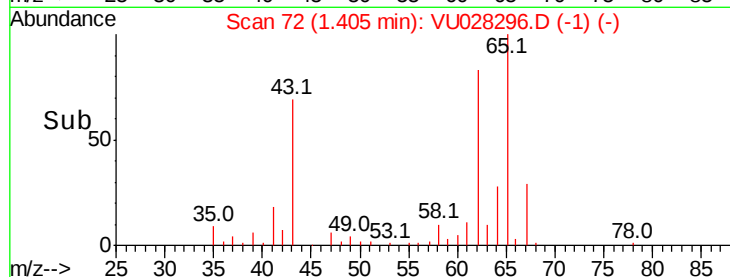
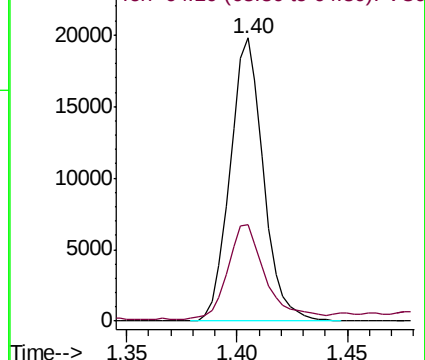
62 100

64 34.1 21.7 40.3



Abundance Ion 62.00 (61.70 to 62.70): VU0

Ion 64.10 (63.80 to 64.80): VU0



#12

1,1-Dichloroethene

Concen: 0.075 ug/L

RT: 2.28 min Scan# 343

Delta R.T. -0.01 min

Lab File: VU028296.D

Acq: 20 Nov 2018 22:31

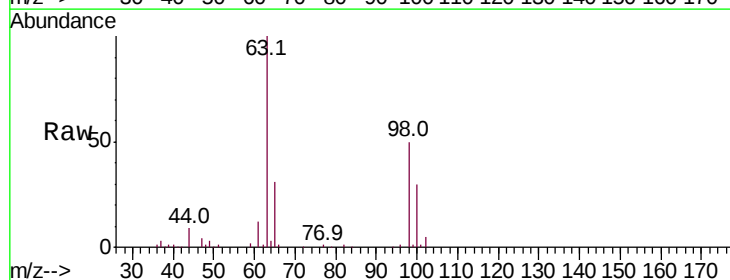
Tgt Ion: 96 Resp: 625

Ion Ratio Lower Upper

96 100

61 868.9 145.5 270.1#

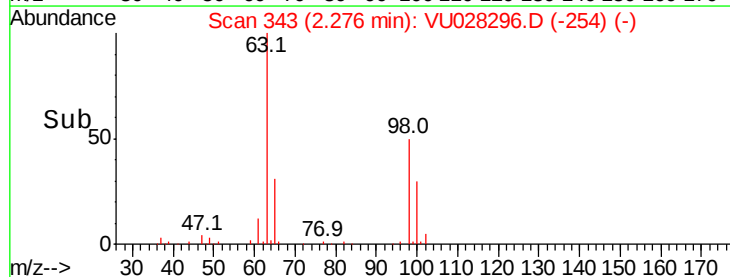
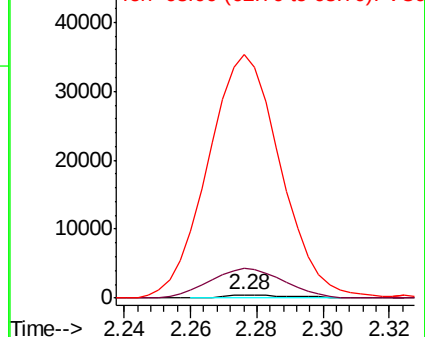
63 7079.8 98.6 183.2#

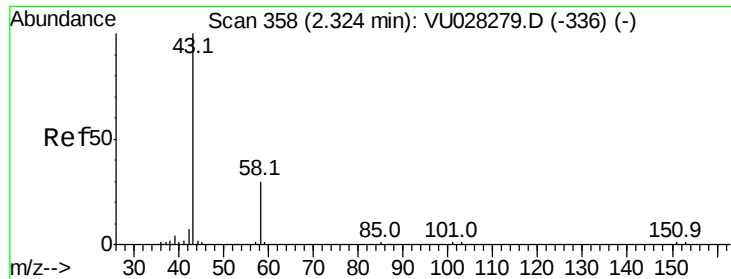


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.05 (60.75 to 61.75): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 0.806 ug/L

RT: 2.31 min Scan# 353

Delta R.T. -0.02 min

Lab File: VU028296.D

Acq: 20 Nov 2018 22:31

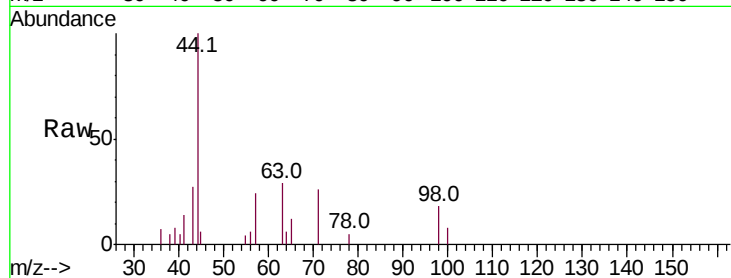
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 43 Resp: 1899

Ion Ratio Lower Upper

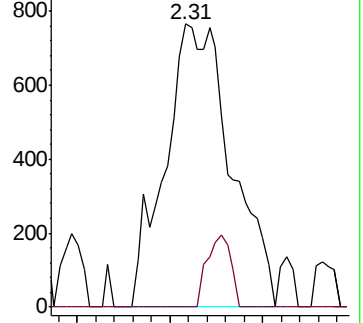
43 100

58 9.1 0.0 58.6

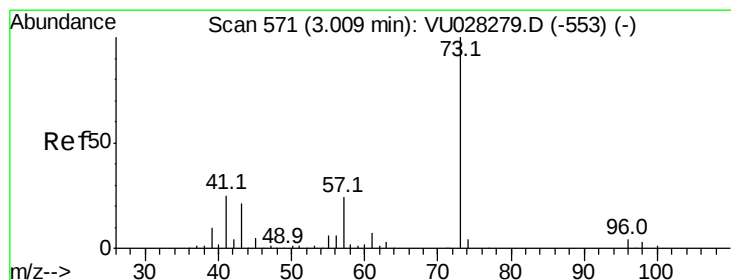
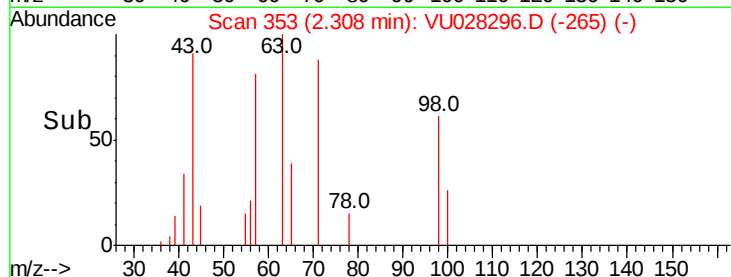


Abundance Ion 43.05 (42.75 to 43.75): VU0

Ion 58.05 (57.75 to 58.75): VU0



Time-->



#17

Methyl tert-butyl Ether

Concen: 155.482 ug/L

RT: 3.01 min Scan# 570

Delta R.T. -0.00 min

Lab File: VU028296.D

Acq: 20 Nov 2018 22:31

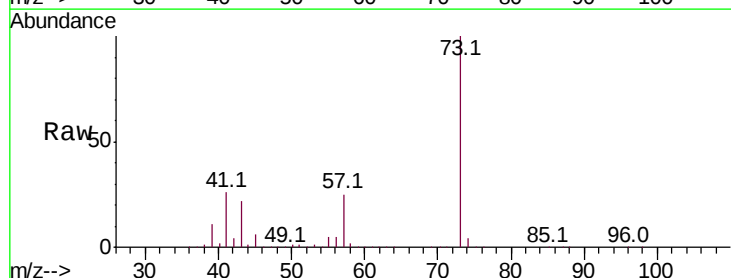
Tgt Ion: 73 Resp: 3913059

Ion Ratio Lower Upper

73 100

43 22.0 18.8 28.2

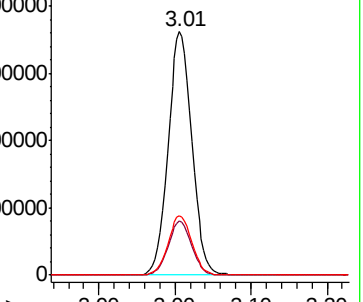
57 24.6 19.2 28.8



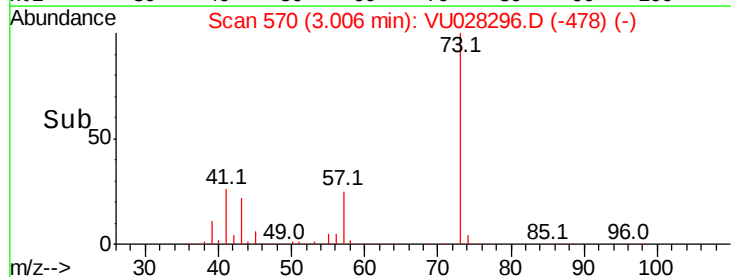
Abundance Ion 73.10 (72.80 to 73.80): VU0

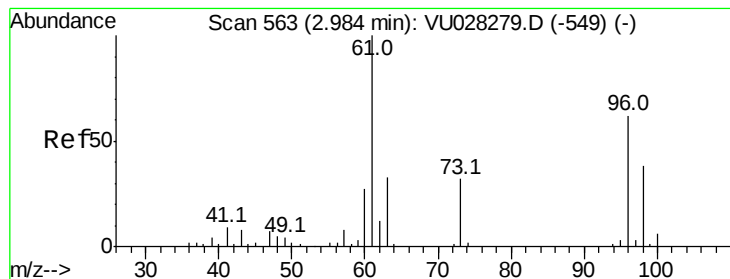
Ion 43.05 (42.75 to 43.75): VU0

Ion 57.10 (56.80 to 57.80): VU0



Time-->





#18

trans-1,2-Dichloroethene

Concen: 0.766 ug/L

RT: 2.98 min Scan# 563

Delta R.T. -0.00 min

Lab File: VU028296.D

Acq: 20 Nov 2018 22:31

Instrument :  
MSVOA\_U  
ClientSampleId :

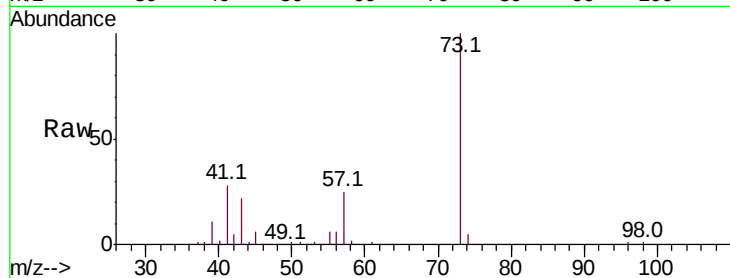
Tot Ion: 96 Resp: 6837

Ion Ratio Lower Upper

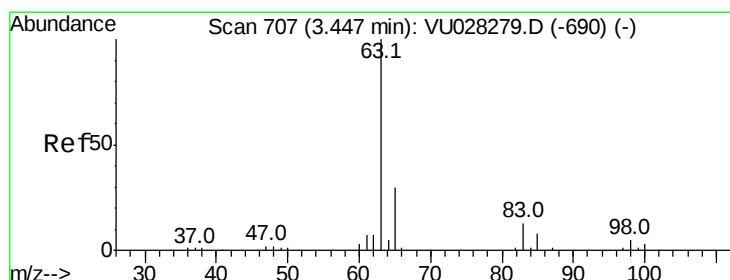
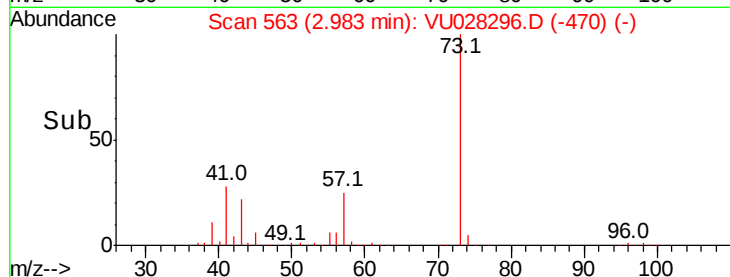
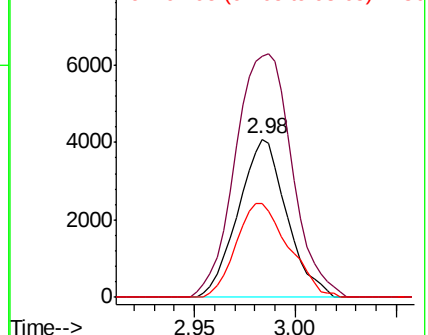
96 100

61 152.8 122.2 227.0

98 59.1 44.9 83.5



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: 0.306 ug/L

RT: 3.44 min Scan# 706

Delta R.T. -0.00 min

Lab File: VU028296.D

Acq: 20 Nov 2018 22:31

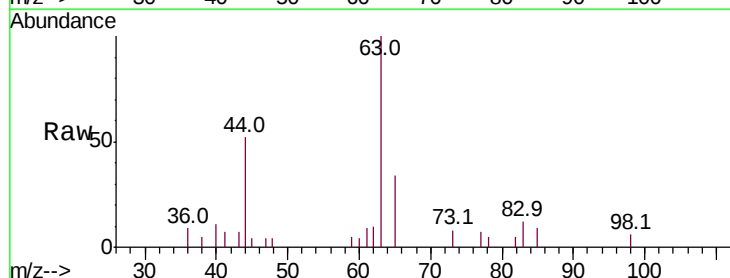
Tgt Ion: 63 Resp: 6330

Ion Ratio Lower Upper

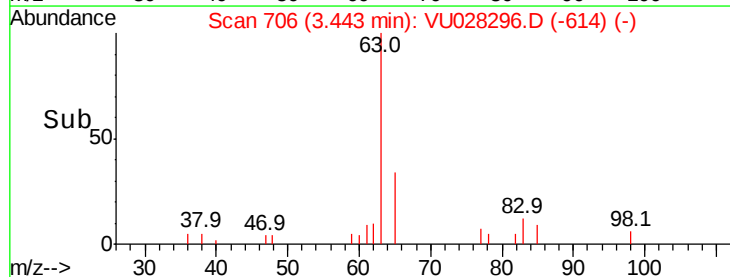
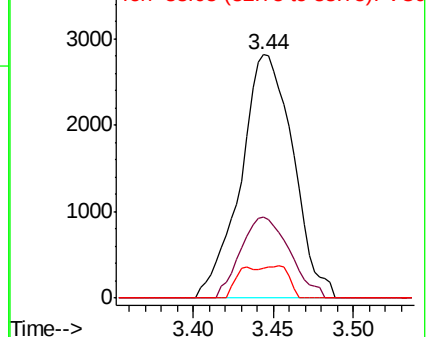
63 100

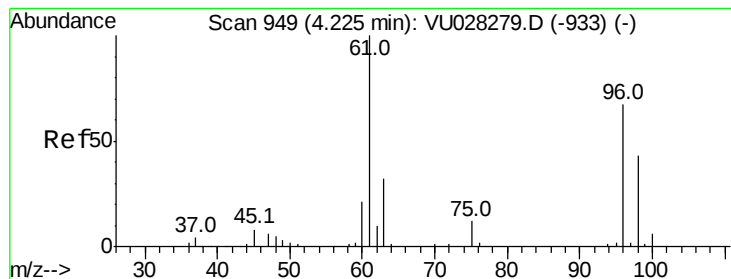
65 33.5 21.2 39.4

83 12.3 8.8 16.4



Abundance Ion 63.10 (62.80 to 63.80): VU0  
Ion 65.10 (64.80 to 65.80): VU0  
Ion 83.05 (82.75 to 83.75): VU0



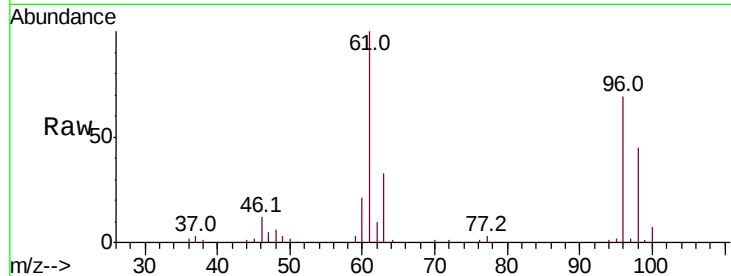


#22

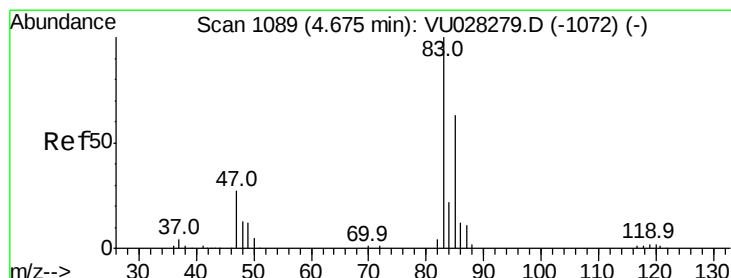
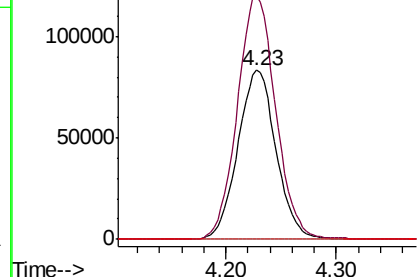
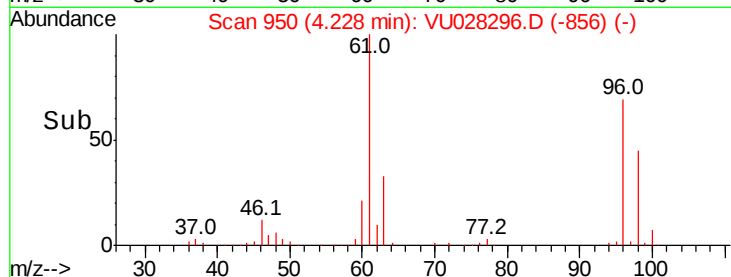
cis-1,2-Dichloroethene  
 Concen: 18.918 ug/L  
 RT: 4.23 min Scan# 950  
 Delta R.T. 0.00 min  
 Lab File: VU028296.D  
 Acq: 20 Nov 2018 22:31

Instrument :  
 MSVOA\_U  
 ClientSampled :

Tot Ion: 96 Resp: 199564  
 Ion Ratio Lower Upper  
 96 100  
 61 144.1 108.0 200.6  
 68 0.0 0.0 0.0



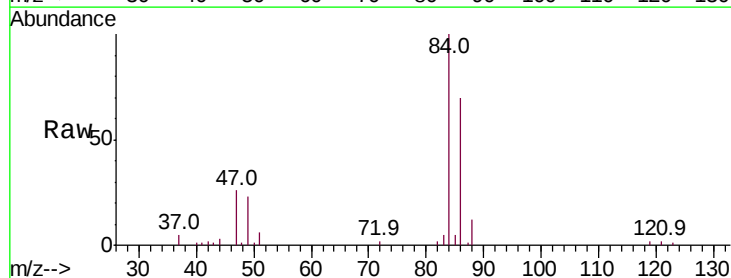
Abundance Ion 96.00 (95.70 to 96.70): VU0  
 Ion 61.05 (60.75 to 61.75): VU0  
 Ion 68.15 (67.85 to 68.85): VU0



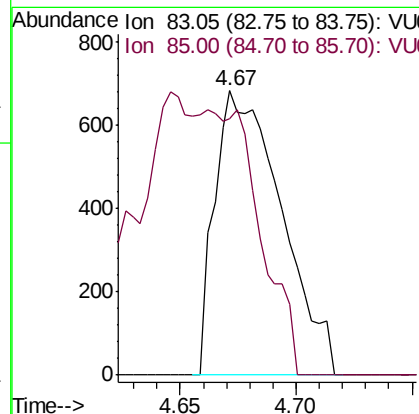
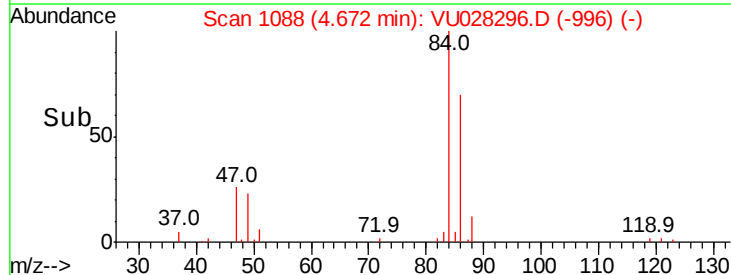
#25

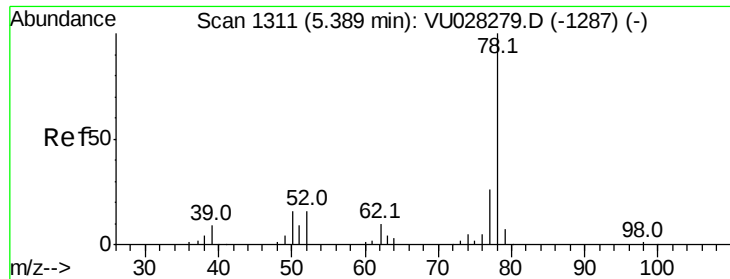
Chloroform  
 Concen: 0.061 ug/L  
 RT: 4.67 min Scan# 1088  
 Delta R.T. -0.00 min  
 Lab File: VU028296.D  
 Acq: 20 Nov 2018 22:31

Tgt Ion: 83 Resp: 1356  
 Ion Ratio Lower Upper  
 83 100  
 85 90.0 44.6 82.8#



Abundance Ion 83.05 (82.75 to 83.75): VU0  
 Ion 85.00 (84.70 to 85.70): VU0

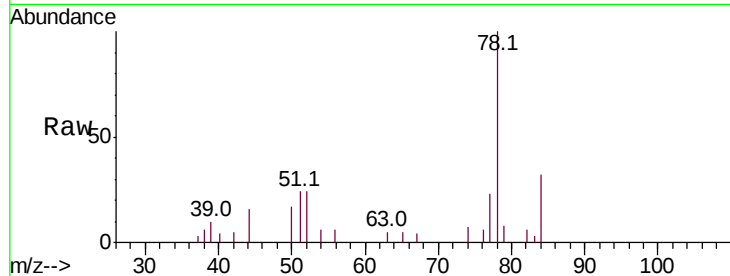




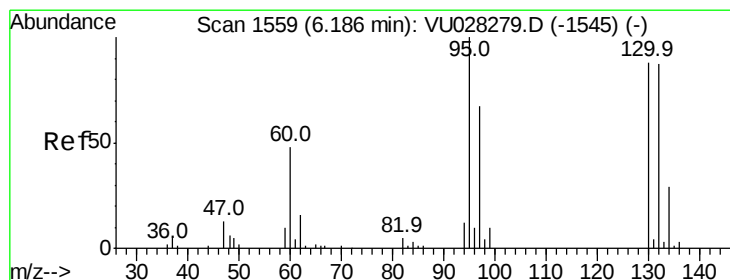
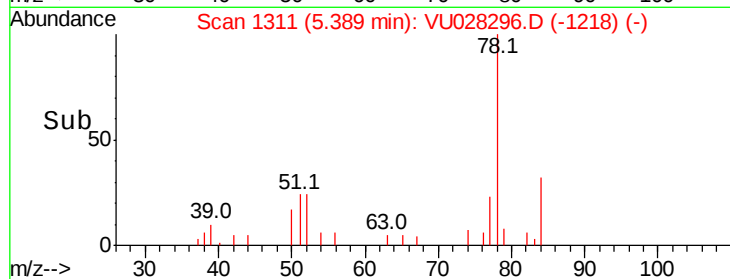
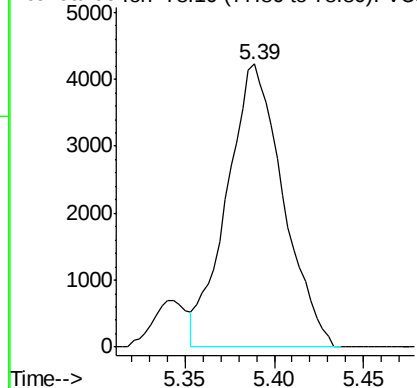
#33  
Benzene  
Concen: 0.213 ug/L  
RT: 5.39 min Scan# 1311  
Delta R.T. -0.00 min  
Lab File: VU028296.D  
Acq: 20 Nov 2018 22:31

Instrument :  
MSVOA\_U  
ClientSampled :

Tgt Ion: 78 Resp: 9255



Abundance Ion 78.10 (77.80 to 78.80): VU0

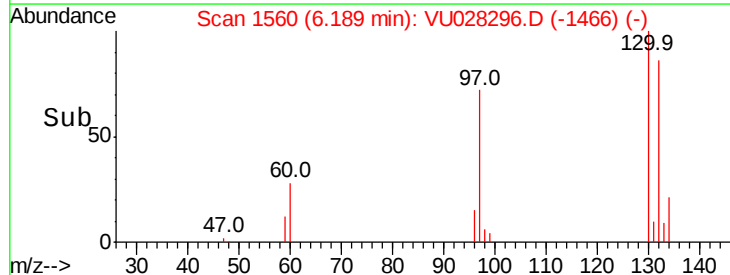
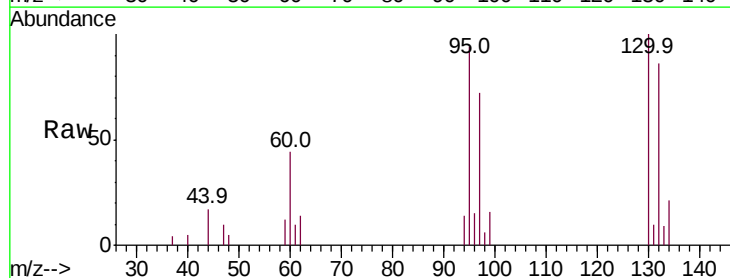
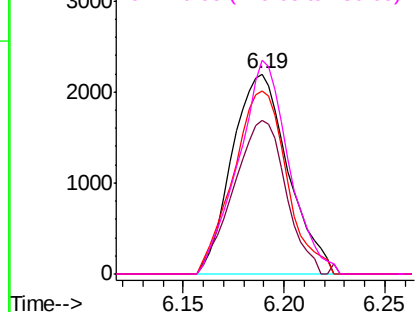


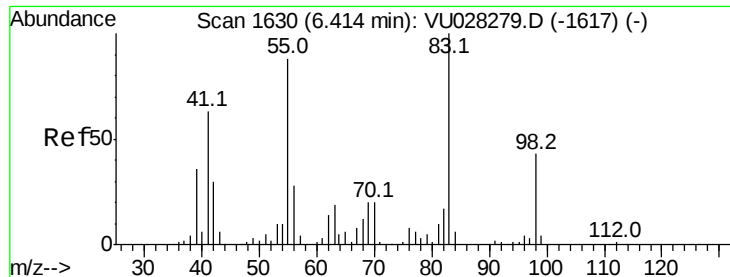
#34  
Trichloroethene  
Concen: 0.399 ug/L  
RT: 6.19 min Scan# 1560  
Delta R.T. 0.00 min  
Lab File: VU028296.D  
Acq: 20 Nov 2018 22:31

Tgt Ion: 95 Resp: 4254  
Ion Ratio Lower Upper  
95 100  
97 76.6 46.5 86.3  
132 91.9 58.9 109.3  
130 106.9 61.3 113.9

Abundance Ion 95.00 (94.70 to 95.70): VU0

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

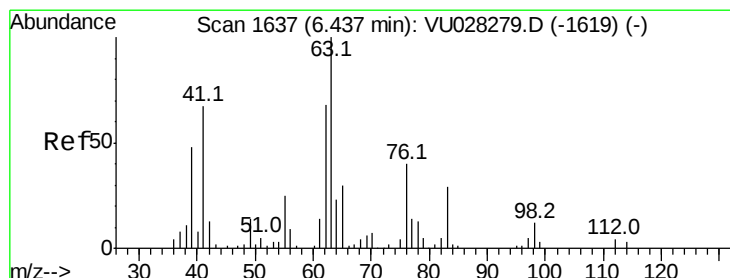
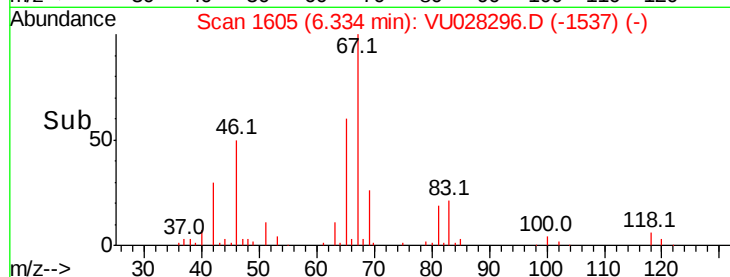
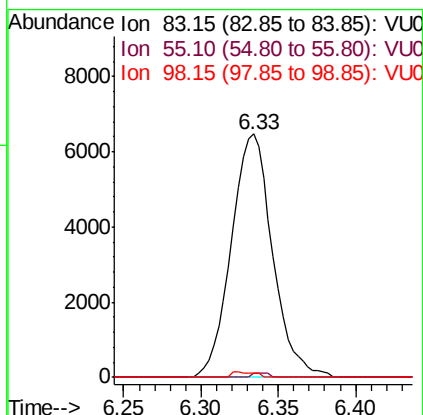
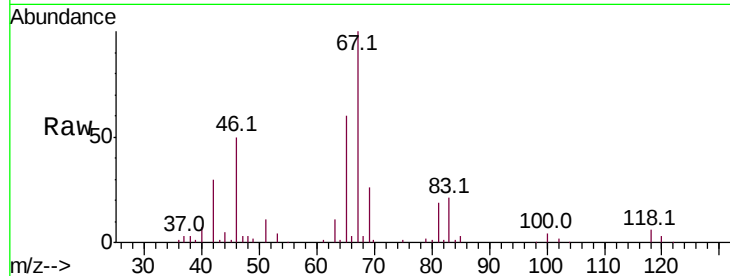




#35  
Methylcyclohexane  
Concen: 0.713 ug/L  
RT: 6.33 min Scan# 1605  
Delta R.T. -0.08 min  
Lab File: VU028296.D  
Acq: 20 Nov 2018 22:31

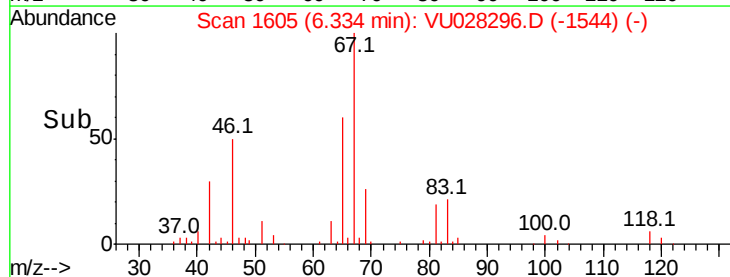
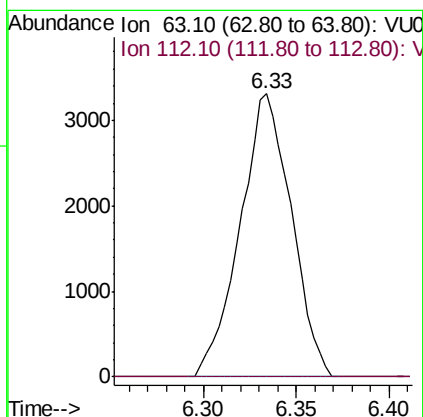
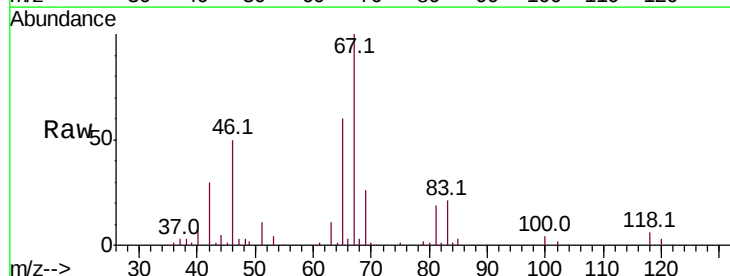
Instrument :  
MSVOA\_U  
ClientSampleId :

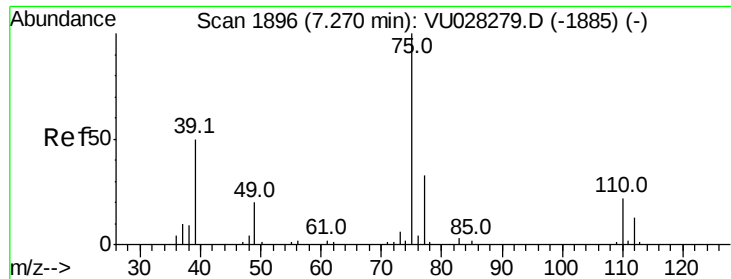
Tot Ion: 83 Resp: 11974  
Ion Ratio Lower Upper  
83 100  
55 0.7 73.2 109.8#  
98 1.2 33.4 50.2#



#37  
1,2-Dichloropropane  
Concen: 0.513 ug/L  
RT: 6.33 min Scan# 1605  
Delta R.T. -0.10 min  
Lab File: VU028296.D  
Acq: 20 Nov 2018 22:31

Tgt Ion: 63 Resp: 6368  
Ion Ratio Lower Upper  
63 100  
112 0.0 2.2 3.2#



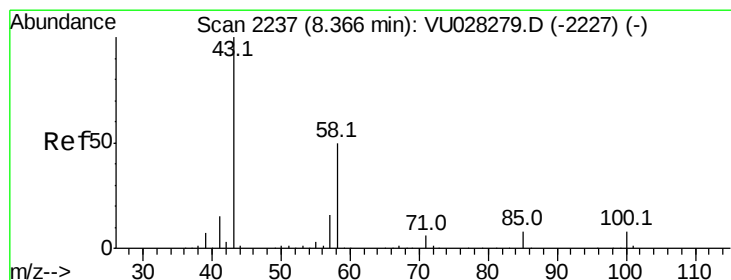
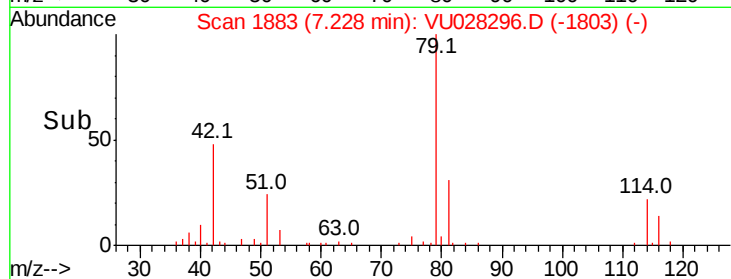
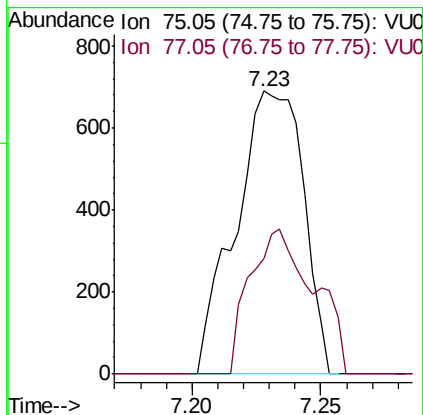
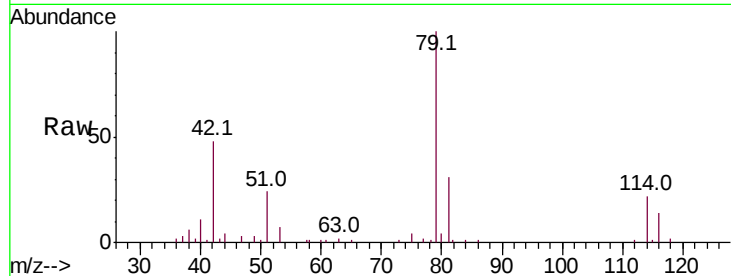


#39

cis-1,3-Dichloropropene  
 Concen: 0.080 ug/L  
 RT: 7.23 min Scan# 1883  
 Delta R.T. -0.04 min  
 Lab File: VU028296.D  
 Acq: 20 Nov 2018 22:31

Instrument :  
 MSVOA\_U  
 ClientSampleId :

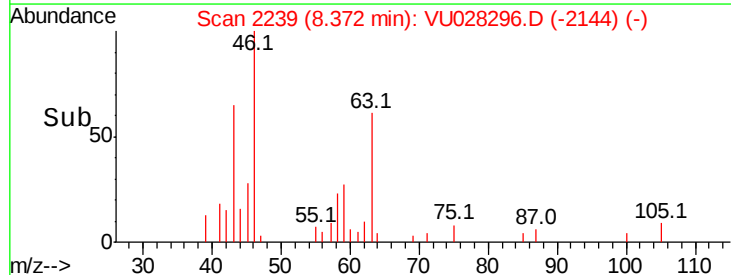
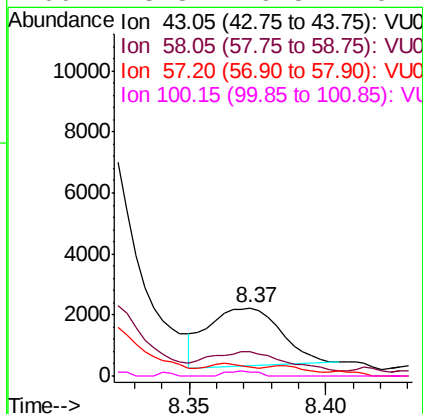
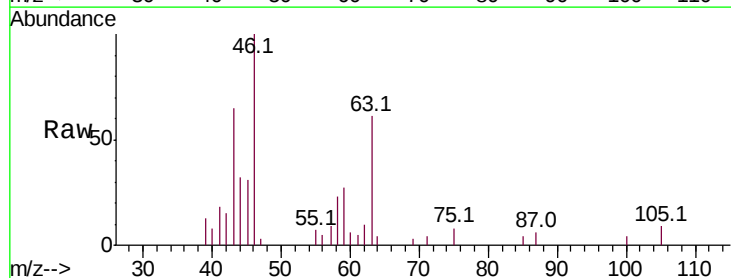
Tot Ion: 75 Resp: 1265  
 Ion Ratio Lower Upper  
 75 100  
 77 40.9 21.7 40.3#

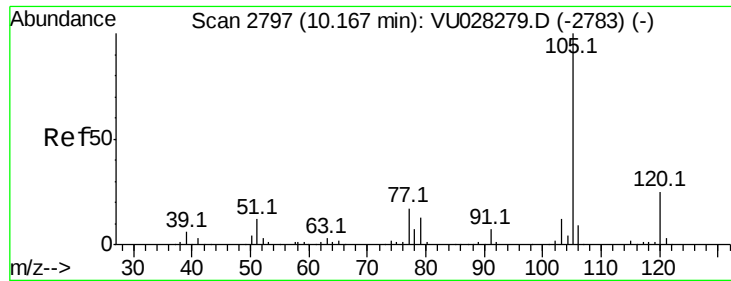


#48

2-Hexanone  
 Concen: 0.559 ug/L  
 RT: 8.37 min Scan# 2239  
 Delta R.T. 0.01 min  
 Lab File: VU028296.D  
 Acq: 20 Nov 2018 22:31

Tgt Ion: 43 Resp: 3537  
 Ion Ratio Lower Upper  
 43 100  
 58 49.8 41.1 61.7  
 57 12.7 13.8 20.8#  
 100 3.8 6.5 9.7#





#56

Isopropylbenzene

Concen: 0.050 ug/L

RT: 10.17 min Scan# 2798

Delta R.T. 0.00 min

Lab File: VU028296.D

Acq: 20 Nov 2018 22:31

Instrument :

MSVOA\_U

ClientSampleId :

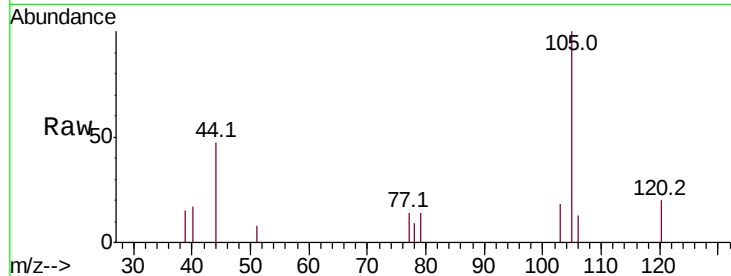
Tot Ion:105 Resp: 2210

Ion Ratio Lower Upper

105 100

120 20.8 20.3 30.5

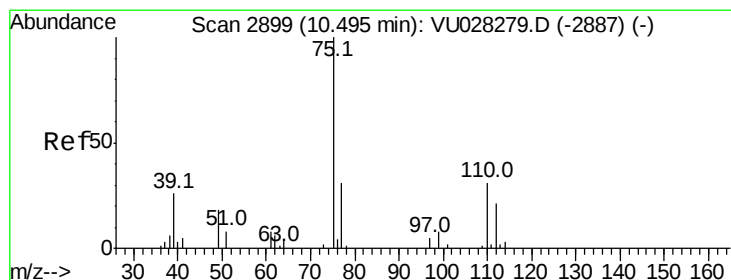
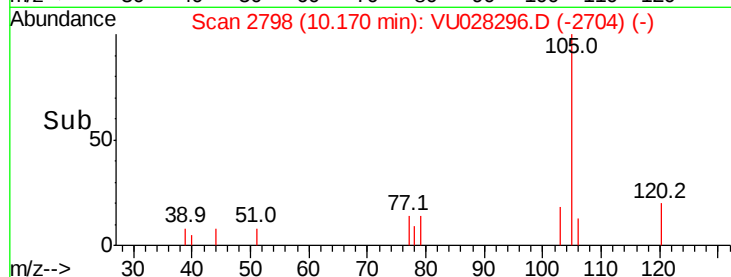
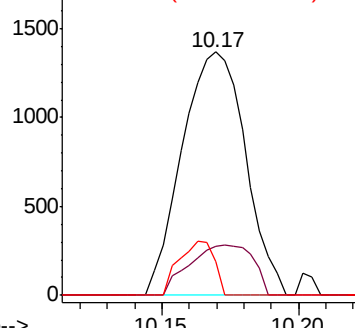
77 12.4 14.5 21.7#



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): VU



#59

1,2,3-Trichloropropane

Concen: 1.117 ug/L

RT: 11.48 min Scan# 3207

Delta R.T. 0.99 min

Lab File: VU028296.D

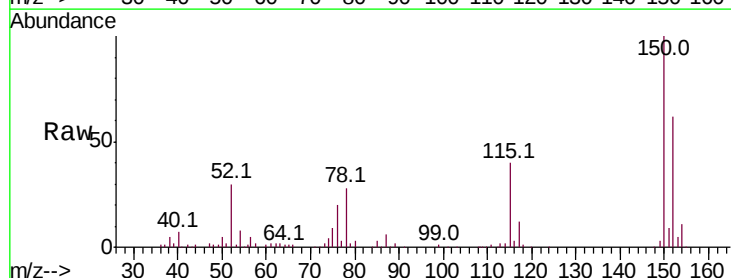
Acq: 20 Nov 2018 22:31

Tgt Ion: 75 Resp: 8016

Ion Ratio Lower Upper

75 100

77 39.8 25.7 38.5#



Abundance Ion 75.00 (74.70 to 75.70): VU

Ion 77.00 (76.70 to 77.70): VU

