

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU060420\  
 Data File : VU038550.D  
 Acq On : 04 Jun 2020 15:42  
 Operator : SY/MD  
 Sample : L2873-02RE  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 ETTM7

Quant Time: Jun 05 01:14:13 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR053120WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Fri Jun 05 01:11:12 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.28  | 114  | 295181   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.44  | 117  | 290404   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.82 | 152  | 141103   | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.61   | 65    | 73435    | 3.84     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 76.80%  |
| 7) Chloroethane-d5             | 1.93   | 69    | 64409    | 4.39     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 87.80%  |
| 11) 1,1-Dichloroethene-d2      | 2.59   | 63    | 120669   | 3.21     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 64.20%  |
| 20) 2-Butanone-d5              | 4.68   | 46    | 299647   | 51.63    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 103.26% |
| 24) Chloroform-d               | 5.10   | 84    | 171437   | 4.78     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 95.60%  |
| 26) 1,2-Dichloroethane-d4      | 5.74   | 65    | 100850   | 4.95     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 99.00%  |
| 32) Benzene-d6                 | 5.76   | 84    | 341658   | 4.71     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 94.20%  |
| 36) 1,2-Dichloropropane-d6     | 6.72   | 67    | 107368   | 4.82     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 96.40%  |
| 41) Toluene-d8                 | 7.92   | 98    | 288341   | 4.43     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 88.60%  |
| 43) trans-1,3-Dichloropropene- | 8.20   | 79    | 41689    | 4.35     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 87.00%  |
| 46) 2-Hexanone-d5              | 8.65   | 63    | 259950   | 54.90    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 109.80% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.77  | 84    | 93574    | 4.94     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 98.80%  |
| 64) 1,2-Dichlorobenzene-d4     | 12.20  | 152   | 119696   | 4.92     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 98.40%  |

## Target Compounds

|                              |      |     |       |              | Ovalue |
|------------------------------|------|-----|-------|--------------|--------|
| 5) Vinyl chloride            | 1.62 | 62  | 18172 | 0.794 ug/L # | 1      |
| 8) Chloroethane              | 1.95 | 64  | 4950  | 0.361 ug/L # | 59     |
| 12) 1,1-Dichloroethene       | 2.60 | 96  | 1452  | 0.080 ug/L # | 1      |
| 13) Acetone                  | 2.68 | 43  | 4084  | 1.075 ug/L   | 73     |
| 14) Carbon disulfide         | 2.82 | 76  | 6032  | 0.098 ug/L # | 94     |
| 18) trans-1,2-Dichloroethene | 3.38 | 96  | 8415  | 0.430 ug/L   | 98     |
| 19) 1,1-Dichloroethane       | 3.91 | 63  | 27022 | 0.771 ug/L   | 97     |
| 22) cis-1,2-Dichloroethene   | 4.71 | 96  | 33204 | 1.574 ug/L   | 97     |
| 33) Benzene                  | 5.81 | 78  | 6920  | 0.085 ug/L   | 100    |
| 34) Trichloroethene          | 6.57 | 95  | 25407 | 1.209 ug/L   | 98     |
| 35) Methylcyclohexane        | 6.72 | 83  | 25470 | 0.783 ug/L # | 18     |
| 37) 1,2-Dichloropropane      | 6.72 | 63  | 11969 | 0.587 ug/L # | 87     |
| 39) cis-1,3-Dichloropropene  | 7.59 | 75  | 2807  | 0.093 ug/L # | 79     |
| 42) Toluene                  | 7.99 | 91  | 16011 | 0.189 ug/L   | 95     |
| 48) 2-Hexanone               | 8.71 | 43  | 13229 | 1.199 ug/L   | 94     |
| 51) Chlorobenzene            | 9.47 | 112 | 53836 | 0.983 ug/L   | 96     |
| 53) m,p-Xylene               | 9.71 | 106 | 4485  | 0.123 ug/L   | 93     |

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Misc : 25.0mL/MSVOA U/WATER  
ALS Vial : 8 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
ETTM7

Quant Time: Jun 05 01:14:13 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR053120WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Fri Jun 05 01:11:12 2020  
Response via : Initial Calibration

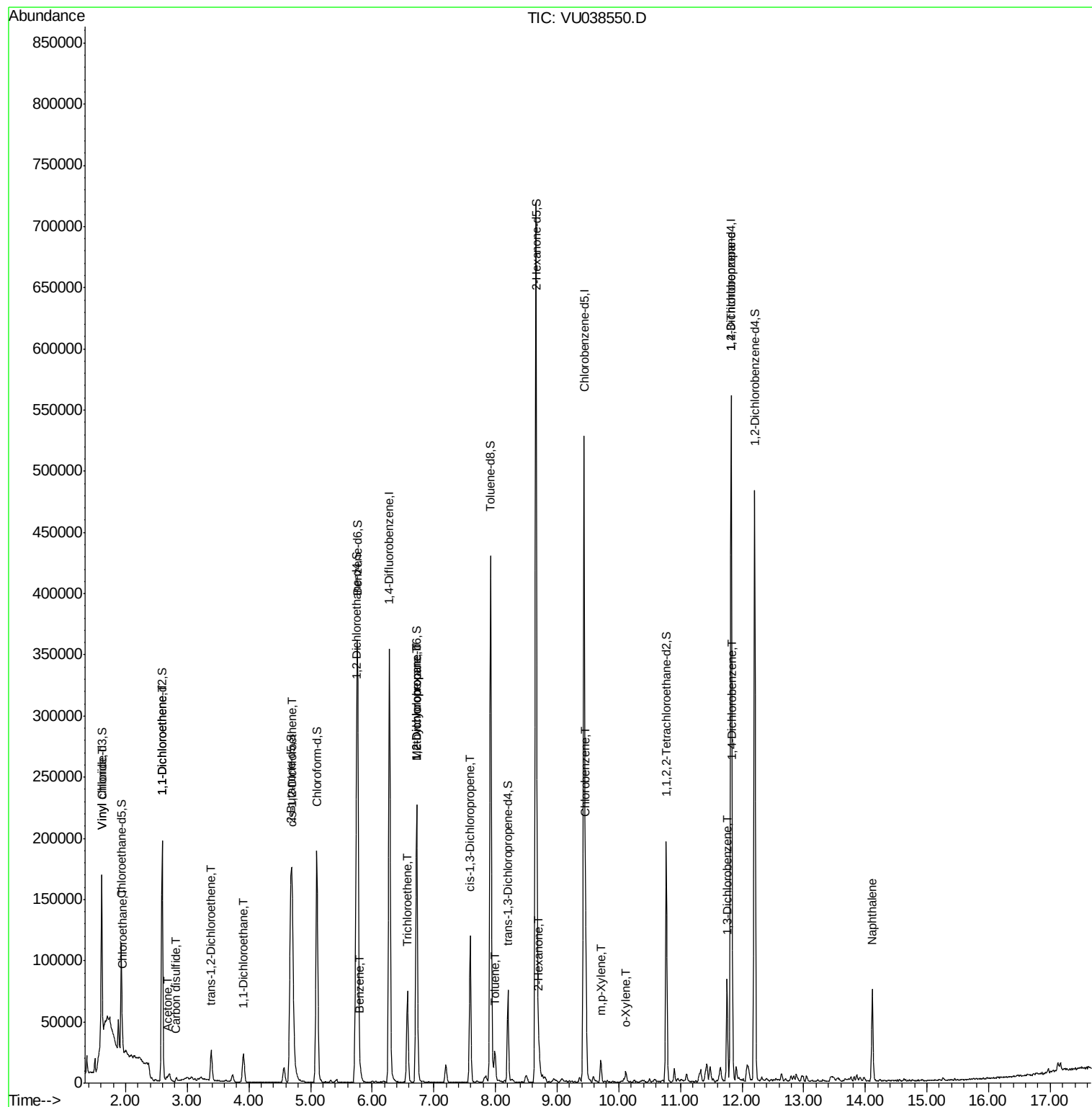
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|----------------------------|-------|------|----------|-------|--------|----------|
| 54) o-Xylene               | 10.11 | 106  | 2417     | 0.069 | ug/L   | 99       |
| 59) 1,2,3-Trichloropropane | 11.83 | 75   | 21001    | 1.381 | ug/L   | 98       |
| 62) 1,3-Dichlorobenzene    | 11.76 | 146  | 32306    | 0.779 | ug/L   | 93       |
| 63) 1,4-Dichlorobenzene    | 11.85 | 146  | 10460    | 0.249 | ug/L # | 81       |
| 69) Naphthalene            | 14.11 | 128  | 59926    | 1.052 | ug/L   | 99       |

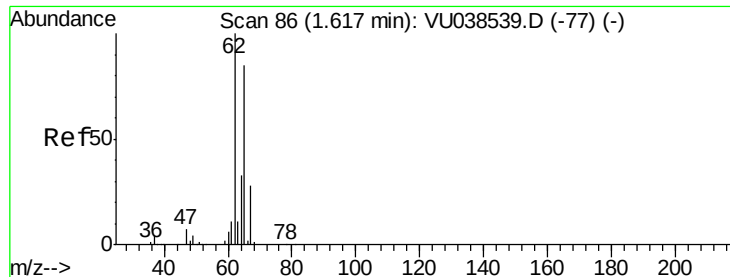
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU060420\  
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Quant Title : TRACE VOA SOM01.0  
QLast Update : Fri Jun 05 01:11:12 2020  
Response via : Initial Calibration





#5

Vinyl chloride

Concen: 0.794 ug/L

RT: 1.62 min Scan# 86

Delta R.T. -0.00 min

Lab File: VU038550.D

Acq: 04 Jun 2020 15:42

Instrument :

MSVOA\_U

ClientSampled :

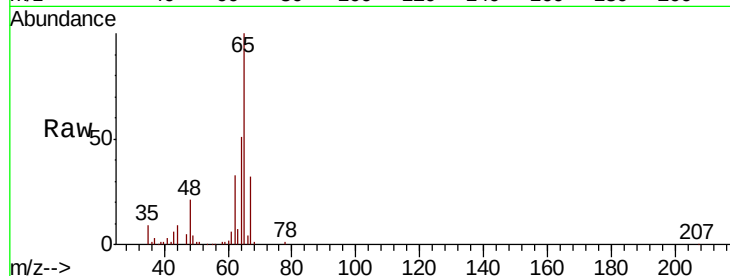
ETTM7

Tot Ion: 62 Resp: 18172

Ion Ratio Lower Upper

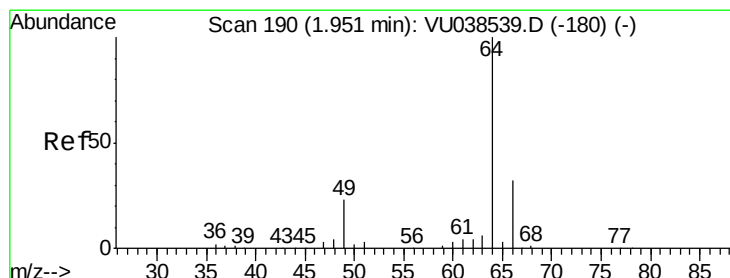
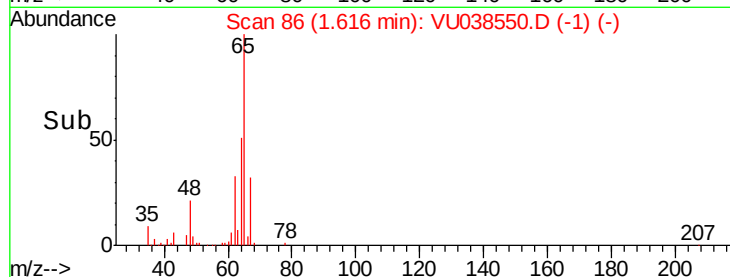
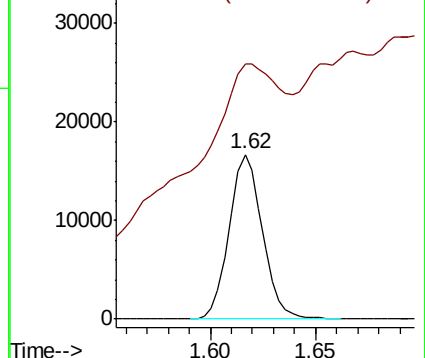
62 100

64 155.2 23.7 43.9#



Abundance Ion 62.00 (61.70 to 62.70): VU0

Ion 64.10 (63.80 to 64.80): VU0



#8

Chloroethane

Concen: 0.361 ug/L

RT: 1.95 min Scan# 191

Delta R.T. 0.00 min

Lab File: VU038550.D

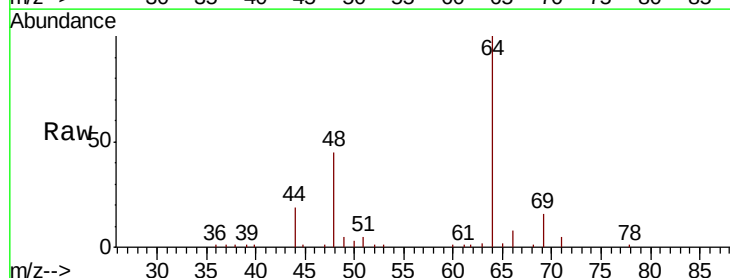
Acq: 04 Jun 2020 15:42

Tgt Ion: 64 Resp: 4950

Ion Ratio Lower Upper

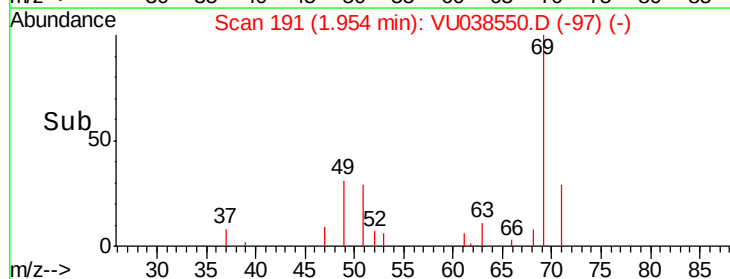
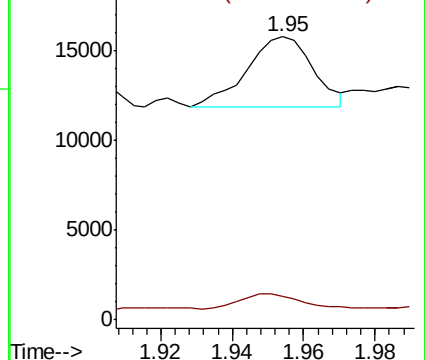
64 100

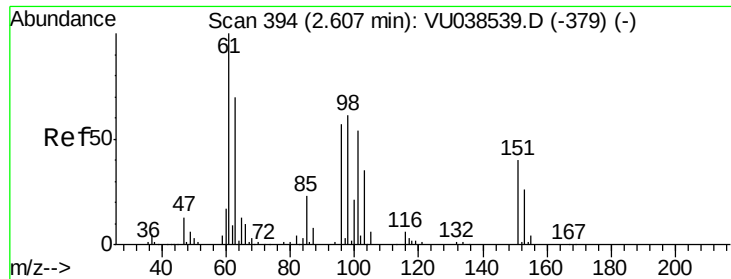
66 8.4 21.5 39.9#



Abundance Ion 64.10 (63.80 to 64.80): VU0

Ion 66.05 (65.75 to 66.75): VU0

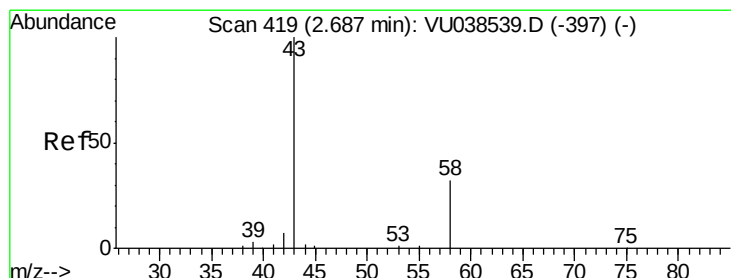
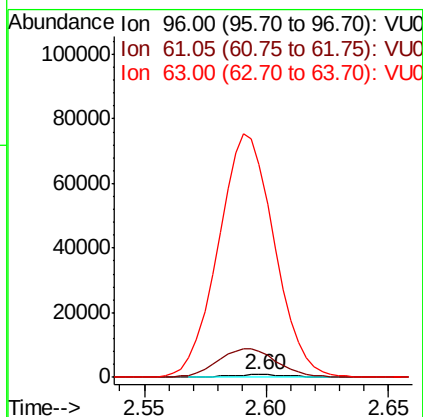
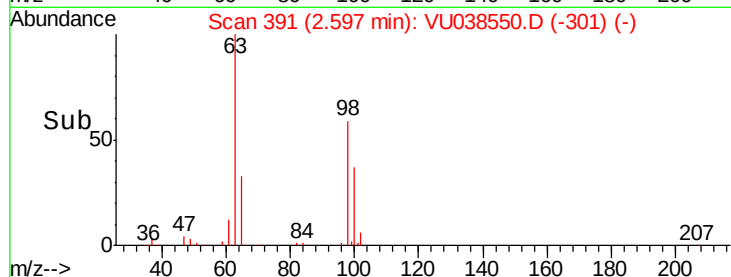
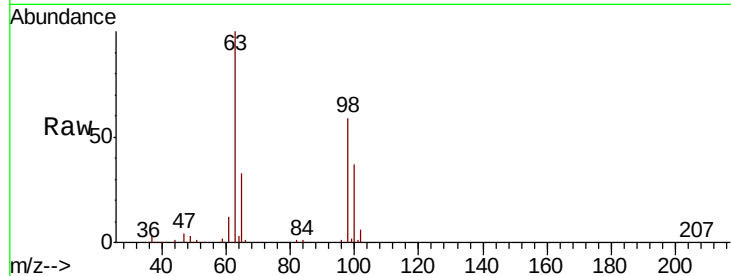




#12  
 1,1-Dichloroethene  
 Concen: 0.080 ug/L  
 RT: 2.60 min Scan# 391  
 Delta R.T. -0.01 min  
 Lab File: VU038550.D  
 Acq: 04 Jun 2020 15:42

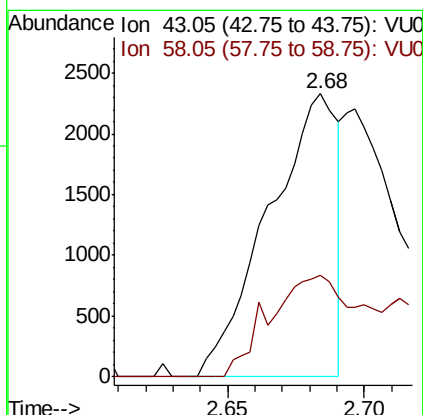
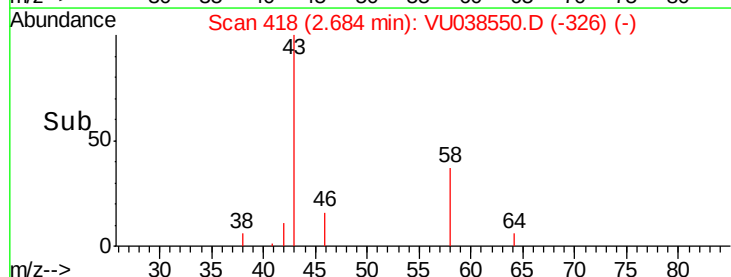
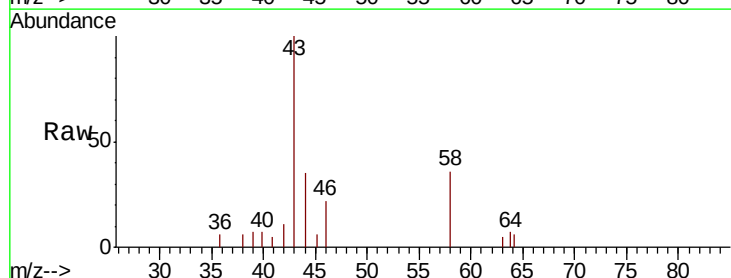
Instrument :  
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 ClientSampleId :  
 ETTM7

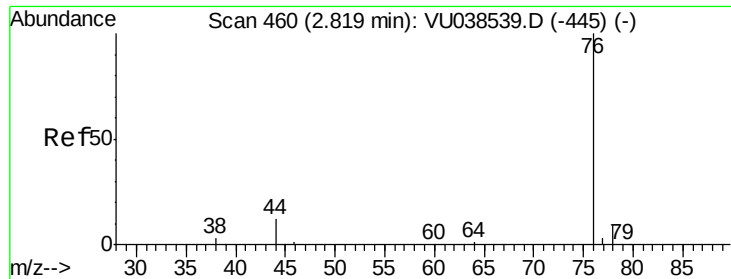
Tot Ion: 96 Resp: 1452  
 Ion Ratio Lower Upper  
 96 100  
 61 902.5 119.9 222.7#  
 63 7262.6 89.9 167.0#



#13  
 Acetone  
 Concen: 1.075 ug/L  
 RT: 2.68 min Scan# 418  
 Delta R.T. -0.00 min  
 Lab File: VU038550.D  
 Acq: 04 Jun 2020 15:42

Tgt Ion: 43 Resp: 4084  
 Ion Ratio Lower Upper  
 43 100  
 58 48.0 0.0 65.6





#14

Carbon disulfide

Concen: 0.098 ug/L

RT: 2.82 min Scan# 461

Delta R.T. 0.00 min

Lab File: VU038550.D

Acq: 04 Jun 2020 15:42

Instrument :

MSVOA\_U

ClientSampleId :

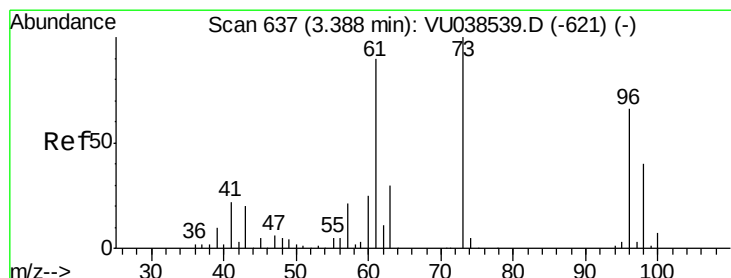
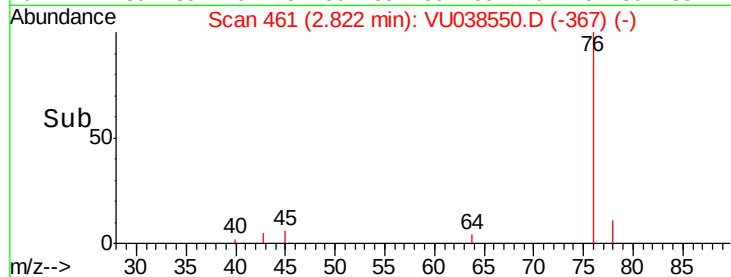
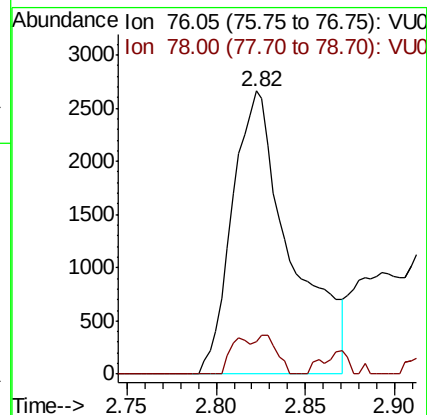
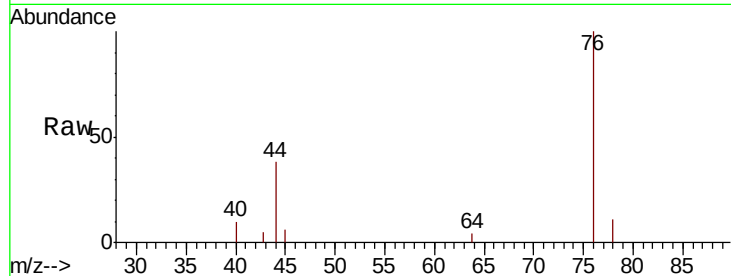
ETTM7

Tot Ion: 76 Resp: 6032

Ion Ratio Lower Upper

76 100

78 11.4 7.3 10.9#



#18

trans-1,2-Dichloroethene

Concen: 0.430 ug/L

RT: 3.38 min Scan# 636

Delta R.T. -0.00 min

Lab File: VU038550.D

Acq: 04 Jun 2020 15:42

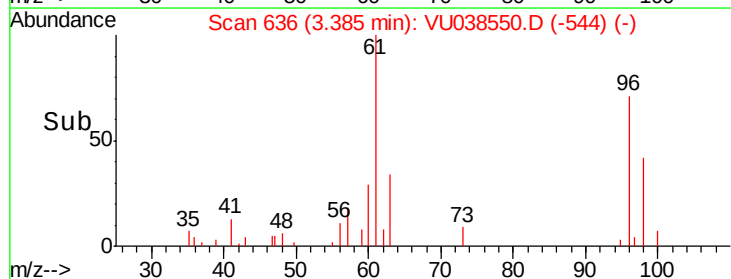
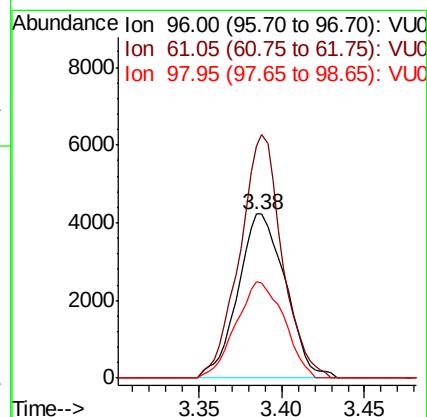
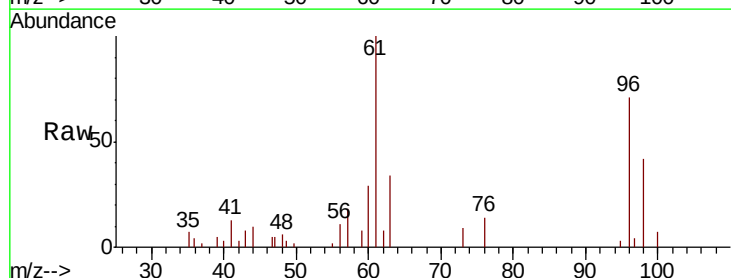
Tgt Ion: 96 Resp: 8415

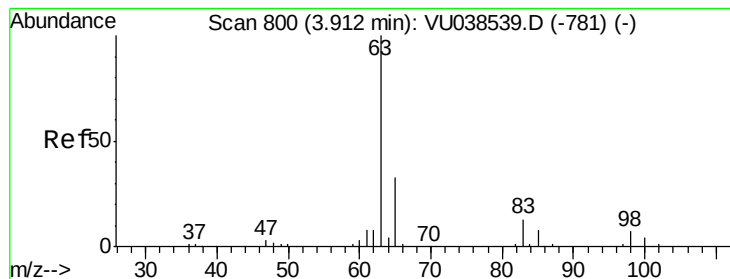
Ion Ratio Lower Upper

96 100

61 141.6 100.2 186.0

98 58.9 42.8 79.4





#19

1,1-Dichloroethane

Concen: 0.771 ug/L

RT: 3.91 min Scan# 800

Delta R.T. -0.00 min

Lab File: VU038550.D

Acq: 04 Jun 2020 15:42

Instrument :

MSVOA\_U

ClientSampled :

ETTM7

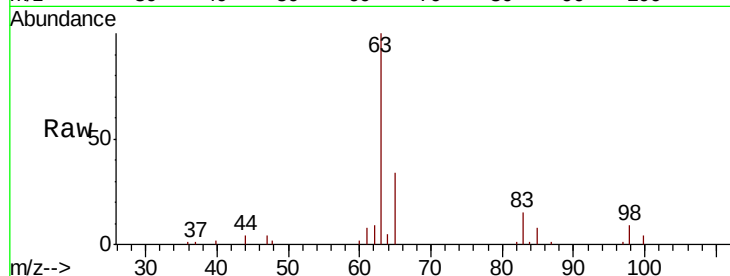
Tot Ion: 63 Resp: 27022

Ion Ratio Lower Upper

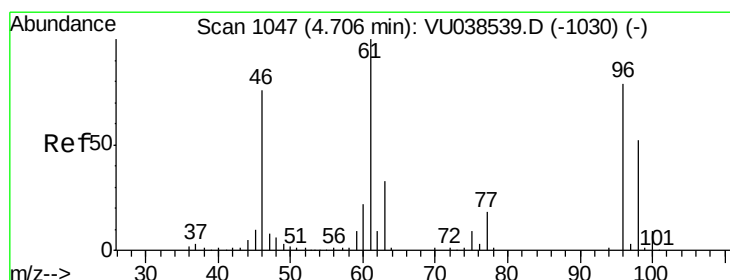
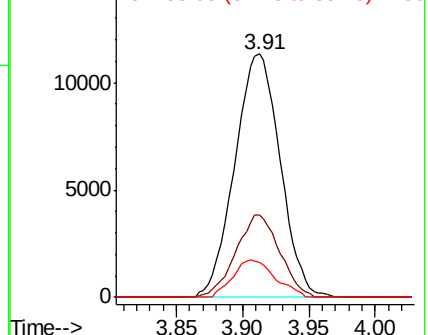
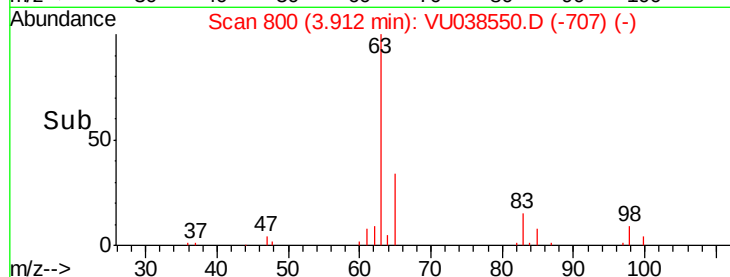
63 100

65 34.0 22.3 41.5

83 14.5 10.4 19.4



Abundance Ion 63.10 (62.80 to 63.80): VU038550.D (-707) (-)



#22

cis-1,2-Dichloroethene

Concen: 1.574 ug/L

RT: 4.71 min Scan# 1047

Delta R.T. -0.00 min

Lab File: VU038550.D

Acq: 04 Jun 2020 15:42

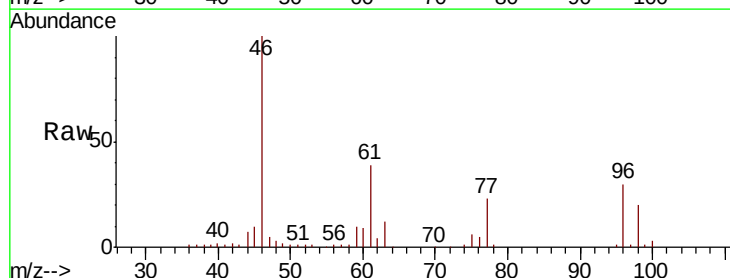
Tgt Ion: 96 Resp: 33204

Ion Ratio Lower Upper

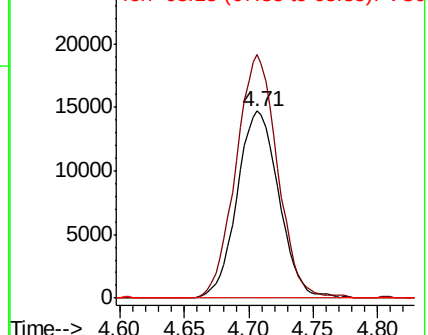
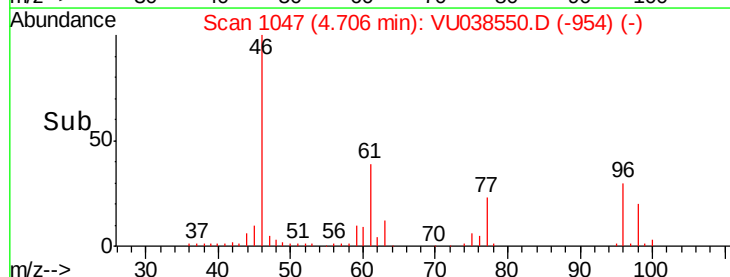
96 100

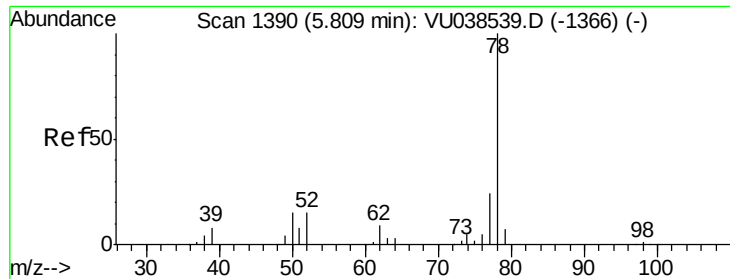
61 130.1 94.0 174.6

68 0.0 0.0 0.0



Abundance Ion 96.00 (95.70 to 96.70): VU038550.D (-954) (-)





#33

Benzene

Concen: 0.085 ug/L

RT: 5.81 min Scan# 1390

Delta R.T. -0.00 min

Lab File: VU038550.D

Acq: 04 Jun 2020 15:42

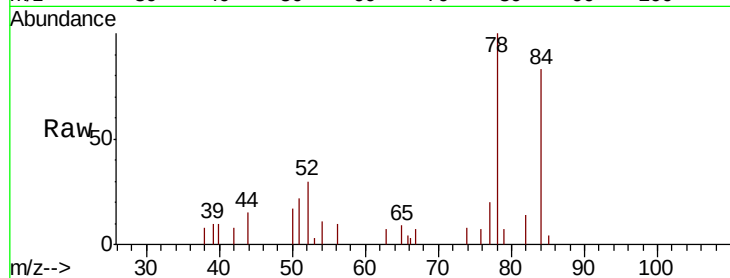
Instrument :

MSVOA\_U

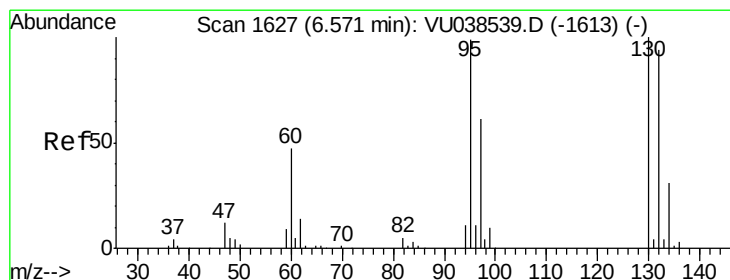
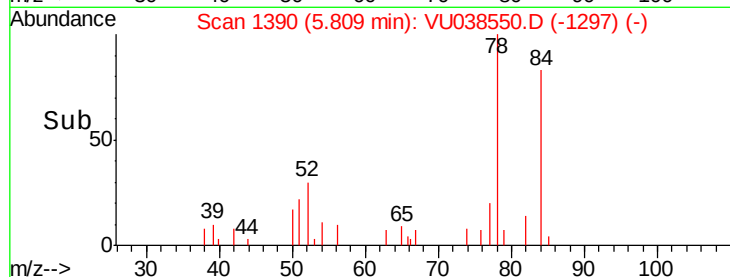
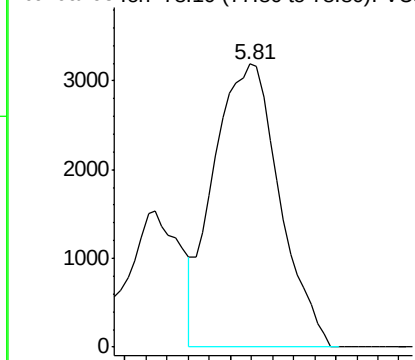
ClientSampled :

ETTM7

Tgt Ion: 78 Resp: 6920



Abundance Ion 78.10 (77.80 to 78.80): VU0



#34

Trichloroethene

Concen: 1.209 ug/L

RT: 6.57 min Scan# 1627

Delta R.T. -0.00 min

Lab File: VU038550.D

Acq: 04 Jun 2020 15:42

Tgt Ion: 95 Resp: 25407

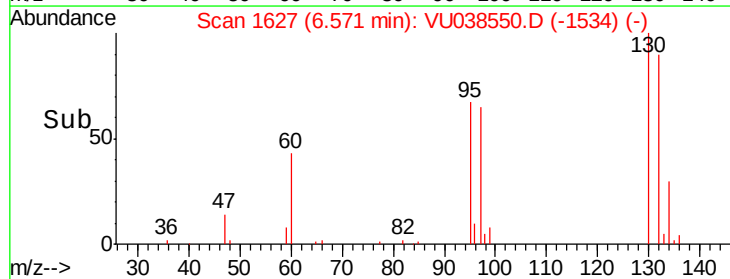
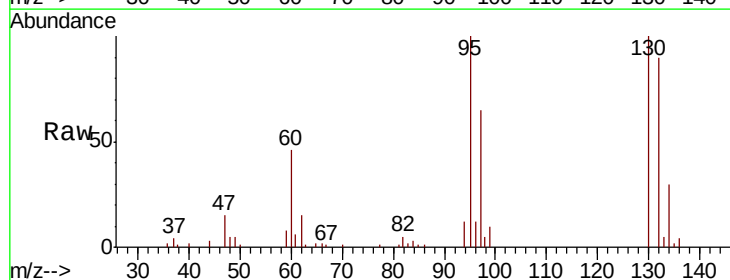
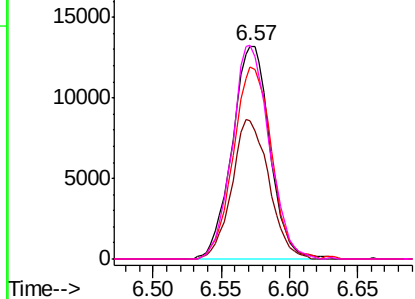
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 95  | 100   |       |       |
| 97  | 64.9  | 46.8  | 87.0  |
| 132 | 89.9  | 66.1  | 122.7 |
| 130 | 100.3 | 70.0  | 130.0 |

Abundance Ion 95.00 (94.70 to 95.70): VU0

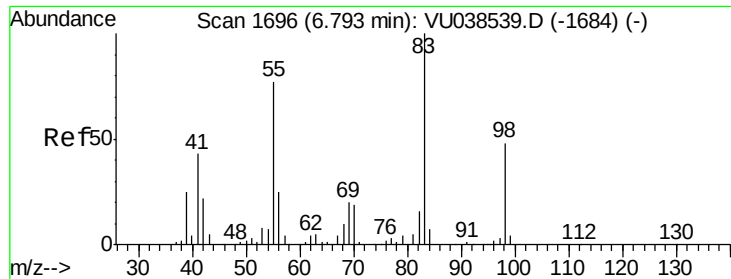
Ion 96.95 (96.65 to 97.65): VU0

Ion 131.95 (131.65 to 132.65): V

Ion 129.95 (129.65 to 130.65): V



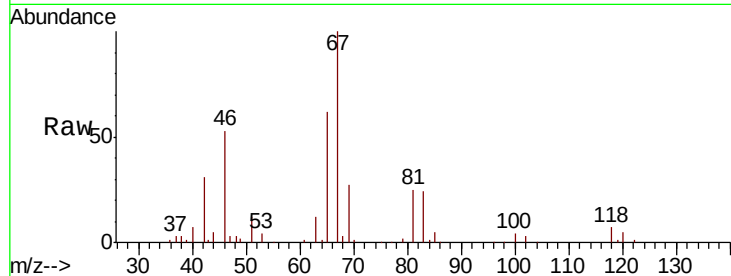




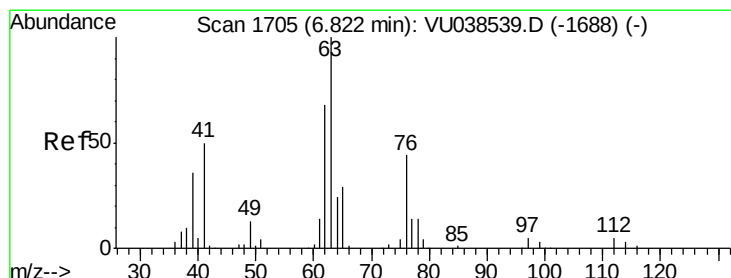
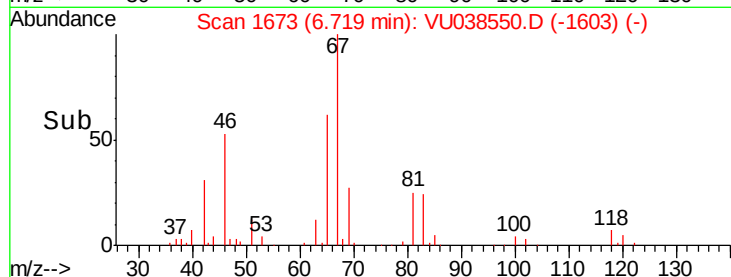
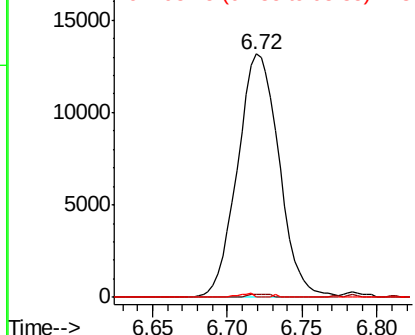
#35  
Methylvlcyclohexane  
Concen: 0.783 ug/L  
RT: 6.72 min Scan# 1673  
Delta R.T. -0.07 min  
Lab File: VU038550.D  
Acq: 04 Jun 2020 15:42

Instrument :  
MSVOA\_U  
ClientSampleId :  
ETTM7

Tot Ion: 83 Resp: 25470  
Ion Ratio Lower Upper  
83 100  
55 0.7 63.4 95.2#  
98 0.6 39.0 58.4#

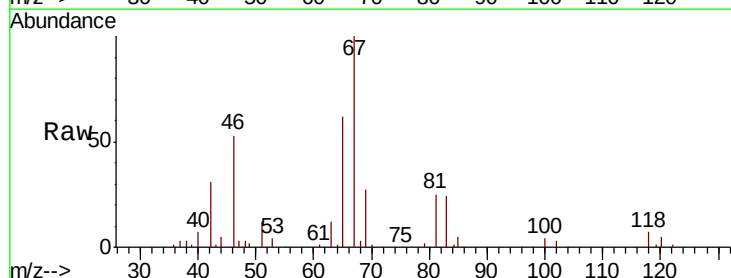


Abundance Ion 83.15 (82.85 to 83.85): VU0  
Ion 55.10 (54.80 to 55.80): VU0  
Ion 98.15 (97.85 to 98.85): VU0

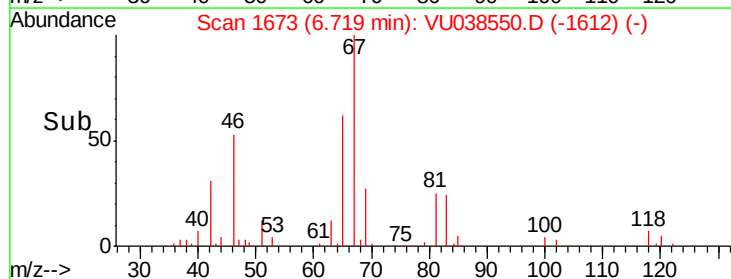
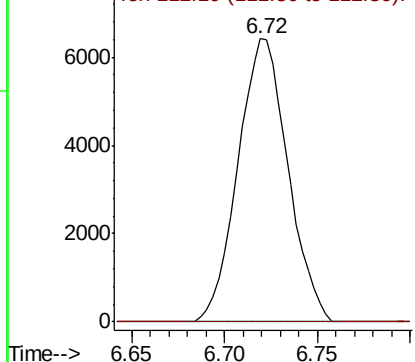


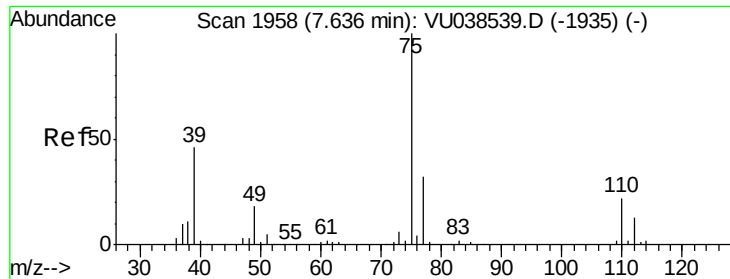
#37  
1,2-Dichloropropane  
Concen: 0.587 ug/L  
RT: 6.72 min Scan# 1673  
Delta R.T. -0.10 min  
Lab File: VU038550.D  
Acq: 04 Jun 2020 15:42

Tgt Ion: 63 Resp: 11969  
Ion Ratio Lower Upper  
63 100  
112 0.2 3.7 5.5#



Abundance Ion 63.10 (62.80 to 63.80): VU0  
Ion 112.10 (111.80 to 112.80): V

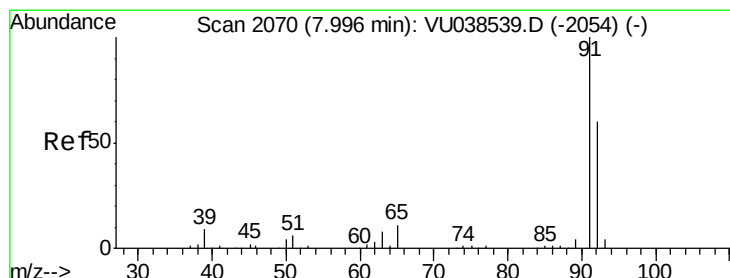
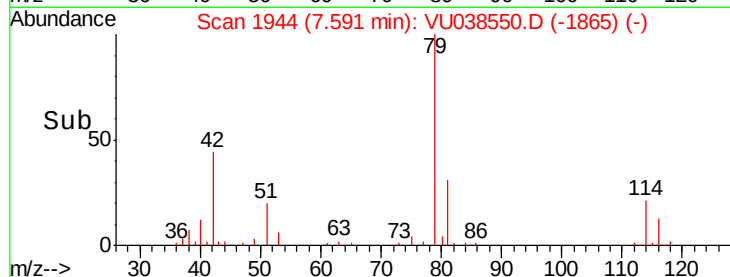
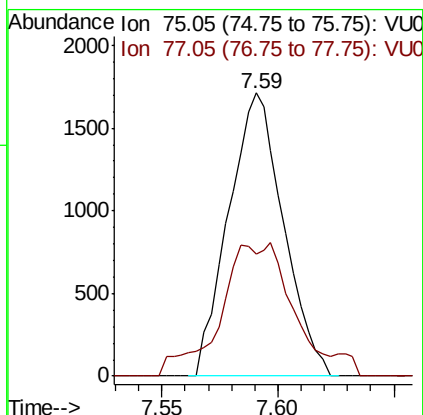
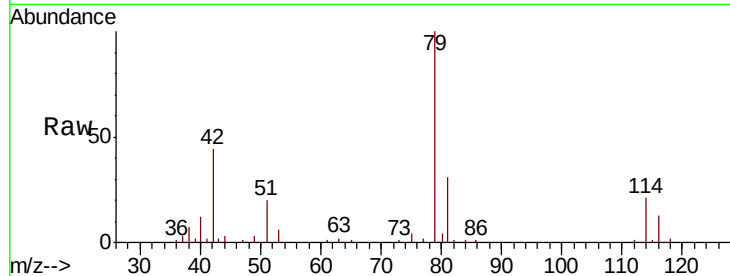




#39  
 cis-1,3-Dichloropropene  
 Concen: 0.093 ug/L  
 RT: 7.59 min Scan# 1944  
 Delta R.T. -0.05 min  
 Lab File: VU038550.D  
 Acq: 04 Jun 2020 15:42

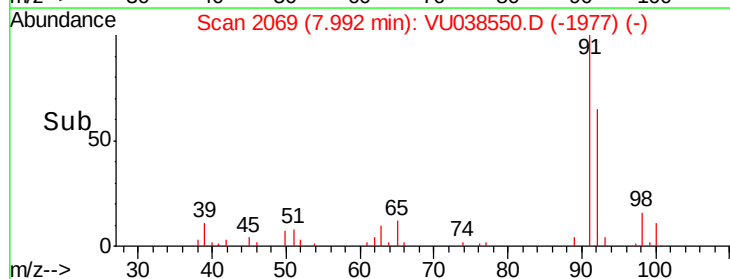
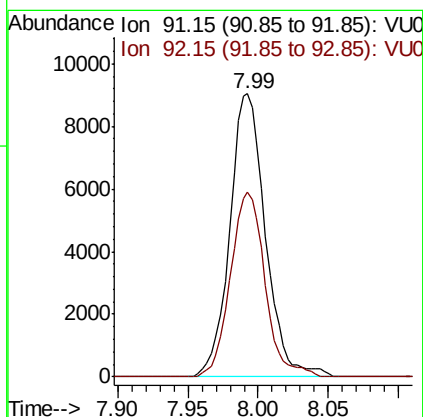
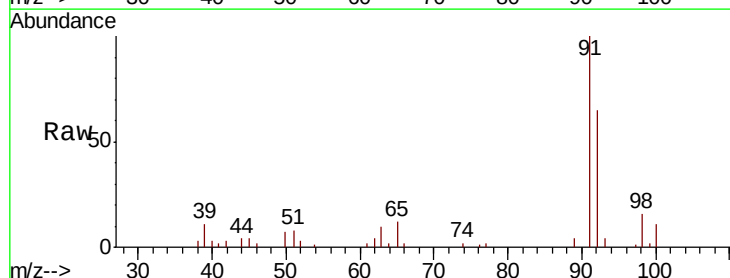
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 ETTM7

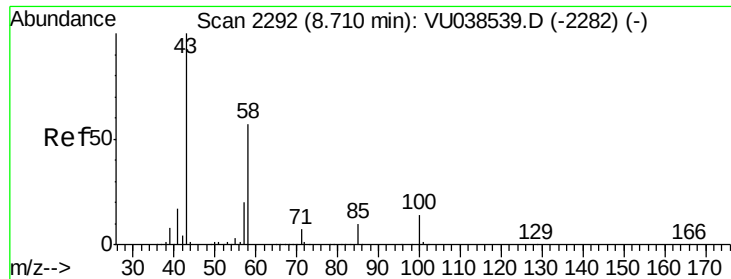
Tot Ion: 75 Resp: 2807  
 Ion Ratio Lower Upper  
 75 100  
 77 43.1 21.9 40.7#



#42  
 Toluene  
 Concen: 0.189 ug/L  
 RT: 7.99 min Scan# 2069  
 Delta R.T. -0.00 min  
 Lab File: VU038550.D  
 Acq: 04 Jun 2020 15:42

Tgt Ion: 91 Resp: 16011  
 Ion Ratio Lower Upper  
 91 100  
 92 65.1 43.0 79.8

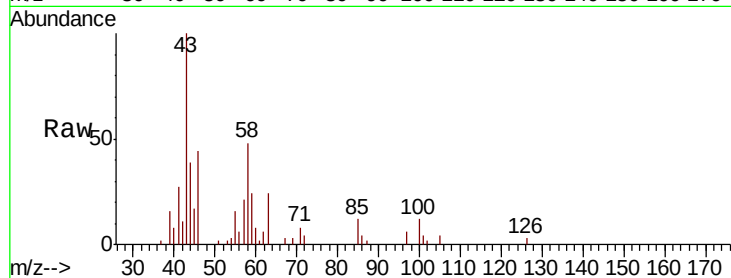




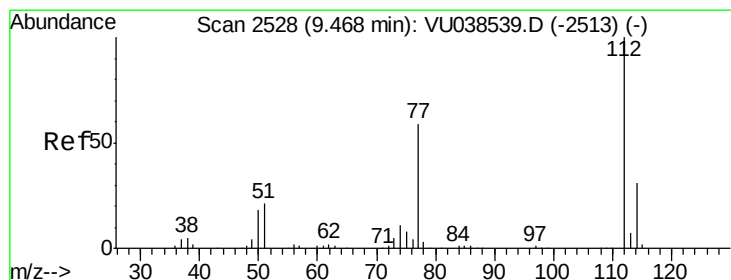
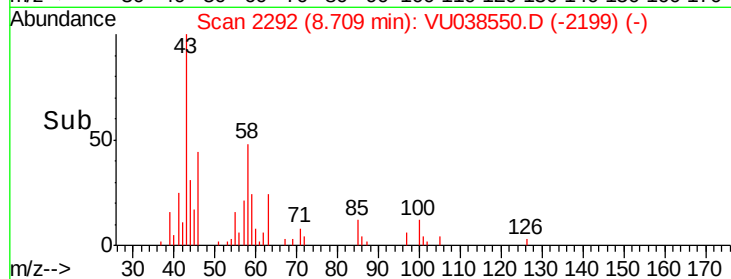
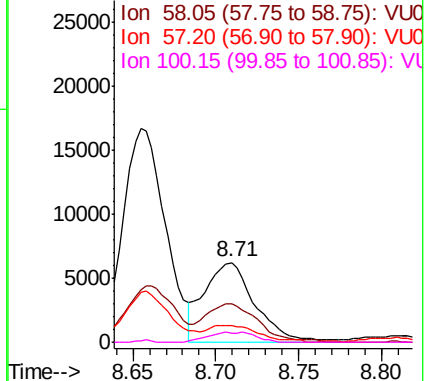
#48  
2-Hexanone  
Concen: 1.199 ug/L  
RT: 8.71 min Scan# 2292  
Delta R.T. -0.00 min  
Lab File: VU038550.D  
Acq: 04 Jun 2020 15:42

Instrument :  
MSVOA\_U  
ClientSampleId :  
ETTM7

Tot Ion: 43 Resp: 13229  
Ion Ratio Lower Upper  
43 100  
58 51.7 45.4 68.0  
57 21.4 15.9 23.9  
100 11.7 10.5 15.7

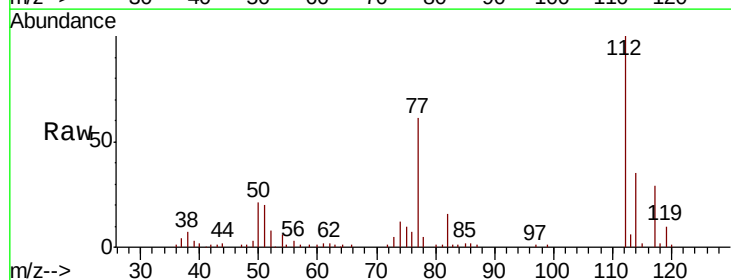


Abundance Ion 43.05 (42.75 to 43.75): VU038539.D (-2282) (-)  
Ion 58.05 (57.75 to 58.75): VU038539.D (-2282) (-)  
Ion 57.20 (56.90 to 57.90): VU038539.D (-2282) (-)  
Ion 100.15 (99.85 to 100.85): VU038539.D (-2282) (-)

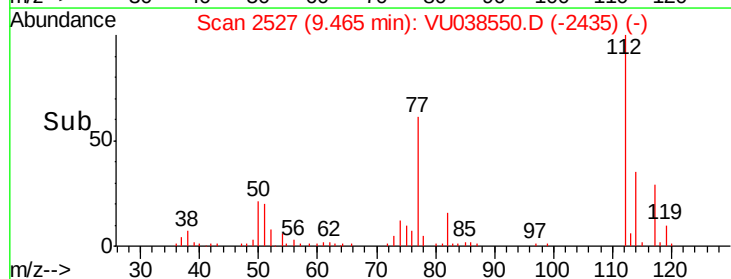
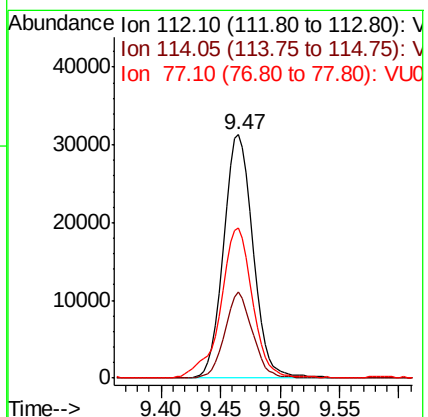


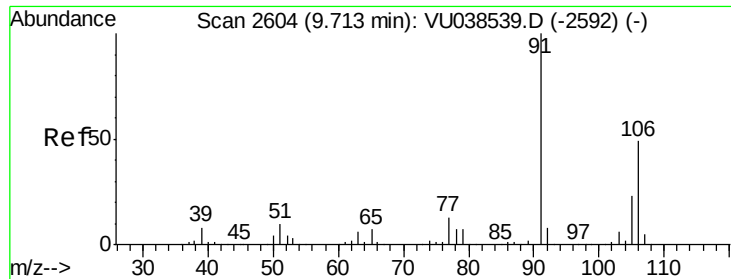
#51  
Chlorobenzene  
Concen: 0.983 ug/L  
RT: 9.47 min Scan# 2527  
Delta R.T. -0.00 min  
Lab File: VU038550.D  
Acq: 04 Jun 2020 15:42

Tgt Ion: 112 Resp: 53836  
Ion Ratio Lower Upper  
112 100  
114 35.2 22.4 41.6  
77 61.5 47.1 70.7



Abundance Ion 112.10 (111.80 to 112.80): VU038539.D (-2513) (-)  
Ion 114.05 (113.75 to 114.75): VU038539.D (-2513) (-)  
Ion 77.10 (76.80 to 77.80): VU038539.D (-2513) (-)

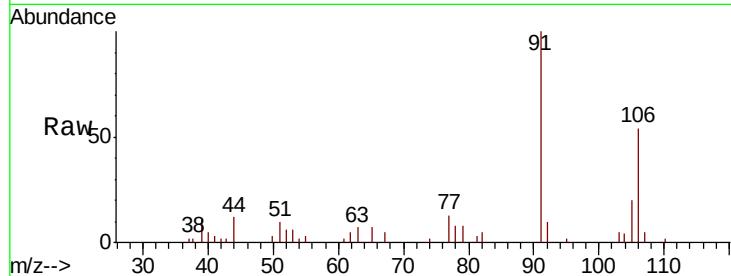




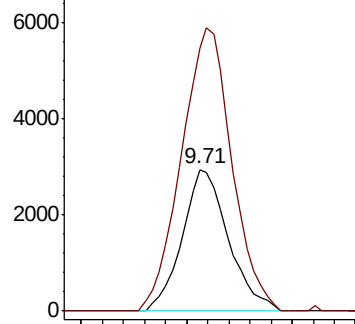
#53  
m,p-Xylene  
Concen: 0.123 ug/L  
RT: 9.71 min Scan# 2602  
Delta R.T. -0.01 min  
Lab File: VU038550.D  
Acq: 04 Jun 2020 15:42

Instrument :  
MSVOA\_U  
ClientSampleId :  
ETTM7

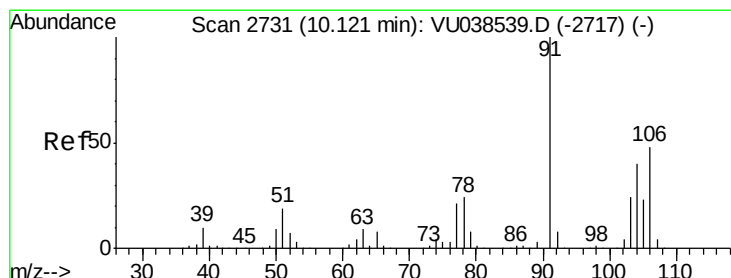
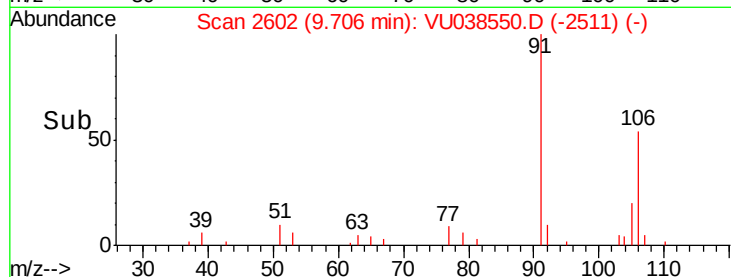
Tot Ion:106 Resp: 4485  
Ion Ratio Lower Upper  
106 100  
91 186.5 138.1 256.5



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

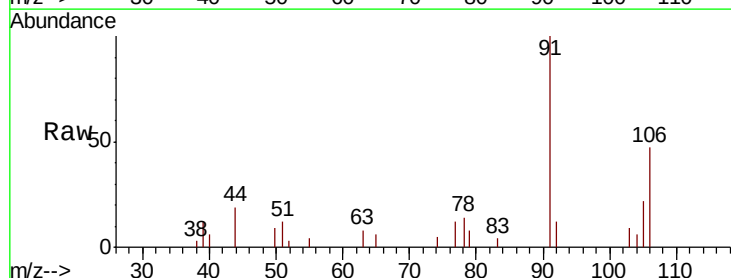


Time-->

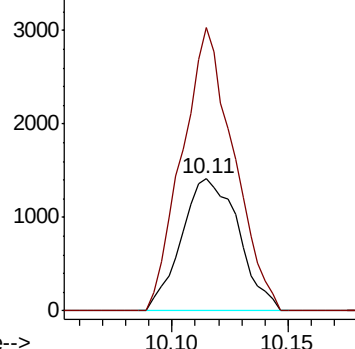


#54  
o-Xylene  
Concen: 0.069 ug/L  
RT: 10.11 min Scan# 2729  
Delta R.T. -0.01 min  
Lab File: VU038550.D  
Acq: 04 Jun 2020 15:42

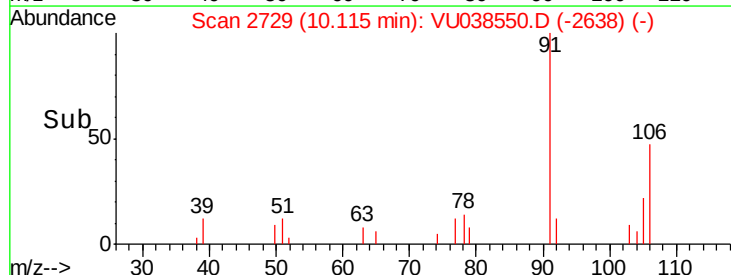
Tgt Ion:106 Resp: 2417  
Ion Ratio Lower Upper  
106 100  
91 214.2 150.6 279.8

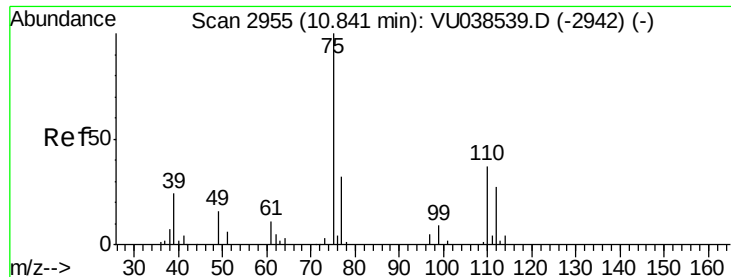


Abundance Ion 106.15 (105.85 to 106.85): V  
Ion 91.15 (90.85 to 91.85): VU0



Time-->





#59

1,2,3-Trichloropropane

Concen: 1.381 ug/L

RT: 11.83 min Scan# 3261

Delta R.T. 0.98 min

Lab File: VU038550.D

Acq: 04 Jun 2020 15:42

Instrument :

MSVOA\_U

ClientSampleId :

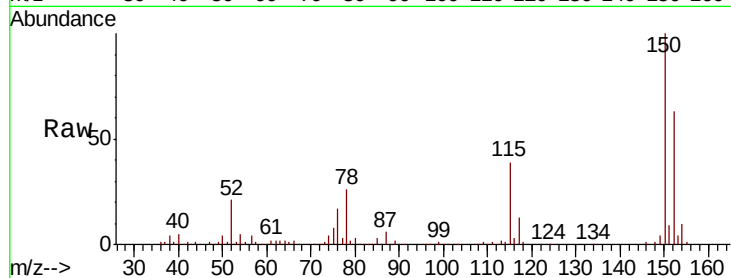
ETTM7

Tot Ion: 75 Resp: 21001

Ion Ratio Lower Upper

75 100

77 33.1 25.4 38.2



Abundance Ion 75.00 (74.70 to 75.70): VU038539.D (-2942) (-)

Ion 77.00 (76.70 to 77.70): VU038539.D (-2942) (-)

11.83

12000

10000

8000

6000

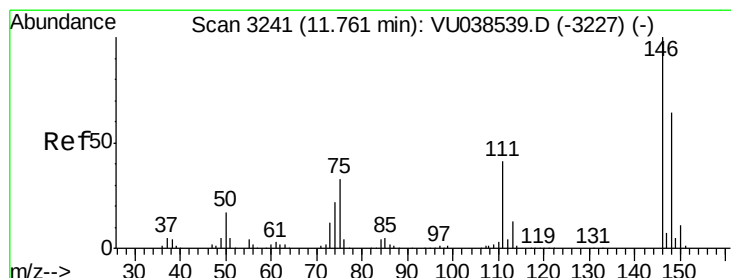
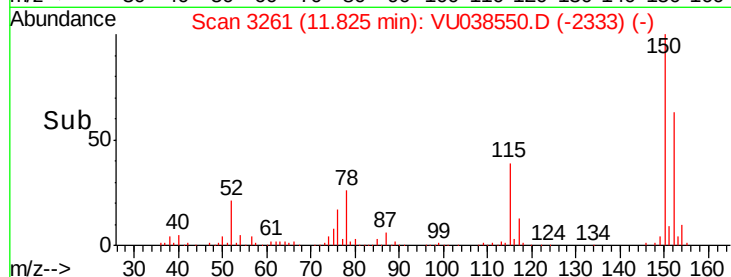
4000

2000

0

11.75 11.80 11.85 11.90

Time-->



#62

1,3-Dichlorobenzene

Concen: 0.779 ug/L

RT: 11.76 min Scan# 3240

Delta R.T. -0.00 min

Lab File: VU038550.D

Acq: 04 Jun 2020 15:42

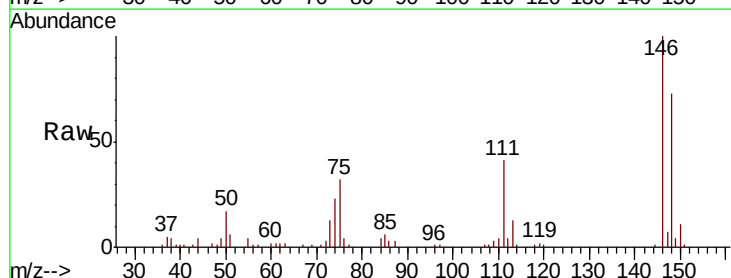
Tgt Ion: 146 Resp: 32306

Ion Ratio Lower Upper

146 100

111 41.0 29.5 54.9

148 72.9 45.6 84.6



Abundance Ion 145.95 (145.65 to 146.65): VU038539.D (-3227) (-)

Ion 111.00 (110.70 to 111.70): VU038539.D (-3227) (-)

Ion 148.00 (147.70 to 148.70): VU038539.D (-3227) (-)

11.76

25000

20000

15000

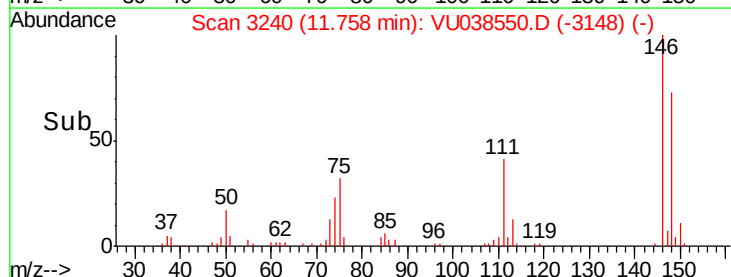
10000

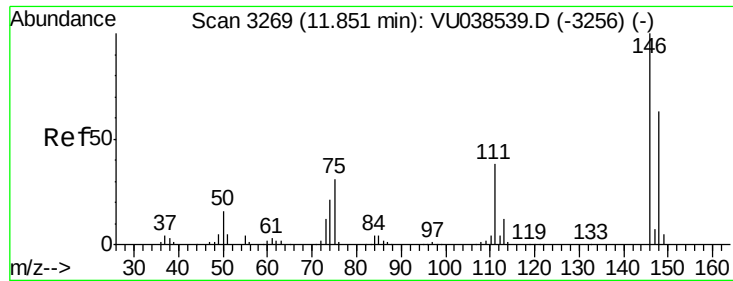
5000

0

11.70 11.75 11.80

Time-->

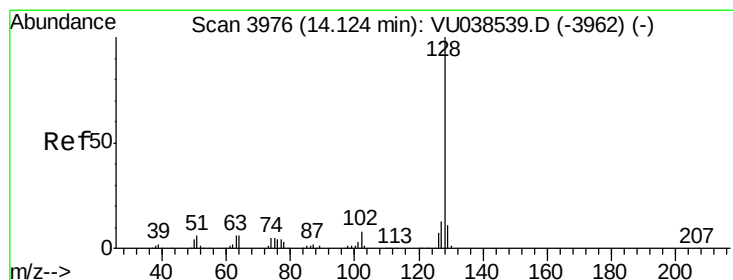
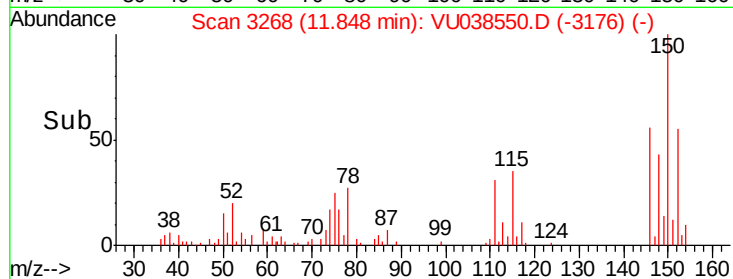
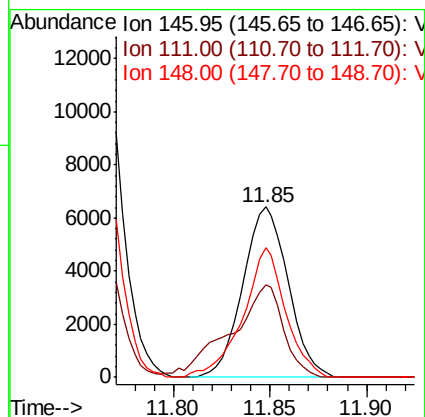
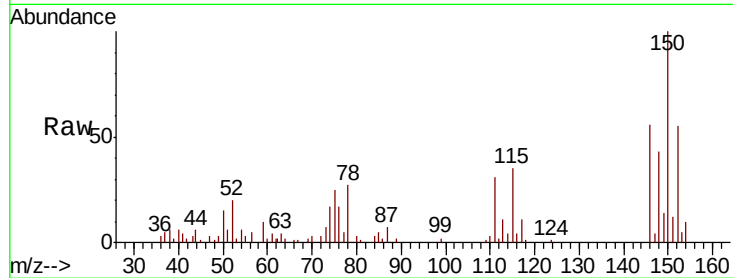




#63  
 1,4-Dichlorobenzene  
 Concen: 0.249 ug/L  
 RT: 11.85 min Scan# 3268  
 Delta R.T. -0.00 min  
 Lab File: VU038550.D  
 Acq: 04 Jun 2020 15:42

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 ETTM7

Tot Ion:146 Resp: 10460  
 Ion Ratio Lower Upper  
 146 100  
 111 54.7 27.6 51.2#  
 148 76.4 44.8 83.2



#69  
 Naphthalene  
 Concen: 1.052 ug/L  
 RT: 14.11 min Scan# 3973  
 Delta R.T. -0.01 min  
 Lab File: VU038550.D  
 Acq: 04 Jun 2020 15:42

Tgt Ion:128 Resp: 59926  
 Ion Ratio Lower Upper  
 128 100  
 129 11.4 8.9 13.3  
 127 12.6 10.2 15.4

