

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU091620\  
 Data File : VU040168.D  
 Acq On : 16 Sep 2020 23:51  
 Operator : SY/MD  
 Sample : L4046-06  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 31 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BG0P4

Quant Time: Sep 17 02:09:37 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR083120WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Thu Sep 17 02:07:00 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.26  | 114  | 111024   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.42  | 117  | 107712   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.81 | 152  | 49673    | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |        |
|--------------------------------|--------|-------|----------|----------|------|--------|
| 4) Vinyl Chloride-d3           | 1.60   | 65    | 25514    | 4.21     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 84.20% |
| 7) Chloroethane-d5             | 1.92   | 69    | 24141    | 4.78     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 95.60% |
| 11) 1,1-Dichloroethene-d2      | 2.58   | 63    | 47466    | 3.05     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 61.00% |
| 20) 2-Butanone-d5              | 4.67   | 46    | 107134   | 44.19    | ug/L | 0.00   |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 88.38% |
| 24) Chloroform-d               | 5.08   | 84    | 62006    | 4.38     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 87.60% |
| 26) 1,2-Dichloroethane-d4      | 5.72   | 65    | 39051    | 4.47     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 89.40% |
| 32) Benzene-d6                 | 5.75   | 84    | 115440   | 4.59     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 91.80% |
| 36) 1,2-Dichloropropane-d6     | 6.70   | 67    | 38449    | 4.64     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 92.80% |
| 41) Toluene-d8                 | 7.91   | 98    | 91841    | 4.04     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 80.80% |
| 43) trans-1,3-Dichloropropene- | 8.19   | 79    | 14974    | 3.93     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 78.60% |
| 46) 2-Hexanone-d5              | 8.64   | 63    | 82343    | 45.65    | ug/L | 0.00   |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 91.30% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.76  | 84    | 34430    | 4.80     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 96.00% |
| 64) 1,2-Dichlorobenzene-d4     | 12.19  | 152   | 38334    | 4.77     | ug/L | 0.00   |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 95.40% |

## Target Compounds

|                               |       |     |        |       | Ovalue    |
|-------------------------------|-------|-----|--------|-------|-----------|
| 3) Chloromethane              | 1.52  | 50  | 898    | 0.085 | ug/L 90   |
| 8) Chloroethane               | 1.94  | 64  | 2138   | 0.333 | ug/L 99   |
| 14) Carbon disulfide          | 2.81  | 76  | 1834   | 0.067 | ug/L # 67 |
| 25) Chloroform                | 5.11  | 83  | 1241   | 0.064 | ug/L 92   |
| 30) Cyclohexane               | 5.41  | 56  | 1101   | 0.067 | ug/L # 78 |
| 33) Benzene                   | 5.79  | 78  | 24296  | 0.631 | ug/L 100  |
| 35) Methylcyclohexane         | 6.77  | 83  | 857    | 0.054 | ug/L # 87 |
| 37) 1,2-Dichloropropane       | 6.71  | 63  | 4958   | 0.475 | ug/L # 88 |
| 39) cis-1,3-Dichloropropene   | 7.57  | 75  | 1173   | 0.076 | ug/L # 47 |
| 42) Toluene                   | 7.98  | 91  | 1946   | 0.049 | ug/L 84   |
| 44) trans-1,3-Dichloropropene | 8.19  | 75  | 897    | 0.063 | ug/L # 74 |
| 48) 2-Hexanone                | 8.64  | 43  | 12593  | 2.017 | ug/L # 74 |
| 51) Chlorobenzene             | 9.45  | 112 | 173754 | 7.052 | ug/L 96   |
| 52) Ethylbenzene              | 9.69  | 91  | 2109   | 0.047 | ug/L 86   |
| 53) m,p-Xylene                | 9.70  | 106 | 810    | 0.050 | ug/L 97   |
| 56) Isopropylbenzene          | 10.48 | 105 | 8649   | 0.207 | ug/L 98   |
| 59) 1,2,3-Trichloropropane    | 11.81 | 75  | 9300   | 1.203 | ug/L # 44 |

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MSVOA\_U  
ClientSampleId :  
BG0P4

Quant Time: Sep 17 02:09:37 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR083120WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Thu Sep 17 02:07:00 2020  
Response via : Initial Calibration

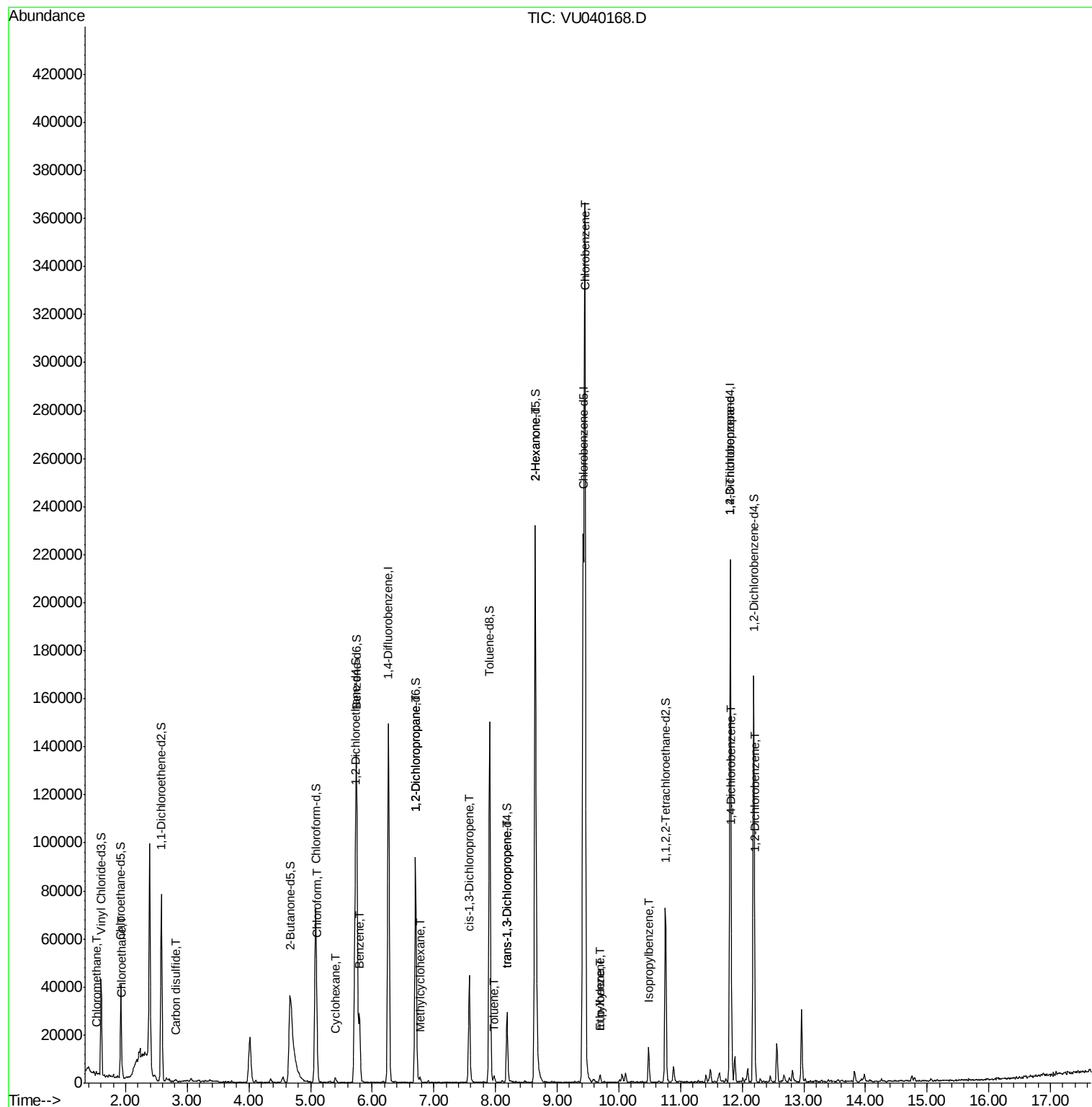
| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 63) 1,4-Dichlorobenzene | 11.83 | 146  | 4226     | 0.230 | ug/L  | 95       |
| 65) 1,2-Dichlorobenzene | 12.21 | 146  | 3025     | 0.172 | ug/L  | 92       |

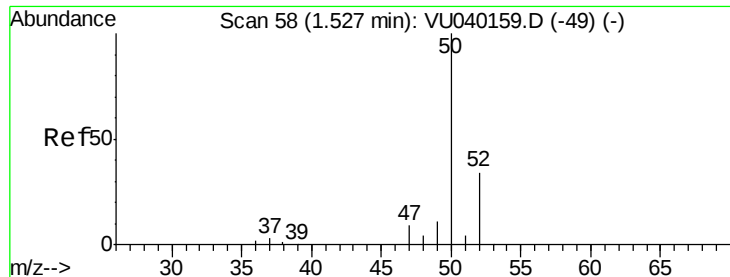
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : TRACE VOA SOM01.0  
QLast Update : Thu Sep 17 02:07:00 2020  
Response via : Initial Calibration





#3

Chloromethane

Concen: 0.085 ug/L

RT: 1.52 min Scan# 57

Delta R.T. -0.00 min

Lab File: VU040168.D

Acq: 16 Sep 2020 23:51

Instrument :

MSVOA\_U

ClientSampled :

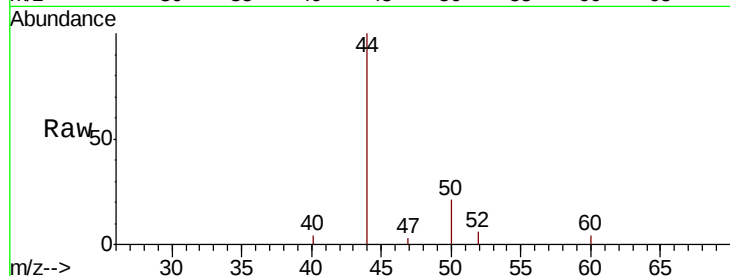
BG0P4

Tot Ion: 50 Resp: 898

Ion Ratio Lower Upper

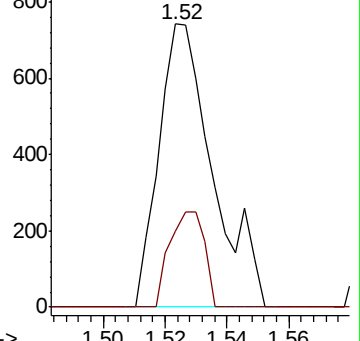
50 100

52 26.8 22.8 42.4

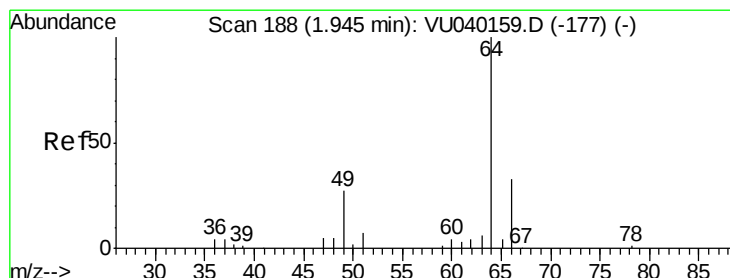
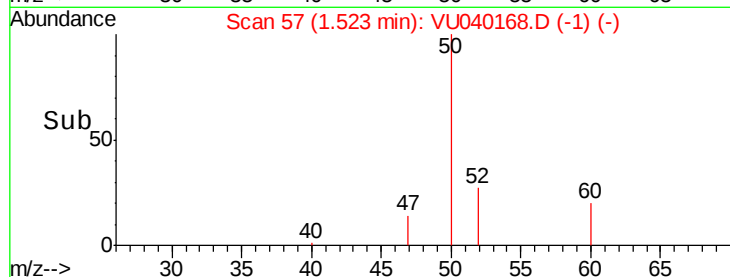


Abundance Ion 50.05 (49.75 to 50.75): VU0

Ion 52.05 (51.75 to 52.75): VU0



Time-->



#8

Chloroethane

Concen: 0.333 ug/L

RT: 1.94 min Scan# 188

Delta R.T. -0.00 min

Lab File: VU040168.D

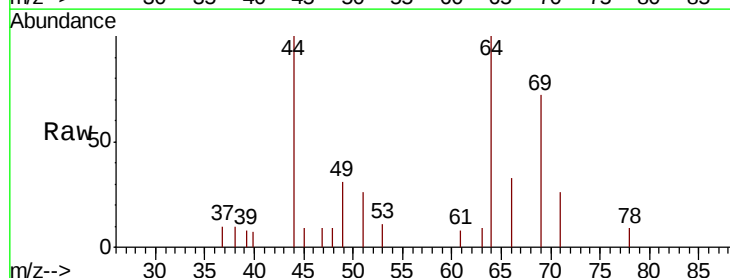
Acq: 16 Sep 2020 23:51

Tgt Ion: 64 Resp: 2138

Ion Ratio Lower Upper

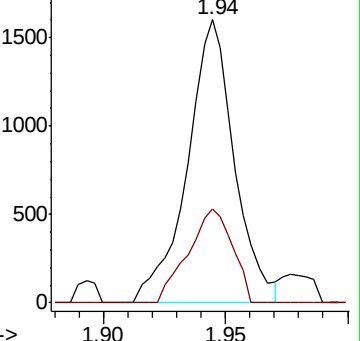
64 100

66 33.2 22.7 42.1

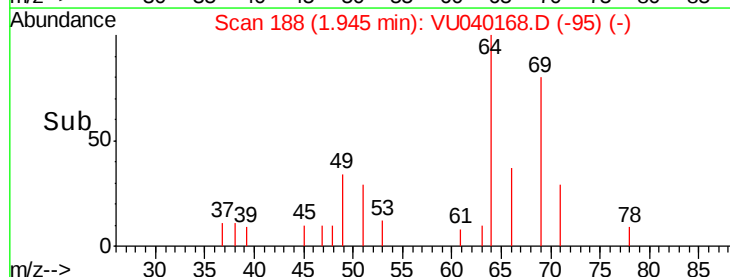


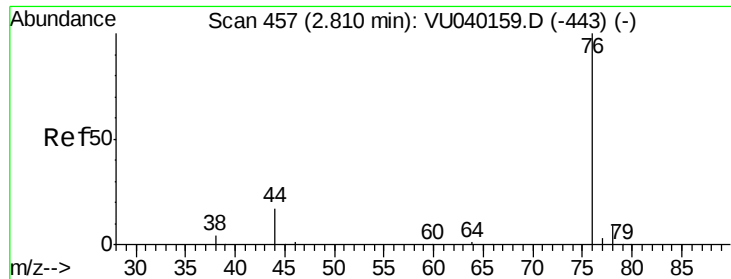
Abundance Ion 64.10 (63.80 to 64.80): VU0

Ion 66.05 (65.75 to 66.75): VU0



Time-->





#14

Carbon disulfide

Concen: 0.067 ug/L

RT: 2.81 min Scan# 458

Delta R.T. 0.00 min

Lab File: VU040168.D

Acq: 16 Sep 2020 23:51

Instrument :

MSVOA\_U

ClientSampleId :

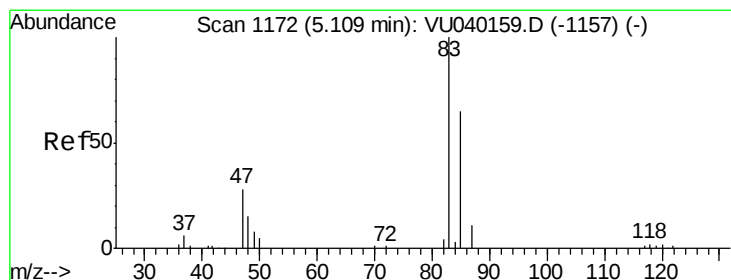
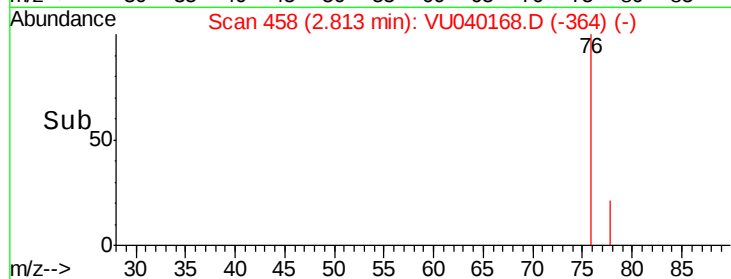
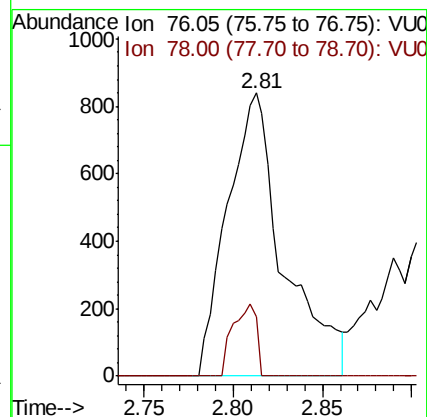
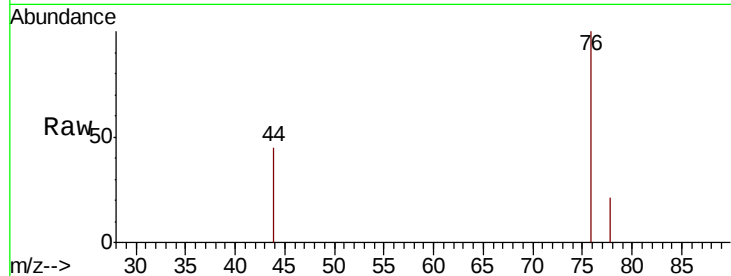
BG0P4

Tot Ion: 76 Resp: 1834

Ion Ratio Lower Upper

76 100

78 20.9 7.2 10.8#



#25

Chloroform

Concen: 0.064 ug/L

RT: 5.11 min Scan# 1172

Delta R.T. -0.00 min

Lab File: VU040168.D

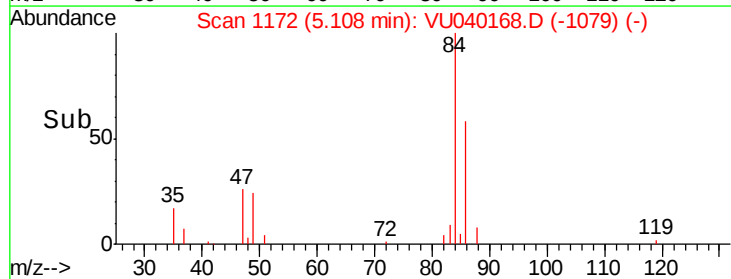
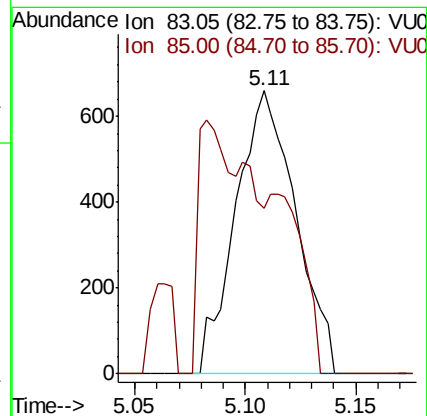
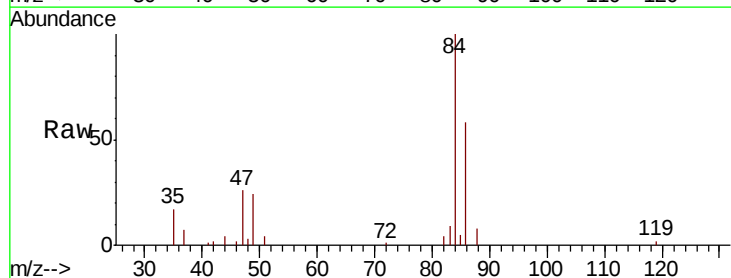
Acq: 16 Sep 2020 23:51

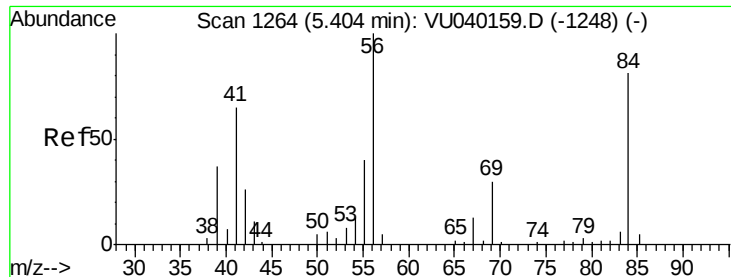
Tgt Ion: 83 Resp: 1241

Ion Ratio Lower Upper

83 100

85 58.6 45.3 84.1

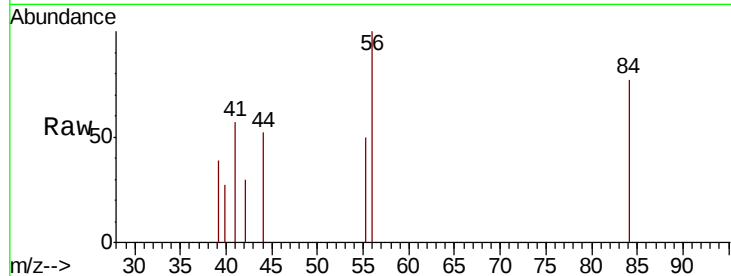




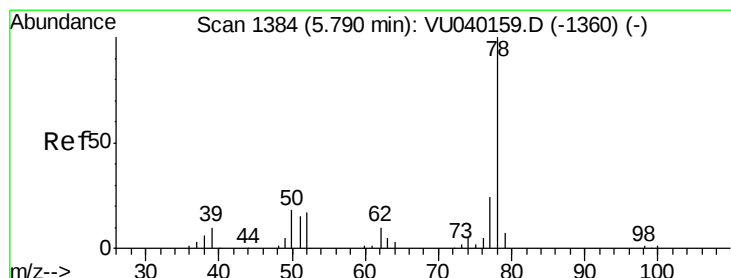
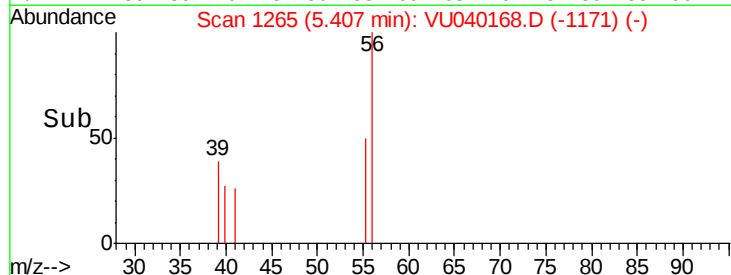
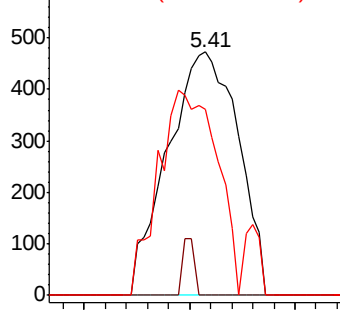
#30  
Cyclohexane  
Concen: 0.067 ug/L  
RT: 5.41 min Scan# 1265  
Delta R.T. 0.00 min  
Lab File: VU040168.D  
Acq: 16 Sep 2020 23:51

Instrument :  
MSVOA\_U  
ClientSampleId :  
BG0P4

Tot Ion: 56 Resp: 1101  
Ion Ratio Lower Upper  
56 100  
69 3.8 24.1 36.1#  
84 70.0 65.0 97.4

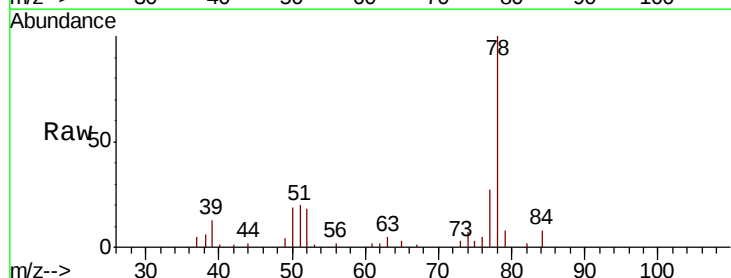


Abundance Ion 56.10 (55.80 to 56.80): VU0  
Ion 69.15 (68.85 to 69.85): VU0  
Ion 84.15 (83.85 to 84.85): VU0

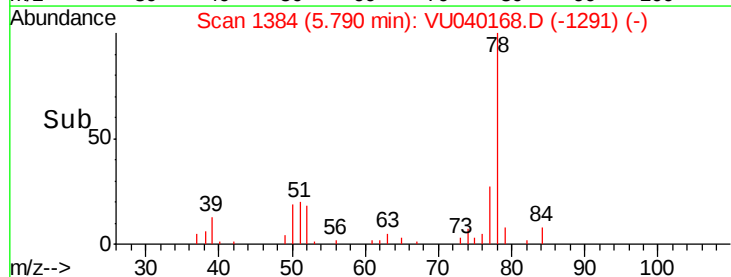
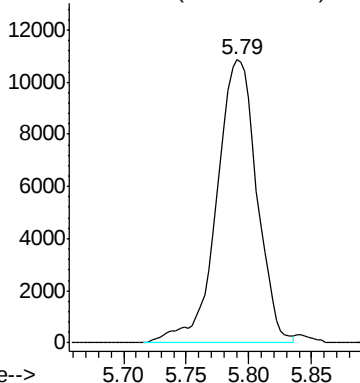


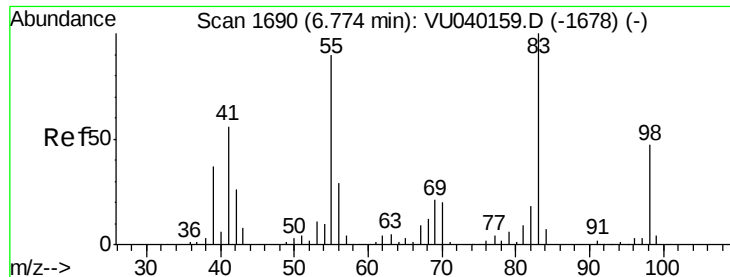
#33  
Benzene  
Concen: 0.631 ug/L  
RT: 5.79 min Scan# 1384  
Delta R.T. -0.00 min  
Lab File: VU040168.D  
Acq: 16 Sep 2020 23:51

Tgt Ion: 78 Resp: 24296



Abundance Ion 78.10 (77.80 to 78.80): VU0

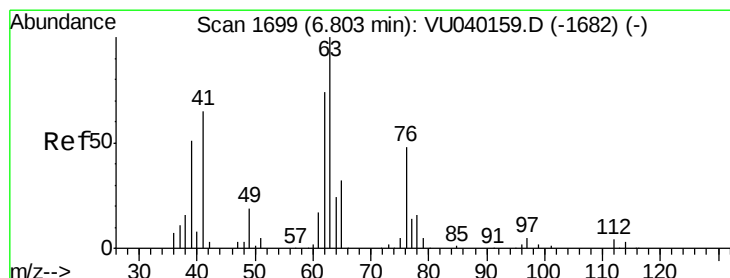
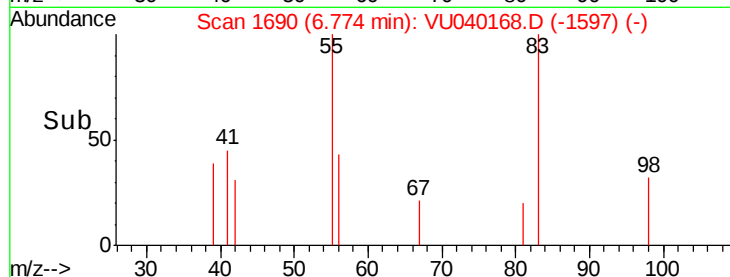
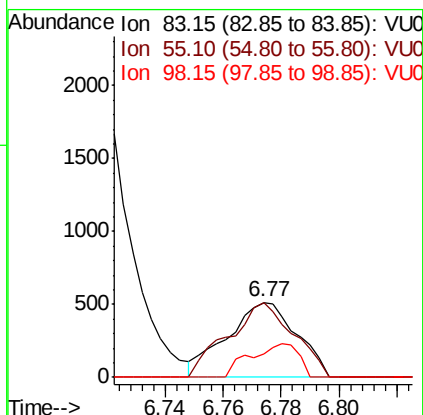
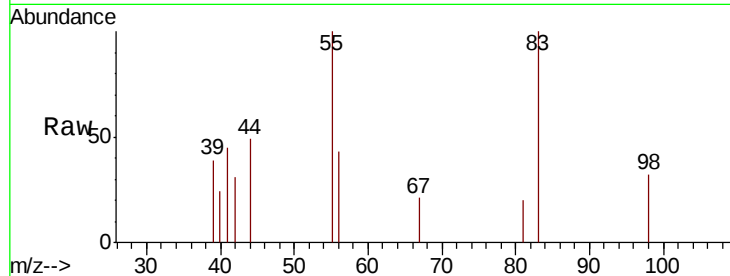




#35  
Methvlcvclohexane  
Concen: 0.054 ug/L  
RT: 6.77 min Scan# 1690  
Delta R.T. -0.00 min  
Lab File: VU040168.D  
Acq: 16 Sep 2020 23:51

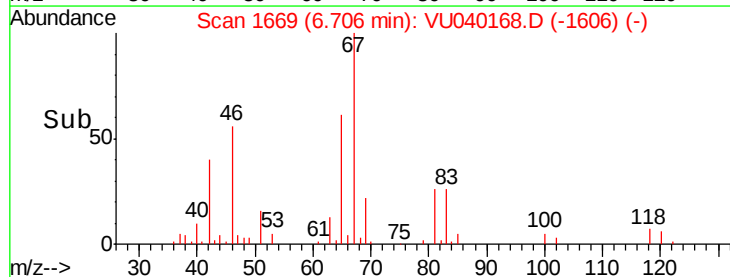
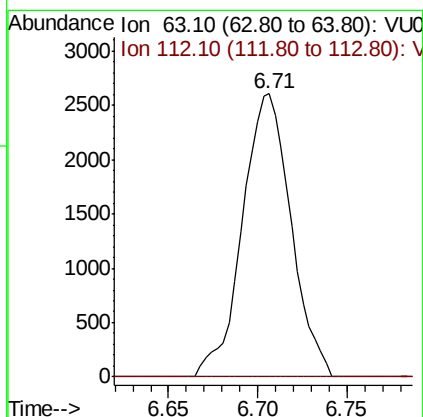
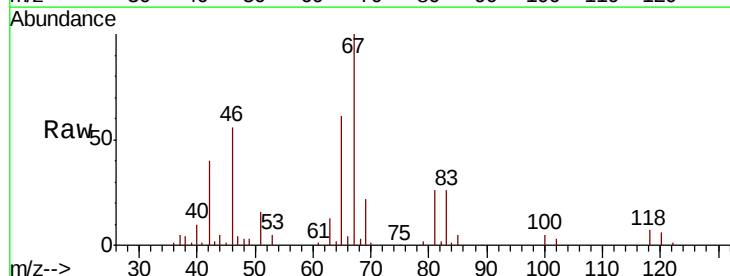
Instrument :  
MSVOA\_U  
ClientSampleId :  
BG0P4

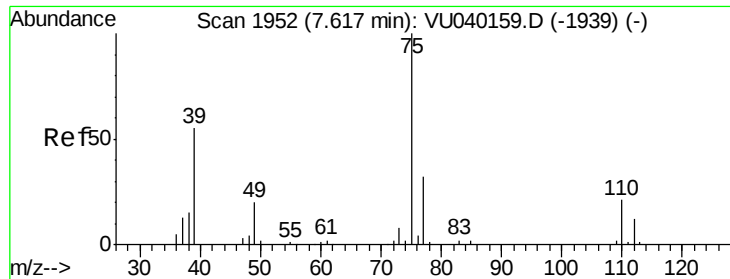
Tot Ion: 83 Resp: 857  
Ion Ratio Lower Upper  
83 100  
55 94.5 70.5 105.7  
98 30.7 37.8 56.6#



#37  
1,2-Dichloropropane  
Concen: 0.475 ug/L  
RT: 6.71 min Scan# 1669  
Delta R.T. -0.10 min  
Lab File: VU040168.D  
Acq: 16 Sep 2020 23:51

Tgt Ion: 63 Resp: 4958  
Ion Ratio Lower Upper  
63 100  
112 0.0 3.2 4.8#

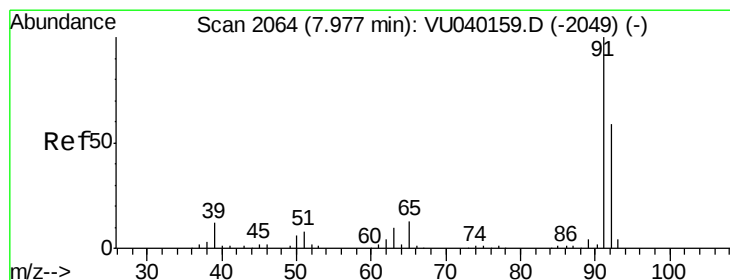
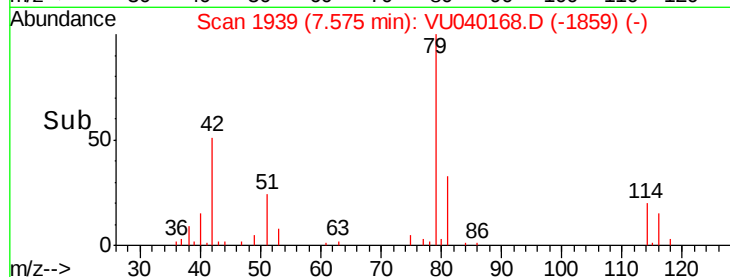
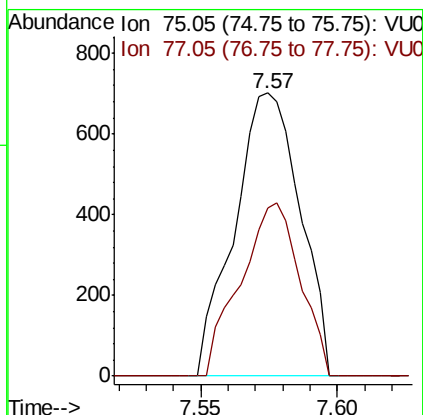
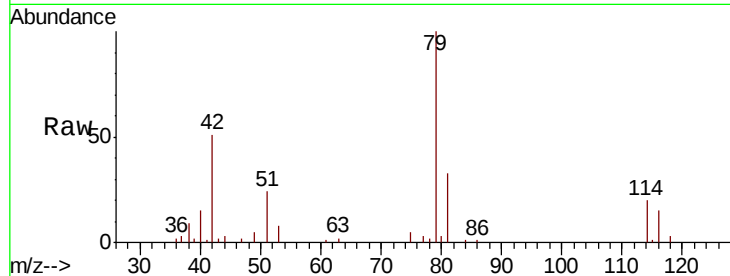




#39  
 cis-1,3-Dichloropropene  
 Concen: 0.076 ug/L  
 RT: 7.57 min Scan# 1939  
 Delta R.T. -0.04 min  
 Lab File: VU040168.D  
 Acq: 16 Sep 2020 23:51

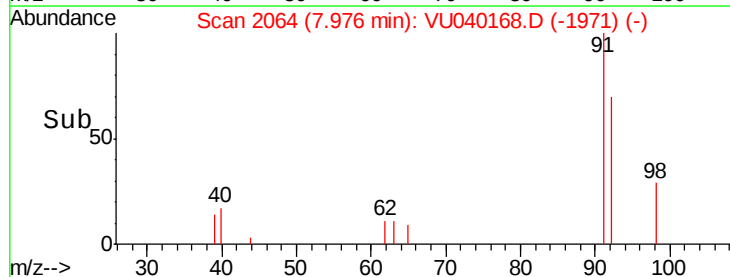
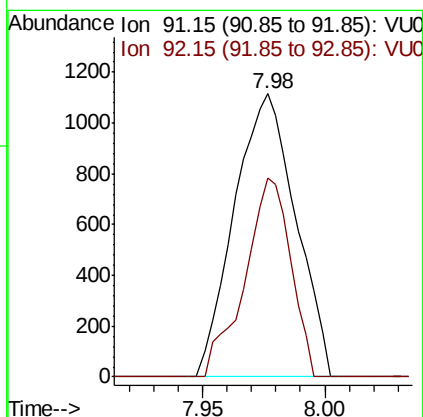
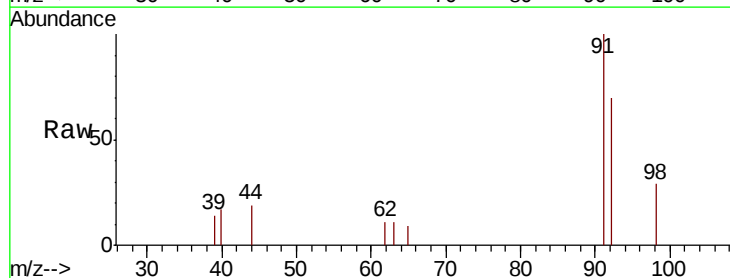
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BG0P4

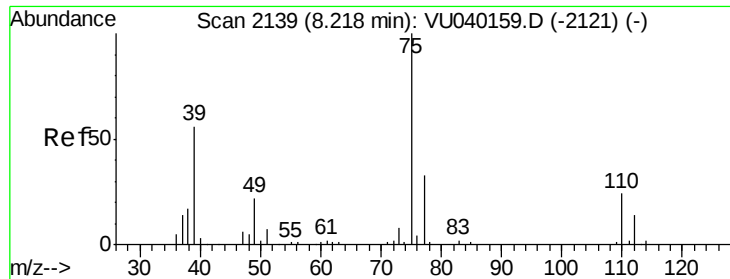
Tot Ion: 75 Resp: 1173  
 Ion Ratio Lower Upper  
 75 100  
 77 59.3 21.1 39.3#



#42  
 Toluene  
 Concen: 0.049 ug/L  
 RT: 7.98 min Scan# 2064  
 Delta R.T. -0.00 min  
 Lab File: VU040168.D  
 Acq: 16 Sep 2020 23:51

Tgt Ion: 91 Resp: 1946  
 Ion Ratio Lower Upper  
 91 100  
 92 70.2 40.7 75.5





#44

trans-1,3-Dichloropropene

Concen: 0.063 ug/L

RT: 8.19 min Scan# 2130

Delta R.T. -0.03 min

Lab File: VU040168.D

Acq: 16 Sep 2020 23:51

Instrument :

MSVOA\_U

ClientSampleId :

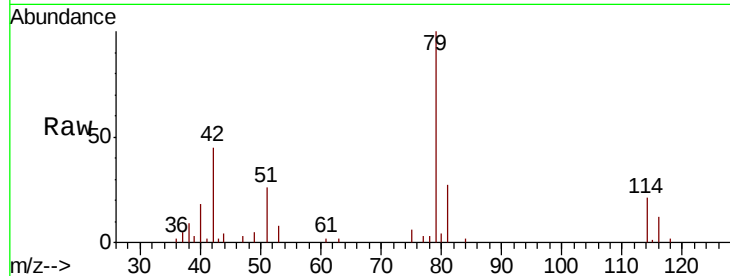
BG0P4

Tot Ion: 75 Resp: 897

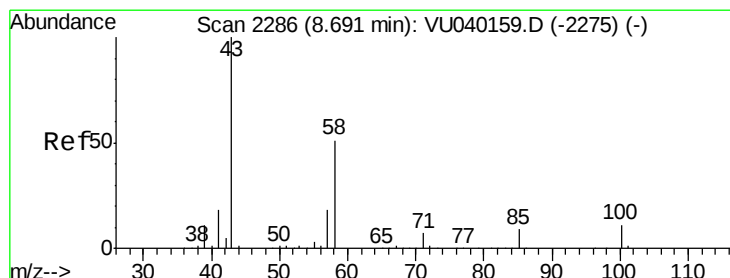
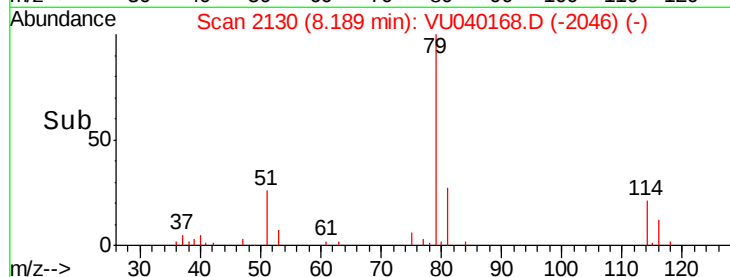
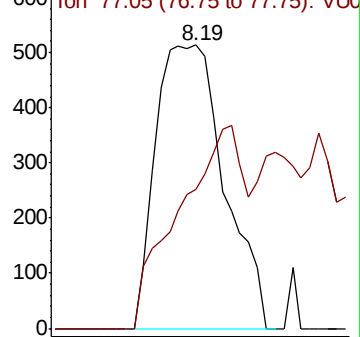
Ion Ratio Lower Upper

75 100

77 49.1 23.9 44.3#



Abundance Ion 75.05 (74.75 to 75.75): VU040159.D (-2121) (-)



#48

2-Hexanone

Concen: 2.017 ug/L

RT: 8.64 min Scan# 2271

Delta R.T. -0.05 min

Lab File: VU040168.D

Acq: 16 Sep 2020 23:51

Tgt Ion: 43 Resp: 12593

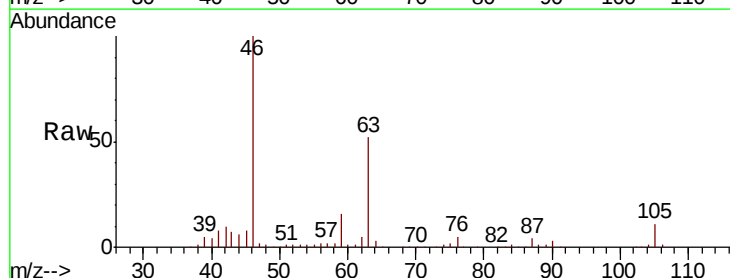
Ion Ratio Lower Upper

43 100

58 30.1 39.6 59.4#

57 25.4 14.3 21.5#

100 0.0 8.0 12.0#

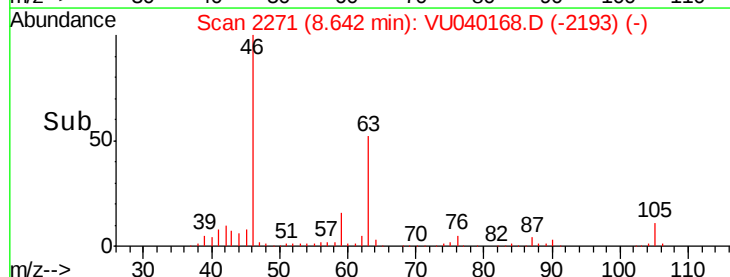
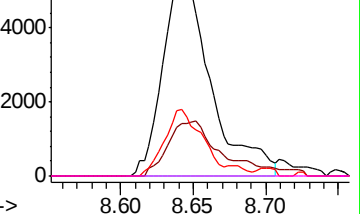


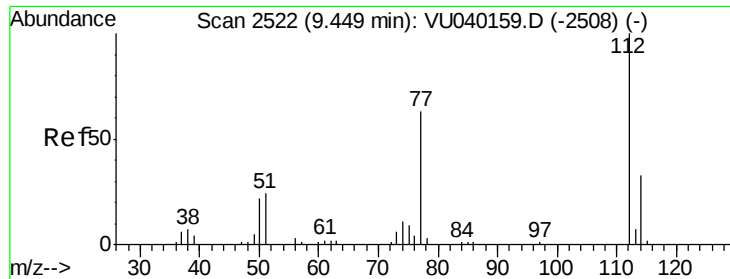
Abundance Ion 43.05 (42.75 to 43.75): VU040159.D (-2275) (-)

Ion 58.05 (57.75 to 58.75): VU040159.D (-2275) (-)

Ion 57.20 (56.90 to 57.90): VU040159.D (-2275) (-)

Ion 100.15 (99.85 to 100.85): VU040159.D (-2275) (-)





#51

Chlorobenzene

Concen: 7.052 ug/L

RT: 9.45 min Scan# 2522

Delta R.T. -0.00 min

Lab File: VU040168.D

Acq: 16 Sep 2020 23:51

Instrument :

MSVOA\_U

ClientSampleId :

BG0P4

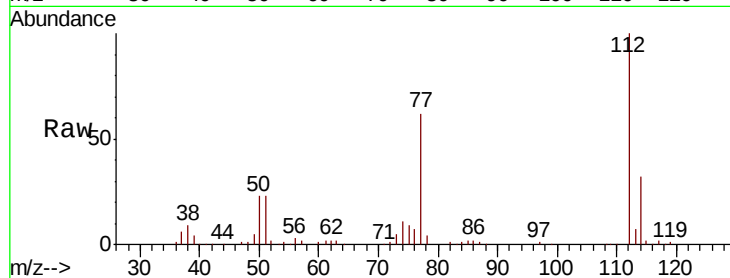
Tot Ion:112 Resp: 173754

Ion Ratio Lower Upper

112 100

114 32.1 22.7 42.3

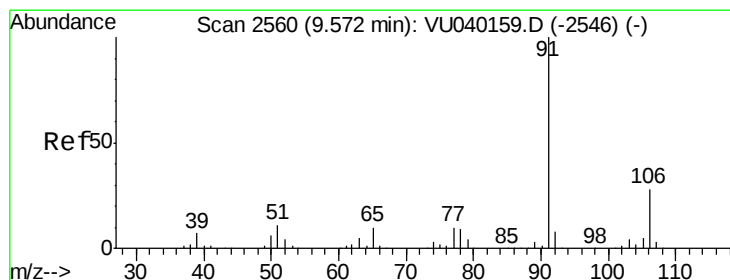
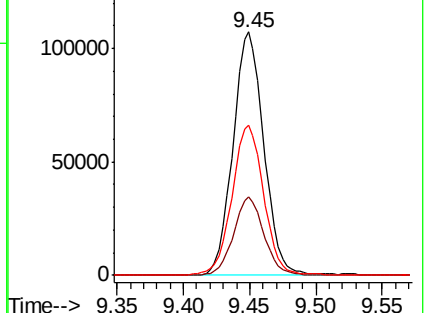
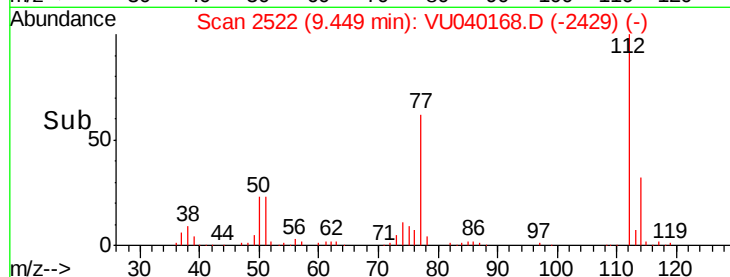
77 61.6 53.2 79.8



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: 0.047 ug/L

RT: 9.69 min Scan# 2598

Delta R.T. 0.12 min

Lab File: VU040168.D

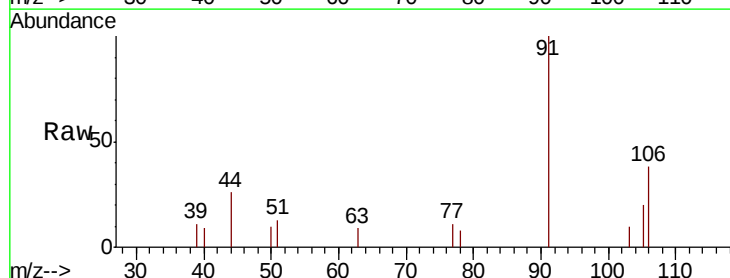
Acq: 16 Sep 2020 23:51

Tgt Ion: 91 Resp: 2109

Ion Ratio Lower Upper

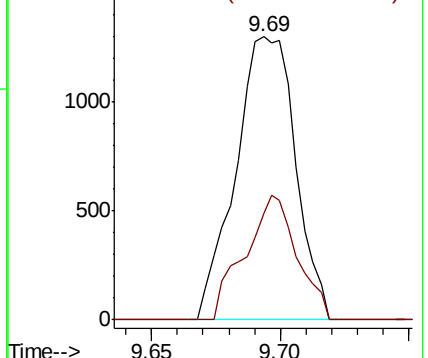
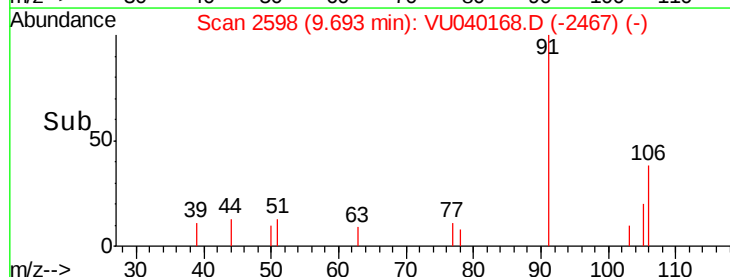
91 100

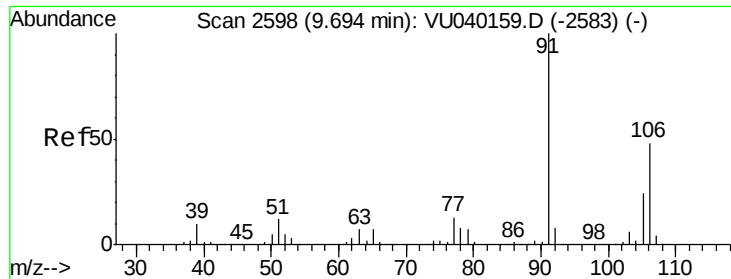
106 37.8 21.0 39.0



Abundance Ion 91.15 (90.85 to 91.85): VU

Ion 106.15 (105.85 to 106.85): V





#53

m,p-Xylene

Concen: 0.050 ug/L

RT: 9.70 min Scan# 2599

Delta R.T. 0.00 min

Lab File: VU040168.D

Acq: 16 Sep 2020 23:51

Instrument :

MSVOA\_U

ClientSampleId :

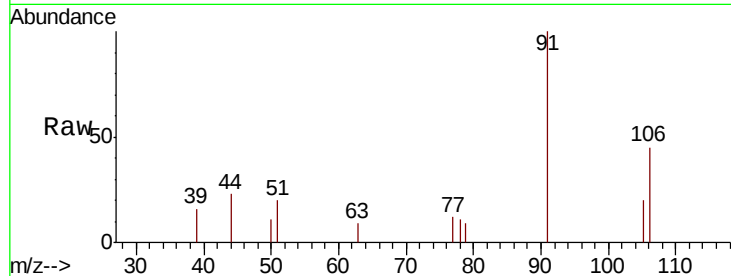
BG0P4

Tot Ion:106 Resp: 810

Ion Ratio Lower Upper

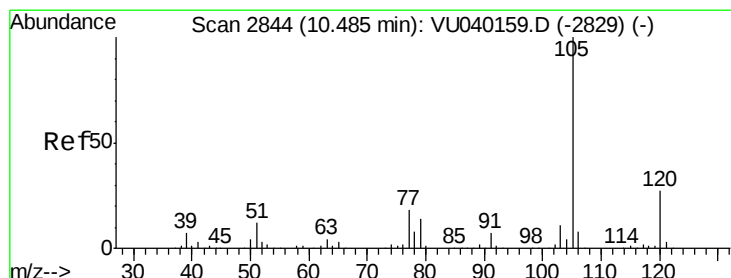
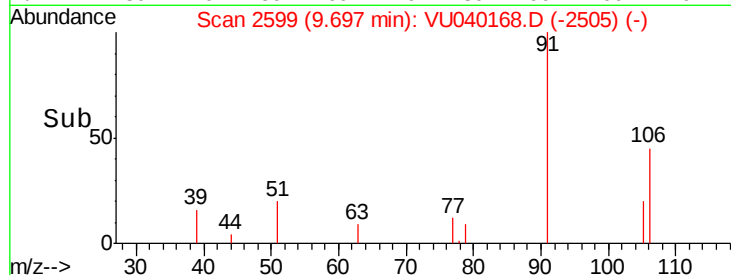
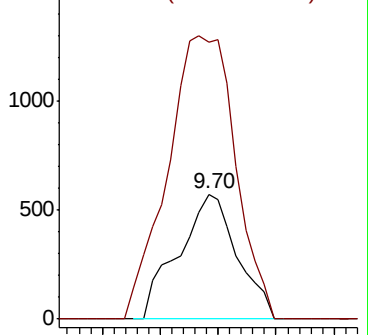
106 100

91 222.2 151.7 281.7



Abundance Ion 106.15 (105.85 to 106.85): V

Ion 91.15 (90.85 to 91.85): VU0



#56

Isopropylbenzene

Concen: 0.207 ug/L

RT: 10.48 min Scan# 2843

Delta R.T. -0.00 min

Lab File: VU040168.D

Acq: 16 Sep 2020 23:51

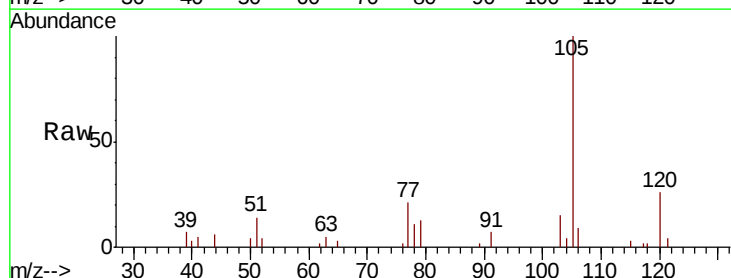
Tgt Ion:105 Resp: 8649

Ion Ratio Lower Upper

105 100

120 24.2 20.1 30.1

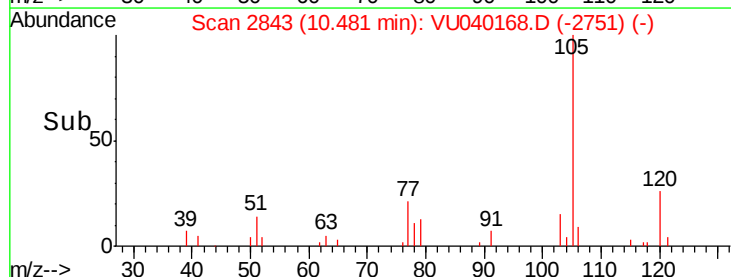
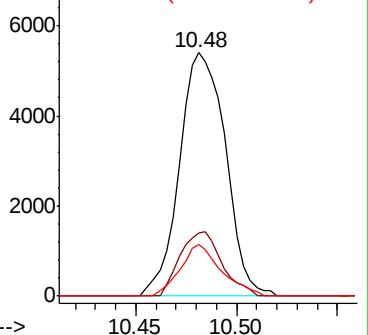
77 19.0 14.4 21.6

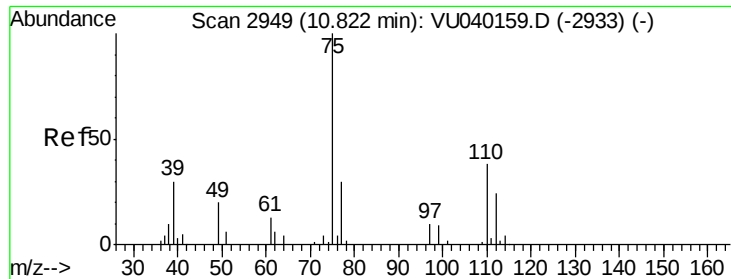


Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.10 (119.80 to 120.80): V

Ion 77.10 (76.80 to 77.80): VU0





#59

1,2,3-Trichloropropane

Concen: 1.203 ug/L

RT: 11.81 min Scan# 3256

Delta R.T. 0.99 min

Lab File: VU040168.D

Acq: 16 Sep 2020 23:51

Instrument :

MSVOA\_U

ClientSampleId :

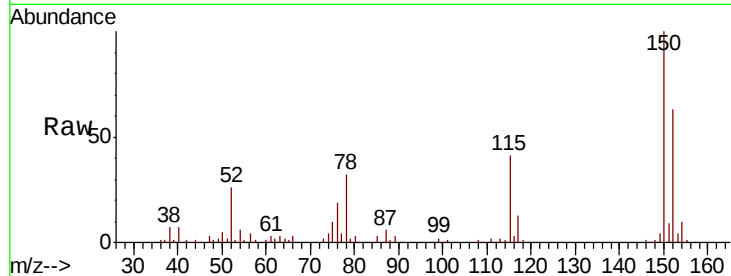
BG0P4

Tot Ion: 75 Resp: 9300

Ion Ratio Lower Upper

75 100

77 0.0 24.9 37.3#



Abundance Ion 75.00 (74.70 to 75.70): VU040159.D (-2933) (-)

Ion 77.00 (76.70 to 77.70): VU040159.D (-2933) (-)

11.81

6000

5000

4000

3000

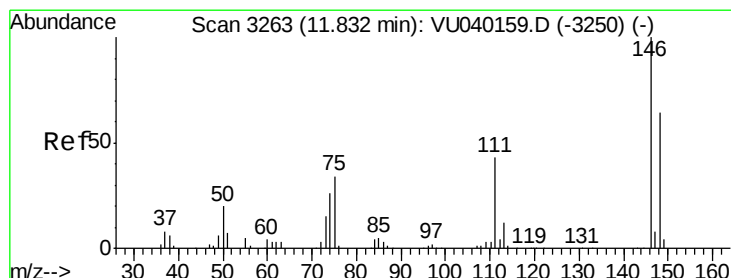
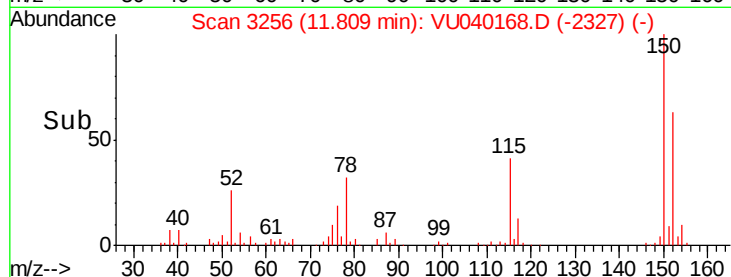
2000

1000

0

Time-->

11.75 11.80 11.85



#63

1,4-Dichlorobenzene

Concen: 0.230 ug/L

RT: 11.83 min Scan# 3263

Delta R.T. -0.00 min

Lab File: VU040168.D

Acq: 16 Sep 2020 23:51

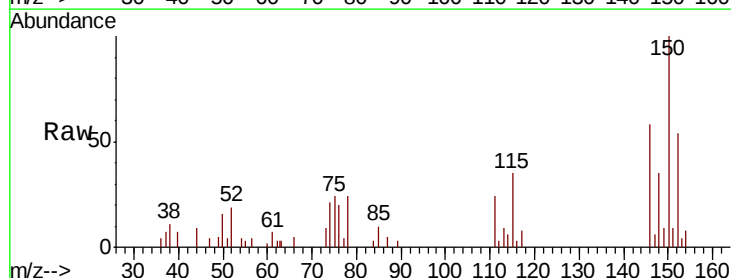
Tgt Ion: 146 Resp: 4226

Ion Ratio Lower Upper

146 100

111 42.1 30.5 56.7

148 60.2 45.4 84.4



Abundance Ion 145.95 (145.65 to 146.65): VU040159.D (-3250) (-)

Ion 111.00 (110.70 to 111.70): VU040159.D (-3250) (-)

Ion 148.00 (147.70 to 148.70): VU040159.D (-3250) (-)

11.83

3000

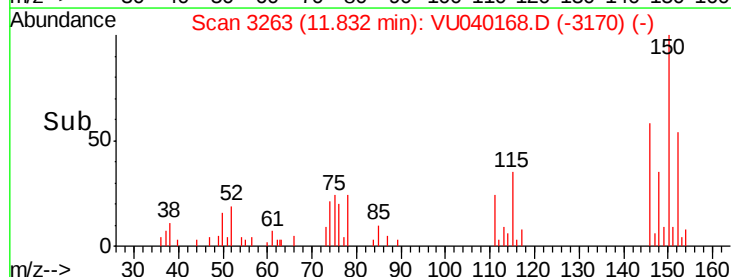
2000

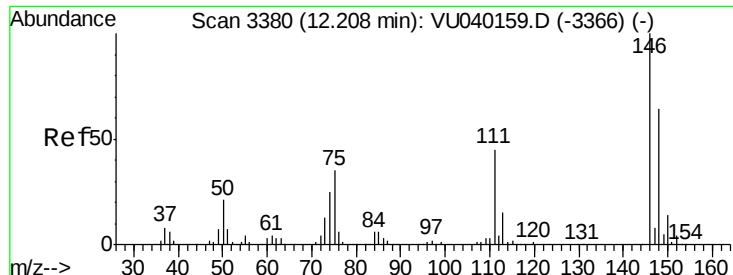
1000

0

Time-->

11.80 11.85

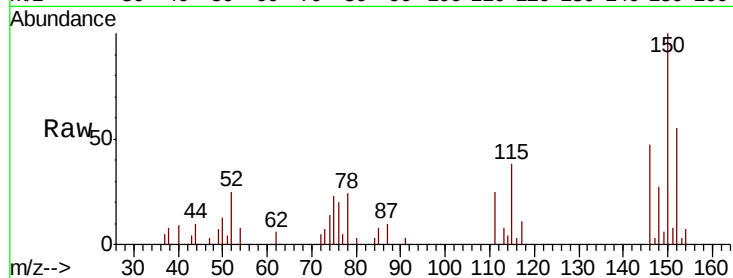




#65  
 1,2-Dichlorobenzene  
 Concen: 0.172 ug/L  
 RT: 12.21 min Scan# 3381  
 Delta R.T. 0.00 min  
 Lab File: VU040168.D  
 Acq: 16 Sep 2020 23:51

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 BG0P4

Tot Ion:146 Resp: 3025  
 Ion Ratio Lower Upper  
 146 100  
 111 53.7 36.5 54.7  
 148 57.5 48.6 72.8



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

