

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU092920\  
 Data File : VU040361.D  
 Acq On : 29 Sep 2020 16:04  
 Operator : SY/MD  
 Sample : L4164-04MSD  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 17 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 E0AD8MSD

Quant Time: Sep 30 01:52:26 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR092920WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Wed Sep 30 01:43:05 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.26  | 114  | 137529   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.42  | 117  | 139162   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.81 | 152  | 64310    | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.60   | 65    | 29828    | 4.38     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 87.60%  |
| 7) Chloroethane-d5             | 1.92   | 69    | 27634    | 4.64     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 92.80%  |
| 11) 1,1-Dichloroethene-d2      | 2.58   | 63    | 72418    | 4.42     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 88.40%  |
| 20) 2-Butanone-d5              | 4.65   | 46    | 169700   | 50.18    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 100.36% |
| 24) Chloroform-d               | 5.08   | 84    | 72334    | 4.46     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 89.20%  |
| 26) 1,2-Dichloroethane-d4      | 5.72   | 65    | 47567    | 4.82     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 96.40%  |
| 32) Benzene-d6                 | 5.75   | 84    | 131301   | 4.69     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 93.80%  |
| 36) 1,2-Dichloropropane-d6     | 6.70   | 67    | 47781    | 4.67     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 93.40%  |
| 41) Toluene-d8                 | 7.91   | 98    | 105363   | 4.33     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 86.60%  |
| 43) trans-1,3-Dichloropropene- | 8.19   | 79    | 18934    | 4.53     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 90.60%  |
| 46) 2-Hexanone-d5              | 8.64   | 63    | 123108   | 50.11    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 100.22% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.75  | 84    | 46321    | 4.65     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 93.00%  |
| 64) 1,2-Dichlorobenzene-d4     | 12.19  | 152   | 50006    | 5.13     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 102.60% |

## Target Compounds

| Target Compounds              | R.T.  | QIon | Response | Conc  | Units  | Ovalue |
|-------------------------------|-------|------|----------|-------|--------|--------|
| 5) Vinyl chloride             | 1.61  | 62   | 2234     | 0.168 | ug/L # | 81     |
| 12) 1,1-Dichloroethene        | 2.59  | 96   | 41128    | 3.927 | ug/L   | 91     |
| 13) Acetone                   | 2.66  | 43   | 3941     | 1.398 | ug/L   | 83     |
| 22) cis-1,2-Dichloroethene    | 4.69  | 96   | 6520     | 0.544 | ug/L   | 98     |
| 25) Chloroform                | 5.11  | 83   | 2896     | 0.128 | ug/L   | 94     |
| 27) 1,2-Dichloroethane        | 5.78  | 62   | 543      | 0.035 | ug/L # | 74     |
| 33) Benzene                   | 5.79  | 78   | 194927   | 4.178 | ug/L   | 100    |
| 34) Trichloroethene           | 6.56  | 95   | 49756    | 4.017 | ug/L   | 95     |
| 35) Methylcyclohexane         | 6.70  | 83   | 11460    | 0.631 | ug/L # | 13     |
| 37) 1,2-Dichloropropane       | 6.70  | 63   | 5523     | 0.425 | ug/L # | 88     |
| 39) cis-1,3-Dichloropropene   | 7.57  | 75   | 1252     | 0.072 | ug/L # | 66     |
| 42) Toluene                   | 7.98  | 91   | 199153   | 4.163 | ug/L   | 98     |
| 44) trans-1,3-Dichloropropene | 8.18  | 75   | 725      | 0.045 | ug/L   | 90     |
| 48) 2-Hexanone                | 8.64  | 43   | 18691    | 2.493 | ug/L # | 71     |
| 51) Chlorobenzene             | 9.45  | 112  | 135002   | 4.364 | ug/L   | 98     |
| 59) 1,2,3-Trichloropropane    | 11.81 | 75   | 8979     | 0.953 | ug/L   | 89     |

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Sample : L4164-04MSD  
Misc : 25.0mL/MSVOA U/WATER  
ALS Vial : 17 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
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Quant Time: Sep 30 01:52:26 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR092920WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Wed Sep 30 01:43:05 2020  
Response via : Initial Calibration

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

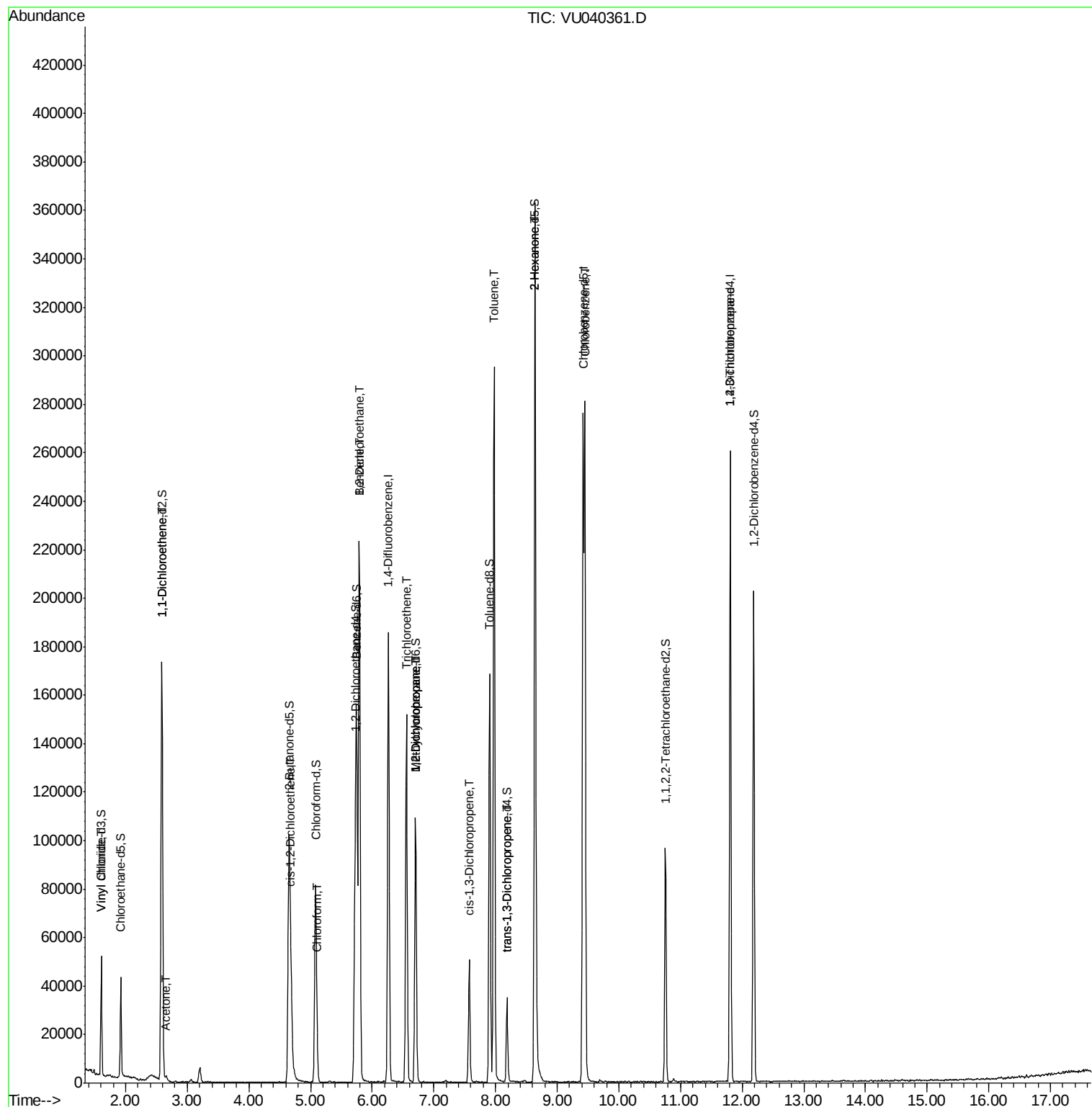
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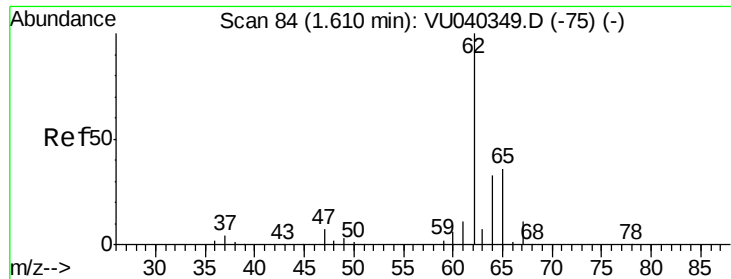
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Response via : Initial Calibration





#5

Vinyl chloride

Concen: 0.168 ug/L

RT: 1.61 min Scan# 84

Delta R.T. 0.00 min

Lab File: VU040361.D

Acq: 29 Sep 2020 16:04

Instrument :

MSVOA\_U

ClientSampleId :

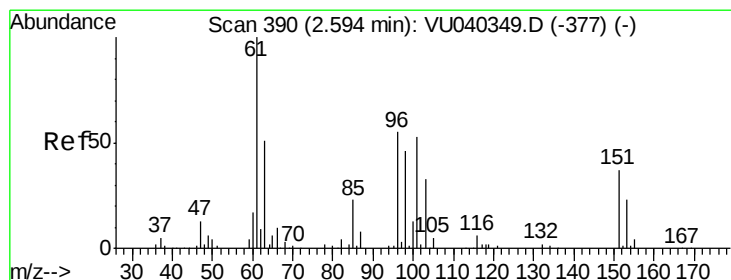
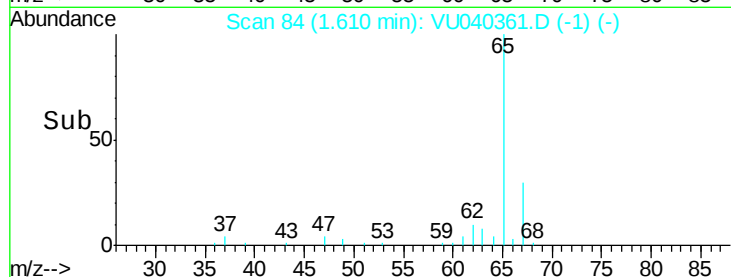
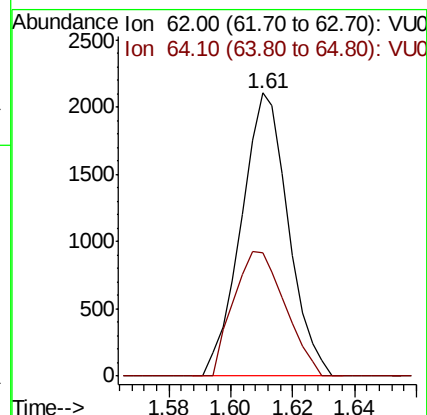
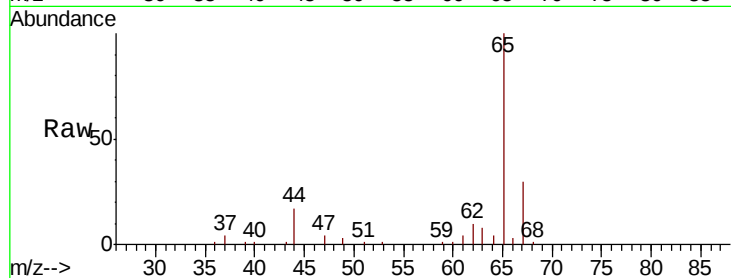
E0AD8MSD

Tot Ion: 62 Resp: 2234

Ion Ratio Lower Upper

62 100

64 43.8 23.0 42.8#



#12

1,1-Dichloroethene

Concen: 3.927 ug/L

RT: 2.59 min Scan# 389

Delta R.T. -0.00 min

Lab File: VU040361.D

Acq: 29 Sep 2020 16:04

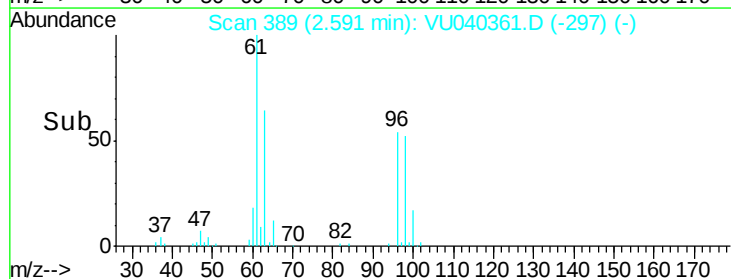
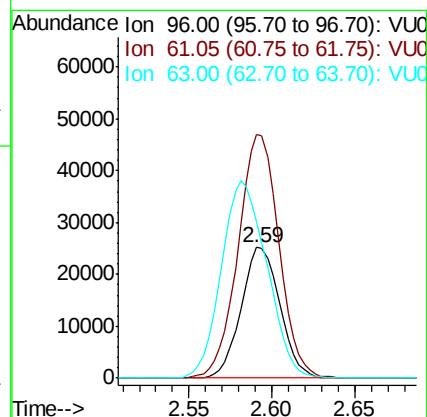
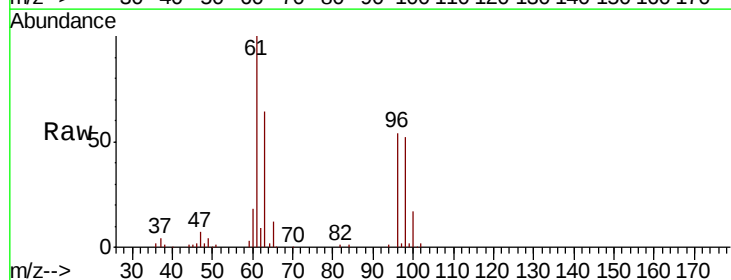
Tgt Ion: 96 Resp: 41128

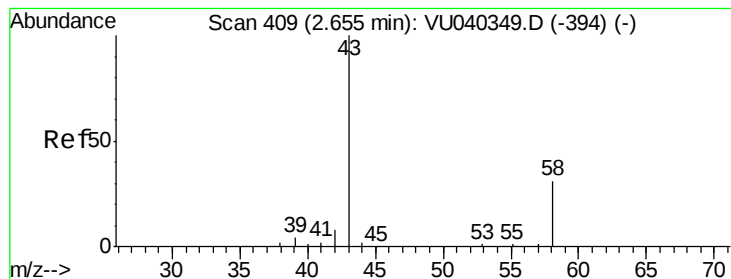
Ion Ratio Lower Upper

96 100

61 186.5 128.6 238.8

63 120.1 67.8 126.0





#13

Acetone

Concen: 1.398 ug/L

RT: 2.66 min Scan# 410

Delta R.T. 0.00 min

Lab File: VU040361.D

Acq: 29 Sep 2020 16:04

Instrument :

MSVOA\_U

ClientSampleId :

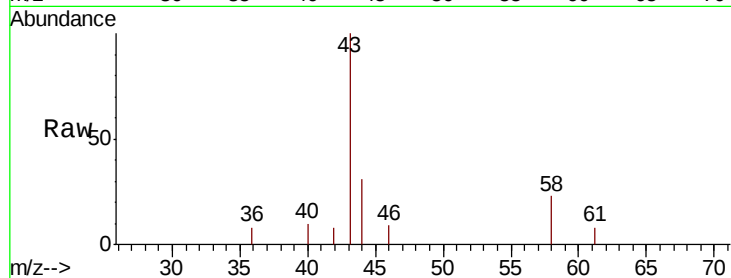
E0AD8MSD

Tot Ion: 43 Resp: 3941

Ion Ratio Lower Upper

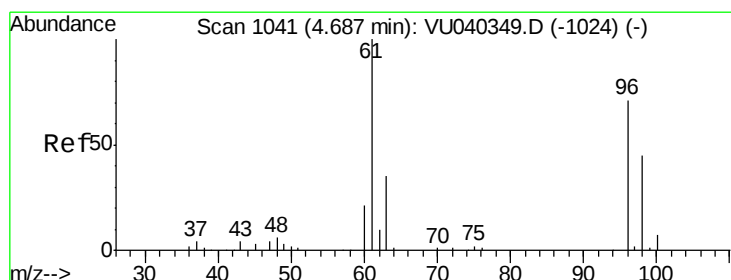
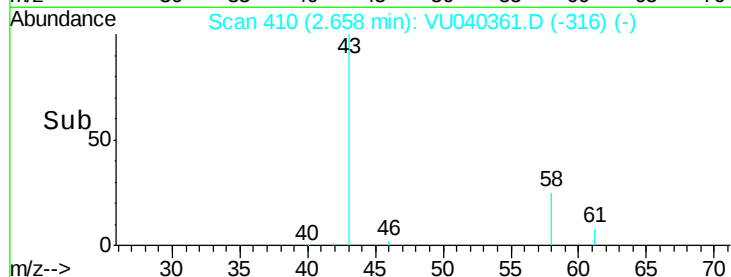
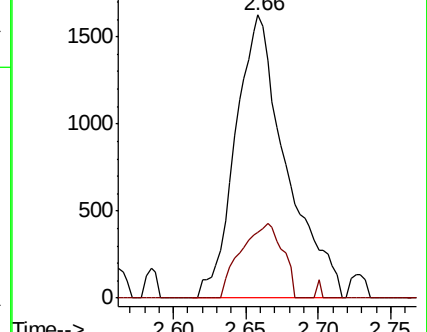
43 100

58 21.6 0.0 61.8



Abundance Ion 43.05 (42.75 to 43.75): VU040361.D (-316) (-)

Ion 58.05 (57.75 to 58.75): VU040361.D (-316) (-)



#22

cis-1,2-Dichloroethene

Concen: 0.544 ug/L

RT: 4.69 min Scan# 1041

Delta R.T. 0.00 min

Lab File: VU040361.D

Acq: 29 Sep 2020 16:04

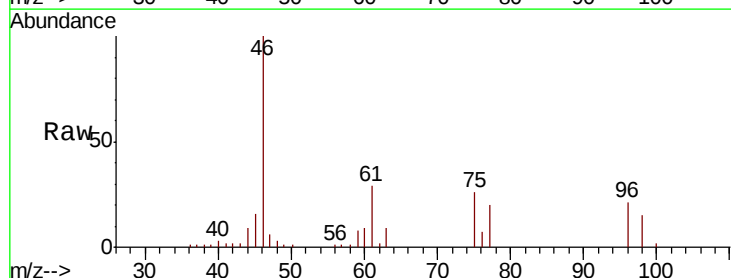
Tgt Ion: 96 Resp: 6520

Ion Ratio Lower Upper

96 100

61 140.0 99.3 184.5

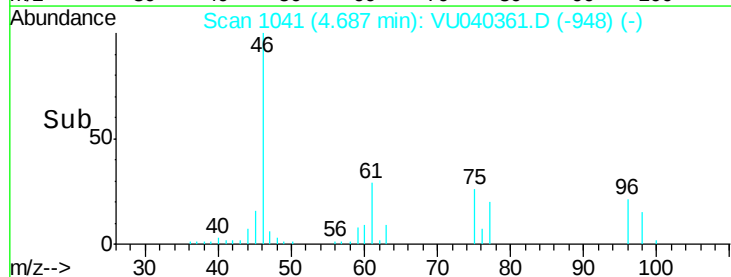
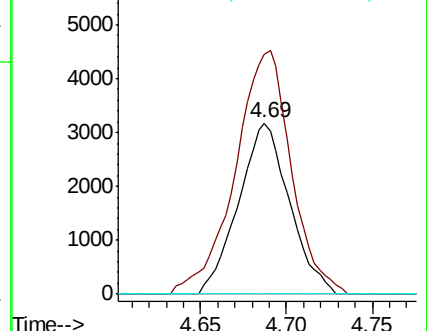
68 0.0 0.0 0.0

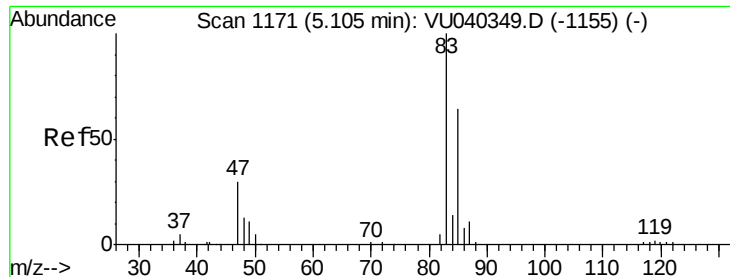


Abundance Ion 96.00 (95.70 to 96.70): VU040361.D (-948) (-)

Ion 61.05 (60.75 to 61.75): VU040361.D (-948) (-)

Ion 68.15 (67.85 to 68.85): VU040361.D (-948) (-)

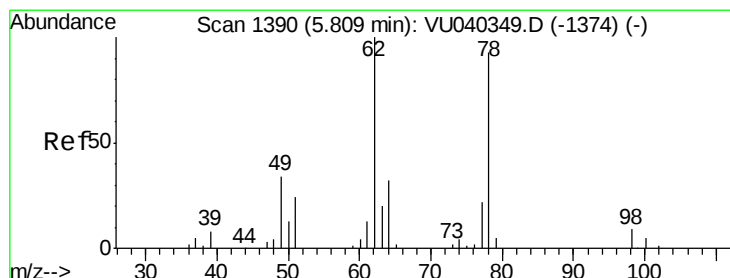
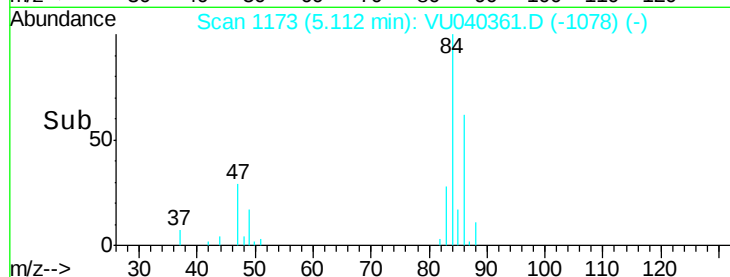
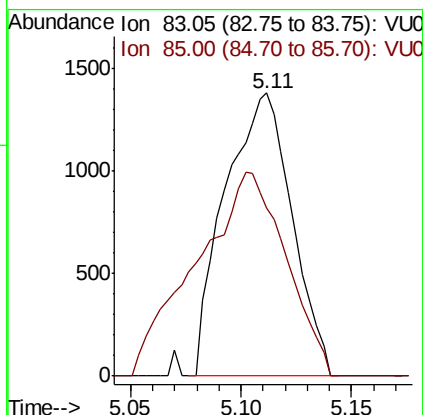
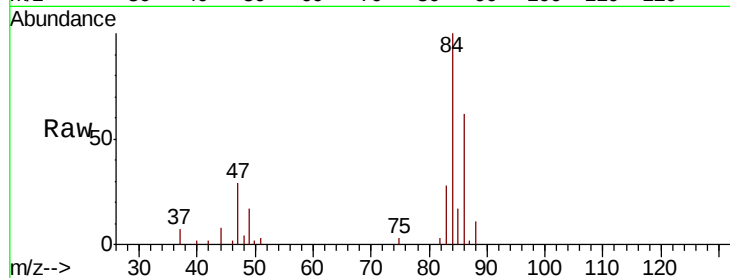




#25  
Chloroform  
Concen: 0.128 ug/L  
RT: 5.11 min Scan# 1173  
Delta R.T. 0.01 min  
Lab File: VU040361.D  
Acq: 29 Sep 2020 16:04

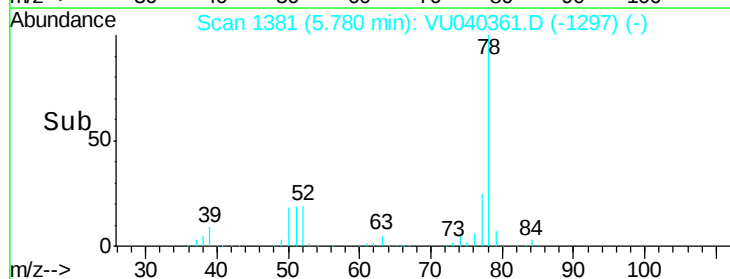
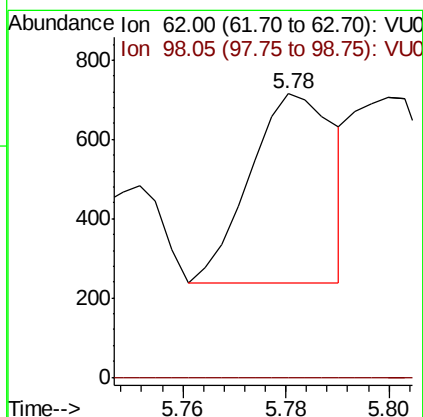
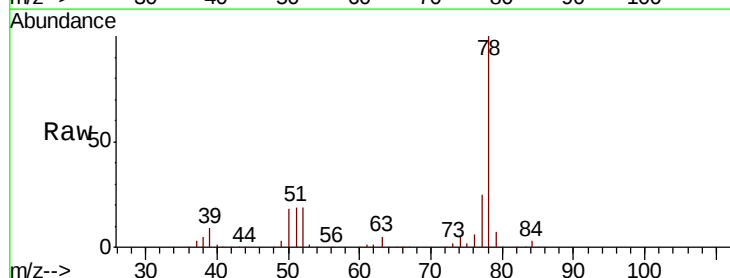
Instrument :  
MSVOA\_U  
ClientSampleId :  
E0AD8MSD

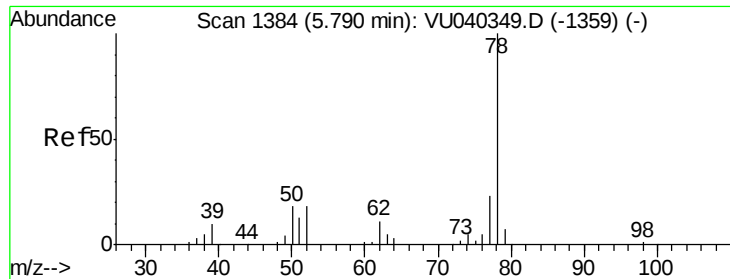
Tot Ion: 83 Resp: 2896  
Ion Ratio Lower Upper  
83 100  
85 59.2 44.6 82.8



#27  
1,2-Dichloroethane  
Concen: 0.035 ug/L  
RT: 5.78 min Scan# 1381  
Delta R.T. -0.03 min  
Lab File: VU040361.D  
Acq: 29 Sep 2020 16:04

Tgt Ion: 62 Resp: 543  
Ion Ratio Lower Upper  
62 100  
98 0.0 7.5 11.3#





#33

Benzene

Concen: 4.178 ug/L

RT: 5.79 min Scan# 1384

Delta R.T. 0.00 min

Lab File: VU040361.D

Acq: 29 Sep 2020 16:04

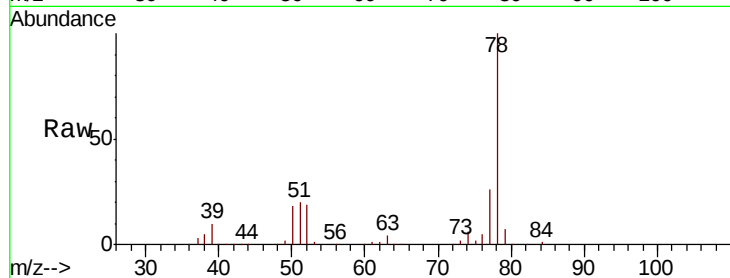
Instrument :

MSVOA\_U

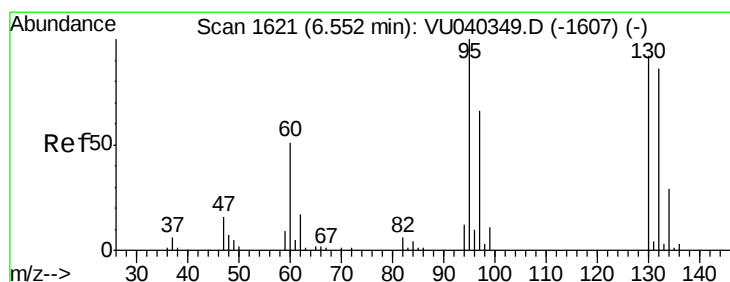
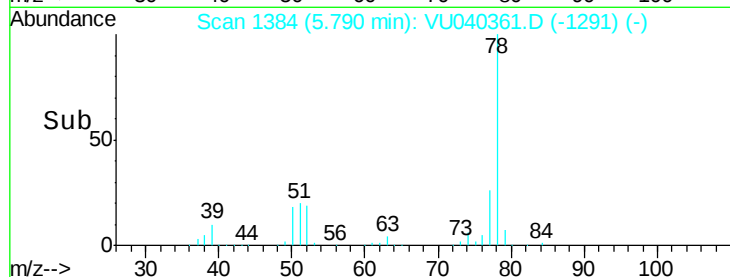
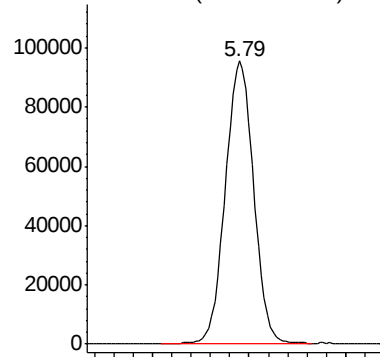
ClientSampleId :

E0AD8MSD

Tgt Ion: 78 Resp: 194927



Abundance Ion 78.10 (77.80 to 78.80): VU0



#34

Trichloroethene

Concen: 4.017 ug/L

RT: 6.56 min Scan# 1622

Delta R.T. 0.00 min

Lab File: VU040361.D

Acq: 29 Sep 2020 16:04

Tgt Ion: 95 Resp: 49756

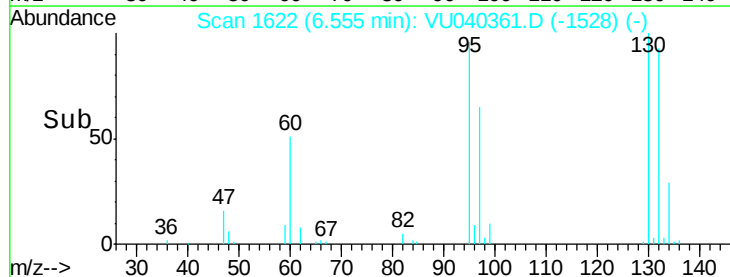
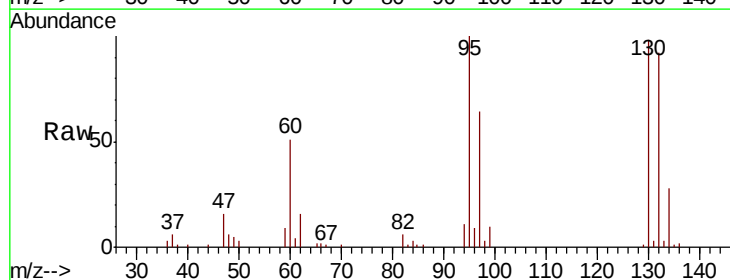
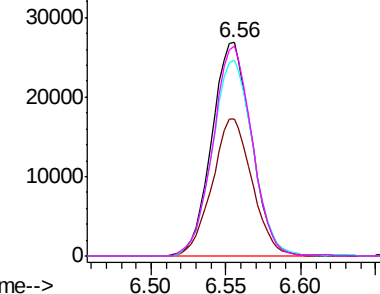
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 95  | 100   |       |       |
| 97  | 64.2  | 46.3  | 85.9  |
| 132 | 91.6  | 60.5  | 112.3 |
| 130 | 98.1  | 64.3  | 119.3 |

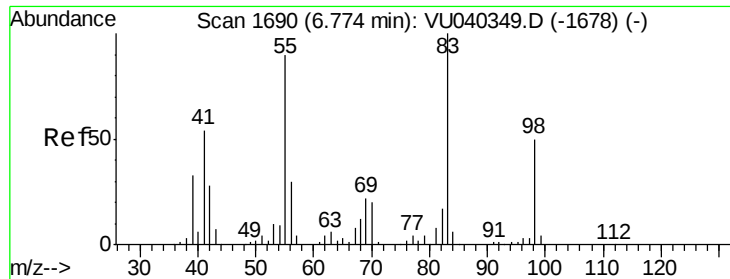
Abundance Ion 95.00 (94.70 to 95.70): VU0

Ion 96.95 (96.65 to 97.65): VU0

Ion 131.95 (131.65 to 132.65): VU0

Ion 129.95 (129.65 to 130.65): VU0

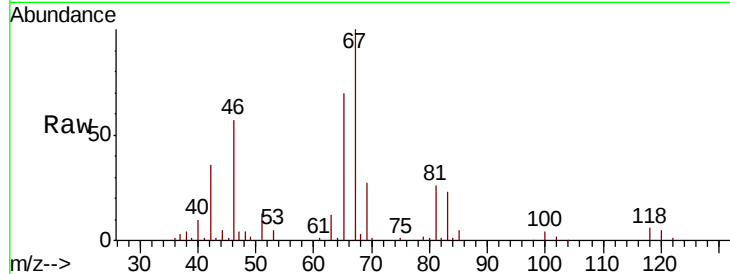




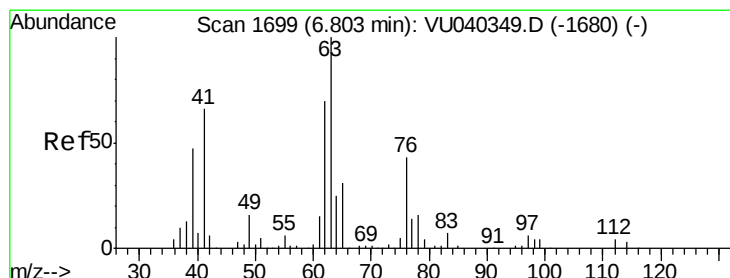
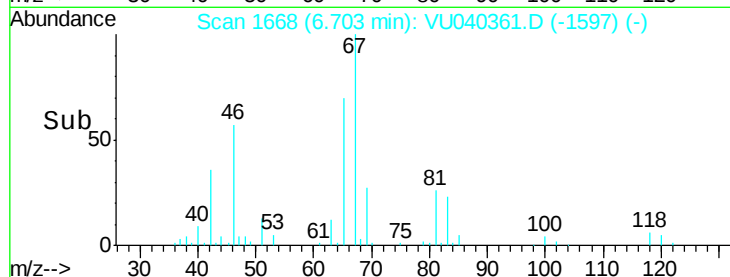
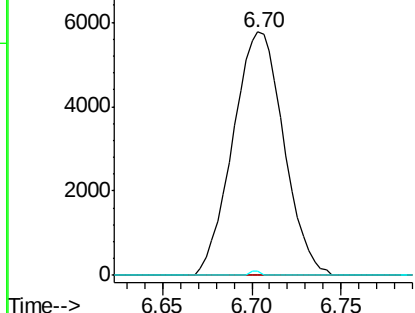
#35  
Methvlcvclohexane  
Concen: 0.631 ug/L  
RT: 6.70 min Scan# 1668  
Delta R.T. -0.07 min  
Lab File: VU040361.D  
Acq: 29 Sep 2020 16:04

Instrument :  
MSVOA\_U  
ClientSampleId :  
E0AD8MSD

Tot Ion: 83 Resp: 11460  
Ion Ratio Lower Upper  
83 100  
55 0.0 71.4 107.2#  
98 0.0 38.5 57.7#

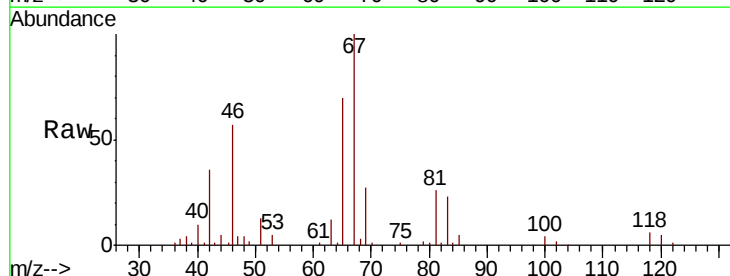


Abundance Ion 83.15 (82.85 to 83.85): VU0  
Ion 55.10 (54.80 to 55.80): VU0  
Ion 98.15 (97.85 to 98.85): VU0

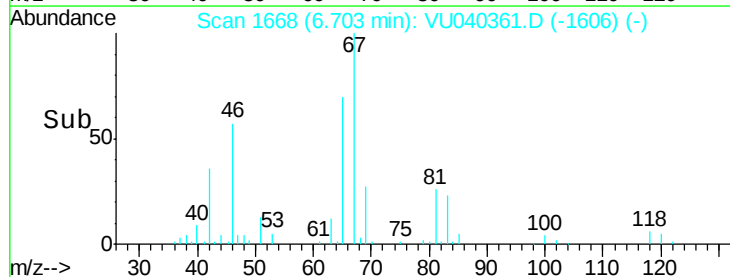
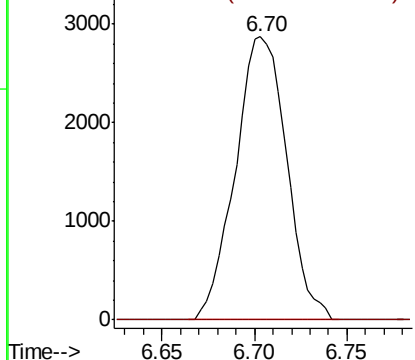


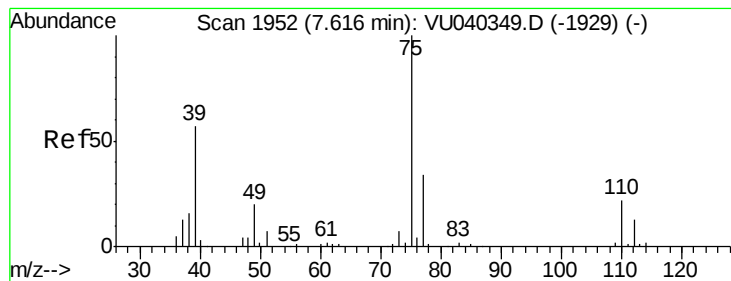
#37  
1,2-Dichloropropane  
Concen: 0.425 ug/L  
RT: 6.70 min Scan# 1668  
Delta R.T. -0.10 min  
Lab File: VU040361.D  
Acq: 29 Sep 2020 16:04

Tgt Ion: 63 Resp: 5523  
Ion Ratio Lower Upper  
63 100  
112 0.0 3.2 4.8#



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: 0.072 ug/L

RT: 7.57 min Scan# 1939

Delta R.T. -0.04 min

Lab File: VU040361.D

Acq: 29 Sep 2020 16:04

Instrument :

MSVOA\_U

ClientSampleId :

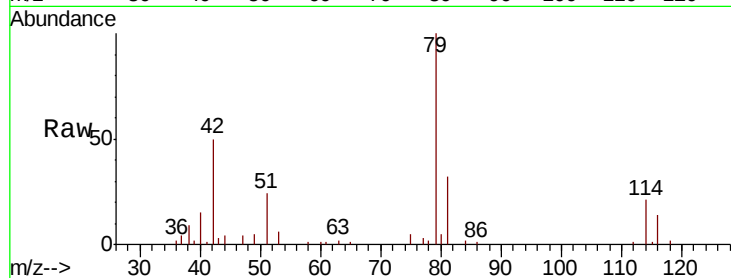
E0AD8MSD

Tot Ion: 75 Resp: 1252

Ion Ratio Lower Upper

75 100

77 53.2 23.5 43.7#



Abundance Ion 75.05 (74.75 to 75.75): VU0

Ion 77.05 (76.75 to 77.75): VU0

7.57

800

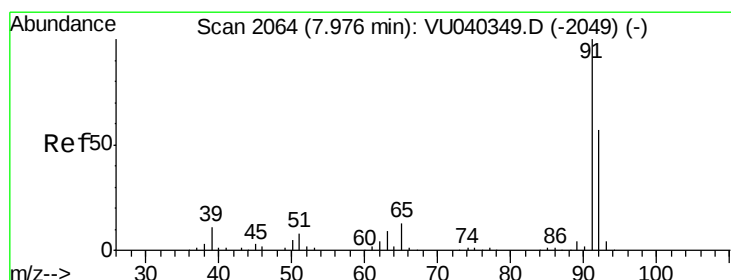
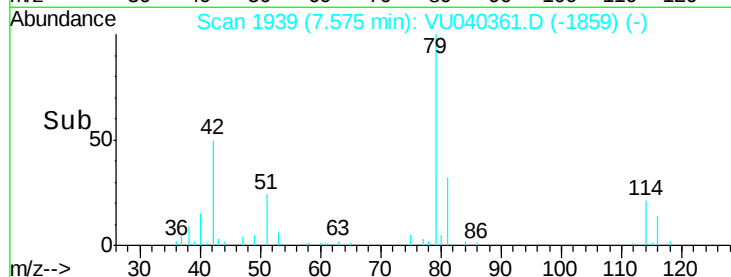
600

400

200

0

Time-->



#42

Toluene

Concen: 4.163 ug/L

RT: 7.98 min Scan# 2064

Delta R.T. 0.00 min

Lab File: VU040361.D

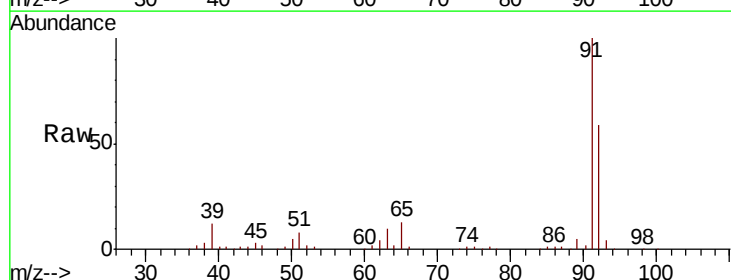
Acq: 29 Sep 2020 16:04

Tgt Ion: 91 Resp: 199153

Ion Ratio Lower Upper

91 100

92 58.8 40.0 74.4



Abundance Ion 91.15 (90.85 to 91.85): VU0

Ion 92.15 (91.85 to 92.85): VU0

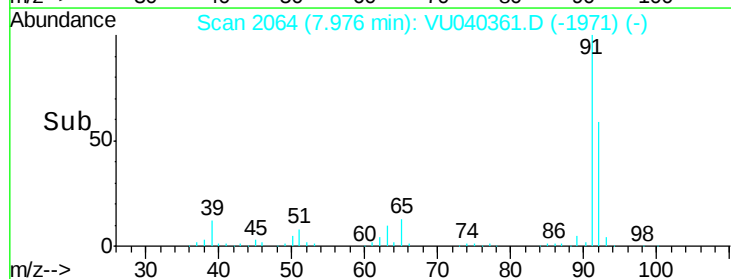
7.98

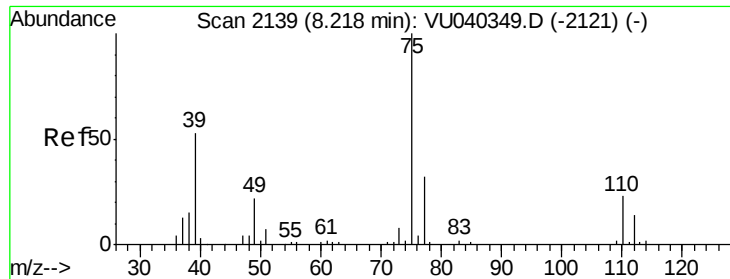
100000

50000

0

Time-->

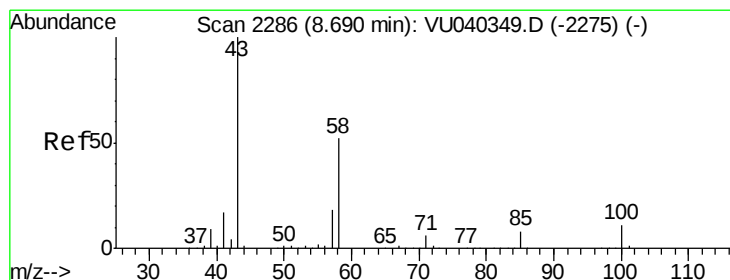
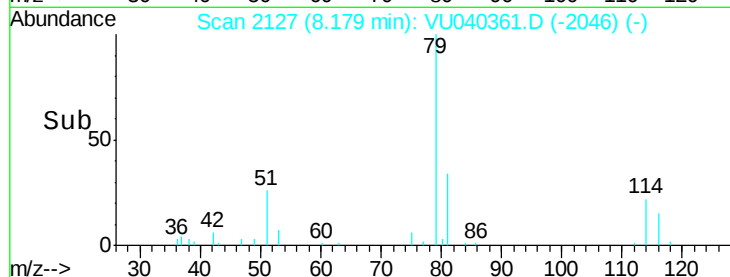
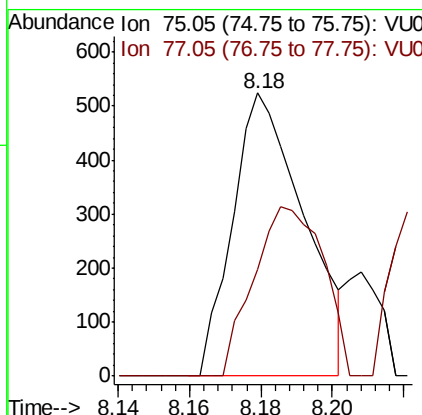
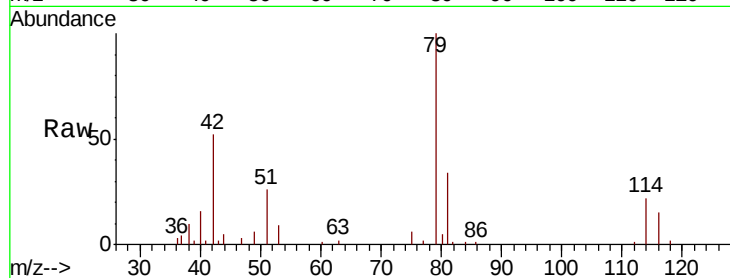




#44  
trans-1,3-Dichloropropene  
Concen: 0.045 ug/L  
RT: 8.18 min Scan# 2127  
Delta R.T. -0.04 min  
Lab File: VU040361.D  
Acq: 29 Sep 2020 16:04

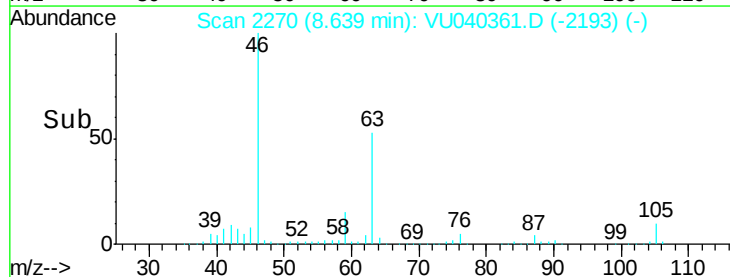
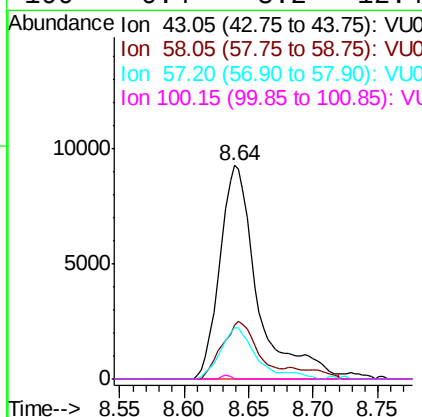
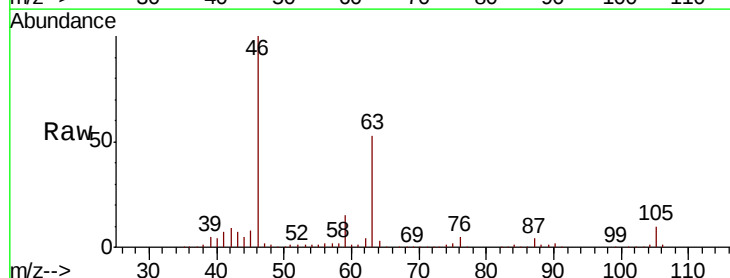
Instrument :  
MSVOA\_U  
ClientSampleId :  
E0AD8MSD

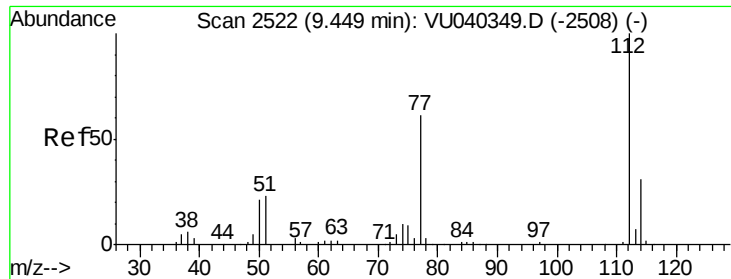
Tot Ion: 75 Resp: 725  
Ion Ratio Lower Upper  
75 100  
77 37.6 22.3 41.3



#48  
2-Hexanone  
Concen: 2.493 ug/L  
RT: 8.64 min Scan# 2270  
Delta R.T. -0.05 min  
Lab File: VU040361.D  
Acq: 29 Sep 2020 16:04

Tgt Ion: 43 Resp: 18691  
Ion Ratio Lower Upper  
43 100  
58 25.1 41.0 61.4#  
57 22.0 14.6 22.0#  
100 0.4 8.2 12.4#

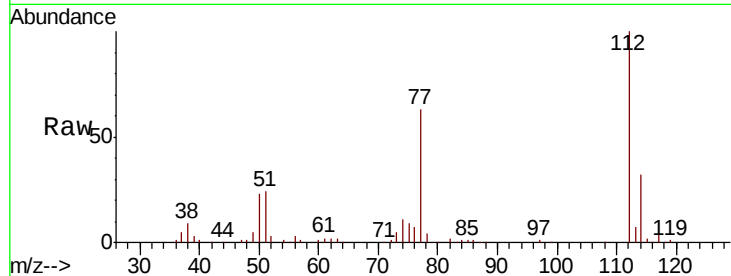




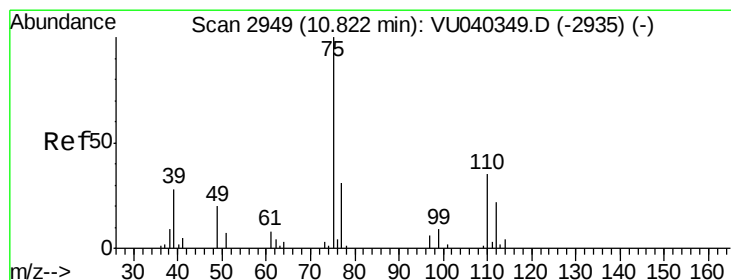
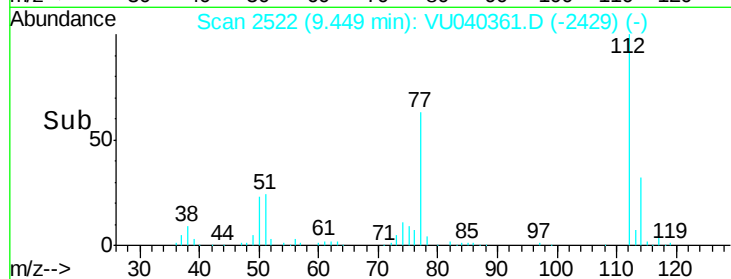
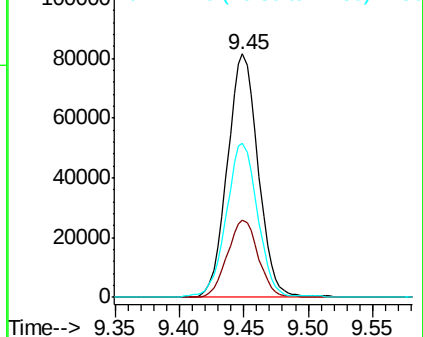
#51  
Chlorobenzene  
Concen: 4.364 ug/L  
RT: 9.45 min Scan# 2522  
Delta R.T. 0.00 min  
Lab File: VU040361.D  
Acq: 29 Sep 2020 16:04

Instrument :  
MSVOA\_U  
ClientSampleId :  
E0AD8MSD

Tot Ion:112 Resp: 135002  
Ion Ratio Lower Upper  
112 100  
114 31.8 22.0 40.8  
77 63.5 49.5 74.3

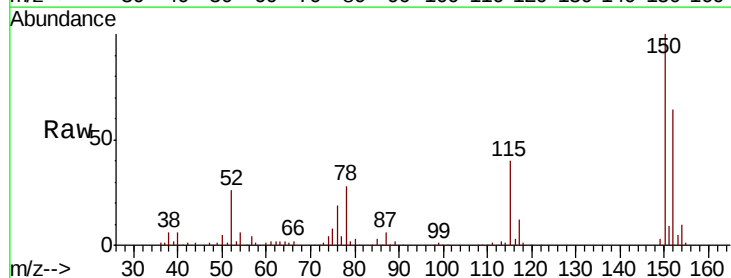


Abundance Ion 112.10 (111.80 to 112.80): V  
Ion 114.05 (113.75 to 114.75): V  
Ion 77.10 (76.80 to 77.80): V



#59  
1,2,3-Trichloropropane  
Concen: 0.953 ug/L  
RT: 11.81 min Scan# 3255  
Delta R.T. 0.98 min  
Lab File: VU040361.D  
Acq: 29 Sep 2020 16:04

Tgt Ion: 75 Resp: 8979  
Ion Ratio Lower Upper  
75 100  
77 38.2 25.7 38.5



Abundance Ion 75.00 (74.70 to 75.70): VU0  
Ion 77.00 (76.70 to 77.70): VU0

