

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU011420\  
 Data File : VU036449.D  
 Acq On : 14 Jan 2020 16:34  
 Operator : JC/MD  
 Sample : VSTD00534  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Jan 15 00:03:56 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM011420WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Wed Jan 15 00:01:44 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.29  | 114  | 308159   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.45  | 117  | 286157   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.84 | 152  | 102667   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |       |     |       |       |      |      |
|--------------------------------|-------|-----|-------|-------|------|------|
| 4) Vinyl Chloride-d3           | 1.62  | 65  | 14811 | 6.37  | ug/L | 0.00 |
| 7) Chloroethane-d5             | 1.93  | 69  | 13863 | 7.02  | ug/L | 0.00 |
| 11) 1,1-Dichloroethene-d2      | 2.60  | 63  | 28857 | 7.07  | ug/L | 0.00 |
| 21) 2-Butanone-d5              | 4.69  | 46  | 24170 | 13.56 | ug/L | 0.00 |
| 24) Chloroform-d               | 5.11  | 84  | 29086 | 6.97  | ug/L | 0.00 |
| 26) 1,2-Dichloroethane-d4      | 5.75  | 65  | 20182 | 7.27  | ug/L | 0.00 |
| 32) Benzene-d6                 | 5.77  | 84  | 57643 | 7.27  | ug/L | 0.00 |
| 36) 1,2-Dichloropropane-d6     | 6.73  | 67  | 18800 | 7.09  | ug/L | 0.00 |
| 41) Toluene-d8                 | 7.93  | 98  | 52998 | 6.98  | ug/L | 0.00 |
| 43) trans-1,3-Dichloropropene- | 8.21  | 79  | 8534  | 5.94  | ug/L | 0.00 |
| 47) 2-Hexanone-d5              | 8.68  | 63  | 16854 | 12.23 | ug/L | 0.02 |
| 57) 1,1,2,2-Tetrachloroethane- | 10.78 | 84  | 26762 | 6.66  | ug/L | 0.00 |
| 64) 1,2-Dichlorobenzene-d4     | 12.22 | 152 | 15934 | 7.39  | ug/L | 0.00 |

## Target Compounds

|                                |      |     |       |        | Qvalue    |
|--------------------------------|------|-----|-------|--------|-----------|
| 2) Dichlorodifluoromethane     | 1.40 | 85  | 26357 | 10.254 | ug/L 99   |
| 3) Chloromethane               | 1.54 | 50  | 23459 | 10.053 | ug/L 96   |
| 5) Vinyl chloride              | 1.62 | 62  | 22744 | 8.634  | ug/L 95   |
| 6) Bromomethane                | 1.88 | 94  | 12800 | 9.627  | ug/L 98   |
| 8) Chloroethane                | 1.95 | 64  | 13095 | 8.343  | ug/L 96   |
| 9) Trichlorofluoromethane      | 2.16 | 101 | 29246 | 7.966  | ug/L 95   |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.61 | 101 | 16691 | 9.061  | ug/L 97   |
| 12) 1,1-Dichloroethene         | 2.61 | 96  | 16159 | 8.896  | ug/L 92   |
| 13) Acetone                    | 2.66 | 43  | 37221 | 19.818 | ug/L 98   |
| 14) Carbon disulfide           | 2.83 | 76  | 50067 | 8.856  | ug/L 97   |
| 15) Methyl Acetate             | 2.99 | 43  | 21186 | 8.367  | ug/L 99   |
| 16) Methylene chloride         | 3.08 | 84  | 19645 | 8.854  | ug/L 97   |
| 17) trans-1,2-Dichloroethene   | 3.40 | 96  | 17910 | 9.191  | ug/L 89   |
| 18) Methyl tert-butyl Ether    | 3.41 | 73  | 54596 | 7.725  | ug/L 97   |
| 19) 1,1-Dichloroethane         | 3.92 | 63  | 33140 | 8.484  | ug/L 99   |
| 20) cis-1,2-Dichloroethene     | 4.72 | 96  | 19607 | 8.308  | ug/L 94   |
| 22) 2-Butanone                 | 4.76 | 43  | 34806 | 15.813 | ug/L # 71 |
| 23) Bromochloromethane         | 5.02 | 128 | 9128  | 8.109  | ug/L 96   |
| 25) Chloroform                 | 5.14 | 83  | 32536 | 7.843  | ug/L 99   |
| 27) 1,2-Dichloroethane         | 5.84 | 62  | 27251 | 8.436  | ug/L # 93 |
| 29) Cyclohexane                | 5.43 | 56  | 29562 | 8.763  | ug/L # 91 |
| 30) 1,1,1-Trichloroethane      | 5.36 | 97  | 29953 | 8.466  | ug/L 98   |
| 31) Carbon tetrachloride       | 5.57 | 117 | 25175 | 8.189  | ug/L 100  |
| 33) Benzene                    | 5.82 | 78  | 72483 | 8.529  | ug/L 100  |
| 34) Trichloroethene            | 6.58 | 95  | 19968 | 9.050  | ug/L 92   |
| 35) Methylcyclohexane          | 6.80 | 83  | 29505 | 8.429  | ug/L 94   |
| 37) 1,2-Dichloropropane        | 6.83 | 63  | 18879 | 8.264  | ug/L # 93 |
| 38) Bromodichloromethane       | 7.15 | 83  | 25242 | 7.842  | ug/L 97   |
| 39) cis-1,3-Dichloropropene    | 7.64 | 75  | 26386 | 6.857  | ug/L 97   |
| 40) 4-Methyl-2-pentanone       | 7.84 | 43  | 60381 | 15.664 | ug/L # 94 |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU011420\  
 Data File : VU036449.D  
 Acq On : 14 Jan 2020 16:34  
 Operator : JC/MD  
 Sample : VSTD00534  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 1 Sample Multiplier: 1

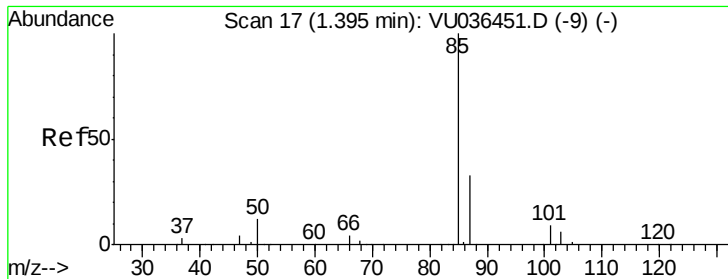
Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Jan 15 00:03:56 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM011420WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Wed Jan 15 00:01:44 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| -----                          |       |      |          |        |        |          |
| 42) Toluene                    | 8.00  | 91   | 76009    | 8.123  | ug/L   | 99       |
| 44) trans-1,3-Dichloropropene  | 8.24  | 75   | 27700    | 7.762  | ug/L   | 99       |
| 45) 1,1,2-Trichloroethane      | 8.44  | 97   | 18700    | 8.758  | ug/L   | 95       |
| 46) Tetrachloroethene          | 8.58  | 164  | 13796    | 8.765  | ug/L   | 96       |
| 48) 2-Hexanone                 | 8.73  | 43   | 48833    | 16.483 | ug/L # | 96       |
| 49) Dibromochloromethane       | 8.84  | 129  | 19545    | 7.526  | ug/L   | 100      |
| 50) 1,2-Dibromoethane          | 8.96  | 107  | 20440    | 8.234  | ug/L   | 98       |
| 51) Chlorobenzene              | 9.47  | 112  | 48342    | 8.212  | ug/L   | 95       |
| 52) Ethylbenzene               | 9.60  | 91   | 80489    | 7.590  | ug/L   | 96       |
| 53) m,p-Xylene                 | 9.72  | 106  | 30040    | 7.642  | ug/L   | 97       |
| 54) o-xylene                   | 10.12 | 106  | 29306    | 7.416  | ug/L   | 98       |
| 55) Styrene                    | 10.14 | 104  | 45874    | 6.899  | ug/L   | 93       |
| 56) Isopropylbenzene           | 10.51 | 105  | 76641    | 7.454  | ug/L   | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.81 | 83   | 30888    | 7.676  | ug/L   | 98       |
| 59) 1,2,3-Trichloropropane     | 10.85 | 75   | 25486    | 7.931  | ug/L   | 99       |
| 61) Bromoform                  | 10.32 | 173  | 13497    | 8.859  | ug/L # | 95       |
| 62) 1,3-Dichlorobenzene        | 11.77 | 146  | 28338    | 8.463  | ug/L   | 99       |
| 63) 1,4-Dichlorobenzene        | 11.86 | 146  | 28086    | 8.420  | ug/L   | 98       |
| 65) 1,2-Dichlorobenzene        | 12.24 | 146  | 29010    | 8.654  | ug/L   | 96       |
| 66) 1,2-Dibromo-3-chloropropan | 13.02 | 75   | 6434     | 8.304  | ug/L   | 95       |
| 67) 1,3,5-Trichlorobenzene     | 13.24 | 180  | 16374    | 7.494  | ug/L   | 96       |
| 68) 1,2,4-trichlorobenzene     | 13.86 | 180  | 9275     | 5.623  | ug/L   | 95       |
| 69) Naphthalene                | 14.10 | 128  | 34871    | 6.243  | ug/L   | 99       |
| 70) 1,2,3-Trichlorobenzene     | 14.35 | 180  | 10620    | 6.189  | ug/L   | 98       |
| -----                          |       |      |          |        |        |          |

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

```
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU011420\  
Data File : VU036449.D  
Acq On    : 14 Jan 2020   16:34  
Operator  : JC/MD  
Sample    : VSTD00534  
Misc      : 5.0mL/MSVOA U/WATER  
ALS Vial  : 1      Sample Multiplier: 1
```



#2

Dichlorodifluoromethane

Concen: 10.254 ug/L

RT: 1.40 min Scan# 18

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

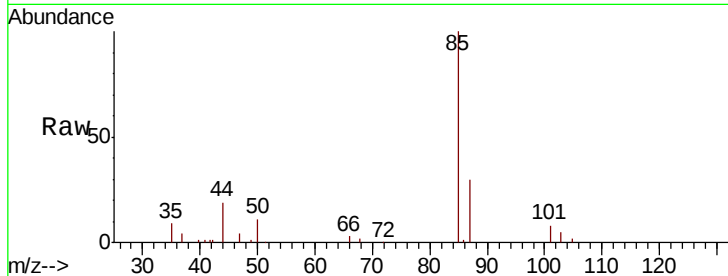
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 85 Resp: 26357

Ion Ratio Lower Upper

85 100

87 33.0 25.8 38.8



Abundance Ion 85.00 (84.70 to 85.70): VU036449.D (-1) (-)

Ion 87.00 (86.70 to 87.70): VU036449.D (-1) (-)

1.40

30000

25000

20000

15000

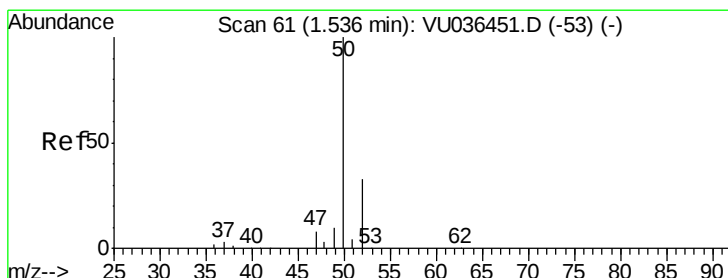
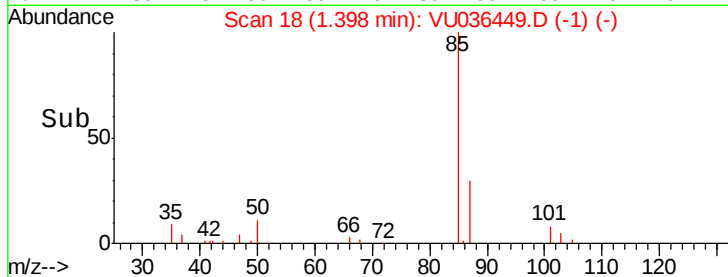
10000

5000

0

1.36 1.38 1.40 1.42 1.44

Time-->



#3

Chloromethane

Concen: 10.053 ug/L

RT: 1.54 min Scan# 62

Delta R.T. 0.00 min

Lab File: VU036449.D

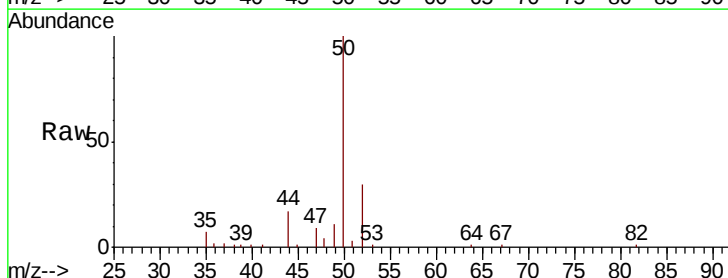
Acq: 14 Jan 2020 16:34

Tgt Ion: 50 Resp: 23459

Ion Ratio Lower Upper

50 100

52 30.5 22.8 42.4



Abundance Ion 50.00 (49.70 to 50.70): VU036449.D (-1) (-)

Ion 52.00 (51.70 to 52.70): VU036449.D (-1) (-)

25000

20000

15000

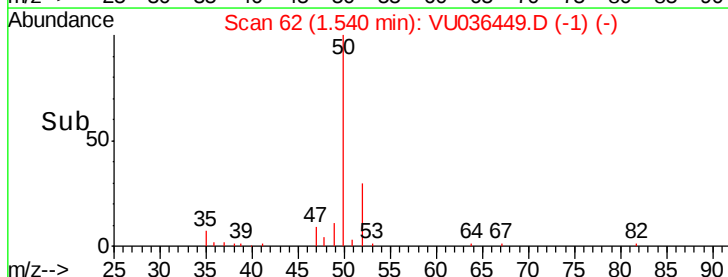
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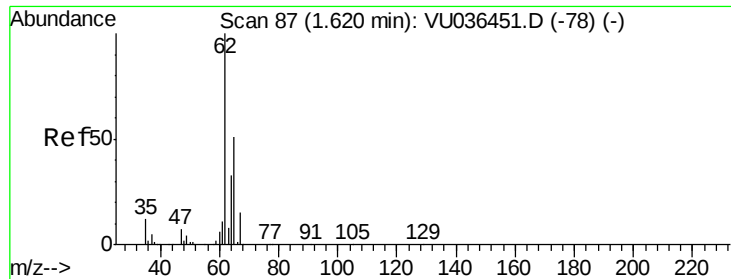
5000

0

1.50 1.52 1.54 1.56 1.58

Time-->





#5

Vinyl chloride

Concen: 8.634 ug/L

RT: 1.62 min Scan# 87

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

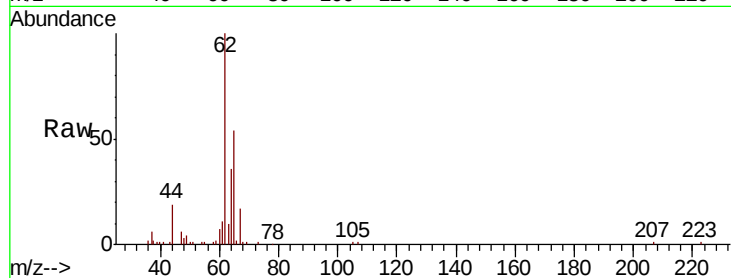
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 62 Resp: 22744

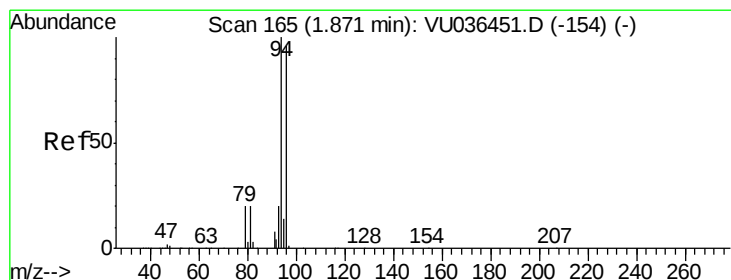
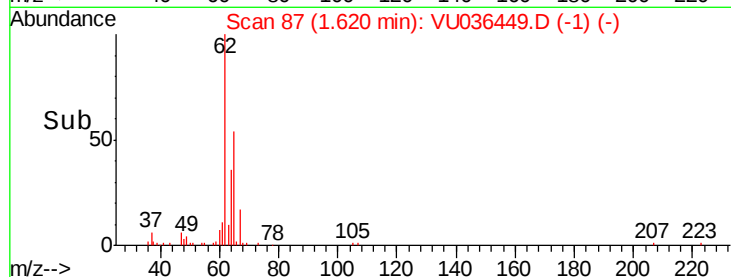
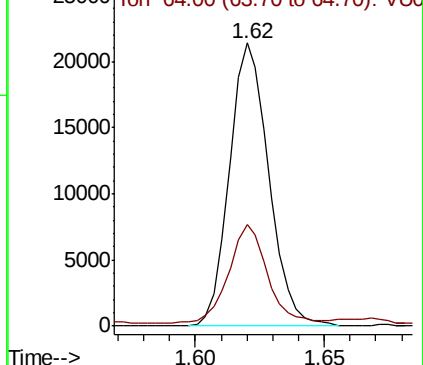
Ion Ratio Lower Upper

62 100

64 35.7 23.0 42.8



Abundance Ion 62.00 (61.70 to 62.70): VU036449.D (-1) (-)



#6

Bromomethane

Concen: 9.627 ug/L

RT: 1.88 min Scan# 167

Delta R.T. 0.01 min

Lab File: VU036449.D

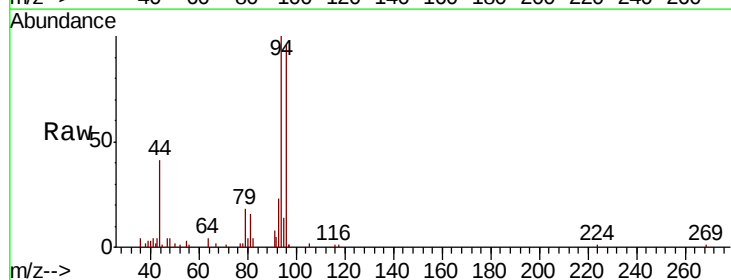
Acq: 14 Jan 2020 16:34

Tgt Ion: 94 Resp: 12800

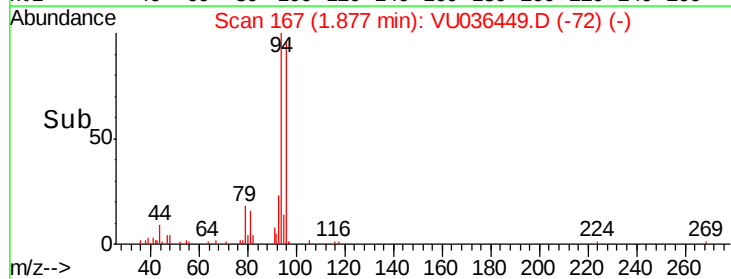
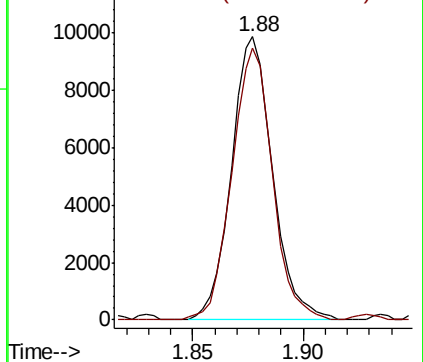
Ion Ratio Lower Upper

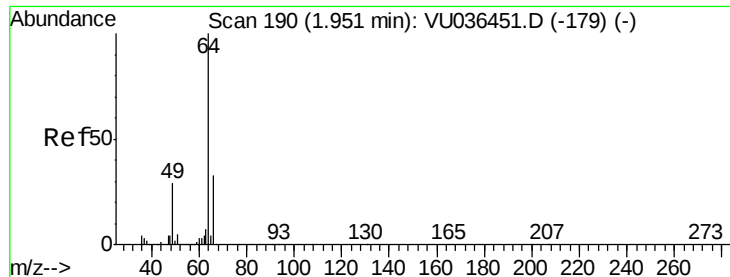
94 100

96 97.4 67.1 124.7



Abundance Ion 94.00 (93.70 to 94.70): VU036449.D (-72) (-)





#8

Chloroethane

Concen: 8.343 ug/L

RT: 1.95 min Scan# 191

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Instrument :

MSVOA\_U

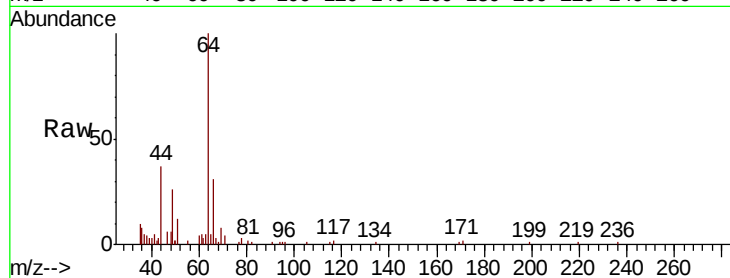
ClientSampleId :

Tot Ion: 64 Resp: 13095

Ion Ratio Lower Upper

64 100

66 30.5 23.1 42.9



Abundance Ion 64.00 (63.70 to 64.70): VU036449.D (-66) (-)

Ion 66.00 (65.70 to 66.70): VU036449.D (-66) (-)

1.95

12000

10000

8000

6000

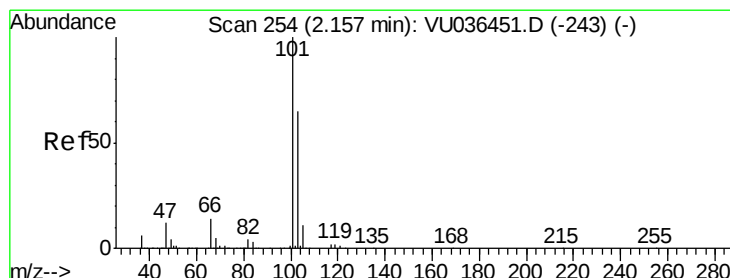
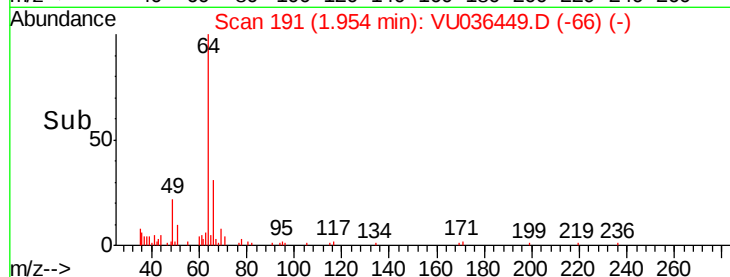
4000

2000

0

Time-->

1.90 1.95 2.00



#9

Trichlorofluoromethane

Concen: 7.966 ug/L

RT: 2.16 min Scan# 255

Delta R.T. 0.00 min

Lab File: VU036449.D

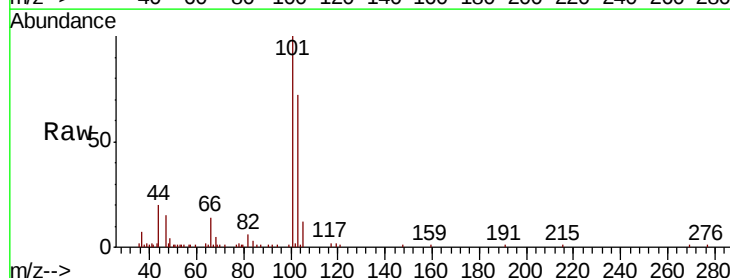
Acq: 14 Jan 2020 16:34

Tgt Ion: 101 Resp: 29246

Ion Ratio Lower Upper

101 100

103 68.6 52.0 78.0



Abundance Ion 101.00 (100.70 to 101.70): VU036449.D (-130) (-)

Ion 103.00 (102.70 to 103.70): VU036449.D (-130) (-)

2.16

20000

15000

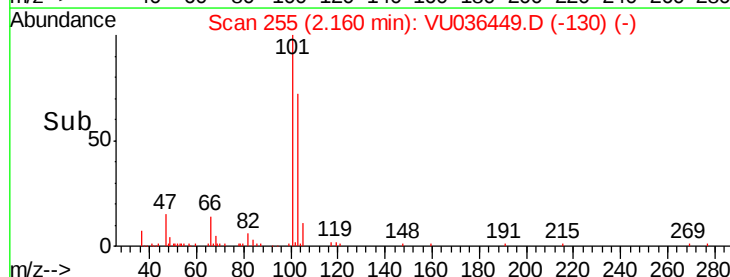
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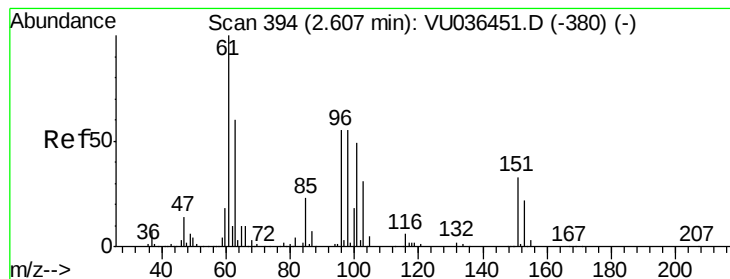
5000

0

Time-->

2.10 2.15 2.20





#10

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

Concen: 9.061 ug/L

RT: 2.61 min Scan# 395

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Instrument :

MSVOA\_U

ClientSampled :

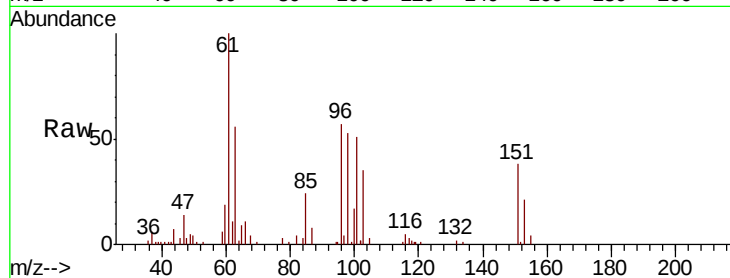
Tot Ion:101 Resp: 16691

Ion Ratio Lower Upper

101 100

85 42.9 36.7 55.1

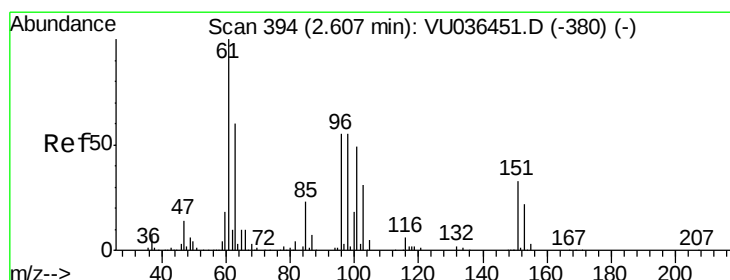
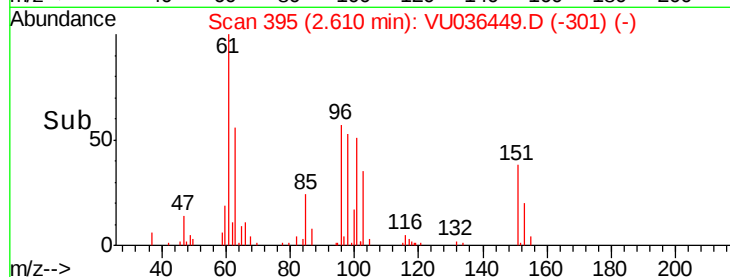
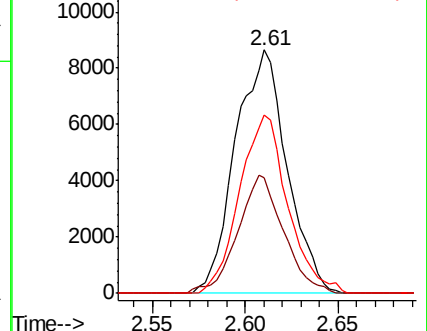
151 68.5 53.3 79.9



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VU0

Ion 151.00 (150.70 to 151.70): V



#12

1,1-Dichloroethene

Concen: 8.896 ug/L

RT: 2.61 min Scan# 395

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

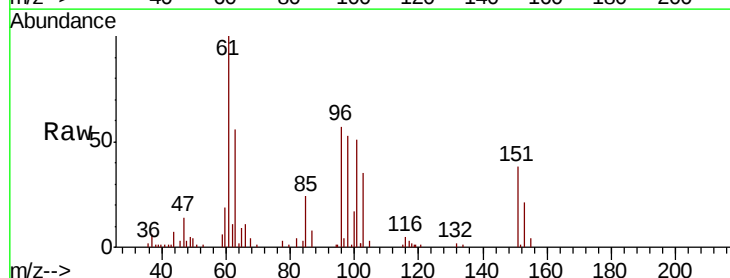
Tgt Ion: 96 Resp: 16159

Ion Ratio Lower Upper

96 100

61 176.4 128.2 238.2

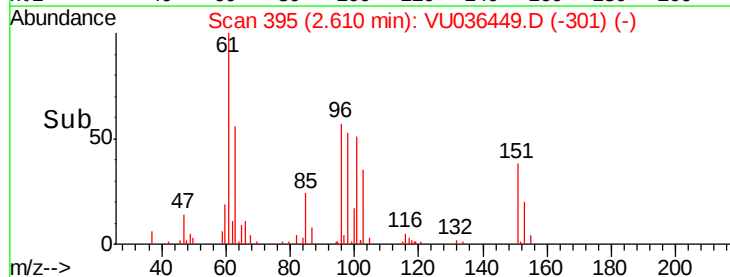
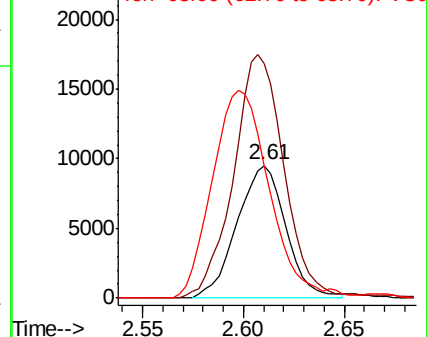
63 99.6 79.1 146.9

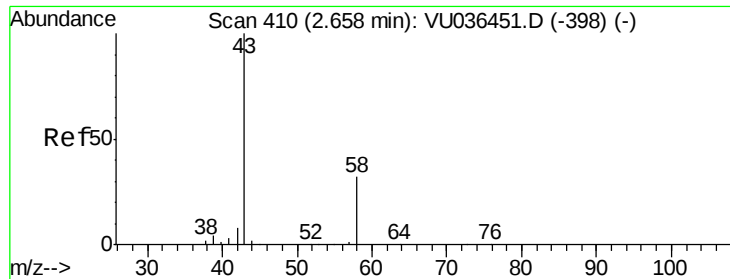


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 19.818 ug/L

RT: 2.66 min Scan# 412

Delta R.T. 0.01 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Instrument :

MSVOA\_U

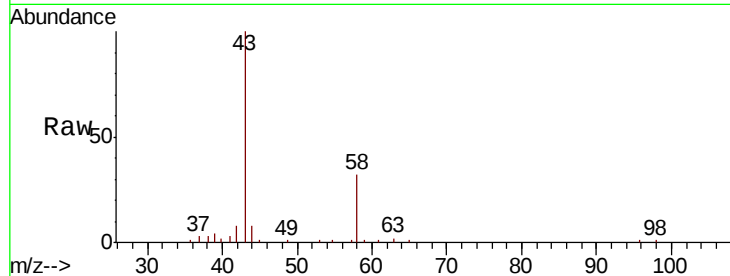
ClientSampleId :

Tot Ion: 43 Resp: 37221

Ion Ratio Lower Upper

43 100

58 31.5 0.0 65.0



Abundance Ion 43.00 (42.70 to 43.70): VU036449.D (-317) (-)

Ion 58.00 (57.70 to 58.70): VU036449.D (-317) (-)

2.66

20000

15000

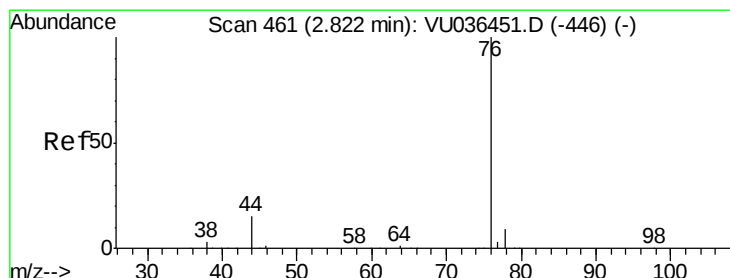
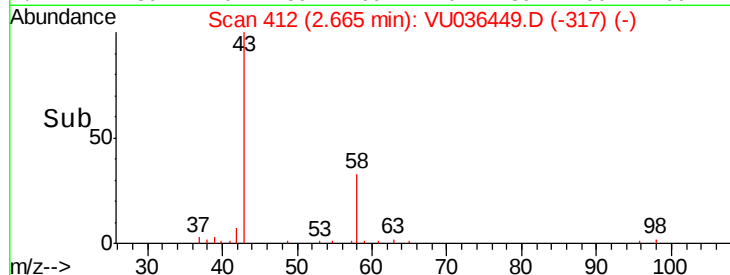
10000

5000

0

Time-->

2.60 2.65 2.70 2.75



#14

Carbon disulfide

Concen: 8.856 ug/L

RT: 2.83 min Scan# 462

Delta R.T. 0.00 min

Lab File: VU036449.D

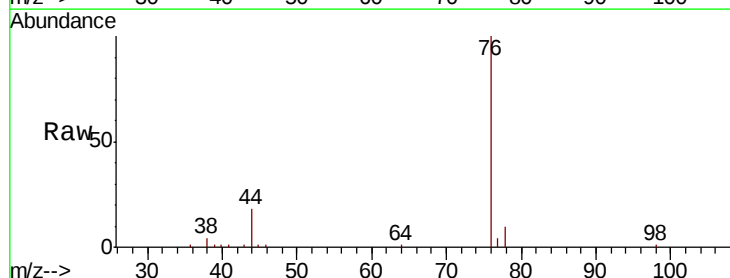
Acq: 14 Jan 2020 16:34

Tgt Ion: 76 Resp: 50067

Ion Ratio Lower Upper

76 100

78 10.1 7.3 10.9



Abundance Ion 76.00 (75.70 to 76.70): VU036449.D (-368) (-)

Ion 78.00 (77.70 to 78.70): VU036449.D (-368) (-)

2.83

30000

25000

20000

15000

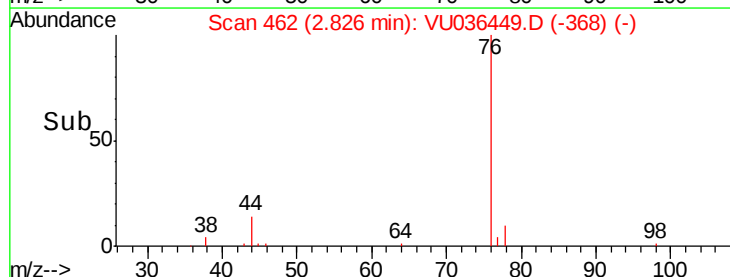
10000

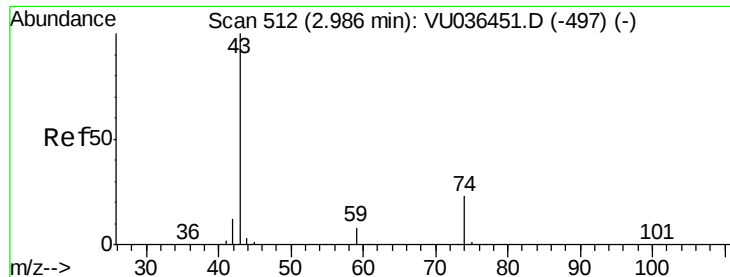
5000

0

Time-->

2.75 2.80 2.85 2.90





#15

Methyl Acetate

Concen: 8.367 ug/L

RT: 2.99 min Scan# 513

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Instrument :

MSVOA\_U

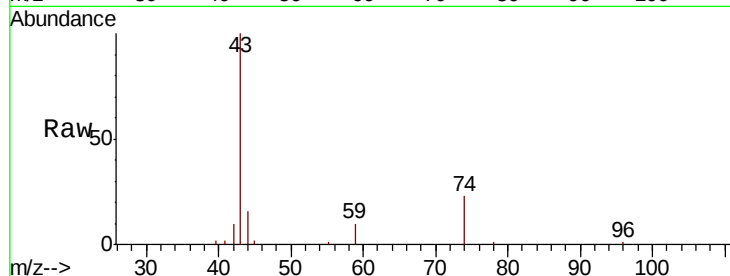
ClientSampled :

Tot Ion: 43 Resp: 21186

Ion Ratio Lower Upper

43 100

74 23.1 19.0 28.4



Abundance Ion 43.00 (42.70 to 43.70): VU036449.D (-419) (-)

Ion 74.00 (73.70 to 74.70): VU036449.D (-419) (-)

2.99

12000

10000

8000

6000

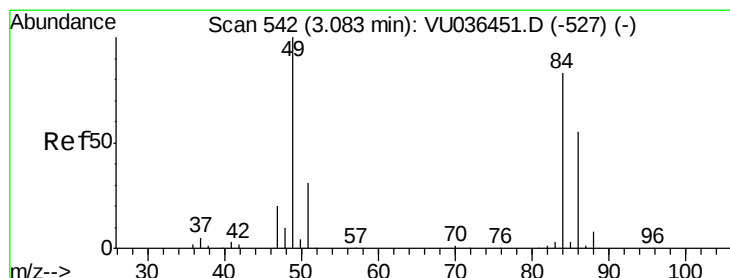
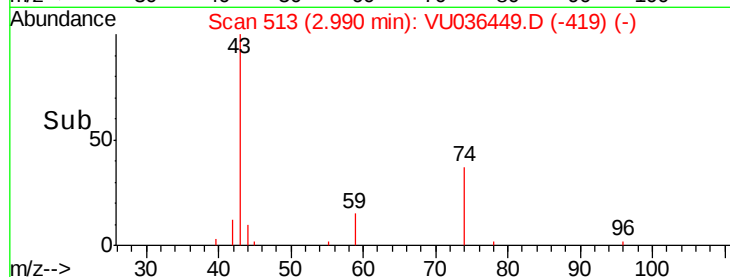
4000

2000

0

Time-->

2.95 3.00 3.05



#16

Methylene chloride

Concen: 8.854 ug/L

RT: 3.08 min Scan# 542

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

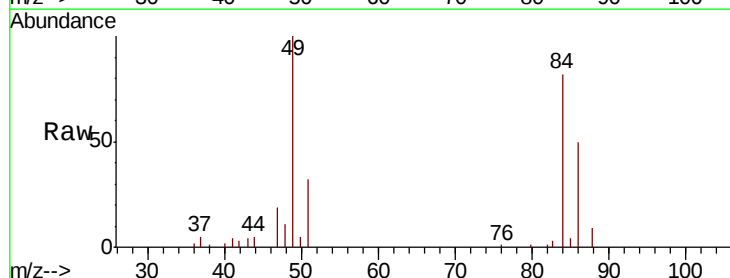
Tgt Ion: 84 Resp: 19645

Ion Ratio Lower Upper

84 100

86 61.4 46.4 86.2

49 121.8 84.5 156.9



Abundance Ion 84.00 (83.70 to 84.70): VU036449.D (-449) (-)

Ion 86.00 (85.70 to 86.70): VU036449.D (-449) (-)

Ion 49.00 (48.70 to 49.70): VU036449.D (-449) (-)

3.08

15000

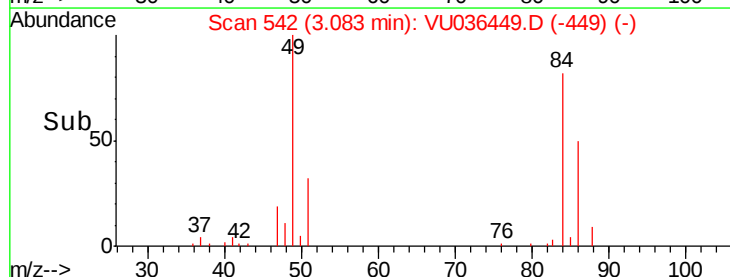
10000

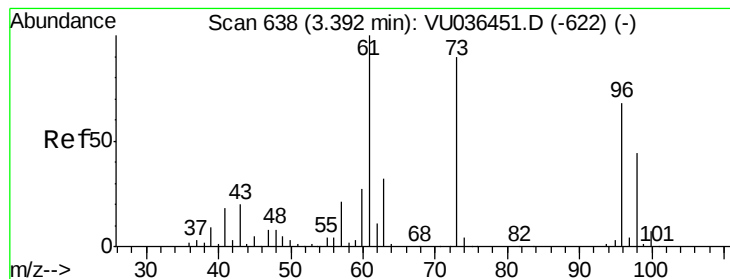
5000

0

Time-->

3.00 3.05 3.10 3.15





#17

trans-1,2-Dichloroethene

Concen: 9.191 ug/L

RT: 3.40 min Scan# 640

Delta R.T. 0.01 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Instrument :  
MSVOA\_U  
ClientSampled :

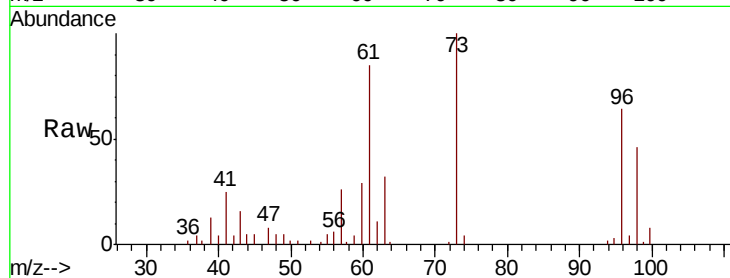
Tot Ion: 96 Resp: 17910

Ion Ratio Lower Upper

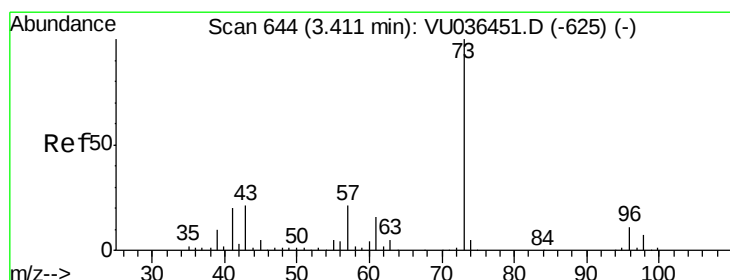
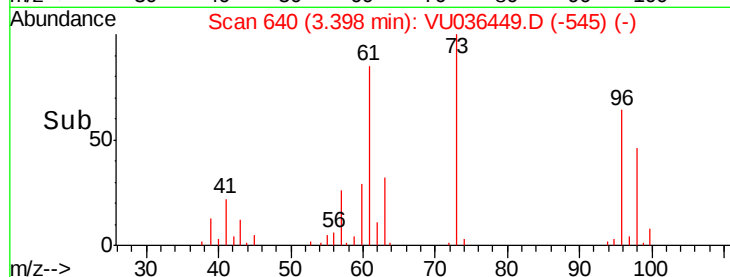
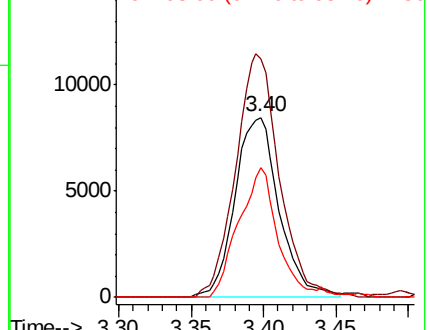
96 100

61 132.5 102.8 191.0

98 71.9 44.9 83.5



Abundance Ion 96.00 (95.70 to 96.70): VU0  
Ion 61.00 (60.70 to 61.70): VU0  
Ion 98.00 (97.70 to 98.70): VU0



#18

Methyl tert-butyl Ether

Concen: 7.725 ug/L

RT: 3.41 min Scan# 644

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

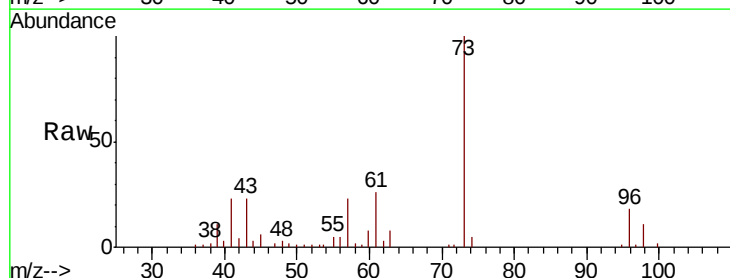
Tgt Ion: 73 Resp: 54596

Ion Ratio Lower Upper

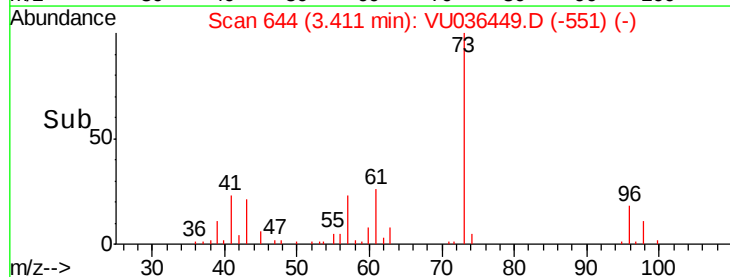
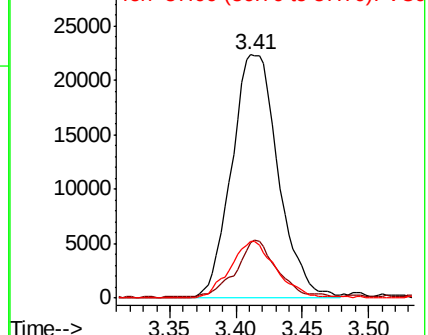
73 100

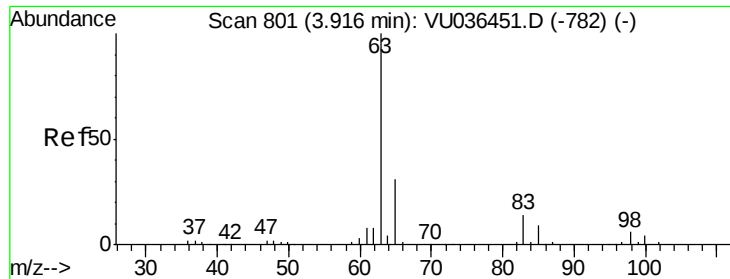
43 19.8 16.6 25.0

57 22.8 17.0 25.6



Abundance Ion 73.00 (72.70 to 73.70): VU0  
Ion 43.00 (42.70 to 43.70): VU0  
Ion 57.00 (56.70 to 57.70): VU0

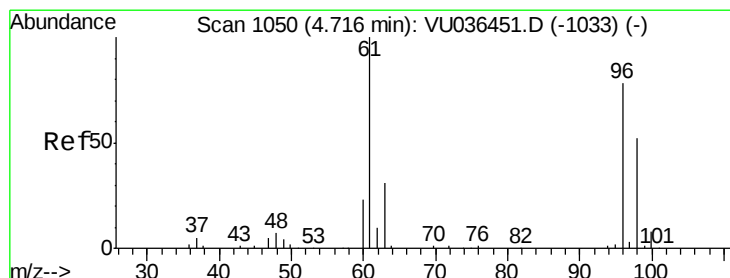
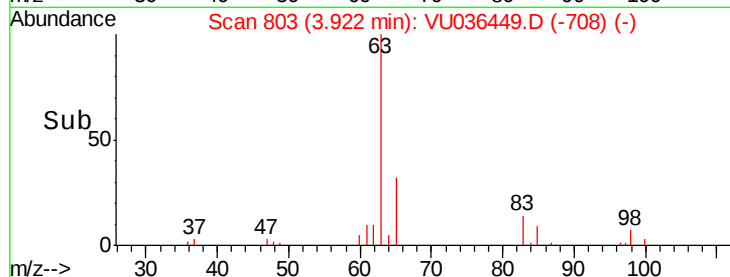
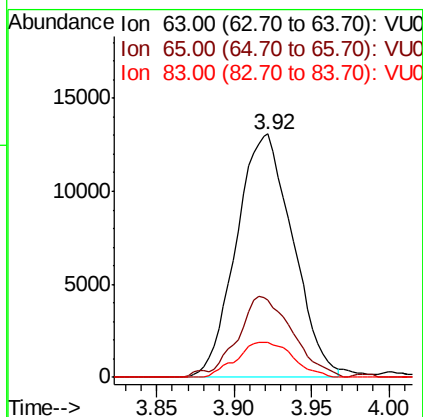
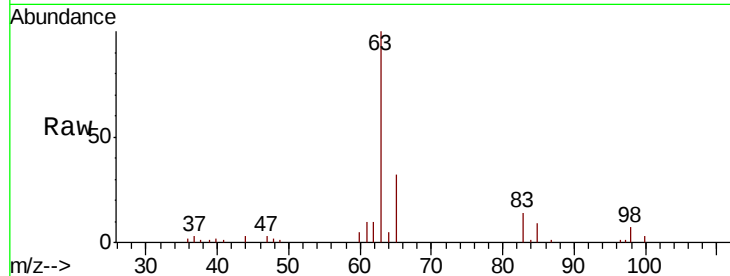




#19  
 1,1-Dichloroethane  
 Concen: 8.484 ug/L  
 RT: 3.92 min Scan# 803  
 Delta R.T. 0.01 min  
 Lab File: VU036449.D  
 Acq: 14 Jan 2020 16:34

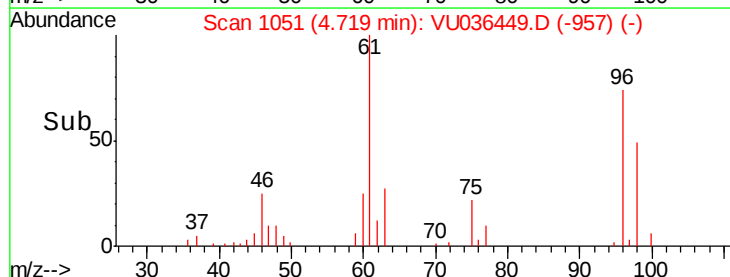
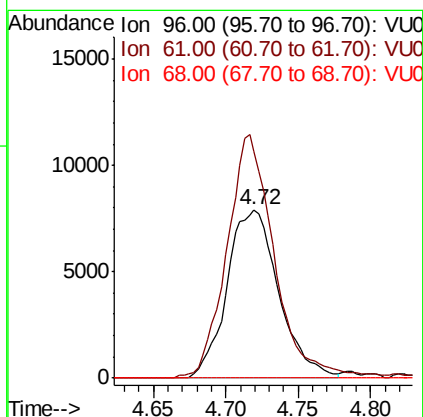
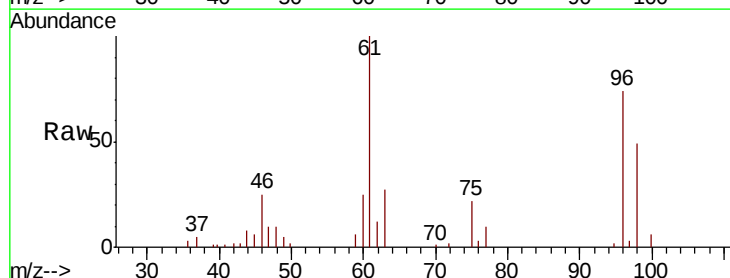
Instrument :  
 MSVOA\_U  
 ClientSampleId :

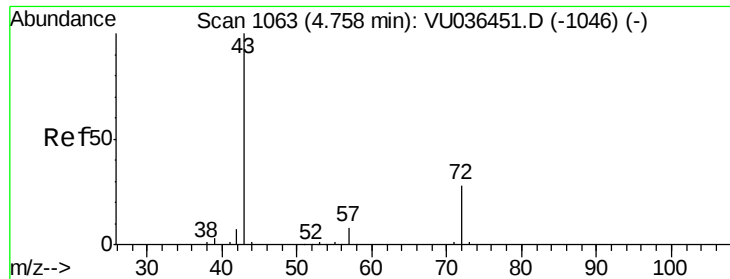
Tot Ion: 63 Resp: 33140  
 Ion Ratio Lower Upper  
 63 100  
 65 31.5 21.8 40.4  
 83 14.3 9.4 17.6



#20  
 cis-1,2-Dichloroethene  
 Concen: 8.308 ug/L  
 RT: 4.72 min Scan# 1051  
 Delta R.T. 0.00 min  
 Lab File: VU036449.D  
 Acq: 14 Jan 2020 16:34

Tgt Ion: 96 Resp: 19607  
 Ion Ratio Lower Upper  
 96 100  
 61 134.5 89.5 166.3  
 68 0.0 0.0 0.0





#22

2-Butanone

Concen: 15.813 ug/L

RT: 4.76 min Scan# 1065

Delta R.T. 0.01 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

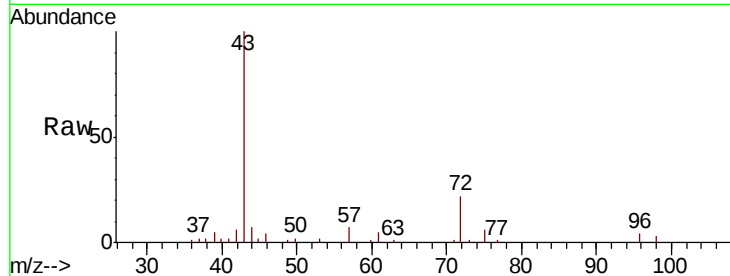
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 43 Resp: 34806

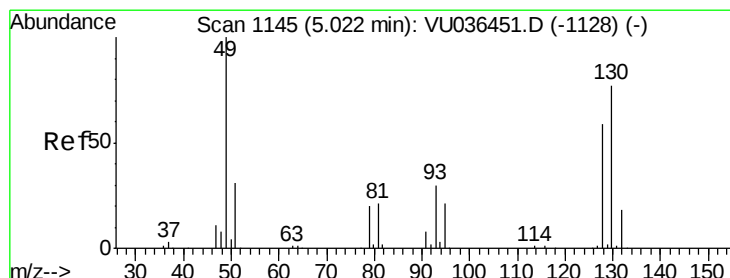
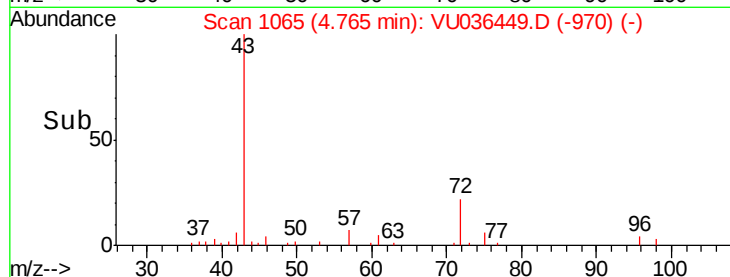
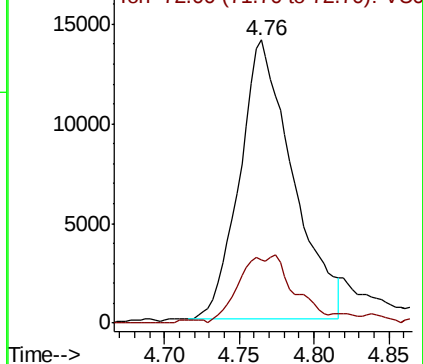
Ion Ratio Lower Upper

43 100

72 12.9 14.1 42.4#



Abundance Ion 43.00 (42.70 to 43.70): VU036449.D (-970) (-)



#23

Bromochloromethane

Concen: 8.109 ug/L

RT: 5.02 min Scan# 1145

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Tgt Ion:128 Resp: 9128

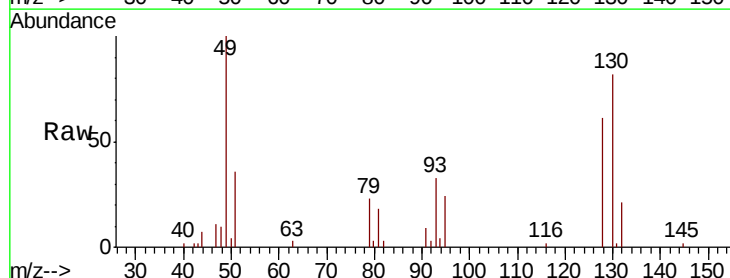
Ion Ratio Lower Upper

128 100

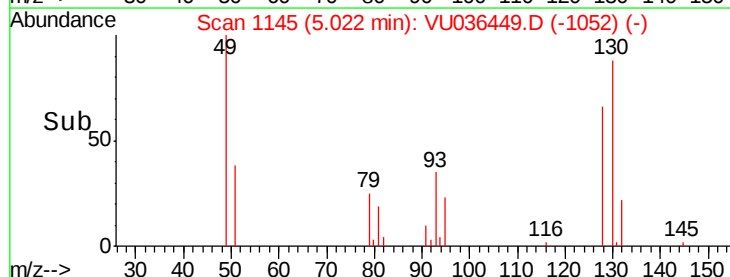
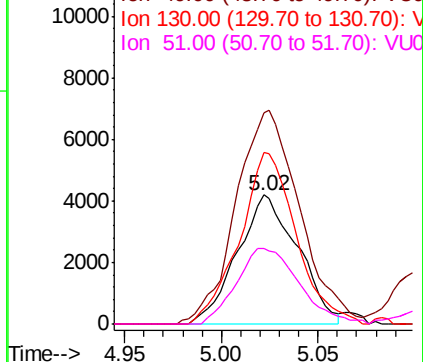
49 163.1 118.9 220.7

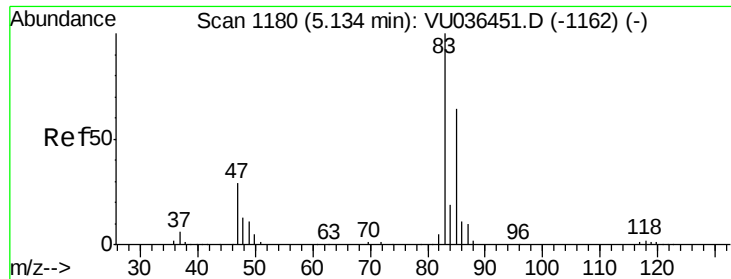
130 133.1 91.3 169.5

51 58.1 42.6 63.8



Abundance Ion 128.00 (127.70 to 128.70): VU036449.D (-1052) (-)

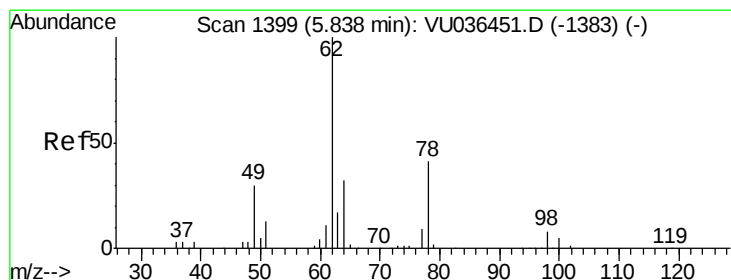
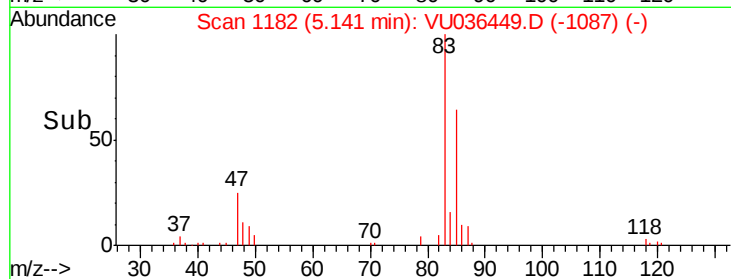
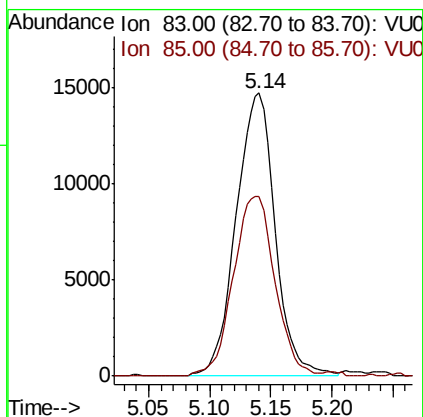
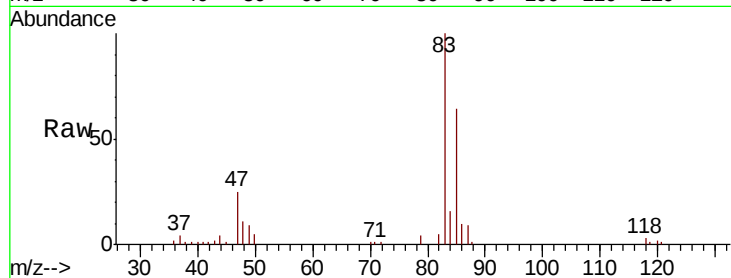




#25  
Chloroform  
Concen: 7.843 ug/L  
RT: 5.14 min Scan# 1182  
Delta R.T. 0.01 min  
Lab File: VU036449.D  
Acq: 14 Jan 2020 16:34

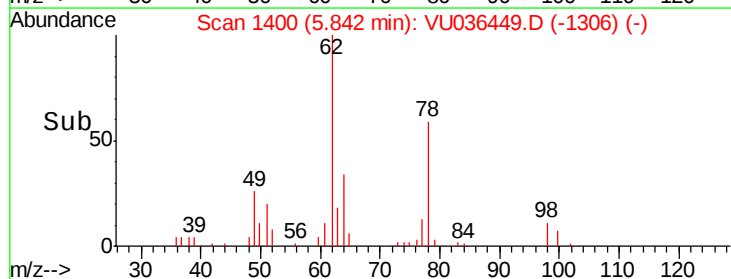
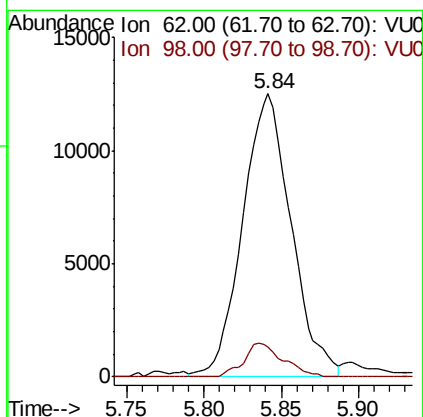
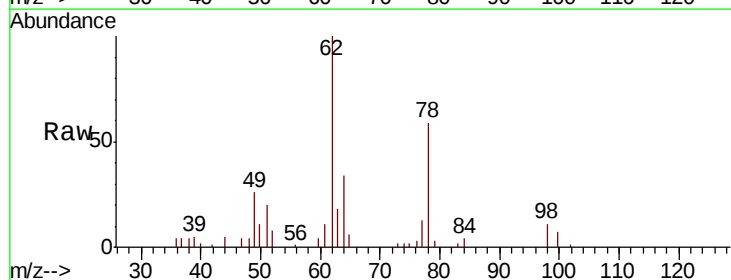
Instrument :  
MSVOA\_U  
ClientSampleId :

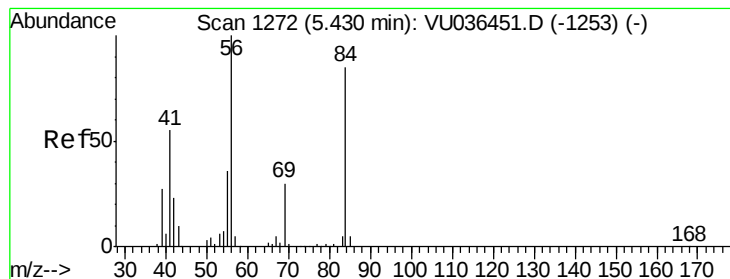
Tot Ion: 83 Resp: 32536  
Ion Ratio Lower Upper  
83 100  
85 63.6 45.1 83.9



#27  
1,2-Dichloroethane  
Concen: 8.436 ug/L  
RT: 5.84 min Scan# 1400  
Delta R.T. 0.00 min  
Lab File: VU036449.D  
Acq: 14 Jan 2020 16:34

Tgt Ion: 62 Resp: 27251  
Ion Ratio Lower Upper  
62 100  
98 10.6 6.6 9.8#





#29

Cyclohexane

Concen: 8.763 ug/L

RT: 5.43 min Scan# 1272

Delta R.T. 0.00 min

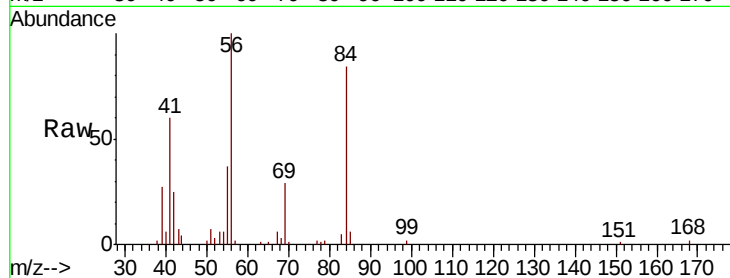
Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

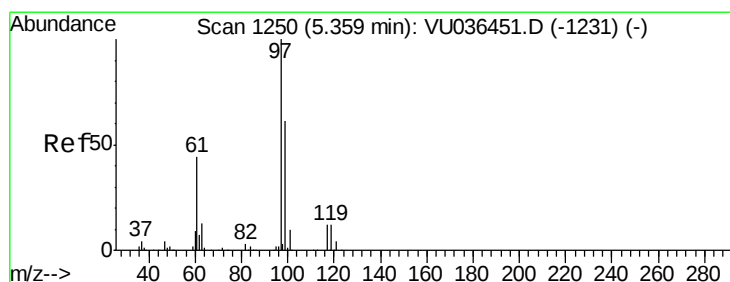
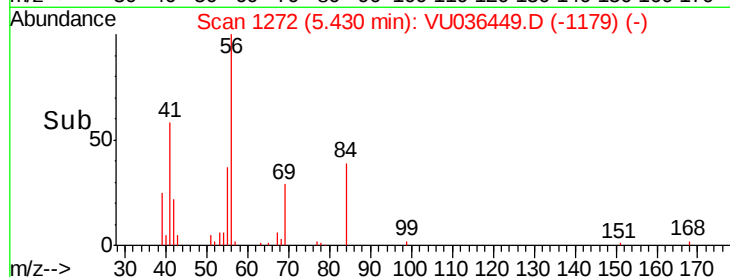
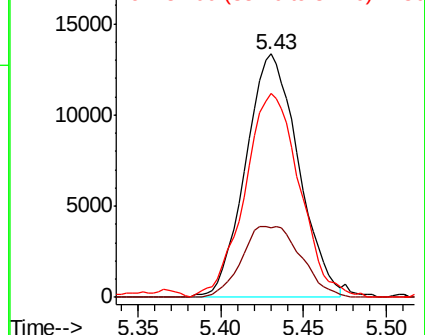
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 56 Resp: 29562

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 56  | 100   |       |       |
| 69  | 16.9  | 24.6  | 36.8# |
| 84  | 86.8  | 67.4  | 101.2 |



Abundance Ion 56.00 (55.70 to 56.70): VU0  
Ion 69.00 (68.70 to 69.70): VU0  
Ion 84.00 (83.70 to 84.70): VU0



#30

1,1,1-Trichloroethane

Concen: 8.466 ug/L

RT: 5.36 min Scan# 1251

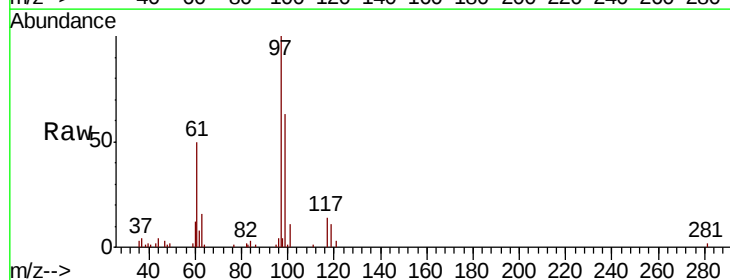
Delta R.T. 0.00 min

Lab File: VU036449.D

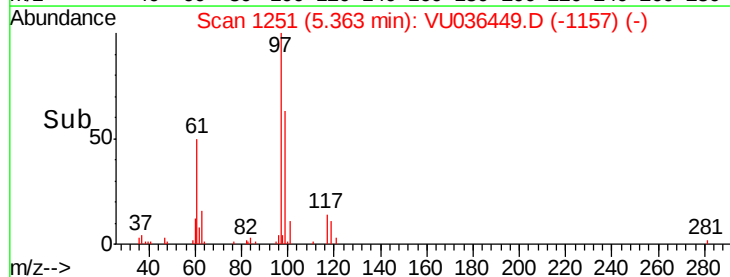
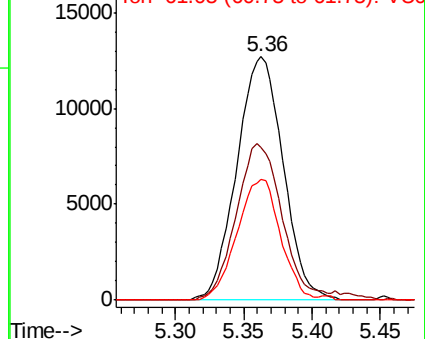
Acq: 14 Jan 2020 16:34

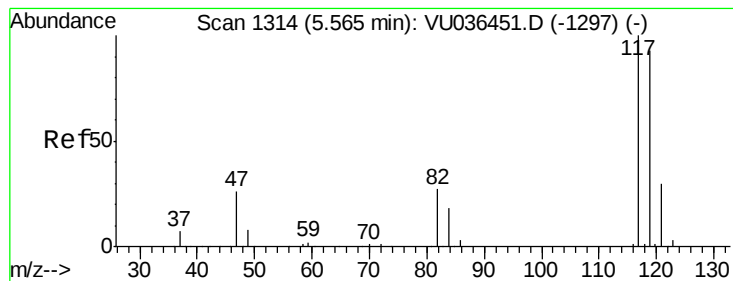
Tgt Ion: 97 Resp: 29953

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 97  | 100   |       |       |
| 99  | 63.6  | 50.2  | 75.2  |
| 61  | 46.5  | 35.3  | 52.9  |



Abundance Ion 97.00 (96.70 to 97.70): VU0  
Ion 99.00 (98.70 to 99.70): VU0  
Ion 61.05 (60.75 to 61.75): VU0





#31

Carbon tetrachloride

Concen: 8.189 ug/L

RT: 5.57 min Scan# 1315

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Instrument :

MSVOA\_U

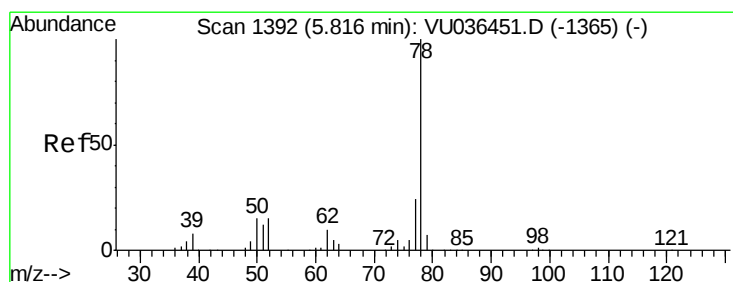
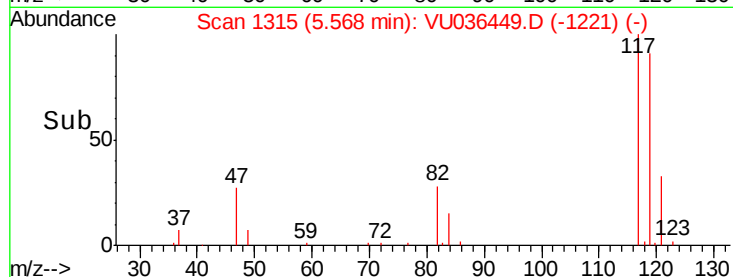
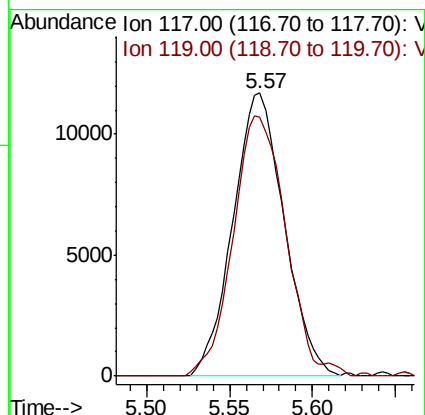
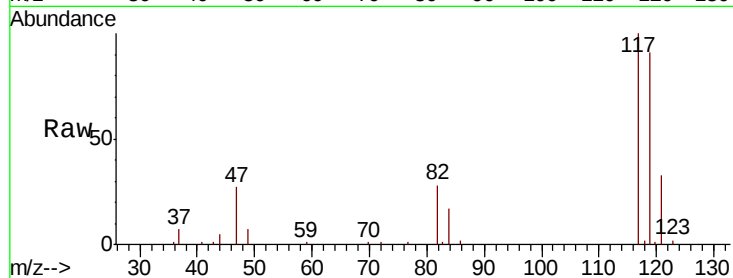
ClientSampled :

Tot Ion:117 Resp: 25175

Ion Ratio Lower Upper

117 100

119 92.9 74.3 111.5



#33

Benzene

Concen: 8.529 ug/L

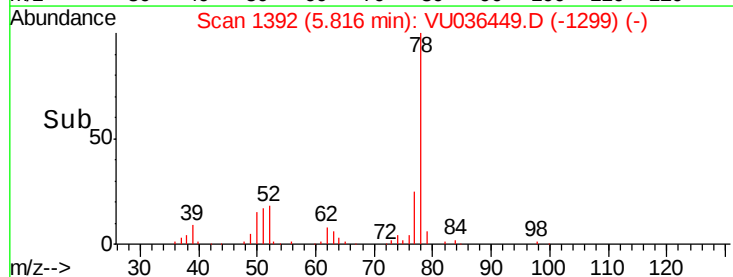
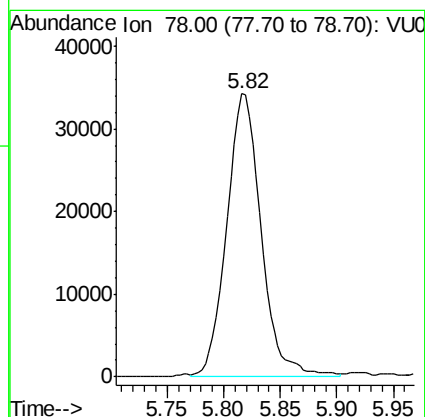
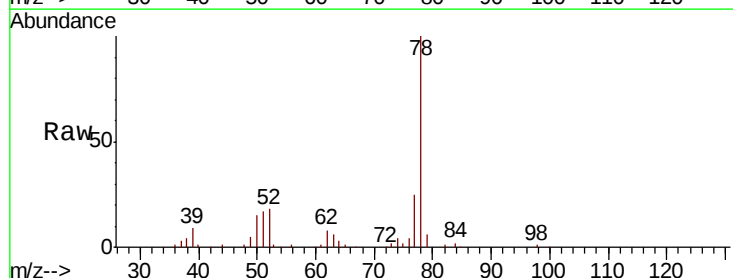
RT: 5.82 min Scan# 1392

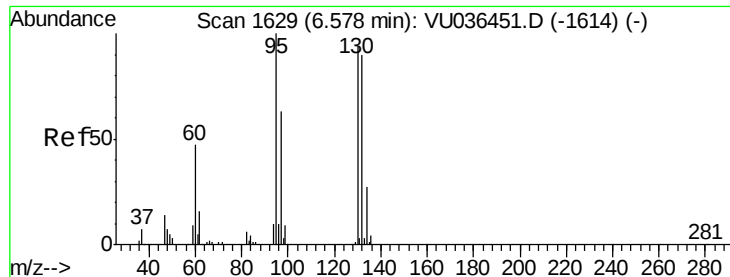
Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Tgt Ion: 78 Resp: 72483





#34

Trichloroethene

Concen: 9.050 ug/L

RT: 6.58 min Scan# 1629

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Instrument :

MSVOA\_U

ClientSampleId :

Tot Ion: 95 Resp: 19968

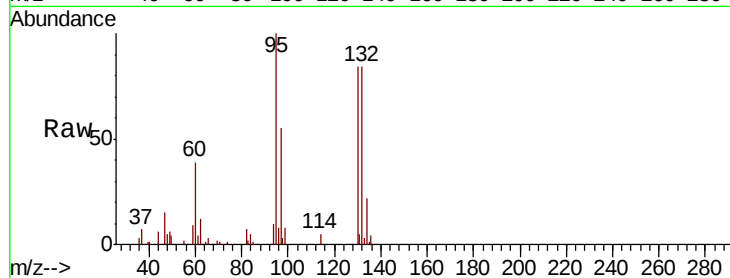
Ion Ratio Lower Upper

95 100

97 55.2 44.2 82.2

132 86.6 62.8 116.6

130 84.0 66.1 122.7

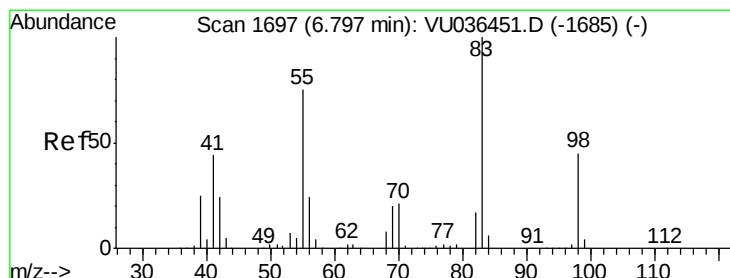
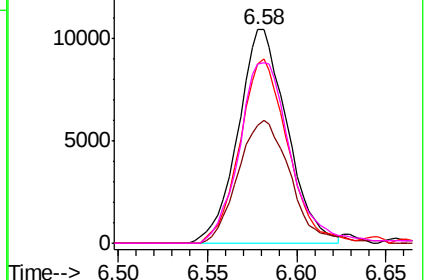
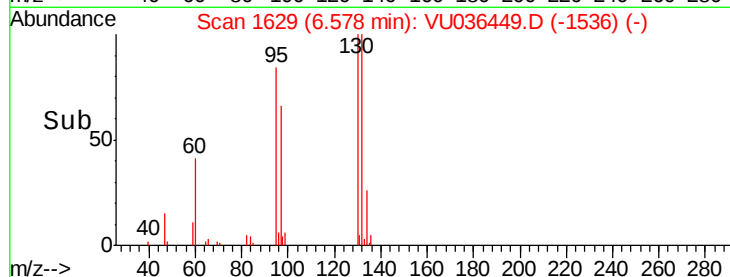


Abundance Ion 95.00 (94.70 to 95.70): VU0

Ion 97.00 (96.70 to 97.70): VU0

Ion 132.00 (131.70 to 132.70): V

Ion 130.00 (129.70 to 130.70): V



#35

Methylcyclohexane

Concen: 8.429 ug/L

RT: 6.80 min Scan# 1698

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

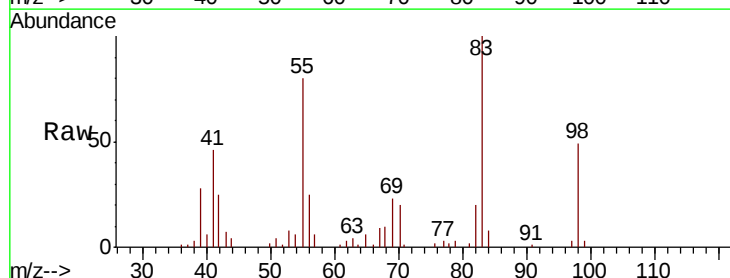
Tgt Ion: 83 Resp: 29505

Ion Ratio Lower Upper

83 100

55 82.5 59.9 89.9

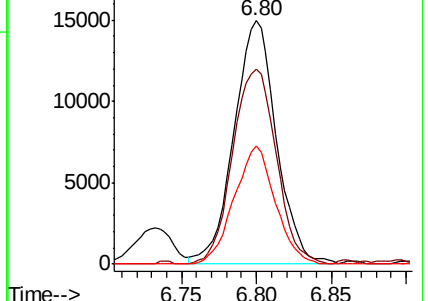
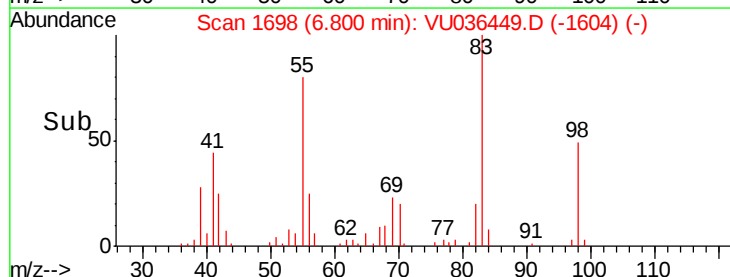
98 47.0 36.4 54.6

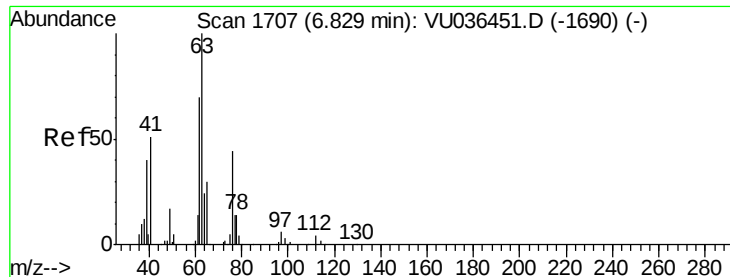


Abundance Ion 83.00 (82.70 to 83.70): VU0

Ion 55.00 (54.70 to 55.70): VU0

Ion 98.00 (97.70 to 98.70): VU0





#37

1,2-Dichloropropane

Concen: 8.264 ug/L

RT: 6.83 min Scan# 1707

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

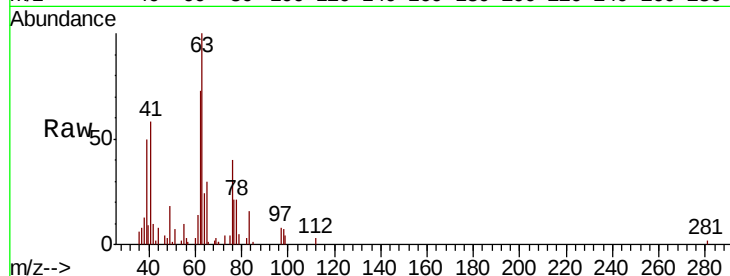
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 63 Resp: 18879

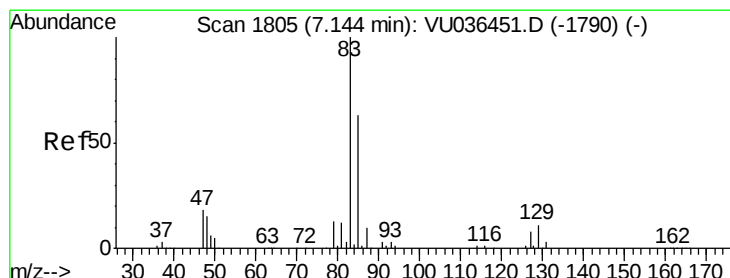
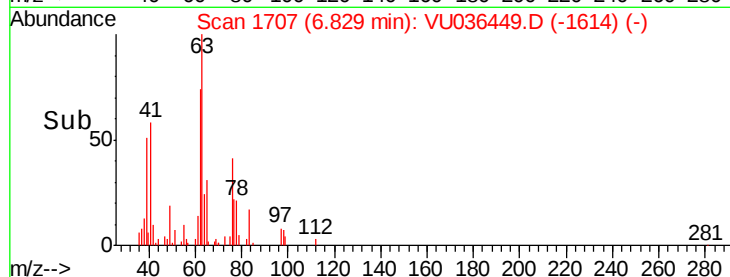
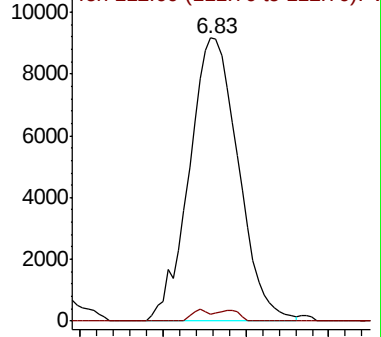
Ion Ratio Lower Upper

63 100

112 1.5 3.0 4.4#



Abundance Ion 63.00 (62.70 to 63.70): VU036449.D (-1614) (-)



#38

Bromodichloromethane

Concen: 7.842 ug/L

RT: 7.15 min Scan# 1806

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

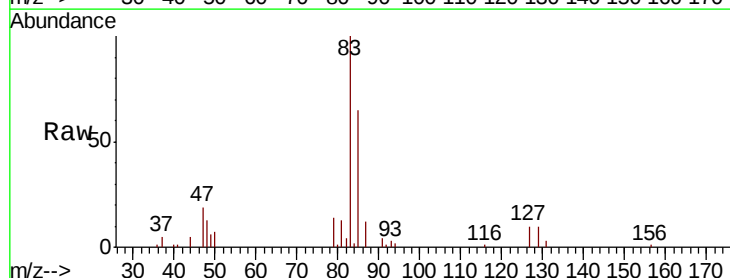
Tgt Ion: 83 Resp: 25242

Ion Ratio Lower Upper

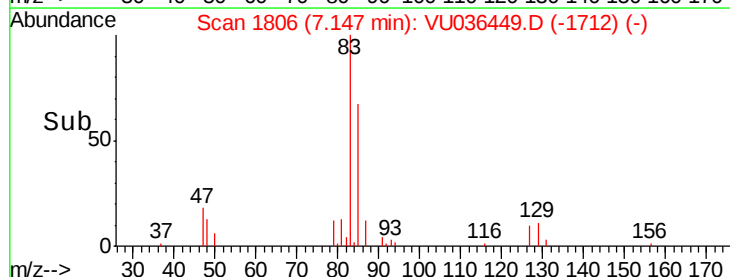
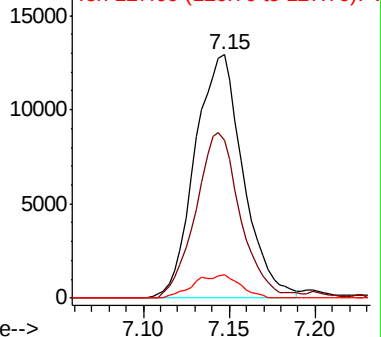
83 100

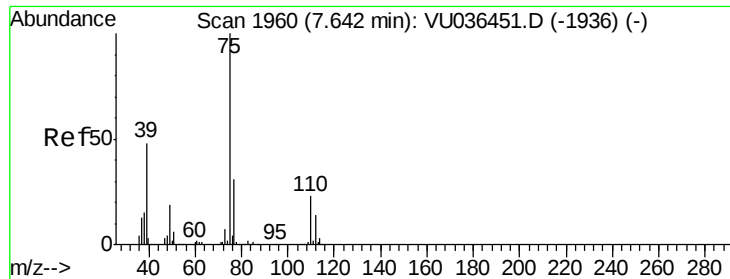
85 64.9 44.0 81.8

127 9.5 6.7 10.1



Abundance Ion 83.00 (82.70 to 83.70): VU036449.D (-1712) (-)



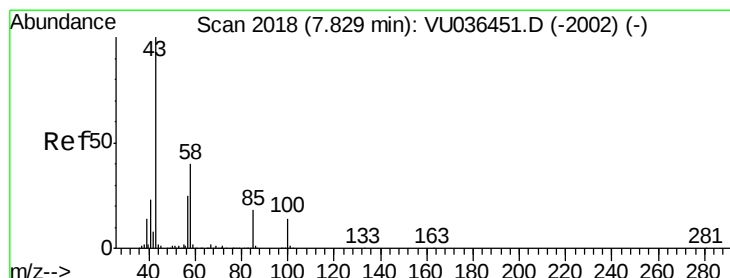
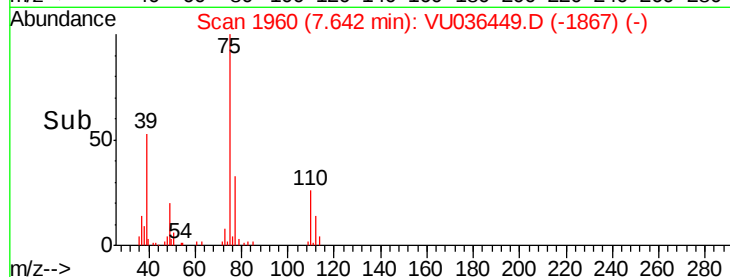
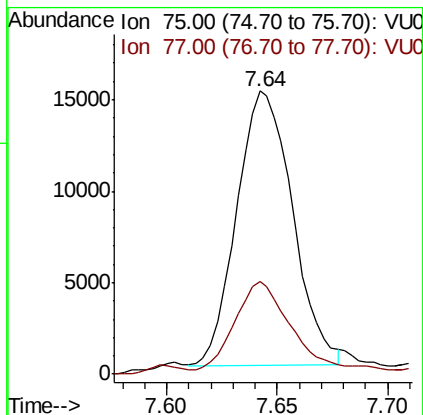
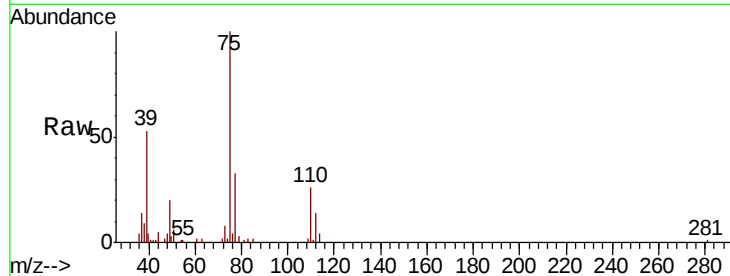


#39

cis-1,3-Dichloropropene  
 Concen: 6.857 ug/L  
 RT: 7.64 min Scan# 1960  
 Delta R.T. 0.00 min  
 Lab File: VU036449.D  
 Acq: 14 Jan 2020 16:34

Instrument :  
 MSVOA\_U  
 ClientSampleId :

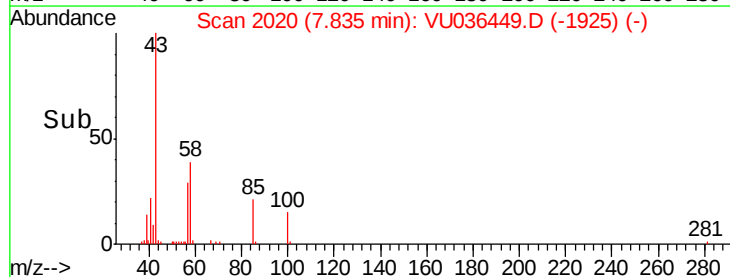
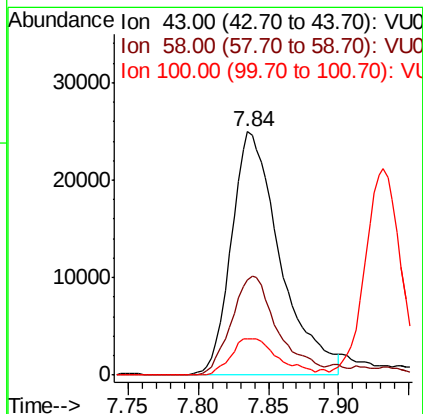
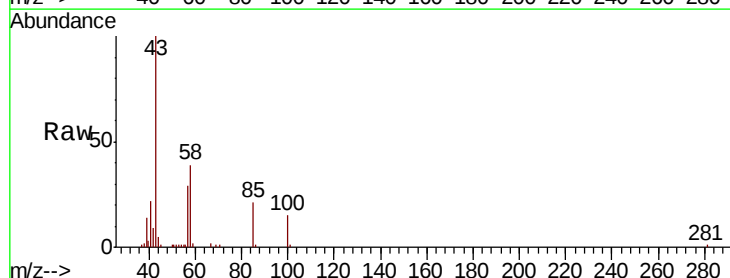
Tot Ion: 75 Resp: 26386  
 Ion Ratio Lower Upper  
 75 100  
 77 32.9 21.8 40.4

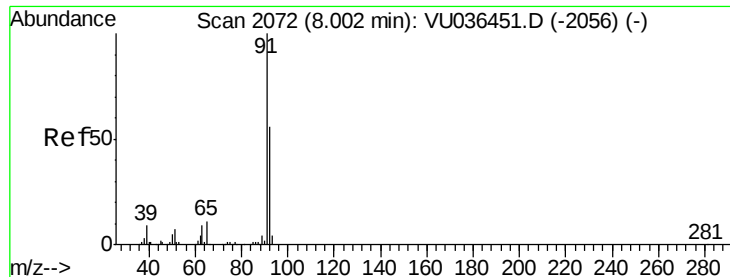


#40

4-Methyl-2-pentanone  
 Concen: 15.664 ug/L  
 RT: 7.84 min Scan# 2020  
 Delta R.T. 0.01 min  
 Lab File: VU036449.D  
 Acq: 14 Jan 2020 16:34

Tgt Ion: 43 Resp: 60381  
 Ion Ratio Lower Upper  
 43 100  
 58 38.6 32.0 48.0  
 100 6.8 11.4 17.0#





#42

Toluene

Concen: 8.123 ug/L

RT: 8.00 min Scan# 2072

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

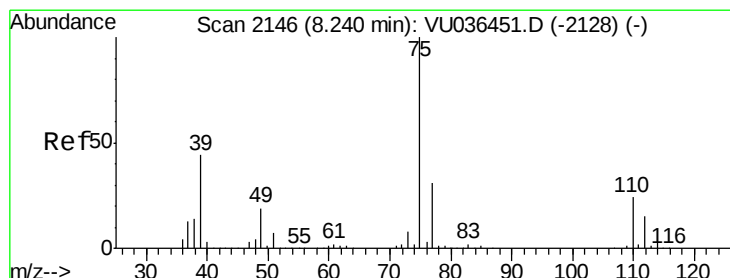
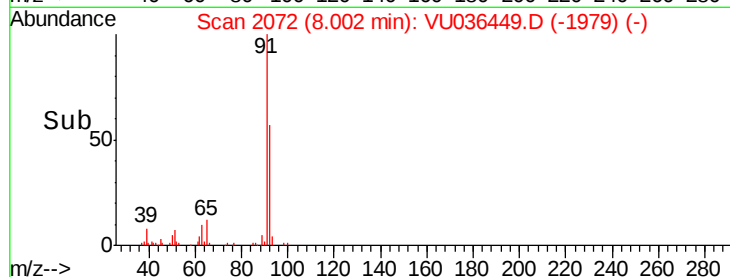
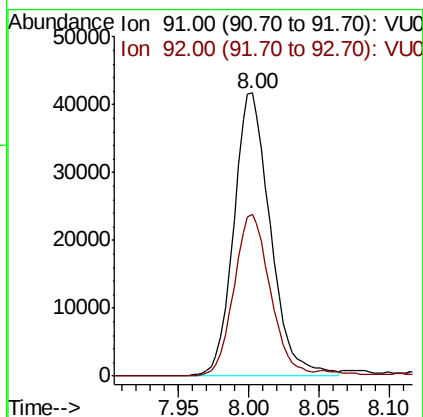
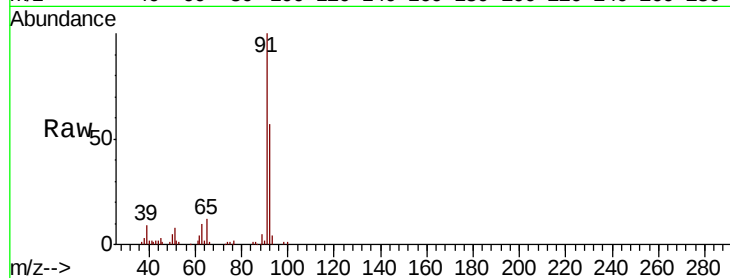
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 91 Resp: 76009

Ion Ratio Lower Upper

91 100

92 57.2 39.5 73.3



#44

trans-1,3-Dichloropropene

Concen: 7.762 ug/L

RT: 8.24 min Scan# 2147

Delta R.T. 0.00 min

Lab File: VU036449.D

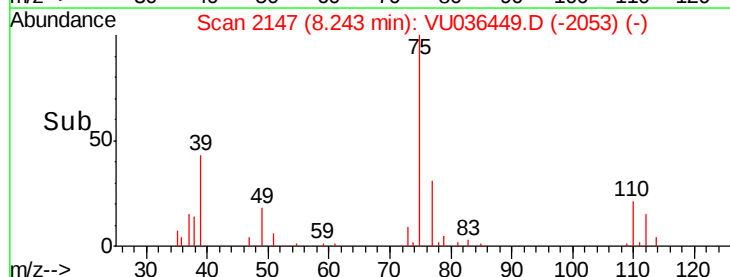
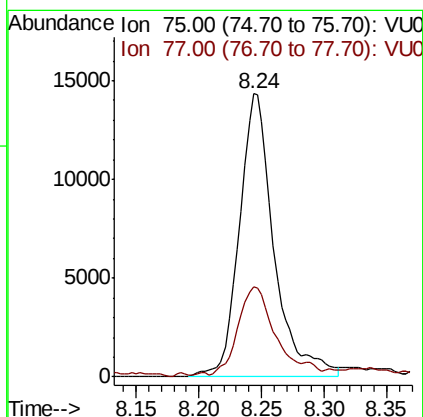
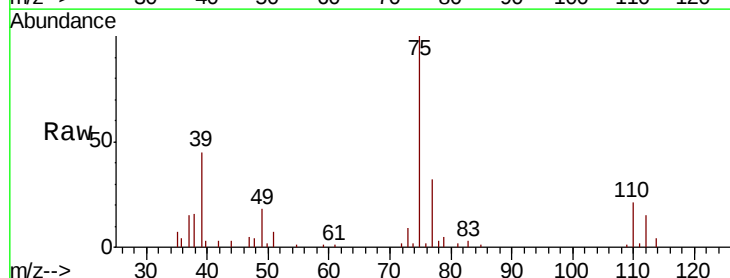
Acq: 14 Jan 2020 16:34

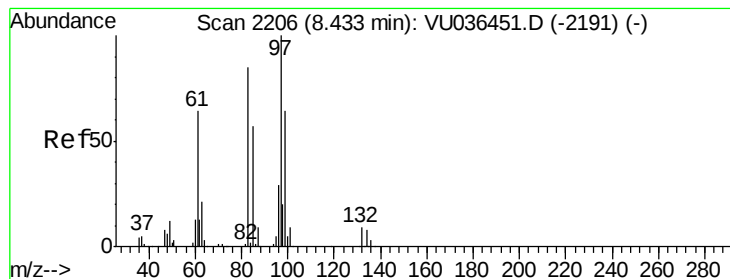
Tgt Ion: 75 Resp: 27700

Ion Ratio Lower Upper

75 100

77 31.8 21.8 40.4





#45

1,1,2-Trichloroethane

Concen: 8.758 ug/L

RT: 8.44 min Scan# 2207

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Instrument :

MSVOA\_U

ClientSampleId :

Tot Ion: 97 Resp: 18700

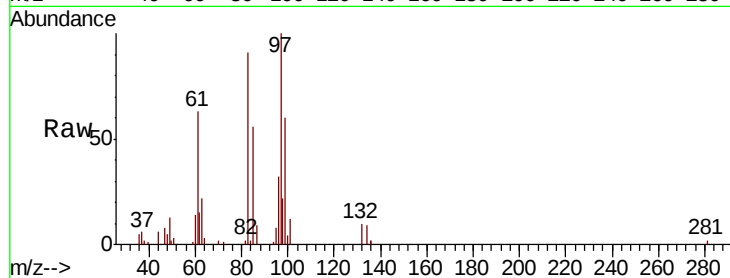
Ion Ratio Lower Upper

97 100

99 59.7 44.7 82.9

83 91.3 59.4 110.2

85 56.0 39.7 73.7

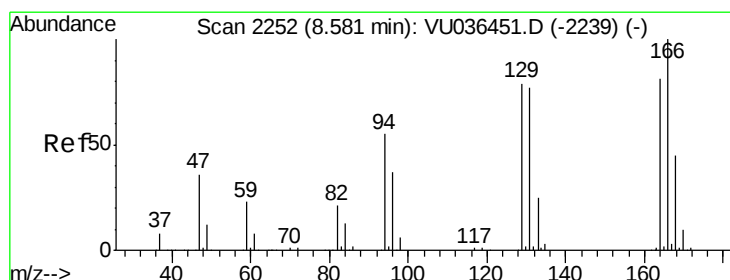
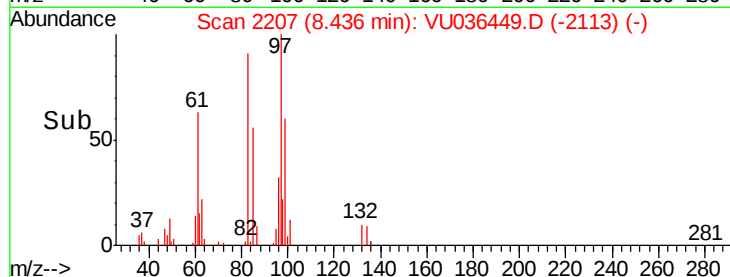
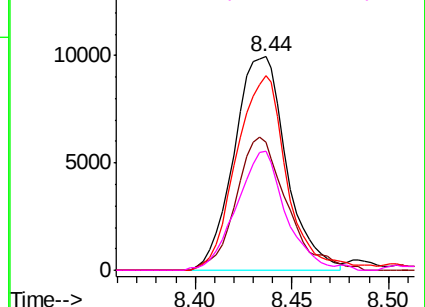


Abundance Ion 97.00 (96.70 to 97.70): VU0

Ion 99.00 (98.70 to 99.70): VU0

Ion 83.00 (82.70 to 83.70): VU0

Ion 85.00 (84.70 to 85.70): VU0



#46

Tetrachloroethene

Concen: 8.765 ug/L

RT: 8.58 min Scan# 2253

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Tgt Ion:164 Resp: 13796

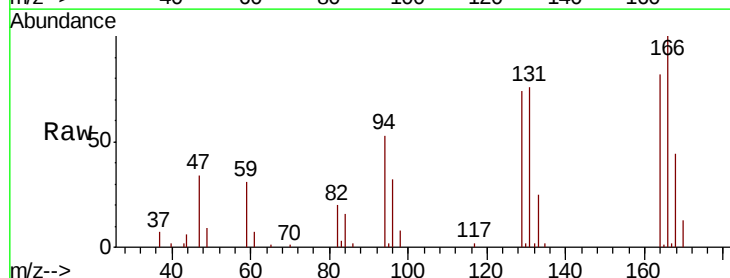
Ion Ratio Lower Upper

164 100

129 90.5 68.1 126.5

131 92.6 66.6 123.6

166 121.7 86.5 160.7

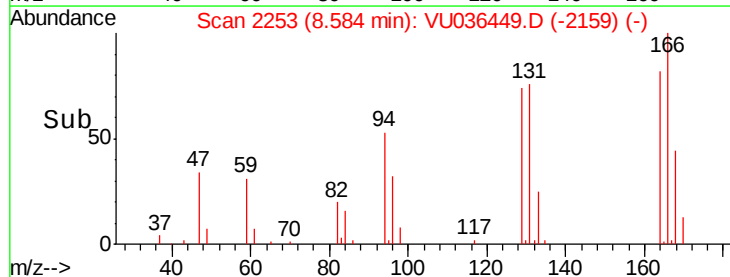
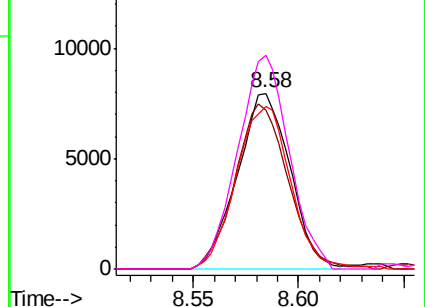


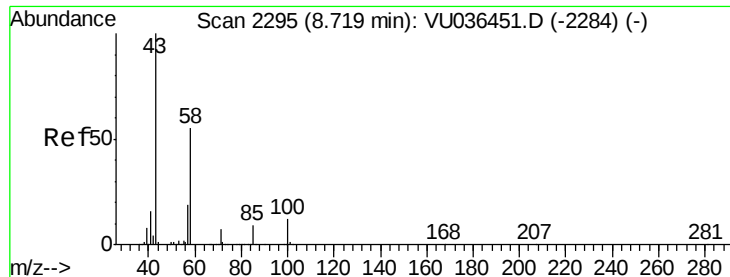
Abundance Ion 164.00 (163.70 to 164.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V

Ion 166.00 (165.70 to 166.70): V

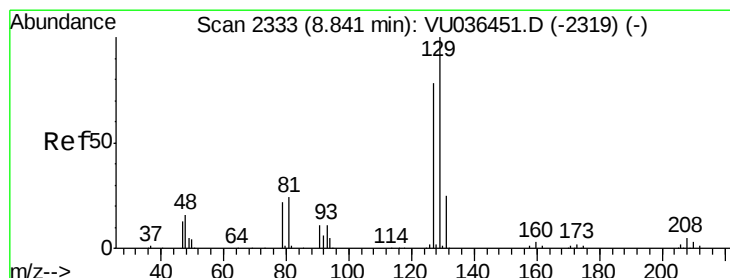
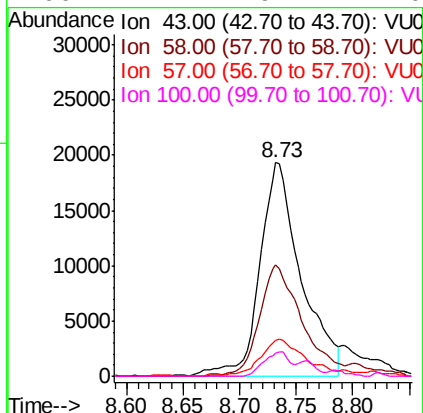
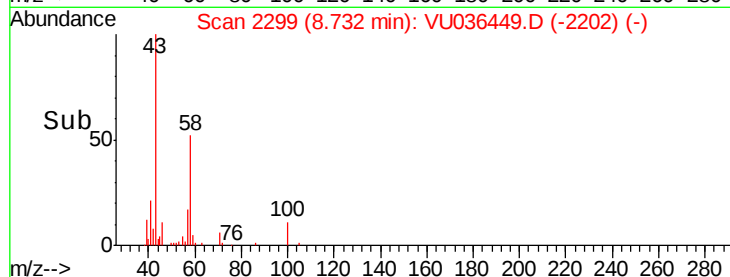
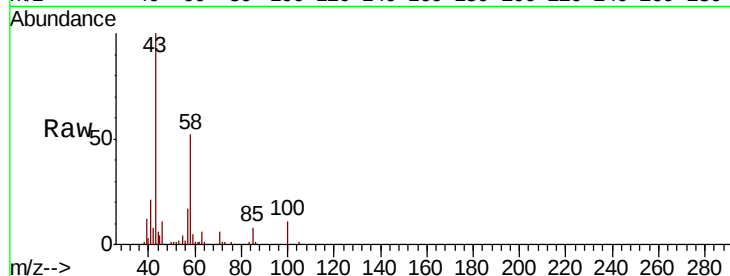




#48  
2-Hexanone  
Concen: 16.483 ug/L  
RT: 8.73 min Scan# 2299  
Delta R.T. 0.01 min  
Lab File: VU036449.D  
Acq: 14 Jan 2020 16:34

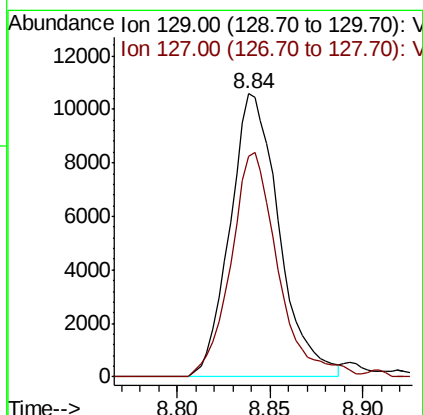
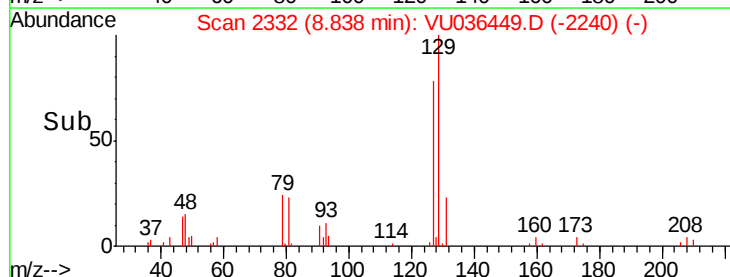
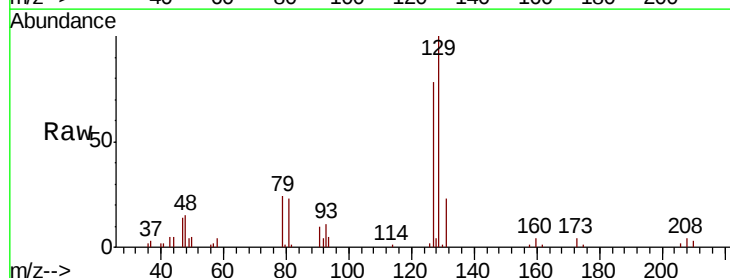
Instrument :  
MSVOA\_U  
ClientSampleId :

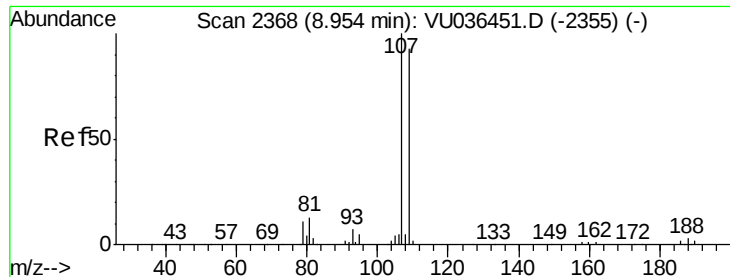
Tot Ion: 43 Resp: 48833  
Ion Ratio Lower Upper  
43 100  
58 53.8 43.7 65.5  
57 15.1 14.7 22.1  
100 7.2 9.4 14.0#



#49  
Dibromochloromethane  
Concen: 7.526 ug/L  
RT: 8.84 min Scan# 2332  
Delta R.T. -0.00 min  
Lab File: VU036449.D  
Acq: 14 Jan 2020 16:34

Tgt Ion: 129 Resp: 19545  
Ion Ratio Lower Upper  
129 100  
127 78.1 54.7 101.7

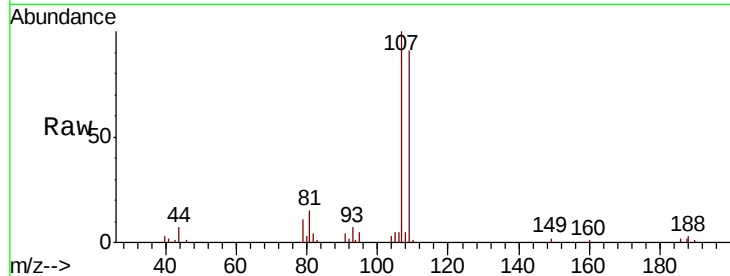




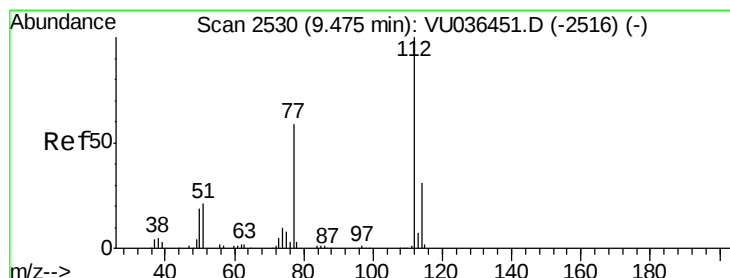
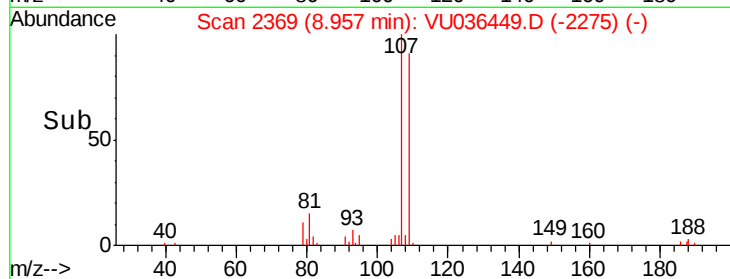
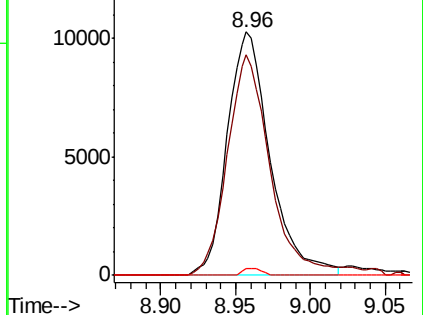
#50  
 1,2-Dibromoethane  
 Concen: 8.234 ug/L  
 RT: 8.96 min Scan# 2369  
 Delta R.T. 0.00 min  
 Lab File: VU036449.D  
 Acq: 14 Jan 2020 16:34

Instrument :  
 MSVOA\_U  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 107     | 100   |       |       |
| 109     | 90.5  | 65.0  | 120.8 |
| 188     | 2.7   | 2.6   | 4.0   |

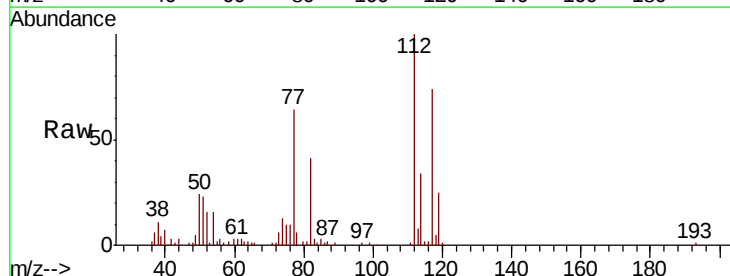


Abundance Ion 107.00 (106.70 to 107.70): V  
 Ion 109.00 (108.70 to 109.70): V  
 Ion 188.00 (187.70 to 188.70): V

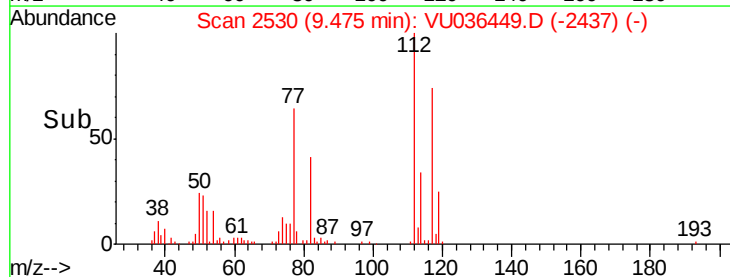
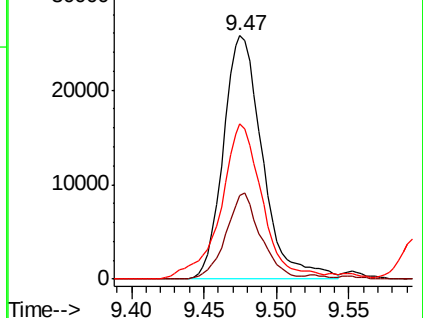


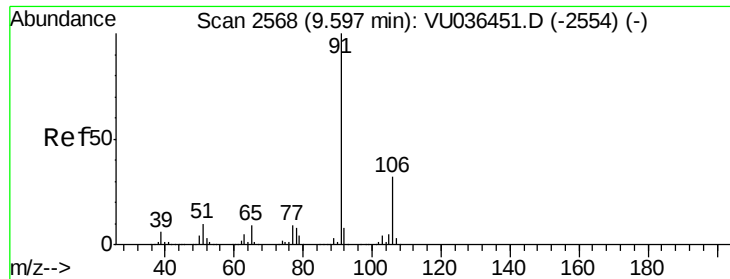
#51  
 Chlorobenzene  
 Concen: 8.212 ug/L  
 RT: 9.47 min Scan# 2530  
 Delta R.T. 0.00 min  
 Lab File: VU036449.D  
 Acq: 14 Jan 2020 16:34

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 114     | 34.5  | 22.0  | 41.0  |
| 77      | 63.6  | 47.8  | 71.8  |



Abundance Ion 112.00 (111.70 to 112.70): V  
 Ion 114.00 (113.70 to 114.70): V  
 Ion 77.00 (76.70 to 77.70): V





#52

Ethylbenzene

Concen: 7.590 ug/L

RT: 9.60 min Scan# 2568

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Instrument :

MSVOA\_U

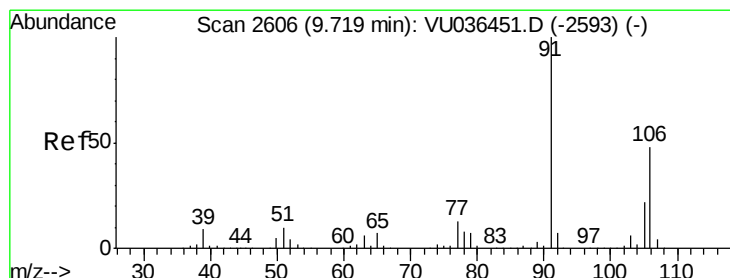
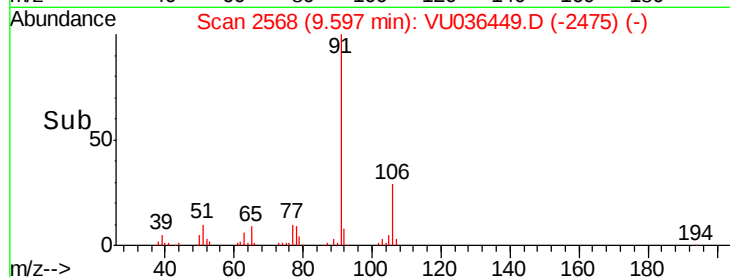
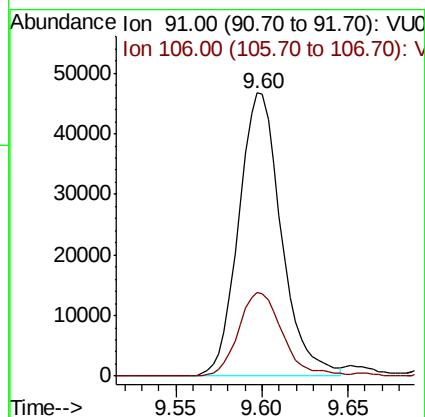
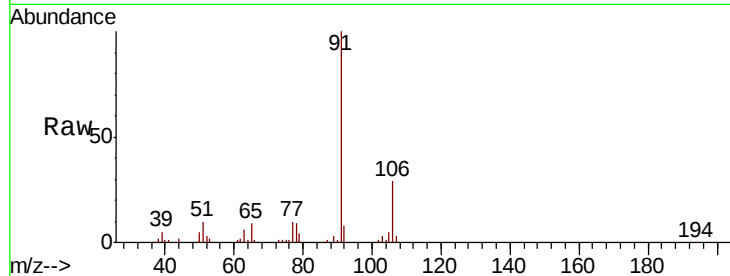
ClientSampleId :

Tot Ion: 91 Resp: 80489

Ion Ratio Lower Upper

91 100

106 29.4 22.3 41.3



#53

m,p-Xylene

Concen: 7.642 ug/L

RT: 9.72 min Scan# 2607

Delta R.T. 0.00 min

Lab File: VU036449.D

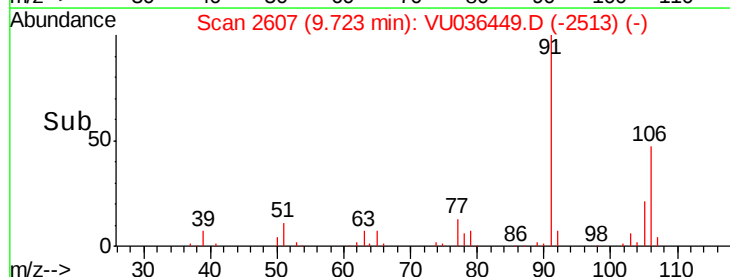
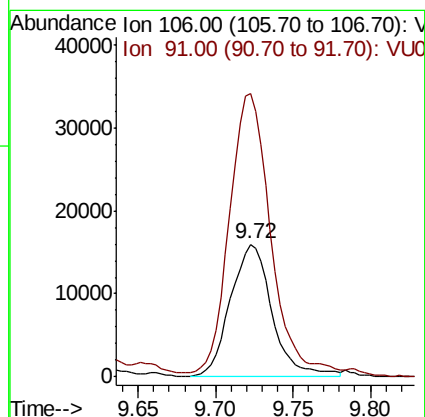
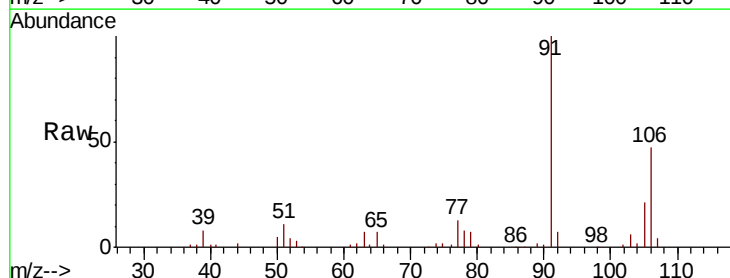
Acq: 14 Jan 2020 16:34

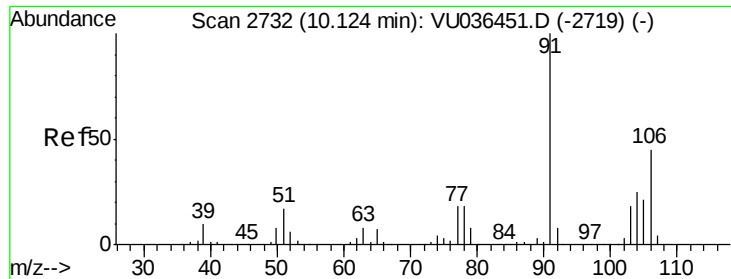
Tgt Ion: 106 Resp: 30040

Ion Ratio Lower Upper

106 100

91 213.2 145.9 270.9





#54

o-xylene

Concen: 7.416 ug/L

RT: 10.12 min Scan# 2732

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Instrument :

MSVOA\_U

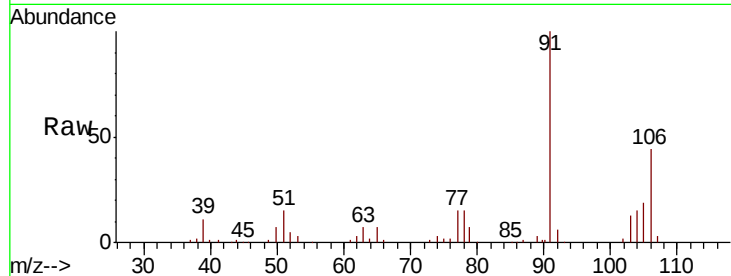
ClientSampleId :

Tot Ion:106 Resp: 29306

Ion Ratio Lower Upper

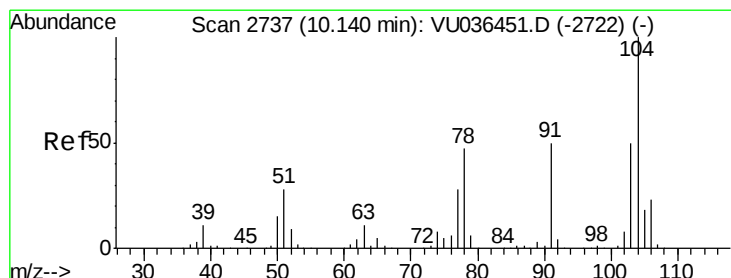
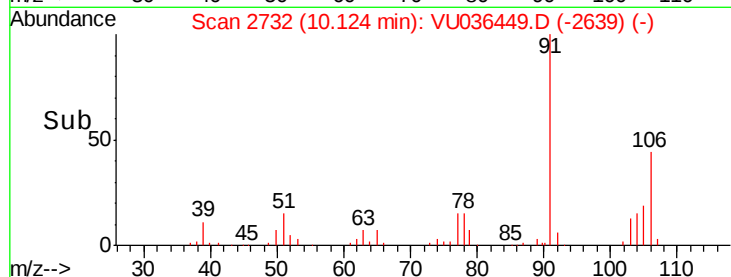
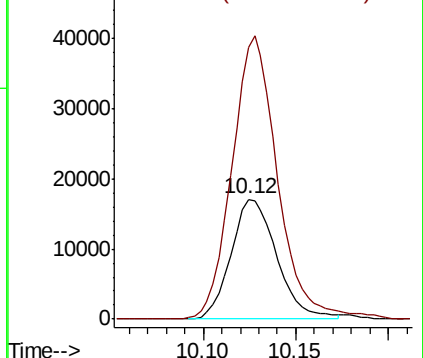
106 100

91 227.3 156.4 290.4



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VU0



#55

Styrene

Concen: 6.899 ug/L

RT: 10.14 min Scan# 2738

Delta R.T. 0.00 min

Lab File: VU036449.D

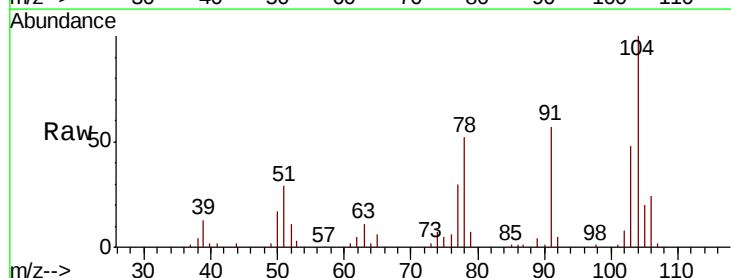
Acq: 14 Jan 2020 16:34

Tgt Ion:104 Resp: 45874

Ion Ratio Lower Upper

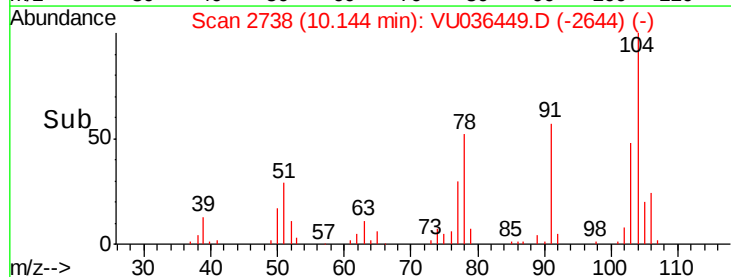
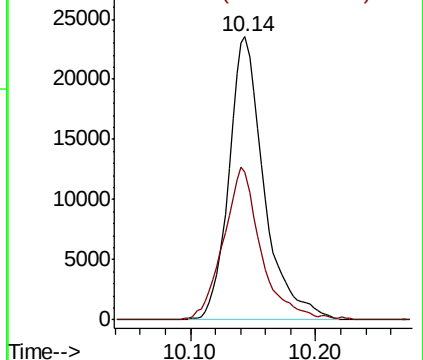
104 100

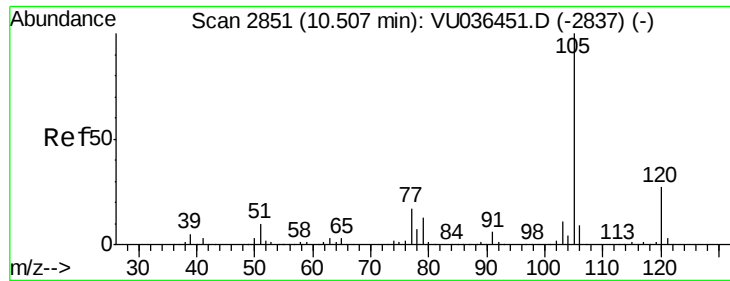
78 52.2 33.2 61.7



Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VU0





#56

Isopropylbenzene

Concen: 7.454 ug/L

RT: 10.51 min Scan# 2852

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Instrument :

MSVOA\_U

ClientSampled :

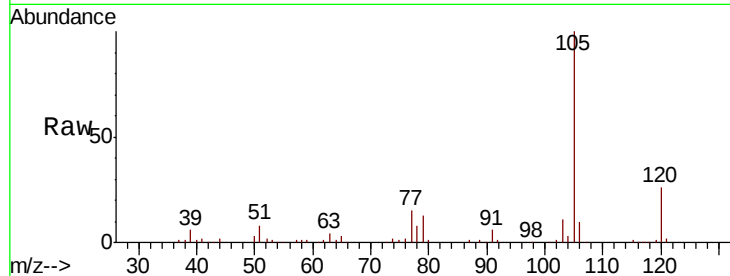
Tot Ion: 105 Resp: 76641

Ion Ratio Lower Upper

105 100

120 26.1 21.5 32.3

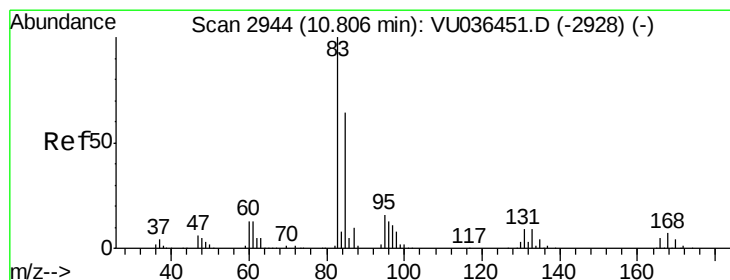
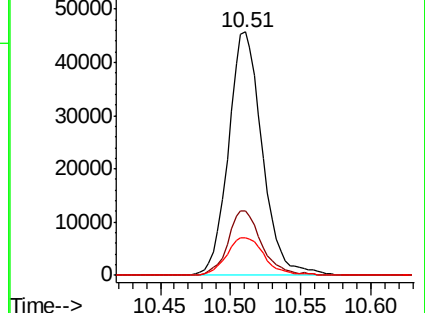
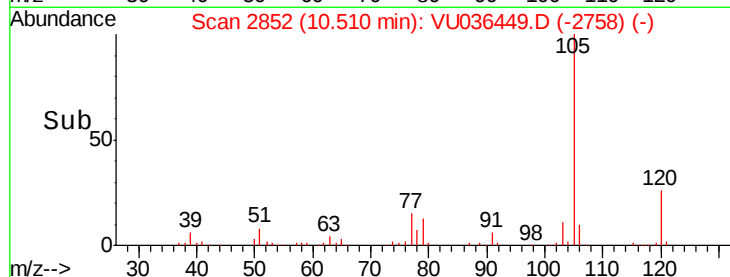
77 17.0 13.4 20.2



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

Ion 77.00 (76.70 to 77.70): V



#58

1,1,2,2-Tetrachloroethane

Concen: 7.676 ug/L

RT: 10.81 min Scan# 2945

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

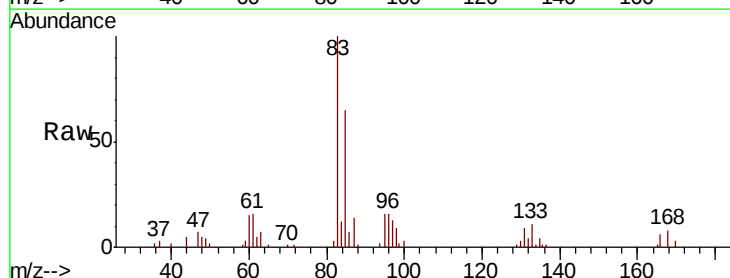
Tgt Ion: 83 Resp: 30888

Ion Ratio Lower Upper

83 100

85 65.3 44.7 82.9

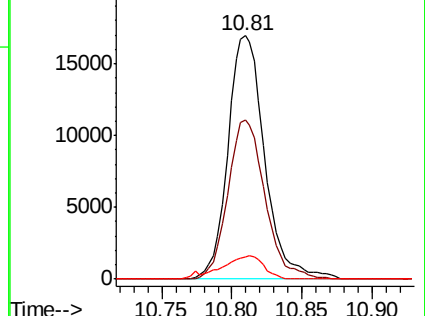
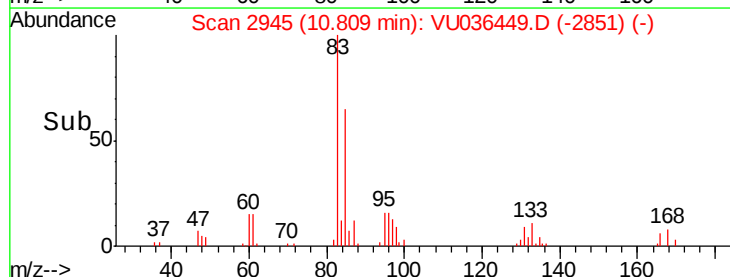
131 9.2 7.0 10.6

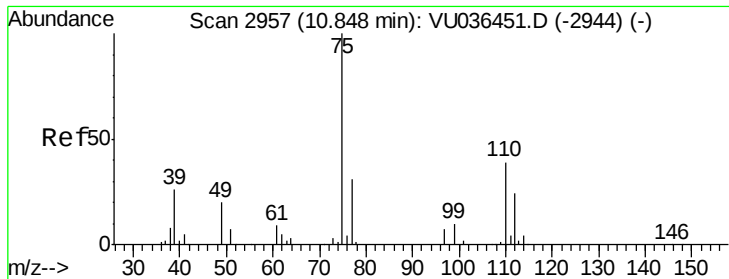


Abundance Ion 83.00 (82.70 to 83.70): VU

Ion 85.00 (84.70 to 85.70): VU

Ion 131.00 (130.70 to 131.70): V





#59

1,2,3-Trichloropropane

Concen: 7.931 ug/L

RT: 10.85 min Scan# 2958

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Instrument :

MSVOA\_U

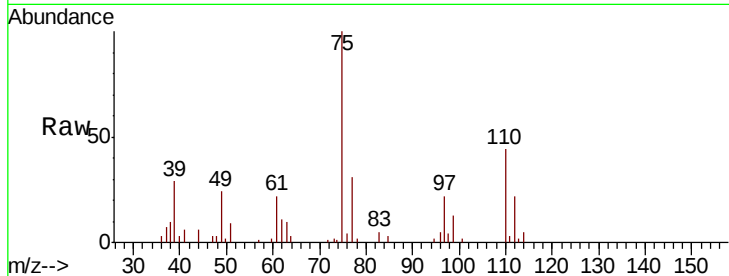
ClientSampleId :

Tot Ion: 75 Resp: 25486

Ion Ratio Lower Upper

75 100

77 31.6 25.0 37.4



Abundance Ion 75.00 (74.70 to 75.70): VU036451.D (-2944) (-)

Ion 77.00 (76.70 to 77.70): VU036451.D (-2944) (-)

10.85

15000

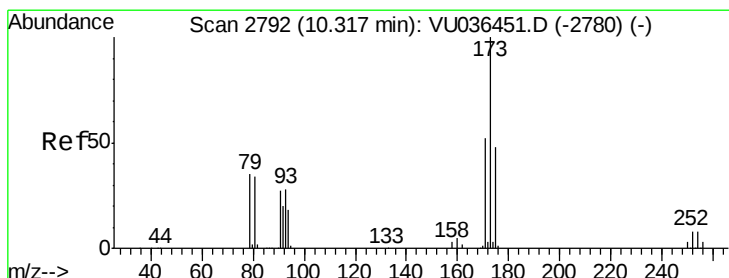
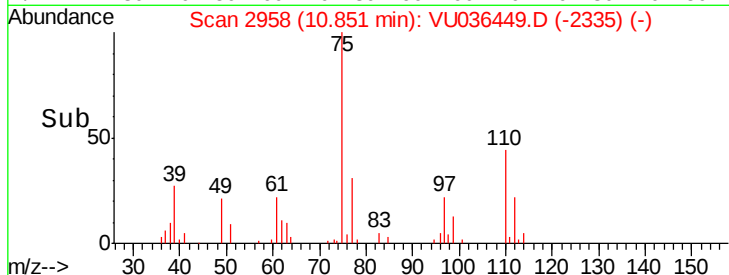
10000

5000

0

10.80 10.85 10.90

Time-->



#61

Bromoform

Concen: 8.859 ug/L

RT: 10.32 min Scan# 2793

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

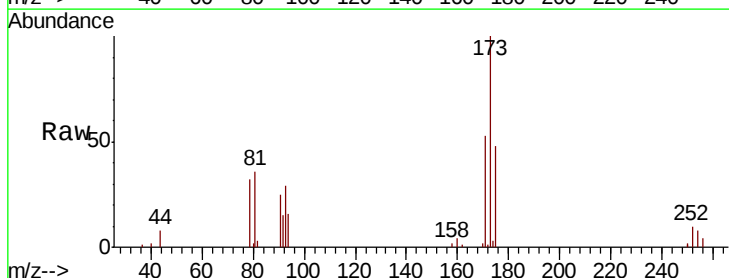
Tgt Ion: 173 Resp: 13497

Ion Ratio Lower Upper

173 100

175 46.7 39.6 59.4

254 3.4 6.3 9.5#



Abundance Ion 173.00 (172.70 to 173.70): VU036451.D (-2780) (-)

Ion 175.00 (174.70 to 175.70): VU036451.D (-2780) (-)

Ion 254.00 (253.70 to 254.70): VU036451.D (-2780) (-)

10.32

10000

8000

6000

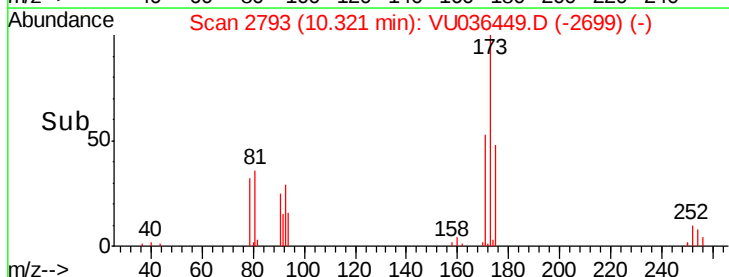
4000

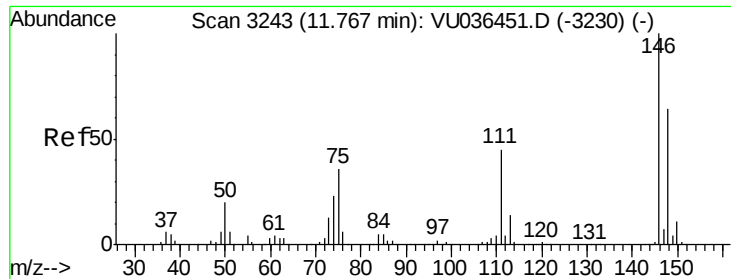
2000

0

10.25 10.30 10.35

Time-->





#62

1,3-Dichlorobenzene

Concen: 8.463 ug/L

RT: 11.77 min Scan# 3245

Delta R.T. 0.01 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Instrument :

MSVOA\_U

ClientSampleId :

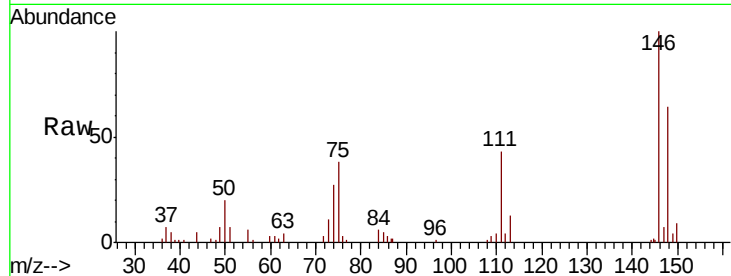
Tot Ion:146 Resp: 28338

Ion Ratio Lower Upper

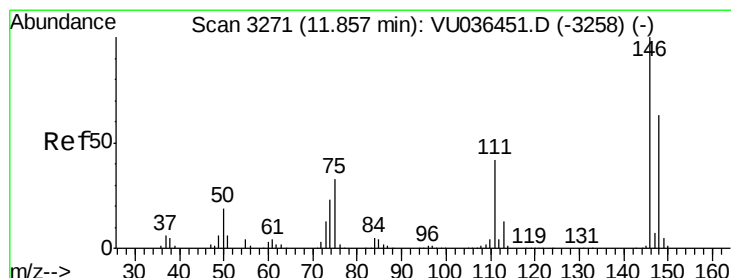
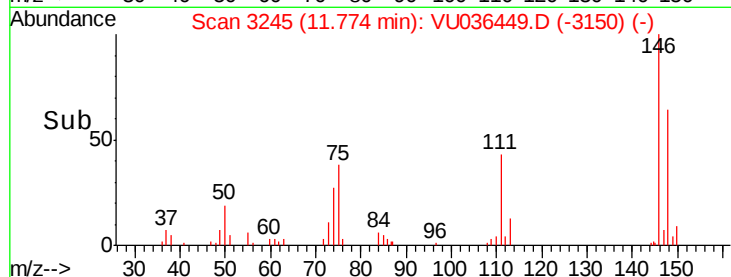
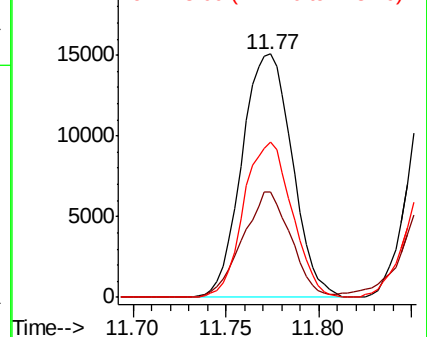
146 100

111 43.4 31.3 58.1

148 63.6 44.7 82.9



Abundance Ion 146.00 (145.70 to 146.70): V  
Ion 111.00 (110.70 to 111.70): V  
Ion 148.00 (147.70 to 148.70): V



#63

1,4-Dichlorobenzene

Concen: 8.420 ug/L

RT: 11.86 min Scan# 3272

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

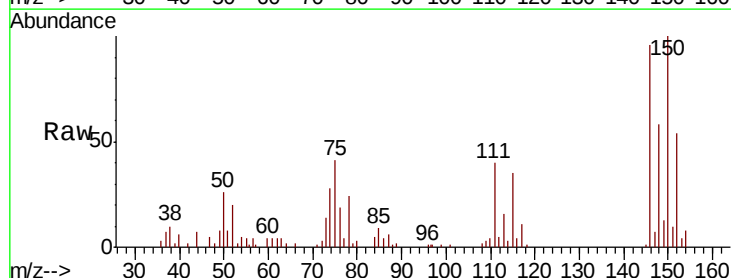
Tgt Ion:146 Resp: 28086

Ion Ratio Lower Upper

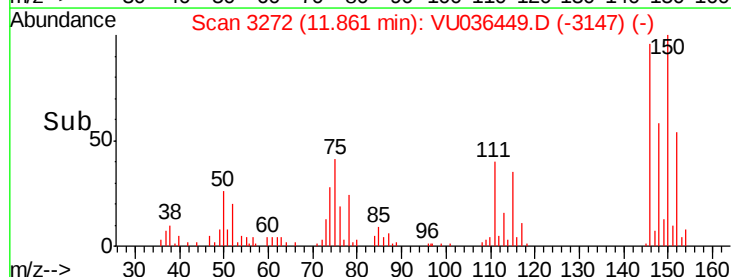
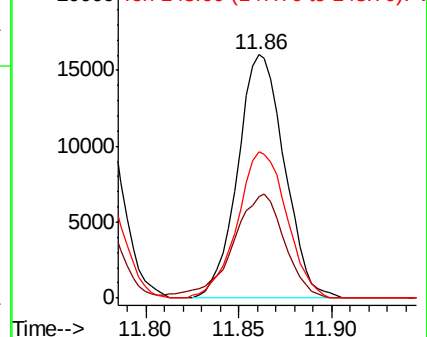
146 100

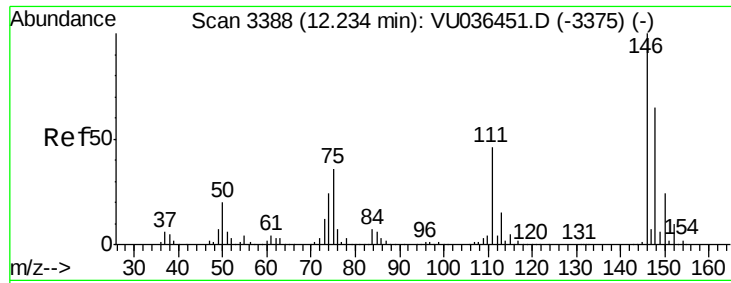
111 41.5 29.3 54.3

148 60.2 43.8 81.3



Abundance Ion 146.00 (145.70 to 146.70): V  
Ion 111.00 (110.70 to 111.70): V  
Ion 148.00 (147.70 to 148.70): V





#65

1,2-Dichlorobenzene

Concen: 8.654 ug/L

RT: 12.24 min Scan# 3389

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Instrument :

MSVOA\_U

ClientSampleId :

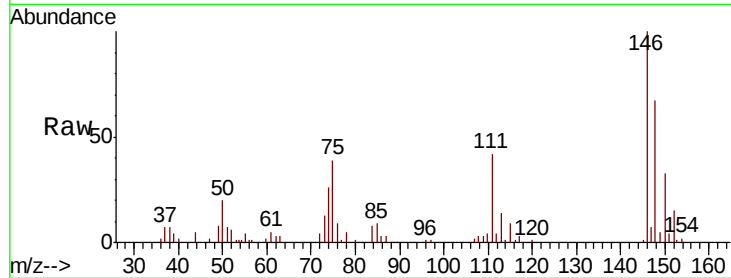
Tot Ion:146 Resp: 29010

Ion Ratio Lower Upper

146 100

111 41.6 37.0 55.4

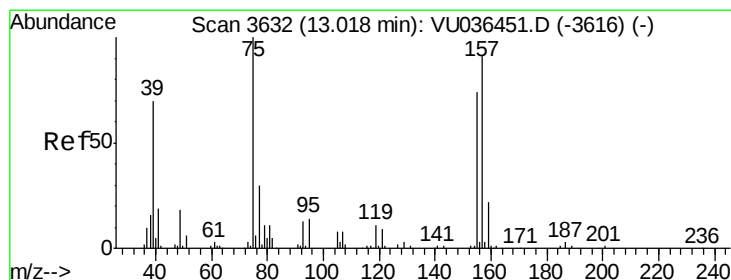
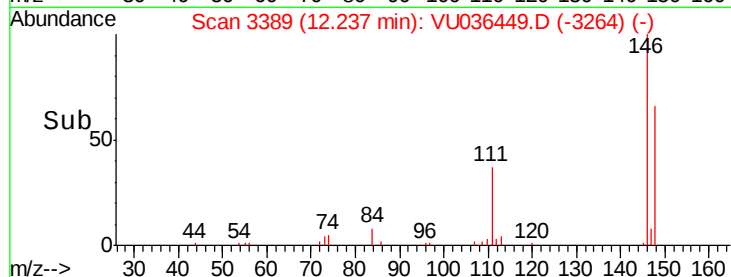
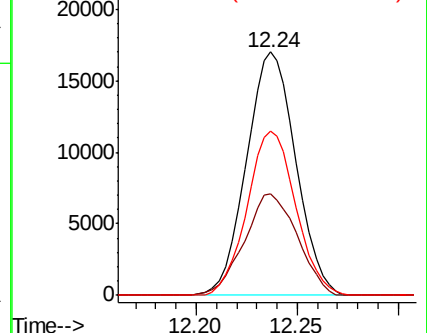
148 67.3 52.3 78.5



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#66

1,2-Dibromo-3-chloropropane

Concen: 8.304 ug/L

RT: 13.02 min Scan# 3634

Delta R.T. 0.01 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

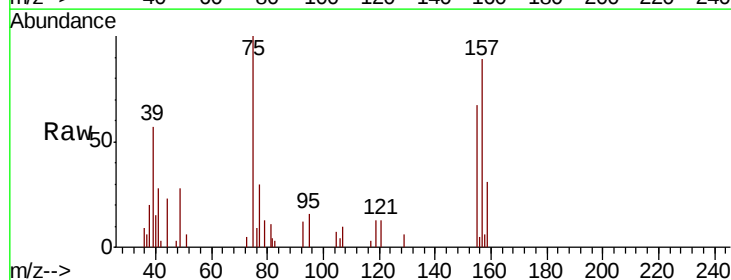
Tgt Ion: 75 Resp: 6434

Ion Ratio Lower Upper

75 100

155 66.8 59.1 88.7

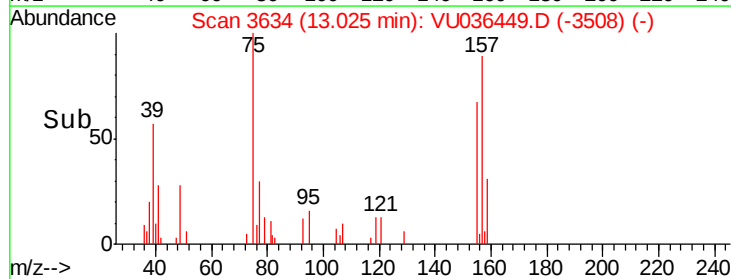
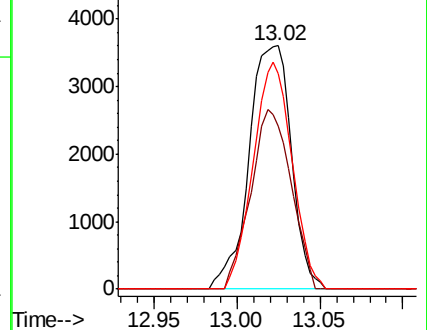
157 88.7 72.7 109.1

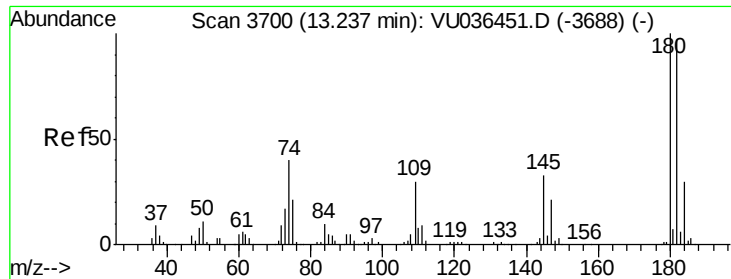


Abundance Ion 75.00 (74.70 to 75.70): VU0

Ion 155.00 (154.70 to 155.70): V

Ion 157.00 (156.70 to 157.70): V

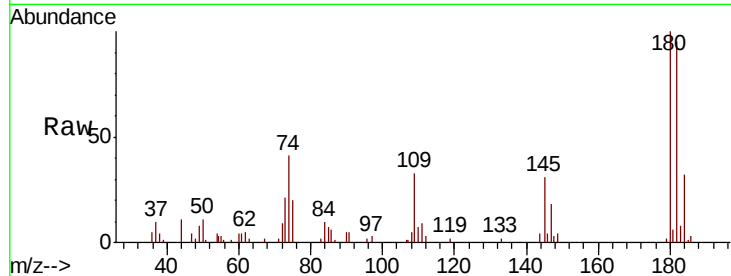




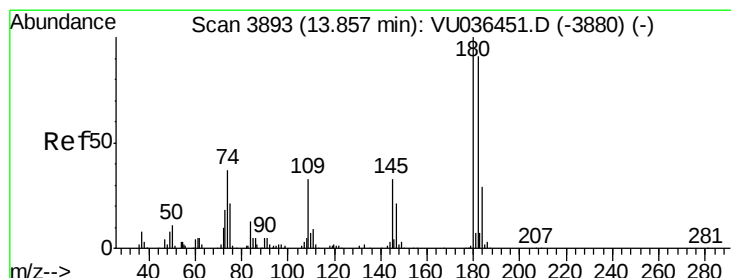
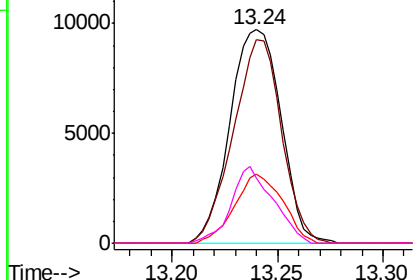
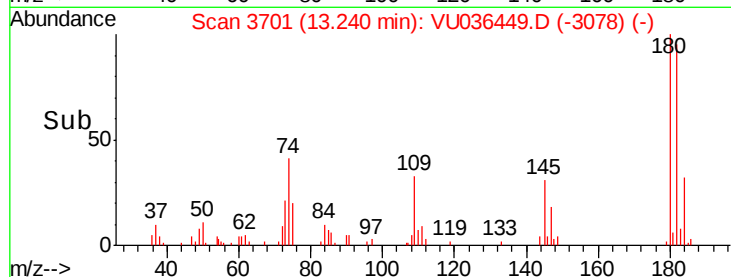
#67  
 1,3,5-Trichlorobenzene  
 Concen: 7.494 ug/L  
 RT: 13.24 min Scan# 3701  
 Delta R.T. 0.00 min  
 Lab File: VU036449.D  
 Acq: 14 Jan 2020 16:34

Instrument :  
 MSVOA\_U  
 ClientSampled :

Tot Ion:180 Resp: 16374  
 Ion Ratio Lower Upper  
 180 100  
 182 90.1 75.8 113.6  
 184 30.4 24.4 36.6  
 145 29.6 26.6 39.8

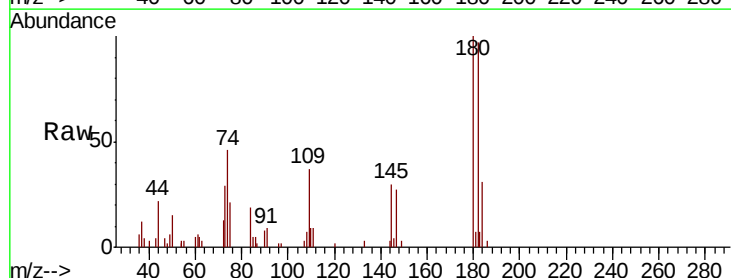


Abundance Ion 180.00 (179.70 to 180.70): V  
 15000 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

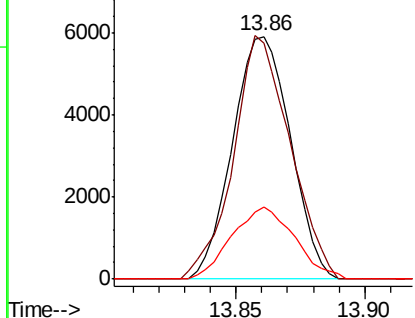
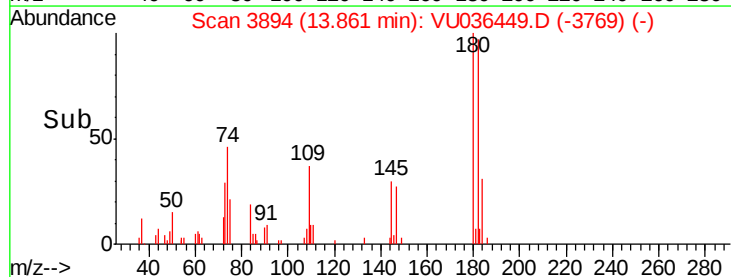


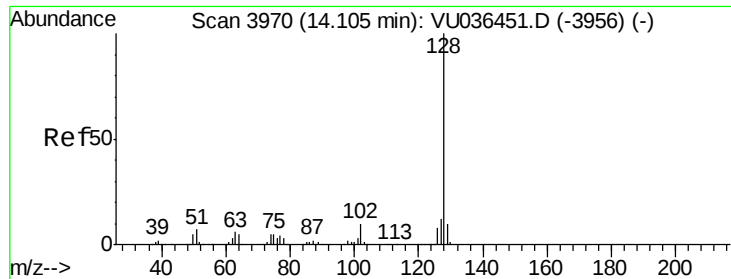
#68  
 1,2,4-trichlorobenzene  
 Concen: 5.623 ug/L  
 RT: 13.86 min Scan# 3894  
 Delta R.T. 0.00 min  
 Lab File: VU036449.D  
 Acq: 14 Jan 2020 16:34

Tgt Ion:180 Resp: 9275  
 Ion Ratio Lower Upper  
 180 100  
 182 98.0 74.1 111.1  
 145 32.2 26.6 40.0



Abundance Ion 180.00 (179.70 to 180.70): V  
 8000 Ion 182.00 (181.70 to 182.70): V  
 Ion 145.00 (144.70 to 145.70): V





#69

Naphthalene

Concen: 6.243 ug/L

RT: 14.10 min Scan# 3970

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

Instrument :

MSVOA\_U

ClientSampled :

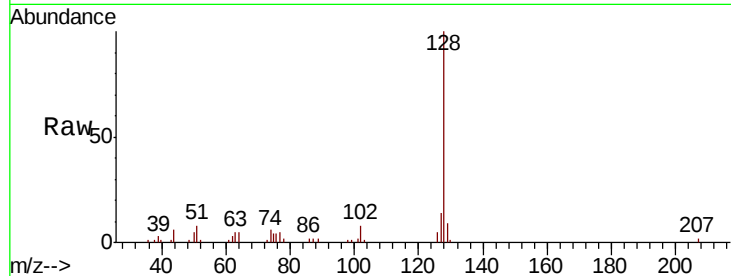
Tot Ion:128 Resp: 34871

Ion Ratio Lower Upper

128 100

127 12.9 10.0 15.0

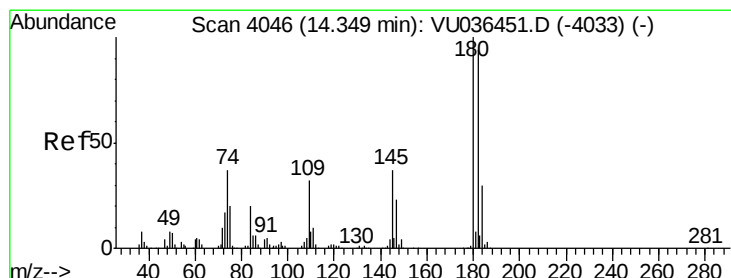
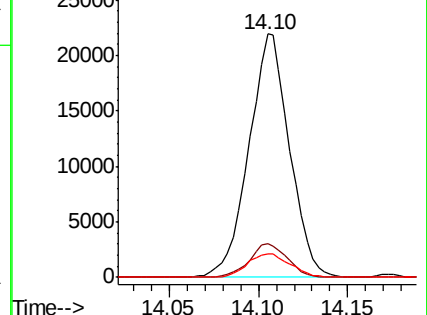
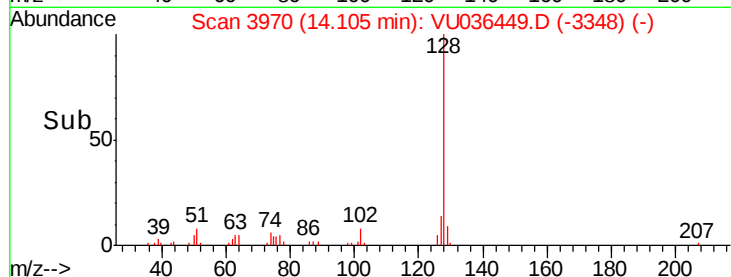
129 10.0 8.6 12.8



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V



#70

1,2,3-Trichlorobenzene

Concen: 6.189 ug/L

RT: 14.35 min Scan# 4046

Delta R.T. 0.00 min

Lab File: VU036449.D

Acq: 14 Jan 2020 16:34

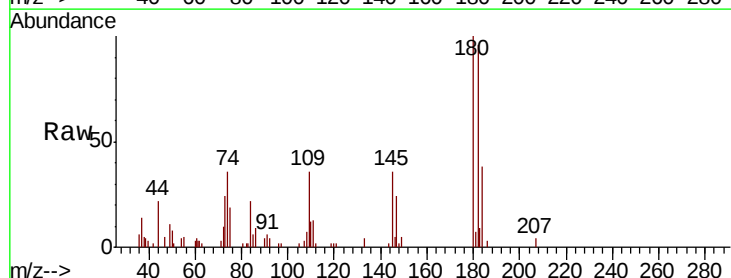
Tgt Ion:180 Resp: 10620

Ion Ratio Lower Upper

180 100

182 94.0 77.1 115.7

145 36.0 29.2 43.8



Abundance Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V

