

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU041320\  
 Data File : VU037681.D  
 Acq On : 13 Apr 2020 10:10  
 Operator : JC/MD  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Apr 14 02:07:36 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM040920WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Mon Apr 13 04:10:35 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.28  | 114  | 622154   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.44  | 117  | 592895   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.83 | 152  | 298905   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |        |
|--------------------------------|---------|-------|----------|----------|------|--------|
| 4) Vinyl Chloride-d3           | 1.61    | 65    | 192248   | 35.35    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 70.70% |
| 7) Chloroethane-d5             | 1.93    | 69    | 167441   | 38.09    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 76.18% |
| 11) 1,1-Dichloroethene-d2      | 2.59    | 63    | 363192   | 40.98    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 81.96% |
| 21) 2-Butanone-d5              | 4.66    | 46    | 339577   | 77.06    | ug/L | 0.00   |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 77.06% |
| 24) Chloroform-d               | 5.10    | 84    | 340555   | 41.67    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 83.34% |
| 26) 1,2-Dichloroethane-d4      | 5.74    | 65    | 223705   | 40.29    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 80.58% |
| 32) Benzene-d6                 | 5.76    | 84    | 711511   | 40.79    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 81.58% |
| 36) 1,2-Dichloropropane-d6     | 6.72    | 67    | 236708   | 40.77    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 81.54% |
| 41) Toluene-d8                 | 7.93    | 98    | 650601   | 40.23    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 80.46% |
| 43) trans-1,3-Dichloropropene- | 8.20    | 79    | 125534   | 40.00    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 80.00% |
| 47) 2-Hexanone-d5              | 8.66    | 63    | 264924   | 79.69    | ug/L | 0.00   |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 79.69% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.78   | 84    | 342155   | 41.72    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 83.44% |
| 64) 1,2-Dichlorobenzene-d4     | 12.21   | 152   | 250623   | 40.29    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 80.58% |

## Target Compounds

|                                |      |     |        |             | Ovalue |
|--------------------------------|------|-----|--------|-------------|--------|
| 2) Dichlorodifluoromethane     | 1.39 | 85  | 245929 | 50.461 ug/L | 99     |
| 3) Chloromethane               | 1.54 | 50  | 275211 | 48.283 ug/L | 100    |
| 5) Vinyl chloride              | 1.62 | 62  | 292493 | 49.036 ug/L | 100    |
| 6) Bromomethane                | 1.87 | 94  | 166277 | 52.966 ug/L | 100    |
| 8) Chloroethane                | 1.95 | 64  | 174967 | 49.411 ug/L | 98     |
| 9) Trichlorofluoromethane      | 2.16 | 101 | 332855 | 51.673 ug/L | 99     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.60 | 101 | 206480 | 52.648 ug/L | 99     |
| 12) 1,1-Dichloroethene         | 2.60 | 96  | 201659 | 50.704 ug/L | 97     |
| 13) Acetone                    | 2.65 | 43  | 258942 | 99.496 ug/L | 99     |
| 14) Carbon disulfide           | 2.82 | 76  | 668619 | 49.075 ug/L | 99     |
| 15) Methyl Acetate             | 2.98 | 43  | 283755 | 45.849 ug/L | 99     |
| 16) Methylene chloride         | 3.08 | 84  | 231834 | 51.023 ug/L | 99     |
| 17) trans-1,2-Dichloroethene   | 3.39 | 96  | 218505 | 51.211 ug/L | 98     |
| 18) Methyl tert-butyl Ether    | 3.40 | 73  | 750706 | 50.968 ug/L | 99     |
| 19) 1,1-Dichloroethane         | 3.91 | 63  | 418443 | 50.024 ug/L | 99     |
| 20) cis-1,2-Dichloroethene     | 4.71 | 96  | 239898 | 51.135 ug/L | 94     |
| 22) 2-Butanone                 | 4.75 | 43  | 423733 | 93.022 ug/L | 98     |

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 Quant Title : VOC Analysis  
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 Response via : Initial Calibration

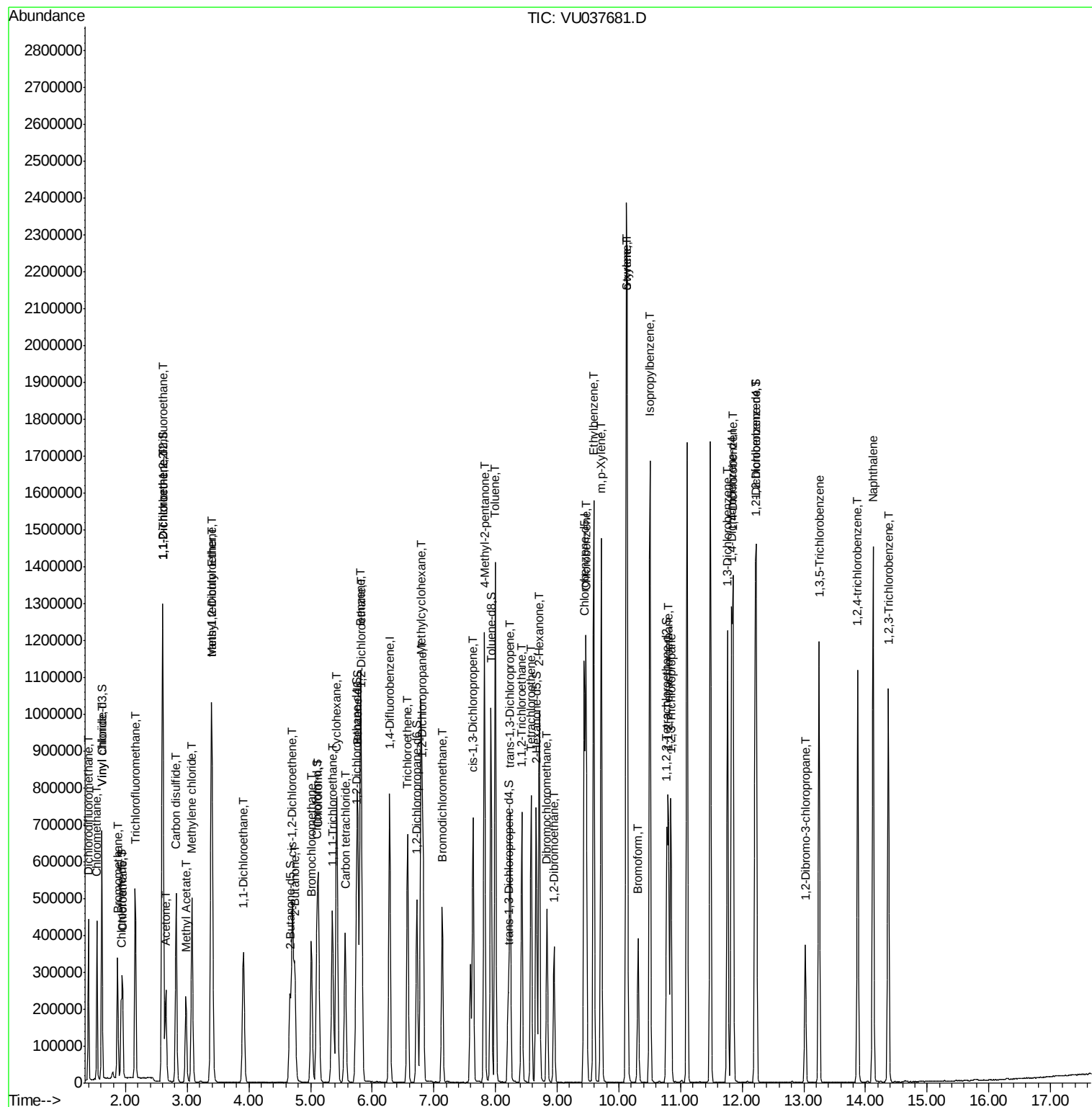
| Internal Standards              | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|---------------------------------|-------|------|----------|--------|-------|----------|
| 23) Bromochloromethane          | 5.02  | 128  | 116330   | 50.879 | ug/L  | 99       |
| 25) Chloroform                  | 5.13  | 83   | 403769   | 51.300 | ug/L  | 100      |
| 27) 1,2-Dichloroethane          | 5.83  | 62   | 321223   | 49.343 | ug/L  | 99       |
| 29) Cyclohexane                 | 5.42  | 56   | 419873   | 51.498 | ug/L  | 100      |
| 30) 1,1,1-Trichloroethane       | 5.36  | 97   | 342874   | 51.021 | ug/L  | 100      |
| 31) Carbon tetrachloride        | 5.56  | 117  | 279976   | 51.321 | ug/L  | 99       |
| 33) Benzene                     | 5.81  | 78   | 926106   | 51.327 | ug/L  | 100      |
| 34) Trichloroethene             | 6.57  | 95   | 230726   | 51.946 | ug/L  | 99       |
| 35) Methylcyclohexane           | 6.79  | 83   | 414991   | 52.657 | ug/L  | 98       |
| 37) 1,2-Dichloropropane         | 6.82  | 63   | 252224   | 50.874 | ug/L  | 100      |
| 38) Bromodichloromethane        | 7.14  | 83   | 309289   | 50.677 | ug/L  | 100      |
| 39) cis-1,3-Dichloropropene     | 7.64  | 75   | 408912   | 50.391 | ug/L  | 100      |
| 40) 4-Methyl-2-pentanone        | 7.82  | 43   | 795565   | 90.353 | ug/L  | 99       |
| 42) Toluene                     | 8.00  | 91   | 984522   | 51.366 | ug/L  | 99       |
| 44) trans-1,3-Dichloropropene   | 8.24  | 75   | 394992   | 50.216 | ug/L  | 100      |
| 45) 1,1,2-Trichloroethane       | 8.43  | 97   | 222454   | 50.287 | ug/L  | 99       |
| 46) Tetrachloroethene           | 8.58  | 164  | 174069   | 52.673 | ug/L  | 98       |
| 48) 2-Hexanone                  | 8.71  | 43   | 620533   | 89.252 | ug/L  | 99       |
| 49) Dibromochloromethane        | 8.84  | 129  | 236822   | 49.924 | ug/L  | 100      |
| 50) 1,2-Dibromoethane           | 8.95  | 107  | 242430   | 50.651 | ug/L  | 97       |
| 51) Chlorobenzene               | 9.47  | 112  | 611482   | 51.085 | ug/L  | 100      |
| 52) Ethylbenzene                | 9.59  | 91   | 1104155  | 51.381 | ug/L  | 100      |
| 53) m,p-Xylene                  | 9.72  | 106  | 420277   | 51.507 | ug/L  | 98       |
| 54) o-xylene                    | 10.12 | 106  | 412940   | 51.027 | ug/L  | 100      |
| 55) Styrene                     | 10.13 | 104  | 720926   | 51.379 | ug/L  | 100      |
| 56) Isopropylbenzene            | 10.50 | 105  | 1091239  | 51.788 | ug/L  | 100      |
| 58) 1,1,1,2,2-Tetrachloroethane | 10.80 | 83   | 383568   | 48.559 | ug/L  | 98       |
| 59) 1,2,3-Trichloropropane      | 10.84 | 75   | 323743   | 48.067 | ug/L  | 99       |
| 61) Bromoform                   | 10.31 | 173  | 181727   | 47.973 | ug/L  | 99       |
| 62) 1,3-Dichlorobenzene         | 11.76 | 146  | 485964   | 50.510 | ug/L  | 100      |
| 63) 1,4-Dichlorobenzene         | 11.85 | 146  | 492363   | 51.005 | ug/L  | 99       |
| 65) 1,2-Dichlorobenzene         | 12.23 | 146  | 474987   | 50.094 | ug/L  | 100      |
| 66) 1,2-Dibromo-3-chloropropan  | 13.02 | 75   | 99731    | 45.405 | ug/L  | 98       |
| 67) 1,3,5-Trichlorobenzene      | 13.25 | 180  | 365521   | 51.959 | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene      | 13.88 | 180  | 344207   | 50.729 | ug/L  | 100      |
| 69) Naphthalene                 | 14.12 | 128  | 1147218  | 45.823 | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene      | 14.37 | 180  | 331832   | 49.084 | ug/L  | 100      |

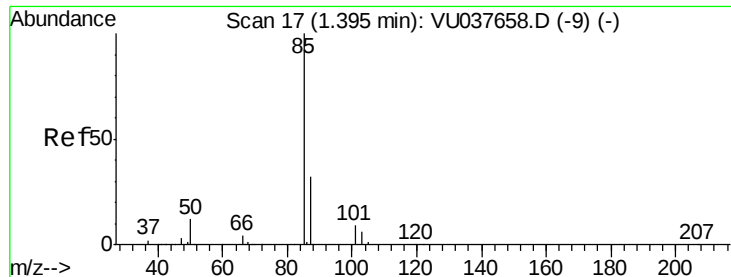
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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MSVOA\_U  
ClientSampled :

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Quant Title : VOC Analysis  
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Response via : Initial Calibration





#2

Dichlorodifluoromethane

Concen: 50.461 ug/L

RT: 1.39 min Scan# 17

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Instrument :

MSVOA\_U

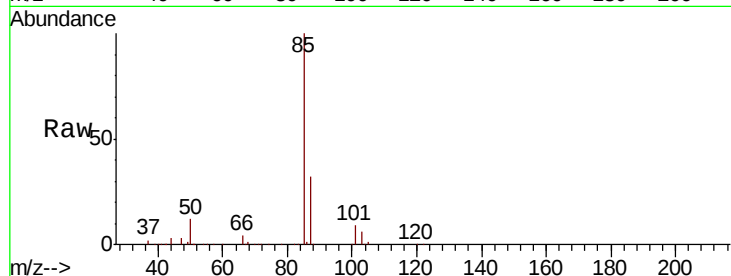
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Tot Ion: 85 Resp: 245929

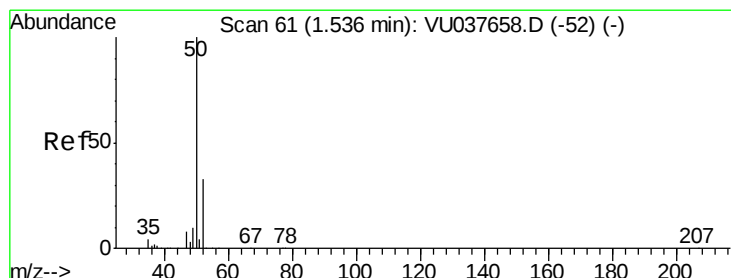
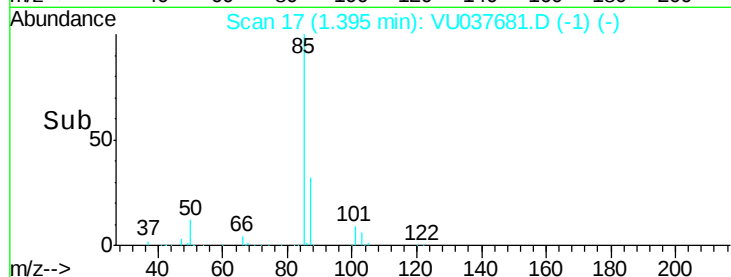
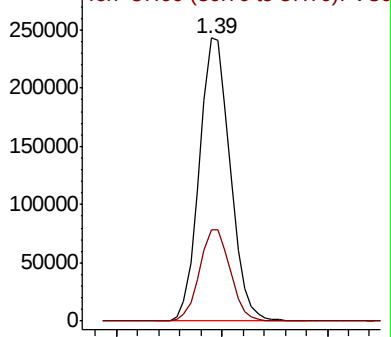
Ion Ratio Lower Upper

85 100

87 32.5 25.4 38.2



Abundance Ion 85.00 (84.70 to 85.70): VU037681.D (-1) (-)



#3

Chloromethane

Concen: 48.283 ug/L

RT: 1.54 min Scan# 61

Delta R.T. 0.00 min

Lab File: VU037681.D

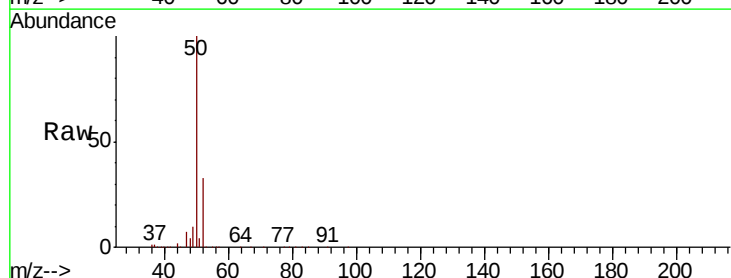
Acq: 13 Apr 2020 10:10

Tgt Ion: 50 Resp: 275211

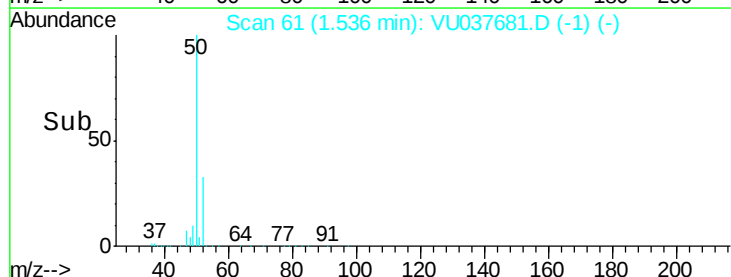
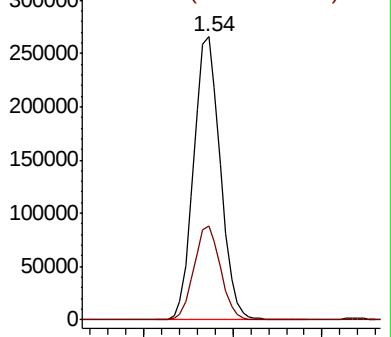
Ion Ratio Lower Upper

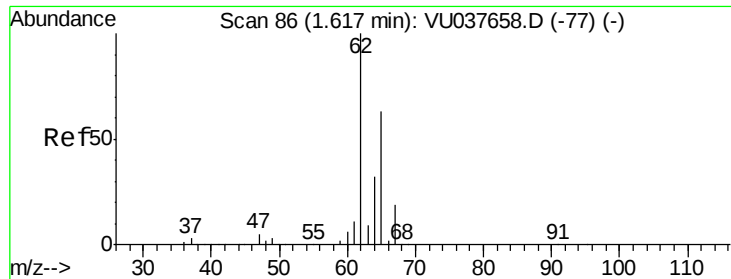
50 100

52 33.3 23.3 43.3



Abundance Ion 50.00 (49.70 to 50.70): VU037681.D (-1) (-)





#5

Vinyl chloride

Concen: 49.036 ug/L

RT: 1.62 min Scan# 86

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Instrument :

MSVOA\_U

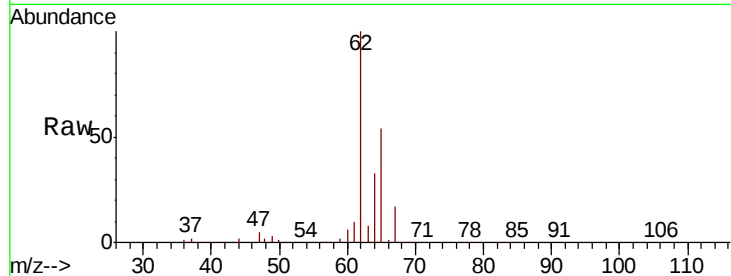
ClientSampleId :

Tot Ion: 62 Resp: 292493

Ion Ratio Lower Upper

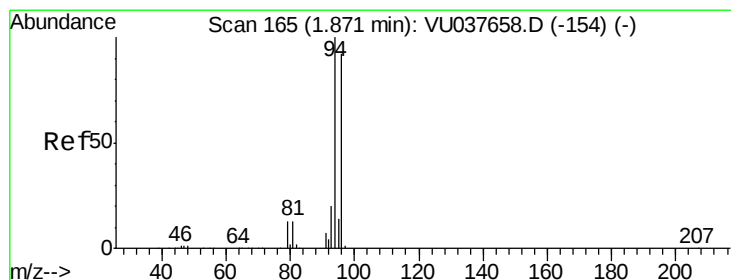
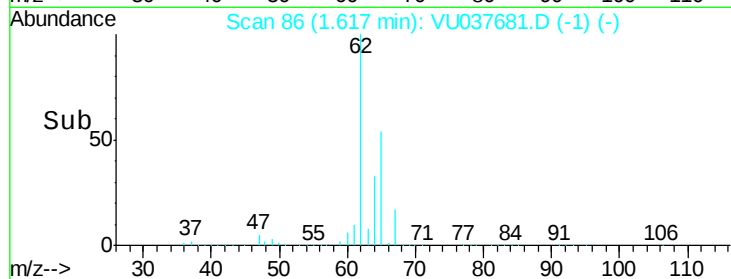
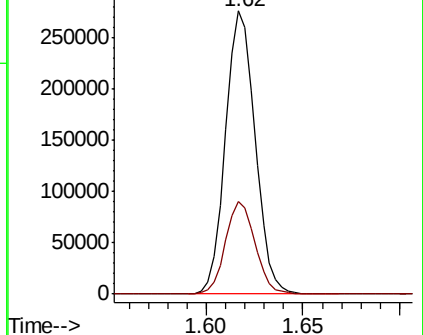
62 100

64 32.6 22.8 42.4



Abundance Ion 62.00 (61.70 to 62.70): VU037681.D (-77) (-)

Ion 64.00 (63.70 to 64.70): VU037681.D (-77) (-)



#6

Bromomethane

Concen: 52.966 ug/L

RT: 1.87 min Scan# 165

Delta R.T. 0.00 min

Lab File: VU037681.D

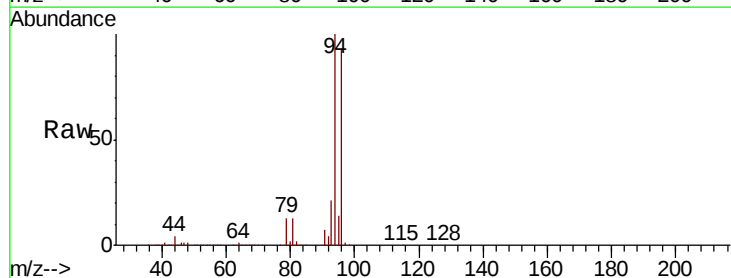
Acq: 13 Apr 2020 10:10

Tgt Ion: 94 Resp: 166277

Ion Ratio Lower Upper

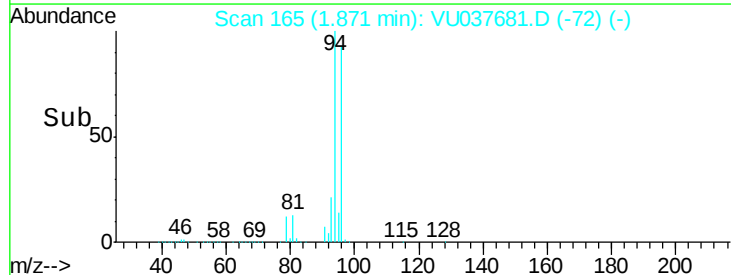
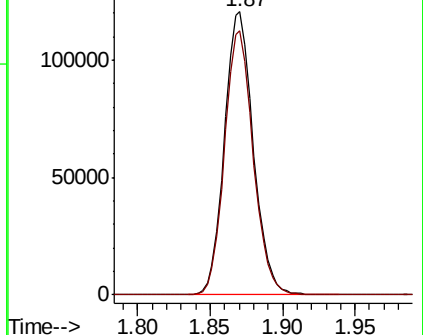
94 100

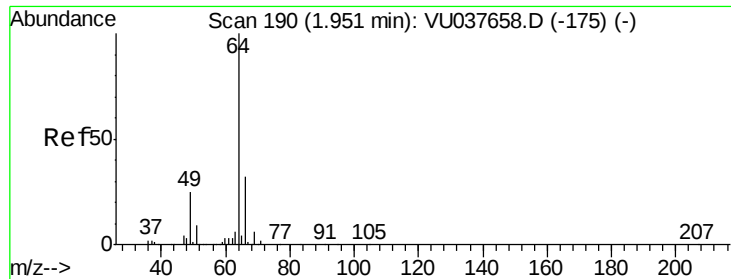
96 93.2 65.2 121.2



Abundance Ion 94.00 (93.70 to 94.70): VU037681.D (-154) (-)

Ion 96.00 (95.70 to 96.70): VU037681.D (-154) (-)

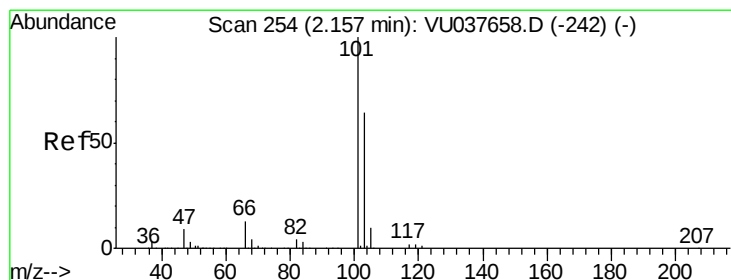
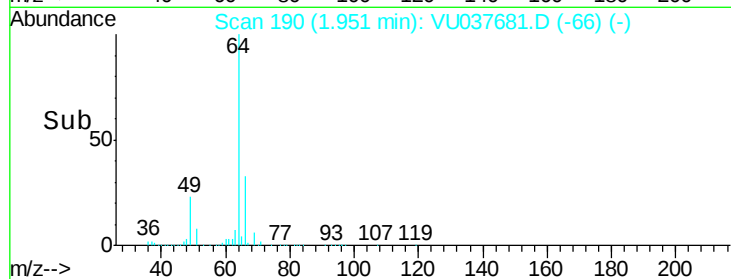
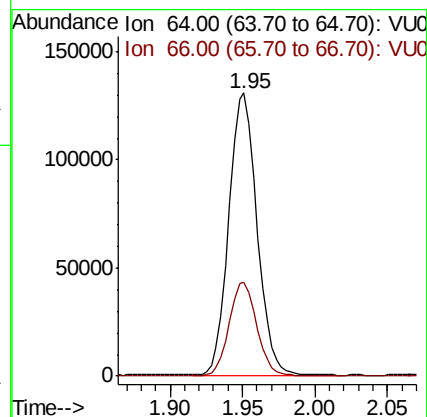
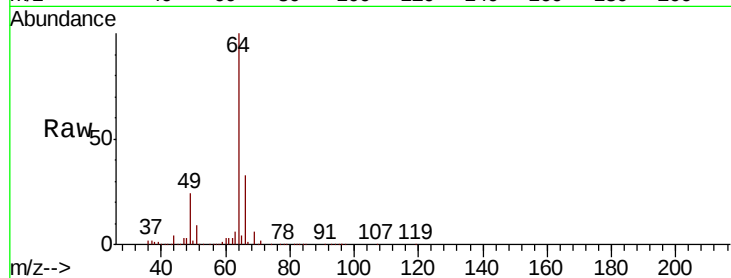




#8  
Chloroethane  
Concen: 49.411 ug/L  
RT: 1.95 min Scan# 190  
Delta R.T. 0.00 min  
Lab File: VU037681.D  
Acq: 13 Apr 2020 10:10

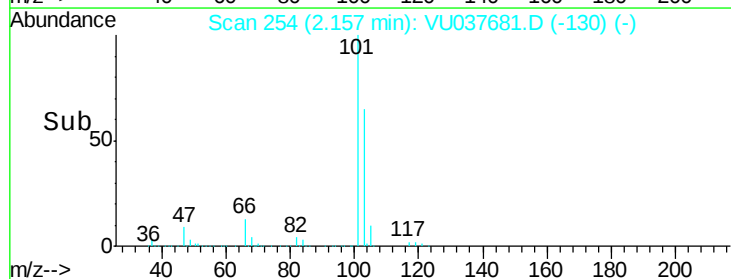
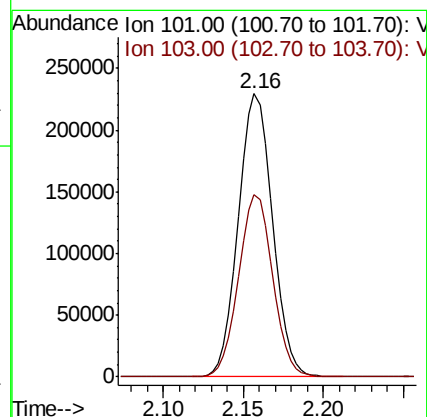
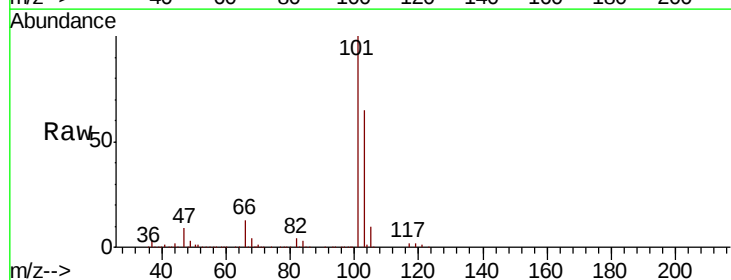
Instrument :  
MSVOA\_U  
ClientSampleId :

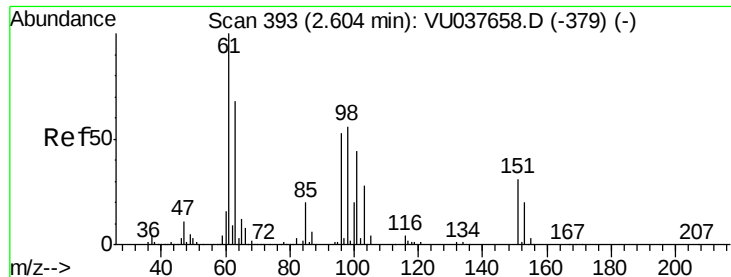
Tot Ion: 64 Resp: 174967  
Ion Ratio Lower Upper  
64 100  
66 33.3 22.6 42.0



#9  
Trichlorofluoromethane  
Concen: 51.673 ug/L  
RT: 2.16 min Scan# 254  
Delta R.T. 0.00 min  
Lab File: VU037681.D  
Acq: 13 Apr 2020 10:10

Tgt Ion:101 Resp: 332855  
Ion Ratio Lower Upper  
101 100  
103 64.3 52.2 78.2





#10

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

Concen: 52.648 ug/L

RT: 2.60 min Scan# 393

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Instrument :

MSVOA\_U

ClientSampled :

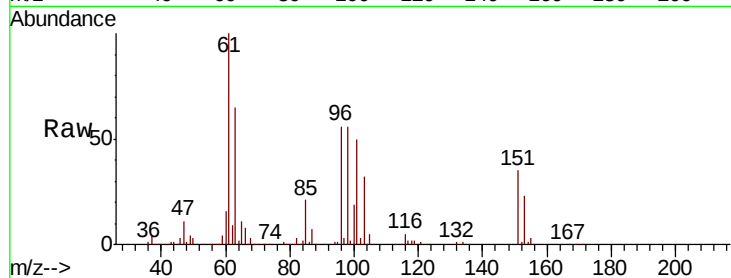
Tot Ion:101 Resp: 206480

Ion Ratio Lower Upper

101 100

85 43.4 34.5 51.7

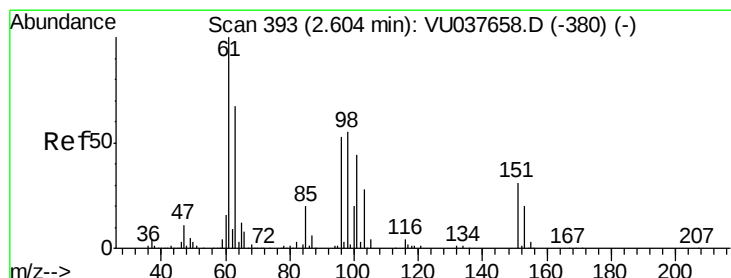
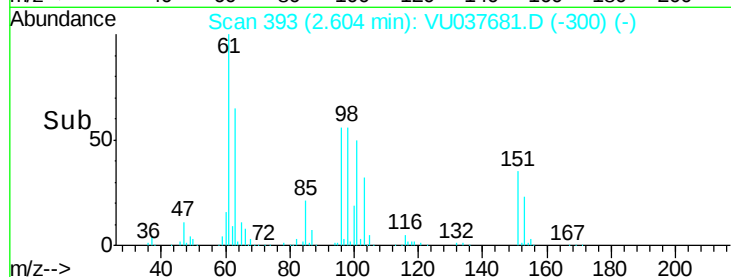
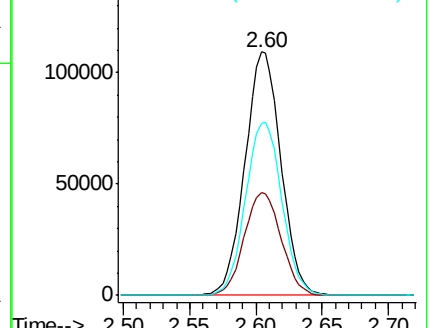
151 71.9 56.8 85.2



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: 50.704 ug/L

RT: 2.60 min Scan# 393

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

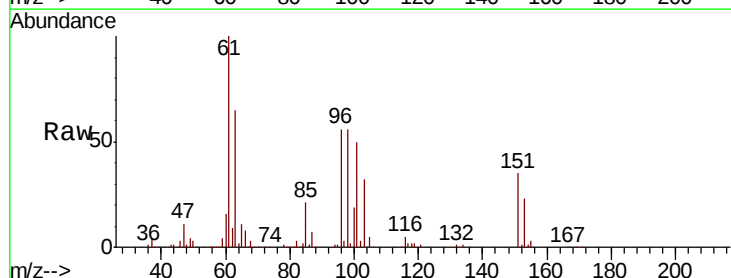
Tgt Ion: 96 Resp: 201659

Ion Ratio Lower Upper

96 100

61 177.7 123.6 229.6

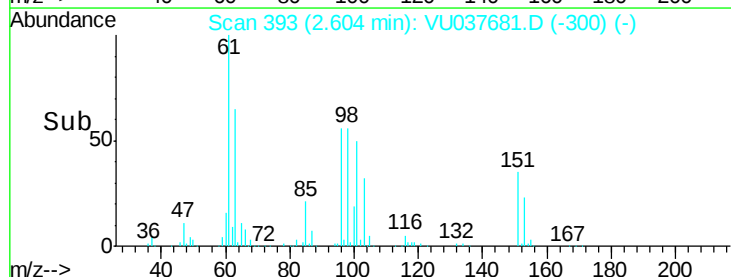
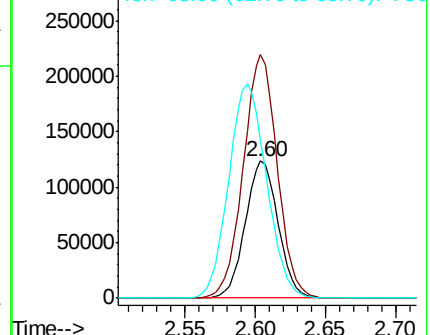
63 115.3 85.7 159.1

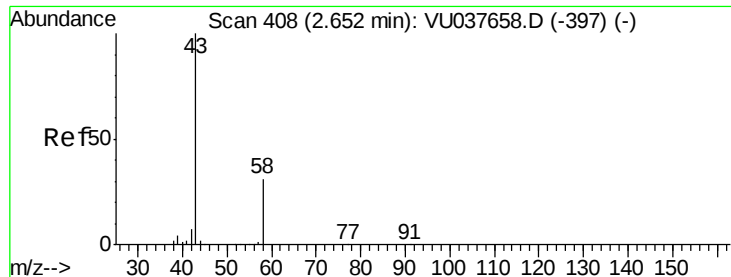


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 99.496 ug/L

RT: 2.65 min Scan# 408

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Instrument :

MSVOA\_U

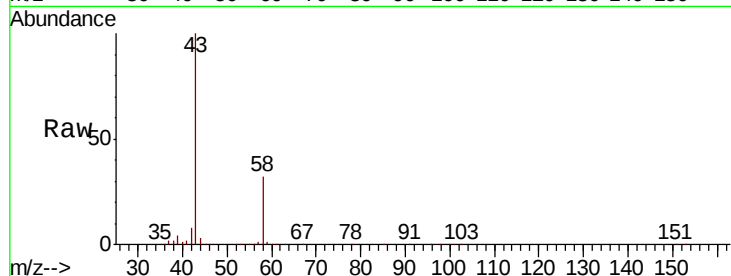
ClientSampleId :

Tot Ion: 43 Resp: 258942

Ion Ratio Lower Upper

43 100

58 32.4 0.0 63.2



Abundance Ion 43.00 (42.70 to 43.70): VU037681.D (-315) (-)

Ion 58.00 (57.70 to 58.70): VU037681.D (-315) (-)

2.65

150000

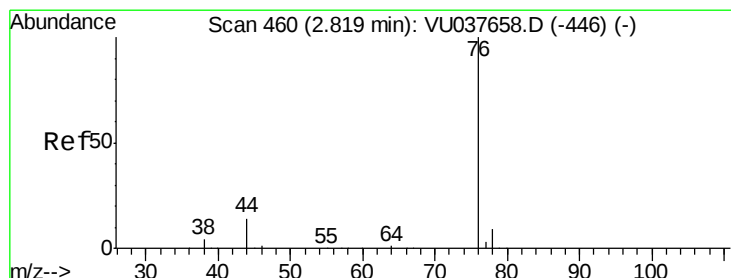
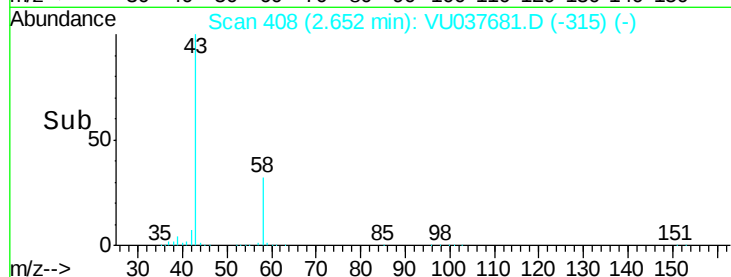
100000

50000

0

Time-->

2.60 2.65 2.70



#14

Carbon disulfide

Concen: 49.075 ug/L

RT: 2.82 min Scan# 460

Delta R.T. 0.00 min

Lab File: VU037681.D

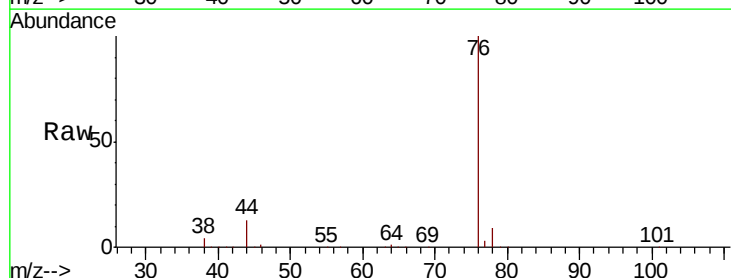
Acq: 13 Apr 2020 10:10

Tgt Ion: 76 Resp: 668619

Ion Ratio Lower Upper

76 100

78 9.0 7.0 10.6



Abundance Ion 76.00 (75.70 to 76.70): VU037681.D (-367) (-)

Ion 78.00 (77.70 to 78.70): VU037681.D (-367) (-)

2.82

400000

300000

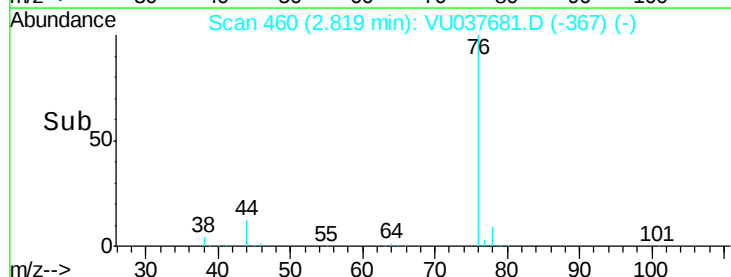
200000

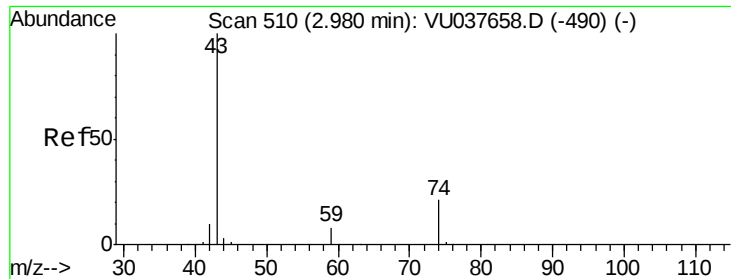
100000

0

Time-->

2.75 2.80 2.85 2.90 2.95





#15

Methvl Acetate

Concen: 45.849 ug/L

RT: 2.98 min Scan# 509

Delta R.T. -0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Instrument :

MSVOA\_U

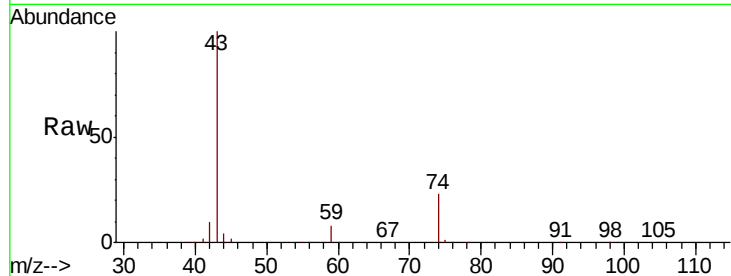
ClientSampleId :

Tot Ion: 43 Resp: 283755

Ion Ratio Lower Upper

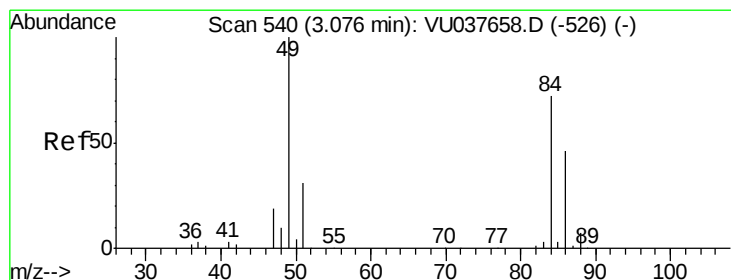
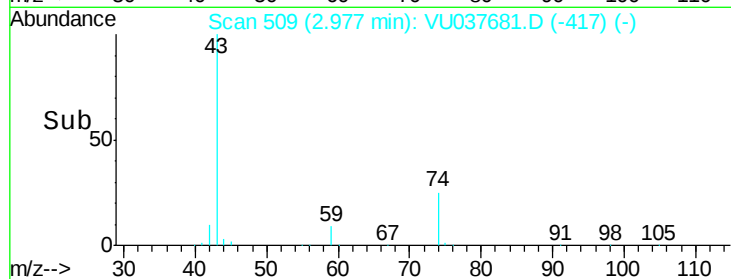
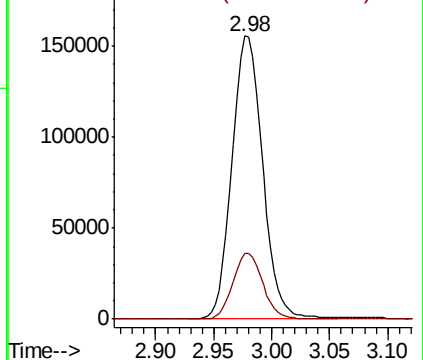
43 100

74 22.8 17.9 26.9



Abundance Ion 43.00 (42.70 to 43.70): VU0

Ion 74.00 (73.70 to 74.70): VU0



#16

Methylene chloride

Concen: 51.023 ug/L

RT: 3.08 min Scan# 540

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

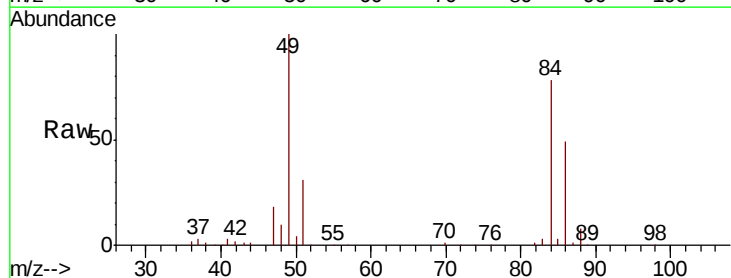
Tgt Ion: 84 Resp: 231834

Ion Ratio Lower Upper

84 100

86 62.7 44.1 81.9

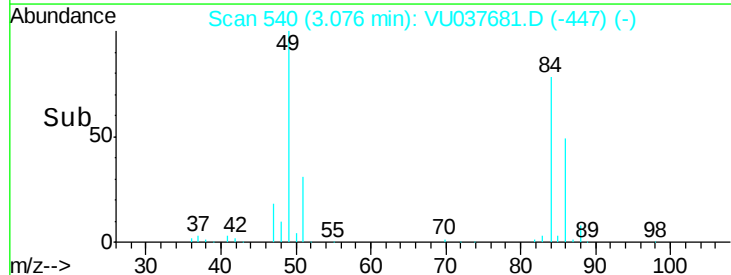
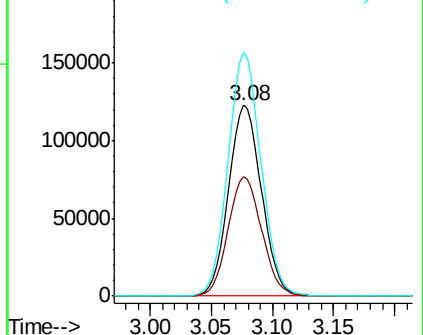
49 127.6 90.3 167.7

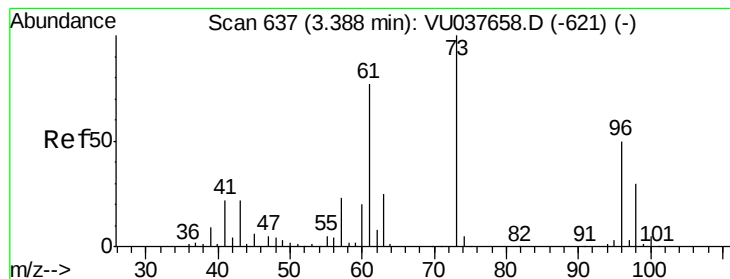


Abundance Ion 84.00 (83.70 to 84.70): VU0

Ion 86.00 (85.70 to 86.70): VU0

Ion 49.00 (48.70 to 49.70): VU0





#17

trans-1,2-Dichloroethene

Concen: 51.211 ug/L

RT: 3.39 min Scan# 637

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Instrument :

MSVOA\_U

ClientSampled :

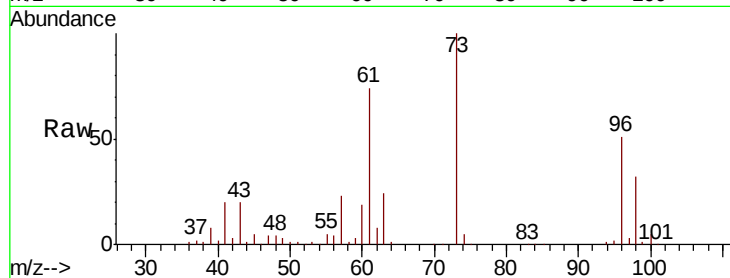
Tot Ion: 96 Resp: 218505

Ion Ratio Lower Upper

96 100

61 144.5 103.2 191.6

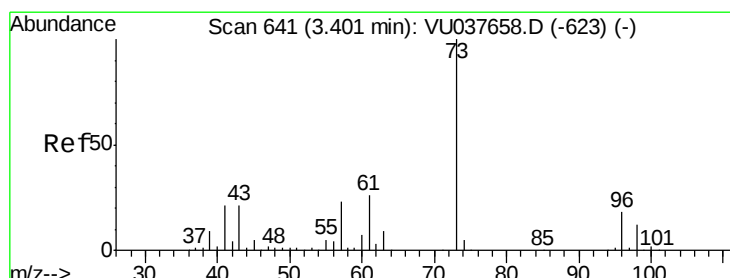
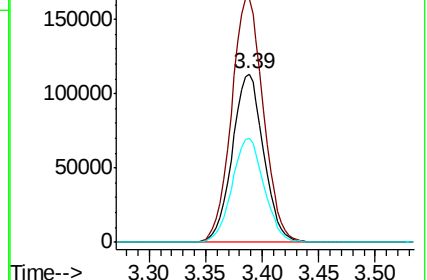
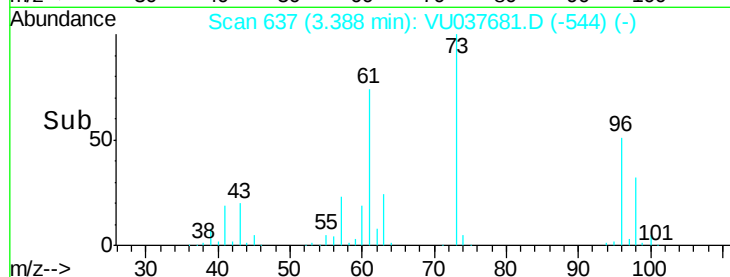
98 62.0 43.1 80.1



Abundance Ion 96.00 (95.70 to 96.70): VU037681.D (-544) (-)

Ion 61.00 (60.70 to 61.70): VU037681.D (-544) (-)

Ion 98.00 (97.70 to 98.70): VU037681.D (-544) (-)



#18

Methyl tert-butyl Ether

Concen: 50.968 ug/L

RT: 3.40 min Scan# 641

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

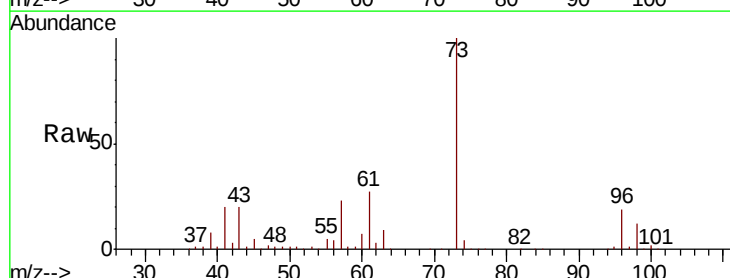
Tgt Ion: 73 Resp: 750706

Ion Ratio Lower Upper

73 100

43 19.9 16.3 24.5

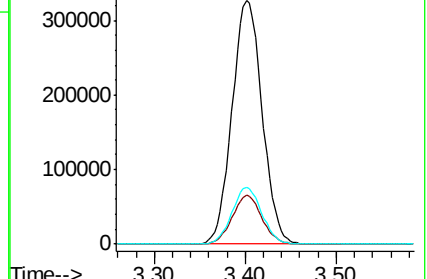
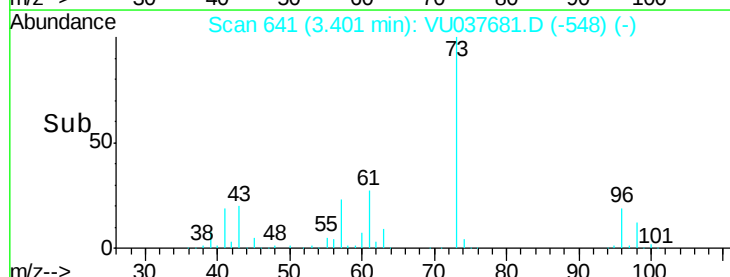
57 23.1 18.3 27.5

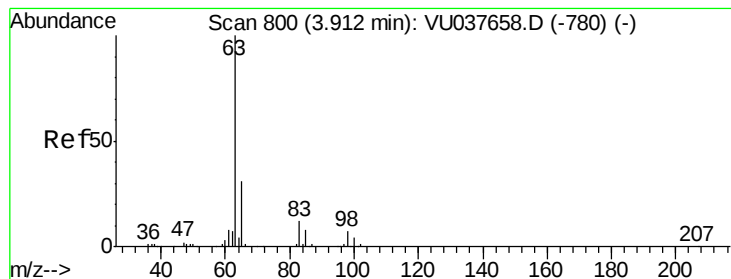


Abundance Ion 73.00 (72.70 to 73.70): VU037681.D (-548) (-)

Ion 43.00 (42.70 to 43.70): VU037681.D (-548) (-)

Ion 57.00 (56.70 to 57.70): VU037681.D (-548) (-)





#19

1,1-Dichloroethane

Concen: 50.024 ug/L

RT: 3.91 min Scan# 799

Delta R.T. -0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Instrument :

MSVOA\_U

ClientSampleId :

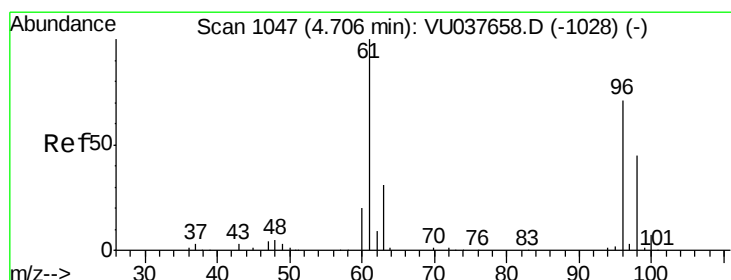
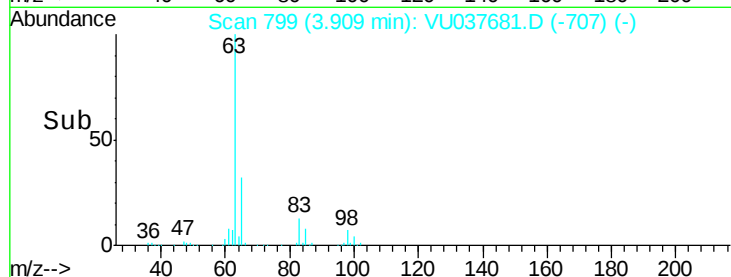
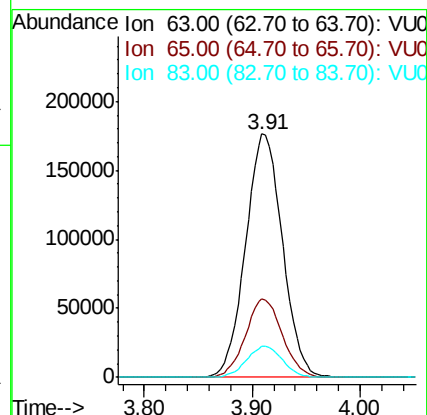
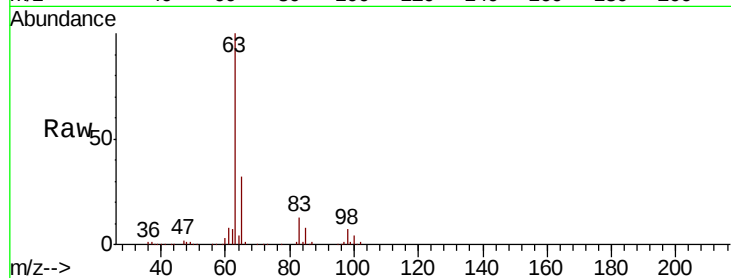
Tot Ion: 63 Resp: 418443

Ion Ratio Lower Upper

63 100

65 32.1 21.9 40.7

83 12.6 9.0 16.6



#20

cis-1,2-Dichloroethene

Concen: 51.135 ug/L

RT: 4.71 min Scan# 1047

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

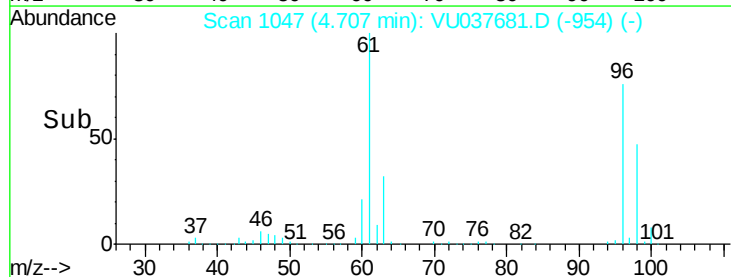
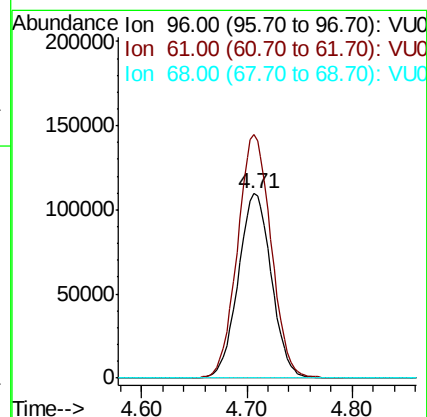
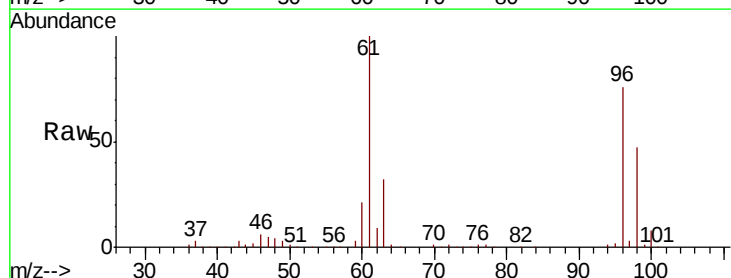
Tgt Ion: 96 Resp: 239898

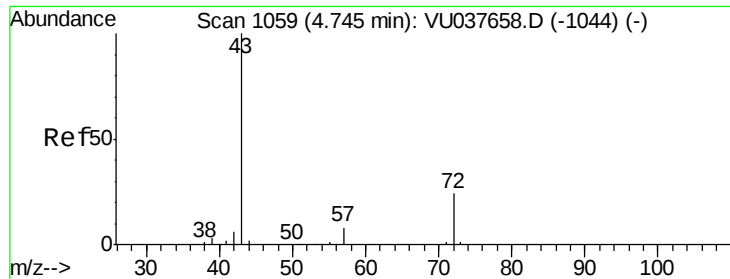
Ion Ratio Lower Upper

96 100

61 132.1 97.5 181.1

68 0.0 0.0 0.0





#22

2-Butanone

Concen: 93.022 ug/L

RT: 4.75 min Scan# 1059

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

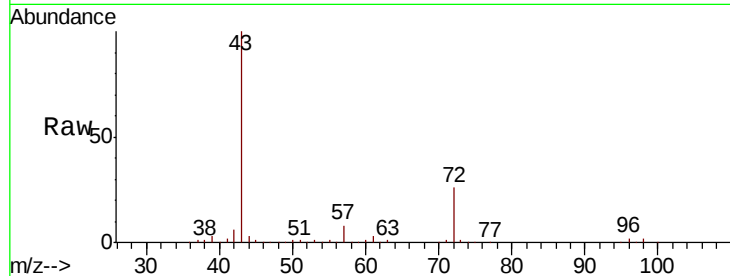
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 43 Resp: 423733

Ion Ratio Lower Upper

43 100

72 26.7 12.8 38.4



Abundance Ion 43.00 (42.70 to 43.70): VU037681.D (-1044) (-)

Ion 72.00 (71.70 to 72.70): VU037681.D (-1044) (-)

4.75

200000

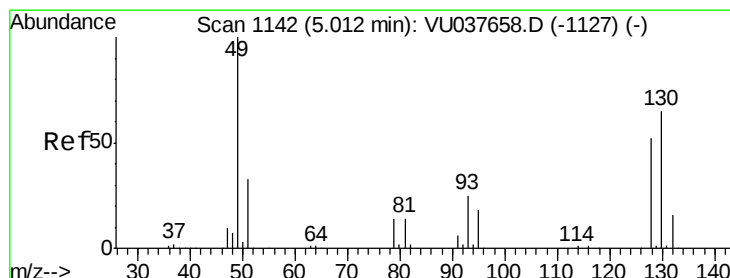
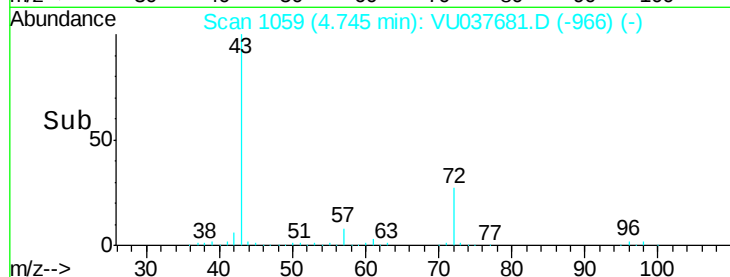
150000

100000

50000

0

Time-->



#23

Bromochloromethane

Concen: 50.879 ug/L

RT: 5.02 min Scan# 1143

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Tgt Ion: 128 Resp: 116330

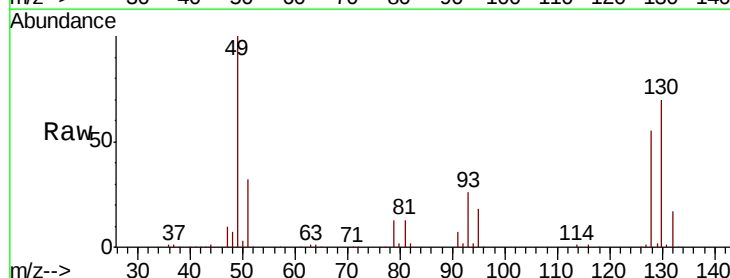
Ion Ratio Lower Upper

128 100

49 181.5 128.7 238.9

130 127.9 89.9 167.0

51 57.5 46.4 69.6



Abundance Ion 128.00 (127.70 to 128.70): VU037681.D (-1142) (-)

Ion 49.00 (48.70 to 49.70): VU037681.D (-1142) (-)

Ion 130.00 (129.70 to 130.70): VU037681.D (-1142) (-)

Ion 51.00 (50.70 to 51.70): VU037681.D (-1142) (-)

5.02

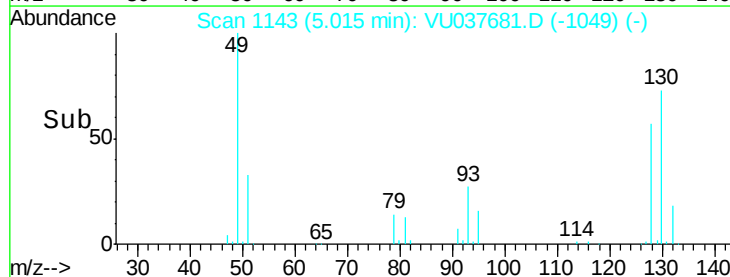
150000

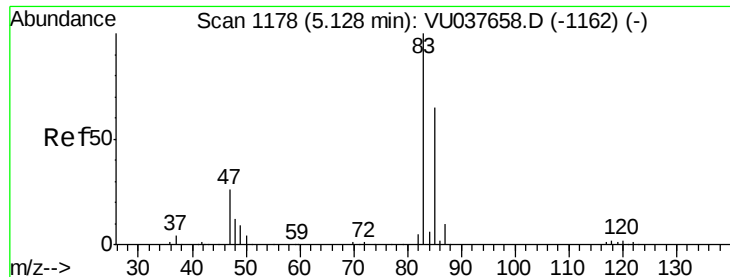
100000

50000

0

Time-->

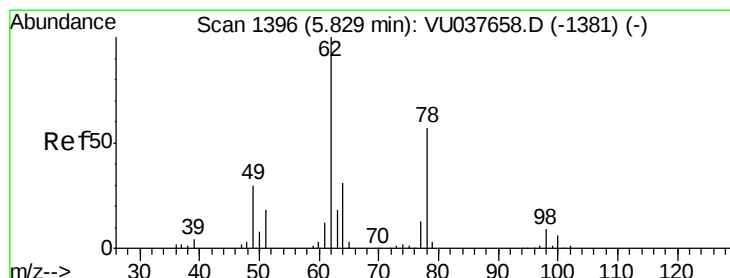
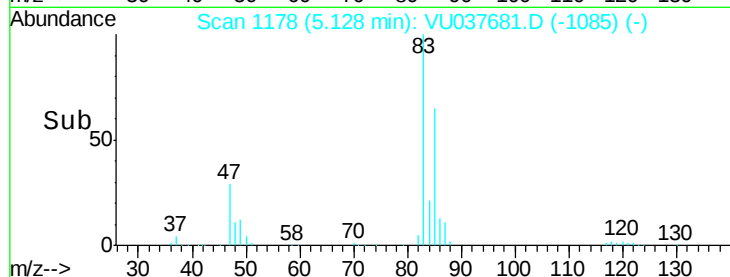
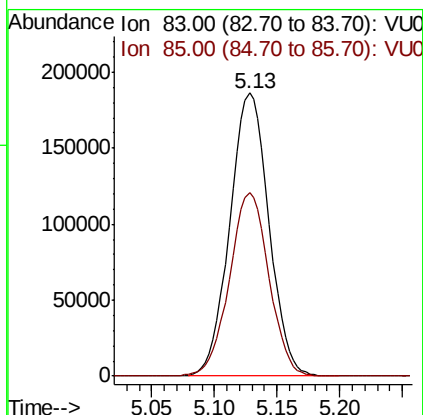
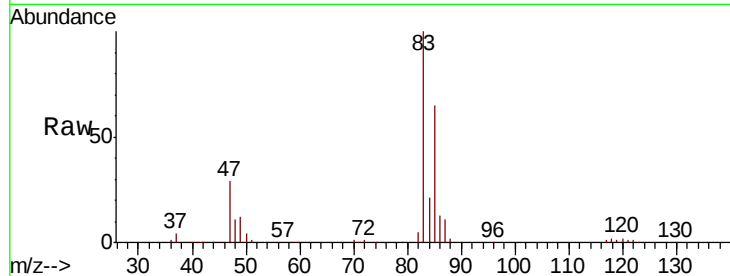




#25  
Chloroform  
Concen: 51.300 ug/L  
RT: 5.13 min Scan# 1178  
Delta R.T. 0.00 min  
Lab File: VU037681.D  
Acq: 13 Apr 2020 10:10

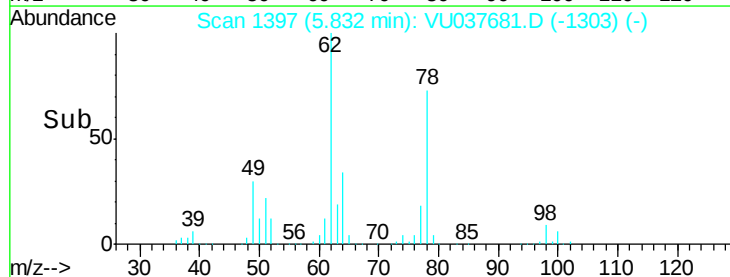
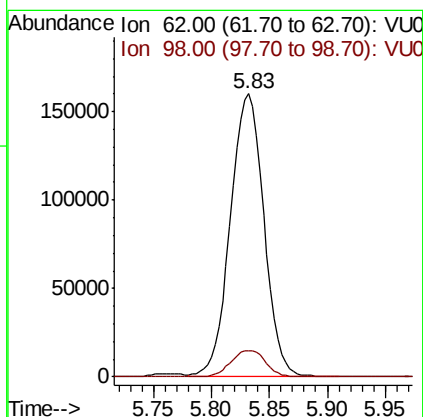
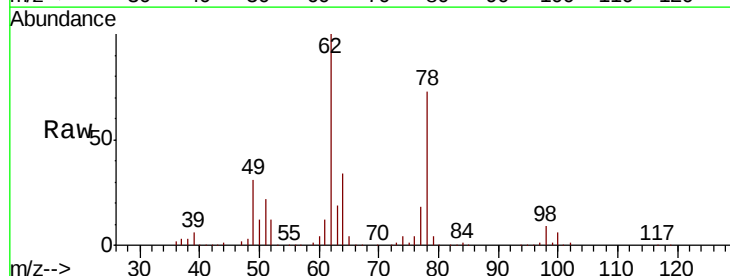
Instrument :  
MSVOA\_U  
ClientSampleId :

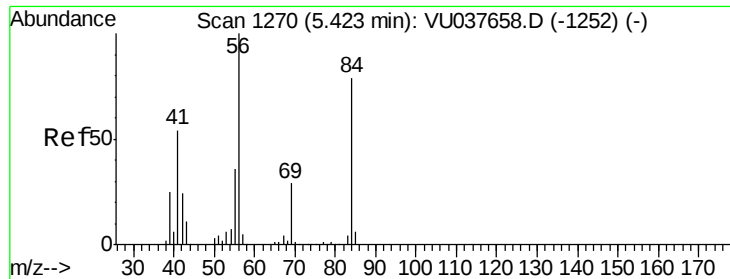
Tot Ion: 83 Resp: 403769  
Ion Ratio Lower Upper  
83 100  
85 64.6 45.5 84.5



#27  
1,2-Dichloroethane  
Concen: 49.343 ug/L  
RT: 5.83 min Scan# 1397  
Delta R.T. 0.00 min  
Lab File: VU037681.D  
Acq: 13 Apr 2020 10:10

Tgt Ion: 62 Resp: 321223  
Ion Ratio Lower Upper  
62 100  
98 9.4 7.8 11.6

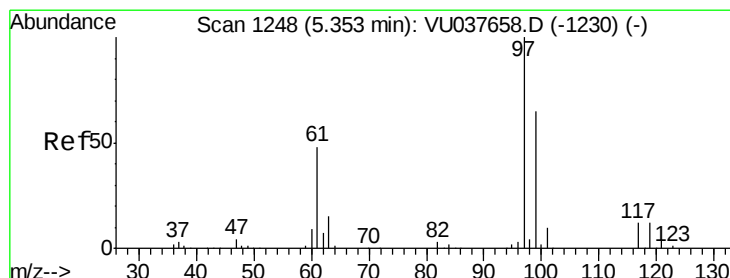
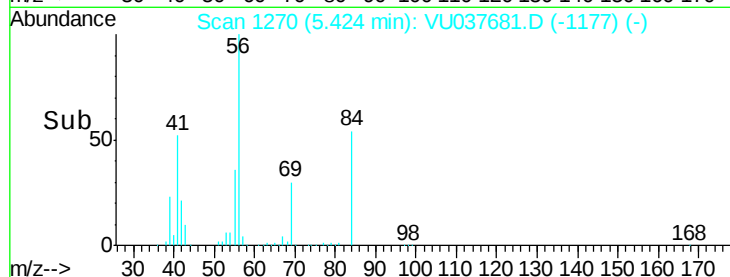
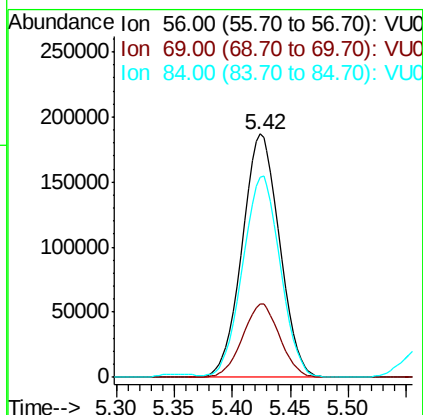
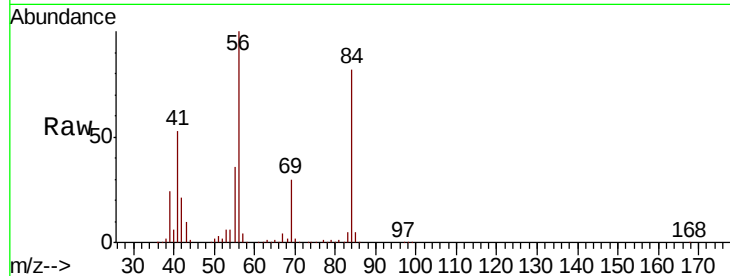




#29  
Cyclohexane  
Concen: 51.498 ug/L  
RT: 5.42 min Scan# 1270  
Delta R.T. 0.00 min  
Lab File: VU037681.D  
Acq: 13 Apr 2020 10:10

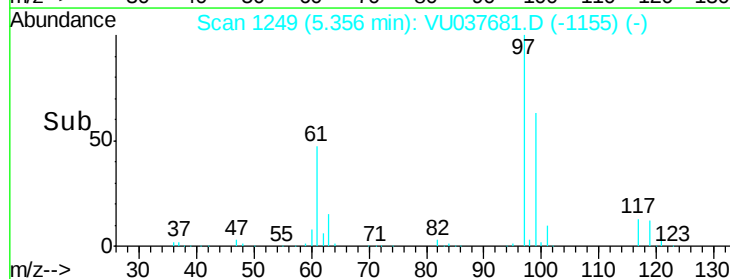
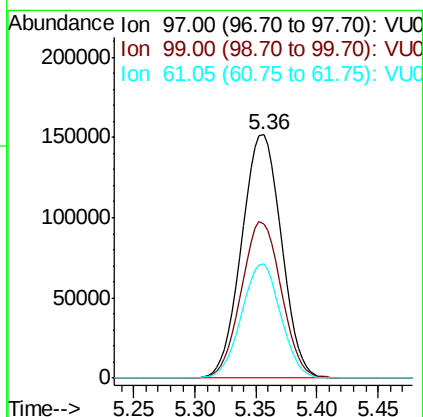
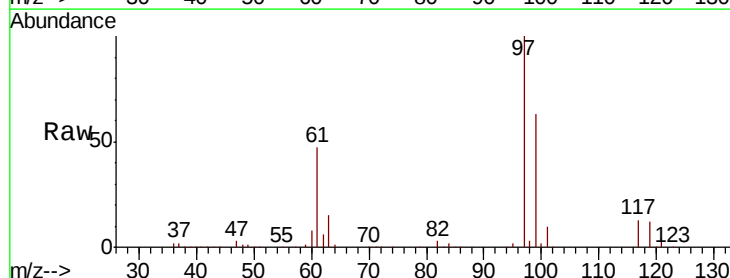
Instrument :  
MSVOA\_U  
ClientSampled :

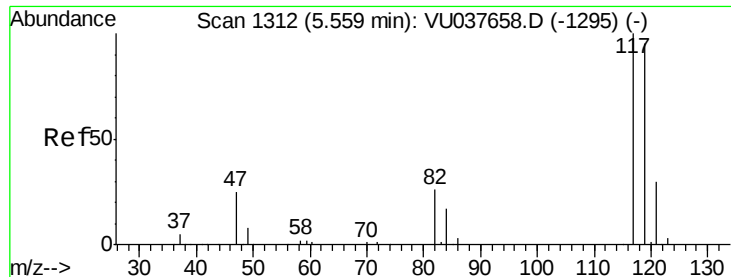
Tot Ion: 56 Resp: 419873  
Ion Ratio Lower Upper  
56 100  
69 30.0 24.0 36.0  
84 82.9 66.3 99.5



#30  
1,1,1-Trichloroethane  
Concen: 51.021 ug/L  
RT: 5.36 min Scan# 1249  
Delta R.T. 0.00 min  
Lab File: VU037681.D  
Acq: 13 Apr 2020 10:10

Tgt Ion: 97 Resp: 342874  
Ion Ratio Lower Upper  
97 100  
99 64.6 51.9 77.9  
61 46.2 37.1 55.7

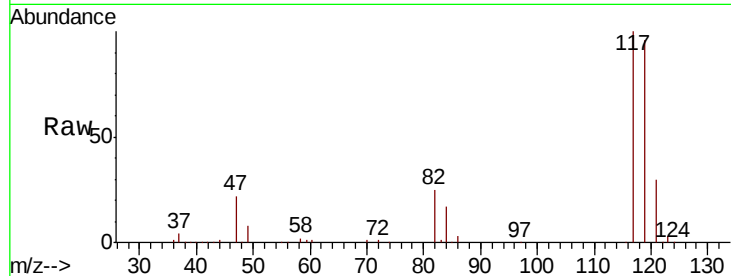




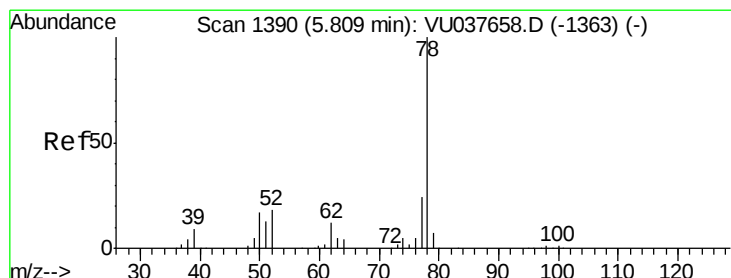
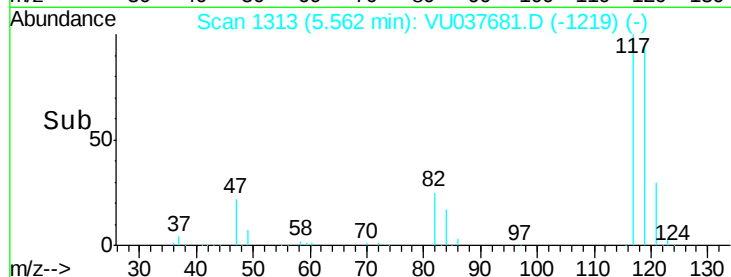
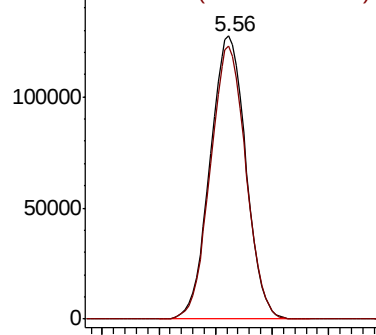
#31  
Carbon tetrachloride  
Concen: 51.321 ug/L  
RT: 5.56 min Scan# 1313  
Delta R.T. 0.00 min  
Lab File: VU037681.D  
Acq: 13 Apr 2020 10:10

Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion:117 Resp: 279976  
Ion Ratio Lower Upper  
117 100  
119 95.6 77.0 115.4

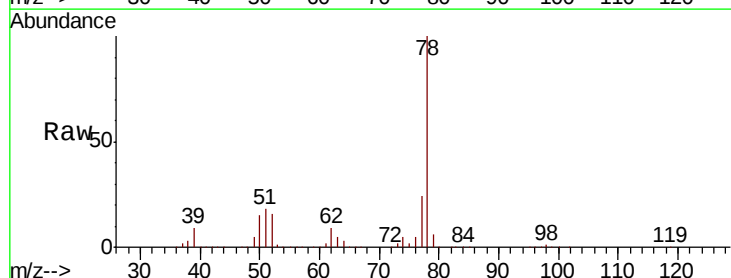


Abundance Ion 117.00 (116.70 to 117.70): V  
Ion 119.00 (118.70 to 119.70): V

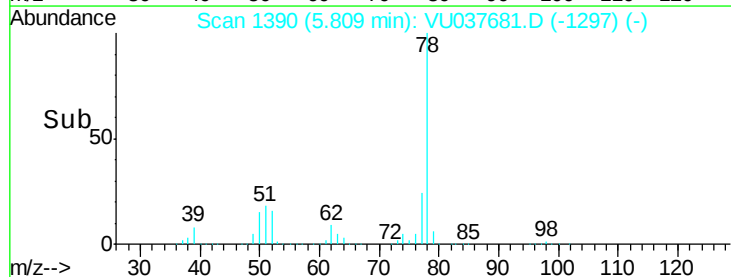
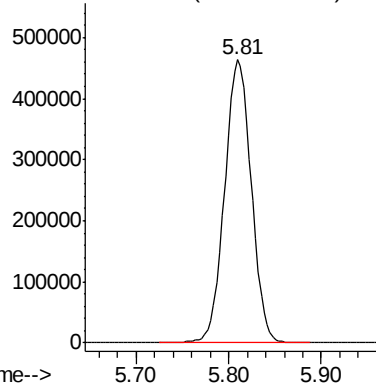


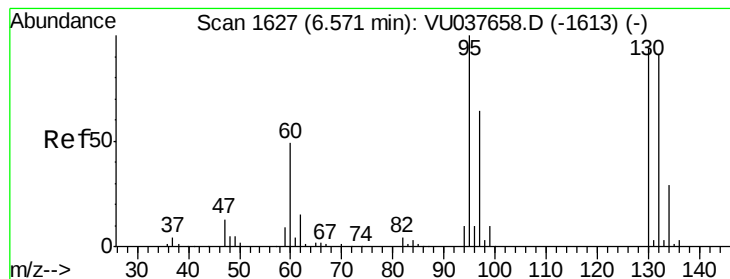
#33  
Benzene  
Concen: 51.327 ug/L  
RT: 5.81 min Scan# 1390  
Delta R.T. 0.00 min  
Lab File: VU037681.D  
Acq: 13 Apr 2020 10:10

Tgt Ion: 78 Resp: 926106



Abundance Ion 78.00 (77.70 to 78.70): VU0





#34

Trichloroethene

Concen: 51.946 ug/L

RT: 6.57 min Scan# 1628

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Instrument :

MSVOA\_U

ClientSampleId :

Tot Ion: 95 Resp: 230726

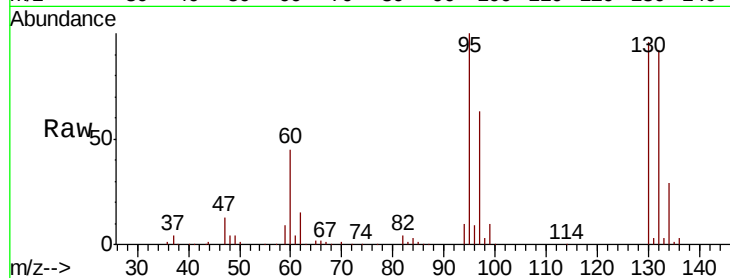
Ion Ratio Lower Upper

95 100

97 63.1 43.8 81.4

132 92.4 64.8 120.4

130 96.4 68.2 126.6



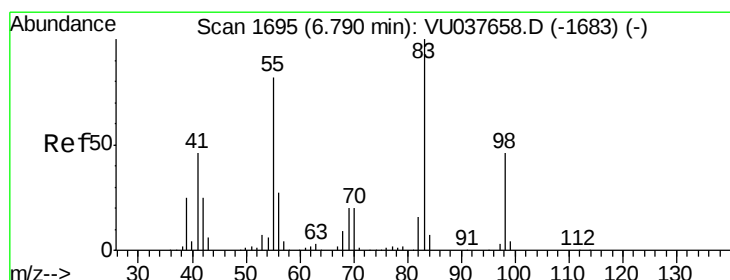
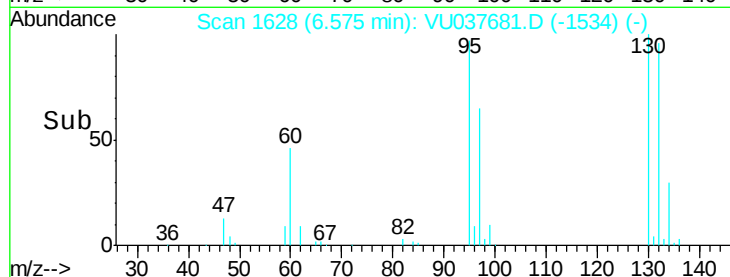
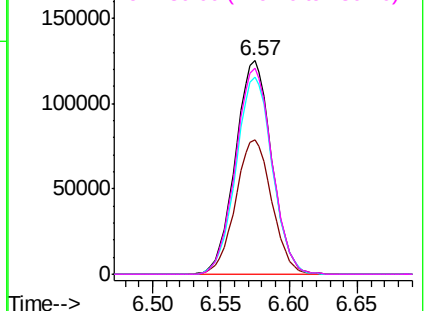
Abundance

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: 52.657 ug/L

RT: 6.79 min Scan# 1696

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

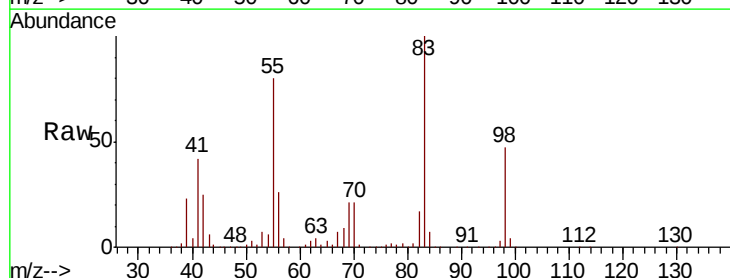
Tgt Ion: 83 Resp: 414991

Ion Ratio Lower Upper

83 100

55 79.4 64.6 96.8

98 46.4 38.0 57.0

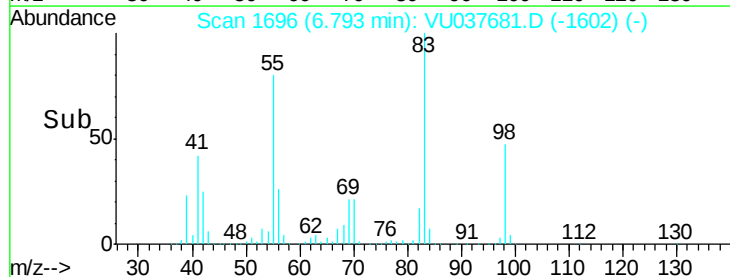
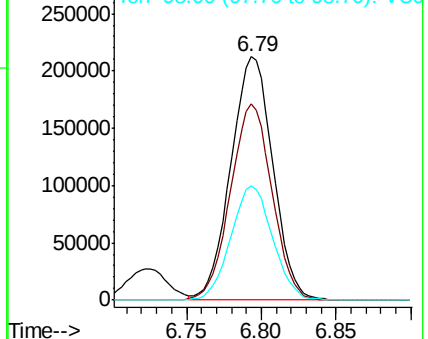


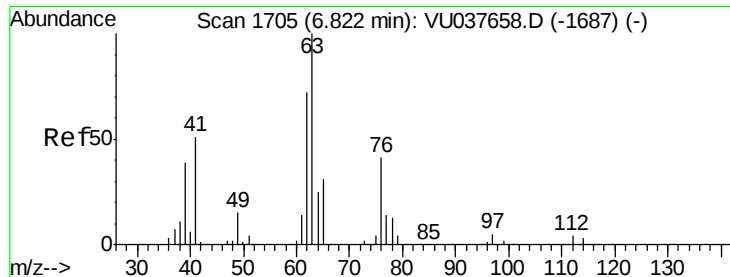
Abundance

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

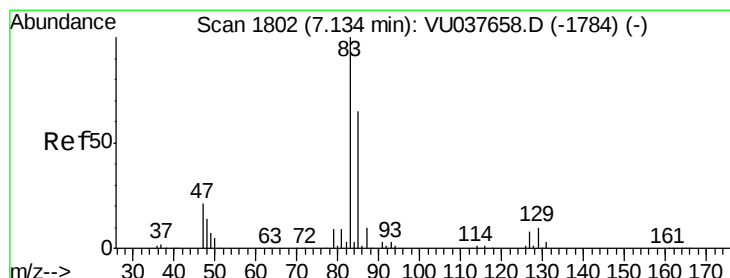
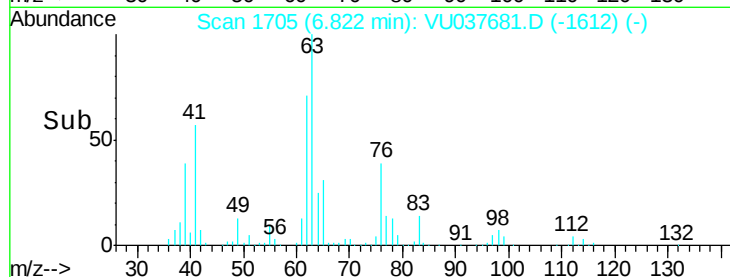
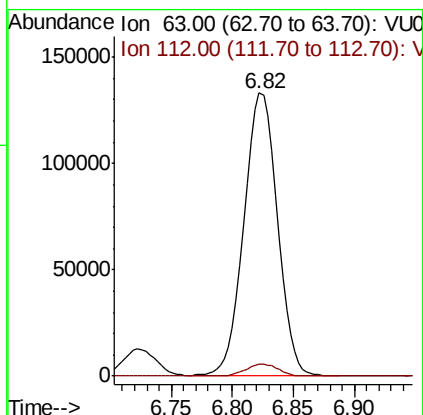
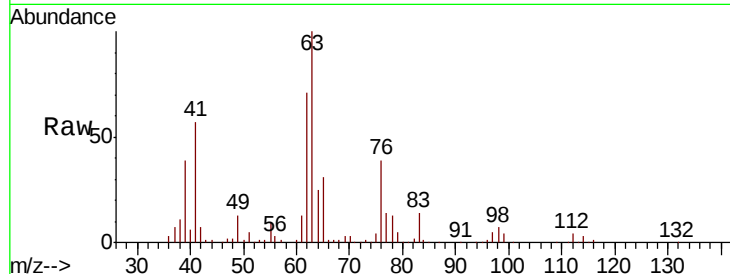




#37  
 1,2-Dichloropropane  
 Concen: 50.874 ug/L  
 RT: 6.82 min Scan# 1705  
 Delta R.T. 0.00 min  
 Lab File: VU037681.D  
 Acq: 13 Apr 2020 10:10

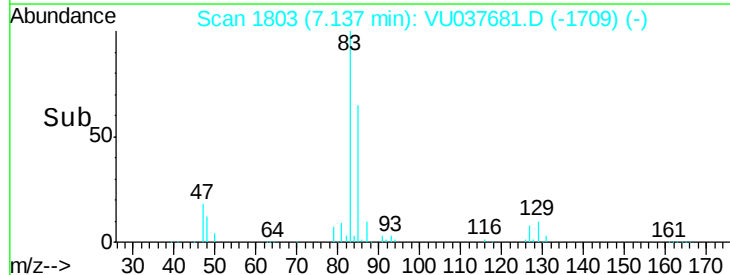
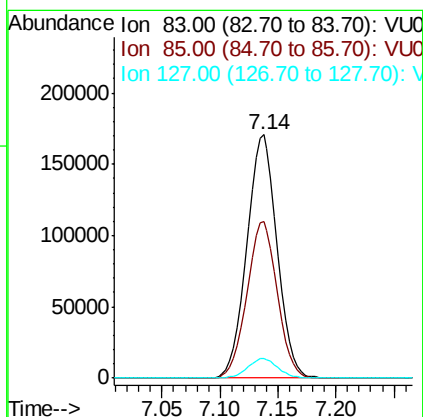
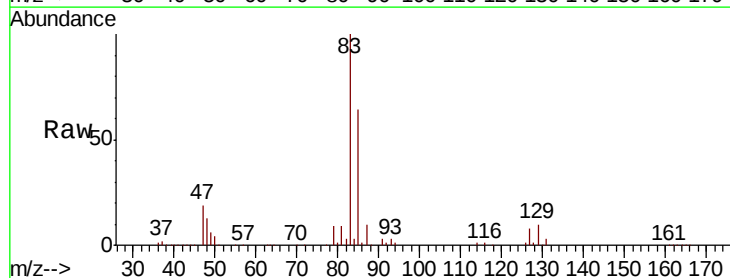
Instrument :  
 MSVOA\_U  
 ClientSampleId :

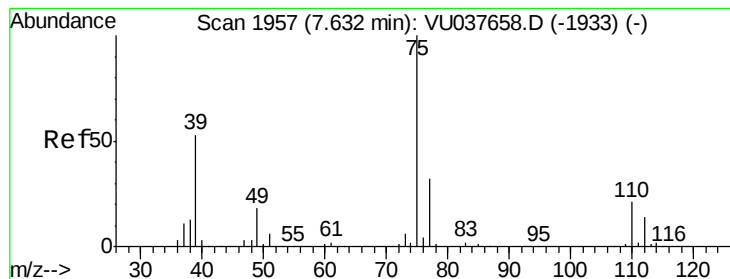
Tot Ion: 63 Resp: 252224  
 Ion Ratio Lower Upper  
 63 100  
 112 4.2 3.4 5.0



#38  
 Bromodichloromethane  
 Concen: 50.677 ug/L  
 RT: 7.14 min Scan# 1803  
 Delta R.T. 0.00 min  
 Lab File: VU037681.D  
 Acq: 13 Apr 2020 10:10

Tgt Ion: 83 Resp: 309289  
 Ion Ratio Lower Upper  
 83 100  
 85 64.4 45.1 83.7  
 127 8.1 6.6 9.8





#39

cis-1,3-Dichloropropene

Concen: 50.391 ug/L

RT: 7.64 min Scan# 1958

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Instrument :

MSVOA\_U

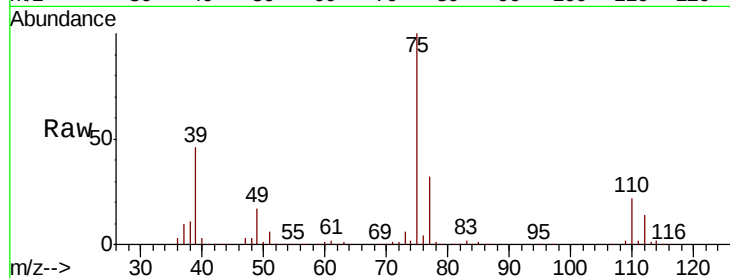
ClientSampled :

Tot Ion: 75 Resp: 408912

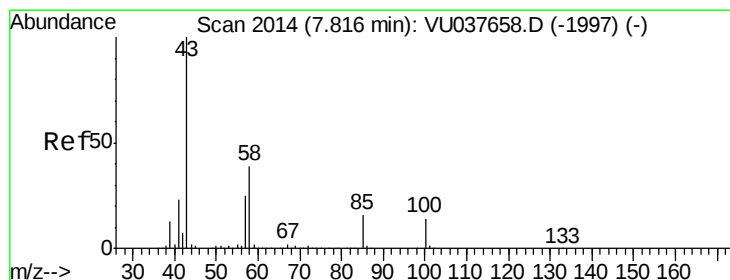
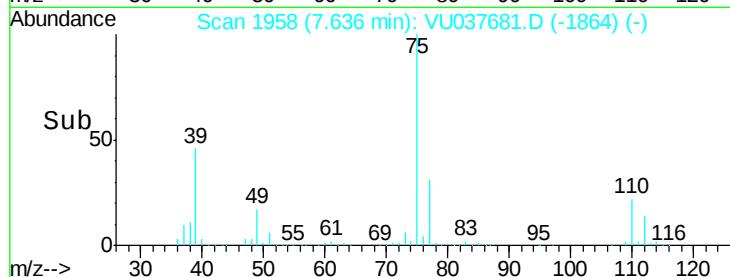
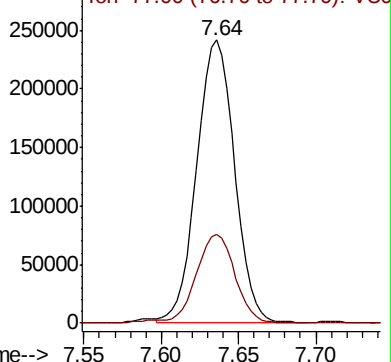
Ion Ratio Lower Upper

75 100

77 31.6 22.1 41.1



Abundance Ion 75.00 (74.70 to 75.70): VU037681.D (-1864) (-)



#40

4-Methyl-2-pentanone

Concen: 90.353 ug/L

RT: 7.82 min Scan# 2015

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

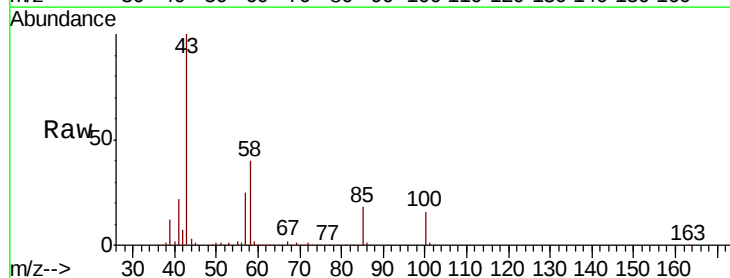
Tgt Ion: 43 Resp: 795565

Ion Ratio Lower Upper

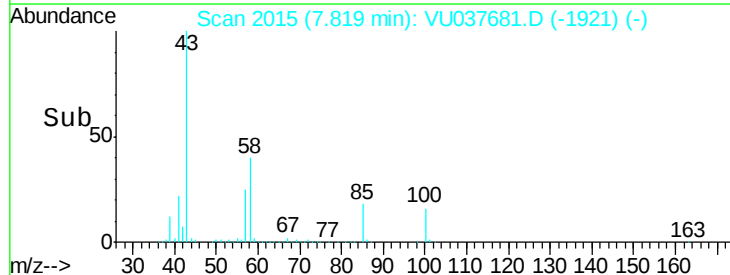
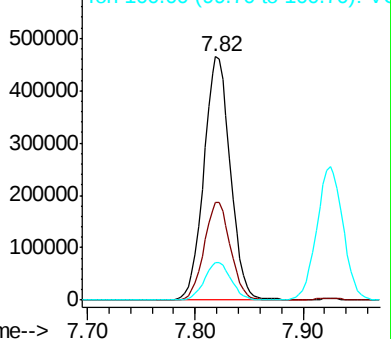
43 100

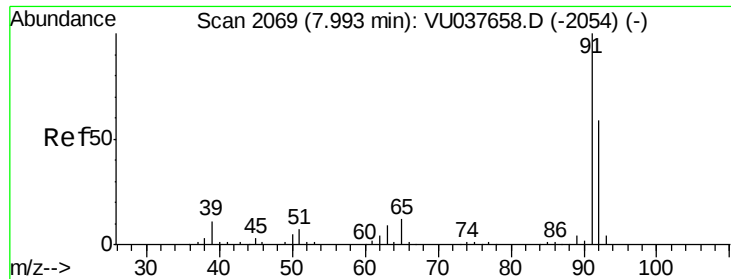
58 40.0 31.5 47.3

100 15.5 12.0 18.0



Abundance Ion 43.00 (42.70 to 43.70): VU037681.D (-1921) (-)





#42

Toluene

Concen: 51.366 ug/L

RT: 8.00 min Scan# 2070

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

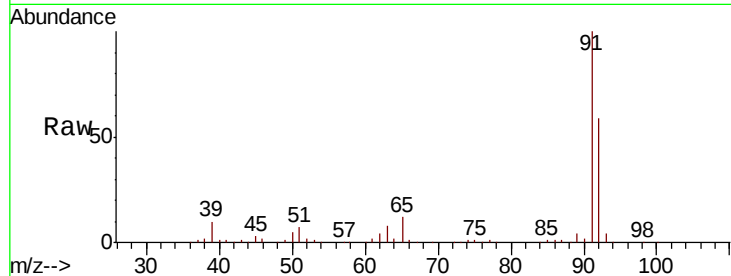
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 91 Resp: 984522

Ion Ratio Lower Upper

91 100

92 59.2 41.8 77.6



Abundance Ion 91.00 (90.70 to 91.70): VU037681.D (-1976) (-)

Ion 92.00 (91.70 to 92.70): VU037681.D (-1976) (-)

8.00

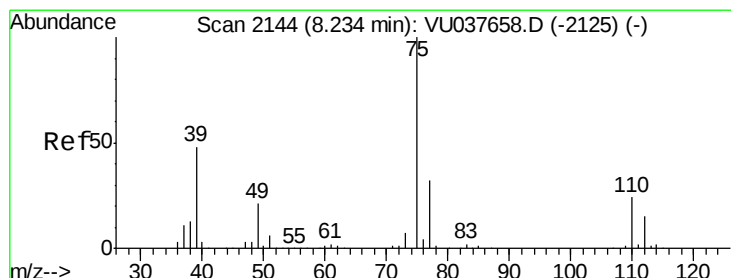
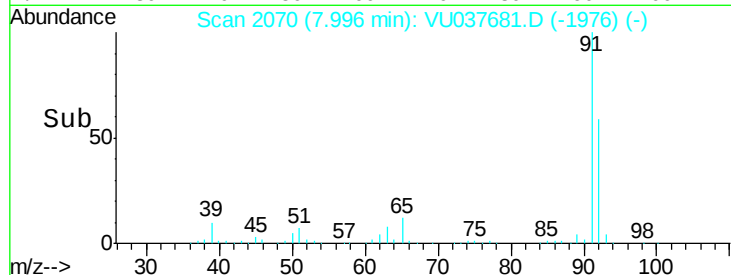
600000

400000

200000

0

Time-->



#44

trans-1,3-Dichloropropene

Concen: 50.216 ug/L

RT: 8.24 min Scan# 2145

Delta R.T. 0.00 min

Lab File: VU037681.D

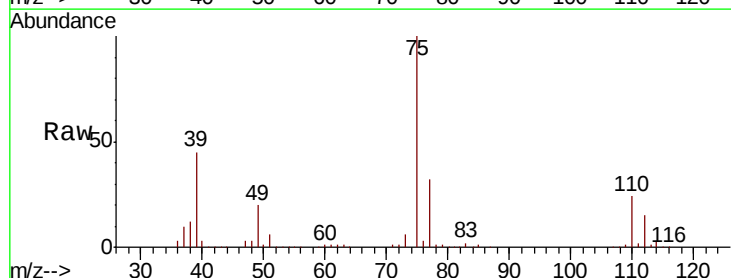
Acq: 13 Apr 2020 10:10

Tgt Ion: 75 Resp: 394992

Ion Ratio Lower Upper

75 100

77 32.3 22.7 42.1



Abundance Ion 75.00 (74.70 to 75.70): VU037681.D (-2051) (-)

Ion 77.00 (76.70 to 77.70): VU037681.D (-2051) (-)

8.24

250000

200000

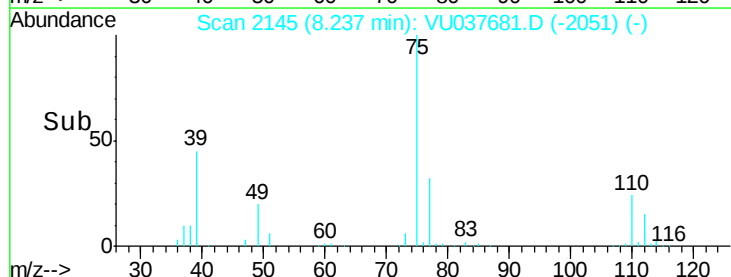
150000

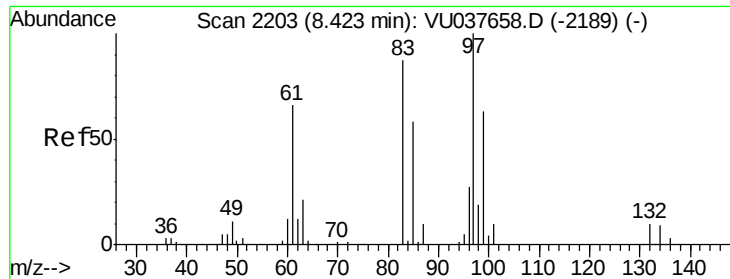
100000

50000

0

Time-->

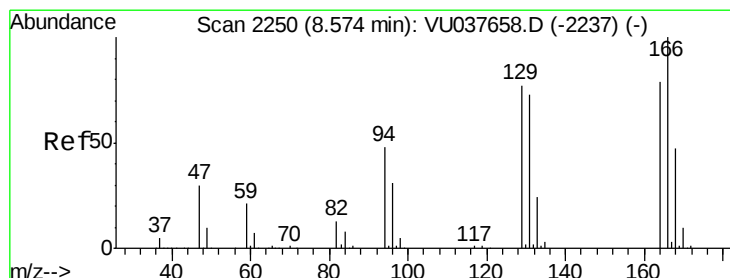
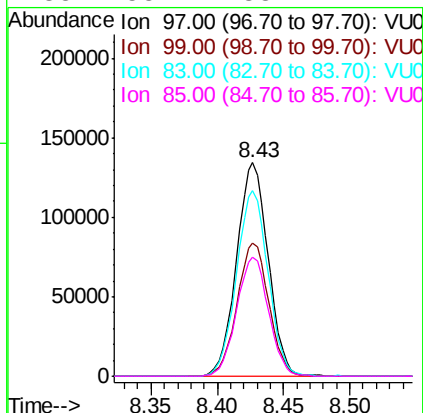
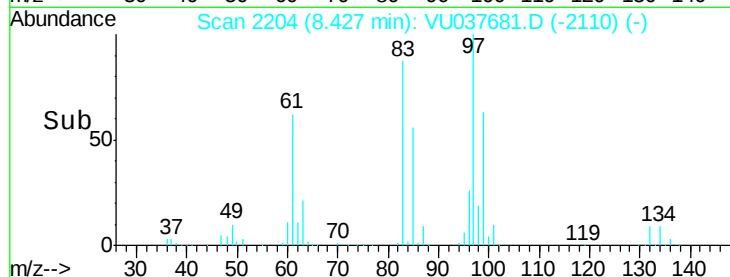
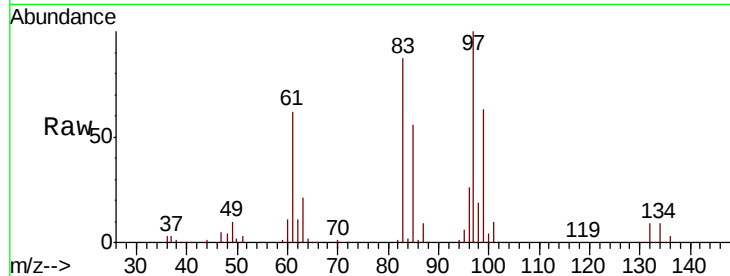




#45  
1,1,2-Trichloroethane  
Concen: 50.287 ug/L  
RT: 8.43 min Scan# 2204  
Delta R.T. 0.00 min  
Lab File: VU037681.D  
Acq: 13 Apr 2020 10:10

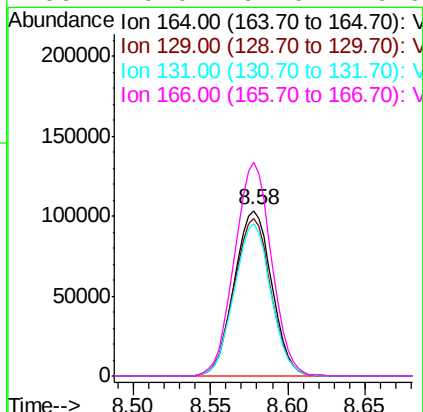
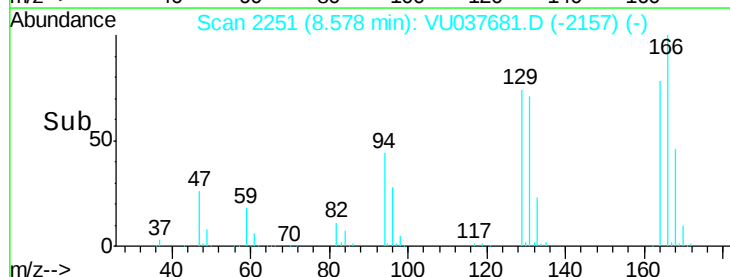
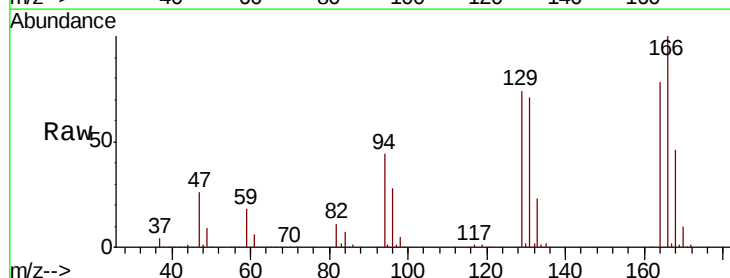
Instrument :  
MSVOA\_U  
ClientSampleId :

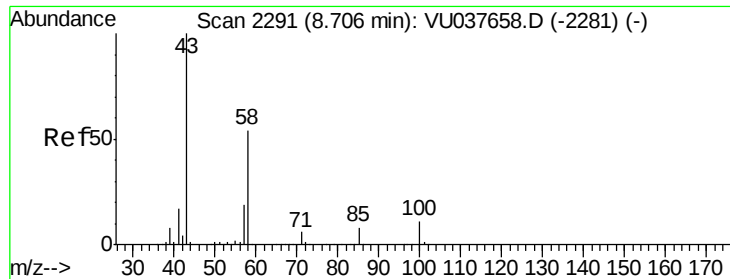
|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 97    | Resp: | 222454 |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 99       | 62.6  | 43.6  | 81.0   |
| 83       | 86.8  | 61.2  | 113.8  |
| 85       | 55.7  | 38.4  | 71.4   |



#46  
Tetrachloroethene  
Concen: 52.673 ug/L  
RT: 8.58 min Scan# 2251  
Delta R.T. 0.00 min  
Lab File: VU037681.D  
Acq: 13 Apr 2020 10:10

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 164   | Resp: | 174069 |
| Ion      | Ratio | Lower | Upper  |
| 164      | 100   |       |        |
| 129      | 95.1  | 68.0  | 126.2  |
| 131      | 91.6  | 65.8  | 122.2  |
| 166      | 129.0 | 92.0  | 170.9  |

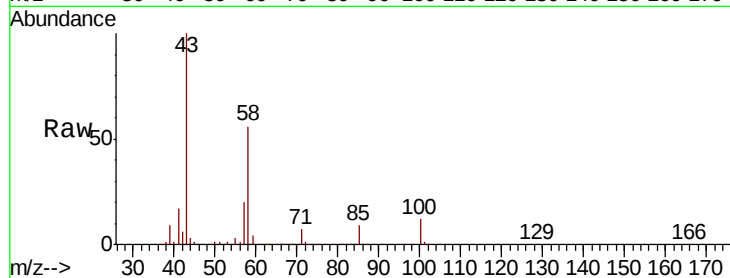




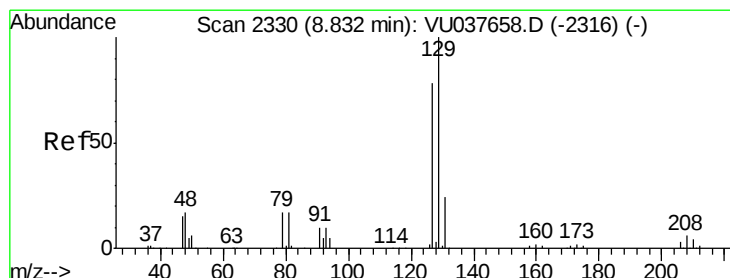
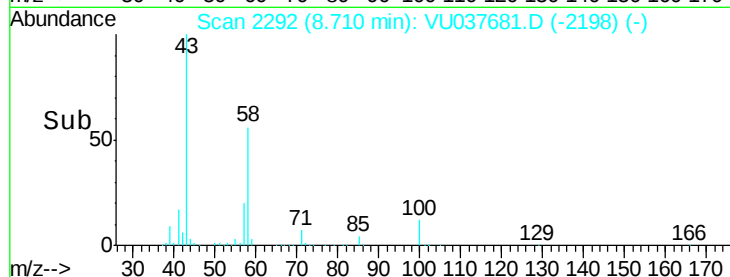
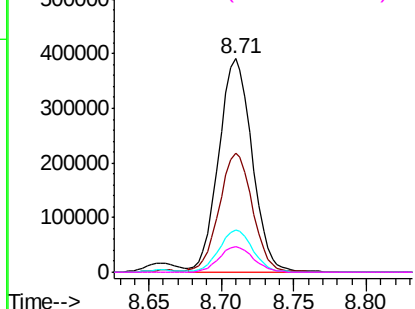
#48  
2-Hexanone  
Concen: 89.252 ug/L  
RT: 8.71 min Scan# 2292  
Delta R.T. 0.00 min  
Lab File: VU037681.D  
Acq: 13 Apr 2020 10:10

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 43 Resp: 620533  
Ion Ratio Lower Upper  
43 100  
58 55.8 44.0 66.0  
57 20.2 15.2 22.8  
100 12.4 9.4 14.0

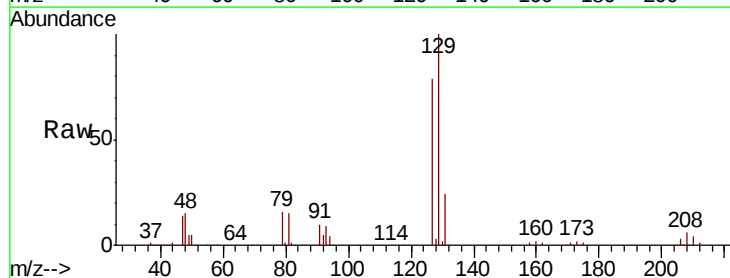


Abundance Ion 43.00 (42.70 to 43.70): VU0  
Ion 58.00 (57.70 to 58.70): VU0  
Ion 57.00 (56.70 to 57.70): VU0  
Ion 100.00 (99.70 to 100.70): VU0

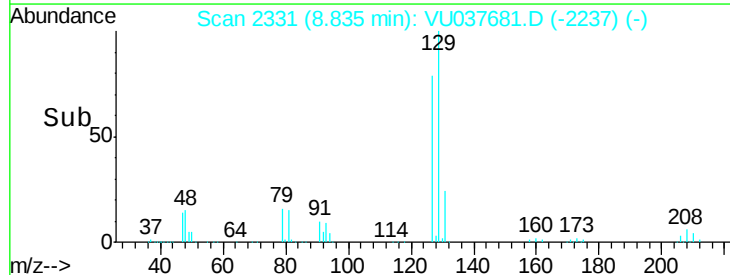
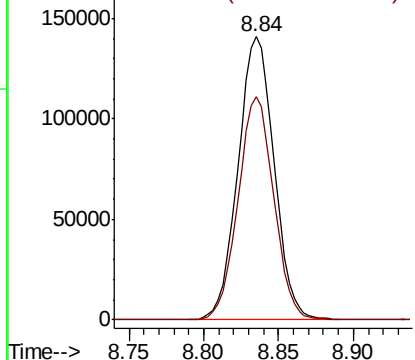


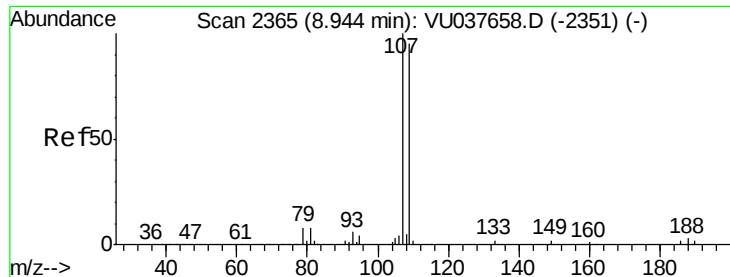
#49  
Dibromochloromethane  
Concen: 49.924 ug/L  
RT: 8.84 min Scan# 2331  
Delta R.T. 0.00 min  
Lab File: VU037681.D  
Acq: 13 Apr 2020 10:10

Tgt Ion: 129 Resp: 236822  
Ion Ratio Lower Upper  
129 100  
127 78.8 55.2 102.6



Abundance Ion 129.00 (128.70 to 129.70): V  
Ion 127.00 (126.70 to 127.70): V

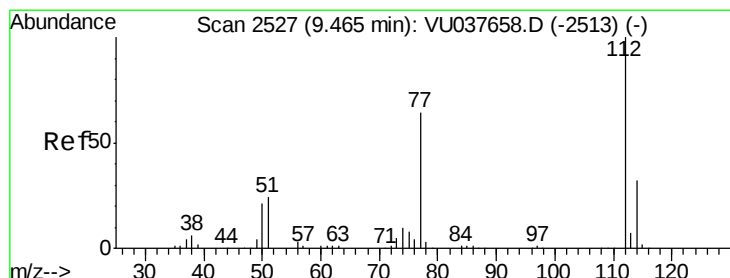
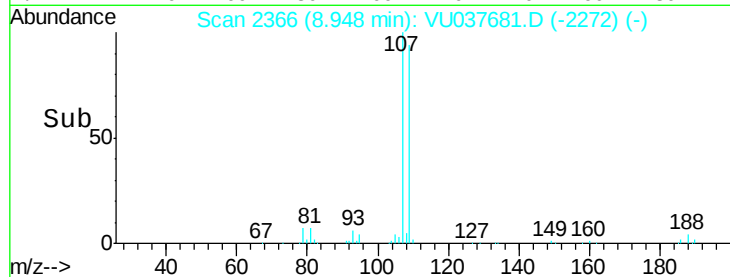
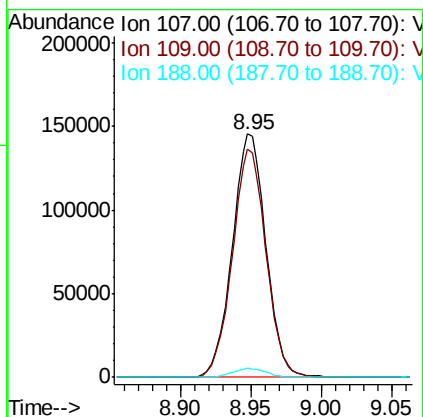
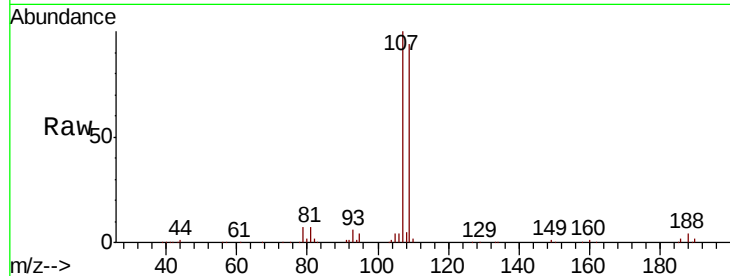




#50  
 1,2-Dibromoethane  
 Concen: 50.651 ug/L  
 RT: 8.95 min Scan# 2366  
 Delta R.T. 0.00 min  
 Lab File: VU037681.D  
 Acq: 13 Apr 2020 10:10

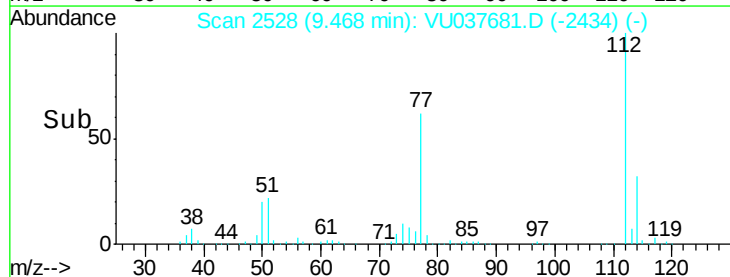
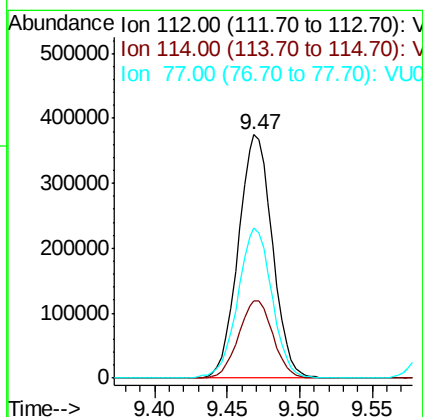
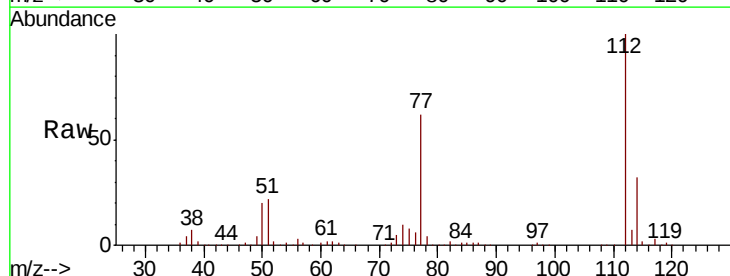
Instrument :  
 MSVOA\_U  
 ClientSampleId :

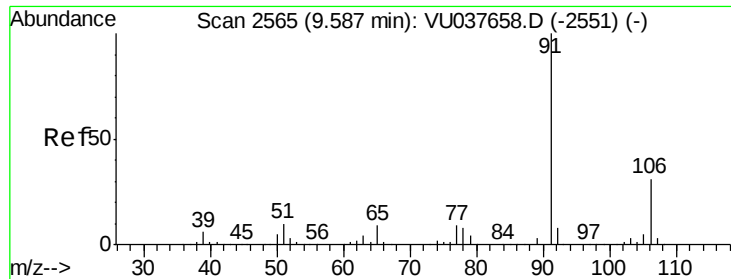
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 107     | 100   |       |       |
| 109     | 93.5  | 67.3  | 125.1 |
| 188     | 3.6   | 2.9   | 4.3   |



#51  
 Chlorobenzene  
 Concen: 51.085 ug/L  
 RT: 9.47 min Scan# 2528  
 Delta R.T. 0.00 min  
 Lab File: VU037681.D  
 Acq: 13 Apr 2020 10:10

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 114     | 31.9  | 22.4  | 41.6  |
| 77      | 61.7  | 49.2  | 73.8  |





#52

Ethylbenzene

Concen: 51.381 ug/L

RT: 9.59 min Scan# 2566

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Instrument :

MSVOA\_U

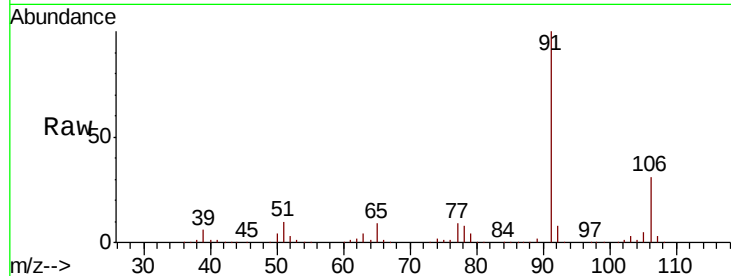
ClientSampleId :

Tot Ion: 91 Resp: 1104155

Ion Ratio Lower Upper

91 100

106 30.6 21.6 40.0



Abundance Ion 91.00 (90.70 to 91.70): VU037681.D (-2551) (-)

Ion 106.00 (105.70 to 106.70): VU037681.D (-2551) (-)

9.59

800000

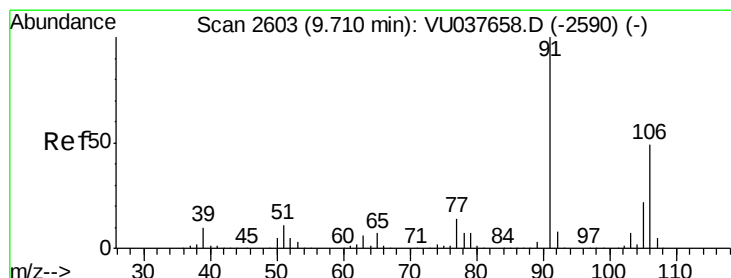
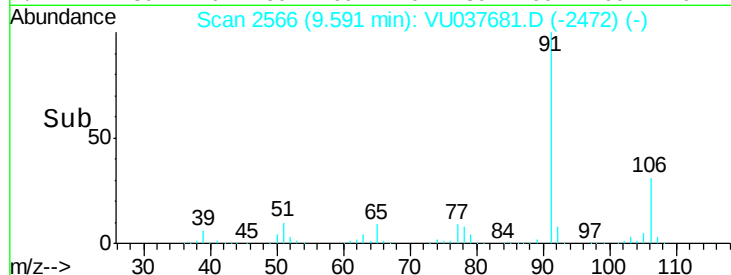
600000

400000

200000

0

Time-->



#53

m,p-Xylene

Concen: 51.507 ug/L

RT: 9.72 min Scan# 2605

Delta R.T. 0.01 min

Lab File: VU037681.D

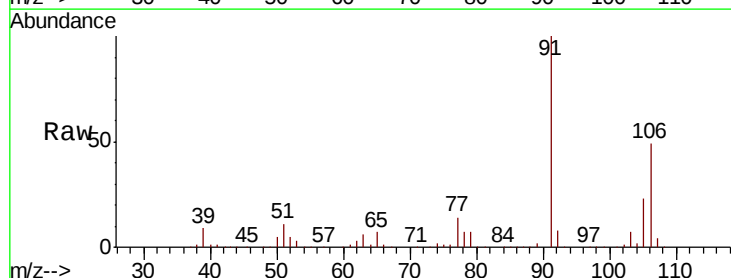
Acq: 13 Apr 2020 10:10

Tgt Ion: 106 Resp: 420277

Ion Ratio Lower Upper

106 100

91 203.7 140.8 261.6



Abundance Ion 106.00 (105.70 to 106.70): VU037681.D (-2590) (-)

Ion 91.00 (90.70 to 91.70): VU037681.D (-2590) (-)

9.72

600000

500000

400000

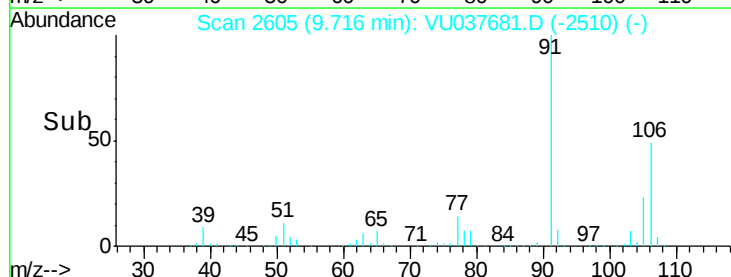
300000

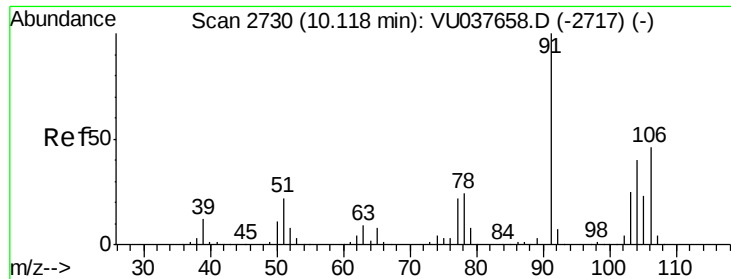
200000

100000

0

Time-->





#54

o-xylene

Concen: 51.027 ug/L

RT: 10.12 min Scan# 2731

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Instrument :

MSVOA\_U

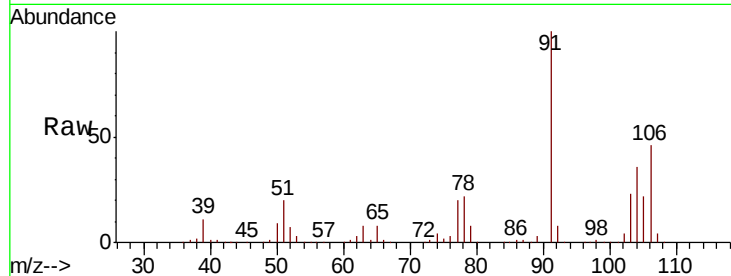
ClientSampled :

Tot Ion:106 Resp: 412940

Ion Ratio Lower Upper

106 100

91 215.5 151.1 280.5



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VU0

600000

500000

400000

300000

200000

100000

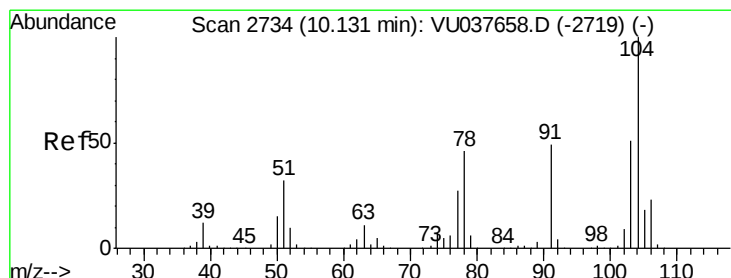
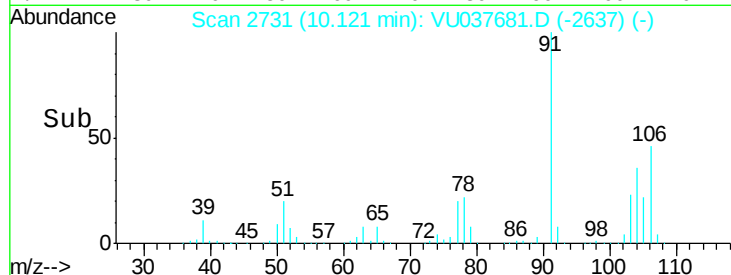
0

10.10

10.12

10.20

Time-->



#55

Styrene

Concen: 51.379 ug/L

RT: 10.13 min Scan# 2735

Delta R.T. 0.00 min

Lab File: VU037681.D

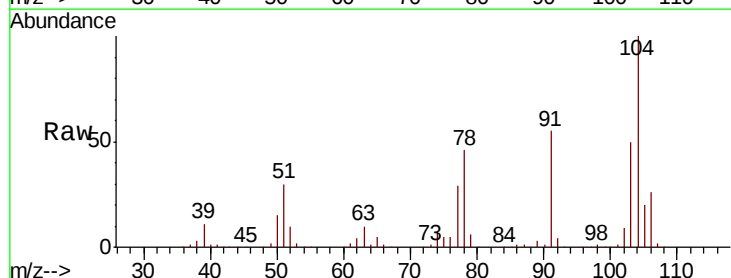
Acq: 13 Apr 2020 10:10

Tgt Ion:104 Resp: 720926

Ion Ratio Lower Upper

104 100

78 45.9 32.0 59.4



Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VU0

500000

400000

300000

200000

100000

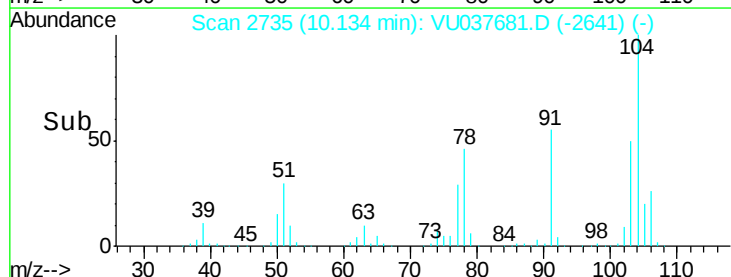
0

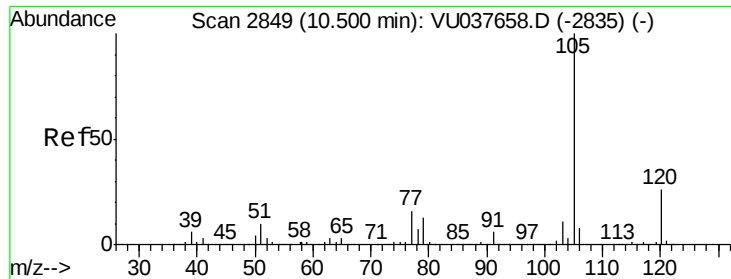
10.10

10.13

10.20

Time-->





#56

Isopropylbenzene

Concen: 51.788 ug/L

RT: 10.50 min Scan# 2850

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Instrument :

MSVOA\_U

ClientSampleId :

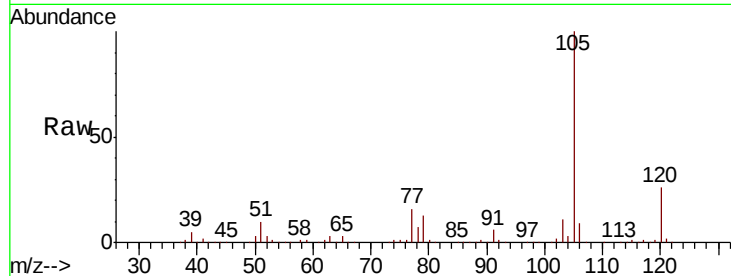
Tot Ion:105 Resp: 1091239

Ion Ratio Lower Upper

105 100

120 26.0 20.7 31.1

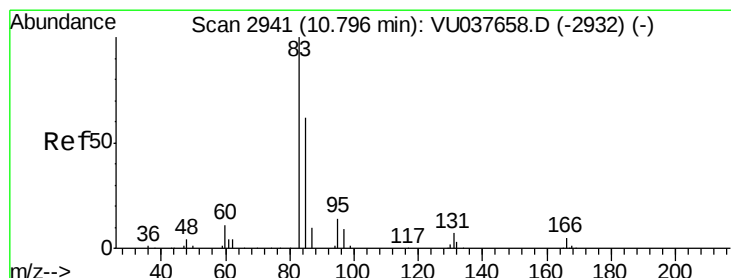
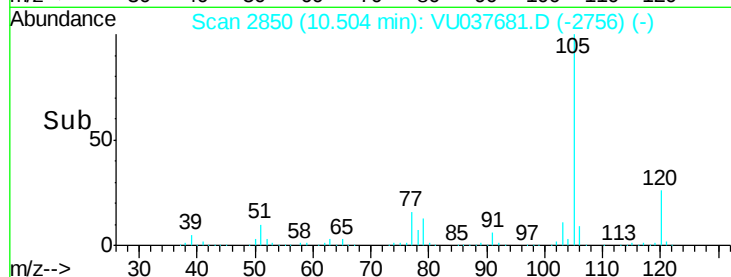
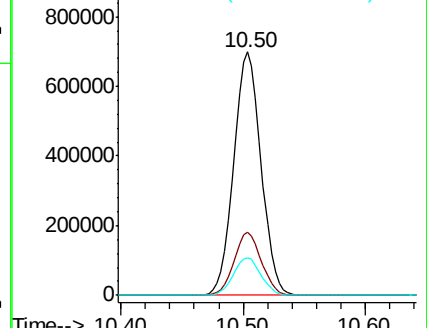
77 15.7 12.7 19.1



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: 48.559 ug/L

RT: 10.80 min Scan# 2943

Delta R.T. 0.01 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

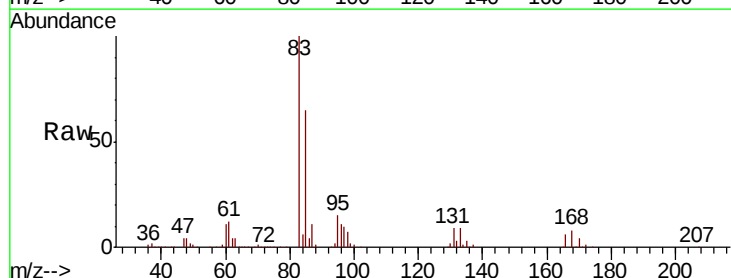
Tgt Ion: 83 Resp: 383568

Ion Ratio Lower Upper

83 100

85 64.9 44.2 82.2

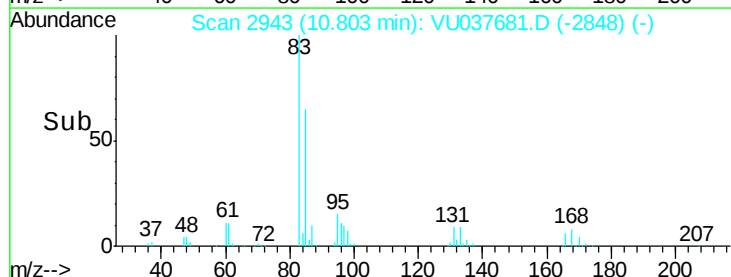
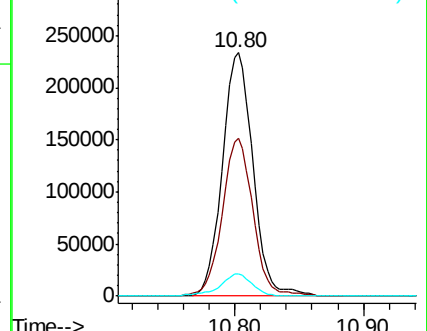
131 9.2 7.6 11.4

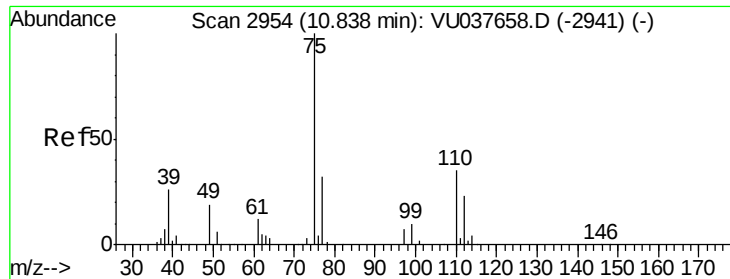


Abundance Ion 83.00 (82.70 to 83.70): V

Ion 85.00 (84.70 to 85.70): V

Ion 131.00 (130.70 to 131.70): V





#59

1,2,3-Trichloropropane

Concen: 48.067 ug/L

RT: 10.84 min Scan# 2955

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Instrument :

MSVOA\_U

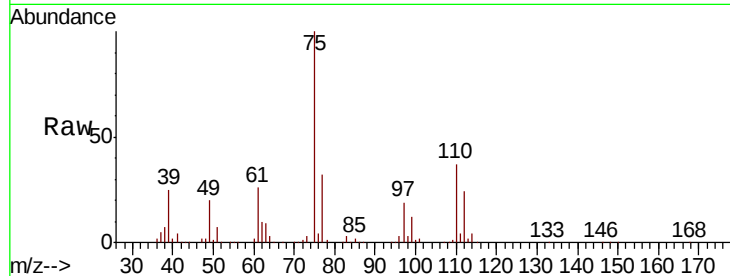
ClientSampleId :

Tot Ion: 75 Resp: 323743

Ion Ratio Lower Upper

75 100

77 31.5 25.6 38.4



Abundance Ion 75.00 (74.70 to 75.70): VU037681.D (-2332) (-)

Ion 77.00 (76.70 to 77.70): VU037681.D (-2332) (-)

10.84

200000

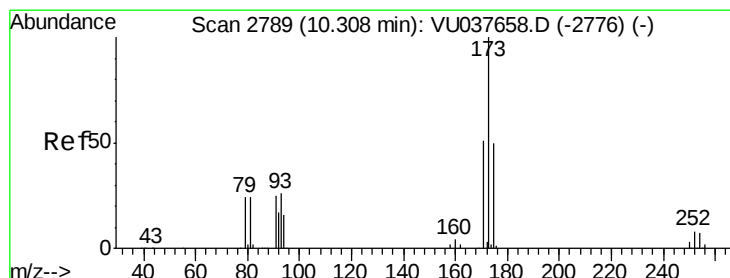
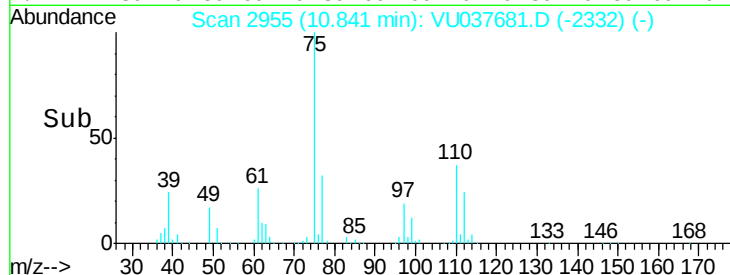
150000

100000

50000

0

Time-->



#61

Bromoform

Concen: 47.973 ug/L

RT: 10.31 min Scan# 2791

Delta R.T. 0.01 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

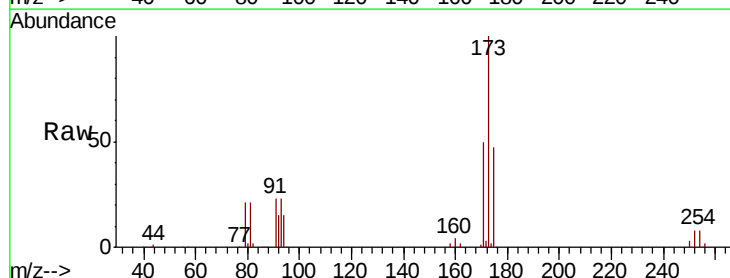
Tgt Ion: 173 Resp: 181727

Ion Ratio Lower Upper

173 100

175 48.0 38.7 58.1

254 7.9 7.0 10.6



Abundance Ion 173.00 (172.70 to 173.70): VU037681.D (-2696) (-)

Ion 175.00 (174.70 to 175.70): VU037681.D (-2696) (-)

Ion 254.00 (253.70 to 254.70): VU037681.D (-2696) (-)

10.31

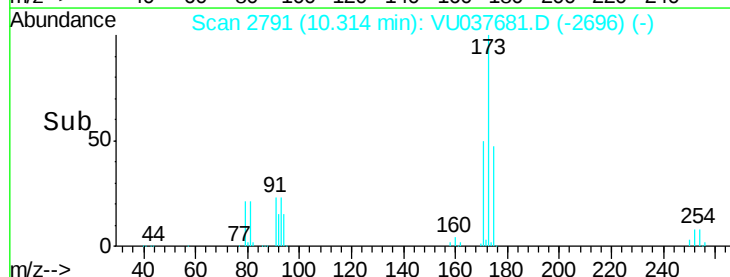
150000

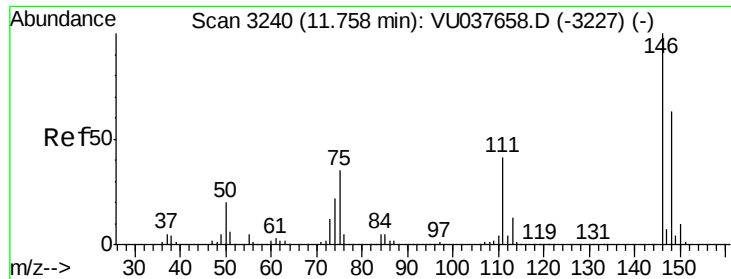
100000

50000

0

Time-->





#62

1,3-Dichlorobenzene

Concen: 50.510 ug/L

RT: 11.76 min Scan# 3242

Delta R.T. 0.01 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Instrument :

MSVOA\_U

ClientSampleId :

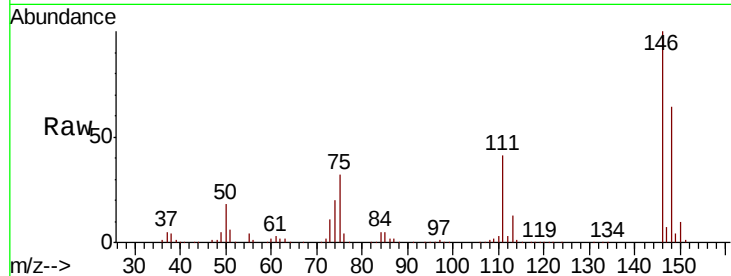
Tot Ion:146 Resp: 485964

Ion Ratio Lower Upper

146 100

111 40.9 28.6 53.0

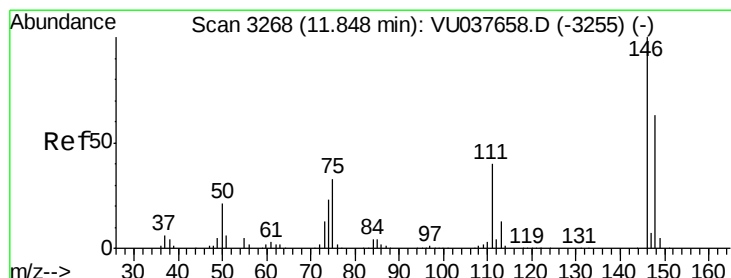
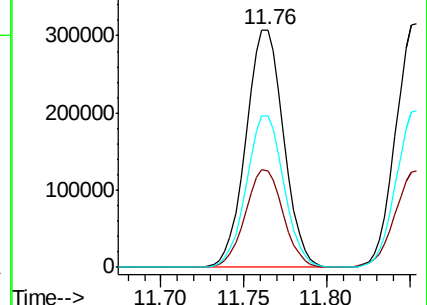
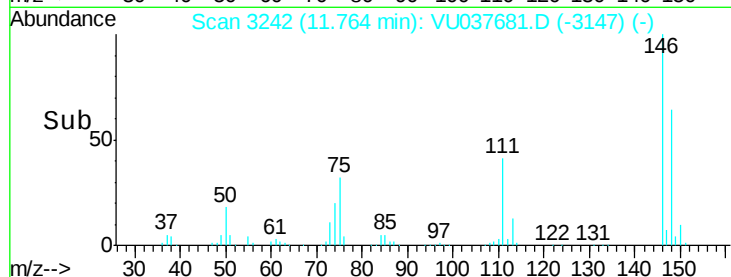
148 64.0 44.7 82.9



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: 51.005 ug/L

RT: 11.85 min Scan# 3270

Delta R.T. 0.01 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

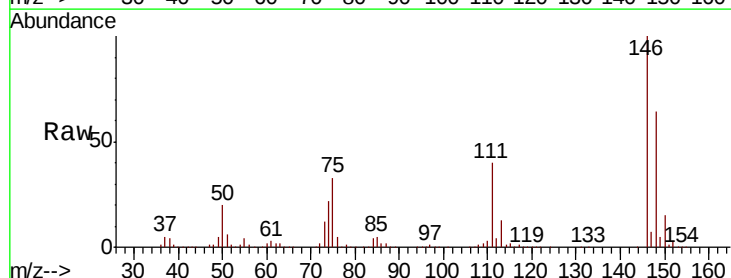
Tgt Ion:146 Resp: 492363

Ion Ratio Lower Upper

146 100

111 39.6 27.2 50.6

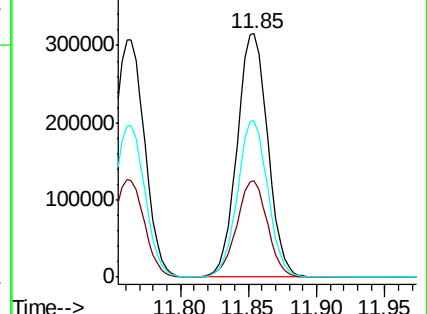
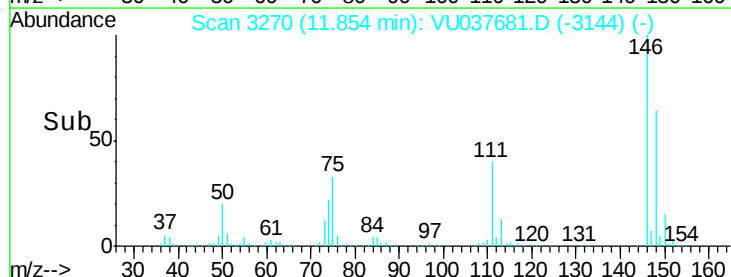
148 64.2 44.9 83.3

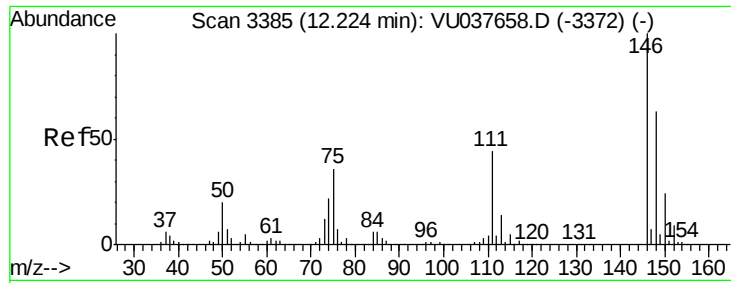


Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V





#65

1,2-Dichlorobenzene

Concen: 50.094 ug/L

RT: 12.23 min Scan# 3386

Delta R.T. 0.00 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Instrument :

MSVOA\_U

ClientSampleId :

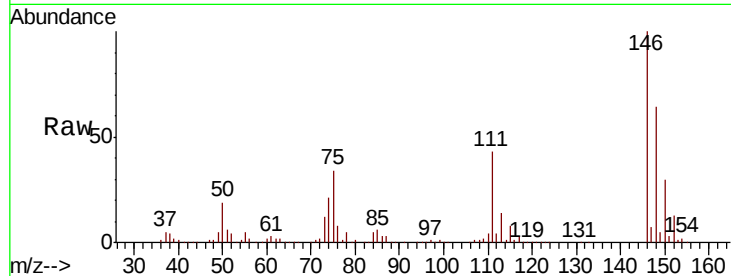
Tot Ion:146 Resp: 474987

Ion Ratio Lower Upper

146 100

111 42.7 34.2 51.4

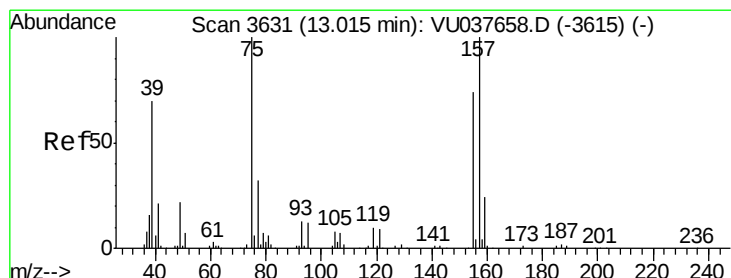
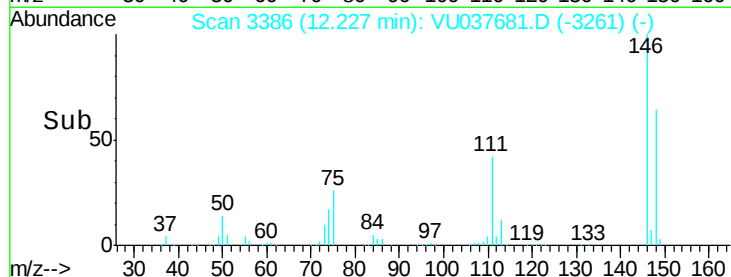
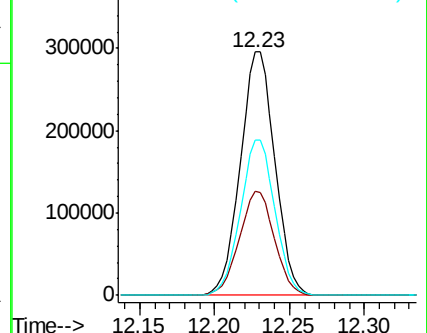
148 63.9 50.9 76.3



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



#66

1,2-Dibromo-3-chloropropane

Concen: 45.405 ug/L

RT: 13.02 min Scan# 3633

Delta R.T. 0.01 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

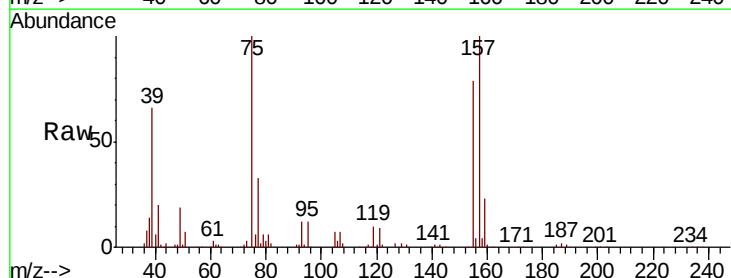
Tgt Ion: 75 Resp: 99731

Ion Ratio Lower Upper

75 100

155 79.1 60.9 91.3

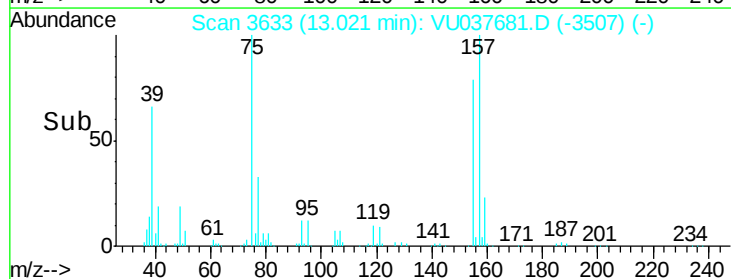
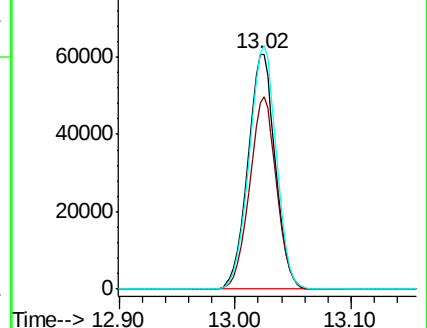
157 100.1 78.8 118.2

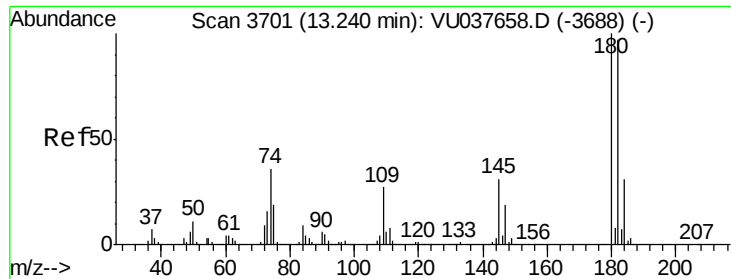


Abundance Ion 75.00 (74.70 to 75.70): VU0

Ion 155.00 (154.70 to 155.70): V

Ion 157.00 (156.70 to 157.70): V

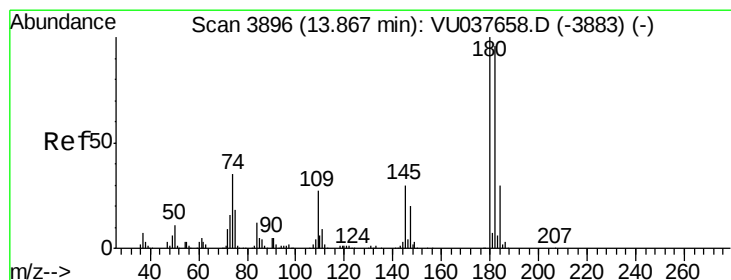
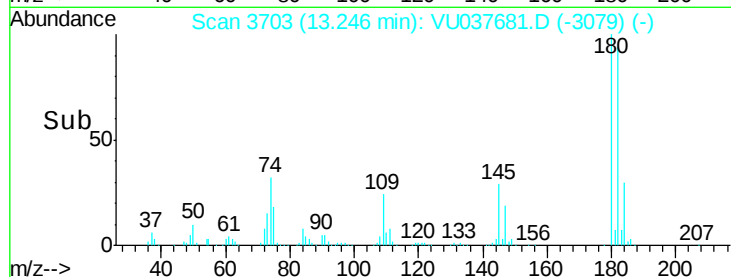
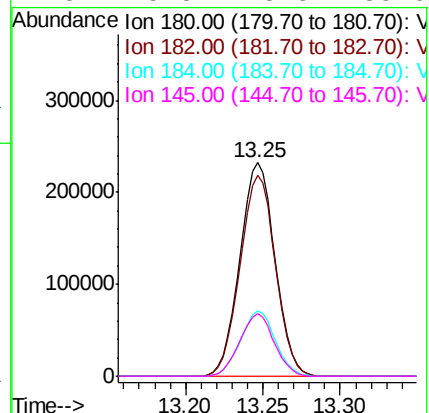
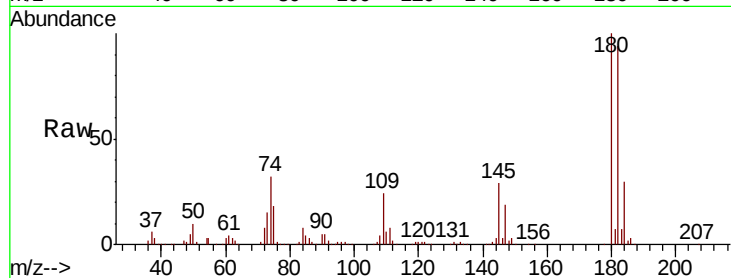




#67  
 1,3,5-Trichlorobenzene  
 Concen: 51.959 ug/L  
 RT: 13.25 min Scan# 3703  
 Delta R.T. 0.01 min  
 Lab File: VU037681.D  
 Acq: 13 Apr 2020 10:10

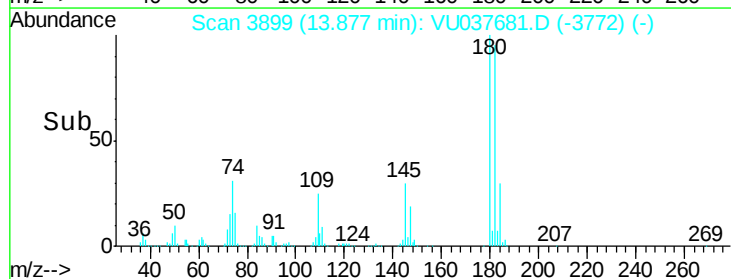
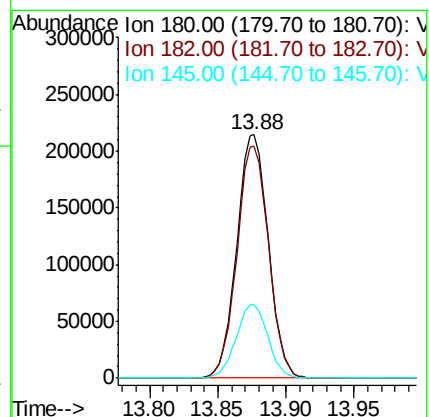
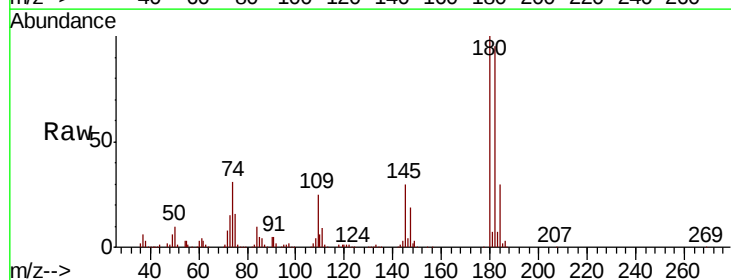
Instrument :  
 MSVOA\_U  
 ClientSampleId :

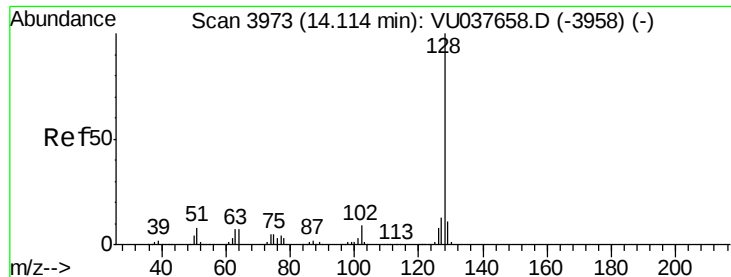
|             |       |             |
|-------------|-------|-------------|
| Tot Ion:180 | Resp: | 365521      |
| Ion         | Ratio | Lower Upper |
| 180         | 100   |             |
| 182         | 94.9  | 76.2 114.4  |
| 184         | 30.3  | 24.7 37.1   |
| 145         | 28.8  | 23.8 35.6   |



#68  
 1,2,4-trichlorobenzene  
 Concen: 50.729 ug/L  
 RT: 13.88 min Scan# 3899  
 Delta R.T. 0.01 min  
 Lab File: VU037681.D  
 Acq: 13 Apr 2020 10:10

|             |       |             |
|-------------|-------|-------------|
| Tgt Ion:180 | Resp: | 344207      |
| Ion         | Ratio | Lower Upper |
| 180         | 100   |             |
| 182         | 95.5  | 76.5 114.7  |
| 145         | 30.2  | 23.8 35.6   |





#69

Naphthalene

Concen: 45.823 ug/L

RT: 14.12 min Scan# 3976

Delta R.T. 0.01 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

Instrument :

MSVOA\_U

ClientSampleId :

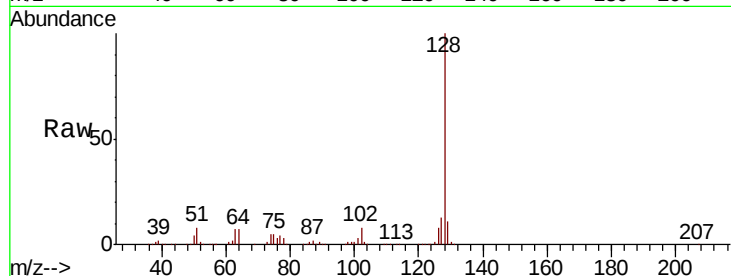
Tot Ion:128 Resp: 1147218

Ion Ratio Lower Upper

128 100

127 13.1 10.5 15.7

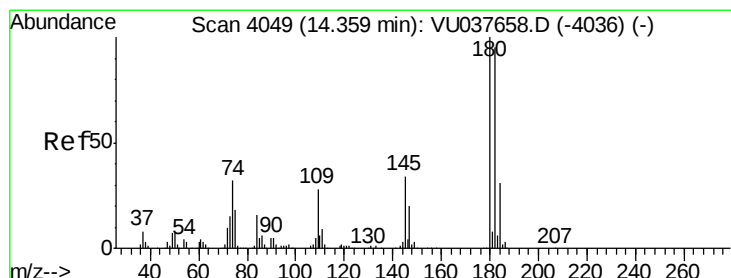
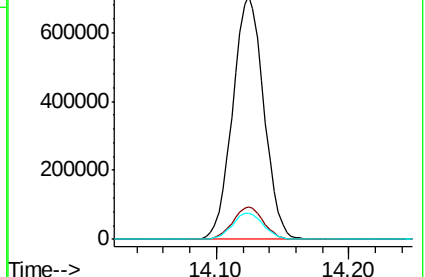
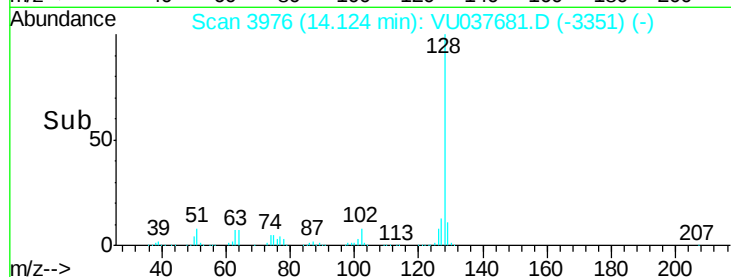
129 10.9 8.6 13.0



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: 49.084 ug/L

RT: 14.37 min Scan# 4053

Delta R.T. 0.01 min

Lab File: VU037681.D

Acq: 13 Apr 2020 10:10

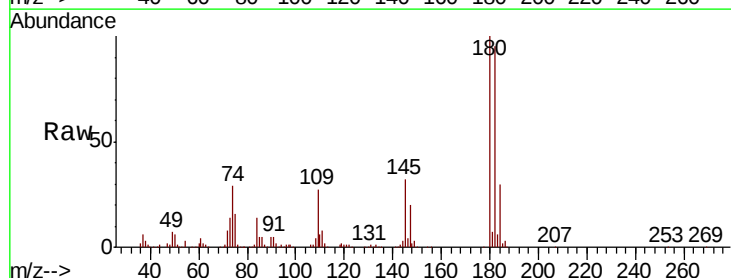
Tgt Ion:180 Resp: 331832

Ion Ratio Lower Upper

180 100

182 95.0 75.6 113.4

145 32.4 25.8 38.8



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

