

Data File : VU033036.D  
Acq On : 25 Jun 2019 03:07  
Operator : JC/SP  
Sample : VSTDCCC050EC  
Misc : 5.0mL/MSVOA\_U/WATER  
ALS Vial : 47 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05038

Quant Time: Jun 25 07:02:00 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM061719WMA.M  
Quant Title : VOC Analysis  
QLast Update : Tue Jun 25 06:54:49 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.88  | 114  | 182215   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.08  | 117  | 182157   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 96913    | 50.00 | ug/L  | 0.00     |

#### System Monitoring Compounds

|                                |         |       |          |          |      |         |
|--------------------------------|---------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.40    | 65    | 55241    | 44.36    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 88.72%  |
| 7) Chloroethane-d5             | 1.67    | 69    | 47793    | 48.12    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 96.24%  |
| 11) 1,1-Dichloroethene-d2      | 2.27    | 63    | 118494   | 47.23    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 94.46%  |
| 21) 2-Butanone-d5              | 4.17    | 46    | 126235   | 121.79   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 121.79% |
| 24) Chloroform-d               | 4.64    | 84    | 130848   | 54.05    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 108.10% |
| 26) 1,2-Dichloroethane-d4      | 5.30    | 65    | 89083    | 55.24    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 110.48% |
| 32) Benzene-d6                 | 5.33    | 84    | 242247   | 51.02    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 102.04% |
| 36) 1,2-Dichloropropane-d6     | 6.32    | 67    | 79543    | 52.58    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 105.16% |
| 41) Toluene-d8                 | 7.56    | 98    | 228651   | 51.42    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 102.84% |
| 43) trans-1,3-Dichloropropene- | 7.84    | 79    | 39422    | 50.10    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 100.20% |
| 47) 2-Hexanone-d5              | 8.31    | 63    | 77880    | 110.26   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 110.26% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.42   | 84    | 126637   | 54.15    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 108.30% |
| 64) 1,2-Dichlorobenzene-d4     | 11.86   | 152   | 99202    | 52.90    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 105.80% |

#### Target Compounds

|                                |      |     |        |        | Qvalue   |
|--------------------------------|------|-----|--------|--------|----------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 92482  | 50.246 | ug/L 99  |
| 3) Chloromethane               | 1.32 | 50  | 76807  | 46.041 | ug/L 99  |
| 5) Vinyl chloride              | 1.40 | 62  | 82501  | 49.860 | ug/L 99  |
| 6) Bromomethane                | 1.62 | 94  | 58020  | 59.589 | ug/L 99  |
| 8) Chloroethane                | 1.69 | 64  | 49007  | 51.452 | ug/L 99  |
| 9) Trichlorofluoromethane      | 1.88 | 101 | 117595 | 50.657 | ug/L 100 |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.28 | 101 | 59953  | 49.238 | ug/L 98  |
| 12) 1,1-Dichloroethene         | 2.28 | 96  | 57321  | 49.955 | ug/L 96  |
| 13) Acetone                    | 2.32 | 43  | 92248  | 64.437 | ug/L 95  |
| 14) Carbon disulfide           | 2.47 | 76  | 170082 | 46.843 | ug/L 100 |
| 15) Methyl Acetate             | 2.61 | 43  | 91851  | 56.600 | ug/L 98  |
| 16) Methylene chloride         | 2.69 | 84  | 69612  | 51.700 | ug/L 98  |
| 17) trans-1,2-Dichloroethene   | 2.98 | 96  | 61761  | 49.634 | ug/L 100 |
| 18) Methyl tert-butyl Ether    | 2.99 | 73  | 211762 | 53.006 | ug/L 98  |
| 19) 1,1-Dichloroethane         | 3.44 | 63  | 127933 | 53.929 | ug/L 99  |
| 20) cis-1,2-Dichloroethene     | 4.22 | 96  | 72251  | 53.300 | ug/L 96  |
| 22) 2-Butanone                 | 4.25 | 43  | 131891 | 88.886 | ug/L 99  |

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ALS Vial : 47 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05038

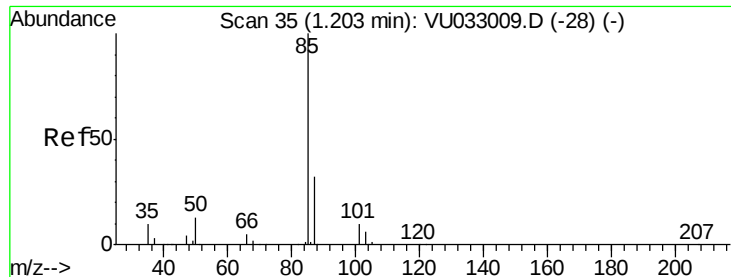
Quant Time: Jun 25 07:02:00 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM061719WMA.M  
Quant Title : VOC Analysis  
QLast Update : Tue Jun 25 06:54:49 2019  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 23) Bromochloromethane         | 4.54  | 128  | 37422    | 52.918  | ug/L  | 91       |
| 25) Chloroform                 | 4.67  | 83   | 132244   | 54.057  | ug/L  | 96       |
| 27) 1,2-Dichloroethane         | 5.40  | 62   | 111746   | 55.603  | ug/L  | 99       |
| 29) Cyclohexane                | 4.99  | 56   | 104046   | 48.918  | ug/L  | 100      |
| 30) 1,1,1-Trichloroethane      | 4.91  | 97   | 116273   | 52.393  | ug/L  | 98       |
| 31) Carbon tetrachloride       | 5.13  | 117  | 103621   | 51.316  | ug/L  | 99       |
| 33) Benzene                    | 5.38  | 78   | 272388   | 51.908  | ug/L  | 100      |
| 34) Trichloroethene            | 6.18  | 95   | 72229    | 51.517  | ug/L  | 98       |
| 35) Methylcyclohexane          | 6.41  | 83   | 103881   | 47.933  | ug/L  | 98       |
| 37) 1,2-Dichloropropane        | 6.42  | 63   | 76374    | 53.059  | ug/L  | 100      |
| 38) Bromodichloromethane       | 6.75  | 83   | 101802   | 52.597  | ug/L  | 99       |
| 39) cis-1,3-Dichloropropene    | 7.26  | 75   | 106664   | 47.563  | ug/L  | 99       |
| 40) 4-Methyl-2-pentanone       | 7.45  | 43   | 255560   | 111.206 | ug/L  | 98       |
| 42) Toluene                    | 7.63  | 91   | 292756   | 51.564  | ug/L  | 99       |
| 44) trans-1,3-Dichloropropene  | 7.87  | 75   | 104762   | 49.736  | ug/L  | 98       |
| 45) 1,1,2-Trichloroethane      | 8.06  | 97   | 70196    | 52.394  | ug/L  | 98       |
| 46) Tetrachloroethene          | 8.22  | 164  | 58023    | 50.504  | ug/L  | 98       |
| 48) 2-Hexanone                 | 8.36  | 43   | 199190   | 98.239  | ug/L  | 99       |
| 49) Dibromochloromethane       | 8.47  | 129  | 81494    | 50.457  | ug/L  | 97       |
| 50) 1,2-Dibromoethane          | 8.58  | 107  | 76712    | 51.558  | ug/L  | 100      |
| 51) Chlorobenzene              | 9.11  | 112  | 190529   | 50.997  | ug/L  | 96       |
| 52) Ethylbenzene               | 9.24  | 91   | 328802   | 52.320  | ug/L  | 100      |
| 53) m,p-Xylene                 | 9.37  | 106  | 121292   | 51.154  | ug/L  | 98       |
| 54) o-xylene                   | 9.77  | 106  | 121228   | 52.354  | ug/L  | 99       |
| 55) Styrene                    | 9.79  | 104  | 209626   | 52.184  | ug/L  | 96       |
| 56) Isopropylbenzene           | 10.16 | 105  | 325502   | 52.162  | ug/L  | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.45 | 83   | 125359   | 51.709  | ug/L  | 98       |
| 59) 1,2,3-Trichloropropane     | 10.49 | 75   | 102143   | 53.173  | ug/L  | 99       |
| 61) Bromoform                  | 9.95  | 173  | 63608    | 50.265  | ug/L  | 99       |
| 62) 1,3-Dichlorobenzene        | 11.41 | 146  | 152688   | 50.687  | ug/L  | 99       |
| 63) 1,4-Dichlorobenzene        | 11.50 | 146  | 155135   | 49.860  | ug/L  | 99       |
| 65) 1,2-Dichlorobenzene        | 11.87 | 146  | 158128   | 51.411  | ug/L  | 98       |
| 66) 1,2-Dibromo-3-chloropropan | 12.65 | 75   | 30161    | 51.399  | ug/L  | 95       |
| 67) 1,3,5-Trichlorobenzene     | 12.88 | 180  | 118332   | 48.889  | ug/L  | 98       |
| 68) 1,2,4-trichlorobenzene     | 13.50 | 180  | 101512   | 48.741  | ug/L  | 97       |
| 69) Naphthalene                | 13.74 | 128  | 313523   | 48.961  | ug/L  | 99       |
| 70) 1,2,3-Trichlorobenzene     | 13.98 | 180  | 109011   | 49.443  | ug/L  | 99       |

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

Quant Time: Jun 25 07:02:00 2019  
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#2

Dichlorodifluoromethane

Concen: 50.246 ug/L

RT: 1.20 min Scan# 35

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

Instrument :

MSVOA\_U

ClientSampleId :

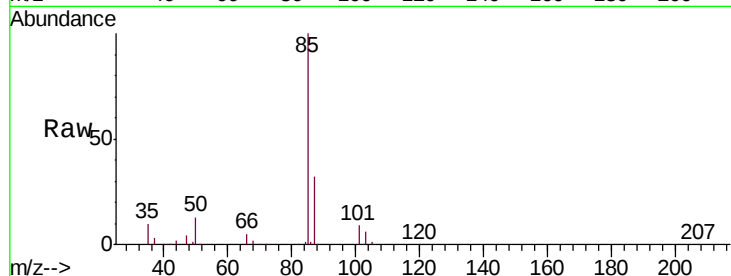
VSTD05038

Tgt Ion: 85 Resp: 92482

Ion Ratio Lower Upper

85 100

87 31.9 25.8 38.8



Abundance Ion 85.00 (84.70 to 85.70): VU033009.D (-28) (-)

Ion 87.00 (86.70 to 87.70): VU033009.D (-28) (-)

1.20

100000

80000

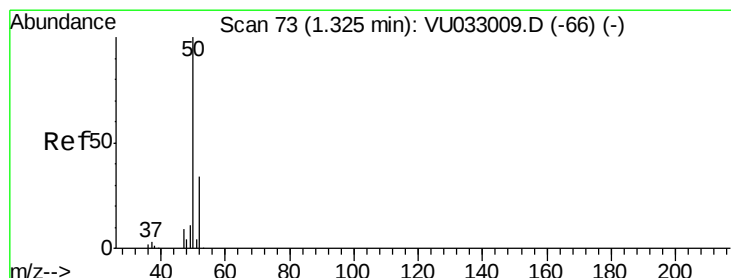
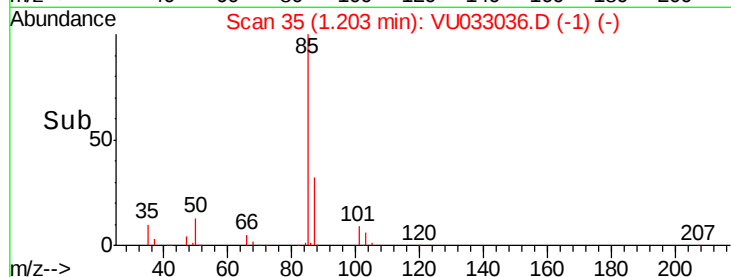
60000

40000

20000

0

Time--> 1.15 1.20 1.25



#3

Chloromethane

Concen: 46.041 ug/L

RT: 1.32 min Scan# 73

Delta R.T. 0.00 min

Lab File: VU033036.D

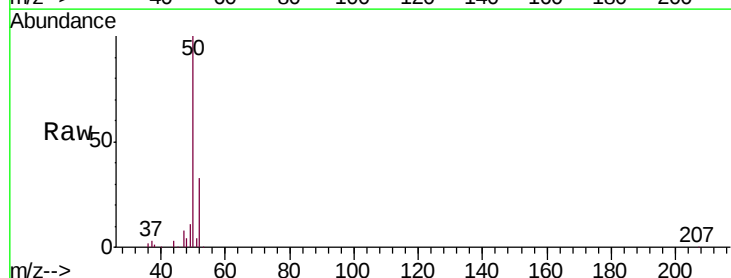
Acq: 25 Jun 2019 03:07

Tgt Ion: 50 Resp: 76807

Ion Ratio Lower Upper

50 100

52 33.4 23.0 42.6



Abundance Ion 50.00 (49.70 to 50.70): VU033009.D (-66) (-)

Ion 52.00 (51.70 to 52.70): VU033009.D (-66) (-)

1.32

80000

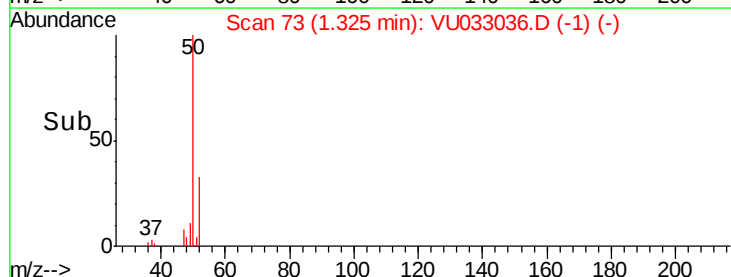
60000

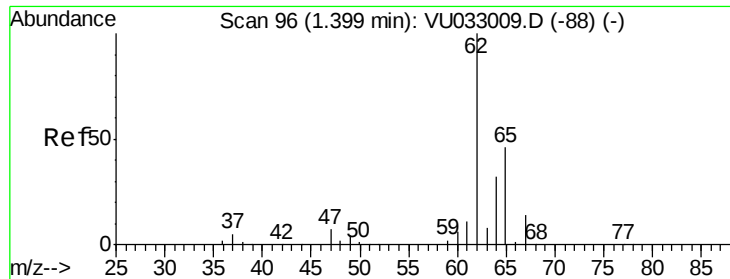
40000

20000

0

Time--> 1.30 1.35 1.40





#5

Vinyl chloride

Concen: 49.860 ug/L

RT: 1.40 min Scan# 96

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

Instrument :

MSVOA\_U

ClientSampleId :

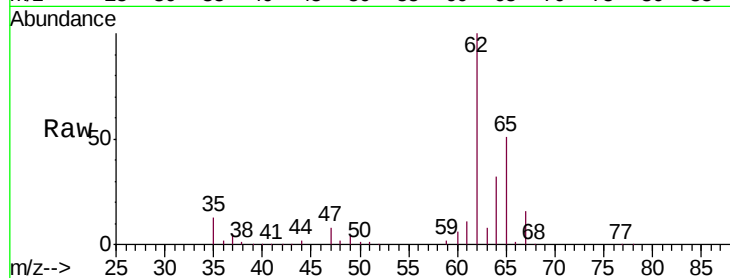
VSTD05038

Tgt Ion: 62 Resp: 82501

Ion Ratio Lower Upper

62 100

64 32.3 23.0 42.6



Abundance Ion 62.00 (61.70 to 62.70): VU033009.D (-88) (-)

Ion 64.00 (63.70 to 64.70): VU033009.D (-88) (-)

1.40

80000

60000

40000

20000

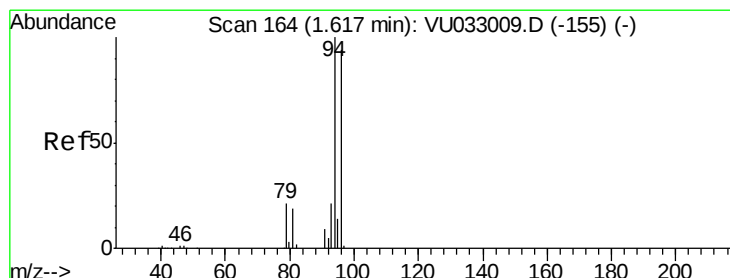
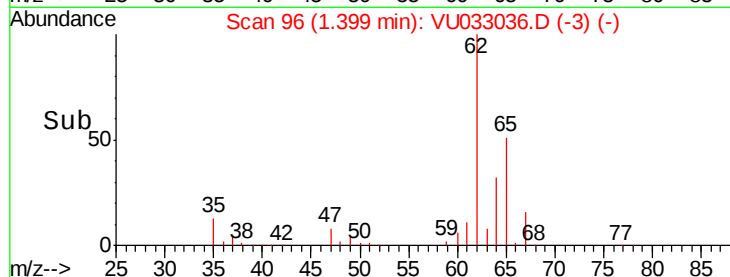
0

Time-->

1.35

1.40

1.45



#6

Bromomethane

Concen: 59.589 ug/L

RT: 1.62 min Scan# 164

Delta R.T. 0.00 min

Lab File: VU033036.D

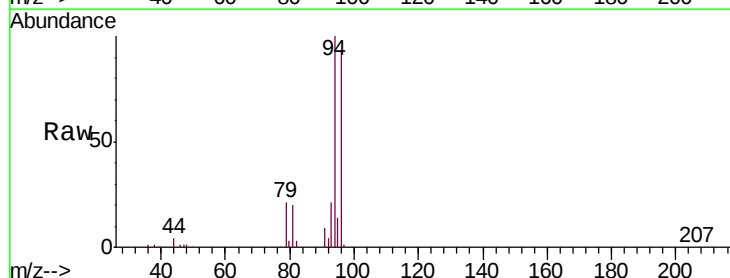
Acq: 25 Jun 2019 03:07

Tgt Ion: 94 Resp: 58020

Ion Ratio Lower Upper

94 100

96 93.1 64.8 120.4



Abundance Ion 94.00 (93.70 to 94.70): VU033009.D (-155) (-)

Ion 96.00 (95.70 to 96.70): VU033009.D (-155) (-)

1.62

50000

40000

30000

20000

10000

0

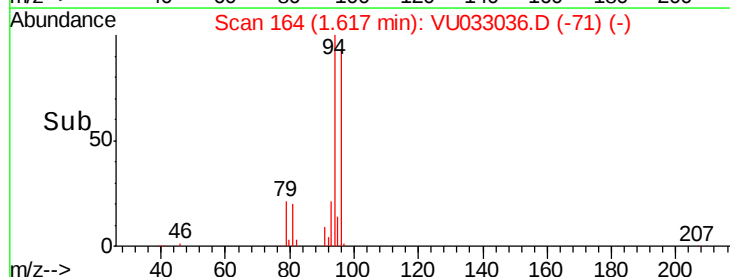
Time-->

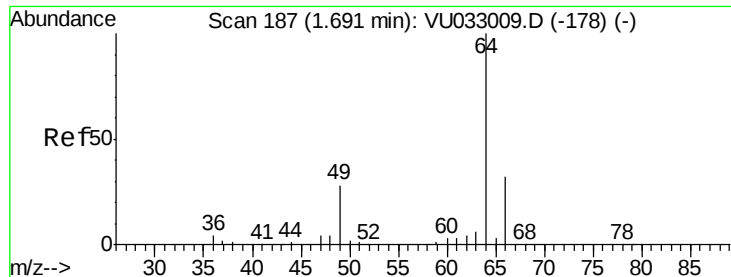
1.55

1.60

1.65

1.70





#8

Chloroethane

Concen: 51.452 ug/L

RT: 1.69 min Scan# 187

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

Instrument :

MSVOA\_U

ClientSampleId :

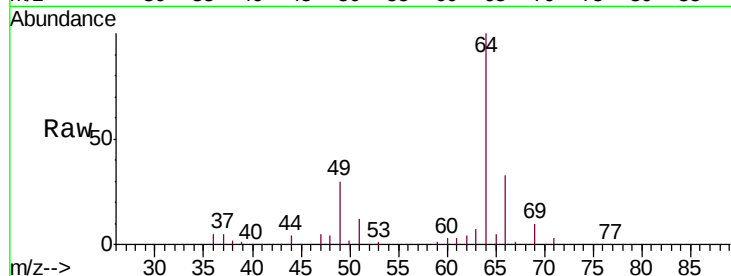
VSTD05038

Tgt Ion: 64 Resp: 49007

Ion Ratio Lower Upper

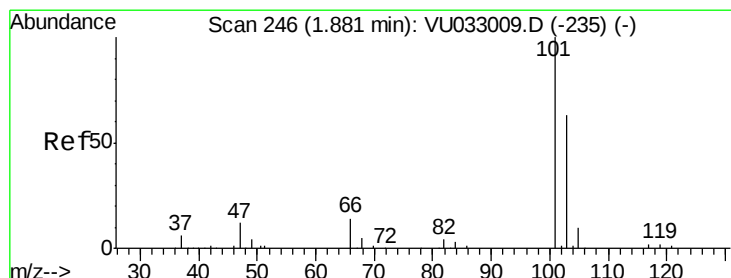
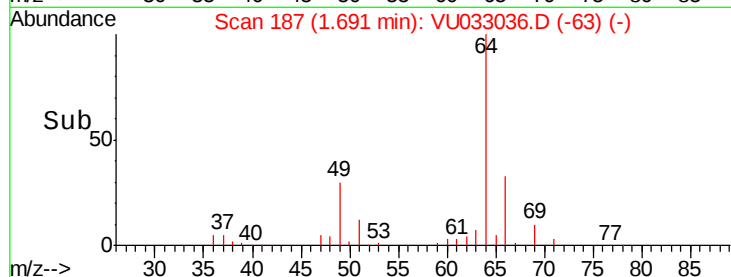
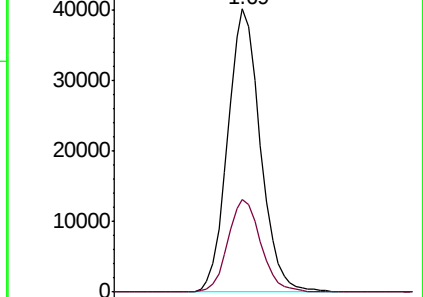
64 100

66 32.8 22.5 41.7



Abundance Ion 64.00 (63.70 to 64.70): VU033009.D (-178) (-)

Ion 66.00 (65.70 to 66.70): VU033009.D (-178) (-)



#9

Trichlorofluoromethane

Concen: 50.657 ug/L

RT: 1.88 min Scan# 246

Delta R.T. 0.00 min

Lab File: VU033036.D

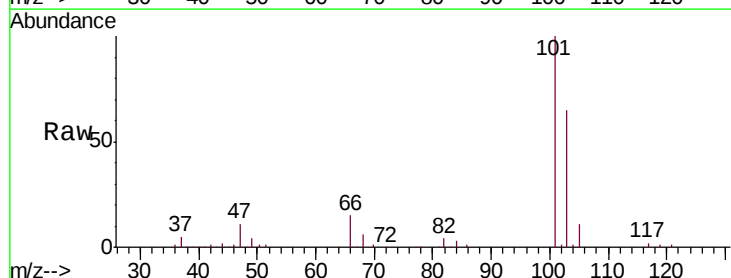
Acq: 25 Jun 2019 03:07

Tgt Ion: 101 Resp: 117595

Ion Ratio Lower Upper

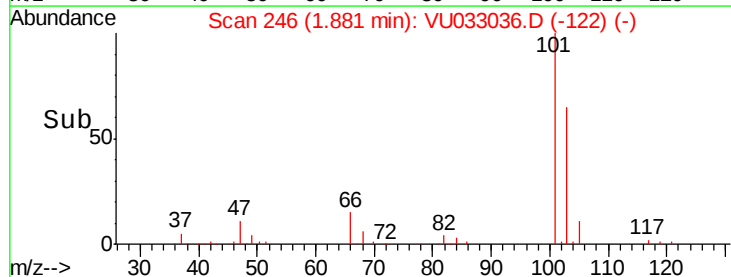
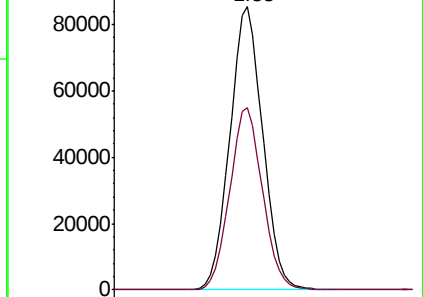
101 100

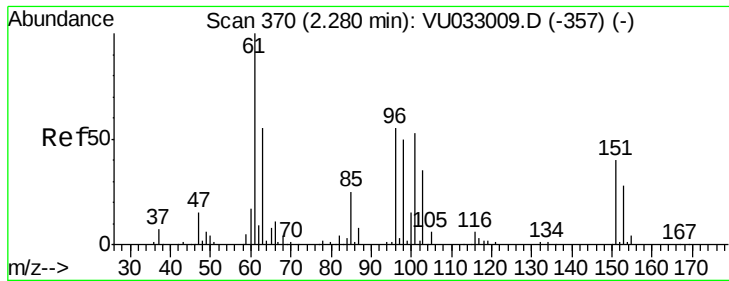
103 64.2 51.3 76.9



Abundance Ion 101.00 (100.70 to 101.70): VU033009.D (-235) (-)

Ion 103.00 (102.70 to 103.70): VU033009.D (-235) (-)





#10

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

Concen: 49.238 ug/L

RT: 2.28 min Scan# 370

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

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ClientSampleId :

VSTD05038

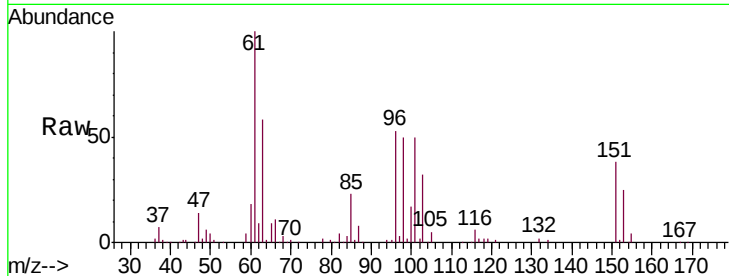
Tgt Ion:101 Resp: 59953

Ion Ratio Lower Upper

101 100

85 45.7 36.8 55.2

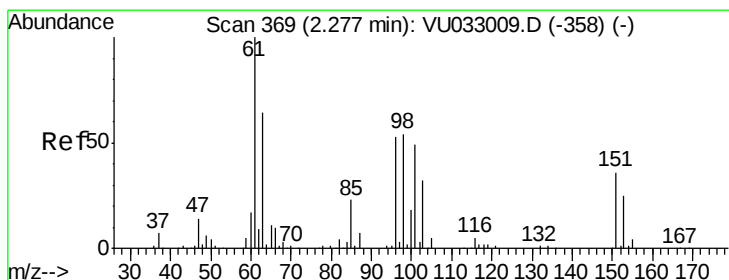
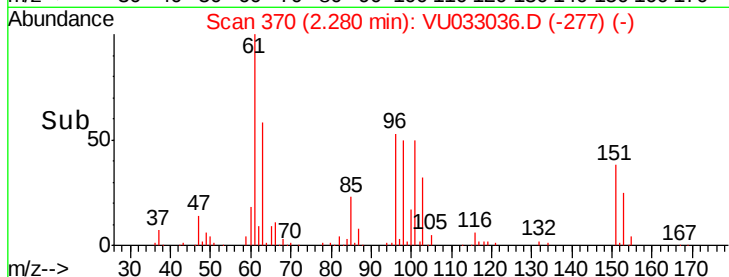
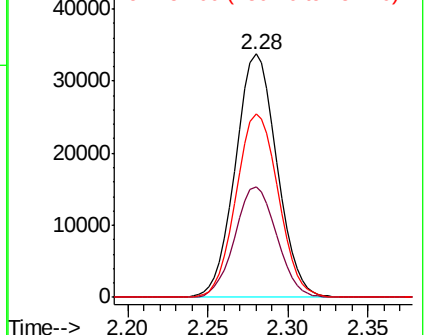
151 76.6 63.6 95.4



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: 49.955 ug/L

RT: 2.28 min Scan# 369

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

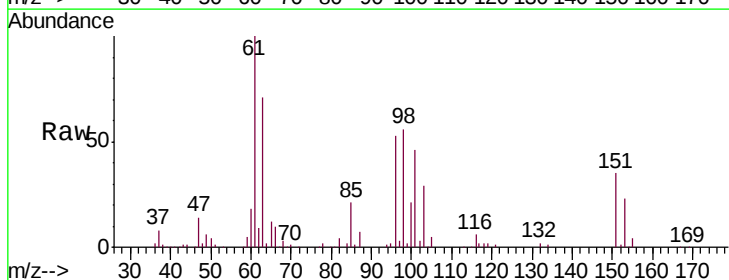
Tgt Ion: 96 Resp: 57321

Ion Ratio Lower Upper

96 100

61 188.3 131.0 243.4

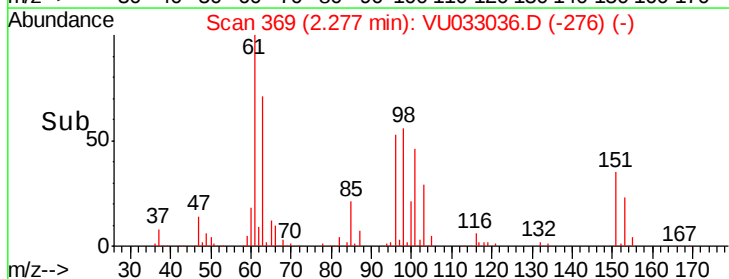
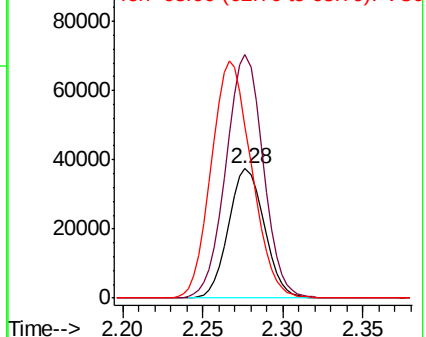
63 133.0 101.0 187.6

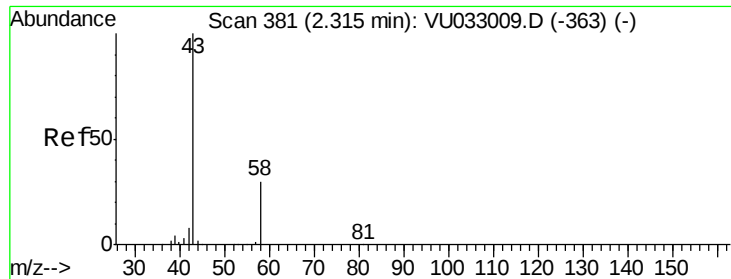


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 64.437 ug/L

RT: 2.32 min Scan# 381

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

Instrument :

MSVOA\_U

ClientSampleId :

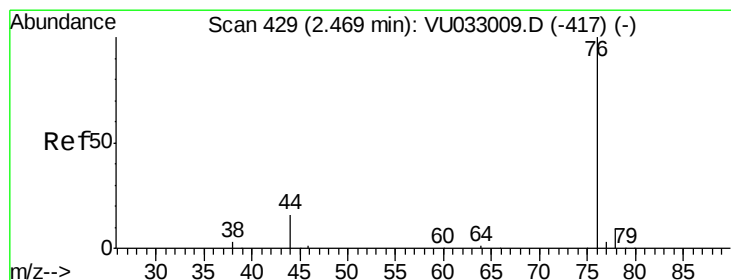
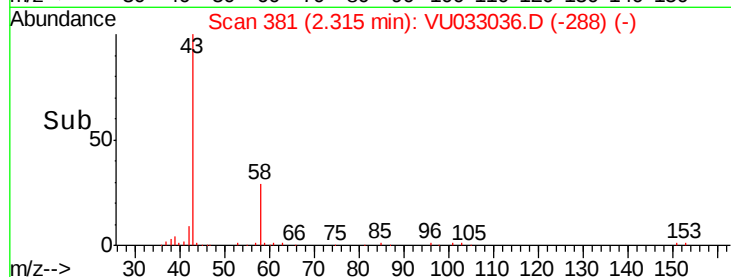
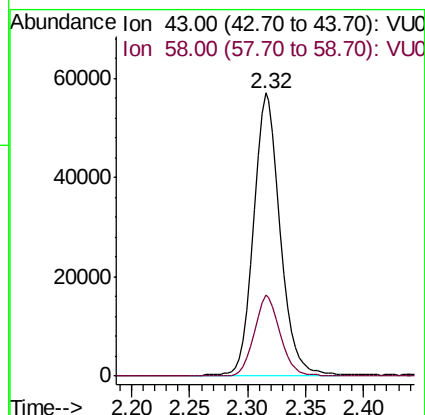
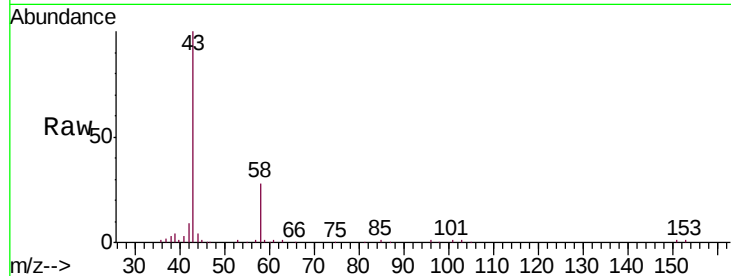
VSTD05038

Tgt Ion: 43 Resp: 92248

Ion Ratio Lower Upper

43 100

58 27.6 0.0 60.6



#14

Carbon disulfide

Concen: 46.843 ug/L

RT: 2.47 min Scan# 429

Delta R.T. 0.00 min

Lab File: VU033036.D

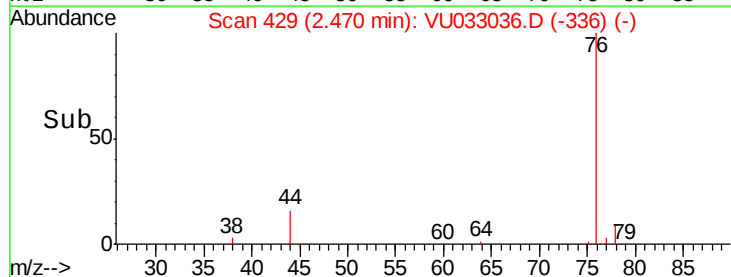
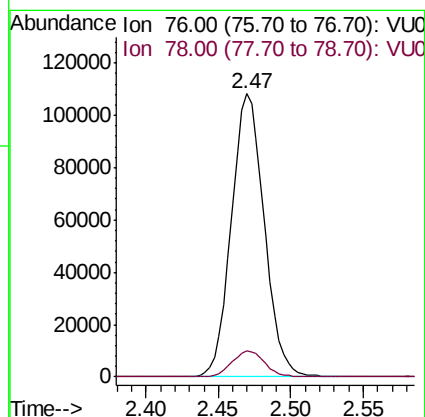
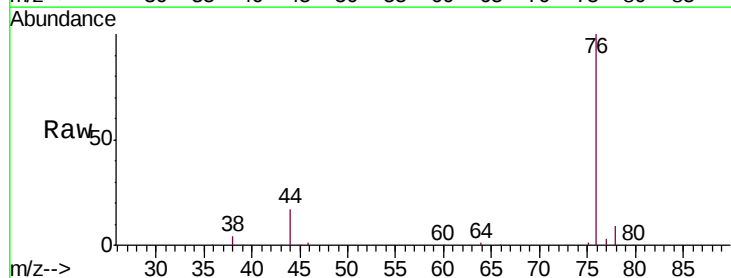
Acq: 25 Jun 2019 03:07

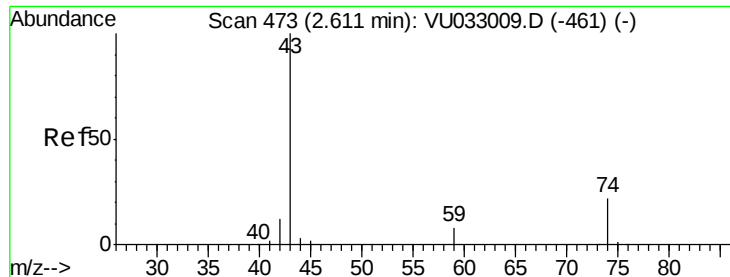
Tgt Ion: 76 Resp: 170082

Ion Ratio Lower Upper

76 100

78 9.0 7.3 10.9





#15

Methyl Acetate

Concen: 56.600 ug/L

RT: 2.61 min Scan# 473

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

Instrument :

MSVOA\_U

ClientSampleId :

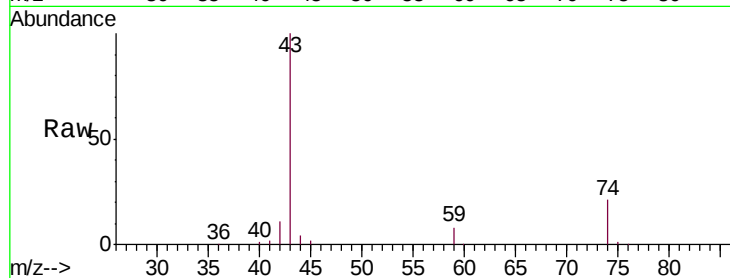
VSTD05038

Tgt Ion: 43 Resp: 91851

Ion Ratio Lower Upper

43 100

74 21.4 18.1 27.1



Abundance Ion 43.00 (42.70 to 43.70): VU033036.D (-380) (-)

Ion 74.00 (73.70 to 74.70): VU033036.D (-380) (-)

2.61

60000

50000

40000

30000

20000

10000

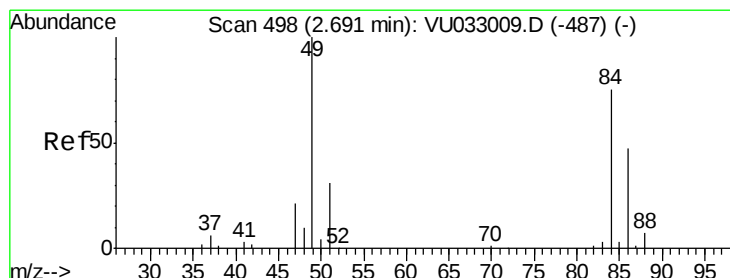
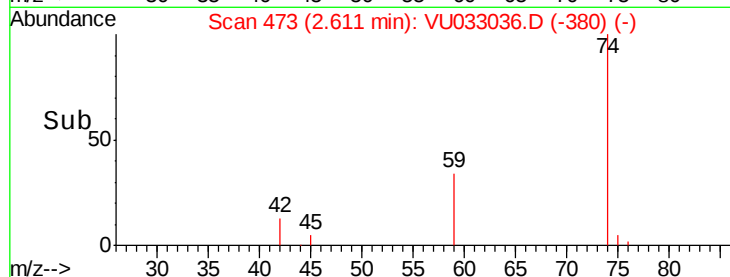
0

Time-->

2.50

2.60

2.70



#16

Methylene chloride

Concen: 51.700 ug/L

RT: 2.69 min Scan# 499

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

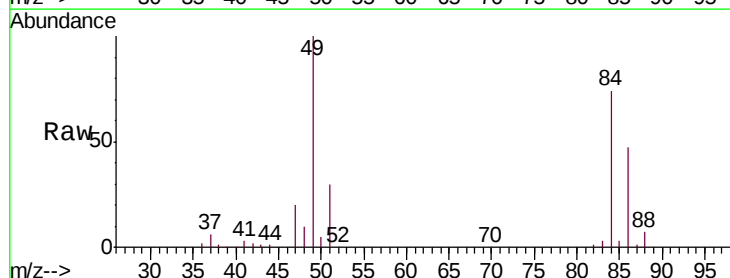
Tgt Ion: 84 Resp: 69612

Ion Ratio Lower Upper

84 100

86 64.0 45.5 84.5

49 135.0 92.1 171.1



Abundance Ion 84.00 (83.70 to 84.70): VU033036.D (-405) (-)

Ion 86.00 (85.70 to 86.70): VU033036.D (-405) (-)

Ion 49.00 (48.70 to 49.70): VU033036.D (-405) (-)

2.69

60000

40000

20000

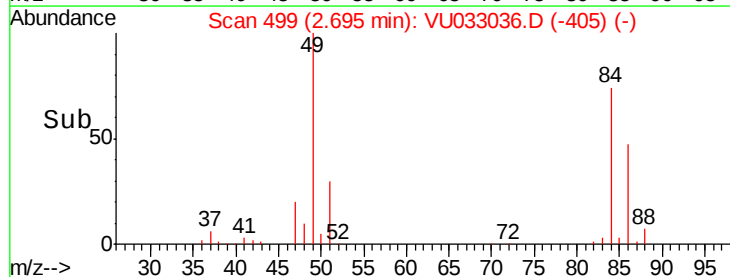
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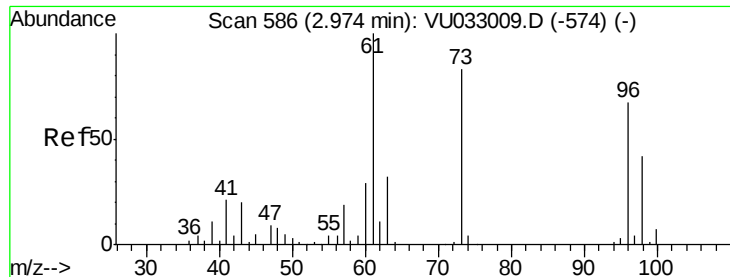
Time-->

2.65

2.70

2.75





#17

trans-1,2-Dichloroethene

Concen: 49.634 ug/L

RT: 2.98 min Scan# 587

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05038

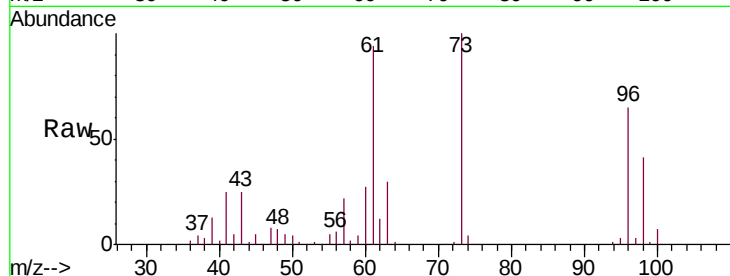
Tgt Ion: 96 Resp: 61761

Ion Ratio Lower Upper

96 100

61 144.2 100.9 187.5

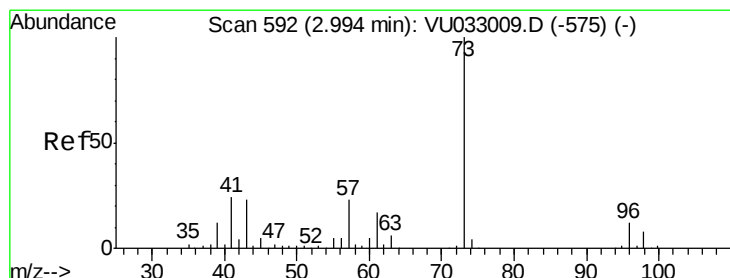
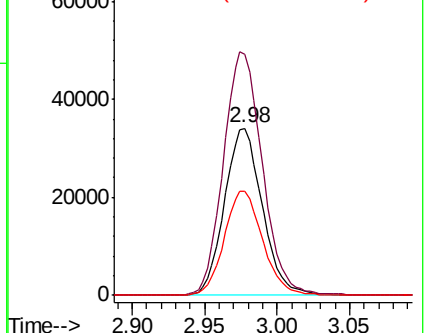
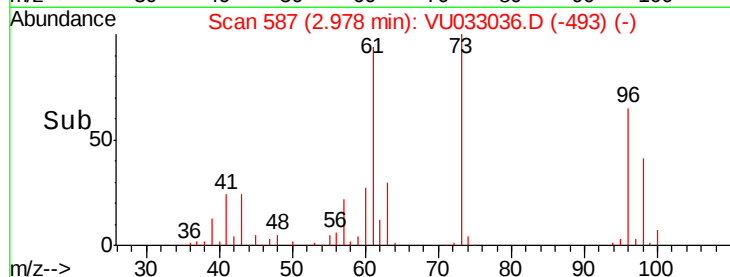
98 62.2 44.0 81.8



Abundance Ion 96.00 (95.70 to 96.70): VU033036.D (-493) (-)

Ion 61.00 (60.70 to 61.70): VU033036.D (-493) (-)

Ion 98.00 (97.70 to 98.70): VU033036.D (-493) (-)



#18

Methyl tert-butyl Ether

Concen: 53.006 ug/L

RT: 2.99 min Scan# 592

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

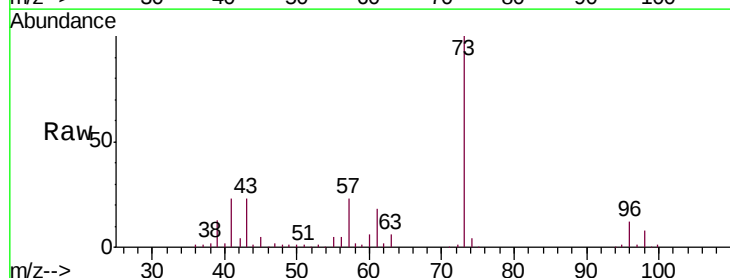
Tgt Ion: 73 Resp: 211762

Ion Ratio Lower Upper

73 100

43 23.8 17.8 26.8

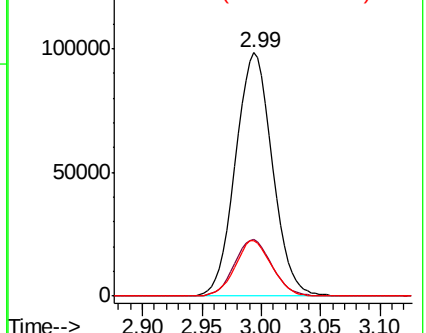
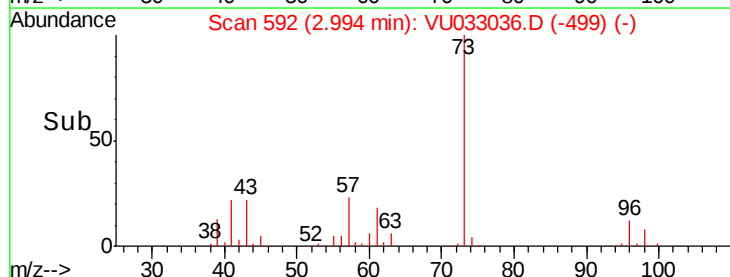
57 22.6 17.8 26.6

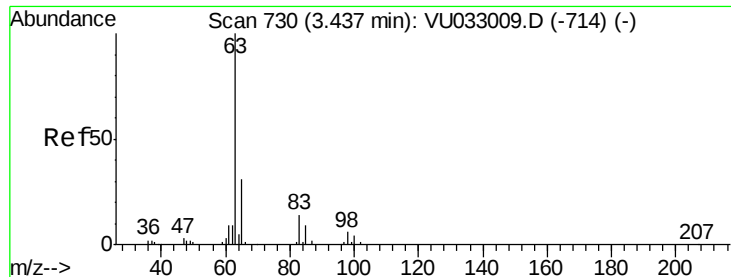


Abundance Ion 73.00 (72.70 to 73.70): VU033036.D (-499) (-)

Ion 43.00 (42.70 to 43.70): VU033036.D (-499) (-)

Ion 57.00 (56.70 to 57.70): VU033036.D (-499) (-)

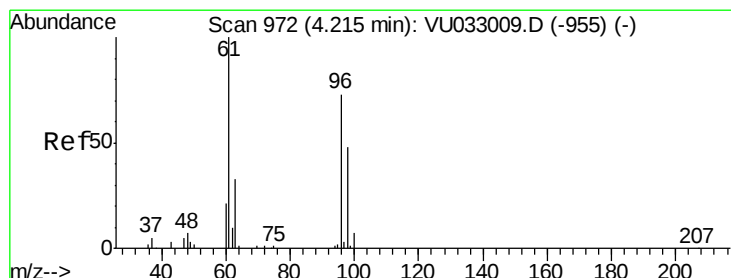
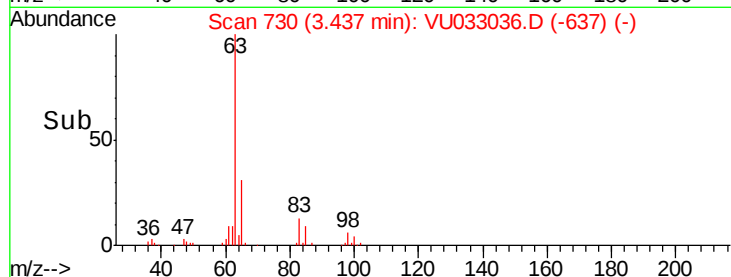
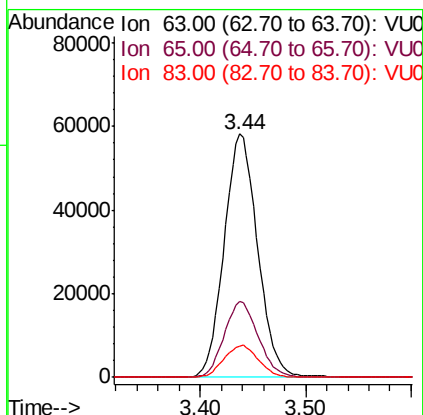
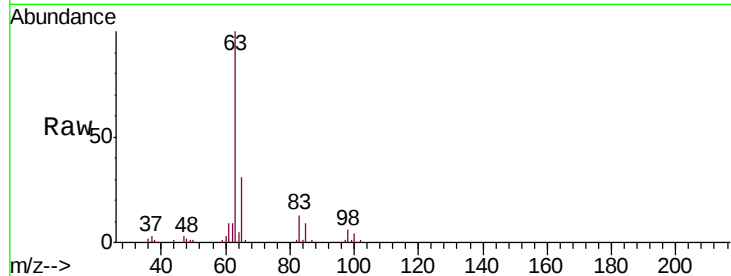




#19  
 1,1-Dichloroethane  
 Concen: 53.929 ug/L  
 RT: 3.44 min Scan# 730  
 Delta R.T. 0.00 min  
 Lab File: VU033036.D  
 Acq: 25 Jun 2019 03:07

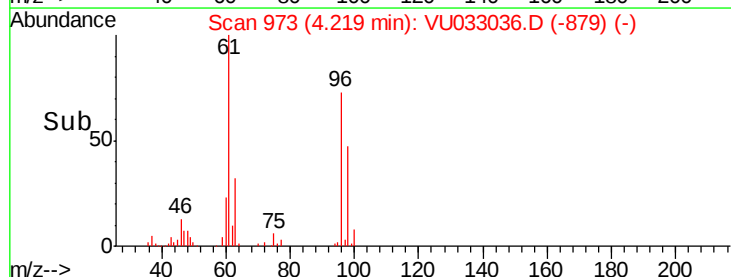
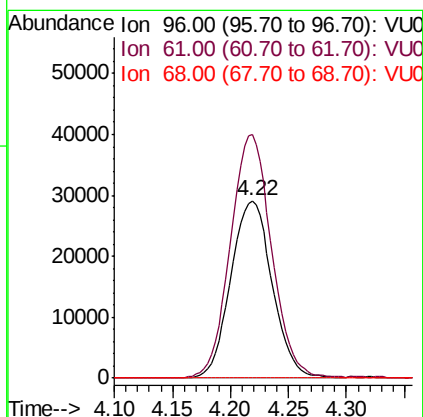
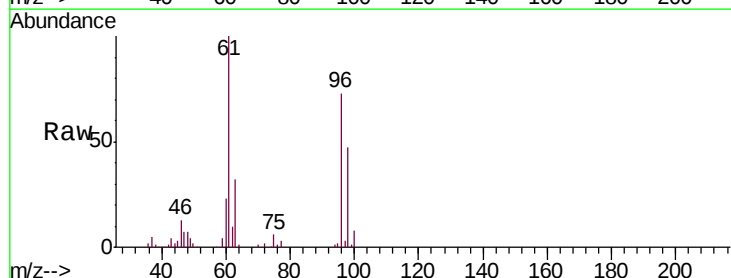
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05038

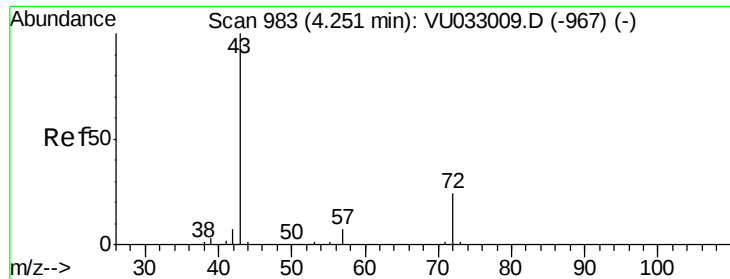
Tgt Ion: 63 Resp: 127933  
 Ion Ratio Lower Upper  
 63 100  
 65 31.1 22.0 41.0  
 83 13.0 9.5 17.7



#20  
 cis-1,2-Dichloroethene  
 Concen: 53.300 ug/L  
 RT: 4.22 min Scan# 973  
 Delta R.T. 0.00 min  
 Lab File: VU033036.D  
 Acq: 25 Jun 2019 03:07

Tgt Ion: 96 Resp: 72251  
 Ion Ratio Lower Upper  
 96 100  
 61 137.1 92.4 171.6  
 68 0.0 0.0 0.0





#22

2-Butanone

Concen: 88.886 ug/L

RT: 4.25 min Scan# 984

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

Instrument :

MSVOA\_U

ClientSampleId :

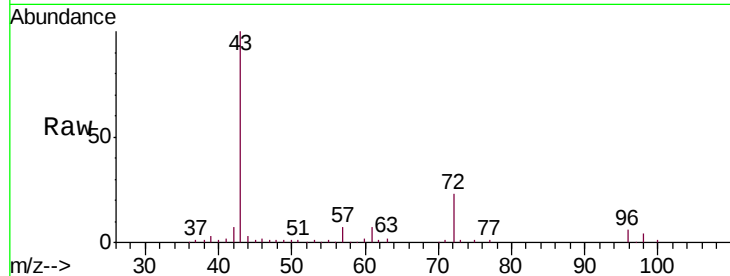
VSTD05038

Tgt Ion: 43 Resp: 131891

Ion Ratio Lower Upper

43 100

72 25.0 12.9 38.6



Abundance Ion 43.00 (42.70 to 43.70): VU033009.D (-967) (-)

Ion 72.00 (71.70 to 72.70): VU033009.D (-967) (-)

4.25

60000

50000

40000

30000

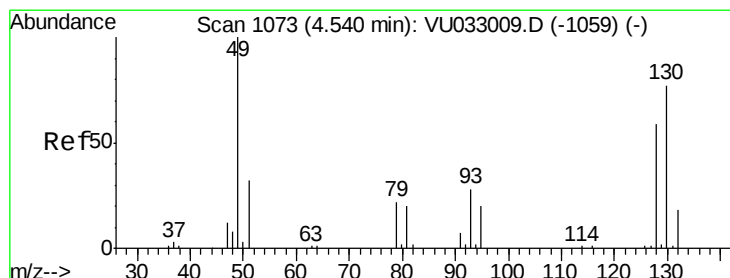
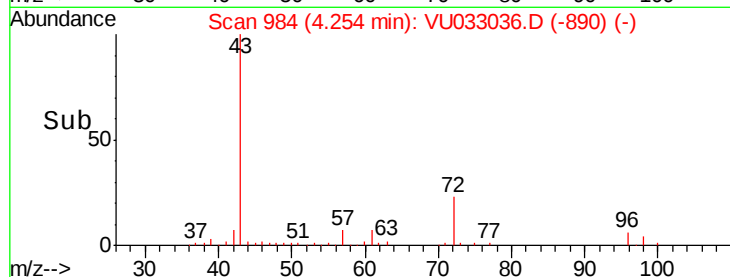
20000

10000

0

4.15 4.20 4.25 4.30 4.35

Time-->



#23

Bromochloromethane

Concen: 52.918 ug/L

RT: 4.54 min Scan# 1073

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

Tgt Ion: 128 Resp: 37422

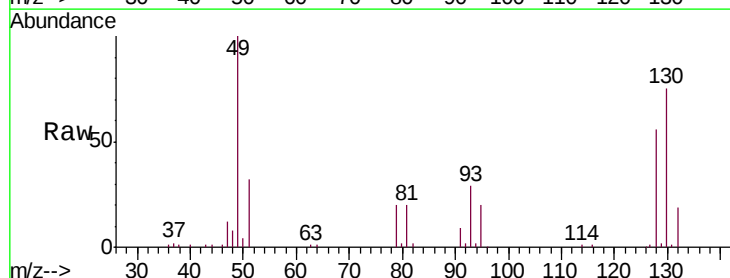
Ion Ratio Lower Upper

128 100

49 179.4 114.7 212.9

130 134.7 89.4 166.0

51 58.2 42.0 63.0



Abundance Ion 128.00 (127.70 to 128.70): VU033009.D (-1059) (-)

Ion 49.00 (48.70 to 49.70): VU033009.D (-1059) (-)

Ion 130.00 (129.70 to 130.70): VU033009.D (-1059) (-)

Ion 51.00 (50.70 to 51.70): VU033009.D (-1059) (-)

40000

30000

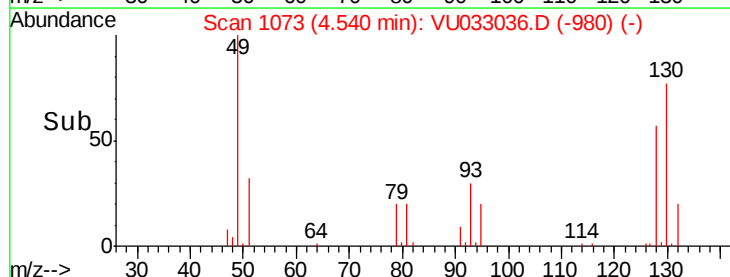
20000

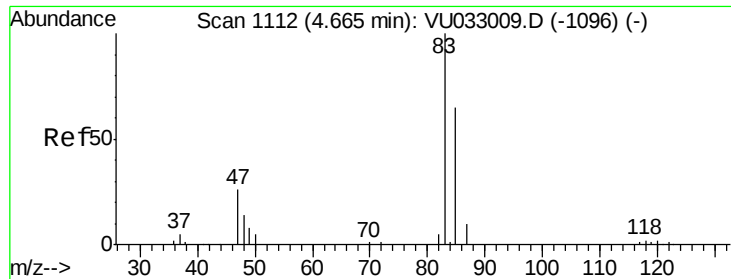
10000

0

4.45 4.50 4.55 4.60

Time-->

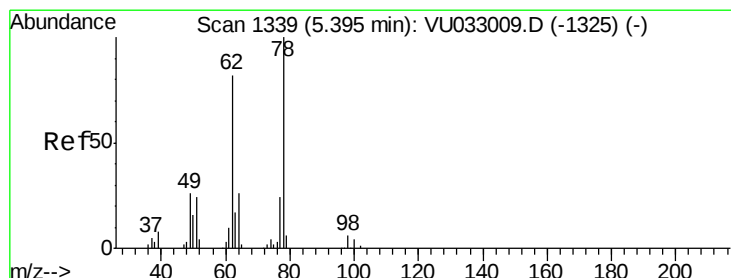
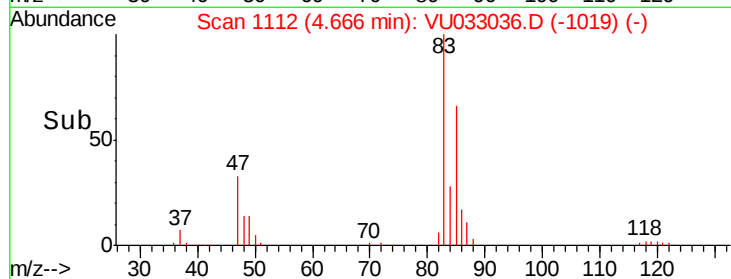
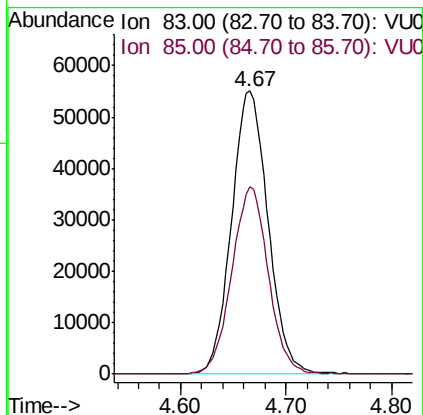
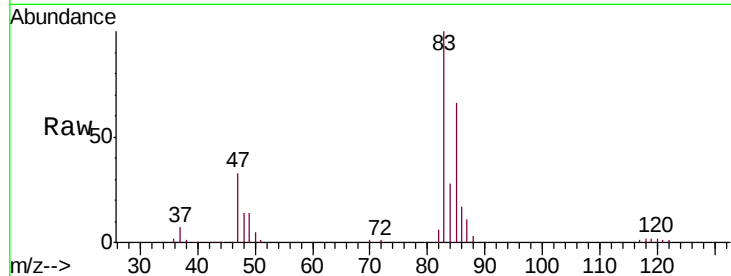




#25  
Chloroform  
Concen: 54.057 ug/L  
RT: 4.67 min Scan# 1112  
Delta R.T. 0.00 min  
Lab File: VU033036.D  
Acq: 25 Jun 2019 03:07

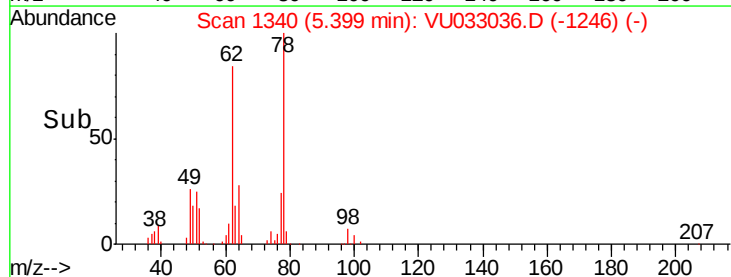
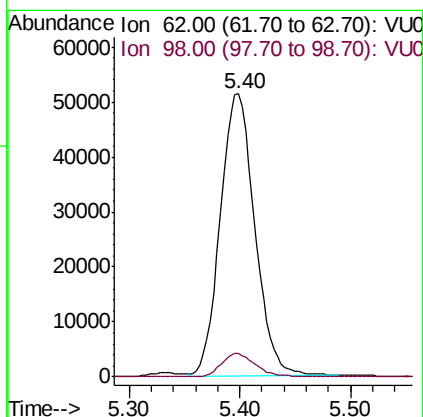
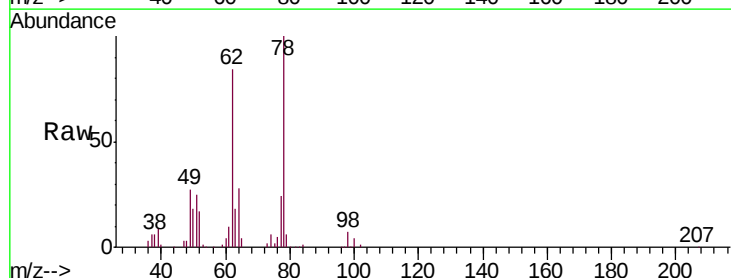
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05038

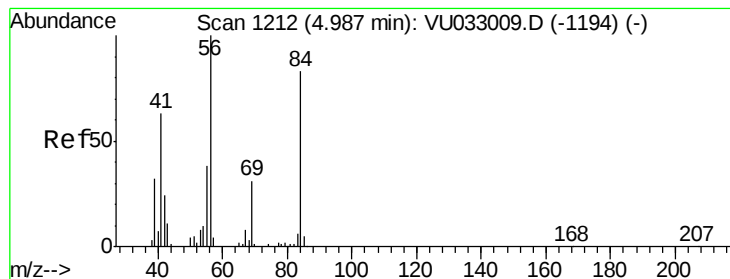
Tgt Ion: 83 Resp: 132244  
Ion Ratio Lower Upper  
83 100  
85 66.0 44.2 82.2



#27  
1,2-Dichloroethane  
Concen: 55.603 ug/L  
RT: 5.40 min Scan# 1340  
Delta R.T. 0.00 min  
Lab File: VU033036.D  
Acq: 25 Jun 2019 03:07

Tgt Ion: 62 Resp: 111746  
Ion Ratio Lower Upper  
62 100  
98 8.1 6.6 10.0





#29

Cyclohexane

Concen: 48.918 ug/L

RT: 4.99 min Scan# 1213

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05038

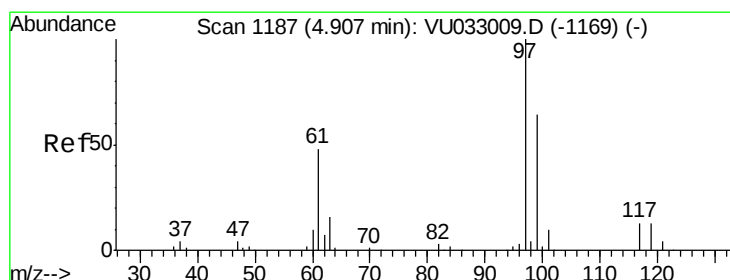
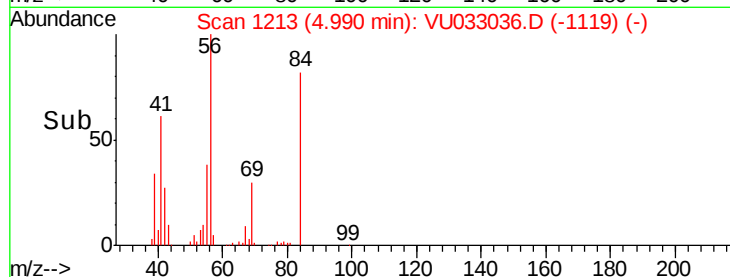
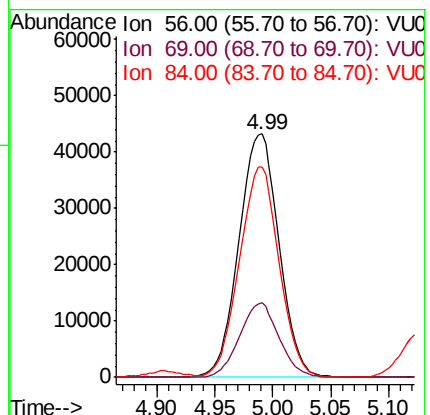
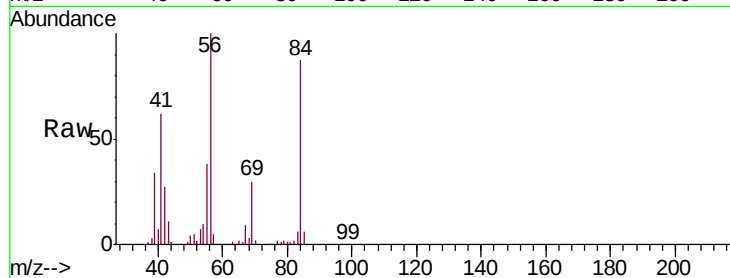
Tgt Ion: 56 Resp: 104046

Ion Ratio Lower Upper

56 100

69 30.0 24.2 36.4

84 84.9 68.0 102.0



#30

1,1,1-Trichloroethane

Concen: 52.393 ug/L

RT: 4.91 min Scan# 1187

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

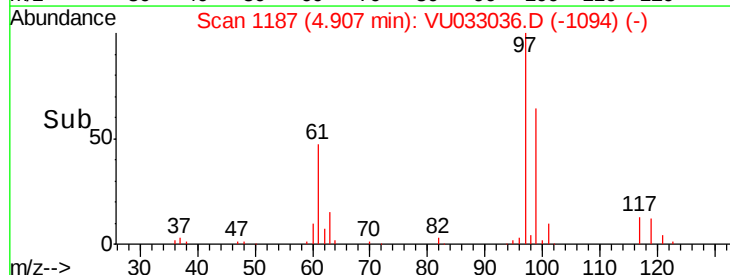
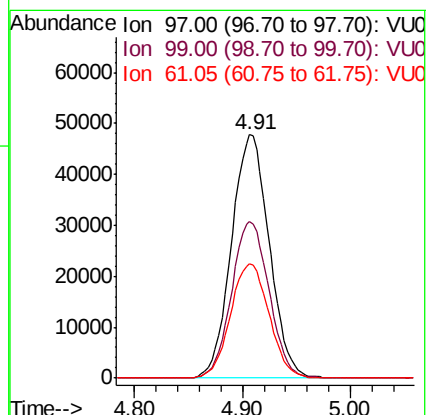
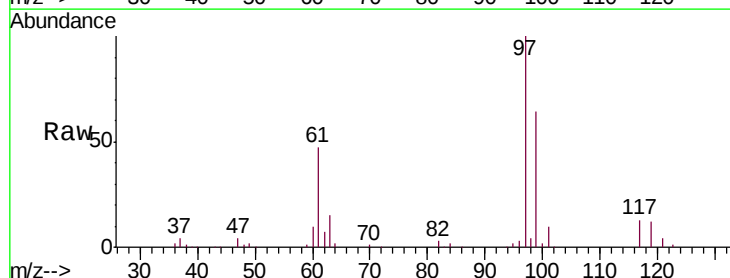
Tgt Ion: 97 Resp: 116273

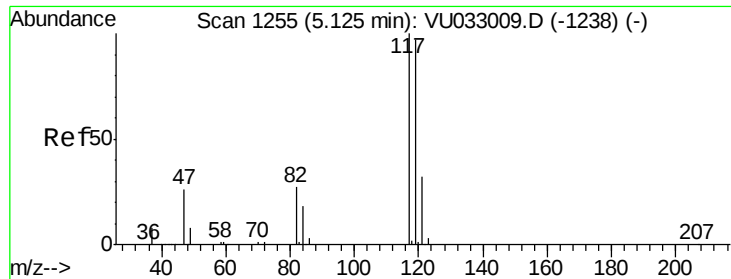
Ion Ratio Lower Upper

97 100

99 63.8 50.7 76.1

61 48.0 36.7 55.1

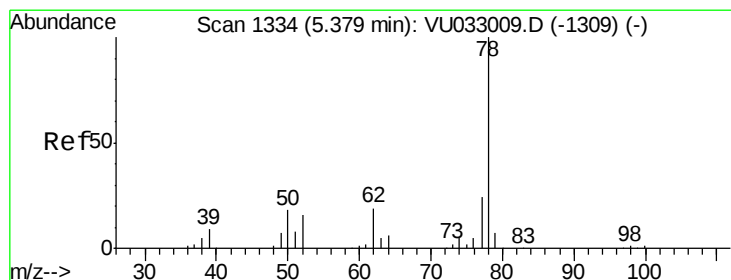
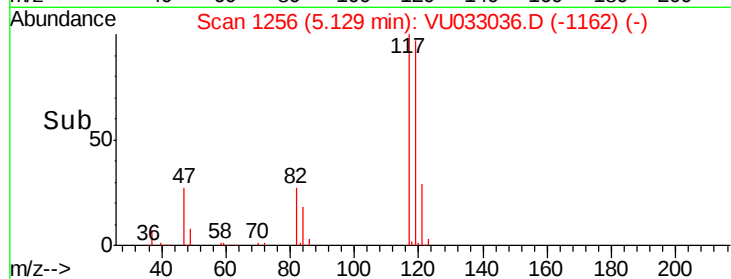
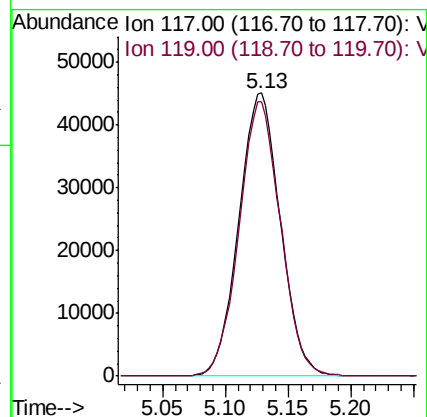
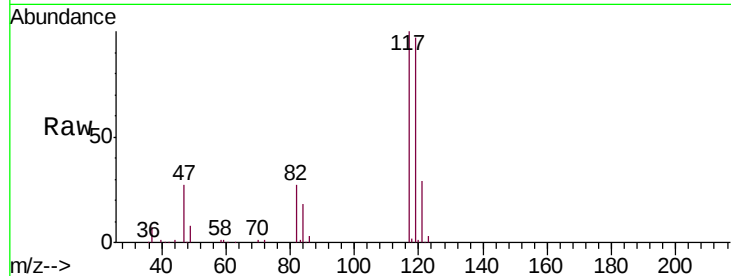




#31  
Carbon tetrachloride  
Concen: 51.316 ug/L  
RT: 5.13 min Scan# 1256  
Delta R.T. 0.00 min  
Lab File: VU033036.D  
Acq: 25 Jun 2019 03:07

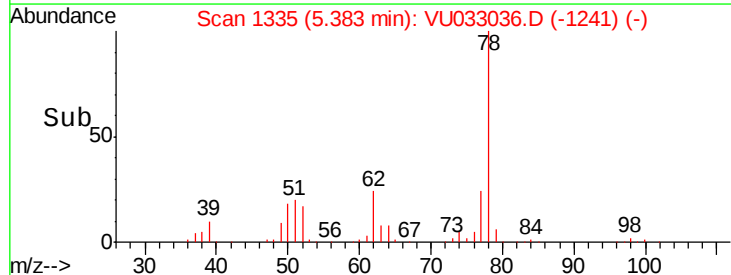
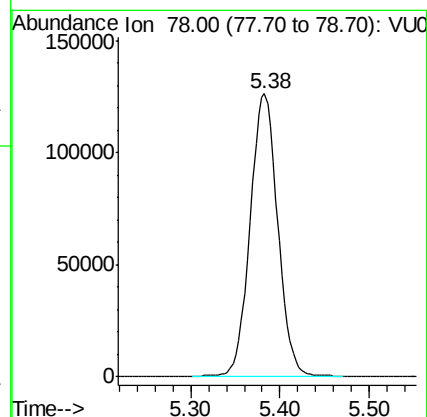
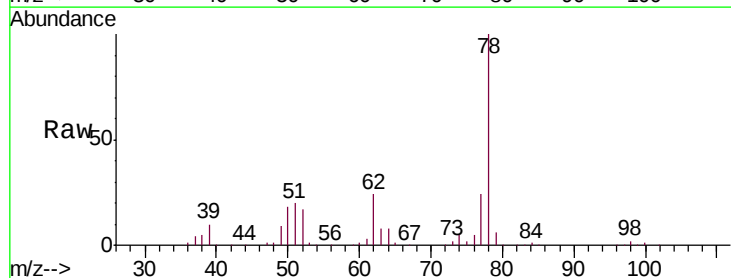
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05038

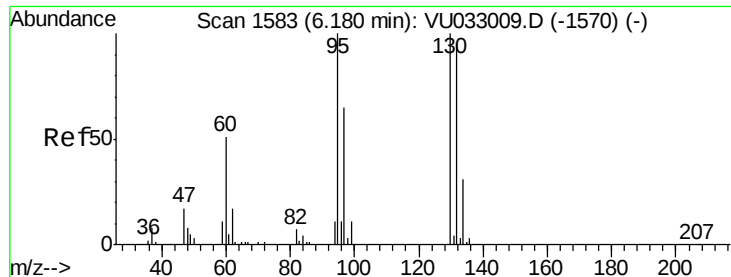
Tgt Ion:117 Resp: 103621  
Ion Ratio Lower Upper  
117 100  
119 96.6 76.3 114.5



#33  
Benzene  
Concen: 51.908 ug/L  
RT: 5.38 min Scan# 1335  
Delta R.T. 0.00 min  
Lab File: VU033036.D  
Acq: 25 Jun 2019 03:07

Tgt Ion: 78 Resp: 272388

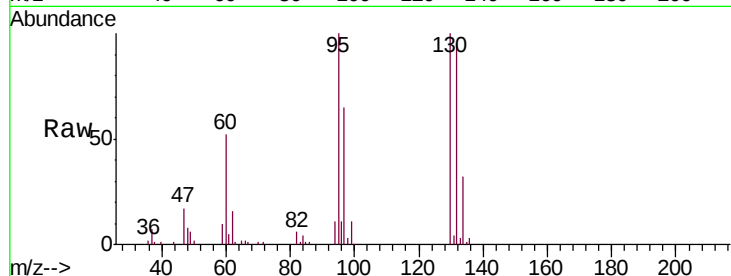




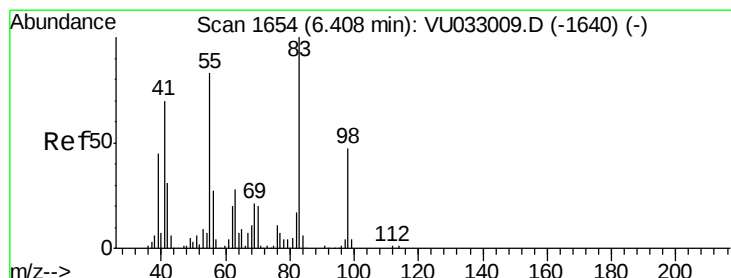
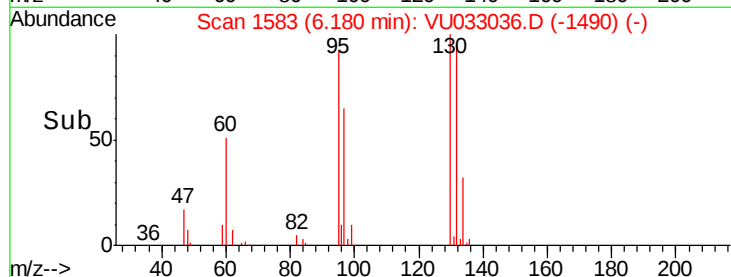
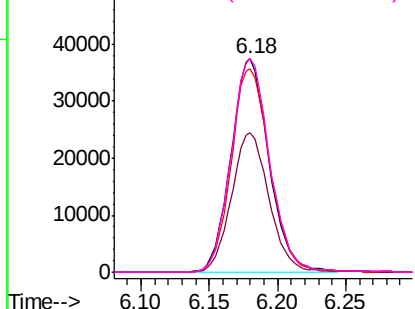
#34  
 Trichloroethene  
 Concen: 51.517 ug/L  
 RT: 6.18 min Scan# 1583  
 Delta R.T. 0.00 min  
 Lab File: VU033036.D  
 Acq: 25 Jun 2019 03:07

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05038

Tgt Ion: 95 Resp: 72229  
 Ion Ratio Lower Upper  
 95 100  
 97 65.4 45.9 85.3  
 132 95.0 68.5 127.3  
 130 100.0 70.8 131.4

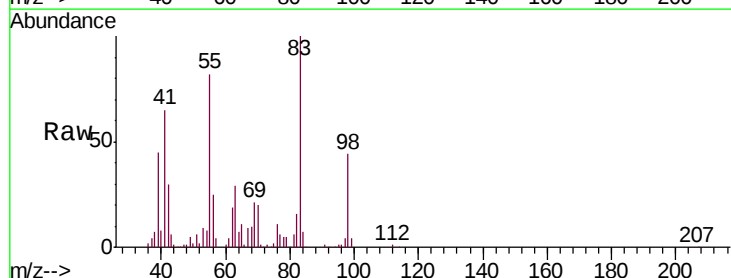


Abundance Ion 95.00 (94.70 to 95.70): VU0  
 Ion 97.00 (96.70 to 97.70): VU0  
 Ion 132.00 (131.70 to 132.70): V  
 Ion 130.00 (129.70 to 130.70): V

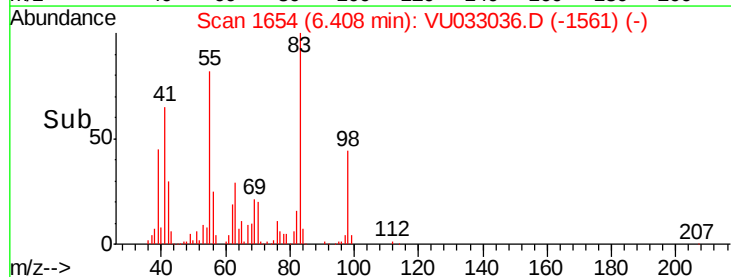
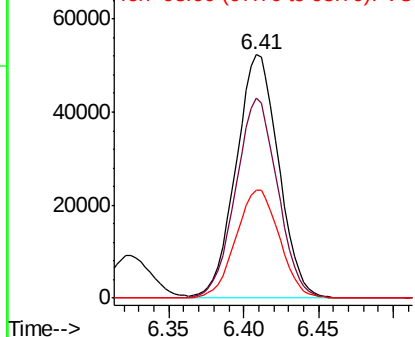


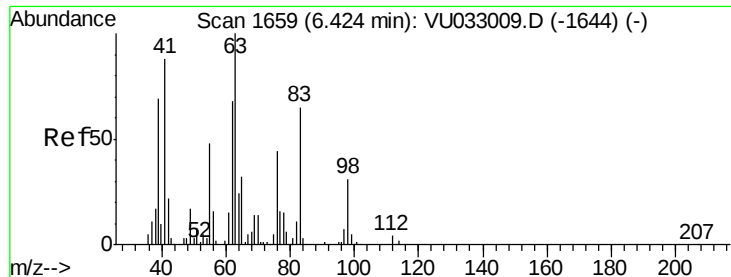
#35  
 Methylcyclohexane  
 Concen: 47.933 ug/L  
 RT: 6.41 min Scan# 1654  
 Delta R.T. 0.00 min  
 Lab File: VU033036.D  
 Acq: 25 Jun 2019 03:07

Tgt Ion: 83 Resp: 103881  
 Ion Ratio Lower Upper  
 83 100  
 55 80.6 62.6 94.0  
 98 45.3 37.4 56.0



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

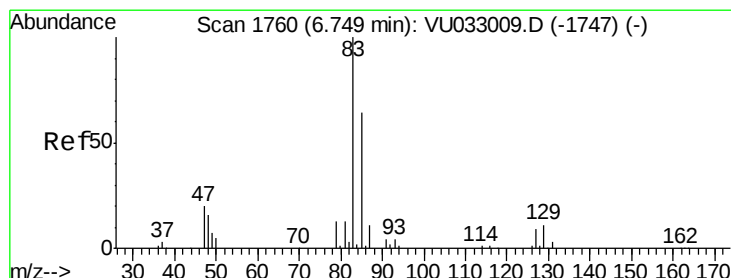
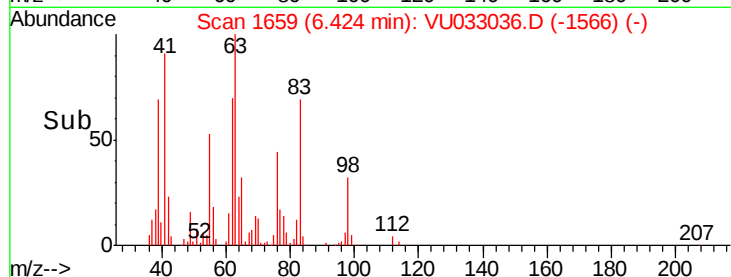
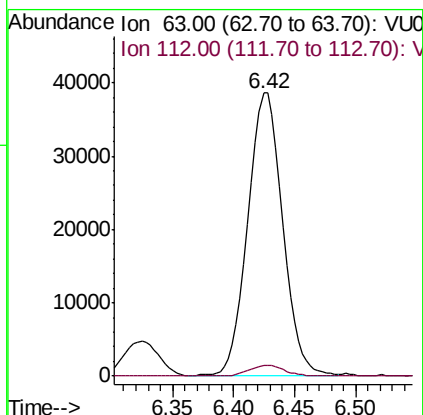
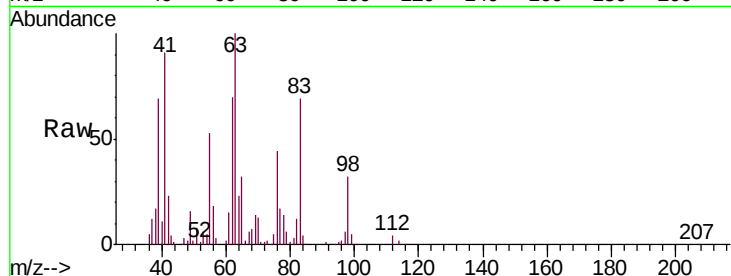




#37  
 1,2-Dichloropropane  
 Concen: 53.059 ug/L  
 RT: 6.42 min Scan# 1659  
 Delta R.T. 0.00 min  
 Lab File: VU033036.D  
 Acq: 25 Jun 2019 03:07

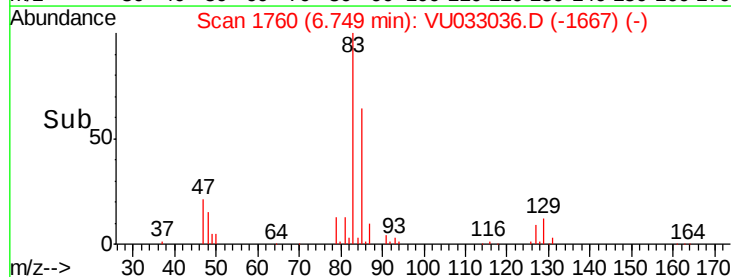
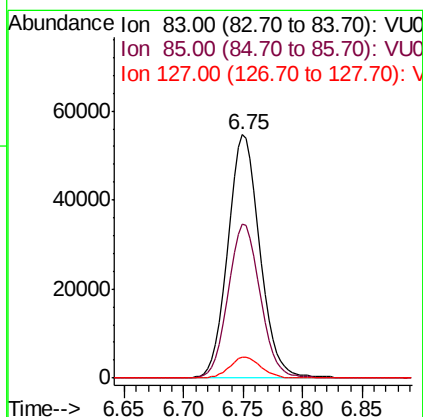
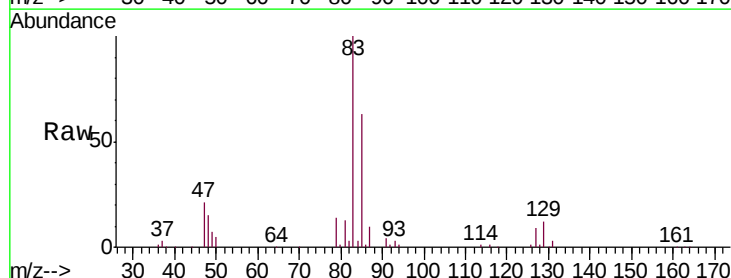
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05038

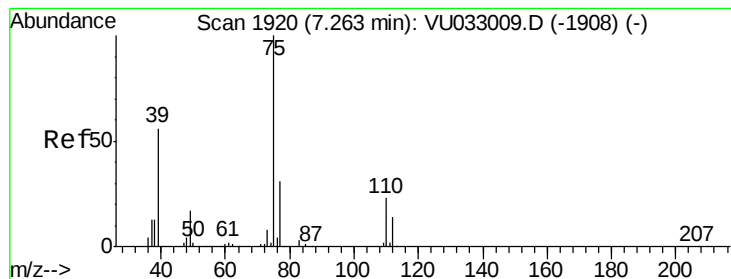
Tgt Ion: 63 Resp: 76374  
 Ion Ratio Lower Upper  
 63 100  
 112 3.9 3.0 4.6



#38  
 Bromodichloromethane  
 Concen: 52.597 ug/L  
 RT: 6.75 min Scan# 1760  
 Delta R.T. 0.00 min  
 Lab File: VU033036.D  
 Acq: 25 Jun 2019 03:07

Tgt Ion: 83 Resp: 101802  
 Ion Ratio Lower Upper  
 83 100  
 85 63.2 45.0 83.6  
 127 8.8 7.0 10.6





#39

cis-1,3-Dichloropropene

Concen: 47.563 ug/L

RT: 7.26 min Scan# 1920

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

Instrument :

MSVOA\_U

ClientSampleId :

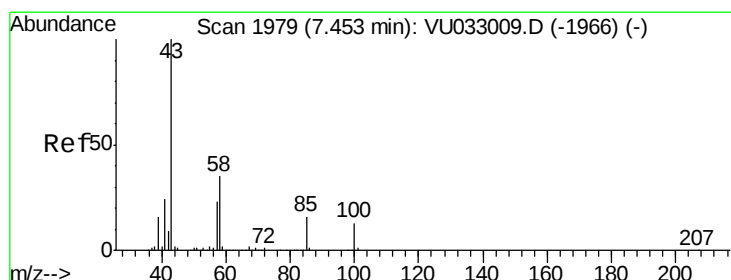
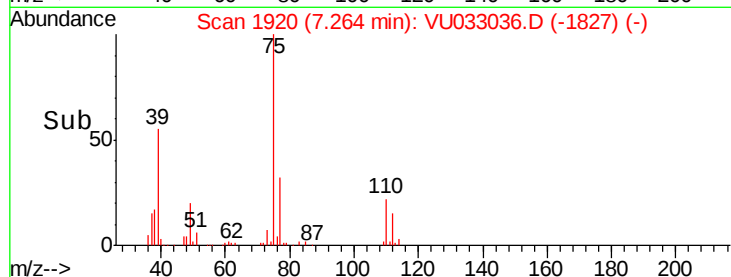
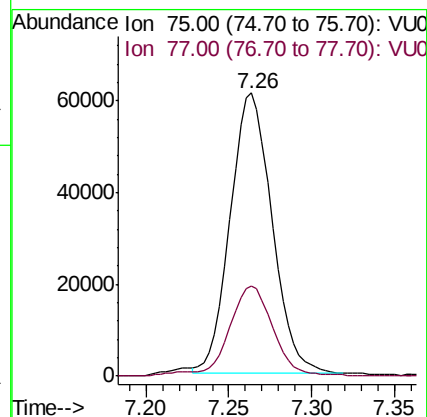
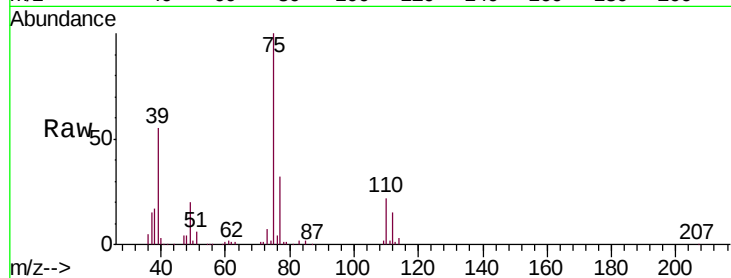
VSTD05038

Tgt Ion: 75 Resp: 106664

Ion Ratio Lower Upper

75 100

77 32.1 21.9 40.7



#40

4-Methyl-2-pentanone

Concen: 111.206 ug/L

RT: 7.45 min Scan# 1979

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

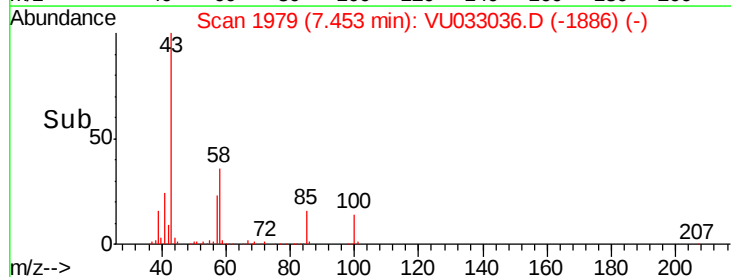
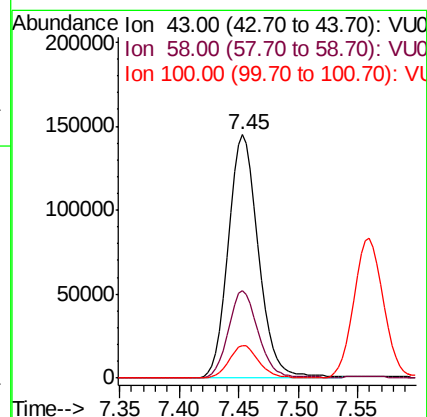
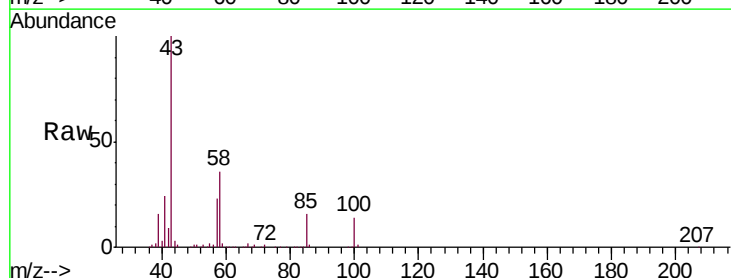
Tgt Ion: 43 Resp: 255560

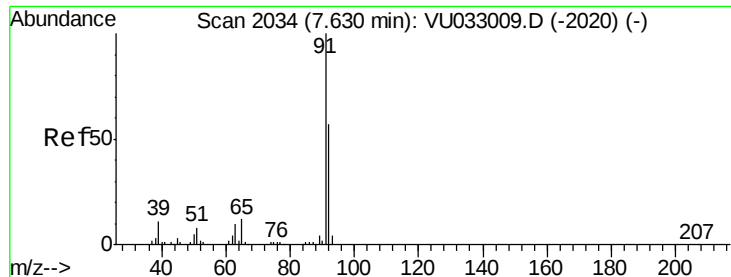
Ion Ratio Lower Upper

43 100

58 35.7 29.4 44.2

100 13.1 11.2 16.8





#42

Toluene

Concen: 51.564 ug/L

RT: 7.63 min Scan# 2034

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

Instrument :

MSVOA\_U

ClientSampleId :

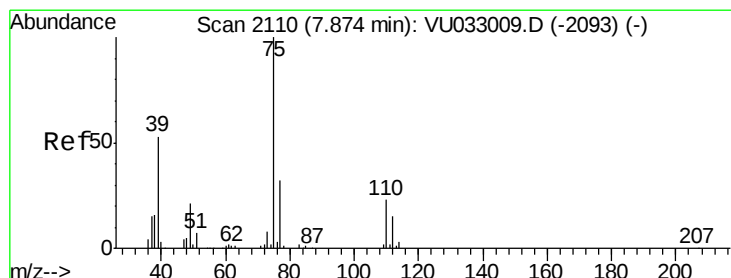
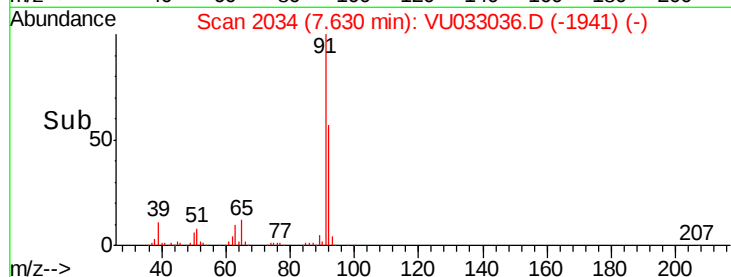
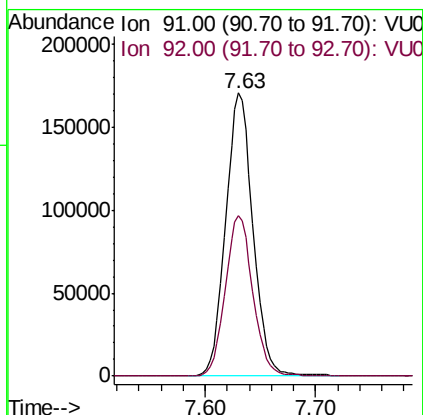
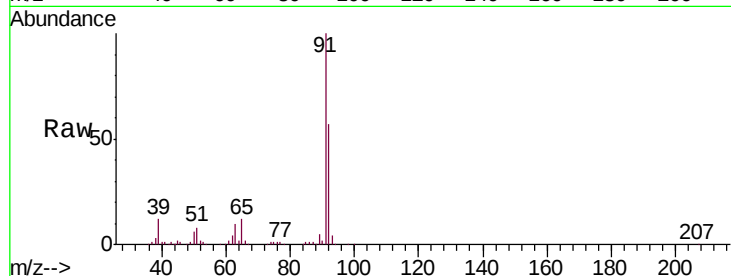
VSTD05038

Tgt Ion: 91 Resp: 292756

Ion Ratio Lower Upper

91 100

92 56.9 40.4 75.0



#44

trans-1,3-Dichloropropene

Concen: 49.736 ug/L

RT: 7.87 min Scan# 2110

Delta R.T. 0.00 min

Lab File: VU033036.D

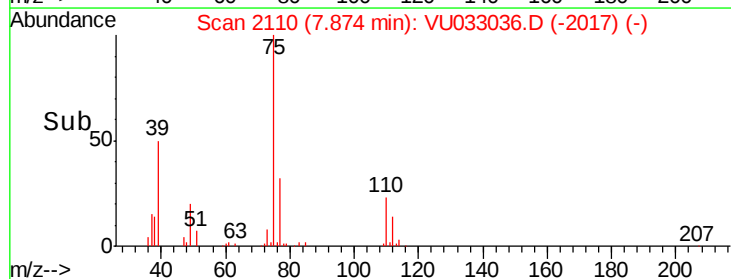
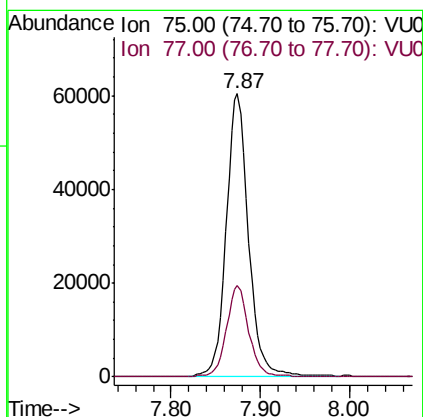
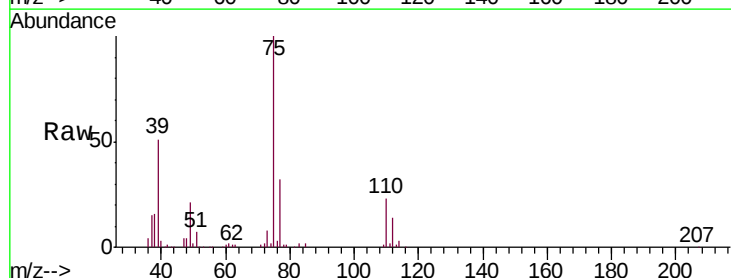
Acq: 25 Jun 2019 03:07

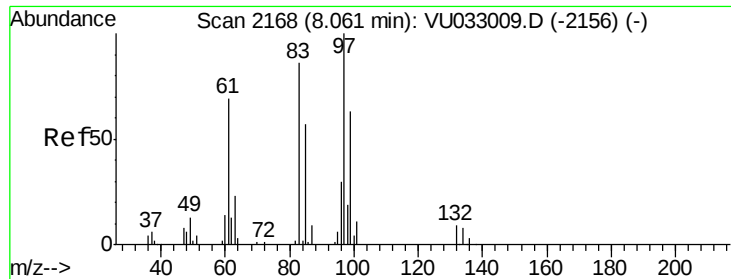
Tgt Ion: 75 Resp: 104762

Ion Ratio Lower Upper

75 100

77 32.1 21.8 40.4

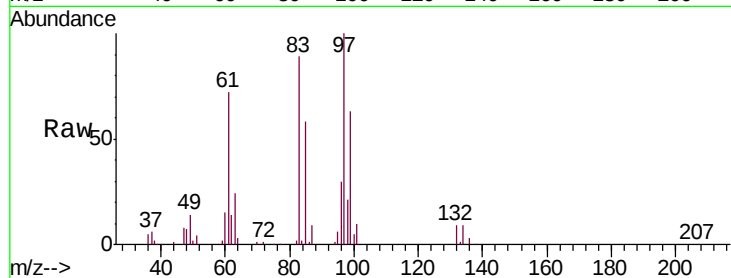




#45  
 1,1,2-Trichloroethane  
 Concen: 52.394 ug/L  
 RT: 8.06 min Scan# 2168  
 Delta R.T. 0.00 min  
 Lab File: VU033036.D  
 Acq: 25 Jun 2019 03:07

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05038

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 97    | Resp: | 70196 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 99       | 62.7  | 43.1  | 80.1  |
| 83       | 88.8  | 61.4  | 114.0 |
| 85       | 57.5  | 39.2  | 72.8  |



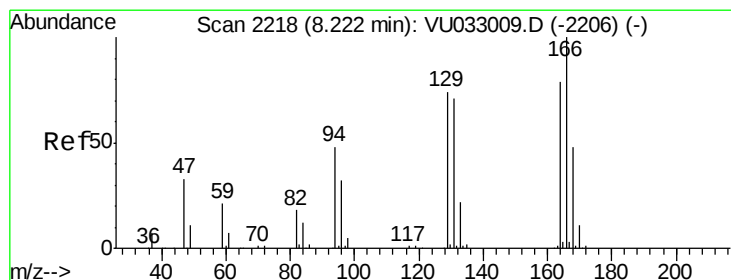
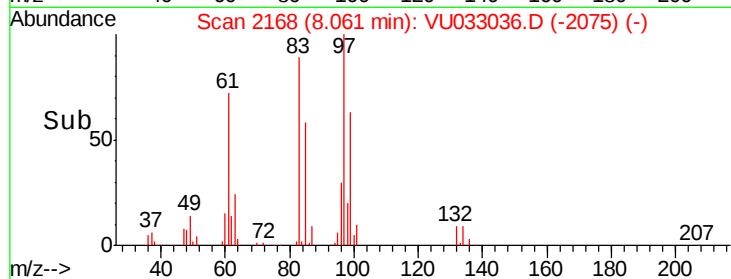
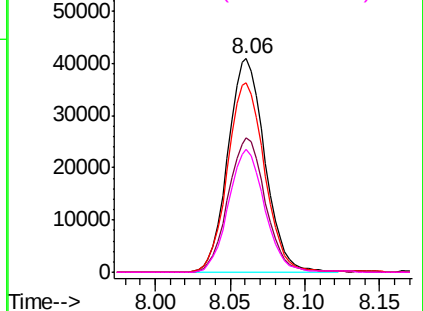
Abundance

Ion 97.00 (96.70 to 97.70): VU033036.D (-2156) (-)

Ion 99.00 (98.70 to 99.70): VU033036.D (-2156) (-)

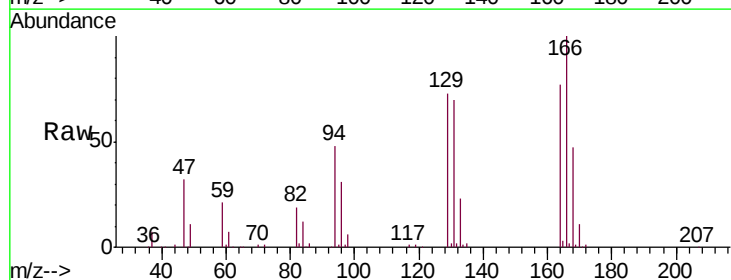
Ion 83.00 (82.70 to 83.70): VU033036.D (-2156) (-)

Ion 85.00 (84.70 to 85.70): VU033036.D (-2156) (-)



#46  
 Tetrachloroethene  
 Concen: 50.504 ug/L  
 RT: 8.22 min Scan# 2218  
 Delta R.T. 0.00 min  
 Lab File: VU033036.D  
 Acq: 25 Jun 2019 03:07

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 164   | Resp: | 58023 |
| Ion      | Ratio | Lower | Upper |
| 164      | 100   |       |       |
| 129      | 94.2  | 64.8  | 120.3 |
| 131      | 90.4  | 64.5  | 119.7 |
| 166      | 129.1 | 91.3  | 169.6 |



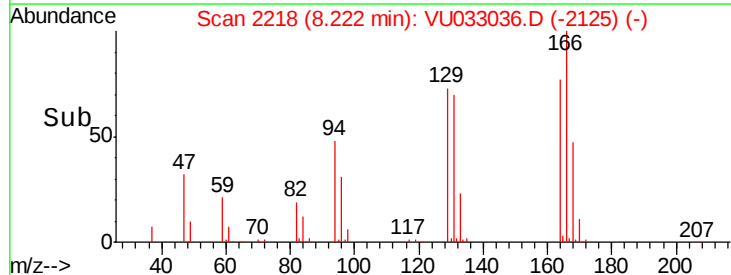
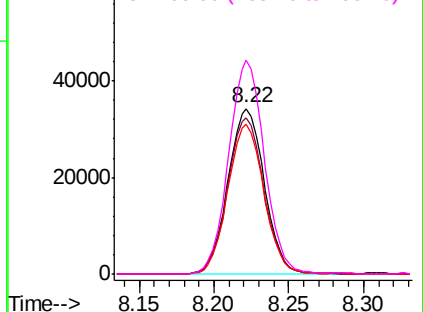
Abundance

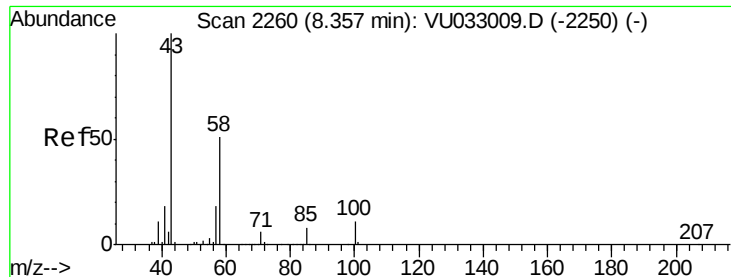
Ion 164.00 (163.70 to 164.70): VU033036.D (-2215) (-)

Ion 129.00 (128.70 to 129.70): VU033036.D (-2215) (-)

Ion 131.00 (130.70 to 131.70): VU033036.D (-2215) (-)

Ion 166.00 (165.70 to 166.70): VU033036.D (-2215) (-)

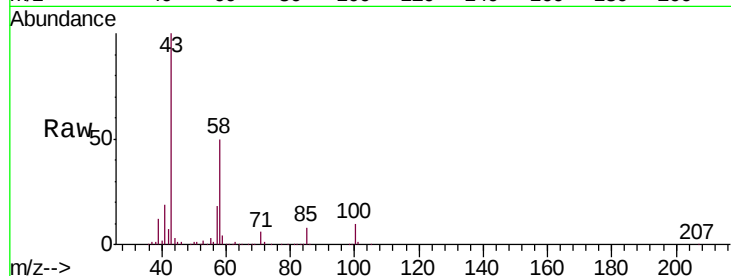




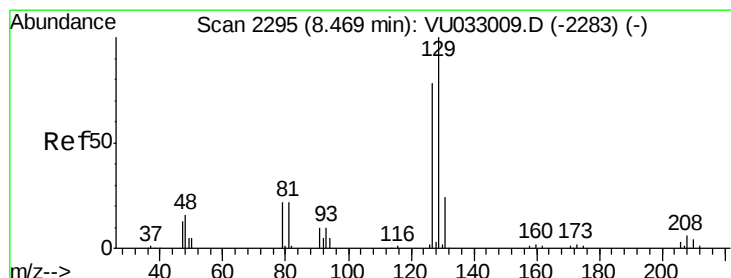
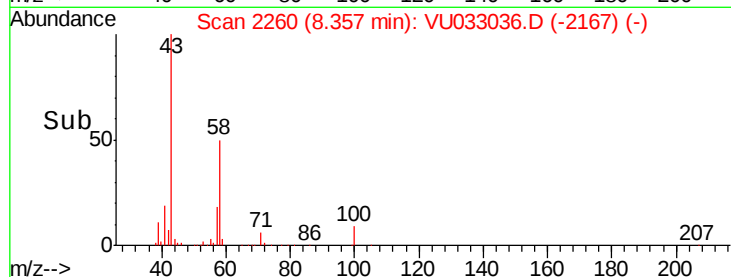
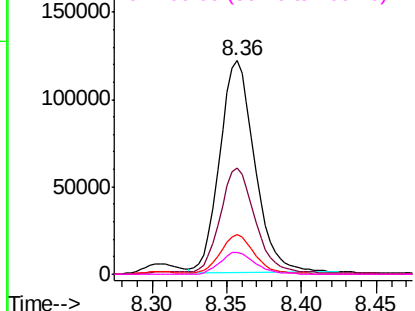
#48  
2-Hexanone  
Concen: 98.239 ug/L  
RT: 8.36 min Scan# 2260  
Delta R.T. 0.00 min  
Lab File: VU033036.D  
Acq: 25 Jun 2019 03:07

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05038

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 199190 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 58       | 49.3  | 40.2  | 60.2   |
| 57       | 18.6  | 14.2  | 21.4   |
| 100      | 10.2  | 8.4   | 12.6   |

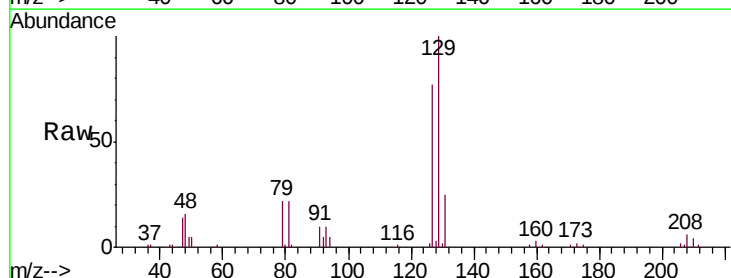


Abundance Ion 43.00 (42.70 to 43.70): VU0  
Ion 58.00 (57.70 to 58.70): VU0  
Ion 57.00 (56.70 to 57.70): VU0  
Ion 100.00 (99.70 to 100.70): VU0

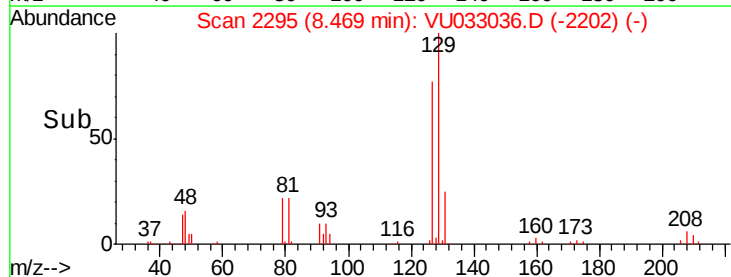
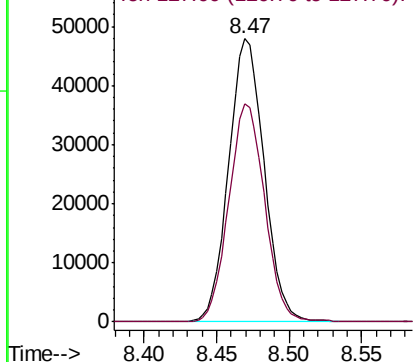


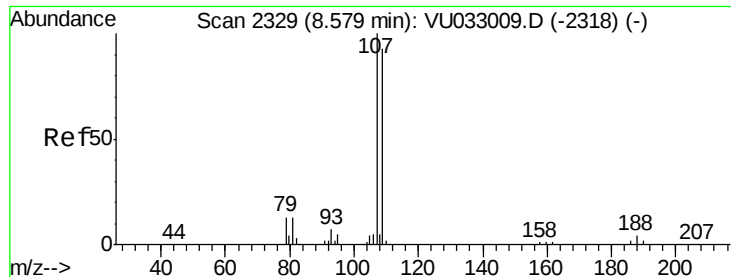
#49  
Dibromochloromethane  
Concen: 50.457 ug/L  
RT: 8.47 min Scan# 2295  
Delta R.T. 0.00 min  
Lab File: VU033036.D  
Acq: 25 Jun 2019 03:07

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 129   | Resp: | 81494 |
| Ion      | Ratio | Lower | Upper |
| 129      | 100   |       |       |
| 127      | 77.0  | 52.3  | 97.1  |



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

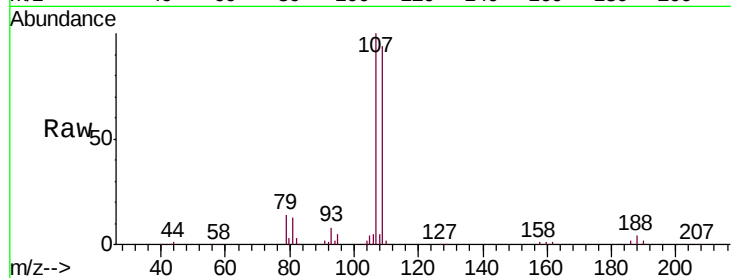




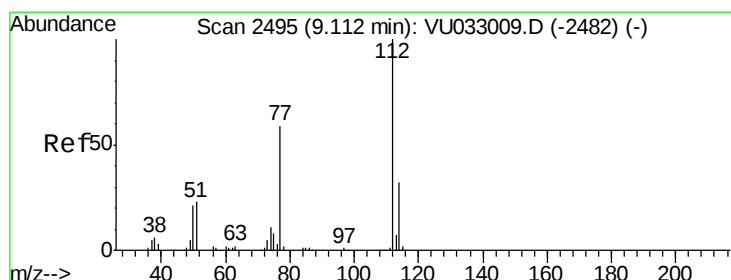
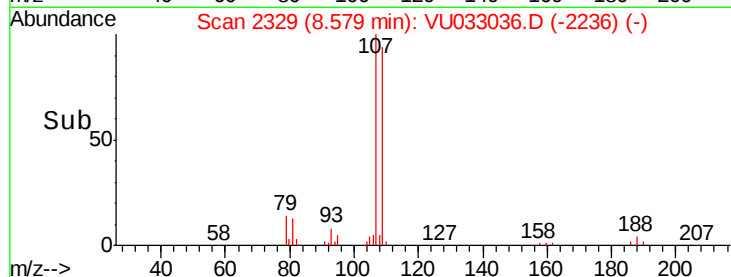
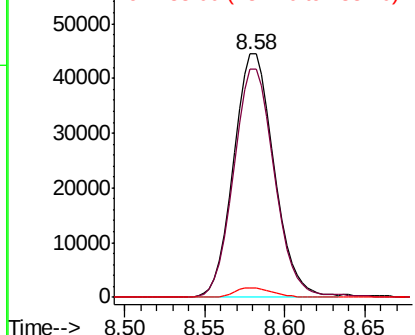
#50  
1,2-Dibromoethane  
Concen: 51.558 ug/L  
RT: 8.58 min Scan# 2329  
Delta R.T. 0.00 min  
Lab File: VU033036.D  
Acq: 25 Jun 2019 03:07

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05038

Tgt Ion:107 Resp: 76712  
Ion Ratio Lower Upper  
107 100  
109 93.6 65.4 121.4  
188 3.9 3.1 4.7

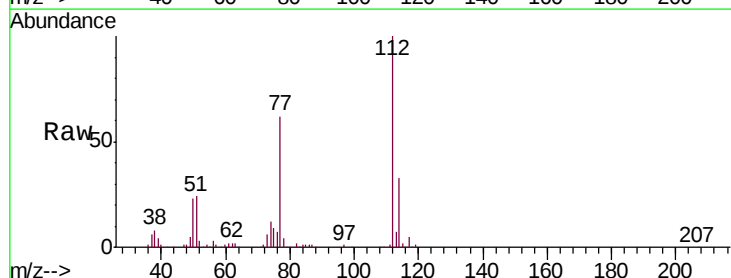


Abundance Ion 107.00 (106.70 to 107.70): V  
Ion 109.00 (108.70 to 109.70): V  
Ion 188.00 (187.70 to 188.70): V

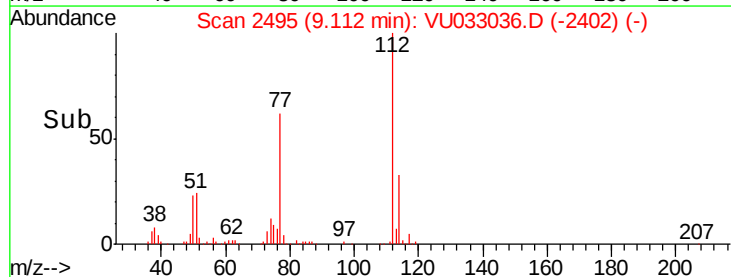
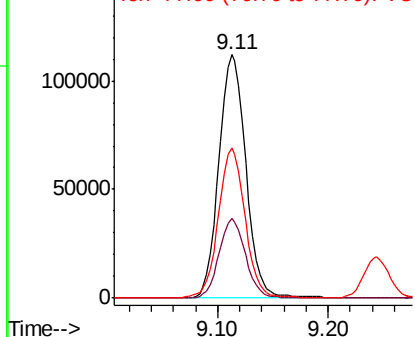


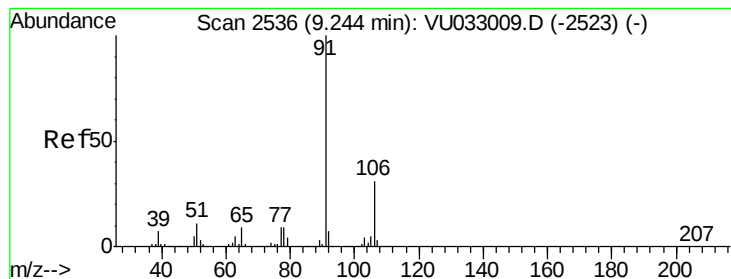
#51  
Chlorobenzene  
Concen: 50.997 ug/L  
RT: 9.11 min Scan# 2495  
Delta R.T. 0.00 min  
Lab File: VU033036.D  
Acq: 25 Jun 2019 03:07

Tgt Ion:112 Resp: 190529  
Ion Ratio Lower Upper  
112 100  
114 32.5 22.8 42.4  
77 61.9 46.3 69.5



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): VU





#52

Ethylbenzene

Concen: 52.320 ug/L

RT: 9.24 min Scan# 2536

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

Instrument :

MSVOA\_U

ClientSampleId :

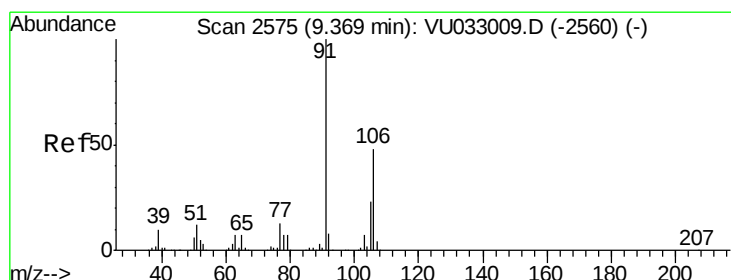
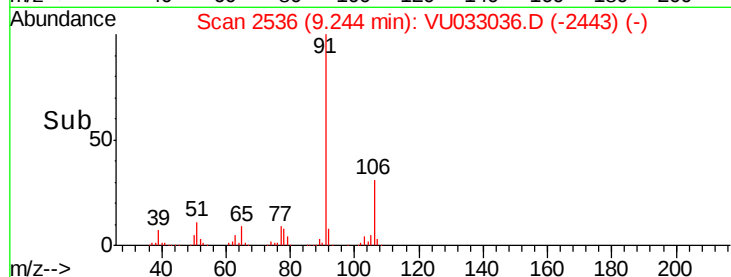
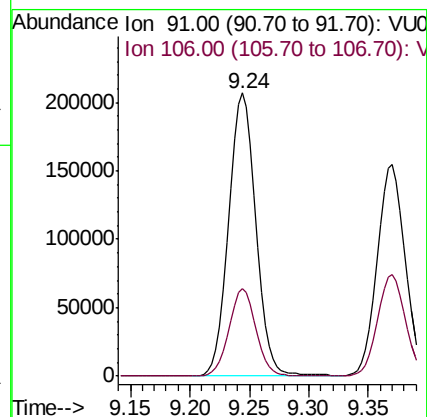
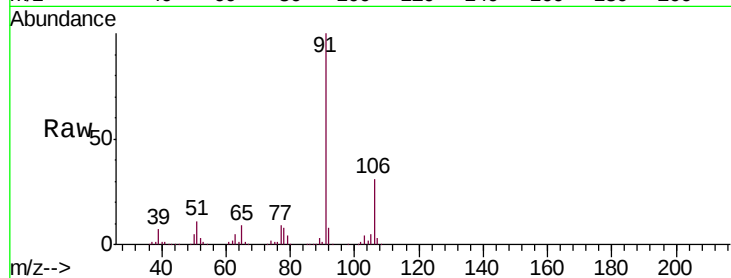
VSTD05038

Tgt Ion: 91 Resp: 328802

Ion Ratio Lower Upper

91 100

106 31.0 21.8 40.4



#53

m,p-Xylene

Concen: 51.154 ug/L

RT: 9.37 min Scan# 2575

Delta R.T. 0.00 min

Lab File: VU033036.D

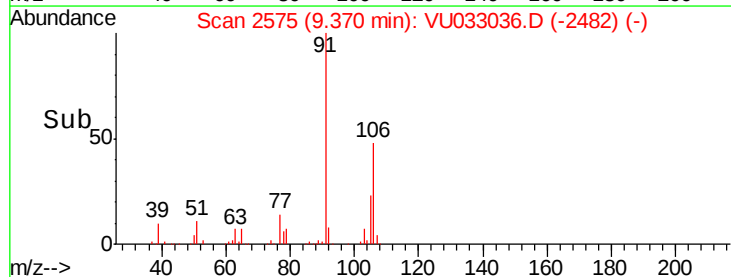
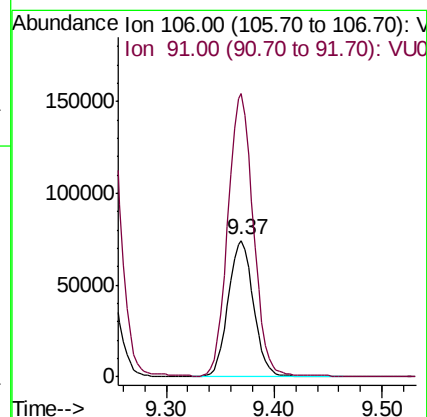
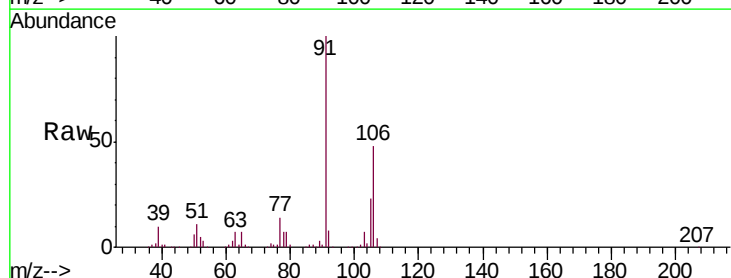
Acq: 25 Jun 2019 03:07

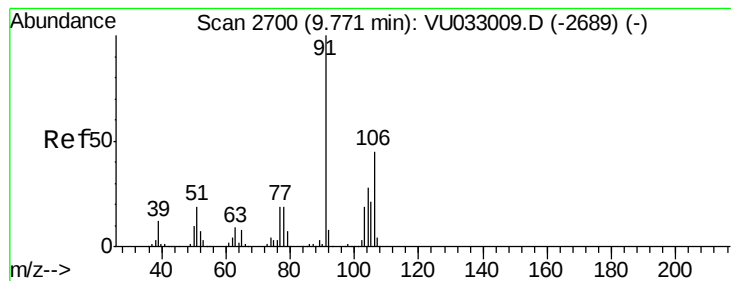
Tgt Ion: 106 Resp: 121292

Ion Ratio Lower Upper

106 100

91 207.3 142.9 265.5





#54

o-xylene

Concen: 52.354 ug/L

RT: 9.77 min Scan# 2701

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

Instrument :

MSVOA\_U

ClientSampleId :

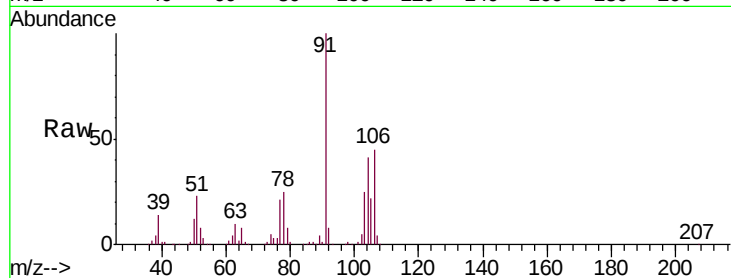
VSTD05038

Tgt Ion:106 Resp: 121228

Ion Ratio Lower Upper

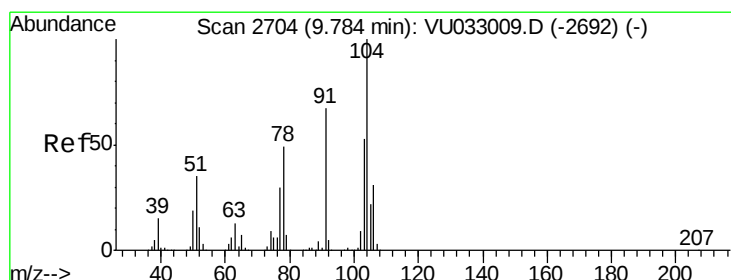
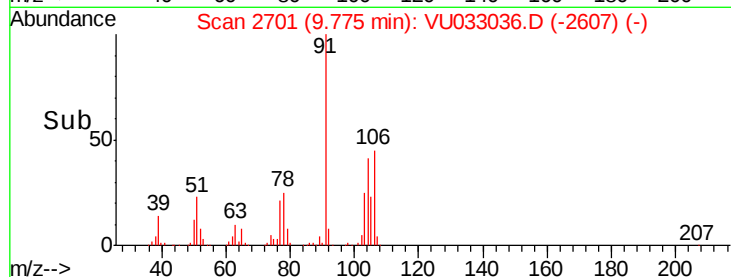
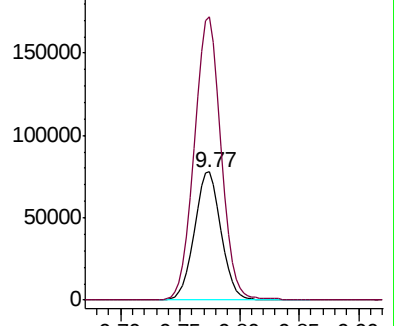
106 100

91 220.5 152.9 284.1



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VU0



#55

Styrene

Concen: 52.184 ug/L

RT: 9.79 min Scan# 2705

Delta R.T. 0.00 min

Lab File: VU033036.D

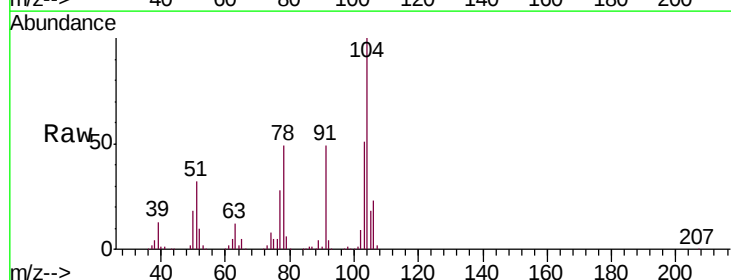
Acq: 25 Jun 2019 03:07

Tgt Ion:104 Resp: 209626

Ion Ratio Lower Upper

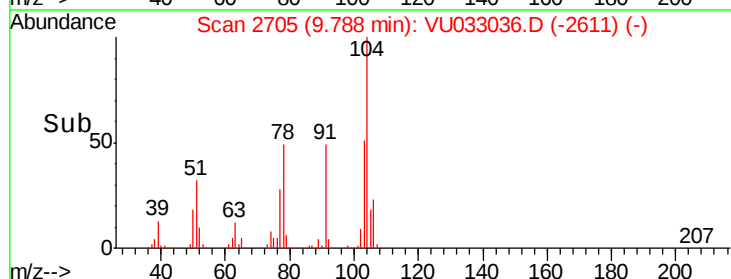
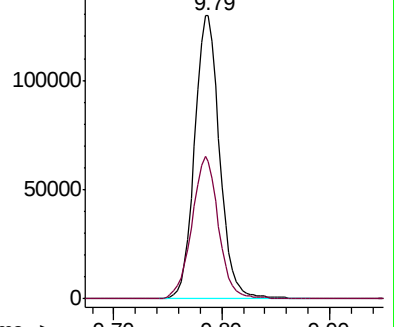
104 100

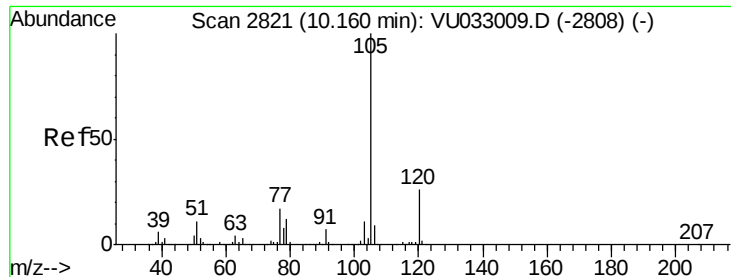
78 48.5 32.1 59.5



Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VU0





#56

Isopropylbenzene

Concen: 52.162 ug/L

RT: 10.16 min Scan# 2821

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

Instrument :

MSVOA\_U

ClientSampled :

VSTD05038

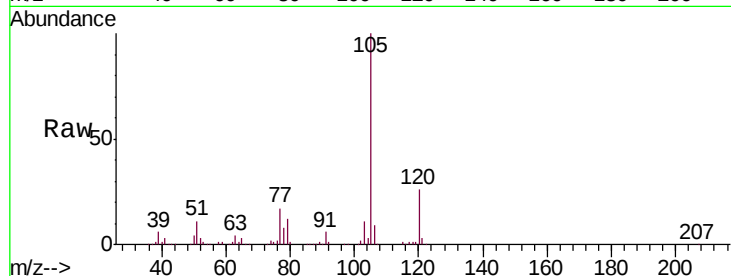
Tgt Ion: 105 Resp: 325502

Ion Ratio Lower Upper

105 100

120 26.1 21.4 32.0

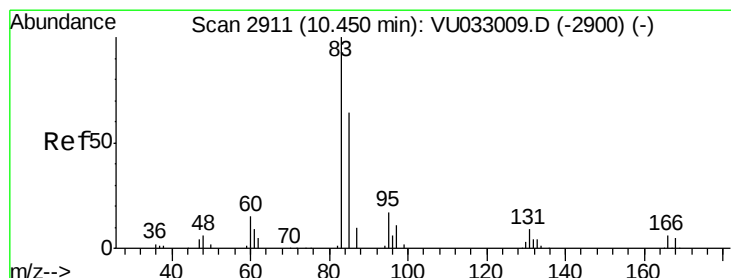
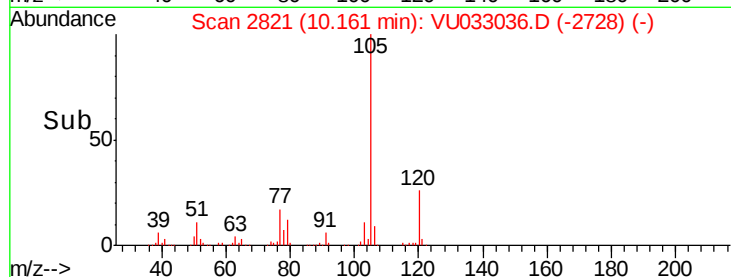
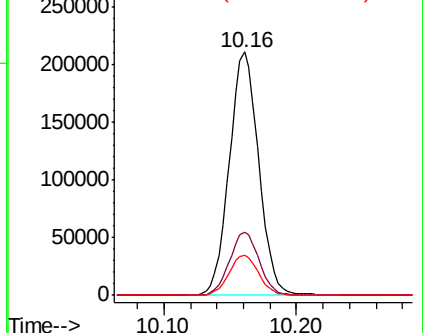
77 16.8 13.0 19.4



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: 51.709 ug/L

RT: 10.45 min Scan# 2911

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

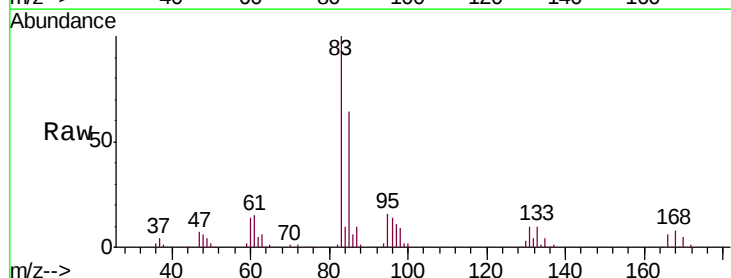
Tgt Ion: 83 Resp: 125359

Ion Ratio Lower Upper

83 100

85 63.8 45.8 85.2

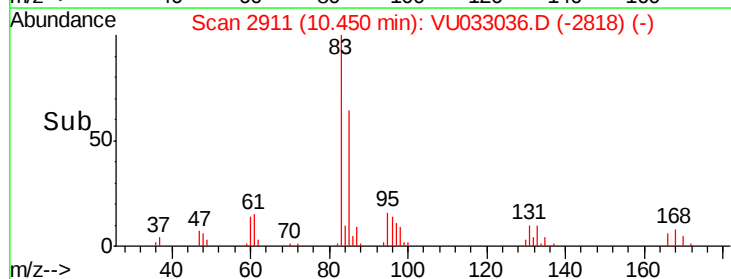
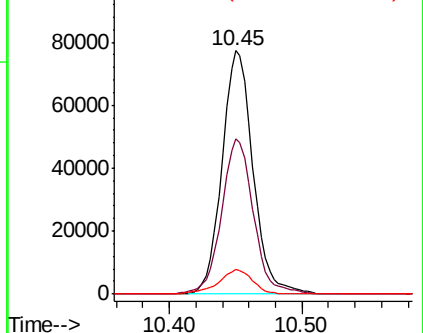
131 10.0 7.8 11.8

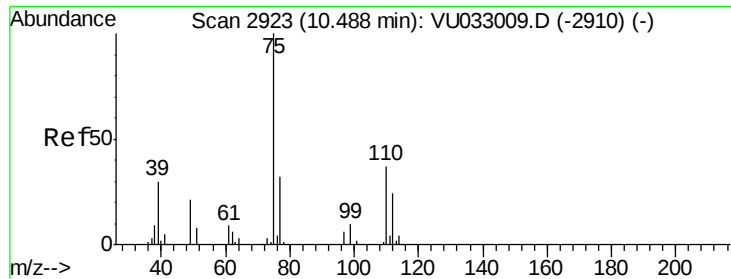


Abundance Ion 83.00 (82.70 to 83.70): V

Ion 85.00 (84.70 to 85.70): V

Ion 131.00 (130.70 to 131.70): V





#59

1,2,3-Trichloropropane

Concen: 53.173 ug/L

RT: 10.49 min Scan# 2923

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

Instrument :

MSVOA\_U

ClientSampleId :

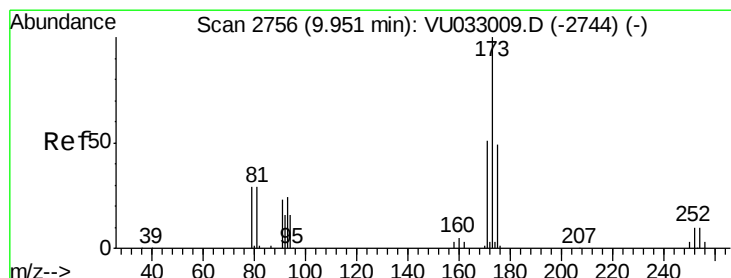
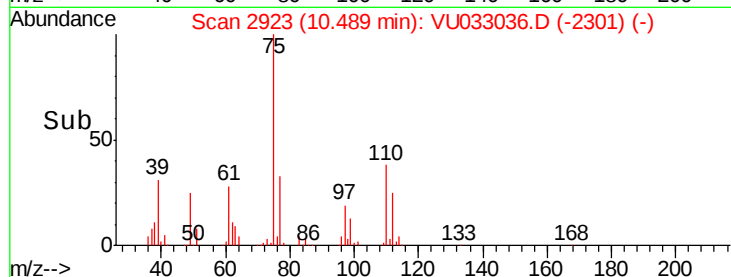
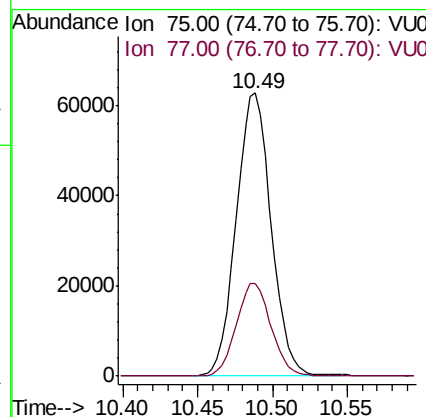
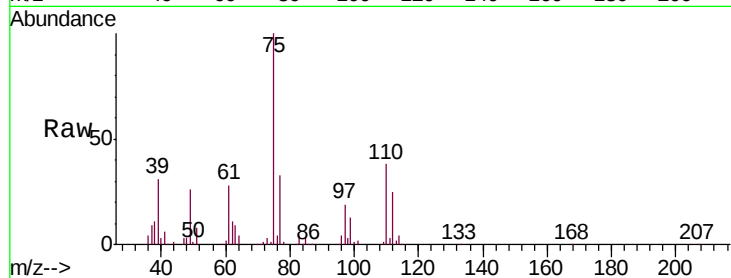
VSTD05038

Tgt Ion: 75 Resp: 102143

Ion Ratio Lower Upper

75 100

77 32.6 25.5 38.3



#61

Bromoform

Concen: 50.265 ug/L

RT: 9.95 min Scan# 2756

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

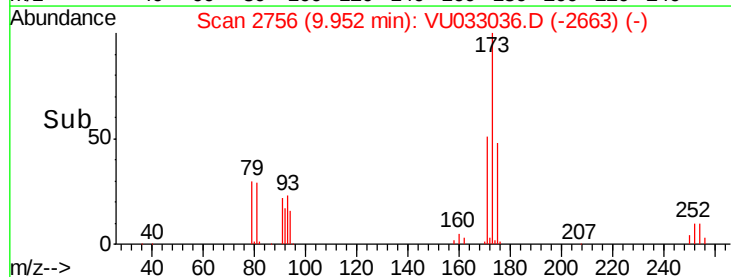
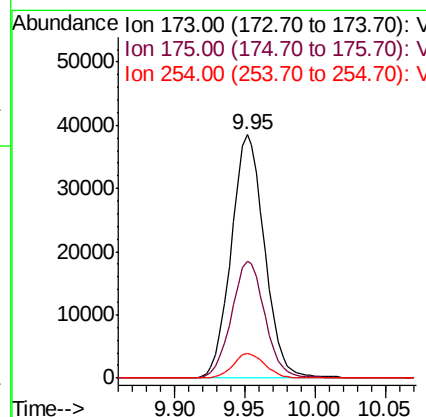
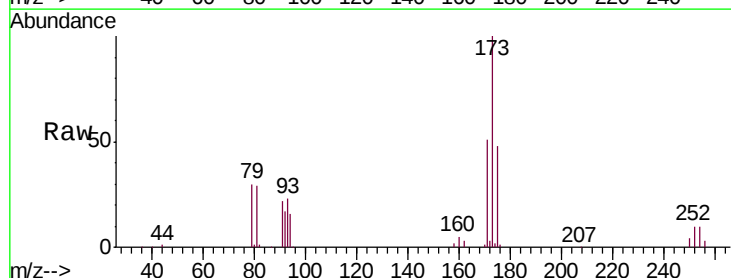
Tgt Ion: 173 Resp: 63608

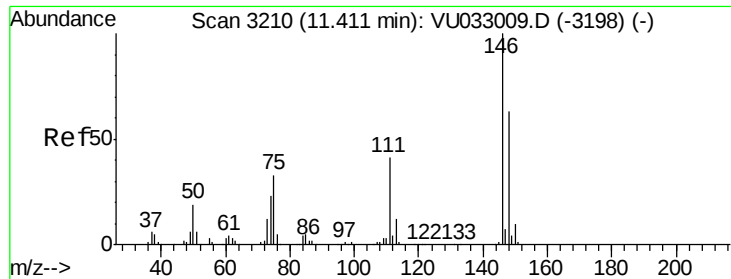
Ion Ratio Lower Upper

173 100

175 48.1 39.0 58.4

254 9.7 7.5 11.3

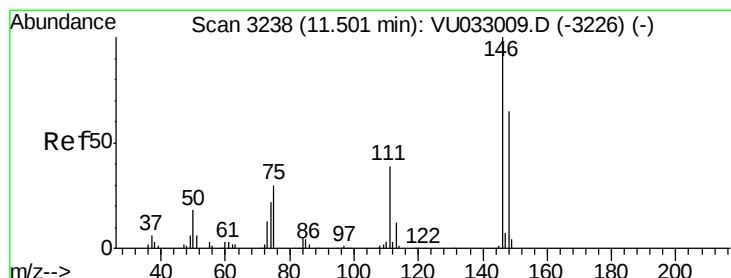
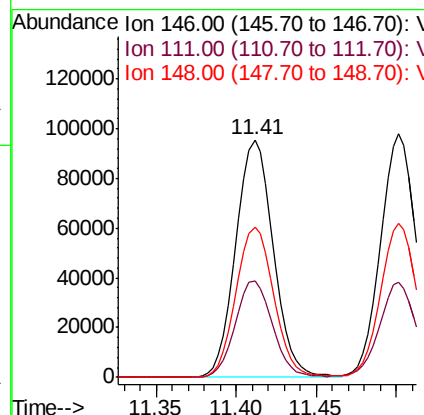
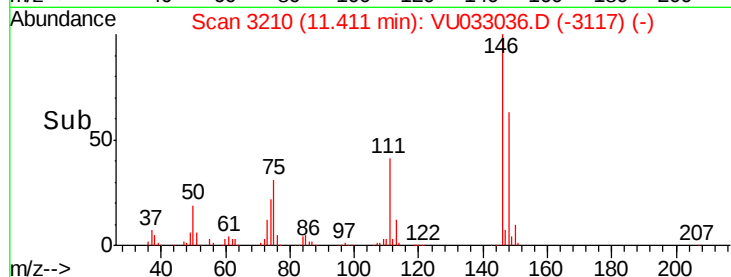
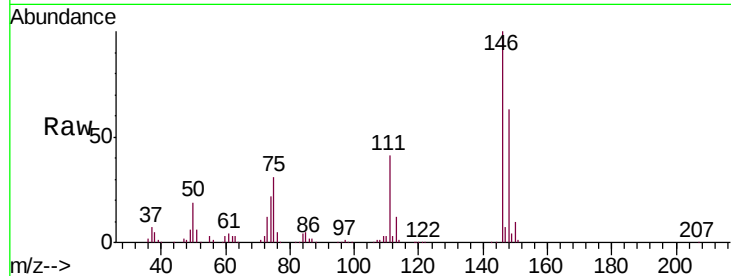




#62  
 1,3-Dichlorobenzene  
 Concen: 50.687 ug/L  
 RT: 11.41 min Scan# 3210  
 Delta R.T. 0.00 min  
 Lab File: VU033036.D  
 Acq: 25 Jun 2019 03:07

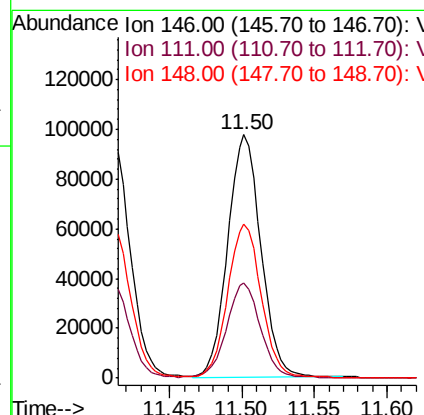
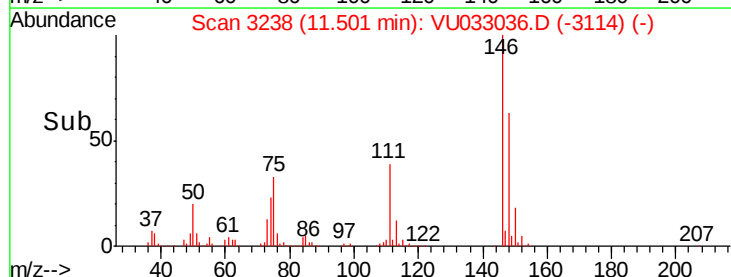
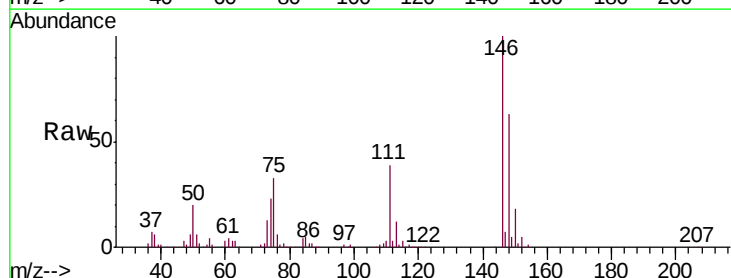
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05038

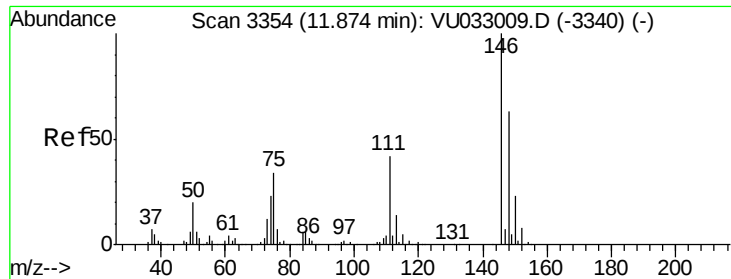
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 40.6  | 28.4  | 52.8  |
| 148     | 63.2  | 45.5  | 84.5  |



#63  
 1,4-Dichlorobenzene  
 Concen: 49.860 ug/L  
 RT: 11.50 min Scan# 3238  
 Delta R.T. 0.00 min  
 Lab File: VU033036.D  
 Acq: 25 Jun 2019 03:07

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 39.2  | 26.9  | 50.1  |
| 148     | 63.0  | 44.7  | 83.1  |

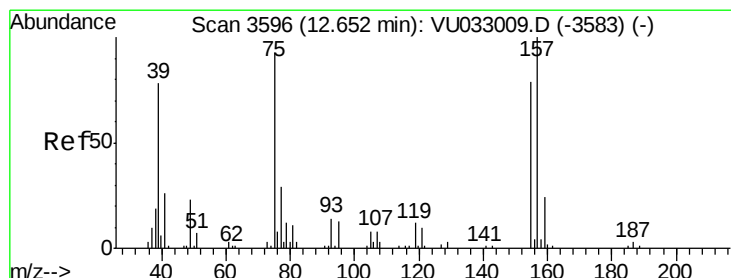
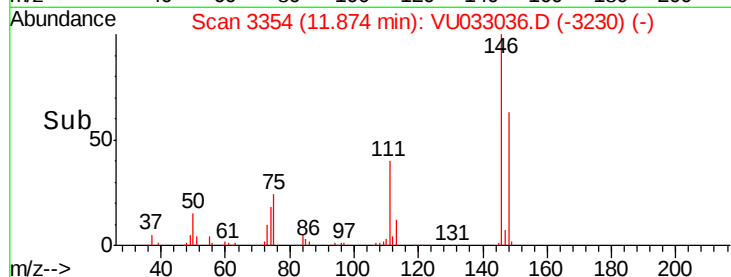
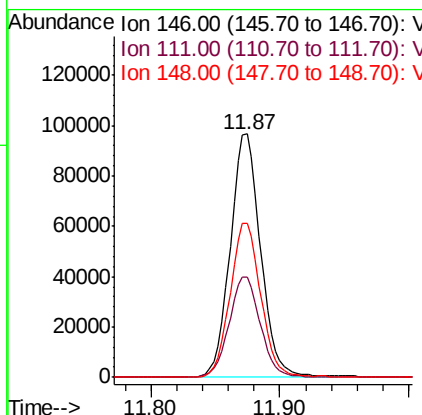
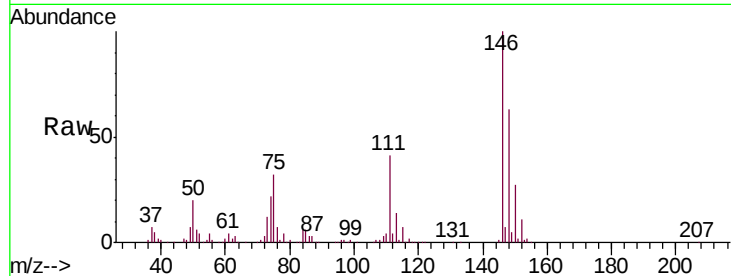




#65  
 1,2-Dichlorobenzene  
 Concen: 51.411 ug/L  
 RT: 11.87 min Scan# 3354  
 Delta R.T. 0.00 min  
 Lab File: VU033036.D  
 Acq: 25 Jun 2019 03:07

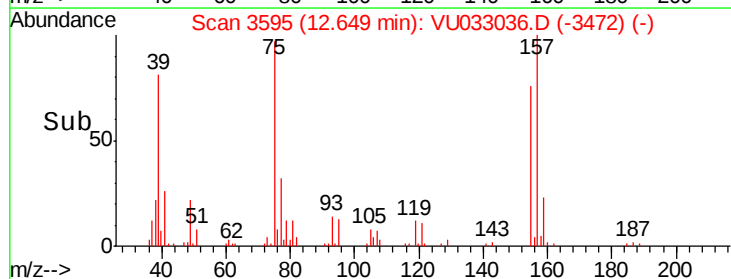
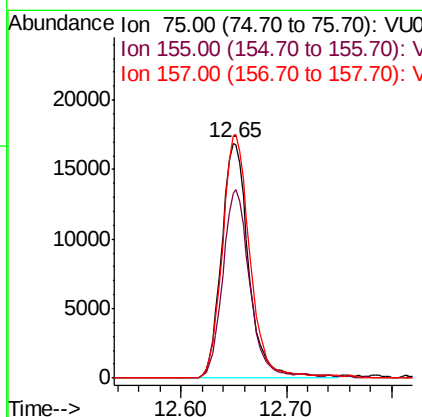
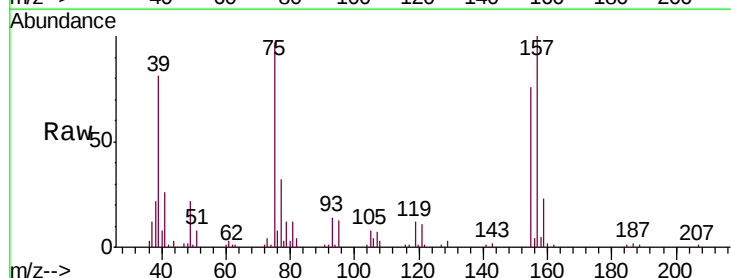
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05038

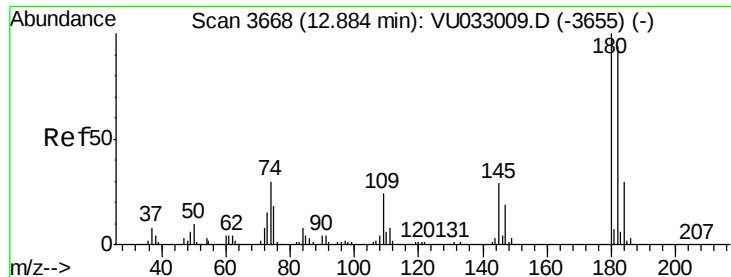
Tgt Ion:146 Resp: 158128  
 Ion Ratio Lower Upper  
 146 100  
 111 41.1 34.1 51.1  
 148 63.5 52.0 78.0



#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 51.399 ug/L  
 RT: 12.65 min Scan# 3595  
 Delta R.T. -0.00 min  
 Lab File: VU033036.D  
 Acq: 25 Jun 2019 03:07

Tgt Ion: 75 Resp: 30161  
 Ion Ratio Lower Upper  
 75 100  
 155 78.6 67.4 101.2  
 157 103.2 85.5 128.3

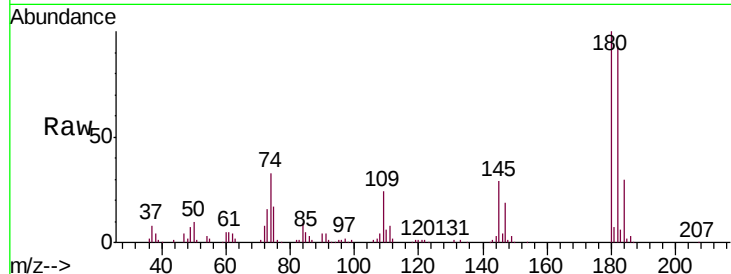




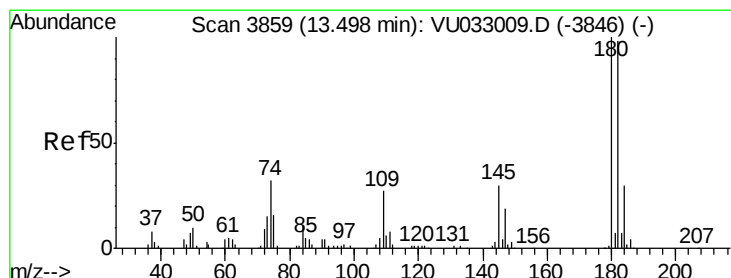
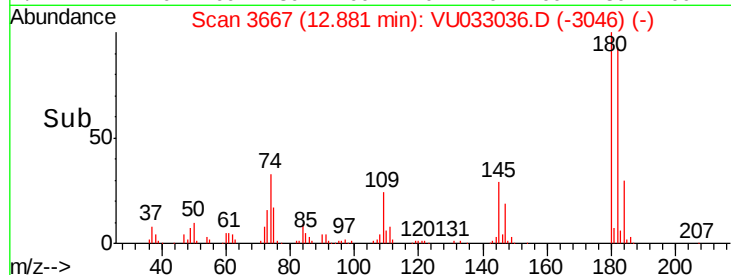
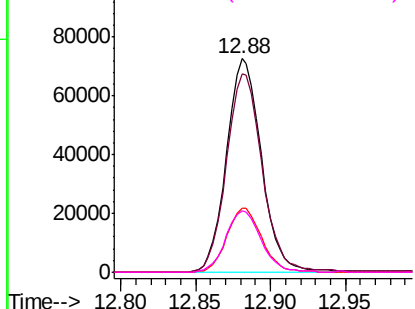
#67  
 1,3,5-Trichlorobenzene  
 Concen: 48.889 ug/L  
 RT: 12.88 min Scan# 3667  
 Delta R.T. -0.00 min  
 Lab File: VU033036.D  
 Acq: 25 Jun 2019 03:07

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05038

Tgt Ion:180 Resp: 118332  
 Ion Ratio Lower Upper  
 180 100  
 182 94.7 78.3 117.5  
 184 30.1 24.8 37.2  
 145 29.0 23.4 35.2

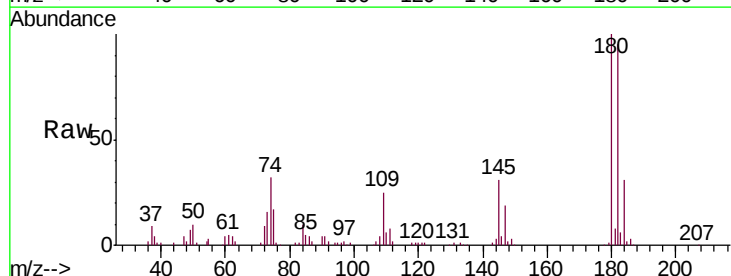


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

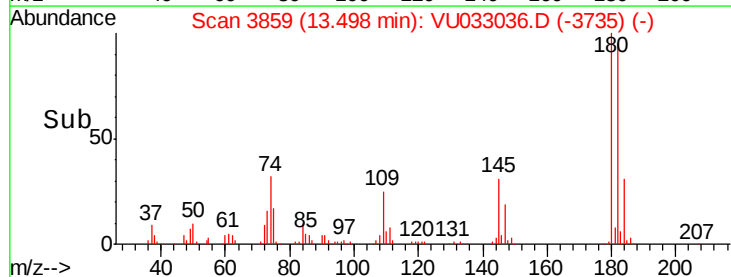
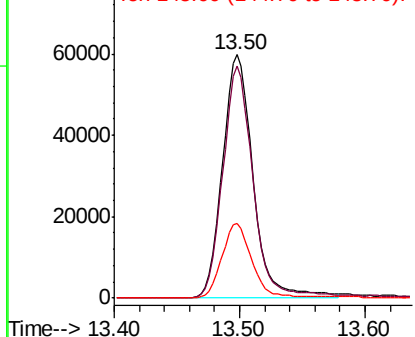


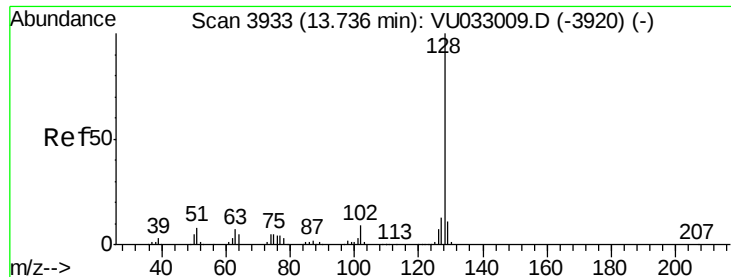
#68  
 1,2,4-trichlorobenzene  
 Concen: 48.741 ug/L  
 RT: 13.50 min Scan# 3859  
 Delta R.T. 0.00 min  
 Lab File: VU033036.D  
 Acq: 25 Jun 2019 03:07

Tgt Ion:180 Resp: 101512  
 Ion Ratio Lower Upper  
 180 100  
 182 92.1 76.2 114.4  
 145 29.6 23.8 35.8



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





#69

Naphthalene

Concen: 48.961 ug/L

RT: 13.74 min Scan# 3933

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05038

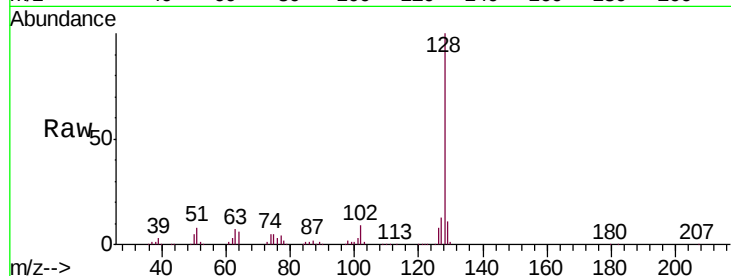
Tgt Ion:128 Resp: 313523

Ion Ratio Lower Upper

128 100

127 12.4 10.3 15.5

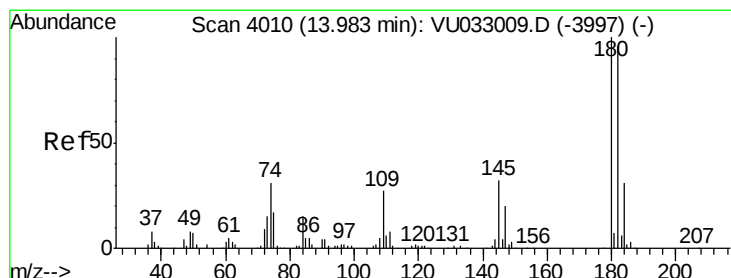
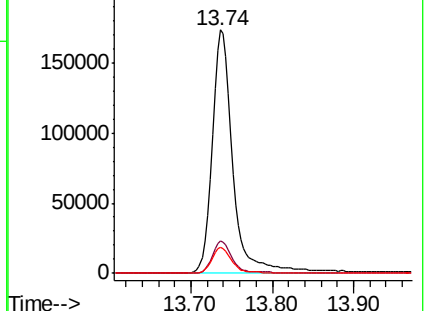
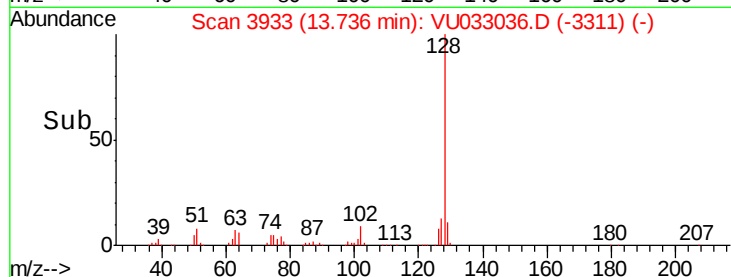
129 10.4 8.6 13.0



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: 49.443 ug/L

RT: 13.98 min Scan# 4010

Delta R.T. 0.00 min

Lab File: VU033036.D

Acq: 25 Jun 2019 03:07

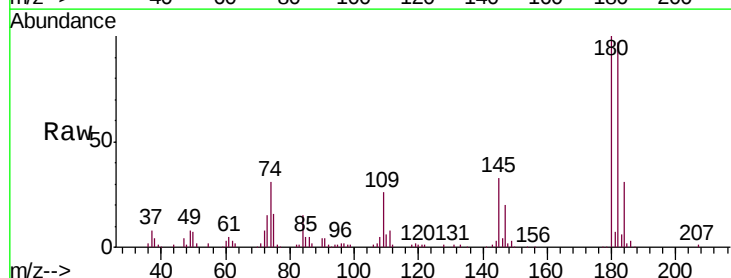
Tgt Ion:180 Resp: 109011

Ion Ratio Lower Upper

180 100

182 94.9 77.0 115.6

145 31.1 25.5 38.3



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

