

Data File : VU030626.D  
Acq On : 03 Apr 2019 14:44  
Operator : JC/SP  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_U/WATER  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05044

Quant Time: Apr 04 06:51:48 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM032319WMA.M  
Quant Title : VOC Analysis  
QLast Update : Tue Apr 02 08:36:56 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.88  | 114  | 475255   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.09  | 117  | 462871   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 214146   | 50.00 | ug/L  | 0.00     |

#### System Monitoring Compounds

|                                |         |       |          |          |      |         |
|--------------------------------|---------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.40    | 65    | 203716   | 53.26    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 106.52% |
| 7) Chloroethane-d5             | 1.68    | 69    | 158511   | 52.29    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 104.58% |
| 11) 1,1-Dichloroethene-d2      | 2.27    | 63    | 378975   | 52.23    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 104.46% |
| 21) 2-Butanone-d5              | 4.17    | 46    | 291976   | 81.21    | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 81.21%  |
| 24) Chloroform-d               | 4.64    | 84    | 311379   | 47.25    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 94.50%  |
| 26) 1,2-Dichloroethane-d4      | 5.31    | 65    | 205735   | 47.71    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 95.42%  |
| 32) Benzene-d6                 | 5.33    | 84    | 629964   | 47.46    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 94.92%  |
| 36) 1,2-Dichloropropane-d6     | 6.32    | 67    | 212840   | 46.87    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 93.74%  |
| 41) Toluene-d8                 | 7.56    | 98    | 564173   | 47.33    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 94.66%  |
| 43) trans-1,3-Dichloropropene- | 7.85    | 79    | 98686    | 46.21    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 92.42%  |
| 47) 2-Hexanone-d5              | 8.31    | 63    | 188801   | 76.72    | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 76.72%  |
| 57) 1,1,2,2-Tetrachloroethane- | 10.43   | 84    | 286223   | 44.04    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 88.08%  |
| 64) 1,2-Dichlorobenzene-d4     | 11.86   | 152   | 199078   | 46.40    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 92.80%  |

#### Target Compounds

|                                |      |     |        |        |        | Qvalue |
|--------------------------------|------|-----|--------|--------|--------|--------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 209525 | 39.958 | ug/L   | 99     |
| 3) Chloromethane               | 1.32 | 50  | 264869 | 45.164 | ug/L   | 99     |
| 5) Vinyl chloride              | 1.40 | 62  | 250949 | 45.125 | ug/L   | 98     |
| 6) Bromomethane                | 1.62 | 94  | 132480 | 51.929 | ug/L   | 99     |
| 8) Chloroethane                | 1.69 | 64  | 145534 | 46.355 | ug/L   | 96     |
| 9) Trichlorofluoromethane      | 1.88 | 101 | 296941 | 48.964 | ug/L   | 98     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.28 | 101 | 168074 | 48.456 | ug/L   | 99     |
| 12) 1,1-Dichloroethene         | 2.28 | 96  | 160083 | 47.079 | ug/L   | 96     |
| 13) Acetone                    | 2.32 | 43  | 312748 | 86.011 | ug/L   | 100    |
| 14) Carbon disulfide           | 2.47 | 76  | 515972 | 45.893 | ug/L   | 100    |
| 15) Methyl Acetate             | 2.61 | 43  | 244820 | 43.972 | ug/L # | 100    |
| 16) Methylene chloride         | 2.69 | 84  | 185471 | 46.269 | ug/L   | 98     |
| 17) trans-1,2-Dichloroethene   | 2.98 | 96  | 164350 | 46.070 | ug/L   | 97     |
| 18) Methyl tert-butyl Ether    | 2.99 | 73  | 522533 | 44.293 | ug/L   | 99     |
| 19) 1,1-Dichloroethane         | 3.44 | 63  | 339954 | 46.449 | ug/L   | 99     |
| 20) cis-1,2-Dichloroethene     | 4.22 | 96  | 181083 | 45.262 | ug/L   | 96     |
| 22) 2-Butanone                 | 4.25 | 43  | 384609 | 87.510 | ug/L   | 99     |

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Quant Title : VOC Analysis  
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Response via : Initial Calibration

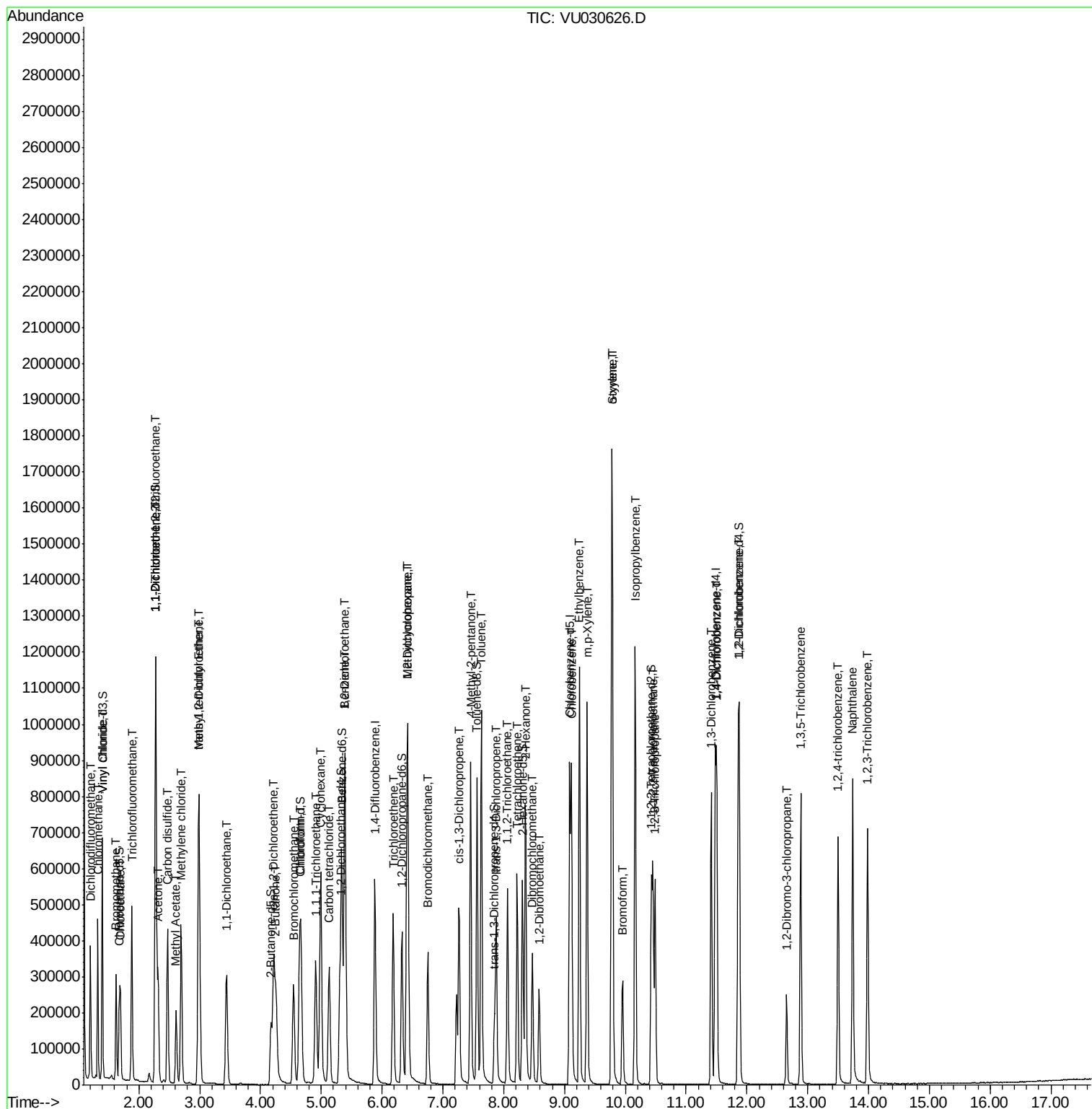
| Internal Standards             | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|-------|------|----------|--------|-------|----------|
| 23) Bromochloromethane         | 4.54  | 128  | 87885    | 47.261 | ug/L  | 96       |
| 25) Chloroform                 | 4.67  | 83   | 335424   | 48.202 | ug/L  | 98       |
| 27) 1,2-Dichloroethane         | 5.40  | 62   | 259577   | 47.538 | ug/L  | 99       |
| 29) Cyclohexane                | 4.99  | 56   | 319266   | 45.579 | ug/L  | 99       |
| 30) 1,1,1-Trichloroethane      | 4.91  | 97   | 268633   | 47.398 | ug/L  | 98       |
| 31) Carbon tetrachloride       | 5.13  | 117  | 237380   | 49.414 | ug/L  | 99       |
| 33) Benzene                    | 5.38  | 78   | 735729   | 46.693 | ug/L  | 100      |
| 34) Trichloroethene            | 6.18  | 95   | 176315   | 45.519 | ug/L  | 99       |
| 35) Methylcyclohexane          | 6.41  | 83   | 284339   | 44.609 | ug/L  | 99       |
| 37) 1,2-Dichloropropane        | 6.43  | 63   | 203464   | 45.502 | ug/L  | 100      |
| 38) Bromodichloromethane       | 6.75  | 83   | 251240   | 47.287 | ug/L  | 99       |
| 39) cis-1,3-Dichloropropene    | 7.27  | 75   | 299761   | 46.639 | ug/L  | 100      |
| 40) 4-Methyl-2-pentanone       | 7.45  | 43   | 636398   | 84.730 | ug/L  | 99       |
| 42) Toluene                    | 7.63  | 91   | 748568   | 45.777 | ug/L  | 99       |
| 44) trans-1,3-Dichloropropene  | 7.87  | 75   | 264227   | 46.723 | ug/L  | 100      |
| 45) 1,1,2-Trichloroethane      | 8.06  | 97   | 170539   | 45.138 | ug/L  | 99       |
| 46) Tetrachloroethene          | 8.22  | 164  | 127515   | 47.132 | ug/L  | 98       |
| 48) 2-Hexanone                 | 8.36  | 43   | 509860   | 82.826 | ug/L  | 99       |
| 49) Dibromochloromethane       | 8.47  | 129  | 185084   | 47.146 | ug/L  | 99       |
| 50) 1,2-Dibromoethane          | 8.58  | 107  | 180089   | 44.414 | ug/L  | 97       |
| 51) Chlorobenzene              | 9.12  | 112  | 448051   | 45.209 | ug/L  | 99       |
| 52) Ethylbenzene               | 9.24  | 91   | 819371   | 46.254 | ug/L  | 100      |
| 53) m,p-Xylene                 | 9.37  | 106  | 294176   | 45.992 | ug/L  | 98       |
| 54) o-xylene                   | 9.77  | 106  | 285776   | 45.790 | ug/L  | 99       |
| 55) Styrene                    | 9.79  | 104  | 498697   | 46.387 | ug/L  | 98       |
| 56) Isopropylbenzene           | 10.16 | 105  | 757827   | 45.858 | ug/L  | 100      |
| 58) 1,1,2,2-Tetrachloroethane  | 10.45 | 83   | 306346   | 43.994 | ug/L  | 97       |
| 59) 1,2,3-Trichloropropane     | 10.49 | 75   | 240240   | 44.140 | ug/L  | 99       |
| 61) Bromoform                  | 9.95  | 173  | 131520   | 46.193 | ug/L  | 100      |
| 62) 1,3-Dichlorobenzene        | 11.41 | 146  | 315644   | 45.072 | ug/L  | 99       |
| 63) 1,4-Dichlorobenzene        | 11.50 | 146  | 322422   | 44.721 | ug/L  | 98       |
| 65) 1,2-Dichlorobenzene        | 11.87 | 146  | 325256   | 45.932 | ug/L  | 99       |
| 66) 1,2-Dibromo-3-chloropropan | 12.65 | 75   | 67923    | 43.078 | ug/L  | 92       |
| 67) 1,3,5-Trichlorobenzene     | 12.88 | 180  | 243980   | 46.537 | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.50 | 180  | 213981   | 46.974 | ug/L  | 99       |
| 69) Naphthalene                | 13.74 | 128  | 681663   | 42.083 | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene     | 13.98 | 180  | 222990   | 46.358 | ug/L  | 99       |

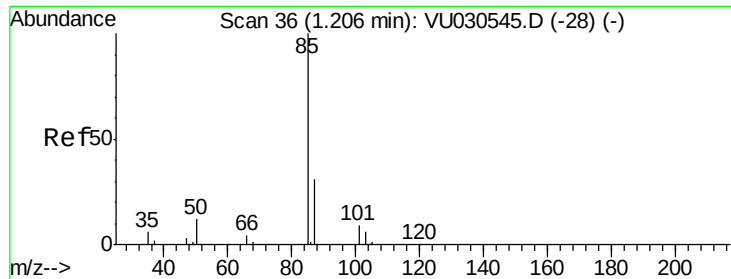
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#2

Dichlorodifluoromethane

Concen: 39.958 ug/L

RT: 1.20 min Scan# 35

Delta R.T. -0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

Instrument :

MSVOA\_U

ClientSampleId :

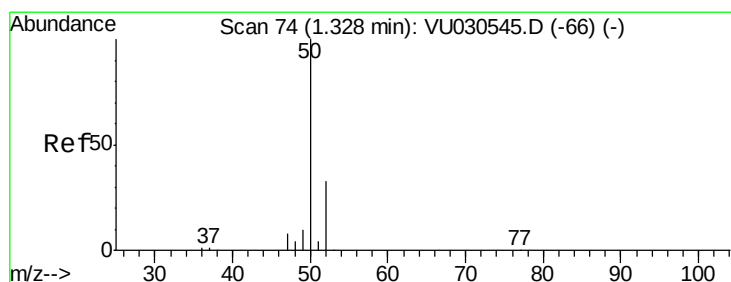
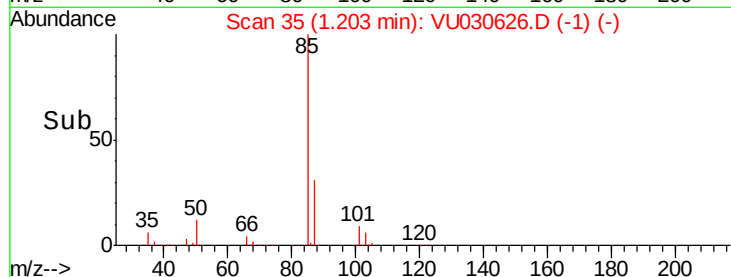
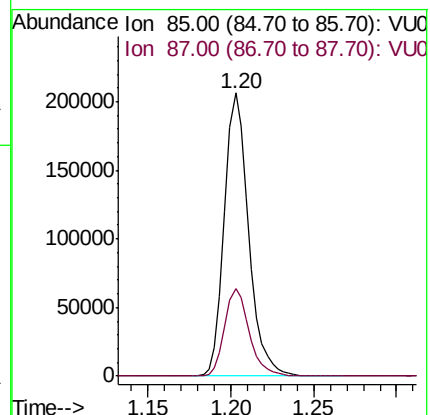
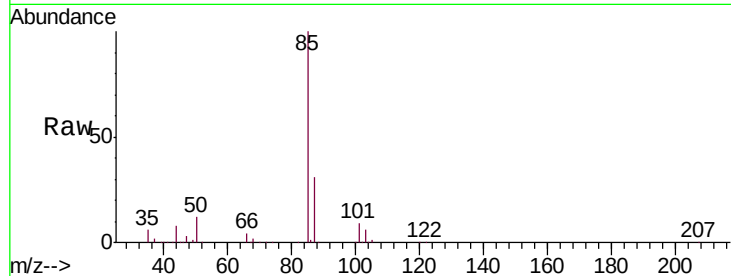
VSTD05044

Tgt Ion: 85 Resp: 209525

Ion Ratio Lower Upper

85 100

87 31.4 25.5 38.3



#3

Chloromethane

Concen: 45.164 ug/L

RT: 1.32 min Scan# 73

Delta R.T. -0.00 min

Lab File: VU030626.D

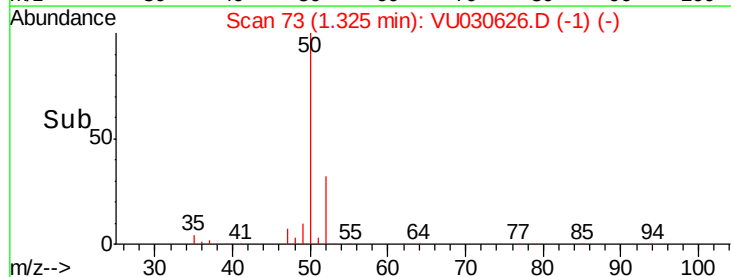
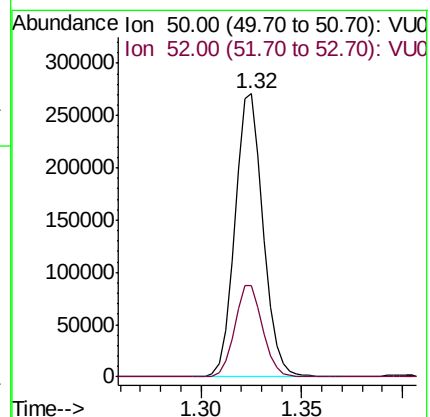
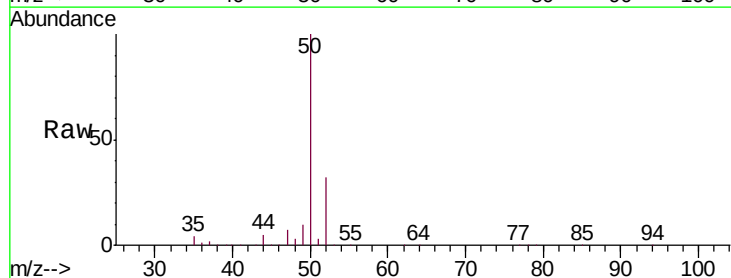
Acq: 03 Apr 2019 14:44

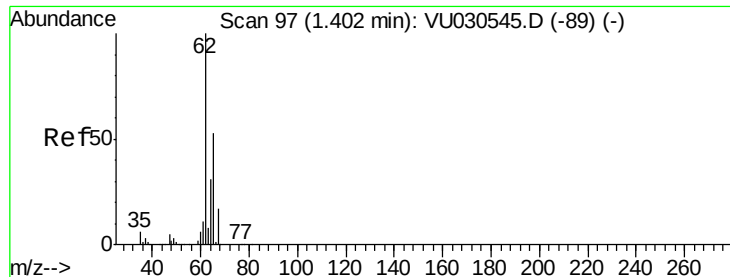
Tgt Ion: 50 Resp: 264869

Ion Ratio Lower Upper

50 100

52 32.2 23.0 42.6





#5

Vinyl chloride

Concen: 45.125 ug/L

RT: 1.40 min Scan# 96

Delta R.T. -0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

Instrument :

MSVOA\_U

ClientSampled :

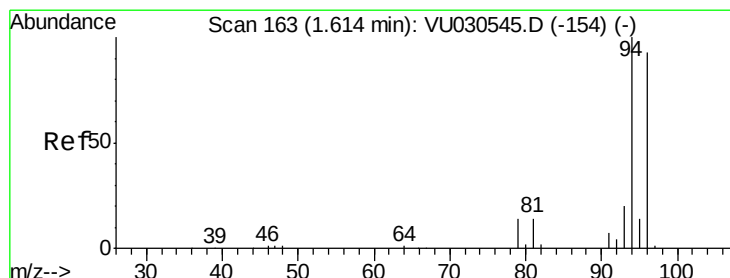
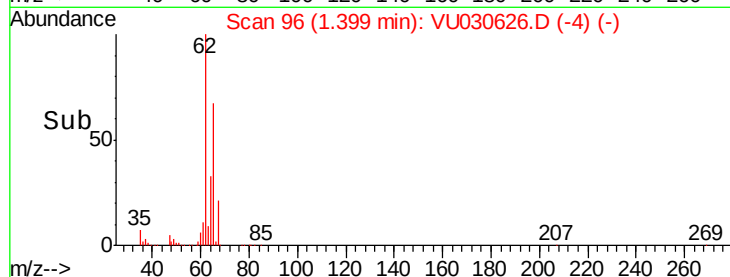
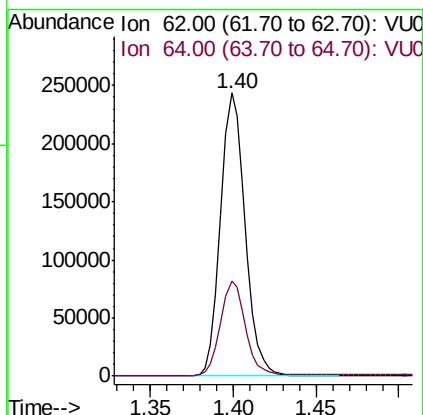
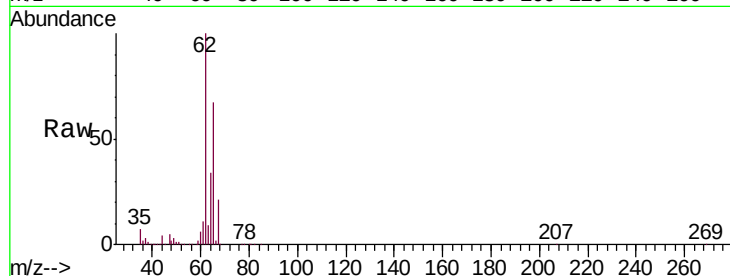
VSTD05044

Tgt Ion: 62 Resp: 250949

Ion Ratio Lower Upper

62 100

64 33.5 22.6 42.0



#6

Bromomethane

Concen: 51.929 ug/L

RT: 1.62 min Scan# 166

Delta R.T. 0.01 min

Lab File: VU030626.D

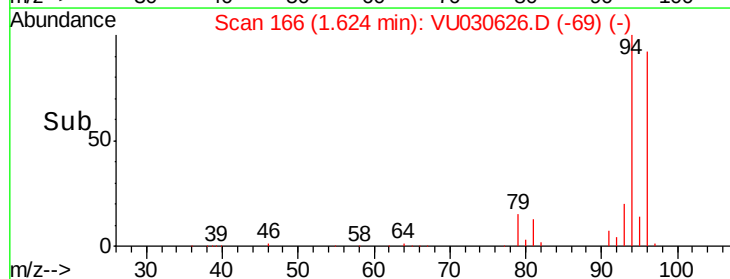
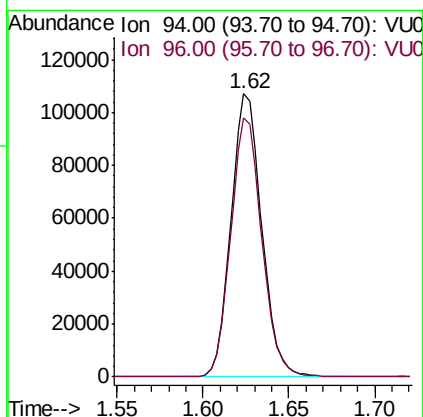
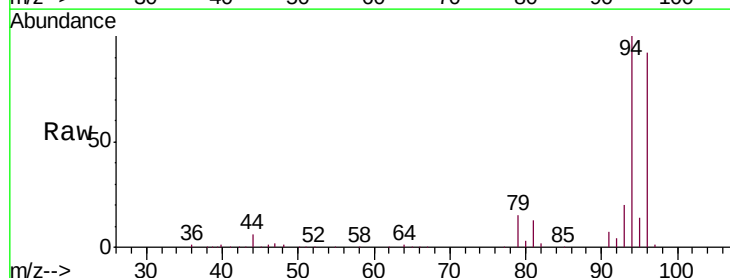
Acq: 03 Apr 2019 14:44

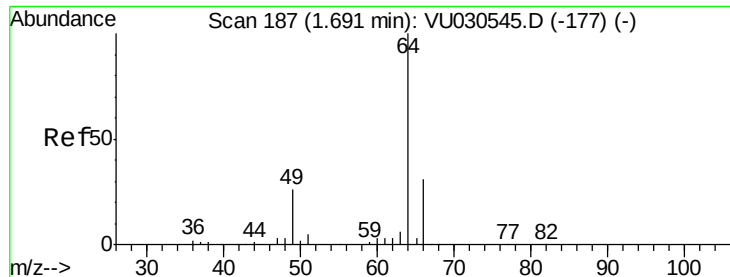
Tgt Ion: 94 Resp: 132480

Ion Ratio Lower Upper

94 100

96 91.5 64.8 120.3





#8

Chloroethane

Concen: 46.355 ug/L

RT: 1.69 min Scan# 188

Delta R.T. 0.01 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

Instrument :

MSVOA\_U

ClientSampleId :

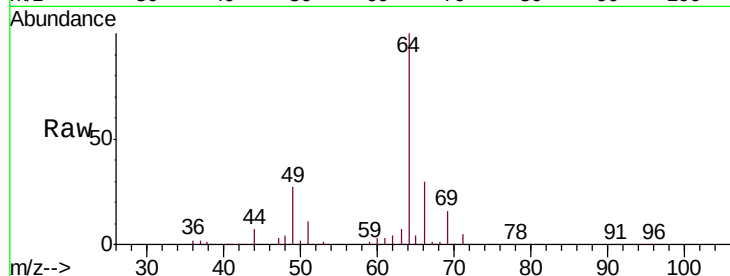
VSTD05044

Tgt Ion: 64 Resp: 145534

Ion Ratio Lower Upper

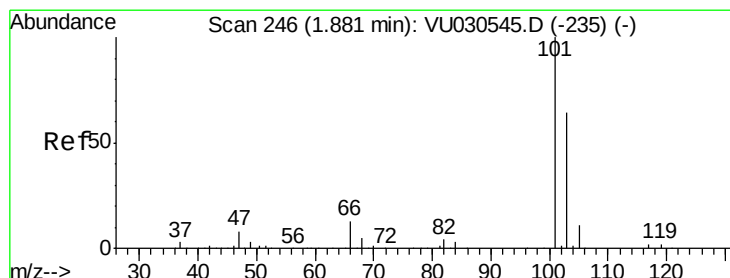
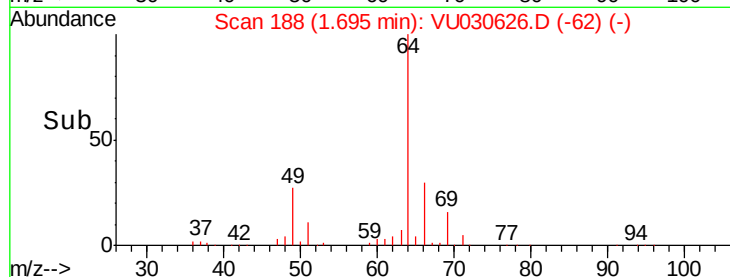
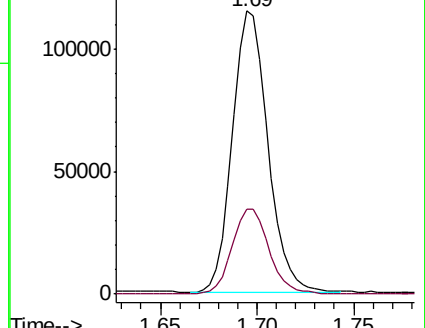
64 100

66 30.0 22.5 41.7



Abundance Ion 64.00 (63.70 to 64.70): VU030545.D (-177) (-)

Ion 66.00 (65.70 to 66.70): VU030545.D (-177) (-)



#9

Trichlorofluoromethane

Concen: 48.964 ug/L

RT: 1.88 min Scan# 247

Delta R.T. 0.00 min

Lab File: VU030626.D

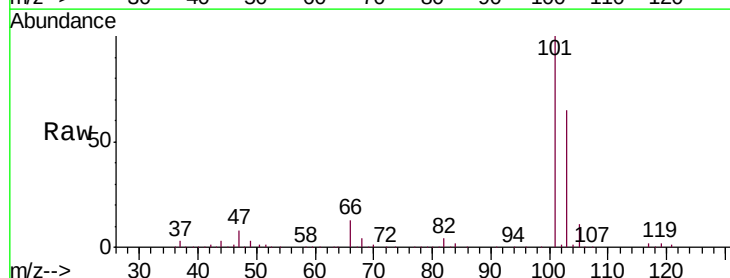
Acq: 03 Apr 2019 14:44

Tgt Ion: 101 Resp: 296941

Ion Ratio Lower Upper

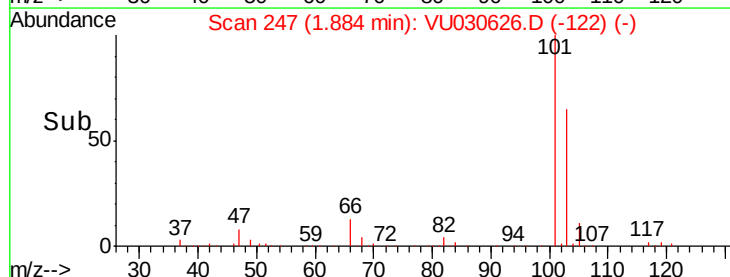
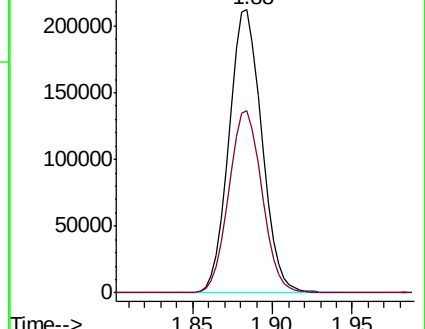
101 100

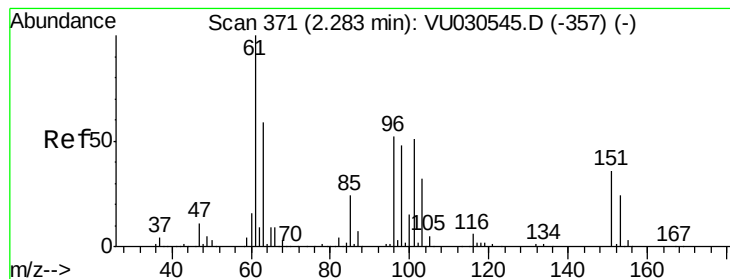
103 65.3 51.1 76.7



Abundance Ion 101.00 (100.70 to 101.70): VU030545.D (-235) (-)

Ion 103.00 (102.70 to 103.70): VU030545.D (-235) (-)





#10

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

Concen: 48.456 ug/L

RT: 2.28 min Scan# 371

Delta R.T. 0.00 min

Lab File: VU030626.D

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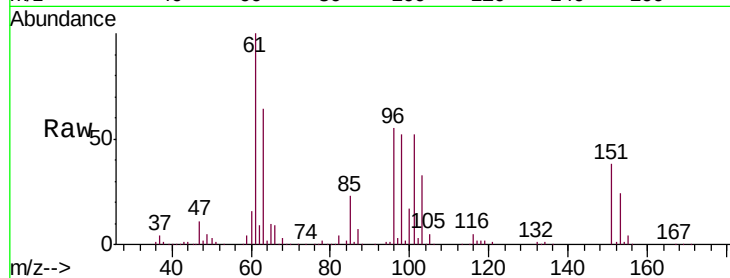
Tgt Ion: 101 Resp: 168074

Ion Ratio Lower Upper

101 100

85 44.7 34.8 52.2

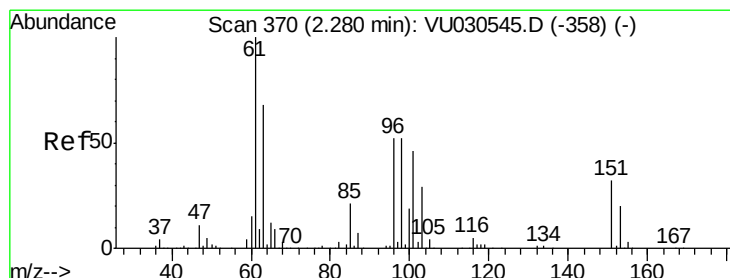
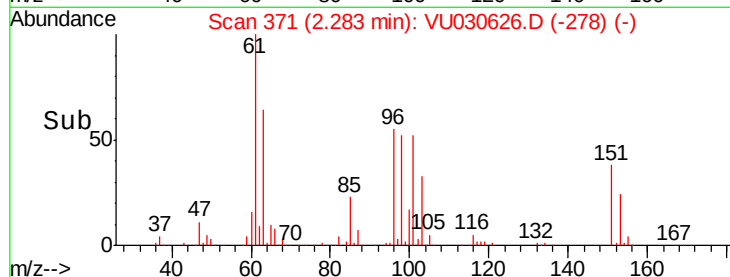
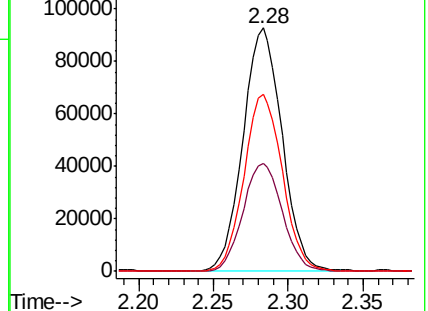
151 71.7 56.6 85.0



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: 47.079 ug/L

RT: 2.28 min Scan# 370

Delta R.T. 0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

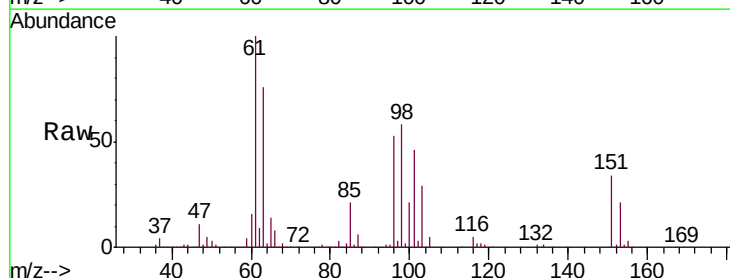
Tgt Ion: 96 Resp: 160083

Ion Ratio Lower Upper

96 100

61 187.3 131.0 243.4

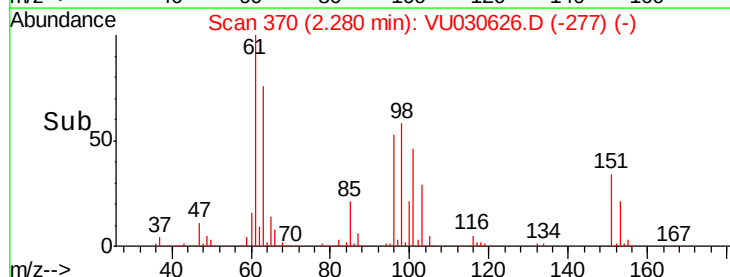
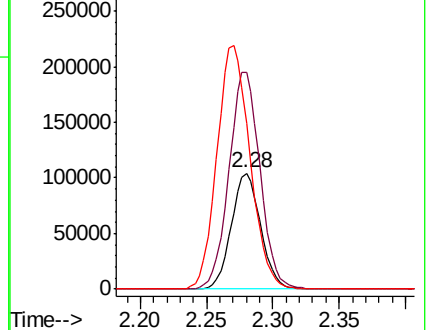
63 143.2 92.4 171.6

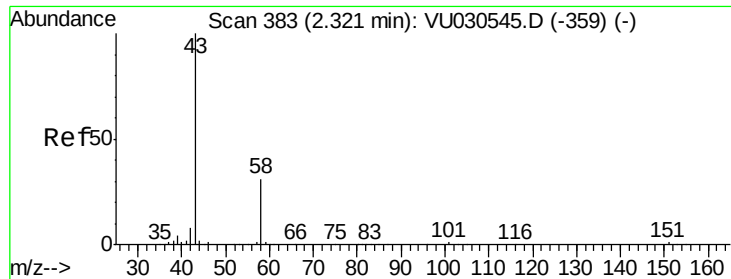


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 86.011 ug/L

RT: 2.32 min Scan# 381

Delta R.T. -0.01 min

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MSVOA\_U

ClientSampleId :

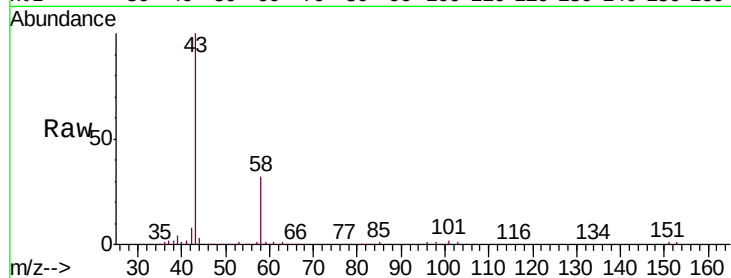
VSTD05044

Tgt Ion: 43 Resp: 312748

Ion Ratio Lower Upper

43 100

58 31.4 0.0 62.8



Abundance Ion 43.00 (42.70 to 43.70): VU030626.D (-290) (-)

Ion 58.00 (57.70 to 58.70): VU030626.D (-290) (-)

200000

150000

100000

50000

0

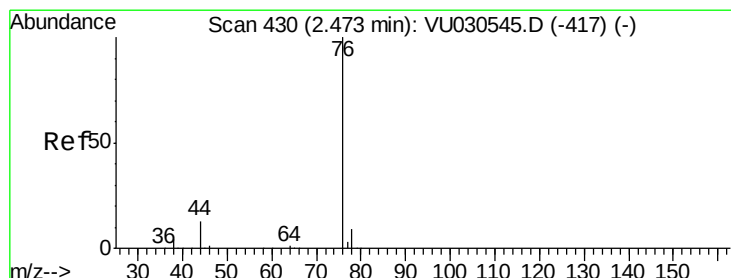
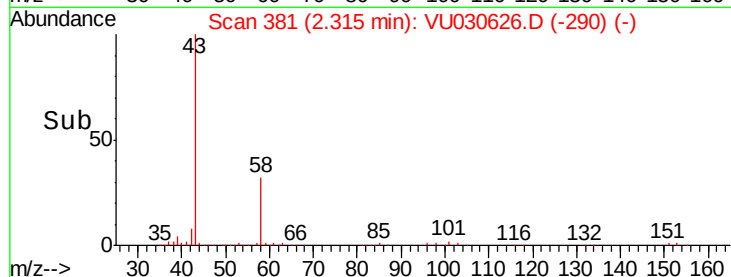
2.32

2.30

2.35

2.40

Time-->



#14

Carbon disulfide

Concen: 45.893 ug/L

RT: 2.47 min Scan# 430

Delta R.T. 0.00 min

Lab File: VU030626.D

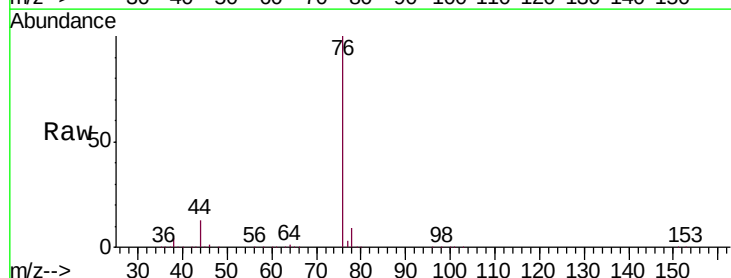
Acq: 03 Apr 2019 14:44

Tgt Ion: 76 Resp: 515972

Ion Ratio Lower Upper

76 100

78 9.0 7.3 10.9



Abundance Ion 76.00 (75.70 to 76.70): VU030626.D (-337) (-)

Ion 78.00 (77.70 to 78.70): VU030626.D (-337) (-)

300000

200000

100000

0

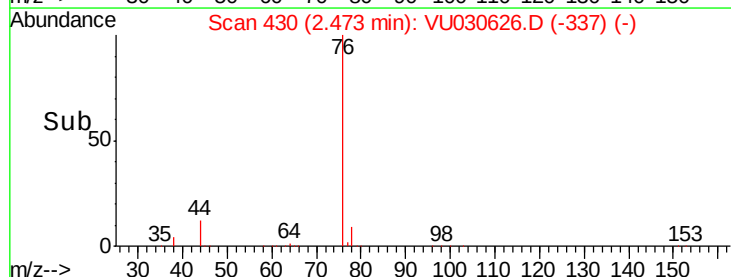
2.47

2.45

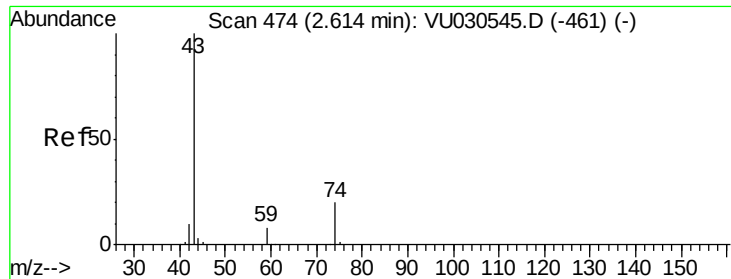
2.50

2.55

Time-->







#15

Methyl Acetate

Concen: 43.972 ug/L

RT: 2.61 min Scan# 473

Delta R.T. -0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

Instrument :

MSVOA\_U

ClientSampleId :

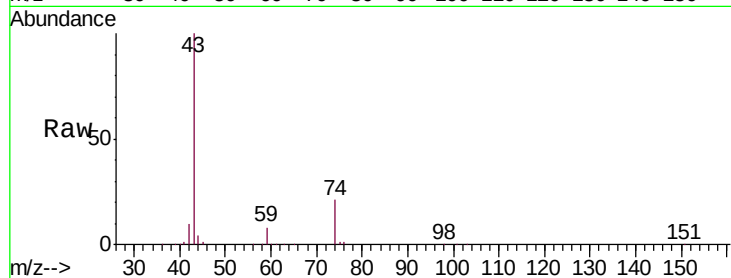
VSTD05044

Tgt Ion: 43 Resp: 244820

Ion Ratio Lower Upper

43 100

74 20.4 0.0 0.0#



Abundance Ion 43.00 (42.70 to 43.70): VU030626.D (-381) (-)

Ion 74.00 (73.70 to 74.70): VU030626.D (-381) (-)

2.61

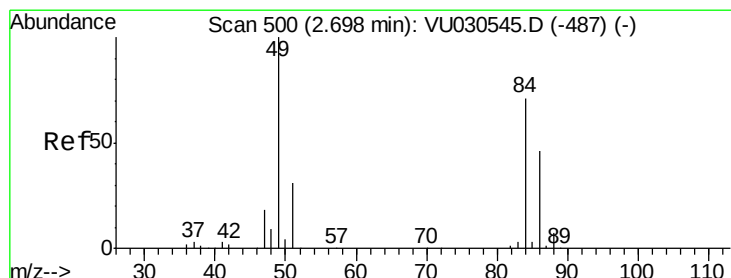
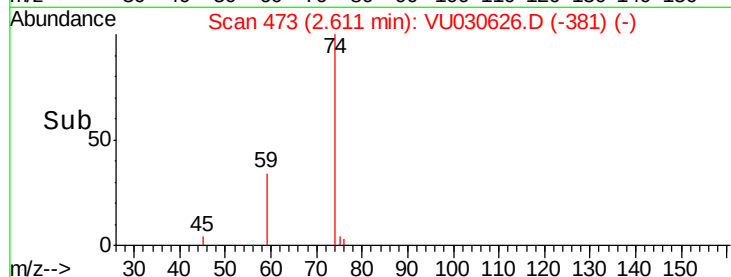
150000

100000

50000

0

Time-->



#16

Methylene chloride

Concen: 46.269 ug/L

RT: 2.69 min Scan# 499

Delta R.T. -0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

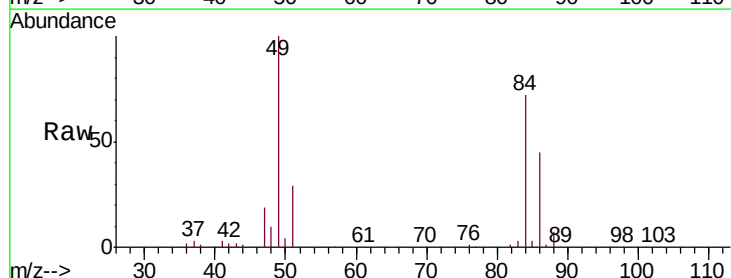
Tgt Ion: 84 Resp: 185471

Ion Ratio Lower Upper

84 100

86 63.0 44.3 82.3

49 139.2 94.9 176.3



Abundance Ion 84.00 (83.70 to 84.70): VU030626.D (-407) (-)

Ion 86.00 (85.70 to 86.70): VU030626.D (-407) (-)

Ion 49.00 (48.70 to 49.70): VU030626.D (-407) (-)

2.69

200000

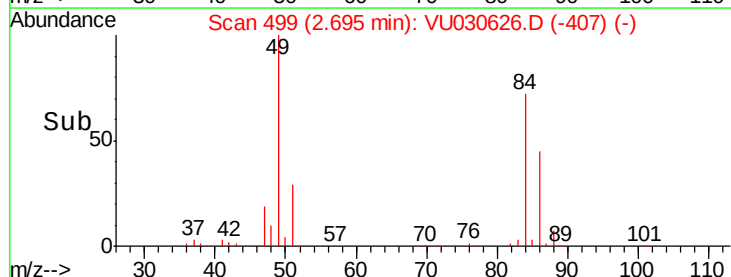
150000

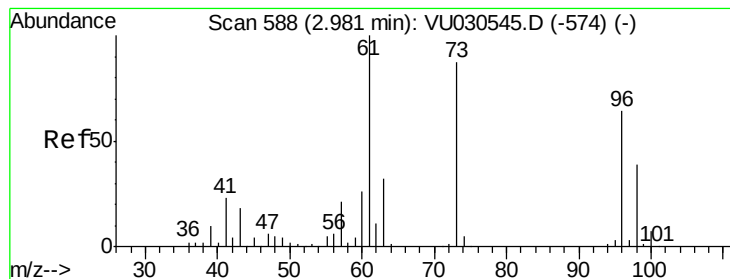
100000

50000

0

Time-->





#17

trans-1,2-Dichloroethene

Concen: 46.070 ug/L

RT: 2.98 min Scan# 587

Delta R.T. 0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05044

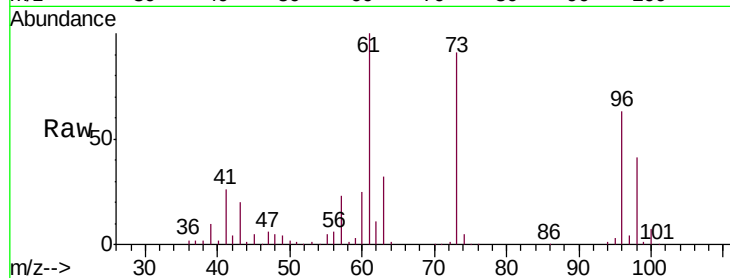
Tgt Ion: 96 Resp: 164350

Ion Ratio Lower Upper

96 100

61 158.0 108.6 201.8

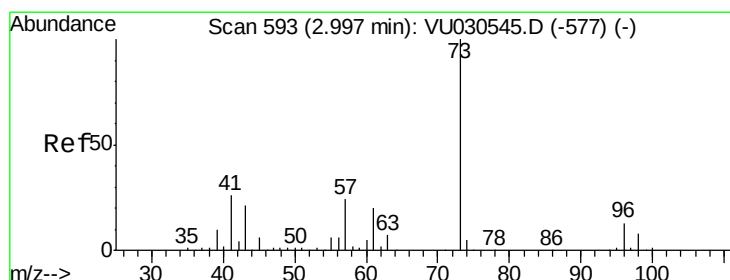
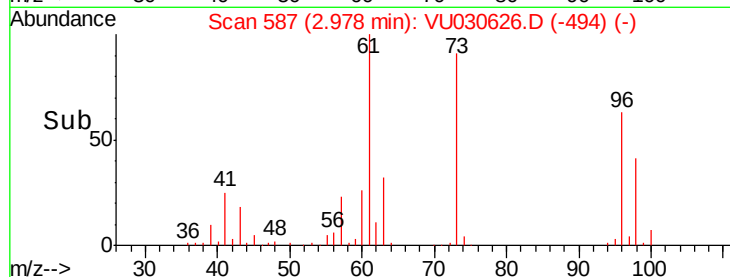
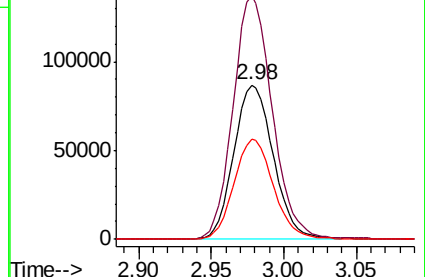
98 65.0 42.3 78.5



Abundance Ion 96.00 (95.70 to 96.70): VU030545.D (-574) (-)

Ion 61.00 (60.70 to 61.70): VU030545.D (-574) (-)

Ion 98.00 (97.70 to 98.70): VU030545.D (-574) (-)



#18

Methyl tert-butyl Ether

Concen: 44.293 ug/L

RT: 2.99 min Scan# 592

Delta R.T. -0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

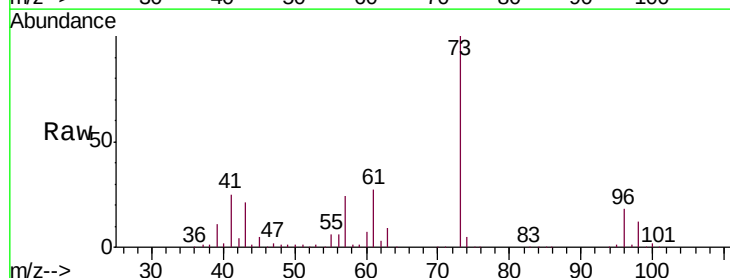
Tgt Ion: 73 Resp: 522533

Ion Ratio Lower Upper

73 100

43 21.0 16.6 24.8

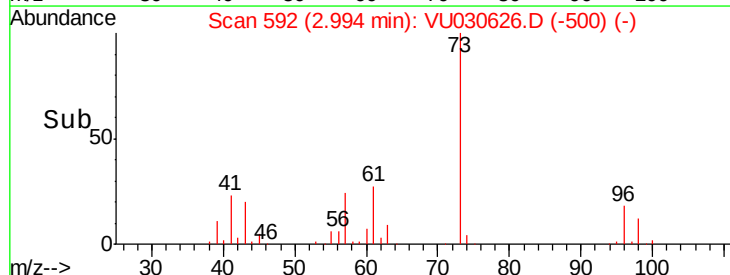
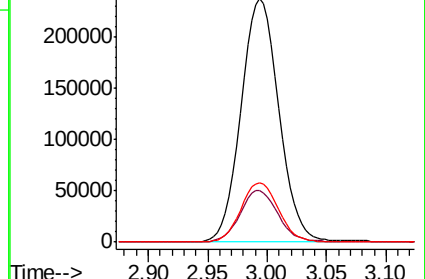
57 24.4 18.9 28.3

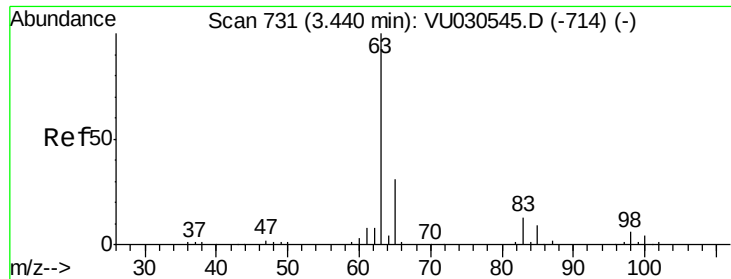


Abundance Ion 73.00 (72.70 to 73.70): VU030545.D (-577) (-)

Ion 43.00 (42.70 to 43.70): VU030545.D (-577) (-)

Ion 57.00 (56.70 to 57.70): VU030545.D (-577) (-)

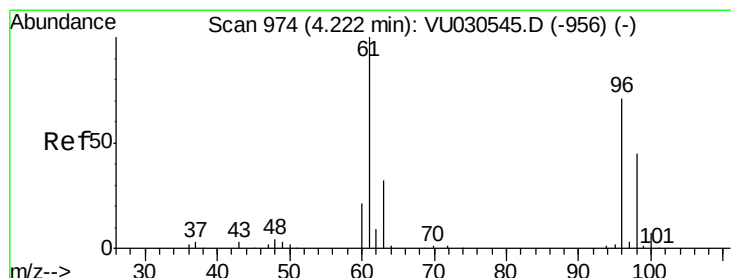
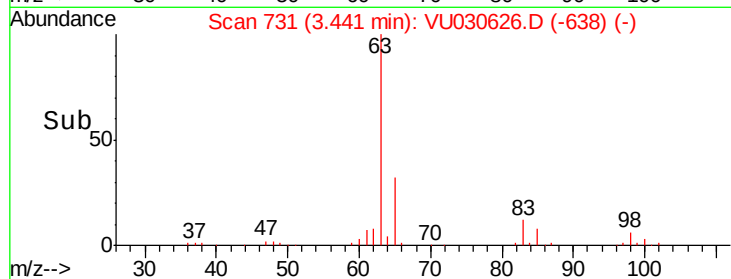
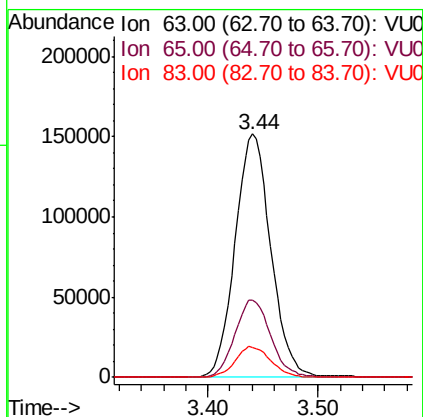
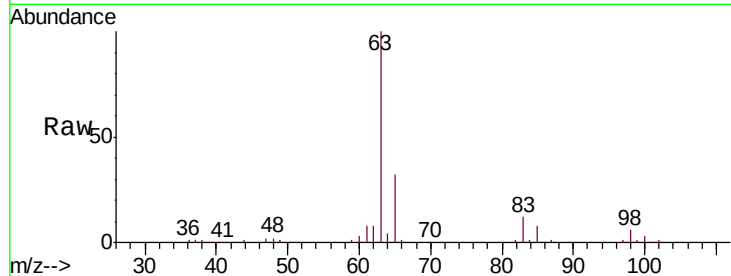




#19  
 1,1-Dichloroethane  
 Concen: 46.449 ug/L  
 RT: 3.44 min Scan# 731  
 Delta R.T. 0.00 min  
 Lab File: VU030626.D  
 Acq: 03 Apr 2019 14:44

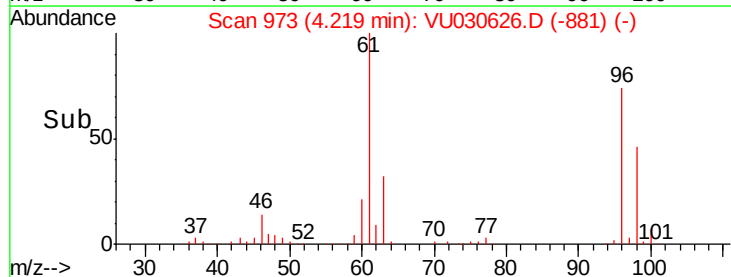
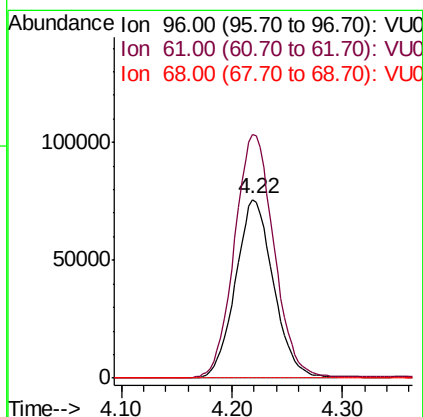
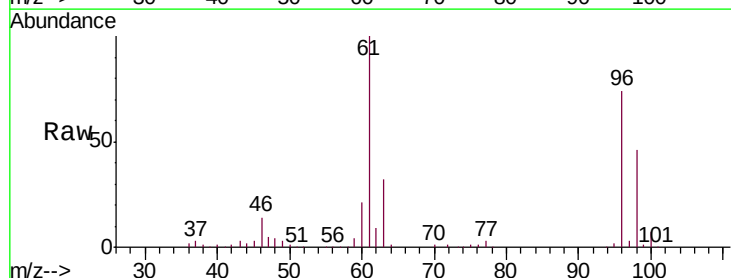
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05044

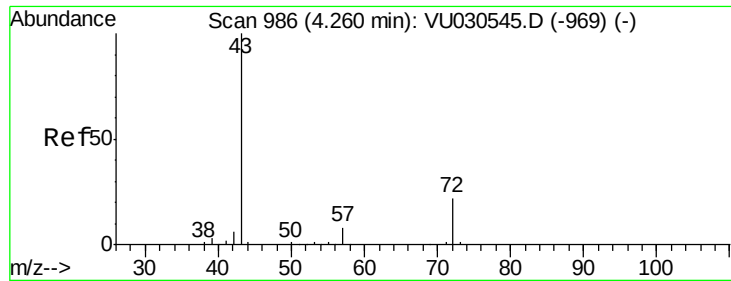
Tgt Ion: 63 Resp: 339954  
 Ion Ratio Lower Upper  
 63 100  
 65 31.9 22.0 40.8  
 83 12.5 9.1 16.9



#20  
 cis-1,2-Dichloroethene  
 Concen: 45.262 ug/L  
 RT: 4.22 min Scan# 973  
 Delta R.T. -0.00 min  
 Lab File: VU030626.D  
 Acq: 03 Apr 2019 14:44

Tgt Ion: 96 Resp: 181083  
 Ion Ratio Lower Upper  
 96 100  
 61 136.0 98.4 182.8  
 68 0.0 0.0 0.0





#22

2-Butanone

Concen: 87.510 ug/L

RT: 4.25 min Scan# 984

Delta R.T. -0.01 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

Instrument :

MSVOA\_U

ClientSampleId :

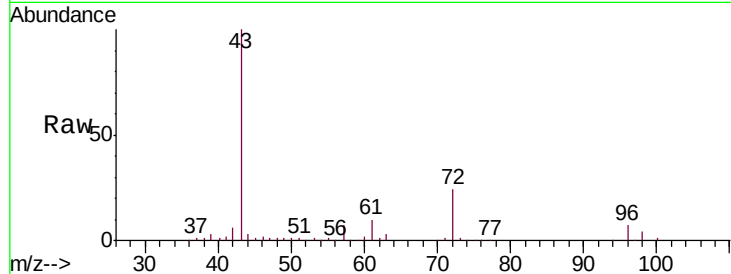
VSTD05044

Tgt Ion: 43 Resp: 384609

Ion Ratio Lower Upper

43 100

72 23.4 12.0 36.1



Abundance Ion 43.00 (42.70 to 43.70): VU030545.D (-969) (-)

Ion 72.00 (71.70 to 72.70): VU030545.D (-969) (-)

4.25

150000

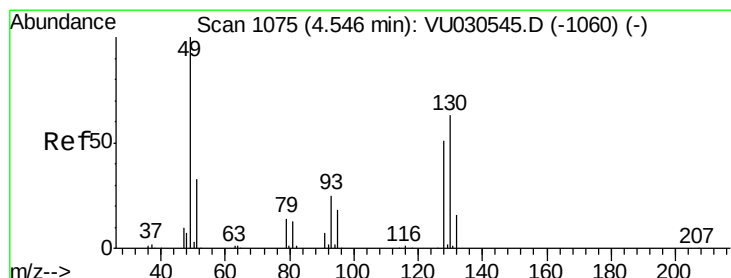
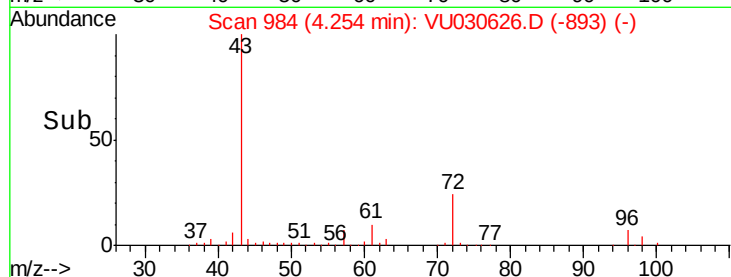
100000

50000

0

4.20 4.30 4.40

Time-->



#23

Bromochloromethane

Concen: 47.261 ug/L

RT: 4.54 min Scan# 1074

Delta R.T. -0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

Tgt Ion: 128 Resp: 87885

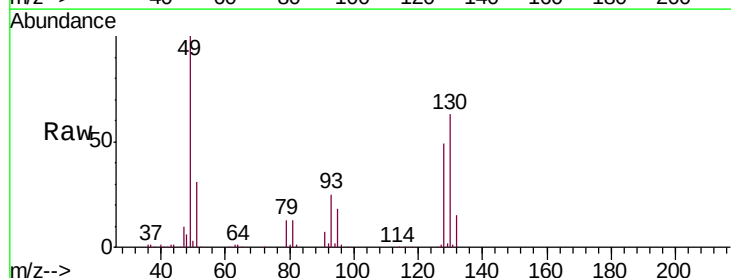
Ion Ratio Lower Upper

128 100

49 203.0 145.5 270.3

130 128.1 95.3 177.1

51 62.9 52.2 78.2



Abundance Ion 128.00 (127.70 to 128.70): VU030545.D (-1060) (-)

Ion 49.00 (48.70 to 49.70): VU030545.D (-1060) (-)

Ion 130.00 (129.70 to 130.70): VU030545.D (-1060) (-)

Ion 51.00 (50.70 to 51.70): VU030545.D (-1060) (-)

100000

80000

60000

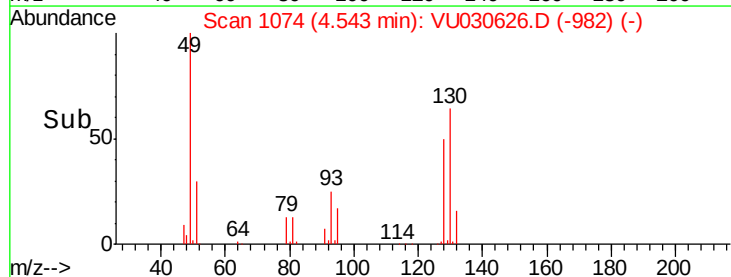
40000

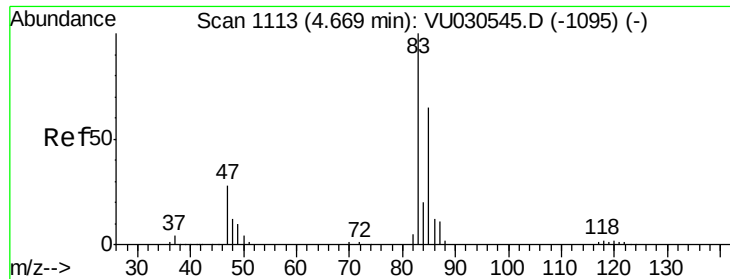
20000

0

4.45 4.50 4.55 4.60

Time-->

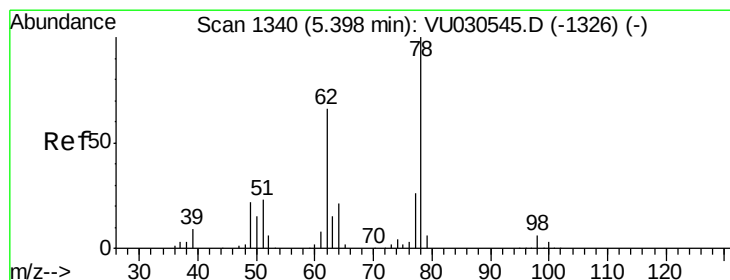
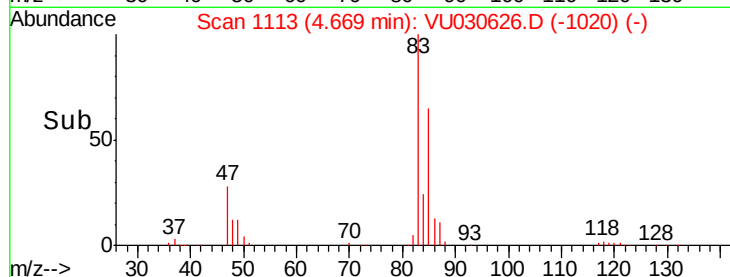
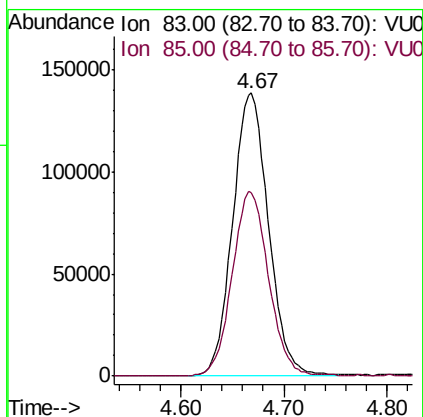
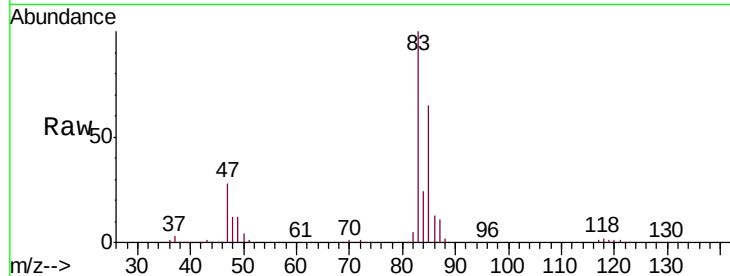




#25  
Chloroform  
Concen: 48.202 ug/L  
RT: 4.67 min Scan# 1113  
Delta R.T. 0.00 min  
Lab File: VU030626.D  
Acq: 03 Apr 2019 14:44

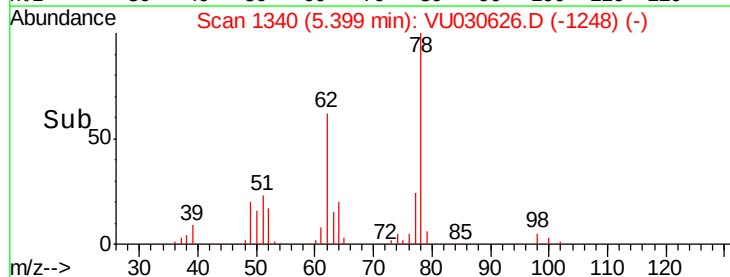
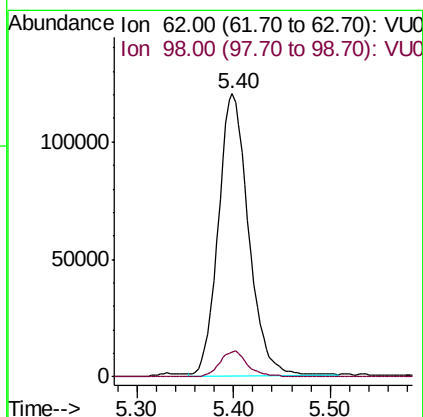
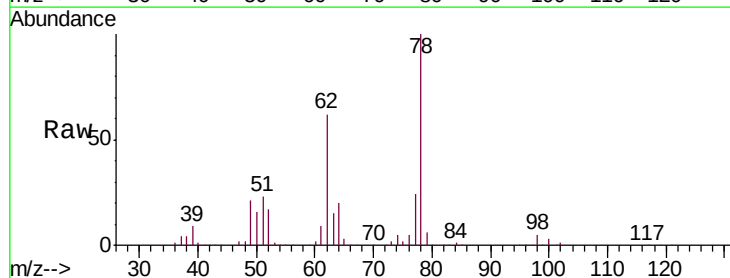
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05044

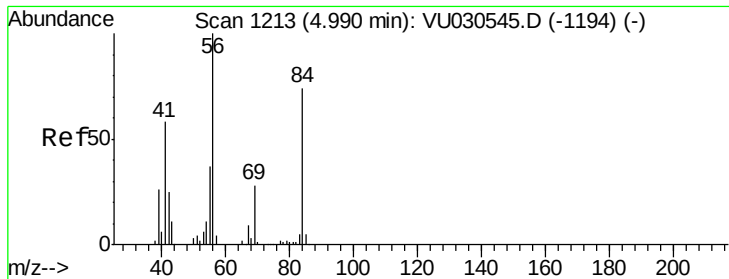
Tgt Ion: 83 Resp: 335424  
Ion Ratio Lower Upper  
83 100  
85 64.7 44.4 82.4



#27  
1,2-Dichloroethane  
Concen: 47.538 ug/L  
RT: 5.40 min Scan# 1340  
Delta R.T. -0.00 min  
Lab File: VU030626.D  
Acq: 03 Apr 2019 14:44

Tgt Ion: 62 Resp: 259577  
Ion Ratio Lower Upper  
62 100  
98 8.7 7.2 10.8

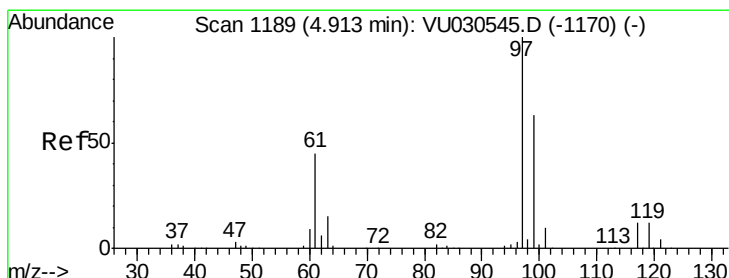
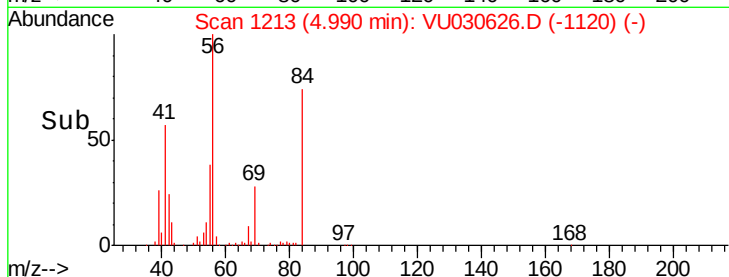
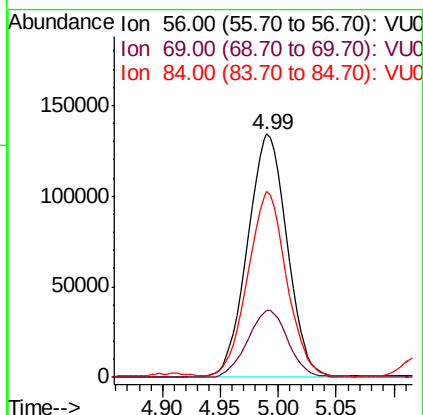
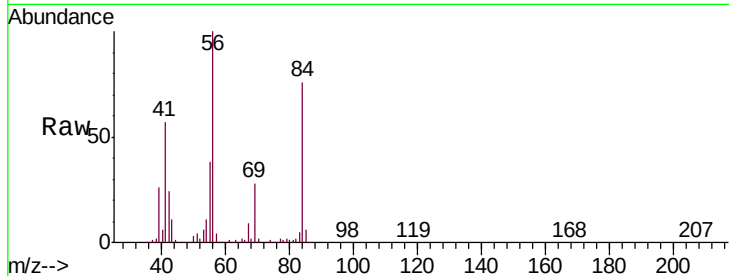




#29  
Cyclohexane  
Concen: 45.579 ug/L  
RT: 4.99 min Scan# 1213  
Delta R.T. 0.00 min  
Lab File: VU030626.D  
Acq: 03 Apr 2019 14:44

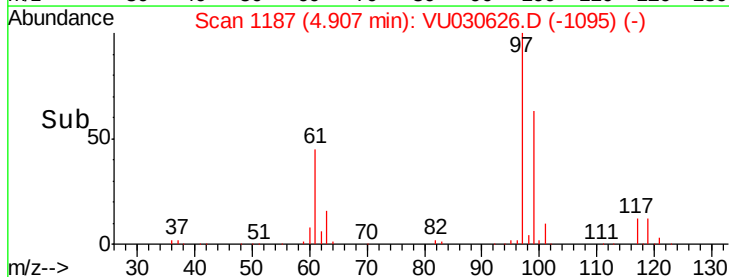
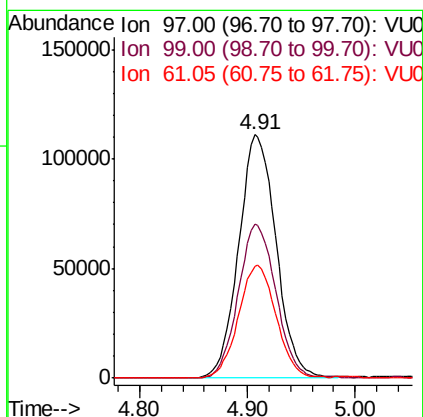
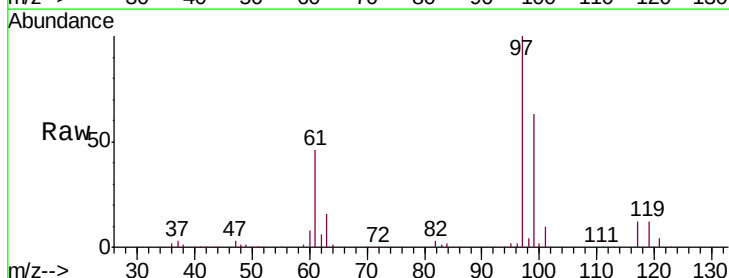
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05044

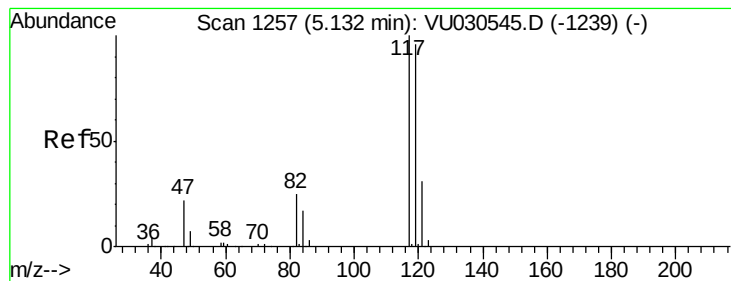
Tgt Ion: 56 Resp: 319266  
Ion Ratio Lower Upper  
56 100  
69 28.2 22.9 34.3  
84 74.3 58.9 88.3



#30  
1,1,1-Trichloroethane  
Concen: 47.398 ug/L  
RT: 4.91 min Scan# 1187  
Delta R.T. -0.00 min  
Lab File: VU030626.D  
Acq: 03 Apr 2019 14:44

Tgt Ion: 97 Resp: 268633  
Ion Ratio Lower Upper  
97 100  
99 63.5 51.8 77.6  
61 46.6 38.2 57.4





#31

Carbon tetrachloride

Concen: 49.414 ug/L

RT: 5.13 min Scan# 1256

Delta R.T. 0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

Instrument :

MSVOA\_U

ClientSampleId :

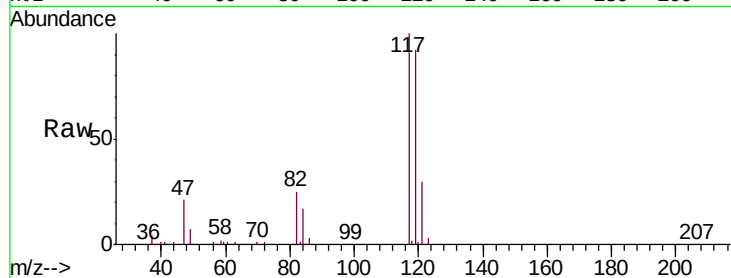
VSTD05044

Tgt Ion:117 Resp: 237380

Ion Ratio Lower Upper

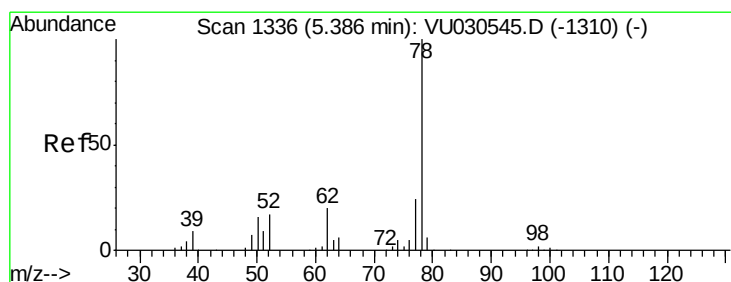
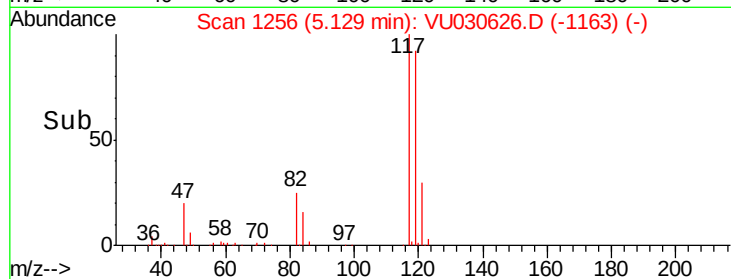
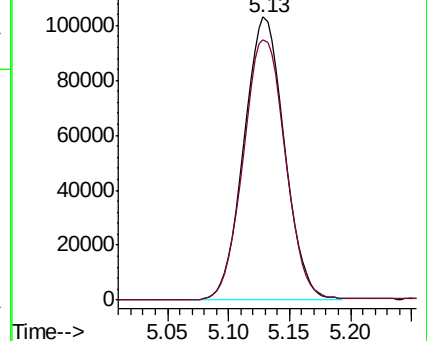
117 100

119 95.4 75.4 113.2



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V



#33

Benzene

Concen: 46.693 ug/L

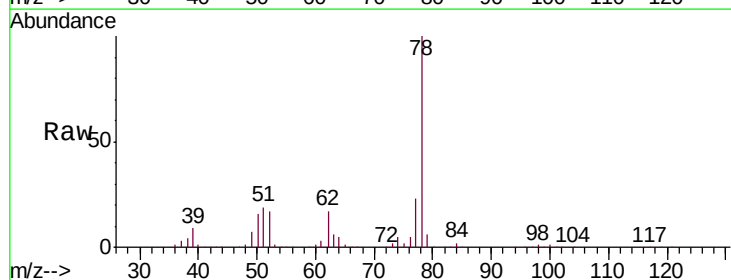
RT: 5.38 min Scan# 1335

Delta R.T. -0.00 min

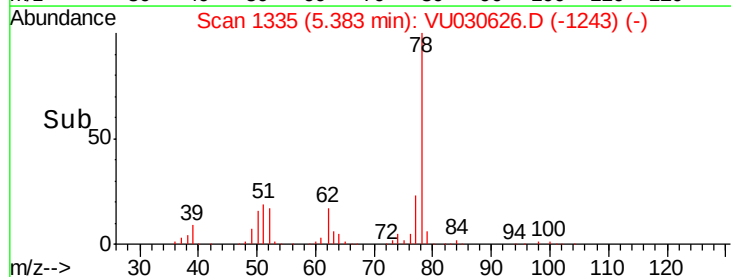
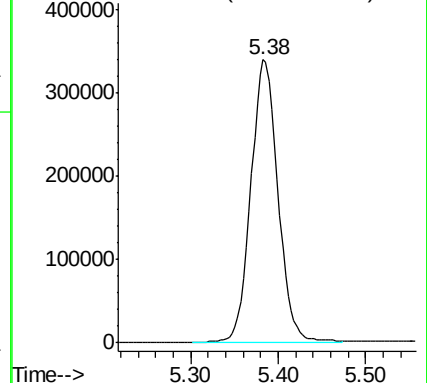
Lab File: VU030626.D

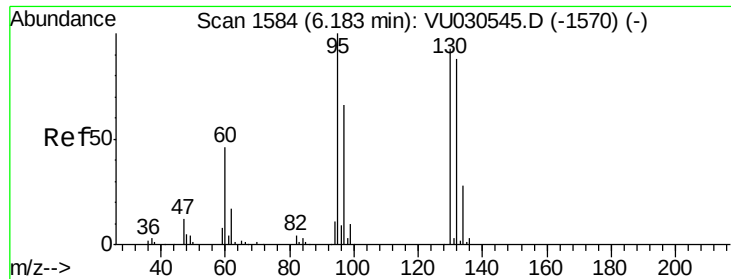
Acq: 03 Apr 2019 14:44

Tgt Ion: 78 Resp: 735729



Abundance Ion 78.00 (77.70 to 78.70): VU0





#34

Trichloroethene

Concen: 45.519 ug/L

RT: 6.18 min Scan# 1583

Delta R.T. -0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05044

Tgt Ion: 95 Resp: 176315

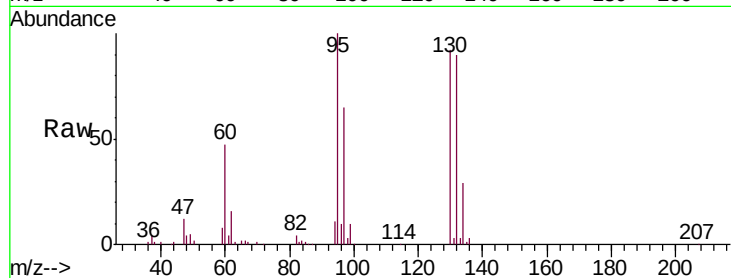
Ion Ratio Lower Upper

95 100

97 65.3 45.7 84.9

132 90.0 63.8 118.4

130 92.4 65.7 121.9

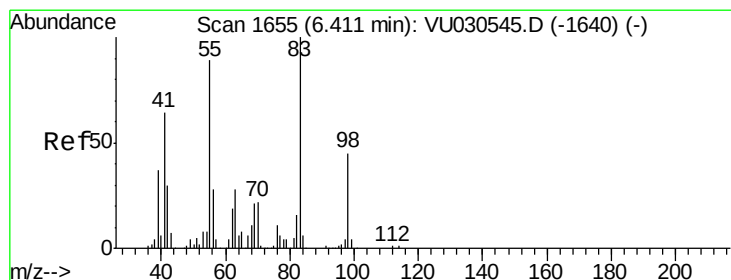
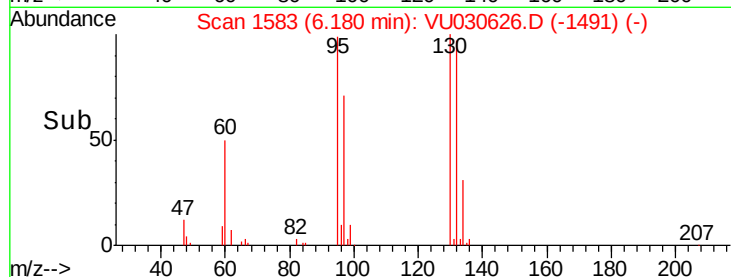
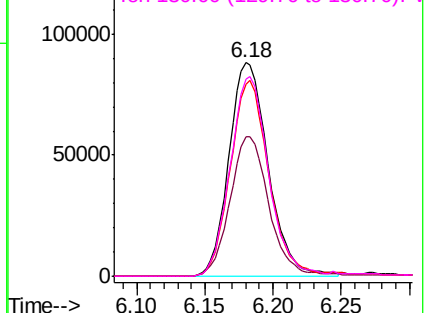


Abundance Ion 95.00 (94.70 to 95.70): VU030545.D (-1570) (-)

Ion 97.00 (96.70 to 97.70): VU030545.D (-1570) (-)

Ion 132.00 (131.70 to 132.70): VU030545.D (-1570) (-)

Ion 130.00 (129.70 to 130.70): VU030545.D (-1570) (-)



#35

Methylcyclohexane

Concen: 44.609 ug/L

RT: 6.41 min Scan# 1655

Delta R.T. 0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

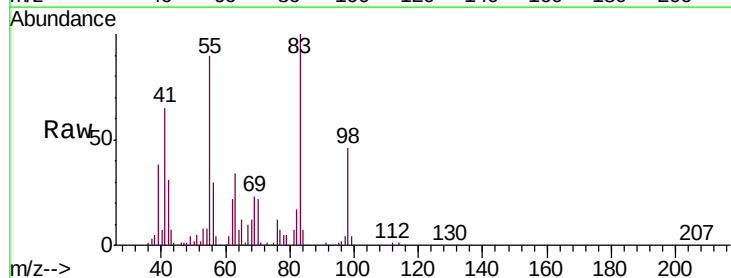
Tgt Ion: 83 Resp: 284339

Ion Ratio Lower Upper

83 100

55 90.8 71.4 107.0

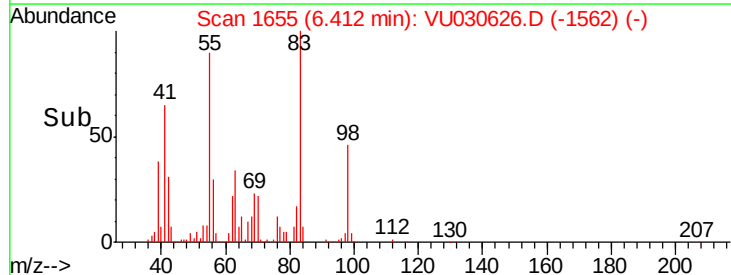
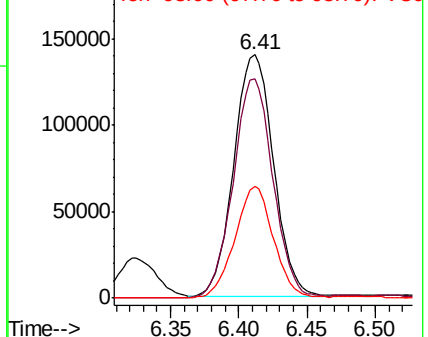
98 44.7 36.0 54.0



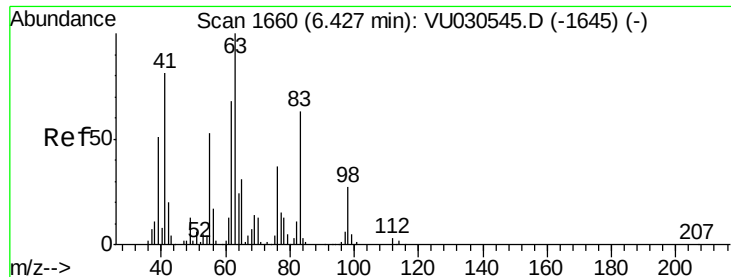
Abundance Ion 83.00 (82.70 to 83.70): VU030545.D (-1640) (-)

Ion 55.00 (54.70 to 55.70): VU030545.D (-1640) (-)

Ion 98.00 (97.70 to 98.70): VU030545.D (-1640) (-)



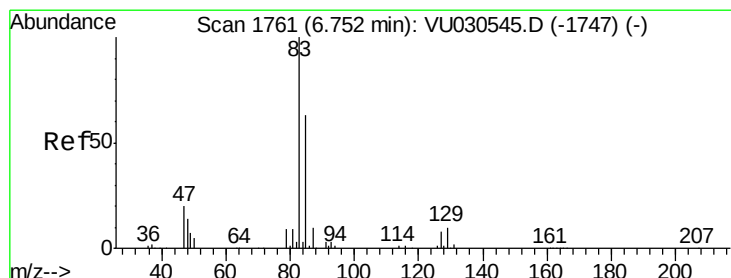
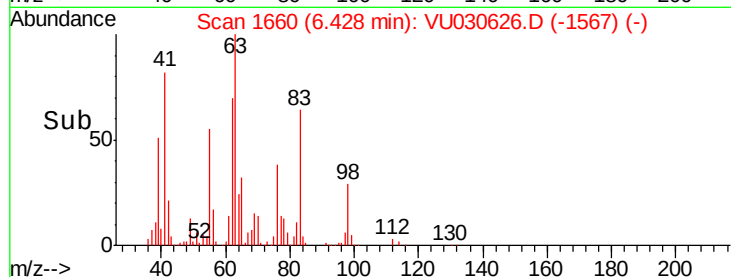
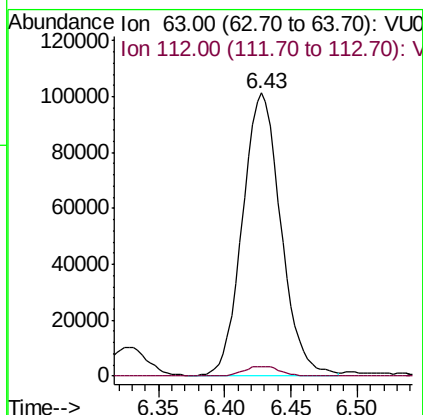
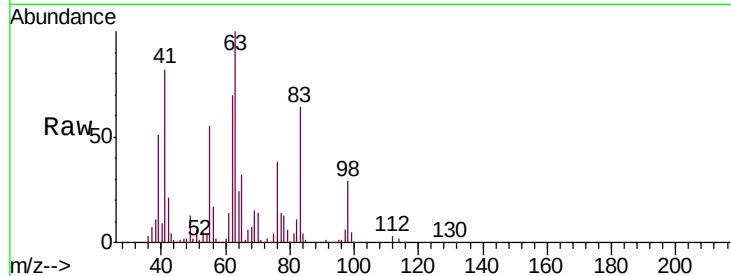




#37  
 1,2-Dichloropropane  
 Concen: 45.502 ug/L  
 RT: 6.43 min Scan# 1660  
 Delta R.T. 0.00 min  
 Lab File: VU030626.D  
 Acq: 03 Apr 2019 14:44

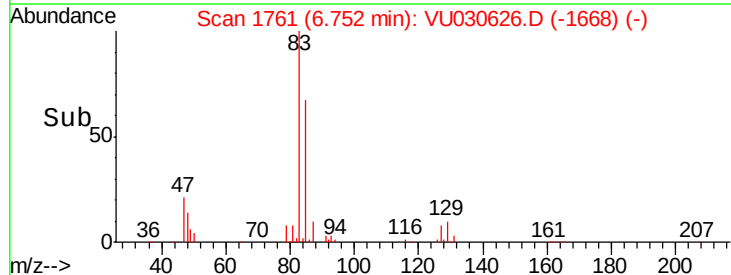
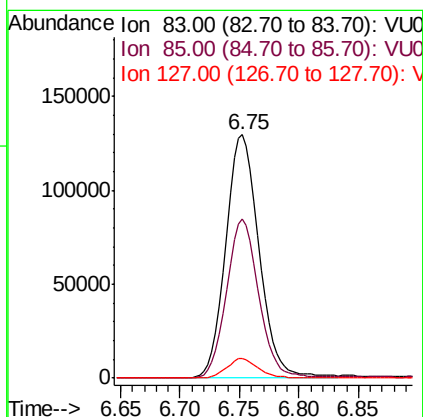
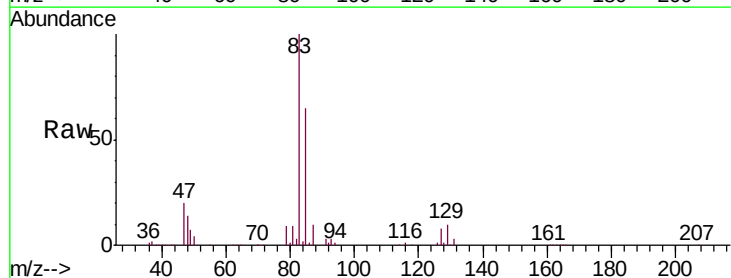
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05044

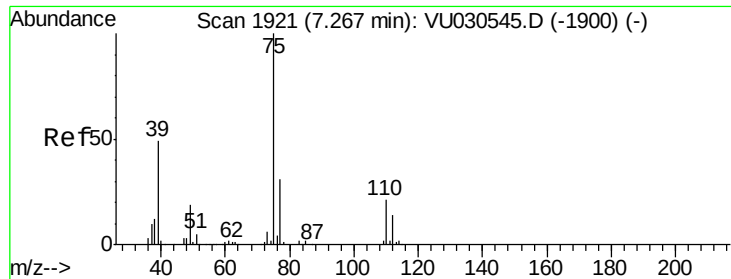
Tgt Ion: 63 Resp: 203464  
 Ion Ratio Lower Upper  
 63 100  
 112 3.4 2.6 4.0



#38  
 Bromodichloromethane  
 Concen: 47.287 ug/L  
 RT: 6.75 min Scan# 1761  
 Delta R.T. 0.00 min  
 Lab File: VU030626.D  
 Acq: 03 Apr 2019 14:44

Tgt Ion: 83 Resp: 251240  
 Ion Ratio Lower Upper  
 83 100  
 85 65.1 45.0 83.6  
 127 8.2 6.6 10.0

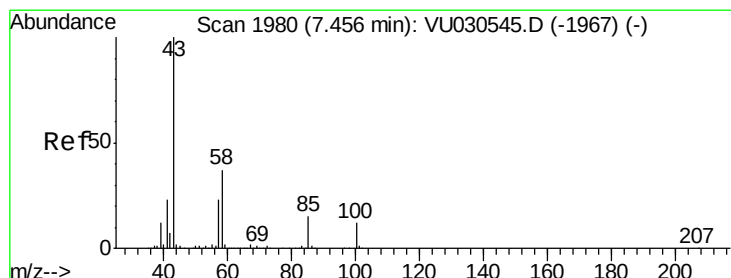
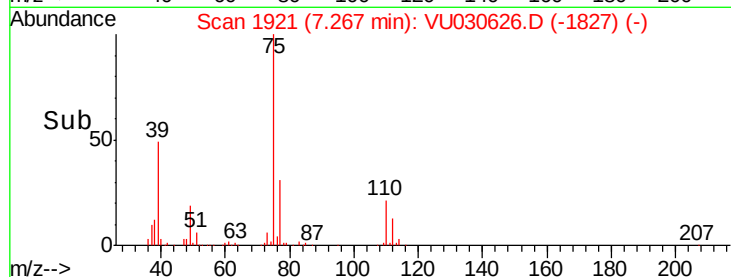
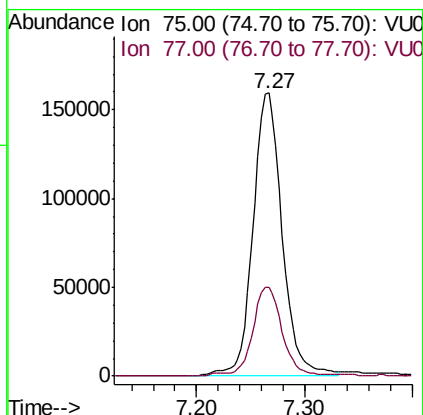
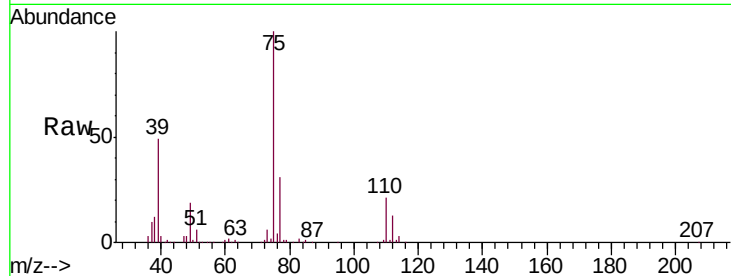




#39  
 cis-1,3-Dichloropropene  
 Concen: 46.639 ug/L  
 RT: 7.27 min Scan# 1921  
 Delta R.T. 0.00 min  
 Lab File: VU030626.D  
 Acq: 03 Apr 2019 14:44

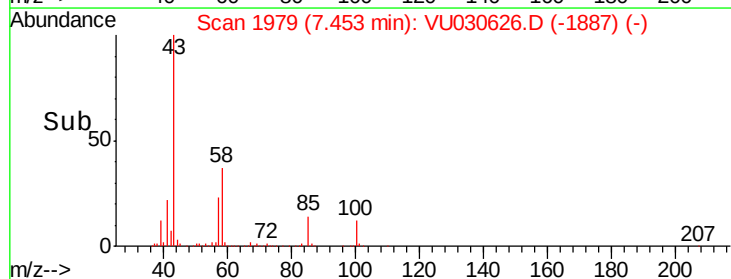
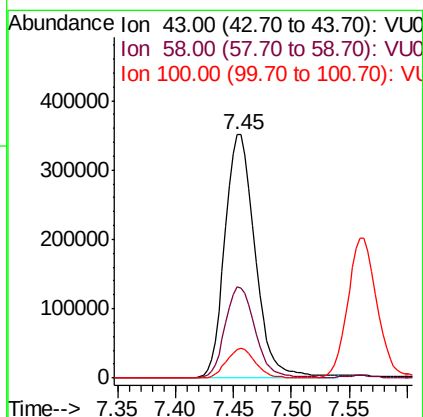
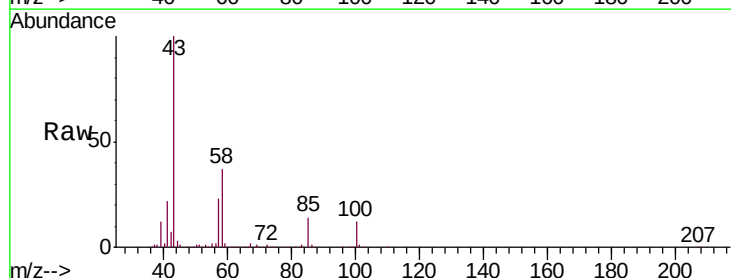
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05044

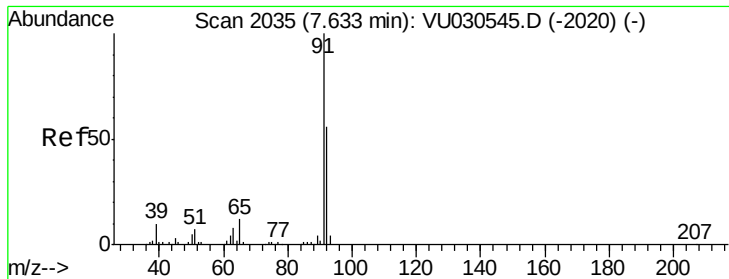
Tgt Ion: 75 Resp: 299761  
 Ion Ratio Lower Upper  
 75 100  
 77 31.4 21.8 40.6



#40  
 4-Methyl-2-pentanone  
 Concen: 84.730 ug/L  
 RT: 7.45 min Scan# 1979  
 Delta R.T. -0.00 min  
 Lab File: VU030626.D  
 Acq: 03 Apr 2019 14:44

Tgt Ion: 43 Resp: 636398  
 Ion Ratio Lower Upper  
 43 100  
 58 37.2 30.6 45.8  
 100 11.8 9.5 14.3





#42

Toluene

Concen: 45.777 ug/L

RT: 7.63 min Scan# 2035

Delta R.T. 0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

Instrument :

MSVOA\_U

ClientSampleId :

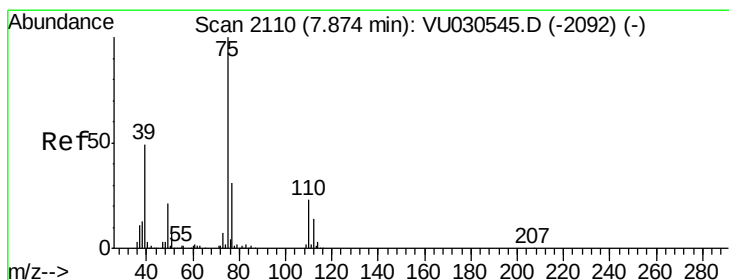
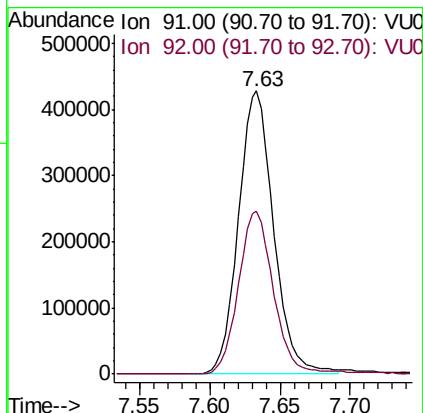
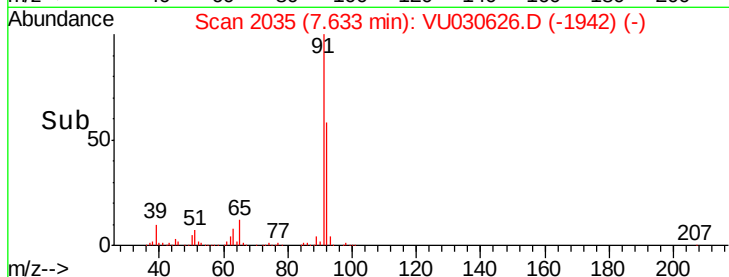
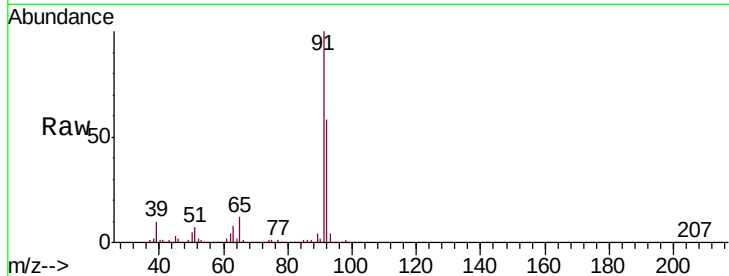
VSTD05044

Tgt Ion: 91 Resp: 748568

Ion Ratio Lower Upper

91 100

92 57.5 39.7 73.7



#44

trans-1,3-Dichloropropene

Concen: 46.723 ug/L

RT: 7.87 min Scan# 2110

Delta R.T. -0.00 min

Lab File: VU030626.D

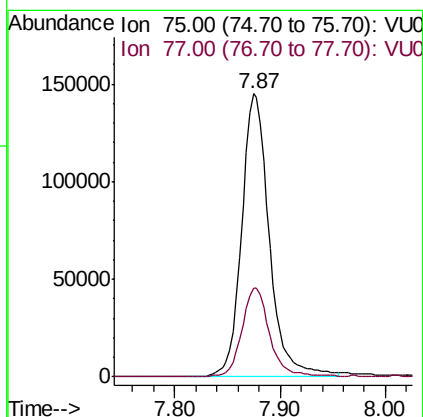
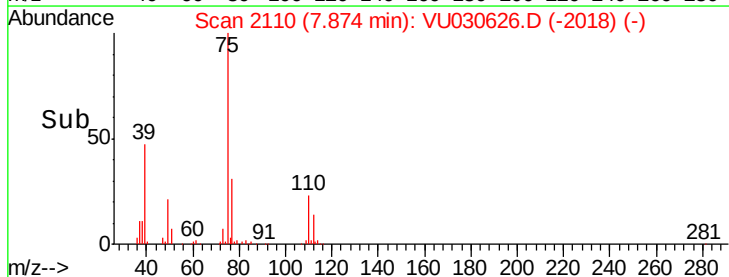
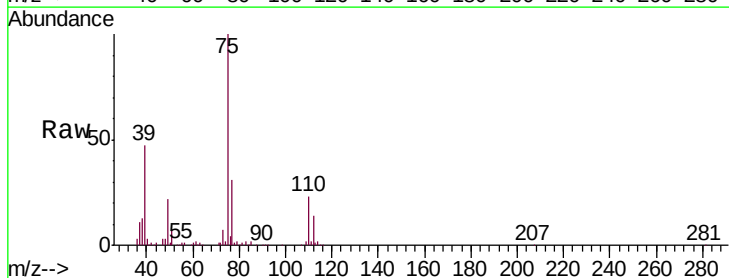
Acq: 03 Apr 2019 14:44

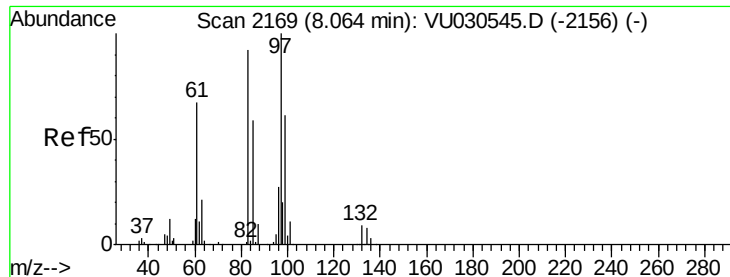
Tgt Ion: 75 Resp: 264227

Ion Ratio Lower Upper

75 100

77 31.2 22.0 40.8

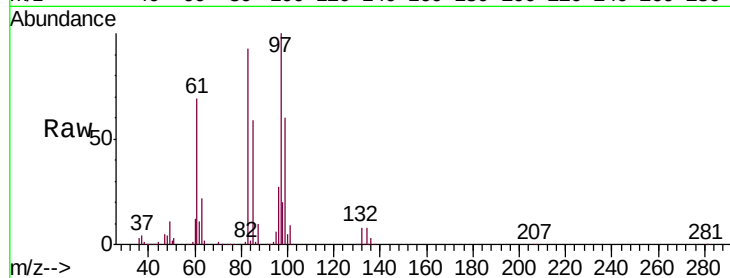




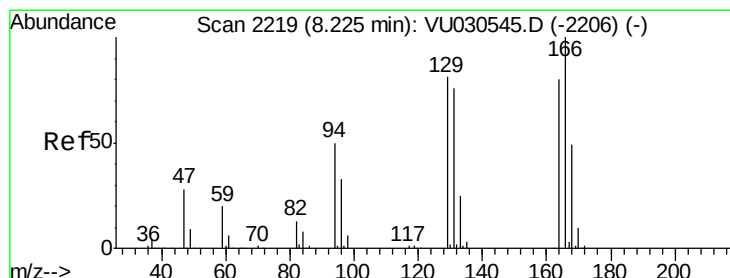
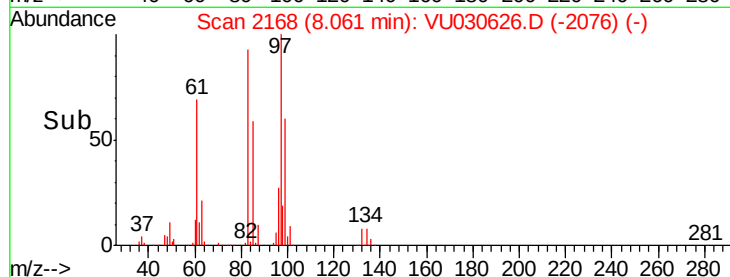
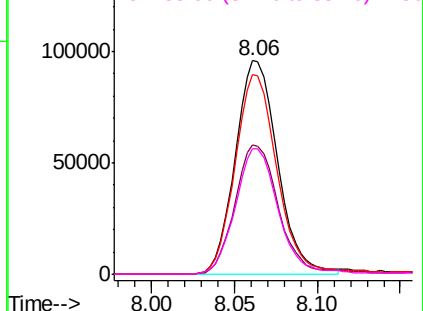
#45  
 1,1,2-Trichloroethane  
 Concen: 45.138 ug/L  
 RT: 8.06 min Scan# 2168  
 Delta R.T. -0.00 min  
 Lab File: VU030626.D  
 Acq: 03 Apr 2019 14:44

Instrument :  
 MSVOA\_U  
 ClientSampled :  
 VSTD05044

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 97    | Resp: | 170539 |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 99       | 60.4  | 44.0  | 81.8   |
| 83       | 93.2  | 65.3  | 121.3  |
| 85       | 58.8  | 41.8  | 77.6   |

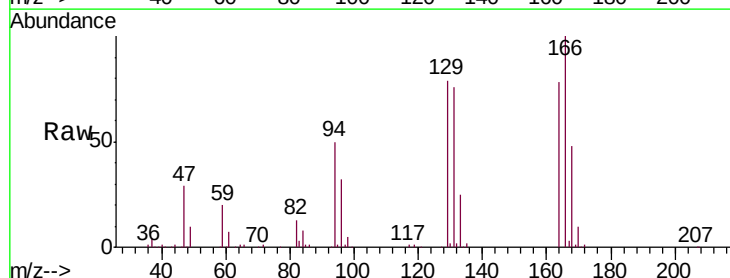


Abundance Ion 97.00 (96.70 to 97.70): VU030545.D (-2156) (-)

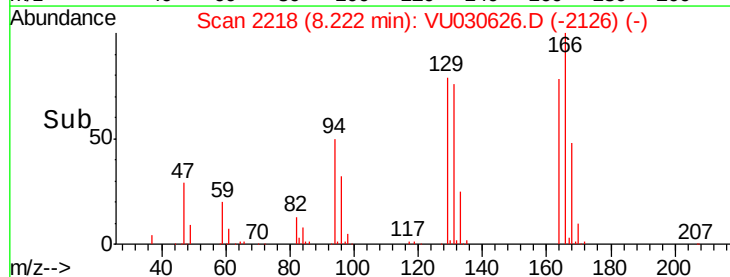
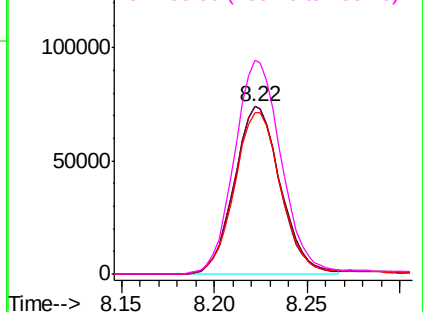


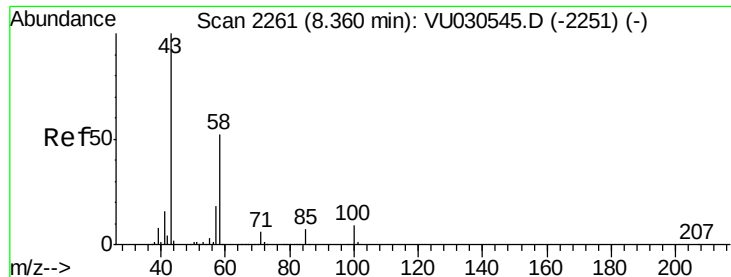
#46  
 Tetrachloroethene  
 Concen: 47.132 ug/L  
 RT: 8.22 min Scan# 2218  
 Delta R.T. -0.00 min  
 Lab File: VU030626.D  
 Acq: 03 Apr 2019 14:44

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 164   | Resp: | 127515 |
| Ion      | Ratio | Lower | Upper  |
| 164      | 100   |       |        |
| 129      | 100.3 | 68.1  | 126.5  |
| 131      | 96.4  | 67.7  | 125.7  |
| 166      | 127.7 | 92.4  | 171.6  |



Abundance Ion 164.00 (163.70 to 164.70): VU030545.D (-2206) (-)

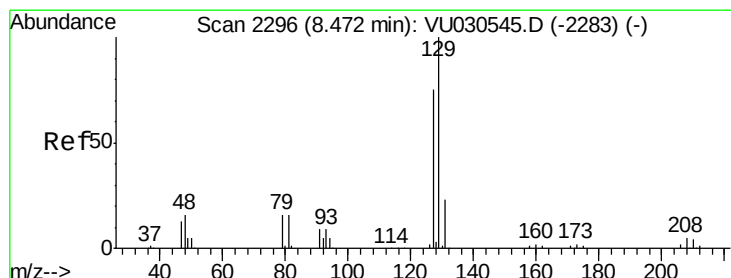
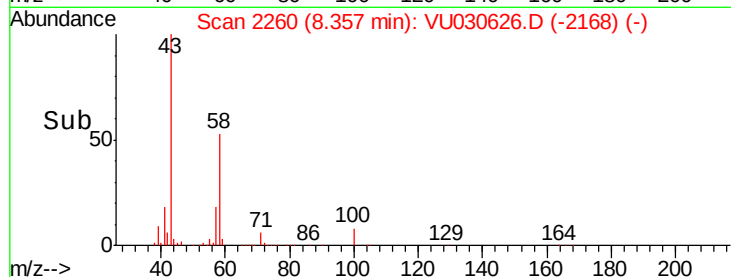
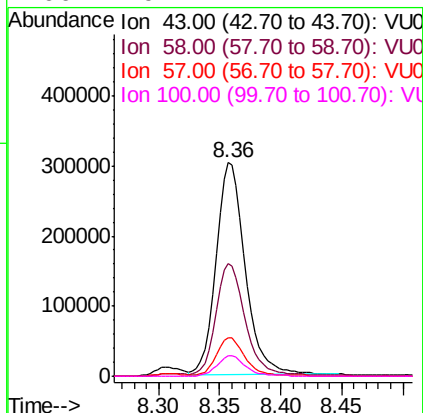
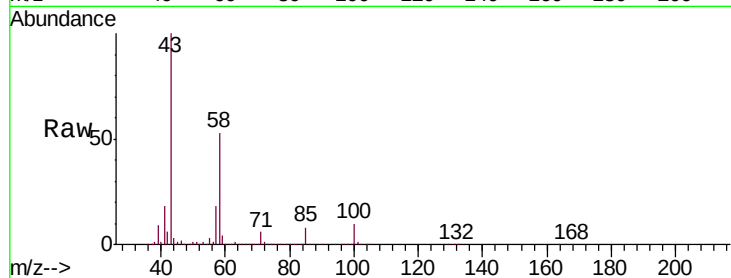




#48  
2-Hexanone  
Concen: 82.826 ug/L  
RT: 8.36 min Scan# 2260  
Delta R.T. -0.00 min  
Lab File: VU030626.D  
Acq: 03 Apr 2019 14:44

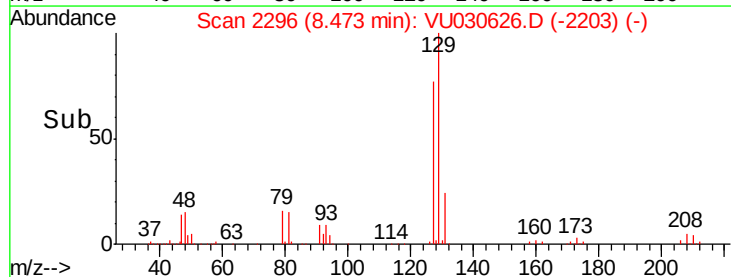
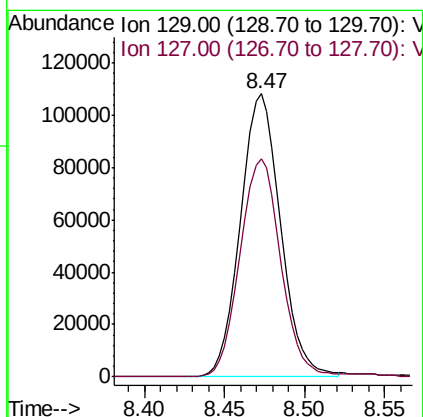
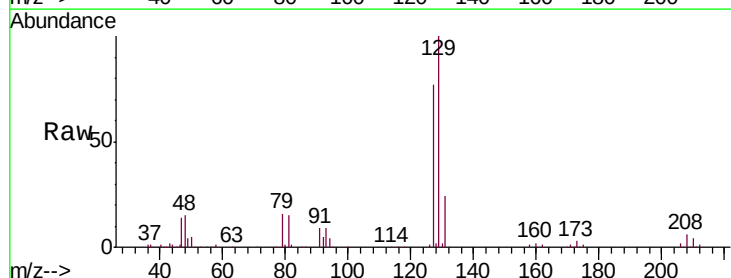
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05044

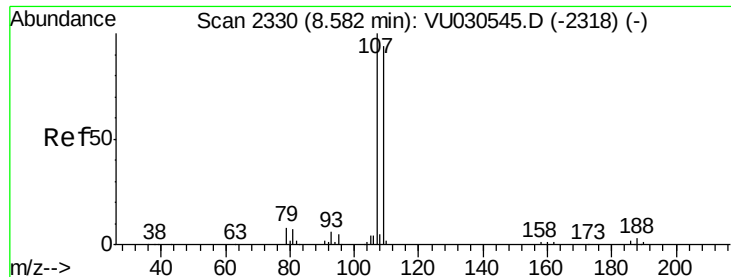
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 509860 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 58       | 52.8  | 42.5  | 63.7   |
| 57       | 17.2  | 15.0  | 22.6   |
| 100      | 9.4   | 7.4   | 11.2   |



#49  
Dibromochloromethane  
Concen: 47.146 ug/L  
RT: 8.47 min Scan# 2296  
Delta R.T. 0.00 min  
Lab File: VU030626.D  
Acq: 03 Apr 2019 14:44

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 129   | Resp: | 185084 |
| Ion      | Ratio | Lower | Upper  |
| 129      | 100   |       |        |
| 127      | 77.3  | 53.2  | 98.8   |





#50

1,2-Dibromoethane

Concen: 44.414 ug/L

RT: 8.58 min Scan# 2330

Delta R.T. 0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05044

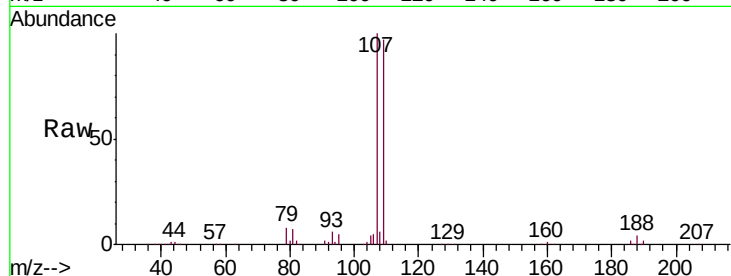
Tgt Ion:107 Resp: 180089

Ion Ratio Lower Upper

107 100

109 96.8 65.8 122.2

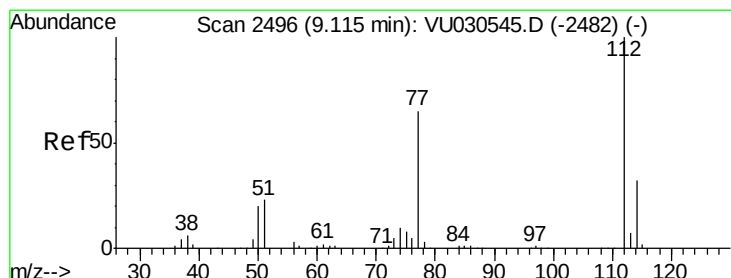
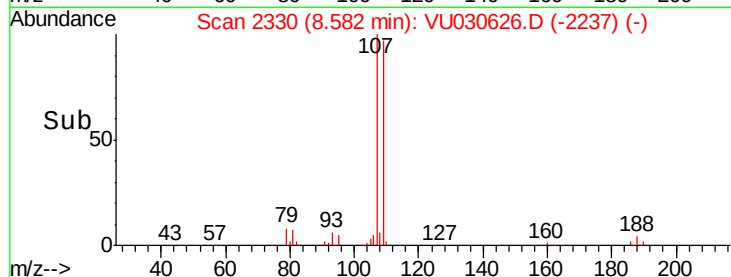
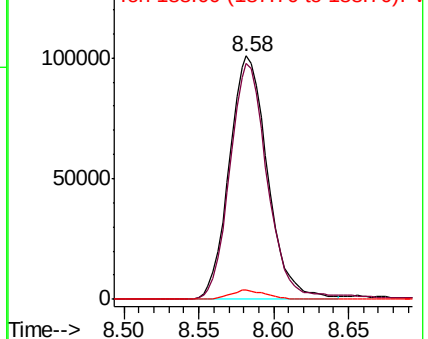
188 3.7 2.6 4.0



Abundance Ion 107.00 (106.70 to 107.70): V

Ion 109.00 (108.70 to 109.70): V

Ion 188.00 (187.70 to 188.70): V



#51

Chlorobenzene

Concen: 45.209 ug/L

RT: 9.12 min Scan# 2496

Delta R.T. 0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

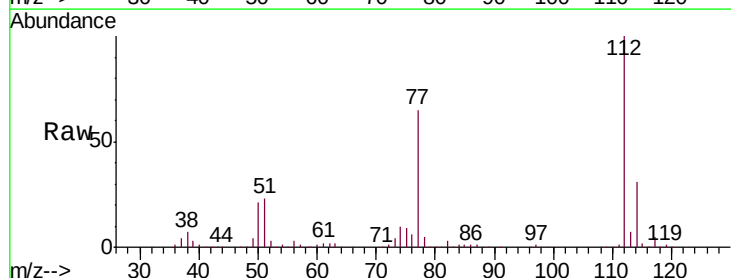
Tgt Ion:112 Resp: 448051

Ion Ratio Lower Upper

112 100

114 30.9 21.5 39.9

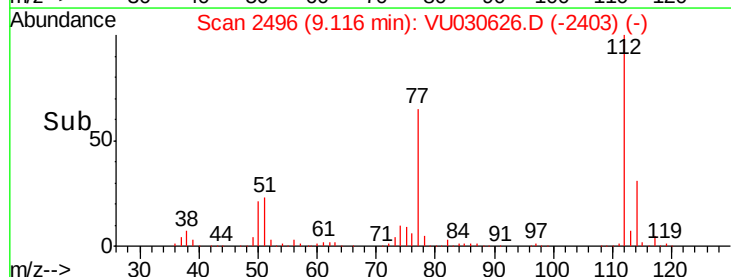
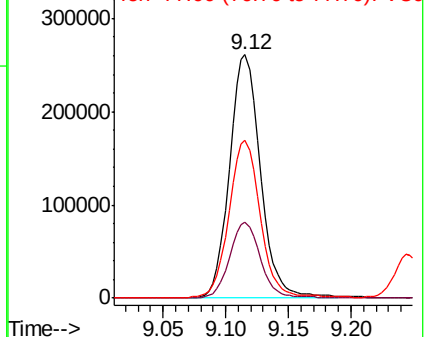
77 64.9 51.4 77.0

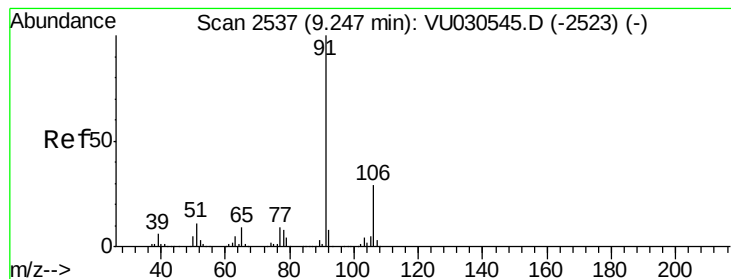


Abundance Ion 112.00 (111.70 to 112.70): V

Ion 114.00 (113.70 to 114.70): V

Ion 77.00 (76.70 to 77.70): VU





#52

Ethylbenzene

Concen: 46.254 ug/L

RT: 9.24 min Scan# 2536

Delta R.T. -0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

Instrument :

MSVOA\_U

ClientSampleId :

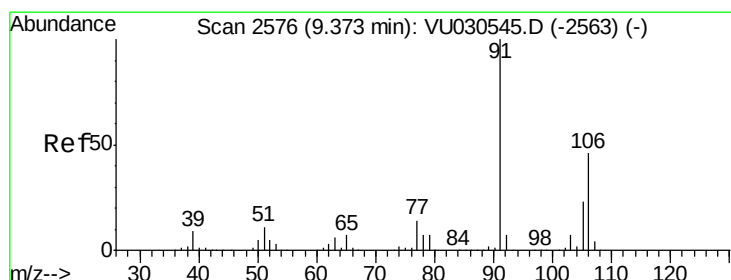
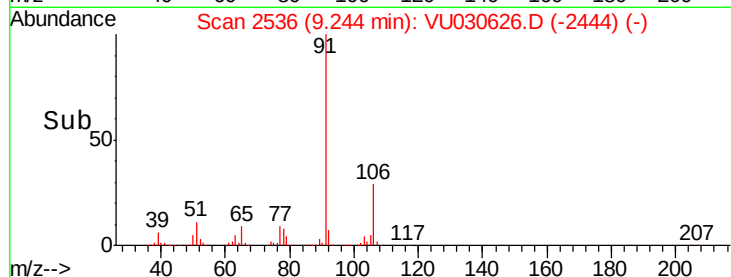
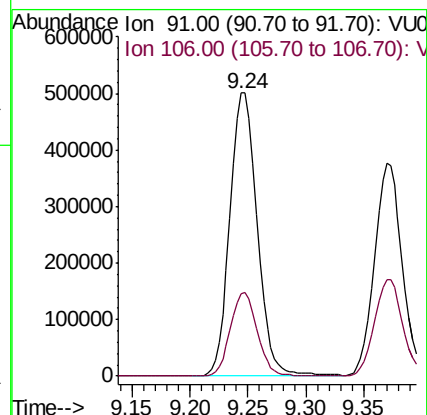
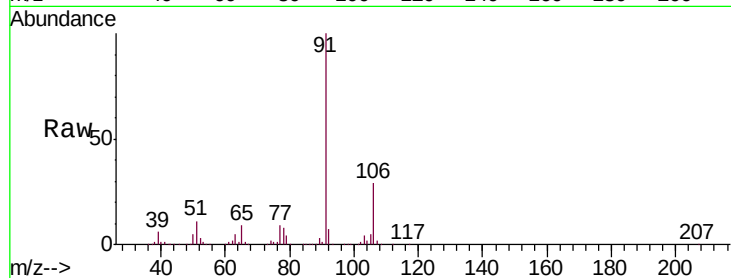
VSTD05044

Tgt Ion: 91 Resp: 819371

Ion Ratio Lower Upper

91 100

106 29.2 20.6 38.2



#53

m,p-Xylene

Concen: 45.992 ug/L

RT: 9.37 min Scan# 2576

Delta R.T. 0.00 min

Lab File: VU030626.D

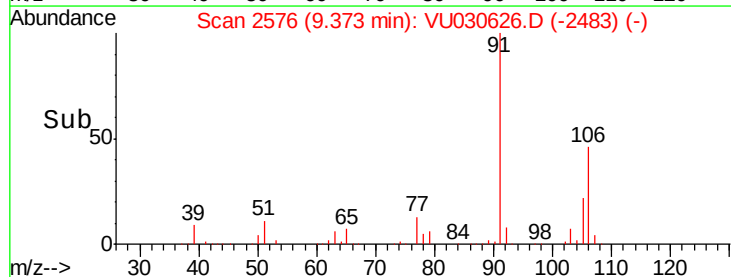
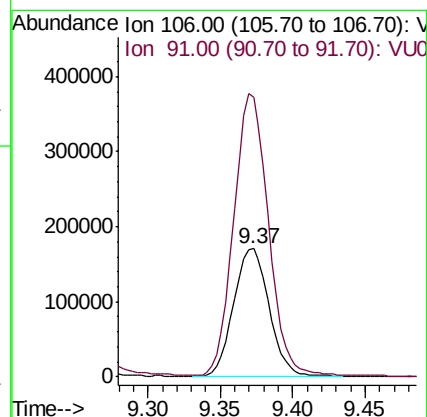
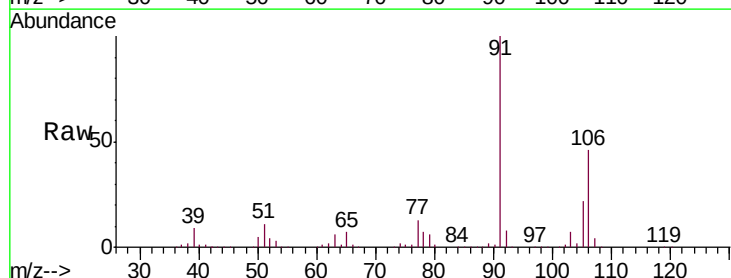
Acq: 03 Apr 2019 14:44

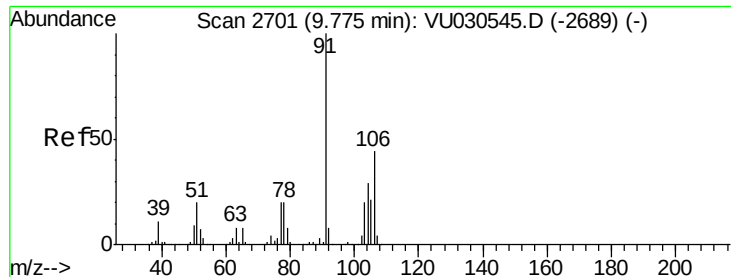
Tgt Ion: 106 Resp: 294176

Ion Ratio Lower Upper

106 100

91 218.6 151.2 280.8





#54

o-xylene

Concen: 45.790 ug/L

RT: 9.77 min Scan# 2701

Delta R.T. 0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

Instrument :

MSVOA\_U

ClientSampleId :

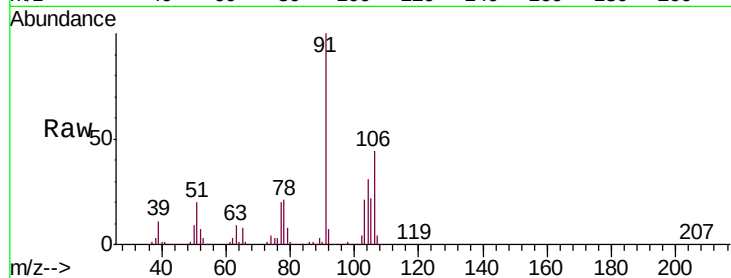
VSTD05044

Tgt Ion:106 Resp: 285776

Ion Ratio Lower Upper

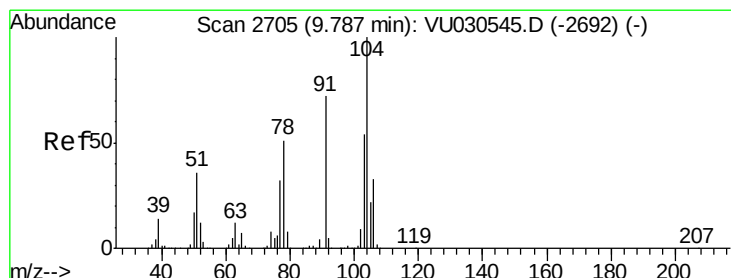
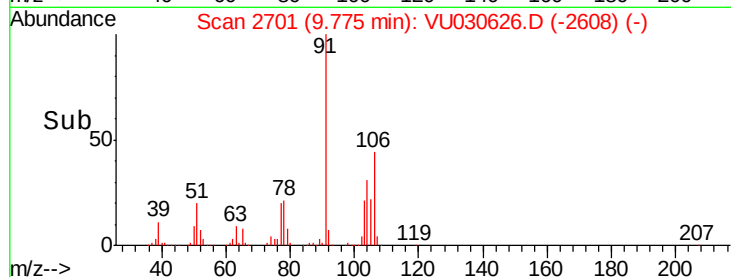
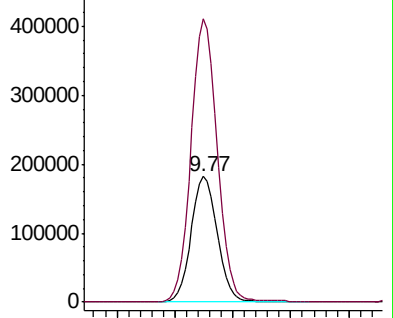
106 100

91 225.8 159.6 296.4



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VU0



#55

Styrene

Concen: 46.387 ug/L

RT: 9.79 min Scan# 2705

Delta R.T. 0.00 min

Lab File: VU030626.D

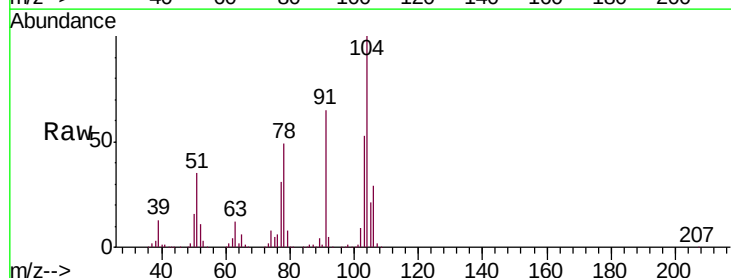
Acq: 03 Apr 2019 14:44

Tgt Ion:104 Resp: 498697

Ion Ratio Lower Upper

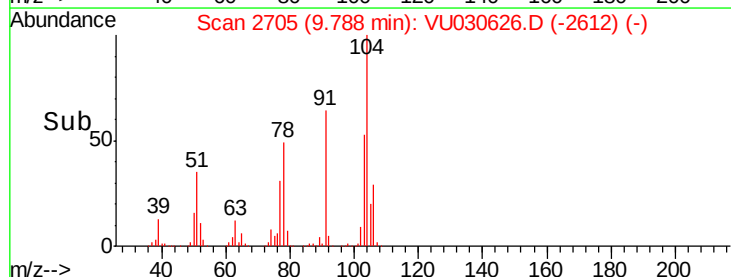
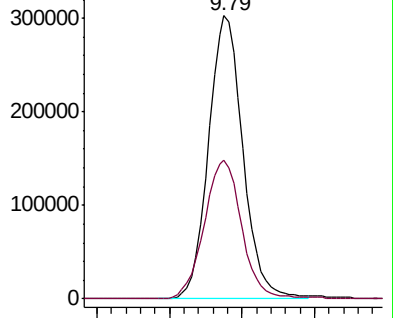
104 100

78 48.8 35.1 65.3

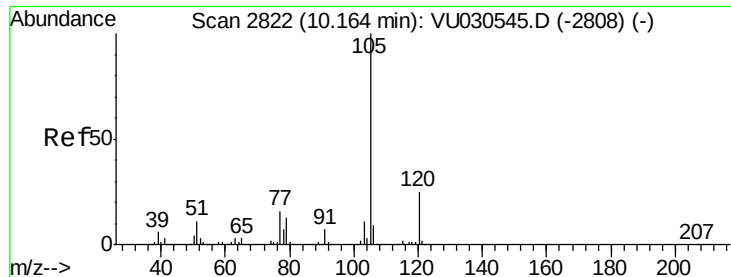


Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VU0







#56

Isopropylbenzene

Concen: 45.858 ug/L

RT: 10.16 min Scan# 2822

Delta R.T. 0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05044

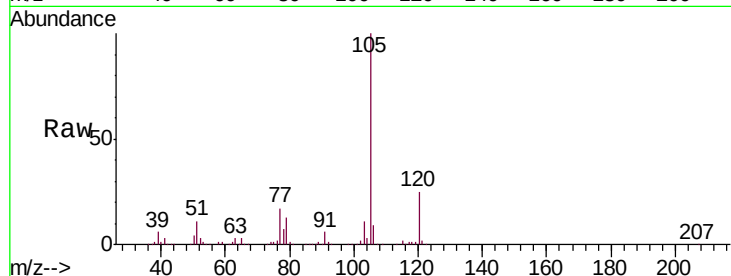
Tgt Ion: 105 Resp: 757827

Ion Ratio Lower Upper

105 100

120 25.0 20.2 30.2

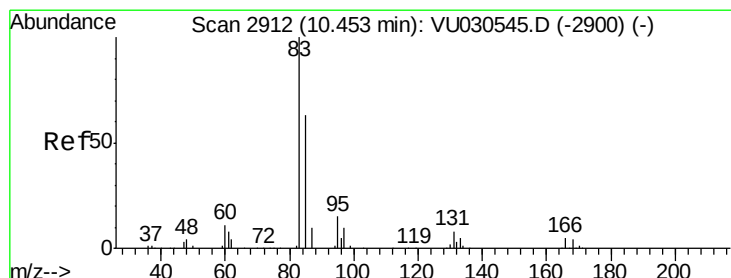
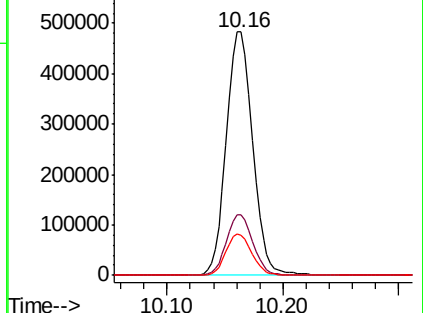
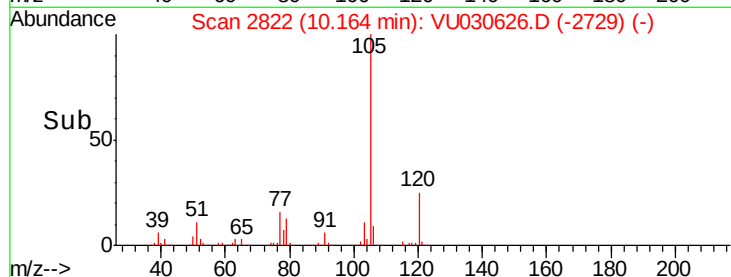
77 16.7 13.2 19.8



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: 43.994 ug/L

RT: 10.45 min Scan# 2912

Delta R.T. 0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

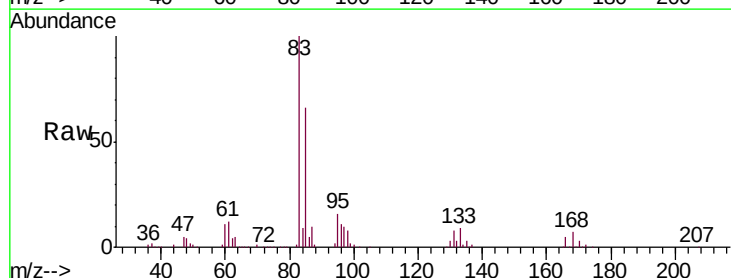
Tgt Ion: 83 Resp: 306346

Ion Ratio Lower Upper

83 100

85 65.7 44.3 82.3

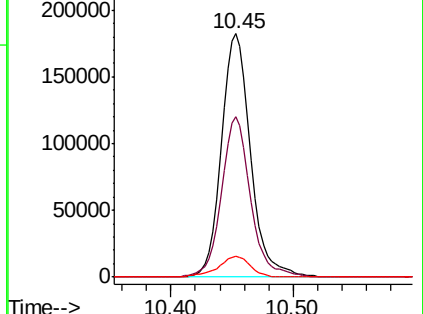
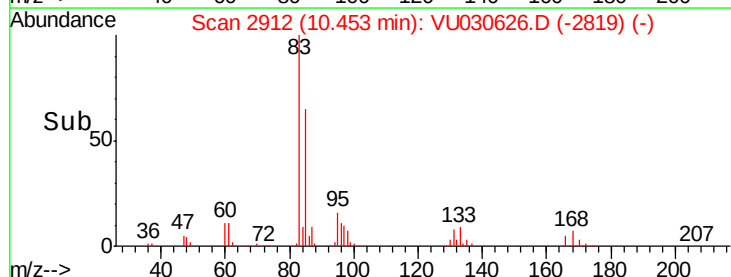
131 8.4 6.7 10.1

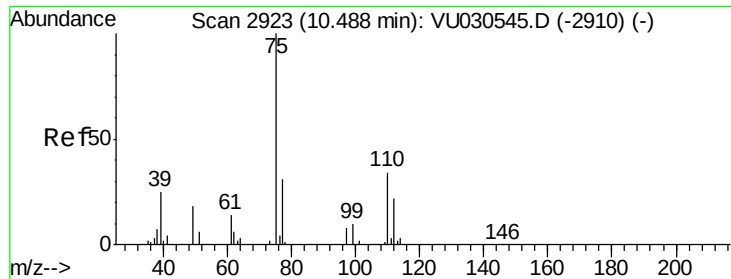


Abundance Ion 83.00 (82.70 to 83.70): V

Ion 85.00 (84.70 to 85.70): V

Ion 131.00 (130.70 to 131.70): V

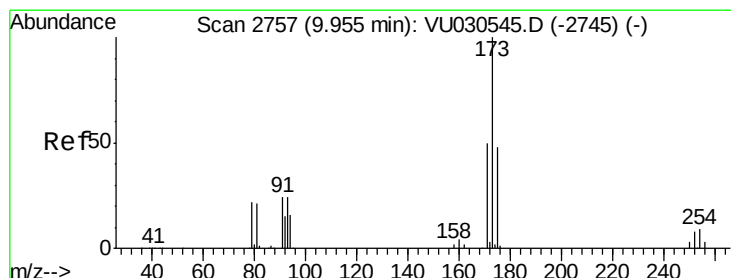
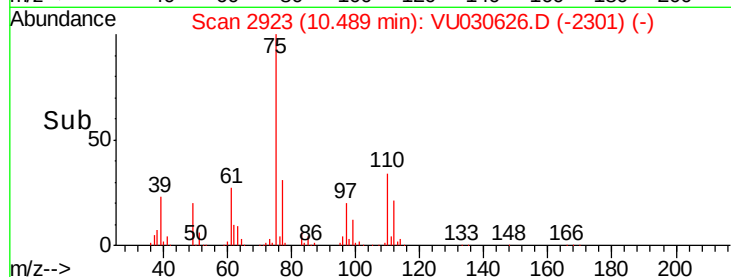
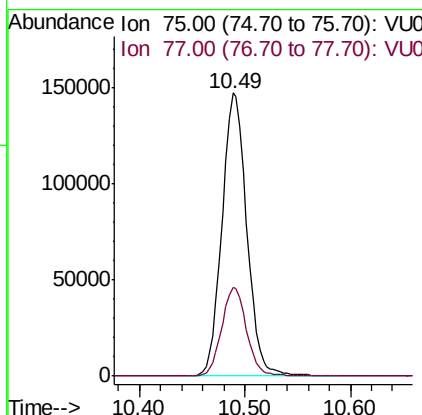
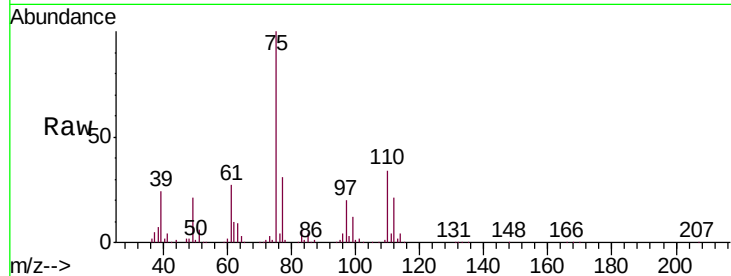




#59  
 1,2,3-Trichloropropane  
 Concen: 44.140 ug/L  
 RT: 10.49 min Scan# 2923  
 Delta R.T. 0.00 min  
 Lab File: VU030626.D  
 Acq: 03 Apr 2019 14:44

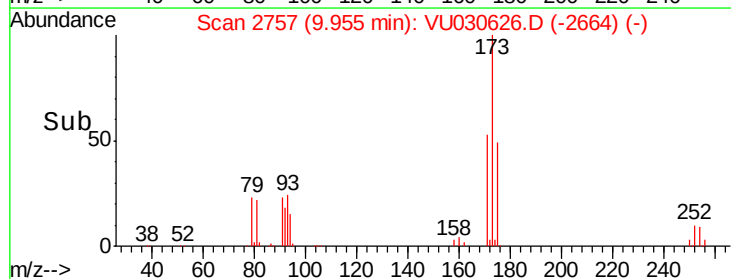
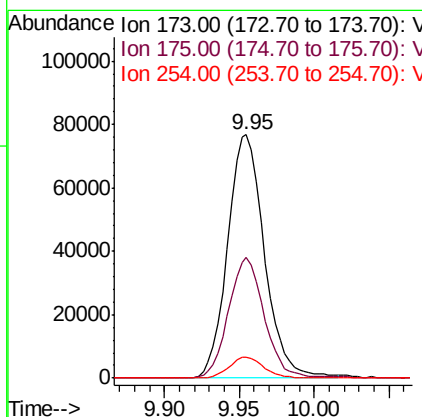
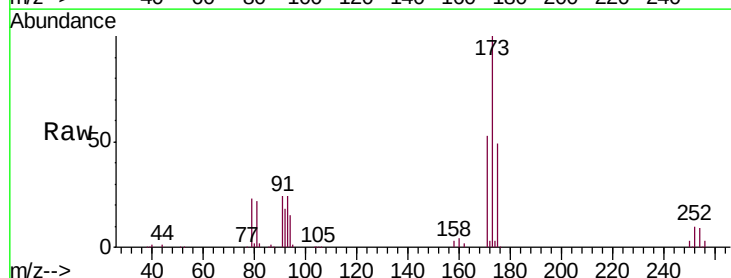
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05044

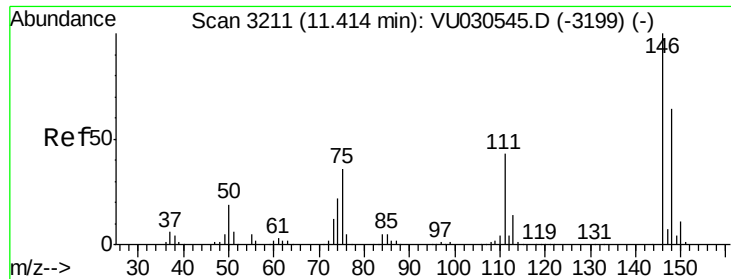
Tgt Ion: 75 Resp: 240240  
 Ion Ratio Lower Upper  
 75 100  
 77 31.5 25.4 38.2



#61  
 Bromoform  
 Concen: 46.193 ug/L  
 RT: 9.95 min Scan# 2757  
 Delta R.T. 0.00 min  
 Lab File: VU030626.D  
 Acq: 03 Apr 2019 14:44

Tgt Ion: 173 Resp: 131520  
 Ion Ratio Lower Upper  
 173 100  
 175 48.0 38.5 57.7  
 254 8.1 6.8 10.2





#62

1,3-Dichlorobenzene

Concen: 45.072 ug/L

RT: 11.41 min Scan# 3210

Delta R.T. -0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05044

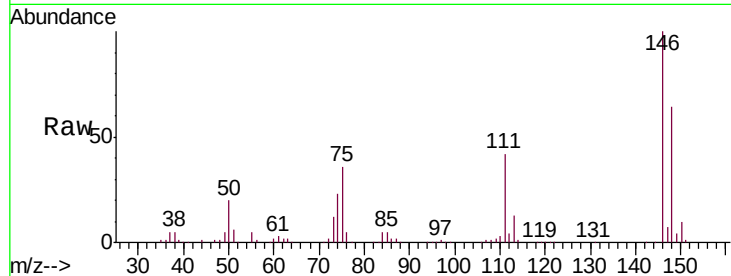
Tgt Ion:146 Resp: 315644

Ion Ratio Lower Upper

146 100

111 42.4 29.2 54.2

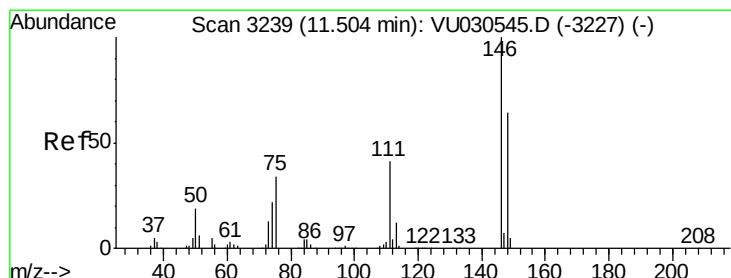
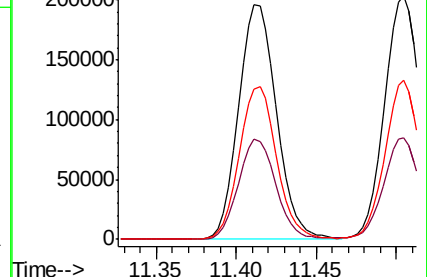
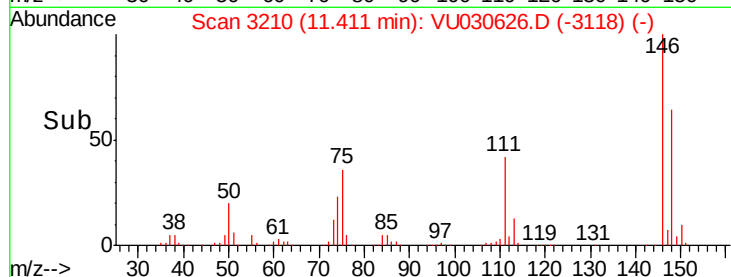
148 64.1 44.4 82.4



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: 44.721 ug/L

RT: 11.50 min Scan# 3239

Delta R.T. 0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

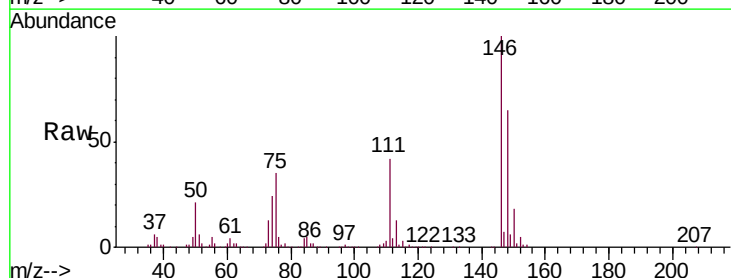
Tgt Ion:146 Resp: 322422

Ion Ratio Lower Upper

146 100

111 41.9 28.7 53.3

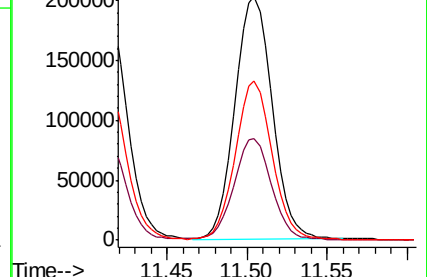
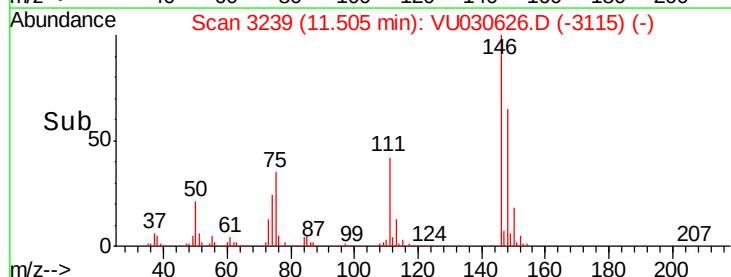
148 65.2 44.3 82.3

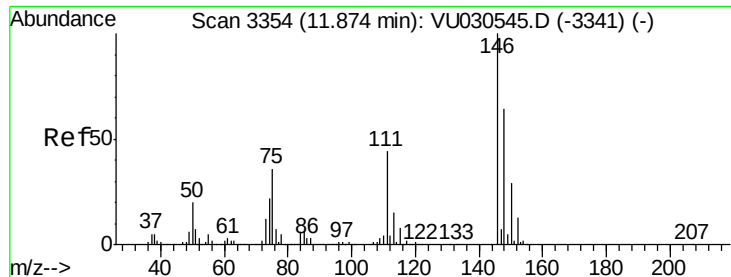


Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V

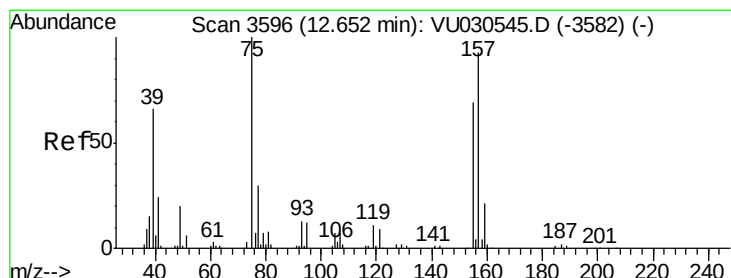
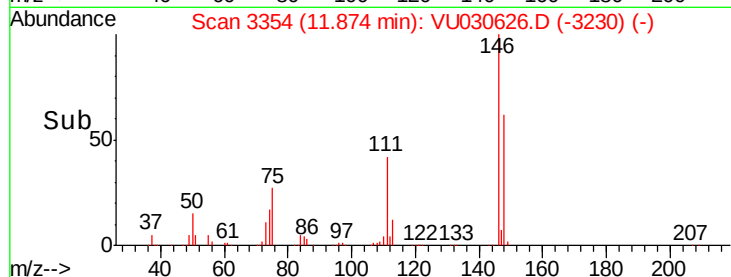
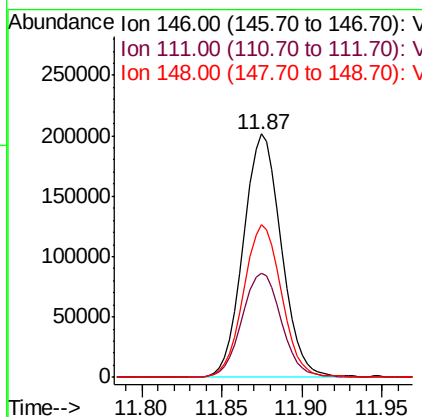
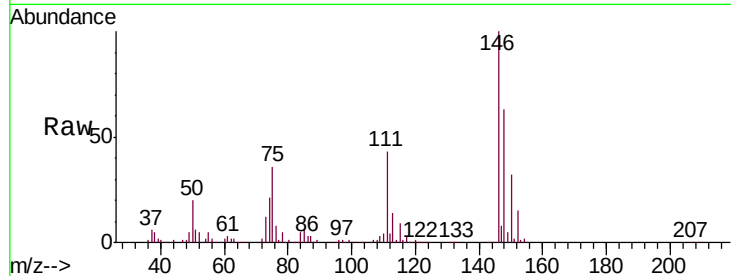




#65  
 1,2-Dichlorobenzene  
 Concen: 45.932 ug/L  
 RT: 11.87 min Scan# 3354  
 Delta R.T. 0.00 min  
 Lab File: VU030626.D  
 Acq: 03 Apr 2019 14:44

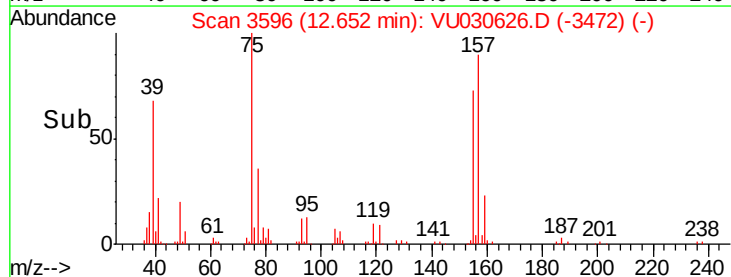
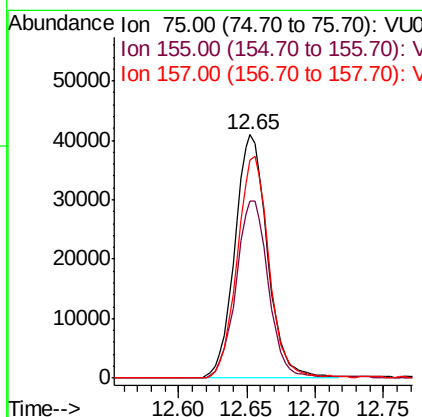
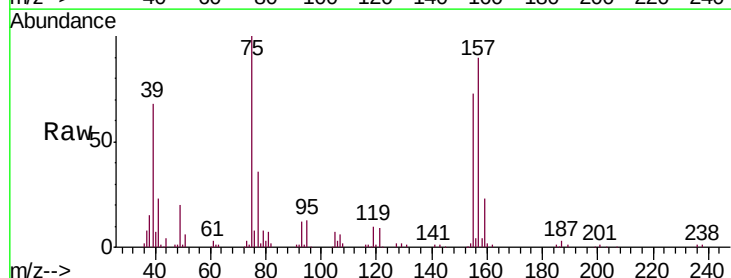
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05044

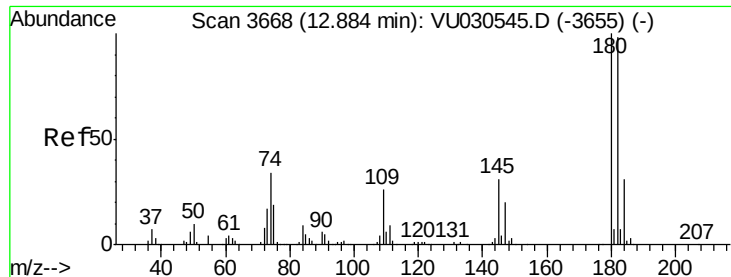
Tgt Ion: 146 Resp: 325256  
 Ion Ratio Lower Upper  
 146 100  
 111 43.0 34.9 52.3  
 148 62.6 51.2 76.8



#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 43.078 ug/L  
 RT: 12.65 min Scan# 3596  
 Delta R.T. 0.00 min  
 Lab File: VU030626.D  
 Acq: 03 Apr 2019 14:44

Tgt Ion: 75 Resp: 67923  
 Ion Ratio Lower Upper  
 75 100  
 155 72.7 61.8 92.6  
 157 89.7 80.2 120.4

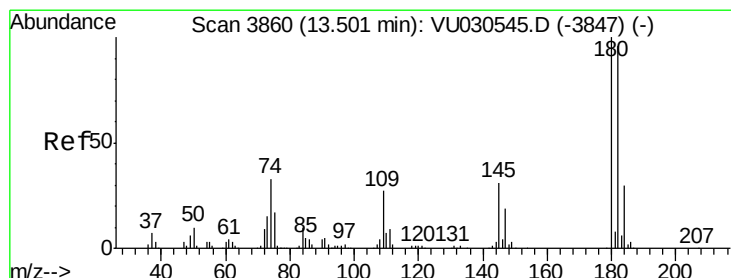
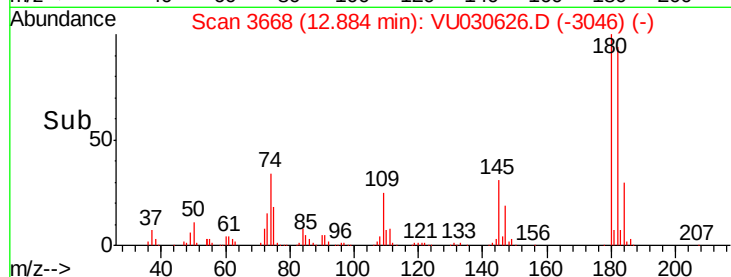
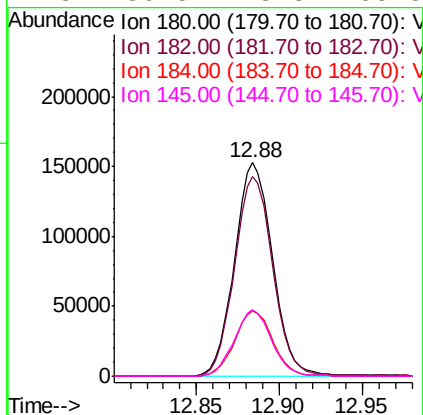
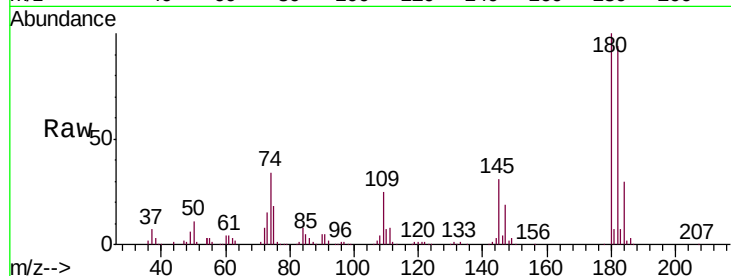




#67  
 1,3,5-Trichlorobenzene  
 Concen: 46.537 ug/L  
 RT: 12.88 min Scan# 3668  
 Delta R.T. 0.00 min  
 Lab File: VU030626.D  
 Acq: 03 Apr 2019 14:44

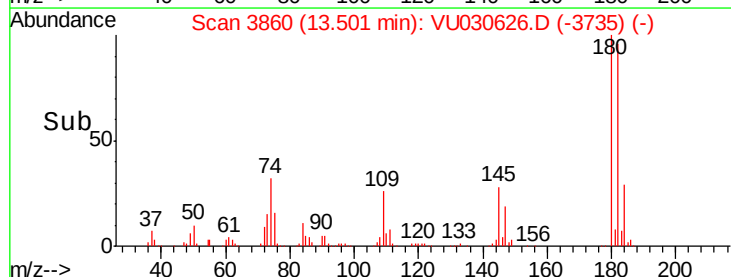
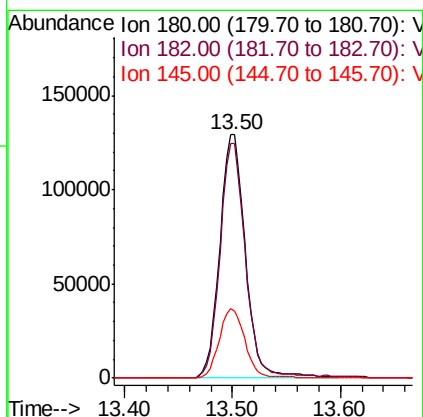
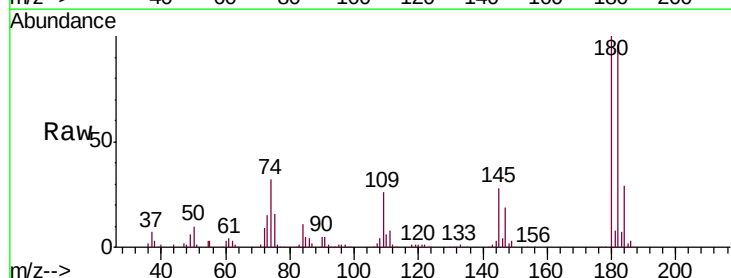
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05044

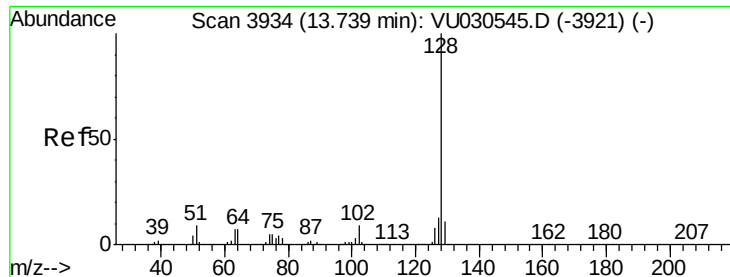
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 94.5  | 75.9  | 113.9 |
| 184     | 30.6  | 24.1  | 36.1  |
| 145     | 30.5  | 23.8  | 35.8  |



#68  
 1,2,4-trichlorobenzene  
 Concen: 46.974 ug/L  
 RT: 13.50 min Scan# 3860  
 Delta R.T. 0.00 min  
 Lab File: VU030626.D  
 Acq: 03 Apr 2019 14:44

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 94.8  | 76.1  | 114.1 |
| 145     | 28.4  | 24.5  | 36.7  |





#69

Naphthalene

Concen: 42.083 ug/L

RT: 13.74 min Scan# 3934

Delta R.T. 0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05044

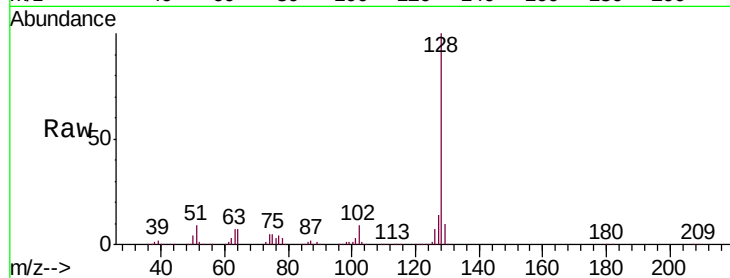
Tgt Ion:128 Resp: 681663

Ion Ratio Lower Upper

128 100

127 12.9 10.4 15.6

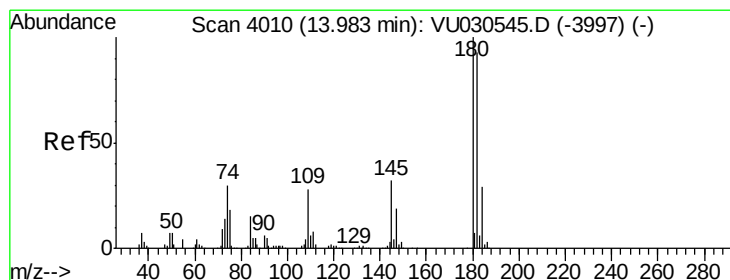
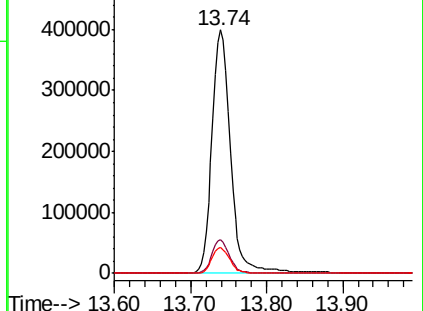
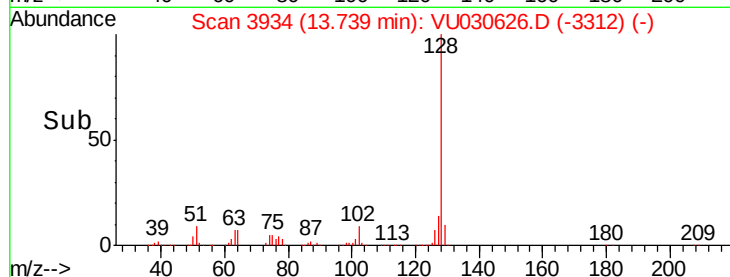
129 10.4 8.4 12.6



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: 46.358 ug/L

RT: 13.98 min Scan# 4010

Delta R.T. 0.00 min

Lab File: VU030626.D

Acq: 03 Apr 2019 14:44

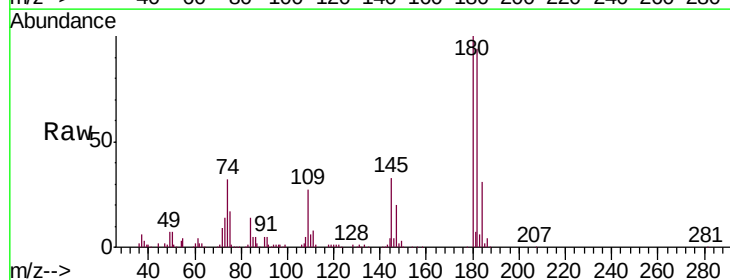
Tgt Ion:180 Resp: 222990

Ion Ratio Lower Upper

180 100

182 94.9 77.4 116.2

145 32.5 25.9 38.9



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

