

Data File : VU033842.D  
Acq On : 20 Aug 2019 10:02  
Operator : JC/SP  
Sample : VSTD0.505  
Misc : 25.0mL/MSVOA\_U/WATER  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD0.505

Quant Time: Aug 21 05:09:56 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR082019WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Wed Aug 21 05:04:59 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.86  | 114  | 172336   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.07  | 117  | 176618   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.47 | 152  | 84895    | 5.00 | ug/L  | 0.00     |

System Monitoring Compounds

|                                |       |     |       |      |      |      |
|--------------------------------|-------|-----|-------|------|------|------|
| 4) Vinyl Chloride-d3           | 1.39  | 65  | 7281  | 0.50 | ug/L | 0.00 |
| 7) Chloroethane-d5             | 1.67  | 69  | 6887  | 0.53 | ug/L | 0.00 |
| 11) 1,1-Dichloroethene-d2      | 2.26  | 63  | 14459 | 0.49 | ug/L | 0.00 |
| 20) 2-Butanone-d5              | 4.18  | 46  | 12712 | 4.37 | ug/L | 0.02 |
| 24) Chloroform-d               | 4.62  | 84  | 11619 | 0.47 | ug/L | 0.00 |
| 26) 1,2-Dichloroethane-d4      | 5.29  | 65  | 7147  | 0.54 | ug/L | 0.00 |
| 32) Benzene-d6                 | 5.32  | 84  | 19925 | 0.45 | ug/L | 0.00 |
| 36) 1,2-Dichloropropane-d6     | 6.31  | 67  | 7284  | 0.51 | ug/L | 0.00 |
| 41) Toluene-d8                 | 7.55  | 98  | 17464 | 0.42 | ug/L | 0.00 |
| 43) trans-1,3-Dichloropropene- | 7.84  | 79  | 2162  | 0.39 | ug/L | 0.00 |
| 46) 2-Hexanone-d5              | 8.31  | 63  | 6078  | 3.08 | ug/L | 0.01 |
| 57) 1,1,2,2-Tetrachloroethane- | 10.42 | 84  | 6039  | 0.49 | ug/L | 0.00 |
| 64) 1,2-Dichlorobenzene-d4     | 11.85 | 152 | 7200  | 0.49 | ug/L | 0.00 |

Target Compounds

|                                |      |     |       |              | Qvalue |
|--------------------------------|------|-----|-------|--------------|--------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 8010  | 0.513 ug/L   | 95     |
| 3) Chloromethane               | 1.32 | 50  | 7929  | 0.523 ug/L   | 97     |
| 5) Vinyl chloride              | 1.39 | 62  | 8940  | 0.524 ug/L   | 99     |
| 6) Bromomethane                | 1.62 | 94  | 5616  | 0.503 ug/L   | 96     |
| 8) Chloroethane                | 1.69 | 64  | 4927  | 0.492 ug/L   | 98     |
| 9) Trichlorofluoromethane      | 1.88 | 101 | 10952 | 0.505 ug/L   | 94     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.28 | 101 | 6628  | 0.528 ug/L   | 98     |
| 12) 1,1-Dichloroethene         | 2.27 | 96  | 6279  | 0.527 ug/L   | 92     |
| 13) Acetone                    | 2.32 | 43  | 12495 | 5.613 ug/L   | 99     |
| 14) Carbon disulfide           | 2.46 | 76  | 21583 | 0.527 ug/L   | 98     |
| 15) Methyl Acetate             | 2.61 | 43  | 2532  | 0.454 ug/L # | 84     |
| 16) Methylene chloride         | 2.68 | 84  | 8106  | 0.580 ug/L   | 94     |
| 17) Methyl tert-butyl Ether    | 2.98 | 73  | 15500 | 0.518 ug/L # | 89     |
| 18) trans-1,2-Dichloroethene   | 2.96 | 96  | 7277  | 0.554 ug/L   | 98     |
| 19) 1,1-Dichloroethane         | 3.42 | 63  | 9657  | 0.507 ug/L   | 99     |
| 21) 2-Butanone                 | 4.27 | 43  | 10318 | 4.323 ug/L   | 94     |
| 22) cis-1,2-Dichloroethene     | 4.20 | 96  | 4637  | 0.449 ug/L   | 97     |
| 23) Bromochloromethane         | 4.53 | 128 | 2490  | 0.499 ug/L   | 94     |
| 25) Chloroform                 | 4.65 | 83  | 13114 | 0.609 ug/L   | 98     |
| 27) 1,2-Dichloroethane         | 5.39 | 62  | 5835  | 0.477 ug/L # | 93     |
| 29) 1,1,1-Trichloroethane      | 4.89 | 97  | 8243  | 0.515 ug/L   | 98     |
| 30) Cyclohexane                | 4.97 | 56  | 6231  | 0.461 ug/L   | 100    |
| 31) Carbon tetrachloride       | 5.11 | 117 | 7312  | 0.507 ug/L   | 100    |
| 33) Benzene                    | 5.37 | 78  | 18200 | 0.470 ug/L   | 100    |
| 34) Trichloroethene            | 6.17 | 95  | 5851  | 0.563 ug/L   | 87     |
| 35) Methylcyclohexane          | 6.40 | 83  | 6295  | 0.433 ug/L   | 92     |
| 37) 1,2-Dichloropropane        | 6.42 | 63  | 4950  | 0.483 ug/L # | 92     |
| 38) Bromodichloromethane       | 6.74 | 83  | 6694  | 0.507 ug/L   | 99     |
| 39) cis-1,3-Dichloropropene    | 7.26 | 75  | 5830  | 0.430 ug/L   | 91     |
| 40) 4-Methyl-2-pentanone       | 7.45 | 43  | 22714 | 4.182 ug/L   | 96     |

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Quant Title : TRACE VOA SOM01.0  
QLast Update : Wed Aug 21 05:04:59 2019  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|-------|--------|----------|
| 42) Toluene                    | 7.62  | 91   | 16348    | 0.412 | ug/L   | 96       |
| 44) trans-1,3-Dichloropropene  | 7.87  | 75   | 4927     | 0.435 | ug/L   | 98       |
| 45) 1,1,2-Trichloroethane      | 8.05  | 97   | 3524     | 0.480 | ug/L   | 96       |
| 47) Tetrachloroethene          | 8.21  | 164  | 4115     | 0.482 | ug/L   | 98       |
| 48) 2-Hexanone                 | 8.36  | 43   | 17153    | 4.322 | ug/L # | 86       |
| 49) Dibromochloromethane       | 8.46  | 129  | 4342     | 0.474 | ug/L   | 99       |
| 50) 1,2-Dibromoethane          | 8.58  | 107  | 3363     | 0.479 | ug/L # | 93       |
| 51) Chlorobenzene              | 9.10  | 112  | 12927    | 0.492 | ug/L   | 98       |
| 52) Ethylbenzene               | 9.23  | 91   | 15891    | 0.400 | ug/L   | 94       |
| 53) m,p-Xylene                 | 9.36  | 106  | 5926     | 0.397 | ug/L   | 87       |
| 54) o-Xylene                   | 9.77  | 106  | 5582     | 0.390 | ug/L   | 95       |
| 55) Styrene                    | 9.78  | 104  | 8972     | 0.362 | ug/L   | 96       |
| 56) Isopropylbenzene           | 10.15 | 105  | 13536    | 0.366 | ug/L   | 97       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.45 | 83   | 4562     | 0.495 | ug/L # | 89       |
| 59) 1,2,3-Trichloropropane     | 10.48 | 75   | 3342     | 0.497 | ug/L   | 94       |
| 61) Bromoform                  | 9.95  | 173  | 2621     | 0.559 | ug/L # | 92       |
| 62) 1,3-Dichlorobenzene        | 11.40 | 146  | 9139     | 0.485 | ug/L   | 95       |
| 63) 1,4-Dichlorobenzene        | 11.49 | 146  | 10242    | 0.528 | ug/L   | 93       |
| 65) 1,2-Dichlorobenzene        | 11.86 | 146  | 9012     | 0.494 | ug/L   | 95       |
| 66) 1,2-Dibromo-3-chloropropan | 12.65 | 75   | 598      | 0.463 | ug/L # | 88       |
| 67) 1,3,5-Trichlorobenzene     | 12.88 | 180  | 7111     | 0.497 | ug/L   | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.49 | 180  | 4265     | 0.409 | ug/L   | 87       |
| 69) Naphthalene                | 13.74 | 128  | 4162     | 0.292 | ug/L # | 95       |
| 70) 1,2,3-Trichlorobenzene     | 13.98 | 180  | 3687     | 0.377 | ug/L   | 89       |

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

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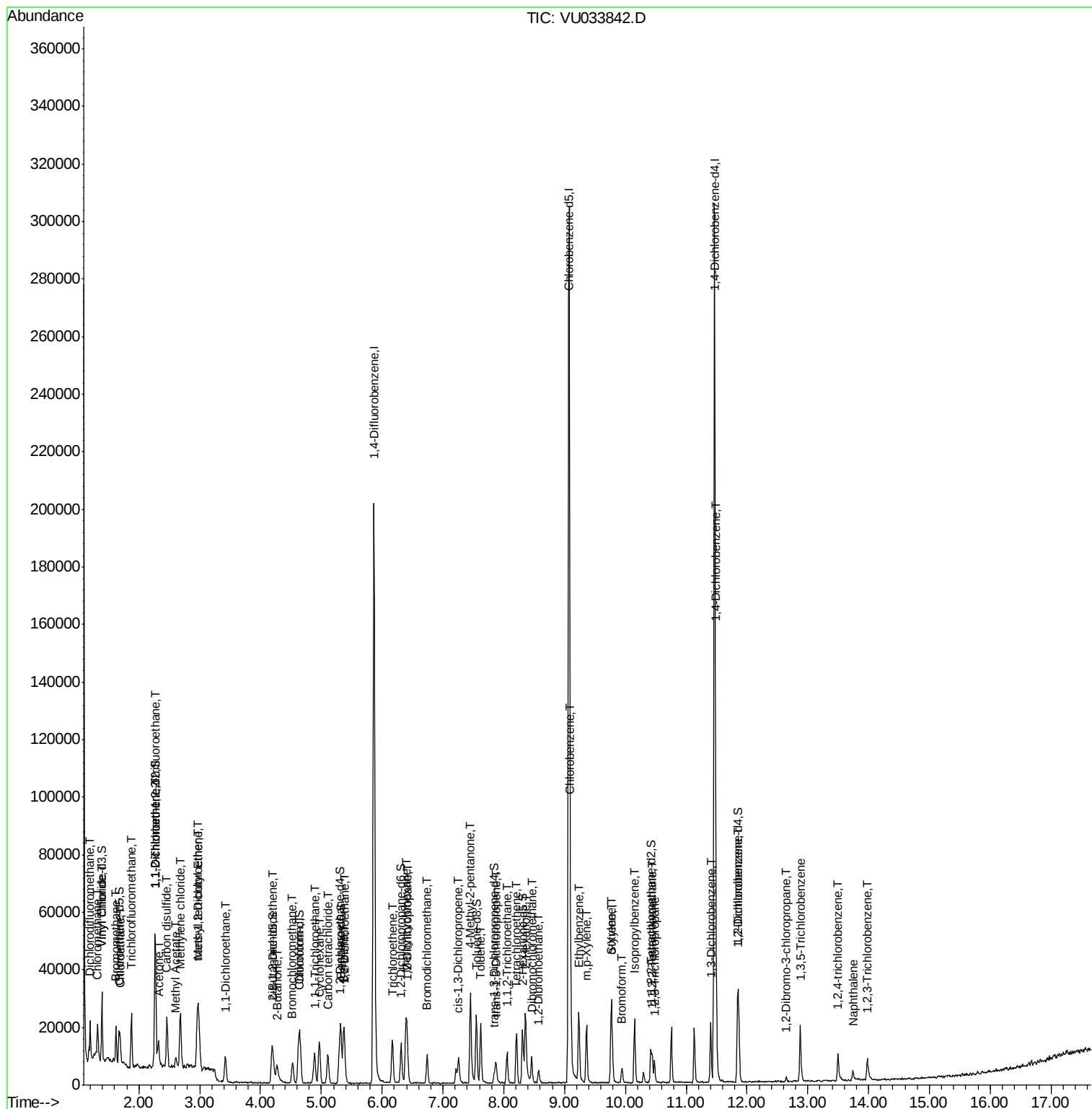
Quant Time: Aug 21 05:09:56 2019

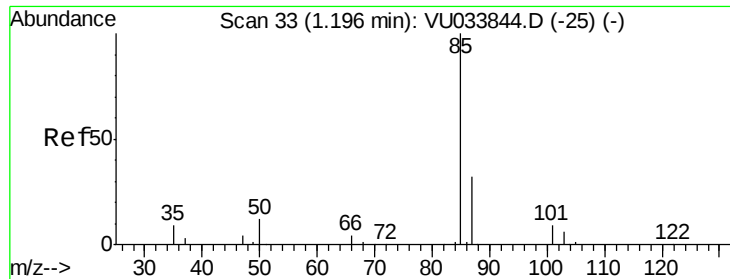
Quant Method : Z:\V0ASRV\HPCHEM1\MSV0A\_U\METHOD\SOMUTR082019WMA.M

Quant Title : TRACE VOA SOM01.0

QLast Update : Wed Aug 21 05:04:59 2019

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#2

Dichlorodifluoromethane

Concen: 0.513 ug/L

RT: 1.20 min Scan# 34

Delta R.T. 0.00 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Instrument :

MSVOA\_U

ClientSampleId :

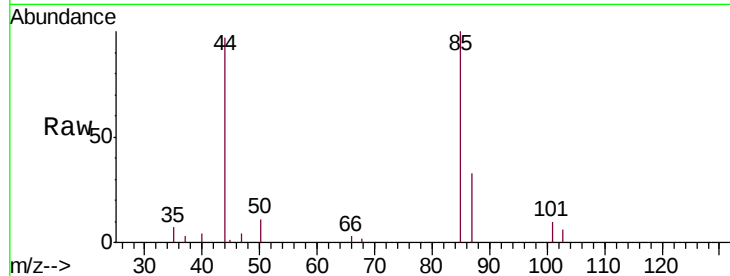
VSTD0.505

Tgt Ion: 85 Resp: 8010

Ion Ratio Lower Upper

85 100

87 34.8 25.5 38.3



Abundance Ion 85.00 (84.70 to 85.70): VU033842.D (-25) (-)

Ion 87.00 (86.70 to 87.70): VU033842.D (-25) (-)

1.20

8000

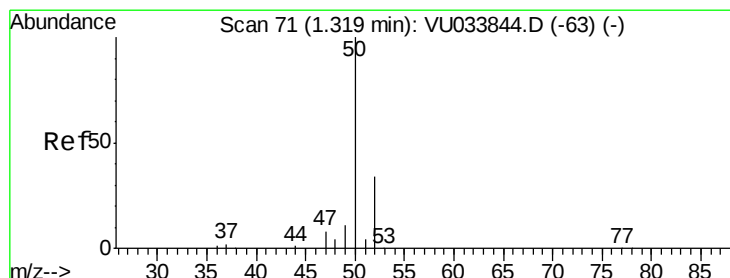
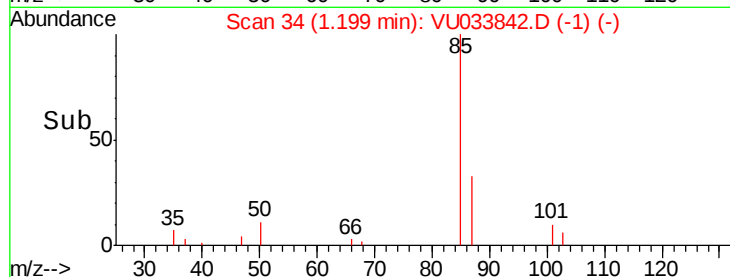
6000

4000

2000

0

Time--> 1.15 1.20 1.25



#3

Chloromethane

Concen: 0.523 ug/L

RT: 1.32 min Scan# 72

Delta R.T. 0.00 min

Lab File: VU033842.D

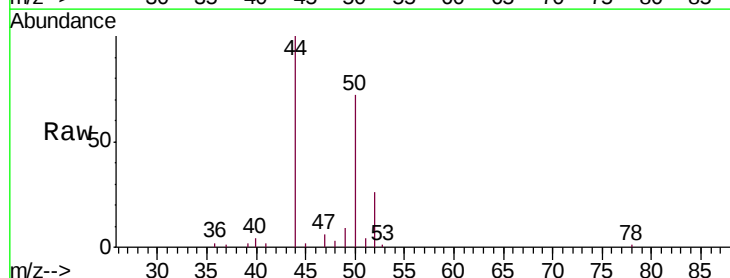
Acq: 20 Aug 2019 10:02

Tgt Ion: 50 Resp: 7929

Ion Ratio Lower Upper

50 100

52 35.7 23.8 44.2



Abundance Ion 50.05 (49.75 to 50.75): VU033842.D (-63) (-)

Ion 52.05 (51.75 to 52.75): VU033842.D (-63) (-)

1.32

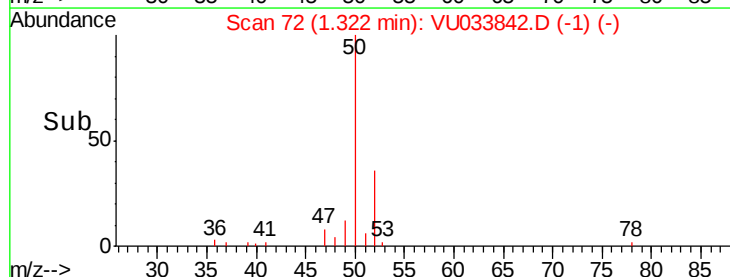
6000

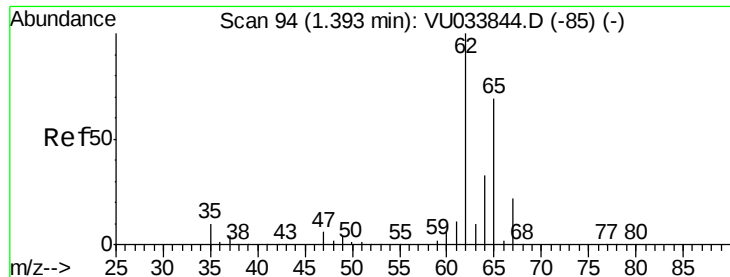
4000

2000

0

Time--> 1.30 1.35





#5

Vinyl chloride

Concen: 0.524 ug/L

RT: 1.39 min Scan# 94

Delta R.T. -0.00 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Instrument :

MSVOA\_U

ClientSampleId :

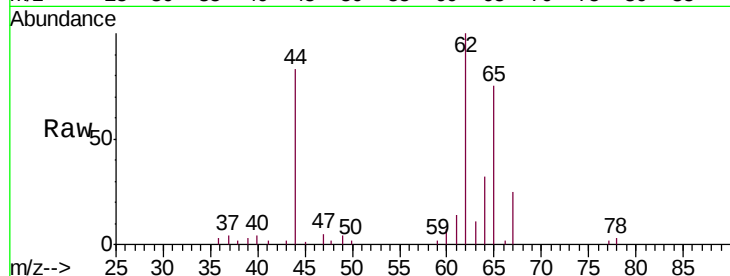
VSTD0.505

Tgt Ion: 62 Resp: 8940

Ion Ratio Lower Upper

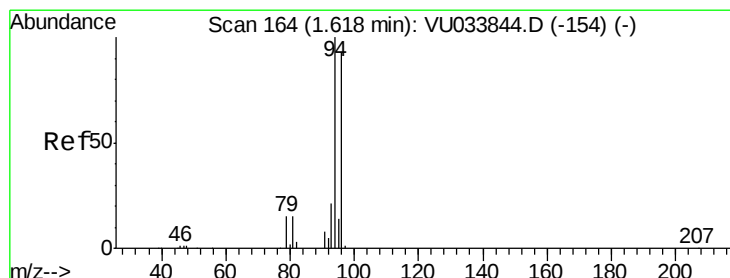
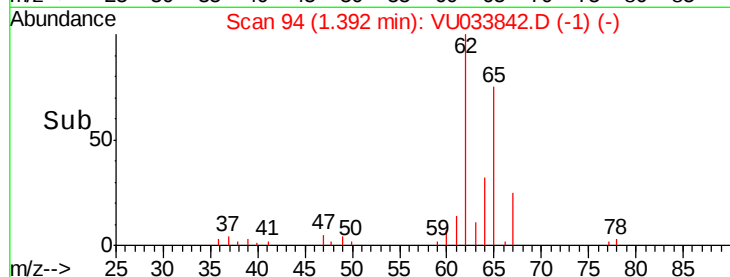
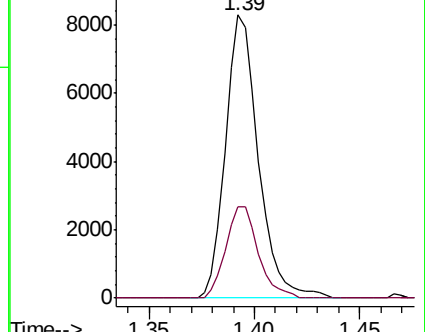
62 100

64 32.3 23.1 42.9



Abundance Ion 62.00 (61.70 to 62.70): VU033842.D (-85) (-)

Ion 64.10 (63.80 to 64.80): VU033842.D (-85) (-)



#6

Bromomethane

Concen: 0.503 ug/L

RT: 1.62 min Scan# 165

Delta R.T. 0.00 min

Lab File: VU033842.D

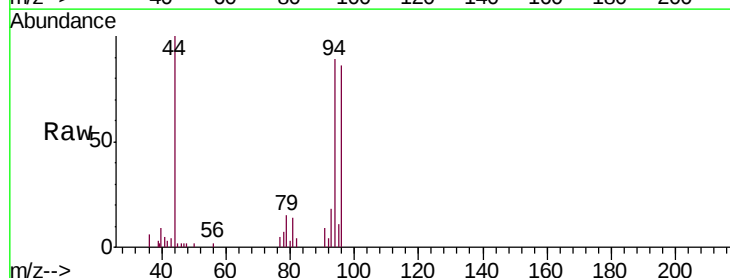
Acq: 20 Aug 2019 10:02

Tgt Ion: 94 Resp: 5616

Ion Ratio Lower Upper

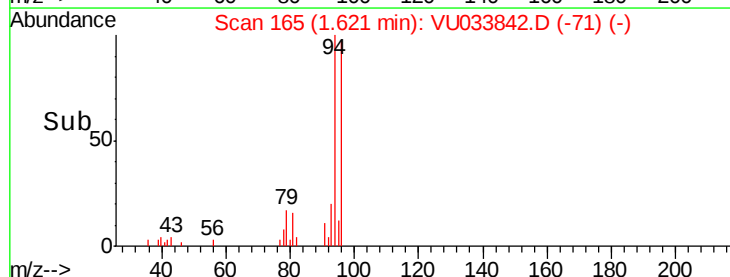
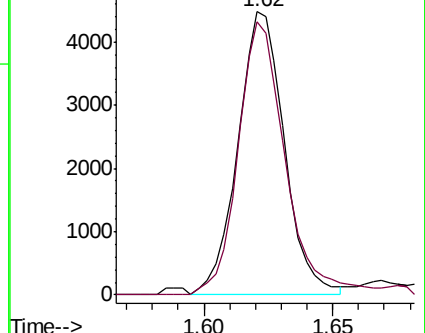
94 100

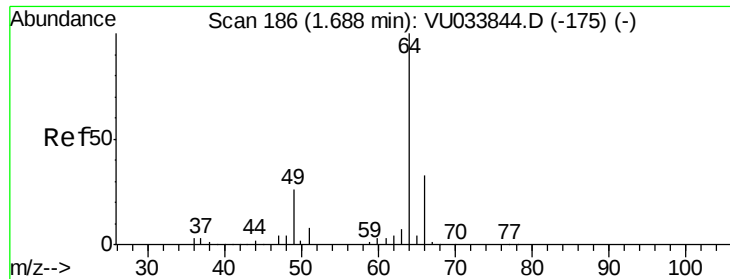
96 96.7 65.2 121.0



Abundance Ion 94.00 (93.70 to 94.70): VU033842.D (-154) (-)

Ion 96.00 (95.70 to 96.70): VU033842.D (-154) (-)

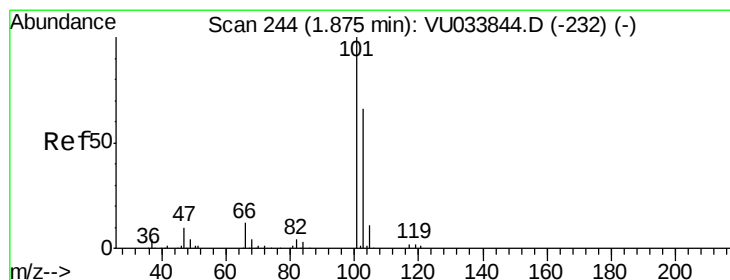
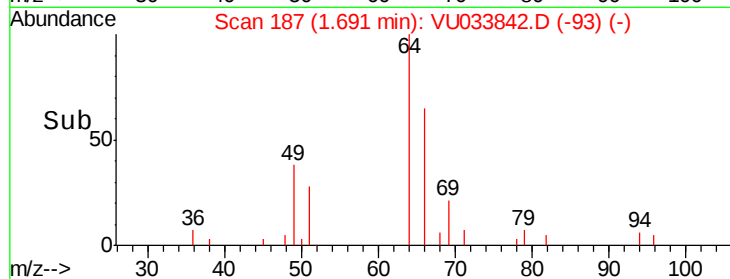
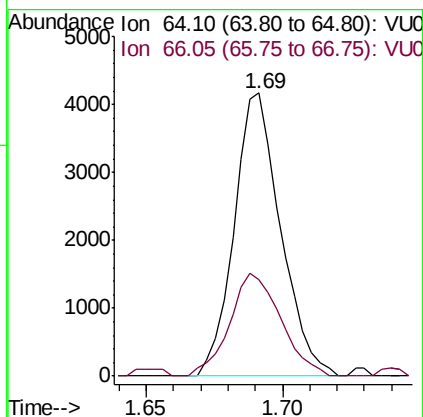
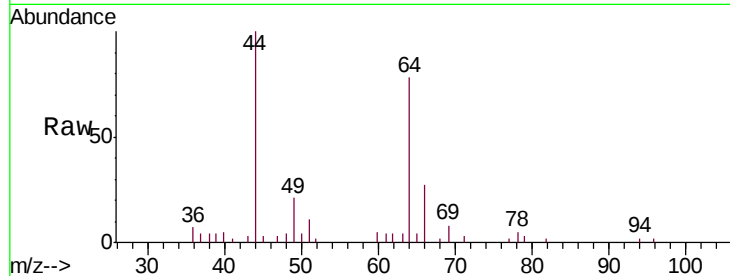




#8  
Chloroethane  
Concen: 0.492 ug/L  
RT: 1.69 min Scan# 187  
Delta R.T. 0.00 min  
Lab File: VU033842.D  
Acq: 20 Aug 2019 10:02

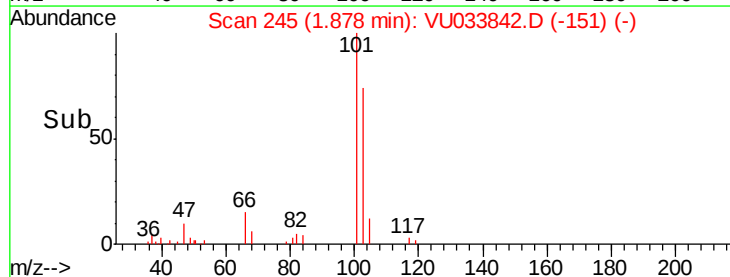
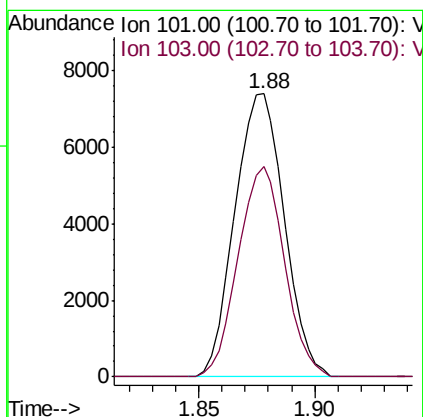
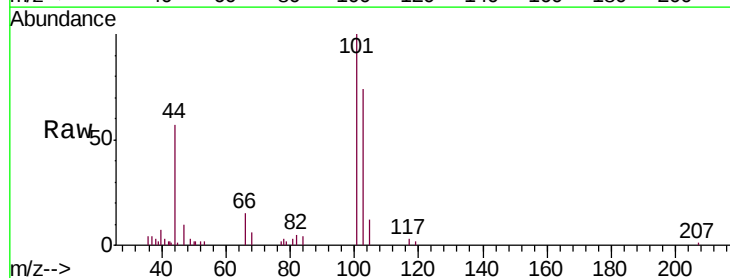
Instrument :  
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ClientSampleId :  
VSTD0.505

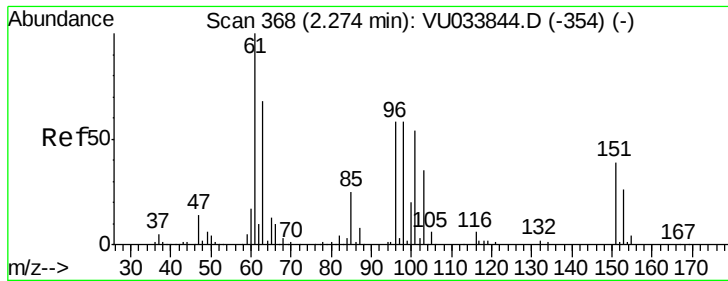
Tgt Ion: 64 Resp: 4927  
Ion Ratio Lower Upper  
64 100  
66 34.2 23.3 43.3



#9  
Trichlorofluoromethane  
Concen: 0.505 ug/L  
RT: 1.88 min Scan# 245  
Delta R.T. 0.00 min  
Lab File: VU033842.D  
Acq: 20 Aug 2019 10:02

Tgt Ion: 101 Resp: 10952  
Ion Ratio Lower Upper  
101 100  
103 69.8 52.2 78.2





#10

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

Concen: 0.528 ug/L

RT: 2.28 min Scan# 369

Delta R.T. 0.00 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Instrument :

MSVOA\_U

ClientSampleId :

VSTD0.505

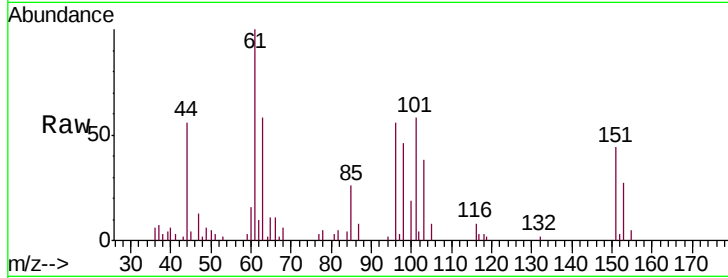
Tgt Ion:101 Resp: 6628

Ion Ratio Lower Upper

101 100

85 42.4 35.7 53.5

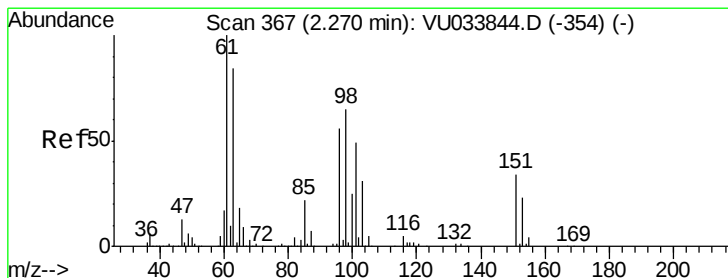
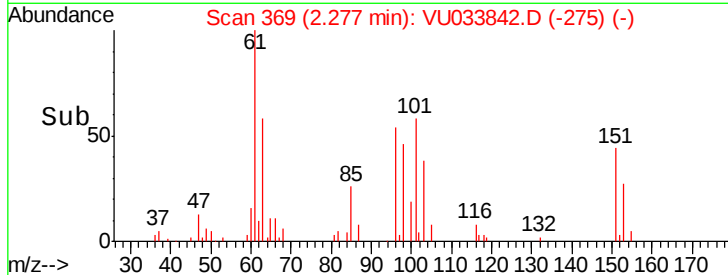
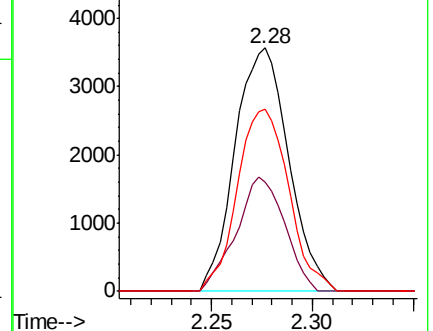
151 72.0 57.2 85.8



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: 0.527 ug/L

RT: 2.27 min Scan# 368

Delta R.T. 0.00 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

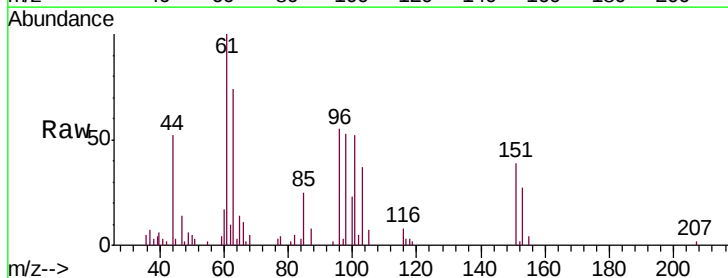
Tgt Ion: 96 Resp: 6279

Ion Ratio Lower Upper

96 100

61 180.3 124.3 230.9

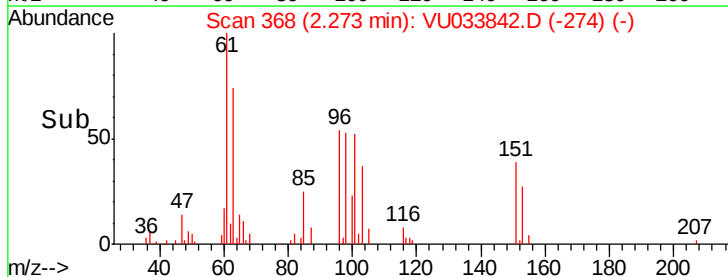
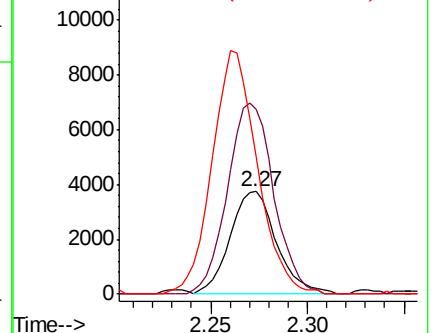
63 133.7 106.3 197.3

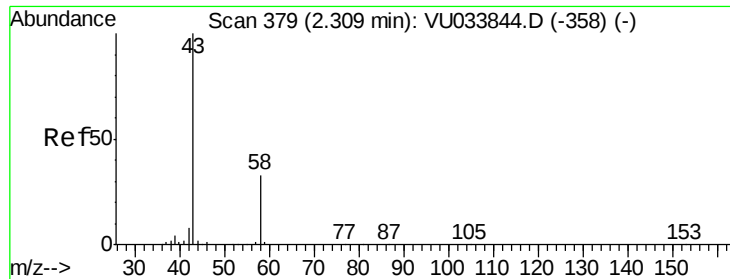


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.05 (60.75 to 61.75): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 5.613 ug/L

RT: 2.32 min Scan# 383

Delta R.T. 0.01 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Instrument :

MSVOA\_U

ClientSampleId :

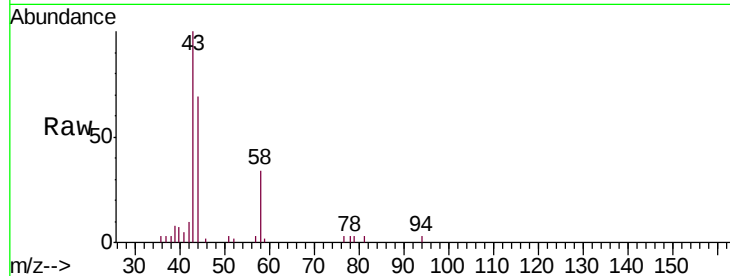
VSTD0.505

Tgt Ion: 43 Resp: 12495

Ion Ratio Lower Upper

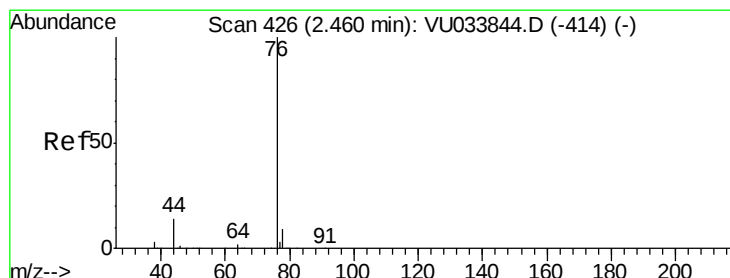
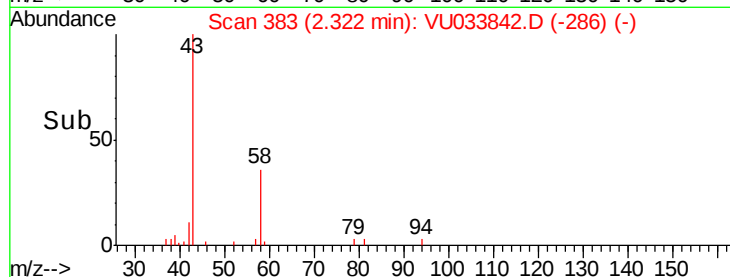
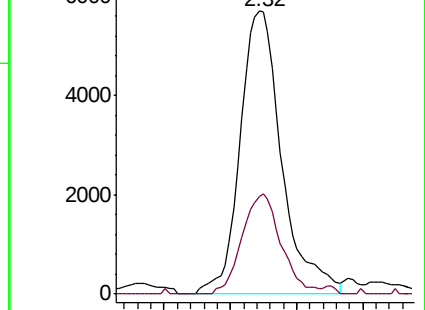
43 100

58 33.2 0.0 65.4



Abundance Ion 43.05 (42.75 to 43.75): VU033844.D (-358) (-)

Ion 58.05 (57.75 to 58.75): VU033844.D (-358) (-)



#14

Carbon disulfide

Concen: 0.527 ug/L

RT: 2.46 min Scan# 427

Delta R.T. 0.00 min

Lab File: VU033842.D

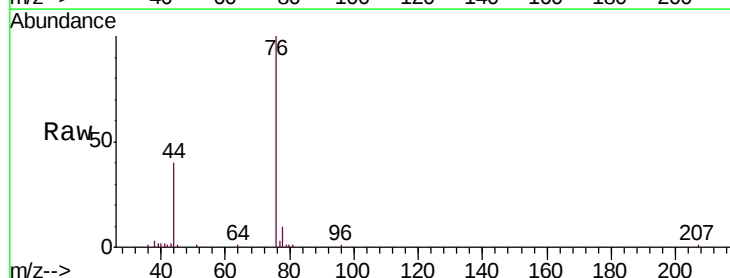
Acq: 20 Aug 2019 10:02

Tgt Ion: 76 Resp: 21583

Ion Ratio Lower Upper

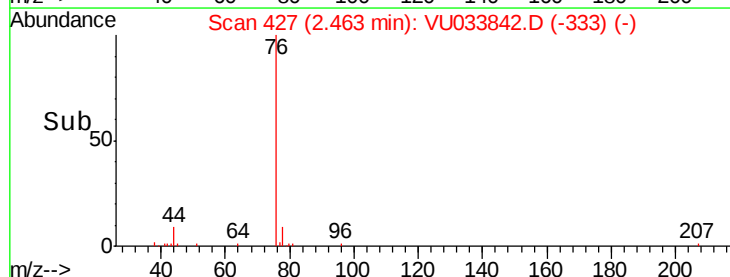
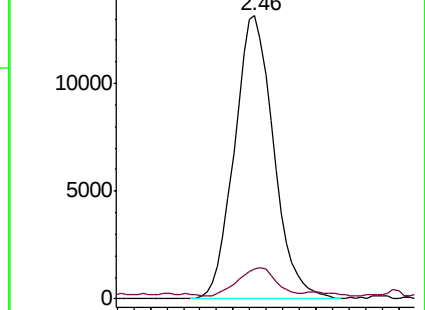
76 100

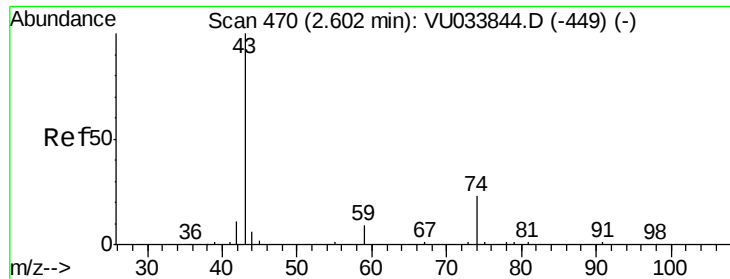
78 10.4 7.7 11.5



Abundance Ion 76.05 (75.75 to 76.75): VU033844.D (-414) (-)

Ion 78.00 (77.70 to 78.70): VU033844.D (-414) (-)

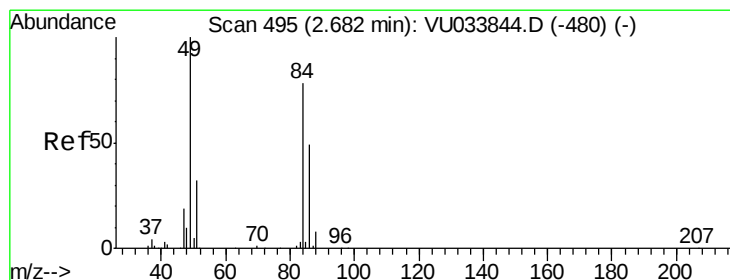
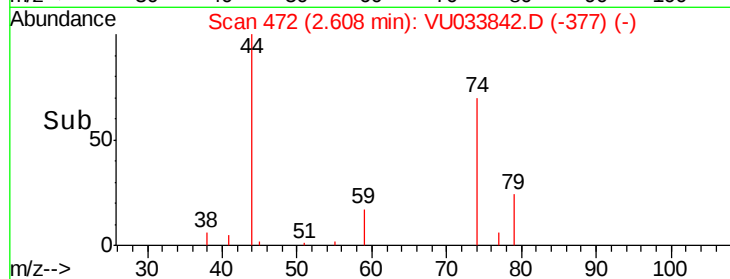
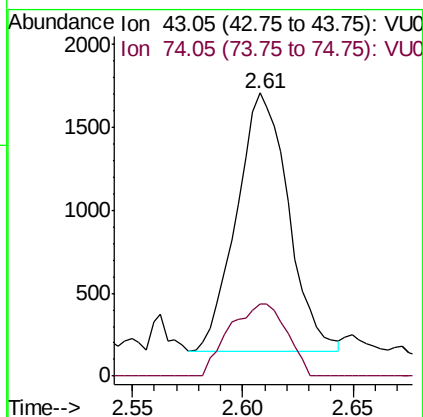
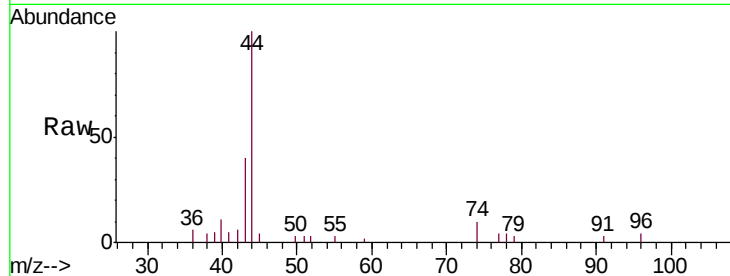




#15  
Methyl Acetate  
Concen: 0.454 ug/L  
RT: 2.61 min Scan# 472  
Delta R.T. 0.01 min  
Lab File: VU033842.D  
Acq: 20 Aug 2019 10:02

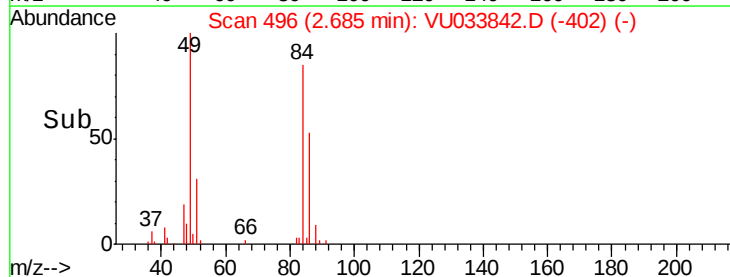
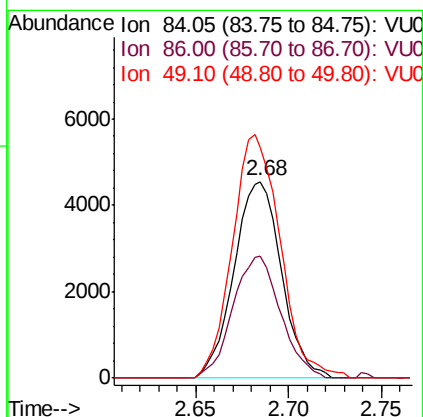
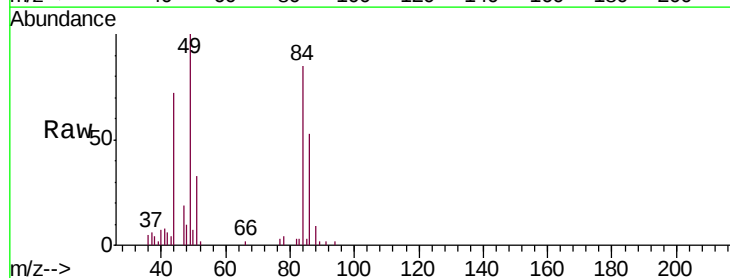
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD0.505

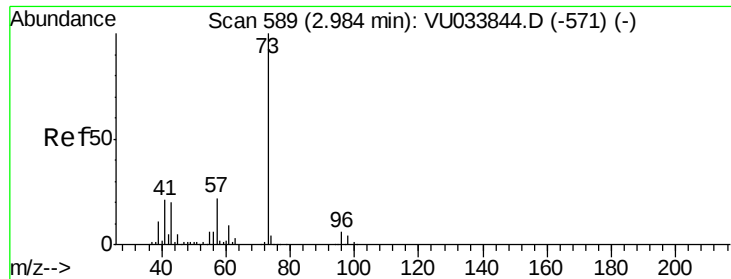
Tgt Ion: 43 Resp: 2532  
Ion Ratio Lower Upper  
43 100  
74 31.0 18.6 28.0#



#16  
Methylene chloride  
Concen: 0.580 ug/L  
RT: 2.68 min Scan# 496  
Delta R.T. 0.00 min  
Lab File: VU033842.D  
Acq: 20 Aug 2019 10:02

Tgt Ion: 84 Resp: 8106  
Ion Ratio Lower Upper  
84 100  
86 62.4 43.8 81.3  
49 117.2 89.5 166.3





#17

Methyl tert-butyl Ether

Concen: 0.518 ug/L

RT: 2.98 min Scan# 589

Delta R.T. -0.00 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Instrument :

MSVOA\_U

ClientSampleId :

VSTD0.505

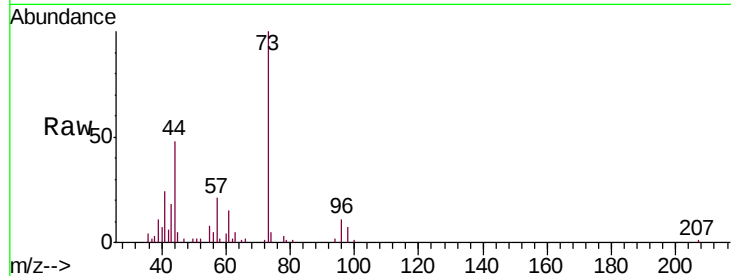
Tgt Ion: 73 Resp: 15500

Ion Ratio Lower Upper

73 100

43 11.7 15.9 23.9#

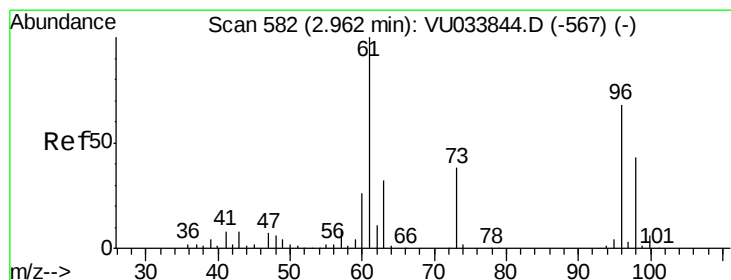
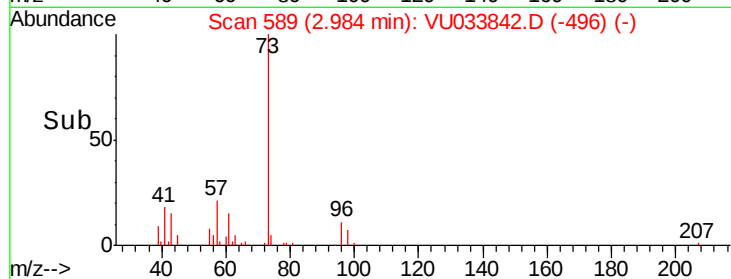
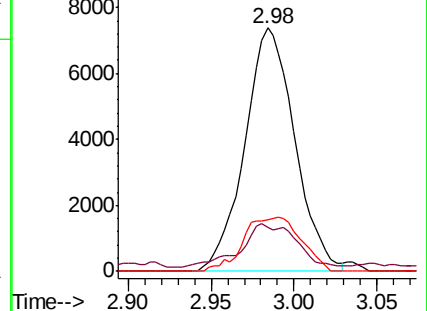
57 25.7 18.3 27.5



Abundance Ion 73.10 (72.80 to 73.80): VU033842.D (-571) (-)

Ion 43.05 (42.75 to 43.75): VU033842.D (-571) (-)

Ion 57.10 (56.80 to 57.80): VU033842.D (-571) (-)



#18

trans-1,2-Dichloroethene

Concen: 0.554 ug/L

RT: 2.96 min Scan# 581

Delta R.T. -0.00 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

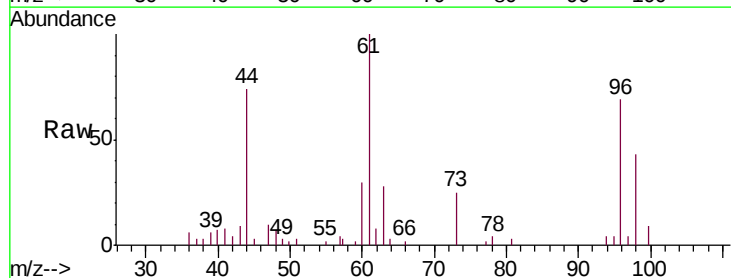
Tgt Ion: 96 Resp: 7277

Ion Ratio Lower Upper

96 100

61 144.0 102.9 191.1

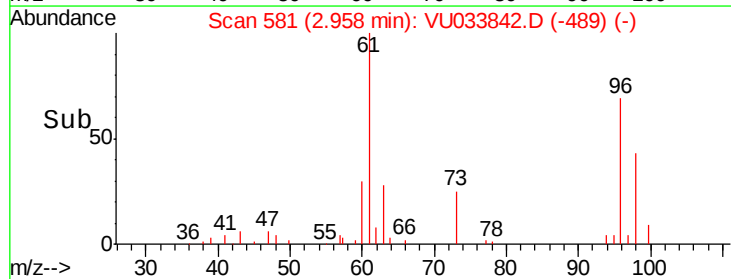
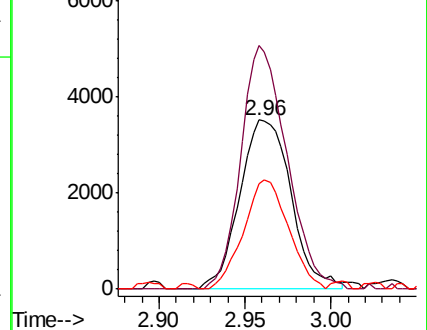
98 62.0 43.8 81.4

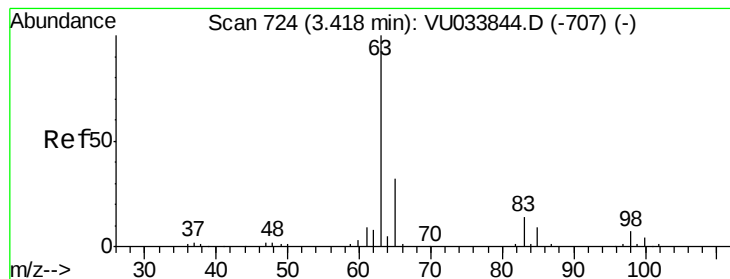


Abundance Ion 96.00 (95.70 to 96.70): VU033842.D (-567) (-)

Ion 61.05 (60.75 to 61.75): VU033842.D (-567) (-)

Ion 97.95 (97.65 to 98.65): VU033842.D (-567) (-)





#19

1,1-Dichloroethane

Concen: 0.507 ug/L

RT: 3.42 min Scan# 726

Delta R.T. 0.01 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Instrument :

MSVOA\_U

ClientSampleId :

VSTD0.505

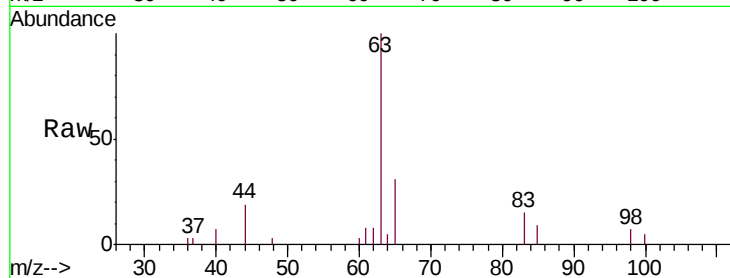
Tgt Ion: 63 Resp: 9657

Ion Ratio Lower Upper

63 100

65 31.4 22.2 41.2

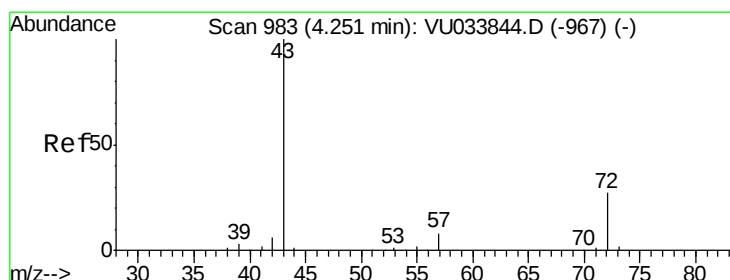
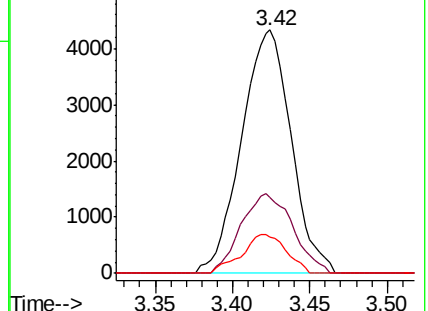
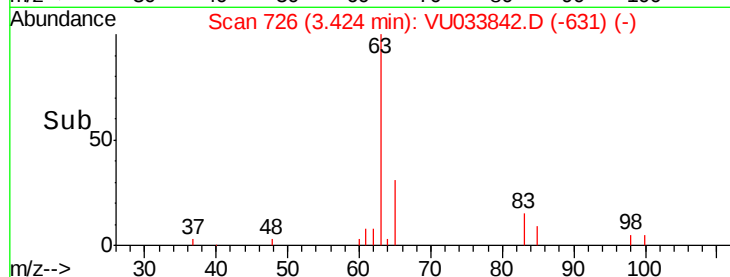
83 14.7 9.8 18.2



Abundance Ion 63.10 (62.80 to 63.80): VU033842.D (-707) (-)

Ion 65.10 (64.80 to 65.80): VU033842.D (-707) (-)

Ion 83.05 (82.75 to 83.75): VU033842.D (-707) (-)



#21

2-Butanone

Concen: 4.323 ug/L

RT: 4.27 min Scan# 989

Delta R.T. 0.02 min

Lab File: VU033842.D

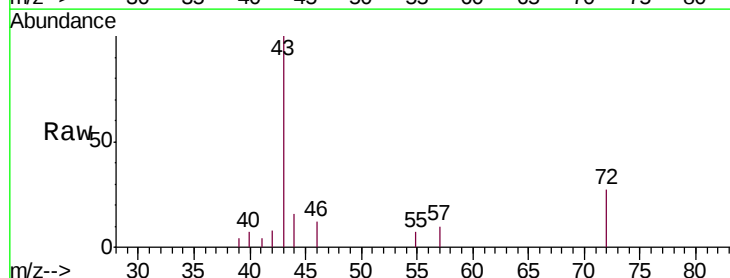
Acq: 20 Aug 2019 10:02

Tgt Ion: 43 Resp: 10318

Ion Ratio Lower Upper

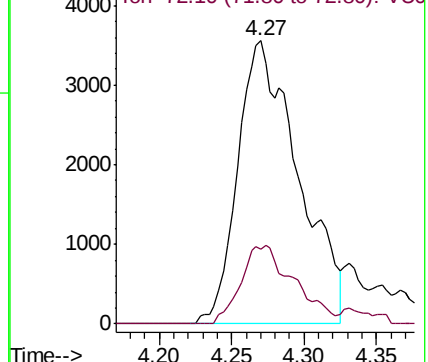
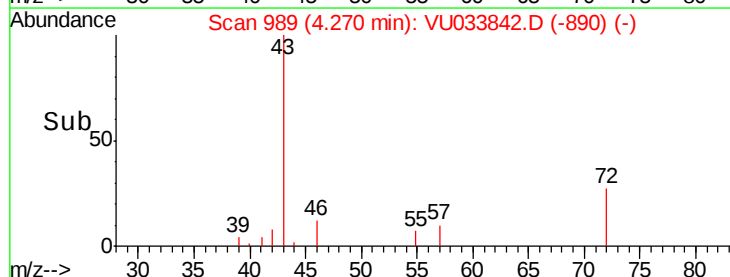
43 100

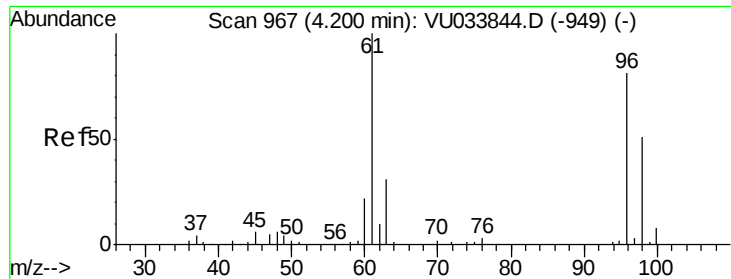
72 24.3 13.7 41.0



Abundance Ion 43.05 (42.75 to 43.75): VU033842.D (-890) (-)

Ion 72.10 (71.80 to 72.80): VU033842.D (-890) (-)





#22

cis-1,2-Dichloroethene

Concen: 0.449 ug/L

RT: 4.20 min Scan# 968

Delta R.T. 0.00 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Instrument :

MSVOA\_U

ClientSampleId :

VSTD0.505

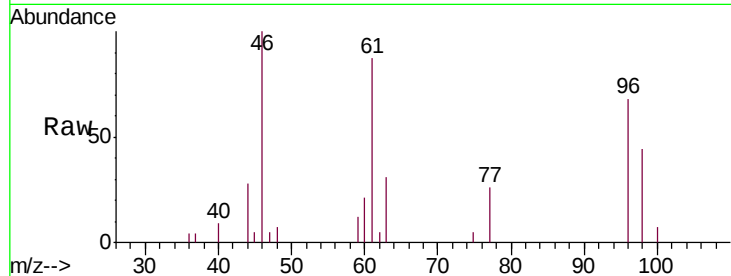
Tgt Ion: 96 Resp: 4637

Ion Ratio Lower Upper

96 100

61 128.3 87.2 161.9

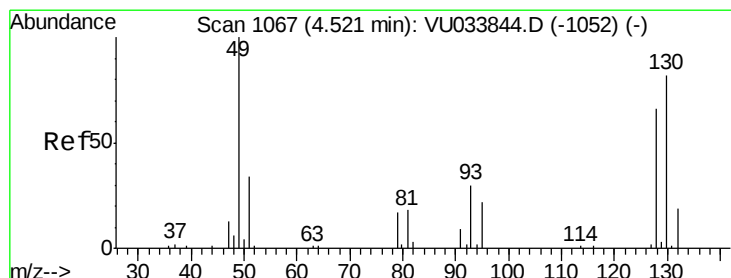
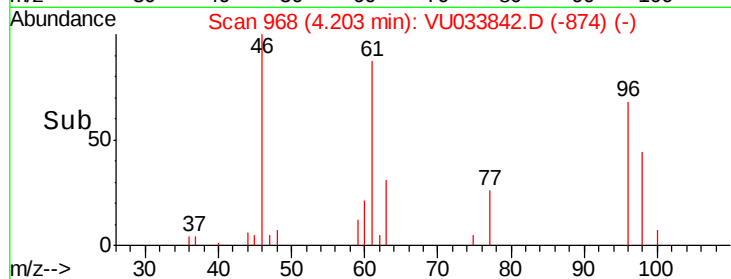
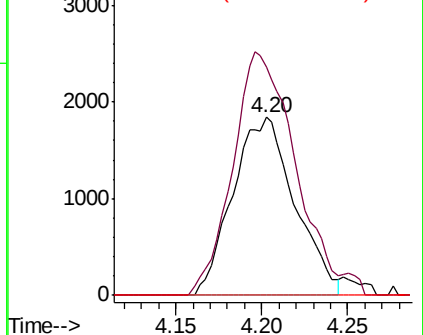
68 0.0 0.0 0.0



Abundance Ion 96.00 (95.70 to 96.70): VU033844.D (-949) (-)

Ion 61.05 (60.75 to 61.75): VU033844.D (-949) (-)

Ion 68.15 (67.85 to 68.85): VU033844.D (-949) (-)



#23

Bromochloromethane

Concen: 0.499 ug/L

RT: 4.53 min Scan# 1070

Delta R.T. 0.01 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Tgt Ion: 128 Resp: 2490

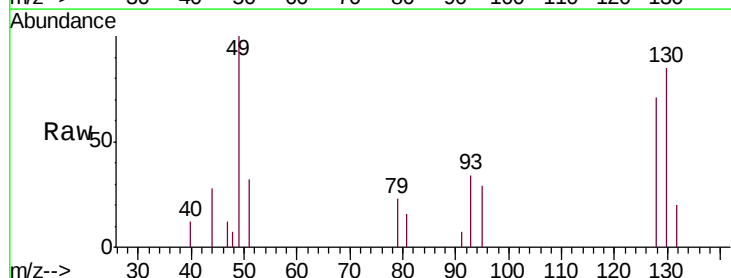
Ion Ratio Lower Upper

128 100

49 141.4 105.6 196.0

130 120.2 86.5 160.6

51 45.4 41.0 61.4

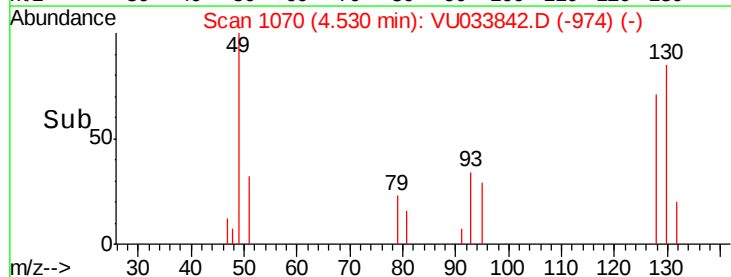
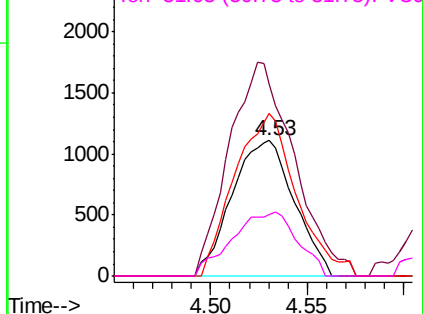


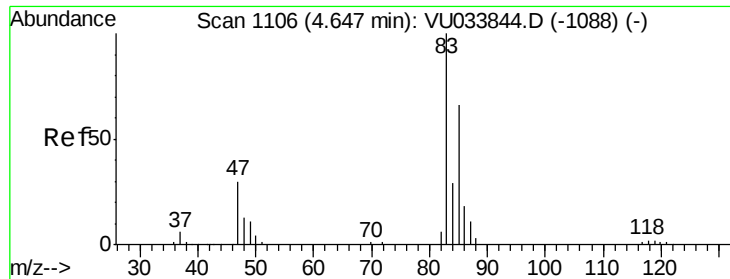
Abundance Ion 127.90 (127.60 to 128.60): VU033844.D (-1052) (-)

Ion 49.10 (48.80 to 49.80): VU033844.D (-1052) (-)

Ion 129.95 (129.65 to 130.65): VU033844.D (-1052) (-)

Ion 51.05 (50.75 to 51.75): VU033844.D (-1052) (-)

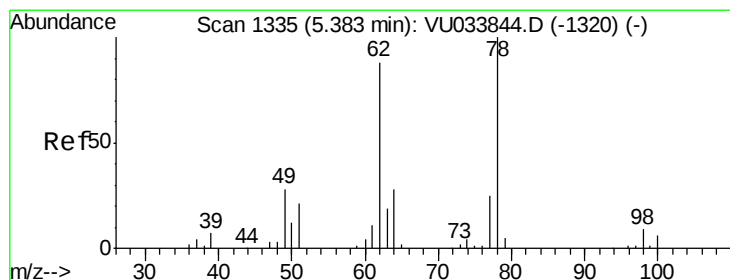
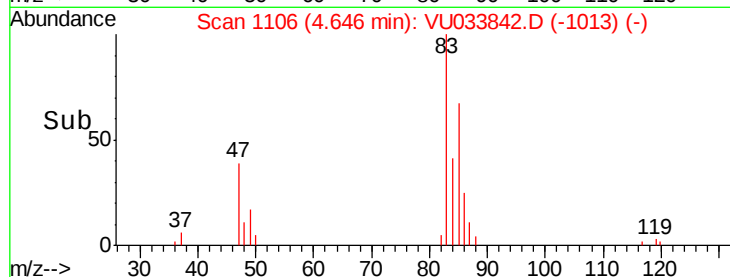
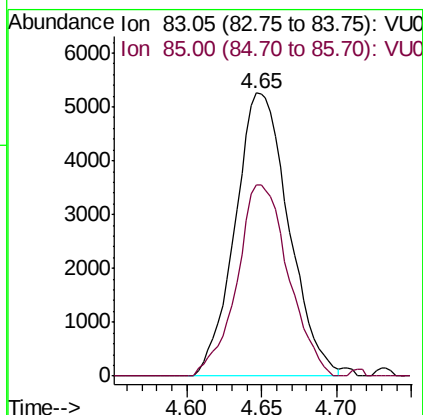
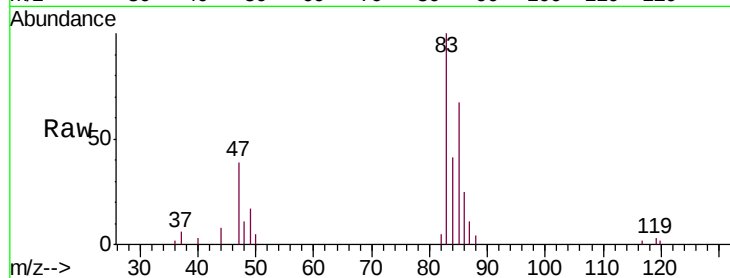




#25  
Chloroform  
Concen: 0.609 ug/L  
RT: 4.65 min Scan# 1106  
Delta R.T. -0.00 min  
Lab File: VU033842.D  
Acq: 20 Aug 2019 10:02

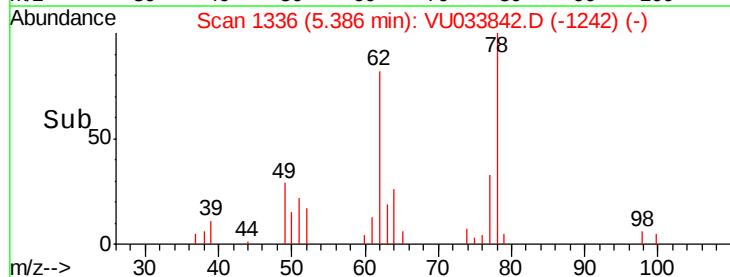
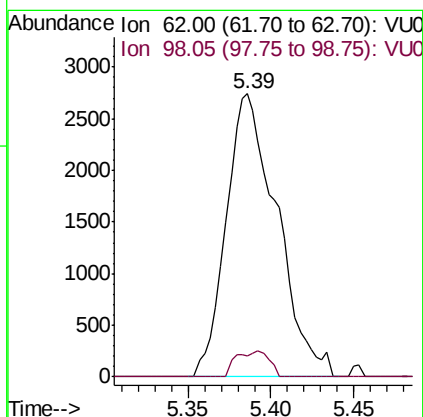
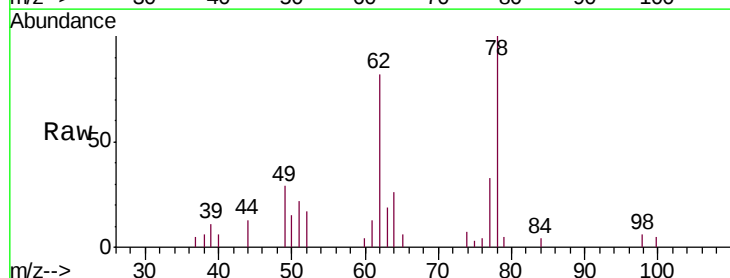
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD0.505

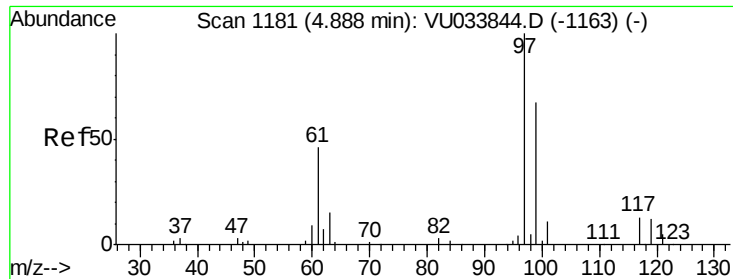
Tgt Ion: 83 Resp: 13114  
Ion Ratio Lower Upper  
83 100  
85 67.4 46.3 85.9



#27  
1,2-Dichloroethane  
Concen: 0.477 ug/L  
RT: 5.39 min Scan# 1336  
Delta R.T. 0.00 min  
Lab File: VU033842.D  
Acq: 20 Aug 2019 10:02

Tgt Ion: 62 Resp: 5835  
Ion Ratio Lower Upper  
62 100  
98 7.3 7.9 11.9#

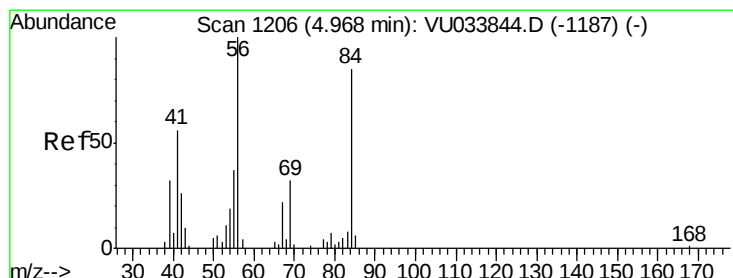
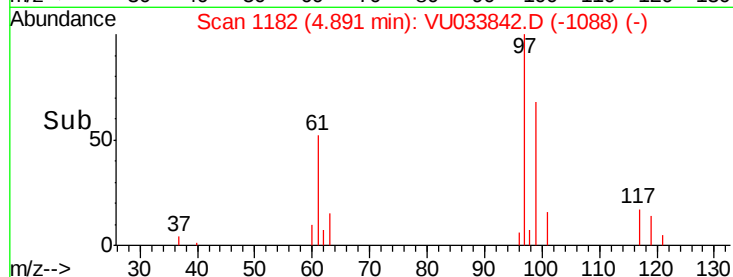
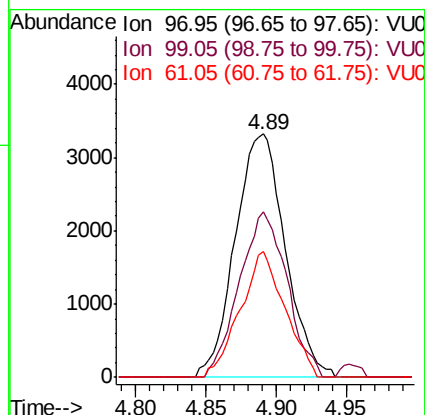
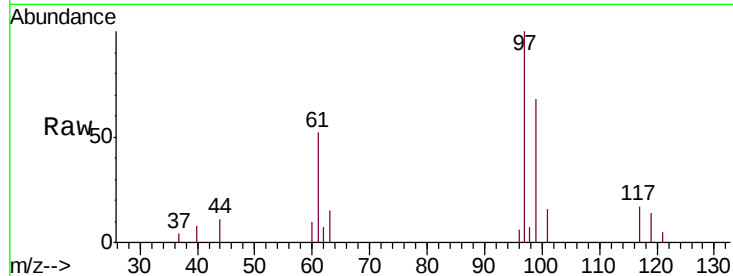




#29  
 1,1,1-Trichloroethane  
 Concen: 0.515 ug/L  
 RT: 4.89 min Scan# 1182  
 Delta R.T. 0.00 min  
 Lab File: VU033842.D  
 Acq: 20 Aug 2019 10:02

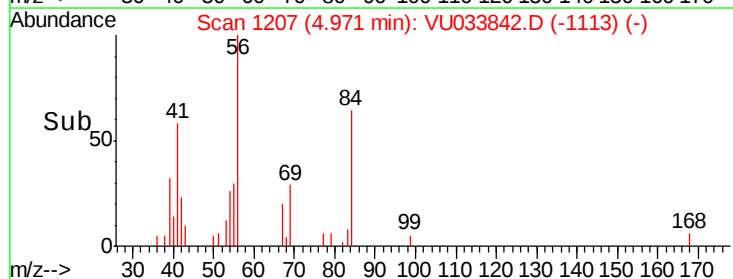
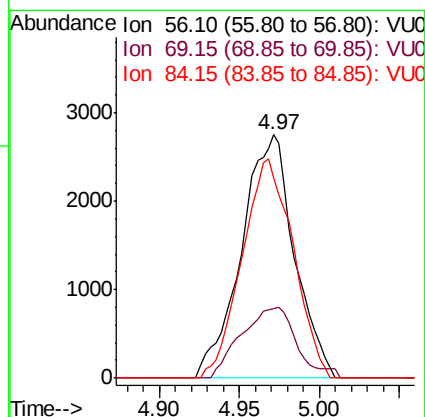
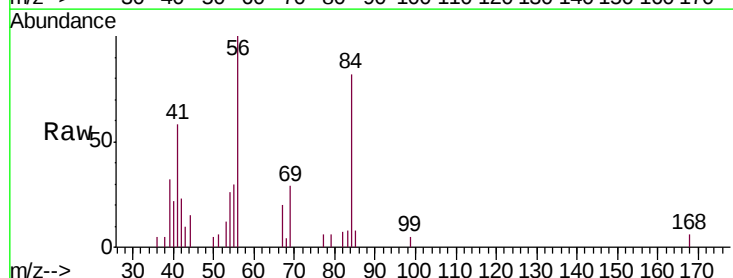
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD0.505

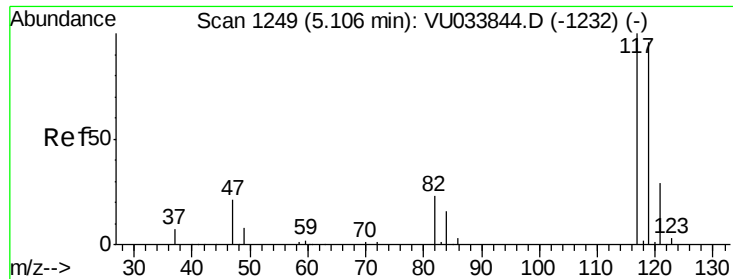
Tgt Ion: 97 Resp: 8243  
 Ion Ratio Lower Upper  
 97 100  
 99 64.8 53.4 80.0  
 61 46.1 36.6 55.0



#30  
 Cyclohexane  
 Concen: 0.461 ug/L  
 RT: 4.97 min Scan# 1207  
 Delta R.T. 0.00 min  
 Lab File: VU033842.D  
 Acq: 20 Aug 2019 10:02

Tgt Ion: 56 Resp: 6231  
 Ion Ratio Lower Upper  
 56 100  
 69 30.6 25.1 37.7  
 84 87.0 69.5 104.3





#31

Carbon tetrachloride

Concen: 0.507 ug/L

RT: 5.11 min Scan# 1249

Delta R.T. -0.00 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Instrument :

MSVOA\_U

ClientSampleId :

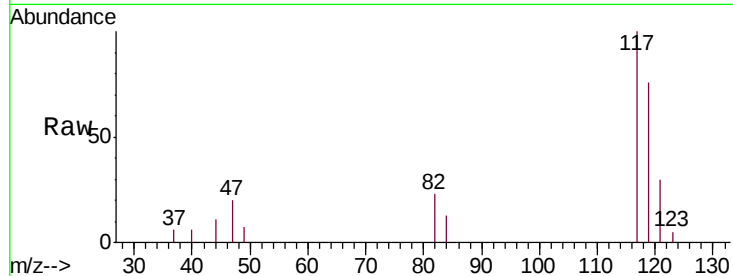
VSTD0.505

Tgt Ion:117 Resp: 7312

Ion Ratio Lower Upper

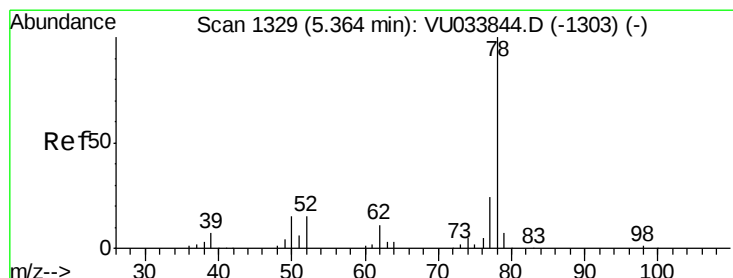
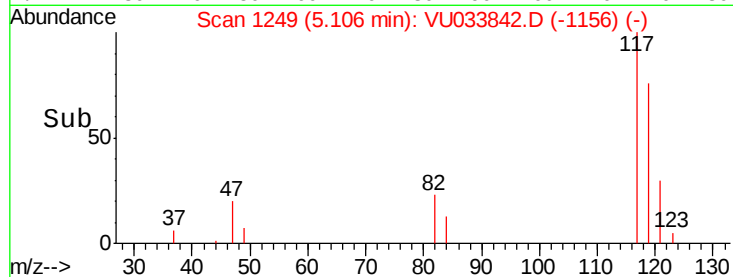
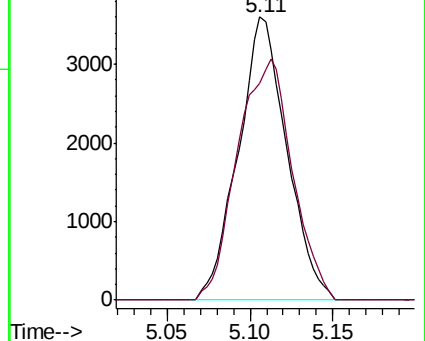
117 100

119 96.9 77.6 116.4



Abundance Ion 116.90 (116.60 to 117.60): V

Ion 118.90 (118.60 to 119.60): V



#33

Benzene

Concen: 0.470 ug/L

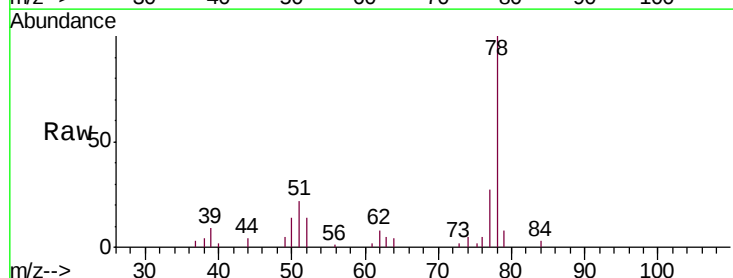
RT: 5.37 min Scan# 1330

Delta R.T. 0.00 min

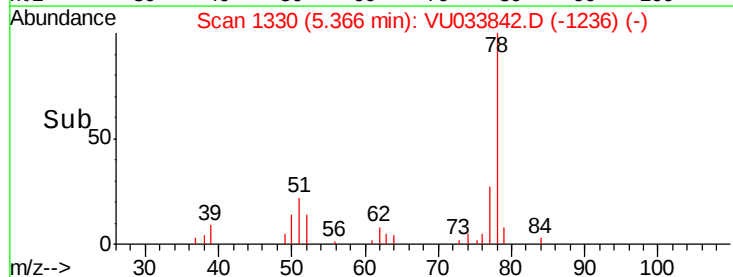
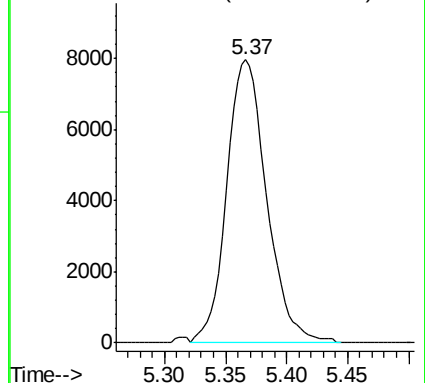
Lab File: VU033842.D

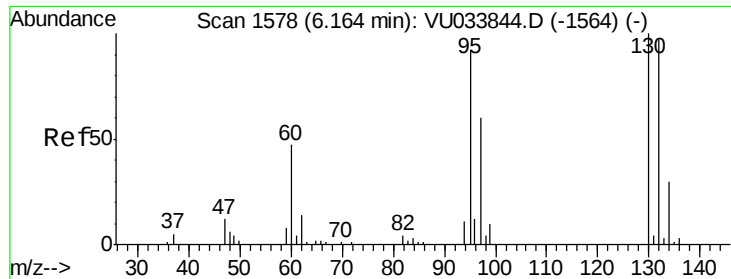
Acq: 20 Aug 2019 10:02

Tgt Ion: 78 Resp: 18200



Abundance Ion 78.10 (77.80 to 78.80): VU0

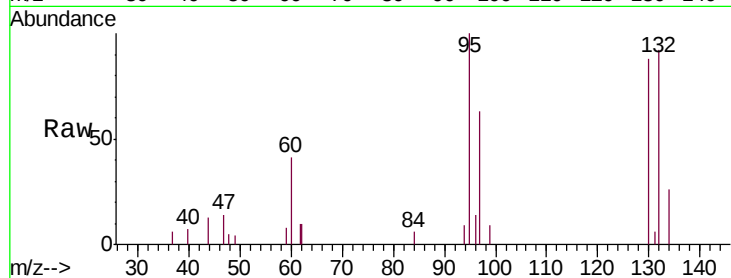




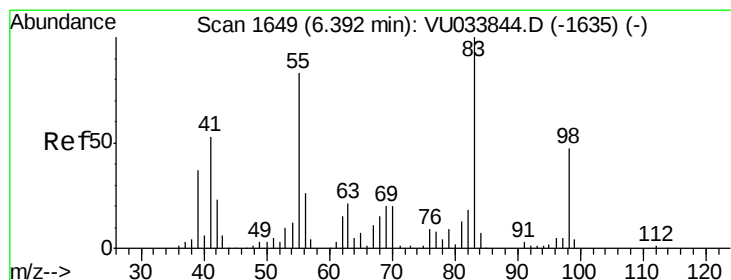
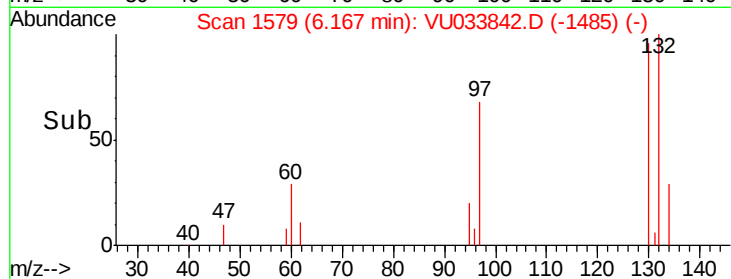
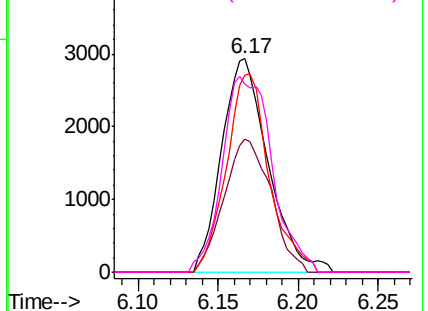
#34  
 Trichloroethene  
 Concen: 0.563 ug/L  
 RT: 6.17 min Scan# 1579  
 Delta R.T. 0.00 min  
 Lab File: VU033842.D  
 Acq: 20 Aug 2019 10:02

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD0.505

Tgt Ion: 95 Resp: 5851  
 Ion Ratio Lower Upper  
 95 100  
 97 62.6 45.6 84.8  
 132 92.2 73.5 136.5  
 130 88.1 75.9 141.1

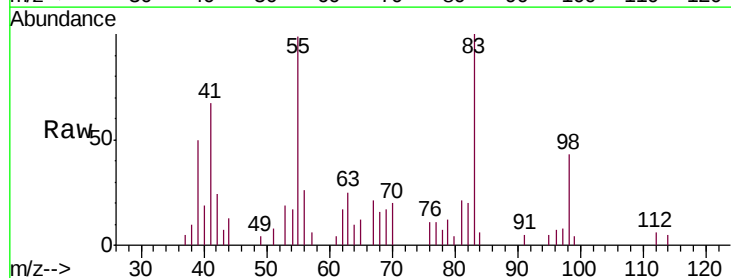


Abundance Ion 95.00 (94.70 to 95.70): VU0  
 Ion 96.95 (96.65 to 97.65): VU0  
 Ion 131.95 (131.65 to 132.65): V  
 Ion 129.95 (129.65 to 130.65): V

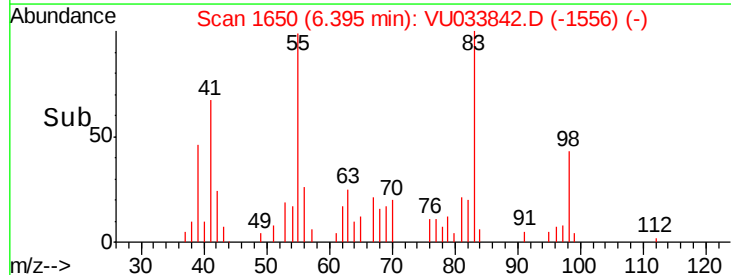
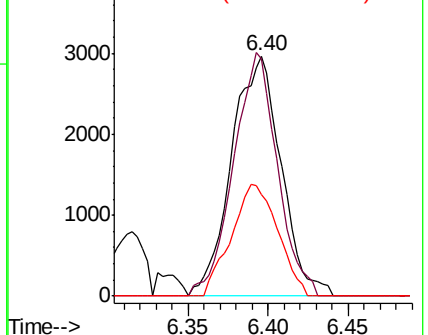


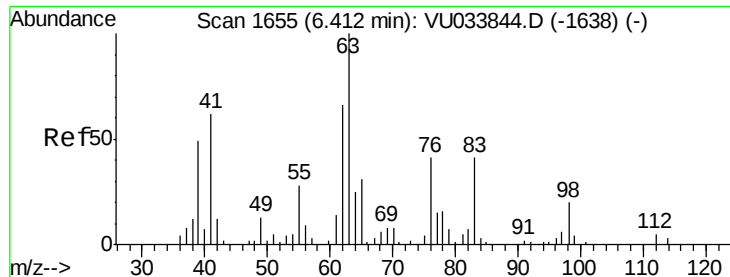
#35  
 Methylcyclohexane  
 Concen: 0.433 ug/L  
 RT: 6.40 min Scan# 1650  
 Delta R.T. 0.00 min  
 Lab File: VU033842.D  
 Acq: 20 Aug 2019 10:02

Tgt Ion: 83 Resp: 6295  
 Ion Ratio Lower Upper  
 83 100  
 55 89.5 64.3 96.5  
 98 43.5 37.4 56.0



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

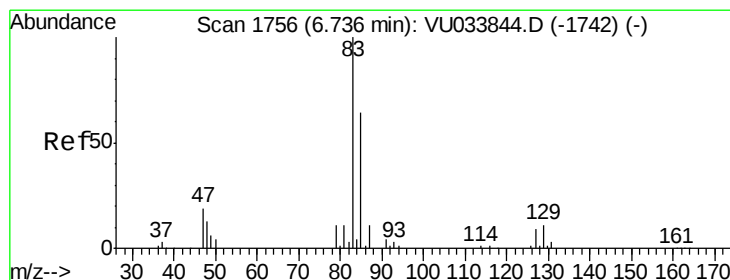
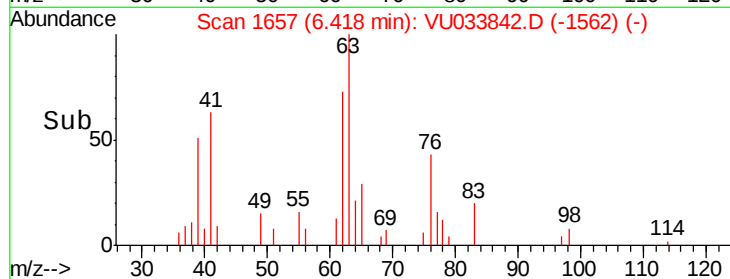
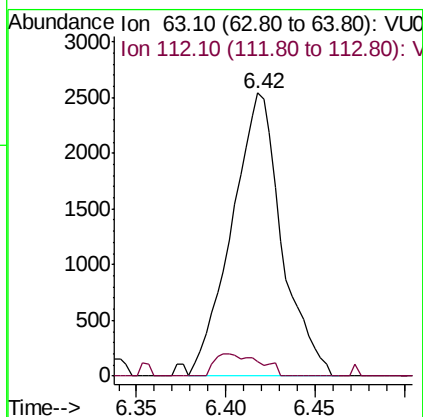
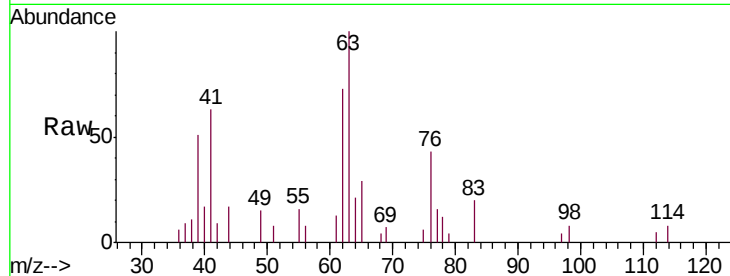




#37  
 1,2-Dichloropropane  
 Concen: 0.483 ug/L  
 RT: 6.42 min Scan# 1657  
 Delta R.T. 0.01 min  
 Lab File: VU033842.D  
 Acq: 20 Aug 2019 10:02

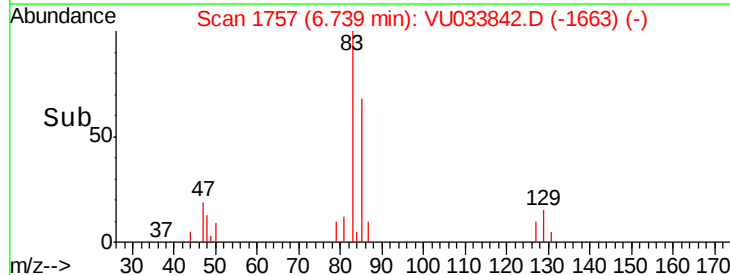
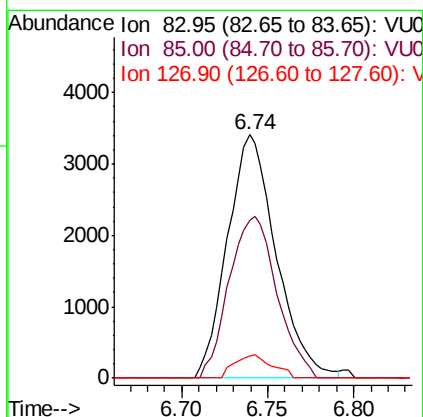
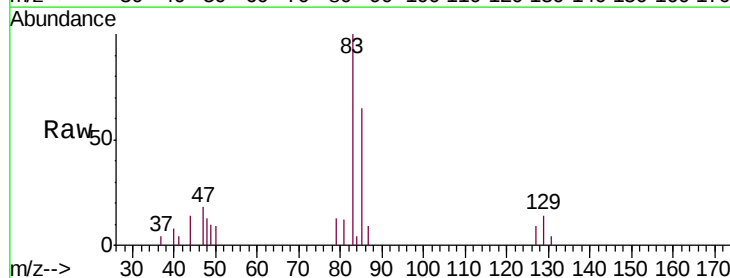
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD0.505

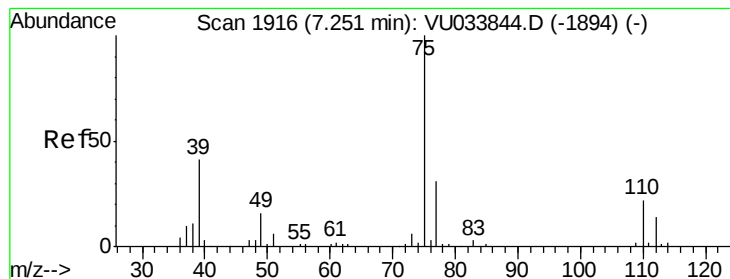
Tgt Ion: 63 Resp: 4950  
 Ion Ratio Lower Upper  
 63 100  
 112 7.1 3.5 5.3#



#38  
 Bromodichloromethane  
 Concen: 0.507 ug/L  
 RT: 6.74 min Scan# 1757  
 Delta R.T. 0.00 min  
 Lab File: VU033842.D  
 Acq: 20 Aug 2019 10:02

Tgt Ion: 83 Resp: 6694  
 Ion Ratio Lower Upper  
 83 100  
 85 65.1 44.7 83.1  
 127 9.2 7.1 10.7



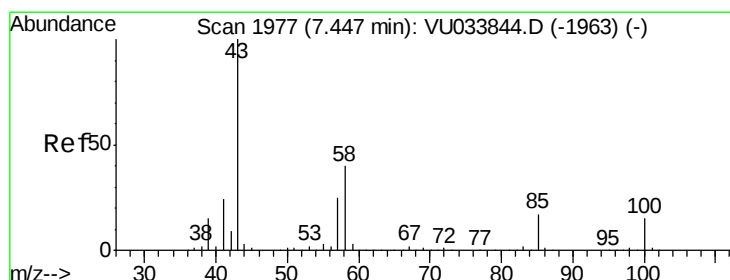
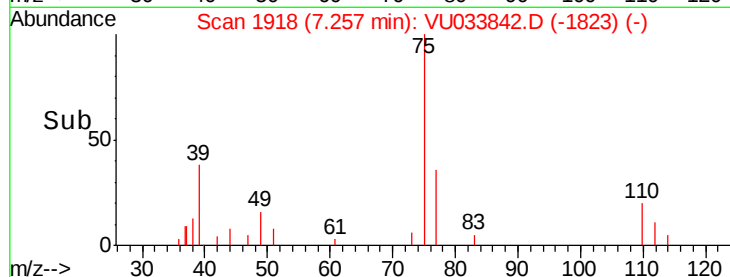
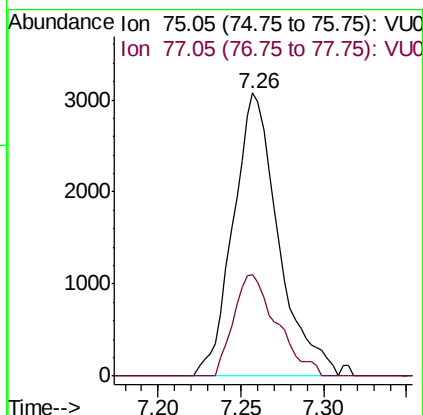
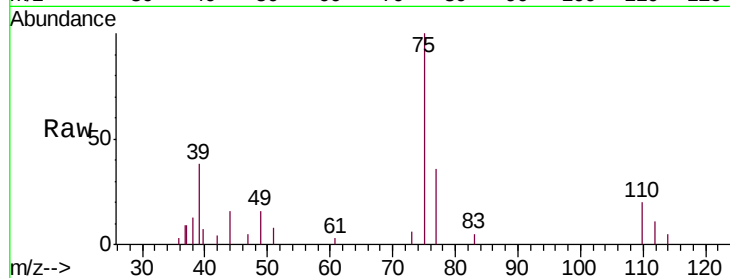


#39

cis-1,3-Dichloropropene  
 Concen: 0.430 ug/L  
 RT: 7.26 min Scan# 1918  
 Delta R.T. 0.01 min  
 Lab File: VU033842.D  
 Acq: 20 Aug 2019 10:02

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD0.505

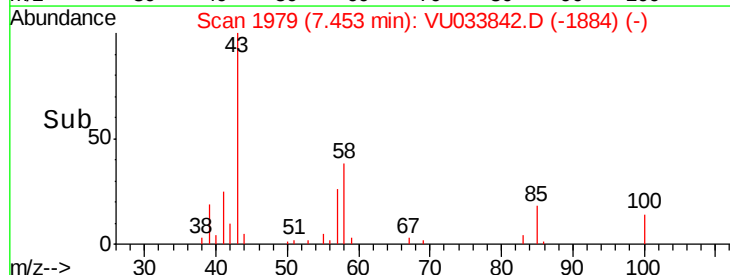
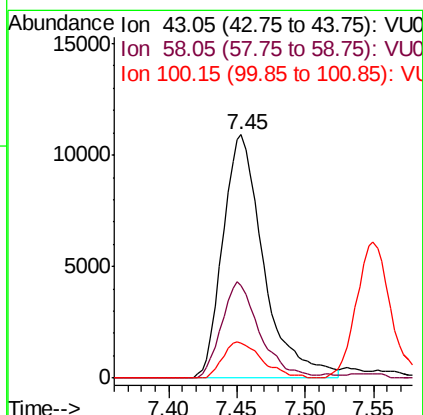
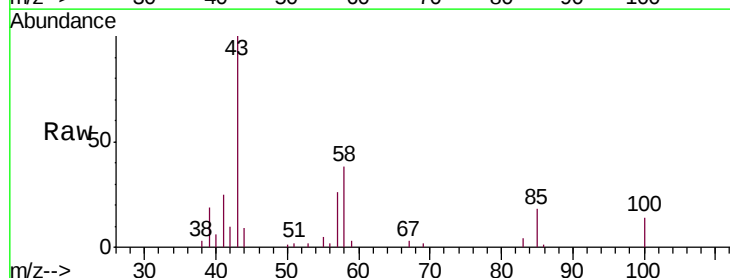
Tgt Ion: 75 Resp: 5830  
 Ion Ratio Lower Upper  
 75 100  
 77 36.1 21.6 40.2

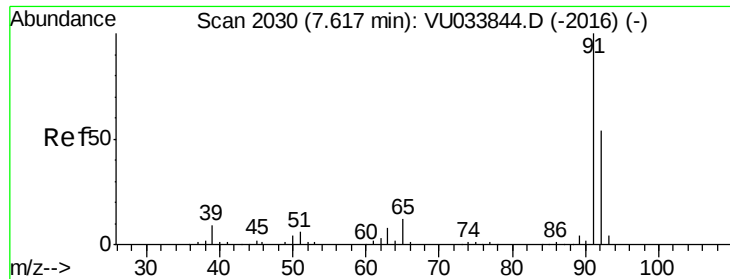


#40

4-Methyl-2-pentanone  
 Concen: 4.182 ug/L  
 RT: 7.45 min Scan# 1979  
 Delta R.T. 0.01 min  
 Lab File: VU033842.D  
 Acq: 20 Aug 2019 10:02

Tgt Ion: 43 Resp: 22714  
 Ion Ratio Lower Upper  
 43 100  
 58 36.9 32.0 48.0  
 100 14.3 11.8 17.6





#42

Toluene

Concen: 0.412 ug/L

RT: 7.62 min Scan# 2032

Delta R.T. 0.01 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Instrument :

MSVOA\_U

ClientSampleId :

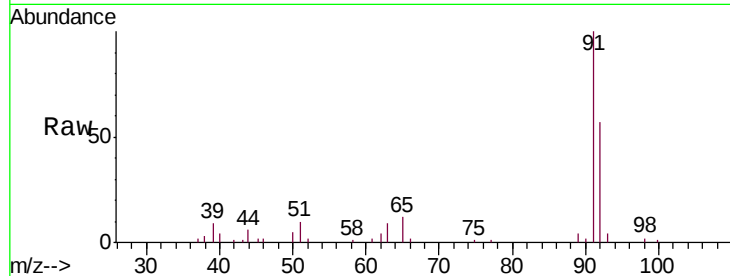
VSTD0.505

Tgt Ion: 91 Resp: 16348

Ion Ratio Lower Upper

91 100

92 57.2 38.1 70.7

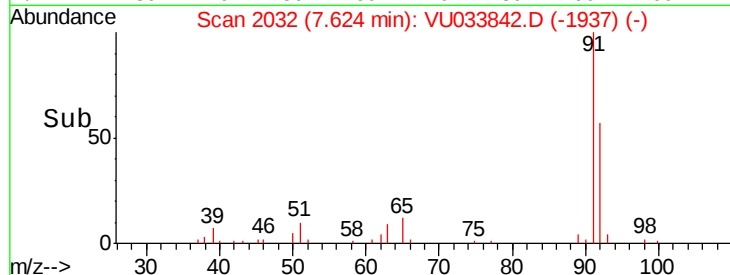


Abundance Ion 91.15 (90.85 to 91.85): VU033842.D (-2016) (-)

Ion 92.15 (91.85 to 92.85): VU033842.D (-2016) (-)

7.62

Time-->



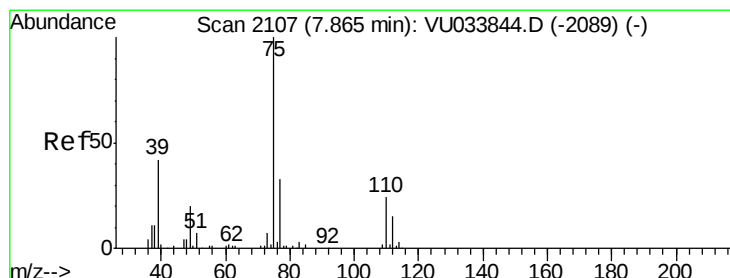
Abundance

Ion 91.15 (90.85 to 91.85): VU033842.D (-1937) (-)

Ion 92.15 (91.85 to 92.85): VU033842.D (-1937) (-)

7.62

Time-->



#44

trans-1,3-Dichloropropene

Concen: 0.435 ug/L

RT: 7.87 min Scan# 2108

Delta R.T. 0.00 min

Lab File: VU033842.D

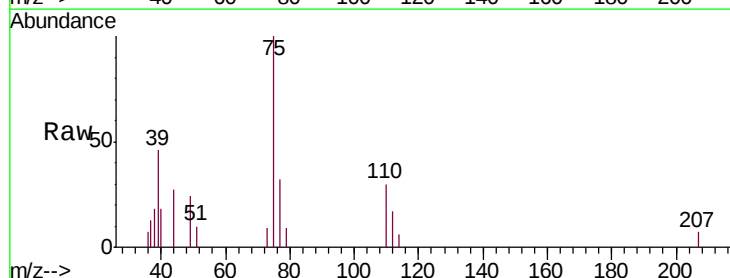
Acq: 20 Aug 2019 10:02

Tgt Ion: 75 Resp: 4927

Ion Ratio Lower Upper

75 100

77 31.5 23.0 42.6

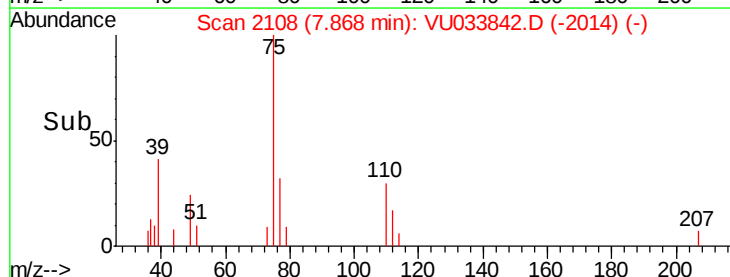


Abundance Ion 75.05 (74.75 to 75.75): VU033842.D (-2089) (-)

Ion 77.05 (76.75 to 77.75): VU033842.D (-2089) (-)

7.87

Time-->



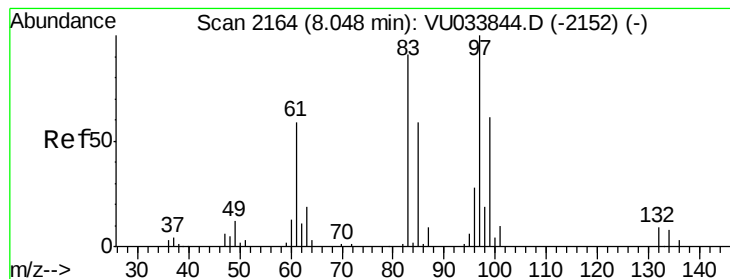
Abundance

Ion 75.05 (74.75 to 75.75): VU033842.D (-2014) (-)

Ion 77.05 (76.75 to 77.75): VU033842.D (-2014) (-)

7.87

Time-->



#45

1,1,2-Trichloroethane

Concen: 0.480 ug/L

RT: 8.05 min Scan# 2165

Delta R.T. 0.00 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Instrument :

MSVOA\_U

ClientSampleId :

VSTD0.505

Tgt Ion: 97 Resp: 3524

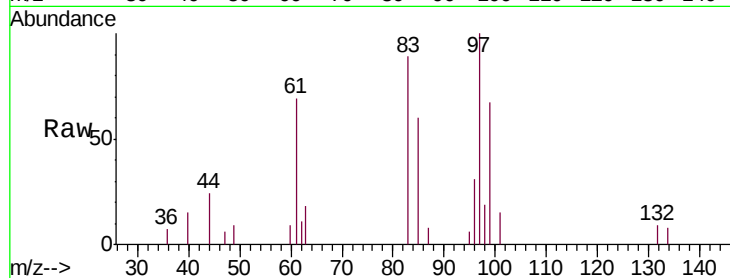
Ion Ratio Lower Upper

97 100

99 67.0 42.8 79.6

83 88.6 63.6 118.0

85 60.0 41.2 76.6

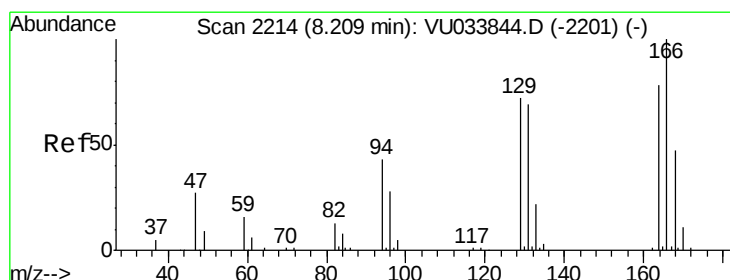
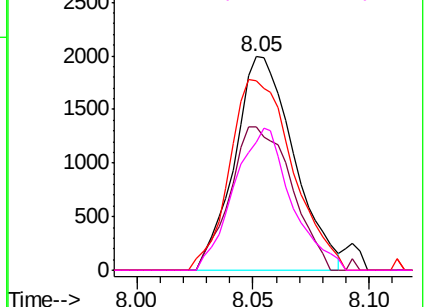
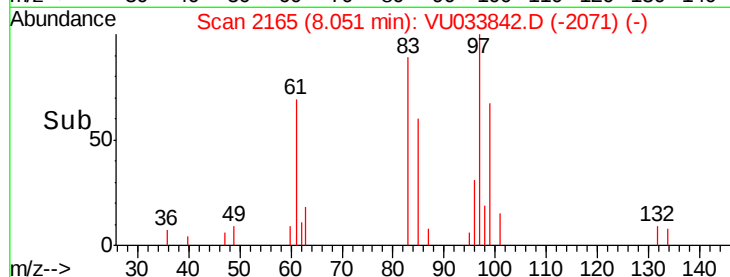


Abundance Ion 96.95 (96.65 to 97.65): VU0

Ion 99.05 (98.75 to 99.75): VU0

Ion 82.95 (82.65 to 83.65): VU0

Ion 85.00 (84.70 to 85.70): VU0



#47

Tetrachloroethene

Concen: 0.482 ug/L

RT: 8.21 min Scan# 2215

Delta R.T. 0.00 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Tgt Ion: 164 Resp: 4115

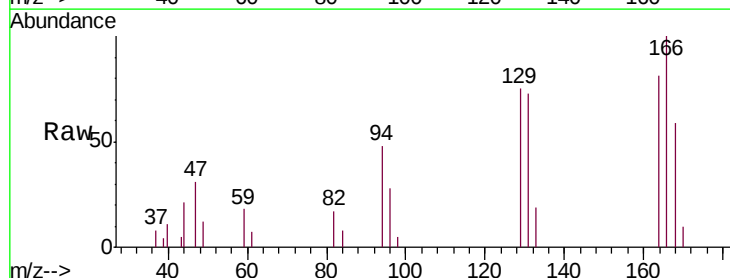
Ion Ratio Lower Upper

164 100

129 93.1 63.9 118.7

131 89.9 61.5 114.1

166 123.9 89.2 165.6

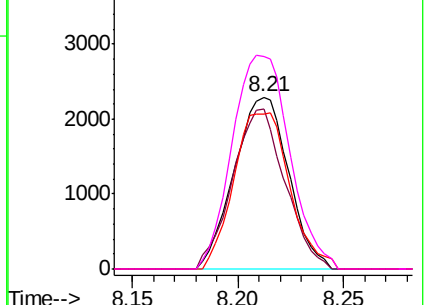
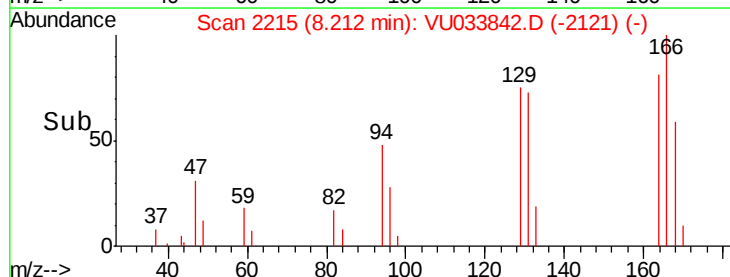


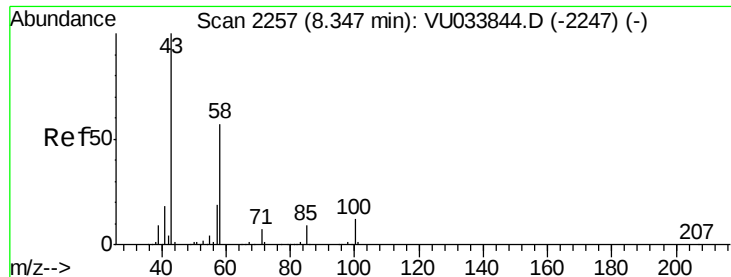
Abundance Ion 163.90 (163.60 to 164.60): V

Ion 128.95 (128.65 to 129.65): V

Ion 130.95 (130.65 to 131.65): V

Ion 165.90 (165.60 to 166.60): V

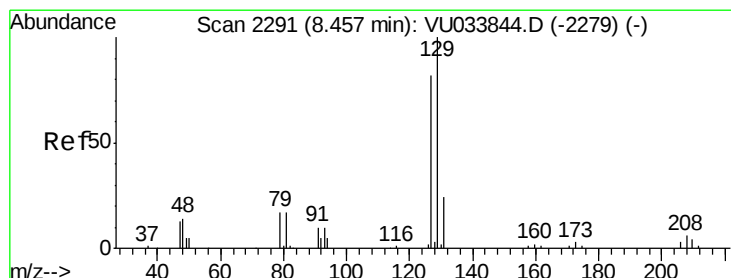
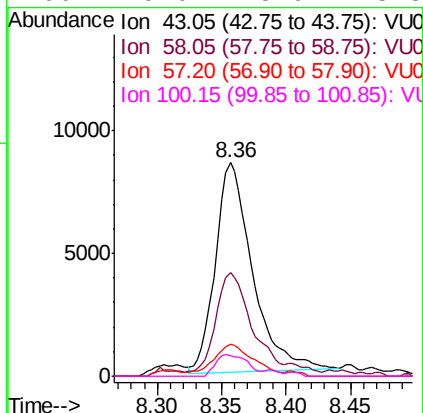
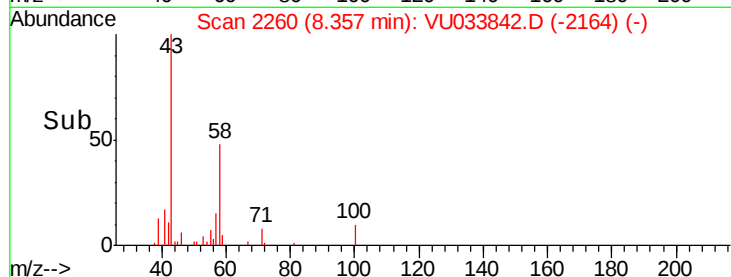
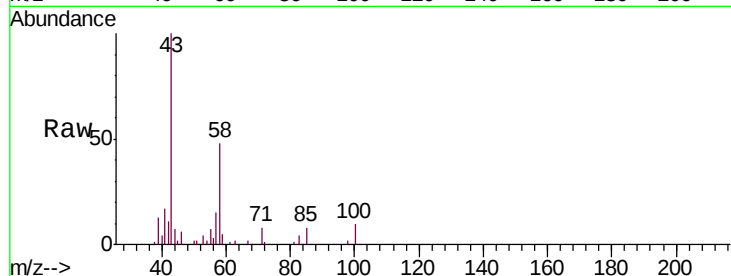




#48  
2-Hexanone  
Concen: 4.322 ug/L  
RT: 8.36 min Scan# 2260  
Delta R.T. 0.01 min  
Lab File: VU033842.D  
Acq: 20 Aug 2019 10:02

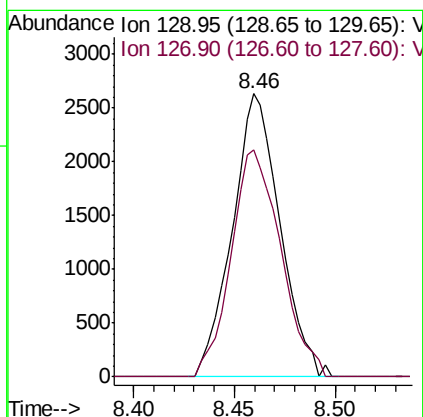
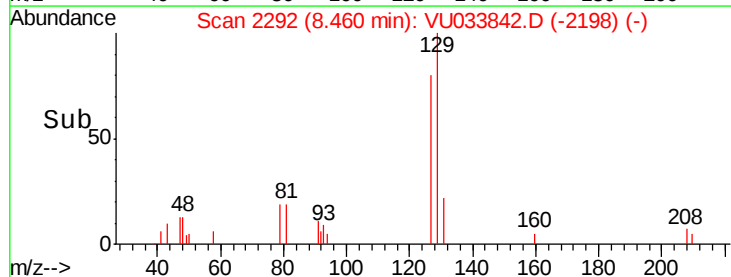
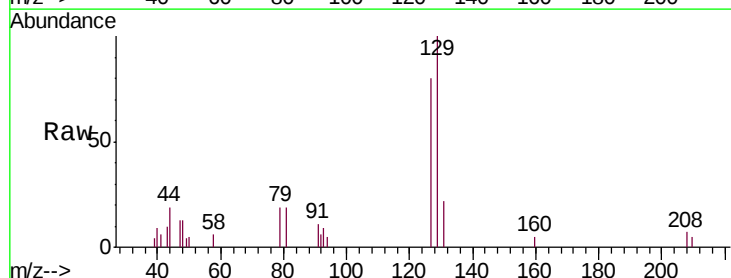
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD0.505

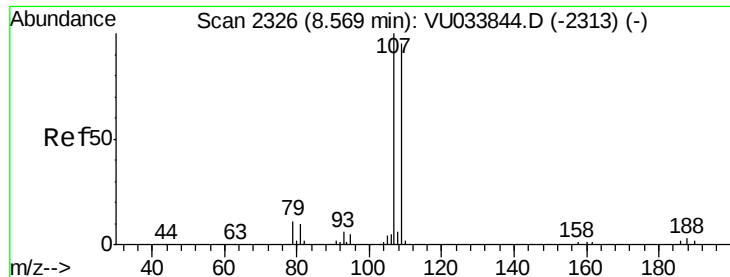
Tgt Ion: 43 Resp: 17153  
Ion Ratio Lower Upper  
43 100  
58 44.5 45.1 67.7#  
57 13.2 15.4 23.0#  
100 9.0 8.9 13.3



#49  
Dibromochloromethane  
Concen: 0.474 ug/L  
RT: 8.46 min Scan# 2292  
Delta R.T. 0.00 min  
Lab File: VU033842.D  
Acq: 20 Aug 2019 10:02

Tgt Ion: 129 Resp: 4342  
Ion Ratio Lower Upper  
129 100  
127 80.4 57.1 106.1

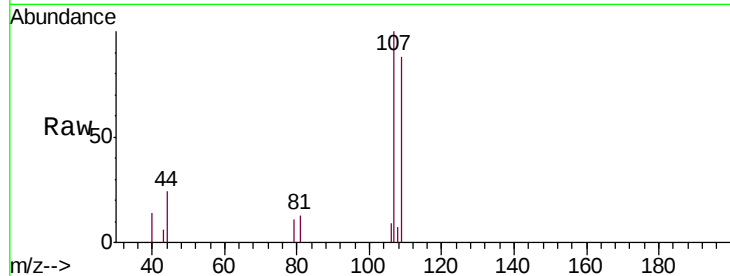




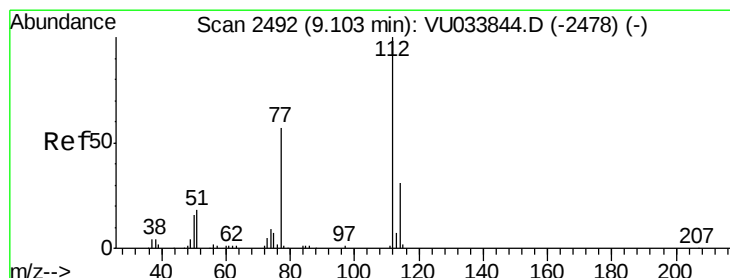
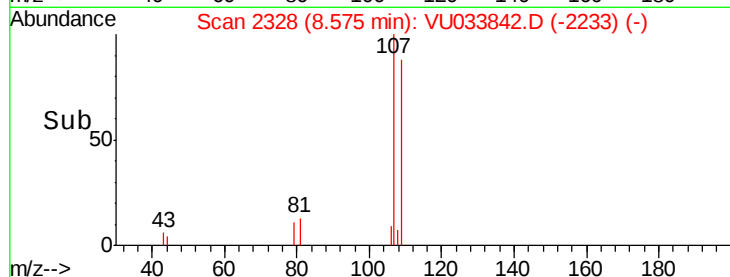
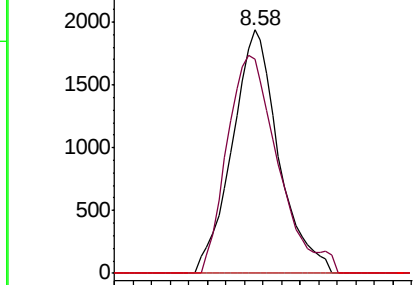
#50  
1,2-Dibromoethane  
Concen: 0.479 ug/L  
RT: 8.58 min Scan# 2326  
Delta R.T. 0.01 min  
Lab File: VU033842.D  
Acq: 20 Aug 2019 10:02

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD0.505

Tgt Ion:107 Resp: 3363  
Ion Ratio Lower Upper  
107 100  
109 88.0 66.3 123.1  
188 0.0 2.4 3.6#

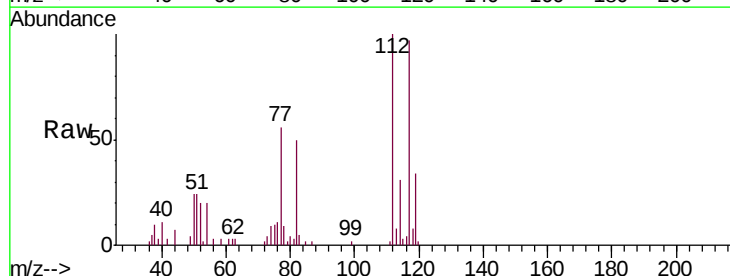


Abundance Ion 106.95 (106.65 to 107.65): V  
Ion 109.00 (108.70 to 109.70): V  
Ion 187.90 (187.60 to 188.60): V

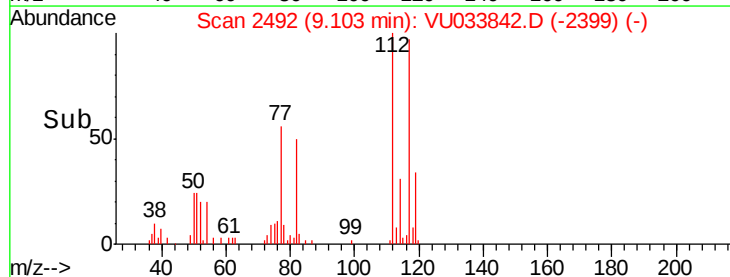
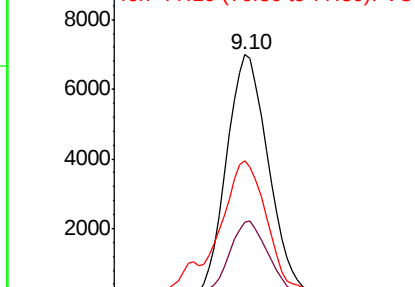


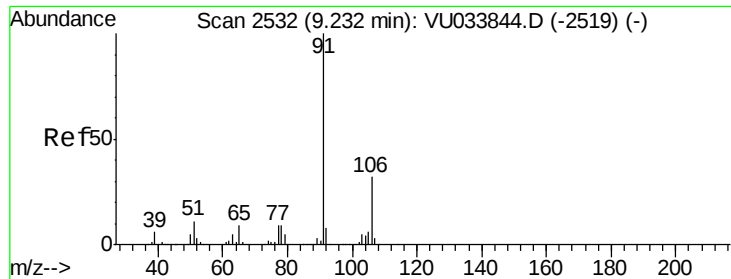
#51  
Chlorobenzene  
Concen: 0.492 ug/L  
RT: 9.10 min Scan# 2492  
Delta R.T. -0.00 min  
Lab File: VU033842.D  
Acq: 20 Aug 2019 10:02

Tgt Ion:112 Resp: 12927  
Ion Ratio Lower Upper  
112 100  
114 31.1 21.3 39.6  
77 56.2 46.6 69.8



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





#52

Ethylbenzene

Concen: 0.400 ug/L

RT: 9.23 min Scan# 2533

Delta R.T. 0.00 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Instrument :

MSVOA\_U

ClientSampleId :

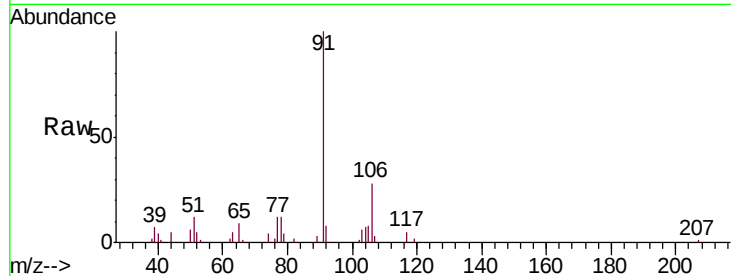
VSTD0.505

Tgt Ion: 91 Resp: 15891

Ion Ratio Lower Upper

91 100

106 28.4 22.3 41.3



Abundance Ion 91.15 (90.85 to 91.85): VU033844.D (-2519) (-)

Ion 106.15 (105.85 to 106.85): VU033844.D (-2519) (-)

9.23

10000

8000

6000

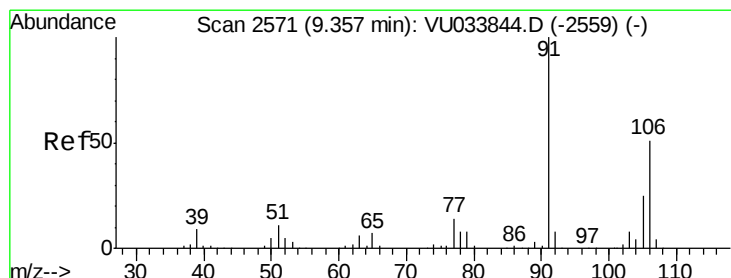
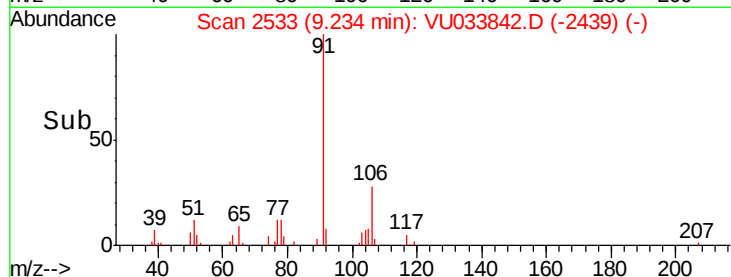
4000

2000

0

Time-->

9.20 9.25 9.30



#53

m,p-Xylene

Concen: 0.397 ug/L

RT: 9.36 min Scan# 2573

Delta R.T. 0.01 min

Lab File: VU033842.D

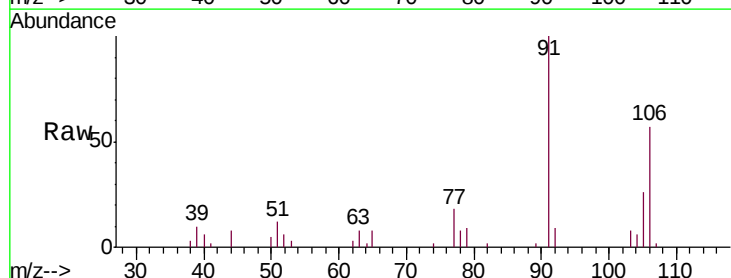
Acq: 20 Aug 2019 10:02

Tgt Ion: 106 Resp: 5926

Ion Ratio Lower Upper

106 100

91 176.9 137.7 255.7



Abundance Ion 106.15 (105.85 to 106.85): VU033844.D (-2559) (-)

Ion 91.15 (90.85 to 91.85): VU033844.D (-2559) (-)

9.36

6000

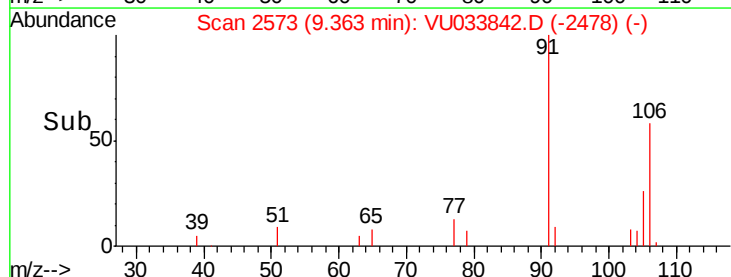
4000

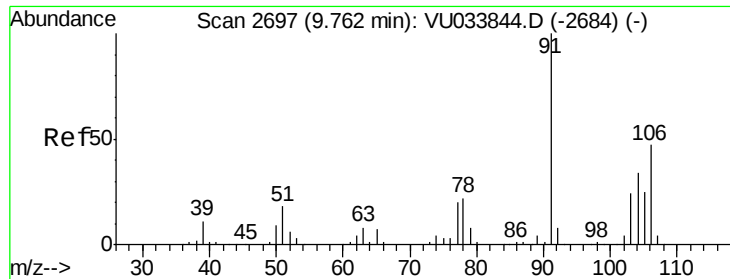
2000

0

Time-->

9.30 9.35 9.40 9.45

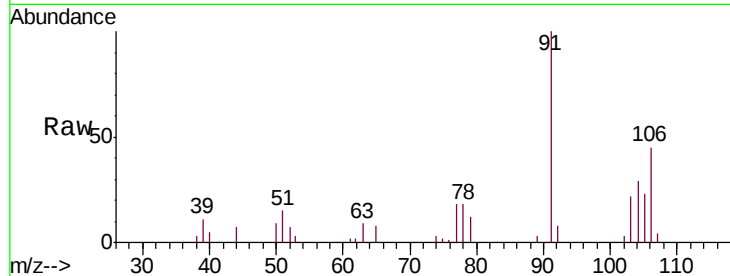




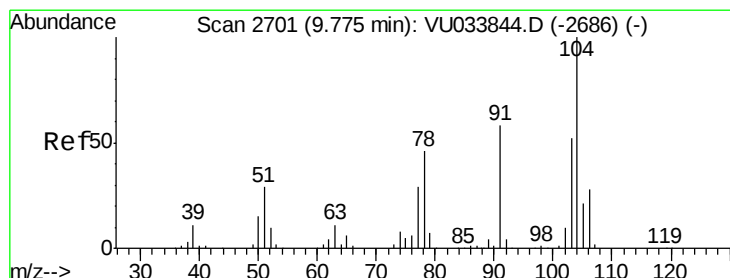
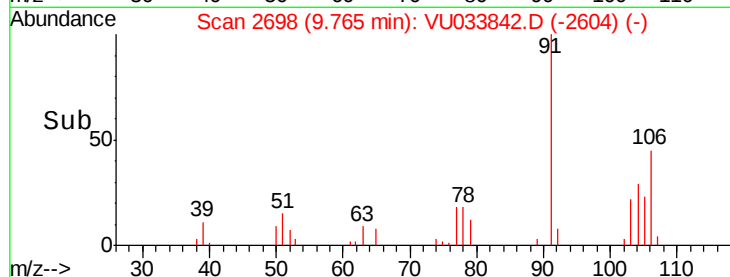
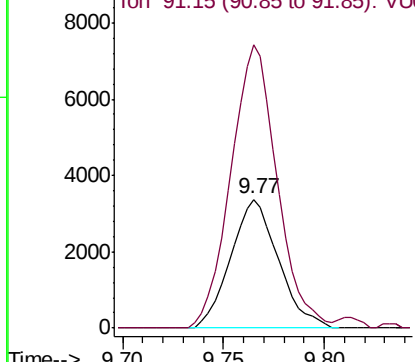
#54  
o-Xylene  
Concen: 0.390 ug/L  
RT: 9.77 min Scan# 2698  
Delta R.T. 0.00 min  
Lab File: VU033842.D  
Acq: 20 Aug 2019 10:02

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD0.505

Tgt Ion:106 Resp: 5582  
Ion Ratio Lower Upper  
106 100  
91 220.2 148.6 276.0

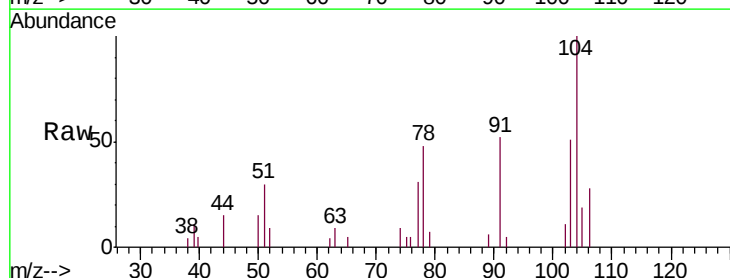


Abundance Ion 106.15 (105.85 to 106.85): V  
Ion 91.15 (90.85 to 91.85): VU0

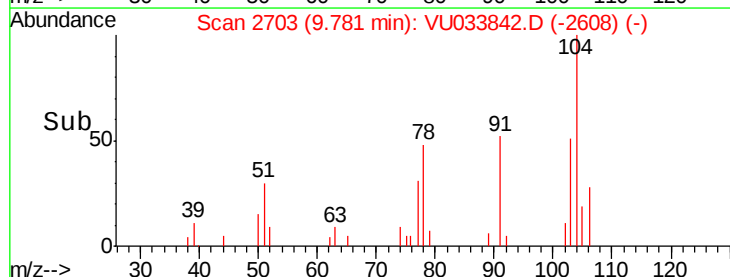
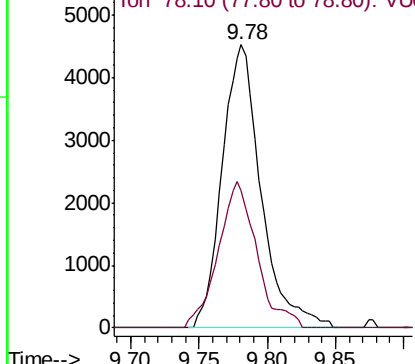


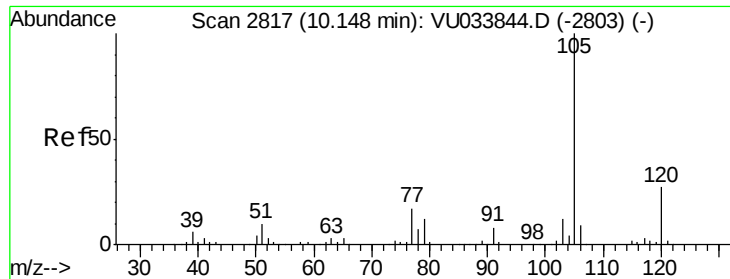
#55  
Styrene  
Concen: 0.362 ug/L  
RT: 9.78 min Scan# 2703  
Delta R.T. 0.01 min  
Lab File: VU033842.D  
Acq: 20 Aug 2019 10:02

Tgt Ion:104 Resp: 8972  
Ion Ratio Lower Upper  
104 100  
78 48.4 32.3 59.9



Abundance Ion 104.10 (103.80 to 104.80): V  
Ion 78.10 (77.80 to 78.80): VU0





#56

Isopropylbenzene

Concen: 0.366 ug/L

RT: 10.15 min Scan# 2818

Delta R.T. 0.00 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Instrument :

MSVOA\_U

ClientSampleId :

VSTD0.505

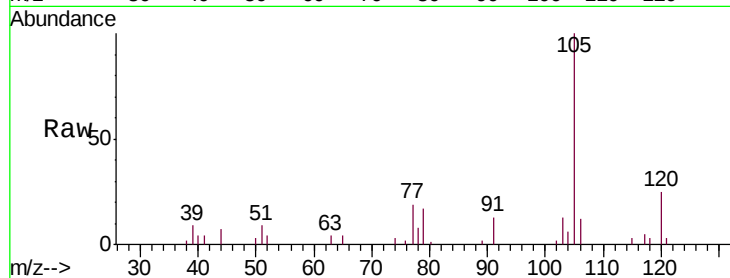
Tgt Ion:105 Resp: 13536

Ion Ratio Lower Upper

105 100

120 28.3 21.2 31.8

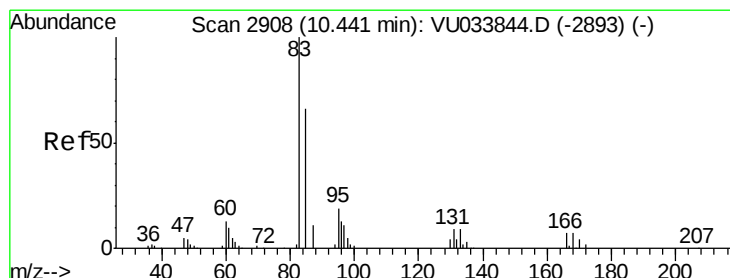
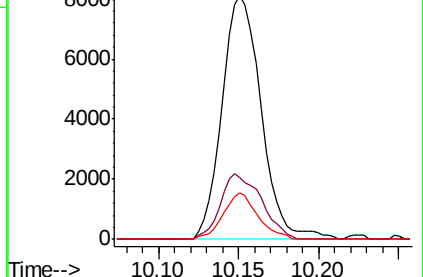
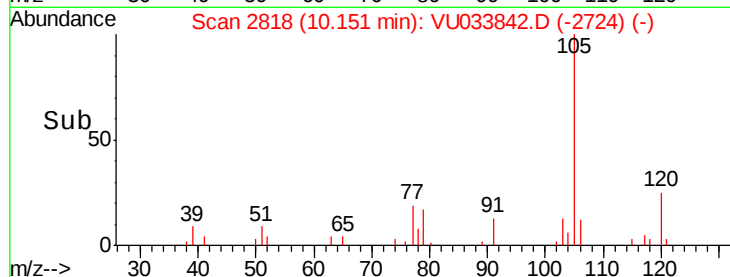
77 16.9 13.1 19.7



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.10 (119.80 to 120.80): V

Ion 77.10 (76.80 to 77.80): V



#58

1,1,2,2-Tetrachloroethane

Concen: 0.495 ug/L

RT: 10.45 min Scan# 2910

Delta R.T. 0.01 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

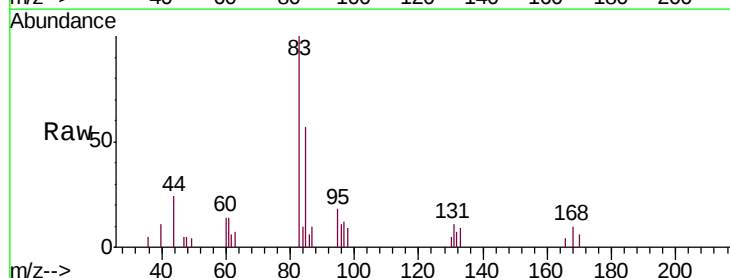
Tgt Ion: 83 Resp: 4562

Ion Ratio Lower Upper

83 100

85 57.0 46.5 86.3

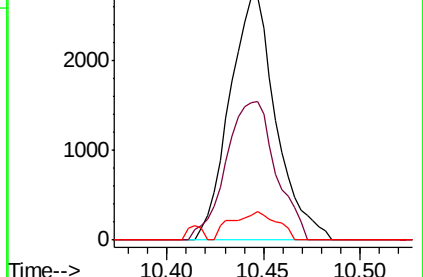
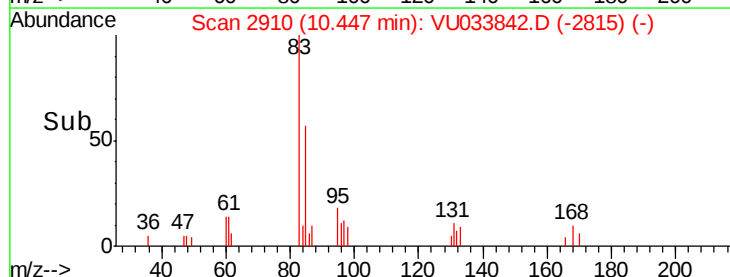
131 11.5 7.1 10.7#

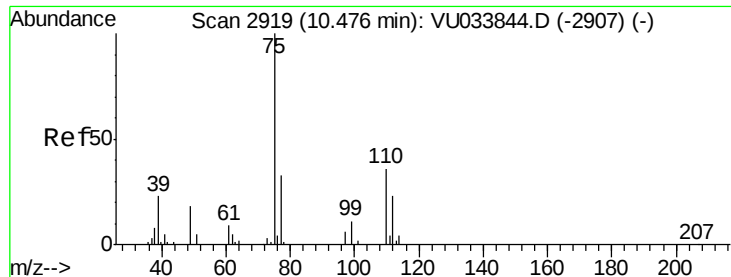


Abundance Ion 82.95 (82.65 to 83.65): V

Ion 85.00 (84.70 to 85.70): V

Ion 130.95 (130.65 to 131.65): V

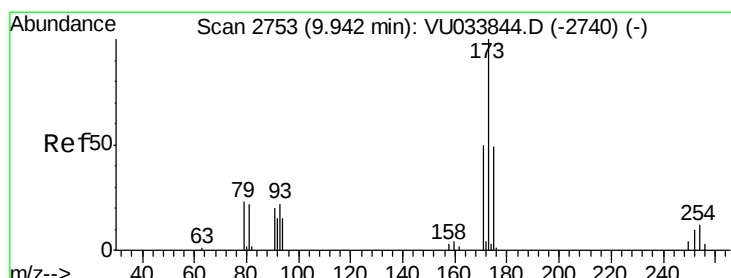
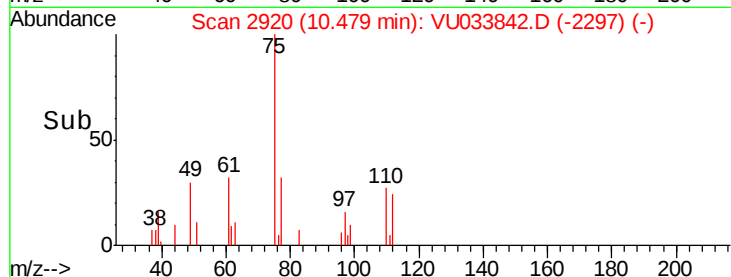
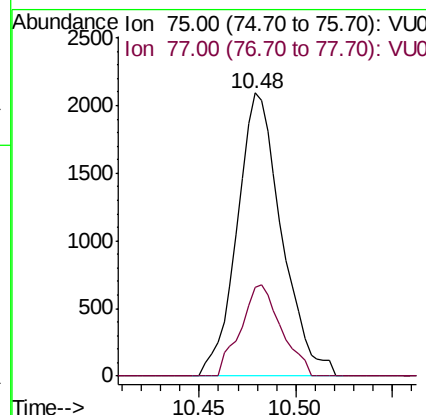
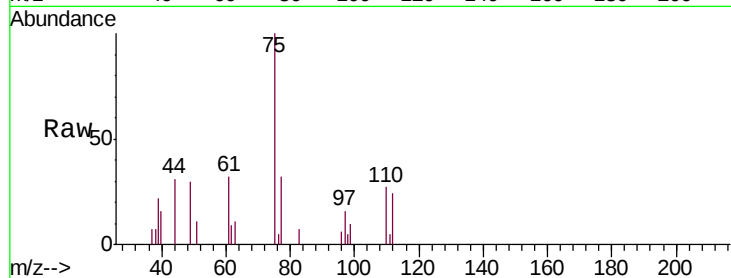




#59  
 1,2,3-Trichloropropane  
 Concen: 0.497 ug/L  
 RT: 10.48 min Scan# 2920  
 Delta R.T. 0.00 min  
 Lab File: VU033842.D  
 Acq: 20 Aug 2019 10:02

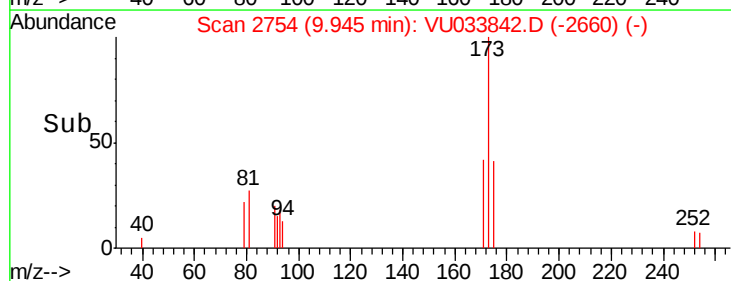
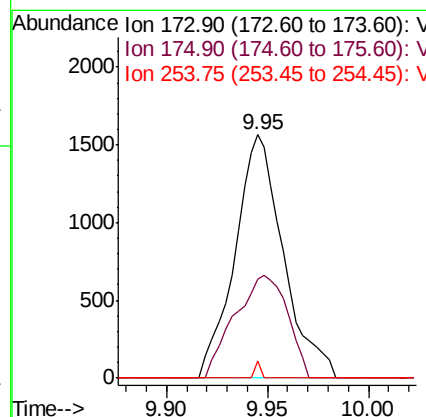
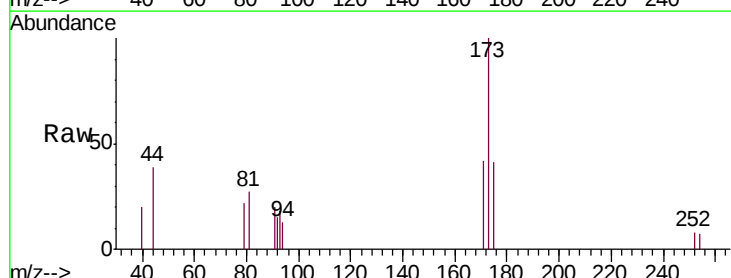
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD0.505

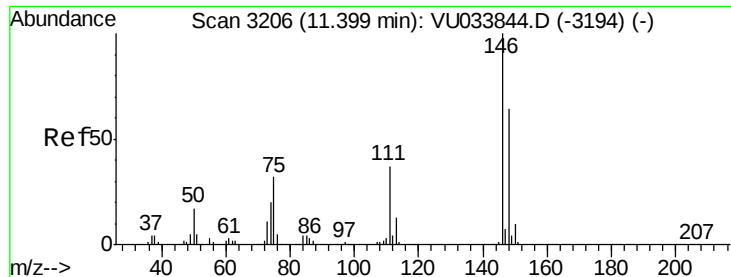
Tgt Ion: 75 Resp: 3342  
 Ion Ratio Lower Upper  
 75 100  
 77 29.4 26.3 39.5



#61  
 Bromoform  
 Concen: 0.559 ug/L  
 RT: 9.95 min Scan# 2754  
 Delta R.T. 0.00 min  
 Lab File: VU033842.D  
 Acq: 20 Aug 2019 10:02

Tgt Ion: 173 Resp: 2621  
 Ion Ratio Lower Upper  
 173 100  
 175 46.1 39.3 58.9  
 254 0.8 8.1 12.1#





#62

1,3-Dichlorobenzene

Concen: 0.485 ug/L

RT: 11.40 min Scan# 3208

Delta R.T. 0.01 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Instrument :

MSVOA\_U

ClientSampleId :

VSTD0.505

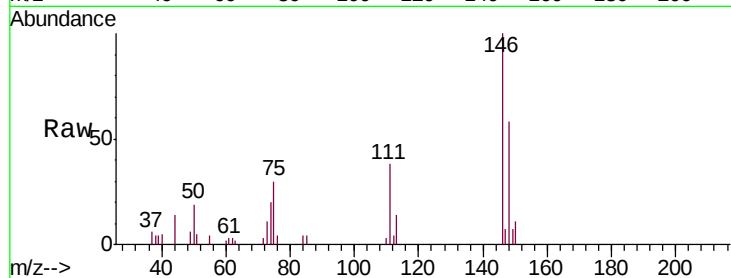
Tgt Ion:146 Resp: 9139

Ion Ratio Lower Upper

146 100

111 38.2 25.9 48.1

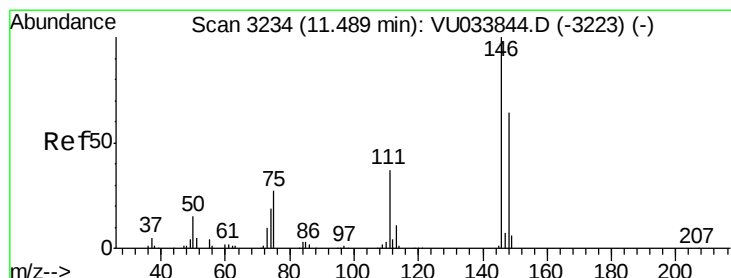
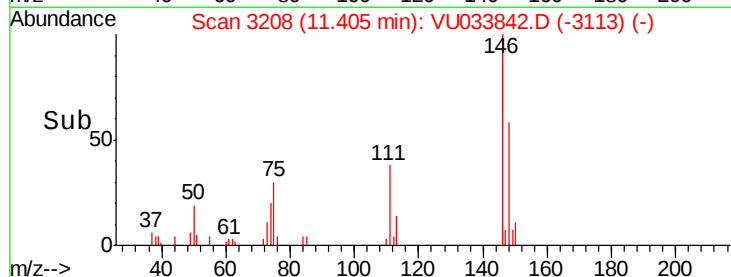
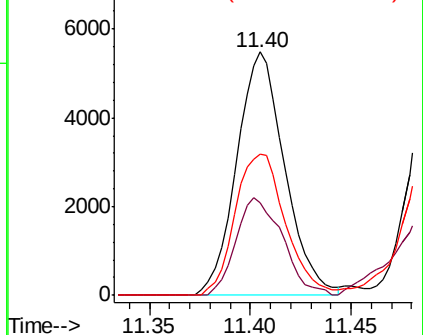
148 58.1 44.7 83.1



Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#63

1,4-Dichlorobenzene

Concen: 0.528 ug/L

RT: 11.49 min Scan# 3235

Delta R.T. 0.00 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

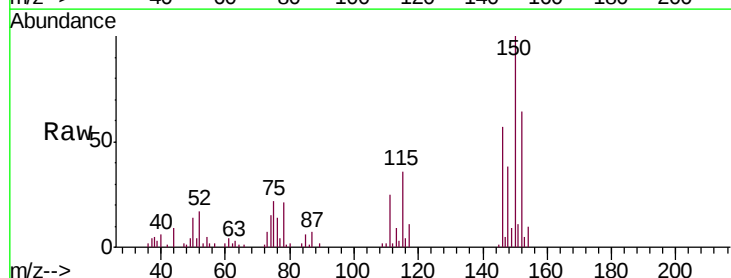
Tgt Ion:146 Resp: 10242

Ion Ratio Lower Upper

146 100

111 43.5 26.2 48.6

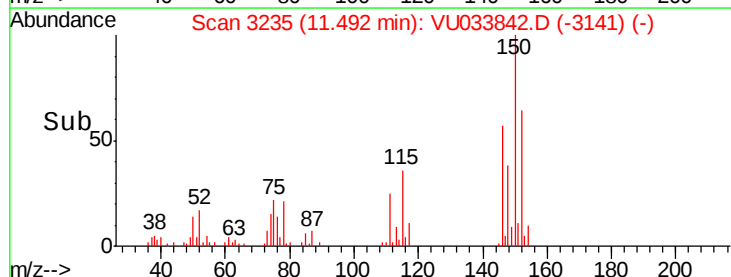
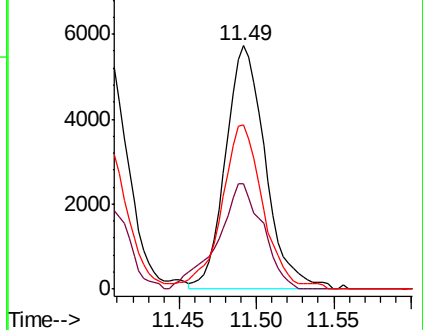
148 67.5 44.7 83.1

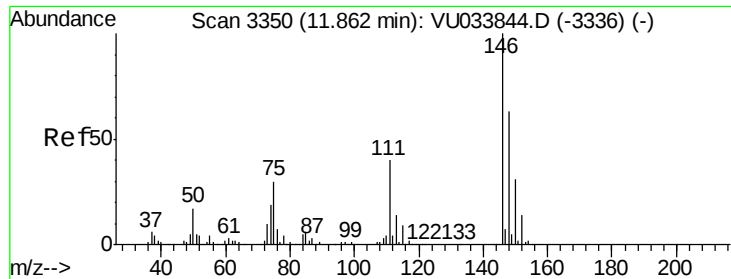


Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V





#65

1,2-Dichlorobenzene

Concen: 0.494 ug/L

RT: 11.86 min Scan# 3351

Delta R.T. 0.00 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Instrument :

MSVOA\_U

ClientSampleId :

VSTD0.505

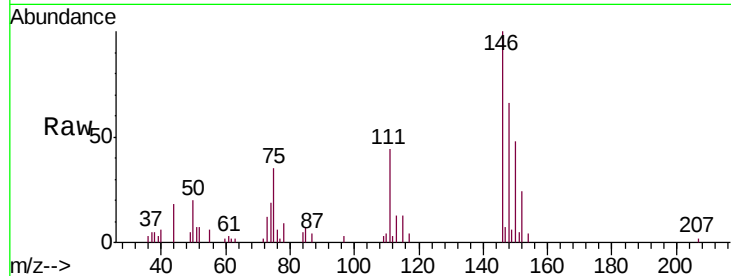
Tgt Ion:146 Resp: 9012

Ion Ratio Lower Upper

146 100

111 44.0 31.9 47.9

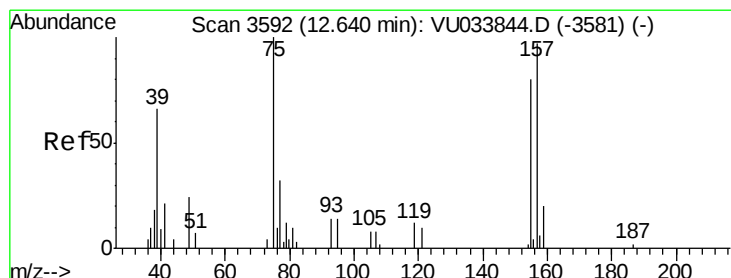
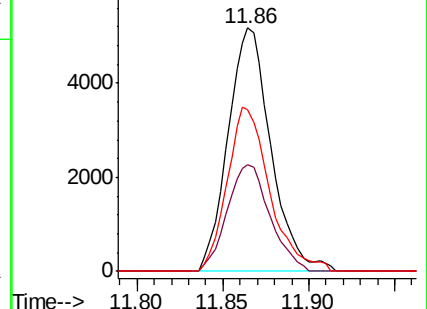
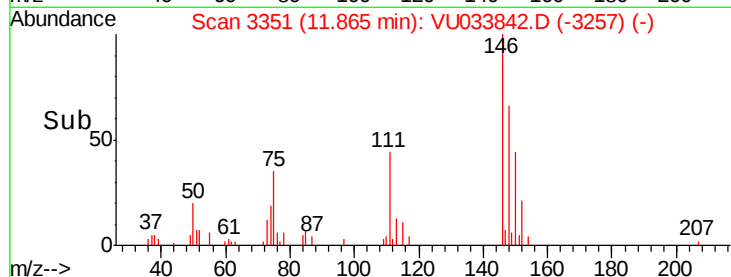
148 66.3 50.6 76.0



Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#66

1,2-Dibromo-3-chloropropane

Concen: 0.463 ug/L

RT: 12.65 min Scan# 3595

Delta R.T. 0.01 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

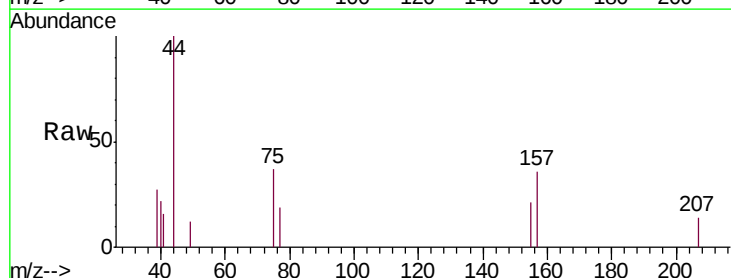
Tgt Ion: 75 Resp: 598

Ion Ratio Lower Upper

75 100

155 57.6 64.1 96.1#

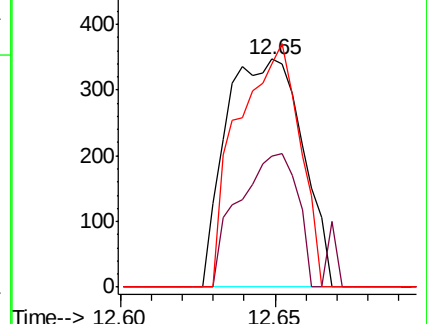
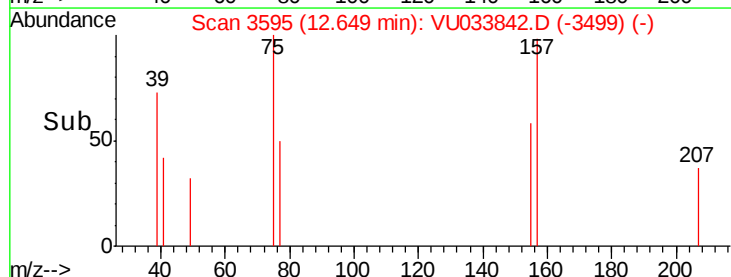
157 97.7 77.5 116.3

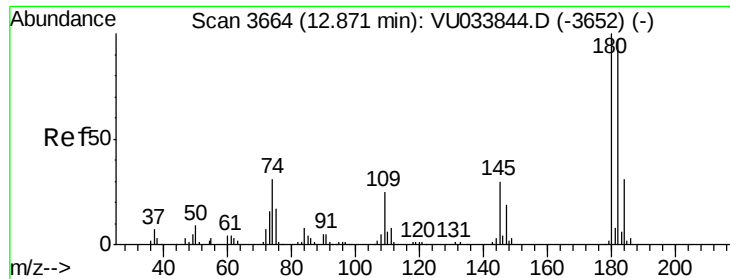


Abundance Ion 75.05 (74.75 to 75.75): VU0

Ion 154.95 (154.65 to 155.65): V

Ion 156.90 (156.60 to 157.60): V

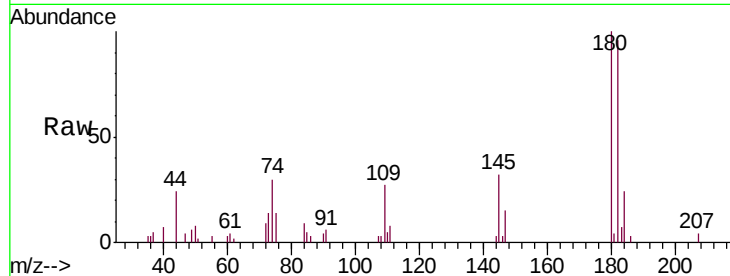




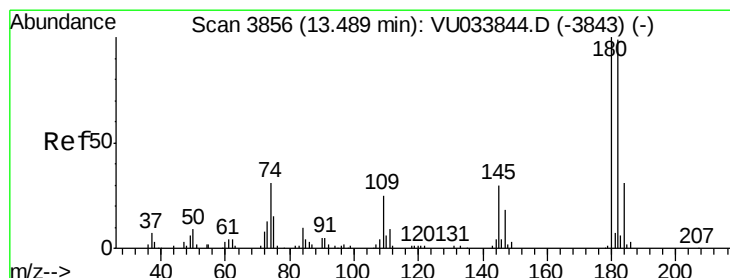
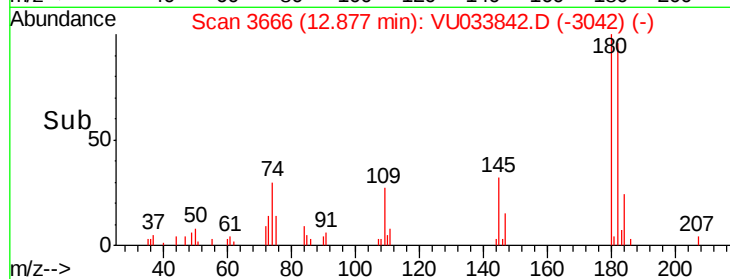
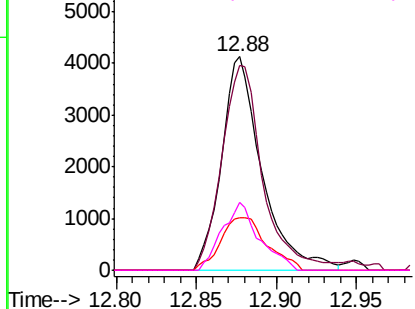
#67  
 1,3,5-Trichlorobenzene  
 Concen: 0.497 ug/L  
 RT: 12.88 min Scan# 3666  
 Delta R.T. 0.01 min  
 Lab File: VU033842.D  
 Acq: 20 Aug 2019 10:02

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD0.505

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 180   | Resp: | 7111  |
| Ion      | Ratio | Lower | Upper |
| 180      | 100   |       |       |
| 182      | 97.1  | 77.5  | 116.3 |
| 184      | 28.3  | 24.2  | 36.4  |
| 145      | 29.3  | 23.4  | 35.2  |

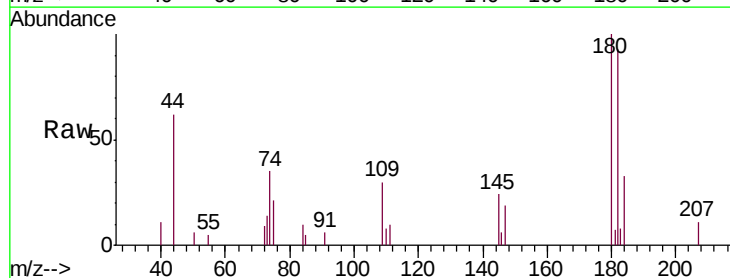


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

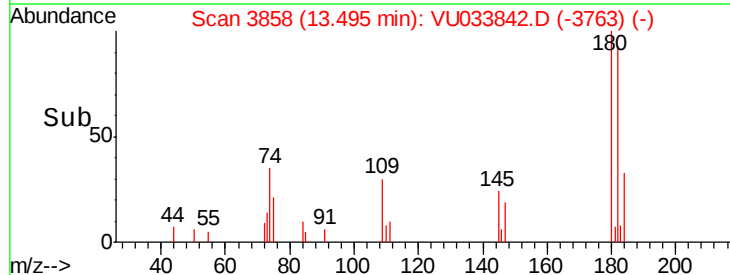
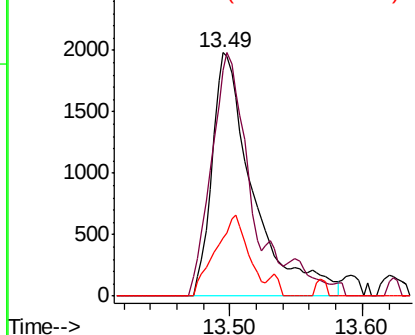


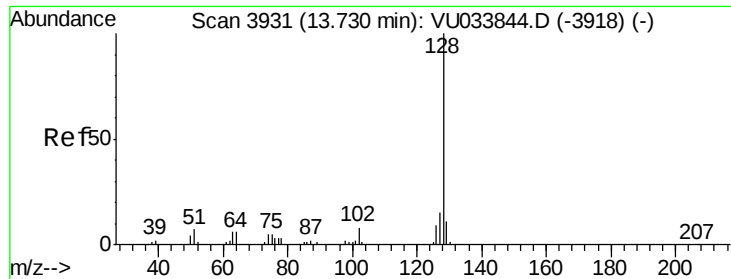
#68  
 1,2,4-trichlorobenzene  
 Concen: 0.409 ug/L  
 RT: 13.49 min Scan# 3858  
 Delta R.T. 0.01 min  
 Lab File: VU033842.D  
 Acq: 20 Aug 2019 10:02

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 180   | Resp: | 4265  |
| Ion      | Ratio | Lower | Upper |
| 180      | 100   |       |       |
| 182      | 82.3  | 77.6  | 116.4 |
| 145      | 26.9  | 24.4  | 36.6  |



Abundance Ion 179.90 (179.60 to 180.60): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 144.95 (144.65 to 145.65): V





#69

Naphthalene

Concen: 0.292 ug/L

RT: 13.74 min Scan# 3934

Delta R.T. 0.01 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

Instrument :

MSVOA\_U

ClientSampleId :

VSTD0.505

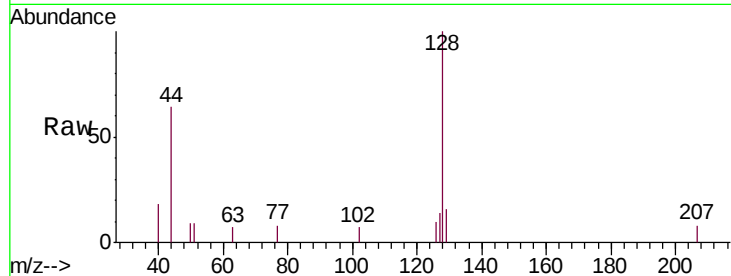
Tgt Ion:128 Resp: 4162

Ion Ratio Lower Upper

128 100

129 8.8 9.0 13.6#

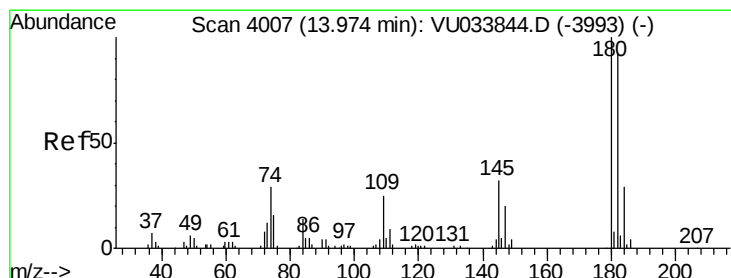
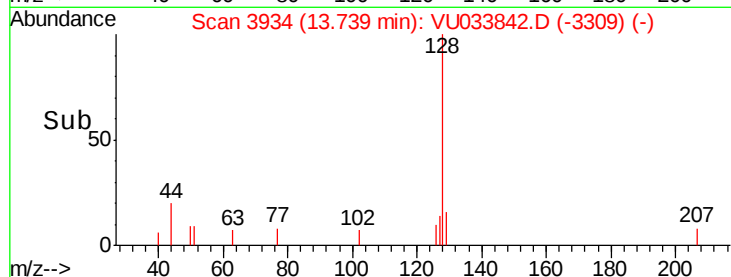
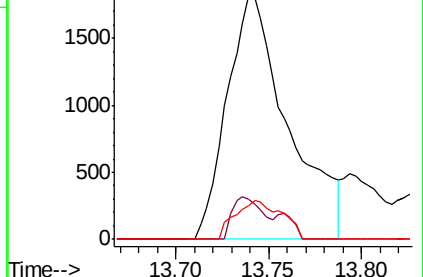
127 12.2 10.9 16.3



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V



#70

1,2,3-Trichlorobenzene

Concen: 0.377 ug/L

RT: 13.98 min Scan# 4009

Delta R.T. 0.01 min

Lab File: VU033842.D

Acq: 20 Aug 2019 10:02

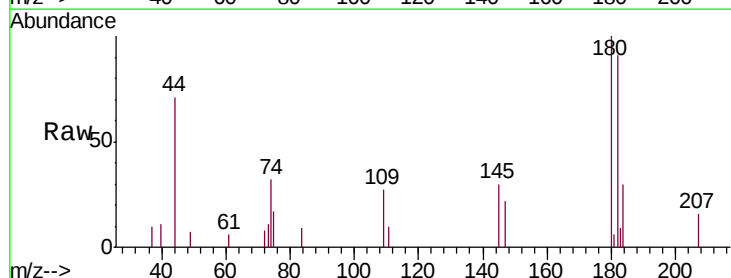
Tgt Ion:180 Resp: 3687

Ion Ratio Lower Upper

180 100

182 109.1 76.9 115.3

145 32.0 24.6 36.8



Abundance Ion 179.90 (179.60 to 180.60): V

Ion 181.90 (181.60 to 182.60): V

Ion 144.95 (144.65 to 145.65): V

