

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU011519\  
 Data File : VU029187.D  
 Acq On : 15 Jan 2019 15:56  
 Operator : JC/SP  
 Sample : PB116371ZHE#09  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 PB116371ZHE#09

Quant Time: Jan 16 04:35:33 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U010319W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Jan 12 01:33:59 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.98  | 168  | 108262   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.88  | 114  | 194040   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.09  | 117  | 183370   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 73505    | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 5.31  | 65   | 75579    | 56.47 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 112.94% |          |
| 35) Dibromofluoromethane    | 4.88  | 113  | 65708    | 52.24 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 104.48% |          |
| 50) Toluene-d8              | 7.56  | 98   | 248974   | 50.14 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.28% |          |
| 62) 4-Bromofluorobenzene    | 10.31 | 95   | 78703    | 44.10 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 88.20%  |          |

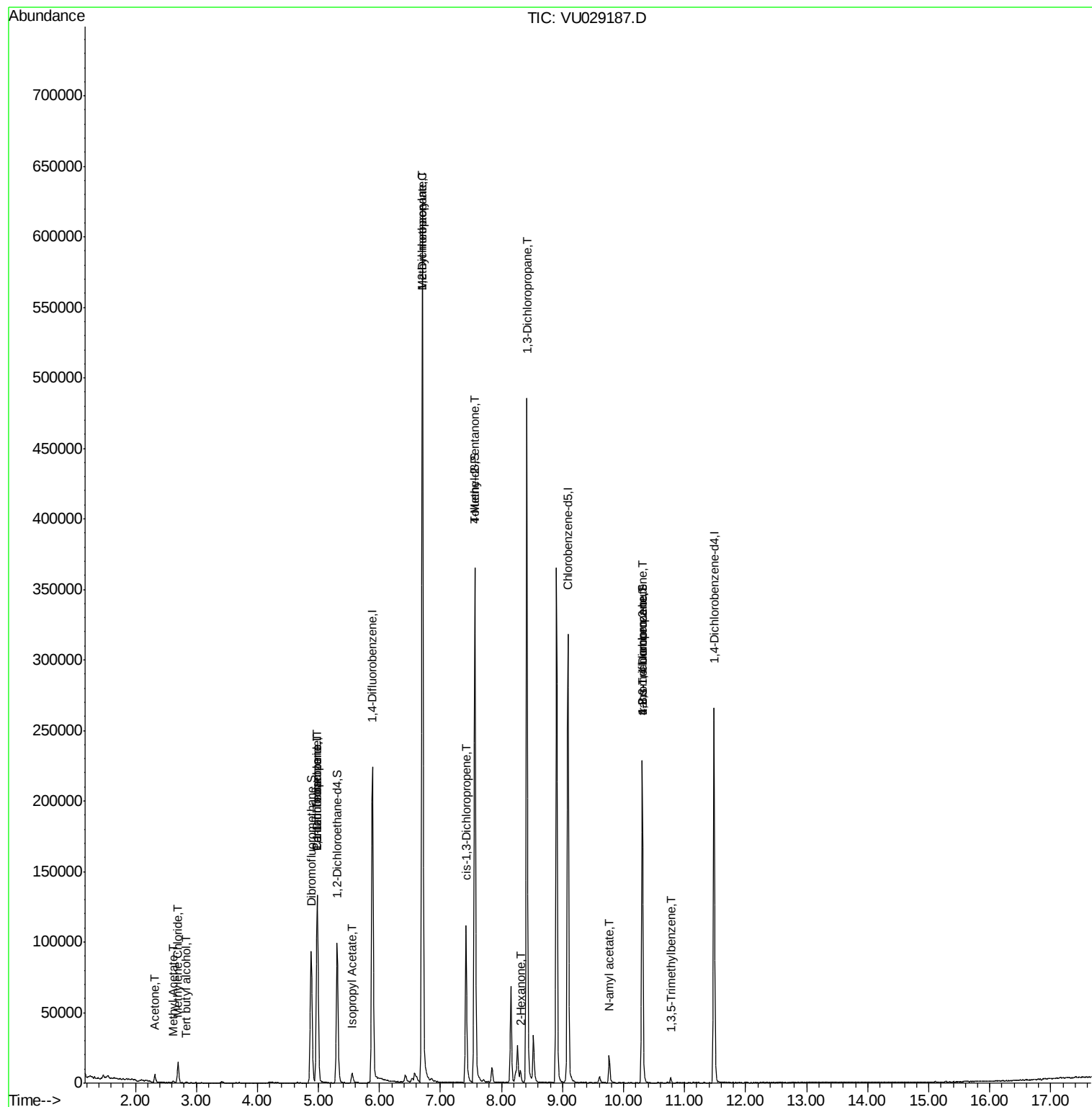
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 3) Chloromethane               | 1.33  | 50   | 724      | Below Cal |        | 97     |
| 11) Tert butyl alcohol         | 2.83  | 59   | 200      | 0.588     | ug/l # | 73     |
| 16) Acetone                    | 2.32  | 43   | 5936     | 7.041     | ug/l   | 91     |
| 18) Methyl Acetate             | 2.62  | 43   | 1919     | 0.979     | ug/l # | 77     |
| 20) Methylene Chloride         | 2.70  | 84   | 6797     | 4.748     | ug/l   | 95     |
| 31) Cyclohexane                | 4.98  | 56   | 1688     | Below Cal | #      | 1      |
| 36) 1,1-Dichloropropene        | 4.98  | 75   | 7887     | 4.066     | ug/l # | 48     |
| 38) Carbon Tetrachloride       | 4.98  | 117  | 9690     | 5.990     | ug/l # | 18     |
| 43) Isopropyl Acetate          | 5.55  | 43   | 7969     | 2.440     | ug/l   | 96     |
| 45) 1,2-Dichloropropane        | 6.70  | 63   | 685      | 0.429     | ug/l # | 43     |
| 48) Methyl methacrylate        | 6.70  | 41   | 52530    | 33.034    | ug/l # | 37     |
| 51) 4-Methyl-2-Pentanone       | 7.56  | 43   | 4097     | 1.843     | ug/l   | 89     |
| 54) cis-1,3-Dichloropropene    | 7.42  | 75   | 21035    | 8.618     | ug/l # | 61     |
| 57) 1,3-Dichloropropane        | 8.41  | 76   | 4793     | 1.898     | ug/l # | 42     |
| 59) 2-Hexanone                 | 8.31  | 43   | 6989     | 4.006     | ug/l # | 21     |
| 74) N-amyl acetate             | 9.77  | 43   | 6516     | 2.779     | ug/l # | 47     |
| 76) 1,2,3-Trichloropropane     | 10.31 | 75   | 38198    | 21.209    | ug/l # | 36     |
| 80) 1,3,5-Trimethylbenzene     | 10.77 | 105  | 2674     | 0.589     | ug/l   | 98     |
| 81) trans-1,4-Dichloro-2-buten | 10.31 | 75   | 38198    | 54.700    | ug/l # | 100    |

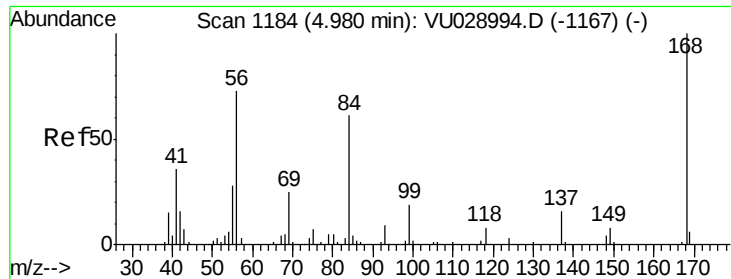
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\82U010319W.M  
Quant Title : SW846 8260  
QLast Update : Sat Jan 12 01:33:59 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.98 min Scan# 1184

Delta R.T. 0.00 min

Lab File: VU029187.D

Acq: 15 Jan 2019 15:56

Instrument :

MSVOA\_U

ClientSampleId :

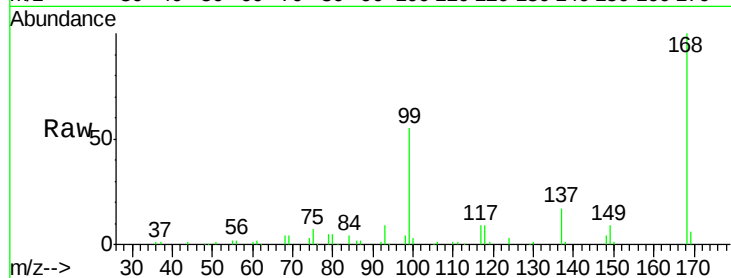
PB116371ZHE#09

Tot Ion:168 Resp: 108262

Ion Ratio Lower Upper

168 100

99 55.5 42.0 63.0



Abundance Ion 167.90 (167.60 to 168.60): VU028994.D (-1167) (-)

Ion 98.90 (98.60 to 99.60): VU028994.D (-1167) (-)

4.98

50000

40000

30000

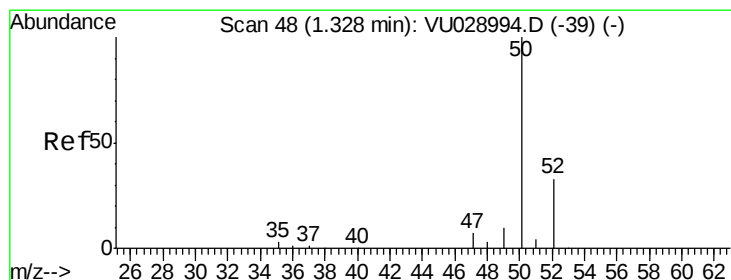
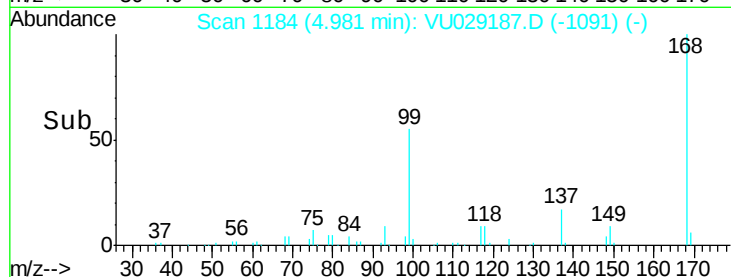
20000

10000

0

4.90 5.00 5.10

Time-->



#3

Chloromethane

Concen: Below Cal

RT: 1.33 min Scan# 48

Delta R.T. 0.00 min

Lab File: VU029187.D

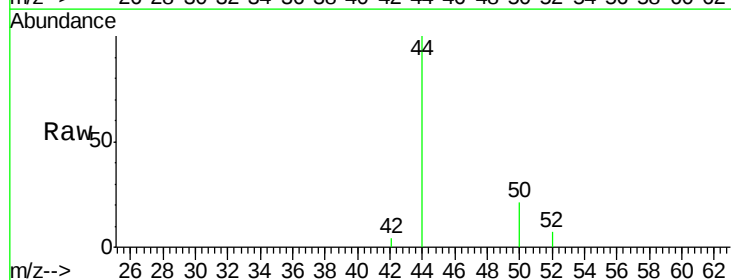
Acq: 15 Jan 2019 15:56

Tgt Ion: 50 Resp: 724

Ion Ratio Lower Upper

50 100

52 34.1 26.1 39.1



Abundance Ion 49.90 (49.60 to 50.60): VU028994.D (-39) (-)

Ion 51.90 (51.60 to 52.60): VU028994.D (-39) (-)

1.33

800

600

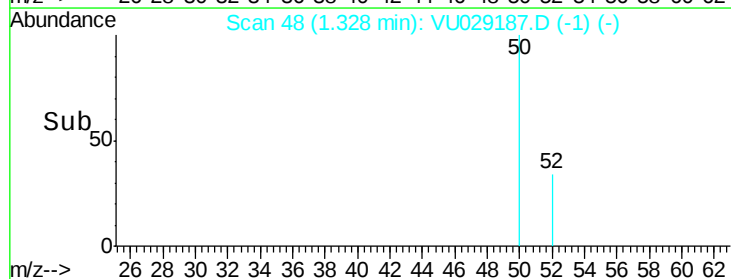
400

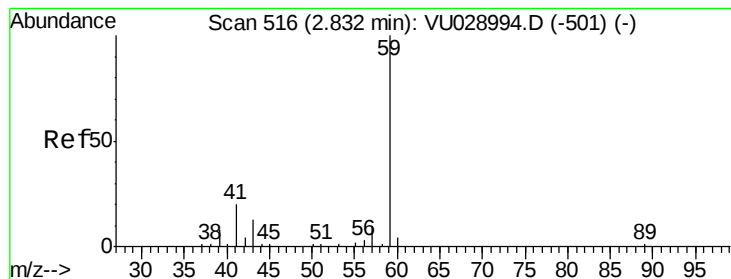
200

0

1.30 1.32 1.34 1.36

Time-->



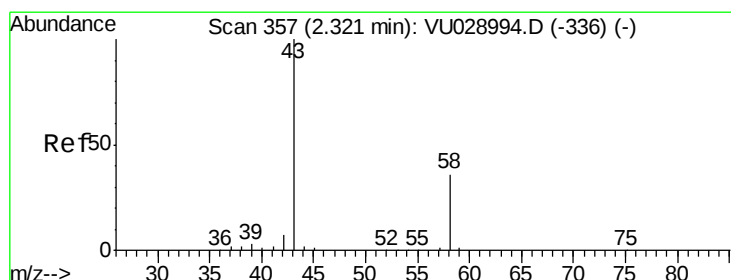
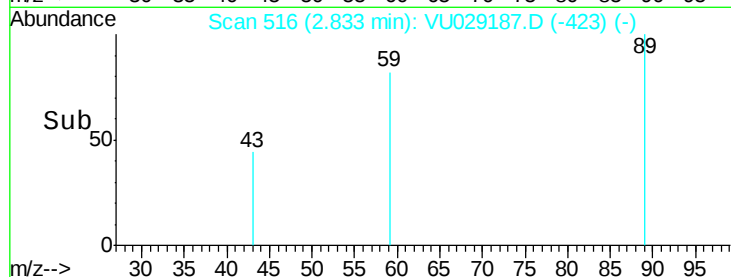
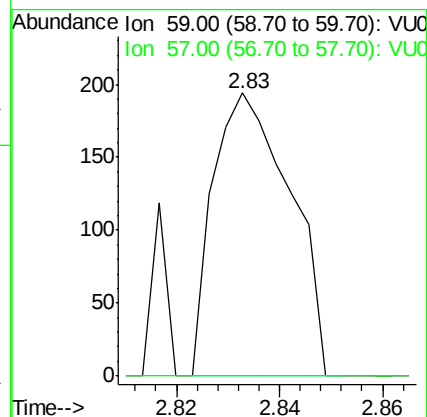
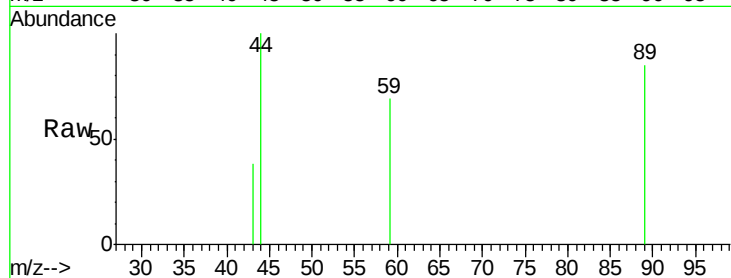


#11

Tert butyl alcohol  
 Concen: 0.588 ug/l  
 RT: 2.83 min Scan# 516  
 Delta R.T. 0.00 min  
 Lab File: VU029187.D  
 Acq: 15 Jan 2019 15:56

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 PB116371ZHE#09

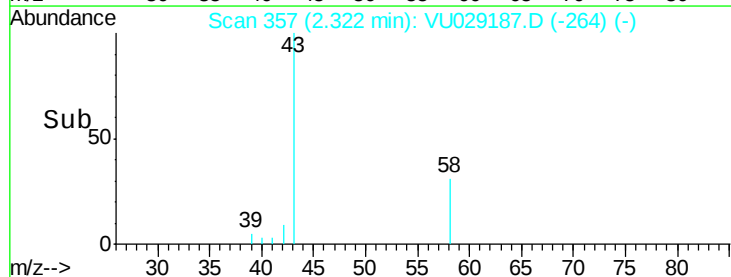
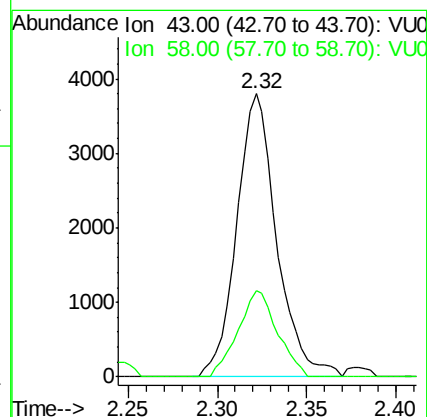
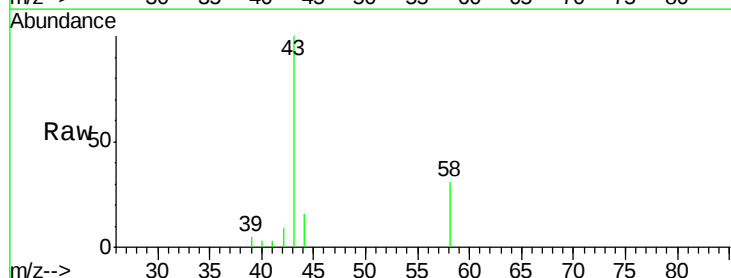
Tot Ion: 59 Resp: 200  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 7.9 11.9#

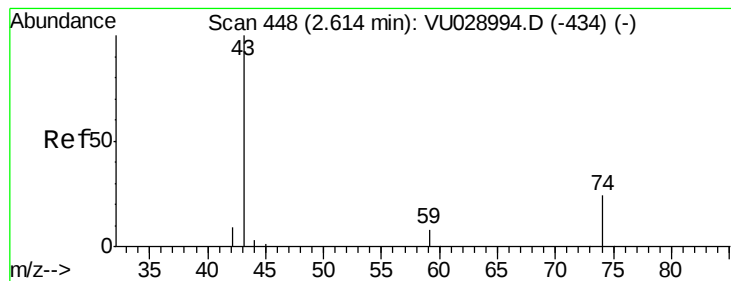


#16

Acetone  
 Concen: 7.041 ug/l  
 RT: 2.32 min Scan# 357  
 Delta R.T. 0.00 min  
 Lab File: VU029187.D  
 Acq: 15 Jan 2019 15:56

Tgt Ion: 43 Resp: 5936  
 Ion Ratio Lower Upper  
 43 100  
 58 30.6 28.6 42.8





#18

Methyl Acetate

Concen: 0.979 ug/l

RT: 2.62 min Scan# 449

Delta R.T. 0.00 min

Lab File: VU029187.D

Acq: 15 Jan 2019 15:56

Instrument :

MSVOA\_U

ClientSampleId :

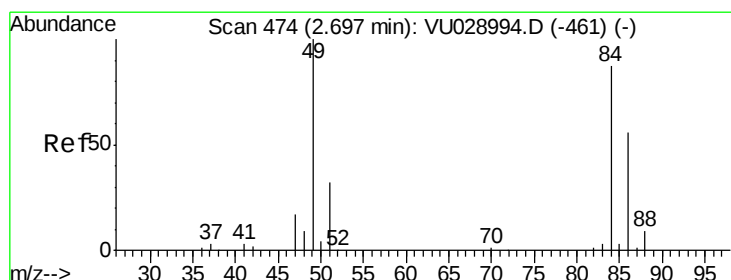
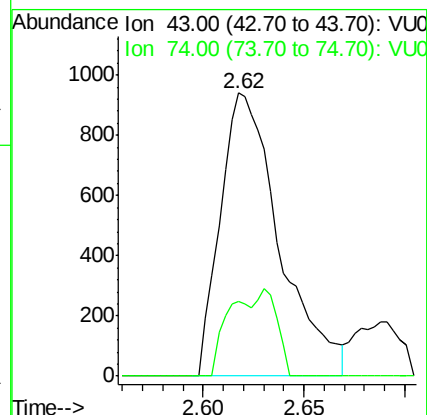
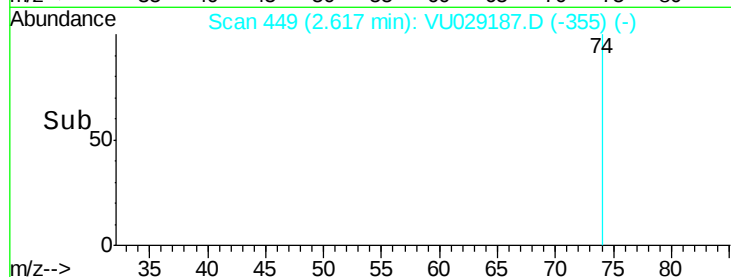
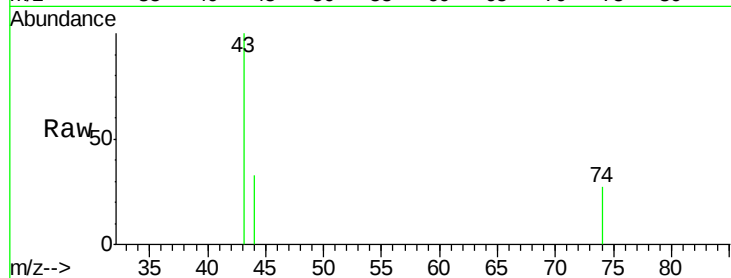
PB116371ZHE#09

Tot Ion: 43 Resp: 1919

Ion Ratio Lower Upper

43 100

74 13.1 19.5 29.3#



#20

Methylene Chloride

Concen: 4.748 ug/l

RT: 2.70 min Scan# 475

Delta R.T. 0.00 min

Lab File: VU029187.D

Acq: 15 Jan 2019 15:56

Tgt Ion: 84 Resp: 6797

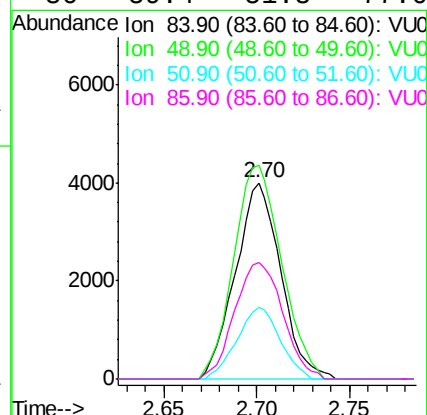
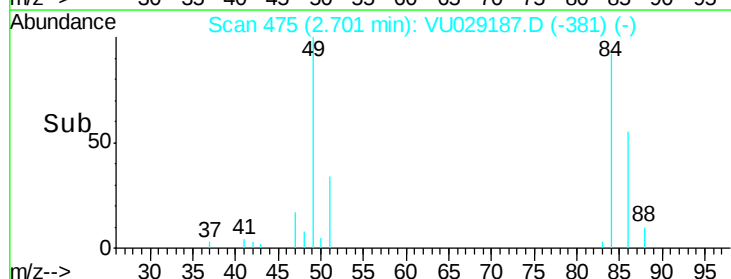
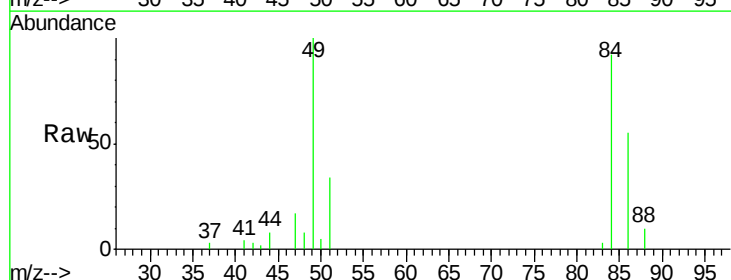
Ion Ratio Lower Upper

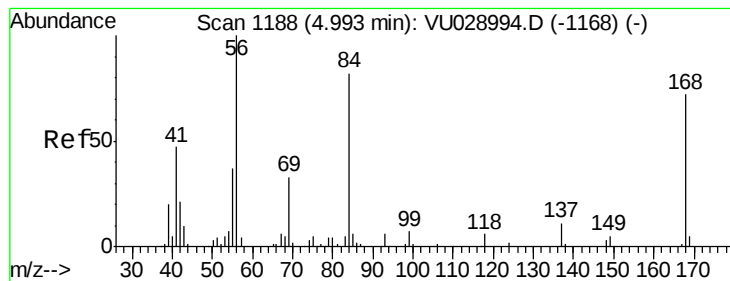
84 100

49 109.0 91.9 137.9

51 36.6 29.2 43.8

86 59.4 51.8 77.6





#31

Cyclohexane

Concen: Below Cal

RT: 4.98 min Scan# 1184

Delta R.T. -0.01 min

Lab File: VU029187.D

Acq: 15 Jan 2019 15:56

Instrument :

MSVOA\_U

ClientSampleId :

PB116371ZHE#09

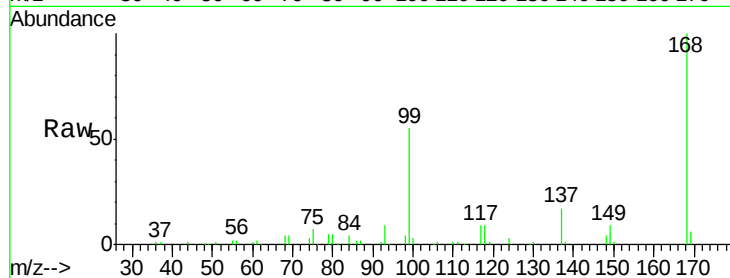
Tot Ion: 56 Resp: 1688

Ion Ratio Lower Upper

56 100

69 214.5 26.7 40.1#

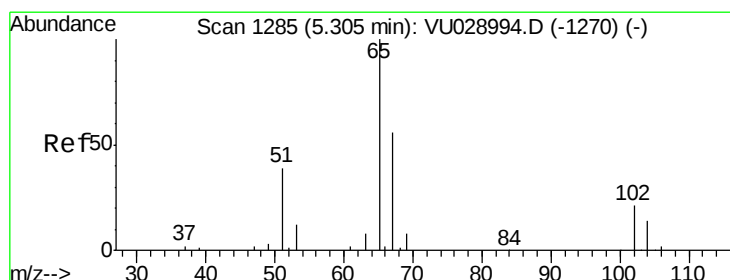
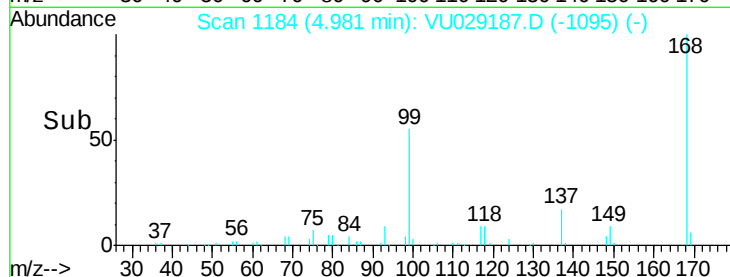
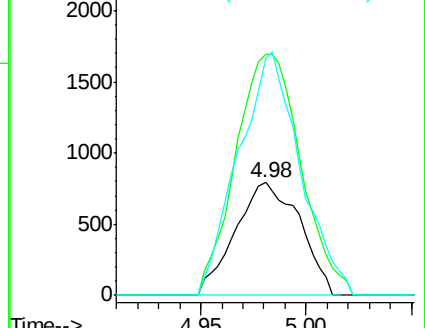
84 210.4 65.7 98.5#



Abundance Ion 56.00 (55.70 to 56.70): VU0

Ion 69.00 (68.70 to 69.70): VU0

Ion 84.00 (83.70 to 84.70): VU0



#33

1,2-Dichloroethane-d4

Concen: 56.473 ug/l

RT: 5.31 min Scan# 1286

Delta R.T. 0.00 min

Lab File: VU029187.D

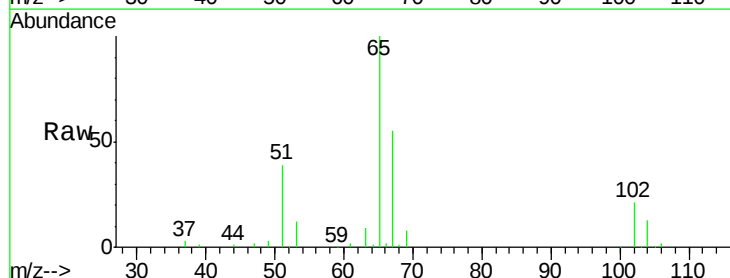
Acq: 15 Jan 2019 15:56

Tgt Ion: 65 Resp: 75579

Ion Ratio Lower Upper

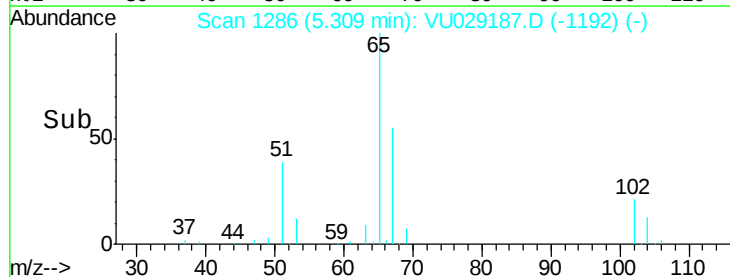
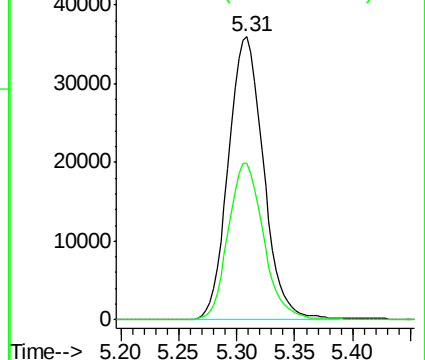
65 100

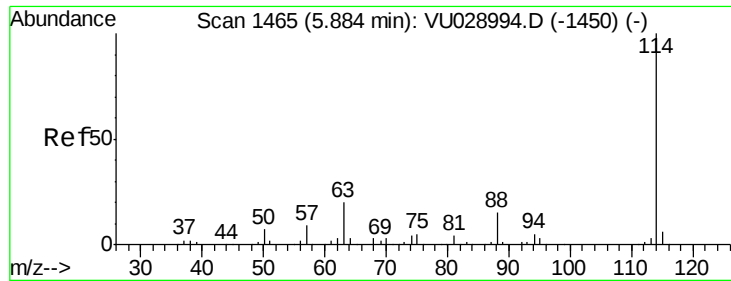
67 55.7 0.0 111.0



Abundance Ion 64.90 (64.60 to 65.60): VU0

Ion 66.90 (66.60 to 67.60): VU0

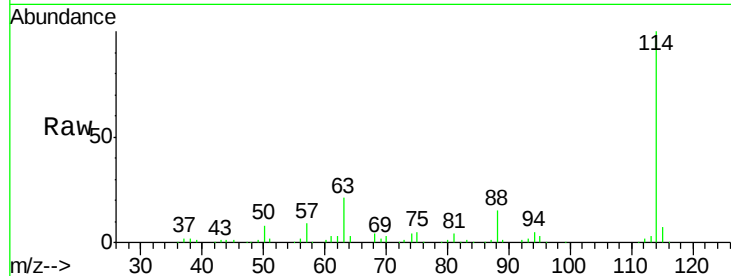




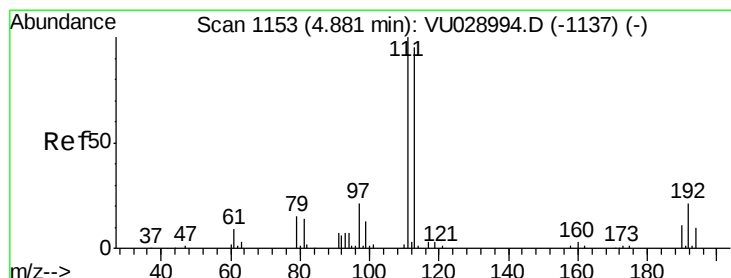
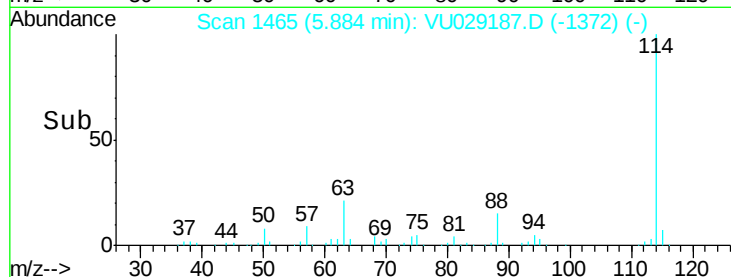
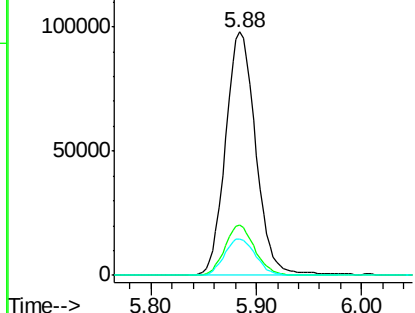
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 5.88 min Scan# 1465  
 Delta R.T. 0.00 min  
 Lab File: VU029187.D  
 Acq: 15 Jan 2019 15:56

Instrument :  
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 PB116371ZHE#09

Tot Ion:114 Resp: 194040  
 Ion Ratio Lower Upper  
 114 100  
 63 20.6 0.0 40.2  
 88 15.0 0.0 30.4

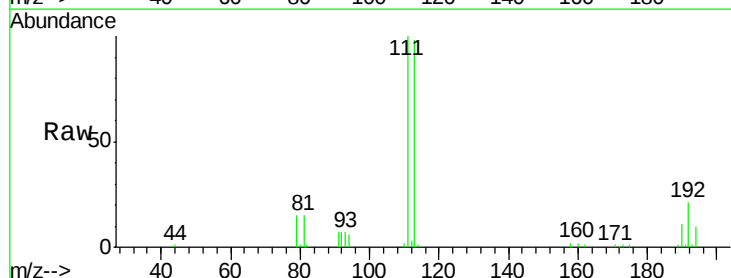


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VU0  
 Ion 87.90 (87.60 to 88.60): VU0

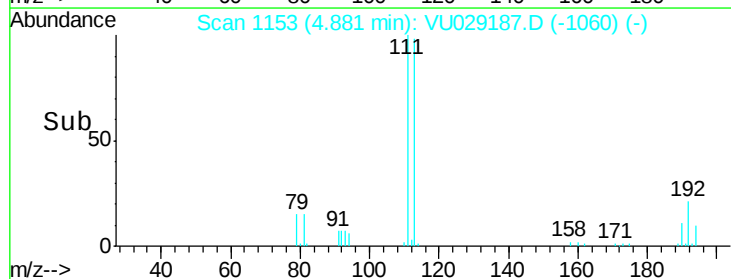
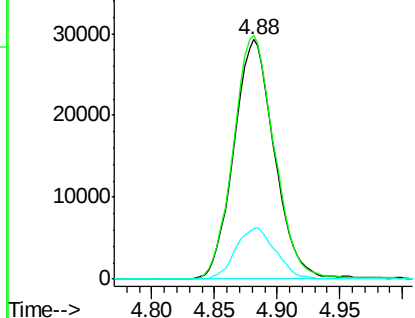


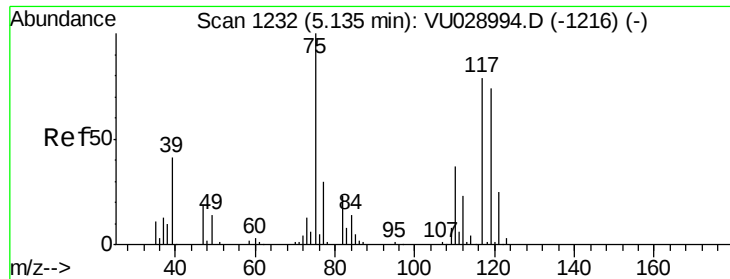
#35  
 Dibromofluoromethane  
 Concen: 52.239 ug/l  
 RT: 4.88 min Scan# 1153  
 Delta R.T. 0.00 min  
 Lab File: VU029187.D  
 Acq: 15 Jan 2019 15:56

Tgt Ion:113 Resp: 65708  
 Ion Ratio Lower Upper  
 113 100  
 111 103.2 81.4 122.2  
 192 21.2 16.8 25.2



Abundance Ion 112.80 (112.50 to 113.50): V  
 Ion 110.80 (110.50 to 111.50): V  
 Ion 191.70 (191.40 to 192.40): V

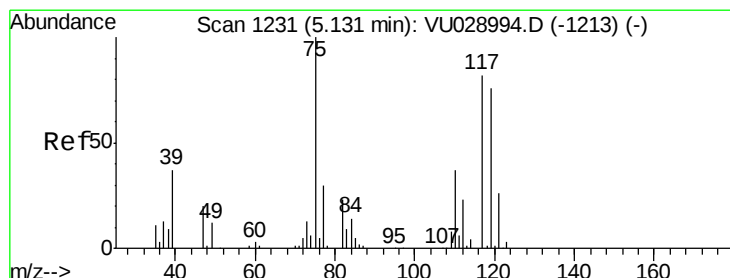
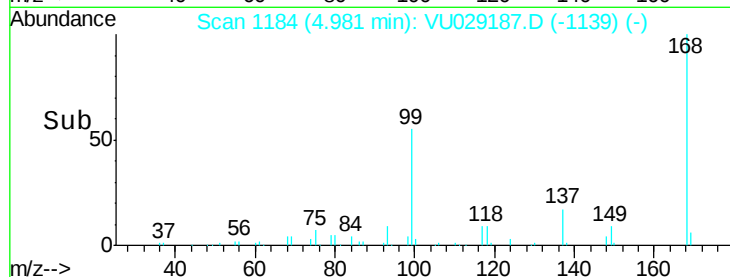
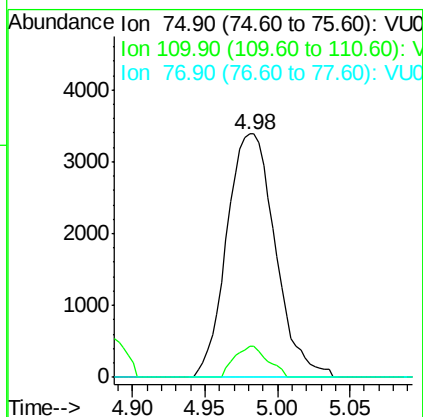
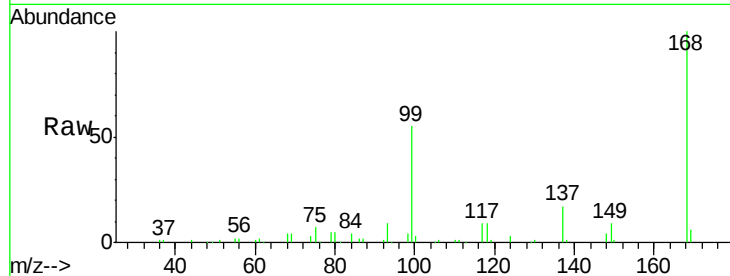




#36  
 1,1-Dichloropropene  
 Concen: 4.066 ug/l  
 RT: 4.98 min Scan# 1184  
 Delta R.T. -0.15 min  
 Lab File: VU029187.D  
 Acq: 15 Jan 2019 15:56

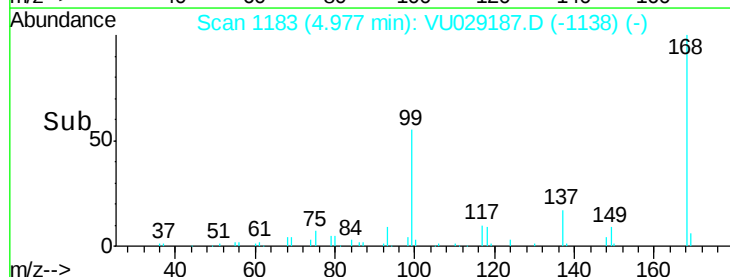
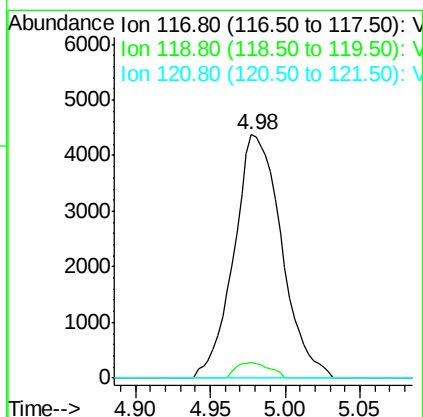
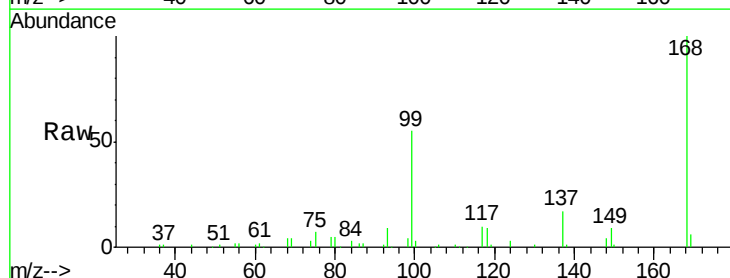
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 PB116371ZHE#09

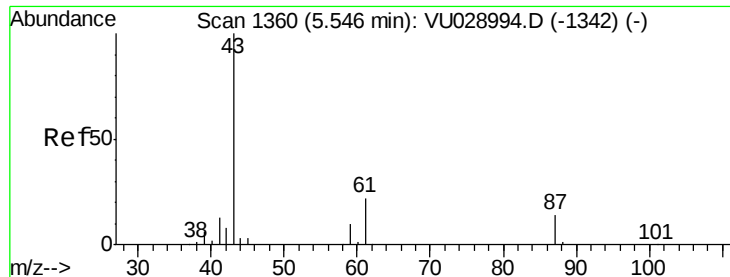
Tot Ion: 75 Resp: 7887  
 Ion Ratio Lower Upper  
 75 100  
 110 8.7 18.4 55.4#  
 77 0.0 25.1 37.7#



#38  
 Carbon Tetrachloride  
 Concen: 5.990 ug/l  
 RT: 4.98 min Scan# 1183  
 Delta R.T. -0.15 min  
 Lab File: VU029187.D  
 Acq: 15 Jan 2019 15:56

Tgt Ion: 117 Resp: 9690  
 Ion Ratio Lower Upper  
 117 100  
 119 6.3 74.6 111.8#  
 121 0.0 25.0 37.6#





#43

Isopropyl Acetate

Concen: 2.440 ug/l

RT: 5.55 min Scan# 1362

Delta R.T. 0.01 min

Lab File: VU029187.D

Acq: 15 Jan 2019 15:56

Instrument :

MSVOA\_U

ClientSampleId :

PB116371ZHE#09

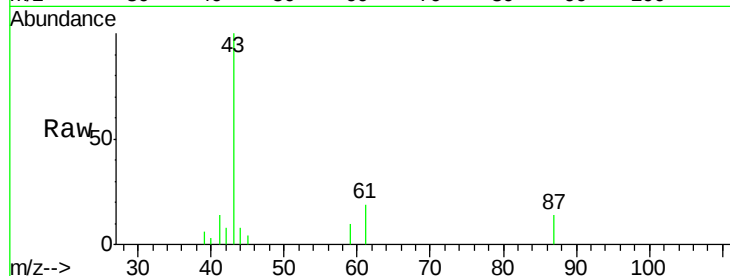
Tot Ion: 43 Resp: 7969

Ion Ratio Lower Upper

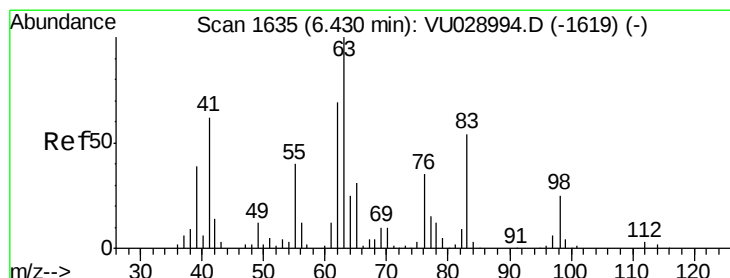
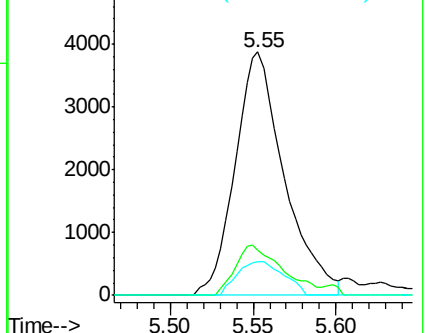
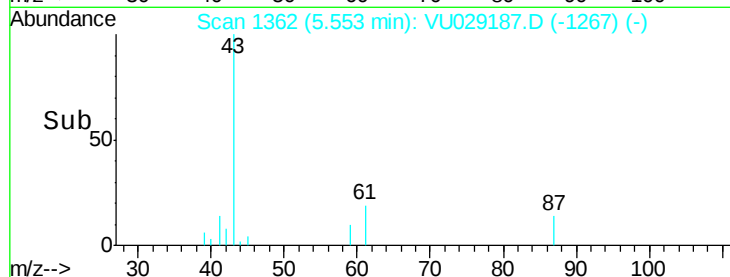
43 100

61 19.9 17.8 26.6

87 13.1 11.3 16.9



Abundance Ion 43.00 (42.70 to 43.70): VU029187.D (-1267) (-)



#45

1,2-Dichloropropane

Concen: 0.429 ug/l

RT: 6.70 min Scan# 1718

Delta R.T. 0.27 min

Lab File: VU029187.D

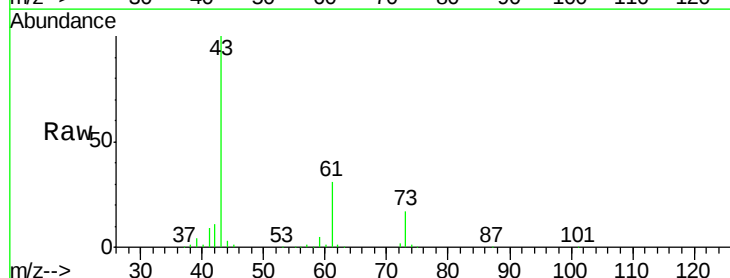
Acq: 15 Jan 2019 15:56

Tgt Ion: 63 Resp: 685

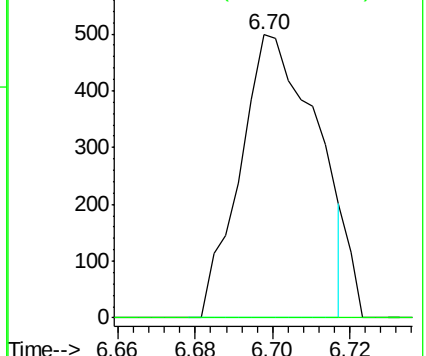
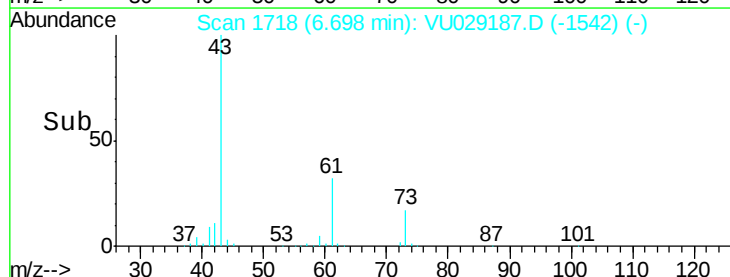
Ion Ratio Lower Upper

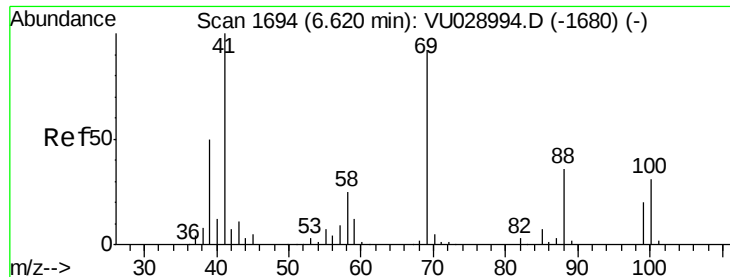
63 100

65 0.0 25.1 37.7#



Abundance Ion 62.90 (62.60 to 63.60): VU029187.D (-1542) (-)





#48

Methvl methacrylate

Concen: 33.034 ug/l

RT: 6.70 min Scan# 1720

Delta R.T. 0.08 min

Lab File: VU029187.D

Acq: 15 Jan 2019 15:56

Instrument :

MSVOA\_U

ClientSampleId :

PB116371ZHE#09

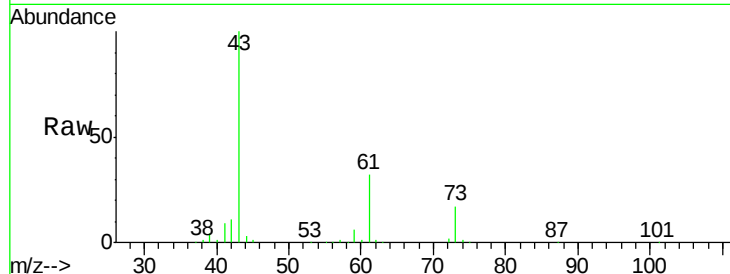
Tot Ion: 41 Resp: 52530

Ion Ratio Lower Upper

41 100

69 0.0 73.6 110.4#

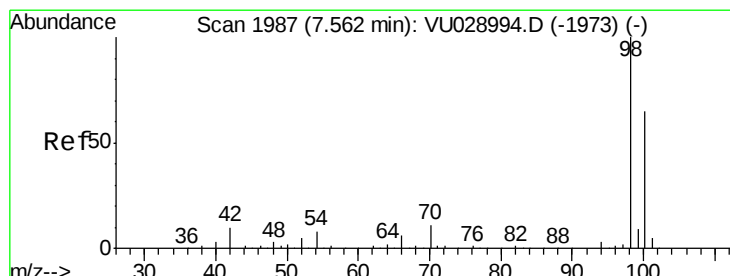
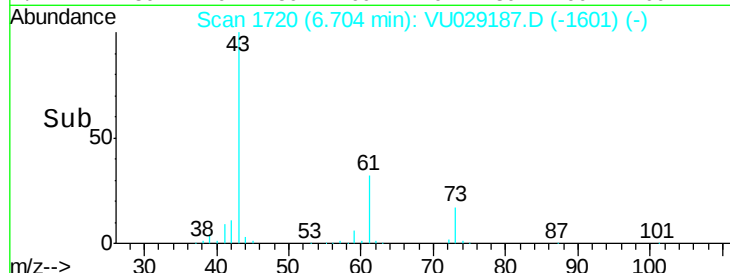
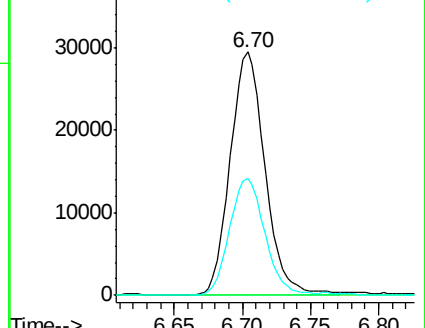
39 48.4 39.6 59.4



Abundance Ion 41.00 (40.70 to 41.70): VU0

Ion 69.00 (68.70 to 69.70): VU0

Ion 39.00 (38.70 to 39.70): VU0



#50

Toluene-d8

Concen: 50.138 ug/l

RT: 7.56 min Scan# 1987

Delta R.T. 0.00 min

Lab File: VU029187.D

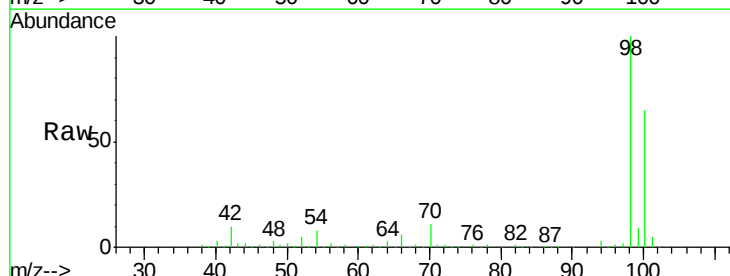
Acq: 15 Jan 2019 15:56

Tgt Ion: 98 Resp: 248974

Ion Ratio Lower Upper

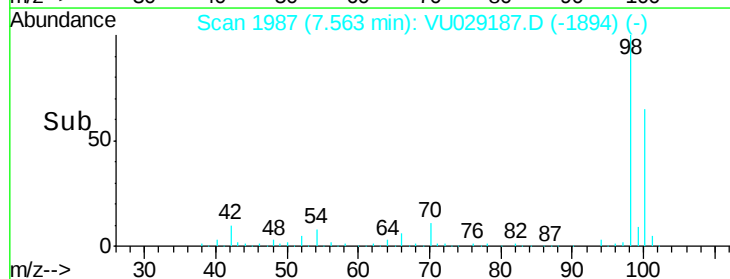
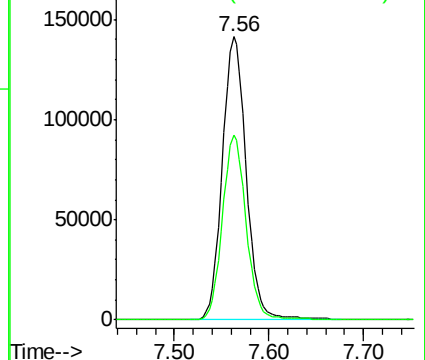
98 100

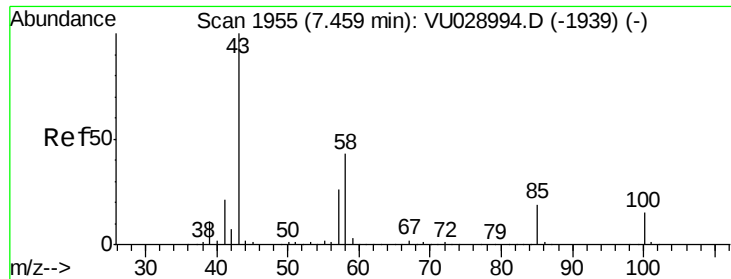
100 65.0 51.6 77.4



Abundance Ion 98.00 (97.70 to 98.70): VU0

Ion 100.00 (99.70 to 100.70): VU0

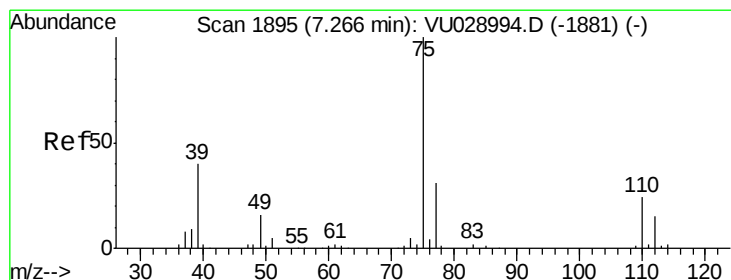
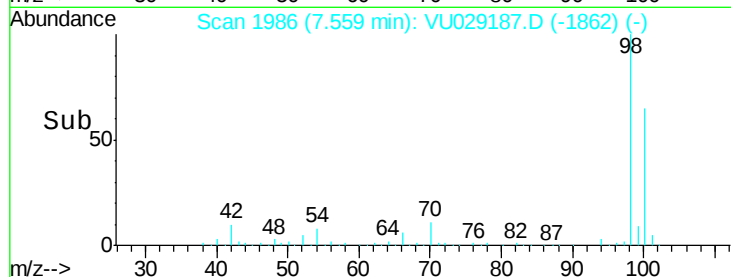
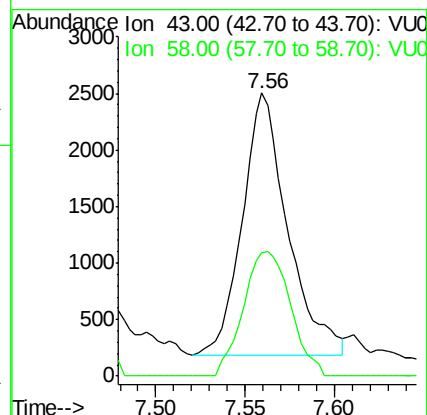
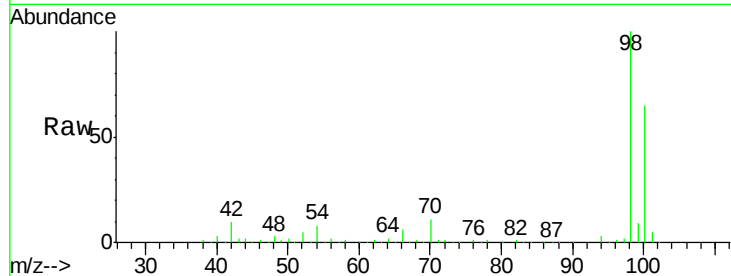




#51  
4-Methyl-2-Pentanone  
Concen: 1.843 ug/l  
RT: 7.56 min Scan# 1986  
Delta R.T. 0.10 min  
Lab File: VU029187.D  
Acq: 15 Jan 2019 15:56

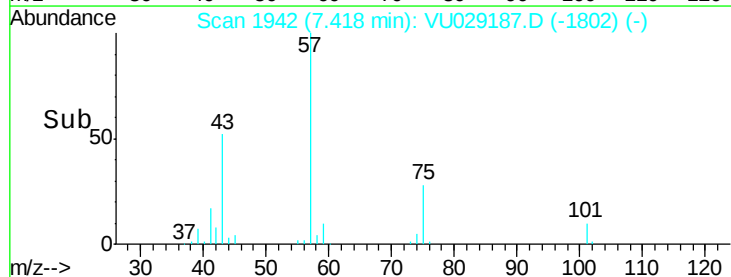
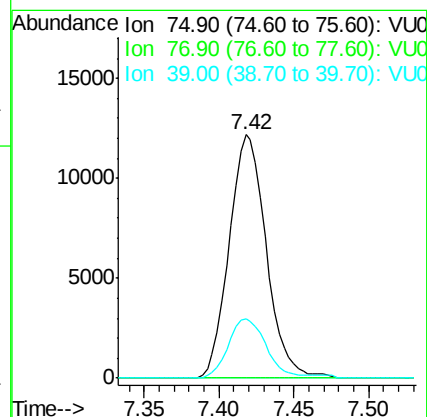
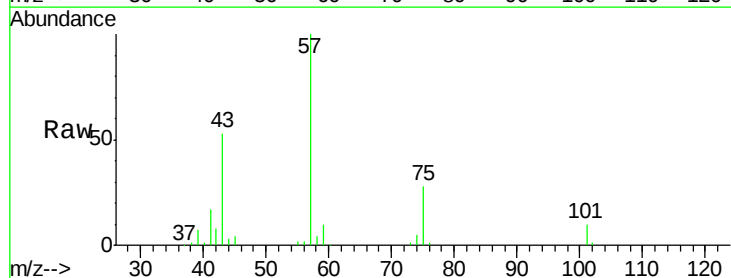
Instrument :  
MSVOA\_U  
ClientSampleId :  
PB116371ZHE#09

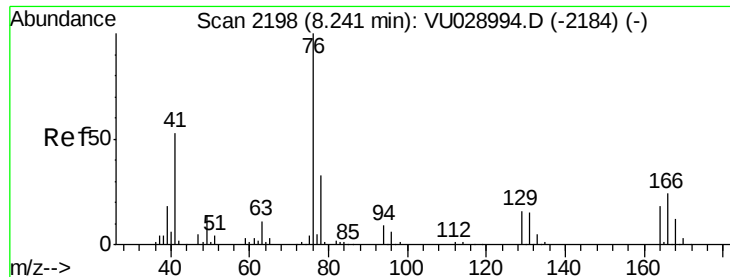
Tot Ion: 43 Resp: 4097  
Ion Ratio Lower Upper  
43 100  
58 49.7 33.9 50.9



#54  
cis-1,3-Dichloropropene  
Concen: 8.618 ug/l  
RT: 7.42 min Scan# 1942  
Delta R.T. 0.15 min  
Lab File: VU029187.D  
Acq: 15 Jan 2019 15:56

Tgt Ion: 75 Resp: 21035  
Ion Ratio Lower Upper  
75 100  
77 0.0 25.0 37.6#  
39 24.2 32.2 48.4#





#57

1,3-Dichloropropane

Concen: 1.898 ug/l

RT: 8.41 min Scan# 2252

Delta R.T. 0.17 min

Lab File: VU029187.D

Acq: 15 Jan 2019 15:56

Instrument :

MSVOA\_U

ClientSampleId :

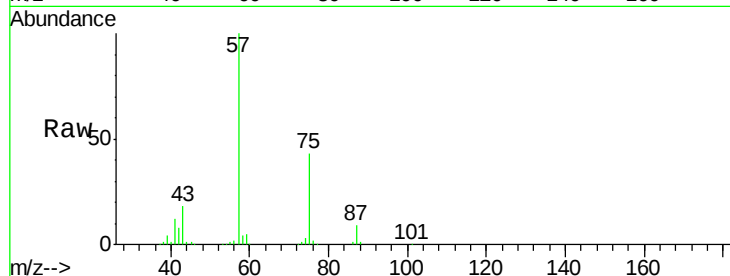
PB116371ZHE#09

Tot Ion: 76 Resp: 4793

Ion Ratio Lower Upper

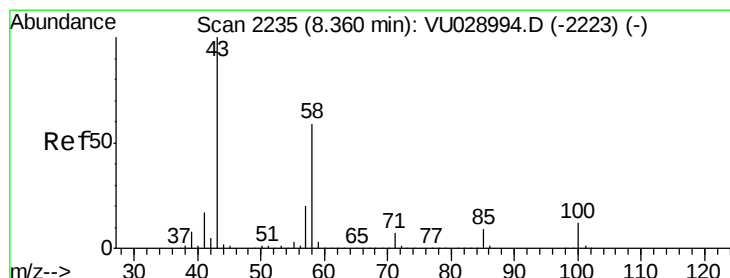
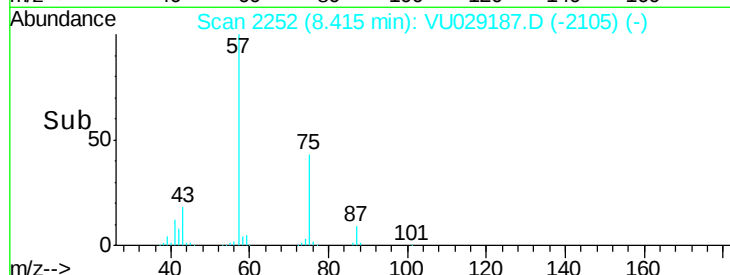
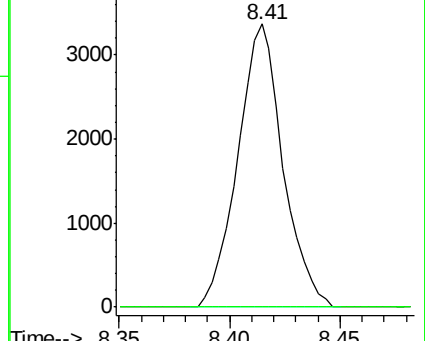
76 100

78 0.0 26.0 39.0#



Abundance Ion 75.90 (75.60 to 76.60): VU0

Ion 77.90 (77.60 to 78.60): VU0



#59

2-Hexanone

Concen: 4.006 ug/l

RT: 8.31 min Scan# 2219

Delta R.T. -0.05 min

Lab File: VU029187.D

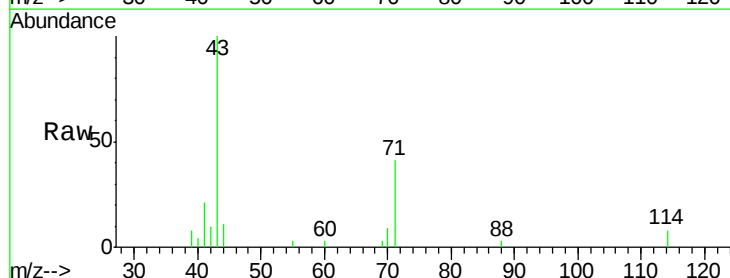
Acq: 15 Jan 2019 15:56

Tgt Ion: 43 Resp: 6989

Ion Ratio Lower Upper

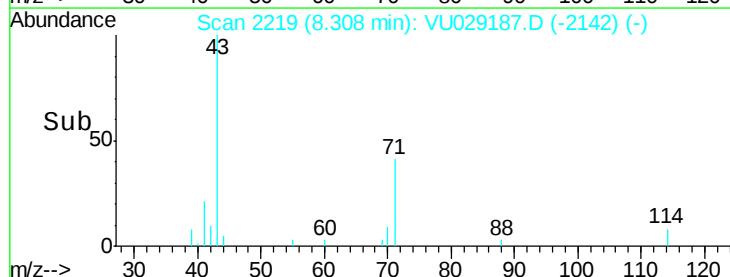
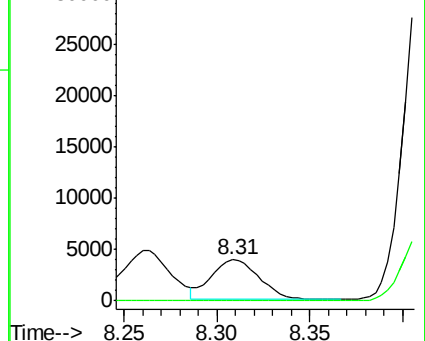
43 100

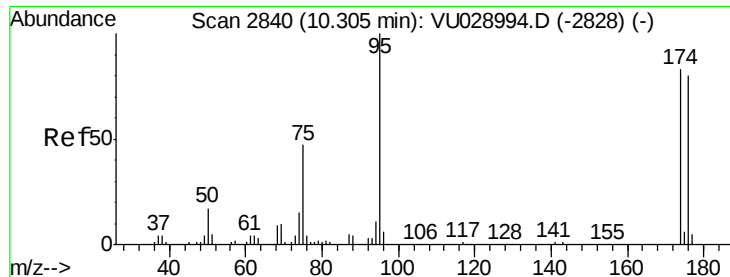
58 0.0 29.8 89.4#



Abundance Ion 43.00 (42.70 to 43.70): VU0

Ion 58.00 (57.70 to 58.70): VU0

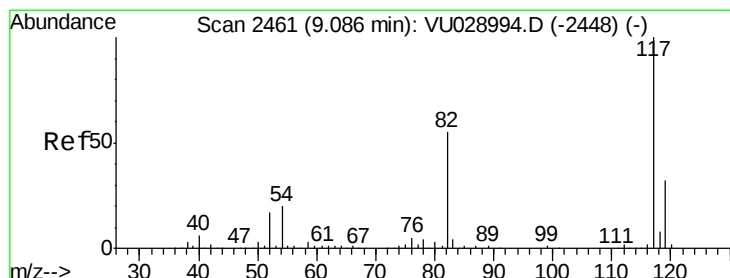
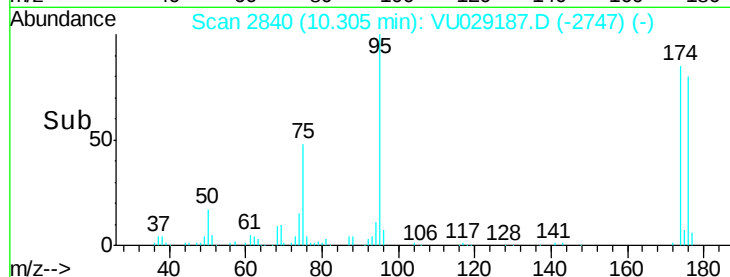
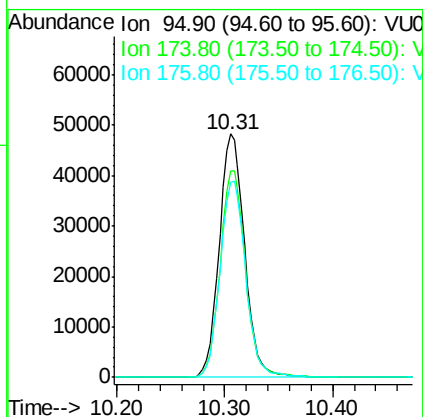
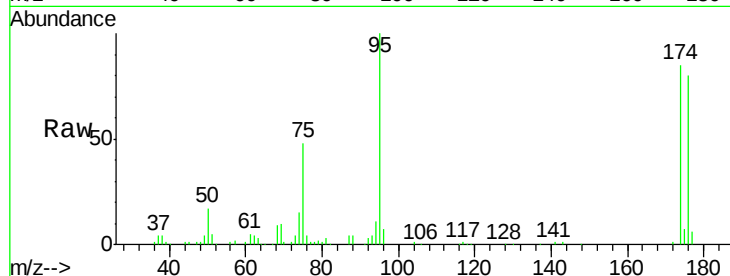




#62  
4-Bromofluorobenzene  
Concen: 44.101 ug/l  
RT: 10.31 min Scan# 2840  
Delta R.T. 0.00 min  
Lab File: VU029187.D  
Acq: 15 Jan 2019 15:56

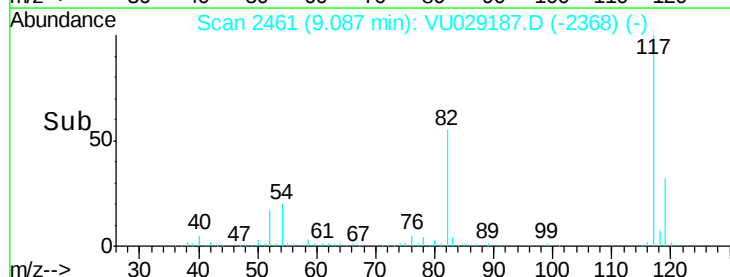
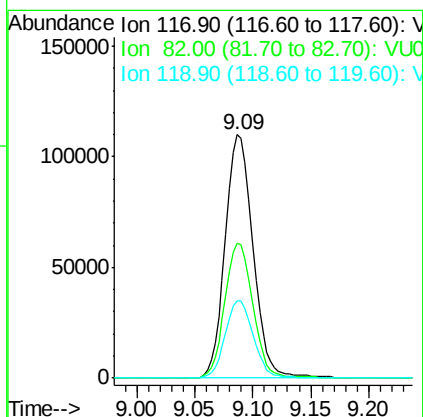
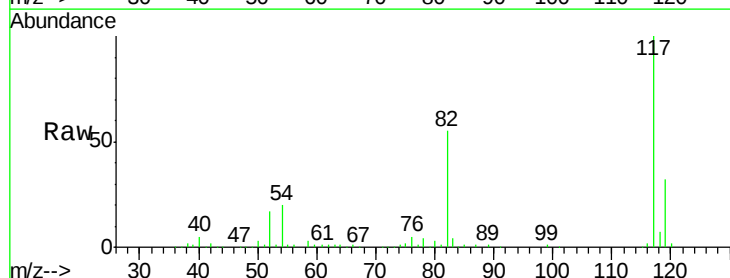
Instrument :  
MSVOA\_U  
ClientSampleId :  
PB116371ZHE#09

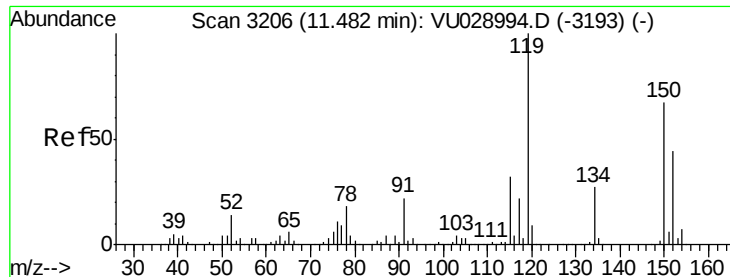
Tot Ion: 95 Resp: 78703  
Ion Ratio Lower Upper  
95 100  
174 85.0 0.0 170.6  
176 81.9 0.0 165.0



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 9.09 min Scan# 2461  
Delta R.T. 0.00 min  
Lab File: VU029187.D  
Acq: 15 Jan 2019 15:56

Tgt Ion: 117 Resp: 183370  
Ion Ratio Lower Upper  
117 100  
82 55.4 43.9 65.9  
119 31.9 26.0 39.0





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 11.48 min Scan# 3206

Delta R.T. 0.00 min

Lab File: VU029187.D

Acq: 15 Jan 2019 15:56

Instrument :

MSVOA\_U

ClientSampleId :

PB116371ZHE#09

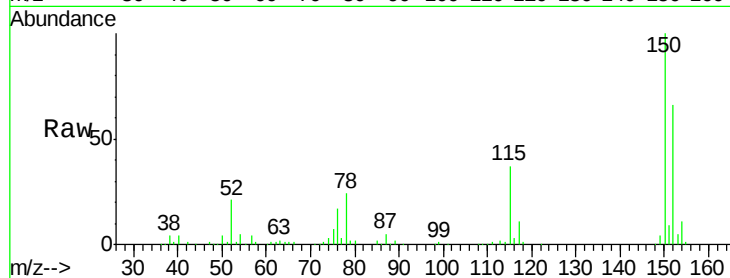
Tot Ion:152 Resp: 73505

Ion Ratio Lower Upper

152 100

115 56.2 40.1 120.3

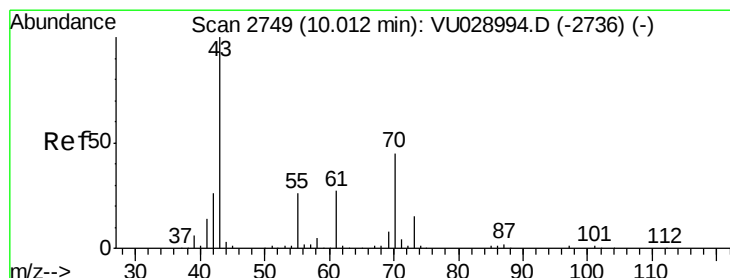
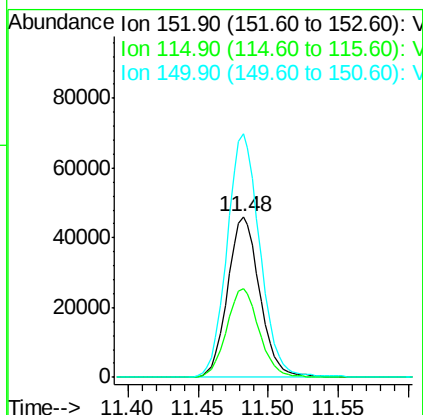
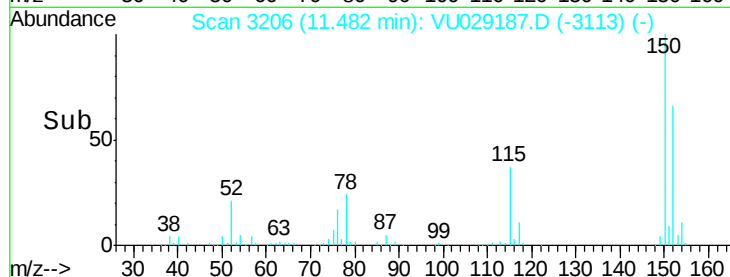
150 155.3 0.0 345.2



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#74

N-ethyl acetate

Concen: 2.779 ug/l

RT: 9.77 min Scan# 2672

Delta R.T. -0.25 min

Lab File: VU029187.D

Acq: 15 Jan 2019 15:56

Tgt Ion: 43 Resp: 6516

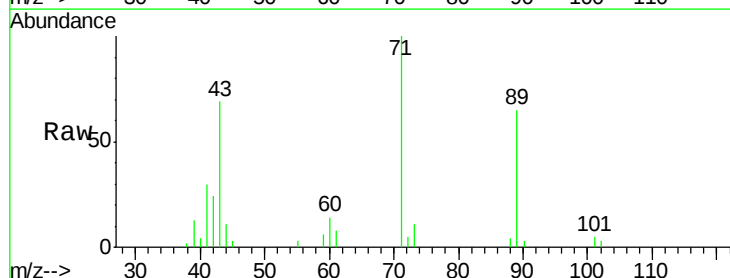
Ion Ratio Lower Upper

43 100

70 0.0 36.3 54.5#

55 1.9 20.5 30.7#

61 10.4 21.8 32.8#

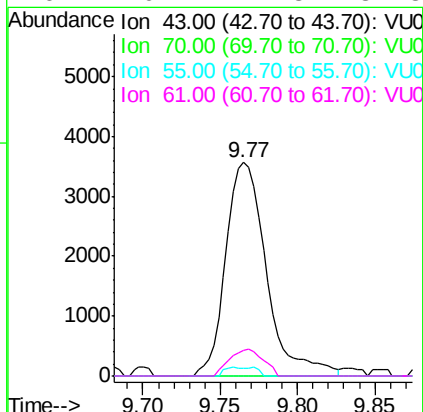
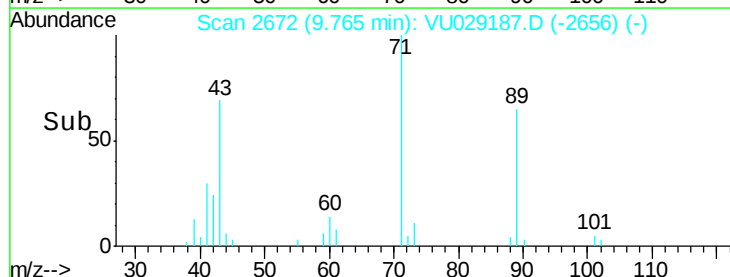


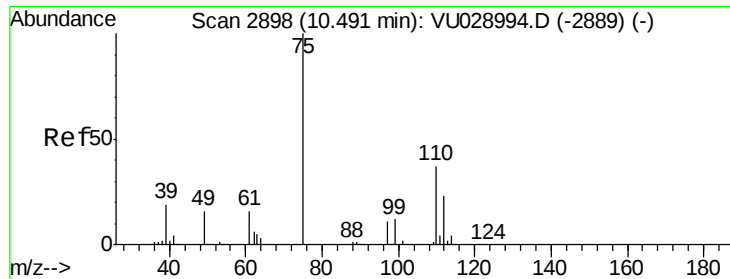
Abundance Ion 43.00 (42.70 to 43.70): VU0

Ion 70.00 (69.70 to 70.70): VU0

Ion 55.00 (54.70 to 55.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

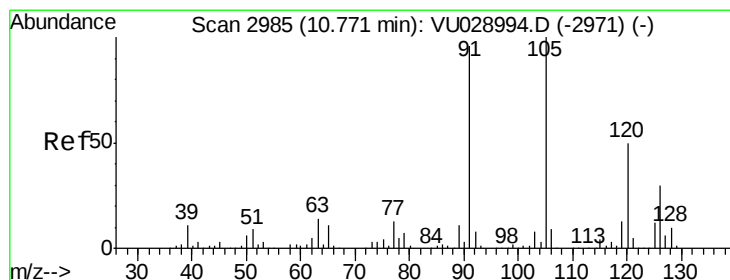
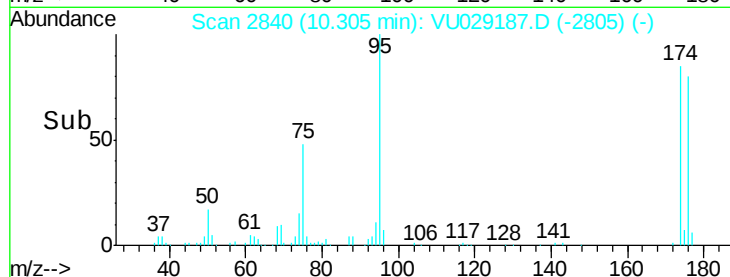
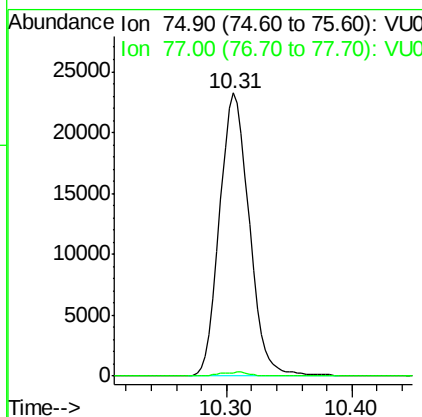
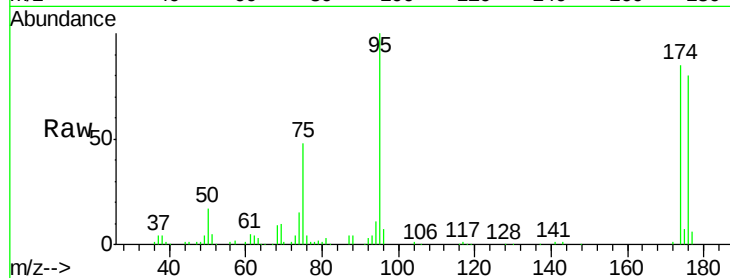




#76  
 1,2,3-Trichloropropane  
 Concen: 21.209 ug/l  
 RT: 10.31 min Scan# 2840  
 Delta R.T. -0.19 min  
 Lab File: VU029187.D  
 Acq: 15 Jan 2019 15:56

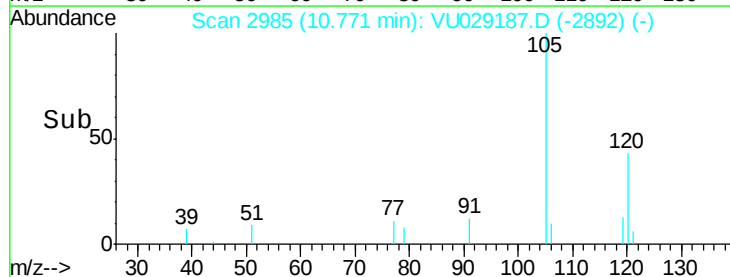
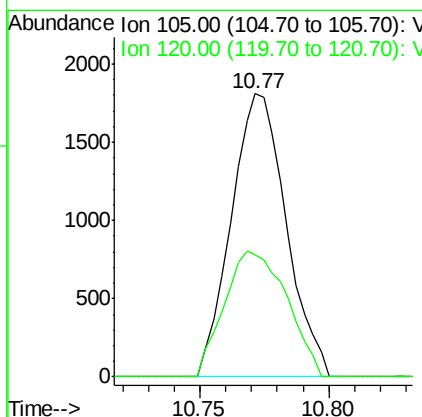
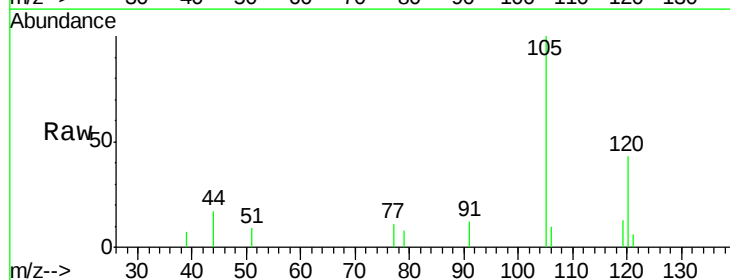
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 PB116371ZHE#09

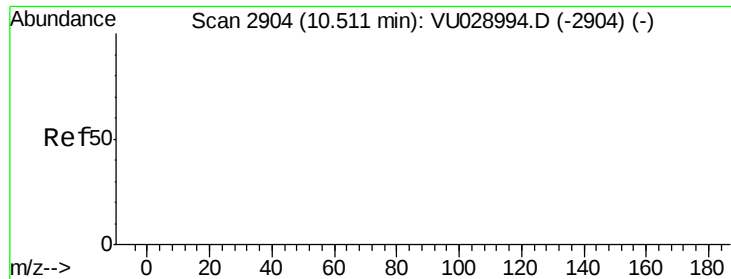
Tot Ion: 75 Resp: 38198  
 Ion Ratio Lower Upper  
 75 100  
 77 1.3 20.9 62.8#



#80  
 1,3,5-Trimethylbenzene  
 Concen: 0.589 ug/l  
 RT: 10.77 min Scan# 2985  
 Delta R.T. 0.00 min  
 Lab File: VU029187.D  
 Acq: 15 Jan 2019 15:56

Tgt Ion:105 Resp: 2674  
 Ion Ratio Lower Upper  
 105 100  
 120 50.8 24.8 74.4





#81

trans-1,4-Dichloro-2-butene

Concen: 54.700 ug/l

RT: 10.31 min Scan# 2840

Delta R.T. -0.20 min

Lab File: VU029187.D

Acq: 15 Jan 2019 15:56

Instrument :

MSVOA\_U

ClientSampleId :

PB116371ZHE#09

Tot Ion: 75 Resp: 38198

Ion Ratio Lower Upper

75 100

53 0.0 0.0 0.0

89 0.0 0.0 0.0

