

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_U\DATA\VU090319\  
 Data File : VU034197.D  
 Acq On : 02 Sep 2019 13:16  
 Operator : JC/SP  
 Sample : K4544-31  
 Misc : 5.0mL/MSVOA\_U/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 T16-17-C1-(0)

Quant Time: Sep 03 05:53:54 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U082919W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 29 04:11:12 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.96  | 168  | 436992   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.87  | 114  | 713586   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.07  | 117  | 703689   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 11.46 | 152  | 339097   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 5.29  | 65   | 281610   | 50.29 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.58% |          |
| 35) Dibromofluoromethane    | 4.86  | 113  | 234808   | 47.44 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 94.88%  |          |
| 50) Toluene-d8              | 7.55  | 98   | 918641   | 49.57 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.14%  |          |
| 62) 4-Bromofluorobenzene    | 10.29 | 95   | 326387   | 45.28 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 90.56%  |          |

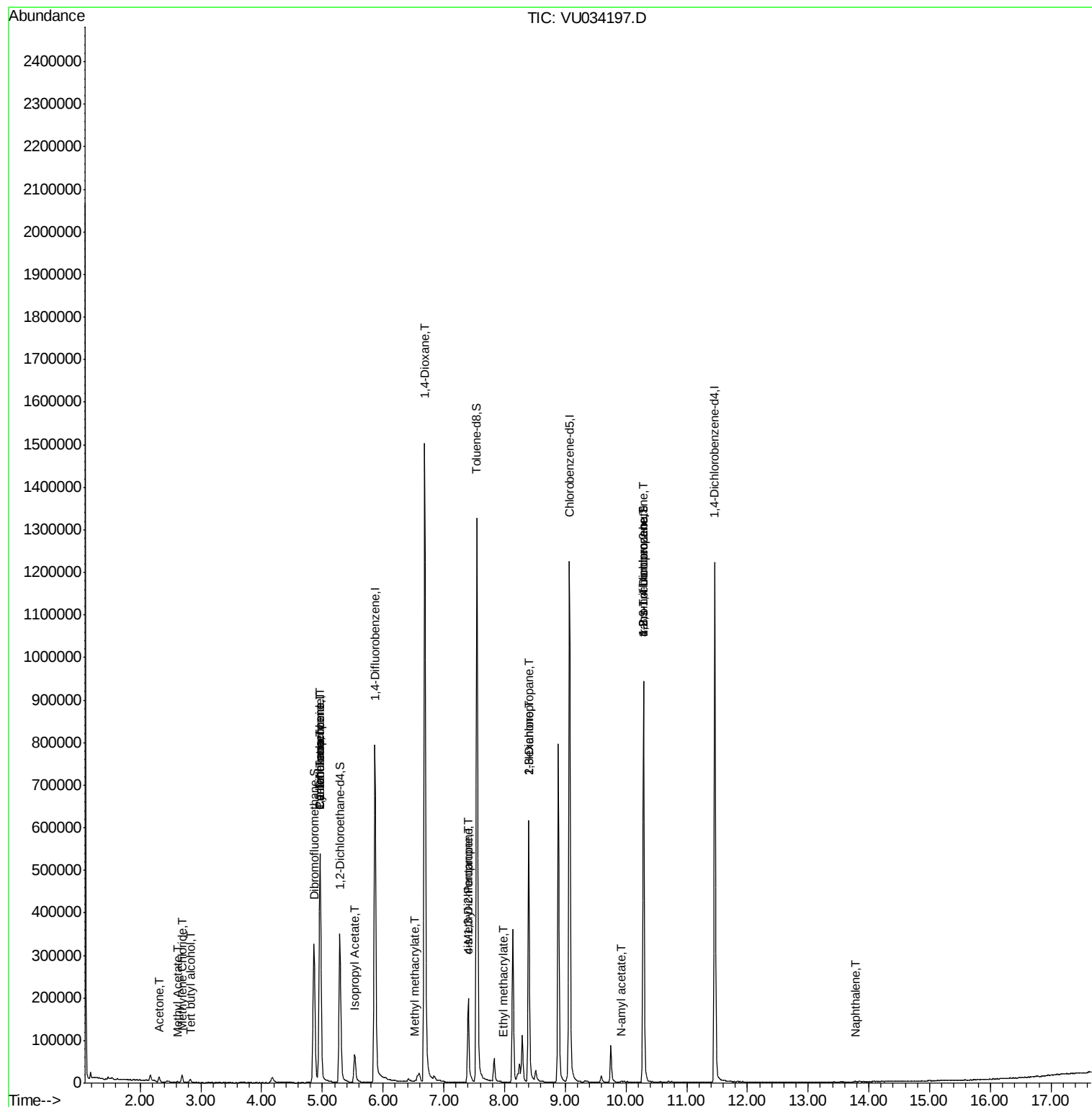
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 3) Chloromethane               | 1.32  | 50   | 393      | Below Cal |        | 93     |
| 5) Bromomethane                | 1.60  | 94   | 73       | Below Cal | #      | 2      |
| 11) Tert butyl alcohol         | 2.82  | 59   | 5068     | 3.925     | ug/l # | 73     |
| 16) Acetone                    | 2.31  | 43   | 13394    | 4.688     | ug/l   | 94     |
| 18) Methyl Acetate             | 2.62  | 43   | 3079     | 0.417     | ug/l   | 91     |
| 20) Methylene Chloride         | 2.69  | 84   | 7309     | 1.351     | ug/l   | 94     |
| 31) Cyclohexane                | 4.96  | 56   | 7780     | 0.930     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 4.96  | 75   | 31300    | 4.637     | ug/l # | 49     |
| 38) Carbon Tetrachloride       | 4.96  | 117  | 39711    | 6.095     | ug/l # | 17     |
| 43) Isopropyl Acetate          | 5.53  | 43   | 83142    | 7.230     | ug/l   | 98     |
| 48) Methyl methacrylate        | 6.53  | 41   | 4579     | 0.825     | ug/l # | 14     |
| 49) 1,4-Dioxane                | 6.69  | 88   | 205      | 1.475     | ug/l # | 1      |
| 51) 4-Methyl-2-Pentanone       | 7.40  | 43   | 78348    | 9.866     | ug/l # | 46     |
| 54) cis-1,3-Dichloropropene    | 7.40  | 75   | 36821    | 4.287     | ug/l # | 64     |
| 56) Ethyl methacrylate         | 7.98  | 69   | 143      | 0.987     | ug/l # | 27     |
| 57) 1,3-Dichloropropane        | 8.40  | 76   | 6351     | 0.703     | ug/l # | 42     |
| 59) 2-Hexanone                 | 8.40  | 43   | 85300    | 14.229    | ug/l # | 51     |
| 74) N-amyl acetate             | 9.92  | 43   | 2263     | 0.236     | ug/l # | 45     |
| 76) 1,2,3-Trichloropropane     | 10.29 | 75   | 154165   | 20.172    | ug/l # | 37     |
| 81) trans-1,4-Dichloro-2-buten | 10.29 | 75   | 154165   | 67.923    | ug/l # | 100    |
| 95) Naphthalene                | 13.78 | 128  | 122      | 1.795     | ug/l # | 70     |

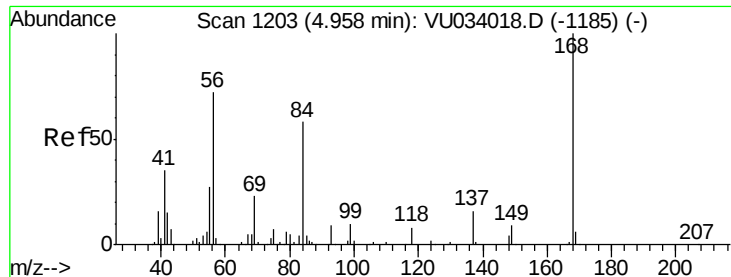
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\82U082919W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 29 04:11:12 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.96 min Scan# 1204

Delta R.T. 0.00 min

Lab File: VU034197.D

Acq: 02 Sep 2019 13:16

Instrument :

MSVOA\_U

ClientSampleId :

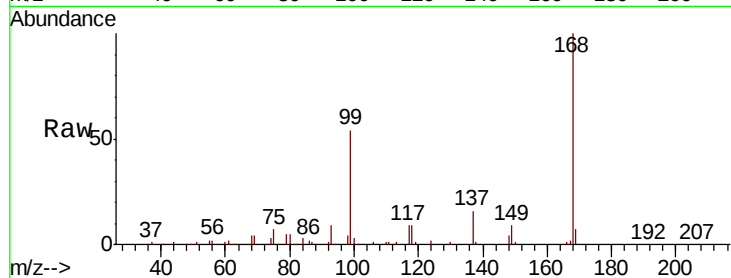
T16-17-C1-(0)

Tgt Ion:168 Resp: 436992

Ion Ratio Lower Upper

168 100

99 53.6 42.3 63.5



Abundance Ion 167.90 (167.60 to 168.60): VU034197.D

Ion 98.90 (98.60 to 99.60): VU034197.D

4.96

200000

150000

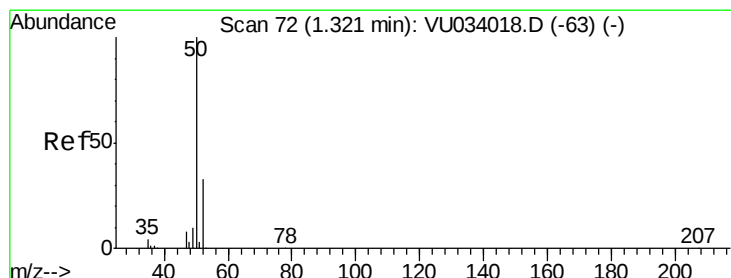
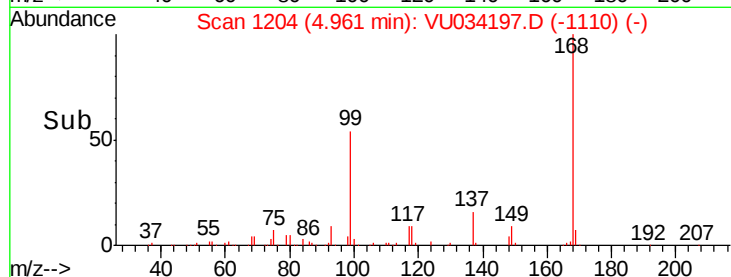
100000

50000

0

4.90 5.00 5.10

Time-->



#3

Chloromethane

Concen: Below Cal

RT: 1.32 min Scan# 73

Delta R.T. 0.00 min

Lab File: VU034197.D

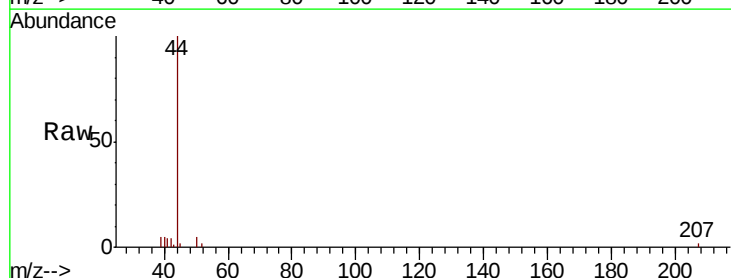
Acq: 02 Sep 2019 13:16

Tgt Ion: 50 Resp: 393

Ion Ratio Lower Upper

50 100

52 36.5 26.2 39.4



Abundance Ion 49.90 (49.60 to 50.60): VU034197.D

Ion 51.90 (51.60 to 52.60): VU034197.D

1.32

500

400

300

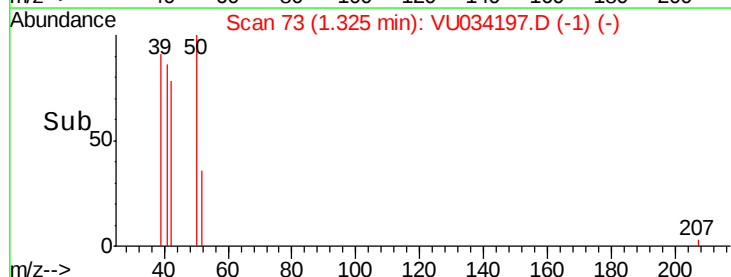
200

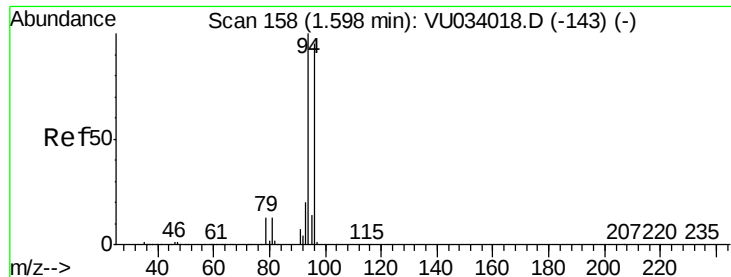
100

0

1.30 1.31 1.32 1.33 1.34

Time-->





#5

Bromomethane

Concen: Below Cal

RT: 1.60 min Scan# 159

Delta R.T. 0.00 min

Lab File: VU034197.D

Acq: 02 Sep 2019 13:16

Instrument :

MSVOA\_U

ClientSampleId :

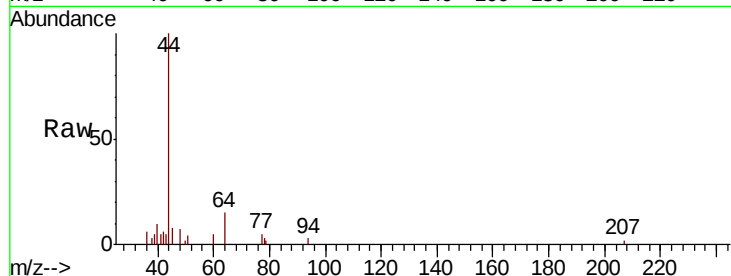
T16-17-C1-(0)

Tgt Ion: 94 Resp: 73

Ion Ratio Lower Upper

94 100

96 0.0 76.3 114.5#



Abundance Ion 93.90 (93.60 to 94.60): VU0

Ion 95.90 (95.60 to 96.60): VU0

1.60

150

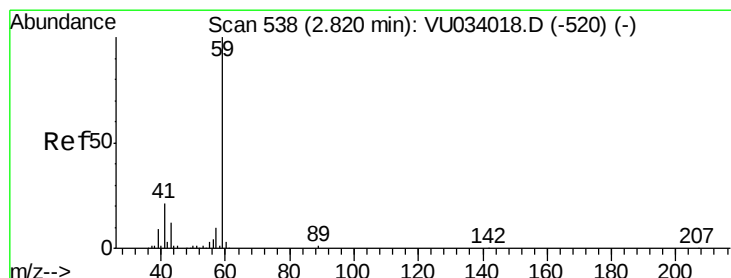
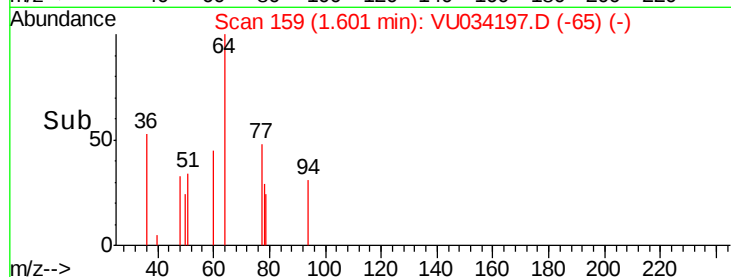
100

50

0

1.59 1.60 1.61

Time-->



#11

Tert butyl alcohol

Concen: 3.925 ug/l

RT: 2.82 min Scan# 539

Delta R.T. 0.00 min

Lab File: VU034197.D

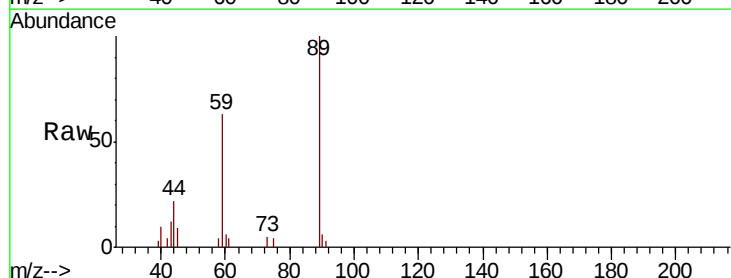
Acq: 02 Sep 2019 13:16

Tgt Ion: 59 Resp: 5068

Ion Ratio Lower Upper

59 100

57 0.0 8.0 12.0#



Abundance Ion 59.00 (58.70 to 59.70): VU0

Ion 57.00 (56.70 to 57.70): VU0

2.82

2500

2000

1500

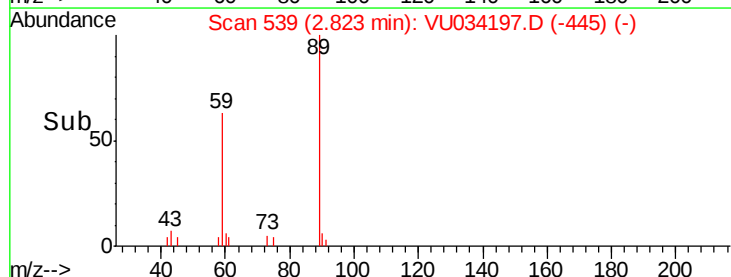
1000

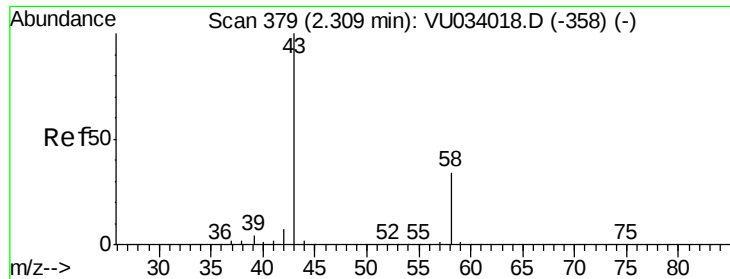
500

0

2.75 2.80 2.85

Time-->





#16

Acetone

Concen: 4.688 ug/l

RT: 2.31 min Scan# 380

Delta R.T. 0.00 min

Lab File: VU034197.D

Acq: 02 Sep 2019 13:16

Instrument :

MSVOA\_U

ClientSampleId :

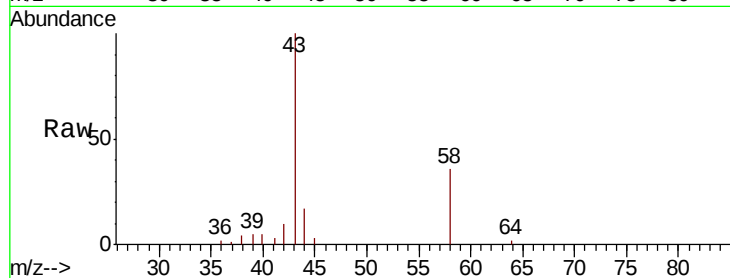
T16-17-C1-(0)

Tgt Ion: 43 Resp: 13394

Ion Ratio Lower Upper

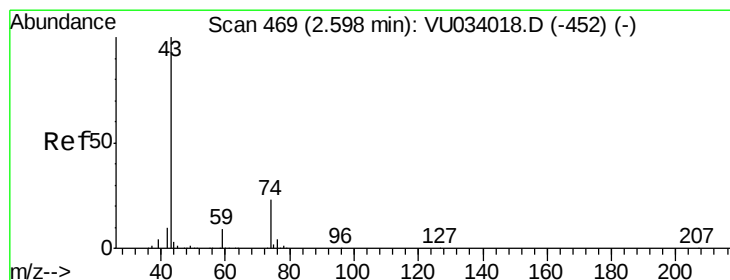
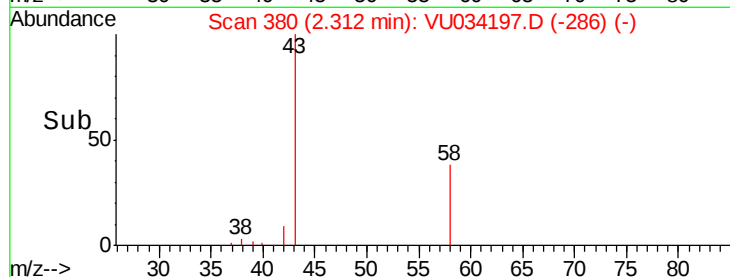
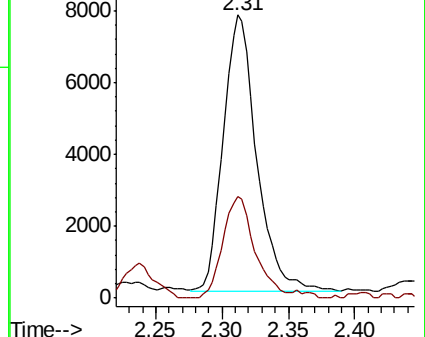
43 100

58 37.1 26.8 40.2



Abundance Ion 43.00 (42.70 to 43.70): VU034197.D (-380) (-)

Ion 58.00 (57.70 to 58.70): VU034197.D (-380) (-)



#18

Methyl Acetate

Concen: 0.417 ug/l

RT: 2.62 min Scan# 475

Delta R.T. 0.02 min

Lab File: VU034197.D

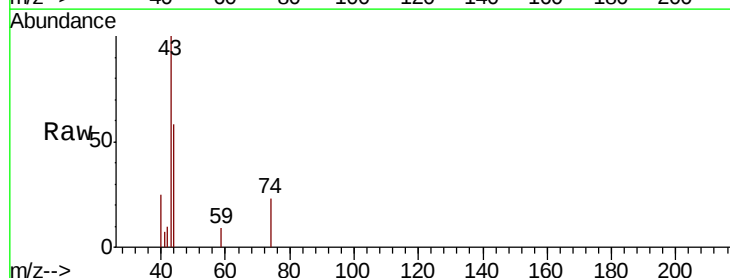
Acq: 02 Sep 2019 13:16

Tgt Ion: 43 Resp: 3079

Ion Ratio Lower Upper

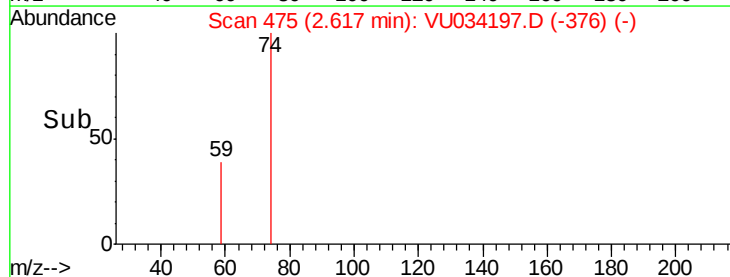
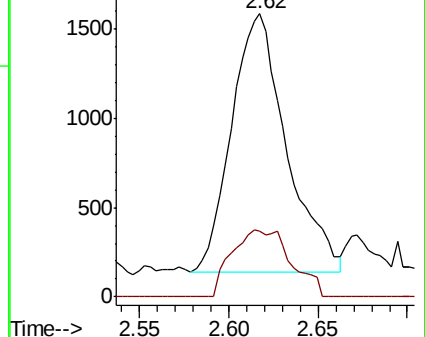
43 100

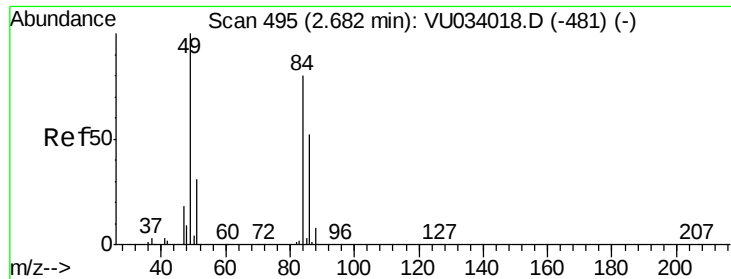
74 28.2 19.2 28.8



Abundance Ion 43.00 (42.70 to 43.70): VU034197.D (-475) (-)

Ion 74.00 (73.70 to 74.70): VU034197.D (-475) (-)

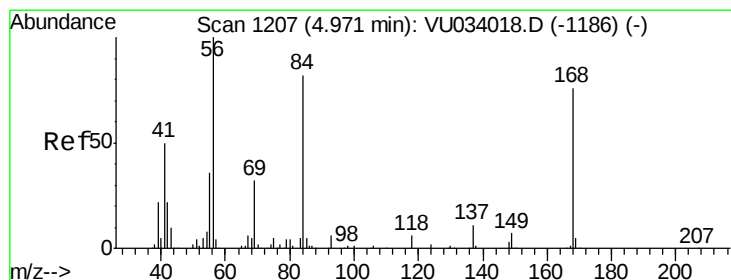
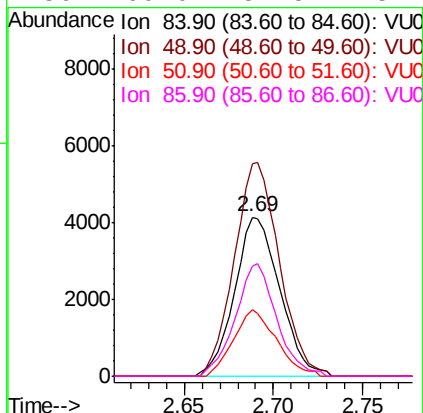
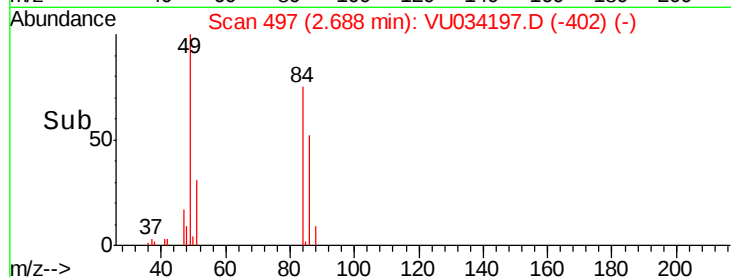
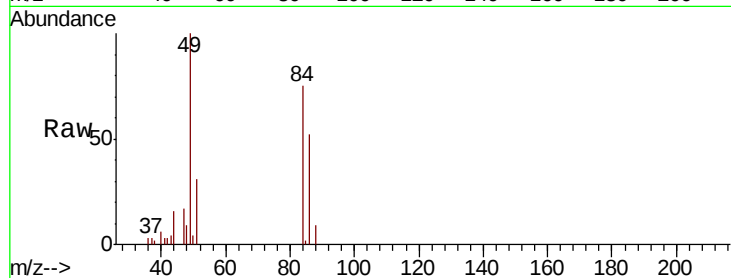




#20  
Methylene Chloride  
Concen: 1.351 ug/l  
RT: 2.69 min Scan# 497  
Delta R.T. 0.01 min  
Lab File: VU034197.D  
Acq: 02 Sep 2019 13:16

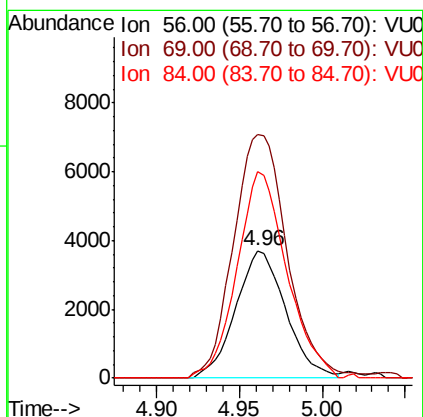
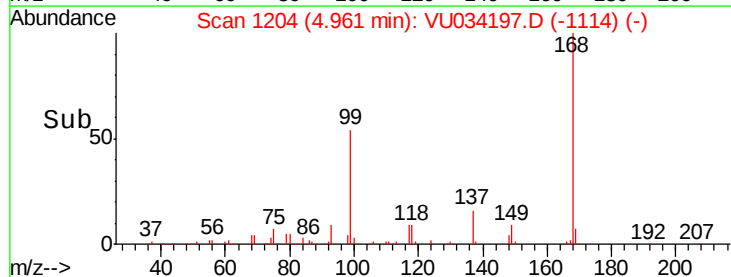
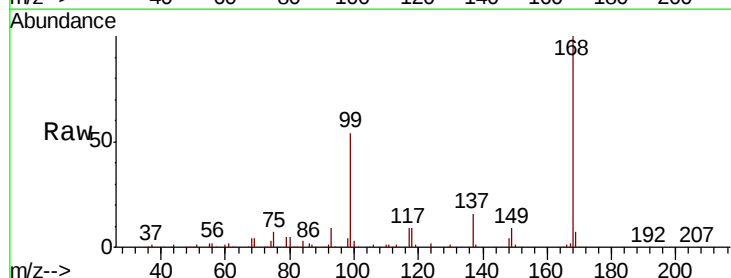
Instrument :  
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T16-17-C1-(0)

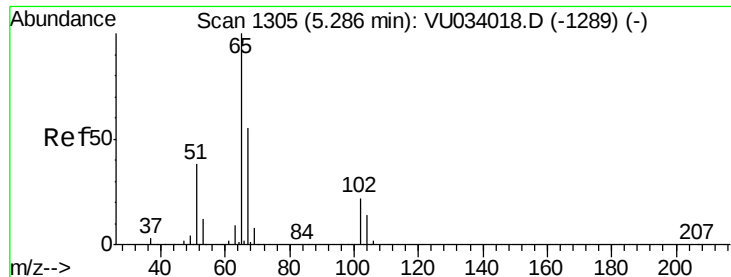
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 84    | Resp: | 7309  |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 133.7 | 100.2 | 150.4 |
| 51       | 41.6  | 30.8  | 46.2  |
| 86       | 69.0  | 52.5  | 78.7  |



#31  
Cyclohexane  
Concen: 0.930 ug/l  
RT: 4.96 min Scan# 1204  
Delta R.T. -0.01 min  
Lab File: VU034197.D  
Acq: 02 Sep 2019 13:16

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 56    | Resp: | 7780  |
| Ion      | Ratio | Lower | Upper |
| 56       | 100   |       |       |
| 69       | 191.0 | 25.4  | 38.0# |
| 84       | 162.2 | 65.8  | 98.8# |





#33

1,2-Dichloroethane-d4

Concen: 50.293 ug/l

RT: 5.29 min Scan# 1306

Delta R.T. 0.00 min

Lab File: VU034197.D

Acq: 02 Sep 2019 13:16

Instrument :

MSVOA\_U

ClientSampleId :

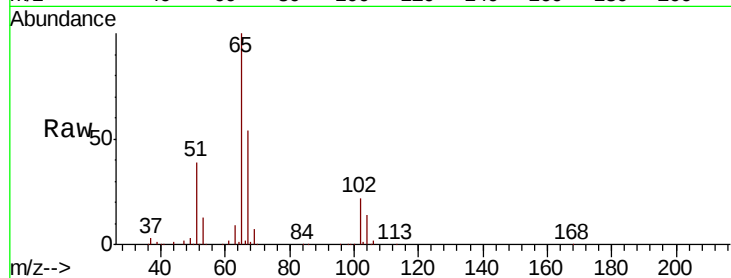
T16-17-C1-(0)

Tgt Ion: 65 Resp: 281610

Ion Ratio Lower Upper

65 100

67 54.0 0.0 110.6



Abundance Ion 64.90 (64.60 to 65.60): VU034197.D (-1289) (-)

Ion 66.90 (66.60 to 67.60): VU034197.D (-1289) (-)

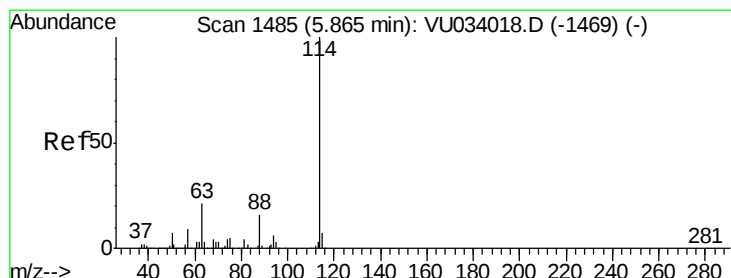
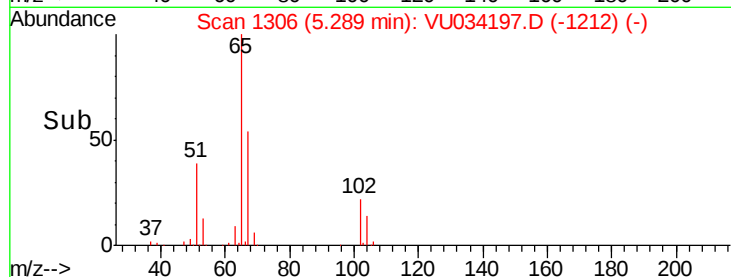
5.29

100000

50000

0

Time-->



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.87 min Scan# 1486

Delta R.T. 0.00 min

Lab File: VU034197.D

Acq: 02 Sep 2019 13:16

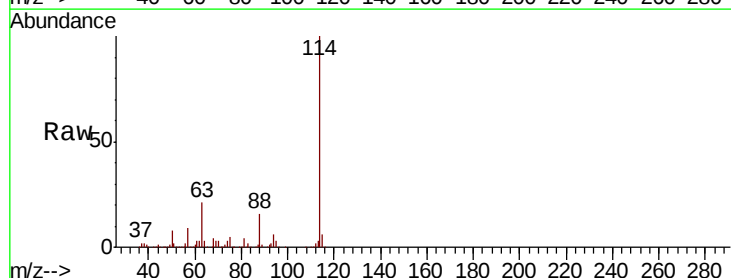
Tgt Ion: 114 Resp: 713586

Ion Ratio Lower Upper

114 100

63 21.3 0.0 42.0

88 15.6 0.0 32.0



Abundance Ion 113.90 (113.60 to 114.60): VU034197.D (-1469) (-)

Ion 63.00 (62.70 to 63.70): VU034197.D (-1469) (-)

Ion 87.90 (87.60 to 88.60): VU034197.D (-1469) (-)

5.87

400000

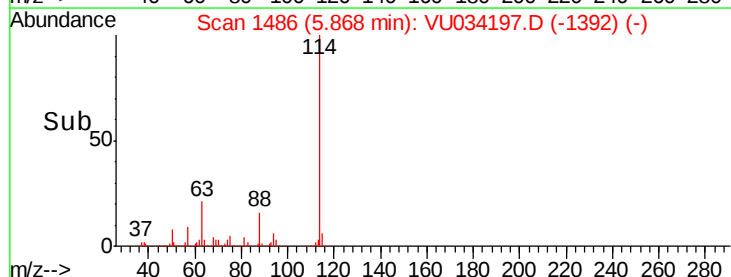
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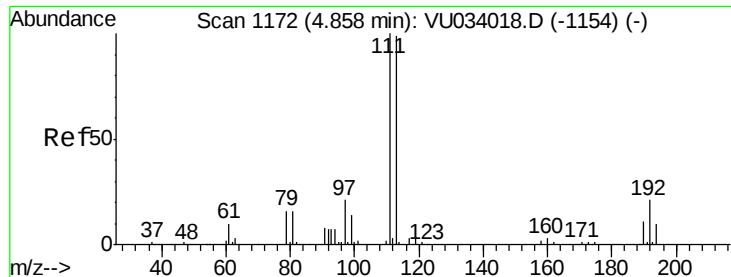
200000

100000

0

Time-->

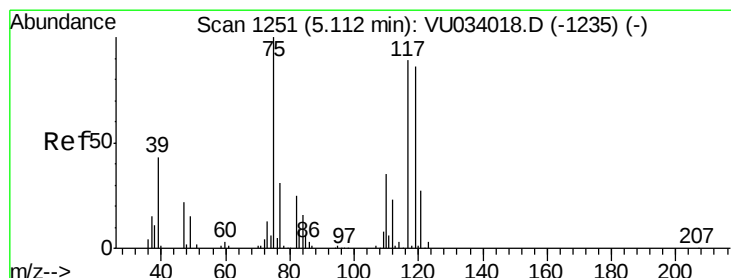
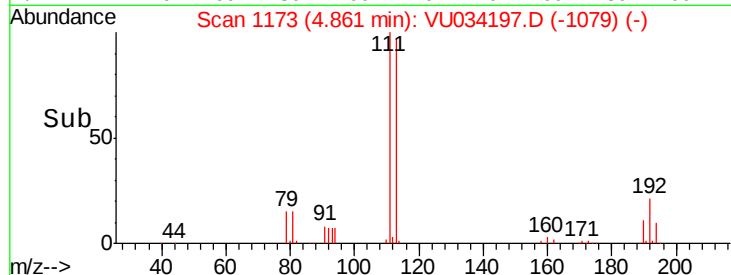
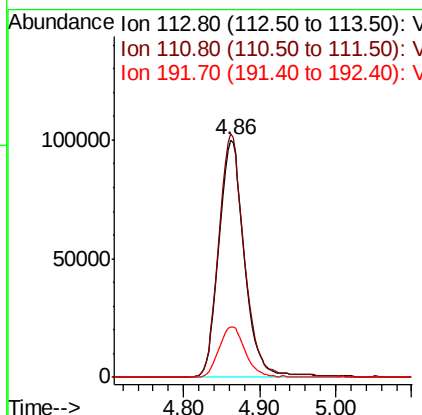
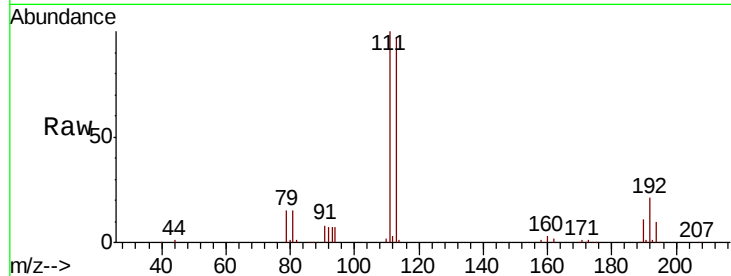




#35  
 Dibromofluoromethane  
 Concen: 47.442 ug/l  
 RT: 4.86 min Scan# 1173  
 Delta R.T. 0.00 min  
 Lab File: VU034197.D  
 Acq: 02 Sep 2019 13:16

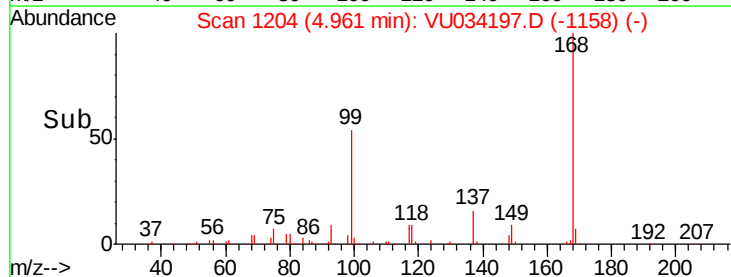
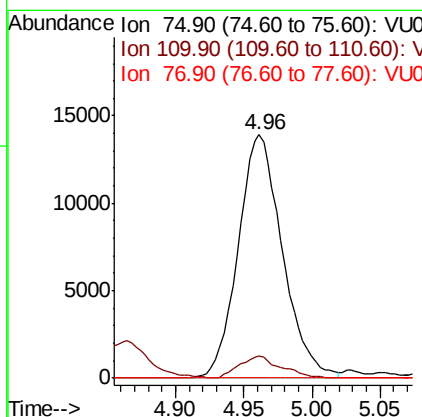
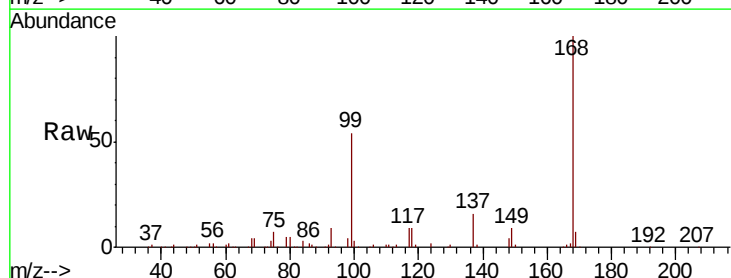
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 T16-17-C1-(0)

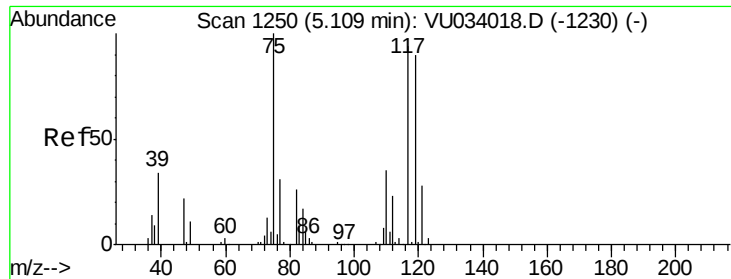
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 102.8 | 81.7  | 122.5 |
| 192     | 21.7  | 17.1  | 25.7  |



#36  
 1,1-Dichloropropene  
 Concen: 4.637 ug/l  
 RT: 4.96 min Scan# 1204  
 Delta R.T. -0.15 min  
 Lab File: VU034197.D  
 Acq: 02 Sep 2019 13:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 8.5   | 17.8  | 53.5# |
| 77      | 0.0   | 25.0  | 37.4# |

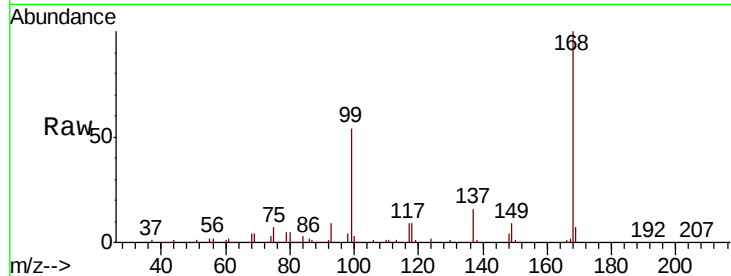




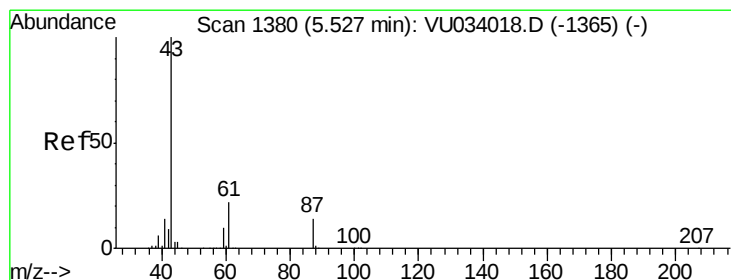
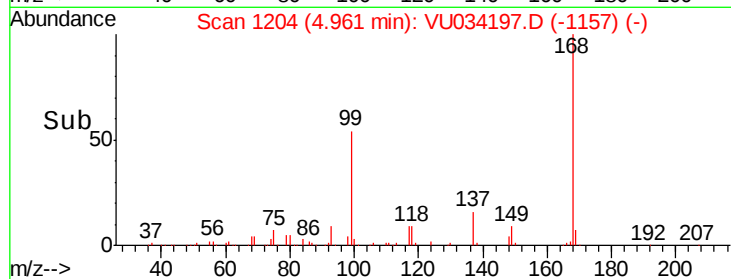
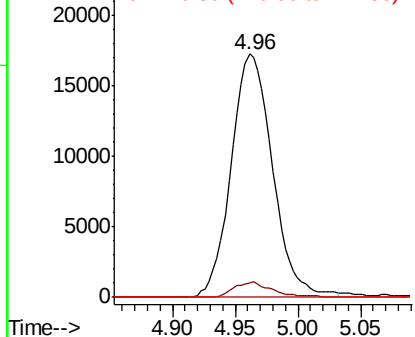
#38  
Carbon Tetrachloride  
Concen: 6.095 ug/l  
RT: 4.96 min Scan# 1204  
Delta R.T. -0.15 min  
Lab File: VU034197.D  
Acq: 02 Sep 2019 13:16

Instrument :  
MSVOA\_U  
ClientSampleId :  
T16-17-C1-(0)

Tgt Ion: 117 Resp: 39711  
Ion Ratio Lower Upper  
117 100  
119 6.1 77.0 115.4#  
121 0.0 23.9 35.9#

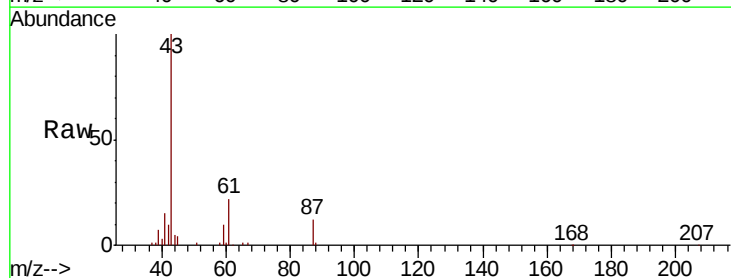


Abundance Ion 116.80 (116.50 to 117.50): V  
Ion 118.80 (118.50 to 119.50): V  
Ion 120.80 (120.50 to 121.50): V

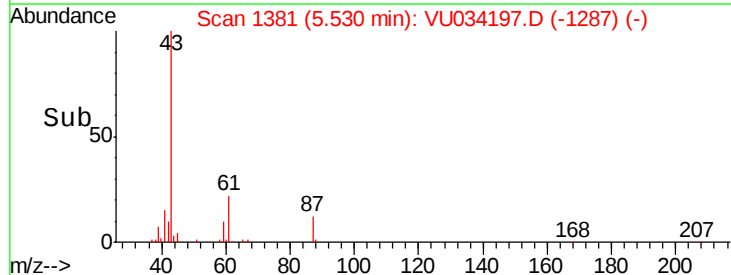
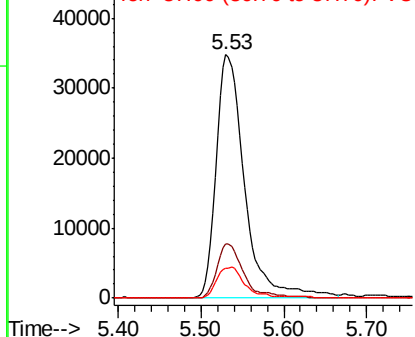


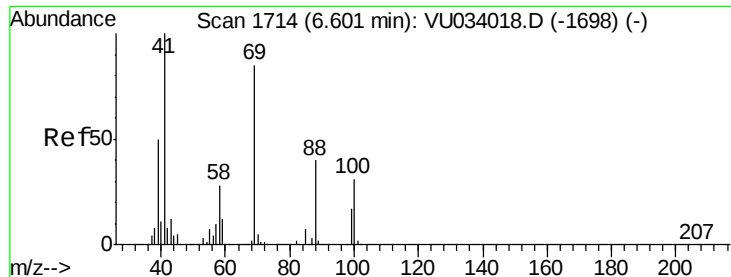
#43  
Isopropyl Acetate  
Concen: 7.230 ug/l  
RT: 5.53 min Scan# 1381  
Delta R.T. 0.00 min  
Lab File: VU034197.D  
Acq: 02 Sep 2019 13:16

Tgt Ion: 43 Resp: 83142  
Ion Ratio Lower Upper  
43 100  
61 20.5 17.2 25.8  
87 12.4 10.8 16.2



Abundance Ion 43.00 (42.70 to 43.70): VU0  
Ion 61.00 (60.70 to 61.70): VU0  
Ion 87.00 (86.70 to 87.70): VU0

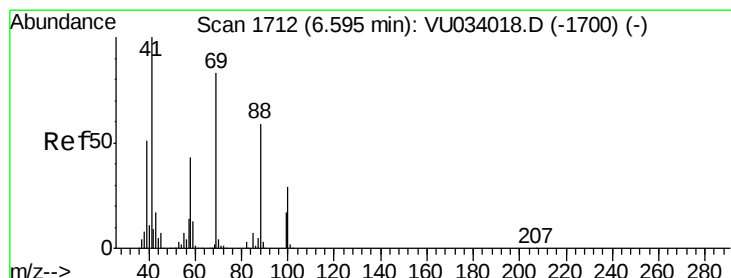
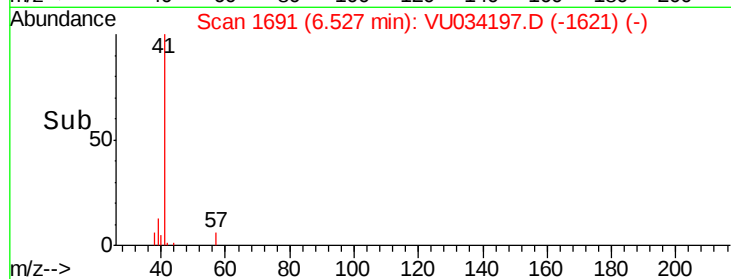
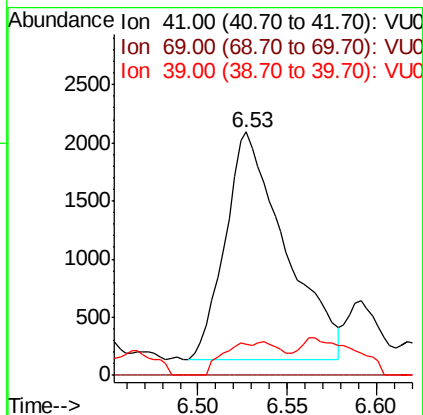
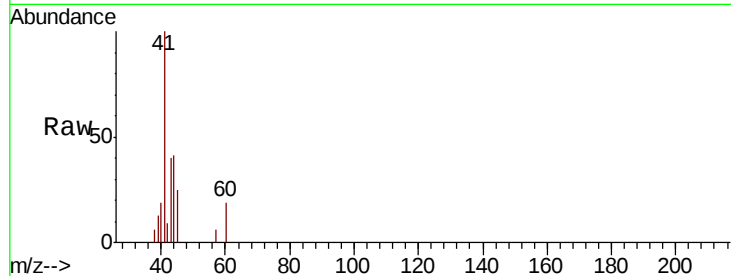




#48  
Methyl methacrylate  
Concen: 0.825 ug/l  
RT: 6.53 min Scan# 1691  
Delta R.T. -0.07 min  
Lab File: VU034197.D  
Acq: 02 Sep 2019 13:16

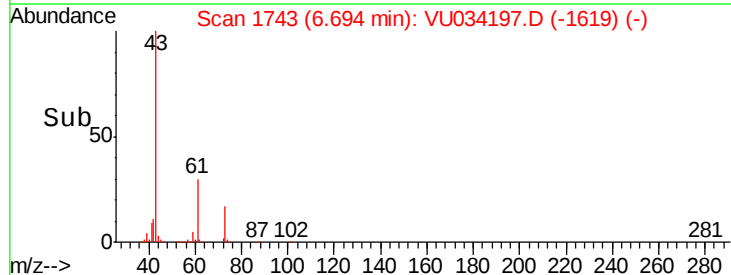
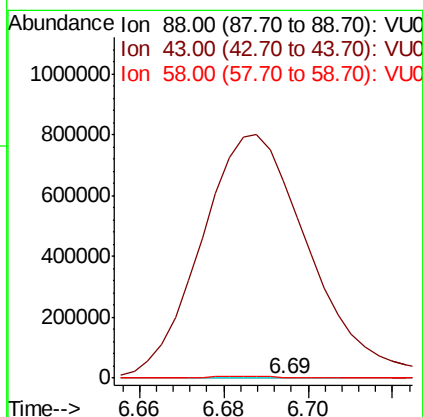
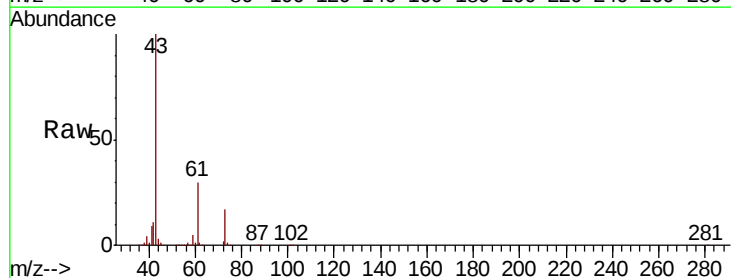
Instrument :  
MSVOA\_U  
ClientSampleId :  
T16-17-C1-(0)

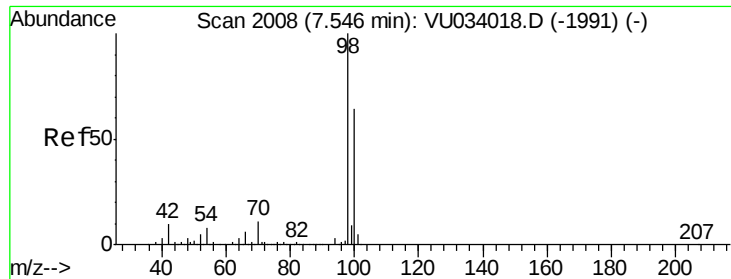
Tgt Ion: 41 Resp: 4579  
Ion Ratio Lower Upper  
41 100  
69 0.0 69.5 104.3#  
39 0.0 40.3 60.5#



#49  
1,4-Dioxane  
Concen: 1.475 ug/l  
RT: 6.69 min Scan# 1743  
Delta R.T. 0.10 min  
Lab File: VU034197.D  
Acq: 02 Sep 2019 13:16

Tgt Ion: 88 Resp: 205  
Ion Ratio Lower Upper  
88 100  
43 722721.0 24.8 37.2#  
58 3953.7 59.3 88.9#

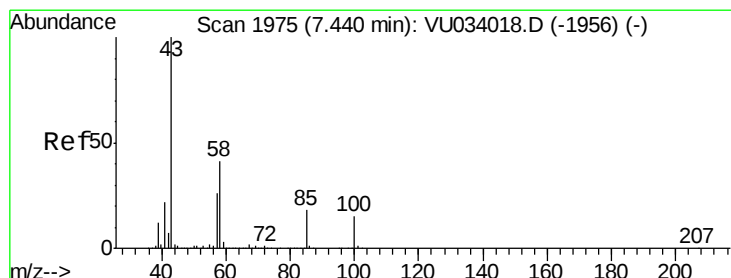
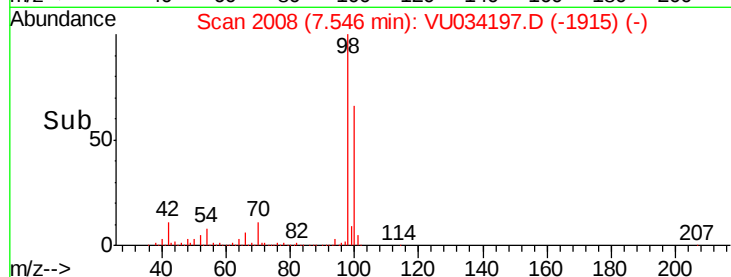
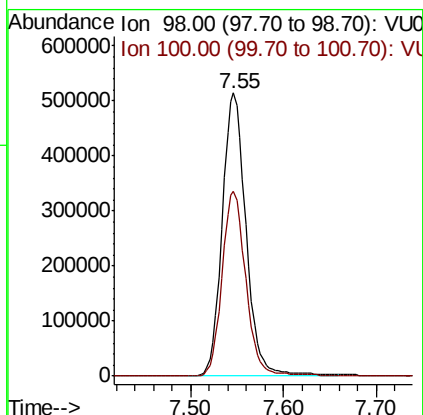
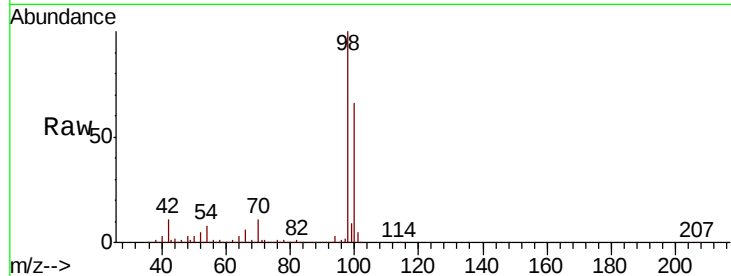




#50  
Toluene-d8  
Concen: 49.570 ug/l  
RT: 7.55 min Scan# 2008  
Delta R.T. -0.00 min  
Lab File: VU034197.D  
Acq: 02 Sep 2019 13:16

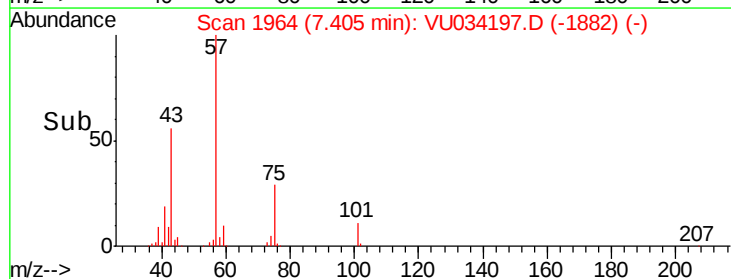
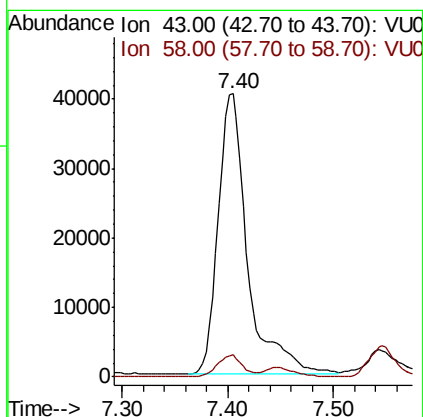
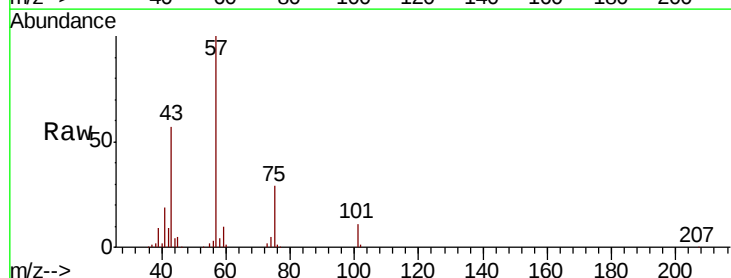
Instrument :  
MSVOA\_U  
ClientSampleId :  
T16-17-C1-(0)

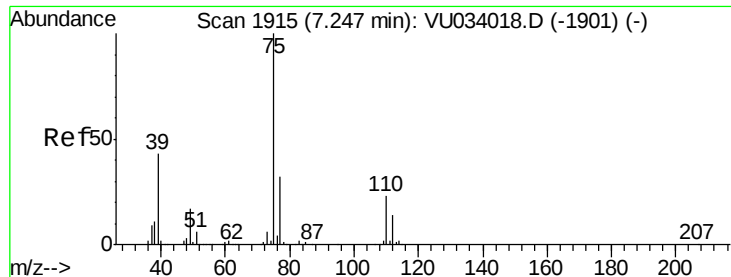
Tgt Ion: 98 Resp: 918641  
Ion Ratio Lower Upper  
98 100  
100 65.2 50.3 75.5



#51  
4-Methyl-2-Pentanone  
Concen: 9.866 ug/l  
RT: 7.40 min Scan# 1964  
Delta R.T. -0.04 min  
Lab File: VU034197.D  
Acq: 02 Sep 2019 13:16

Tgt Ion: 43 Resp: 78348  
Ion Ratio Lower Upper  
43 100  
58 6.6 32.2 48.4#



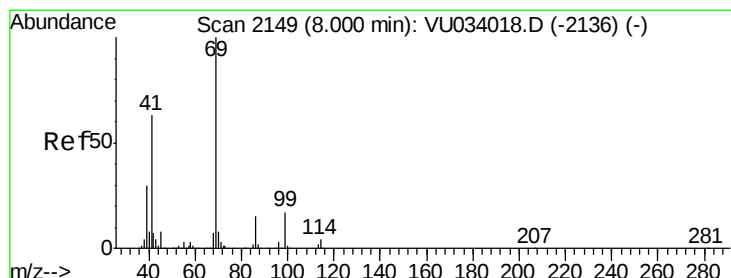
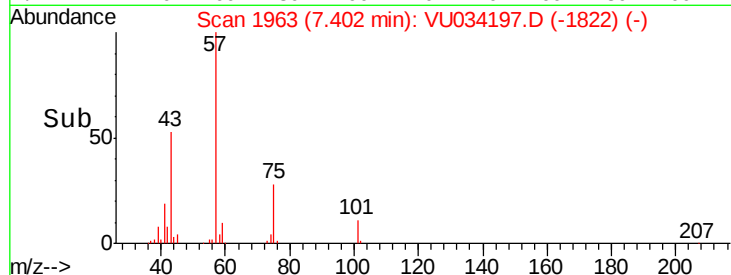
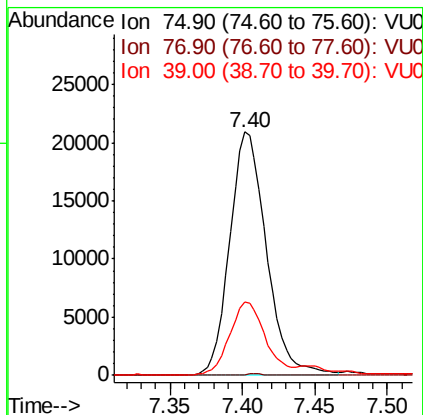
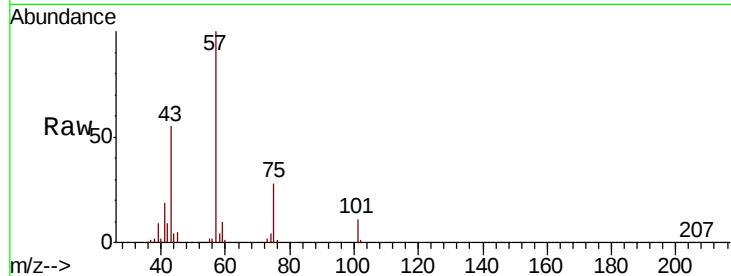


#54

cis-1,3-Dichloropropene  
 Concen: 4.287 ug/l  
 RT: 7.40 min Scan# 1963  
 Delta R.T. 0.15 min  
 Lab File: VU034197.D  
 Acq: 02 Sep 2019 13:16

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 T16-17-C1-(0)

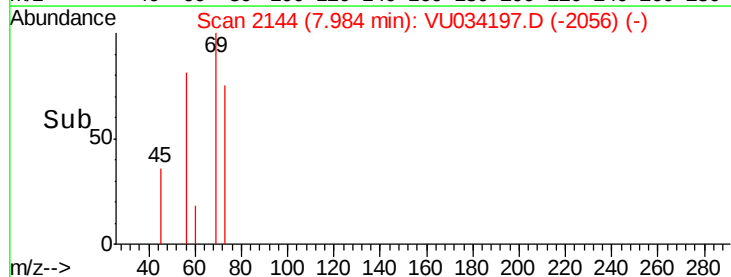
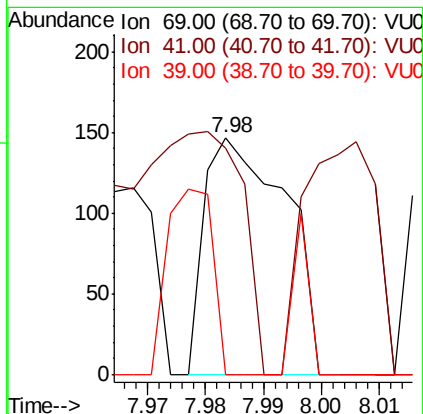
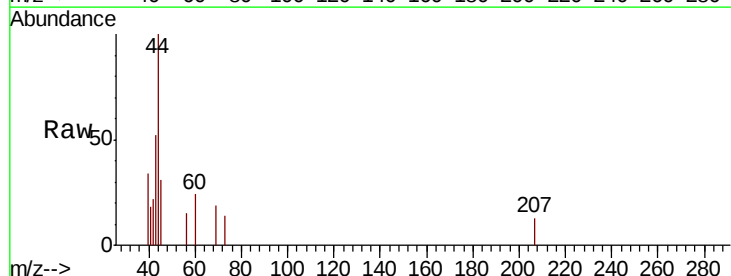
Tgt Ion: 75 Resp: 36821  
 Ion Ratio Lower Upper  
 75 100  
 77 0.0 25.2 37.8#  
 39 30.0 34.6 51.8#

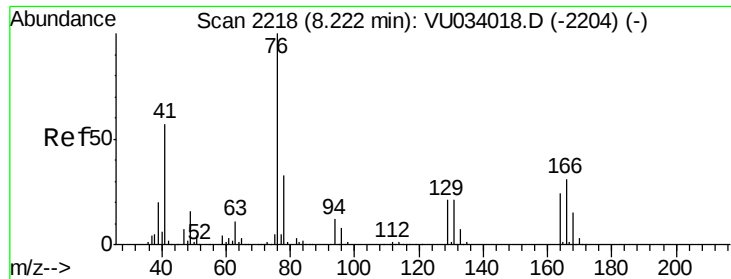


#56

Ethyl methacrylate  
 Concen: 0.987 ug/l  
 RT: 7.98 min Scan# 2144  
 Delta R.T. -0.02 min  
 Lab File: VU034197.D  
 Acq: 02 Sep 2019 13:16

Tgt Ion: 69 Resp: 143  
 Ion Ratio Lower Upper  
 69 100  
 41 0.0 50.7 76.1#  
 39 0.0 24.2 36.2#

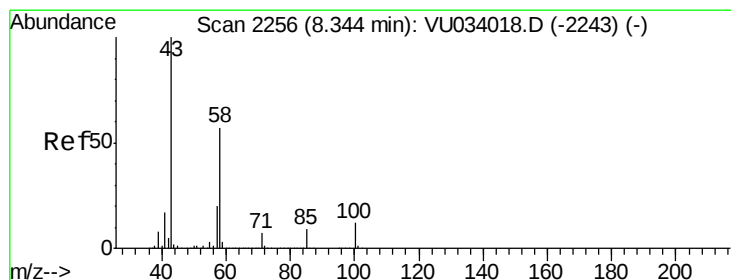
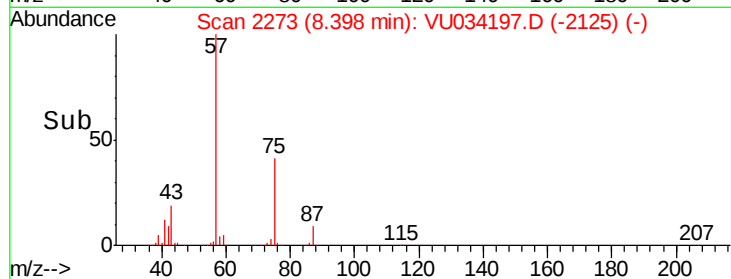
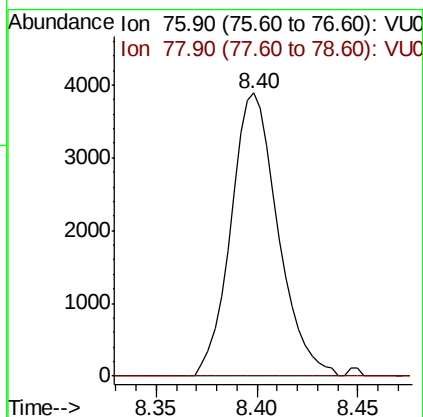
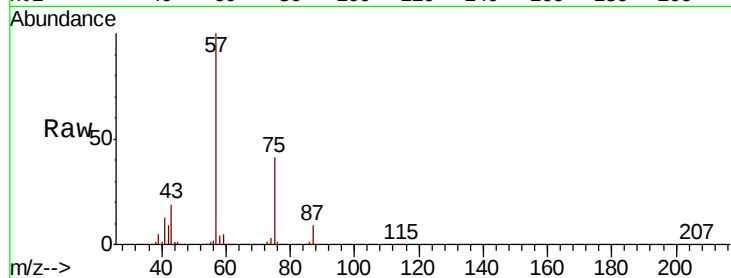




#57  
 1,3-Dichloropropane  
 Concen: 0.703 ug/l  
 RT: 8.40 min Scan# 2273  
 Delta R.T. 0.18 min  
 Lab File: VU034197.D  
 Acq: 02 Sep 2019 13:16

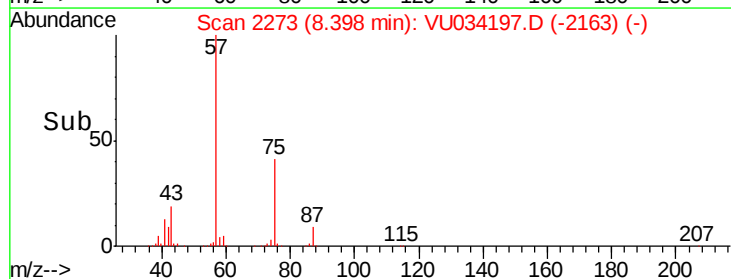
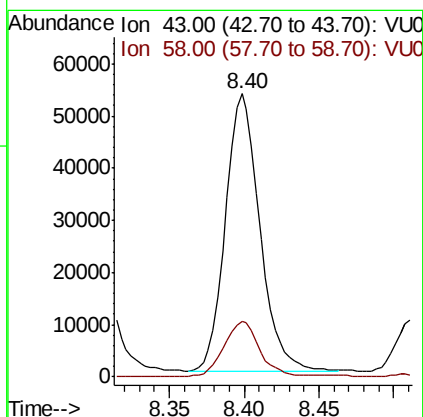
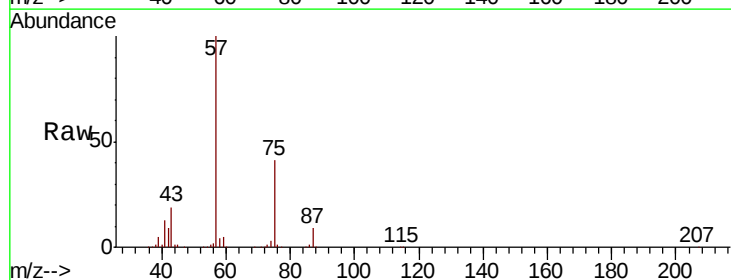
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 T16-17-C1-(0)

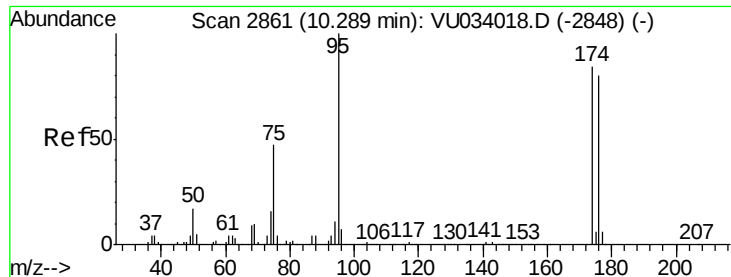
Tgt Ion: 76 Resp: 6351  
 Ion Ratio Lower Upper  
 76 100  
 78 0.0 26.2 39.4#



#59  
 2-Hexanone  
 Concen: 14.229 ug/l  
 RT: 8.40 min Scan# 2273  
 Delta R.T. 0.05 min  
 Lab File: VU034197.D  
 Acq: 02 Sep 2019 13:16

Tgt Ion: 43 Resp: 85300  
 Ion Ratio Lower Upper  
 43 100  
 58 21.2 28.4 85.3#

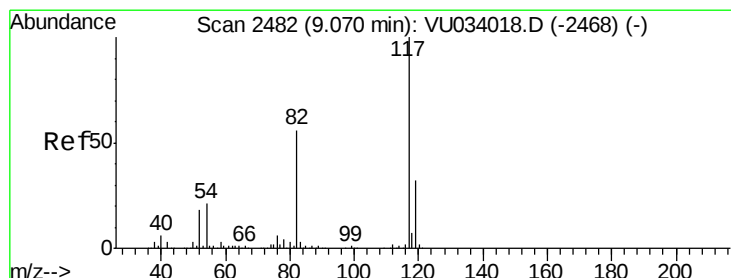
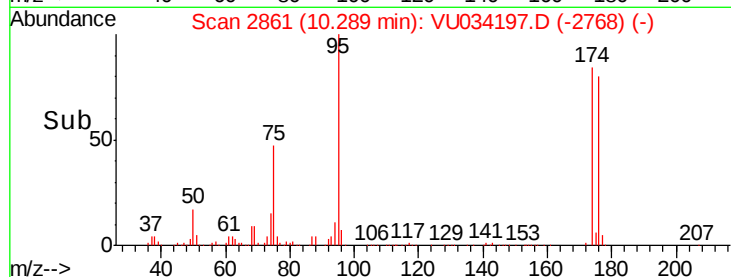
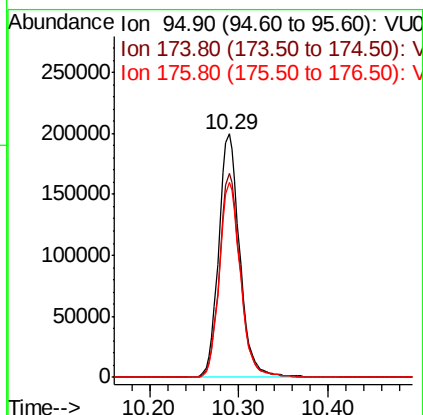
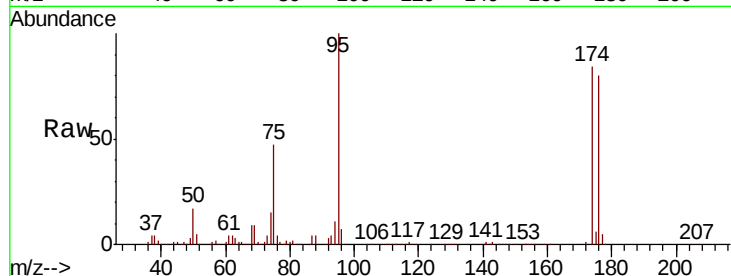




#62  
4-Bromofluorobenzene  
Concen: 45.276 ug/l  
RT: 10.29 min Scan# 2861  
Delta R.T. -0.00 min  
Lab File: VU034197.D  
Acq: 02 Sep 2019 13:16

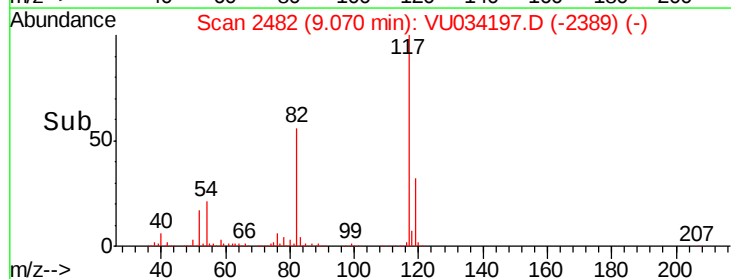
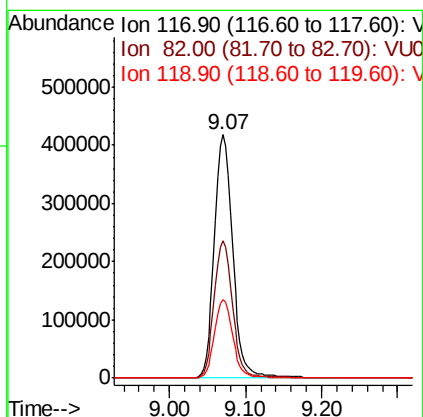
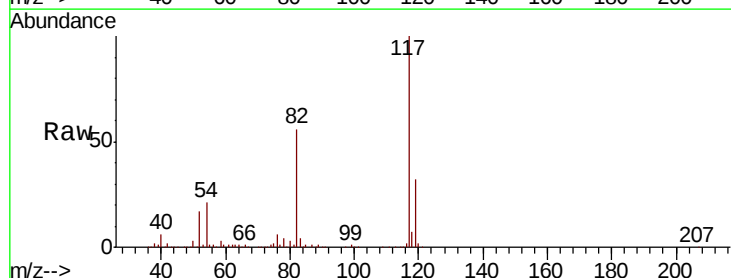
Instrument :  
MSVOA\_U  
ClientSampleId :  
T16-17-C1-(0)

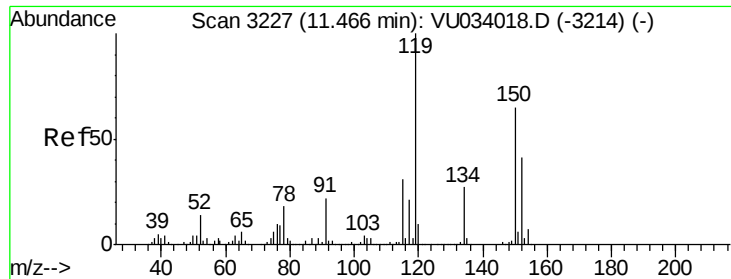
Tgt Ion: 95 Resp: 326387  
Ion Ratio Lower Upper  
95 100  
174 83.5 0.0 168.8  
176 80.1 0.0 161.8



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 9.07 min Scan# 2482  
Delta R.T. -0.00 min  
Lab File: VU034197.D  
Acq: 02 Sep 2019 13:16

Tgt Ion: 117 Resp: 703689  
Ion Ratio Lower Upper  
117 100  
82 56.4 45.1 67.7  
119 32.4 25.4 38.0





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 11.46 min Scan# 3226

Delta R.T. -0.00 min

Lab File: VU034197.D

Acq: 02 Sep 2019 13:16

Instrument :

MSVOA\_U

ClientSampleId :

T16-17-C1-(0)

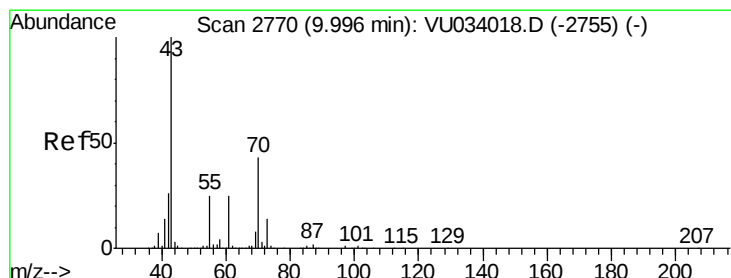
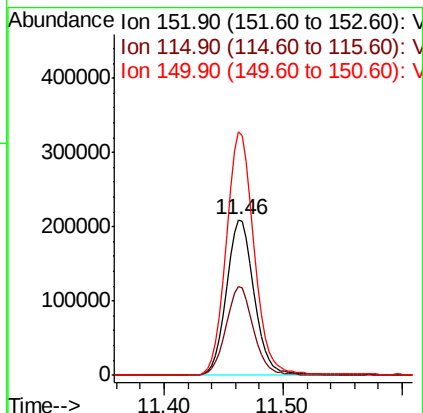
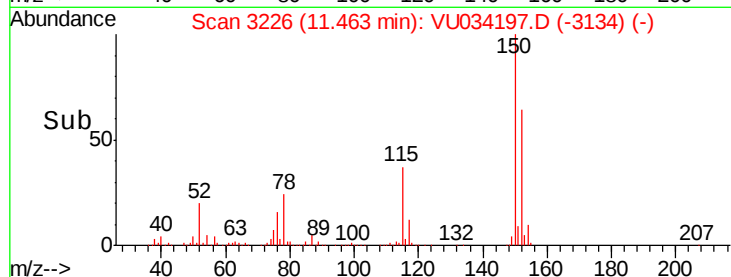
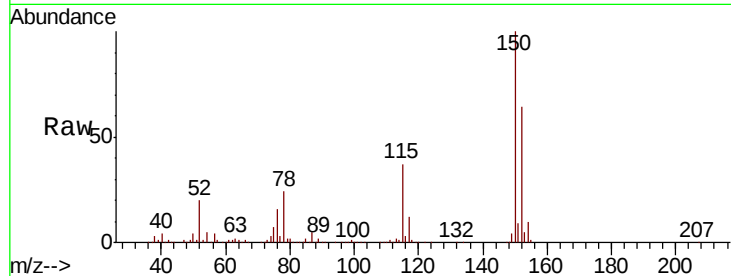
Tgt Ion:152 Resp: 339097

Ion Ratio Lower Upper

152 100

115 56.4 41.1 123.3

150 157.2 0.0 348.8



#74

N-ethyl acetate

Concen: 0.236 ug/l

RT: 9.92 min Scan# 2746

Delta R.T. -0.08 min

Lab File: VU034197.D

Acq: 02 Sep 2019 13:16

Tgt Ion: 43 Resp: 2263

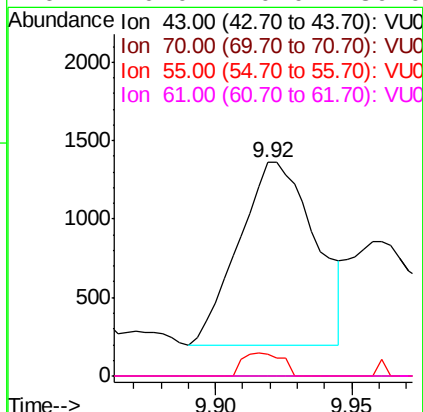
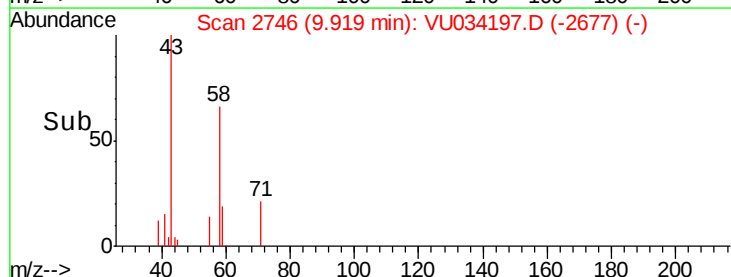
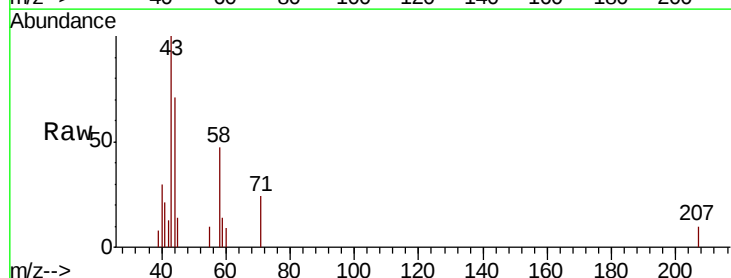
Ion Ratio Lower Upper

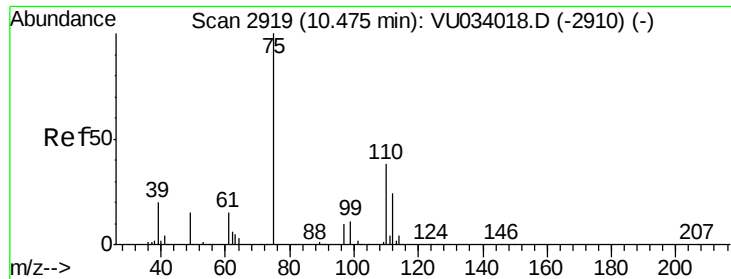
43 100

70 0.0 35.2 52.8#

55 6.5 20.5 30.7#

61 0.0 20.0 30.0#

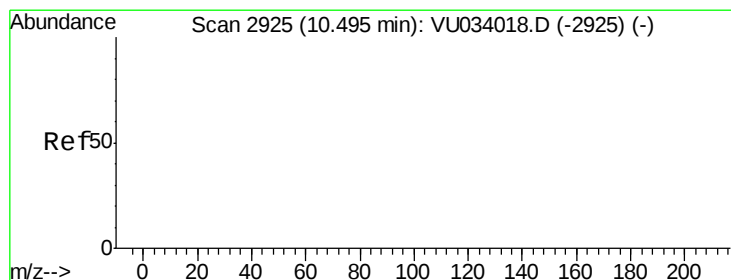
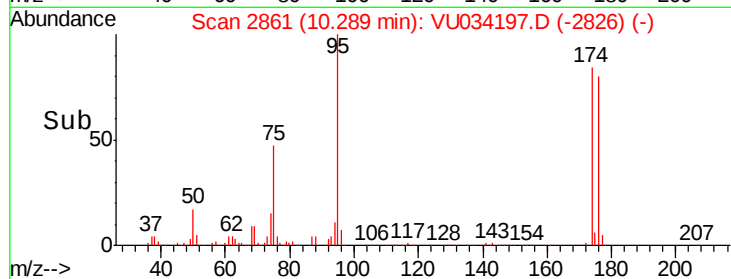
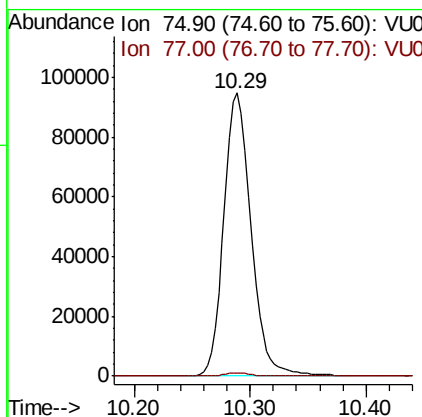
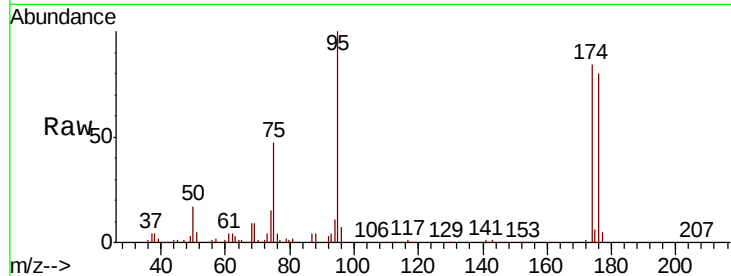




#76  
 1,2,3-Trichloropropane  
 Concen: 20.172 ug/l  
 RT: 10.29 min Scan# 2861  
 Delta R.T. -0.19 min  
 Lab File: VU034197.D  
 Acq: 02 Sep 2019 13:16

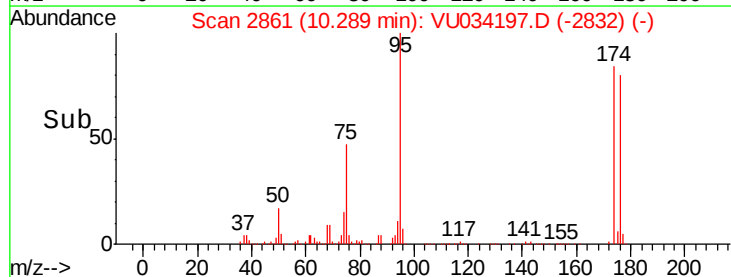
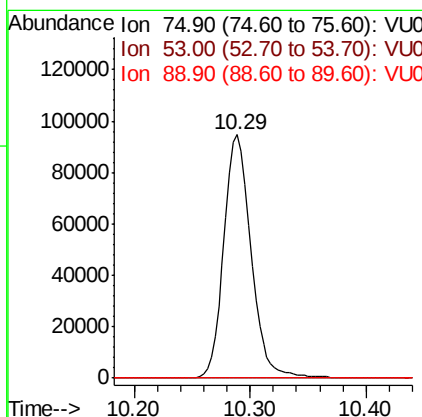
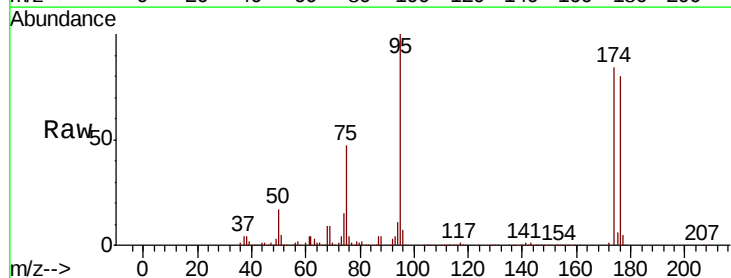
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 T16-17-C1-(0)

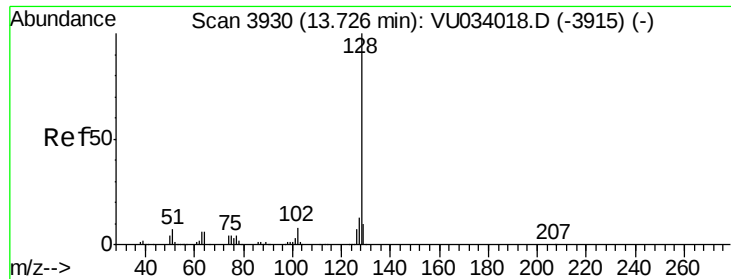
Tgt Ion: 75 Resp: 154165  
 Ion Ratio Lower Upper  
 75 100  
 77 1.2 20.1 60.2#



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 67.923 ug/l  
 RT: 10.29 min Scan# 2861  
 Delta R.T. -0.21 min  
 Lab File: VU034197.D  
 Acq: 02 Sep 2019 13:16

Tgt Ion: 75 Resp: 154165  
 Ion Ratio Lower Upper  
 75 100  
 53 0.2 0.0 0.0#  
 89 0.0 0.0 0.0





#95

Naphthalene

Concen: 1.795 ug/l

RT: 13.78 min Scan# 3946

Delta R.T. 0.05 min

Lab File: VU034197.D

Acq: 02 Sep 2019 13:16

Instrument :

MSVOA\_U

ClientSampleId :

T16-17-C1-(0)

Tgt Ion:128 Resp: 122

Ion Ratio Lower Upper

128 100

127 0.0 10.2 15.4#

129 0.0 8.4 12.6#

