

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW031919\  
 Data File : VW009273.D  
 Acq On : 20 Mar 2019 07:47  
 Operator : SY/VA  
 Sample : K1987-04  
 Misc : 5.08G/5ML/MSVOA W/SOIL  
 ALS Vial : 48 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 20190146-COMPOSITE-E

Quant Time: Mar 20 09:13:55 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W031919S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Mar 20 07:22:50 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 288609   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 480854   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 435073   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.56 | 152  | 212615   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.31  | 65   | 187136   | 60.96 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 121.92% |          |
| 35) Dibromofluoromethane    | 7.88  | 113  | 159676   | 52.35 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 104.70% |          |
| 50) Toluene-d8              | 10.32 | 98   | 587207   | 52.97 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 105.94% |          |
| 62) 4-Bromofluorobenzene    | 12.62 | 95   | 204332   | 50.20 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.40% |          |

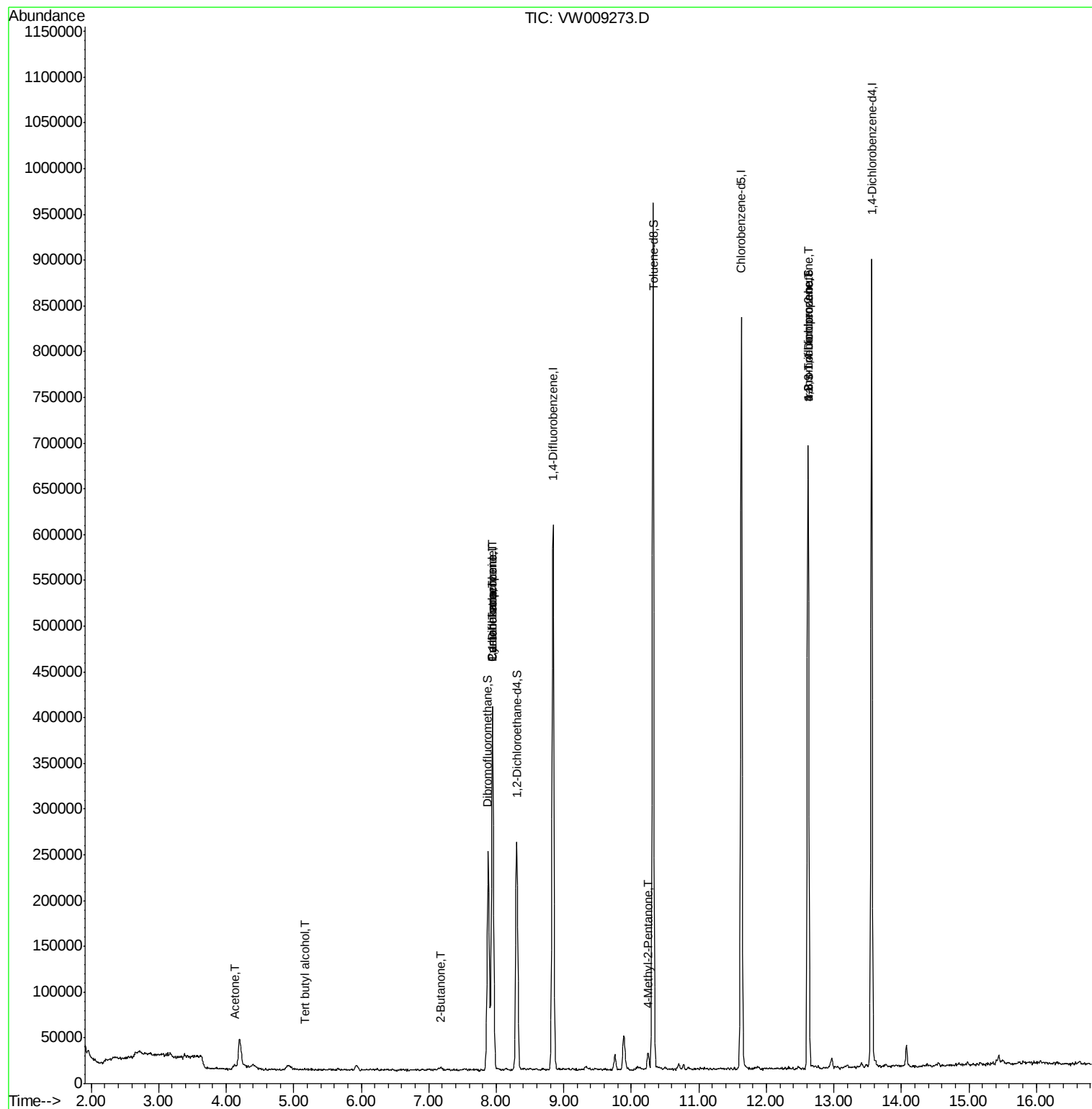
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 2) Dichlorodifluoromethane     | 2.01  | 85   | 282      | Below Cal |        | 97     |
| 11) Tert butyl alcohol         | 5.17  | 59   | 504      | 2.828     | ug/l # | 70     |
| 16) Acetone                    | 4.12  | 43   | 10224    | 16.233    | ug/l # | 85     |
| 20) Methylene Chloride         | 4.92  | 84   | 2819     | Below Cal | #      | 77     |
| 25) 2-Butanone                 | 7.18  | 43   | 2636     | 2.921     | ug/l # | 50     |
| 31) Cyclohexane                | 7.95  | 56   | 7712     | 1.531     | ug/l # | 8      |
| 36) 1,1-Dichloropropene        | 7.95  | 75   | 23362    | 4.882     | ug/l # | 52     |
| 38) Carbon Tetrachloride       | 7.94  | 117  | 29686    | 5.862     | ug/l # | 16     |
| 51) 4-Methyl-2-Pentanone       | 10.25 | 43   | 2762     | 1.212     | ug/l # | 66     |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75   | 113092   | 56.602    | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75   | 113092   | 138.887   | ug/l # | 7      |

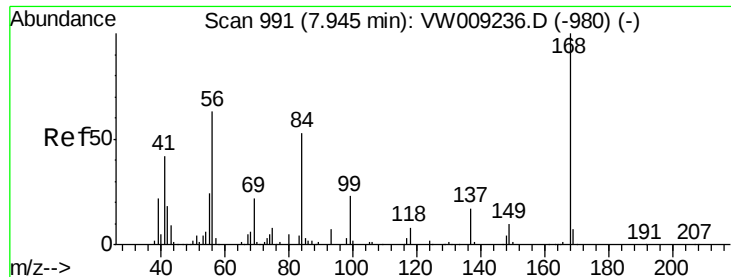
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_W\METHOD\82W031919S.M  
Quant Title : SW846 8260  
QLast Update : Wed Mar 20 07:22:50 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.95 min Scan# 991

Delta R.T. 0.00 min

Lab File: VW009273.D

Acq: 20 Mar 2019 07:47

Instrument :

MSVOA\_W

ClientSampleId :

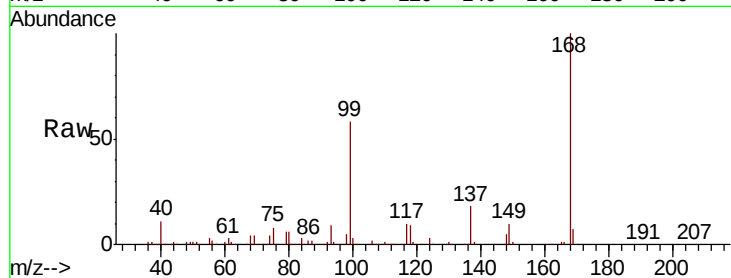
20190146-COMPOSITE-E

Tot Ion:168 Resp: 288609

Ion Ratio Lower Upper

168 100

99 57.8 45.4 68.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW

7.95

150000

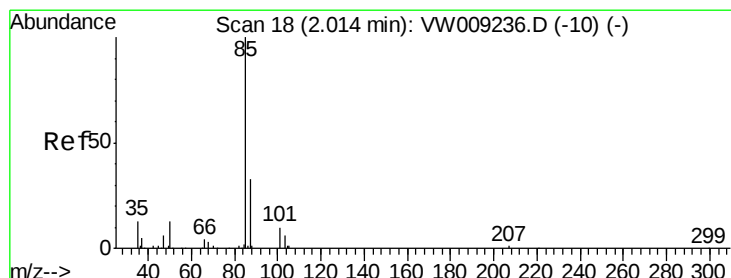
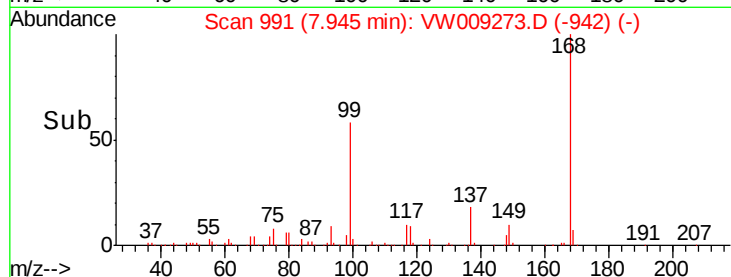
100000

50000

0

7.90 8.00

Time-->



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 2.01 min Scan# 17

Delta R.T. -0.01 min

Lab File: VW009273.D

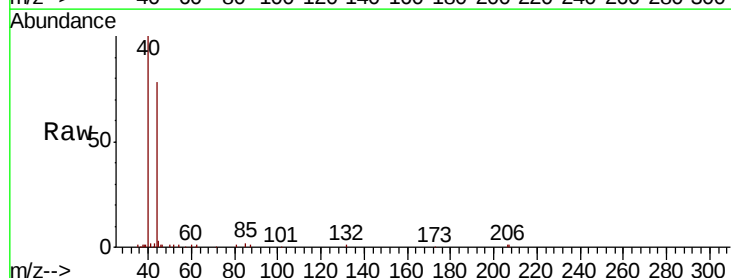
Acq: 20 Mar 2019 07:47

Tgt Ion: 85 Resp: 282

Ion Ratio Lower Upper

85 100

87 35.2 16.7 50.1



Abundance Ion 84.90 (84.60 to 85.60): VW

Ion 86.90 (86.60 to 87.60): VW

2.01

300

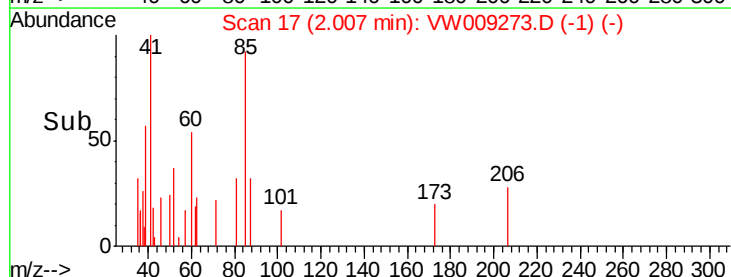
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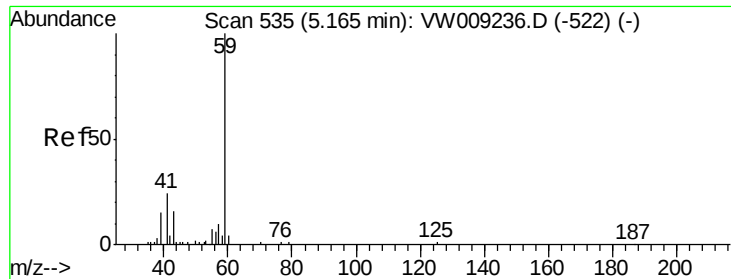
100

0

1.98 2.00 2.02

Time-->



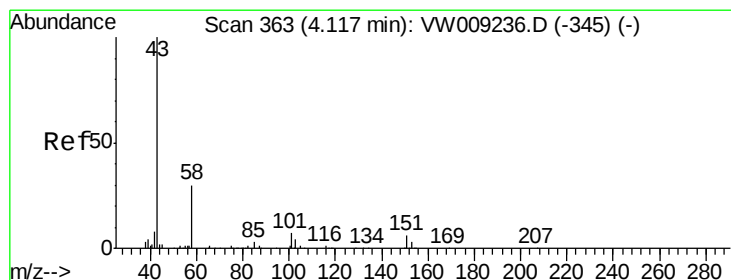
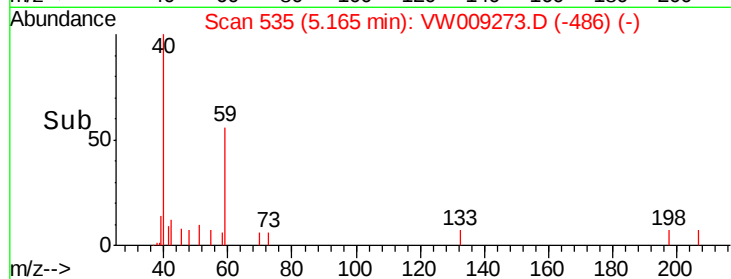
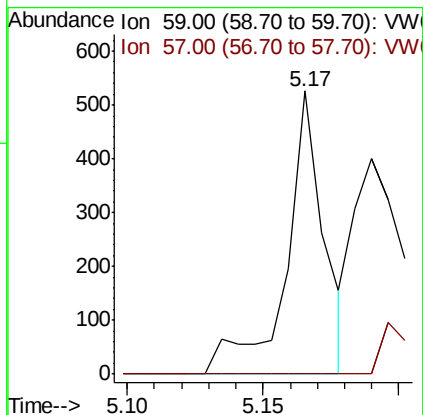
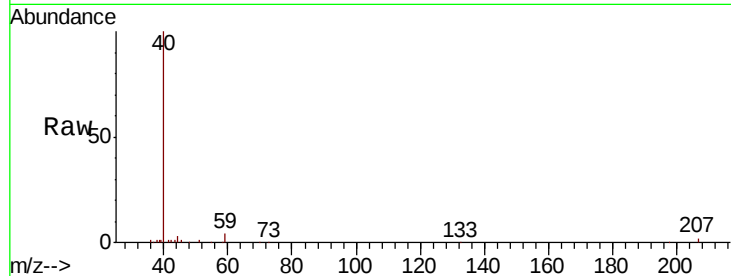


#11

Tert butyl alcohol  
 Concen: 2.828 ug/l  
 RT: 5.17 min Scan# 535  
 Delta R.T. 0.00 min  
 Lab File: VW009273.D  
 Acq: 20 Mar 2019 07:47

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
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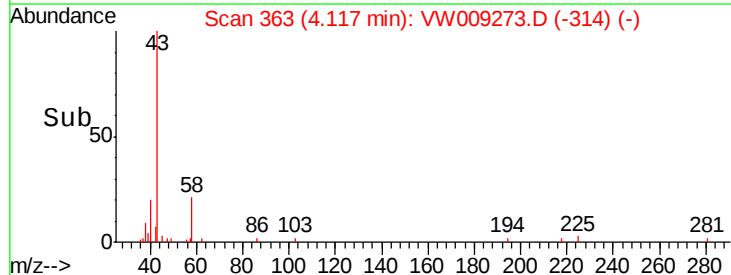
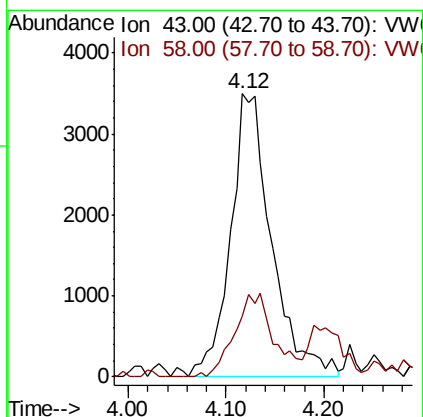
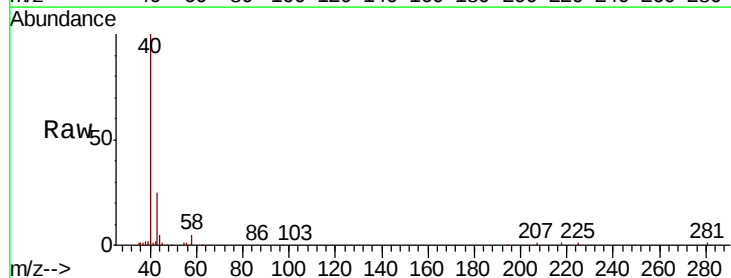
Tot Ion: 59 Resp: 504  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 9.4 14.0#

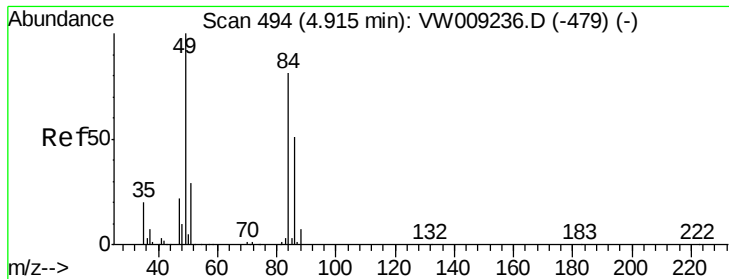


#16

Acetone  
 Concen: 16.233 ug/l  
 RT: 4.12 min Scan# 363  
 Delta R.T. 0.00 min  
 Lab File: VW009273.D  
 Acq: 20 Mar 2019 07:47

Tgt Ion: 43 Resp: 10224  
 Ion Ratio Lower Upper  
 43 100  
 58 21.5 23.6 35.4#

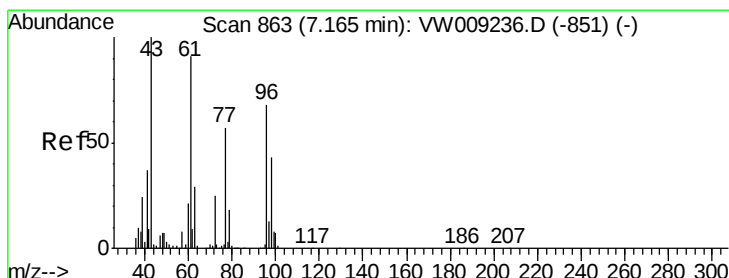
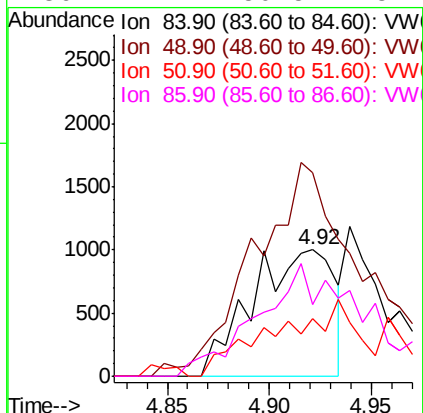
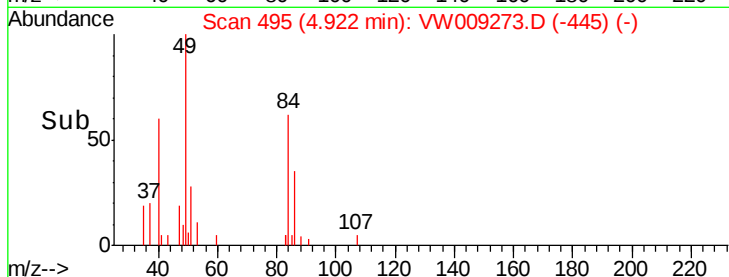
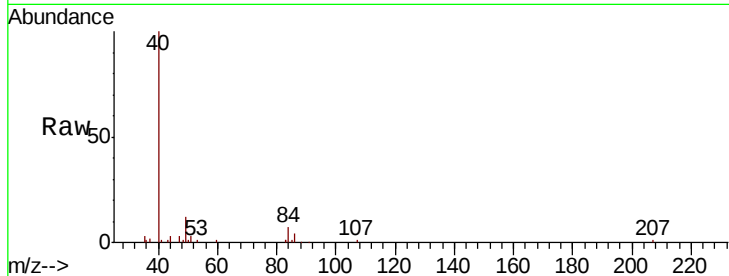




#20  
Methvlene Chloride  
Concen: Below Cal  
RT: 4.92 min Scan# 495  
Delta R.T. 0.01 min  
Lab File: VW009273.D  
Acq: 20 Mar 2019 07:47

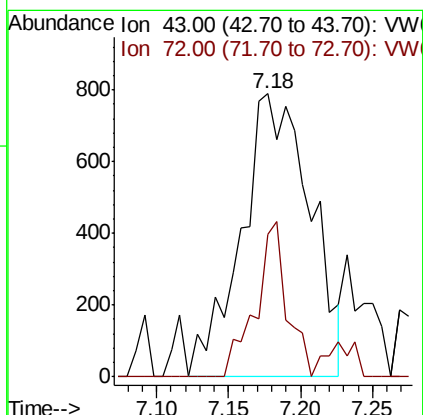
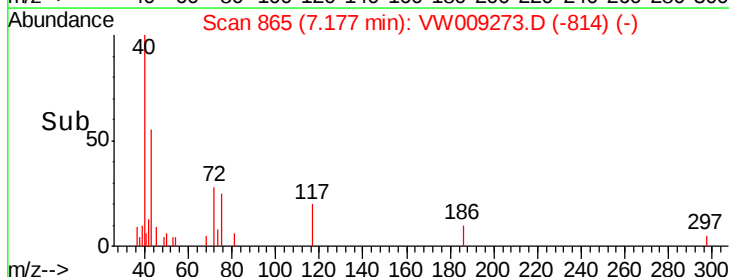
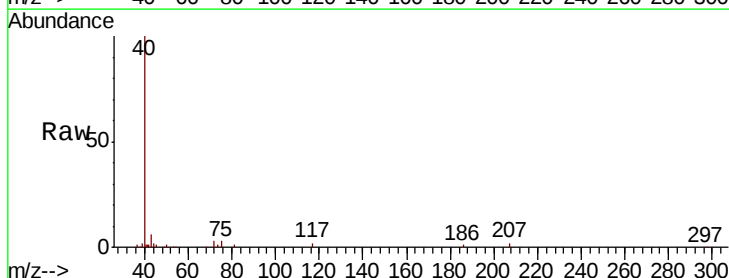
Instrument :  
MSVOA\_W  
ClientSampleId :  
20190146-COMPOSITE-E

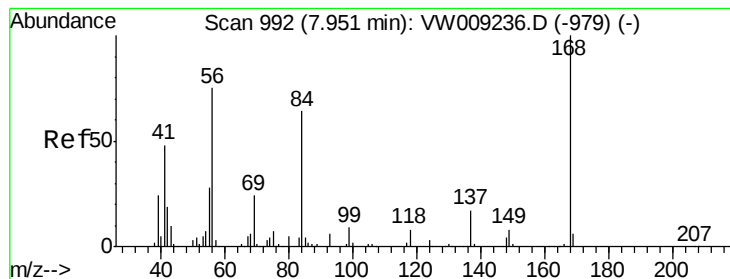
Tot Ion: 84 Resp: 2819  
Ion Ratio Lower Upper  
84 100  
49 153.1 99.1 148.7#  
51 45.2 28.7 43.1#  
86 47.1 50.5 75.7#



#25  
2-Butanone  
Concen: 2.921 ug/l  
RT: 7.18 min Scan# 865  
Delta R.T. 0.01 min  
Lab File: VW009273.D  
Acq: 20 Mar 2019 07:47

Tgt Ion: 43 Resp: 2636  
Ion Ratio Lower Upper  
43 100  
72 50.3 20.0 30.0#





#31

Cyclohexane

Concen: 1.531 ug/l

RT: 7.95 min Scan# 991

Delta R.T. -0.01 min

Lab File: VW009273.D

Acq: 20 Mar 2019 07:47

Instrument :

MSVOA\_W

ClientSampleId :

20190146-COMPOSITE-E

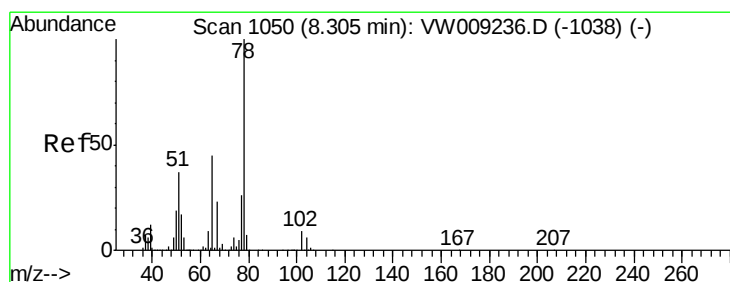
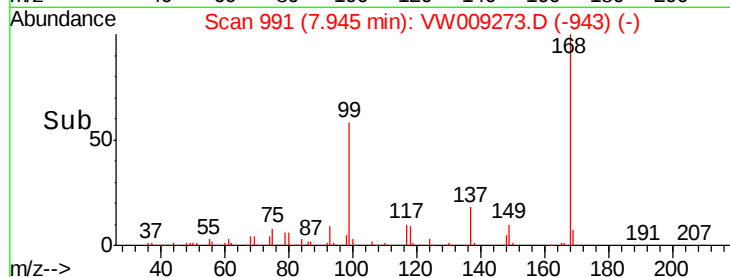
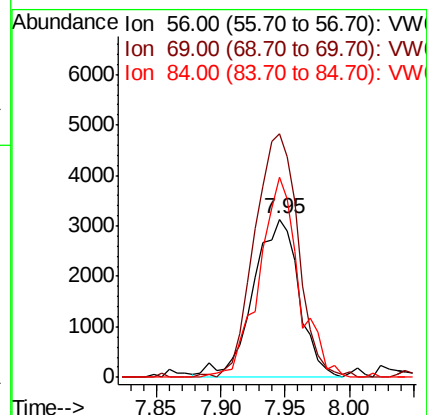
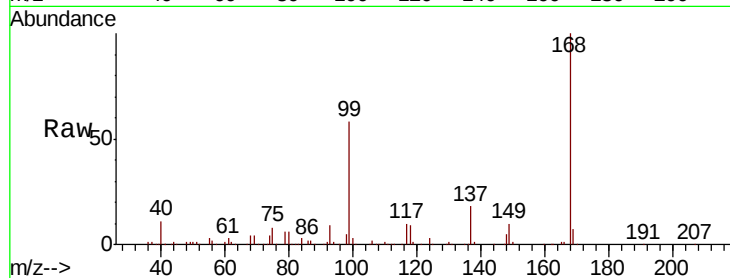
Tot Ion: 56 Resp: 7712

Ion Ratio Lower Upper

56 100

69 153.9 26.1 39.1#

84 126.7 68.6 103.0#



#33

1,2-Dichloroethane-d4

Concen: 60.959 ug/l

RT: 8.31 min Scan# 1050

Delta R.T. -0.00 min

Lab File: VW009273.D

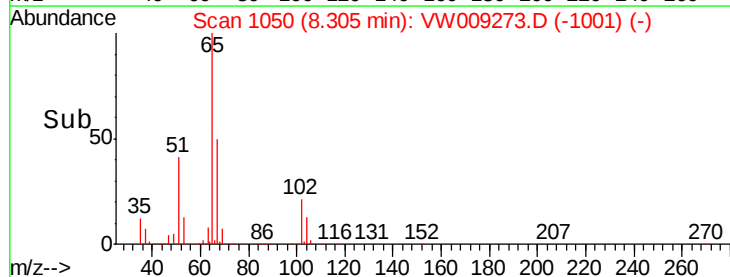
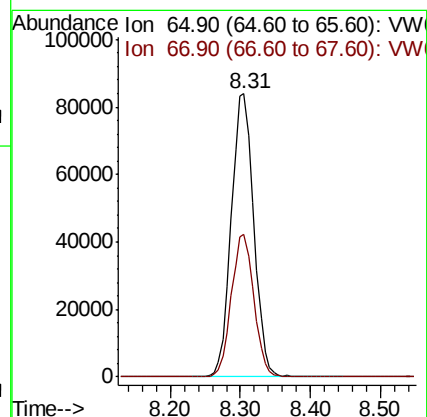
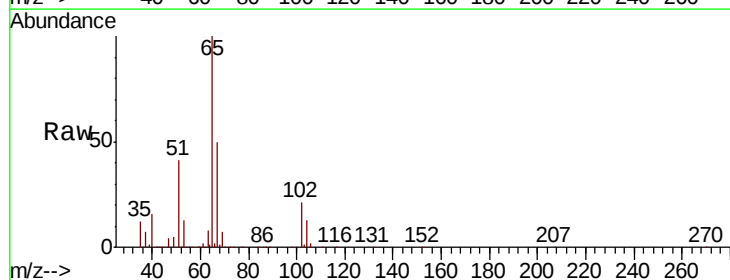
Acq: 20 Mar 2019 07:47

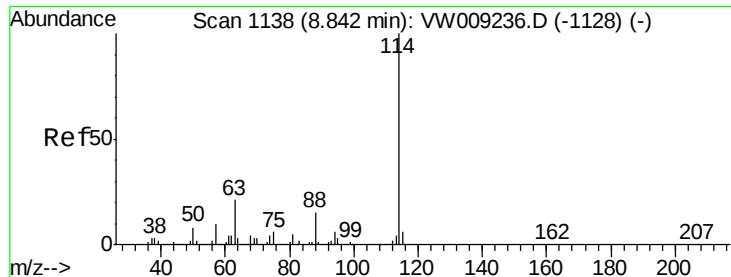
Tgt Ion: 65 Resp: 187136

Ion Ratio Lower Upper

65 100

67 50.4 0.0 102.4

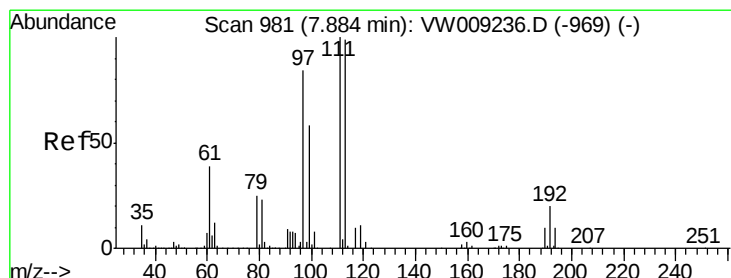
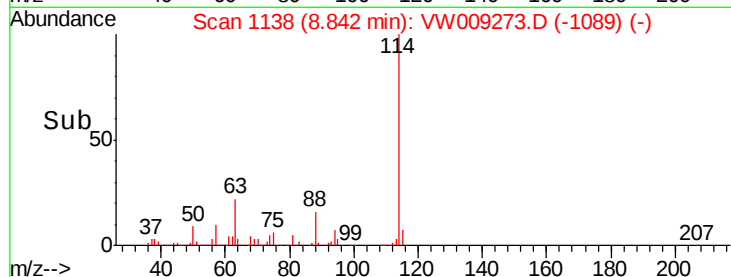
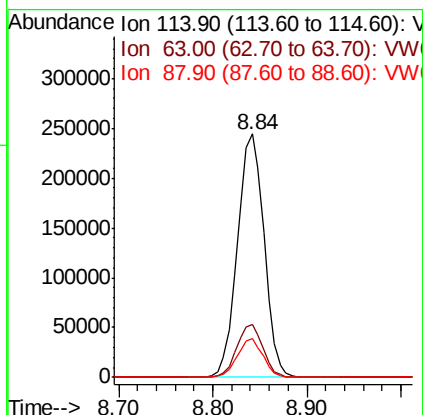
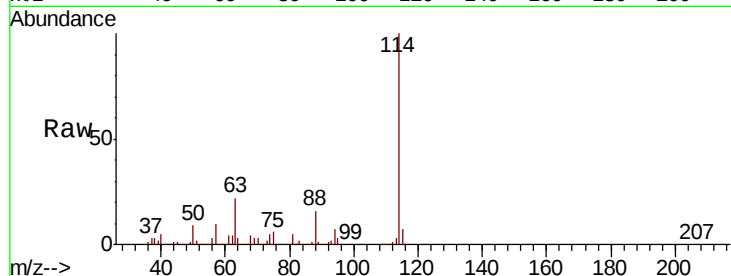




#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.84 min Scan# 1138  
 Delta R.T. 0.00 min  
 Lab File: VW009273.D  
 Acq: 20 Mar 2019 07:47

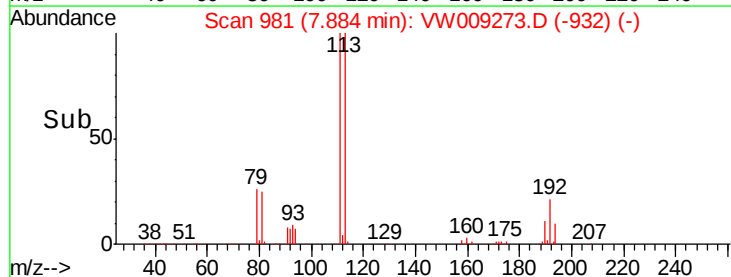
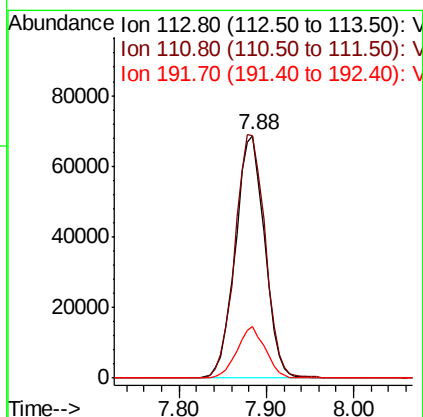
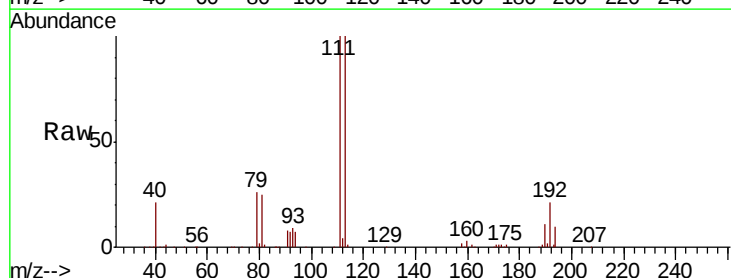
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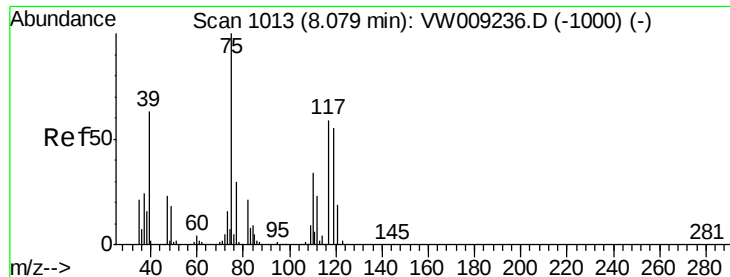
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 21.5  | 0.0   | 42.2  |
| 88      | 15.7  | 0.0   | 30.8  |



#35  
 Dibromofluoromethane  
 Concen: 52.348 ug/l  
 RT: 7.88 min Scan# 981  
 Delta R.T. 0.00 min  
 Lab File: VW009273.D  
 Acq: 20 Mar 2019 07:47

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 103.5 | 82.6  | 124.0 |
| 192     | 20.4  | 16.4  | 24.6  |

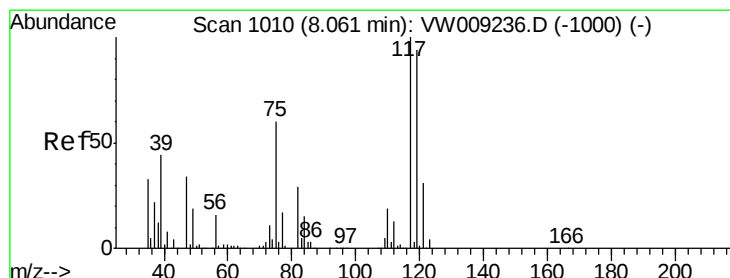
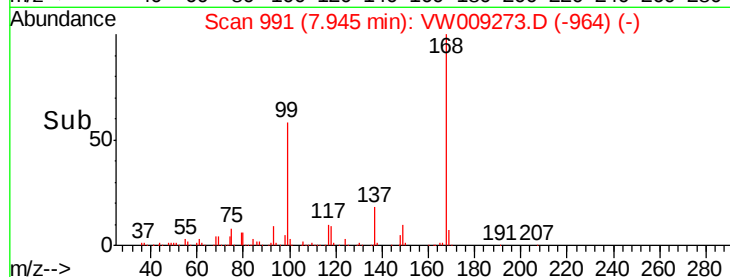
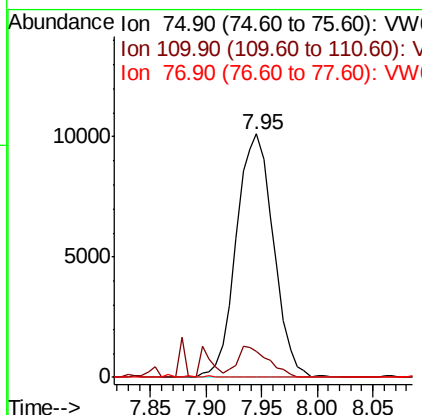
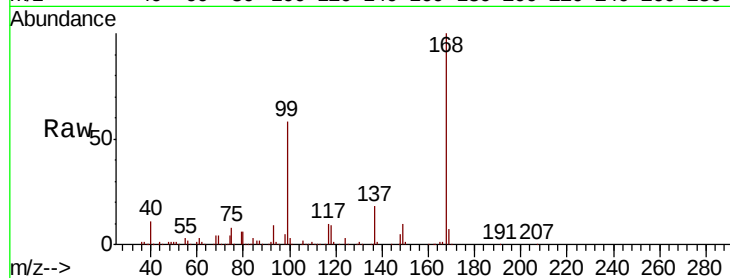




#36  
 1,1-Dichloropropene  
 Concen: 4.882 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. -0.13 min  
 Lab File: VW009273.D  
 Acq: 20 Mar 2019 07:47

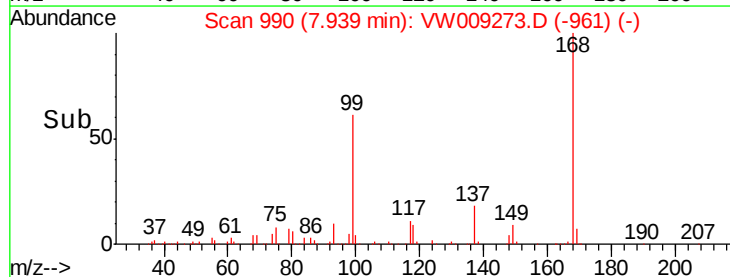
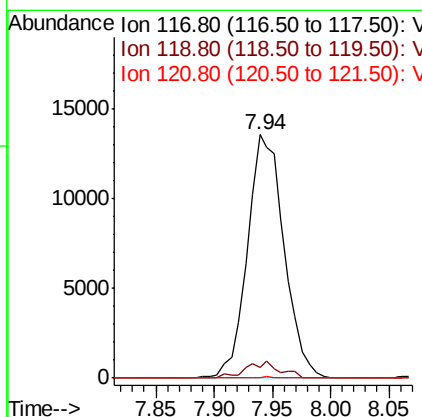
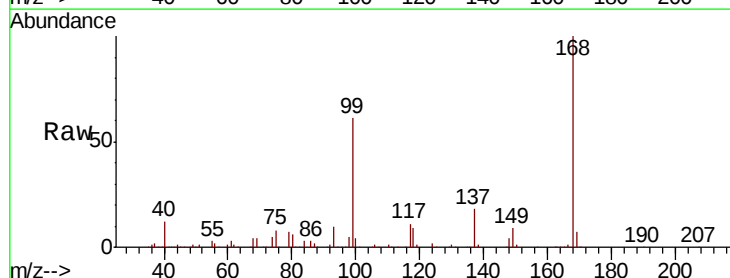
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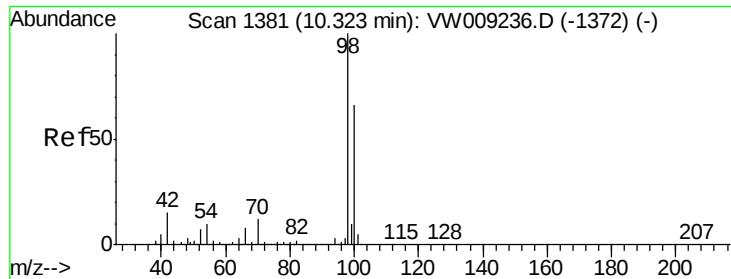
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 10.6  | 16.8  | 50.4# |
| 77      | 0.0   | 24.6  | 36.8# |



#38  
 Carbon Tetrachloride  
 Concen: 5.862 ug/l  
 RT: 7.94 min Scan# 990  
 Delta R.T. -0.12 min  
 Lab File: VW009273.D  
 Acq: 20 Mar 2019 07:47

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 4.5   | 75.4  | 113.0# |
| 121     | 0.0   | 24.9  | 37.3#  |





#50

Toluene-d8

Concen: 52.973 ug/l

RT: 10.32 min Scan# 1381

Delta R.T. -0.00 min

Lab File: VW009273.D

Acq: 20 Mar 2019 07:47

Instrument :

MSVOA\_W

ClientSampleId :

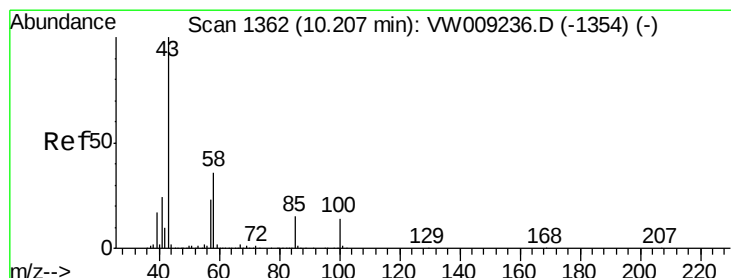
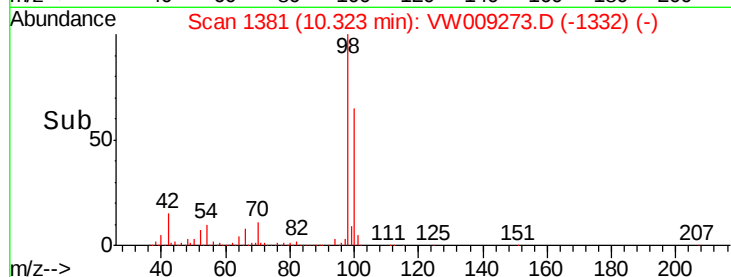
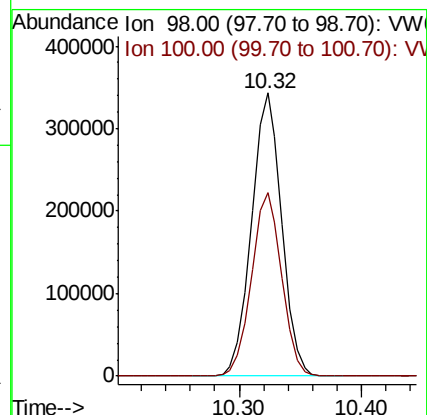
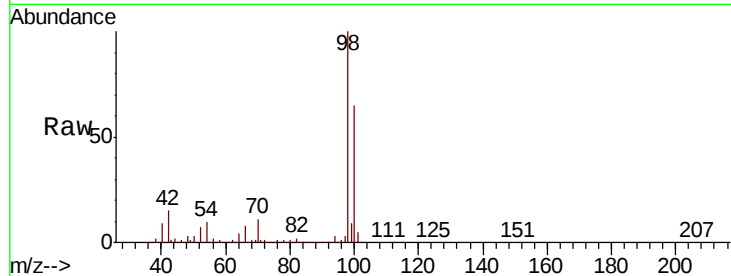
20190146-COMPOSITE-E

Tot Ion: 98 Resp: 587207

Ion Ratio Lower Upper

98 100

100 65.0 52.6 79.0



#51

4-Methyl-2-Pentanone

Concen: 1.212 ug/l

RT: 10.25 min Scan# 1369

Delta R.T. 0.04 min

Lab File: VW009273.D

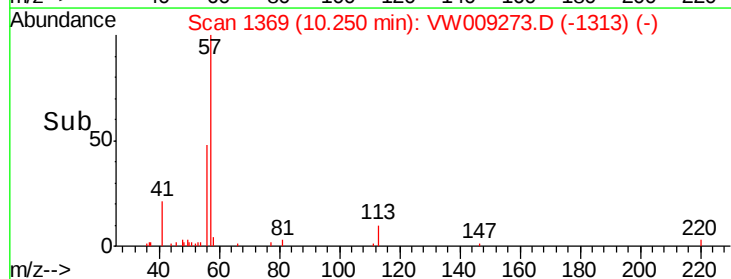
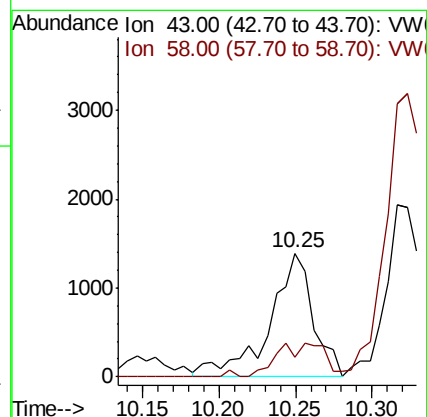
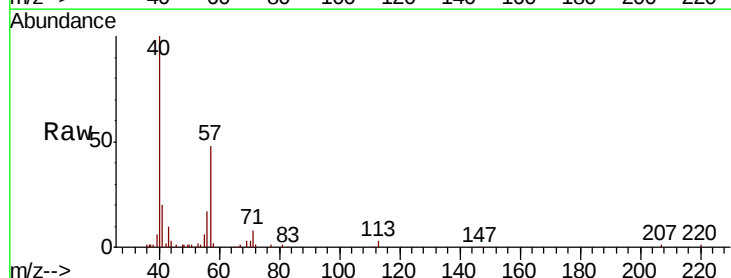
Acq: 20 Mar 2019 07:47

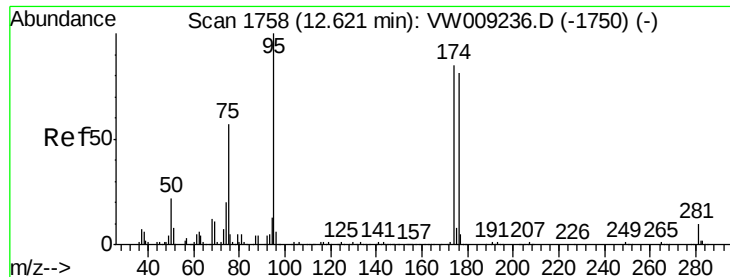
Tgt Ion: 43 Resp: 2762

Ion Ratio Lower Upper

43 100

58 15.9 28.6 42.8#

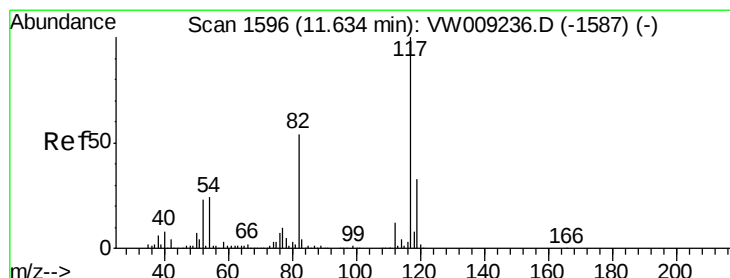
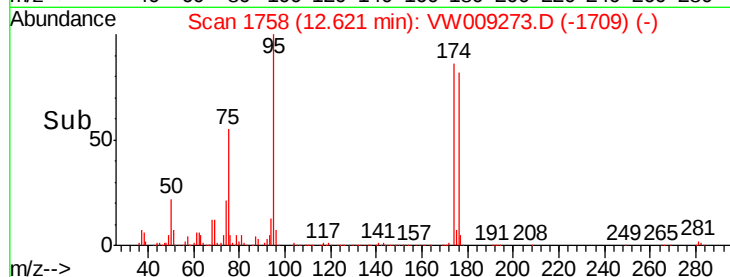
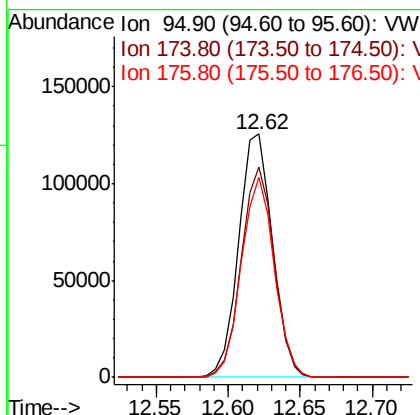
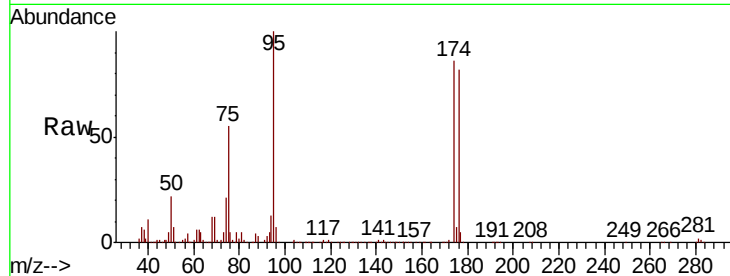




#62  
4-Bromofluorobenzene  
Concen: 50.204 ug/l  
RT: 12.62 min Scan# 1758  
Delta R.T. -0.00 min  
Lab File: VW009273.D  
Acq: 20 Mar 2019 07:47

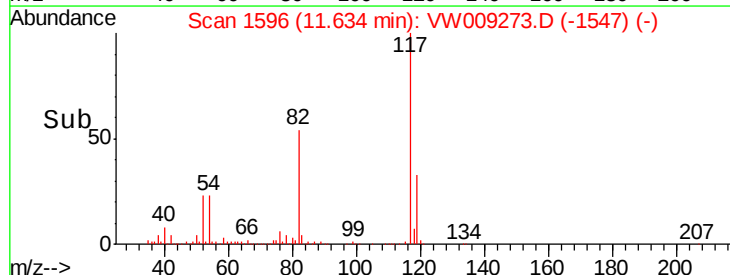
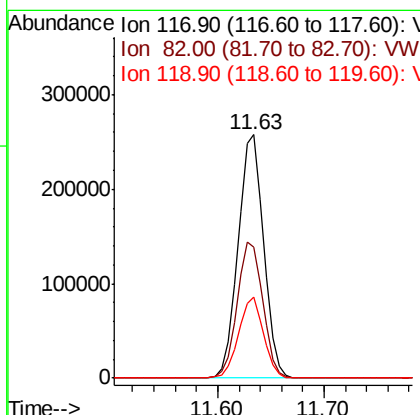
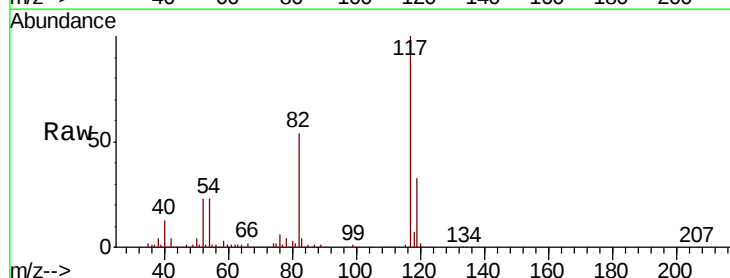
Instrument :  
MSVOA\_W  
ClientSampleId :  
20190146-COMPOSITE-E

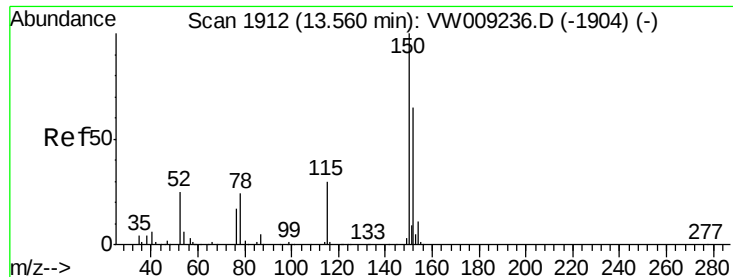
Tot Ion: 95 Resp: 204332  
Ion Ratio Lower Upper  
95 100  
174 84.6 0.0 168.4  
176 80.0 0.0 161.6



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.63 min Scan# 1596  
Delta R.T. 0.00 min  
Lab File: VW009273.D  
Acq: 20 Mar 2019 07:47

Tgt Ion: 117 Resp: 435073  
Ion Ratio Lower Upper  
117 100  
82 53.6 43.6 65.4  
119 33.0 26.0 39.0





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.56 min Scan# 1912

Delta R.T. 0.00 min

Lab File: VW009273.D

Acq: 20 Mar 2019 07:47

Instrument :

MSVOA\_W

ClientSampleId :

20190146-COMPOSITE-E

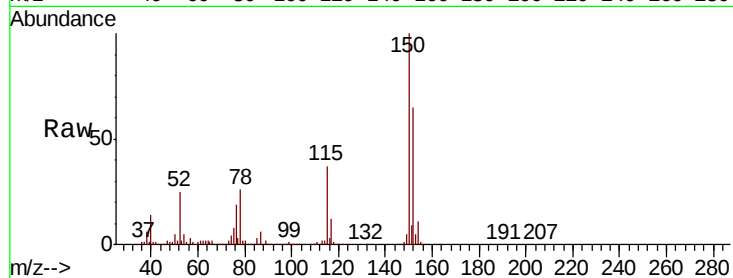
Tot Ion:152 Resp: 212615

Ion Ratio Lower Upper

152 100

115 58.1 29.6 88.8

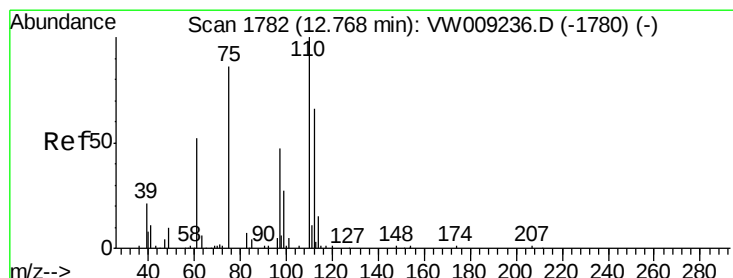
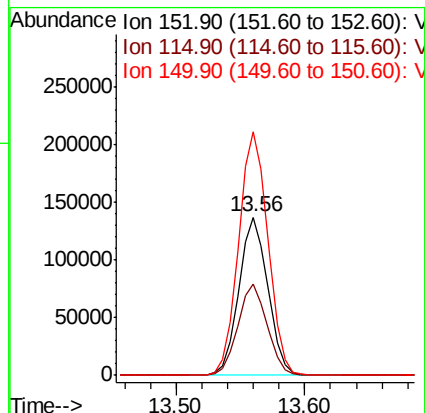
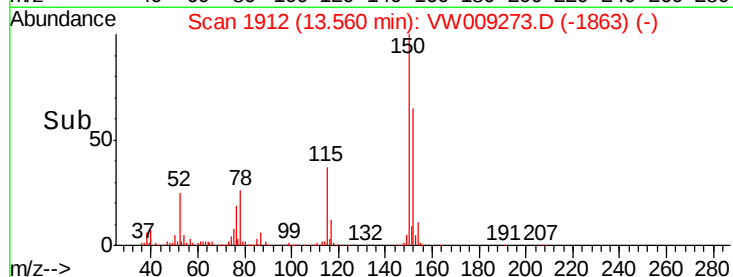
150 155.8 0.0 349.2



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



#76

1,2,3-Trichloropropane

Concen: 56.602 ug/l

RT: 12.62 min Scan# 1758

Delta R.T. -0.15 min

Lab File: VW009273.D

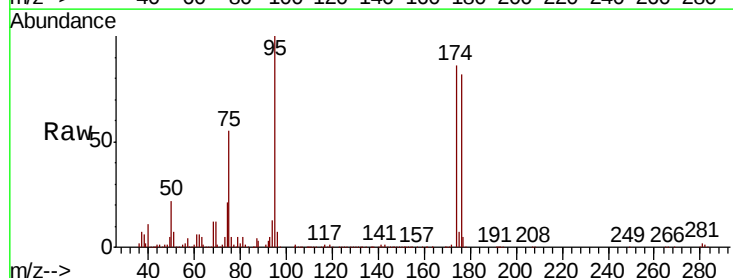
Acq: 20 Mar 2019 07:47

Tgt Ion: 75 Resp: 113092

Ion Ratio Lower Upper

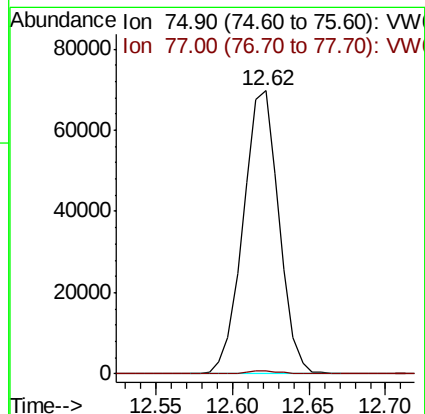
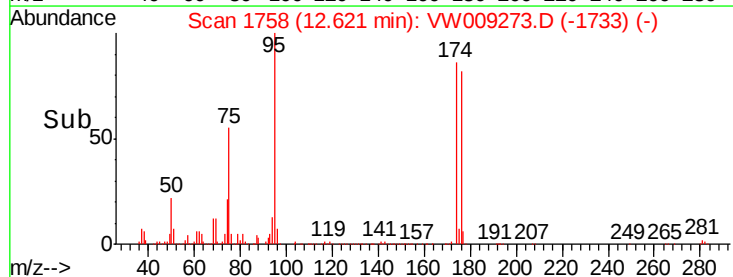
75 100

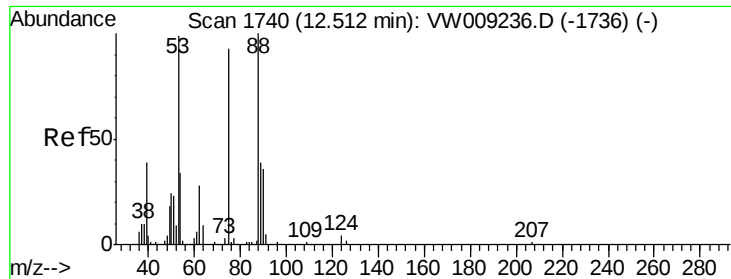
77 1.2 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 77.00 (76.70 to 77.70): VW





#81

trans-1,4-Dichloro-2-butene

Concen: 138.887 ug/l

RT: 12.62 min Scan# 1758

Delta R.T. 0.11 min

Lab File: VW009273.D

Acq: 20 Mar 2019 07:47

Instrument :

MSVOA\_W

ClientSampleId :

20190146-COMPOSITE-E

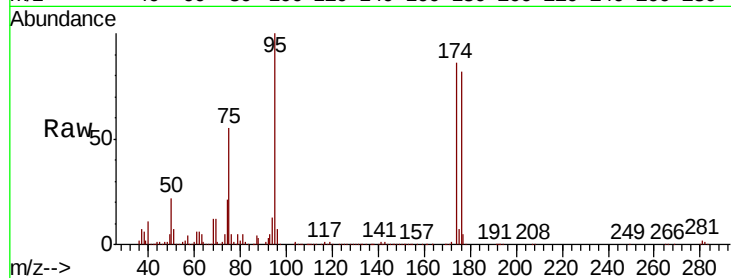
Tot Ion: 75 Resp: 113092

Ion Ratio Lower Upper

75 100

53 0.3 86.7 130.1#

89 0.0 36.4 54.6#



Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 53.00 (52.70 to 53.70): VW

Ion 88.90 (88.60 to 89.60): VW

