

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN101518\  
 Data File : VN051877.D  
 Acq On : 15 Oct 2018 16:24  
 Operator : MD\SY  
 Sample : J5510-01DL 5X  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 17 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Oct 16 00:47:38 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N101218W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Oct 12 10:23:44 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 7.20  | 128  | 128357   | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 8.59  | 114  | 709086   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 11.41 | 117  | 593138   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4 | 8.03   | 65    | 240002   | 30.73    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 50 - 169 | Recovery | =    | 102.43% |
| 60) 4-Bromofluorobenzene  | 12.40  | 95    | 208453   | 24.37    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 56 - 143 | Recovery | =    | 81.23%  |
| 63) Toluene-d8            | 10.09  | 98    | 814279   | 31.62    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 66 - 137 | Recovery | =    | 105.40% |

## Target Compounds

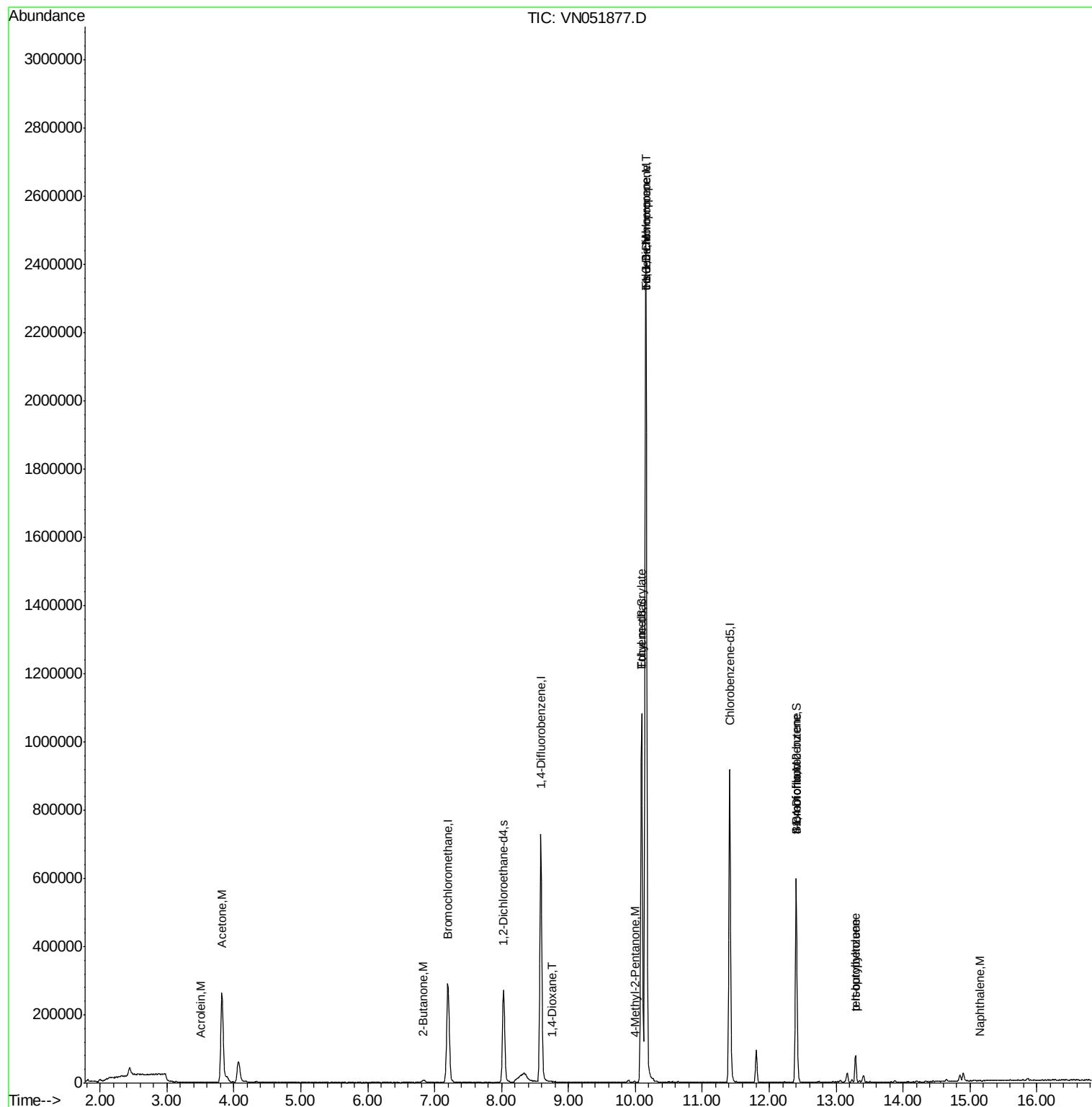
|                             |       |     |         |         | Ovalue |    |
|-----------------------------|-------|-----|---------|---------|--------|----|
| 13) Acrolein                | 3.51  | 56  | 75      | 0.310   | ug/l # | 26 |
| 15) Acetone                 | 3.82  | 58  | 145854  | 359.740 | ug/l   | 94 |
| 30) 2-Butanone              | 6.84  | 43  | 804     | 0.421   | ug/l # | 83 |
| 45) 1,4-Dioxane             | 8.76  | 88  | 151     | 2.270   | ug/l # | 1  |
| 48) t-1,3-Dichloropropene   | 10.16 | 75  | 14012   | 1.472   | ug/l # | 1  |
| 49) cis-1,3-Dichloropropene | 10.16 | 75  | 14012   | 1.335   | ug/l # | 1  |
| 51) Ethyl methacrylate      | 10.10 | 69  | 2273    | 0.304   | ug/l # | 74 |
| 56) Bromoform               | 12.41 | 173 | 1942    | 0.365   | ug/l # | 1  |
| 58) 4-Methyl-2-Pentanone    | 9.99  | 43  | 2303    | 0.580   | ug/l # | 78 |
| 62) Toluene                 | 10.16 | 91  | 2097091 | 71.169  | ug/l   | 99 |
| 77) t-1,4-Dichloro-2-butene | 12.40 | 75  | 102683  | 57.577  | ug/l # | 12 |
| 79) tert-butylbenzene       | 13.29 | 119 | 45009   | 1.705   | ug/l   | 60 |
| 82) p-Isopropyltoluene      | 13.29 | 119 | 45009   | 1.457   | ug/l   | 99 |
| 91) Naphthalene             | 15.13 | 128 | 410     | 8.554   | ug/l # | 70 |

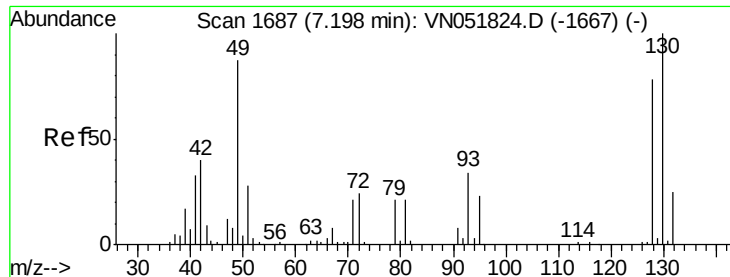
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA N\METHODS\624N101218W.M  
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QLast Update : Fri Oct 12 10:23:44 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 30.000 ug/l

RT: 7.20 min Scan# 1687

Delta R.T. 0.00 min

Lab File: VN051877.D

Acq: 15 Oct 2018 16:24

Instrument :  
MSVOA\_N  
ClientSampleId :

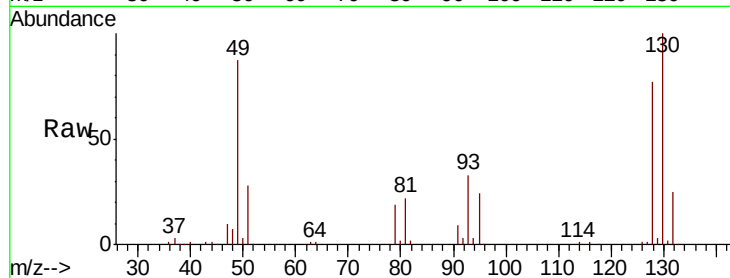
Tot Ion:128 Resp: 128357

Ion Ratio Lower Upper

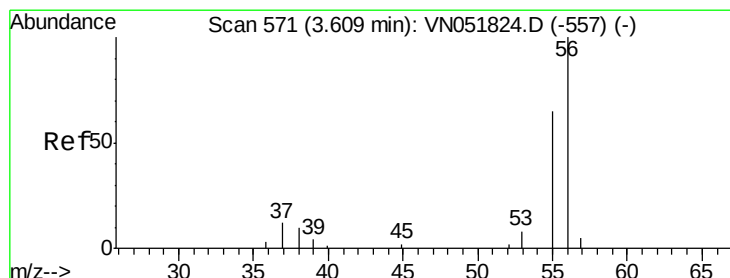
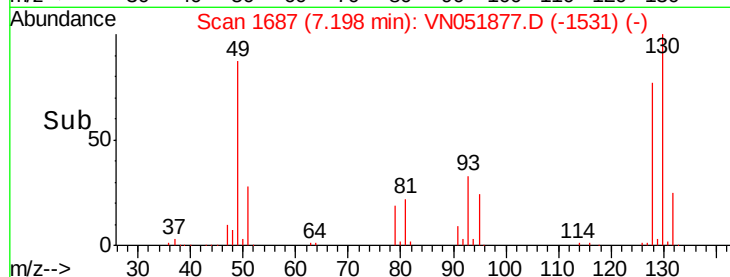
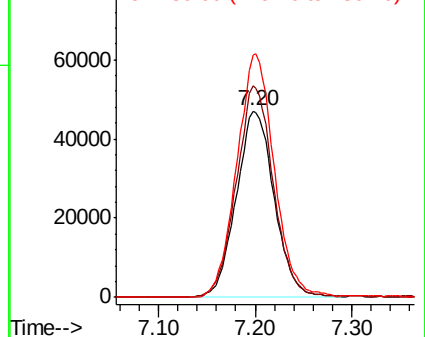
128 100

49 111.1 0.0 403.3

130 128.7 0.0 326.0



Abundance Ion 128.00 (127.70 to 128.70): V  
Ion 49.00 (48.70 to 49.70): V  
Ion 130.00 (129.70 to 130.70): V



#13

Acrolein

Concen: 0.310 ug/l

RT: 3.51 min Scan# 539

Delta R.T. -0.10 min

Lab File: VN051877.D

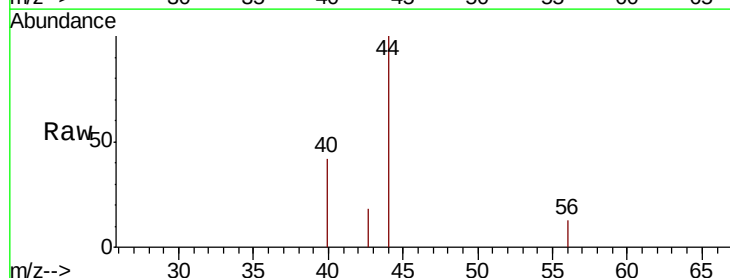
Acq: 15 Oct 2018 16:24

Tgt Ion: 56 Resp: 75

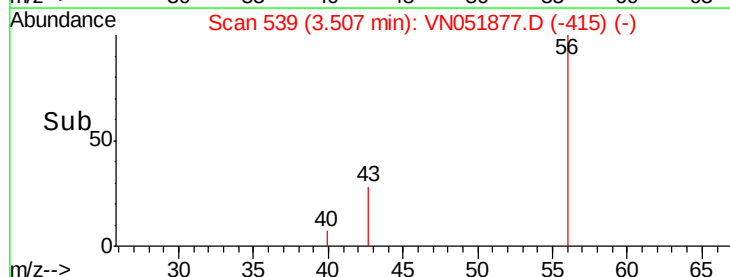
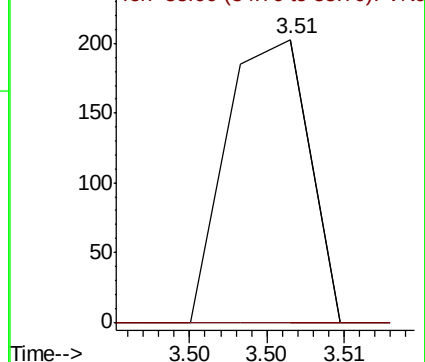
Ion Ratio Lower Upper

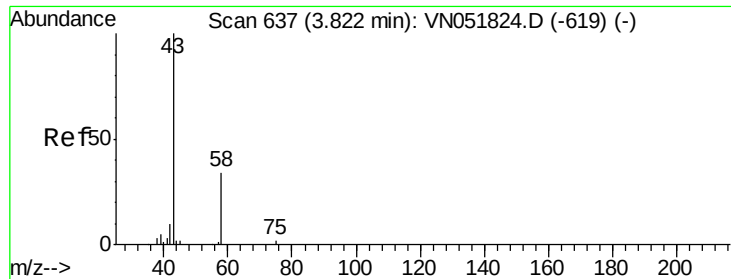
56 100

55 145.3 64.0 96.0#



Abundance Ion 56.00 (55.70 to 56.70): V  
Ion 55.00 (54.70 to 55.70): V





#15

Acetone

Concen: 359.740 ug/l

RT: 3.82 min Scan# 637

Delta R.T. 0.00 min

Lab File: VN051877.D

Acq: 15 Oct 2018 16:24

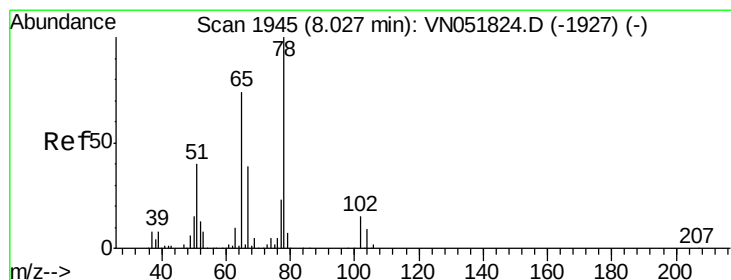
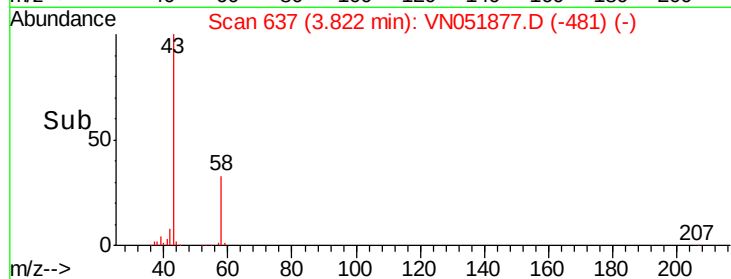
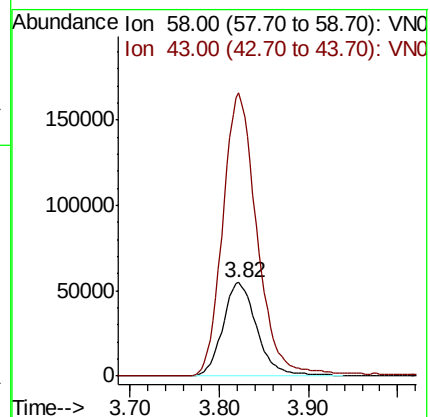
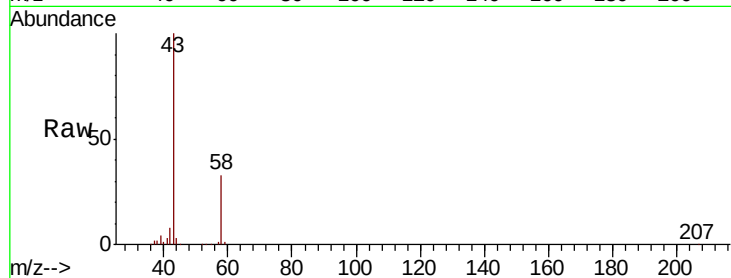
Instrument :  
MSVOA\_N  
ClientSampled :

Tot Ion: 58 Resp: 145854

Ion Ratio Lower Upper

58 100

43 301.5 232.2 348.2



#27

1,2-Dichloroethane-d4

Concen: Below ug/l

RT: 8.03 min Scan# 1946

Delta R.T. 0.00 min

Lab File: VN051877.D

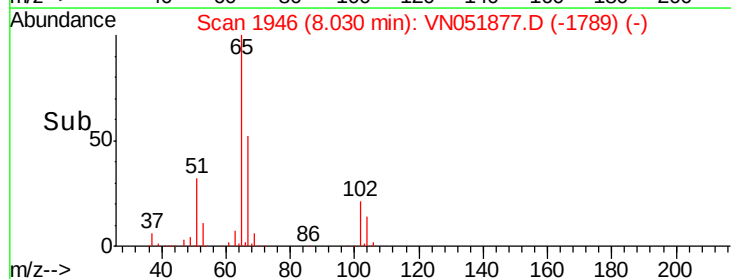
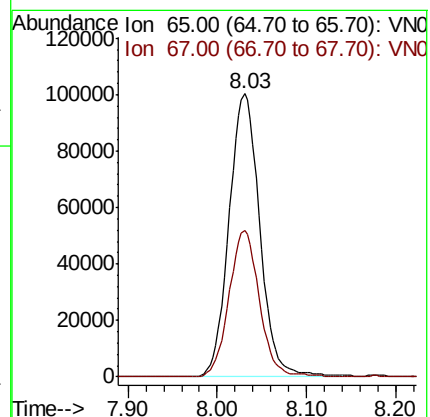
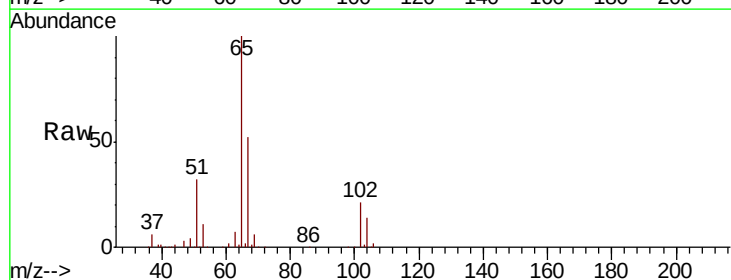
Acq: 15 Oct 2018 16:24

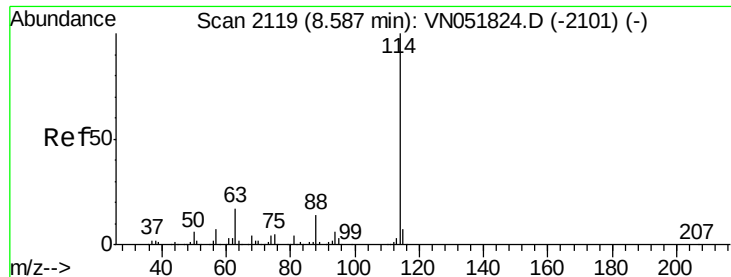
Tgt Ion: 65 Resp: 240002

Ion Ratio Lower Upper

65 100

67 50.4 41.8 62.8

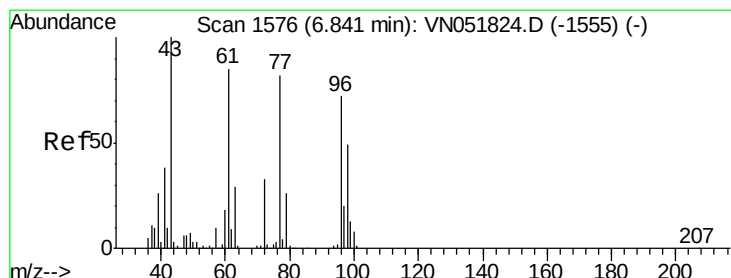
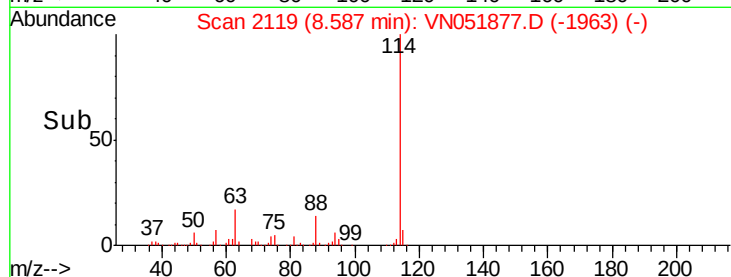
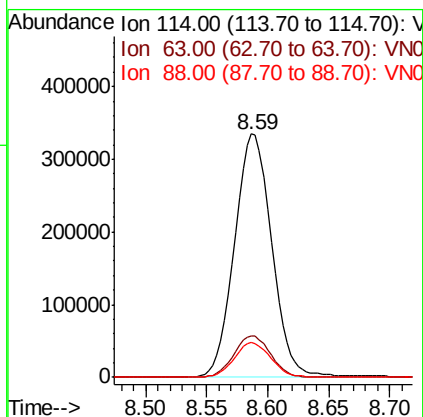
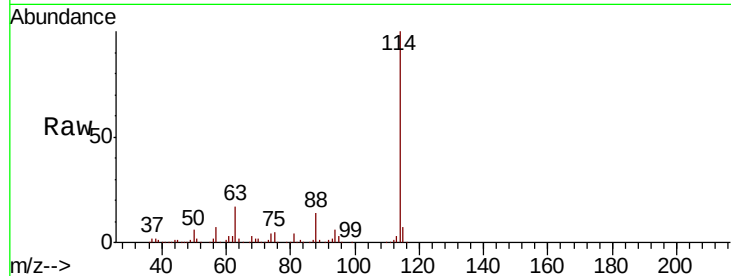




#28  
 1,4-Difluorobenzene  
 Concen: 30.000 ug/l  
 RT: 8.59 min Scan# 2119  
 Delta R.T. 0.00 min  
 Lab File: VN051877.D  
 Acq: 15 Oct 2018 16:24

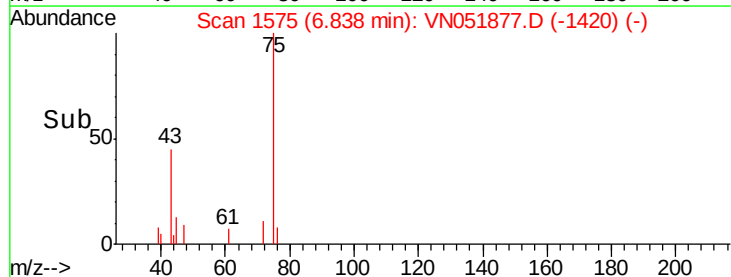
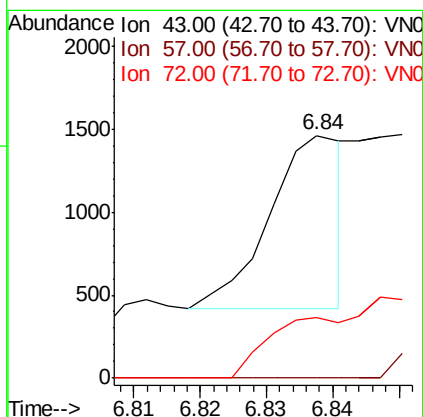
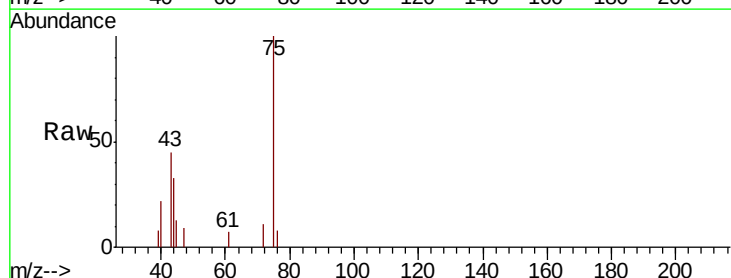
Instrument :  
 MSVOA\_N  
 ClientSampleId :

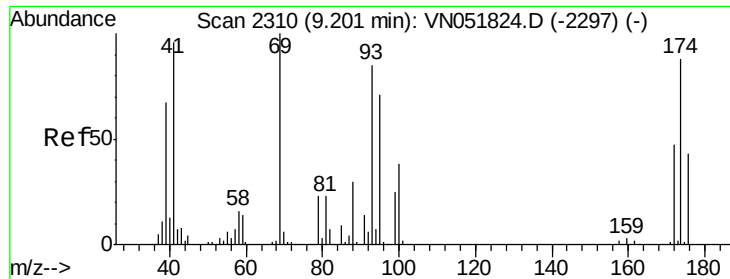
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 16.9  | 16.2  | 24.2  |
| 88      | 14.2  | 12.2  | 18.4  |



#30  
 2-Butanone  
 Concen: 0.421 ug/l  
 RT: 6.84 min Scan# 1575  
 Delta R.T. -0.00 min  
 Lab File: VN051877.D  
 Acq: 15 Oct 2018 16:24

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 57      | 0.0   | 4.5   | 6.7#  |
| 72      | 35.6  | 21.5  | 32.3# |

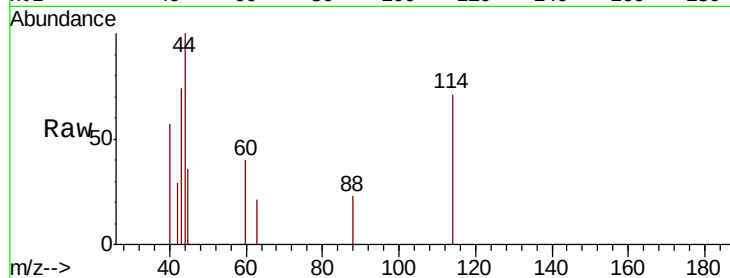




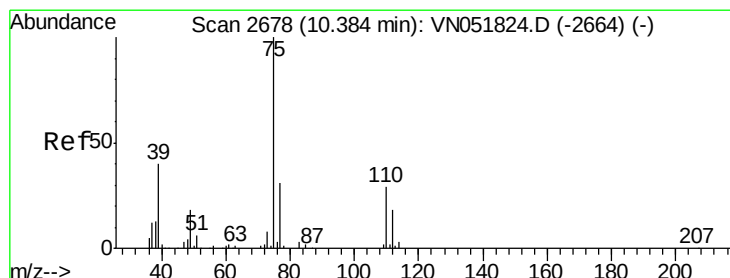
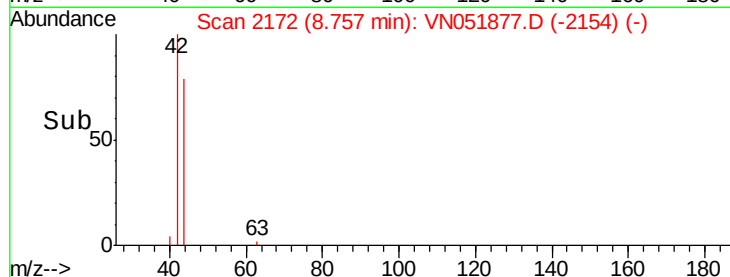
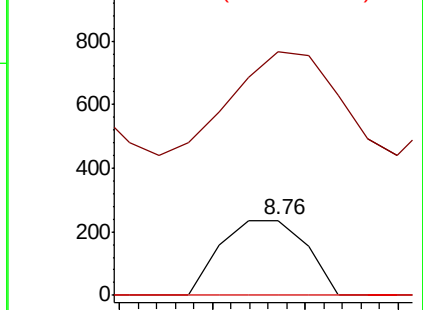
#45  
 1,4-Dioxane  
 Concen: 2.270 ug/l  
 RT: 8.76 min Scan# 2172  
 Delta R.T. -0.44 min  
 Lab File: VN051877.D  
 Acq: 15 Oct 2018 16:24

Instrument :  
 MSVOA\_N  
 ClientSampled :

Tot Ion: 88 Resp: 151  
 Ion Ratio Lower Upper  
 88 100  
 43 166.2 26.2 39.2#  
 58 0.0 65.6 98.4#

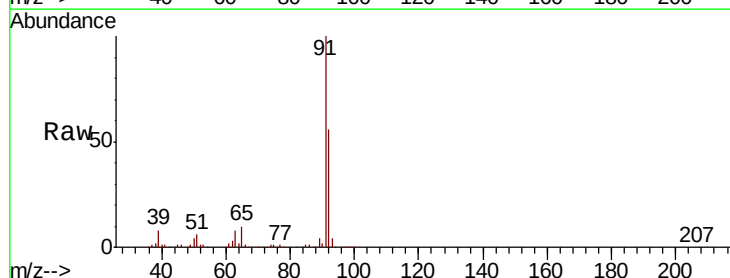


Abundance Ion 88.00 (87.70 to 88.70): VN0  
 Ion 43.00 (42.70 to 43.70): VN0  
 Ion 58.00 (57.70 to 58.70): VN0

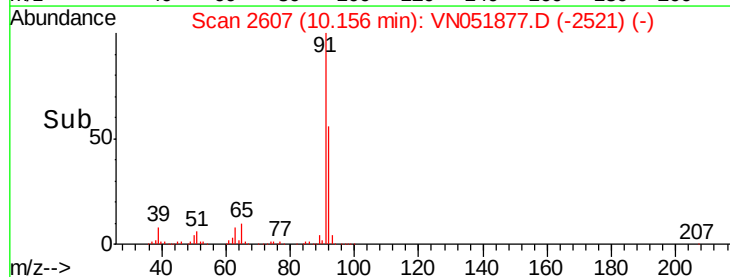
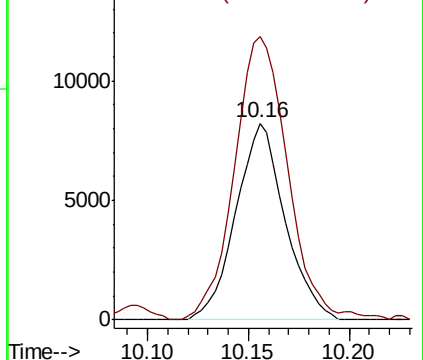


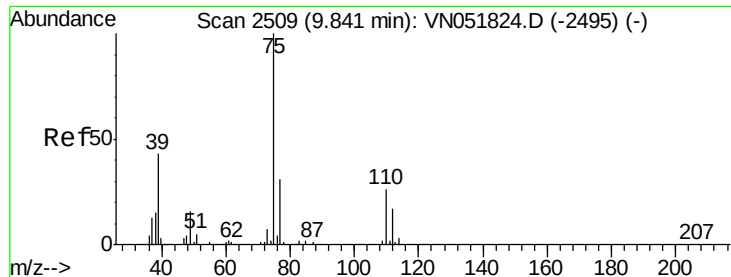
#48  
 t-1,3-Dichloropropene  
 Concen: 1.472 ug/l  
 RT: 10.16 min Scan# 2607  
 Delta R.T. -0.22 min  
 Lab File: VN051877.D  
 Acq: 15 Oct 2018 16:24

Tgt Ion: 75 Resp: 14012  
 Ion Ratio Lower Upper  
 75 100  
 77 141.8 24.6 37.0#



Abundance Ion 75.00 (74.70 to 75.70): VN0  
 Ion 77.00 (76.70 to 77.70): VN0





#49

cis-1,3-Dichloropropene

Concen: 1.335 ug/l

RT: 10.16 min Scan# 2607

Delta R.T. 0.32 min

Lab File: VN051877.D

Acq: 15 Oct 2018 16:24

Instrument :

MSVOA\_N

ClientSampleId :

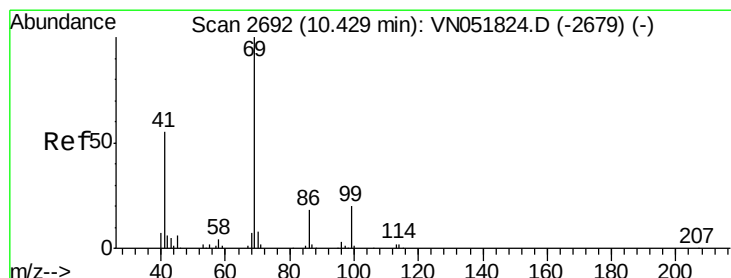
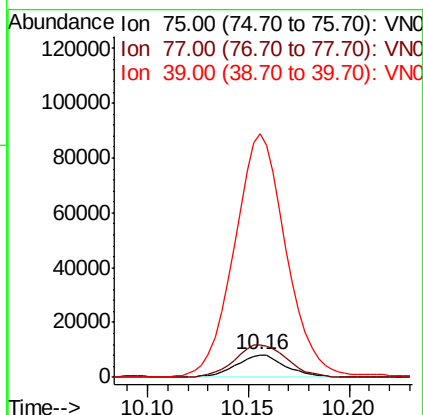
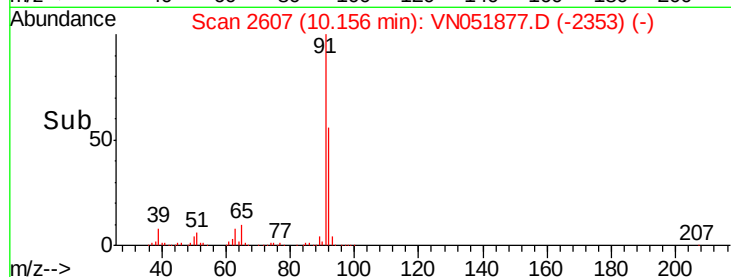
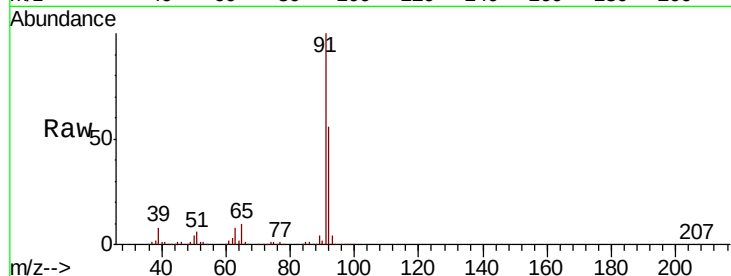
Tot Ion: 75 Resp: 14012

Ion Ratio Lower Upper

75 100

77 141.8 23.2 34.8#

39 1061.6 34.6 52.0#



#51

Ethyl methacrylate

Concen: 0.304 ug/l

RT: 10.10 min Scan# 2589

Delta R.T. -0.33 min

Lab File: VN051877.D

Acq: 15 Oct 2018 16:24

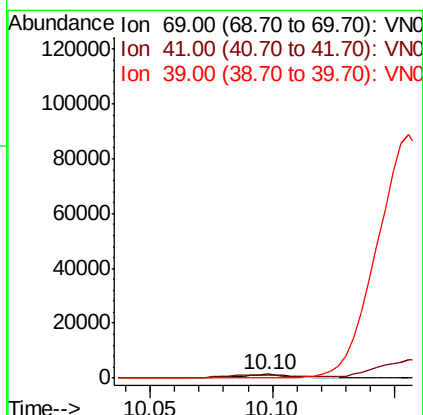
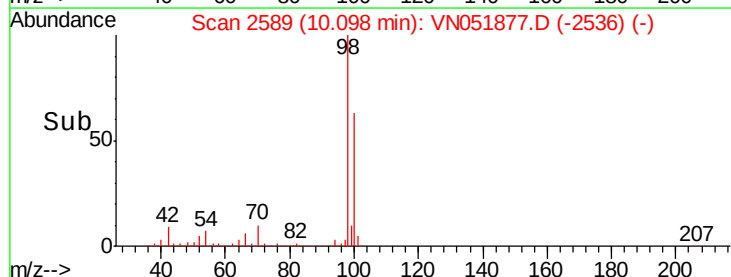
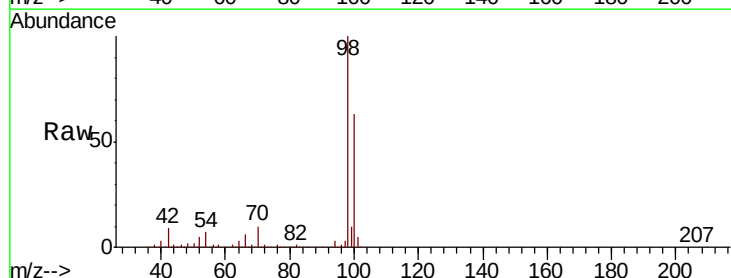
Tgt Ion: 69 Resp: 2273

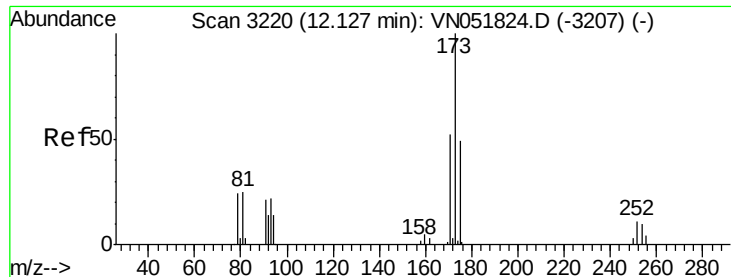
Ion Ratio Lower Upper

69 100

41 53.0 34.4 103.1

39 10.1 16.3 48.8#





#56

Bromoform

Concen: 0.365 ug/l

RT: 12.41 min Scan# 3307

Delta R.T. 0.28 min

Lab File: VN051877.D

Acq: 15 Oct 2018 16:24

Instrument :

MSVOA\_N

ClientSampleId :

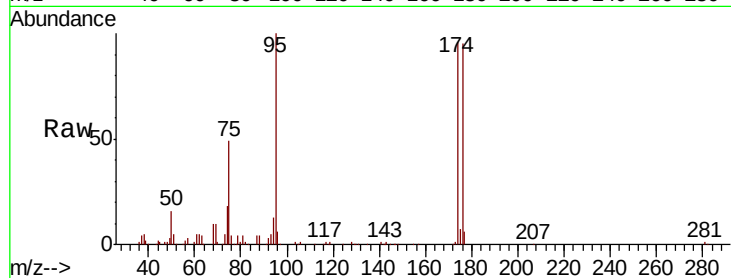
Tot Ion:173 Resp: 1942

Ion Ratio Lower Upper

173 100

175 754.2 35.8 53.8#

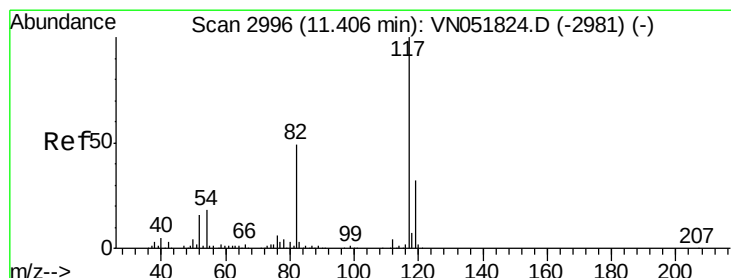
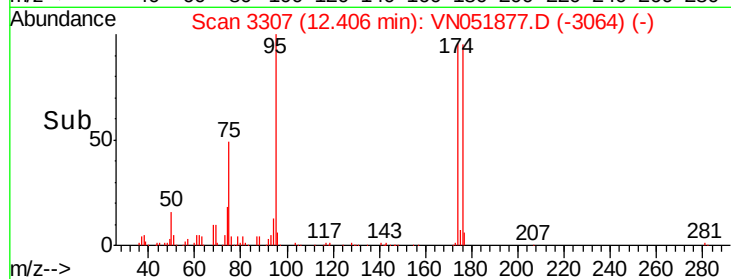
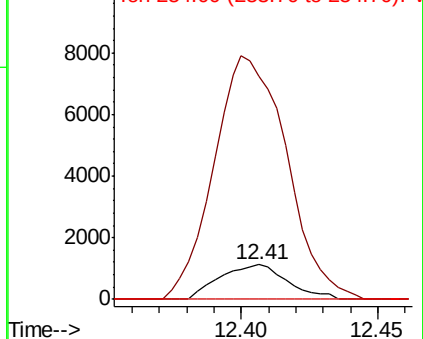
254 0.0 8.6 13.0#



Abundance Ion 173.00 (172.70 to 173.70): V

Ion 175.00 (174.70 to 175.70): V

Ion 254.00 (253.70 to 254.70): V



#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 11.41 min Scan# 2997

Delta R.T. 0.00 min

Lab File: VN051877.D

Acq: 15 Oct 2018 16:24

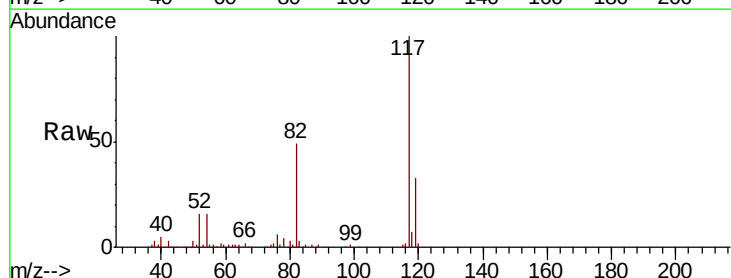
Tgt Ion:117 Resp: 593138

Ion Ratio Lower Upper

117 100

82 49.8 44.1 66.1

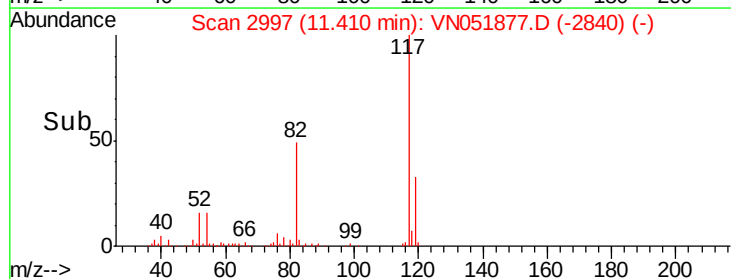
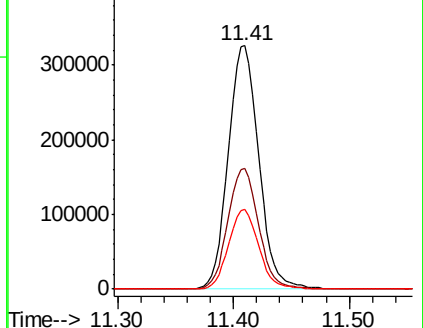
119 32.3 25.8 38.8



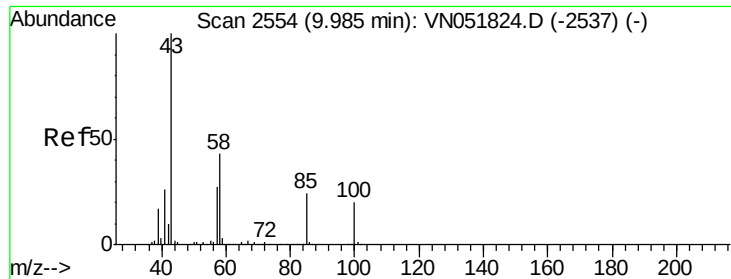
Abundance Ion 117.00 (116.70 to 117.70): V

Ion 82.00 (81.70 to 82.70): V

Ion 119.00 (118.70 to 119.70): V



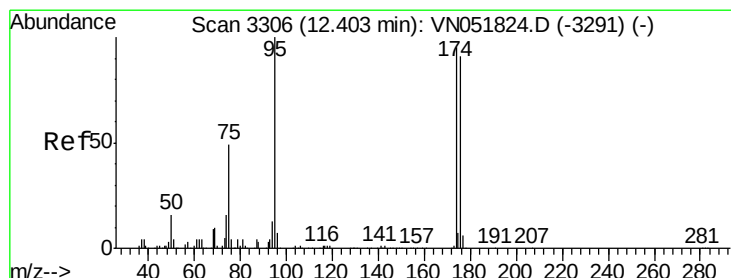
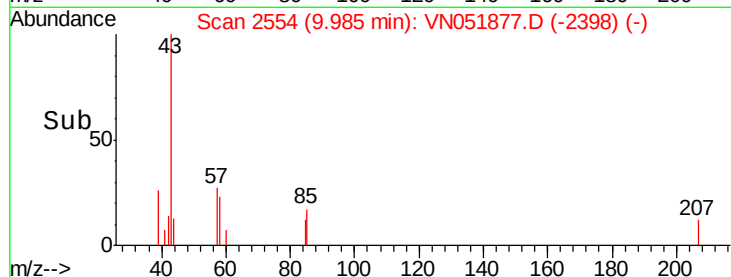
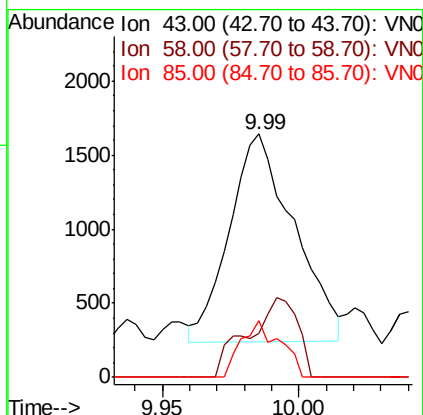
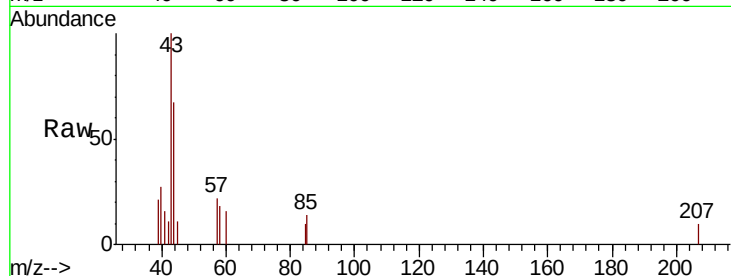




#58  
4-Methyl-2-Pentanone  
Concen: 0.580 ug/l  
RT: 9.99 min Scan# 2554  
Delta R.T. 0.00 min  
Lab File: VN051877.D  
Acq: 15 Oct 2018 16:24

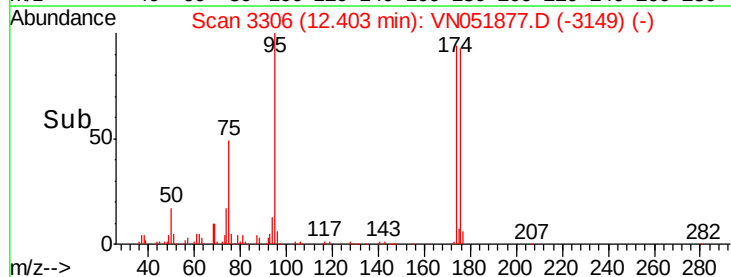
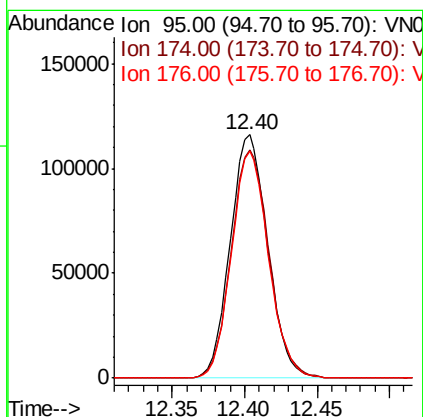
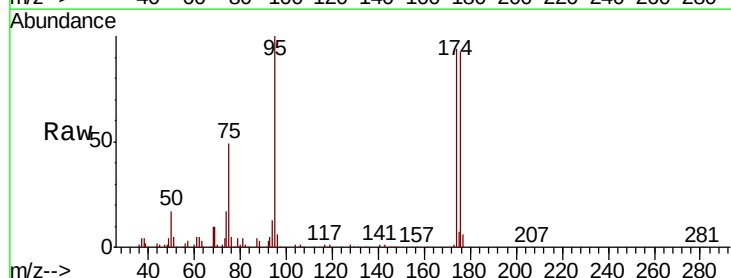
Instrument :  
MSVOA\_N  
ClientSampleId :

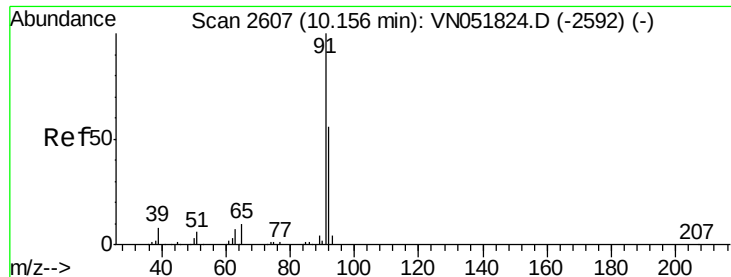
Tot Ion: 43 Resp: 2303  
Ion Ratio Lower Upper  
43 100  
58 20.8 29.3 43.9#  
85 11.0 12.6 18.8#



#60  
4-Bromofluorobenzene  
Concen: Below ug/l  
RT: 12.40 min Scan# 3306  
Delta R.T. 0.00 min  
Lab File: VN051877.D  
Acq: 15 Oct 2018 16:24

Tgt Ion: 95 Resp: 208453  
Ion Ratio Lower Upper  
95 100  
174 95.0 73.5 110.3  
176 92.3 70.2 105.2





#62

Toluene

Concen: 71.169 ug/l

RT: 10.16 min Scan# 2607

Delta R.T. 0.00 min

Lab File: VN051877.D

Acq: 15 Oct 2018 16:24

Instrument :

MSVOA\_N

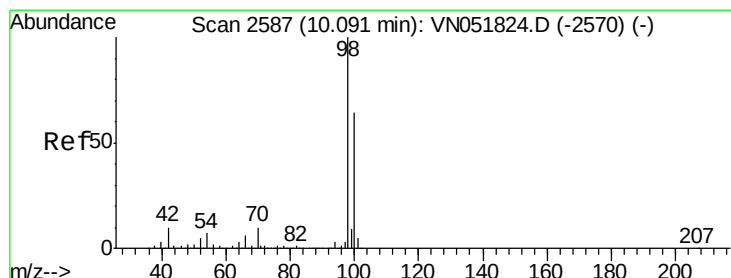
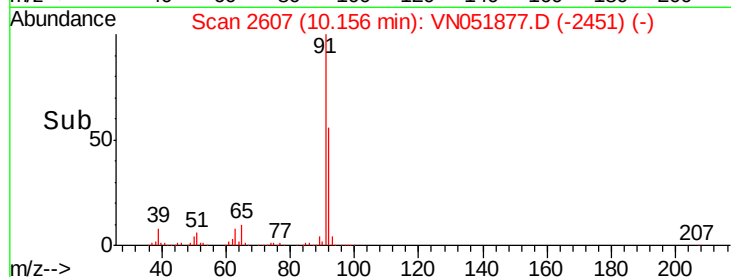
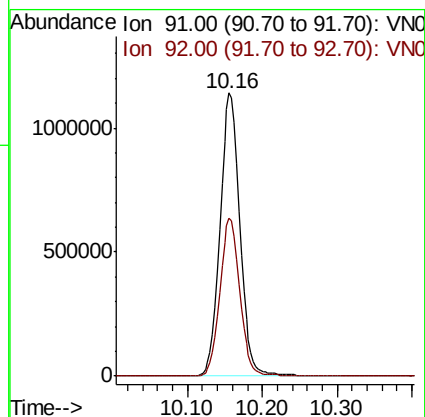
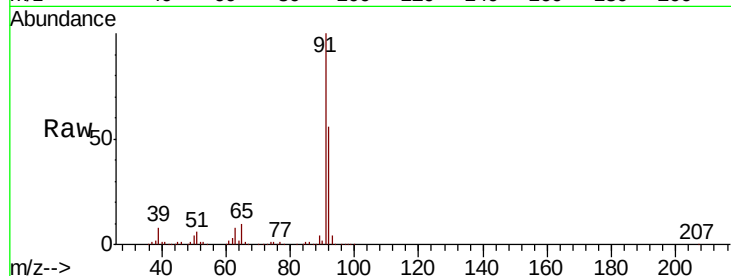
ClientSampled :

Tot Ion: 91 Resp: 2097091

Ion Ratio Lower Upper

91 100

92 56.2 44.6 66.8



#63

Toluene-d8

Concen: 71.169 ug/l

RT: 10.09 min Scan# 2587

Delta R.T. 0.00 min

Lab File: VN051877.D

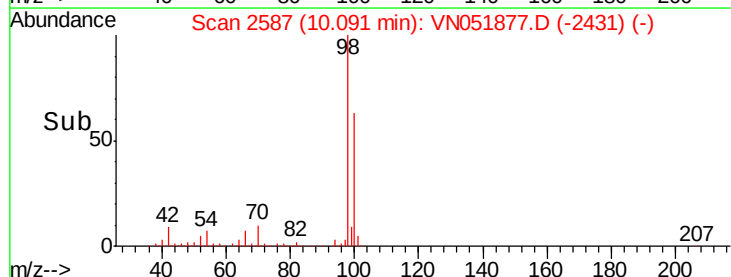
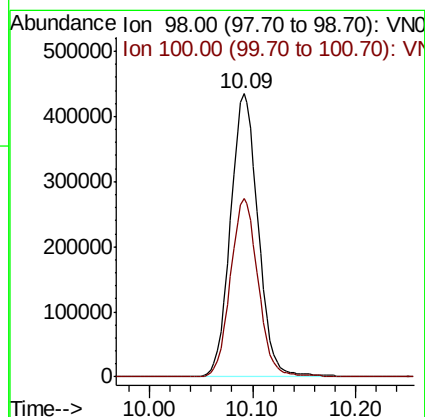
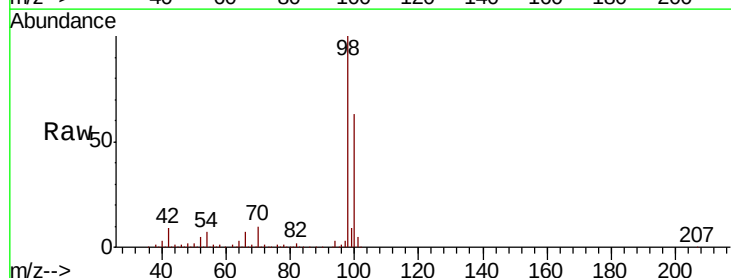
Acq: 15 Oct 2018 16:24

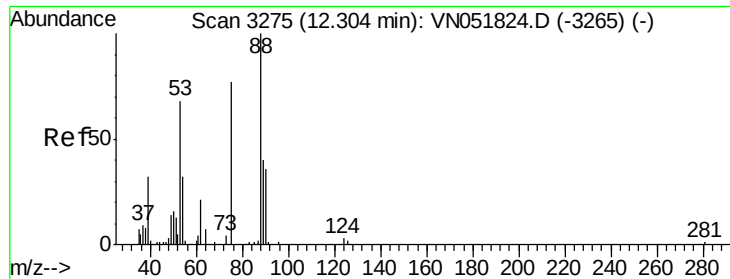
Tgt Ion: 98 Resp: 814279

Ion Ratio Lower Upper

98 100

100 62.9 50.8 76.2

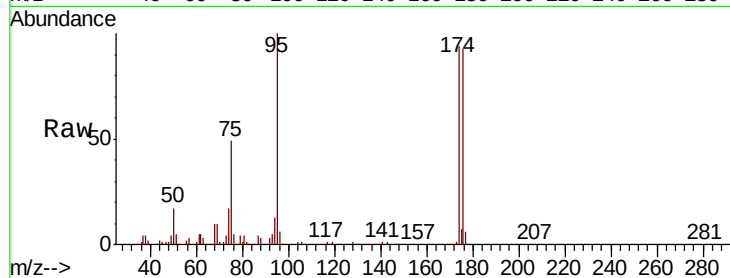




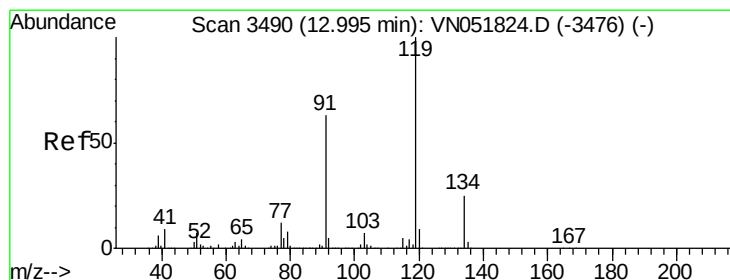
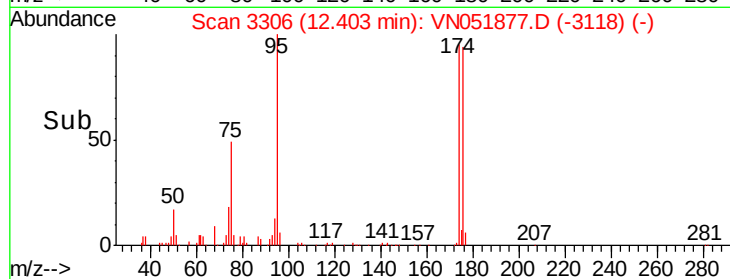
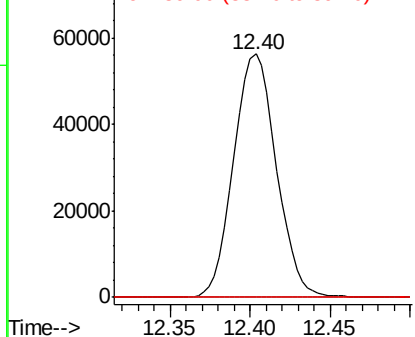
#77  
 t-1,4-Dichloro-2-butene  
 Concen: 57.577 ug/l  
 RT: 12.40 min Scan# 3306  
 Delta R.T. 0.10 min  
 Lab File: VN051877.D  
 Acq: 15 Oct 2018 16:24

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Tot Ion: 75 Resp: 102683  
 Ion Ratio Lower Upper  
 75 100  
 53 0.0 46.3 138.9#  
 89 0.0 24.6 73.8#

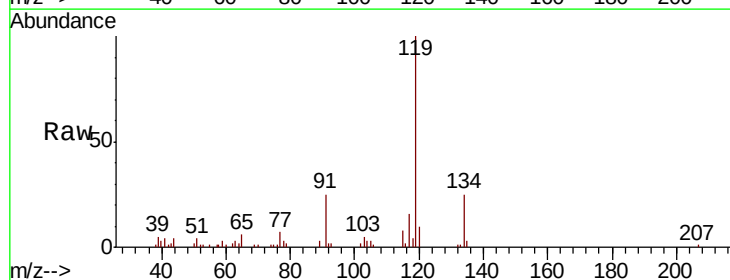


Abundance Ion 75.00 (74.70 to 75.70): VN0  
 Ion 53.00 (52.70 to 53.70): VN0  
 Ion 89.00 (88.70 to 89.70): VN0

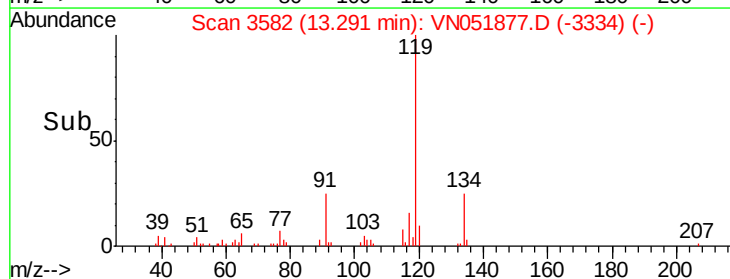
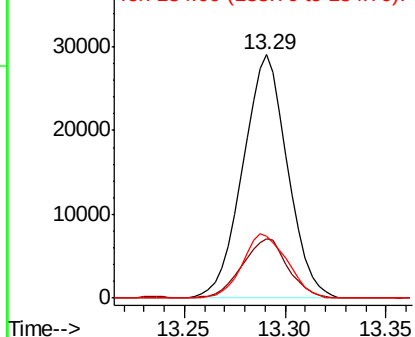


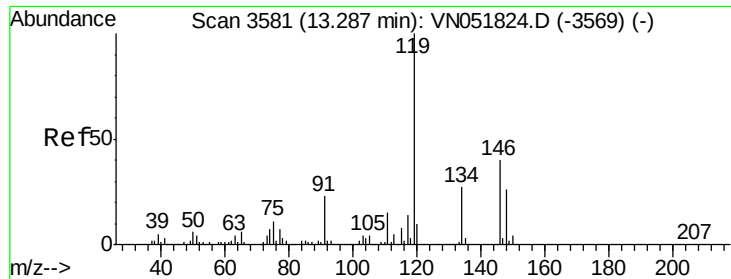
#79  
 tert-butylbenzene  
 Concen: 1.705 ug/l  
 RT: 13.29 min Scan# 3582  
 Delta R.T. 0.30 min  
 Lab File: VN051877.D  
 Acq: 15 Oct 2018 16:24

Tgt Ion: 119 Resp: 45009  
 Ion Ratio Lower Upper  
 119 100  
 91 25.0 0.0 131.6  
 134 26.3 0.0 46.2



Abundance Ion 119.00 (118.70 to 119.70): V  
 Ion 91.00 (90.70 to 91.70): VN0  
 Ion 134.00 (133.70 to 134.70): V

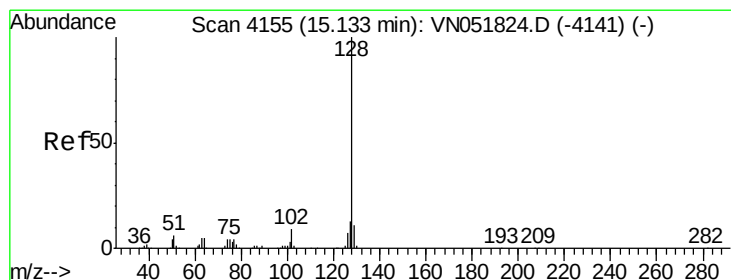
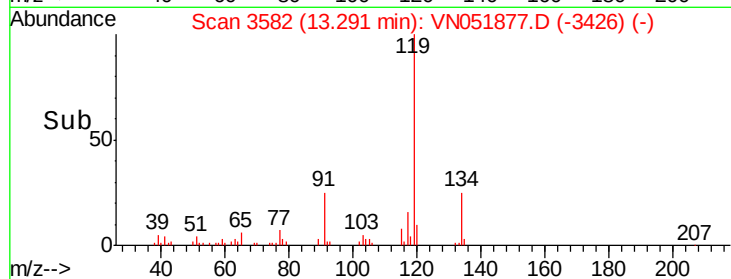
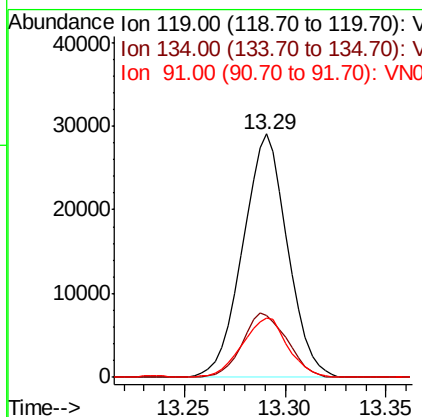
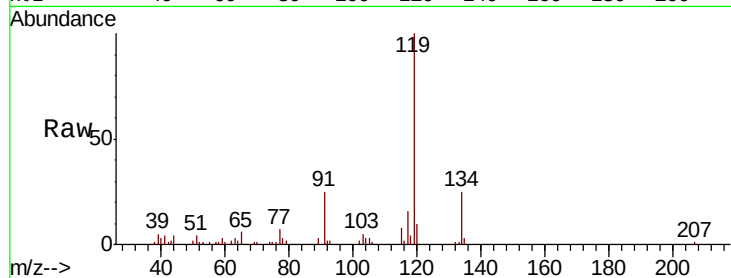




#82  
p-Isopropyltoluene  
Concen: 1.457 ug/l  
RT: 13.29 min Scan# 3582  
Delta R.T. 0.00 min  
Lab File: VN051877.D  
Acq: 15 Oct 2018 16:24

Instrument :  
MSVOA\_N  
ClientSampled :

Tot Ion:119 Resp: 45009  
Ion Ratio Lower Upper  
119 100  
134 26.3 0.0 53.6  
91 25.0 0.0 52.0



#91  
Naphthalene  
Concen: 8.554 ug/l  
RT: 15.13 min Scan# 4155  
Delta R.T. 0.00 min  
Lab File: VN051877.D  
Acq: 15 Oct 2018 16:24

Tgt Ion:128 Resp: 410  
Ion Ratio Lower Upper  
128 100  
127 0.0 10.1 15.1#  
129 0.0 8.4 12.6#

