

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN041520\  
 Data File : VN060957.D  
 Acq On : 15 Apr 2020 13:36  
 Operator : JC/MD  
 Sample : L2230-66  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Apr 16 06:33:24 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N031820W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Mar 18 08:49:09 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.64  | 168  | 152432   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.56  | 114  | 258815   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.40 | 117  | 242225   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 107249   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc   | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|--------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.00  | 65   | 101652   | 48.58  | ug/l    | 0.00     |
| Spiked Amount               |       |      |          | 50.000 |         |          |
|                             |       |      | Recovery | =      | 97.16%  |          |
| 35) Dibromofluoromethane    | 7.56  | 113  | 76502    | 48.88  | ug/l    | 0.00     |
| Spiked Amount               |       |      |          | 50.000 |         |          |
|                             |       |      | Recovery | =      | 97.76%  |          |
| 50) Toluene-d8              | 10.08 | 98   | 320621   | 50.16  | ug/l    | 0.00     |
| Spiked Amount               |       |      |          | 50.000 |         |          |
|                             |       |      | Recovery | =      | 100.32% |          |
| 62) 4-Bromofluorobenzene    | 12.40 | 95   | 120507   | 51.44  | ug/l    | 0.00     |
| Spiked Amount               |       |      |          | 50.000 |         |          |
|                             |       |      | Recovery | =      | 102.88% |          |

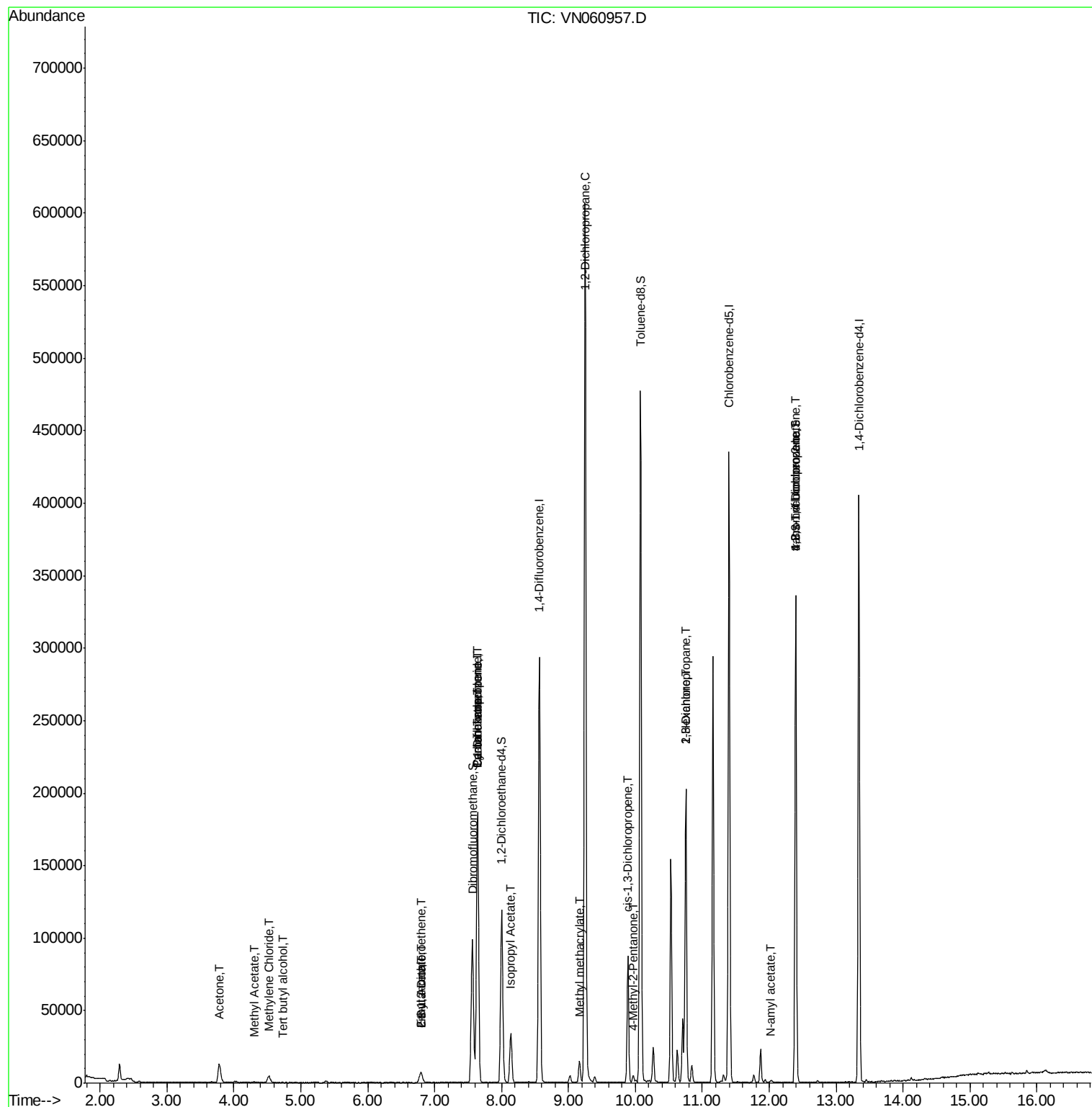
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 11) Tert butyl alcohol         | 4.73  | 59   | 509      | 1.654  | ug/l # | 72     |
| 16) Acetone                    | 3.78  | 43   | 24163    | 32.599 | ug/l   | 100    |
| 18) Methyl Acetate             | 4.30  | 43   | 1438     | 0.689  | ug/l # | 59     |
| 20) Methylene Chloride         | 4.51  | 84   | 1790     | 0.982  | ug/l # | 93     |
| 25) 2-Butanone                 | 6.80  | 43   | 10318    | 8.602  | ug/l   | 93     |
| 27) cis-1,2-Dichloroethene     | 6.79  | 96   | 814      | 0.407  | ug/l   | 93     |
| 31) Cyclohexane                | 7.64  | 56   | 3334     | 0.989  | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.64  | 75   | 12345    | 4.926  | ug/l # | 49     |
| 37) Ethyl Acetate              | 6.80  | 43   | 10318    | 3.810  | ug/l # | 87     |
| 38) Carbon Tetrachloride       | 7.64  | 117  | 14978    | 6.668  | ug/l # | 16     |
| 43) Isopropyl Acetate          | 8.14  | 43   | 41638    | 9.324  | ug/l # | 91     |
| 45) 1,2-Dichloropropane        | 9.25  | 63   | 636      | 0.319  | ug/l # | 43     |
| 48) Methyl methacrylate        | 9.16  | 41   | 2345     | 1.179  | ug/l # | 15     |
| 51) 4-Methyl-2-Pentanone       | 9.97  | 43   | 3411     | 1.342  | ug/l   | 96     |
| 54) cis-1,3-Dichloropropene    | 9.89  | 75   | 15095    | 4.776  | ug/l # | 59     |
| 57) 1,3-Dichloropropane        | 10.75 | 76   | 1995     | 0.654  | ug/l # | 42     |
| 59) 2-Hexanone                 | 10.75 | 43   | 30980    | 16.923 | ug/l # | 53     |
| 74) N-amyl acetate             | 12.02 | 43   | 1635     | 0.440  | ug/l # | 45     |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75   | 61208    | 26.449 | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75   | 61208    | 67.928 | ug/l # | 13     |

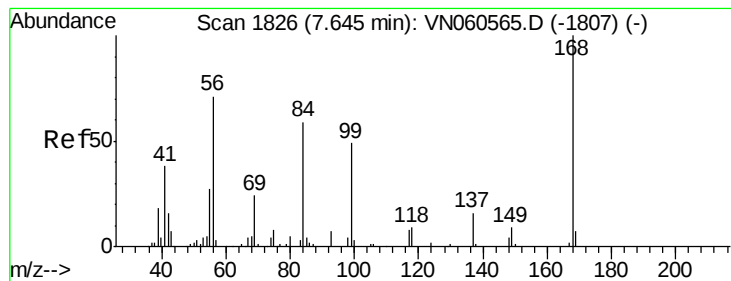
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_N\METHODS\82N031820W.M  
Quant Title : SW846 8260  
QLast Update : Wed Mar 18 08:49:09 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.64 min Scan# 1825

Delta R.T. -0.00 min

Lab File: VN060957.D

Acq: 15 Apr 2020 13:36

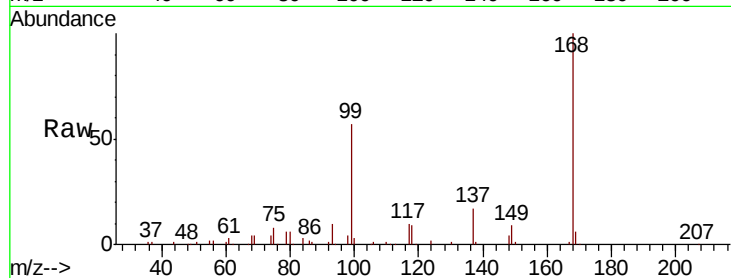
Instrument :  
MSVOA\_N  
ClientSampled :

Tot Ion:168 Resp: 152432

Ion Ratio Lower Upper

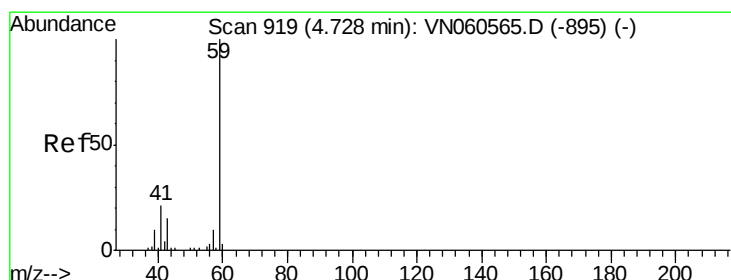
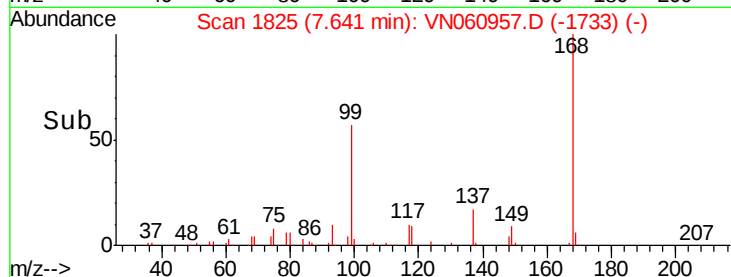
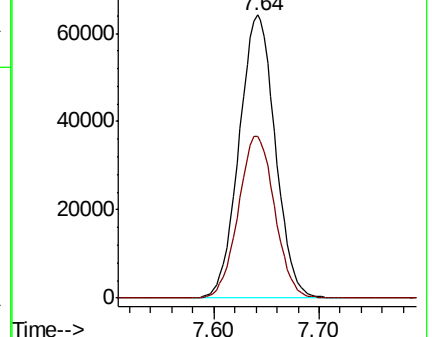
168 100

99 57.3 44.0 66.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN



#11

Tert butyl alcohol

Concen: 1.654 ug/l

RT: 4.73 min Scan# 920

Delta R.T. 0.00 min

Lab File: VN060957.D

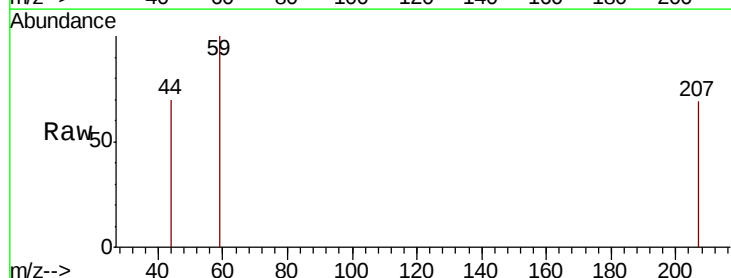
Acq: 15 Apr 2020 13:36

Tgt Ion: 59 Resp: 509

Ion Ratio Lower Upper

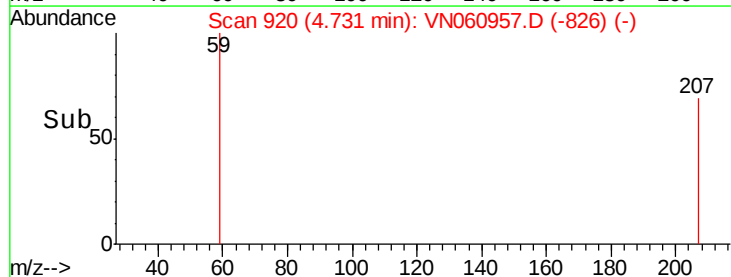
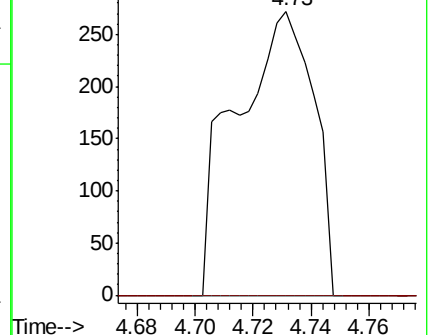
59 100

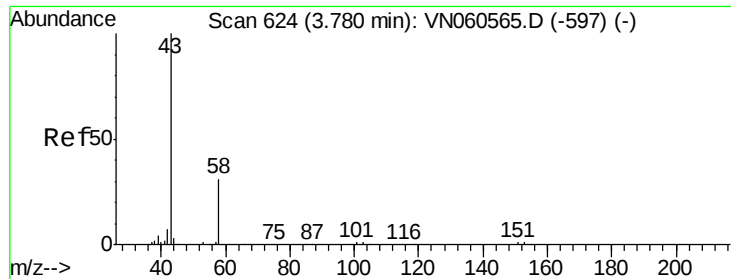
57 0.0 8.2 12.4#



Abundance Ion 59.00 (58.70 to 59.70): VN

Ion 57.00 (56.70 to 57.70): VN





#16

Acetone

Concen: 32.599 ug/l

RT: 3.78 min Scan# 624

Delta R.T. -0.00 min

Lab File: VN060957.D

Acq: 15 Apr 2020 13:36

Instrument :

MSVOA\_N

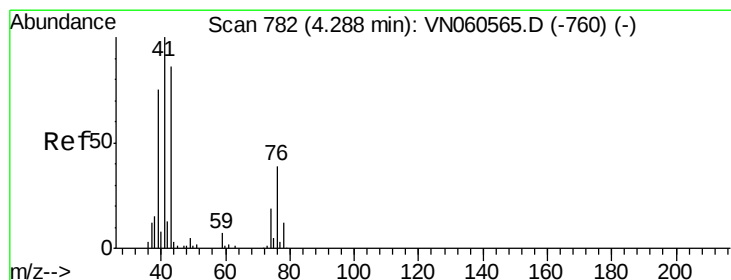
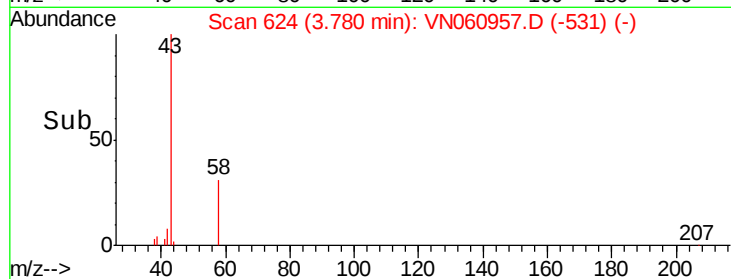
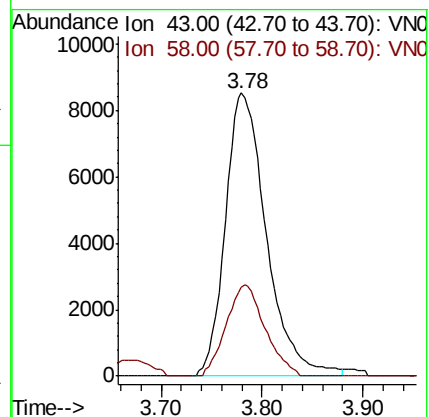
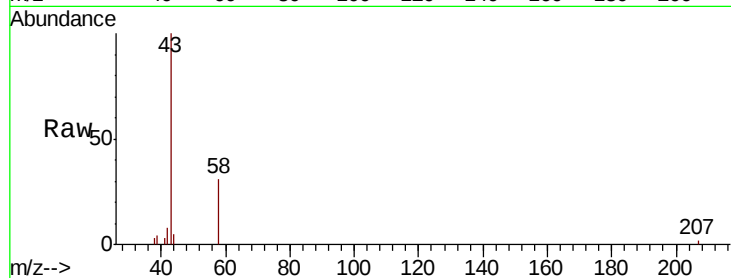
ClientSampleId :

Tot Ion: 43 Resp: 24163

Ion Ratio Lower Upper

43 100

58 31.3 25.1 37.7



#18

Methyl Acetate

Concen: 0.689 ug/l

RT: 4.30 min Scan# 786

Delta R.T. 0.01 min

Lab File: VN060957.D

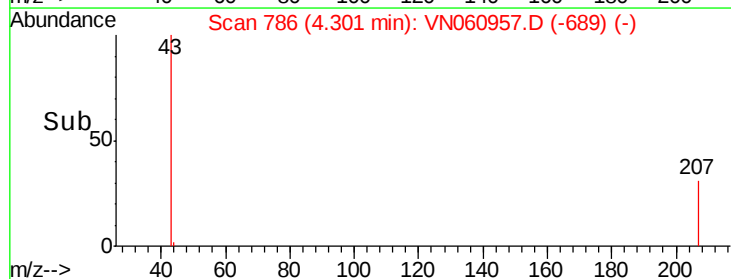
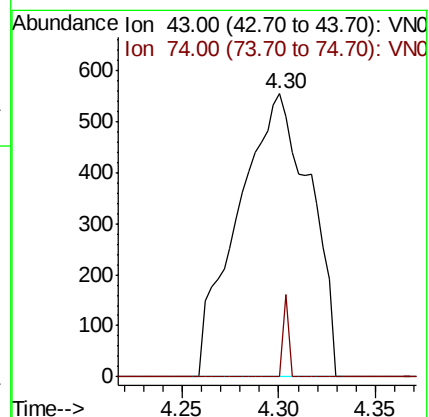
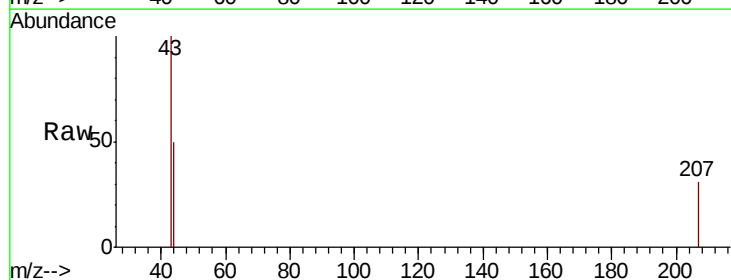
Acq: 15 Apr 2020 13:36

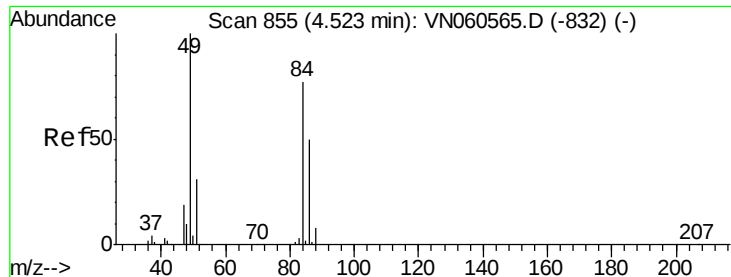
Tgt Ion: 43 Resp: 1438

Ion Ratio Lower Upper

43 100

74 2.2 17.5 26.3#

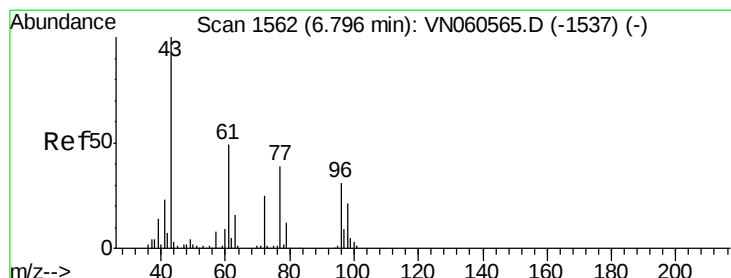
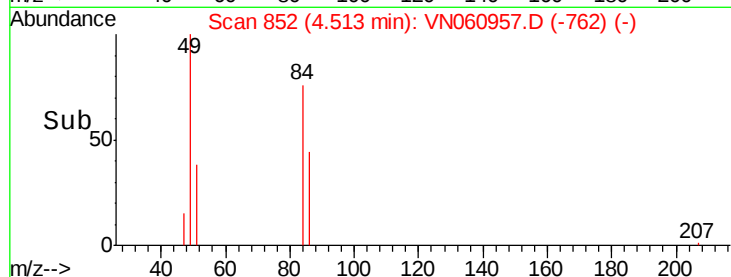
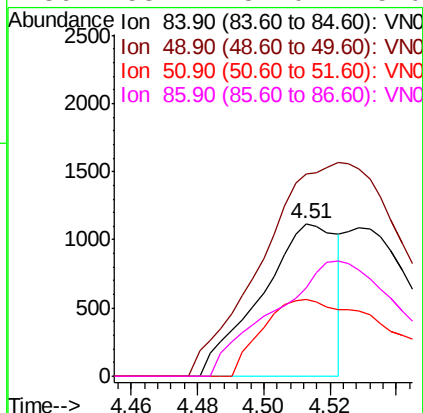
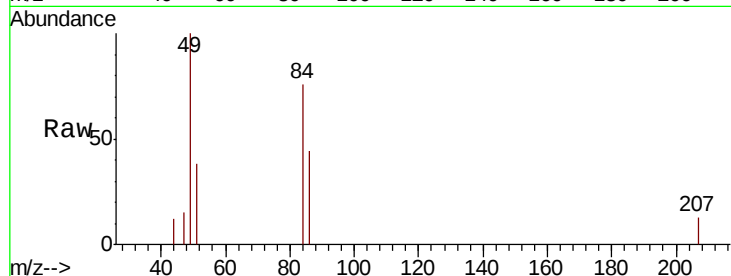




#20  
Methvlene Chloride  
Concen: 0.982 ug/l  
RT: 4.51 min Scan# 852  
Delta R.T. -0.01 min  
Lab File: VN060957.D  
Acq: 15 Apr 2020 13:36

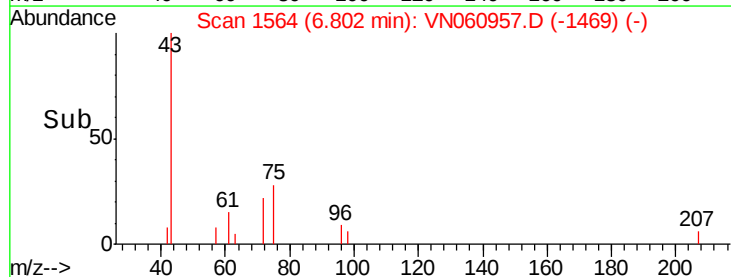
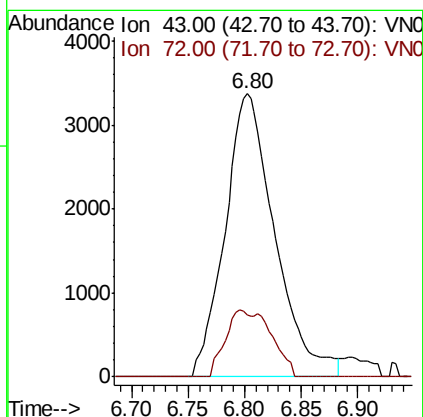
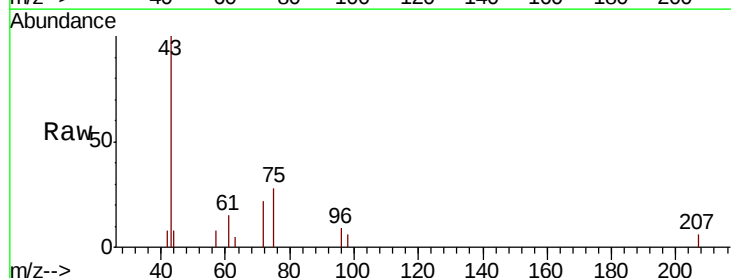
Instrument :  
MSVOA\_N  
ClientSampled :

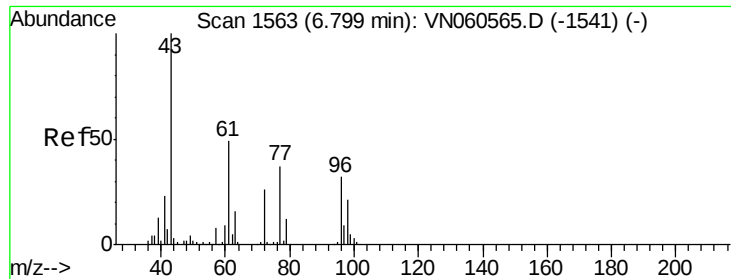
Tot Ion: 84 Resp: 1790  
Ion Ratio Lower Upper  
84 100  
49 132.1 103.3 154.9  
51 50.3 31.6 47.4#  
86 58.2 52.0 78.0



#25  
2-Butanone  
Concen: 8.602 ug/l  
RT: 6.80 min Scan# 1564  
Delta R.T. 0.01 min  
Lab File: VN060957.D  
Acq: 15 Apr 2020 13:36

Tgt Ion: 43 Resp: 10318  
Ion Ratio Lower Upper  
43 100  
72 22.0 20.4 30.6





#27

cis-1,2-Dichloroethene

Concen: 0.407 ug/l

RT: 6.79 min Scan# 1561

Delta R.T. -0.01 min

Lab File: VN060957.D

Acq: 15 Apr 2020 13:36

Instrument :  
MSVOA\_N  
ClientSampleId :

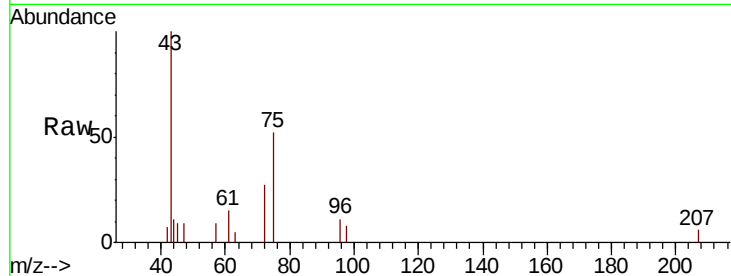
Tot Ion: 96 Resp: 814

Ion Ratio Lower Upper

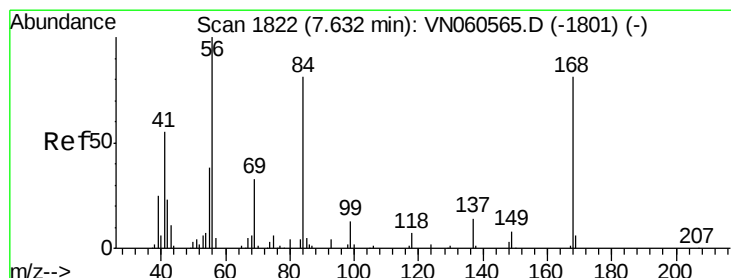
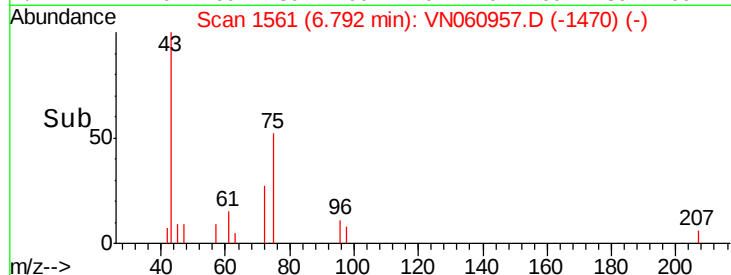
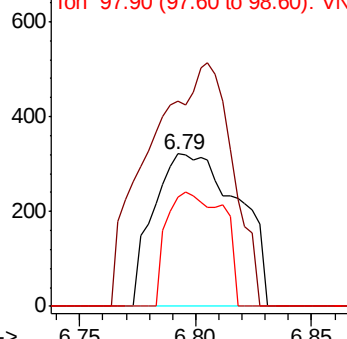
96 100

61 156.5 0.0 305.6

98 49.9 0.0 127.6



Abundance Ion 95.90 (95.60 to 96.60): VN0  
Ion 60.90 (60.60 to 61.60): VN0  
Ion 97.90 (97.60 to 98.60): VN0



#31

Cyclohexane

Concen: 0.989 ug/l

RT: 7.64 min Scan# 1824

Delta R.T. 0.01 min

Lab File: VN060957.D

Acq: 15 Apr 2020 13:36

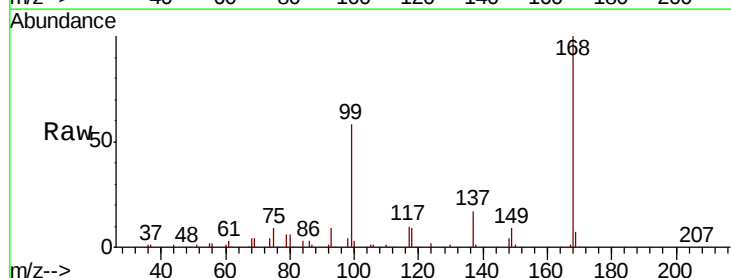
Tgt Ion: 56 Resp: 3334

Ion Ratio Lower Upper

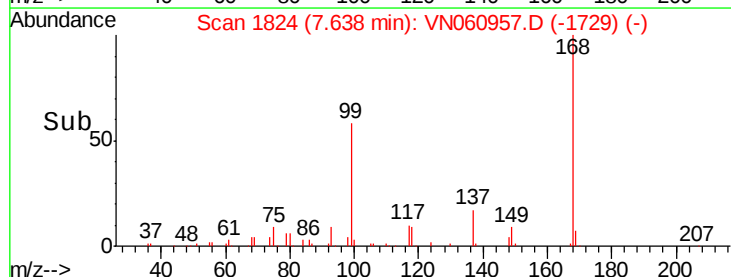
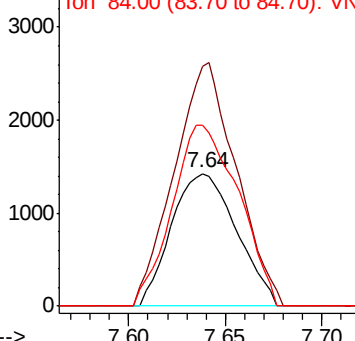
56 100

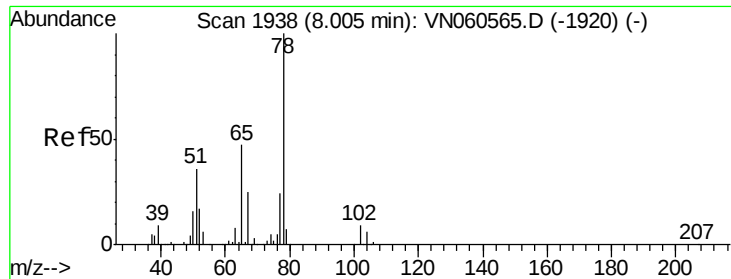
69 180.4 26.6 40.0#

84 136.1 64.3 96.5#



Abundance Ion 56.00 (55.70 to 56.70): VN0  
Ion 69.00 (68.70 to 69.70): VN0  
Ion 84.00 (83.70 to 84.70): VN0

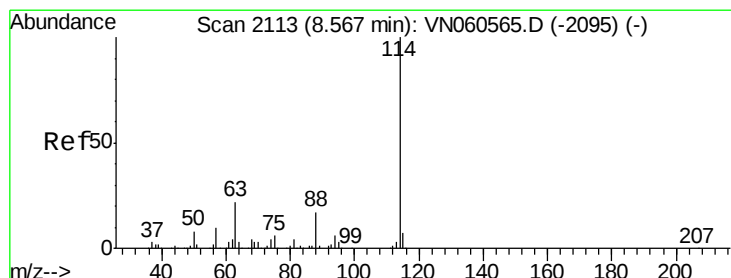
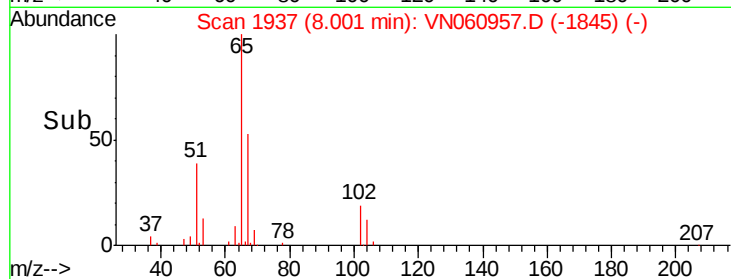
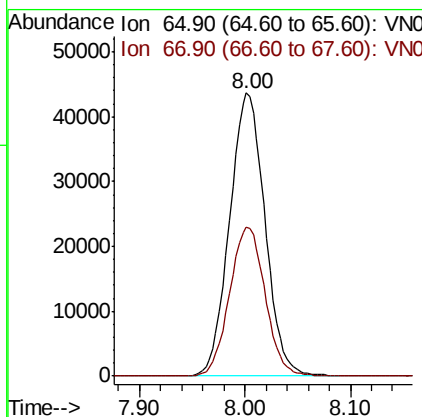
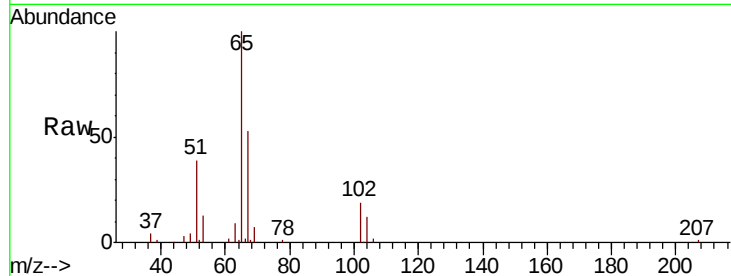




#33  
 1,2-Dichloroethane-d4  
 Concen: 48.578 ug/l  
 RT: 8.00 min Scan# 1937  
 Delta R.T. -0.00 min  
 Lab File: VN060957.D  
 Acq: 15 Apr 2020 13:36

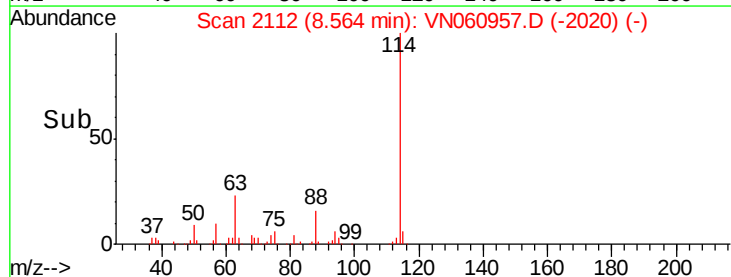
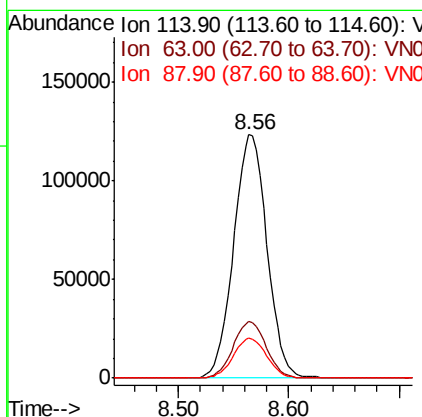
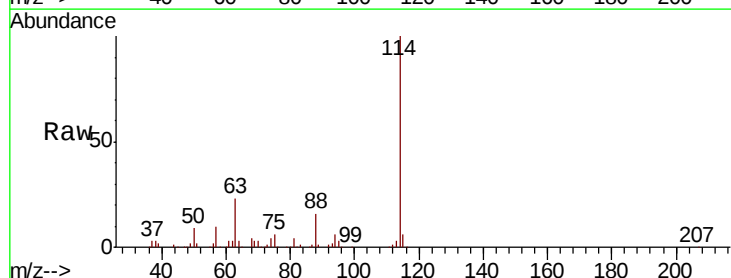
Instrument :  
 MSVOA\_N  
 ClientSampled :

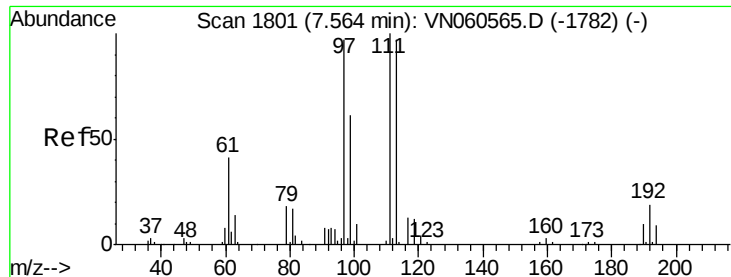
Tot Ion: 65 Resp: 101652  
 Ion Ratio Lower Upper  
 65 100  
 67 52.8 0.0 107.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.56 min Scan# 2112  
 Delta R.T. -0.00 min  
 Lab File: VN060957.D  
 Acq: 15 Apr 2020 13:36

Tgt Ion: 114 Resp: 258815  
 Ion Ratio Lower Upper  
 114 100  
 63 23.4 0.0 43.8  
 88 16.4 0.0 33.0

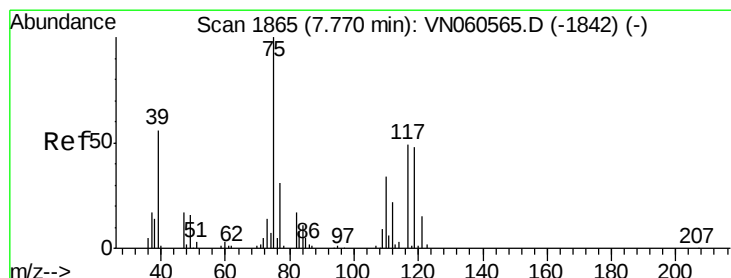
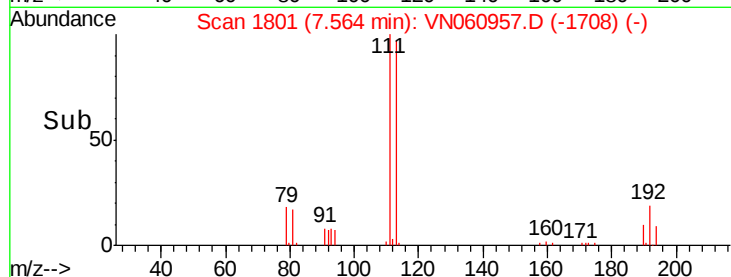
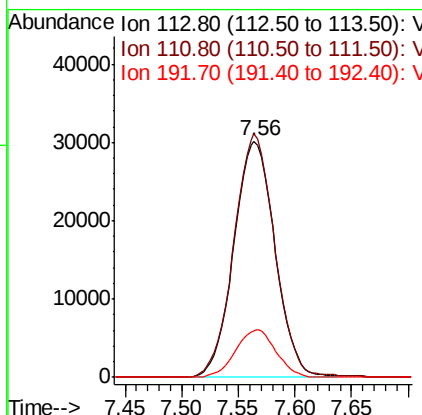
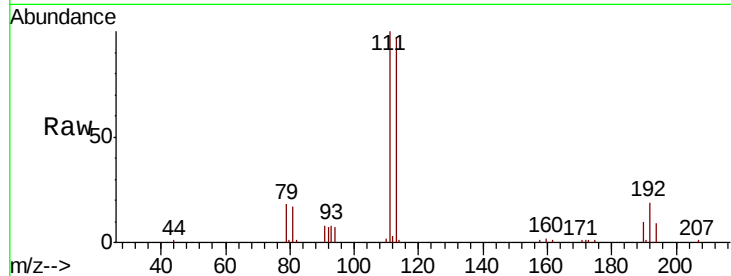




#35  
 Dibromofluoromethane  
 Concen: 48.884 ug/l  
 RT: 7.56 min Scan# 1801  
 Delta R.T. -0.00 min  
 Lab File: VN060957.D  
 Acq: 15 Apr 2020 13:36

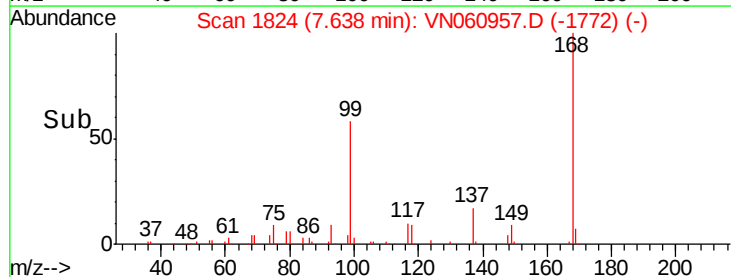
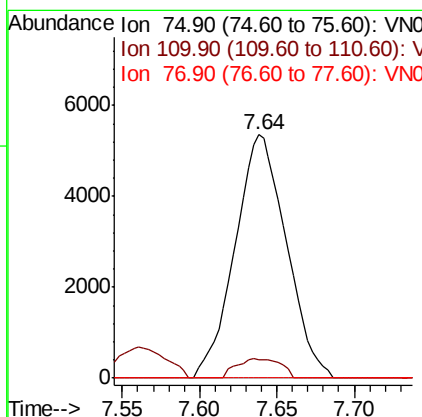
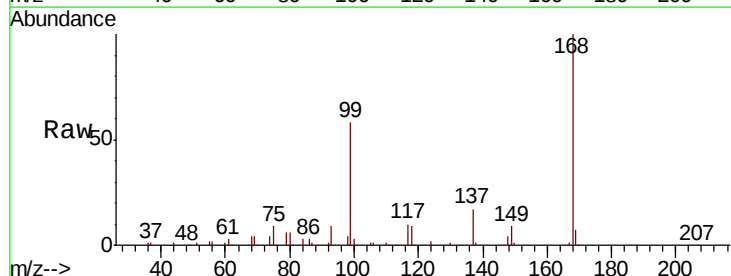
Instrument :  
 MSVOA\_N  
 ClientSampled :

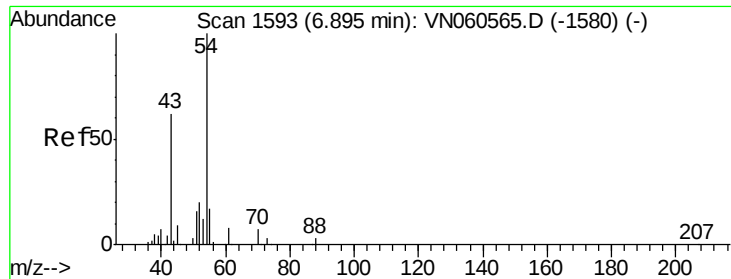
Tot Ion:113 Resp: 76502  
 Ion Ratio Lower Upper  
 113 100  
 111 102.1 82.9 124.3  
 192 19.6 15.8 23.8



#36  
 1,1-Dichloropropene  
 Concen: 4.926 ug/l  
 RT: 7.64 min Scan# 1824  
 Delta R.T. -0.13 min  
 Lab File: VN060957.D  
 Acq: 15 Apr 2020 13:36

Tgt Ion: 75 Resp: 12345  
 Ion Ratio Lower Upper  
 75 100  
 110 6.8 16.9 50.6#  
 77 0.0 24.6 36.8#

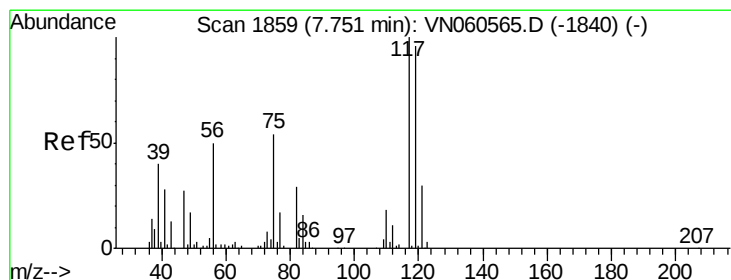
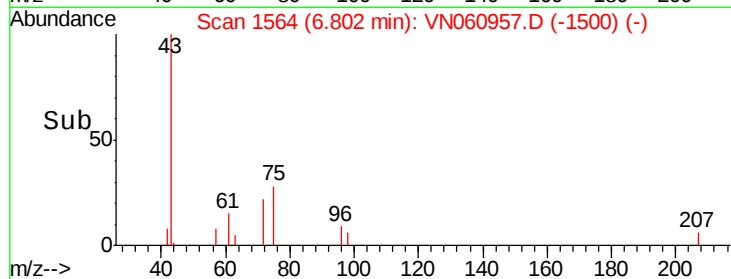
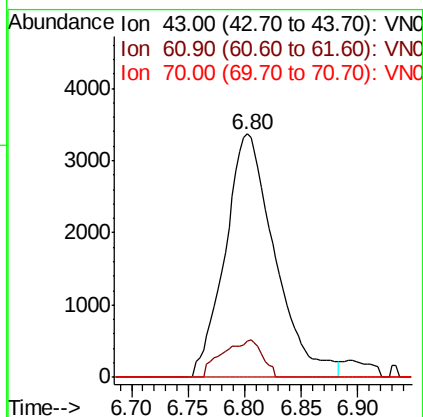
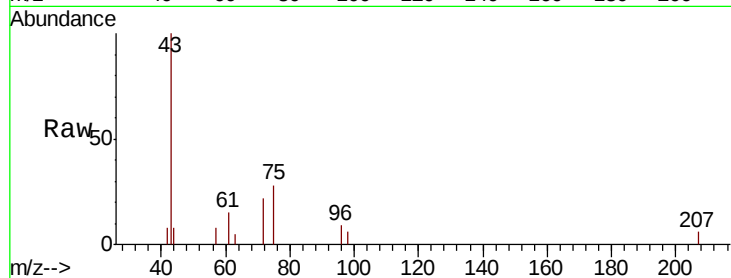




#37  
Ethyl Acetate  
Concen: 3.810 ug/l  
RT: 6.80 min Scan# 1564  
Delta R.T. -0.09 min  
Lab File: VN060957.D  
Acq: 15 Apr 2020 13:36

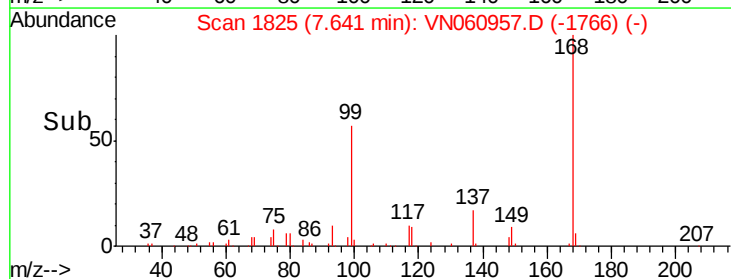
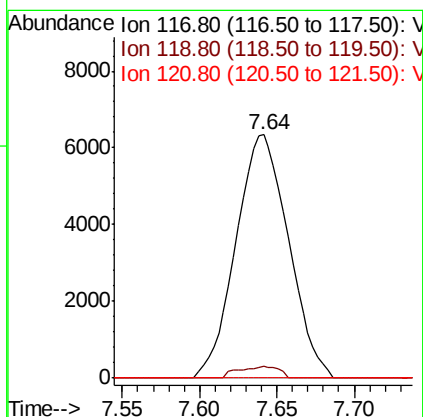
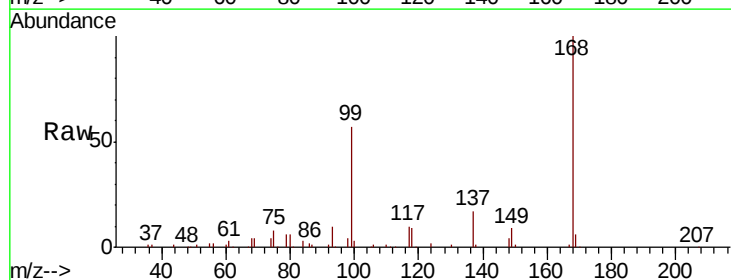
Instrument :  
MSVOA\_N  
ClientSampleId :

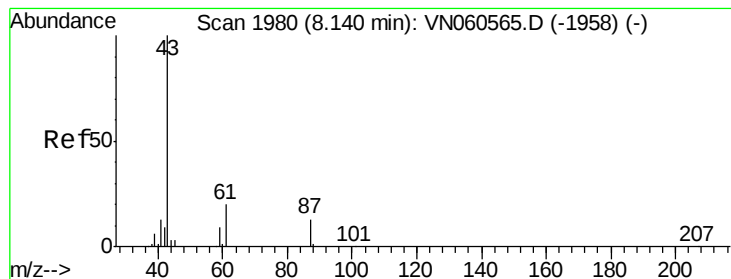
Tot Ion: 43 Resp: 10318  
Ion Ratio Lower Upper  
43 100  
61 12.3 10.6 15.8  
70 0.0 7.9 11.9#



#38  
Carbon Tetrachloride  
Concen: 6.668 ug/l  
RT: 7.64 min Scan# 1825  
Delta R.T. -0.11 min  
Lab File: VN060957.D  
Acq: 15 Apr 2020 13:36

Tgt Ion: 117 Resp: 14978  
Ion Ratio Lower Upper  
117 100  
119 4.7 76.2 114.2#  
121 0.0 23.7 35.5#





#43

Isopropyl Acetate

Concen: 9.324 ug/l

RT: 8.14 min Scan# 1980

Delta R.T. -0.00 min

Lab File: VN060957.D

Acq: 15 Apr 2020 13:36

Instrument :

MSVOA\_N

ClientSampleId :

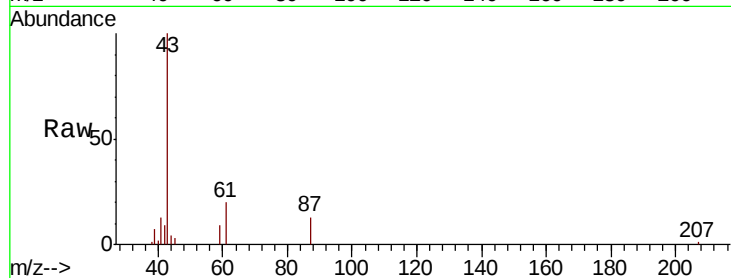
Tot Ion: 43 Resp: 41638

Ion Ratio Lower Upper

43 100

61 19.2 20.7 31.1#

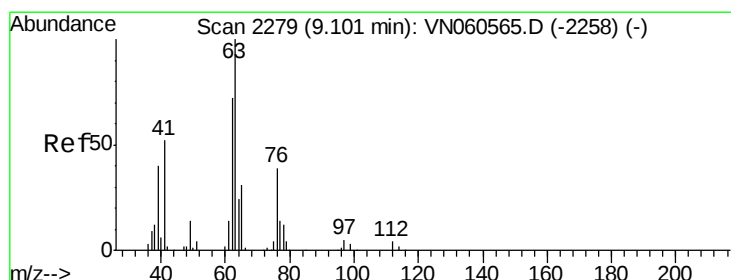
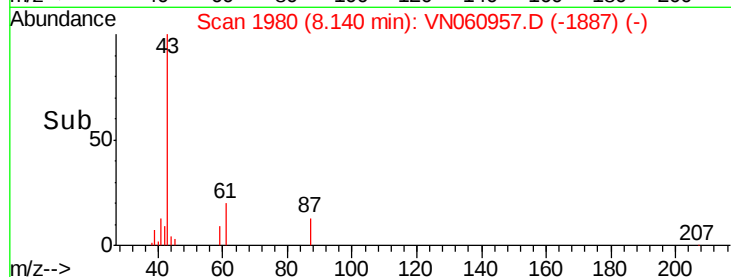
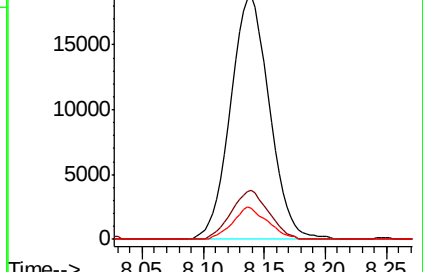
87 11.9 9.8 14.8



Abundance Ion 43.00 (42.70 to 43.70): VN060565.D (-1958) (-)

Ion 61.00 (60.70 to 61.70): VN060565.D (-1958) (-)

Ion 87.00 (86.70 to 87.70): VN060565.D (-1958) (-)



#45

1,2-Dichloropropane

Concen: 0.319 ug/l

RT: 9.25 min Scan# 2324

Delta R.T. 0.14 min

Lab File: VN060957.D

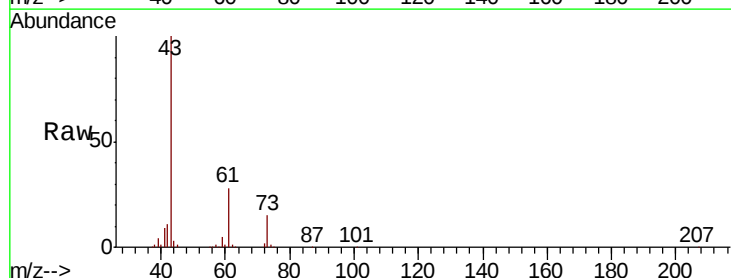
Acq: 15 Apr 2020 13:36

Tgt Ion: 63 Resp: 636

Ion Ratio Lower Upper

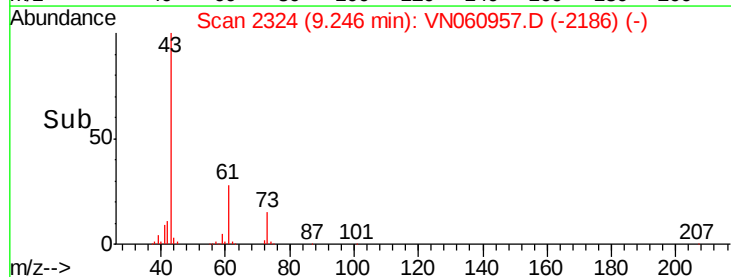
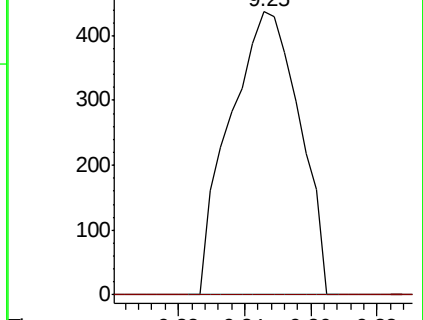
63 100

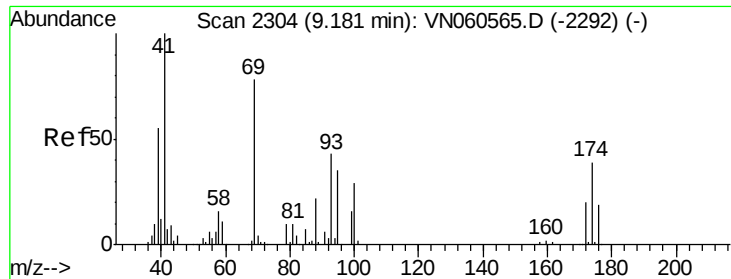
65 0.0 25.4 38.0#



Abundance Ion 62.90 (62.60 to 63.60): VN060565.D (-2258) (-)

Ion 64.90 (64.60 to 65.60): VN060565.D (-2258) (-)

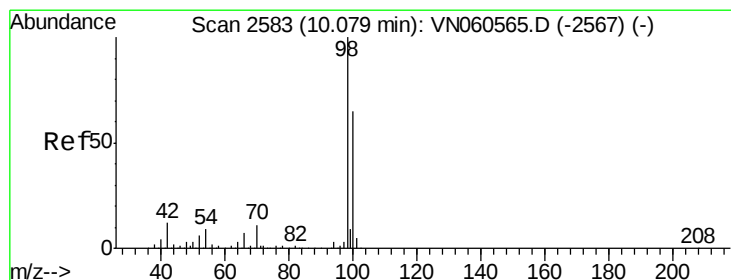
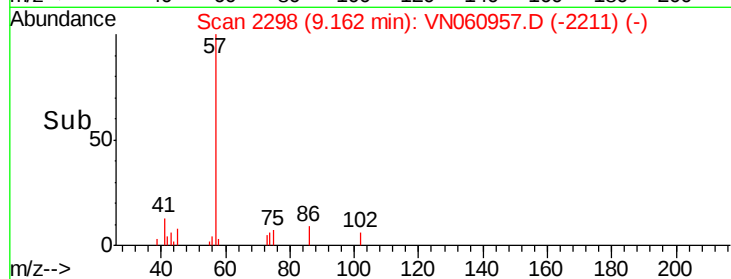
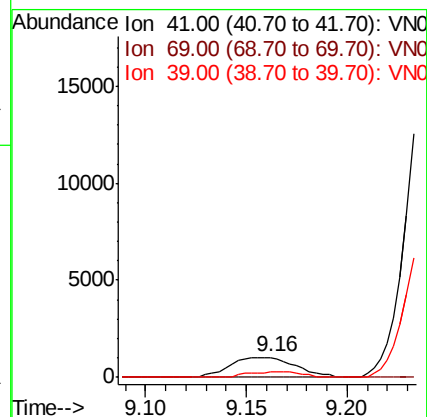
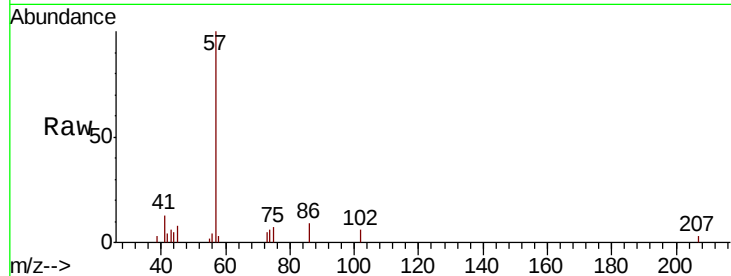




#48  
Methvl methacrylate  
Concen: 1.179 ug/l  
RT: 9.16 min Scan# 2298  
Delta R.T. -0.02 min  
Lab File: VN060957.D  
Acq: 15 Apr 2020 13:36

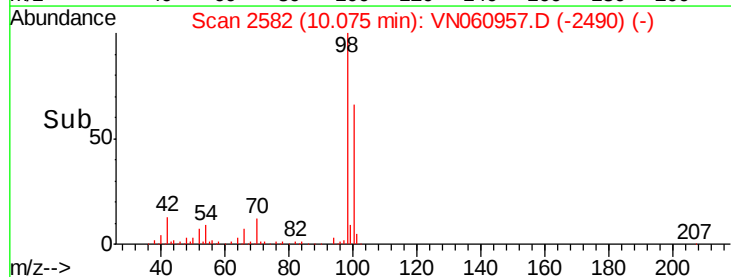
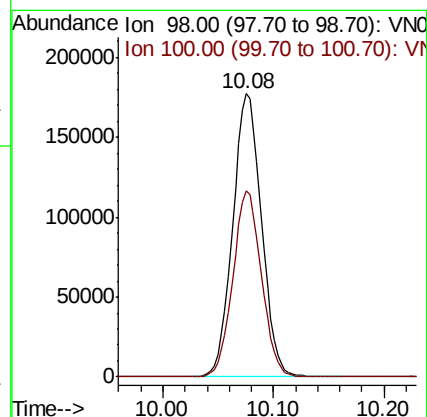
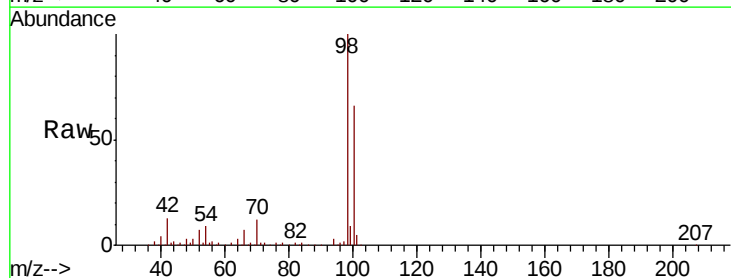
Instrument :  
MSVOA\_N  
ClientSampleId :

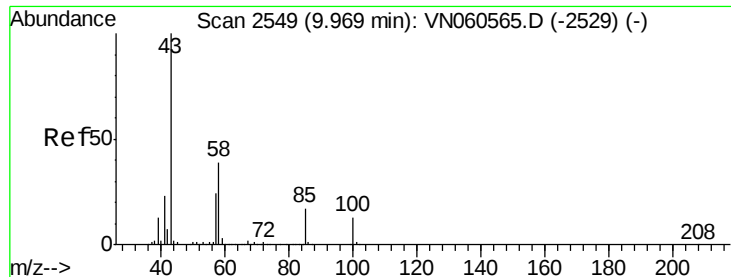
Tot Ion: 41 Resp: 2345  
Ion Ratio Lower Upper  
41 100  
69 0.0 65.4 98.0#  
39 0.0 44.0 66.0#



#50  
Toluene-d8  
Concen: 50.157 ug/l  
RT: 10.08 min Scan# 2582  
Delta R.T. -0.00 min  
Lab File: VN060957.D  
Acq: 15 Apr 2020 13:36

Tgt Ion: 98 Resp: 320621  
Ion Ratio Lower Upper  
98 100  
100 65.1 51.8 77.8

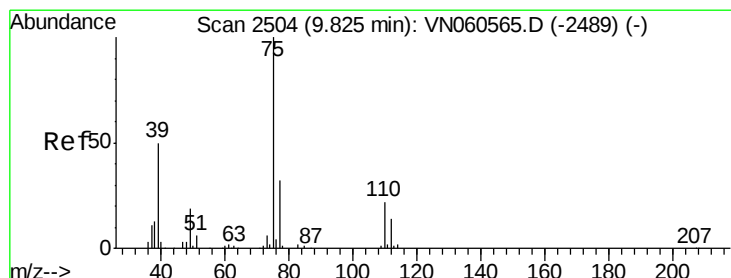
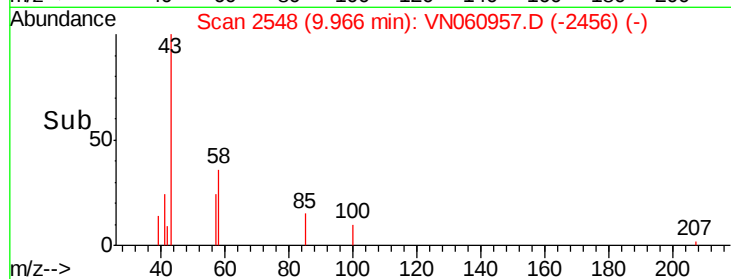
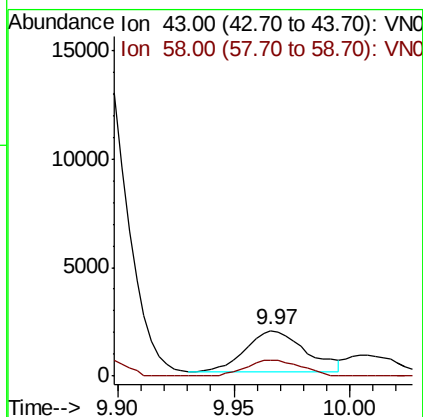
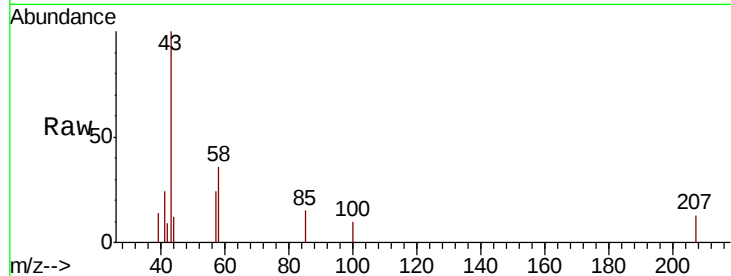




#51  
 4-Methyl-2-Pentanone  
 Concen: 1.342 ug/l  
 RT: 9.97 min Scan# 2548  
 Delta R.T. -0.00 min  
 Lab File: VN060957.D  
 Acq: 15 Apr 2020 13:36

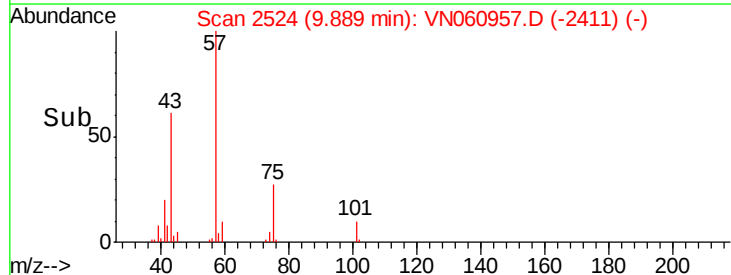
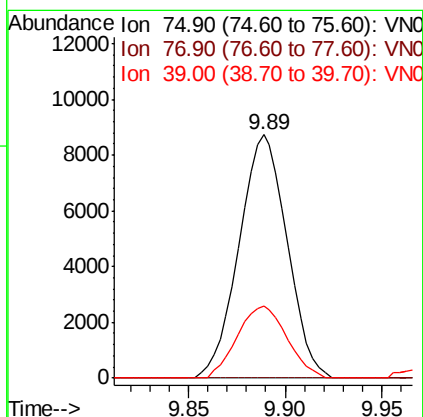
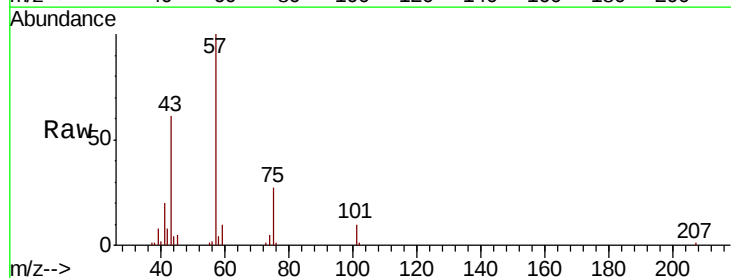
Instrument :  
 MSVOA\_N  
 ClientSampled :

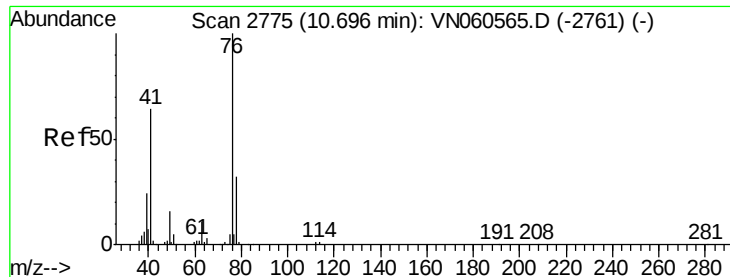
Tot Ion: 43 Resp: 3411  
 Ion Ratio Lower Upper  
 43 100  
 58 35.9 30.8 46.2



#54  
 cis-1,3-Dichloropropene  
 Concen: 4.776 ug/l  
 RT: 9.89 min Scan# 2524  
 Delta R.T. 0.06 min  
 Lab File: VN060957.D  
 Acq: 15 Apr 2020 13:36

Tgt Ion: 75 Resp: 15095  
 Ion Ratio Lower Upper  
 75 100  
 77 0.0 25.4 38.0#  
 39 29.4 40.2 60.4#





#57

1,3-Dichloropropane

Concen: 0.654 ug/l

RT: 10.75 min Scan# 2792

Delta R.T. 0.05 min

Lab File: VN060957.D

Acq: 15 Apr 2020 13:36

Instrument :

MSVOA\_N

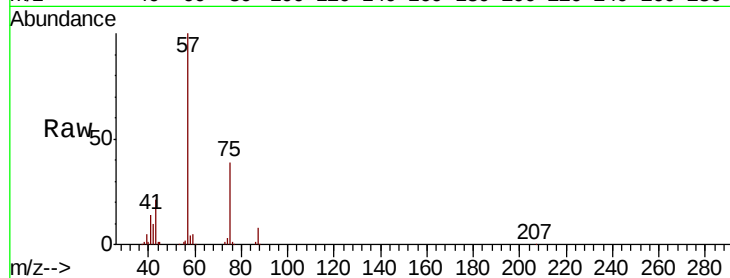
ClientSampled :

Tot Ion: 76 Resp: 1995

Ion Ratio Lower Upper

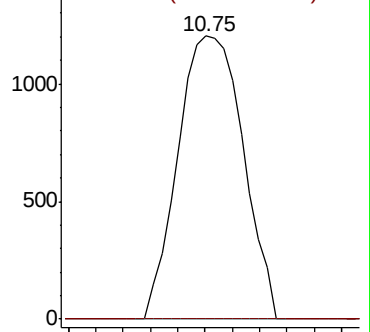
76 100

78 0.0 25.8 38.6#

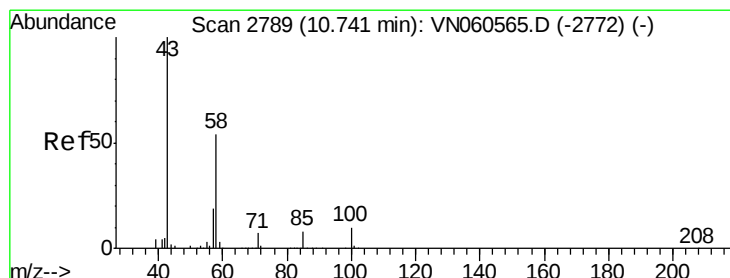
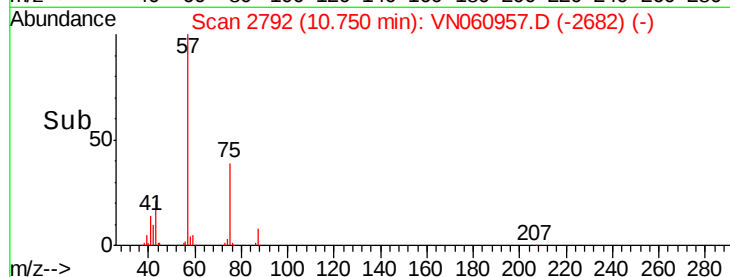


Abundance Ion 75.90 (75.60 to 76.60): VN0

Ion 77.90 (77.60 to 78.60): VN0



Time--> 10.70 10.75



#59

2-Hexanone

Concen: 16.923 ug/l

RT: 10.75 min Scan# 2793

Delta R.T. 0.01 min

Lab File: VN060957.D

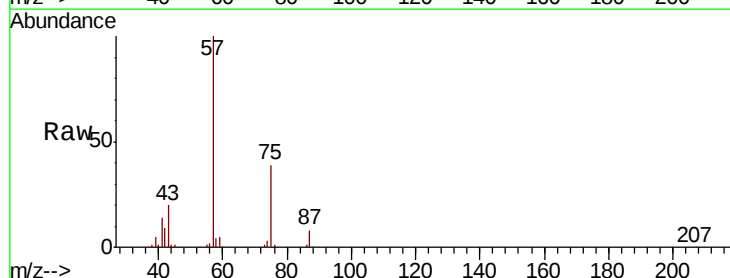
Acq: 15 Apr 2020 13:36

Tgt Ion: 43 Resp: 30980

Ion Ratio Lower Upper

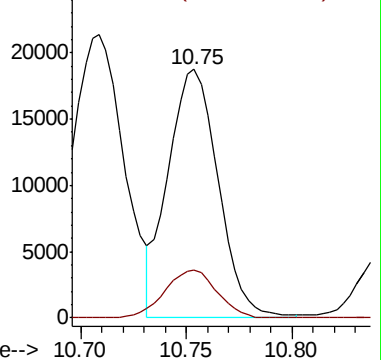
43 100

58 20.0 26.7 80.1#

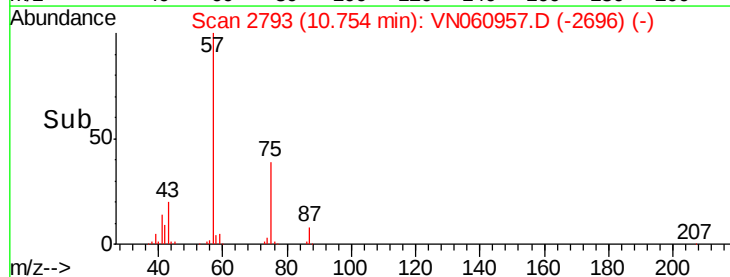


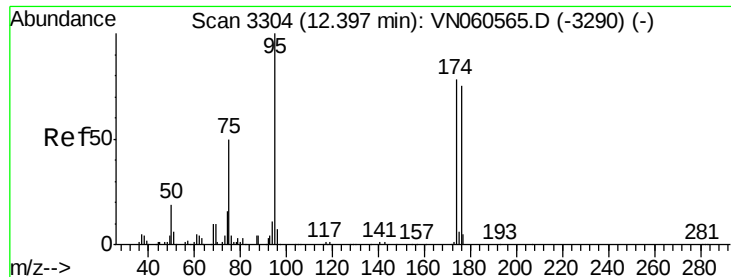
Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0



Time--> 10.70 10.75 10.80





#62

4-Bromofluorobenzene

Concen: 51.440 ug/l

RT: 12.40 min Scan# 3304

Delta R.T. -0.00 min

Lab File: VN060957.D

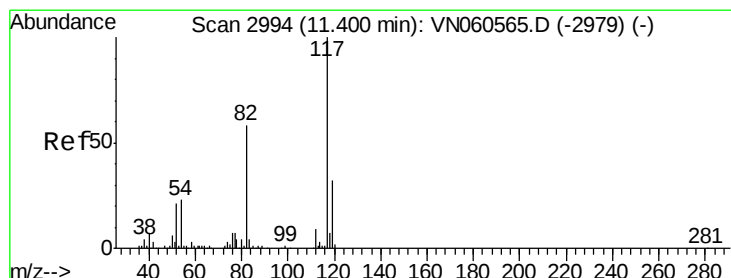
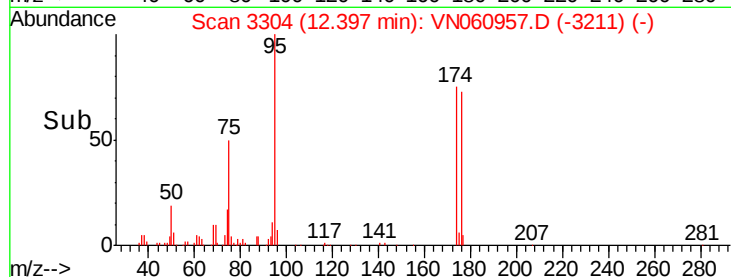
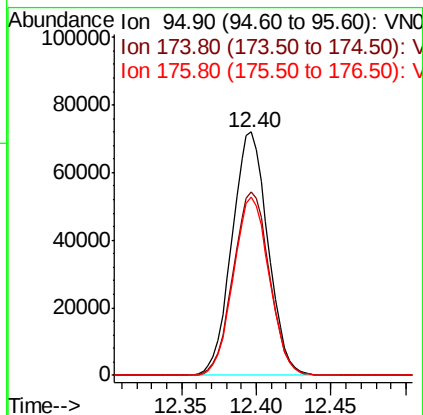
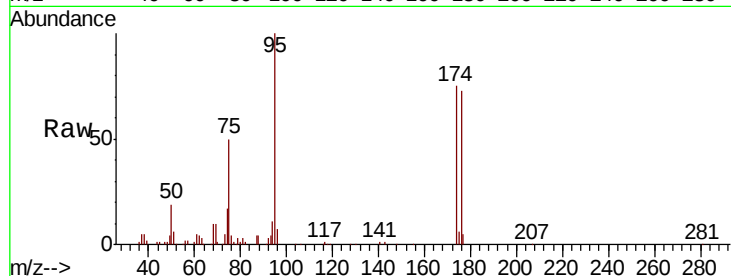
Acq: 15 Apr 2020 13:36

Instrument :

MSVOA\_N

ClientSampleId :

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 95    | Resp: | 120507 |
| Ion      | Ratio | Lower | Upper  |
| 95       | 100   |       |        |
| 174      | 76.2  | 0.0   | 157.6  |
| 176      | 73.3  | 0.0   | 150.6  |



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

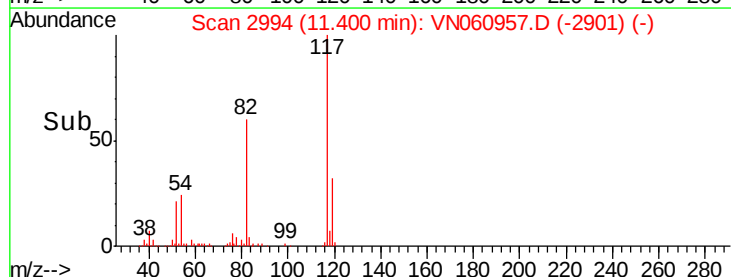
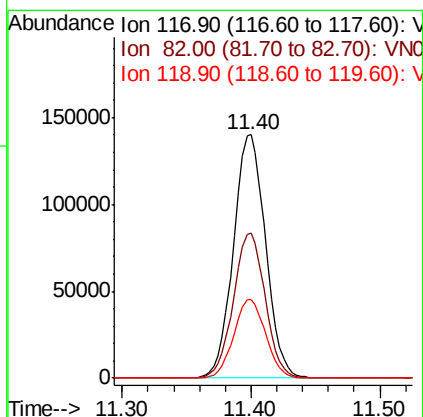
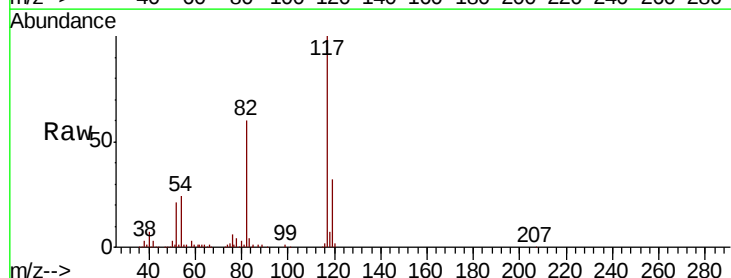
RT: 11.40 min Scan# 2994

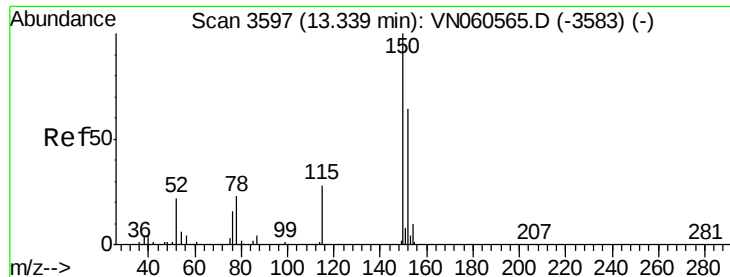
Delta R.T. -0.00 min

Lab File: VN060957.D

Acq: 15 Apr 2020 13:36

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 117   | Resp: | 242225 |
| Ion      | Ratio | Lower | Upper  |
| 117      | 100   |       |        |
| 82       | 59.6  | 46.7  | 70.1   |
| 119      | 32.2  | 25.5  | 38.3   |





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.34 min Scan# 3597

Delta R.T. -0.00 min

Lab File: VN060957.D

Acq: 15 Apr 2020 13:36

Instrument :

MSVOA\_N

ClientSampleId :

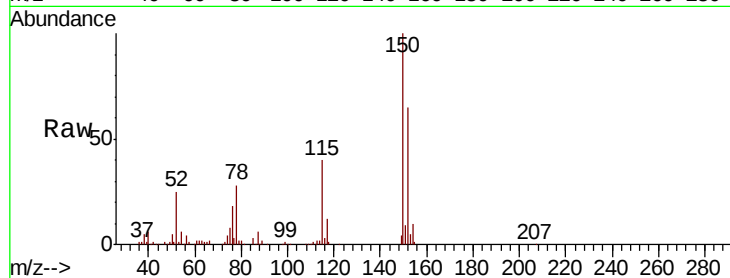
Tot Ion:152 Resp: 107249

Ion Ratio Lower Upper

152 100

115 60.9 30.2 90.6

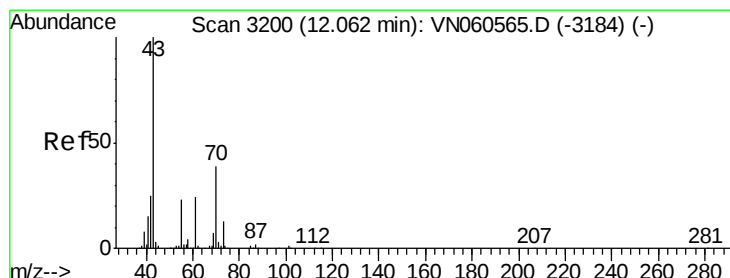
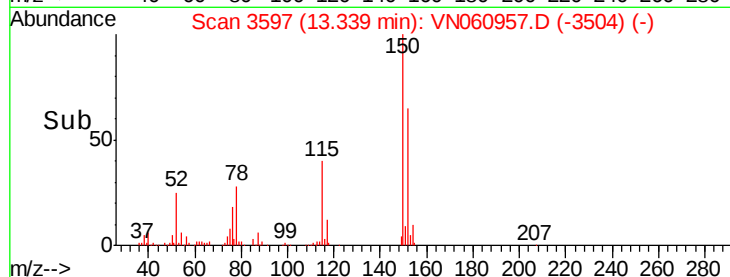
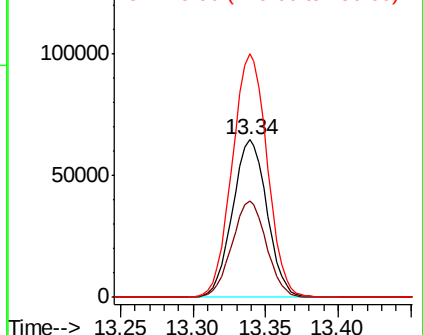
150 156.0 0.0 350.2



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: 0.440 ug/l

RT: 12.02 min Scan# 3187

Delta R.T. -0.04 min

Lab File: VN060957.D

Acq: 15 Apr 2020 13:36

Tgt Ion: 43 Resp: 1635

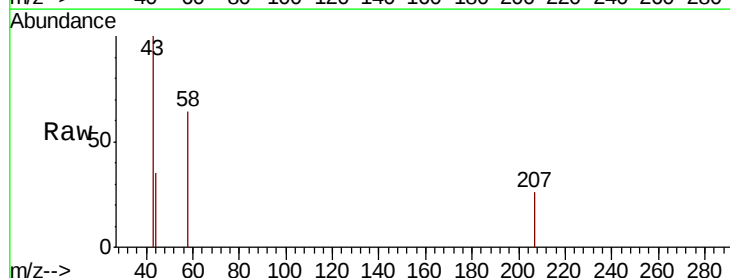
Ion Ratio Lower Upper

43 100

70 0.0 31.1 46.7#

55 0.0 18.6 27.8#

61 0.0 18.9 28.3#

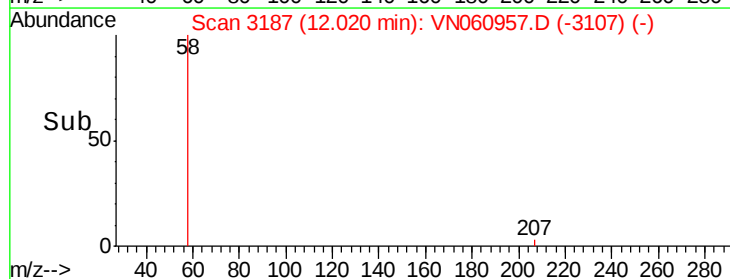
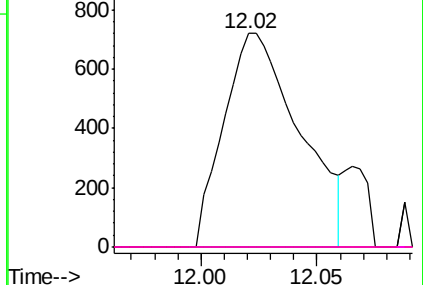


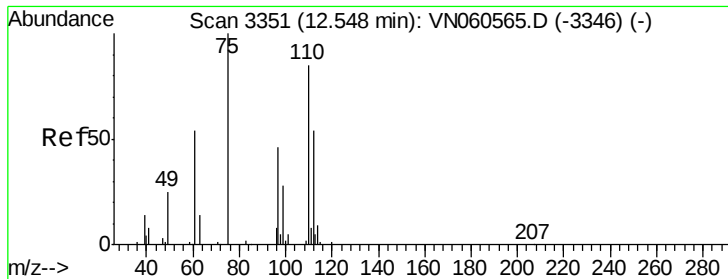
Abundance Ion 43.00 (42.70 to 43.70): V

Ion 70.00 (69.70 to 70.70): V

Ion 55.00 (54.70 to 55.70): V

Ion 61.00 (60.70 to 61.70): V





#76

1,2,3-Trichloropropane

Concen: 26.449 ug/l

RT: 12.40 min Scan# 3304

Delta R.T. -0.15 min

Lab File: VN060957.D

Acq: 15 Apr 2020 13:36

Instrument :

MSVOA\_N

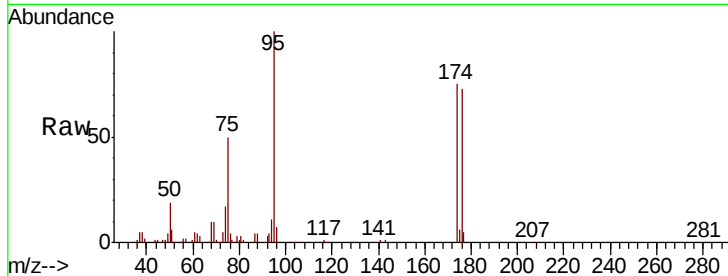
ClientSampleId :

Tot Ion: 75 Resp: 61208

Ion Ratio Lower Upper

75 100

77 1.1 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 77.00 (76.70 to 77.70): VN0

12.40

40000

30000

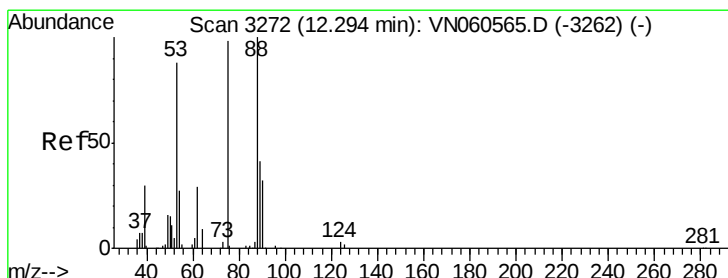
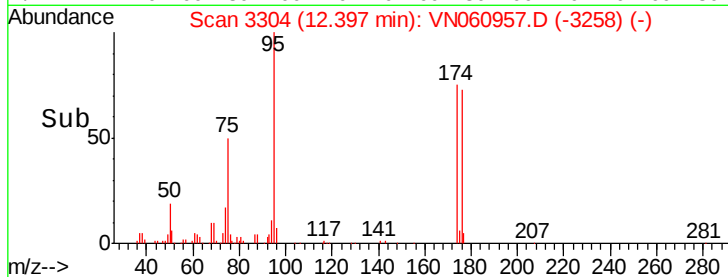
20000

10000

0

Time-->

12.35 12.40 12.45



#81

trans-1,4-Dichloro-2-butene

Concen: 67.928 ug/l

RT: 12.40 min Scan# 3304

Delta R.T. 0.10 min

Lab File: VN060957.D

Acq: 15 Apr 2020 13:36

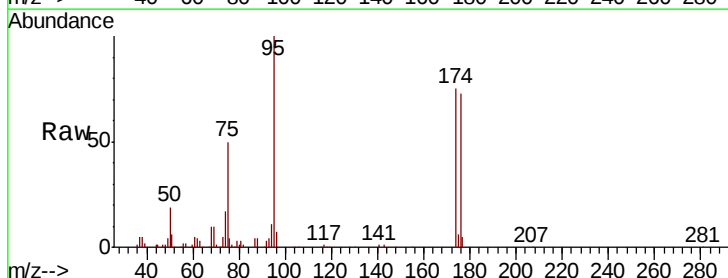
Tgt Ion: 75 Resp: 61208

Ion Ratio Lower Upper

75 100

53 0.0 73.0 109.4#

89 0.0 34.8 52.2#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 53.00 (52.70 to 53.70): VN0

Ion 88.90 (88.60 to 89.60): VN0

12.40

50000

40000

30000

20000

10000

0

Time-->

12.35 12.40 12.45

