

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN021720\  
 Data File : VN060129.D  
 Acq On : 17 Feb 2020 18:53  
 Operator : JC/MD  
 Sample : L1544-07  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 21 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Feb 18 02:08:59 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N021220W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Feb 12 14:12:21 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.64  | 168  | 172388   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 278979   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.40 | 117  | 262568   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 120112   | 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   | 108019   | 51.49 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 102.98% |          |
| 35) Dibromofluoromethane    | 7.57  | 113  | 83601    | 48.75 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.50%  |          |
| 50) Toluene-d8              | 10.08 | 98   | 342252   | 50.68 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 101.36% |          |
| 62) 4-Bromofluorobenzene    | 12.40 | 95   | 124073   | 50.00 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.00% |          |

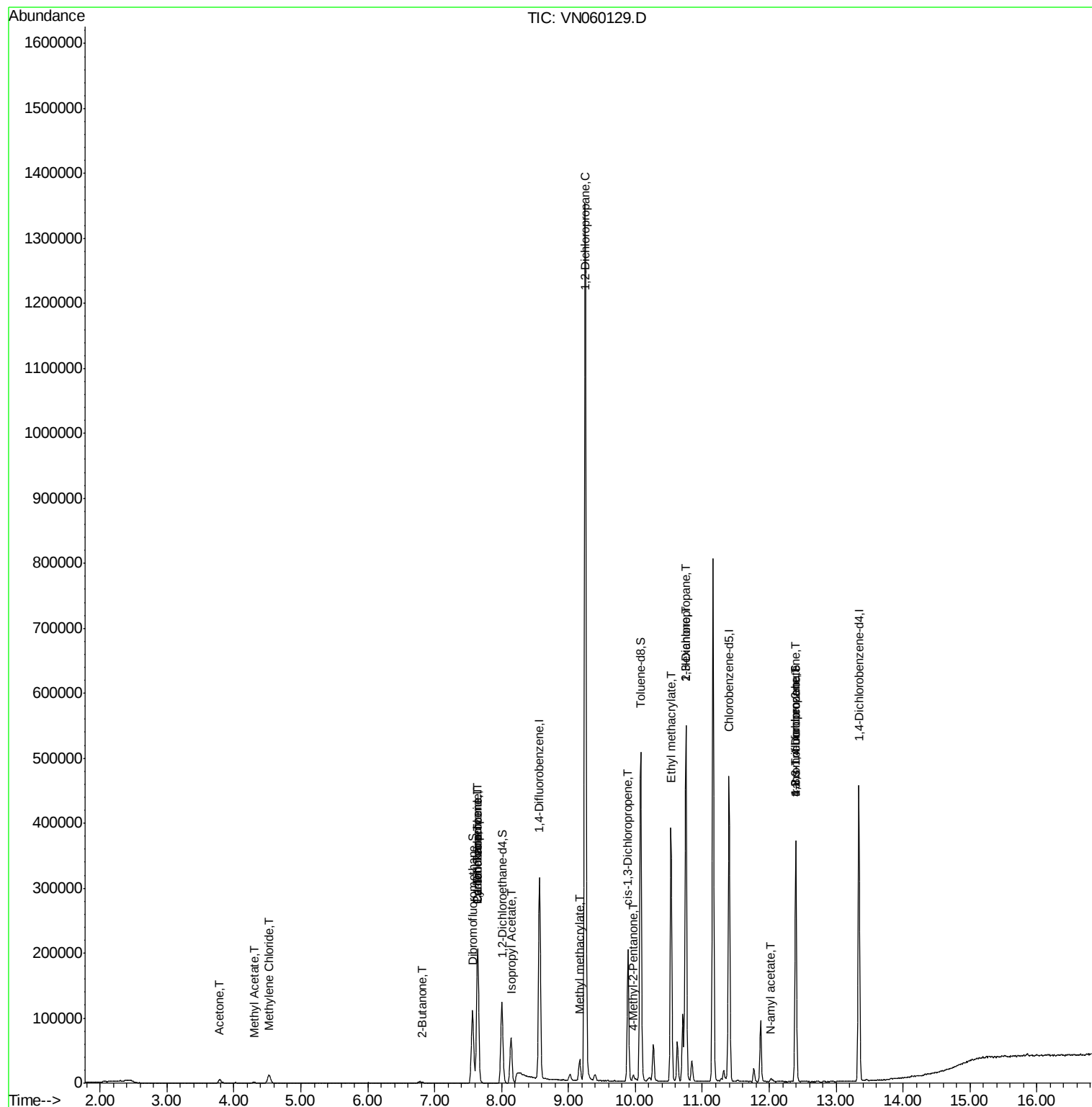
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 16) Acetone                    | 3.79  | 43   | 9832     | 10.745    | ug/l   | 100    |
| 18) Methyl Acetate             | 4.29  | 43   | 2705     | 1.574     | ug/l # | 73     |
| 20) Methylene Chloride         | 4.53  | 84   | 9687     | 5.307     | ug/l   | 90     |
| 25) 2-Butanone                 | 6.82  | 43   | 1837     | 1.596     | ug/l # | 46     |
| 31) Cyclohexane                | 7.64  | 56   | 3614     | 1.218     | ug/l # | 22     |
| 36) 1,1-Dichloropropene        | 7.64  | 75   | 13087    | 5.065     | ug/l # | 48     |
| 38) Carbon Tetrachloride       | 7.64  | 117  | 17103    | 6.094     | ug/l # | 14     |
| 43) Isopropyl Acetate          | 8.14  | 43   | 81682    | 20.461    | ug/l # | 90     |
| 45) 1,2-Dichloropropane        | 9.25  | 63   | 1586     | 0.836     | ug/l # | 43     |
| 48) Methyl methacrylate        | 9.16  | 41   | 5509     | 3.076     | ug/l # | 9      |
| 51) 4-Methyl-2-Pentanone       | 9.97  | 43   | 7494     | 3.243     | ug/l   | 91     |
| 54) cis-1,3-Dichloropropene    | 9.89  | 75   | 35615    | 10.990    | ug/l # | 63     |
| 56) Ethyl methacrylate         | 10.54 | 69   | 898      | 0.331     | ug/l # | 1      |
| 57) 1,3-Dichloropropane        | 10.75 | 76   | 5812     | 1.837     | ug/l # | 43     |
| 59) 2-Hexanone                 | 10.75 | 43   | 81232    | 45.509    | ug/l # | 50     |
| 74) N-amyl acetate             | 12.03 | 43   | 4516     | 1.396     | ug/l # | 44     |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75   | 64530    | 28.081    | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75   | 64530    | 68.756    | ug/l # | 12     |
| 92) 1,2-Dibromo-3-Chloropropan | 14.31 | 75   | 30       | Below Cal | #      | 1      |

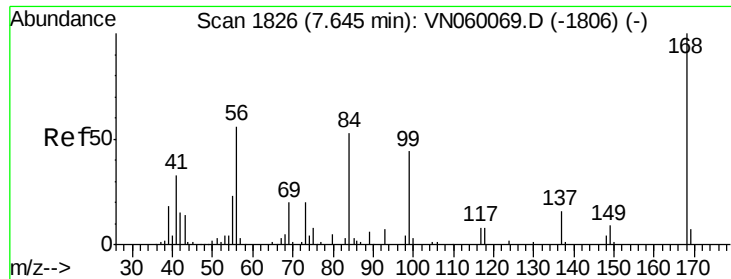
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_N\METHODS\82N021220W.M  
Quant Title : SW846 8260  
QLast Update : Wed Feb 12 14:12:21 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.64 min Scan# 1826

Delta R.T. -0.00 min

Lab File: VN060129.D

Acq: 17 Feb 2020 18:53

Instrument :

MSVOA\_N

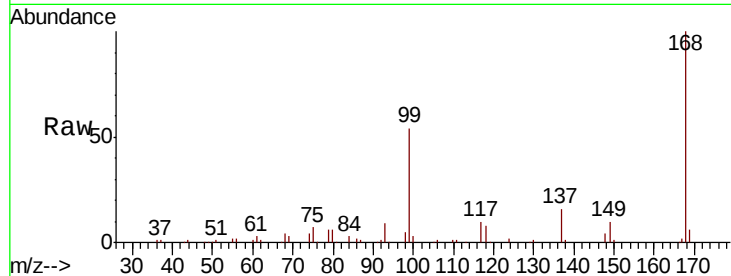
ClientSampled :

Tot Ion:168 Resp: 172388

Ion Ratio Lower Upper

168 100

99 53.5 42.7 64.1



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN

7.64

80000

60000

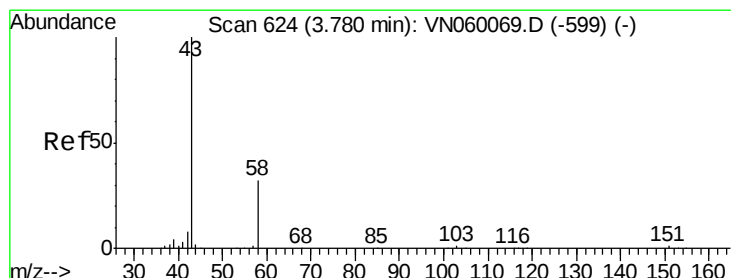
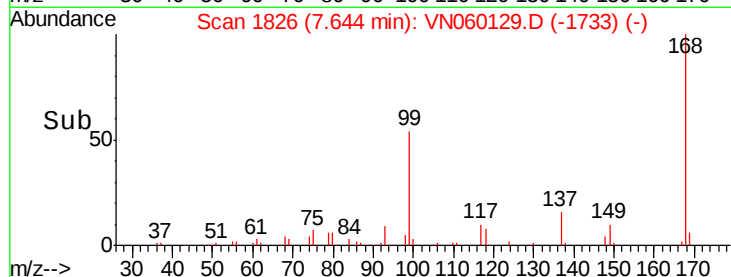
40000

20000

0

7.60 7.70

Time-->



#16

Acetone

Concen: 10.745 ug/l

RT: 3.79 min Scan# 626

Delta R.T. 0.01 min

Lab File: VN060129.D

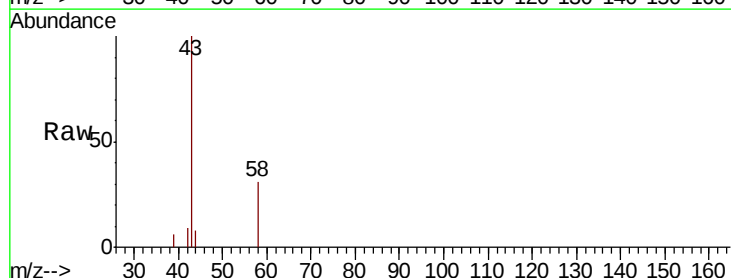
Acq: 17 Feb 2020 18:53

Tgt Ion: 43 Resp: 9832

Ion Ratio Lower Upper

43 100

58 31.4 25.2 37.8



Abundance Ion 43.00 (42.70 to 43.70): VN

Ion 58.00 (57.70 to 58.70): VN

3.79

4000

3000

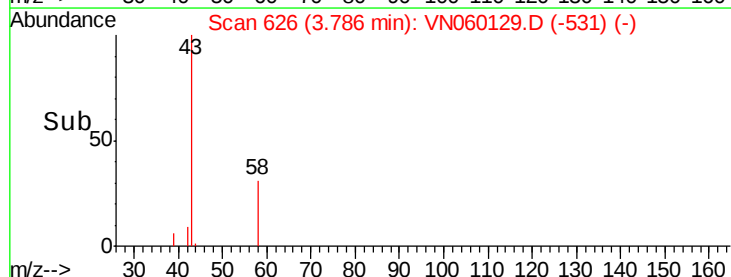
2000

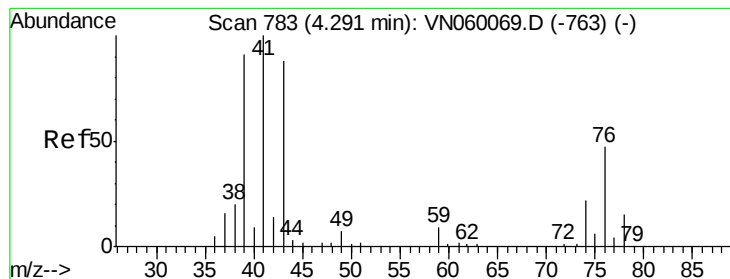
1000

0

3.70 3.75 3.80 3.85 3.90

Time-->





#18

Methyl Acetate

Concen: 1.574 ug/l

RT: 4.29 min Scan# 784

Delta R.T. 0.00 min

Lab File: VN060129.D

Acq: 17 Feb 2020 18:53

Instrument :

MSVOA\_N

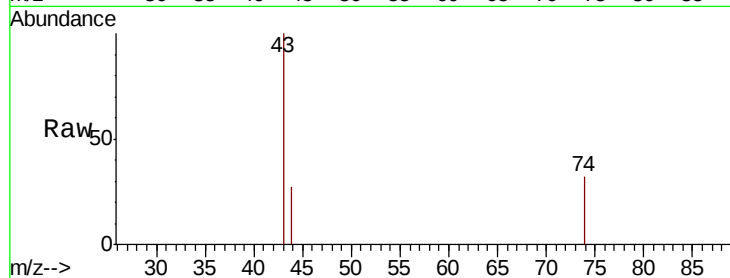
ClientSampleId :

Tot Ion: 43 Resp: 2705

Ion Ratio Lower Upper

43 100

74 11.9 20.3 30.5#



Abundance Ion 43.00 (42.70 to 43.70): VN060129.D (-690) (-)

Ion 74.00 (73.70 to 74.70): VN060129.D (-690) (-)

4.29

800

600

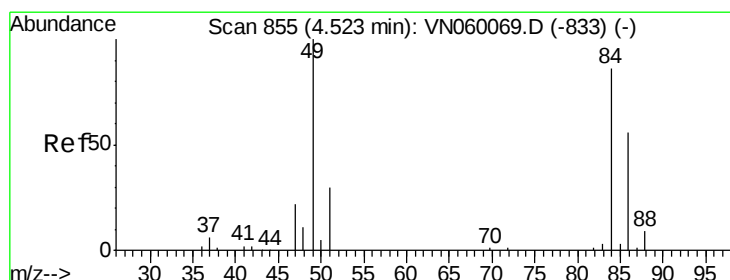
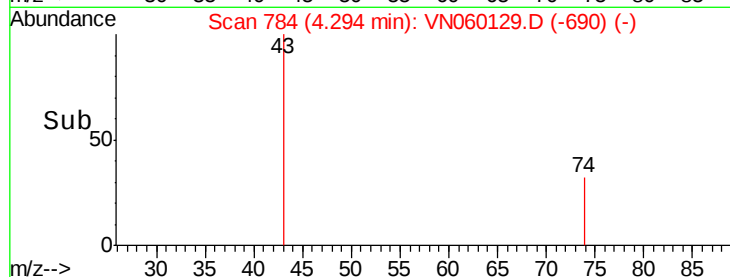
400

200

0

4.25 4.30 4.35

Time-->



#20

Methylene Chloride

Concen: 5.307 ug/l

RT: 4.53 min Scan# 856

Delta R.T. 0.00 min

Lab File: VN060129.D

Acq: 17 Feb 2020 18:53

Tgt Ion: 84 Resp: 9687

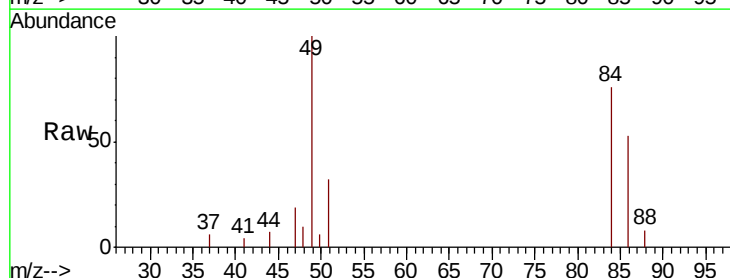
Ion Ratio Lower Upper

84 100

49 131.1 93.4 140.0

51 41.8 28.4 42.6

86 69.8 52.5 78.7



Abundance Ion 83.90 (83.60 to 84.60): VN060129.D (-762) (-)

Ion 48.90 (48.60 to 49.60): VN060129.D (-762) (-)

Ion 50.90 (50.60 to 51.60): VN060129.D (-762) (-)

Ion 85.90 (85.60 to 86.60): VN060129.D (-762) (-)

4.53

6000

5000

4000

3000

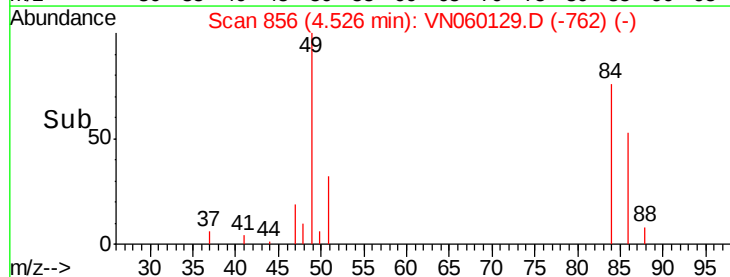
2000

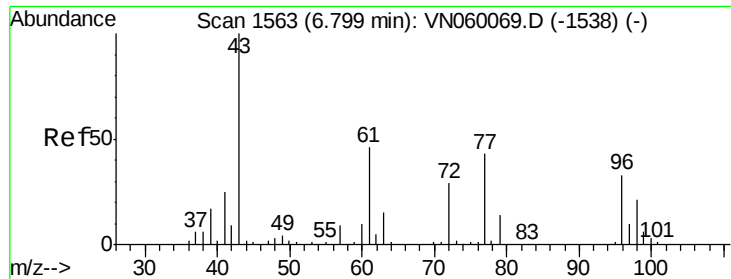
1000

0

4.45 4.50 4.55 4.60

Time-->

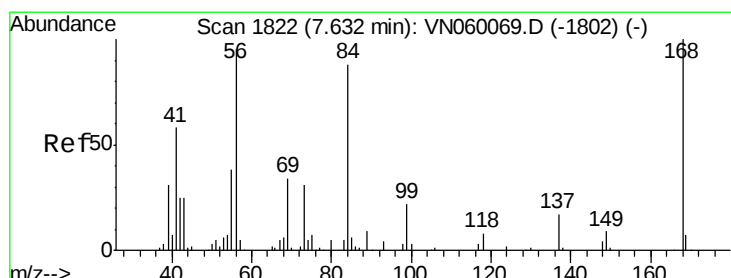
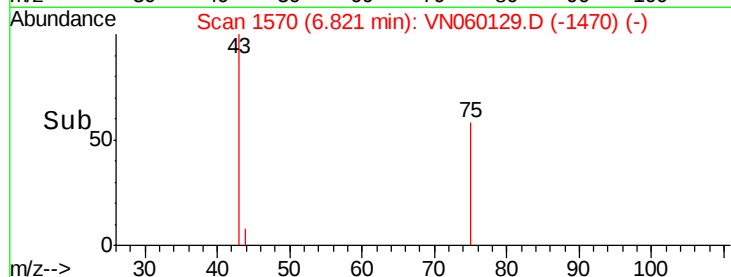
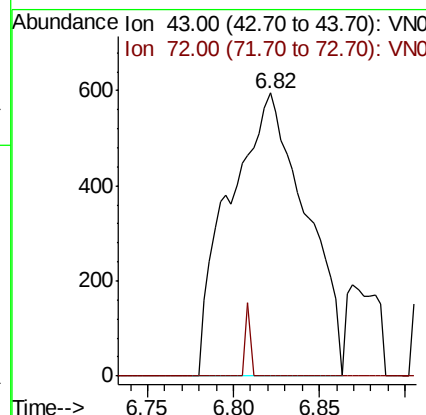
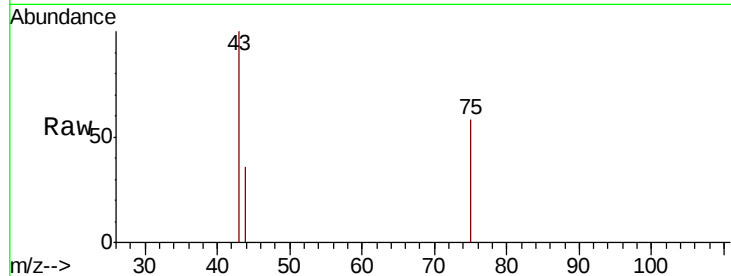




#25  
2-Butanone  
Concen: 1.596 ug/l  
RT: 6.82 min Scan# 1570  
Delta R.T. 0.02 min  
Lab File: VN060129.D  
Acq: 17 Feb 2020 18:53

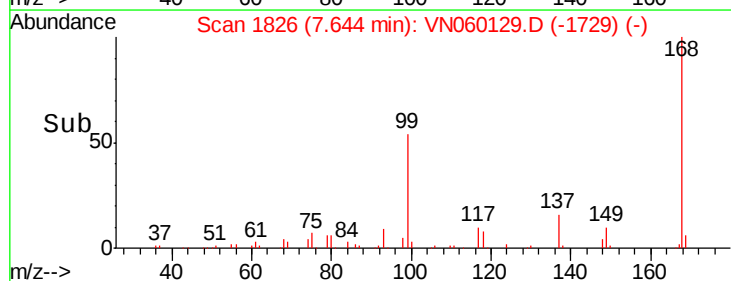
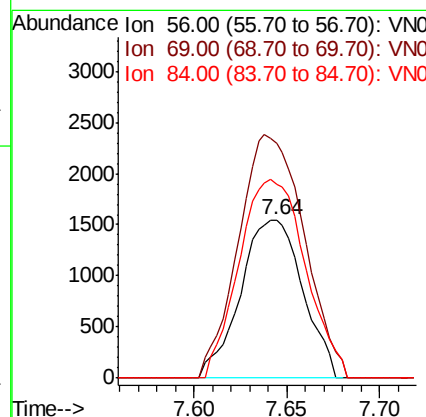
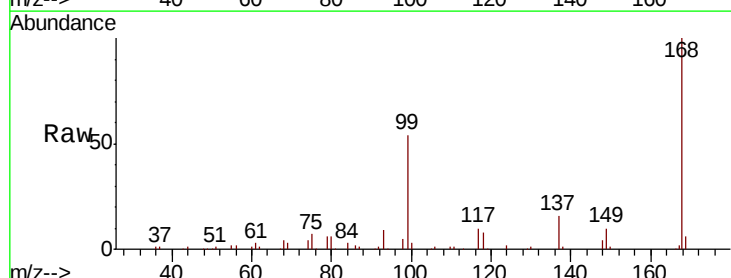
Instrument :  
MSVOA\_N  
ClientSampleId :

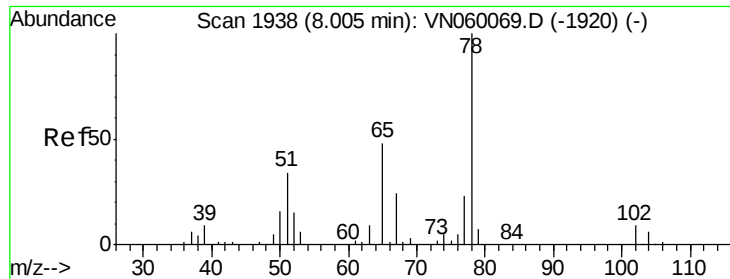
Tot Ion: 43 Resp: 1837  
Ion Ratio Lower Upper  
43 100  
72 0.0 23.3 34.9#



#31  
Cyclohexane  
Concen: 1.218 ug/l  
RT: 7.64 min Scan# 1826  
Delta R.T. 0.01 min  
Lab File: VN060129.D  
Acq: 17 Feb 2020 18:53

Tgt Ion: 56 Resp: 3614  
Ion Ratio Lower Upper  
56 100  
69 148.3 28.3 42.5#  
84 122.2 72.6 108.8#

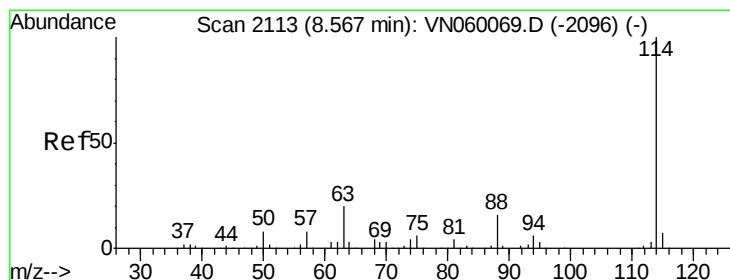
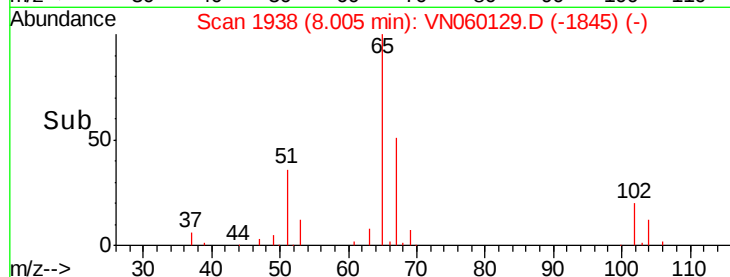
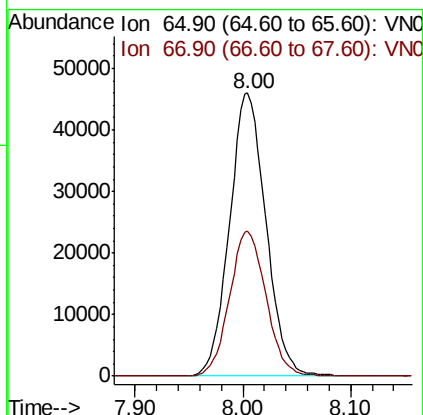
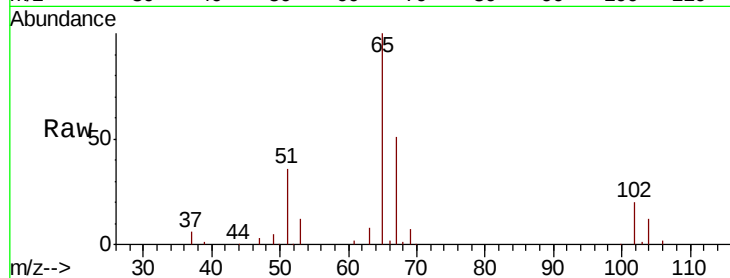




#33  
 1,2-Dichloroethane-d4  
 Concen: 51.495 ug/l  
 RT: 8.00 min Scan# 1938  
 Delta R.T. -0.00 min  
 Lab File: VN060129.D  
 Acq: 17 Feb 2020 18:53

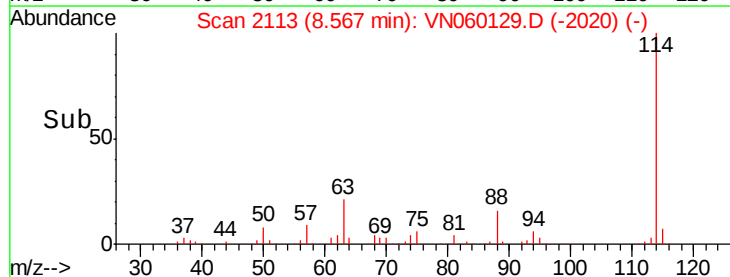
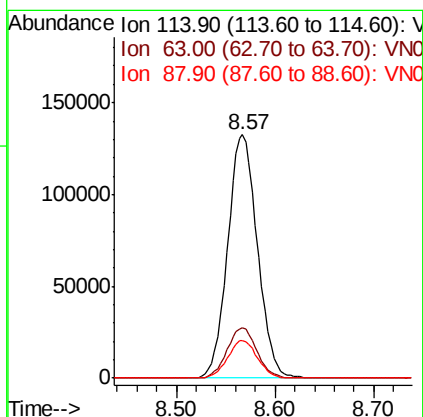
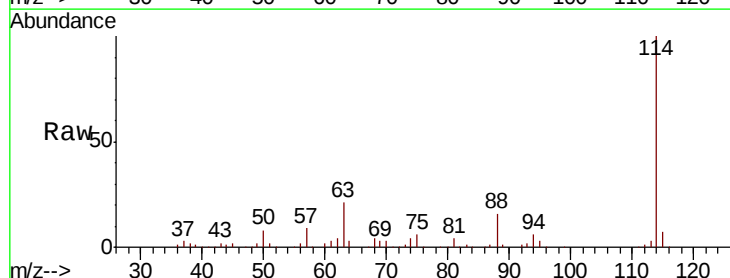
Instrument :  
 MSVOA\_N  
 ClientSampled :

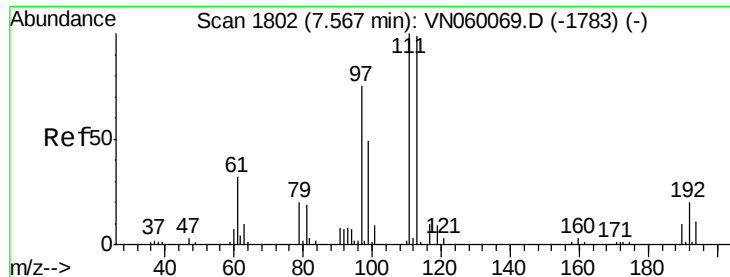
Tot Ion: 65 Resp: 108019  
 Ion Ratio Lower Upper  
 65 100  
 67 51.2 0.0 104.0



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.57 min Scan# 2113  
 Delta R.T. -0.00 min  
 Lab File: VN060129.D  
 Acq: 17 Feb 2020 18:53

Tgt Ion: 114 Resp: 278979  
 Ion Ratio Lower Upper  
 114 100  
 63 20.6 0.0 40.0  
 88 15.5 0.0 31.6

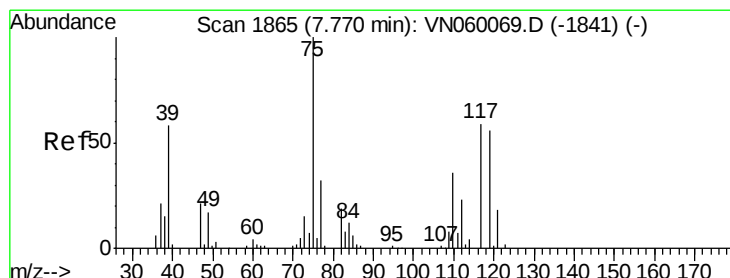
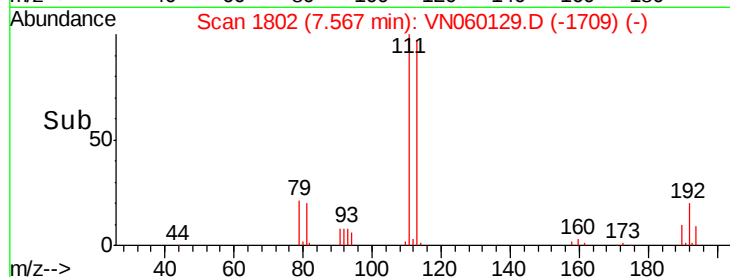
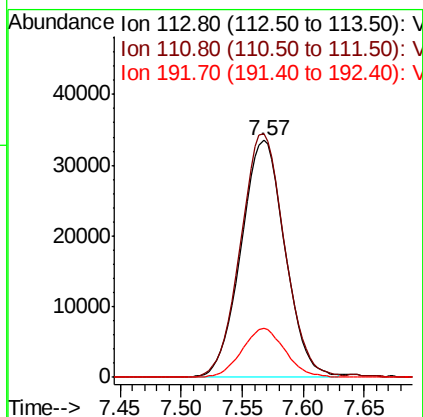
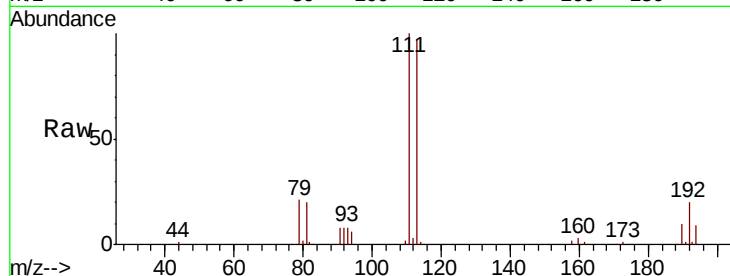




#35  
 Dibromofluoromethane  
 Concen: 48.750 ug/l  
 RT: 7.57 min Scan# 1802  
 Delta R.T. -0.00 min  
 Lab File: VN060129.D  
 Acq: 17 Feb 2020 18:53

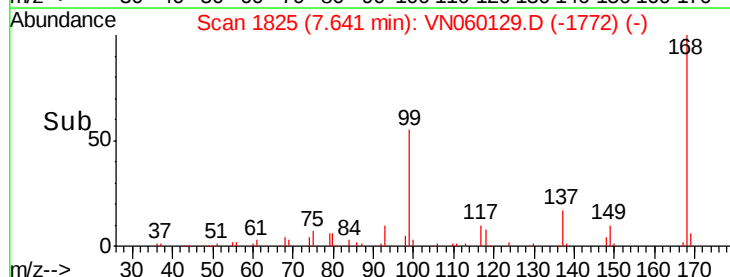
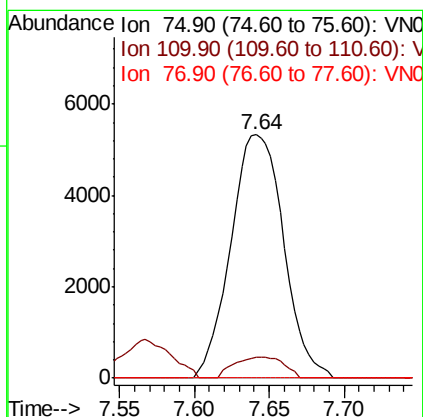
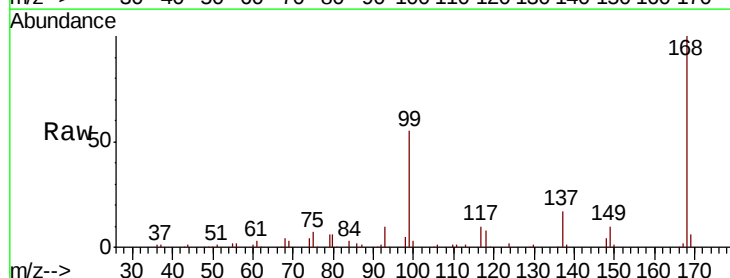
Instrument :  
 MSVOA\_N  
 ClientSampleId :

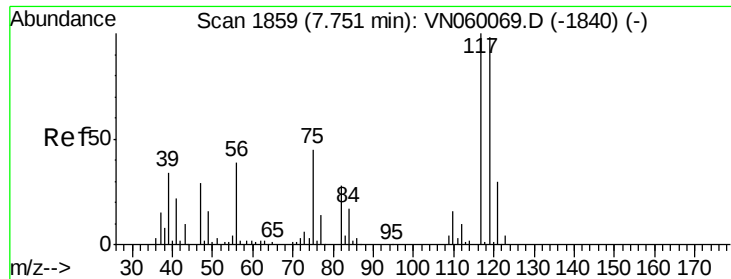
Tot Ion:113 Resp: 83601  
 Ion Ratio Lower Upper  
 113 100  
 111 103.3 81.4 122.2  
 192 20.3 16.2 24.2



#36  
 1,1-Dichloropropene  
 Concen: 5.065 ug/l  
 RT: 7.64 min Scan# 1825  
 Delta R.T. -0.13 min  
 Lab File: VN060129.D  
 Acq: 17 Feb 2020 18:53

Tgt Ion: 75 Resp: 13087  
 Ion Ratio Lower Upper  
 75 100  
 110 8.1 18.1 54.3#  
 77 0.0 25.1 37.7#

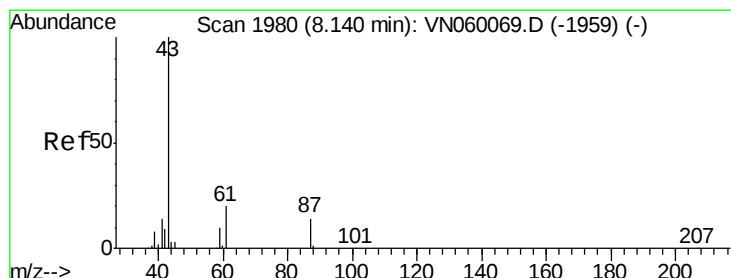
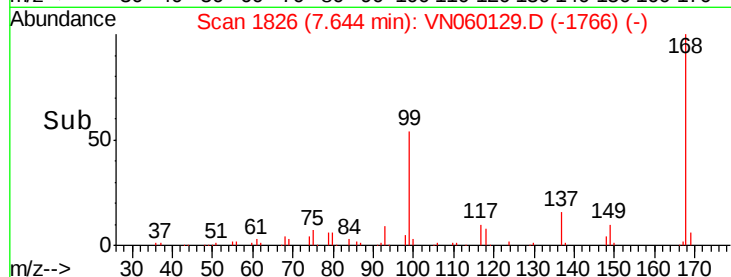
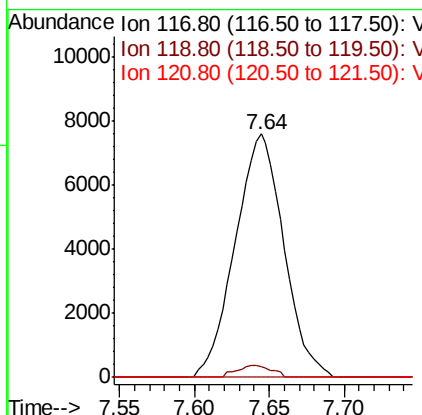
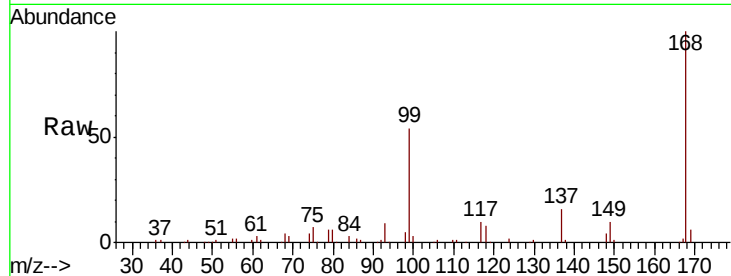




#38  
Carbon Tetrachloride  
Concen: 6.094 ug/l  
RT: 7.64 min Scan# 1826  
Delta R.T. -0.11 min  
Lab File: VN060129.D  
Acq: 17 Feb 2020 18:53

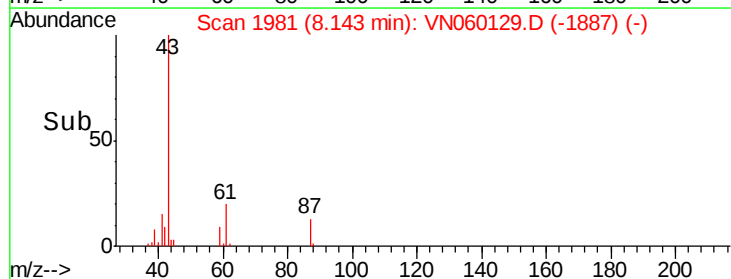
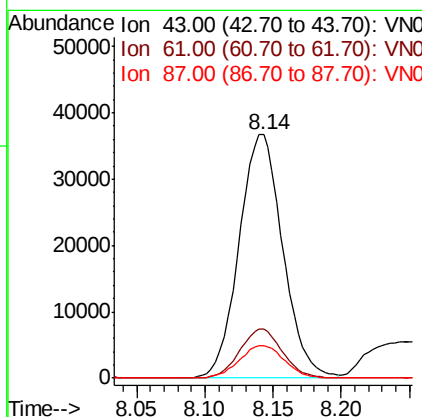
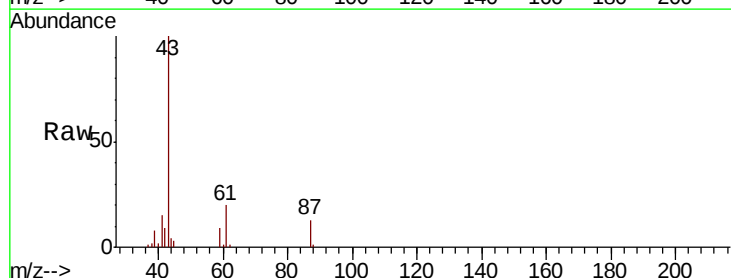
Instrument :  
MSVOA\_N  
ClientSampleId :

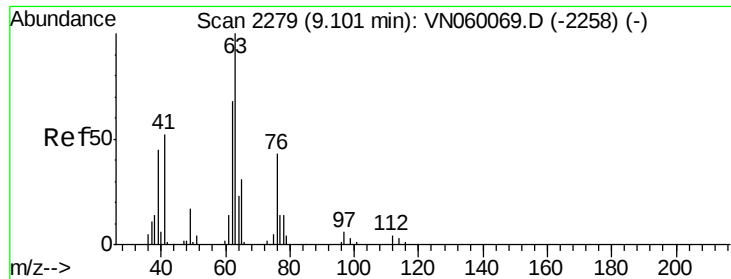
Tot Ion:117 Resp: 17103  
Ion Ratio Lower Upper  
117 100  
119 4.2 78.2 117.4#  
121 0.0 24.2 36.2#



#43  
Isopropyl Acetate  
Concen: 20.461 ug/l  
RT: 8.14 min Scan# 1981  
Delta R.T. 0.00 min  
Lab File: VN060129.D  
Acq: 17 Feb 2020 18:53

Tgt Ion: 43 Resp: 81682  
Ion Ratio Lower Upper  
43 100  
61 19.5 21.8 32.6#  
87 13.6 11.4 17.2

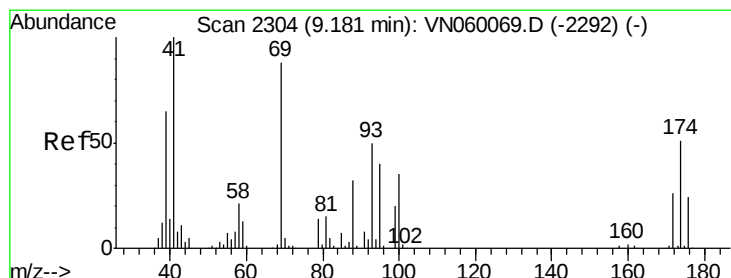
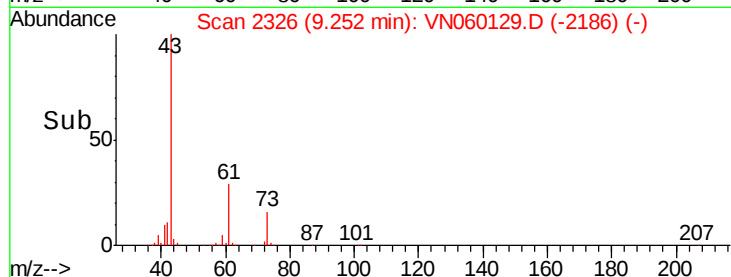
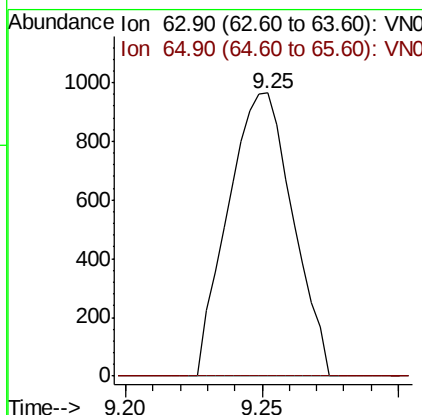
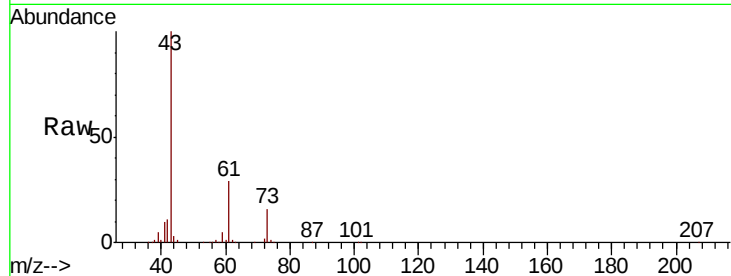




#45  
 1,2-Dichloropropane  
 Concen: 0.836 ug/l  
 RT: 9.25 min Scan# 2326  
 Delta R.T. 0.15 min  
 Lab File: VN060129.D  
 Acq: 17 Feb 2020 18:53

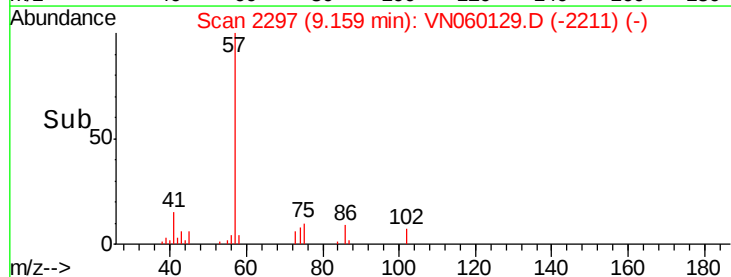
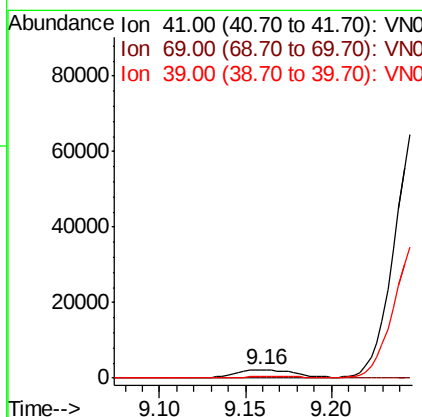
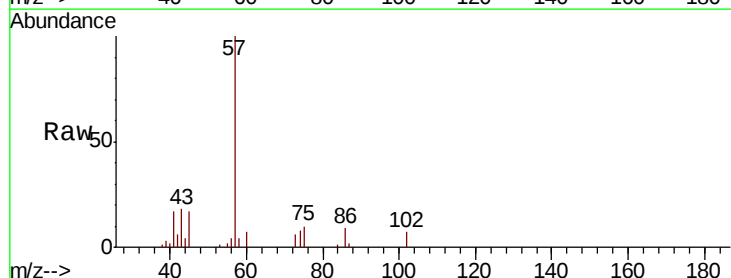
Instrument :  
 MSVOA\_N  
 ClientSampled :

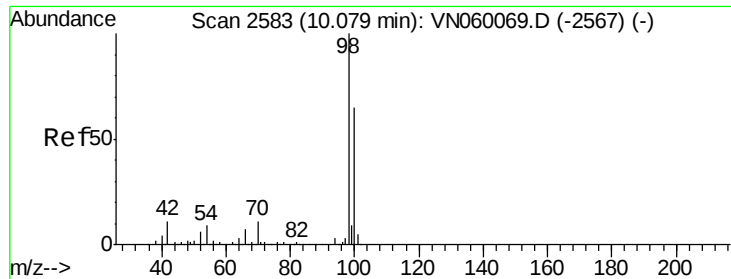
Tot Ion: 63 Resp: 1586  
 Ion Ratio Lower Upper  
 63 100  
 65 0.0 25.0 37.4#



#48  
 Methyl methacrylate  
 Concen: 3.076 ug/l  
 RT: 9.16 min Scan# 2297  
 Delta R.T. -0.02 min  
 Lab File: VN060129.D  
 Acq: 17 Feb 2020 18:53

Tgt Ion: 41 Resp: 5509  
 Ion Ratio Lower Upper  
 41 100  
 69 0.0 72.0 108.0#  
 39 0.0 54.1 81.1#





#50

Toluene-d8

Concen: 50.681 ug/l

RT: 10.08 min Scan# 2583

Delta R.T. -0.00 min

Lab File: VN060129.D

Acq: 17 Feb 2020 18:53

Instrument :

MSVOA\_N

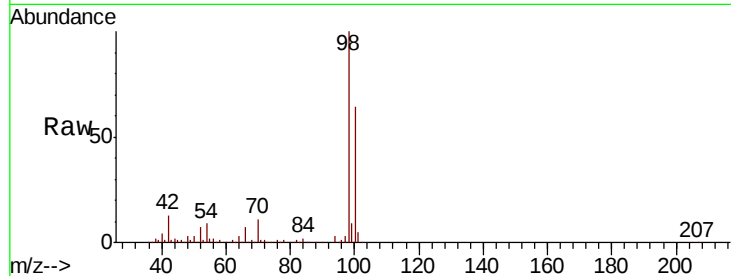
ClientSampleId :

Tot Ion: 98 Resp: 342252

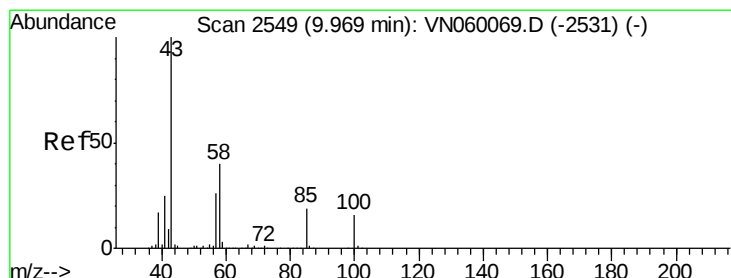
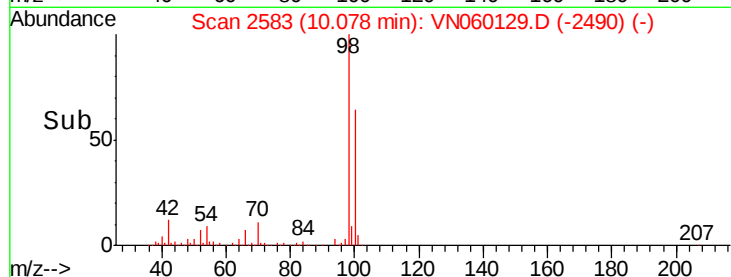
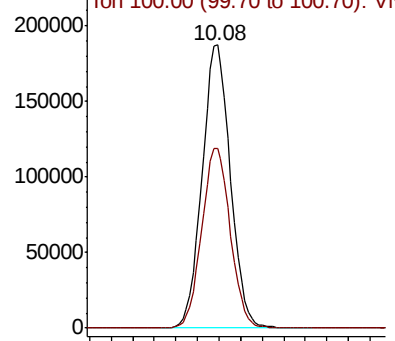
Ion Ratio Lower Upper

98 100

100 64.3 51.7 77.5



Abundance Ion 98.00 (97.70 to 98.70): VN060129.D (-2490) (-)



#51

4-Methyl-2-Pentanone

Concen: 3.243 ug/l

RT: 9.97 min Scan# 2549

Delta R.T. -0.00 min

Lab File: VN060129.D

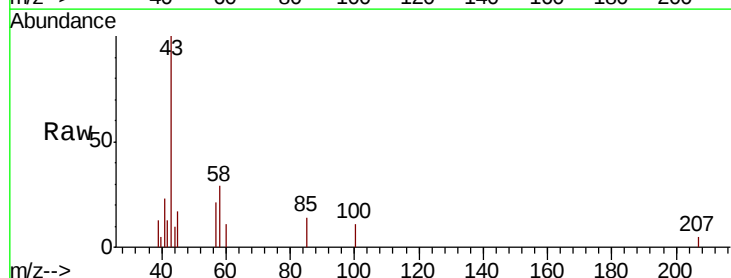
Acq: 17 Feb 2020 18:53

Tgt Ion: 43 Resp: 7494

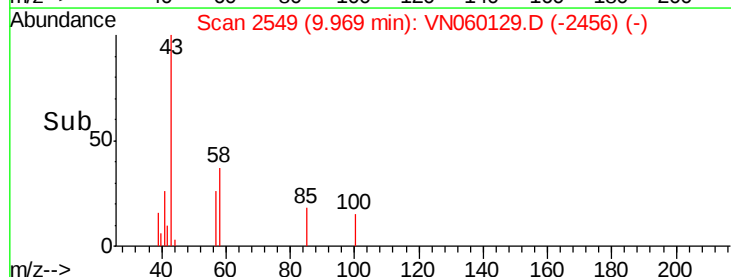
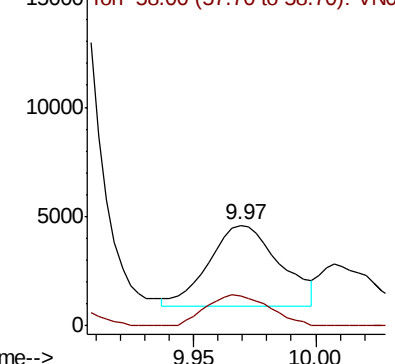
Ion Ratio Lower Upper

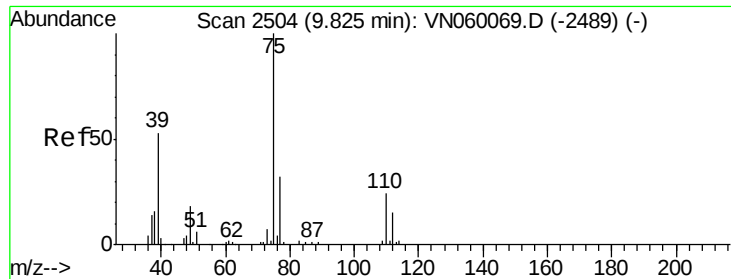
43 100

58 34.2 31.8 47.8



Abundance Ion 43.00 (42.70 to 43.70): VN060129.D (-2456) (-)



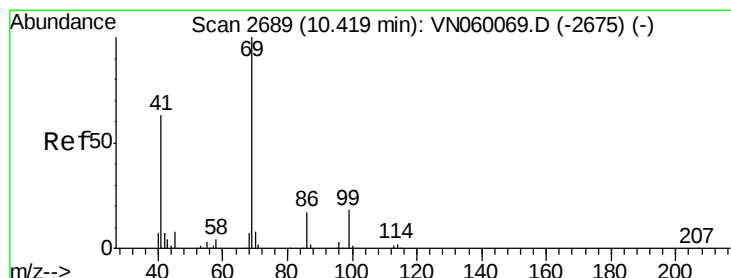
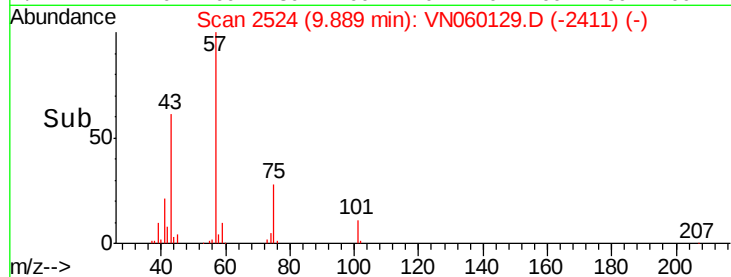
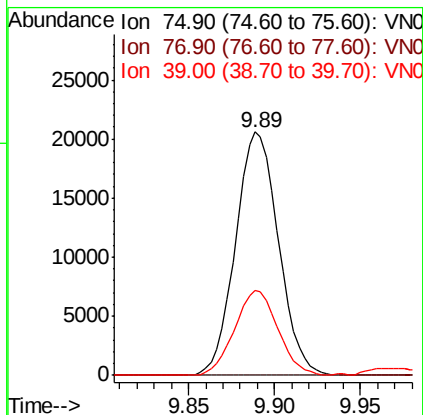
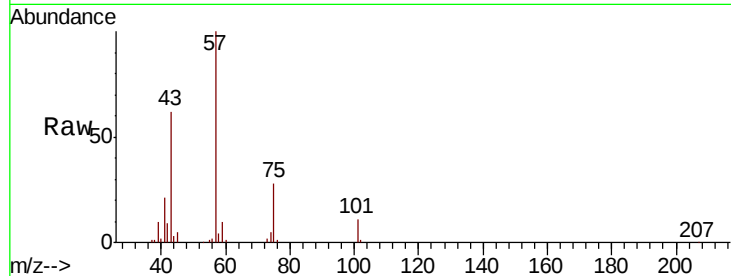


#54

cis-1,3-Dichloropropene  
 Concen: 10.990 ug/l  
 RT: 9.89 min Scan# 2524  
 Delta R.T. 0.06 min  
 Lab File: VN060129.D  
 Acq: 17 Feb 2020 18:53

Instrument :  
 MSVOA\_N  
 ClientSampled :

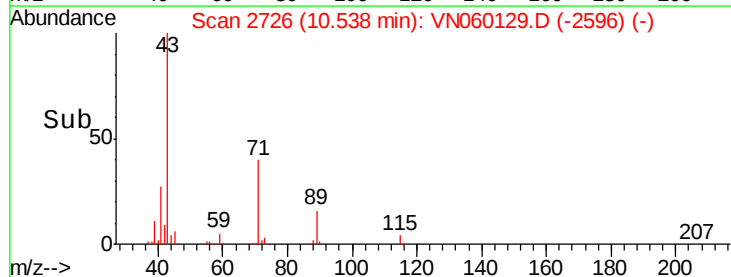
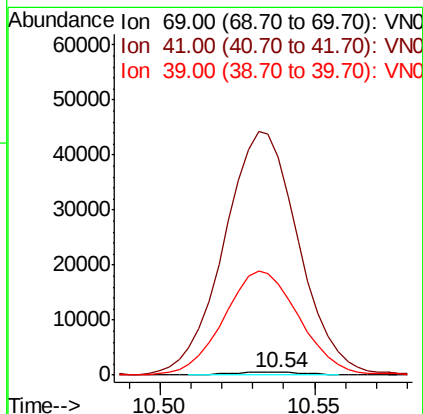
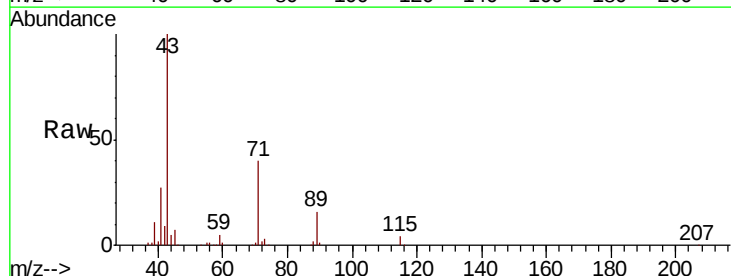
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 77      | 0.0   | 25.6  | 38.4# |
| 39      | 35.0  | 42.2  | 63.4# |

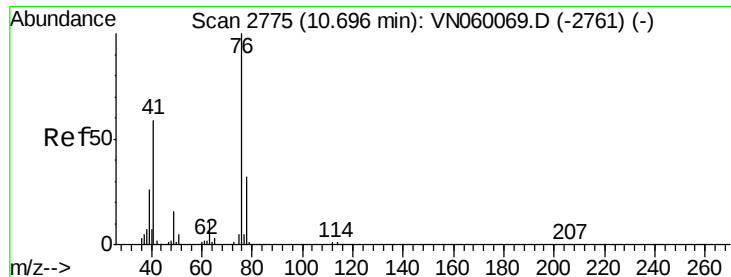


#56

Ethyl methacrylate  
 Concen: 0.331 ug/l  
 RT: 10.54 min Scan# 2726  
 Delta R.T. 0.12 min  
 Lab File: VN060129.D  
 Acq: 17 Feb 2020 18:53

| Tgt Ion | Ratio  | Lower | Upper |
|---------|--------|-------|-------|
| 69      | 100    |       |       |
| 41      | 8250.4 | 51.1  | 76.7# |
| 39      | 3607.1 | 33.8  | 50.8# |





#57

1,3-Dichloropropane

Concen: 1.837 ug/l

RT: 10.75 min Scan# 2793

Delta R.T. 0.06 min

Lab File: VN060129.D

Acq: 17 Feb 2020 18:53

Instrument :

MSVOA\_N

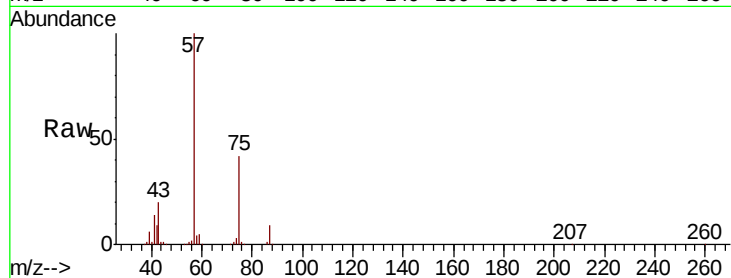
ClientSampled :

Tot Ion: 76 Resp: 5812

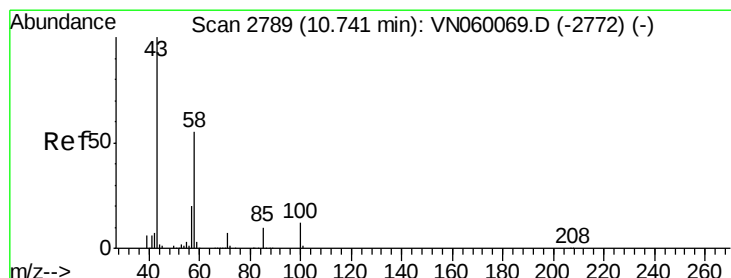
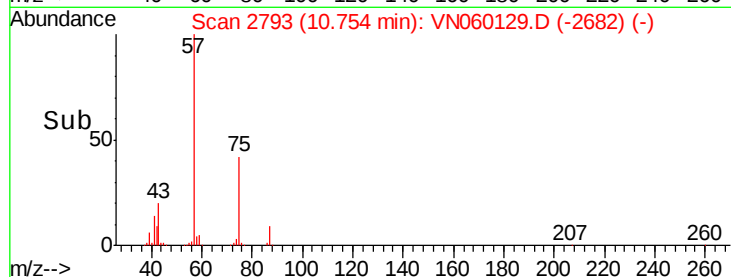
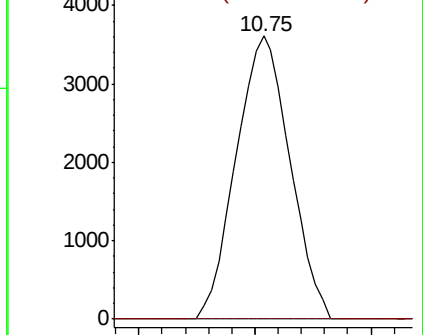
Ion Ratio Lower Upper

76 100

78 0.0 25.7 38.5#



Abundance Ion 75.90 (75.60 to 76.60): VN060129.D (-2761) (-)



#59

2-Hexanone

Concen: 45.509 ug/l

RT: 10.75 min Scan# 2793

Delta R.T. 0.01 min

Lab File: VN060129.D

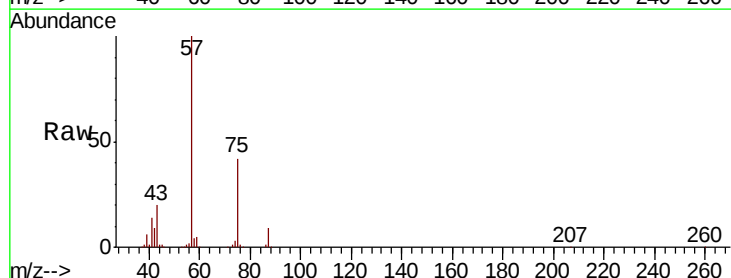
Acq: 17 Feb 2020 18:53

Tgt Ion: 43 Resp: 81232

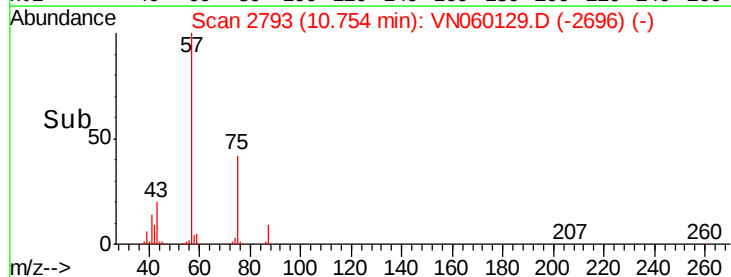
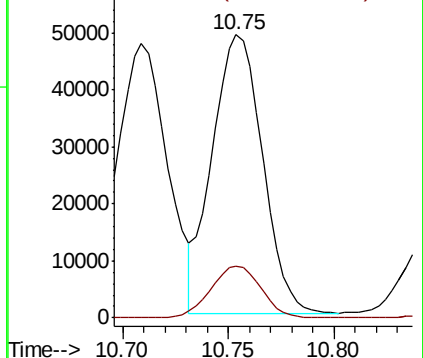
Ion Ratio Lower Upper

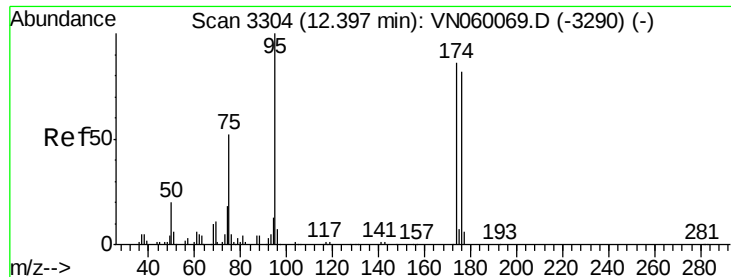
43 100

58 18.6 27.5 82.4#



Abundance Ion 43.00 (42.70 to 43.70): VN060129.D (-2696) (-)





#62

4-Bromofluorobenzene

Concen: 50.000 ug/l

RT: 12.40 min Scan# 3304

Delta R.T. -0.00 min

Lab File: VN060129.D

Acq: 17 Feb 2020 18:53

Instrument :

MSVOA\_N

ClientSampled :

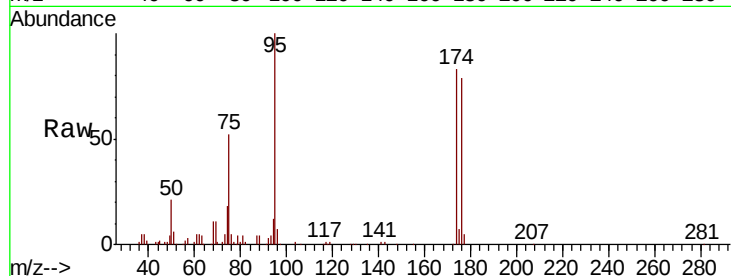
Tot Ion: 95 Resp: 124073

Ion Ratio Lower Upper

95 100

174 82.8 0.0 169.8

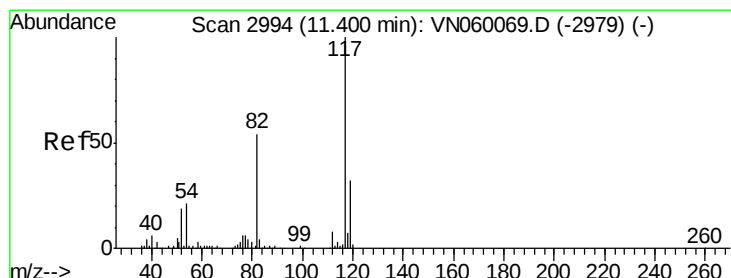
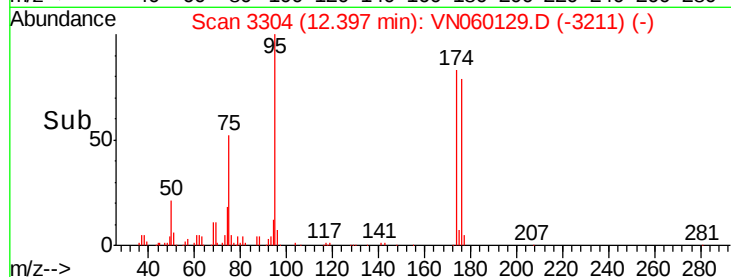
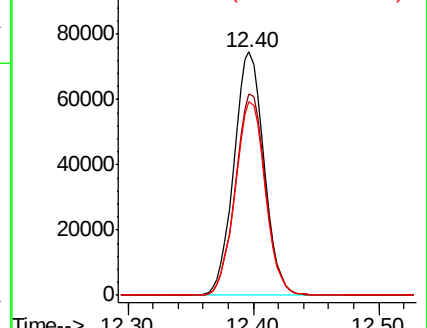
176 79.9 0.0 164.8



Abundance Ion 94.90 (94.60 to 95.60): VN060129.D (-3290) (-)

Ion 173.80 (173.50 to 174.50): VN060129.D (-3290) (-)

Ion 175.80 (175.50 to 176.50): VN060129.D (-3290) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.40 min Scan# 2994

Delta R.T. -0.00 min

Lab File: VN060129.D

Acq: 17 Feb 2020 18:53

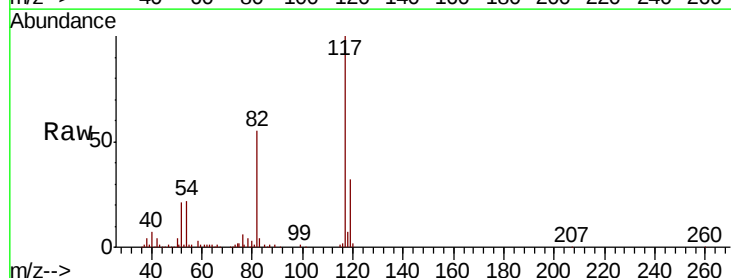
Tgt Ion: 117 Resp: 262568

Ion Ratio Lower Upper

117 100

82 55.2 43.4 65.0

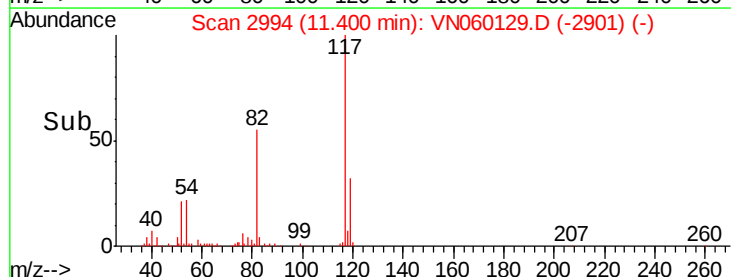
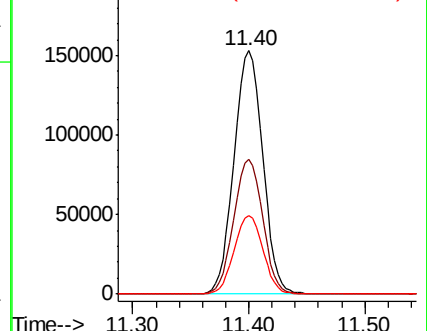
119 32.3 25.8 38.6

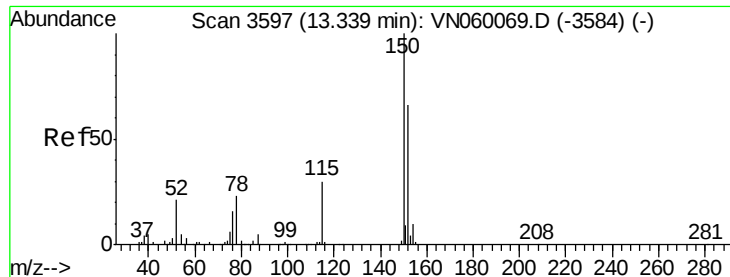


Abundance Ion 116.90 (116.60 to 117.60): VN060129.D (-2979) (-)

Ion 82.00 (81.70 to 82.70): VN060129.D (-2979) (-)

Ion 118.90 (118.60 to 119.60): VN060129.D (-2979) (-)



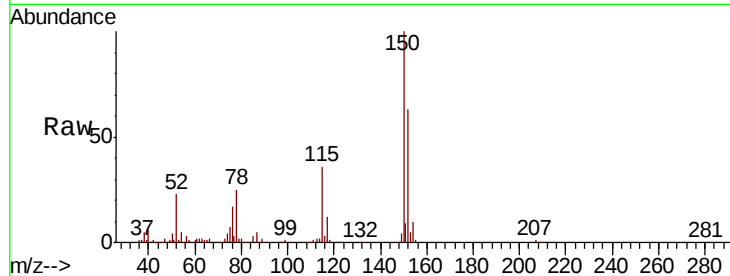


#72

1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.34 min Scan# 3597  
Delta R.T. -0.00 min  
Lab File: VN060129.D  
Acq: 17 Feb 2020 18:53

Instrument :  
MSVOA\_N  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 57.6  | 28.9  | 86.8  |
| 150     | 157.0 | 0.0   | 342.4 |

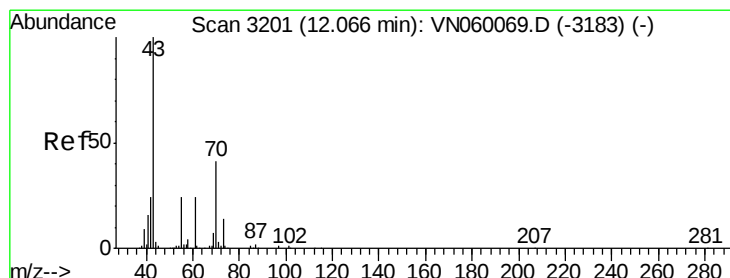
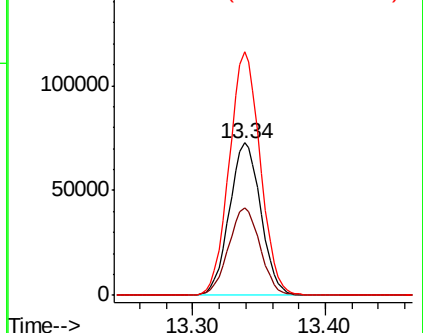
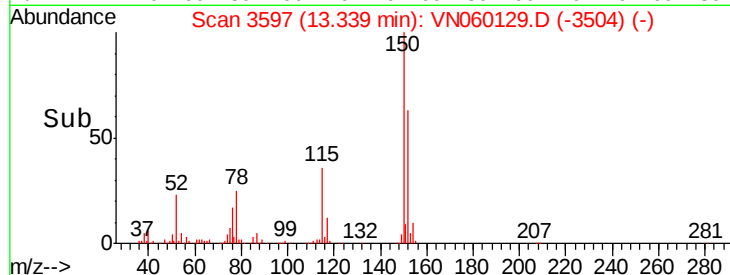


Abundance

Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

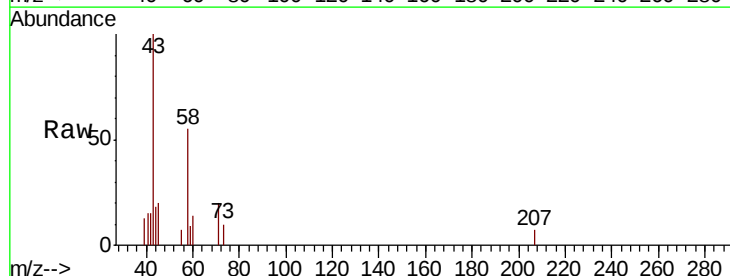
Ion 149.90 (149.60 to 150.60): V



#74

N-ethyl acetate  
Concen: 1.396 ug/l  
RT: 12.03 min Scan# 3189  
Delta R.T. -0.04 min  
Lab File: VN060129.D  
Acq: 17 Feb 2020 18:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 70      | 0.0   | 33.4  | 50.0# |
| 55      | 2.1   | 18.8  | 28.2# |
| 61      | 0.0   | 19.2  | 28.8# |



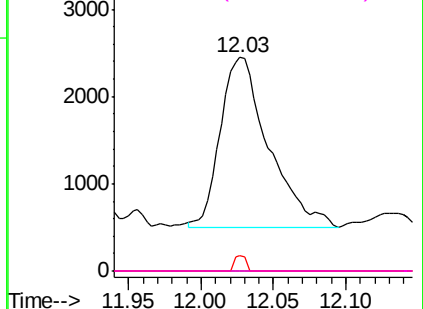
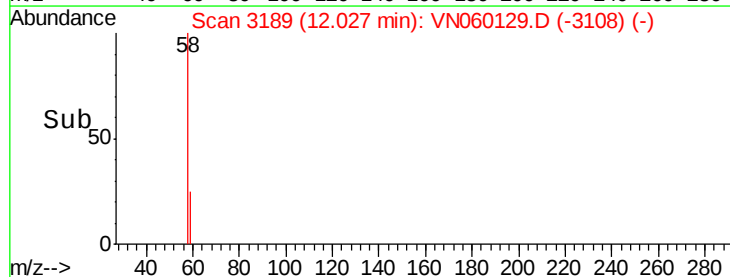
Abundance

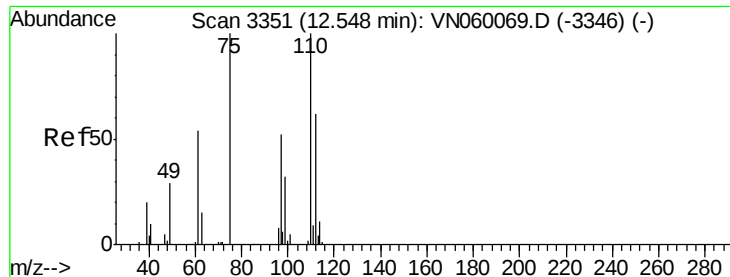
Ion 43.00 (42.70 to 43.70): VN0

Ion 70.00 (69.70 to 70.70): VN0

Ion 55.00 (54.70 to 55.70): VN0

Ion 61.00 (60.70 to 61.70): VN0





#76

1,2,3-Trichloropropane

Concen: 28.081 ug/l

RT: 12.40 min Scan# 3304

Delta R.T. -0.15 min

Lab File: VN060129.D

Acq: 17 Feb 2020 18:53

Instrument :

MSVOA\_N

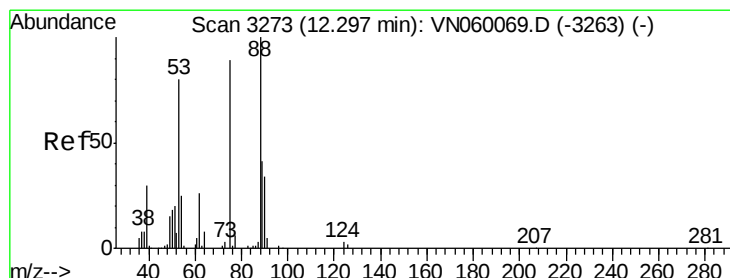
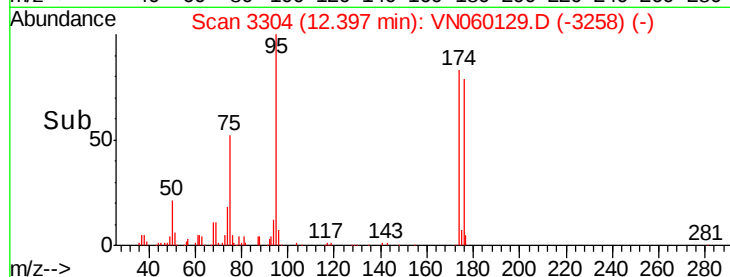
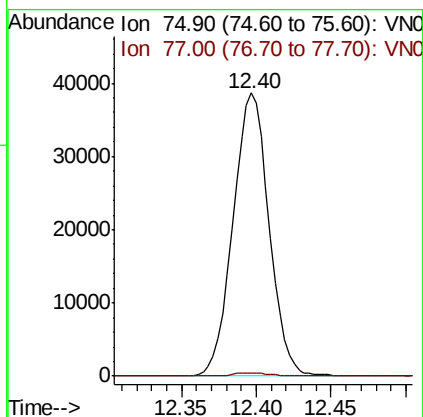
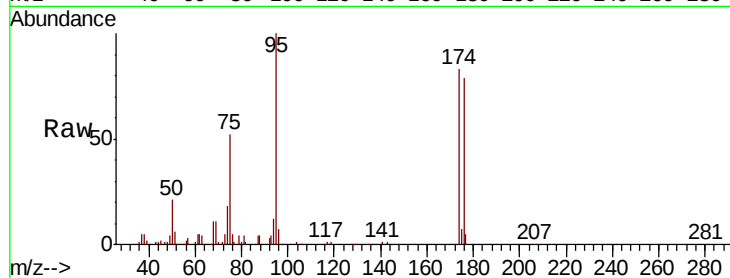
ClientSampleId :

Tot Ion: 75 Resp: 64530

Ion Ratio Lower Upper

75 100

77 1.0 0.0 0.0#



#81

trans-1,4-Dichloro-2-butene

Concen: 68.756 ug/l

RT: 12.40 min Scan# 3304

Delta R.T. 0.10 min

Lab File: VN060129.D

Acq: 17 Feb 2020 18:53

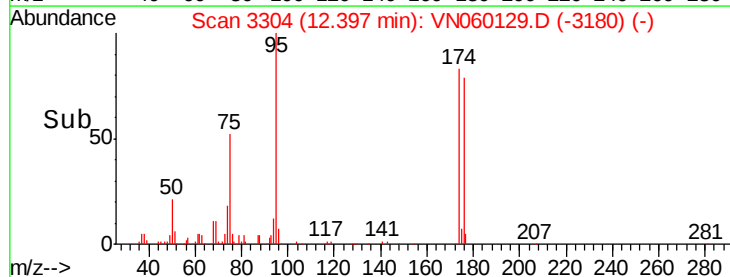
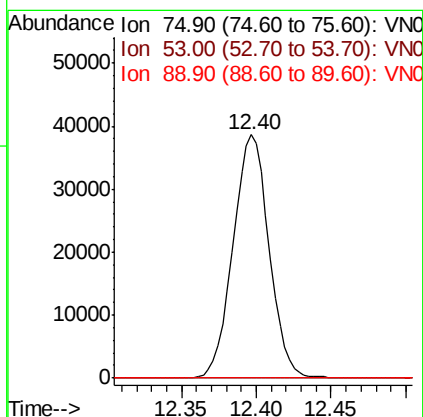
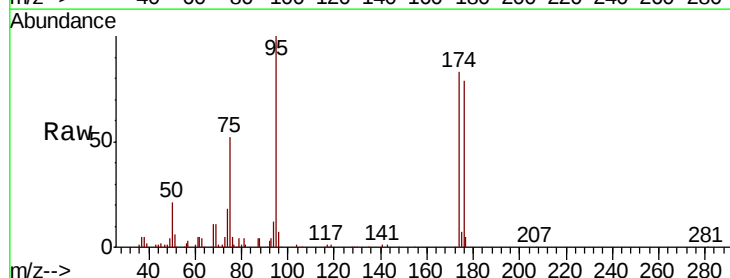
Tgt Ion: 75 Resp: 64530

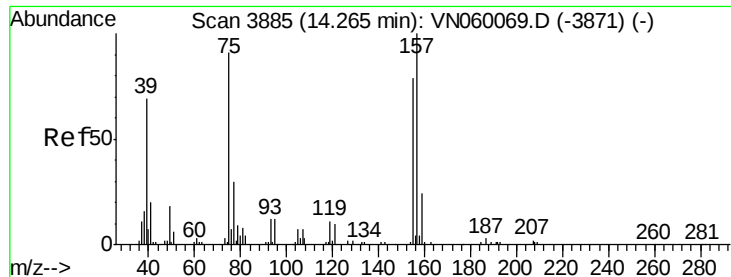
Ion Ratio Lower Upper

75 100

53 0.0 73.9 110.9#

89 0.0 37.0 55.4#





#92

1,2-Dibromo-3-Chloropropane

Concen: Below Cal

RT: 14.31 min Scan# 3899

Delta R.T. 0.05 min

Lab File: VN060129.D

Acq: 17 Feb 2020 18:53

Instrument :

MSVOA\_N

ClientSampleId :

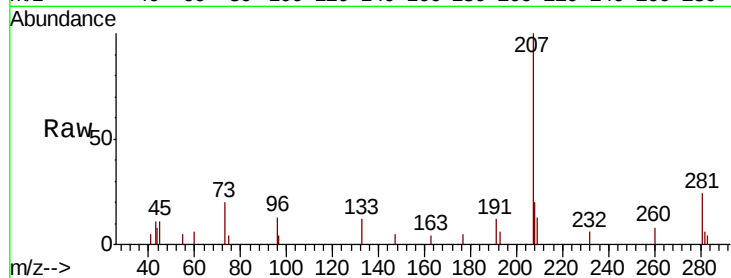
Tot Ion: 75 Resp: 30

Ion Ratio Lower Upper

75 100

155 0.0 43.0 129.0#

157 0.0 54.9 164.5#



Abundance Ion 74.90 (74.60 to 75.60): VN060129.D (-3791) (-)

Ion 154.80 (154.50 to 155.50): VN060129.D (-3791) (-)

Ion 156.80 (156.50 to 157.50): VN060129.D (-3791) (-)

