

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN111318\  
 Data File : VN052298.D  
 Acq On : 13 Nov 2018 20:23  
 Operator : MD\SY  
 Sample : PB114744ZHE#11  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 23 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Nov 14 00:11:48 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N110918W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Nov 12 00:34:27 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 300694   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 514977   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 427428   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 154213   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc     | Units | Dev(Min) |
|-----------------------------|-------|------|----------|----------|-------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.03  | 65   | 211657   | 51.47    | ug/l  | 0.00     |
| Spiked Amount               |       |      |          |          |       |          |
|                             |       |      |          | Recovery | =     | 102.94%  |
| 35) Dibromofluoromethane    | 7.59  | 113  | 162007   | 48.57    | ug/l  | 0.00     |
| Spiked Amount               |       |      |          |          |       |          |
|                             |       |      |          | Recovery | =     | 97.14%   |
| 50) Toluene-d8              | 10.09 | 98   | 631699   | 48.38    | ug/l  | 0.00     |
| Spiked Amount               |       |      |          |          |       |          |
|                             |       |      |          | Recovery | =     | 96.76%   |
| 62) 4-Bromofluorobenzene    | 12.40 | 95   | 182995   | 43.34    | ug/l  | 0.00     |
| Spiked Amount               |       |      |          |          |       |          |
|                             |       |      |          | Recovery | =     | 86.68%   |

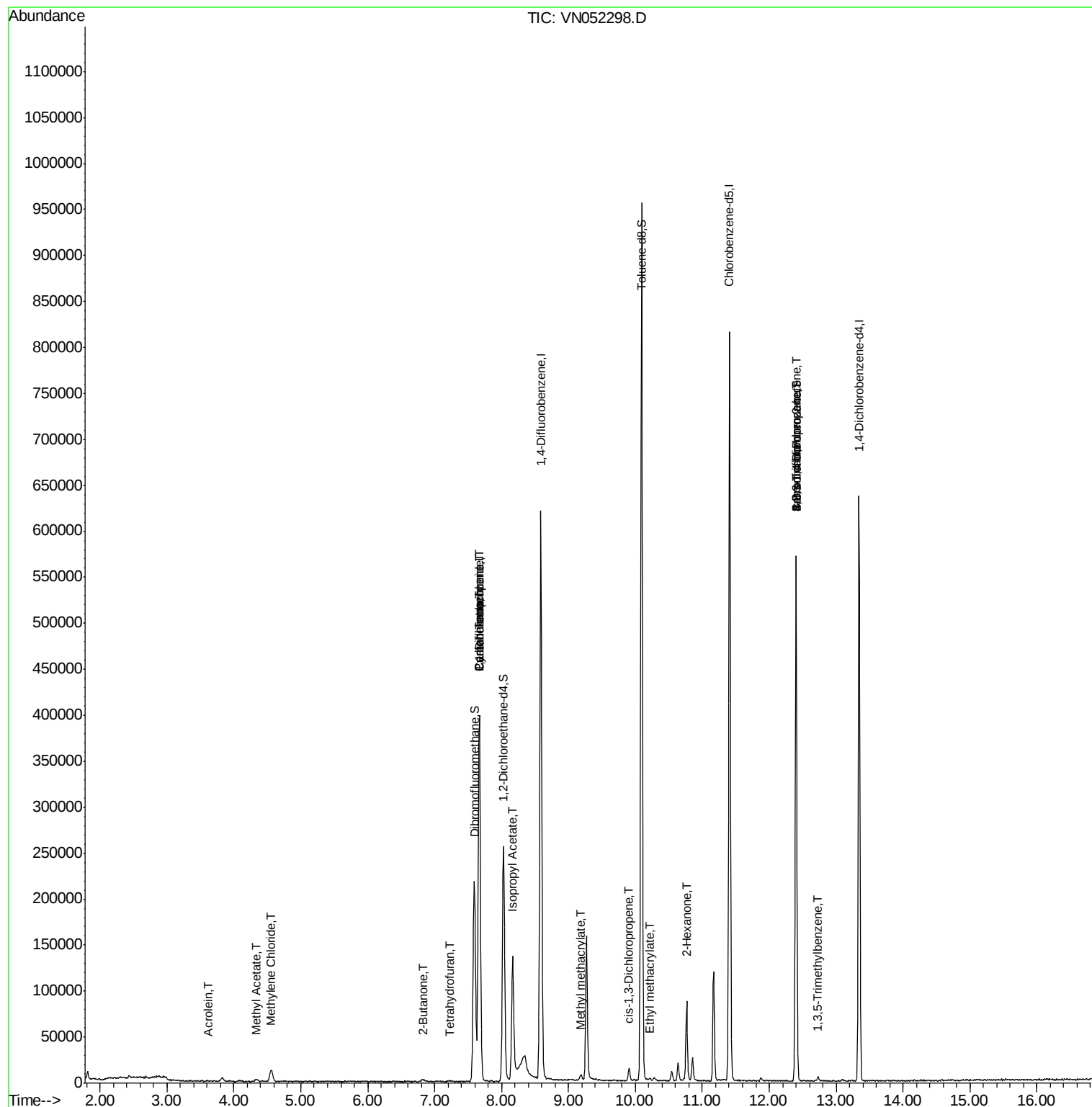
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 13) Acrolein                   | 3.61  | 56   | 92       | 34.342    | ug/l # | 12     |
| 16) Acetone                    | 3.82  | 43   | 7434     | Below Cal |        | 98     |
| 18) Methyl Acetate             | 4.33  | 43   | 3942     | 1.147     | ug/l # | 74     |
| 20) Methylene Chloride         | 4.55  | 84   | 8579     | 2.288     | ug/l   | 97     |
| 25) 2-Butanone                 | 6.83  | 43   | 547      | 0.312     | ug/l # | 52     |
| 29) Tetrahydrofuran            | 7.22  | 42   | 274      | 0.240     | ug/l # | 40     |
| 31) Cyclohexane                | 7.67  | 56   | 9204     | 0.766     | ug/l # | 23     |
| 36) 1,1-Dichloropropene        | 7.67  | 75   | 26303    | 5.060     | ug/l # | 52     |
| 38) Carbon Tetrachloride       | 7.66  | 117  | 32123    | 6.819     | ug/l # | 18     |
| 43) Isopropyl Acetate          | 8.17  | 43   | 169933   | 24.937    | ug/l   | 97     |
| 48) Methyl methacrylate        | 9.18  | 41   | 3472     | 0.967     | ug/l # | 15     |
| 54) cis-1,3-Dichloropropene    | 9.90  | 75   | 2022     | 0.351     | ug/l # | 72     |
| 56) Ethyl methacrylate         | 10.22 | 69   | 1159     | 0.264     | ug/l # | 45     |
| 59) 2-Hexanone                 | 10.76 | 43   | 13591    | 5.145     | ug/l # | 59     |
| 71) Bromoform                  | 12.40 | 173  | 1516     | 0.828     | ug/l # | 1      |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75   | 102083   | 37.415    | ug/l # | 100    |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 2301     | 0.230     | ug/l   | 90     |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75   | 102083   | 127.713   | ug/l # | 8      |

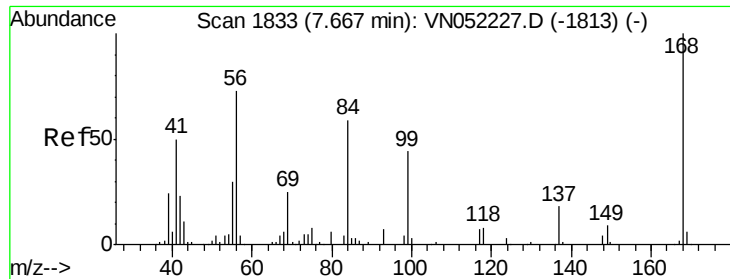
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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MSVOA\_N  
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Quant Time: Nov 14 00:11:48 2018  
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Quant Title : SW846 8260  
QLast Update : Mon Nov 12 00:34:27 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.67 min Scan# 1833

Delta R.T. 0.00 min

Lab File: VN052298.D

Acq: 13 Nov 2018 20:23

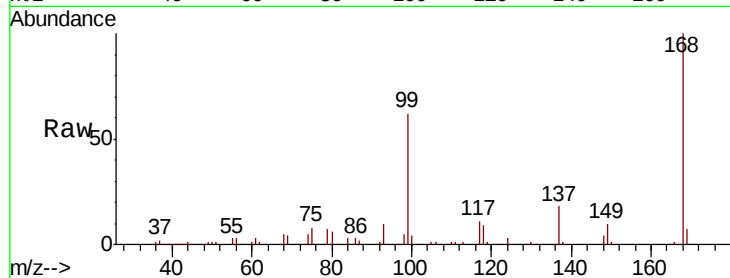
Instrument :  
MSVOA\_N  
ClientSampleId :

Tot Ion:168 Resp: 300694

Ion Ratio Lower Upper

168 100

99 61.9 44.7 67.1



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN

7.67

150000

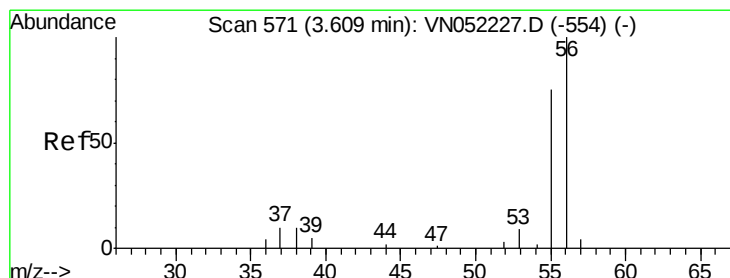
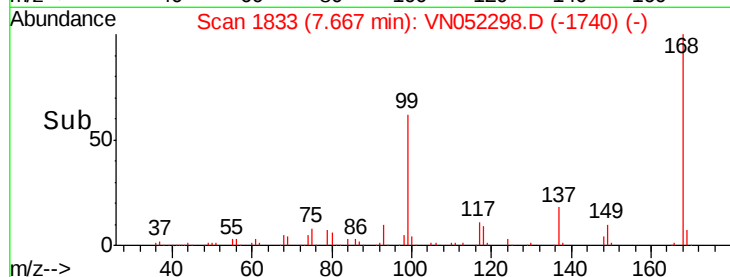
100000

50000

0

Time-->

7.60 7.70 7.80



#13

Acrolein

Concen: 34.342 ug/l

RT: 3.61 min Scan# 570

Delta R.T. -0.00 min

Lab File: VN052298.D

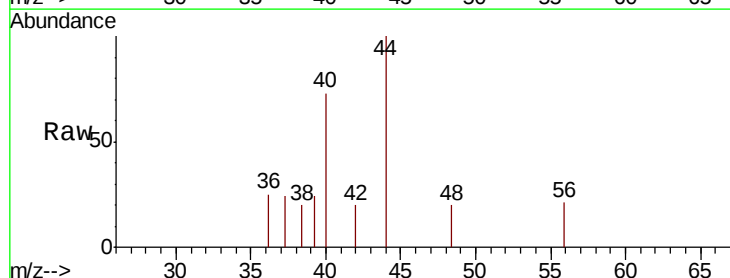
Acq: 13 Nov 2018 20:23

Tgt Ion: 56 Resp: 92

Ion Ratio Lower Upper

56 100

55 0.0 59.9 89.9#



Abundance Ion 56.00 (55.70 to 56.70): VN

Ion 55.00 (54.70 to 55.70): VN

3.61

150

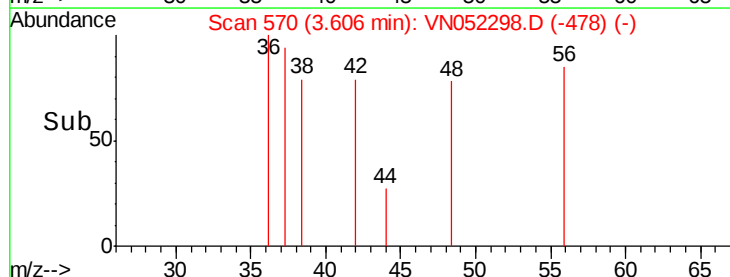
100

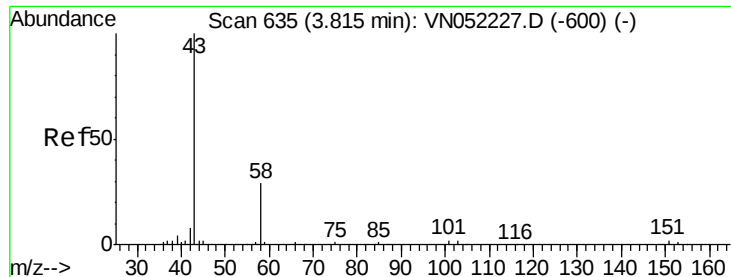
50

0

Time-->

3.59 3.60 3.61 3.62





#16

Acetone

Concen: Below Cal

RT: 3.82 min Scan# 637

Delta R.T. 0.01 min

Lab File: VN052298.D

Acq: 13 Nov 2018 20:23

Instrument :

MSVOA\_N

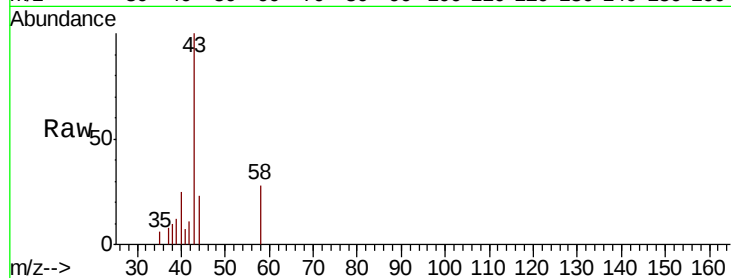
ClientSampled :

Tot Ion: 43 Resp: 7434

Ion Ratio Lower Upper

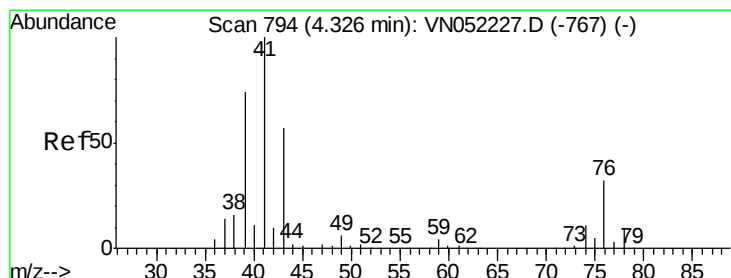
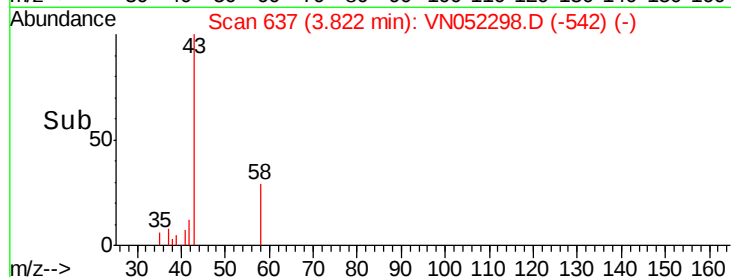
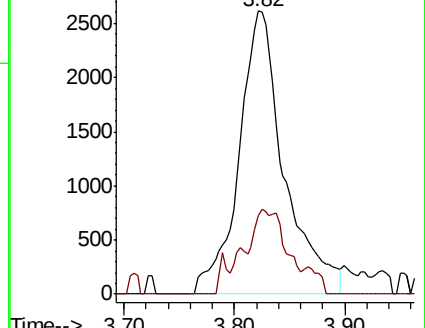
43 100

58 27.7 23.0 34.6



Abundance Ion 43.00 (42.70 to 43.70): VN052227.D (-600) (-)

Ion 58.00 (57.70 to 58.70): VN052227.D (-600) (-)



#18

Methyl Acetate

Concen: 1.147 ug/l

RT: 4.33 min Scan# 796

Delta R.T. 0.01 min

Lab File: VN052298.D

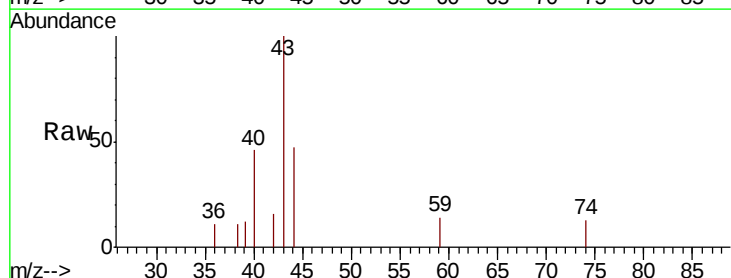
Acq: 13 Nov 2018 20:23

Tgt Ion: 43 Resp: 3942

Ion Ratio Lower Upper

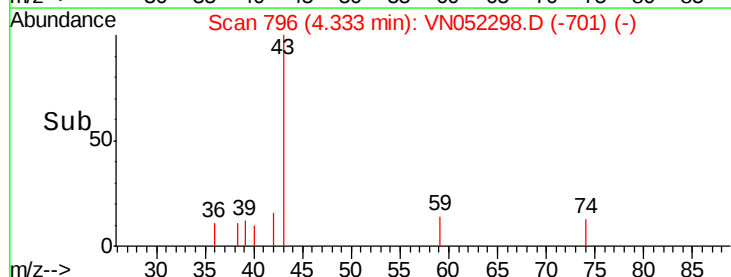
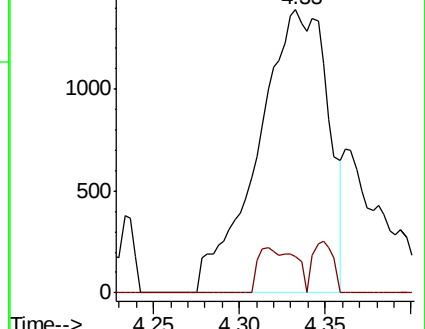
43 100

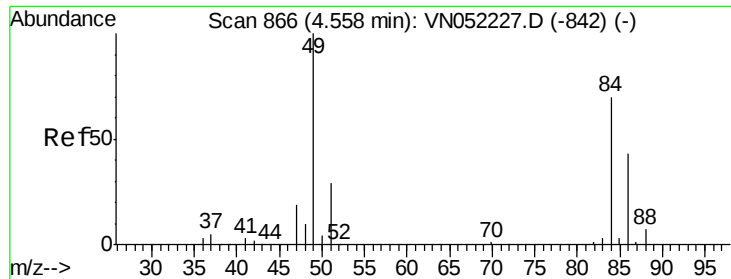
74 8.3 16.2 24.2#



Abundance Ion 43.00 (42.70 to 43.70): VN052227.D (-767) (-)

Ion 74.00 (73.70 to 74.70): VN052227.D (-767) (-)

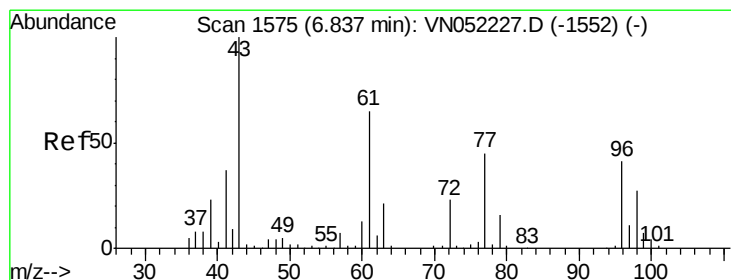
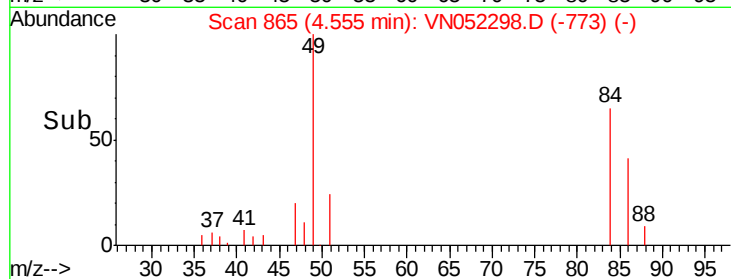
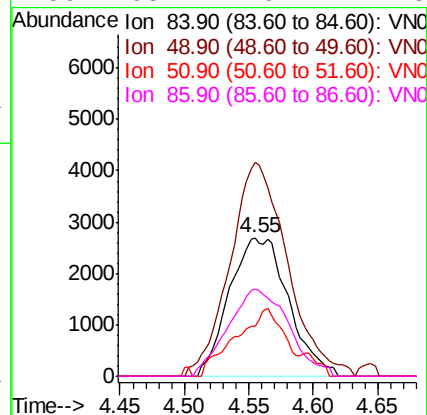
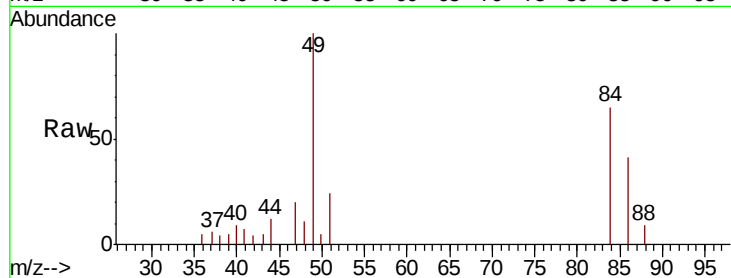




#20  
Methvlene Chloride  
Concen: 2.288 ug/l  
RT: 4.55 min Scan# 865  
Delta R.T. -0.00 min  
Lab File: VN052298.D  
Acq: 13 Nov 2018 20:23

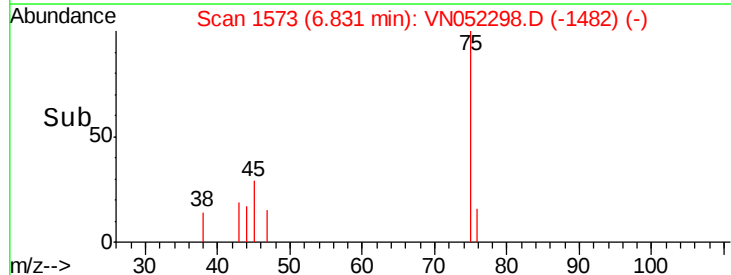
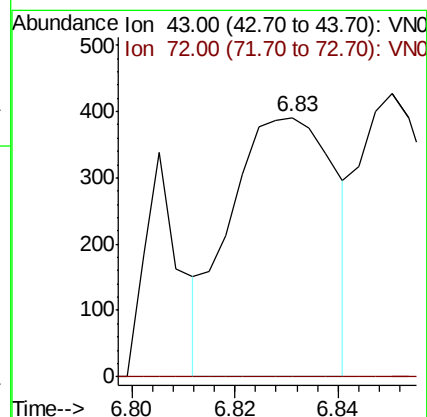
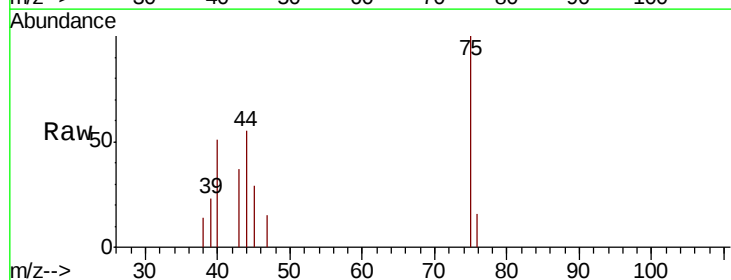
Instrument :  
MSVOA\_N  
ClientSampleId :

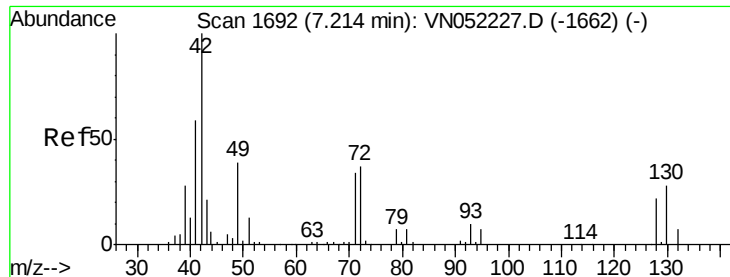
Tot Ion: 84 Resp: 8579  
Ion Ratio Lower Upper  
84 100  
49 147.1 114.8 172.2  
51 36.5 33.1 49.7  
86 63.2 49.7 74.5



#25  
2-Butanone  
Concen: 0.312 ug/l  
RT: 6.83 min Scan# 1573  
Delta R.T. -0.01 min  
Lab File: VN052298.D  
Acq: 13 Nov 2018 20:23

Tgt Ion: 43 Resp: 547  
Ion Ratio Lower Upper  
43 100  
72 0.0 18.6 27.8#





#29

Tetrahydrofuran

Concen: 0.240 ug/l

RT: 7.22 min Scan# 1693

Delta R.T. 0.00 min

Lab File: VN052298.D

Acq: 13 Nov 2018 20:23

Instrument :

MSVOA\_N

ClientSampled :

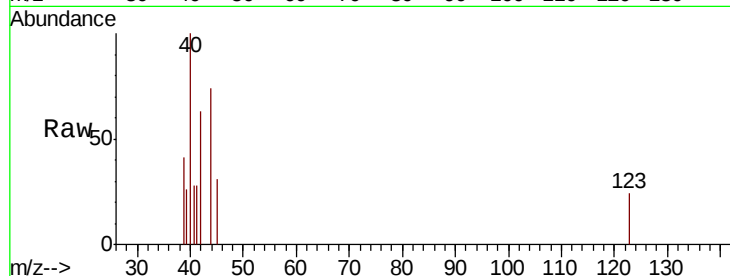
Tot Ion: 42 Resp: 274

Ion Ratio Lower Upper

42 100

72 0.0 28.6 43.0#

71 0.0 27.1 40.7#



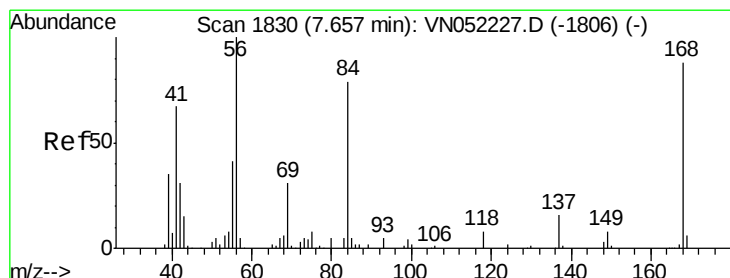
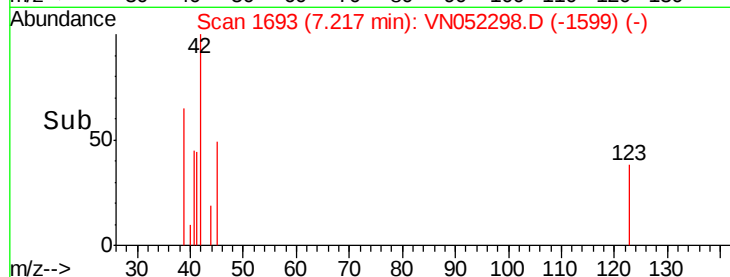
Abundance Ion 42.00 (41.70 to 42.70): VN052227.D (-1662) (-)

Ion 72.00 (71.70 to 72.70): VN052227.D (-1662) (-)

Ion 71.00 (70.70 to 71.70): VN052227.D (-1662) (-)

7.22

Time-->



#31

Cyclohexane

Concen: 0.766 ug/l

RT: 7.67 min Scan# 1833

Delta R.T. 0.01 min

Lab File: VN052298.D

Acq: 13 Nov 2018 20:23

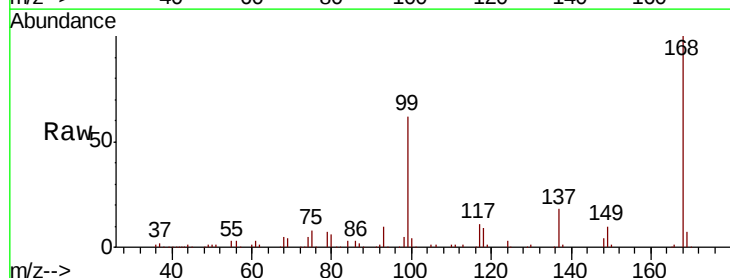
Tgt Ion: 56 Resp: 9204

Ion Ratio Lower Upper

56 100

69 139.0 24.8 37.2#

84 104.7 63.1 94.7#



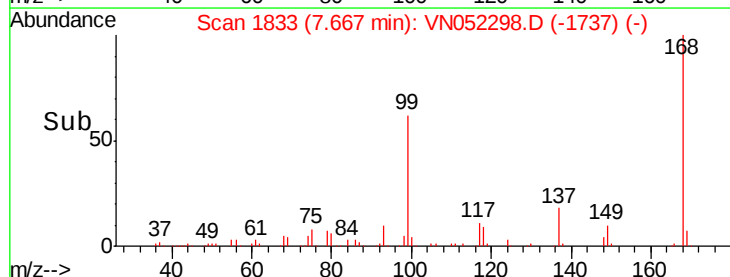
Abundance Ion 56.00 (55.70 to 56.70): VN052227.D (-1806) (-)

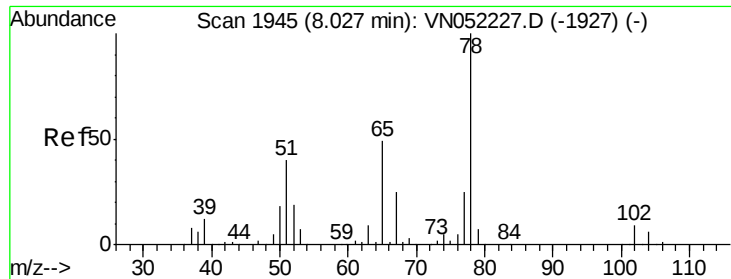
Ion 69.00 (68.70 to 69.70): VN052227.D (-1806) (-)

Ion 84.00 (83.70 to 84.70): VN052227.D (-1806) (-)

7.67

Time-->

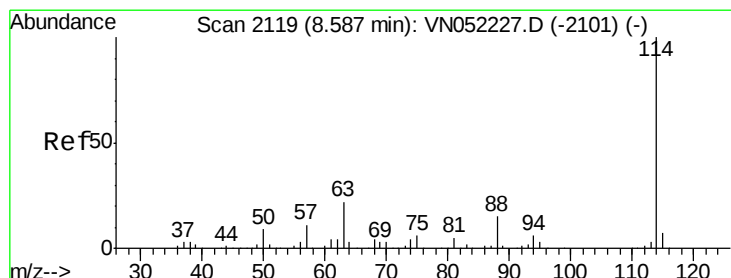
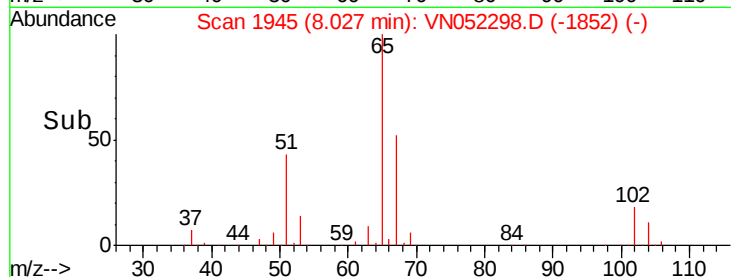
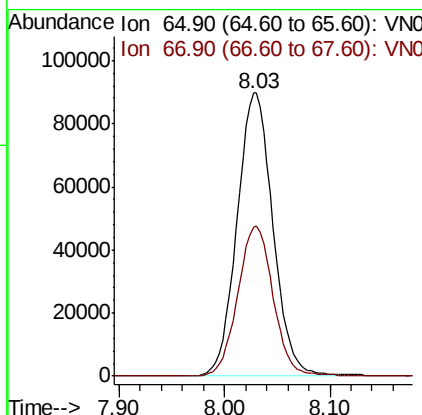
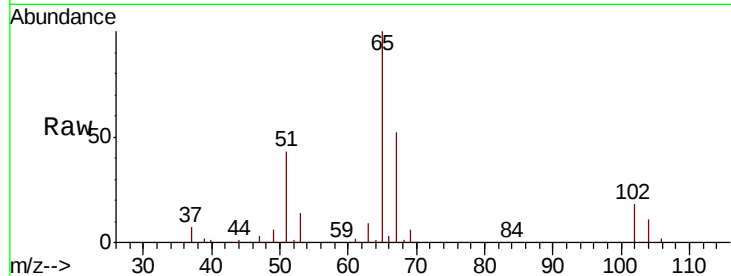




#33  
 1,2-Dichloroethane-d4  
 Concen: Below ug/l  
 RT: 8.03 min Scan# 1945  
 Delta R.T. 0.00 min  
 Lab File: VN052298.D  
 Acq: 13 Nov 2018 20:23

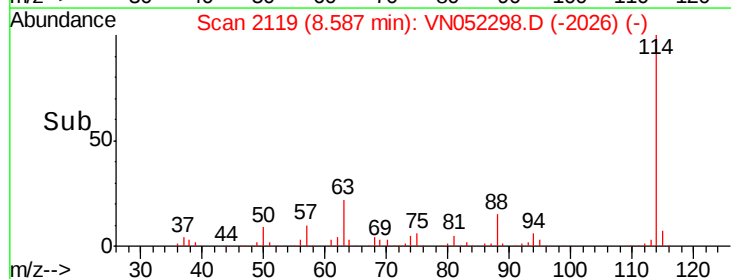
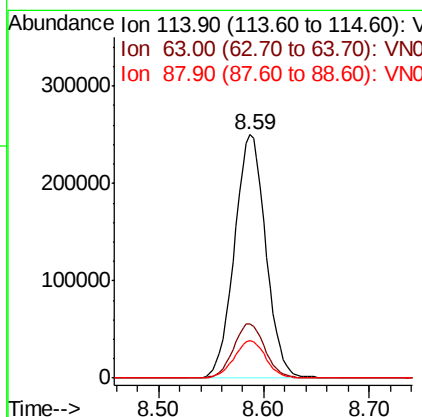
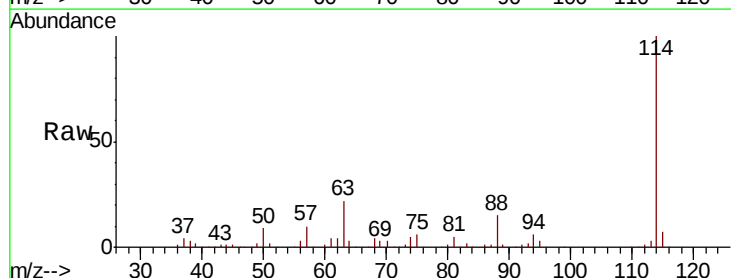
Instrument :  
 MSVOA\_N  
 ClientSampled :

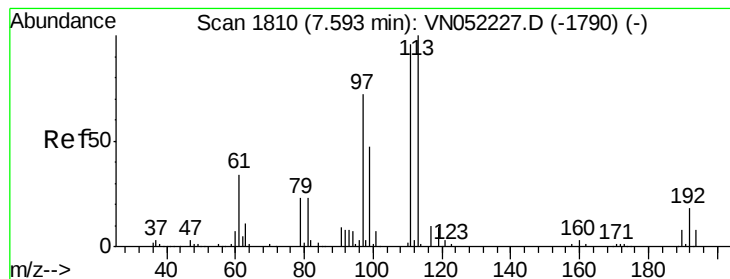
Tot Ion: 65 Resp: 211657  
 Ion Ratio Lower Upper  
 65 100  
 67 52.5 0.0 106.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.59 min Scan# 2119  
 Delta R.T. 0.00 min  
 Lab File: VN052298.D  
 Acq: 13 Nov 2018 20:23

Tgt Ion: 114 Resp: 514977  
 Ion Ratio Lower Upper  
 114 100  
 63 22.3 0.0 43.4  
 88 15.2 0.0 30.2





#35

Dibromofluoromethane

Concen: 50.000 ug/l

RT: 7.59 min Scan# 1809

Delta R.T. -0.00 min

Lab File: VN052298.D

Acq: 13 Nov 2018 20:23

Instrument :

MSVOA\_N

ClientSampleId :

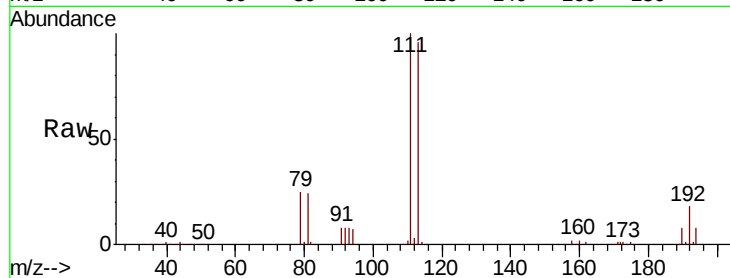
Tot Ion:113 Resp: 162007

Ion Ratio Lower Upper

113 100

111 103.1 80.2 120.4

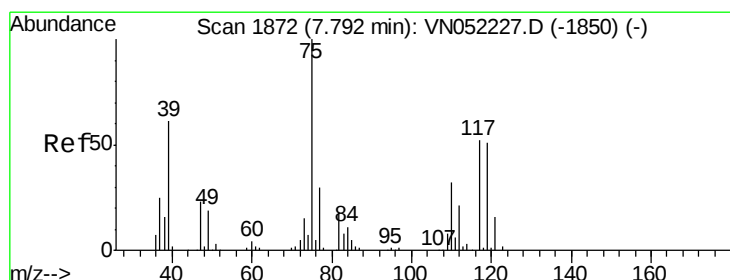
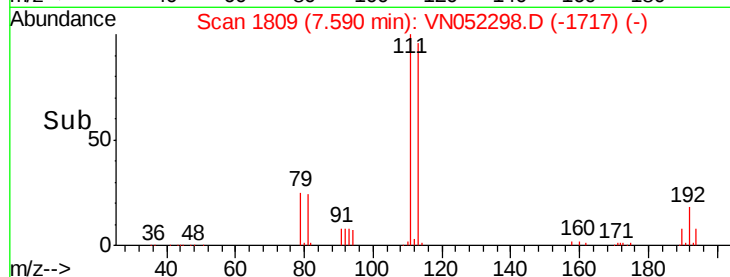
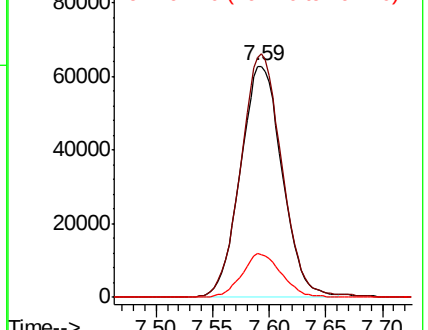
192 18.0 14.1 21.1



Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V



#36

1,1-Dichloropropene

Concen: 5.060 ug/l

RT: 7.67 min Scan# 1834

Delta R.T. -0.12 min

Lab File: VN052298.D

Acq: 13 Nov 2018 20:23

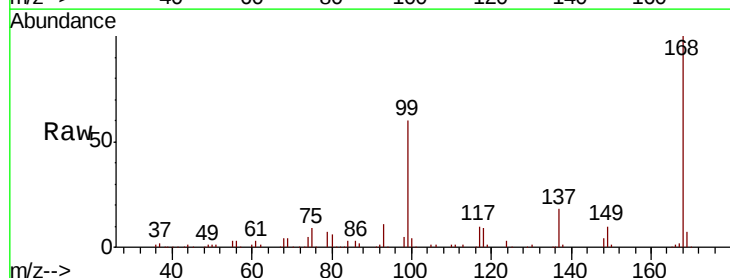
Tgt Ion: 75 Resp: 26303

Ion Ratio Lower Upper

75 100

110 9.9 16.4 49.4#

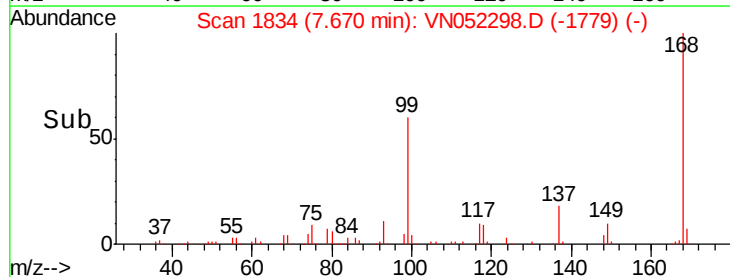
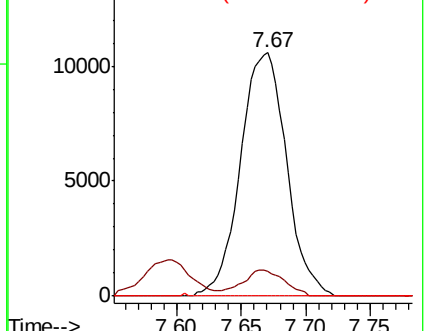
77 0.0 23.9 35.9#

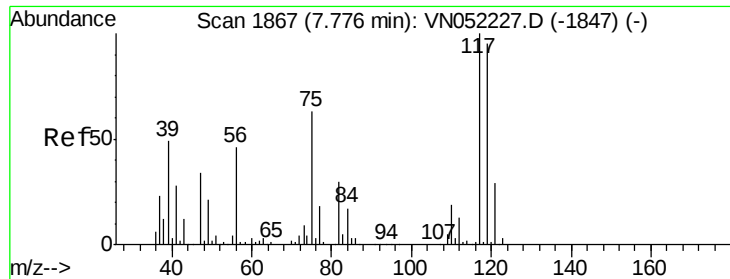


Abundance Ion 74.90 (74.60 to 75.60): V

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): V

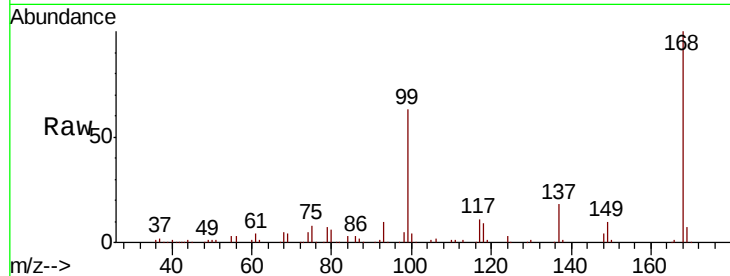




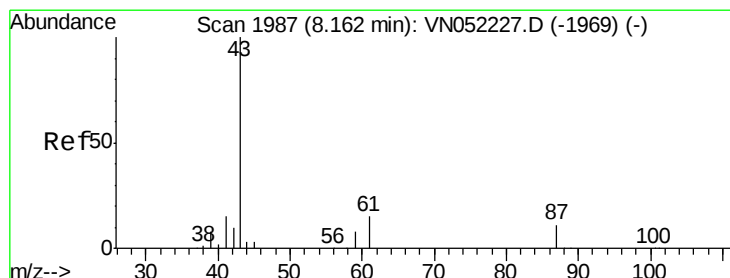
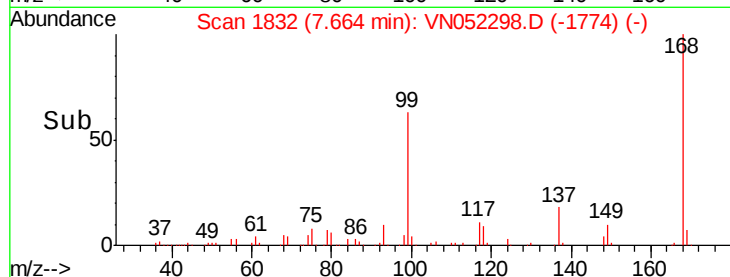
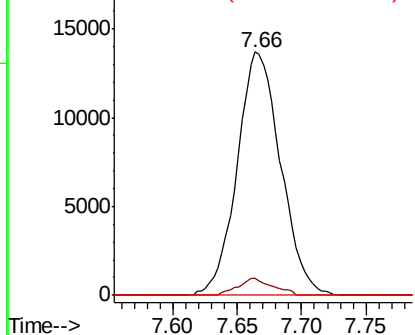
#38  
Carbon Tetrachloride  
Concen: 6.819 ug/l  
RT: 7.66 min Scan# 1832  
Delta R.T. -0.11 min  
Lab File: VN052298.D  
Acq: 13 Nov 2018 20:23

Instrument :  
MSVOA\_N  
ClientSampled :

Tot Ion:117 Resp: 32123  
Ion Ratio Lower Upper  
117 100  
119 6.8 75.8 113.8#  
121 0.0 23.4 35.2#

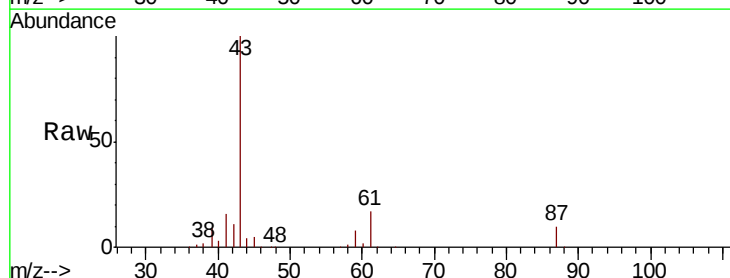


Abundance Ion 116.80 (116.50 to 117.50): V  
Ion 118.80 (118.50 to 119.50): V  
Ion 120.80 (120.50 to 121.50): V

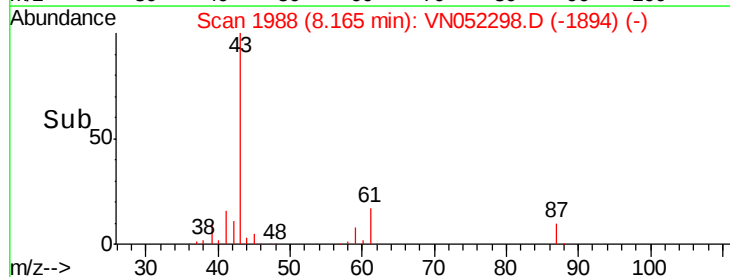
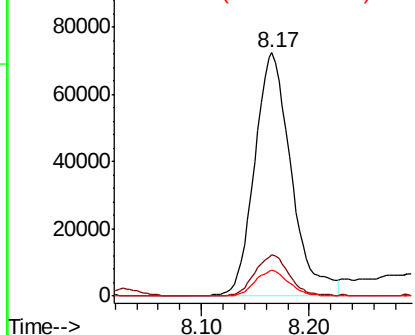


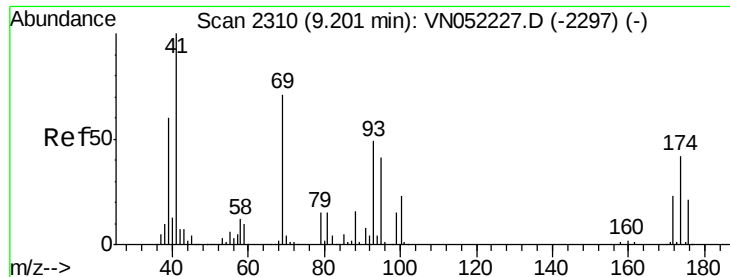
#43  
Isopropyl Acetate  
Concen: 24.937 ug/l  
RT: 8.17 min Scan# 1988  
Delta R.T. 0.00 min  
Lab File: VN052298.D  
Acq: 13 Nov 2018 20:23

Tgt Ion: 43 Resp: 169933  
Ion Ratio Lower Upper  
43 100  
61 16.0 14.2 21.4  
87 9.8 8.4 12.6



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

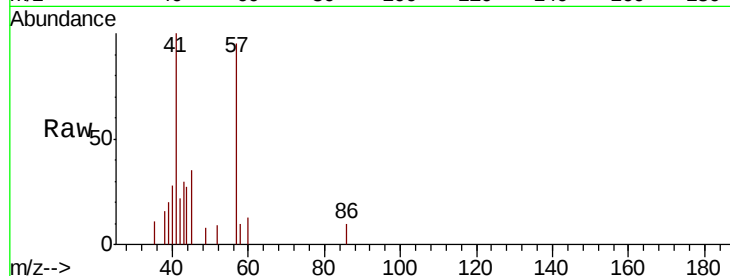




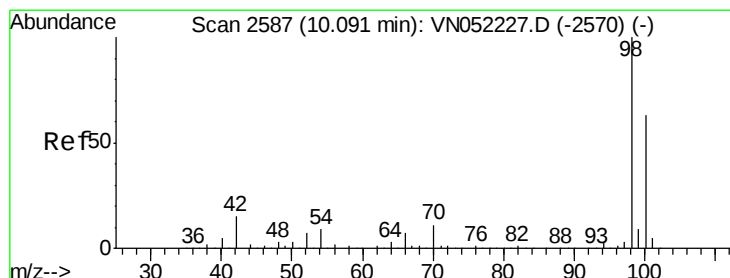
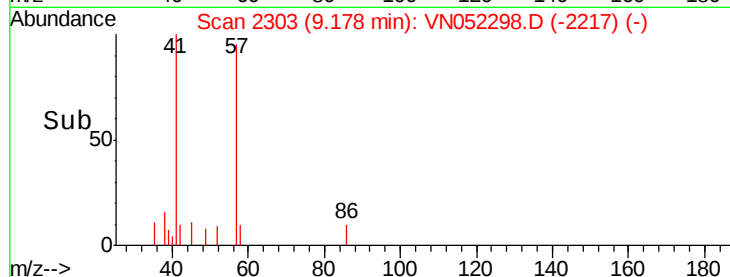
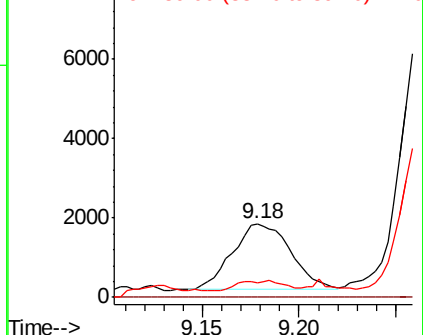
#48  
Methvl methacrylate  
Concen: 0.967 ug/l  
RT: 9.18 min Scan# 2303  
Delta R.T. -0.02 min  
Lab File: VN052298.D  
Acq: 13 Nov 2018 20:23

Instrument :  
MSVOA\_N  
ClientSampleId :

Tot Ion: 41 Resp: 3472  
Ion Ratio Lower Upper  
41 100  
69 0.0 58.8 88.2#  
39 0.0 50.7 76.1#

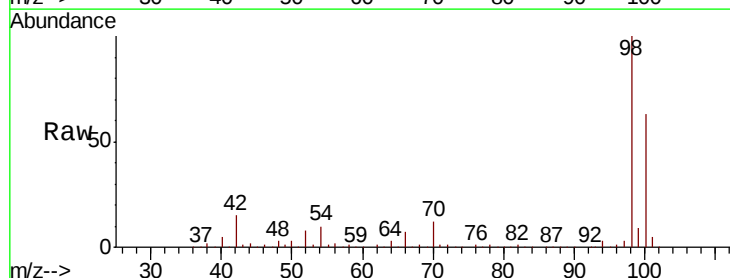


Abundance Ion 41.00 (40.70 to 41.70): VN0  
Ion 69.00 (68.70 to 69.70): VN0  
Ion 39.00 (38.70 to 39.70): VN0

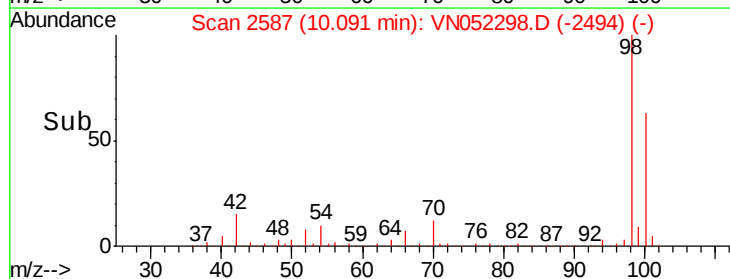
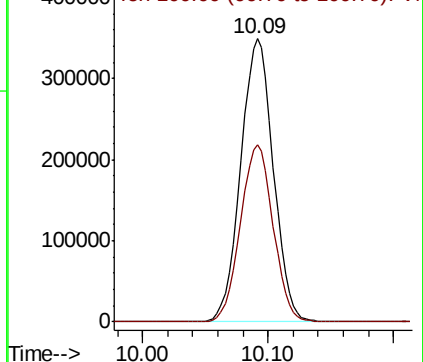


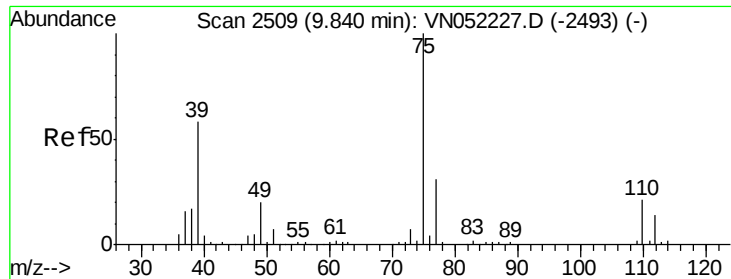
#50  
Toluene-d8  
Concen: N.D. ug/l  
RT: 10.09 min Scan# 2587  
Delta R.T. 0.00 min  
Lab File: VN052298.D  
Acq: 13 Nov 2018 20:23

Tgt Ion: 98 Resp: 631699  
Ion Ratio Lower Upper  
98 100  
100 62.8 50.2 75.2



Abundance Ion 98.00 (97.70 to 98.70): VN0  
Ion 100.00 (99.70 to 100.70): VN0



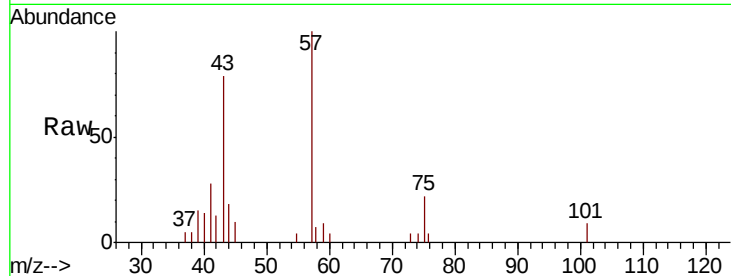


#54

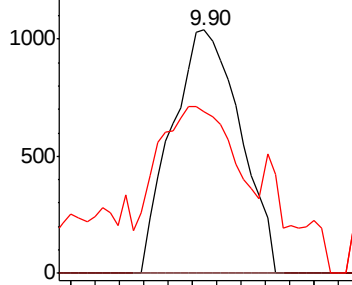
cis-1,3-Dichloropropene  
 Concen: 0.351 ug/l  
 RT: 9.90 min Scan# 2529  
 Delta R.T. 0.06 min  
 Lab File: VN052298.D  
 Acq: 13 Nov 2018 20:23

Instrument :  
 MSVOA\_N  
 ClientSampled :

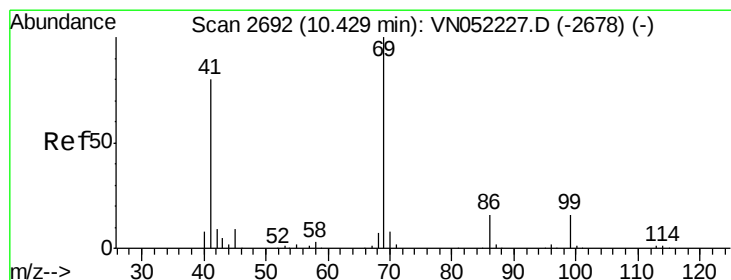
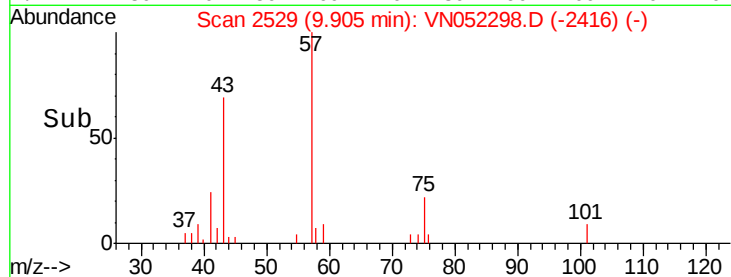
Tot Ion: 75 Resp: 2022  
 Ion Ratio Lower Upper  
 75 100  
 77 0.0 25.2 37.8#  
 39 48.8 46.6 70.0



Abundance Ion 74.90 (74.60 to 75.60): VN0  
 Ion 76.90 (76.60 to 77.60): VN0  
 Ion 39.00 (38.70 to 39.70): VN0



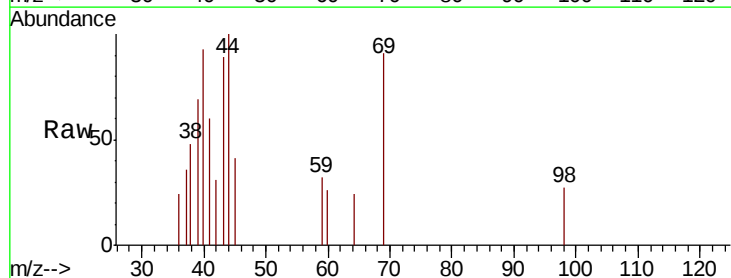
Time--> 9.85 9.90 9.95



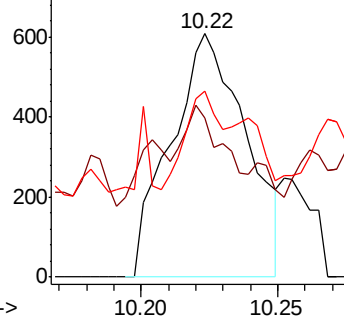
#56

Ethyl methacrylate  
 Concen: 0.264 ug/l  
 RT: 10.22 min Scan# 2628  
 Delta R.T. -0.21 min  
 Lab File: VN052298.D  
 Acq: 13 Nov 2018 20:23

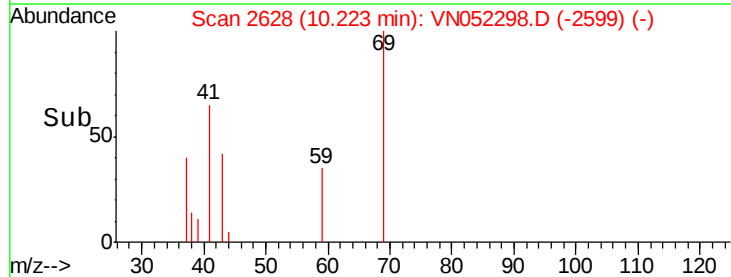
Tgt Ion: 69 Resp: 1159  
 Ion Ratio Lower Upper  
 69 100  
 41 23.5 64.0 96.0#  
 39 20.4 37.8 56.8#

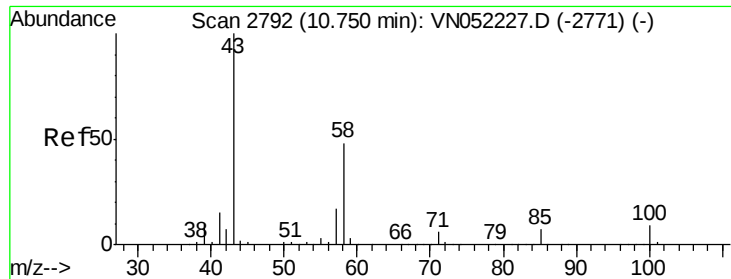


Abundance Ion 69.00 (68.70 to 69.70): VN0  
 Ion 41.00 (40.70 to 41.70): VN0  
 Ion 39.00 (38.70 to 39.70): VN0



Time--> 10.20 10.25

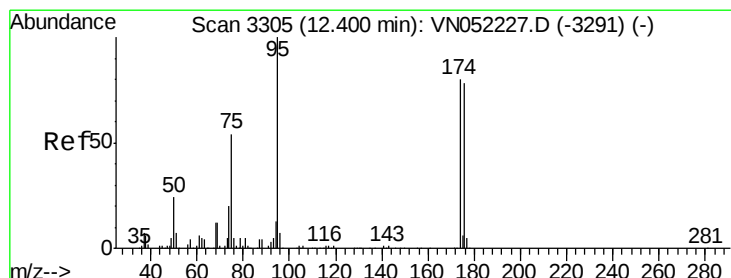
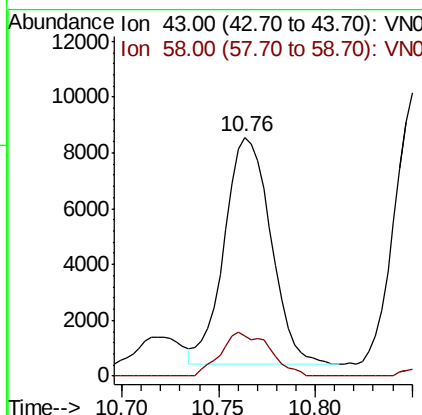
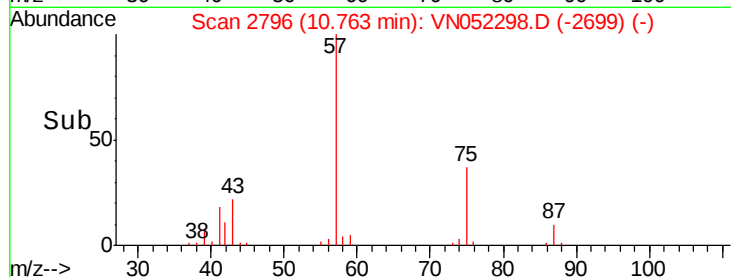
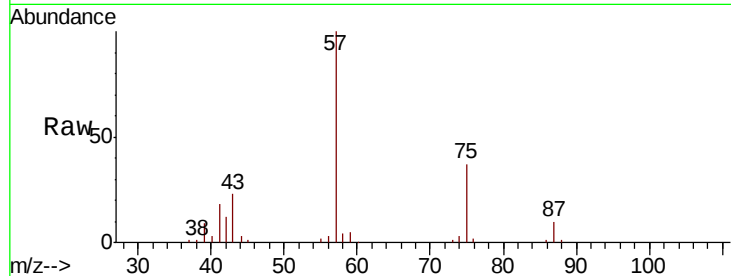




#59  
2-Hexanone  
Concen: 5.145 ug/l  
RT: 10.76 min Scan# 2796  
Delta R.T. 0.01 min  
Lab File: VN052298.D  
Acq: 13 Nov 2018 20:23

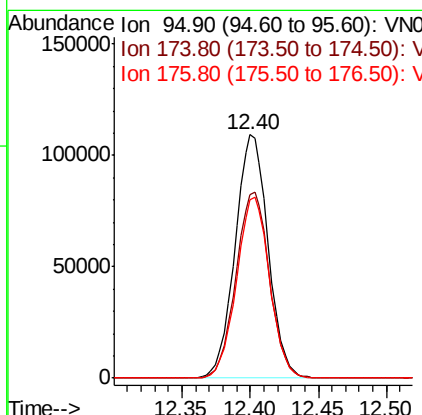
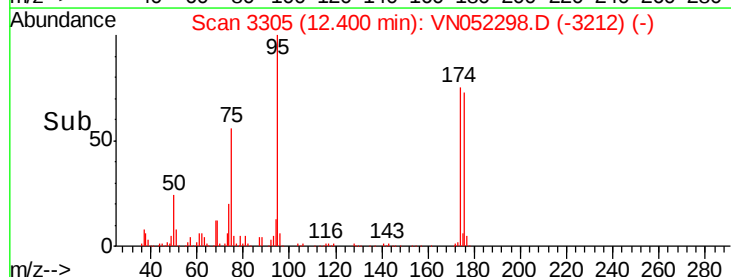
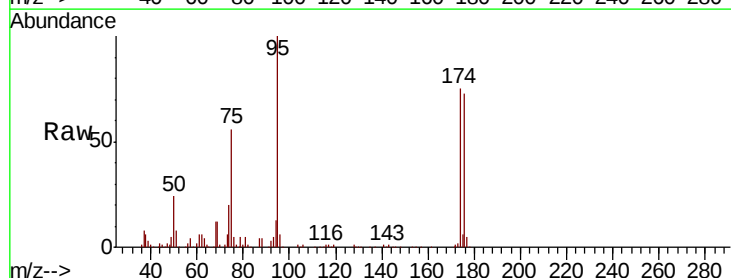
Instrument :  
MSVOA\_N  
ClientSampleId :

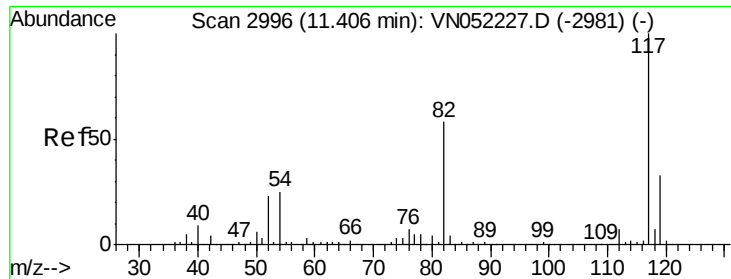
Tot Ion: 43 Resp: 13591  
Ion Ratio Lower Upper  
43 100  
58 20.4 24.1 72.3#



#62  
4-Bromofluorobenzene  
Concen: N.D. ug/l  
RT: 12.40 min Scan# 3305  
Delta R.T. 0.00 min  
Lab File: VN052298.D  
Acq: 13 Nov 2018 20:23

Tgt Ion: 95 Resp: 182995  
Ion Ratio Lower Upper  
95 100  
174 77.7 0.0 159.4  
176 74.4 0.0 157.8

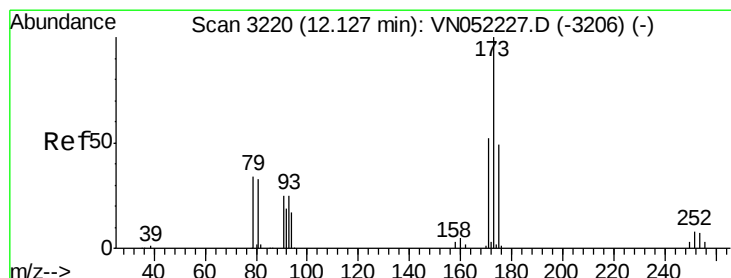
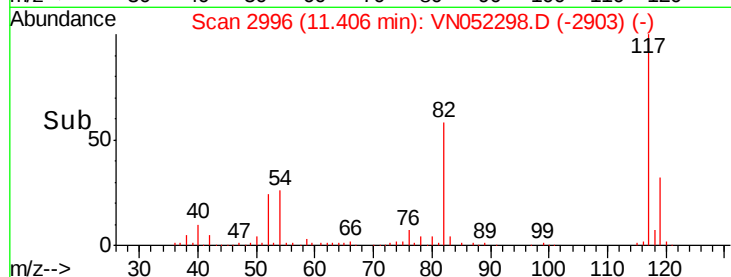
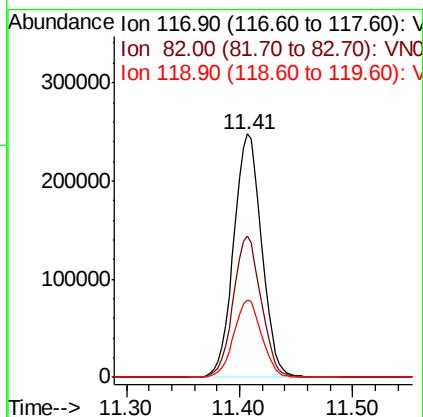
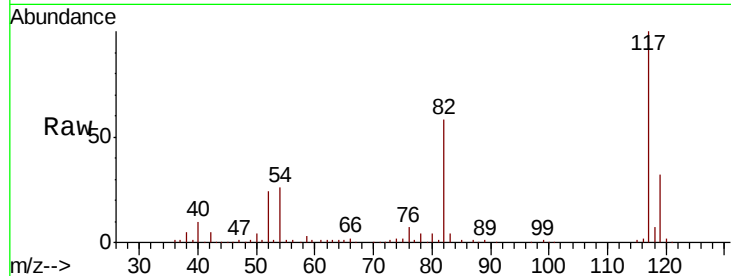




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.41 min Scan# 2996  
Delta R.T. 0.00 min  
Lab File: VN052298.D  
Acq: 13 Nov 2018 20:23

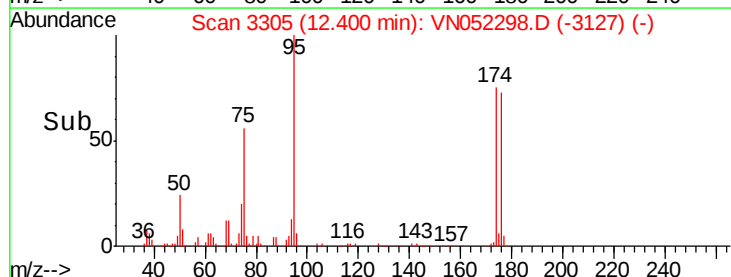
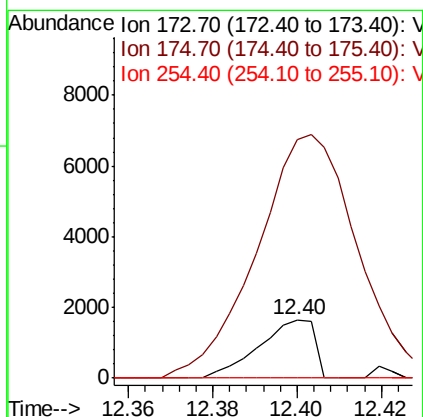
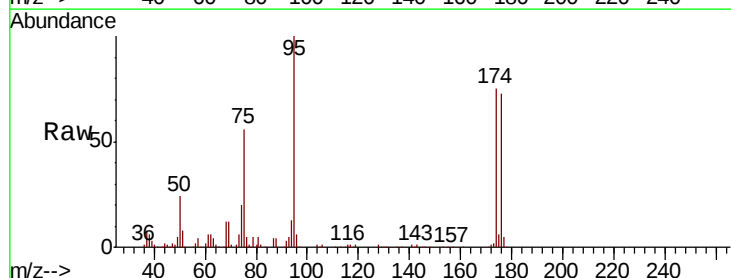
Instrument :  
MSVOA\_N  
ClientSampled :

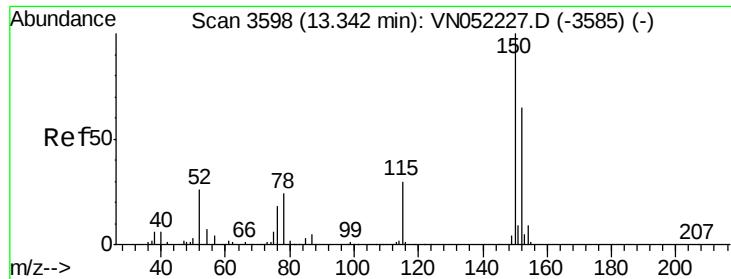
Tot Ion:117 Resp: 427428  
Ion Ratio Lower Upper  
117 100  
82 58.1 46.2 69.2  
119 31.9 26.2 39.4



#71  
Bromoform  
Concen: 0.828 ug/l  
RT: 12.40 min Scan# 3305  
Delta R.T. 0.27 min  
Lab File: VN052298.D  
Acq: 13 Nov 2018 20:23

Tgt Ion:173 Resp: 1516  
Ion Ratio Lower Upper  
173 100  
175 650.4 24.5 73.5#  
254 0.0 0.0 0.0





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.34 min Scan# 3598

Delta R.T. 0.00 min

Lab File: VN052298.D

Acq: 13 Nov 2018 20:23

Instrument :

MSVOA\_N

ClientSampleId :

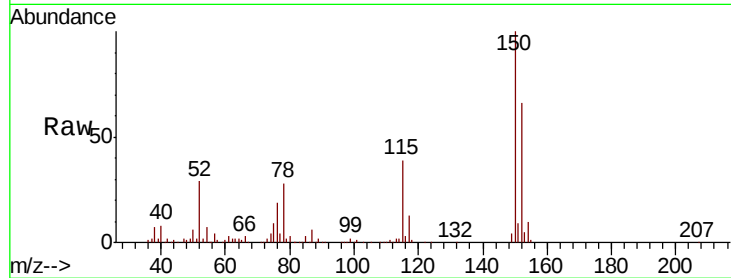
Tot Ion:152 Resp: 154213

Ion Ratio Lower Upper

152 100

115 58.9 29.8 89.5

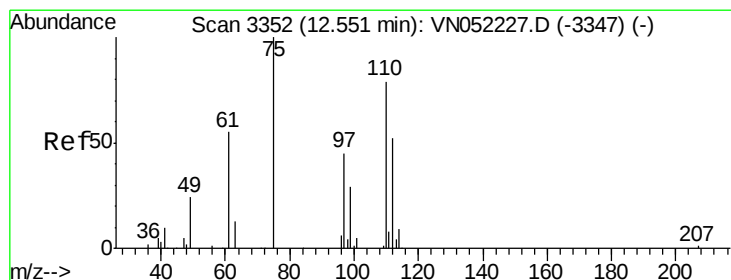
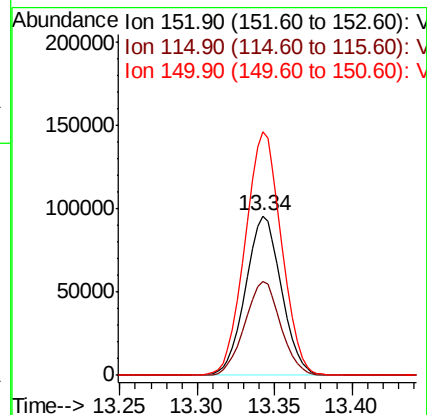
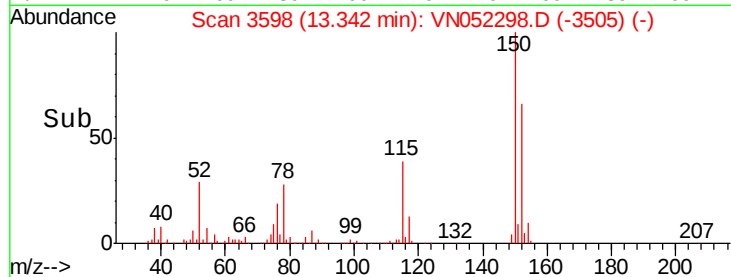
150 155.0 0.0 350.2



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



#76

1,2,3-Trichloropropane

Concen: 37.415 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. -0.15 min

Lab File: VN052298.D

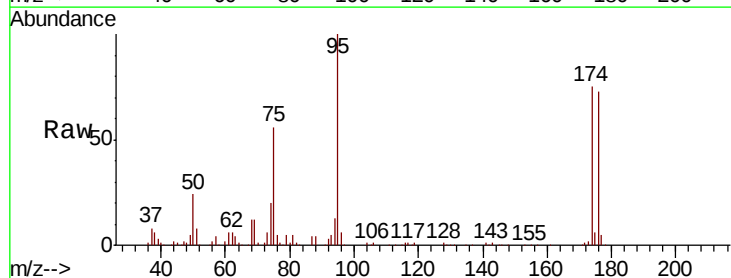
Acq: 13 Nov 2018 20:23

Tgt Ion: 75 Resp: 102083

Ion Ratio Lower Upper

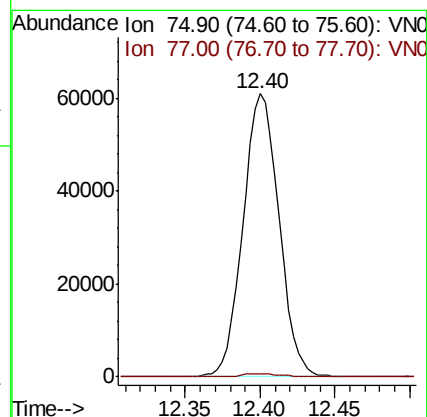
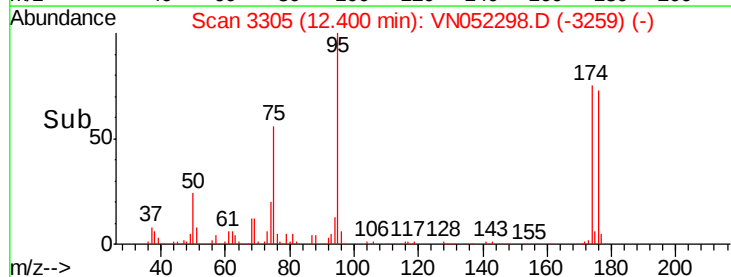
75 100

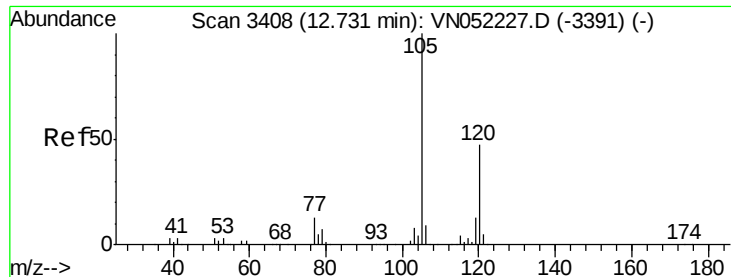
77 1.2 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): V

Ion 77.00 (76.70 to 77.70): V

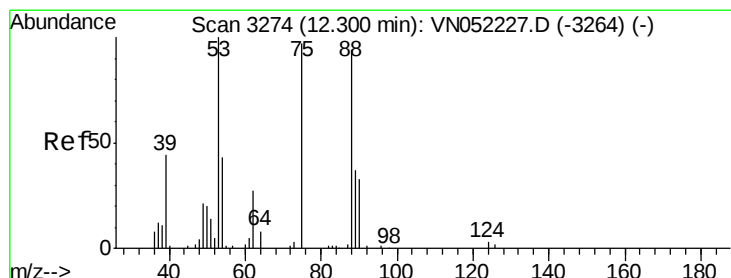
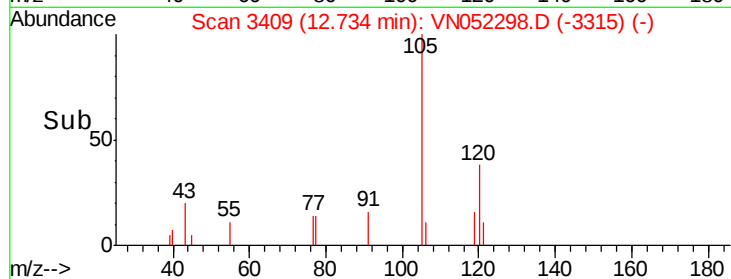
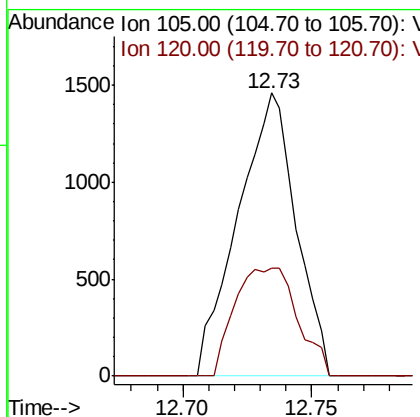
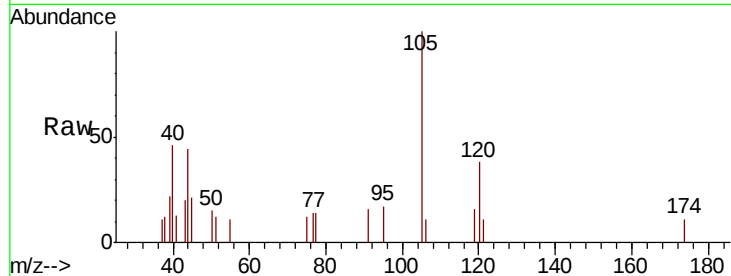




#80  
 1,3,5-Trimethylbenzene  
 Concen: 0.230 ug/l  
 RT: 12.73 min Scan# 3409  
 Delta R.T. 0.00 min  
 Lab File: VN052298.D  
 Acq: 13 Nov 2018 20:23

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Tot Ion:105 Resp: 2301  
 Ion Ratio Lower Upper  
 105 100  
 120 41.2 23.9 71.8



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 127.713 ug/l  
 RT: 12.40 min Scan# 3305  
 Delta R.T. 0.10 min  
 Lab File: VN052298.D  
 Acq: 13 Nov 2018 20:23

Tgt Ion: 75 Resp: 102083  
 Ion Ratio Lower Upper  
 75 100  
 53 0.1 84.0 126.0#  
 89 0.0 33.7 50.5#

