

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN031920\  
 Data File : VN060641.D  
 Acq On : 19 Mar 2020 16:54  
 Operator : JC/MD  
 Sample : L1978-12  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Mar 20 01:50:42 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

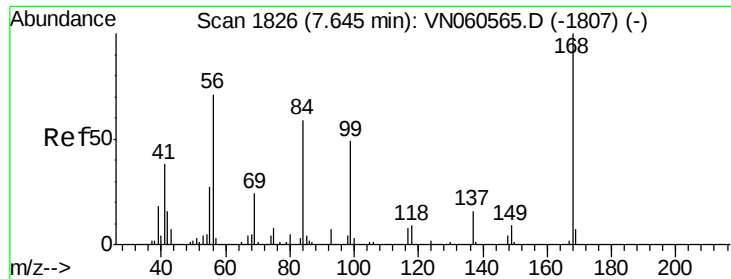
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.64  | 168  | 199164   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 329295   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.40 | 117  | 313690   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 142270   | 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   | 129678   | 47.43 | ug/l    | 0.00     |
| Spiked Amount               |       |      |          |       |         |          |
|                             |       |      | Recovery | =     | 94.86%  |          |
| 35) Dibromofluoromethane    | 7.57  | 113  | 98540    | 49.49 | ug/l    | 0.00     |
| Spiked Amount               |       |      |          |       |         |          |
|                             |       |      | Recovery | =     | 98.98%  |          |
| 50) Toluene-d8              | 10.08 | 98   | 409744   | 50.38 | ug/l    | 0.00     |
| Spiked Amount               |       |      |          |       |         |          |
|                             |       |      | Recovery | =     | 100.76% |          |
| 62) 4-Bromofluorobenzene    | 12.40 | 95   | 152402   | 51.13 | ug/l    | 0.00     |
| Spiked Amount               |       |      |          |       |         |          |
|                             |       |      | Recovery | =     | 102.26% |          |

| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 16) Acetone                    | 3.79  | 43   | 11571    | 11.948 | ug/l   | 96     |
| 18) Methyl Acetate             | 4.30  | 43   | 1604     | 0.588  | ug/l # | 54     |
| 20) Methylene Chloride         | 4.52  | 84   | 7533     | 3.162  | ug/l   | 96     |
| 25) 2-Butanone                 | 6.81  | 43   | 3514     | 2.242  | ug/l   | 98     |
| 31) Cyclohexane                | 7.64  | 56   | 4020     | 0.913  | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.64  | 75   | 15472    | 4.852  | ug/l # | 49     |
| 37) Ethyl Acetate              | 6.81  | 43   | 3514     | 1.020  | ug/l # | 70     |
| 38) Carbon Tetrachloride       | 7.64  | 117  | 18517    | 6.479  | ug/l # | 17     |
| 43) Isopropyl Acetate          | 8.14  | 43   | 52197    | 9.186  | ug/l # | 91     |
| 44) Trichloroethene            | 8.82  | 130  | 11913    | 4.910  | ug/l   | 98     |
| 45) 1,2-Dichloropropane        | 9.25  | 63   | 993      | 0.391  | ug/l # | 43     |
| 48) Methyl methacrylate        | 9.17  | 41   | 3140     | 1.241  | ug/l # | 15     |
| 51) 4-Methyl-2-Pentanone       | 9.97  | 43   | 4186     | 1.295  | ug/l # | 87     |
| 54) cis-1,3-Dichloropropene    | 9.89  | 75   | 21336    | 5.306  | ug/l # | 60     |
| 57) 1,3-Dichloropropane        | 10.75 | 76   | 3325     | 0.857  | ug/l # | 42     |
| 59) 2-Hexanone                 | 10.75 | 43   | 50889    | 21.849 | ug/l # | 52     |
| 71) Bromoform                  | 12.40 | 173  | 331      | 1.851  | ug/l # | 1      |
| 74) N-amyl acetate             | 12.02 | 43   | 3739     | 0.758  | ug/l # | 45     |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75   | 78088    | 25.437 | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75   | 78088    | 65.329 | ug/l # | 13     |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.64 min Scan# 1826

Delta R.T. -0.00 min

Lab File: VN060641.D

Acq: 19 Mar 2020 16:54

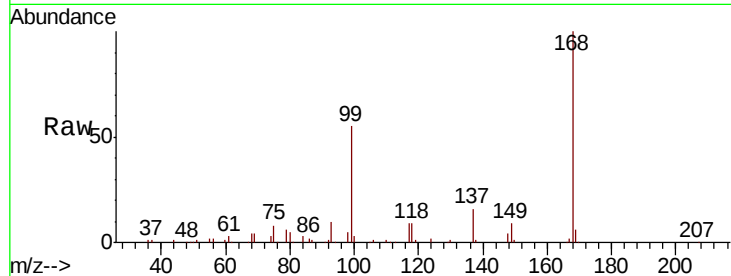
Instrument :  
MSVOA\_N  
ClientSampleId :

Tot Ion:168 Resp: 199164

Ion Ratio Lower Upper

168 100

99 55.5 44.0 66.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VNO

7.64

80000

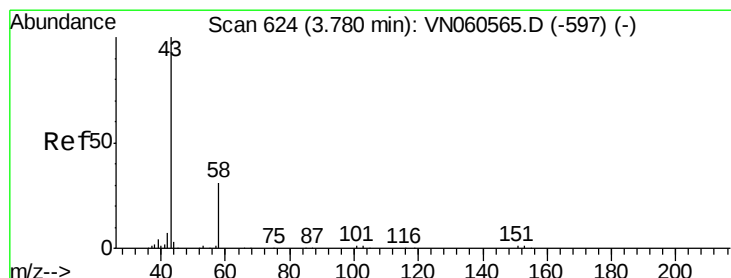
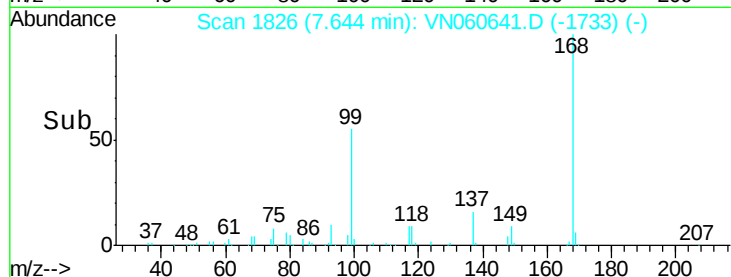
60000

40000

20000

0

Time--> 7.50 7.60 7.70 7.80



#16

Acetone

Concen: 11.948 ug/l

RT: 3.79 min Scan# 626

Delta R.T. 0.01 min

Lab File: VN060641.D

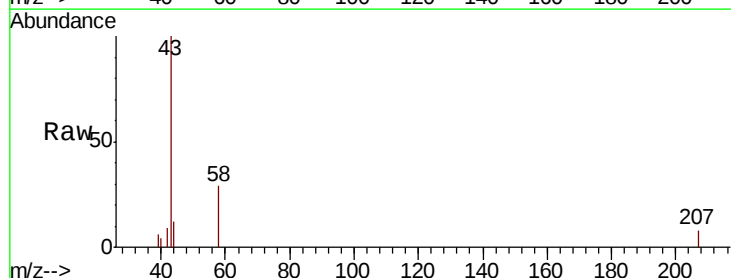
Acq: 19 Mar 2020 16:54

Tgt Ion: 43 Resp: 11571

Ion Ratio Lower Upper

43 100

58 29.4 25.1 37.7



Abundance Ion 43.00 (42.70 to 43.70): VNO

Ion 58.00 (57.70 to 58.70): VNO

3.79

4000

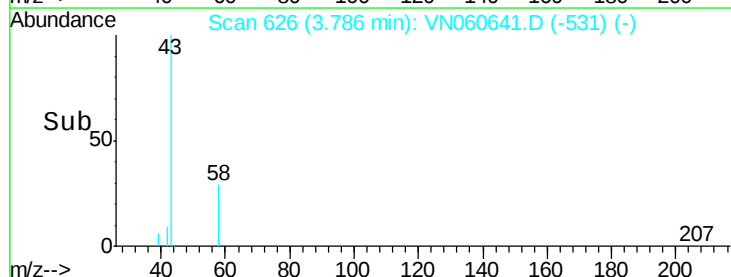
3000

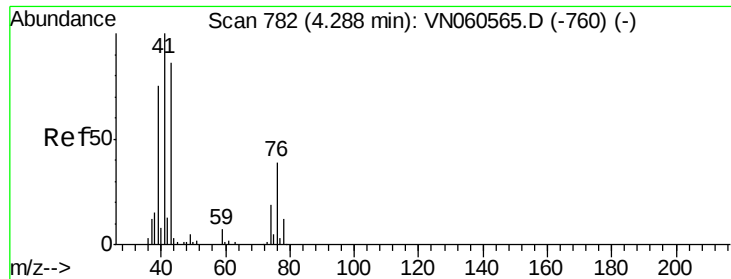
2000

1000

0

Time--> 3.70 3.75 3.80 3.85 3.90

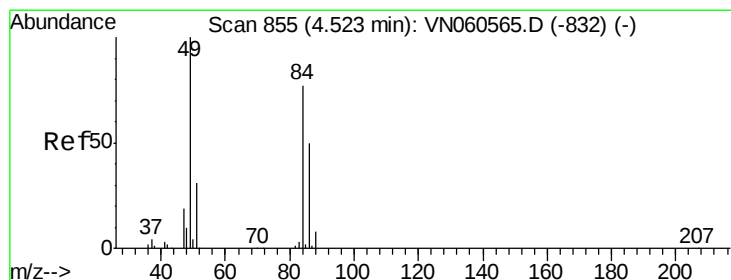
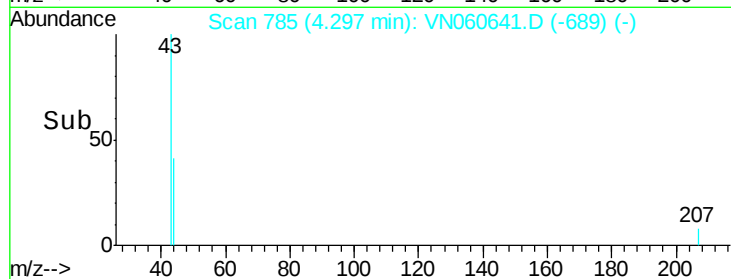
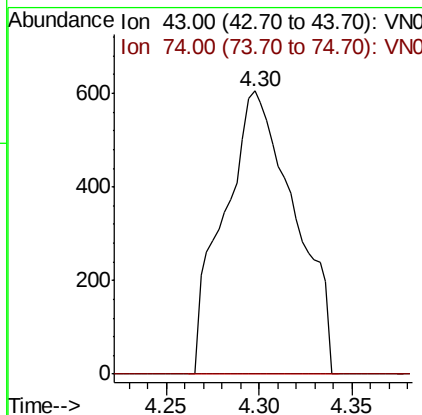
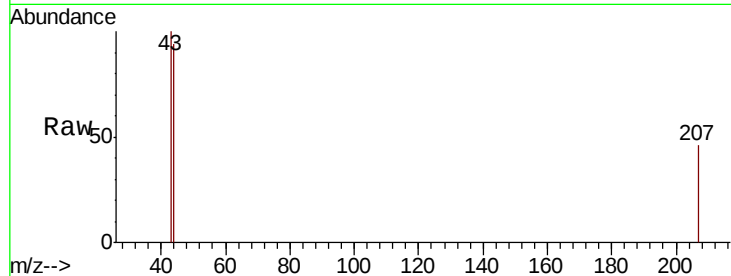




#18  
Methyl Acetate  
Concen: 0.588 ug/l  
RT: 4.30 min Scan# 785  
Delta R.T. 0.01 min  
Lab File: VN060641.D  
Acq: 19 Mar 2020 16:54

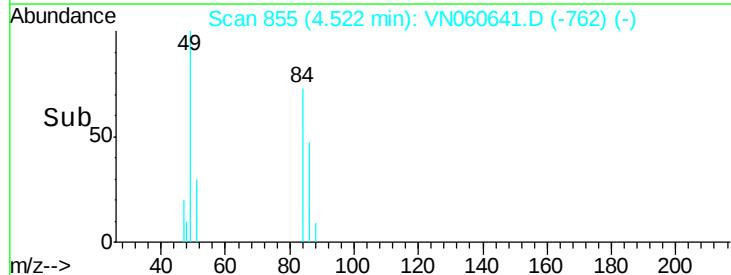
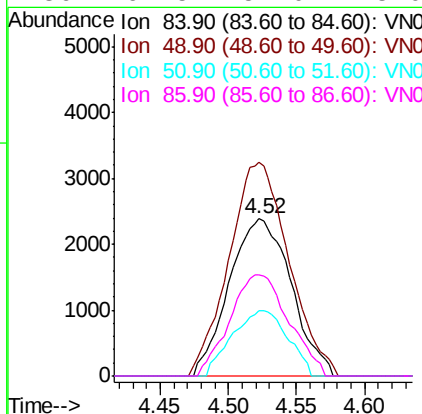
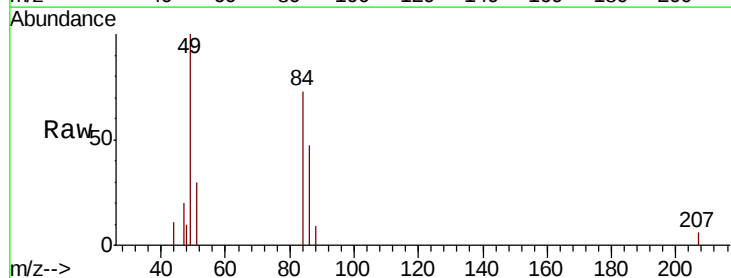
Instrument :  
MSVOA\_N  
ClientSampleId :

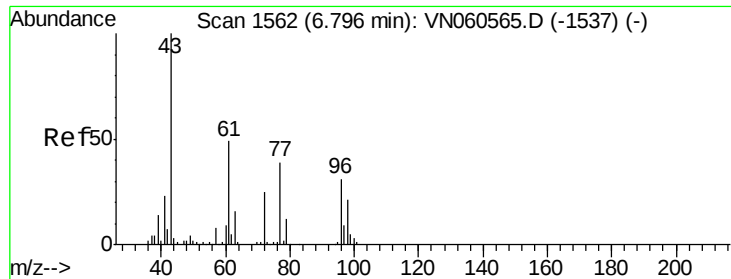
Tot Ion: 43 Resp: 1604  
Ion Ratio Lower Upper  
43 100  
74 0.0 17.5 26.3#



#20  
Methylene Chloride  
Concen: 3.162 ug/l  
RT: 4.52 min Scan# 855  
Delta R.T. -0.00 min  
Lab File: VN060641.D  
Acq: 19 Mar 2020 16:54

Tgt Ion: 84 Resp: 7533  
Ion Ratio Lower Upper  
84 100  
49 136.2 103.3 154.9  
51 41.3 31.6 47.4  
86 64.5 52.0 78.0

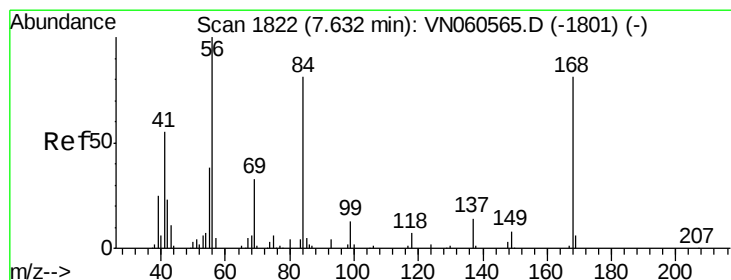
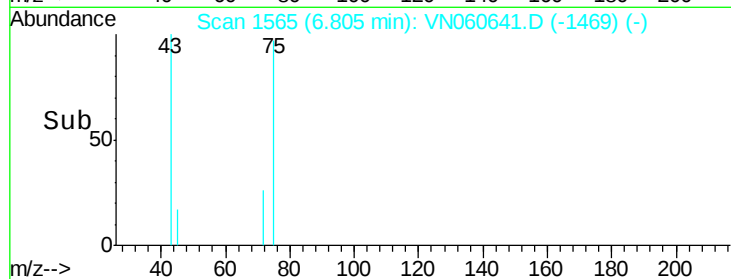
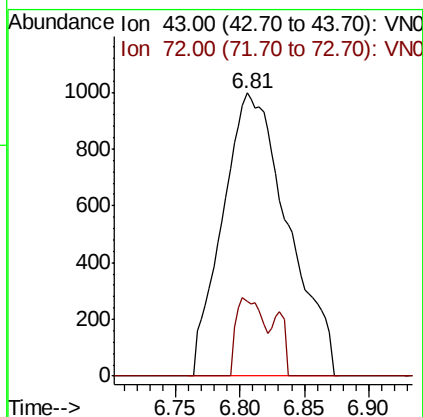
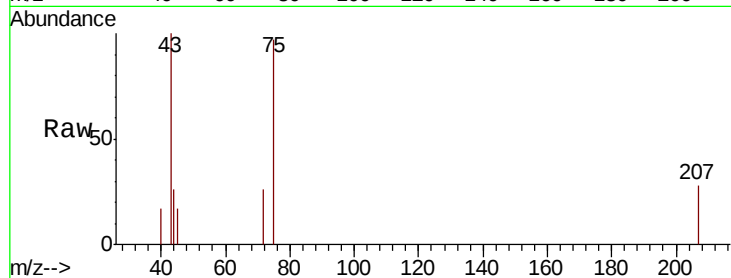




#25  
2-Butanone  
Concen: 2.242 ug/l  
RT: 6.81 min Scan# 1565  
Delta R.T. 0.01 min  
Lab File: VN060641.D  
Acq: 19 Mar 2020 16:54

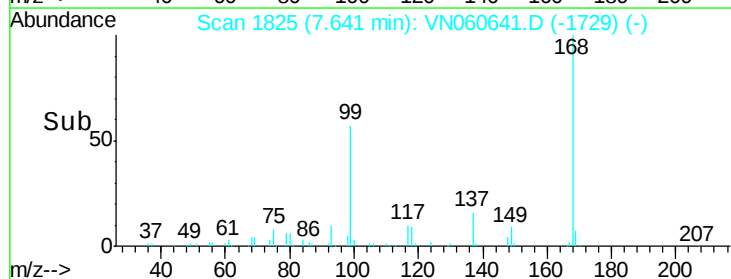
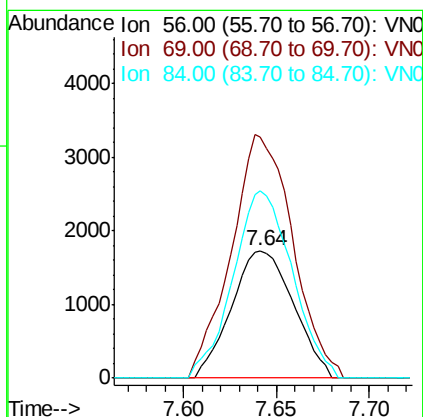
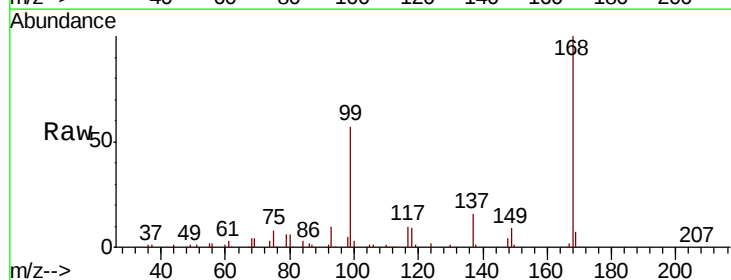
Instrument :  
MSVOA\_N  
ClientSampled :

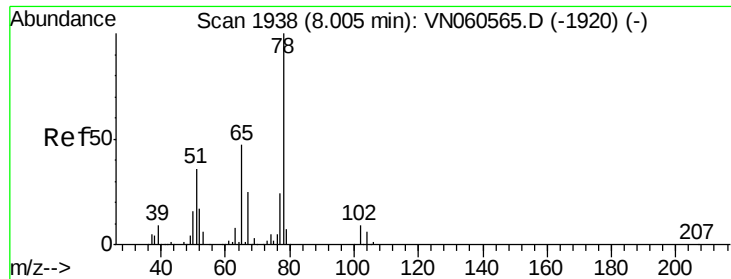
Tot Ion: 43 Resp: 3514  
Ion Ratio Lower Upper  
43 100  
72 26.5 20.4 30.6



#31  
Cyclohexane  
Concen: 0.913 ug/l  
RT: 7.64 min Scan# 1825  
Delta R.T. 0.01 min  
Lab File: VN060641.D  
Acq: 19 Mar 2020 16:54

Tgt Ion: 56 Resp: 4020  
Ion Ratio Lower Upper  
56 100  
69 189.6 26.6 40.0#  
84 146.9 64.3 96.5#





#33

1,2-Dichloroethane-d4

Concen: 47.430 ug/l

RT: 8.00 min Scan# 1938

Delta R.T. -0.00 min

Lab File: VN060641.D

Acq: 19 Mar 2020 16:54

Instrument :

MSVOA\_N

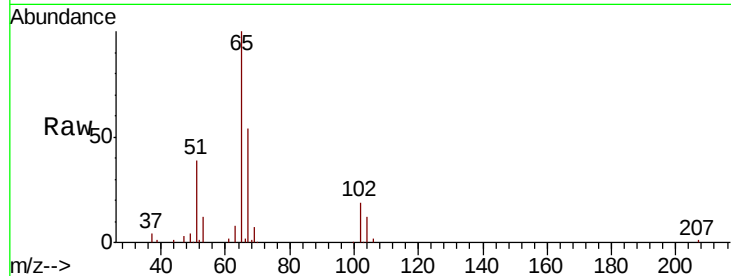
ClientSampleId :

Tot Ion: 65 Resp: 129678

Ion Ratio Lower Upper

65 100

67 53.3 0.0 107.6



Abundance Ion 64.90 (64.60 to 65.60): VN060641.D (-1845) (-)

Ion 66.90 (66.60 to 67.60): VN060641.D (-1845) (-)

8.00

60000

50000

40000

30000

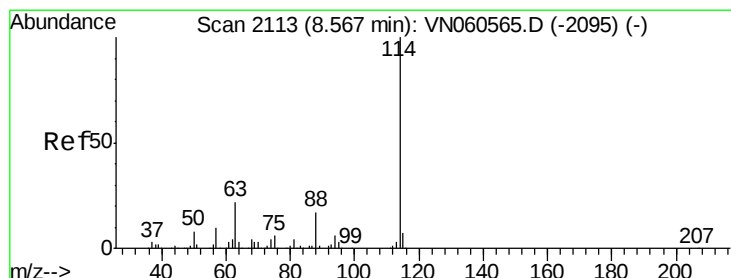
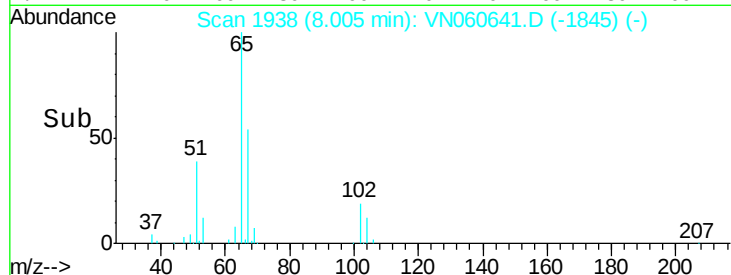
20000

10000

0

7.90 8.00 8.10

Time-->



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.57 min Scan# 2113

Delta R.T. -0.00 min

Lab File: VN060641.D

Acq: 19 Mar 2020 16:54

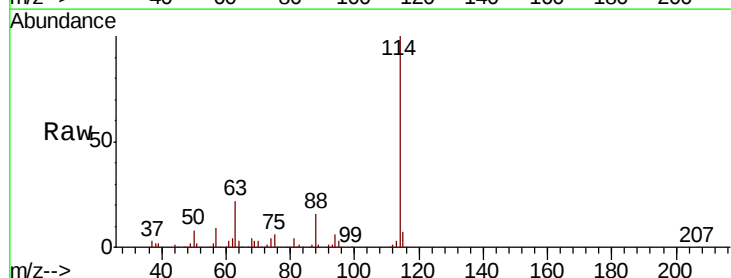
Tgt Ion: 114 Resp: 329295

Ion Ratio Lower Upper

114 100

63 22.4 0.0 43.8

88 16.2 0.0 33.0



Abundance Ion 113.90 (113.60 to 114.60): VN060641.D (-2020) (-)

Ion 63.00 (62.70 to 63.70): VN060641.D (-2020) (-)

Ion 87.90 (87.60 to 88.60): VN060641.D (-2020) (-)

8.57

200000

150000

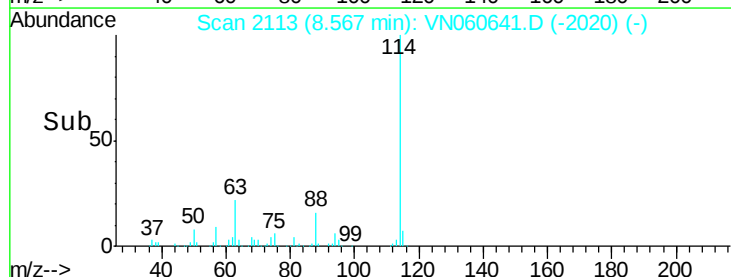
100000

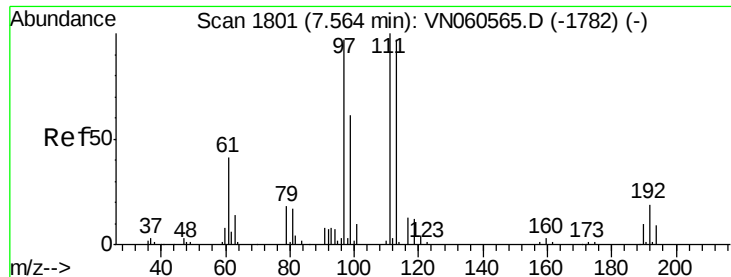
50000

0

8.50 8.60 8.70

Time-->





#35

Dibromofluoromethane

Concen: 49.489 ug/l

RT: 7.57 min Scan# 1802

Delta R.T. 0.00 min

Lab File: VN060641.D

Acq: 19 Mar 2020 16:54

Instrument :  
MSVOA\_N  
ClientSampled :

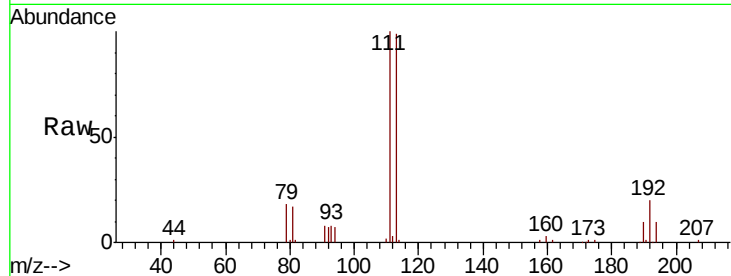
Tot Ion:113 Resp: 98540

Ion Ratio Lower Upper

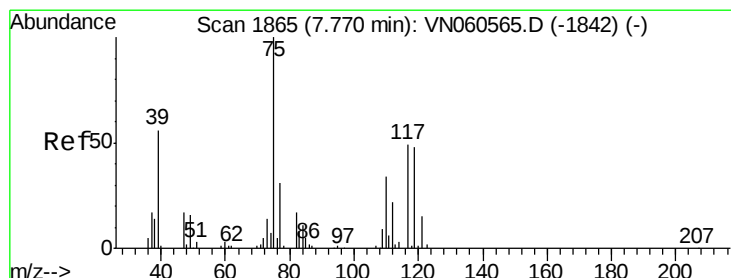
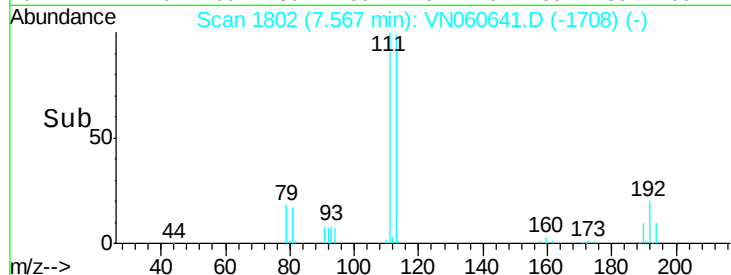
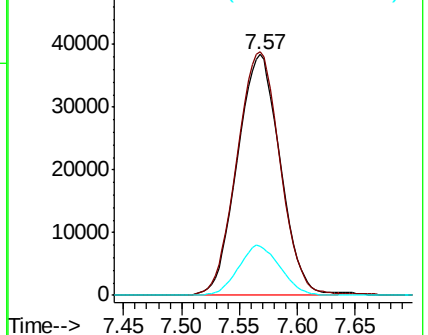
113 100

111 102.1 82.9 124.3

192 20.2 15.8 23.8



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: 4.852 ug/l

RT: 7.64 min Scan# 1825

Delta R.T. -0.13 min

Lab File: VN060641.D

Acq: 19 Mar 2020 16:54

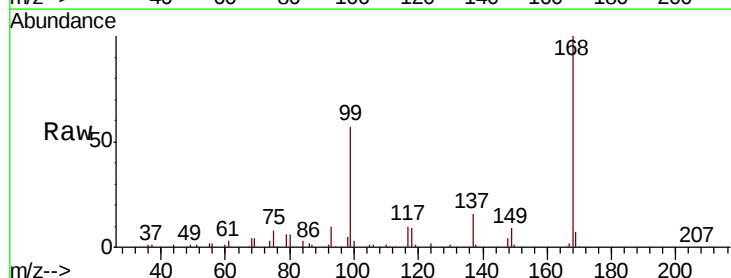
Tgt Ion: 75 Resp: 15472

Ion Ratio Lower Upper

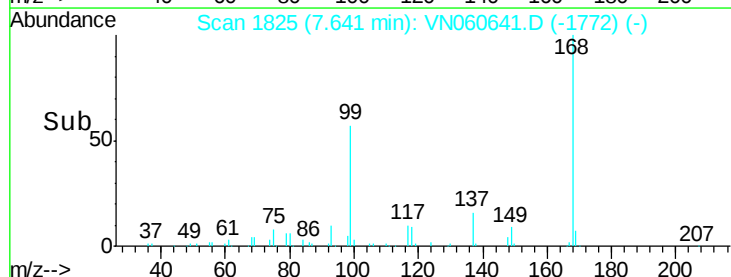
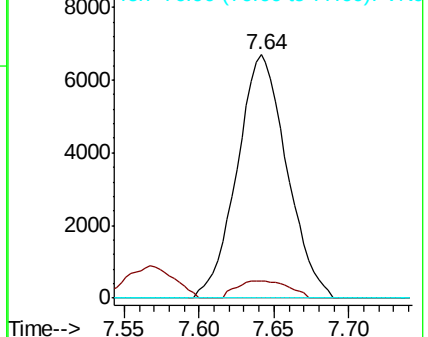
75 100

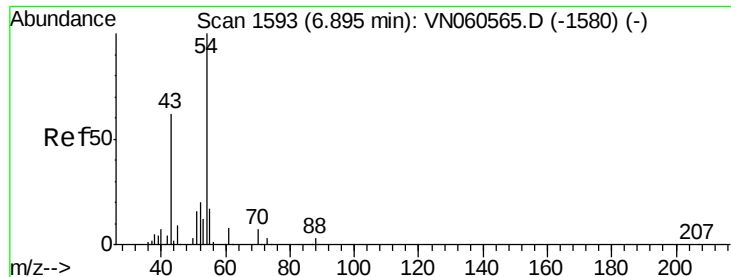
110 7.4 16.9 50.6#

77 0.0 24.6 36.8#



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

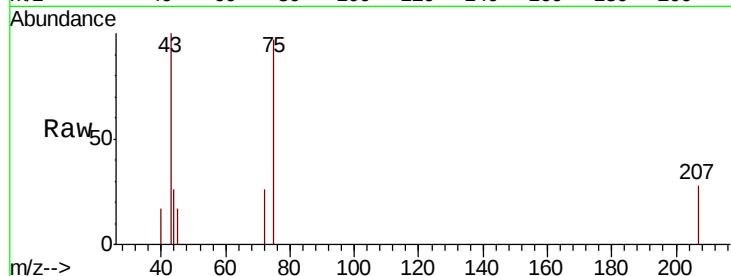




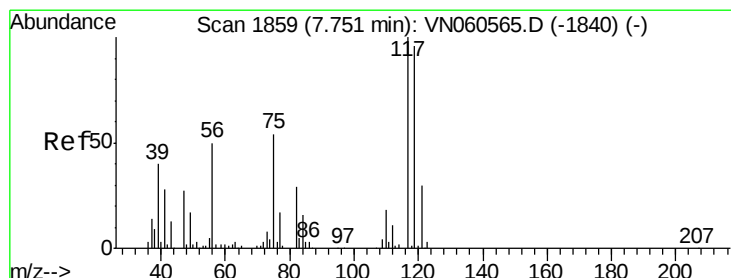
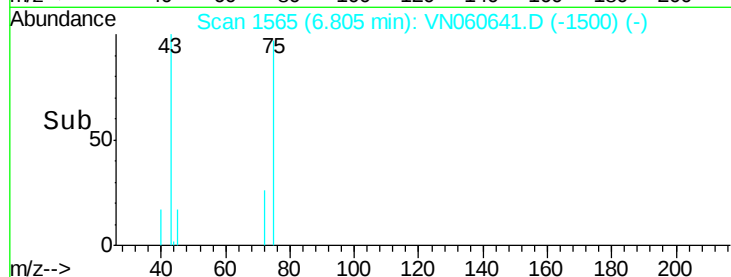
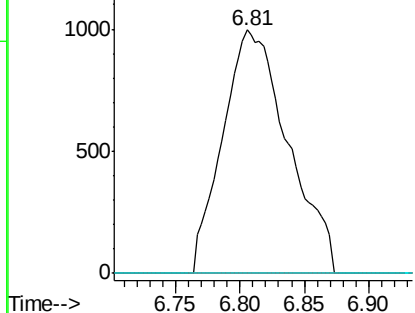
#37  
Ethyl Acetate  
Concen: 1.020 ug/l  
RT: 6.81 min Scan# 1565  
Delta R.T. -0.09 min  
Lab File: VN060641.D  
Acq: 19 Mar 2020 16:54

Instrument :  
MSVOA\_N  
ClientSampled :

Tot Ion: 43 Resp: 3514  
Ion Ratio Lower Upper  
43 100  
61 0.0 10.6 15.8#  
70 0.0 7.9 11.9#

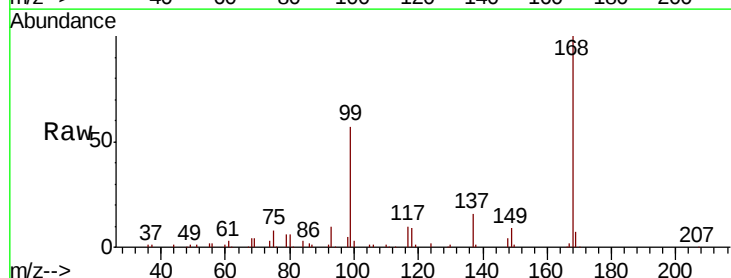


Abundance Ion 43.00 (42.70 to 43.70): VN0  
Ion 60.90 (60.60 to 61.60): VN0  
Ion 70.00 (69.70 to 70.70): VN0

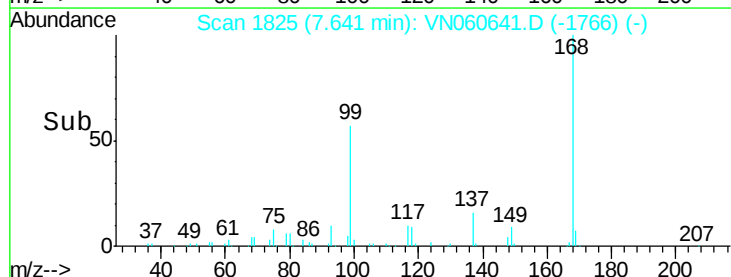
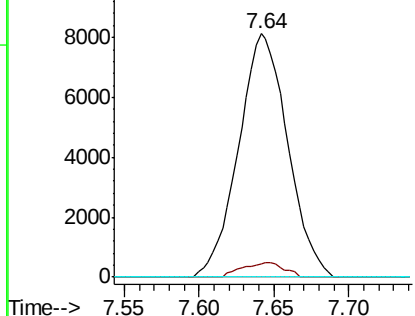


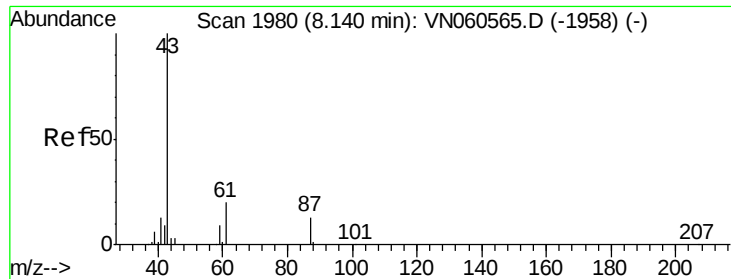
#38  
Carbon Tetrachloride  
Concen: 6.479 ug/l  
RT: 7.64 min Scan# 1825  
Delta R.T. -0.11 min  
Lab File: VN060641.D  
Acq: 19 Mar 2020 16:54

Tgt Ion: 117 Resp: 18517  
Ion Ratio Lower Upper  
117 100  
119 5.7 76.2 114.2#  
121 0.0 23.7 35.5#



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

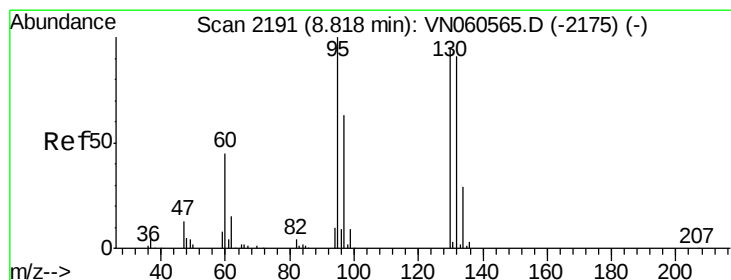
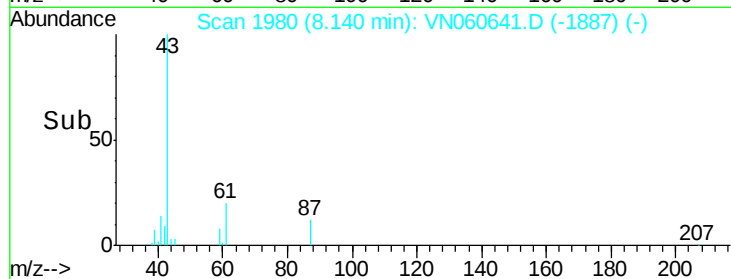
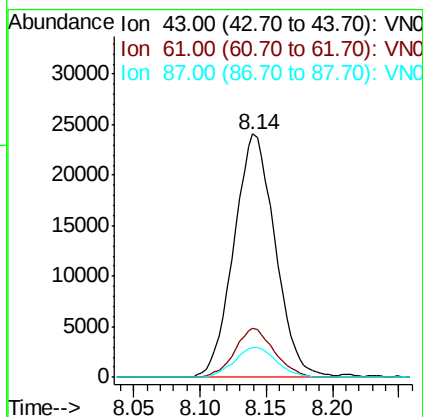
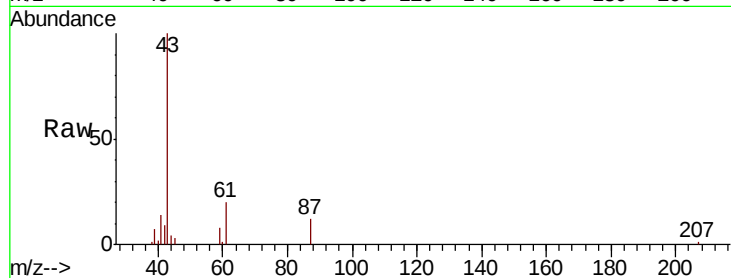




#43  
Isopropyl Acetate  
Concen: 9.186 ug/l  
RT: 8.14 min Scan# 1980  
Delta R.T. -0.00 min  
Lab File: VN060641.D  
Acq: 19 Mar 2020 16:54

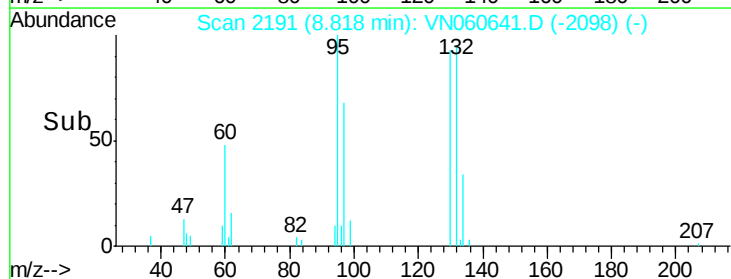
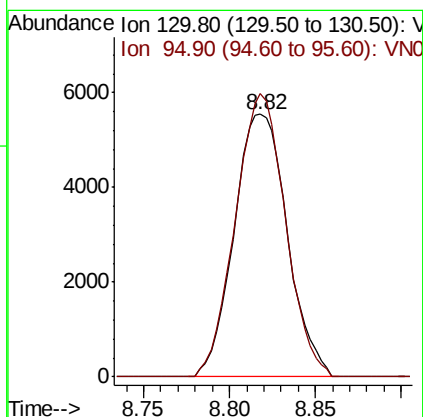
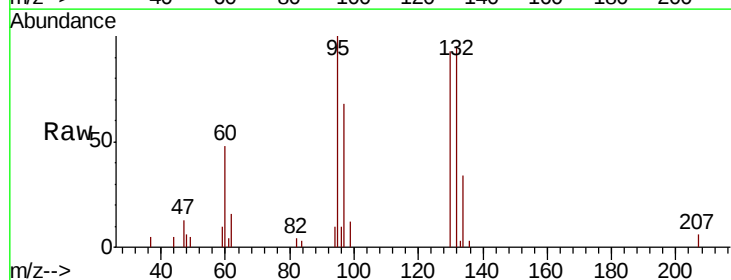
Instrument :  
MSVOA\_N  
ClientSampleId :

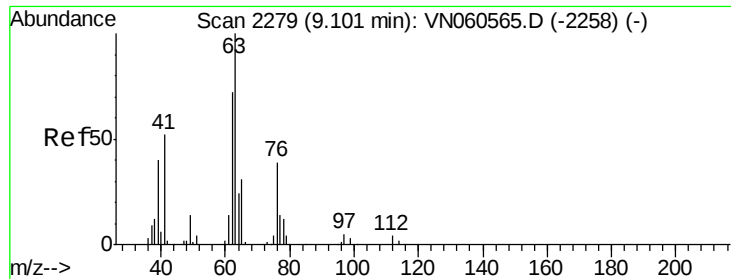
Tot Ion: 43 Resp: 52197  
Ion Ratio Lower Upper  
43 100  
61 19.2 20.7 31.1#  
87 12.4 9.8 14.8



#44  
Trichloroethene  
Concen: 4.910 ug/l  
RT: 8.82 min Scan# 2191  
Delta R.T. -0.00 min  
Lab File: VN060641.D  
Acq: 19 Mar 2020 16:54

Tgt Ion:130 Resp: 11913  
Ion Ratio Lower Upper  
130 100  
95 107.8 0.0 211.2

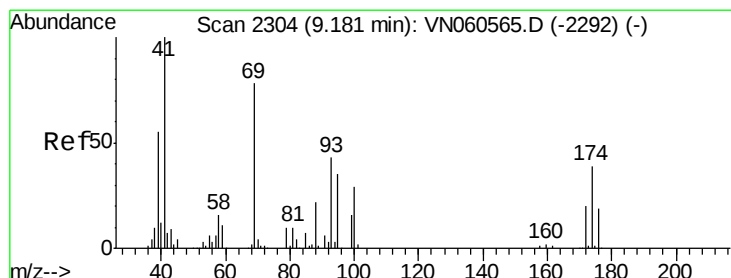
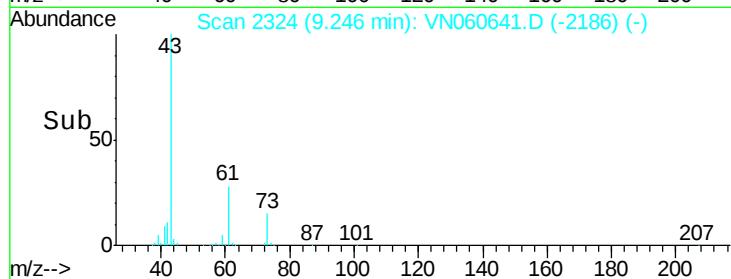
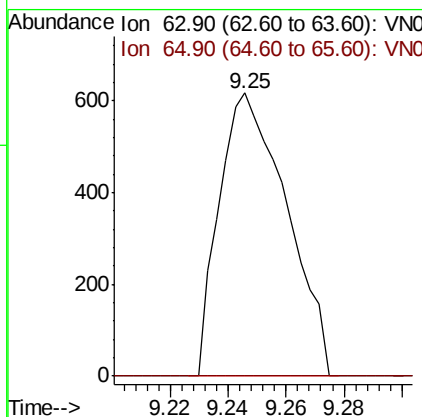
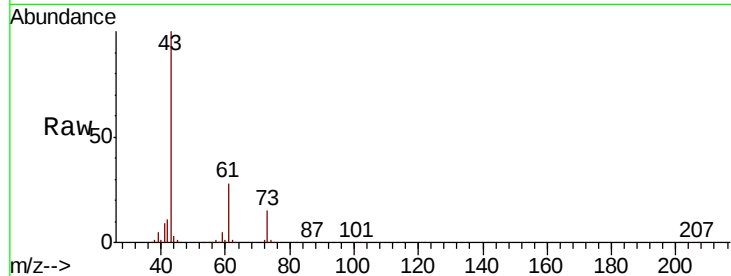




#45  
 1,2-Dichloropropane  
 Concen: 0.391 ug/l  
 RT: 9.25 min Scan# 2324  
 Delta R.T. 0.14 min  
 Lab File: VN060641.D  
 Acq: 19 Mar 2020 16:54

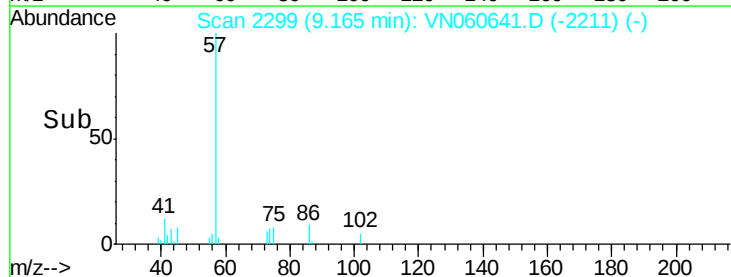
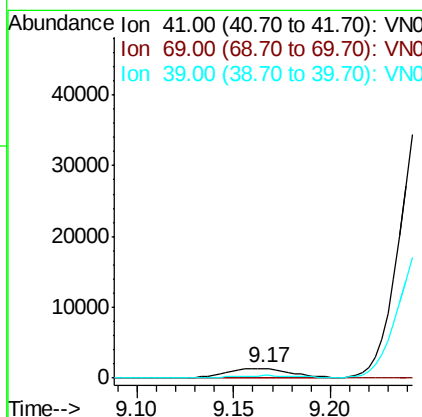
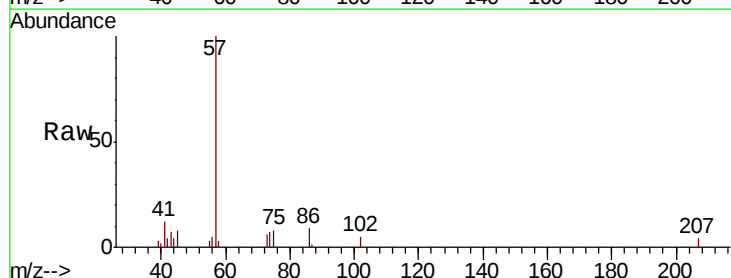
Instrument :  
 MSVOA\_N  
 ClientSampleId :

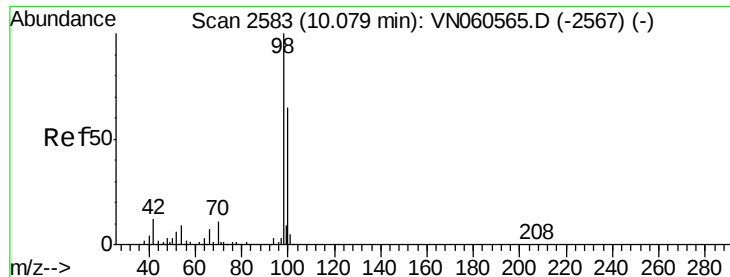
Tot Ion: 63 Resp: 993  
 Ion Ratio Lower Upper  
 63 100  
 65 0.0 25.4 38.0#



#48  
 Methyl methacrylate  
 Concen: 1.241 ug/l  
 RT: 9.17 min Scan# 2299  
 Delta R.T. -0.02 min  
 Lab File: VN060641.D  
 Acq: 19 Mar 2020 16:54

Tgt Ion: 41 Resp: 3140  
 Ion Ratio Lower Upper  
 41 100  
 69 0.0 65.4 98.0#  
 39 0.0 44.0 66.0#





#50

Toluene-d8

Concen: 50.380 ug/l

RT: 10.08 min Scan# 2583

Delta R.T. -0.00 min

Lab File: VN060641.D

Acq: 19 Mar 2020 16:54

Instrument :

MSVOA\_N

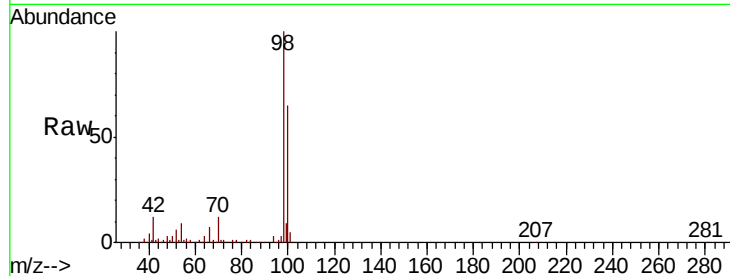
ClientSampled :

Tot Ion: 98 Resp: 409744

Ion Ratio Lower Upper

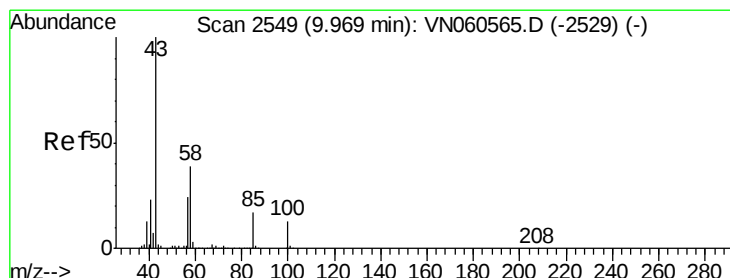
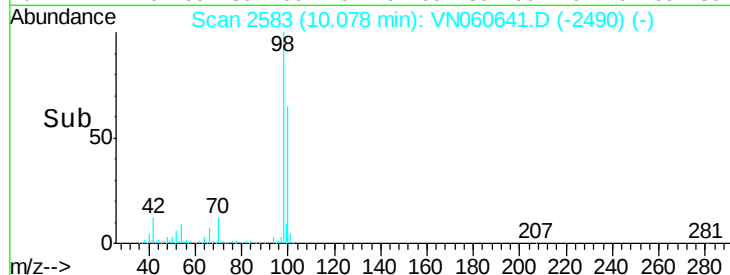
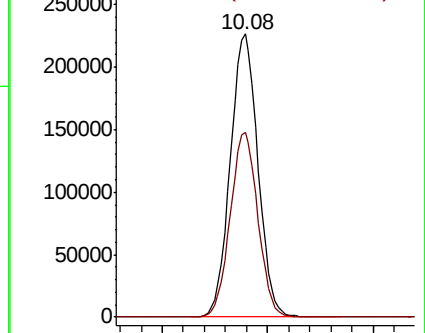
98 100

100 65.1 51.8 77.8



Abundance Ion 98.00 (97.70 to 98.70): VN0

Ion 100.00 (99.70 to 100.70): VN



#51

4-Methyl-2-Pentanone

Concen: 1.295 ug/l

RT: 9.97 min Scan# 2549

Delta R.T. -0.00 min

Lab File: VN060641.D

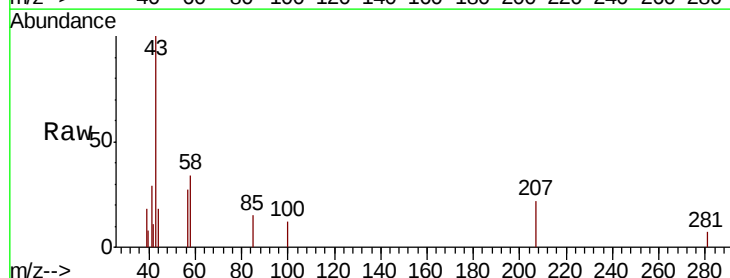
Acq: 19 Mar 2020 16:54

Tgt Ion: 43 Resp: 4186

Ion Ratio Lower Upper

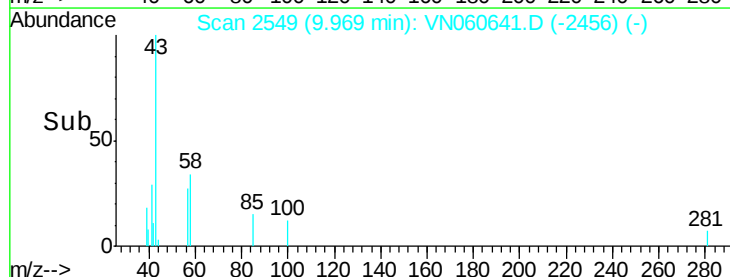
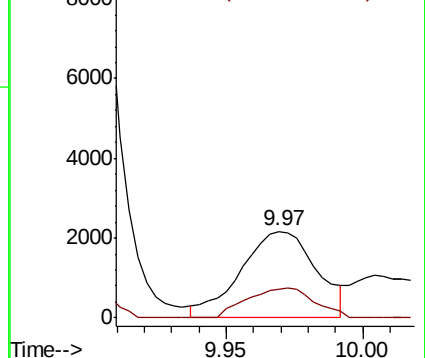
43 100

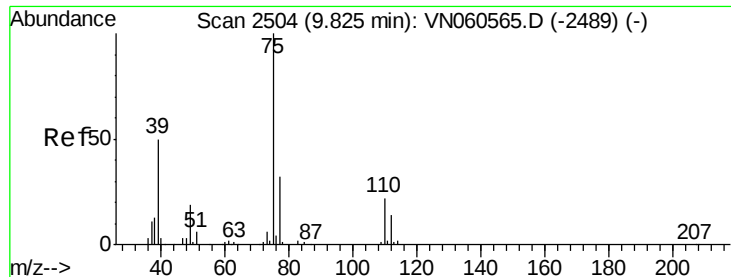
58 30.7 30.8 46.2#



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0





#54

cis-1,3-Dichloropropene

Concen: 5.306 ug/l

RT: 9.89 min Scan# 2524

Delta R.T. 0.06 min

Lab File: VN060641.D

Acq: 19 Mar 2020 16:54

Instrument :

MSVOA\_N

ClientSampleId :

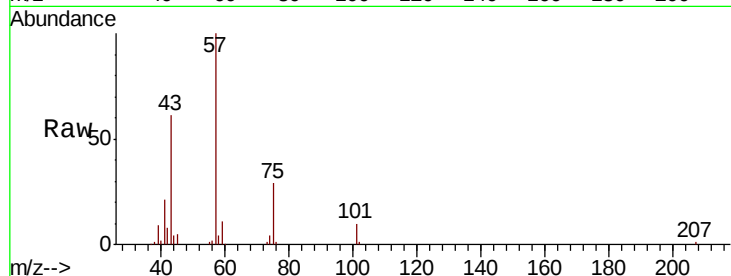
Tot Ion: 75 Resp: 21336

Ion Ratio Lower Upper

75 100

77 0.0 25.4 38.0#

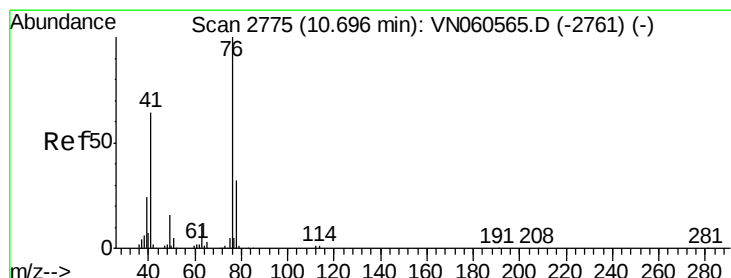
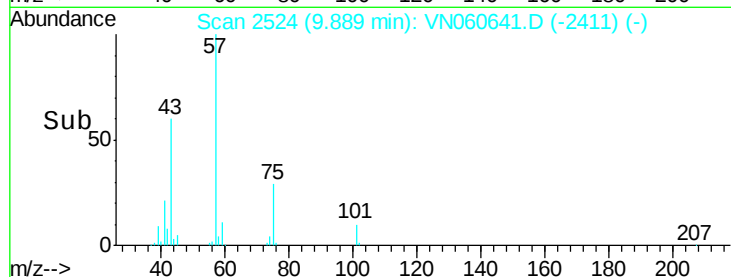
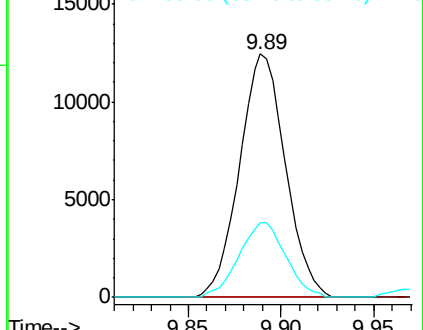
39 30.5 40.2 60.4#



Abundance Ion 74.90 (74.60 to 75.60): VN060565.D (-2489) (-)

Ion 76.90 (76.60 to 77.60): VN060565.D (-2489) (-)

Ion 39.00 (38.70 to 39.70): VN060565.D (-2489) (-)



#57

1,3-Dichloropropane

Concen: 0.857 ug/l

RT: 10.75 min Scan# 2793

Delta R.T. 0.06 min

Lab File: VN060641.D

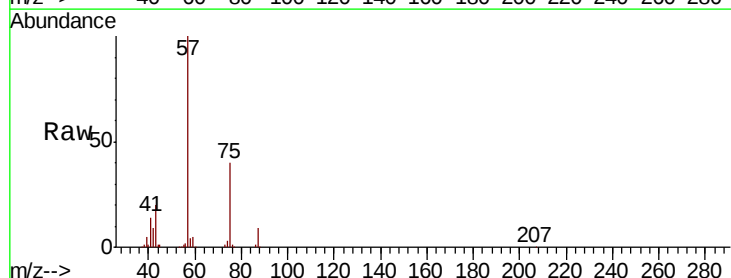
Acq: 19 Mar 2020 16:54

Tgt Ion: 76 Resp: 3325

Ion Ratio Lower Upper

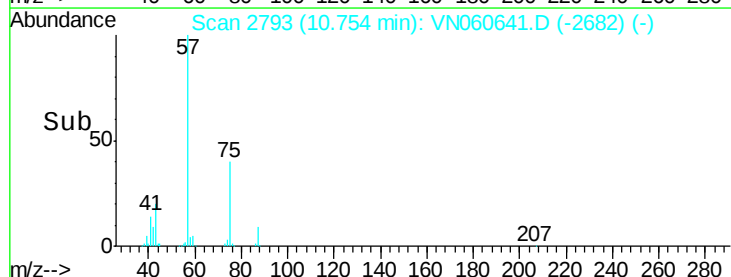
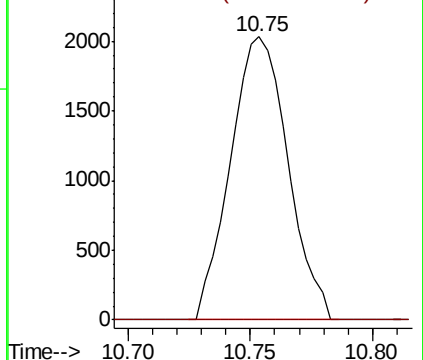
76 100

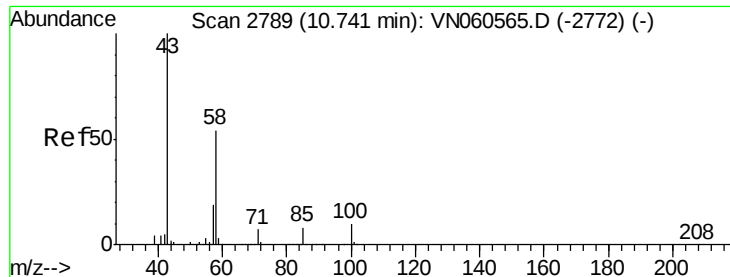
78 0.0 25.8 38.6#



Abundance Ion 75.90 (75.60 to 76.60): VN060565.D (-2761) (-)

Ion 77.90 (77.60 to 78.60): VN060565.D (-2761) (-)

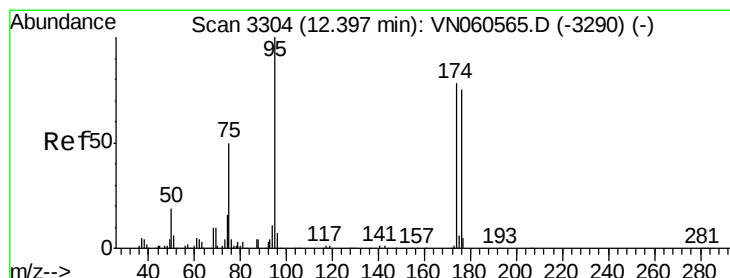
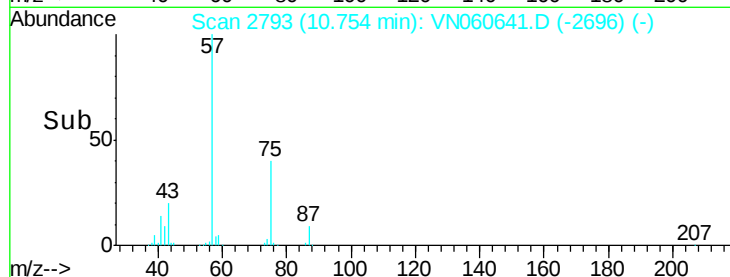
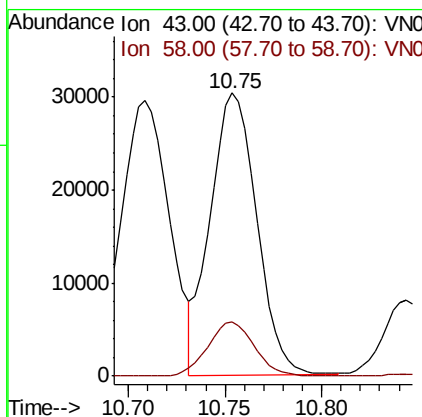
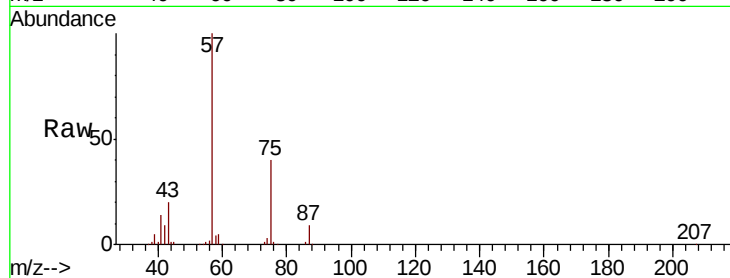




#59  
2-Hexanone  
Concen: 21.849 ug/l  
RT: 10.75 min Scan# 2793  
Delta R.T. 0.01 min  
Lab File: VN060641.D  
Acq: 19 Mar 2020 16:54

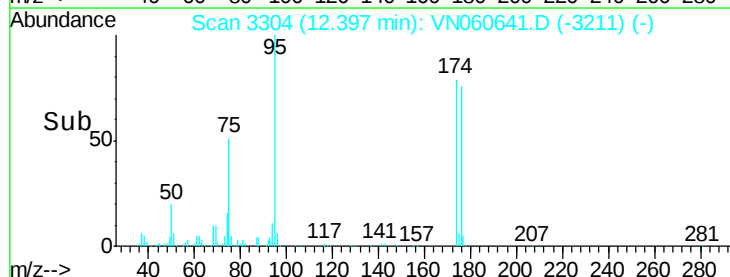
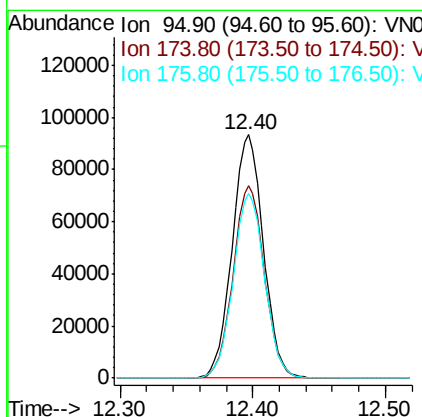
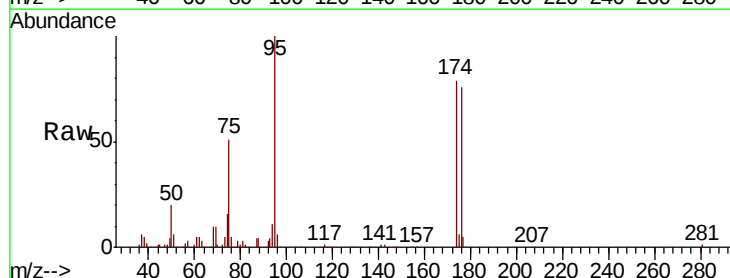
Instrument :  
MSVOA\_N  
ClientSampleId :

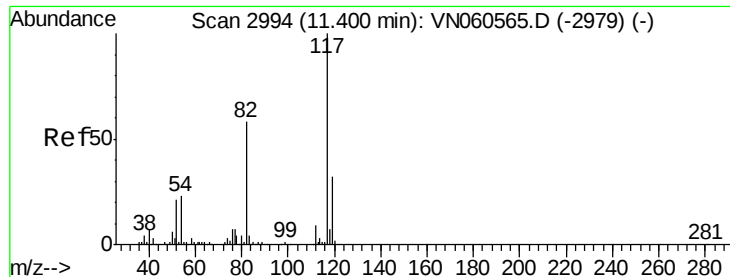
Tot Ion: 43 Resp: 50889  
Ion Ratio Lower Upper  
43 100  
58 19.2 26.7 80.1#



#62  
4-Bromofluorobenzene  
Concen: 51.131 ug/l  
RT: 12.40 min Scan# 3304  
Delta R.T. -0.00 min  
Lab File: VN060641.D  
Acq: 19 Mar 2020 16:54

Tgt Ion: 95 Resp: 152402  
Ion Ratio Lower Upper  
95 100  
174 79.2 0.0 157.6  
176 76.2 0.0 150.6

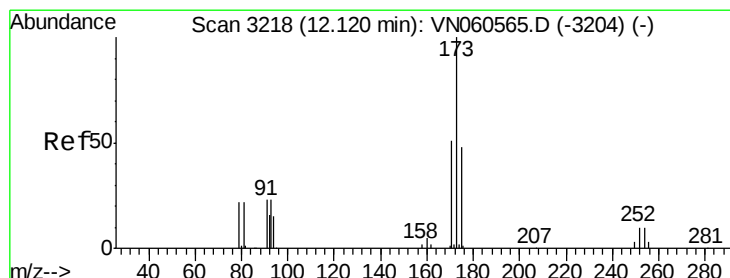
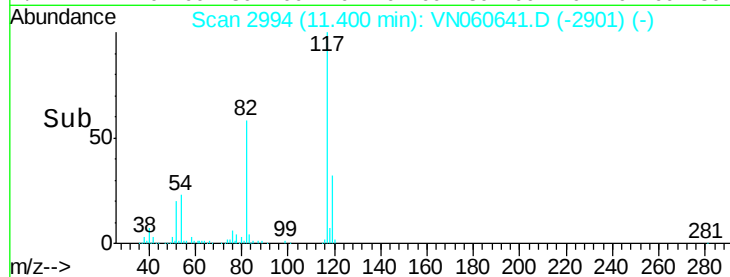
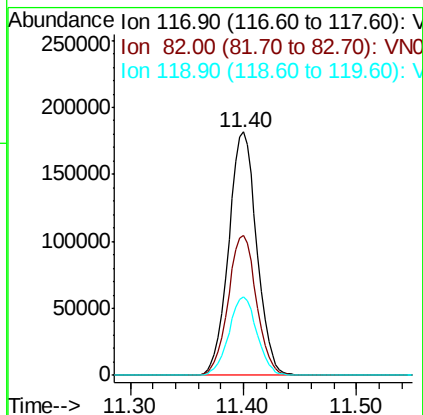
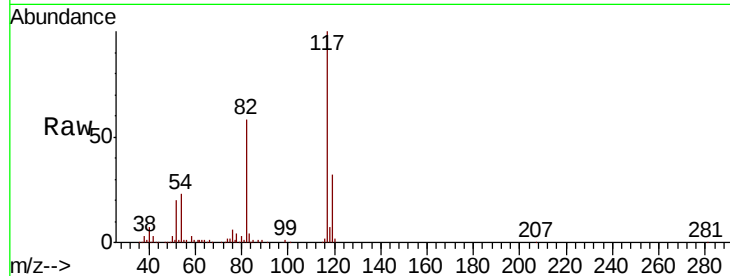




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.40 min Scan# 2994  
Delta R.T. -0.00 min  
Lab File: VN060641.D  
Acq: 19 Mar 2020 16:54

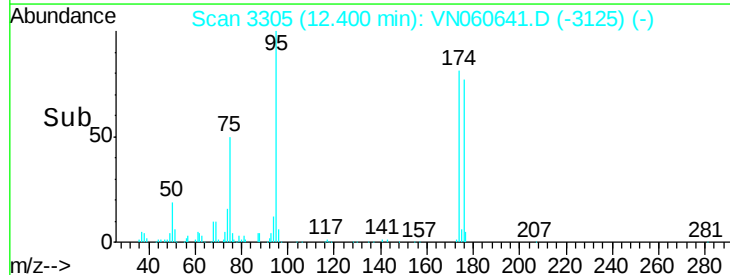
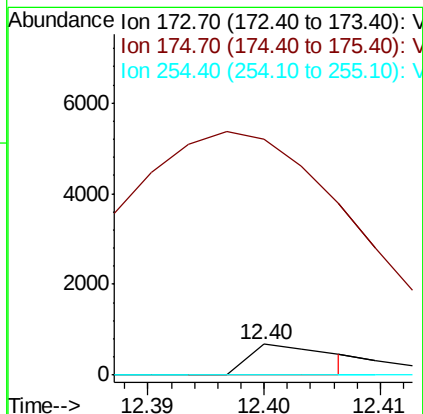
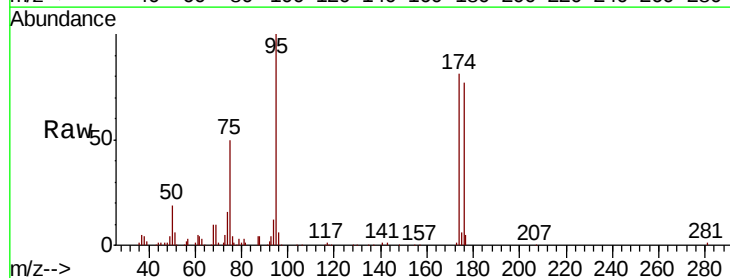
Instrument :  
MSVOA\_N  
ClientSampled :

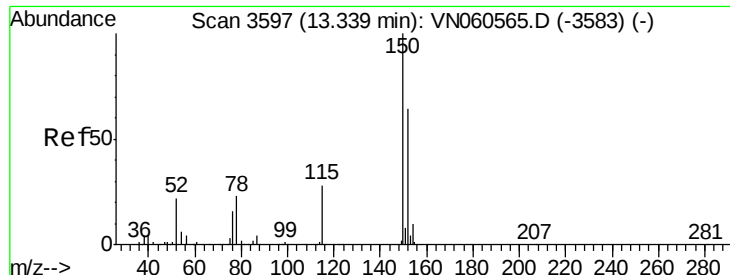
Tot Ion:117 Resp: 313690  
Ion Ratio Lower Upper  
117 100  
82 57.5 46.7 70.1  
119 32.3 25.5 38.3



#71  
Bromoform  
Concen: 1.851 ug/l  
RT: 12.40 min Scan# 3305  
Delta R.T. 0.28 min  
Lab File: VN060641.D  
Acq: 19 Mar 2020 16:54

Tgt Ion:173 Resp: 331  
Ion Ratio Lower Upper  
173 100  
175 2273.7 24.1 72.4#  
254 0.0 0.0 0.0





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.34 min Scan# 3597

Delta R.T. -0.00 min

Lab File: VN060641.D

Acq: 19 Mar 2020 16:54

Instrument :

MSVOA\_N

ClientSampled :

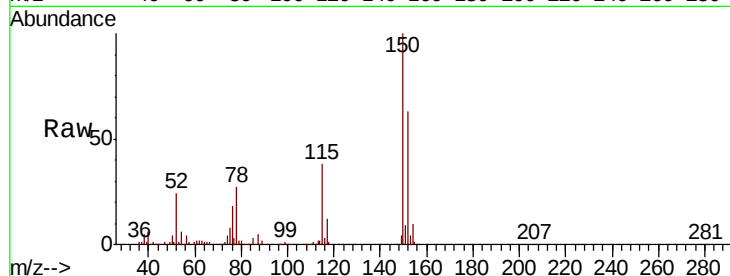
Tot Ion:152 Resp: 142270

Ion Ratio Lower Upper

152 100

115 60.1 30.2 90.6

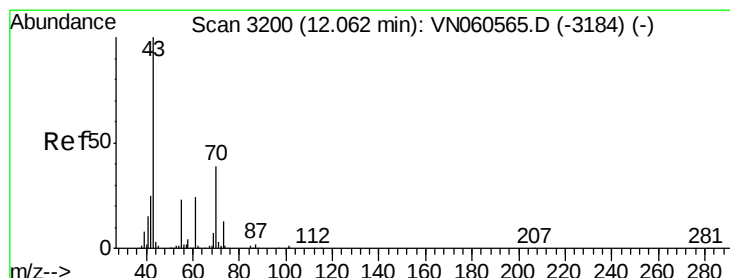
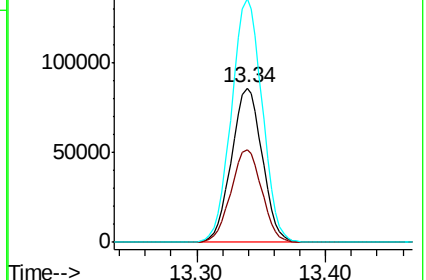
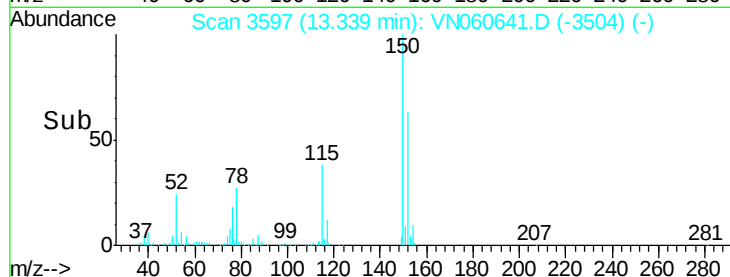
150 157.9 0.0 350.2



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: 0.758 ug/l

RT: 12.02 min Scan# 3188

Delta R.T. -0.04 min

Lab File: VN060641.D

Acq: 19 Mar 2020 16:54

Tgt Ion: 43 Resp: 3739

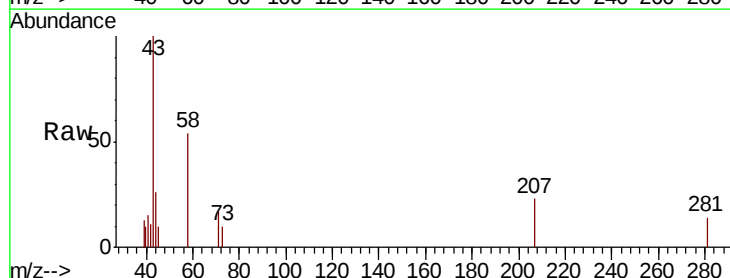
Ion Ratio Lower Upper

43 100

70 0.0 31.1 46.7#

55 0.0 18.6 27.8#

61 0.0 18.9 28.3#

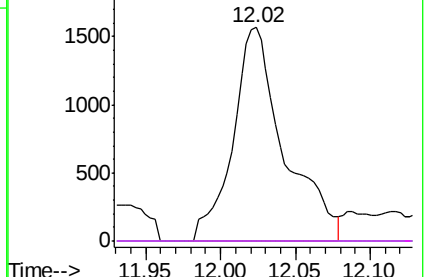
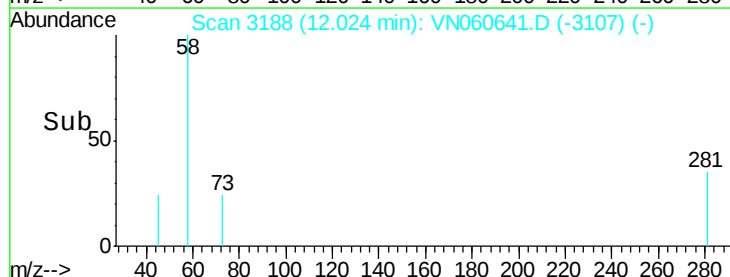


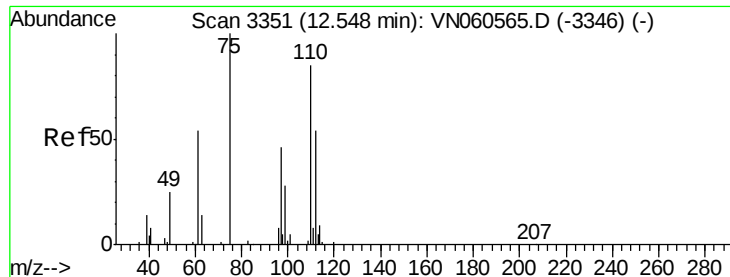
Abundance Ion 43.00 (42.70 to 43.70): V

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: 25.437 ug/l

RT: 12.40 min Scan# 3304

Delta R.T. -0.15 min

Lab File: VN060641.D

Acq: 19 Mar 2020 16:54

Instrument :

MSVOA\_N

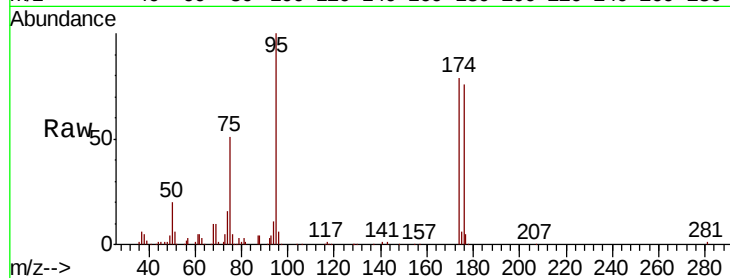
ClientSampled :

Tot Ion: 75 Resp: 78088

Ion Ratio Lower Upper

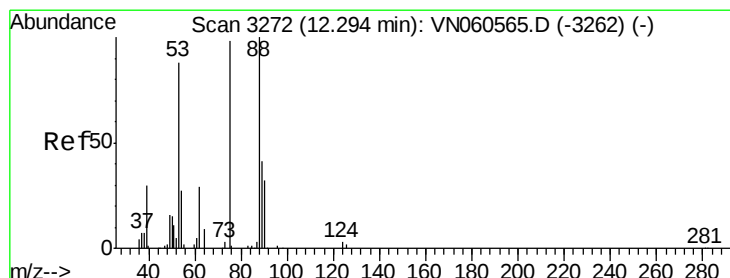
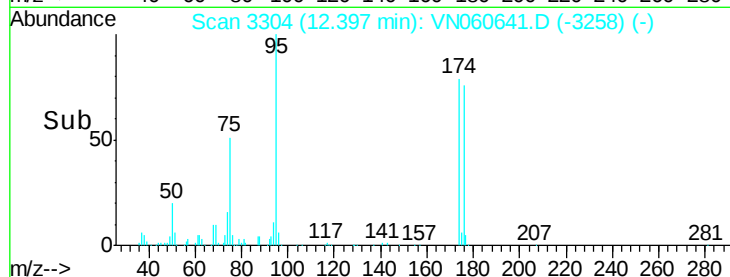
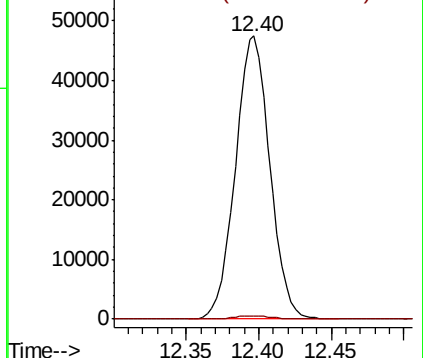
75 100

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



#81

trans-1,4-Dichloro-2-butene

Concen: 65.329 ug/l

RT: 12.40 min Scan# 3304

Delta R.T. 0.10 min

Lab File: VN060641.D

Acq: 19 Mar 2020 16:54

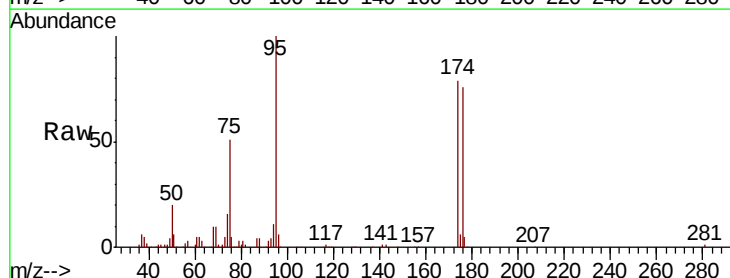
Tgt Ion: 75 Resp: 78088

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

