

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_N\DATA\VN090619\  
 Data File : VN057734.D  
 Acq On : 6 Sep 2019 23:22  
 Operator : JC/SP  
 Sample : K4580-33  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 26 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 BFB

Quant Time: Sep 07 00:12:20 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N090619W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Sep 06 03:46:54 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.65  | 168  | 191656   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.58  | 114  | 326025   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 293800   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 151121   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |       |     |        |          |      |         |
|---------------------------|-------|-----|--------|----------|------|---------|
| 33) 1,2-Dichloroethane-d4 | 8.01  | 65  | 254850 | 54.66    | ug/l | 0.00    |
| Spiked Amount             |       |     |        |          |      |         |
|                           |       |     |        | Recovery | =    | 109.32% |
| 35) Dibromofluoromethane  | 7.58  | 113 | 147789 | 49.77    | ug/l | 0.00    |
| Spiked Amount             |       |     |        |          |      |         |
|                           |       |     |        | Recovery | =    | 99.54%  |
| 50) Toluene-d8            | 10.08 | 98  | 573445 | 52.20    | ug/l | 0.00    |
| Spiked Amount             |       |     |        |          |      |         |
|                           |       |     |        | Recovery | =    | 104.40% |
| 62) 4-Bromofluorobenzene  | 12.40 | 95  | 208215 | 45.63    | ug/l | 0.00    |
| Spiked Amount             |       |     |        |          |      |         |
|                           |       |     |        | Recovery | =    | 91.26%  |

## Target Compounds

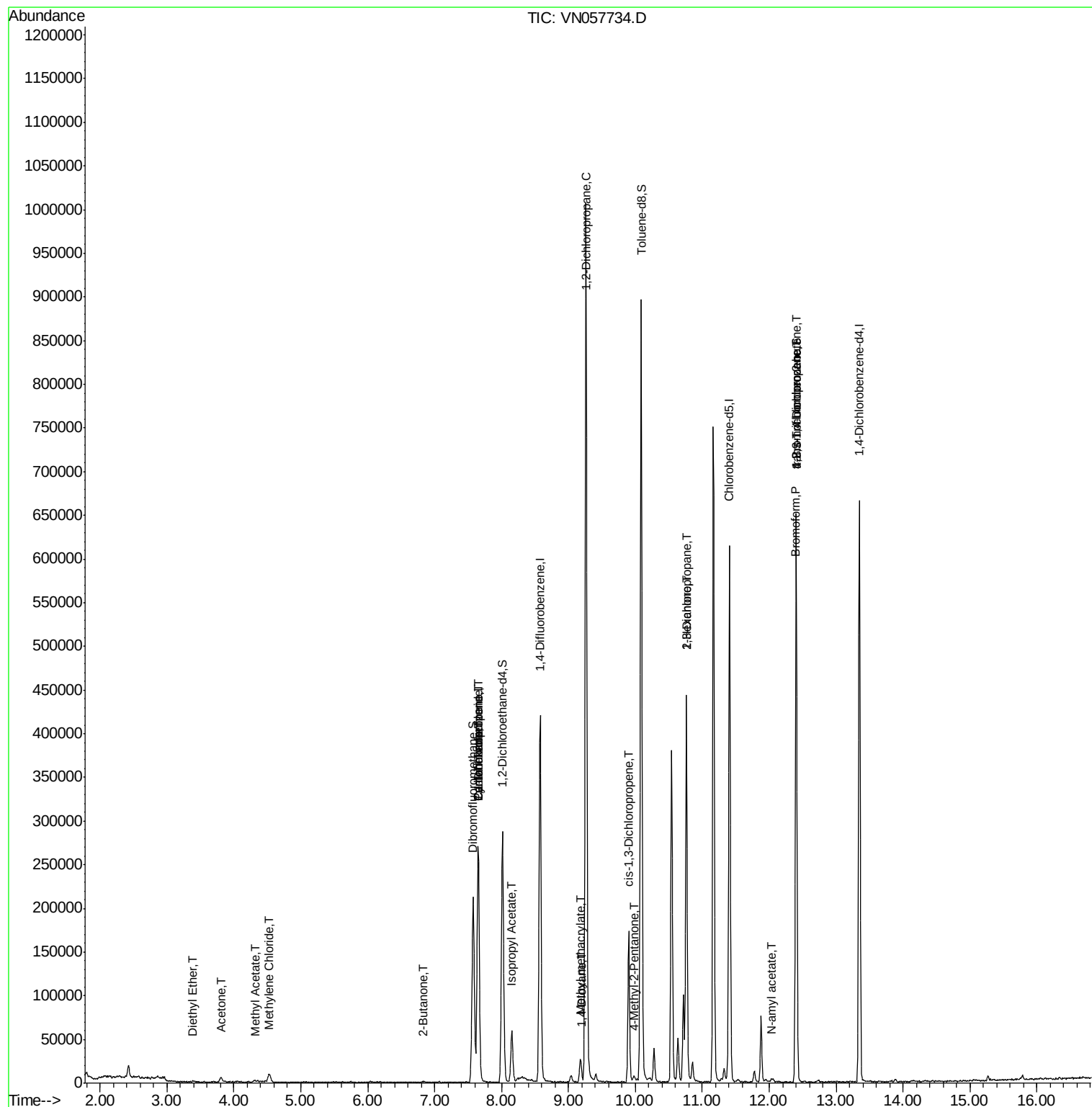
|                                | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 3) Chloromethane               | 2.04  | 50   | 1430     | Below Cal | #      | 86     |
| 8) Diethyl Ether               | 3.39  | 74   | 356      | 0.211     | ug/l   | 64     |
| 16) Acetone                    | 3.81  | 43   | 9978     | 6.954     | ug/l   | 92     |
| 18) Methyl Acetate             | 4.32  | 43   | 3052     | 0.782     | ug/l # | 79     |
| 20) Methylene Chloride         | 4.52  | 84   | 3217     | 1.037     | ug/l   | 90     |
| 25) 2-Butanone                 | 6.83  | 43   | 1439     | 0.700     | ug/l # | 77     |
| 31) Cyclohexane                | 7.65  | 56   | 6711     | 1.282     | ug/l # | 30     |
| 36) 1,1-Dichloropropene        | 7.65  | 75   | 18571    | 4.282     | ug/l # | 50     |
| 38) Carbon Tetrachloride       | 7.66  | 117  | 20898    | 5.032     | ug/l # | 17     |
| 43) Isopropyl Acetate          | 8.15  | 43   | 71627    | 8.666     | ug/l   | 98     |
| 45) 1,2-Dichloropropane        | 9.26  | 63   | 902      | 0.263     | ug/l # | 44     |
| 48) Methyl methacrylate        | 9.18  | 41   | 5127     | 1.206     | ug/l # | 16     |
| 49) 1,4-Dioxane                | 9.21  | 88   | 31       | 0.627     | ug/l # | 19     |
| 51) 4-Methyl-2-Pentanone       | 9.98  | 43   | 5735     | 1.249     | ug/l # | 86     |
| 54) cis-1,3-Dichloropropene    | 9.90  | 75   | 26836    | 5.293     | ug/l # | 65     |
| 57) 1,3-Dichloropropane        | 10.76 | 76   | 4331     | 0.806     | ug/l # | 43     |
| 59) 2-Hexanone                 | 10.76 | 43   | 75391    | 23.293    | ug/l # | 59     |
| 71) Bromoform                  | 12.39 | 173  | 125      | 3.301     | ug/l # | 28     |
| 74) N-amyl acetate             | 12.03 | 43   | 2922     | 0.438     | ug/l # | 51     |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75   | 127752   | 36.813    | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75   | 127752   | 114.489   | ug/l # | 1      |

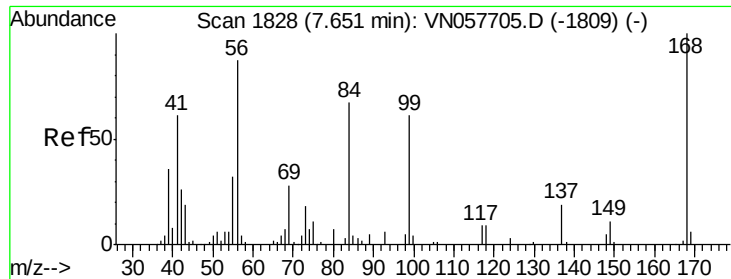
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_N\METHODS\82N090619W.M  
Quant Title : SW846 8260  
QLast Update : Fri Sep 06 03:46:54 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.65 min Scan# 1828

Delta R.T. 0.00 min

Lab File: VN057734.D

Acq: 6 Sep 2019 23:22

Instrument :

MSVOA\_N

ClientSampled :

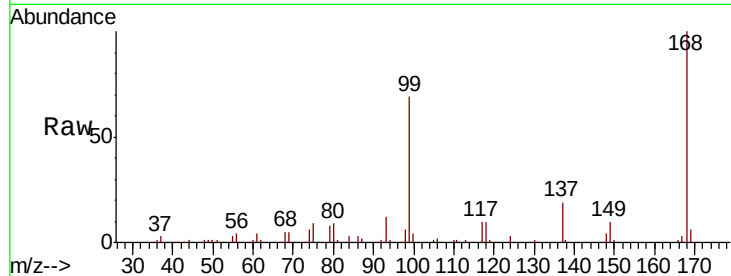
BFB

Tgt Ion:168 Resp: 191656

Ion Ratio Lower Upper

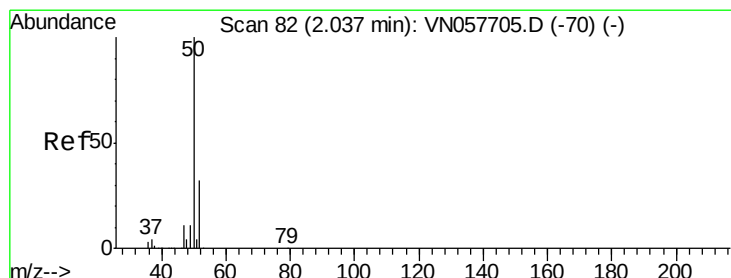
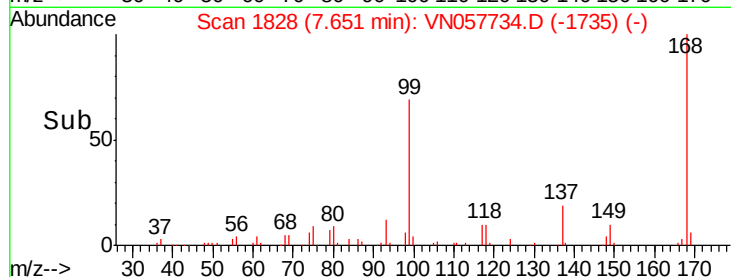
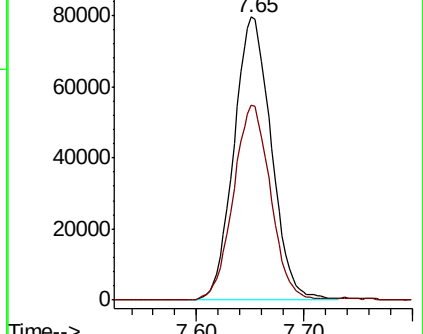
168 100

99 68.7 57.4 86.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN



#3

Chloromethane

Concen: Below Cal

RT: 2.04 min Scan# 82

Delta R.T. 0.00 min

Lab File: VN057734.D

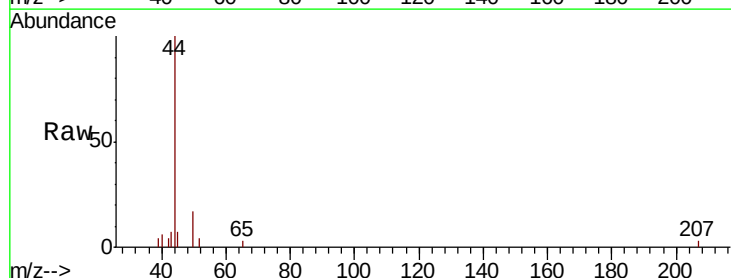
Acq: 6 Sep 2019 23:22

Tgt Ion: 50 Resp: 1430

Ion Ratio Lower Upper

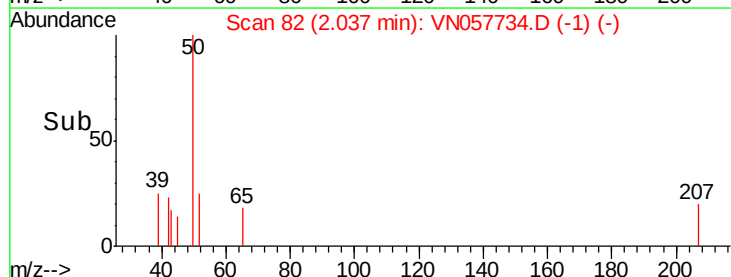
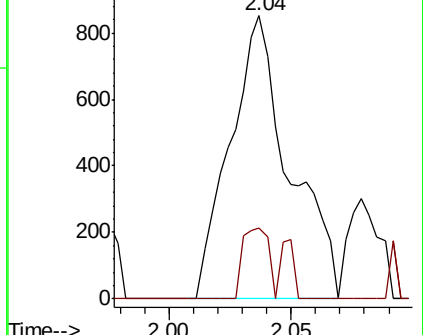
50 100

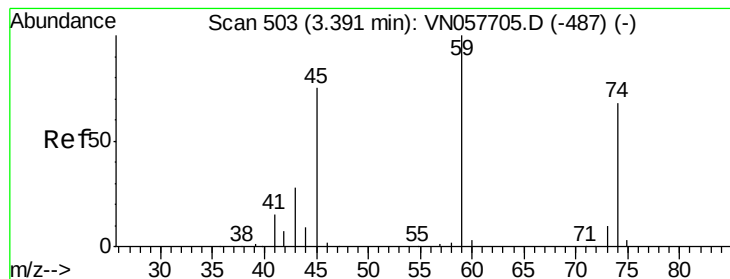
52 24.9 26.0 39.0#



Abundance Ion 49.90 (49.60 to 50.60): VN

Ion 51.90 (51.60 to 52.60): VN





#8

Diethyl Ether

Concen: 0.211 ug/l

RT: 3.39 min Scan# 502

Delta R.T. -0.00 min

Lab File: VN057734.D

Acq: 6 Sep 2019 23:22

Instrument :

MSVOA\_N

ClientSampleId :

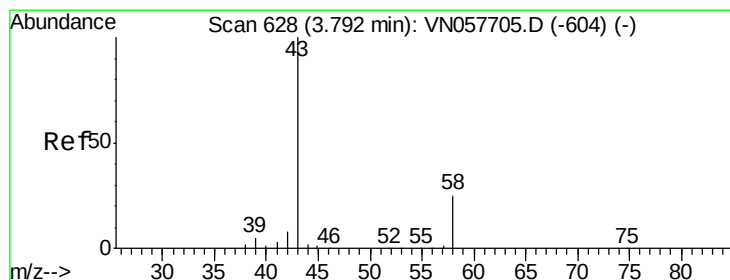
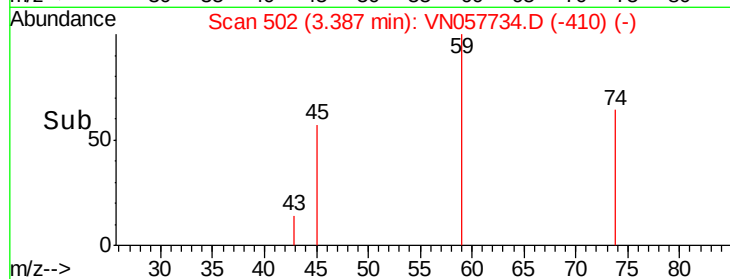
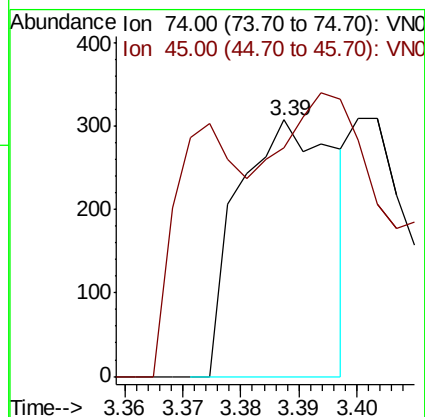
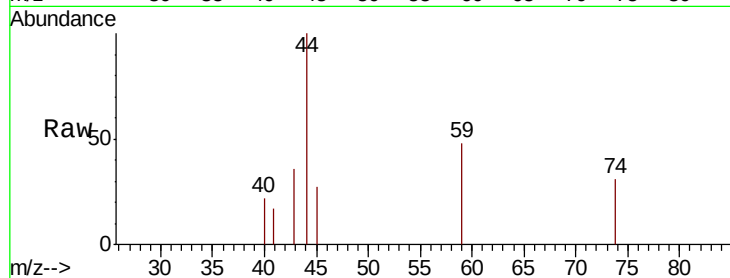
BFB

Tgt Ion: 74 Resp: 356

Ion Ratio Lower Upper

74 100

45 149.2 55.4 166.0



#16

Acetone

Concen: 6.954 ug/l

RT: 3.81 min Scan# 632

Delta R.T. 0.01 min

Lab File: VN057734.D

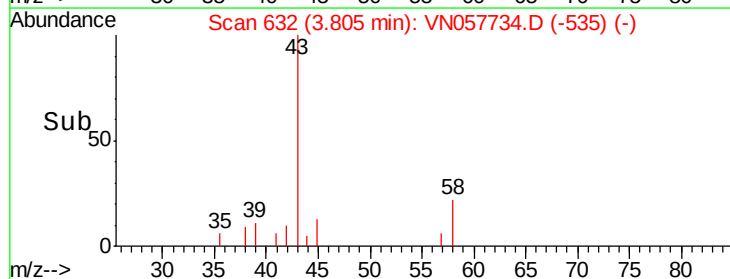
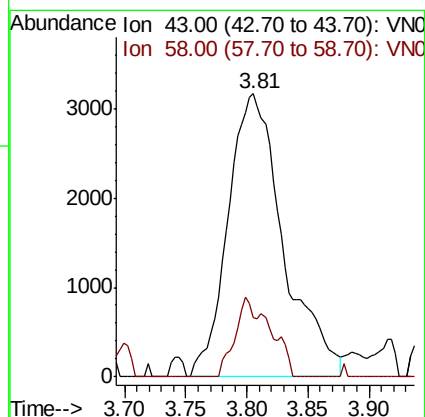
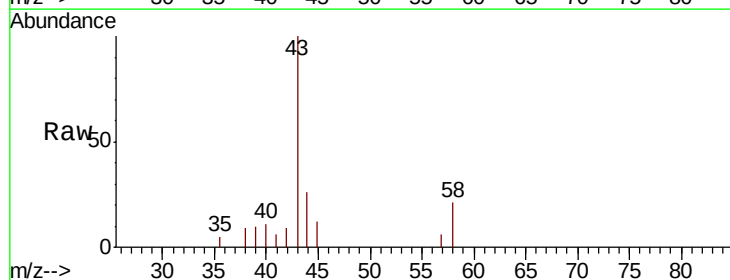
Acq: 6 Sep 2019 23:22

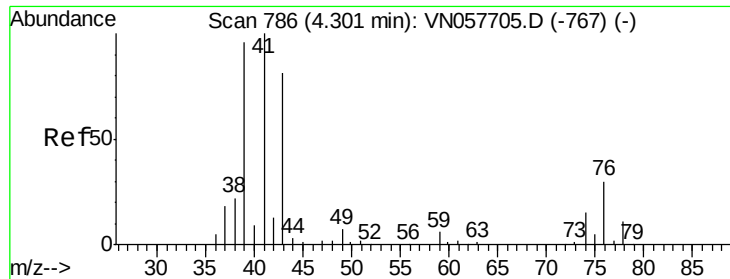
Tgt Ion: 43 Resp: 9978

Ion Ratio Lower Upper

43 100

58 20.9 19.8 29.8

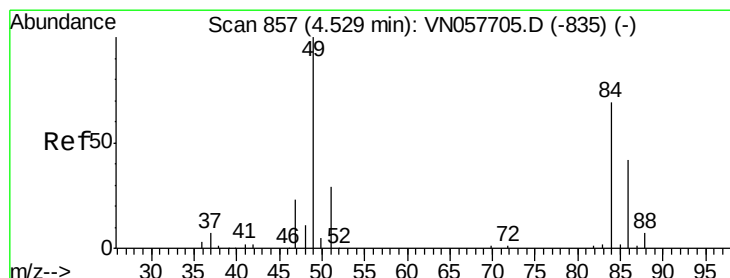
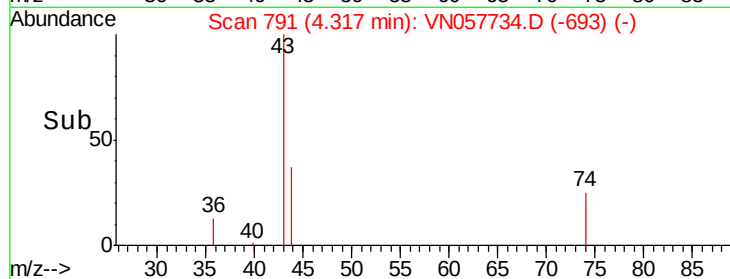
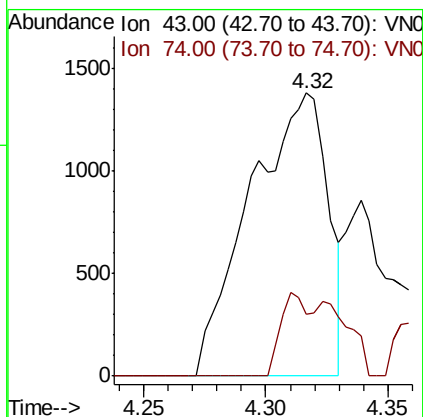
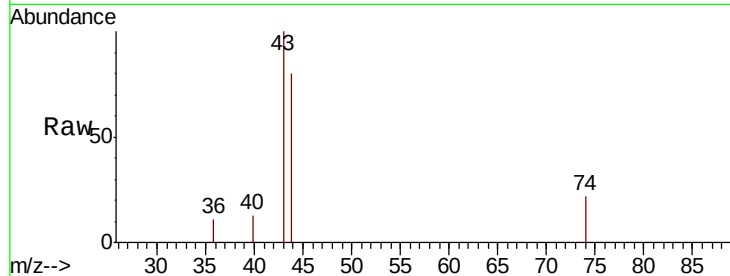




#18  
Methyl Acetate  
Concen: 0.782 ug/l  
RT: 4.32 min Scan# 791  
Delta R.T. 0.02 min  
Lab File: VN057734.D  
Acq: 6 Sep 2019 23:22

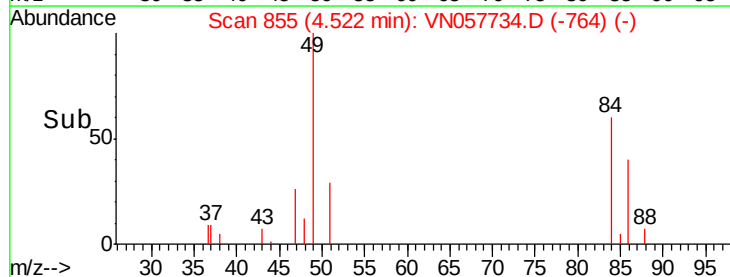
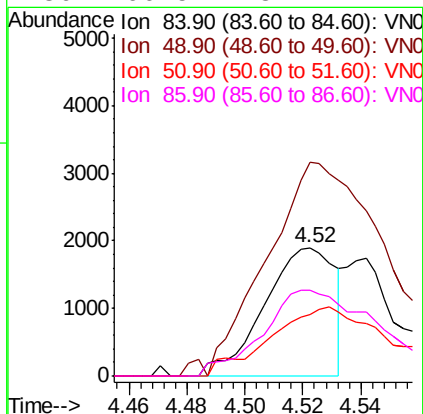
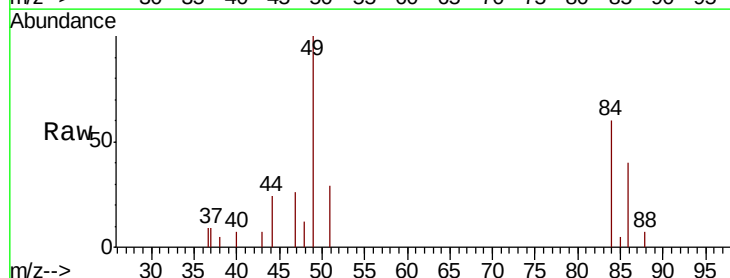
Instrument :  
MSVOA\_N  
ClientSampled :  
BFB

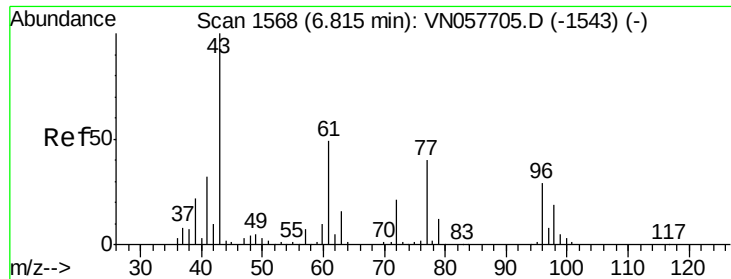
Tgt Ion: 43 Resp: 3052  
Ion Ratio Lower Upper  
43 100  
74 9.8 15.3 22.9#



#20  
Methylene Chloride  
Concen: 1.037 ug/l  
RT: 4.52 min Scan# 855  
Delta R.T. -0.01 min  
Lab File: VN057734.D  
Acq: 6 Sep 2019 23:22

Tgt Ion: 84 Resp: 3217  
Ion Ratio Lower Upper  
84 100  
49 156.8 115.0 172.6  
51 48.0 33.8 50.8  
86 66.5 48.2 72.2

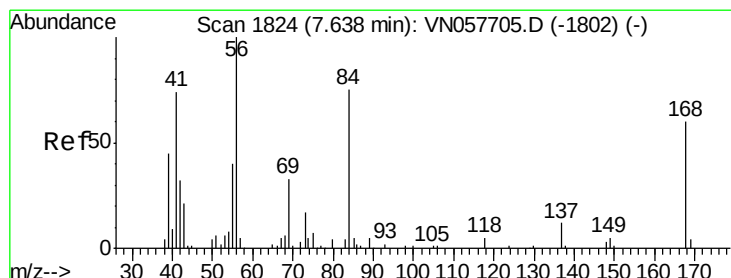
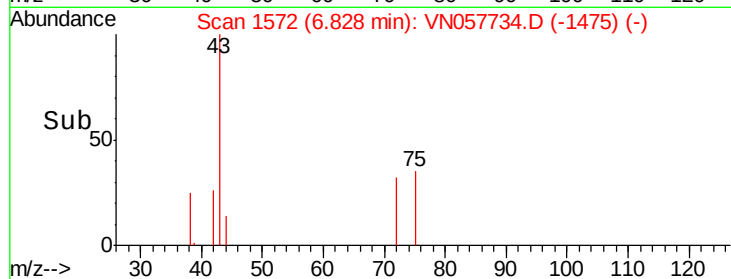
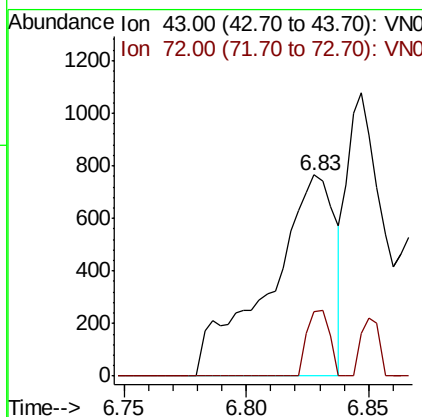
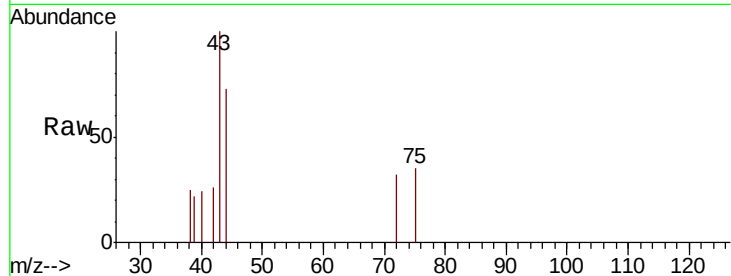




#25  
2-Butanone  
Concen: 0.700 ug/l  
RT: 6.83 min Scan# 1572  
Delta R.T. 0.01 min  
Lab File: VN057734.D  
Acq: 6 Sep 2019 23:22

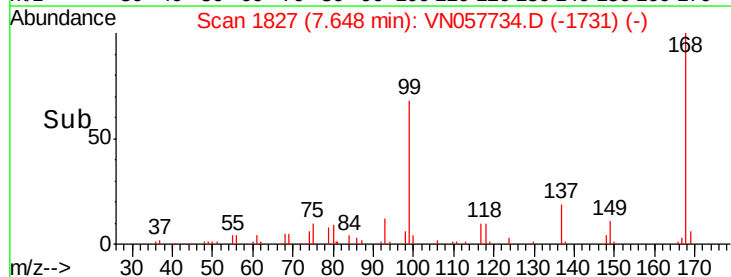
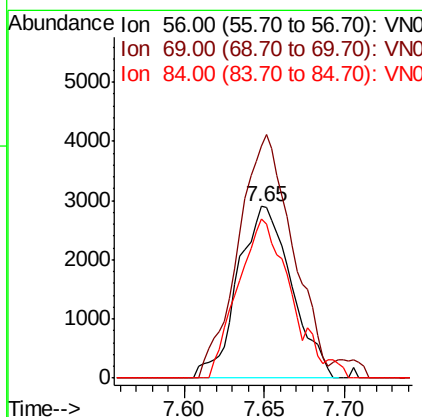
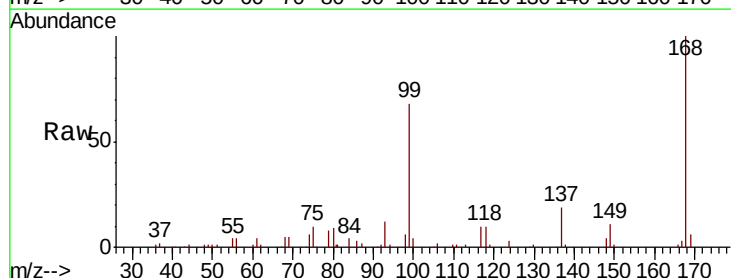
Instrument :  
MSVOA\_N  
ClientSampleId :  
BFB

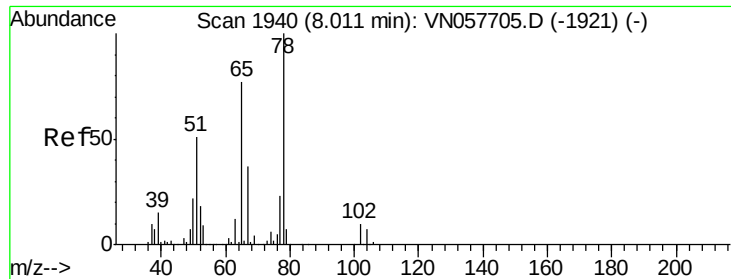
Tgt Ion: 43 Resp: 1439  
Ion Ratio Lower Upper  
43 100  
72 32.2 17.0 25.6#



#31  
Cyclohexane  
Concen: 1.282 ug/l  
RT: 7.65 min Scan# 1827  
Delta R.T. 0.01 min  
Lab File: VN057734.D  
Acq: 6 Sep 2019 23:22

Tgt Ion: 56 Resp: 6711  
Ion Ratio Lower Upper  
56 100  
69 135.5 26.2 39.2#  
84 92.9 59.8 89.8#

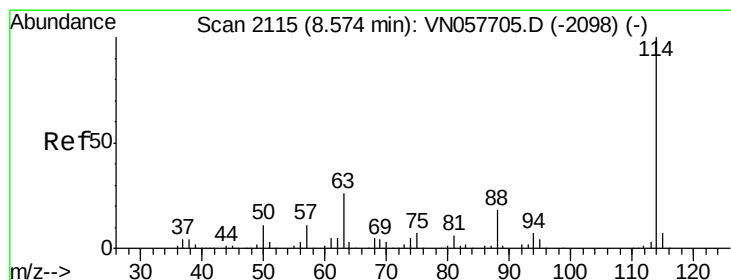
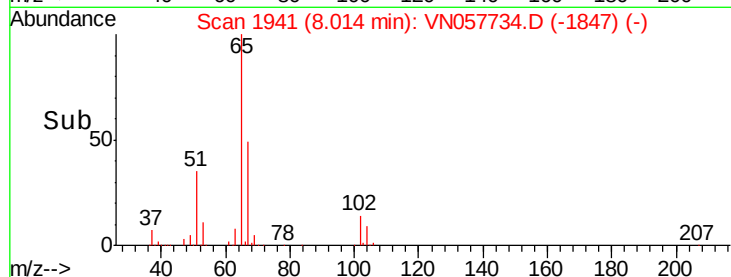
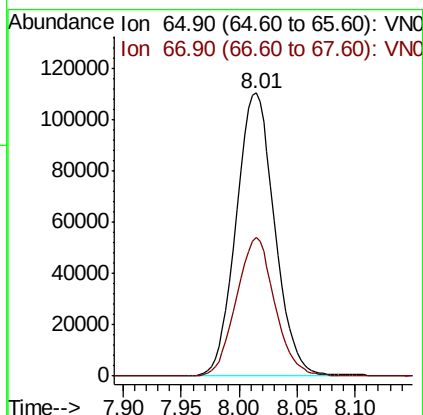
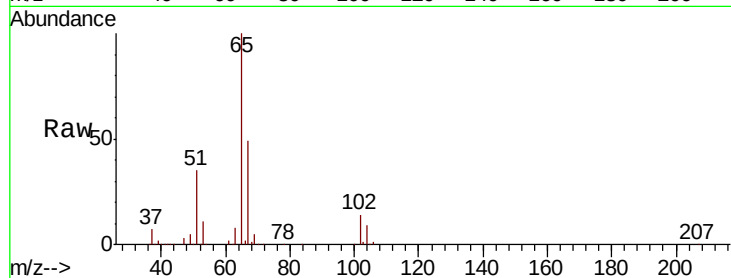




#33  
 1,2-Dichloroethane-d4  
 Concen: 54.661 ug/l  
 RT: 8.01 min Scan# 1941  
 Delta R.T. 0.00 min  
 Lab File: VN057734.D  
 Acq: 6 Sep 2019 23:22

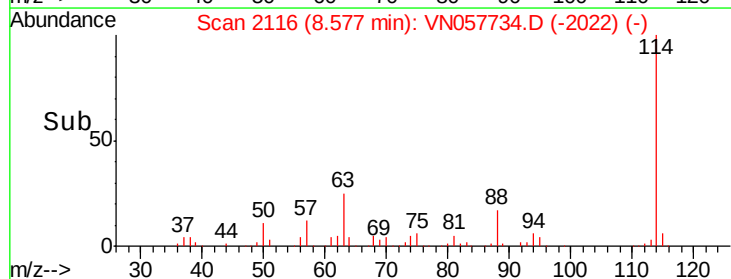
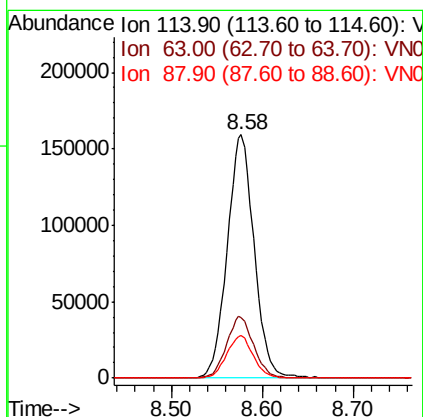
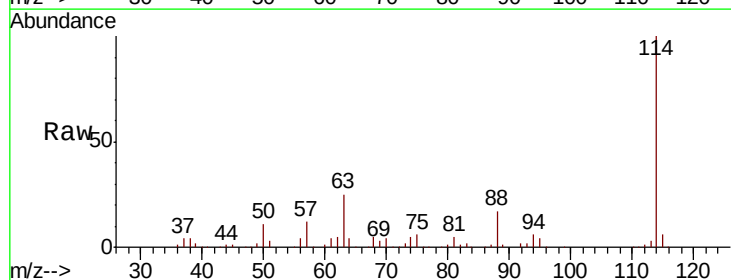
Instrument :  
 MSVOA\_N  
 ClientSampled :  
 BFB

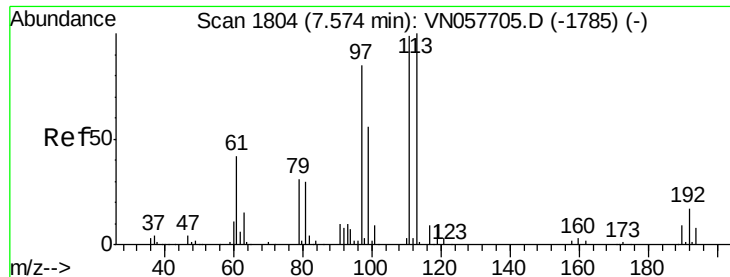
Tgt Ion: 65 Resp: 254850  
 Ion Ratio Lower Upper  
 65 100  
 67 49.0 0.0 98.2



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.58 min Scan# 2116  
 Delta R.T. 0.00 min  
 Lab File: VN057734.D  
 Acq: 6 Sep 2019 23:22

Tgt Ion: 114 Resp: 326025  
 Ion Ratio Lower Upper  
 114 100  
 63 25.1 0.0 52.4  
 88 17.4 0.0 35.4





#35

Dibromofluoromethane

Concen: 49.767 ug/l

RT: 7.58 min Scan# 1805

Delta R.T. 0.00 min

Lab File: VN057734.D

Acq: 6 Sep 2019 23:22

Instrument :

MSVOA\_N

ClientSampleId :

BFB

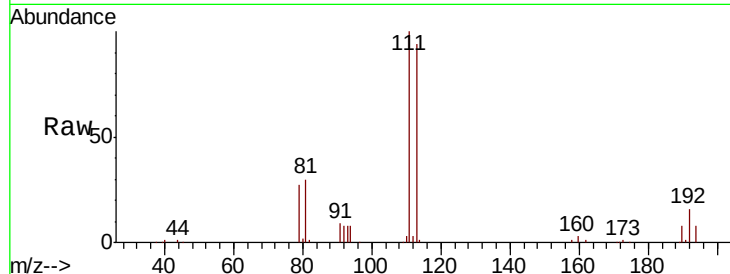
Tgt Ion:113 Resp: 147789

Ion Ratio Lower Upper

113 100

111 103.9 82.7 124.1

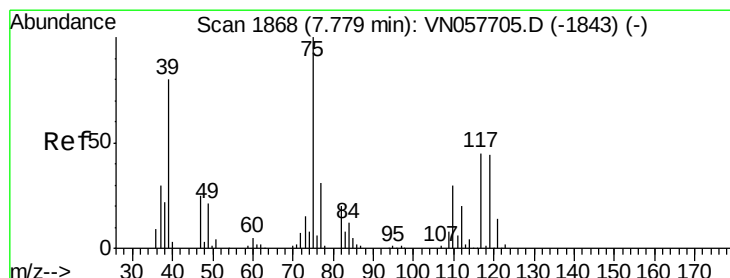
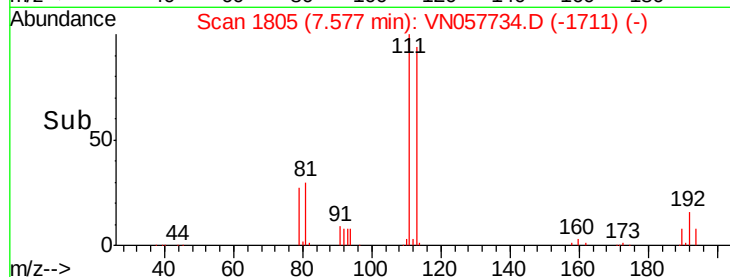
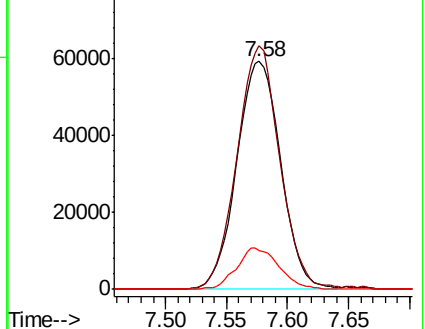
192 17.5 13.8 20.6



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: 4.282 ug/l

RT: 7.65 min Scan# 1828

Delta R.T. -0.13 min

Lab File: VN057734.D

Acq: 6 Sep 2019 23:22

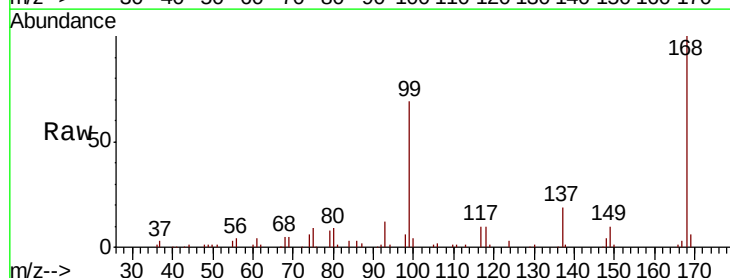
Tgt Ion: 75 Resp: 18571

Ion Ratio Lower Upper

75 100

110 6.3 15.0 45.0#

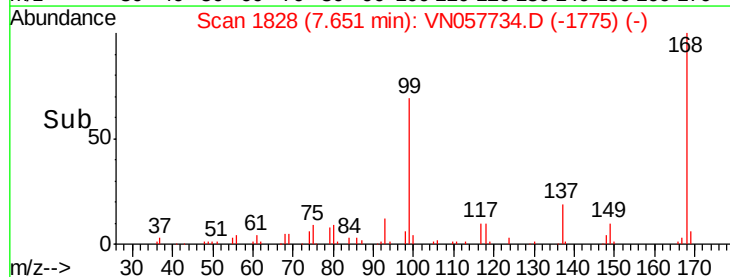
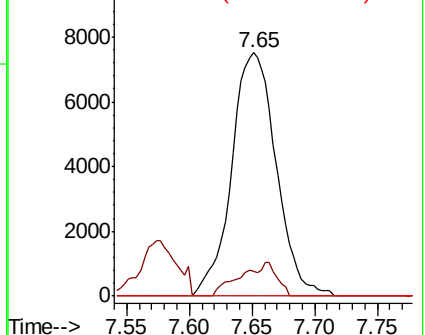
77 0.0 24.6 37.0#



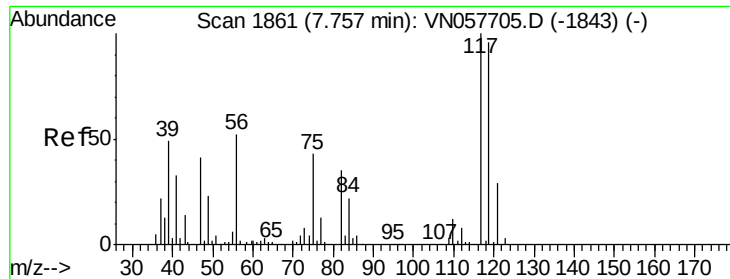
Abundance Ion 74.90 (74.60 to 75.60): V

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): V







#38

Carbon Tetrachloride

Concen: 5.032 ug/l

RT: 7.66 min Scan# 1830

Delta R.T. -0.10 min

Lab File: VN057734.D

Acq: 6 Sep 2019 23:22

Instrument :

MSVOA\_N

ClientSampled :

BFB

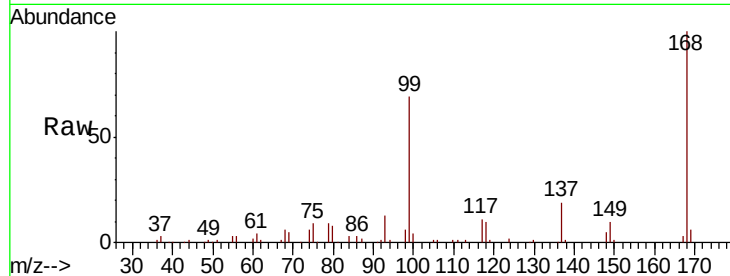
Tgt Ion:117 Resp: 20898

Ion Ratio Lower Upper

117 100

119 5.7 76.1 114.1#

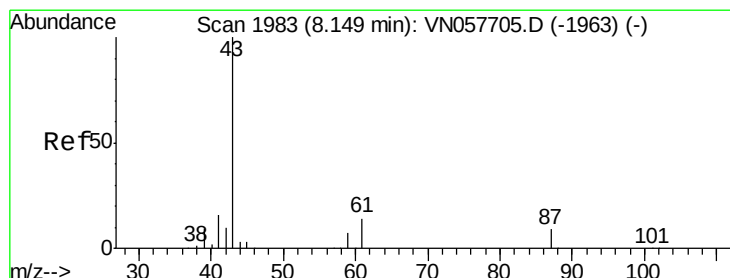
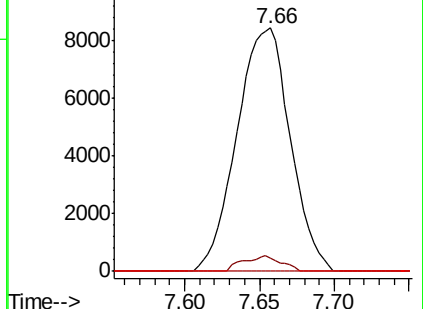
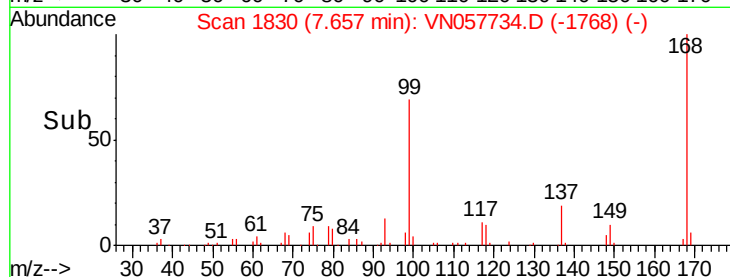
121 0.0 23.4 35.2#



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: 8.666 ug/l

RT: 8.15 min Scan# 1984

Delta R.T. 0.00 min

Lab File: VN057734.D

Acq: 6 Sep 2019 23:22

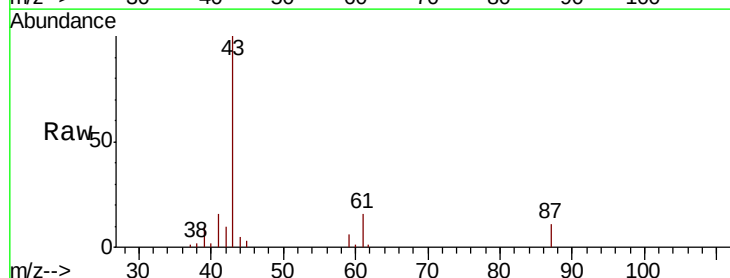
Tgt Ion: 43 Resp: 71627

Ion Ratio Lower Upper

43 100

61 14.9 12.8 19.2

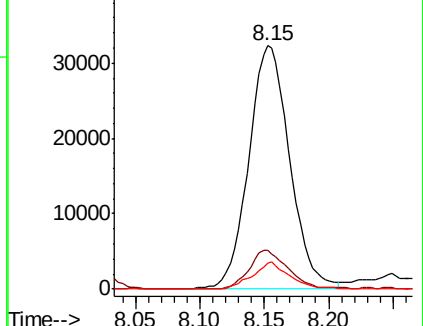
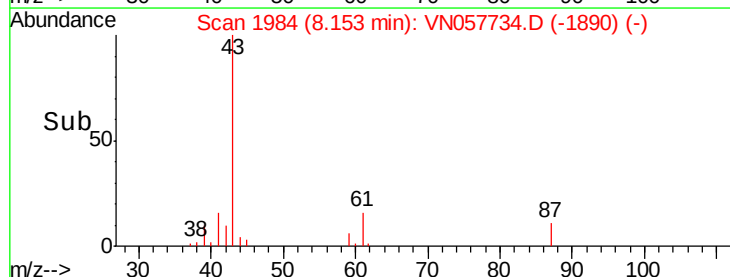
87 9.9 7.8 11.8

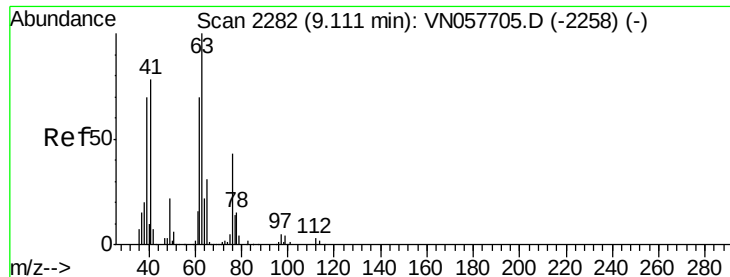


Abundance Ion 43.00 (42.70 to 43.70): V

Ion 61.00 (60.70 to 61.70): V

Ion 87.00 (86.70 to 87.70): V

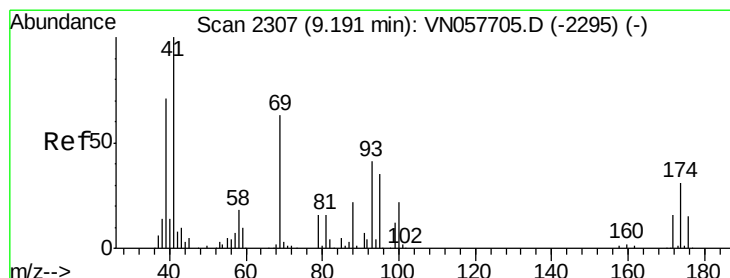
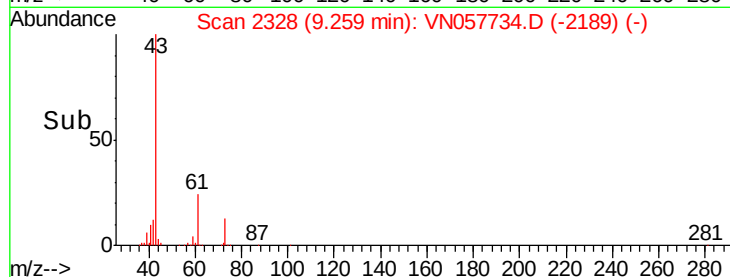
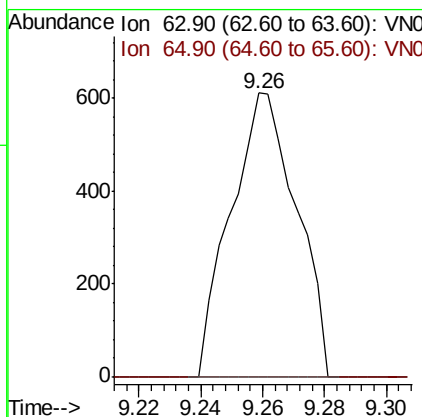
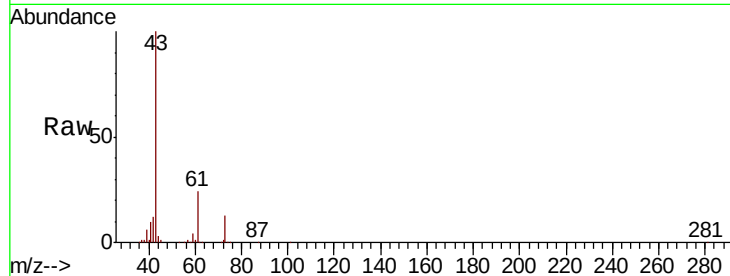




#45  
 1,2-Dichloropropane  
 Concen: 0.263 ug/l  
 RT: 9.26 min Scan# 2328  
 Delta R.T. 0.15 min  
 Lab File: VN057734.D  
 Acq: 6 Sep 2019 23:22

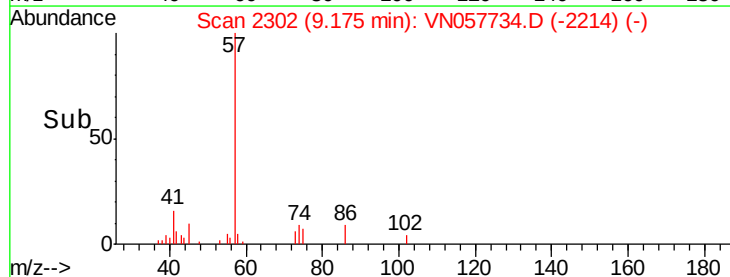
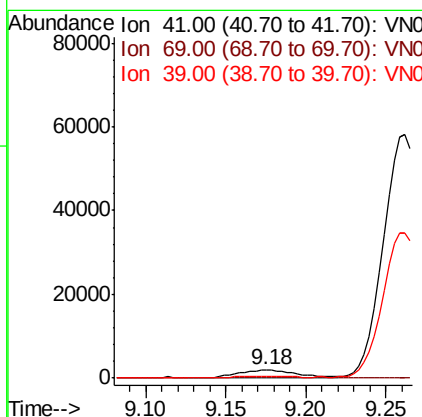
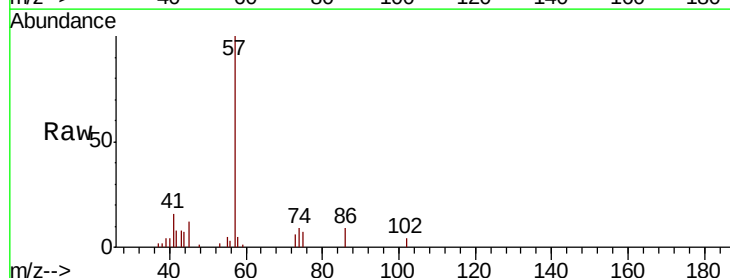
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 BFB

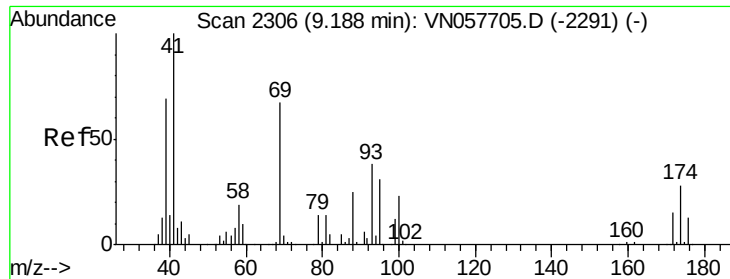
Tgt Ion: 63 Resp: 902  
 Ion Ratio Lower Upper  
 63 100  
 65 0.0 24.5 36.7#



#48  
 Methyl methacrylate  
 Concen: 1.206 ug/l  
 RT: 9.18 min Scan# 2302  
 Delta R.T. -0.02 min  
 Lab File: VN057734.D  
 Acq: 6 Sep 2019 23:22

Tgt Ion: 41 Resp: 5127  
 Ion Ratio Lower Upper  
 41 100  
 69 0.0 51.2 76.8#  
 39 0.0 57.3 85.9#

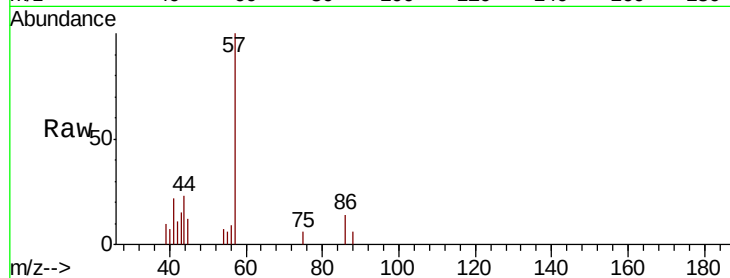




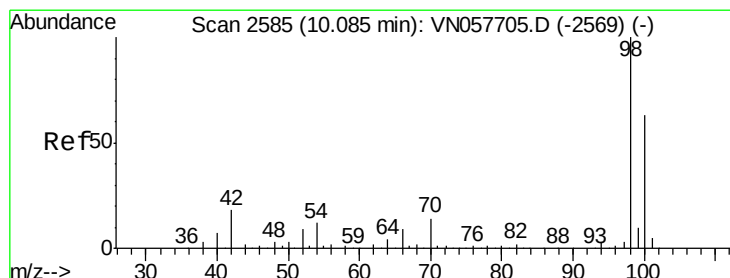
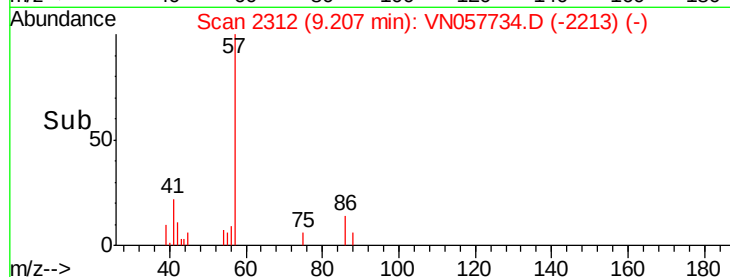
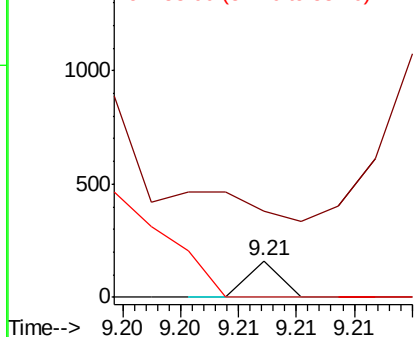
#49  
 1,4-Dioxane  
 Concen: 0.627 ug/l  
 RT: 9.21 min Scan# 2312  
 Delta R.T. 0.02 min  
 Lab File: VN057734.D  
 Acq: 6 Sep 2019 23:22

Instrument :  
 MSVOA\_N  
 ClientSampled :  
 BFB

Tgt Ion: 88 Resp: 31  
 Ion Ratio Lower Upper  
 88 100  
 43 0.0 35.4 53.2#  
 58 0.0 61.5 92.3#

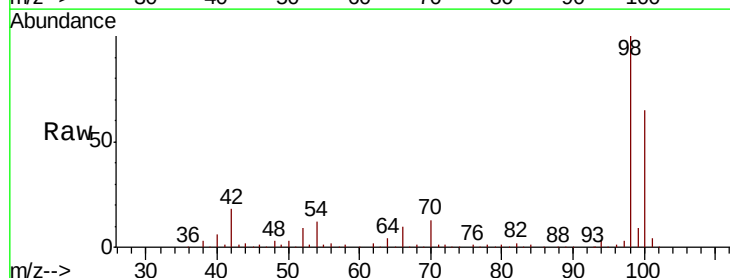


Abundance Ion 88.00 (87.70 to 88.70): VN0  
 Ion 43.00 (42.70 to 43.70): VN0  
 Ion 58.00 (57.70 to 58.70): VN0

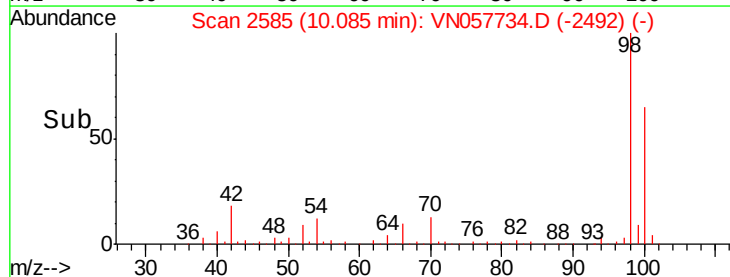
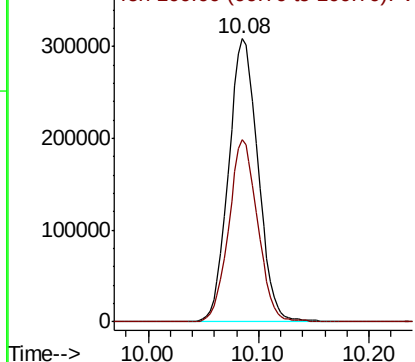


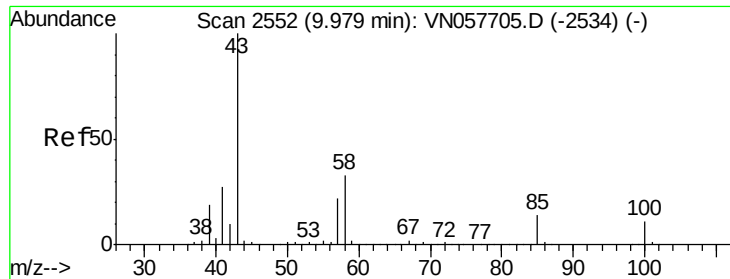
#50  
 Toluene-d8  
 Concen: 52.201 ug/l  
 RT: 10.08 min Scan# 2585  
 Delta R.T. 0.00 min  
 Lab File: VN057734.D  
 Acq: 6 Sep 2019 23:22

Tgt Ion: 98 Resp: 573445  
 Ion Ratio Lower Upper  
 98 100  
 100 63.1 50.7 76.1



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





#51

4-Methyl-2-Pentanone

Concen: 1.249 ug/l

RT: 9.98 min Scan# 2552

Delta R.T. 0.00 min

Lab File: VN057734.D

Acq: 6 Sep 2019 23:22

Instrument :

MSVOA\_N

ClientSampled :

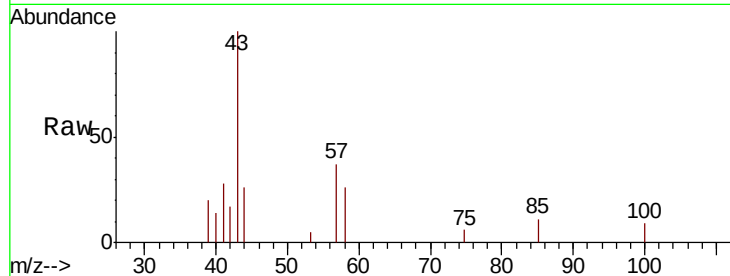
BFB

Tgt Ion: 43 Resp: 5735

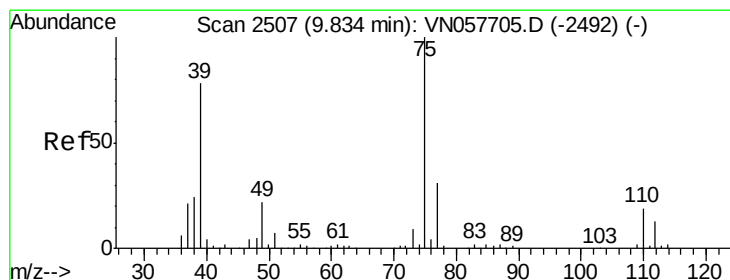
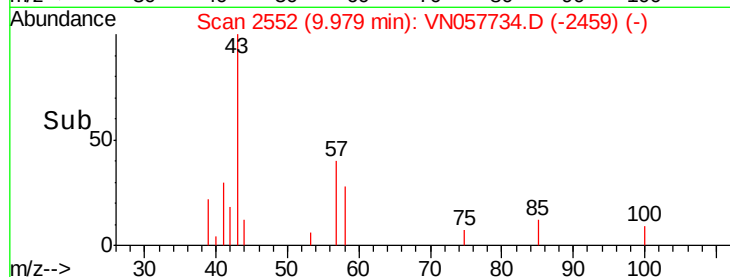
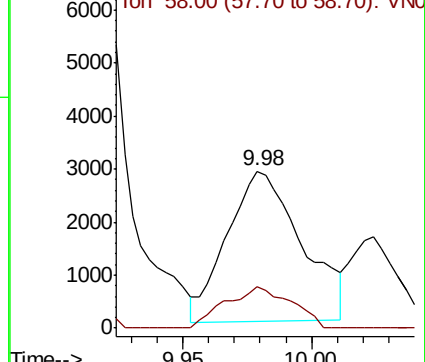
Ion Ratio Lower Upper

43 100

58 24.3 25.8 38.8#



Abundance Ion 43.00 (42.70 to 43.70): VN057705.D (-2534) (-)



#54

cis-1,3-Dichloropropene

Concen: 5.293 ug/l

RT: 9.90 min Scan# 2528

Delta R.T. 0.07 min

Lab File: VN057734.D

Acq: 6 Sep 2019 23:22

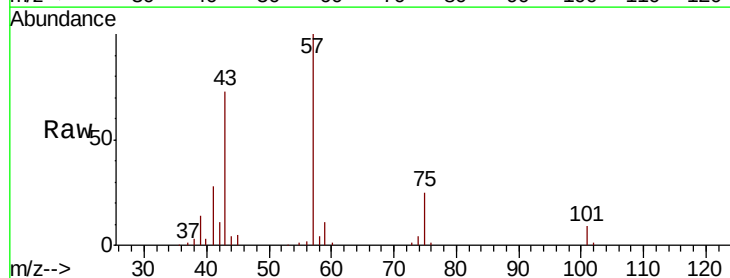
Tgt Ion: 75 Resp: 26836

Ion Ratio Lower Upper

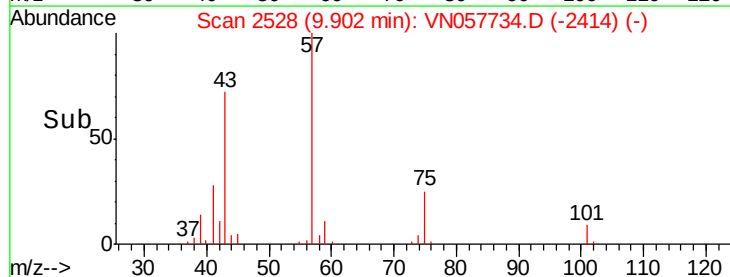
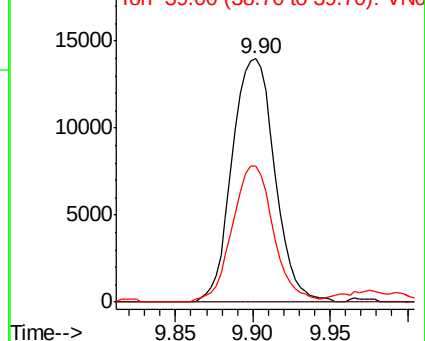
75 100

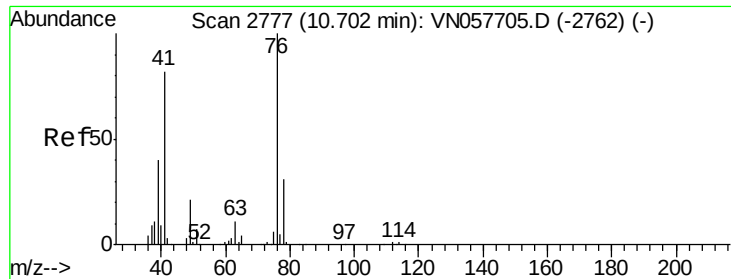
77 0.0 25.1 37.7#

39 55.8 62.4 93.6#



Abundance Ion 74.90 (74.60 to 75.60): VN057705.D (-2492) (-)

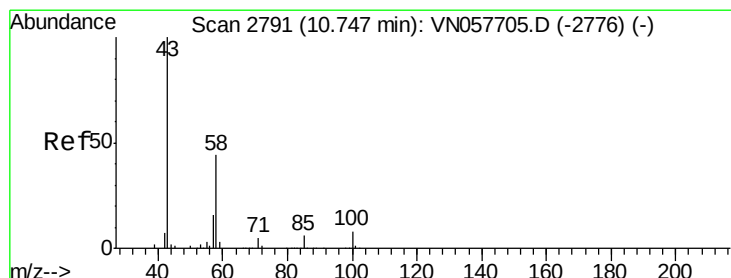
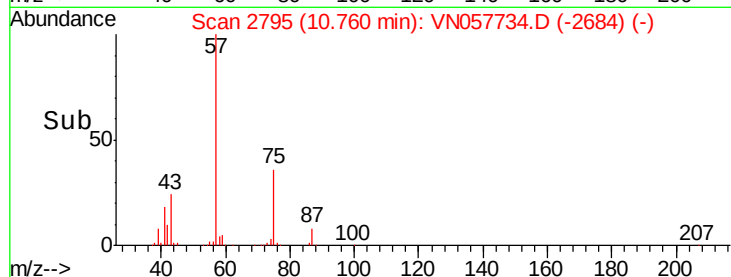
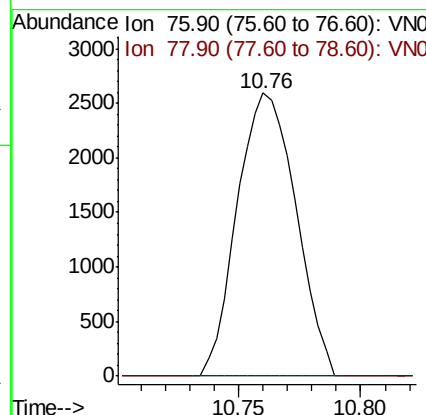
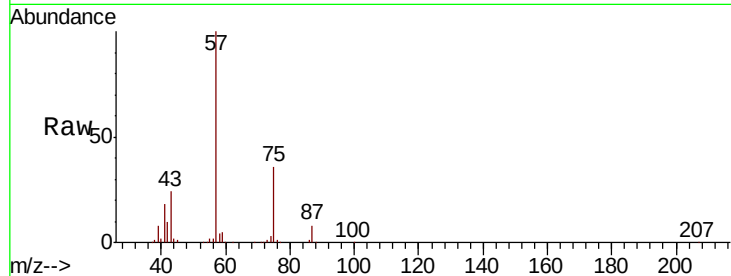




#57  
 1,3-Dichloropropane  
 Concen: 0.806 ug/l  
 RT: 10.76 min Scan# 2795  
 Delta R.T. 0.06 min  
 Lab File: VN057734.D  
 Acq: 6 Sep 2019 23:22

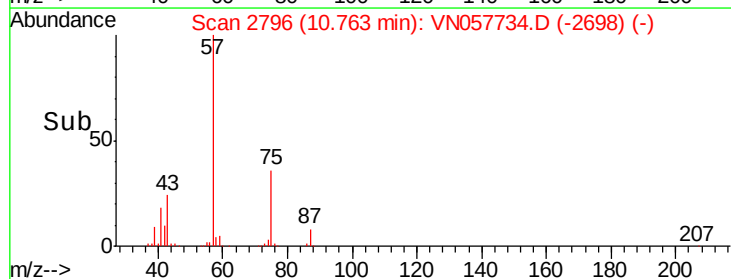
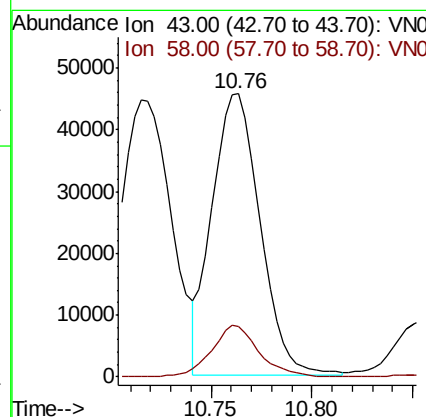
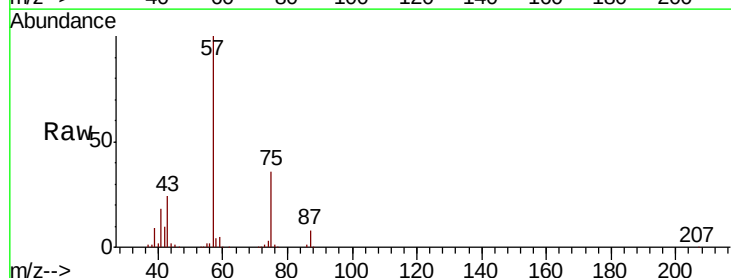
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 BFB

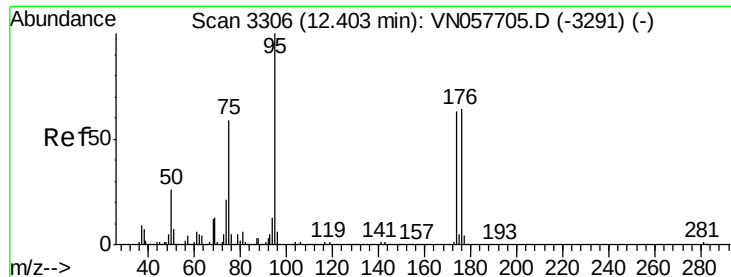
Tgt Ion: 76 Resp: 4331  
 Ion Ratio Lower Upper  
 76 100  
 78 0.0 25.5 38.3#



#59  
 2-Hexanone  
 Concen: 23.293 ug/l  
 RT: 10.76 min Scan# 2796  
 Delta R.T. 0.02 min  
 Lab File: VN057734.D  
 Acq: 6 Sep 2019 23:22

Tgt Ion: 43 Resp: 75391  
 Ion Ratio Lower Upper  
 43 100  
 58 18.0 22.1 66.5#

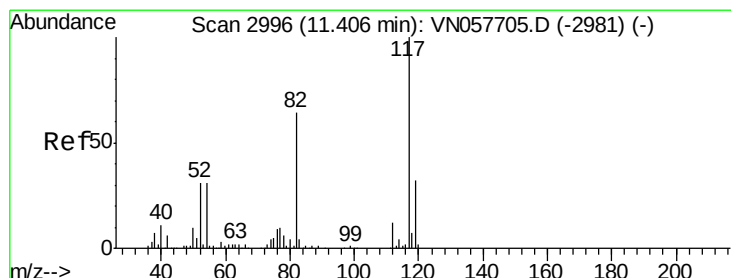
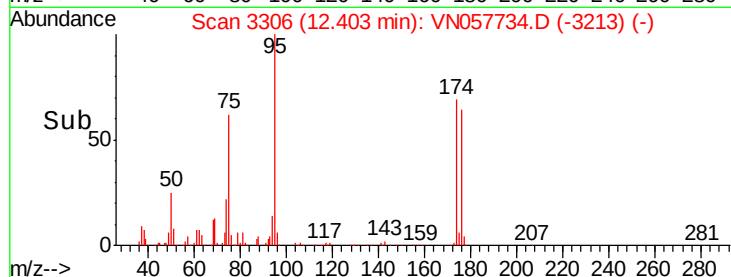
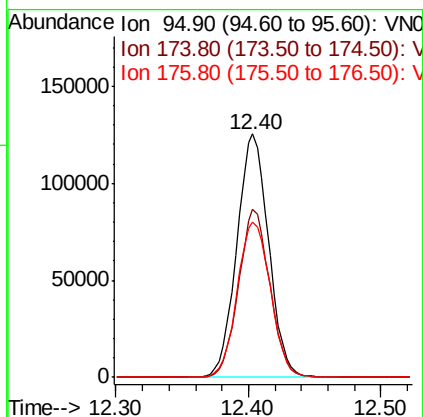
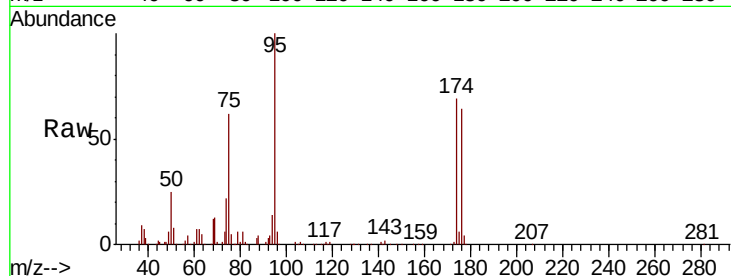




#62  
4-Bromofluorobenzene  
Concen: 45.634 ug/l  
RT: 12.40 min Scan# 3306  
Delta R.T. 0.00 min  
Lab File: VN057734.D  
Acq: 6 Sep 2019 23:22

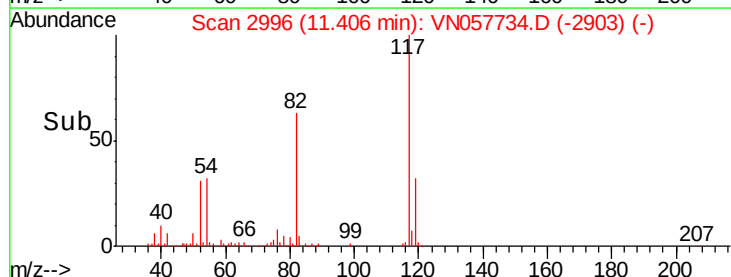
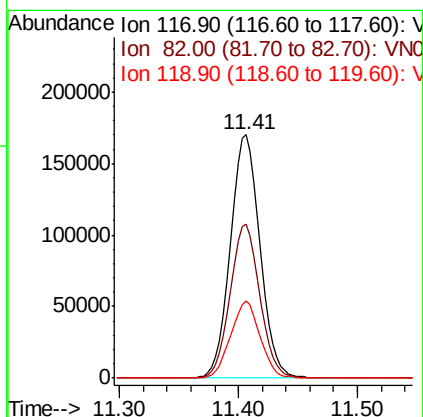
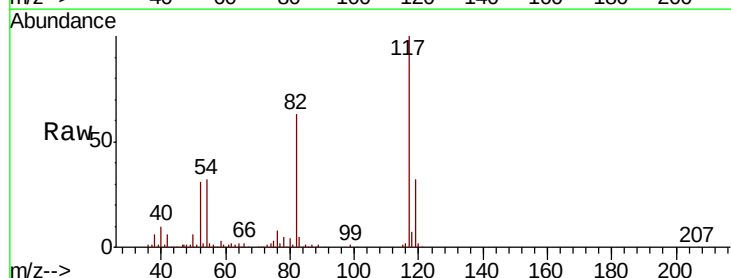
Instrument :  
MSVOA\_N  
ClientSampleId :  
BFB

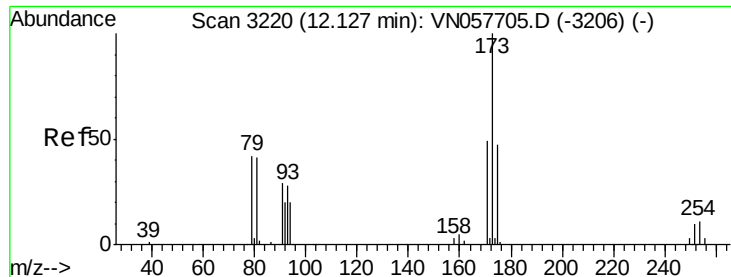
Tgt Ion: 95 Resp: 208215  
Ion Ratio Lower Upper  
95 100  
174 68.3 0.0 128.0  
176 66.8 0.0 128.0



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.41 min Scan# 2996  
Delta R.T. 0.00 min  
Lab File: VN057734.D  
Acq: 6 Sep 2019 23:22

Tgt Ion: 117 Resp: 293800  
Ion Ratio Lower Upper  
117 100  
82 63.1 51.4 77.0  
119 31.8 25.4 38.2





#71

Bromoform

Concen: 3.301 ug/l

RT: 12.39 min Scan# 3301

Delta R.T. 0.26 min

Lab File: VN057734.D

Acq: 6 Sep 2019 23:22

Instrument :

MSVOA\_N

ClientSampleId :

BFB

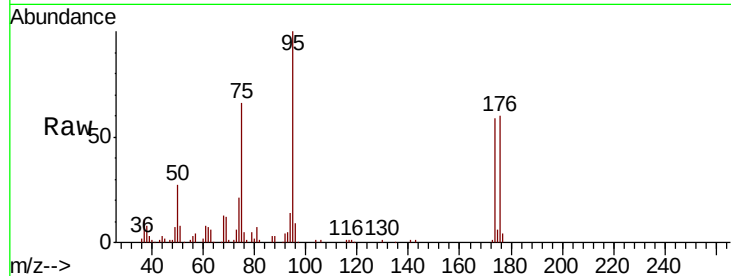
Tgt Ion:173 Resp: 125

Ion Ratio Lower Upper

173 100

175 0.0 24.6 73.8#

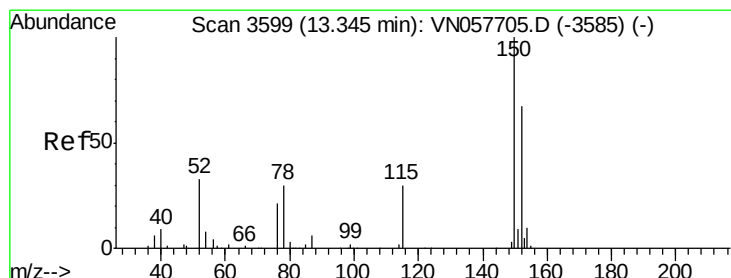
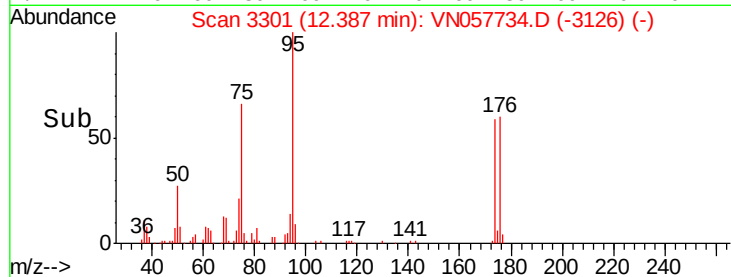
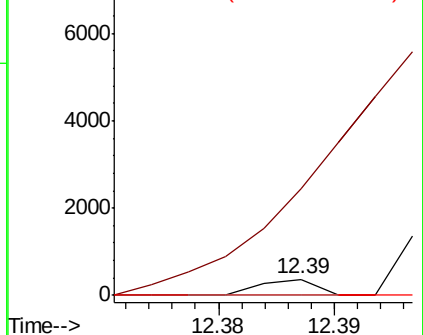
254 0.0 0.0 0.0



Abundance Ion 172.70 (172.40 to 173.40): V

Ion 174.70 (174.40 to 175.40): V

Ion 254.40 (254.10 to 255.10): V



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.35 min Scan# 3600

Delta R.T. 0.00 min

Lab File: VN057734.D

Acq: 6 Sep 2019 23:22

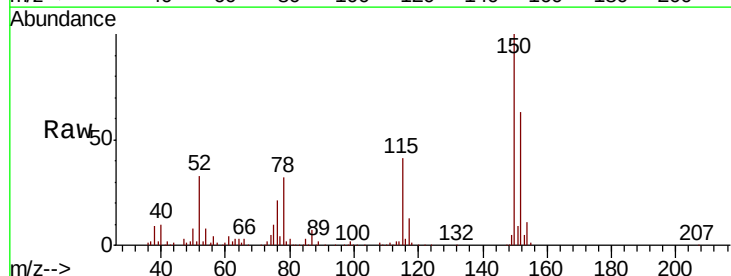
Tgt Ion:152 Resp: 151121

Ion Ratio Lower Upper

152 100

115 62.7 33.8 101.3

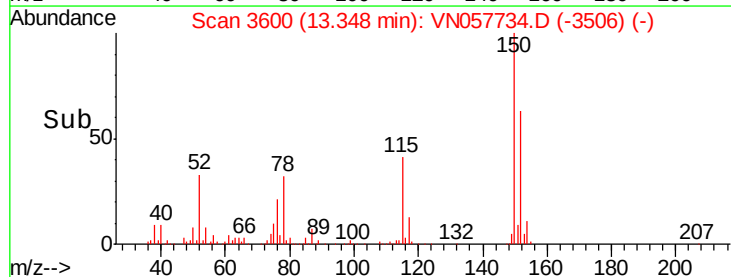
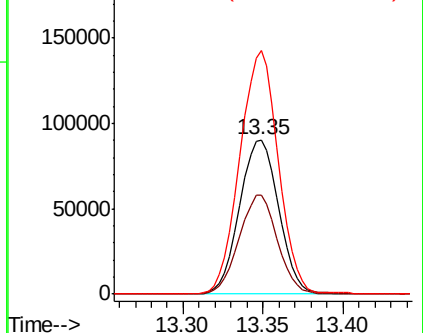
150 155.2 0.0 345.4

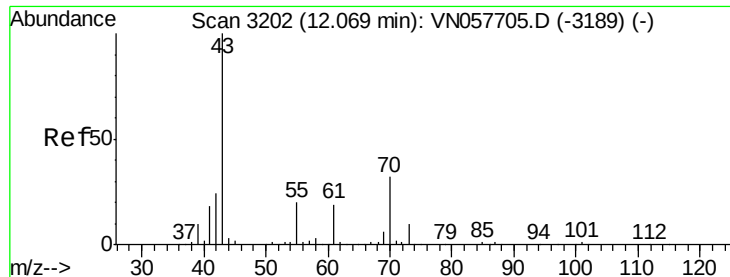


Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V





#74

N-ethyl acetate

Concen: 0.438 ug/l

RT: 12.03 min Scan# 3191

Delta R.T. -0.04 min

Lab File: VN057734.D

Acq: 6 Sep 2019 23:22

Instrument :

MSVOA\_N

ClientSampled :

BFB

Tgt Ion: 43 Resp: 2922

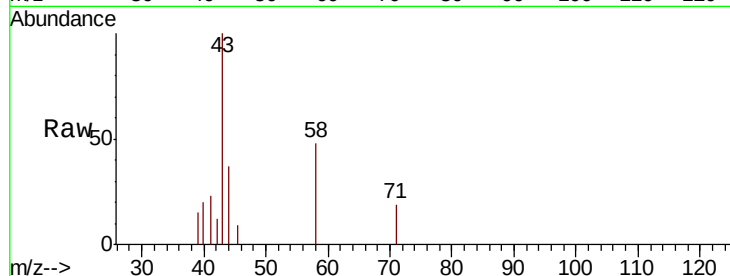
Ion Ratio Lower Upper

43 100

70 1.2 26.1 39.1#

55 0.0 16.3 24.5#

61 0.0 15.0 22.4#

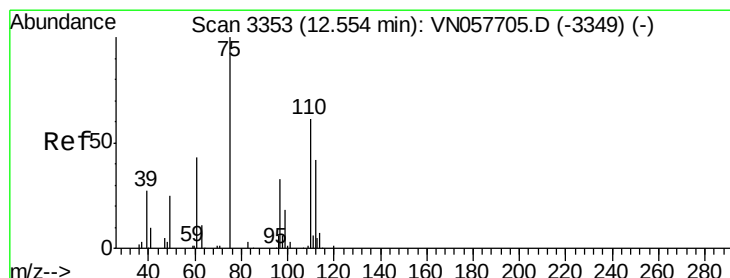
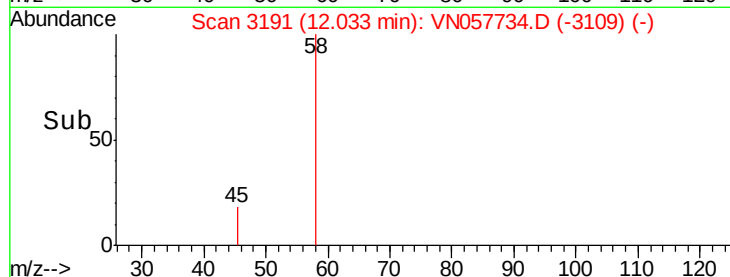
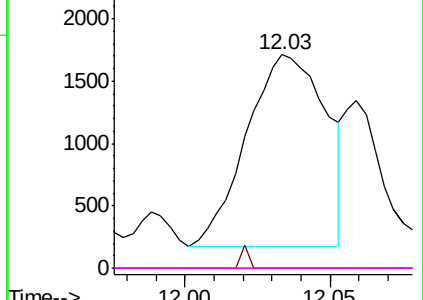


Abundance Ion 43.00 (42.70 to 43.70): VN0

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: 36.813 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. -0.15 min

Lab File: VN057734.D

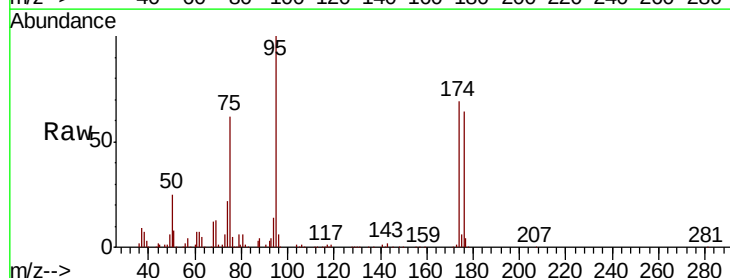
Acq: 6 Sep 2019 23:22

Tgt Ion: 75 Resp: 127752

Ion Ratio Lower Upper

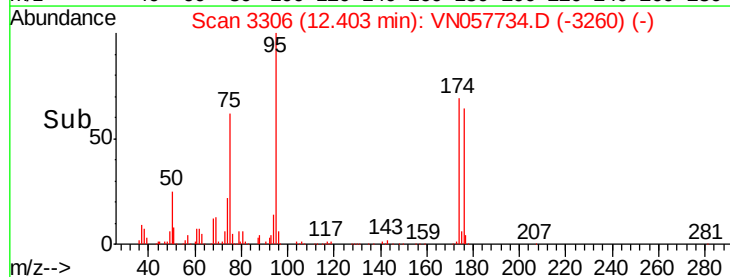
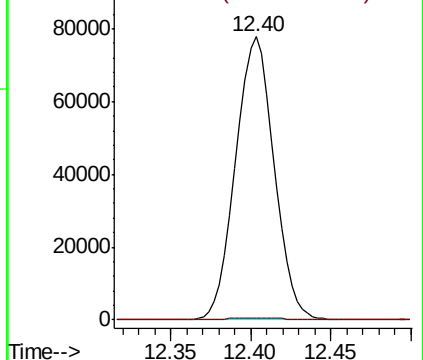
75 100

77 1.0 0.0 0.0#

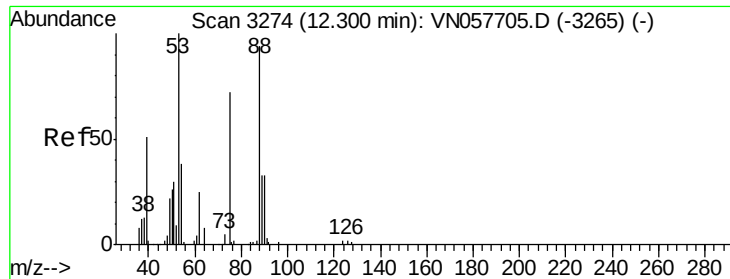


Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 77.00 (76.70 to 77.70): VN0







#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 114.489 ug/l  
 RT: 12.40 min Scan# 3306  
 Delta R.T. 0.10 min  
 Lab File: VN057734.D  
 Acq: 6 Sep 2019 23:22

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 BFB

Tgt Ion: 75 Resp: 127752  
 Ion Ratio Lower Upper  
 75 100  
 53 0.0 107.0 160.6#  
 89 0.0 36.5 54.7#

