

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN100820\  
 Data File : VN064020.D  
 Acq On : 9 Oct 2020 4:52  
 Operator : JC/MD  
 Sample : L4291-02  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 47 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PAV-B4-100620-0-1

Quant Time: Oct 09 07:06:42 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N093020W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Oct 01 01:46:38 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.63  | 168  | 249909   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.55  | 114  | 478905   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.38 | 117  | 496107   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.32 | 152  | 186562   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 7.99  | 65   | 218020   | 52.81 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 105.62% |          |
| 35) Dibromofluoromethane    | 7.55  | 113  | 157394   | 47.36 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 94.72%  |          |
| 50) Toluene-d8              | 10.06 | 98   | 611510   | 48.54 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.08%  |          |
| 62) 4-Bromofluorobenzene    | 12.38 | 95   | 229592   | 48.48 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.96%  |          |

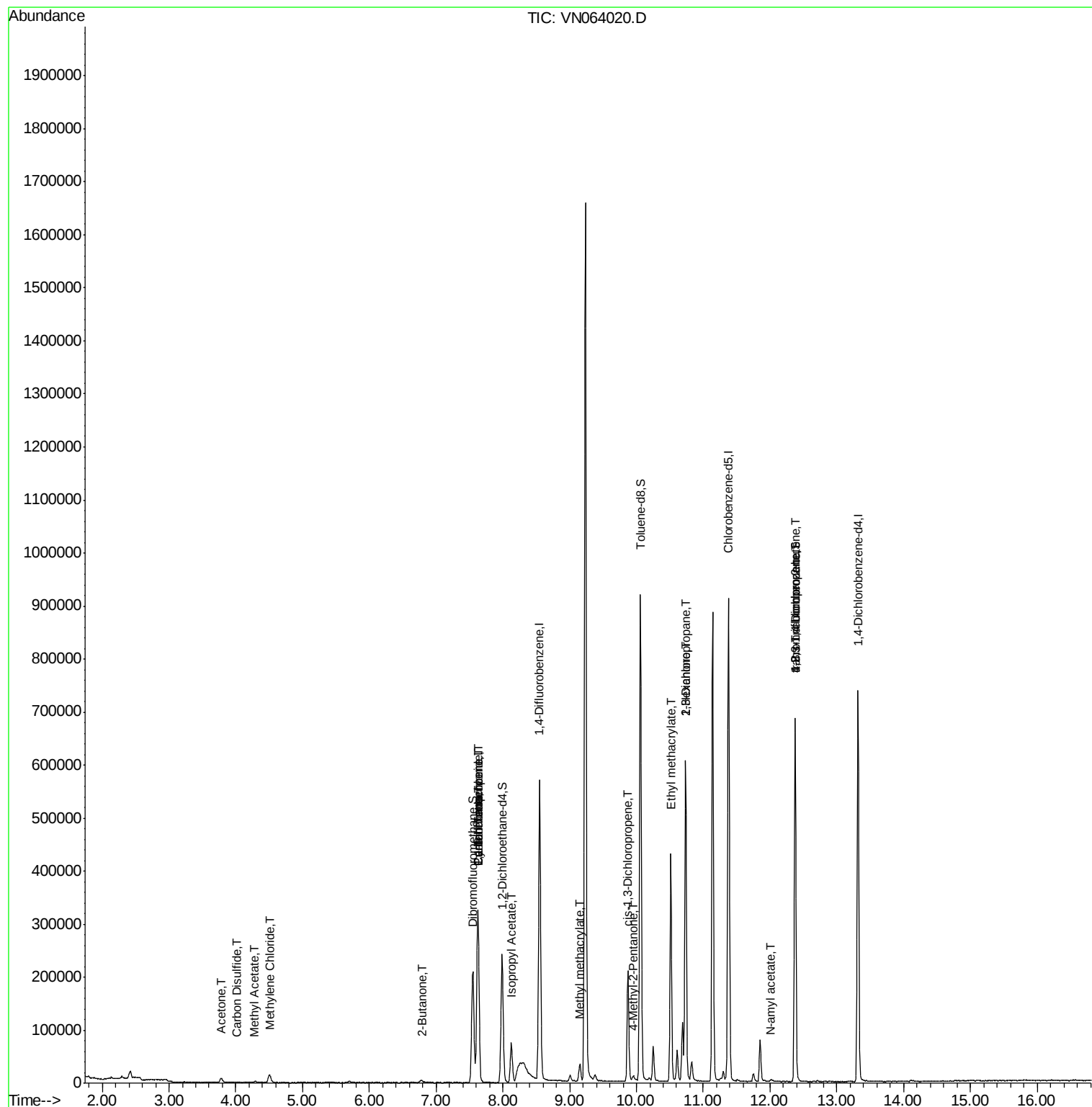
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 16) Acetone                    | 3.77  | 43   | 6584     | 5.180  | ug/l   | 99     |
| 17) Carbon Disulfide           | 4.02  | 76   | 672      | 0.798  | ug/l # | 76     |
| 18) Methyl Acetate             | 4.28  | 43   | 4054     | 1.229  | ug/l # | 70     |
| 20) Methylene Chloride         | 4.50  | 84   | 10123    | 3.569  | ug/l   | 98     |
| 25) 2-Butanone                 | 6.80  | 43   | 1092     | 0.606  | ug/l # | 51     |
| 31) Cyclohexane                | 7.63  | 56   | 6616     | 1.380  | ug/l # | 35     |
| 36) 1,1-Dichloropropene        | 7.63  | 75   | 21473    | 4.426  | ug/l # | 51     |
| 38) Carbon Tetrachloride       | 7.62  | 117  | 25681    | 4.720  | ug/l # | 15     |
| 43) Isopropyl Acetate          | 8.13  | 43   | 89566    | 11.265 | ug/l   | 99     |
| 48) Methyl methacrylate        | 9.15  | 41   | 6052     | 1.541  | ug/l # | 12     |
| 51) 4-Methyl-2-Pentanone       | 9.95  | 43   | 9111     | 1.953  | ug/l   | 94     |
| 54) cis-1,3-Dichloropropene    | 9.87  | 75   | 33657    | 5.642  | ug/l # | 60     |
| 56) Ethyl methacrylate         | 10.51 | 69   | 2380     | 0.488  | ug/l # | 1      |
| 57) 1,3-Dichloropropane        | 10.74 | 76   | 5532     | 0.951  | ug/l # | 43     |
| 59) 2-Hexanone                 | 10.74 | 43   | 94902    | 27.380 | ug/l # | 56     |
| 74) N-amyl acetate             | 12.01 | 43   | 2836     | 2.644  | ug/l # | 49     |
| 76) 1,2,3-Trichloropropane     | 12.38 | 75   | 124416   | 30.253 | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.38 | 75   | 124416   | 87.132 | ug/l # | 6      |

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

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Quant Title : SW846 8260  
QLast Update : Thu Oct 01 01:46:38 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.63 min Scan# 1831

Delta R.T. 0.00 min

Lab File: VN064020.D

Acq: 9 Oct 2020 4:52

Instrument :

MSVOA\_N

ClientSampleId :

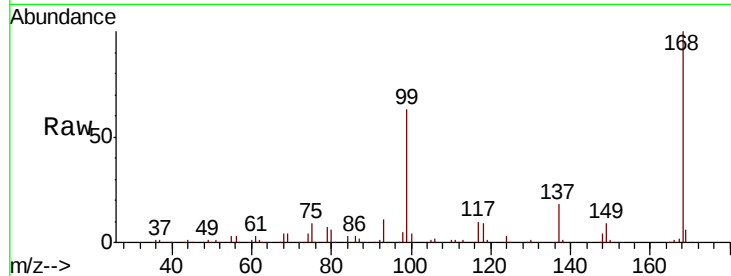
PAV-B4-100620-0-1

Tot Ion:168 Resp: 249909

Ion Ratio Lower Upper

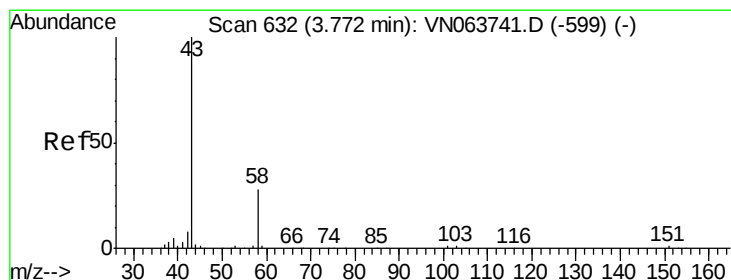
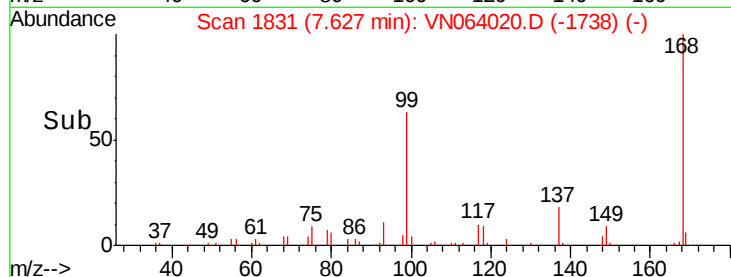
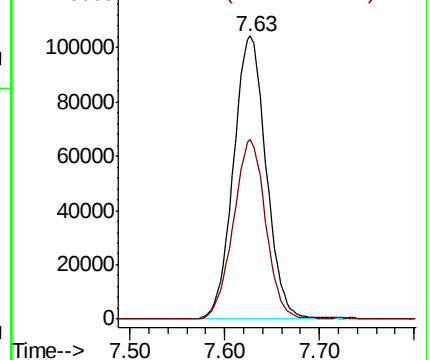
168 100

99 63.5 51.8 77.6



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VNO



#16

Acetone

Concen: 5.180 ug/l

RT: 3.77 min Scan# 632

Delta R.T. 0.00 min

Lab File: VN064020.D

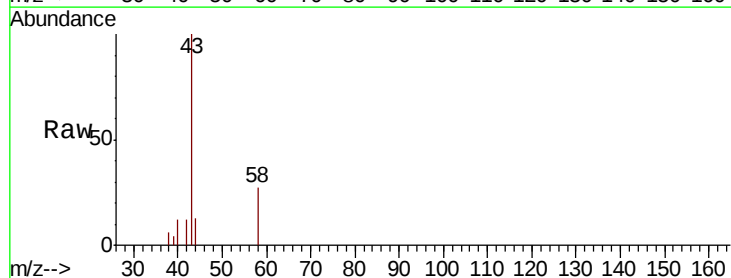
Acq: 9 Oct 2020 4:52

Tgt Ion: 43 Resp: 6584

Ion Ratio Lower Upper

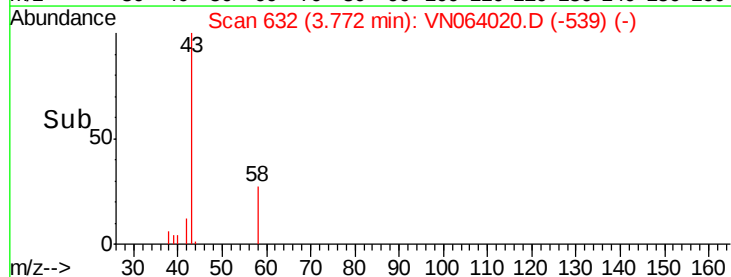
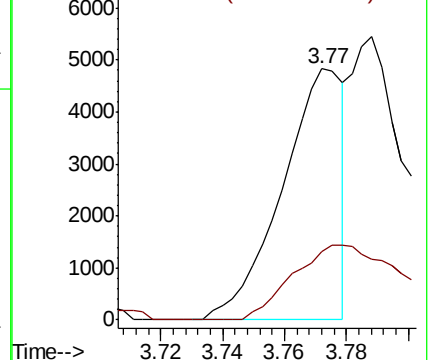
43 100

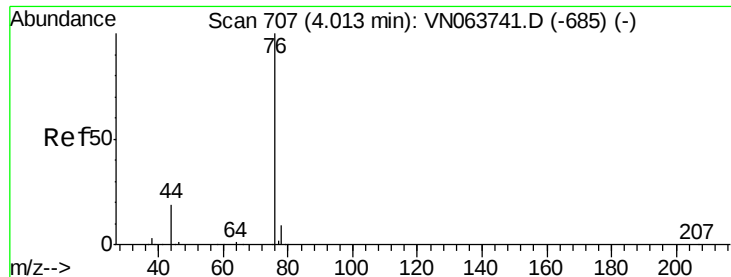
58 27.3 22.3 33.5



Abundance Ion 43.00 (42.70 to 43.70): VNO

Ion 58.00 (57.70 to 58.70): VNO

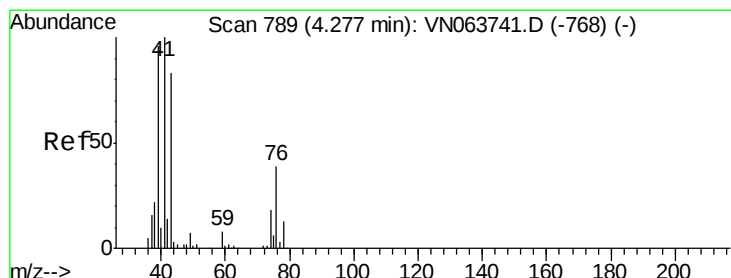
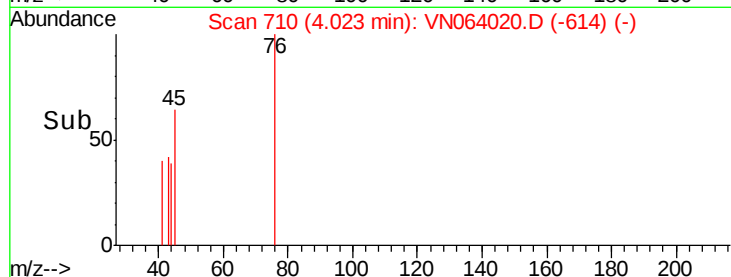
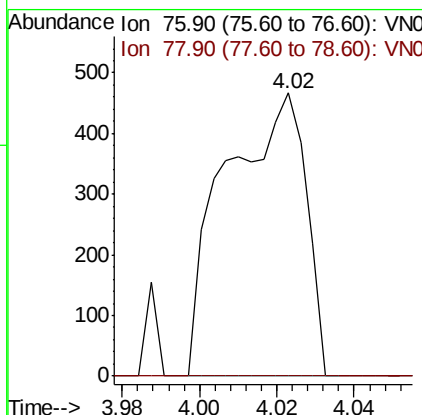
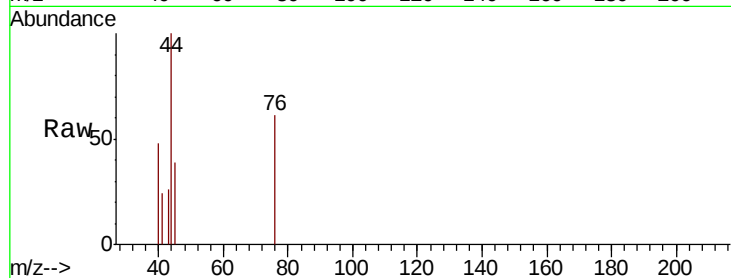




#17  
Carbon Disulfide  
Concen: 0.798 ug/l  
RT: 4.02 min Scan# 710  
Delta R.T. 0.01 min  
Lab File: VN064020.D  
Acq: 9 Oct 2020 4:52

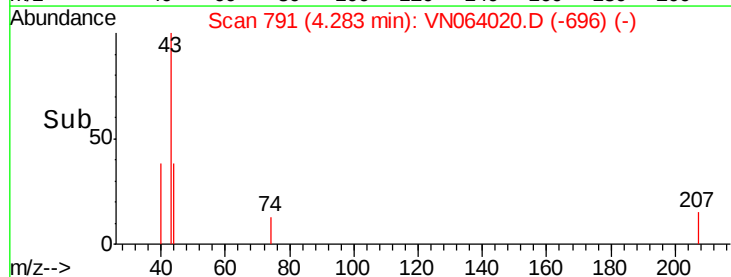
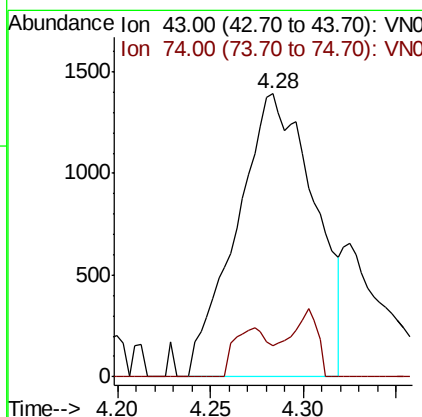
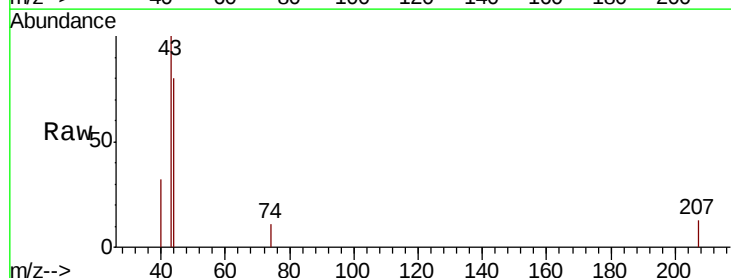
Instrument :  
MSVOA\_N  
ClientSampleId :  
PAV-B4-100620-0-1

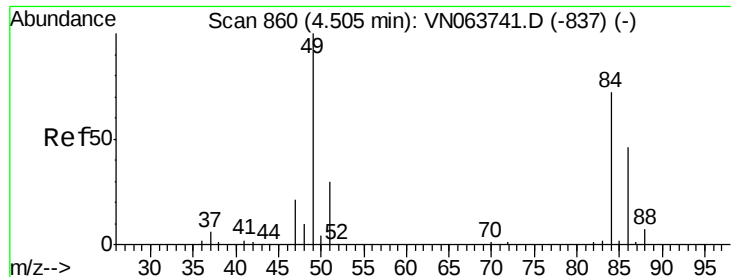
Tot Ion: 76 Resp: 672  
Ion Ratio Lower Upper  
76 100  
78 0.0 7.0 10.4#



#18  
Methyl Acetate  
Concen: 1.229 ug/l  
RT: 4.28 min Scan# 791  
Delta R.T. 0.01 min  
Lab File: VN064020.D  
Acq: 9 Oct 2020 4:52

Tgt Ion: 43 Resp: 4054  
Ion Ratio Lower Upper  
43 100  
74 7.5 17.4 26.2#

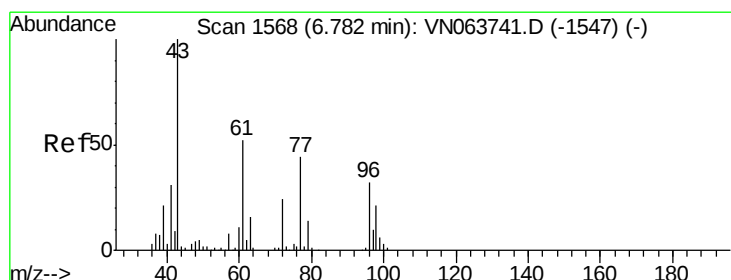
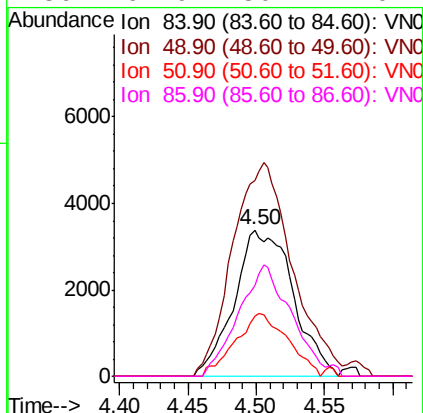
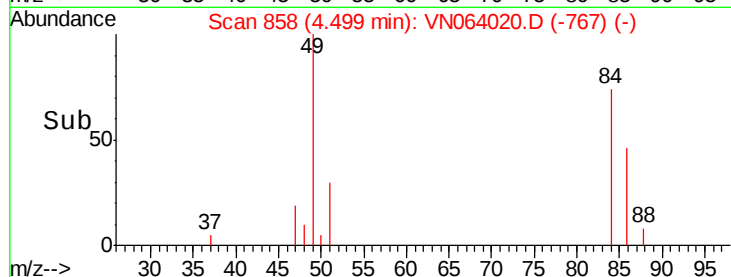
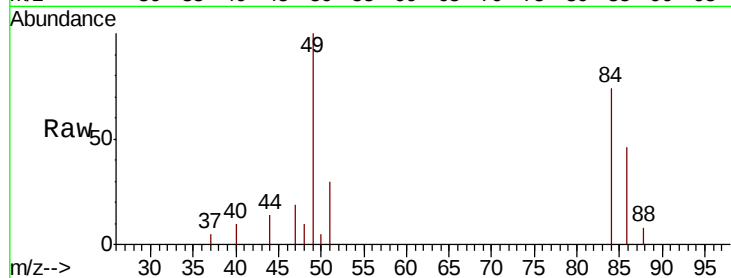




#20  
Methvlene Chloride  
Concen: 3.569 ug/l  
RT: 4.50 min Scan# 858  
Delta R.T. -0.01 min  
Lab File: VN064020.D  
Acq: 9 Oct 2020 4:52

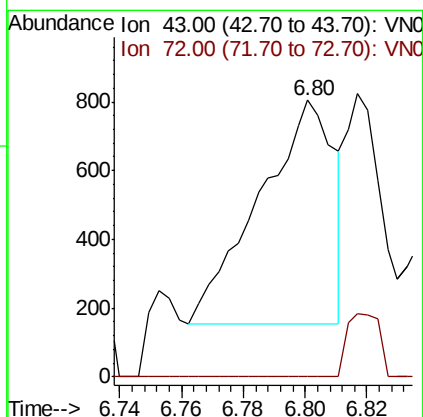
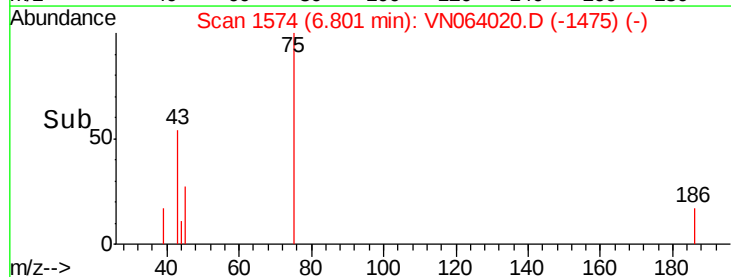
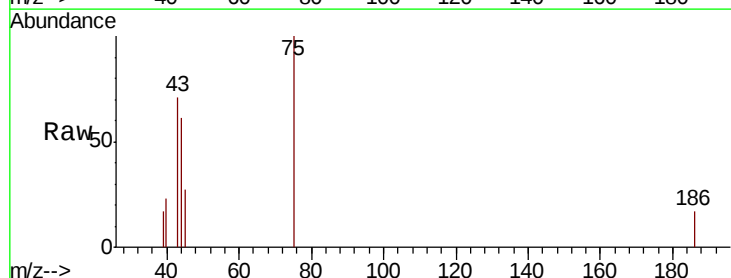
Instrument :  
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ClientSampleId :  
PAV-B4-100620-0-1

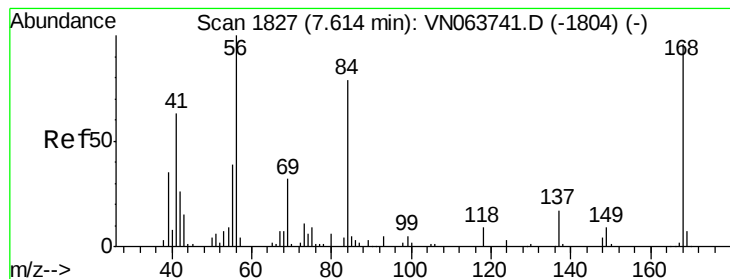
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 10123 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 134.3 | 110.4 | 165.6 |
| 51       | 40.9  | 33.3  | 49.9  |
| 86       | 61.9  | 50.7  | 76.1  |



#25  
2-Butanone  
Concen: 0.606 ug/l  
RT: 6.80 min Scan# 1574  
Delta R.T. 0.02 min  
Lab File: VN064020.D  
Acq: 9 Oct 2020 4:52

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 1092  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 72       | 0.0   | 19.3  | 28.9# |





#31

Cyclohexane

Concen: 1.380 ug/l

RT: 7.63 min Scan# 1832

Delta R.T. 0.02 min

Lab File: VN064020.D

Acq: 9 Oct 2020 4:52

Instrument :

MSVOA\_N

ClientSampleId :

PAV-B4-100620-0-1

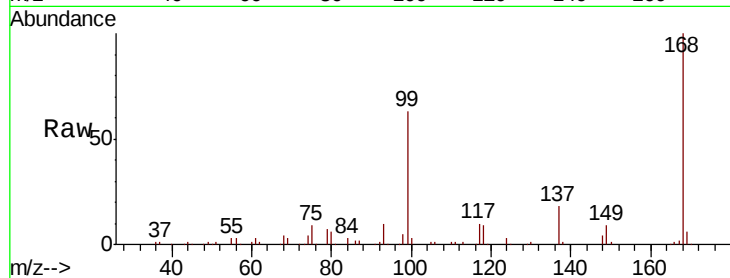
Tot Ion: 56 Resp: 6616

Ion Ratio Lower Upper

56 100

69 117.5 25.4 38.2#

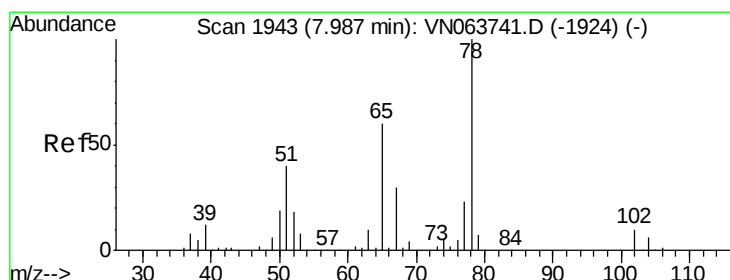
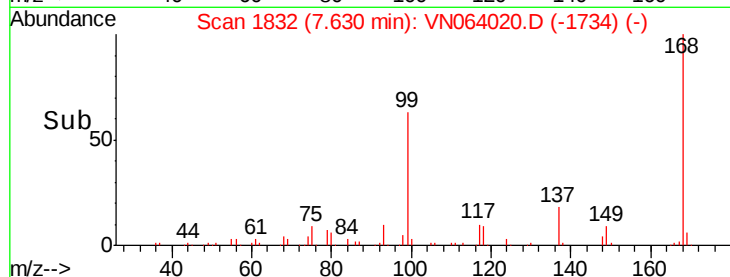
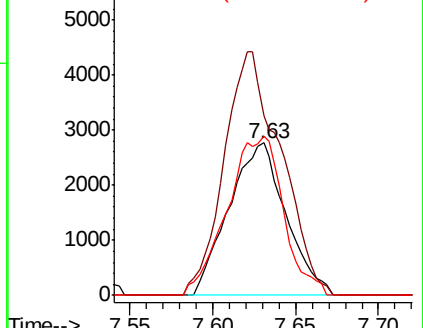
84 104.4 63.3 94.9#



Abundance Ion 56.00 (55.70 to 56.70): VN063741.D (-1804) (-)

Ion 69.00 (68.70 to 69.70): VN063741.D (-1804) (-)

Ion 84.00 (83.70 to 84.70): VN063741.D (-1804) (-)



#33

1,2-Dichloroethane-d4

Concen: 52.806 ug/l

RT: 7.99 min Scan# 1943

Delta R.T. 0.00 min

Lab File: VN064020.D

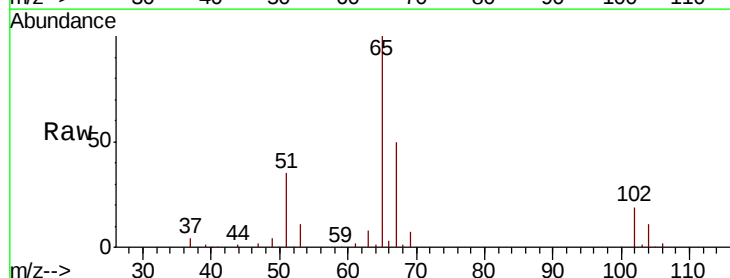
Acq: 9 Oct 2020 4:52

Tgt Ion: 65 Resp: 218020

Ion Ratio Lower Upper

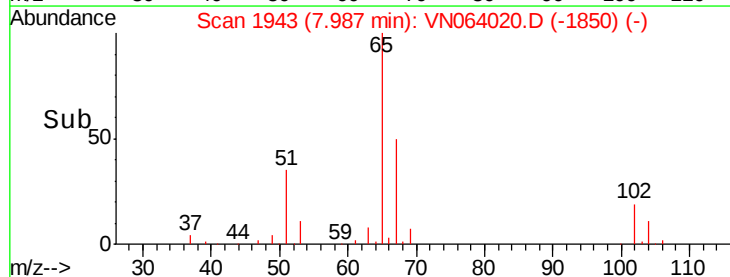
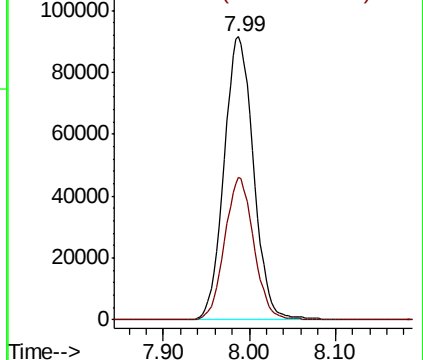
65 100

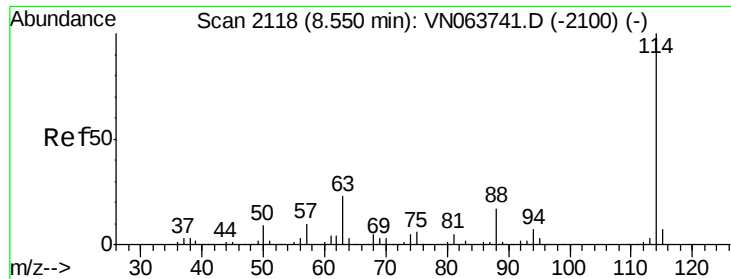
67 49.6 0.0 99.6



Abundance Ion 64.90 (64.60 to 65.60): VN063741.D (-1924) (-)

Ion 66.90 (66.60 to 67.60): VN063741.D (-1924) (-)

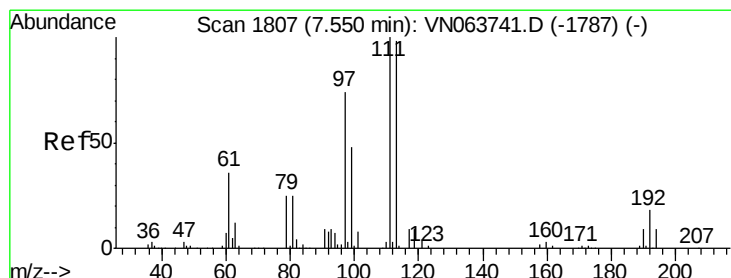
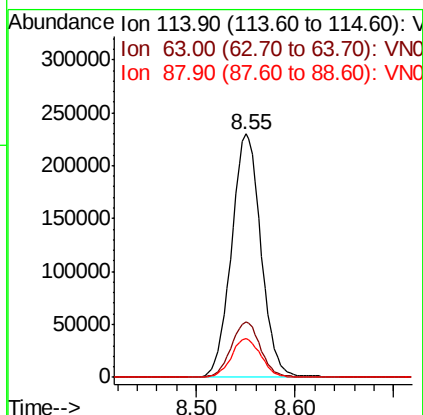
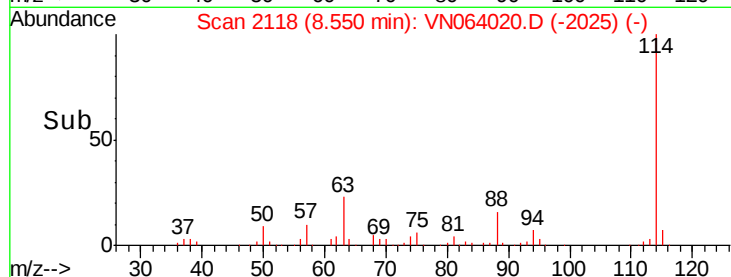
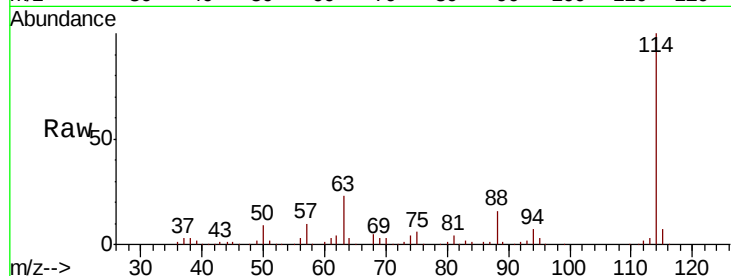




#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 8.55 min Scan# 2118  
Delta R.T. 0.00 min  
Lab File: VN064020.D  
Acq: 9 Oct 2020 4:52

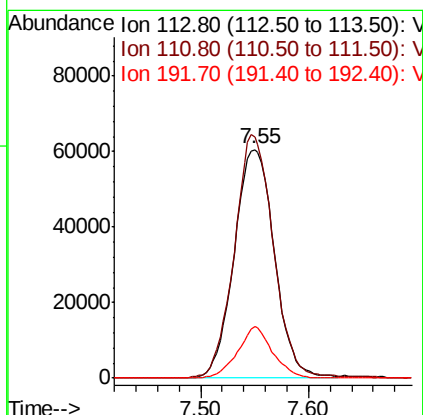
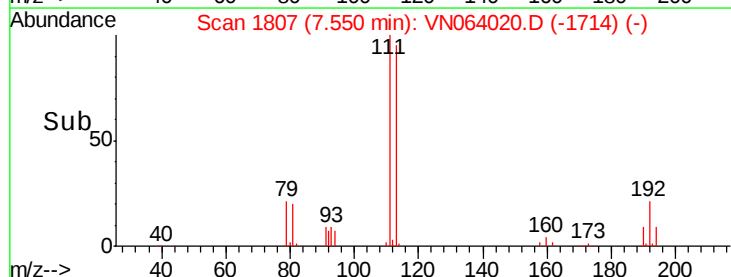
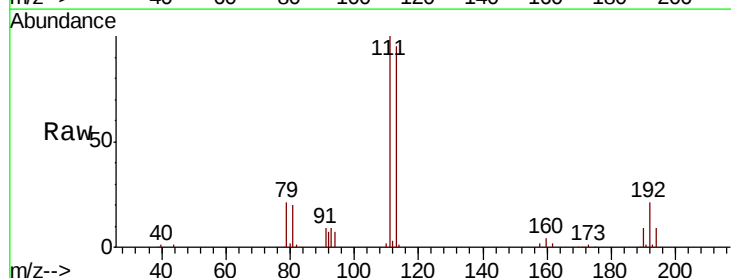
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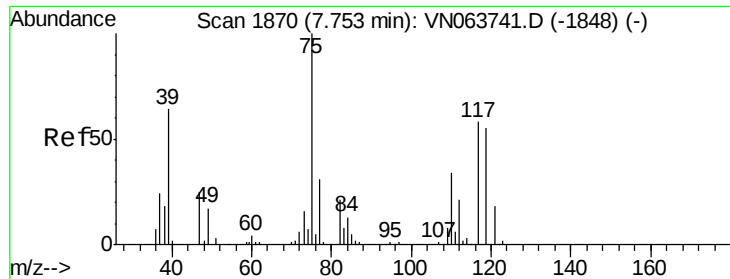
Tot Ion:114 Resp: 478905  
Ion Ratio Lower Upper  
114 100  
63 22.7 0.0 45.0  
88 16.1 0.0 34.0



#35  
Dibromofluoromethane  
Concen: 47.365 ug/l  
RT: 7.55 min Scan# 1807  
Delta R.T. 0.00 min  
Lab File: VN064020.D  
Acq: 9 Oct 2020 4:52

Tgt Ion:113 Resp: 157394  
Ion Ratio Lower Upper  
113 100  
111 103.1 81.8 122.8  
192 19.4 14.2 21.2

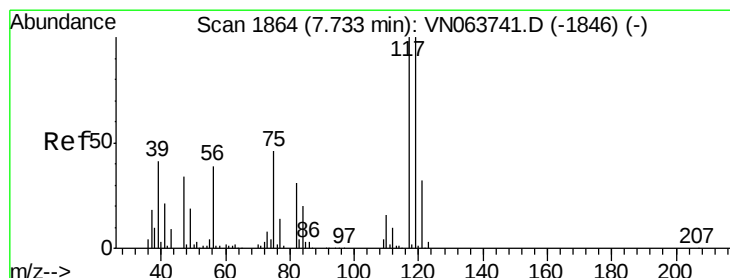
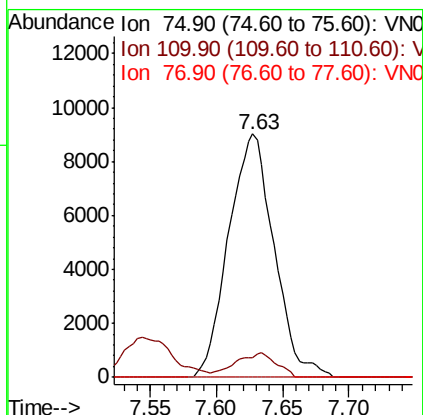
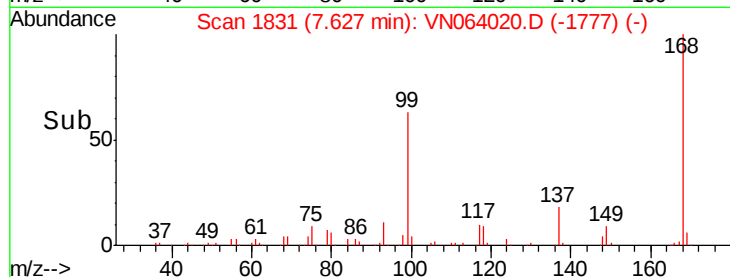
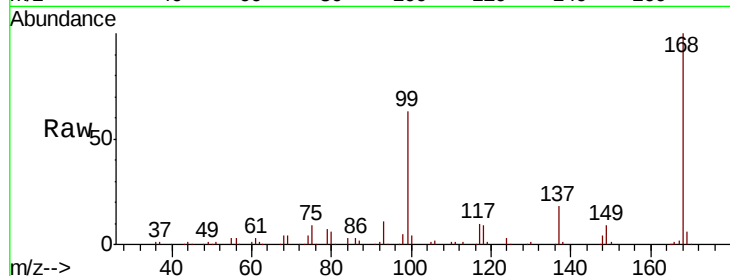




#36  
 1,1-Dichloropropene  
 Concen: 4.426 ug/l  
 RT: 7.63 min Scan# 1831  
 Delta R.T. -0.13 min  
 Lab File: VN064020.D  
 Acq: 9 Oct 2020 4:52

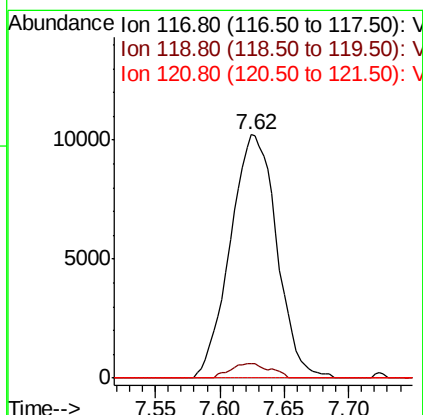
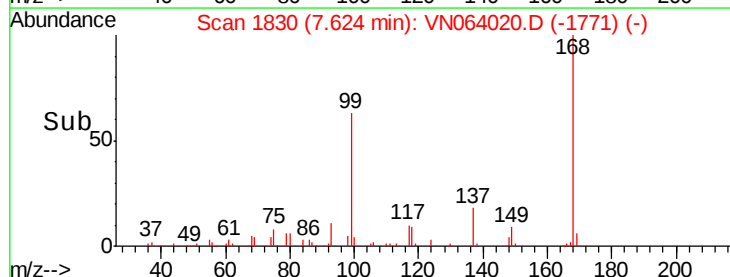
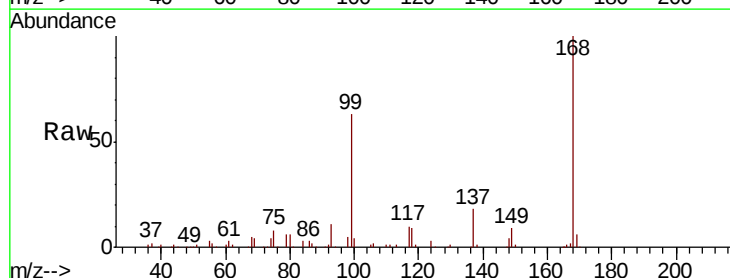
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PAV-B4-100620-0-1

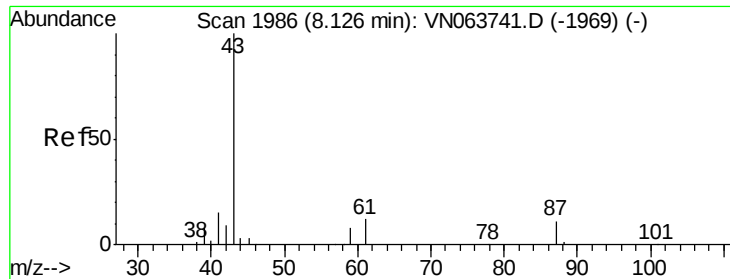
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 9.1   | 16.9  | 50.6# |
| 77      | 0.0   | 24.5  | 36.7# |



#38  
 Carbon Tetrachloride  
 Concen: 4.720 ug/l  
 RT: 7.62 min Scan# 1830  
 Delta R.T. -0.11 min  
 Lab File: VN064020.D  
 Acq: 9 Oct 2020 4:52

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 6.1   | 80.1  | 120.1# |
| 121     | 0.0   | 25.7  | 38.5#  |





#43

Isopropyl Acetate

Concen: 11.265 ug/l

RT: 8.13 min Scan# 1987

Delta R.T. 0.00 min

Lab File: VN064020.D

Acq: 9 Oct 2020 4:52

Instrument :

MSVOA\_N

ClientSampleId :

PAV-B4-100620-0-1

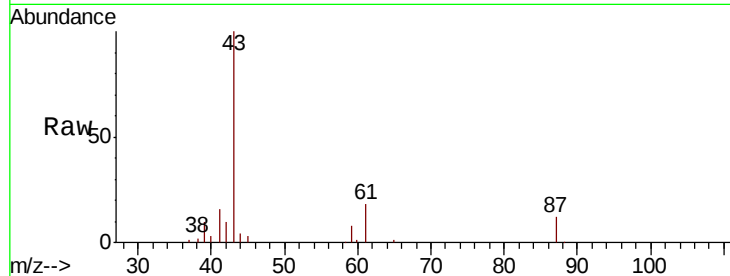
Tot Ion: 43 Resp: 89566

Ion Ratio Lower Upper

43 100

61 18.4 14.2 21.4

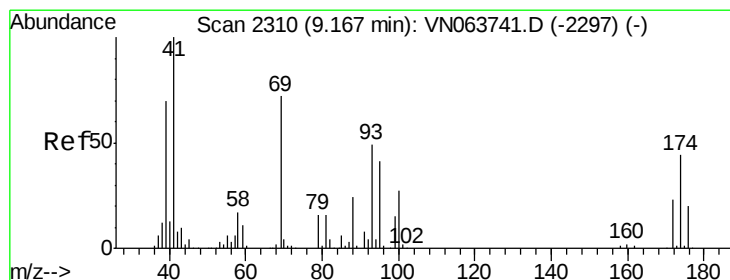
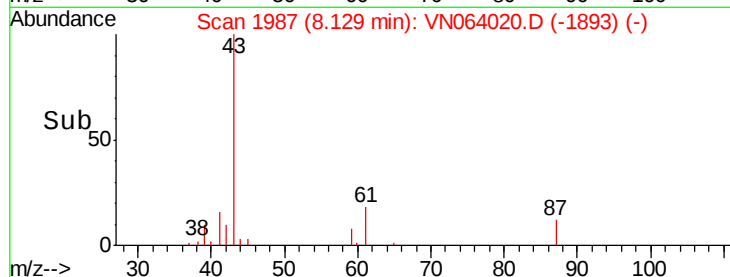
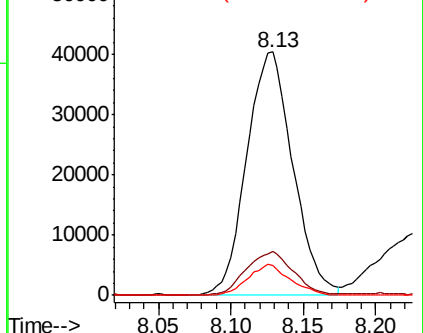
87 11.6 9.0 13.6



Abundance Ion 43.00 (42.70 to 43.70): VN063741.D (-1969) (-)

Ion 61.00 (60.70 to 61.70): VN063741.D (-1969) (-)

Ion 87.00 (86.70 to 87.70): VN063741.D (-1969) (-)



#48

Methyl methacrylate

Concen: 1.541 ug/l

RT: 9.15 min Scan# 2304

Delta R.T. -0.02 min

Lab File: VN064020.D

Acq: 9 Oct 2020 4:52

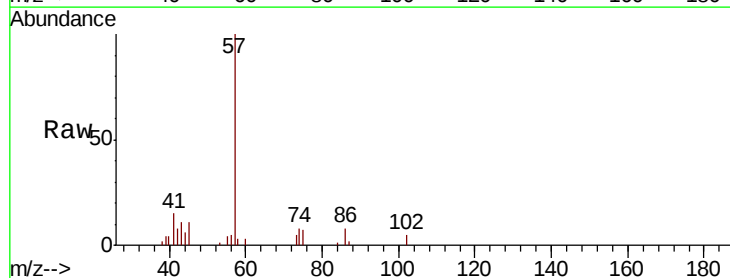
Tgt Ion: 41 Resp: 6052

Ion Ratio Lower Upper

41 100

69 0.0 60.9 91.3#

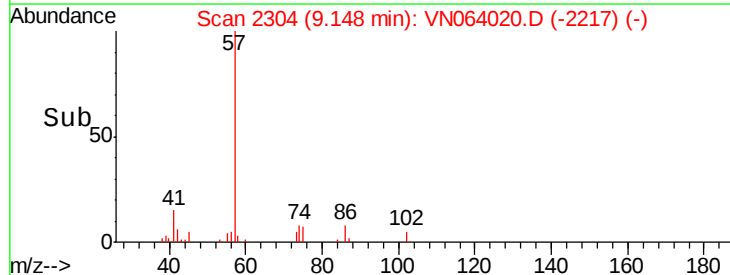
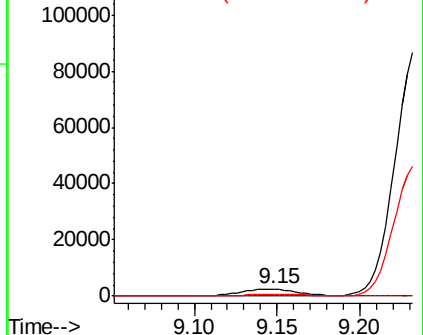
39 0.0 57.5 86.3#

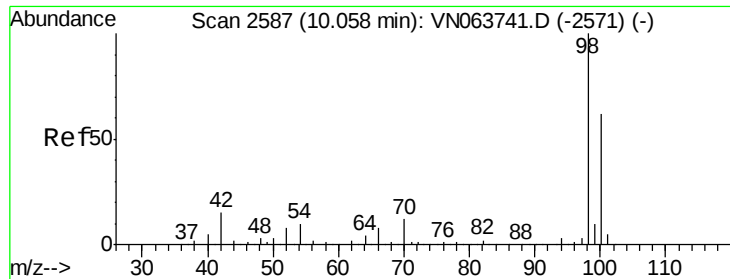


Abundance Ion 41.00 (40.70 to 41.70): VN063741.D (-2297) (-)

Ion 69.00 (68.70 to 69.70): VN063741.D (-2297) (-)

Ion 39.00 (38.70 to 39.70): VN063741.D (-2297) (-)





#50

Toluene-d8

Concen: 48.543 ug/l

RT: 10.06 min Scan# 2587

Delta R.T. 0.00 min

Lab File: VN064020.D

Acq: 9 Oct 2020 4:52

Instrument :

MSVOA\_N

ClientSampleId :

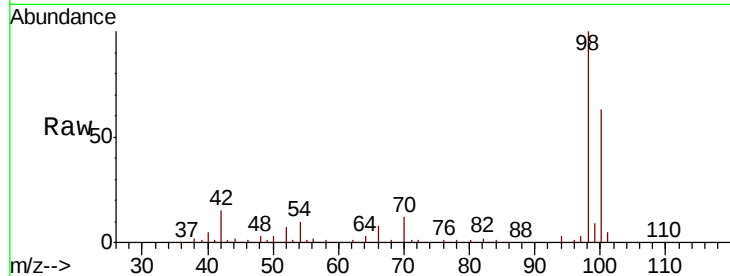
PAV-B4-100620-0-1

Tot Ion: 98 Resp: 611510

Ion Ratio Lower Upper

98 100

100 63.0 49.8 74.6



Abundance Ion 98.00 (97.70 to 98.70): VN063741.D (-2571) (-)

Ion 100.00 (99.70 to 100.70): VN063741.D (-2571) (-)

10.06

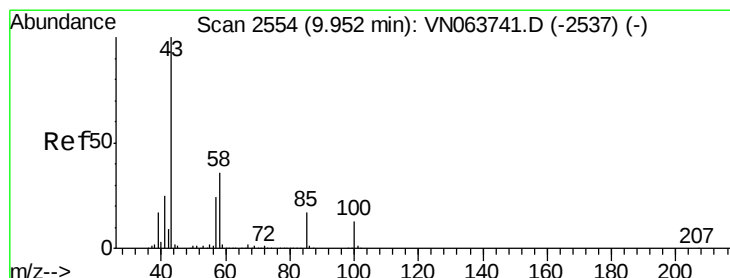
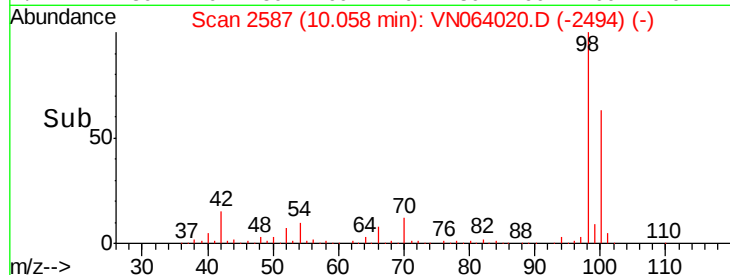
300000

200000

100000

0

Time-->



#51

4-Methyl-2-Pentanone

Concen: 1.953 ug/l

RT: 9.95 min Scan# 2554

Delta R.T. 0.00 min

Lab File: VN064020.D

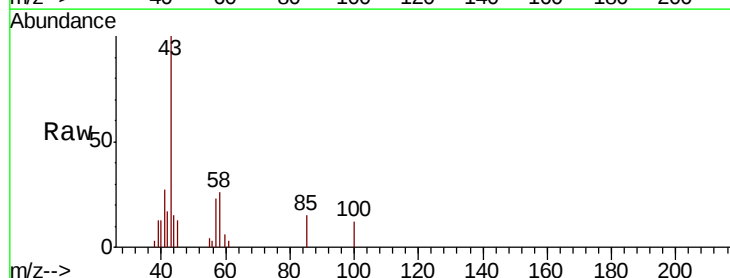
Acq: 9 Oct 2020 4:52

Tgt Ion: 43 Resp: 9111

Ion Ratio Lower Upper

43 100

58 32.0 28.4 42.6



Abundance Ion 43.00 (42.70 to 43.70): VN063741.D (-2537) (-)

Ion 58.00 (57.70 to 58.70): VN063741.D (-2537) (-)

25000

20000

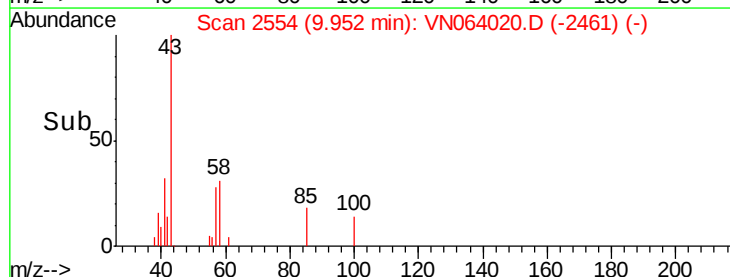
15000

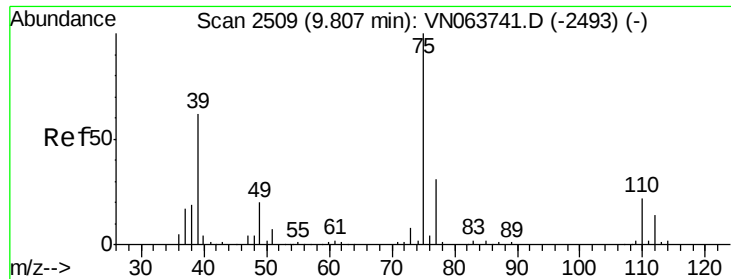
10000

5000

0

Time-->





#54

cis-1,3-Dichloropropene

Concen: 5.642 ug/l

RT: 9.87 min Scan# 2530

Delta R.T. 0.07 min

Lab File: VN064020.D

Acq: 9 Oct 2020 4:52

Instrument :

MSVOA\_N

ClientSampleId :

PAV-B4-100620-0-1

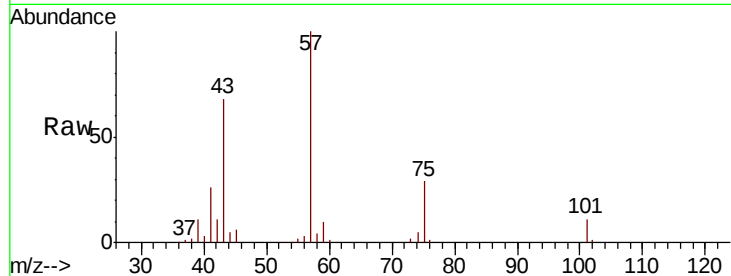
Tot Ion: 75 Resp: 33657

Ion Ratio Lower Upper

75 100

77 0.0 24.6 36.8#

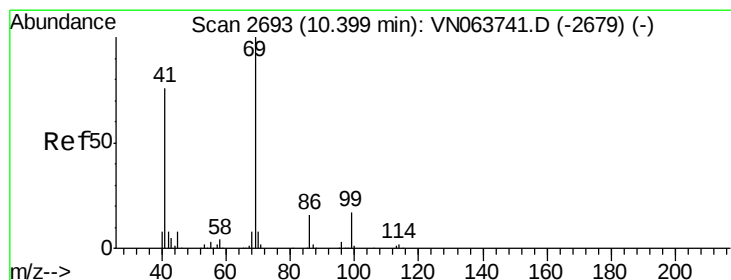
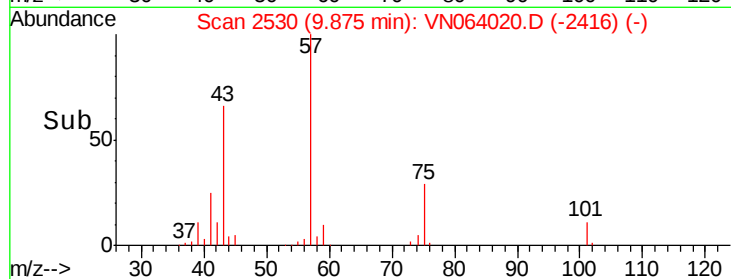
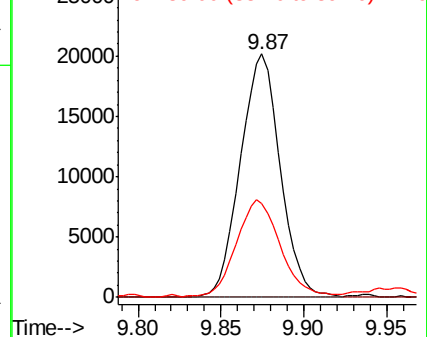
39 37.9 49.7 74.5#



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



#56

Ethyl methacrylate

Concen: 0.488 ug/l

RT: 10.51 min Scan# 2728

Delta R.T. 0.11 min

Lab File: VN064020.D

Acq: 9 Oct 2020 4:52

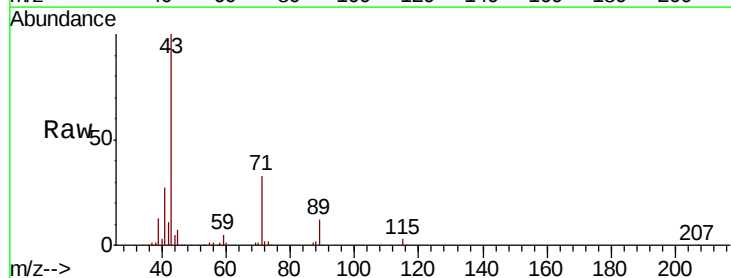
Tgt Ion: 69 Resp: 2380

Ion Ratio Lower Upper

69 100

41 3544.1 61.1 91.7#

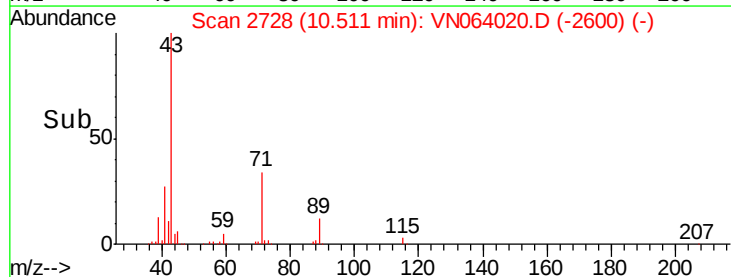
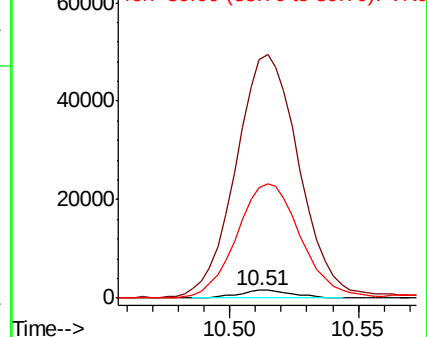
39 1700.5 42.2 63.4#

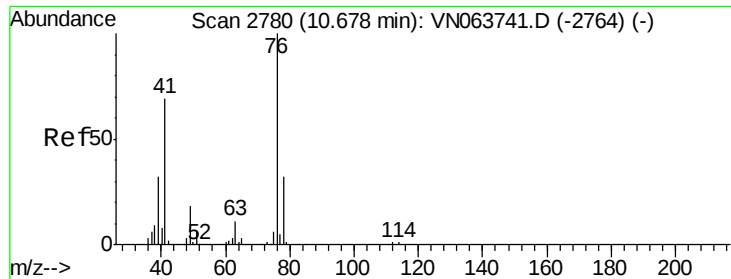


Abundance Ion 69.00 (68.70 to 69.70): VN0

Ion 41.00 (40.70 to 41.70): VN0

Ion 39.00 (38.70 to 39.70): VN0

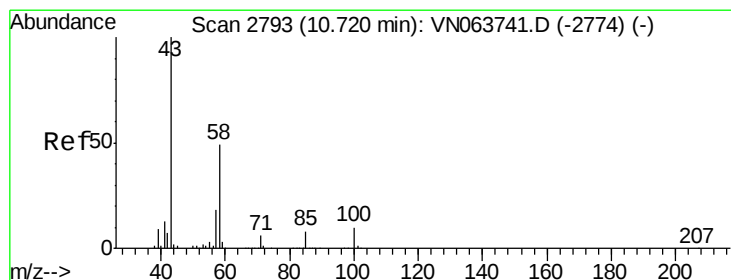
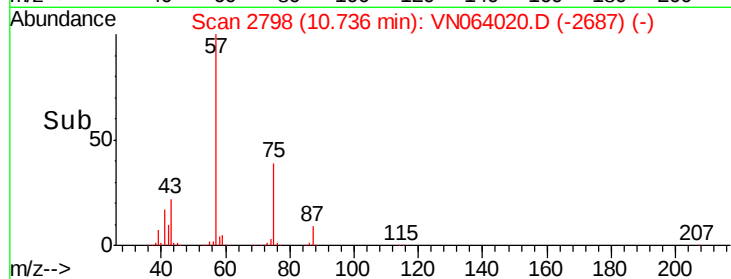
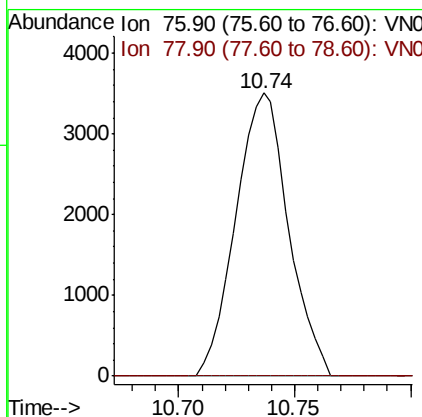
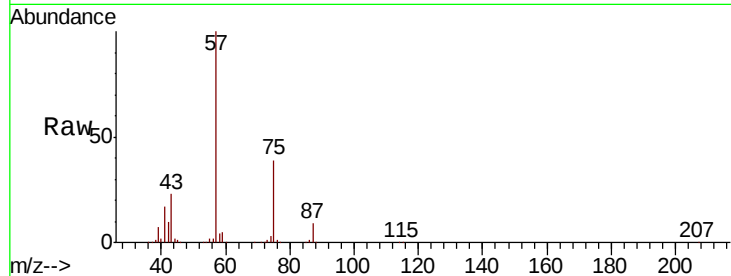




#57  
 1,3-Dichloropropane  
 Concen: 0.951 ug/l  
 RT: 10.74 min Scan# 2798  
 Delta R.T. 0.06 min  
 Lab File: VN064020.D  
 Acq: 9 Oct 2020 4:52

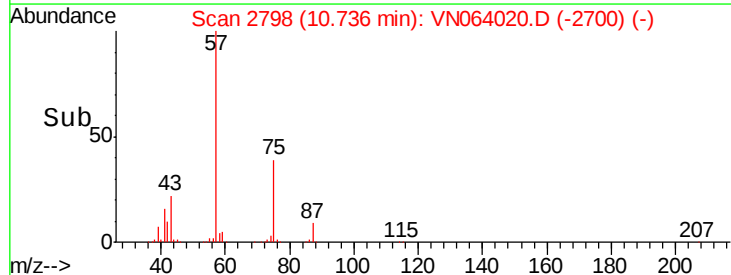
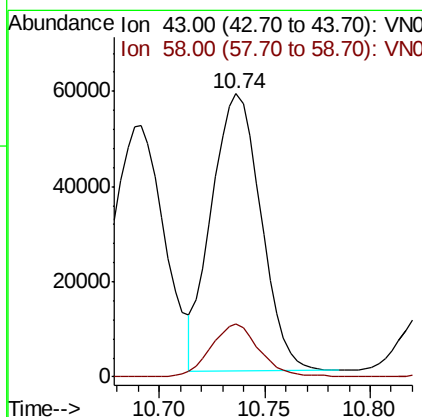
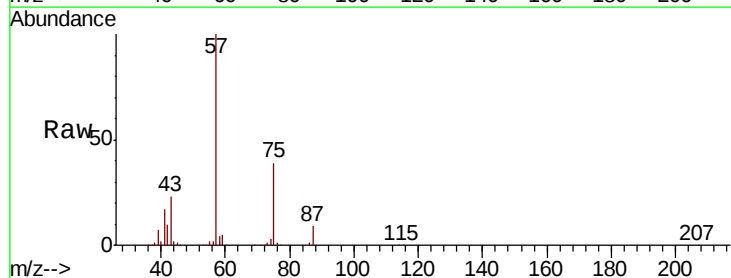
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PAV-B4-100620-0-1

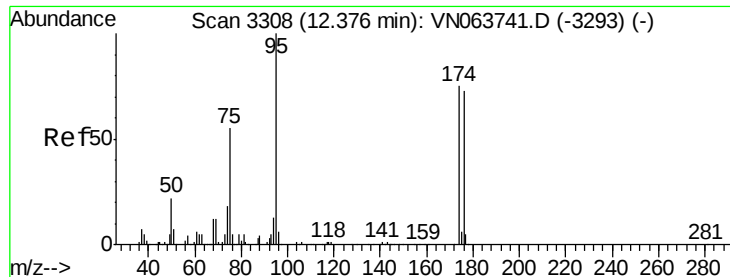
Tot Ion: 76 Resp: 5532  
 Ion Ratio Lower Upper  
 76 100  
 78 0.0 25.2 37.8#



#59  
 2-Hexanone  
 Concen: 27.380 ug/l  
 RT: 10.74 min Scan# 2798  
 Delta R.T. 0.02 min  
 Lab File: VN064020.D  
 Acq: 9 Oct 2020 4:52

Tgt Ion: 43 Resp: 94902  
 Ion Ratio Lower Upper  
 43 100  
 58 19.0 24.6 73.8#





#62

4-Bromofluorobenzene

Concen: 48.484 ug/l

RT: 12.38 min Scan# 3308

Delta R.T. 0.00 min

Lab File: VN064020.D

Acq: 9 Oct 2020 4:52

Instrument :

MSVOA\_N

ClientSampleId :

PAV-B4-100620-0-1

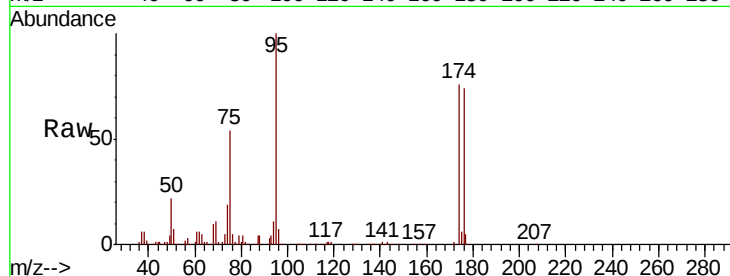
Tot Ion: 95 Resp: 229592

Ion Ratio Lower Upper

95 100

174 77.2 0.0 150.6

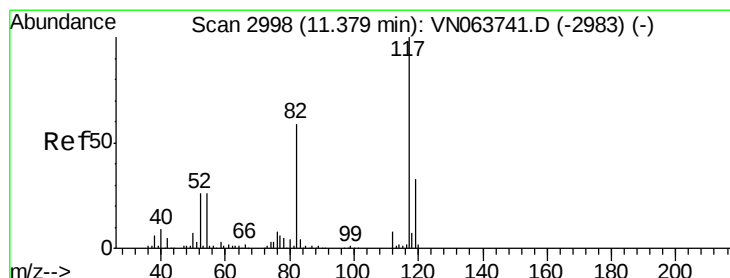
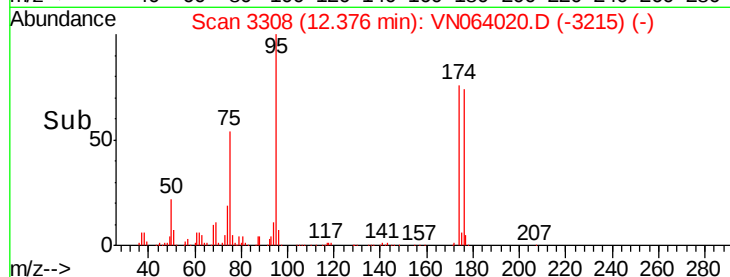
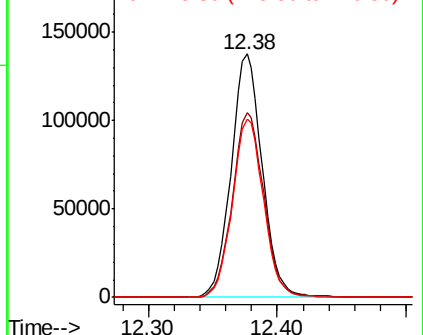
176 73.5 0.0 145.4



Abundance Ion 94.90 (94.60 to 95.60): VN0

Ion 173.80 (173.50 to 174.50): VN0

Ion 175.80 (175.50 to 176.50): VN0



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.38 min Scan# 2998

Delta R.T. 0.00 min

Lab File: VN064020.D

Acq: 9 Oct 2020 4:52

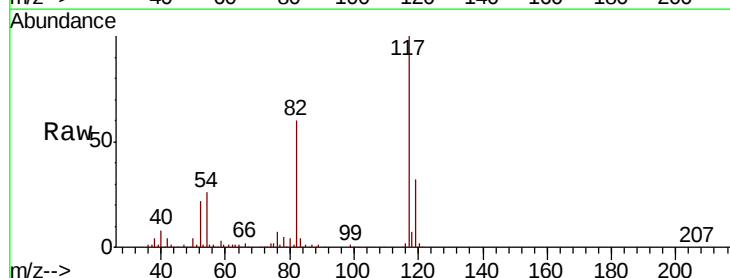
Tgt Ion: 117 Resp: 496107

Ion Ratio Lower Upper

117 100

82 59.7 47.4 71.2

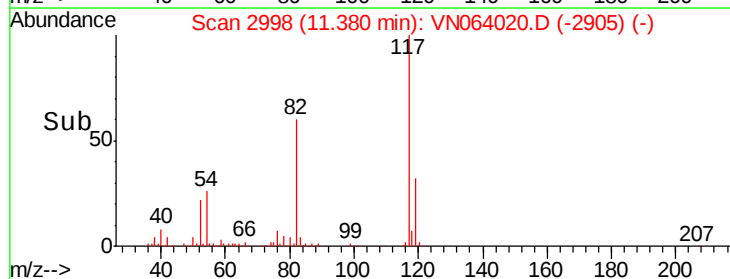
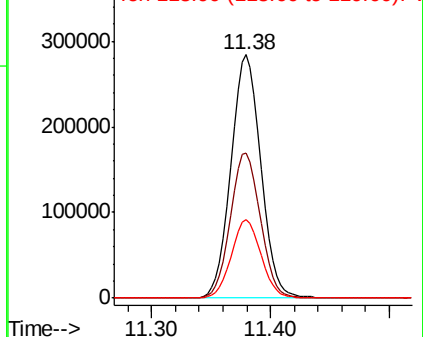
119 32.1 26.4 39.6

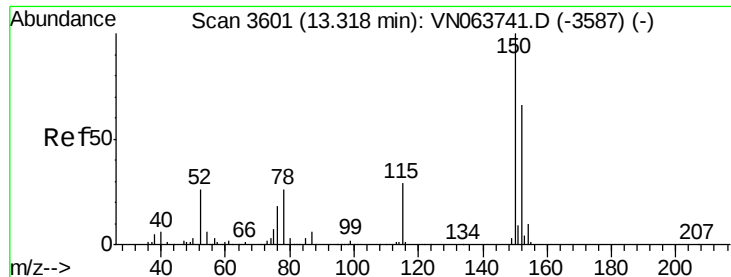


Abundance Ion 116.90 (116.60 to 117.60): VN0

Ion 82.00 (81.70 to 82.70): VN0

Ion 118.90 (118.60 to 119.60): VN0





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.32 min Scan# 3601

Delta R.T. 0.00 min

Lab File: VN064020.D

Acq: 9 Oct 2020 4:52

Instrument :

MSVOA\_N

ClientSampleId :

PAV-B4-100620-0-1

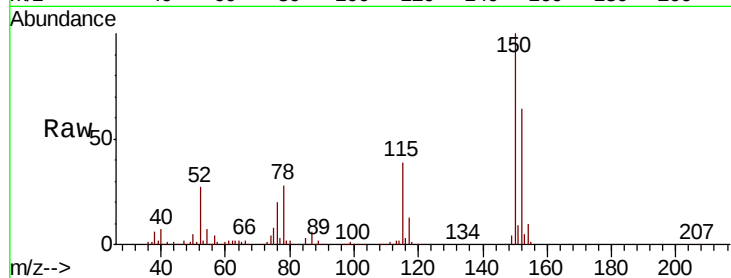
Tot Ion:152 Resp: 186562

Ion Ratio Lower Upper

152 100

115 61.1 31.3 93.8

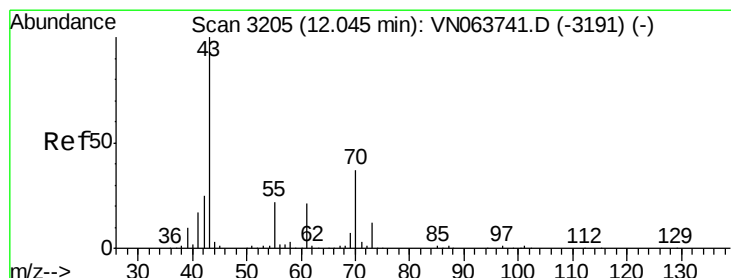
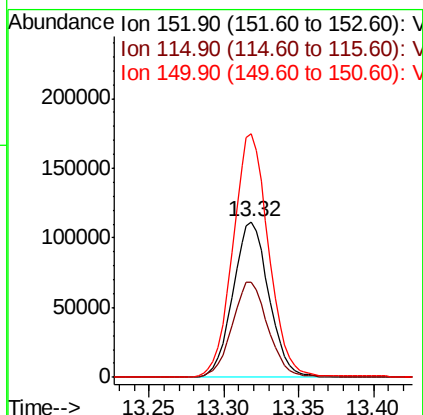
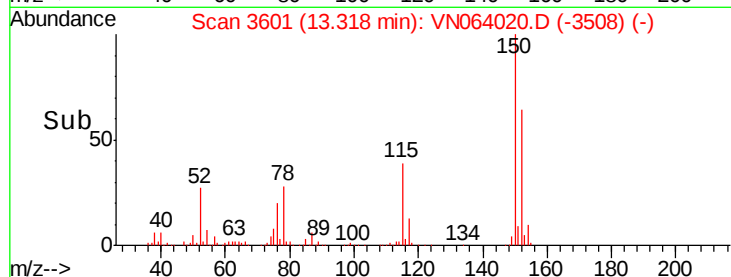
150 156.5 0.0 341.8



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: 2.644 ug/l

RT: 12.01 min Scan# 3195

Delta R.T. -0.03 min

Lab File: VN064020.D

Acq: 9 Oct 2020 4:52

Tgt Ion: 43 Resp: 2836

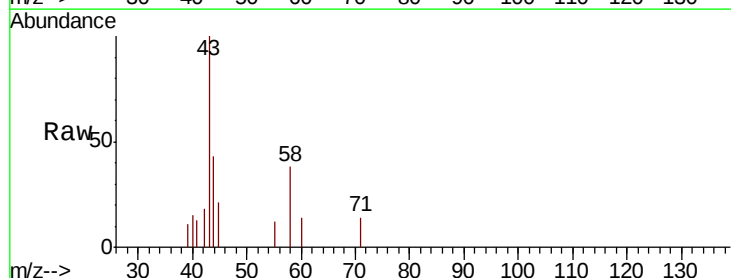
Ion Ratio Lower Upper

43 100

70 0.0 29.8 44.8#

55 4.8 17.9 26.9#

61 0.0 17.0 25.4#

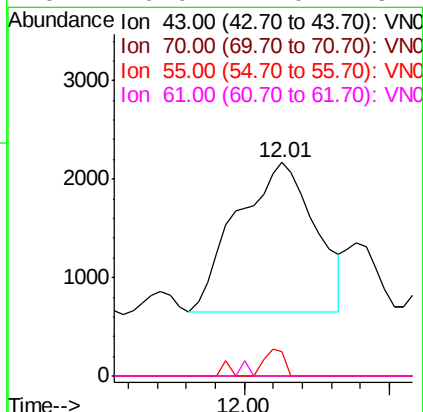
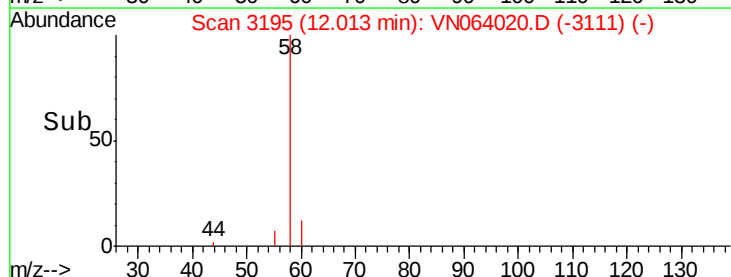


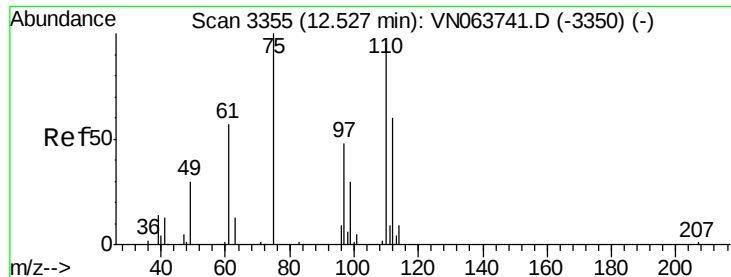
Abundance Ion 43.00 (42.70 to 43.70): VN0

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: 30.253 ug/l

RT: 12.38 min Scan# 3308

Delta R.T. -0.15 min

Lab File: VN064020.D

Acq: 9 Oct 2020 4:52

Instrument :

MSVOA\_N

ClientSampleId :

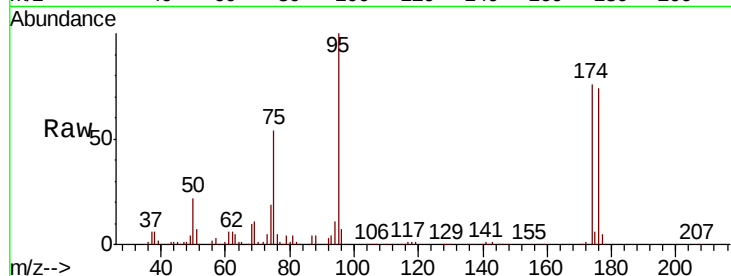
PAV-B4-100620-0-1

Tot Ion: 75 Resp: 124416

Ion Ratio Lower Upper

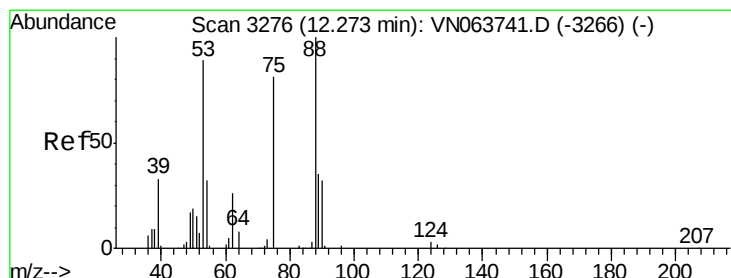
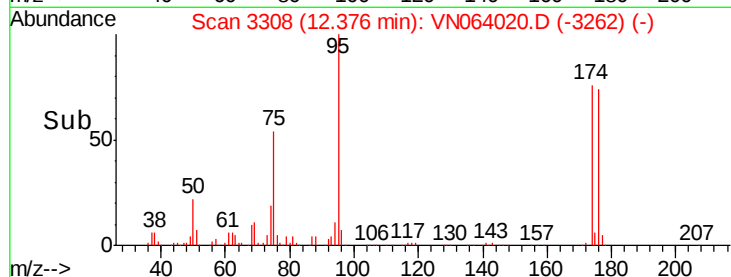
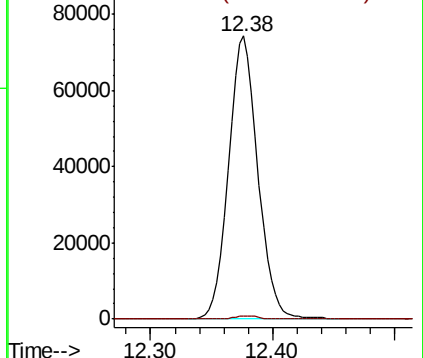
75 100

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: 87.132 ug/l

RT: 12.38 min Scan# 3308

Delta R.T. 0.10 min

Lab File: VN064020.D

Acq: 9 Oct 2020 4:52

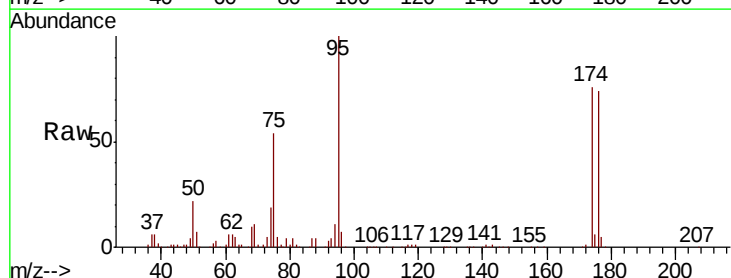
Tgt Ion: 75 Resp: 124416

Ion Ratio Lower Upper

75 100

53 0.1 88.2 132.2#

89 0.0 36.0 54.0#



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

