

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN071620\  
 Data File : VN062545.D  
 Acq On : 16 Jul 2020 14:10  
 Operator : JC/MD  
 Sample : VN0716WBSD01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0716WBSD01

Quant Time: Jul 16 18:46:58 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N071320W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Tue Jul 14 00:52:57 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 7.15  | 128  | 36827    | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 8.55  | 114  | 195388   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 11.38 | 117  | 183707   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4 | 7.99   | 65    | 94054    | 29.73    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 50 - 169 | Recovery | =    | 99.10%  |
| 60) 4-Bromofluorobenzene  | 12.38  | 95    | 92305    | 29.53    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 56 - 143 | Recovery | =    | 98.43%  |
| 63) Toluene-d8            | 10.06  | 98    | 262793   | 30.27    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 66 - 137 | Recovery | =    | 100.90% |

## Target Compounds

|                               |      |     |        |         | Ovalue     |
|-------------------------------|------|-----|--------|---------|------------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 40507  | 18.636  | ug/l 93    |
| 3) Chloromethane              | 2.04 | 50  | 56946  | 18.144  | ug/l 97    |
| 4) Vinyl Chloride             | 2.16 | 62  | 48919  | 17.830  | ug/l 95    |
| 5) Bromomethane               | 2.53 | 94  | 24390  | 17.920  | ug/l 90    |
| 6) Chloroethane               | 2.67 | 64  | 24670  | 18.266  | ug/l 99    |
| 7) Trichlorofluoromethane     | 2.99 | 101 | 59428  | 18.481  | ug/l 97    |
| 8) Diethyl Ether              | 3.38 | 74  | 28693  | 18.562  | ug/l 99    |
| 9) 1,1,2-Trichlorotrifluoroet | 3.72 | 101 | 38748  | 18.640  | ug/l 99    |
| 10) 1,1-Dichloroethene        | 3.70 | 96  | 39054  | 18.416  | ug/l 97    |
| 11) Methyl Iodide             | 3.91 | 142 | 49444  | 19.039  | ug/l 98    |
| 12) Methyl Acetate            | 4.28 | 43  | 55892  | 19.652  | ug/l 98    |
| 13) Acrolein                  | 3.57 | 56  | 48520  | 114.181 | ug/l 99    |
| 14) Acrylonitrile             | 4.93 | 53  | 122543 | 92.642  | ug/l 99    |
| 15) Acetone                   | 3.78 | 58  | 34364  | 84.628  | ug/l 92    |
| 16) Carbon Disulfide          | 4.01 | 76  | 121916 | 17.641  | ug/l 100   |
| 17) Allyl chloride            | 4.27 | 41  | 82769  | 18.352  | ug/l 92    |
| 18) Methylene Chloride        | 4.51 | 84  | 49858  | 19.107  | ug/l 98    |
| 19) trans-1,2-Dichloroethene  | 4.99 | 96  | 42471  | 18.095  | ug/l 91    |
| 20) Diisopropyl ether         | 5.90 | 45  | 174405 | 18.811  | ug/l 97    |
| 21) 1,1-Dichloroethane        | 5.80 | 63  | 92697  | 18.911  | ug/l 98    |
| 22) cis-1,2-Dichloroethene    | 6.78 | 96  | 48620  | 18.368  | ug/l 98    |
| 23) tert-Butyl Alcohol        | 4.73 | 59  | 42649  | 96.344  | ug/l # 100 |
| 24) Methyl tert-Butyl Ether   | 5.00 | 73  | 141834 | 18.141  | ug/l 98    |
| 25) Chloroform                | 7.33 | 83  | 85721  | 19.069  | ug/l 98    |
| 26) Cyclohexane               | 7.62 | 56  | 75864  | 17.559  | ug/l # 97  |
| 29) 1,1-Dichloropropene       | 7.75 | 75  | 62470  | 18.849  | ug/l 99    |
| 30) 2-Butanone                | 6.79 | 43  | 168292 | 95.747  | ug/l # 96  |
| 31) 2,2-Dichloropropane       | 6.78 | 77  | 71247  | 19.065  | ug/l 99    |
| 32) 1,1,1-Trichloroethane     | 7.53 | 97  | 69831  | 19.604  | ug/l 99    |
| 33) Carbon Tetrachloride      | 7.73 | 117 | 60746  | 19.672  | ug/l 98    |
| 34) Benzene                   | 8.00 | 78  | 193400 | 19.642  | ug/l 99    |
| 35) Methacrylonitrile         | 7.12 | 41  | 26125  | 16.921  | ug/l 98    |
| 36) 1,2-Dichloroethane        | 8.08 | 62  | 71392  | 20.173  | ug/l 100   |
| 37) Trichloroethene           | 8.80 | 130 | 43458  | 19.650  | ug/l 99    |
| 38) Methylcyclohexane         | 9.05 | 83  | 67144  | 18.060  | ug/l 100   |
| 39) 1,2-Dichloropropane       | 9.08 | 63  | 56019  | 19.970  | ug/l 98    |
| 40) Dibromomethane            | 9.17 | 93  | 33147  | 20.504  | ug/l 99    |

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| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 41) Bromodichloromethane       | 9.37  | 83   | 67782    | 19.768  | ug/l  | 98       |
| 42) Vinyl Acetate              | 5.85  | 43   | 720200   | 98.604  | ug/l  | 100      |
| 43) Ethyl Acetate              | 6.88  | 43   | 75157    | 21.268  | ug/l  | 98       |
| 44) Isopropyl Acetate          | 8.13  | 43   | 114396   | 19.295  | ug/l  | 97       |
| 45) 1,4-Dioxane                | 9.17  | 88   | 17589    | 433.679 | ug/l  | 98       |
| 46) Methyl methacrylate        | 9.17  | 41   | 53002    | 18.843  | ug/l  | 96       |
| 47) n-amyl Acetate             | 12.05 | 43   | 93563    | 18.721  | ug/l  | 99       |
| 48) t-1,3-Dichloropropene      | 10.35 | 75   | 75961    | 18.993  | ug/l  | 99       |
| 49) cis-1,3-Dichloropropene    | 9.81  | 75   | 83197    | 19.271  | ug/l  | 98       |
| 50) 1,1,2-Trichloroethane      | 10.53 | 97   | 45340    | 20.008  | ug/l  | 99       |
| 51) Ethyl methacrylate         | 10.40 | 69   | 72645    | 19.041  | ug/l  | 97       |
| 52) 1,3-Dichloropropane        | 10.68 | 76   | 82426    | 19.819  | ug/l  | 98       |
| 53) Dibromochloromethane       | 10.87 | 129  | 48224    | 19.532  | ug/l  | 97       |
| 54) 1,2-Dibromoethane          | 10.98 | 107  | 45414    | 19.580  | ug/l  | 97       |
| 55) 2-Chloroethyl vinyl ether  | 9.66  | 63   | 107979   | 88.611  | ug/l  | 99       |
| 56) Bromoform                  | 12.10 | 173  | 33554    | 19.898  | ug/l  | 98       |
| 58) 4-Methyl-2-Pentanone       | 9.95  | 43   | 355341   | 99.279  | ug/l  | 100      |
| 59) 2-Hexanone                 | 10.72 | 43   | 249782   | 95.156  | ug/l  | 100      |
| 61) Tetrachloroethene          | 10.60 | 164  | 35499    | 18.869  | ug/l  | 92       |
| 62) Toluene                    | 10.12 | 91   | 199541   | 19.146  | ug/l  | 100      |
| 64) Chlorobenzene              | 11.41 | 112  | 114559   | 18.707  | ug/l  | 98       |
| 65) 1,1,1,2-Tetrachloroethane  | 11.48 | 131  | 43110    | 19.018  | ug/l  | 98       |
| 66) Ethyl Benzene              | 11.48 | 91   | 213413   | 18.492  | ug/l  | 100      |
| 67) m/p-Xylenes                | 11.60 | 106  | 153138   | 36.558  | ug/l  | 99       |
| 68) o-Xylene                   | 11.92 | 106  | 73458    | 18.273  | ug/l  | 99       |
| 69) Styrene                    | 11.94 | 104  | 126211   | 18.498  | ug/l  | 99       |
| 70) Isopropylbenzene           | 12.22 | 105  | 200256   | 18.557  | ug/l  | 99       |
| 71) 1,1,2,2-Tetrachloroethane  | 12.48 | 83   | 70341    | 20.168  | ug/l  | 98       |
| 72) 1,2,3-Trichloropropane     | 12.53 | 75   | 66653m   | 19.647  | ug/l  |          |
| 73) Bromobenzene               | 12.50 | 156  | 46982    | 18.798  | ug/l  | 99       |
| 74) n-propylbenzene            | 12.57 | 91   | 234037   | 18.245  | ug/l  | 100      |
| 75) 2-Chlorotoluene            | 12.65 | 91   | 141624   | 18.337  | ug/l  | 98       |
| 76) 1,3,5-Trimethylbenzene     | 12.71 | 105  | 169065   | 18.387  | ug/l  | 99       |
| 77) t-1,4-Dichloro-2-butene    | 12.27 | 75   | 22478    | 17.716  | ug/l  | 97       |
| 78) 4-Chlorotoluene            | 12.75 | 91   | 146427   | 18.581  | ug/l  | 99       |
| 79) tert-butylbenzene          | 12.97 | 119  | 139351   | 18.302  | ug/l  | 99       |
| 80) 1,2,4-Trimethylbenzene     | 13.01 | 105  | 164493   | 18.189  | ug/l  | 99       |
| 81) sec-Butylbenzene           | 13.15 | 105  | 185754   | 18.167  | ug/l  | 100      |
| 82) p-Isopropyltoluene         | 13.26 | 119  | 159285   | 17.652  | ug/l  | 99       |
| 83) 1,3-Dichlorobenzene        | 13.26 | 146  | 80751    | 18.605  | ug/l  | 100      |
| 84) 1,4-Dichlorobenzene        | 13.34 | 146  | 76104    | 17.769  | ug/l  | 100      |
| 85) n-Butylbenzene             | 13.59 | 91   | 127132   | 16.425  | ug/l  | 100      |
| 86) Hexachloroethane           | 13.85 | 117  | 31013    | 17.811  | ug/l  | 98       |
| 87) 1,2-Dichlorobenzene        | 13.63 | 146  | 78523    | 18.814  | ug/l  | 99       |
| 88) 1,2-Dibromo-3-Chloropropan | 14.24 | 75   | 12520    | 19.008  | ug/l  | 99       |
| 89) 1,2,4-Trichlorobenzene     | 14.88 | 180  | 34391    | 16.552  | ug/l  | 99       |
| 90) Hexachlorobutadiene        | 14.98 | 225  | 22534    | 19.554  | ug/l  | 97       |
| 91) Naphthalene                | 15.10 | 128  | 91133    | 16.177  | ug/l  | 100      |
| 92) 1,2,3-Trichlorobenzene     | 15.28 | 180  | 35677    | 17.037  | ug/l  | 97       |

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

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