

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN062619\  
 Data File : VN056499.D  
 Acq On : 26 Jun 2019 12:27  
 Operator : JC/SP  
 Sample : VN0626WBS01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0626WBS01

Manual Integrations  
 APPROVED

MMDadoda  
 6/29/2019 7:22:50 AM

Quant Time: Jun 27 07:58:05 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N061919W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Jun 21 03:45:40 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 342990   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 531490   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 458065   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 165447   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 194106   | 51.06 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.12% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 167322   | 50.46 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.92% |      |
| 50) Toluene-d8            | 10.09  | 98  | 619898   | 48.05 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.10%  |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 198341   | 46.12 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 92.24%  |      |

## Target Compounds

|                               |      |     |        |         |      | Qvalue |
|-------------------------------|------|-----|--------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 53478  | 18.414  | ug/l | 99     |
| 3) Chloromethane              | 2.06 | 50  | 70834  | 17.912  | ug/l | 99     |
| 4) Vinyl Chloride             | 2.18 | 62  | 71371  | 18.686  | ug/l | 100    |
| 5) Bromomethane               | 2.53 | 94  | 46325m | 20.689  | ug/l |        |
| 6) Chloroethane               | 2.69 | 64  | 42370  | 19.156  | ug/l | 97     |
| 7) Trichlorofluoromethane     | 3.00 | 101 | 96940  | 19.621  | ug/l | 99     |
| 8) Diethyl Ether              | 3.41 | 74  | 40886  | 19.554  | ug/l | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.75 | 101 | 60514  | 19.206  | ug/l | 98     |
| 10) Methyl Iodide             | 3.95 | 142 | 78376  | 18.405  | ug/l | 99     |
| 11) Tert butyl alcohol        | 4.80 | 59  | 73279  | 114.453 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 3.73 | 96  | 57752  | 19.061  | ug/l | 99     |
| 13) Acrolein                  | 3.61 | 56  | 32110  | 59.505  | ug/l | 99     |
| 14) Allyl chloride            | 4.32 | 41  | 99508  | 19.729  | ug/l | 99     |
| 15) Acrylonitrile             | 4.99 | 53  | 181882 | 102.685 | ug/l | 100    |
| 16) Acetone                   | 3.82 | 43  | 168897 | 88.681  | ug/l | 99     |
| 17) Carbon Disulfide          | 4.05 | 76  | 109825 | 15.936  | ug/l | 99     |
| 18) Methyl Acetate            | 4.33 | 43  | 82258  | 21.558  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 203867 | 20.334  | ug/l | 98     |
| 20) Methylene Chloride        | 4.55 | 84  | 72567  | 19.672  | ug/l | 99     |
| 21) trans-1,2-Dichloroethene  | 5.04 | 96  | 62242  | 19.054  | ug/l | 98     |
| 22) Diisopropyl ether         | 5.95 | 45  | 216201 | 20.411  | ug/l | 98     |
| 23) Vinyl Acetate             | 5.90 | 43  | 879989 | 105.330 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 121796 | 20.031  | ug/l | 98     |
| 25) 2-Butanone                | 6.84 | 43  | 249928 | 99.151  | ug/l | 97     |
| 26) 2,2-Dichloropropane       | 6.82 | 77  | 83388  | 19.718  | ug/l | 98     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 76799  | 20.095  | ug/l | 99     |
| 28) Bromochloromethane        | 7.20 | 49  | 56952  | 18.936  | ug/l | 98     |
| 29) Tetrahydrofuran           | 7.21 | 42  | 160485 | 104.184 | ug/l | 100    |
| 30) Chloroform                | 7.37 | 83  | 122731 | 20.456  | ug/l | 99     |
| 31) Cyclohexane               | 7.65 | 56  | 107041 | 18.235  | ug/l | 97     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 95556  | 20.092  | ug/l | 98     |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 84798  | 18.127  | ug/l | 98     |
| 37) Ethyl Acetate             | 6.93 | 43  | 94922  | 20.647  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 7.77 | 117 | 79197  | 19.359  | ug/l | 97     |

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 6/29/2019 7:22:50 AM

Quant Time: Jun 27 07:58:05 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N061919W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Jun 21 03:45:40 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 104028   | 18.022  | ug/l   | 99       |
| 40) Benzene                    | 8.04  | 78   | 279130   | 19.398  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.18  | 41   | 41775    | 20.578  | ug/l   | 90       |
| 42) 1,2-Dichloroethane         | 8.12  | 62   | 92793    | 19.540  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.17  | 43   | 145702   | 20.553  | ug/l # | 90       |
| 44) Trichloroethene            | 8.83  | 130  | 73421    | 18.941  | ug/l   | 97       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 77621    | 20.170  | ug/l   | 99       |
| 46) Dibromomethane             | 9.21  | 93   | 48588    | 20.181  | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.40  | 83   | 87313    | 20.447  | ug/l   | 98       |
| 48) Methyl methacrylate        | 9.20  | 41   | 70584    | 19.869  | ug/l   | 98       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 30160    | 409.113 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone       | 9.98  | 43   | 463236   | 101.243 | ug/l   | 100      |
| 52) Toluene                    | 10.16 | 92   | 171628   | 19.509  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 87580    | 19.482  | ug/l   | 96       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 103844   | 20.194  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 73177    | 20.693  | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 101273   | 19.596  | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 119605   | 20.133  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 141171   | 76.037  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.75 | 43   | 330185   | 98.187  | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 66748    | 19.871  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 73601    | 20.378  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 71277    | 19.649  | ug/l   | 98       |
| 65) Chlorobenzene              | 11.43 | 112  | 182295   | 19.806  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 66501    | 21.378  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 313902   | 19.423  | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.62 | 106  | 230368   | 38.896  | ug/l   | 98       |
| 69) o-Xylene                   | 11.95 | 106  | 114702   | 19.575  | ug/l   | 98       |
| 70) Styrene                    | 11.96 | 104  | 184583   | 19.708  | ug/l   | 99       |
| 71) Bromoform                  | 12.12 | 173  | 44158    | 19.633  | ug/l # | 98       |
| 73) Isopropylbenzene           | 12.25 | 105  | 309681   | 23.496  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 111954   | 21.262  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 100968   | 24.689  | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 85581m   | 24.947  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 77999    | 21.084  | ug/l   | 98       |
| 78) n-propylbenzene            | 12.59 | 91   | 308670   | 20.373  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 199949   | 22.685  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 246253   | 22.403  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 21933    | 22.723  | ug/l   | 98       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 176910   | 19.776  | ug/l   | 100      |
| 83) tert-Butylbenzene          | 12.99 | 119  | 223287   | 23.127  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 223830   | 20.096  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 278221   | 20.892  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 226689   | 19.835  | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 110139   | 19.646  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 105290   | 19.392  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.61 | 91   | 151895   | 17.557  | ug/l   | 100      |
| 90) Hexachloroethane           | 13.87 | 117  | 38777    | 21.763  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 115107   | 20.694  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 12801    | 20.911  | ug/l   | 98       |

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|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 33252    | 15.805 | ug/l  | 97       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 42812    | 21.647 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 94137    | 16.375 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 40283    | 16.700 | ug/l  | 99       |

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

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