

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN112019\  
 Data File : VN059326.D  
 Acq On : 20 Nov 2019 17:18  
 Operator : JC/SP  
 Sample : VSTDICV050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICVVN112019

Manual Integrations  
 APPROVED

MMDadoda  
 11/26/2019 9:58:51 AM

Quant Time: Nov 21 08:51:46 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N112019W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Nov 21 08:44:45 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.64  | 168  | 393718   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 619519   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.40 | 117  | 564090   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 269187   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.00   | 65  | 227805   | 48.22 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.44%  |      |
| 35) Dibromofluoromethane  | 7.57   | 113 | 177996   | 47.89 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.78%  |      |
| 50) Toluene-d8            | 10.08  | 98  | 732817   | 49.60 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.20%  |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 263903   | 51.08 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.16% |      |

## Target Compounds

|                               |      |     |         |         | Qvalue   |
|-------------------------------|------|-----|---------|---------|----------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 261093  | 51.799  | ug/l 98  |
| 3) Chloromethane              | 2.04 | 50  | 316327  | 51.228  | ug/l 100 |
| 4) Vinyl Chloride             | 2.17 | 62  | 338242  | 53.204  | ug/l 100 |
| 5) Bromomethane               | 2.54 | 94  | 181047  | 51.294  | ug/l 98  |
| 6) Chloroethane               | 2.68 | 64  | 170993  | 49.282  | ug/l 98  |
| 7) Trichlorofluoromethane     | 3.00 | 101 | 333983  | 48.784  | ug/l 99  |
| 8) Diethyl Ether              | 3.38 | 74  | 144349  | 51.575  | ug/l 99  |
| 9) 1,1,2-Trichlorotrifluoroet | 3.73 | 101 | 212913  | 50.860  | ug/l 99  |
| 10) Methyl Iodide             | 3.93 | 142 | 284259  | 54.636  | ug/l 100 |
| 11) Tert butyl alcohol        | 4.74 | 59  | 231695  | 244.971 | ug/l 100 |
| 12) 1,1-Dichloroethene        | 3.71 | 96  | 212599  | 50.032  | ug/l 97  |
| 13) Acrolein                  | 3.58 | 56  | 219001  | 253.658 | ug/l 99  |
| 14) Allyl chloride            | 4.29 | 41  | 405795  | 51.119  | ug/l 100 |
| 15) Acrylonitrile             | 4.95 | 53  | 625242  | 250.025 | ug/l 100 |
| 16) Acetone                   | 3.78 | 43  | 686675  | 324.188 | ug/l 100 |
| 17) Carbon Disulfide          | 4.03 | 76  | 680455  | 51.092  | ug/l 100 |
| 18) Methyl Acetate            | 4.29 | 43  | 355499  | 50.572  | ug/l 100 |
| 19) Methyl tert-butyl Ether   | 5.01 | 73  | 720453  | 52.493  | ug/l 100 |
| 20) Methylene Chloride        | 4.52 | 84  | 241245  | 50.500  | ug/l 98  |
| 21) trans-1,2-Dichloroethene  | 5.01 | 96  | 231007  | 51.295  | ug/l 99  |
| 22) Diisopropyl ether         | 5.92 | 45  | 787249  | 52.672  | ug/l 100 |
| 23) Vinyl Acetate             | 5.86 | 43  | 3052544 | 259.718 | ug/l 100 |
| 24) 1,1-Dichloroethane        | 5.82 | 63  | 436799  | 51.921  | ug/l 99  |
| 25) 2-Butanone                | 6.80 | 43  | 893628  | 271.315 | ug/l 99  |
| 26) 2,2-Dichloropropane       | 6.80 | 77  | 367058  | 50.388  | ug/l 100 |
| 27) cis-1,2-Dichloroethene    | 6.80 | 96  | 257638  | 50.705  | ug/l 99  |
| 28) Bromochloromethane        | 7.17 | 49  | 167140  | 48.832  | ug/l 98  |
| 29) Tetrahydrofuran           | 7.18 | 42  | 555989  | 244.126 | ug/l 100 |
| 30) Chloroform                | 7.35 | 83  | 412762  | 50.563  | ug/l 100 |
| 31) Cyclohexane               | 7.63 | 56  | 410741  | 49.380  | ug/l 98  |
| 32) 1,1,1-Trichloroethane     | 7.55 | 97  | 357617  | 50.984  | ug/l 100 |
| 36) 1,1-Dichloropropene       | 7.77 | 75  | 331086  | 51.768  | ug/l 100 |
| 37) Ethyl Acetate             | 6.90 | 43  | 339670  | 49.417  | ug/l 99  |
| 38) Carbon Tetrachloride      | 7.75 | 117 | 317349  | 51.832  | ug/l 100 |

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 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|-------|------|----------|----------|-------|----------|
| 39) Methylcyclohexane          | 9.07  | 83   | 406312   | 52.684   | ug/l  | 99       |
| 40) Benzene                    | 8.02  | 78   | 988738   | 52.674   | ug/l  | 100      |
| 41) Methacrylonitrile          | 7.14  | 41   | 113598m  | 37.229   | ug/l  |          |
| 42) 1,2-Dichloroethane         | 8.10  | 62   | 323464   | 52.104   | ug/l  | 99       |
| 43) Isopropyl Acetate          | 8.14  | 43   | 544059   | 51.793   | ug/l  | 100      |
| 44) Trichloroethene            | 8.82  | 130  | 251377   | 52.840   | ug/l  | 99       |
| 45) 1,2-Dichloropropane        | 9.10  | 63   | 263488   | 52.640   | ug/l  | 98       |
| 46) Dibromomethane             | 9.19  | 93   | 159702   | 52.016   | ug/l  | 100      |
| 47) Bromodichloromethane       | 9.39  | 83   | 326621   | 53.119   | ug/l  | 99       |
| 48) Methyl methacrylate        | 9.18  | 41   | 248960   | 52.117   | ug/l  | 99       |
| 49) 1,4-Dioxane                | 9.18  | 88   | 81929    | 1141.167 | ug/l  | 97       |
| 51) 4-Methyl-2-Pentanone       | 9.97  | 43   | 1666269  | 270.998  | ug/l  | 99       |
| 52) Toluene                    | 10.15 | 92   | 599375   | 53.104   | ug/l  | 100      |
| 53) t-1,3-Dichloropropene      | 10.37 | 75   | 385683   | 53.959   | ug/l  | 100      |
| 54) cis-1,3-Dichloropropene    | 9.83  | 75   | 416285   | 53.671   | ug/l  | 99       |
| 55) 1,1,2-Trichloroethane      | 10.55 | 97   | 232794   | 53.047   | ug/l  | 98       |
| 56) Ethyl methacrylate         | 10.42 | 69   | 371655   | 50.139   | ug/l  | 99       |
| 57) 1,3-Dichloropropane        | 10.70 | 76   | 402698   | 52.650   | ug/l  | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.68  | 63   | 675806   | 248.562  | ug/l  | 99       |
| 59) 2-Hexanone                 | 10.74 | 43   | 1272403  | 282.612  | ug/l  | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 253678   | 54.857   | ug/l  | 100      |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 242526   | 53.114   | ug/l  | 100      |
| 64) Tetrachloroethene          | 10.63 | 164  | 237783   | 54.503   | ug/l  | 98       |
| 65) Chlorobenzene              | 11.43 | 112  | 627631   | 51.746   | ug/l  | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 230110   | 52.222   | ug/l  | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 1142504  | 52.756   | ug/l  | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 861560   | 107.064  | ug/l  | 100      |
| 69) o-Xylene                   | 11.95 | 106  | 409407   | 53.142   | ug/l  | 99       |
| 70) Styrene                    | 11.96 | 104  | 672666   | 55.336   | ug/l  | 99       |
| 71) Bromoform                  | 12.13 | 173  | 177471   | 53.182   | ug/l  | 99       |
| 73) Isopropylbenzene           | 12.25 | 105  | 1109459  | 50.312   | ug/l  | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 458577   | 51.745   | ug/l  | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 344136   | 47.177   | ug/l  | 100      |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 311822m  | 50.141   | ug/l  |          |
| 77) Bromobenzene               | 12.53 | 156  | 262869   | 49.147   | ug/l  | 99       |
| 78) n-propylbenzene            | 12.59 | 91   | 1290660  | 51.671   | ug/l  | 99       |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 754041   | 49.181   | ug/l  | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 944169   | 50.934   | ug/l  | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 125490   | 50.471   | ug/l  | 98       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 788386   | 49.691   | ug/l  | 100      |
| 83) tert-Butylbenzene          | 12.99 | 119  | 791946   | 50.584   | ug/l  | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 937889   | 51.650   | ug/l  | 99       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 1076138  | 51.142   | ug/l  | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 986065   | 52.661   | ug/l  | 100      |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 475801   | 49.953   | ug/l  | 100      |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 467924   | 49.652   | ug/l  | 99       |
| 89) n-Butylbenzene             | 13.62 | 91   | 881501   | 53.665   | ug/l  | 99       |
| 90) Hexachloroethane           | 13.88 | 117  | 175030   | 49.358   | ug/l  | 99       |
| 91) 1,2-Dichlorobenzene        | 13.66 | 146  | 458932   | 49.800   | ug/l  | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 67520    | 43.537   | ug/l  | 99       |

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|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 278330   | 48.644 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 162401   | 48.913 | ug/l  | 100      |
| 95) Naphthalene            | 15.13 | 128  | 730418   | 46.275 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.30 | 180  | 264599   | 47.147 | ug/l  | 98       |

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

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