

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN060419\  
 Data File : VN055981.D  
 Acq On : 4 Jun 2019 10:52  
 Operator : JC/SP  
 Sample : VSTDICV050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICSVN060419

Manual Integrations  
 APPROVED

MMDadoda  
 6/5/2019 4:03:50 PM

Quant Time: Jun 04 11:12:11 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N060419W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jun 04 11:02:09 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.66  | 168  | 333620   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.58  | 114  | 490379   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 443874   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 204945   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.02   | 65  | 167345   | 50.52 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.04% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 154367   | 51.31 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.62% |      |
| 50) Toluene-d8            | 10.09  | 98  | 593274   | 51.24 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.48% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 203951   | 51.80 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.60% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 185484  | 50.603  | ug/l | 99     |
| 3) Chloromethane              | 2.06 | 50  | 194298  | 53.726  | ug/l | 99     |
| 4) Vinyl Chloride             | 2.19 | 62  | 193765  | 53.414  | ug/l | 99     |
| 5) Bromomethane               | 2.54 | 94  | 126515  | 55.209  | ug/l | 99     |
| 6) Chloroethane               | 2.69 | 64  | 112315  | 53.400  | ug/l | 99     |
| 7) Trichlorofluoromethane     | 3.01 | 101 | 237335  | 51.248  | ug/l | 98     |
| 8) Diethyl Ether              | 3.40 | 74  | 96400   | 50.618  | ug/l | 97     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.74 | 101 | 146969  | 52.243  | ug/l | 99     |
| 10) Methyl Iodide             | 3.94 | 142 | 219183  | 49.028  | ug/l | 99     |
| 11) Tert butyl alcohol        | 4.81 | 59  | 142986  | 248.042 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 3.72 | 96  | 145924  | 52.103  | ug/l | 97     |
| 13) Acrolein                  | 3.60 | 56  | 43459   | 261.400 | ug/l | 94     |
| 14) Allyl chloride            | 4.31 | 41  | 233649  | 52.833  | ug/l | 99     |
| 15) Acrylonitrile             | 4.99 | 53  | 373192  | 265.946 | ug/l | 100    |
| 16) Acetone                   | 3.82 | 43  | 383310  | 241.943 | ug/l | 100    |
| 17) Carbon Disulfide          | 4.04 | 76  | 374899  | 55.906  | ug/l | 99     |
| 18) Methyl Acetate            | 4.32 | 43  | 158619  | 50.981  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 459421  | 51.462  | ug/l | 100    |
| 20) Methylene Chloride        | 4.54 | 84  | 164297  | 50.336  | ug/l | 98     |
| 21) trans-1,2-Dichloroethene  | 5.03 | 96  | 157055  | 52.337  | ug/l | 97     |
| 22) Diisopropyl ether         | 5.95 | 45  | 463106  | 50.658  | ug/l | 99     |
| 23) Vinyl Acetate             | 5.89 | 43  | 1950841 | 270.980 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 5.84 | 63  | 268485  | 50.914  | ug/l | 100    |
| 25) 2-Butanone                | 6.84 | 43  | 523709  | 261.631 | ug/l | 100    |
| 26) 2,2-Dichloropropane       | 6.82 | 77  | 214940  | 52.235  | ug/l | 98     |
| 27) cis-1,2-Dichloroethene    | 6.82 | 96  | 180561  | 51.188  | ug/l | 97     |
| 28) Bromochloromethane        | 7.19 | 49  | 123078  | 49.354  | ug/l | 98     |
| 29) Tetrahydrofuran           | 7.21 | 42  | 321168  | 259.564 | ug/l | 98     |
| 30) Chloroform                | 7.37 | 83  | 272131  | 51.299  | ug/l | 100    |
| 31) Cyclohexane               | 7.65 | 56  | 256279  | 48.756  | ug/l | 95     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 229309  | 51.764  | ug/l | 100    |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 207537  | 49.219  | ug/l | 99     |
| 37) Ethyl Acetate             | 6.93 | 43  | 198372  | 52.875  | ug/l | 100    |
| 38) Carbon Tetrachloride      | 7.77 | 117 | 196068  | 50.436  | ug/l | 97     |

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N060419W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jun 04 11:02:09 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 260960   | 49.682   | ug/l   | 98       |
| 40) Benzene                    | 8.04  | 78   | 644303   | 50.310   | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.17  | 41   | 90120    | 52.209   | ug/l   | 94       |
| 42) 1,2-Dichloroethane         | 8.12  | 62   | 200996   | 48.792   | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.17  | 43   | 311635   | 51.260   | ug/l   | 99       |
| 44) Trichloroethene            | 8.83  | 130  | 183266   | 49.801   | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 166403   | 50.727   | ug/l   | 100      |
| 46) Dibromomethane             | 9.21  | 93   | 109751   | 51.164   | ug/l   | 100      |
| 47) Bromodichloromethane       | 9.40  | 83   | 202740   | 52.148   | ug/l   | 100      |
| 48) Methyl methacrylate        | 9.20  | 41   | 149207   | 50.166   | ug/l   | 95       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 66249    | 1031.731 | ug/l   | 99       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 970226   | 255.198  | ug/l   | 99       |
| 52) Toluene                    | 10.15 | 92   | 404163   | 50.716   | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 220125   | 48.375   | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 252675   | 54.069   | ug/l   | 97       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 160329   | 50.790   | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 241299   | 52.396   | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 258630   | 50.399   | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.69  | 63   | 423216   | 232.867  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.75 | 43   | 707663   | 256.819  | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 164967   | 47.512   | ug/l   | 98       |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 166503   | 51.595   | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 178719   | 46.514   | ug/l   | 100      |
| 65) Chlorobenzene              | 11.43 | 112  | 435952   | 49.349   | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 157717   | 51.706   | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 761405   | 49.568   | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 585875   | 99.842   | ug/l   | 100      |
| 69) o-Xylene                   | 11.94 | 106  | 287041   | 49.729   | ug/l   | 99       |
| 70) Styrene                    | 11.96 | 104  | 481783   | 52.533   | ug/l   | 99       |
| 71) Bromoform                  | 12.12 | 173  | 120614   | 47.258   | ug/l # | 100      |
| 73) Isopropylbenzene           | 12.25 | 105  | 753844   | 51.685   | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 267744   | 49.009   | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 222201   | 46.704   | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 177229m  | 46.997   | ug/l   |          |
| 77) Bromobenzene               | 12.52 | 156  | 204515   | 46.610   | ug/l   | 97       |
| 78) n-propylbenzene            | 12.59 | 91   | 824628   | 47.561   | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 496778   | 51.737   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 630668   | 45.768   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 58182    | 51.380   | ug/l   | 94       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 491599   | 48.464   | ug/l   | 100      |
| 83) tert-Butylbenzene          | 12.99 | 119  | 553419   | 51.864   | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 619846   | 47.435   | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 720300   | 46.911   | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 657696   | 47.861   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 339979   | 50.063   | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 326518   | 49.982   | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.61 | 91   | 519716   | 51.054   | ug/l   | 100      |
| 90) Hexachloroethane           | 13.87 | 117  | 102291   | 49.359   | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 337314   | 49.197   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 37097    | 54.515   | ug/l   | 99       |

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QLast Update : Tue Jun 04 11:02:09 2019  
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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 184209   | 48.861 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 124470   | 53.058 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 489094   | 49.902 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 194585   | 50.502 | ug/l  | 99       |

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

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