

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN032719\  
 Data File : VN054714.D  
 Acq On : 27 Mar 2019 11:46  
 Operator : JC/SP  
 Sample : VN0327WBSD01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0327WBSD01

Manual Integrations  
 APPROVED

MMDadoda  
 3/28/2019 12:44:44 PM

Quant Time: Mar 28 10:15:26 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N032019W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Mar 22 02:09:07 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 407700   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 688552   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 585194   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 239841   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 266430   | 52.54 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 105.08% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 210814   | 47.52 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.04%  |      |
| 50) Toluene-d8            | 10.09  | 98  | 779206   | 46.72 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 93.44%  |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 258677   | 45.58 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 91.16%  |      |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 80835   | 20.740  | ug/l   | 98     |
| 3) Chloromethane              | 2.06 | 50  | 110677  | 20.871  | ug/l   | 99     |
| 4) Vinyl Chloride             | 2.19 | 62  | 98725   | 18.543  | ug/l   | 100    |
| 5) Bromomethane               | 2.58 | 94  | 57588   | 16.728  | ug/l   | 95     |
| 6) Chloroethane               | 2.71 | 64  | 57043   | 17.863  | ug/l   | 98     |
| 7) Trichlorofluoromethane     | 3.03 | 101 | 127766  | 19.761  | ug/l   | 98     |
| 8) Diethyl Ether              | 3.41 | 74  | 42290   | 17.007  | ug/l   | 70     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.76 | 101 | 67713   | 17.820  | ug/l   | 96     |
| 10) Methyl Iodide             | 3.95 | 142 | 97016   | 17.356  | ug/l # | 87     |
| 11) Tert butyl alcohol        | 4.82 | 59  | 29168   | 95.004  | ug/l   | 97     |
| 12) 1,1-Dichloroethene        | 3.73 | 96  | 66372   | 16.878  | ug/l # | 78     |
| 13) Acrolein                  | 3.61 | 56  | 45385   | 107.119 | ug/l   | 94     |
| 14) Allyl chloride            | 4.32 | 41  | 151349  | 20.439  | ug/l # | 92     |
| 15) Acrylonitrile             | 5.00 | 53  | 163420  | 106.886 | ug/l   | 98     |
| 16) Acetone                   | 3.82 | 43  | 125551  | 82.348  | ug/l # | 82     |
| 17) Carbon Disulfide          | 4.04 | 76  | 169226  | 16.061  | ug/l   | 100    |
| 18) Methyl Acetate            | 4.33 | 43  | 77796   | 22.893  | ug/l # | 88     |
| 19) Methyl tert-butyl Ether   | 5.06 | 73  | 232710  | 20.277  | ug/l   | 93     |
| 20) Methylene Chloride        | 4.55 | 84  | 92391   | 20.557  | ug/l # | 82     |
| 21) trans-1,2-Dichloroethene  | 5.04 | 96  | 81246   | 20.233  | ug/l # | 82     |
| 22) Diisopropyl ether         | 5.96 | 45  | 323639  | 22.158  | ug/l # | 94     |
| 23) Vinyl Acetate             | 5.90 | 43  | 1103681 | 106.988 | ug/l # | 92     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 171210  | 21.770  | ug/l   | 98     |
| 25) 2-Butanone                | 6.85 | 43  | 196293  | 100.505 | ug/l # | 86     |
| 26) 2,2-Dichloropropane       | 6.82 | 77  | 115088  | 20.529  | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 98651   | 20.597  | ug/l   | 88     |
| 28) Bromochloromethane        | 7.19 | 49  | 91200   | 23.559  | ug/l # | 72     |
| 29) Tetrahydrofuran           | 7.22 | 42  | 134254  | 105.928 | ug/l # | 84     |
| 30) Chloroform                | 7.37 | 83  | 165827  | 21.606  | ug/l   | 99     |
| 31) Cyclohexane               | 7.65 | 56  | 159268  | 20.021  | ug/l   | 88     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 134800  | 21.289  | ug/l   | 95     |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 120905  | 18.780  | ug/l   | 95     |
| 37) Ethyl Acetate             | 6.94 | 43  | 87121   | 19.026  | ug/l # | 77     |
| 38) Carbon Tetrachloride      | 7.77 | 117 | 115852  | 18.518  | ug/l   | 98     |

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 ClientSampleId :  
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 3/28/2019 12:44:44 PM

Quant Time: Mar 28 10:15:26 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N032019W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Mar 22 02:09:07 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 130633   | 17.738  | ug/l   | 90       |
| 40) Benzene                    | 8.04  | 78   | 362968   | 19.716  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.18  | 41   | 53986m   | 19.333  | ug/l   |          |
| 42) 1,2-Dichloroethane         | 8.13  | 62   | 130957   | 19.533  | ug/l   | 97       |
| 43) Isopropyl Acetate          | 8.17  | 43   | 149758   | 19.366  | ug/l # | 93       |
| 44) Trichloroethene            | 8.83  | 130  | 93904    | 18.347  | ug/l   | 95       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 103490   | 20.935  | ug/l   | 97       |
| 46) Dibromomethane             | 9.21  | 93   | 57001    | 19.328  | ug/l   | 89       |
| 47) Bromodichloromethane       | 9.40  | 83   | 119666   | 19.552  | ug/l   | 96       |
| 48) Methyl methacrylate        | 9.20  | 41   | 77721    | 18.517  | ug/l   | 88       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 16165    | 344.499 | ug/l # | 78       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 423286   | 98.766  | ug/l   | 92       |
| 52) Toluene                    | 10.16 | 92   | 236200   | 20.860  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 108237   | 18.248  | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 138900   | 19.793  | ug/l # | 89       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 81436    | 20.008  | ug/l   | 97       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 103692   | 18.981  | ug/l # | 82       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 142743   | 20.175  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 182580   | 81.163  | ug/l # | 89       |
| 59) 2-Hexanone                 | 10.75 | 43   | 258357   | 92.290  | ug/l   | 91       |
| 60) Dibromochloromethane       | 10.90 | 129  | 79779    | 18.420  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 76361    | 18.977  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 85411    | 17.596  | ug/l   | 95       |
| 65) Chlorobenzene              | 11.43 | 112  | 230316   | 19.351  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 84594    | 19.802  | ug/l   | 98       |
| 67) Ethyl Benzene              | 11.51 | 91   | 405843   | 19.303  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 300684   | 37.758  | ug/l   | 95       |
| 69) o-Xylene                   | 11.95 | 106  | 145656   | 18.729  | ug/l   | 95       |
| 70) Styrene                    | 11.96 | 104  | 240975   | 19.080  | ug/l   | 97       |
| 71) Bromoform                  | 12.13 | 173  | 43755    | 16.417  | ug/l # | 98       |
| 73) Isopropylbenzene           | 12.25 | 105  | 392486   | 20.308  | ug/l   | 98       |
| 74) N-amyl acetate             | 12.07 | 43   | 118814   | 21.380  | ug/l   | 91       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 96328    | 21.834  | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 78203m   | 20.548  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 94805    | 19.779  | ug/l   | 85       |
| 78) n-propylbenzene            | 12.59 | 91   | 425292   | 20.293  | ug/l   | 97       |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 265360   | 20.305  | ug/l   | 94       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 320399   | 20.227  | ug/l   | 97       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 16384    | 17.071  | ug/l # | 71       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 253105   | 19.980  | ug/l   | 95       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 275778   | 20.001  | ug/l   | 96       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 312804   | 20.126  | ug/l   | 96       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 342782   | 19.943  | ug/l   | 98       |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 299118   | 19.452  | ug/l   | 97       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 153592   | 19.336  | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 148719   | 19.243  | ug/l   | 98       |
| 89) n-Butylbenzene             | 13.61 | 91   | 228531   | 19.006  | ug/l   | 98       |
| 90) Hexachloroethane           | 13.87 | 117  | 46952    | 19.671  | ug/l   | 90       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 153985   | 20.014  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 12938    | 19.993  | ug/l   | 83       |

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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 66932    | 17.451 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 46960    | 20.321 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 147668   | 17.261 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 67407    | 17.658 | ug/l  | 97       |

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

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