

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN013019\  
 Data File : VN053558.D  
 Acq On : 30 Jan 2019 8:53  
 Operator : JC/SP  
 Sample : VSTDIC001  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDIC001

Manual Integrations  
 APPROVED

MMDadoda  
 2/1/2019 9:18:06 AM

Quant Time: Jan 30 10:46:06 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N013019W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 30 09:11:23 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 710891   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.58  | 114  | 1099607  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 941054   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 416010   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |      |       |  |
|---------------------------|--------|-----|----------|------|-------|--|
| 33) 1,2-Dichloroethane-d4 | 0.00   | 65  | 0d       | 0.00 | ug/l  |  |
| Spiked Amount             | 50.000 |     | Recovery | =    | 0.00% |  |
| 35) Dibromofluoromethane  | 0.00   | 113 | 0d       | 0.00 | ug/l  |  |
| Spiked Amount             | 50.000 |     | Recovery | =    | 0.00% |  |
| 50) Toluene-d8            | 0.00   | 98  | 0d       | 0.00 | ug/l  |  |
| Spiked Amount             | 50.000 |     | Recovery | =    | 0.00% |  |
| 62) 4-Bromofluorobenzene  | 0.00   | 95  | 0d       | 0.00 | ug/l  |  |
| Spiked Amount             | 50.000 |     | Recovery | =    | 0.00% |  |

## Target Compounds

|                               |      |     |       |       |        | Qvalue |
|-------------------------------|------|-----|-------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 5879  | 1.029 | ug/l   | 88     |
| 3) Chloromethane              | 2.06 | 50  | 7754  | 0.949 | ug/l   | 100    |
| 4) Vinyl Chloride             | 2.18 | 62  | 7654  | 0.972 | ug/l   | 95     |
| 5) Bromomethane               | 2.58 | 94  | 5596  | 1.035 | ug/l   | 86     |
| 6) Chloroethane               | 2.71 | 64  | 4581  | 0.962 | ug/l   | 95     |
| 7) Trichlorofluoromethane     | 3.02 | 101 | 11216 | 1.089 | ug/l   | 99     |
| 8) Diethyl Ether              | 3.41 | 74  | 3936  | 1.017 | ug/l   | 87     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.76 | 101 | 7305  | 1.119 | ug/l   | 93     |
| 12) 1,1-Dichloroethene        | 3.74 | 96  | 6401  | 1.011 | ug/l   | 98     |
| 14) Allyl chloride            | 4.32 | 41  | 9985  | 0.971 | ug/l   | 96     |
| 15) Acrylonitrile             | 5.00 | 53  | 9671  | 4.274 | ug/l   | 97     |
| 16) Acetone                   | 3.82 | 43  | 10727 | 6.507 | ug/l   | 95     |
| 17) Carbon Disulfide          | 4.06 | 76  | 20460 | 1.069 | ug/l   | 99     |
| 18) Methyl Acetate            | 4.34 | 43  | 6046m | 1.089 | ug/l   |        |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 14572 | 0.867 | ug/l   | 93     |
| 20) Methylene Chloride        | 4.55 | 84  | 8771  | 1.165 | ug/l   | 89     |
| 21) trans-1,2-Dichloroethene  | 5.05 | 96  | 6859  | 1.014 | ug/l   | 90     |
| 22) Diisopropyl ether         | 5.95 | 45  | 17046 | 0.794 | ug/l # | 80     |
| 23) Vinyl Acetate             | 5.90 | 43  | 54829 | 4.156 | ug/l   | 96     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 13066 | 1.030 | ug/l # | 85     |
| 25) 2-Butanone                | 6.84 | 43  | 12253 | 4.823 | ug/l   | 91     |
| 26) 2,2-Dichloropropane       | 6.83 | 77  | 9986  | 1.042 | ug/l   | 97     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 7426  | 0.960 | ug/l   | 85     |
| 28) Bromochloromethane        | 7.20 | 49  | 5838  | 1.044 | ug/l # | 98     |
| 29) Tetrahydrofuran           | 7.21 | 42  | 7456  | 4.508 | ug/l   | 98     |
| 30) Chloroform                | 7.37 | 83  | 13484 | 1.091 | ug/l   | 100    |
| 31) Cyclohexane               | 7.66 | 56  | 20066 | 1.437 | ug/l # | 15     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 10371 | 0.989 | ug/l # | 49     |
| 36) 1,1-Dichloropropene       | 7.80 | 75  | 9194  | 0.918 | ug/l   | 82     |
| 37) Ethyl Acetate             | 6.94 | 43  | 4062m | 0.705 | ug/l   |        |
| 38) Carbon Tetrachloride      | 7.78 | 117 | 9465  | 0.998 | ug/l   | 95     |
| 39) Methylcyclohexane         | 9.08 | 83  | 10676 | 0.863 | ug/l   | 99     |
| 40) Benzene                   | 8.04 | 78  | 29796 | 0.979 | ug/l   | 99     |
| 41) Methacrylonitrile         | 7.17 | 41  | 2819m | 0.905 | ug/l   |        |

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 Sample : VSTDIC001  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleID :  
 VSTDIC001

Manual Integrations  
 APPROVED

MMDadoda  
 2/1/2019 9:18:06 AM

Quant Time: Jan 30 10:46:06 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N013019W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 30 09:11:23 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| -----                          |       |      |          |        |        |          |
| 42) 1,2-Dichloroethane         | 8.12  | 62   | 9080     | 1.024  | ug/l   | 88       |
| 43) Isopropyl Acetate          | 8.17  | 43   | 10516    | 1.015  | ug/l # | 75       |
| 44) Trichloroethene            | 8.84  | 130  | 8939     | 1.059  | ug/l   | 94       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 7337     | 0.910  | ug/l   | 99       |
| 46) Dibromomethane             | 9.21  | 93   | 4891     | 1.056  | ug/l   | 96       |
| 47) Bromodichloromethane       | 9.40  | 83   | 9593     | 0.985  | ug/l   | 97       |
| 48) Methyl methacrylate        | 9.20  | 41   | 5084     | 0.950  | ug/l   | 89       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 622      | 11.907 | ug/l # | 21       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 21365    | 3.778  | ug/l   | 96       |
| 52) Toluene                    | 10.16 | 92   | 16150    | 0.855  | ug/l   | 94       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 8550     | 0.866  | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 10817    | 0.935  | ug/l   | 93       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 6075     | 0.933  | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 6157     | 0.742  | ug/l   | 95       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 10661    | 0.946  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 15738    | 3.454  | ug/l   | 94       |
| 59) 2-Hexanone                 | 10.75 | 43   | 15782    | 3.975  | ug/l   | 90       |
| 60) Dibromochloromethane       | 10.90 | 129  | 6493     | 0.879  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 6174     | 0.937  | ug/l   | 93       |
| 64) Tetrachloroethene          | 10.63 | 164  | 8560     | 0.965  | ug/l   | 92       |
| 65) Chlorobenzene              | 11.43 | 112  | 20276    | 1.018  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 6701     | 0.967  | ug/l # | 64       |
| 67) Ethyl Benzene              | 11.51 | 91   | 31073    | 0.915  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 22378    | 1.746  | ug/l   | 97       |
| 69) o-Xylene                   | 11.95 | 106  | 10864    | 0.872  | ug/l   | 97       |
| 70) Styrene                    | 11.96 | 104  | 16796    | 0.831  | ug/l   | 97       |
| 71) Bromoform                  | 12.12 | 173  | 3984     | 0.835  | ug/l # | 100      |
| 73) Isopropylbenzene           | 12.25 | 105  | 27884    | 0.915  | ug/l   | 99       |
| 74) N-amyl acetate             | 12.07 | 43   | 6020     | 0.741  | ug/l   | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 7414     | 1.160  | ug/l # | 92       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 5612m    | 1.024  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 7734     | 0.963  | ug/l   | 99       |
| 78) n-propylbenzene            | 12.59 | 91   | 31378    | 0.897  | ug/l   | 98       |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 19824    | 0.956  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 21152    | 0.853  | ug/l   | 97       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 1686     | 0.882  | ug/l   | 88       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 19741    | 0.934  | ug/l   | 100      |
| 83) tert-Butylbenzene          | 12.99 | 119  | 20023    | 0.915  | ug/l   | 96       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 20774    | 0.831  | ug/l   | 97       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 26234    | 0.874  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 22260    | 0.854  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 14640    | 1.037  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 14642m   | 1.034  | ug/l   |          |
| 89) n-Butylbenzene             | 13.62 | 91   | 19933    | 0.897  | ug/l   | 99       |
| 90) Hexachloroethane           | 13.88 | 117  | 4196     | 1.026  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 13468    | 1.037  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 964      | 1.190  | ug/l   | 93       |
| 93) 1,2,4-Trichlorobenzene     | 14.91 | 180  | 6498     | 1.297  | ug/l   | 98       |
| 94) Hexachlorobutadiene        | 15.01 | 225  | 5077     | 1.253  | ug/l   | 96       |
| 95) Naphthalene                | 15.13 | 128  | 10479    | 1.268  | ug/l   | 97       |

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Sample : VSTDICC001  
Misc : 5.00mL/MSVOA\_N/WATER  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001

Manual Integrations  
APPROVED

MMDadoda  
2/1/2019 9:18:06 AM

Quant Time: Jan 30 10:46:06 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N013019W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 30 09:11:23 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 96) 1,2,3-Trichlorobenzene | 15.32 | 180  | 6255     | 1.759 | ug/l  | 95       |

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

