

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN071818\  
 Data File : VN049863.D  
 Acq On : 18 Jul 2018 10:15  
 Operator : MD\SY  
 Sample : VSTDIC001  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDIC001

Manual Integrations  
 APPROVED

MMDadoda  
 7/19/2018 4:28:51 PM

Quant Time: Jul 18 13:00:45 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N071818W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jul 18 12:05:28 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.66  | 168  | 398734   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 630540   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 543207   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 208889   | 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  | 5658   | 1.38 | ug/l   | 94     |
| 3) Chloromethane              | 2.06 | 50  | 6910   | 1.31 | ug/l   | 99     |
| 4) Vinyl Chloride             | 2.18 | 62  | 6742   | 1.18 | ug/l   | 93     |
| 5) Bromomethane               | 2.57 | 94  | 5031   | 1.39 | ug/l   | 96     |
| 6) Chloroethane               | 2.70 | 64  | 4827   | 1.33 | ug/l   | 91     |
| 7) Trichlorofluoromethane     | 3.02 | 101 | 9762   | 1.27 | ug/l   | 83     |
| 8) Diethyl Ether              | 3.41 | 74  | 3137   | 1.14 | ug/l   | 87     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.75 | 101 | 6047   | 1.31 | ug/l   | 97     |
| 12) 1,1-Dichloroethene        | 3.73 | 96  | 4969   | 1.19 | ug/l   | 90     |
| 14) Allyl chloride            | 4.32 | 41  | 7252   | 1.10 | ug/l # | 79     |
| 15) Acrylonitrile             | 5.00 | 53  | 7902   | 4.43 | ug/l # | 90     |
| 16) Acetone                   | 3.83 | 43  | 9940   | 6.68 | ug/l   | 93     |
| 17) Carbon Disulfide          | 4.04 | 76  | 15900  | 1.26 | ug/l   | 98     |
| 18) Methyl Acetate            | 4.34 | 43  | 9147m  | 1.64 | ug/l   |        |
| 19) Methyl tert-butyl Ether   | 5.04 | 73  | 10766m | 0.93 | ug/l   |        |
| 20) Methylene Chloride        | 4.54 | 84  | 7371m  | 1.44 | ug/l   |        |
| 21) trans-1,2-Dichloroethene  | 5.04 | 96  | 4913   | 1.12 | ug/l # | 78     |
| 22) Diisopropyl ether         | 5.96 | 45  | 11670  | 0.88 | ug/l # | 86     |
| 23) Vinyl Acetate             | 5.90 | 43  | 39851  | 4.10 | ug/l # | 93     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 9835   | 1.16 | ug/l # | 95     |
| 25) 2-Butanone                | 6.84 | 43  | 9908   | 4.51 | ug/l   | 97     |
| 26) 2,2-Dichloropropane       | 6.82 | 77  | 7855   | 1.22 | ug/l   | 77     |
| 27) cis-1,2-Dichloroethene    | 6.82 | 96  | 4677m  | 0.95 | ug/l   |        |
| 28) Bromochloromethane        | 7.20 | 49  | 3821   | 0.97 | ug/l # | 99     |
| 29) Tetrahydrofuran           | 7.22 | 42  | 5593   | 4.00 | ug/l # | 84     |
| 30) Chloroform                | 7.37 | 83  | 10129  | 1.16 | ug/l   | 100    |
| 31) Cyclohexane               | 7.66 | 56  | 13191  | 1.64 | ug/l # | 36     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 9137   | 1.23 | ug/l # | 52     |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 6581   | 0.99 | ug/l   | 95     |
| 37) Ethyl Acetate             | 6.94 | 43  | 4533m  | 0.91 | ug/l   |        |
| 38) Carbon Tetrachloride      | 7.77 | 117 | 7961   | 1.13 | ug/l   | 94     |
| 39) Methylcyclohexane         | 9.08 | 83  | 6788   | 0.99 | ug/l   | 93     |
| 40) Benzene                   | 8.04 | 78  | 20939  | 1.04 | ug/l   | 95     |
| 41) Methacrylonitrile         | 7.18 | 41  | 1913   | 0.75 | ug/l # | 94     |

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 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
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 7/19/2018 4:28:51 PM

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N071818W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jul 18 12:05:28 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|-------|--------|----------|
| -----                          |       |      |          |       |        |          |
| 42) 1,2-Dichloroethane         | 8.13  | 62   | 7182     | 1.04  | ug/l   | 84       |
| 43) Isopropyl Acetate          | 8.17  | 43   | 6395     | 0.76  | ug/l # | 83       |
| 44) Trichloroethene            | 8.83  | 130  | 5562     | 1.05  | ug/l   | 96       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 6040     | 1.12  | ug/l   | 96       |
| 46) Dibromomethane             | 9.22  | 93   | 3700     | 1.08  | ug/l   | 87       |
| 47) Bromodichloromethane       | 9.40  | 83   | 7058     | 1.01  | ug/l   | 93       |
| 48) Methyl methacrylate        | 9.20  | 41   | 3742     | 0.89  | ug/l # | 86       |
| 49) 1,4-Dioxane                | 9.19  | 88   | 1009m    | 15.86 | ug/l   |          |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 16679    | 3.35  | ug/l   | 97       |
| 52) Toluene                    | 10.16 | 92   | 10234    | 0.84  | ug/l   | 93       |
| 53) t-1,3-Dichloropropene      | 10.39 | 75   | 6403     | 0.94  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 6476     | 0.85  | ug/l   | 90       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 5562     | 1.12  | ug/l   | 89       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 4119     | 0.68  | ug/l   | 94       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 7626     | 0.95  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.69  | 63   | 7070     | 2.49  | ug/l   | 97       |
| 59) 2-Hexanone                 | 10.75 | 43   | 10809    | 3.17  | ug/l   | 89       |
| 60) Dibromochloromethane       | 10.90 | 129  | 5447     | 0.98  | ug/l   | 98       |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 4378     | 0.90  | ug/l   | 96       |
| 64) Tetrachloroethene          | 10.63 | 164  | 5256     | 1.14  | ug/l   | 95       |
| 65) Chlorobenzene              | 11.43 | 112  | 13740    | 1.07  | ug/l   | 91       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 5691     | 1.15  | ug/l # | 66       |
| 67) Ethyl Benzene              | 11.51 | 91   | 18398    | 0.89  | ug/l   | 95       |
| 68) m/p-Xylenes                | 11.63 | 106  | 12398    | 1.58  | ug/l   | 97       |
| 69) o-Xylene                   | 11.95 | 106  | 6100     | 0.81  | ug/l   | 99       |
| 70) Styrene                    | 11.96 | 104  | 8444     | 0.70  | ug/l   | 94       |
| 71) Bromoform                  | 12.13 | 173  | 3227     | 0.85  | ug/l # | 96       |
| 73) Isopropylbenzene           | 12.25 | 105  | 14582    | 0.96  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 4026     | 0.81  | ug/l # | 87       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 5830     | 1.20  | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 4542m    | 1.11  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 4691     | 1.13  | ug/l   | 91       |
| 78) n-propylbenzene            | 12.59 | 91   | 15865    | 0.93  | ug/l   | 94       |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 10296    | 0.98  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 10463    | 0.88  | ug/l   | 96       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 1228     | 0.98  | ug/l # | 90       |
| 82) 4-Chlorotoluene            | 12.78 | 91   | 9668     | 0.93  | ug/l   | 95       |
| 83) tert-Butylbenzene          | 13.00 | 119  | 10024    | 0.96  | ug/l   | 97       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 9922     | 0.82  | ug/l   | 97       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 11371    | 0.81  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 9219     | 0.78  | ug/l   | 94       |
| 87) 1,3-Dichlorobenzene        | 13.29 | 146  | 7742     | 1.09  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 8339m    | 1.19  | ug/l   |          |
| 89) n-Butylbenzene             | 13.62 | 91   | 7303     | 0.75  | ug/l   | 93       |
| 90) Hexachloroethane           | 13.88 | 117  | 3671     | 1.38  | ug/l   | 96       |
| 91) 1,2-Dichlorobenzene        | 13.66 | 146  | 7927     | 1.09  | ug/l   | 96       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 879      | 1.08  | ug/l   | 91       |
| 93) 1,2,4-Trichlorobenzene     | 14.91 | 180  | 2224     | 0.69  | ug/l   | 94       |
| 94) Hexachlorobutadiene        | 15.01 | 225  | 3146     | 1.39  | ug/l   | 95       |
| 95) Naphthalene                | 15.14 | 128  | 3905     | 0.51  | ug/l # | 92       |

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

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001

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Quant Title : SW846 8260  
QLast Update : Wed Jul 18 12:05:28 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 96) 1,2,3-Trichlorobenzene | 15.32 | 180  | 3035     | 0.89 | ug/l  | 83       |

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

