

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_X\DATA\VX110118\  
 Data File : VX005720.D  
 Acq On : 01 Nov 2018 10:44  
 Operator : JC/MD  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

MMDadoda  
 11/2/2018 12:33:57 PM

Quant Time: Nov 01 14:44:25 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X103118W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Oct 31 18:23:06 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 156952   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 244808   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 220527   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 119775   | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |        |      |
|-----------------------------|--------|-----|----------|-------|--------|------|
| System Monitoring Compounds |        |     |          |       |        |      |
| 33) 1,2-Dichloroethane-d4   | 6.07   | 65  | 102694   | 44.75 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 89.50% |      |
| 35) Dibromofluoromethane    | 5.51   | 113 | 78133    | 46.09 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 92.18% |      |
| 50) Toluene-d8              | 8.71   | 98  | 287738   | 48.40 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 96.80% |      |
| 62) 4-Bromofluorobenzene    | 11.14  | 95  | 107455   | 48.97 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 97.94% |      |

| Target Compounds              |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.20 | 85  | 102377  | 56.464  | ug/l | 98     |
| 3) Chloromethane              | 1.33 | 50  | 105232  | 49.205  | ug/l | 100    |
| 4) Vinyl Chloride             | 1.41 | 62  | 108565  | 48.792  | ug/l | 99     |
| 5) Bromomethane               | 1.64 | 94  | 130099  | 47.121  | ug/l | 99     |
| 6) Chloroethane               | 1.71 | 64  | 66358   | 46.536  | ug/l | 97     |
| 7) Trichlorofluoromethane     | 1.93 | 101 | 149301  | 52.276  | ug/l | 94     |
| 8) Diethyl Ether              | 2.19 | 74  | 62423   | 48.626  | ug/l | 87     |
| 9) 1,1,2-Trichlorotrifluoroet | 2.39 | 101 | 86044   | 49.599  | ug/l | 93     |
| 10) Methyl Iodide             | 2.51 | 142 | 89550   | 52.915  | ug/l | 100    |
| 11) Tert butyl alcohol        | 3.07 | 59  | 147262  | 236.312 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 2.37 | 96  | 79914   | 47.273  | ug/l | 93     |
| 13) Acrolein                  | 2.30 | 56  | 107059  | 240.594 | ug/l | 97     |
| 14) Allyl chloride            | 2.73 | 41  | 158395  | 45.314  | ug/l | # 90   |
| 15) Acrylonitrile             | 3.15 | 53  | 317605  | 231.772 | ug/l | 98     |
| 16) Acetone                   | 2.45 | 43  | 285120  | 241.326 | ug/l | 90     |
| 17) Carbon Disulfide          | 2.57 | 76  | 246281  | 47.411  | ug/l | 99     |
| 18) Methyl Acetate            | 2.78 | 43  | 141747  | 43.043  | ug/l | 95     |
| 19) Methyl tert-butyl Ether   | 3.20 | 73  | 299088  | 51.113  | ug/l | 99     |
| 20) Methylene Chloride        | 2.86 | 84  | 94725   | 47.870  | ug/l | 94     |
| 21) trans-1,2-Dichloroethene  | 3.17 | 96  | 88442   | 49.444  | ug/l | 90     |
| 22) Diisopropyl ether         | 3.87 | 45  | 323220  | 49.848  | ug/l | # 96   |
| 23) Vinyl Acetate             | 3.82 | 43  | 1440499 | 255.056 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 3.70 | 63  | 177577  | 48.432  | ug/l | 99     |
| 25) 2-Butanone                | 4.70 | 43  | 460433  | 237.866 | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 4.59 | 77  | 148675  | 54.245  | ug/l | 99     |
| 27) cis-1,2-Dichloroethene    | 4.60 | 96  | 103700  | 51.593  | ug/l | 98     |
| 28) Bromochloromethane        | 5.02 | 49  | 79597   | 44.498  | ug/l | 93     |
| 29) Tetrahydrofuran           | 5.15 | 42  | 278640  | 235.842 | ug/l | 90     |
| 30) Chloroform                | 5.21 | 83  | 173324  | 48.351  | ug/l | 90     |
| 31) Cyclohexane               | 5.57 | 56  | 165155  | 53.866  | ug/l | 97     |
| 32) 1,1,1-Trichloroethane     | 5.50 | 97  | 148134  | 51.634  | ug/l | 96     |
| 36) 1,1-Dichloropropene       | 5.79 | 75  | 135141  | 51.813  | ug/l | 99     |
| 37) Ethyl Acetate             | 4.85 | 43  | 166347  | 49.991  | ug/l | 98     |
| 38) Carbon Tetrachloride      | 5.78 | 117 | 125439  | 53.232  | ug/l | 93     |

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 Acq On : 01 Nov 2018 10:44  
 Operator : JC/MD  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleID :  
 VSTDCCC050

Manual Integrations  
 APPROVED

MMDadoda  
 11/2/2018 12:33:57 PM

Quant Time: Nov 01 14:44:25 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X103118W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Oct 31 18:23:06 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|-------|------|----------|----------|-------|----------|
| 39) Methylcyclohexane          | 7.46  | 83   | 160208   | 58.896   | ug/l  | 89       |
| 40) Benzene                    | 6.15  | 78   | 404403   | 52.117   | ug/l  | 97       |
| 41) Methacrylonitrile          | 5.06  | 41   | 89554    | 49.809   | ug/l  | 95       |
| 42) 1,2-Dichloroethane         | 6.20  | 62   | 140435   | 48.964   | ug/l  | 99       |
| 43) Isopropyl Acetate          | 6.46  | 43   | 247166   | 51.176   | ug/l  | 95       |
| 44) Trichloroethene            | 7.21  | 130  | 91941    | 51.231   | ug/l  | 89       |
| 45) 1,2-Dichloropropane        | 7.52  | 63   | 104330   | 52.467   | ug/l  | 100      |
| 46) Dibromomethane             | 7.66  | 93   | 64959    | 51.116   | ug/l  | 89       |
| 47) Bromodichloromethane       | 7.90  | 83   | 124707   | 52.316   | ug/l  | 99       |
| 48) Methyl methacrylate        | 7.77  | 41   | 127773   | 54.661   | ug/l  | 96       |
| 49) 1,4-Dioxane                | 7.75  | 88   | 54664    | 1050.185 | ug/l  | 99       |
| 51) 4-Methyl-2-Pentanone       | 8.65  | 43   | 846707   | 257.109  | ug/l  | 97       |
| 52) Toluene                    | 8.79  | 92   | 226784   | 54.034   | ug/l  | 98       |
| 53) t-1,3-Dichloropropene      | 9.04  | 75   | 146678   | 56.780   | ug/l  | 99       |
| 54) cis-1,3-Dichloropropene    | 8.43  | 75   | 158041   | 57.102   | ug/l  | 97       |
| 55) 1,1,2-Trichloroethane      | 9.21  | 97   | 94109    | 51.631   | ug/l  | 98       |
| 56) Ethyl methacrylate         | 9.18  | 69   | 158536   | 51.178   | ug/l  | 96       |
| 57) 1,3-Dichloropropane        | 9.37  | 76   | 163326   | 52.164   | ug/l  | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 8.32  | 63   | 442978   | 251.993  | ug/l  | 96       |
| 59) 2-Hexanone                 | 9.50  | 43   | 680353   | 253.863  | ug/l  | 95       |
| 60) Dibromochloromethane       | 9.59  | 129  | 94776    | 53.810   | ug/l  | 99       |
| 61) 1,2-Dibromoethane          | 9.67  | 107  | 97014    | 52.233   | ug/l  | 99       |
| 64) Tetrachloroethene          | 9.34  | 164  | 84520    | 52.460   | ug/l  | 96       |
| 65) Chlorobenzene              | 10.14 | 112  | 247279   | 52.768   | ug/l  | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.22 | 131  | 86002    | 53.609   | ug/l  | 97       |
| 67) Ethyl Benzene              | 10.25 | 91   | 454073   | 56.775   | ug/l  | 99       |
| 68) m/p-Xylenes                | 10.36 | 106  | 338374   | 113.859  | ug/l  | 95       |
| 69) o-Xylene                   | 10.70 | 106  | 162028   | 57.005   | ug/l  | 96       |
| 70) Styrene                    | 10.71 | 104  | 275927   | 58.448   | ug/l  | 98       |
| 71) Bromoform                  | 10.86 | 173  | 71938    | 55.345   | ug/l  | 98       |
| 73) Isopropylbenzene           | 11.02 | 105  | 447250   | 56.600   | ug/l  | 100      |
| 74) N-amyl acetate             | 10.90 | 43   | 228093   | 54.216   | ug/l  | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.27 | 83   | 164823   | 50.276   | ug/l  | 99       |
| 76) 1,2,3-Trichloropropane     | 11.30 | 75   | 154553m  | 51.809   | ug/l  |          |
| 77) Bromobenzene               | 11.26 | 156  | 104989   | 53.560   | ug/l  | 87       |
| 78) n-propylbenzene            | 11.36 | 91   | 549864   | 57.201   | ug/l  | 97       |
| 79) 2-Chlorotoluene            | 11.42 | 91   | 317501   | 55.300   | ug/l  | 96       |
| 80) 1,3,5-Trimethylbenzene     | 11.51 | 105  | 386843   | 57.656   | ug/l  | 98       |
| 81) trans-1,4-Dichloro-2-buten | 11.07 | 75   | 51019    | 55.257   | ug/l  | 96       |
| 82) 4-Chlorotoluene            | 11.51 | 91   | 381914   | 55.718   | ug/l  | 97       |
| 83) tert-Butylbenzene          | 11.77 | 119  | 370856   | 57.930   | ug/l  | 97       |
| 84) 1,2,4-Trimethylbenzene     | 11.81 | 105  | 394976   | 58.297   | ug/l  | 98       |
| 85) sec-Butylbenzene           | 11.94 | 105  | 472414   | 57.527   | ug/l  | 97       |
| 86) p-Isopropyltoluene         | 12.07 | 119  | 410924   | 58.836   | ug/l  | 98       |
| 87) 1,3-Dichlorobenzene        | 12.02 | 146  | 202708   | 53.482   | ug/l  | 98       |
| 88) 1,4-Dichlorobenzene        | 12.10 | 146  | 209267   | 51.395   | ug/l  | 98       |
| 89) n-Butylbenzene             | 12.39 | 91   | 409940   | 58.175   | ug/l  | 98       |
| 90) Hexachloroethane           | 12.60 | 117  | 68473    | 55.260   | ug/l  | 82       |
| 91) 1,2-Dichlorobenzene        | 12.39 | 146  | 206617   | 52.180   | ug/l  | 98       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.00 | 75   | 39636    | 51.548   | ug/l  | 87       |

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Operator : JC/MD  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050

Manual Integrations  
APPROVED

MMDadoda  
11/2/2018 12:33:57 PM

Quant Time: Nov 01 14:44:25 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X103118W.M  
Quant Title : SW846 8260  
QLast Update : Wed Oct 31 18:23:06 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.65 | 180  | 146165   | 57.553 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 13.79 | 225  | 67196    | 54.693 | ug/l  | 99       |
| 95) Naphthalene            | 13.83 | 128  | 486016   | 58.191 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 14.02 | 180  | 144432   | 55.863 | ug/l  | 99       |

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

