

Data Path : W:\HPCHEM1\MSVOA X\DATA\VX022818\  
 Data File : VX000163.D  
 Acq On : 28 Feb 2018 12:53  
 Operator : JC/MD  
 Sample : VX0228WBSD01  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VX0228WBSD01

Manual Integrations  
 APPROVED

apatel  
 3/1/2018 12:52:59 PM

Quant Time: Mar 01 06:46:47 2018  
 Quant Method : W:\HPCHEM1\MSVOA\_X\METHOD\82X021418W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Feb 15 12:46:41 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.68  | 168  | 128581   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.87  | 114  | 219305   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 216170   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.09 | 152  | 120861   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 6.08   | 65  | 95683    | 59.59 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 119.18% |      |
| 35) Dibromofluoromethane  | 5.51   | 113 | 75198    | 54.33 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 108.66% |      |
| 50) Toluene-d8            | 8.73   | 98  | 293623   | 53.78 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 107.56% |      |
| 62) 4-Bromofluorobenzene  | 11.15  | 95  | 115472   | 53.94 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 107.88% |      |

## Target Compounds

|                               |      |     |        |        |      | Qvalue |
|-------------------------------|------|-----|--------|--------|------|--------|
| 2) Dichlorodifluoromethane    | 1.20 | 85  | 24446  | 18.46  | ug/l | 98     |
| 3) Chloromethane              | 1.32 | 50  | 23312  | 17.95  | ug/l | 100    |
| 4) Vinyl Chloride             | 1.41 | 62  | 29229  | 20.21  | ug/l | 92     |
| 5) Bromomethane               | 1.64 | 94  | 25621  | 20.99  | ug/l | 97     |
| 6) Chloroethane               | 1.73 | 64  | 20569  | 21.17  | ug/l | 93     |
| 7) Trichlorofluoromethane     | 1.93 | 101 | 54500  | 21.07  | ug/l | 95     |
| 8) Diethyl Ether              | 2.20 | 74  | 19532  | 21.88  | ug/l | 99     |
| 9) 1,1,2-Trichlorotrifluoroet | 2.39 | 101 | 29585  | 20.46  | ug/l | 98     |
| 10) Methyl Iodide             | 2.51 | 142 | 22450  | 14.18  | ug/l | 97     |
| 11) Tert butyl alcohol        | 3.08 | 59  | 71932  | 116.25 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 2.38 | 96  | 27015  | 20.06  | ug/l | 94     |
| 13) Acrolein                  | 2.30 | 56  | 8500   | 28.76  | ug/l | 100    |
| 14) Allyl chloride            | 2.73 | 41  | 50315  | 22.32  | ug/l | 97     |
| 15) Acrylonitrile             | 3.15 | 53  | 121723 | 115.19 | ug/l | 99     |
| 16) Acetone                   | 2.45 | 43  | 145788 | 139.99 | ug/l | 99     |
| 17) Carbon Disulfide          | 2.57 | 76  | 61396  | 15.49  | ug/l | 98     |
| 18) Methyl Acetate            | 2.79 | 43  | 64111  | 26.25  | ug/l | 96     |
| 19) Methyl tert-butyl Ether   | 3.21 | 73  | 105199 | 22.76  | ug/l | 99     |
| 20) Methylene Chloride        | 2.87 | 84  | 31341  | 22.73  | ug/l | 97     |
| 21) trans-1,2-Dichloroethene  | 3.17 | 96  | 29018  | 19.88  | ug/l | 82     |
| 22) Diisopropyl ether         | 3.89 | 45  | 79657  | 20.22  | ug/l | 99     |
| 23) Vinyl Acetate             | 3.84 | 43  | 367531 | 100.41 | ug/l | 98     |
| 24) 1,1-Dichloroethane        | 3.70 | 63  | 54497  | 23.35  | ug/l | 98     |
| 25) 2-Butanone                | 4.72 | 43  | 171334 | 117.85 | ug/l | 93     |
| 26) 2,2-Dichloropropane       | 4.60 | 77  | 41638  | 20.53  | ug/l | 99     |
| 27) cis-1,2-Dichloroethene    | 4.60 | 96  | 29452  | 21.18  | ug/l | 99     |
| 28) Bromochloromethane        | 5.03 | 49  | 24568  | 23.48  | ug/l | 95     |
| 29) Tetrahydrofuran           | 5.18 | 42  | 104256 | 110.12 | ug/l | 97     |
| 30) Chloroform                | 5.23 | 83  | 54004  | 21.99  | ug/l | 100    |
| 31) Cyclohexane               | 5.59 | 56  | 37723  | 18.80  | ug/l | 97     |
| 32) 1,1,1-Trichloroethane     | 5.51 | 97  | 46262  | 20.47  | ug/l | 97     |
| 36) 1,1-Dichloropropene       | 5.81 | 75  | 37894  | 19.26  | ug/l | 95     |
| 37) Ethyl Acetate             | 4.87 | 43  | 54652  | 20.21  | ug/l | 98     |
| 38) Carbon Tetrachloride      | 5.79 | 117 | 39481  | 18.57  | ug/l | 95     |

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 Quant Title : SW846 8260  
 QLast Update : Thu Feb 15 12:46:41 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 39) Methylcyclohexane          | 7.47  | 83   | 43077    | 18.18  | ug/l   | 97       |
| 40) Benzene                    | 6.15  | 78   | 110359   | 19.63  | ug/l   | 98       |
| 41) Methacrylonitrile          | 5.07  | 41   | 28479    | 21.65  | ug/l   | 97       |
| 42) 1,2-Dichloroethane         | 6.21  | 62   | 44157    | 21.40  | ug/l   | 98       |
| 43) Isopropyl Acetate          | 6.48  | 43   | 83959    | 21.53  | ug/l   | 97       |
| 44) Trichloroethene            | 7.22  | 130  | 31276    | 18.89  | ug/l   | 93       |
| 45) 1,2-Dichloropropane        | 7.52  | 63   | 28689    | 20.82  | ug/l   | 95       |
| 46) Dibromomethane             | 7.68  | 93   | 22237    | 20.68  | ug/l   | 96       |
| 47) Bromodichloromethane       | 7.91  | 83   | 41076    | 20.68  | ug/l   | 96       |
| 48) Methyl methacrylate        | 7.79  | 41   | 40240    | 21.05  | ug/l   | 96       |
| 49) 1,4-Dioxane                | 7.76  | 88   | 20106    | 401.20 | ug/l   | 94       |
| 51) 4-Methyl-2-Pentanone       | 8.66  | 43   | 316425   | 111.02 | ug/l   | 95       |
| 52) Toluene                    | 8.79  | 92   | 74402    | 19.81  | ug/l   | 97       |
| 53) t-1,3-Dichloropropene      | 8.45  | 75   | 47516    | 20.34  | ug/l   | 96       |
| 54) cis-1,3-Dichloropropene    | 9.05  | 75   | 46712    | 20.14  | ug/l   | 94       |
| 55) 1,1,2-Trichloroethane      | 9.23  | 97   | 33179    | 21.36  | ug/l   | 94       |
| 56) Ethyl methacrylate         | 9.19  | 69   | 49929    | 20.94  | ug/l   | 94       |
| 57) 1,3-Dichloropropane        | 9.38  | 76   | 53751    | 21.79  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 8.32  | 63   | 126155   | 104.70 | ug/l   | 96       |
| 59) 2-Hexanone                 | 9.51  | 43   | 271143   | 112.36 | ug/l   | 97       |
| 60) Dibromochloromethane       | 9.59  | 129  | 33935    | 19.29  | ug/l   | 97       |
| 61) 1,2-Dibromoethane          | 9.68  | 107  | 35993    | 20.88  | ug/l   | 96       |
| 64) Tetrachloroethene          | 9.34  | 164  | 27435    | 17.43  | ug/l   | 98       |
| 65) Chlorobenzene              | 10.15 | 112  | 91139    | 19.97  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 10.23 | 131  | 31672    | 19.83  | ug/l   | 98       |
| 67) Ethyl Benzene              | 10.26 | 91   | 154721   | 20.20  | ug/l   | 100      |
| 68) m/p-Xylenes                | 10.37 | 106  | 119241   | 39.31  | ug/l   | 98       |
| 69) o-Xylene                   | 10.71 | 106  | 58480    | 19.99  | ug/l   | 95       |
| 70) Styrene                    | 10.72 | 104  | 96412    | 20.15  | ug/l   | 98       |
| 71) Bromoform                  | 10.87 | 173  | 25693    | 17.72  | ug/l # | 100      |
| 73) Isopropylbenzene           | 11.02 | 105  | 160120   | 20.90  | ug/l   | 97       |
| 74) N-amyl acetate             | 6.48  | 43   | 83959    | 21.70  | ug/l # | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.27 | 83   | 58027    | 21.75  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 11.30 | 75   | 53707m   | 21.45  | ug/l   |          |
| 77) Bromobenzene               | 11.26 | 156  | 39676    | 19.11  | ug/l   | 89       |
| 78) n-propylbenzene            | 11.37 | 91   | 186171   | 20.62  | ug/l   | 98       |
| 79) 2-Chlorotoluene            | 11.43 | 91   | 108113   | 20.92  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene     | 11.51 | 105  | 134015   | 20.69  | ug/l   | 97       |
| 81) trans-1,4-Dichloro-2-buten | 11.09 | 75   | 16594    | 18.88  | ug/l   | 88       |
| 82) 4-Chlorotoluene            | 11.52 | 91   | 130812   | 20.93  | ug/l   | 95       |
| 83) tert-Butylbenzene          | 11.78 | 119  | 135750   | 20.76  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 11.82 | 105  | 137840   | 20.50  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 11.96 | 105  | 170865   | 21.04  | ug/l   | 98       |
| 86) p-Isopropyltoluene         | 12.07 | 119  | 148635   | 20.48  | ug/l   | 97       |
| 87) 1,3-Dichlorobenzene        | 12.04 | 146  | 77918    | 19.56  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 12.11 | 146  | 81008    | 19.69  | ug/l   | 98       |
| 89) n-Butylbenzene             | 12.40 | 91   | 142304   | 20.80  | ug/l   | 97       |
| 90) Hexachloroethane           | 12.60 | 117  | 24005    | 20.32  | ug/l   | 89       |
| 91) 1,2-Dichlorobenzene        | 12.40 | 146  | 78219    | 19.96  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.01 | 75   | 17227    | 23.27  | ug/l   | 84       |

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Quant Title : SW846 8260  
QLast Update : Thu Feb 15 12:46:41 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.65 | 180  | 55252    | 18.79 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 13.79 | 225  | 22573    | 17.59 | ug/l  | 98       |
| 95) Naphthalene            | 13.84 | 128  | 206153   | 20.67 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 14.03 | 180  | 56548    | 19.48 | ug/l  | 96       |

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

