

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX061218\  
 Data File : VX002461.D  
 Acq On : 12 Jun 2018 12:51  
 Operator : JC/MD  
 Sample : VX0612WBSD01  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VX0612WBSD01

Manual Integrations  
 APPROVED

MMDadoda  
 6/13/2018 1:59:35 PM

Quant Time: Jun 12 15:06:30 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X060418W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jun 05 03:22:35 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 211980   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.87  | 114  | 301493   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 289298   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.09 | 152  | 182987   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 6.07   | 65  | 138152   | 45.25 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 90.50% |      |
| 35) Dibromofluoromethane  | 5.51   | 113 | 103601   | 43.70 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 87.40% |      |
| 50) Toluene-d8            | 8.72   | 98  | 388363   | 42.73 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 85.46% |      |
| 62) 4-Bromofluorobenzene  | 11.14  | 95  | 146407   | 41.78 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 83.56% |      |

## Target Compounds

|                               |      |     |        |         |      | Qvalue |
|-------------------------------|------|-----|--------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.20 | 85  | 40228  | 18.256  | ug/l | 98     |
| 3) Chloromethane              | 1.32 | 50  | 46188  | 16.361  | ug/l | 98     |
| 4) Vinyl Chloride             | 1.40 | 62  | 51765  | 18.639  | ug/l | 97     |
| 5) Bromomethane               | 1.64 | 94  | 28958  | 16.167  | ug/l | 97     |
| 6) Chloroethane               | 1.73 | 64  | 36315  | 20.214  | ug/l | 99     |
| 7) Trichlorofluoromethane     | 1.93 | 101 | 89652  | 21.187  | ug/l | 99     |
| 8) Diethyl Ether              | 2.19 | 74  | 34678  | 21.706  | ug/l | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 2.39 | 101 | 52514  | 22.997  | ug/l | 100    |
| 10) Methyl Iodide             | 2.51 | 142 | 46773  | 14.563  | ug/l | 98     |
| 11) Tert butyl alcohol        | 3.06 | 59  | 70441  | 101.640 | ug/l | 98     |
| 12) 1,1-Dichloroethene        | 2.38 | 96  | 44191  | 19.582  | ug/l | 97     |
| 13) Acrolein                  | 2.29 | 56  | 23751  | 71.963  | ug/l | 99     |
| 14) Allyl chloride            | 2.73 | 41  | 90741  | 18.529  | ug/l | 98     |
| 15) Acrylonitrile             | 3.15 | 53  | 146599 | 108.135 | ug/l | 99     |
| 16) Acetone                   | 2.45 | 43  | 159792 | 111.985 | ug/l | 99     |
| 17) Carbon Disulfide          | 2.57 | 76  | 97066  | 16.320  | ug/l | 96     |
| 18) Methyl Acetate            | 2.78 | 43  | 71263  | 21.952  | ug/l | 100    |
| 19) Methyl tert-butyl Ether   | 3.21 | 73  | 180219 | 21.574  | ug/l | 99     |
| 20) Methylene Chloride        | 2.86 | 84  | 53457  | 20.683  | ug/l | 99     |
| 21) trans-1,2-Dichloroethene  | 3.17 | 96  | 47788  | 19.203  | ug/l | 98     |
| 22) Diisopropyl ether         | 3.87 | 45  | 186745 | 21.992  | ug/l | 95     |
| 23) Vinyl Acetate             | 3.82 | 43  | 822278 | 103.573 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 3.70 | 63  | 96538  | 19.945  | ug/l | 99     |
| 25) 2-Butanone                | 4.70 | 43  | 191553 | 92.161  | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 4.59 | 77  | 64643  | 17.085  | ug/l | 99     |
| 27) cis-1,2-Dichloroethene    | 4.60 | 96  | 49458  | 18.275  | ug/l | 94     |
| 28) Bromochloromethane        | 5.02 | 49  | 41328  | 17.782  | ug/l | 99     |
| 29) Tetrahydrofuran           | 5.16 | 42  | 119349 | 89.062  | ug/l | 99     |
| 30) Chloroform                | 5.21 | 83  | 86049  | 18.423  | ug/l | 99     |
| 31) Cyclohexane               | 5.57 | 56  | 70819  | 18.503  | ug/l | 96     |
| 32) 1,1,1-Trichloroethane     | 5.50 | 97  | 72503  | 18.304  | ug/l | 98     |
| 36) 1,1-Dichloropropene       | 5.81 | 75  | 60450  | 19.072  | ug/l | 99     |
| 37) Ethyl Acetate             | 4.86 | 43  | 71931  | 18.871  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 5.79 | 117 | 62437  | 18.830  | ug/l | 98     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX061218\  
 Data File : VX002461.D  
 Acq On : 12 Jun 2018 12:51  
 Operator : JC/MD  
 Sample : VX0612WBSD01  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VX0612WBSD01

Manual Integrations  
 APPROVED

MMDadoda  
 6/13/2018 1:59:35 PM

Quant Time: Jun 12 15:06:30 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X060418W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jun 05 03:22:35 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 7.46  | 83   | 74231    | 19.120  | ug/l   | 96       |
| 40) Benzene                    | 6.15  | 78   | 184165   | 18.950  | ug/l   | 100      |
| 41) Methacrylonitrile          | 5.06  | 41   | 41560    | 19.046  | ug/l   | 99       |
| 42) 1,2-Dichloroethane         | 6.20  | 62   | 76969    | 19.934  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 6.46  | 43   | 122195   | 18.874  | ug/l   | 100      |
| 44) Trichloroethene            | 7.22  | 130  | 51308    | 19.023  | ug/l   | 100      |
| 45) 1,2-Dichloropropane        | 7.52  | 63   | 50526    | 19.258  | ug/l   | 98       |
| 46) Dibromomethane             | 7.67  | 93   | 33993    | 19.113  | ug/l   | 97       |
| 47) Bromodichloromethane       | 7.90  | 83   | 59907    | 18.624  | ug/l   | 99       |
| 48) Methyl methacrylate        | 7.78  | 41   | 61525    | 18.919  | ug/l   | 98       |
| 49) 1,4-Dioxane                | 7.76  | 88   | 24186    | 397.754 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone       | 8.65  | 43   | 392500   | 97.350  | ug/l   | 100      |
| 52) Toluene                    | 8.79  | 92   | 119730   | 19.371  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 8.44  | 75   | 71298    | 18.483  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 9.05  | 75   | 66724    | 18.334  | ug/l   | 100      |
| 55) 1,1,2-Trichloroethane      | 9.22  | 97   | 50857    | 20.005  | ug/l   | 97       |
| 56) Ethyl methacrylate         | 9.18  | 69   | 75664    | 18.642  | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 9.37  | 76   | 83837    | 19.657  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 8.32  | 63   | 181168   | 96.442  | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.50  | 43   | 302360   | 97.091  | ug/l   | 99       |
| 60) Dibromochloromethane       | 9.59  | 129  | 48736    | 19.059  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 9.68  | 107  | 52390    | 19.765  | ug/l   | 100      |
| 64) Tetrachloroethene          | 9.34  | 164  | 56926    | 19.080  | ug/l   | 99       |
| 65) Chlorobenzene              | 10.14 | 112  | 138560   | 19.248  | ug/l   | 97       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.23 | 131  | 49949    | 19.163  | ug/l   | 99       |
| 67) Ethyl Benzene              | 10.26 | 91   | 232763   | 19.321  | ug/l   | 99       |
| 68) m/p-Xylenes                | 10.36 | 106  | 182097   | 38.885  | ug/l   | 100      |
| 69) o-Xylene                   | 10.70 | 106  | 87774    | 18.835  | ug/l   | 97       |
| 70) Styrene                    | 10.71 | 104  | 147350   | 19.341  | ug/l   | 99       |
| 71) Bromoform                  | 10.86 | 173  | 35154    | 17.475  | ug/l   | 99       |
| 73) Isopropylbenzene           | 11.02 | 105  | 243758   | 19.149  | ug/l   | 100      |
| 74) N-amyl acetate             | 6.46  | 43   | 122195   | 17.815  | ug/l # | 100      |
| 75) 1,1,2,2-Tetrachloroethane  | 11.27 | 83   | 76706    | 19.159  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 11.30 | 75   | 66462m   | 16.553  | ug/l   |          |
| 77) Bromobenzene               | 11.26 | 156  | 66450    | 18.594  | ug/l   | 99       |
| 78) n-propylbenzene            | 11.37 | 91   | 281194   | 19.874  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 11.43 | 91   | 164709   | 18.437  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 11.51 | 105  | 209683   | 19.205  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 11.08 | 75   | 17601    | 15.366  | ug/l   | 86       |
| 82) 4-Chlorotoluene            | 11.51 | 91   | 195507   | 18.959  | ug/l   | 100      |
| 83) tert-Butylbenzene          | 11.77 | 119  | 204301   | 19.215  | ug/l   | 100      |
| 84) 1,2,4-Trimethylbenzene     | 11.81 | 105  | 213788   | 19.022  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 11.95 | 105  | 254899   | 20.450  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 12.07 | 119  | 229636   | 20.226  | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 12.03 | 146  | 123402   | 19.312  | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 12.10 | 146  | 125273   | 19.020  | ug/l   | 100      |
| 89) n-Butylbenzene             | 12.39 | 91   | 201688   | 21.181  | ug/l   | 100      |
| 90) Hexachloroethane           | 12.60 | 117  | 30814    | 17.002  | ug/l   | 97       |
| 91) 1,2-Dichlorobenzene        | 12.40 | 146  | 124027   | 18.760  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.01 | 75   | 15263    | 17.433  | ug/l   | 98       |

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA X\DATA\VX061218\  
Data File : VX002461.D  
Acq On : 12 Jun 2018 12:51  
Operator : JC/MD  
Sample : VX0612WBSD01  
Misc : 5.0mL/MSVOA X/WATER  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX0612WBSD01

Manual Integrations  
APPROVED

MMDadoda  
6/13/2018 1:59:35 PM

Quant Time: Jun 12 15:06:30 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X060418W.M  
Quant Title : SW846 8260  
QLast Update : Tue Jun 05 03:22:35 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.65 | 180  | 93143    | 20.093 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 13.79 | 225  | 49773    | 21.728 | ug/l  | 99       |
| 95) Naphthalene            | 13.84 | 128  | 254774   | 19.128 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 14.02 | 180  | 94220    | 19.929 | ug/l  | 99       |

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

