

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX062719\  
 Data File : VX010500.D  
 Acq On : 27 Jun 2019 19:36  
 Operator : JC/SP  
 Sample : K3565-05MSD  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 26 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 FL-0570MSD

Manual Integrations  
 APPROVED

MMDadoda  
 6/28/2019 10:38:31 AM

Quant Time: Jun 28 07:50:34 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X061919W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Jun 20 03:31:56 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.66  | 168  | 245924   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 373546   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 341397   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 177421   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 6.07   | 65  | 121853   | 52.85 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 105.70% |      |
| 35) Dibromofluoromethane  | 5.50   | 113 | 119762   | 52.40 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.80% |      |
| 50) Toluene-d8            | 8.71   | 98  | 446470   | 51.06 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.12% |      |
| 62) 4-Bromofluorobenzene  | 11.13  | 95  | 165761   | 52.51 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 105.02% |      |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.20 | 85  | 79883   | 46.723  | ug/l   | 96     |
| 3) Chloromethane              | 1.32 | 50  | 90403   | 45.408  | ug/l   | 99     |
| 4) Vinyl Chloride             | 1.41 | 62  | 99002   | 45.401  | ug/l   | 100    |
| 5) Bromomethane               | 1.64 | 94  | 52292   | 49.223  | ug/l   | 100    |
| 6) Chloroethane               | 1.71 | 64  | 63393   | 49.275  | ug/l   | 98     |
| 7) Trichlorofluoromethane     | 1.93 | 101 | 176634  | 51.098  | ug/l   | 99     |
| 8) Diethyl Ether              | 2.19 | 74  | 63122   | 50.919  | ug/l   | 99     |
| 9) 1,1,2-Trichlorotrifluoroet | 2.38 | 101 | 101665  | 48.531  | ug/l   | 99     |
| 10) Methyl Iodide             | 2.51 | 142 | 155202  | 51.914  | ug/l   | 98     |
| 11) Tert butyl alcohol        | 3.05 | 59  | 134443  | 222.828 | ug/l # | 74     |
| 12) 1,1-Dichloroethene        | 2.37 | 96  | 102250  | 47.968  | ug/l   | 100    |
| 13) Acrolein                  | 2.29 | 56  | 82869   | 207.045 | ug/l   | 95     |
| 14) Allyl chloride            | 2.73 | 41  | 149553  | 49.418  | ug/l   | 100    |
| 15) Acrylonitrile             | 3.14 | 53  | 322694  | 270.136 | ug/l   | 97     |
| 16) Acetone                   | 2.45 | 43  | 245532  | 212.474 | ug/l   | 100    |
| 17) Carbon Disulfide          | 2.57 | 76  | 245913  | 43.001  | ug/l   | 100    |
| 18) Methyl Acetate            | 2.78 | 43  | 111737  | 48.515  | ug/l   | 97     |
| 19) Methyl tert-butyl Ether   | 3.20 | 73  | 345314  | 51.494  | ug/l # | 35     |
| 20) Methylene Chloride        | 2.85 | 84  | 117294  | 49.322  | ug/l   | 99     |
| 21) trans-1,2-Dichloroethene  | 3.17 | 96  | 108719  | 47.422  | ug/l   | 100    |
| 22) Diisopropyl ether         | 3.85 | 45  | 320662  | 50.679  | ug/l   | 96     |
| 23) Vinyl Acetate             | 3.82 | 43  | 1342291 | 245.568 | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 3.70 | 63  | 184770  | 50.520  | ug/l   | 99     |
| 25) 2-Butanone                | 4.67 | 43  | 413344  | 243.846 | ug/l   | 100    |
| 26) 2,2-Dichloropropane       | 4.59 | 77  | 131129  | 41.273  | ug/l   | 100    |
| 27) cis-1,2-Dichloroethene    | 4.60 | 96  | 132366  | 49.963  | ug/l   | 98     |
| 28) Bromochloromethane        | 5.02 | 49  | 85675   | 48.995  | ug/l   | 100    |
| 29) Tetrahydrofuran           | 5.13 | 42  | 273088  | 260.094 | ug/l   | 99     |
| 30) Chloroform                | 5.21 | 83  | 200402  | 50.926  | ug/l   | 98     |
| 31) Cyclohexane               | 5.58 | 56  | 471600  | 141.598 | ug/l   | 99     |
| 32) 1,1,1-Trichloroethane     | 5.50 | 97  | 175152  | 50.408  | ug/l   | 100    |
| 36) 1,1-Dichloropropene       | 5.80 | 75  | 140056  | 47.182  | ug/l   | 100    |
| 37) Ethyl Acetate             | 4.84 | 43  | 148622  | 48.668  | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 5.79 | 117 | 155418  | 48.351  | ug/l   | 98     |

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 Operator : JC/SP  
 Sample : K3565-05MSD  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 26 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 FL-0570MSD

Manual Integrations  
 APPROVED

MMDadoda  
 6/28/2019 10:38:31 AM

Quant Time: Jun 28 07:50:34 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X061919W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Jun 20 03:31:56 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 7.46  | 83   | 441804   | 113.228 | ug/l   | 99       |
| 40) Benzene                    | 6.15  | 78   | 2409740  | 260.569 | ug/l   | 100      |
| 41) Methacrylonitrile          | 5.04  | 41   | 85546    | 51.055  | ug/l   | 99       |
| 42) 1,2-Dichloroethane         | 6.19  | 62   | 164954   | 58.596  | ug/l   | 97       |
| 43) Isopropyl Acetate          | 6.45  | 43   | 254826   | 50.437  | ug/l   | 99       |
| 44) Trichloroethene            | 7.21  | 130  | 133483   | 48.237  | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 7.51  | 63   | 117701   | 50.399  | ug/l   | 99       |
| 46) Dibromomethane             | 7.66  | 93   | 84087    | 50.184  | ug/l   | 98       |
| 47) Bromodichloromethane       | 7.90  | 83   | 154380   | 50.275  | ug/l   | 99       |
| 48) Methyl methacrylate        | 7.77  | 41   | 133864   | 57.001  | ug/l   | 96       |
| 49) 1,4-Dioxane                | 7.74  | 88   | 60796    | 898.654 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone       | 8.64  | 43   | 851846   | 263.621 | ug/l   | 98       |
| 52) Toluene                    | 8.78  | 92   | 311811   | 51.199  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 9.04  | 75   | 167193   | 48.565  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 8.43  | 75   | 180443   | 48.231  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 9.21  | 97   | 127846   | 50.900  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 9.18  | 69   | 196340   | 51.602  | ug/l   | 97       |
| 57) 1,3-Dichloropropane        | 9.37  | 76   | 198941   | 51.025  | ug/l   | 99       |
| 59) 2-Hexanone                 | 9.49  | 43   | 645550   | 253.837 | ug/l   | 99       |
| 60) Dibromochloromethane       | 9.58  | 129  | 140663   | 50.018  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 9.67  | 107  | 137479   | 50.710  | ug/l   | 99       |
| 64) Tetrachloroethene          | 9.34  | 164  | 122606   | 44.401  | ug/l   | 98       |
| 65) Chlorobenzene              | 10.13 | 112  | 344269   | 49.671  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.22 | 131  | 130149   | 51.552  | ug/l   | 100      |
| 67) Ethyl Benzene              | 10.25 | 91   | 3313578  | 283.186 | ug/l   | 100      |
| 68) m/p-Xylenes                | 10.36 | 106  | 3370363  | 743.374 | ug/l   | 99       |
| 69) o-Xylene                   | 10.70 | 106  | 247928   | 55.606  | ug/l   | 98       |
| 70) Styrene                    | 10.71 | 104  | 384915   | 51.478  | ug/l   | 98       |
| 71) Bromoform                  | 10.85 | 173  | 111068   | 50.589  | ug/l # | 99       |
| 73) Isopropylbenzene           | 11.02 | 105  | 852637   | 70.894  | ug/l   | 99       |
| 74) N-amyl acetate             | 10.90 | 43   | 222164   | 48.878  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.27 | 83   | 197638   | 49.620  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 11.29 | 75   | 163282m  | 50.504  | ug/l   |          |
| 77) Bromobenzene               | 11.26 | 156  | 165568   | 49.302  | ug/l   | 99       |
| 78) n-propylbenzene            | 11.36 | 91   | 986532   | 74.635  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 11.42 | 91   | 525434   | 66.755  | ug/l   | 83       |
| 80) 1,3,5-Trimethylbenzene     | 11.51 | 105  | 947105   | 95.525  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 11.07 | 75   | 61389    | 44.297  | ug/l   | 96       |
| 82) 4-Chlorotoluene            | 11.51 | 91   | 494631   | 55.226  | ug/l   | 95       |
| 83) tert-Butylbenzene          | 11.77 | 119  | 518259   | 52.079  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 11.80 | 105  | 1895146  | 190.252 | ug/l   | 99       |
| 85) sec-Butylbenzene           | 11.94 | 105  | 608706   | 52.097  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 12.06 | 119  | 609182   | 56.366  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 12.02 | 146  | 290126   | 49.492  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene        | 12.10 | 146  | 288062   | 48.269  | ug/l   | 99       |
| 89) n-Butylbenzene             | 12.38 | 91   | 505554   | 55.049  | ug/l   | 95       |
| 90) Hexachloroethane           | 12.60 | 117  | 105860   | 56.647  | ug/l   | 89       |
| 91) 1,2-Dichlorobenzene        | 12.39 | 146  | 284494   | 48.830  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.00 | 75   | 44550    | 51.877  | ug/l   | 90       |
| 93) 1,2,4-Trichlorobenzene     | 13.65 | 180  | 204466   | 50.606  | ug/l   | 99       |

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Operator : JC/SP  
Sample : K3565-05MSD  
Misc : 5.0mL/MSVOA X/WATER  
ALS Vial : 26 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
FL-0570MSD

Manual Integrations  
APPROVED

MMDadoda  
6/28/2019 10:38:31 AM

Quant Time: Jun 28 07:50:34 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X061919W.M  
Quant Title : SW846 8260  
QLast Update : Thu Jun 20 03:31:56 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 94) Hexachlorobutadiene    | 13.78 | 225  | 97582    | 49.417 | ug/l  | 99       |
| 95) Naphthalene            | 13.83 | 128  | 881869   | 71.026 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 14.02 | 180  | 203329   | 50.615 | ug/l  | 100      |

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

