

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX112219\  
 Data File : VX013574.D  
 Acq On : 23 Nov 2019 07:52  
 Operator : JC/SP  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 58 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

MMDadoda  
 11/25/2019 10:39:33 AM

Quant Time: Nov 25 07:21:28 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X103119W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Nov 02 07:06:38 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 594852   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.85  | 114  | 931758   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 838542   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 434593   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 6.05   | 65  | 376905   | 53.48 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 106.96% |      |
| 35) Dibromofluoromethane  | 5.48   | 113 | 299550   | 51.26 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.52% |      |
| 50) Toluene-d8            | 8.71   | 98  | 1189074  | 53.97 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 107.94% |      |
| 62) 4-Bromofluorobenzene  | 11.14  | 95  | 436423   | 54.89 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 109.78% |      |

## Target Compounds

|                               |      |     |          |         |        | Qvalue |
|-------------------------------|------|-----|----------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.19 | 85  | 278982   | 40.704  | ug/l   | 98     |
| 3) Chloromethane              | 1.31 | 50  | 327973   | 44.126  | ug/l   | 99     |
| 4) Vinyl Chloride             | 1.40 | 62  | 393854   | 46.545  | ug/l   | 99     |
| 5) Bromomethane               | 1.62 | 94  | 254296   | 43.125  | ug/l   | 99     |
| 6) Chloroethane               | 1.70 | 64  | 224767   | 46.382  | ug/l   | 100    |
| 7) Trichlorofluoromethane     | 1.92 | 101 | 442126   | 44.225  | ug/l   | 100    |
| 8) Diethyl Ether              | 2.18 | 74  | 215386   | 48.721  | ug/l   | 100    |
| 9) 1,1,2-Trichlorotrifluoroet | 2.37 | 101 | 270750   | 48.591  | ug/l   | 98     |
| 10) Methyl Iodide             | 2.50 | 142 | 347701   | 50.402  | ug/l   | 97     |
| 11) Tert butyl alcohol        | 3.04 | 59  | 449884   | 242.206 | ug/l   | 99     |
| 12) 1,1-Dichloroethene        | 2.36 | 96  | 273274   | 50.082  | ug/l   | 99     |
| 13) Acrolein                  | 2.28 | 56  | 294433   | 292.479 | ug/l   | 97     |
| 14) Allyl chloride            | 2.72 | 41  | 488173   | 49.240  | ug/l   | 93     |
| 15) Acrylonitrile             | 3.13 | 53  | 966580   | 278.583 | ug/l   | 99     |
| 16) Acetone                   | 2.43 | 43  | 973546   | 276.964 | ug/l   | 99     |
| 17) Carbon Disulfide          | 2.56 | 76  | 616172   | 42.190  | ug/l   | 98     |
| 18) Methyl Acetate            | 2.76 | 43  | 638216   | 65.766  | ug/l   | 100    |
| 19) Methyl tert-butyl Ether   | 3.19 | 73  | 998279   | 54.853  | ug/l   | 99     |
| 20) Methylene Chloride        | 2.84 | 84  | 331379   | 51.024  | ug/l   | 97     |
| 21) trans-1,2-Dichloroethene  | 3.16 | 96  | 296605   | 49.924  | ug/l   | 99     |
| 22) Diisopropyl ether         | 3.84 | 45  | 1037504  | 54.205  | ug/l # | 87     |
| 23) Vinyl Acetate             | 3.80 | 43  | 1113902m | 68.010  | ug/l   |        |
| 24) 1,1-Dichloroethane        | 3.69 | 63  | 566847   | 52.940  | ug/l   | 99     |
| 25) 2-Butanone                | 4.65 | 43  | 1448784  | 280.954 | ug/l   | 97     |
| 26) 2,2-Dichloropropane       | 4.57 | 77  | 278560   | 32.703  | ug/l   | 93     |
| 27) cis-1,2-Dichloroethene    | 4.58 | 96  | 354612   | 53.283  | ug/l   | 97     |
| 28) Bromochloromethane        | 5.00 | 49  | 175853   | 57.843  | ug/l   | 99     |
| 29) Tetrahydrofuran           | 5.12 | 42  | 876405   | 275.795 | ug/l   | 100    |
| 30) Chloroform                | 5.20 | 83  | 560489   | 53.012  | ug/l   | 98     |
| 31) Cyclohexane               | 5.57 | 56  | 458893   | 47.629  | ug/l   | 99     |
| 32) 1,1,1-Trichloroethane     | 5.48 | 97  | 464316   | 51.030  | ug/l   | 99     |
| 36) 1,1-Dichloropropene       | 5.79 | 75  | 397890   | 49.778  | ug/l   | 100    |
| 37) Ethyl Acetate             | 4.82 | 43  | 491871   | 49.799  | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 5.78 | 117 | 392062   | 50.158  | ug/l   | 97     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX112219\  
 Data File : VX013574.D  
 Acq On : 23 Nov 2019 07:52  
 Operator : JC/SP  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 58 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleID :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

MMDadoda  
 11/25/2019 10:39:33 AM

Quant Time: Nov 25 07:21:28 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X103119W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Nov 02 07:06:38 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 7.45  | 83   | 446734   | 44.853  | ug/l   | 98       |
| 40) Benzene                    | 6.13  | 78   | 1278409  | 51.344  | ug/l   | 99       |
| 41) Methacrylonitrile          | 5.03  | 41   | 292335   | 52.805  | ug/l   | 97       |
| 42) 1,2-Dichloroethane         | 6.18  | 62   | 449483   | 50.047  | ug/l   | 98       |
| 43) Isopropyl Acetate          | 6.43  | 43   | 807664   | 52.513  | ug/l   | 99       |
| 44) Trichloroethene            | 7.21  | 130  | 413638   | 60.351  | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 7.51  | 63   | 340899   | 53.735  | ug/l   | 99       |
| 46) Dibromomethane             | 7.65  | 93   | 222282   | 51.316  | ug/l   | 99       |
| 47) Bromodichloromethane       | 7.89  | 83   | 432120   | 52.903  | ug/l   | 98       |
| 48) Methyl methacrylate        | 7.76  | 41   | 402114   | 52.375  | ug/l   | 98       |
| 49) 1,4-Dioxane                | 7.73  | 88   | 162322   | 923.208 | ug/l   | 99       |
| 51) 4-Methyl-2-Pentanone       | 8.64  | 43   | 2736095  | 271.146 | ug/l   | 99       |
| 52) Toluene                    | 8.78  | 92   | 792769   | 51.371  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 9.04  | 75   | 447405   | 50.091  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 8.43  | 75   | 497949   | 49.839  | ug/l   | 96       |
| 55) 1,1,2-Trichloroethane      | 9.21  | 97   | 345439   | 54.004  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 9.17  | 69   | 550362   | 50.386  | ug/l   | 97       |
| 57) 1,3-Dichloropropane        | 9.37  | 76   | 575336   | 52.986  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 8.31  | 63   | 1140061  | 260.669 | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.49  | 43   | 2162131  | 277.268 | ug/l   | 99       |
| 60) Dibromochloromethane       | 9.57  | 129  | 357059   | 54.581  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 9.67  | 107  | 353881   | 52.101  | ug/l   | 100      |
| 64) Tetrachloroethene          | 9.33  | 164  | 519379   | 86.522  | ug/l   | 97       |
| 65) Chlorobenzene              | 10.14 | 112  | 879845   | 51.827  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.21 | 131  | 335813   | 53.873  | ug/l   | 99       |
| 67) Ethyl Benzene              | 10.25 | 91   | 1533499  | 52.338  | ug/l   | 100      |
| 68) m/p-Xylenes                | 10.35 | 106  | 1167816  | 105.389 | ug/l   | 99       |
| 69) o-Xylene                   | 10.70 | 106  | 570156   | 52.556  | ug/l   | 99       |
| 70) Styrene                    | 10.71 | 104  | 996761   | 54.964  | ug/l   | 98       |
| 71) Bromoform                  | 10.85 | 173  | 278757   | 48.345  | ug/l # | 100      |
| 73) Isopropylbenzene           | 11.01 | 105  | 1522195  | 52.828  | ug/l   | 100      |
| 74) N-amyl acetate             | 10.89 | 43   | 712732   | 53.341  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.26 | 83   | 423647   | 40.302  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 11.29 | 75   | 434101m  | 49.178  | ug/l   |          |
| 77) Bromobenzene               | 11.25 | 156  | 402981   | 52.461  | ug/l   | 99       |
| 78) n-propylbenzene            | 11.35 | 91   | 1706570  | 53.169  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 11.42 | 91   | 1018521  | 52.668  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 11.50 | 105  | 1274396  | 53.098  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 11.07 | 75   | 151957   | 44.310  | ug/l   | 100      |
| 82) 4-Chlorotoluene            | 11.51 | 91   | 1171578  | 51.754  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 11.76 | 119  | 1093814  | 45.274  | ug/l   | 88       |
| 84) 1,2,4-Trimethylbenzene     | 11.81 | 105  | 1282490  | 53.268  | ug/l   | 98       |
| 85) sec-Butylbenzene           | 11.94 | 105  | 1479669  | 53.289  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 12.06 | 119  | 1342126  | 52.491  | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 12.02 | 146  | 711457   | 51.960  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 12.09 | 146  | 712256   | 51.056  | ug/l   | 99       |
| 89) n-Butylbenzene             | 12.39 | 91   | 1155013  | 51.770  | ug/l   | 100      |
| 90) Hexachloroethane           | 12.59 | 117  | 237466   | 52.126  | ug/l   | 100      |
| 91) 1,2-Dichlorobenzene        | 12.39 | 146  | 727805   | 53.175  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 12.99 | 75   | 120878   | 47.199  | ug/l   | 97       |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX112219\  
Data File : VX013574.D  
Acq On : 23 Nov 2019 07:52  
Operator : JC/SP  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA X/WATER  
ALS Vial : 58 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050EC

Manual Integrations  
APPROVED

MMDadoda  
11/25/2019 10:39:33 AM

Quant Time: Nov 25 07:21:28 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X103119W.M  
Quant Title : SW846 8260  
QLast Update : Sat Nov 02 07:06:38 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.64 | 180  | 500061   | 52.378 | ug/l  | 97       |
| 94) Hexachlorobutadiene    | 13.78 | 225  | 232668   | 49.813 | ug/l  | 98       |
| 95) Naphthalene            | 13.83 | 128  | 1599315  | 53.392 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 14.01 | 180  | 507840   | 53.040 | ug/l  | 99       |

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

