

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121619\  
 Data File : VX014023.D  
 Acq On : 16 Dec 2019 10:02  
 Operator : JC/SP  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

apatel  
 12/17/2019 4:50:04 PM

Quant Time: Dec 17 03:37:18 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X121319W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Dec 17 03:01:07 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 650740   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.84  | 114  | 977539   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.10 | 117  | 877742   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 439040   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 6.04   | 65  | 348498   | 47.25 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.50% |      |
| 35) Dibromofluoromethane  | 5.48   | 113 | 284634   | 47.90 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.80% |      |
| 50) Toluene-d8            | 8.71   | 98  | 1110544  | 48.00 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.00% |      |
| 62) 4-Bromofluorobenzene  | 11.13  | 95  | 394862   | 46.69 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 93.38% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.19 | 85  | 279776  | 48.057  | ug/l | 97     |
| 3) Chloromethane              | 1.32 | 50  | 366140  | 46.864  | ug/l | 99     |
| 4) Vinyl Chloride             | 1.40 | 62  | 385164  | 46.721  | ug/l | 100    |
| 5) Bromomethane               | 1.63 | 94  | 249962  | 42.720  | ug/l | 99     |
| 6) Chloroethane               | 1.71 | 64  | 242528  | 47.666  | ug/l | 95     |
| 7) Trichlorofluoromethane     | 1.92 | 101 | 479571  | 46.993  | ug/l | 100    |
| 8) Diethyl Ether              | 2.18 | 74  | 211913  | 44.245  | ug/l | 97     |
| 9) 1,1,2-Trichlorotrifluoroet | 2.37 | 101 | 294269  | 47.835  | ug/l | 99     |
| 10) Methyl Iodide             | 2.50 | 142 | 388459  | 47.994  | ug/l | 99     |
| 11) Tert butyl alcohol        | 3.03 | 59  | 324992  | 203.933 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 2.36 | 96  | 285682  | 45.638  | ug/l | 98     |
| 13) Acrolein                  | 2.28 | 56  | 301595  | 330.610 | ug/l | 98     |
| 14) Allyl chloride            | 2.72 | 41  | 543276  | 48.608  | ug/l | 100    |
| 15) Acrylonitrile             | 3.13 | 53  | 845220  | 227.233 | ug/l | 99     |
| 16) Acetone                   | 2.43 | 43  | 1196744 | 249.941 | ug/l | 100    |
| 17) Carbon Disulfide          | 2.56 | 76  | 826279  | 47.584  | ug/l | 100    |
| 18) Methyl Acetate            | 2.76 | 43  | 426114  | 44.912  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 3.18 | 73  | 966613  | 46.992  | ug/l | 98     |
| 20) Methylene Chloride        | 2.84 | 84  | 331557  | 43.973  | ug/l | 97     |
| 21) trans-1,2-Dichloroethene  | 3.15 | 96  | 312681  | 45.341  | ug/l | 98     |
| 22) Diisopropyl ether         | 3.84 | 45  | 1053210 | 47.289  | ug/l | 97     |
| 23) Vinyl Acetate             | 3.80 | 43  | 4493937 | 247.256 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 3.69 | 63  | 573601  | 46.291  | ug/l | 99     |
| 25) 2-Butanone                | 4.65 | 43  | 1439048 | 243.775 | ug/l | 100    |
| 26) 2,2-Dichloropropane       | 4.56 | 77  | 474716  | 49.343  | ug/l | 100    |
| 27) cis-1,2-Dichloroethene    | 4.58 | 96  | 360754  | 46.255  | ug/l | 100    |
| 28) Bromochloromethane        | 5.00 | 49  | 248095  | 52.042  | ug/l | 97     |
| 29) Tetrahydrofuran           | 5.11 | 42  | 758976  | 229.867 | ug/l | 98     |
| 30) Chloroform                | 5.20 | 83  | 550649  | 46.877  | ug/l | 96     |
| 31) Cyclohexane               | 5.57 | 56  | 531680  | 48.243  | ug/l | 97     |
| 32) 1,1,1-Trichloroethane     | 5.48 | 97  | 469248  | 46.872  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 5.79 | 75  | 430143  | 47.956  | ug/l | 99     |
| 37) Ethyl Acetate             | 4.81 | 43  | 465070  | 46.954  | ug/l | 100    |
| 38) Carbon Tetrachloride      | 5.77 | 117 | 404296  | 49.479  | ug/l | 99     |

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 Misc : 5.0mL/MSVOA X/WATER  
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Instrument :  
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apatel  
 12/17/2019 4:50:04 PM

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X121319W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Dec 17 03:01:07 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 39) Methylcyclohexane          | 7.45  | 83   | 546743   | 49.367  | ug/l  | 98       |
| 40) Benzene                    | 6.13  | 78   | 1295678  | 46.948  | ug/l  | 100      |
| 41) Methacrylonitrile          | 5.02  | 41   | 260216   | 47.349  | ug/l  | 98       |
| 42) 1,2-Dichloroethane         | 6.18  | 62   | 445130   | 47.582  | ug/l  | 98       |
| 43) Isopropyl Acetate          | 6.43  | 43   | 774355   | 47.240  | ug/l  | 100      |
| 44) Trichloroethene            | 7.20  | 130  | 347833   | 45.631  | ug/l  | 100      |
| 45) 1,2-Dichloropropane        | 7.50  | 63   | 338061   | 47.792  | ug/l  | 98       |
| 46) Dibromomethane             | 7.65  | 93   | 217459   | 46.498  | ug/l  | 98       |
| 47) Bromodichloromethane       | 7.89  | 83   | 438682   | 49.805  | ug/l  | 100      |
| 48) Methyl methacrylate        | 7.76  | 41   | 385076   | 47.974  | ug/l  | 99       |
| 49) 1,4-Dioxane                | 7.73  | 88   | 142282   | 871.049 | ug/l  | 99       |
| 51) 4-Methyl-2-Pentanone       | 8.64  | 43   | 2366328  | 229.864 | ug/l  | 100      |
| 52) Toluene                    | 8.78  | 92   | 811227   | 46.505  | ug/l  | 99       |
| 53) t-1,3-Dichloropropene      | 9.03  | 75   | 492403   | 50.984  | ug/l  | 98       |
| 54) cis-1,3-Dichloropropene    | 8.43  | 75   | 549690   | 51.088  | ug/l  | 100      |
| 55) 1,1,2-Trichloroethane      | 9.21  | 97   | 323112   | 46.216  | ug/l  | 99       |
| 56) Ethyl methacrylate         | 9.17  | 69   | 530780   | 48.331  | ug/l  | 99       |
| 57) 1,3-Dichloropropane        | 9.36  | 76   | 548890   | 46.663  | ug/l  | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 8.30  | 63   | 1100864  | 264.882 | ug/l  | 99       |
| 59) 2-Hexanone                 | 9.48  | 43   | 2021919  | 243.985 | ug/l  | 98       |
| 60) Dibromochloromethane       | 9.57  | 129  | 353367   | 50.848  | ug/l  | 100      |
| 61) 1,2-Dibromoethane          | 9.67  | 107  | 343988   | 48.089  | ug/l  | 99       |
| 64) Tetrachloroethene          | 9.33  | 164  | 336399   | 43.312  | ug/l  | 99       |
| 65) Chlorobenzene              | 10.14 | 112  | 865726   | 46.388  | ug/l  | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.21 | 131  | 320595   | 48.110  | ug/l  | 99       |
| 67) Ethyl Benzene              | 10.25 | 91   | 1556159  | 48.500  | ug/l  | 100      |
| 68) m/p-Xylenes                | 10.35 | 106  | 1185875  | 96.095  | ug/l  | 100      |
| 69) o-Xylene                   | 10.70 | 106  | 569706   | 47.071  | ug/l  | 97       |
| 70) Styrene                    | 10.71 | 104  | 989969   | 48.371  | ug/l  | 98       |
| 71) Bromoform                  | 10.85 | 173  | 269651   | 50.341  | ug/l  | 100      |
| 73) Isopropylbenzene           | 11.01 | 105  | 1511830  | 48.908  | ug/l  | 99       |
| 74) N-amyl acetate             | 10.89 | 43   | 708291   | 48.883  | ug/l  | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.26 | 83   | 504024   | 47.031  | ug/l  | 100      |
| 76) 1,2,3-Trichloropropane     | 11.29 | 75   | 403054m  | 42.287  | ug/l  |          |
| 77) Bromobenzene               | 11.25 | 156  | 392452   | 46.144  | ug/l  | 99       |
| 78) n-propylbenzene            | 11.35 | 91   | 1745388  | 50.339  | ug/l  | 100      |
| 79) 2-Chlorotoluene            | 11.42 | 91   | 1019503  | 48.371  | ug/l  | 100      |
| 80) 1,3,5-Trimethylbenzene     | 11.50 | 105  | 1270462  | 48.835  | ug/l  | 100      |
| 81) trans-1,4-Dichloro-2-buten | 11.07 | 75   | 175394   | 51.939  | ug/l  | 98       |
| 82) 4-Chlorotoluene            | 11.51 | 91   | 1182296  | 48.359  | ug/l  | 99       |
| 83) tert-Butylbenzene          | 11.76 | 119  | 1258854  | 49.723  | ug/l  | 98       |
| 84) 1,2,4-Trimethylbenzene     | 11.80 | 105  | 1281327  | 49.181  | ug/l  | 100      |
| 85) sec-Butylbenzene           | 11.94 | 105  | 1486682  | 49.742  | ug/l  | 99       |
| 86) p-Isopropyltoluene         | 12.06 | 119  | 1378464  | 50.421  | ug/l  | 100      |
| 87) 1,3-Dichlorobenzene        | 12.02 | 146  | 692642   | 46.468  | ug/l  | 99       |
| 88) 1,4-Dichlorobenzene        | 12.09 | 146  | 692467   | 45.688  | ug/l  | 100      |
| 89) n-Butylbenzene             | 12.39 | 91   | 1203074  | 51.572  | ug/l  | 100      |
| 90) Hexachloroethane           | 12.59 | 117  | 251038   | 51.121  | ug/l  | 99       |
| 91) 1,2-Dichlorobenzene        | 12.39 | 146  | 694225   | 46.266  | ug/l  | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 12.99 | 75   | 104938   | 44.248  | ug/l  | 98       |

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apatel  
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Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X121319W.M  
Quant Title : SW846 8260  
QLast Update : Tue Dec 17 03:01:07 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.64 | 180  | 479619   | 49.178 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 13.78 | 225  | 222154   | 47.397 | ug/l  | 97       |
| 95) Naphthalene            | 13.83 | 128  | 1428881  | 49.867 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 14.01 | 180  | 466337   | 48.439 | ug/l  | 97       |

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

