

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX090419\  
 Data File : VX012067.D  
 Acq On : 04 Sep 2019 22:43  
 Operator : SY/SP  
 Sample : VSTDCCC050  
 Misc : 5.00µ/5.0mL/MSVOA X/SOIL  
 ALS Vial : 29 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

sam  
 9/5/2019 2:56:30 PM

Quant Time: Sep 05 05:55:08 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X090319S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Sep 03 15:26:48 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 143740   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.85  | 114  | 271024   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 249353   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 119917   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 6.04   | 65  | 102819   | 51.84 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.68% |      |
| 35) Dibromofluoromethane  | 5.48   | 113 | 83112    | 49.87 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.74%  |      |
| 50) Toluene-d8            | 8.71   | 98  | 308755   | 50.48 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.96% |      |
| 62) 4-Bromofluorobenzene  | 11.14  | 95  | 135565   | 47.66 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.32%  |      |

## Target Compounds

|                               |      |     |        |         |        | Qvalue |
|-------------------------------|------|-----|--------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.19 | 85  | 62819  | 47.392  | ug/l   | 98     |
| 3) Chloromethane              | 1.31 | 50  | 68936  | 50.781  | ug/l   | 99     |
| 4) Vinyl Chloride             | 1.39 | 62  | 63816  | 49.966  | ug/l   | 99     |
| 5) Bromomethane               | 1.62 | 94  | 32843  | 51.838  | ug/l   | 97     |
| 6) Chloroethane               | 1.71 | 64  | 41953  | 52.839  | ug/l   | 99     |
| 7) Trichlorofluoromethane     | 1.92 | 101 | 100695 | 50.761  | ug/l   | 100    |
| 8) Diethyl Ether              | 2.17 | 74  | 36551  | 53.319  | ug/l   | 89     |
| 9) 1,1,2-Trichlorotrifluoroet | 2.37 | 101 | 72975  | 49.667  | ug/l # | 83     |
| 10) Methyl Iodide             | 2.50 | 142 | 65865  | 45.077  | ug/l   | 94     |
| 11) Tert butyl alcohol        | 3.03 | 59  | 46705  | 245.172 | ug/l   | 96     |
| 12) 1,1-Dichloroethene        | 2.36 | 96  | 71701  | 50.658  | ug/l   | 90     |
| 13) Acrolein                  | 2.28 | 56  | 10837  | 223.024 | ug/l   | 97     |
| 14) Allyl chloride            | 2.72 | 41  | 134659 | 52.579  | ug/l   | 98     |
| 15) Acrylonitrile             | 3.12 | 53  | 111027 | 257.742 | ug/l   | 99     |
| 16) Acetone                   | 2.43 | 43  | 99613  | 210.128 | ug/l   | 99     |
| 17) Carbon Disulfide          | 2.56 | 76  | 222548 | 53.801  | ug/l   | 99     |
| 18) Methyl Acetate            | 2.76 | 43  | 58289  | 52.195  | ug/l   | 100    |
| 19) Methyl tert-butyl Ether   | 3.18 | 73  | 241231 | 52.351  | ug/l   | 100    |
| 20) Methylene Chloride        | 2.84 | 84  | 91311  | 47.966  | ug/l   | 98     |
| 21) trans-1,2-Dichloroethene  | 3.15 | 96  | 86662  | 52.176  | ug/l   | 90     |
| 22) Diisopropyl ether         | 3.84 | 45  | 275155 | 52.710  | ug/l   | 97     |
| 23) Vinyl Acetate             | 3.80 | 43  | 897357 | 265.735 | ug/l   | 98     |
| 24) 1,1-Dichloroethane        | 3.68 | 63  | 158677 | 52.410  | ug/l   | 98     |
| 25) 2-Butanone                | 4.65 | 43  | 151237 | 250.625 | ug/l   | 99     |
| 26) 2,2-Dichloropropane       | 4.57 | 77  | 127987 | 45.788  | ug/l   | 96     |
| 27) cis-1,2-Dichloroethene    | 4.58 | 96  | 101720 | 52.246  | ug/l   | 94     |
| 28) Bromochloromethane        | 5.00 | 49  | 62731  | 51.907  | ug/l # | 80     |
| 29) Tetrahydrofuran           | 5.11 | 42  | 95735  | 263.318 | ug/l   | 99     |
| 30) Chloroform                | 5.19 | 83  | 170125 | 52.368  | ug/l   | 99     |
| 31) Cyclohexane               | 5.56 | 56  | 118953 | 48.921  | ug/l   | 98     |
| 32) 1,1,1-Trichloroethane     | 5.48 | 97  | 147262 | 52.047  | ug/l   | 97     |
| 36) 1,1-Dichloropropene       | 5.79 | 75  | 118978 | 49.843  | ug/l   | 96     |
| 37) Ethyl Acetate             | 4.81 | 43  | 66739  | 51.415  | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 5.77 | 117 | 125635 | 49.948  | ug/l   | 98     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX090419\  
 Data File : VX012067.D  
 Acq On : 04 Sep 2019 22:43  
 Operator : SY/SP  
 Sample : VSTDCCC050  
 Misc : 5.00g/5.0mL/MSVOA X/SOIL  
 ALS Vial : 29 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleID :  
 VSTDCCC050

Manual Integrations  
 APPROVED

sam  
 9/5/2019 2:56:30 PM

Quant Time: Sep 05 05:55:08 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X090319S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Sep 03 15:26:48 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 7.45  | 83   | 129201   | 46.635  | ug/l   | 95       |
| 40) Benzene                    | 6.13  | 78   | 353397   | 51.570  | ug/l   | 99       |
| 41) Methacrylonitrile          | 5.03  | 41   | 39804    | 51.420  | ug/l   | 98       |
| 42) 1,2-Dichloroethane         | 6.18  | 62   | 130362   | 52.863  | ug/l   | 97       |
| 43) Isopropyl Acetate          | 6.43  | 43   | 137595   | 52.132  | ug/l   | 98       |
| 44) Trichloroethene            | 7.20  | 130  | 92941    | 50.284  | ug/l   | 84       |
| 45) 1,2-Dichloropropane        | 7.51  | 63   | 90041    | 50.856  | ug/l   | 98       |
| 46) Dibromomethane             | 7.65  | 93   | 53278    | 51.549  | ug/l # | 74       |
| 47) Bromodichloromethane       | 7.89  | 83   | 136429   | 51.931  | ug/l   | 97       |
| 48) Methyl methacrylate        | 7.76  | 41   | 68239    | 51.420  | ug/l   | 96       |
| 49) 1,4-Dioxane                | 7.73  | 88   | 17606    | 973.183 | ug/l   | 95       |
| 51) 4-Methyl-2-Pentanone       | 8.64  | 43   | 343391   | 255.788 | ug/l   | 98       |
| 52) Toluene                    | 8.78  | 92   | 226341   | 50.764  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 9.04  | 75   | 133833   | 49.206  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 8.43  | 75   | 150755   | 49.844  | ug/l   | 96       |
| 55) 1,1,2-Trichloroethane      | 9.21  | 97   | 73990    | 50.073  | ug/l   | 97       |
| 56) Ethyl methacrylate         | 9.17  | 69   | 108516   | 51.271  | ug/l   | 96       |
| 57) 1,3-Dichloropropane        | 9.37  | 76   | 130219   | 51.070  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 8.31  | 63   | 227391   | 238.303 | ug/l   | 94       |
| 59) 2-Hexanone                 | 9.48  | 43   | 243332   | 248.405 | ug/l   | 98       |
| 60) Dibromochloromethane       | 9.57  | 129  | 90108    | 51.167  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 9.67  | 107  | 73185    | 51.256  | ug/l   | 96       |
| 64) Tetrachloroethene          | 9.33  | 164  | 81233    | 52.254  | ug/l   | 89       |
| 65) Chlorobenzene              | 10.14 | 112  | 243696   | 49.533  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.21 | 131  | 91521    | 50.875  | ug/l   | 97       |
| 67) Ethyl Benzene              | 10.25 | 91   | 446081   | 49.741  | ug/l   | 97       |
| 68) m/p-Xylenes                | 10.36 | 106  | 327641   | 99.160  | ug/l   | 91       |
| 69) o-Xylene                   | 10.70 | 106  | 158966   | 49.615  | ug/l   | 90       |
| 70) Styrene                    | 10.71 | 104  | 281613   | 50.603  | ug/l   | 95       |
| 71) Bromoform                  | 10.85 | 173  | 49198    | 49.792  | ug/l # | 100      |
| 73) Isopropylbenzene           | 11.01 | 105  | 425994   | 48.417  | ug/l   | 96       |
| 74) N-amyl acetate             | 10.89 | 43   | 130156   | 50.033  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.26 | 83   | 88106    | 48.034  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 11.29 | 75   | 68687m   | 46.879  | ug/l   |          |
| 77) Bromobenzene               | 11.25 | 156  | 99493    | 50.561  | ug/l   | 71       |
| 78) n-propylbenzene            | 11.35 | 91   | 501997   | 47.226  | ug/l   | 94       |
| 79) 2-Chlorotoluene            | 11.42 | 91   | 312526   | 48.531  | ug/l   | 91       |
| 80) 1,3,5-Trimethylbenzene     | 11.50 | 105  | 374064   | 48.514  | ug/l   | 93       |
| 81) trans-1,4-Dichloro-2-buten | 11.07 | 75   | 27224    | 43.927  | ug/l   | 94       |
| 82) 4-Chlorotoluene            | 11.51 | 91   | 378390   | 49.298  | ug/l   | 91       |
| 83) tert-Butylbenzene          | 11.77 | 119  | 350949   | 47.754  | ug/l   | 88       |
| 84) 1,2,4-Trimethylbenzene     | 11.81 | 105  | 384716   | 48.547  | ug/l   | 94       |
| 85) sec-Butylbenzene           | 11.94 | 105  | 427547   | 46.839  | ug/l   | 94       |
| 86) p-Isopropyltoluene         | 12.06 | 119  | 398352   | 47.986  | ug/l   | 93       |
| 87) 1,3-Dichlorobenzene        | 12.02 | 146  | 191193   | 48.488  | ug/l   | 94       |
| 88) 1,4-Dichlorobenzene        | 12.09 | 146  | 186945   | 47.416  | ug/l   | 93       |
| 89) n-Butylbenzene             | 12.39 | 91   | 383560   | 47.564  | ug/l   | 94       |
| 90) Hexachloroethane           | 12.59 | 117  | 77859    | 46.973  | ug/l   | 57       |
| 91) 1,2-Dichlorobenzene        | 12.39 | 146  | 176603   | 49.730  | ug/l   | 93       |
| 92) 1,2-Dibromo-3-Chloropropan | 12.99 | 75   | 18858    | 49.130  | ug/l   | 67       |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX090419\  
Data File : VX012067.D  
Acq On : 04 Sep 2019 22:43  
Operator : SY/SP  
Sample : VSTDCCC050  
Misc : 5.00g/5.0mL/MSVOA X/SOIL  
ALS Vial : 29 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050

Manual Integrations  
APPROVED

sam  
9/5/2019 2:56:30 PM

Quant Time: Sep 05 05:55:08 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X090319S.M  
Quant Title : SW846 8260  
QLast Update : Tue Sep 03 15:26:48 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.64 | 180  | 120398   | 47.633 | ug/l  | 96       |
| 94) Hexachlorobutadiene    | 13.78 | 225  | 58948    | 46.265 | ug/l  | 98       |
| 95) Naphthalene            | 13.83 | 128  | 272850   | 49.876 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 14.01 | 180  | 107392   | 48.293 | ug/l  | 96       |

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

