

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_N\DATA\VN110119\  
 Data File : VN059071.D  
 Acq On : 1 Nov 2019 18:32  
 Operator : JC/SP  
 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 25 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

MMDadoda  
 11/5/2019 1:59:42 PM

Quant Time: Nov 04 12:09:31 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N110119W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Nov 02 05:43:23 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.64  | 168  | 473435   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 739576   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.40 | 117  | 679128   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 327576   | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |        |      |
|-----------------------------|--------|-----|----------|-------|--------|------|
| System Monitoring Compounds |        |     |          |       |        |      |
| 33) 1,2-Dichloroethane-d4   | 8.00   | 65  | 294564   | 46.98 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 93.96% |      |
| 35) Dibromofluoromethane    | 7.57   | 113 | 227106   | 47.60 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 95.20% |      |
| 50) Toluene-d8              | 10.08  | 98  | 901693   | 48.54 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 97.08% |      |
| 62) 4-Bromofluorobenzene    | 12.40  | 95  | 328107   | 49.14 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 98.28% |      |

| Target Compounds              |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 249197  | 48.683  | ug/l | 98     |
| 3) Chloromethane              | 2.04 | 50  | 323412  | 46.596  | ug/l | 100    |
| 4) Vinyl Chloride             | 2.17 | 62  | 321363  | 47.699  | ug/l | 99     |
| 5) Bromomethane               | 2.54 | 94  | 180297  | 45.265  | ug/l | 100    |
| 6) Chloroethane               | 2.68 | 64  | 188050  | 45.576  | ug/l | 98     |
| 7) Trichlorofluoromethane     | 2.99 | 101 | 389093  | 48.602  | ug/l | 100    |
| 8) Diethyl Ether              | 3.39 | 74  | 150357  | 48.093  | ug/l | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.73 | 101 | 228100  | 48.339  | ug/l | 100    |
| 10) Methyl Iodide             | 3.92 | 142 | 286196  | 49.900  | ug/l | 98     |
| 11) Tert butyl alcohol        | 4.76 | 59  | 290538  | 250.367 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 3.71 | 96  | 219789  | 46.835  | ug/l | 95     |
| 13) Acrolein                  | 3.58 | 56  | 182643  | 249.431 | ug/l | 96     |
| 14) Allyl chloride            | 4.29 | 41  | 454105  | 48.833  | ug/l | 99     |
| 15) Acrylonitrile             | 4.95 | 53  | 732685  | 251.694 | ug/l | 100    |
| 16) Acetone                   | 3.79 | 43  | 699915  | 220.495 | ug/l | 99     |
| 17) Carbon Disulfide          | 4.03 | 76  | 680260  | 45.595  | ug/l | 99     |
| 18) Methyl Acetate            | 4.29 | 43  | 369616  | 45.963  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 5.01 | 73  | 787612  | 49.276  | ug/l | 99     |
| 20) Methylene Chloride        | 4.52 | 84  | 260512  | 46.880  | ug/l | 99     |
| 21) trans-1,2-Dichloroethene  | 5.01 | 96  | 245223  | 48.674  | ug/l | 99     |
| 22) Diisopropyl ether         | 5.92 | 45  | 894828  | 50.520  | ug/l | 97     |
| 23) Vinyl Acetate             | 5.86 | 43  | 3754544 | 266.138 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 5.82 | 63  | 488795  | 48.268  | ug/l | 99     |
| 25) 2-Butanone                | 6.81 | 43  | 1049228 | 248.237 | ug/l | 100    |
| 26) 2,2-Dichloropropane       | 6.80 | 77  | 401703  | 45.702  | ug/l | 99     |
| 27) cis-1,2-Dichloroethene    | 6.80 | 96  | 277019  | 48.833  | ug/l | 100    |
| 28) Bromochloromethane        | 7.17 | 49  | 146838  | 46.983  | ug/l | 98     |
| 29) Tetrahydrofuran           | 7.18 | 42  | 680981  | 255.288 | ug/l | 100    |
| 30) Chloroform                | 7.35 | 83  | 464221  | 47.939  | ug/l | 100    |
| 31) Cyclohexane               | 7.63 | 56  | 457152  | 47.329  | ug/l | 98     |
| 32) 1,1,1-Trichloroethane     | 7.55 | 97  | 399924  | 48.814  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 7.77 | 75  | 361012  | 49.114  | ug/l | 99     |
| 37) Ethyl Acetate             | 6.90 | 43  | 410496  | 50.262  | ug/l | 100    |
| 38) Carbon Tetrachloride      | 7.75 | 117 | 353088  | 49.289  | ug/l | 99     |

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 Operator : JC/SP  
 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 25 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleID :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

MMDadoda  
 11/5/2019 1:59:42 PM

Quant Time: Nov 04 12:09:31 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N110119W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Nov 02 05:43:23 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|-------|------|----------|----------|-------|----------|
| 39) Methylcyclohexane          | 9.07  | 83   | 430720   | 50.696   | ug/l  | 100      |
| 40) Benzene                    | 8.02  | 78   | 1076254  | 49.337   | ug/l  | 100      |
| 41) Methacrylonitrile          | 7.16  | 41   | 191987m  | 54.363   | ug/l  |          |
| 42) 1,2-Dichloroethane         | 8.10  | 62   | 372672   | 49.192   | ug/l  | 99       |
| 43) Isopropyl Acetate          | 8.14  | 43   | 646743   | 50.638   | ug/l  | 100      |
| 44) Trichloroethene            | 8.82  | 130  | 259738   | 48.394   | ug/l  | 100      |
| 45) 1,2-Dichloropropane        | 9.10  | 63   | 292948   | 49.656   | ug/l  | 99       |
| 46) Dibromomethane             | 9.19  | 93   | 179579   | 49.251   | ug/l  | 99       |
| 47) Bromodichloromethane       | 9.39  | 83   | 366320   | 49.608   | ug/l  | 99       |
| 48) Methyl methacrylate        | 9.18  | 41   | 294081   | 50.499   | ug/l  | 100      |
| 49) 1,4-Dioxane                | 9.19  | 88   | 105417   | 1109.718 | ug/l  | 99       |
| 51) 4-Methyl-2-Pentanone       | 9.97  | 43   | 2027939  | 273.328  | ug/l  | 99       |
| 52) Toluene                    | 10.15 | 92   | 655861   | 51.312   | ug/l  | 99       |
| 53) t-1,3-Dichloropropene      | 10.37 | 75   | 420983   | 49.303   | ug/l  | 100      |
| 54) cis-1,3-Dichloropropene    | 9.83  | 75   | 457300   | 50.775   | ug/l  | 99       |
| 55) 1,1,2-Trichloroethane      | 10.55 | 97   | 254629   | 48.904   | ug/l  | 99       |
| 56) Ethyl methacrylate         | 10.42 | 69   | 419107   | 47.542   | ug/l  | 100      |
| 57) 1,3-Dichloropropane        | 10.70 | 76   | 452567   | 49.979   | ug/l  | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.68  | 63   | 854224   | 249.321  | ug/l  | 99       |
| 59) 2-Hexanone                 | 10.75 | 43   | 1532796  | 271.940  | ug/l  | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 280069   | 49.912   | ug/l  | 100      |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 266566   | 50.536   | ug/l  | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 231233   | 48.742   | ug/l  | 99       |
| 65) Chlorobenzene              | 11.43 | 112  | 677025   | 48.572   | ug/l  | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 252164   | 49.173   | ug/l  | 100      |
| 67) Ethyl Benzene              | 11.51 | 91   | 1253201  | 51.938   | ug/l  | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 930822   | 103.310  | ug/l  | 100      |
| 69) o-Xylene                   | 11.95 | 106  | 441592   | 51.326   | ug/l  | 99       |
| 70) Styrene                    | 11.96 | 104  | 742721   | 53.271   | ug/l  | 100      |
| 71) Bromoform                  | 12.13 | 173  | 202332   | 50.974   | ug/l  | 99       |
| 73) Isopropylbenzene           | 12.25 | 105  | 1206112  | 50.048   | ug/l  | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 550946   | 51.394   | ug/l  | 100      |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 396489   | 46.187   | ug/l  | 99       |
| 76) 1,2,3-Trichloropropane     | 12.56 | 75   | 375380m  | 48.425   | ug/l  |          |
| 77) Bromobenzene               | 12.53 | 156  | 287617   | 47.732   | ug/l  | 99       |
| 78) n-propylbenzene            | 12.59 | 91   | 1419818  | 50.869   | ug/l  | 100      |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 838518   | 48.383   | ug/l  | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 1032129  | 50.393   | ug/l  | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 146406   | 48.416   | ug/l  | 100      |
| 82) 4-Chlorotoluene            | 12.78 | 91   | 866199   | 48.972   | ug/l  | 100      |
| 83) tert-Butylbenzene          | 13.00 | 119  | 878211   | 50.476   | ug/l  | 97       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 1027548  | 51.632   | ug/l  | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 1170303  | 51.322   | ug/l  | 99       |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 1055618  | 51.348   | ug/l  | 99       |
| 87) 1,3-Dichlorobenzene        | 13.29 | 146  | 516848   | 48.276   | ug/l  | 99       |
| 88) 1,4-Dichlorobenzene        | 13.37 | 146  | 506991   | 47.873   | ug/l  | 100      |
| 89) n-Butylbenzene             | 13.62 | 91   | 928142   | 51.813   | ug/l  | 99       |
| 90) Hexachloroethane           | 13.88 | 117  | 193447   | 47.337   | ug/l  | 99       |
| 91) 1,2-Dichlorobenzene        | 13.66 | 146  | 510338   | 47.906   | ug/l  | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 83545    | 45.056   | ug/l  | 99       |

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Operator : JC/SP  
Sample : VSTDCCC050  
Misc : 5.00mL/MSVOA\_N/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050EC

Manual Integrations  
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MMDadoda  
11/5/2019 1:59:42 PM

Quant Time: Nov 04 12:09:31 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N110119W.M  
Quant Title : SW846 8260  
QLast Update : Sat Nov 02 05:43:23 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.92 | 180  | 295037   | 51.349 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 162361   | 47.082 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 822980   | 46.194 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.30 | 180  | 289269   | 49.467 | ug/l  | 99       |

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

