

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_N\DATA\VN110619\  
 Data File : VN059098.D  
 Acq On : 6 Nov 2019 11:29  
 Operator : JC/SP  
 Sample : VSTDICV050  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICVVN110619

Manual Integrations  
 APPROVED

MMDadoda  
 11/7/2019 9:16:24 AM

Quant Time: Nov 07 04:10:56 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N110619W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Nov 07 04:00:41 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.64  | 168  | 534807   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 834986   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.40 | 117  | 760358   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 361910   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.00   | 65  | 322525   | 49.06 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.12%  |      |
| 35) Dibromofluoromethane  | 7.57   | 113 | 249800   | 50.10 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.20% |      |
| 50) Toluene-d8            | 10.08  | 98  | 994817   | 50.66 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.32% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 366708   | 51.79 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.58% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 254700  | 47.268  | ug/l | 100    |
| 3) Chloromethane              | 2.04 | 50  | 335290  | 45.775  | ug/l | 99     |
| 4) Vinyl Chloride             | 2.17 | 62  | 332773  | 46.860  | ug/l | 99     |
| 5) Bromomethane               | 2.54 | 94  | 193351  | 47.314  | ug/l | 99     |
| 6) Chloroethane               | 2.68 | 64  | 192072  | 45.722  | ug/l | 99     |
| 7) Trichlorofluoromethane     | 3.00 | 101 | 398542  | 46.920  | ug/l | 98     |
| 8) Diethyl Ether              | 3.39 | 74  | 165459  | 47.940  | ug/l | 99     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.73 | 101 | 243252  | 47.497  | ug/l | 99     |
| 10) Methyl Iodide             | 3.93 | 142 | 303895  | 47.939  | ug/l | 100    |
| 11) Tert butyl alcohol        | 4.75 | 59  | 303051  | 241.881 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 3.71 | 96  | 237340  | 47.573  | ug/l | 99     |
| 13) Acrolein                  | 3.58 | 56  | 166042  | 257.045 | ug/l | 98     |
| 14) Allyl chloride            | 4.30 | 41  | 478893  | 46.731  | ug/l | 99     |
| 15) Acrylonitrile             | 4.96 | 53  | 788619  | 252.923 | ug/l | 100    |
| 16) Acetone                   | 3.79 | 43  | 880885  | 257.667 | ug/l | 99     |
| 17) Carbon Disulfide          | 4.03 | 76  | 705688  | 45.567  | ug/l | 99     |
| 18) Methyl Acetate            | 4.30 | 43  | 400675  | 49.377  | ug/l | 100    |
| 19) Methyl tert-butyl Ether   | 5.01 | 73  | 840210  | 48.917  | ug/l | 100    |
| 20) Methylene Chloride        | 4.52 | 84  | 275496  | 46.256  | ug/l | 98     |
| 21) trans-1,2-Dichloroethene  | 5.01 | 96  | 255233  | 47.662  | ug/l | 99     |
| 22) Diisopropyl ether         | 5.92 | 45  | 936718  | 48.392  | ug/l | 98     |
| 23) Vinyl Acetate             | 5.87 | 43  | 3945775 | 263.020 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 5.82 | 63  | 515396  | 47.672  | ug/l | 99     |
| 25) 2-Butanone                | 6.81 | 43  | 1151726 | 255.619 | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 6.80 | 77  | 435596  | 46.078  | ug/l | 100    |
| 27) cis-1,2-Dichloroethene    | 6.80 | 96  | 296029  | 47.648  | ug/l | 100    |
| 28) Bromochloromethane        | 7.17 | 49  | 154840  | 47.604  | ug/l | 100    |
| 29) Tetrahydrofuran           | 7.19 | 42  | 718513  | 250.976 | ug/l | 100    |
| 30) Chloroform                | 7.35 | 83  | 486096  | 46.871  | ug/l | 100    |
| 31) Cyclohexane               | 7.63 | 56  | 475799  | 46.488  | ug/l | 100    |
| 32) 1,1,1-Trichloroethane     | 7.55 | 97  | 417082  | 47.834  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 7.77 | 75  | 379643  | 48.643  | ug/l | 99     |
| 37) Ethyl Acetate             | 6.90 | 43  | 436193  | 50.238  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 7.75 | 117 | 369429  | 47.557  | ug/l | 98     |

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 Sample : VSTDICV050  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleID :  
 ICVVN110619

Manual Integrations  
 APPROVED

MMDadoda  
 11/7/2019 9:16:24 AM

Quant Time: Nov 07 04:10:56 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N110619W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Nov 07 04:00:41 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|-------|------|----------|----------|-------|----------|
| 39) Methylcyclohexane          | 9.07  | 83   | 456771   | 50.427   | ug/l  | 99       |
| 40) Benzene                    | 8.02  | 78   | 1136694  | 48.364   | ug/l  | 99       |
| 41) Methacrylonitrile          | 7.16  | 41   | 200348m  | 53.065   | ug/l  |          |
| 42) 1,2-Dichloroethane         | 8.10  | 62   | 382618   | 47.467   | ug/l  | 100      |
| 43) Isopropyl Acetate          | 8.14  | 43   | 679106   | 49.061   | ug/l  | 100      |
| 44) Trichloroethene            | 8.82  | 130  | 280969   | 48.633   | ug/l  | 98       |
| 45) 1,2-Dichloropropane        | 9.10  | 63   | 308097   | 48.263   | ug/l  | 99       |
| 46) Dibromomethane             | 9.19  | 93   | 186304   | 46.833   | ug/l  | 99       |
| 47) Bromodichloromethane       | 9.39  | 83   | 389167   | 48.992   | ug/l  | 99       |
| 48) Methyl methacrylate        | 9.18  | 41   | 308751   | 49.867   | ug/l  | 98       |
| 49) 1,4-Dioxane                | 9.18  | 88   | 115508   | 1049.765 | ug/l  | 97       |
| 51) 4-Methyl-2-Pentanone       | 9.97  | 43   | 2138020  | 272.979  | ug/l  | 100      |
| 52) Toluene                    | 10.15 | 92   | 692615   | 49.168   | ug/l  | 99       |
| 53) t-1,3-Dichloropropene      | 10.37 | 75   | 450746   | 49.115   | ug/l  | 99       |
| 54) cis-1,3-Dichloropropene    | 9.83  | 75   | 490438   | 49.681   | ug/l  | 99       |
| 55) 1,1,2-Trichloroethane      | 10.55 | 97   | 272865   | 47.862   | ug/l  | 99       |
| 56) Ethyl methacrylate         | 10.42 | 69   | 447249   | 47.147   | ug/l  | 99       |
| 57) 1,3-Dichloropropane        | 10.70 | 76   | 481645   | 49.087   | ug/l  | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.68  | 63   | 907527   | 286.035  | ug/l  | 100      |
| 59) 2-Hexanone                 | 10.74 | 43   | 1652515  | 274.889  | ug/l  | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 295424   | 49.011   | ug/l  | 100      |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 280547   | 48.611   | ug/l  | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 246209   | 47.620   | ug/l  | 98       |
| 65) Chlorobenzene              | 11.43 | 112  | 722472   | 48.742   | ug/l  | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 270110   | 48.579   | ug/l  | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 1333957  | 50.724   | ug/l  | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 990328   | 100.531  | ug/l  | 100      |
| 69) o-Xylene                   | 11.95 | 106  | 468767   | 49.240   | ug/l  | 100      |
| 70) Styrene                    | 11.96 | 104  | 794260   | 53.048   | ug/l  | 100      |
| 71) Bromoform                  | 12.13 | 173  | 215954   | 49.932   | ug/l  | 100      |
| 73) Isopropylbenzene           | 12.25 | 105  | 1284801  | 48.805   | ug/l  | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 578856   | 51.892   | ug/l  | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 424179   | 47.315   | ug/l  | 99       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 383350m  | 46.526   | ug/l  |          |
| 77) Bromobenzene               | 12.53 | 156  | 306393   | 46.324   | ug/l  | 98       |
| 78) n-propylbenzene            | 12.59 | 91   | 1525541  | 50.611   | ug/l  | 100      |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 893939   | 47.807   | ug/l  | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 1092391  | 48.971   | ug/l  | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 158122   | 50.688   | ug/l  | 98       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 919756   | 49.041   | ug/l  | 99       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 938336   | 48.710   | ug/l  | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 1086579  | 50.347   | ug/l  | 99       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 1255004  | 50.093   | ug/l  | 99       |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 1143328  | 51.684   | ug/l  | 100      |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 549310   | 48.500   | ug/l  | 100      |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 546613   | 48.236   | ug/l  | 100      |
| 89) n-Butylbenzene             | 13.62 | 91   | 1007067  | 52.014   | ug/l  | 99       |
| 90) Hexachloroethane           | 13.88 | 117  | 206476   | 46.482   | ug/l  | 100      |
| 91) 1,2-Dichlorobenzene        | 13.66 | 146  | 539567   | 48.429   | ug/l  | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 88561    | 49.514   | ug/l  | 99       |

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Sample : VSTDICV050  
Misc : 5.00mL/MSVOA\_N/WATER  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN110619

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11/7/2019 9:16:24 AM

Quant Time: Nov 07 04:10:56 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N110619W.M  
Quant Title : SW846 8260  
QLast Update : Thu Nov 07 04:00:41 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 318520   | 47.296 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 180533   | 46.994 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 892474   | 47.735 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.30 | 180  | 314122   | 50.309 | ug/l  | 98       |

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

