

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX082218\  
 Data File : VX004191.D  
 Acq On : 22 Aug 2018 10:48  
 Operator : JC/MD  
 Sample : VSTDIC005  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDIC005

Manual Integrations  
 APPROVED

MMDadoda  
 8/23/2018 9:39:41 AM

Quant Time: Aug 23 04:47:30 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X082218W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 23 04:40:05 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.66  | 168  | 311143   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 462030   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 417856   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 251290   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |      |        |      |
|---------------------------|--------|-----|----------|------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 6.06   | 65  | 23320    | 5.75 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 11.50% |      |
| 35) Dibromofluoromethane  | 5.51   | 113 | 18692    | 5.44 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 10.88% |      |
| 50) Toluene-d8            | 8.71   | 98  | 66612    | 5.13 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 10.26% |      |
| 62) 4-Bromofluorobenzene  | 11.14  | 95  | 22666    | 4.68 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 9.36%  |      |

## Target Compounds

|                               |      |     |        |       |      | Qvalue |
|-------------------------------|------|-----|--------|-------|------|--------|
| 2) Dichlorodifluoromethane    | 1.20 | 85  | 12937  | 3.59  | ug/l | 95     |
| 3) Chloromethane              | 1.32 | 50  | 18284  | 4.35  | ug/l | 100    |
| 4) Vinyl Chloride             | 1.40 | 62  | 18838  | 4.62  | ug/l | 98     |
| 5) Bromomethane               | 1.64 | 94  | 10923  | 4.43  | ug/l | 99     |
| 6) Chloroethane               | 1.71 | 64  | 14715  | 4.70  | ug/l | 100    |
| 7) Trichlorofluoromethane     | 1.92 | 101 | 26108  | 4.67  | ug/l | 87     |
| 8) Diethyl Ether              | 2.18 | 74  | 11855  | 4.96  | ug/l | 100    |
| 9) 1,1,2-Trichlorotrifluoroet | 2.38 | 101 | 16675  | 4.77  | ug/l | 99     |
| 10) Methyl Iodide             | 2.51 | 142 | 12732  | 3.54  | ug/l | 99     |
| 11) Tert butyl alcohol        | 3.07 | 59  | 22571  | 26.11 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 2.37 | 96  | 15847  | 4.81  | ug/l | 98     |
| 13) Acrolein                  | 2.29 | 56  | 5761   | 27.64 | ug/l | 95     |
| 14) Allyl chloride            | 2.72 | 41  | 29656  | 4.90  | ug/l | 98     |
| 15) Acrylonitrile             | 3.15 | 53  | 54214  | 25.32 | ug/l | 99     |
| 16) Acetone                   | 2.45 | 43  | 56065  | 29.10 | ug/l | 99     |
| 17) Carbon Disulfide          | 2.57 | 76  | 39459  | 4.07  | ug/l | 99     |
| 18) Methyl Acetate            | 2.78 | 43  | 28024  | 4.66  | ug/l | 98     |
| 19) Methyl tert-butyl Ether   | 3.20 | 73  | 55312  | 5.09  | ug/l | 97     |
| 20) Methylene Chloride        | 2.85 | 84  | 19754  | 5.06  | ug/l | 99     |
| 21) trans-1,2-Dichloroethene  | 3.16 | 96  | 17336  | 4.75  | ug/l | 97     |
| 22) Diisopropyl ether         | 3.87 | 45  | 57837  | 5.12  | ug/l | 92     |
| 23) Vinyl Acetate             | 3.82 | 43  | 229550 | 25.05 | ug/l | 98     |
| 24) 1,1-Dichloroethane        | 3.69 | 63  | 32712  | 4.96  | ug/l | 97     |
| 25) 2-Butanone                | 4.70 | 43  | 85817  | 28.52 | ug/l | 100    |
| 26) 2,2-Dichloropropane       | 4.58 | 77  | 25638  | 4.96  | ug/l | 100    |
| 27) cis-1,2-Dichloroethene    | 4.60 | 96  | 20483  | 4.95  | ug/l | 96     |
| 28) Bromochloromethane        | 5.02 | 49  | 15175  | 5.20  | ug/l | 99     |
| 29) Tetrahydrofuran           | 5.16 | 42  | 41739  | 23.96 | ug/l | 99     |
| 30) Chloroform                | 5.21 | 83  | 34154  | 5.17  | ug/l | 96     |
| 31) Cyclohexane               | 5.57 | 56  | 26257  | 4.62  | ug/l | 96     |
| 32) 1,1,1-Trichloroethane     | 5.49 | 97  | 27473  | 4.99  | ug/l | 98     |
| 36) 1,1-Dichloropropene       | 5.79 | 75  | 23937  | 4.61  | ug/l | 98     |
| 37) Ethyl Acetate             | 4.86 | 43  | 26567  | 5.20  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 5.78 | 117 | 23148  | 4.74  | ug/l | 94     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX082218\  
 Data File : VX004191.D  
 Acq On : 22 Aug 2018 10:48  
 Operator : JC/MD  
 Sample : VSTDIC005  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleID :  
 VSTDIC005

Manual Integrations  
 APPROVED

MMDadoda  
 8/23/2018 9:39:41 AM

Quant Time: Aug 23 04:47:30 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X082218W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 23 04:40:05 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|-------|--------|----------|
| 39) Methylcyclohexane          | 7.46  | 83   | 25866    | 4.36  | ug/l   | 97       |
| 40) Benzene                    | 6.14  | 78   | 76571    | 4.93  | ug/l   | 98       |
| 41) Methacrylonitrile          | 5.06  | 41   | 14552    | 4.91  | ug/l   | 97       |
| 42) 1,2-Dichloroethane         | 6.20  | 62   | 26980    | 5.10  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 6.46  | 43   | 36272    | 4.62  | ug/l   | 99       |
| 44) Trichloroethene            | 7.21  | 130  | 20141    | 4.69  | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 7.52  | 63   | 18479    | 4.76  | ug/l   | 96       |
| 46) Dibromomethane             | 7.66  | 93   | 12551    | 4.85  | ug/l   | 98       |
| 47) Bromodichloromethane       | 7.90  | 83   | 22434    | 4.66  | ug/l   | 97       |
| 48) Methyl methacrylate        | 7.78  | 41   | 18401    | 4.38  | ug/l   | 97       |
| 49) 1,4-Dioxane                | 7.76  | 88   | 8981     | 94.18 | ug/l   | 93       |
| 51) 4-Methyl-2-Pentanone       | 8.65  | 43   | 154078   | 27.02 | ug/l   | 98       |
| 52) Toluene                    | 8.79  | 92   | 45847    | 4.72  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 9.04  | 75   | 22600    | 4.25  | ug/l   | 95       |
| 54) cis-1,3-Dichloropropene    | 8.44  | 75   | 25550    | 4.41  | ug/l   | 96       |
| 55) 1,1,2-Trichloroethane      | 9.22  | 97   | 19070    | 4.86  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 9.18  | 69   | 22619    | 4.24  | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 9.37  | 76   | 32017    | 4.84  | ug/l   | 97       |
| 58) 2-Chloroethyl Vinyl ether  | 8.31  | 63   | 58293    | 21.31 | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.50  | 43   | 115511   | 26.55 | ug/l   | 96       |
| 60) Dibromochloromethane       | 9.59  | 129  | 17035    | 4.46  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 9.67  | 107  | 19328    | 4.76  | ug/l   | 97       |
| 64) Tetrachloroethene          | 9.34  | 164  | 19573    | 4.74  | ug/l   | 99       |
| 65) Chlorobenzene              | 10.14 | 112  | 49275    | 4.70  | ug/l   | 96       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.22 | 131  | 17236    | 4.77  | ug/l   | 97       |
| 67) Ethyl Benzene              | 10.26 | 91   | 78569    | 4.61  | ug/l   | 92       |
| 68) m/p-Xylenes                | 10.36 | 106  | 59350    | 8.91  | ug/l   | 97       |
| 69) o-Xylene                   | 10.70 | 106  | 27640    | 4.39  | ug/l   | 99       |
| 70) Styrene                    | 10.71 | 104  | 44114    | 4.32  | ug/l   | 98       |
| 71) Bromoform                  | 10.86 | 173  | 11978    | 4.11  | ug/l # | 98       |
| 73) Isopropylbenzene           | 11.02 | 105  | 76499    | 4.64  | ug/l   | 99       |
| 74) N-amyl acetate             | 10.90 | 43   | 28554    | 4.49  | ug/l   | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.27 | 83   | 29326    | 5.08  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 11.30 | 75   | 25752m   | 5.19  | ug/l   |          |
| 77) Bromobenzene               | 11.26 | 156  | 22713    | 4.91  | ug/l   | 97       |
| 78) n-propylbenzene            | 11.36 | 91   | 87993    | 4.64  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 11.42 | 91   | 56423    | 4.83  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 11.51 | 105  | 64217    | 4.70  | ug/l   | 97       |
| 81) trans-1,4-Dichloro-2-buten | 11.08 | 75   | 6382     | 4.05  | ug/l # | 83       |
| 82) 4-Chlorotoluene            | 11.51 | 91   | 66138    | 4.81  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 11.77 | 119  | 63281    | 4.60  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 11.80 | 105  | 64180    | 4.57  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 11.94 | 105  | 75574    | 4.63  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 12.07 | 119  | 64014    | 4.38  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 12.03 | 146  | 42203    | 4.84  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 12.10 | 146  | 44930    | 4.90  | ug/l   | 95       |
| 89) n-Butylbenzene             | 12.39 | 91   | 51276    | 4.31  | ug/l   | 97       |
| 90) Hexachloroethane           | 12.60 | 117  | 9534     | 4.66  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 12.39 | 146  | 40740    | 5.11  | ug/l   | 97       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.00 | 75   | 4737     | 4.66  | ug/l   | 97       |

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Acq On : 22 Aug 2018 10:48  
Operator : JC/MD  
Sample : VSTDICC005  
Misc : 5.0mL/MSVOA X/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC005

Manual Integrations  
APPROVED

MMDadoda  
8/23/2018 9:39:41 AM

Quant Time: Aug 23 04:47:30 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X082218W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 23 04:40:05 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.65 | 180  | 25093    | 4.33 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 13.79 | 225  | 12927    | 4.54 | ug/l  | 96       |
| 95) Naphthalene            | 13.83 | 128  | 66449    | 4.05 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 14.02 | 180  | 26951    | 4.39 | ug/l  | 99       |

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

