

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX082319\  
 Data File : VX011789.D  
 Acq On : 23 Aug 2019 11:45  
 Operator : JC/SP  
 Sample : VX0823MBS01  
 Misc : 5.0µ/10mL/100µL/10mL/MSVOA\_X/MEOH  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VX0823MBS01

Manual Integrations  
 APPROVED

MMDadoda  
 8/26/2019 11:40:43 AM

Quant Time: Aug 26 02:10:53 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X082219W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Aug 23 01:48:12 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 391054   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.85  | 114  | 530878   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 480797   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 265439   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 6.06   | 65  | 177313   | 45.14 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 90.28% |      |
| 35) Dibromofluoromethane  | 5.49   | 113 | 163904   | 47.75 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.50% |      |
| 50) Toluene-d8            | 8.71   | 98  | 586010   | 48.94 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.88% |      |
| 62) 4-Bromofluorobenzene  | 11.13  | 95  | 213167   | 45.04 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 90.08% |      |

## Target Compounds

|                               |      |     |        |        |      | Qvalue |
|-------------------------------|------|-----|--------|--------|------|--------|
| 2) Dichlorodifluoromethane    | 1.19 | 85  | 69254  | 18.976 | ug/l | 99     |
| 3) Chloromethane              | 1.32 | 50  | 61452  | 19.200 | ug/l | 97     |
| 4) Vinyl Chloride             | 1.40 | 62  | 63412  | 19.819 | ug/l | 99     |
| 5) Bromomethane               | 1.64 | 94  | 40072  | 22.734 | ug/l | 99     |
| 6) Chloroethane               | 1.72 | 64  | 37847  | 20.231 | ug/l | 98     |
| 7) Trichlorofluoromethane     | 1.92 | 101 | 99605  | 19.553 | ug/l | 100    |
| 8) Diethyl Ether              | 2.18 | 74  | 33342  | 19.249 | ug/l | 99     |
| 9) 1,1,2-Trichlorotrifluoroet | 2.38 | 101 | 58866  | 18.675 | ug/l | 98     |
| 10) Methyl Iodide             | 2.50 | 142 | 74603  | 19.377 | ug/l | 99     |
| 11) Tert butyl alcohol        | 3.04 | 59  | 70712  | 91.093 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 2.37 | 96  | 57141  | 18.591 | ug/l | 96     |
| 13) Acrolein                  | 2.29 | 56  | 29693  | 98.954 | ug/l | 98     |
| 14) Allyl chloride            | 2.72 | 41  | 87646  | 18.244 | ug/l | 96     |
| 15) Acrylonitrile             | 3.14 | 53  | 166742 | 93.911 | ug/l | 99     |
| 16) Acetone                   | 2.43 | 43  | 145133 | 84.930 | ug/l | 100    |
| 17) Carbon Disulfide          | 2.56 | 76  | 138035 | 17.762 | ug/l | 98     |
| 18) Methyl Acetate            | 2.76 | 43  | 90665  | 19.553 | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 3.18 | 73  | 185088 | 18.773 | ug/l | 99     |
| 20) Methylene Chloride        | 2.85 | 84  | 62792  | 17.973 | ug/l | 98     |
| 21) trans-1,2-Dichloroethene  | 3.16 | 96  | 62023  | 18.708 | ug/l | 97     |
| 22) Diisopropyl ether         | 3.85 | 45  | 181321 | 19.464 | ug/l | 96     |
| 23) Vinyl Acetate             | 3.81 | 43  | 729910 | 94.634 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 3.69 | 63  | 103494 | 18.816 | ug/l | 99     |
| 25) 2-Butanone                | 4.67 | 43  | 230040 | 93.785 | ug/l | 100    |
| 26) 2,2-Dichloropropane       | 4.58 | 77  | 82567  | 17.677 | ug/l | 97     |
| 27) cis-1,2-Dichloroethene    | 4.59 | 96  | 69646  | 18.319 | ug/l | 99     |
| 28) Bromochloromethane        | 5.01 | 49  | 50429  | 20.198 | ug/l | 95     |
| 29) Tetrahydrofuran           | 5.12 | 42  | 148721 | 94.586 | ug/l | 99     |
| 30) Chloroform                | 5.20 | 83  | 115241 | 19.312 | ug/l | 94     |
| 31) Cyclohexane               | 5.57 | 56  | 91398  | 18.921 | ug/l | 94     |
| 32) 1,1,1-Trichloroethane     | 5.49 | 97  | 99907  | 19.260 | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 5.79 | 75  | 80980  | 19.452 | ug/l | 99     |
| 37) Ethyl Acetate             | 4.82 | 43  | 85528  | 19.414 | ug/l | 99     |
| 38) Carbon Tetrachloride      | 5.78 | 117 | 87174  | 18.477 | ug/l | 96     |

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 Sample : VX0823MBS01  
 Misc : 5.0µ/10mL/100µL/10mL/MSVOA\_X/MEOH  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
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Manual Integrations  
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 8/26/2019 11:40:43 AM

Quant Time: Aug 26 02:10:53 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X082219W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Aug 23 01:48:12 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 39) Methylcyclohexane          | 7.46  | 83   | 95490    | 18.510  | ug/l  | 98       |
| 40) Benzene                    | 6.13  | 78   | 244911   | 19.018  | ug/l  | 96       |
| 41) Methacrylonitrile          | 5.03  | 41   | 47291    | 18.457  | ug/l  | 99       |
| 42) 1,2-Dichloroethane         | 6.18  | 62   | 83282    | 17.691  | ug/l  | 95       |
| 43) Isopropyl Acetate          | 6.43  | 43   | 129349   | 18.140  | ug/l  | 99       |
| 44) Trichloroethene            | 7.21  | 130  | 74141    | 18.676  | ug/l  | 100      |
| 45) 1,2-Dichloropropane        | 7.51  | 63   | 59121    | 18.264  | ug/l  | 98       |
| 46) Dibromomethane             | 7.65  | 93   | 42851    | 17.956  | ug/l  | 94       |
| 47) Bromodichloromethane       | 7.90  | 83   | 76276    | 17.755  | ug/l  | 99       |
| 48) Methyl methacrylate        | 7.77  | 41   | 63633    | 17.932  | ug/l  | 96       |
| 49) 1,4-Dioxane                | 7.74  | 88   | 33347    | 339.167 | ug/l  | 93       |
| 51) 4-Methyl-2-Pentanone       | 8.63  | 43   | 423033   | 90.037  | ug/l  | 98       |
| 52) Toluene                    | 8.78  | 92   | 157323   | 18.878  | ug/l  | 99       |
| 53) t-1,3-Dichloropropene      | 9.04  | 75   | 77188    | 17.115  | ug/l  | 100      |
| 54) cis-1,3-Dichloropropene    | 8.43  | 75   | 91169    | 18.531  | ug/l  | 93       |
| 55) 1,1,2-Trichloroethane      | 9.21  | 97   | 66321    | 19.101  | ug/l  | 98       |
| 56) Ethyl methacrylate         | 9.18  | 69   | 93185    | 18.872  | ug/l  | 96       |
| 57) 1,3-Dichloropropane        | 9.37  | 76   | 102632   | 18.307  | ug/l  | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 8.30  | 63   | 251404   | 96.788  | ug/l  | 98       |
| 59) 2-Hexanone                 | 9.49  | 43   | 326487   | 90.536  | ug/l  | 99       |
| 60) Dibromochloromethane       | 9.58  | 129  | 68405    | 18.222  | ug/l  | 100      |
| 61) 1,2-Dibromoethane          | 9.67  | 107  | 70073    | 18.809  | ug/l  | 99       |
| 64) Tetrachloroethene          | 9.34  | 164  | 75517    | 19.688  | ug/l  | 95       |
| 65) Chlorobenzene              | 10.13 | 112  | 178308   | 18.996  | ug/l  | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.22 | 131  | 66236    | 18.833  | ug/l  | 99       |
| 67) Ethyl Benzene              | 10.25 | 91   | 292010   | 18.615  | ug/l  | 95       |
| 68) m/p-Xylenes                | 10.35 | 106  | 234259   | 38.731  | ug/l  | 97       |
| 69) o-Xylene                   | 10.69 | 106  | 113094   | 19.045  | ug/l  | 95       |
| 70) Styrene                    | 10.71 | 104  | 192456   | 19.373  | ug/l  | 96       |
| 71) Bromoform                  | 10.85 | 173  | 55117    | 18.167  | ug/l  | 99       |
| 73) Isopropylbenzene           | 11.02 | 105  | 304038   | 19.007  | ug/l  | 99       |
| 74) N-amyl acetate             | 10.90 | 43   | 110458   | 17.836  | ug/l  | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.26 | 83   | 97910    | 18.492  | ug/l  | 100      |
| 76) 1,2,3-Trichloropropane     | 11.29 | 75   | 84064m   | 18.049  | ug/l  |          |
| 77) Bromobenzene               | 11.25 | 156  | 91257    | 19.351  | ug/l  | 95       |
| 78) n-propylbenzene            | 11.35 | 91   | 324427   | 18.967  | ug/l  | 100      |
| 79) 2-Chlorotoluene            | 11.41 | 91   | 194482   | 18.276  | ug/l  | 96       |
| 80) 1,3,5-Trimethylbenzene     | 11.51 | 105  | 254143   | 19.042  | ug/l  | 96       |
| 81) trans-1,4-Dichloro-2-buten | 11.07 | 75   | 25883    | 16.759  | ug/l  | 97       |
| 82) 4-Chlorotoluene            | 11.51 | 91   | 224292   | 18.286  | ug/l  | 96       |
| 83) tert-Butylbenzene          | 11.77 | 119  | 256158   | 19.453  | ug/l  | 98       |
| 84) 1,2,4-Trimethylbenzene     | 11.80 | 105  | 262849   | 19.502  | ug/l  | 99       |
| 85) sec-Butylbenzene           | 11.94 | 105  | 292479   | 19.417  | ug/l  | 99       |
| 86) p-Isopropyltoluene         | 12.06 | 119  | 281812   | 19.445  | ug/l  | 99       |
| 87) 1,3-Dichlorobenzene        | 12.02 | 146  | 156500   | 19.271  | ug/l  | 98       |
| 88) 1,4-Dichlorobenzene        | 12.10 | 146  | 155602   | 18.938  | ug/l  | 98       |
| 89) n-Butylbenzene             | 12.38 | 91   | 218368   | 18.201  | ug/l  | 99       |
| 90) Hexachloroethane           | 12.59 | 117  | 41094    | 18.251  | ug/l  | 91       |
| 91) 1,2-Dichlorobenzene        | 12.39 | 146  | 156012   | 19.047  | ug/l  | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 12.99 | 75   | 20854    | 16.944  | ug/l  | 91       |

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MSVOA\_X  
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Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X082219W.M  
Quant Title : SW846 8260  
QLast Update : Fri Aug 23 01:48:12 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.65 | 180  | 113726   | 18.876 | ug/l  | 97       |
| 94) Hexachlorobutadiene    | 13.78 | 225  | 64798    | 19.627 | ug/l  | 99       |
| 95) Naphthalene            | 13.83 | 128  | 319828   | 19.274 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 14.02 | 180  | 118450   | 19.580 | ug/l  | 99       |

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

