

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX082919\  
 Data File : VX011890.D  
 Acq On : 30 Aug 2019 00:25  
 Operator : SY/SP  
 Sample : VSTDICV050  
 Misc : 5.00g/5.0mL/MSVOA X/SOIL  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 ICSVX082919

Manual Integrations  
 APPROVED

MMDadoda  
 9/3/2019 2:39:20 AM

Quant Time: Aug 30 02:07:10 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X082919S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Aug 30 01:59:05 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 352531   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.85  | 114  | 509933   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 482835   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 277111   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 6.05   | 65  | 173575   | 51.39 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.78% |      |
| 35) Dibromofluoromethane  | 5.48   | 113 | 161634   | 49.43 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.86%  |      |
| 50) Toluene-d8            | 8.71   | 98  | 576894   | 49.35 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.70%  |      |
| 62) 4-Bromofluorobenzene  | 11.13  | 95  | 235968   | 46.02 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 92.04%  |      |

## Target Compounds

|                               |      |     |         |         | Qvalue   |
|-------------------------------|------|-----|---------|---------|----------|
| 2) Dichlorodifluoromethane    | 1.18 | 85  | 99923   | 46.963  | ug/l 99  |
| 3) Chloromethane              | 1.31 | 50  | 126875  | 51.439  | ug/l 100 |
| 4) Vinyl Chloride             | 1.39 | 62  | 119061  | 50.551  | ug/l 97  |
| 5) Bromomethane               | 1.62 | 94  | 87113   | 53.455  | ug/l 100 |
| 6) Chloroethane               | 1.71 | 64  | 76651   | 52.291  | ug/l 95  |
| 7) Trichlorofluoromethane     | 1.92 | 101 | 207445  | 50.715  | ug/l 99  |
| 8) Diethyl Ether              | 2.17 | 74  | 75112   | 53.432  | ug/l 99  |
| 9) 1,1,2-Trichlorotrifluoroet | 2.37 | 101 | 134039  | 50.279  | ug/l 99  |
| 10) Methyl Iodide             | 2.50 | 142 | 146596  | 50.339  | ug/l 100 |
| 11) Tert butyl alcohol        | 3.03 | 59  | 86406   | 265.908 | ug/l 99  |
| 12) 1,1-Dichloroethene        | 2.36 | 96  | 130283  | 52.619  | ug/l 99  |
| 13) Acrolein                  | 2.28 | 56  | 39388   | 243.537 | ug/l 97  |
| 14) Allyl chloride            | 2.71 | 41  | 253761  | 54.636  | ug/l 100 |
| 15) Acrylonitrile             | 3.13 | 53  | 214592  | 277.914 | ug/l 99  |
| 16) Acetone                   | 2.43 | 43  | 180827  | 248.827 | ug/l 99  |
| 17) Carbon Disulfide          | 2.56 | 76  | 384246  | 54.104  | ug/l 100 |
| 18) Methyl Acetate            | 2.76 | 43  | 106444  | 52.913  | ug/l 96  |
| 19) Methyl tert-butyl Ether   | 3.18 | 73  | 444498  | 55.415  | ug/l 99  |
| 20) Methylene Chloride        | 2.84 | 84  | 170536  | 55.541  | ug/l 98  |
| 21) trans-1,2-Dichloroethene  | 3.15 | 96  | 158511  | 54.348  | ug/l 98  |
| 22) Diisopropyl ether         | 3.84 | 45  | 524810  | 55.349  | ug/l 94  |
| 23) Vinyl Acetate             | 3.80 | 43  | 1725312 | 283.018 | ug/l 99  |
| 24) 1,1-Dichloroethane        | 3.68 | 63  | 287181  | 54.924  | ug/l 99  |
| 25) 2-Butanone                | 4.65 | 43  | 291834  | 275.722 | ug/l 99  |
| 26) 2,2-Dichloropropane       | 4.57 | 77  | 222632  | 50.766  | ug/l 100 |
| 27) cis-1,2-Dichloroethene    | 4.58 | 96  | 192267  | 55.965  | ug/l 99  |
| 28) Bromochloromethane        | 5.00 | 49  | 121241  | 51.675  | ug/l 100 |
| 29) Tetrahydrofuran           | 5.11 | 42  | 185801  | 281.245 | ug/l 100 |
| 30) Chloroform                | 5.20 | 83  | 306231  | 54.775  | ug/l 97  |
| 31) Cyclohexane               | 5.57 | 56  | 209274  | 49.621  | ug/l 96  |
| 32) 1,1,1-Trichloroethane     | 5.48 | 97  | 265403  | 53.442  | ug/l 100 |
| 36) 1,1-Dichloropropene       | 5.79 | 75  | 207694  | 51.411  | ug/l 100 |
| 37) Ethyl Acetate             | 4.81 | 43  | 131858  | 55.139  | ug/l 99  |
| 38) Carbon Tetrachloride      | 5.77 | 117 | 239149  | 51.042  | ug/l 98  |

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 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
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Manual Integrations  
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MMDadoda  
 9/3/2019 2:39:20 AM

Quant Time: Aug 30 02:07:10 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X082919S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Aug 30 01:59:05 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 7.45  | 83   | 229389   | 47.670   | ug/l   | 98       |
| 40) Benzene                    | 6.13  | 78   | 638931   | 52.984   | ug/l   | 99       |
| 41) Methacrylonitrile          | 5.03  | 41   | 77229    | 54.849   | ug/l   | 99       |
| 42) 1,2-Dichloroethane         | 6.18  | 62   | 221106   | 53.917   | ug/l   | 100      |
| 43) Isopropyl Acetate          | 6.43  | 43   | 262140   | 54.067   | ug/l   | 99       |
| 44) Trichloroethene            | 7.20  | 130  | 196386   | 52.635   | ug/l   | 94       |
| 45) 1,2-Dichloropropane        | 7.51  | 63   | 168153   | 53.309   | ug/l   | 100      |
| 46) Dibromomethane             | 7.65  | 93   | 101242   | 54.082   | ug/l   | 99       |
| 47) Bromodichloromethane       | 7.89  | 83   | 248606   | 53.555   | ug/l   | 99       |
| 48) Methyl methacrylate        | 7.76  | 41   | 129295   | 54.808   | ug/l   | 99       |
| 49) 1,4-Dioxane                | 7.73  | 88   | 34037    | 1049.233 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone       | 8.63  | 43   | 661883   | 268.728  | ug/l   | 100      |
| 52) Toluene                    | 8.78  | 92   | 422058   | 52.904   | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 9.04  | 75   | 254862   | 53.599   | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 8.43  | 75   | 284552   | 53.310   | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 9.21  | 97   | 146579   | 53.485   | ug/l   | 99       |
| 56) Ethyl methacrylate         | 9.17  | 69   | 205727   | 54.087   | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 9.37  | 76   | 243383   | 53.505   | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 8.30  | 63   | 477962   | 263.831  | ug/l   | 99       |
| 59) 2-Hexanone                 | 9.49  | 43   | 463365   | 264.844  | ug/l   | 100      |
| 60) Dibromochloromethane       | 9.58  | 129  | 201119   | 54.639   | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 9.66  | 107  | 147329   | 54.222   | ug/l   | 99       |
| 64) Tetrachloroethene          | 9.33  | 164  | 201077   | 51.772   | ug/l   | 99       |
| 65) Chlorobenzene              | 10.13 | 112  | 495595   | 52.967   | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.22 | 131  | 201216   | 53.179   | ug/l   | 99       |
| 67) Ethyl Benzene              | 10.25 | 91   | 826097   | 51.904   | ug/l   | 99       |
| 68) m/p-Xylenes                | 10.35 | 106  | 637146   | 103.675  | ug/l   | 100      |
| 69) o-Xylene                   | 10.69 | 106  | 314011   | 52.434   | ug/l   | 100      |
| 70) Styrene                    | 10.71 | 104  | 560965   | 53.143   | ug/l   | 100      |
| 71) Bromoform                  | 10.85 | 173  | 145559   | 54.405   | ug/l # | 99       |
| 73) Isopropylbenzene           | 11.01 | 105  | 828419   | 52.029   | ug/l   | 100      |
| 74) N-amyl acetate             | 10.89 | 43   | 255899   | 54.157   | ug/l # | 92       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.26 | 83   | 174650   | 53.597   | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 11.29 | 75   | 148739m  | 54.564   | ug/l   |          |
| 77) Bromobenzene               | 11.25 | 156  | 246161   | 53.307   | ug/l   | 99       |
| 78) n-propylbenzene            | 11.35 | 91   | 935199   | 51.797   | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 11.41 | 91   | 575199   | 52.927   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 11.50 | 105  | 717602   | 52.215   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 11.07 | 75   | 56037    | 51.642   | ug/l   | 98       |
| 82) 4-Chlorotoluene            | 11.51 | 91   | 684489   | 52.208   | ug/l   | 100      |
| 83) tert-Butylbenzene          | 11.77 | 119  | 724798   | 51.975   | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 11.80 | 105  | 738074   | 52.403   | ug/l   | 100      |
| 85) sec-Butylbenzene           | 11.94 | 105  | 828852   | 51.171   | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 12.06 | 119  | 806173   | 51.328   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 12.02 | 146  | 455368   | 53.059   | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 12.09 | 146  | 456704   | 52.640   | ug/l   | 100      |
| 89) n-Butylbenzene             | 12.38 | 91   | 701945   | 50.515   | ug/l   | 99       |
| 90) Hexachloroethane           | 12.59 | 117  | 162094   | 53.346   | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 12.39 | 146  | 422286   | 52.924   | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 12.99 | 75   | 34645    | 53.374   | ug/l   | 98       |

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Misc : 5.00g/5.0mL/MSVOA X/SOIL  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
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MMDadoda  
9/3/2019 2:39:20 AM

Quant Time: Aug 30 02:07:10 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X082919S.M  
Quant Title : SW846 8260  
QLast Update : Fri Aug 30 01:59:05 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.64 | 180  | 353820   | 52.663 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 13.78 | 225  | 221034   | 49.262 | ug/l  | 98       |
| 95) Naphthalene            | 13.83 | 128  | 621391   | 53.890 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 14.02 | 180  | 319484   | 52.585 | ug/l  | 100      |

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

