

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU062018\  
 Data File : VU024778.D  
 Acq On : 21 Jun 2018 00:25  
 Operator : MD/SY  
 Sample : VU0620WBSD02  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 33 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VU0620WBSD02

Manual Integrations  
 APPROVED

apatel  
 6/21/2018 1:45:02 PM

Quant Time: Jun 21 08:38:37 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U061318W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jun 13 13:55:26 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.99  | 168  | 169763   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.89  | 114  | 267586   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.09  | 117  | 252213   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 11.49 | 152  | 142978   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 5.31   | 65  | 123483   | 44.56 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 89.12% |      |
| 35) Dibromofluoromethane  | 4.89   | 113 | 100632   | 45.31 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 90.62% |      |
| 50) Toluene-d8            | 7.57   | 98  | 368158   | 45.45 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 90.90% |      |
| 62) 4-Bromofluorobenzene  | 10.31  | 95  | 139654   | 43.42 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 86.84% |      |

## Target Compounds

|                               |      |     |        |        |      | Qvalue |
|-------------------------------|------|-----|--------|--------|------|--------|
| 2) Dichlorodifluoromethane    | 1.20 | 85  | 35361  | 16.64  | ug/l | 98     |
| 3) Chloromethane              | 1.33 | 50  | 40396  | 18.61  | ug/l | 99     |
| 4) Vinyl Chloride             | 1.40 | 62  | 42007  | 18.76  | ug/l | 96     |
| 5) Bromomethane               | 1.62 | 94  | 26097  | 24.11  | ug/l | 97     |
| 6) Chloroethane               | 1.70 | 64  | 27006  | 20.98  | ug/l | 100    |
| 7) Trichlorofluoromethane     | 1.89 | 101 | 64858  | 18.98  | ug/l | 98     |
| 8) Diethyl Ether              | 2.10 | 74  | 25452  | 20.79  | ug/l | 86     |
| 9) 1,1,2-Trichlorotrifluoroet | 2.29 | 101 | 35098  | 16.56  | ug/l | 97     |
| 10) Methyl Iodide             | 2.41 | 142 | 32852  | 21.67  | ug/l | 95     |
| 11) Tert butyl alcohol        | 2.82 | 59  | 57929  | 85.94  | ug/l | 98     |
| 12) 1,1-Dichloroethene        | 2.29 | 96  | 35024  | 18.12  | ug/l | 86     |
| 13) Acrolein                  | 2.19 | 56  | 31457  | 88.87  | ug/l | 98     |
| 14) Allyl chloride            | 2.60 | 41  | 58496  | 16.30  | ug/l | 94     |
| 15) Acrylonitrile             | 2.94 | 53  | 132062 | 100.70 | ug/l | 96     |
| 16) Acetone                   | 2.32 | 43  | 115114 | 77.31  | ug/l | 99     |
| 17) Carbon Disulfide          | 2.48 | 76  | 100545 | 16.24  | ug/l | 98     |
| 18) Methyl Acetate            | 2.62 | 43  | 68202  | 21.36  | ug/l | 98     |
| 19) Methyl tert-butyl Ether   | 3.00 | 73  | 134041 | 18.45  | ug/l | 98     |
| 20) Methylene Chloride        | 2.70 | 84  | 43324  | 18.54  | ug/l | 97     |
| 21) trans-1,2-Dichloroethene  | 2.99 | 96  | 38061  | 17.88  | ug/l | 94     |
| 22) Diisopropyl ether         | 3.57 | 45  | 134238 | 18.87  | ug/l | 97     |
| 23) Vinyl Acetate             | 3.53 | 43  | 580072 | 91.01  | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 3.45 | 63  | 75036  | 18.33  | ug/l | 99     |
| 25) 2-Butanone                | 4.26 | 43  | 188093 | 94.04  | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 4.23 | 77  | 53104  | 13.66  | ug/l | 96     |
| 27) cis-1,2-Dichloroethene    | 4.23 | 96  | 45029  | 18.40  | ug/l | 96     |
| 28) Bromochloromethane        | 4.55 | 49  | 35746  | 19.83  | ug/l | 90     |
| 29) Tetrahydrofuran           | 4.64 | 42  | 117704 | 95.03  | ug/l | 95     |
| 30) Chloroform                | 4.68 | 83  | 74743  | 18.04  | ug/l | 99     |
| 31) Cyclohexane               | 5.00 | 56  | 68979  | 17.70  | ug/l | 96     |
| 32) 1,1,1-Trichloroethane     | 4.92 | 97  | 67387  | 17.59  | ug/l | 96     |
| 36) 1,1-Dichloropropene       | 5.14 | 75  | 51580  | 16.40  | ug/l | 96     |
| 37) Ethyl Acetate             | 4.38 | 43  | 68282  | 19.92  | ug/l | 98     |
| 38) Carbon Tetrachloride      | 5.14 | 117 | 59411  | 17.18  | ug/l | 99     |

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 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 33 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
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apatel  
 6/21/2018 1:45:02 PM

Quant Time: Jun 21 08:38:37 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U061318W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jun 13 13:55:26 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 39) Methylcyclohexane          | 6.42  | 83   | 62400    | 15.90  | ug/l   | 94       |
| 40) Benzene                    | 5.39  | 78   | 164719   | 18.38  | ug/l   | 99       |
| 41) Methacrylonitrile          | 4.54  | 41   | 37195    | 20.13  | ug/l   | 94       |
| 42) 1,2-Dichloroethane         | 5.41  | 62   | 62364    | 18.28  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 5.55  | 43   | 109630   | 18.51  | ug/l   | 99       |
| 44) Trichloroethene            | 6.19  | 130  | 44817    | 17.58  | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 6.44  | 63   | 45103    | 18.87  | ug/l   | 98       |
| 46) Dibromomethane             | 6.56  | 93   | 32966    | 19.63  | ug/l   | 95       |
| 47) Bromodichloromethane       | 6.76  | 83   | 60071    | 17.96  | ug/l   | 99       |
| 48) Methyl methacrylate        | 6.62  | 41   | 55156    | 19.12  | ug/l   | 98       |
| 49) 1,4-Dioxane                | 6.62  | 88   | 25439    | 450.95 | ug/l   | 92       |
| 51) 4-Methyl-2-Pentanone       | 7.46  | 43   | 367096   | 98.64  | ug/l   | 99       |
| 52) Toluene                    | 7.64  | 92   | 103590   | 17.97  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 7.88  | 75   | 62459    | 16.63  | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene    | 7.27  | 75   | 67750    | 16.93  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 8.07  | 97   | 44984    | 19.20  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 8.02  | 69   | 73850    | 18.83  | ug/l   | 97       |
| 57) 1,3-Dichloropropane        | 8.25  | 76   | 75430    | 19.08  | ug/l   | 98       |
| 58) 2-Chloroethyl Vinyl ether  | 7.13  | 63   | 132360   | 88.10  | ug/l   | 95       |
| 59) 2-Hexanone                 | 8.36  | 43   | 293057   | 96.45  | ug/l   | 99       |
| 60) Dibromochloromethane       | 8.48  | 129  | 50494    | 17.28  | ug/l   | 97       |
| 61) 1,2-Dibromoethane          | 8.59  | 107  | 47823    | 18.34  | ug/l   | 97       |
| 64) Tetrachloroethene          | 8.23  | 164  | 41398    | 17.27  | ug/l   | 94       |
| 65) Chlorobenzene              | 9.12  | 112  | 118309   | 18.36  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 9.21  | 131  | 46038    | 18.81  | ug/l   | 99       |
| 67) Ethyl Benzene              | 9.25  | 91   | 201012   | 17.80  | ug/l   | 99       |
| 68) m/p-Xylenes                | 9.38  | 106  | 155305   | 35.81  | ug/l   | 95       |
| 69) o-Xylene                   | 9.78  | 106  | 78982    | 18.40  | ug/l   | 94       |
| 70) Styrene                    | 9.80  | 104  | 127672   | 18.10  | ug/l   | 99       |
| 71) Bromoform                  | 9.96  | 173  | 39997    | 17.19  | ug/l # | 98       |
| 73) Isopropylbenzene           | 10.17 | 105  | 205638   | 18.73  | ug/l   | 99       |
| 74) N-amyl acetate             | 10.01 | 43   | 100804   | 19.31  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 10.46 | 83   | 76530    | 20.80  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 10.50 | 75   | 64055m   | 20.35  | ug/l   |          |
| 77) Bromobenzene               | 10.45 | 156  | 54988    | 19.79  | ug/l   | 94       |
| 78) n-propylbenzene            | 10.59 | 91   | 227894   | 17.62  | ug/l   | 97       |
| 79) 2-Chlorotoluene            | 10.66 | 91   | 139173   | 18.25  | ug/l   | 97       |
| 80) 1,3,5-Trimethylbenzene     | 10.78 | 105  | 175262   | 18.42  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 10.51 | 75   | 22379m   | 16.45  | ug/l   |          |
| 82) 4-Chlorotoluene            | 10.78 | 91   | 157782   | 17.78  | ug/l   | 98       |
| 83) tert-Butylbenzene          | 11.10 | 119  | 177314   | 19.37  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 11.15 | 105  | 177025   | 18.26  | ug/l   | 98       |
| 85) sec-Butylbenzene           | 11.33 | 105  | 208227   | 18.18  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 11.48 | 119  | 178330   | 17.38  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 11.42 | 146  | 92180    | 17.95  | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 11.51 | 146  | 94944    | 18.37  | ug/l   | 99       |
| 89) n-Butylbenzene             | 11.89 | 91   | 141742   | 15.56  | ug/l   | 98       |
| 90) Hexachloroethane           | 12.15 | 117  | 33500    | 16.74  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 11.88 | 146  | 98585    | 19.17  | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 12.66 | 75   | 19777    | 19.48  | ug/l   | 93       |

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Sample : VU0620WBSD02  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 33 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
VU0620WBSD02

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apatel  
6/21/2018 1:45:02 PM

Quant Time: Jun 21 08:38:37 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\82U061318W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jun 13 13:55:26 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.51 | 180  | 62334    | 19.63 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 13.70 | 225  | 30933    | 17.31 | ug/l  | 98       |
| 95) Naphthalene            | 13.75 | 128  | 227305   | 22.01 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 13.99 | 180  | 67496    | 21.33 | ug/l  | 98       |

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

