

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX031221\  
 Data File : VX021173.D  
 Acq On : 12 Mar 2021 10:39  
 Operator : JC/MD  
 Sample : VSTDIC010  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDIC010

Manual Integrations  
 APPROVED

MMDadoda  
 3/15/2021 3:18:39 PM

Quant Time: Mar 12 11:50:27 2021  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\624X031221W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Mar 12 11:46:12 2021  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response            | Conc  | Units  | Dev(Min) |
|------------------------------|----------------|------|---------------------|-------|--------|----------|
| -----                        |                |      |                     |       |        |          |
| Internal Standards           |                |      |                     |       |        |          |
| 1) Bromochloromethane        | 4.982          | 128  | 13657               | 30.00 | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 6.829          | 114  | 75548               | 30.00 | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 10.094         | 117  | 68819               | 30.00 | ug/l   | 0.00     |
|                              |                |      |                     |       |        |          |
| System Monitoring Compounds  |                |      |                     |       |        |          |
| 27) 1,2-Dichloroethane-d4    | 6.035          | 65   | 38144               | 37.54 | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |      | Recovery = 125.13%# |       |        |          |
| 60) 4-Bromofluorobenzene     | 11.118         | 95   | 38593               | 33.12 | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |      | Recovery = 110.40%  |       |        |          |
| 63) Toluene-d8               | 8.694          | 98   | 93600               | 29.82 | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |      | Recovery = 99.40%   |       |        |          |
|                              |                |      |                     |       |        |          |
| Target Compounds             |                |      |                     |       |        | Qvalue   |
| 2) Dichlorodifluoromethane   | 1.187          | 85   | 8288                | 10.79 | ug/l   | 97       |
| 3) Chloromethane             | 1.311          | 50   | 8469                | 10.33 | ug/l   | 95       |
| 4) Vinyl Chloride            | 1.393          | 62   | 8530                | 9.14  | ug/l   | 99       |
| 5) Bromomethane              | 1.628          | 94   | 5306                | 13.27 | ug/l   | 98       |
| 6) Chloroethane              | 1.711          | 64   | 5253                | 8.93  | ug/l   | 99       |
| 7) Trichlorofluoromethane    | 1.917          | 101  | 13256               | 10.56 | ug/l   | 94       |
| 8) Diethyl Ether             | 2.170          | 74   | 4462                | 8.34  | ug/l   | 74       |
| 9) 1,1,2-Trichlorotrifluo... | 2.370          | 101  | 6969                | 9.27  | ug/l   | 95       |
| 10) 1,1-Dichloroethene       | 2.358          | 96   | 6521                | 8.51  | ug/l # | 79       |
| 11) Methyl Iodide            | 2.493          | 142  | 7783                | 7.92  | ug/l   | 83       |
| 12) Methyl Acetate           | 2.746          | 43   | 11805               | 12.47 | ug/l   | 92       |
| 13) Acrolein                 | 2.270          | 56   | 7106                | 54.73 | ug/l   | 93       |
| 14) Acrylonitrile            | 3.111          | 53   | 21317               | 48.34 | ug/l   | 97       |
| 15) Acetone                  | 2.417          | 58   | 6383                | 50.51 | ug/l   | 75       |
| 16) Carbon Disulfide         | 2.552          | 76   | 19785               | 9.06  | ug/l   | 99       |
| 17) Allyl chloride           | 2.711          | 41   | 14815               | 11.48 | ug/l   | 88       |
| 18) Methylene Chloride       | 2.834          | 84   | 8348                | 9.45  | ug/l # | 87       |
| 19) trans-1,2-Dichloroethene | 3.146          | 96   | 7435                | 8.70  | ug/l   | 91       |
| 20) Diisopropyl ether        | 3.823          | 45   | 27297               | 10.47 | ug/l   | 88       |
| 21) 1,1-Dichloroethane       | 3.670          | 63   | 15334               | 10.17 | ug/l   | 98       |
| 22) cis-1,2-Dichloroethene   | 4.564          | 96   | 8728                | 8.90  | ug/l   | 86       |
| 23) tert-Butyl Alcohol       | 3.011          | 59   | 10146               | 50.86 | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 3.164          | 73   | 25887               | 9.41  | ug/l # | 85       |
| 25) Chloroform               | 5.176          | 83   | 15595               | 10.05 | ug/l   | 97       |
| 26) Cyclohexane              | 5.552          | 56   | 13044               | 9.62  | ug/l # | 91       |
| 29) 1,1-Dichloropropene      | 5.764          | 75   | 11213               | 9.64  | ug/l   | 97       |
| 30) 2-Butanone               | 4.635          | 43   | 32442               | 54.67 | ug/l   | 92       |
| 31) 2,2-Dichloropropane      | 4.558          | 77   | 12529               | 9.38  | ug/l   | 95       |
| 32) 1,1,1-Trichloroethane    | 5.464          | 97   | 13546               | 10.18 | ug/l   | 94       |
| 33) Carbon Tetrachloride     | 5.747          | 117  | 11944m              | 10.31 | ug/l   |          |
| 34) Benzene                  | 6.117          | 78   | 32206               | 9.27  | ug/l   | 99       |
| 35) Methacrylonitrile        | 4.999          | 41   | 6924m               | 10.69 | ug/l   |          |
| 36) 1,2-Dichloroethane       | 6.158          | 62   | 14285               | 11.51 | ug/l # | 92       |
| 37) Trichloroethene          | 7.188          | 130  | 8550                | 9.19  | ug/l   | 94       |
| 38) Methylcyclohexane        | 7.441          | 83   | 12208               | 8.49  | ug/l   | 89       |
| 39) 1,2-Dichloropropane      | 7.488          | 63   | 8883                | 10.10 | ug/l   | 97       |
| 40) Dibromomethane           | 7.635          | 93   | 6213                | 10.24 | ug/l   | 88       |
| 41) Bromodichloromethane     | 7.876          | 83   | 12732               | 10.04 | ug/l   | 97       |
| 42) Vinyl Acetate            | 3.782          | 43   | 115911m             | 52.22 | ug/l   |          |

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 QLast Update : Fri Mar 12 11:46:12 2021  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|--------|--------|----------|
| 43) Ethyl Acetate             | 4.793  | 43   | 13198    | 11.53  | ug/l # | 89       |
| 44) Isopropyl Acetate         | 6.411  | 43   | 20617    | 10.71  | ug/l   | 91       |
| 45) 1,4-Dioxane               | 7.711  | 88   | 4028     | 187.70 | ug/l # | 85       |
| 46) Methyl methacrylate       | 7.747  | 41   | 10908    | 11.21  | ug/l   | 81       |
| 47) n-amyl Acetate            | 10.882 | 43   | 17216    | 10.64  | ug/l   | 93       |
| 48) t-1,3-Dichloropropene     | 9.023  | 75   | 12493    | 9.00   | ug/l   | 95       |
| 49) cis-1,3-Dichloropropene   | 8.417  | 75   | 13297    | 8.83   | ug/l # | 86       |
| 50) 1,1,2-Trichloroethane     | 9.194  | 97   | 8270     | 9.50   | ug/l   | 96       |
| 51) Ethyl methacrylate        | 9.159  | 69   | 12511m   | 9.08   | ug/l   |          |
| 52) 1,3-Dichloropropane       | 9.353  | 76   | 14305    | 9.63   | ug/l   | 97       |
| 53) Dibromochloromethane      | 9.565  | 129  | 8953     | 9.50   | ug/l   | 97       |
| 54) 1,2-Dibromoethane         | 9.653  | 107  | 8586     | 9.40   | ug/l   | 100      |
| 55) 2-Chloroethyl vinyl ether | 8.288  | 63   | 34534    | 51.75  | ug/l   | 98       |
| 56) Bromoform                 | 10.841 | 173  | 6675     | 10.13  | ug/l   | 95       |
| 58) 4-Methyl-2-Pentanone      | 8.617  | 43   | 63437    | 54.66  | ug/l # | 89       |
| 59) 2-Hexanone                | 9.471  | 43   | 48474    | 55.35  | ug/l   | 87       |
| 61) Tetrachloroethene         | 9.318  | 164  | 8187     | 9.90   | ug/l   | 96       |
| 62) Toluene                   | 8.765  | 91   | 33952    | 8.87   | ug/l   | 99       |
| 64) Chlorobenzene             | 10.124 | 112  | 20907    | 8.90   | ug/l   | 99       |
| 65) 1,1,1,2-Tetrachloroethane | 10.200 | 131  | 7715     | 8.86   | ug/l   | 97       |
| 66) Ethyl Benzene             | 10.235 | 91   | 38547    | 9.03   | ug/l   | 98       |
| 67) m/p-Xylenes               | 10.341 | 106  | 28012    | 17.72  | ug/l   | 92       |
| 68) o-Xylene                  | 10.682 | 106  | 13385    | 8.88   | ug/l   | 90       |
| 69) Styrene                   | 10.694 | 104  | 22846    | 8.75   | ug/l   | 94       |
| 70) Isopropylbenzene          | 11.000 | 105  | 37205    | 9.13   | ug/l   | 98       |
| 71) 1,1,2,2-Tetrachloroethane | 11.253 | 83   | 12420    | 9.72   | ug/l   | 99       |
| 72) 1,2,3-Trichloropropane    | 11.277 | 75   | 12725m   | 10.88  | ug/l   |          |
| 73) Bromobenzene              | 11.241 | 156  | 8771     | 9.15   | ug/l   | 89       |
| 74) n-propylbenzene           | 11.341 | 91   | 43846    | 9.37   | ug/l   | 96       |
| 75) 2-Chlorotoluene           | 11.406 | 91   | 27086    | 9.67   | ug/l   | 96       |
| 76) 1,3,5-Trimethylbenzene    | 11.488 | 105  | 31538    | 9.36   | ug/l   | 95       |
| 77) t-1,4-Dichloro-2-butene   | 11.059 | 75   | 3626     | 7.68   | ug/l   | 73       |
| 78) 4-Chlorotoluene           | 11.494 | 91   | 30166    | 9.35   | ug/l   | 97       |
| 79) tert-butylbenzene         | 11.753 | 119  | 28695    | 8.91   | ug/l   | 89       |
| 80) 1,2,4-Trimethylbenzene    | 11.788 | 105  | 30908    | 9.07   | ug/l   | 98       |
| 81) sec-Butylbenzene          | 11.930 | 105  | 34309    | 8.84   | ug/l   | 97       |
| 82) p-Isopropyltoluene        | 12.047 | 119  | 30705    | 8.74   | ug/l   | 96       |
| 83) 1,3-Dichlorobenzene       | 12.006 | 146  | 15871    | 9.10   | ug/l   | 98       |
| 84) 1,4-Dichlorobenzene       | 12.083 | 146  | 15646    | 9.11   | ug/l   | 97       |
| 85) n-Butylbenzene            | 12.371 | 91   | 27841    | 8.76   | ug/l   | 97       |
| 86) Hexachloroethane          | 12.577 | 117  | 5591     | 8.47   | ug/l   | 87       |
| 87) 1,2-Dichlorobenzene       | 12.377 | 146  | 15948    | 9.66   | ug/l   | 97       |
| 88) 1,2-Dibromo-3-Chloropr... | 12.983 | 75   | 2865     | 9.66   | ug/l # | 79       |
| 89) 1,2,4-Trichlorobenzene    | 13.630 | 180  | 8720     | 8.03   | ug/l   | 98       |
| 90) Hexachlorobutadiene       | 13.765 | 225  | 4287     | 9.73   | ug/l   | 98       |
| 91) Naphthalene               | 13.818 | 128  | 28899    | 7.76   | ug/l   | 99       |
| 92) 1,2,3-Trichlorobenzene    | 14.001 | 180  | 8479     | 7.95   | ug/l   | 97       |

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

