

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX052323\  
 Data File : VX035823.D  
 Acq On : 23 May 2023 18:49  
 Operator : JC/MD  
 Sample : VSTDCCC020  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDCCC020EC

Quant Time: May 24 05:52:36 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\624X052323W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Tue May 23 11:36:37 2023  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By : John Carlone 05/25/2023  
 Supervised By : Mahesh Dadoda 05/25/2023

05/25/2023  
 Supervised By : Mahesh  
 Dadoda

| Compound                | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|-------------------------|--------|------|----------|--------|-------|----------|
| -----                   |        |      |          |        |       |          |
| Internal Standards      |        |      |          |        |       |          |
| 1) Bromochloromethane   | 4.898  | 128  | 36866    | 30.000 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 6.763  | 114  | 198171   | 30.000 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 10.055 | 117  | 176639   | 30.000 | ug/l  | 0.00     |

|                             |        |       |          |          |      |          |
|-----------------------------|--------|-------|----------|----------|------|----------|
| System Monitoring Compounds |        |       |          |          |      |          |
| 27) 1,2-Dichloroethane-d4   | 5.952  | 65    | 89954    | 29.366   | ug/l | 0.00     |
| Spiked Amount               | 30.000 | Range | 91 - 110 | Recovery | =    | 97.900%  |
| 60) 4-Bromofluorobenzene    | 11.079 | 95    | 88510    | 29.862   | ug/l | 0.00     |
| Spiked Amount               | 30.000 | Range | 63 - 112 | Recovery | =    | 99.533%  |
| 63) Toluene-d8              | 8.647  | 98    | 237881   | 30.463   | ug/l | 0.00     |
| Spiked Amount               | 30.000 | Range | 91 - 112 | Recovery | =    | 101.533% |

|                              |       |     |        |         |        |        |
|------------------------------|-------|-----|--------|---------|--------|--------|
| Target Compounds             |       |     |        |         |        | Qvalue |
| 2) Dichlorodifluoromethane   | 1.166 | 85  | 30930  | 16.407  | ug/l   | 99     |
| 3) Chloromethane             | 1.295 | 50  | 43510  | 18.813  | ug/l   | 99     |
| 4) Vinyl Chloride            | 1.374 | 62  | 39298  | 18.081  | ug/l   | 96     |
| 5) Bromomethane              | 1.618 | 94  | 25547  | 17.472  | ug/l   | 99     |
| 6) Chloroethane              | 1.691 | 64  | 26182  | 19.108  | ug/l   | 99     |
| 7) Trichlorofluoromethane    | 1.886 | 101 | 53964  | 16.378  | ug/l   | 97     |
| 8) Diethyl Ether             | 2.130 | 74  | 27391  | 19.995  | ug/l   | 100    |
| 9) 1,1,2-Trichlorotrifluo... | 2.331 | 101 | 30285  | 17.084  | ug/l   | 100    |
| 10) 1,1-Dichloroethene       | 2.319 | 96  | 34268  | 18.543  | ug/l   | 97     |
| 11) Methyl Iodide            | 2.453 | 142 | 40510  | 18.146  | ug/l   | 96     |
| 12) Methyl Acetate           | 2.709 | 43  | 112847 | 21.610  | ug/l   | 98     |
| 13) Acrolein                 | 2.246 | 56  | 38725  | 93.814  | ug/l   | 99     |
| 14) Acrylonitrile            | 3.069 | 53  | 133157 | 101.722 | ug/l   | 99     |
| 15) Acetone                  | 2.404 | 58  | 36910  | 94.267  | ug/l   | 89     |
| 16) Carbon Disulfide         | 2.514 | 76  | 64538  | 16.092  | ug/l   | 99     |
| 17) Allyl chloride           | 2.666 | 41  | 72032  | 19.321  | ug/l   | 96     |
| 18) Methylene Chloride       | 2.788 | 84  | 47316  | 19.661  | ug/l   | 98     |
| 19) trans-1,2-Dichloroethene | 3.093 | 96  | 38860  | 18.653  | ug/l   | 94     |
| 20) Diisopropyl ether        | 3.757 | 45  | 163625 | 20.330  | ug/l   | 100    |
| 21) 1,1-Dichloroethane       | 3.611 | 63  | 82812  | 19.630  | ug/l   | 99     |
| 22) cis-1,2-Dichloroethene   | 4.483 | 96  | 50556  | 19.612  | ug/l   | 97     |
| 23) tert-Butyl Alcohol       | 3.044 | 59  | 50751m | 106.210 | ug/l   |        |
| 24) Methyl tert-Butyl Ether  | 3.111 | 73  | 153456 | 20.603  | ug/l   | 96     |
| 25) Chloroform               | 5.093 | 83  | 84514  | 19.523  | ug/l   | 98     |
| 26) Cyclohexane              | 5.471 | 56  | 53017  | 16.617  | ug/l # | 99     |
| 29) 1,1-Dichloropropene      | 5.690 | 75  | 51923  | 18.815  | ug/l   | 99     |
| 30) 2-Butanone               | 4.574 | 43  | 195333 | 108.129 | ug/l # | 96     |
| 31) 2,2-Dichloropropane      | 4.477 | 77  | 54524  | 18.390  | ug/l   | 100    |
| 32) 1,1,1-Trichloroethane    | 5.385 | 97  | 61994  | 19.237  | ug/l   | 100    |
| 33) Carbon Tetrachloride     | 5.678 | 117 | 45814  | 18.004  | ug/l   | 90     |
| 34) Benzene                  | 6.038 | 78  | 177347 | 20.371  | ug/l   | 98     |
| 35) Methacrylonitrile        | 4.916 | 41  | 41024  | 21.282  | ug/l   | 98     |
| 36) 1,2-Dichloroethane       | 6.086 | 62  | 70891  | 20.924  | ug/l   | 100    |
| 37) Trichloroethene          | 7.123 | 130 | 43492  | 19.875  | ug/l   | 96     |
| 38) Methylcyclohexane        | 7.385 | 83  | 50606  | 16.722  | ug/l   | 99     |
| 39) 1,2-Dichloropropane      | 7.428 | 63  | 48323  | 20.622  | ug/l   | 97     |
| 40) Dibromomethane           | 7.580 | 93  | 32432  | 20.464  | ug/l   | 98     |
| 41) Bromodichloromethane     | 7.818 | 83  | 56417  | 19.691  | ug/l # | 99     |
| 42) Vinyl Acetate            | 3.721 | 43  | 565054 | 106.488 | ug/l   | 100    |

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Instrument :  
 MSVOA\_X  
 ClientSampleId :  
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| Compound                      | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|-------------------------------|--------|------|----------|---------|-------|----------|
| 43) Ethyl Acetate             | 4.721  | 43   | 72775    | 21.124  | ug/l  | 99       |
| 44) Isopropyl Acetate         | 6.336  | 43   | 121747   | 21.680  | ug/l  | 100      |
| 45) 1,4-Dioxane               | 7.738  | 88   | 22721m   | 425.977 | ug/l  |          |
| 46) Methyl methacrylate       | 7.690  | 41   | 58004    | 21.377  | ug/l  | 97       |
| 47) n-amyl Acetate            | 10.842 | 43   | 100416   | 21.288  | ug/l  | 98       |
| 48) t-1,3-Dichloropropene     | 8.976  | 75   | 60004    | 18.931  | ug/l  | 98       |
| 49) cis-1,3-Dichloropropene   | 8.366  | 75   | 68078    | 19.462  | ug/l  | 99       |
| 50) 1,1,2-Trichloroethane     | 9.153  | 97   | 47310    | 20.865  | ug/l  | 97       |
| 51) Ethyl methacrylate        | 9.116  | 69   | 74684    | 21.367  | ug/l  | 97       |
| 52) 1,3-Dichloropropane       | 9.305  | 76   | 82628    | 20.911  | ug/l  | 98       |
| 53) Dibromochloromethane      | 9.519  | 129  | 38696    | 18.609  | ug/l  | 97       |
| 54) 1,2-Dibromoethane         | 9.610  | 107  | 49003    | 20.802  | ug/l  | 99       |
| 55) 2-Chloroethyl vinyl ether | 8.238  | 63   | 216967   | 116.973 | ug/l  | 99       |
| 56) Bromoform                 | 10.799 | 173  | 23493    | 17.428  | ug/l  | 96       |
| 58) 4-Methyl-2-Pentanone      | 8.574  | 43   | 382227   | 111.405 | ug/l  | 100      |
| 59) 2-Hexanone                | 9.433  | 43   | 284652   | 110.260 | ug/l  | 99       |
| 61) Tetrachloroethene         | 9.275  | 164  | 35386    | 20.801  | ug/l  | 96       |
| 62) Toluene                   | 8.720  | 91   | 184274   | 20.258  | ug/l  | 99       |
| 64) Chlorobenzene             | 10.079 | 112  | 116138   | 20.159  | ug/l  | 100      |
| 65) 1,1,1,2-Tetrachloroethane | 10.159 | 131  | 39578    | 19.651  | ug/l  | 97       |
| 66) Ethyl Benzene             | 10.195 | 91   | 200886   | 19.746  | ug/l  | 99       |
| 67) m/p-Xylenes               | 10.299 | 106  | 153187   | 39.782  | ug/l  | 97       |
| 68) o-Xylene                  | 10.640 | 106  | 77582    | 20.142  | ug/l  | 99       |
| 69) Styrene                   | 10.653 | 104  | 128076   | 20.148  | ug/l  | 98       |
| 70) Isopropylbenzene          | 10.963 | 105  | 188382   | 19.161  | ug/l  | 100      |
| 71) 1,1,2,2-Tetrachloroethane | 11.213 | 83   | 74549    | 21.408  | ug/l  | 99       |
| 72) 1,2,3-Trichloropropane    | 11.238 | 75   | 61094m   | 20.144  | ug/l  |          |
| 73) Bromobenzene              | 11.195 | 156  | 47107    | 19.722  | ug/l  | 94       |
| 74) n-propylbenzene           | 11.305 | 91   | 218176   | 18.618  | ug/l  | 99       |
| 75) 2-Chlorotoluene           | 11.366 | 91   | 141741   | 19.691  | ug/l  | 99       |
| 76) 1,3,5-Trimethylbenzene    | 11.451 | 105  | 160460   | 19.217  | ug/l  | 100      |
| 77) t-1,4-Dichloro-2-butene   | 11.018 | 75   | 15560    | 17.007  | ug/l  | 84       |
| 78) 4-Chlorotoluene           | 11.451 | 91   | 158509   | 19.329  | ug/l  | 99       |
| 79) tert-butylbenzene         | 11.713 | 119  | 150915   | 18.722  | ug/l  | 100      |
| 80) 1,2,4-Trimethylbenzene    | 11.750 | 105  | 161884   | 19.292  | ug/l  | 98       |
| 81) sec-Butylbenzene          | 11.890 | 105  | 182434   | 17.926  | ug/l  | 99       |
| 82) p-Isopropyltoluene        | 12.006 | 119  | 154555   | 18.254  | ug/l  | 99       |
| 83) 1,3-Dichlorobenzene       | 11.969 | 146  | 86524    | 19.140  | ug/l  | 99       |
| 84) 1,4-Dichlorobenzene       | 12.043 | 146  | 89389    | 19.701  | ug/l  | 98       |
| 85) n-Butylbenzene            | 12.329 | 91   | 126642   | 16.813  | ug/l  | 99       |
| 86) Hexachloroethane          | 12.536 | 117  | 20723    | 15.542  | ug/l  | 93       |
| 87) 1,2-Dichlorobenzene       | 12.335 | 146  | 90187    | 20.362  | ug/l  | 99       |
| 88) 1,2-Dibromo-3-Chloropr... | 12.939 | 75   | 13353    | 20.063  | ug/l  | 99       |
| 89) 1,2,4-Trichlorobenzene    | 13.585 | 180  | 50851    | 19.157  | ug/l  | 99       |
| 90) Hexachlorobutadiene       | 13.725 | 225  | 15387    | 15.725  | ug/l  | 96       |
| 91) Naphthalene               | 13.774 | 128  | 200868   | 21.867  | ug/l  | 100      |
| 92) 1,2,3-Trichlorobenzene    | 13.957 | 180  | 52413    | 19.776  | ug/l  | 98       |

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

