

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN050823\  
 Data File : VN077615.D  
 Acq On : 08 May 2023 14:10  
 Operator : JC\MD  
 Sample : VN0508WBS01  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0508WBS01

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 05/09/2023  
 Supervised By : Mahesh Dadoda 05/09/2023

Quant Time: May 09 06:00:55 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N050823W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Tue May 09 05:58:09 2023  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|------------------------------|--------|-------|----------|----------|--------|----------|
| -----                        |        |       |          |          |        |          |
| Internal Standards           |        |       |          |          |        |          |
| 1) Bromochloromethane        | 7.819  | 128   | 117224   | 30.000   | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 9.107  | 114   | 664638   | 30.000   | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.866 | 117   | 591054   | 30.000   | ug/l   | 0.00     |
| System Monitoring Compounds  |        |       |          |          |        |          |
| 27) 1,2-Dichloroethane-d4    | 8.584  | 65    | 252180   | 29.914   | ug/l   | 0.00     |
| Spiked Amount                | 30.000 | Range | 91 - 110 | Recovery | =      | 99.700%  |
| 60) 4-Bromofluorobenzene     | 12.848 | 95    | 276025   | 29.370   | ug/l   | 0.00     |
| Spiked Amount                | 30.000 | Range | 63 - 112 | Recovery | =      | 97.900%  |
| 63) Toluene-d8               | 10.566 | 98    | 809999   | 29.671   | ug/l   | 0.00     |
| Spiked Amount                | 30.000 | Range | 91 - 112 | Recovery | =      | 98.900%  |
| Target Compounds             |        |       |          |          |        |          |
|                              |        |       |          |          | Qvalue |          |
| 2) Dichlorodifluoromethane   | 2.137  | 85    | 143556   | 18.652   | ug/l   | 96       |
| 3) Chloromethane             | 2.372  | 50    | 111368   | 19.040   | ug/l   | 99       |
| 4) Vinyl Chloride            | 2.519  | 62    | 157396   | 17.488   | ug/l   | 93       |
| 5) Bromomethane              | 2.966  | 94    | 129280   | 21.549   | ug/l   | 98       |
| 6) Chloroethane              | 3.131  | 64    | 108280   | 18.415   | ug/l   | 98       |
| 7) Trichlorofluoromethane    | 3.507  | 101   | 202247   | 16.523   | ug/l   | 92       |
| 8) Diethyl Ether             | 3.966  | 74    | 76660    | 19.871   | ug/l   | 94       |
| 9) 1,1,2-Trichlorotrifluo... | 4.390  | 101   | 121575   | 18.401   | ug/l   | 96       |
| 10) 1,1-Dichloroethene       | 4.349  | 96    | 115585   | 18.507   | ug/l   | 97       |
| 11) Methyl Iodide            | 4.596  | 142   | 183201   | 18.859   | ug/l   | 95       |
| 12) Methyl Acetate           | 5.037  | 43    | 157671m  | 20.884   | ug/l   |          |
| 13) Acrolein                 | 4.190  | 56    | 90599    | 97.966   | ug/l   | 99       |
| 14) Acrylonitrile            | 5.731  | 53    | 243100   | 105.853  | ug/l   | 98       |
| 15) Acetone                  | 4.437  | 58    | 69035    | 99.044   | ug/l   | 96       |
| 16) Carbon Disulfide         | 4.725  | 76    | 269152   | 17.940   | ug/l # | 95       |
| 17) Allyl chloride           | 5.037  | 41    | 120168   | 18.535   | ug/l   | 85       |
| 18) Methylene Chloride       | 5.290  | 84    | 144689   | 19.061   | ug/l   | 92       |
| 19) trans-1,2-Dichloroethene | 5.796  | 96    | 129499   | 18.431   | ug/l # | 91       |
| 20) Diisopropyl ether        | 6.678  | 45    | 307400   | 19.495   | ug/l # | 89       |
| 21) 1,1-Dichloroethane       | 6.578  | 63    | 221790   | 19.176   | ug/l   | 97       |
| 22) cis-1,2-Dichloroethene   | 7.495  | 96    | 166318   | 19.644   | ug/l   | 92       |
| 23) tert-Butyl Alcohol       | 5.531  | 59    | 99245    | 110.313  | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 5.807  | 73    | 431922   | 20.431   | ug/l   | 95       |
| 25) Chloroform               | 7.972  | 83    | 270690   | 19.635   | ug/l   | 99       |
| 26) Cyclohexane              | 8.260  | 56    | 167774   | 17.670   | ug/l # | 89       |
| 29) 1,1-Dichloropropene      | 8.378  | 75    | 184544   | 19.287   | ug/l   | 98       |
| 30) 2-Butanone               | 7.495  | 43    | 278846   | 109.335  | ug/l # | 91       |
| 31) 2,2-Dichloropropane      | 7.495  | 77    | 205557   | 18.440   | ug/l   | 99       |
| 32) 1,1,1-Trichloroethane    | 8.178  | 97    | 240185   | 19.396   | ug/l   | 96       |
| 33) Carbon Tetrachloride     | 8.372  | 117   | 205655   | 19.639   | ug/l   | 97       |
| 34) Benzene                  | 8.613  | 78    | 577414   | 19.986   | ug/l   | 98       |
| 35) Methacrylonitrile        | 7.784  | 41    | 60885    | 21.032   | ug/l   | 88       |
| 36) 1,2-Dichloroethane       | 8.678  | 62    | 194538   | 20.197   | ug/l # | 95       |
| 37) Trichloroethene          | 9.354  | 130   | 149339   | 19.996   | ug/l   | 95       |
| 38) Methylcyclohexane        | 9.607  | 83    | 229260   | 18.609   | ug/l   | 94       |
| 39) 1,2-Dichloropropane      | 9.625  | 63    | 135229   | 20.217   | ug/l   | 97       |
| 40) Dibromomethane           | 9.713  | 93    | 107485   | 20.383   | ug/l   | 95       |
| 41) Bromodichloromethane     | 9.889  | 83    | 210199   | 19.795   | ug/l   | 95       |
| 42) Vinyl Acetate            | 6.613  | 43    | 966750m  | 102.189  | ug/l   |          |

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 QLast Update : Tue May 09 05:58:09 2023  
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| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 43) Ethyl Acetate             | 7.566  | 43   | 115386   | 21.052  | ug/l # | 91       |
| 44) Isopropyl Acetate         | 8.689  | 43   | 210431   | 20.968  | ug/l   | 90       |
| 45) 1,4-Dioxane               | 9.701  | 88   | 54723    | 438.668 | ug/l # | 95       |
| 46) Methyl methacrylate       | 9.684  | 41   | 95378    | 21.162  | ug/l   | 91       |
| 47) n-amyl Acetate            | 12.495 | 43   | 174949   | 20.241  | ug/l   | 94       |
| 48) t-1,3-Dichloropropene     | 10.836 | 75   | 212380   | 19.839  | ug/l   | 100      |
| 49) cis-1,3-Dichloropropene   | 10.313 | 75   | 234340   | 19.972  | ug/l   | 94       |
| 50) 1,1,2-Trichloroethane     | 11.019 | 97   | 153594   | 20.225  | ug/l   | 95       |
| 51) Ethyl methacrylate        | 10.878 | 69   | 202897   | 20.697  | ug/l   | 88       |
| 52) 1,3-Dichloropropane       | 11.166 | 76   | 257410   | 20.964  | ug/l   | 98       |
| 53) Dibromochloromethane      | 11.360 | 129  | 161641   | 20.458  | ug/l   | 97       |
| 54) 1,2-Dibromoethane         | 11.472 | 107  | 158237   | 20.976  | ug/l   | 96       |
| 55) 2-Chloroethyl vinyl ether | 10.160 | 63   | 475822   | 107.333 | ug/l   | 97       |
| 56) Bromoform                 | 12.583 | 173  | 95263    | 20.491  | ug/l   | 96       |
| 58) 4-Methyl-2-Pentanone      | 10.448 | 43   | 606643   | 111.454 | ug/l # | 93       |
| 59) 2-Hexanone                | 11.195 | 43   | 430286   | 109.513 | ug/l   | 92       |
| 61) Tetrachloroethene         | 11.101 | 164  | 115177   | 20.146  | ug/l   | 98       |
| 62) Toluene                   | 10.631 | 91   | 665921   | 20.350  | ug/l   | 99       |
| 64) Chlorobenzene             | 11.895 | 112  | 416052   | 20.674  | ug/l   | 94       |
| 65) 1,1,1,2-Tetrachloroethane | 11.966 | 131  | 150504   | 20.731  | ug/l   | 95       |
| 66) Ethyl Benzene             | 11.966 | 91   | 710805   | 19.604  | ug/l   | 100      |
| 67) m/p-Xylenes               | 12.078 | 106  | 564512   | 39.572  | ug/l   | 98       |
| 68) o-Xylene                  | 12.401 | 106  | 284394   | 20.229  | ug/l   | 94       |
| 69) Styrene                   | 12.413 | 104  | 456717   | 20.317  | ug/l   | 97       |
| 70) Isopropylbenzene          | 12.701 | 105  | 724206   | 19.833  | ug/l   | 99       |
| 71) 1,1,2,2-Tetrachloroethane | 12.942 | 83   | 208299   | 21.272  | ug/l   | 97       |
| 72) 1,2,3-Trichloropropane    | 12.995 | 75   | 177890m  | 21.833  | ug/l   |          |
| 73) Bromobenzene              | 12.983 | 156  | 151001   | 19.777  | ug/l   | 96       |
| 74) n-propylbenzene           | 13.036 | 91   | 790860   | 19.370  | ug/l   | 99       |
| 75) 2-Chlorotoluene           | 13.130 | 91   | 494902   | 20.042  | ug/l   | 99       |
| 76) 1,3,5-Trimethylbenzene    | 13.177 | 105  | 574663   | 19.913  | ug/l   | 99       |
| 77) t-1,4-Dichloro-2-butene   | 12.736 | 75   | 58922    | 20.759  | ug/l   | 92       |
| 78) 4-Chlorotoluene           | 13.224 | 91   | 467302   | 19.382  | ug/l   | 99       |
| 79) tert-butylbenzene         | 13.442 | 119  | 510597   | 19.756  | ug/l   | 97       |
| 80) 1,2,4-Trimethylbenzene    | 13.489 | 105  | 540784   | 19.309  | ug/l   | 99       |
| 81) sec-Butylbenzene          | 13.619 | 105  | 705084   | 19.436  | ug/l   | 97       |
| 82) p-Isopropyltoluene        | 13.730 | 119  | 563420   | 19.520  | ug/l   | 99       |
| 83) 1,3-Dichlorobenzene       | 13.736 | 146  | 277124   | 19.545  | ug/l   | 98       |
| 84) 1,4-Dichlorobenzene       | 13.819 | 146  | 268267   | 19.328  | ug/l   | 99       |
| 85) n-Butylbenzene            | 14.060 | 91   | 437278   | 18.415  | ug/l   | 100      |
| 86) Hexachloroethane          | 14.336 | 117  | 103525   | 19.245  | ug/l   | 96       |
| 87) 1,2-Dichlorobenzene       | 14.107 | 146  | 272491   | 19.799  | ug/l   | 98       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.724 | 75   | 37455    | 21.048  | ug/l   | 94       |
| 89) 1,2,4-Trichlorobenzene    | 15.401 | 180  | 83888    | 17.691  | ug/l   | 97       |
| 90) Hexachlorobutadiene       | 15.507 | 225  | 56685    | 21.200  | ug/l   | 95       |
| 91) Naphthalene               | 15.642 | 128  | 293060   | 18.092  | ug/l   | 98       |
| 92) 1,2,3-Trichlorobenzene    | 15.842 | 180  | 77056    | 17.645  | ug/l   | 98       |

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

