

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080123\  
 Data File : VN078719.D  
 Acq On : 01 Aug 2023 16:10  
 Operator : JC\MD  
 Sample : VSTDICC075  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC075

Quant Time: Aug 02 02:52:52 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N080123W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Wed Aug 02 02:50:16 2023  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By : John Carlone 08/02/2023  
 Supervised By : Mahesh Dadoda 08/02/2023

| Compound                     | R.T.           | QIon | Response   | Conc      | Units  | Dev(Min) |
|------------------------------|----------------|------|------------|-----------|--------|----------|
| -----                        |                |      |            |           |        |          |
| Internal Standards           |                |      |            |           |        |          |
| 1) Bromochloromethane        | 7.824          | 128  | 114943     | 30.000    | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 9.106          | 114  | 654845     | 30.000    | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.871         | 117  | 577200     | 30.000    | ug/l   | 0.00     |
| System Monitoring Compounds  |                |      |            |           |        |          |
| 27) 1,2-Dichloroethane-d4    | 8.582          | 65   | 246170     | 28.423    | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |      | Recovery = | 94.733%   |        |          |
| 60) 4-Bromofluorobenzene     | 12.853         | 95   | 291144     | 35.010    | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |      | Recovery = | 116.700%# |        |          |
| 63) Toluene-d8               | 10.571         | 98   | 804337     | 28.138    | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |      | Recovery = | 93.800%   |        |          |
| Target Compounds             |                |      |            |           |        |          |
|                              |                |      |            |           | Qvalue |          |
| 2) Dichlorodifluoromethane   | 2.136          | 85   | 463368     | 72.875    | ug/l   | 100      |
| 3) Chloromethane             | 2.377          | 50   | 564013     | 71.388    | ug/l   | 96       |
| 4) Vinyl Chloride            | 2.518          | 62   | 904379     | 87.588    | ug/l   | 94       |
| 5) Bromomethane              | 2.948          | 94   | 599183     | 75.747    | ug/l   | 98       |
| 6) Chloroethane              | 3.118          | 64   | 558037     | 82.251    | ug/l   | 96       |
| 7) Trichlorofluoromethane    | 3.500          | 101  | 875916     | 81.661    | ug/l   | 96       |
| 8) Diethyl Ether             | 3.971          | 74   | 298266     | 86.105    | ug/l   | 99       |
| 9) 1,1,2-Trichlorotrifluo... | 4.377          | 101  | 481548     | 84.307    | ug/l   | 97       |
| 10) 1,1-Dichloroethene       | 4.347          | 96   | 465720     | 84.946    | ug/l   | 94       |
| 11) Methyl Iodide            | 4.595          | 142  | 689797     | 90.820    | ug/l   | 99       |
| 12) Methyl Acetate           | 5.036          | 43   | 713586     | 88.102    | ug/l   | 95       |
| 13) Acrolein                 | 4.189          | 56   | 381895     | 399.415   | ug/l   | 99       |
| 14) Acrylonitrile            | 5.730          | 53   | 1092503    | 465.648   | ug/l   | 98       |
| 15) Acetone                  | 4.442          | 58   | 352493     | 502.696   | ug/l   | 89       |
| 16) Carbon Disulfide         | 4.724          | 76   | 1251053    | 79.877    | ug/l   | 98       |
| 17) Allyl chloride           | 5.030          | 41   | 597750     | 78.272    | ug/l   | 93       |
| 18) Methylene Chloride       | 5.289          | 84   | 528747     | 89.277    | ug/l   | 95       |
| 19) trans-1,2-Dichloroethene | 5.794          | 96   | 518263     | 81.158    | ug/l   | 95       |
| 20) Diisopropyl ether        | 6.683          | 45   | 1491859    | 89.136    | ug/l   | 99       |
| 21) 1,1-Dichloroethane       | 6.583          | 63   | 938188     | 83.993    | ug/l   | 97       |
| 22) cis-1,2-Dichloroethene   | 7.494          | 96   | 617822     | 87.126    | ug/l   | 99       |
| 23) tert-Butyl Alcohol       | 5.536          | 59   | 435250     | 405.485   | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 5.806          | 73   | 1561795    | 84.542    | ug/l   | 97       |
| 25) Chloroform               | 7.971          | 83   | 1056646    | 90.578    | ug/l   | 94       |
| 26) Cyclohexane              | 8.265          | 56   | 734816     | 90.152    | ug/l # | 97       |
| 29) 1,1-Dichloropropene      | 8.377          | 75   | 759966     | 93.976    | ug/l   | 99       |
| 30) 2-Butanone               | 7.488          | 43   | 1530760    | 480.711   | ug/l   | 99       |
| 31) 2,2-Dichloropropane      | 7.500          | 77   | 890448     | 96.329    | ug/l   | 98       |
| 32) 1,1,1-Trichloroethane    | 8.177          | 97   | 926908     | 89.666    | ug/l   | 99       |
| 33) Carbon Tetrachloride     | 8.371          | 117  | 846275     | 92.898    | ug/l   | 95       |
| 34) Benzene                  | 8.612          | 78   | 2252590    | 92.402    | ug/l   | 99       |
| 35) Methacrylonitrile        | 7.788          | 41   | 317674     | 89.654    | ug/l   | 89       |
| 36) 1,2-Dichloroethane       | 8.677          | 62   | 781952     | 90.923    | ug/l   | 99       |
| 37) Trichloroethene          | 9.359          | 130  | 673838     | 100.340   | ug/l   | 97       |
| 38) Methylcyclohexane        | 9.612          | 83   | 877854     | 109.349   | ug/l   | 99       |
| 39) 1,2-Dichloropropane      | 9.629          | 63   | 648337     | 101.345   | ug/l   | 95       |
| 40) Dibromomethane           | 9.718          | 93   | 411734     | 90.765    | ug/l   | 96       |
| 41) Bromodichloromethane     | 9.894          | 83   | 824811     | 90.854    | ug/l   | 94       |
| 42) Vinyl Acetate            | 6.612          | 43   | 4729284    | 443.419   | ug/l   | 100      |

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 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC075

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 08/02/2023  
 Supervised By : Mahesh Dadoda 08/02/2023

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| Compound                      | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|------|----------|----------|-------|----------|
| 43) Ethyl Acetate             | 7.571  | 43   | 601996   | 89.666   | ug/l  | 99       |
| 44) Isopropyl Acetate         | 8.694  | 43   | 1042328  | 88.729   | ug/l  | 100      |
| 45) 1,4-Dioxane               | 9.700  | 88   | 206429   | 1957.268 | ug/l  | 98       |
| 46) Methyl methacrylate       | 9.688  | 41   | 520144   | 99.174   | ug/l  | 97       |
| 47) n-amyl Acetate            | 12.500 | 43   | 962306   | 111.977  | ug/l  | 98       |
| 48) t-1,3-Dichloropropene     | 10.841 | 75   | 905194   | 93.880   | ug/l  | 98       |
| 49) cis-1,3-Dichloropropene   | 10.318 | 75   | 958299   | 93.799   | ug/l  | 99       |
| 50) 1,1,2-Trichloroethane     | 11.024 | 97   | 556486   | 85.320   | ug/l  | 96       |
| 51) Ethyl methacrylate        | 10.882 | 69   | 835029   | 95.747   | ug/l  | 91       |
| 52) 1,3-Dichloropropane       | 11.171 | 76   | 925098   | 78.083   | ug/l  | 99       |
| 53) Dibromochloromethane      | 11.365 | 129  | 685186   | 95.016   | ug/l  | 99       |
| 54) 1,2-Dibromoethane         | 11.476 | 107  | 599532   | 93.104   | ug/l  | 99       |
| 55) 2-Chloroethyl vinyl ether | 10.165 | 63   | 1333802  | 479.896  | ug/l  | 98       |
| 56) Bromoform                 | 12.582 | 173  | 504929   | 111.239  | ug/l  | 97       |
| 58) 4-Methyl-2-Pentanone      | 10.453 | 43   | 3114284  | 420.589  | ug/l  | 99       |
| 59) 2-Hexanone                | 11.200 | 43   | 2351668  | 418.407  | ug/l  | 100      |
| 61) Tetrachloroethene         | 11.112 | 164  | 511233   | 77.464   | ug/l  | 95       |
| 62) Toluene                   | 10.635 | 91   | 2560229  | 86.420   | ug/l  | 100      |
| 64) Chlorobenzene             | 11.900 | 112  | 1565738  | 91.419   | ug/l  | 99       |
| 65) 1,1,1,2-Tetrachloroethane | 11.965 | 131  | 602969   | 88.673   | ug/l  | 99       |
| 66) Ethyl Benzene             | 11.970 | 91   | 2814644  | 96.108   | ug/l  | 99       |
| 67) m/p-Xylenes               | 12.076 | 106  | 2174839  | 195.121  | ug/l  | 100      |
| 68) o-Xylene                  | 12.412 | 106  | 1171947  | 105.211  | ug/l  | 98       |
| 69) Styrene                   | 12.418 | 104  | 2088897  | 120.455  | ug/l  | 99       |
| 70) Isopropylbenzene          | 12.700 | 105  | 2854443  | 103.071  | ug/l  | 100      |
| 71) 1,1,2,2-Tetrachloroethane | 12.941 | 83   | 822907   | 88.776   | ug/l  | 99       |
| 72) 1,2,3-Trichloropropane    | 13.000 | 75   | 694077m  | 79.002   | ug/l  |          |
| 73) Bromobenzene              | 12.982 | 156  | 675977   | 98.668   | ug/l  | 98       |
| 74) n-propylbenzene           | 13.041 | 91   | 3171489  | 103.524  | ug/l  | 98       |
| 75) 2-Chlorotoluene           | 13.129 | 91   | 2780999  | 142.777  | ug/l  | 99       |
| 76) 1,3,5-Trimethylbenzene    | 13.176 | 105  | 3229674  | 141.748  | ug/l  | 99       |
| 77) t-1,4-Dichloro-2-butene   | 12.741 | 75   | 293362   | 113.830  | ug/l  | 93       |
| 78) 4-Chlorotoluene           | 13.229 | 91   | 2752874  | 147.426  | ug/l  | 98       |
| 79) tert-butylbenzene         | 13.441 | 119  | 2704153  | 136.616  | ug/l  | 97       |
| 80) 1,2,4-Trimethylbenzene    | 13.488 | 105  | 3144430  | 145.366  | ug/l  | 100      |
| 81) sec-Butylbenzene          | 13.623 | 105  | 3517554  | 139.540  | ug/l  | 99       |
| 82) p-Isopropyltoluene        | 13.735 | 119  | 2962045  | 144.052  | ug/l  | 99       |
| 83) 1,3-Dichlorobenzene       | 13.741 | 146  | 1626581  | 148.219  | ug/l  | 99       |
| 84) 1,4-Dichlorobenzene       | 13.817 | 146  | 1557726  | 153.056  | ug/l  | 99       |
| 85) n-Butylbenzene            | 14.064 | 91   | 2193220  | 157.737  | ug/l  | 98       |
| 86) Hexachloroethane          | 14.341 | 117  | 464642   | 117.546  | ug/l  | 93       |
| 87) 1,2-Dichlorobenzene       | 14.112 | 146  | 1513141  | 146.835  | ug/l  | 98       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.723 | 75   | 201416   | 143.536  | ug/l  | 97       |
| 89) 1,2,4-Trichlorobenzene    | 15.400 | 180  | 420888   | 141.605  | ug/l  | 98       |
| 90) Hexachlorobutadiene       | 15.506 | 225  | 217385   | 85.405   | ug/l  | 98       |
| 91) Naphthalene               | 15.647 | 128  | 1162070  | 124.778  | ug/l  | 99       |
| 92) 1,2,3-Trichlorobenzene    | 15.847 | 180  | 409634   | 114.678  | ug/l  | 99       |

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

