

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN042425\  
 Data File : VN086396.D  
 Acq On : 24 Apr 2025 13:20  
 Operator : JC\MD  
 Sample : Q1168-09 2.5PPB  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MDL-WATER-03-QT1-2025

Quant Time: Apr 25 02:00:52 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N042325W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Apr 25 02:00:10 2025  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By :John Carlone 04/25/2025  
 Supervised By :Mahesh Dadoda 04/25/2025

| Compound                     | R.T.           | QIon | Response            | Conc   | Units  | Dev(Min) |
|------------------------------|----------------|------|---------------------|--------|--------|----------|
| -----                        |                |      |                     |        |        |          |
| Internal Standards           |                |      |                     |        |        |          |
| 1) Bromochloromethane        | 7.812          | 128  | 29981               | 30.000 | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 9.100          | 114  | 185390              | 30.000 | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.865         | 117  | 166215              | 30.000 | ug/l   | 0.00     |
|                              |                |      |                     |        |        |          |
| System Monitoring Compounds  |                |      |                     |        |        |          |
| 27) 1,2-Dichloroethane-d4    | 8.577          | 65   | 90983               | 31.476 | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |      | Recovery = 104.933% |        |        |          |
| 60) 4-Bromofluorobenzene     | 12.841         | 95   | 92114               | 28.197 | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |      | Recovery = 94.000%  |        |        |          |
| 63) Toluene-d8               | 10.565         | 98   | 277248              | 30.319 | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |      | Recovery = 101.067% |        |        |          |
|                              |                |      |                     |        |        |          |
| Target Compounds             |                |      |                     |        | Qvalue |          |
| 2) Dichlorodifluoromethane   | 2.124          | 85   | 4958                | 2.395  | ug/l   | 92       |
| 3) Chloromethane             | 2.359          | 50   | 8316                | 2.828  | ug/l   | 94       |
| 4) Vinyl Chloride            | 2.518          | 62   | 7153                | 2.540  | ug/l   | 94       |
| 5) Bromomethane              | 2.959          | 94   | 4527                | 3.079  | ug/l   | 91       |
| 6) Chloroethane              | 3.124          | 64   | 5031                | 2.680  | ug/l   | 97       |
| 7) Trichlorofluoromethane    | 3.495          | 101  | 8769                | 2.638  | ug/l   | 98       |
| 8) Diethyl Ether             | 3.959          | 74   | 3777m               | 2.692  | ug/l   |          |
| 9) 1,1,2-Trichlorotrifluo... | 4.377          | 101  | 5379                | 2.632  | ug/l   | 96       |
| 10) 1,1-Dichloroethene       | 4.342          | 96   | 5426                | 2.594  | ug/l   | 97       |
| 11) Methyl Iodide            | 4.589          | 142  | 6355                | 2.597  | ug/l   | 94       |
| 12) Methyl Acetate           | 5.030          | 43   | 7482                | 2.524  | ug/l   | 93       |
| 13) Acrolein                 | 4.183          | 56   | 3343                | 22.247 | ug/l   | 98       |
| 14) Acrylonitrile            | 5.718          | 53   | 14266               | 12.930 | ug/l   | 68       |
| 15) Acetone                  | 4.436          | 58   | 3834                | 12.610 | ug/l   | 74       |
| 16) Carbon Disulfide         | 4.712          | 76   | 15783               | 2.864  | ug/l   | 95       |
| 17) Allyl chloride           | 5.024          | 41   | 9156                | 2.738  | ug/l   | 98       |
| 18) Methylene Chloride       | 5.271          | 84   | 6645                | 2.790  | ug/l # | 90       |
| 19) trans-1,2-Dichloroethene | 5.783          | 96   | 6212                | 2.786  | ug/l   | 94       |
| 20) Diisopropyl ether        | 6.671          | 45   | 20454               | 2.572  | ug/l   | 93       |
| 21) 1,1-Dichloroethane       | 6.565          | 63   | 11488               | 2.639  | ug/l   | 96       |
| 22) cis-1,2-Dichloroethene   | 7.483          | 96   | 7303                | 2.620  | ug/l   | 98       |
| 23) tert-Butyl Alcohol       | 5.518          | 59   | 6530m               | 15.278 | ug/l   |          |
| 24) Methyl tert-Butyl Ether  | 5.794          | 73   | 20831               | 2.696  | ug/l # | 77       |
| 25) Chloroform               | 7.959          | 83   | 11945               | 2.712  | ug/l   | 98       |
| 26) Cyclohexane              | 8.259          | 56   | 10258               | 2.669  | ug/l # | 96       |
| 29) 1,1-Dichloropropene      | 8.365          | 75   | 8071                | 2.469  | ug/l   | 95       |
| 30) 2-Butanone               | 7.477          | 43   | 20414               | 12.869 | ug/l   | 99       |
| 31) 2,2-Dichloropropane      | 7.483          | 77   | 10589               | 2.520  | ug/l   | 96       |
| 32) 1,1,1-Trichloroethane    | 8.165          | 97   | 9954                | 2.549  | ug/l   | 98       |
| 33) Carbon Tetrachloride     | 8.365          | 117  | 8105                | 2.521  | ug/l   | 95       |
| 34) Benzene                  | 8.606          | 78   | 27399               | 2.636  | ug/l # | 86       |
| 35) Methacrylonitrile        | 7.777          | 41   | 5095                | 2.816  | ug/l   | 96       |
| 36) 1,2-Dichloroethane       | 8.665          | 62   | 8759                | 2.595  | ug/l   | 97       |
| 37) Trichloroethene          | 9.347          | 130  | 6579                | 2.528  | ug/l   | 99       |
| 38) Methylcyclohexane        | 9.600          | 83   | 9917                | 2.627  | ug/l   | 98       |
| 39) 1,2-Dichloropropane      | 9.618          | 63   | 6350                | 2.473  | ug/l   | 98       |
| 40) Dibromomethane           | 9.706          | 93   | 4331                | 2.522  | ug/l   | 86       |
| 41) Bromodichloromethane     | 9.888          | 83   | 9148                | 2.517  | ug/l # | 98       |
| 42) Vinyl Acetate            | 6.600          | 43   | 74306               | 13.522 | ug/l   | 99       |

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Manual Integrations  
 APPROVED

Reviewed By : John Carlone 04/25/2025  
 Supervised By : Mahesh Dadoda 04/25/2025

| Compound                      | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|--------|--------|----------|
| 43) Ethyl Acetate             | 7.553  | 43   | 8427     | 2.684  | ug/l   | 97       |
| 44) Isopropyl Acetate         | 8.688  | 43   | 18681    | 3.135  | ug/l   | 91       |
| 45) 1,4-Dioxane               | 9.694  | 88   | 2784     | 59.888 | ug/l # | 86       |
| 46) Methyl methacrylate       | 9.677  | 41   | 7283     | 2.650  | ug/l   | 86       |
| 47) n-amyl Acetate            | 12.488 | 43   | 12040    | 2.371  | ug/l   | 99       |
| 48) t-1,3-Dichloropropene     | 10.835 | 75   | 10083    | 2.482  | ug/l   | 98       |
| 49) cis-1,3-Dichloropropene   | 10.306 | 75   | 10603    | 2.475  | ug/l   | 93       |
| 50) 1,1,2-Trichloroethane     | 11.012 | 97   | 6144     | 2.561  | ug/l   | 94       |
| 51) Ethyl methacrylate        | 10.871 | 69   | 9859     | 2.360  | ug/l   | 93       |
| 52) 1,3-Dichloropropane       | 11.159 | 76   | 10870    | 2.564  | ug/l   | 100      |
| 53) Dibromochloromethane      | 11.353 | 129  | 6748     | 2.505  | ug/l   | 100      |
| 54) 1,2-Dibromoethane         | 11.465 | 107  | 6502     | 2.666  | ug/l   | 94       |
| 55) 2-Chloroethyl vinyl ether | 10.159 | 63   | 20651    | 10.514 | ug/l   | 98       |
| 56) Bromoform                 | 12.570 | 173  | 4137     | 2.367  | ug/l # | 97       |
| 58) 4-Methyl-2-Pentanone      | 10.441 | 43   | 42211    | 13.123 | ug/l   | 98       |
| 59) 2-Hexanone                | 11.194 | 43   | 30291    | 12.779 | ug/l   | 99       |
| 61) Tetrachloroethene         | 11.100 | 164  | 6826     | 2.693  | ug/l   | 90       |
| 62) Toluene                   | 10.624 | 91   | 29423    | 2.645  | ug/l   | 97       |
| 64) Chlorobenzene             | 11.888 | 112  | 17997    | 2.596  | ug/l   | 96       |
| 65) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 5891     | 2.541  | ug/l   | 98       |
| 66) Ethyl Benzene             | 11.959 | 91   | 32081    | 2.562  | ug/l   | 98       |
| 67) m/p-Xylenes               | 12.065 | 106  | 23544    | 4.955  | ug/l   | 99       |
| 68) o-Xylene                  | 12.394 | 106  | 11542    | 2.481  | ug/l   | 99       |
| 69) Styrene                   | 12.406 | 104  | 18408    | 2.334  | ug/l   | 99       |
| 70) Isopropylbenzene          | 12.694 | 105  | 28550    | 2.458  | ug/l   | 98       |
| 71) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 8136     | 2.661  | ug/l   | 96       |
| 72) 1,2,3-Trichloropropane    | 12.988 | 75   | 5622m    | 2.109  | ug/l   |          |
| 73) Bromobenzene              | 12.976 | 156  | 6748     | 2.527  | ug/l   | 96       |
| 74) n-propylbenzene           | 13.029 | 91   | 32278    | 2.339  | ug/l   | 98       |
| 75) 2-Chlorotoluene           | 13.123 | 91   | 21204    | 2.461  | ug/l   | 100      |
| 76) 1,3,5-Trimethylbenzene    | 13.170 | 105  | 22565    | 2.368  | ug/l   | 98       |
| 77) t-1,4-Dichloro-2-butene   | 12.735 | 75   | 2963     | 2.190  | ug/l   | 88       |
| 78) 4-Chlorotoluene           | 13.217 | 91   | 20363    | 2.364  | ug/l   | 97       |
| 79) tert-butylbenzene         | 13.435 | 119  | 20013    | 2.452  | ug/l   | 99       |
| 80) 1,2,4-Trimethylbenzene    | 13.476 | 105  | 22534    | 2.315  | ug/l   | 99       |
| 81) sec-Butylbenzene          | 13.612 | 105  | 26282    | 2.256  | ug/l   | 97       |
| 82) p-Isopropyltoluene        | 13.723 | 119  | 21902    | 2.247  | ug/l   | 99       |
| 83) 1,3-Dichlorobenzene       | 13.729 | 146  | 11645    | 2.307  | ug/l   | 96       |
| 84) 1,4-Dichlorobenzene       | 13.812 | 146  | 12063    | 2.419  | ug/l   | 95       |
| 85) n-Butylbenzene            | 14.053 | 91   | 19110    | 2.197  | ug/l   | 100      |
| 86) Hexachloroethane          | 14.329 | 117  | 3538     | 2.220  | ug/l   | 99       |
| 87) 1,2-Dichlorobenzene       | 14.106 | 146  | 11447    | 2.384  | ug/l   | 99       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.717 | 75   | 1495     | 2.405  | ug/l   | 99       |
| 89) 1,2,4-Trichlorobenzene    | 15.835 | 180  | 5026     | 2.296  | ug/l   | 98       |
| 90) Hexachlorobutadiene       | 15.494 | 225  | 2485     | 2.819  | ug/l   | 94       |
| 91) Naphthalene               | 15.635 | 128  | 18547    | 2.367  | ug/l   | 99       |
| 92) 1,2,3-Trichlorobenzene    | 15.835 | 180  | 5026     | 2.296  | ug/l   | 98       |

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

