

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN120624\  
 Data File : VN085118.D  
 Acq On : 06 Dec 2024 10:26  
 Operator : JC\MD  
 Sample : VSTDICCC020  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICCC020

Quant Time: Dec 06 22:28:56 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N120624W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Dec 06 22:19:40 2024  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 12/09/2024  
 Supervised By :Semsettin Yesilyurt 12/09/2024

| Compound                     | R.T.           | QIon | Response            | Conc   | Units  | Dev(Min) |
|------------------------------|----------------|------|---------------------|--------|--------|----------|
| -----                        |                |      |                     |        |        |          |
| Internal Standards           |                |      |                     |        |        |          |
| 1) Bromochloromethane        | 7.812          | 128  | 31263               | 30.000 | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 9.100          | 114  | 162398              | 30.000 | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.865         | 117  | 151793              | 30.000 | ug/l   | 0.00     |
|                              |                |      |                     |        |        |          |
| System Monitoring Compounds  |                |      |                     |        |        |          |
| 27) 1,2-Dichloroethane-d4    | 8.577          | 65   | 74804               | 30.155 | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |      | Recovery = 100.533% |        |        |          |
| 60) 4-Bromofluorobenzene     | 12.847         | 95   | 75101               | 29.902 | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |      | Recovery = 99.667%  |        |        |          |
| 63) Toluene-d8               | 10.565         | 98   | 218988              | 30.755 | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |      | Recovery = 102.533% |        |        |          |
|                              |                |      |                     |        |        |          |
| Target Compounds             |                |      |                     |        | Qvalue |          |
| 2) Dichlorodifluoromethane   | 2.124          | 85   | 51416               | 20.557 | ug/l   | 100      |
| 3) Chloromethane             | 2.359          | 50   | 43625               | 19.705 | ug/l   | 100      |
| 4) Vinyl Chloride            | 2.512          | 62   | 44749               | 19.762 | ug/l   | 100      |
| 5) Bromomethane              | 2.965          | 94   | 27801               | 19.338 | ug/l   | 100      |
| 6) Chloroethane              | 3.124          | 64   | 27130               | 19.501 | ug/l   | 100      |
| 7) Trichlorofluoromethane    | 3.500          | 101  | 72134               | 19.461 | ug/l   | 100      |
| 8) Diethyl Ether             | 3.959          | 74   | 21832               | 18.596 | ug/l   | 100      |
| 9) 1,1,2-Trichlorotrifluo... | 4.371          | 101  | 40093               | 19.343 | ug/l   | 100      |
| 10) 1,1-Dichloroethene       | 4.342          | 96   | 36518               | 19.181 | ug/l   | 100      |
| 11) Methyl Iodide            | 4.589          | 142  | 48887               | 18.514 | ug/l   | 100      |
| 12) Methyl Acetate           | 5.018          | 43   | 42971               | 19.131 | ug/l   | 100      |
| 13) Acrolein                 | 4.183          | 56   | 26615               | 81.540 | ug/l   | 100      |
| 14) Acrylonitrile            | 5.718          | 53   | 87191               | 93.488 | ug/l   | 100      |
| 15) Acetone                  | 4.424          | 58   | 23800               | 94.168 | ug/l   | 100      |
| 16) Carbon Disulfide         | 4.712          | 76   | 111875              | 19.659 | ug/l   | 100      |
| 17) Allyl chloride           | 5.024          | 41   | 49995               | 18.351 | ug/l   | 100      |
| 18) Methylene Chloride       | 5.271          | 84   | 41937               | 19.412 | ug/l   | 100      |
| 19) trans-1,2-Dichloroethene | 5.783          | 96   | 37486               | 18.942 | ug/l   | 100      |
| 20) Diisopropyl ether        | 6.665          | 45   | 118238              | 19.776 | ug/l   | 100      |
| 21) 1,1-Dichloroethane       | 6.565          | 63   | 71204               | 19.296 | ug/l   | 100      |
| 22) cis-1,2-Dichloroethene   | 7.488          | 96   | 44288               | 19.471 | ug/l   | 100      |
| 23) tert-Butyl Alcohol       | 5.512          | 59   | 30593               | 91.438 | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 5.794          | 73   | 113672              | 19.125 | ug/l   | 100      |
| 25) Chloroform               | 7.959          | 83   | 75756               | 19.596 | ug/l   | 100      |
| 26) Cyclohexane              | 8.253          | 56   | 60954               | 20.061 | ug/l   | 100      |
| 29) 1,1-Dichloropropene      | 8.371          | 75   | 52226               | 19.930 | ug/l   | 100      |
| 30) 2-Butanone               | 7.483          | 43   | 117537              | 97.739 | ug/l   | 100      |
| 31) 2,2-Dichloropropane      | 7.488          | 77   | 65781               | 19.575 | ug/l # | 100      |
| 32) 1,1,1-Trichloroethane    | 8.171          | 97   | 71977               | 20.293 | ug/l   | 100      |
| 33) Carbon Tetrachloride     | 8.359          | 117  | 63567               | 19.861 | ug/l   | 100      |
| 34) Benzene                  | 8.606          | 78   | 162502              | 19.740 | ug/l   | 100      |
| 35) Methacrylonitrile        | 7.777          | 41   | 27120               | 20.040 | ug/l   | 100      |
| 36) 1,2-Dichloroethane       | 8.665          | 62   | 54631               | 19.494 | ug/l   | 100      |
| 37) Trichloroethene          | 9.353          | 130  | 38555               | 19.667 | ug/l   | 100      |
| 38) Methylcyclohexane        | 9.600          | 83   | 52032               | 18.261 | ug/l   | 100      |
| 39) 1,2-Dichloropropane      | 9.618          | 63   | 40007               | 20.064 | ug/l   | 100      |
| 40) Dibromomethane           | 9.706          | 93   | 28813               | 20.145 | ug/l   | 100      |
| 41) Bromodichloromethane     | 9.882          | 83   | 60013               | 19.628 | ug/l   | 100      |
| 42) Vinyl Acetate            | 6.600          | 43   | 404546              | 96.136 | ug/l   | 100      |

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 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
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Manual Integrations  
 APPROVED

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| Compound                      | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|-------------------------------|--------|------|----------|---------|-------|----------|
| 43) Ethyl Acetate             | 7.559  | 43   | 43730    | 18.276  | ug/l  | 100      |
| 44) Isopropyl Acetate         | 8.688  | 43   | 80717    | 19.412  | ug/l  | 100      |
| 45) 1,4-Dioxane               | 9.694  | 88   | 13988    | 403.408 | ug/l  | 100      |
| 46) Methyl methacrylate       | 9.682  | 41   | 37174    | 19.535  | ug/l  | 100      |
| 47) n-amyl Acetate            | 12.494 | 43   | 67009    | 19.154  | ug/l  | 100      |
| 48) t-1,3-Dichloropropene     | 10.835 | 75   | 55998    | 18.657  | ug/l  | 100      |
| 49) cis-1,3-Dichloropropene   | 10.312 | 75   | 63845    | 19.540  | ug/l  | 100      |
| 50) 1,1,2-Trichloroethane     | 11.012 | 97   | 38466    | 19.958  | ug/l  | 100      |
| 51) Ethyl methacrylate        | 10.871 | 69   | 54805    | 18.696  | ug/l  | 100      |
| 52) 1,3-Dichloropropane       | 11.159 | 76   | 63330    | 19.634  | ug/l  | 100      |
| 53) Dibromochloromethane      | 11.353 | 129  | 46068    | 19.614  | ug/l  | 100      |
| 54) 1,2-Dibromoethane         | 11.465 | 107  | 37625    | 19.376  | ug/l  | 100      |
| 55) 2-Chloroethyl vinyl ether | 10.159 | 63   | 133977   | 98.387  | ug/l  | 100      |
| 56) Bromoform                 | 12.576 | 173  | 29780    | 18.911  | ug/l  | 100      |
| 58) 4-Methyl-2-Pentanone      | 10.441 | 43   | 249951   | 100.896 | ug/l  | 100      |
| 59) 2-Hexanone                | 11.194 | 43   | 190003   | 101.223 | ug/l  | 100      |
| 61) Tetrachloroethene         | 11.100 | 164  | 36183    | 19.684  | ug/l  | 100      |
| 62) Toluene                   | 10.629 | 91   | 173344   | 19.581  | ug/l  | 100      |
| 64) Chlorobenzene             | 11.888 | 112  | 106855   | 19.550  | ug/l  | 100      |
| 65) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 38831    | 19.032  | ug/l  | 100      |
| 66) Ethyl Benzene             | 11.965 | 91   | 176006   | 18.737  | ug/l  | 100      |
| 67) m/p-Xylenes               | 12.070 | 106  | 144263   | 39.929  | ug/l  | 100      |
| 68) o-Xylene                  | 12.394 | 106  | 65568    | 19.324  | ug/l  | 100      |
| 69) Styrene                   | 12.412 | 104  | 111060   | 19.289  | ug/l  | 100      |
| 70) Isopropylbenzene          | 12.694 | 105  | 167624   | 19.153  | ug/l  | 100      |
| 71) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 53829    | 20.208  | ug/l  | 100      |
| 72) 1,2,3-Trichloropropane    | 12.994 | 75   | 53975m   | 20.512  | ug/l  |          |
| 73) Bromobenzene              | 12.976 | 156  | 42513    | 19.393  | ug/l  | 100      |
| 74) n-propylbenzene           | 13.035 | 91   | 204446   | 19.431  | ug/l  | 100      |
| 75) 2-Chlorotoluene           | 13.123 | 91   | 128581   | 19.766  | ug/l  | 100      |
| 76) 1,3,5-Trimethylbenzene    | 13.170 | 105  | 145824   | 19.449  | ug/l  | 100      |
| 77) t-1,4-Dichloro-2-butene   | 12.735 | 75   | 18073    | 18.901  | ug/l  | 100      |
| 78) 4-Chlorotoluene           | 13.217 | 91   | 127680   | 19.337  | ug/l  | 100      |
| 79) tert-butylbenzene         | 13.435 | 119  | 118752   | 19.283  | ug/l  | 100      |
| 80) 1,2,4-Trimethylbenzene    | 13.476 | 105  | 144579   | 19.521  | ug/l  | 100      |
| 81) sec-Butylbenzene          | 13.612 | 105  | 168895   | 19.304  | ug/l  | 100      |
| 82) p-Isopropyltoluene        | 13.729 | 119  | 138833   | 19.140  | ug/l  | 100      |
| 83) 1,3-Dichlorobenzene       | 13.729 | 146  | 77464    | 19.261  | ug/l  | 100      |
| 84) 1,4-Dichlorobenzene       | 13.812 | 146  | 75083    | 19.156  | ug/l  | 100      |
| 85) n-Butylbenzene            | 14.053 | 91   | 109819   | 18.049  | ug/l  | 100      |
| 86) Hexachloroethane          | 14.329 | 117  | 27795    | 19.248  | ug/l  | 100      |
| 87) 1,2-Dichlorobenzene       | 14.100 | 146  | 72993    | 19.228  | ug/l  | 100      |
| 88) 1,2-Dibromo-3-Chloropr... | 14.717 | 75   | 10448    | 19.634  | ug/l  | 100      |
| 89) 1,2,4-Trichlorobenzene    | 15.835 | 180  | 34577    | 18.598  | ug/l  | 100      |
| 90) Hexachlorobutadiene       | 15.500 | 225  | 18570    | 19.222  | ug/l  | 100      |
| 91) Naphthalene               | 15.641 | 128  | 98254    | 17.011  | ug/l  | 100      |
| 92) 1,2,3-Trichlorobenzene    | 15.835 | 180  | 34577    | 18.598  | ug/l  | 100      |

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

