

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN092723\  
 Data File : VN079357.D  
 Acq On : 27 Sep 2023 10:36  
 Operator : JC\MD  
 Sample : VSTDICC010  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC010

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 09/28/2023  
 Supervised By : Semsettin Yesilyurt 09/28/2023

Quant Time: Sep 27 23:35:57 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N092723W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Wed Sep 27 23:34:19 2023  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response            | Conc   | Units  | Dev(Min) |
|------------------------------|----------------|------|---------------------|--------|--------|----------|
| -----                        |                |      |                     |        |        |          |
| Internal Standards           |                |      |                     |        |        |          |
| 1) Bromochloromethane        | 7.818          | 128  | 39945               | 30.000 | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 9.106          | 114  | 214877              | 30.000 | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.871         | 117  | 192290              | 30.000 | ug/l   | 0.00     |
|                              |                |      |                     |        |        |          |
| System Monitoring Compounds  |                |      |                     |        |        |          |
| 27) 1,2-Dichloroethane-d4    | 8.583          | 65   | 100867              | 30.781 | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |      | Recovery = 102.600% |        |        |          |
| 60) 4-Bromofluorobenzene     | 12.853         | 95   | 78576               | 28.669 | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |      | Recovery = 95.567%  |        |        |          |
| 63) Toluene-d8               | 10.571         | 98   | 284440              | 30.108 | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |      | Recovery = 100.367% |        |        |          |
|                              |                |      |                     |        |        |          |
| Target Compounds             |                |      |                     |        |        | Qvalue   |
| 2) Dichlorodifluoromethane   | 2.130          | 85   | 24316               | 9.864  | ug/l   | 99       |
| 3) Chloromethane             | 2.365          | 50   | 32831               | 10.386 | ug/l   | 100      |
| 4) Vinyl Chloride            | 2.518          | 62   | 35789               | 10.332 | ug/l   | 100      |
| 5) Bromomethane              | 2.965          | 94   | 23446               | 12.037 | ug/l   | 88       |
| 6) Chloroethane              | 3.124          | 64   | 25722               | 10.423 | ug/l   | 98       |
| 7) Trichlorofluoromethane    | 3.501          | 101  | 42441               | 10.339 | ug/l   | 96       |
| 8) Diethyl Ether             | 3.965          | 74   | 14895               | 10.167 | ug/l   | 96       |
| 9) 1,1,2-Trichlorotrifluo... | 4.377          | 101  | 23312               | 10.124 | ug/l   | 97       |
| 10) 1,1-Dichloroethene       | 4.348          | 96   | 22291               | 10.475 | ug/l   | 86       |
| 11) Methyl Iodide            | 4.595          | 142  | 22884               | 9.737  | ug/l   | 96       |
| 12) Methyl Acetate           | 5.030          | 43   | 50353               | 11.768 | ug/l   | 97       |
| 13) Acrolein                 | 4.183          | 56   | 23995               | 49.393 | ug/l   | 95       |
| 14) Acrylonitrile            | 5.730          | 53   | 65751               | 52.195 | ug/l   | 99       |
| 15) Acetone                  | 4.436          | 58   | 20764               | 50.378 | ug/l   | 93       |
| 16) Carbon Disulfide         | 4.718          | 76   | 67548               | 10.478 | ug/l   | 100      |
| 17) Allyl chloride           | 5.024          | 41   | 34626               | 10.136 | ug/l   | 93       |
| 18) Methylene Chloride       | 5.289          | 84   | 28798               | 10.408 | ug/l   | 91       |
| 19) trans-1,2-Dichloroethene | 5.783          | 96   | 25247               | 11.224 | ug/l   | 86       |
| 20) Diisopropyl ether        | 6.677          | 45   | 80745               | 9.992  | ug/l   | 94       |
| 21) 1,1-Dichloroethane       | 6.571          | 63   | 50104               | 10.290 | ug/l   | 98       |
| 22) cis-1,2-Dichloroethene   | 7.494          | 96   | 28395               | 10.026 | ug/l   | 98       |
| 23) tert-Butyl Alcohol       | 5.518          | 59   | 22285m              | 60.206 | ug/l   |          |
| 24) Methyl tert-Butyl Ether  | 5.806          | 73   | 74635               | 11.578 | ug/l   | 100      |
| 25) Chloroform               | 7.971          | 83   | 50625               | 10.184 | ug/l   | 86       |
| 26) Cyclohexane              | 8.259          | 56   | 37587               | 11.311 | ug/l # | 99       |
| 29) 1,1-Dichloropropene      | 8.377          | 75   | 36159               | 9.988  | ug/l   | 99       |
| 30) 2-Butanone               | 7.489          | 43   | 87273               | 48.731 | ug/l   | 99       |
| 31) 2,2-Dichloropropane      | 7.494          | 77   | 38759               | 9.697  | ug/l   | 98       |
| 32) 1,1,1-Trichloroethane    | 8.171          | 97   | 41709               | 9.937  | ug/l   | 97       |
| 33) Carbon Tetrachloride     | 8.365          | 117  | 36589               | 10.065 | ug/l   | 99       |
| 34) Benzene                  | 8.606          | 78   | 110392              | 10.065 | ug/l # | 93       |
| 35) Methacrylonitrile        | 7.783          | 41   | 17311               | 9.336  | ug/l   | 96       |
| 36) 1,2-Dichloroethane       | 8.671          | 62   | 39976               | 10.063 | ug/l   | 100      |
| 37) Trichloroethene          | 9.353          | 130  | 25552               | 9.913  | ug/l   | 93       |
| 38) Methylcyclohexane        | 9.600          | 83   | 34201               | 9.634  | ug/l   | 97       |
| 39) 1,2-Dichloropropane      | 9.624          | 63   | 28897               | 9.926  | ug/l   | 100      |
| 40) Dibromomethane           | 9.712          | 93   | 19670               | 10.207 | ug/l   | 99       |
| 41) Bromodichloromethane     | 9.894          | 83   | 39499               | 10.065 | ug/l   | 99       |
| 42) Vinyl Acetate            | 6.612          | 43   | 245393              | 50.709 | ug/l   | 99       |

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 Sample : VSTDICC010  
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 ALS Vial : 1 Sample Multiplier: 1

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 MSVOA\_N  
 ClientSampleId :  
 VSTDICC010

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 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
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Manual Integrations  
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| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 43) Ethyl Acetate             | 7.565  | 43   | 38435    | 10.774  | ug/l   | 93       |
| 44) Isopropyl Acetate         | 8.694  | 43   | 57969    | 10.107  | ug/l   | 98       |
| 45) 1,4-Dioxane               | 9.700  | 88   | 9511     | 201.027 | ug/l   | 94       |
| 46) Methyl methacrylate       | 9.683  | 41   | 24562    | 9.423   | ug/l   | 94       |
| 47) n-amyl Acetate            | 12.500 | 43   | 38165    | 9.351   | ug/l   | 98       |
| 48) t-1,3-Dichloropropene     | 10.841 | 75   | 39114    | 9.813   | ug/l   | 98       |
| 49) cis-1,3-Dichloropropene   | 10.318 | 75   | 42709    | 9.986   | ug/l   | 97       |
| 50) 1,1,2-Trichloroethane     | 11.024 | 97   | 26304    | 10.005  | ug/l # | 94       |
| 51) Ethyl methacrylate        | 10.877 | 69   | 34342    | 9.610   | ug/l   | 94       |
| 52) 1,3-Dichloropropane       | 11.165 | 76   | 47156    | 10.055  | ug/l   | 98       |
| 53) Dibromochloromethane      | 11.359 | 129  | 27244    | 10.238  | ug/l   | 100      |
| 54) 1,2-Dibromoethane         | 11.471 | 107  | 26248    | 10.237  | ug/l   | 99       |
| 55) 2-Chloroethyl vinyl ether | 10.165 | 63   | 66419    | 47.808  | ug/l   | 100      |
| 56) Bromoform                 | 12.582 | 173  | 17045    | 10.055  | ug/l # | 93       |
| 58) 4-Methyl-2-Pentanone      | 10.447 | 43   | 176424   | 51.269  | ug/l   | 99       |
| 59) 2-Hexanone                | 11.200 | 43   | 122386   | 49.711  | ug/l   | 98       |
| 61) Tetrachloroethene         | 11.112 | 164  | 22637    | 10.558  | ug/l   | 88       |
| 62) Toluene                   | 10.635 | 91   | 115912   | 10.063  | ug/l   | 100      |
| 64) Chlorobenzene             | 11.894 | 112  | 67950    | 10.278  | ug/l   | 91       |
| 65) 1,1,1,2-Tetrachloroethane | 11.965 | 131  | 24847    | 10.047  | ug/l   | 97       |
| 66) Ethyl Benzene             | 11.965 | 91   | 113116   | 9.709   | ug/l   | 98       |
| 67) m/p-Xylenes               | 12.076 | 106  | 83430    | 19.368  | ug/l   | 97       |
| 68) o-Xylene                  | 12.400 | 106  | 41025    | 9.896   | ug/l   | 98       |
| 69) Styrene                   | 12.418 | 104  | 62386    | 9.554   | ug/l   | 99       |
| 70) Isopropylbenzene          | 12.700 | 105  | 102549   | 9.724   | ug/l   | 99       |
| 71) 1,1,2,2-Tetrachloroethane | 12.941 | 83   | 38553    | 10.203  | ug/l   | 99       |
| 72) 1,2,3-Trichloropropane    | 12.994 | 75   | 33308m   | 8.662   | ug/l   |          |
| 73) Bromobenzene              | 12.982 | 156  | 23355    | 9.458   | ug/l   | 94       |
| 74) n-propylbenzene           | 13.041 | 91   | 118739   | 9.511   | ug/l   | 99       |
| 75) 2-Chlorotoluene           | 13.129 | 91   | 73777    | 9.678   | ug/l   | 100      |
| 76) 1,3,5-Trimethylbenzene    | 13.176 | 105  | 84110    | 9.596   | ug/l   | 97       |
| 77) t-1,4-Dichloro-2-butene   | 12.735 | 75   | 9628     | 9.615   | ug/l   | 82       |
| 78) 4-Chlorotoluene           | 13.223 | 91   | 68450    | 9.663   | ug/l   | 99       |
| 79) tert-butylbenzene         | 13.441 | 119  | 75846    | 10.445  | ug/l   | 98       |
| 80) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 88243    | 10.292  | ug/l   | 99       |
| 81) sec-Butylbenzene          | 13.618 | 105  | 105876   | 10.163  | ug/l   | 99       |
| 82) p-Isopropyltoluene        | 13.735 | 119  | 82441    | 9.982   | ug/l   | 99       |
| 83) 1,3-Dichlorobenzene       | 13.735 | 146  | 41362    | 9.905   | ug/l   | 96       |
| 84) 1,4-Dichlorobenzene       | 13.812 | 146  | 39911    | 10.198  | ug/l   | 99       |
| 85) n-Butylbenzene            | 14.059 | 91   | 60321    | 9.526   | ug/l   | 99       |
| 86) Hexachloroethane          | 14.335 | 117  | 17966    | 10.499  | ug/l   | 93       |
| 87) 1,2-Dichlorobenzene       | 14.106 | 146  | 43255    | 10.488  | ug/l   | 98       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.723 | 75   | 6035     | 10.353  | ug/l   | 95       |
| 89) 1,2,4-Trichlorobenzene    | 15.841 | 180  | 13767m   | 9.560   | ug/l   |          |
| 90) Hexachlorobutadiene       | 15.506 | 225  | 10560    | 9.620   | ug/l   | 99       |
| 91) Naphthalene               | 15.647 | 128  | 29578    | 8.565   | ug/l   | 98       |
| 92) 1,2,3-Trichlorobenzene    | 15.841 | 180  | 13768    | 9.041   | ug/l   | 90       |

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

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Sample : VSTDICC010  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
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APPROVED

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