

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX111022\  
 Data File : VX032748.D  
 Acq On : 11 Nov 2022 01:22  
 Operator : JC/MD  
 Sample : VSTDIC050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 36 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDIC050

Quant Time: Nov 11 04:56:41 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\624X111022W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Nov 11 04:46:19 2022  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By : John Carlone 11/11/2022  
 Supervised By : Mahesh Dadoda 11/11/2022

| Compound                     | R.T.           | QIon | Response             | Conc    | Units  | Dev(Min) |
|------------------------------|----------------|------|----------------------|---------|--------|----------|
| -----                        |                |      |                      |         |        |          |
| Internal Standards           |                |      |                      |         |        |          |
| 1) Bromochloromethane        | 4.904          | 128  | 12568                | 30.000  | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 6.763          | 114  | 85314                | 30.000  | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 10.055         | 117  | 93711                | 30.000  | ug/l   | 0.00     |
|                              |                |      |                      |         |        |          |
| System Monitoring Compounds  |                |      |                      |         |        |          |
| 27) 1,2-Dichloroethane-d4    | 5.958          | 65   | 35452                | 35.927  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |      | Recovery = 119.767%# |         |        |          |
| 60) 4-Bromofluorobenzene     | 11.079         | 95   | 55166                | 31.986  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |      | Recovery = 106.633%  |         |        |          |
| 63) Toluene-d8               | 8.647          | 98   | 96645                | 21.929  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |      | Recovery = 73.100%#  |         |        |          |
|                              |                |      |                      |         |        |          |
| Target Compounds             |                |      |                      |         |        | Qvalue   |
| 2) Dichlorodifluoromethane   | 1.167          | 85   | 55541                | 84.711  | ug/l   | 96       |
| 3) Chloromethane             | 1.295          | 50   | 52579                | 79.403  | ug/l   | 97       |
| 4) Vinyl Chloride            | 1.374          | 62   | 60522                | 72.061  | ug/l   | 100      |
| 5) Bromomethane              | 1.612          | 94   | 51460                | 67.217  | ug/l   | 99       |
| 6) Chloroethane              | 1.685          | 64   | 47657                | 66.557  | ug/l   | 91       |
| 7) Trichlorofluoromethane    | 1.886          | 101  | 117269               | 67.581  | ug/l   | 98       |
| 8) Diethyl Ether             | 2.130          | 74   | 37762                | 65.592  | ug/l   | 73       |
| 9) 1,1,2-Trichlorotrifluo... | 2.331          | 101  | 62429                | 73.051  | ug/l   | 98       |
| 10) 1,1-Dichloroethene       | 2.319          | 96   | 58908                | 74.070  | ug/l   | 89       |
| 11) Methyl Iodide            | 2.453          | 142  | 67965                | 78.128  | ug/l   | 98       |
| 12) Methyl Acetate           | 2.703          | 43   | 86250                | 86.880  | ug/l # | 86       |
| 13) Acrolein                 | 2.240          | 56   | 57808                | 557.138 | ug/l   | 97       |
| 14) Acrylonitrile            | 3.063          | 53   | 155636               | 395.511 | ug/l   | 99       |
| 15) Acetone                  | 2.386          | 58   | 40178                | 380.183 | ug/l   | 80       |
| 16) Carbon Disulfide         | 2.514          | 76   | 147102               | 80.916  | ug/l   | 97       |
| 17) Allyl chloride           | 2.666          | 41   | 94294                | 90.179  | ug/l   | 88       |
| 18) Methylene Chloride       | 2.788          | 84   | 65370                | 71.820  | ug/l   | 90       |
| 19) trans-1,2-Dichloroethene | 3.093          | 96   | 64885                | 71.790  | ug/l # | 83       |
| 20) Diisopropyl ether        | 3.758          | 45   | 215061               | 90.921  | ug/l # | 93       |
| 21) 1,1-Dichloroethane       | 3.611          | 63   | 118686               | 79.574  | ug/l   | 95       |
| 22) cis-1,2-Dichloroethene   | 4.489          | 96   | 77031                | 71.222  | ug/l   | 88       |
| 23) tert-Butyl Alcohol       | 2.977          | 59   | 55654                | 385.718 | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 3.111          | 73   | 210884               | 76.842  | ug/l # | 91       |
| 25) Chloroform               | 5.093          | 83   | 133222               | 75.994  | ug/l   | 98       |
| 26) Cyclohexane              | 5.471          | 56   | 105080               | 84.773  | ug/l # | 84       |
| 29) 1,1-Dichloropropene      | 5.696          | 75   | 95278                | 66.650  | ug/l   | 97       |
| 30) 2-Butanone               | 4.556          | 43   | 220334               | 368.855 | ug/l # | 90       |
| 31) 2,2-Dichloropropane      | 4.477          | 77   | 81222                | 58.650  | ug/l   | 97       |
| 32) 1,1,1-Trichloroethane    | 5.385          | 97   | 121300               | 64.696  | ug/l   | 94       |
| 33) Carbon Tetrachloride     | 5.678          | 117  | 107884               | 63.648  | ug/l   | 98       |
| 34) Benzene                  | 6.038          | 78   | 268079               | 64.269  | ug/l # | 97       |
| 35) Methacrylonitrile        | 4.922          | 41   | 50850                | 79.279  | ug/l   | 93       |
| 36) 1,2-Dichloroethane       | 6.086          | 62   | 111846               | 72.911  | ug/l # | 91       |
| 37) Trichloroethene          | 7.129          | 130  | 75537                | 56.917  | ug/l   | 98       |
| 38) Methylcyclohexane        | 7.379          | 83   | 107762               | 62.826  | ug/l   | 89       |
| 39) 1,2-Dichloropropane      | 7.428          | 63   | 68647                | 70.053  | ug/l   | 96       |
| 40) Dibromomethane           | 7.580          | 93   | 51836                | 62.781  | ug/l   | 98       |
| 41) Bromodichloromethane     | 7.824          | 83   | 100514               | 66.192  | ug/l   | 98       |
| 42) Vinyl Acetate            | 3.721          | 43   | 871678               | 395.829 | ug/l # | 91       |

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 ALS Vial : 36 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDIC050

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 11/11/2022  
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 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Nov 11 04:46:19 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|----------|--------|----------|
| 43) Ethyl Acetate             | 4.715  | 43   | 89887    | 74.206   | ug/l # | 87       |
| 44) Isopropyl Acetate         | 6.342  | 43   | 154101   | 79.287   | ug/l   | 93       |
| 45) 1,4-Dioxane               | 7.690  | 88   | 29220    | 1181.229 | ug/l # | 86       |
| 46) Methyl methacrylate       | 7.690  | 41   | 77863    | 84.002   | ug/l   | 82       |
| 47) n-amyl Acetate            | 10.842 | 43   | 142758   | 84.267   | ug/l   | 94       |
| 48) t-1,3-Dichloropropene     | 8.976  | 75   | 105345   | 69.684   | ug/l   | 99       |
| 49) cis-1,3-Dichloropropene   | 8.366  | 75   | 110285   | 67.226   | ug/l # | 89       |
| 50) 1,1,2-Trichloroethane     | 9.153  | 97   | 72315    | 61.566   | ug/l   | 97       |
| 51) Ethyl methacrylate        | 9.116  | 69   | 111066   | 70.350   | ug/l   | 81       |
| 52) 1,3-Dichloropropane       | 9.311  | 76   | 117222   | 63.756   | ug/l   | 100      |
| 53) Dibromochloromethane      | 9.525  | 129  | 80885    | 61.534   | ug/l   | 99       |
| 54) 1,2-Dibromoethane         | 9.610  | 107  | 79162    | 61.069   | ug/l   | 100      |
| 55) 2-Chloroethyl vinyl ether | 8.245  | 63   | 258543   | 338.057  | ug/l # | 93       |
| 56) Bromoform                 | 10.799 | 173  | 57453    | 59.633   | ug/l   | 99       |
| 58) 4-Methyl-2-Pentanone      | 8.574  | 43   | 472112   | 347.198  | ug/l # | 92       |
| 59) 2-Hexanone                | 9.433  | 43   | 353059   | 348.109  | ug/l   | 92       |
| 61) Tetrachloroethene         | 9.275  | 164  | 66235    | 45.221   | ug/l   | 96       |
| 62) Toluene                   | 8.720  | 91   | 308475   | 56.357   | ug/l   | 97       |
| 64) Chlorobenzene             | 10.080 | 112  | 193438   | 52.855   | ug/l   | 100      |
| 65) 1,1,1,2-Tetrachloroethane | 10.165 | 131  | 74969    | 53.554   | ug/l   | 99       |
| 66) Ethyl Benzene             | 10.195 | 91   | 352041   | 57.294   | ug/l   | 97       |
| 67) m/p-Xylenes               | 10.299 | 106  | 274777   | 109.170  | ug/l   | 89       |
| 68) o-Xylene                  | 10.640 | 106  | 135707   | 54.770   | ug/l   | 91       |
| 69) Styrene                   | 10.653 | 104  | 226435   | 56.050   | ug/l   | 94       |
| 70) Isopropylbenzene          | 10.964 | 105  | 362525   | 56.122   | ug/l   | 97       |
| 71) 1,1,2,2-Tetrachloroethane | 11.214 | 83   | 108956   | 58.260   | ug/l   | 99       |
| 72) 1,2,3-Trichloropropane    | 11.238 | 75   | 87657m   | 53.890   | ug/l   |          |
| 73) Bromobenzene              | 11.201 | 156  | 87248    | 50.963   | ug/l   | 88       |
| 74) n-propylbenzene           | 11.305 | 91   | 418195   | 58.528   | ug/l   | 95       |
| 75) 2-Chlorotoluene           | 11.366 | 91   | 247882   | 57.581   | ug/l   | 94       |
| 76) 1,3,5-Trimethylbenzene    | 11.451 | 105  | 307863   | 56.575   | ug/l   | 97       |
| 77) t-1,4-Dichloro-2-butene   | 11.018 | 75   | 30178    | 62.654   | ug/l   | 97       |
| 78) 4-Chlorotoluene           | 11.457 | 91   | 288392   | 58.764   | ug/l   | 93       |
| 79) tert-butylbenzene         | 11.713 | 119  | 296154   | 54.529   | ug/l   | 94       |
| 80) 1,2,4-Trimethylbenzene    | 11.750 | 105  | 304075   | 56.348   | ug/l   | 95       |
| 81) sec-Butylbenzene          | 11.890 | 105  | 364617   | 54.943   | ug/l   | 95       |
| 82) p-Isopropyltoluene        | 12.012 | 119  | 309040   | 53.440   | ug/l   | 95       |
| 83) 1,3-Dichlorobenzene       | 11.969 | 146  | 162255   | 50.273   | ug/l   | 98       |
| 84) 1,4-Dichlorobenzene       | 12.043 | 146  | 164162   | 49.972   | ug/l   | 98       |
| 85) n-Butylbenzene            | 12.335 | 91   | 259856   | 56.931   | ug/l   | 95       |
| 86) Hexachloroethane          | 12.536 | 117  | 50563    | 54.800   | ug/l   | 100      |
| 87) 1,2-Dichlorobenzene       | 12.335 | 146  | 161426   | 50.302   | ug/l   | 96       |
| 88) 1,2-Dibromo-3-Chloropr... | 12.945 | 75   | 24011    | 63.838   | ug/l # | 81       |
| 89) 1,2,4-Trichlorobenzene    | 13.585 | 180  | 99272    | 47.689   | ug/l   | 100      |
| 90) Hexachlorobutadiene       | 13.725 | 225  | 39555    | 47.109   | ug/l   | 98       |
| 91) Naphthalene               | 13.774 | 128  | 337534   | 50.938   | ug/l   | 99       |
| 92) 1,2,3-Trichlorobenzene    | 13.963 | 180  | 99422    | 47.939   | ug/l   | 97       |

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

