

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN121223\  
 Data File : VN080434.D  
 Acq On : 12 Dec 2023 11:44  
 Operator : JC\MD  
 Sample : VSTDICC005  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC005

Quant Time: Dec 13 01:29:52 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N121223W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 13 01:22:48 2023  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By : John Carlone 12/13/2023  
 Supervised By : Mahesh Dadoda 12/13/2023

| Compound                     | R.T.           | QIon | Response   | Conc     | Units  | Dev(Min) |
|------------------------------|----------------|------|------------|----------|--------|----------|
| -----                        |                |      |            |          |        |          |
| Internal Standards           |                |      |            |          |        |          |
| 1) Pentafluorobenzene        | 8.224          | 168  | 333816     | 50.000   | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene      | 9.100          | 114  | 523288     | 50.000   | ug/l   | 0.00     |
| 63) Chlorobenzene-d5         | 11.865         | 117  | 462025     | 50.000   | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 13.794         | 152  | 217960     | 50.000   | ug/l   | 0.00     |
| System Monitoring Compounds  |                |      |            |          |        |          |
| 33) 1,2-Dichloroethane-d4    | 8.577          | 65   | 23216      | 5.445    | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 74 - 125 |      | Recovery = | 10.900%# |        |          |
| 35) Dibromofluoromethane     | 8.165          | 113  | 18711      | 5.639    | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 75 - 124 |      | Recovery = | 11.280%# |        |          |
| 50) Toluene-d8               | 10.565         | 98   | 69009      | 5.577    | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 86 - 113 |      | Recovery = | 11.160%# |        |          |
| 62) 4-Bromofluorobenzene     | 12.847         | 95   | 25668      | 5.463    | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 83 - 123 |      | Recovery = | 10.920%# |        |          |
| Target Compounds             |                |      |            |          |        |          |
|                              |                |      |            |          | Qvalue |          |
| 2) Dichlorodifluoromethane   | 2.124          | 85   | 22579      | 5.293    | ug/l   | 100      |
| 3) Chloromethane             | 2.365          | 50   | 25501      | 5.368    | ug/l   | 96       |
| 4) Vinyl Chloride            | 2.518          | 62   | 19467      | 5.343    | ug/l   | 100      |
| 5) Bromomethane              | 2.947          | 94   | 9581       | 5.833    | ug/l # | 80       |
| 6) Chloroethane              | 3.124          | 64   | 11943m     | 5.098    | ug/l   |          |
| 7) Trichlorofluoromethane    | 3.500          | 101  | 38579      | 5.221    | ug/l   | 100      |
| 8) Diethyl Ether             | 3.959          | 74   | 12252      | 5.264    | ug/l   | 93       |
| 9) 1,1,2-Trichlorotrifluo... | 4.371          | 101  | 18268      | 5.216    | ug/l   | 90       |
| 10) Methyl Iodide            | 4.589          | 142  | 14946      | 4.852    | ug/l # | 82       |
| 11) Tert butyl alcohol       | 5.506          | 59   | 13096      | 26.081   | ug/l # | 88       |
| 12) 1,1-Dichloroethene       | 4.336          | 96   | 18498      | 5.155    | ug/l   | 86       |
| 13) Acrolein                 | 4.177          | 56   | 16505      | 30.014   | ug/l   | 100      |
| 14) Allyl chloride           | 5.018          | 41   | 22699      | 5.112    | ug/l   | 95       |
| 15) Acrylonitrile            | 5.718          | 53   | 38409      | 27.071   | ug/l   | 99       |
| 16) Acetone                  | 4.430          | 43   | 15269      | 20.198   | ug/l # | 86       |
| 17) Carbon Disulfide         | 4.706          | 76   | 52758      | 5.188    | ug/l   | 96       |
| 18) Methyl Acetate           | 5.012          | 43   | 25431      | 5.228    | ug/l   | 96       |
| 19) Methyl tert-butyl Ether  | 5.794          | 73   | 62693      | 5.236    | ug/l   | 95       |
| 20) Methylene Chloride       | 5.277          | 84   | 21860      | 5.403    | ug/l   | 94       |
| 21) trans-1,2-Dichloroethene | 5.794          | 96   | 20023      | 5.146    | ug/l   | 86       |
| 22) Diisopropyl ether        | 6.671          | 45   | 50941      | 5.316    | ug/l   | 96       |
| 23) Vinyl Acetate            | 6.600          | 43   | 147787     | 26.852   | ug/l   | 93       |
| 24) 1,1-Dichloroethane       | 6.565          | 63   | 35354      | 5.288    | ug/l   | 97       |
| 25) 2-Butanone               | 7.482          | 43   | 35411      | 24.315   | ug/l   | 92       |
| 26) 2,2-Dichloropropane      | 7.488          | 77   | 35385      | 5.176    | ug/l   | 99       |
| 27) cis-1,2-Dichloroethene   | 7.482          | 96   | 22767      | 5.169    | ug/l   | 92       |
| 28) Bromochloromethane       | 7.812          | 49   | 14216      | 5.538    | ug/l   | 96       |
| 29) Tetrahydrofuran          | 7.847          | 42   | 29133      | 27.936   | ug/l   | 88       |
| 30) Chloroform               | 7.965          | 83   | 38314      | 5.163    | ug/l   | 86       |
| 31) Cyclohexane              | 8.259          | 56   | 34123      | 5.885    | ug/l   | 99       |
| 32) 1,1,1-Trichloroethane    | 8.165          | 97   | 37461      | 5.155    | ug/l # | 51       |
| 36) 1,1-Dichloropropene      | 8.371          | 75   | 29241      | 5.390    | ug/l   | 95       |
| 37) Ethyl Acetate            | 7.559          | 43   | 19021      | 5.599    | ug/l   | 97       |
| 38) Carbon Tetrachloride     | 8.365          | 117  | 33651      | 5.191    | ug/l   | 93       |
| 39) Methylcyclohexane        | 9.600          | 83   | 29564      | 5.246    | ug/l   | 89       |
| 40) Benzene                  | 8.606          | 78   | 82132      | 5.243    | ug/l   | 96       |

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 Sample : VSTDICC005  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC005

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 12/13/2023  
 Supervised By : Mahesh Dadoda 12/13/2023

Quant Time: Dec 13 01:29:52 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N121223W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 13 01:22:48 2023  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 7.777  | 41   | 10273    | 5.245   | ug/l   | 92       |
| 42) 1,2-Dichloroethane        | 8.671  | 62   | 31222    | 5.382   | ug/l   | 99       |
| 43) Isopropyl Acetate         | 8.688  | 43   | 33978    | 5.563   | ug/l   | 97       |
| 44) Trichloroethene           | 9.347  | 130  | 21475    | 5.085   | ug/l   | 97       |
| 45) 1,2-Dichloropropane       | 9.618  | 63   | 19363    | 5.263   | ug/l   | 95       |
| 46) Dibromomethane            | 9.706  | 93   | 14989    | 5.673   | ug/l   | 93       |
| 47) Bromodichloromethane      | 9.882  | 83   | 29188    | 5.154   | ug/l # | 99       |
| 48) Methyl methacrylate       | 9.682  | 41   | 18393    | 5.046   | ug/l   | 92       |
| 49) 1,4-Dioxane               | 9.700  | 88   | 5567     | 100.763 | ug/l # | 82       |
| 51) 4-Methyl-2-Pentanone      | 10.447 | 43   | 90824    | 26.999  | ug/l   | 100      |
| 52) Toluene                   | 10.629 | 92   | 52252    | 5.280   | ug/l   | 100      |
| 53) t-1,3-Dichloropropene     | 10.835 | 75   | 31260    | 5.102   | ug/l   | 91       |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 34803    | 5.314   | ug/l   | 92       |
| 55) 1,1,2-Trichloroethane     | 11.018 | 97   | 19378    | 5.442   | ug/l   | 93       |
| 56) Ethyl methacrylate        | 10.870 | 69   | 20632    | 5.233   | ug/l   | 91       |
| 57) 1,3-Dichloropropane       | 11.165 | 76   | 34011    | 5.449   | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 58030    | 23.316  | ug/l   | 97       |
| 59) 2-Hexanone                | 11.194 | 43   | 66933    | 26.952  | ug/l   | 97       |
| 60) Dibromochloromethane      | 11.359 | 129  | 21436    | 5.080   | ug/l   | 98       |
| 61) 1,2-Dibromoethane         | 11.470 | 107  | 19299    | 5.237   | ug/l   | 99       |
| 64) Tetrachloroethene         | 11.100 | 164  | 19028    | 5.334   | ug/l   | 88       |
| 65) Chlorobenzene             | 11.888 | 112  | 53448    | 5.200   | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 21072    | 5.225   | ug/l   | 98       |
| 67) Ethyl Benzene             | 11.965 | 91   | 99799    | 5.281   | ug/l   | 94       |
| 68) m/p-Xylenes               | 12.070 | 106  | 73840    | 10.574  | ug/l   | 92       |
| 69) o-Xylene                  | 12.400 | 106  | 36388    | 5.327   | ug/l   | 95       |
| 70) Styrene                   | 12.412 | 104  | 50165    | 5.099   | ug/l   | 91       |
| 71) Bromoform                 | 12.582 | 173  | 14558    | 4.950   | ug/l # | 95       |
| 73) Isopropylbenzene          | 12.700 | 105  | 92609    | 5.289   | ug/l   | 100      |
| 74) N-amyl acetate            | 12.494 | 43   | 25477    | 4.983   | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 25876    | 5.515   | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane    | 12.994 | 75   | 22216m   | 4.677   | ug/l   |          |
| 77) Bromobenzene              | 12.982 | 156  | 22428    | 5.207   | ug/l   | 98       |
| 78) n-propylbenzene           | 13.035 | 91   | 101364   | 5.251   | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 13.123 | 91   | 67606    | 5.364   | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene    | 13.176 | 105  | 78598    | 5.212   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-b... | 12.741 | 75   | 8847     | 5.342   | ug/l # | 52       |
| 82) 4-Chlorotoluene           | 13.223 | 91   | 68286    | 5.271   | ug/l   | 94       |
| 83) tert-Butylbenzene         | 13.441 | 119  | 66656    | 5.397   | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 77831    | 5.188   | ug/l   | 98       |
| 85) sec-Butylbenzene          | 13.617 | 105  | 81521    | 5.160   | ug/l   | 99       |
| 86) p-Isopropyltoluene        | 13.729 | 119  | 72850    | 5.107   | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene       | 13.735 | 146  | 40333    | 5.315   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene       | 13.811 | 146  | 40150    | 5.241   | ug/l   | 92       |
| 89) n-Butylbenzene            | 14.059 | 91   | 59936    | 5.031   | ug/l   | 97       |
| 90) Hexachloroethane          | 14.335 | 117  | 11778    | 5.199   | ug/l   | 71       |
| 91) 1,2-Dichlorobenzene       | 14.111 | 146  | 39692    | 5.508   | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropr... | 14.717 | 75   | 5437     | 5.509   | ug/l   | 97       |
| 93) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 21516    | 5.378   | ug/l   | 100      |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 12673    | 5.564   | ug/l   | 93       |
| 95) Naphthalene               | 15.641 | 128  | 62878    | 5.175   | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 15.841 | 180  | 20591    | 5.333   | ug/l   | 97       |

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Sample : VSTDICC005  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005

Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/13/2023  
Supervised By :Mahesh Dadoda 12/13/2023

Quant Time: Dec 13 01:29:52 2023  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N121223W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 13 01:22:48 2023  
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

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

Reviewed By :John Carlone 12/13/2023  
Supervised By :Mahesh Dadoda 12/13/2023

Abundance

TIC: VN080434.D\data.ms

Time-->

950000

900000

850000

800000

750000

700000

650000

600000

550000

500000

450000

400000

350000

300000

250000

200000

150000

100000

50000

0

2.00

3.00

4.00

5.00

6.00

7.00

8.00

9.00

10.00

11.00

12.00

13.00

14.00

15.00

16.00

Dichlorodifluoromethane, T

Chloromethane, P

Vinyl Chloride, C

Bromomethane, T

Chloroethane, T

Trichlorofluoromethane, T

Diethyl Ether, T

Acrolein, T

1,1,1-Trichloroethane, T

Acetone, T

Methyl Iodide, T

Carbon Disulfide, T

Methyl Acetate, T

Methylene Chloride, T

Tert butyl alcohol, T

Acrylonitrile, T

1,1-Dichloroethane, T

Disopropyl ether, T

1,1,1-Trichloroethane, T

2,2,2-Trichloroethane, T

2,2,3-Trichlorobutane, T

Methylcyclohexane, T

Chloroform, C

Dibromodichloromethane, S

Carbon tetrachloride, T

1,2-Dichloroethane, T

1,1,2-Trichloroethane, T

1,1,1-Trichloroethane, T

1,2-Dichloroethane, T

1,2-Dibromoethane, T

Trichloroethene, TM

Dibromochloromethane, C

Bromodichloromethane, T

2-Chloroethyl Vinyl ether, T

cis-1,3-Dichloropropene, T

trans-1,3-Dichloropropene, T

4-Vinyl-2-Pentanone, T

Toluene, C-M

Ethylmethylcarbamate, T

1,1,2-Trichloroethane, T

1,2-Dichloroethane, T

1,3-Dichloropropane, T

Dibromochloromethane, T

1,2-Dibromoethane, T

Chlorobenzene-d5, I

1,1,1-Trichloroethane, T

1,1,2-Trichloroethane, T

1,2-Dichloroethane, T

Styrene, T

Nonyl acetate, T

Bromobenzene, T

trans-1,4-Dichlorobutene, T

Isopropylbenzene, T

1,1,2-Trichloroethane, T

1,2-Dichloroethane, T

4-Chlorobenzene, T

tert-Butylbenzene, T

sec-Butylbenzene, T

1,3-Dichlorobenzene, T

1,4-Dichlorobenzene, T

1,2-Dichlorobenzene, T

Hexachloroethane, T

1,2-Dibromo-3-Chloropropane, T

1,2,4-Trichlorobenzene, T

Hexachlorobutadiene, T

Naphthalene, T

1,2,3-Trichlorobenzene, T