



**2012 North American Proficiency Testing Program
1st Quarter Report - April 9, 2012**

Laboratory ID
general

| Water | Water 2012-301 | | | | Water 2012-302 | | | Water 2012-303 | | | |
|------------------------------------|-----------------------|----------|--------------|-------|-----------------------|--------------|-------|-----------------------|--------------|-------|--------------------|
| Analysis | Units | <i>n</i> | Median | MAD | Lab ^{1,2} | Median | MAD | Lab ^{1,2} | Median | MAD | Lab ^{1,2} |
| pH | | 30 | 6.40 | 0.200 | | 8.02 | 0.100 | | 7.79 | 0.080 | |
| EC | dS/m | 29 | 0.550 | 0.010 | | 1.03 | 0.025 | | 0.670 | 0.014 | |
| Cations | | | | | | | | | | | |
| Ca | mmolc/L | 30 | 2.71 | 0.100 | | 4.94 | 0.163 | | 3.23 | 0.130 | |
| Mg | mmolc/L | 30 | 1.42 | 0.050 | | 2.29 | 0.093 | | 3.24 | 0.150 | |
| Na | mmolc/L | 29 | 1.28 | 0.050 | | 3.36 | 0.170 | | 0.740 | 0.041 | |
| K | mmolc/L | 29 | 0.100 | 0.010 | | 0.100 | 0.010 | | 0.140 | 0.010 | |
| NH4-N | mmolc/L | 14 | 0.010 | 0.002 | | 0.000 | 0.000 | | 0.000 | 0.000 | |
| Sum Cations | mmolc/L | 18 | 5.52 | 0.122 | | 10.8 | 0.330 | | 7.41 | 0.265 | |
| SAR | | 21 | 0.880 | 0.040 | | 1.76 | 0.090 | | 0.400 | 0.030 | |
| Adj-SAR | | 8 | 1.22 | 0.220 | | 3.45 | 0.455 | | 0.885 | 0.065 | |
| Anions | | | | | | | | | | | |
| HCO3 | mmolc/L | 20 | 1.14 | 0.140 | | 3.02 | 0.100 | | 5.70 | 0.215 | |
| CO3 | mmolc/L | 13 | 0.000 | 0.000 | | 0.000 | 0.000 | | 0.000 | 0.000 | |
| Cl | mmolc/L | 27 | 0.690 | 0.060 | | 2.11 | 0.080 | | 0.690 | 0.042 | |
| NO3 | mmolc/L | 30 | 0.050 | 0.010 | | 0.050 | 0.010 | | 0.124 | 0.025 | |
| SO4 | mmolc/L | 23 | 3.69 | 0.120 | | 5.56 | 0.140 | | 0.640 | 0.020 | |
| Sum Anions | mmolc/L | 17 | 5.49 | 0.250 | | 10.7 | 0.430 | | 7.14 | 0.440 | |
| Cation-Anion Difference | | 11 | 0.380 | 0.070 | | 0.385 | 0.073 | | 0.280 | 0.230 | |
| Boron | mg/L | 24 | 0.080 | 0.011 | | 0.070 | 0.010 | | 0.043 | 0.010 | |
| PO4-P Phosphorus - Spec | mg/L | 8 | 0.030 | 0.005 | | 0.051 | 0.011 | | 0.060 | 0.002 | |
| Phosphorus - ICP (Total) | mg/L | 16 | 0.043 | 0.007 | | 0.080 | 0.015 | | 0.082 | 0.014 | |
| TKN | mg/L | 3 | 0.000 | 0.000 | | 0.400 | 0.250 | | 0.100 | 0.100 | |
| Nitrogen Combustion (Total) | mg/L | 1 | 0.730 | 0.000 | | 0.890 | 0.000 | | 1.78 | 0.000 | |
| Total Organic Carbon | mg/L | 3 | 0.000 | 0.000 | | 3.05 | 0.400 | | 0.000 | 0.000 | |

1 - Values flagged exceed Warning Limits " * " 2.5 x MAD (Median Absolute Deviation) and Control Limits " *** " 4 x MAD. " < " and "ND" values not recorded.

2 - Limits not compared to lab data for methods with < 7 labs reporting.