



**2013 North American Proficiency Testing Program
1st Quarter Report -April 17, 2013**

Laboratory ID
general

Water Analysis	Units	n	Water 2013-301			Water 2013-302			Water 2013-303		
			Median	MAD	Lab^{1,2}	Median	MAD	Lab^{1,2}	Median	MAD	Lab^{1,2}
pH		27	8.15	<i>0.150</i>		7.80	<i>0.190</i>		7.98	<i>0.120</i>	
EC	dS/m	25	0.594	<i>0.016</i>		2.87	<i>0.100</i>		3.71	<i>0.140</i>	
Cations											
Ca	mmolc/L	26	2.44	<i>0.100</i>		12.4	<i>0.450</i>		12.5	<i>0.710</i>	
Mg	mmolc/L	26	2.36	<i>0.130</i>		3.75	<i>0.160</i>		14.9	<i>0.915</i>	
Na	mmolc/L	25	1.65	<i>0.100</i>		13.7	<i>0.780</i>		20.1	<i>1.08</i>	
K	mmolc/L	26	0.090	<i>0.008</i>		0.285	<i>0.025</i>		0.220	<i>0.020</i>	
NH4-N	mmolc/L	6	0.010	<i>0.001</i>		0.001	<i>0.001</i>		0.000	<i>0.000</i>	
Sum Cations	mmolc/L	16	6.73	<i>0.275</i>		30.3	<i>0.980</i>		47.4	<i>2.61</i>	
SAR		17	1.08	<i>0.058</i>		4.92	<i>0.460</i>		5.46	<i>0.260</i>	
Adj-SAR		9	2.05	<i>0.360</i>		9.75	<i>1.70</i>		12.9	<i>2.29</i>	
Anions											
HCO3	mmolc/L	18	4.85	<i>0.265</i>		3.12	<i>0.185</i>		6.57	<i>0.175</i>	
CO3	mmolc/L	6	0.200	<i>0.200</i>		0.000	<i>0.000</i>		0.000	<i>0.000</i>	
Cl	mmolc/L	23	0.501	<i>0.041</i>		12.7	<i>0.400</i>		1.65	<i>0.080</i>	
NO3	mmolc/L	22	0.007	<i>0.001</i>		0.059	<i>0.012</i>		0.010	<i>0.002</i>	
SO4	mmolc/L	20	1.02	<i>0.040</i>		14.8	<i>0.755</i>		40.9	<i>2.03</i>	
Sum Anions	mmolc/L	14	6.63	<i>0.225</i>		31.1	<i>0.500</i>		50.0	<i>1.88</i>	
Cation-Anion Difference		9	0.110	<i>0.219</i>		0.610	<i>0.410</i>		1.25	<i>1.03</i>	
Other											
Boron	mg/L	16	0.090	<i>0.010</i>		0.151	<i>0.010</i>		0.278	<i>0.023</i>	
PO4-P Phosphorus - Spec	mg/L	6	0.022	<i>0.017</i>		0.015	<i>0.015</i>		0.010	<i>0.010</i>	
Phosphorus - ICP (Total)	mg/L	13	0.050	<i>0.009</i>		0.015	<i>0.002</i>		0.045	<i>0.009</i>	
TKN	mg/L	3	0.320	<i>0.320</i>		0.100	<i>0.100</i>		0.760	<i>0.040</i>	
Nitrogen Combustion (Total)	mg/L	1	0.160	<i>0.000</i>		0.920	<i>0.000</i>		0.430	<i>0.000</i>	
Total Organic Carbon	mg/L	3	1.79	<i>0.000</i>		1.24	<i>0.730</i>		5.90	<i>0.630</i>	

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.