



**2014 North American Proficiency Testing Program
1st Quarter Report - April 15, 2014**

Laboratory ID
general

Water Analysis	Units	n	Water 2014-301			Water 2014-302			Water 2014-303		
			Median	MAD	Lab^{1,2}	Median	MAD	Lab^{1,2}	Median	MAD	Lab^{1,2}
pH		24	7.90	<i>0.155</i>		8.09	<i>0.135</i>		8.03	<i>0.160</i>	
EC	dS/m	24	0.500	<i>0.038</i>		0.518	<i>0.013</i>		0.400	<i>0.031</i>	
Cations											
Ca	mmolc/L	24	3.17	<i>0.360</i>		2.86	<i>0.135</i>		2.92	<i>0.280</i>	
Mg	mmolc/L	24	2.21	<i>0.105</i>		1.70	<i>0.100</i>		1.14	<i>0.055</i>	
Na	mmolc/L	24	0.455	<i>0.024</i>		0.960	<i>0.040</i>		0.390	<i>0.010</i>	
K	mmolc/L	23	0.050	<i>0.005</i>		0.060	<i>0.010</i>		0.020	<i>0.003</i>	
NH4-N	mmolc/L	11	0.000	<i>0.000</i>		0.000	<i>0.000</i>		0.000	<i>0.000</i>	
Sum Cations	mmolc/L	12	6.06	<i>0.305</i>		5.52	<i>0.162</i>		4.58	<i>0.199</i>	
SAR		16	0.287	<i>0.027</i>		0.620	<i>0.020</i>		0.300	<i>0.030</i>	
Adj-SAR		7	0.600	<i>0.100</i>		1.10	<i>0.050</i>		0.530	<i>0.050</i>	
Anions											
HCO3	mmolc/L	17	3.59	<i>0.290</i>		2.43	<i>0.177</i>		3.36	<i>0.240</i>	
CO3	mmolc/L	10	0.000	<i>0.000</i>		0.000	<i>0.000</i>		0.000	<i>0.000</i>	
Cl	mmolc/L	23	0.337	<i>0.053</i>		0.250	<i>0.020</i>		0.300	<i>0.030</i>	
NO3	mmolc/L	21	0.010	<i>0.001</i>		0.011	<i>0.001</i>		0.013	<i>0.001</i>	
SO4	mmolc/L	21	1.90	<i>0.070</i>		2.81	<i>0.130</i>		0.730	<i>0.060</i>	
Sum Anions	mmolc/L	11	6.11	<i>0.200</i>		5.60	<i>0.150</i>		4.69	<i>0.139</i>	
Cation-Anion Difference		6	0.170	<i>0.180</i>		0.200	<i>0.240</i>		0.095	<i>0.205</i>	
Other											
Boron	mg/L	14	0.028	<i>0.003</i>		0.058	<i>0.009</i>		0.020	<i>0.003</i>	
PO4-P Phosphorus - Spec	mg/L	5	0.020	<i>0.010</i>		0.020	<i>0.010</i>		0.020	<i>0.010</i>	
Phosphorus - ICP (Total)	mg/L	7	0.011	<i>0.011</i>		0.055	<i>0.050</i>		0.015	<i>0.010</i>	
TKN	mg/L	6	0.165	<i>0.165</i>		0.350	<i>0.258</i>		0.200	<i>0.200</i>	
Nitrogen Combustion (Total)	mg/L	2	1.12	<i>0.984</i>		0.611	<i>0.290</i>		0.451	<i>0.250</i>	
Total Organic Carbon	mg/L	3	2.00	<i>0.080</i>		3.77	<i>0.150</i>		0.860	<i>0.140</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.