



**2014 North American Proficiency Testing Program
4th Quarter Report -January 18, 2015**

Laboratory ID
general

Water Analysis	Units	n	Water 2014-310			Water 2014-311			Water 2014-312		
			Median	MAD	Lab^{1,2}	Median	MAD	Lab^{1,2}	Median	MAD	Lab^{1,2}
pH		27	8.20	<i>0.150</i>		8.20	<i>0.100</i>		8.15	<i>0.090</i>	
EC	dS/m	26	0.287	<i>0.017</i>		0.522	<i>0.023</i>		0.704	<i>0.030</i>	
Cations											
Ca	mmolc/L	26	2.10	<i>0.050</i>		2.11	<i>0.065</i>		3.64	<i>0.105</i>	
Mg	mmolc/L	26	1.02	<i>0.050</i>		2.10	<i>0.090</i>		3.18	<i>0.135</i>	
Na	mmolc/L	26	0.047	<i>0.007</i>		1.10	<i>0.050</i>		0.870	<i>0.028</i>	
K	mmolc/L	24	0.020	<i>0.002</i>		0.069	<i>0.009</i>		0.100	<i>0.008</i>	
NH4-N	mmolc/L	7	0.001	<i>0.001</i>		0.001	<i>0.001</i>		0.001	<i>0.001</i>	
Sum Cations	mmolc/L	12	3.18	<i>0.085</i>		5.39	<i>0.235</i>		7.57	<i>0.290</i>	
SAR		14	0.037	<i>0.007</i>		0.770	<i>0.025</i>		0.478	<i>0.015</i>	
Adj-SAR		6	0.090	<i>0.010</i>		1.50	<i>0.035</i>		1.10	<i>0.025</i>	
Anions											
HCO3	mmolc/L	17	2.88	<i>0.080</i>		3.00	<i>0.130</i>		4.83	<i>0.180</i>	
CO3	mmolc/L	11	0.000	<i>0.000</i>		0.030	<i>0.030</i>		0.000	<i>0.000</i>	
Cl	mmolc/L	21	0.030	<i>0.005</i>		0.470	<i>0.039</i>		1.27	<i>0.030</i>	
NO3	mmolc/L	23	0.025	<i>0.005</i>		1.10	<i>0.069</i>		0.037	<i>0.007</i>	
SO4	mmolc/L	21	0.150	<i>0.010</i>		0.648	<i>0.035</i>		1.28	<i>0.041</i>	
Sum Anions	mmolc/L	11	3.21	<i>0.120</i>		5.37	<i>0.230</i>		7.45	<i>0.140</i>	
Cation-Anion Difference		7	0.020	<i>0.074</i>		0.010	<i>0.086</i>		0.311	<i>0.121</i>	
Other											
Boron	mg/L	16	0.028	<i>0.006</i>		0.024	<i>0.004</i>		0.067	<i>0.016</i>	
PO4-P Phosphorus - Spec	mg/L	5	0.000	<i>0.000</i>		0.022	<i>0.017</i>		0.010	<i>0.005</i>	
Phosphorus - ICP (Total)	mg/L	7	0.017	<i>0.012</i>		0.037	<i>0.005</i>		0.030	<i>0.005</i>	
TKN	mg/L	6	0.990	<i>0.990</i>		0.000	<i>0.000</i>		0.300	<i>0.300</i>	
Nitrogen Combustion (Total)	mg/L	1	1.40	<i>0.000</i>		6.30	<i>0.000</i>		1.40	<i>0.000</i>	
Total Organic Carbon	mg/L	2	0.265	<i>0.265</i>		0.200	<i>0.200</i>		3.62	<i>0.384</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.