



**2015 North American Proficiency Testing Program
4th Quarter Report - January 15, 2016**

Laboratory ID
general

Water Analysis	Units	n	Water 2015-310			Water 2015-311			Water 2015-312		
			Median	MAD	Lab^{1,2}	Median	MAD	Lab^{1,2}	Median	MAD	Lab^{1,2}
pH		33	7.57	<i>0.230</i>		7.11	<i>0.170</i>		7.79	<i>0.180</i>	
EC	dS/m	29	0.055	<i>0.005</i>		0.050	<i>0.002</i>		0.641	<i>0.019</i>	
Cations											
Ca	mmolc/L	32	0.380	<i>0.020</i>		0.230	<i>0.014</i>		4.45	<i>0.170</i>	
Mg	mmolc/L	30	0.127	<i>0.007</i>		0.070	<i>0.003</i>		1.04	<i>0.050</i>	
Na	mmolc/L	28	0.035	<i>0.009</i>		0.160	<i>0.010</i>		1.32	<i>0.070</i>	
K	mmolc/L	26	0.010	<i>0.001</i>		0.020	<i>0.003</i>		0.090	<i>0.005</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	13	0.580	<i>0.055</i>		0.515	<i>0.040</i>		6.97	<i>0.170</i>	
SAR		12	0.060	<i>0.009</i>		0.440	<i>0.040</i>		0.800	<i>0.020</i>	
Adj-SAR		5	0.030	<i>0.010</i>		-0.020	<i>0.020</i>		1.81	<i>0.075</i>	
Anions											
HCO3	mmolc/L	21	0.540	<i>0.060</i>		0.300	<i>0.041</i>		4.71	<i>0.200</i>	
CO3	mmolc/L	9	0.000	<i>0.000</i>		0.000	<i>0.000</i>		0.000	<i>0.000</i>	
Cl	mmolc/L	21	0.025	<i>0.005</i>		0.133	<i>0.023</i>		0.430	<i>0.026</i>	
NO3	mmolc/L	23	0.010	<i>0.002</i>		0.010	<i>0.002</i>		0.730	<i>0.085</i>	
SO4	mmolc/L	22	0.025	<i>0.004</i>		0.070	<i>0.009</i>		0.820	<i>0.068</i>	
Sum Anions	mmolc/L	13	0.650	<i>0.110</i>		0.520	<i>0.076</i>		6.76	<i>0.402</i>	
Cation-Anion Difference		8	0.015	<i>0.089</i>		0.007	<i>0.045</i>		0.140	<i>0.369</i>	
Other											
Boron	mg/L	16	0.010	<i>0.001</i>		0.010	<i>0.001</i>		0.053	<i>0.012</i>	
PO4-P Phosphorus - Spec	mg/L	7	0.020	<i>0.011</i>		0.010	<i>0.004</i>		0.177	<i>0.034</i>	
Phosphorus - ICP (Total)	mg/L	12	0.013	<i>0.002</i>		0.001	<i>0.001</i>		0.167	<i>0.017</i>	
TKN	mg/L	4	0.130	<i>0.056</i>		0.100	<i>0.100</i>		0.210	<i>0.160</i>	
Nitrogen Combustion (Total)	mg/L	1	0.212	<i>0.000</i>		0.245	<i>0.000</i>		12.39	<i>0.767</i>	
Total Organic Carbon	mg/L	4	1.82	<i>0.205</i>		2.77	<i>0.235</i>		2.29	<i>0.695</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.