



**2016 North American Proficiency Testing Program
3rd Quarter Report - October 11, 2016**

Laboratory ID
general

Water Analysis	Units	n	Water 2016-307			Water 2016-308			Water 2016-309		
			Median	MAD	Lab^{1,2}	Median	MAD	Lab^{1,2}	Median	MAD	Lab^{1,2}
pH		29	8.18	<i>0.060</i>		7.82	<i>0.120</i>		8.06	<i>0.120</i>	
EC	dS/m	29	1.48	<i>0.040</i>		0.280	<i>0.010</i>		0.462	<i>0.013</i>	
Cations											
Ca	mmolc/L	30	2.48	<i>0.051</i>		1.59	<i>0.050</i>		3.09	<i>0.090</i>	
Mg	mmolc/L	30	3.26	<i>0.125</i>		0.710	<i>0.050</i>		1.77	<i>0.115</i>	
Na	mmolc/L	30	9.59	<i>0.525</i>		0.520	<i>0.026</i>		0.480	<i>0.020</i>	
K	mmolc/L	30	0.490	<i>0.020</i>		0.040	<i>0.002</i>		0.010	<i>0.001</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	15.9	<i>0.650</i>		2.88	<i>0.050</i>		5.28	<i>0.218</i>	
SAR		12	5.71	<i>0.220</i>		0.490	<i>0.019</i>		0.310	<i>0.007</i>	
Adj-SAR		4	12.4	<i>0.360</i>		0.690	<i>0.030</i>		0.685	<i>0.015</i>	
Anions											
HCO3	mmolc/L	22	5.58	<i>0.380</i>		1.60	<i>0.105</i>		4.39	<i>0.280</i>	
CO3	mmolc/L	14	0.000	<i>0.000</i>		0.000	<i>0.000</i>		0.000	<i>0.000</i>	
Cl	mmolc/L	25	3.10	<i>0.160</i>		0.280	<i>0.020</i>		0.400	<i>0.020</i>	
NO3	mmolc/L	26	0.030	<i>0.007</i>		0.028	<i>0.005</i>		0.054	<i>0.008</i>	
SO4	mmolc/L	26	6.84	<i>0.291</i>		0.890	<i>0.030</i>		0.190	<i>0.014</i>	
Sum Anions	mmolc/L	11	16.1	<i>0.243</i>		2.82	<i>0.050</i>		5.14	<i>0.156</i>	
Cation-Anion Difference		5	0.265	<i>0.305</i>		0.010	<i>0.010</i>		0.000	<i>0.140</i>	
Other											
Boron	mg/L	21	0.737	<i>0.047</i>		0.030	<i>0.003</i>		0.020	<i>0.004</i>	
PO4-P Phosphorus - Spec	mg/L	9	0.064	<i>0.013</i>		0.028	<i>0.006</i>		0.012	<i>0.008</i>	
Phosphorus - ICP (Total)	mg/L	15	0.070	<i>0.010</i>		0.020	<i>0.005</i>		0.017	<i>0.003</i>	
TKN	mg/L	7	0.500	<i>0.220</i>		0.360	<i>0.148</i>		0.135	<i>0.101</i>	
Nitrogen Combustion (Total)	mg/L	2	0.776	<i>0.054</i>		0.560	<i>0.040</i>		0.814	<i>0.066</i>	
Total Organic Carbon	mg/L	4	5.23	<i>0.315</i>		3.67	<i>0.310</i>		0.137	<i>0.105</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.