



**2016 North American Proficiency Testing Program
2nd Quarter Report - July 11, 2016**

Laboratory ID
general

Water Analysis	Units	n	Water 2016-304			Water 2016-305			Water 2016-306		
			Median	MAD	Lab^{1,2}	Median	MAD	Lab^{1,2}	Median	MAD	Lab^{1,2}
pH		33	7.86	<i>0.080</i>		7.96	<i>0.100</i>		8.10	<i>0.100</i>	
EC	dS/m	32	4.08	<i>0.130</i>		0.282	<i>0.008</i>		0.400	<i>0.008</i>	
Cations											
Ca	mmolc/L	31	18.9	<i>0.830</i>		1.64	<i>0.051</i>		1.64	<i>0.050</i>	
Mg	mmolc/L	31	21.8	<i>1.33</i>		0.649	<i>0.066</i>		1.72	<i>0.103</i>	
Na	mmolc/L	31	14.5	<i>0.570</i>		0.550	<i>0.037</i>		1.07	<i>0.054</i>	
K	mmolc/L	31	0.521	<i>0.031</i>		0.070	<i>0.009</i>		0.053	<i>0.004</i>	
NH4-N	mmolc/L	14	0.006	<i>0.001</i>		0.000	<i>0.000</i>		0.000	<i>0.000</i>	
Sum Cations	mmolc/L	12	56.4	<i>1.98</i>		2.84	<i>0.140</i>		4.49	<i>0.196</i>	
SAR		14	3.24	<i>0.060</i>		0.530	<i>0.021</i>		0.840	<i>0.030</i>	
Adj-SAR		5	8.20	<i>0.290</i>		0.780	<i>0.020</i>		1.70	<i>0.020</i>	
Anions											
HCO3	mmolc/L	23	2.40	<i>0.200</i>		1.64	<i>0.090</i>		3.87	<i>0.310</i>	
CO3	mmolc/L	12	0.000	<i>0.000</i>		0.000	<i>0.000</i>		0.111	<i>0.111</i>	
Cl	mmolc/L	26	4.25	<i>0.270</i>		0.161	<i>0.014</i>		0.035	<i>0.005</i>	
NO3	mmolc/L	22	0.008	<i>0.002</i>		0.013	<i>0.002</i>		0.006	<i>0.001</i>	
SO4	mmolc/L	27	47.2	<i>2.78</i>		1.02	<i>0.083</i>		0.510	<i>0.042</i>	
Sum Anions	mmolc/L	11	55.7	<i>2.91</i>		2.84	<i>0.180</i>		4.53	<i>0.220</i>	
Cation-Anion Difference		5	0.389	<i>0.221</i>		0.000	<i>0.045</i>		0.000	<i>0.170</i>	
Other											
Boron	mg/L	21	0.770	<i>0.030</i>		0.020	<i>0.009</i>		0.019	<i>0.003</i>	
PO4-P Phosphorus - Spec	mg/L	7	0.023	<i>0.013</i>		0.021	<i>0.019</i>		0.038	<i>0.012</i>	
Phosphorus - ICP (Total)	mg/L	17	0.035	<i>0.008</i>		0.020	<i>0.003</i>		0.030	<i>0.005</i>	
TKN	mg/L	5	0.889	<i>0.179</i>		0.170	<i>0.110</i>		0.060	<i>0.040</i>	
Nitrogen Combustion (Total)	mg/L	2	0.872	<i>0.018</i>		0.275	<i>0.020</i>		0.165	<i>0.000</i>	
Total Organic Carbon	mg/L	4	11.2	<i>0.550</i>		1.80	<i>0.115</i>		0.000	<i>0.000</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.