



**2013 North American Proficiency Testing Program
2nd Quarter Report - July 9, 2013**

Laboratory ID
general

Water Analysis	Units	n	Water 2012-304			Water 2013-305			Water 2013-306		
			Median	MAD	Lab^{1,2}	Median	MAD	Lab^{1,2}	Median	MAD	Lab^{1,2}
pH		28	8.90	<i>0.040</i>		8.00	<i>0.115</i>		8.10	<i>0.100</i>	
EC	dS/m	27	9.67	<i>0.230</i>		0.290	<i>0.010</i>		1.01	<i>0.016</i>	
Cations											
Ca	mmolc/L	27	0.060	<i>0.008</i>		1.61	<i>0.060</i>		4.34	<i>0.201</i>	
Mg	mmolc/L	27	0.090	<i>0.020</i>		0.580	<i>0.030</i>		4.23	<i>0.245</i>	
Na	mmolc/L	26	101	<i>7.93</i>		0.735	<i>0.090</i>		2.70	<i>0.100</i>	
K	mmolc/L	27	0.330	<i>0.070</i>		0.060	<i>0.005</i>		0.100	<i>0.010</i>	
NH4-N	mmolc/L	16	0.290	<i>0.041</i>		0.003	<i>0.000</i>		0.000	<i>0.000</i>	
Sum Cations	mmolc/L	16	101	<i>6.80</i>		3.09	<i>0.270</i>		11.5	<i>0.760</i>	
SAR		17	303	<i>68.4</i>		0.700	<i>0.100</i>		1.31	<i>0.030</i>	
Adj-SAR		6	463	<i>64.4</i>		1.04	<i>0.120</i>		3.09	<i>0.130</i>	
Anions											
HCO3	mmolc/L	17	50.9	<i>7.30</i>		1.71	<i>0.104</i>		4.82	<i>0.160</i>	
CO3	mmolc/L	13	10.4	<i>1.56</i>		0.000	<i>0.000</i>		0.000	<i>0.000</i>	
Cl	mmolc/L	21	46.6	<i>2.82</i>		0.485	<i>0.047</i>		1.16	<i>0.070</i>	
NO3	mmolc/L	25	0.014	<i>0.003</i>		0.060	<i>0.012</i>		0.010	<i>0.002</i>	
SO4	mmolc/L	20	0.400	<i>0.095</i>		0.625	<i>0.040</i>		5.43	<i>0.240</i>	
Sum Anions	mmolc/L	13	102	<i>7.10</i>		3.03	<i>0.180</i>		11.4	<i>0.390</i>	
Cation-Anion Difference		9	8.00	<i>6.74</i>		0.260	<i>0.240</i>		0.345	<i>0.330</i>	
Other											
Boron	mg/L	18	9.91	<i>0.520</i>		0.064	<i>0.014</i>		0.130	<i>0.010</i>	
PO4-P Phosphorus - Spec	mg/L	7	1.83	<i>0.170</i>		0.095	<i>0.045</i>		0.045	<i>0.043</i>	
Phosphorus - ICP (Total)	mg/L	20	2.21	<i>0.330</i>		0.050	<i>0.008</i>		0.070	<i>0.015</i>	
TKN	mg/L	4	14.0	<i>1.11</i>		0.300	<i>0.210</i>		0.400	<i>0.342</i>	
Nitrogen Combustion (Total)	mg/L	2	51.5	<i>51.5</i>		0.966	<i>0.964</i>		1.53	<i>0.000</i>	
Total Organic Carbon	mg/L	3	138	<i>13.5</i>		2.73	<i>0.471</i>		2.39	<i>0.692</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.