



2011 North American Proficiency Testing Program 4th Quarter Report - January 25, 2012

Laboratory ID
general

Water Analysis	Units	<i>n</i>	Water 2011-310			Water 2011-311			Water 2011-312		
			Median	MAD	Lab ^{1,2}	Median	MAD	Lab ^{1,2}	Median	MAD	Lab ^{1,2}
pH		25	7.9	<i>0.17</i>		8.0	<i>0.09</i>		7.9	<i>0.12</i>	
EC	dS/m	24	0.513	<i>0.018</i>		0.271	<i>0.012</i>		0.880	<i>0.020</i>	
Cations											
Ca	mmolc/L	25	3.86	<i>0.200</i>		1.71	<i>0.095</i>		4.44	<i>0.200</i>	
Mg	mmolc/L	25	1.18	<i>0.050</i>		0.860	<i>0.056</i>		4.78	<i>0.220</i>	
Na	mmolc/L	23	0.320	<i>0.016</i>		0.241	<i>0.015</i>		0.470	<i>0.030</i>	
K	mmolc/L	23	0.050	<i>0.010</i>		0.030	<i>0.001</i>		0.180	<i>0.007</i>	
NH4-N	mmolc/L	10	0.001	<i>0.000</i>		0.000	<i>0.000</i>		0.000	<i>0.000</i>	
Sum Cations	mmolc/L	14	5.55	<i>0.205</i>		2.91	<i>0.125</i>		9.86	<i>0.405</i>	
SAR		15	0.200	<i>0.000</i>		0.210	<i>0.010</i>		0.220	<i>0.010</i>	
Adj-SAR		7	0.430	<i>0.030</i>		0.340	<i>0.040</i>		0.500	<i>0.030</i>	
Anions											
HCO3	mmolc/L	16	4.13	<i>0.100</i>		2.23	<i>0.043</i>		3.91	<i>0.120</i>	
CO3	mmolc/L	11	0.000	<i>0.000</i>		0.000	<i>0.000</i>		0.000	<i>0.000</i>	
Cl	mmolc/L	22	0.438	<i>0.065</i>		0.080	<i>0.008</i>		0.232	<i>0.038</i>	
NO3	mmolc/L	23	0.110	<i>0.015</i>		0.010	<i>0.001</i>		0.028	<i>0.003</i>	
SO4	mmolc/L	20	0.750	<i>0.042</i>		0.544	<i>0.025</i>		5.79	<i>0.355</i>	
Sum Anions	mmolc/L	13	5.43	<i>0.110</i>		2.91	<i>0.090</i>		10.0	<i>0.310</i>	
Cation-Anion Difference		8	0.148	<i>0.015</i>		0.065	<i>0.007</i>		0.264	<i>0.026</i>	
Other											
Boron	mg/L	18	0.058	<i>0.008</i>		0.020	<i>0.002</i>		0.190	<i>0.010</i>	
PO4-P Phosphorus - Spec	mg/L	5	0.060	<i>0.006</i>		0.026	<i>0.003</i>		0.060	<i>0.006</i>	
Phosphorus - ICP (Total)	mg/L	14	0.045	<i>0.005</i>		0.034	<i>0.003</i>		0.037	<i>0.004</i>	
TKN	mg/L	4	0.050	<i>0.005</i>		0.046	<i>0.005</i>		0.160	<i>0.016</i>	
Nitrogen Combustion (Total)	mg/L	1	1.562	<i>0.000</i>		0.187	<i>0.000</i>		0.534	<i>0.000</i>	
Total Organic Carbon	mg/L	2	0.797	<i>0.173</i>		0.818	<i>0.132</i>		2.09	<i>0.261</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.