



**2009 North American Proficiency Testing Program
1st Quarter Report - April 25, 2009**

Laboratory ID

Water Analysis	Units	n	Water 2009-301			Water 2009-302			Water 2009-303		
			Median	MAD	Lab ^{1,2}	Median	MAD	Lab ^{1,2}	Median	MAD	Lab ^{1,2}
pH		30	7.91	0.190		7.70	0.125		7.46	0.170	
EC	dS/m	28	0.290	0.012		2.13	0.085		29.4	1.600	
Cations											
Ca	mmolc/L	27	1.52	0.063		3.57	0.142		41.4	3.185	
Mg	mmolc/L	27	1.15	0.050		0.640	0.030		2.01	0.210	
Na	mmolc/L	27	0.480	0.021		16.4	0.654		235	15.610	
K	mmolc/L	24	0.050	0.002		0.080	0.007		19.8	1.843	
NH4-N	mmolc/L	10	0.001	0.001		0.001	0.001		0.007	0.006	
Sum Cations	mmolc/L	16	3.21	0.140		20.5	0.819		312	21.980	
SAR		16	0.405	0.017		11.2	0.446		49.9	3.855	
Adj-SAR		8	0.700	0.028		17.5	1.375		113	17.197	
Anions											
HCO3	mmolc/L	19	2.85	0.114		1.72	0.120		2.10	0.180	
CO3	mmolc/L	13	0.00	0.000		0.00	0.000		0.00	0.000	
Cl	mmolc/L	22	0.084	0.012		8.59	0.410		299	28.400	
NO3	mmolc/L	25	0.006	0.004		0.060	0.024		0.230	0.060	
SO4	mmolc/L	20	0.121	0.016		10.2	0.406		3.42	0.750	
Sum Anions	mmolc/L	15	3.10	0.190		20.6	0.824		313	16.460	
Cation-Anion Difference		39	0.00	0.000		0.00	0.000		0.00	0.000	
Boron	mg/L	12	0.010	0.003		2.04	0.081		3.60	0.420	
PO4-P Phosphorus - Spec	mg/L	10	0.039	0.027		0.059	0.032		0.140	0.091	
Phosphorus - ICP (Total)	mg/L	9	0.020	0.010		0.066	0.024		0.040	0.025	
TKN	mg/L	4	0.092	0.069		0.725	0.189		0.550	0.470	
Nitrogen Combustion (Total)	mg/L	1	0.093	0.000		1.23	0.000		3.38	0.000	
Total Organic Carbon	mg/L	3	0.870	0.870		5.25	0.420		1.30	1.300	

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.