



**2012 North American Proficiency Testing Program  
4th Quarter Report - January 22, 2013**

Laboratory ID  
**general**

Water Analysis	Units	n	Water 2012-310			Water 2012-311			Water 2012-312		
			Median	MAD	Lab <sup>1,2</sup>	Median	MAD	Lab <sup>1,2</sup>	Median	MAD	Lab <sup>1,2</sup>
pH		27	8.10	0.080		8.16	0.060		8.00	0.100	
EC	dS/m	26	0.622	0.018		0.710	0.020		1.11	0.035	
<b>Cations</b>											
Ca	mmolc/L	25	3.12	0.140		3.95	0.210		3.30	0.100	
Mg	mmolc/L	25	2.85	0.140		3.00	0.170		1.82	0.070	
Na	mmolc/L	25	1.21	0.050		0.95	0.030		5.39	0.240	
K	mmolc/L	25	0.030	0.002		0.220	0.010		0.160	0.010	
NH4-N	mmolc/L	11	0.000	0.000		0.000	0.000		0.000	0.000	
Sum Cations	mmolc/L	12	7.22	0.220		8.14	0.355		10.7	0.347	
SAR		17	0.710	0.010		0.510	0.010		3.49	0.050	
Adj-SAR		7	1.60	0.090		1.20	0.100		6.76	0.440	
<b>Anions</b>											
HCO3	mmolc/L	15	5.70	0.180		6.92	0.230		3.83	0.150	
CO3	mmolc/L	11	0.000	0.000		0.000	0.000		0.000	0.000	
Cl	mmolc/L	21	0.240	0.025		0.820	0.030		5.24	0.240	
NO3	mmolc/L	20	0.010	0.002		0.020	0.003		0.010	0.002	
SO4	mmolc/L	16	1.18	0.030		0.310	0.027		1.82	0.050	
Sum Anions	mmolc/L	11	7.27	0.210		8.13	0.280		11.0	0.232	
Cation-Anion Difference		7	0.300	0.110		0.240	0.440		0.305	0.156	
Boron	mg/L	17	0.060	0.010		0.056	0.010		0.260	0.020	
PO4-P Phosphorus - Spec	mg/L	6	0.040	0.030		0.060	0.002		0.070	0.067	
Phosphorus - ICP (Total)	mg/L	10	0.045	0.011		0.070	0.012		0.000	0.000	
TKN	mg/L	2	0.075	0.005		0.290	0.088		0.530	0.170	
Nitrogen Combustion (Total)	mg/L	1	0.096	0.000		0.713	0.000		0.048	0.000	
Total Organic Carbon	mg/L	2	1.91	0.095		5.44	2.29		3.46	2.93	

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.