



**2019 North American Proficiency Testing Program
Quarter 2 Water Report - Monday, July 08, 2019**

**Laboratory ID
General**

Water Analysis	Units	n	Water 2019-304			Water 2019-305			Water 2019-306		
			Median	MAD	Lab ^{1,2}	Median	MAD	Lab ^{1,2}	Median	MAD	Lab ^{1,2}
Bulk Properties											
pH		32	8.20	0.105		7.92	0.150		7.93	0.150	
EC	dS/m	31	0.710	0.021		0.130	0.004		0.174	0.006	
Cations											
Ca	mmolc/L	30	3.46	0.125		0.498	0.028		1.11	0.054	
Mg	mmolc/L	30	2.96	0.172		0.180	0.010		0.407	0.019	
Na	mmolc/L	30	1.59	0.050		0.525	0.025		0.200	0.012	
K	mmolc/L	27	0.026	0.005		0.063	0.004		0.030	0.003	
NH4-N	mmolc/L	9	0.000	0.000		0.000	0.000		0.000	0.000	
Sum Cations	mmolc/L	13	8.02	0.360		1.27	0.110		1.79	0.090	
SAR		18	0.890	0.015		0.914	0.018		0.235	0.005	
Adj-SAR		6	1.53	0.530		0.710	0.100		0.245	0.045	
Anions											
HCO3	mmolc/L	23	5.97	0.267		1.00	0.053		1.40	0.083	
CO3	mmolc/L	14	0.000	0.000		0.000	0.000		0.000	0.000	
Cl	mmolc/L	25	0.652	0.038		0.130	0.020		0.075	0.014	
NO3	mmolc/L	22	0.010	0.001		0.006	0.001		0.017	0.002	
SO4	mmolc/L	23	1.19	0.068		0.066	0.008		0.241	0.019	
Sum Anions	mmolc/L	12	8.15	0.236		1.24	0.098		1.84	0.154	
Cation-Anion Difference		7	0.748	0.354		0.267	0.267		0.130	0.130	
Other											
Boron	mg/L	22	0.080	0.010		0.040	0.003		0.011	0.002	
PO4-P Phosphorus - Spec	mg/L	7	0.030	0.019		0.010	0.003		0.020	0.010	
Phosphorus - ICP (Total)	mg/L	12	0.030	0.004		0.027	0.006		0.022	0.003	
TKN	mg/L	3	0.200	0.113		0.440	0.340		0.668	0.072	
Nitrogen Combustion (Total)	mg/L	1	0.013	0.000		0.015	0.000		0.011	0.000	
Total Organic Carbon	mg/L	3	2.51	0.188		0.918	0.128		1.47	0.339	

1 - Values flagged exceed Warning Limits " * " 2.5 x MAD (Median Absolute Deviation) and Control Limits " * * " 4 x MAD.

2 - Limits not compared to lab data for methods with less than 7 labs reporting.