



**2021 North American Proficiency Testing Program  
Quarter 3 Water Report - Monday, October 18, 2021**

**Laboratory ID  
General**

Water Analysis	Units	n	Water 2021-307			Water 2021-308			Water 2021-309		
			Median	MAD	Lab <sup>1,2</sup>	Median	MAD	Lab <sup>1,2</sup>	Median	MAD	Lab <sup>1,2</sup>
<b>Bulk Properties</b>											
pH		35	8.20	0.050		8.26	0.055		8	0.1	
EC	dS/m	34	0.760	0.026		0.702	0.018		0.230	0.009	
<b>Cations</b>											
Ca	mmolc/L	33	2.71	0.139		2.88	0.120		0.918	0.042	
Mg	mmolc/L	33	1.88	0.070		1.99	0.080		1.22	0.048	
Na	mmolc/L	33	2.90	0.080		2.62	0.077		0.290	0.010	
K	mmolc/L	32	0.151	0.008		0.070	0.007		0.023	0.003	
NH4-N	mmolc/L	4	0.010	0.005		0.020	0.019		0.006	0.004	
Sum Cations	mmolc/L	16	7.57	0.156		7.50	0.246		2.47	0.080	
SAR		15	1.90	0.030		1.67	0.040		0.280	0.015	
Adj-SAR		7	2.41	0.310		1.90	0.100		0.300	0.050	
<b>Anions</b>											
HCO3	mmolc/L	25	4.00	0.260		3.33	0.180		2.01	0.110	
CO3	mmolc/L	9	0.300	0.047		0.390	0.072		0.058	0.058	
Cl	mmolc/L	30	2.97	0.136		0.696	0.036		0.230	0.020	
NO3	mmolc/L	20	0.006	0.001		0.012	0.002		0.042	0.006	
SO4	mmolc/L	27	0.490	0.034		3.36	0.200		0.098	0.012	
Sum Anions	mmolc/L	15	7.72	0.402		7.48	0.230		2.44	0.145	
Cation-Anion Difference		8	0.240	0.049		0.101	0.020		0.092	0.019	
<b>Other</b>											
Boron	mg/L	22	0.060	0.009		0.127	0.007		0.020	0.004	
PO4-P Phosphorus - Spec	mg/L	8	0.010	0.001		0.010	0.005		0.040	0.009	
Phosphorus - ICP (Total)	mg/L	7	0.085	0.055		0.035	0.025		0.070	0.030	
TKN	mg/L					1.31	0.000		0.100	0.000	
Nitrogen Combustion (Total)	mg/L	1	0.300	0.000		0.400	0.000		0.800	0.000	
Total Organic Carbon	mg/L	4	0.760	0.080		3.00	0.400		2.00	0.300	

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.