



**2020 North American Proficiency Testing Program
Quarter 3 Water Report - Monday, October 12, 2020**

**Laboratory ID
General**

Water Analysis	Units	n	Water 2020-307			Water 2020-308			Water 2020-309		
			Median	MAD	Lab^{1,2}	Median	MAD	Lab^{1,2}	Median	MAD	Lab^{1,2}
Bulk Properties											
pH		30	7.93	<i>0.145</i>		7.98	<i>0.115</i>		7.73	<i>0.130</i>	
EC	dS/m	29	0.480	<i>0.020</i>		0.264	<i>0.014</i>		0.159	<i>0.006</i>	
Cations											
Ca	mmolc/L	29	2.00	<i>0.059</i>		1.70	<i>0.070</i>		0.753	<i>0.043</i>	
Mg	mmolc/L	29	0.689	<i>0.029</i>		0.900	<i>0.041</i>		0.470	<i>0.020</i>	
Na	mmolc/L	29	1.88	<i>0.080</i>		0.250	<i>0.011</i>		0.323	<i>0.010</i>	
K	mmolc/L	27	0.049	<i>0.006</i>		0.030	<i>0.002</i>		0.024	<i>0.005</i>	
NH4-N	mmolc/L	9	0.002	<i>0.000</i>		0.003	<i>0.001</i>		0.010	<i>0.002</i>	
Sum Cations	mmolc/L	14	4.64	<i>0.136</i>		2.91	<i>0.140</i>		1.55	<i>0.050</i>	
SAR		17	1.60	<i>0.070</i>		0.220	<i>0.010</i>		0.403	<i>0.013</i>	
Adj-SAR		7	1.60	<i>0.340</i>		0.360	<i>0.040</i>		0.300	<i>0.050</i>	
Anions											
HCO3	mmolc/L	22	1.85	<i>0.085</i>		2.47	<i>0.126</i>		0.997	<i>0.048</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	26	1.68	<i>0.080</i>		0.200	<i>0.024</i>		0.086	<i>0.020</i>	
NO3	mmolc/L	23	0.007	<i>0.001</i>		0.005	<i>0.001</i>		0.007	<i>0.001</i>	
SO4	mmolc/L	25	1.04	<i>0.090</i>		0.170	<i>0.014</i>		0.470	<i>0.030</i>	
Sum Anions	mmolc/L	15	4.56	<i>0.150</i>		2.83	<i>0.140</i>		1.58	<i>0.080</i>	
Cation-Anion Difference		9	0.140	<i>0.029</i>		0.065	<i>0.013</i>		0.030	<i>0.005</i>	
Other											
Boron	mg/L	18	0.020	<i>0.002</i>		0.021	<i>0.004</i>		0.018	<i>0.002</i>	
PO4-P Phosphorus - Spec	mg/L	5	0.016	<i>0.015</i>		0.021	<i>0.018</i>		0.026	<i>0.020</i>	
Phosphorus - ICP (Total)	mg/L	10	0.010	<i>0.001</i>		0.028	<i>0.005</i>		0.029	<i>0.003</i>	
TKN	mg/L	3	0.258	<i>0.158</i>		0.300	<i>0.300</i>		0.100	<i>0.100</i>	
Nitrogen Combustion (Total)	mg/L										
Total Organic Carbon	mg/L	3	2.40	<i>0.400</i>		6.00	<i>0.000</i>		4.20	<i>0.200</i>	

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.