



**INVENTORY OF MAJOR IONS AND NUTRIENTS IN WATER
MATRIX REFERENCE MATERIALS**

RM Sales IQM
867 Lakeshore Road
Burlington, ON L7S 1A1
Canada
Tel: 289-348-1991
ventescrm-cmsales@ec.gc.ca

	*denotes a measurand which was removed from the previous lot#		*denotes a new lot #, new RM or newly added measurand.							
	AES-15 Rain Water lot 0523		ASSIN-02 River Water lot 0523		BATTLE-19 River Water lot 1123		BIGMOOSE-14 Lake Water lot 1123		CRANBERRY-20 Lake Water lot 1123	
	Value in mg/L		Value in mg/L		Value in mg/L		Value in mg/L		Value in mg/L	
Acidity to pH 8.3										
Alkalinity, Gran (as CaCO ₃)			253	± 11	191	± 8			42.6	± 3.4
Alkalinity, Total (as CaCO ₃)										
Aluminum	0.00927	± 0.00582					0.157	± 0.016		
Ammonia (as N)	0.157	± 0.013					0.0503	± 0.0084		
Boron			0.119	± 0.02						
Calcium	0.113	± 0.02	76.4	± 5.9	30.7	± 1.8	1.42	± 0.12	11.0	± 0.684
Chloride	0.299	± 0.04	21.0	± 1.2	16.8	± 0.8			34.2	± 1.282
Colour (Hazen Units)			11.3	± 4.1			22.3	± 5.5		
Conductivity (µS/cm, 25°C)	5.24	± 0.76	925	± 25	575	± 18			209	± 8.34
Dissolved Inorganic Carbon (DIC)	0.394	± 0.174	58.4	± 6.1	45.1	± 4.5				
Dissolved Organic Carbon (DOC)			7.76	± 0.63	5.47	± 0.71	4.17	± 0.53		
Fluoride			0.165	± 0.041	0.0987	± 0.0163	0.0445	± 0.0083		
Magnesium	0.034	± 0.006	46.0	± 3.8	17.1	± 1.5	0.224	± 0.016	5.16	± 0.44
Nitrate + Nitrite (as N)	0.122	± 0.011	0.919	± 0.11			0.267	± 0.019		
pH (units, 25°C)	5.590	± 0.240	8.44	± 0.12	8.34	± 0.20	6.15	± 0.25	7.65	± 0.38
Potassium			11.2	± 0.7	4.24	± 0.43	0.303	± 0.030	0.643	± 0.103
Silica (as Si)							1.57	± 0.13		
Silicates (as SiO ₂)			14.7	± 1.0	4.15	± 0.29			2.69	± 0.20
Sodium	0.238	± 0.024	58.0	± 4.2	70.3	± 4.9	0.674	± 0.064		
Sulfate (as SO ₄)	0.556	± 0.057	224	± 14	84.7	± 4.4	2.48	± 0.14	4.64	± 0.34
Total Kjeldahl Nitrogen (TKN)			0.556	± 0.153						
Total Nitrogen	0.302	± 0.040	1.45	± 0.14	0.357	± 0.084	0.444	± 0.048		
Hardness, Total (as CaCO ₃)			379	± 22	147	± 9			49.1	± 3.5

	HAMIL-20.3 Lake Water lot 0523		ION-96.5 Rain Water lot 0523		LETH-13 Drinking Water 1122		LON-18 Lake Water lot 1122		MAURI-17 River Water lot 0523	
	Value in mg/L		Value in mg/L		Value in mg/L		Value in mg/L		Value in mg/L	
Acidity to pH 8.3									6.14	± 0.71
Alkalinity, Gran (as CaCO ₃)			146	± 9	215	± 11	127	± 6	94.0	± 4.7
Alkalinity, Total (as CaCO ₃)										
Aluminum										
Ammonia (as N)					0.311	± 0.046				
Boron					0.0313	± 0.0044				
Calcium	58.6	± 3.5	93.2	± 7.0	41.7	± 3.1	33.7	± 2.7	2.24	± 0.19
Chloride	119	± 6	77.1	± 3.3	20.0	± 1.0	23.4	± 0.9	1.02	± 0.08
Colour (Hazen Units)									36.7	± 7.8
Conductivity (µS/cm, 25°C)	781	± 24	817	± 26	388	± 14	309	± 12	24.2	± 1.7
Dissolved Inorganic Carbon (DIC)			50.1	± 5.2	30.1	± 3.8			1.56	± 0.35
Dissolved Organic Carbon (DOC)					1.89	± 0.37	1.88	± 0.33	5.36	± 0.63
Fluoride	0.273	± 0.050	0.128	± 0.029	0.767	± 0.074				
Magnesium	16.6	± 1.8	22.4	± 1.9	15.6	± 1.2	8.90	± 0.81	0.574	± 0.038
Nitrate + Nitrite (as N)			3.11	± 0.28			0.326	± 0.036		
pH (units, 25°C)	8.19	± 0.18					8.11	± 0.20	6.88	± 0.28
Potassium	4.92	± 0.42	3.05	± 0.27	1.63	± 0.15	1.60	± 0.15	0.366	± 0.034
Silica (as Si)									1.91	± 0.15
Silicates (as SiO ₂)			0.349	± 0.039	2.64	± 0.18	0.758	± 0.063		
Sodium	71.6	± 5.3	44.8	± 3.0	13.2	± 0.9	14.0	± 0.8	1.55	± 0.11
Sulfate (as SO ₄)	51.0	± 2.4	88.7	± 4.7	41.2	± 2.1	23.9	± 1.0	2.02	± 0.15
Total Kjeldahl Nitrogen (TKN)					0.431	± 0.09				
Total Nitrogen	3.15	± 0.30	3.46	± 0.34	0.491	± 0.062	0.463	± 0.064		
Hardness, Total (as CaCO ₃)	215	± 15	325	± 19	168	± 14	121	± 9		

	SANGAMON-19 River Water lot 0923		MISSISSIPPI-14 River Water lot 0523		ONTARIO-12 Lake Water lot 0523		PERADE-17 River Water lot 0523		RAIN-12 Rain Water lot 1123	
	Value in mg/L		Value in mg/L		Value in mg/L		Value in mg/L		Value in mg/L	
Acidity to pH 8.3										
Alkalinity, Gran (as CaCO ₃)							9.61	± 0.89		
Alkalinity, Total (as CaCO ₃)	248	± 11	115	± 7	93.1	± 5.2				
Aluminum									0.0983	± 0.0096
Ammonia (as N)					0.0254	± 0.0064				
Boron										
Calcium	60.9	± 4.2	39.1	± 3.1	34.2	± 2.5	3.78	± 0.29	0.690	± 0.052
Chloride	62.9	± 2.7	15.9	± 0.8	22.8	± 1.2	1.44	± 0.10	0.189	± 0.024
Colour (Hazen Units)			38.0	± 8.4			36.1	± 8.1		
Conductivity (µS/cm, 25°C)	768	± 24	331	± 12	308	± 11	33.5	± 2.4	17.2	± 1.9
Dissolved Inorganic Carbon (DIC)			26.8	± 3.7	21.9	± 3.1	2.38	± 0.38		
Dissolved Organic Carbon (DOC)					1.88	± 0.35				
Fluoride	0.232	± 0.045	0.118	± 0.027	0.114	± 0.024				
Magnesium	38.4	± 3.3	12.6	± 1.1	8.76	± 0.64	0.632	± 0.048	0.261	± 0.018
Nitrate + Nitrite (as N)			2.94	± 0.24			0.169	± 0.015	0.315	± 0.019
pH (units, 25°C)			8.08	± 0.27	8.08	± 0.24	7.09	± 0.28	4.73	± 0.12
Potassium	3.62	± 0.29	2.49	± 0.20	1.59	± 0.11	0.417	± 0.042	0.04	± 0.01
Silica (as Si)							2.55	± 0.19	0.0233	± 0.0137
Silicates (as SiO ₂)	7.30	± 0.44	6.21	± 0.46	0.662	± 0.069				
Sodium	44.4	± 2.6	7.82	± 0.62	13.4	± 1.0	1.79	± 0.12	0.0764	± 0.0132
Sulfate (as SO ₄)	69.8	± 4.1	19.4	± 1.0	25.0	± 1.3	2.43	± 0.17	2.90	± 0.18
Total Kjeldahl Nitrogen (TKN)					0.166	± 0.079				
Total Nitrogen	0.586	± 0.084	3.37	± 0.37	0.507	± 0.067	0.317	± 0.053	0.424	± 0.044
Hardness, Total (as CaCO ₃)	312	± 18	150	± 11	121	± 8				

All values are in mg/L, unless otherwise specified.

Values and pricing subject to changes

