# Kalamalka Lake Intake Water Quality 2022

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| **Water System:** | **Greater Vernon Water** |
| **Source:** | **Kalamalka Lake** |
| **Sampling Point:** | **Kal Intake** |
| **Date of Sample:** | **7/12/2021** |

REGIONAL DISTRICT NORTH OKANAGAN

| | | Canadian Drinking Water Guidelines | |
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| **Anions** | **Results (mg/L)** | **Maximum Acceptable Concentration (MAC)** | **Aesthetic Objective (AO) Operational Guideline (OG)** |
| **Chloride** | 9.99 | | <250 |
| **Fluoride** | 0.34 | 1.5 | |
| **Nitrate (As N)** | 0.058 | 10 | |
| **Nitrite (as N)** | <0.010 | 1 | |
| **Sulphate** | 51.4 | | ≤500 |
| **General Parameters** | **Results (mg/L)** | **Maximum Acceptable Concentration (MAC)** | **Aesthetic Objective (AO) Operational Guideline (OG)** |
| **Alkalinity, Bicarbonate (as CaCO3)** | 176 | N/A | |
| **Alkalinity, Carbonate (as CaCO3)** | <1.0 | N/A | |
| **Alkalinity, Hydroxide (as CaCO3)** | < 1.0 | N/A | |
| **Alkalinity, Phenolphthalein (as CaCO3)** | < 1.0 | N/A | |
| **Alkalinity, Total (as CaCO3)** | 176 | N/A | |
| **Carbon, Dissolved Organic** | 3.48 | N/A | |
| **Carbon, Total Organic** | 3.8 | N/A | |
| **Chlorophyll a** | 3.5 | N/A | |
| **Colour, True** | <5.0 | N/A | ≤15 TCU |
| **Conductivity (EC)** | 403 | N/A | |
| **Cyanide, Total** | < 0.0020 | 0.2 | |
| **Nitrogen, Total Kjeldahl** | 0.267 | N/A | |
| **pH** | 8.2 | N/A | 7.0 - 10.5 |
| **Phosphorus, Total (as P)** | 0.0155 | N/A | |
| **Phosphorus, Total Dissolved** | 0.0143 | N/A | |
| **Turbidity** | 0.72 | | OG <1 |
| **UV Transmittance @ 254nm** | 89.9 | N/A | |
| **Calculated Parameters** | **Results (mg/L)** | **Maximum Acceptable Concentration (MAC)** | **Aesthetic Objective (AO) Operational Guideline (OG)** |
| **Hardness, Total** | 177 | N/A | |
| **Total Dissolved Solids** | 222 | | ≤500 |
| **Total Metals** | **Results (mg/L unless noted)** | **Maximum Acceptable Concentration (MAC)** | **Aesthetic Objective (AO) Operational Guideline (OG)** |
| **Aluminum, total** | 0.0067 | N/A | OG ≤0.1 |
| **Antimony, total** | < 0.00020 | 0.006 | |
| **Arsenic, total** | 0.00086 | 0.01 | |
| **Barium, total** | 0.0268 | 1 | |
| **Boron, total** | < 0.0500 | 5 | |
| **Cadmium, total** | < 0.000010 | 0.005 | |
| **Calcium, total** | 39.1 | N/A | |
| **Chromium, total** | <0.00050 | 0.05 | |
| **Cobalt, total** | < 0.00010 | N/A | |
| **Copper, total** | 0.00262 | 2 | <1 |
| **Iron, total** | < 0.010 | N/A | ≤0.3 |
| **Lead, total** | < 0.00020 | 0.005 | |
| **Magnesium, total** | 19.2 | N/A | |
| **Manganese, total** | 0.0041 | 0.12 | ≤0.02 |
| **Mercury, total** | < 0.000010 | 0.001 | |
| **Molybdenum, total** | <0.000010 | N/A | |
| **Nickel, total** | <0.00040 | N/A | |
| **Potassium, total** | 4.93 | N/A | |
| **Selenium, total** | 0.001 | 0.05 | |
| **Sodium, total** | 17.5 | N/A | ≤200 |
| **Strontium, total** | 0.426 | 7 | |
| **Uranium, total** | 0.00302 | 0.02 | |
| **Zinc, total** | < 0.0040 | N/A | ≤5 |

***Notes: No current Guideline ; Reference Health Canada***

*Hardness - no guideline - "Hardness Levels between 80 and 100 mg/L as CaCo3 are considered acceptable; levels greater than 200 are considered poor but can be tolerated; those in excess of 500 are normally considered unacceptable.*

*Turbidity - 1 NTU when disinfection required; <5 NTU aesthetic clarity*

*"<" = less than detection limit shown*

*">" = greater than upper range limit shown*

*"«" = less than number shown (Detected)*

*"»" = greater than number shown (Detected)*

** Criteria Exceeded*