REGIONAL DISTRICT OF NANAIMO

Whiskey Creek Raw Well Water Analysis

CDWG=Canadian Drinking Water Guidelines
MAC=Maximum Acceptable Concentration
OG= Operational Guidance Value
AO=Aesthetic Objective

Green font indicates a value flagged for operational consideration

Orange font indicates non-compliance with the Aesthetic Objective in the Canadian Drinking Water Guidelines (CDWG)

Red font indicates non-compliance with the Maximum Acceptable Concentration (MAC) in the CDWG

	Units	CDWG		November 24 2022	October 12 2023	October 10 2024
Miscellaneous Inorganics						
Fluoride	mg/L	1.5	MAC	<0.05	<0.05	<0.05
Alkalinity (total as CaCO)	mg/L			32	33	30
Anions						
Dissolved Sulphate	mg/L	500	AO	<1.0	<1	<1
Dissolved Chloride	mg/L	250	AO	1.3	<1	<1
Nitrite	mg/L	1	MAC	<0.005	<0.005	<0.005
Miscellaneous						
Apparent Colour	Colour Unit			<5	<5	<2
Nutrients						
Total Ammonia	mg/L			<0.015	<0.015	<0.015
Physical Properties						
Conductivity	µS/cm			63	66	62
pH	pH	7.0:10.5	OG	**6.84**	**6.74**	**6.52**
TDS	mg/L	500	AO	52	56	56
Turbidity	NTU			0.11	<0.1	<0.1
Microbiological Parameters						
E.coli	MPN/100mL	<1	MAC	0	0	0
Total Coliforms	MPN/100mL	<1	MAC	0	0	0
Calculated Parameters						
Total Hardness (CaCO)	mg/L			25.8	27.5	26.1
Nitrate	mg/L	10	MAC	0.04	0.073	0.061
Elements						
Total Mercury	mg/L	0.001	MAC	<0.0000019	<0.0000019	<0.0000019
Total Metals						
Total Aluminum	mg/L	0.1	OG	<0.003	<0.003	<0.003
Total Antimony	mg/L	0.006	MAC	<0.0005	<0.0005	<0.0005
Total Arsenic	mg/L	0.01	MAC	<0.0001	<0.0001	<0.0001
Total Barium	mg/L	1	MAC	<0.001	<0.001	<0.001
Total Beryllium	mg/L			<0.0001	<0.0001	<0.0001
Total Bismuth	mg/L			<0.001	<0.001	<0.001
Total Boron	mg/L	5	MAC	<0.05	<0.05	<0.05
Total Cadmium	mg/L	0.005	MAC	<0.00001	<0.00001	<0.00001
Total Chromium	mg/L	0.05	MAC	<0.001	<0.001	<0.001
Total Cobalt	mg/L			<0.0002	<0.0002	<0.0002
Total Copper	mg/L	1	AO	0.00186	0.00044	0.00037
Total Iron	mg/L	0.1	AO	<0.005	<0.005	<0.005
Total Lead	mg/L	0.01	MAC	<0.0002	<0.0002	<0.0002
Total Manganese	mg/L	0.02 0.12	AO MAC	<0.001	<0.001	<0.001
Total Molybdenum	mg/L			<0.001	<0.001	<0.001
Total Nickel	mg/L			<0.001	<0.001	<0.001
Total Selenium	mg/L	0.05	MAC	<0.0001	<0.0001	<0.0001
Total Silicon	mg/L			8.97	9.33	10.2
Total Silver	mg/L			<0.00002	<0.00002	<0.00002
Total Strontium	mg/L			0.0156	0.017	0.0164
Total Thallium	mg/L			<0.00001	<0.00001	<0.00001
Total Tin	mg/L			<0.005	<0.005	<0.005
Total Titanium	mg/L			<0.005	<0.005	<0.005
Total Uranium	mg/L	0.02	MAC	<0.0001	<0.0001	<0.0001
Total Vanadium	mg/L			<0.005	<0.005	<0.005
Total Zinc	mg/L	5	AO	<0.005	<0.005	<0.005
Total Zirconium	mg/L			<0.0001	<0.0001	<0.0001
Total Calcium	mg/L			7.1	7.5	7.25
Total Magnesium	mg/L			1.97	2.13	1.95
Total Potassium	mg/L			0.142	0.141	0.136
Total Sodium	mg/L	200	AO	2	2.03	2.03
Total Sulphur	mg/L			<3	<3	<3
UVT	%T/cm				100	100

Notes below about pH (2015) from https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/guidelines-canadian-drinking-water-quality-summary-table.html#_ftn1

Type	Parameter (published, reaffirmed)	MAC (mg/L)	Other value (mg/L)	Common sources of parameter in water	Health considerations	Comments
Treatment-related	pH (2015)	None	7.0-10.5	Not applicable	Not applicable	The control of pH is important to maximize treatment effectiveness, control corrosion and reduce leaching from distribution system and plumbing components.