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**ASSESSMENT STUDY OF WATER AND WASTEWATER SYSTEMS  
AND ASSOCIATED WATER MANAGEMENT PRACTICES  
AT OKANAGAN FIRST NATION OKANAGAN IR NO. 1**

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**For**

**Indian and Northern Affairs Canada  
British Columbia Region**

**By**

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## **Appendix D**

# **WATER TESTING RESULTS**

**(CHEMICAL/PHYSICAL/BACTERIOLOGICAL)  
WITH COMPARISONS TO THE  
*GUIDELINES FOR CANADIAN DRINKING WATER QUALITY (GCDWQ)***

SAMPLE IDENTIFICATION AND RESULTS OF TESTING:

SAMPLE #		1	2	3	MAXIMUM
CLIENT SAMPLE I.D.		Head of Lake System	Bradley Creek System	Trish Creek System	ACCEPTABLE CONC.***
<b>PHYSICAL TESTS</b>					
pH		8.47	8.54	8.24	6.5-8.5
Conductivity (micromhos/cm)		430.	494.	247.	-
True Color [Pt-Co Scale](CU)		L 5.	L 5.	L 5.	15.
Turbidity (NTU)		1.5	0.55	0.61	5.
Hardness (mg/L)		191.	239.	110.	-
<b>DISSOLVED ANIONS (mg/L)</b>					
Alkalinity: Bicarbonate	HC03	235.	297.	148.	-
Carbonate	C03	Nil	Nil	Nil	-
Hydroxide	OH	Nil	Nil	Nil	-
Chlorides	Cl	1.53	Nil	Nil	-
Sulfates	S04	48.0	L 0.5	L 0.5	250.
Nitrates and Nitrites	N	9.75	41.0	17.5	500.
Fluorides	F	0.15	1.58	1.20	10.**
			0.26	0.23	1.5
<b>DISSOLVED METALS (mg/L)</b>					
Calcium	Ca	46.8	53.5	32.3	-
Magnesium	Mg	17.6	25.1	7.07	-
Sodium	Na	15.3	9.86	5.17	-
Potassium	K	2.62	5.12	1.11	-
Iron	Fe	L 0.030	L 0.030	L 0.030	0.30
Manganese	Mn	L 0.003	0.096	L 0.003	0.05
Silicon	Si02	22.0	24.7	20.5	-
<b>TOTAL METALS (mg/L)</b>					
Iron	Fe	0.090	L 0.030	L 0.030	0.30
Manganese	Mn	L 0.003	0.10x	L 0.003	0.05
Arsenic	As	0.001	0.003	L 0.001	0.05
Barium	Ba	0.015	0.027	0.019	1.0
Cadmium	Cd	L 0.001	L 0.001	L 0.001	0.005
Chromium	Cr	L 0.03	L 0.03	L 0.03	0.05
Copper	Cu	0.32	0.098	0.086	1.0
Lead	Pb	L 0.001	0.001	L 0.001	0.05
Zinc	Zn	0.016	L 0.010	0.12	5.0

mg/L = milligrams per liter; L = Less than = not detected

\*\* = total nitrate and nitrite nitrogen

\*\*\* = Maximum Acceptable concentration as set by "B.C. Drinking Water Quality Standards, 1982" and "Guidelines for Canadian Drinking Water Quality, 1978"

x = Exceeded the "Guidelines"

RESULTS OF TESTING: (CON'T)

SAMPLE # CLIENT SAMPLE I.D.	4 Salmon River System	5 6 Mile System	6 Whiteman Creek System	MAXIMUM ACCEPTABLE CONC.***
<b>PHYSICAL TESTS</b>				
pH	8.06	8.19	8.49	6.5-8.5
Conductivity (micromhos/cm)	440.	943.	773.	-
True Color [Pt-Co Scale](CU)	L 5.	50.x	5.	15.
Turbidity (NTU)	0.61	16.	1.2	5.
Hardness (mg/L)	194.	391.	267.	-
<b>DISSOLVED ANIONS (mg/L)</b>				
Alkalinity: Bicarbonate HC03	225.	297.	378.	-
Carbonate C03	Nil	Nil	Nil	-
Hydroxide OH	Nil	Nil	Nil	-
Chlorides Cl	1.02	2.55	L 0.5	250.
Sulfates S04	37.0	245.	145.	500.
Nitrates and Nitrites N	0.37	0.11	0.095	10.**
Fluorides F	0.17	0.43	0.24	1.5
<b>DISSOLVED METALS (mg/L)</b>				
Calcium Ca	62.8	88.2	70.9	-
Magnesium Mg	8.70	40.6	21.4	-
Sodium Na	6.31	40.8	64.1	-
Potassium K	2.39	7.32	9.74	-
Iron Fe	L 0.030	L 0.030	L 0.030	0.30
Manganese Mn	L 0.003	0.076x	0.13	0.05
Silicon Si02	17.9	22.0	36.6	-
<b>TOTAL METALS (mg/L)</b>				
Iron Fe	L 0.030	1.13x	0.20	0.30
Manganese Mn	L 0.003	0.088x	0.14x	0.05
Arsenic As	L 0.001	L 0.001	0.008	0.05
Barium Ba	0.028	0.054	0.044	1.0
Cadmium Cd	L 0.001	L 0.001	L 0.001	0.005
Chromium Cr	L 0.03	L 0.03	L 0.03	0.05
Copper Cu	L 0.015	L 0.015	L 0.015	1.0
Lead Pb	0.001	L 0.001	L 0.001	0.05
Zinc Zn	0.59	L 0.010	0.015	5.0

mg/L = milligrams per liter; L = Less than = not detected

\* = total nitrate and nitrite nitrogen

\*\* = Maximum Acceptable concentration as set by "B.C. Drinking Water Quality Standards, 1982" and "Guidelines for Canadian Drinking Water Quality, 1978"

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