



District of Lake Country
10150 Bottom Wood Lake Road
Lake Country, BC V4V 2M1
t: 250-766-6677 f: 250-766-0200
engineering@lakecountry.bc.ca

Prepared by Patti Meger B.Sc., Water Quality Technician. Please direct inquiries to pmeger@lakecountry.bc.ca

Water Quality Advisory:

- Beaver Lake Source (switch back to Beaver Source this month with mixed Okanagan/Beaver source through this distribution system)
- Oyama Lake Source (switch back to Oyama this month with primarily mixed sources (Kal and Oyama) through distribution system)

1.0 Bacteriological

Nine (9) bacteriological samples membrane filtration (MF) and three (3) Presence Absence (P/A) tests were collected in May from the Lake Country Water System (Beaver & Okanagan Lakes) all of which were negative for total coliforms and E.coli.

Eight (8) MF and two (2) P/A bacteriological samples were collected in May from the Oyama water system (Oyama & Kalamalka Lakes). All samples collected were negative for total coliforms and E.coli.

Six (6) MF and two (2) P/A bacteriological samples were collected in May from the Coral Beach water system (Okanagan Lake). All samples collected were negative for total coliforms and E.coli.

Four (4) MF and two (2) P/A bacteriological samples were collected in May from the Lake Pine water system (Okanagan Lake). All samples collected were negative for total coliforms and E.coli

Results for all bacteriological samples are reported in Tables 1 and 2. Water quality results for physical and chemical parameters tested are in Table 3.

<u>Water System, Source</u>	<u>Tests (MF / P/A)</u>
Lake Country Water System, Beaver Lake Source: (mixed source with OK)	3/1
Lake Country Water System, Okanagan Lake Source:	6/2
Lake Country Water System, Oyama Lake Source: (mixed source with Kal)	
Lake Country Water System, Kalamalka Lake Source:	8/2
Coral Beach Water System, Okanagan Lake Source:	6/2
Lake Pine Water System, Okanagan Lake Source:	4/2

Table 1. Bacteriological Results

Winfield Okanagan & Oyama Water Systems	Source	Total Coliforms CFU/100mL	E.coli CFU/100mL	Dates Sampled
Camp Rd. Shop	Okanagan Lake	<1	<1	4, 19
Cornwall	Kalamalka Lake	<1	<1	19
Easthill off Todd Rd.	Oyama Lake	<1	<1	19
Glenmore	Beaver Lake	<1	<1	4
Glenmore	Okanagan Lake	<1	<1	4
Kal Pump House	Kalamalka Lake	<1	<1	3, 26
Lakes Upper Reservoir	Okanagan Lake	<1	<1	19
McCoubrey	Okanagan Lake	<1	<1	26
Oyama Reservoir	Oyama Lake	<1	<1	3, 17
Pow Road	Beaver Lake	<1	<1	19, 25
Ribbleworth	Oyama Lake	<1	<1	26
Todd Road	Oyama Lake	<1	<1	26
Coral Beach Water System	Source	Total Coliforms CFU/100mL	E.Coli CFU/100mL	Dates Sampled
Coral Beach South End B/O	Okanagan Lake	<1	<1	3, 12, 17
Coral Beach Pumphouse	Okanagan Lake	<1	<1	3, 12, 17
Lake Pine Water System	Source	Total Coliforms CFU/100mL	E.Coli CFU/100mL	Dates Sampled
Lake Pine Pump House	Okanagan Lake	<1	<1	3
Lake Pine PR Station	Okanagan Lake	<1	<1	3, 19
Lake Pine Upper Reservoir	Okanagan Lake	<1	<1	19

Table 2. Bacteriological Results-Presence/Absence

System/Site	Source	Total Coliforms	E.coli	Dates Sampled
<i>District of Lake Country</i>				
Pow Road	Beaver Lake	<1	<1	25
Easthill	Oyama Lake/Kal	<1	<1	26
Glenmore Booster Station	Okanagan Lake	<1	<1	10
Lakes Lower Reservoir	Okanagan Lake	<1	<1	26
Kal Pump House	Kalamalka Lake	<1	<1	26
<i>Coral Beach Water System</i>				
Coral Beach South End	Okanagan Lake	<1	<1	27
Coral Beach Pumphouse	Okanagan Lake	<1	<1	27
<i>Lake Pine Water System</i>				
Lake Pine Pump House	Okanagan Lake	<1	<1	12, 27



LAKE COUNTRY

2.0 Chemical and Physical Parameters

Table 3 contains monthly water chemistry data collected at sites using the water quality hand-held equipment.

Table 3. Water Quality: Chemical & Physical Parameters

Lake Country Water System	Avg. Chlorine Residual	Avg. Turbidity (NTU)	Avg. Temp. (°C)	Avg. pH	Avg. Cond. (µS/cm)	*Apparent colour	Hardness mg/L CaCO ₃
Beaver Lk.(mix with Ok) -D.S.	1.17	0.38	9.3	7.7	209		
Beaver Lk-Raw		1.82	8.8	7.4	57	71	40
Ok. Lk – D.S.	0.96	0.41	8.7	7.6	243		
Ok. Lk – Raw		0.44	8.3	7.9	277		160
Kal Lk – D.S.	1.87	0.51	8.4	8.2	409		
Kal Lk – Raw		0.38	8.4	8.2	395		180
Oyama Lk (mix with Kal) –D.S.	3.76	0.88	9.5	6.5	120		
Oyama Lk-Raw		0.95	9.2	7.6	57	89	40
Coral Beach Water System	Avg. Chlorine Residual	Avg. Turbidity (NTU)	Avg. Temp. (°C)	Avg. pH	Avg. Cond. (µS/cm)	Apparent colour	Hardness mg/L CaCO ₃
Ok.Lk – D.S.	1.37	0.47	10.3	7.9	296	216	
Ok.Lk -Raw		0.50	9.4	8.1	279		140
Lake Pine Water System	Avg. Chlorine Residual	Avg. Turbidity (NTU)	Avg. Temp. (°C)	Avg. pH	Avg. Cond. (µS/cm)	Apparent colour	Hardness mg/L CaCO ₃
OK Lake – D.S.	1.01	0.29	10.0	8.0	304	210	
OK Lake - Raw		0.43	9.6	8.1	282		140

**True Colour results for Raw Water

3.0 Notable Events:

Oyama water source was back on-line this month. Samples showed primarily a mixed source through distribution system until month end.

Beaver Lake source also back on-line this month with similar sampling showing a mixture of the Okanagan lake source remaining in the Beaver Lake distribution lines until month end.



LAKE COUNTRY

3.0 Notable Events Continued:

An algae bloom in Wood lake has not impacted the DLC's intake on Kalamalka Lake. IHA has advised the public to wash off after swimming and to take precautions when in contact with water from Wood Lake. IHA advises that although Wood Lake Algae bloom is not toxic, conditions can change. The DLC is supporting the Province and IHA in assisting them with their monitoring and sampling program.

DLC staff monitor all our drinking water sources visually, through bacteriological and water chemistry sampling and as well as 24 hours/day on-line SCADA (Supervisory Control and Data Acquisition) monitoring. As with all other DLC drinking water sources, at our Kalamalka deep water intake, samples are regularly collected for analysis with accredited lab. In regards to the algae bloom on Wood lake, additional samples from the Kalamalka Lake intake are sent to an aquatic biologist for specialized sampling.



LAKE COUNTRY