

REPORTED TO: City of Parksville



REPORT DATE: October 28, 2007

GROUP NUMBER: 81018063

Potability (Aesthetic Criteria) in Water

CLIENT SAMPLE IDENTIFICATION:		River Station	Springwood PS		
DATE SAMPLED:		Oct 17/07	Oct 17/07		
CANTEST ID:		710180076	710180082	Aesthetic Objective	UNITS
Conventional Parameters					
Dissolved Chloride	Cl	8.17	15.7	250	mg/L
Dissolved Sulphate	SO4	1.51	5.58	500	mg/L
Conventional Parameters-Victoria Laboratory-					
pH, Laboratory		6.6	7.3	6.5 - 8.5	pH units
True Color		< 5	< 5	15	CU
Turbidity		0.50	0.29	-	NTU
Total Dissolved Solids		30	156	500	mg/L
Alkalinity Total 4.5		15	107	-	mg/L
Total Metals Analysis					
Copper	Cu	< 0.001	0.003	1.0	mg/L
Iron	Fe	< 0.05	0.05	0.3	mg/L
Manganese	Mn	0.002	0.014	0.05	mg/L
Sodium	Na	3.33	6.93	200	mg/L
Zinc	Zn	< 0.005	< 0.005	5	mg/L

mg/L = milligrams per liter
 NTU = nephelometric turbidity units
 < = Less than detection limit

CU = color units

REPORTED TO: City of Parksville



REPORT DATE: October 28, 2007

GROUP NUMBER: 81018063

Potability (Health Criteria at Point of Use) in Water

CLIENT SAMPLE IDENTIFICATION:		River Station	Springwood PS		
DATE SAMPLED:		Oct 17/07	Oct 17/07		
CANTEST ID:		710180076	710180082	Max. Acceptable Concentration	UNITS
Conventional Parameters					
Hardness (Total)	CaCO ₃	21	115	-	mg/L
Dissolved Fluoride	F	< 0.05	< 0.05	1.5	mg/L
Dissolved Sulphate	SO ₄	1.51	5.58	-	mg/L
Ammonia Nitrogen	N	< 0.01	< 0.01	-	mg/L
Conventional Parameters-Victoria Laboratory-					
Conductivity		79.0	308	-	µS/cm
Nitrate and Nitrite	N	0.06	0.94	10	mg/L
Nitrate by UV	NO ₃	0.06	0.94	10.0	mg/L
Nitrite	N	< 0.002	< 0.002	1.0	mg/L
Total Metals Analysis					
Aluminum	Al	0.022	< 0.005	-	mg/L
Antimony	Sb	< 0.001	< 0.001	0.006	mg/L
Arsenic	As	< 0.001	< 0.001	0.010	mg/L
Barium	Ba	0.005	0.005	1.0	mg/L
Boron	B	< 0.05	< 0.05	5	mg/L
Cadmium	Cd	< 0.0002	< 0.0002	0.005	mg/L
Calcium	Ca	7.03	25.1	-	mg/L
Calcium	Ca	8.02	26.7	-	mg/L
Chromium	Cr	< 0.001	< 0.001	0.05	mg/L
Lead	Pb	< 0.001	< 0.001	0.01	mg/L
Magnesium	Mg	0.93	12.8	-	mg/L
Potassium	K	0.2	0.7	-	mg/L
Selenium	Se	< 0.001	< 0.001	0.01	mg/L
Silver	Ag	< 0.00025	< 0.00025	-	mg/L
Uranium	U	< 0.0005	< 0.0005	0.02	mg/L
Microbiological Analysis-Victoria Laboratory-					
Non-Coliform Bacteria		< 1	< 1	-	Col./100 mL
Total Coliforms (Confirmed)		1 X	< 1	not detected	Col./100 mL
E. coli		< 1	< 1	not detected	Col./100 mL

mg/L = milligrams per liter

µS/cm = microsiemens per centimeter

Col./100 mL = Colonies per 100 mL

< = Less than detection limit

X = Result is outside the Max. Acceptable Concentration

REPORTED TO: City of Parksville



REPORT DATE: October 28, 2007

GROUP NUMBER: 81018063

Conventional Parameters in Water

CLIENT SAMPLE IDENTIFICATION:	SAMPLE DATE	CANTEST ID	Total Organic Carbon C	Total Kjeldahl Nitrogen N	Total Nitrogen N
River Station	Oct 17/07	710180076	2.3	<	<
Springwood PS	Oct 17/07	710180082	<	<	0.9
DETECTION LIMIT UNITS			1 mg/L	0.2 mg/L	0.2 mg/L

mg/L = milligrams per liter

< = Less than detection limit

REPORTED TO: City of Parksville



REPORT DATE: October 28, 2007

GROUP NUMBER: 81018063

Metals Analysis in Water

CLIENT SAMPLE IDENTIFICATION:		River Station	Springwood PS	
SAMPLE PREPARATION:		TOTAL	TOTAL	
DATE SAMPLED:		Oct 17/07	Oct 17/07	
CANTEST ID:		710180076	710180082	DETECTION LIMIT
Beryllium	Be	<	<	0.001
Bismuth	Bi	<	<	0.001
Cobalt	Co	<	<	0.001
Lithium	Li	0.001	<	0.001
Molybdenum	Mo	<	<	0.0005
Nickel	Ni	<	<	0.001
Phosphorus	P	<	<	0.15
Silicon	Si	2.2	12.1	0.25
Strontium	Sr	0.029	0.063	0.001
Tellurium	Te	<	<	0.001
Thallium	Tl	<	<	0.0001
Thorium	Th	<	<	0.0005
Tin	Sn	<	<	0.001
Titanium	Ti	<	<	0.001
Vanadium	V	<	0.004	0.001
Zirconium	Zr	<	<	0.01

Results expressed as milligrams per liter (mg/L)

< = Less than detection limit

REPORTED TO: City of Parksville



REPORT DATE: October 28, 2007

GROUP NUMBER: 81018063

Conventional Parameters-Victoria Laboratory- in Water

CLIENT SAMPLE IDENTIFICATION:	SAMPLE DATE	CANTEST ID	Tannin and Lignin
River Station Springwood PS	Oct 17/07	710180076	0.24
	Oct 17/07	710180082	<
DETECTION LIMIT UNITS			0.1 mg/L

mg/L = milligrams per liter

< = Less than detection limit

REPORTED TO: City of Parksville



REPORT DATE: October 28, 2007

GROUP NUMBER: 81018063

Microbiological Analysis-Victoria Laboratory- in Water

CLIENT SAMPLE IDENTIFICATION:	SAMPLE DATE	CANTEST ID	Heterotrophic Plate Count
River Station Springwood PS	Oct 17/07	710180076	3
	Oct 17/07	710180082	<
DETECTION LIMIT UNITS			1 Col./1 mL

Col./1 mL = Colonies per 1 mL

< = Less than detection limit

REPORTED TO: City of Parksville



REPORT DATE: October 28, 2007

GROUP NUMBER: 81018063

Langelier Saturation Index in Water

CLIENT SAMPLE IDENTIFICATION:	SAMPLE DATE	CANTEST ID	Saturation Index at 4.4C	Saturation Index at 60C
River Station	Oct 17/07	710180076	-3.22	-2.18
Springwood PS	Oct 17/07	710180082	-1.16	-0.12
DETECTION LIMIT UNITS			- SI 4.4C	- SI 60C

SI 4.4C = Saturation Index at 4.4C

SI 60C = Saturation Index at 60C

REPORTED TO: City of Parksville



REPORT DATE: October 28, 2007

GROUP NUMBER: 81018063

COLIFORM REMARKS:

When evaluating coliform results, the following excerpts from the "Guidelines for Canadian Drinking Water Quality, Summary Table, March 2006", prepared by the Federal-Provincial-Territorial Committee on Drinking Water should be noted:

The maximum acceptable concentration (MAC) of total coliforms in water leaving a treatment plant in a public system and throughout semi-public and private supply systems is none detectable per 100 mL.

For distribution systems in public supplies where fewer than 10 samples are collected in a given sampling period, no sample should contain total coliform bacteria. In distribution systems where greater than 10 samples are collected in a given sampling period, no consecutive samples from the same site or not more than 10% of samples should show the presence of total coliform bacteria.

Testing for total coliforms should be carried out in all drinking water systems. The number, frequency, and location of samples for total coliform testing will vary according to the type and size of the system and jurisdictional requirements.

Analysis Report



CANTEST LTD.

Professional
Analytical
Services

4606 Canada Way
Burnaby, B.C.
V5G 1K5

FAX: 604 731 2386

TEL: 604 734 7276

1 800 665 8566

REPORT ON: Analysis of Water Samples
REPORTED TO: City of Parksville
Engineering and Operations Dpt
PO Box 1390
Parksville, BC
V9P 2H3

Att'n: Scott Churko

CHAIN OF CUSTODY: VI3242
P.O. NUMBER: 4920

NUMBER OF SAMPLES: 2

REPORT DATE: October 28, 2007

DATE SUBMITTED: October 18, 2007

GROUP NUMBER: 81018063

SAMPLE TYPE: Drinking Water

NOTE: Results contained in this report refer only to the testing of samples as submitted. Other information is available on request.

Aesthetic Objective Summary:

Aesthetic Objectives as set by "Guidelines for Canadian Drinking Water Quality Summary Table" -March 2007. Aesthetic objectives apply to certain substances or characteristics of drinking water that can affect its acceptance by consumers or interfere with practices for supplying good quality water. For certain parameters, both aesthetic objectives and health-related guidelines have been derived. Where only aesthetic objectives are specified, these values are below those considered to constitute a health hazard

CLIENT SAMPLE ID	STATUS
River Station Springwood PS	Acceptable Acceptable

Max. Acceptable Concentration Summary:

Maximum Acceptable Concentrations (MAC) for both chemical and microbiological parameters are put forth in the "Guidelines for Canadian Drinking Water Quality Summary Table" - March 2007. For the parameters tested, results are generally categorized by health concerns. Some parameters have no limit value denoted because: a) currently available data indicates no health risk, b) the compound is not permitted in Canada, or c) it refers to a family of compounds.

CLIENT SAMPLE ID	HEALTH	HARDNESS
River Station	Unacceptable	Soft

(Continued)

CANTEST LTD.

REPORTED TO: City of Parksville



REPORT DATE: October 28, 2007

GROUP NUMBER: 81018063

Max. Acceptable Concentration SUMMARY: (Continued)

CLIENT SAMPLE ID	HEALTH	HARDNESS
Springwood PS	Acceptable	Moderate

TEST METHODS:

Anions in Water by Ion Chromatography - was determined based on Method 4110 in Standard Methods (21st Edition) and EPA Method 300.0 (Revision 2.1).

Ammonia in Water - was performed using Flow Injection Analysis where the aqueous sample is injected into a carrier stream, which merges a sodium hydroxide stream. Gaseous ammonia is formed, which diffuses through a gas permeable membrane into an indicator stream. This indicator stream is comprised of a mixture of acid-base indicators, which will react with the ammonia gas; resulting in a colour shift which is measured photometrically @ 590 nm.

Total Kjeldahl Nitrogen in Water - was determined based on Method 4500-N in Standard Methods (21st Edition) and Method X325 in the BC Laboratory Manual (2005).

Total Organic Carbon in Water - was determined based on Method 5310 A and B in Standard Methods (21st Edition) and Method X314 in the BC Laboratory Manual (2005).

Conventional Parameters - analyses were performed using procedures based on those described in the most current editions of "British Columbia Environmental Laboratory Manual for the Analysis of Water, Wastewater, Sediment and Biological Materials", (2005 edition) Province of British Columbia and "Standard Methods for the Examination of Water and Wastewater" (21st Edition), published by the American Public Health Association.

Conventional Parameters - Victoria Laboratory (1104 - 4464 Markham Street, Victoria, BC V8Z 7X8): - Analyses performed at Cantest's Victoria facility follow procedures based on those described in the most current editions of "British Columbia Environmental Laboratory Manual" (2005) and/or "Standard Methods for the Examination of Water and Wastewater" (21st Edition).

Langelier Saturation Index - analysis was performed based on Standard Methods for the Examination of Water and Wastewater (21st Edition).

Metals in Water - analysis was performed using Inductively Coupled Plasma Optical Emission Spectroscopy (ICP), Inductively Coupled Plasma-Mass Spectroscopy (ICP/MS).

Microbiological Parameters - analyses were performed using procedures based on those described in "B. C. Environmental Laboratory Manual For the Analysis of Water, Wastewater, Sediment and Biological Materials" (2005 Edition) and "Standard Methods for the Examination of Water and Wastewater", 21st Edition. Analysis was performed at CANTEST Ltd. Victoria Laboratory (1104 - 4464 Markham Street, Victoria, BC, V8Z 7X8).

TEST RESULTS:

(See following pages)