

**Assessment Study of
Water and Wastewater Systems and
Associated Water Management Practices
at the Nisga'a Village of Gingolx**

**for the
Indian and Northern Affairs Canada
BC Region**



CH2MHILL

March, 2003

Appendix C
Water Quality Test Results

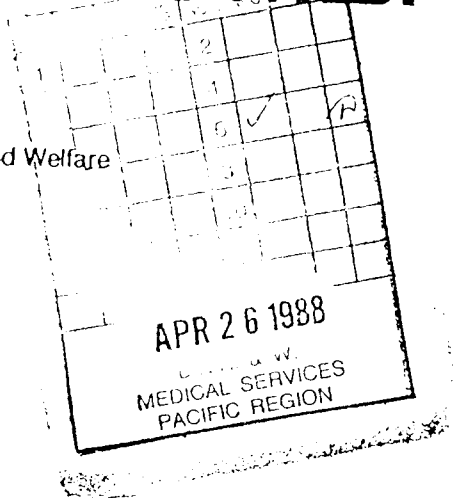
Gingold/Kinditt

1-2-88 5:07 PM

CANTEST

CanTest Ltd
Professional Analytical Services
Suite 200
1523 West 3rd Ave
Vancouver, BC
V6J 1J8
Fax: 604 731 2386
Tel: 604 734 7276

REPORT ON: Analysis of Water Sample
REPORTED TO: Government of Canada, Health and Welfare
Medical Services
#540-757 W. Hastings St.
Vancouver, B.C
V6C 3E6
FILE NO: 396H
DATE: April 22/88



cc + Inv.: Accts. Payable
cc: H & W, Northeast Zone

We have tested the water samples submitted by you and report as follows:

PROJECT NAME: Water Quality
DATE SAMPLED: April 7, 1988
DATE SUBMITTED: April 8, 1988
TYPE OF CONTAINER: Plastic

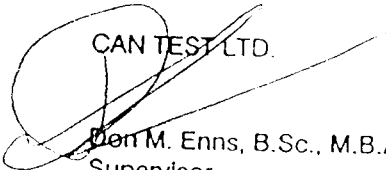
SAMPLE IDENTIFICATION AND RESULTS OF TESTING:

CTL#	CLIENT I.D.	TOTAL LEAD (Pb) mg/L
396-1	Cold - 1st flush	0.040
396-2	Cold - after 1st flush	0.004
396-3	Hot - 1st flush	0.008

mg/L = milligrams per litre

METHOD OF TESTING:

The analyses were carried out in accordance with procedures described in "Laboratory Manual for the Chemical Analysis of Water, Wastewater, Sediments and Biological Materials (2nd Edition)" published by the Government of B.C., Ministry of Environment, Water Resources Services, 1976 and "Standard Methods for the Examination of Water and Wastewater" 15th Edition, 1980, published by the American Public Health Association.

CAN TEST LTD.

Don M. Enns, B.Sc., M.B.A.
Supervisor
Water Quality Laboratory

DME/csd
D3:GOV



CAN TEST LTD.

SUITE 200 1523 WEST 3rd AVENUE, VANCOUVER, B.C. V6J 1J8

• TELEPHONE (604) 734-7276

• TELEX 04-54210

Report On Analysis of Water Sample File No. 3177G

Report No. Disk#6 (Govt2)

Reported To Government of Canada, Health and Welfare P.O. # _____

Medical Services, #540 - 757 W. Hastings Date June 19/87

Vancouver, B.C. V6C 3E6 cc: Health and Welfare
Northwest Zone

Attention: _____

We have tested the samples submitted by you and report as follows:

PROJECT NAME: Kincolith Band

SUMMARY:

For the chemical parameters tested, the sample did not meet all of the limits set by "British Columbia Drinking Water Quality Standards, 1982", Province of B.C., Ministry of Health and "Guidelines for Canadian Drinking Water Quality, 1978", published by authority of Health and Welfare Canada, as indicated in the "Results of Testing".

The parameters that did not meet the limits were color, total manganese, and total iron.

SAMPLE IDENTIFICATION:

The sample was identified as:

DATE SAMPLED: May 6, 1987
DATE SUBMITTED: May 7, 1987
TYPE OF CONTAINER: 1L Plastic

With further identification in "Results of Testing".

METHOD OF TESTING:

The metals were determined using Inductively Coupled Plasma Spectrographic analysis, direct or graphite furnace atomic absorption spectrophotometry.

The analyses were carried out in accordance with procedures described in "Standard Methods for the Examination of Water and Wastewater" 15th Edition, 1980; 16th Edition, 1985, published by the American Public Health Association.

NO.	TEST	ACT	SIG
1			
3			
		6 ✓	
		14 ✓	

JUL - 2 1987
D.N.H. & W.
MEDICAL SERVICES
PACIFIC REGION

CAN TEST LTD.

Don M. Enns, B.Sc.,
Supervisor
Water Quality Laboratory

DME/jo

Name: Govt of Canada
 File No: 3177G
 Page No: 2

RESULTS OF TESTING:

SAMPLE # 1 MAXIMUM
 CLIENT SAMPLE I.D. KINCOLITH NURSING STN.
 ACCEPTABLE CONC.***

PHYSICAL TESTS

pH	6.71	6.5-8.5
Conductivity (micromhos/cm)	17.	-
True Color [Pt-Co Scale](CU)	80.X	15.
Turbidity (NTU)	2.1	5.
Hardness (mg/L)	4.4	-

DISSOLVED ANIONS (mg/L)

Alkalinity:

Bicarbonate	HC03	9.99	-
Carbonate	C03	NIL	-
Hydroxide	OH	NIL	-
Chlorides	Cl	L 0.5	250.
Sulfates	S04	L 1.0	500.
Nitrates and Nitrites	N	0.030	10.**
Fluorides	F	L 0.030	1.5

DISSOLVED METALS (mg/L)

Calcium	Ca	1.43	-
Magnesium	Mg	0.19	-
Sodium	Na	1.06	-
Potassium	K	0.40	-
Iron	Fe	0.059	0.30
Manganese	Mn	0.005	0.05
Silicon	Si02	3.03	-

TOTAL METALS (mg/L)

Iron	Fe	0.64X	0.30
Manganese	Mn	0.12X	0.05
Arsenic	As	L 0.001	0.05
Barium	Ba	0.008	1.0
Cadmium	Cd	L 0.001	0.005
Chromium	Cr	L 0.001	0.05
Copper	Cu	0.14	1.0
Lead	Pb	L 0.001	0.05
Zinc	Zn	L 0.010	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"



Date: June 11, 1986

File No. 3051A

Report On: Water Analysis

Report To: Regional Director
Health and Welfare Canada
Medical Services Branch
Pacific Region
Suite 540
757 West Hastings Street
Vancouver, B. C.
V6C 3E6

c.c. G. Kendell
District Engineer
Northwest District
3219 Eby Street
Terrace, B. C.
V8G 4R3

c.c. Northwest Zone
Prince Rupert

We have analysed the water samples submitted by you on May 26, 1986 and report as follows:-

SAMPLE INFORMATION

The samples were submitted in proper laboratory containers labelled:-

Kincolith Well #1
Kincolith Well #2

METHODOLOGY

The analyses were carried out using procedrues described in "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, 1980.

RESULTS

		<u>Well #1</u>	<u>Well #2</u>
Total Iron	Fe	2.51	2.91
Total Manganese	Mn	0.24	0.016
Dissolved Iron	Fe	L0.03	L0.03
Dissolved Manganese	Mn	0.17	0.013
Iron Bacteria		Positive	-

L = Less than

Results expressed as milligrams per liter except iron bacteria

ASL ANALYTICAL SERVICE LABORATORIES LTD.

A. W. Maynard, M.Sc.
Senior Partner

AWM/mm



analytical service laboratories

CONSULTING CHEMISTS & ANALYSTS

1650 Pandora Street
Vancouver, B.C. • V5L 1L6

003200



Report On: Water Analysis

File #: 494A

Report To: Pacific Hydrology Consultants Ltd.
204-1929 W. Broadway
Vancouver, B.C.
V6J 1Z3

Date: Sept. 26, 1983

Your Project: Kincolith

We have analysed the water samples submitted on Sept. 8, 1983, and report as follows.

SAMPLE INFORMATION

The samples were submitted in proper laboratory containers labelled:

1. Kincolith Well #1 Sept. 1, 1983
2. Kincolith Well #2 Sept. 1, 1983

METHOD OF ANALYSIS

The analyses were carried out using procedures specified by the B.C. Ministry of the Environment.

REMARKS

The water as represented by the samples submitted were low in hardness. They met Canadian drinking water standards for all parameters analysed except the manganese in sample #1 (limit = 0.05 mg/ℓ). Manganese is limited for aesthetic reasons rather than health considerations and would not likely be a problem. The laboratory pH of both samples, while in the required range, was low compared with most ground waters.

ASL ANALYTICAL SERVICE LABORATORIES LTD.

A.W. Maynard, M.Sc.
Senior Partner

AWM:sis

RESULTS OF ANALYSIS

PARAMETER

PARAMETER	494-1	494-2
Physical Parameters		
pH	6.50	6.50
Specific Conductance (umhos/cm)	140.	297.
Color (CU)	L5.	L5.
Turbidity (JTU)	L1.0	L1.0
Suspended Solids (mg/L)	2.4	L1.0
Dissolved Solids (mg/L)	120.	255.
Total Hardness CaCO ₃ (mg/L)	34.4	44.2
Dissolved Anions (mg/L)		
Bicarbonate HCO ₃	14.5	19.6
Chloride Cl	35.5	90.0
Sulfate SO ₄	L1.0	1.4
Fluoride F	0.068	0.057
Nitrate + Nitrite N	0.121	0.166
Phosphate P	L0.003	L0.003
Dissolved Metals (mg/L)		
Calcium Ca	8.83	10.6
Magnesium Mg	3.01	4.32
Sodium Na	8.21	52.4
Potassium K	1.86	3.24
Copper Cu	0.005	0.001
Cadmium Cd	L0.0005	L0.0005
Lead Pb	0.002	L0.001
Zinc Zn	0.012	L0.005
Iron Fe	0.08	L0.03
Manganese Mn	0.11	L0.005
Total Metals (mg/L)		
Iron Fe	0.08	L0.03
Manganese Mn	0.11	L0.005

L = less than

1650 pandora st · vancouver, b.c. · V5L 1L6
(604) 253-4188

Kincolith IR # 14
Report # 494A

Report On: Water Analysis

File #: 494A

Report To: Pacific Hydrology Consultants Ltd.
204-1929 W. Broadway
Vancouver, B.C.
V6J 1Z3

Date: Sept. 26, 1983

Your Project: Kincolith

We have analysed the water samples submitted on Sept. 8, 1983, and report as follows.

SAMPLE INFORMATION

The samples were submitted in proper laboratory containers labelled:

1. Kincolith Well #1 Sept. 1, 1983
2. Kincolith Well #2 Sept. 1, 1983

METHOD OF ANALYSIS

The analyses were carried out using procedures specified by the B.C. Ministry of the Environment.

REMARKS

The water as represented by the samples submitted were low in hardness. They met Canadian drinking water standards for all parameters analysed except the manganese in sample #1 (limit = 0.05 mg/ℓ). Manganese is limited for aesthetic reasons rather than health considerations and would not likely be a problem. The laboratory pH of both samples, while in the required range, was low compared with most ground waters.

ASL ANALYTICAL SERVICE LABORATORIES LTD.



A.W. Maynard, M.Sc.
Senior Partner

AWM:sis



RESULTS OF ANALYSIS

PARAMETER

		494-1	494-2
Physical Parameters			
pH		6.50	6.50
Specific Conductance (umhos/cm)		140.	297.
Color (CU)		L5.	L5.
Turbidity (JTU)		L1.0	L1.0
Suspended Solids (mg/L)		2.4	L1.0
Dissolved Solids (mg/L)		120.	255.
Total Hardness CaCO ₃ (mg/L)		34.4	44.2
Dissolved Anions (mg/L)			
Bicarbonate	HCO ₃	14.5	19.6
Chloride	Cl	35.5	90.0
Sulfate	SO ₄	L1.0	1.4
Fluoride	F	0.068	0.057
Nitrate + Nitrite	N	0.121	0.166
Phosphate	P	L0.003	L0.003
Dissolved Metals (mg/L)			
Calcium	Ca	8.83	10.6
Magnesium	Mg	3.01	4.32
Sodium	Na	8.21	52.4
Potassium	K	1.86	3.24
Copper	Cu	0.005	0.001
Cadmium	Cd	L0.0005	L0.0005
Lead	Pb	0.002	L0.001
Zinc	Zn	0.012	L0.005
Iron	Fe	0.08	L0.03
Manganese	Mn	0.11	L0.005
Total Metals (mg/L)			
Iron	Fe	0.08	L0.03
Manganese	Mn	0.11	L0.005

L = less than

Kincolith #14
 Sept 83
 Report # 3141

ASL analytical service laboratories Ltd.

1650 Pandora St. Vancouver, B.C. V5L 1L6
 (604) 253-4188

Report On: Water Analysis
 File #: 494A
 Report To: Pacific Hydrology Consultants Ltd.
 204-1929 W. Broadway
 Vancouver, B.C.
 V6J 1Z3
 Date: Sept. 26, 1983
 Your Project: Kincolith

We have analysed the water samples submitted on Sept. 8, 1983, and report as follows:

SAMPLE INFORMATION

- The samples were submitted in proper laboratory containers labelled:
1. Kincolith Well #1 Sept. 1, 1983
 2. Kincolith Well #2 Sept. 1, 1983

METHOD OF ANALYSIS

The analyses were carried out using procedures specified by the B.C. Ministry of the Environment.

REMARKS

The water as represented by the samples submitted were low in hardness. They met Canadian drinking water standards for all parameters analysed except the manganese in sample #1 (limit = 0.05 mg/L). Manganese is limited for aesthetic reasons rather than health considerations and would not likely be a problem. The laboratory pH of both samples, while in the required range, was low compared with most ground waters.

ASL ANALYTICAL SERVICE LABORATORIES LTD.

[Signature]
 A.W. Maynard, M.Sc.
 Senior Partner
 AWM:sis

ASL RESULTS OF ANALYSIS

File No. 494A
 Page 2 of 2

PARAMETER

Physical Parameters	494-1	494-2
pH	6.50	6.50
Specific Conductance (umhos/cm)	140.	297.
Color (CU)	LS.	LS.
Turbidity (JTU)	L1.0	L1.0
Suspended Solids (mg/L)	2.4	L1.0
Dissolved Solids (mg/L)	120.	255.
Total Hardness CaCO ₃ (mg/L)	34.4	44.2
Dissolved Anions (mg/L)		
Bicarbonate HCO ₃	14.5	19.6
Chloride Cl	35.5	90.0
Sulfate SO ₄	L1.0	1.4
Fluoride F	0.068	0.057
Nitrate + Nitrite N	0.121	0.166
Phosphate P	L0.003	L0.003
Dissolved Metals (mg/L)		
Calcium Ca	8.83	10.6
Magnesium Mg	3.01	4.32
Sodium Na	8.21	52.4
Potassium K	1.86	3.24
Copper Cu	0.005	0.001
Cadmium Cd	L0.0005	L0.0005
Lead Pb	0.002	L0.001
Zinc Zn	0.012	L0.005
Iron Fe	0.08	L0.03
Manganese Mn	0.11	L0.095
Total Metals (mg/L)		
Iron Fe	0.08	L0.03
Manganese Mn	0.11	L0.095

L = less than

Kincolith IR, # 4
Report # 3141
Sept. 83

APPENDIX C

WATER QUALITY

WELLS 83-1 and 83-2 AT KINCOLITH

KINCOLITH IR # 9
REPORT # 5141

Report On: Water Analysis

File #: 494A

Report To: Pacific Hydrology Consultants Ltd.
204-1929 W. Broadway
Vancouver, B.C.
V6J 1Z3

Date: Sept. 26, 1983

Your Project: Kincolith

We have analysed the water samples submitted on Sept. 8, 1983, and report as follows.

SAMPLE INFORMATION

The samples were submitted in proper laboratory containers labelled:

1. Kincolith Well #1 Sept. 1, 1983
2. Kincolith Well #2 Sept. 1, 1983

METHOD OF ANALYSIS

The analyses were carried out using procedures specified by the B.C. Ministry of the Environment.

REMARKS

The water as represented by the samples submitted were low in hardness. They met Canadian drinking water standards for all parameters analysed except the manganese in sample #1 (limit = 0.05 mg/ℓ). Manganese is limited for aesthetic reasons rather than health considerations and would not likely be a problem. The laboratory pH of both samples, while in the required range, was low compared with most ground waters.

ASL ANALYTICAL SERVICE LABORATORIES LTD.



A.W. Maynard, M.Sc.
Senior Partner

AWM:sis

RESULTS OF ANALYSIS

PARAMETER

		494-1	494-2
Physical Parameters			
pH		6.50	6.50
Specific Conductance (umhos/cm)		140.	297.
Color (CU)		L5.	L5.
Turbidity (JTU)		L1.0	L1.0
Suspended Solids (mg/L)		2.4	L1.0
Dissolved Solids (mg/L)		120.	255.
Total Hardness CaCO ₃ (mg/L)		34.4	44.2
Dissolved Anions (mg/L)			
Bicarbonate	HCO ₃	14.5	19.6
Chloride	Cl	35.5	90.0
Sulfate	SO ₄	L1.0	1.4
Fluoride	F	0.068	0.057
Nitrate + Nitrite	N	0.121	0.166
Phosphate	P	L0.003	L0.003
Dissolved Metals (mg/L)			
Calcium	Ca	8.83	10.6
Magnesium	Mg	3.01	4.32
Sodium	Na	8.21	52.4
Potassium	K	1.86	3.24
Copper	Cu	0.005	0.001
Cadmium	Cd	L0.0005	L0.0005
Lead	Pb	0.002	L0.001
Zinc	Zn	0.012	L0.005
Iron	Fe	0.08	L0.03
Manganese	Mn	0.11	L0.005
Total Metals (mg/L)			
Iron	Fe	0.08	L0.03
Manganese	Mn	0.11	L0.005

L = less than

Report # 2983
Kincolith I.R. #14
March 83

Shallow Well Construction Details
Kincolith Indian Reserve I.R. #14
Page 3

Fluctuations in the water table were observed which were probably related to tidal changes in the estuary. The water table fluctuated less than .10 meters on a 6.4 metre (21 foot) tide.

The pump test data is presented in the back of the report. Figure 2 represents a Jacob semilog plot of the pump test data. Since the discharge rate fluctuated slightly, the recovery data was primarily used for the analysis.

WATER QUALITY

The results of the chemical and bacteriological analyses are presented in the back of the report.

The water does not meet the Canadian Drinking Water Standards for the following parameters

<u>PARAMETER</u>	<u>CONCENTRATION</u> (mg/l L)	<u>OBJECTIVE</u> <i>Maximum Acceptable</i> RB.
Total Dissolved solids	810	500
pH	5.53	6.5 to 8.5
Turbidity	9.8 (JTU)	5.0 (JTU)
Chloride	410	250
Manganese	0.090	0.050

The above parameters are limited primarily for aesthetic purposes rather than health considerations, although sodium chloride is often restricted in the diets of persons with cardiac, renal and circulatory diseases. No. coliform bacteria were detected.

Continued...Page 4

This water is classified as a hard, sodium chloride type water which is extremely corrosive. The results of the analysis are very different from the water collected from the original test pits and from the Fisheries' Well.

Conclusions and Recommendations

1. The transmissivity of the shallow aquifer in the vicinity of the well is calculated to be $7.0 \times 10^{-4} \text{ m}^2/\text{sec}$. The safe yield of the well is estimated to be 1.9 l/sec (25 igpm). We recommend that a 24-hour constant rate pump test be carried out when the permanent pump is installed in order to fine tune the long term pump rate.

2. A continuous water level recorder should be placed in the well to monitor the effects of the tidal changes on the water table over a complete tide cycle.

Why now?
Q: Now or after construction?
A: Now

3. The permanent pump should be a self-priming centrifugal type in order to place the intake as low as possible in the well. Two pumps connected in series will be required in order to deliver a pressure of 60 psi to the system.

- not submersible
(electrode)

4. A shut-off switch should be placed in the well opposite the top of the screens, 4.7 meters below the top of the casing. The depth to water is approximately 2.7 meters below the top of the casing and there are 2 meters of available drawdown.

Continued...Page 5

Report On: Water Analysis

File #: 158A

Date: March 10, 1983

Reported To: Brown Erdman & Assoc.
1401 Bewicke Avenue
North Vancouver, B.C.
V7M 3C7

We have analyzed the water sample submitted on February 28, 1983 and report as follows:

SAMPLE INFORMATION

The sample was collected by the client in bottles provided by ASL.
The sample was identified:

DEPT. INDIAN AFFAIRS
KINCOLITH
Feb. 25/83
1000 minutes

METHOD OF ANALYSIS

The sample was tested in accordance with procedures specified by the British Columbia Ministry of the Environment.

.../2

RESULTS OF TESTING

Physical Parameters

pH	5.53*
Specific Conductance (umhos/cm)	1,330.
Color (CU)	5.0
Turbidity (JTU)	9.80
Suspended Solids (mg/L)	9.6 mg/L
Dissolved Solids (mg/L)	810.
Total Hardness-CaCO ₃ (mg/L)	156.

Dissolved Anions (mg/L)

Bicarbonate HCO ₃	15.8
Chloride Cl	410.*
Sulfate SO ₄	28.7
Fluoride F	0.076
Nitrate + Nitrite N	L0.010
Phosphate P	L0.010

Dissolved Metals (mg/L)

Calcium Ca	13.6
Magnesium Mg	30.7
Sodium Na	200.*
Potassium K	9.8
Copper Cu	0.001
Cadmium Cd	L0.005
Lead Pb	L0.001
Zinc Zn	L0.005
Iron Fe	0.030
Manganese Mn	0.090*

Total Metals (mg/L)

Iron Fe	0.058
Manganese Mn	0.10

Coliform Bacteria

Not Detected

L = less than.
 * = rechecked and verified.



KINCOLTH

can test ltd.

1523 WEST 3rd AVENUE, VANCOUVER, B.C. V6J 1J8 • TELEPHONE (604) 734-7 76 • TELEX 04-54210

Report On Analysis of water samples File No. 7760E

Reported To Brown, Erdman and Assoc. Report No. _____

1409 Bewicke Avenue P.O. # _____

North Vancouver, B.C. V7M 3C7 Date October 6, 1982

Attention: Dave Kneale

We have tested the sample of water submitted by you on September 13, 1982 and report as follows:

PROJECT NAME: 82-288

SUMMARY:

The water represented by the sample submitted can be characterized as low with respect to hardness and dissolved mineralization.

For the chemical and bacteriological parameters tested, the sample met the limits set by "Guidelines for Canadian Drinking Water Quality, 1978", published by authority of Health and Welfare, Canada with the exception of colour (limit = 15 C.U.) and confirmed coliform bacteria (limit = 10 MPN/100ml). A high value was also noted for total iron. Total organic carbon was also observed.

High colour is due to the presence of iron and/or organics.

Iron is limited for aesthetic (appearance, staining, taste) reasons.

The TOC detected is probably due to naturally occurring organic matter. Although this may not be a hazard in itself, the production of harmful contaminants may occur during some chemical processes (eg. chlorination).

SAMPLE IDENTIFICATION:

The sample was received in a plastic bottle and plastic bag (contents of which were transferred to a sterilized container on receipt) identified as follows:

PROJECT NO: 82-288

CTL#

IDENTIFICATION

1

Kincolth TP #1
Sept. 10/82

.... /2

METHOD OF TESTING:

The analyses were carried out in accordance with procedures described in "Standard Methods for the Examination of Water and Wastewater" 15th Edition, 1980; 14th Edition, 1975; 13th Edition, 1971, published by the American Public Health Association.

The metals were determined by using Inductively Coupled Plasma Spectrographic analysis, direct or graphite furnace atomic absorption spectrophotometry, or hydride generation.

RESULTS OF TESTING:

(on the following page)

CAN TEST LTD.

JM
(per) Judi M. Mitchell, B.Sc.,
Chemist

/cs

New well?

RESULTS OF TESTING:

SAMPLE #

1

CLIENT SAMPLE I.D.

KINCOLITH TP #1

PHYSICAL TESTS

pH		7.25
Conductivity (micromhos/cm)		176.
Colour [Pt-Co scale] (CU)		65.
Turbidity (JTU)		1.4
Hardness (mg/L)	CaCO ₃	4.08

SOLIDS (mg/L)

Total Suspended		9.0
Total Dissolved		110.

DISSOLVED ANIONS (mg/L)

Alkalinity: Bicarbonate	HCO ₃	22.0
Alkalinity: Carbonate	CO ₃	Nil
Alkalinity: Hydroxide	OH	Nil
Chlorides	Cl	33.1
Sulfates	SO ₄	12.0
Nitrates and Nitrites	N	0.034
Ortho Phosphates	P	< 0.010
Fluorides	F	0.093

DISSOLVED METALS (mg/L)

Cadmium	Cd	< 0.001
Calcium	Ca	0.39
Copper	Cu	0.003
Iron	Fe	0.16
Lead	Pb	< 0.001
Magnesium	Mg	0.75
Manganese	Mn	0.004
Silicon	SiO ₂	3.95
Sodium	Na	31.4
Zinc	Zn	< 0.015

TOTAL METALS (mg/L)

Iron	Fe	0.40
Manganese	Mn	0.008

COLIFORM BACTERIA (MPN/100 ml)

Presumptive		23.
Confirmed		23.
Fecal		< 2.0

THERS (mg/L)

Total Organic Carbon	C	11.8
----------------------	---	------

MPN/100ml = Most Probable Number per 100ml sample

mg/L = milligrams per liter

< = Less than = Not Detected

BACTERIOLOGY RESULTS - NORTHWEST COMMUNITY HEALTH SERVICES

Results codes: TC = total coliforms FC = fecal coliforms
 R = resample due to >200 CFU/100 ml background growth
 P = sample age >30 hours; results may be invalid
 N = sample time not given Bx = x non-coliform CFU/100 ml
 TNTC = too numerous to count CFU = colony forming units
 PS = presumptive Pseudomonas aeruginosa MPN = most probable number
 V = low volume (less than 200 ml received)

Date reported: December 19, 2002

Lab #	Sample Source System Name/Site Name	Collected mm/dd/yy	Results (CFU/100 ml)
3970 ✓✓	Terrace/BC Parks/HQ Office Lakelse Lake	12/16/02	TC<1 FC<1
3972 ✓✓	Terrace CWS/Pollution Control Centre	12/16/02	TC<1 FC<1
3973 ✓✓	Terrace CWS/City Hall	12/16/02	TC<1 FC<1
3974 ✓✓	Terrace CWS/NW Community College	12/16/02	TC<1 FC<1
3976	Port Edward CWS/Public Works	12/17/02	TC<1 FC<1
3977	Port Edward CWS/Municipal office	12/17/02	TC<1 FC<1
3986	Smithers CWS/Municipal Works Yard	12/17/02	TC<1 FC<1
3988	Houston CWS/Duke Ave	12/17/02	TC<1 FC<1
3989	Houston CWS/Municipal office	12/17/02	TC<1 FC<1
3990	Kincolith/Health Centre	12/17/02	TC<1 FC<1
3992	Gitwinksihlkw/Clinic staff room	12/17/02	TC<1 FC<1
3994	Aiyansh/Auditorium	12/17/02	TC<1 FC<1
3995	Aiyansh/Gitlakdamix Band office	12/17/02	TC<1 FC<1
3996 ✓✓	New Hazelton/Town office	12/17/02	TC<1 FC<1
3997 ✓✓	New Hazelton/Hagwilget Boundary	12/17/02	TC<1 FC<1
4000	Prince Rupert CWS/Pillsbury Station	12/18/02	TC<1 FC<1
4001	Prince Rupert CWS/Frederick St. Station	12/18/02	TC<1 FC<1

Appendix D
Wastewater Quality Test Results

No wastewater information was seen