

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

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



April, 2003

Appendix C

Water Quality Test Results

NORTHERN HEALTH

authority

March 13, 2003

Lawrence Benjamin
CH2M Hill Canada
Suite 920 – 475 West Georgia
Vancouver, B.C.
V6B 4M9

Re: Historical Nass Valley Water Bacteriology Results

Dear Lawrence:

This is the best I could do from the files we received. Call if you need clarification on anything.

Yours truly,



Colin Merz BA, BSc, BTech, CPHI(C)
Environmental Health Officer
Northern Health Authority
Nisga'a Valley Health Board

RECEIVED

MAR 17 2003

CH2MHILL CANADA LTD.

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004740

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: March 12, 2003

<u>Lab #</u>	<u>Sample Source System Name/Site Name</u>	<u>Collected mm/dd/yy</u>	<u>Results CFU/100 ml</u>	
0573	Terrace CWS/Pollution Control Centre	03/10/03	TC<1	FC<1
0574	Terrace/B.C. Parks H.Q. Office	03/10/03	TC<1	FC<1
0575	Terrace CWS/City Hall	03/10/03	TC<1	FC<1
0576	Terrace CWS/N W Community College	03/10/03	TC<1	FC<1
0577	Gitwinksihlkw/Clinic Staff Room	03/10/03	TC<1	FC<1

BACTERIOLOGY RESULTS - NORTHWEST COMMUNITY HEALTH SERVICES

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 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: February 26, 2003

Lab #	Sample Source System Name/Site Name	Collected mm/dd/yy	Results CFU/100 ml
0469	Smithers Airport WS/Terminal Building	02/24/03	TC<1 FC<1
0470	Smithers/Ebenezer Cdn Reformed School/ Staff Room	02/24/03	TC<1 B2 FC<1
0473	✓ Terrace CWS/NW Community College	02/24/03	TC<1 FC<1
0474	✓ Terrace CWS/City Hall	02/24/03	TC<1 FC<1
0475	✓ Terrace CWS/Pollution Control Centre	02/24/03	TC<1 FC<1
0476	New Aiyansh/NVHB/Staff Lounge	02/24/03	TC<1 FC<1
0477	Nass Camp/Post Office	02/24/03	TC<1 FC<1
0478	NVHB/Big Echo Kitchen	02/24/03	TC<1 FC<1
0479	✓ Terrace/BC Parks/HQ Office	02/24/03	TC<1 FC<1

✓ entered

BACTERIOLOGY RESULTS - NORTHWEST COMMUNITY HEALTH SERVICES

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 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: February 19, 2003

Lab #	Sample Source System Name/Site Name	Collected mm/dd/yy	Results CFU/100 ml
0390	Masset CWS/1628 Spruce Cr.	02/17/03	TC<1 FC<1
0391	Masset CWS/Treatment Plant	02/17/03	TC<1 FC<1
0392	Masset CWS/1686 Main St.	02/17/03	TC<1 FC<1
399	Gitwinksihlkw/Clinic (staff room)	02/17/03	TC<1 FC<1
0400	Greenville/Health Centre/Staff room	02/17/03	TC<1 FC<1
0401	Kincolith/Center coffee room	02/17/03	TC<1 FC<1
0402	↓ Terrace CWS/NW Community College	02/17/03	TC<1 FC<1
0403	↓ Terrace CWS/Pollution Control Centre	02/17/03	TC<1 FC<1
0404	↓ Terrace CWS/City Hall	02/17/03	TC<1 FC<1
0405	Nass Camp/Tillicum Lodge Mini Mart (front sink)	02/17/03	TC<1 B1 FC<1
0406	Aiyansh/Big Echo's Gas Station	02/17/03	TC<1 FC<1
0407	New Aiyansh/Staff Lounge	02/17/03	TC<1 FC<1
0408	Greenville/Lakalzap Elementary School/Staff room	02/17/03	TC<1 FC<1

BACTERIOLOGY RESULTS - NORTHWEST COMMUNITY HEALTH SERVICES

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 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: February 10, 2003

Lab #	Sample Source System Name/Site Name	Collected mm/dd/yy	Results (CFU/100 ml)
0258 ✓	South Hazelton/South Hazelton School	02/03/03	TC 2 B21 FC<1
0260 ✓	Kitwanga/Kitwanga General Store	02/03/03	TC R FC<1
0275	New Aiyansh/Staff room	02/04/03	TC<1 B1 FC<1
0276	Nass Camp/kitchen	02/04/03	TC 1 B4 FC<1
0281	Smithers CWS/Municipal Office	02/04/03	TC<1 B1 FC<1
0290 ✓	South Hazelton/Firehall	02/04/03	TC 3 B27 FC<1
0299 ✓	Methanex/Maintenance Bldg	02/04/03	TC 1 B2 FC<1
0301 ✓	Methanex/Combined Service Building	02/04/03	TC 3 B5 FC<1
0303 ✓	Methanex/Administration Building	02/04/03	TC 1 FC<1
0317 ✓	Copperside Estates CWS/Well	02/05/03	TC<1 FC<1
0318 ✓	Copperside Estates CWS/4625 Caribou	02/05/03	TC<1 B1 FC<1
0319 ✓	Kitwanga/Mountainview Subdivision/3864 Mountainview Dr.	02/05/03	TC<1 FC<1

Lab #	Sample Source System Name/Site Name	Collected mm/dd/yy	Results (MPN/100 ml)
0283	Aspen Motor Inn/Swimming Pool	02/04/03	TC<2.2 PS No
0306 ✓	Tamitik Sports Complex/Sam Lindsay Memorial Swimming Pool/Swimming pool	02/04/03	TC<2.2 PS No
0307 ✓	Tamitik Sports Complex/Sam Lindsay Memorial Centre/Wading (baby) pool	02/04/03	TC<2.2 PS No

✓ recorded

BACTERIOLOGY RESULTS - NORTHWEST COMMUNITY HEALTH SERVICES

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 N = sample time not given Bx = x non-coliform CFU/100 m
 TNTC = too numerous to count CFU = colony forming unit
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Date reported: February 3, 2003

Lab #	Sample Source System Name/Site Name	Collected mm/dd/yy	Results (MPN/100 ml)
0199	New Aiyansh/BIG EHCO Store (kitchen)	01/27/03	TC<1 B100 FC<
0201	Nass Camp/Nass Camp kitchen	01/27/03	TC 1 B4 FC<
0219	Terrace/Wayside Grocery <i>filtered water</i>	01/28/03	TC R FC<1
0220	Terrace/Safeway - <i>filtered water</i>	01/28/03	TC R FC<1
0229 ✓	Eurocan/Eyewash Paper Mill Basement ^o	01/28/03	TC<1 B1 FC<
0231 ✓	Eurocan Terminal WS/Lunch room tap	01/28/03	TC<1 B1 FC<
0239 ✓	Stewart/P.W. Shop tapwater	01/29/03	TC<1 FC<1
0240 ✓	Woodlands Utilities/Thornhill Daily Needs Store	01/29/03	TC<1 FC<1
0241 ✓	Woodlands Utilities/Golf Course	01/29/03	TC<1 FC<1
0242 ✓	Woodlands Utilities/Thornhill Pub	01/29/03	TC<1 FC<1
0244	Prince Rupert CWS/Pillsbury Station	01/30/03	TC<1 FC<1
0245	Prince Rupert CWS/Frederick St. Station	01/30/03	TC<1 FC<1

✓ mailed reports

BACTERIOLOGY RESULTS - NORTHWEST COMMUNITY HEALTH SERVICES

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 N = sample time not given Bx = x non-coliform CFU/100 ml
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Date reported: January 16, 2003

Lab #	Sample Source System Name/Site Name	Collected mm/dd/yy	Results (CFU/100 ml)
0083 ?	New Hazelton/Copperside (left)	01/13/03	TC<1/B109 FC<1
0084 ?	Kitwanga/Petro-Can	01/13/03	TC<1 FC<1
0085 ✓	Terrace CWS/City Hall	01/13/03	TC<1 FC<1
0086 ✓	Terrace CWS/NW Community College	01/13/03	TC<1 FC<1
0087	Gitwinksihlkw/Elementary School	01/13/03	TC<1 FC<1
0089 ✓	Terrace CWS/Pollution Control Centre	01/13/03	TC<1 FC<1
0090 ✓	BC Parks/Lakelse HQ Building	01/13/03	TC<1 FC<1
0091	Camp Mountainview/Caretaker Residence	01/13/03	TC<1 FC<1

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 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 23, 2002

Lab #	Sample Source System Name/Site Name	Collected mm/dd/yy	Results (CFU/100 ml)
3987	Smithers CWS/Municipal office	12/17/02	TC<1 B1 FC<1
3991 P	Greenville/Health Centre/Kitchen	12/16/02	TC<1 B1 FC<1
3998	South Hazelton CWS/Fire Hall	12/17/02	TC 1 B15 FC<1
4009	Thornhill CWS/School reservoir	12/18/02	TC<1 B58 FC<1

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 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

VILLAGE	LOCATION OF WATER SAMPLING	DATE		COLIFORMS/100ML	
		SAMPLING	ANALYSIS	TOTAL	FECAL
	DISTILLED WATER				
GREENVILLE	TAP @ COFFEE RM @ H.C.	00/02/01	00/02/02	0	0
NEW AIZYASH	TAP @ KITCHEN @ 4903 GOSWELL	00/02/01	00/02/02	0, 0	0, 0
CANYON CITY	TAP @ WASHROOM @ H.C.	00/02/01	00/02/02	0, 0	0, 0
	DISTILLED WATER				
CANYON CITY	TAP @ WASHROOM @ H.C.	00/02/07	00/02/08	3cc, 4cc	0, 0
	DISTILLED WATER				
GREENVILLE	TAP @ COFFEE RM @ H.C.	00/02/17	00/02/18	1cc, 2cc	0, 0
CANYON CITY	TAP @ WASHROOM @ H.C.	00/02/17	00/02/18	0, 0	0, 0
NEW AIZYASH	TAP @ KITCHEN @ 4903 GOSWELL CANYON	00/02/17	00/02/18	0, 0	0, 0
	DISTILLED WATER				
CANYON CITY	TAP @ WASHROOM, H.C.	00/02/21	00/02/22	0	0
	DISTILLED WATER				
GREENVILLE	TAP @ KITCHEN SINK @ 420-L NORZUKA	00/03/07	00/03/08	0, 0	0, 0
CANYON CITY	TAP @ SINK @ WASHROOM @ H.C.	00/03/07	00/03/08	0, 0	0, 0
NEW AIZYASH	TAP @ KITCHEN SINK @ 4903 GOSWELL	00/03/07	00/03/08	1cc, 1cc	0, 0
	DISTILLED WATER				
CANYON CITY	TAP @ SINK @ WASHROOM @ H.C.	00/03/13	00/03/14	0, 0	0, 0
	DISTILLED H ₂ O				
LARGACTO AP	TAP @ COFFEE RM @ H.C.	00/03/26	00/03/27	0	0
GETWENKSHILKA	TAP @ COFFEE RM @ H.C.	00/03/28	00/03/29	0	0
NEW AIZYASH	TAP @ KITCHEN @ 4903 GOSWELL	00/03/28	00/03/29	0	0
	DISTILLED H ₂ O				
LARGACTO AP	TAP @ MALE/STAFF WASHROOM/SCHOOL	00/04/11	00/04/12	0	0
GETWENKSHILKA	TAP @ PUBLIC WASHROOM/H.C.	00/04/11	00/04/12	0	0
GETLAKTAAHKS	TAP @ KITCHEN @ 4903 GOSWELL	00/04/11	00/04/12	0	0
	DISTILLED H ₂ O - BLANK				
GETWENKSHILKA	TAP @ PUBLIC WASHROOM/H.C.	00/04/26	00/04/27	0	0
GETLAKTAAHKS	TAP @ KITCHEN SINK/4903 GOSWELL	00/04/26	00/04/27	1cc, 1cc	1, 0
	DISTILLED H ₂ O				
GETWENKSHILKA	TAP @ PUBLIC WASHROOM/H.C.	00/05/01	00/05/02	10	0
	DISTILLED H ₂ O				
LARGACTO AP	H ₂ O TAP @ COFFEE RM/H.C.	00/05/09	00/05/10	4cc, 3cc	3, 2
GETWENKSHILKA	TAP @ WASHROOM/H.C.	00/05/09	00/05/10	0, 0	0, 0
GETLAKTAAHKS	TAP @ KITCHEN/4903 GOSWELL LANE	00/05/09	00/05/10	2cc, 2cc	2, 3
	DISTILLED H ₂ O				
GETWENKSHILKA	TAP @ WASHROOM/H.C.	00/05/16	00/05/17	0	0
	DISTILLED H ₂ O				
GETWENKSHILKA	TAP @ WASHROOM/H.C.	00/05/28	00/05/30	4cc, 6cc	16, 20
NEW AIZYASH	TAP @ KITCHEN @ 4903 GOSWELL LANE	00/05/29	00/05/30	0	0
				11, 14	17, 11

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VILLAGE	LOCATION OF WATER SAMPLING	DATE		COLIFORMS (FOUML)	
		SAMPLING	ANALYSIS	TOTAL	FECAL
GITEWINKSIKUN	DISTILLED WATER	00/06/20	00/06/21	0	0
	PUBLIC WASHROOM @ H.C.	00/06/20	00/06/21	15, 12 ec	6, 8
	DISTILLED WATER	00/06/26	00/06/27	0	0
LARGACTSAP	COFFEE ROOM @ H.C.	00/06/26	00/06/27	0, 0	0, 0
GITEWINKSIKUN	PUBLIC WASHROOM @ H.C.	00/06/26	00/06/27	0, 0	0, 0
NEW AYANASH	COFFEE ROOM @ RCMP	00/06/26	00/06/27	0, 0	0, 0
GITEWINKSIKUN	DISTILLED WATER	00/07/04	00/07/04	0	0
	PUBLIC WASHROOM @ H.C.	00/07/04	00/07/04	0, 0	0, 0
NEW AYANASH	DISTILLED WATER	00/07/12	00/07/13	0	0
	NISSAN FISH PLANT @ DOUBLE SUNK	00/07/12	00/07/13	0, 0	0, 0
GITEWINKSIKUN	PUBLIC WASHROOM @ H.C.	00/07/12	00/07/13	0, 0	0, 0
	DISTILLED WATER	00/1/1	00/1/1		
		00/1/1	00/1/1		
		00/1/1	00/1/1		
GITEWINKSIKUN	DISTILLED WATER	00/08/01	00/08/02	0	0
"	STAFF ROOM	00/08/01	00/08/02	0, 0	0, 0
NEW AYANASH	DISTILLED WATER	00/08/01	00/08/02	0	0
"	LAB	00/08/01	00/08/02	0, 0	0, 0
GREENVILLE	DISTILLED WATER	00/08/08	00/08/09	0	0
"	STAFF ROOM	00/08/08	00/08/09	0, 0	0, 0
GITEWINKSIKUN	DISTILLED WATER	00/08/08	00/08/09	0	0
"	STAFF ROOM	00/08/08	00/08/09	0, 0	0, 0
NEW AYANASH	DISTILLED WATER	00/08/08	00/08/09	0	0
	LAB	00/08/08	00/08/09	0, 0	0, 0
GITEWINKSIKUN	DISTILLED WATER	06/10/00	07/10/00	0	0
	WASHROOM @ H.C.	06/10/00	07/10/00	1, 2	2, 2
NEW AYANASH	COFFEE RM @ RCMP	06/10/00	07/10/00	0, 0	0, 0
	DISTILLED WATER	10/10/00	11/10/00	0	0
GITEWINKSIKUN	WASHROOM @ H.C.	10/10/00	11/10/00	1 ec, 1 ec	1, 1
LARGACTSAP	COFFEE RM @ H.C.	10/10/00	11/10/00	0, 0	0, 0
	DISTILLED WATER	23/10/00	24/10/00	0	0
LARGACTSAP	COFFEE RM @ H.C.	23/10/00	24/10/00	0, 0	0, 0
GITEWINKSIKUN	WASHROOM @ H.C.	23/10/00	24/10/00	0, 0	0, 0
NEW AYANASH	COFFEE RM @ RCMP BLDG	23/10/00	24/10/00	0, 0	0, 0
	DISTILLED WATER	31/10/00	01/11/00	0, 0	0, 0
CANYON RICH	WASHROOM @ H.C.	31/10/00	01/11/00	7 ec, 7 ec	0, 0
MASS CAMP	SUNK @ KITCHEN @ RESTAURANT	31/10/00	01/11/00	2, 0	0, 0

VILLAGE	LOCATION OF SAMPLING	DATE		COLIFORMS/100ML	
		SAMPLING	ANALYSIS	TOTAL	FECAL
	DISTILLED WATER	21/1/00	22/11/00	0	0
LAKGALTS'AP	SINK @ COFFEE RM @ H.C.	21/1/00	22/11/00	0, 0	0, 0
GETWINKSILIKU	" " WASHROOM @ "	21/1/00	22/11/00	1ec, 0	0, 0
	DISTILLED WATER	07/12/00	08/12/00	0	0
GETWINKSILIKU	SINK @ WASHROOM @ H.C.	07/12/00	08/12/00	0, 0	0, 0
NASS CAMP	SINK @ " @ GOURY STORE	07/12/00	08/12/00	0, 0	0, 0
	DISTILLED WATER	27/12/00	28/12/00	0	0
LAKGALTS'AP	SINK @ COFFEE RM @ H.C.	27/12/00	28/12/00	0, 0	0, 0
GETWINKSILIKU	SINK @ PUBLIC WASHROOM @ H.C.	27/12/00	28/12/00	0, 1ec	0, 0
NASS CAMP	SINK @ " @ MINI-MART	27/12/00	28/12/00	0, 0	0, 0
NEW ACRYANSH	SINK @ KITCHEN @ 4903 GOSNEL LAKE	27/12/00	28/12/00	0, 0	0, 0
	DISTILLED WATER	02/01/01	03/01/01	0	0
LAKGALTS'AP	SINK @ COFFEE RM @ H.C.	02/01/01	03/01/01	0, 1ec	0, 0
GETWINKSILIKU	SINK @ WASHROOM @ H.C.	02/01/01	03/01/01	0, 0	0, 0
	DISTILLED WATER	16/01/01	17/01/01	0	0
GETWINKSILIKU	SINK @ WASHROOM @ GETWINKSILIKU H.C.	16/01/01	17/01/01	0, 0	0, 0
	DISTILLED DW	22/01/01	23/01/01	0	0
GETWINKSILIKU	SINK @ WASHROOM @ H.C.	22/01/01	23/01/01	0, 0	0, 0
NEW ACRYANSH	SINK @ COFFEE RM @ DFO	22/01/01	23/01/01	0, 0	0, 0
BLANK	DISTILLED WATER	06/02/01	07/02/01	0	0
GETWINKSILIKU	SINK @ WASHROOM @ H.C.	06/02/01	07/02/01	0, 0	0, 0
NEW ACRYANSH	SINK @ COFFEE RM @ REMP	06/02/01	07/02/01	0, 0	0, 0
	DISTILLED WATER	13/02/01	14/02/01	0	0
GREENVELL	TAP @ WASHROOM @ H.C.	13/02/01	14/02/01	0, 0	0, 0
GETWINKSILIKU	TAP @ WASHROOM @ H.C.	13/02/01	14/02/01	0, 0	0, 0
NASS CAMP	TAP @ SINK @ WASHROOM @ FOOD STORE	13/02/01	14/02/01	0, 0	0, 0
	DISTILLED WATER	05/03/01	06/03/01	0	0
GETWINKSILIKU	TAP @ WASHROOM @ H.C.	05/03/01	06/03/01	0, 0	0, 0
LAKGALTS'AP	TAP @ COFFEE RM @ H.C.	05/03/01	06/03/01	0, 0	0, 0
NASS CAMP	TAP @ WASHROOM @ MINI-MART	05/03/01	06/03/01	0, 0	0, 0
NEW ACRYANSH	TAP @ COFFEE ROOM @ DFO HEADQUARTERS	05/03/01	06/03/01	0, 0	0, 0
	DISTILLED WATER	20/03/01	21/03/01	0	0
GETWINKSILIKU	TAP @ WASHROOM @ H.C.	20/03/01	21/03/01	0, 0	0, 0
ACYANSH	TAP @ KITCHEN @ MELES INN	20/03/01	21/03/01	0, 0	0, 0
ACYANSH	TAP @ KITCHEN @ 4903 GOSNEL	20/03/01	21/03/01	0, 0	0, 0
NASS CAMP	TAP @ WASHROOM @ MINI-MART	20/03/01	21/03/01	0, 0	0, 0
	DISTILLED WATER	03/04/01	04/04/01	0	0
LAKGALTS'AP	TAP @ COFFEE RM @ H.C.	03/04/01	04/04/01	0, 0	0, 0
GETWINKSILIKU	TAP @ WASHROOM @ H.C.	03/04/01	04/04/01	0, 0	0, 0
NASS CAMP	TAP @ WASHROOM @ MINI-MART	03/04/01	04/04/01	0, 0	0, 0
NEW ACRYANSH	TAP @ KITCHEN @ 4903 GOSNEL LAKE	03/04/01	04/04/01	0, 0	0, 0

VILLAGE	LOCATION OF SAMPLING	DATE		COLIFORMS/100 ML	
		SAMPLED	ANALYSED	TOTAL	FECAL
	DISTILLED WATER	10/04/01	11/04/01	0	0
GETWUKSHUKU	TAP @ WASHROOM @ H.C.	12/04/01	11/04/01	0,0	0,0
	DISTILLED WATER	19/04/01	20/04/01	0	0
GETWUKSHUKU	TAP @ WASHROOM @ HC	19/04/01	20/04/01	0,0	0,0
NEW AIZYASH	TAP @ KITCHEN @ 4903 Goswell	19/04/01	20/04/01	0,0	0,0
	DISTILLED WATER	30/04/01	01/05/01	0	0
GETWUKSHUKU	TAP @ WASHROOM @ HC	30/04/01	01/05/01	0,0	0,0
	DISTILLED WATER	10/05/01	11/05/01	0	0
GETWUKSHUKU	TAP @ WASHROOM @ HC	10/05/01	11/05/01	0,0	0,0
	DISTILLED WATER	14/05/01	15/05/01	0	0
KAKALZAP	TAP @ COFFEE RM @ HC	14/05/01	15/05/01	0,0	0,0
	DISTILLED WATER	28/05/01	29/05/01	0	0
GETWUKSHUKU	TAP @ WASHROOM @ HC	28/05/01	29/05/01	0,0	0,0
NEW AIZYASH	TAP @ COFFEE RM @ DFO HQ	28/05/01	29/05/01	0,0	0,0
	DISTILLED WATER	31/05/01	01/06/01	0	0
LAKGALTSAP	TAP @ COFFEE RM @ HC	31/05/01	01/06/01	0,0	0,0
NASS CAMP	TAP @ WASHROOM @ MINE MART	31/05/01	01/06/01	0,0	0,0
	DISTILLED WATER	12/06/01	13/06/01	0	0
MAIN LOGGING CAMP	TAP @ SINK/KITCHEN	12/06/01	13/06/01	0,0	0,0
LAKGALTSAP	TAP @ COFFEE RM @ HC	12/06/01	13/06/01	0,0	0,0
GETWUKSHUKU	TAP @ WASHROOM @ HC	12/06/01	13/06/01	0,0	0,0
	DISTILLED WATER	18/06/01	19/06/01	0	0
NASS CAMP	TAP @ WASHROOM @ STORE	18/06/01	19/06/01	0,0	0,0
NEW AIZYASH	TAP @ COFFEE RM @ DFO HEADQTRS	18/06/01	19/06/01	0,0	0,0
K'SEDEN CAMP	TAP @ KITCHEN SINK @ CAMP	18/06/01	19/06/01	0,0	0,0
	DISTILLED WATER	09/07/01	10/07/01	0	0
NASS CAMP	TAP @ WASHROOM @ MINE-MART	09/07/01	10/07/01	0,0	0,0
LAKGALTSAP	TAP @ COFFEE RM @ H.C.	09/07/01	10/07/01	0,0	0,0
K'SEDEN CAMP	TAP @ KITCHEN SINK	09/07/01	10/07/01	0,0	0,0
GETWUKSHUKU	TAP @ WASHROOM @ H.C.	09/07/01	10/07/01	0,0	0,0
	DISTILLED WATER	24/07/01	25/07/01	0	0
GETWUKSHUKU	TAP @ WASHROOM @ H.C.	24/07/01	25/07/01	0,0	0,0
NEW AIZYASH	TAP @ COFFEE RM @ RCMP	24/07/01	25/07/01	0,0	0,0
NASS CAMP	TAP @ WASHROOM @ MINE-MART	24/07/01	25/07/01	0,0	0,0
	DISTILLED WATER	25/07/01	26/07/01	0	0
LOGG. IND. CAMP	TAP @ KITCHEN SINK (T.S.)	25/07/01	26/07/01	0,0	0,0
MAIN LOGGING	TAP @ WASHROOM @ BUNKHOUSE	25/07/01	26/07/01	0,0	0,0
	DISTILLED WATER	23/08/01	24/08/01	0	0
LOGG. IND. CAMP	TAP @ KITCHEN FACILITY	23/08/01	24/08/01	0,0	0,0
LAKGALTSAP	TAP @ COFFEE RM @ HC	23/08/01	24/08/01	0,0	0,0
K'SEDEN CAMP	TAP @ KITCHEN @ CAMP	23/08/01	24/08/01	0,0	0,0

Village	Location	DATE		COLIFORMS/100	
		SAMPLED	ANALYSED	TOTAL	FECAL
GETWINKSHAW	TAP @ WASHROOM @ H.C.	23/08/01	24/08/01	0	0
NEW ACHAUSSA	" " " " " "	23/08/01	24/08/01	0	0
PE	DISTILLED WATER	10/09/01	11/09/01	0	0
NEW ACHAUSSA	TAP @ KITCHEN @ 4903 Gosnell Ln.	10/09/01	11/09/01	0	0
FRED WHELAN'S	(CORNER OF TANKER RD & NESGAH HWY)	10/09/01	11/09/01	0	0
NASS CAMP	TAP @ MINI-MART	10/09/01	11/09/01	0	0
GETWINKSHAW	TAP @ WASHROOM @ H.C.	10/09/01	11/09/01	0	0
	DISTILLED WATER	10/10/01	11/10/01	0	0
NASS CAMP	TAP @ WASHROOM @ MINI-MART	10/10/01	11/10/01	1ec	1ec
NEW ACHAUSSA	TAP @ COFFEE RM @ DFO OFFICE	10/10/01	11/10/01	0	0
GREENVILLE	TAP @ COFFEE RM @ H.C.	10/10/01	11/10/01	0	0
GREENVILLE	TAP @ KITCHEN @ WORK CAMP	10/10/01	11/10/01	0	0
	DISTILLED WATER	18/10/01	19/10/01	0	0
NASS CAMP	TAP @ WASHROOM @ MINI-MART	18/10/01	19/10/01	1ec	1ec
	DISTILLED WATER	25/10/01	26/10/01	0	0
NASS CAMP	TAP @ WASHROOM @ MINI-MART	25/10/01	26/10/01	1	0
NASS CAMP	TAP @ TRIPLE DECK KITCHEN RESTAURANT	25/10/01	26/10/01	1ec	1ec
	DISTILLED WATER	30/10/01	31/10/01	0	0
GETWINKSHAW	TAP @ WASHROOM @ H.C.	30/10/01	31/10/01	0	0
NASS CAMP	TAP @ KITCHEN	30/10/01	31/10/01	0	0
NEW ACHAUSSA	TAP @ KITCHEN	30/10/01	31/10/01	0	0
	DISTILLED WATER	19/11/01	20/11/01	0	0
NEW ACHAUSSA	TAP @ KITCHEN @ 4903 Gosnell Lane	19/11/01	20/11/01	0	0
NASS CAMP	TAP @ WASHROOM @ MINI-MART	19/11/01	20/11/01	0	0
GETWINKSHAW	TAP @ " @ HEALTH CTR.	19/11/01	20/11/01	0	0
	DISTILLED WATER	21/11/01	22/11/01	0	0
LX IND. CAMP	WASH @ KITCHEN/HALL	21/11/01	22/11/01	0	0
LARGAIS AP	COFFEE ROOM @ HEALTH CTR	21/11/01	22/11/01	0	0
	DISTILLED WATER	05/11/01	06/11/01	0	0
LARGAIS AP	WASHROOM @ H.C.	05/11/01	06/11/01	0	0
" "	INDUSTRIAL CAMP @ WASHROOM/RECREATION	05/11/01	06/11/01	0	0
GETWINKSHAW	WASHROOM @ H.C.	05/11/01	06/11/01	0	0
NEW ACHAUSSA	COFFEE RM @ RCMP	05/11/01	06/11/01	0	0
	DISTILLED WATER	17/11/01	18/11/01	0	0
NASS CAMP	WASHROOM @ MINI-MART	17/11/01	18/11/01	0	0
NEW ACHAUSSA	KITCHEN @ 4903 Gosnell Lane	17/11/01	18/11/01	0	0
GETWINKSHAW	WASHROOM @ HEALTH CTR	17/11/01	18/11/01	0	0
	DISTILLED WATER	27/12/01	28/12/01	0	0
NASS CAMP	WASHROOM @ MINI-MART	27/12/01	28/12/01	0	0
GETWINKSHAW	WASHROOM @ H.C.	27/12/01	28/12/01	0	0
NEW ACHAUSSA	COFFEE ROOM @ RCMP BUILT	27/12/01	28/12/01	0	0

DDML CAL	VILLAGE	LOCATION	DATE		COLIFORMS / 100 ML	
			SAMPLING	ANALYSIS	TOTAL	FECAL
0	NASS CAMP	TAP @ WASHROOM @ MINI-MART	15/01/02	16/01/02	0,0	0,0
	GETUNKSHIKU	TAP @ " " H.C.	15/01/02	16/01/02	0,0	0,0
	LAKGALS'AP	" " " " "	15/01/02	16/01/02	0,0	0,0
0		DISTILLED WATER	15/01/02	16/01/02	6	0
0		DISTILLED WATER	30/01/02	31/01/02	0	0
0	GETUNKSHIKU	TAP @ COFFEE RM @ HC	30/01/02	31/01/02	0,0	0,0
0	LAKGALS'AP	TAP @ WASH ROOM @ HC	30/01/02	31/01/02	0,0	0,0
0		DISTILLED WATER	12/02/02	13/02/02	0	0
0	GETUNKSHIKU	TAP @ WASHROOM @ H.C.	12/02/02	13/02/02	0,0	0,0
0	LAKGALS'AP	" " COFFEE RM @ " "	12/02/02	13/02/02	0,0	0,0
0	NASS CAMP	" " WASHROOM @ MINI-MART	12/02/02	13/02/02	0,0	0,0
0	NEW ACHAYASH	" " COFFEE RM @ DFO HQTRS.	12/02/02	13/02/02	0,0	0,0
0		DISTILLED WATER	28/02/02	01/03/02	0	0
0	NASS CAMP	TAP @ WASHROOM @ MINI-MART	28/02/02	01/03/02	0,0	0,0
0	NEW ACHAYASH	TAP @ COFFEE RM @ RCMP HQ.	28/02/02	01/03/02	0,0	0,0
0	LAKGALS'AP	TAP @ " " @ HC	28/02/02	01/03/02	0,0	0,0
0	GETUNKSHIKU	TAP @ WASHROOM @ HC	28/02/02	01/03/02	0,0	0,0
0		DISTILLED WATER	26/03/02	27/03/02	0	0
0	NASS CAMP	WASH ROOM @ TELUCUM MINI-MART	26/03/02	27/03/02	0,0	0,0
0	STEVES LANDINGS RES. @ C.W. CORNER OF NESGA Hwy & TRAKER		26/03/02	27/03/02	0,0	0,0
0	NEW ACHAYASH	TAP @ KITCHEN @ 4903 GOSWELL	26/03/02	27/03/02	0,0	0,0
0	LAKGALS'AP	TAP @ COFFEE RM @ H.C.	26/03/02	27/03/02	0,0	0,0
0	GETUNKSHIKU	TAP @ WASH RM @ HC	26/03/02	27/03/02	0,0	0,0
0		DISTILLED WATER	15/04/02	16/04/02	15	0
0	NASS CAMP	WASHROOM @ TELUCUM MINI-MART	15/04/02	16/04/02	2,0	0,0
0	NEW ACHAYASH	TAP @ KITCHEN @ 4903 GOSWELL	15/04/02	16/04/02	0,0	0,0
0	LAKGALS'AP	TAP @ COFFEE RM @ HC	15/04/02	16/04/02	0,0	0,0
0	GETUNKSHIKU	TAP @ WASHROOM @ HC	15/04/02	16/04/02	0,0	0,0
0		DISTILLED WATER	15/05/02	16/05/02	0,0	0,0
0	LAKGALS'AP	INDUSTRIAL CAMP @ WASHROOM / KITCHEN	15/05/02	16/05/02	0,0	0,0
0	LAKGALS'AP	HEALTH CTR. - @ COFFEE RM	15/05/02	16/05/02	0,0	0,0
0	GETUNKSHIKU	HEALTH CTR. - @ WASH ROOM	15/05/02	16/05/02	0,0	0,0
0	NEW ACHAYASH	KITCHEN @ 4903 GOSWELL	15/05/02	16/05/02	0,0	0,0
0	NESGA FISHERIES	OUTSIDE TAP	15/05/02	16/05/02	1,0	0,0
0	NASS CAMP	WASHROOM @ TELUCUM MINI-MART	15/05/02	16/05/02	0,0	0,0
0		DISTILLED WATER	20/06/02	21/06/02	0,0	0,0
0	NASS CAMP	WASH ROOM @ TELUCUM MINI-MART	20/06/02	21/06/02	0,0	0,0
0	NEW ACHAYASH	TAP @ KITCHEN @ 4903 GOSWELL	20/06/02	21/06/02	0,0	0,0
0	GETUNKSHIKU	TAP @ WASH ROOM @ HEALTH CTR.	20/06/02	21/06/02	0,0	0,0
0		DISTILLED WATER	09/07/02	10/07/02	0	0
0	LAKGALS'AP	COFFEE ROOM	09/07/02	10/07/02	0,0	0,0

VILLAGE	LOCATION	DATE		COLIFORMS/L	
		SAMPLING	ANALYSIS	TOTAL	FECAL
NASS CAMP	WASHROOM @ MINI-MART	07/07/02	10/07/02	0	0
NEW AYVAASH	OUTDOOR TAP @ DEO ADMIN. BLDG	07/07/02	10/07/02	0	0
GETWINKSHEW	WASHROOM @ H.C.	07/07/02	10/07/02	0	0
	DISTILLED WATER	13/07/02	24/07/02	0	0
LAKGADTAP	COFFEE RM @ H.C.	18/07/02	24/07/02	0	0
GETWINKSHEW	WASHROOM @ H.C.	23/07/02	24/07/02	0	0
NEW AYVAASH	KITCHEN @ 4903 GOSWELL	13/07/02	24/07/02	0	0
NASS CAMP	WASHROOM @ MINI-MART	13/07/02	24/07/02	0	0
	DISTILLED WATER	07/08/02	08/07/02	0	0
NASS CAMP	KITCHEN @ RESTAURANT	07/08/02	08/07/02	0	0
GETWINKSHEW	WASHROOM @ H.C.	07/08/02	08/07/02	0	0
NEW AYVAASH	KITCHEN @ 4903 GOSWELL	07/08/02	08/07/02	0	0
LAKGADTAP	KITCHEN @ INDUSTRIAL CAMP	07/08/02	08/07/02	0	0
LAKGADTAP	COFFEE RM @ H.C.	07/08/02	08/07/02	0	0
	DISTILLED WATER	10/09/02	11/07/02	0	0
NASS CAMP	SINK @ WASHROOM @ MINI-MART	10/09/02	11/09/02	34	36
GETWINKSHEW	SINK @ H.C.	10/09/02	11/09/02	0	0
NEW AYVAASH	" @ KITCHEN @ 4903 GOSWELL	10/09/02	11/09/02	0	0
	DISTILLED WATER	16/07/02	17/08/02	0	0
NASS CAMP	SINK @ KITCHEN @ RESTAURANT	16/07/02	17/08/02	0	0
GETWINKSHEW	" @ WASHROOM @ H.C.	16/07/02	17/07/02	0	0
	DISTILLED WATER	24/07/02	25/09/02	0	0
LAKGADTAP	INDUSTRIAL CAMP - WASHROOM @ RESTAURANT	24/07/02	25/09/02	0	0
LAKGADTAP	H.C. - COFFEE RM	24/07/02	25/09/02	0	0
GETWINKSHEW	H.C. - WASHROOM	24/07/02	25/09/02	0	0
GETWINKSHEW	OUTSIDE TAP @ DEO H.C.	24/07/02	25/09/02	0	0
PRIVATE RESIDENCE	KITCHEN @ GORD H.C. TILES	24/08/02	25/09/02	0	0
NASS CAMP	KITCHEN @ RESTAURANT	24/09/02	25/09/02	1	0



RESULTS OF ANALYSIS - Water

File No. H4361

		New Aiyuash 97 06 13 08:45	Greenvi. Reservoir Dam 97 06 17 13:15	Canyon City Health 97 06 17 14:20
<u>Physical Tests</u>				
Colour	(CU)	<5	8	<5
Conductivity	(umhos/cm)	102	32	104
Total Dissolved Solids		56	20	56
Hardness	CaCO3	43.8	9.85	41.5
pH		7.55	6.95	7.22
Turbidity	(NTU)	<0.1	0.1	0.3
<u>Dissolved Anions</u>				
Alkalinity-Total	CaCO3	41	9	44
Chloride	Cl	0.9	<0.5	0.6
Fluoride	F	0.05	0.03	0.02
Sulphate	SO4	8	2	5
<u>Nutrients</u>				
Nitrate Nitrogen	N	0.014	0.010	<0.005
Nitrite Nitrogen	N	<0.001	<0.001	<0.001
<u>Total Metals</u>				
Aluminum	T-Al	<0.2	<0.2	<0.2
Arsenic	T-As	<0.0001	<0.0001	<0.0001
Barium	T-Ba	<0.01	<0.01	<0.01
Boron	T-B	<0.1	<0.1	<0.1
Cadmium	T-Cd	<0.0002	<0.0002	<0.0002
Calcium	T-Ca	13.2	3.61	15.1
Chromium	T-Cr	<0.01	<0.01	<0.01
Copper	T-Cu	0.01	<0.01	0.02
Iron	T-Fe	<0.03	<0.03	0.15
Lead	T-Pb	<0.001	0.001	<0.001
Magnesium	T-Mg	2.66	0.20	0.93
Manganese	T-Mn	<0.005	<0.005	0.011
Mercury	T-Hg	<0.00005	<0.00005	<0.00005
Potassium	T-K	<2	<2	<2
Selenium	T-Se	0.0006	<0.0005	<0.0005
Sodium	T-Na	<2	<2	<2
Zinc	T-Zn	0.006	<0.005	0.008

Remarks regarding the analyses appear at the beginning of this report.
 Results are expressed as milligrams per litre except for pH, Colour (CU),
 Conductivity (umhos/cm), and Turbidity (NTU).
 < = Less than the detection limit indicated.

Wally - Clark

ASL

RESULTS OF ANALYSIS

File No. 4827B
Page 3

Gitwink- Green- New Drinking *1
-sikhw ville Aiyansh Water
Well Water Clinic Guidelines
Jan31/91 Jan30/91 Feb01/91

Physical Tests

Colour	CU	11.0	9.0	<5.0	15.
Conductivity	umhos/cm	253	42.0	189	-
Hardness	CaCO3	115	16.5	89.9	- *2
pH		7.06	6.94	7.74	6.5-8.5
Turbidity	NTU	32.4	0.20	0.10	5.

Dissolved Anions

Alkalinity	CaCO3	110	12.2	72.9	-
Chloride	Cl	2.5	0.9	0.9	250.
Fluoride	F	0.12	0.04	0.05	1.5
Silicate	SiO2	15.7	3.0	2.7	-
Sulphate	SO4	11.6	2.3	16.7	500.

Nutrients

Nitrite/Nitrate Nitrogen	N	0.016	0.085	0.089	10.0
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Total Metals

Iron	T-Fe	2.20	<0.030	<0.030	0.30
Manganese	T-Mn	0.979	<0.005	<0.005	0.05

Dissolved Metals

Arsenic	D-As	0.0009	<0.0001	<0.0001	0.05
Barium	D-Ba	0.045	<0.010	0.023	1.0
Cadmium	D-Cd	<0.0002	<0.0002	<0.0002	0.005
Calcium	D-Ca	36.6	6.01	26.2	-
Chromium	D-Cr	<0.015	<0.015	<0.015	0.05
Copper	D-Cu	<0.010	0.018	0.078	1.0
Iron	D-Fe	<0.030	<0.030	<0.030	-
Lead	D-Pb	<0.001	<0.001	<0.001	0.01
Magnesium	D-Mg	5.72	0.352	5.81	-
Manganese	D-Mn	0.955	<0.005	<0.005	-
Potassium	D-K	0.45	0.19	0.14	-
Sodium	D-Na	3.99	1.15	2.34	- *3
Zinc	D-Zn	0.032	<0.005	<0.005	5.0

< = Less than T = Total D = Dissolved
NO₂/NO₃ = Nitrate/nitrite nitrogen
Results expressed as milligrams per litre except for pH,
Conductivity (umhos/cm), Colour (CU), and Turbidity (NTU).

*1 "Maximum acceptable concentration" as published by Health & Welfare Canada, 1989

*2 Maximum level not established - water supplies with a hardness exceeding 200 mg/L are considered poor but will be tolerated. Not a health consideration.

*3 Maximum level not established - of concern to consumers with sodium restricted diet. Levels exceeding 20 mg/L may be of concern in this circumstance.

Water Filter Analysis Report Sheet

Confidential Report



HYPERION RESEARCH LTD.

350-12 St. SW, Medicine Hat, AB T1A 4T7 CANADA
 Fax and Telephone (403) 529 - 0847

CLIENT: Mr. Curtis Pidhorney
 Nisga'a Valley Health Board
 Box 234
 New Aiyansh, BC
 V0J 1A0
 TEL: (604) 633-2212
 FAX: (604) 633-2512

Date of Sample: Apr 25, 1996
 Sample Location: New Aiyansh Gitwankasilkw
 Type of Sample: treated
 Volume Filtered: 5642 L
 Temperature: °C
 pH: _____
 Turbidity: NTU

MICROBIOLOGICAL RESULTS

<i>Giardia</i> cysts	1+
<i>Cryptosporidium</i> oocysts	neg
Algae	low
Nonmotile	++
Rotifers	+
Amoebae	+
Insect	neg

LAB NOTES

DATE RECEIVED: April 29, 1996
 TIME RECEIVED: 0830
 CONDITION OF FILTER: cold
 LAB ID: NA
 MAB: 5-3C + 2-C9 + PI
 CONTROL: G 4+ C 4+
 DENSITY MEDIUM P/S 1.15
 TOTAL WASH (ml): 800
 CLARIFIED (ml): 150
 SEDIMENT (ml): _____
 RESUSPENSION VOL. (ul): 12

COMMENTS

not present
 1+ 1-21/1000 L
 2+ 21-50/1000 L
 3+ 51-100/1000 L
 4+ 101-150/1000 L
 5+ 151-200/1000 L
 6+ 201-250/1000 L
 Key

VOLUME	DETECTION	VIABILITY
Volume Used (ul)	3	
Sample Equivalent (L)	264.47	0.00
+ CYSTS	<i>Giardia</i>	<i>Crypto</i>
Dead	1	0
Viable	0	0
Total	004760	1

Analyst

LABORATORY REPORT OF WATER FILTER ANALYSIS

CONFIDENTIAL

PRINCE GEORGE WATER ASSAY

P.O. Box 2832 Station B
 Prince George, B.C. V2N 4T6

Occupational & Environmental Health Services
 Health Canada, Medical Services Branch
 509-280 Victoria Street
 Prince George, B.C. V2L 4X3

Attn: Mr. Paul Broda, EHO Lab Sample Number 70 (seventy)

Examination of Water filter for *Giardia* cysts and *Cryptosporidium* oocysts using the procedures described in Section 9711B (pages 64-70) of the Supplement to the Standard Methods (18th edit.). Meridian immuno-fluorescent antibody and controls were used according to the manufacturer's instructions.

Date of Sample: 01/12/95 Sampler: Dr. I. Sobel/B. Murphy

Sample Source: Gitwinksihlkw Comm. System

Date & Time Received: 01/14/95 Volume Filtered: 1.021 m³

Date Processed/Preserved: 01/14/95 Slides Analysed: 2=75 liters

Condition of Filter: fluted ends, very dark; there was ice on exterior of filter, may have been frozen in transit.

Filter Type: Filterite Other _____

Temperature on Receipt: < 5° C, 5-10° C, 10-20° C, > 20° C

Observations: - debris present: obtained 4.0ml precipitate from filter.

- organic material present: fragments of plant cells.

- algae present: four species were noted on the membrane filter.

- other: much amorphous material.

Giardia Test Result: Positive, Presumptive, Negative

Cryptosporidium Test Result: Positive, Presumptive, Negative

Summary and Conclusion: Three ovoid cysts were noted in sediment from 75 liters. All three reacted strongly with the immunofluorescent stain. In one of these cysts the nuclei and axoneme were present. It is likely that this source contained no fewer than 4 *Giardia* cysts/100 liters at the time the sample was collected.

Results Certified by: C. Jarosch Date 6 January 1995
 C.H. Jarosch
 Prince George Water Assay



Health and Welfare
 File No: 7186H
 Page No: 1

Gitlekdamise - Water Quality Data - Appendix C

3A IDENTIFICATION AND RESULTS OF TESTING:

SAMPLE #		7186	MAXIMUM
CLIENT SAMPLE I.D.		AIYANSH	ACCEPTABLE
		JUNE 23/89	CONC.***
PHYSICAL TESTS			
pH (pH units)		8.08	6.5-8.5
Conductivity (us/cm)		837.	-
True Color (CU)		<5.	15.
Turbidity (NTU)		1.2	5.
Hardness as CaCO3		315.	-
Total Dissolved Solids (mg/L)		700.x	500.*
DISSOLVED ANIONS (mg/L)			
Alkalinity:			
Bicarbonate	HCO3	393.	-
Carbonate	CO3	Nil	-
Hydroxide	OH	Nil	-
Chloride	Cl	4.50	250.
Sulfates	SO4	117.	500.
Nitrates/Nitrites	N	<0.05	10.**
Fluorides	F	0.29	1.5
DISSOLVED METALS (mg/L)			
Calcium	Ca	41.2	-
Magnesium	Mg	50.5	-
Sodium	Na	54.8	-
Potassium	K	14.3	-
Iron	Fe	<0.030	0.30
Manganese	Mn	0.083x	0.05
Silicon	SiO2	23.8	-
DISSOLVED METALS (mg/L)			
Iron	Fe	0.22	0.30
Manganese	Mn	0.083x	0.05
Arsenic	As	0.002	0.05
Barium	Ba	0.023	1.0
Cadmium	Cd	<0.001	0.005
Chromium	Cr	<0.03	0.05
Copper	Cu	0.019	1.0
Lead	Pb	0.007	0.05
Zinc	Zn	<0.015	5.0

x = 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"
 = less than; mg/L = milligrams per litre
 = exceeded the "guidelines"

test no. *Gitlakdamisc - Water Quality Data - Appendix C*

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SAMPLE IDENTIFICATION AND RESULTS OF TESTING:

SAMPLE #	1	MAXIMUM
CLIENT SAMPLE I.D.	NEW AIYANSH	ACCEPTABLE
		CONC.***
PHYSICAL TESTS		
pH	7.45	6.5-8.5
Conductivity (micromhos/cm)	200.	-
True Color [Pt-Co Scale](CU)	L 5.	15.
Turbidity (NTU)	0.41	5.
Hardness (mg/L)	92.	-
DISSOLVED ANIONS (mg/L)		
Alkalinity: Bicarbonate HC03	108.	-
Carbonate C03	Nil	-
Hydroxide OH	Nil	-
Chlorides Cl	L 0.5	250.
Sulfates S04	7.0	500.
Nitrates and Nitrites N	0.017	10.**
Fluorides F	0.19	1.5
DISSOLVED METALS (mg/L)		
Calcium Ca	27.5	-
Magnesium Mg	5.51	-
Sodium Na	2.33	-
Potassium K	0.23	-
Iron Fe	L 0.030	0.30
Manganese Mn	L 0.003	0.05
Silicon SiO2	5.46	-
TOTAL METALS (mg/L)		
Iron Fe	L 0.030	0.30
Manganese Mn	L 0.003	0.05
Arsenic As	L 0.001	0.05
Barium Ba	0.020	1.0
Cadmium Cd	L 0.001	0.005
Chromium Cr	L 0.001	0.05
Copper Cu	0.037	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"

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Gitlekdamise - Water Quality Data - Appendix C

SAMPLE IDENTIFICATION AND RESULTS OF TESTING:

SAMPLE #	7186	
CLIENT SAMPLE I.D.	AIYANSH	MAXIMUM ACCEPTABLE CONC.***
	JUNE 23/89	
PHYSICAL TESTS		
pH (pH units)	8.08	6.5-8.5
Conductivity (us/cm)	837.	-
True Color (CU)	<5.	15.
Turbidity (NTU)	1.2	5.
Hardness as CaCO3	315.	-
Total Dissolved Solids (mg/L)	700.x	500.*
DISSOLVED ANIONS (mg/L)		
Alkalinity:		
Bicarbonate	HCO3	393.
Carbonate	CO3	Nil
Hydroxide	OH	Nil
Chloride	Cl	4.50
Sulfates	SO4	117.
Nitrates/Nitrites	N	<0.05
Fluorides	F	0.29
DISSOLVED METALS (mg/L)		
Calcium	Ca	41.2
Magnesium	Mg	50.5
Sodium	Na	54.8
Potassium	K	14.3
Iron	Fe	<0.030
Manganese	Mn	0.083x
Silicon	SiO2	23.8
ADDITIONAL METALS (mg/L)		
Iron	Fe	0.22
Manganese	Mn	0.083x
Arsenic	As	0.002
Barium	Ba	0.023
Cadmium	Cd	<0.001
Chromium	Cr	<0.03
Copper	Cu	0.019
Lead	Pb	0.007
Zinc	Zn	<0.015

= 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"
 = less than; mg/L = milligrams per litre
 = exceeded the "guidelines"

Appendix D
Wastewater Quality Test Results

Wastewater Data

Appendix D

GITLAKDAMIX FACULTATIVE LAGOONS MONITORING RESULTS (NEW AIYANSH)

DATE	INFLUENT				EFFLUENT				
	pH	BOD (mg/L)	TSS (mg/L)	Ammonia (mg/L)	pH	BOD (mg/L)	TSS (mg/L)	Ammonia (mg/L)	Toxicity LC50
11-Jun-86		220	164			51	97		
18-Jun-86		115	139			35	144		
09-Jul-86		150	94			38	146		
16-Jul-86		75	91			39	140		
30-Jul-86		138	171			50	126		
24-Sep-86		97	126			24	156		
09-Dec-86		50	121			10	23		
23-Jan-87		51	65			23	97		
02-Sep-87		28	428			27	150		
09-Oct-87		46	141			10	29		
22-Jun-88	8.4	127	71		7.1	39	51		
22-Sep-88	7.5	90	113		6.8	34	10		
13-Feb-89					7.0	17	17		
01-Jun-89						45	26		
03-Aug-89						46	36		
06-Sep-89						46	32		
10-Nov-89		45	100			22	20		
14-Mar-90	6.8	130	138		6.9	46	15		
3-Sep-90					6.6	53	4		
0-Jul-91		120	68			33	36		
26-Sep-91		118	22			45	17		
13-Nov-91		66	90			43	22		
02-Apr-92		92	96			34	58		
14-Jul-92		182	264			40	58		
21-Oct-92	7.5	105	96		6.7	47	15		
09-Jul-96	7.85	210	74	21.9	6.5	30	30	3.89	>100%

No permit applicable