

and Northern Affaires indiennes Canada et du Nord Canada Nunavut Water Board FEB 03 2004 Public Registry

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December 22, 2003

Senior Administrative Officer Hamlet of Coral Harbour Box 30 Coral Harbour, Nunavut X0C 0C0

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Our file - Notre référence NWB3COR0207

Your file - Votre reference

Re: Water Licence Inspection

The following report deals with the Water Licence Inspection conducted on August 21, 2003 in the Hamlet of Coral Harbour. In the course of the Inspection a number of problems were identified with respect to sewage treatment, record keeping of water use, segregation of materials and hazardous waste handling at the Waste Disposal Facility and documentation of operation and maintenance for the Sewage and Solid Waste Disposal Facilities. Since the Inspection was performed a number of problems with the Sewage Treatment Facility have been addressed. Hopefully the changes implemented will be successful and the Hamlet can move forward and address other issues of non-compliance with their Water Licence.

Freshwater Reservoir (figure 1)

The Hamlets freshwater is obtained from the Post River and transferred to the containment reservoir in the community. The Hamlet has some serious problems with record keeping and monitoring at the Hamlet's reservoir. Responsibility for measuring the chlorine levels in the water supply has apparently not been delegated and testing and recording of chlorine concentrations has not been performed. The Hamlet's reservoir is only partially fenced and the pumphouse door is not locked. The fence around the reservoir needs to be repaired, chlorination of the water supply needs to be monitored and records of water volumes pumped and chlorine concentrations must be recorded daily (figure 2).

Solid Waste Disposal (Burn and Bury Landfill)

The landfill facility is adjacent to the old sewage lagoon. A pond at the toe of the landfill appears to contain both leachate from the lagoon and sewage effluent (figure 3). The mixture may be quite toxic. Regardless of the sample results, the leachate from the

lagoon and the sewage effluent should not be allowed to mix. The landfill is not well covered or compacted, neither is it fenced or identified. Waste has been deposited in the water at the toe of the landfill and this should be prevented. A complete lack of segregation of materials in the landfill would likely make it unsafe to burn waste. No measures are in place to deal with hazardous materials such as lead acid batteries. Please refer to the Nunavut Hazardous Waste Management Manual 2003 for further information on proper storage and handling of hazardous materials. Bryan Purdy with Community Government and Transportation informed me that expansion of the current landfill facility will begin in 2004 and the planned expansion, combined with modifications to the sewage lagoon completed in 2003 should eliminate problems with leachate from the landfill mixing with sewage effluent.

Samples taken at the toe of the landfill where the leachate flows into an adjacent pond exceeded Licenced and the Summary of Canadian Guidelines for the Protection of Aquatic Life 2003 in iron concentration (2561 ug/L >> 300 ug/L).

Waste Oil

Waste oil handling and storage in the Hamlet of Coral Harbour is unacceptable. Waste oil barrels are strewn around behind a municipal warehouse. A number of the barrels are leaking and many are tipped over on large coarse rock. Nothing is in place to contain current or future spills. The drums appear to have been dropped off in the general area with little concern for the drums condition or potential for leakage. The "storage site" is also quite close to the freshwater source for the community (~100 m). Although the reservoir is slightly uphill from the waste oil storage, downhill from the site is a pond that could very easily become contaminated by the leaking waste oil drums. The site should be bermed and lined to prevent seepage of waste oil and the drums should be placed upright on pallets to help prevent barrels from rusting out and the site should be marked/ cordoned off to prevent snow coverage resulting in accidental collisions between snow removal equipment and the waste drums. As mentioned in past inspections the community should look into purchasing a waste oil burner as an option for disposal of waste oil and fuel and a potential source of energy for the community. Whether or not the community decides to purchase a waste oil burner the waste oil storage procedures must be improved and the site either improved or a better site chosen.

Sewage Lagoon

Modifications to the sewage lagoon had just begun when the Water Licence inspection was performed in the Hamlet of Coral Harbour. Samples of the lagoon effluent exceeded the Licenced and Canadian Guidelines with respect to iron concentration (937 ug/L > 300 ug/L) The samples also had a very high Chemical Oxygen Demand which is an indication that the Biological Oxygen Demand would also exceed the Licenced Guidelines (360 mg/L > 120 mg/L). The lagoon discharges constantly through a ditch and then flows overland towards a series of ponds and eventually the ocean. Treatment may be effective by the time the effluent reaches the ocean it is probably

Well treated however the current effluent exceeds Licenced and Canadian Guidelines. Problems had been identified by elders in the community with caribou eating sewage from the lagoon between January and May. Elders had also noticed a strong sewage smell in the community in the spring. According to Bryan Purdy, with CG&T, this may have resulted from sewage discharged to the lagoon flowing over the ice towards the community. A berm and a fence are to be put up around the lagoon to keep caribou out and the seepage path of the lagoon effluent has been altered 90° in the hopes that this will eliminate the strong sewage smell in town in the spring. I would like to commend CG&T for keeping lines of communication open with the community and taking steps to address the communities concerns. Hopefully the solutions implemented by CG&T will eliminate the problems with the sewage lagoon.

Non-Compliance of the Act or Licence

The Hamlet of Coral Harbour was required in the Water Licence to provide an Operation and Maintenance Manual (O&M) for the Sewage and Solid Waste Disposal Facilities before November 1, 2003. As of yet no O&M Manual has been received. The Hamlet is also required to sample monthly at Monitoring Stations COR-2 and COR-3 during the Months of May to August inclusive. To my knowledge this sampling has not been performed. Records of monthly and annual water use have been kept according to Bryan Purdy. These records along with all activities pertaining to the Water Licence need to be submitted to the Nunavut Water Board no later than March 31, 2004. Please refer to the Water Licence for further information on the information required in the Annual Report. I look forward to assisting the Hamlet of Coral Harbour in meeting the requirements of the Water Licence. If you have any questions or concerns please contact me.

Sincerely,

Scott Stewart
Water Resource Officer
Field Operations
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Figure 1. Hamlet of Coral Harbour freshwater reservoir.

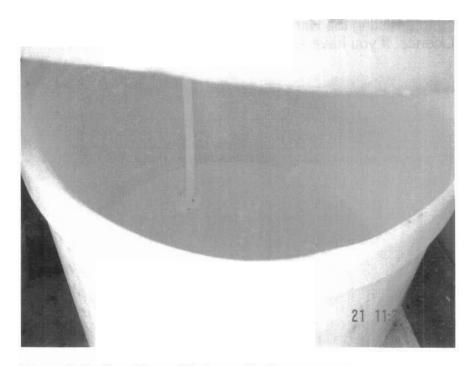


Figure 2. Sodium Hypochlorite vat in the Hamlet of Coral Harbour.

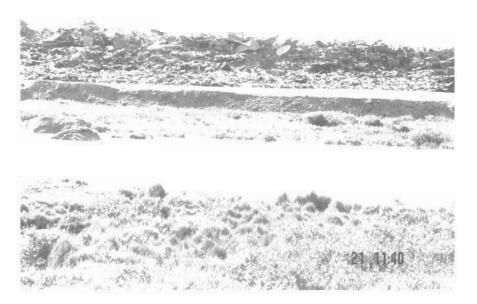


Figure 3. Ponding between the sewage lagoon and the solid waste disposal facility that may contain leachate from both the landfill and the sewage lagoon.

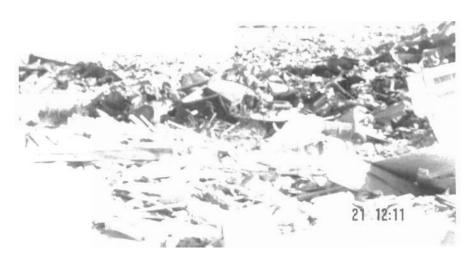


Figure 4. Unsegregated waste in the Hamlet of Coral Harbour solid waste disposal facility with leachate visible at the top of the picture.

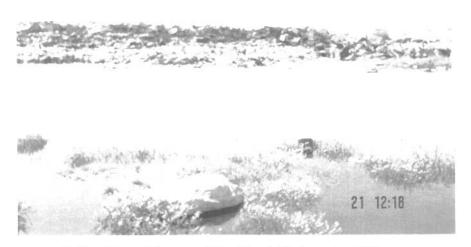


Figure 5. Ponding at the toe of the Coral Harbour landfill.



Figure 6. Bulky metal waste in the Hamlet of Coral Harbour.



Figure 7. Waste oil drums improperly stored behind the municipal warehouse.



Figure 8. Leaky drum at the Hamlet of Coral Harbour waste oil storage facility.

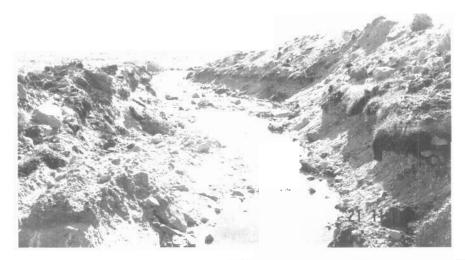


Figure 9. Drainage ditch for Coral Harbour sewage effluent flowing from the lagoon and overland to the first pond.



Figure 10. Sample site for lagoon effluent in the Hamlet of Coral Harbour.



Figure 11. Waste drums of industrial origin located near freshwater in the Hamlet of Coral Harbour.

Affaires Indiennes et du Nord Canada

MUNICIPAL WATER USE INSPECTION REPORT

Date: August 21, 2003 Licensee R

Licensee Rep. (Name/Title):

Licensee: Hamlet of Coral Harbour Licensee No.: NWB3COR0207

WATER SUPPLY

Source(s): Post River Quantity used: Unknown

Owner:/Operator: Municipality

Indicate: A - Acceptable U - Unacceptable NA - Not Applicable NI - Not Inspected

Intake Facilities: A Storage Structure: A Treatment Systems: A Chemical Storage: A

Flow Meas. Device;NI Conveyance Lines:A Pumping Stations:NI

Comments: The Hamlet has serious problems with record keeping and monitoring at the Reservoir. The Reservoir is only partially fenced and the pumphouse door is not locked. The fence around the Reservoir needs to be repaired and chlorination of the water supply and water consumption needs to be monitored and recorded.

WASTE DISPOSAL

Sewage: Sewage Treatment System (Prim./Sec/Ter.):Primary

Natural Water Body: Continuous Discharge (land or water):

Seasonal Discharge: Overland to Wetlands Treatment: Nil Trench: None

Ocean

Comments: Modifications to the sewage lagoon had just begun when the Water Licence Inspection was performed. The lagoon discharges constantly through a ditch and then flows overland through a series of ponds to the ocean. Treatment needs very likely needs to be improved prior to entering the series of ponds. Sample results sill idnetify the current treatment level.

Solid Waste: Owner/Operator:

Landfill: Burn & Landfill: x Other:

Indicate: A - Acceptable U - Unacceptable NA - Not Applicable NI - Not Inspected

Discharge Quality: NA Decant Str

Decant Structure: NA Erosion:U

Discharge Meas. Device: NA Dyke I

NA Dyke Inspection:U Seepages:U

Dams, Dykes: NA Freeboard:U Spills:U

Construction:NA O&M Plan:U A&R Plan:NI

Periods of Discharge:NA Effluent Discharge Rate:U

Comments: There is a complete lack of segregation of materials in the landfill and the waste is not well compacted or covered. Water ponding at the toe of the landfill creates the potential for sewage effluent and landfill leachate to mix freely. This should not be allowed to happen. Nothing is in place to separate hazardous materials from the general landfill waste.

FUEL STORAGE: Not Inspected

Waste Oil Storage

Owner/Operator: Hamlet of Coral Harbour

Indicate: A - Acceptable U - Unacceptable NA - Not Applicable NI - Not Inspected

Berms & Liners:U

visible on ground

NA

Drainage Pipes:NA Pump Station & Catchment Berm: NA

Pipeline Condition:NA Not Applicable: Condition of Tanks:

Water within Berms:

Waste oil storage and handling in the Hamlet of Coral Harbour is unacceptable with barrels strewn around, tipped over and many leaking. Nothing is in place to prevent or contain spills.

SURVEILLANCE NETWORK PROGRAM (SNP)

Samples Collected Hamlet:None

INAC:Effluent below lagoon, ponding at metal dump and landfill,

Signs Posted

SNP:None

Warning:None

Records & Reporting: Inadequate records at pumphouse.

Geotechnical Inspection:NI

Non-Compliance of Act or Licence:

Current sewage treatment appears to be unacceptable, modifications underway will hopefully improve the situation. Lab results will illustrate the level to which the sewage is treated before flowing to the ocean. As per the water licence the Hamlet must provide an Operation and Maintenance Manual for operating and maintaining waste disposal sites. The Hamlet must also maintain, with appropriate signage, a Surveillance Network Program (SNP) and develop a Quality Assurance/ Quality Control Plan to ensure that samples taken as part of the SNP maintain a high quality. As of yet, the Hamlet of Coral Harbour has not met these requirements.

Scott Stewart

Inspector's Name

Peter Kusugak Manager's Name Anot Hewent Inspector's Signature

Managers Signature

Evidence of Leaks: Waste oil



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Environmental Laboratory

		Bottle Order Form	Reader required):	Prior visitors may wish to visit the following forms directly (Adobe Acrobat	Resources & Links	Training On-line Results	Consulting Services Laboratory Assessments	Rush Services Sampling & Supplies	Service Price List	About Us	Taiga Home
232954	232802	232802	232802	232802	232802	232802	232802	232802	232802	Taiga Sample ID	(
Freshwater COR-1	Freshwater Lk. Wha-1	Freshwater Lk. Wha-1	Freshwater Lk. Wha-1	Freshwater Lk. Wha-1	Freshwater Lk. Wha-1	Freshwater Lk. Wha-1	Freshwater Lk. Wha-1	Freshwater Lk. Wha-1	Freshwater Lk. Wha-1	Client Sample ID	
freshwater	freshwater	freshwater	freshwater	freshwater	freshwater	freshwater	freshwater	freshwater	freshwater	Sample Type	
Hamlet of Coral Harbour	Hamlet of Whale Cove	Hamlet of Whale Cove	Hamlet of Whale Cove	Hamlet of Whale Cove	Hamlet of Whale Cove	Hamlet of Whale Cove	Hamlet of Whale Cove	Hamlet of Whale Cove	Hamlet of Whale Cove	Sampling Location	
8/21/03	8/14/03	8/14/03	8/14/03	8/14/03	8/14/03	8/14/03	8/14/03	8/14/03	8/14/03	Sample Collect Date	
8/25/03	8/20/03	8/20/03	8/20/03	8/20/03	8/20/03	8/20/03	8/20/03	8/20/03	8/20/03	Sample Received Date	
Calcium	Turbidity	Solids, Total Suspended	рН	Conductivity, Specific	Colour	Organic Carbon, Total	Nitrates+Nitrites as N	Ammonia	Total Metals (24) by ICP-MS water	Test Group Name	
Major lons	Physicals	Physicals	Physicals	Physicals	Physicals	Nutrients	Nutrients	Nutrients	Metals, Total	Lab Section	
Calcium	Turbidity	Solids, Total Suspended	PΗ	Conductivity, Specific	Colour	Organic Carbon, Total	Nitrate+Nitrite as N	Ammonia as N	Zinc	Parameter Name	
	/3	^					۸		٨	Result Flag	
17.3	1.9	ω	7.50	285	თ	4.1	0.008	0.052	10	Reported Result	
mg/L	UTU	mg/L	pH units	μS/cm 0.3		mg/L	mg/L	mg/L	hg/L	Units	
0.05	0.1	ω	0.05	0.3	51	0.2	0.008	0.005	10	Calc	
										Sample Result Qualifier	
										Analysis Result Qualifier	
9/3/03	9/8/03	8/21/03	8/25/03	8/25/03	8/27/03	9/11/03	9/2/03	8/29/03	9/20/03	Analysis Date	
none	none	GF/C Filt.	none	none	none	none	none	none	Microwav	Prep Method	

232954	232954	232954	232954	232954	232954	232954	232954	232954	232954
Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1
freshwater	freshwater	freshwater	freshwater	freshwater	freshwater	freshwater	freshwater	freshwater	freshwater
Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour
8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03
8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03
Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Arsenic, Total in water	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Sulphate	Sodium	Potassium	Magnesium
Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Major lons	Major lons	Major	Major lons
Cadmium	Beryllium	Barium	Arsenic	Antimony	Aluminum	Sulphate	Sodium	Potassium	Magnesium
٨	٨		٨		٨				
0.1	0.1	8.1	-7	0.3	30	Ŋ	4.22	1.01	1.63
µg/L	µg/L	µg/L	µg/L	μg/L	µg/L	mg/L	mg/L	mg/L	mg/L
0.1	0.1	0.1		0.1	30	ω	0.02	0.03	0.02
9/20/03	9/20/03	9/20/03	8/26/03	9/20/03	9/20/03	8/29/03	9/5/03	9/5/03	9/3/03
Microwavi	Microwav	Microwav	Microwav	Microwav	Microwavi	none	none	none	none



232954	232954	232954	232954
Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1
freshwater	freshwater	freshwater	Hamli freshwater Coral Harbo
Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour
8/21/03 8/25/03	8/21/03	8/21/03	8/21/03
8/25/03	8/25/03	8/25/03	8/25/03
Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water
Metals, Total	Metals, Total	Metals, Total	Metals, Total
Zinc	Vanadium	Uranium	Titanium
٨			
10	0.9	0.3	1.3
µg/L 10	µg/L 0.1	µg/L 0.1	µg/L 0.1
10	0.1	0.1	0.1
9/20/03	9/20/03	9/20/03	9/20/03
9/20/03 Microwave EPA200	9/20/03 Microwave EPA200	Microwave EPA200	Microwave EPA200
	27.02.00		





	Bottle Order Form	Reader required): Field Sheet	Prior visitors may wish to visit the following forms directly (Adobe Acrobat	Training On-line Results Resources & Links	Sampling & Supplies Consulting Services Laboratory Assessments	Service Price List Rush Services	Taiga Home About Us Analytical Capabilities
232954	232954	232954	232954	232954	232954	232954	Taiga Sample
Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Client Sample ID
freshwater	freshwater	freshwater	freshwater	freshwater	freshwater	freshwater	Sample Type
Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Sampling Location
8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	Sample Collect Date
8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	Sample Received
Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Iron, Total	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Metals (24) by ICP-MS water	Tes Grou Nam
Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Lab
Lithium	Lead	Iron	Copper	Cobalt	Chromium	Cesium	t Lab Parameter Result Reported Units MDL Qua
	۸	٨		٨	٨	۸	Result Flag
0.5	0.1	30	0.9	0.1	0.3	0.1	Reported
µg/L	µg/L	hg/L	hg/L	μg/L	µд∕Г	µg/L	Units
0.3	0.1	30	0.2	0.1	0.3	0.1	Calc
							nple sult lifier
							Analysis Result Qualifier
9/20/03	9/20/03	8/28/03	9/20/03	9/20/03	9/20/03	9/20/03	Analysis Date
Microwave EPA200	Microwave	Microwave	Microwave	Microwave	Microwave	Microwave	Prep Method
EPA200	EPA200	SM3111	EPA200	EPA200	EPA200	EPA200	Test Method

232954	232954	232954	232954	232954	232954	232954	232954	232954
Freshwater COR-1	Freshwater COR-1	Freshwater COR-1						
freshwater	freshwater	freshwater						
Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour						
8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03
8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03
Total Metals (24) by ICP-MS water	Mercury, Total	Total Metals (24) by ICP-MS water						
Metals, Total	Metals, Total	Metals, Total						
Thallium	Strontium	Silver	Selenium	Rubidium	Nickel	Molybdenum	Mercury	Manganese
۸		٨	٨			3	۸	v
0.1	23.7	0.1	7	2.6	0.2	0.3	0.01	0.8
µg/L	µg/L	р9/Г	µg/L	µg/L	µ9/L	hg/L	hg/L	µg/L
0.1	0.1	0.1	<u> </u>	0.1	0.1	0.1	0.01	0.1
9/20/03	9/20/03	9/20/03	9/20/03	9/20/03	9/20/03	9/20/03	10/2/03	9/20/03
Microwave EPA200	none	Microwave EPA200						
EPA200	SM3112	EPA200						

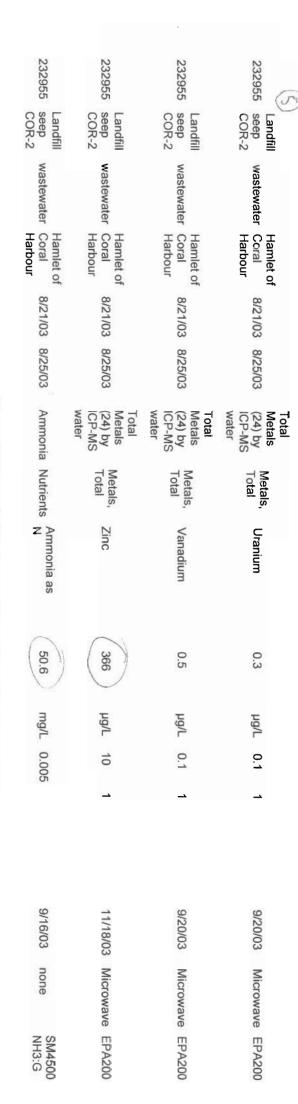




		Bottle Order Form	Reader required):	Prior visitors may wish to visit the following forms	Resources & Links	Training On-line Results	Consulting Services Laboratory Assessments	Rush Services Sampling & Supplies	Service Price List	About Us	
232955	232955	232954	232954	232954	232954	232954	232954	232954	232954	Taiga Sample	9
Landfill seep COR- 2	Landfill seep COR- 2	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Freshwater COR-1	Client Sample ID	
wastewater	wastewater	freshwater	freshwater	freshwater	freshwater	freshwater	freshwater	freshwater	freshwater	Sample Type	
Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Sampling Location					
8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	Sample Collect Date	
8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	Sample Received Date	12
Magnesium	Calcium	Turbidity	Solids, Total Suspended	PH	Conductivity, Specific	Colour	Organic Carbon, Total	Nitrates+Nitrites as N	Ammonia	Test Group Name	CHOW All Occurred to the control of
Major	Major	Physicals	Physicals	Physicals	Physicals	Physicals Colour	Nutrients	Nutrients	Nutrients	Lab Section	
Magnesium	Calcium	Turbidity	Solids, Total Suspended	РН	Conductivity, Specific	Colour	Organic Carbon, Total	Nitrate+Nitrite as N	Ammonia as N	Parameter Name	000
			٨			٨			٨	Result Flag	
39.0	236	(1.9)	ω	7.92	125	Oi	1.7	0.047	0.005	Reported Result	
mg/L	mg/L	UTN	mg/L	pH units	μS/cm 0.3		mg/L	mg/L	mg/L	Units	
0.02	0.05	0.1	ω	0.05	0.3	Çī	0.2	0.008	0.005	Calc	
										Sample A Result Qualifier C	
										Analysis Result Qualifier	
9/3/03	9/3/03	9/8/03	8/25/03	8/28/03	8/28/03	9/8/03	9/15/03	9/4/03	9/16/03	Analysis Date	
none	none	none	GF/C Filt	none	none	none	none	none	none	Prep Methoc	

2	232955 se	232955 se 2	232955 se 2	232955 se 2	232955 se 2	232955 se 2	232955 se 2	232955 se 2	232955 se 2	232955 se 2
	Landfill seep COR-	Landfill seep COR- 2	Landfill seep COR- 2	Landfill seep COR- 2	Landfill seep COR- 2	Landfill seep COR- 2	Landfill seep COR- 2	Landfill seep COR- 2	Landfill seep COR- 2	Landfill seep COR- 2
	Landfill seep COR- wastewater	wastewater	wastewater	Landfill seep COR- wastewater 2	wastewater	wastewater	Landfill seep COR- wastewater 2	wastewater	wastewater	wastewater
Harbour	Hamlet of Coral	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour
	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03
	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03
water	Total Metals (24) by ICP-MS	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Arsenic, Total in water	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Sulphate	Sodium	Potassium
	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Major lons	Major lons	Major lons
	Cesium	Cadmium	Beryllium <	Barium	Arsenic	Antimony	Aluminum	Sulphate	Sodium	Potassium
	0.1	0.5	0.1	42.3	O	16.4	174	6	206	71.0
	нд/Г	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L
	0.1	0.1	0.1	0.1	>	0.1	30	ယ	0.02	0.03
	<u> </u>			_			_			
	9/20/03	9/20/03	9/20/03	9/20/03	8/26/03	9/20/03	9/20/03	8/29/03	9/5/03	9/5/03
	Microwa	Microwa	Microwav	Microwa	Microwa	Microwa	Microwa	none	none	none

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Environmental Laboratory

	Bottle Order Form	directly (Adobe Acrobat Reader required): Field Sheet	Prior visitors may wish to visit the following forms	Training On-line Results Resources & Links	Sampling & Supplies Consulting Services Laboratory Assessments	Service Price List Rush Services	About Us Analytical Capabilities	Taiga Home
232955	232955	232955	232955	232955	232955	232955	Taiga Sample	0
Landfill seep COR-2	Landfill seep COR-2	Landfill seep COR-2	Landfill seep COR-2	Landfill seep COR-2	Landfill seep COR-2	Landfill seep COR-2	Client Sample	
wastewater	wastewater	wastewater	wastewater	wastewater	wastewater	wastewater	Sample Type	
Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Sampling Location	
8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	Sample Collect Date	
8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	Sample Received Date	10
Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Iron, Total	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water		now All
Metals, Total	Metals, Total	Metals, Total	Metals, Totai	Metals, Total	Metals, Total	Metals, Total	Lab Section	bearch
Manganese	Lithium	Lead	Iron	Copper	Cobalt	Chromium	Parameter Name	First page
578	36.7	7.9	2561	34.8	4.0	46.8	Result Reported Flag Result	Snow All Search First page Prev Next Last page Bottom
hg/L	µg/L	hg/L	µg/L	µg/L	μg/L	нд/L	Units	t pag
0.1	0.3	0.1	30	0.2	0.1	0.3	Calc	e Bot
7	<u> </u>	_7	_	_	<u> </u>	_	Sample Result Qualifier	tom
							Analysis Result Qualifier	
11/18/03	9/20/03	9/20/03	8/28/03	9/20/03	9/20/03	9/20/03	Analysis Date	
Microwave EPA200	Microwave EPA200	Microwave EPA200	Microwave SM3111	Microwave	Microwave	Microwave	Prep Method	
EPA200	EPA200	EPA200	SM3111	EPA200	EPA200	EPA200	Test Methoc	

232955	232955	232955	232955	232955	232955	232955	232955	232955
Landfill seep COR-2	Landfill seep COR-2	Landfill seep COR-2	Landfill seep COR-2	Landfill seep COR-2	Landfill seep COR-2	Landfill seep COR-2	Landfill seep COR-2	Landfill seep COR-2
wastewater	wastewater	wastewater						
Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour						
8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03
8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03
Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Mercury, Total						
Metals, Total	Metals, Total	Metals, Total						
Titanium	Thallium <	Strontium	Silver	Selenium	Rubidium	Nickel	Molybdenum	Mercury
6.1	0.1	651)	0.1	7	655	13.6	<u>.,</u>	0.05
µg/L	μg/L	µg/L						
0.1	0.1	0.1	0.1	_	0.1	0.1	0.1	0.01
_		_		-3	-3	7		7
9/2	9/20	11/1	9/20/03	9/20/03	9/20/03	9/20/03	9/20/03	10/2/03
9/20/03	9/20/03	8/03	03	$\ddot{\omega}$	ω	۵	ت	$\ddot{\omega}$
0/03 Microwave EPA200	0/03 Microwave EPA200	11/18/03 Microwave EPA200	03 Microwave EPA200)3 Microwave EPA200	3 Microwave	3 Microwave EPA200	3 Microwave)3 none





		Bottle Order Form	Reader required):	Prior visitors may wish to visit the following forms	Resources & Links	Training On-line Results	Consulting Services Laboratory Assessments	Rush Services Sampling & Supplies	Service Price List	About Us	Taiga Home
232956	232956	232956	232956	232956	232955	232955	232955	232955	232955	Taiga Sample ID	(
Sewage effuent COR-3	Landfill seep COR-2	Landfill seep COR-2	Landfill seep COR-2	Landfill seep COR-2	Landfill seep COR-2	Client Sample ID					
sewage	sewage	sewage	sewage	sewage	wastewater	wastewater	wastewater	wastewater	wastewater	Sample Type	
Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Sampling Location					
8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	Sample Collect Date	
8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	Sample Received Date	
Sulphate	Sodium	Potassium	Magnesium	Calcium	Turbidity	Solids, Total Suspended	PH	Conductivity, Specific	Nitrates+Nitrites as N	Test Group Name	
Major	Major	Major	Major lons	Major lons	Physicals	Physicals	Physicals	Physicals	Nutrients	Lab Section	
Sulphate	Sodium	Potassium	Magnesium	Calcium	Turbidity	Solids, Total Suspended	PH	Conductivity, Specific	Nitrate+Nitrite as N	Parameter Name	
63	109	21.2	5.82	61.7	72.4	(2)	7.76	2470	0.039	Result Reported Flag Result	
mg/L	mg/L	mg/L	mg/L	mg/L	UTU	mg/L	pH units	μS/cm	mg/L	Units	
ω	0.02	0.03	0.02	0.05	0.1	ω	0.05	0.3	0.008	Calc MDL C	
										Sample Analysis Result Result Qualifier Qualifier	
8/29/03	9/5/03	9/5/03	9/3/03	9/3/03	9/8/03	8/25/03	8/29/03	8/29/03	9/4/03	Analysis Date	
none	none	none	none	none	none	GF/C Filt.	none	none	none	s Prep Method	

232956	232956	232956	232956	232956	232956	232956	232956	232956	232956
Sewage effuent COR-3	Sewage effuent COR-3	Sewage effuent COR-3	Sewage effuent COR-3	Sewage effuent COR-3	Sewage effuent COR-3	Sewage effuent COR-3	Sewage effuent COR-3	Sewage effuent COR-3	Sewage effuent COR-3
sewage	sewage	sewage	sewage	sewage	sewage	sewage	sewage	sewage	sewage
Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour
8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03
8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03
Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Arsenic, Total in water	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water
Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total
Copper	Cobalt	Chromium	Cesium	Cadmium	Beryllium	Barium	Arsenic	Antimony	Aluminum
			٨	٨	٨				
10.8	0.8	2.1	0.1	0.1	0.1	4.5	2	0.6	187
µg/L	µg/L	µg/L	hg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
0.2	0.1	0.3	0.1	0.1	0.1	0.1	_	0.1	30
9/20/03	9/20/03	9/20/03	9/20/03	9/20/03	9/20/03	9/20/03	8/26/03	9/20/03	11/18/03
Microwave	Microwave	Microwave	Microwave	Microwave	Microwave	Microwave	Microwave	Microwave	11/18/03 Microwave

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		Bottle Order Form	Reader required):	Prior visitors may wish to visit the following forms	Resources & Links	Training On-line Results	Consulting Services Laboratory Assessments	Rush Services Sampling & Supplies	Service Price List	About Us	Taiga Home
232956	232956	232956	232956	232956	232956	232956	232956	232956	232956	Taiga Sample ID	(00)
Sewage effuent COR-3	Sewage effuent COR-3	Sewage effuent COR-3	Sewage effuent COR-3	Sewage effuent COR-3	Sewage effuent COR-3	Client Sample ID					
sewage	sewage	sewage	sewage	sewage	sewage	sewage	sewage	sewage	sewage	Sample Type	
Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Sampling Location					
8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	Sample Collect Date	
8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	Sample Received Date	
Total Metals (24) by ICP-MS water	Mercury, Total	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Total Metals (24) by ICP-MS water	Iron, Total	Test Group Name	Show All				
Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Lab Section	search
Silver	Selenium	Rubidium	Nickel	Molybdenum	Mercury	Manganese	Lithium	Lead	Iron	Parameter Name	First page
				Ħ		se				eter	T
٨	٨			m ^	٨	Se					Prev Ne
0.1	^	23.0	5.5		< 0.01	se 116	3.9	0.5	937		Prev Next Last
		23.0 μg/L	5.5 µg/L	٨			3.9 μg/L	0.5 µg/L	937 µg/L	Result Flag	Prev Next Last page
0.1	_			0.1	0.01	116				Result Reported Flag Result	Prev Next Last page Bottor
0.1 μg/L	1 µg/L	µg/L	hg/L	< 0.1 μg/L	0.01 µg/L	116 μg/L	hg/L	µ9/L	h9/L	Result Reported Units Calc Result Flag Result MDL Qualifier	Search First page Prev Next Last page Bottom
0.1 μg/L 0.1	1 µg/L 1	µg/L 0.1	µg/L 0.1	< 0.1 μg/L 0.1	0.01 µg/L	116 μg/L	µg/L 0.3	µg/∟ 0.1	μg/L 30	Result Reported Units Calc Result Result Flag Result Units MDL Qualifier Qualifier	
0.1 µg/L 0.1 9/20/03	1 µg/L 1 9/20/03	μg/L 0.1 9/20/03	µg/L 0.1 9/20/03	< 0.1 μg/L 0.1 9/20/03	0.01 µg/L 0.01 10/2/03	116 μg/L 0.1 11/18/03	µg/L 0.3 9/20/03	µg/L 0.1 9/20/03	µg/L 30 8/28/03	Result Reported Units Calc Result Flag Result MDL Qualifier	
0.1 μg/L 0.1	1 µg/L 1	µg/L 0.1	µg/L 0.1	< 0.1 μg/L 0.1	0.01 μg/L 0.01	116 µg/L 0.1	µg/L 0.3	µg/∟ 0.1	μg/L 30	Result Reported Units Calc Result Result Flag Result Units MDL Qualifier Qualifier	

232956	232956	232956	232956	232956	232956	232956	232956	232956	232956
Sewage effuent COR-3	Sewage effuent COR-3	Sewage effuent COR-3	Sewage effuent COR-3	Sewage effuent COR-3	Sewage effuent COR-3				
sewage	sewage	sewage	sewage	sewage	sewage	sewage	sewage	sewage	sewage
Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour				
8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03	8/21/03
8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03
Conductivity, Specific	Nitrates+Nitrites as N	Chemical Oxygen Demand	Ammonia	Total Metals (24) by ICP-MS water					
Physicals	Nutrients	Nutrients	Nutrients	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total	Metals, Total
Conductivity, Specific	Nitrate+Nitrite as N	Chemical Oxygen Demand	Ammonia as N	Zinc	Vanadium	Uranium	Titanium	Thallium <	Strontium
1030	0.072	360	19.6	16	2.3	0.4	1.2	0.1	62.9
μS/cm 0.3	mg/L	mg/L	mg/L	µg/L	µg/L	нд/L	µg/L	h9/L	µg/L
0.3	0.008	4	0.005	10	0.1	0.1	0.1	0.1	0.1
8/29/03	9/4/03	9/19/03	9/16/03	9/20/03	9/20/03	9/20/03	9/20/03	9/20/03	9/20/03
8/29/03 none	9/4/03 none	9/19/03 none	9/16/03 none	9/20/03 Microwave					

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Environmental Laboratory

		rm	Reader required): Field Sheet	Prior visitors may wish to visit the following forms directly (Adobe Acrobat	Resources & Links	Training On-line Results	Consulting Services Laboratory Assessments	Rush Services Sampling & Supplies	Service Price List	About Us Analytical Capabilities	Taiga Home
232957	232957	232957	232957	232957	232957	232957	232956	232956	232956	Taiga Sample ID	(2)
Raw	Raw water REP-1	Raw water REP-1	Raw water REP-1	Raw water REP-1	Raw water REP-1	Raw water REP-1	Sewage effuent COR-3	Sewage effuent COR-3	effuent COR-3	Client Sample	
freshwater	freshwater	freshwater	freshwater	freshwater	freshwater	freshwater	sewage	sewage	sewage	Sample Type	
Hamlet of Repulse	Hamlet of Repulse Bay	Hamlet of Repulse Bay	Hamlet of Repulse Bay	Hamlet of Repulse Bay	Hamlet of Repulse Bay	Hamlet of Repulse Bay	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Hamlet of Coral Harbour	Sampling Location	
8/20/03	8/20/03	8/20/03	8/20/03	8/20/03	8/20/03	8/20/03	8/21/03	8/21/03	8/21/03	Sample Collect Date	
8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	8/25/03	Sample Received Date	100
Total Metals (24) by ICP-MS	Total Metals (24) by ICP-MS water	Sulphate	Sodium	Potassium	Magnesium	Calcium	Turbidity	Solids, Total Suspended	PH	Test d Group Name	Show All S
Metals, Total	Metals, Total	Major lons	Major lons	Major lons	Major lons	Major lons	Physicals	Physicals	Physicals	Lab Section	earch F
Antimony	Aluminum	Sulphate	Sodium	Potassium	Magnesium	Calcium	Turbidity	Solids, Total Suspended	PH	Parameter Name	Search First page Prev Next Last page Bottom
	٨						\cap			Result Flag	rev N
0.4	30	4	2.17	0.75	3.13	16.4	32.0	(%)	7.69	Reported Result	ext Las
µg/L	hg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTO	mg/L	pH units	Units	t page
0.1	30	ω	0.02	0.03	0.02	0.05	0.1	ω	0.05	Calc Sai MDL Qua	Bottom
										Sample An Result R Qualifier Qu	·
(O	"	œ		-	' 0					Analysis Result Qualifier	
9/20/03	9/20/03	8/29/03	9/5/03	9/5/03	9/3/03	9/3/03	9/8/03	8/25/03	8/29/03	Analysis Date	
Microwave	Microwave	none	none	none	none	none	none	GF/C Filt.	none	Prep Method	
EPA200.	EPA200.	SM4500. SO4:F	SM3500. Na:D	SM3500 K:D	SM3111	SM3111	SM2130	SM2540	SM4500 H:B	Test Wethoo	