



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut District Office

DIAND, Operations

Attn: Philippe Lavallee

Sample ID: raw water

Taiga Sample ID: 212230

Client Project:

Sample Type: freshwater

Received Date: 29-Aug-01

Location: Chesterfield Inlet

Sampling Date: 28-Aug-01

Report Status: Final

Approved by:

Test Parameter	Result	Units	Detection Limit	Analysis Date
<u>Physicals</u>				
Colour	<5		5	31-Aug-01
Solids, Total Dissolved	58	mg/L	10	04-Sep-01
Turbidity	0.8	NTU	0.1	31-Aug-01
<u>Nutrients</u>				
Ammonia as N	<0.005	mg/L	0.005	07-Sep-01
Biological Oxygen Demand	3	mg/L	2	29-Aug-01
Nitrate+Nitrite as N	<0.008	mg/L	0.008	31-Aug-01
<u>Major Ions</u>				
Sodium	14.9	mg/L	0.02	29-Aug-01
<u>Microbiology</u>				
Coliforms, Fecal	<1	CFU/100mL	1	29-Aug-01
<u>Metals, Total</u>				
Arsenic	<1.0	µg/L	1.0	13-Sep-01
Cadmium	<0.3	µg/L	0.3	09-Sep-01
Chromium	<3	µg/L	3	09-Sep-01



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Cobalt	<1	µg/L	1	09-Sep-01
Copper	<2	µg/L	2	09-Sep-01
Iron	<30	µg/L	30	08-Sep-01
Lead	<1	µg/L	1	09-Sep-01
Manganese	<1	µg/L	1	09-Sep-01
Mercury	<0.01	µg/L	0.01	13-Sep-01
Nickel	<1	µg/L	1	09-Sep-01
Zinc	17	µg/L	10	09-Sep-01

Subcontracted Tests

Chloride	29.0	mg/L	0.1	17-Sep-01
Sulphate	4.0	mg/L	0.3	17-Sep-01

Field Data (01/08/28) raw water

Temperature: 11.5 °C

Conductivity: 129 µS/cm

pH: 8.7

Time: 10:31



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- CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut District Office

DIAND, Operations

Attn: Philippe Lavallee

Sample ID: sewage discharge

Taiga Sample ID: 212231

Client Project:

Sample Type: sewage

Received Date: 29-Aug-01

Location: Chesterfield Inlet

Sampling Date: 28-Aug-01

Report Status: Final

Approved by:

Lab Section	Test Parameter	Result	Units	Detection Limit	Analysis Date
Microbiology	Coliforms, Fecal	<1	CFU/100mL	1	29-Aug-01
Nutrients	Ammonia as N	0.026	mg/L	0.005	07-Sep-01
	Biological Oxygen Demand	<2	mg/L	2	29-Aug-01
	Nitrate+Nitrite as N	0.011	mg/L	0.008	10-Sep-01
	Phosphorous, Total	0.672	mg/L	0.004	13-Sep-01
Physicals	Solids, Total Suspended	<3	mg/L	3	11-Sep-01
Subcontract	Phenols	<0.5	µg/L	0.5	17-Sep-01

Field Data (01/08/28) sewage

Temperature: 12.5 °C

Conductivity: 420 µS/cm

pH: 9.1

Time: 11:30

REPORT OF TOXICITY USING MICROTOX

COMPAN LOCATION: Chesterfield - Sewage Discharge

Sample Collected By: Philippe Lavallee

Date/Time Sampled: August 28, 2001

Date/Time Received: August 28, 2001

Date/Time Test Start: August 29, 2001

Sample Type: Elutriate

Sampling Method: Grab

Method: *Environment Canada Laboratories SOP#830.0 Revision 1, for Microtox Testing in Compliance with November 1992: Biological Test Method: Toxicity Test Using Luminescent Bacteria Photobacterium phosphoreum), November 1992, EPS 1/RM/24.*

Environment Canada has conducted testing on the material sampled according to its own Microtox standards and procedures. The data proceeding from that testing is intended as a preliminary screening tool only, and cannot be used for any other purpose. This data is provided on the condition that it not be used in any report that is intended for public or official use.

RESULTS: TOXIC - IC₅₀ Concentration: 42.0% (Toxic 0 to 50%)

TEST ORGANISMS:

Species: *Vibrio fischeri* (Photobacterium phosphoreum)

Test Apparatus: Model 500 Analyzer

TEST SUBSTANCE/CONDITIONS

pH of Sample: N/A (No pH adjustment)

Lot # of Osmotic Adjusting Solution: OAS007

Sample Appearance: Clear, no colour adjustment

Lot # of Reconstitution Solution: RSN099Y

Lot # of Diluent: DIL034L

TEST METHODS AND CONDITIONS

Test Start Date/Time: August 29, 2001 / 02:53 PM

Test Method: Basic 45% Test, 15 minute incubation.

QUALITY CONTROL

Reference Toxicant: Zinc Sulfate Standard

Reagent Lot #: ACV026-6

IC₅₀ - 15 minutes mg/L: 2.8 mg/L

IC₅₀ Confidence Range: 2.7 to 2.9 mg/L

TEST ANALYST: Wade Romanko

INITIAL: WR