

Hamlet of Arviat ATTN: Alex Ishalook

PO Box 278

Arviat NU X0C 0E0

Date Received: 16-OCT-13

Report Date: 17-OCT-13 15:39 (MT)

Version: FINAL

Client Phone: 867-857-2860

Certificate of Analysis

Lab Work Order #: L1378467

Project P.O. #: NOT SUBMITTED

Job Reference: C of C Numbers: Legal Site Desc:

Paul Nicolas Account Manager

Paul Necolas

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ADDRESS: 1329 Niakwa Road East, Unit 12, Winnipeg, MB R2J 3T4 Canada | Phone: +1 204 255 9720 | Fax: +1 204 255 9721 ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company



ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1378467-1 PANA BUILDING (KITCHEN SINK)							
Sampled By: Alex Ishalook on 15-OCT-13 @ 09:30							
Matrix: Water							
Total Coliform and E.coli							
Total Coliforms	0		0	MPN/100mL		16-OCT-13	R2718143
Escherichia Coli	0		0	MPN/100mL		16-OCT-13	R2718143
L1378467-2 PANA BUILDING (FOUNTAIN @ UPSTA	AIRS)						
Sampled By: Alex Ishalook on 15-OCT-13 @ 09:30							
Matrix: Water							
Total Coliform and E.coli							
Total Coliforms Escherichia Coli	0		0	MPN/100mL MPN/100mL		16-OCT-13 16-OCT-13	R2718143
ESCHERICINA CON	0		0	IVIPIN/TOUTIL		16-001-13	R2718143

^{*} Refer to Referenced Information for Qualifiers (if any) and Methodology.

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PAGE 3 of 3 Version: FINAL

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**	Method Reference**				
TC,EC-QT51-WP	Water	Total Coliform and E.coli	APHA 9223					

The analysis of Total Coliform (TC) & Escherichia coli (EC) is processed by Quanti-tray (QT): Two substrates, ONPG for TC detection and MUG for EC detection are used. The substrates are added to the 100 ml sample dispensed into the 51 well tray. The tray is incubated at 35 Celcius for 24 hours. A colour reaction develops to indicate a positive reaction (presence of TC, EC). The number of positive wells are counted and converted to Most Probable Number Units (MPNU) per 100 ml. This test is also called 'rapid MPN method', therefore, the MPN results are derived from a statistical table with a 95% confidence and report as MPN units. The QT detection limit for a negative result is reported as zero.

TC,EC-QT51-WP Water Total Coliform and E.coli APHA 9223 QT

The analysis of Total Coliform (TC) & Escherichia coli (EC) is processed by Quanti-tray (QT): Two substrates, ONPG for TC detection and MUG for EC detection are used. The substrates are added to the 100 ml sample dispensed into the 51 well tray. The tray is incubated at 35 Celcius for 24 hours. A colour reaction develops to indicate a positive reaction (presence of TC, EC). The number of positive wells are counted and converted to Most Probable Number Units (MPNU) per 100 ml. This test is also called 'rapid MPN method', therefore, the MPN results are derived from a statistical table with a 95% confidence and report as MPN units. The QT detection limit for a negative result is reported as zero.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample mg/kg wwt - milligrams per kilogram based on wet weight of sample mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

(ALS) Environmental

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Company: HIVIQ+ Community FOUR'T : Service				Regular (Standard Turnaround Times - Business Days)										
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Ministe, Juliu Junio et des Bervices Boeraux : Kivalliq

Environmental Health Officer

Bag 72, Rankin Inlet, NU, X0C 0G0

Phone: (867) 645-8273

Fax: (867) 645-8274



Bacteriological Analysis of Drinking Water Sample Collection Information Form

Sample Collection Information

Community from which sample was collected: Location of sample collection: Date of sample collection: Time of sample collection: Name of person who collected sample: Telephone number of person who collected sample: For Laboratory Use Only Date Received: Date Processed: Processed by: Results Total Coliform per 100ml: E. coli per 100ml: Date Read: Read by: No Significant Evidence of Bacteriological Contamination Sample collected is bacteriologically safe for human consumption. Significant Evidence of Bacteriological Contamination Sample collected may be unsafe for human consumption as bacteriological contamination is present. Resample as soon as possible. Unsafe to Drink

The above results relate only to the sample tested. This water sample was only tested for the presence of both Total Coliform and E. coli bacterial indicators of contamination by using membrane filtration.

Resample as soon as possible.

Sample collected is unsafe for human consumption as fecal contamination is present.



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Ministère de la Santé et des Services Sociaux : Kivalliq

Environmental Health Officer Bag 72, Rankin Inlet, NU, X0C 0G0

Phone: (867) 645-8273

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Bacteriological Analysis of Drinking WaterSample Collection Information Form

	Sample Collection Information						
00726108	3 ., from which sample was collected:	Arrigt, Ny					
	Location of sample collection:	PANA Building					
	Date of sample collection:	October 15, 2013					
	Time of sample collection:	9:30 am					
1	Name of person who collected sample:	Alex Ishalook					
Telephone nu	mber of person who collected sample:	867 857 2860					
	Eau Labauata						
	For Laborator	y Use Only					
Date Received	•						
Date Processed	1:	Processed by:					
	Resu	lts					
Total Coliform	per 100ml:	E. coli per 100ml:					
Date Read:		Read by:					
	No Significant Evidence of Bacter Sample collected is bacteriologically safe for h						
Significant Evidence of Bacteriological Contamination Sample collected may be unsafe for human consumption as bacteriological contamination is present. Resample as soon as possible.							
	Unsafe to Drink Sample collected is unsafe for human consumption as fecal contamination is present. Resample as soon as possible.						

The above results relate only to the sample tested. This water sample was only tested for the presence of both Total Coliform and E. *coli* bacterial indicators of contamination by using membrane filtration.



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Ministera as in sume or des pervices sociaux : Kivalliq

Environmental Health Officer

Bag 72, Rankin Infet, NU, X0C 0G0

Phone: (867) 645-8273 Fax: (867) 645-8274



Bacteriological Analysis of Drinking Water Sample Collection Information Form

Sample Collection Information Community from which sample was collected: 4rviat, Nu Location of sample collection: Date of sample collection: Time of sample collection: 7:30 <u>am</u> Name of person who collected sample: Telephone number of person who collected sample: For Laboratory Use Only

Date Received: Date Processed: Processed by: Results Total Coliform per 100ml: E. coli per 100ml: Date Read: Read by: No Significant Evidence of Bacteriological Contamination Sample collected is bacteriologically safe for human consumption. Significant Evidence of Bacteriological Contamination Sample collected may be unsafe for human consumption as bacteriological contamination is present. Resample as soon as possible. Unsafe to Drink Sample collected is unsafe for human consumption as fecal contamination is present. Resample as soon as possible.

The above results relate only to the sample tested. This water sample was only tested for the presence of both Total Coliform and E. coli bacterial indicators of contamination by using membrane filtration.