

Nunavut - Community & Government Services

- Rankin Inlet

ATTN: Alex Ishalook

P.O. Box 278

Arviat NU X0C 0G0

Date Received: 23-AUG-13

Report Date: 27-AUG-13 12:41 (MT)

Version: FINAL

Client Phone: 867-857-2860

Certificate of Analysis

Lab Work Order #: L1352225

Project P.O. #: NOT SUBMITTED

Job Reference: ARVIAT - COMMUNITY & GOV'T SERVICES

C of C Numbers:

Legal Site Desc: ARVIAT, NU

Chartal Bouchard

Chantal Bouchard Account Manager

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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



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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1352225-1 CELL 1 - #1 UNTREATED							
Sampled By: ALEX ISHALOOK on 22-AUG-13 @ 10:0	0						
Matrix: WATER SURFACE RAW							
Total Coliform and E.coli							
Total Coliforms	200		0	MPN/100mL		23-AUG-13	R2678884
Escherichia Coli	1		0	MPN/100mL		23-AUG-13	R2678884
L1352225-2 CELL 1 - #2 UNTREATED							
Sampled By: ALEX ISHALOOK on 22-AUG-13 @ 10:0	0						
Matrix: WATER SURFACE RAW							
Total Coliform and E.coli							
Total Coliforms	130		0	MPN/100mL		23-AUG-13	R2678884
Escherichia Coli	2		0	MPN/100mL		23-AUG-13	R2678884
L1352225-3 WOLF CREEK #1 - UNTREATED							
Sampled By: ALEX ISHALOOK on 22-AUG-13 @ 10:0	0						
Matrix: WATER SURFACE RAW							
Total Coliform and E.coli							
Total Coliforms	>200		0	MPN/100mL		23-AUG-13	R2678884
Escherichia Coli	4		0	MPN/100mL		23-AUG-13	R2678884
L1352225-4 WOLF CREEK #2 - UNTREATED							
Sampled By: ALEX ISHALOOK on 22-AUG-13 @ 10:0	0						
Matrix: WATER SURFACE RAW							
Total Coliform and E.coli							
Total Coliforms	>200		0	MPN/100mL		23-AUG-13	R2678884
Escherichia Coli	11		0	MPN/100mL		23-AUG-13	R2678884

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

L1352225 CONTD....

Reference Information

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Test Method References:

ALS Test Code Matrix Test Description 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.





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	Page	_	_ of	1

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Okoa Kavar

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

Ministère de la Same et des

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:	Arviat, Nu			
Location of sample collection:	Cell ONE (un-treated water) #			
Date of sample collection:	August 22, 2013			
Time of sample collection:	9:45 am			
Name of person who collected sample:	Alex Ishalak			
Telephone number of person who collected sample:	867 857 2860			
For Laborator	ry Use Only			
Date Received:	:			
Date Processed:	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				
Significant Evidence of Bacteriole Sample collected may be unsafe for human co Resample as soon as possible.	ogical Contamination Insumption as bacteriological contamination is present.			
Unsafe to Drink Sample collected is unsafe for human consum Resample as soon as possible.	ption as fecal contamination is present.			

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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Okoa Kav
Ministère de la Santé et des Services Sociaux : 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** 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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Ministère de la Santé et des Services Sociaux : Kivalliq

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

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

Bacteriological Analysis of Drinking Wa' Sample Collection Information Form



Sample Collection Information				
Community from which sample was collected:	ARVIAT KU,			
Location of sample collection:	wolf creek river			
Date of sample collection:	Aug 22/13			
Time of sample collection:	10:05 AM			
Name of person who collected sample:	PAULE Joscenater ruale			
Telephone number of person who collected sample:	PAULE Josemata Juak 867 857 2860			
For Laboratory Use Only				
D . D . 11				

Date Received:

Date Processed:

Processed by:

Results

Total Coliform 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.

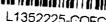
Unsafe to Drink
Sample collected is unsafe for human consumption as fecal contamination is present.

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.



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Okoa Kavania.

Ministère de la Santé et des Services Sociaux : Kıvalliq

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

_						
Commu	nity from which sample was collected:	ARVIAT WU.				
Location of sample collection:		Wolf-creek river				
Date of sample collection:		AUG 27/13				
	Time of sample collection:	10:15 Aal				
	Name of person who collected sample:	Parelie Ismataruck				
Telephone m	umber of person who collected sample:	Paulie Issurataquet				
	For Laboratory Use Only					
Date Received	1:					
Date Processe	d:	Processed by:				
	Resu	lts				
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.