

Nunavut - Community & Government Services

- Rankin Inlet

ATTN: BLAINE CHISLETT / ROB HOGAN

PO Box 490

Rankin Inlet NU X0C 0G0

Date Received: 17-JUL-13

Report Date: 22-JUL-13 15:49 (MT)

Version: FINAL

Client Phone: 867-645-8172

Certificate of Analysis

Lab Work Order #: L1333818

Project P.O. #: NOT SUBMITTED

Job Reference: RANKIN INLET

C of C Numbers: Legal Site Desc:

Craig Riddell 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
 L1333818-1 RANKIN INLET PUMPHOUSE - OLD TO	OWN						
Sampled By: CLIENT on 16-JUL-13 @ 10:30							
Matrix: WATER							
Total Coliform and E.coli							
Total Coliforms	0		0	MPN/100mL		17-JUL-13	R2652199
Escherichia Coli	0		0	MPN/100mL		17-JUL-13	R2652199
L1333818-2 RANKIN INLET PUMPHOUSE - NEW T	ΦWN						
Sampled By: CLIENT on 16-JUL-13 @ 10:30							
Matrix: WATER							
Total Coliform and E.coli							
Total Coliforms	0		0	MPN/100mL		17-JUL-13	R2652199
Escherichia Coli	0		0	MPN/100mL		17-JUL-13	R2652199
L1333818-3 RANKIN INLET PUMPHOUSE - KIVALL	.IIQ						
Sampled By: CLIENT on 16-JUL-13 @ 10:30							
Matrix: WATER							
Total Coliform and E.coli							
Total Coliforms	0		0	MPN/100mL		17-JUL-13	R2652199
Escherichia Coli	0		0	MPN/100mL		17-JUL-13	R2652199
L1333818-4 RANKIN INLET PUMPHOUSE - AREAS	5						
Sampled By: CLIENT on 16-JUL-13 @ 10:30							
Matrix: WATER							
Total Coliform and E.coli							
Total Coliforms	0		0	MPN/100mL		17-JUL-13	R2652199
Escherichia Coli	0		0	MPN/100mL		17-JUL-13	R2652199
L1333818-5 RANKIN INLET PUMPHOUSE - NUVIK							
Sampled By: CLIENT on 16-JUL-13 @ 10:30							
Matrix: WATER							
Total Coliform and E.coli							
Total Coliforms	0		0	MPN/100mL		17-JUL-13	R2652199
Escherichia Coli	0		0	MPN/100mL		17-JUL-13	R2652199
L1333818-6 RANKIN INLET PUMPHOUSE - TOWN	\$UPPLY						
Sampled By: CLIENT on 16-JUL-13 @ 10:30							
Matrix: WATER							
Total Coliform and E.coli							
Total Coliforms	0		0	MPN/100mL		17-JUL-13	R2652199
Escherichia Coli	0		0	MPN/100mL		17-JUL-13	R2652199

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

RANKIN INLET L1333818 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.



Department of Health & Social Services: Kivalliq

Okoa Kavamat Monakhikakvilikiot Olasilikiot : Kivalliq 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) 645-8



Bacteriological Analysis of Dr. 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.