



Nunavut - Community & Government Services  
- Rankin Inlet  
ATTN: CYRIL KUSUGAK  
PO Box 490  
Rankin Inlet NU X0C 0G0

Date Received: 17-JUL-13  
Report Date: 22-JUL-13 15:51 (MT)  
Version: FINAL

Client Phone: 867-462-4093

## Certificate of Analysis

**Lab Work Order #:** L1333857  
**Project P.O. #:** NOT SUBMITTED  
**Job Reference:** REPULSE BAY, NUNAVUT  
**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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1333857-1    REPULSE BAY - HAMLET OFFICE Sampled By:    CYRIL KUSUGAK on 16-JUL-13 @ 11:00 Matrix:        WATER  <b>Total Coliform and E.coli</b> Total Coliforms Escherichia Coli	   0 0		   0 0	   MPN/100mL MPN/100mL		   17-JUL-13 17-JUL-13	   R2652199 R2652199
L1333857-2    REPULSE BAY - PUMPHOUSE (RAW WATER) Sampled By:    CYRIL KUSUGAK on 16-JUL-13 @ 10:30 Matrix:        WATER  <b>Total Coliform and E.coli</b> Total Coliforms Escherichia Coli	   0 0		   0 0	   MPN/100mL MPN/100mL		   17-JUL-13 17-JUL-13	   R2652199 R2652199
L1333857-3    REPULSE BAY - TUSARVIK SCHOOL Sampled By:    CYRIL KUSUGAK on 16-JUL-13 @ 11:15 Matrix:        WATER  <b>Total Coliform and E.coli</b> Total Coliforms Escherichia Coli	   0 0		   0 0	   MPN/100mL MPN/100mL		   17-JUL-13 17-JUL-13	   R2652199 R2652199
L1333857-4    REPULSE BAY - HEALTH CENTER Sampled By:    CYRIL KUSUGAK on 16-JUL-13 @ 10:45 Matrix:        WATER  <b>Total Coliform and E.coli</b> Total Coliforms Escherichia Coli	   0 0		   0 0	   MPN/100mL MPN/100mL		   17-JUL-13 17-JUL-13	   R2652199 R2652199
L1333857-5    REPULSE BAY - WATER TRUCK #2 (THEO) Sampled By:    CYRIL KUSUGAK on 16-JUL-13 @ 11:45 Matrix:        WATER  <b>Total Coliform and E.coli</b> Total Coliforms Escherichia Coli	   0 0		   0 0	   MPN/100mL MPN/100mL		   17-JUL-13 17-JUL-13	   R2652199 R2652199
L1333857-6    REPULSE BAY - WATER TRUCK # (NOAH) Sampled By:    CYRIL KUSUGAK on 16-JUL-13 @ 11:30 Matrix:        WATER  <b>Total Coliform and E.coli</b> Total Coliforms Escherichia Coli	   0 0		   0 0	   MPN/100mL MPN/100mL		   17-JUL-13 17-JUL-13	   R2652199 R2652199

\* Refer to Referenced Information for Qualifiers (if any) and Methodology.

## Reference Information

### 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.*

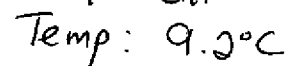
*D.L. - The reporting limit.*

*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.*



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.



Department of Health & Social Services  
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Okoo Kavamat Monakhikakvilikiot Olasiq  
Ministère de la Santé et des Services Sociaux  
Environmental Health Officer  
Bag 72, Rankin Inlet, NU, X0C 0G0  
Phone: (867) 645-8273 Fax: (867) 645-8274

Date rec'd: July 17/13  
Time: 12:00  
by: GH  
Temp: 7.7°C

## Bacteriological Analysis of Drinking Sample Collection Information Form



L1333857-COFC

### Sample Collection Information

Community from which sample was collected:	Repulse Bay
Location of sample collection:	Pump house (Raw Water)
Date of sample collection:	July 16, 2013
Time of sample collection:	10:30 am
Name of person who collected sample:	Cyril Kusugak
Telephone number of person who collected sample:	867 462-4093

### 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.



Temp:  $10.3^{\circ}\text{C}$

1333857-COFC

Community from which sample was collected:	Repulse Bay
Location of sample collection:	Tusarvik School
Date of sample collection:	July 16, 2013
Time of sample collection:	11:15 am
Name of person who collected sample:	Cyril Kusugak
Telephone number of person who collected sample:	867 462-4093

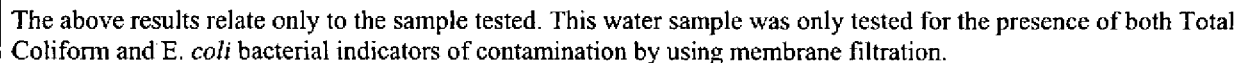
Date Received:	
Date Processed:	Processed by:
<b>Results</b>	
Total Coliform per 100ml:	<i>E. coli</i> per 100ml:
Date Read:	Read by:

- ☐ **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.



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.