YEAR BEING REPORTED: 2022

The following information is compiled pursuant to the requirements of Part B, Item 1 of Water Licence No. **3BM-BAK 1526** issued to the **Municipality of Baker Lake**.

- a. tabular summaries of all data generated under the "Monitoring Program" and an indication of wastewater treatment levels upstream and downstream of the Wetland Area;
 - Appendix A
- b. summary of modifications to the "Monitoring Program" in accordance with Part H, Item 10;
 - None
- c. the daily, monthly, and annual quantities in cubic metres of fresh water obtained at the Water Treatment Facility;

Month Reported	Quantity of Water Obtained from all sources (m ³)	Quantity of Sewage Waste Discharged (m³)
January	6618.717	Same
February	6201.170	Same
March	6705.525	Same
April	6217.021	Same
May	6549.826	Same
June	6036.070	Same
July	6,228.374	Same
August	6859.895	Same
September	6558.074	Same
October	6780.970	Same
November	6,313.793	Same
December	6,326.10	Same
ANNUAL TOTAL	87,486.804	Same

Note: The monthly sewage discharge volume is assumed to be equal to the monthly water consumption volume.

- d. the annual quantity in cubic metres and tonnes of sludge removed from the Sewage Disposal Facility along with the treatment, storage, and disposal provided as required in Part H Item 5;
 - No sludge removal was done in 2022.
- e. a summary of modifications and/or major maintenance work carried out on the Water Treatment and Waste Disposal Facilities, including all associated structures and facilities;
 - Interim repairs took place for the water supply intake pipe in summer 2022.
- f. a list of unauthorized discharges and summary of follow-up action taken;
 - No spills were associated with infrastructure under this licence.
- g. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
 - Due to freeze up of water supply intake pipe, a new heat trace line will be installed in summer 2023 which will include the repair of one of the intake pipes, replacement of submersible pumps and removal of redundant pipes from the lake bottom.
- h. any updates or revisions for manuals and plans (i.e., *Operations and Maintenance Manual*) as required by changes in operation and/or technology, may be subject to Board approval;
 - None
- i. detailed minutes of any public consultation and participation with local organizations and the residents of the community regarding licence amendments;
 - None
- j. a summary of any studies or reports requested by the Board that relate to water use and waste disposal or restoration, and a brief description of any future studies planned;

- Baker Lake submitted an application for landfill expansion to NPC. NWB indicated that it is considered a modification and an amendment application was not required. A 60-day notification will be provided prior to the expansion in 2023. It is anticipated that the Solid Waste Management Operations and Maintenance Plan will be updated and submitted in 2023, including stamped as-built drawings once the work is complete.
- Baker Lake has submitted request for use of Old Landfill Site for metal scraps for community use. Site plan will be included with above documents and the O&M Plan will be updated accordingly.
- Wetland assessment for new Sewage Lagoon is anticipated to take place summer 2023 to support the ongoing planning. Planning is expected to be completed in 23/24, at which point funding will be requested to proceed with detailed design in 2025/26.
- k. any other details on water use or waste disposal requested by the Board by 1st of November of the year being reported; and
 - None
- The monthly and annual quantities in cubic metres of backwash water disposed of at the Sewage Disposal Facility.
 - Estimate of 249.6m3 384m3 per month and 3,244.8m3 4,992m3 per year
- m. follow-up regarding inspection/compliance concerns:

CIRNAC Inspection September 15, 2022

- Part B Item 4, the licensee shall post necessary signs to identify monitoring stations. Part D Item 3, the licensee shall maintain a free board of 1m at all dams, dykes, or structures intended to withhold, divert or retain water or waste.

The licensee shall: 1. prepare and install signage; 2. Ensure a freeboard of 1m at all dams, dykes, or structures intended to withhold, or retain water or waste

No follow up inspection took place, however a project to increase the lagoon capacity such that freeboard will be maintained is underway. The upgraded facility will also have all necessary signage.

ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

Water Licensing Sampling Points:



BAK-2: Runoff from the Waste Disposal Facilities just prior to the inlet to Airplane Lake, prior to the culvert

- BAK-3: Outlet of Airplane Lake at water's edge
- BAK-4: Runoff from the Solid Waste Disposal Facilities prior to Finger Lake
- BAK-5: Finger Lake at outlet of Wetland

Appendix A: BAK-5 Effluent Quality Limits – evidence of bottle shortage

Appendix B: CIRNAC Inspection reports

ANNUAL REPORT

FOR THE HAMLET OF BAKER LAKE

Appendix A

ANNUAL REPORT

FOR THE HAMLET OF BAKER LAKE

3BM-BAK1526 Baker Lake Monitoring Program Results 2022 BAK-5 Effluent Quality limits

No sampling occurred in 2022 as there was a bottle shortage from the laboratory.

Parameter	Maximum Concentration of any grab sample	BAK-5
BOD_5	80 mg/L	
Total Suspended Solids	100 mg/L	
Fecal Coliforms	1 x 10 ⁴ CFU/100mL	
Oil & Grease	no visible sheen	
pН	between 6 and 9	

From: <u>Muckpah-Gavin, Megan</u>
To: <u>Duncan, Caroline</u>

Subject: FW: Nunavut Communities - Waste Water Coolers - 7 communities - sampling bottle order - Arviat, Naujaat,

Whale Cove, Coral Harbour, Chesterfield Inlet, Baker Lake, Rankin Inlet & Rankin CGS

Date: March 7, 2023 10:30:01 AM

Attachments: <u>image013.png</u>

image014.png image015.png image016.png

From: Craig Riddell < Craig. Riddell @ ALSGlobal.com>

Sent: June 14, 2022 5:22 PM

To: Muckpah-Gavin, Megan < MGavin@GOV.NU.CA>

Cc: Lusty, Megan < MLusty@GOV.NU.CA>

Subject: RE: Nunavut Communities - Waste Water Coolers - 7 communities - sampling bottle order - Arviat, Naujaat, Whale Cove, Coral Harbour, Chesterfield Inlet, Baker Lake, Rankin Inlet & Rankin CGS

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I will try to get these out on Calm Air this week.



Craig Riddell

Project Manager, Winnipeg Environmental

Canada

O: +204-255-9755

craig.riddell@alsglobal.com

Unit 12 - 1329 Niakwa Road East

Winnipeg, MB,

R2J 3T4

alsglobal.com







EnviroMail 31 Update - Climate Change and Sustainability Action and Outcomes at ALS Canada

EnviroMail 37 - In Vitro Bioaccessibility of Lead and Arsenic in Soil

EnviroMail 36 - Ion Balance: Data Quality Validation for Metals & Anions in Waters

EnviroMail 00 - Summary of all EnviroMails Canada

How was your ALS experience?

From: Muckpah-Gavin, Megan < MGavin@GOV.NU.CA>

Sent: Tuesday, June 14, 2022 4:12 PM

To: Craig Riddell < <u>Craig.Riddell@ALSGlobal.com</u>>

Cc: Lusty, Megan < MLusty@GOV.NU.CA>

Subject: Nunavut Communities - Waste Water Coolers - 7 communities - sampling bottle order - Arviat, Naujaat, Whale Cove, Coral Harbour, Chesterfield Inlet, Baker Lake, Rankin Inlet & Rankin CGS

Hey Craig,

Would it be possible to expedite the shipment of Cooler 1 into each community?

Thanks,



Megan Muckpah-Gavin

Municipal Technical Officer,

Community & Government Services

Phone 867-645-8120

Email mgavin@gov.nu.ca

From: Craig Riddell < <u>Craig.Riddell@ALSGlobal.com</u>>

Sent: June 14, 2022 2:47 PM

To: Muckpah-Gavin, Megan < MGavin@GOV.NU.CA>

Cc: Lusty, Megan < MLusty@GOV.NU.CA>

Subject: RE: [EXTERNAL] - RE: WLM sampling bottle order

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Our shipping dept is backlogged, These have not yet been sent.



Craig Riddell Project Manager , Winnipeg Environmental

Canada

O: +204-255-9755

<u>craig.riddell@alsglobal.com</u> Unit 12 - 1329 Niakwa Road East Winnipeg, MB,

R2J 3T4

alsqlobal.com







EnviroMail 31 Update - Climate Change and Sustainability Action and Outcomes at ALS Canada

EnviroMail 37 - In Vitro Bioaccessibility of Lead and Arsenic in Soil

EnviroMail 36 - Ion Balance: Data Quality Validation for Metals & Anions in Waters

EnviroMail 00 - Summary of all EnviroMails Canada

How was your ALS experience?

From: Muckpah-Gavin, Megan < MGavin@GOV.NU.CA>

Sent: Tuesday, June 14, 2022 2:30 PM

To: Craig Riddell < <u>Craig.Riddell@ALSGlobal.com</u>>

Cc: Lusty, Megan < MLusty@GOV.NU.CA >

Subject: [EXTERNAL] - RE: WLM sampling bottle order

CAUTION: This email originated from outside of ALS. Do not click links or open attachments unless you recognize the sender and are sure content is relevant to you.

Good afternoon Craig,

Can you please confirm if these bottles were sent?

Thanks!



Megan Muckpah-Gavin

Municipal Technical Officer,

Community & Government Services

Phone 867-645-8120

From: Muckpah-Gavin, Megan Sent: May 24, 2022 9:24 AM

To: Craig Riddell < <u>Craig.Riddell@ALSGlobal.com</u>>

Cc: Lusty, Megan < <u>MLusty@GOV.NU.CA</u>> **Subject:** WLM sampling bottle order

Good morning Craig,

Hope you enjoyed your long weekend! Can you please send Wastewater sampling bottles to the following communities via Canada Post? Please have the bottles labelled as documented on the attached CoC Forms if possible.

Group 1 Bottle Set

BOD (1 x 500 mL Plastic)
Routine (1 x 500 mL Plastic)
CBOD (1 x 500 mL Plastic)
Total Metals Analysis (1 x 60 mL Plastic)
Mercury (1 x 40 mL Clear Glass)
Nutrients & Phenols (2 x 100 mL Amber Glass)
Bacteria (1 x 250 mL Plastic)
Oil and Grease (2 x 250 mL Amber Glass)

Group 2 Bottle Set

BTEX-F1 (3 x 40 mL Clear Glass) F2-F4 (2 x 100 mL Amber Glass) PAH (2 x 100mL Amber Glass)

• Hamlet of Arviat - Account W10578

<u>Cooler 1:</u> 5 sets of Group 1; 3 sets of Group 2 <u>Cooler 2</u>: 4 sets of Group 1; 3 sets of Group 2 <u>Cooler 3:</u> 4 sets of Group 1; 3 sets of Group 2 <u>Cooler 4</u>: 4 sets of Group 1; 3 sets of Group 2

Shipping address: Hamlet of Arviat

Attn: Laura Tassiuk

P.O. Box 150

Arviat, NU

XOC OHO

Phone: 867-857-2841

• Hamlet of Naujaat - Account W10624

Cooler 1: 4 sets of Group 1; 3 sets of Group 2

Cooler 2: 4 sets of Group 1; 3 sets of Group 2

Cooler 3: 4 sets of Group 1; 3 sets of Group 2

Shipping address: Hamlet of Naujaat

Attn: Kevin Tegumiar

P.O. Box 10

Naujaat, NU

XOC OHO

Phone: 867-462-9952

• Hamlet of Whale Cove - Account W10623

Cooler 1: 3 sets of Group 1; 1 set of Group 2

Cooler 2: 3 sets of Group 1; 1 set of Group 2

Cooler 3: 3 sets of Group 1; 1 set of Group 2

Shipping address: Hamlet of Whale Cove

Attn: Stanley Adjuk

P.O. Box 120

Whale Cove, NU

XOC 0J0

Phone: 867-896-9961

• Hamlet of Coral Harbour - Account W10622

Cooler 1: 5 sets of Group 1; 2 sets of Group 2

Cooler 2: 5 sets of Group 1; 2 sets of Group 2

Cooler 3: 5 sets of Group 1; 2 sets of Group 2

Shipping address: Hamlet of Coral Harbour

Attn: Darryl Nakoolak

P.O. Box 30

Coral Harbour, NU

XOC OCO

Phone: 867-925-8970

• Hamlet of Chesterfield Inlet - Account W10621

Cooler 1: 4 sets of Group 1; 1 set of Group 2

Cooler 2: 4 sets of Group 1; 1 set of Group 2

Cooler 3: 4 sets of Group 1; 1 set of Group 2

Cooler 4: 4 sets of Group 1; 1 set of Group 2

Shipping address: Hamlet of Chesterfield Inlet

<mark>Attn: Don Tanuyak</mark>

P.O. Box 10

Chesterfield Inlet, NU

XOC OBO

Phone: 867-898-9939

• Hamlet of Baker Lake - Account W10567

Cooler 1: 4 sets of Group 1; 1 set of Group 2

<u>Cooler 2</u>: 1 set of Group 1 <u>Cooler 3</u>: 1 set of Group 1

Shipping address: Hamlet of Baker Lake

Attn: Sheldon Dorey

P.O. Box 149 Baker Lake, NU XOC 0A0

Phone: 867-793-2874

• Hamlet of Rankin Inlet - Account W10629

<u>Cooler 1</u>: 1 set of Group 1; 1 set of Group 2 <u>Cooler 2</u>: 1 set of Group 1; 1 set of Group 2 <u>Cooler 3</u>: 1 set of Group 1; 1 set of Group 2

Shipping address: Hamlet of Rankin Inlet

Attn: Troy Aksalnik P.O. Bag 310

Rankin Inlet, NU

XOC OGO

Phone: 867-645-6467

• Rankin Inlet – GN-CGS - Account W8133

<u>Cooler 1</u>: 2 sets of Group 1; 2 sets of Group 2 6 extra bottle sets for both Group 1 & 2

Shipping address: Rankin Inlet – GN-CGS

ATTN: Megan Muckpah-Gavin

P.O. Box 490 Rankin Inlet, NU

X0C 0G0

Phone: 867-645-8120

Thanks!



Megan Muckpah-Gavin

Municipal Technical Officer,

Community & Government Services

Phone 867-645-8120

Email mgavin@gov.nu.ca

From: <u>Muckpah-Gavin, Megan</u>
To: <u>Duncan, Caroline</u>

Subject: FW: Kivalliq Communities - Waste Water Sample bottles BR373546 Arviat , BR373553 Naujaat , BR373555 Whale Cove , BR373560 Coral Harbour, BR373566 Chesterfield Inlet, BR373567 Baker Lake , BR373570 Rankin Inlet - BR373571 Nuavut CGS Rankin Inlet

Date: March 7, 2023 10:32:46 AM

Attachments: <u>image002.png</u>

image006.png image007.png image010.png image011.png image012.png

Again.. I never received any shipments last year

From: Craig Riddell < Craig. Riddell @ ALSGlobal.com>

Sent: October 12, 2022 12:57 PM

To: Muckpah-Gavin, Megan <MGavin@GOV.NU.CA>; ALSWP Shipping <ALSWP.Shipping@ALSGlobal.com>

Cc: Chalmers, Elan < EChalmers@gov.nu.ca>

Subject: Kivalliq Communities - Waste Water Sample bottles BR373546 Arviat , BR373553 Naujaat , BR373555 Whale Cove , BR373560 Coral Harbour, BR373566 Chesterfield Inlet, BR373567 Baker Lake , BR373570 Rankin Inlet - BR373571 Nuavut CGS Rankin Inlet

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Megan,

I will have shipping send out these orders to the seven hamlets and yourself for the waste water – the drinking water was sent previously .

Arviat BR373546 Naujaat BR373553 Whale Cove BR373555 Coral Harbour BR373560 Chesterfield Inlet BR373566 Baker Lake BR373567 Rankin Inlet BR373570

Nunavut CGS - Rankin Inlet W8133 BR373571



right solutions. right partner. Craig Riddell Project Manager - Winnipeg

Canada

O: +1 204 255 9720 D: +1 204 255 9755

Craig.riddell@alsglobal.com ALS Laboratories - Winnipeg Unit 12 - 1329 Niakwa Rd East Winnipeg, MB, R2J 3T4

alsglobal.com





WORKING TOWARD A BETTER WORLD

Sustainability report 2022

alsglobal.com



Environail 40 - Simplifying RBCA Hydrocarbon Testing with Sample Miniaturization & Contaminant ID Tools

Enviromail 39 - Biogas and Renewable Natural Gas Characterization

EnviroMail 38 - Subcontractor Safety Performance Reporting and Positive Performance Indicators

EnviroMail 00 - Summary of all EnviroMails Canada

How was your ALS experience?

From: Muckpah-Gavin, Megan < MGavin@GOV.NU.CA>

Sent: Wednesday, October 12, 2022 8:57 AM **To:** Craig Riddell < <u>Craig.Riddell@ALSGlobal.com</u>> **Cc:** Chalmers, Elan < <u>EChalmers@gov.nu.ca</u>>

Subject: RE: [EXTERNAL] - DWC/WLM Sample bottles

Good morning, Craig,

Just wondering if these bottles were ever sent up yet as we'd like to get at least one set done before the freezeup. Please let me know if any has been sent.

Regards,



Megan Muckpah-Gavin

Municipal Technical Officer, Community & Government Services

Phone 867-645-8120
Email mgavin@gov.nu.ca

From: Muckpah-Gavin, Megan **Sent:** September 29, 2022 2:07 PM

To: 'Craig Riddell' < <u>Craig.Riddell@ALSGlobal.com</u>> **Cc:** Chalmers, Elan < <u>EChalmers@gov.nu.ca</u>>

Subject: RE: [EXTERNAL] - DWC/WLM Sample bottles

Hello,

Just following up on the status of shipping these bottles up that I had ordered back in May in another email chain. If possible we can expedite the shipments for the Wastewater sampling to cooler 1 into each community and then following the rest of coolers.



Megan Muckpah-Gavin
Municipal Technical Officer,
Community & Government Services

Phone 867-645-8120 Email mgavin@gov.nu.ca

From: Muckpah-Gavin, Megan Sent: August 8, 2022 1:21 PM

To: Craig Riddell < <u>Craig.Riddell@ALSGlobal.com</u>> **Cc:** Chalmers, Elan < <u>EChalmers@gov.nu.ca</u>>

Subject: FW: [EXTERNAL] - DWC/WLM Sample bottles

Good Afternoon Craig,

Hope you had a great weekend. I am just following up on the sampling bottles I had ordered back in May. Just checking in to see if any has been sent or not. This is for both Water Chemistry sampling and Water License Monitoring for all Kivalliq Communities shown below. Any information on shipping or estimated shipping would be greatly appreciated

Can you please send Water Chemistry sample bottles to the following communities via Calm air Cargo using shipping account 922551. Please also have the bottles pre-labelled, if possible, as documented below.

- Arviat 4 bottle sets of Water Chemistry, including THM and HAA for the treated water sample. (Labels: Raw Cell 1; Raw Cell 2; Raw Cell 3; Treated Water)
- Additional bottles: Dissolved metals, Cyanide, Mercury vial, BT, 2X F1-F4 Petroleum Hydrocarbon, 2X Amber PAH bottles (Raw & Treated)

<u>Shipping address</u>: <u>Arviat – GN CGS</u>

ATTN: Ukkualuk Karetak

P.O Box 278 Arviat, NU XOC 0E0

PH: 867-857-2860

- **Baker Lake** 2 bottle sets of Water Chemistry, including THM and HAA for the treated water sample. (Labels: Raw Water; Treated Water)
- Additional bottles: Dissolved metals, Cyanide, Mercury vial, BT, 2X F1-F4 Petroleum Hydrocarbon, 2X Amber PAH bottles (Raw & Treated)

Shipping address: Baker Lake – GN CGS

ATTN: Greg MacDonald

P.O Box 309

Baker Lake, NU

XOC 0A0 PH: 867-793-2744

• **Chesterfield Inlet** – 2 bottle sets of Water Chemistry, including THM and HAA for the treated water sample. (Labels: Raw Water; Treated Water)

• Additional bottles: Dissolved metals, Cyanide, Mercury vial, BT, 2X F1-F4 Petroleum Hydrocarbon, 2X Amber PAH bottles (Raw & Treated)

Shipping address: Hamlet of Chesterfield Inlet

ATTN: Don Tanuyak

P.O. Box 10

Chesterfield Inlet, NU

XOC OBO

PH: 867-898-9926

• **Coral Harbour** - 2 bottle sets of Water Chemistry, including THM and HAA for the treated water sample. (Labels: Raw Water; Treated Water)

• Additional bottles: Dissolved metals, Cyanide, Mercury vial, BT, 2X F1-F4 Petroleum Hydrocarbon, 2X Amber PAH bottles (Raw & Treated)

Shipping address: Hamlet of Coral Harbour

ATTN: Darryl Nakoolak

Coral Harbour, NU

P.O. Box 30

X0C 0C0

PH: 867-925-8970

- Naujaat 2 bottle sets of Water Chemistry, including THM and HAA for the treated water sample. (Labels: Raw Water; Treated Water)
- Additional bottles: Dissolved metals, Cyanide, Mercury vial, BT, 2X F1-F4 Petroleum Hydrocarbon, 2X Amber PAH bottles (Raw & Treated)

<u>Shipping address</u>: <u>Naujaat – GN CGS</u>

ATTN: Cyril Kusugak

Naujaat, NU XOC OHO

PH: 867-462-4093

- Rankin Inlet 2 bottle sets of Water Chemistry, including THM and HAA for the treated water sample. (Labels: Raw Water; Treated Water)
- Additional bottles: Dissolved metals, Cyanide, Mercury vial, BT, 2X F1-F4 Petroleum Hydrocarbon, 2X Amber PAH bottles (Raw & Treated)

<u>Shipping address</u>: Rankin Inlet – GN CGS

ATTN: Steve Fitzpatrick

P.O Box 490

Rankin Inlet, NU

X0C 0G0

PH: 867-645-8172

• Whale Cove – 2 bottle sets of Water Chemistry, including THM and HAA for the treated water sample.

(Labels: Raw Water; Treated Water)

• Additional bottles: Dissolved metals, Cyanide, Mercury vial, BT, 2X F1-F4 Petroleum Hydrocarbon, 2X Amber PAH bottles (Raw & Treated)

Shipping address: Whale Cove – GN CGS

ATTN: Paul Voisey P.O Box 96 Whale Cove, NU XOC 0J0

PH: 867-896-9305

Water License Monitoring

VIA Canada Post

Group 1 Bottle Set

BOD (1 x 500 mL Plastic)
Routine (1 x 500 mL Plastic)
CBOD (1 x 500 mL Plastic)
Total Metals Analysis (1 x 60 mL Plastic)
Mercury (1 x 40 mL Clear Glass)
Nutrients & Phenols (2 x 100 mL Amber Glass)
Bacteria (1 x 250 mL Plastic)
Oil and Grease (2 x 250 mL Amber Glass)

Group 2 Bottle Set

BTEX-F1 (3 x 40 mL Clear Glass) F2-F4 (2 x 100 mL Amber Glass) PAH (2 x 100mL Amber Glass)

• Hamlet of Arviat - Account W10578

Cooler 1: 5 sets of Group 1; 3 sets of Group 2 Cooler 2: 4 sets of Group 1; 3 sets of Group 2 Cooler 3: 4 sets of Group 1; 3 sets of Group 2 Cooler 4: 4 sets of Group 1; 3 sets of Group 2

Shipping address: Hamlet of Arviat

Attn: Laura Tassiuk P.O. Box 150 Arviat, NU XOC 0H0

Phone: 867-857-2841

• Hamlet of Naujaat - Account W10624

<u>Cooler 1</u>: 4 sets of Group 1; 3 sets of Group 2 <u>Cooler 2</u>: 4 sets of Group 1; 3 sets of Group 2 <u>Cooler 3</u>: 4 sets of Group 1; 3 sets of Group 2

Shipping address: Hamlet of Naujaat

Attn: Kevin Tegumiar

P.O. Box 10

Naujaat, NU

XOC OHO

Phone: 867-462-9952

• Hamlet of Whale Cove - Account W10623

Cooler 1: 3 sets of Group 1; 1 set of Group 2

Cooler 2: 3 sets of Group 1; 1 set of Group 2

Cooler 3: 3 sets of Group 1; 1 set of Group 2

Shipping address: Hamlet of Whale Cove

Attn: Stanley Adjuk

P.O. Box 120

Whale Cove, NU

XOC 0J0

Phone: 867-896-9961

• Hamlet of Coral Harbour - Account W10622

Cooler 1: 5 sets of Group 1; 2 sets of Group 2

Cooler 2: 5 sets of Group 1; 2 sets of Group 2

Cooler 3: 5 sets of Group 1; 2 sets of Group 2

Shipping address: Hamlet of Coral Harbour

Attn: Darryl Nakoolak

P.O. Box 30

Coral Harbour, NU

XOC OCO

Phone: 867-925-8970

• Hamlet of Chesterfield Inlet - Account W10621

Cooler 1: 4 sets of Group 1; 1 set of Group 2

Cooler 2: 4 sets of Group 1; 1 set of Group 2

Cooler 3: 4 sets of Group 1; 1 set of Group 2

Cooler 4: 4 sets of Group 1; 1 set of Group 2

Shipping address: Hamlet of Chesterfield Inlet

Attn: Don Tanuyak

P.O. Box 10

Chesterfield Inlet, NU

XOC OBO

Phone: 867-898-9939

• Hamlet of Baker Lake - Account W10567

Cooler 1: 4 sets of Group 1; 1 set of Group 2

<u>Cooler 2</u>: 1 set of Group 1 <u>Cooler 3</u>: 1 set of Group 1

Shipping address: Hamlet of Baker Lake

Attn: Sheldon Dorey

P.O. Box 149

Baker Lake, NU

XOC OAO

Phone: 867-793-2874

• Hamlet of Rankin Inlet - Account W10629

<u>Cooler 1</u>: 1 set of Group 1; 1 set of Group 2 <u>Cooler 2</u>: 1 set of Group 1; 1 set of Group 2 <u>Cooler 3</u>: 1 set of Group 1; 1 set of Group 2

Shipping address: Hamlet of Rankin Inlet

Attn: Troy Aksalnik P.O. Bag 310 Rankin Inlet, NU

XOC OGO

Phone: 867-645-6467

• Rankin Inlet – GN-CGS - Account W8133

Cooler 1: 2 sets of Group 1; 2 sets of Group 2

6 extra bottle sets for both Group 1 & 2

<u>Shipping address</u>: Rankin Inlet – GN-CGS

ATTN: Megan Muckpah-Gavin

P.O. Box 490 Rankin Inlet, NU

X0C 0G0

Phone: 867-645-8120

Take Care,



Megan Muckpah-Gavin
Municipal Technical Officer,
Community & Government Services

Phone 867-645-8120 Email mgavin@gov.nu.ca

From: Craig Riddell < Craig.Riddell@ALSGlobal.com>

Sent: July 6, 2022 3:47 PM

To: Muckpah-Gavin, Megan < MGavin@GOV.NU.CA> **Subject:** RE: [EXTERNAL] - DWC/WLM Sample bottles

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

HI Megan,

I am sorry, they have not yet been sent.



Craig Riddell
Project Manager , Winnipeg Environmental

O: +204-255-9755

craig.riddell@alsglobal.com Unit 12 - 1329 Niakwa Road East Winnipeg, MB, R2J 3T4

alsglobal.com







EnviroMail 31 Update - Climate Change and Sustainability Action and Outcomes at ALS Canada

EnviroMail 37 - In Vitro Bioaccessibility of Lead and Arsenic in Soil

EnviroMail 36 - Ion Balance: Data Quality Validation for Metals & Anions in Waters

EnviroMail 00 - Summary of all EnviroMails Canada

How was your ALS experience?

From: Muckpah-Gavin, Megan < MGavin@GOV.NU.CA>

Sent: Wednesday, July 6, 2022 1:43 PM

To: Craig Riddell < <u>Craig.Riddell@ALSGlobal.com</u>> **Subject:** [EXTERNAL] - DWC/WLM Sample bottles

CAUTION: This email originated from outside of ALS. Do not click links or open attachments unless you recognize the sender and are sure content is relevant to you.

Good afternoon Craig,

I am sure you are aware that I have ordered Water Chemistry sampling bottles and Water Licence Monitoring sampling bottles end of May/Early June. Can you please confirm if those bottles were sent to the Kivalliq communities? Any information would be greatly appreciated

Have a great day!



Megan Muckpah-Gavin
Municipal Technical Officer,
Community & Government Services

Phone 867-645-8120 Email mgavin@gov.nu.ca From: Muckpah-Gavin, Megan Duncan, Caroline To:

Subject: FW: [EXTERNAL] - DWC/WLM Sample bottles

Date: March 7, 2023 10:31:04 AM

Attachments: image002.png

image003.png image004.png image005.png

Again...

From: Craig Riddell < Craig. Riddell @ ALSGlobal.com>

Sent: July 6, 2022 3:47 PM

To: Muckpah-Gavin, Megan < MGavin@GOV.NU.CA> Subject: RE: [EXTERNAL] - DWC/WLM Sample bottles

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

HI Megan,

I am sorry, they have not yet been sent.



Craig Riddell

Project Manager, Winnipeg Environmental

Canada

O: +204-255-9755

craig.riddell@alsglobal.com

Unit 12 - 1329 Niakwa Road East Winnipeg, MB, R2J 3T4

alsglobal.com







EnviroMail 31 Update - Climate Change and Sustainability Action and Outcomes at ALS Canada

EnviroMail 37 - In Vitro Bioaccessibility of Lead and Arsenic in Soil

EnviroMail 36 - Ion Balance: Data Quality Validation for Metals & Anions in Waters

EnviroMail 00 - Summary of all EnviroMails Canada

How was your ALS experience?

From: Muckpah-Gavin, Megan < MGavin@GOV.NU.CA>

Sent: Wednesday, July 6, 2022 1:43 PM

To: Craig Riddell < <u>Craig.Riddell@ALSGlobal.com</u>> **Subject:** [EXTERNAL] - DWC/WLM Sample bottles

CAUTION: This email originated from outside of ALS. Do not click links or open attachments unless you recognize the sender and are sure content is relevant to you.

Good afternoon Craig,

I am sure you are aware that I have ordered Water Chemistry sampling bottles and Water Licence Monitoring sampling bottles end of May/Early June. Can you please confirm if those bottles were ever sent to the Kivalliq communities? Any information would be greatly appreciated

Have a great day!



Megan Muckpah-Gavin
Municipal Technical Officer,
Community & Government Services

Phone 867-645-8120 Email mgavin@gov.nu.ca

ANNUAL REPORT

FOR THE HAMLET OF BAKER LAKE

Appendix B



WATER LICENCE INSPECTION FORM

\boxtimes	Original	
	Follow-U	Repor

Licensee			Licensee Representative		
Hamlet of Baker	Lake		Sheldon Dorey		
Licence No. / Expiry			Representative's Title		
3BM-BAK1526/D	December 6, 20	26	Senior Administra	ative Officer	
Date of Inspection			Inspector		
September 15, 2	.022		WRO. K AMSEL		
Activities Inspected					
. —	☐ Drilling ☑ Other: Municipal Under	☐ Mining	☐ Construction☐ Other:	Reclamation	☐ Fuel Storage

SECTION 1	Comments (s.)	Non-Compliance with Act or Licence (s)	Action Required (s)
SECTION 1	Comments (s)		Action Required (5

On September 15, 2022 Water Resource Officer Kyle Amsel (Inspector) of Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) conducted an Inspection of Water Licence 3BM-BAK1526 (Licence). The Licence is issued to the Hamlet of Baker Lake for the use of water and deposit of waste for a Municipal Undertaking.

This regularly scheduled Inspection was conducted to ensure compliance with the applicable terms and conditions of the Licence and the Nunavut Waters and Nunavut Surface Rights Tribunal Act.

Accompanying the Inspector was, Senior Administrative Officer Sheldon Dorey and Community and Government Services representative Municipal Technical Officer Megan Makpah-Gavin. The aforementioned are here on referred to as Representatives.

Preliminary Information

The annual report was available for review as required under Part B Item 1 of the Licence.

Observations

- 1. Fresh water intake facilities (BAK-1)
 - a. A pump operator familiar with the facility verified a screen is installed on the fresh water intake located in Baker Lake satisfying Part B Item 3 of the Licence.
 - b. A flow meter is installed on the raw water intake (photo 1). Representatives were not sure if the reader measured total volume. At 1523hrs a separate electronic system read 63,790.0, though no unit of volume was on the display and the pump operator indicated that the system resets during a power outage. This box was labelled "FT00"
 - No sign was observed denoting "BAK-1" which is non-compliant with Part B Item 4 of the Licence.
 - d. As of September 23, 2022 water usage totalled 36,678m³.
- 2. Solid Waste Disposal Facility (SWDF)
 - a. The SWDF is well maintained and surrounded by fencing which contains the waste within (photo 2).
 - b. Representatives stated a full time dump monitor has been employed by the Hamlet.
 - c. Representatives are hoping to remove scrap steel from the SWDF next sealift season.
 - d. Household garbage is restricted to the East end of the SWDF.
 - e. Appliances, waste oil, batteries, etc are all segregated satisfying Part D Item 7 of the Licence. The volume of waste oil, batteries and propane tanks is negligible due to a good backhaul program. (photo 3)
 - Representatives stated a waste oil container is typically left outside the SWDF for after hours deposit of waste oil by the community.
- 3. Sewage Facilities
 - a. The sewage facilities use a berm structure to capture sewage as it is deposited by pump truck. The freeboard of this structure was estimated at 15cm. This is non-compliant with Part D Item 3 of the licence. (photo 4)
 - b. Last point of control is near the SWDF. It appears the berm may have been breached at some point. Additional culvert installed and washout repaired with large rock.
- 4. Generally
 - a. No sampling station signs were observed. This is non-compliant with Part B Item 4 of the Licence.

On September 16, 2022 the Inspector took compliance samples at BAK-5. Coordinate N64^o 19' 47.1' W95^o 59' 49.7" at 1540hrs. The samples were shipped to analyse for BOD, TSS and Fecal Coliforms. A pH strip was used at BAK-5, and resulted in a reading of



Crown-Indigenous Relations and Northern Affairs Canada	Relations Couronne-Autochtones et Affaires du Nord Canada

approximately 6. Test results for BOD and TSS were within criteria	a, Fecal Coliforms results were inconclus	sive. (appendix A)
SECTION 2 Comments (s) Non-Comp	liance with Act or Licence (s.2)	Action Required (s)
Licence		
- Part B Item 4, the Licensee shall post necessary signs to	identify monitoring stations.	
- Part D Item 3, the licensee shall maintain a freeboard of	1m at all dams, dykes, or structures inte	ended to withhold, divert o
retain water or waste.		
SECTION 3 Comments (s) Non-Comp	liance with Act or Licence, (s)	Action Required (s.3)
The licensee shall:		
 Prepare and Install signage. 		
 Ensure a freeboard of 1m at all dams, dykes, or structure 	es intended to withhold, divert or retain	water or waste.
Licence Notification		
1. The sampling stations BAK-2 to BAK-5 for the Baker Lake		
provided by the Representatives. Also, representatives p		
BAK-2 and BAK-3 switched from that stated per Part H It	em 1 of the Licence. The Inspector took	GPS coordinates and
photographs at BAK-2 to BAK-5 and is hereby advising the	ne Representatives and the Nunavut Wa	ter Board of these changes
as follows:		
a. BAK-2 N64 ⁰ 19' 14.8" W95 ⁰ 58' 29.6", this samp	le point is defined in Part H Item 1 of the	e Licence as "Runoff from
the Sewage and Solid Waste Disposal Facilities j	ust prior to the inlet to Airplane Lake, p	rior to the culvert". The
point has been moved to the downstream end	of the culvert to improve longevity of th	e signage and provide a
safer location for sampling without affecting mo	onitoring objectives. (photo 5).	
b. BAK-3 N64 ⁰ 18′ 59.5′ W95 ⁰ 58′ 30.7″, (photo 6).		
c. BAK-4 N64 ⁰ 19' 42.8" W95 ⁰ 59' 37.9" (photo 7&	8) This location is at a small culvert at th	ne lowest point in the
SWDF.		
d. BAK-5 N64 ⁰ 19' 47.1' W95 ⁰ 59' 49.7" (photo 9)		
Lineary or Decrease telling	Lucius aka da Maria	
Licensee or Representative	Inspector's Name WRO K Amsel	
Sheldon Dorey		
Signature	Signature	
Date	13/1 1/11	



Office Use Only:	Follow-up report to be issued by Inspector	☐ Yes ☒ No





Crown-Indigenous Relations and Northern Affairs Canada

 PHOTO LOG

 Date:
 Authorization Number:
 Camera/Model:
 Inspector

 September 15, 2022
 3BM-BAK1526
 Galaxy S9
 WRO K AMSEL

 Photo No.

 Lat/Long (DD.MM.SS.SS, NAD83)

 Photo 1
 No Available





Water flow meter installed at freshwater facilities BAK-1.





Date:	Authorization Number:	Camera/Model:	Inspector
September 15, 2022	3BM-BAK1526	Galaxy S9	WRO K AMSEL
Photo No.		Lat/Long (DD.MM.SS.SS, NAD83)	
Photo 2		No Available	
		ABS IN A SECOND	
			40.0
Description			
Description: Solid Waste Disposal Facilities s	orrounded by fencing.		





Date:Authorization Number:Camera/Model:InspectorSeptember 15, 20223BM-BAK1526Galaxy S9WRO K AMSELPhoto No.Lat/Long (DD.MM.SS.SS, NAD83)Photo 3



Description:

Extent of all hazardous materials at the Solid Waste Disposal Facilities.





ite:	Authorization Number:	Camera/Model:	Inspector
ptember 15, 2022	3BM-BAK1526	Galaxy S9	WRO K AMSEL
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Description:

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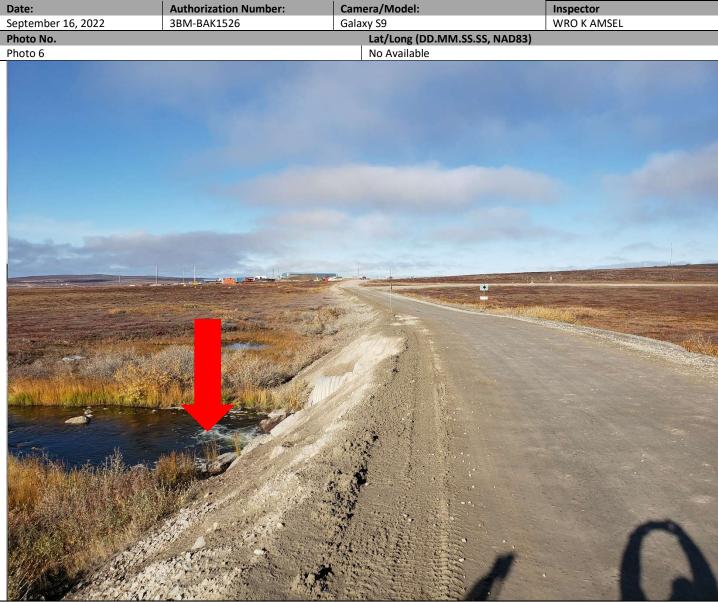
Sewage outfall facilities. Bermed sewage lagoon in center/left of photo. Berm has minimal freeboard. Wetland sewage treatement area in



Authorization Number: Camera/Model: Inspector 3BM-BAK1526 WRO K AMSEL September 16, 2022 Galaxy S9 Photo No. Lat/Long (DD.MM.SS.SS, NAD83) No Available Photo 5 New Location of BAK-2, arrow denotes sample location and area where signage is required.







Description:

Location of BAK-3, arrow denotes sample location and area where signage is required. Photo facing West towards Baker Lake (community) on road to Agnico Eagle Gold Mine sealift area.









be collected.







Date:	Authorization Number:	Camera/Model:	Inspector
September 16, 2022	3BM-BAK1526	Galaxy S9	WRO K AMSEL
Photo No.		Lat/Long (DD.MM.SS.SS	
Photo 9		No Available	•
			, NAD83)
Description:			
Description.			or where red arrow denotes.



Appendix A

BBM-BAK1526

L2733337 CONTD.... PAGE 2 of 3 Version: FINAL

ALS ENVIRONMENTAL ANALYTICAL REPORT

ample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
2733337-1 BAK-5 BAKER LAKE WATER SAMPLES							
ampled By: CLIENT on 16-SEP-22 @ 15:40							
atric WATER							
Miscellaneous Parameters							
Biochemical Oxygen Demand	8.7		2.0	mg/L		21-SEP-22	R5866404
Fecal Coliforms		PEHR	2.0	MPN/100mL		19-SEP-22	
	>2420	PERIN				22-SEP-22	
Total Suspended Solids	14.6		3.0	mg/L		22-SEP-22	R5866103
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^{*} Refer to Referenced Information for Qualifiers (if any) and Methodology.

