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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

File No.: **1BR-CUL1828**

October 15, 2018

Allison Brown,  
Canadian Closed Sites Manager, Asset Development  
Barrick Gold Corporation  
P.O. Box 788  
Penticton, BC V2A 6Y7

Email: [allisonbrown@barrick.com](mailto:allisonbrown@barrick.com)

**RE: NWB Water Licence No. 1BR-CUL1828**

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Dear Ms. Brown:

Please find attached Licence No. 1BR-CUL1828 issued to Barrick Gold Inc. by the Nunavut Water Board (NWB) pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Nunavut Agreement)*. The terms and conditions of the attached Licence related to water use and waste disposal are an integral part of this approval.

If the Licensee contemplates the continuing of this Undertaking after the Water Licence expires, it is the responsibility of the Licensee to apply to for a new water licence. The past performance of the Licensee, new documentation and information, and issues raised during a public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the new Water Licence. Note that if the Licence expires before the NWB issues a new one, then water use and waste disposal must cease, or the Licensee may be in contravention of the *Nunavut Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA)*. However, the expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence. The NWB recommends that an application for new water licence be filed at least three (3) months prior to the Licence expiry date.

If the Licensee contemplates or requires an amendment to this licence, the NWB may decide, in the public's interest, to hold a public hearing. The Licensee should submit applications for amendment as soon as possible to give the NWB sufficient time to go through the amendment process. The process and timing may vary depending on the scope of the amendment; however, a **minimum of sixty (60) days is required from time of acceptance by the NWB**. It is the responsibility of the Licensee to ensure that all application materials have been received and are acknowledged by the Manager of Licensing.

Sincerely,

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Lootie Toomasie  
Nunavut Water Board  
Chair

LT/ak/ip

Enclosure: Licence No. **1BR-CUL1828**

Cc: Kivalliq Region Distribution List

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## DECISION

### LICENCE No. 1BR-CUL1828

This is the decision of the Nunavut Water Board (NWB) with respect to an application dated October 28, 2017 for the renewal of a Water Licence made by:

#### **BARRICK GOLD INC.**

to allow for deposit and monitoring of waste at the recognized closed gold mine at Cullaton Lake, in the Kivalliq Region, Nunavut, generally located at the geographical coordinates as follows:

Latitude: 61° 18' 25" N

Longitude: 98° 30' 37" W

Latitude: 61° 15' 37" N

Longitude: 98° 28' 13" W

### **DECISION**

After having been satisfied that the Application is for a proposal that was previously reviewed by the Nunavut Planning Commission (NPC) and for which the conformity determination, dated October 19, 2008, remains applicable and as determined by the Nunavut Impact Review Board (NIRB)<sup>1</sup>, a review of the Project is not required in accordance with s. 92(1)(a) of Nunavut Planning and Project Assessment Act (*NuPPAA*), the NWB decided that the application could proceed through the regulatory process. In accordance with s. 55.1 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (*NWNSRTA* or *Act*) and Article 13 of the *Nunavut Agreement*, public notice of the Application was given and interested persons were invited to make representations to the NWB.

After reviewing the submission of the Applicant and considering the representations made by interested persons, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the *Nunavut Agreement* and of the *Act*, waived the requirement to hold a public hearing, and determined that:

**Licence Number 1BR-CUL1118 be renewed as Licence No. 1BR-CUL1828 subject to the terms and conditions contained therein (Motion #: 2018-14-B1-03).**

SIGNED this 15<sup>th</sup> day of October, 2018 at Gjoa Haven, NU.

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Lootie Toomasie  
Nunavut Water Board Chair  
LT/ak/ip

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<sup>1</sup> Nunavut Impact Review Board (NIRB) letter, October 20, 2008.

## INTRODUCTION

The Cullaton Lake former gold mine property is located approximately 250 km west of Arviat in the Kivalliq Region, Nunavut. The Property is under the ownership of Barrick Gold Inc. (Barrick or Applicant). The site is a recognized closed gold mine, which operated from 1981 to 1985. Decommissioning activities at the mine began in 1990 after it was placed on care and maintenance.

The B-Zone and Shear Lake Zone were the two underground deposits. Underground inspections in the late 1980s following mine closure and reclamation works showed that the sites had remained geotechnically stable. There has been no recent evidence of drainage from the underground workings at either the B-Zone and Shear Lake Zone, suggesting risk to surface water quality is minimal. Waste rock and overburden piles from the B-Zone and Shear Zone were originally stored near each surface portal to the underground workings. In 2000, the waste rock dump, containing some low-grade ore, was encapsulated to control acid rock drainage and metal leaching. The encapsulated waste rock pile was revegetated, and a perimeter berm was constructed around the waste rock pile. The tailings containment areas consist of Tailings Area #1, which is bounded by a till dam, and Tailings Area #2, which is partially bounded by a decommissioned till dam. The airstrip and roads were left in place to permit access for inspections and post-closure monitoring activities. The Quarry Pit was selected as the main disposal site for inert, demolition-related debris material during the operation of the mine.

## I. PROCEDURAL HISTORY

The site was initially licensed under the Northwest Territories (NWT) Water Board in 1981; however, the Licensing authority was transferred to the NWB when Nunavut was formed. Since that time, the licence has been renewed and amended several times. Licence 1BR-CUL1118 was issued on February 9, 2011, and it was set to expire on January 31, 2018. Prior to its expiry, the Licensee submitted an application on October 30, 2017, for renewal/amendment. The following is the list of documents that Barrick provided in support of the Application for a renewal/amendment of water licence:

- NWB Application for Water Licence Renewal, dated October 28, 2017;
- Executive Summaries in English and Inuktitut, dated October 28, 2017;
- Barrick Gold Inc. Non-Consolidated Financial Statements, dated October 03, 2017;
- Site Plan, received October 30, 2017;
- Barrick Gold Inc. List of Current Officers, received October 30, 2017;
- Corporation Certificate of Registration, dated September 29, 2003;
- Correspondence addressing recent INAC inspection report findings containing the Cullaton Lake Closure and Reclamation Plan, dated June 30, 2017; and
- Application fee payable to the Receiver General, dated October 27, 2017.

In review of the comments received on the application, the NWB has noted that no concerns were expressed with respect to overall renewal of the licence. However, Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC, formerly INAC) expressed a concern of being unable to review the Closure and Reclamation Plan and reclamation security estimate in the timeframe along with site verification and requested of the Licensee to make a formal request to the NWB for a short-term licence extension to allow for discussions and a possible site visit. The extension

was granted without changes to any of the terms of the Licence except for amending the expiry date to October 15, 2018.

On October 13, 2017, the Nunavut Planning Commission (NPC) issued correspondence<sup>2</sup> stating that the project proposal was previously reviewed by the NPC, and the conformity determination issued on October 19, 2008 still applies. In addition, NPC indicated that no screening by the Nunavut Impact Review Board (NIRB) is required, as the scope of the project proposal did not change. Hence, the previous NIRB decision<sup>3</sup>, determining that according to s. 12.4.4 (a) of the Nunavut Agreement the project proposal is exempt from review remains valid. Therefore, NWB initiated the licensing process.

On December 1, 2017, the NWB distributed the Application to interested parties for review. During the review period, comments were provided by Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC, formerly INAC)<sup>4</sup>. Comments provided by CIRNAC included a request for the Board to issue a short-term licence extension in order to conduct further review of the Closure and Reclamation Plan submitted as part of the application package. The Applicant followed up with filing a request for an extension of the licence term. NWB granted the request prolonging the licence expiry date to October 15, 2018. The Applicant and CIRNAC then continued the discussion of the activities outlined in the Closure and Reclamation Plan.

On August 13, 2018, the Applicant submitted an updated Closure and Reclamation Plan (Plan). The NWB distributed the Plan for review by intervenors on August 20, 2018. Comments from Environment and Climate Change Canada (ECCC) and CIRNAC were received on September 5 and 6, 2018, respectively. While CIRNAC agreed with the technical aspects of the Plan it objected to the 3% discount of the total reclamation security estimate suggested by Applicant. .

ECCC requested the Applicant to clarify:

- The source of the low pH pool of water;
- If there is a sample location or monitoring well between the EWR and Shear lake;
- If there is no monitoring station between the EWR and Shear Lake, how has or will the Proponent determine that there is or has not been seepage into Shear Lake; and
- What is intended by the statement “the quantity and quality of the seepage is readily assimilated within the ultimate receiving environment of the Kognak River” and whether or not the Proponent considers Shear Lake the receiving environment.

On September 24, 2018, Barrick responded to the comments. ECCC confirmed its satisfaction with the response, and no submission was received from CIRNAC.

## **II. GENERAL CONSIDERATIONS**

### **A. Scope, Definitions and Enforcement**

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<sup>2</sup> Nunavut Planning Commission, Conformity Determination 148633, October 13, 2017.

<sup>3</sup> Nunavut Impact Review Board (NIRB) letter, October 20, 2008.

<sup>4</sup> CIRNAC (formerly INAC), Re: 1BR-CUL1118 – Cullaton Lake Gold Mine – Renewal Application – Barrick Gold Corporation, January 31, 2018.

### Scope

The Licence allows for the monitoring of Waste in support of an Industrial Undertaking.

### Definitions

The list of definitions for the Licence was revised to reflect the actual status of the Undertaking.

### Enforcement

To ensure that Licensee complies with the terms and conditions of the Licence, inspectors, designated and empowered by the Minister of Intergovernmental and Northern Affairs and Internal Trade may inspect or examine works, activities, and undertakings associated with the use of waters and/or the deposit of waste for the purposes of exercising their powers in accordance with the NWNSRTA.<sup>5</sup>

### Compliance

Barrick Gold Inc. should note that compliance with the terms and conditions of this Licence does not necessarily absolve the Licensee from the responsibility to comply with all other applicable legislation, guidelines, and directives.

## **B. General Conditions**

Part B of the Licence addresses the general terms and conditions that apply to the undertaking, such as annual report submission, protocols for handling documents related to the Licence, posting of signage at sites associated with the undertaking, and more.

## **C. Conditions Applying to Security**

During the application process, the Licensee and CIRNAC held various discussions to agree on the closure and reclamation activities and decide on the security amount. The parties did not come to a mutually acceptable solution. CIRNAC expressed its disagreement over Barrick's proposed amount of security while accepting the scope of work. Barrick's estimate included a 3% discount rate to be applied after year 10 of reclamation/monitoring activities. The Board is inclined to adopt CIRNAC's proposal considering the case of a security discussion associated with the amendment to water licence 2AM-LUP1520:

*While the Board recognizes the importance of the reclamation security estimates adequately reflecting the practical reality of reclamation at a particular site, the Board must also be mindful that reclamation estimates need to be premised on the assumption that the Licensee, who is familiar with the site and has established working relationships with service providers such as camp caterers, charter operators, etc. will no longer be associated with the site and all of the existing relationships with contractors will also no longer be in place. To avoid*

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<sup>5</sup> Sections 85-88 of the NWNSRTA.

*a reclamation estimate becoming too closely tied to an individual Licensee and the specific contractual arrangements that the Licensee enjoys at a given point in time, assumptions made on the basis of actual costs must be compared to more general unit cost estimates as provided for in the RECLAIM model to ensure that the estimates truly represent not only the reality of actual costs but also the reality that it will not be the Licensee but a third party reclamation contractor carrying out the reclamation.*

*On this basis, the Board has accepted that adoption of reasonable unit costs based on estimates (the approach taken by INAC and KP) is the more appropriate approach when preparing a reclamation cost estimate that is premised on the assumption that the Licensee and any of their contractual and preferred pricing arrangements with third parties will not be available if INAC has to realize on the security posted under the Licence.<sup>6</sup>*

However, the Board would like to remind Barrick that the Licensee is able to periodically apply for security reduction on the basis of the evidence of completed work, as set out in section 76 (2) and (5) of the NWSRTA, and as described by Part C, Item 3 of Licence.

#### **D. Conditions Applying to Water Use**

No water use is authorized under this Licence.

#### **E. Conditions Applying to Waste and Waste Management**

No waste deposit, other than discharge from the Tailings Containment Area, is authorized under this Licence. The discharge quality shall not exceed the parameters as prescribed within this Licence.

#### **F. Conditions Applying to Camps, Access Infrastructures and Operations**

No camp use is authorized.

#### **G. Conditions Applying to Modifications and Construction**

The Licensee is required to obtain permission from the NWB for modifications that do not meet the definition of modifications or the criteria of Part G, Item 1 of the Licence. Without written consent from the NWB, the Licensee is not allowed to carry out any modifications. Changes that do not meet the definition of modification under the Licence or the requirements of Part G may be considered amendments to the Licence.

#### **H. Conditions Applying to Drilling**

The Licensee is authorized to drill only to install replacement thermistors.

#### **I. Conditions Applying to Spill Contingency Planning**

The Licensee shall implement the Plan entitled “2018 Spill Response Plan”, revised March 12, 2018 that was previously approved by the Board and submitted as part of 2017 Annual Report.

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<sup>6</sup> NWB, Request of INAC under Part C, Item 3 of Licence No. 2AM-LUP1520 to Amend the Amount of Security to be held under the Licence; Decision, dated March 28, 2017.



## **J. Conditions Applying to Closure and Reclamation**

The Licensee shall implement the Plan entitled “Cullaton Lake Mine Closure and Reclamation Plan” dated August 10, 2018 as approved by the Board.

## **K. Conditions Applying to Monitoring**

With respect to the monitoring requirements under the Licence, the NWB’s jurisdiction is very broad, and NWB may include conditions in the licence related to monitoring programs to be undertaken.<sup>7</sup>

The Licensee proposed several modifications of the monitoring program prescribed in the previous licence:

- 1) Decreasing the number of monitoring stations in order “to reduce redundancy and eliminate sites that have been consistently dry during sampling events”;
- 2) Reducing water quality sampling frequency to biannual due to the chemical stability demonstrated by past sampling results. Barrick proposes to revisit the frequency in 20 years;
- 3) Proposed frequency of geotechnical inspection is once every two years. As with water quality sampling, Barrick proposes to revisit the frequency in 20 years; and
- 4) Sampling for sediment quality and benthic invertebrate sampling once every four years.

The Board considered Barrick’s proposal and rationale along with the interveners’ comments and granted the request for the modifications of the monitoring program.

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<sup>7</sup> See s. 70(1)(c) of the NWNSTRA.



## NUNAVUT WATER BOARD WATER LICENCE

**Licence No. 1BR-CUL1828**

Pursuant to the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada*, the Nunavut Water Board, hereinafter referred to as the Board, hereby grants to

**BARRICK GOLD INC.**

(Licensee)

**P.O. BOX 788 PENTICTON, BC V2A 6Y7**

(Mailing Address)

Herein after called the Licensee, the right to alter, divert or otherwise use water or dispose of waste for a period subject to restrictions and conditions contained within this Licence renewal:

Licence Number/Type: **1BR-CUL1828 TYPE "B"**

Water Management Area: **THA-ANNE WATERSHED (4)**

Location: **KIVALLIQ REGION, NUNAVUT**

Classification: **INDUSTRIAL**

Purpose: **DEPOSIT OF WASTE AND MONITORING**

Quantity of Water use not to Exceed: **USE OF WATER IS NOT AUTHORIZED**

Date of Amendment  
Issuance: **OCTOBER 15, 2018**

Expiry of Licence: **OCTOBER 14, 2028**

This Licence renewal, issued and recorded at Gjoa Haven, Nunavut, includes and is subject to the annexed conditions.

**Lootie Toomasie,  
Nunavut Water Board, Chair**

## **PART A: SCOPE, DEFINITIONS AND ENFORCEMENT**

### **1. SCOPE**

1. This Licence allows for the deposit of waste and monitoring of water quality and stored wastes for an undertaking classified as “Industrial” as per Schedule I of the *Regulations*, at the Cullaton Lake, located approximately 250 km west of Arviat within the Kivalliq Region, Nunavut:

Latitude: 61° 18’ 25” N

Longitude: 98° 30’ 37” W

Latitude: 61° 15’ 37” N

Longitude: 98° 28’ 13” W

2. This Licence is issued subject to conditions contained herein with respect to the depositing of Waste of any type in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposits of such Waste may enter any Waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the Act, or other statutes imposing more stringent conditions relating to the quantity, type or manner under which any such Waste may be so deposited, this Licence shall be deemed to be subject to such requirements; and
3. Compliance with the terms and conditions of this Licence does not absolve the Licensee from the responsibility for compliance with all applicable legislation, guidelines, and directives.

### **2. DEFINITIONS**

“**Act**” or “**NWNSRTA**” means the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

“**Addendum**” means the supplemental text that is added to a full plan or report usually included at the end of the document and is not intended to require a full resubmission of the revised report;

“**Amendment**” means a change to original terms and conditions of this Licence requiring correction, addition or deletion of specific terms and conditions of the Licence; modifications inconsistent with the terms of the set terms and conditions of the Licence;

“**Appurtenant Undertaking**” means an undertaking in relation to which a use of water or a deposit of waste is permitted by a licence issued by the Board;

“**Board**” means the Nunavut Water Board established under the *Nunavut Land Claims Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

“**Effluent**” means treated or untreated liquid waste material that is discharged into the environment from a structure such as a settling pond or a treatment facility;

“**Engineer**” means a professional engineer registered to practice in Nunavut in

accordance with the Engineering, Geological and Geophysical Act (Nunavut) S.N.W.T. 1998, c.38, s.5;

**“Grab Sample”** means a single water or wastewater sample taken at a time and place representative of the total discharge;

**“High Water Mark”** means the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land (ref. *Department of Fisheries and Oceans Canada, Operational Statement: Mineral Exploration Activities*);

**“Inspector”** means an Inspector designated by the Minister under Section 85 (1) of the *Act*;

**“Licensee”** means the holder of this Licence;

**“Minister”** means the Minister of Intergovernmental and Northern Affairs and Internal Trade;

**“Modification”** means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion;

**“Nunavut Agreement”** means the “*Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada*”, including its preamble and schedules, and any amendments to that agreement made pursuant to it;

**“Quarry Pit”** comprises the area and associated structures that were once a quarry pit and contain solid waste disposal as per the Board approval letter, dated August 18<sup>th</sup> 1998, on “Revisions to the Abandonment and Reclamation Plan, with respect to Quarry Pit Reclamation”;

**“Recognized Closed Mine”** means a recognized closed mine as defined in the *Metal Mining Effluent Regulations*, SOR/2002-222 (as amended, December 2017 and as may be further amended from time to time);

**“Regulations”** means the *Nunavut Waters Regulations* SOR/2013-69 18<sup>th</sup> April, 2013;  
;

**“Spill Contingency Plan”** means a Plan developed to deal with unforeseen petroleum and hazardous materials events that may occur during the operations conducted under the Licence;

**“Sump”** means a structure or depression that collects, controls, and filters liquid waste before it is released to the environment. This structure should be designed to prevent erosion while allowing percolation of liquid waste;

**“Tailings”** means the material rejected from the mill after the recoverable valuable minerals have been extracted;

**“Tailings Containment Area”** comprises the tailings containment basin(s) and the engineered structures designed to contain tailings as described in Drawing Number 1, titled “Cullaton Lake Gold Mines Ltd, Tailings Pond General Arrangement”, revised October 1983;

**“Waste”** means, as defined in S.4 of the *Act*, any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means;

**“Water” or “Waters”** means water as defined in section 4 of the *Act*;

**“Waste Rock Disposal Area”** comprises the area and associated structures designed to contain waste rock adjacent to Shear Lake.

### **3. ENFORCEMENT**

1. Failure to comply with this Licence shall be a violation of the *Act*, subjecting the Licensee to the enforcement measures and the penalties provided for in the *Act*.
2. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*.
3. For the purpose of enforcing the terms and conditions of this Licence with respect to the use of Water and deposit or Discharge of Waste in Waters, Inspectors appointed under the *Act*, hold all powers, privileges, and protections that are conferred upon them by the *Act* or by other applicable laws.

### **PART B: GENERAL CONDITIONS**

1. The Licensee shall file an Annual Report on the Appurtenant Undertaking with the Board no later than March 31<sup>st</sup> of the year following the calendar year being reported, containing the following information:
  - a. Tabular summaries for all data and information generated under the “Monitoring Program”;
  - b. A summary of any construction work, modification and major maintenance work carried out on site;
  - c. A list of unauthorized discharges and summary of follow-up actions taken;

- d. Any revisions to the approved plans;
  - e. A summary of all activities authorized under this Licence;
  - f. A summary of any closure and reclamation work undertaken during the year and an outline of any work anticipated for the next year;
  - g. A summary of any studies requested by the Board that relate to reclamation, and a brief description of any future studies planned;
  - h. A brief description of follow-up action taken to address concerns detailed in inspection and compliance reports prepared by an Inspector;
  - i. A public consultation/participation report describing consultation with local organizations and the residents of the nearby communities;
  - j. An executive summary in terms understandable to the general public translated into Inuktitut of all plans, reports, or studies conducted under this Licence; and
  - k. Any other details on water use or waste disposal requested by the Board by November 1st of the year being reported.
2. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least thirty (30) days prior to any such change.
  3. The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation. Submitted plans cannot be undertaken without subsequent written Board approval and direction. The Board may alter or modify a Plan if necessary to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or alteration of the Plan.
  4. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
  5. The Licensee shall post signs in the appropriate areas to identify the stations of the Monitoring Program. All signage postings shall be in the Official Languages of Nunavut.
  6. The Licensee shall review the Plans referred to in this Licence, as required by changes in operation and/or technology, and modify the Plan accordingly. Revisions to the Plans shall be submitted in the form of an Addendum to be included with the Annual Report.
  7. Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of this Licence, and any additional terms and conditions imposed upon approval of a Plan by the Board become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.
  8. The Licensee shall ensure a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence shall be made in writing to the attention of:
    - a. **Manager of Licensing:**  
Nunavut Water Board  
P.O. Box 119

Gjoa Haven, NU X0B 1J0  
Telephone: (867) 360-6338  
Fax: (867) 360-6369  
Email: [licensing@nwb-oen.ca](mailto:licensing@nwb-oen.ca)

**b. Inspector Contact:**

Manager of Field Operations, CIRNAC  
Nunavut District, Nunavut Region  
P.O. Box 100  
Iqaluit, NU X0A 0H0  
Telephone: (867) 975-4295  
Fax: (867) 979-6445

9. The Licensee shall submit one electronic copy of all reports, studies, and plans to the Board. If possible, the submission shall be done via email to the NWB Manager of Licensing. Reports or studies submitted to the Board by the Licensee shall include a detailed executive summary in Inuktitut (and/or Inuinnaqtun).
10. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the NWB is received and acknowledged by the Manager of Licensing.
11. This Licence is assignable as provided for in Section 44 of the *Act*.
12. The expiry or cancellation of this Licence does not relieve the Licensee from any obligation imposed by the Licence, or any other regulatory requirement.
13. Unless otherwise stated, references in the Licence to any specific legislation, policy, guideline or other regulatory requirement is deemed to refer to the regulatory requirement as may be amended or as may be expressly replaced by successor legislation, policy, guidelines or other regulatory requirements after the Licence is approved.

**PART C: CONDITIONS APPLYING TO SECURITY**

1. The Licensee, within thirty (30) days following the approval of this Licence, shall furnish and maintain security with the Minister in the amount for a total of three million seven hundred and two thousand six hundred and sixty dollars (\$3,702,660). The security shall be in a form that is satisfactory to the Minister and consistent with the *Act* and *Regulations*.
2. The security deposit described in Part C, Item 1, may be applied to carry out work necessary to fulfill requirements of this Licence where there is contravention of a condition of the Licence and/or failure by the Licensee to comply with a direction issued by the Board or the Minister. This includes operational requirements as well as provisions of the Closure and Reclamation Plan.

3. The Licensee may submit to the Board for approval a request for a reduction to the amount of security. The submission shall include supporting evidence to justify the request.
4. The security referred to in Part C, Item 1 shall be maintained until such time as it is fully or in part refunded by the Minister pursuant to section 76(5) of the *Act*. This clause shall survive the expiry of this Licence or renewals thereof and until full and final reclamation has been completed to the satisfaction of the Minister.

**PART D: CONDITIONS APPLYING TO WATER USE**

1. Water use is not authorized under this Licence.
2. The Licensee shall not remove any material from below the ordinary High Water Mark of any water body unless authorized.
3. The Licensee shall not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.
4. Sediment and erosion control measures shall be implemented prior to and maintained during the operation to prevent entry of sediment into water.

**PART E: CONDITIONS APPLYING TO WASTE AND WASTE MANAGEMENT**

1. The Licensee shall locate areas designated for waste disposal at a minimum distance of thirty one (31) metres from the ordinary high water mark of any water body such that the quality, quantity or flow of water is not impaired, unless otherwise authorized by the Board..
2. The Licensee shall not practice open burning or on-site land filling of domestic waste, unless otherwise approved by the Board.
3. The Licensee shall provide the Board with documented authorization from any community in Nunavut receiving waste related to the activities authorized under this Licence.
4. The Licensee shall maintain records of all waste backhauled and records of confirmation of proper disposal of backhauled waste. These records shall be made available to an Inspector upon request.
5. The Licensee shall ensure that any hazardous materials, including waste oil, receive proper treatment and disposal at an approved treatment facility.
6. The Tailings Containment Area shall be operated and maintained to engineering standards



such that:

- a. Erosion of constructed facilities is addressed immediately;
  - b. The solids fraction of the mill tailings shall be permanently contained within the Tailings Containment Area;
  - c. An inspection of the Tailings Containment Area shall be carried out biannually, between June and September, by a qualified geotechnical Engineer. The Engineer's report shall be submitted to the Board within sixty (60) days of the date of inspection, including a covering letter from the Licensee outlining an implementation plan to respond to the Engineer's recommendations; and
  - d. The biannual geotechnical inspection shall include monitoring of the encapsulated Shear Lake Waste Rock 'cap' for erosion and shall be carried out until such a time that vegetation is sufficiently established, so as to stabilize the cap and preclude significant erosion thereof.
7. All Effluent discharged from the Tailings Containment Area at points identified in the Monitoring Program shall not exceed the following limits:

Parameter	Maximum Concentration of any Grab Sample (mg/L)
Total Arsenic	0.30
Total Copper	0.20
Total Cyanide	0.80
Total Lead	0.20
Total Nickel	0.30
Total Zinc	0.30
Total Suspended Solids	25
Oil and Grease	No visible sheen
pH	Between 6.0 and 9.5

8. If Effluent does not meet the Effluent quality limits in Part E, Item 7, it shall be treated until it meets the above-referenced limits, or it shall be considered hazardous waste and disposed off-site at an approved facility or as otherwise approved by the Board in writing.
9. The Licensee shall ensure that all Effluent discharges are conducted in such a manner as to minimize surface erosion.

**PART F: CONDITIONS APPLYING TO CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS**

1. The establishment of a camp is not authorized under this Licence other than for emergency purposes.
2. The Licensee shall not store material on the surface of frozen streams or lakes, including immediate banks, except what is for immediate use.

3. All activities shall be conducted in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake any corrective measures in the event of any impacts on surface drainage.
4. Winter lake and stream crossings, including ice bridges, shall be constructed entirely of water, ice or snow. The Licensee should minimize disturbance by locating ice bridges in an area that requires the minimum approach grading and the shortest crossing route. Stream crossings shall be removed or the ice notched prior to spring break-up.
5. With respect to access road, pad construction or other earthworks, the deposition of debris or sediment into or onto any water body is prohibited. These materials shall be disposed a distance of at least thirty one (31) metres from the ordinary high water mark in such a fashion that they do not enter the water.

**PART G: CONDITIONS APPLYING TO MODIFICATIONS AND CONSTRUCTION**

1. The Licensee may, without written consent from the Board, carry out Modifications to the Landfarm provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
  - a. the Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
  - b. such Modifications are consistent with the NPC Land Use Planning Conformity Determination and the NIRB Screening Decision;
  - c. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
  - d. the Board has not, during the sixty (60) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and
  - e. The Board has not rejected the proposed Modifications.
2. Modifications for which all of the conditions referred to in Part F, Item 1 have not been met can be carried out only with written approval from the Board.
3. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modifications. These plans and drawings shall be stamped by an Engineer.

**PART H: CONDITIONS APPLYING TO DRILLING**

1. The Licensee is authorized to drill under this Licence only for the purpose of installing replacement thermistors.

**PART I: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING**

1. The Licensee shall implement the Plan entitled “2018 Spill Response Plan”, revised March 12, 2018 that was previously approved by the Board and submitted as part of 2017 Annual Report.
2. The Licensee shall prevent any chemicals, petroleum products or wastes associated with the project from entering water. All Sumps and fuel caches shall be located at a distance of at least thirty-one (31) metres from the ordinary High Water Mark of any adjacent water body and inspected on a regular basis.
3. If during the term of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
  - a. employ the approved Spill Contingency Plan;
  - b. report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
  - c. for each spill occurrence, submit to the Inspector and to the Board, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.

**PART J: CONDITIONS APPLYING TO CLOSURE AND RECLAMATION**

1. The Licensee shall implement the Plan entitled “Cullaton Lake Mine Closure and Reclamation Plan” dated August 10, 2018 as approved by the Board.
2. The Licensee shall review the Plan referred to in this Part as required by changes in operation and/or technology and modify the Plan accordingly. Revisions to the Plan are to be submitted in the form of an Addendum to be included with the Annual Report, unless directed otherwise by the Board or an Inspector.
3. The Licensee shall submit to the Board for review, as part of their Annual Report required by Part B, Item 2, a revised status report and implementation schedule to reflect the current status of reclamation and monitoring. The status report shall include a detailed cost estimate of the remaining work required until final restoration.
4. The Licensee shall complete all reclamation and monitoring work within the time schedule specified in the approved Closure and Reclamation Plan, or as subsequently revised and approved by the Board in writing.

5. The Licensee shall complete all restoration work prior to the expiry of this Licence.
6. The Licensee shall carry out progressive reclamation for any components of the project no longer required for the Licensee's operations.
7. The Licensee shall backfill and restore, all temporary containment sumps, to the pre-existing natural contours of the land.
8. All disturbed areas shall be stabilized and re-vegetated as required, upon completion of work, and restored as practically as possible to a pre-disturbed state.
9. The Licensee shall complete all restoration work prior to the expiry of this Licence.
10. The Licensee shall remove from the site infrastructures and site material, including but not limited to, all fuel caches, drums, barrels, buildings and contents, docks, water pumps and lines, material and equipment before the expiry of this Licence.
11. All roads and airstrip, if any, shall be re-graded to match natural contour to reduce erosion.
12. All culverts shall be removed and the drainage opened up to match the natural channel. Measures shall be implemented to minimize erosion and sedimentation.
13. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.
14. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to the satisfaction of an Inspector. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon approval by an Inspector
15. Drill holes and disturbed areas will be restored to natural conditions immediately upon completion of the drilling. The reclamation of drill holes must include the removal of any drill casing materials and the capping of holes with a permanent seal.
16. The Licensee may store drill core produced by the appurtenant undertaking in an appropriate manner and location at least thirty one (31) metres above the ordinary high water mark of any adjacent water body, where any direct flow into a water body is not possible and no additional impacts are created, or as directed by an Inspector.
17. All disturbed areas shall be contoured and stabilized upon completion of work and restored to a pre-disturbed state.

**PART K:     CONDITIONS APPLYING TO MONITORING**

1.     The Licensee shall conduct monitoring activities according to the Plan entitled “Cullaton Lake Mine Closure and Reclamation Plan” dated August 10, 2018.
2.     The Licensee shall implement the Cullaton Lake Water Quality Monitoring QA/QC Plan, dated March 25, 2011, as previously accepted by the Board.
3.     An Inspector may impose additional monitoring requirements.
4.     The Licensee shall submit a Thermistor Monitoring Program for Board review with the 2018 Annual Report.
5.     All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the current edition of *Standard Methods for the Examination of Water and Wastewater*, or by such other methods approved by the Board.
6.     All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
7.     The Licensee shall include in the Annual Report required under Part B, Item 1 all data, monitoring results and information required by this Part.
8.     The Licensee shall maintain, at a minimum, the following existing Monitoring Program Stations or as otherwise approved by the Board in writing:

Monitoring Program Station	Description	Frequency	Parameters
940-1	Kognak River freshwater pumphouse	Not required	Not Applicable (N/A)
940-2	Tailings Pond No. 1 adjacent to the point of discharge to Tailings Pond No. 2.	Biannually during peak flow	As per Part K, Item 10
940-3	Tailings Pond No.2 adjacent to the point of discharge to the marshland.	Biannually during peak flow	As per Part K, Item 10
940-3A	Effluent discharge pipe at outlet to marshland	Not required	N/A
940-4	Mill tailings pump box at the mill	Not required	N/A
940-5	Tailings Pond No. 2 near the northwest corner, adjacent to the westernmost point of the tailings dam.	Not required	N/A
940-6	Tailings Pond No. 2 offshore, near middle of pond.	Not required	N/A
940-7	Tailings Containment Area diversion ditch adjacent to the	Not required	N/A

	northwest corner of Tailings Pond No. 2.		
940-8	Channel in marshland approximately 600 metres downstream of Tailings Pond No. 2. Also identified as SITE 8 in the Environmental Investigation of the Kognak River at Cullaton Lake Gold Mine by Diamond and Meach, 1984 (EIKR).	Not required	N/A
940-9	Outflow channels from marshland below Tailings Pond No. 2 to Kognak River. Also identified as SITE 9 in EIKR.	Not required	N/A
940-10	Control marsh site approximately 100 metres west of rad leading to the fresh water intake, 50 metres north of the Kognak River, and 30 metres east of a small creek. Also identified as SITE 10 in EIKR	Not required	N/A
940-11	Kognak River approximately 200 metres upstream of Station No. 940-1. Also identified as SITE 2 in EIKR	Not required	N/A
940-12	Kognak River approximately 1300 metres downstream of Station No. 940-1. Also identified as SITE 3 in EIKR	Not required	N/A
940-13	Kognak River approximately 2850 metres downstream of Station No. 940-1. Also identified as SITE 4 in EIKR	Not required	N/A
940-14	Kognak River approximately 4400 metres downstream of Station No. 940-1. Also identified as SITE 5 in EIKR	Not required	N/A
940-15	B Zone Mine at the outlet of the minewater discharge pipe.	Not required	N/A
940-16	Shear Lake minewater disposal system at point of discharge	Not required	N/A
940-17	Environment Canada stream gauging station number 06HD001 - Kognak River below Mountain Lake.	Not required	N/A
940-18	Discharge from spillway or siphon at Tailings Pond No.1.	Not required	N/A
940-19	Piezometer stations within Tailings Pond No.1.	Not required	N/A
940-20	Area of seepage from east side of Tailings Pond No.1.	Not required	N/A

940-21	Thermistors installed in Tailings Pond No.1.	According to the Thermistor Monitoring Program provided as per Part K, Item 4	Temperature
940-22	Area of seepage from northeast corner of Tailings Pond No.1.	Not required	N/A
940-23	Quarry pit		N/A
940-24	Quarry Pit Area- Area of seepage from the Quarry Pit to Tailings Pond No. 1	Not required	N/A
940-25	Waste Rock Disposal Area- Area of seepage from Waste Rock Disposal Area to Shear Lake.	Not required	N/A
940-26	Thermistors installed in Waste Rock Disposal Area	Not required	N/A
940-27	Waste Rock Disposal Area- Area of seepage from Encapsulated Waste Rock Disposal Area to Shear Lake Creek.	Not required	N/A

9. The Licensee shall confirm the locations and GPS coordinates for all Monitoring Program Stations referred to in Part K, Item 8 with an Inspector.
10. The Licensee shall sample at Monitoring Program Stations 940-2 and 940-3 listed in Part K, Item 8. Samples shall be analyzed for the following parameters:
  - pH
  - Conductivity
  - Total dissolved solids (TDS)
  - Total suspended solids (TSS)
  - Hardness, acidity and ion balance
  - Alkalinity
  - Chlorides
  - Sulphates
  - Total organic carbon (TOC)
  - Total Metals: Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Hg, Mo, Ni, Se, As, Th, U, V, Zn
11. The Licensee shall conduct additional monitoring as per the Adaptive Monitoring Plan as outlined within the “Cullaton Lake Mine Closure and Reclamation Plan” dated August 10, 2018.
12. Modifications to the Monitoring Program may be made only upon written request and subsequent approval of the Board in writing.