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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No: 2BE-MRY2131

April 13, 2021

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Email: megan.lord-hoyle@baffinland.com

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RE: Licence No: 2BE-MRY2131, Type "B"; Renewal by Baffinland Iron Mines Corporation for the Mary River Exploration Project

Dear Megan Lord Hoyle and Christopher Murray:

Please find attached Licence No: 2BE-MRY2131 issued to Baffinland Iron Mines Corporation by the Nunavut Water Board (NWB or Board) 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 the use of Water and the deposit of Waste 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 the NWB for a renewal 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 renewal Water Licence. Note that if the Licence expires before the NWB issues a new one, then the use of Water and the deposit of Waste 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 the renewal of this Licence be filed at least **three (3) months** prior to the Licence expiry date. It should be noted that in accordance with s. 75(1)(a) of the *Nunavut Planning and Project Assessment Act (NuPPAA)*, the Board is not allowed to issue a permit or authorization for any project proposal that has not been submitted to the Nunavut Planning Commission (NPC) in accordance with s. 76 of *NuPPAA*.

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.

The NWB strongly recommends that the Licensee consult the comments received from Crown-Indigenous Relations and Northern Affairs (CIRNA) and Qikiqtani Inuit Association (QIA) on issues identified. This information is attached for your consideration.¹

Sincerely,

Lootie Toomasie
Nunavut Water Board,
Chair

LT/ak/se

Enclosure: Renewal Licence No: 2BE-MRY2131

Comments – CIRNA, QIA

Cc: Distribution List – Mary River

¹ Crown-Indigenous Relations and Northern Affairs (CIRNA), March 1 and 18, 2021; Qikiqtani Inuit Association (QIA), March 1 and 19, 2021

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DECISION

LICENCE NUMBER: 2BE-MRY2131

This is the decision of the Nunavut Water Board (NWB) with respect to an application dated January 27, 2021 for a renewal of a Water Licence made by:

BAFFINLAND IRON MINES CORPORATION

to allow for the use of Water and the deposit of Waste during camp operations and activities related to exploration that include establishing potential satellite camps to support exploration and drilling/trenching activities; land-based and on-ice exploration drilling; mapping; sampling; geophysical and geochemical surveys; mechanical trenching and stripping of surficial overburden; activities in support of scientific and engineering studies to advance the Mary River Project including geotechnical investigation, geotechnical drilling; progressive reclamation programs; construction and use of airstrips and ice strips; construction of winter roads, stream/river crossings; sealift operation and establishment and use of laydown area; and fuel storage at the Mary River Exploration Project, located within the Qikiqtani Region, Nunavut, generally located at the geographical coordinates as follows:

Project Extents:

Latitude: 72° 05' 17" N	Longitude: 80° 59' 23" W
Latitude: 69° 49' 50" N	Longitude: 80° 59' 27" W
Latitude: 71° 56' 30" N	Longitude: 73° 27' 29" W
Latitude: 69° 42' 07" N	Longitude: 74° 15' 51" W

DECISION

After having been satisfied that the Application is for a proposal that was previously reviewed by the NPC and for which the conformity determinations, dated January 6, 2011 and February 14, 2014, remain applicable, and is exempt from the requirements for screening as described within s. 12.4.3 of the *Nunavut Agreement* as determined by the Nunavut Planning Commission (NPC)¹ 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 No: 2BE-MRY1421 be renewed as Licence No: 2BE-MRY2131 subject to the terms and conditions contained therein. (Motion #: 2021-B1-001)

¹ Nunavut Planning Commission, Conformity Determination, January 13, 2021.

Signed this 13th day of April, 2021 at Gjoa Haven, NU.

Lootie Toomasie
Nunavut Water Board,
Chair

LT/ak/se

WATER LICENCE NO: 2BE-MRY2131

I. BACKGROUND

The water licence renewal application (Application) being considered by the Nunavut Water Board (NWB or Board) was filed by Baffinland Iron Mines Corporation (the Applicant, Licensee or Baffinland) on January 27, 2021 to seek renewal of Type “B” Water Licence No: 2BE-MRY1421 resulting in the issuance of Water Licence No: 2BE-MRY2131 (Licence) for the Mary River Exploration Project. The Project is located 160 kilometres south of Pond Inlet within the Qikiqtani Region of Nunavut.

Baffinland sought to continue the following activities related to exploration that include establishing potential satellite camps to support exploration and drilling/trenching activities; land-based and on-ice drilling; mapping; sampling; geophysical and geochemical surveys; mechanical trenching and stripping of surficial overburden; activities in support of scientific and engineering studies to advance the Mary River Project including geotechnical investigation, geotechnical drilling; progressive reclamation programs; construction and use of airstrips and ice strips; construction of winter roads, stream/river crossings; sealift operation and establishment and use of laydown area; and fuel storage at the Mary River Exploration Project.

II. FILE PROCEDURAL HISTORY

Licence NWB2MRY0406 was the first licence issued by the NWB for the original Mary River Project. The licence, which was issued on June 11, 2004 and expired June 30, 2006, allowed for the use of 80 cubic metres of water per day and the deposit of waste in support of activities that included camp operations and exploration drilling. On August 4, 2005, the NWB amended Licence NWB2MRY0406 (Amendment No.1) to allow for an increase of up to 290 cubic metres of water per day and the operation and maintenance of the Tote Road for seasonal use, including maintenance and repairs when necessary during the months of March, April, and May.

Licence NWB2MRY0406 was renewed as 2BE-MRY0708 on February 20, 2007, with the expiry date set for December 31, 2008. The licence allowed for the use of 475 cubic metres of water per day and the deposit of waste in support of camp operations and exploration drilling. Before expiry, the licence was renewed and Amended (No. 1) as 2BB-MRY0710 on July 16, 2007. The amendment authorized the construction of an all-weather road and fuel containment structures, the implementation of a bulk-sample program, operation of camp facilities, and the treatment and disposal of domestic waste. On February 13, 2008, the licence 2BB-MRY0710 was amended to allow for the use of alternative water sources.

On April 5, 2011, the NWB renewed and amended licence 2BB-MRY0710 as 2BB-MRY1114 for a three (3)-year term, with the expiration date set for April 5, 2014. The renewed licence 2BB-MRY1114 allowed for the use of 385 cubic metres of water per day and the deposit of waste in support of specific activities at the various project sites, including a bulk-sample program, an all-weather road construction, land-based and on-ice exploration drilling programs, geotechnical drilling, and progressive reclamation programs, activities in support of engineering and scientific studies, ongoing maintenance to existing project infrastructure, camp operations, domestic waste

treatment and/or disposal, fuel containment and other associated activities at the Mary River Project.

On June 12, 2013, the NWB issued a separate licence, 2AM-MRY1325 (Type “A” Licence), to the Mary River Project for the development, operation, closure and reclamation of a proposed open-pit iron ore mine. Licence 2AM-MRY1325 included terms and conditions for some of the activities and facilities associated with licence 2BB-MRY1114.

On December 4, 2013, the NWB issued a Board Initiated Amendment (BIA or Amendment No.1) to licence 2BB-MRY1114, without a request or application from the licensee. The aim of the BIA was to remove duplicated activities and facilities that appear under the Type “A” Licence, 2AM-MRY1325, issued for mining activities. Under the BIA, the project’s name was changed from the Mary River Project to the Mary River Exploration Project to highlight the distinction between undertakings and activities associated with exploration and mining projects.

On December 19, 2013, the Licensee applied for licence renewal. During the 2013-2014 licensing process, Baffinland requested changes to the scope of the licence renewal-amendment application to exclude any future bulk-sample program, sealift and laydown areas, winter roads, winter stream/river crossings, and air strips/ice strips. The Board granted the application by issuing licence No: 2BE-MRY1421 set to expire on April 16, 2021.

On January 13, 2021, the Nunavut Planning Commission (NPC) determined that the Mary River Exploration Project proposal conformed to the North Baffin Regional Land Use Plan. The Project proposal was previously reviewed by NPC, and conformity determination dated January 6, 2011 and February 14, 2014 still apply. In addition, the NPC stated that the proposal is exempt from the requirements for screening as described within s. 12.4.3 of the *Nunavut Agreement*.

On January 27, 2021, a licence renewal application (Application) was received by the NWB, requesting that the licence be renewed again, this time to 2031.

III. GENERAL CONSIDERATIONS

In accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSTRA)* s. 45, the NWB may issue a licence for a term not exceeding twenty-five years. The Applicant requested extending the term of the Licence to April 2031, and the NWB found the requested term acceptable.

A. Scope, Definitions and Enforcement

Scope

The Licence is to allow for the use of water and the deposit of waste in support of activities related to exploration that include land-based and on-ice exploration drilling; mapping; sampling; geophysical and geochemical surveys; mechanical trenching and stripping of surficial overburden; activities in support of scientific and engineering studies to advance the Mary River Project including geotechnical investigation, geotechnical drilling; progressive reclamation programs; construction and use of airstrips and ice strips; construction of winter roads,

stream/river crossings; establishing potential satellite camps to support exploration and drilling activities; sealift operation and establishment and use of laydown area; and fuel storage at the Mary River Exploration Project.

Enforcement

To ensure that the Licensee complies with the terms and conditions of the Licence, Inspectors designated and empowered by the Minister of Northern Affairs (Minister) may inspect or examine works, activities, and undertakings associated with the use of waters and the deposit of waste for the purposes of exercising their powers in accordance with the *NWNSRTA*.²

Compliance

Baffinland 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. The Board agreed with the QIA's request for the Licensee to record the depth of the active layer and depth of the top and bottom of permafrost at the drill hole locations and include this information along with the dates of drilling in annual reports.

C. Conditions Applying to Water Use

The Licensee shall obtain all Water for domestic camp use from sources proximal to each camp. Total camp Water use shall not exceed forty-nine (49) cubic metres per day. Drill Water shall be obtained from local Water source(s), proximal to the drilling targets and shall not exceed two hundred and fifty (250) cubic metres per day. The volume of Water for all purposes under this Licence shall not exceed two hundred and ninety-nine (299) cubic metres per day.

D. Conditions Applying to Waste Disposal

All Waste is to be disposed of 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 approved by the Board in writing. Greywater shall be contained in sumps while sewage is to be directed to latrine pits or in incineration, chemical, portable or composting toilets.

In its comments, the QIA noted:

QIA maintains the request for the NWB to include the following term (Section 26(1)(g) Item 31) from the Evrim Exploration Canada Corp. Exploration Licence

² Sections 85-88 of the *NWNSRTA*.

in the Type 'B' Water Licence: "The Permittee shall not allow any Drilling Waste to spread to the surrounding lands and watercourses."

The NWB understands that, in this recommendation, the QIA references a water licence issued by the Sahtu Land and Water Board for a project located in the Northwest Territories. The NWB is of the opinion that Part F, Item 4 of this Licence addresses the Intervener's recommendation.

In addition, the QIA requested that the Licensee provide information on sewage management during camp operation and at closure. As none of the satellite camps for the Mary River Exploration Project have been erected, there are currently no sewage management plans in place. If the Licensee decides to construct and operate a camp or camps, it will provide the sewage management plans as part of the notice submitted as per the requirement in Part E, Item 2.

E. Conditions Applying for Camps, Access Infrastructures and Operations

Within its Application, Baffinland stated that satellite camps might be erected. Each camp shall house forty-nine (49) persons maximum. The Licensee is required to provide the Board and Inspector with at least thirty (30) days' notice prior to establishing each of the satellite camps under this Licence.

F. Conditions Applying to Drilling and Trenching Operations

Drilling activities are permitted on land and on-ice. Provisions are included to mitigate impacts that the on-ice drilling activity could have on water quality. As in previous licences, the Licensee is permitted to carry out drilling activities for geotechnical investigations within thirty-one (31) metres of the ordinary High Water Mark of any water body, provided that such activities are consistent with the terms of this Licence and a request has been submitted and received by the NWB, at least ten (10) days in advance of such drilling. The Licensee shall submit to the Board a standalone Trenching Plan for approval in writing, at least sixty (60) days prior to commencing any trenching activities.

In its March 19, 2021 correspondence, the QIA noted, "The current Licence does not require Baffinland to report if an operator drills to the bottom of permafrost. It would also be beneficial to record the depth of the active layer to inform geotechnical recommendations." The Board included provisions to address the recommendation in Part B, Item 6(k) and Part F, Item 6.

G. Conditions Applying to Modifications

The Applicant is required to obtain permission from the NWB for modifications that do not meet the criteria of Part G, Item 1 of the Licence. As per Part G, Item 2, without written approval from the NWB, the Licensee is not allowed to carry out these modifications. Changes that do not meet the definition of a Modification under the Licence or the requirements of Part G may be considered amendments to the Licence.

H. Conditions Applying to Spill Contingency Planning

The Board has approved with the issuance of this Licence the *Exploration Spill Contingency Plan* dated January 25, 2021 that was submitted as additional information with the Application.

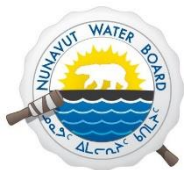
While the Board understands the QIA's position on the importance of adaptive management as expressed in their submissions during the 2021 licensing process, it should be noted that the issue is still being discussed as part of the Nunavut Impact Review Board's (NIRB) review of the "Phase 2 Development Proposal" for the Mary River Project. In addition, even in case of the NIRB's approval of the Project's Phase 2 activities and adaptive management associated with it, the NWB will need to consider how certain adaptive management measures fit within the water licensing framework. It should be noted that the licensing process associated with the application for an amendment to licence 2AM-MRY1325 is still on-going and technical discussions about any adaptive management measures will happen in future technical meetings between the Applicant, interveners and NWB that could provide more clarity about applicability of adaptive management approaches with respect to water and waste management within the Mary River Project along with the Mary River Exploration Project. The Board is of opinion that as a result of these discussions relevant management plans may be updated to include adaptive management measures. As is the Board's usual process, the interveners will be parties to the discussions of adaptive management and its relationship to management plans.

I. Conditions Applying to Closure and Reclamation or Temporary Closure

The Board has approved with the issuance of this Licence the *Exploration Closure and Reclamation Plan* dated January 25, 2021 that was submitted as additional information with the Application.

J. Conditions Applying to the Monitoring Program

The Licensee shall record all sources and quantities of water used for all purposes and all locations where any type of waste is disposed. In this part, the Board included general monitoring requirements, including for the monitoring of water quality prior to and after on-ice drilling and set the conditions for all data gathered in accordance with the monitoring program to be included in annual reports.



NUNAVUT WATER BOARD WATER LICENCE

Licence No: 2BE-MRY2131

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

BAFFINLAND IRON MINES CORPORATION

(Licensee)

**2275 UPPER MIDDLE ROAD EAST, SUITE 300
OAKVILLE, ON L6H 0C3**

(Mailing Address)

hereinafter 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: **2BE-MRY2131 / TYPE "B"**

Water Management Area: **GIFFORD (21) & ECLIPSE SOUND (48)**

Location: **MARY RIVER EXPLORATION PROJECT
QIKIQTANI REGION, NUNAVUT**

Classification: **MINING UNDERTAKING**

Purpose: **DIRECT USE OF WATER AND DEPOSIT OF WASTE**

Quantity of Water use not to Exceed: **TWO HUNDRED AND NINETY-NINE (299) CUBIC METRES PER DAY**

Effective Date: **APRIL 17, 2021**

Expiry of Licence: **APRIL 16, 2031**

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

This Licence allows for the use of Water and the deposit of Waste for a Mining undertaking classified as per Schedule 1 of the *Regulations* at the Mary River Exploration Project, located approximately 160 kilometres south of Pond Inlet within the Qikiqtani Region, Nunavut.

- a. This Licence is issued subject to the conditions contained herein with respect to the taking of Water and the deposit 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 *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, or other statutes imposing more stringent conditions relating to the quantity or type of Waste that may be so deposited or under which any such Waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and
- b. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

2. Definitions

“**Act**” 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;

“**Applicant**” means the Licensee;

“**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 Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

“**Closure and Reclamation Plan**” means a Plan developed to reach the closure goal and taking in account the “Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories” 2013;

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

“**Engineer**” means a professional engineer registered to practice in Nunavut in accordance with the *Consolidation of Engineers and Geoscientists Act S. Nu 2008, c.2* and the *Engineering and Geoscience Professions Act S.N.W.T. 2006, c.16 Amended by S.N.W.T. 2009, c.12*;

“**Greywater**” means all liquid Wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet Wastes;

“**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);

“**ICP Scan**” means the laboratory method for determining trace metals in water through Emission Spectroscopy using inductively coupled plasma (including from approximately 22 to 32 elements, depending on the laboratory performing the analysis);

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

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

“**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;

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

“**Secondary Containment**” means an impermeable structure, external to and separate from primary containment, which prevents unplanned spills of hazardous materials and provides a minimum capacity of 110% of the original vessel. Where multiple vessels are stored within the containment, it must provide a minimum capacity equal to the sum of the largest vessel and 10% of the aggregate volume of all other vessels located in the containment. This structure shall also provide containment and control of hoses and nozzles;

“**Sewage**” means all toilet Wastes and greywater;

“**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 or Sumps” 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;

“Toilet Wastes” means all human excreta and associated products, but does not include greywater;

“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 waters as defined in section 4 of the *Act*.

3. **Enforcement**

- a. Failure to comply with this Licence will be a violation of the *Act*, subjecting the Licensee to the enforcement measures and the penalties provided for in the *Act*;
- b. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*; and
- c. For the purpose of enforcing this Licence and with respect to the use of water and deposit or discharge of Waste by the Licensee, Inspectors appointed under the *Act*, hold all powers, privileges and protections that are conferred upon them by the *Act* or by other applicable law.

PART B: GENERAL CONDITIONS

1. The fees payable to the Receiver General for Canada for the right to use Waters, shall be sent to the Board annually in accordance with Section 12 of the *Regulations*.
2. The Licensee shall maintain financial security with the Minister, in the form that is satisfactory to the Minister, in the amount of one million, two hundred and fifty thousand (\$1,250,000.00) dollars in support of potential reclamation activities under this Licence.
3. The security deposit shall be maintained until such time as the Minister is satisfied that the Licensee has complied with all provisions of the approved Closure and Reclamation Plan in accordance with the requirement in Part I, Item 1 of this Licence. This clause shall survive the expiry of this Licence.
4. The Licensee or other participants in the Annual Security Review, conducted in accordance with Part C and Schedule C of Water Licence No: 2AM-MRY1325, may consider the security amount furnished under Part B, Item 2 in the global context of the

Annual Security Review.

5. The Licensee may submit to the Board, for approval, a written request for amendment to the amount of security indicated under Part B, Item 2. The submission shall include supporting evidence to justify the request.
6. The Licensee shall file an Annual Report on the Appurtenant Undertaking with the Board no later than March 31st of the year following the calendar year being reported, containing the following information:
 - a. A summary report of Water use and Waste disposal activities;
 - b. Quantity of Water (in cubic metres/day) obtained for domestic and other purposes from sources on, in or flowing through Inuit-owned lands for the reporting period;
 - c. Quantity of Water (in cubic metres/day) obtained for domestic and other purposes from sources on, in or flowing through Crown Lands for the reporting period;
 - d. Quantity of Waste disposed of on on-site Waste disposal facility;
 - e. Quantity of Waste backhauled to approved facility for disposal;
 - f. The geochemical analysis of drill cores as per Part F, Item 9;
 - g. A list of unauthorized discharges and a summary of follow-up actions taken;
 - h. Any revisions to the management plans as required by Part B, Item 7, submitted in the form of an Addendum;
 - i. A description of all progressive and/or final reclamation work undertaken, including photographic records of site conditions before, during and after completion of operations;
 - j. Report all artesian flow occurrences as required under Part F, Item 5;
 - k. Report the depth of the active layer and depth of the top and bottom of permafrost as required under Part F, Item 6;
 - l. Details pertaining to locations of sump(s) and drill holes;
 - m. A summary of all information requested and results of the Monitoring Program;
 - n. GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) for the locations of all temporary camps established in support of the project;
 - o. A summary, including photographic records before, during and after any relevant construction activities or Modifications and/or major maintenance work carried out on facilities under this Licence and an outline of any work anticipated for the next year;
 - p. Detailed discussion on the performance, installation, and evaluation, including the use of photographic record, of the primary and secondary containment functions used in fuel storage to safeguard impacts to freshwaters;
 - q. An updated estimate of the current restoration liability required under Part B, Item 2, based upon the results of restoration assessment, project development monitoring, and any changes or Modifications to the project;
 - r. A summary of public consultation/participation, describing consultation with local organizations and residents of the nearby communities, if any were conducted;
 - s. Any other details on Water use or Waste disposal requested by the Board by the 1st November of the year being reported.

7. 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.
8. The Licensee shall install flow meters or other such devices, or implement suitable methods required for the measuring of Water volumes as required under Part J, Item 1.
9. The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation. Plans submitted, 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.
10. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
11. 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.
12. 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.
13. 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
 - (b) **Inspector Contact:**
Manager of Field Operations, CIRNA
Nunavut District, Nunavut Region
P.O. Box 100
Iqaluit, NU X0A 0H0
Telephone: (867) 975-4295
Fax: (867) 979-6445
14. The Licensee shall submit an electronic copy of all reports, studies, and plans to the Board. Reports or studies submitted to the Board by the Licensee shall include a detailed executive summary in Inuktitut.

15. The Licensee shall ensure that all documents or correspondence submitted by the Licensee to the NWB are received and acknowledged by the Manager of Licensing.
16. This Licence is assignable as provided for in Section 44 of the *Act*.
17. The expiry or cancellation of this Licence does not relieve the Licensee from any obligation imposed by the Licence, or any other regulatory requirement.

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licensee shall obtain all Water for domestic camp use from sources proximal to each camp. Total camp Water use shall not exceed forty-nine (49) cubic metres per day. Drill Water shall be obtained from local Water source(s), proximal to the drilling targets as outlined in the Application and shall not exceed two hundred and fifty (250) cubic metres per day. The volume of Water for all purposes under this Licence shall not exceed two hundred and ninety-nine (299) cubic metres per day.
2. The withdrawal of Water from any stream shall not exceed ten (10) per cent of the low flow of that stream unless approved by the Board in writing.
3. The Licensee shall submit to the Board for approval in writing, the following information at least thirty (30) days prior to the use of Water of a sufficient volume that the source water body may be drawn down: volume required, hydrological overview of the water body, details of impacts, and proposed mitigation measures.
4. The Licensee shall equip all water intake hoses with a screen of an appropriate mesh size to ensure that fish are not entrained and shall withdraw Water at a rate such that fish do not become impinged on the screen.
5. The Licensee shall not conduct any work below the ordinary High Water Mark of any water body unless approved by the Board in writing.
6. The Licensee shall not cause erosion to the banks of any body of Water and shall provide necessary controls to prevent such erosion.
7. Sediment and erosion control measures shall be implemented prior to and maintained during the undertaking to prevent entry of sediment into Water.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

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 approved by the Board in writing.
2. The Licensee shall not practice on-site land filling of domestic Waste, unless otherwise

approved by the Board in writing.

3. The Licensee is authorized to dispose of all acceptable food Waste, paper Waste and untreated wood products in an incinerator.
4. The Licensee shall not open burn plastics, wood treated with preservatives, electric wire, Styrofoam, asbestos or painted wood to prevent the deposition of Waste materials of incomplete combustion and/or leachate from contaminated ash residual, from impacting any surrounding Waters, unless otherwise approved by the Board in writing.
5. The Licensee shall provide to the Board documented authorization from all communities in Nunavut receiving Wastes from the Mary River Exploration Project prior to any backhauling and disposal of Wastes to those communities.
6. Licensee shall provide to the Board a copy of the written authorization received from the Licensee of 2AM-MRY1325 at least 30 days prior to backhauling waste from facilities and undertakings under this Licence to facilities associated with Licence 2AM-MRY1325.
7. The Licensee shall backhaul and dispose of all hazardous Wastes, Waste oil and non-combustible Waste generated through the course of the operation at a licensed Waste disposal site.
8. 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.
9. The Licensee shall contain all Greywater in a Sump located at a distance of at least thirty-one (31) metres above the ordinary High Water Mark of any water body, at a site where direct flow into a water body is not possible and no additional impacts are created, unless otherwise approved by the Board in writing.
10. The Licensee shall contain all Toilet Wastes in latrine pits or use incineration, chemical, portable or composting toilets. Latrine pits shall be located at a distance of at least thirty-one (31) metres above the ordinary High Water Mark of any water body, treated with lime and covered with native material to achieve the pre-existing natural contours of the land prior to abandonment.

PART E: CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS

1. The Licensee is allowed to construct at most the seven (7) satellite camps referred to in the document entitled *Type B Water Licence Renewal Application Project Description* dated December 2020.
2. The Licensee is required to provide thirty (30) days' notice to the Board and Inspector prior to the construction and operation of any of the camp facilities referred to in Part E, Item 1.

3. The Licensee shall not erect camps or store material on the surface of frozen streams or lakes including the immediate banks except what is for immediate use. Camps shall be located such as to minimize impacts on surface drainage.
4. The Licensee shall conduct all activities in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake corrective measures in the event of any impacts on surface drainage.
5. The Licensee shall construct all winter lake and stream crossings, including ice bridges, entirely of Water, ice or snow. The Licensee shall 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.
6. Stream crossing shall be a minimum of five hundred (500) meters from spawning areas.
7. 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.
8. The Licensee shall not mobilize heavy equipment or vehicles for trenching or other activities unless the ground surface is capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles shall be suspended if rutting occurs.
9. The Licensee shall undertake appropriate corrective measures to mitigate impacts on surface drainage resulting from the Licensee's operations.
10. The Licensee shall not do anything that will cause erosion to the banks of any body of Water and shall provide necessary controls to prevent such erosion.
11. The Licensee shall limit any in-stream activity to low flow periods. In-stream activity is prohibited during fish migration.
12. Machinery is not permitted to travel up the stream bed and fording of any water body is to be kept to a minimum and limited to one area and a one-time event. Equipment used should be well cleaned and free of oil and grease and maintained free of fluid leaks.
13. The Licensee shall, during activities involving machinery fording the Water crossings, prevent pollutants from entering Water.
14. The Licensee shall only use fill material during construction that is from an approved source and shall be free of contaminants.
15. Equipment storage holding areas should be located on gravel, sand or other durable land, a distance of at least thirty-one (31) metres above the ordinary High Water Mark of any water body in order to minimize impacts on surface drainage and Water quality.

16. The Licensee shall designate an area for the deposition of excavated and stockpiled materials that is at least thirty-one (31) metres above the ordinary High Water Mark of any Water body.

PART F: CONDITIONS APPLYING TO DRILLING AND TRENCHING OPERATIONS

1. The Licensee shall not conduct any land based drilling and trenching operations within thirty-one (31) metres of the ordinary High Water Mark of any water body, unless otherwise approved by the Board in writing.
2. The Licensee may for the purpose of any geotechnical investigations carry out drilling activities within thirty-one (31) metres of the ordinary High Water Mark of any Water body, provided that such activities are consistent with the terms of this Licence and a request has been submitted and received by the NWB, at least ten (10) days in advance of such drilling, that includes a thorough description of the proposed activities and the following:
 - a. An appropriate scaled site map, complete with approximate GPS coordinates of planned drilling locations and the associated Water bodies;
 - b. Locations of waste deposition, that are consistent with Part F, Item 4; and
 - c. Mitigation measures that are planned to be in place, prior to, during drilling and following if required to protect Waters.
3. The Licensee shall analyze the geochemical constituents of drill cores as follows:
 - a. That reflects actuality and is truly representative of the drilling program for all constituents that may impact waters as determined, and clearly qualified, by a Geochemist registered in Nunavut;
 - b. All assumptions, and any limitation to each assumption, in determining a representative sampling population reflecting actuality and the geochemical testing methods employed;
 - c. Includes all raw data and an accompanying summary table of the geochemical analysis;
 - d. Define clear conclusions on the results of the geochemical analysis; and
 - e. Report the geochemical analysis in the Annual Report as required by Part B, Item 6(f).
4. The Licensee shall dispose of all drill Waste, including Water, chips, muds and salts (CaCl₂) in any quantity or concentration, from land-based and on-ice drilling, in a properly constructed Sump or an appropriate natural depression located at a distance of at least thirty-one (31) metres from the ordinary High Water Mark of any adjacent water body, where direct flow into a water body is not possible and no additional impacts are created.
5. If artesian flow is encountered, drill holes shall be immediately sealed and permanently capped to prevent induced contamination of groundwater or salinization of surface Waters. The Licensee shall report all artesian flow occurrences within the Annual Report,

including the location (GPS coordinates) and dates.

6. The Licensee shall record the depth of the active layer and depth of the top and bottom of permafrost of the drill holes where drilling activity has penetrated below the permafrost layer, and shall report this information within the Annual Report, including the location (GPS coordinates) and dates.
7. Drilling additives or mud shall not be used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the Water, or are demonstrated to be non-toxic.
8. For “on-ice” drilling where drill additives are not being used, return Water released must be nontoxic, and not result in an increase in total suspended solids in the immediate receiving Waters, above the Canadian Council of Ministers for the Environment, Guidelines for the Protection of Freshwater Aquatic Life (i.e. 10 mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100 mg/L).
9. The Licensee shall establish water quality conditions prior to and upon completion of any drilling program through lake ice.
10. The Licensee shall submit to the Board for approval in writing, at least sixty (60) days prior to commencing any trenching activities, a stand-alone Trenching Plan that includes but not limited to the following:
 - a. Size and location (including GPS coordinates) of trenches;
 - b. Approximate dimensions (length, width, and depth) of each trench;
 - c. Approximate mass of extracted materials (overburden, waste, ore) from trenches;
 - d. Proposed mitigation measures for the prevention of the transport of sediments, blasting residues, fly rock and other materials, from the trench area to nearby water bodies;
 - e. Plans for disposal of any waste rock or overburden generated from the activity;
 - f. Projected volume and quality of water discharged from each trench and potential treatment required; and
 - g. The proposed monitoring program to be carried out on trench wastewater prior to discharge.

PART G: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licensee may, without written consent from the Board, carry out Modifications to the Water Supply Facilities and Waste Disposal Facilities 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 do not place the Licensee in contravention of the Licence or the *Act*;
 - c. such Modifications are consistent with the NIRB Screening Decision;

- 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 G, 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 Modification. These plans and drawings shall be stamped by an Engineer.

PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

- 1. The Board has approved with the issuance of this Licence the *Exploration Spill Contingency Plan* dated January 25, 2021 that was submitted as additional information with the Application.
- 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. The Licensee shall conduct any equipment maintenance and servicing in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other Waste and contain potential spills.
- 4. 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 NWT/NU 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, 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.
- 5. The Licensee shall, in addition to Part H, Item 4, regardless of the quantity of releases of harmful substances, report to the NWT/NU 24-Hour Spill Line if the release is near or into a water body.

**PART I: CONDITIONS APPLYING TO CLOSURE AND RECLAMATION OR
TEMPORARY CLOSURE**

1. The Board has approved with the issuance of this Licence the *Exploration Closure and Reclamation Plan* dated January 25, 2021 that was submitted as additional information with the Application.
2. The Licensee shall complete all restoration work prior to the expiry of this Licence.
3. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.
4. The Licensee shall backfill and restore all Sumps, sewage/washwater pits to the pre-existing natural contours of the land.
5. The Licensee shall remove from the site, all infrastructure and site materials, including all fuel caches, drums, barrels, buildings and contents, docks, water intakes, pumps and lines, material and equipment prior to the expiry of this Licence.
6. All roads and airstrips, if any, shall be re-graded to reduce erosion and sedimentation to Water.
7. The Licensee shall remove any culverts and restore the drainage to match the natural channel. Measures shall be implemented to minimize erosion and sedimentation.
8. 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.
9. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Site Remediation, 2010. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector.
10. The Licensee shall restore all drill holes and disturbed areas to natural conditions immediately upon completion of the drilling. The restoration of drill holes must include the removal of any drill casing materials and if having encountered artesian flow, the capping of holes with a permanent seal. Where drill casings cannot be removed the Licensee shall cut off the casings at ground level and identify with signage.
11. The Licensee may leave the casings on site, if it intends to continue drilling in existing casings, but shall add signaling to keep the area safe for the other territory users. The drill casings left cannot stay on the field for more than 2 years after the drilling.

12. 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.
13. The Licensee shall contour and stabilize all disturbed areas to reduce erosion and sedimentation to Water, upon completion of the undertaking and as per Part I, Item 3.

PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM

1. The Licensee shall measure and record, in cubic metres, the daily quantities of Water that is used from sources located on, in or flowing through Crown Land, utilized for camp, drilling and other purposes.
2. The Licensee shall provide the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where sources of Water are utilized for all purposes. The Licensee shall report the coordinates of all proposed sources of Water to the Inspector and the Board at least ten (10) days prior to the initial use of any Water from that source.
3. The Licensee shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where Wastes are deposited in association with camp / drilling operations and any other purpose under this Licence.
4. The Licensee shall obtain representative samples of the Water column below any ice where required under Part F, Items 9 and 10. Monitoring shall include but not be limited to the following:

Total Suspended Solids
pH
Electrical Conductivity,
Total Trace Metals as determined by a standard ICP Scan (to include at a minimum, the following elements: Al, Sb, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, Se, Sn, Sr, Tl, Ti, U, V, Zn), and
Trace Arsenic and Mercury
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 in writing.
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 6 all data, monitoring results and information required by this Part.
8. An Inspector may impose additional monitoring requirements.