

File No: 2BE-SKG2329

March 08 2023

Agha Shahzad Pervez Viridis Minerals and Mining Inc 2900 - 550 Burrard Street Vancouver, BC V6C 0A3 Dave White or Sharleen Hamm Aurora Geosciences Ltd. 3506 McDonald Drive Yellowknife, NT X1A 2H1

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**RE:** NWB New Water Licence No: 2BE-SKG2329

Dear Agha Shahzad Pervez, Dave White, Sharleen Hamm:

Please find attached Water Licence No: **2BE-SKG2329** issued to Viridis Minerals and Mining Inc 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 or Act)*. 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 application 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 <a href="sixty">sixty</a> (60) days</a> 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 by Crown-Indigenous Relations and Northern Affairs (CIRNA); Environment and Climate Change Canada (ECCC), and Tlicho Government (TG) on issues identified. This information is attached for your consideration.<sup>1</sup>

The NWB advises that Approval for the Use of Waters and Deposit of Waste Without a Licence No: 2WLC-SKG2324 is cancelled with the issuance of this Licence.

Sincerely,

Lootie Toomasie Nunavut Water Board, Chair

LT/ak/rqd

Enclosure: New Licence No: **2BE-SKG2329** 

Comments – CIRNAC, ECCC, TG

Cc: Distribution List –Kitikmeot
Denínu Kúé First Nation
Lutsel K'e Dene First Nation
North Slave Metis Alliance
Northwest Territory Metis Nation
Salt River First Nation
Tlicho Government
Ts'ueh Nda First Nation
Wek' eezhii Renewable Resources Board
Wek'èezhìi Land and Water Board
Yellowknives Dene First Nation

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<sup>&</sup>lt;sup>1</sup> Crown-Indigenous Relations and Northern Affairs (CIRNA), February 16, 2023; Environment and Climate Change Canada (ECCC), February 23, 2023; Tlicho Government (TG), February 24, 2023.

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#### **DECISION**

#### LICENCE NUMBER: 2BE-SKG2329

This is the decision of the Nunavut Water Board (NWB or Board) with respect to an application dated November 16, 2022 for a new Water Licence made by:

#### VIRIDIS MINERALS AND MINING INC

to allow for the use of Water and the deposit of Waste during camp operations and activities related to exploration that include prospecting, geophysical surveys, mapping, diamond, rotary air blast, and reverse circulation drilling, sampling, trenching, ice pad construction, and ice strip maintenance at the South Kitikmeot Gold Project located within the Kitikmeot Region, Nunavut, generally located at the geographical coordinates as follows:

#### **Project Extents:**

Max Latitude: 66° 24' 44.87070160" N Max Longitude: 111° 54' 38.76169536" W Min Latitude: 64° 34' 24.18204005" N Min Longitude: 105° 17' 05.14137629" W

Main Camp Location(s):

Latitude: 65° 01' 50.68354500" N Longitude: 108° 38' 17.14112195" W

#### **DECISION**

After having been satisfied that the Application is for a proposal that was previously reviewed by the NPC and falls outside of an area with an approved land use plan, and, as such, a conformity determination is not required, and is subject to a 12.4.4(a) Screening Decision as determined by the Nunavut Planning Commission (NPC)<sup>1</sup>, and, as determined by the Nunavut Impact Review Board (NIRB), a review of the Project is not required in accordance with s. 92(1)(a) of Nunavut Planning and Project Assessment Act (*NuPPAA*), subject to the terms and conditions recommended by NIRB's Screening Decision Report<sup>2</sup> in accordance with Article 12 of the Nunavut Agreement and s. 88, 92(1) and 92(2)(a) of *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:

<sup>&</sup>lt;sup>1</sup> Nunavut Planning Commission Correspondence, December 7, 2022.

<sup>&</sup>lt;sup>2</sup> Nunavut Impact Review Board (NIRB) Screening Decision Report, February 2, 2023.

New Licence No: 2BE-SKG2329	be issued subj	ject to the	terms and	conditions	contained
therein (Motion #: 2022-B1-021).					

Signed this <u>08<sup>th</sup></u>	day of	March, 2023	_ at Gjoa Haven, NU	J.
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Lootie Toomasie

Nunavut Water Board, Chair

LT/ak/rqd



## NUNAVUT WATER BOARD WATER LICENCE

Licence No: 2BE-SKG2329

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

#### VIRIDIS MINERALS AND MINING INC

(Licensee)

2900 - 550 BURRARD ST, VANCOUVER, BC V6C 0A3

(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:

Licence Number/Type: 2BE-SKG2329 / TYPE "B"

Water Management Area: COPPERMINE, QUEEN MAUD GULF, BACK

**WATERSHEDS** (28, 30, 31)

Location: SOUTH KITIKMEOT GOLD PROJECT, KITIKMEOT

**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** 

Date of Licence Issuance: MARCH 08, 2023

Expiry of Licence: **DECEMBER 31, 2029** 

This Licence, 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 South Kitikmeot Gold Project, located approximately 424 km southeast of Kugluktuk within the Kitikmeot 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;

"<u>Addendum</u>" 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;

"<u>Amendment</u>" 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;
- "<u>High Water Mark</u>" means the usual or average level to which a water body 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);
- "<u>ICP Scan</u>" 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:

"<u>Sump or Sumps</u>" 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;

"<u>Toilet Wastes</u>" means all human excreta and associated products, but does not include greywater;

"<u>Trench Water Containment</u>" means the lined sump or sumps, poly tank or other means of containment for water that has collected within the blasted / excavated trench(s) and subsequently removed for disposal upon confirmation of water quality;

"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 Water use fees for the right to the use of Water shall be paid annually in accordance with Section 12 of the *Regulations*.
- 2. 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. 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 reporting period;
- d. Quantity of Waste disposed of at on-site Waste disposal facility;
- e. Quantity of Waste backhauled to approved facility for disposal;
- f. A list of unauthorized discharges and a summary of follow-up actions taken;
- g. Any revisions to the management plans, as required by Part B, Item 7, submitted in the form of an Addendum;
- h. A description of all progressive and or final reclamation work undertaken, including photographic records of site conditions before, during and after completion of operations;
- i. Report all artesian flow occurrences as required under Part F, Item 7;
- j. A summary of all information requested and results of the Monitoring Program;
- k. Details pertaining to locations of trenches, sump(s) and drill holes;
- 1. 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 if the actual coordinates differ from that provided in the application;
- m. 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;
- n. 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;
- o. 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;
- p. A summary of public consultation/participation, describing consultation with local organizations and residents of the nearby communities, if any were conducted;
- q. Any other details on Water use or Waste disposal requested by the Board by the 1<sup>st</sup> November of the year being reported.
- 3. 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.
- 4. 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.
- 5. 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.
- 6. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.

- 7. 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.
- 8. 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.
- 9. 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: <u>licensing@nwb-oen.ca</u>

#### (b) Inspector Contact:

Manager of Field Operations, CIRNAC Nunavut District, Nunavut Region P.O. Box 100 Iqaluit, NU X0A 0H0

Telephone: (867) 975-4284 Fax: (867) 979-6445

- 10. 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 Inuinnaqtun.
- 11. 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.
- 12. This Licence is assignable as provided for in Section 44 of the *Act*.
- 13. 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 camps. Total camp Water use shall not exceed fourteen (14) 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 eighty-five (285) 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 use of Water from streams or any water bodies not identified in Part C, Item 1, is prohibited unless authorized and approved by the Board in writing.
- 3. 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.
- 4. Where the use of Water is of a sufficient volume that the source water body may be drawn down, the Licensee shall submit, for approval of the Board in writing, the following information: the volume required, a hydrological overview of the water body, details of impacts, and proposed mitigation measures.
- 5. 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.
- 6. 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.
- 7. The Licensee shall not conduct any work below the ordinary High Water Mark of any water body unless approved by the Board in writing.
- 8. The Licensee shall not cause erosion to the banks of any water body and shall provide necessary controls to prevent such erosion.
- 9. 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 Board has approved the Plan entitled "Waste Management Plan" dated November 2022 that was submitted as additional information with the Application.

- 2. The Licensee shall, within thirty (30) days of establishing additional camp(s), submit to the Board for review an updated Plan referred to in Part D, Item 1 to include:
  - a. the map of camp location, camp layout and identification of the greywater and core cutting water sump, incinerator and burn pan;
  - b. Effluent discharge from the secondary containment units will meet Canadian Council of Ministers of the Environment (CCME) Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products; and
  - c. Effluent discharge from the Trench Water Containment Area will be conducted as outlined in Part D, Items 12 and 13.
- 3. 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.
- 4. The Licensee shall not practice on-site land filling of domestic Waste, unless otherwise approved by the Board in writing.
- 5. The Licensee is authorized to dispose of all acceptable food Waste, paper Waste and untreated wood products in an incinerator.
- 6. 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.
- 7. The Licensee shall provide to the Board documented authorization from all communities in Nunavut receiving Wastes from the South Kitikmeot Gold Project prior to any backhauling and disposal of Wastes to those communities.
- 8. 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.
- 9. 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.
- 10. 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.

- 11. 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.
- 12. All Effluent discharge from the Trench Water Containment Area shall be carried out in accordance with Part D, Item 3, directed to a natural depression where direct flow into a water body is not possible, and no additional impacts are created. All discharges shall not exceed the following Effluent quality limits:

Parameter	Maximum Average Concentration (mg/L)
Total Arsenic	0.30
Total Copper	0.30
Total Lead	0.20
Total Nickel	0.50
Total Zinc	0.50
Total Suspended Solids (TSS)	15
Oil and Grease	No Visible Sheen
pH	Between 6 and 9.5

- 13. The Licensee shall confirm compliance with effluent quality limits in Part D, Item 12, prior to the release of any effluent.
- 14. All Effluent shall be discharged in such a manner as to minimize surface erosion.

# PART E: CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS

- 1. 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.
- 2. 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.
- 3. 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.
- 4. Stream crossing shall be a minimum of five hundred (500) meters from spawning areas.

- 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.
- 6. 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.

# <u>PART F:</u> <u>CONDITIONS APPLYING TO DRILLING AND TRENCHING</u> OPERATIONS

- 1. The Licensee shall not conduct any land-based drilling 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 shall ensure that removal of material from trenches take place within one (1) metre of the High Water Mark above the groundwater table.
- 3. The Licensee shall implement sediment and erosion control measures by employing erosion prevention measures (e.g., berms or silt fence) in the trenching area during the project operation.
- 4. The Licensee shall stockpile all overburden/topsoil generated during trenching using proper erosion prevention measures. Upon completion of operation, the Licensee shall back fill, reclaim/re-contour and re-vegetate all disturbed areas.
- 5. The Licensee shall pump accumulated water in trenches to a natural depression sump, and build berms where necessary. Water should meet the discharge criteria as outlined by Part D, Item 12 before being discharged into the environment.
- 6. The Licensee shall dispose of all drill waste, including Water, chips, muds and salts (CaCl<sub>2</sub>) 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.
- 7. 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.
- 8. 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.

- 9. For "on-ice" drilling where drill additives are not being used, return Water released must be non-toxic, 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).
- 10. The Licensee shall establish water quality conditions prior to and upon completion of any drilling program through lake ice.

## PART G: CONDITIONS APPLYING TO MODIFICATIONS

- 2. 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.
- 3. 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.
- 4. 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 the Plan entitled "Spill Response Plan" dated November 2022 that was submitted as additional information with the Application.
- 2. The Licensee shall, within thirty (30) days of issuance of the Licence, submit to the Board for review an updated Plan referred to in Part H, Item 1 to address technical review comments raised during the review of Application.
- 3. 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.

- 4. 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.
- 5. 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.
- 6. The Licensee shall, in addition to Part H, Item 5, 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 the Plan entitled "Closure and Reclamation Plan" dated November 2022 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, trenches, 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 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 work upon completion of the undertaking and as per Part I, Item 4.

## PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM

- 1. The Licensee shall measure and record, in cubic metres, the daily quantities of Water 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.
- 3. The Licensee shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where Wastes associated with camp operations and drilling operations are deposited.

4. The Licensee shall obtain representative samples of the Water column below any ice where required under Part F, Item 9 and 10. Monitoring shall include but not be limited to the following:

**Total Suspended Solids** 

pН

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. Any water collected in the trenches shall be tested prior to discharge and analyzed for the following:

Total Suspended Solids, pH,

Total Trace Metals as determined by a standard ICP Scan (to include at a minimum, the following elements: Cd, Cr, Co, Cu, Fe, Pb, Mn, Ni, Zn), and Trace Arsenic and Mercury.

- 6. 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.
- 7. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
- 8. The Licensee shall include in the Annual Report required under Part B, Item 2 all data, monitoring results and information required by this Part.
- 9. An Inspector may impose additional monitoring requirements.