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**New Discovery Mines Ltd.**

**Water Licence MV2020L2-0002**

Pursuant to the *Waters Act* and the Waters Regulations,  
the Mackenzie Valley Land and Water Board grants this Water Licence to:

New Discovery Mines Ltd.

(Licensee)

of 1909 108W. Cordova St., Vancouver, BC V6B 0G5

(Mailing Address)

hereinafter called the Licensee, to proceed with the following undertaking, subject to the annexed definitions and conditions contained therein:

<b>Location:</b>	Discovery Lake, NT
<b>Water Management Area:</b>	Northwest Territories 01
<b>Purpose:</b>	To use water and dispose of waste - Mining and Milling
<b>Type:</b>	B
<b>Quantity of Water not to be exceeded:</b>	299 cubic metres (m3)/day to a maximum of 7,500 m3 /year (Part D: Water Use)
<b>Effective Date:</b>	October 16, 2020
<b>Expiry Date:</b>	October 15, 2027

<b>Surveillance Network Program Update</b>	July 21, 2022
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Mavis Cli-Michaud, Chair  
Mackenzie Valley Land and Water Board

Amanda Gauthier, Witness

# Type B Water Licence MV2020L2-0002 New Discovery Mines Ltd. – Mon Gold Project

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## Part A: Scope and Defined Terms

### Scope:

1. This Licence entitles the Licensee to use Water and deposit Waste for advanced exploration, mining and milling activities at the Mon Gold Project. **SCOPE**  
  
The scope of this Licence includes the following:
  - a) Advanced mineral exploration activities, including bulk sampling;
  - b) Mining and milling;
  - c) Re-opening and securing of the North and South Declines;
  - d) Withdrawal of Water for domestic use, winter road Construction and maintenance, exploration, mining, and milling activities;
  - e) Storage of Waste Rock and ore;
  - f) Construction, operation and maintenance of a winter access road from the Ingraham Trail to Discovery Lake;
  - g) Construction, operation and maintenance of culverts;
  - h) Construction, operation and maintenance of site roads;
  - i) Construction, operation and maintenance of a camp;
  - j) Construction, operation and maintenance of a Sewage Disposal Facility;
  - k) Construction, operation and maintenance of milling facilities and infrastructure;
  - l) Construction, operation and maintenance of a Dry Stack Tailings Facility;
  - m) Fuel storage;
  - n) Storage and use of explosives; and
  - o) Progressive Reclamation and associated Closure and Reclamation activities.
  
2. The scope of this Licence is as described in Preliminary Screenings: N1L3-1598 dated January 24, 1992 and February 4, 1994; MV2001F0098 dated November 27, 2001; MV2015L2-0004 and MV2015C0015 dated October 21, 2015, and for MV2013C0021 dated February 7, 2019. **SCOPE –  
PRELIMINARY  
SCREENING**
  
3. This Licence is issued subject to the conditions contained herein with respect to the use of Water and the deposit of Waste 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. Any change made to the *Waters Act* or Waters Regulations that affects licence conditions and defined terms will be deemed to have amended this Licence. **LEGISLATION  
SUBJECT TO  
CHANGE**
  
4. Compliance with this Licence does not relieve the Licensee from responsibility for compliance with the requirements of any applicable federal, territorial, or municipal legislation. **LEGISLATIVE  
COMPLIANCE**

## **Defined Terms**<sup>1</sup>

**Acid Rock Drainage** – acidic Water, often with elevated sulphate concentrations, that occurs as a result of oxidation of sulphide minerals contained in rock or other materials that are exposed as a result of natural weathering processes, Construction, or Project activities.

**Action Level** – a predetermined qualitative or quantitative trigger which, if exceeded, requires the Licensee to take appropriate actions.

**Analyst** – an Analyst designated by the Minister under subsection 65(1) of the *Waters Act*.

**Average Concentration** – the arithmetic mean/discrete average of four consecutive analytical results, or if less than four analytical results, the arithmetic mean/discrete average of the analytical results collected during a batch decant, as submitted to the Board in accordance with the sampling and analysis requirements specified in the Surveillance Network Program.

**Board** – the Mackenzie Valley Land and Water Board established under subsection 99(1) of the *Mackenzie Valley Resource Management Act*.

**Closure Cost Estimate** - an estimate of the cost to close and reclaim the Project.

**Closure and Reclamation** – the process and activities that facilitate the return of areas affected by the Project to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment and human activities.

**Closure and Reclamation Plan** – a document, developed in accordance with this Licence and the MVLWB/AANDC *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*, that clearly describes the Closure and Reclamation for the Project.

**Construction** – any activities undertaken during any phase of the Project to construct or build any structures, facilities or components of, or associated with, the development of the Project.

**Discharge** – a direct or indirect deposit or release of any Water or Waste to the Receiving Environment.

**Dry Stack Tailings Facility** - an Engineered Structure designed for the storage of solid tailings following filtration and dewatering.

**Effluent** – a Wastewater Discharge.

**Effluent Quality Criteria (EQC)** – numerical or narrative limits on the quality or quantity of the Waste deposited to the Receiving Environment.

**Engagement Plan** – a document, developed in accordance with the MVLWB *Engagement and Consultation Policy* and the *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits*, that clearly describes how, when, and which engagement activities will occur with an affected party during the life of the Project.

**Engineer of Record** - a qualified Professional Engineer who is responsible for the design and performance of the Dry Stack Tailings Facility.

**Engineered Structure** – any structure or facility related to Water Use or the deposit of Waste that is designed by a Professional Engineer, including but not limited to the Dry Stack Tailings Facility associated with the Project.

**Greywater** – all liquid Waste from showers, baths, sinks, kitchens, and domestic washing facilities, but does not include Toilet Waste.

**Groundwater** – as defined in section 1 of the Waters Regulations: all water in a zone of saturation below the land surface, regardless of its origin.

**Hydrocarbon-Contaminated Soil Treatment Facilities** – the area(s) and Engineered Structures designated to contain and treat hydrocarbon-contaminated sediments and soil.

**Inspector** – an Inspector designated by the Minister under subsection 65(1) of the *Waters Act*.

**Licensee** – the holder of this Licence.

**Maximum Average Concentration** – the concentration of a parameter that cannot be exceeded by the running average of any four consecutive analytical results.

**Maximum Grab Concentration** – the concentration of a parameter that cannot be exceeded in any one analytical result.

**Metal Leaching** – the release of metals and metalloids in leachate, Seepage, or drainage from rock or other materials associated with the Project.

**Minewater** – Groundwater, surface Water, or any Water that is pumped, seeps, or flows out of any underground mine working or open pit.

**Minister** – the Minister of the Government of the Northwest Territories (GNWT) – Environment and Natural Resources.

**Ordinary High-Water Mark** – the usual or average level to which a Watercourse rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing Watercourses (rivers, streams), this refers to an active channel/bank-full level, which is often the 1:2-year flood flow return level. In inland lakes, wetlands or marine environments, it refers to those parts of the Watercourse bed and banks that are frequently flooded by Water so as to leave a mark on the land and where the natural vegetation changes from predominantly aquatic vegetation to terrestrial vegetation (excepting Water tolerant species). For reservoirs, this refers to normal high operating levels (full supply level).

**Potentially Acid Generating (PAG) Rock** – any rock that has the potential to produce Acid Rock Drainage.

**Professional Engineer** – a person registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists to practice as a Professional Engineer in the Northwest Territories as per the territorial *Engineering and Geoscience Professions Act* and whose professional field of specialization is appropriate to address the components of the Project at hand.

**Progressive Reclamation** – Closure and Reclamation activities conducted during the operating phase of the Project.

**Project** – the undertaking described in Part A, Conditions 1 and 2.

**Receiving Environment** – the natural environment that, directly or indirectly, receives any deposit of Waste from the Project.

**RECLAIM** – the Government of the Northwest Territories’ model for estimating Closure and Reclamation costs.

**Runoff** – the overland flow of Water or Wastewater that occurs when precipitation, meltwater, or other Water is not absorbed by the land.

**Seepage** – any Water or Waste that drains, passes through, or escapes from any structure designed to contain, withhold, divert, or retain Water or Waste.

**Sewage** – all Toilet Wastes and Greywater.

**Sewage Disposal Facilities** – the area(s) and structures designated to contain and treat Sewage.

**Spill Contingency Plan (SCP)** – a document developed for the Project in accordance with INAC’s *Guidelines for Spill Contingency Planning*.

**Sump** – a human-made excavation or a natural depression designated for depositing Water and/or Waste.

**Surveillance Network Program (SNP)** – a monitoring program required by this Licence and detailed in Annex A.

**Tailings** – the materials rejected from the processing facilities after the recoverable valuable minerals have been extracted.

**Toilet Wastes** – all human excreta and associated products, not including Greywater.

**Traditional Knowledge** – the cumulative, collective body of knowledge, experience and values built up by a group of people through generations of living in close contact with nature. It builds upon the historic experiences of a people and adapts to social, economic, environmental, spiritual, and political change.

**Unauthorized Discharge** – a Discharge of any Water or Waste not authorized under this Licence

**Waste** – as defined in section 1 of the *Waters Act*:

- a) a substance that, if added to water, would degrade or alter or form part of a process of degradation or alteration of the quality of the water to an extent that is detrimental to its use by people or by an animal, fish or plant, or
- b) water that contains a substance in such a quantity or concentration, or that has been so treated, processed or changed, by heat or other means, that it would, if added to other water, degrade or alter or form part of a process of degradation or alteration of the quality of that water to the extent described in paragraph (a),  
and includes
  - a) a substance or water that, for the purposes of the *Canada Water Act*, is deemed to be waste,
  - b) a substance or class of substances prescribed by regulations made under subparagraph 63(1)(b)(i),
  - c) water that contains a substance or class of substances in a quantity or concentration that is equal to or greater than a quantity or concentration prescribed in respect of that substance or class of substances by regulations made under subparagraph 63(1)(b)(ii), and

d) water that has been subjected to a treatment, process or change prescribed by regulations made under subparagraph 63(1)(b)(iii).

**Waste Management Plan (WMP)** – a document, developed in accordance with the MVLWB *Guidelines for Developing a Waste Management Plan*, that describes the methods of Waste management for the Project from Waste generation to final disposal.

**Waste Rock** – all rock materials, except ore and Tailings which are produced as a result of mining and milling operations.

**Waste Rock Storage Facilities** – the area(s) and Engineered Structures designated for the disposal of Waste Rock overburden, and/or till.

**Wastewater** – any Water that is generated by Project activities or originates on-site, and which contains Waste, and may include, but is not limited to, Runoff, Seepage, Sewage, Minewater, and Effluent.

**Water** – as defined in section 1 of the *Waters Act*: water under the administration and control of the Commissioner, whether in a liquid or frozen state, on or below the surface of land.

**Watercourse** – as defined in section 1 of the Waters Regulations: a natural watercourse, body of Water or Water supply, whether usually containing Water or not, and includes Groundwater, springs, swamps, and gulches.

**Water Management Area** – a geographical area of the Northwest Territories established by section 2 and Schedule A of the Waters Regulations.

**Waters Regulations** – the regulations proclaimed pursuant to section 63 of the *Waters Act*.

**Water Supply Facilities** – the area(s) and structures designed to collect and supply Water for the Project.

**Water Use** – as defined in section 1 of the *Waters Act*: a direct or indirect use of any kind, including, but not limited to,

- a) a diversion or obstruction of waters,
- b) an alteration of the flow of waters, and
- c) an alteration of the bed or banks of a river, stream, lake or other body of water, whether or not the body of water is seasonal,

but does not include a use connected with shipping activities that are governed by the *Canada Shipping Act, 2001*.

**Water Use Fee** – the fee for use of Water as per the Waters Regulations pursuant to section 63 of the *Waters Act* and the MVLWB *Water Use Fee Policy*.

## Part B: General Conditions

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| 1.  | The Licensee shall ensure a copy of this Licence is maintained on site at all times.  | <b>COPY OF LICENCE</b>  |
| 2.  | The Licensee shall take every reasonable precaution to protect the environment.   | <b>PRECAUTION TO PROTECT ENVIRONMENT</b>                            |
| 3.  | In conducting its activities under this Licence, the Licensee shall make every reasonable effort to consider and incorporate any scientific information and Traditional Knowledge that is made available to the Licensee.   | <b>INCORPORATE SCIENTIFIC INFORMATION AND TRADITIONAL KNOWLEDGE</b> |
| 4.  | In each submission required by this Licence or by any directive from the Board, the Licensee shall identify all recommendations based on Traditional Knowledge received, describe how the recommendations were incorporated into the submission, and provide justification for any recommendation not adopted.  | <b>IDENTIFY TRADITIONAL KNOWLEDGE</b>                               |
| 5.  | All references to policies, guidelines, codes of practice, statutes, regulations, or other authorities shall be read as a reference to the most recent versions, unless otherwise noted.  | <b>REFERENCES</b>   |
| 6.  | <p>The Licensee shall ensure all submissions to the Board:</p> <ul style="list-style-type: none"> <li>a) Are in accordance with the MVLWB <i>Document Submission Standards</i>;</li> <li>b) Include a conformity statement or table which identifies where the requirements of this Licence, or other directives from the Board, are addressed; and</li> <li>c) Include any additional information requested by the Board.</li> </ul> | <b>SUBMISSION FORMAT AND CONFORMITY</b>                             |
| 7.  | The Licensee shall ensure management plans are submitted to the Board in a format consistent with the MVLWB <i>Standard Outline for Management Plans</i> , unless otherwise specified.  | <b>MANAGEMENT PLAN FORMAT</b>                                       |
| 8.  | The Licensee shall comply with plans and programs, including revisions, approved pursuant to the conditions of this Licence.  | <b>COMPLY WITH SUBMISSIONS AND REVISIONS</b>                        |
| 9.  | The Licensee shall conduct an annual review of all plans and programs and make any revisions necessary to reflect changes in operations, contact information, or other details. No later than March 31 each year, the Licensee shall send a notification letter to the Board, listing the documents that have been reviewed and do not require revisions.   | <b>ANNUAL REVIEW</b>  |
| 10. | The Licensee may propose changes at any time by submitting revised plans and programs to the Board, for approval, a minimum of 90 days prior to the proposed implementation date for the changes. The Licensee shall not implement the changes until approved by the Board.   | <b>REVISIONS</b>  |
| 11. | The Licensee shall revise any submission and submit it as per the Board's directive.  | <b>REVISE AND SUBMIT</b>  |

12.	If any date for any submission falls on a weekend or holiday, the Licensee may submit the item on the following business day.	SUBMISSION DATE
13.	The Licensee shall comply with the <b>Schedules</b> , which are annexed to and form part of this Licence, and any updates to the Schedules as may be made by the Board.	COMPLY WITH SCHEDULE(S)
14.	The Licensee shall comply with the <b>Surveillance Network Program</b> , which is annexed to and forms part of this Licence, and any updates to the Surveillance Network Program as may be made by the Board.	COMPLY WITH SURVEILLANCE NETWORK PROGRAM
15.	The Schedules, the Surveillance Network Program, and any compliance dates specified in this Licence may be updated at the discretion of the Board.	UPDATES TO COMPLIANCE DATE(S)
16.	The Licensee shall comply with all directives issued by the Board in respect of the implementation of the conditions of this Licence.	COMPLY WITH BOARD DIRECTIVES
17.	The Licensee shall ensure signs are posted for all active Surveillance Network Program stations. All sign(s) shall be located and maintained to the satisfaction of an Inspector.	POST SURVEILLANCE NETWORK PROGRAM SIGN(S)
18.	The Licensee shall install, operate, and maintain meters, devices, or other such methods for measuring the volumes of Water used and Waste discharged to the satisfaction of an Inspector.	MEASURE WATER USE AND WASTE DISCHARGED
19.	Beginning March 31, 2021 and no later than every March 31 thereafter, the Licensee shall submit an <b>Annual Water Licence Report</b> to the Board and an Inspector. The Report shall be in accordance with the requirements of Schedule 1, Condition 1.	ANNUAL WATER LICENCE REPORT
20.	The Licensee shall comply with the <b>Engagement Plan</b> , once approved.	ENGAGEMENT PLAN
21.	Within 90 days following the effective date of this Licence, the Licensee shall submit to the Board, for approval, a revised Engagement Plan. The Licensee shall not commence Project activities prior to Board approval of the Plan.	ENGAGEMENT PLAN – REVISED
22.	A minimum of ten days prior to the initial commencement of Project activities, the Licensee shall provide written notification to the Board and an Inspector. Notification shall include the commencement date, and the name and contact information for the individual responsible for overseeing the Project. Written notification shall be provided to the Board and an Inspector if any changes occur.	NOTIFICATION – COMMENCEMENT
23.	A minimum of ten days prior to re-commencement of Project activities following a temporary shut-down period, the Licensee shall provide written notification to the Board and an Inspector. Notification shall include the commencement date, and the name and contact information for the individual responsible for overseeing the Project. Written notification shall be provided to the Board and an Inspector if any changes occur.	NOTIFICATION – RE-COMMENCEMENT

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| 24. The Licensee shall immediately provide written notification to the Board and an Inspector of any non-compliance with the conditions of this Licence.   | <b>NOTIFICATION –<br/>NON-COMPLIANCE<br/>WITH CONDITIONS</b> |
| 25. The Licensee shall immediately provide written notification to the Board of any non-compliance with a Board directive issued in respect of the implementation of the conditions of this Licence. | <b>NOTIFICATION –<br/>NON-COMPLIANCE<br/>WITH DIRECTIVES</b> |
| 26. The Licensee shall ensure that a copy of any written authorization issued to the Licensee by an Inspector is provided to the Board.  | <b>COPY – WRITTEN<br/>AUTHORIZATION</b>                      |
| 27. The Licensee shall submit a current Project schedule to the Board and an Inspector upon request.   | <b>SUBMIT CURRENT<br/>PROJECT<br/>SCHEDULE</b>               |

### **Part C: Security**

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| 1. The Licensee shall post and maintain a security deposit with the Minister in accordance with Schedule 2, Condition 1. The Licensee shall not commence Project activities until the security deposit has been accepted by the Minister.  | <b>POST SECURITY<br/>DEPOSIT</b>             |
| 2. Upon request of the Board, the Licensee shall submit an updated Closure Cost Estimate using the current version of RECLAIM or another method acceptable to the Board.   | <b>UPDATE CLOSURE<br/>COST ESTIMATE</b>      |
| 3. The amount of the security deposit required by Part C, Condition 1 may be adjusted by the Board:<br>a) Based on an updated Closure Cost Estimate as per Part C, Condition 2; or<br>b) Based on such other information as may become available to the Board.   | <b>ADJUSTED<br/>SECURITY<br/>AMOUNT</b>      |
| 4. If the amount of the security deposit is adjusted by the Board as per Part C, Condition 3, the Licensee shall post the adjusted amount with the Minister within the timeframe set by the Board. The Licensee shall not commence any new activities associated with a security adjustment until the additional security deposit has been accepted by the Minister. | <b>POST ADJUSTED<br/>SECURITY<br/>AMOUNT</b> |
| 5. Unless otherwise approved by the Board, the Licensee may not submit security adjustment requests except with any of the following submissions:<br>a) Closure and Reclamation Plans;<br>b) Closure and Reclamation Completion Reports; or<br>c) Performance Assessment Reports.  | <b>SECURITY<br/>ADJUSTMENT<br/>REQUESTS</b>  |

### **Part D: Water Use**

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| 1. The Licence shall only obtain Water for the Project as set out in the following table. | <b>WATER SOURCE<br/>AND MAXIMUM<br/>VOLUME</b> |
|---|--|

Water Source Name	Location and Coordinates	Type of Watercourse (e.g., river, lake, etc.)	Purpose of Water Use	Maximum Quantity (m <sup>3</sup> per day)
Discovery Lake	<i>Information to be collected once stations are established and reported through the Surveillance Network Program.</i>	Lake	Domestic, Winter Road Construction, Drilling, Mining, Milling	133
Sito Lake		Lake	Winter Road Construction	100
Prosperous Lake		Lake	Winter Road Construction	100
Bluefish Lake		Lake	Winter Road Construction	100
Quayta Lake		Lake	Winter Road Construction	100
Lake A (T-Bone)		Lake	Drilling	10
Lake B (Bone)		Lake	Drilling	10
Lake C (5656)		Lake	Drilling	10
Lake D (SZ)		Lake	Drilling	10

- The total annual quantity of Water withdrawn from all Water sources shall not exceed 7,500 cubic metres (m<sup>3</sup>).
- In any single ice-covered season, the Licensee shall not withdraw greater than 10% of the available Water volume of any Watercourse, as calculated using the appropriate maximum expected ice thickness.
- The Licensee shall only withdraw Water using the Water Supply Facilities, unless otherwise authorized temporarily in writing by an Inspector.
- Prior to withdrawing Water from an approved Water source, the Licensee shall post sign(s) to identify the intake for the Water Supply Facilities. All sign(s) shall be located and maintained to the satisfaction of an Inspector.

**ANNUAL WATER USE**

**MAXIMUM UNDER-ICE WATER WITHDRAWAL VOLUME**

**WATER WITHDRAWAL – FACILITIES**

**POST WATER INTAKE SIGN(S)**

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| 6. | The Licensee shall construct and maintain the Water intake(s) with a screen designed to prevent impingement or entrapment of fish.   | WATER INTAKE<br>SCREEN                      |
| 7. | Prior to locating a Water intake in a fish-bearing Watercourse, the Licensee shall obtain written authorization for the location from an Inspector.  | WATER INTAKE<br>LOCATION –<br>AUTHORIZATION |
| 8. | Each year, prior to the day and month of the effective date and in advance of any Water use, the Licensee shall pay the Water Use Fee in accordance with the <i>MVLWB Water Use Fee Policy</i> . | WATER USE FEE                               |

## Part E: Construction

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|----|---|---|
| 1. | The Licensee shall ensure that all structures intended to contain, withhold, divert, or retain Water or Waste are designed, constructed, and maintained to minimize the escape of Waste to the Receiving Environment.   | OBJECTIVE –<br>CONSTRUCTION   |
| 2. | The Licensee shall ensure that all Hydrocarbon-Contaminated Soil Treatment Facilities are designed, constructed, maintained, monitored, and closed to meet or exceed the <i>MVLWB/IWB/GNWT Guideline for Design, Operation, Maintenance, and Closure of Petroleum Hydrocarbon-Contaminated Soil Treatment Facilities in the Northwest Territories</i> .   | HYDROCARBON-<br>CONTAMINATED<br>SOIL TREATMENT<br>FACILITIES –<br>GENERAL |
| 3. | The Licensee shall ensure that all Engineered Structures are constructed and maintained in accordance with the recommendations of the Professional Engineer responsible for the design, including, but not limited to, recommendations regarding field supervision and inspection requirements.   | ENGINEERED<br>STRUCTURES –<br>GENERAL                                     |
| 4. | The Licensee shall ensure that all material used in Construction of the Project meets the geochemical criteria specified in the approved <b>Waste Rock Management and Geochemical Characterization and Monitoring Plan</b> referred to in Part F, Condition 4.  | CONSTRUCTION<br>MATERIAL –<br>GEOCHEMICAL<br>CRITERIA                     |
| 5. | The Licensee shall maintain records of Construction materials for all structures and make them available at the request of the Board or an Inspector.   | CONSTRUCTION<br>RECORDS   |
| 6. | The Licensee shall maintain geochemical records of Construction materials for all structures and make them available at the request of the Board or an Inspector.   | GEOCHEMICAL<br>RECORDS  |
| 7. | Unless otherwise authorized in writing by an Inspector, a minimum of 90 days prior to the commencement of Construction of all structures, excluding Engineered Structures, intended to contain, withhold, divert, or retain Water or Wastes, the Licensee shall submit to the Board, for approval, a <b>Structure Description and Construction Plan</b> . The Plan shall be in accordance with the requirements of Schedule 3, Condition 1. The Licensee shall not commence Construction of the structure(s) prior to Board approval of the Plan. | STRUCTURE<br>DESCRIPTION AND<br>CONSTRUCTION<br>PLAN                      |
| 8. | A minimum of 90 days prior to the commencement of Construction of any Engineered Structures [not referred to in Part E, Condition 7], the Licensee shall submit to the Board, for approval, a <b>Design and Construction Plan</b> . The Plan shall be in accordance with the requirements of Schedule 3, Condition 2. The   | DESIGN AND<br>CONSTRUCTION<br>PLAN  |

Licensee shall not commence Construction of the Engineered Structure(s) prior to Board approval of the Plan.

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| <p>9. A minimum of 90 days prior to the commencement of Construction of any Engineered Structures, the Licensee shall submit to the Board, <b>Design Drawings</b> stamped and signed by a Professional Engineer. A minimum of 90 days prior to implementing any proposed changes to the Design Drawings, the Licensee shall submit revised Design Drawings to the Board.</p>  | <p><b>DESIGN<br/>DRAWINGS</b></p>   |
| <p>10. A minimum of ten days prior to the commencement of Construction of any Engineered Structure(s), the Licensee shall provide written notification to the Board and an Inspector. Notification shall include the Construction commencement date, and the name and contact information for the individual responsible for overseeing Construction. Written notification shall be provided to the Board and an Inspector if any changes occur.</p>  | <p><b>NOTIFICATION –<br/>CONSTRUCTION –<br/>ENGINEERED<br/>STRUCTURES</b></p> |
| <p>11. A minimum of ten days prior to the commencement of Construction of any structure(s) intended to contain, withhold, divert, or retain Water or Wastes, the Licensee shall provide written notification to the Board and an Inspector. Notification shall include the Construction commencement date, and the name and contact information for the individual responsible for overseeing the Construction. Written notification shall be provided to the Board and an Inspector if any changes occur.</p>  | <p><b>NOTIFICATION –<br/>CONSTRUCTION</b></p>                                 |
| <p>12. The Licensee shall ensure that all structures intended to contain, withhold, divert, or retain Water or Wastes, excluding Engineered Structures, are constructed in accordance with the approved <b>Structure Description and Construction Plan(s)</b>.</p>  | <p><b>CONSTRUCT AS<br/>DESIGNED –<br/>STRUCTURE(S)</b></p>                    |
| <p>13. The Licensee shall ensure that all Engineered Structures are constructed in accordance with the <b>Design Drawings</b> and approved <b>Design and Construction Plan(s)</b>.</p>  | <p><b>CONSTRUCT AS<br/>DESIGNED –<br/>ENGINEERED<br/>STRUCTURE(S)</b></p>     |
| <p>14. Within 90 days of the completion of the Construction of each Engineered Structure, the Licensee shall submit to the Board, an <b>As-Built Report</b> stamped and signed by a Professional Engineer, which shall include, but not be limited to, the following information:</p> <ul style="list-style-type: none"> <li>a) final as-built drawings of the Engineered Structure(s), stamped and signed by a Professional Engineer;</li> <li>b) documentation, with rationale, of field decisions that deviate from the <b>Design and Construction Plans</b> and/or <b>Design Drawings</b>; and</li> <li>c) any data used to support these decisions.</li> </ul> | <p><b>AS-BUILT REPORT<br/>– ENGINEERED<br/>STRUCTURE(S)</b></p>               |
| <p>15. The Licensee shall retain an Engineer of Record for the Dry Stack Tailings Facility.</p>   | <p><b>ENGINEER OF<br/>RECORD</b></p>  |
| <p>16. The Licensee shall ensure that the Engineer of Record establishes quantifiable performance objectives for the Dry Stack Tailings Facility and reviews the quantifiable performance objectives annually for the life of the Facility.</p>   | <p><b>QUANTIFIABLE<br/>PERFORMANCE<br/>OBJECTIVES</b></p>                     |

## Part F: Waste and Water Management

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|----|--|---|
| 1. | The Licensee shall manage Waste and Water with the objective of minimizing the impacts of the Project on the quantity and quality of Water in the Receiving Environment through the use of appropriate mitigation measures, monitoring, and follow-up actions. | OBJECTIVE –<br>WASTE AND<br>WATER<br>MANAGEMENT |
| 2. | The Licensee shall minimize erosion by implementing suitable erosion control measures that shall be located and maintained to the satisfaction of an Inspector.  | EROSION<br>CONTROL                              |

### Management and Monitoring Plans

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| 3. | The Licensee shall comply with the <b>Waste Management Plan</b> , once approved.   | WASTE<br>MANAGEMENT<br>PLAN  |
| 4. | A minimum of 90 days prior to commencement of mining activities, the Licensee shall submit to the Board, for approval, a <b>Waste Rock Management and Geochemical Characterization and Monitoring Plan</b> . The Plan shall be in accordance with the requirements of Schedule 4, Condition 1. The Licensee shall not commence mining activities prior to Board approval of the Plan.  | WASTE ROCK<br>MANAGEMENT<br>AND<br>GEOCHEMICAL<br>CHARACTERIZATIO<br>N AND<br>MONITORING<br>PLAN |
| 5. | A minimum of 90 days prior to commencement of activities, the Licensee shall submit to the Board, for approval, a <b>Water and Groundwater Management and Monitoring Program</b> . The Plan shall be in accordance with the requirements of Schedule 4, Condition 2. The Licensee shall not commence activities prior to Board approval of the Plan.   | WATER AND<br>GROUNDWATER<br>MANAGEMENT<br>AND<br>MONITORING<br>PROGRAM                           |
| 6. | A minimum of 90 days prior to commencement of milling activities, the Licensee shall submit to the Board, for approval, a <b>Tailings Management Plan</b> . The Plan shall be in accordance with the requirements of Schedule 4, Condition 3. The Licensee shall not commence activities prior to Board approval of the Plan.  | TAILINGS<br>MANAGEMENT<br>PLAN   |
| 7. | A minimum of 90 days prior to Construction of a Hydrocarbon Contaminated Soil Treatment Facility, the Licensee shall submit to the Board, for approval, a <b>Hydrocarbon-Contaminated Soil Treatment Facility Plan</b> . The Plan shall be in accordance with the Board's <i>Guideline for the Design, Operation, Monitoring, Maintenance and Closure of Petroleum Hydrocarbon-Contaminated Soil Treatment Facilities in the Northwest Territories</i> . The Licensee shall not commence activities prior to Board approval of the Plan. | HYDROCAROBON-<br>CONTAMINATED<br>SOIL TREATMENT<br>FACILITY PLAN                                 |
| 8. | A minimum of 90 days prior to commencement of mining activities, the Licensee shall submit to the Board, for approval, an <b>Explosive Management Plan</b> . The Plan shall be in accordance with the requirements of Schedule 4, Condition 4. The Licensee shall not commence mining activities prior to Board approval of the Plan.  | EXPLOSIVES<br>MANAGEMENT<br>PLAN   |

### Operation of Structures and Facilities

9. The Licensee shall construct, operate, and maintain the Dry Stack Tailings Facility to the design specifications and engineering standards, such that:
- DRY STACK  
TAILINGS FACILITY**
- a) The specifications described in the Dry Stack Tailings Facility **Design and Construction Plan**, referred to in Part E, Condition 8 are maintained at all times;
  - b) Any Seepage from the facility to the Receiving Environment that does not meet Effluent Quality Criteria, as specified in Part F, Condition 19 shall be collected and managed;
  - c) Any deterioration or erosion of constructed structures/facilities shall be reported immediately to an Inspector;
  - d) Any deterioration or erosion of constructed structures/facilities that requires repair shall be reported to an Inspector and the Board, and repaired immediately;
  - e) Monitoring of the facility is sufficient to ensure that:
    - i. Performance design criteria, as described in the **Design and Construction Plan**, referred to in Part E, Condition 8 are being met; and
    - ii. Necessary changes in operation of the facility, including any additional mitigations, are identified.

### Inspection of Structures and Facilities

10. The Licensee shall conduct annual inspections of the Dry Stack Tailings Facility or as otherwise directed by an Inspector or the Board. Records of these inspections shall be made available to the Board or an Inspector upon request.
- ANNUAL  
INSPECTION OF  
DRY STACK  
TAILINGS FACILITY**
11. The Licensee shall conduct daily erosion inspections of Discharge locations, during periods of Discharge, or more frequently as directed by an Inspector. Records of these inspections shall be made available to the Board or an Inspector upon request.
- DAILY  
INSPECTIONS OF  
DISCHARGE  
LOCATIONS**
12. The Licensee shall ensure that geotechnical inspections of the Dry Stack Tailings Facility are conducted annually, and following any events that exceed design criteria, by a Professional Engineer. The Licensee shall:
- ANNUAL  
GEOTECHNICAL  
INSPECTION**
- a) A minimum of two weeks prior to the annual inspection, and when events that exceed design criteria occur, provide written notification to an Inspector; and
  - b) Within 90 days of completing the inspection, submit the Professional Engineer's full **Geotechnical Inspection Report** to the Board and an Inspector. The Report shall include:
    - i. a covering letter from the Licensee outlining an implementation plan to respond to any recommendations made by the Professional Engineer, including rationale for any decisions that deviate from the Professional Engineer's recommendations; and
    - ii. a summary of any actions taken by the Licensee to address the recommendations made following the previous year's inspection.

### Discharge and Disposal Locations and Rates

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|---|--|
| 13. The Licensee shall deposit all Waste as described in the approved <b>Waste Management Plan</b> .  | <b>WASTE<br/>MANAGEMENT</b>  |
| 14. Within 90 days following the effective date of this Licence, the Licensee shall submit to the Board, for approval, a revised <b>Waste Management Plan</b> . The Licensee shall not commence Project activities prior to Board approval of the Plan. | <b>WASTE<br/>MANAGEMENT<br/>PLAN – REVISED</b>                       |
| 15. The Licensee shall discharge all Effluent from the Sewage Disposal Facilities as described in the approved <b>Waste Management Plan</b> .   | <b>EFFLUENT<br/>DISCHARGE –<br/>SEWAGE<br/>DISPOSAL<br/>FACILITY</b> |
| 16. A minimum of ten days prior to depositing any Waste into a licenced municipal facility, the Licensee shall provide written notification to the Board and an Inspector.  | <b>NOTIFICATION –<br/>WASTE DEPOSIT</b>                              |
| 17. The Licensee shall not discharge Waste, including Wastewater, to any Watercourse, or to the ground surface within 100 metres of the Ordinary High-Water Mark of any Watercourse.  | <b>DISCHARGE<br/>LOCATION –<br/>ORDINARY HIGH-<br/>WATER MARK</b>    |

**Effluent Quality Criteria**

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| 18. The Licensee shall ensure that Effluent from the Sewage Disposal Facility at Surveillance Network Program station SNP-01 has a pH value at or above 6.0 and meets the following Effluent Quality Criteria (EQC): | <b>EFFLUENT<br/>QUALITY CRITERIA<br/>– SEWAGE<br/>TREATMENT<br/>FACILITY</b> |
|--|--|

Parameter	Maximum Average Concentration
CBOD <sub>5</sub>	25 mg/L
TSS	25 mg/L
Un-ionized Ammonia	1.25 mg/L
Fecal Coliform	1000 CFU/100 mL
Oil and Grease	5.0 mg/L

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| 19. The Licensee shall ensure that Runoff and Seepage from Dry Stack Tailings Facility at Surveillance Network Program stations SNP-02 and SNP-03 has a pH value between 6.0 and 9.5 and meets the following Effluent Quality Criteria (EQC): | <b>EFFLUENT<br/>QUALITY CRITERIA<br/>– DRY STACK<br/>TAILINGS RUNOFF<br/>AND SEEPAGE</b> |
|---|--|

Parameter	mg/L	
	Maximum Average Concentration (mg/L)	Maximum Grab Concentration (mg/L)
Ammonia	-	5.9
Arsenic	0.5	1.0
Copper	0.3	0.6
Cyanide	1.0	2.0

Lead	0.2	0.4
Nickel	0.5	1.0
Radium-226	0.37 Bq/L	1.11 Bq/L
TSS	15	30
Zinc	0.5	1.0

20. The Licensee shall ensure that Runoff and Seepage from Waste Rock and ore stockpiles at Surveillance Network Program stations SNP-09 and SNP-10 has a pH value between 6.0 and 9.5 and meets the following Effluent Quality Criteria (EQC):

**EFFLUENT  
QUALITY CRITERIA  
– WASTE ROCK  
AND ORE  
STOCKPILE  
RUNOFF AND  
SEEPAGE**

Parameter	mg/L	
	Maximum Average Concentration (mg/L)	Maximum Grab Concentration (mg/L)
Ammonia	-	5.9
Arsenic	0.5	1.0
Copper	0.3	0.6
Cyanide	1.0	2.0
Lead	0.2	0.4
Nickel	0.5	1.0
Radium-226	0.37 Bq/L	1.11 Bq/L
TSS	15	30
Zinc	0.5	1.0

21. The Licensee shall ensure that any Minewater discharged to the environment at Surveillance Network Program station SNP-08 has a pH value between 6.0 and 9.5 and meets the following Effluent Quality Criteria (EQC):

**EFFLUENT  
QUALITY CRITERIA  
– MINEWATER  
DISCHARGE**

Parameter	mg/L	
	Maximum Average Concentration (mg/L)	Maximum Grab Concentration (mg/L)
Ammonia	-	5.9
Arsenic	0.5	1.0
Copper	0.3	0.6
Cyanide	1.0	2.0
Lead	0.2	0.4
Nickel	0.5	1.0
Radium-226	0.37 Bq/L	1.11 Bq/L
TSS	15	30
Zinc	0.5	1.0
Oil and Grease	5.0 mg/L	-

22. If Water quality data from any sample collected at Surveillance Network Program stations SNP-01, SNP-02, SNP-03, SNP-08, SNP-09, and SNP-10 exceeds the EQC specified in Part F, Conditions 18, 19, and 20 the Licensee shall:

**EFFLUENT  
QUALITY CRITERIA  
– EXCEEDANCE**

- a) Cease the Discharge;
- b) Notify the Board and an Inspector immediately;
- c) Report the spill immediately in accordance with the **Spill Contingency Plan** referred to in Part G, Condition 2;
- d) Comply with the approved **Waste Management Plan** referred to in Part F, Condition 3 or the approved **Tailings Management Plan** referred to in Part F, Condition 6; and
- e) Within 30 days of initially reporting the incident, or within a timeframe authorized by an Inspector, submit a detailed report on the occurrence, including a summary of corrective actions taken, to the Board and an Inspector.

## Part G: Spill Contingency Planning

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| <ol style="list-style-type: none"> <li>1. The Licensee shall ensure that Unauthorized Discharges associated with the Project do not enter any Waters.</li> </ol>   | <p><b>OBJECTIVE –<br/>PREVENT WASTE<br/>INTO WATER</b></p>    |
| <ol style="list-style-type: none"> <li>2. The Licensee shall comply with the <b>Spill Contingency Plan</b>, once approved.</li> </ol>  | <p><b>SPILL<br/>CONTINGENCY<br/>PLAN</b></p>                  |
| <ol style="list-style-type: none"> <li>3. Within 90 days following the effective date of this Licence the Licensee shall submit to the Board, for approval, a revised <b>Spill Contingency Plan</b>. The Licensee shall not commence Project activities prior to Board approval of the Plan.</li> </ol>  | <p><b>SPILL<br/>CONTINGENCY<br/>PLAN – REVISED</b></p>        |
| <ol style="list-style-type: none"> <li>4. If a spill or an Unauthorized Discharge occurs or is foreseeable, the Licensee shall:             <ol style="list-style-type: none"> <li>a) Implement the approved Spill Contingency Plan referred to in Part H, Condition 2;</li> <li>b) Report it immediately using the NU-NT Spill Report Form by one of the following methods:                 <ul style="list-style-type: none"> <li>• Telephone: (867) 920-8130</li> <li>• Fax: (867) 873-6924</li> <li>• E-mail: spills@gov.nt.ca</li> <li>• Online: Spill Reporting and Tracking Database</li> </ul> </li> <li>c) Notify the Board and an Inspector immediately; and</li> <li>d) Within 30 days of initially reporting the incident, or within a timeframe authorized by an Inspector, submit a detailed report to the Board and an Inspector, including descriptions of causes, response actions, and any changes to procedures to prevent similar occurrences in the future. Written notification shall be provided to the Board and an Inspector if any changes occur.</li> </ol> </li> </ol> | <p><b>REPORT SPILLS</b></p>                                   |
| <ol style="list-style-type: none"> <li>5. The Licensee shall ensure that spill prevention infrastructure and spill response equipment is in place prior to commencement of the Project.</li> </ol>   | <p><b>SPILL PREVENTION<br/>AND RESPONSE<br/>EQUIPMENT</b></p> |

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| 6. | The Licensee shall restore all areas affected by spills and Unauthorized Discharges to the satisfaction of an Inspector.   | CLEAN UP SPILLS                             |
| 7. | The Licensee shall not establish any fuel storage facilities or refueling stations, or store chemicals or Wastes within 100 metres of the Ordinary High-Water Mark of any Watercourse. | MATERIAL STORAGE – ORDINARY HIGH-WATER MARK |

## Part H: Closure and Reclamation

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| 1. | Within one year of the effective date of this Licence, the Licensee shall submit to the Board, for approval, a revised <b>Closure and Reclamation Plan</b> . The Plan shall be accordance with the MVLWB/AANDC <a href="#"><u>Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories.</u></a>  | CLOSURE AND RECLAMATION PLAN                    |
| 2. | Every three years following the previous approval, or as directed by the Board, the Licensee shall submit to the Board, for approval, a revised <b>Closure and Reclamation Plan</b> .  | CLOSURE AND RECLAMATION PLAN – REVISED          |
| 3. | Three years prior to the expiry date of this Licence, or a minimum of two years prior to the end of operations, whichever occurs first, the Licensee shall submit to the Board, for approval, a final <b>Closure and Reclamation Plan</b> .  | CLOSURE AND RECLAMATION PLAN – FINAL            |
| 4. | One year prior to Progressive Reclamation of any specific component of the Project, and until a final Closure and Reclamation Plan is approved, the Licensee shall submit to the Board, for approval, a Component-Specific <b>Closure and Reclamation Plan</b> . The Licensee shall not commence activities described in the Plan prior to Board approval.   | COMPONENT-SPECIFIC CLOSURE AND RECLAMATION PLAN |
| 5. | The Licensee shall endeavor to carry out approved Progressive Reclamation as soon as is reasonably practicable.  | PROGRESSIVE RECLAMATION                         |
| 6. | The Licensee shall not conduct Progressive Reclamation except as approved by the Board.  | PROGRESSIVE RECLAMATION – CARRY OUT AS APPROVED |
| 7. | Beginning March 31, 2021 and no later than every March 31 thereafter, the Licensee shall provide written notification to the Board and an Inspector of any approved Progressive Reclamation that will be conducted in the upcoming year. Notification shall include the name and contact information for the individual responsible for overseeing the Progressive Reclamation. Written notification shall be provided to the Board and an Inspector if any changes occur. | PROGRESSIVE RECLAMATION – NOTIFICATION          |
| 8. | Within 90 days of completing Closure and Reclamation of any specific component of the Project, the Licensee shall submit to the Board a <b>Closure and Reclamation Completion Report</b> . The Report shall be in accordance with the MVLWB/AANDC <i>Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories.</i>   | CLOSURE AND RECLAMATION COMPLETION REPORT       |

9. Within 90 days of completing Closure and Reclamation of the Project, or as otherwise directed by the Board, the Licensee shall submit to the Board for approval, a **Post-Closure and Reclamation Monitoring and Maintenance Plan**.

**POST-CLOSURE  
AND  
RECLAMATION  
MONITORING AND  
MAINTENANCE  
PLAN**

10. Within 6 months of completing Closure and Reclamation of any specific component of the Project, the Licensee shall submit to the Board for approval, a **Performance Assessment Report**. The Report shall be in accordance with the MVLWB/AANDC *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*. The Licensee shall submit subsequent Reports as directed by the Board.

**PERFORMANCE  
ASSESSMENT  
REPORT –  
COMPONENT-  
SPECIFIC**

Signed on behalf of the Mackenzie Valley Land and Water Board



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Mavis Cli-Michaud, Chair



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Amanda Gauthier, Witness

## Schedule 1

### Annual Water Licence Report

1. The **Annual Water Licence Report** referred to in Part B, Condition 19 of this Licence shall include, but not be limited to, the following information about activities conducted during the previous calendar year:
  - a) A brief summary of Project activities;
  - b) An updated Project schedule;
  - c) The monthly and annual quantities in cubic metres of fresh Water obtained from all sources, as required in Part D, Condition 1 of this Licence;
  - d) Field verification methods and results for determining that the depth of water sources meets the minimum requirements for use;
  - e) A summary of the calibration and status of the meters and devices referred to in Part B, Condition 18 of this Licence;
  - f) A summary of engagement activities conducted in accordance with the approved **Engagement Plan**, referred to in Part B, Condition 20 of this Licence;
  - g) A summary of how Traditional Knowledge was incorporated into decision making;
  - h) A summary of Construction activities conducted in accordance with Part E of this Licence;
  - i) A summary of major maintenance activities conducted in accordance with this Licence;
  - j) A summary of activities conducted in accordance with the approved **Waste Management Plan**, referred to in Part F, Condition 3 of this Licence, including:
    - i. A summary of approved updates or changes to the process or facilities required for the management of Waste;
    - ii. Monthly and annual quantities, in cubic metres, of treated Sewage discharged, by location;
    - iii. Monthly and annual quantities of Runoff and seepage collected and discharged, by location;
    - iv. Monthly and annual quantities, in cubic metres, of Sewage solids and/or sludge removed from the Sewage Disposal Facility, identified by disposal location;
    - v. Monthly elevations in metres of the Dry Stack Tailings Facility; and
    - vi. A map depicting the location of the Sumps.
  - k) A summary of activities conducted in accordance with the approved **Waste Rock Management and Geochemical Characterization and Monitoring Plan**, referred to in Part F, Condition 4 of this Licence, including:
    - i. A summary of approved updates or changes to the process or facilities required for the management or characterization of rock, Waste Rock and ore;
    - ii. A comparison of the annual quantities of each type of Waste Rock generated to the quantities predicted in the approved **Waste Rock Management and Geochemical Characterization and Monitoring Plan**;
    - iii. A summary of rock type, geochemical classification, and disposal location of all rock, Waste rock and ore managed under the plan, including a map or diagram of the locations and types of Waste Rock deposited;
    - iv. The size/height/depth/area of any rock, Waste rock, and ore piles; Monthly and annual quantities/volumes by location of rock, Waste rock, and ore managed under the plan;
    - v. A summary and interpretation of results from the geochemical monitoring performed under the approved **Waste Rock Management and Geochemical Characterization and Monitoring Plan**;

- vi. A summary and interpretation of results from seepage monitoring performed under the approved **Waste Rock Management and Geochemical Characterization and Monitoring Plan**, including:
    - a. a site map with Seepage locations;
    - b. comparisons to reference locations;
    - c. an analysis of major trends over the year and since Project inception; and
    - d. a summary of recommendations for future Seepage monitoring and/or management actions;
  - vii. A summary of results from investigations or activities related to field test cells;
  - viii. A summary and interpretation of Water quality monitoring results for each of the rock, Waste rock, and ore storage location and how these compare to predicted values;
  - ix. A list of any Action Level exceedances; and
  - x. A description of actions taken in response to any Action level exceedances.
- l) A summary of activities conducted in accordance with the approved **Water and Groundwater Management and Monitoring Program**, referred to in Part F, Condition 5 of this Licence, including:
- i. A summary of approved updates or changes to the process or facilities required for the management of Water and Wastewater;
  - ii. Monthly and annual quantities, in cubic metres, of recycled Water, identifying both the source and use;
  - iii. Monthly and annual quantities, in cubic metres, of Water obtained from each approved source;
  - iv. Monthly and annual quantities, in cubic metres, of Water used for dust control;
  - v. Monthly and annual quantities, in cubic metres, of treated Sewage discharged from the Sewage Disposal Facilities,
  - vi. Monthly and annual quantities, in cubic metres, Runoff and seepage collected and discharged from the Dry Stack Tailings Facility;
  - vii. Monthly and annual quantities, in cubic metres, Runoff and seepage collected and discharged from the Waste rock and ore piles;
  - viii. Monthly and annual quantities, in cubic metres, of Minewater discharged to the Receiving Environment;
  - ix. Monthly and annual quantities, in cubic metres, of all other Discharges, identified by Discharge location;
  - x. Monthly and annual estimates and/or measurements of precipitation and Runoff;
  - xi. A comparison of Water and Wastewater quantities measured in the year to the Water balances predicted for that year in the approved Plan, and an explanation of any significant differences between predictions and actual measurements;
  - xii. An updated Water balance if required as per the approved Plan;
  - xiii. A summary and interpretation of monitoring results, including any Action Level exceedances; and
  - xiv. A description of actions taken in response to any Action Level exceedances.
- m) A summary of activities conducted in accordance with the approved **Tailings Management Plan**, referred to in Part F, Condition 6 of this Licence, including:
- i. A summary of approved updates or changes to the process or facilities required for the management of Tailings;
  - ii. Monthly and annual quantities, in cubic metres and tonnes, of Tailings, placed in Dry Stack Tailings Facility;
  - iii. The size/height/depth/area of the Dry Stack Tailings Facility;
  - iv. A summary and interpretation of monitoring results, including any Action Level exceedances; and
  - v. A description of actions taken in response to any Action Level exceedances.

- n) A summary of activities conducted in accordance with the approved **Hydrocarbon-Contaminated Soil Treatment Facility Plan**, referred to in Part F, Condition 7 of this Licence, including:
  - i. A summary of approved updates or changes to the process or facilities required for the management of hydrocarbon-contaminated soil;
  - ii. Monthly and annual quantities, in cubic metres, of all Effluent discharged from the Facility;
  - iii. A summary of contaminated materials accepted into the Facility, including:
    - a. soil, rock, snow, ice, and water;
    - b. Sources of materials;
    - c. Volume and type of material accepted from each source;
    - d. Analytical results for each type of material from each source;
  - iv. A summary of treated soil removed from the Facility, including:
    - a. Volume of soil;
    - b. Analytical results, including soil chemistry and soil particle size;
    - c. The locations and land use activity of the receiving sites;
  - v. A summary of how the contaminated soil was managed during the previous calendar year, including relevant operational details and methods and dates of soil tilling; and
  - vi. Record of inspections of the Hydrocarbon-Contaminated Soil Treatment Facility.
- o) A summary of activities conducted in accordance with the approved **Explosives Management Plan**, referred to in Part F, Condition 8 of this Licence, including:
  - i. A summary of approved updates or changes to the process or facilities required for the management of explosives;
  - vi. Monthly and annual quantities of all explosives spent;
  - vii. A summary and interpretation of monitoring results, including any Action Level exceedances; and
    - ii. A description of actions taken in response to any Action Level exceedances.
- p) A summary of the results and any actions taken as a result of inspections conducted to fulfill Part F of this Licence.
- q) A summary of activities conducted in accordance with the approved **Spill Contingency Plan**, referred to in Part G, Condition 2 of this Licence, including:
  - i. A list and description for all Unauthorized Discharges, including the date, NWT spill number, volume, location, summary of the circumstances and follow-up actions taken, and status (i.e. open or closed), in accordance with the reporting requirements in Part G, Condition 4 of this Licence; and
  - ii. An outline of any spill training carried out.
- r) A summary of any Closure and Reclamation work completed;
- s) Tabular summaries of all data and information generated under the SNP annexed to this Licence and graphical summaries of parameters with EQC referred to in Part F, Conditions 18, 19, 20, and 21 at the points of compliance (SNP Stations SNP-01, SNP-02, SNP-03, SNP-08, SNP-09, SNP-10), in Excel format.
- t) A list of any non-compliance(s) with the conditions of this Licence or any directive from the Board pursuant to the conditions of this Licence;
- u) A summary of actions taken to address concerns, non-conformances, or deficiencies in any reports filed by an Inspector;
- v) Any other details requested by the Board by November 30 of the year being reported.

## **Schedule 2**

### **Conditions Applying to Security**

1. The Licensee shall post security totaling \$382,052.00 based on the schedule set out below:
  - a) prior to the transportation of mining equipment to site, including the permanent trailer camp, the Licensee shall post and maintain a security deposit in the amount of \$165,000.00; and
  - b) prior to the transportation of milling equipment to site or the construction of the Dry Stack Tailings, the Licensee shall post and maintain an additional security deposit in the amount of \$217,052.00 to maintain a total security deposit of \$382,052.00.

### Schedule 3

## Conditions Applying to Construction

1. The **Structure Description and Construction Plan** referred to in Part E, Condition 7 shall include, but not be limited to, the following:
  - a) Information regarding the facilities:
    - i. A description of the facilities to be constructed, including the purpose of the facilities;
    - ii. The proposed location(s) of the facilities, with GPS coordinates and a map to scale;
    - iii. Relevant background information for the area beneath the footprint of the facilities, including the results of any investigations;
    - iv. Construction specifications and performance parameters;
    - v. A description of any operations and maintenance requirements associated with the facilities; and
    - vi. An explanation of why the facilities do not need to be designed by a Professional Engineer.
  - b) Information regarding the Construction of the facilities:
    - i. A Construction schedule, including sequencing information;
    - ii. A description of the materials required for Construction, including, but not limited to:
      - a. sources;
      - b. quantities;
      - c. physical characteristics; and
      - d. geochemical characteristics.
    - iii. A description of any potential effects on the Receiving Environment associated with Construction of the facilities; and
    - iv. A description of any mitigation measures that will be undertaken to minimize the potential impacts identified as per (b)(iii).
  - c) Information regarding monitoring during Construction, including:
    - i. A description of any monitoring that will be conducted to determine the potential impacts to the Receiving Environment and the effectiveness of the mitigation measures described as per (b)(iv), including, but not limited to:
      - a. locations;
      - b. parameters;
      - c. frequencies; and
      - d. rationale.
    - ii. Linkages to other monitoring programs required in this Licence.
  - d) A description of how monitoring will be evaluated and what actions may be taken in response to monitoring results.
2. The **Design and Construction Plans** referred to in Part E, Condition 8 shall include, but not be limited to, the following:
  - a) Information regarding the design of the facilities:
    - i. A description of the facilities to be constructed;
    - ii. The proposed location(s) of the facilities, with GPS coordinates and a map to scale;

- iii. Relevant background information for the area beneath the footprint of the facilities, as deemed adequate by the Professional Engineer responsible for the design, including:
    - a. the results and data from geotechnical and geochemical investigations; hydrogeological investigations; and programs to characterize soil, rock, Groundwater, ground ice, and ground temperature conditions to the depth expected to be affected by the proposed facilities; and
    - b. any other relevant information.
  - iv. A design alternatives analysis;
  - v. Design specifications and performance parameters and quantifiable performance objectives as established by the Engineer of Record;
  - vi. Stability analyses;
  - vii. A description of how the design has been optimized for Closure and Reclamation;
  - viii. A description of how climate change projections and considerations have been incorporated into the design;
  - ix. A description of any instrumentation that will be installed as part of the facilities, including locations and rationale; and
  - x. A description of any operations and maintenance requirements associated with the design of the facilities.
- b) Information regarding the Construction of the facilities:
- i. A Construction schedule, including sequencing information;
  - ii. A description of the materials required for Construction, including, but not limited to:
    - a. sources;
    - b. quantities;
    - c. physical characteristics; and
    - d. geochemical characteristics
  - iii. A description of any potential effects on the Receiving Environment associated with Construction of the facilities; and
  - iv. A description of any mitigation measures that will be undertaken to minimize the potential impacts identified above.
- c) Information regarding monitoring during Construction, including:
- i. A description of any monitoring that will be conducted to detect potential impacts to the Receiving Environment and evaluate the effectiveness of the mitigation measures described above, including, but not limited to:
    - a. locations;
    - b. parameters;
    - c. frequencies; and
    - d. rationale.
  - ii. Linkages to other monitoring programs required in this Licence.
- d) Information regarding responses to monitoring results during Construction, including:
- i. Definitions, with rationale, for Action Levels applicable to the performance of the mitigation measures; and
  - ii. For each Action Level, a description of how exceedances of the Action Level will be assessed and, generally, which types of actions may be taken by the Licensee if the Action Level is exceeded.

- e) A **Quality Control Plan** stamped by a Professional Engineer, a component of which includes a plan for a Professional Engineer to supervise and field check Construction activities.

#### **Schedule 4**

## Conditions Applying to Waste and Water Management

1. The **Waste Rock Management and Geochemical Characterization Plan** referred to in Part F, Condition 4 of this Licence shall include, but not be limited to, the following:
  - a) Information regarding Waste Rock management, including:
    - i. A description of the facilities used for the management and storage of Waste Rock, ore, overburden, and till, including:
      - a. appropriate maps or diagrams; and
      - b. descriptions of the construction methods that will be used to limit generation of acidic drainage and/or Metal Leaching
    - ii. An annual schedule for till storage, ore stockpiling, and Waste Rock production, over the term of this Licence, including:
      - a. Sources, tonnage, volume and destination of each rock type; and
      - b. A description of when changes to the schedule will require updates to the Waste Rock Management and Geochemical Characterization Monitoring Plan.
    - iii. A description of the operational procedures that will be used to segregate and manage the Waste Rock and ore;
    - iv. A description of geochemical characterization studies to identify PAG materials and/or materials with Metal Leaching potential, including sampling frequencies, rock units, volumes, and test methods. This should include all geochemical sampling and analysis on Waste Rock, gravity Tailings, and flotation Tailings;
    - v. A description of geochemical characterization and management, including:
      - a. A description of monitoring of the field test cells, including sampling frequency, field measurements and analytical parameters;
      - b. A characterization of rock types (mineralogy and geology of typical rock units), including assessment of potential for Acid/Alkaline Drainage and Metal Leaching;
      - c. Criteria, with rationale, for defining PAG, non-PAG and Metal Leaching materials; and high, moderate, and low risk Waste Rock;
      - d. A description of the potential uses for each rock type;
      - e. A description of the geochemical criteria for classifying, managing, and placing Waste Rock and ore;
      - f. A description of geochemical assessments, including visual inspections, and supplemental sampling and testing of rock, Waste Rock, Tailings, ore, and overburden; and
      - g. A description of the sampling program and analytical methods that will be used to support the operational classification and management of all rock types.
    - vi. A summary of Water management procedures, including:
      - a. Identification of all potential sources of drainage from each storage site and the distance to the downstream Receiving Environment;
      - b. A detailed description, including a map or diagram, of the structures intended to contain, withhold, divert, or retain Water or Wastes related to the Waste Rock Storage Facilities, and their predicted performance in terms of flow, capacity, and Water quality parameters;
      - c. A summary of proposed measures for controlling Runoff and Seepage Water volume, routing, and quality;

- d. A description of sampling and analysis of any Seepage or Runoff found outside of the Water management system (e.g., roads, rock pads etc.), or that does not report directly to an SNP monitoring station; and
  - e. A summary of any linkages to activities described in the Waste Management Plan.
- vii. Any other information required to describe how Waste Rock will be managed such that the objectives listed in Part F, Condition 1 of this Licence are achieved.

b) Information regarding monitoring activities:

- i. Details of the monitoring, including rationale, that will be undertaken to evaluate geotechnical and geochemical stability, thermal characterization, Seepage quality and quantity, and Runoff for all Waste Rock Storage Facilities, including:
  - a. monitoring locations, parameters, frequency, methods, and types of instrumentation;
  - b. a site map to scale with monitoring locations; and
  - c. predicted performance values for monitoring parameters based on facility design.
- ii. Linkages to other monitoring programs required under this Licence; and
- iii. Any other information about the monitoring that will be performed to meet the objectives in Part F, Condition 1.

c) Information regarding responses to monitoring results:

- i. A description of how the Licensee will link the results of monitoring to those corrective actions necessary to ensure that the objectives listed in Part F, Condition 1 are met. This description shall include:
  - a. Definitions, with rationale, for Action Levels applicable to the performance of erosion and sedimentation control measures; and
  - b. For each Action Level, a description of how exceedances of the Action Level will be assessed and generally, which types of actions will be taken for the Action Levels exceeded.

d) Information regarding contingency planning, including:

- i. A description of reasonably foreseeable scenarios; and
- ii. For each scenario identified in (d)(i) above:
  - a. A description of response action options; and
  - b. A risk-based analysis of response action options, identifying preferred options and alternate options.

2. The **Water and Groundwater Management and Monitoring Program** referred to in Part F, Condition 5 of this Licence shall include, but not be limited to, the following:

a) Information regarding site conditions:

- i. A description of the surface hydrology, including appropriate maps and diagrams, as assessed by a hydrologist, hydrogeologist, or equivalent professional;
- ii. A description of the underlying and surrounding hydrogeology, including appropriate maps and flow diagrams, as assessed by a hydrologist, hydrogeologist, or equivalent professional;
- iii. A summary of baseline data including:
  - a. Baseline data collected to date;
  - b. Identification of baseline data gaps; and
  - c. A description of methods for filling in baseline data gaps or methods for approximating baseline conditions if necessary.

- b) A description of site-wide Water and Wastewater management processes and facilities;
  - c) Identification of all potential Water uses and Water sources including maximum daily and annual Water use requirements;
  - d) Water balance;
  - e) Estimates of seasonal under-ice Water source capacity;
  - f) Information regarding monitoring:
    - i. Identification, with rationale, of parameters of concern that should be used as indicators of potential impacts from Project-related activities on the Receiving Environment;
    - ii. A description, with rationale, of the site-specific monitoring activities required to identify impacts from Project-related activities on the Receiving Environment including Groundwater quality and quantity;
    - iii. The location and purpose, with rationale, of all existing and proposed Groundwater monitoring stations, including a map, as provided by Professional Engineer, hydrologist, hydrogeologist, or equivalent professional;
    - iv. A description of monitoring protocols, methodologies, parameters, and frequencies specific to each type of monitoring identified in (b) (ii) above;
    - v. Site map(s) and attached table or detailed legend, illustrating monitoring and sampling locations;
    - vi. A description of the quality assurance and quality control measures followed for each monitoring type;
    - vii. Linkages to other monitoring programs required under this Licence; and
    - viii. Any other information about the monitoring that will be performed to meet the objectives in Part F, Condition 1.
  - g) Information regarding responses to monitoring results:
    - i. A description of how the results of Groundwater monitoring will be compared to quantity and quality predictions, and used to update predictions as required;
    - ii. A description of how the Licensee will link the results of monitoring to those corrective actions necessary to ensure that the objectives listed in Part F, Condition 1 are met. This description shall include:
      - a. Definitions, with rationale, for Action Levels for each parameter of concern; and
      - b. For each Action Level, a description of how exceedances of the Action Level will be assessed and, generally, which types of actions will be taken for the Action Level exceeded.
3. The **Tailings Management Plan** referred to in Part F, Condition 6 of this Licence shall include, but not be limited to, the following:
- a) Information regarding Tailings management:
    - i. A description, with appropriate maps or diagrams, of the Dry Stack Tailings Facility, including a description of the Waste streams that report to it;
    - ii. A schedule showing the expected quantities and destinations for Tailings produced each year, including an evaluation of storage capacity over time for the Dry Stack Tailings Facility;
    - iii. A description of Tailings deposition procedures, including:
      - a. details on any physical or chemical treatment applied to the Tailings before deposition;
      - b. details on Tailings delivery and deposition methods;
      - c. details on any deposition sequencing;

- d. details on any monitoring and recording conducted to confirm appropriate placement of Tailings; and
    - iv. Any other information necessary to describe how Tailings are deposited;
    - v. A description of dust control measures for the Tailings Containment Facilities;
    - vi. A summary of Water management for the Dry Stack Tailings Facility, with linkages to the Waste Management Plan;
    - vii. Any other information required to describe how the Tailings will be managed such that the objectives listed in Part F, Condition 1 are achieved.
  - b) Information regarding monitoring, including:
    - i. Details and rationale for monitoring, including:
      - types monitoring required for the Dry Stack Tailings Facility;
      - monitoring locations, parameters, frequency, methods, and types of instrumentation;
      - a site map to scale with monitoring locations;
      - method of collection and disposal of trench water; and
      - predicted performance values for monitoring parameters based on expected facility design.
    - ii. Linkages to other monitoring programs required in this Licence; and
    - iii. Any other information about the monitoring that will be performed to meet the objectives in Part F, Condition 1.
  - c) Information regarding responses to monitoring results:
    - i. A description of how the Licensee will link the results of monitoring to those corrective actions necessary to ensure that the objectives listed in Part F, Condition 1 of this Licence are met. This description shall include:
      - a. Definitions, with rationale, of Action Levels applicable to the performance of the Tailings facilities with respect to monitored parameters; and,
      - b. For each Action Level, a description of how exceedances of the Action Level will be assessed and generally which types of actions will be taken if the Action Level is exceeded.
  - d) Information regarding contingency planning, including:
    - i. A description of reasonably foreseeable scenarios; and
    - ii. For each scenario identified in (d)(i) above:
      - a. A description of response action options; and
      - b. A risk-based analysis of response action options, identifying preferred options and alternate options.
- 4. The **Explosives Management Plan** referred to in Part F, Condition 8 of this Licence shall include, but not be limited to, the following:
  - a) Information regarding explosives management, including:
    - i. A description, including appropriate maps and diagrams, of the facilities used for management and storage of explosives;
    - ii. A description of the mitigation approaches to be employed with respect to storage, handling, blasting, disposal, and spills;
    - iii. The predicted ammonium nitrate dissolution rate;
    - iv. A description of how climate change has been considered, including any linkages to other plans required under this Licence; and
    - v. Any other information required to describe how explosives will be managed such that the objectives listed in Part F, Condition 1 will be met.
  - b) Information regarding monitoring, including;

- i. Details of the monitoring, including rationale, that will be undertaken to evaluate whether the mitigation approaches for storage, handling, and blasting procedures are effective, including:
    - a. monitoring locations, parameters, frequencies, methods, and types of instrumentation;
    - b. a map to scale, with monitoring locations; and
    - c. predicted performance values for monitoring parameters based on expected facility design.
  - ii. Linkages to other monitoring programs required under this Licence; and
  - iii. Any other information about monitoring that will be performed to meet the objectives in Part F, Condition 1.
- c) Information regarding responses to monitoring results, including:
- i. A description of how the Licensee will link the results of monitoring to those corrective actions necessary to ensure that the objectives listed in Part F, Condition 1 are met. This description shall include:
    - a. Definitions, with rationale, for Action Levels applicable to the performance of the mitigation measures; and
    - b. For each Action Level, a description of how exceedances of the Action Level will be assessed and generally, which types of actions will be taken for the Action Levels exceeded.
- d) Information regarding contingency planning, including:
- i. A description of reasonably foreseeable scenarios; and
  - ii. For each scenario identified in (d)(i) above:
    - a. A description of response action options; and
    - b. A risk-based analysis of response action options, identifying preferred options and alternate options.

**Type B Water Licence MV2020L2-0002**  
**New Discovery Mines Ltd. – Mon Gold Project**  
**Annex A - Surveillance Network Program**

<b>LICENSEE:</b>	<b>New Discovery Mines Ltd.</b>
<b>LICENCE NUMBER:</b>	<b>MV2020L2-0002</b>
<b>EFFECTIVE DATE OF LICENCE:</b>	<b>October 16, 2020</b>
<b>EFFECTIVE DATE OF SURVEILLANCE NETWORK PROGRAM:</b>	<b>October 16, 2020</b>

**Part A: Reporting Requirements**

1. The effective date of this Surveillance Network Program is October 14, 2020.
2. Beginning November 2020, and for every month thereafter, the Licensee shall submit a **Surveillance Network Program Report** to the Board and an Inspector, which shall include, but not be limited to the following:
  - a) Electronic and tabular summaries of all data and information generated under the SNP for the month being reported, including rationale for SNP sites where samples were not collected and results and interpretation of quality assurance/quality control procedures;
  - b) Graphical summaries and interpretation of the analytical results from the SNP samples collected at the point of compliance (SNP-01, SNP-02, SNP-03, SNP-08, SNP-09, SNP-10) compared to the Effluent Quality Criteria under Part F of this Licence, for the previous two (2) consecutive years;
  - c) An explanation of any actions taken in response to any exceedances of the Effluent Quality Criteria;
  - d) Information regarding the calibration and status of the meters and devices referred to in Part B, Condition 18 of this Licence;
  - e) The coordinates of all SNP sites which were established within the month being reported, including an updated map identifying the locations of all the SNP sites; and
  - f) A tabular summary of cumulative Water Use.
3. More frequent sample collection may be required at the request of an Inspector.
4. All sampling, sample preservation, and analyses shall be conducted in accordance with methods prescribed in the current edition of American Public Health Association's (APHA) *Standard Methods for the Examination of Water and Wastewater* at the time of analysis, or by other such methods approved by an Analyst.
5. All analyses shall be performed in a laboratory accredited by the Canadian Association for Laboratory Accreditation (CALA) for the specific analyses to be performed or as approved by an Analyst.
6. Prior to the collection of SNP samples, the Licensee shall submit to the Board and an Analyst, a **Quality Assurance and Quality Control Plan**, which shall include a list of techniques that will be used to collect and analyze samples collected under the SNP, for the purposes of quality assurance and quality control. The Analyst shall provide a recommendation to the Board.

7. The Licensee shall adhere to the Quality Assurance and Quality Control Plan, once approved, and shall annually review the Plan and make any necessary revisions to reflect changes in operations or as directed by the Board. Revisions to the Plan shall be submitted to the Board for a decision.
8. If the Quality Assurance and Quality Control Plan is not approved by the Analyst, the Licensee shall revise the Plan according to the Analyst's direction and re-submit it to the Analyst for a decision.

**Part B – Surveillance Network Program Description and Monitoring Requirements**

1. The location of sampling sites is subject to approval of the Inspector.
2. The location of sampling sites and specific monitoring requirements are as follows:

**Surveillance Network Program (SNP-01):**

<b>Description</b>	Effluent from the Sewage Treatment Plant
<b>Location</b>	Sewage Treatment Plant Effluent -114.3281176, 62.90041201
<b>Sampling Frequency</b>	Prior to decant or discharge
<b>Sampling Parameters</b>	Volume*, flow*, physical parameters <sub>(a)</sub> , nutrients <sub>(c)</sub> , CBOD, total and fecal coliforms.
<b>Rationale</b>	To monitor the quality and quantity of treated Sewage being disposed from the Sewage Treatment System.
<b>Status</b>	Active when the Sewage Treatment Plant is operating

Note: Footnotes are defined after the final table in Part B.

**Surveillance Network Program (SNP-02):**

<b>Description</b>	Monitoring trench, immediately down slope of Dry Stack Tailings Facility
<b>Location</b>	-114.328893, 62.902666
<b>Sampling Frequency</b>	Monthly
<b>Sampling Parameters</b>	Total <sub>(d)</sub> and dissolved metals <sub>(e)</sub> , physical parameters <sub>(a)</sub> , major ions <sub>(b)</sub> , nutrients <sub>(c)</sub>
<b>Rationale</b>	To monitor the quality of Seepage and surface Water downstream of the Dry Stack Tailings Facility
<b>Status</b>	Active when Water is present in the trenches.

**Surveillance Network Program (SNP-03a):**

<b>Description</b>	Monitoring trench, down slope of Dry Stack Tailings Facility – First Narrows
<b>Location</b>	-114.333632, 62.901903
<b>Sampling Frequency</b>	Monthly, Bi-weekly
<b>Sampling Parameters</b>	Total <sub>(d)</sub> and dissolved metals <sub>(e)</sub> , physical parameters <sub>(a)</sub> , major ions <sub>(b)</sub> , nutrients <sub>(c)</sub>
<b>Rationale</b>	To monitor the quality of Seepage and surface Water downstream of the Dry Stack Tailings Facility
<b>Status</b>	Active when Water is present in the trenches.

**Surveillance Network Program (SNP-03b):**

<b>Description</b>	Monitoring trench, down slope of Dry Stack Tailings Facility – Culvert
<b>Location</b>	-114.333882, 62.901928
<b>Sampling Frequency</b>	Monthly, Bi-weekly
<b>Sampling Parameters</b>	Total <sub>(d)</sub> and dissolved metals <sub>(e)</sub> , physical parameters <sub>(a)</sub> , major ions <sub>(b)</sub> , nutrients <sub>(c)</sub>
<b>Rationale</b>	To monitor the quality of Seepage and surface Water downstream of the Dry Stack Tailings Facility
<b>Status</b>	Active when Water is present in the trenches.

**Surveillance Network Program (SNP-04):**

<b>Description</b>	Seepage from the Dry Stack Tailings Facility	
<b>Location</b>	Anywhere Seepage is encountered (-114.32896, 62.902658)	
<b>Sampling Frequency</b>	Twice a year (during freshet, and in late summer or fall)	Following major storm events
<b>Sampling Parameters</b>	Flow*, volume*, total <sub>(d)</sub> and dissolved metals <sub>(e)</sub> , physical parameters <sub>(a)</sub> , major ions <sub>(b)</sub> , nutrients <sub>(c)</sub>	
<b>Rationale</b>	To monitor the quality and quantity of Seepage from the Dry Stack Tailings Facility.	
<b>Status</b>	Active when Seepage is observed.	

**Surveillance Network Program (SNP-05):**

<b>Description</b>	Background Groundwater Well
<b>Location</b>	Upgradient of the Dry Stack Tailings Facility -114.330769, 62.903334
<b>Sampling Frequency</b>	Monthly during periods of flow
<b>Sampling Parameters</b>	Total <sub>(d)</sub> and dissolved metals <sub>(e)</sub> , physical parameters <sub>(a)</sub> , major ions <sub>(b)</sub> , nutrients <sub>(c)</sub>
<b>Rationale</b>	To establish background water quality before operation of the Dry Stack Tailings Facility and to monitor upgradient Water quality once the Dry Stack Tailings Facility is operational.
<b>Status</b>	Active during periods of flow.

**Surveillance Network Program (SNP-06a):**

<b>Description</b>	Groundwater Well #1
<b>Location</b>	Downgradient of the Dry Stack Tailings Facility -114.328789, 62.902132
<b>Sampling Frequency</b>	Monthly during periods of flow
<b>Sampling Parameters</b>	Total <sub>(d)</sub> and dissolved metals <sub>(e)</sub> , physical parameters <sub>(a)</sub> , major ions <sub>(b)</sub> , nutrients <sub>(c)</sub>
<b>Rationale</b>	To establish background water quality before and during operation of the Dry Stack Tailings Facility.
<b>Status</b>	Active during periods of flow.

**Surveillance Network Program (SNP-06b):**

<b>Description</b>	Groundwater Well #2
<b>Location</b>	Downgradient of the Dry Stack Tailings Facility -114.333469, 62.901878
<b>Sampling Frequency</b>	Monthly during periods of flow

<b>Sampling Parameters</b>	Total <sub>(d)</sub> and dissolved metals <sub>(e)</sub> , physical parameters <sub>(a)</sub> , major ions <sub>(b)</sub> , nutrients <sub>(c)</sub>
<b>Rationale</b>	To establish background water quality before and during operation of the Dry Stack Tailings Facility.
<b>Status</b>	Active during periods of flow.

**Surveillance Network Program (SNP-07):**

<b>Description</b>	Underground Minewater Sump(s)	
<b>Location</b>	To be determined	
<b>Sampling Frequency</b>	Daily (when Sump is active)	Monthly (when Sump is active)
<b>Sampling Parameters</b>	Flow*, volume*	Total <sub>(d)</sub> and dissolved metals <sub>(e)</sub> , physical parameters <sub>(a)</sub> , major ions <sub>(b)</sub> , nutrients <sub>(c)</sub> extractable petroleum hydrocarbons, BTEX <sub>(f)</sub>
<b>Rationale</b>	To monitor the quantity and quality of groundwater and Minewater collected in the underground sump prior to discharge to the surface.	
<b>Status</b>	Active when the underground Sump contains Water or Waste.	

**Surveillance Network Program (SNP-08):**

<b>Description</b>	Minewater holding tank or pond	
<b>Location</b>	-114.328055, 62.898538	
<b>Sampling Frequency</b>	Daily (during Discharge)	Once prior to each Discharge period, and then weekly during Discharge
<b>Sampling Parameters</b>	Flow*, volume*, Total <sub>(d)</sub> and dissolved metals <sub>(e)</sub> , physical parameters <sub>(a)</sub> , major ions <sub>(b)</sub> , nutrients <sub>(c)</sub>	
<b>Rationale</b>	To monitor the quantity and quality of Minewater prior to discharge to the Receiving Environment.	
<b>Status</b>	Active	

**Surveillance Network Program (SNP-09):**

<b>Description</b>	Seepage from Waste rock pile(s)	
<b>Location</b>	Anywhere Seepage is encountered -114.327379, 62.898724	
<b>Sampling Frequency</b>	Twice a year (during freshet, and in late summer or fall)	Following major storm events
<b>Sampling Parameters</b>	Flow*, volume*, total <sub>(d)</sub> and dissolved metals <sub>(e)</sub> , physical parameters <sub>(a)</sub> , major ions <sub>(b)</sub> , nutrients <sub>(c)</sub>	
<b>Rationale</b>	To monitor the quality and quantity of Seepage from the Waste rock pile(s)	
<b>Status</b>	Active when Seepage is observed.	

**Surveillance Network Program (SNP-09a):**

<b>Description</b>	Seepage from Waste rock pile(s)	
<b>Location</b>	Anywhere Seepage is encountered -114.326335, 62.897838	
<b>Sampling Frequency</b>	Twice a year (during freshet, and in late summer or fall)	Following major storm events

<b>Sampling Parameters</b>	Flow*, volume*, total <sub>(d)</sub> and dissolved metals <sub>(e)</sub> , physical parameters <sub>(a)</sub> , major ions <sub>(b)</sub> , nutrients <sub>(c)</sub>
<b>Rationale</b>	To monitor the quality and quantity of Seepage from the Waste rock pile(s)
<b>Status</b>	Active when Seepage is observed.

**Surveillance Network Program (SNP-09b):**

<b>Description</b>	Seepage from Waste rock pile(s)	
<b>Location</b>	Anywhere Seepage is encountered -114.328602, 62.899741	
<b>Sampling Frequency</b>	Twice a year (during freshet, and in late summer or fall)	Following major storm events
<b>Sampling Parameters</b>	Flow*, volume*, total <sub>(d)</sub> and dissolved metals <sub>(e)</sub> , physical parameters <sub>(a)</sub> , major ions <sub>(b)</sub> , nutrients <sub>(c)</sub>	
<b>Rationale</b>	To monitor the quality and quantity of Seepage from the Waste rock pile(s)	
<b>Status</b>	Active when Seepage is observed.	

**Surveillance Network Program (SNP-09c):**

<b>Description</b>	Seepage from Waste rock pile(s)	
<b>Location</b>	Anywhere Seepage is encountered -114.330826, 62.899579	
<b>Sampling Frequency</b>	Twice a year (during freshet, and in late summer or fall)	Following major storm events
<b>Sampling Parameters</b>	Flow*, volume*, total <sub>(d)</sub> and dissolved metals <sub>(e)</sub> , physical parameters <sub>(a)</sub> , major ions <sub>(b)</sub> , nutrients <sub>(c)</sub>	
<b>Rationale</b>	To monitor the quality and quantity of Seepage from the Waste rock pile(s)	
<b>Status</b>	Active when Seepage is observed.	

**Surveillance Network Program (SNP-10):**

<b>Description</b>	Seepage from ore stockpile(s)	
<b>Location</b>	Anywhere Seepage is encountered (-114.3269, 62.898253)	
<b>Sampling Frequency</b>	Twice a year (during freshet, and in late summer or fall)	Following major storm events
<b>Sampling Parameters</b>	Flow*, volume*, total <sub>(d)</sub> and dissolved metals <sub>(e)</sub> , physical parameters <sub>(a)</sub> , major ions <sub>(b)</sub> , nutrients <sub>(c)</sub>	
<b>Rationale</b>	To monitor the quality and quantity of Seepage from the ore stockpile(s)	
<b>Status</b>	Active when Seepage is observed.	

**Surveillance Network Program (SNP-11):**

<b>Description</b>	Freshwater in Discovery Lake	
<b>Location</b>	-114.325428, 62.897962	
<b>Sampling Frequency</b>	Daily (when camp is in use)	
<b>Sampling Parameters</b>	Flow*, volume*	
<b>Rationale</b>	To measure Water use	
<b>Status</b>	Active when camp is in use	

**Surveillance Network Program (SNP-12):**

<b>Description</b>	Discovery Lake
<b>Location</b>	One or more locations in the Lake near areas where drainage from the Project site enters the Lake -114.325512, 62.898077
<b>Sampling Frequency</b>	Monthly (during open Water)
<b>Sampling Parameters</b>	pH, conductivity, temperature, total ammonia, total <sub>(d)</sub> and dissolved metals <sub>(e)</sub> ,
<b>Rationale</b>	To monitor impacts of runoff and Discharge from the Project on Water quality in Discovery Lake.
<b>Status</b>	Active during open Water

**Surveillance Network Program (SNP-12a):**

<b>Description</b>	Discovery Lake Drainage
<b>Location</b>	-114.325510, 62.898082
<b>Sampling Frequency</b>	Monthly (during open Water)
<b>Sampling Parameters</b>	pH, conductivity, temperature, total ammonia, total <sub>(d)</sub> and dissolved metals <sub>(e)</sub> ,
<b>Rationale</b>	To monitor impacts of runoff and Discharge from the Project on Water quality in Discovery Lake.
<b>Status</b>	Active during open Water

**Surveillance Network Program (SNP-13):**

<b>Description</b>	Prosperous Lake
<b>Location</b>	-114.2085, 62.6270
<b>Sampling Frequency</b>	Daily (when in use)
<b>Sampling Parameters</b>	Flow*, volume*
<b>Rationale</b>	To monitor Water use
<b>Status</b>	Active when Water is being withdrawn

**Surveillance Network Program (SNP-14):**

<b>Description</b>	Sito Lake
<b>Location</b>	-114.2732, 62.8697
<b>Sampling Frequency</b>	Daily (when in use)
<b>Sampling Parameters</b>	Flow*, volume*
<b>Rationale</b>	To monitor Water use
<b>Status</b>	Active when Water is being withdrawn

**Surveillance Network Program (SNP-15):**

<b>Description</b>	Bluefish Lake
<b>Location</b>	-114.2487, 62.6890
<b>Sampling Frequency</b>	Daily (when in use)
<b>Sampling Parameters</b>	Flow*, volume*
<b>Rationale</b>	To monitor Water use
<b>Status</b>	Active when Water is being withdrawn

**Surveillance Network Program (SNP-16):**

<b>Description</b>	Quayta Lake
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<b>Location</b>	-114.2877, 62.7460
<b>Sampling Frequency</b>	Daily (when in use)
<b>Sampling Parameters</b>	Flow*, volume*
<b>Rationale</b>	To monitor Water use
<b>Status</b>	Active when Water is being withdrawn

**Surveillance Network Program (SNP-17):**

<b>Description</b>	Lake A (T-Bone)
<b>Location</b>	-114.324997, 62.879571
<b>Sampling Frequency</b>	Daily (when in use)
<b>Sampling Parameters</b>	Flow*, volume*
<b>Rationale</b>	To monitor Water use
<b>Status</b>	Active when Water is being withdrawn

**Surveillance Network Program (SNP-18):**

<b>Description</b>	Lake B (Bone)
<b>Location</b>	-114.32264, 62.879409
<b>Sampling Frequency</b>	Daily (when in use)
<b>Sampling Parameters</b>	Flow*, volume*
<b>Rationale</b>	To monitor Water use
<b>Status</b>	Active when Water is being withdrawn

**Surveillance Network Program (SNP-19):**

<b>Description</b>	Lake C (5656)
<b>Location</b>	-114.322472, 62.883073
<b>Sampling Frequency</b>	Daily (when in use)
<b>Sampling Parameters</b>	Flow*, volume*
<b>Rationale</b>	To monitor Water use
<b>Status</b>	Active when Water is being withdrawn

**Surveillance Network Program (SNP-20):**

<b>Description</b>	Lake D (SZ)
<b>Location</b>	-114.311833, 62.880577
<b>Sampling Frequency</b>	Daily (when in use)
<b>Sampling Parameters</b>	Flow*, volume*
<b>Rationale</b>	To monitor Water use
<b>Status</b>	Active when Water is being withdrawn

**Surveillance Network Program (SNP-21):**

<b>Description</b>	Explosives Storage Area
<b>Location</b>	-114.324449, 62.896101
<b>Sampling Frequency</b>	Twice a year (during freshet, and in late summer or fall). Following major storm events
<b>Sampling Parameters</b>	Flow*, volume*, Total <sup>(d)</sup> and dissolved metals <sup>(e)</sup> , physical parameters <sup>(a)</sup> , major ions <sup>(b)</sup> , nutrients <sup>(c)</sup>

<b>Rationale</b>	To monitor the quality of Water draining from the explosives storage magazine.
<b>Status</b>	Active when Water is observed.

**Surveillance Network Program (SNP-22):**

<b>Description</b>	Seepage from Constructed Roadway
<b>Location</b>	-114.330882, 62.899763
<b>Sampling Frequency</b>	Twice a year (during freshet, and in late summer or fall). Following major storm events
<b>Sampling Parameters</b>	Flow*, volume*, Total <sup>(d)</sup> and dissolved metals <sup>(e)</sup> , physical parameters <sup>(a)</sup> , major ions <sup>(b)</sup> , nutrients <sup>(c)</sup>
<b>Rationale</b>	To monitor the quality of Water draining from the constructed roadway
<b>Status</b>	Active when Water is observed.

**Notes:**

(\*) Flow and volume measurements shall be measured during periods of flow or pumping, and reported in cubic metres.

(a) Physical Parameters shall include the following measurements: Dissolved Oxygen, pH, Specific Conductivity, Temperature, Total Suspended Solids (TSS), and Turbidity.

(b) Major Ions shall include the following parameters: Bicarbonate, Calcium, Carbonate, Chloride, Fluoride, Hardness, Hydroxide, Magnesium, Potassium, Reactive Silica (as SiO<sub>2</sub>), Sodium, Sulphate, Total Alkalinity, Total Dissolved Solids.

(c) Nutrients shall include the following measurements/parameters: Biological Oxygen Demand (BOD – 5 day; where indicated), Dissolved Inorganic Phosphorus, Dissolved Organic Phosphorus, Nitrate (as N) calculated, Nitrate/Nitrite (as N), Nitrite (as N), Orthophosphate (as P), Total Ammonia (as N), Total Dissolved Phosphorus, Total Inorganic Phosphorus, Total Kjeldahl Nitrogen, Total Organic Carbon, Total Phosphorus.

(d) Total Metals from water samples shall include the following parameters, at a minimum: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Cesium, Cobalt, Copper, Chromium, Hexavalent Chromium, Iron, Lead, Lithium, Manganese, Mercury, Molybdenum, Nickel, Rubidium, Selenium, Silver, Strontium, Thallium, Titanium, Uranium, Vanadium, Zinc.

(e) Dissolved Metals from water samples shall include the following parameters, at a minimum: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Cesium, Cobalt, Copper, Chromium, Hexavalent Chromium, Iron, Lead, Lithium, Manganese, Mercury, Molybdenum, Nickel, Rubidium, Selenium, Silver, Strontium, Thallium, Titanium, Uranium, Vanadium, Zinc.

(f) BTEX shall include: Benzene, Toluene, Ethyl benzene, and Xylene.

**Signed on behalf of the Mackenzie Valley Land and Water Board**

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Mavis Cli-Michaud, Chair

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Amanda Gauthier, Witness

## Annex B – Concordance Table of Items Requiring Submission

#	Part of Licence	Item	Date
19	Part B	Annual Water Licence Report	March 31, annually
21	Part B	Engagement Plan	90 days following effective date of this Licence
1	Part C	Security	As outlined in Schedule 2, Condition 1
7	Part E	Structure Description and Construction Plan	A minimum of 90 days prior to the commencement of Construction of all structures, excluding Engineered Structures, intended to contain, withhold, divert, or retain Water or Wastes
8	Part E	Design and Construction Plan	A minimum of 90 days prior to the commencement of Construction of any Engineered Structures
9	Part E	Design Drawings	90 days prior to the commencement of Construction of any Engineered Structures
14	Part E	As-Built Report	Within 90 days of the completion of the Construction of each Engineered Structure
4	Part F	Waste Rock Management and Geochemical Characterization and Monitoring Plan	A minimum of 90 days prior to commencement of mining activities
5	Part F	Water and Groundwater Management and Monitoring Program	A minimum of 90 days prior to commencement of activities
6	Part F	Tailings Management Plan	A minimum of 90 days prior to commencement of milling activities
7	Part F	Hydrocarbon-Contaminated Soil Treatment Facility Plan	A minimum of 90 days prior to Construction
8	Part F	Explosives Management Plan	A minimum of 90 days prior to commencement of mining activities
12	Part F	Geotechnical Inspection Report	Within 90 days of completing the inspection, annually
14	Part F	Waste Management Plan	90 days following the effective date of this Licence
3	Part G	Spill Contingency Plan	90 days following the effective date of this Licence
1	Part H	Closure and Reclamation Plan	One year following the effective date of this Licence
2	Part H	Closure and Reclamation Plan	Every three years following the previous approval
3	Part H	Final Closure and Reclamation Plan	Three years prior to the expiry date of this Licence, or a minimum of two years prior to the end of operations, whichever occurs first
4	Part H	Component-Specific Closure and Reclamation Plan	One year prior to Progressive Reclamation of any specific component of the Project, and until a final Closure and Reclamation Plan is approved
8	Part H	Closure and Reclamation Completion Report	Within 90 days of completing Closure and Reclamation of any specific component of the Project
9	Part H	Post-Closure and Reclamation Monitoring and Maintenance Plan	Within 90 days of completing Closure and Reclamation of the Project
10	Part H	Performance Assessment Report	Within 6 months of completing Closure and Reclamation of any specific component of the Project
2	SNP	Surveillance Network Program Report	Monthly
6	SNP	Quality Assurance and Quality Control Plan	Prior to the collection of SNP samples

## Annex C – Revisions

*List of changes that have been made to Water Licence MV2020L2-0002*

<b>Date</b>	<b>Location of Change</b>	<b>What has changed</b>
July 21, 2022	Surveillance Network Program	Precise locations of stations provided and addition of SNP stations – 09a, 09b, 09c, 12a, 21 and 22