

Land and Water Boards of the Mackenzie Valley



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**DRAFT Type B Water Licence MV2020L1-0007
Paramount Resources Ltd. – Liard East**

Table of Contents

Part A: [Scope](#) and [Defined Terms](#)

[Part B](#): General Conditions

[Part C](#): Security

[Part D](#): Water Use

[Part E](#): Construction

[Part F](#): Waste and Water Management

[Part G](#): Aquatic Effects Monitoring

[Part H](#): Spill Contingency Planning

[Part I](#): Closure and Reclamation

[Part J](#): Watercourse Crossings

Schedules

[Schedule 1](#): Annual Water Licence Report

Schedule 2: Security

Schedule 3: Erosion and Sedimentation Management Plan

Schedule 4: Post-Closure and Reclamation Monitoring and Maintenance Plan

Annex A: Concordance Table of Items Requiring Submission

Part A: Scope and Defined Terms

Scope:

1. This Licence entitles the Licensee to use Water for industrial activities at the Fort Liard East.

SCOPE

The scope of this Licence includes the following:

- a) Operation, maintenance, and remediation of winter roads, all season road, bridges, culverts, quarries, and camps;
- b) Re-entry, completion, suspension, abandonment, remediation and maintenance of sumps, well sites and related natural gas facilities;
- c) Withdrawal of Water for construction of winter roads and ice bridges, dust control and Drilling Fluid make-up;
- d) Watercourse crossings, including, bridges and roads;
- e) Watercourse training in respect of culverts; and
- f) Progressive Reclamation and associated Closure and Reclamation activities.

2. The scope of this Licence is as described in Section 5 in the Report of Environmental Assessment EA00-003 and Preliminary Screening for MV2000A0080 and MV2000A0081.

SCOPE – POST
PRELIMINARY
SCREENING AND
ENVIRONMENTAL
ASSESSMENT

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* and/or the 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

Commented [AW1]: The Scope, Defined Terms, Conditions and Schedules have been updated in accordance with the most recent Standard Water Licence Conditions and Schedules Template.

Board Staff seek input on the Scope.

Commented [AW2]: Seeking input from reviewers on how to reference preliminary screening previously conducted

Defined Terms:

Artesian Aquifer – a Water-bearing stratum which, when encountered during drilling operations, produces a pressurized flow of Groundwater that reaches an elevation above the Water table or above the ground surface.

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 Criteria - standards that measure the success of selected closure activities in meeting closure objectives. Closure criteria may have a temporal component (e.g., a standard may need to be met for a pre-defined number of years). Closure criteria can be site-specific or adopted from territorial/federal or other standards and can be narrative statements or numerical values.

Closure Objectives - statements that describe what the selected closure activities are aiming to achieve; they are guided by the closure principles. Closure objectives are typically specific to project components, are measurable and achievable, and allow for the development of closure criteria.

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 (CRP) – 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.

Drilling Fluid – any liquid or liquid mixture, including, but not limited to clay, Water, sediment, hydrocarbons, or additives, that is pumped down-hole while drilling.

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.

Environmental Assessment (EA) – Environmental Assessment EA00-003 conducted by the Mackenzie Valley Environmental Impact Review Board for 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.

Hazardous Waste - a Waste which, because of its quantity, concentration, or characteristics, may be harmful to human health or the environment when improperly treated, stored, transported, or discharged.

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

Licensee – the holder of this Licence.

Mackenzie Valley Federal Areas Waters Regulations – the regulations proclaimed pursuant to section 90.3 of the *Mackenzie Valley Resource Management Act*.

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).

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.

Reclamation Research – literature reviews, laboratory or pilot-scale tests, engineering studies, and other methods of resolving uncertainties and answering questions pertaining to environmental risks for the purpose of providing data and information that will reduce uncertainties for closure options, selected closure activities, and/or closure criteria.

Remediation – the removal, reduction, or neutralization of substances, Wastes, or hazardous materials from a site in order to prevent or minimize any adverse effects on the environment and public safety, now or in the future.

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.

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
- c) a substance or water that, for the purposes of the *Canada Water Act*, is deemed to be waste,
- d) a substance or class of substances prescribed by regulations made under subparagraph 63(1)(b)(i),
- e) 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
- f) 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.

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. | COPY OF LICENCE |
| 2. | The Licensee shall take every reasonable precaution to protect the environment. | PRECAUTION TO PROTECT ENVIRONMENT |
| 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. | INCORPORATE SCIENTIFIC INFORMATION AND TRADITIONAL KNOWLEDGE |
| 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. | IDENTIFY TRADITIONAL KNOWLEDGE |
| 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. | REFERENCES |
| 6. | The Licensee shall ensure all submissions to the Board:
a) Are in accordance with the MVLWB <i>Document Submission Standards</i> ;
b) Include a conformity statement or table which identifies where the requirements of this Licence, or other directives from the Board, are addressed; and
c) Include any additional information requested by the Board. | SUBMISSION FORMAT AND CONFORMITY |
| 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. | MANAGEMENT PLAN FORMAT |
| 8. | The Licensee shall comply with all plans, including revisions, approved pursuant to the conditions of this Licence. | COMPLY WITH SUBMISSIONS AND REVISIONS |
| 9. | The Licensee shall conduct an annual review of all plans 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. | ANNUAL REVIEW |
| 10. | The Licensee may propose changes at any time by submitting revised plans 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. | REVISIONS |

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| 11. | The Licensee shall revise any submission and submit it as per the Board’s directive. | REVISE AND SUBMIT |
| 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 Schedules , 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 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) |
| 15. | 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 |
| 16. | 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 |
| 17. | Beginning March 31, 2021 and no later than every March 31 thereafter, the Licensee shall submit an Annual Water Licence Report to the Board and an Inspector. The Report shall be in accordance with the requirements of Schedule 1, Condition 1. | ANNUAL WATER LICENCE REPORT |
| 18. | The Licensee shall comply with the Engagement Plan , once approved. | ENGAGEMENT PLAN |
| 19. | 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 |
| 20. | 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 |
| 21. | 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 |

Commented [AW3]: Paramount has indicated all waste will be removed from the NWT. Despite this, Board staff request input from Inspectors on whether this portion of the condition is necessary to know the volume of spills, should they occur.

Commented [AW4]: Inclusion of this condition is pending Board decision on the Engagement Plan.

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| 22. | The Licensee shall immediately provide written notification to the Board and an Inspector of any non-compliance with the conditions of this Licence. | NOTIFICATION – NON-COMPLIANCE WITH CONDITIONS |
| 23. | 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. | NOTIFICATION – NON-COMPLIANCE WITH DIRECTIVES |
| 24. | The Licensee shall ensure that a copy of any written authorization issued to the Licensee by an Inspector is provided to the Board. | COPY – WRITTEN AUTHORIZATION |
| 25. | The Licensee shall submit a current Project schedule to the Board and an Inspector upon request. | SUBMIT CURRENT PROJECT SCHEDULE |

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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. The Licensee shall not commence Project activities until the security deposit has been accepted by the Minister. | POST SECURITY DEPOSIT |
| 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. | UPDATE CLOSURE COST ESTIMATE |
| 3. | The amount of the security deposit required by Part C, Condition 1 may be adjusted by the Board:
a) Based on an updated Closure Cost Estimate as per Part C, Condition 2; or
b) Based on such other information as may become available to the Board. | ADJUSTED SECURITY AMOUNT |
| 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. | POST ADJUSTED SECURITY AMOUNT |
| 5. | Unless otherwise approved by the Board, the Licensee may not submit security adjustment requests except with any of the following submissions:
a) Closure and Reclamation Plans;
b) Closure and Reclamation Completion Reports; or
c) Performance Assessment Reports. | SECURITY ADJUSTMENT REQUESTS |

Part D: Water Use

1. The Licensee shall only obtain Water for the Project from the Liard River. The Licensee may withdraw up to 299 m³/day of Water from this source.
2. 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.
3. The Licensee shall only withdraw Water using the Water Supply Facilities, unless otherwise authorized temporarily in writing by an Inspector.
4. 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.
5. The Licensee shall construct and maintain the Water intake(s) with a screen designed to prevent impingement or entrapment of fish.
6. Each year, prior to the November 14 and in advance of any Water use, the Licensee shall pay the Water Use Fee in accordance with the MVLWB *Water Use Fee Policy*.

WATER SOURCE AND
MAXIMUM VOLUME

MAXIMUM UNDER-ICE
WATER WITHDRAWAL
VOLUME

Commented [AW5]: Seeking input from reviewers.

WATER WITHDRAWAL –
FACILITIES

POST WATER INTAKE
SIGN(S)

WATER INTAKE SCREEN

WATER USE FEE

Part E: Construction

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.
2. The Licensee shall only use material that is clean and free of contaminants and is from a source that has been authorized in writing by an Inspector.
3. The Licensee shall maintain records of Construction materials for all structures and make them available at the request of the Board or an Inspector.

**OBJECTIVE –
CONSTRUCTION**

**CONSTRUCTION MATERIAL –
SOURCE(S)**

CONSTRUCTION RECORDS

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Part F: Waste and Water Management

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| <p>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.</p> | <p>OBJECTIVE – WASTE AND WATER MANAGEMENT</p> |
| <p>2. The Licensee shall comply with the Waste Management Plan, once approved.</p> | <p>WASTE MANAGEMENT PLAN</p> |
| <p>3. A minimum of 60 days prior to commencement of activities, the Licensee shall submit to the Board, for approval, a revised Waste Management Plan. The Licensee shall not commence Project activities prior to Board approval of the Plan.</p> | <p>WASTE MANAGEMENT PLAN – REVISED</p> |
| <p>4. A minimum of 90 days prior to commencement of activities, the Licensee shall submit to the Board, for approval, a Erosion and Sedimentation Management Plan. The Plan shall be in accordance with the requirements of Schedule 3.</p> | <p>EROSION AND SEDIMENTATION MANAGEMENT PLAN - SUBMISSION</p> |
| <p>5. The Licensee shall comply with the Erosion and Sedimentation Management Plan, once approved. The Plan shall be in accordance with the requirements of Schedule 3.</p> | <p>EROSION AND SEDIMENTATION MANAGEMENT PLAN</p> |
| <p>6. The Licensee shall deposit all Waste as described in the approved Waste Management Plan.</p> | <p>WASTE DISPOSAL</p> |
| <p>7. 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.</p> | <p>DISCHARGE LOCATION – ORDINARY HIGH-WATER MARK</p> |
| <p>8. If an Artesian Aquifer is encountered and producing Water at the ground surface, the Licensee shall:</p> <ul style="list-style-type: none"> a) Implement the Spill Contingency Plan; b) Within 48 hours, notify the Board and an Inspector, in writing, including the flow rate in cubic metres; c) Deposit Artesian Aquifer Water to a snow-bermed or self-contained area, unless otherwise authorized by an Inspector; d) Collect a sample of no less than ten litres of Artesian Aquifer Water, provide five litres of the sample to an Inspector for analysis, analyze the remaining sample as set out for SNP station [enter station number], and provide the analytical results to the Board and an Inspector; e) Seal the borehole to permanently prevent any further outflow of water and to the satisfaction of an Inspector; and | <p>REPORT ARTESIAN AQUIFER</p> |

Commented [AW6]: Inclusion of this Condition is pending Board decision on the Waste Management Plan.

Commented [AW7]: This portion has been removed as there are no SNP. Board staff are seeking input.

- f) Within 24 hours following cessation of the flow of Artesian Aquifer Water, submit a detailed report of the event to the Board and an Inspector, including the total amount of Water in cubic metres that has been released, and the total amount of Water in cubic metres stored in the snow-bermed, or otherwise approved, storage area.

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Part G: Aquatic Effects Monitoring

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Part H: Spill Contingency Planning

1. The Licensee shall ensure that Unauthorized Discharges associated with the Project do not enter any Waters.

**OBJECTIVE – PREVENT
WASTE INTO WATER**

2. The Licensee shall comply with the **Spill Contingency Plan**, once approved.

SPILL CONTINGENCY PLAN

3. A minimum of 60 days prior to the commencement of activities, the Licensee shall submit to the Board, for approval, a revised **Spill Contingency Plan**. The Licensee shall not commence Project activities prior to Board approval of the Plan.

**SPILL CONTINGENCY PLAN –
REVISED**

Commented [AW9]: Inclusion of this condition is pending Board decision on the Spill Contingency Plan.

4. If a spill or an Unauthorized Discharge occurs or is foreseeable, the Licensee shall:

REPORT SPILLS

- a) Implement the approved Spill Contingency Plan referred to in Part H, Condition 2;
- b) Report it immediately using the NU-NT Spill Report Form by one of the following methods:
 - Telephone: (867) 920-8130
 - Fax: (867) 873-6924
 - E-mail: spills@gov.nt.ca
 - Online: Spill Reporting and Tracking Database
- c) Notify the Board and an Inspector immediately; and
- 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

Commented [AW8]: This Condition has been altered from standard to align with the Waste Management Plan – Revised condition

5. The Licensee shall ensure that spill prevention infrastructure and spill response equipment is in place prior to commencement of the Project.

**SPILL PREVENTION AND
RESPONSE EQUIPMENT**

6. The Licensee shall restore all areas affected by spills and Unauthorized Discharges to the satisfaction of an Inspector.

CLEAN UP SPILLS

Part I: Closure and Reclamation

1. Six months prior to the closure of any specific component of the Project, the Licensee shall submit to the Board, for approval, a **Closure and Reclamation Plan**.

**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 Closure and Reclamation Plan .	CLOSURE AND RECLAMATION PLAN – REVISED	Commented [AW10]: Request reviewer input
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 Closure and Reclamation Plan .	CLOSURE AND RECLAMATION PLAN – FINAL	Commented [AW11]: Request reviewer input
4.	The Licensee shall endeavor to carry out approved Progressive Reclamation as soon as is reasonably practicable.	PROGRESSIVE RECLAMATION	
5.	The Licensee shall not conduct Progressive Reclamation except as approved by the Board.	PROGRESSIVE RECLAMATION – CARRY OUT AS APPROVED	
6.	Beginning May 1, 2021 and no later than every May 1 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	
7.	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 . The Plan shall be in accordance with the requirements of Schedule 4.	POST-CLOSURE AND RECLAMATION MONITORING AND MAINTENANCE PLAN	Commented [AW12]: Seeking input from reviewers
8.	Within x 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 <i>Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories</i> . The Licensee shall submit subsequent Reports as directed by the Board.	PERFORMANCE ASSESSMENT REPORT – COMPONENT-SPECIFIC	Commented [AW13]: Seeking input from reviewers

Part J: Watercourse Crossings

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| 1. | The Licensee shall minimize the disturbance of riparian vegetation within the immediate boundary of any Watercourse crossing to the extent practicable | MINIMIZE DISTURBANCE OF RIPARIAN VEGETATION |
| 2. | Ice and snow crossings should not impede the flow of any Watercourse. These crossings shall be v-notched or removed before spring break-up to facilitate natural flow. | DO NOT IMPEDE WATERCOURSE |
| 3. | Any materials placed below the normal high Water mark used in the construction of Water crossings shall be free of any contaminants, debris, or fine materials | FREE OF CONTAMINANTS |
| 4. | Any materials placed below the normal high Water mark used in the construction of Water crossings shall be removed before spring break-up. | REMOVE BEFORE SPRING BREAK-UP |

Commented [AW14]: Non-standard conditions from existing Licence which are not included in other conditions (Part E)

Signed on behalf of the Mackenzie Valley Land and Water Board

[Enter NAME Chair], Chair

[Enter NAME of Witness], Witness

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Schedule 1: Annual Water Licence Report

1. The **Annual Water Licence Report** referred to in Part B, Condition 17 of this Licence shall include, but not be limited to, the following information about activities conducted during the previous calendar year:
- a) An As-Built map identifying all current sites and infrastructure at the Fort Liard - East Project sites with a summary of the operation to date including the name and location of all existing wells and the status and identification of all wells reactivated, suspended or reclaimed;
 - b) A brief summary of Project activities;
 - c) An updated Project schedule;
 - d) The monthly and annual quantities in cubic metres of fresh Water obtained from all sources, as required in Part B, Condition 16 of this Licence;
 - e) A summary of the calibration and status of the meters and devices referred to in Part B, Condition 16 of this Licence;
 - f) A summary of engagement activities conducted in accordance with the approved **Engagement Plan**, referred to in Part B, Condition 18 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 2 of this Licence, including:
 - i. A summary of approved updates or changes to the process or facilities required for the management of Waste; and
 - ii. ~~Monthly and annual quantities, in cubic metres, of [enter specific solid Waste type] discharged, by location;~~
 - iii. ~~Monthly and annual quantities of [enter specific liquid Waste type] discharged, by location;~~
 - iv. Monthly and annual quantities, in cubic metres, of Sewage solids and sludge removed from the campsites, identified by disposal location.
 - v. Monthly elevations in metres of the [enter facility name]; and
 - vi. A map depicting the location of the Sumps.
 - k) A summary of activities conducted in accordance with the approved **Erosion and Sedimentation Management Plan**, 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 erosion and sedimentation;
 - ii. A description of any erosion susceptible areas encountered;
 - iii. A summary of activities undertaken to prevent or mitigate erosion;
 - iv. A report of the performance of mitigations applied to each area;
 - v. A summary and interpretation of monitoring results, including any Action Level exceedances; and
 - vi. A description of actions taken in response to any Action Level exceedances.
 - l) A summary of activities conducted in accordance with the approved **Spill Contingency Plan**, referred to in Part H, Condition 2 of this Licence, including:

Commented [AW15]: Removed since no waste discharge

Commented [AW16]: Removed since no waste discharge

- 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 H, Condition 4 of this Licence; and
 - ii. An outline of any spill training carried out.

- m) A summary of activities conducted in accordance with the **Closure and Reclamation Plan**, referred to in Part I, Condition 1 of this Licence, including:
 - i. Details of any Progressive Reclamation undertaken;
 - ii. A discussion on whether planning and implementation remains on schedule, and a summary of any new scheduling setbacks;
 - iii. A summary of Reclamation Research completed;
 - iv. A summary of engagement conducted regarding Closure and Reclamation; and
 - v. A list of any factors that would increase or decrease the Closure Cost Estimate the next time the Estimate is updated.
- n) 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;
- o) A summary of actions taken to address concerns, non-conformances, or deficiencies in any reports filed by an Inspector;

- p) A table detailing all commitments related to Water use and the deposit of Waste made during the Environmental Assessment, with descriptions of how each commitment is being or has been met; and

- q) Any other details requested by the Board by October 31 of the year being reported.

Schedule 2: Security

1. The amount of security referred to in Part C, Condition 1, shall total \$XX.

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Schedule 3: Erosion and Sedimentation Management Plan

1. The **Erosion and Sedimentation Management Plan** referred to in Part F, Condition 5 shall include, but not be limited to, the following information:
 - a) Information regarding erosion, sedimentation, and permafrost degradation potential and management, including:
 - i. A summary, with appropriate maps or diagrams of the Project site, identifying areas susceptible to erosion, sedimentation, and/or permafrost degradation;
 - ii. A description of the process and criteria for assessing the risk of erosion, sedimentation, and/or permafrost degradation;
 - iii. A description of the best management practices that will be employed for different levels of assessed risk; and
 - iv. A description of Water management during the Project.
 - v. A description of how climate change has been considered, including any linkages to other plans required under this Licence; and
 - vi. Any other information required to describe how erosion and sediment release into the Receiving Environment, and permafrost degradation will be minimized.
 - b) Information regarding monitoring, including;
 - i. Details of the monitoring, including rationale, that will be undertaken with respect to the effectiveness and maintenance of erosion and sediment management practices, including:
 - a. monitoring locations, parameters, frequencies, methods, and types of instrumentation; and
 - b. a map to scale, with monitoring locations.
 - 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 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.

Schedule 4: Post-Closure and Reclamation Monitoring and Maintenance Plan

1. The **Post-Closure and Reclamation Monitoring and Maintenance Plan** referred to in Part I, Condition 7 of this Licence shall include, but not be limited to the following information:
 - a) Information regarding site conditions:
 - i. A summary of completed Closure and Reclamation activities, including links to Closure and Reclamation Completion Reports;
 - ii. A list of the Closure Objectives and Criteria for completed Closure and Reclamation activities;
 - iii. A list of all components, Closure Objectives, and Closure Criteria that require monitoring, surveillance, and/or inspections;
 - iv. A list of all components that require geotechnical inspections by a Professional Engineer;
 - v. For all structures identified in (a)(ii) that meet the definition of a Dam:
 - a. A description of the Dam;
 - b. A consequence assessment; and
 - c. The current classification of the Dam.
 - b) Information regarding monitoring:
 - i. A description, including detailed rationale, of the site-specific monitoring activities required to evaluate the Closure Objectives and Criteria for the Project, including links to the approved Closure and Reclamation Plan;
 - ii. A description of monitoring protocols, methodologies, parameters, and frequency specific to each type of monitoring identified in (i) above;
 - iii. Site map(s) and attached table or detailed legend, illustrating monitoring and sampling locations; and
 - i. A description of the quality assurance and quality control measures followed for each monitoring type.
 - c) Information regarding responses to monitoring results:
 - i. A description of how the Licensee will evaluate the monitoring results against the Closure Objectives and Criteria for the Project;
 - ii. A description of how the Licensee will link the results of monitoring to the implementation of contingencies, revisions to the Plan, and/or other necessary response actions.
 - d) Information regarding surveillance and inspections:
 - i. A description, including detailed rationale, of the method and schedule for surveillance and inspections for each component identified in (a)(iii);
 - ii. A description, including detailed rationale, of the schedule for geotechnical inspections for each component identified in (a)(iv); and
 - iii. A description, including detailed rationale, of the schedule for Dam Safety Reviews for each component identified in (a)(v).

- e) Information about responses to surveillance and inspections:
- i. A description of how the Licensee will evaluate the results of surveillance and inspections against the Closure Objectives and Criteria for the Project; and
 - ii. A description of how the Licensee will link the results of surveillance and inspections to the implementation of contingencies, revisions to the Plan, and/or any other necessary response actions.
- f) Information regarding maintenance:
- i. A description and schedule of routine maintenance work to be conducted at the site;
 - ii. A description of the expected timeline for routine maintenance, including a description of how the Licensee will determine when routine maintenance is no longer required;
 - iii. A description of reasonably likely non-routine maintenance work that may be required;
 - iv. A description of how the Licensee will notify the Board and the Inspector of any non-routine maintenance work;
 - v. A description of any potential impacts to the Receiving Environment during routine maintenance work;
 - vi. A detailed description of any measures used to prevent or mitigate impacts to the Receiving Environment during routine maintenance work; and
 - vii. A description of any monitoring including, but not limited to, sampling locations, parameters measured and frequencies of sampling to be carried out during maintenance activities to determine impacts to the Receiving Environment.
- g) A description of how the results of the activities carried out under this Plan will be reported.

Annex A: Concordance Table of Items Requiring Submission

Licence Condition	Report Title/Require Action	Timeline for Submission
B.9	Annual review and revision of plans	March 31 each year
B.17 (Schedule 1, item 1)	Annual Water Licence Report	March 31 each year
D.6	Payment of Water Use Fee	Each year prior to November 14
F.3, F.5, H.3	Revised plans	
F.8	Report Artesian Aquifer	Within 48 hours
H.4	Report spill or Unauthorized Discharge	Immediately
H.4	Detailed report on spill or Unauthorized Discharge	Within 30 days of initial reporting
I.1	Closure and Reclamation Plan	Six months prior to closure of any specific component of the Project
I.2	Revised Closure and Reclamation Plan	Three years following previous approval
I.3	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
I.6	Notification of approved Progressive Reclamation conducted	May 1, 2021 and every May 1 thereafter
I.7	Post-Closure and Reclamation Monitoring and Maintenance Plan	Within 90 days of completing Closure and Reclamation of the Project

Commented [AW17]: Pending Board decision on Waste Management, Erosion and Sediment and Spill Contingency Plans.

I.8	Performance Assessment Report	Within x months of completing Closure and Reclamation of any specific component of the Project
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