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PO Box 2130, Yellowknife NT X1A 2P6

Tel: 867-669-0506 Fax: 867-873-6610
www.mvlwb.com

August 30, 2022

File: MV2014F0013

David Harpley, VP Permitting
Canadian Zinc Corporation
SUITE 1710-650 West Georgia Street
Vancouver BC V6B 4N9

Sent by email

Dear David Harpley:

Re: Canadian Zinc Corporation – Quarry Use Amendment Approved – Land Use Permit MV2014F0013 – Miscellaneous – Prairie Creek All -Season Road Project, NT

The Mackenzie Valley, Land and Water Board (Board) met on August 25, 2022 and considered Canadian Zinc Corporation's request to amend Land Use Permit (Permit) MV2014F0013 for the Prairie Creek All-Season Road Project in accordance with the *Mackenzie Valley Resource Management Act* (MVRMA).

The Board has approved the amended Permit (attached), which is supported by the Board's Reasons for Decision. These documents are posted on the Board's Public Registry.¹

The Board notes that the Project does not have an approved Closure and Reclamation Plan (CRP) in place currently; consequently, steps should be taken to ensure that the CRP is at a level of completion that is satisfactory to the Board, and that relevant reclamation security is posted for the project prior to commencement of activities under the amendment.

Inspectors

The Inspectors referred to in the Permit can be contacted at the regional GNWT-Lands offices.²

¹ See MVLWB] Online Registry www.mvlwb.com MV2014F0013 ([Hyperlink](#)).

² See GNWT-Lands Inspection and Enforcement webpage (<https://www.lands.gov.nt.ca/en/services/inspections-and-enforcement>) for regional contact information.

Permit Processes and Additional Information

Sections 5 and 6 of the Board's *Guide to the Land Use Permitting Process*³ (Guide) contain detailed information on permit enforcement and potential post-issuance processes, such as amendments to conditions, and assignment to another company. Please be familiar with these sections of the Guide and reach out to Board staff with any questions about Board processes related to the Permit.

Full cooperation of Canadian Zinc Corporation is anticipated and appreciated. Please contact [Sean Joseph](#) via email or at (867) 444-8463 with any questions or concerns regarding this letter.

Yours sincerely,

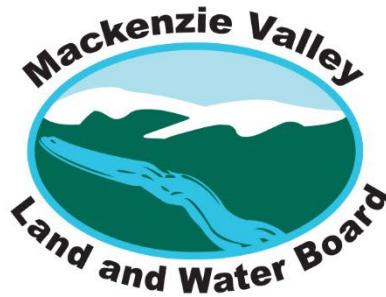


Mavis Cli-Michaud
Chair, Mackenzie Valley Land and Water Board

BCC'd to: CZN Distribution List
Danielle Rogers – Inspector, GNWT-Lands
David Monroe, GNWT-Lands

Attached: Land Use Permit MV2014F0013 – Quarry Use Amendment
Reasons for Decision

³ See [MVLWB] Policies and Guidelines webpage for MVLWB [Guide to the Land Use Permitting Process](#).



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**Canadian Zinc Corporation
Land Use Permit**

Pursuant to the *Mackenzie Valley Resource Management Act* and Mackenzie Valley Land Use Regulations, the Mackenzie Valley Land and Water Board grants this Land Use Permit to:

Canadian Zinc Corporation
(Permittee)

of _____
Unit 1710 - 650 West Georgia Street Vancouver BC V6B 4N9
(Mailing Address)

hereinafter called the Permittee, to proceed with the following land-use operation, subject to the annexed definitions and conditions contained therein:

Location:	All Season Road connecting Prairie Creek Mine to the Liard Highway, NT
Purpose:	All Season Road
Type:	Type A
Effective Date:	November 13, 2019
Expiry Date:	November 12, 2024

Amendment – To Allow Extraction of Rock Material from Existing Source	August 30, 2022
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Handwritten signature of Mavis Cli-Michaud in blue ink.

Mavis Cli-Michaud, Chair
Mackenzie Valley Land and Water Board

Handwritten signature of Amanda Gauthier in blue ink.

Amanda Gauthier, Witness

**Conditions Annexed to and Forming Part of
Land Use Permit # MV2014F0013**

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Part A Scope

1. This Permit entitles the Permittee to conduct the following land-use operation:
 - a) Construction, operation, and maintenance of an All Season Road, including the Construction, operation, and maintenance of a temporary Winter Road;
 - b) Development and operation of Borrow Pits;
 - c) Operation of Construction Camps, including equipment, fuel and material storage areas;
 - d) Construction, operation and maintenance of access roads;
 - e) Construction of bridges and culverts;
 - f) Use of explosives;
 - g) Use of self-propelled earth moving equipment and equipment over 10 tons;
 - h) Use and storage of fuel;
 - i) Use of machinery for moving earth and clearing land; and
 - j) Use of motorized earth drilling machinery.
2. This Permit is issued subject to the conditions contained herein with respect to the use of land for the activities and area identified in Part A, condition 1 of this Permit.
3. Compliance with the terms and conditions of this Permit does not excuse the Permittee from its obligation to comply with the requirements of any applicable Federal, Territorial, or Municipal laws.

Part B: Definitions¹

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.

Adaptive Management – a systematic, rigorous approach for deliberately learning from management actions with the intent to improve management policy or practice, conducted in accordance with the Report of Environmental Assessment Appendix B.

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

All Season Road – road, used in all seasons, that conforms to the alignment and material configuration as presented in the Design and Construction Plan and Design Drawings.

Archaeological Impact Assessment – archaeological research as defined by the Prince of Wales Northern Heritage Centre *Guidelines for Developers for the Protection of Archaeological Sites in the Northwest Territories*.

Archaeological Overview – a study of archaeological sites as defined by the Prince of Wales Northern Heritage Centre *Guidelines for Developers for the Protection of Archaeological Sites in the Northwest Territories*.

Avalanche Professional – a person registered with the Canadian Avalanche Association to practice as an Associate Member, and whose professional field of specialization is appropriate to address the components of the Project at hand.

¹ Defined terms are capitalized throughout the Permit, including when used in other definitions.

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

Borehole – a hole that is made in the surface of the ground by drilling or boring.

Borrow – excavated material including clay, silt, sand, and quarry rock, as described in the approved Borrow Pit Management Plan.

Borrow Pit – an excavation made according to the approved Borrow Pit Management Plan in order to produce Borrow.

Closure Cost Estimate – has the same meaning as that in the Mackenzie Valley Land and Water Board, Government of the Northwest Territories, and Aboriginal Affairs and Northern Development Canada's *Guidelines for Closure and Reclamation Cost Estimates for Mines*.

Closure Criteria – has the same meaning as that in the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada's *Guidelines for the Closure and Reclamation of Advance Mineral Exploration and Mine Sites in the Northwest Territories*.

Closure Objectives – has the same meaning as that in the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada's *Guidelines for the Closure and Reclamation of Advance Mineral Exploration and Mine Sites in the Northwest Territories*.

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, human activities, and the surrounding environment.

Closure and Reclamation Plan – a document, developed in accordance with this Permit and the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada's *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.

Concentrate – the product emanating from the processing of ore at the Prairie Creek Mine.

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

Dogleg – the clearing of a line, trail, or right-of-way that is curved sufficiently so that no part of the clearing beyond the curve is visible when approached from either direction.

Drilling Fluids – any liquid mixture of water, sediment, drilling muds, chemical additives or other Wastes that are pumped down hole while drilling and are specifically related to drilling activity.

Drilling Waste – all materials or chemicals, solid or liquid, associated with drilling, including drill cuttings and Drilling Fluids.

Engagement Plan – a document, developed in accordance with the Board's *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.

Engineered Structure – any structure or facility related to water use or the deposit of Waste that is designed by a Professional Engineer.

Environmental Assessment – the totality of the Mackenzie Valley Environmental Impact Review Board’s Public Registry for Environmental Assessment EA1415-01, including the Report of Environmental Assessment.

Flowing Artesian Well – a well in which water:

- a) Naturally rises above the ground surface or the top of any casing; and
- b) Flows naturally, either intermittently or continuously.

Fuel Storage Container – a container for the storage of petroleum or allied petroleum products with a capacity of less than 230 litres.

Fuel Storage Tank – a closed container for the storage of petroleum or allied petroleum products with a capacity of more than 230 litres.

Geotechnical Investigations – Borehole drilling, geophysics and test pit excavations to evaluate Permafrost, soil and/or rock type and/or condition, carried out by qualified professionals.

Greywater – all liquid Wastes from showers, baths, sinks, kitchens, and domestic washing facilities but not including Toilet Wastes.

Habitat – the area or type of site where a species or an individual of a species of wildlife naturally occurs or on which it depends, directly or indirectly, to carry out its life processes.

Independent Technical Review Panel (Panel) – the expert panel established by the Permittee to fulfill Measure 5-1 of the Report of Environmental Assessment.

Inspector – an Inspector designated by the Minister under the *Mackenzie Valley Resource Management Act*.

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

Minister – the Minister of Crown-Indigenous Relations and Northern Affairs Canada or the Minister of the Government of the Northwest Territories – Department of Lands, as the case may be.

Non-Typical Winter Road – sections of the Winter Road as documented in the Design and Construction Plan and Design Drawings.

Ordinary High Water Mark – the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing waters (rivers, streams) this refers to the “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 predominately aquatic vegetation to terrestrial vegetation (excepting water tolerant species). For reservoirs, this refers to normal high operating levels (full supply level).

Permittee – the holder of this Permit.

Permafrost – ground (soil or rock) that remains at or below 0°C for at least two consecutive years.

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

Phase 1 – activities to support the Construction of the All Season Road in Phase 2, including the Construction and operation of the Winter Road to conduct Geotechnical Investigation and transport equipment and materials to Prairie Creek Mine.

Phase 2 – activities to support the Construction of the All Season Road including the Construction and operation of the Winter Road and of All Season Road Construction.

Phase 3 – activities to support the operation of the All Season Road including transportation of loaded Concentrate, consumable materials and supplies to support mine operations, and road maintenance.

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 in accordance with 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 period of the Project.

Project – the undertaking described in Part A, condition 1.

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

Reclamation Research – has the same meaning as that in the MVLWB/AANDC *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*.

Report of Environmental Assessment (Report of EA) – the Mackenzie Valley Environmental Impact Review Board's Report of Environmental Assessment and Reasons for Decision for the EA1415-01, dated September 12, 2017, and adopted by the Minister of Crown-Indigenous Relations on October 9, 2018.

Safety Data Sheet – a technical document, typically written by the manufacturer or supplier of a chemical, that provides information about the hazards associated with the product, advice about safe handling and storage, and emergency response procedures.

Secondary Containment – containment that prevents liquids that leak from Fuel Storage Tanks or Fuel Storage Containers from reaching outside the containment area and includes double-walled Tanks, piping, liners, and impermeable barriers.

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 Facility – Sump(s) and/or Sewage collection tank(s) and/or storage containers designed to hold Sewage.

Spill Contingency Plan – a document, developed in accordance with Aboriginal Affairs and Northern Development Canada's *Guidelines for Spill Contingency Planning*.

Spring Break-up – March 31 each year, for the purpose of this operation.

Sump – a man-made pit or natural depression in the earth's surface used for the purpose of depositing Waste that does not contain Toxic Material, such as non-toxic Drilling Waste or Sewage, therein.

Temporary Closure – a state of care and maintenance, with the intent of resuming activities in the near future.

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.

Toxic Material – any substance that enters or may enter the environment in a quantity or concentration or under conditions such that it:

- a) Has or may have an immediate or long-term harmful effect on the environment or its biological diversity;
- b) Constitutes or may constitute a danger to the environment on which life depends; or
- c) Constitutes or may constitute a danger in Canada to human life or health.

Typical Winter Road – the road alignment, not including the Non-Typical Winter Road, that is constructed with snow and ice.

Unauthorized Discharge – a release or Discharge of any Waters or Waste not authorized under this Permit.

Waste – any garbage, debris, chemical, or Toxic Material to be used, stored, disposed of, or handled on land, and also as defined in section 51 of the *Mackenzie Valley Resource Management Act*.

Waste Management Plan – a document, developed in accordance with the Board's *Guidelines for Developing a Waste Management Plan*, that describes the methods of Waste management from Waste generation to final disposal.

Waste Rock – extracted rock material that is not utilized in construction or reclamation.

Watercourse - a natural body of flowing or standing water or an area occupied by water during part of the year, and includes streams, springs, swamps and gulches but does not include groundwater.

Winter Road – the alignment including both the Typical Winter Road and Non-typical Winter Road sections.

Part C: Conditions Applying to All Activities²

26(1)(a) Location and Area

- | | |
|---|-------------------------------------|
| 1. The Permittee shall only conduct this land-use operation on lands designated in the application. | LOCATION OF ACTIVITIES |
| 2. The Permittee shall not conduct any part of the land-use operation within 300 metres of any privately owned or leased land or structure, including cabins used for traditional activities, unless otherwise authorized in writing by the Board. | PRIVATE PROPERTY SETBACK |
| 3. The Permittee shall locate all Camps according to the approved Structure Description and Construction Plan or the approved Design and Construction Plan. | CAMP LOCATION |
| 4. The Permittee shall use an existing campsite, as described in the complete application. | USE EXISTING CAMP |
| 5. Prior to the commencement of drilling, the Permittee shall submit the target areas and final drill hole locations on a 1:10,000-scale map with coordinates and map datum to the Board and an Inspector. | DRILL LOCATIONS |
| 6. The Permittee shall not locate any Sump within 100 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector. | SUMP SETBACK |
| 7. The Permittee shall not develop a Borrow Pit operation within 100 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector. | BORROW PIT SETBACK |
| 8. The Permittee shall locate all lines, trails, and right-of-ways to be constructed parallel to any Watercourse a minimum of 100 metres from the Ordinary High Water Mark, except at crossings, or as approved in the Design and Construction Plans or Structure Description and Construction Plans. | PARALLEL WATERCOURSE SETBACK |
| 9. Prior to the commencement of the land-use operation, the Permittee shall accompany an Inspector during an inspection of the proposed land use area. | INSPECT LOCATIONS |
| 10. The Permittee shall confine the width of the right-of-way in accordance with the approved Design and Construction Plan or Structure Description and Construction Plans. | WIDTH RIGHT-OF-WAY |

² Headings correspond to subsection 26(1) of the Mackenzie Valley Land Use Regulations.

26(1)(b) Time

11. A minimum of 10 days prior to the commencement of the Project including Phase 1, 2, and 3, the Permittee shall provide written notification to the Board, a Government of the Northwest Territories (GNWT) Inspector, and a Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) Inspector. Notification shall include the commencement date, and the name and contact information for the Project Field Supervisor. Any updates shall be provided to the Board, a GNWT Inspector, and a CIRNAC Inspector in writing as changes occur. **WRITTEN NOTIFICATION**

12. At least ten days prior to the commencement of the land-use operation, the Permittee's Field Supervisor shall contact a GNWT Inspector at (867) 695-2626, and a CIRNAC Inspector at (867) 669-2442. **INITIAL NOTIFICATION – CONTACT INSPECTOR**

13. At least ten days prior to returning to the worksite following a seasonal shut down period, the Permittee's Field Supervisor shall contact a GNWT Inspector at (867) 695-2626, and a CIRNAC Inspector at (867) 669-2442. **SEASONAL NOTIFICATION – CONTACT INSPECTOR**

14. At least 48 hours prior to commencement of the land-use operation, the Permittee shall provide the following information, in writing, to the Board and an Inspector: **IDENTIFY AGENT**
 - a) The name(s) of the person(s) in charge of the field operation;
 - b) Alternates; and
 - c) All methods for contacting the above person(s).

15. At least ten days prior to a shut down period, the Permittee shall advise an Inspector of: **REPORTS BEFORE SEASONAL REMOVAL**
 - a) The plan for removal or storage of equipment and materials; and
 - b) When cleanup and Progressive Reclamation of the land used will be completed.

16. At least ten days prior to the completion of the land-use operation, the Permittee shall advise an Inspector of: **REPORTS BEFORE FINAL REMOVAL**
 - a) The plan for removal or storage of equipment and materials;
 - b) When final cleanup and reclamation of the land used will be completed; and
 - c) When the final plan will be submitted.

17. Beginning March 31, 2020 and no later than every March 31 thereafter, the Permittee shall submit an **Annual Permit Report** to the Board and the Inspector, which shall include, but not be limited to, the following information about activities conducted during the previous calendar year: **ANNUAL PERMIT REPORT**
 - a) A brief summary of Project activities;
 - b) An updated Project schedule;
 - c) A summary of engagement activities conducted in accordance with the approved Engagement Plan;
 - d) A summary of how Traditional Knowledge influenced decision making;
 - e) A summary of Construction activities;
 - f) A summary of repairs and maintenance activities conducted in accordance with this Permit;

- g) A summary of activities conducted in accordance with the approved Waste Management Plan, 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 all solid Waste discharged, identified by location;
 - iii. Monthly and annual quantities, in cubic metres, of all liquid Waste discharged, identified by location;
 - iv. Monthly and annual quantities, in cubic metres, of hazardous Waste generated and removed;
 - v. Monthly and annual quantities, in cubic metres, of Sewage solids removed from the Sewage Disposal Facilities, identified by disposal location; and
 - vi. A map depicting the location of the Sumps.
- h) A summary of activities conducted in accordance with the approved Sediment and Erosion Control Plan, 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.
- i) A summary of activities conducted in accordance with the approved Permafrost Management and Monitoring Plan, including:
 - i. A summary and interpretation of any monitoring results, including Action Level exceedances; and
 - ii. A list of any Action Level exceedances and a description of actions taken in response to Action Level exceedances.
- j) A summary of activities conducted in accordance with the approved Geochemical Verification Program, including:
 - i. A summary of approved updates or changes to the processes for characterizing and managing Acid Rock Drainage and Metal Leaching material;
 - ii. A comparison of the annual quantities of each type of Waste Rock generated to the quantities predicted in the approved Geochemical Verification Program;
 - iii. A summary and interpretation of results from the geochemical monitoring performed under the approved Geochemical Verification Program;
 - iv. A summary and interpretation of results from Seepage monitoring performed under the approved Geochemical Verification Program, 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.
 - v. A summary and interpretation of water quality monitoring results for each of the main source areas and how these compare to predicted values;
 - vi. A summary of any exceedances of the Action Levels described in the Geochemical Verification Program; and
 - vii. A description of actions taken in response to any Action Level exceedances under the Geochemical Verification Program.
- k) A summary of activities conducted in accordance with the approved Borrow Pit Management Plan, including:
 - i. A summary of borrow sources approved through the Borrow Pit Management Plan;
 - ii. A summary and interpretation of any monitoring results including any Action Level exceedances; and
 - iii. A list of any Action Level exceedances and a description of actions taken in response to any Action Level exceedances.
- l) A summary of activities conducted in accordance with the approved Explosives Management Plan, including:
 - i. A summary and interpretation of any monitoring results including any Action Level exceedances; and
 - ii. A list of any Action Level exceedances and a description of actions taken in response to any Action Level exceedances.
- m) A summary of activities conducted in accordance with the approved Rare Plant Management Plan, including:
 - i. A summary and interpretation of any monitoring results including any Action Level exceedances; and
 - ii. A list of any Action Level exceedances and a description of actions taken in response to Action Level exceedances.
- n) A summary of activities conducted in accordance with the approved Invasive Species Management Plan, including:
 - i. A summary and interpretation of any monitoring results including any Action Level exceedances; and
 - ii. A list of any Action Level exceedances and a description of actions taken in response to Action Level exceedances.
- o) A summary of activities conducted in accordance with the approved Spill Contingency Plan, 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); and
 - ii. A summary of any spill training carried out.
- p) A summary of any Closure and Reclamation work completed. The Report shall be in accordance with the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada's *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*.

- q) A summary of activities conducted in accordance with the approved Avalanche Hazard Management Plan, including:
 - i. Reporting of avalanche paths completed by an Avalanche Professional;
 - ii. A summary of measures employed to reduce avalanche risk to vehicles and occupants;
 - iii. A summary and interpretation of any monitoring results, including any Action Level exceedances; and
 - iv. A list of any Action Level exceedances, and a description of actions taken in response to Action Level exceedances.
- r) A summary of activities conducted in accordance with the approved Traffic Control Mitigation and Road Operations and Maintenance Plan, including:
 - i. A summary and interpretation of any monitoring results including any Action Level exceedances; and
 - ii. A list of any Action Level exceedances and a description of actions taken in response to Action Level exceedances.
- s) A summary of activities conducted in accordance with the approved Contaminant Loading Management Plan, including:
 - i. A summary and interpretation of any monitoring results including any Action Level exceedances; and
 - ii. A list of any Action Level exceedances and a description of actions taken in response to Action Level exceedances.
- t) A list of any non-compliance with the conditions of this Permit or any direction from the Board pursuant to the conditions of this Permit;
- u) A summary of actions taken to address concerns, non-conformances, or deficiencies in any reports filed by an Inspector;
- v) A table detailing all commitments related to water use and deposit of Waste made during the Environmental Assessment, with descriptions of how each commitment is being or has been met;
- w) Any other details requested by the Board by November 30 of the year being reported.

26(1)(c) Type and Size of Equipment

- | | | |
|-----|---|-----------------------------------|
| 18. | The Permittee shall only use equipment of a similar type, size, and number to that listed in the complete application. | USE APPROVED
EQUIPMENT |
| 19. | The Permittee shall use portable ramps during loading and unloading of aquatic vessels, including ships, boats, and barges. | PORTABLE RAMPS |

26(1)(d) Methods and Techniques

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|-----|--|---|
| 20. | The Permittee 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
STRUCTURES – GENERAL |
| 21. | The Permittee shall ensure that all materials used in Construction of the Project meets the geochemical criteria specified in the approved Geochemical Verification Program. | CONSTRUCTION
MATERIAL –
GEOCHEMICAL CRITERIA |

- | | |
|---|---|
| <p>22. The Permittee shall only use material that is clean, non-PAG and free of contaminants and is from a source within an approved area as per the approved Borrow Pit Management Plan, with the exception of the previously developed on-site borrow pit.</p> | <p>CONSTRUCTION MATERIAL – SOURCE</p> |
| <p>23. The Permittee shall maintain Construction records and geochemical records of Construction materials for all structures and make them available at the request of the Board or an Inspector.</p> | <p>GEOCHEMICAL RECORDS</p> |
| <p>24. The Permittee shall establish and fund an Independent Technical Review Panel in accordance with Measure 5-1 of the Report of EA.</p> | <p>INDEPENDENT TECHNICAL REVIEW PANEL – ESTABLISHMENT</p> |
| <p>25. A minimum of 90 days of the prior to the commencement of the Panel’s activities, the Permittee shall submit the Panel’s Terms of Reference to the Board for approval, to fulfill Report of EA Measure 5-1. The Permittee shall submit a revised Terms of Reference 90 days prior to implementation of any changes to the Terms of Reference.</p> | <p>INDEPENDENT TECHNICAL REVIEW PANEL – TERMS OF REFERENCE</p> |
| <p>26. The Permittee shall comply with the Panel’s Terms of Reference, once approved.</p> | <p>TERMS OF REFERENCE – COMPLY</p> |
| <p>27. Unless otherwise authorized 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 Wastes, the Permittee shall submit to the Board for approval, a Structure Description and Construction Plan. The Permittee shall not commence Construction prior to Board approval of the Plan, which shall include but not be limited to the following:</p> <p>a) Information about the design of the facilities:</p> <ul style="list-style-type: none"> 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 containment and runoff control structures, including the results of geotechnical and geochemical investigations; hydrogeological investigations; programs to characterize soil, rock, Groundwater, ground ice, and ground temperature conditions to the depth expected to be affected by the proposed facilities; and any other relevant information; iv. Design specifications and performance parameters; and v. Design analysis and results. <p>b) Information about the Construction of the facilities:</p> <ul style="list-style-type: none"> i. A Construction schedule, including sequencing information; ii. A description of the materials required for Construction, including, but not limited to: <ul style="list-style-type: none"> a. sources; b. quantities; c. physical characteristics; and d. geochemical characteristics. | <p>STRUCTURE DESCRIPTION AND CONSTRUCTION PLAN</p> |

- iii. A description of any potential impacts on the Receiving Environment associated with Construction of the facilities;
 - iv. A description of any mitigation measures that will be undertaken to minimize the potential impacts identified above;
 - v. A description of the Construction monitoring program to demonstrate conformance with design specifications; and
 - vi. A description of the operational monitoring program to demonstrate conformance with the design performance.
- c) A description of Adaptive Management processes that systematically link monitoring results to management activities and allow management activities to be developed adaptively, in response to changes in the Receiving Environment.

28. A minimum of 90 days prior to the commencement of Construction of any Engineered Structures not reviewed and accepted by the Panel, the Permittee shall submit to the Board for approval, a **Design and Construction Plan**. The Plan shall include but not be limited to the following:

**DESIGN AND
CONSTRUCTION PLAN**

- a) Information about 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 containment and runoff control structures, including the results of geotechnical and geochemical investigations; hydrogeological investigations; programs to characterize soil, rock, Groundwater, ground ice, and ground temperature conditions to the depth expected to be affected by the proposed facilities; and any other relevant information, as deemed adequate by the Professional Engineer responsible for the design;
 - iv. Design specifications and performance parameters; and
 - v. Stability analysis.
- b) Information about 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 impacts on the Receiving Environment associated with Construction of the facilities;
 - iv. A description of any mitigation measures that will be undertaken to minimize the potential impacts identified above;
 - v. A description of the Construction monitoring program to demonstrate conformance with design specifications; and
 - vi. A description of the operational monitoring program to demonstrate conformance with the design performance.

- c) A description of Adaptive Management processes that systematically link monitoring results to management activities and allow management activities to be developed adaptively, in response to changes in the Receiving Environment.
- d) 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.

29. A minimum of 90 days prior to the commencement of Construction of any Engineered Structures not reviewed and accepted by the Panel, the Permittee shall submit to the Board, **Design Drawings** stamped and signed by a Professional Engineer. A minimum of 90 days prior to implementing any proposed changes, the Permittee shall submit revised Design Drawings to the Board.

DESIGN DRAWINGS

30. A minimum of 45 days prior to the commencement of Construction of any structures reviewed and accepted by the Panel, the Permittee shall submit to the Board the following:

**INDEPENDENT
TECHNICAL REVIEW
PANEL – FINAL REPORT**

- a) A **Final Report** from the Panel that indicates their review and acceptance of the Engineered Structures, its Design and Construction Plan, and Design Drawings or any other structures and its Structure Description and Construction Plan;
- b) A **Design and Construction Plan, or Structure Description and Construction Plan**, reviewed and accepted by the Panel; and;
- c) A **Design Drawing** of the Engineered Structure stamped and signed by a Professional Engineer, and reviewed and accepted by the Panel.

31. The Permittee may propose revisions at any time to the structures reviewed and accepted by the Panel by submitting to the Board the following:

**INDEPENDENT
TECHNICAL REVIEW
PANEL – REVISIONS TO
FINAL REPORT**

- a) A revised Final Report from the Panel that indicates their review and acceptance of the revised Design and Construction Plan and Design Drawings or Structure Description and Construction Plan;
- b) A revised Design and Construction Plan or Structure Description and Construction Plan reviewed and accepted by the Panel; and
- c) A revised Design Drawing stamped and signed by a Professional Engineer and reviewed and accepted by the Panel.

Any revision submission shall include a revision history table and a summary of the revisions made. The Permittee shall not implement revisions until approved by the Board.

32. A minimum of ten days prior to the commencement of Construction of any Engineered Structure(s), the Permittee 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 Construction Field Supervisor. Any updates shall be provided to the Board and an Inspector in writing as changes occur.

**NOTIFICATION –
CONSTRUCTION**

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| 33. The Permittee shall ensure that all structures, excluding Engineered Structures, are constructed in accordance with the approved Structure Description and Construction Plan(s). | CONSTRUCT AS
DESIGNED –
STRUCTURES |
| 34. The Permittee shall ensure that all Engineered Structures are constructed in accordance with the Design Drawings and approved Design and Construction Plans. | CONSTRUCT AS
DESIGNED –
ENGINEERED
STRUCTURES |
| 35. Within 90 days of the completion of the Construction of each Engineered Structure, the Permittee shall submit to the Board, an As-Built Report stamped and signed by a Professional Engineer, which shall include, but not be limited to, the following information:

a) Final as-built drawings of the Engineered Structure(s), stamped and signed by a Professional Engineer;
b) Documentation, with rationale, of field decisions that deviate from the Design and Construction Plans and Design Drawings; and
c) Any data used to support these decisions. | AS-BUILT REPORT –
ENGINEERED
STRUCTURES |
| 36. The Permittee shall Dogleg lines, trails and right-of-ways that approach Watercourses or public roads. | DOGLEG APPROACHES |
| 37. Prior to the movement of any vehicle that exerts pressure on the ground in excess of 35 kPa, the Permittee shall scout proposed lines and routes to select the best location for crossing streams and avoiding terrain obstacles. | DETOURS AND
CROSSINGS |
| 38. As the land-use operation progresses, the Permittee shall refill and restore craters caused by explosives. | REFILL CRATERS |
| 39. Immediately upon completion of operations at each Borehole, the Permittee shall remove or cut off and seal each drill casing at ground level. | DRILL CASINGS |
| 40. The Permittee shall construct and maintain the overland portion of Winter Roads, excluding the Non-Typical Winter Road, with a minimum of 10 cm of packed snow and/or ice, at all times during this land-use operation. | WINTER ROADS |
| 41. The Permittee shall not erect Camps or store material, other than that required for immediate use, on the ice surface of a Watercourse. | STORAGE ON ICE |
| 42. Prior to the expiry date of this Permit, the Permittee shall replace all excavated material, excluding Borrow Quarry Rock, unless otherwise authorized in writing by an Inspector. | EXCAVATED MATERIAL |
| 26(1)(e) Type, Location, Capacity, and Operation of All Facilities | |
| 43. The Permittee shall ensure that the land use area is kept clean at all times. | CLEAN WORK AREA |

26(1)(f) Control or Prevention of Ponding of Water, Flooding, Erosion, Slides, and Subsidence of Land

**SEDIMENT AND
EROSION CONTROL
PLAN**

44. The Permittee shall comply with the **Sediment and Erosion Control Plan**, once approved. The Sediment and Erosion Control Plan shall include, but not be limited to the following information for the activities associated with each phase:
- a) Inspections on land, including but not limited to:
 - i. Short- and long-term inspection methods, locations (provide a map), and parameters;
 - ii. Inspection form(s) that denote the items/parameters that will be assessed during inspection;
 - iii. Inspection frequency including any criteria that will be used to modify this frequency or discontinue;
 - iv. Quality assurance and quality control; and
 - v. A mechanism for reporting the findings of inspections.
 - b) Monitoring on land, including but not limited to:
 - i. Short- and long-term monitoring (survey, sampling, testing) methods;
 - ii. Monitoring locations and collection methodology including supporting rationale and parameters;
 - iii. Monitoring duration and frequency including any criteria that will be used to modify this frequency or discontinue monitoring;
 - iv. Quality assurance and quality control;
 - v. A mechanism for reporting and interpretation of the monitoring data;
 - vi. Proposed control and mitigation measures, including specific measures that will be used in riparian areas; and
 - vii. A description of an Adaptive Management framework that satisfies the requirements of Report of EA Appendix B, including but not limited to:
 - a. a decision tree that outlines the path of Adaptive Management decisions based on results of both the short- and long-term monitoring program.
 - c) Details specific to the hoverbarge associated structures, including but not limited to:
 - i. Details outlining sedimentation and erosion management during construction of the hoverbarge associated structures;
 - ii. Operational details of the hoverbarge associated structures, including sedimentation and erosion management following construction;
 - iii. Hoverbarge associated structure inspections and monitoring;
 - iv. Proposed sedimentation and erosion control and mitigation measures associated with hoverbarge associated structure operations; and
 - v. A description of an Adaptive Management framework that satisfies the requirements of Report of EA Appendix B, including but not limited to:
 - a. a decision tree that outlines the path of Adaptive Management decisions based on results of both the short- and long-term monitoring program.

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| <p>45. A minimum of 90 days prior to the commencement of Phase 1 activities, the Permittee shall submit to the Board, for approval, a revised Sediment and Erosion Control Plan. The Permittee shall not commence Phase 1 activities prior to Board approval.</p> | <p>SEDIMENT AND
EROSION CONTROL
PLAN – REVISED</p> |
| <p>46. The Permittee shall apply appropriate mitigation at the first sign of erosion.</p> | <p>REPAIR EROSION</p> |
| <p>47. The Permittee shall install and maintain culverts such that scouring, undercutting, blockages, and overflow do not occur.</p> | <p>CULVERT SIZE</p> |
| <p>48. The Permittee shall comply with the Permafrost Management and Monitoring Plan, once approved. The Permafrost Management and Monitoring Plan shall be in accordance with Report of EA Measure 12-1 Part 4 , and shall include, but not be limited to the following for the activities associated with each phase:</p> <ul style="list-style-type: none"> a) Identification of monitoring/survey methods, locations (provide a map), site selection and parameters for Permafrost baseline collection and short/long term monitoring; b) A summary of findings from baseline collection and how it will be used to inform detailed and final design of the Winter Road, All Season Road, Borrow Pits, and other infrastructure in a way that anticipates and avoids Permafrost degradation and associated impacts on the surrounding environment; c) Sampling duration and frequency including any criteria that will be used to modify this frequency or discontinue monitoring; d) Quality assurance and quality control measures; e) A mechanism for reporting and interpreting the baseline, short- and long-term monitoring data; f) Proposed control and mitigation measures; and g) A description of an Adaptive Management framework that satisfies the requirements of Report of EA Appendix B, including but not limited to: <ul style="list-style-type: none"> i. A decision tree that outlines the path of Adaptive Management decisions based on results of both the short- and long-term monitoring program. | <p>PERMAFROST
MANAGEMENT AND
MONITORING PLAN</p> |
| <p>49. A minimum of 90 days prior to the commencement of Phase 1 activities, the Permittee shall submit to the Board, for approval, a revised Permafrost Management and Monitoring Plan. The Permittee shall not commence Phase 1 activities prior to Board approval.</p> | <p>PERMAFROST
MANAGEMENT AND
MONITORING PLAN –
REVISED</p> |
| <p>50. The Permittee shall insulate the ground surface beneath all structures associated with this land-use operation to prevent:</p> <ul style="list-style-type: none"> a) Any vegetation present from being removed; b) The melting of Permafrost; and c) The ground settling and/or eroding. | <p>PERMAFROST
PROTECTION</p> |
| <p>51. The land-use operation shall not cause obstruction to any natural drainage.</p> | <p>NATURAL DRAINAGE</p> |

<p>52. The Permittee shall, where flowing water from a Borehole is encountered:</p> <p>a) Plug the Borehole in such a manner as to permanently prevent any further outflow of water; and</p> <p>b) Immediately report the occurrence to the Board and an Inspector.</p>	<p>FLOWING ARTESIAN WELL</p>
<p>53. The Permittee shall prepare the site in such a manner as to prevent rutting of the ground surface.</p>	<p>PREVENTION OF RUTTING</p>
<p>54. The Permittee shall suspend overland travel of equipment or machines the first sign of rutting or gouging.</p>	<p>SUSPEND OVERLAND TRAVEL</p>
<p>55. The Permittee shall not move any equipment or machines unless the ground surface is in a state capable of fully supporting the equipment or machine without rutting or gouging.</p>	<p>VEHICLE MOVEMENT FREEZE-UP</p>
<p>56. The Permittee shall only use clean water and snow in the Construction of ice bridges and snow fills.</p>	<p>CONSTRUCT ICE BRIDGES SNOWFILLS</p>
<p>57. Prior to Spring Break-up or completion of the land-use operation, the Permittee shall clean up and either remove or v-notch all snowfills from stream crossings, unless otherwise authorized in writing by an Inspector.</p>	<p>REMOVE ICE BRIDGES/SNOWFILLS</p>
<p>58. The Permittee shall minimize approach grades on all Watercourse crossings.</p>	<p>MINIMIZE APPROACH</p>
<p>59. The Permittee shall not cut any stream bank, unless otherwise authorized in writing by an Inspector.</p>	<p>STREAM BANKS</p>
<p>60. The Permittee shall use temporary bridges or dry fording when crossing streams.</p>	<p>DRY FORDING</p>
<p>61. The Permittee shall slope the sides of Waste material piles, excavations, and embankments — except in solid rock — to a minimum ratio of 2:1 vertical, unless otherwise authorized in writing by an Inspector.</p>	<p>EXCAVATION AND EMBANKMENTS</p>
<p>62. The Permittee shall not remove vegetation or operate heavy equipment within 100 metres of the Ordinary High Water Mark of any Watercourse, except at crossings or as described in the complete application.</p>	<p>EQUIPMENT: WATERCOURSE BUFFER</p>
<p>63. The Permittee shall not excavate land within 100 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector.</p>	<p>EXCAVATION SETBACK</p>
<p>26(1)(g) Use, Storage, Handling, and Ultimate Disposal of Any Chemical or Toxic Material</p>	
<p>64. At least seven days prior to the use of any chemicals that were not identified in the complete application, the Safety Data Sheet must be provided to the Board and an Inspector.</p>	<p>CHEMICALS</p>

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| 65. The Permittee may deposit Drilling Waste that does not contain Toxic Material in a Sump or natural depression. Any Sumps or natural depressions used to deposit Drilling Waste must be located at least 100 metres from the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector. | DRILLING WASTE |
| 66. The Permittee shall remove all Drilling Waste containing Toxic Material to an approved disposal facility. | DRILLING WASTE DISPOSAL |
| 67. The Permittee shall not allow any Drilling Waste to spread to the surrounding lands or Watercourses. | DRILLING WASTE CONTAINMENT |
| 68. Prior to the expiry date of this Permit or the end of the land-use operation whichever comes first, the Permittee shall backfill and restore all Sumps, or otherwise authorized in writing by an Inspector. | RECLAIM SUMPS |
| 69. The Permittee shall dispose of all Toxic Material as described in the approved Waste Management Plan. | WASTE CHEMICAL DISPOSAL |
| 70. The Permittee shall dispose of all Waste petroleum products by removal to an approved disposal facility or by incineration in a device designed for this purpose, as described in the approved Waste Management Plan. | WASTE PETROLEUM DISPOSAL |

26(1)(h) Wildlife and Fish Habitat

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| 71. The Permittee shall take all reasonable measures to prevent damage to wildlife and fish Habitat during this land-use operation. | HABITAT DAMAGE |
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26(1)(i) Storage, Handling, and Disposal of Refuse or Sewage

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| 72. The Permittee shall comply with the Waste Management Plan , once approved. | WASTE MANAGEMENT PLAN |
| 73. A minimum of 90 days prior to the commencement of Phase 1 activities, the Permittee shall submit to the Board, for approval, a revised Waste Management Plan. The Permittee shall not commence Phase 1 activities prior to Board approval. | WASTE MANAGEMENT PLAN – REVISED |
| 74. The Permittee shall keep all garbage and debris in a secure container until disposal. | GARBAGE CONTAINER |
| 75. The Permittee shall dispose of all garbage, Waste, and debris as described in the approved Waste Management Plan, unless otherwise authorized in writing by an Inspector. | REMOVE GARBAGE |
| 76. The Permittee shall dispose of all Sewage and Greywater as described in the approved Waste Management Plan. | SEWAGE DISPOSAL - PLAN |

26(1)(j) Protection of Historical, Archaeological, and Burial Sites

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| 77. The Permittee shall not operate any vehicle or equipment within 30 metres of a known or suspected historical or archaeological site or burial ground. | ARCHAEOLOGICAL BUFFER |
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78. The Permittee shall not knowingly remove, disturb, or displace any archaeological specimen or site. **SITE DISTURBANCE**
79. The Permittee shall, where a suspected archaeological or historical site, or burial ground is discovered: **SITE DISCOVERY AND NOTIFICATION**
- a) Immediately suspend operations on the site; and
 - b) Notify the Board at (867) 669-0506 or a GNWT Inspector at (867) 695-2626 and a CIRNAC Inspector at (867) 669-2442, and the Prince of Wales Northern Heritage Centre at 767-9347 ext. 71251 or ext. 71255.
80. Prior to any new land disturbance, the Permittee shall conduct an Archaeological Impact Assessment of the sites where disturbance is planned, to fulfill Report of EA Measure 10-2, and shall submit a summary report to the Board and the Prince of Wales Northern Heritage Centre. **AIA**
81. The Permittee shall comply with the **Cultural Heritage Protection Plan**, once approved. The Plan shall be informed by the results of all archaeological investigations to date (Archaeological Overview and Archaeological Impact Assessment(s)), and shall include, but not be limited to, the following information for the activities associated with each phase: **CULTURAL HERITAGE PROTECTION PLAN**
- a) An accidental finds protocol;
 - b) A plan to provide training on accidental finds to persons working under the authority of this Permit; and
 - c) A heritage resource booklet including photographs to be provided to persons working under the authority of this Permit.
82. A minimum of 90 days prior to the commencement of Phase 1 activities, the Permittee shall submit to the Board, for approval, a Cultural Heritage Protection Plan. The Permittee shall not commence Phase 1 activities prior to Board approval. **CULTURAL HERITAGE PROTECTION PLAN – REVISED**

26(1)(k) Objects and Places of Recreational, Scenic, and Ecological Value

83. The Permittee shall comply with the **Rare Plant Management Plan**, once approved. The Plan shall be in accordance with Report of EA Measure 11-1, Part 2 and 15-1, and shall include, but not be limited to the following information for the activities associated with each phase: **RARE PLANT MANAGEMENT PLAN**
- a) Mitigation measures to be implemented to minimize significant adverse impacts on rare plants or rare plant assemblages;
 - b) Details on how rare plants will be identified and monitored during Construction and operation activities;
 - c) Details on effects monitoring for any identified rare plants or rare plant assemblages; and
 - d) Identification of actions that will be taken if rare plants are identified during Construction and operation of the Project.
 - e) A description of an Adaptive Management framework that satisfies the requirements of Report of EA Appendix B, including but not limited to:
 - i. A decision tree that outlines the path of Adaptive Management decisions based on results of both the short- and long-term monitoring program.

84. A minimum of 90 days prior to the commencement of Phase 1 activities, the Permittee shall submit to the Board, for approval, a revised Rare Plant Management Plan. The Permittee shall not commence Phase 1 activities prior to Board approval.
- RARE PLANT
MANAGEMENT PLAN -
REVISED**
85. The Permittee shall comply with the **Invasive Species Management Plan**, once approved. The Plan shall fulfill the Report of EA Measure 11-2, Part 4 and 15-1, and shall include, but not be limited to the following information for the activities associated with each phase:
- INVASIVE SPECIES
MANAGEMENT PLAN**
- a) Baseline data of the entire right-of-way for the presence of invasive species, focusing on areas with higher likelihood of the establishment of invasive species, that shall inform mitigations;
 - b) Mitigations that will prevent the spread of invasive species;
 - c) A description of an Adaptive Management framework that satisfies the requirements of Report of EA Appendix B, including but not limited to:
 - i. A decision tree that outlines the path of Adaptive Management decisions based on results of both the short- and long-term monitoring program.
86. A minimum of 90 days prior to the commencement of Phase 1 activities, the Permittee shall submit to the Board, for approval, a revised Invasive Species Management Plan. The Permittee shall not commence Phase 1 activities prior to Board approval.
- INVASIVE SPECIES
MANAGEMENT PLAN –
REVISED**
- 26(1)(I) Security Deposit**
87. The Permittee shall deposit with the Minister of the Government of the Northwest Territories – Department of Lands security deposit totaling \$1,335,217 based on the schedule set out below:
- SECURITY DEPOSIT –
TERRITORIAL**
- a) Prior to the commencement of Phase 1 activities, the Permittee shall post and maintain a total security deposit in the amount of \$1,115,309; and
 - b) Prior to the commencement of Phase 2 activities, the Permittee shall post and maintain an additional deposit in the amount of \$219,908, to maintain a total amount of deposit of \$1,335,217.
88. The Permittee shall deposit with the Minister of Crown-Indigenous Relations and Northern Affairs Canada a security deposit totaling \$82,703 based on the schedule set out below:
- SECURITY DEPOSIT – IAB**
- a) Prior to the commencement of Phase 1 activities, the b Permittee shall post and maintain a total security deposit in the amount of \$25,981; and
 - b) Prior to the commencement of Phase 2 activities, the Permittee shall post and maintain an additional deposit in the amount of \$56,722, to maintain a total amount of deposit of \$82,703.
89. All costs to remediate the area under this Permit are the responsibility of the Permittee.
- RESPONSIBILITY FOR
REMEDICATION COSTS**

26(1)(m) Fuel Storage

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| 90. The Permittee shall: | CHECK FOR LEAKS |
| a) Examine all Fuel Storage Containers and Fuel Storage Tanks for leaks a minimum of once per day; and | |
| b) Repair all leaks immediately. | |
| 91. The Permittee shall not place any Fuel Storage Containers and or Tanks within 100 metres of the Ordinary High Water Mark of any Watercourse, or in a drainage channel, unless otherwise authorized in writing by an Inspector. | FUEL STORAGE SETBACK |
| 92. The Permittee shall ensure that all fuel caches have adequate Secondary Containment. | FUEL CACHE
SECONDARY
CONTAINMENT |
| 93. The Permittee shall set up all refueling points with Secondary Containment. | SECONDARY
CONTAINMENT –
REFUELING |
| 94. The Permittee shall not allow petroleum products to spread to surrounding lands or Watercourses. | FUEL CONTAINMENT |
| 95. The Permittee shall locate mobile fuel facilities on land when the facilities are stationary for more than 12 hours. | FUEL ON LAND |
| 96. The Permittee shall mark all Fuel Storage Containers and Tanks with the Permittee's name. | MARK CONTAINERS
AND TANKS |
| 97. The Permittee shall mark all stationary fuel caches and fuel storage facilities with flags, posts, or similar devices so that they are at all times plainly visible to local vehicle travel. | MARK FUEL LOCATION |
| 98. The Permittee shall have a maximum of 353,572 litres of fuel stored on the land use site at any time, unless otherwise authorized in writing by the Board. | MAXIMUM FUEL ON
SITE |
| 99. Within ten days of the establishment of any fuel cache, the Permittee shall report the location and quantity of the cache in writing to the Board and an Inspector. | REPORT FUEL LOCATION |
| 100. The Permittee shall seal all outlets of Fuel Storage Containers and store the containers on their sides with the outlets located at 3 and 9 o'clock, except for containers currently in use. | SEAL OUTLET |
| 101. The Permittee shall comply with the Spill Contingency Plan , once approved. | SPILL CONTINGENCY
PLAN |
| 102. A minimum of 90 days prior to the commencement of Phase 1 activities, the Permittee shall submit to the Board, for approval, a revised Spill Contingency Plan. The Permittee shall not commence Phase 1 activities prior to Board approval. | SPILL CONTINGENCY
PLAN – REVISED |

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| 103. Prior to commencement of the land-use operation the Permittee shall ensure that spill-response equipment is in place, as identified in the Spill Contingency Plan, to respond to any potential spills. | SPILL RESPONSE |
| 104. All equipment that may be parked for two hours or more, shall have a haz-mat/drip tray under it or be sufficiently diapered. Leaky equipment shall be repaired immediately. | DRIP TRAYS |
| 105. The Permittee shall clean up all leaks, spills, and contaminated material immediately. | CLEAN UP SPILLS |
| 106. If, during the period of this Licence, a spill or an Unauthorized Discharge occurs or is foreseeable, the Permittee shall: | REPORT SPILLS |
| <ul style="list-style-type: none"> a) Implement the approved Spill Contingency Plan; b) Immediately report it using the NU-NT Spill Report Form by one of the following methods: <ul style="list-style-type: none"> • Telephone: (867) 920-8130 • Fax: (867) 873-6924 • E-mail: spills@gov.nt.ca • Online: Spill Reporting and Tracking Database c) Within 24 hours, notify the Board and an Inspector; and d) Within 30 days of initially reporting the incident, submit a detailed report, including descriptions of causes, response actions, and any changes to procedures to prevent similar occurrences in the future, to the Board and an Inspector. Any updates to this report shall be provided to the Board and an Inspector in writing as changes occur. | |

26(1)(n) Methods and Techniques for Debris and Brush Disposal

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| 107. Prior to the expiry date of this Permit, the Permittee shall progressively dispose of all brush and trees and shall complete all brush disposal; all disposal shall be completed prior to the end of this land use operation. | BRUSH DISPOSAL/ TIME |
| 108. The Permittee shall not clear areas larger than identified in the complete application. | MINIMIZE AREA CLEARED |

26(1)(o) Restoration of the Lands

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| 109. A minimum of 90 days prior to the commencement of Phase 1 activities, the Permittee shall submit to the Board, for approval, a Closure and Reclamation Plan , to fulfill Report of EA Suggestion 14-1. The Plan shall include, but not be limited to, the following information: | CLOSURE AND RECLAMATION PLAN |
| <ul style="list-style-type: none"> a) A description of how the Report of EA Suggestion 14-1 is fulfilled; b) A plain language summary of the Plan; c) A description of the overall goals for Closure and Reclamation of the Project, including expected future land use; d) A description of the Closure and Reclamation planning team; | |

- e) A description of engagement related to Closure and Reclamation planning, including a summary of completed and planned engagement, and links to the Engagement Plan;
- f) A list of any other regulatory instruments required for Closure and Reclamation of the Project;
- g) A description of the pre-existing and current Project environment, including, but not limited to:
 - i. Climatic conditions;
 - ii. Physical conditions;
 - iii. Chemical conditions;
 - iv. Biological conditions;
 - v. Physical or chemical assessments of soil, water and Permafrost; and
 - vi. Traditional uses.
- h) A description of the Project, including, but not limited to:
 - i. Site history;
 - ii. Project development;
 - iii. Current state of the Project;
 - iv. Maps delineating all disturbed areas, Borrow locations, site facilities, hydrological features, and elevation contours; and
 - v. Photographs.
- i) A description of each Project component, including but not limited to:
 - ii. Stream crossings;
 - iii. Camp and laydown area;
 - iv. Liard River barge crossing and landing areas;
 - v. Borrow Pits;
 - vi. Areas affected by spills or Unauthorized Discharges; and
 - vii. Other areas affected by Project activities.
- j) For the Project site, a description of Closure and Reclamation plans, including but not limited to:
 - i. Closure Objectives and Closure Criteria;
 - ii. Preferred Closure Reclamation option and method for each Project component;
 - iii. Design drawings, signed and stamped by a Professional Engineer, for any Engineered structures;
 - iv. Water management and restoration of natural drainage;
 - v. Predicted environmental effects during and after Closure and Reclamation activities;
 - vi. Post-closure monitoring, maintenance, and reporting;
 - vii. Description of an Adaptive Management framework that satisfies the requirements of Report of EA Appendix B;
 - viii. Uncertainties and contingencies;
 - ix. Climate change considerations; and
 - x. Reclamation Research plans.
- k) A description of any planned Progressive Reclamation, including, but not limited to:
 - i. Progressive Reclamation goals and objectives;
 - ii. A description of activities (including timing) and methods (including techniques and materials);
 - iii. Description of an Adaptive Management framework that satisfies the requirements of Report of EA Appendix B;

- iv. Contingencies; and
- v. An implementation schedule.
- l) A plan for Temporary Closure, including, but not limited to the following information:
 - i. Temporary Closure goals and objectives;
 - ii. A description of activities and methods;
 - iii. A description of monitoring, maintenance, and reporting;
 - iv. A description of an Adaptive Management framework that satisfies the requirements of Report of EA Appendix B;
 - v. Contingencies; and
 - vi. An implementation schedule.
- m) An implementation schedule that includes Progressive Reclamation and final Closure and Reclamation activities; and
- n) A Closure Cost Estimate.

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| 110. A minimum of 90 days prior to the commencement of Phase 2 activities, or as directed by the Board, the Permittee shall submit to the Board, for approval, a revised Closure and Reclamation Plan. | CLOSURE AND RECLAMATION PLAN - REVISED |
| 111. A minimum of two years prior to the end of operations, the Permittee shall submit to the Board, for approval, a final Closure and Reclamation Plan to fulfill Report of EA Suggestion 14-1. The Plan shall include but not be limited to the information in the Closure and Reclamation Plan. | CLOSURE AND RECLAMATION PLAN - FINAL |
| 112. The Permittee shall endeavor to carry out Progressive Reclamation of disturbed areas as soon as it is practical to do so. | PROGRESSIVE RECLAMATION |
| 113. The Permittee shall conduct Progressive Reclamation in accordance with the most-recently approved Closure and Reclamation Plan, or as otherwise approved by the Board. | PROGRESSIVE RECLAMATION – CARRY OUT AS APPROVED |
| 114. A minimum of ten days prior to the commencement of any Progressive Reclamation, the Permittee shall provide written notification to the Board and an Inspector. Notification shall include the name and contact information for the Construction Field Supervisor. | PROGRESSIVE RECLAMATION – NOTIFICATION |
| 115. Within 90 days of completing Closure and Reclamation of any specific component of the Project, the Permittee shall submit to the Board a Closure and Reclamation Completion Report . The Report shall be in accordance with the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada’s <i>Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories</i> . | CLOSURE AND RECLAMATION COMPLETION REPORT |
| 116. Within four months of completing Closure and Reclamation of any specific component of the Project, the Permittee shall submit to the Board, for approval, a Performance Assessment Report . The Report shall be in accordance with the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada’s <i>Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories</i> . The Permittee shall submit subsequent Report(s) as directed by the Board. | PERFORMANCE ASSESSMENT REPORT |

117. All areas affected by Construction or removal activities shall be stabilized and landscaped to their pre-Construction profiles, unless otherwise authorized in writing by an Inspector.	PRE-CONSTRUCTION PROFILES
118. The Permittee shall store overburden and use it to recontour the site after operations are complete, unless otherwise authorized in writing by an Inspector.	SAVE AND PLACE ORGANIC SOIL
119. Prior to the expiry date of this Permit, the Permittee shall level all stockpiles of granular material located within the land use area, or as described in the approved Borrow Pit Management Plan.	LEVEL STOCKPILES
120. Prior to the expiry date of this Permit, the Permittee shall complete all cleanup and restoration of the lands used.	FINAL CLEANUP AND RESTORATION
121. The Permittee shall restore any trails impacted by the land-use operation by removing fallen trees and any other obstructions from the trails.	TRAILS RESTORATION
26(1)(p) Display of Permits and Permit Numbers	
122. The Permittee shall display a copy of this Permit in each camp established to carry out this land-use operation.	DISPLAY PERMIT
123. The Permittee shall keep a copy of this Permit on hand at all times during this land-use operation.	COPY OF PERMIT
26(1)(q) Biological and Physical Protection of the Land	
124. The Permittee shall ensure all submissions to the Board: a) are in accordance with the Mackenzie Valley Land and Water Board's <i>Document Submission Standards</i> ; and b) include a conformity statement or table which identifies where the pertinent requirements of this Permit, or other direction from the Board, are addressed.	SUBMISSION FORMAT
125. The Permittee shall ensure management plans are submitted to the Board in a format consistent with the Mackenzie Valley Land and Water Board's <i>Standard Outline for Management Plans</i> , unless otherwise specified.	MANAGEMENT PLANS – USE STANDARD OUTLINE
126. The Permittee shall comply with all terms of reference, plans, reports, studies and programs approved as per the conditions of this Permit, including such revisions made as per the conditions of this Permit, and as approved by the Board.	COMPLY WITH SUBMISSIONS AND REVISIONS
127. The Permittee may propose revisions at any time by submitting a revised terms of reference, plans, reports, and programs to the Board for approval. Unless otherwise specified, a minimum of 90 days prior to implementing any proposed updates or changes in the terms of reference, plans, reports, and programs, the Permittee shall submit all revisions to the Board, for approval. Any revision submission shall include a revision history table and a summary of the revisions made. The Permittee shall not implement revisions until approved by the Board.	REVISIONS

- | | |
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| 128. The Permittee shall revise any submission as per the Board's direction and resubmit it for approval. | REVISE AND RESUBMIT |
| 129. The Permittee shall revise management plans, reports, studies, and programs for Phases 1, 2, and 3 to the Board for approval. Unless otherwise specified, a minimum of 90 days prior to commencement of each phase and implementing any proposed updates or changes in the management plans, reports, studies, and programs, the Permittee shall submit all revisions to the Board, for approval. Any revision submission shall include a revision history table and a summary of the revisions made. The Permittee shall not commence activities for each phase or implement revisions until approved by the Board . | REVISE AND RESUBMIT FOR PHASE 1, 2, AND 3 |
| 130. The Permittee shall identify how an Adaptive Management framework has been incorporated in each plan and program submitted for Board approval to fulfill the Report of EA Appendix B. | ADAPTIVE MANAGEMENT |
| 131. The Permittee shall comply with the Engagement Plan , once approved, to fulfill Measure 15-1, 15-4 and Suggestion 15-4 of the Report of EA. | ENGAGEMENT PLAN |
| 132. A minimum of 90 days prior to the commencement of Phase 1 activities, the Permittee shall submit to the Board, for approval, a revised Engagement Plan. The Permittee shall not commence Phase 1 activities prior to Board approval. | ENGAGEMENT PLAN - REVISED |
| 133. The Permittee shall comply with the Avalanche Hazard Management Plan , once approved. The Avalanche Hazard Management Plan shall be in accordance with Report of EA Suggestion 5-1 and shall include, but not be limited to the following information for the activities associated with each phase:
a) Revised avalanche hazard maps based on the detailed Winter Road and All Season Road designs;
b) All measures employed to reduce avalanche associated risk to vehicles and occupants;
c) A linear risk analysis, if required, as determined by the Permittee and the Independent Technical Review Panel. If it is determined that the linear risk analysis is not required, include justification;
d) Details of potential impacts of avalanches on crossing structures near avalanche paths;
e) Appropriate timing for annual inspection of the avalanche paths;
f) Details of snowpack and weather monitoring stations to be used for assessing avalanche conditions, including but not limited to:
i. Locations (provide a map);
ii. Sampling duration and frequency; and
iii. A mechanism for reporting results and interpretation of the data.
g) A description of an Adaptive Management framework that satisfies the requirements of Report of EA Appendix B, including but not limited to:
i. A decision tree that outlines the path of Adaptive Management decisions based on results of both the short- and long-term monitoring program. | AVALANCHE HAZARD MANAGEMENT PLAN |

134. A minimum of 90 days prior to the commencement of Phase 1 activities, the Permittee shall submit to the Board, for approval, a revised Avalanche Hazard Management Plan. The Permittee shall not commence any Phase 1 activities prior to Board approval.
- AVALANCHE HAZARD
MANAGEMENT PLAN –
REVISED**
135. A minimum of once per winter season, avalanche paths shall be observed for avalanche occurrences by an Avalanche Professional as per the approved Avalanche Hazard Management Plan. Within 60 days of completion, the Permittee shall submit the Avalanche Professional’s annual avalanche path recommendations to the Board and an Inspector.
- AVALANCHE PATHS**
136. The Permittee shall comply with the **Geochemical Verification Program**, once approved. The Program should include, but not be limited to the following for the activities associated with each phase:
- GEOCHEMICAL
VERIFICATION
PROGRAM**
- a) Identification of monitoring (survey, sampling, testing) methods for geochemical characterization studies (Acid Rock Drainage/Metal Leaching potential) of bedrock, Borrow sources, and overburden, with supporting rationale and parameters;
 - b) A summary of findings from geochemical characterization studies (Acid Rock Drainage/Metal Leaching potential) on the bedrock, borrow sources, and overburden;
 - c) Monitoring locations (provide a map) for follow-up verification testing, with supporting rationale;
 - d) Monitoring duration and frequency including any criteria that will be used to modify this frequency or discontinue monitoring;
 - e) Criteria for defining PAG, non-PAG and Metal Leaching materials with supporting rationale;
 - f) Criteria for defining high, moderate, and low risk Waste Rock, with supporting rationale;
 - g) A mechanism for reporting results and interpretation of the data;
 - h) Quality assurance and quality control measures;
 - i) A contingency plan in the event of increasing trends in Metal Leaching or acid generation potential; and
 - j) A description of an Adaptive Management framework that satisfies the requirements of Report of EA Appendix B, including but not limited to:
 - i. A decision tree that outlines the path of Adaptive Management decisions based on results of both the short- and long-term monitoring program.
137. A minimum of 90 days prior to the commencement of Phase 1 activities, the Permittee shall submit to the Board, for approval, a revised Geochemical Verification Program. The Permittee shall not commence Phase 1 activities prior to Board approval.
- GEOCHEMICAL
VERIFICATION
PROGRAM – REVISED**

138. The Permittee shall comply with the **Borrow Pit Management Plan**, once approved. The Permittee shall not develop any Borrow Pit until it is approved in the Borrow Pit Management Plan. The Plan shall include, but not be limited to the following for the activities associated with each phase:

**BORROW PIT
MANAGEMENT PLAN**

- a) Details regarding the design of each Borrow Pit, including but not limited to:
 - i. Physical characteristics;
 - ii. Hydrogeological considerations (maintaining natural drainage); and
 - iii. Intended purpose of each Borrow Pit (long-term versus construction only).
- b) Rationalization for all proposed Borrow Pits, including a consideration of Permafrost conditions at each Borrow Pit;
- c) A description of efforts to reduce the number of Borrow sources;
- d) Reference to the results of the Geochemical Verification Program for each Borrow Pit, including an incorporation of any necessary mitigations;
- e) Erosion and sedimentation control details for each Borrow Pit;
- f) A schedule, including proposed sequence and timing of Borrow development; and
- g) A description of an Adaptive Management framework that satisfies the requirements of Report of EA Appendix B, including but not limited to:
 - i. A decision tree that outlines the path of Adaptive Management decisions based on results of both the short- and long-term monitoring program.

139. A minimum of 90 days prior to the development any Borrow Pit, the Permittee shall submit to the Board, for approval, a Borrow Pit Management Plan. The Permittee shall not develop any Borrow Pit prior to Board approval.

**BORROW PIT
MANAGEMENT PLAN –
REVISED**

140. The Permittee shall comply with the **Explosives Management Plan**, once approved. The Permittee shall not handle, store, or use explosives until the Board has approved the Explosives Management Plan. The Plan shall include, but not be limited to the following for the activities associated with each phase:

**EXPLOSIVES
MANAGEMENT PLAN**

- a) Mitigation approaches to be deployed in the handling, use, and storage of explosives;
- b) How the Permittee proposes to minimize nitrogen species loading to the environment;
- c) A description of the monitoring required to evaluate whether the mitigation approaches for storage, handling, and blasting procedures are effective, with rational.
- d) A description of an Adaptive Management framework that satisfies the requirements of Report of EA Appendix B, including but not limited to:
 - i. A decision tree that outlines the path of Adaptive Management decisions based on results of both the short- and long-term monitoring program.

141. A minimum of 90 days prior to handling, using or storing explosives, the Permittee shall submit to the Board, for approval, an Explosives Management Plan. The Permittee shall not handle, use, or store explosives prior to Board approval.

**EXPLOSIVES
MANAGEMENT PLAN –
REVISED**

142. The Permittee shall comply with the **Traffic Control Mitigation and Road Operations and Maintenance Plan**, once approved. The plan shall fulfill Report of EA Measure 5-2 and 15-1, and shall include, but not be limited to the following information for the activities associated with each phase:

**TRAFFIC CONTROL
MITIGATION AND ROAD
OPERATIONS AND
MAINTENANCE PLAN**

- a) Access control mitigations and how they will be managed;
- b) Information on how mine and non-mine related traffic on the road will be mitigated and managed;
- c) Mitigations to increase safety on the road with both mine and non-mine related traffic;
- d) How the Permittee will address seasonal or weather-related closure;
- e) How the Permittee plans to monitor all non-mine traffic on the road;
- f) A description of an Adaptive Management framework that satisfies the requirements of Report of EA Appendix B, including but not limited to:
 - i. A decision tree that outlines the path of Adaptive Management decisions based on results of both the short- and long-term monitoring program.

143. A minimum of 90 days prior to the commencement of Phase 1 activities, the Permittee shall submit to the Board, for approval, a revised Traffic Control Mitigation and Road Operations and Maintenance Plan. The Permittee shall not conduct Phase 1 activities prior to Board approval.

**TRAFFIC CONTROL
MITIGATION AND ROAD
OPERATIONS AND
MAINTENANCE PLAN –
REVISED**

144. The Permittee shall comply with the **Contaminant Loading Management Plan**, once approved. The plan shall fulfill Report of EA Measure 15-1 include, but not be limited to the following information for the activities associated with Phase 2 and Phase 3:

**CONTAMINANT
LOADING
MANAGEMENT PLAN**

- a) A plan to monitor potential impacts on vegetation and soil from contamination from spills, Concentrate loading, and road dust, including but not limited to:
 - i. Identification of monitoring methods, including parameters to be monitored;
 - ii. Rational for site selection, and final monitoring locations (provide a map);
 - iii. Vegetation and soil contaminant monitoring data from along the right-of-way to establish baseline conditions, collected prior to Phase 2;
 - iv. Monitoring duration and frequency including any criteria that will be used to modify this frequency or discontinue monitoring;
 - v. Analytical requirements;
 - vi. Quality assurance and quality control;
 - vii. A mechanism for reporting results and interpretation of the data, including baseline data; and
 - viii. Proposed control and mitigation measures.
- b) A plan to monitor dust fall and airborne particulate along the right-of-way, including but not limited to:
 - i. Identification of monitoring methods, including parameters to be monitored;
 - ii. Rational for site selection, and final monitoring locations (provide a map);

- iii. Dust fall and airborne particulate monitoring data from along the right-of-way to establish baseline conditions, collected prior to Phase 2 and compared to appropriate standards;
 - iv. Monitoring duration and frequency including any criteria that will be used to modify this frequency or discontinue monitoring;
 - v. Analytical requirements;
 - vi. Quality assurance and quality control;
 - vii. A mechanism for reporting results and interpretation of the data, including baseline data; and
 - viii. Proposed control and mitigation measures.
- c) A plan to monitor road watering and use of calcium chloride along the right-of-way, including but not limited to:
- i. Specification of where calcium chloride will be used for dust suppressant, and what the setback distance from Watercourses will be to prevent the runoff of calcium chloride into Watercourses;
 - ii. Identification of monitoring methods;
 - iii. Description of how monitoring locations will be chosen;
 - iv. Monitoring duration and frequency including any criteria that will be used to modify this frequency or discontinue monitoring;
 - v. Analytical requirements;
 - vi. Quality assurance and quality control;
 - vii. A mechanism for reporting results and interpretation of the data; and
 - viii. Proposed control and mitigation measures.
- d) A description of an Adaptive Management framework that satisfies the requirements of Report of EA Appendix B, including but not limited to:
- i. A decision tree that outlines the path of Adaptive Management decisions based on results of both the short- and long- term monitoring program.

145. A minimum of 90 days prior to the commencement of Phase 2 activities, the Permittee shall submit to the Board, for approval, a Contaminant Loading Management Plan. The Permittee shall not conduct Phase 2 activities prior to Board approval.

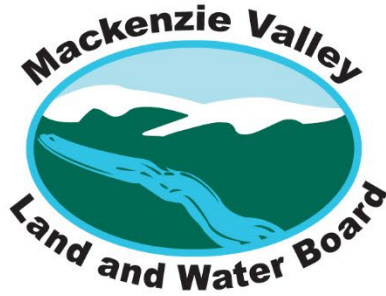
**CONTAMINANT
LOADING
MANAGEMENT PLAN**

146. In conducting its activities under this Permit, the Permittee shall make every reasonable effort to consider and incorporate any scientific information and Traditional Knowledge that is made available to the Permittee.

**INCORPORATE
TRADITIONAL
KNOWLEDGE**

147. In each submission required by this Permit or any directive from the Board, the Permittee 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, to fulfill Report of EA Measures 10-1, 15-1, 15-4, and Suggestion 15-4.

**IDENTIFY TRADITIONAL
KNOWLEDGE**



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Reasons for Decision

Issued pursuant to subsection 26(2) and paragraph 40(2)(c) of the Mackenzie Valley Land Use Regulations (MVLUR) and section 72.25 of the *Mackenzie Valley Resource Management Act* (MVRMA) and section 36 of the *Waters Act*.

Water Licence and Land Use Permit Quarry Use Amendment Applications	
File Number	MV2014L8-0006 and MV2014F0013
Company	Canadian Zinc Corporation
Project	All-Season Road
Location	Prairie Creek Mine All Season Road – Liard Highway to Prairie Creek Mine, NT
Activity	Miscellaneous and Private Road
Date of Decision	August 25, 2022

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On August 25, 2022, the Mackenzie Valley Land and Water Board (MVLWB or Board) met and considered the Quarry Use Licence Amendment Application and Permit Amendment Request (the Amendment Applications) made by Canadian Zinc Corporation (CZN or the Applicant) to the Board on June 24, 2022, for Water Licence (Licence) MV2014L8-0006 and Land Use Permit (Permit) MV2014F0013 for the use of water and the deposit of waste for the All-Season Road Project (the Project) at the Prairie Creek Mine, NT. After reviewing the Amendment Applications and the evidence gathered during the regulatory proceeding, the Board has made the following decisions:

- 1) To amend Water Licence MV2014L8-0006; and
- 2) To amend Land Use Permit MV2014F0013.

These Reasons for Decision set out the Board’s regulatory process for the Amendment Applications and rationale for decisions regarding the amended Licence and amended Permit. A summary of the Applications and the main issues identified during the proceeding is provided in sections [2.0](#) and [3.0](#) below, followed by an outline of the regulatory process for the Applications in [section 4.0](#). [Section 5.0](#) describes how the applicable legislative requirements have been met. The Board’s decisions and supporting rationale are set out in [section 6.0](#) for the Licence and [section 7.0](#) for the Permit.

List of Defined Terms and Abbreviations

Applicant	Canadian Zinc Corporation
Applications	The complete Quarry Use amendment application package submitted by the Applicant for Water Licence MV2014L8-0006 and the complete amendment request submitted by the Applicant for Land Use Permit MV2014F0013.
CRP	Closure and Reclamation Plan
DFO	Department of Fisheries and Oceans
Distribution List	The list of individuals and organizations to whom materials from the regulatory proceeding were circulated. ¹
EA	Environmental Assessment
ECCC	Environment and Climate Change Canada
GNWT	Government of the Northwest Territories
GNWT-ENR	Government of the Northwest Territories – Environment and Natural Resources
IR	Information Request
Inspector	An Inspector designated under subsection 65(1) of the Waters Act
Licence	Water Licence MV2014L8-0006
LWBs	Land and Water Boards of the Mackenzie Valley
MVEIRB	Mackenzie Valley Environmental Impact Review Board
MVLUR	Mackenzie Valley Land Use Regulations
MVLWB or Board	Mackenzie Valley Land and Water Board
MVRMA	Mackenzie Valley Resource Management Act

¹ To access the Distribution List, see the LWBs’ Online Review System for Canadian Zinc Corporation: CZN – All Season Road – Land Use Permit and Water Licence Amendment Request – July 14, 2022 ([Hyperlink](#)).

Minister	Minister of the Government of the Northwest Territories (GNWT) – Environment and Natural Resources OR Minister of the Government of the Northwest Territories (GNWT) – Lands
ORS	Online Review System (www.new.onlinereviewssystem.ca)
Party	As per the LWBs' Rules of Procedures , an applicant, a person, or an organization participating in this regulatory process.
Permit	Land Use Permit MV2014F0013
Project	All Season Road Project, the undertaking as described in Part A of the Licence and Part A of the Permit.
Review Board	Mackenzie Valley Environmental Impact Review Board
SCP	Spill Contingency Plan
Standard Licence Conditions	LWBs' Standard Water Licence Conditions Template
Standard Permit Conditions	LWBs' Standard Land Use Permit Conditions Template
TG	Tłı̨chǫ Government
WMP	Waste Management Plan

Summary of Applications

On June 24, 2022, the Applicant submitted an application to amend Licence MV2014L8-0006 and a request to amend Permit MV2014F0013 (the Amendment Applications).^{2,3} The Amendment Applications are specifically to change Part E, Item 4 of the Licence and Condition 22 of the Permit to allow for the extraction and use of material from an existing quarry, located on the north end of the on-site airstrip. The extracted rock material will be used as armour to prevent erosion of the roadbed north of the mine on territorial land. These activities are located within a non-federal area of the Dehcho Region.

In making its decision and preparing these Reasons for Decision, the Board has reviewed and considered:

- 1) The Applications as submitted by the Applicant for the Project;
- 2) The evidence and submissions received by the Board from the Applicant in relation to the proposed amendments; and
- 3) The comments and recommendations, evidence, and submissions received by the Board from Parties during the regulatory proceeding.

The Applicant indicated that several plans were submitted under the authorizations; however, the Applicant indicated that they would not be impacted by the activities proposed under the Amendment Applications. The Applicant applied for a quarry permit from the GNWT in support of its Amendment Applications.

² See MVLWB Online Registry www.mvlwb.com for CZN – ASR – WL Amendment Request – June 24, 2022 ([Hyperlink](#)).

³ See MVLWB Online Registry www.mvlwb.com for CZN – ASR – LUP – Amendment Request – June 14, 2022 ([Hyperlink](#)).

Main Issues Raised During the Regulatory Proceeding

These Reasons for Decision focus primarily on the following key issues raised during the regulatory proceeding:

- *Suggested language for terms and condition(s) associated with the Amendment Applications*
CZN provided two versions of suggested texts for the requested changes under the Amendment Applications. The initial version of CZN suggested texts was provided prior to the public review period while the second version was provided after the public review period. GNWT also provided suggested text for the requested amendment. CZN's suggested text provided following the public review period was generally the same as that provided by GNWT except that additional text was included to allow for an inspector's approval to be considered.

- *Terms and conditions not included in the Amendment Applications that may be implicated*
CZN request that Part E, Item 4 of the Licence and condition 22 of the Permit be amended. A review of both the Licence and Permit suggests that condition 138 and 139 of the Permit could potentially nullify the requested changes under any amendments granted in which CZN's initially suggested text is adopted. Staff raised this topic in review comments, and CZN, in response, indicated that because the quarry linked to the Amendment Applications has been "developed" to some extent previously, CZN does not believe conditions 138 and 139 of the Permit will be implicated. The Board noted the implications that conditions 138 and 139 may have on the changes requested in the Amendment Applications if CZN's originally suggested text is adopted.

- *Impact of Relevant Requirements under the Permit and Licence on the Requested Changes in the Amendment Applications*
During the public review for the Amendment Applications, staff requested clarification on whether the current security requirements under the Licence and Permit will cover potential liabilities that may be brought on by the amendments if granted, in addition to whether management plans, such as, the Spill Contingency Plan (SCP) and Closure and Reclamation Plan, cover the proposed activities in the Amendment Applications. CZN in response indicated that security in the context of the Phase 1 ASR will be posted before any road armouring is completed and work at the site will be subject to relevant existing managements plans including the GNWT approved Quarry Development plan. Given the importance of security and closure and reclamation activities, the Board decided that these items must be generally resolved prior to commencement of any activities under the Amendment Applications.

Issues that were resolved by Parties to the Board's satisfaction during the proceeding are not addressed in detail in these Reasons.

Regulatory Process

On June 24, 2022, the Applicant submitted the Amendment Applications, which were deemed incomplete on June 30, 2022.⁴ On July 4, 2022, additional information was received,⁵ and the Amendment Applications were subsequently deemed complete and circulated to the Distribution List for public review on the Online Review System (ORS).⁶ Public notice of the Applications was published in *News North* during the week of July 18, 2022, to fulfill paragraphs 43(1)(a) of the Waters Act.

As part of the public review, Board staff requested comments and recommendations to assist with the Board's preliminary screening determination. Board staff also circulated a draft amended Licence and Permit for review with the Amendment Applications to allow all Parties the opportunity to comment on the specific wording of the draft changes in order to assist the Board in making its decision on the amended Licence and Permit.

By August 4, 2022, the Board received comments and recommendations regarding the Amendment Applications and the draft Licence and Permit Amendments from the following Parties: Acho Dene Koe First Nation (ADKFN); Environment and Climate Change Canada (ECCC), Fisheries and Ocean Canada (DFO), Government of the Northwest Territories – Department of Environment and Natural Resources – Environmental Assessment and Monitoring (GNWT – ENR – EAM), GNWT – Department of Lands (GNWT – Lands), Parks Canada (PC), and MVLWB Staff.

Prior to the due date of August 11, 2022, the Applicant responded to the Parties' comments and recommendations.⁷

On August 25, 2022, the Board met and made its preliminary screening determination for the proposed changes to the Project.⁸ Following this determination, the Board made its decisions regarding the Amendment Applications. These decisions and related reasons are described in sections 5.0, 6.0, and 7.0 below.

⁴ See MVLWB Online Registry for CZN – MVLWB Response to Amendment Application – July 4, 2022 ([Hyperlink](#)).

⁵ See MVLWB Online Registry for Canadian Zinc Corporation – CZN's Response to Information Request – July 4, 2022 ([Hyperlink](#)).

⁶ See MVLWB Online Review System for Canadian Zinc Corporation – Land Use Permit and Water Licence Amendment Request – July 14, 2022 ([Hyperlink](#)).

⁷ See MVLWB Online Review System for Canadian Zinc Corporation – Land Use Permit and Water Licence Amendment Request – July 14, 2022 ([Hyperlink](#)).

⁸ See [MVLWB Online Registry for Canadian Zinc Corporation: MV 2014F00013 – CZN – Preliminary Screening Determination August 25, 2020 Online Registry for Canadian Zinc Corporation - MV2014F0013 – Amendment – Preliminary Screening Determination and RFD](#).

Legislative Requirements Related to Licence and Permit Issuance

This Project is subject to the [MVRMA](#), the [Waters Act](#), and the [Waters Regulations](#) with respect to licensing, because it is located in a non-federal area. With respect to permitting, the [MVRMA](#) and the [MVLUR](#) apply.

The Board has jurisdiction to amend the Licence and Permit as per subsection 60(1.1) and section 102 of the [MVRMA](#). and subsection 59(1) and section 102 of the [MVRMA](#).

In conducting its regulatory process for the Applications (as described in sections [3.0](#) and [4.0](#) above), the Board has ensured that section 62 of the [MVRMA](#) and all applicable legislative requirements have been satisfied as outlined in the subsections below. The Board has considered the people and users of the land and water in the Mackenzie Valley, and any Traditional Knowledge and scientific information that was made available to the Board during the regulatory proceeding, as per section 60.1 of the [MVRMA](#). The consideration of information provided to the Board is discussed in detail below and in sections [6.0](#) and [7.0](#).

1.1 Consultation, Engagement, and Public Notice

As per paragraph 60.1(a) of the [MVRMA](#), in exercising its authority, the Board must consider the importance of conservation to the well-being and way of life of Indigenous peoples of Canada to whom section 35 of the *Constitution Act, 1982*, applies and who use an area of the Mackenzie Valley. Accordingly, the Board works with applicants, affected parties (including Indigenous governments and organizations), and other parties (such as other boards and regulators) to ensure that potential impacts of proposed projects, including impacts on rights under section 35, are understood and carefully considered before decisions are made with respect to the issuance of permits and licences.

The Board's requirements for engagement are set out in the LWBs' [Engagement and Consultation Policy](#) and [Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits](#). The Policy and Guidelines were developed to ensure that the Board's obligations for achieving meaningful consultation (as set out by land claims and applicable legislation) with all affected parties, including Indigenous groups in the Mackenzie Valley, are met and engagement and consultation results are clearly articulated. In accordance with the Policy and Guidelines, the Applicant's engagement efforts with respect to the Applications are detailed in the Engagement Record submitted with the Applications.⁹

The Applicant also has an approved Engagement Plan, Version 2,¹⁰ in place under the Licence and Permit and did not propose changes to the Plan. The Applicant must continue engagement efforts as outlined in the approved Plan and as required in the amended Licence and Permit.

⁹ See MVLWB Online Registry for CZN – ASR – WL Amendment Request – Engagement Record – June29, 2022 ([Hyperlink](#)).

¹⁰ See MVLWB Online Registry for MV2014L8-0006 MV2019L8-0002 MV2014F0013 - CZN - Approved - Engagement Plan V2 – February 13, 2022 ([Hyperlink](#)).

The Applications were posted to the Board’s Public Registry and distributed through the ORS. As the Project is located in the Dehcho Region, the appropriate organizations, governments, First Nations, and Indigenous organizations were included in the Distribution List.¹¹ The Distribution List was used throughout this proceeding to circulate submissions, information, and updates relevant to the proceeding; the List was updated if needed, and (if requested) individuals with specific interests in the Project were added. More information about the proceeding for the Applications is provided above in [section 4.0](#).

In accordance with sections 63 and 64 of the [MVRMA](#), the Board is satisfied that notice of and access to copies of the Applications was provided, and that a reasonable amount of time was given to communities, First Nations, and the public to participate in this proceeding and make submissions to the Board.

In accordance with the Minister’s 2004 [Policy Direction regarding the Deh Cho First Nations Interim Measures Agreement](#), the Dehcho First Nation was notified of the Applications through the ORS distribution. The Dehcho First Nation member nations, Acho Dene Koe First Nation, participated in the proceeding, and in developing the amended Licence and Permit conditions, the Board considered the information and recommendations provided by these Parties. More detailed information about how this evidence was specifically considered is set out in sections [6.0](#) and [7.0](#).

1.2 Eligibility for Land Use Permit

Eligibility for the Permit in accordance with section 18 of the [MVLUR](#) has already been demonstrated as described in the Board’s December 10, 2019, Reasons for Decision.¹² The proposed activities are within the scope of the Permit and the Applicant did not propose any new Project areas.

No issues were raised regarding eligibility during this proceeding.

Based on this information, the Board concludes that the eligibility requirements under section 18 of the MVLUR have been satisfied.

1.3 Land Use Plan Conformity

As per section 61 of the [MVRMA](#), where an approved Land Use Plan applies, the Board must confirm conformity with the Land Use Plan before issuing an amended Permit or Licence.

No approved Land Use Plans apply in the Project area.

¹¹ To access the Distribution List, see the LWBs’ Online Review System for Canadian Zinc Corporation: CZN – All Season Road – Land Use Permit and Water Licence Amendment Request – July 14, 2022 ([Hyperlink](#))

¹² See MVLWB Online Registry for MV2014F0013 MV2014L8-0006 MV2019L8-0002 - CZN - ASR - Reasons for Decision – December 10, 2022 ([Hyperlink](#)).

1.4 Land Use Fees

The Project is located partially inside of a federal area; however, no new Project areas were proposed in the Applications, so land use fees were not required.

1.5 Water Use Fees

No changes to the water use volume were proposed, so there are no changes to the annual water use fees in the Licence.

1.6 Existing Licences

During the time period established in the Notice of Applications, no licensees or applicants contacted the Board to identify potential effects from the proposed changes to the Project on other projects, and there are no other applicants with precedence. Accordingly, with respect to paragraph 26(5)(a) of the [Waters Act](#), the Board is satisfied that issuing the amended Licence to the Applicant will not adversely affect, in any significant way, any existing licensee or any other applicant, provided the Applicant complies with the conditions of the Licence.

1.7 Compensation to Existing Water Users

Paragraph 26(5)(b) of the [Waters Act](#) prohibits the issuance of the amended Licence unless the Board is satisfied that appropriate compensation has been or will be paid by the Applicant to persons who would be adversely affected by the use of waters, or deposit of waste proposed by the Applicant, at the time when the Applicant filed the Amendment Applications with the Board. with the Board.

The Board received no claims for compensation related to the proposed amendment either during the time period established in the Notice of Applications, or during the remainder of the proceeding. Provided the Applicant complies with the Licence conditions, the Board is satisfied there are no water users or persons listed in paragraph 26(5)(b) of the [Waters Act](#) who will be adversely affected by the proposed use of waters or deposit of waste.

1.8 Water Quality Standards

With regards to subparagraph 26(5)(c)(i) of the [Waters Act](#), no water quality standards have been prescribed in the [Waters Regulations](#); however, the LWBs' [Water and Effluent Quality Management Policy](#) applies to the Licence, and the primary objective of the Policy is "protection of water quality in the receiving environment." This objective is directly reflected in the Licence condition OBJECTIVE – WATER AND WASTE MANAGEMENT, and in accordance with the Policy and this objective, the Board has also conditions in the Licence regarding water and waste management, and management plan requirements. The Board is satisfied that the conditions set out in the amended Licence are consistent with the Policy and compliance with these conditions will ensure that waste will be collected and disposed of in a manner that will be protective of water quality in the receiving environment. These conditions and detailed rationale are described in [section 6.7](#).

1.9 Effluent Quality Standards

The Project does not entail the disposal of effluent, so subparagraph 26(5)(c)(ii) of the [Waters Act](#) does not apply.

1.10 Financial Responsibility

Under paragraph 26(5)(d) of the [Waters Act](#), before the Board can issue the Licence, it must be satisfied that the Applicant's financial responsibility is adequate to complete the Project (including the proposed changes), any required mitigation measures, and the closure and reclamation of the site.

As detailed in [section 6.4](#) of these Reasons, the Board has determined that the changes to the Project do not affect the estimated liabilities and closure costs associated with the Project. Accordingly, the Board has maintained the existing security requirements, established as described in the Board's December 10, 2019, Reasons for Decision,¹³ and the Board is satisfied that adequate financial resources will be in place to ensure that the Project site can be restored.

As a result, and for the reasons set out above, the Board is satisfied that the legislated requirement to establish the financial responsibility of the Applicant for the Project has been met.

1.11 Minimization of Adverse Effects

With regards to subsection 27(2) of the [Waters Act](#), the Board must ensure that the Licence conditions minimize potential adverse effects on other water and land users from the proposed use of water and deposit of waste. As discussed above in [section 5.1](#), the Applicant conducted pre-application engagement, and the Board also provided opportunities for potentially affected parties to make submissions to the Board during the regulatory proceeding. The Board did not receive notice of potentially adverse effects from the proposed amendments on other users of the water and lands in the Project area.

Regardless, as noted in sections 5.8 and 5.9, and as detailed in [section 6](#) the Board has set conditions in the licence to regulate waste management for the purpose of protecting the receiving environment. Additionally, as described in [section 6.4](#) based on the evidence, the Board has set conditions regarding the use of water for the Project, including limitations on the sources and volumes of water the Licensee can use. It is the opinion of the Board that compliance with the Licence conditions that have been set to protect the water sources and the receiving environment will also minimize any potential adverse effects on other water and land users in the Project area.

1.12 Time Limit

As required under section 48(1) of the [Waters Act](#), the Board made its decision on the Licence within nine months after receiving the complete Applications.

¹³ See MVLWB Online Registry for MV2014F0013 MV2014L8-0006 MV2019L8-0002 - CZN - ASR - Reasons for Decision – December 10, 2019 ([Hyperlink](#))

As per section 22 of the [MVLUR](#), the Board is required to make its decision on a permit within 42 days of receiving a complete application.

1.13 Environmental Review (Part 5 of the MVRMA)

1.13.1 Preliminary Screening

On August 25, 2022, the Board met and exempt the Amendment Applications from preliminary screening.¹⁴

The Board is satisfied that the requirements of Part 5 of the [MVRMA](#) have been met for the Project.

Decision – Water Licence MV2014L8-0006

Having due regard to the facts, circumstances, and the merits of the submissions made to it, and to the purpose, and provisions of the [MVRMA](#) and the [Waters Act](#), the Board has determined that the amended Licence MV2014L8-0006 should be issued, subject to the scope, defined terms, conditions, and term contained therein. The Board’s determinations and reasons for this decision are set out below.

The amended Licence has been developed to address the Board’s statutory responsibilities; to protect the receiving environment and minimize potential adverse effects on other water users; and to address issues within the Board’s jurisdiction that were identified and investigated during the regulatory proceeding.

In amending the Licence, the Board kept the Licence format and layout largely unchanged. Where appropriate, the Board updated existing standard conditions using the LWBs’ [Standard Water Licence Conditions Template](#) (Standard Licence Conditions). Where applicable, the Board also considered the Standard Licence Conditions in developing new conditions or amending existing conditions to reflect the changes to the Project. As noted in [section 4.0](#) above, Board staff circulated a draft amended Licence for review to allow Parties to provide specific input to the Board on the possible amendments and updates to the conditions, and the Board considered these review comments and recommendations in making its determination on the amended Licence conditions.

The Standard Licence Conditions have been established by the Land and Water Boards (LWBs) based on information from LWB policies and guidelines, other applicable guidelines and best practices, meetings with Inspectors, input from LWB staff, and feedback from a public review. Each standard condition has been evaluated against the following characteristics of an ideal condition:

- Clearly part of LWBs’ authority;
- Has a clear purpose and rationale;
- Is practical and enforceable; and

¹⁴ See MVLWB Online Registry for CZN – ASR – WL Amendment Request - June 29, 2022 ([Hyperlink](#))

- Does not conflict with existing legislation (i.e., is not less stringent).

The Standard Licence Conditions include general rationale for each standard condition, and as such, the updates to standard conditions are only discussed in detail in these Reasons for Decision when the updates specifically relate to concerns or recommendations raised during the regulatory proceeding. The Board's reasons for developing new and amending existing Project-specific conditions, including discussion of any concerns and recommendations raised regarding these conditions, are detailed in the relevant sections below. Conditions that were not changed are generally not discussed in these Reasons unless they were the subject of concerns raised during the proceeding.

1.14 Part A: Scope and Defined Terms

Part A of the Licence contains the scope and the defined terms used throughout the Licence.

1.14.1 Scope

The scope of the Licence is written to ensure the Licensee is entitled to conduct activities which have been applied for and have been subject to Part 5 of the [MVRMA](#). The changes to the Project are within the existing scope of the Licence, so the Board did not make any changes to the scope.

1.14.2 Defined Terms

The Licence includes defined terms to ensure a common understanding of the conditions, to avoid future differences in interpretation of the Licence, to reflect Project-specific evidence, and to support consistency across licences and permits issued by the LWBs. The Board maintained all the defined terms in the Licence.

1.15 Part B: General Conditions and Schedule 1

Part B of the Licence primarily contains general administrative conditions regarding implementation of the Licence, and compliance with the Licence conditions, Board directives, and LWB policies and procedures. This section also details compliance requirements and review and revision procedures for submissions required under the Licence. These conditions are consistent with the Standard Licence Conditions and are applicable to all licences.

The Board maintained all the conditions in this section of the Licence.

Part B: ANNUAL WATER LICENCE REPORT

No changes and/or made to this section of the Licence

Part B: ENGAGEMENT PLAN

The Board assesses engagement adequacy through the LWBs' [Engagement and Consultation Policy](#) and [Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits](#). As required,

the Licensee included an Engagement Record for the amendment in the Applications,¹⁵ and the Licensee has an approved Engagement Plan, Version 2 in place under the Licence and Permit.¹⁶

The Licensee referenced this version of the Plan in the Applications and did not propose changes. The Board did not receive any evidence indicating that revisions to the Plan are needed at this time, so the Board is satisfied that this version of the Plan is still appropriate for the Project activities, including the changes to the Project.

1.16 Part C: Conditions Applying to Security Requirements and Schedule 2

Under subsection 35(1) of the [Waters Act](#), the Board is authorized to require the Licensee to provide security to the Minister. Subsection 35(2) of the [Waters Act](#) specifies how the security may be applied.

Part C of the Licence sets the amount of security to be maintained by the Licensee and sets out requirements related to posting and adjusting security. As described in the Board's December 10, 2019 Reasons for Decision,¹⁷ a total of \$336,341 was required under the Licence and a total of \$1,115,309 was required under the Permit, to reflect water-related and land-related liabilities, respectively. The Applicant indicated that it intends to post security for the Permit and Licence Prior to undertaking activities under the Phase 1 of the ASR.

In the Applications, the Licensee indicated that the changes to the Project do not affect estimated liabilities and closure costs associated with the Project, and that the current closure cost estimate remains applicable. During the regulatory proceeding, the Board did not receive any recommendations to adjust the security, so the Board has maintained the existing security requirements. Based on the information currently available, the Board is satisfied that maintaining the security requirements ensures that sufficient financial resources will be in place in advance of any liabilities that will be incurred. As per the ADJUSTED SECURITY AMOUNT condition, the Board may adjust the amount of security required in the Licence based on an updated closure cost estimate and/or other available information.

1.17 Part D: Conditions Applying to Water Use

Part D of the Licence contains conditions related to water use for the Project.

The Licensee did not propose any changes to water use, so the Board maintained all of the existing conditions in this section.

1.18 Part E: Conditions Applying to Construction and Schedule 3

Part E and Schedule 3 of the Licence contain conditions applying to Construction activities for the Project.

¹⁵ See MVLWB Online Registry for CZN – ASR – WL – Amendment Request - June 29, 2022 ([Hyperlink](#))

¹⁶ See MVLWB Online Registry for MV2014L8-0006 MV2019L8-0002 MV2014F0013 - CZN - Approved - Engagement Plan V2 – February 13, 2022 ([Hyperlink](#)).

¹⁷ See MVLWB Online Registry for MV2014F0013 MV2014L8-0006 MV2019L8-0002 - CZN - ASR - Reasons for Decision – December 10, 2019 ([Hyperlink](#)).

To reflect the changes to the Project, the Board amended existing condition under Part E, Item 4 in this section of the Licence to read as follows.

“The Licensee shall only use material that is clean, non-PAG, free of contaminants, and is from a source within an approved area as per the approved Borrow Pit Management Plan with the exception of previously developed on-site borrow pits.”

The amended condition above has been adopted, as suggested by GNWT, as the Board believes it would not interfere with the integrity and original intent of the Licence and permit.

1.19 Part F: Conditions Applying to Waste and Water Management and Schedule 4

Part F and Schedule 4 of the Licence contains conditions applying to waste and water management activities for the Project.

The Licensee did not propose any changes that affect the conditions in this section, so the Board maintained all the existing conditions.

Part F: WASTE MANAGEMENT PLAN

The Licensee has an approved Waste Management Plan (WMP), Version 2.1, in place under the Licence and Permit.¹⁸

The Licensee referenced this version of the WMP in the Applications and did not propose changes. The Board did not receive any evidence indicating that revisions to the WMP are needed at this time, so the Board is satisfied that this version of the WMP is still appropriate for the Project activities, including the changes to the Project.

1.20 Part G: Conditions Applying to Spill Contingency Planning

Part H of the Licence contains conditions related to spill contingency planning and reporting, reclamation of spills and unauthorized discharges, and emergency response for the Project. The Licensee did not propose any changes that affect the conditions in this section, so the Board maintained all the existing conditions.

1.21 Part H: Conditions Applying to Closure and Reclamation and Schedule 5

Part I and Schedule 5 of the Licence contain conditions applying to closure and reclamation, including progressive reclamation of the Project. The Licensee did not propose any changes that affect the conditions in this section, so the Board maintained all the existing conditions.

¹⁸ See MVLWB Online Registry for CZN – ASR – Waste Management Plan V2.1 – March 18, 2022 ([Hyperlink](#)).

The Board has not approved the CRP, Draft Version¹⁹, submitted more than three years prior to submission of the Amendment Applications. An extension was granted for submission of the plan on April 30, 2020²⁰. The Board requires that any revised version of the Plan submitted for Board decision include closure and reclamation activities associated with this amendment, to meet the requirements of the LWB/AANDC [Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories](#) (Closure Guidelines).

Once submitted, the Plan will undergo the Board's standard public review process before being considered by the Board.

1.22 Annex A: Surveillance Network Program

No Changes requested and/or made.

1.23 Annex B: Table of Submissions

Annex B of the Licence contains a table that summarizes the submissions required by the Licence conditions. No updates to this table were needed because there were no changes to the required submissions.

1.24 Annex C: Table of Revision History

Annex C of the Licence contains a table which identifies updates and tracks changes made to the Licence. This table has been updated to reflect the amended Licence.

Decision – Land Use Permit MV2014F0013

Having due regard to the facts, circumstances, and the merits of the submissions made to it, and to the purpose, scope, and intent of the [MVRMA](#), the Board has determined that the amended Permit MV2014F0013 should be issued, subject to the scope, defined terms, conditions, and term contained therein. The Board's determinations and reasons for this decision are set out below.

The amended Permit has been developed to address the Board's statutory responsibilities, to protect the receiving environment, and to address issues within the Board's jurisdiction that were identified and investigated during the regulatory proceeding.

¹⁹ See MVLWB Online Registry for MV2014L8-0006 - CZN - App 11-1 Draft Road CRP – February 20, 2019 ([Hyperlink](#)).

²⁰ See MVLWB Online Registry for MV2014F0013, MV2014L8-0006 MV2019L8-0002 - CZN - Approval - CRP Submission Extension - May7, 2020 ([Hyperlink](#)).

In amending the Permit, the Board kept the Permit format and layout largely unchanged. Where appropriate, the Board updated existing standard conditions using the LWBs' [Standard Permit Conditions Template](#) (Standard Permit Conditions). Where applicable, the Board also considered the Standard Permit Conditions in developing new conditions or amending existing conditions to reflect the changes to the Project. As noted in [section 4.0](#) above, Board staff circulated a draft amended Permit for review to allow Parties to provide specific input to the Board on the possible amendments and updates to the conditions, and the Board considered these review comments and recommendations in making its determination on the amended Permit conditions.

The Standard Permit Conditions have been established by the LWBs based on information from LWB policies and guidelines, other applicable guidelines and best practices, meetings with Inspectors, input from LWB staff, and feedback from a public review. Each standard condition has been evaluated against the following characteristics of an ideal condition:

- Clearly part of LWBs' authority;
- Has a clear purpose and rationale;
- Is practical and enforceable;
- Matches the scale of the project; and
- Does not conflict with existing legislation (i.e., is not less stringent).

The Standard Permit Conditions include general rationale for each standard condition, and as such, the updates to standard conditions are only discussed in detail in these Reasons for Decision when the updates specifically relate to concerns or recommendations raised during the regulatory proceeding. The Board's reasons for developing new and amending existing Project-specific conditions, including discussion of any concerns and recommendations raised regarding these conditions are detailed in the relevant sections below. Conditions that were not changed are generally not discussed in these Reasons unless they were the subject of concerns raised during the proceeding.

1.25 Part A: Scope of Permit

The scope of the Permit ensures the Permittee is entitled to conduct activities which have been applied for and which have been subject to Part 5 of the [MVRMA](#). The changes to the Project are within the existing scope of the Permit, and in accordance with the limitations of subsection 26(2) of the MVLUR, the Board did not make any changes to this section of the Permit.

1.26 Part B: Definitions

The Permit includes defined terms to ensure a common understanding of the conditions, to avoid future differences in interpretation of the Permit, to reflect Project-specific evidence, and to support consistency across licences and permits issued by the LWBs. The Board maintained all the definitions in the Permit.

1.27 Part C: Conditions Applying to All Activities

The subheadings below correspond to the headings in the conditions section of the Permit, as outlined in subsection 26(1) of the [MVLUR](#). Only conditions that have been revised, or that were the subject of concerns raised during the proceeding, are discussed in these Reasons. In accordance with subsection 26(2) of the MVLUR, the Board only amended the Permit conditions to reflect the amendments proposed in the Application:

26(1)(a) Location and Area

26(1)(b) Time

26(1)(c) Type and Size of Equipment

26(1)(d) Methods and Techniques

The request was to amend Condition 22, which reads as follows: The Permittee shall only use material that is clean, non-PAG and free of contaminants and is from a source within an approved area as per the approved Borrow Pit Management Plan, or that has been approved in writing by an Inspector.

Considering the suggestions made by commenting parties and other factors, the Board has amended Condition 22 to read as follows: "The Licensee shall only use material that is clean, non-PAG, free of contaminants, and is from a source within an approved area as per the approved Borrow Pit Management Plan with the exception of previously developed on-site borrow pits."

The Board believes that the amended condition will allow for the Permittee to achieve its desired outcomes while simultaneously ensuring that any impact to land and water are minimized.

26(1)(e) Type, Location, Operation of All Facilities

No Changes requested and/or made to this section

26(1)(f) Control or Prevention of Ponding of Water, Flooding, Erosion, Slides, and Subsidence of Land

No Changes requested and/or made to this section

26(1)(g) Use, Storage, Handling, and Ultimate Disposal of Any Chemical or Toxic Material

No Changes requested and/or made to this section.

26(1)(h) Wildlife and Fish Habitat

No Changes requested and/or made to this section.

26(1)(i) Storage, Handling, and Disposal of Refuse or Sewage

WASTE MANAGEMENT

No Changes requested and/or made to this section.

26(1)(j) Protection of Historical, Archaeological, and Burial Sites

No Changes requested and/or made to this section

26(1)(k) Objects and Places of Recreational, Scenic, and Ecological Value

No Changes requested and/or made to this section.

26(1)(l) Security Deposit

No Changes requested and/or made to this section.

26(1)(m) Fuel Storage

SPILL CONTINGENCY PLAN

No Changes requested and/or made to this section.

26(1)(n) Methods and Techniques for Debris and Brush Disposal

No Changes requested and/or made to this section.

26(1)(o) Restoration of the Lands

CLOSURE AND RECLAMATION PLAN

The Board has not approved the CR - Draft Version²¹, submitted more than three years prior to submission of the Amendment Applications. An extension was granted for submission of the plan on April 30, 2020²². This Plan is also required under Part I of the Licence, and the Board's reasons for decision regarding this Plan are described above in [section 6.9](#).

26(1)(p) Display of Permits and Permit Numbers

No Changes requested and/or made to this section.

26(1)(q) Biological and Physical Protection of the Land

ENGAGEMENT PLAN

²¹ See MVLWB Online Registry for MV2014L8-0006 - CZN - App 11-1 Draft Road CRP – February 20, 2019 ([Hyperlink](#)).

²² See MVLWB Online Registry for MV2014F0013, MV2014L8-0006 MV2019L8-0002 - CZN - Approval - CRP Submission Extension - May7, 2020 ([Hyperlink](#)).

The Permittee included an Engagement Record for the Amendment Applications²³ and the Permittee has an approved Engagement Plan, Version 2, in place under the Permit.²⁴ This Plan is also required under Part B of the Licence, and the Board’s reasons for decision regarding this Plan are described above in [section 6.2](#).

1.28 Annex A: Table of Submissions

Annex A of the Permit contains a table that summarizes the submissions required by the Permit conditions. No updates to this table were needed because there were no changes to the required submissions.

1.29 Annex B: Table of Revision History

Annex B of the Permit contains a table which identifies updates and tracks changes made to the Permit. This table was updated to reflect the amended Permit.

Conclusion

Subject to the scopes, definitions, conditions, and terms set out in the amended Licence and amended Permit, and for the reasons expressed herein, the MVLWB is of the opinion that the activities, land and water use, and waste disposal associated with the Project can be completed by Canadian Zinc Corporation while providing for the conservation, development, and utilization of waters in a manner that will provide the optimum benefit for all Canadians and in particular for the residents of the Mackenzie Valley.

Water Licence MV2014L8-0006 Amendment and Land Use Permit MV2014F0013 Amendment contain provisions that the Board deems necessary to ensure and monitor compliance with the MVRMA, *Waters Act*, and the Regulations made thereunder, and to provide appropriate safeguards in respect of Canadian Zinc Corporation’s use of the water and land as authorized by the Licence and Permit.

SIGNATURE



Mavis Cli-Michaud, Chair
Mackenzie Valley Land and Water Board

August 30, 2022

Date

²³ See MVLWB Online Registry for Online Registry for CZN – ASR – WL – Amendment Request - June 29, 2022 ([Hyperlink](#))

²⁴ See MVLWB Online Registry for MV2014L8-0006 MV2019L8-0002 MV2014F0013 - CZN - Approved - Engagement Plan V2 – February 13, 2022 ([Hyperlink](#)).

Appendices and Annexes

Water Licence and Land Use Permit Amendment Applications	
File Number	MV2014L8-0006 and MV2014F002
Company	Canadian Zinc Corporation
Project	All Season Road
Location	Prairie Creek Mine All Season Road – Liard Highway to Prairie Creek Mine, NT
Activity	Miscellaneous and Private Road

ANNEX A: Table of Submissions

Date	Location of Change	Description of Change

ANNEX B: Table of Revision History

Date	Location of Change	Description of Change
August 25, 2022	Condition 22	Condition amended to allow for use of material from a previously developed on-site borrow pit.