

Mackenzie Valley Land and Water Board



LAND USE PERMIT APPLICATION FORM

Subsection 19(2) and Schedule 2 of the [Mackenzie Valley Land Use Regulations](#)

Use an "x" to indicate which Board the Application is being made to:	Mackenzie Valley Land and Water Board:	<input checked="" type="checkbox"/>	Sahtu Land and Water Board:	
	Wek'èezhì Land and Water Board:		Gwich'in Land and Water Board:	

To complete this Form, please refer to the MVLWB [Guide to the Land Use Permitting Process \(Guide\)](#) and fill in the grey fields; attach additional pages if necessary. Please review the following guidance for formatting your Application Package:

- [Document Submission Standards](#)
- [Standard Outline for Management Plans](#)



Received: May 27, 2021

File #: MV2021D0005

Copied to: KM/Registry

If applicable, reference the existing or current Land Use Permit file number:	MV2020D0007, MV2020C0008		
Use an "x" to indicate if this Application is accompanied by an Application for a Water Licence:	Water Licence – in a non-federal area:	<input checked="" type="checkbox"/>	
	Water Licence – in a federal area:		

1. NAME AND CONTACT INFORMATION – APPLICANT

Applicant's Name:	Canadian Zinc Corporation		
Position:			
Mailing Address:	1710 – 650 W. Georgia St.		
Community:	Vancouver	Telephone:	604 688 2001
Prov/Terr:	BC	Email:	David.Harpley@norzinc.com
Postal Code:	V6B 4N9	Other:	

2. NAME AND CONTACT INFORMATION – APPLICANT'S HEAD OFFICE

Please include a Certificate of Corporate Registration from the Government of the Northwest Territories in your Application Package.

Name:	Canadian Zinc Corporation		
Mailing Address:	1710 – 650 W. Georgia St		
Community:	Vancouver		
Prov/Terr:	BC	Telephone:	604 688 2001
Postal Code:	V6B 4N9	Email:	Donald.McDonald@norzinc.com
Field Supervisor:	To be determined	Other:	

3. NAME AND CONTACT INFORMATION – CONTRACTORS AND SUB-CONTRACTORS

Please include relevant names, responsibilities, and contact information. An additional table should be added for each contractor and subcontractor.

Name:	David Harpley		
Company Name:	Canadian Zinc Corporation		
Mailing Address:	1710 – 650 W. Georgia St.		
Community:	Vancouver	Telephone:	604 688 2001
Prov/Terr:	BC	Email:	David.Harpley@norzinc.com
Postal Code:	V6B 4N9	Other:	

4. LOCATION OF ACTIVITIES

Maps and Geographic Information System (GIS) Data: Attach a map to your Application Package indicating the locations of proposed activities, including waste deposits, watercourses, and water sources. Provide latitude and longitude geographic coordinates of project features, and the maximum and minimum project boundary in degrees, minutes, seconds, or decimal degrees. Attach GIS data to your Application Package, if applicable. Refer to the MVLWB [Guideline for Geographic Information Systems \(GIS\) Submission Standard](#) for providing geographic information.

Minimum latitude:	61° 32' 45" N	Maximum latitude:	61° 34' 30" N
Minimum longitude:	124° 48' 00" W	Maximum longitude:	124° 49' 15" W

NTS Map Sheet No.: Provide the map sheet number:

95F/10

Land Types: Use an “x” to indicate the type(s) of the land on which the activities are proposed.

Free Hold/ Private:		Commissioner’s/ Territorial Lands:	X	Federal Land:		Municipal Land:	
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5. ELIGIBILITY

Please refer to section 18 of the [Mackenzie Valley Land Use Regulations](#). Use an “x” to indicate which one applies.

18(a)(i):	X	18(a)(ii):		18(a)(iii):		18(b):	
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6. RIGHTS AND/OR CONTRACTS TO SUPPORT ELIGIBILITY

Please contact federal, territorial, and Aboriginal governments, and other parties to ensure all appropriate rights, authorizations, permissions, dispositions, and contracts have been obtained or are in the process of being obtained (e.g. mineral exploration rights, quarry permits, licences of occupation, leases, access agreements and authorizations, etc.). List and provide confirmation of other authorizations that relate to your activities; include these to your Application Package (e.g. rights, permits, licences, etc.).

Mining Leases ML 2854, ML 2931, ML 2932, ML 2933, ML 3313, ML 3314, ML 3315, ML 3338, ML 5113-5116; Surface Leases 95F/10-5-5, 95F/10-7-4; Mine site Land Use Permit MV2020D0007 and Water License MV2020L2-0003 (awaiting Ministerial signature). Access road Land Use Permits MV/PC2014F0013 and Water Licenses MV/PC2014L8-0006 and MV2019L8-0002.

7. PERMIT TYPE AND CRITERIA

Please refer to sections 4 and 5 of the [Mackenzie Valley Land Use Regulations](#). Use an “x” to indicate which permitting criteria apply:

Type A				Type B				Type C	
4(a)(i):	X	4(b)(i):	X	5(a)(i):		5(b)(i):		(SLWB and WLWB only):	
4(a)(ii):	X	4(b)(ii):	X	5(a)(ii):		5(b)(ii):			
4(a)(iii):	X	4(b)(iii):	X	5(a)(iii):					
4(a)(iv):	X	4(b)(iv):	X	5(a)(iv):					
4(a)(v):				5(a)(v):					
				5(a)(vi):					

8. PROJECT DESCRIPTION

Please include your project description in your Application Package, or for small-scale projects, describe your proposed activities in the grey field provided below. Include the elements identified in subsection 19(3) of the [Mackenzie Valley Land Use Regulations](#), the name and type (e.g., lake, river) of water source(s), and the purpose and quantity of water to be used (rates, volumes (m³/day)). Indicate the total

Underground and surface exploration, and mining and milling. Underground and surface exploration is currently the subject of LUP MV2020C0008. The underground exploration was assessed in EA01-002. Surface exploration was the subject of EA00-002, EA01-003 and EA0405-002.

Underground mining of lead-zinc mineralization using explosives, followed by milling and flotation to produce mineral concentrates. Re project description, refer to the updated Consolidated Project Description (CPD) submitted with this application. Fresh water for camp use (drinking, washing, toilets) would be drawn from the existing supply well. The quantity would be approximately 50 m³/day during operations, and 82 m³/day during construction. The Project will use 180 ha for all phases. The project was originally assessed in EA0809-002, followed by issue of MV2008D0014. MV2008D0014 was replaced with MV2020D0007.

number of hectares to be used in each phase of the project, as well as through the life of the project.

9. CAMP

Please describe the proposed camp size and layout. Indicate the number of person-days; explain, with

The proposed camp layout is shown in the CPD referred to in 8. For mine operations, there will be new bunk houses to replace the current trailers. During construction, the number of personnel will be up to 300. During operations, 180 will be on-site at any one time, and thus the annual person-days would be approximately 66,000. This number should not vary over the operating life of the project, declining after closure and during the reclamation phase.

rationale, any variations in the number of people that may be on site over the life of the project.

10. ROADS AND ACCESSES

Please include detailed information about the construction, location, and decommissioning of any roads and accesses.

Use an "x" to indicate if this is to be a pioneered road or access.	Yes	X	Use an "x" to indicate if the route has been laid out or ground-truthed.	Yes	X
	No			No	

An all season road (ASR) is to be built from the Nahanni Butte access road. Large sections of the route were previously used for winter roads in the early 1980's. The ASR alignment is defined in an Updated Project Description submitted for MV2014F0013. On-site, there are existing roads to outlying areas of the site and to previous locations of surface exploration drilling.

11. WASTE MANAGEMENT METHODS

Please use the grey fields below to provide or reference the following information:

Waste Management Plan: Include your Waste Management Plan in your Application Package, if applicable, or for small-scale projects, describe the proposed waste management activities in the grey fields provided below. A template for the Plan can be found in the MVLWB [Guidelines for Developing a Waste Management Plan](#).

Waste Type	Management Method(s)
Garbage:	See Waste Management Plan
Sewage (Sanitary and greywater):	See Waste Management Plan
Brush and trees:	NA
Overburden (Organic soils, waste material, etc.):	NA

Off-site Disposal: If waste is proposed to be disposed of off-site within the NWT, written confirmation (e.g., an email, letter, etc.) from the facility/facilities indicating they will accept the waste is required. Include it/these in your Application Package.

Hazardous waste would be taken off-site for disposal to BC or Alberta. There are many commercial enterprises accepting such waste.

12. EQUIPMENT

Please identify the types of equipment proposed to be used.

Number	Type/Description	Size (weight in tonnes)	Proposed use
3	Surface diamond drills	12	Core drilling
6	Scoops	5	Mining
4	Ore trucks	10	Mining
6	Personnel trucks	5	Mining
2	Diamond drills	5	Mining
4	Drill jumbos and bolters	20	Mining
2	Cement trucks	12	Camp Operations
3	Rock wagons (Volvos)	30	Camp Operations
3	Dozers	50	Camp Operations
4	Scrapers & compactors	40	Camp Operations
2	Graders	20	Camp Operations

6	Loaders & forklifts	15	Camp Operations
2	Excavators	40	Camp Operations
4	Trailers	20	Camp Operations
2	Buses	15	Camp Operations
20	Trucks	25	Camp Operations
8	Pick-ups	0.5-1	Camp Operations

13. FUEL

Please identify all fuel types proposed to be used.

Type of Fuel	Number of containers	Capacity of containers (e.g., litres, pounds)	Type of container (barrel, tank, tidy-tank)	Proposed storage or staging location(s)
Diesel:	4	1.7 million litres	Tank	Tank Farm
	1	4,000 litres	Tank	Mill
	1	4,000 litres	Tank	Admin Building
	1	800 litres	Tank	Admin Building
	1	2,000 litres	Tank	870 m level portal
	4	1,000 litres	Tidy-tank	P/U Trucks
Gasoline:	1	2,000 litres	Tank	Camp
Aviation Fuel:	40	205 litres	Drum	Airstrip
Propane:	2	120,000 litres	Tank	930 m portal
	2	120,000 litres	Tank	Camp
Other:				

14. METHODS OF FUEL TRANSFER

Please describe the proposed methods to transfer fuel.

Manual or electric pump, gravity. Tidy tanks in pick-up trucks will be used to top up heavy equipment.

15. SPILL CONTINGENCY PLAN

Please include your Spill Contingency Plan in the Application Package, if applicable, or for small-scale projects, provide relevant details in the grey field provided below. An example of a Plan can be found in the INAC [Guidelines for Spill Contingency Planning](#).

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16. PROPOSED TIME SCHEDULE

Indicate the proposed project start and completion dates and the time of year the project activities are planned to occur. Describe any anticipated temporary closure(s) or seasonal shutdowns. Refer to subsections 26(5) and (6) of the [Mackenzie Valley Land Use Regulations](#); indicate the term requested.

Start Date:	May, 2022	Completion Date:	Unknown
The Project schedule is dependent on financing, but the start of construction is planned for 2022, with operations in 2024 for 15 years, although more resources exist and operations may continue.			
Term of Permit Requested:	5 years		

17. POTENTIAL ENVIRONMENTAL IMPACTS OF THE PROJECT AND PROPOSED MITIGATIONS

Please use the grey field below to provide or reference the following information:

Preliminary Screening: Describe all potential impacts and proposed mitigations. This information is used for the preliminary screening of potential impacts from the project and/or to develop conditions for the land use permit. Please indicate whether any of the mitigation measures have been developed as a result of input from affected parties. Additional guidance is provided in [Appendix B of the MVLWB Guide to the Land Use Permitting Process](#), the [Mackenzie Valley Review Board Environmental Impact Assessment Guidelines](#), and the [Mackenzie Valley Review Board Socio-Economic Impact Guidelines](#). Alternatively, if you are seeking an exemption from preliminary screening, provide supporting rationale.

The project was assessed in EA0809-002. The subsequent process leading to MV2008D0014 included additional mitigations. Changes are proposed and are described in the attached CPD, including mitigations. An applicant preliminary screening is included. All other project elements that have not been changed are considered to be exempt from preliminary screening.

Wildlife Management and Monitoring Plan: Applicants are encouraged to contact the Wildlife Division of the Government of the Northwest Territories – Environment and Natural Resources, prior to applying, to determine whether a Wildlife Management and Monitoring Plan may be needed.

18. CLOSURE AND RECLAMATION

Please use the grey field below to provide or reference the following information:

Closure and Reclamation Plan: Describe your plans for closure and reclamation, including any temporary closure(s) and seasonal shutdowns. Include your Closure and Reclamation Plan in your Application Package, if applicable, or for small-scale projects, describe the proposed activities in the grey field provided below. Please also refer to the MVLWB/AANDC [Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories](#).

Closure Cost Estimate: Prepare a [Closure Cost Estimate](#) and include it in your Application Package. Applicants are encouraged to contact the Board, prior to applying, to determine which closure-cost-estimate template is most suited to the activities being applied for. Guidance is provided in section 2.2 of the MVLWB/INAC/GNWT [Guidelines for Closure and Reclamation Cost Estimates for Mines](#). If your Application is submitted concurrently with a Water Licence Application, please ensure water- and land-related activities and liabilities are provided.

A draft closure and reclamation plan has been submitted with this application. The main components of closure are placing all tailings underground as backfill, sealing mine openings, capping and covering the waste rock pile, demolishing buildings, breaching dams and berms and grading the site. A closure cost estimate is also provided.

19. ADDITIONAL SUPPORTING INFORMATION

Please use the grey field below to provide or reference the following information:

Engagement: Conduct engagement, prepare an Engagement Record and Engagement Plan in accordance with the MVLWB [Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits](#), and include them in your Application Package. Templates are provided in the Guidelines. Please also refer to [Information for Proponents on MVLWB's Engagement Requirements](#).

Land Use Planning: Please contact the applicable Land Use Planning Board or Tłı̨chǫ Government to discuss conformity with the relevant land use plan(s). Attach your Land Use Plan Conformity Table that demonstrates how the project meets the requirements of the Land Use Plan, if applicable.

Traditional (Environmental) Knowledge (TEK/TK): Provision of TEK/TK is mandatory for applications to the Sahtu Land and Water Board. Other applicants are strongly encouraged to include TEK/TK.

Studies Undertaken to Date: Please list any relevant studies that support the proposed activities and include them in your Application Package.

Engagement records are provided with this application. An engagement plan is on file for MV2008D0014 which remains current. Many studies were undertaken as part of EA0809-002 and for MV2001C0023 and MV2008D0014.


20. FEES

Please refer to section 20 of the [Mackenzie Valley Land Use Regulations](#).

Type of Fee	Amount (\$)
Application fee:	150.00
Land-use fees (for federal areas only):	
Total Fees:	150.00

21. SIGNATURE

David Harpley, CZN	VP Permitting
Applicant's Name (print) or Company Name	Position (print)

	May 25, 2021
Signature	Date

Please submit completed applications to the Regulatory Manager or Executive Director at the respective Land and Water Board (www.mvlwb.com, www.wlwb.ca, www.slwb.com, www.glwb.com).