



May 31, 2011

Mr. Vern Christensen
Executive Director
Mackenzie Valley Environmental Impact Review Board
#200 Scotia Centre
5102 – 50<sup>th</sup> Avenue
Yellowknife, NT X1A 2N7

Via email: vchristensen@reviewboard.ca

## Re: Notification of the Preliminary Screening of the Prairie Creek Mine Development

Dear Mr. Christensen,

In accordance with the *Mackenzie Valley Resource Management Act*, Parks Canada is notifying the Mackenzie Valley Environmental Impact Review Board that we will be conducting a preliminary screening of the Prairie Creek Mine development. A preliminary screening is required because authorizations required for this development in Nahanni National Park Reserve of Canada are listed on the *Preliminary Screening Regulations* (Part 2. Items 15, 16 and 17). Attached is the application form.

Sincerely,			

Rob Kent, Field Unit Superintendent, Southwest NWT, Parks Canada Parks Canada Agency

cc

Thank you.

Eric Betsaka, Associate Superintendent, Nahanni National Park Reserve of Canada Kathleen Graham, Regulatory Officer, Mackenzie Valley Land and Water Board







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#200 Scotia Centre
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Yellowknife, NT X1A 2N7

Via email: vchristensen@reviewboard.ca

#### Re: Prairie Creek Mine Development

Dear Mr. Christensen,

Canadian Zinc Corporation has applied for permits under the *Canada National Parks Act* in support their development of the Prairie Creek Mine. These include permits to be issued under *National Parks of Canada General Regulations* s. 11(1), s. 12(1), s. 18(1); *National Parks of Canada Building Regulations* s. 5(1) and *National Parks of Canada Business Regulations* s. 4.1. Parks Canada is referring the proposed Prairie Creek Mine Development to environmental assessment pursuant to subsection 126(2)(a) of the *Mackenzie Valley Resource Management Act*. Parks Canada is referring this proposal to the Board because the development might have a significant adverse impact on the ecological integrity of Nahanni National Park Reserve of Canada. The preliminary screening is attached.

Parks Canada believes this development is the same development as is currently under environmental assessment EA0809-002. Therefore, Parks Canada does not expect any different or additional process is required to fulfill the requirements of the *Mackenzie Valley Resource Management Act* for these applications. We look forward to your confirmation of the above conclusions.

If you have any questions, please contact Katherine Cumming (204) 984-1929; katherine.cumming@pc.gc.ca.







Thank v	you.
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Sincerely,

Rob Kent, Field Unit Superintendent, Southwest NWT, Parks Canada Parks Canada Agency

cc

Eric Betsaka, Associate Superintendent, Nahanni National Park Reserve of Canada Kathleen Graham, Regulatory Officer, Mackenzie Valley Land and Water Board



#### PRELIMINARY SCREENING REPORT FORM

PRELIMINARY SCREENER: Parks Canada REFERENCE / FILE NUMBER: TITLE: Prairie Creek Mine Development ORGANIZATION: Canadian Zinc Corporatio	n	
Type of Development: (CHECK ALL THAT APPLY)		New Amend, EIRB Ref. # Requires permit, license or authorization Does not require permit, license or authorization

#### **Project Summary**

Canadian Zinc (CZN) has applied to develop an underground mine and milling complex approximately 90 kilometres (km) northwest of Nahanni Butte, in the southern Mackenzie Mountains on the eastern side of and adjacent to Prairie Creek, some 43 km north of its confluence with the South Nahanni River. The proposed development includes winter road and highway transportation of concentrate from the lead-zinc mine by truck to the railhead in Fort Nelson, British Columbia.

The following applications to the Mackenzie Valley Land and Water Board in May and June of 2008 triggered a preliminary screening of this proposed development:

- MV2008L2-0002: Type A Water License, Prairie Creek Mine
- MV2008D0014: Type A Land Use Permit, Prairie Creek Mine
- MV2008T0012: Type A Land Use Permit, Liard Transfer Facility
- MV2008T0013: Type A Land Use Permit, Tetcela Transfer Facility

In August 2008, the development was referred to the Mackenzie Valley Environmental Impact Review Board for environmental assessment.

The proposal includes the operation, maintenance and use an access road from the mine to the Liard Highway, crossing the Nahanni National Park Reserve of Canada (NNPR), and a Tetcela Transfer Facility (TTF) within the NNPR for the temporary storage of mineral concentrates. These activities are explained in detail in "Prairie Creek Mine Developer's Assessment Report" (2010) as submitted by the Canadian Zinc Corporation to the Mackenzie Valley Environmental Impact Review Board (hereafter referred to as the Prairie Creek Mine DAR). These activities in NNPR require additional permits under the *Canada National Parks Act*, including: *National Parks of Canada General Regulations* s. 11(1), s. 12(1), s.18(1); *National Parks of Canada Building Regulations* s.5(1) and *National Parks of Canada Business Regulations* s.4.1. An application for these permits on May 12, 2011 by CZN triggered this preliminary screening.

#### Scope

#### Mining and Materials Storage

- Use of existing and development of additional underground workings, including construction of an additional portal and decline;
- Extraction and crushing of ore-bearing rock;
- Transport, storage and use of explosives;
- Mine dewatering;
- Construction, transportation to and management of a waste rock pile, including water management systems;
- Construction and management of a solid waste landfill within the waste rock pile;
- Management of dense media separation reject rock, and ore and tailings stockpiles on surface, including construction of any associated foundations, buildings, and water treatment and management systems;

- Backfilling of mined out stopes using a tailings paste backfill and engineered bulkheads; and
- Mining equipment operation, including vehicles and materials conveyance systems.

#### Milling

- Construction and use of a concentrate storage shed, concentrate bagging plant, dense media separation circuit, and paste backfill plant alongside the existing mill facility;
- Partial re-construction and operation of the milling complex;
- Extraction, transportation, consumption, recycling, treatment and discharge to the environment of minewater and process water; and
- Storage, handling, use and disposal of milling process additives and chemicals, both at the mill and on the reagent pad south of the mill.

#### Other On-Site Facilities and Activities

- Removal of the existing coarse ore stockpile;
- Replacement of existing diesel power generation system and use of new power generation system;
- Re-construction and use of the existing tailings pond as a two-cell water storage pond;
- Construction and use of drainage control structures and process/waste water pipelines from mine to surface, and on surface at the Prairie Creek Mine site:
- Construction of any new roads and use of all roads at the Prairie Creek Mine site;
- Construction and use of a new water treatment plant;
- Additional construction where necessary and use during mine operations of existing on-site water
  management facilities, including the sewage treatment plant, polishing pond, runoff collection and
  water discharge system (including all drainage ditches, the catchment pond and all culverts and gates
  at discharge points), and all flood protection dykes around the property;
- Extraction of groundwater for use as potable water and for any other purposes;
- Re-construction of portions of, and use of, the fuel storage facility on site, including water management and containment facilities and activities.
- Demolition, re-construction where necessary, and use of portions of the existing built support
  infrastructure at the Prairie Creek Mine site, including the kitchen/diner complex, and some of the
  accommodation trailers;
- Use of existing on-site buildings and other facilities that are to be retained, including the
  administration/dry building, maintenance shops, bulk of accommodation trailers, equipment storage
  facilities in the main yard, and the inert waste storage facility (the boneyard) alongside Harrison
  Creek:
- Use of vehicles and all other emissions sources at the Prairie Creek Mine site; and
- Replacement of existing waste incinerator with new incinerator and its use.

#### Support/Ancillary Facilities and Activities

- Initial upgrading (as necessary) and annual construction activities associated with the winter access road from the mine to the Territorial Highway 7 (Liard Highway), including vehicle traffic, water use and water crossings;
- Truck transport of concentrate from the Prairie Creek Mine site along the winter road and the Liard Highway to the railhead at Fort Nelson;
- Transportation activities by air and road/winter road that support the Prairie Creek
- Mine's operation, including transportation of goods, fuel, contractors and employees in to and out of the mine, and removal and disposal of wastes or other materials, including operation of the existing airstrip at the Prairie Creek Mine site;
- Construction and use of two transfer facilities, one at km 84 from the mine along the winter access road (Tetcela Transfer Facility), and the other near the Liard Highway east of the Liard River crossing (Liard Transfer Facility), including unloading, storage, and reloading of concentrate, hydrocarbons and other materials; and
- Development and use of borrow sources for aggregate production at the mine site or along the winter access road.

#### **Closure and Reclamation**

• Removal or stabilization of all structures and equipment;

- Reclamation of water storage pond and all other site water management facilities;
- Reclamation of the winter access road and all Prairie Creek Mine site road networks;
- Reclamation of infrastructure foundations, dyking system, piping, and all built structures at the Prairie Creek Mine;
- Reclamation of the Tetcela and Liard Transfer Facilities;
- Reclamation of the waste rock pile, dense media separation reject rock, tailings, and ore stockpiles and any other surface materials storage locations;
- Re-vegetation of areas affected by mining or support activities;
- Backfilling, bulkhead installation and other capping of the underground works; and
- Long-term mine water outflow monitoring/management around the mine site.

Principal Activities (related to scoping) (CHECK ALL THAT APPLY)		
☐ Construction     ☐ Installation     ☐ Maintenance     ☐ Expansion     ☐ Operation     ☐ Repair     ☐ Research     ☐ Water Intake	<ul> <li>□ Exploration</li> <li>☑ Industrial</li> <li>□ Recreation</li> <li>□ Municipal</li> <li>☑ Quarry</li> <li>☑ Linear / Corridor</li> <li>☑ Sewage</li> </ul>	Decommissioning  Abandonment  Aerial  Harvesting  Camp  Scientific/  Solid Waste
Other:	△ Sewaye	☐ Solid Waste
Principal Development Components (related to scoping)		
Access Road   □ construction   □ abandonment/removal   □ modification e.g., widening, straightening   □ Automobile, Aircraft or Vessel Movement   □ Blasting   □ Burling   □ Burning   □ Channeling   □ Cut and Fill   □ Cutting of Trees or Removal of Vegetation   □ Dams and Impoundments   □ construction   □ abandonment/removal   □ modification   □ Ditch Construction   □ Drainage Alteration   □ Drilling other than Geoscientific   □ Ecological Surveys   □ Excavation   □ Explosive Storage   □ Fuel Storage   □ Topsoil, Overburden or Soil   □ disposal   removal   □ disposal   storage    NTS Topographic Map Sheet Numbers  (1:250,000 scale)	Waste Management     disposal of hazardous wa     waste generation     Sewage     disposal of sewage     Geoscientific Sampling     trenching     diamond drill     borehole core sampling     bulk soil sampling     Gravel     Hydrological Testing     Site Restoration     fertilization     grubbing     planting/seeding     reforestation     scarify     spraying     recontouring     Slashing and removal of versions     Soil Testing     Stream Crossing/Bridging     Tunneling/Underground     Other (describe):	/egetation

**Latitude / Longitude and UTM System:** The Prairie Creek Mine access road enters the park from the west at latitude 61 deg 36 min 36 sec N, longitude 124 deg 41 min 4 sec W, and leaves the park in the east at the Wolverine (Silent Hills) Pass at

latitude 61 deg 25 min 43 sec N, longitude 123 deg 34 min 30 sec W. The TTF would be located at  $61^{\circ}27'38''$  N latitude,  $123^{\circ}46'40''$  W longitude.

Nearest Community and Wa Community: Nahanni Butte Water Body: Many						
Land Status (consultation in	nformation)					
☐ Free Hold / Private	☐ Con	nmissioners Land	☐ Federal Crown Land		Municipal	Land
Transboundary Implication	ns					
☐ British Columbia ☐ Nunavut	☐ Alberta ☐ Wood Bu	iffalo National Park	☐ Saskatchewan ☐ Inuvialuit Settlement Region		Yukon	
Type of Transboundary Imp	olication:	☐ Impact / Effect	☐ Development			
Public Concern(DESCRIBE)						
PHYSICAL - CHEMICAL EFF	FECTS					
IMPACT		MITIGATION				
1. Ground Water						
	ter table alteration Detailed in Prairie Creek Mine DAR					
	water quality changes Detailed in Prairie Creek Mine DAR					
☐ infiltration changes Detailed in Prairie Creek Mine DAR						
☐ other ☐ N/A						
IMPACT		MITIGATION				
2. Surface Water						
⊠ flow or level changes		Detailed in Prairie Creek	Mine DAR			
		Detailed in Prairie Creek	Mine DAR			
		Detailed in Prairie Creek	Mine DAR			
☑ Drainage pattern changes	Drainage pattern changes Detailed in Prairie Creek Mine DAR					
temperature						
		Detailed in Prairie Creek	Mine DAR			
other:						
□ N/A						

IMPACT	MITIGATION	
3. Noise		
□ noise in/near water	Detailed in Prairie Creek Mine DAR	
☑ other: noise increase	Detailed in Prairie Creek Mine DAR	
□ N/A		
IMPACT	MITIGATION	
4. Land		
□ geologic structure changes	Detailed in Prairie Creek Mine DAR	
Soil contamination     ■	Detailed in Prairie Creek Mine DAR	
☐ buffer zone loss		
	Detailed in Prairie Creek Mine DAR	
□ Destabilization / erosion	Detailed in Prairie Creek Mine DAR	
□ permafrost regime alteration	Detailed in Prairie Creek Mine DAR	
	Detailed in Prairie Creek Mine DAR	
□ N/A		
IMPACT	MITIGATION	
5. Non Renewable Natural Resources		
☐ resource depletion	Detailed in Prairie Creek Mine DAR	
other:		
□ N/A		
IMPACT	MITIGATION	
6. Air/Climate/ Atmosphere		
☐ Greenhouse Gases	Detailed in Prairie Creek Mine DAR	
□ N/A		

#### **BIOLOGICAL ENVIRONMENT**

IMPACT	MITIGATION
1. Vegetation	
	Detailed in Prairie Creek Mine DAR
	Detailed in Prairie Creek Mine DAR
	Detailed in Prairie Creek Mine DAR
other:	
□ N/A	
IMPACT	MITIGATION
2. Wildlife & Fish	
☑ effects on rare, threatened or endangered species	Detailed in Prairie Creek Mine DAR
	Detailed in Prairie Creek Mine DAR
	Detailed in Prairie Creek Mine DAR
	Detailed in Prairie Creek Mine DAR
□ population reduction	Detailed in Prairie Creek Mine DAR
	Detailed in Prairie Creek Mine DAR
health changes (Identify)	
□ behavioural changes     (Identify)	Detailed in Prairie Creek Mine DAR
	Detailed in Prairie Creek Mine DAR
	Detailed in Prairie Creek Mine DAR
★ toxins / heavy metals	Detailed in Prairie Creek Mine DAR
☐ forestry changes	
agricultural changes	
other:	
□ N/A	

#### INTERACTING ENVIRONMENT

IMPACT	MITIGATION
1. Habitat and Communities	
□ predator-prey	Detailed in Prairie Creek Mine DAR
☑ wildlife habitat / ecosystem Composition changes	Detailed in Prairie Creek Mine DAR
reduction / removal of keystone or endangered Species	
removal of wildlife corridor or buffer zone	
other:	
□ N/A	
IMPACT	MITIGATION
2. Social and Economic	
☑ planning / zoning changes or conflicts	Detailed in Prairie Creek Mine DAR
☑ increase in urban facilities or services use	Detailed in Prairie Creek Mine DAR
☐ rental house	
☐ airport operations / capacity changes	
	Detailed in Prairie Creek Mine DAR
impair the recreational use of water or aesthetic quality	
☐ affect water use for other purposes	
affect other land use operations	
□ quality of life changes	Detailed in Prairie Creek Mine DAR
□ public concern	Detailed in Prairie Creek Mine DAR
other:	
□ N/A	
IMPACT	MITIGATION
3. Cultural and Heritage	
effects to historic property	
	Detailed in Prairie Creek Mine DAR

on historic properties	
change to or loss of historic resources	
change to or loss of archaeological resources	
increased pressure on archaeological sites	
change to or loss of aesthetically important site	
☑ affects to aboriginal lifestyle	Detailed in Prairie Creek Mine DAR
other:	
□ N/A	

## **REASONS FOR DECISION**(LIST ALL REASONS AND SUPPORTING RATIONALES FOR PRELIMINARY SCREENING DECISION)

#### **DECISION:**

The proposed road will involve substantial traffic, transportation of dangerous substances and construction in difficult terrain.

	PRELIMINARY SCREENING DECISION	
$\boxtimes$	Outside Local Government Boundaries	
$\boxtimes$	The development proposal might have a significant adverse impact on the environment, refer it to the MVEIRB.	
	Proceed with regulatory process and/or implementation.	
	The development proposal might have public concern, refer it to the EIRB.	
	Proceed with regulatory process and/or implementation.	
	Wholly within Local Government Boundaries	
	The development proposal is likely to have a significant adverse impact on air, water or renewable resources, refer it to the EIRB.	
	Proceed with regulatory process and/or implementation.	
	The development proposal might have public concern, refer it to the EIRB.	
	Proceed with regulatory process and/or implementation.	
Preliminary Screening Organization Signatures		
Parks Canada - Nahanni National Park Reserve of Canada		



May 12, 2011

Mike Suitor Park Ecologist Nahanni National Park Reserve P. O. Box 348 Fort Simpson, NT X0E 0N0

Dear Sir,

#### RE: Restricted Activity Request for Operations Associated with the Prairie Creek Mine

Please find attached a Restricted Activity Request for authorizations required to undertake activities by Canadian Zinc Corporation ("CZN") in the Nahanni National Park Reserve (NNPR). The activities would be in connection with operation of the Prairie Creek Mine access road through the NNPR, and operation of the Tetcela Transfer Facility within the NNPR.

We look forward to your reply, and we can be reached at (604) 688 2001 to answer any questions.

Yours truly, CANADIAN ZINC CORPORATION

David P. Harpley, P. Geo.

VP, Environment & Permitting Affairs



# Request for Authorization to Conduct a Restricted Activity in Nahanni National Park Reserve of Canada

#### PROPONENT INFORMATION

Name: Canadian Zinc Corporation Street Address: 1710-650 West Georgia St

City/Town: Vancouver Province/Territory: BC

Telephone: 604 688 2001 Email Address: david@canadianzinc.com

Fax: 604 688 2043

#### **CONTRACTOR INFORMATION**

Name:Street Address:City/Town:Province/Territory:Telephone:Email Address:

Fax:

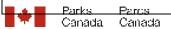
#### **ACTIVITIES REQUIRING AUTHORIZATION**

Activity	Authority	
<ul> <li>Removal or use of any natural objects/materials including but not limited to: sand, soil, gravel, rock, mineral, fossils, or snow for construction purposes</li> </ul>	National Parks of Canada General Regulations s. 11(1)	
<ul> <li>Removal, defacing, damage or destruction of any flora or natural objects/materials</li> </ul>	National Parks of Canada General Regulations s.12(1)	
☐ Obstruct or divert a watercourse	National Parks of Canada General Regulations s.17	
☐ Withdrawal of water from a watercourse or water body for ice bridge construction	National Parks of Canada General Regulations s.18(1)	
☐ Landing aircraft	National Parks of Canada Aircraft Access Regulations s.3(1)	
☐ Use, possession and transport of explosives	National Parks of Canada General Regulations s.35(1)	
☐ Operation of an over-snow vehicle	National Parks of Canada Highway Traffic Regulations s.41(1)	
☐ Operation of an all-terrain vehicle	National Parks of Canada Highway Traffic Regulations s.41(2)	
☐ Operating a motor vehicle off a highway	National Parks of Canada Highway Traffic Regulations s.3(2)	
☐ Starting and maintaining a fire	National Parks of Canada Fire Protection Regulations s.4(3)	
☐ Possession and transport of >250 L of gasoline or any other flammable liquid	National Parks of Canada Fire Protection Regulations s.5(2)	
☐ Conducting natural, archaeological or social science research	National Parks of Canada General Regulations s.7(5)	
☐ Building infrastructure	National Parks of Canada Building Regulations s.5(1)	
□ Camping	National Parks of Canada camping Regulations s.4(1)	
☐ Carrying on a business in the park	National Parks of Canada Business Regulations s.4.1	

#### PROJECT DESCRIPTION (Brief description of work and rationale for request. Append additional sheets if required.)

Canadian Zinc (CZN) has applied for operating permits for the Prairie Creek Mine. These are presently subject to environmental assessment (EA) by the Mackenzie Valley Review Board (MVRB, EA0809-002). Two of the permits directly relate to the expanded Nahanni National Park Reserve (NNPR). One application is for a Land Use Permit (LUP) to operate, maintain and use an access road from the mine to the Liard Highway, crossing the NNPR, and another is for a LUP to operate the Tetcela Transfer Facility (TTF) within the NNPR for the temporary storage of mineral concentrates. These activities are explained in detail in CZN's Developers Assessment Report (March, 2010) submitted as part of the EA and available on the EA registry maintained by the MVRB.

In addition to the permit applications noted above, we understand that specific permits or authorizations will be required from Parks Canada to undertake restricted activities within a national park. The activities for which authorizations are believed to be required have been highlighted above. Road construction will involve the removal and placement of sand, soil, gravel and snow, and possibly rock. While the intent in road construction is to maintain the organic layer, some vegetation may be destroyed in the making of a level road bed. A relatively small area of vegetation will also be lost following gravel placement to form a foundation for the TTF. Water would be withdrawn annually from Mosquito Lake for road construction and maintenance, and potentially from other water sources within the NNPR. Helicopter landings may be required in support of road construction, and for road repairs (during freshet, for example) if the road is not operational. Explosives would be transported along the road to the Mine. Road construction and maintenance may include the use of over-snow and all terrain vehicles, the intent being to operate in the immediate vicinity of the road alignment only. The road will be used by vehicles servicing the Mine, and is not considered to be a highway. Trucks taking out concentrates will bring in fuel >250 L on the back-haul. The TTF is considered to be a building. Road construction and operations, as well as the TTF, will include trailers adjacent to the road and at the TTF for rest and short-term (shift) stays, which may be considered as 'camping'. Use of the road for hauling is assumed to be a business. In addition to the above, CZN wishes to make an application for a lease for the land occupied by the road and the TTF according to section 41.1 (2) (a) of the Canada National Parks Act (April 19, 2011).







### PROJECT LOCATION(S) (Append multiple project locations on an additional sheet if necessary)

Coordinates of the Project (Degrees, Minutes, seconds):

The Prairie Creek Mine access road enters the park from the west at latitude 61 deg 36 min 36 sec N, longitude 124 deg 41 min 4 sec W, and leaves the park in the east at the Wolverine (Silent Hills) Pass at latitude 61 deg 25 min 43 sec N, longitude 123 deg 34 min 30 sec W. The TTF would be located at 61°27′38″ N latitude, 123°46′40″ W longitude.

Proposed Start Date: Not determined. (YYYY/MM/DD) Proposed Completion Date: Not determined. (YYYY/MM/DD)

I, David Harp<u>ley, certify that the information given on this form is, to</u> the best of my knowledge correct and complete.

Signature Date: May 12, 2011

Information about the above-noted proposed work or undertaking is collected by the Superintendent under the authority of the *Canada National Parks Act* and *National Parks of Canada Regulations*. Submit this application to:

Mike Suitor Park Ecologist Nahanni National Park Reserve P.O. Box 348 Fort Simpson, NT, X0E 0N0

Tel: (867)-695-3151 Fax: (867)-695-2446

