



June 24, 2014

Julian Morse
Regulatory Officer
Mackenzie Valley Land and Water Board
7th Floor-4910 50th Avenue,
Yellowknife, NT
X1A 2P6

Dear Mr. Morse

RE: Application for Class A LUP MV2014F0013
All Season Access Road, Prairie Creek Mine

As you are aware, Canadian Zinc Corporation (CZN) made application for a Land Use Permit (LUP) to construct, operate and maintain an all season access road to the Prairie Creek Mine. In the application, we noted that it was our expectation that the project would be referred to environmental assessment (EA). The Board subsequently circulated the applications to interested parties and requested comments. In our letter of May 21, 2014 CZN acknowledged and thanked parties for their comments, and said that we would not respond to the comments given that there would be ample time to do so during the EA.

Upon further review, we noted the comments from the GNWT Inspector, Laurie Nadia. Ms. Nadia noted some inconsistencies between the application and the Project Description Report (PDR). We wish to clear up these inconsistencies so that there is clarity as we progress through the EA process. An amended LUP application is attached in order to do this.

The Inspector had recommended that the applicant state the approximate maximum length of 8 meter wide sections for vehicle passing, how many there would be, and their locations. The passing lanes will be approximately 30 metres long. The number and their locations will be determined during the road design process, however, we expect them to be spaced approximately 1 km apart, and as the distance from the Mine to the Nahanni Butte Access Road is 175 km, this means up to 174 lanes.

We stated in the PDR that the construction camp will utilize sumps. However, in the LUP application we stated that all sewage will be hauled to the Mine Site Sewage Treatment Plant. We have amended the LUP to reflect sewage disposal via either sumps or haulage to the Mine

In the PDR, we had referred to two potential airstrip locations in the Sundog-Ram Plateau area, but that other locations would be considered. The Inspector recommended that we include any possible locations within the application as well as the access routes to the airstrips. Upon further

review, we note that we erred in not referring to our intention to potentially use airstrips, used historically by Cadillac Explorations, to support the project, including road construction, maintenance/monitoring and restoration/closure. Cadillac used three airstrips at the following locations: one at Cat Camp; one just east of Wolverine Pass; and, one at Grainger Camp. Therefore, we have amended the LUP to reflect this. The Cat Camp airstrip was in the floodplain of Sundog Creek. We have proposed to locate an airstrip in the Sundog-Ram Plateau area as an alternative so as not to be proximal to the creek. Suitable locations need to be investigated, and the preferred location will hopefully be a short distance from the final road alignment, or part of the alignment itself. However, in the interim, we will retain the option of using the original Cat Camp airstrip.

We have added a reference to section 5 a) regarding the likely requirement for dry crushing and screening of aggregate. We have also amended section 5 b) to include the potential for a limited temporary camp in proximity to the location of road construction, such camp providing services for breaks and accommodation to reduce travel back to a full camp.

This letter has been copied to the Mackenzie Valley Environmental Impact Review Board to inform the EA scoping in progress, and to inform aboriginal groups and other parties who are involved in the EA and the scoping process.

We trust the above is in order. If you have any questions or requests, please contact us.

Yours truly,
CANADIAN ZINC CORPORATION



David P. Harpley, P. Geo.
VP, Environment and Permitting Affairs

cc. MVEIRB

Attachment



Mackenzie Valley Land and Water Board
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YELLOWKNIFE NT X1A 2P6
Phone (867) 669-0506
FAX (867) 873-6610

Application for: TYPE A

New Land Use Permit **Amendment**

1. Applicant's name and mailing address: Canadian Zinc Corporation 1710 – 650 W. Georgia St. Vancouver, BC, V6B 4N9	Fax number: 604-688-2043
2. Head office address: As above Field supervisor: To Be Determined Site Satellite telephone: 1-600-700-2454 Site Satellite fax: 1-600-700-9209 Site VOIP telephone: 778-724-2512	Telephone number: 604-688-2001 Fax number: As above Telephone number: As above
3. Other personnel (subcontractor, contractors, company staff etc.) With all season road from the Mine to the Tetcela Transfer Facility (TTF), part of road construction, maintenance and road haul to be completed by Mine staff or contracted staff, and part to be completed by contractors – companies yet to be determined, estimates only. With all season road from the Mine to the Liard Highway, part of road construction to be completed by Mine staff or contracted staff, and part by contractors, road maintenance and road haul mostly by Mine staff or contracted staff. Road construction: see attached sheet Annual Road Maintenance: see attached sheet Annual Road Haul: 20* people x 120 days = 2400 person days (* on average, can be up to 30) TOTAL: Up to 45 people working at one time. See attached sheet for total.	
4. Eligibility: (Refer to section 18 of the <i>Mackenzie Valley Land Use Regulations</i>) a)(i) X a)(ii) a)(iii) b)(i) b)(ii)	
5. a) Summary of operation (Describe purpose, nature and location of all activities.) **See attached Project Description** Construction, maintenance and use of an all season road approximately 175 km long connecting the Prairie Creek Mine to the Tetcela Transfer Facility (TTF, Phase 1), and from the TTF to the Nahanni Butte access road which in turn joins the Liard Highway (Phase 2) to allow haulage of mineral concentrates out, and operating supplies in. Cleared normal right-of-way to be up to 20 m wide but may be up to 35 m when there are steep side-slopes, road surface width 5-8 m 5 m normally but 8 m for passing lanes which may number up to 174 and be approximately 30 m in length. Reactivation of historical airstrips at Cat Camp and just east of Wolverine Pass to support the project, although Cat Camp strip may be relocated to Sundog-Ram Plateau area, but still proximal to the road. Road crosses the Nahanni National Park Reserve from approximately Km 17-100 where the jurisdiction is Parks Canada. Barge ramps and landing/set-down areas on both sides of Liard River. It is likely that dry crushing and screening of aggregate will be required.	

b) Please indicate if a camp is to be set up. (Please provide details on a separate page, if necessary.)

The land use operation will be serviced from the existing facilities at the Prairie Creek Mine, and by Contractors travelling from the Liard Highway. During road construction, a temporary industrial camp is required on the east side of the Liard River, and potentially also a limited camp in proximity to the location of construction. An annual seasonal camp for road maintenance on the east side of the Silent Hills is also required.

6. Summary of potential environmental and resource impacts (describe the effects of the proposed land-use operation on land, water, flora & fauna and related socio-economic impacts). Use separate page if necessary.)

Potential environmental and resource impacts were assessed in Environmental Assessment EA0809-002 for winter road use. Assessment contained in CZN's Developers Assessment Report dated March 2010. Decision of the Review Board in their Report of EA dated December 8, 2011 is that "the proposed developed is not likely to have significant adverse impacts on the environment or to be a cause of significant public concern", subject to the commitments made by CZN during the EA process.

7. Proposed restoration plan (please use a separate page if necessary).

Bridges will be removed from stream crossings, abutments will be removed or pushed-back. Material will be pulled-back to recontour side-hill cuts. Erosion control measures will be installed as necessary. Restoration of disturbed areas will be promoted by stabilization measures and vegetation by natural invasion.

8. Other rights, licences or permits related to this permit application (mineral rights, timber permits, water licences, etc.)

Mining Leases ML 2854, ML 2931, ML 2932, ML 2933, ML 3313, ML 3314, ML 3315, ML 3338, ML 5113, ML5114, ML5115, ML 5116; Mineral Claims K01369; Surface Leases 95F/10-5-5, 95F/10-7-4; and, Land Use Permit MV20012F0007 and Water Licence MV2012L1-0005.

Roads: Is this to be a pioneered road? No

Has the route been laid out or ground truthed? The route is the same as that in LUP MV2012F0007. Most of the route exists, but there are new re-alignments, as shown in drawings provided previously for LUP MV2012F0007. The precise location of the re-alignments has yet to be ground truthed. Minor re-alignments may be considered for the all season route.


9. Proposed disposal methods.

- a) Garbage: Combustible refuse to be incinerated at Mine Site or temporary camp. Non-combustible refuse to be disposed of at Mine Site or other approved facility.
- b) Sewage (Sanitary & Grey Water): Will be disposed of in sumps or taken to the Mine site Sewage Plant.
- c) Brush & trees: Alignment will already be cleared. For any new re-alignments, brush and debris from clearing the right of way will be windrowed adjacent to the right of way, with breaks every 100 m. Trees felled will be bucked.
- d) Overburden (Organic soils, waste material, etc.): Overburden disturbance will be minimized. Cut organic soil will be stockpiled. Cut mineral soil will be used to create a level bed, and potentially to insulate areas of permafrost.

10. Equipment (includes drills, pumps, etc.) (Please use separate page if necessary.)

This list is not intended to be exhaustive nor definitive, but rather an indication of the types of equipment necessary to support the proposed development.

See attached page.

11. Fuels	()	Number of containers	Capacity of containers	Location
Diesel		15 11 2 3	10,000 litres 400 – 1,500 litres 35,000 litres 2,000 litres	Trailers on backhaul Mobile equipment Camp Enviro tanks: Fuel Trucks
Gasoline		2	10,000 litres	Camp
Aviation fuel		?	205 litre	Airstrips, landing pads
Propane		2	1,000 gallon	Camp
Other				
<p>12. Containment fuel spill contingency plans. (Please attach separate contingency plan if necessary).</p> <p>A draft spill contingency plan was provided for LUP MV2012F0007. The plan will be revised and approved prior to issue of this LUP.</p>				
<p>13. Methods of fuel transfer (to other tanks, vehicles, etc.)</p> <p>Electric pump. Enviro tanks in trucks will be used to top up heavy equipment. Fuel tanker will be used to fill camp storage tanks.</p>				
<p>14. Period of operation (includes time to cover all phases of project work applied for, including restoration)</p> <p>During all season use to the TTF only, that road section will be used year-round. Construction of the eastern section would occur as soon as ground conditions permit, but expected to be in December. Use of the eastern road section would continue until ground no longer firm or ice bridge over the Liard River not available, expected to be late March-early April. For all season use to the Liard Highway, the road will be used year-round with a barge operating to cross the Liard River during the ice-free period.</p>				
<p>15. Period of permit (up to five years, with maximum of two years of extension).</p> <p>A land use permit with a term of 5 years is requested.</p>				
<p>16. Location of activities by map co-ordinates (attached maps and sketches) See Project Description Report</p>				
Minimum latitude (degree, minute) 61° 06' N		Maximum latitude (degree, minute) 61° 37' N		
Minimum longitude (degree, minute) 122° 50' W		Maximum longitude (degree, minute) 124° 48' W		
Map Sheet no. 95F/95G				
<p>17. Applicant Canadian Zinc Corporation Print name in full David Harpley</p> <p style="text-align: center;"></p> <p style="text-align: center;">Signature Date May 24, 2014</p>				
<p>18. Fees Type A - \$150.00 ** Type B - \$150.00 ** (**Application Fees are Non-Refundable**)</p> <p>Land use fee: <u>Land already in use for winter road</u> hectares @ \$50.00/hectare \$ _____</p> <p style="text-align: right;">Total application and land use fees \$ <u>150.00</u></p> <p style="text-align: center;"><i>Please make all cheques payable to "Receiver General of Canada"</i></p>				

Manpower for Prairie Creek Mine Access Road

No. of Equipment	Description of Equipment	# of Persons Day/Night Shift		Project Man hrs @ 11.5 hrs/day	# days on project
		# of Dayshift	# of Night shift		
6	Dozers	6	3	31,050	300
4	Excavators	4	2	20,700	300
3	Graders	3	1	13,800	300
2	Loaders	2	1	10,350	300
6	Articulated Rock Trucks	6	4	34,500	300
4	Service Trucks with enviro fuel tanks				300
2	Water trucks for road dust control	2		2,760	120
2	Mobile Fuel Storage Trucks	2			300
1	Tow tractor/drag tactor	1		3,450	300
2	Tree mulchers	2		2,760	120
2	Rock Crushing Plan and Screening Plant	5		10,350	180
2	Snow Plow Tandem trucks & sanders	2	2	8,280	180
2	Emergency Tranport Vehicles	1	1	6,900	300
2	Surveyor pickups	2		6,900	300
1	Environmental Monitor	1		3,450	300
1	Avalanche Technician	1		3,450	300
1	Helicopter for avalanche control & Medivac	1		3,450	300
1	Safety Supervisor	1		3,450	300
2	Mechanics	1	1	6,900	300
3	Superintendent / Supervisors	2	1	10,350	300
8	Bridge Sub-contractor crew, including supervision	8		6,900	75
3	Bridge Sub-contractor excavators			-	300
1	Bridge Sub-contractor crane / pile driver			-	300
1	80 man camp with water well on site	5	3	27,600	300
1	Mechanics Shop	1		3,450	300
1	Camp Incinerator			-	300
4	Fuel Tanks for Gasoline and Diesel Storage			-	300
1	Sewage Lagoon			-	300
1	Portable Warming Shelter			-	300
2	Generator and Heating Equipment			-	300
Total Man hours				220,800	
Total Man days @ 11.5 hr/day				19,200	

Client site representatives including engineers have not been included above.

List of Equipment for Prairie Creek Mine Access Road

#	Description of unit	Size classification
6	Dozers	D8T, D7R, D6N
4	Excavators	200 & 300 size
3	Graders	16H, 14H
2	Loaders	966H, 980H, 950, BM4600
6	Articulated Rock Trucks	A35D, 5350
2	Fuel Trucks	5 Ton
4	Service Trucks with enviro fuel tanks	1-2 Ton crewcab flat deck
2	Water trucks for road dust control	Water Tank Truck Tandem Axle
2	Mobile Fuel Storage Trucks	Fuel Truck on Tandem Axle
1	Tow tractor/drag tractor	8960 JD6WD tractor
30	Tractor/trailer units	Flatbed/lowbed
2	Tree mulchers	SK 200 TR mulcher
2	Rock Crushing Plant and Screening Plant	Finlay cone or jaw crusher and screener
2	Snow Plow Tandem trucks & sanders	Dump Trucks on Tandem Axle with snow plow or
2	Emergency Transport Vehicles	3/4 Ton 4x4 pickup with Mobile Treatment Centre
2	Surveyor pickups	3/4 Ton pickup
1	Environmental Monitor	3/4 Ton pickup
1	Avalanche Technician	3/4 Ton pickup
1	Helicopter for avalanche control & Medivac	206 or A-Star Helicopter
1	Safety Supervisor	3/4 Ton pickup
2	Mechanics	2 Service Trucks (2-4 Ton)
3	Superintendent / Supervisors	3 Trucks 3/4 Ton pickup
8	Bridge Sub-contractor crew, including	3 Trucks (1 Ton pickups with fuel), 2 Trucks (2-4 Ton)
3	Bridge Sub-contractor excavators	200 & 300 size
1	Bridge Sub-contractor crane / pile driver	
1	80 man camp with water well on site	25-30 trailer units depending on camp population
1	Mechanics Shop	Coverall Temporary Shelter
1	Camp Incinerator	Double chamber burn incinerator
4	Fuel Tanks for Gasoline and Diesel Storage	various sized double wall enviro tank for fuel storage
1	Sewage Lagoon	Fenced lagoon for camp sewage
1	Portable Warming Shelter	Wheeled trailer for field work
2	Generator and Heating Equipment	gensets with double 1,000 gallon propane fuel tanks on