



**PRAIRIE CREEK MINE
LIARD TRANSFER FACILITY
PROJECT DESCRIPTION REPORT**



SUBMITTED IN SUPPORT OF:

Type "A" Land Use Permit Application

SUBMITTED TO:

**Mackenzie Valley Land and Water Board
Box 2130, 4910 - 50th Avenue,
Yellowknife, NT, X1A 2P6**

SUBMITTED BY:

**Canadian Zinc Corporation
Suite 1710 - 650 West Georgia Street
Vancouver, BC, V6B 4N9**

May, 2008

PROJECT FACT SHEET

CORPORATE DATA

Project Name	Liard Transfer Facility, Prairie Creek Mine
Company Name and Address	Canadian Zinc Corporation Suite 1710, 650 West Georgia Street Vancouver, B.C., V6B 4N9
	Telephone 604.688.2001 Fax 604.688-2043
Contacts	Alan Taylor, COO and VP Exploration David Harpley, VP Environment and Permitting Affairs

COMMUNITY DATA

First Nation Territory	Dehcho
Nearest Community	Nahanni Butte, 34 km west-south-west
Other Communities Nearby	Fort Liard, 107 km south-south-west Fort Simpson, 112 km north-east
Land Claims Status	In negotiation

APPLICATION DETAILS

Storage Site Location	470 km west of Yellowknife, NWT 61°08'15.6'' N latitude, 122°48'12.0'' W longitude
Materials to be Transferred	Out: Concentrates of zinc and lead In: Diesel fuel, mine and mill supplies
Material Quantities	Up to 50,000 tonnes of concentrates, 8.5 million litres of diesel fuel, 15,000 tonnes of mine and mill supplies
Storage Structures	Concentrates - Prefabricated frame with fabric cover over lined gravel pad; Fuel – 400,000 litre tank in bermed enclosure
Time of Operation	Primarily winter & early spring, locked but accessible year-round

EXECUTIVE SUMMARY

The Prairie Creek Mine (the “Mine”) is 100% owned by Canadian Zinc Corporation (“CZN”), and is situated in the southern Mackenzie Mountains of the Northwest Territories. The Mine site presently contains significant infrastructure and facilities constructed in the early 1980’s. The Mine received an operating Water Licence and Land Use Permit in 1982 to allow the site to produce concentrates of lead and zinc, and a silver-bearing copper concentrate. The Mine was three months from production when it was placed into receivership as a direct result of the decline in the price of silver. CZN (formerly named San Andreas Resources Corporation) acquired the property in 1991, and has since successfully expanded and developed the mineral resource to a point where development can be proposed.

After completing numerous engineering, environmental and economic studies, CZN has now applied for a Type A Water Licence and Type A Land Use Permit to reactivate the Mine for production. CZN presently holds Type A Land Use Permit MV2003F0028 for a winter road from the Mine site to the Liard Highway. With this application, CZN is applying for a Type A Land Use Permit for a transfer facility at the Liard Highway (Liard Transfer Facility, or “LTF”) to facilitate the truck haulage of concentrates to Fort Nelson, and to provide staging for fuel, a marshalling yard and temporary storage of other supplies being hauled into the Mine.

Operation of the Prairie Creek Mine will require the transport of up to 120,000 tonnes of lead and zinc concentrates from the Mine site to Fort Nelson, and the re-supply of the Mine with approximately 15,000 tonnes of operating supplies, each year. In January, an ice bridge over the Liard River will be established, and bagged concentrates will be hauled out by a fleet of trucks. Each truck load from the Mine on the winter road will have a capacity of 25 tonnes. However, the truck haul to Fort Nelson will be by contractor B-trains carrying approximately 43 tonnes per load. Hence, concentrate transfer is required at the winter road/Liard Highway junction. Since the availability and frequency of B-trains may be irregular, temporary storage capacity is required at this transfer point. Two prefabricated frame structures with fabric covers are planned, constructed on lined gravel pads, to temporarily store up to 50,000 tonnes of bagged concentrate. Each structure will be approximately 130 m long and 30 m wide. Trucks will deliver frozen, bagged concentrates into the buildings for offloading by forklift. The structures will not be heated. The structures will be closed outside of the haul season, except for periodic access if they are required for storage of inbound goods.

Mine trucks will carry fuel and other supplies to the Mine on the back haul. A fuelling station is required as well as a lay-down area for the supplies as they are delivered.

The proposed LTF site consists of a broad, gently sloping well drained area, approximately 600 metres from the Liard River. Soils are derived from shale bedrock of the Fort Simpson Formation. The location of the LTF is such that it will be not be visible from the Liard Highway.

Several wildlife surveys between 1980 and 2007 indicate that the LTF site is not close to any sensitive wildlife habitat. According to local observations, moose and caribou are occasionally seen in the area during winter, and very little other wildlife.

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TECHNICAL TERMS AND ABBREVIATIONS

COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CZN	Canadian Zinc Corporation
DCFN	Dehcho First Nations
LUP	Land Use Permit
LTF	Liard Transfer Facility
MVLWB	Mackenzie Valley Land and Water Board
NBDB	Nahanni Butte Dene Band
NNPR	Nahanni National Park Reserve
SARA	Species at Risk Act
TTF	Tetcela Transfer Facility

1.0 INTRODUCTION

The Prairie Creek Mine (the “Mine”) is 100% owned by Canadian Zinc Corporation (“CZN”). The Mine site presently contains significant infrastructure and facilities constructed in the early 1980’s. The Mine received an operating Water Licence and Land Use Permit in 1982 to permit the site to produce concentrates of lead and zinc, and a silver-bearing copper concentrate. CZN (formerly named San Andreas Resources Corporation) acquired the property in 1991, and has since successfully expanded and developed the mineral resource.

After completing numerous engineering, environmental and economic studies, CZN has applied for a Type A Water Licence and Type A Land Use Permit to support reactivation of the Mine for production. CZN presently holds Type A Land Use Permit MV2003F0028 for a winter road from the Mine site to the Liard Highway. This Project Description Report is in support of an application by CZN for a Type A Land Use Permit for a transfer facility at the Liard Highway (Liard Transfer Facility, or “LTF”) to facilitate the transport of lead and zinc concentrates from the Mine to Fort Nelson and the simultaneous re-supply of fuel and operating supplies into the Mine. The LTF would primarily be used on average for three months each operating year beginning in mid-January, but would be accessible year-round, on an as-needed basis, to stage materials there that are destined for the Mine.

1.1 PROJECT SETTING

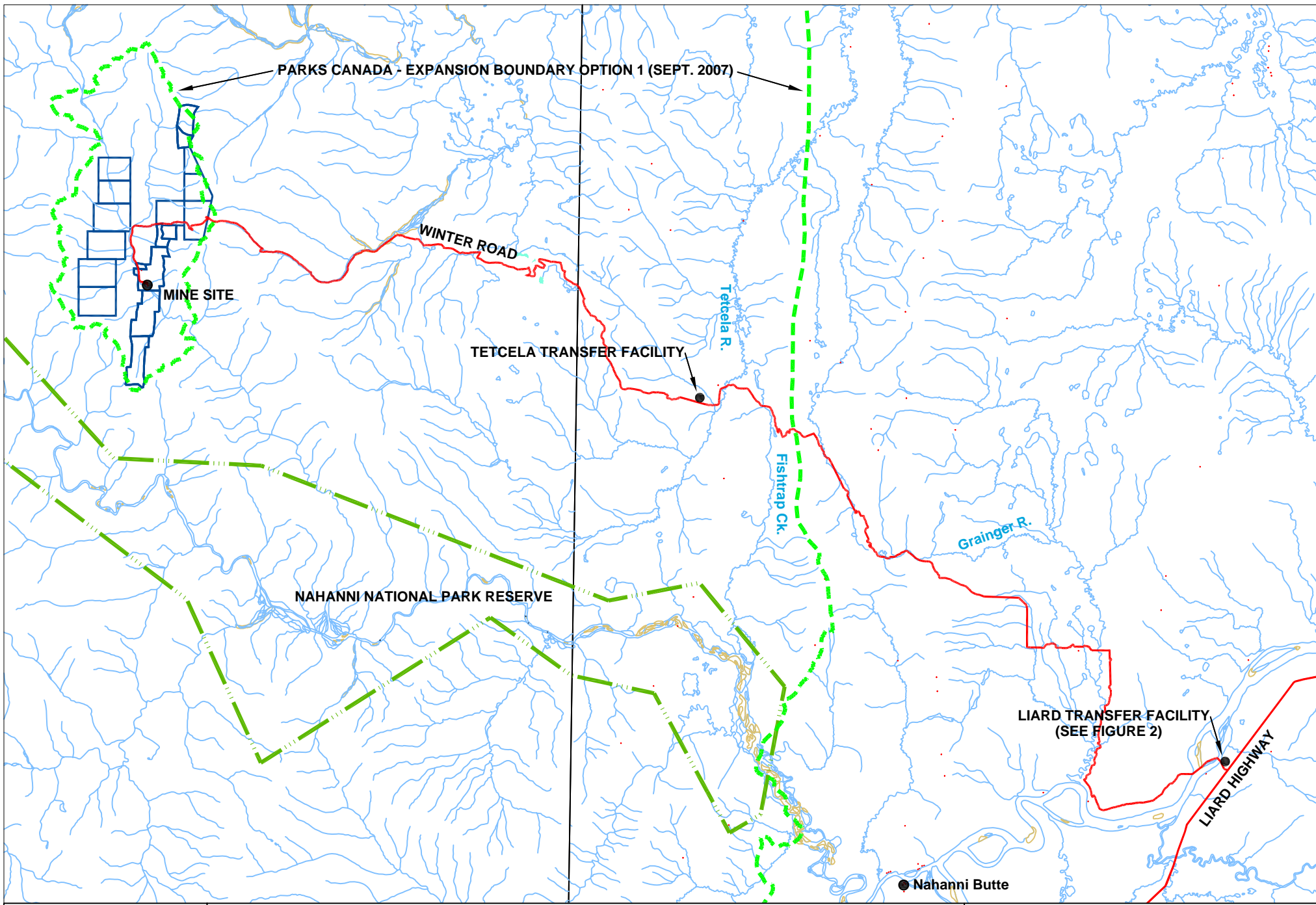
A previously used 180 km long winter access road links the Prairie Creek Mine site to the Liard Highway (NWT Highway #7) near Lindberg Landing on the east bank of the Liard River (Figure 1).

The proposed LTF will be located just north-west of the Liard Highway, in the south-west corner of the Northwest Territories at 61°8’16” North latitude, 122°48’12” West longitude. The Mine site is located in the southern Mackenzie Mountains at 61°33’ North latitude and 124°48’ West longitude. The Mine site is situated on the eastern side of and adjacent to Prairie Creek, about 43 km upstream from its confluence with the South Nahanni River. The road was used extensively over the period from late January to the end of March in both 1981 and 1982. A marshalling and transfer yard was established by Cadillac Explorations Ltd at the time the road was being used. The yard was located adjacent to the ice bridge on the south side of the Liard River. The new site is located further away from the river, in better drained soil, closer to the Liard Highway junction. Approximately 800 loads were hauled into the Mine site over those two years. The proposed LTF is located on a broad gentle slope, 600 m from the Liard River.

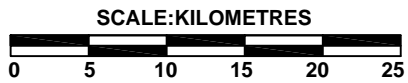
Short summers and long winters are typical of the area’s sub-arctic climate, where the mean annual temperature is -5°C. Annual precipitation is approximately 40 cm, most of which falls as rain. The proposed LTF is located within the Alpine Forest-Tundra section of the Boreal Forest, characterized by stunted fir with limited undergrowth and open areas dominated by lichen.

The LTF site is within an area claimed by the Nahanni Butte Dene Band (“NBDB”) of the Dehcho First Nations, the nearest First Nations community, as their Traditional Territory. Nearby settled communities are:

- Nahanni Butte, NT - 34 km to the west-south-west
- Fort Liard, NT - 107 km to the south-south-west
- Fort Simpson, NT - 112 km to the north-east
- Yellowknife, NT - 470 km to the east



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PRAIRIE CREEK MINE

FIGURE 1: LOCATION OF LIARD TRANSFER FACILITY ON WINTER ROAD

Detailed baseline studies describing the environment along the existing access road corridor were undertaken in 1980-81 as a component of previous environmental assessments conducted in support of a Land Use Permit (“LUP”) issued at that time. Additional studies were undertaken in 1994 in support of further permitting efforts. Studies included field assessments and descriptions of fisheries and aquatic resources, as well as wildlife populations and wildlife habitat. An airborne wildlife survey was recently undertaken in April, 2007. The results of these studies are described in the Environmental Data section below.

1.2 CORPORATE INFORMATION

Canadian Zinc Corporation was incorporated in British Columbia, Canada, on December 16, 1965 under the Corporations Act British Columbia. The Company changed its name to "San Andreas Resources Corporation" on August 29, 1991 and to "Canadian Zinc Corporation" on May 25, 1999.

The Company's head office, also it's registered office, is located at Suite 1710, 650 West Georgia Street, Vancouver, British Columbia, Canada V6B 4N9. CZN also has a regional office in Fort Simpson at: Suite 4, Government of Canada Building, 9606-100th Street, Fort Simpson NT, X0E 0N0; and the registered NWT address is Lawson Lundell LLP, P.O. Box 818, 4908-49th Street, Yellowknife, NT, X1A 2N6.

CZN is listed on the Toronto Stock Exchange, the OTCBB Bulletin Board in the United States, and on the Frankfurt Exchange in Germany. As of April 30, 2008, the total number of shares issued and outstanding was 120,685,063 with 4,815,000 stock options and 9,715,012 warrants outstanding, totalling 135,215,075 shares on a fully diluted basis.

The CZN board of directors are:

John F. Kearney	Chairman, President and Chief Executive Officer
Alan B. Taylor	Chief Operating Officer and Vice-President, Exploration
John A. MacPherson	Board Member
Robert Gayton	Board Member
Alan C. Savage	Board Member
Dave Nickerson	Board Member

As required by National Instrument 58-201, the Company's corporate governance practices are outlined in the Management Information Circular posted on the SEDAR website dated May 15, 2008.

It is Canadian Zinc's policy to achieve and maintain a high standard of environmental care in conducting its business as a resource company, and through its developments contribute to sustaining society's material needs. Canadian Zinc's approach to environmental management seeks continuous improvement in performance by taking account of evolving scientific knowledge and community expectations.

2.0 PROJECT DESCRIPTION

2.1 TRANSFER FACILITY RATIONALE

Operation of the Prairie Creek Mine will require the transport of up to 120,000 tonnes of bagged lead and zinc concentrates from the Mine site to Fort Nelson, and the re-supply of the Mine with approximately 15,000 tonnes of operating supplies, each year. Winter road operations are constrained by the timing and duration of winter road construction, and by the length of the resulting period of road use. In particular, use of the entire road is restricted by the brief period of time an ice bridge can be formed and utilized to cross the Liard River. CZN can partly offset these constraints by maintaining a captive fleet of road construction equipment at the Mine site to enable road construction to commence earlier in the colder, higher elevation, western portions of the road. However, even using this approach, the earliest crossing of the Liard River via an ice bridge is likely to be mid-January, which would provide 2.5 months to the end of March to complete all haulage. In addition, there is no guarantee the road and ice bridge will be available for that duration without interruption.

When the ice bridge is open, concentrates will be hauled out, on the winter road, by a fleet of mine and contractor trucks. Each truck load will be approximately 25 tonnes. Thereafter, since the highway permits transport of heavier loads, the truck haul to Fort Nelson will be by contractor B-trains carrying approximately 43 tonnes per load. Accordingly, concentrate transfer is required at the Liard Highway. Since the availability and frequency of B-trains required to move concentrate from the Liard Highway to Fort Nelson, and of rail cars at Fort Nelson, is somewhat irregular, a temporary storage capacity is required at the LTF. Two prefabricated frame structures are planned to store up to 50,000 tonnes of concentrates in total. Trucks will deliver frozen, bagged concentrates into the buildings for offloading by forklift. The structures will not be heated and will be closed outside of the haul season, except for periodic access if they are required for storage of inbound goods.

Mine trucks will carry fuel and operating supplies to the Mine on the back haul. A fuel tank and dispensing module is required to transfer fuel from the incoming B-trains to the returning mine trucks. A lay-down area is required for the operating supplies being delivered by various carriers.

2.2 TRANSFER FACILITY LOCATION

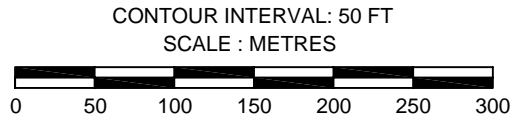
The proposed location of the LTF is approximately 200 m north of the Liard Highway, adjacent to the existing winter road alignment, and approximately 600 m south of the Liard River. See Figure 2 for topography of the area superimposed on a 1994 air photograph base to illustrate surface features. Soils are derived from Fort Simpson Formation shale bedrock. The final precise location will be based on a site survey by geotechnical engineers.

Facility location selection was based on three considerations:

- Proximity to the junction of the winter road and Liard Highway;
- There are no surface drainage features in the immediate area of the LTF. The area appears to be a gentle slope towards the river (see Plate 1); and
- The location is just behind a large stand of trees which will obscure visibility from the highway.



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PRAIRIE CREEK MINE

FIGURE 2: DETAILED LOCATION OF LIARD TRANSFER FACILITY



Plate 1: Area of Proposed Liard Transfer Facility Showing Winter Road Corridor (2007, Looking South Towards Liard Highway)

2.3 TRANSFER FACILITY TRAFFIC

The mine operating fleet will initially consist of 11 trucks, increasing to 21 trucks when concentrate output reaches the 120,000 tonnes/year maximum. The same number of contractor trucks will operate from the Liard Highway to haul concentrate out. Each truck will transport approximately 25 tonnes of bagged concentrate. Therefore, the transport of 120,000 tonnes to the LTF in approximately 2.5 months from January 15 of each year will require more than 4,000 trips, or approximately 2 trips per truck per day. About 60% of these loads will move directly through the LTF without being re-handled. The remaining 40% will need to be transferred on to B-train pups (18 tonne) for transfer to Fort Nelson. Assuming 43 tonnes per B-train trip, there will be approximately 2,800 trips from the LTF to Fort Nelson, approximately 40 trips/day.

The annual diesel fuel demand for the Mine will be approximately 6.5 million litres. In addition, the mine fleet will use approximately 2 million litres of fuel over the winter haul period. Fuel will be supplied to a temporary storage tank in the LTF for dispensing into 10,000 litre tanks on the mine haul fleet for the back-haul into the Mine, and to refill the tractors. Fuel will be supplied to the LTF via 84,000 litre B-trains. Therefore, there will be approximately 120 fuel B-train trips per annum.

In addition to the above, other operating supplies will be delivered to the LTF for back-haul into the Mine, mainly cement. Approximately 15,000 tonnes of supplies will be delivered annually, involving approximately 400 trips.

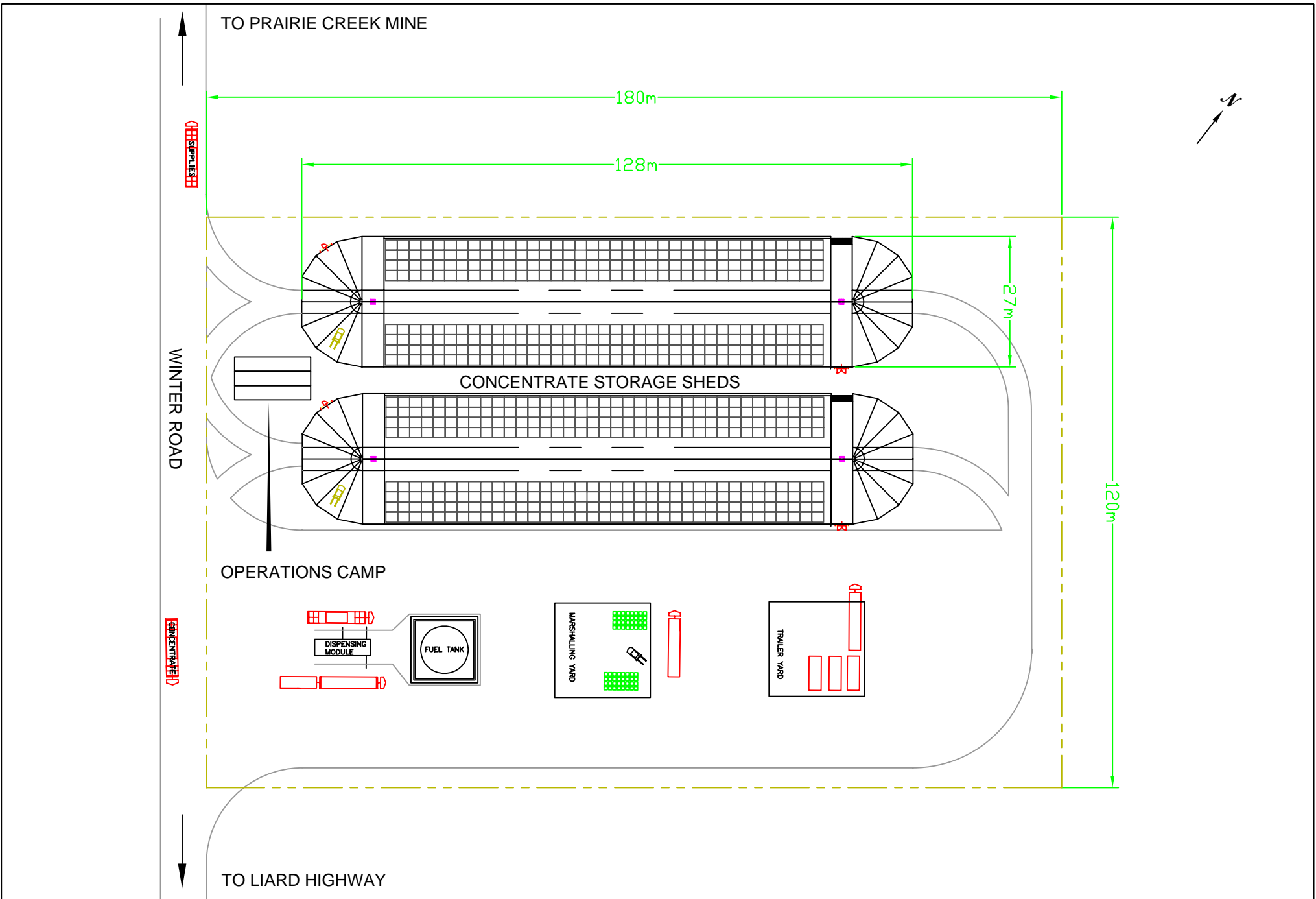
2.4 TRANSFER FACILITY DESIGN AND OPERATION

The LTF will consist of the following components (see Figure 3):

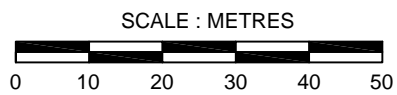
- A 400,000-litre, diked temporary fuel storage tank which would be capable of storing 1.5 days of fuel transfer capacity;
- A fuel transfer module capable of simultaneously unloading a fuel B-train into the temporary fuel storage tank, filling a 10,000-litre fuel transfer tank and refuelling the associated tractor;
- An operating supply lay down area for incoming operating supplies; and,
- Two 25,000 tonne capacity concentrate sheds.
- A trailer for food and accommodations

The concentrate sheds will consist of two prefabricated framed structures measuring 130 x 30 m, with stressed membrane (fabric) covers. Fabric colour will be selected to blend into summer surroundings. The base of the structures will consist of a graded and lined pad, with approximately 30 cm of suitably sized gravel on top. This will provide a firm surface for truck traffic. The gravel will be acquired from a nearby borrow source. The reader is advised to refer to CZN's application for a Tetcela Transfer Facility (TTF) at Km 84 on the winter road for photographs of a similar shed.

The LTF facility will cover an area of approximately 180 x 120 m, or 2.16 hectares. The structures will not be heated to maintain the frozen state of the concentrate bags. Bags can be stacked 3-4 high and in multiple rows on both sides of the structure. Trucks will be able to drive down the centre to either offload or for loading by a forklift. Trucks will enter one end of the structure and exit from the other end. A road way will exist between the two structures. The road bed outside the structures will also be made from gravel.



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PRAIRIE CREEK MINE

FIGURE 3:
LAYOUT OF LIARD TRANSFER FACILITY

The facility's operating premise will be to ensure that the concentrate bags are clean on the outside, and that the trucks are also clean. To maintain this situation, any torn bags will be double bagged immediately, and any associated losses of concentrate will be completely cleaned-up to preserve a clean operating environment.

A 400,000 litre fuel storage tank will be contained within a 440,000 litre capacity dike. A fuel dispensing module capable of unloading the incoming fuel to the fuel tank and simultaneously fuelling the outgoing traffic will be located such that any spillage would flow into the diked containment berm. Mobile, diesel powered lighting plants will provide both outdoor and storage shed lighting. Two trailers, an eight man sleeper and a wash/diner, will be located nearby for facility operations staff. Power will be supplied by a small diesel-fuelled generator located within the diked containment berm. A fuel spill kit will be on hand. All forms of waste, including sewage, will be periodically transported off-site for disposal. Communications will be supported by satellite phone to monitor road traffic and keep in contact with the Mine site and elsewhere.

At the end of each winter operating season, the doors of the concentrate sheds will be closed to prevent the ingress of rainfall, and entry of wildlife. The fuel tank will be emptied, and all food and waste will be removed.

2.5 TRANSFER FACILITY EQUIPMENT AND PERSONNEL

The following equipment is expected to be needed to open, operate and close the facility seasonally. A single trailer will be sufficient to house the minimal operating crew, communications, first aid and emergency provisions.

- 14E grader
- Two fork-lifts
- Fuel Truck
- Sewage Truck
- Two Snow Plow & Sand Trucks
- Flat Bed Truck
- Two Pick up Trucks

Facility operating personnel during the peak season are expected to be as follows:

• Operators	4
• Foremen	1
• Labourers	2
Total	7

In addition, during LTF operation, up to 42 flat bed trucks with drivers will be arriving at the LTF daily from the winter road, and up to 22 B-train trucks with drivers will be arriving from the Liard Highway.

2.6 TRANSFER FACILITY CLOSURE

Following Mine closure, all facilities will be removed from the LTF. The gravel from the pads and roadways will be removed, and either used locally if there is no risk of contamination, or hauled to the Mine site and disposed of either as mine backfill or by placement in the Waste Rock Pile.

3.0 ENVIRONMENTAL DATA

A detailed description of the environment, as it relates to the Prairie Creek winter access road, was presented in Chapter 4 of “Preliminary Environmental Evaluation for Winter Access Road, Cadillac Explorations Limited, Prairie Creek Project, NWT” by Ker Priestman & Associates Ltd., dated May 1980. The sections below are based on this source of information, and on surveys conducted by Beak in 1981, Rescan in 1994 and Chillborne Environmental in 2007.

3.1 WILDLIFE AND HABITAT

3.1.1 Background Information

Wildlife species that are observed in the area during winter are moose, caribou, wolf, wolverine, fox, marten and mink (Ed Lindberg, pers. comm.). The most common sightings are of moose and caribou, but the sightings are infrequent and the number of animals is few.

3.1.2 2007 Aerial Survey

CZN contracted Chillborne Environmental to undertake an aerial wildlife survey along the winter road corridor on April 7, 2007 (see Appendix A of the Tetcela Transfer Facility (TTF) application). A Bell Long ranger helicopter was used. The flights were 250-500 m adjacent to the road alignment at a height of approximately 100 m. There were three observers plus a pilot.

Observations of animals were modest (8 moose, 5 caribou, 2 sheep, 4 ptarmigan), but the clumping of tracks indicated general areas of use. No sightings were made in the vicinity of the LTF, which is adjacent to the Liard Highway.

3.2 VEGETATION AND PLANT COMMUNITIES

No rare or highly valued species have been identified from past studies of vegetation and plant communities in the area. The Committee on the Status of Endangered Wildlife in Canada (“COSEWIC”) does not list any plant species recorded along the Prairie Creek Mine access road as endangered, threatened or of special concern.

3.3 CULTURAL AND HERITAGE RESOURCES

An archaeological database search was conducted on August 18, 2000 through the Canadian Museum of Civilization in support of Land Use Permit (LUP) Application MV2000C0030 submitted by CZN. The database search area encompassed the access road corridor from the Prairie Creek Mine to the Liard River. To accomplish this, the search parameters were defined by geographical coordinates to cover a block extending from 61° 00' to 61°45' N. latitude and from 122°45' to 125°00' W. longitude.

No archaeological sites were identified within the area proposed for use under this Land Use application. The closest identified sites are south of the South Nahanni River near the mouth of the Meilleur River, 35-40 km south of the Mine site; and in the immediate vicinity of Nahanni Butte, 34 km south-west of the LTF.

4.0 CONSULTATION

A series of Public Open Houses were held in seven of the Dehcho communities in order to consult with the communities and inform them of the content of pending applications for mine production permits. The Company also wanted to hear and address any issues or concerns that people had about the future operation so that due consideration could be given. The open houses were advertised in the local papers a few weeks in advance and took place between November 5 and November 15, 2007 in the communities of Fort Simpson, Nahanni Butte, Fort Liard, Trout Lake, Hay River, Kakisa and Fort Providence. CZN intended to hold an Open House in Wrigley, but weather prevented this from occurring. A full report on the results of the Open Houses is given in CZN's application for a Water Licence and LUP for the Mine.

The LTF would provide employment for up to 7 people to set up, maintain and shut down annual operations. There are opportunities for local people to be trained in the use of heavy equipment, trucking and facility management.

There also has been numerous meetings by both regulatory agencies and Canadian Zinc in Nahanni Butte regarding various aspects of the mine and road. The most recent meeting in Nahanni Butte took place March 5, 2008 with representatives from CZN, INAC, DFO and Nahanni Butte to discuss issues regarding the road rehabilitation.