March 05, 2001

Mr. Ken Weagle Executive Director Mackenzic Valley Land and Water Board PO Box 2130, 7th Floor - 4910 50th Ave. Yellowknife, NT X1A 2P6

Machenine Valley Land & Water Board

File

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Approcation #[[]\V2()][C()]2 Copied to KUIGS

Dear Mr. Weagle:

Prairie Creek Mine - Application for Type "A" Land Use Permit Re: Year 2001 Phase II Surface Exploration Program

Please find enclosed our application for a Type A Land Use Permit authorizing the Phase II surface exploration core drilling program planned for the Prairie Creek Mine this coming summer over the period from May through October, 2001. We have enclosed (ive (5) hard copies of our application package, plus an electronic version on CD.

The application package includes:

A completed Schedule II application under the Mackenzie Valley land Use Regulations,

Our cheque in the amount of \$1810.00 payable to the Receiver General for Canada to cover the Application Fee (\$150.00) and Land Use Fees (\$1660.00) for the proposed use of 33.2 ha of land. (Note: Total area 36.6 ha less 3.4 ha previously applied for under MV2000C0030)

A Project Description Report providing detailed information on all facets of the proposed

development, including a summary of consultation efforts.

Drawings and plans showing the location of the proposed development and related activities

We look forward to working with you and your staff on the preliminary screening of our application.

Should you have any questions or require additional information please contact me at your convenience.

Yours very truly.

CANADIAN ZINC CORPORATION

J. Peter Campbell

Vice President, Project Affairs

cc:

Chief Leon Konisenta - NBDB

Chief Rita Cli LKFN

Chief Judy Kotchea - ADKFN

Grand Chief Michael Nadli - DCFN



Mackenzie Valley Land and Water Board 7th Floor - 4910 50th Avenue P.O. Box 2130 YELLOWKNIFE NT X1A 2P6 Phone (867) 669-0506 FAX (867) 873-6610

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	or Renewal [
1. Applicant's name and mading address:	Fax number: 604-688-2043
Conadian Zinc Corporation 1202 – 700 W. Pender St. Vancouver, BC, V6C 1G8	Telephone number: 604-688-2001
Head office address: As above	Fax number: As above
Pield supervisor: Mr. Alan Taylor Satellite telephone: 1-600-700-2454	
Satellite fax: 1-600-700-9209	Telephone number: As above
Other personnel (subcontractor, contractors, company	staff etc)
TOTAL: To be determined. Est. 14 (Number of person	ons on site)
4. Eligibility: (Refer to section 18 of the Mackenzie Valley Land Use	
a)(i) X a)(ii) a)(iii)	b)(i)
5. at Summary of operation (Describe purpose, nature an	nd focation of all activities.) **See Attached Project Description**
As part of the ongoing process of establishma, confirming	ig and enhancing the known mineral resource at the Prairie Creek property, mineral exploration drilling program, to follow up on the 6-7 hole Phase t
date. The program is designed to provide the additional existing 11.8 nullion tongs mineral resource to mineral as	tion program is to further defineate the area of vein and stratabound in Zone 3 where the majority of exploration work has been conducted to degree of confidence in the geological database necessary to upgrade the serve status through the application of geostatistical modeling. As a result, to existing holes in order to provide in-fill drilling on a closer spaced grid.
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b) Please indicate if a camp is to be set up. (Please pro the land use operation will based in and serviced from the	vide details on a separate page, if necessary.) existing facilities at the Praine Clark Mine. No new came will be an un-

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7 Proposed restoration plan (pl	leuse use a separate page if nece	ssary).	
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		of British & frees: NA	
 b) Sewage (Sanjtary & Grey) Exfiltration sump 	Water):	d) Overburden (Orga To be stockpiled ad	mic solls, waste material, etc.): djacem to drill pad
E). Equipment (includes drills, pur	mps, etc.) (Please use separate	page if necessary)	
Type & number	Size		Proposed use
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Cat bulldozer			Road Maintenance
Cat grader			Road Maintenance

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Other			. ,	
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DETAILED PROJECT DESCRIPTION

YEAR 2001 PHASE II

MINERAL EXPLORATION DRILLING PROGRAM

PRAIRIE CREEK MINE

SUBMITTED IN SUPPORT OF:

Type "A" Land Use Permit Application Dated March 02, 2001

SUBMITTED TO:

Mackenzie Valley Land and Water Board
7th Floor, 4910 - 50th Ave.
P.O. Box 2130
Yellowknife, NT
X1A 2P6

SUBMITTED BY:

Canadian Zinc Corporation Suite 1202 - 700 West Pender Street Vancouver, BC, V6C 1G8

March 05, 2001



Executive Summary

The Prairie Creek Mine is 100% owned and operated by Canadian Zine Corporation of Vancouver, BC. The mine is located in the southern Mackenzic Mountains in southwestern Northwest Territories in the area claimed by the Nahanni Butte Dene Band of the Deh Cho First Nations as their traditional territory.

The Prairie Creek Mine has been the focus of exploration since mineralization was first discovered on the property in 1928. As a result of this activity the property is now known to contain a significant polymetallic Zinc-Lead-Silver-Copper mineral resource. In addition to this mineral resource, the site also contains approximately \$150 million of minesite infrastructure, in today's dollars, including a 1,000-ton per day mill, a 240 person camp, an administration and service complex and support facilities, all constructed in 1981. Although fully permitted for operation in 1982, the mine did not achieve commercial production due to a sudden collapse in world silver prices. The operating permits and licences then in force have since been allowed to lapse.

Prior to construction of the mine in 1981, a total of over 10,000 meters of exploration drilling (the majority from surface) and 3,800 meters of underground development had been completed. Approximately 120 diamond drill holes had been completed at the Prairie Creek Mine up to this point. At the time Canadian Zine became involved in the property in 1991, the ore reserve estimate stood at 1.81 million tonnes grading 10.8% lead, 11.75% zine, 0.4% copper and 182 g/tonne silver.

Since that time CZN has completed an additional 129 diamond drill holes, for a total of an additional 40,000 meters of surface diamond drilling, core from which is presently stored in racks at the minesite. To support these programs the Company purchased 2 Longyear Core Drilling Rigs in 1992, which were transported to the minesite by air and assembled in the on site shop facilities.

The Company's drilling focus to date has been primarily in the immediate area of the mine site and underground workings (Zone 3), where 80% of the total exploratory work has been carried out. As a result of these efforts the mineral resource now stands at 11.8 million tonnes grading 10.1% lead, 12.5% zinc, 0.4% copper and 161 g/tonne silver

As part of the ongoing process of establishing, confirming and enhancing the known mineral resource at the Prairie Creek property. Canadian Zine is proposing to conduct a further exploration program to drill an additional 50-60 exploration holes, each up to approximately 500m in length, in an area adjacent to the existing underground workings. It is this program which is the subject of the Land Use Permit Application to which this Project Description is appended.



The main objective of the proposed Year 2001 Phase II drilling exploration program is to further delineate the area of known mineralization at Prairie Creek in order to upgrade these mineral resources to mineral reserve status. This information in combination with additional work planned for 2001, including an underground decline and exploration program, and operation of an on-site pilot plant, will form the basis for a bankable feasibility study out of which CZN hopes to attract sufficient financing to place the mine into production in the near future.

The proposed mineral exploration diamond drilling program is typical of the technology used at mineral exploration properties throughout the world. The technique represents standard industry practice and has minimal environmental impacts associated with it.

Canadian Zine submitted an application to the Mackenzic Valley Land and Water Board for a Land Use Permit on July 28, 2000 in support of activity in and around its Prairie Creek minesite proposed for the fall of 2000. A component of the land use operations proposed under the application was to undertake a surface exploration drilling program of 6-7 holes in an area proximal to the existing underground workings. This was considered to be the first phase of the larger exploration program proposed under this application.

Following preliminary screening, the application (MV2000C0030) for the Phase I exploration program was referred to the Mackenzie Valley Environmental Impact Review Board (the Review Board) on October 4, 2000 for further assessment. The Review Board undertook to develop a draft Work Plan and draft Terms of Reference for the program. Following a review and comment period, the Work Plan and Terms of Reference were issued in their final form on December 22, 2000.

Canadian Zinc prepared its EA Report in response to the Terms of Reference established for the Mineral Exploration Drilling Program component of the Land Use Application and submitted it to the MVEIRB on January 26, 2001. Under the Work Plan developed for this EA, the Review board is scheduled to make their recommendation by March 31, 2001.

Given the delay in receiving the necessary approvals, this work has had to be postponed to the 2001 summer season and is now referred to as the Year 2001 Phase I exploration program, in order to differentiate it from the current application which is referred to as the year 2001 Phase II exploration program.



Description of the development

The proposed mineral exploration drilling program is considered the second phase of the exploration program planned for 2001, the objective of which is to provide sufficient geologic information to define a mineable reserve for incorporation into a bankable feasibility study scheduled for completion in the last quarter of 2001. The feasibility study will form the basis for making a production decision and attracting the financing necessary to re-activate mining operations at Prairie Creek, which could occur as early as 2003, subject to receipt of the necessary operating permits and licences.

At the time the Application for the Phase I program was submitted on July 28, 2000 it was planned to complete the proposed drilling during the months of September and October in the fall of 2000. The necessary financings had been previously completed, budgets had been set and additional exploration drilling programs for 2001 were in the planning stages. However, given the time necessary to acquire approval to undertake the work, this program has had to be deferred to the summer of 2001 and is now planned to be undertaken immediately prior to or in conjunction with the Phase II program which is the subject of this application. The work will be completed over the period from May through October, 2001.

The planned second phase programs for 2001 will include further surface exploration drilling of the Zone 3 vein mineralization. The program is designed to provide the additional degree of confidence in the geological database necessary to upgrade the existing mineral resource to mineral reserve status through the application of geostatistical modeling. In order to achieve this, proposed holes are located between and in close proximity to existing holes to provide in-fill drilling on a closer spaced grid.

A separate application has been prepared and submitted to support the development of an exploration decline from which an underground exploration program will be undertaken targeting the deeper Stratabound mineralization underlying the vein mineralization. The Stratabound deposits are very underexplored and due to their thickness, up to 28m. have the potential to significantly increase the known mineral resource which is currently composed of about 80% vein mineralization.

The inability to complete the planned Phase I exploration program in a timely manner has complicated the orderly execution of the planned phased exploration program approach. The nature of mineral exploration, particularly by smaller mining companies such as CZN, is typically premised upon the results of initial phases of exploration generating sufficient interest and attracting sufficient investment to support subsequent phases of exploration. Smaller companies rarely have ready access to the millions of dollars necessary to fund advanced exploration activity, thus opening up such opportunity for investment. This has left CZN in the position of having to attract the necessary funding for the planned second phase programs, efforts at which are currently ongoing, without the benefit of new information detailing further exploration potential.



The up to 50 -- 60 hole exploration drilling program as proposed in this application is to be carried out from surface along strike in a southwesterly to northeasterly direction over a distance of about 1000 m and parallel to the existing underground workings from about the 875 to 1125m elevation. The proposed area of investigation surrounds and, in fact, includes the area of the Phase I program. The entire drill program is proposed to take place within 1000m of the existing minesite facilities, within the area of traditional mining activity at Prairie Creek and within the boundaries of Mining Lease 2932 and Surface Lease 95F10/10-5-3. The general area for the proposed locations of the 50 -- 60 drill holes is shown on the accompanying 1:5000 scale map. In all cases, potential drill hole locations are in close proximity to the existing network of exploration roads. As a result, if any, only minor extensions or spurs off of existing roads, typically in the order of a few to 10 or 20 metres, will be required to access drill pad sites.

It should be noted that the very nature of the mineral exploration in question means that precise number and locations of drill holes cannot reasonably be identified beforehand. The exploration process is dynamic, and the decisions as to where to drill the next hole are based on information retrieved from core currently being drilled. As a result, the locations of individual drill holes are generalized and will be precisely located in the field at the time of drilling.

Advanced exploration drill programs are typically designed based on delineation of a target zone of mineralization over at an expected depth. The number of holes proposed takes into account existing drill hole locations and the information requirements of geostatistical modeling necessary to quantify the mineral resource. Drilling contractors are provided with the estimated number and depth of holes, and then bid jobs on the basis of dollars per metre to be drilled. Budgets are then set accordingly.

In the process of drilling, however, a hole may be abandoned prematurely based on an observed lack of mineralization in the core recovered during drilling or, similarly, a hole may be extended beyond the depth originally contemplated if mineralization continues to be encountered. The former may result in a field determination of an alternate location for an additional hole to be drilled, while the latter may result in a reduction in the number of holes to be drilled as budget dollars have been used up in deeper drilling.

The program, as set out in the application, would employ 2 – 11 hour shifts of drilling, on each of 2 drill rigs. The drill rigs were purchased by CZN in 1992 and are currently on-site. The drill rigs are a skid mounted Longyear Super 38 diamond drill run by a 350 GMC diesel engine capable of recovering either NQ or BQ sized drill core.

Each drill rig is approximately 22 feet in length and 12 feet in width and has a 25 foot tower that is fully adjustable to accommodate vertical or inclined holes. The drill is mounted on steel skid unit and is fully contained within a wooden frame shaek. Drill pads are prepared and vary in size depending on the terrain but must be large enough to maneuver the drill into the proper position. The rig is moved by D-8 Cat along local tote roads. Drill rods and other equipment are contained in a separate sloop on skids.



The process involves driving a fast rotating annular bit through the ground to collect a solid core sample. The drill bits used are generally diamond impregnated (as the name implies), or other cutting materials may be used such as tungsten. Water is generally used as a circulating fluid. The cuttings are washed up the hole between the rods and hole wall and the core sample is collected at the bottom of the hole in a core barrel.

A water supply pump is set up at a local source, in this case likely Harrison Creek, and 1.5 inch flexible hose line is laid to the rig to a high capacity Bean pump which delivers water to the drill bit for cooling and lubrication. Additives to the cutting fluid are kept at a minimum and used only if required. Standard additives such as drilling mud (550X Polymer, Linseed soap) may be mixed with water in a contained tank at the drill rig before pumping down hole, standard rod grease (Big Bear anti-friction) is used and if poor down hole conditions exist G-Stop and/or a quick set cement may be used to restore circulation. A sump is always established to retain any return waters in order to settle out any drill cuttings. This results in a small amount of "drill cuttings" or finely ground up rock, being deposited in the basin of rockfill sump. Water contained in the sump generally disappears through a combination of exfiltration and evaporation. The sump is of sufficient capacity that cuttings have ample time to settle and any discharge is just clear water. The sump is subsequently backfilled upon completion of all drilling at that location.

A 300 gallon diesel supply tank is located on the drill rig and supplied by hand pumps from 130 gallon tidy tanks located on the pick-up trucks. Bulk diesel fuel is stored on site in the existing fully bermed fuel farm storage area. Fuel spill kits will be available both at the drill rig and in the main camp.

A registered first aider is at the drill rig at all times of operation. The rig will have radio communications with camp and first aid kits at the rig site. Upon completion of the hole the rig will be moved off site and the pad will be fully stabilized, and cleaned up. Access between the drill rig and camp will be by pick-up truck.

The drill core, once retrieved will be logged and stored in core boxes on core racks at the minesite. The mineralized sections of core will be split and representative samples forwarded to an independent qualified geochemical laboratory for assay. The data so generated will then be used in geostatistical modeling to provide mineral resource and reserve estimates.

The process of diamond drilling represents standard industry practice in the exploration of base metal mineral deposits. While various other geophysical, geochemical and biogeochemical techniques exist for locating mineralized zones on a broader scale and for further enhancing our understanding of geologic processes, none are considered practical alternatives to in-situ diamond drilling and the subsequent assay of recovered drill core.



Security Exchange Commission rules and regulations, which apply to all public mining companies, set rigorous standards for release of information pertaining to mineral resource and reserve estimates. These typically require strict adherence to quality assurance standards in the recovery and assaying of drill core, and the subsequent interpretation of data by a qualified individual.

A total of 14 persons are estimated to be employed in carrying out the exploration program. The employees will stay in camp at the Prairie Creek Mine site where full accommodations are available. Existing minesite facilities, as have been used to support similar levels of on-site activity over the last number of years, include:

- Fully serviced bunkhouse, kitchen, office and washroom facilities
- Electricity supplied from an on-site diesel powered generator
- Potable water supplied from a well & pumphouse, located approximately 35m N
 of the main office and service building; the well draws water from a depth of
 about 50 feet in the Prairie Creek floodplain; potable well water is untreated
- Sewage disposal is by discharge to and exfiltration from an excavated and covered septic sump constructed in floodplain sands and gravels adjacent to and SW of the main office and service building; sewage disposal is hydraulically down gradient from the water well at a distance of approximately 45m
- Camp refuse is burned in an oil fired incincrator

A qualified person carrying a valid required First Aid Certificate will be based in camp at all times. Communications are via satellite phone/fax and access is presently by air onto a privately owned 1000 metre airstrip from either Ft. Nelson or Ft. Simpson. It is anticipated that the entire program of drilling seven holes each approximately 500 metres in length will take in the order of 40 days to complete.

Description of the existing environment potentially impacted by the proposed development

The Prairie Creek Mine is located in the southern Mackenzie Mountains in the southwest corner of Northwest Territories at 61° 33' north latitude and 124° 48' west longitude. The mine site facilities are situated adjacent to Prairie Creek about 43 km upstream from its confluence with the South Nahanni River and 32 km upstream of the point where Prairie Creek crosses the boundary of the Nahanni National Park Reserve.

The property is within the area claimed by the Nahanni Butte Dene Band of the Deh Cho First Nations as their traditional territory.

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The nearest settled communities are:

Nahanni Butte, NT - 90 km to the south-east
 Fort Liard, NT - 170 km to the south

Fort Simpson, NT - 180 km to the cast

Yellowknife, NT - 480 km to the east

Year round access to the property is by charter aircraft, generally from Fort Simpson, NWT or Fort Nelson, B.C. The mine is serviced by a 1,000 m gravel airstrip that is located adjacent to Prairie Creek approximately 1 km to the north of the mine site.

The minesite is at an elevation of 850 meters above sea level and is situated in topography characterized by low mountains and narrow valleys with an average relief of 300 meters. 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 minesite, including the area of the proposed drilling program, 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 exploration drilling program currently proposed is to be catried out from surface along strike in a southwesterly to northeasterly direction over a distance of about 1000 m and parallel to the existing underground workings from about the 875 to 1125m elevation. The entire drill program is proposed to take place within 1000m of the existing minesite facilities, wholly within the boundaries of the existing surface and mineral leases and within the area of traditional mining activity at Prairie Creek. In all cases, potential drill hole locations are in close proximity to the existing network of exploration roads. As a result, only minor extensions of existing roads, if any, typically in the order of a few to 10 or 20 metres, will be required to access drill pad sites.

Detailed baseline studies describing the existing environment in the vicinity of the Prairie Creek mine and along the access road corridor were undertaken in 1980-81 as a component of previous environmental assessments conducted in support of operating permits and licences issued at that time. Additional studies were undertaken in 1994 in support of further permitting efforts at that time. These studies, which included field assessments and descriptions of fisheries and aquatic resources, as well as wildlife populations and wildlife habitat, have been used as the basis for the discussions on impacts of the proposed development in the following sections.



Impacts of the development on the environment

Air Quality and Climate

impacts of the proposed development on air quality are expected to be negligible.

The drill rigs are each powered by a 350 GMC diesel engine which emits hydrocarbon combustion products typical of similar diesel engines operated in highway trucks, graders, front end loaders, backhoes and other heavy equipment, as well as in generators for supplying electricity in remote communities, such as Fort Simpson and Nahanni Butte. Routine preventive maintenance will be employed to ensure the drill rig engine is operating efficiently to minimize fuel consumption and emissions.

The drilling process itself produces little in the way of particulate emissions. Water used as a lubricant in the drilling process assists in this regard.

Other potential sources of air contaminants are restricted to hydrocarbon combustion products from gasoline and diesel engines in support vehicles. Again, routine preventive maintenance will be employed to minimize contaminants resulting from inefficient operation of such equipment. Road dust from vehicle traffic is also negligible due to low traffic volumes, reduced speeds and roads bedded largely in coarse crushed rock.

The impacts of the proposed development will be additional to similar impacts associated with routine care and maintenance and ongoing exploration activity planned for the property. These will entail operation of the site power generator, vehicle operation and aircraft support. No residual impacts are expected to result from the operation.

Terrain

Impacts of the proposed development on the environment resulting from disturbance or use of surficial geology, bedrock or soils are expected to be negligible.

The proposed drilling program will entail minimal disturbance or use of surficial materials. All proposed drill locations are in close proximity to existing exploration tote toads which will minimize disturbance relating to the establishment of roads and drill sites. Existing tote roads are expected to require extensions, if any, of typically only from a few up to 10 or 20 metres at a maximum. The drill pads will be prepared only large enough to accommodate and position the approximate 7m x 4m drill rig. In many cases drilling will take place from roads or existing drill pads using a different hole orientation. This will minimize drill pad development and surface disturbance



Where clearing is required to create short extensions of tote roads or the drill pads themselves, surficial materials will be stripped and stockpiled adjacent to the area. When drilling is complete, cut banks will be re-contoured and stabilized, and stockpile surficial materials will be back bladed over the disturbed area. As drill pads are commonly re-used in future drilling programs, pads will not be fully reclaimed until it is determined that they are no longer required.

Permafrost occurs sporadically throughout the property. If encountered, appropriate measure will be taken to preserve its integrity.

The minor surficial terrain impacts associated with the proposed undertaking will be additional to those which have already occurred in conjunction with previous exploration, construction and development at the site. The proposed 60 holes represent a 24% increase over the 249 holes drilled on the property to date. Residual impacts are expected to be minor as drill sites represent relatively small areas and will be re-contoured and stabilized following use.

Vegetation and Plant Communities

Impacts of the proposed development on local plant communities resulting in habitat loss or alteration are expected to be negligible.

As stated above, minimal clearing will be required in order to carry out the proposed exploration program. The area of the proposed drilling program is located within the Alpine Forest-Tundra section of the Boreal Forest characterized by stunted black spruce and limited undergrowth and open areas dominated by lichen.

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 as endangered, threatened or of special concern in the area of the Prairie Creek Mine.

Water Quality and Quantity

Impacts of the proposed development on surface and groundwater quality and quantity are expected to be negligible.





The drilling program will be carried out on the northwest side of the Harrison Creek valley approximately 250 – 1000m upstream of its confluence with Prairie Creek. Harrison Creek is a small tributary of Prairie Creek with a catchment area of about 7.5 km² as compared to the catchment area of Prairie Creek above the minesite at 495 km². The average annual flow of Harrison Creek has been estimated at 3.6 cfs as compared to Prairie Creek at 204 cfs, or about 1:50. Harrison Creek commonly dries during the low flow late summer season and flows subterrancan.

As the diamond drilling program utilizes very little water and discharges very little water, minimal impact on water quality or quality of either surface water or groundwater is expected to result from carrying out the exploration drilling program. Any return drilling water is discharged to a sump created at the drill site to settle out drill cuttings. In most cases the sump is of sufficient capacity to contain all return water without discharge. Water within the sump disappears through a combination of exfiltration and evaporation. Where a surface discharge from the sump occurs it is invariably a minor quantity and the capacity of the sump provides for efficient settling of cuttings and a clear discharge.

General Water

The exploration drilling program will result in only very minor emissions or discharges to air, land or water which will then have the capability of being transported to surface waters. Accordingly, negligible impact on surface water quality is expected as a result of carrying out the exploration drilling program.

Aquatic Habitat

Impacts of the proposed development on fisheries or other aquatic resources are expected to be negligible, since, as stated above, impacts to water quality and quantity are also expected to be negligible.

Fisheries studies by Beak consultants in 1980-81 and Rescan in 1994 identified limited fisheries habitat potential in Harrison Creek, with steep gradients restricting fish movement upstream of the mouth. As well, Harrison Creek commonly dries during the low flow late summer season and flows subterranean, and provides no over-wintering habitat due to low winter flows and shallow depths. As a result, fish utilization appears restricted to the mouth where 7 Slimy Sculpin were captured in 1980, and 2 Dolly Varden, 10 mountain whitefish and 8 Slimy Sculpin were encountered in 1981. No fish were observed in Harrison Creek in 1994.



Fish utilization of Prairie Creek appears to be confined largely to the headwaters and the mouth. The headwaters appear to be utilized by Dolly Varden (or Bull Trout) and Rocky Mountain Whitefish. Arctic Grayling do not appear to move upstream in Prairie Creek beyond the lowest reaches near the mouth. Limited use appears to be made of Prairie Creek in the vicinity of the minesite, or downstream of the minesite above the mouth.

Wildlife and Wildlife Habitat

Impacts of the proposed development on wildlife and wildlife habitat are expected to be negligible.

The development will take place within 1000m of the existing mill and campsite facilities and within the area of traditional mining activity at Prairie Creek. Previous activity has been undertaken over much of the surrounding area and the proposed development will occur primarily on or adjacent to existing exploration tote roads.

The principal wildlife species in the area are Dall Sheep which frequent the mill and campsite areas and seem generally unperturbed by ongoing site activity.

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) lists only two species in the area of the Prairie Creek Mine. These are the Grizzly Bear (Ursus arctos) and the Wolverine (Gulo gulo), both of which are listed in the Special Concern category.

In areas removed from the minesite COSEWIC lists the Anatum Percgrin Falcon (Falco percgrinus anatum), the Woodland Caribou Boreal population (Rangifer tarandus caribou) and the Wood Bison (Bison bison athabascae) all of which are considered Threatened.

Field studies of wildlife populations and wildlife habitat in the area of the Prairie Creek Mine and the access road were conducted by Beak Consultants in 1980-81 and again by Rescan in 1994. The studies identified no critical habitats in the area of the minesite.

Grizzly bears have been infrequently encountered in the surrounding area of the mine. No denning areas have been identified in the immediate area of the minesite, including the area of the proposed development. Care is taken in the handling and disposal of refuse, with all kitchen and food wastes incinerated prior to disposal, in order to avoid attracting bears or other animals to the campsite. No incidents relating to problem bears in the camp have occurred in recent years as a result of these precautions.



Wolverine have been observed in the area surrounding the Prairie Creek mine on only a very few rare occasions over the past 20 years. As a result, the proposed development is expected to have negligible impact on wolverine populations.

Previous wildlife studies have identified potential caribou habitat and caribou populations in areas well removed from the minesite to the north and east in the Mackenzie mountains. As the minesite area itself is not classified as prime caribou habitat and earibou are not generally observed in and around the minesite, no impact is expected on earibou populations.

Previous wildlife field studies have specifically targeted potential Peregrine falcon nesting habitat. However, none have been identified in the area of the minesite. As a result, no impacts are expected on Peregrine falcon populations. Similarly, no impacts are expected on migratory bird populations as no usage of the minesite area by such populations has been identified.

Wood bison populations are located 90 km or so to the south and east of the minesite in the vicinity of Nahanni Butte, and will not be impacted by the proposed development.

Cultural and Heritage Resources

All areas proposed for use in this application are within 1000 metres of the existing facilities and within the area of traditional mining activity. As such, impacts of the proposed development on cultural and heritage resources are expected to be negligible.

An archaeological database search was conducted on August 18, 2000 through the Canadian Museum of Civilization in support of Land Use Permit Application MV2000C0030 submitted by Canadian Zine.

The database search area encompassed the entire minesite area, as well as the entire 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 minesite 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 minesite.



Land and Resources Use

impacts of the proposed development on the use of land, water and renewable resources are expected to be negligible.

All areas proposed for use in this application are within 1000 metres of the existing facilities and within the area of traditional mining activity at Prairie Creek. No uses, other than mining, have been made of the land or resources in this area in recent history.

The Prairie Creek mine is located 90 km from the nearest settled community of Nahanni Butte. There is no road access into the property other than the old winter road alignment which dates back to 1982. Access is by air only, to a private airstrip controlled by the Company. There is no other existing land occupation nor commercial land or water based activities in the vicinity of the mine. Similarly, no observed traditional use or trapping activity has been observed in the minesite area in recent history.

South Nahanni Outfitters hold the outfitting licence for the area. Hunting activity generally takes place in the fall in areas well removed from the mine and should not be impacted by the proposed development.

The Prairie Creek mine is located adjacent to Prairie Creek, 32 km upstream of the point where it crosses the boundary of the Nahanni National Park Reserve, and 48 km upstream of the point where Prairie Creek joins with the South Nahanni River. The South Nahanni River is 500 km in length of which 300 km are contained within the Nahanni National Park Reserve. The confluence of Prairie Creek and the South Nahanni River is 65 km upstream of the point where the South Nahanni River leaves the Nahanni National Park Reserve crossing its downstream boundary. The South Nahanni River flows for 402 km prior to reaching its confluence with Prairie Creek, of which 235 km are within the Park Reserve.

The watershed of the South Nahanni River is 37,000 km², of which 4,766 km² are contained within the Nahanni National Park Reserve. By comparison, the watershed of Prairie Creek above the minesite is 495 km². In accordance with the relative sizes of their respective watersheds, water flow in the South Nahanni averages 75 times that of Prairie Creek and ranges from 50 to 180 times as much.

The Nahanni National Park Reserve was created in 1972, following a canoe trip down the river by Pierre Elliot Trudeau, specifically for the purpose of setting aside the South Nahanni River for wilderness recreational purposes. Exploration activity at Prairie Creek had been ongoing for many years and underground development was well advanced at this point in time.



The South Nahanni River, regularly used for canoeing trips during the summer months, represents the nearest water use downstream of the Prairie Creek mine. Wilderness river tours are supported by a number of outfitting companies from as far away as Ontario. Parks Canada reports that there were 58 such private trips on the river in 1999.

The nearest downstream community is Nahanni Butte, located at the confluence of the South Nahanni and Liard Rivers, 146 km downstream of the minesite. The population of Nahanni Butte is approximately 117 people and water for domestic purposes is supplied by well. As the proposed development is not expected to affect water quantity or quality at the minesite, it is similarly not expected to impact on water quality or quantity within the Park Reserve or on these downstream users.

In 1996, the Company and the Nahanni Butte Dene Band successfully negotiated and executed the Prairie Creek Development Cooperation Agreement. The Nahanni Butte Dene Band issued a Band Council Resolution on November 28, 1996 stating that the Band on behalf of its membership "does fully ratify and endorse the Prairie Creek Development Cooperation Agreement" in which the Nahanni Butte Dene Band proclaimed its support for the Prairie Creek mine and the establishment of an all weather access road to the mine in recognition of the significant benefits to Nahanni Butte and the DCFN communities as a whole.

More recently, the Deh Cho First Nations have put forward a proposal at the Treaty Negotiations table, pursuant to the Draft Interim Measures Agreement, for the withdrawal of land within the South Nahami River watershed from further mineral staking, industrial development and exploration. The Interim Measures Agreement would remain in effect until superceded by the provisions of the Deh Cho Final Agreement.

The Nahami Butte Dene Band issued a Band Council Resolution on May 18, 2000 in support of protecting the South Nahami watershed, stating that "the Nahami National Park Reserve was created without the consent or participation of the Deh Cho First Nations" and that the "Final Agreement should provide for the recognition of Deh Cho First Nations jurisdiction over the entire Nahami watershed, including the Park or Park Reserve."

As the Prairie Creek Development Cooperation Agreement provides for a positive and cooperative working relationship between the Company, Nahanni and the Deh Cho First Nations in respect of developing and operating an environmentally sound operation at Prairie Creek, which will not have significant adverse environmental effects on the ecological integrity of the South Nahanni River or the Nahanni National Park Reserve, the separate goals of the local communities in achieving economic self-sufficiency and protecting the environment seem justifiably quite compatible.





Economy

The proposed development is part of the process of establishing, confirming and enhancing the known mineral resource at the Prairie Creek property, which has been ongoing since mineralization was first discovered in 1928.

The main objective of the current program is to further delineate the area of known mineralization in order to upgrade these mineral resources to mineral reserve status. This information, in combination with additional work planned for 2001, such as an underground decline and exploration program, and operation of an on-site pilot plant, will form the basis for a bankable feasibility study scheduled for completion in the last quarter of 2001. With a bankable feasibility study demonstrating a positive return on investment, CZN believes it will be able to attract the necessary financing to support re-development of mine operations leading to production by 2003, subject to receipt of the necessary operating permits and licences.

In the short term, the proposed development will create positive economic impacts for local communities in terms of employment opportunities and contracted support and supply services. CZN employed two local residents of Nahanni Butte for the majority of the 2000 summer season. Similar opportunities are anticipated in 2001 in support of this and other planned programs. The proposed development is expected to employ about 14 persons, including a cook, caretaker, mechanics, drillers, geologist, First Aid attendant, and labourers. Fixed wing aircraft and helicopter support will provide opportunities for charter companies in Fort Simpson and Fort Liard. Consumables will also be sourced from local suppliers and flown into site. Project management will necessitate travel for head office and other personnel, resulting in positive economic impacts for commercial airlines servicing Yellowknife and Fort Simpson, as well as hotels and restaurants in Yellowknife, Fort Simpson and other local communities.

In the long term, the proposed development is necessary to support plans for mine redevelopment. Positive economic impacts of future mining operations to local communities, the Northwest Territories and Canada are substantial and have been estimated as follows.

The mine will employ up to 170 persons directly at the minesite plus an additional 60 under various contracts for at least 18 years based on the current mineral resource. Using a standard multiplier of 2;1 this would be predicted to create another 460 jobs elsewhere in the NWT and Canada.



Annual payroll, including benefits, will be in the order of \$14.3 million. Payments to government, including corporate income tax, employee income tax and royalty payments are estimated at \$15.4 million. Third party contracts for catering, air transport, incoming freight and outgoing concentrate total an estimated \$10.5 million. Mill supplies and general consumable, including fuel, total \$8 million annually. Road construction and annual operating costs, including the Liard ferry crossing, total \$17 million and \$1 million respectively. The capital cost of the ferry and approaches is an additional \$1 million.

The existing resource has been established over only about 2.1 km of mineralized strike length of 16 km, suggesting the potential to define additional mineral resources and extend the mine life, and economic benefits associated therewith, well beyond current projections is excellent. As well, much thicker stratabound mineralization discovered in 1992 to be underlying the known vein mineralization is currently underexplored and holds the potential to significantly increase the mineral resource of the property, thereby extending the projected mine life.

The Prairie Creek Mine is located on land claimed by the Nahanni Butte Dene Band of the Deh Cho First Nations (DCFN) as their traditional territory. The DCFN are engaged in ongoing negotiations with the Government of Canada and the Government of the Northwest Territories in what is referred to as the Deh Cho Process. The negotiations are currently at the Interim Measures and Agreement In Principle stage. The outcome of the negotiations is expected to be a Final Agreement that will provide, amongst other things, for the implementation of a Deh Cho form of government to oversee the delivery of programs and services to residents within the DCFN territory. It is expected that the negotiations will take some five to seven years to complete.

In 1996, the Company and the Nahanni Butte Dene Band successfully negotiated and executed the Prairie Creek Development Cooperation Agreement. The overall intent of the Agreement was to establish and maintain a positive and cooperative working relationship between the Company and Nahanni in respect of the further development and operation of the mine, while at the same time supporting an economically viable and environmentally sound operation and maximizing economic opportunity and benefits to Nahanni and other Deh Cho First Nations. This Agreement foresaw the many benefits which could accrue to the Nahanni Butte Dene Band and the DCFN in conjunction with development of the road and mine, and made provision for maximizing opportunities to realize these benefits. To this end, the Agreement provides employment and contracting opportunities as well as equity participation for the Nahanni Butte and the DCFN. The negotiation of this Agreement by Nahanni Butte was supported by the DCFN by Tribal Council Resolution and the final agreement itself was endorsed by Nahanni Butte Band Council Resolution.



In the Agreement, Nahanni proclaimed its support for the mine and the establishment of the access road in recognition of the significant benefits to Nahanni and the DCFN communities as a whole, and undertook to assist the Company in procuring permits, approvals and licences necessary to bring the mine into production, as well as grants, guarantees or other financial assistance from Government towards the establishment of the access road.

Some specific considerations as set out in the Agreement pertaining to economic opportunities relating thereto are as follows:

- Nahami shall enjoy preferential access to economic opportunities including open book negotiated contracts
- CZN shall have a minimum target of 20% employees from DCFN communities
- CZN shall require non-First Nation contractors to have a target of not less than 20% employees from DCFN communities
- Nahanni will receive a 5% equity interest of profits before taxation, but after recovery of prior capital and development costs
- Nahanni will be granted an option to purchase either a 10% or 15% working interest in the Project for \$6 or \$9 million, inflation adjusted on completion of a Feasibility Study, but before construction
- Following the commencement of commercial production. Nahanni and the Project will fund equally between them:
 - The establishment of The Prairie Creek Education Centre in Nahanni Butte at a cost of up to a maximum of \$150,000 and the annual operating costs up to a maximum of \$50,000. This centre will focus on adult literacy programs and special needs education for children; and
 - A Scholarship Trust Fund of \$20,000 per annum initially, increasing to \$30,000 per annum following the payback of all capital costs.
- Upon commencement of construction of the Access, the Project will contribute \$25,000 per annum to a Trust Fund to provide compensation to traditional barvesters who are negatively affected by the Project and the Access.

CZN is committed to continuing to work closely with the Nahanni Butte Dene Band and the DCFN to fulfill the provisions of the Development Cooperation Agreement and ensure that First Nations communities in the area have ongoing input into the redevelopment plans for the mine.



Nuise

Impacts of the proposed development associated with ambient noise levels are expected to be negligible.

The principal source of noise associated with carrying out the exploration program relates to the operation of the diesel engine which powers the drill rig. The engine is enclosed within the drill shack, minimizing ambient noise. Routine maintenance will also be employed to ensure the engine is running efficiently.

Noise from the drill rig is localized within the immediate area of drilling activity. Noise from the drill rig will be in addition to noise levels from the generator which supplies power to the minesite facilities which operates 24 hours per day while the camp is in operation. No residual impacts are expected relating to ambient or acute noise levels associated with the proposed development.

Visual and Aesthetic Resources

The Prairic Creek minesite is very remote and not generally visible from any location except by low flying aircraft operating in and around the Prairic Creek Valley. The proposed development will take place within the area of traditional mining activity and within 1000 metres of the existing minesite facilities and will therefore not stand out in contrast to undisturbed terrain. Drill sites will be recontoured after all drilling is complete to conform to the local topography. Residual impacts will relate to minor alterations in topography on a localized scale associated with development of the drill pads and extension to existing tote roads, if required.

Traditional Knowledge

As detailed under the "Consultation" section below, a public meeting including representatives of Deh Cho First Nation communities and organizations was held in Nahanni Butte on November 22, 2000, at which time the Company reviewed its plans for this and other programs with the objective of providing opportunity for the communities to raise concerns with respect to impacts of the proposed development on their traditional use and activities in the area. No specific concerns were raised at that time with respect to the mineral exploration program proposed in this application.



A letter was forwarded to local First Nations communities and organizations, including the Nahami Butte Dene Band, Lidlii Kue First Nation. Acho Dene Koe First Nation and Deh Cho First Nations on January 5, 2001, advising these groups of the Review Boards' request for integration of traditional knowledge into the EA report for the Phase I exploration program and requesting such information to be supplied, if available. At the time of writing, no information had been received. However, should any information be forthcoming CZN will use its best efforts to incorporate such considerations into its planning and execution of the proposed development.

Developer Identification and Performance Record

Canadian Zinc Corporation is a Canadian public company engaged in the business of mineral exploration and development. Formerly known as San Andreas Resources Corporation, the Company changed its name to Canadian Zinc Corporation on May 25, 1999. San Andreas Resources Corporation had been previously incorporated under the Companies Act of British Columbia on August 29, 1991. Canadian Zinc is listed and trades on the Toronto Stock Exchange under the symbol "CZN".

The Company maintains its head office at Suite 1202, 700 West Pender Street in Vancouver, BC. The day-to-day business of the Company is run by management under the direction of a six member Board of Directors as follows:

Management

Mr.	Malo	olm	Swallow	Presi	ident	and	i Chief	Ex	ecutive Offic	er
		er.	1				_	_	_	

Mr. Alan Taylor Vice President, Exploration
Mr. Peter Campbell Vice President, Project Affairs

Ms. Rhonda Shultz Office Administrator

Board of Directors

Mr. John MacPherson	Chairman
Mr. Wayne Lenton	Director
Dr. Hugh Morris	Director
Dr. David Shaw	Director
Mr. Bob Gayton	Director
Mr. Malcolm Swallow	Director

The proposed development will be conducted under the direct supervision of Mr. Alan Taylor. VP, Exploration or, in his absence, his appointed designate. Mr. Taylor has been intimately involved with ongoing activity at the property since 1994.



The Company entered into an option agreement to purchase the Prairie Creek property from Nanisivik Mines Ltd. on August 23, 1991. This agreement was superceded by the Asset Purchase Agreement of March 29, 1993 by which the Company acquired a 100% interest in the Prairie Creek property subject to a 2% net smelter royalty in favour of Titan Pacific Resources Ltd. to a maximum of \$8.2 million.

Canadian Zinc has been actively involved in the NWT in exploration of the Prairie Creek property since 1991, over which time it has drilled 129 holes recovering some 40,000 metres of core in the process. Through this process the Company has successfully increased the known mineral resource on the property from the 1.8 million tonne reserve in 1991 to the present 11.8 million tonne resource. The Prairie Creek mine is the principal asset of the Company.

In 1996, the Company and the Nahanni Butto Dene Band successfully negotiated and executed the Prairie Creek Development Cooperation Agreement. Under the terms of the Agreement. Nahanni will receive a 5% equity interest of profits before taxation, but after recovery of prior capital and development costs. As well, Nahanni is granted an option to purchase either a 10% or 15% working interest in the Project for \$6 or \$9 million, inflation adjusted on completion of a Feasibility Study, but before construction.

All work and activity undertaken by Canadian Zine at the Prairie Creek property has been conducted in compliance with applicable legislation and the Company has worked closely with regulatory agencies to promptly address areas of concern identified in the course of regular site inspections. The Company maintains a written environmental policy and in 2000 initiated a clean-up program aimed at mitigating environmental risks and residual impacts relating to the storage of reagents, fuel products and other materials associated with the property's long term care and maintenance status.

Tenure

CZN owns 100% of the Prairie Creek Mine and Property subject to a 2% net smelter royalty in favour of Titan Pacific Resources Limited to a maximum of \$8.2 million. Upon full payment the royalty will be terminated.

The main land holding comprises eight mining leases and two surface leases. The Company also holds seven additional mineral claims. Details of the Project tenements are shown in the Table below.



PRAIRIE CREEK PROPERTY

Property	Claim	Lease/Claim	Area	Area
Туре	#	Name	Ffa	Acres
Mineral Claims			21hr -, 1m.	······································
("Saim	F22751	SAN 4	1,003.30	2,479.30
Claim	F22752	SAN S	2,004,30	2,479 20
Clasn	F22753	SAN 6	701.40	1,733-20
Clasm	F67134	GAFE I	731,59	1,807.75
Claim	F67135	GATE 2	1,003,30	2 479 20
Claim	F67136	GATE 3	1,003 30	2,479 20
Claum	F67137	GATE 4	1,003.30	2,479.20
Claims total			0.449.49	75.936 95
Surface Leases (het Surface Lease	951/10-5-3	Minesite	113 60	280 74
Surface Leave	951/10-7-2	Airstrap	18 20	45.07
Surface Lease rotal				325.87
Mining Leases				
Mining Lease	ML 2854	Zone 8-12	743 00	1.835.99
Mining Lease	ML 2931	Zone 4-7	909,00	2,746 18
Vining Lease	ML 2932	Zane 3	871 00	2.152.28
Mining Lease	ML 2933	Rich West	172.00	435 02
Mining Lease	MJ, 3313	Samantha	420 05	1.037.96
Mining Lease	ML, 4314	West Jue	195 86	483 99
Minimp Lease	ML 3315	Miterk	43.70	107.98
Mining Leave	ML 3338	Rico	186.16	460 00
Mining Leases total			3 804,33	0,J6/ n 2
Grand Total			10,253.84 Ha	25,337.97 Acres

All mining leases and claims are in good standing. The surface leases are presently held in overholding tenancy to cover ongoing care and maintenance activity on the property.

The area which the Company wishes to secure for the purposes of undertaking the proposed development is shown on the attached drawing as the "Proposed 2001 Surface Drilling Area." For reference purposes the drawing also depicts the area in which the Company applied for approval to conduct the Phase I drilling in 2000, described as the "General 2000 Surface Drilling Area" and the location of the "Proposed 2001 Underground Decline."



Regulatory Regime

To undertake the proposed program of work, the Company requires:

a Type A Land Use Permit

Existing tenures, acquired pursuant to the Canada Mining Regulations and the Territorial Lands Act, which grant the right to occupy the land and to explore for and extract mineral resources from the area, are in the form as described in the preceding section. No other permits or authorizations remain in force.

Accidents and Malfunctions

The probability, risk and potential magnitude of an accident or malfunction associated with the proposed development are deemed to be very low. Principal possible failure mechanisms with associated risk assessment factors are as follows:

Failure	Initiating	Probability	. Magnitude	Consequence
Mode	Event		1	
Diesel	Drill Fuel Tank	Low	Small	Low Medium
Spiil	Rupture		Max. 300 gals	Relatively small volume: Spill likely contained in soils at drill site: Worst case loss of portion to Harrison Creek
Diesel	Spill during	1.0%	Small	Low Medium
Spill	Fransfer		Max 130 gals.	As above
Dieset spill	Fire	Low	Small	j Law
Air untissions			Ì	Relatively small combustible volumes
Drill water	Simp	Low	Small	[ww
Discharge	Failure '		Max. 50 gals.	Very small volumes; water & suspended solids unlikely to migrate much beyond drill pad

Canadian Zinc has a Spill Contingency Plan developed for the Prairie Creek mine which has been filed with Indian and Northern Affairs Canada. The Company maintains a supply of spill clean-up materials at the site including a variety of absorbent materials and ready access to large inventory of heavy equipment, tools and supplies at the site.

Consultation

Following is a summary of consultations undertaken, including those with government regulatory agencies, the Nahanni Butte Dene Band, the Liidlii Kue First Nation. Acho Dene Koe First Nation and the Deh Cho First Nations.



August 14-16, 2000 Yellowknife

 Meetings with INAC, GNWT/RWED, EC, DFO, MVLWB, MVEIRB, Parks Canada, DCFN (Petr Cizek)

October 6, 2000

Letter request to NBDB, LKFN, ADKFN, DCFN for meeting

November 21, 2000 Yellowknife

- Meeting with Mineral Development Advisory Group (MDAG)
- INAC, EC, DFO, GNWT/RWED, WCB, SRHB,

November 22, 2000 Nahanni Butte

- Meeting with First Nation community and association representatives
- NBDB, LKFN, DCFN, CPAWS, Parks Canada

January 5,2001

- Letter request to NBDB, LKFN, ADKFN for traditional knowledge February 16, 2001
 - Letter enclosing Draft Application package to NBDB, LKFN, ADKFN & DCFN requesting comments

February 26, 2001

 Telephone conversation with Chief Leon Konisenta (NBDB) advising of intention to submit permit applications

February 27, 2001

 Letter to NBDB, LKFN, ADKFN & DCFN advising of intention to submit permit applications

No specific concerns were raised at any of these meetings or in response to any correspondence with respect to the proposed mineral exploration program.

Alternatives

There are no viable alternatives to the practice of exploration diamond drilling of the type proposed for the purpose of establishing, confirming and enhancing the known mineral resource at the Prairie Creek property.

The process of diamond drilling represents standard industry practice in the exploration of base metal and other mineral deposits. It has been, and continues to be used commonly throughout the Northwest Territories, throughout Canada and throughout the World for this purpose. At Prairie Creek, the first diamond drill holes were drilled in 1966. Since that time a total of some 249 holes have been drilled throughout the property.



White various other geophysical, geochemical and biogeochemical techniques exist for locating mineralized zones on a broader scale and for further enhancing our understanding of geologic processes, none are considered practical alternatives to in-situ diamond drilling and the subsequent assay of recovered drill core. Security Exchange Commission rules and regulations, which apply to all public mining companies, set rigorous standards for release of information pertaining to mineral resource and reserve estimates. These typically require strict adherence to quality assurance standards in the drilling, recovery and assaying of drill core, and the subsequent interpretation of data by a qualified individual.

Closure and Reclamation

The area of the proposed development is within the area of traditional mining activity and adjacent to the existing facilities, including the existing underground workings and the location of the underground decline portal proposed for 2001. As a result, these areas are expected to be subject to ongoing activity associated with further exploration and mine development. Accordingly, final reclamation and abandonment of these sites is not proposed at this time.

The proposed drilling program will entail minimal disturbance of surficial materials. All proposed drill locations are in close proximity to existing exploration tote roads which will minimize disturbance relating to the establishment of roads and drill sites. Existing tote roads are expected to require extensions, if any, of typically only from a few up to 10 or 20 metres at a maximum. The drill pads will be prepared only large enough to accommodate and position the approximate $7m \times 4m$ drill rig.

Where clearing is required to create short extensions of tote roads or the drill pads themselves, surficial materials will be stripped and stockpiled adjacent to the area. Any trees which require clearing will be bucked into 1.5 metre lengths. When all drilling is complete, cut banks will be re-contoured to conform to the local topography and stabilized, and stockpile surficial materials will be back bladed over the disturbed areas.

Cumulative Impacts

The potential for cumulative impacts has been assessed within the context of the Interim Guide for Addressing Cumulative Environmental Effects in Environmental Assessment under the Mackenzie Valley Resource Management Act (September, 2000).



The foregoing discussion has provided an analysis of potential impacts on individual components of the environment associated with the proposed development. As the potential environmental effects of the proposed development are expected to be negligible, it would seem intuitive that the potential for cumulative effects in association with other past, existing or future developments or activities would also be negligible.

Within the narrow spatial boundaries of the immediate minesite area and the surrounding Prairie Creek watershed, the potential for cumulative effects is considered minor. No other development or activity, other than mineral exploration and mine development at the Prairie Creek mine, has occurred in the past, been proposed, or can be reasonably foreseen in the future. The only other activity that has taken place in the area was the peripheral staking of mineral claims surrounding the pre-existing Prairie Creek claim block in May, 2000. As the Prairie Creek claim block encompasses the whole of the mineralized trend zone based on current geological interpretation, this staking is believed to be primarily speculative in nature.

The proposed program, involving the drilling of 50 - 60 holes, equates to a incremental increase of 20% to 24%, respectively, over the 249 holes drilled on the property to date and comprises only a small component of the overall development which has occurred on the site to date. Despite the considerable amount of activity and development which has occurred on the property over the past 40 years, residual impacts are principally visual and aesthetic, and confined to physical disturbance directly associated with the construction development of the existing facilities. No impacts on the surrounding environment are apparent or have been identified.

in a temporal sense, additional mineral exploration programs of a similar nature will likely be proposed in the future to further delineate the mineral resource. The ultimate goal of which, depending on the success of these programs, is a re-vitalized mining operation at Prairie Creek. Plans for any such mining operation would have to undergo a formal environmental assessment based on their own merit and ultimately comply with statutory and regulatory requirements which uniformly require that such activities have no significant adverse effect on the environment.

Within the broader spatial context of the entire South Nahanni watershed, the potential for cumulative effects of the proposed program are also considered minor. It is expected that there will be no significant adverse effects on Prairie Creek, the South Nahanni River or the Nahanni National Park Reserve associated with the proposed development.

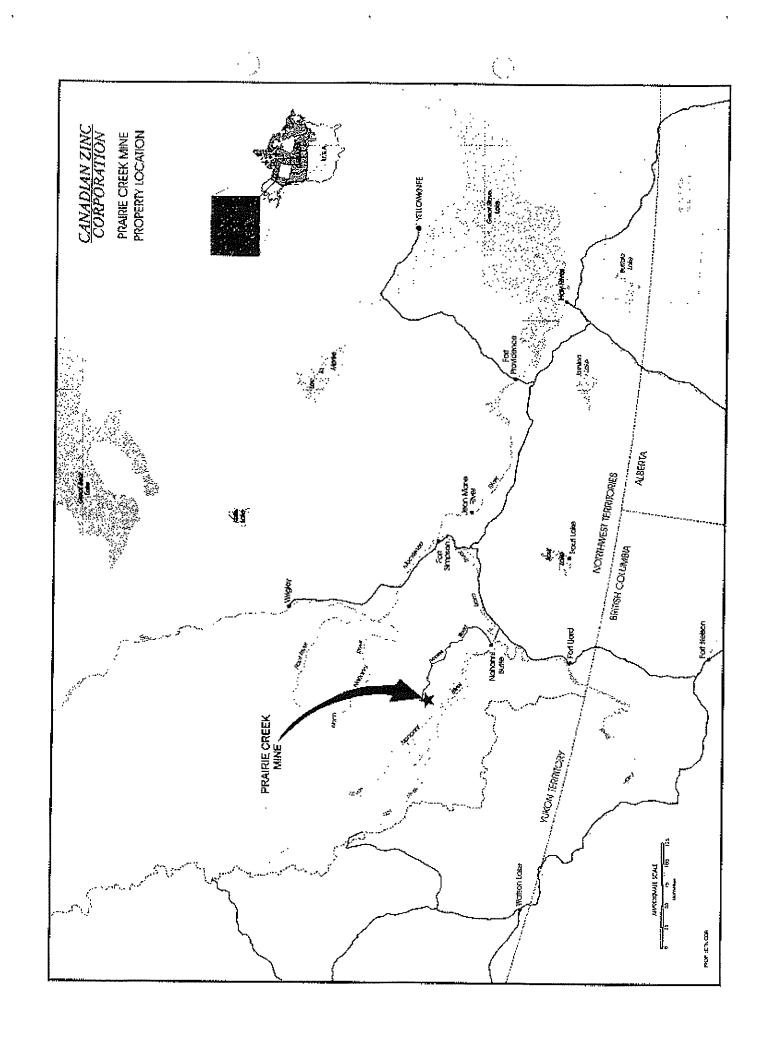
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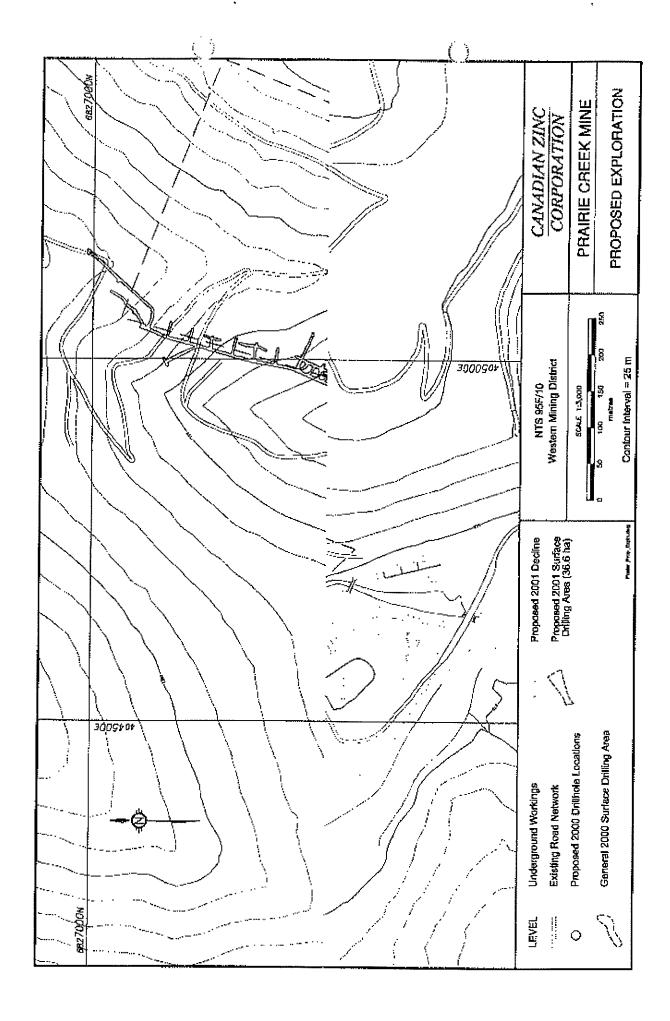
Within the South Nahanni watershed, the most significant development other than the Prairie Creek mine is the Cantung mine at Tungsten, NWT. The Cantung property is about 190 km in a straight line east-northeast of the Prairie Creek mine. The minesite facilities are located adjacent to and on the floodplain of the Flat River, a major tributary of the South Nahanni River. Cantung, an underground tungsten mine, operated over 24 years from 1962 to 1986, prior to being put on care and maintenance due to a fall in world tungsten prices. The mine is supported by a 1000 ton per day mill, a full townsite to house workers and their families, and a 200 km all weather access road connecting the mine to the Robert Campbell highway in the Yukon.

An extensive Environmental Water Quality Monitoring and Assessment Program of the South Nahanni River Basin has been undertaken by Environment Canada in association with Parks Canada since 1988. The results of this program have been reported by Environment Canada in "Protecting the Waters of Nahanni National Park Reserve. NWT" (December, 1991) and "Protecting the Aquatic Quality of Nahanni National Park Reserve. NWT" (December, 1998) Both of these reports identified no impacts on water quality within the Park Reserve or the South Nahanni River associated with the presence and operation of the Cantung mine over those 24 years, and concluded that the waters of the South Nahanni River remain pristine.

The potential for cumulative effects associated with a combination of the proposed development and the Cantung mine is therefore expected to be very low.



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	Scale 1:130,000 0 1500 2500 5000 metres	CANADIAN ZINC CORPORATION PRAIRIE CREEK MINE LAND TENURE Date: Jarugy, 2001 Figure:
LEASE 3343		Scale: 1:100,000 Drawing: claims.dwg Revised:
		GATE 1 Mineral Claim LEASE 95-F-10-5-3 Surface Lease LEASE 2933 Mining Lease





Mackenzie Valley Land an (") after Board

7th Floor - 4910 50th Avenue • 200, 180x 2130 YELLOWKNIFE, NT X1A 2P6 Phone (867) 669-0506 • EAX (867) 873-6610 DM accessed by Review Board Nov-2008

November 30, 2001

Mr. J. Peter Campbell Canadian Zinc Corporation 1202 - 700 West Pender St. VANCOUVER BC V6C 1G8

FAX: (604) 688-2043

Dear Mr. Campbell:

5 (6)

File: MV2001C0022

RFR 186

(b)

ISSUANCE OF A TYPE "A" LAND USE PERMIT

Attached is Land Use Permit MV2001C0022 granted by the Mackenzie Valley Land and Water Board (MVLWB) in accordance with the *Mackenzie Valley Resource Management Act*. A copy of this permit has been filed in the Public Registry at the office of the MVLWB. The Board approved Land Use Permit MV2001C0022 for a period of five (5) years commencing November 30, 2001 and expiring November 29, 2006.

Please be advised that this letter, with attached permit, all inspection reports, and correspondence related thereto, are part of the Public Registry and are intended to keep all interested parties informed of the manner in which the Permit requirements are being met. All Public Registry material will be considered when the Permit comes up for renewal or amendment.

As a condition of this land use permit, Canadian Zinc Corporation is expected to meet all commitments and obligations made by the company in its submissions to the Mackenzie Valley Land and Water Board and in the Environmental Assessment Process.

The full cooperation of Canadian Zinc Corporation is anticipated and appreciated.

Yours sincerely,

Melody J. McLeod

Chair

Attachments

Copted to:

Ed Hornby, South Mackenzie District, DIAND, Yellowknife

Greg Smith, Regulatory Officer, MVLWB

Distribution List of Reviewers

50.	The Permittee shall commence and foster revegetation on the land used, as directed by an Inspector, within one (1) year of the completion of the land use operation.	RE-ESTABLISH VEGETATION
51.	The Permittee shall complete all clean-up and restoration of the lands used prior to the expiry date of this Permit.	CLEAN-UP
52.	The Permittee shall backfill and restore all sumps prior to the expiry date of this Permit.	BACKFILL SUMPS
53.	The Permittee shall dispose of all overburden as instructed by the Land Use Inspector.	DISPOSAL OF OVERBURDEN
54,	The Permittee shall re-contour and re-stabilize all disturbed areas to conform to local topography prior to the expiry date of this Permit	RE-CONTOUR DISTURBED AREAS
	26(1)(p) DISPLAY OF PERMITS AND PERMIT NUMBERS	ANIAO
55.	The Permittee shall display a copy of this Permit in each campsite established to carry out this land use operation.	DISPLAY PERMIT
56.	The Permittee shall keep on hand, at all times during this land use operation, a copy of the Land Use Permit.	COPY OF PERMIT
	26(1)(q) MATTERS NOT INCONSISTENT WITH THE REGULATIONS	
57.	The Permittee shall not remove any material from below the ordinary high water mark of any water body.	WORK IN WATER BODIES
58.	The Permittee shall provide in writing to the Board and Inspector, at least forty-eight (48) hours prior to commencement of this land use operation, the following information:	IDENTIFY AGENT
	 (a) person, or persons, in charge of the field operation to whom notices, orders, and reports may be served; (b) alternates; and 	
	(c) all methods for contacting the above person(s).	
59.	The Permittee shall submit to the Board an update of the contingency plan, for chemical and petroleum spills, if there are any changes in the operation during the life of the permit.	CONTINGENCY PLAN
60.	The Permittee shall review and update the existing contingency plan for approval by the Inspector.	CONTINGENCY PLAN
61.	The Permittee shall submit in writing to a Land Use Inspector, all amendment requests prior to the proposed amended activity commencing.	PRIOR NOTIFICATION

40.	The Permittee shall remove all scrap metal, discarded machinery, parts, barrels and kegs, buildings and building material. 26(1)(j) PROTECTION OF HISTORICAL, ARCHAEOLOGICAL	REMOVE WASTE MATERIAL
	AND BURIAL SITES	
41.	The Permittee shall not operate any vehicle within thirty (30) metres of a known or suspected archaeological site.	OPERATE VEHICLE
42.	The Permittee shall not remove, disturb or displace any archaeological specimen or site.	DISTURBANCE OF SITE
43.	The Permittee shall immediately cease any activity which disturbs an archaeological, historical, and/or burial site and contact the Mackenzie Valley Land and Water Board at (867) 669-0506 should an archaeological site of specimen be encountered or disturbed by any land use activity.	CONTACTS
44.	The Permittee shall ensure that all persons working under authority of the permit are aware of these conditions concerning archaeological land use activity.	NOTIFICATION TO EMPLOYEES
	26(1)(k) OBJECTS AND PLACES OF RECREATIONAL, SCENIC AND ECOLOGICAL VALUE	
	THE DONALD CANADA COMMEN	
45.	The Permittee shall not feed wildlife.	NO FEEDING WILDLIFE
45.		
45.	The Permittee shall not feed wildlife.	
45, 46.	The Permittee shall not feed wildlife. 26(1)(I) SECURITY DEPOSIT	
	The Permittee shall not feed wildlife. 26(1)(1) SECURITY DEPOSIT 26(1)(m) FUEL STORAGE The Permittee shall not place any fuel storage containers within one	WILDLIFE FUEL BY
46.	The Permittee shall not feed wildlife. 26(1)(1) SECURITY DEPOSIT 26(1)(m) FUEL STORAGE The Permittee shall not place any fuel storage containers within one hundred (30) metres of the normal high water mark of any water body. The Permittee shall not allow petroleum products to spread to surrounding	WILDLIFE FUEL BY STREAM FUEL
46. 4 7.	The Permittee shall not feed wildlife. 26(1)(1) SECURITY DEPOSIT 26(1)(m) FUEL STORAGE The Permittee shall not place any fuel storage containers within one hundred (30) metres of the normal high water mark of any water body. The Permittee shall not allow petroleum products to spread to surrounding lands or into water bodies. The Permittee shall: (a) examine all fuel storage containers for leaks a minimum of once every 7 days; and	WILDLIFE FUEL BY STREAM FUEL CONTAINMENT CHECK FOR

26(1)(o) RESTORATION OF THE LANDS

26.	The Permittee shall not use chemicals in connection with the land use operation that were not identified in the accepted application unless improved by the Inspector.	APPROVAL OF CHEMICALS
27.	The Pennittee shall remove all drill waste containing poisonous or persistent chemical additives to an approved disposal facility.	DRILL WASTE DISPOSAL
28. 29.	The Permittee shall deposit all non-toxic drill waste into a sump. The Permittee shall not allow any drilling waste to spread to the surrounding lands.	DRILL WASTE DRILL WASTE CONTAINMENT
30.	The Permittee shall dispose of all combustible waste petroleum products by incineration or removal.	WASTE PETROLEUM DISPOSAL
31.	The Permittee shall report all spills immediately to the 24 hour Spill Report Line (867) 920-8130, which is in accordance with instructions contained in "Spill Report" form N.W.T. 1752/0593.	REPORT CHEMICAI, AND PETROLEUM
	26(1)(b) WILDLIFE AND FISHERIES HABITAT	SPILLS
<i>32</i> .	The Permittee shall minimize damage to wildlife and fish habitat in conducting this land use operation.	HABITAT DAMAGE
33.	The Permittee shall not harass wildlife during this land use operation.	NO WILDLIFE HARASSMENT
34.	The Permittee shall use food handling and garbage disposal procedures that do not attract bears.	BEAR/MAN CONFLICT
35.	The Permittee shall construct and maintain the water intake with an adequate screening device to prevent entrainment of fish.	PREVENT ENTRAINMENT
	26(1)(i) STORAGE, HANDLING AND DISPOSAL OF REFUSE OR SEWAGE	
36.	The Permittee shall dispose of all sewage and grey water as proposed in the accepted application.	SEWAGE DISPOSAL
37.	The Permittee shall use a forced-air fuel-fired incinerator to burn all combustible garbage except plastics.	INCINERATORS
38.	The Permittee shall remove all garbage and debris, including plastics from the land use area.	REMOVE GARBAGE
39.	The Permittee shall keep all garbage and debris in a bear proof, covered metal container until disposed of. This container shall be marked with the Permittee's name and will be on site.	GARBAGE CONTAINER

13.	The Permittee shall ensure a garbage container is on site.	GARBAGE
14.	26(1)(d) METHODS AND TECHNIQUES The Permittee shall plug all boreholes as the land use operation progresses.	PLUG HOLES
15.	The Permittee shall remove or cut off and seal all drill casings at ground level immediately upon completion of drilling.	REMOVAL AND SEALING OF DRILL CASINGS
16.	The Pennittee shall not clear areas for drill rigs larger than identified in the accepted application.	MINIMIZE AREA CLEARED
	26(1)(e) TYPE, LOCATION, CAPACITY AND OPERATION OF ALL FACILITIES	
17.	The Permittee shall not locate any sump within one hundred (100) metres of the ordinary high water mark of any water body.	SUMPS FROM WATER
18.	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	
19.	(a) The Permittee shall, where flowing water from bore holes is encountered, plug the bore hole in such a manner as to permanently prevent any further outflow of water; and	PLUG ARTESIAN WELLS
	(b) the artesian occurrence shall be reported to the Inspector immediately.	
20.	The Permittee shall slope the sides of waste material piles to a gradient specified in writing by an Inspector.	WASTE MATERIAL PILES
21.	The land use operation shall not cause obstruction to any natural drainage.	NATURAL DRAINAGE
22.	The Permittee shall not cut any stream bank.	STREAM BANKS
2 3.	The Permittee shall not use the bed of streams for access routes except for the purpose of crossing the streams.	STREAM BEDS ACCESS
24.	The Pennittee shall install erosion control structures as the land use operation progresses.	EROSION CONROL WHEN
25.	The Permittee shall prepare the site in such a manner as to prevent rutting of the ground surface.	PREVENTION OF RUTTING
	76/11/c) L'EE STODACE HANDLING AND EL TIMAATE DISDOCAT	

26(1)(g) USE, STORAGE, HANDLING AND ULTIMATE DISPOSAL OF ANY CHEMICAL OR TOXIC MATERIAL

Part C: Conditions Applying to All Activities (the headings correspond to Subsection 26 of the Mackenzie Valley Land Use Regulations)

26(1)(a) LOCATION AND AREA

1.	The Permittee shall not conduct this land use operation on any lands not designated in the accepted application.	PLANS
2.	The Permittee shall not construct an adit or drill site within one hundred (100) metres of the ordinary high water mark of a water body, unless approval in writing is obtained from the Inspector.	LOCATION OF ADITS AND DRILLSITES
3.	The Permittee shall use an existing campsite.	CAMP LOCATION
4.	The permittee shall not construct parallel lines or roads unless authorized by the inspector.	PARALLEL ROADS
δ.	The permittee shall locate all lines, trails, rights-of-way to be constructed parallel to streams a minimum of thirty (30) meters from any stream except at crossings unless otherwise authorized in writing by a land use inspector.	PARALLEL STREAMS
6.	Prior to the commencement of diamond drilling the Permittee shall submit to the inspector, proposed drill targets on 1:50,000 and 1:5000 scale maps.	DRILL LOCATIONS
7.	The Permittee's Field Supervisor shall contact an Inspector at (867) 695-2626 and the Board (867) 669-0506 at least forty-eight (48) hours prior to the commencement of this land use operation.	CONTACT INSPECTOR/ BOARD
8.	The Permittee shall advise an Inspector at least ten (10) days prior to the completion of the land use operation of (a) the plan for removal or storage of equipment and materials, and (b) when final clean-up and restoration of the land used will be completed.	REPORTS BEFORE REMOVAL
9.	The Permittee shall use existing lines or roads to the extent identified in the accepted application. New tote road extensions shall not extend 30 meters past existing lines or roads.	EXISTING LINES ROADS
10.	The Permittee shall notify an Inspector at least ten (10) days prior to backfilling any sump.	BACKFILLING NOTIFICATION
II.	The Board reserves the right to impose closure of any area to the Permittee in periods when dangers to natural resources are severe.	CLOSURE
	26(1)(c) TYPE AND SIZE OF EQUIPMENT	
12.	The Permittee shall not use any equipment except of the type, size, and number that is listed in the accepted application.	ONLY APPROVED EQUIPMENT

CONDITIONS ANNEXED TO AND FORMING PART

OF LAND USE PERMIT NUMBER MV2001C0022

Part A: Scope of Permit

- 1. This permit entitles <u>Canadian Zine Corporation</u> to conduct the following activities: Conduct mineral exploration activity consisting of 50 to 60 diamond drill holes located throughout the Prairie Creek Mine property, 61°33'N & 124°48'W.
- 2. The Permit is issued subject to the conditions contained herein with respect to the use of land for the activities and area identifies in Part A, Item 1 of this permit.
- 3. Compliance with the terms and conditions of this permit does not absolve the Permitee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

Part B: Definitions

- "Act" means the Mackenzie Valley Resource Management Act;
- "Artesian Aquifer" means a water-bearing stratum, which when encountered during drilling operations, produces a pressurized flow of groundwater that reaches an elevation above the ground surface;
- "Board" means the Mackenzie Valley Land and Water Board established under Part 4 of the Mackenzie Valley Resource Management Act;
- "Dogleg" means clearing 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;
- "Drill Waste" means all materials or chemicals, solid or liquid, associated with the drilling of boreholes and includes borehole cuttings;
- "Inspector" means an Inspector designated by the Minister under the Mackenzie Valley Resource Management Act;
- "Oil Based Drilling Muds" means drilling fluids, which use naturally occurring solutions or refined hydrocarbons as a carrier fluid;
- "Permeability" means the capacity to transmit water through a medium;
- "Sewage" means all toilet wastes and grey water;
- "Sewage Disposal Facilities" means sump(s) and/or sewage collection tank(s) designed to hold sewage;
- "Sump" means a man-made pit, trench hollow or eavity in the earth's surface used for the purpose of depositing waste material therein;

LAND USE PERMIT



Permit Class	Permit No	Amendment No
Α	MV2001C0022	
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Subject to the Mackenzie Valley Land Use Regulations and the terms and conditions in this Permit, authority is hereby granted to:

Canadian Zine Corporation			
	Permittee		
To proceed with the land use operation des	scribed in application of:		
Signature J Poter Campbell Type of Land use Operation	Date March 5, 2001		
Mineral Exploration			
Prairie Creek Mine			
Dated at Yellowknife, NT this	8th day of November , 2001		
ignature Chair	Signature Witness		
anhere_	_ linlyn Gargin		
ommencement Date	Expiry Date		
lovember 30, 2001	November 29, 2006		
LIS A CONDITION OF THIS DEDINATE TO	NOTE		
APPLICABLE ACT, REGULATION, ORDI	HAT THE PERMITTEE COMPLY WITH ANY OTH NANCE BY-LAW OR ORDER, DEFAULT HERE		