

Canadian Zinc Corporation

- *Newly acquired Damoti gold project hosts high-grade zones with grades over 30 g/t*
- *Drilling will test existing and new targets at Damoti this summer*
- *Prairie Creek project contains 12 million tonnes of zinc rich mineralization*
- *Five km of underground workings access the main Prairie Creek zone.*
- *All the main components for a 1500 TPD operation are in place at Prairie Creek*
- *Permitting of Prairie Creek in anticipation of higher zinc prices is underway*
- *\$80 million of has been spent developing the Prairie Creek project*

Canadian Zinc Corp.'s (CZN-T) main asset is the Prairie Creek zinc project, a near complete mining operation awaiting higher zinc prices. CZN has just added gold exploration to this large zinc asset base, which adds the potential for speculative gains in the short run to the existing asset play at Prairie Creek.

Canadian Zinc Corp. spent the last decade expanding its zinc resource at the Prairie Creek project in Canada's Northwest Territories, and outlined a new ore source in the process. Its efforts increased the resource to 12 million tonnes and demonstrated a large potential for continued expansion through exploration. CZN's market value of under \$1 per resource tonne at Prairie Creek gives it good leverage and potential for a strong move on recovering zinc prices.

Contents

<i>Overview.....</i>	<i>pg 1</i>
<i>Corporate and Market History.....</i>	<i>pg 2</i>
<i>Projects Summary.....</i>	<i>pg 3</i>
<i>Projects – Damoti Lake gold.....</i>	<i>pg 4</i>
<i>Projects –Prairie Creek zinc.....</i>	<i>pg 5</i>
<i>Canadian Zinc – In Brief.....</i>	<i>pg 8</i>

The Damoti Lake gold project was one of Canada's most watched discoveries during the 90s gold boom. Exploration at Damoti in the mid 90s established a small high-grade gold resource. However, that operator focused narrowly and did not test the bulk of the project's potential. CZN will pick up where that work left off and determine the potential for tonnage on top of the existing high-grade starter zone.

A Vanguard Review

By Vanguard Consulting Ltd., Publisher of *The Hard Rock Analyst*

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MARKET/CORPORATE HISTORY

Canadian Zinc Corp was involved in non-resource activities until 1991 when the Company acquired an option on the Prairie Creek project, changed its name to "San Andreas Resource Corp." and split its shares on a two-for-one basis. Exploration success prompted the Company to renegotiate the agreement as a purchase rather than an option. It also ensured the Company's share price remained strong and generated enough interest for it to complete the sale of two million shares to raise a net \$4.4 million. This placement and a couple of smaller ones carried the Company through the early 1990s.

Base metal prices were generally good during this period and the Company managed to expand the existing resource at Prairie Creek and generally hold the market's interest. Another placement of 2.5 million shares at \$1.00 was completed in 1995. Sufficient work had been done for the Company to shift focus and start the permitting process. Of particular importance was reaching agreement with the local native bands that would be necessary to complete the mine permitting process. These negotiations were important in establishing a strong local support for the project. The negotiations and the concurrent completion of the property purchase were in place by the end of 1996.

In early 1997 the junior resources market was being hit by scandals, and then by the Asian economic crisis that drove down the prices of both commodities and the companies that produce them. CZN's price eased below \$1, but there was enough interest in an increasingly difficult market for the Company to complete further financings in 1997, of 1.75 million units at \$0.45 plus the exercise of 890,000 warrants attached to that financing which raised an additional \$445,000.

In 1999 the Company changed its name to the current form to better reflect its focus on the Prairie Creek project. Difficulty raising funds in an increasingly weak base metals market was exacerbated by management differences and concerns as the 1990s drew to a close. These problems culminated in a complete change in the

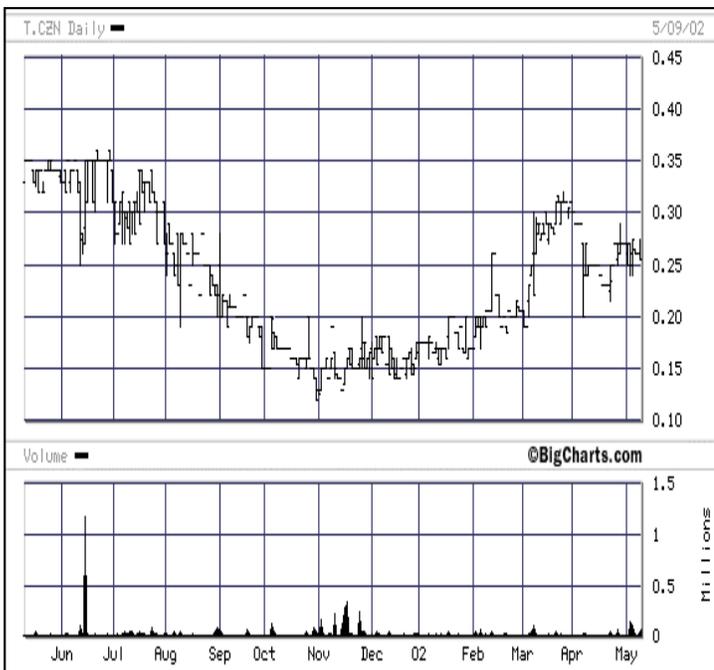
board of directors in mid-2000. With the exception of one director hired in 1999, all of Canadian Zinc's current senior management and Board of Directors date from this period.

All the new Directors and Officers who came on board in 2000 are seasoned mining industry professionals, with experience in both project development and capital market activities. President and CEO Malcolm Swallow has over thirty years of mining industry experience. He has worked on several projects with Imperial Metals and Anglesey Mining PLC, taking them through the development phase to full-scale production. John MacPherson, CZN's Chairman, has broad experience on the finance side with a number of other resource issuers. Other directors include John Kearney, Chairman of Anglesey and previously CEO of Northgate Explorations and Campbell Resources; Hugh Morris, Chairman of Eldorado Gold and Windspear Resources; David Shaw, a consulting geologist with a broad base of project experience; and Robert Gayton, who rounds out the Board, is a financial consultant to public companies who serves on a number of other Boards.

The arrival of the new Board helped stabilize the stock in a weak market and Canadian Zinc was able to complete several flow-through private placements in short order, raising a little over \$1.5 million through the sale of 3.3 million shares in May and July of 2000. The general decline in equities markets, plus the US recession and September 11 effect on base metal prices account for the price decline through 2001. Unlike many peers, CZN was able to keep raising cash. The stock bottomed in late 2001 along with the zinc price and has been on an up trend since then, gathering some steam in March when the Company announced the option of the Damoti Lake project.

The stock has settled into the \$0.25-30 range and has been trending up since the beginning of May. It should gain strength as the summer exploration season approaches and the Company releases more details about upcoming work programs. Canadian Zinc has sufficient funds on hand to get the programs off the

ground, and has announced plans to raise an additional \$1 million in both flow-through and non flow-through placements.



Though Prairie Creek is still the Company's most important asset with its large potential cash-flow value, news flow and market interest in the short run will be based on exploration set to begin on the recently optioned Damoti Lake gold project.

Canadian Zinc's plans for the Damoti Lake option are still being finalized and laid out for the market. The strengthening gold market is drawing increasing attention to companies operating at earlier exploration phases. Projects such as Damoti that have both a history of delivering high-grade results and a considerable untested potential are moving to the forefront as profits are taken from the sector's producers. CZN is well positioned to draw investors and market watchers looking for gold-based gains. As this report was going to print, CZN announced a \$600,000 financing priced at \$0.30 that we expect to be closed shortly.

PROJECTS SUMMARY

Like any of its peers, Canadian Zinc has had to live through a very tough zinc market over the past five years. Unlike most, it has cleaned itself up corporately and holds its main zinc asset debt free. The **Prairie Creek zinc** project has a large, well-established zinc resource, and as importantly a still largely untested potential for resource expansion. An attempt was made to bring the deposit to production as a silver rich operation during the run on the silver market in the late 70s. This and later work valued at \$80 million have developed underground workings and a full plant and surface infrastructure for eventual development of the project as an operating mine.

However, the practical revival of the project requires a higher zinc price within a more stable, rising metals market. At present any new zinc development competes with a number of money losing operations that persist in order to maintain cash flow to creditors. While the market resolves this issue, CZN has moved to explore in a gold sector that has recently returned to favour and offers better opportunity for near term share price gains and funding.

CZN's first gold venture is **Damoti Lake**. Damoti Lake has an existing shallow high-grade gold resource of 150,000 to 200,000 oz. Past operators emphasised drilling off the resource areas in detail. The underground program late in their exploration process significantly changed the understanding of the deposit model and expanded the project's potential. Most of the established trend has yet to be tested, and the new deposit model opens the balance of the project area to exploration that will begin this coming summer.

And Canadian Zinc continues to review possible additions to its project portfolio. As CZN outlines its plans for Damoti Lake, the project's speculative appeal will lift the stock from the base provided by the Prairie Creek assets. A new find at Damoti would re-base the stock at a much higher level.

DAMOTI LAKE GOLD

The Damoti Lake project is located 200 km north of the Territorial capital of Yellowknife and consists of 4,600 ha (11,000 acres). Canadian Zinc may earn 50% of the project for expenditures of \$2.4 million over 4 years. A total \$14 million has been spent on the project to date. The project primarily contains metasedimentary rocks similar to those that host gold mines at Yellowknife and other sites in the Territory. Damoti is within a 100 km long trend of gold deposits in varied settings. Past work was very much focused on using the geological model for the Lupin Mine located northeast of the project. This singular focus on the project as an "iron-formation" hosted system has left most of it unexplored.

Banded Iron Formation (BIF) is a hard layer that is silica rich, found within a sequence of metasedimentary rocks. Past work at Damoti focused on an assumption that the gold was deposited within the BIF during or near the time the layer originally developed. This would mean gold would only be found in the BIF, and that better concentrations would be found at the noses of folds that developed in the sequence after the gold had been deposited.

The original gold find at Damoti in 1991 was on a small island, which was given the name BIF Island. Follow up work located the BIF trend at both the north and southeastern ends of the lake. Sampling of surface outcrops located some very high-grade sections in the southeast section, and some locally extensive gold responses north of the lake.

A series of drill programs were completed to test the BIF Island Zones and the showings at the southern end of lake. The rock sequence is highly folded in an accordion like pattern and the initial focus was to test below high-grade surface showings to locate the presumably enhanced areas at the fold noses. This located three areas of concentration, the BIF Island and BIF Island North Zones under the lake, and the Horseshoe Zone on the southeast shore. Over 150 drill holes were completed, the bulk of them on these three Zones. Many of the intervening high-grade

occurrences on the southeast shore were also partially tested.

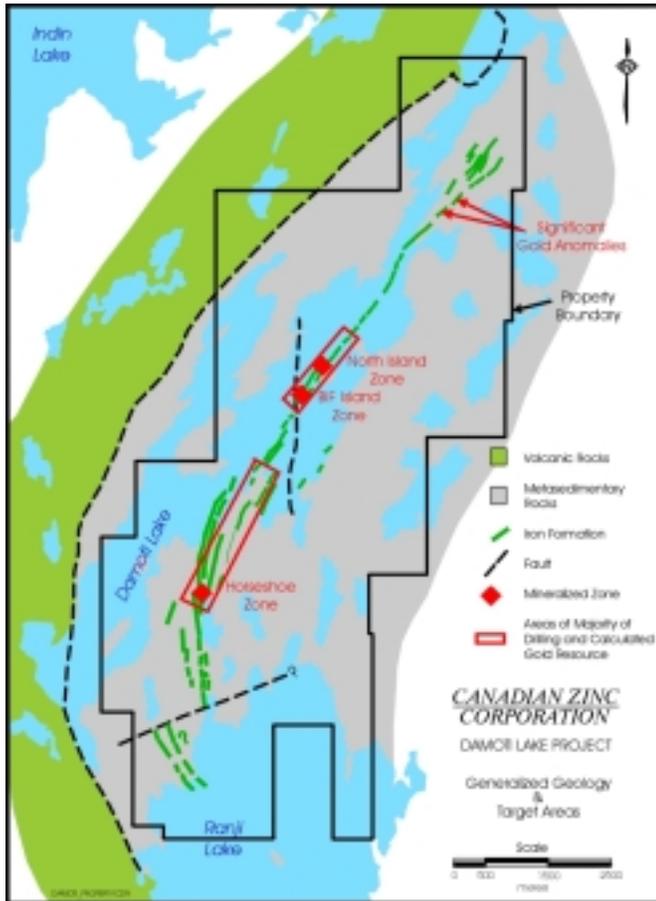
The **BIF and BIF North** Zones are quartz stockwork zones. Though the core high-grade portions of these zones are small, the broad scale of the associated alteration shows the system has the potential to create a large tonnage deposit.

Based on a series of very high-grade drill results, a shallow decline ramp was driven to access the **Horseshoe** Zone at depths of 25 and 40 metres. Mineralization at Horseshoe is significantly different in form from the BIF Island Zones. High-grade gold in the main (south) zone at Horseshoe is in quartz poor bodies located on and adjacent to pyrite-pyrrhotite mineralization, with higher gold grades associated with higher pyritic content.

Several estimates of the gold resource were made during the underground phase of work at Horseshoe. These calculations indicate 200,000+ oz of gold in a series of discrete zones. Quest's December 1997 calculation, the latter of the two estimates and focused on higher grades, included two blocks containing almost 40,000 oz each at average grades 42 g/t and 56 g/t gold. A third block contains over 20,000 oz at an average 29 g/t gold. In total 15 of the blocks contain over 2,000 oz at grades above 10 g/t, and these represent over 150,000 of the calculated ounces. Very high-grade results were not cutback to maximum allowable values and calculations were not qualified by specific categories in current use. But the samples spacing is close enough for the estimates to be a good indication of grade.

The highest grades at Horseshoe are in and adjacent to sheared zones. A model for gold emplacement at Horseshoe recognized during underground work is gold in fluids channelled along the shears dropping out of solution due to chemical reaction with the BIF. The shears cutting across the BIF at Horseshoe are interpreted as being offsets from a main shear trend that parallels the iron formation trend. Since the size of the zones is partly related to the size of the contact area between the shear zones

and the BIF, larger gold zones would be expected where the two meet at acute angles. This would mean that locating areas where the parallel main shear and BIF trends are in contact might result in discovery of much larger gold deposits than those found to date.



Since this model establishes shear zones as conduits for the gold, it opens the project to exploration for other good host material in contact with the shears. In addition to defining targets along the untested portions of the BIF, CZN can expand the exploration to the balance of the project that has never had any targeting programs done over it.

Adding the expanded potential of the new geological model to Damotri's history of high-grade gold discovery gives Canadian Zinc's work a speculative appeal that will show up in its market as the targeting proceeds.

PRAIRIE CREEK ZINC

Prairie Creek is located near the NWT side of the NWT/Yukon border, 550 km north of Fort Nelson B.C. and 800 km west of Yellowknife. The camp has winter road access and a year-round 3000-foot airstrip. CZN owns 100% of the project subject to a capped 2% NSR.

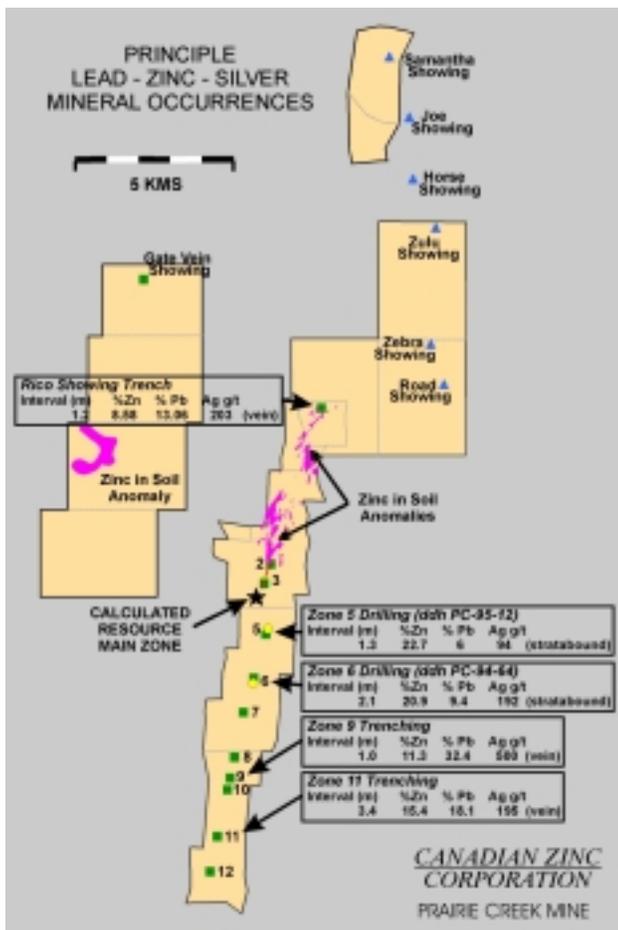
Early discovery work at Prairie Creek took place in the 1960s, with the most intense exploration following in the late 1970s and early 1980s when the Texas based Hunt brothers controlled the project. Zone 3 was drilled and explored by 5 km of underground adits and crosscuts, and a 1000 tonne per day (TPD) mill and ancillary equipment were installed on the property. Prairie Creek was near production in 1982 when the companies involved ran out of funds and lead company Cadillac Explorations went bankrupt. The project was tied up till 1986 when Nanisivik Mines acquired it from the bankruptcy trustee, and optioned it to CZN 1991.

Previous operators concentrated exploration and development efforts on "Zone 3", a massive sulphide vein that contains the bulk of the measured resource and is the location of the present underground workings. When CZN took over the project in 1992 they tested some deeper targets to extend Zone 3 down dip and discovered the "Stratabound Zone" 200 metres below surface. Work then concentrated on enlarging this new zone and extending Zone 3 down dip towards it.

Though previous operators had undertaken considerable underground development and all but completed constructing a mining and milling operation, the outlined resource when CZN took the project over was not large. The Company has enlarged that resource six-fold. The total estimate as calculated by MRDI in January 1998 for the main Zone 3 area is 11.8 million tonnes averaging 12.5% zinc, 10.1% lead, 161 g/t silver and 0.4% copper. A further 300,000 tonnes had been calculated for Zones 7 and 8 by previous operators.

The main Vein and related stockwork mineralization makes up the bulk of the drilled-off

resource. It is composed of massive sulphides within a structure that variably dips to the east at angles from -40° to vertical and averaging about -65° . It is a zinc-lead-silver-copper vein with sphalerite (zinc sulphide) and galena (lead sulphide plus contained silver) being the main ore minerals, with tennantite-tetrahedrite containing the copper and half the silver, plus some pyrite making up part of the waste. Where the vein is open to surface, ground water weathering has altered the sulphides to secondary forms.



The main Zone 3 vein has been traced for 2.5 km of strike extent and remains open. Mineralization has been located in the Vein structure along a total length of 16 km. Although the Vein structure cuts and may contain some mineralization in all of the rock units on the property, coherent and potentially viable zones are restricted to highly competent rocks in the lower portion of Road River Formation and underlying Whittaker Formation. Since the rock

units are in an undulating fold pattern, sections of competent host come to or near surface at a number of points along trend.

The Stratabound mineralization is composed of sphalerite, galena and waste pyrite within in zones replacing sections of Whittaker dolostone, a magnesium bearing limestone. Though the defined stratabound zones adjacent to Zone 3 are a small proportion of the current resource base, we consider them an important portion of the project's potential because they have a significantly higher zinc/lead ratio and a less complex metallurgy than the Vein material. There is still considerable untested potential for locating stratabound mineralization in the Zone 3 area. And high-grade occurrences of stratabound mineralization have been found adjacent to Vein occurrences along much of the southern trend extension.

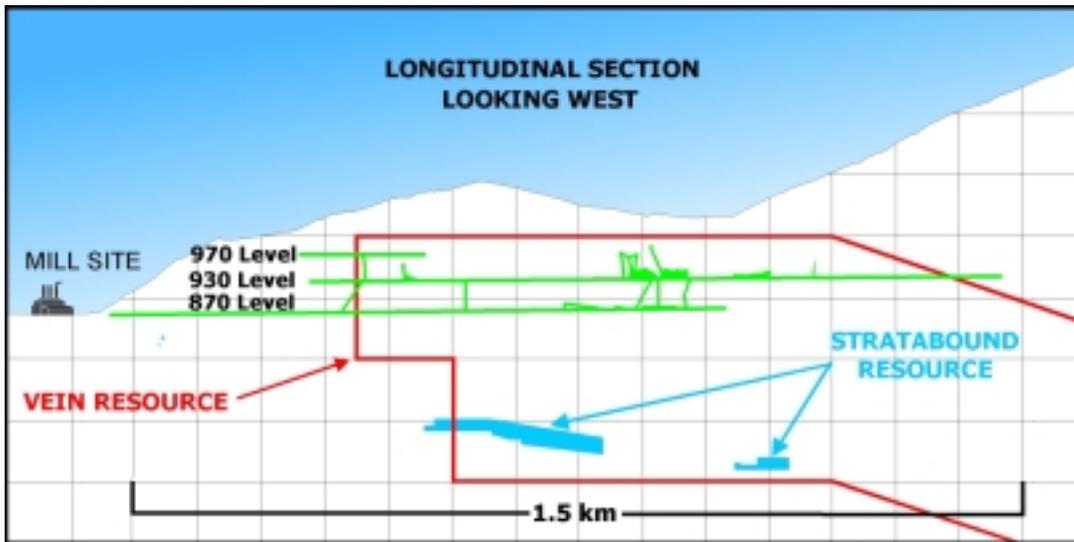
The following is the break down of the Zone 3 geological resources calculated by MRDI:

Vein, Measured & Indicated, 2 million tonnes @:
11.6% Zn, 12.9% Pb, 192g/t Ag & 0.4% Cu.
Vein Inferred, 7.4 million tonnes @:
12.7% Zn, 11.0% Pb; 174 g/t Ag & 0.4% Cu.

Stockwork M & I, 307,000 tonnes @:
18.8% Zn, 8.0% Pb, 175 g/t Ag & 0.5% Cu.
Stockwork Inferred, 742,000 tonnes @:
14.6% Zn, 5.0% Pb, 145 g/t Ag & 0.4% Cu.

Stratabound M & I, 1.3 million tonnes @:
10.6% Zn, 5.2% Pb & 56 g/t Ag.
Stratabound Inferred, 124,000 tonnes @:
7.9% Zn, 2.7% Pb & 26 g/t Ag.

A third type of shale-hosted mineralization of the Mississippi Valley type has also been located and tested by a few drill holes on the north end of the project. Though the 4% zinc grades to date are sub-economic, this is the deposit form typical of large zinc deposits on the continental scale belt in which the project is located. These have included Cominco's Pine Point Mine in the NWT and the Faro area Mines of the Yukon.



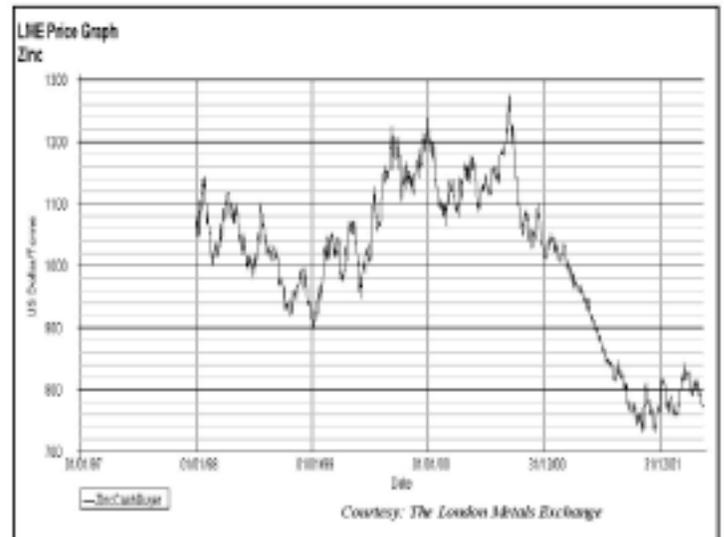
ideas such as the gravity pre-concentrator could further reduce costs. Use of a small pressure leach system to reduce the copper concentrate and leave the antimony and arsenic contained with it on site is one possibility. More of the simpler and cleaner stratabound ore would also reduce costs.

After peaking above US \$0.54/lb in late 2000 the zinc price fell as the US and other economies weakened to a low of \$0.34/lb in November 2001. The zinc price is slowly trending upwards again, and will strengthen as the world's economy regains footing and returns to a path of solid growth.

Using the global resource estimate CZN undertook a Scoping Study that was completed in January of 2001, and has begun the permitting process. The study assumed a 1,500-TPD operation with a capital cost of C\$40.5 million, including an all-weather road. The study used fixed rates of C\$0.66/US\$1 and prices of US \$0.50 for zinc (Zn), \$0.25 for lead (Pb), \$0.90 for copper (Cu) and \$5.50 per troy ounce (oz) for silver (Ag). Using a 10% discount rate, before taxes and financing costs, an IRR of 45.6% and a Net Present Value of C\$97.2 million for the first 10 years of a mining operation was calculated. The breakeven cash production cost under this scenario was \$0.345 per pound of zinc after by-product credits.

A variety of mining methods are outlined using a 15% dilution rate, to achieve an average cost of \$35.3/ore tonne. The study's overall operating cost is \$62/ore tonne. The most important proposed addition to the existing plant is gravity separation of coarsely ground ore, 1.0-0.5 mm, to reduce the tonnage to the existing flotation circuit by about 50%. This would increase the effective plant capacity to 1,750 tonnes/day at minimal cost while retaining 95% of the zinc-lead and doubling its grade for final grind and concentration. The study also proposed using the workings for the bulk of tailings disposal, thus reducing costs and concerns of disposing metal laden material.

With metal prices now at low ebb, the study is a basis for future wealth. Testing of other smart



Prairie Creek is a solid zinc-price hedge that can be accumulated while metal prices are still low. When the zinc market improves, it will also have a speculative appeal as further testing is done to expand the resource. Right now it compliments the Company's move into gold, as a holding that underpins the more speculative gold ventures.

Canadian Zinc Corp.

LISTED: Toronto Exchange, symbol **CZN**

SHARES: **33.3 Million Issued,**
41.1 Million Fully Diluted

Of which **28 Million Float**

MAJOR SHAREHOLDERS: Management (Direct /Indirect) 8%

CASH ON HAND: \$ 0.4 million

52 WEEK RANGE: \$0.12 – 0.36; Recent Price: \$0.26

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Focus: Gold: Recently optioned the Damoti Lake gold project in the NWT; programs culminating in testing of new targets in order to add to the project's existing 150,000-200,000 oz of near surface high-grade zones beginning in mid-2002. Zinc: Owns the Prairie Creek deposit, a 12 million tonne zinc-lead-silver- copper resource. Prairie Creek is open to expansion and has a number of untested zones and other occurrences. Prairie Creek includes an essentially complete infrastructure for a 1500 TPD mining operation including mining and milling equipment, with an estimated replacement value of \$80 million. Some pre-permitting has been completed and agreements are in place with local native bands.

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