



PRESS RELEASE

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CANADIAN ZINC REPORTS RESULTS OF PRAIRIE CREEK PRELIMINARY FEASIBILITY STUDY

New Independent Mineral Resource and New Mineral Reserve Estimates

Vancouver, British Columbia, June 27, 2012 - Canadian Zinc Corporation (TSX: CZN; OTCQB: CZICF) is pleased to announce the results of the Preliminary Feasibility Study on the Company's 100% owned Prairie Creek Mine in the Northwest Territories and new independent Mineral Resource and Mineral Reserve estimates.

The Pre-Feasibility Study ("PFS") was undertaken by SNC Lavalin Inc. ("SNC-Lavalin") from its Vancouver office. A review of the Mineral Resource was undertaken, and a new Mineral Resource estimate was prepared, by AMC Mining Consultants (Canada) Ltd. ("AMC") and a new Mineral Reserve estimate was prepared by Barrie Hancock P. Eng. As part of its mandate, SNC-Lavalin consolidated technical data into the PFS report prepared by these other consultants retained by Canadian Zinc.

Highlights of the Prairie Creek Project Pre-Feasibility Study

(All costs \$CDN at par with \$US, t=tonne, M=million, g=gram, lbs=pounds, tpd=tonnes per day, intended level of accuracy of capital cost estimates are +/-20%)

- Pre-tax Net Present Value ("NPV"), using an 8% discount, of \$253M, with an internal rate of return ("IRR") of 40.4% and payback period of three years, based on base case metal price forecasts of \$1.20/lb for both zinc and lead and \$28.00/oz silver, for the first two years of mine production during 2014/15, then reducing to long-term prices of \$1.00/lb zinc, \$1.00/lb lead and \$26.00/oz silver in 2016 and thereafter.
- Average annual earnings before interest taxes depreciation and amortization ("EBITDA") of \$66M per year and \$686M over the life of the Project.
- 11 year mine life based exclusively on a defined mineral reserve of 5.2 million tonnes, grading 9.4% zinc and 9.5% lead, with 151 g/t silver.
- The PFS does not take into consideration the Inferred Resources of 6.2 million tonnes of 14.5% zinc, 11.5% lead and 229 g/t silver, which is currently too speculative geologically to have economic considerations applied to them, however, if upgraded to measured or indicated could add to mine life.
- Average annual production of 60,000t of zinc concentrate and 60,000t of lead concentrate containing 76M lbs of zinc, 90M lbs of lead and 2.2M ounces of silver.
- 100% underground operation with mining rates averaging 1,350 tpd, primarily utilizing the cut-and-fill mining method and with paste backfill consuming 100% of the tailings stream generated from the 1,000 tpd milling process.

- Pre-production capital costs, excluding contingency, is estimated to be \$160M of which \$42M will be incurred in year 1 and \$118M in year 2 with an additional contingency of \$33M.
- Working capital is estimated at \$41M, which includes a \$7M contingency and the cost and delivery of materials, supplies and fuel for the first season of operation in addition to the first three months of operating expenditures, with the assumption the concentrate will be sold as produced.
- Average life-of-mine (“LOM”) cash operating costs of ore mined (before transportation costs) are estimated at \$144/t and a LOM sustaining capital of \$11M.

Overview of Project Assumptions, Parameters and Results

Base Metal Price Forecast (“Base Case”)

	2014	2015	Long Term
Zinc (\$/lb)	\$1.20	\$1.20	\$1.00
Lead (\$/lb)	\$1.20	\$1.20	\$1.00
Silver (\$/oz)	\$28.00	\$28.00	\$26.00

C\$:US\$ exchange rate: C\$1/US\$

Figures are estimated using Q2 2012 dollars

The metal prices used in the estimated cash flow were derived from a survey of a number of reputable sources and represent consensus expectations of an increase in the prices of both lead and zinc in the medium term of 2014 to 2015, driven by an expectation of increased industrial demand coupled with the expected shut down of a number of larger lead and zinc mines, declining to long term projected flat prices after 2016.

Mine and Mill Parameters:

Mine type	Underground
Total mined	5.2Mt
<u>Average grade</u>	
Zinc	9.4%
Lead	9.5%
Silver	151 g/t
Mining rate	1,350 tpd
Milling rate	1,000 tpd
Project life	11 years
<u>Estimated recoveries</u>	
Zinc	75%
Lead	88%
Silver	92%
<u>Average annual metal production</u>	
Production of zinc concentrate	60,000t
Production of lead concentrate	60,000t
Zinc	76M lbs
Lead	90M lbs
Silver	2.2M oz

<u>Operating Costs (Year 5, \$/t ore mined)</u>	
Mining	\$72
Milling	\$37
G&A	\$11
Surface	\$24
Trucking & rail	\$60
Total Operating Costs	\$204
<u>Capital</u>	
Pre-production capital (including \$33M contingency)	\$193M
Initial working capital (including \$7M contingency)	\$41M
<u>Financial Analysis:</u>	
Average annual EBITDA	\$66M
Pre-tax NPV using a 8% discount rate	\$253M
Pre-tax IRR	40.4%
Pre-tax payback period	3 years

Background to the Prairie Creek Mine Development Plan and Pre-Feasibility Study

In February 2011, Canadian Zinc engaged SNC-Lavalin from its Vancouver office to assist in the ongoing development and to complete a PFS on the Prairie Creek Mine (the “Project”). This was a continuation of some earlier 2008 work that had been carried out by SNC-Lavalin. Some SNC-Lavalin personnel have had involvement with the Prairie Creek Mine since it was originally designed by Kilborn Engineering (subsequently acquired by SNC-Lavalin) and constructed in 1982.

SNC-Lavalin is experienced in the design, development and delivery of mining, processing, tailings, and infrastructure and transportation facilities and has comprehensive knowledge with respect to the unique challenges of designing and constructing mining projects in the Northwest Territories.

The scope of SNC-Lavalin’s work included on-site infrastructure assessment, preliminary engineering, off-site infrastructure design, transportation and logistics, capital cost estimates for the rehabilitation and upgrade of the processing plant, power plant, water treatment plant, new water storage ponds and an engineering procurement and construction management (“EPCM”) plan. A comprehensive cash flow model was designed to estimate the economics of the proposed operation.

During 2012, the work completed by SNC-Lavalin progressed with a primary focus on water treatment, storage facilities and milling and processing costs. A power load schedule was developed for the mill and site facilities directly linked with a heat recovery system required to support the proposed mining operation.

Updates to the PFS are anticipated and will include further site investigation data and geotechnical work that is currently underway along with defined permitting parameters as they are established through the course of the final regulatory process.

MINERAL RESOURCE ESTIMATE

A new independent mineral resource has been completed by Qualified Persons (“QP”), as defined by National Instrument 43-101 (“NI 43-101”), J. Morton Shannon, P.Geo. and Dinara Nussipakynova, P.Geo. of AMC reporting a Measured and Indicated resource of 5.43 million tonnes at a grade of 10.8% Zn and 10.2% Pb with 160 g/t Ag per tonne and an Inferred resource of 6.24 million tonnes at a grade of 14.5% Zn and 11.5% Pb with 229 g/t Ag per tonne.

A reclassification from the Indicated to Inferred category of a multiple high-grade drill intercept at the northern end of the resource model has resulted in a slight overall reduction in the tonnes and grade of the Indicated category and a slight increase in the Inferred category. AMC is a leading mining consultancy, providing worldwide services exclusively to the minerals sector. AMC visited the Prairie Creek mine site and reviewed and verified the Prairie Creek database and reviewed the resource model making minor adjustments to the classification.

The database comprises both underground and surface drill holes in addition to channel samples. Two block models were created: 1) encompassing the Main Quartz Vein (“MQV”) and stockwork (“STK”) solids and 2) for the stratabound (“SMS”) solid. Block values were computed by the inverse distance to the second power (ID²) in all cases. Three passes were performed for zinc, lead and silver for SMS, and included copper in the case of MQV and STK. Specific gravity was interpolated from collected data for the MQV and SMS, while the STK was assigned a value of 3.31. AMC reclassified the Mineral Resource and applied an 8% Zn-Eq cut-off, resulting in the estimates tabulated below:

Mineral Resource Estimate for Prairie Creek Mine

Zone	Class	Tonnes (Mt)	Zn (%)	Pb (%)	Ag (g/t)	Cu (%)
Main Quartz Vein	Measured	1.055	13.2	11.5	209	0.45
	Indicated	2.680	10.5	12.7	200	0.43
	Measured + Indicated	3.736	11.3	12.4	202	0.43
	Inferred	6.236	14.5	11.5	229	0.57
Stockwork	Indicated	0.410	7.7	3.7	69	0.15
Stratabound	Measured	0.640	10.5	6.8	67	0.00
	Indicated	0.641	10.6	5.4	63	0.00
	Measured + Indicated	1.281	10.5	6.1	65	0.00
	Inferred	0.003	12.4	5.1	46	0.00
Totals	Measured	1.700	12.1	9.7	155	0.28
	Indicated	3.731	10.2	10.5	162	0.32
	Measured + Indicated	5.431	10.8	10.2	160	0.31
	Inferred	6.239	14.5	11.5	229	0.57

Notes:

1. Mineral Resources are stated as of May 31, 2012
2. Mineral Resources include Mineral Reserves
3. Stated at a cut-off grade of 8% Zn-Eq based prices of \$1.30/lb for both zinc and lead, and \$35/oz for silver.
4. Average processing recovery factors of 78% for Zn, 89% for Pb and 93% for Ag.
5. Average payables of 85% for Zn, 95% for Pb and 81% for Ag.
6. \$ Exchange rate = 1 CD/USD

AMC also confirms that the Prairie Creek deposit contains a significant amount of Inferred Resources which, upon further delineation, has the potential to double the life of the mine. Furthermore, on-going drill exploration programs are indicating the potential continuation of the primary mineralized structure a further 1.5 km along strike, with the potential to further enhance the size of the resource.

MINERAL RESERVE ESTIMATE AND MINE PLAN

The mining parameters were generated independently of SNC-Lavalin and include capital and operating estimates for underground mining, a mining schedule, preliminary designs of stoping methods and layouts and a paste backfill schedule.

The mine plan and method was reviewed by Barrie Hancock P.Eng., who is the QP responsible for the mining sections of the PFS.

A portion of the Mineral Resources was converted to Mineral Reserves through application of suitable dilution factors in stoping blocks (averaging 22% for MQV and 10% for SMS) utilizing the cut-and-fill mining method for MQV and room and pillar for SMS. A Mineral Reserve of 5.2 million tonnes, grading 9.4% Zn and 9.5% Pb, with 151 g/t Ag has been estimated.

Due to the high grade nature of the deposit, the majority of the vein resource will be mined, allowing for 97% of all of the Measured and Indicated vein resources to be converted to Mineral Reserves and 57% of all measured and indicated resources within the SMS mineralization to be converted to Reserves.

Mineral Reserve Estimate for Prairie Creek Mine

Zone	Class	Tonnes (Mt)	Zn (%)	Pb (%)	Ag (g/t)
Main Quartz Vein	Proven	1.278	10.8	9.4	172
	Probable	3.140	8.7	10.5	165
	Proven and Probable	4.418	9.4	10.2	167
Stratabound	Probable	0.803	9.5	5.7	62
Total Mineral Reserves		5.222	9.4	9.5	151

Notes:

1. Mineral Reserves are stated as of May 31, 2012
2. Mining cut-off grade of 10% Zn-Eq based upon total variable operating cost of \$162/t including mining, processing and transportation.
3. Metal prices assumed are Zn = \$1.10/lb, Pb = \$1.10/lb and Ag = \$28/oz.
4. Average processing recovery factors of 75% for Zn, 88% for Pb and 92% for Ag.
5. Average payables of 85% for Zn, 95% for Pb and 81% for Ag.
6. \$ Exchange rate = 1 CD/USD

All mining will be underground and will produce roughly 1,350 tonnes of ore per day. Mining will initially be focused on the existing three levels (970, 930 and 870 m levels) of underground workings while a ramp is driven to access lower levels. Future underground development workings will include four new deeper levels accessed by a new haulage ramp. Mining methods will be mostly cut-and-fill on the narrow high grade vein structure with some room and pillar on the stratabound resource. Some areas within the vein may be amenable to bulk mining methods, however, the current mine plan uses the conservative case that all vein mining will occur with cut-and-fill.

Processing Facility

The proposed mill facilities will have a 1,500 tpd crushing capacity, with an installed jaw crusher, short head cone crusher, double-decked screen and a 2,000t ore bin.

A new dense media separation (“DMS”) circuit, designed by DRA Americas, at 85 tph capacity, will be installed into the crushing circuit to process -1/2” sized material. Indications from metallurgical testing are that the DMS plant will reject an average of 27% of the waste at minimal metal losses, hence mining input at maximum production rates will be 1,350 tpd and, after passing through DMS plant, will produce approximately 1,000 tpd of material to be processed in the grinding/flotation circuit of the mill.

Power Generation Plan

Five new 1.5 MW diesel powered generator units will provide power and heat for the site. These self-contained, pre-commissioned power generator units will be located adjacent to the mill. Maximum power load for the site is estimated at 4,674 kW and diesel fuel will be the primary energy source required to operate the generators. These generators will be outfitted with heat recovery systems in order to maximize energy efficiency. The waste heat from the generators will be used to heat the surface facilities.

Waste Management Plan

100% of the tailings from the mill will be placed permanently underground in a form of paste backfill mix generated from the new paste backfill plant. The paste backfill plant is being designed by Kovit Engineering Ltd., of Sudbury, Ontario. The remainder of the DMS reject and mine development waste will report to a Waste Rock Pile Facility, to be designed by Golder & Associates, located 700 metres behind the mill off the Prairie Creek floodplain.

Required Manpower

Approximately 200 people are expected to be employed during initial construction, and 235 for operations, with half of such people being on-site at any one time. A new two-storey accommodation block is proposed to be installed at site to house the workforce. Personnel will work shifts of three weeks in/three weeks out, with transport by charter flights from the existing 1,000 m gravel airstrip. Canadian Zinc’s hiring policy is to give preference to qualified local residents, followed by northern residents. Training programs, some of which are currently underway, will be organized to further maximize local employment.

Access Road Construction and Transportation Plan

A detailed transportation plan and schedule has been developed incorporating use of winter road access and transfer facilities. New storage facilities will be built at site to temporarily store concentrate when the winter road opens. The Tetcela Transfer Facility will be established at a mid-point along the access road as a temporary storage area for concentrate prior to the ice bridge being established each winter over the Liard River. The Liard Transfer Facility located on the NWT highway system will act as an inbound/outbound storage area for both supplies and concentrate and for all-season access to railhead in Fort Nelson, B.C. where a rail siding facility is planned. All building costs have been incorporated into the PFS.

The 184 km long winter road with two transfer facilities will provide temporary surface access to the site for a minimum of 60 days of the year, with associated initial capital construction costs of \$4.3M and annual establishment and maintenance costs of \$1.4M and \$1.9M, respectively.

Total average transport costs including trucking and rail of \$245/t concentrate. Formal smelter arrangements have not been agreed to at the present time; however, normal course treatment charges and penalties for deleterious elements have been applied. Off-take agreements can now be pursued by the Company over the course of this year.

Production

The Project will produce three types of concentrates: a zinc sulphide, a lead sulphide and lead oxide concentrate. The lead concentrates will be combined into one concentrate. The concentrates will be shipped out in 3 tonne bags in enclosed haul trucks via the winter road. The zinc oxide component of the ore is not, at this time, considered saleable and will not be recovered into concentrate. However, the opportunity to recover the zinc oxide ore represents an area of future study to enhance the revenue potential of the Project.

The Project will generate average annual production of 60,000 tonnes of zinc concentrate containing 76 million lbs of zinc, and 60,000 tonnes of lead concentrate, containing 90 million lbs of lead. The two concentrates will contain 2.2 million troy ounces of silver with the majority of the silver reporting to the lead concentrate.

Capital Cost Estimates

The PFS is based upon capital pricing as of the second quarter of 2012. The level of accuracy of the capital cost estimates are +/-20% for this PFS. The general capital cost breakdown for Prairie Creek is indicated in the following table:

Description	Capital (\$M)	
	Year 1	Year 2
Mine Pre-Development	6	15
Mine Equipment	0	9
Process Plant Upgrade	6	27
DMS & Paste Plant	4	13
Storage Buildings	2	17
New Camp	1	7
Directs & Indirects	6	23
Owner's Costs (incl. Reclamation)	13	0
Various Other Capital	4	7
Total Pre-Production Capital Costs (pre-contingency)	42	118
Contingency	3	30
Total Pre-Production Capital Costs (post-contingency)	45	148
Working Capital (includes \$7M contingency)	0	41
Intended level of accuracy of estimates are +/-20%		

Financial Analysis

A financial analysis with a +/- 10% sensitivity factor centering on the Base Case outlines the average annual EBITDA, NPV, IRR payback period and are shown on a pre-tax basis.

	Low Case	Base Case	High Case
Metal Price Scenario	90%	100%	110%
Average Annual EBITDA* \$M	\$47	\$66	\$84
Pre-Tax NPV (undiscounted) \$M	\$303	\$493	\$683
Pre-Tax NPV @ 8% discount \$M	\$140	\$253	\$366
Pre-Tax IRR	27.4%	40.4%	52.8%
Pre-Tax Payback Period (years)	3.8	3.0	2.5

* Annual average EBITDA does not include year 1 of production

Within the cash flow model, revenue is recognized as the concentrate is generated and does not account for any time delay between shipment and payment for concentrate.

Proposed Prairie Creek Mine Development Schedule

2012. Completion of geotechnical assessments and engineering details of various surface facilities, including the Winter Road, in order to prepare for construction. Financial negotiations to secure funds for capital development and off-take. Enter into an EPCM contract for site planning, detailed engineering and procurement of long-lead items. Continue permitting activities with the Mackenzie Valley Land and Water Board ("MVLWB").
2013. Consideration to be given to open the road for supplies and equipment. Issue of Type 'A' Water Licence and Land Use Permit required for operation of the Project. Pre-mine development, site preparation and further optimization. Completion of procurement of equipment and supplies for delivery in Q4 2013. Pre-construction site preparation and early works programs to expedite construction completion in 2014.
2014. Open winter road in Q1 2014 and mobilize all supplies and equipment into site. During the course of the year, construction activities at the Project would prepare the site for operations including underground development. Commissioning of the mine and mill would take place in Q4.
2015. First shipment of concentrate out on the Winter Road and intake of supplies and equipment to maintain operations for the entire ensuing year.

Recommendations for Optimization

There are a number of recommendations listed in the PFS including:

- Improving efficiencies in transport, scheduling and logistics on the Winter Road.
- Financial alternatives to purchasing of significant equipment and other procurement.
- Early completion of construction, engineering and mine development programs to reduce start-up times required.
- Consider financial arrangements targeted to further reduce Working Capital needs.

- Resource optimization, including targeting drilling to increase the confidence level in the resources and reserves estimated and to identify additional resources.
- Modify the mine plan to include increased resources and identify areas of the mine amenable to lower cost bulk mining methods. Optimization of mine schedule and equipment utilization should follow.
- Further studies aimed at upgrading the zinc oxide concentrate to a commercial grade and producing a copper/silver concentrate to maximize potential future revenues.

Development Plan Moving Forward

A number of field programs and studies are currently underway and will be carried out over the course of the summer at Prairie Creek to further the detailed plan for the mine. Exploration diamond drilling has commenced on the property utilizing two of the company-owned diamond drill rigs. Further discussions regarding financing and off-take arrangements will be pursued along with continuing the permitting process. The MVLWB has recently issued a work plan indicating that a draft "A" Water Licence for Prairie Creek should be issued for review by end of 2012.

Qualified Persons

This press release has been reviewed and approved by Alan Taylor P.Geo. COO & VP Exploration, who is a Non-Independent QP under NI 43-101 for Canadian Zinc.

The QPs have reviewed and approved the content of this news release.

J. Morton Shannon	P.Geo.	AMC Mining Consultants (Canada) Ltd.
Dinara Nussipakynova	P.Geo.	AMC Mining Consultants (Canada) Ltd.
Barrie Hancock	P.Eng.	Barrie Hancock & Associates Inc.

A new NI 43-101 compliant Technical Report will be filed on SEDAR within 45 days of the date of this press release.

Cautionary Statement – Forward-Looking Information

This press release contains certain forward-looking information, including, among other things, the expected completion of acquisitions and the advancement of mineral properties. This forward looking information includes, or may be based upon, estimates, forecasts, and statements as to management's expectations with respect to, among other things, the completion of transactions, the issue of permits, the size and quality of mineral resources and reserves, future trends for the company, progress in development of mineral properties, future production and sales volumes, capital costs, mine production costs, demand and market outlook for metals, future metal prices and treatment and refining charges, the outcome of legal proceedings, the timing of exploration, development and mining activities, acquisition of shares in other companies and the financial results of the company. There can be no assurances that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. The Company does not currently hold a permit for the operation of the Prairie Creek Mine. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that mineral resources will be converted into mineral reserves.

Cautionary Note to United States Investors

The United States Securities and Exchange Commission (“SEC”) permits U.S. mining companies, in their filings with the SEC, to disclose only those mineral deposits that a company can economically and legally extract or produce. We use certain terms in this press release, such as “measured,” “indicated,” and “inferred” “resources,” which the SEC guidelines prohibit U.S. registered companies from including in their filings with the SEC.

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