



PRESS RELEASE

CZN-TSX
CZICF-OTCQB

FOR IMMEDIATE RELEASE
May 13, 2013

CANADIAN ZINC REPORTS FINANCIAL RESULTS FOR FIRST QUARTER 2013

- **Draft Water Licence and Land Use Permits Issued for Prairie Creek Mine**
 - **Encouraging Results from Drilling at South Tally Pond**

Vancouver, British Columbia, May 13, 2013 - Canadian Zinc Corporation (TSX: CZN; OTCQB: CZICF) (“the Company” or “Canadian Zinc”) announces its financial results for the three month period ended March 31, 2013.

Financial Results March 31, 2013

For the three month period ended March 31, 2013, the Company reported a net loss and comprehensive loss of \$4,673,000 compared to a net loss and comprehensive loss of \$2,532,000 for the three month period ended March 31, 2012. The net loss in the three month period ended March 31, 2013 included a loss of \$2,319,000 on the Company’s marketable securities compared to loss of \$1,509,000 for the comparative period. Excluding the loss on the marketable securities, the Company recorded a loss of \$2,354,000 for the three month period ended March 31, 2013 compared to a loss of \$1,023,000 for the previous three month period.

At March 31, 2013, the Company had a positive working capital balance of \$4,670,000 including cash and cash equivalents of \$25,000, short term investments of \$2,282,000 and marketable securities of \$2,665,000 (for a total of \$4,972,000).

Prairie Creek Mine Permitting Update

During the first quarter of 2013 Canadian Zinc made good steady progress with its applications for operating permits for the Prairie Creek Mine which continued to be processed by the Mackenzie Valley Land and Water Board and Parks Canada.

In January 2013, the Water Board issued the final Land Use Permit for the winter road connecting the Prairie Creek Mine to the Liard Highway. The Company received a Draft Water Licence and draft Land Use Permits, required for milling and mining operations at Prairie Creek, on March 15, 2013. The Water Board is expected to finalize the Water Licence and subsequently forward it to the Minister of Aboriginal Affairs and Northern Development Canada for approval by mid-2013. On April 5, 2013 the Company received a Draft Land Use Permit and Draft Water Licence from Parks Canada for that portion of the winter road which passes through the Park.

Draft Class "A" Water Licence and Land Use Applications (Operations)

The permitting process of the main licences under the Mackenzie Valley Land and Water Board, ("Water Board" or "MVLWB") continued in January with the submittal of closing arguments from all parties and Public Hearings held in Fort Simpson and with Nahanni Butte.

On March 15, 2013, the Water Board issued a Draft Type "A" Water Licence and two Draft Type "A" Land Use Permits for the operation of the Prairie Creek Mine subsequently followed by draft conditions pertaining to Effluent Quality Criteria aspects of the Water Licence. This Water Licence will entitle Canadian Zinc to conduct mining, milling and associated activities at the Prairie Creek Mine site. The Land Use Permits will authorize construction and other activities on the Prairie Creek Mine site and on the winter road Transfer Facility near the Liard Highway.

The Draft Water Licence, Effluent Quality Criteria and Draft Land Use Permits were circulated to the government agencies and parties and all comments were received by the Water Board on April 12, 2013. Canadian Zinc responded to the Water Board with its own comments on April 19, 2013. All comments received will be considered in the finalization of the licence and permit conditions. The revised Licence and Land Use Permits will then be submitted to the Water Board for formal approval. Following approval by the Water Board, the Water Licence will be sent to the federal Minister of Aboriginal Affairs and Northern Development for ratification anticipated by mid-2013.

Road Land Use Permits (Operations)

In January 2013 Land Use Permit MV2012F007 ("LUP") was issued for a period of five years, and permits the construction, maintenance, operation and use of the winter road connecting the Prairie Creek Mine to the Liard Highway which is under the jurisdiction of the Water Board (Crown Land). This permit allows the outbound transportation of the zinc and lead concentrates to be produced at the mine and the inbound transportation of fuel and other supplies during the actual operation of the Prairie Creek Mine. The newly issued road permit incorporates realignment of the original route which will improve access and further reduce potential environmental impact.

At the same time the Water Board also issued a Type "B" Water Licence (MV2012L1-0005), valid for a period of seven years commencing January 10, 2013, which permits the limited use of water and disposal of waste for road construction, maintenance, and operational activities.

The Company has made separate applications to Parks Canada for a new LUP and water licence for the re-aligned route of the road that lies within the Nahanni National Park Reserve. On April 5, 2013 the Company received a Draft Land Use Permit and Draft Water Licence from Parks Canada.

Diamond Drill Land Use Permit (Exploration)

On April 25, 2013, Canadian Zinc received Land Use Permit (LUP MC2013C0002) which will enable the company to complete further surface exploration diamond drilling throughout the Prairie Creek Property. The LUP is valid for a five year period until April 25, 2018.

Prairie Creek Site Engineering Studies

SNC-Lavalin Inc. continued with engineering studies including detailed process design within the mill complex including electrical, piping, civil, mechanical and structural design. Further site design was completed and advancing access road details which included alignment studies, crossing structures, geotechnical, transfer facility designs and construction planning. Preliminary packages were prepared for request for quotes on long-lead items. With the continued long permitting time engineering and procurement activity was tapered back to minimum by end of this quarter.

South Tally Pond (Newfoundland) 2013 Drill Program

A total of 11 drillholes (3,370 metres), including two drillhole extensions, were completed at the Lemarchant deposit on the Company's South Tally Pond project in central Newfoundland. Full details of the drilling can be obtained from news releases dated February 27, 2013 and April 17, 2013. Highlights of the drill program include:

- New massive sulphide mineralization discovered 250 metres to the northwest of the Lemarchant deposit in drillholes LM13-73 and LM13-74;
- Significant massive sulphide mineralization intersected in drillhole LM13-79 which extends the Lemarchant deposit mineralization 35 metres up-dip; and
- Three drillholes testing the south extension to the Lemarchant deposit intersected favourable felsic volcanic stratigraphy with locally anomalous base metal mineralization.

The drilling program ended in late March and the Company is now incorporating the new data into a revised model and planning for a follow-up drill program later in the year. The future drilling will continue to target the expansion of the Lemarchant deposit.

Outlook

Canadian Zinc's continued focus for 2013 will be to advance the Prairie Creek permit applications through the final regulatory phase to the issue of permits for construction and subsequent production. Approval and issue of the Water Licence and Land Use Permits is expected by mid-year.

Further site and geo-technical work is being contemplated and engineering and some procurement activities will continue this year. Site programs at Prairie Creek will include final assessment of all refurbishment work needed on the mill structure and preparation for opening the winter road.

Subject to adequate financing, the Company is currently planning to carry out pre-development mine site preparation and further optimization during 2013. Consideration also will be given to open the winter road for potential delivery of supplies and equipment in the first quarter of 2014 depending on permitting and financing.

The Company is also planning for a follow-up drill program targeting the expansion of the Lemarchant deposit at South Tally Pond later in the year.

About Canadian Zinc

Canadian Zinc is a Toronto-listed exploration and development company. The Company's key project is the 100%-owned Prairie Creek Project located in the Northwest Territories, Canada. The Prairie Creek Project contains a Mineral Reserve of 5.2 million tonnes averaging 9.4% zinc, 9.5% lead and 151 g/t silver and an Inferred Resource of 6.2 million tonnes averaging 14.5% zinc, 11.5% lead, 0.57% copper and 229 g/t silver. (AMC Mining Consultants (Canada) Ltd. J M Shannon and D Nussipakynova, Qualified Persons, June 2012).

A Pre-Feasibility study completed by SNC-Lavalin in June 2012 indicates a pre-tax net present value of \$253 million using an 8% discount, with an internal rate of return of 40.4% and payback period of three years using long-term metal prices of \$1.00/lb zinc, \$1.00/lb lead and \$26.00/oz. silver, based on the Mineral Reserve alone.

Canadian Zinc also holds a 100% interest in the South Tally Pond VMS project, along with other property interests in central Newfoundland, where a successful drilling program was carried out in winter 2013.

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Risk and Uncertainties

The Company's business and results of operations are subject to numerous risks and uncertainties, many of which are beyond its ability to control or predict. Because of these risks and uncertainties, actual results may differ materially from those expressed or implied by forward looking statements, and investors are cautioned not to place undue reliance on such statements, which speak only as of the date hereof. Investors are advised to review the discussion of risk factors associated with the Company's business set out in the Company's Annual Information Form for the year ended December 31, 2012, which has been filed with the Canadian Securities Regulators on SEDAR (www.sedar.com). The risks and uncertainties, as summarized in the Company's MD&A and in other Canadian and U.S. filings, are not the only risks facing the Company. Additional risks and uncertainties not currently known to the Company, or that are currently deemed to be immaterial, also may materially adversely affect the Company's business, financial condition and/or operating results.

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, 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.