



CZN-TSX
CZICF-OTCQB

FOR IMMEDIATE RELEASE
March 20, 2013

CANADIAN ZINC REPORTS FINANCIAL RESULTS FOR FISCAL 2012

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

Vancouver, British Columbia, March 20, 2013 - Canadian Zinc Corporation (TSX: CZN; OTCQB: CZICF) (the “Company” or “Canadian Zinc”) reports its financial results for the year ended December 31, 2012.

This press release should be read in conjunction with the audited financial statements and notes thereto for the year ended December 31, 2012, and management’s discussion & analysis (“MD&A”) for the year ended December 31, 2012, both available on SEDAR at www.sedar.com.

Financial Results for Fiscal 2012

For the year ended December 31, 2012, the Company reported a net loss and comprehensive loss of \$19,870,000 compared to a net loss and comprehensive loss of \$33,362,000 for the year ended December 31, 2011.

The net loss in the year ended December 31, 2012 included a mark-to-market loss of \$8,804,000 on the Company’s marketable securities in Vatukoula Gold Mines, compared to mark-to-market loss of \$25,693,000 for the comparative year of 2011. Excluding the loss on the marketable securities, the Company recorded a loss of \$11,066,000 for the year ended December 31, 2012 compared to a similar loss of \$7,669,000 the previous year.

At December 31, 2012, the Company had a positive working capital balance of \$9,042,000 including cash and cash equivalents of \$224,000, short term investments of \$5,458,000 and marketable securities of \$4,984,000 (for a total of \$10,666,000).

Prairie Creek Mine

During 2012, Canadian Zinc invested \$9,037,000 on its exploration and evaluation programs at Prairie Creek compared to \$5,489,000 for the year ended December 31, 2011. The overall increase in expenditures at the Prairie Creek Mine site relates primarily to the increased expenditures related to the diamond drilling program, associated camp operation costs, completion of a Preliminary Feasibility Study (“PFS”), ongoing permitting and initiation of various mine planning activities.

A new independent Mineral Resource statement completed in June 2012 by AMC Mining Consultants (Canada) Ltd. reported 5.43 million tonnes of Measured and Indicated Mineral Resources with an average grade 10.8% Zn, 10.2% Pb, 0.31% Cu and 160 g/t Ag and in addition, 6.24 million tonnes of

Inferred Mineral Resources with an average grade of 14.5% Zn, 11.5% Pb, 0.57% Cu and 229 g/t Ag.

A PFS completed by SNC-Lavalin Inc. in June 2012 generated economic parameters to convert the new Measured and Indicated Mineral Resources to Proven and Probable Mineral Reserves. The new Mineral Reserves at Prairie Creek Property were estimated by Barrie Hancock P. Eng. at 5.22 million tonnes averaging 9.4% Zn, 9.5% Pb, and 151 g/t Ag. The PFS 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 3 years. The Proven and Probable Mineral Reserve is capable of supporting a mine life of 11 years at the planned milling rate of 1,000 tonnes per day. In addition the significant tonnage of Inferred Resource is expected to add to the mine life once more detailed definition drilling is carried out.

A new National Instrument ("NI") 43-101 Technical Report entitled "*Prairie Creek Property Northwest Territories, Canada Technical Report for Canadian Zinc Corporation*", Qualified Persons J. M. Shannon, P. Geo., AMC Mining Consultants Ltd.; D. Nussipakynova, P. Geo., AMC Mining Consultants Ltd.; JB Hancock, P. Eng., Barrie Hancock & Associates Inc.; and B MacLean, P. Eng., SNC-Lavalin Inc. and dated June 15, 2012 was filed on SEDAR.

Permitting Moving Steadily Forward

The Company's principal focus was to advance the Prairie Creek Property towards receiving a Class "A" Water Licence and associated Land Use Permits, through the regulatory process established under the *Mackenzie Valley Resource Management Act*, that will permit the further development and subsequent mine production at Prairie Creek.

Advances were made on several permits, details of which can be found in the Company's MD&A for the year ended December 31, 2012. Highlights as follows:

Class "A" Water Licence (Operations): On March 15 2013, the Mackenzie Valley Land and Water Board (the "Water Board") issued a draft Water Licence and draft Land Use Permits. This Water Licence will entitle Canadian Zinc to conduct mining, milling and associated activities at the Prairie Creek Mine site, dewater the underground mine for the purpose of mining, use water for processing and domestic purposes, and to dispose of waste for mining and milling, and backfill paste tailings and waste rock into the underground mine. The Land Use Permits will authorize construction and other activities on the Prairie Creek Minesite and on the winter road Transfer Facility near the Liard highway.

The Water Board circulated the draft Water Licence and draft Land Use Permits to the government agencies and departments and to interested parties and requested comments by April 12, 2013. Canadian Zinc will have a further period of one week to review any comments and to respond to the Water Board with its own comments. The revised draft Licence and draft Land Use Permits will then be submitted to a meeting of 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. Following receipt of comments and any permit revisions, the draft licence and permits, with conditions will be formally considered by the Water Board. Following approval, the licence will be forwarded to the Federal Minister of Aboriginal Affairs and Northern Development ("AANDC") for final ratification, which is anticipated in mid-2013.

Road Land Use Permits (Operations): In January 2013, the Water Board issued the Company Land Use Permit MV2012F007, for the establishment and operation of the winter road that will service an operating Prairie Creek Mine. The Land Use Permit was issued for a period of five years ending in January 2018. CZN was also issued a Type "B" Water Licence MV2012L1-0005, valid for a period of

seven years, to allow the limited use of local water resources and disposal of waste during road construction and operations.

New Mine Decline Land Use Permit Issued (Exploration): In May 2012, the Water Board issued a new Class “A” Land Use Permit, MV2012C0008, for the activity of underground decline development, valid for a period of five years commencing May 10, 2012 and expiring on May 9, 2017. The new Land Use Permit entitles CZN to conduct mining exploration and associated activities, including underground decline development, at the Prairie Creek Mine.

Class “B” Water Licence Amended and Extended (Exploration): The Water Board also approved an amendment of the Company’s existing Class “B” Water Licence, MV2001L2-0003, for the management, treatment and discharge of mine water from the mine site. The Water Licence was amended to cover the underground development of the new decline from the existing 870m level, including pumping, treatment and discharge of water inflows using the existing water treatment infrastructure, and placement of waste rock on an existing waste rock pile. The term of the Water Licence was extended to September 9, 2019.

Prairie Creek Minesite

Numerous site development and exploration programs were undertaken at the Prairie Creek Mine site during 2012 including geotechnical assessments and engineering details of various surface facilities, including the winter road route.

The 2012 exploration diamond drilling program completed a total of 5,629 metres of drilling was completed. The deep-hole diamond drill exploration program at Casket Creek intersected 5% Pb and 11% Zn over 3.5 metres. A total of 2,182 metres over two drillholes (with wedging) was completed.

A total of 3,366 metres over nine holes were drilled at the Minesite and partly within the defined resource. Seven holes were completed in 2012, six of which intersected significant mineralization and many with multiple intercepts.

Drillhole PC-12-216 returned the highest grades of silver ever reported from a drillhole on the Prairie Creek property with an intercept of 1.3 metres grading 2,059 g/t or 60 oz./ton Ag. The same hole also returned a combined grade of 51.3% lead and zinc over a different intercept of 1.0 metre. Many other intercepts returned multi-ounce silver assays with high lead and zinc values.

A surface geophysical program involving both electromagnetic (“EM”) and gravity surveys was also completed on a small part of the Prairie Creek property in the proximity of the mine in August 2012. Interpreted results indicate a strong multi-channel EM anomaly, with coincident gravity anomaly, centered over a previously undrilled area immediately west of the existing underground workings. Further analysis of this anomaly is underway.

Aboriginal Training Programs at Prairie Creek Minesite

In a major new initiative following up on the signing of two Impact Benefit Agreements, Canadian Zinc launched four significant onsite aboriginal training programs at the Prairie Creek Mine Site this year. These training programs were undertaken with assistance from the Federal Government, Human Resources and Skills Development Canada, in the \$4.2 million “*More Than a Silver Lining*” aboriginal training program, specifically for the Prairie Creek Mine, administered by the NWT Mine Training Society and assisted by the Government of the Northwest Territories (“GNWT”).

Collaboration Agreement Signed with Government of the Northwest Territories

In August 2012, Canadian Zinc and the GNWT Department of Transportation signed a Collaboration Agreement to ensure effective co-operation related to the public transportation infrastructure that will support the Prairie Creek Mine project and will help ensure that both public needs and mine activities are supported.

Paragon Minerals Corporation

On September 24, 2012, Canadian Zinc acquired all of the outstanding common shares of Paragon in exchange for common shares of Canadian Zinc on the basis of 0.136 of a share of Canadian Zinc for each share of Paragon.

Paragon's primary project is its 100% interest in the South Tally Pond Property, which includes the Lemarchant deposit, and is located in a proven mining district near Buchans, Newfoundland. An initial NI 43-101 mineral resource estimate that was recently completed by Paragon in March 2012, on the Lemarchant deposit includes the following defined mineral resources:

- Indicated resource estimate: 1.24 million tonnes at an average grade of 5.38% Zn, 0.58% Cu, 1.19% Pb, 1.10 g/t Au and 59.17 g/t Ag; and
- Inferred resource estimate: 1.34 million tonnes at an average grade of 3.70% Zn, 0.41% Cu, 0.86% Pb, 1.00 g/t Au and 50.41 g/t Ag.

(See report entitled "NI 43-101 Technical Report and Mineral Resource Estimate on the Lemarchant Deposit, South Tally Pond VMS Project, Central Newfoundland, Canada" dated March 2, 2012 and filed on SEDAR under Paragon's profile on March 9, 2012.)

South Tally Pond 2013 Drill Program: In January, 2013, the Company initiated a 4,800 metre drill program focused on expanding the NI 43-101 resources at the Lemarchant deposit. The planned program includes up to 17 drillholes that is focused on further expanding the Lemarchant Deposit mineralization. As of February 21, 2013, the Company completed 1,522 metres of drilling in four diamond drillholes.

The first two drillholes, LM13-73 and LM13-74, were aimed at extending the massive sulphide mineralization intersected in a 2008 drillhole (LM08-37) to the east. LM13-73 intersected 5.82% zinc, 1.48% lead, 0.75% copper, 65.4 g/t silver and 1.63 g/t gold over 22.2 metres while LM13-74 intersected 5.33% zinc, 1.01% lead, 0.75% copper, 44.72 g/t silver and 0.26 g/t gold over 5.50 metres. The newly extended zone remains open along strike with no drilling immediately north or south of the new drillholes.

Outlook For 2013

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 allowing for production. On March 15, 2013, the Water Board issued a draft Water Licence and draft Land Use Permits for comment. Following approval, the Water Licence and Land Use Permits will be forwarded to the Federal Minister of AANDC for final ratification, which is anticipated in mid-2013.

The Company plans to advance the development of the Prairie Creek Project. Further site investigation and geo-technical work 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.

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

At December 31, 2012, the Company had working capital of \$9.0 million and expects it will be able to meet current obligations and undertake its planned 2013 programs and continue to evaluate the new discovery at South Tally Pond.

For further information contact:

John F. Kearney
Chairman
(416) 362-6686

Suite 700 – 220 Bay Street
Toronto, ON M5J 2W4
Fax: (416) 368-5344

Alan B. Taylor
VP Exploration & Chief Operating Officer
(604) 688-2001

Suite 1710 – 650 West Georgia Street,
Vancouver, BC V6B 4N9
Fax: (604) 688-2043
Tollfree:1-866-688-2001

Steve Dawson
VP Corporate Development
(416) 203-1418

Suite 700 – 220 Bay Street
Toronto, ON M5J 2W4
Fax: (416) 368-5344

E-mail: invest@canadianzinc.com

Website: www.canadianzinc.com

Risks 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.

Alan Taylor, P.Geo., Chief Operating Officer, Vice President Exploration and a Director of Canadian Zinc Corporation, is responsible for the Company's exploration program, and is a Non-Independent Qualified Person for the purposes of National Instrument 43-101 and has approved this press release.

Cautionary Statement - Forward Looking Information

This press release contains certain forward looking information. 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 issue of permits, the size and quality of the company's mineral resources, future trends for the company, progress in development of mineral properties, the timing of exploration, development and mining activities, completion of financings, capital costs, mine production costs, demand and market outlook for metals, future metal prices and treatment and refining charges, the financial results of the Company and future gold production and profitability of VGM. 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. The Company uses 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. U.S. Investors are urged to consider closely the disclosure in the Company's Form 40-F which may be secured from the Company, or from the SEC's website at <http://www.sec.gov/edgar.shtml>.