

# PRESS RELEASE

CZN-TSX CZICF-OTCQB FOR IMMEDIATE RELEASE March 31, 2015

### CANADIAN ZINC REPORTS FINANCIAL RESULTS FOR FISCAL 2014

- New Resource Estimate, Block Model and Mine Plan Developed at Prairie Creek
- Engineering, Transportation and Concentrate Marketing Optimization On-Going
  - Underground Exploration Drilling Underway

Vancouver, British Columbia, March 31, 2015 - Canadian Zinc Corporation (TSX: CZN; OTCQB: CZICF) ("the Company" or "Canadian Zinc") reports its financial results and development activities for the year ended December 31, 2014 and provides an outlook for 2015 activities.

#### **Prairie Creek Mine**

The Company's key project is its 100%-owned Prairie Creek Mine, an advanced-staged, permitted, partially developed zinc-lead-silver property, located in the Northwest Territories, Canada.

In order to address the recommendations of the Preliminary Feasibility Study ("PFS") completed by SNC-Lavalin in 2012 and move the Prairie Creek Project towards full feasibility for financing, Canadian Zinc embarked on a series of optimization projects in late 2013, which continued throughout 2014 and into 2015. The main objectives have been to improve the project economics by increasing the mine life; defining, with feasibility level accuracy, the capital cost required to place the mine into production; refining the projected costs to operate the mine; and developing a transportation plan and marketing strategy for all of the Prairie Creek concentrate production.

The ongoing underground diamond drilling program, where the seventh hole on the first underground drill station is underway, will be completed within the second quarter of 2015. The objective is to increase the life of the mine, especially in the higher grade vein mineralization, by converting part of the currently Inferred Resource to an Indicated category.

The results of this drill program will then be incorporated into another updated mineral resource estimate, which will in turn be converted into an updated mineral reserve and revised mine plan, which will then be incorporated in a new economic model for the Prairie Creek Mine.

The new mineral reserve estimate, revised mine plan, modified process flow-sheet and updated estimate of capital costs will form the basis of an updated preliminary feasibility study, which will also include evaluation of the integration of an all season road into the Prairie Creek Project. Subject to completion of the current underground drilling program and the ongoing optimization work, it is expected that this updated preliminary feasibility study will be completed later in 2015.

## New Block Model, Mine Plan and Resource Estimate Developed

During 2014, the Company engaged AMC Mining Consultants ("AMC") to undertake an underground optimization study of the mine with a view to reducing the initial cost of mine development, improving the mining methods, minimize mine operating costs and incorporate results of recent exploration drilling programs into an updated mineral resource estimate. AMC also undertook a number of underground mine studies, including a geotechnical assessment to determine the optimum mining methods for use in the design of the new mine plan, underground ventilation and backfill studies were also completed.

AMC completed a geotechnical analysis of the existing underground workings and concluded that longhole stoping methods were a viable and preferable mining method for the project. The longhole stoping is expected to reduce operating costs and increase mine productivity when compared to the cut and fill method proposed in the PFS from 2012.

A new Mineral Resource estimate, completed by AMC in March 2015, [Gregory Z. Mosher P.Geo. and J. Morton Shannon P.Geo., Qualified Persons ("QPs"), as defined by National Instrument 43-101 ("NI 43-101")], has demonstrated an increase in overall resource tonnages in the Indicated and the Inferred categories. The new Mineral Resource updates the previous resource estimate reported in June, 2012, which was incorporated into the PFS.

Total Measured and Indicated Resource tonnages increased by 21% to 6.5 million tonnes at combined grade of approximately 20% Pb and Zn with approximately 150 g/t Ag while total Inferred Resource tonnages increased by 13% to 7.1 M tonnes grading 9.6% Pb, 11.8% Zn, and 177 g/t Ag from 6.2 million tonnes grading 11.5% Pb; 14.5% Zn; and 229 g/t Ag. Further details of the March 2015 Mineral Resource estimate can be obtained from the March 26, 2015 press release and a comparison of the June 2012 and the March 2015 Mineral Resource estimates can be seen in the table below:

OVERALL RESOURCE ESTIMATE: MARCH 2015					OVERALL RESOURCE ESTIMATE: JUNE 2012			
TOTAL MQV+STK+SMS	TONNES	ZN %	PB %	AG G/T	TONNES	ZN %	PB %	AG G/T
MEASURED	1,279,000	13.2	11.6	211	1,700,000	12.1	9.7	155
INDICATED	5,309,000	9.5	9.0	131	3,731,000	10.2	10.5	162
MEASURED & INDICATED	6,588,000	10.2	9.5	147	5,431,000	10.8	10.2	160
INFERRED	7,078,000	11.7	9.6	177	6,239,000	14.5	11.5	229

#### **Engineering and Construction**

During 2014, the Company engaged Tetra Tech WEI Inc. ("Tetra Tech") to provide technical services for basic engineering and procurement services for the development of major equipment packages, facility rehabilitation and repair work and capital items for the Prairie Creek Mine.

Tetra Tech developed tender packages for mine rehabilitation and development; mill completion, power generation and distribution; heat recovery systems; a dense media separation plant; a paste fill plant; a water treatment plant; instrumentation and control systems; camp construction; and winter road construction and maintenance. Plant engineering and design work by Tetra Tech has identified the possibility and desirability of enhancing the grinding and flotation circuits to increase the mill's capacity and throughput.

The contract tendering and procurement process, managed by Tetra Tech, is nearly complete and has been an important phase of the Prairie Creek Project that refines and augments the design

work completed previously and will generate definitive estimates for a large portion of the capital cost required to place the Prairie Creek Mine into operation. Negotiations with vendors are being finalized and the Company expects to be able to compile the complete capital cost estimate for inclusion into an updated preliminary feasibility study targeted to be completed later in the year.

## Transportation Studies - Evaluation of Possible All Season Road

Canadian Zinc has been working with a number of experts in the transportation business to identify optimum transportation routes and methods, along with the associated costs. The transportation plan utilized in the 2012 PFS envisaged the use of the access road from the mine site to the Liard Highway only in the winter months of each year. This winter road plan would necessitate a large investment in working capital to finance consumables and supplies and also a large build up in concentrate inventory awaiting transportation and sale, and would involve a major mobilization and logistical exercise.

Accordingly, in pursuit of possible improved economics, consideration is now being given to the construction and use of an all season road which would enable the transportation of both supplies and concentrates in smaller volumes spread throughout each year.

Incorporation of an all season road for future operations would have significant financial implications, both in additional capital cost but also in potential savings and lower finance costs. The Company is currently finalizing the design and cost estimates of a potential all season road for inclusion into the capital cost schedule of the Prairie Creek Project, along with incorporating the consequent reduction in operating costs.

In April 2014, the Company submitted an application to the Mackenzie Valley Land and Water Board and to Parks Canada for Land Use Permits to permit the possible future upgrade of the current winter access road to all season use. The application for permits for an all season road is presently in Environmental Assessment before the Mackenzie Valley Review Board ("MVRB").

The Company expects to submit the Developer's Assessment Report to the MVRB in the second quarter of 2015. The Company anticipates the Environmental Assessment and permitting process for this all season road application will take approximately one year to complete.

## Concentrate Marketing

In 2014 the Company engaged Cliveden Trading AG, an international metal trading and advisory company based in Switzerland, ("Cliveden") to formulate a comprehensive market assessment and marketing strategy for all concentrate production and advise CZN on commercial and marketing matters. Cliveden has identified multiple smelter destinations and is developing marketing strategies as well as advising on expected treatment charges and penalties for the Prairie Creek concentrates.

The Company's goal is to obtain firm indications of off-take interest, for both lead and zinc concentrates, from a select group of smelters identified by Cliveden. These indications along with the expected treatment charges and penalties identified by Cliveden will be incorporated into the updated preliminary feasibility study.

## **Underground Exploration Program**

The mining contract for the initial underground exploration and development program at the Prairie Creek Mine was awarded to Procon Mining and Tunneling Ltd. ("Procon") in October 2014.

Procon is currently carrying out an underground diamond drill program at the Prairie Creek Mine with the objective of increasing the life of the mine by converting part of the currently Inferred Resource to an Indicated category.

After the completion of the rehabilitation stage, Canadian Zinc began an exploration diamond drill program from underground drill stations located at the end of the decline. The drilling is planned on four, 50-metre sections and will comprise about 6,000 metres of diamond drill coring over 21 holes. To date, six holes of a proposed 21 hole program have been completed.

## **Newfoundland Drilling**

Canadian Zinc owns an extensive land package in central Newfoundland that includes three Volcanogenic Massive Sulphide projects: South Tally Pond, Tulks South and Long Lake; each with defined deposits, which are being explored by Canadian Zinc.

During 2014 the Company conducted a three drill programs on the South Tally Pond; Tulks South and Long Lake projects. At South Tally Pond, 12 drillholes totaling 5,104 metres were completed. At Tulks South, 13 drillholes totaling 4,060 metres were drilled to expand the Boomerang-Domino deposit and to test the Hurricane prospect. In addition, a four-hole program totaling 1,377 metres was completed to test the Tulks East prospect. At the Long Lake a drill program of 11 drillholes totaling 2,712 metres was completed.

The drill programs at Tulks South and Long Lake were successful, and considered very encouraging, in that 20 of the 27 holes intersected the targeted mineralization, including some massive sulphide intercepts ranging up to 25% zinc and 15% lead.

### Outlook

Canadian Zinc's focus for 2015 will be to continue to advance the Prairie Creek Mine towards production.

The ongoing underground diamond drilling program will be completed within the second quarter of 2015. The planned drilling will total about 6,000 metres of diamond drill coring over 21 holes on four, 50-metre spaced sections. Six holes have already been completed from the first station. The objective is to increase the life of the mine, especially in the higher grade vein mineralization, by converting part of the currently Inferred Resource to an Indicated category.

The results of this drill program will then be incorporated into yet another updated mineral resource estimate, which will in turn be converted into an updated mineral reserve and revised mine plan, which will then be incorporated in a new economic model for the Prairie Creek Mine.

Further assessment of underground hydrology will assist in evaluating the possibility of dewatering the underground mining area prior to commencing actual development, which should have significant savings in both mining and water treatment costs and in the capital costs of water treatment facilities at surface.

Further metallurgical test work, and plant engineering and design, will be carried out to modify and simplify the proposed mineral process flow-sheet with the objective of enhancing the quality and payability of the lead and zinc concentrates. Consideration will also be given to enhancing the grinding and flotation circuits to increase the mill's capacity and throughput.

Discussions and negotiations will continue with a select group of smelters to obtain firm indications of off-take interest, for both lead and zinc concentrates from the Prairie Creek mine, including indications of expected treatment charges and penalties.

Further examination of the capital costs associated with construction and installation of new facilities and equipment, and the integration of such new facilities and equipment into the existing mine facilities, along with the refurbishment the existing facilities, will be continued by Tetra Tech. Completion of this work will enable updating the estimate of capital costs to bring the Prairie Creek Mine into production.

The new mineral reserve estimate, revised mine plan, modified process flow-sheet and updated estimate of capital costs will form the basis of an updated preliminary feasibility study, which will also include evaluation of the integration of an all season road into the Prairie Creek Project. Subject to completion of the current underground drilling program and the ongoing optimization work, it is expected that this updated preliminary feasibility study will be completed later in 2015.

The adoption of an all season road, which would enable the transportation of both supplies and concentrates in smaller volumes spread throughout the year, has many financial implications, both in additional capital cost but also in potential savings and lower finance costs, that need to be further evaluated. The Company plans to submit its Developer's Assessment Report in April 2015 with the objective of completing the all season road Environmental Assessment by the end of the 2015 calendar year and permitting of the road in early 2016.

The development of the Prairie Creek Mine will require substantial additional financing. Canadian Zinc will continue to evaluate alternatives for raising the senior financing necessary to complete the development and construction of the Prairie Creek Mine. However the ability to raise financing is impacted by conditions beyond the control of the Company, including depressed commodity prices, continued uncertainty in the capital markets and the current lack of investor interest in the resource sector.

From discussions and investigations to date, while there is considerable interest on the part of financial and commodity institutions, particularly in the context of the positive outlook of the price of zinc, it has been indicated that the opportunity of raising bank debt financing for Prairie Creek would be enhanced with the production of a definitive or bankable feasibility study which would address all of the contingences in the required detail and help to manage or reduce the various risk factors. Following completion of the updated preliminary feasibility study, the Company will consider the benefits of continuing to work towards completion of a definitive feasibility study which could be required to support bank debt or other senior financing.

At December 31, 2014, the Company had working capital of \$12.4 million and expects it will be able to meet its current commitments and continue its planned 2015 programs and corporate activities.

#### Financial Results for Fiscal 2014

For the year ended December 31, 2014, the Company reported a net loss and comprehensive loss of \$12,434,000 compared to a net loss and comprehensive loss of \$6,911,000 for the year ended December 31, 2013. Included in the loss for the year ended December 31, 2014, were exploration and evaluations costs of \$9,996,000 compared to \$6,089,000 for the previous year.

At December 31, 2014, the Company had a positive working capital balance of \$12,353,000 including cash and cash equivalents of \$8,792,000, short term investments of \$5,023,000 and marketable securities of \$450,000 (for a total of \$14,265,000).

## **Qualified Person**

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

#### **About Canadian Zinc**

Canadian Zinc is a TSX-listed exploration and development company trading under the symbol "CZN". The Company's key project is the 100%-owned Prairie Creek Project, a fully permitted. advanced-staged zinc-lead-silver property, located in the Northwest Territories. Canadian Zinc also owns an extensive land package in central Newfoundland.

A Preliminary Feasibility Study, completed by SNC-Lavalin in 2012, projected a mining rate of 1,400 tonnes per day, with mill throughput, after dense media separation, of 1,000 tonnes per day, to produce an average annual output of approximately 60,000 tonnes of zinc concentrates and 60,000 tonnes of lead concentrates, containing approximately 76 million pounds of zinc, 90 million pounds of lead and 2.2 million ounces of silver per year, for a projected mine life of 11 years.

The Company's exploration strategy in Newfoundland is to continue to build on its existing polymetallic resource base with the aim of developing either a stand-alone mine, similar to the past-producing mine at Buchans or the Duck Pond mine, or a number of smaller deposits that could be developed simultaneously and processed in a central milling facility.

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### <u>Cautionary Statement - Forward-Looking Information</u>

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. 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.