

• Prairie Creek Optimization Projects Under Way

• Positive Metallurgical Test Results from Newfoundland Deposits

CZN-TSX
CZICF-OTCQB

VANCOUVER, Nov. 15, 2016 /CNW/ - Canadian Zinc Corporation (TSX: CZN; OTCQB: CZICF) ("the Company" or "Canadian Zinc") reports its results for the three and nine month periods ended September 30, 2016.

This press release should be read in conjunction with CZN's Management's Discussion and Analysis (MD&A) and interim Financial Statements for the period ended September 30, 2016, which are available on the Company's website at www.canadianzinc.com, or under the Company's profile on SEDAR (www.sedar.com).

Financial Results

For the three and nine month periods ended September 30, 2016, the Company reported a net loss and comprehensive loss of \$1,708,000 and \$3,351,000 respectively, compared to a net loss and comprehensive loss of \$1,778,000 and \$8,213,000 for the same periods ended September 30, 2015.

For the three and nine month periods ended September 30, 2016, the Company expensed \$758,000 and \$1,451,000 respectively on its exploration and evaluation programs at Prairie Creek compared to \$1,208,000 and \$6,935,000 respectively for the three and nine month periods ended September 30, 2015. The Company was completing an underground diamond drilling program at Prairie Creek in the comparable periods of 2015 with no similar programs of comparable costs in the three and nine month periods ending September 30, 2016.

For the three and nine month periods ended September 30, 2016, the Company expensed \$80,000 and \$191,000 respectively on its exploration and evaluation properties in central Newfoundland compared to \$81,000 and \$229,000 respectively for the comparative periods.

The Company completed an underwritten public offering in July, 2016 and raised gross proceeds of \$10.2 million from the issue of 40,800,000 common shares. Net proceeds from the offering were \$9,249,000 after costs.

At September 30, 2016, the Company had a positive working capital balance of \$9,245,000 including cash and cash equivalents of \$3,483,000 and short term investments of \$6,025,000.

Prairie Creek Project

On September 30, 2016, the Company re-filed the Prairie Creek 2016 Technical Report, originally filed with SEDAR on May 12, 2016, to correct an overstatement of the gross smelter revenue in the life-of-mine economic model included in its 2016 Preliminary Feasibility Study.

All other inputs into the economic model and all technical aspects of the 2016 Preliminary Feasibility Study remain unchanged, including all mineral resource and reserve estimates, mining plans and production rates and estimates of capital and operating costs and assumptions on concentrate treatment charges and penalties.

The revised base case economic model continues to indicate a robust project at consensus forecasts for the long-term prices of lead and zinc and there remains good potential for additional project optimization, enhanced economics and further extending the life of the Prairie Creek Mine.

The revised financial results remain strongly positive and indicate a pre-tax undiscounted cumulative cash flow of \$710 million at metal prices of US\$1.00/lb for zinc and lead and US\$19/oz for silver. The revised financial model yields a pre-tax NPV of \$284 million at an 8% discount rate, with an IRR of 23%, and a post-tax NPV of \$155 million, with a post-tax IRR of 18%.

Highlights of the 2016 Prairie Creek Prefeasibility Study ("PFS")

(All costs are in Canadian dollars unless indicated otherwise, g=gram, tpd=tonnes per day, dmt=dry metric tonnes, LOM=life of mine, CDN=Canadian, US=United States).

- Post-tax Net Present Value, using an 8% discount, of \$155 million, with a post-tax internal rate of return of 18%, based on base case metal price forecasts of US\$1.00 per pound for both zinc and lead and US\$19.00 per ounce of silver, for the LOM production at an exchange rate of \$1.25CDN:\$1.00US.
- Average EBITDA of \$64 million per year and cumulative EBITDA of \$1.0 billion over the LOM.
- 17 year mine life based exclusively on a defined mineral reserve of 7.6 million tonnes, grading 8.9% zinc and 8.3% lead, with 128 g/t silver, including a defined Mineral Reserve in the Main Quartz Vein of 5.2 million tonnes, grading 9.4% zinc, 10.4% lead and 160 g/t silver.
- Average annual production of 60,000 dmt of zinc concentrate and 55,000 dmt of lead concentrate containing 86 million pounds of zinc, 82 million pounds of lead and 1.7 million ounces of silver.
- Pre-production capital cost is estimated to be \$216 million of which \$59 million will be incurred in year 1 and \$157 million in year 2, with an additional contingency of \$28 million.
- Average LOM cash operating costs per tonne of ore mined (before transportation costs) are estimated at \$165 per tonne.

The 2016 PFS does not take into consideration the Inferred Resources of 7.0 million tonnes of 11.3% zinc, 7.7% lead and 166 g/t silver, which is currently too speculative geologically to have economic considerations applied to them, but could have the potential to more than double the presently considered mine life. The Prairie Creek orebody continues open-ended at increasing depths to the north.

Recommendations for Optimization

The 2016 PFS included a number of recommendations for further optimization and potentially enhanced economics identified in the 2016 PFS including:

- Complete environmental assessment and permitting of the all season access road.
- A front-end engineering and design phase to complete detailed engineering and issued for construction drawings to definitive feasibility study levels to obtain fixed pricing from construction contractors.
- Additional mill studies to further optimize the mill circuit capacity to increase both ore throughput and metal recoveries.
- Further metallurgical tests to optimize the process flowsheet, particularly reagent regimes, including variability tests on the samples from various mineralization zones and ore types.
- Further study of on-site or off-site processes to reduce deleterious components of concentrates, thereby reducing smelter penalties.
- Studies to optimize the mine operation by automation and adoption of advanced technology.
- Additional underground paste backfill strength studies.
- Additional hydrology studies to better design, size and cost water management facilities.
- Early completion of site clearance construction, engineering and mine development programs to accelerate start-up times. This would include preliminary earthworks on the water storage pond, waste rock pile, building foundations, portal construction and upgrades of existing infrastructure in tandem with detailed engineering of new structures.

Prairie Creek Permitting Update

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 is now undergoing environmental assessment before the Mackenzie Valley Review Board ("MVRB").

Technical Sessions took place in Yellowknife from June 13, 2016 to June 16, 2016. The purpose of the Technical Session was for all parties and regulators to discuss issues face-to-face in order to gain a better understanding of the all season road project and its potential environmental impacts.

Additional Technical Sessions on cultural impacts were also held in the local communities of Nahanni Butte and Fort Simpson on July 4 and 5, 2016. The purpose of these sessions was to gather information from land and resource users in the two Dehcho communities about the potential impacts and to discuss possible mitigations of the proposed all season road. The Company submitted comments on the cultural impact reports.

The June Technical Sessions generated a list of commitments and undertakings. In July 2016, CZN completed a field work program along the road corridor to gather additional base line data on vegetation, wildlife and stream crossings that were deemed necessary to respond to some of the undertakings. On August 18, 2016, Canadian Zinc completed submitting its responses to the undertakings from the June Technical Session. Canadian Zinc was subsequently asked to submit some additional information and did so on September 6, 2016.

In September 2016, the Company received the second round of Information Requests from parties registered in the regulatory process. CZN submitted its responses to the second round of Information Requests on October 24, 2016.

The environmental assessment regulatory process has now entered a risk assessment and report stage, which will be followed by public hearings, now expected to take place in the first quarter of 2017, and completion is expected in the second quarter of 2017.

Newfoundland Properties

Canadian Zinc owns an extensive land package in central Newfoundland that includes three major Volcanogenic Massive Sulphide ("VMS") properties, each with defined deposits, which are being explored by Canadian Zinc.

Central Milling Collaboration Project

In 2015, the Company entered into a collaboration agreement with [Buchans Minerals Corp.](#) ("Buchans Minerals"), a wholly owned subsidiary of [Minco Plc](#) (AIM: MIO), whereby the two Companies share research data on their respective central Newfoundland Zn-Pb-Cu-Ag-Au deposits. The intent and objective of the research is to determine the technical and economic viability of developing the companies' deposits into producing operations by utilizing a central milling facility. The concept is based on the potential that collectively, the satellite deposits can be economically mined, pre-concentrated, trucked and then milled simultaneously or sequentially through a central mill.

The metallurgical test program, completed by Thibault & Associates Inc. of Fredericton, New Brunswick, was based on an assessment of pre-concentrating the ore prior to flotation using Dense Media Separation ("DMS") technology and the development of a process relative to the metallurgical characteristics of five deposits under development.

The preliminary test results confirm that selective zinc, lead and copper concentrates at marketable grades can be produced using a common flotation flowsheet. The positive results from the metallurgical test program strongly support the development of the sequential flotation technology for processing of the deposits using a centralized processing facility.

The metallurgical test programs are being followed-up with a Process Simulation and Cost Assessment model to evaluate and identify the key factors impacting the operating economics of a centralized processing concept for the production of the base metal concentrates from the various base metal deposits in central Newfoundland.

The research programs are scheduled to be completed in December, 2016.

Planned Exploration in Newfoundland

Following the financing completed in July 2016, the Company allocated \$1.67 million in flow-through funds for further exploration in central Newfoundland. Most of this will be spent on the South Tally Pond and Tulks South properties.

Canadian Zinc is undertaking ground geophysical surveys including magnetics, gravity, electromagnetics ("EM") and borehole EM on a number of high priority Cu-Pb-Zn-Ag-Au target areas on its South Tally Pond and Tulks South properties.

The ground geophysical surveys are aimed at defining priority drill targets in each of the areas and are expected to be completed by the end of November. A winter drill program will be undertaken to further explore selected priority targets.

Outlook

Canadian Zinc's focus for the remainder of 2016 and into 2017 will be to continue to advance the Prairie Creek Mine towards production.

The updated 2016 Pre-Feasibility Study indicates a robust project at consensus forecasts for the long term prices of lead and zinc and there is good potential for additional project optimization, enhanced economics and further extending the mine life.

The 2016 PFS identified a number of project opportunities that, if implemented, could yield economic, operational and environmental benefits. The Prairie Creek Mineral Resource should support a substantial increase in mining/milling rates and a high-level assessment is envisaged for substantially increasing the mill capacity.

One recommendation from the 2016 PFS is the creation of a composite bulk sample, collected from recent underground drilling, on which to carry out Locked Cycle Tests for better definition of the milling process, recoveries and reagent consumption. Another is that further metallurgical variability tests be carried out from different zones of mineralization. Some of these recommended mill capacity and metallurgical testing studies have been initiated, along with the ongoing environmental assessment and permitting of the proposed all season road. The Company expects both initiatives will continue over the balance of the year.

The long term outlook for lead and zinc remains very positive and, supported by the results of the 2016 PFS, Canadian Zinc will continue to evaluate all alternatives and possibilities for raising the senior financing necessary to complete the development and

construction and put the Prairie Creek Mine into production. The Company is evaluating the scope, cost and duration of completing a definitive feasibility study which could be required to support bank debt or other senior financing.

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 that it is exploring for copper-lead-zinc-silver-gold deposits.

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. 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.

SOURCE [Canadian Zinc Corp.](#)

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