CZN-TSX
CZICF-OTCQB

VANCOUVER, May 13, 2016 /CNW/ - Canadian Zinc Corp. (TSX: CZN; OTCQB: CZICF) announces it has filed a new Technical Report on the Company's 100% owned Prairie Creek lead, zinc, silver mine in the Northwest Territories.

The Technical Report, entitled "Prairie Creek Property Prefeasibility Update NI 43-101 Technical Report", effective March 31, 2016, was prepared by AMC Mining Consultants (Canada) Ltd., ("AMC") with contributions from Tetra Tech Inc. and Canadian Zinc consultants and personnel (collectively "the Authors"), in accordance with National Instrument 43-101 ("NI 43-101") and is available under the Company's profile on SEDAR at www.sedar.com and on the Company's website at www.canadianzinc.com.

The Technical Report provides results of the 2016 Prefeasibility Study ("PFS") Update that included optimization work completed over the past three years, including the 2015 underground exploration program at Prairie Creek. This program increased total Measured and Indicated Resource tonnages by 32% and increased total Proven and Probable Mineral Reserves by 46% from the previous 2012 Mineral Reserve and Resource estimates. The PFS indicates average annual production of approximately 60,000 tonnes of zinc concentrate and 55,000 tonnes of lead concentrate, containing approximately 86 million pounds of zinc (in both zinc and lead concentrates), 82 million pounds of lead (in both lead and zinc concentrates) and 1.7 million ounces of silver over an initial mine life of 17 years.

The 2016 PFS indicates average annual earnings before interest, taxes, depreciation and amortization ("EBITDA") of $90 million per year and cumulative EBITDA earnings of $1.4 billion, using Base Case metal price forecasts of US$1.00 per pound for both zinc and lead and US$19.00 per ounce for silver. The Base Case pre-tax Net Present Value ("NPV") at 8% discount rate of $509 million, with an Internal Rate of Return ("IRR") of 32%; the post-tax NPV is $302 million, with a post-tax IRR of 26%. The Pre-production Capital Cost, including the new all season road, is estimated at $244 million, including contingency, with payback of three years from first year of revenue.

Conclusions

In its conclusions AMC considers the Prairie Creek Project to be viable based on the Mineral Reserves, mine plan, production and economic parameters set out in the PFS and recommends that Canadian Zinc proceeds with the development of the Prairie Creek Project.

The base case economic model indicates a robust project at consensus forecasts for the long term prices of lead and zinc and AMC considers that there is excellent potential for additional project optimization, enhanced economics and further extending the projected mine life.

AMC also concluded that the development of the Prairie Creek mine offers significant economic advantages. There is broad support for the Prairie Creek Mine among aboriginal organizations and communities in the Dehcho region for the direct benefit and economic stimulus that the mine would bring to this region of the Northwest Territories. Its envisaged operation presents a unique opportunity to enhance the social and economic well-being of the surrounding communities. There will be approximately 220 direct full time jobs. In addition, there will be many indirect business and employment opportunities, related to transport, supply of the mine site and environmental monitoring and management.

Recommendations

As part of its assessment in the Technical Report, AMC has recommended that a front-end engineering and design phase be undertaken to complete detailed engineering and Issued for Construction (IFC) drawings to definitive feasibility study levels to obtain fixed pricing from construction contractors along with some site preparation and early works programs.

A further recommendation 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, together with a high-level assessment of substantially increasing the mill capacity with various scenarios of mining and milling, including possible mill expansion.

Tetra Tech recommends further metallurgical variability tests be carried out from different mineralization zones for better understanding of metallurgical performances.

AMC also recommends further bioleach studies, involving tank-scale mercury bioleaching of the zinc concentrate, to determine if the mercury content of the zinc concentrate can be substantially reduced and the associated capital and operating costs.

For the underground mine AMC recommends further hydrology studies to improve determination of water storage and conductivity

through modelling techniques, which will influence the assessment of water storage requirements and the capacity of the water treatment plant on surface, and paste backfill binder selection trials to identify the best binder type to meet design strengths.

Another recommendation is to assemble cost information for LNG versus diesel power generation to complete an energy trade-off study.

Project Opportunities

As part of the Technical Report, the Authors identified a number of project opportunities that, if implemented, could yield economic, operational and environmental benefits.

The Prairie Creek Mineral Resource would support a substantial increase in mining/milling rates and a high-level assessment is envisaged of substantially increasing the mill capacity with various scenarios of mining and milling, including possible mill expansion, that could lead to improved economics with more metal being mined and milled per year.

In order to reduce the deleterious element content of the ore a number of possible methods are still to be tested that could reduce the quantity of penalty elements in the concentrate, which would enhance its value and marketability.

Recovering and selling the zinc oxide component of the mineral deposit could bring extra revenue to the mine, given sufficiently high zinc prices; further studies may lead to enhancement of the grade of the zinc oxide concentrate and reduction in reagent costs to enable the sale of those concentrates to benefit the mine economics.

Numerous base metal showings occur throughout the property with the potential to host significant deposits and additional exploration could extend the life of mine through expanding Mineral Reserves and increasing the scale of the operation.

Sensitivity to Metal Prices

The pre-tax and post-tax net present values, at 5% and 8% discount rates, and internal rates of return, are illustrated in the table below, all at a Canadian/US dollar exchange rate of 1.25:1 (except the Base Case which is also shown at an exchange rate of 1.375:1). The table also demonstrates the sensitivities of the Prairie Creek Project to zinc, lead and silver prices and to the Canadian/US dollar exchange rate.

Metal Prices		Pre-Tax				Post-Tax			
Zinc/Lead US$/lb	Silver US$/oz	Undiscounted $M	NPV (5%) $M	NPV (8%) $M	IRR %	Undiscounted $M	NPV (5%) $M	NPV (8%) $M	IRR %
0.80	17.00	449	237	151	16.7	258	121	64	12.5
0.90	18.00	783	459	330	24.8	474	268	184	19.8
1.00	19.00	1,118	682	509	31.9	685	412	302	26.1
1.00 [1]	19.00 [1]	1,428	889	676	38.0	877	543	409	31.4
1.10	20.00	1,453	904	688	38.4	892	553	417	31.8
1.20	21.00	1,788	1,127	867	44.5	1,106	699	536	37.4
1.30	22.00	2,123	1,349	1,046	50.3	1,315	842	653	42.6
Note 1: Foreign Exchange assumed to be $1.375CAD:$1.00US on this line only									

Qualified Persons and Technical Report

This News Release has been reviewed and approved by Alan Taylor, P.Geo. COO & VP Exploration, who participated in the preparation of the PFS and is a Non-Independent QP under National Instrument 43-101 ("NI 43-101") for Canadian Zinc.

The following Qualified Persons, who also participated in the preparation of the Technical Report, have reviewed and approved the content of this News Release as it pertains to their areas of expertise and project responsibility.

G. Z. Mosher, P.Geo	AMC Mining Consultants (Canada) Ltd.
H. A. Smith, P.Eng.	AMC Mining Consultants (Canada) Ltd.
H. Ghaffari, P.Eng.	Tetra Tech Inc.
J. Huang, P.Eng.	Tetra Tech Inc.
T. A. Morrison, P.Eng.	Consulting Mining Engineer

Cautionary Statement – Forward-Looking Information

This news 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. 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.

This Press Release includes resource and reserve information that has been prepared in accordance with the requirements of the securities laws in effect in Canada, which differ from the requirements of United States securities laws. The terms "mineral reserve", "proven mineral reserve" and "probable mineral reserve" are Canadian mining terms as defined in accordance with Canadian National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") and the Canadian Institute of Mining, Metallurgy and Petroleum (the "CIM") - CIM Definition Standards on Mineral Resources and Mineral Reserves, adopted by the CIM Council, as amended. These definitions differ from the definitions in SEC Industry Guide 7 under the United States Securities Act of 1933, as amended (the "Securities Act"). Under SEC Industry Guide 7 standards, a "final" or "bankable" feasibility study is required to report reserves, the three-year historical average price is used in any reserve or cash flow analysis to designate reserves and the primary environmental analysis or report must be filed with the appropriate governmental authority.

Statements about the Company's planned/proposed Prairie Creek Mine operations, which includes future mine grades and recoveries; the Company's plans for further exploration at the Prairie Creek Mine and other exploration properties; future cost estimates pertaining to further development of the Prairie Creek Mine and items such as long-term environmental reclamation obligations; financings and the expected use of proceeds thereof; the completion of financings and other transactions; the outlook for future prices of zinc, lead and silver; the impact to the Company of future accounting standards and discussion of risks and uncertainties around the Company's business are not guarantees of future performance and are subject to certain risks, uncertainties and assumptions that are difficult to predict. Therefore, the Company's actual results could differ materially and adversely from those expressed in any forward-looking statements as a result of various factors. You should not place undue reliance on these forward-looking statements.

The Company cautions that the list of factors set forth above is not exhaustive. Some of the risks, uncertainties and other factors which negatively affect the reliability of forward-looking information are discussed in the Company's public filings with the Canadian securities regulatory authorities, including its most recent Annual Report, quarterly reports, material change reports and press releases, and with the United States Securities and Exchange Commission (the "SEC"). In particular, your attention is directed to the risks detailed therein concerning some of the important risk factors that may affect its business, results of operations and financial conditions. You should carefully consider those risks, in addition to the other information in the Company's filings and the various public disclosures before making any business or investment decisions involving the Company and its securities.

The Company undertakes no obligation to revise or update any forward-looking statement, or any other information contained or

referenced in this Press Release to reflect future events and circumstances for any reason, except as required by law. In addition, any forecasts or guidance provided by the Company are based on the beliefs, estimates and opinions of the Company's management as at the date of this Press Release and, accordingly, they involve a number of risks and uncertainties. Consequently, 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. Except as required by law, the Company undertakes no obligation to update such projections if management's beliefs, estimates or opinions, or other factors should change

SOURCE Canadian Zinc Corp.

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