



PRESS RELEASE

CZN-TSX
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FOR IMMEDIATE RELEASE
March 31, 2016

CANADIAN ZINC REPORTS RESULTS OF 2016 PRELIMINARY FEASIBILITY STUDY PRAIRIE CREEK MINE, NORTHWEST TERRITORIES

- **New Mineral Reserve Supports Longer 17 Year Mine Life**

Vancouver, British Columbia, March 31, 2016 - Canadian Zinc Corporation (TSX: CZN; OTCQB: CZICF) is pleased to report, in summary, the results of its 2016 Preliminary Feasibility Study (“2016 PFS”), on the Company’s 100% owned Prairie Creek lead, zinc, silver mine.

The updated 2016 PFS based on optimization work completed over the past three years, including the 2015 underground exploration program at Prairie Creek which increased total Measured and Indicated Resource tonnages by 32%, indicates a Base Case pre-tax Net Present Value (“NPV”) of \$509 million using an 8% discount rate, with an Internal Rate of Return (“IRR”) of 32% and a post-tax NPV of \$302 million, with a post-tax IRR of 26%.

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 |
| 1.00¹ | 19.00¹ | 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

The 2016 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, 82 million pounds of lead and 1.7 million ounces of silver, and yielding average annual earnings before interest, taxes, depreciation and amortization (“EBITDA”) of \$90 million per year and cumulative EBITDA earnings of \$1.4 billion over an initial mine life of 17 years, 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.

Pre-production Capital Costs, including that of the new all season road, are estimated at \$244 million, including contingency, with payback of three years.

*"We are very pleased with the results of this updated 2016 Preliminary Feasibility Study for the Prairie Creek Mine," stated **John F. Kearney, Chairman and Chief Executive Officer.** "The base case economic model indicates a robust project at consensus forecasts for the long term prices of lead and zinc and we believe that there is very good potential for additional project optimization, enhanced economics and further extending the mine life."*

*"The base case indicates positive economic results with a pre-production capital expenditure of \$244 million and a pre-tax NPV of \$509 million at an 8% discount rate (post-tax NPV \$302 million). The Prairie Creek Mine is also sensitive to movements in the lead and zinc prices and in exchange rates", **added Kearney.** "For example, a 10% improvement in the base case metal prices, or a 10% improvement in the assumed exchange rate, would yield a post-tax NPV (8%) of \$430 million and IRR of 32.5%, or an NPV of \$409 million and IRR of 31.4%, respectively."*

Summary Highlights of the 2016 PFS

(All costs are in Canadian dollars unless indicated otherwise, t=tonne, M=million, g=gram, lb=pound, lbs=pounds, oz=ounces, 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 \$302M, with a post-tax internal rate of return of 26%, based on base case metal price forecasts of US\$1.00/lb for both zinc and lead and US\$19.00/oz silver, for the Life of Mine ("LOM") production at an exchange rate of \$1.25CDN:\$1.00US.
- Average EBITDA of \$90M per year and cumulative EBITDA of \$1,432M over the LOM.
- 17 year mine life based exclusively on a Mineral Reserve of 7.6 million tonnes, grading 8.9% zinc and 8.3% lead, with 128 g/t silver, including a 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 86M lbs of zinc, 82M lbs of lead and 1.7M ounces of silver.
- Pre-production capital cost is estimated to be \$216M, of which \$59M will be incurred in Year 1 and \$157M in Year 2, with an additional contingency of \$28M.
- Average LOM cash operating costs per tonne of ore mined (before transportation costs) are estimated at \$165/t.

The 2016 PFS does not take into consideration the Inferred Mineral Resources of 7.0 million tonnes of 11.3% zinc, 7.7% lead and 166 g/t silver, which are 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.

The 2016 PFS was completed by AMC Mining Consultants (Canada) Ltd., ("AMC"), Tetra Tech Inc. ("TTI"), Tom Morrison, P.Eng., and Canadian Zinc consultants and personnel and builds upon and supersedes the 2012 Pre-Feasibility Study ("2012 PFS") completed by SNC-Lavalin and AMC. A new Technical Report has been prepared in connection with the 2016 PFS and will be filed on SEDAR and will supersede the June 15, 2012 Technical Report (subsequently revised July 23, 2014 and filed on SEDAR).

The 2016 PFS was undertaken to follow up on optimization recommendations listed in the 2012 PFS and to incorporate the increased Mineral Resources and Mineral Reserves, construction

and use of an all season road, advanced engineering details and updated capital and operating costs.

Highlights of the 2016 PFS Update

| Mine and Mill Parameters | | | | | |
|--|----------------------------|---|--------------------|---------------------------------|------------|
| Total ore mined (million tonnes) | 7.6 | Milling rate (tonnes per day) after DMS | 955 | | |
| Mining rate (tonnes per day) | 1,350 | Zinc concentrate (tonnes per year) | 60,000 | | |
| Life of Mine (years) | 17 | Lead concentrate (tonnes per year) | 55,000 | | |
| | | | | | |
| Life of Mine Statistics | | | | | |
| | Ore Grade Initial 10 Years | Ore Grade LOM | Recoveries | Average Annual Metal Production | Payability |
| Zinc | 10.0% | 8.9% | 83% | 86M lbs | 85% |
| Lead | 9.8% | 8.3% | 88% | 82M lbs | 95% |
| Silver | 154 g/t | 128 g/t | 87% | 1.7M oz | 81% |
| | | | | | |
| Project Assumptions Base Case | | | | | |
| Zinc price | US\$1.00/lb | Exchange Rate | \$1.25CDN:\$1.00US | | |
| Lead price | US\$1.00/lb | Discount Rate | 8% | | |
| Silver price | US\$19.00/oz | | | | |
| | | | | | |
| Operating and Capital Costs | | | | | |
| Operating Costs** | LOM \$/t ore mined | Capital Costs | \$M | | |
| Mining | 79 | Pre-production capital | 216 | | |
| Processing | 41 | Contingency | 28 | | |
| Site Services | 22 | Total | 244 | | |
| G&A | 23 | | | | |
| Transportation* | 65 | | | | |
| Total** | 230 | | | | |
| * Includes truck, rail, handling and ocean shipping, ** Does not include treatment, refining charges or royalty | | | | | |
| Economic Results | | | | | |
| | | Pre-tax | Post-tax | | |
| NPV @ 8% (\$M) | | 509 | 302 | | |
| IRR (%) | | 31.9 | 26.1 | | |
| Payback period (years) | | 3 | 3 | | |
| Average annual EBITDA (\$M) | | 90 | | | |
| | | | | | |

Significant Improvements in 2016 PFS compared to the 2012 PFS

- Increased Mineral Reserve tonnes by 46%.
- LOM 17 years compared to 11 years.
- More robust and detailed three dimensional geological and mining model developed.
- New comprehensive mine plan with improved estimates in the calculation of mining grades and tonnages and the subsequent predicted quantity and quality of concentrates produced after mill processing.
- Additional underground studies support more cost effective mining methods and more accurate capital and operating cost estimates based on contractor pricing.
- Further metallurgical studies optimize processing and production to concentrate.
- Cost of major equipment packages, including leasing options included in pre-production capital were accurately estimated via a bidding process conducted by Tetra Tech.
- Marketability of concentrate confirmed by MOUs signed with Korea Zinc and Boliden.
- Mining operation based on an all season road access, which replaces the formerly proposed winter road and which:
 - decreases working inventory;
 - ensures more timely delivery of product and consistent supply of materials;
 - increases pre-production capital cost;
 - lowers logistical risk of transporting concentrate and supplies;
 - requires a smaller trucking fleet throughout the year; and
 - allows alternative energy sources such as LNG to be considered.
- The 2016 PFS reflects the benefits of an increased Mineral Reserves and a longer mine life, more cost-effective mining methodology, improved exchange rate, lower energy costs and lease financing of certain plant and equipment, offset by higher capital costs of road access and lower metal prices assumed in the first two years (2012 PFS assumed US\$1.20/lb for lead and zinc and US\$28/oz silver for the first two years).

Background to the PFS Update

Over the past three years, following completion of the 2012 PFS, Canadian Zinc has carried out a number of studies and programs to further optimize the viability of the Prairie Creek Project.

Through a number of seasons of site programs, key additional data was generated which form a comprehensive basis for future operations, including additional surface and underground drilling, hydrology, metallurgical studies and marketing. Furthermore, it was determined that an all season road would be an enhancement to the future success of the operation.

In January 2014, CZN engaged TTI Vancouver office for engineering and procurement services. Specifically TTI developed tender packages for mill completion, power generation, dense media separation plant, paste fill plant, water treatment plant, instrumentation and control systems, camp construction and EPCM needed to put the Prairie Creek Mine into production. TTI then evaluated firm price offers received from qualified vendors.

TTI is experienced in the design, development and delivery of equipment related to mining, processing, tailings, and infrastructure and transportation facilities, and has comprehensive knowledge with respect to the unique challenges of designing and constructing mining projects in the Northwest Territories.

Canadian Zinc also continued to engage AMC who are very familiar with the Prairie Creek Project having previously completed Mineral Resource estimates and co-authored the June 2012 Technical Report. AMC is a leading independent mining consultancy, providing services to plan new mines and improve the operations of existing mines, with a primary focus on achieving optimum output and return. AMC completed new Mineral Resource and Mineral Reserve estimates and a detailed mine plan with associated capital and operating costs.

Mineral Resource Estimate

The most recent Mineral Resource estimate was previously announced in a press release dated September 17, 2015. The Mineral Resource was estimated by AMC following completion of the successful 2015 underground exploration program at Prairie Creek, which increased the Measured and Indicated Mineral Resource tonnages by 32%.

A single block model was created to encompass the three mineral domains: Main Quartz Vein (“MQV”), Stockwork (“STK”) and Stratabound (“SMS”). The summary results of the Mineral Resource estimate for the three zones combined, at a cut off of 8% Zn equivalent (“ZnEq”), are shown below.

September 2015 Mineral Resources Prairie Creek Mine

| Mineral Zone | Classification | Tonnes (t) | Silver (g/t) | Lead (%) | Zinc (%) |
|-------------------------------|-----------------------|-------------------|---------------------|-----------------|-----------------|
| Main Quartz Vein (MQV) | Measured | 1,313,000 | 211 | 11.5 | 13.2 |
| | Indicated | 4,227,000 | 168 | 11.6 | 9.2 |
| | Measured & Indicated | 5,540,000 | 178 | 11.6 | 10.2 |
| | Inferred | 5,269,000 | 199 | 8.7 | 12.9 |
| Stockwork (STK) | Measured | 169,000 | 116 | 5.3 | 12.6 |
| | Indicated | 1,953,000 | 61 | 3.5 | 6.6 |
| | Measured & Indicated | 2,122,000 | 66 | 3.6 | 7.1 |
| | Inferred | 1,610,000 | 70 | 4.6 | 6.2 |
| Stratabound (SMS) | Indicated | 1,042,000 | 54 | 5.2 | 10.8 |
| | Measured & Indicated | 1,042,000 | 54 | 5.2 | 10.8 |
| | Inferred | 170,000 | 60 | 6.3 | 11.2 |
| TOTAL | Measured | 1,482,000 | 200 | 10.8 | 13.2 |
| | Indicated | 7,222,000 | 123 | 8.5 | 8.7 |
| | Measured & Indicated | 8,704,000 | 136 | 8.9 | 9.5 |
| | Inferred | 7,049,000 | 166 | 7.7 | 11.3 |

Notes: Mineral Resources are stated as of 10 September 2015. Mineral Resources include those Resources converted to Mineral Reserves. Stated at a cut-off grade of 8% ZnEq based on prices of US\$1.00/lb for both zinc and lead, and US\$20/oz for silver. Average processing recovery factors of 78% for Zn, 89% for Pb, and 93% for Ag. Average payables of 85% for Zn, 95% for Pb, and 81% for Ag. $ZnEq\% = (grade\ of\ Zn\ in\ \%) + [(grade\ of\ lead\ in\ \% * price\ of\ lead\ in\ \$/lb * 22.046 * recovery\ of\ lead\ in\ \% * payable\ lead\ in\ \%) + (grade\ of\ silver\ in\ g/t * (price\ of\ silver\ in\ US\$/Troy\ oz / 31.10348) * recovery\ of\ silver\ in\ \% * payable\ silver\ in\ \%)] / (price\ of\ zinc\ in\ US\$/lb * 22.046 * recovery\ of\ zinc\ in\ \% * payable\ zinc\ in\ \%)$. \$ Exchange rate = 1 CAD/USD. The September 2015 Prairie Creek Mine Mineral Resource estimate was completed by Gregory Z. Mosher, P.Geo, Qualified Person (“QP”), as defined by National Instrument 43-101 (“NI 43-101”) of AMC Mining Consultants (Canada) Ltd.

Mineral Reserve Estimate

The September 2015 Measured and Indicated Mineral Resource was subsequently converted into a new Mineral Reserve estimate of 7.6 million tonnes of Proven and Probable Reserves at a combined grade of 17% Pb and Zn plus 128 g/t Ag, which represents a 46% increase in Reserves compared to the 2012 PFS. The estimation of Mineral Reserves by AMC, is shown below.

March 2016 Mineral Reserves, Prairie Creek Mine

| Mineral Zone | Classification | Tonnes (t) | Silver (g/t) | Lead (%) | Zinc (%) | Zinc Equivalent |
|------------------------|-----------------|------------------|---------------|--------------|-------------|-----------------|
| Main Quartz Vein (MQV) | <i>Proven</i> | 1,199,288 | 186 | 10.08 | 12.09 | 30.70 |
| | <i>Probable</i> | 3,966,848 | 152.62 | 10.52 | 8.58 | 26.79 |
| | Total | 5,166,136 | 160.37 | 10.42 | 9.39 | 27.70 |
| Stockwork (STK) | <i>Proven</i> | 174,656 | 105.01 | 4.80 | 11.48 | 20.83 |
| | <i>Probable</i> | 1,297,665 | 60.72 | 3.41 | 6.64 | 12.87 |
| | Total | 1,472,322 | 65.97 | 3.57 | 7.22 | 13.81 |
| Stratabound (SMS) | <i>Proven</i> | - | - | - | - | - |
| | <i>Probable</i> | 965,132 | 46.09 | 4.38 | 9.03 | 16.12 |
| | Total | 965,132 | 46.09 | 4.38 | 9.03 | 16.12 |
| TOTAL | <i>Proven</i> | 1,373,944 | 175.70 | 9.41 | 12.02 | 29.45 |
| | <i>Probable</i> | 6,229,646 | 116.97 | 8.09 | 8.24 | 22.24 |
| | Total | 7,603,590 | 127.58 | 8.33 | 8.93 | 23.54 |

Notes: Mineral Reserves are based on a cut-off grade of 12% ZnEq for LHOS, 11% ZnEq for DAF, an incremental cut-off grade of 9.7% ZnEq for incremental stoping and 7.1% ZnEq for development ore. Cut-off grades are based on a zinc metal price of US\$1.00/lb, recovery of 75% and payable of 85%; a lead metal price of US\$1.00/lb, recovery of 88% and payable of 95%; and a silver metal price of US\$17/oz, recovery of 92% and payable of 81%. Average unplanned dilution and recovery of 14% and 95%, respectively, for LHOS and 6.4% and 95%, respectively, for DAF are assumed. Exchange rates used are CAD\$1.25 = US\$1.00. The March 2016 Prairie Creek Mine Mineral Reserve estimate was prepared by H. A. Smith, P.Eng, Qualified Person ("QP"), as defined by National Instrument 43-101 ("NI 43-101") of AMC Mining Consultants (Canada) Ltd.

Mining

The mine will be an underground operation, based primarily on mining the Main Quartz Vein, with a steady state production rate of 1,350 tonnes per day over a 17-year mine life. During full production, approximately 485,000 tonnes of ore per year will be mined. A detailed mine plan has been developed that provides for early access to key areas underground to maximize the metal mined while minimizing mine development.

Mining will be primarily by long-hole open stoping ("LHOS"), with mechanized drift-and-fill ("DAF") employed for the extraction of the SMS ore, and with the disposal of tailings material underground as paste backfill to be carried out for both mining methods. The objective and operating plan is to use and dispose of 100% of the flotation tailings as backfill.

The mill feed grades from the mine over the first 10 years of operations are projected to be higher than the average LOM feed grades. This is because the major part of ore targeted for mining during the first 10 years is from higher grade areas of the MQV. It is anticipated that exploration definition drilling will be completed in tandem with mining operations and, based on previous exploration experience showing a high conversion rate of Inferred to Indicated Mineral

Resources, there is a significant probability that a similar rate of mining in the MQV could be maintained beyond the first 10 years, which would have the potential to further enhance the economics of the operation.

Power Generation Plan

Five new 1.5 MW diesel powered generator units will provide power and heat for the site. These self-contained, pre-commissioned power generator units, supplied on a lease-to-own basis, will be located adjacent to the mill. Maximum power load for the site is estimated at 5.2 MW. These generators will be outfitted with heat recovery systems to maximize energy efficiency. The waste heat from the generators will be used to heat the surface facilities and mine air.

Processing

The Prairie Creek plant is planned to process the run-of-mine (“ROM”) ore produced from the underground mine. The daily operating throughput will be approximately 1,200 to 1,350 tpd to a Dense Media Separation (DMS) facility, which is at the front end of the mill. The DMS product will be fed to the grinding and flotation circuit at a feed rate is 955 tpd. The designed grinding and flotation circuit availability is 92%. The proposed process flowsheet for the Prairie Creek Project will include:

- Two stages of crushing to reduce the ROM ore to 100% passing 16 mm.
- DMS on the coarse fraction of the crushed ore to reject gangue minerals.
- One stage of grinding on the pre-concentrated ore to 80% passing 80 µm.
- Lead sulphide flotation producing a lead sulphide concentrate.
- Zinc sulphide flotation producing a zinc sulphide concentrate.
- Lead oxide flotation producing a lead oxide concentrate.
- Concentrate dewatering and load-out systems.
- Tailings dewatering and paste backfill preparation systems.

Metallurgical tests from the MQV and SMS indicated the two types of mineralization can be commingled during processing without significantly affecting their metallurgical performances. The metallurgical performance of mineralization from the STK is expected to be similar to the vein mineralization. More and better information concerning the characteristics of the ore obtained from studies conducted over the past two years has enabled the design of an enhanced mine plan, which will supply optimal feed to the process plant and provide better predictability of quantity and quality of concentrate products.

Waste Management Plan

Tailings from the mill will be placed permanently underground as paste backfill, produced in a new paste backfill plant, and augmented by DMS reject material in the event of any volume shortfall. The majority of DMS reject and mine development material will be placed in a newly created Waste Rock Pile facility located behind the mill off the Prairie Creek floodplain.

Employment

Approximately 150 people are expected to be employed during initial project construction. A new accommodation block will be constructed at site to accommodate the workforce.

During operations the mine will employ a total of approximately 316 people, including truckers, with half of the employees being on-site at any one time, and with an additional 28 off-site in the Fort Liard and Fort Nelson areas. Personnel will work shifts of three weeks in/three weeks out, with transport by charter flights to the existing on-site 1,000m gravel airstrip. Canadian Zinc's hiring policy and commitments under its signed Impact and Benefits Agreements are to give preference to qualified local community residents, followed by northern residents. Training programs will be organized to further promote and maximize local aboriginal employment.

Access Road Construction and Transportation Plan

Concentrates will be trucked out and supplies delivered over a proposed new all-season road to connect the mine site to the Liard Highway. Transportation over the all season road will utilize an ice bridge in winter and a barge in summer to cross the Liard River.

The transportation plan utilized in the 2012 PFS envisaged the use of the access road only in the winter months of each year, both for the outbound transportation of concentrates and for the inbound transportation of equipment and supplies, including diesel fuel. 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.

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.

The all season road will reduce energy costs and also enable the consideration of more environmentally friendly alternative energy sources. Local gas fields in the area may be producing LNG in the near future, which may provide an opportunity to reduce reliance on diesel fuel. An all season road would also have environmental and safety benefits, in that spreading out the trucking schedule over the full year would avoid high or congested traffic in winter months, therefore lower the risk of any accidents or spills.

Canadian Zinc currently holds all the significant regulatory permits for the construction and use of the access road in winter but does not yet hold the permits for the all season road. The Company anticipates that the environmental assessment process for the proposed all season road permit application will take most of the year 2016.

Upon reaching the Liard Highway, concentrates will be trucked to the railhead at Fort Nelson and transported by rail to the port of Vancouver for shipment to smelters overseas. Inbound freight will be trucked as backhaul over the same route. A staging area will be established at the junction of the mine access road and the Liard Highway. A loading area will be constructed at the railhead in Fort Nelson.

Transportation costs included in the 2016 PFS have been estimated at \$65 per tonne of ore mined, which includes approximately \$33/t for road/truck transportation, \$24/t for rail and trans-loading and \$8/t for ocean freight.

Concentrate Production

The Prairie Creek Project will produce three types of concentrates: zinc sulphide, lead sulphide and lead oxide. CZN plans to combine the two lead concentrates into one concentrate at the mill site. The concentrates will then be transported in enclosed haul trucks via the mine access road and Liard Highway to Fort Nelson, and from there by train to the Port of Vancouver.

As announced on March 3, 2016, Canadian Zinc has signed MOUs with Korea Zinc and Boliden for the sale of zinc and lead concentrates. These offtake arrangements, with two of the pre-eminent smelting companies in the world, confirm the marketability of Prairie Creek's zinc and lead concentrates.

The 2016 PFS indicates average annual production of 60,000 tonnes of zinc concentrate and 55,000 tonnes of lead concentrate, containing approximately 86 million pounds of zinc, 82 million pounds of lead and 1.7 million ounces of silver. The sale agreements referenced above will account for all of the planned production of zinc concentrate and about half of the planned production of lead concentrate for the first five years of operation at the Prairie Creek Mine.

The sales agreements will also provide that treatment charges will be set annually at the annual benchmark treatment charges and scales, as agreed between major smelters and major miners. Payables, penalties and quotational periods will be negotiated in good faith annually during the fourth quarter of the preceding year, including industry standard penalties based on indicative terms and agreed limits specified in each MOU.

Treatment and refining charges, including deductibles, payable and penalties, vary with smelter location, and individual smelter terms and conditions. The Economic Model used in the 2016 PFS has been prepared assuming average blended indicative treatment charges of US\$212 per tonne for zinc sulphide concentrates and US\$195 per tonne for lead concentrates, with industry standard penalties, including mercury penalties of US\$1.75 for each 100 ppm above 100 ppm Hg per tonne of concentrate.

The Prairie Creek zinc concentrates will contain, to varying degrees, relatively high levels of mercury, reflecting the high grade nature of the orebody. The mercury grade is not consistent throughout the orebody and can vary significantly in different areas of the mine. Canadian Zinc has developed a comprehensive mercury grade prediction model, which has been integrated into the mine plan, in order to better predict and manage the grade of mercury reporting in individual shipments of zinc concentrate.

With the new detailed mine plan model and process schedule, more accurate predictions can be made of the quality and quantity of concentrate that will be produced from year to year during the life of the mine. In summary, it is expected that approximately 20% of the zinc concentrate will grade less than 0.1% Hg; 33% less than 0.15% Hg; 50% less than 0.2% Hg; 92% less than 0.25% Hg; and 100% less than 0.3% Hg, with an average life of mine expected mercury grade of 0.175% Hg. The economic model in the 2016 PFS includes mercury penalties ranging from \$700,000 to \$4 million per year, with an average of approximately \$2 million per year.

Capital Cost Estimates

The contingency level of accuracy of the capital cost estimates ranges between approximately 5% and 25%, with a blended contingency factor of plus or minus 12.7%. The cost estimate of major equipment packages was determined via a bidding process conducted by Tetra Tech in 2015 and is considered a firm price. Where no bid price was obtained the contingency was determined based upon professional judgement.

The general breakdown of the Pre-Production Capital Cost estimate for the Prairie Creek Project is indicated in the following table:

| Description | Capital (\$M) | | Total |
|---|----------------|----------------|--------------|
| | Project Year 1 | Project Year 2 | |
| Mine development | - | 34.5 | 34.5 |
| Process plant ¹ | 6.7 | 12.5 | 19.2 |
| Support infrastructure ² | 11.5 | 30.9 | 42.4 |
| Site Completion ³ | 14.8 | 25.6 | 40.4 |
| All season road ⁴ | 16.3 | 41.9 | 58.2 |
| Owner's costs ⁵ | 9.3 | 12.1 | 21.4 |
| Total (excluding contingency) | 58.6 | 157.5 | 216.1 |
| Contingency | 14.7 | 12.8 | 27.5 |
| Total Pre-Production Capital Cost | 73.3 | 170.3 | 243.6 |
| <p>1. Includes dense media separator; structural upgrading; instrumentation; flotation circuit upgrade; reagent handling; and piping.</p> <p>2. Includes power plant; paste plant; water treatment plant; water storage pond; waste rock pile; camp and housing accommodation; warehousing; and facility upgrades.</p> <p>3. Includes engineering and construction of surface facilities; freight and logistics; initial fills; and spares.</p> <p>4. Includes Liard River crossing and Fort Nelson load-out facility.</p> <p>5. Includes reclamation security and insurance.</p> | | | |

Pre-Production Capital Cost refers to capital costs incurred until the first processing of mined ore, and has been estimated at a total of \$216 million, excluding contingency, and \$244 million including a contingency of \$28 million, excluding working capital.

Based on proposals or quotations received, a number of capital items will be provided on a lease-to-purchase basis. The main items included on a capital lease basis are: diesel generators; water treatment plant; paste plant; and some process equipment. The lease costs of such items incurred in the pre-production period are included in pre-production capital costs, and lease costs incurred after production start-up are included in sustaining capital.

Working Capital has been estimated at \$30 million, excluding contingency, and \$36 million including a contingency of \$6 million.

Sustaining Capital over the full life of the mine has been estimated at \$70 million, of which approximately 90% is incurred in the first five years, and relates largely to ongoing mine development as the mine is expanded to deeper levels and to the remaining balance of capital lease payments. The financial model indicates that the sustaining capital can be financed from operational cash flows.

Financial Analysis

The Base Case economic model has been developed using long term metal price assumptions of US\$1.00/lb zinc, US\$1.00/lb lead, and US\$19.00/oz silver. These long term price assumptions were selected based on consensus price forecasts published by Consensus Economics Inc. as at February 2016, and a review of market commentary published by various services, including the International Lead and Zinc Study Group, CRU, Metals Bulletin Research, Wood Mackenzie, and other industry sources.

A sensitivity analysis was conducted on the Project model to evaluate its robustness against variations in financial parameters, specifically Base Case metal prices +/- 10% and the Base Case foreign exchange rate plus or minus 10%. The financial analysis with a +/- 10% sensitivity factor centering on the Base Case, showing average annual EBITDA, NPV (at 8% and 5% discount rates), IRR and payback periods, on a post-tax basis is presented in the table below.

| | Low Case | Base Case | High Case |
|---|----------------------------|---------------------------|----------------------------|
| Metal Price Scenario ¹ | 90% | 100% | 110% |
| Average Annual EBITDA (\$M) | 66 | 90 | 113 |
| Post-Tax NPV Undiscounted (\$M) | 451 | 685 | 915 |
| Post-Tax NPV @ 8% discount (\$M) | 171 | 302 | 430 |
| Post-Tax NPV @ 5% discount (\$M) | 252 | 412 | 569 |
| Post-Tax IRR | 19.0% | 26.1% | 32.5% |
| Post-Tax Payback Period (years) | 4 | 3 | 2 |
| Note 1: Metal prices varied plus/minus 10% and exchange rate unchanged. | | | |
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| | | | |
| Exchange Rate Scenario ² | \$1.125CDN:\$1.00US | \$1.25CDN:\$1.00US | \$1.375CDN:\$1.00US |
| Average Annual EBITDA (\$M) | 70 | 90 | 109 |
| Post-Tax NPV Undiscounted (\$M) | 490 | 685 | 877 |
| Post-Tax NPV @ 8% discount (\$M) | 192 | 302 | 409 |
| Post-Tax NPV @ 5% discount (\$M) | 279 | 412 | 543 |
| Post-Tax IRR | 20.2% | 26.1% | 31.4% |
| Post-Tax Payback Period (years) | 4 | 3 | 2 |
| Note 2: Exchange rate varied plus/minus 10% and Base Case metal prices unchanged. | | | |

A stressed case sensitivity analysis using assumed metal prices of US\$0.80/lb for zinc and lead and US\$17/oz for silver, and an exchange rate of CDN\$1.40:US\$1.00, would indicate a pre-tax NPV (8%) of \$308 million and IRR 24% (post-tax NPV (8%) \$170 million and IRR 19%).

Recommendations for Optimization

A number of recommendations for further optimization and potentially enhanced economics are identified in the 2016 PFS, including:

- Early completion of construction, engineering and mine development programs to reduce start-up times. This would include preliminary earthworks on water storage pond, waste rock pile, foundations, and upgrades of existing infrastructure in tandem with completing further engineering of new structures.
- Further optimization of transportation to reduce closure periods and maximize usage
- Complete permitting of the all season access road.
- Additional mill studies to further optimize the mill circuit capacity to increase both ore throughput and metal recoveries since there is a high level of confidence that daily mine feed rate could be increased.
- Further metallurgical tests to optimize process flowsheet, particularly reagent regimes.
- Further study of on-site or off-site processes to reduce deleterious components of concentrate thereby reducing smelting penalties.
- Studies to optimize the mine operation by automation and adoption of latest technology.
- Completion of detailed structural geology study to assist in ore control and better target future exploration.
- Definition drilling to convert some of the existing Inferred Mineral Resources to Indicated or Measured category to increase LOM.
- Additional underground paste backfill strength studies.
- Additional hydrology studies to better design, size and cost water management facilities.
- Utilizing LNG to partially replace use of diesel to power electrical generation, with the goal of reducing operating costs and further reducing potential environmental impact.

Conclusion

The 2016 PFS, under the assumptions of the Base Case economic model, indicates a robust project at consensus forecasts for the long term prices of lead and zinc, with good potential for additional project optimization, enhanced economics and further extending the mine life.

The development of the Prairie Creek Mine will require substantial financing. The long term outlook for lead and zinc remains very positive and, supported by the positive results of the 2016 PFS, Canadian Zinc will continue to evaluate all alternatives and possibilities for raising the financing necessary to complete the development and bring Prairie Creek into production.

Several commercial banks have expressed indicative interest in providing senior, secured project financing for the Project. It is expected that the 2016 PFS, and the financial model, will be shared with these banks to solicit indicative terms of financing. In parallel to bank financing, alternative funding structures will also be explored with royalty and streaming finance providers, who have expressed an indicative interest to provide a structured funding package. These could include royalty financing, stream financing, commodity related financing or other financing instruments.

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 capital markets and the current lack of investor interest in the resource sector.

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 2016 PFS, 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 |

A Technical Report in support of the 2016 PFS prepared in accordance with *National Instrument 43-101 Standards for Disclosure for Mineral Projects* (“NI 43-101”) will be filed on SEDAR within 45 days of this news release. The summary results of the PFS reported in this news release are preliminary. For the full details and further information with respect to the key assumptions, parameters, and risks associated with the results of the PFS, the mineral reserve and resource estimates included therein, and other technical information, please refer to the complete Technical Report to be made available at SEDAR.

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 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

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