



TSX-V:CZX

**CANADA ZINC**

**METALS CORP.**

**FOR IMMEDIATE RELEASE**

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**Canada Zinc Metals Announces Completion of Structural Analysis for Akie  
and Southern Kechika Trough**

**Vancouver, British Columbia, Canada – Tuesday, July 11, 2017 – Canada Zinc Metals Corp. (TSX Venture Exchange: CZX)** is pleased to announce that it has received the final report on the structural interpretation of satellite imagery for the Akie and southern parts of the Kechika Regional Project.

The Company owns 100% of eleven, large, contiguous property blocks that comprise the Akie and Kechika Regional projects. The Company's flagship Akie Project is host to the Cardiac Creek deposit. The Kechika Regional Project includes the Pie, Yuen, Cirque East and Mt. Alcock properties extending northwest from the Akie property for approximately 140 kilometres along strike of the highly prospective Gunsteel Formation shale; the main host rock for known SEDEX zinc-lead-silver deposits in the Kechika Trough of northeastern British Columbia. These projects are located approximately 260 kilometres north northwest of the town of Mackenzie, British Columbia, Canada.

**BACKGROUND**

The image processing, interpretation and final report was prepared by Francis Murphy, Ph.D., P.Geo., of Murphy Geological Services (Ireland), in collaboration with Mark Fitzpatrick of IMAGIS Data Imaging. Dr. Murphy is widely regarded in his main field of specialty; structural analysis as applied to mineral exploration. The project was designed in order to define the structural framework of the district and assist with the identification of regional scale and other major first-order fault structures as well as characterizing the nature and timing of these structures. A detailed interpretation at a finer scale was undertaken to identify both second and third-order structures and other structurally significant features. The principal objective of this

study was to generate exploration targets for SEDEX mineralization over a large regional framework in a cost-effective manner.

The project involved an interpretation of a 6,162 sq. km area centered between the Akie property to the south and the Mount Alcock property to the north and was undertaken at variable scales of 1:15,000 to 1:25,000 using Sentinel-2 and Landat-7 imagery. Fifty centimetre resolution Pleiades-1A data, centered on the properties, was interpreted in greater detail at up to 1:2,500 scale. Landsat-7 imagery was also processed for haematitic and jarositic iron oxides as well as generalized clay alteration.

### **STRUCTURAL FRAMEWORK & KEY FINDINGS:**

The Kechika Trough is recognized as a NW-SE trending southward extension of the Selwyn Basin which evolved as an extension basin in the Late Proterozoic and Palaeozoic and contains a series of half grabens which controlled local sedimentation. The Earn Group was deposited during increased extension and deepening of the basin in the Middle to Late Devonian. This black shale dominated sequence is the most important stratigraphic interval for SEDEX mineralization, particularly within the Gunsteel Formation. Extensional faults are considered to have been the feeder structures for the SEDEX mineralization. Inversion of the Kechika Trough occurred during Late Jurassic to Middle Cretaceous as the area became incorporated into the Rocky Mountain Fold and Thrust Belt due to NE-SW directed compression.

The interpretation has identified six major fault orientations with NW-SE trending thrust faults as the most prevalent. There are subsidiary WNW-ESE and NNW-SSE trending thrust faults and other fault trends that are mostly related to transverse faults that cross-cut the belt. The thrusts have curvilinear to sinuous surface traces and most have a northeast transport direction. However, a zone of southwest directed thrusts occurs along the eastern margin of the properties. Northeast directed thrusts return to dominance farther to the east. The change to southwest directed thrusts may be related to an intra-basinal horst block. It is considered that this horst block had an important control on the local thrust geometries. The southwest downthrowing extensional faults on its western margin would have been reactivated as northeast directed thrusts/reverse faults whereas the northeast downthrowing structures on its eastern flank would have been reactivated as southwest directed thrusts/reverse faults during basin inversion.

The thrust faults are cross-cut by a number of NE/NNE trending major transverse faults that have linear to sinuous surface traces. It is likely that many of the transverse faults probably originated from the reactivation of basement structures during the extension of the Kechika Trough. They may have acted as transfer faults during extension, allowing the extensional displacement to be transferred between adjacent faults and the development of sub-basins within the Kechika Trough. The geometry of those with strongly curvilinear to sinuous surface traces may have been modified by contractional deformation during inversion of the

Kechika Trough. The main feeders for SEDEX mineralization are likely to be breached relay zones between overlapping major extensional faults and the intersection zones between transfer faults and block bounding extensional faults. These would have represented zones of high fracture permeability and may have acted as conduits for hydrothermal fluid circulation.

#### **EXPLORATION TARGETS:**

A total of 41 exploration targets have been identified within the detailed study area based on the results of the interpretation. The targets were evaluated using a number of criteria including the presence of the Gunsteel Formation, proximity to the flanks of the intra-basinal horst block, presence of major thrusts which may have formed due to reverse reactivation of extensional faults during inversion, pronounced short strike length swings along thrusts that may represent breached relay zones in the original extensional fault architecture, intersections between major thrusts and transverse faults which may have originally represented the intersections between extensional and transfer faults, proximity to known mineral occurrences and deposits, presence of geochemical anomalies, mapped exhalative barite horizons and Landsat derived alteration anomalies.

Top ranked targets will be prioritized and specific areas of interest will be assessed in the field at the earliest opportunity. This interpretation will be integrated and assessed in conjunction with data from the Company's extensive digital database which includes topographical datasets, additional imagery datasets, geophysical datasets (including the 2012 and 2013 airborne VTEM survey and the 2015 airborne gravity gradiometry survey), geological datasets and geochemical datasets.

One such high priority target is a possible vent complex identified in the southeast of the **Yuen North Property** within a complex zone of thrusting which is interpreted to have formed due to the reverse reactivation of a breached relay zone between two NW-SE trending extensional faults. A number of exhalative lenses occur in the vicinity as well as a high intensity clay anomaly. Geochemical sampling by the company in this target area in 2014 returned highly anomalous barite from rock sampling in baritic shale, and a long linear northwest trending zinc-lead-barite soil anomaly that aligns closely to mapped coverage of the prospective Gunsteel Formation (see Press Release August 20, 2014).

The 2013 airborne VTEM survey from this target area confirmed a coincident linear conductive trend with several interesting bulge features which at the time (2014) were postulated to represent fault intersections or structural folds and are now interpreted as a possible breached relay zone. If this feature does indeed represent a breached relay zone it is speculated that it might represent a vent complex responsible for the formation of proximal SEDEX mineralization in its immediate vicinity. The interpreted section is part of the

western Gunsteel panel which is along strike of Teck's Cirque deposit located approximately 14 kilometres to the southeast.

Additional high priority targets coincide with historical drilling at Mt. Alcock and Akie and represent attractive targets to potentially extend known mineralization. More work is required to determine the significance of the fault complexity in these zones.

A field based structural analysis is being considered to verify/revise and further develop the structural model. Follow up work on the various exploration targets identified from this study will be planned. The Company is also considering expanding the scope of this interpretation to include all the property blocks in the Kechika Regional project including Bear/Spa, Driftpile South and Saint which lie to the north of the current study area.

### **The Akie Zn-Pb-Ag Project**

The Company's flagship Akie property is situated within the Kechika Trough, the southernmost area of the regionally extensive Paleozoic Selwyn Basin, one of the most prolific sedimentary basins in the world for the occurrence of SEDEX zinc-lead-silver and stratiform barite deposits.

Drilling on the Akie property by Canada Zinc Metals since 2005 has identified a significant body of baritic-zinc-lead-silver SEDEX mineralisation known as the Cardiac Creek deposit. The deposit is hosted by siliceous, carbonaceous, fine grained clastic rocks of the middle to late Devonian Gunsteel Formation.

**The Company has outlined a NI 43-101 compliant mineral resource at Cardiac Creek, including an indicated resource of 19.6 million tonnes grading 8.2% zinc, 1.6% lead and 13.6 g/t silver (at a 5% zinc cut-off grade) and an inferred resource of 8.1 million tonnes grading 6.8% zinc, 1.1% lead and 11.2 g/t silver (at a 5% zinc cut-off grade).**

Ken MacDonald P.Geo., Vice President of Exploration, is the designated Qualified Person as defined by National Instrument 43-101 and is responsible for the technical information contained in this release.

Francis Murphy, Ph.D., PGeo. (EurGeol), principal of Murphy Geological Services, is responsible for the structural geological related information contained in this release.

***The TSX Venture Exchange has neither approved nor disapproved the contents of this press release.***  
**ON BEHALF OF THE BOARD OF DIRECTORS**

**CANADA ZINC METALS CORP.**

***“PEEYUSH VARSHNEY”***

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