

Trilogy Metals Advances 100%-Owned Helpmejack Project in the Eastern Ambler Schist Belt, Alaska

Exceptionally High Zinc Values in Stream Sediment Samples

September 27, 2023 – Vancouver, British Columbia – Trilogy Metals Inc. (TSX/NYSE American: TMQ) ("Trilogy" or the "Company") is pleased to provide an exploration update on its 100%-owned projects in northern Alaska. Simple, low-cost fieldwork involving stream sediment and rock sampling has outlined two target areas prospective for volcanogenic massive sulphide ("VMS") and shale-hosted zinc deposits at the Helpmejack Project located in the eastern part of the Ambler Schist Belt. Zinc values more than 3,000 ppm in stream sediments are the highest in Trilogy's extensive regional stream sediment database.

The Helpmejack Project is near, but outside of, the area of interest of the Upper Kobuk Mineral Projects ("UKMP") which host the world-class Arctic VMS deposit and are held by Ambler Metals LLC ("Ambler Metals"), the joint venture operating company owned equally by Trilogy and South32 Limited (ASX, LSE, JSE: S32; ADR: SOUHY) ("South32"). The project is among several exploration projects located along the proposed route of the Ambler access road (the "Ambler Access Road") (see Figure 1).

Helpmejack Project

The Helpmejack claims cover a 12-kilometer strike length of the Ambler Schist Belt between the UKMP and South32's Roosevelt project. Graphitic schists, calcareous shists, and mafic volcanics seen at Helpmejack resemble those seen in the Ambler Sequence in the western part of the belt.

Stream-sediment geochemistry on samples collected by Trilogy verified two historical stream-sediment sample anomalies. Trilogy traced anomalous levels of zinc to several upstream tributaries and found anomalous levels of zinc and copper in an adjacent catchment area. Many of these streams are strongly anomalous in zinc (>500 ppm) and cadmium (>10 ppm), with anomalous levels of other elements characteristic of Besshi-style VMS deposits and shale-hosted zinc deposits.

The anomalous drainages follow the strike of the geology for five to six kilometers through the center of the claim block. Bright orange iron oxide staining along several of these streams is visible from the air and a grab sample from a ferricrete deposit, adjacent to mapped mafic volcanics, assayed 0.8% zinc with anomalous cadmium, manganese, cobalt, molybdenum, nickel, sulfur and antimony (see Figure 2).

South of this trend, a single stream-sediment sample contained 3,100 ppm zinc and 49 ppm cadmium. Two repeat samples collected nearby contained 3,120 and 3,690 ppm zinc and 39 and 63 ppm cadmium, respectively. These represent the highest zinc and cadmium values in Trilogy's stream sediment sample database of more than 2,800 samples collected throughout the Ambler Schist Belt, including streams draining the Company's flagship, Arctic VMS deposit.

Richard Gosse, VP Exploration of Trilogy Metals, said, “The enrichments found in these stream sediments cannot be dismissed as metal scavenging and are thought to reflect the presence of zinc sulphide mineralization. Stream sediment geochemistry is the most cost-effective regional exploration method in the Ambler Schist Belt and was the method that led to the discovery of the Arctic VMS deposit. Recommended follow-up work at Helpmejack includes ridge and spur soil sampling along with mapping and rock sampling, a low-cost program to find and evaluate the source of the zinc in the stream sediments.”

Tony Giardini, President and CEO of Trilogy, commented, “These are encouraging early-stage results achieved with a lean budget – highlighting the ingenuity of our exploration team and boots-on-the-ground exploration philosophy. We see upside in the Helpmejack and Malamute claims, which have relatively low holding costs but offer potential to add value for shareholders, in addition to the primary UKMP asset, especially as the United States is looking to secure domestic supplies of critical metals. They are strategically located in Alaska, in vicinity of the UKMP, South32’s large Roosevelt land package currently being explored for copper and zinc mineralization, as well as the proposed Ambler Access Road. We will continue to evaluate work programs for Helpmejack and Malamute to build on these early results.”

Malamute Project

The Malamute claims cover an eight-kilometer long east-west valley immediately north of the west end of South32’s Roosevelt property. The geology of the Malamute claim block is complicated by the lack of outcrop. Government mapping at a 1:250,000 scale shows quartz mica schists and calcareous schists belonging to the Ambler Schist Belt as well as meta-quartzites, phyllites and marble belonging to the Central Belt.

Stream-sediment sampling on the Malamute claims verified anomalous levels of cobalt in historical sediments collected by the Alaska Division of Geological and Geophysical Surveys between 1977 and 1982. Trilogy’s samples contain >300 ppm cobalt and up to 240 ppm copper in four adjacent north-south drainages and define a target area that is approximately 2.5 kilometers wide by six kilometers in length that is largely covered by overburden. Follow-up soil samples along ridges and spurs, and geological mapping are recommended.

Trilogy staked the Helpmejack and Malamute claims in 2021 following an extensive target generation study using publicly available geoscientific data from the State of Alaska as well as historical exploration reports (see [Trilogy news release dated October 4, 2021](#)). The claims are held by 995 Exploration Inc., a wholly-owned subsidiary of Trilogy.

Ambler Schist Belt

The Ambler Schist Belt stretches for over 300 kilometers in an east-west direction along the southern boundary of the Brooks Range (see Figure 1). With the discovery and delineation of the Arctic VMS and Bornite copper-cobalt-germanium deposits, and subsequent exploration in the area, the host stratigraphy of the western part of the belt is well defined. It comprises a 1.0 to 1.5-kilometer thick sequence of metasedimentary and bi-modal metavolcanic rocks known as the Ambler Sequence which hosts economically significant VMS occurrences including the Arctic, Sunshine, Smucker and Sun deposits.

In the eastern part of the belt, particularly in the Survey Pass quadrangle, reconnaissance scale mapping (1:250,000 scale) carried out by the United States Geological Survey (“USGS”) did not capture the level of detail needed to differentiate the Ambler Sequence units identified in the west. Exploration was carried out in the eastern part of the belt in the seventies and eighties by several companies, including Anaconda that discovered the Roosevelt VMS occurrence.

Figure 1. Location of 100%-owned Trilogy claim blocks.

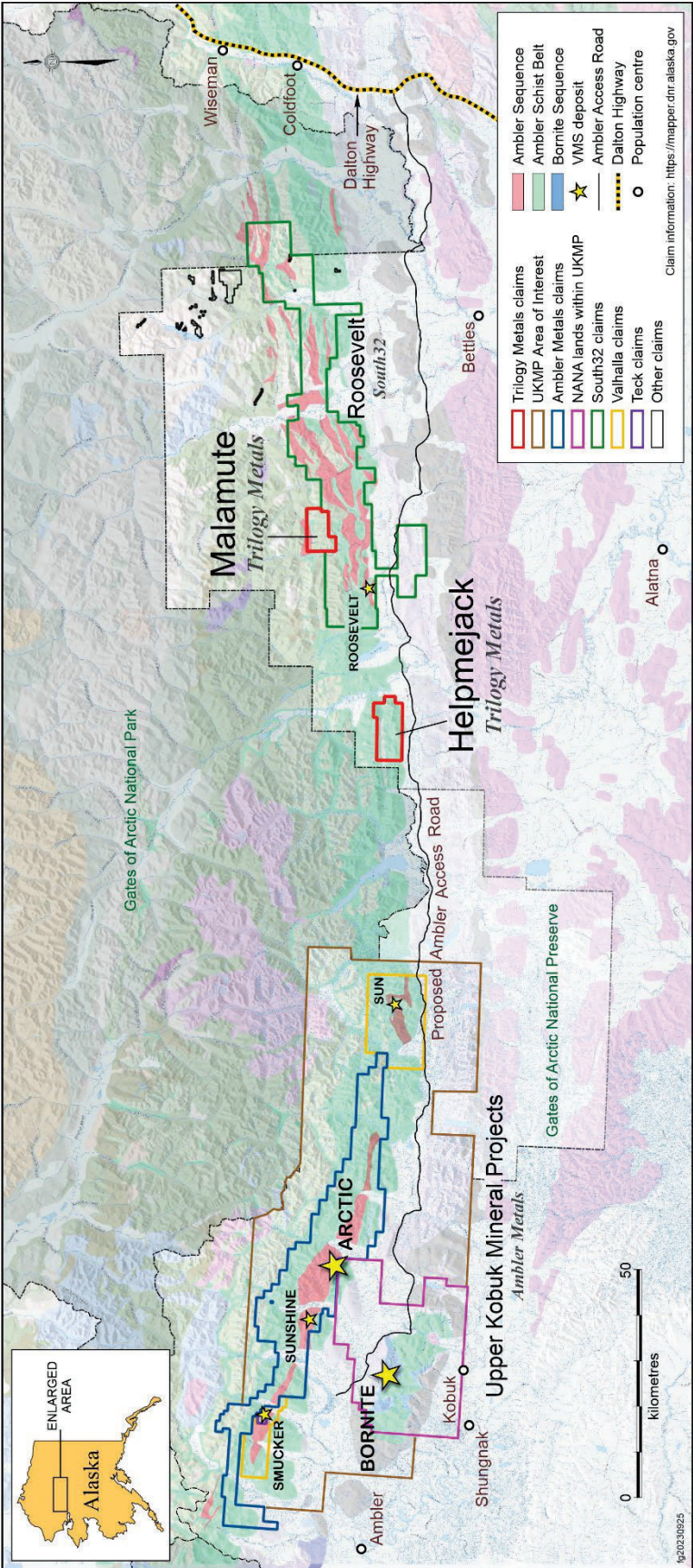


Figure 2. Ferricrete deposit, adjacent to mapped mafic volcanics; a grab sample assayed 0.8% zinc.



QA/QC Program

Stream sediment samples and the single grab sample described in this news release weighed between 0.12 and 0.52 kilograms. Location was recorded using a GPS and a sample tag was inserted into each sample bag. Samples were dried in the field and shipped to ALS Minerals laboratory in Vancouver, Canada. ALS Minerals is an independent laboratory certified under ISO 9001:2008 and accredited under ISO/IEC 17025:2005. ALS Minerals includes its own internal quality control samples comprising certified reference materials, blanks, and pulp duplicates. The samples were sieved using a 180-micron screen prior to completing multi-element analyses by AuME-ST43 analytical code (gold by fire assay and multi-elements by aqua regia digest with ICP finish).

Qualified Person

Richard Gosse, P.Geo., Vice President Exploration for Trilogy Metals Inc., is a Qualified Person as defined by National Instrument 43-101 and S-K 1300. Mr. Gosse has reviewed the technical information in this news release and approves the disclosure contained herein.

About Trilogy Metals

Trilogy Metals Inc. is a metal exploration and development company which holds a 50 percent interest in Ambler Metals LLC, which has a 100 percent interest in the Upper Kobuk Mineral Projects in northwestern Alaska. On December 19, 2019, South32, a globally diversified mining and metals company, exercised its option to form a 50/50 joint venture with Trilogy. The UKMP is located within the Ambler Mining District which is one of the

richest and most-prospective known copper-dominant districts in the world. It hosts world-class polymetallic volcanogenic massive sulphide ("VMS") deposits that contain copper, zinc, lead, gold and silver, and carbonate replacement deposits which have been found to host high-grade copper and cobalt mineralization. Exploration efforts have been focused on two deposits in the Ambler Mining District – the Arctic VMS deposit and the Bornite carbonate replacement deposit. Both deposits are located within a land package that spans approximately 190,929 hectares. Ambler Metals has an agreement with NANA Regional Corporation, Inc., an Alaska Native Corporation that provides a framework for the exploration and potential development of the Ambler Mining District in cooperation with local communities. Trilogy's vision is to develop the Ambler Mining District into a premier North American copper producer while protecting and respecting subsistence livelihoods.

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Cautionary Note Regarding Forward-Looking Statements

This press release includes certain "forward-looking information" and "forward-looking statements" (collectively "forward-looking statements") within the meaning of applicable Canadian and United States securities legislation including the United States Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical fact, included herein, including, without limitation, perceived merit of properties and claim blocks, outcomes of studies and testwork, and the Company's plans to provide further updates and the timing thereof are forward-looking statements. Forward-looking statements are frequently, but not always, identified by words such as "expects", "anticipates", "believes", "intends", "estimates", "potential", "possible", and similar expressions, or statements that events, conditions, or results "will", "may", "could", or "should" occur or be achieved. Forward-looking statements involve various risks and uncertainties. There can be no assurance that such statements will prove to be accurate, and actual results and future events could differ materially from those anticipated in such statements. Important factors that could cause actual results to differ materially from the Company's expectations include the uncertainties involving our ability to conserve cash and to raise capital at terms favorable to the Company, or at all and other risks and uncertainties disclosed in the Company's Annual Report on Form 10-K for the year ended November 30, 2022 filed with Canadian securities regulatory authorities and with the United States Securities and Exchange Commission and in other Company reports and documents filed with applicable securities regulatory authorities from time to time. The Company's forward-looking statements reflect the beliefs, opinions and projections on the date the statements are made. The Company assumes no obligation to update the forward-looking statements or beliefs, opinions, projections, or other factors, should they change, except as required by law.

The findings described in this news release are conceptual in nature. There has been insufficient exploration work to estimate a mineral resource. It is uncertain if further exploration will result in the estimation of a mineral resource. The exploration results described in this news release therefore do not represent, and should not be construed to be, an estimate of a mineral resource or mineral reserve.