

News Release

Trilogy Metals Announces Positive Study Results for the Bornite Copper Project Located in Alaska, USA

January 15, 2025 - Vancouver, British Columbia – Trilogy Metals Inc. (TSX/NYSE American: TMQ) ("Trilogy Metals" or the "Company") is pleased to announce the positive results of its Preliminary Economic Assessment Study ("Bornite PEA") for the Bornite copper project in the Ambler Mining District of Northwestern Alaska (the "Bornite Project"). The Bornite Project is held by Ambler Metals LLC ("Ambler Metals"), the joint venture operating company equally owned by Trilogy Metals and South32 Limited ("South32"). The Bornite PEA was prepared on a 100% ownership basis, of which Trilogy Metals' share is 50%. All amounts are in U.S. dollars unless otherwise stated.

Trilogy Metals will host a conference call on January 15, 2025 at 1:00pm Pacific Time or 4:00pm Eastern Time to discuss these results.

Please use this link to access the live webcast of the conference call: <u>https://www.c-</u> meeting.com/web3/joinTo/38ZLQJQ93P2A84/ZgO5Nop1EQzwZllpJru9iA

Or by phone: Canada/USA Toll Free: 1-844-763-8274 or International Toll: +1-647-484-8814

Highlights of the Bornite PEA

- 1.9 billion pounds of copper over 17-year mine life
- Potential to extend mine activity for the Upper Kobuk Mineral Projects ("UKMP") to over 30 years
- Pre-tax Net Present Value ("NPV")_{8%} of \$552.0 million and an Internal Rate of Return ("IRR") of 23.6%
- After-tax NPV_{8%} of \$394.0 million and after-tax IRR of 20.0%

The PEA is preliminary in nature and includes Inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that the PEA will be realized.

The Bornite PEA describes the technical and economic viability of establishing an underground mining operation for a 6,000 tonne-per-day operation with a 17-year mine life. The PEA assumes re-purposing the infrastructure described in the Company's current Feasibility Study for the Arctic Project for use with the Bornite Project once the Arctic deposit has been depleted. The Feasibility Study for the Arctic Project can be accessed under the Company's profile on



SEDAR+ at <u>www.sedarplus.ca</u> and on EDGAR at <u>www.sec.gov/edgar</u>. The base case scenario for the Bornite PEA utilizes a long-term metal price of \$4.20/lb for copper.

Tony Giardini, President and Chief Executive Officer of Trilogy Metals commented, "Although we believe that further exploration along the 100km volcanogenic massive sulphide belt will extend the mine life of the Arctic Project beyond the 13 years established by the current Arctic Feasibility Study, the Bornite PEA study shows it is possible, with existing known resources, to continue mine activity at the UKMP beyond 30 years."

The salient details of the Bornite PEA are displayed in the tables below.

Table 1. Metal Production and Assumed Metal Prices

Annual Payable Metals Production	
Copper ('000 lb)	109,061
Metal Price	
Copper (\$/lb)	4.20

Table 2. Operating and Capital Costs

Operating Costs	
Mining (\$/t milled)	42.66
Processing (\$/t milled)	24.82
G&A (\$/t milled)	31.44
Total Operating Cost (\$/t milled)	98.91
Capital Expenditures	
Initial Capital (\$ million)	503.8
Sustaining Capital (\$ million)	363.1
Total Capex (\$ million)	866.9
Mine Closure & Reclamation (\$ million)	81.2

Table 3. Financial Results

Financial Summary	
Pre-tax Cash Flow (\$ million)	1,582.2
After-tax Cash Flow (\$ million)	1,219.0
Pre-tax NPV _{8%} (\$ million)	552.0
After-tax NPV _{8%} (\$ million)	394.0
Cash Cost (\$/lb Cu payable)	2.76
All-in Cost (\$/lb Cu payable)	3.35
Pre-tax IRR (%)	23.6
Pre-tax Payback Period (years)	4.0
Post-tax IRR (%)	20.0
Post-tax Payback Period (years)	4.4





Class	Type/Area	Cut-off (Cu %)	Tonnes (Mt)	Average Grade Cu (%)	Contained Metal Cu (Mlb)
Inferred	In-Pit	0.50	170.4	1.15	4,303
	Outside-Pit South Reef	1.45	27.5	2.78	1,687
	Outside-Pit Ruby Zone	1.79	10.4	2.28	521
	Underground Development	0.70	0.7	0.98	16
	Total Inferred		208.9	1.42	6,527

Table 4. Mineral Resources for the Bornite Deposit

Note: (1) The effective date of the mineral resource is January 15, 2025. The QP for the mineral resource is Mr. Henry Kim, P.Geo., an employee of Wood.

(2) Mineral resources are prepared in accordance with CIM Definition Standards and the CIM Best Practice Guidelines.

- (3) Mineral resources are not mineral reserves and do not have demonstrated economic viability. Inferred mineral resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that the Inferred mineral resources will ever be upgraded to a higher category.
- (4) Mineral resources are constrained by: an open pit shell at a cut-off grade of 0.50% Cu, with an average pit slope of 43 degrees; and underground mining shapes assuming cut-and-fill mining method based on a 1.79% Cu grade shell for Ruby Zone and an optimized underground mineable stope shape assuming sub-level stoping mine method based on a cut-off grade of 1.45% Cu for South Reef. The cut-off grades assume a \$4.60/lb Cu price, process recovery of 90.47%, process cost of \$21/t processed, treatment, refining, sales cost of \$0.78/lb Cu in concentrate, road use cost of \$8.04/t processed, and 2% NSR royalty. For the open pit, costs include mining costs of \$3.34/t mined and G&A cost of \$4.30/t processed. For mining at South Reef, costs include mining costs of \$65/t mined and G&A cost of \$14.50/t processed. For mining at Ruby Zone, costs include mining costs of \$90/t mined and G&A cost of \$14.50/t processed.
- (5) Underground development material uses a marginal cut-off of 0.70% Cu where the mining costs are excluded.
- (6) Figures may not sum due to rounding.
- (7) The mineral resource estimates are shown on a 100% ownership basis, of which Trilogy Metals' share is 50%.

The South Reef includes a relatively high-grade mineralized zone that would be amendable to underground mining methods should a decision be made not to mine the mineral resources by open pit methods. Table 5 illustrates the portions of the South Reef at a higher cut-off grade (sensitivity to cut-off grade), representing an opportunity that could be considered for mining of this material using only underground mining methods which is illustrated in the PEA.

Table 5. Portions of South Reef Mineral Resource Amenable to Underground Mining

Class	Type/Area	Cut-off (Cu %)	Tonnes (Mt)	Average Grade Cu (%)	Contained Metal Cu (Mlb)
Inferred	In-Pit South Reef ¹	1.45	14.2	2.80	876
	Outside-Pit South Reef ²	1.45	27.5	2.78	1,687
	Total South Reef		41.7	2.79	2,563

Note: (1) Subset of the mineral resource using a higher cut-off to what was used in Table 4 and is not additive to the in-pit mineral resource reported in Table 4.

(2) Restatement of the mineral resources outside of the pit as reported in Table 5 and is not additive to Table 4.

Class	Tonnes (Mt)	Average Grade Cu (%)	Contained Metal Cu (Mlb)
Inferred	36.9	2.61	2,125

Table 6. Subset of the Mineral Resources Included in the Underground LOM Plan

Note: (1) Mineral resources within the mine plan were estimated using sublevel stoping underground mining method and includes variable dilution and a mining recovery of 95%.

(2) Mineral resources are not mineral reserves and do not have demonstrated economic viability.

(3) Input assumptions used to determine mineable stope shapes include a Cu price of \$4.20/lb, mine operating cost of \$73.29/t, process operating cost of \$19.84/t, G&A and surface costs of \$9.64/t, haulage and road use costs of \$28,78/t, closure and water treatment costs of \$1.26/t, shipping, treatment, refining and selling costs of \$0.78/lb Cu, process recovery of 90%, and NSR royalty of 2%.

(4) Production stope cut-off of 1.6% Cu and development cut-off of 0.7% Cu.

Trilogy Metals engaged independent consultants, Wood Canada Limited ("Wood"), Ausenco Engineering Canada ULC ("Ausenco"), SRK Consulting (Canada) Inc. ("SRK"), International Metallurgical & Environmental Inc. ("Int Met"), and Core Geoscience LLC ("Core") to prepare the Bornite PEA on a 100% ownership basis, under National Instrument 43-101 - *Standards of Disclosure for Mineral Projects* ("NI 43-101"). The full technical report will be available under the Company's profile on SEDAR+ at <u>www.sedarplus.ca</u> within 45 days of this news release. An Initial Assessment for the Bornite Project was also prepared on a 100% ownership basis in accordance with Subpart 1300 and Item 601 of the Regulation S-K and the full technical report summary will be available under the Company's profile on EDGAR at <u>www.sec.gov/edgar</u> when published.

The Bornite PEA forecasts total payable production to be 1.9 billion pounds of copper over a 17-year mine life. More importantly, the Bornite PEA demonstrates the ability to extend mine activity at the UKMP to over 30 years. The Bornite PEA does not incorporate any closure cost synergies for the Arctic Project which may be significant.

The Bornite PEA is based on a 6,000 tonne-per-day underground mining operation with conventional milling and flotation process that results in the production of copper concentrate. Based on the Bornite PEA level metallurgical work on the sulphide mineralization, the average recoveries are projected to be 90.9% for copper, producing a copper concentrate grade average of 29.5% over the life-of-mine.

Initial capital expenditure is \$503.8 million and sustaining capital is \$363.1 million for total estimated capital expenditures of \$866.9 million. This includes the retrofit costs for repurposing the Arctic mill for Bornite purposes. In addition, closure and reclamation costs are estimated at \$81.2 million.

There has been no material change to the mineral resource estimates for the Bornite Project as reported in the Company's previous technical reports entitled "*NI 43-101 Technical Report on the Mineral Resource Update of the Bornite Project, Northwest, Alaska, USA*" with an effective date of January 26, 2023 and "*Technical Report Summary on the Initial Assessment of the Bornite Mineral Resource, Northwest Alaska, USA*" dated November 30, 2022. The Company's current mineral reserve and mineral resources tables can be found on the Company's website.



PEA Contributors

The Bornite PEA was prepared by the contributors listed below, each of whom is a Qualified Person under NI 43-101.

Qualified Person	Company	Scope of Responsibility
Lewis Kitchen, P.Eng, Senior Mine Engineer	Wood	Mining, capital and operating costs and financial modeling
Henry Kim, P.Geo, Principal Resource Geologist	Wood	Geology and mineral resources
Kevin Murray, P.Eng, Process Lead	Ausenco	Process design and capital and operating costs
Calvin Boese, P.Eng, Principal Consultant, Geotechnical	SRK	Geotechnical, tailings and capital and operating costs
Dan Mackie, P.Geo, Principal Consultant, Hydrogeologist	SRK	Hydrogeology, hydrology and capital and operating costs
Jeff Austin, P.Eng, President	Int Met	Metallurgical testing
Jack DiMarchi, CPG, Principal	Core	Environment and permitting

Data Verification

Messrs. Kim and Boese have visited the site of the Bornite Project. The Bornite PEA Contributors have had discussions with relevant site personnel and Company management and have reviewed supporting documentation including initial source documents. Additional information on data verification can be found in the Bornite technical report which will be available under the Company's profile on SEDAR+ at <u>www.sedarplus.ca</u> within 45 days of this news release.

Qualified Persons

The Bornite PEA contributors prepared or supervised the preparation of the information that forms the basis of the Bornite PEA disclosure in this news release and have approved its dissemination.

Richard Gosse, P.Geo., Vice President, Exploration for Trilogy Metals, is a Qualified Person as defined by NI 43-101. Mr. Gosse has reviewed and approved the scientific and technical information in this news release.

Conference Call

The conference call to discuss results of the Bornite PEA will be held on January 15, 2025 at 1:00pm Pacific Time or 4:00pm Eastern Time.

Participants can access the Company's presentation by a live webcast of the conference call at the following link or phone numbers:

<u>https://www.c-</u> meeting.com/web3/joinTo/38ZLQJQ93P2A84/ZgO5Nop1EQzwZllpJru9iA</u>

> Canada/USA Toll Free: 1-844-763-8274 International Toll: +1-647-484-8814



There will be a question-and-answer session following the presentation. A replay of this conference call will be available on the Company's website at www.trilogymetals.com.

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 Metals. The UKMP is located within the Ambler Mining District which is one of the richest and mostprospective 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 Metals' vision is to develop the Ambler Mining District into a premier North American copper producer while protecting and respecting subsistence livelihoods.

Company Contacts

Tony Giardini President & Chief Executive Officer Elaine Sanders Vice President & Chief Financial Officer

Phone: 604-638-8088 # #

Cautionary Note Regarding Forward-Looking Statements

This news 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, the future price of copper, zinc, lead, gold and silver; the timing and amount of estimated future production; net present values and internal rates of return at Arctic and Bornite; recovery rates; payback periods; costs of production; capital expenditures; costs and timing of the development of projects; mine life; the potential future development of Arctic and Bornite; and the future operating or financial performance of the Company, 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. These forward-looking statements may include statements regarding perceived merit of properties; exploration plans and budgets; mineral reserves and resource estimates; work programs; capital expenditures; timelines; strategic plans; market prices for precious and base metals; or other statements that are not statements of fact. 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 Company's ability to finance the development of its mineral properties; assumptions and discount rates being appropriately applied to the Bornite PEA and Arctic Feasibility Study, uncertainty as to whether there will ever be production at the Company's mineral exploration and development properties; risks related to the Company's ability to commence production and generate material revenues or obtain adequate financing for its planned exploration and development activities; risks related to lack of infrastructure including but not limited to the risk whether or not the Ambler Access Project, or AAP, will receive the requisite permits and, if it does, whether the Alaska Industrial Development and Export Authority will build the AAP; risks related to inclement weather which may delay or hinder activities at the Company's mineral properties; risks related to the Company's dependence on a third party for the development of its projects; commodity price fluctuations; uncertainties relating to the assumptions underlying resource and reserve estimates; mining and development risks, including risks related to infrastructure, accidents, equipment breakdowns, labour disputes, bad weather, non-compliance with environmental and permit requirements or other unanticipated difficulties with or interruptions in development, construction or production; the geology, grade and continuity of the Company's mineral deposits; the uncertainties involving success of exploration, development and mining activities; permitting timelines; government regulation of mining operations; environmental risks; unanticipated reclamation expenses; prices for energy inputs, labour, materials, supplies and services; uncertainties involved in the interpretation of drilling results and geological tests and the estimation of reserves and resources; the need for cooperation of government agencies and native groups in the development and operation of properties as well as the construction of the AAP; unanticipated variation in geological structures, metal grades or recovery rates; fluctuations in currency exchange rates; unexpected cost increases in estimated capital and operating costs; the need to obtain permits and government approvals; uncertainty related to title to the Company's mineral properties and other risks and uncertainties disclosed in the Company's Annual Report on Form 10-K for the year ended November 30, 2023 filed with Canadian securities regulatory authorities and with the United States Securities and Exchange Commission ("SEC") 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 forwardlooking statements or beliefs, opinions, projections, or other factors, should they change, except as required by law.

Cautionary Note to United States Investors

This news release has been prepared in accordance with the requirements of the securities laws in effect in Canada, which differ from the requirements of U.S. securities laws. Unless otherwise indicated, all resource and reserve estimates included or referenced in this news release have been prepared in accordance with NI 43-101 and the Canadian Institute of Mining, Metallurgy and Petroleum (CIM)—CIM Definition Standards on Mineral Resources and Mineral Reserves, adopted by the CIM Council, as amended ("CIM Definition Standards"). NI 43-101 is a rule developed by the Canadian Securities Administrators which establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects. Canadian standards, including NI 43-101, may differ from the requirements of the SEC, and resource and reserve information contained herein may not be comparable to similar information disclosed by U.S. companies. In particular, and without limiting the generality of the foregoing, the term "resource" does not equate to the term "reserves". Under U.S. standards, mineralization may not be classified as a "reserve" unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. Investors are cautioned not to assume that all or any part of "measured" or "indicated resources" will ever be converted into "reserves". Investors should also understand that "inferred mineral resources" have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. Under Canadian rules, estimated "inferred mineral resources" may not form the basis of feasibility or pre-feasibility studies except in rare cases. Accordingly, information concerning mineral deposits set forth or referenced herein may not be comparable with information made public by companies that report in accordance with U.S. standards.