

Bornite Metallurgical Test Work Demonstrates High Quality Copper Concentrate Grades and Recoveries

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VANCOUVER, Jan. 10, 2018 /CNW/ - [Trilogy Metals Inc.](#) (TSX/NYSE American: TMQ) ("Trilogy Metals" or the "Company") is pleased to provide an update on metallurgical test work results for samples from the In-Pit Resource area of the Bornite Project, a part of the Company's Upper Kobuk Mineral Projects ("UKMP") located in the Ambler mining district of Northwest Alaska. The defined In-Pit Resource contains 40.5 Mt of 1.02% Cu (indicated) and 84.1 Mt Cu (inferred) at 0.5% Cu cut-off grade. The objectives of this test work are to demonstrate that the Bornite mineralized materials are amenable to the production of high-grade copper concentrates using traditional mineral processing techniques and to determine the hardness and grindability of the mineralization. Results demonstrate that a high quality, 30% copper concentrate containing no deleterious metals can be produced. Furthermore, grindability test work conducted indicates an average Bond Work Index of 9.8kWhr/tonne, which is considered soft and therefore will have low grinding costs and power consumption. Test work has been completed at SGS Laboratories in Burnaby, British Columbia, which is independent of Trilogy Metals. Test work followed industry standard methods and procedures commonly used for the design and development of copper recovery processes, including hardness testing, flotation testing (lock cycle testing) and assaying of metallurgical products.

Two HQ diamond drill holes were drilled in the Bornite deposit, specifically to obtain representative material for use in metallurgical testing. Five main metallurgical composites were prepared from whole core obtained from this drilling and the composite samples are outlined in Table 1.

Table 1 – Composite Samples

Composite Name	Drill Hole and Metres	Cu	Fe	Co	S
		%	%	%	%
Composite 1	RC13-0232 ¹ , 6.5m - 69.7m	1.11	7.72	0.02	8.29
Composite 2	RC13-0232, 69.7m -137.2m	0.91	5.97	0.02	4.78
Composite 3	RC13-0230 ² , 0.5m – 56.9m	0.96	6.01	0.02	4.99
Composite 4	RC13-0230, 118.2m - 179.5m	1.45	10.4	0.03	11.6
Composite 5	RC13-0230, 179.5m – 249.5m	1.02	9.12	0.02	10.2

¹RC13-0232 was drilled due north at an angle of -60°.

²RC13-0230 was drilled due south at an angle of -77° from the same pad as RC13-0232.

The Bornite deposit is hosted in dolomite and typically contains approximately 5 to 15 percent total sulphide minerals including pyrite, chalcopyrite, bornite and chalcocite. Mineralogical evaluations conducted as part of this test work program show the copper minerals to display a wide variety of grain sizes. A majority of the copper mineralization is very well liberated at 100 microns, however, a minor fraction of the contained copper consists as very fine-grained copper sulphide minerals occurring in pyrite (5 to 15 percent of the overall copper). The copper rich zones of the Bornite deposit do not typically contain significant precious metals and nor do the concentrates. Penalty elements in both the mineralized materials and copper concentrates are also low and below levels of concern.

The mineralized materials were subject to grindability testing to determine power requirements in grinding. The materials were shown to be consistent with an average work index determination (Bond Work Index) of 9.8kWhr/tonne. Of the 15 individual samples tested, the variance of work indices was very low, with a minimum value of 8.8kWhr/tonne and a maximum value of 10.8kWhr/tonne. The Bornite materials are considered soft to very soft in terms of grinding power requirements.

The production of copper concentrates from the Bornite materials is based on traditional grinding and flotation processes and a flowsheet is shown in Figure 1. Unit operations in this flowsheet include crushing,

grinding to approximately 100 microns, rough flotation concentrate production, rough concentrate re-grinding (10-15 microns) and flotation cleaning.

The expected metallurgical performance of the test samples is summarized in the following Table 2 and is based on locked cycle testing of the flowsheet shown in Figure 1. These results are obtained with a consistent set of metallurgical parameters across all test samples and are considered a significant improvement over previous test results for the deposit.

Table 2 - Summary of Expected Metallurgical Performance - Bornite Composite Samples

Composite Name	Cu Feed Grade	Copper Recovery	Copper Conc. Grade
	% Cu	%	% Cu
Composite 1	1.11	90.4	30.3
Composite 2	0.91	87.0	24.3
Composite 3	0.96	89.7	25.6
Composite 4	1.45	91.6	33.5
Composite 5	1.02	90.9	28.0

Future metallurgical test work planned for the Bornite include an evaluation of the potential to recover cobalt from zones which are shown to be high in cobalt. Additional copper recovery test work will cover a broader range of grades (0.2% to 2%) and continue to be focused on the flowsheet and processing philosophy shown in Figure 1.

Rick Van Nieuwenhuysen, President and CEO of Trilogy Metals commented, "The metallurgical results reported here continue to demonstrate that we can produce a high quality copper concentrates of 24% to 33% containing no deleterious metals. The soft work index means grinding and power costs will be low relative to more traditional sources of copper from harder porphyry deposits. We are also excited to continue work on the cobalt. Cobalt occurs as carrollite and cobaltiferous pyrite. Electron microprobe and metallurgical work will be conducted during the winter months with the objective of determining if the cobalt can be concentrated into a saleable product. If it is determined that it can, then cobalt will be added to the resource base as a potentially valuable metal which could enhance the value of the possible Bornite ores".

Qualified Persons

The metallurgical information in this news release has been prepared in accordance with Canadian regulatory requirements set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators ("NI 43-101") and supervised, reviewed and verified by Jeffrey B. Austin, P.Eng., President, of International Metallurgical and Environmental Inc., a "Qualified Person" as defined in National Instrument 43-101 and the person who oversees metallurgical developments for Trilogy Metals.

About Trilogy Metals

[Trilogy Metals Inc.](http://www.trilogymetals.com) is a metals exploration company focused on exploring and developing the Ambler mining district located in northwestern Alaska. It is one of the richest and most-prospective known copper-dominant districts located in one of the safest geopolitical jurisdictions in the world. It hosts world-class polymetallic VMS deposits that contain copper, zinc, lead, gold and silver, and carbonate replacement deposits which have been found to host high grade copper 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 the Company's land package that spans approximately 143,000 hectares. The Company has an agreement with NANA Regional Corporation, Inc., a Regional Alaska Native Corporation that provides a framework for the exploration and potential development of the Ambler mining district in cooperation with local communities. Our vision is to develop the Ambler mining district into a premier North American copper producer.

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, the future operating or financial performance of the Company, interpretation of drill results, planned expenditures, the level of grinding and power costs, the potential addition of cobalt to the resource base, and the anticipated activity at the UKMP Projects, 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 uncertainties involving the need for additional financing to explore and develop properties and availability of financing in the debt and capital markets; 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 access road; the need to obtain permits and governmental approvals; risks of construction and mining projects such as accidents, equipment breakdowns, bad weather, non-compliance with environmental and permit requirements, unanticipated variation in geological structures, metal grades or recovery rates; unexpected cost increases, which could include significant increases in estimated capital and operating costs; fluctuations in metal prices and currency exchange rates; and other risks and uncertainties disclosed in the Company's Annual Report on Form 10-K for the year ended November 30, 2016 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.

Cautionary Note to United States Investors

The Bornite Technical Report have 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 in this press release have been prepared in accordance with National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and the Canadian Institute of Mining, Metallurgy, and Petroleum Definition Standards on Mineral Resources and Mineral Reserves. 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, differ significantly from the requirements of the United States Securities and Exchange Commission ("SEC"), and resource and reserve information contained therein 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. The SEC's disclosure standards normally do not permit the inclusion of information concerning "measured mineral resources", "indicated mineral resources" or "inferred mineral resources" or other descriptions of the amount of mineralization in mineral deposits that do not constitute "reserves" by U.S. standards in documents filed with the SEC. Investors are cautioned not to assume that any part or all of mineral deposits in these categories will ever be converted into reserves. U.S. 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. Disclosure of

"contained ounces" in a resource is permitted disclosure under Canadian regulations; however, the SEC normally only permits issuers to report mineralization that does not constitute "reserves" by SEC standards as in-place tonnage and grade without reference to unit measures. The requirements of NI 43-101 for identification of "reserves" are also not the same as those of the SEC, and reserves reported by the Company in compliance with NI 43-101 may not qualify as "reserves" under SEC standards. Accordingly, information concerning mineral deposits set forth in this press release or the Bornite Technical Report may not be comparable with information made public by companies that report in accordance with U.S. standards.

SOURCE [Trilogy Metals Inc.](#)

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