

# News Release

# Trilogy Metals Initiates Work to Establish Cobalt Resource Estimate for the Bornite Project in Alaska, USA

May 3, 2018 - Vancouver, British Columbia – Trilogy Metals Inc. (TSX/NYSE American: TMQ) ("Trilogy Metals" or the "Company") is pleased to announce that work has been initiated to estimate a cobalt resource for the Bornite Project. Preliminary results from our on-going geometallurgical studies demonstrate our understanding of cobalt mineralogy and distribution to the point that warrants initiating a cobalt resource estimate, which, when established, would be in addition to the copper resource for the Bornite deposit. The work has been focused on examining metallurgical products from both the in-pit resource area and the higher-grade below-pit copper resource area at Bornite along with classic petrographic and microprobe work.

#### Highlights of the geometallurgical study are as follows:

- Initial metallurgical and geometallurgical work on in-pit and below-pit samples concluded that cobalt is found primarily within three mineral species: cobaltiferous pyrite, cobaltite, and carrollite.
- A majority (+80%) of the cobalt is found in pyrite which preferentially reports to the copper tails. Further test work will be forthcoming on producing a cobaltiferous pyrite concentrate.
- At a 100ppm cutoff, cobalt assays range from 0.01% to 0.04% Co and includes intervals such as: 18.44m of 0.35% Co (RC-34), 36.85m of 0.1% Co (RC11-0187), and 6.79m of 0.42% Co (RC11-0184).
- Geometallurgical and metallurgical studies are ongoing to better understand mineralogic distribution and metallurgical response.

Rick Van Nieuwenhuyse, President and CEO of Trilogy Metals commented, "It has become imperative that the United States secure its own sources of critical minerals. We have known that cobalt occurs with copper mineralization at Bornite for some time. With the completion of our metallurgical work related to copper, we decided to put forth further effort to understand how the cobalt was distributed. Now that we have established from our initial test work that ~80% to 90% of the cobalt reports to the copper tails as cobaltiferous pyrite, we will complete flotation test work to concentrate cobalt into a pyrite-rich flotation product that can be considered for further upgrading and recovery of cobalt metal at the Bornite site."

Mr. Van Nieuwenhuyse continued, "With the market interest in finding significant cobalt sources outside of the Congo – where child labor and worker exploitation have been highlighted by Amnesty International and others as problematic for the Auto and Electric



Battery Industries, defining a large, North American cobalt resource has become a priority for the Company. With cobalt currently trading over \$40 per pound, we believe the cobalt potential at Bornite could be significant and is worth pursuing. We look forward to reporting a maiden cobalt resource next quarter now that our QAQC work has been completed."

Cobalt was recently identified by the United States of America as 1 of 35 critical mineral On February 16, 2018, U.S. Department of the Interior issued a notice commodities. presenting a draft list of 35 mineral commodities deemed critical pursuant to Executive Order 13817 issued on December 20, 2017, "A Federal Strategy To Ensure Secure and Reliable Supplies of Critical Minerals". See the notice, which contains the draft list of critical mineral following commodities on the Federal Register the at link: https://www.federalregister.gov/documents/2018/02/16/2018-03219/draft-list-of-criticalminerals).

A "critical mineral" as defined by the Executive Order is a mineral identified to be (i) a nonfuel mineral or mineral material essential to the economic and national security of the United States, (ii) the supply chain of which is vulnerable to disruption, and (iii) that serves an essential function in the manufacturing of a product, the absence of which would have significant consequences for the U.S. economy or national security.

The notice states: "These commodities merit considerations in furthering the policy of the Federal Government to reduce the Nation's vulnerability for the security and prosperity of the United States". The critical minerals list was developed with input and information from the U.S. Geological Survey ("USGS"), the Department of Defense and other U.S. Government agencies. Trilogy Metals is also entering into a Technical Assistance Agreement with the USGS to research the distribution of critical elements in the carbonate-hosted Bornite copper deposit, particularly Germanium (Ge), Rhenium (Re), Gallium(Ga), and Cobalt (Co), which enables the USGS to assess the potential for the United States' critical mineral resources.

The draft list of critical minerals specifically identifies cobalt as a critical metal because of its use in rechargeable batteries such as in electric vehicles and to harden steel in jet engines and other high-tech applications. Based on the U.S. Department of the Interior's and the USGS's publication titled "Mineral Commodity Summaries 2018", the Democratic Republic of the Congo continues to be the world's leading source of mined cobalt, with 58% of cobalt production in 2017 coming from the Congo – an unreliable source because of significant political unrest. China was the world's leading consumer of cobalt, with nearly 80% of its consumption being used by the rechargeable battery industry. The report continues that "Growth in world refined cobalt supply was forecast to increase at a lower rate than that of world cobalt consumption, which was driven mainly by strong growth in the rechargeable battery and aerospace industries".

## Bornite Project

As previously announced by the Company on April 19, 2016, a NI 43-101 compliant resource estimate was filed for the Bornite deposit.<sup>†</sup> At a base case 0.5% copper cutoff grade, the Bornite Project is estimated to contain in-pit Indicated Resources of 40.5 million tonnes at 1.02% Cu and Inferred Resources of 84.1 million tonnes at 0.95% copper. At a base case 1.5% copper cutoff grade, the Bornite Project is estimated to contain below-pit Inferred Resources of 57.8 million tonnes at 2.89% copper. Preliminary work shows that although

<sup>&</sup>lt;sup>†</sup> See "Amended and Restated NI43-101 Technical Report on the Bornite Project, Northwest Alaska, USA" with an effective date of April 19, 2016 and a release date of October 12, 2017 available on the Company's website and under the Company's profile on www.sedar.com.



cobalt is broadly associated with copper mineralization, cobalt does not have a one-to-one correlation. It mostly occurs as a cloud of cobaltiferous pyrite in and around the copper mineralization.

Cobalt composites using a 100ppm cut-off grade include 6.79m of 0.42% Co in drill hole RC11-0184 and 18.44m of 0.35% Co in drill hole RC-34 within the in-pit resource area (see Table 1). Cobalt composites from the below pit resource area include 36.85m of 0.1% Co from drill hole RC11-0185 and 21.23m of 0.23% Co from drill hole RC12-0198 (see Table 2). We will continue to work on understanding the controls of the higher grade cobalt zones. Figure 1 highlights the locations of these cobalt intercepts. All of the ranges of potential quantity and grade contained in this news release are conceptual in nature. There has been insufficient exploration to define a mineral resource and it is uncertain if further exploration will result in the target being delineated as a mineral resource.

Table 1: Co Intercepts Within Pit								
Drill hole	From (m)	To (m)	Length (m)	Co%	Cu%			
RC11-0184	327.43	334.22	6.79	0.42	28.98			
RC-34	292	310.44	18.44	0.35	26.81			
RC11-0185	182.88	191.84	8.96	0.09	3.32			
RC13-0219	442.5	468.48	25.98	0.06	1.82			
RC11-0182	212.01	230.9	18.89	0.19	3.433			

Table 2: Co Intercepts Below Pit								
Drill hole	From (m)	To (m)	Length (m)	Co%	Cu%			
RC11-0187	458.79	495.64	36.85	0.10	12.07			
RC12-0198	631.65	652.88	21.23	0.23	3.86			
RC12-0200	572.46	595.57	23.11	0.21	2.67			
RC13-0213	347.45	349.27	1.82	0.38	3.36			
RC13-0237	321.02	374.86	53.84	0.03	1.69			
RC13-0224	653.03	721.94	68.91	0.02	2.15			





Figure 1: Significant Bornite Cobalt Intercepts

#### QAQC Program

The drill program and sampling protocol is managed by qualified persons employed by Trilogy Metals. The diamond drill holes are typically collared at HQ diameter drill core and reduced to NQ diameter during the drilling process. Samples are collected using a 0.2-meter minimum length and a 2.5-meter maximum length. Three quality control samples (one blank, one standard and one duplicate) are inserted into each batch of 20 samples. The drill core is sawn, with half sent to ALS Minerals in Fairbanks for sample preparation and the sample pulps forwarded to ALS's North Vancouver facility for analysis. ALS Minerals, North Vancouver, B.C. Canada facility is certified as ISO 9001:2008 and accredited to ISO / IEC 17025:2005 from the Standards Council of Canada. A third party has completed a QAQC review on all historic (where data was present) and recent cobalt analytical work. The analytical method for cobalt quantification is multi-element ICP with mass spectroscopy. The QAQC review shows overall very strong precision and accuracy for cobalt results for the 2011 to 2017 Bornite assay results.

The cobalt mineral resource estimate is being prepared by Bruce M. Davis, FAusIMM, BD Resource Consulting, Inc., and Robert Sim, P.Geo., SIM Geological Inc. who are both independent Qualified Persons as set forth by National Instrument 43-101.



#### **Qualified Person**

Andrew W. West, Certified Professional Geologist, Exploration Manager for Trilogy Metals Inc., is a Qualified Person as defined by National Instrument 43-101. Mr. West has reviewed and verified the technical information in this news release and approves the disclosure contained herein.

#### About Trilogy Metals

Trilogy Metals Inc. 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 mostprospective 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.

#### **Company Contacts**

Rick Van Nieuwenhuyse President & Chief Executive Officer Elaine Sanders Vice President & Chief Financial Officer

## 604-638-8088 or 1-855-638-8088

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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, the future price of copper and cobalt, the estimation of mineral reserves and mineral resources, the realization of mineral reserve and mineral resource estimates, the market for cobalt, the timing and amount of estimated future production, costs of production, capital expenditures, costs and timing of the development of projects, the results or prospects of testing and studies, the identification of cobalt as a critical mineral commodity, completion of test work and other research relating to the distribution of critical elements in the carbonate-hosted Bornite copper deposit, world refined cobalt supply and consumption, the potential future development of Bornite, the exploration and potential development of the Ambler mining district in cooperation with local communities and the development of the Amble mining district into a premier North American copper producer, 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 success of exploration, development and mining activities, permitting timelines, requirements for additional capital, government regulation of mining operations, environmental risks, unanticipated reclamation expenses; mineral reserve and resource estimates and the assumptions upon which they are based; assumptions and discount rates being appropriately applied to the PFS; our assumptions with respect to the likelihood and timing of the AMDIAP; capital estimates; prices for energy inputs, labour, materials, supplies and services the interpretation of drill results, 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, 2017 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**

This press 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 in this press release have been prepared 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 (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, differ significantly from the requirements of the United States Securities and Exchange Commission (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. 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 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. 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 arade 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 Trilogy Metals in compliance with NI 43-101 may not qualify as "reserves" under SEC standards. Arctic does not have known reserves, as defined under SEC Industry Guide 7. Accordingly, information concerning mineral deposits set forth herein may not be comparable with information made public by companies that report in accordance with U.S. standards.

