

Trilogy Metals Announces Pre-Feasibility Study Results and Reserves for the Arctic Project, Alaska

21.02.2018 | [CNW](#)

VANCOUVER, Feb. 20, 2018 /CNW/ - [Trilogy Metals Inc.](#) (TSX/NYSE American: TMQ) ("Trilogy Metals" or the "Company") is pleased to announce the positive results of its Pre-Feasibility Study ("PFS") for its Arctic Copper-Zinc-Lead-Silver-Gold ("Arctic" or the "Arctic Project") in the Ambler mining district of Northwestern Alaska. These results convert indicated mineral resources at Arctic to probable mineral reserves. All amounts are stated in U.S. dollars unless otherwise stated.

Trilogy Metals will host a conference call on February 21, 2018 at 11:00am (Pacific Time) or 2:00pm (Eastern Time) to discuss these results. Call-in information is provided at the end of this news release and on our website at www.trilogymetals.com.

Highlights of the Arctic PFS study are as follows:

- Pre-tax Net Present Value ("NPV")_{8%} of \$1,935.2 million calculated at the beginning of the three-year construction period and an Internal Rate of Return ("IRR") of 38.0% for the base case.
- After-tax NPV_{8%} of \$1,412.7 million and after-tax IRR of 33.4% for the base case.
- Initial capital expenditure of \$779.6 million and sustaining capital of \$65.9 million for total estimated capital expenditure of \$845.5 million over the estimated 12-year mine life. In addition, closure and reclamation costs are estimated at \$100 million over the estimated 12-year mine life.
- Estimated pre-tax and after-tax payback of initial capital within 2 years. At \$2.00/lb copper, after-tax payback is 3 years.
- Minimum 12-year mine life supporting a maximum 10,000 tonne-per-day conventional grinding mill-and-flotation complex to produce copper, zinc and lead concentrates containing significant gold and silver by-products.
- Life of mine strip ratio of 6.9 to 1.
- Average annual payable production projected to be more than 159 million pounds of copper, 199 million pounds of zinc, 30,600 ounces of gold and 3.3 million ounces of silver for life of mine.
- A capital intensity ratio on initial capital of approximately \$6,200 per tonne of average annual copper equivalent payable production.
- Estimated cash costs of \$0.15/lb of payable copper (C1 cash costs include on-site mining and processing costs, maintenance, transport, royalties, and is net of by-product credits).
- Total "all-in" cash costs (initial/sustaining capital, operating, transportation, treatment and refining charges, road transport, and by-product metal credits) estimated at \$0.63/lb of payable copper.
- Economic indicators justify moving forward with permitting and a feasibility study.

The PFS was prepared under National Instrument 43-101 standards by independent consultant, Ausenco Engineering ("Ausenco") of Vancouver, Canada and the full technical report will be filed on SEDAR and EDGAR within 45 days of this release. The Company also engaged Amec Foster Wheeler ("Amec") to complete mine planning and SRK Consulting Inc. ("SRK") to complete tailings and waste design, hydrology and water management studies.

The PFS for the Arctic Project describes the potential technical and economic viability of establishing a conventional open-pit copper-zinc-lead-silver-gold mine-and-mill complex for a 10,000 tonne-per-day operation. The base case scenario utilizes long-term metal prices of \$3.00/lb for copper, \$1.10/lb for zinc, \$1.00/lb for lead, \$18.00/oz for silver and \$1,300/oz for gold. The PFS was prepared on a 100% ownership basis.

"The results of the PFS show that Arctic is a robust, high quality project. We are very pleased with the improvements in the economics in this Pre-Feasibility Study compared with the Preliminary Economic Assessment ("PEA") performed on the Arctic Project in 2013. The increase in net present value of Arctic in the PFS from the PEA is due to a number of cumulative improvements including: 1) improved mine plan that moves approximately \$100 million in the pre-stripping forward which allows for a more aggressive mine ramp up – two years, rather than four years in the PEA. This brings forward a significant amount of production and cashflow; 2) use of LNG versus diesel in the PEA – this reduces power generation costs and saves approximately \$2.00/tonne in operating costs on processing; 3) improved tax legislation in the United States improves after-tax NPV and IRR; 4) improved long term commodity prices, specifically for copper and zinc; 5) improved metallurgical recovery.

6) an almost 20% increase in resource tonnes along with an improvement in grade resulting from our in-fill drilling program conducted over the past couple of years", said Rick Van Nieuwenhuysse, President and Chief Executive Officer. "We are excited with the potential for job opportunities for the Upper Kobuk region. The PFS estimates approximately 400 year during mine operations. This is important for our local communities in the Kobuk and Koyukuk regions that currently have opportunities for long term employment."

Rick Van Nieuwenhuysse continues, "The Arctic Project is now set to advance to the next stages of development: Permit Feasibility. With the average grade currently mined in open pit copper mines approaching 0.5% worldwide, we are blessed with a truly high-grade copper project in Arctic with grades of 5% copper equivalent¹. Based on the foregoing, I expect Arctic to be among the highest grade open pit copper mines in the world if and when it is placed into production. And with Public Sale completed on the Ambler Mining District Industrial Access Project ("AMDIA") and the Draft EIS underway, and with continued support from Governor Walker and the State of Alaska as outlined in his recent State of the State address (Walker State Address), we are starting to see all the pieces come together to realize the value inherent in developing the Ambler Mining District – one of the highest grade volcanogenic massive sulfide districts known in the world. Meanwhile, we will continue to explore our Bornite Project with a \$10 million program funded by South32, which we hope to advance toward a development decision. With the long-term demand fundamentals for copper driven by increased use of alternative forms of energy and a transition from internal combustion engines to non-polluting electric vehicles, both of which require 5 times the amount of copper than carbon based fuels, we expect the price of copper to remain strong over the long term – especially as we consider the impending supply crunch expected by analysts."

1. See Table 9.

Arctic Pre-Feasibility Study – Mining and Processing

The PFS is based on a conventional truck-and-shovel, open-pit mine design at a single pit, 10,000 tonne-per-day mining and milling operation with sulphide flotation concentration resulting in the production of copper, zinc and lead concentrates. At the pre-feasibility level metallurgical work on the sulphide mineralization, the average recoveries are projected to be 90.0% for copper, 91.7% for zinc and 80.0% for lead. The majority of the silver and gold report to the lead concentrate at 95% payable. Mineralized material at the Arctic Project will be processed through conventional milling and flotation for an estimated mine life of 12 years. The PFS contemplates the metallurgical flow sheet to consist of a conventional mill with a talc pre-float followed by bulk copper-lead flotation and zinc flotation followed by a separation of the copper and lead. Most of the precious metals report to the copper and lead concentrates. Key parameters and assumptions used for the PFS study are discussed below and summarized in Tables 1 through 3.

Table 1 – Mining rates and volumes of mined material

Type of Mining	Total Years	Avg Tonnes/yr (000's)	Avg Tonnes/day	Total Tonnes (000's)
Open-pit mineralized material (Years 0 – 12)	12	3,586.5	9,826	43,038
Open-pit waste (Years 0 – 12)	12	24,756	67,824	297,071
	Total material mined			340,109
	Average strip ratio for the life of mine			6.9:1

Table 2 – Projected payable metal production

Metal	Total Payable Production		Average Annual Production	
			Life of Mine	
	lbs (000's)	Tonnes	lbs (000's)	Tonnes
Copper	1,908,493	865,687	159,041	72,141
Zinc	2,399,128	1,088,237	199,927	90,686
Lead	405,727	184,037	33,811	15,336
	Ounces		Ounces	
Silver	40,237,644		3,353,137	
Gold	367,531		30,628	

Table 3 – Base case head grades, recoveries, metal prices, and other data

Head Grades

Copper	% 2.32
Zinc	% 3.24
Lead	% 0.57
Silver	g/t 36.0
Gold	g/t 0.49

Metal Recoveries

To Copper Concentrate

- Copper	% 90.0
- Silver	% 11.8
- Gold	% 35.0

To Zinc Concentrate

- Zinc	% 91.7
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To Lead Concentrate

- Lead	% 80.0
- Silver	% 61.1
- Gold	% 49.7

Payables

Payable Copper	% 90.0
Payable Zinc	% 91.7
Payable Lead	% 80.0

Table 3 Continued – Base case head grades, recoveries, metal prices, and other data

Concentrate grades - Copper

Copper	%	30.3
Silver	g/t	169

Concentrate grades - Zinc

Zinc	%	59.2
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Concentrate grades - Lead

Lead	%	55.0
Silver	g/t	2,383
Gold	g/t	34.0

Metal Prices

Copper	\$/lb	3.00
Zinc	\$/lb	1.10
Lead	\$/lb	1.00
Silver	\$/oz	18.00
Gold	\$/oz	1,300

Other Parameters

Life of mine	Years	12
LNG price	\$/GJ LHV	18.45
Electrical power & LNG	\$/kWhr	0.17
NANA NSR	% Net Revenues	1.0

Arctic Pre-Feasibility Study & Project Economics

The results of a discounted cash flow analysis for the Project are presented in Table 4 below. NPV, IRR and payback values are estimated for both pre-tax and after-tax scenarios. The base case scenario utilizes the long-term metals prices outlined in Table 3 and a discount rate of 8%. IRR and NPV values are calculated to show sensitivities for a range of copper prices from \$2.00 to \$4.00 and zinc prices from \$0.90 to \$1.30.

Under the Exploration Agreement and Option to Lease ("NANA Agreement") between Trilogy Metals and NANA Regional Corporation, Inc. ("NANA"), NANA has the right, following a construction decision, to elect to purchase a 16% to 25% direct interest in the Arctic Project or, alternatively, to receive a 15% Net Proceeds Royalty. This PFS was carried out on a 100% ownership basis and does not include the impact on Trilogy Metals if NANA elects to purchase an interest in the Arctic Project under the NANA Agreement or, alternatively, the impact on Trilogy Metals and the Project if the NPR becomes applicable. The PFS does include the 1.0% Net Smelter Royalty ("NSR") to be granted to NANA under the NANA Agreement in exchange for a surface use agreement.

Under the Option Agreement ("South32 Option Agreement") between Trilogy Metals and affiliates of [South32](#)

[Ltd.](#) ("South32"), South32 has the right to form a 50/50 Joint Venture with respect to the Company's Alaskan assets including the Company's Arctic Project. Upon exercise of the option, the Company will transfer its Alaskan assets, including the Arctic Project, and South32 will contribute a minimum of \$150 million, to a newly formed joint venture. For more information on the South32 Option Agreement see the Company's press release on April 10, 2017 (<https://Trilogy PR April 10 2017>). This PFS was carried out on a 100% ownership basis and does not include the impact on Trilogy Metals if South32 elects to form the joint venture under the Option Agreement.

Additional information on the NANA Agreement and the South32 Option Agreement is included in the Company's 2017 Annual Report on Form 10-K, which is available on SEDAR and EDGAR.

Table 4a – Pre-tax discounted cash flow estimates for varying copper prices

Pre-Tax NPV* (\$ million)		Copper Price (\$/lb)				
		2.00	2.50	Base Case 3.00	3.50	4.00
Discount Rates	5%	1,437.8	2,039.9	2,642.0	3,244.0	3,846.1
	Base Case 8%	993.4	1,464.3	1,935.2	2,406.1	2,877.0
	10%	770.0	1,173.4	1,576.8	1,980.1	2,383.4
IRR %		25.3	31.9	38.0	43.6	48.9
Payback Years		2.9	2.3	1.9	1.6	1.4

*Assumes base case metals prices of \$1.10/lb zinc, \$1.00/lb lead, \$18.00/oz silver and \$1,300/oz gold

Table 4b - After-tax discounted cash flow estimates for varying copper prices

After-Tax NPV* (\$ million)		Copper Price				
		(\$/lb)				
		2.00	2.50	Base Case 3.00	3.50	4.00
Discount Rates	5%	1,064.6	1,512.4	1,946.1	2,377.2	2,808.5
	Base Case 8%	718.2	1,071.5	1,412.7	1,751.5	2,090.5
	10%	543.7	848.1	1,141.5	1,432.7	1,724.1
IRR %		22.3	28.1	33.4	38.2	42.8
Payback Years		3.0	2.4	2.0	1.8	1.5

*Assumes base case metals prices of \$1.10/lb zinc, \$1.00/lb lead, \$18.00/oz silver and \$1,300/oz gold

Table 4c – Pre-tax discounted cash flow estimates for varying zinc prices

Pre-Tax NPV* (\$ million)		Zinc Price				
		(\$/lb)				
		0.90	1.00	Base Case 1.10	1.20	1.30
Discount Rates	5%	2,340.1	2,491.0	2,642.0	2,792.9	2,943.8
	Base Case 8%	1,699.6	1,817.4	1,935.2	2,053.0	2,170.8
	10%	1,375.2	1,476.0	1,576.8	1,677.5	1,778.3
IRR %		35.1	36.5	38.0	39.4	40.8
Payback Years		2.1	2.0	1.9	1.8	1.8

*Assumes base case metals prices of \$3.00/lb copper, \$1.00/lb lead, \$18.00/oz silver and \$1,300/oz gold

Table 4d - After-tax discounted cash flow estimates for varying zinc prices

After-Tax NPV* (\$ million)		Zinc Price (\$/lb)				
		0.90	1.00	Base Case	1.20	1.30
				1.10		
Discount Rates	5%	1,726.2	1,836.2	1,946.1	2,056.1	2,166.1
	Base Case 8%	1,240.3	1,326.5	1,412.7	1,498.9	1,585.1
	10%	993.5	1,067.5	1,141.5	1,215.5	1,289.5
IRR %		30.8	32.1	33.4	34.6	35.8
Payback Years		2.2	2.1	2.0	1.9	1.9

*Assumes base case metals prices of \$3.00/lb copper, \$1.00/lb lead, \$18.00/oz silver and \$1,300/oz gold

As seen in Table 5, average life of mine cash costs for the Arctic Project, which include on-site operating costs, treatment and refinement charges, transportation, road toll charges, royalties and by-product credits (zinc, lead, silver and gold), are estimated to be \$0.15/lb of payable copper. If the total capital costs (initial plus sustaining and closure costs) of \$910.8 million are included, then the total "all-in" cash cost is estimated to be \$0.63/lb of payable copper.

Table 5 – Summary of estimated cash costs

Cash Costs (\$/lb Cu payable)	Average Life of Mine
C1 (delivered metal – net of by-product credits)	0.15
Total Cash Costs (opex, TC/RCs, capex, sustaining capex, closure)	0.63

This PFS was developed on the basis of up-to-date macro-economic and technical assumptions related to the Arctic Project and supersedes the previous Preliminary Economic Assessment completed for the Arctic Project in 2013.

Arctic Pre-Feasibility Study - Capital Costs

The PFS estimates the initial development capital expenditure at \$779.6 million during the proposed two and a half-year construction period. With sustaining (deferred and working) capital over the life of the mine estimated at \$65.9 million, the expected total capital investment is expected to be \$845.5 million over the estimated 12-year mine life. In addition, closure costs are estimated to be \$65.3 million. The capital cost estimates, which are shown in Table 6, generally comply with AACEI Class 4 level estimates and are based on budget quotations and the consultants database/experience with similar projects and should not be considered definitive.

Table 6 – Capital estimate summary

Initial Capital Estimate	
(\$ million)	
Mine	281.2
Crushing	18.3
Process	113.8
Tailings	30.3
On Site Infrastructure	84.5
Off Site Infrastructure	15.6
Subtotal – Direct costs	543.7
Indirect Costs	121.9
Owners Costs	22.0
Contingency	92.0
Initial development capital	779.6
Sustaining Capital Estimate	
(\$ million)	
Mining Equipment	45.1
Tailings	19.9
G&A	0.9
Total sustaining capital	65.9
Total capital expenditure for the life of mine	845.5

• Rounding as required by reporting guidelines may result in apparent summation differences

Infrastructure

The Arctic Project will require 12.6 MW of average load for 10,000 tonne-per-day operation demand. Power will be generated by six 4.4 MW LNG generators, housed in a common building. Four units will be in service with the fifth unit reserved for stand-by capacity and the sixth unit reserved for maintenance. Onsite power costs using LNG are estimated to be \$0.17/kWh, assuming a LNG price of \$18.45/GJ LHV.

There is currently no developed surface access to the Arctic Project area and beyond. Access to the Arctic Project is proposed to be via the AMDIAP, a road approximately 340 km (211 miles) long, extending west from the Dalton Highway where it would connect with the proposed Arctic Project area. The final terminal for

the road has not yet been determined. Although the capital costs of the road are not yet final, an estimate of approximately \$300 million has been used in this PFS. The Alaska Industrial Development and Export Authority ("AIDEA") is currently permitting the AMDIAP. Although Trilogy has been in discussions with AIDEA about investigating alternatives to reduce the overall cost to construct the AMDIAP, the final cost of the road could be higher than \$300 million. The working assumption of this PFS study is that AIDEA would arrange financing in the form of a public-private partnership and arrange for the construction and maintenance of the access road. AIDEA would charge a toll to multiple mining and industrial users (including the Arctic Project) in order to pay back the costs of financing the AMDIAP. This model is very similar to what AIDEA undertook when the DeLong Mountain Transportation System (also known as the Red Dog Mine Road and Port facilities) was constructed in the 1980s. The amount paid in tolls by any user will be affected by the cost of the road, its financing structure, and the number of mines and other users of the road which could also include commercial transportation of materials and consumer items that would use the AMDIAP to ship concentrates to the Port of Anchorage in Alaska and possibly provide goods and commercial materials to villages in the region.

For the purposes of this PFS study, AIDEA and Trilogy Metals reviewed current bonding ability of AIDEA based on a \$300 million 30-year bond with a rate of 6.00% compounded semi-annually and a \$300 million 15-year bond with a rate of 5.50% compounded semi-annually. Although the final toll payments will be negotiated with AIDEA and any Public-Private Partnership owners of the access road sometime in the future, it has been assumed that a toll would be paid based on the Arctic Project paying approximately \$9.7 million each year for its 12-year mine life. The toll payments are assumed to commence in Year 1 of production and are an operating cost in the Arctic PFS. In addition, a road maintenance fee of \$2.00/tonne processed has been assumed.

Operating Costs

The Project is projected to produce approximately 159 million pounds of payable copper per year at an estimated average C1 cash operating cost of \$0.15/lb Cu over the estimated 12-year mine life. These estimated cash costs are net of zinc, lead, gold and silver byproducts and include onsite operating costs, transport, road tolling, smelting and refining charges and royalties. Maintenance parts and repairs are estimated based on industry standard factors for these costs. Mining costs are estimated at \$3.09 per tonne of material mined, at a strip ratio of 6.9 which equates to \$20.47 per tonne of material processed. Details of the estimated operating costs, and other charges, are presented in Tables 7 and 8 below.

Table 7 – Operating costs

Estimated Operating Cost

(as indicated)

Mining	\$/tonne processed 20.47
Processing	\$/tonne processed 15.09
General and Administrative	\$/tonne processed 5.60
Plant Services	\$/tonne processed 0.95
Road Toll and Maintenance	\$/tonne processed 4.70
Total on-site operating costs	\$/tonne processed 46.81

• Rounding as required by reporting guidelines may result in apparent summation differences

Table 8 – Concentrate transportation, treatment and refining charges

Estimated Operating Cost

(as indicated)

Concentrate Transportation charges \$/dmt concentrate	270.37
Treatment charges - Copper \$/dmt concentrate	80.00
Treatment charges – Zinc \$/dmt concentrate	200.00
Treatment charges - Lead \$/dmt concentrate	180.00
Refinement charges - Copper \$/lb of payable copper	0.08

&bull; dmt: dry metric tonne

Mineral Resource Estimate

The mineral resource estimate, as seen in Table 9 and which formed the basis of the PFS, has been 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 ("NI 43-101"). The overall effective date of this resource estimate is April 25, 2017. Mineral resource estimates are made from a 3D block model based on geostatistical applications using commercial mine planning software (MineSight® v11.60-2). The block model has a nominal block size measuring 10 x 10 x 5 m and utilizes data derived from 152 drill holes in the vicinity of the Arctic deposit. The resource estimate was generated using drill hole sample assay results and the interpretation of a geological model which relates to the spatial distribution of copper, lead, zinc, gold and silver. Interpolation characteristics were defined based on the geology, drill hole spacing, and geostatistical analysis of the data. The effects of potentially anomalous high-grade sample data, composited to two metre intervals, are controlled by limiting the distance of influence during block grade interpolation. The grade models have been validated using a combination of visual and statistical methods. The resources were classified according to their proximity to the sample data locations and are reported, as required by NI 43-101, according to the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves. Model blocks estimated by three or more drill holes spaced at a maximum distance of 100 metres are included in the Indicated category. Inferred blocks are within a maximum distance of 150 metres from a drill hole. The estimate of Indicated and Inferred mineral resources is within a limiting pit shell derived using projected technical and economic parameters. Additional information about the resource modeling methodology is available in a technical report entitled NI 43-101 Technical Report on the Arctic Project, Northwest Alaska, USA dated November 9, 2017.

Table 9 &ndash; Resource estimate for the Arctic Project

Category	Average Grade:					Contained Metal:				
	M tonnes	Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)	Cu Mlbs	Pb Mlbs	Zn Mlbs	Au koz
Indicated	36.0	3.07	0.73	4.23	0.63	47.6	2,441	581	3,356	728
Inferred	3.5	1.71	0.60	2.72	0.36	28.7	131	47	210	40

Notes

- (1) Mineral resources stated as contained within a pit shell developed using metal prices of US\$3.00/lb Cu, \$0.90/lb Pb, \$1.00/lb Zn, \$1300/oz Au and \$18/oz Ag and metallurgical recoveries of 92% Cu, 77% Pb, 88% Zn, 63% Au and 56% Ag and operating costs of \$3/t mining and \$35/t process and G&A. The average pit slope is 43 degrees.
- (2) The base case cut-off grade is 0.5% copper equivalent. $CuEq = (Cu\% \times 0.92) + (Zn\% \times 0.290) + (Pb\% \times 0.231) + (Au\text{pt} \times 0.398) + (Ag\text{pt} \times 0.005)$.
- (3) Stated mineral resources are inclusive of those mineral resources that were converted into mineral reserves.
- (4) Inferred resources have a great amount of uncertainty as to whether they can be mined legally or economically. It is reasonably expected that a majority of Inferred resources will be converted to Indicated resources with continued exploration.

Mineral Reserve Estimate

The probable mineral reserves are the economically mineable portions of the indicated mineral resource as demonstrated by this PFS.

Table 10 – Reserve estimate for the Arctic Project

Category	Tonnage t x 1000	Average Grade:				
		Cu (%)	Zn (%)	Pb (%)	Au (g/t)	Ag (g/t)
Proven Mineral Reserves	-	-	-	-	-	-
Probable Mineral Reserves	43,038	2.32	3.24	0.57	0.49	36.0
Proven & Probable Mineral Reserves	43,038	2.32	3.24	0.57	0.49	36.0
Waste within Designed Pit	296,444					
Total Tonnage within Designed Pit	339,482					

Notes

- (1) Reserves estimated assuming open pit mining methods and include a combination of planned and contact dilution.
- (2) Reserves are based on prices of \$2.90/lb Cu, \$0.90/lb Pb, \$1.10/lb Zn, \$1,250/oz Au and \$18/oz Ag and fixed process recoveries of 90.0% Cu, 89.9% Pb, 91.7% Zn, 61.1% Au and 49.7% Ag.
- (3) Mining costs: \$3.00/t incremented at \$0.02/t/15m and \$0.015/t/15m below and above 710m elevation respectively.
- (4) Processing costs: \$36.55/t. Includes process cost: \$19.86/t, G&A: \$8.92/t, sustaining capital: \$4.11/t, closure: \$1.00/t and road toll: \$2.66/t.
- (5) Treatment costs of \$70/t Cu concentrate, \$180/t Pb concentrate and \$300/t Zn concentrate. Refining costs of \$0.07/lb Cu, \$10/oz Au, \$0.60/oz Ag. Transport cost \$149.96/t concentrate.
- (6) Fixed royalty percentage of 1%.
- (7) There is a risk to the mineral reserves if the toll road is not built in the time frame required for the Arctic Project, or if the toll charges are significantly different from what was assumed.
- (8) The geotechnical assumptions used in the pit design may vary in future assessments and could materially affect the strip ratio, or mine access design.
- (9) The Qualified Person for the reserves estimate is Antonio Peralta, P.Eng who visited the Project site in July 2017 as part of the data verification process.
- (10) The effective date of the mineral reserves estimate is October 10, 2017.

Project Sensitivities

Project cash flow is highly sensitive to changes in the price of copper as indicated in Table 4. The project is also sensitive to variations in capital and operating costs as indicated in Table 11 below. This table shows the effect of increasing or decreasing the capital expenditures and operating expenditure estimates for the project by +/-10%.

Table 11 – Project sensitivity to variations in capital and operating expenditure on a Pre-Tax basis

Pre-Tax NPV* (\$ million)		Capex Estimate Variance			Opex Estimate Variance		
		+10%	Base Case	-10%	+10%	Base Case	-10%
Discount Rates	5%	2,563.2	2,642.0	2,720.7	2,510.4	2,642.0	2,773.6
	Base Case 8%	1,862.1	1,935.2	2,008.3	1,831.0	1,935.2	2,039.4
	10%	1,506.8	1,576.8	1,646.7	1,486.8	1,576.8	1,666.7
	IRR%	35.0	38.0	41.4	36.6	38.0	39.3

*Assumes base case metals prices of \$3.00/lb copper, \$1.10/ zinc, \$1.00/lb lead, \$18.00/oz silver and \$1,300/oz gold

The PFS for the Project summarized here was completed by Ausenco (contributors listed in Table 12); and will be incorporated in a National Instrument 43-101 Technical Report which will be available on SEDAR and Edgar within 45 days of this news release.

Table 12 – PFS Contributors

Qualified Person	Scope of Responsibility
L. Paul Staples, VP and Global Practice Lead, Minerals and Metals Ausenco	Plant and infrastructure design and consolidated financial model
Antonio Peralta, PhD, P.Eng, Principal Mining Engineer AMEC	Mine design and Mineral Reserve estimates
Calvin Boese, P.Eng, M.Sc., Senior Consultant (Geotechnical Engineering) SRK	Tailings and waste design
Tom Sharp, PhD, P.Eng, Principal Consultant (Water Management and Treatment Engineering) SRK	Hydrology and water management
Bruce Davis, FAusIMM, BD Resource Consulting, Inc. Robert Sim, P.Geo, SIM Geological Inc.	Mineral resource estimates
Jeffrey B. Austin, P. Eng, International Metallurgical & Environmental Inc.	Metallurgy and recoveries

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.

Conference Call

Call-in details for the conference call to be held on February 21, 2018 at 11:00am (Pacific Time) or 2:00pm (Eastern Time) are:

Canada and USA Toll-Free: 1-800-319-4610
International Toll Dial-in: 1-604-638-5340

Listeners can also access the live webcast of the conference call at <http://services.choruscall.ca/links/trilogy20180221.html>

A replay of this conference call will be available from Wednesday, February 21 until Wednesday, March 21,

2018 on the Company's website at www.trilogymetals.com.

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 price of copper, the estimation of mineral reserves and mineral resources, the realization of mineral reserve and mineral resource estimates, the timing and amount of estimated future production, costs of production, capital expenditures, costs and timing of the development of projects, the likelihood and timing of the AMDIAP, the potential future development of Bornite, the future operating or financial performance of the Company, planned expenditures 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 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.

Non-GAAP Performance Measures

Some of the financial measures referenced in this press release are non-GAAP performance measures. We

have not reconciled forward-looking full year non-GAAP performance measures contained in this news release to their most directly comparable GAAP measures, as permitted by Item 10(e)(1)(i)(B) of Regulation S-K. Such reconciliations would require unreasonable efforts at this time to estimate and quantify with a reasonable degree of certainty various necessary GAAP components, including for example those related to future production costs, realized sales prices and the timing of such sales, timing and amounts of capital expenditures, metal recoveries, and corporate general and administrative amounts and timing, or others that may arise during the year. These components and other factors could materially impact the amount of the future directly comparable GAAP measures, which may differ significantly from their non-GAAP counterparts.

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 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 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.

SOURCE [Trilogy Metals Inc.](#)

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Die URL für diesen Artikel lautet:

<https://www.rohstoff-welt.de/news/291262--Trilogy-Metals-Announces-Pre-Feasibility-Study-Results-and-Reserves-for-the-Arctic-Project-Alaska.html>

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