# TSX, NYSE-MKT Symbol: NCQ

# News Release

# NovaCopper Reports 173% Increase in Indicated Resources at the Bornite Project

April 19, 2016 - Vancouver, British Columbia - NovaCopper Inc. (TSX, NYSE-MKT: NCQ) ("NovaCopper" or the "Company") is pleased to announce the release of an updated National Instrument 43-101 ("NI 43-101") compliant resource estimate for the Bornite Project located in the highly prospective Ambler mining district of northwest Alaska. This release incorporates recent work to advance the 3D lithology, alteration and structure model for the Bornite deposit, as well as the results of the 2014 assaying of previously un-sampled or partially sampled historical Kennecott drill core. The previous mineral resource estimate was described in the Technical Report for the Bornite Project, prepared for NovaCopper by BD Resource Consulting Inc. ("BDRC") and Sim Geological Inc. ("SGI") which was made public on April 1, 2014 and had an effective date of March 18, 2014. An updated Technical Report will be filed within 45 days of this news release.

### **Highlights**

- At a base case 0.50% copper cutoff grade, the Bornite Project is estimated to contain in-pit Indicated Resources of 40.5 million tonnes at 1.02% copper for 913 million pounds of contained copper (see Table 1 for details).
- At a base case 0.50% copper cutoff grade, the Bornite Project is estimated to contain in-pit Inferred Resources of **84.1 million tonnes at 0.95% copper** for 1.8 billion pounds of contained copper (see **Table 1** for details).
- At a base case 1.50% copper cutoff grade, the Bornite Project is estimated to contain below-pit Inferred Resources of 57.8 million tonnes at 2.89% copper for 3.7 billion pounds of contained copper (see Table 2 for details).
- Contained copper in Indicated Resources has increased from 334 to 913 million pounds which constitutes a 173% increase in contained metal (see **Figure 1** for details).
- Total contained copper in Inferred Resources has decreased from 5,969 to 5,450 million pounds (1,768Mlbs in-pit and 3,683Mlbs below-pit) which constitutes a 4% decrease in contained metal (see **Figure 1** for details). The reduction in contained copper is due principally to moving in-pit Inferred Resources to the Indicated category.

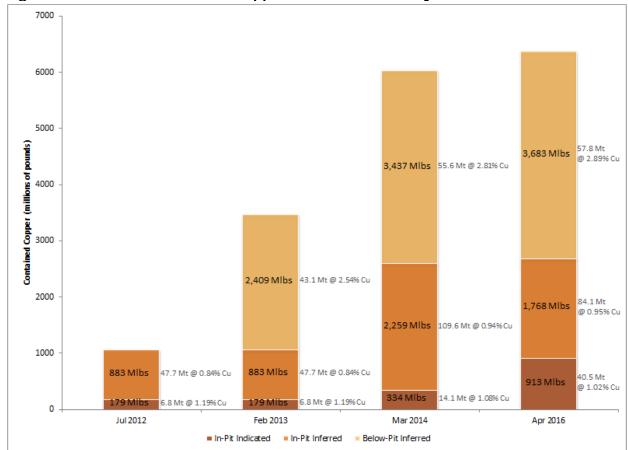


Figure 1. Growth in Contained Copper at the Bornite Project

"We are extremely pleased with the expansion of the Indicated Resources at Bornite. This increase in in-pit Indicated Resources is a huge value-add for shareholders. This increase came at a very low cost as we were able to effectively utilize an extensive database that has been developed on this property. By applying a well-executed, geologically-focused re-log and re-assay program we have added more high quality copper resources at an average grade of approximately 1% copper in a potential open-pit mine scenario. The resource model also shows that there is ample room to expand the resources adjacent to the current in-pit endowment, as well as down dip to the north and east of the below-pit resources. Importantly, given that the amount of contained metal in the in-pit resource is insensitive to changes in the copper cutoff grade, the project should provide great flexibility in mining selectivity during future mine planning," said Mr. Rick Van Nieuwenhuyse, NovaCopper's President and Chief Executive Officer.

Mr. Van Nieuwenhuyse continued, "The latest results on Bornite further demonstrate that Ambler is evolving into one of the world's major mining districts. Bornite is located approximately 26 kilometers southwest of our advanced Arctic project. When combined with our high-grade (5.9% copper equivalent<sup>1</sup>) potentially open-pit resource at Arctic, currently

<sup>&</sup>lt;sup>1</sup> The Arctic copper-equivalent resource is calculated using the following metals price assumptions: (in USD) \$2.90/lb Cu, \$1,300/oz Au, \$22.70/oz Ag, \$0.85/lb Zn, and \$0.90/lb Pb. containing 23.8 million tonnes (Mt) of Indicated Resource grading approximately 3.26% copper, 4.45% zinc, 0.76% lead, 40.8 g/t silver and 0.55 g/t gold.

being advanced towards a pre-feasibility level of study, and safe jurisdictional location in mining-friendly Alaska, we believe the Ambler mining district represents a unique opportunity in the global copper space - not to mention our significant resources of zinc, gold and silver!"

The Bornite Project database comprises 235 diamond drill (core) holes totaling 78,745 meters: 174 holes target the Ruby Creek zone and 42 holes target the South Reef zone. The remaining 19 holes in the database are exploratory in nature and test for satellite mineralization proximal to the Bornite deposit. The database contains a total of 29,262 samples that have been analyzed for copper content. During 2014, NovaCopper geologists re-logged and sampled 37 Kennecott drill holes comprising approximately 13,000 meters with partial or no assays. The new resource estimate incorporates the results from the 2014 field program as well as advancements to the 3D geological model. The deposit remains open to expansion to the north and northeast: the Lower Reef and South Reef mineralization is open over a 1 km wide front along the north end of the deposit. The deposit also remains open to expansion to the southwest: the South Reef mineralization is open over a 200 m wide front along the south end of the deposit.

Table 1 shows the sensitivity of the in-pit resource at a series of copper cutoff thresholds; the base case cutoff of 0.50% copper cutoff is highlighted. This shallow mineralization is located in the Ruby Creek Zones in the Upper and Lower Reefs. The key assumptions and methods used to estimate the mineral resources and determine reasonable prospects for eventual economic extraction of the mineral resources included generating a resource limiting pit shell using a projected metal price of US\$3.00 per lb Cu, open pit mining costs of US\$2.00 per tonne, milling costs of US\$11.00 per tonne, G&A of US\$5.00 per tonne, metallurgical recovery of 87%, and an average pit slope of 43 degrees. Indicated in-pit resources at the Bornite deposit at a 0.50% Cu cutoff are 40.5 million tonnes at 1.02% Cu. Inferred in-pit resources at the Bornite deposit at a 0.50% Cu cutoff are 84.1 million tonnes at 0.95% Cu.

Table 1. Bornite Deposit - In-Pit Mineral Resource Estimate

Table 1: Bottite Beposit 111 1 t timileral tessories Estimate							
Indicated				Inferred			
Cutoff % Cu	Tonnes (millions)	Grade % Cu	Contained Cu (lbs, millions)	Tonnes (millions)	Grade % Cu	Contained Cu (lbs, millions)	
0.35	48.2	0.93	987	100.4	0.87	1,918	
0.40	46.4	0.95	972	95.6	0.89	1,880	
0.45	43.8	0.98	947	89.9	0.92	1,828	
0.50	40.5	1.02	913	84.1	0.95	1,768	
0.55	37.3	1.07	877	77.9	0.99	1,696	
0.60	34.1	1.11	837	71.8	1.02	1,618	

- Base Case cutoff grade of 0.50% Cu is highlighted in table.
- Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources will be converted into Mineral Reserves. See "Cautionary Note to United States Investors."
- Resources stated as contained within a pit shell developed using a metal price of US\$3.00/lb Cu, mining costs of US\$2.00/tonne, milling costs of US\$11/tonne, G&A cost of US\$5.00/tonne, 87% metallurgical recoveries and an average pit slope of 43 degrees.
- Inferred resources have a great amount of uncertainty as to their existence and whether they can be mined legally or economically. It cannot be assumed that all or any part of the Inferred resources will ever be upgraded to a higher category.

In addition to the in-pit resources, Table 2 shows the sensitivity of mineral resource that may be amenable to underground extraction methods. The base case cutoff grade for resources below the pit shell is 1.50% copper. The key assumptions used to estimate the mineral

resources and to determine reasonable prospects for economic extraction of the mineral resources are a projected metal price of US\$3.00 per pound of copper, underground mining costs of US\$65.00 per tonne, milling costs of US\$11.00 per tonne, G&A of US\$5.00 per tonne, and an average metallurgical recovery of 87%. This mineralization is located in the South Reef Zone and the Ruby Creek Zone in the Lower Reef. Inferred below pit resources at the Bornite deposit are reported (at an elevated 1.5% Cu cutoff) as 57.8 million tonnes at 2.89% Cu. Previous below pit resources at the Bornite Project were reported at a 1.5% Cu cutoff.

Table 2. Bornite Deposit - Below Pit Resources

Inferred							
Cutoff % Cu	Tonnes (millions)	Grade % Cu	Contained Cu (lbs, millions)				
0.5	238.1	1.35	7,081				
1.0	107.0	2.11	4,990				
1.5	57.8	2.89	3,683				
2.0	39.4	3.45	2,993				
2.5	29.1	3.88	2,448				
3.0	22.6	4.21	2,094				

- Base Case cutoff grade of 1.5% Cu is highlighted in table.
- Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources will be converted into Mineral Reserves. See "Cautionary Note to United States Investors."
- Inferred resources have a great amount of uncertainty as to their existence and whether they can be mined legally or economically. It cannot be assumed that all or any part of the Inferred resources will ever be upgraded to a higher category.

Several factors account for the increase in reported resources at Bornite:

- Additional sampling of previously un-sampled core in Kennecott-era drill holes has added near-surface resources and improved resource continuity in the Ruby Creek area.
- Updates to the 3D geological model have increased the number of estimation domains and have resulted in minor changes to tonnage and grade across the deposit.
- Updates to the classification criteria where indicated mineral resources include blocks in the model that are potentially amenable to open pit extraction methods and are delineated by drilling with holes spaced at a maximum distance of 75 meters, and exhibit a relatively high degree of confidence in the grade and continuity of mineralization have added in-pit inferred resources.

Mineralization in the Ruby Creek zone occurs as two discrete strata bound lenses: a Lower Reef which outcrops and dips approximately 10-15 degrees to the northeast; and an Upper Reef lying roughly 150+ meters above the Lower Reef stratigraphy and which includes a small high-grade zone historically referred to as the "No.1 Orebody" by Kennecott. Mineralization is hosted by a Devonian age carbonate sequence containing broad zones of dolomite alteration and associated sulfide mineralization including bornite, chalcopyrite, and chalcocite occurring as disseminations and vein stockworks as well as crackle and mosaic breccia fillings and locally massive to semi-massive replacement bodies.

In late 2015, NovaCopper contracted BDRC and SGI to update the resource estimates for the

Bornite deposit. The geological and assay database have been reviewed and audited by BDRC and SGI. It is of the opinion of BDRC and SGI that the current drilling information is sufficiently reliable to interpret with confidence the boundaries for copper mineralization and that the assay data are sufficiently reliable to support mineral resource estimation. That estimation utilizes two-meter compositing of assays from 216 drill holes completed between 1961 and 2013. Estimated blocks were 5 x 5 x 5 meters on a side.

Sixty domains were established for the estimation, all of which were treated as hard boundaries with no mixing of data between the domains. A series of carbonate and phyllite lithology domains together with grade probability shells at 2% copper and 0.2% copper thresholds were used to constrain the estimates. Visual inspections of the probability shells show that they fit well with observed levels of bornite, chalcocite and chalcopyrite mineralization.

Based on the interpreted local high-grade nature of the mineralization, both capping and outlier restriction strategies were implemented to control the influence of high-grade mineralization in the resource model. This methodology removed approximately 3% of the contained copper in the Ruby Creek area and 7% of the contained copper in the South Reef area.

A total of 5,366 samples containing specific gravity measurements were utilized to estimate densities in the block model. Specific gravity values were estimated into model blocks using inverse distance squared moving averages using the domains described previously.

Copper grades in model blocks were estimated using ordinary kriging. A dynamic search orientation strategy was utilized, during both grade and specific gravity interpolations, which is controlled by the interpreted trends of mineralization in the Upper, Lower and South Reef zones. The block model has been validated through a combination of visual and statistical methods to ensure that the grade and density estimates are an appropriate representation of the underlying sample data.

Resources included in the Indicated category includes blocks in the model that are potentially amenable to open pit extraction methods and are delineated by drilling with holes spaced at a maximum distance of 75 meters, and exhibit a relatively high degree of confidence in the grade and continuity of mineralization. Resources in the Inferred category require a minimum of one drill hole within a maximum distance of 100 meters and exhibit reasonable confidence in the grade and continuity of mineralization.

For additional information and block model cross sections for the Bornite deposit, please visit our website <a href="https://www.novacopper.com">www.novacopper.com</a> under the Upper Kobuk Mineral Projects/Bornite Deposit.

The Company is not aware of any environmental, permitting, legal, title, taxation, social-political, marketing or other issue which may materially affect this estimate of mineral resources. The estimates presented in the Press Release constitute forward-looking statements and readers are urged not to place undue reliance on such forward-looking statements. Additional cautionary and forward-looking statement information is detailed at the end of this press release.

#### **Qualified Persons**

Erin Workman, P.Geo. is the Director of Technical Services for NovaCopper Inc. and is a Qualified Person as defined by National Instrument 43-101. Ms. Workman has reviewed the technical information in this news release and approves the written disclosure contained herein.

Mr. Bruce Davis, FAusIMM, the president of BD Resource Consulting Inc., Mr. Robert Sim, P.Geo., of Sim Geological Inc., and Mr. Jeff Austin, P.Eng., of International Metallurgical & Environmental Inc., have also reviewed the technical information related to the Bornite deposit in this news release and approve the written disclosure contained herein as independent "qualified persons", within the meaning of National Instrument 43-101, Standards of Disclosure for Mineral Projects (NI 43-101).

Neither Bruce Davis of BD Resource Consulting Inc., Robert Sim of Sim Geological Inc., nor Jeff Austin of International Metallurgical & Environmental Inc., nor any associates employed in the preparation of the Bornite Project resource estimation have any beneficial interest in NovaCopper. These Consultants are not insiders, associates, or affiliates of NovaCopper. The information in this press release is not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between NovaCopper and the Consultants. The Consultants were retained by NovaCopper to prepare the Bornite Project resource estimate and are to be paid a fee for their work in accordance with normal professional consulting practices.

# **About NovaCopper**

NovaCopper 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 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 district - the Arctic VMS deposit and the Bornite carbonate replacement deposit. Both deposits are located within NovaCopper's land package that spans approximately 143,000 hectares. NovaCopper 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. The Company also owns 100% of the Titiribi Project located approximately 70 kilometers southwest of the city of Medellin, Colombia, in Antioquia department, within the historical Titiribi mining district.

More information on the Company, its properties and its management team is available on the Company's website at **www.novacopper.com**.

# **NovaCopper Contacts:**

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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, without limitation, statements relating to the future operating or financial performance of NovaCopper, 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 NovaCopper'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; 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 NovaCopper's Annual Report on Form 10-K for the year ended November 30, 2015 filed with Canadian securities regulatory authorities and with the United States Securities and Exchange Commission and in other NovaCopper reports and documents filed with applicable securities regulatory authorities from time to time. NovaCopper's forward-looking statements reflect the beliefs, opinions and projections on the date the statements are made. NovaCopper 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 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 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 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. It cannot be assumed that all or any part of an "inferred mineral resource" will ever be upgraded to a higher category. Under Canadian rules, estimated "inferred mineral resources" may not form the basis of feasibility or pre-feasibility studies except in rare cases. Investors are cautioned not to assume that all or any part of an "inferred mineral resource" exists or is economically or legally mineable. 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 herein may not be comparable with information made public by companies that report in accordance with U.S. standards