

OTTAWA, ONTARIO--(Marketwired - Feb 8, 2016) - [Northern Graphite Corp.](#) (TSX VENTURE:NGC) (the "Company" or "Northern") announces that a major international engineering company has completed a fatal flaw analysis and scoping study with respect to the Company's proprietary purification process. It was concluded that Northern's process does not present any major technical challenges, can be carried out using relatively standard processing equipment and will not generate any harmful waste products. Capital costs are estimated at approximately US\$10.5 million (including a 35% contingency) for a facility to purify 5,000 tonnes per year of either flake graphite concentrate or spherical graphite ("SPG"), the anode material used in lithium ion batteries ("LiBs"). Operating costs to purify SPG to 99.95%C were estimated at approximately US\$0.50/kg. Capital and operating costs are based on conservative reagent volumes and retention times and could be reduced with further testing and optimization which will be done through the construction of a pilot plant.

Gregory Bowes, CEO commented: "The purification of mine concentrates is critical to accessing a number of value added markets. This is the first viable, cost competitive alternative to the Chinese acid based process which is difficult to use in the west because of environmental/regulatory issues." He added: "the large and XL flake nature of our deposit provides us with the luxury of focusing almost entirely on high value, high growth markets such as SPG, high purity flake graphite and expandable graphite (used in thermal management for consumer electronics, fuel cells, advanced building materials, etc.)."

A number of technologies that are related to Northern's process have been investigated and patented in the past. The Company is not aware of any currently being used to purify meaningful quantities of natural graphite, likely because they cannot achieve required purity levels, reagent consumption is too high or because of technical challenges associated with the reagents and scaling to commercial volumes. The Company believes its process can economically purify commercial quantities of its natural graphite concentrate to 99.95%C in an environmentally sustainable manner. Initial discussions with the Company's consulting engineers and legal counsel indicate that the process and associated equipment should be patentable.

A competitor of the Company, whose CEO is a former executive of Northern, recently released a Preliminary Economic Assessment ("PEA") which is based on a "proprietary low-temperature purification process" claimed as its own. Northern believes there is sufficient information in the PEA to conclude that this process is essentially a copy of the one developed by Northern at considerable time and expense. Northern considers its process to be proprietary intellectual property which is protected as a trade secret and confidential information at common law and through confidentiality agreements which remain in force. Any attempt to use the technology will be met with the appropriate legal response. Reagent consumption and reaction times are very low when the process is used on Northern's concentrates and this may not be the case for others.

About Spherical Graphite

SPG is flake graphite concentrate that has been micronized, rounded, purified and coated for use in LiBs. It is Northern's opinion that the complexities of making SPG are generally not well understood and costs are usually significantly underestimated. Coated SPG sells for \$8-12,000/t and reported high margins based on production cost estimates of less than US\$3,000/t are unrealistic.

Micronization and rounding are relatively straightforward and can be done with readily available equipment. It typically takes three tonnes of flake graphite concentrate to produce one tonne of SPG due to losses during these steps. Northern has achieved yields over 50 per cent. Generally, flake graphite between 100 and 150 mesh in size ("small flake") is used. Medium and large flake can also be used but it does not make economic sense to turn them into SPG at current prices. Flake sizes smaller than 150 mesh are generally not used because yields decline and purification is more difficult.

Purification is challenging due to regulatory and environmental issues relating to the wet chemical process and to the cost of the thermal approach. Northern's technology represents the first real, viable alternative. Coating, which consists of more than one step is mainly done by a few large Japanese, South Korean and Chinese companies whose process technologies are considered trade secrets and are not disclosed. Coated SPG is an engineered product that will have to go through an extensive and rigorous qualification process in real LiBs (such as 18650 cells or pouch cells) before it is accepted by end users and actually used in batteries. Northern's proprietary coating technology has been successfully tested in coin cells and will now be tested in 18650 cells. For additional information on spherical graphite see: [Spherical Graphite Summary](#).

[Northern Graphite Corp.](#)

Northern's Bissett Creek graphite deposit is an advanced, pre-development stage project that has a Feasibility Study and its major environmental permit. Subject to the completion of operational and species at risk permitting, which are at an advanced stage, Northern is in a position to commence construction in 2016 subject to the availability of financing.

The Bissett Creek project is located close to infrastructure in eastern Canada, has the highest reported percentage of large/XL/XXL flake, a reasonable capital cost and the highest operating margin of any new graphite project. As a result, the Company believes it also has the best economics and lowest marketing risk. Bissett Creek provides a natural competitive advantage in the LiB field as it has a high percentage of battery grade material, a high yield on the conversion of mine concentrate to SPG, and a pristine, highly ordered crystal structure that makes purification easier and could result in higher capacity batteries. Because of Chinese supply issues and the rapid growth in new uses such as LiBs, new western sources of graphite supply will be needed, particularly for large/XL/XXL flake graphite.

Mehmet F. Taner, Ph.D., P.Geol., Consulting Geologist and independent Qualified Person as that term is defined within National Instrument 43-101, approved the technical content of this press release.

Additional information can be found at www.sedar.com and www.northerngraphite.com.

This press release contains forward-looking statements, which can be identified by the use of statements that include words such as "could", "potential", "believe", "expect", "anticipate", "intend", "plan", "likely", "will" or other similar words or phrases. These statements are only current predictions and are subject to known and unknown risks, uncertainties and other factors that may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from those anticipated by the forward-looking statements. The Company does not intend, and does not assume any obligation, to update forward-looking statements, whether as a result of new information, future events or otherwise, unless otherwise required by applicable securities laws. Readers should not place undue reliance on forward-looking statements.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

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