Northern Graphite Announces Results of Expansion Case PEA

Project shows robust economics despite low graphite price environment

October 23, 2013 – Northern Graphite Corporation **(NGC:TSX-V, NGPHF:OTCQX)** announces the results of a Preliminary Economic Assessment (the "PEA") on an expansion case for its 100% owned Bissett Creek graphite project. The PEA was undertaken to demonstrate the ability to meet expected future growth in graphite demand by substantially increasing production from the Bissett Creek deposit based on measured and indicated resources only. The PEA builds on the Feasibility Study (the "FS") completed by G Mining in August, 2012 and the expanded resource model and updated FS economics (the "FS Update") subsequently completed by AGP Mining Consultants ("AGP"). The PEA was authored by Marc Leduc P. Eng. AGP completed the resource and reserve estimates and mine plan. A NI 43-101 Technical Report will be filed on www.sedar.com within 45 days hereof.

The PEA estimates the economics of doubling mill throughput after three years of operation and indicates that Bissett Creek has very attractive economics even at or below current depressed graphite price levels. The pre-tax internal rate of return ("IRR") is 26.3% (22.0% after tax) and the pre-tax net present value ("NPV") is $231.1 million ($150.0 million after tax) in the base case which uses an 8% discount rate and a weighted average price of US$1,800/tonne of concentrate. The PEA notes that the deposit was extensively investigated in the 1980s and this work was essentially redone over the last three years with consistent results and brought up to NI 43-101 standards. In addition, resources have been infill drilled and significantly expanded. Consequently, the project has been substantially de-risked in terms of resources, metallurgy and engineering.

Gregory Bowes, CEO, commented that: "the current graphite supply chain is heavily dependent on China and is characterized by many inefficient producers with poor environmental and labor practices and inconsistent product quality, delivery and reliability. Bissett Creek will produce the highest quality concentrates in the industry and will provide a stable, secure source of supply at very competitive costs and prices."

Summary of PEA Results

	PEA	**FS Update**
Reserves/resources (million tonnes)*	39.4Mt*	28.3Mt*
Feed Grade (% graphitic carbon)	1.85%*	2.06%*
Waste to ore ratio	0.24	0.79
Processing rate (tonnes per day - 92% availability)	2,670-5,340	2,670
Mine life	22 years	28 years
Mill recovery	94.7%	94.7%
Average annual production	33,183t	20,800t
Initial capital cost ($ millions - including 10% contingency)	$101.6M	$101.6M
Expansion capital	$45.2M	NA
Sustaining capital	$58.7M	$43.0
Cash operating costs ($/tonne of concentrate)	$695/t	$795/t
Mining costs ($/tonne of ore)	$4.05	$5.63
Processing costs ($/tonne of ore)	$7.35	$8.44
General and administrative costs ($/tonne of ore)	$1.45	$2.50
CDN/US dollar exchange rate	0.95	0.95

The probable reserve in the FS update consists of 24 million tonnes ("Mt") grading 2.20% Cg and 4.0 Mt of low grade stockpile ("LGS") grading 1.26% Cg. The PEA accelerates the processing of the probable reserve and processes an additional 11.1 million tonnes of measured and indicated resources from the LGS at the end of the mine life. All grades are diluted. *Mineral resources that are not mineral reserves do not have demonstrated economic viability.

	FS Update	PEA Expansion Case		
			(base case)	
Graphite prices (US$ per tonne)	$1,800	$2,100	**$1,800**	$1,500
Pre tax Net Present Value @8% (CDN$ millions)	$129.9	$335.6	**$231.0**	$126.6
Pre tax IRR (%)	19.8%	33.0%	**26.3%**	18.8%
After tax Net Present Value @8% (CDN$ millions)	$89.3	$221.9	**$150.0**	$77.3
After tax IRR (%)	17.3%	27.7%	**22.0%**	15.7%

The proposed development of the Bissett Creek graphite deposit consists of an open pit mine and a processing plant with conventional crushing, grinding and flotation circuits followed by concentrate drying and screening. The PEA assumes that the processing plant is twinned after three years of operation, except for the crusher which has excess capacity, and that the capacity of the plant is effectively doubled. Corresponding adjustments were made to the power plant, mine fleet and tailings storage facilities and other infrastructure to account for the increased throughput.

Measured and indicated resources for the Bissett Creek deposit consist of 69.8 million tonnes ("Mt") grading 1.74% graphitic carbon ("Cg") based on a 1.02% Cg cutoff grade ("COG"). The final mine plan in the FS update only contemplated a 25 to 30 year operation and resulted in probable reserves of 28.3 Mt of ore grading 2.06% graphitic carbon based on a COG of 0.96%Cg. Probable reserves include 24.3 Mt grading 2.20%Cg that will be processed first and 4.0 Mt grading 1.26%Cg from a low grade stockpile ("LGS") that will be processed at the end of the mine life. In order to increase head grades in the initial years of production while maintaining a reasonable stripping ratio, measured and indicated resources grading between 0.96%Cg and 1.5%Cg were stockpiled, largely within mined out areas of the pit. The total LGS will be 16.5 Mt grading 1.26%Cg.

The PEA uses the same mine plan but accelerates the mining of the high grade ore and processes all of the LGS thereafter. There are an additional 27.3 million tonnes of measured and indicated resources grading 1.62 %Cg which are not included in the mine plan and 24 million tonnes of inferred resources grading 1.65%Cg which are treated as waste. Also, resources have not yet been closed off by drilling and therefore further expansions are possible. Over the first ten years of operation almost 38,000 tonnes of graphite concentrate will be produced yearly and an average of 33,100 tonnes will be produced over the project life.

Cash mine operating costs will average CDN$695 per tonne of concentrate over the mine life. Due to the flat lying nature of the deposit, production can be expanded without any capital investment required for additional stripping or pushbacks of the pit walls. The waste to ore ratio actually declines in the PEA expansion scenario and contributes to lower operating costs. The initial capital cost estimate to construct the processing plant, power plant and all associated mine infrastructure remains at $101.6 million including a $9.3 million contingency. Under the PEA, an additional $45.2 million in expansion capital has been added in year three for the parallel mill circuits and sustaining capital over the mine life was increased by $15.7M for additional mining equipment, tailings facilities and other infrastructure.

Sensitivities (pre-tax)

	$2,100		**$1,800**		**$1,500**	
	NPV*	**IRR**	**NPV***	**IRR**	**NPV***	**IRR**
Base Case	$335.6	33.0%	$231.1	26.3%	$126.6	18.8%
Grade +10%	$408.3	37.4%	$293.3	30.4%	$178.3	22.6%

Grade -10%	$263.0	28.4%	$168.9	21.9%	$74.9	14.8%
Operating costs -10%	$358.7	34.5%	$254.2	27.8%	$149.7	20.6%
Operating costs +10%	$312.6	31.5%	$208.1	24.7%	$103.6	17.1%
Capex -10%	$351.2	36.2%	$246.7	29.0%	$142.2	21.1%
Capex +10%	$320.1	30.3%	$215.6	23.9%	$111.1	16.9%

***$ millions @ 8%**

Graphite Markets and Pricing

After more than tripling from 2005 to 2012, graphite prices have fallen back 50% or more due to the slowdown in China and a lack of growth in the US, Europe and Japan. Recently it has been reported that Chinese flake production has fallen 27% and that the only North American producer has suspended operations which indicates that current prices are close to the marginal cost of production for many producers. These shutdowns have helped stabilize prices for the last six months and should limit further price declines. The weighted average price that would be realized by Bissett Creek concentrates in the current market is estimated at US$1,800/t based on +50 mesh prices of approximately $2,100/t, $1,350 for +80 mesh, $1,100 for -100 to +80 mesh and $900 for -100 mesh, all at 94%C or better. Sensitivities are presented at US$2,100/t and at US$1,500/t.

Qualified Persons

Pierre Desautels, P.Geo., Principal Resource Geologist, and Gordon Zurowski, P.Eng., Principal Mining Engineer, both of AGP Mining Consultants and Qualified Persons under NI 43-101 who are independent of the Company, prepared the mineral resource estimates in the PEA. Gordon Zurowski, P.Eng., prepared the reserve estimate and the updated Feasibility Study economics. Marc Leduc, P.Eng., who is independent of the Company, prepared the PEA and approved and authorized the release of the information contained herein.

Northern Graphite Corporation

Northern Graphite Corporation is a Canadian company that has a 100% interest in the Bissett Creek graphite deposit located in eastern Ontario. Graphite demand is expected to rapidly increase in the future due to strengthening economies and the growth in new technologies such as lithium ion batteries, particularly due to their use in hybrid and all electric vehicles. Northern Graphite is well positioned to benefit from this compelling supply/demand dynamic with a high purity, large flake, scalable deposit that is located close to infrastructure. Additional information on Northern can be found at www.sedar.com and www.northerngraphite.com.

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