



The new strategic mineral...

INVESTMENT HIGHLIGHTS

- Graphite is the anode material in lithium ion batteries (“LiBs”), a **US\$20 billion market that has been growing at over 20%/year** due to cell phones, cameras, laptops, power tools, etc.
- Electric vehicles, grid storage and the replacement of lead starter batteries are **far larger markets** that represent huge opportunities for continued growth in demand.
- China controls 80% of world graphite supply creating **security of supply concerns** for the west.
- Both the EU and USA have named graphite a **supply critical mineral**.
- Northern’s Bissett Creek Project is located in southern Canada and has a **bankable Feasibility Study** and its major environmental permit.
- Northern believes Bissett Creek has the best infrastructure, highest operating margin and best flake size distribution of any new graphite project.

WHAT IS GRAPHITE?

- Graphite and diamonds are the only two natural forms of pure carbon.
- Graphite is both electrically and heat conductive, maintains its strength to temperatures of 3,600°C and is corrosion resistant.
- Graphite is one of the lightest of all reinforcing agents and has high natural lubricity.
- It is used in refractories (fire bricks that line furnaces in the steel industry), lithium ion batteries, brake pads, gaskets and clutch parts, thermal management in consumer electronics, electric motors, fire retardants, pencils, lubricants and many other industrial applications.
- There are almost **no substitutes** and little recycling of graphite.
- A graphite flake is many, many layers of graphene, which is one atom thick and touted as the new wonder material.



GRAPHITE – THE NEW STRATEGIC MINERAL

- The US, Europe, Japan and South Korea are almost entirely dependent on imported graphite.
- China has imposed export taxes and licenses and **restrictions** on new and existing mines.
- China **intends to build a graphite stockpile** equal to 80% of annual production by 2020
- It takes **30 to 40 times more graphite than lithium** to make a lithium ion battery.
- Planned LiB manufacturing capacity increases **will quadruple graphite** demand by 2021.





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NGC:TSXV

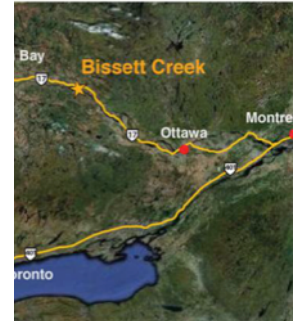
CAPITAL STRUCTURE

Shared Outstanding	65,112,756
Options	4,000,000
Warrants	6,491,858
Fully Diluted	75,604,614

- Approximately 11% F.D. owned by management and insiders
- \$3 million in cash, no debt

CORPORATE HIGHLIGHTS

- The Bissett Creek property is located between the cities of Ottawa and North Bay, Ontario, approximately 15 km from the Trans Canada highway and natural gas pipeline.
- The Feasibility Study estimated a probable reserve of 28 million tonnes grading 2.06% Cg, sufficient for a 28 year mine life.
- Construction of the mine will take approximately 18 months and the estimated capital cost is CDN\$101.6 million including a \$9.3 million contingency. The Company hopes to be in production in 2020 (subject to financing).
- The mine is expected to produce an average of 20,800 tonnes of graphite concentrate per year. Production will be almost 90% large and extra large flake, the highest ratio in the industry, resulting in premium pricing.
- Cash operating costs are estimated at US\$640/t of concentrate at current exchange rates and benefit from a low 0.79 waste to ore ratio, simple flow sheet, low cost natural gas power generation, and proximity to infrastructure.
- Based on a weighted average price of \$1,800 per tonne for the sizes and grades of graphite that will be produced, the pre tax IRR is estimated at 19.8% and the NPV is \$130M (@8%).
- The measured and indicated resource is large enough to significantly expand production in the future. The Company has completed a Preliminary Economic Assessment on doubling production after three years of operation.
- An indicative term sheet has been signed with Caterpillar for \$17.5 million in equipment financing. CAT has indicated interest in participating in the project debt facility.
- The Company has developed a patent pending purification technology for upgrading flake graphite for use in LiBs and other value added markets. It represents a cost competitive, environmentally sustainable alternative to Chinese methods.



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