



NORTHERN GRAPHITE CORPORATION

**ANNUAL INFORMATION FORM
FOR THE YEAR ENDED DECEMBER 31, 2019**

March 25, 2020

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This Annual Information Form contains “forward-looking statements” which reflect management’s expectations regarding the Corporation’s future growth, results of operations, performance and business prospects and opportunities. Such forward-looking statements may include, but are not limited to, statements with respect to the future financial or operating performance of the Corporation and its projects, the future price of graphite or other metal and mineral prices, the estimation of mineral resources, the timing and amount of estimated future production, costs of production, capital, operating and exploration expenditures, costs and timing of the development of deposits, costs and timing of future exploration, requirements for additional capital, government regulation of mining operations, environmental risks, reclamation expenses, title disputes or claims, limitations of insurance coverage and the timing and possible outcome of regulatory matters. Often, but not always, forward-looking statements can be identified by the use of words such as “plans”, “expects”, “is expected”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates”, or “believes” or variations (including negative variations) of such words and phrases, or statements that certain actions, events or results “may”, “could”, “would”, “might” or “will” be taken, occur or be achieved.

Forward-looking statements involve known and unknown risks, uncertainties, assumptions and other factors that may cause the actual results, performance or achievements of the Corporation to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Such factors include, among others: general business, economic, competitive, political and social uncertainties; the actual results of current exploration activities; conclusions of economic evaluations; fluctuations in currency exchange rates; changes in project parameters as plans continue to be refined; changes in labor costs or other costs of production; future prices of graphite or other industrial minerals; possible variations of mineral grade or recovery rates; failure of plant, equipment or processes to operate as anticipated; accidents, labor disputes and other risks of the mining industry, including but not limited to environmental hazards, cave-ins, pit-wall failures, flooding, rock bursts and other acts of God or unfavorable operating conditions and losses; delays in obtaining governmental approvals or financing or in the completion of development or construction activities; actual results of reclamation activities, and the factors discussed in the section entitled “Risk Factors” in this Annual Information Form. Although the Corporation has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results to differ from those anticipated, estimated or intended. Forward-looking statements contained herein are made as of the date of this Annual Information Form and the Corporation disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise, except as may be required by applicable securities laws. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements.

MARKET AND INDUSTRY DATA

This Annual Information Form includes market and industry data that has been obtained from third party sources, including industry publications, as well as industry data prepared by management on the basis of its knowledge of, and experience in, the industry in which the Corporation operates (including management’s estimates and assumptions relating to such industry based on that knowledge). Management’s knowledge of such industry has been developed through its experience and participation in such industry. Although management believes such information to be reliable, the Corporation has not independently verified any of the data from third party sources referred to in this Annual Information Form or ascertained the underlying economic assumptions relied upon by such sources. Furthermore, references in this Annual Information Form to any publications, reports, surveys or articles prepared by third parties should not be construed as depicting the complete findings of the entire publication, report, survey or article. The information in any such publication, report, survey or article is not incorporated by reference in this Annual Information Form.

GENERAL MATTERS

Unless otherwise indicated, all amounts herein are stated in Canadian dollars (\$). Unless otherwise specified, the information contained in this Annual Information Form is presented as at December 31, 2019.

CORPORATE STRUCTURE

Name and Incorporation

Northern Graphite Corporation (“**Northern**” or the “**Corporation**”) was incorporated on February 25, 2002 under the *Business Corporations Act* (Ontario) as “Industrial Minerals Canada Inc.” Pursuant to articles of amendment dated March 1, 2010, the Corporation changed its name to “Northern Graphite Corporation” and subdivided its then outstanding common shares. Pursuant to articles of amendment dated August 10, 2010, the Corporation amended its articles to remove certain private company restrictions and cumulative voting provisions.

The Corporation’s registered office is Suite 6000, 1 First Canadian Place, 100 King Street West, Toronto, Ontario M5X 1E2. The Corporation’s mailing address is P.O. Box 279, Manotick, Ontario K4M 1A3.

Intercorporate Relationships

The Corporation has no subsidiaries.

DESCRIPTION OF THE BUSINESS

Northern is a mineral exploration and development company which holds a 100% interest in the Bissett Creek graphite project (the “**Bissett Creek Project**”). The Bissett Creek Project presently consists of Ontario mining lease number 106693 (covering 565 hectares) and Ontario mining lease number 109335 (covering 1,938 hectares) (the “**Mining Leases**”). Ontario mining lease number 109335 was granted in July, 2013 and expires on June 30, 2034. Ontario Mining Lease number 106693 was granted in September, 2014 and expires on August 31, 2035. Both leases require annual rental payments to the Ontario Ministry of Energy, Northern Development and Mines (the “**MENDM**”) in an amount prescribed by the *Mining Act* (Ontario) which is approximately \$7,508. The Corporation also held five unpatented mining claims, contiguous to the Mining Leases, which have been converted into 52 cells covering 1,159 hectares under the Province of Ontario’s new Mining Lands Administration System (the “**Mining Cells**”). The total area of the Mining Leases and the Mining Cells is approximately 3,662 contiguous hectares, and they are all located in the United Townships of Head, Clara and Maria, in the County of Renfrew, Province of Ontario.

The Corporation’s principal business is the exploration and potential development of the Bissett Creek Project. The Corporation has no other properties or rights to acquire other properties.

Northern completed a bankable feasibility study on the Bissett Creek Project in July 2012 (the “**FS**”) which confirmed the technical and financial viability of constructing and operating an open pit mine and 2,500 tonne per day (“**tpd**”) processing plant at the Bissett Creek Project, and in respect of which a technical report prepared in accordance with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* (“**NI 43-101**”) was filed on SEDAR on August 24, 2012. The FS was updated on September 23, 2013 (the “**FS Update**”) following an additional drill program on the Bissett Creek Project, the release of a new and larger resource estimate, revision of the mine plan based on the new resource model, and updating of the economics for the project to incorporate the new resource estimate, some modifications to capital and operating cost assumptions, and lower graphite prices.

The Corporation plans to develop the Bissett Creek Project in two phases. The production scenario outlined in the FS and FS Update represents Phase 1 and is a conservative approach that consists of building a smaller project with a reasonable capital cost and a realistic production volume relative to the size of the current graphite market. In Phase 2, production will be doubled to meet the expected growth in graphite demand, in part arising from the LiB and electric vehicle markets. The Corporation completed a preliminary economic assessment on an expansion case for the Bissett Creek Project, which includes both Phases 1 & 2, on October 23, 2013 (the “**Expansion PEA**”). A technical report was prepared in accordance with NI 43-101 and was filed on SEDAR on December 6, 2013 (being the 2013 Technical Report, as hereinafter defined). It is the current technical report on the Bissett Creek Project. The Expansion PEA was undertaken to demonstrate the potential ability to meet expected future growth in graphite demand by doubling production after three years of operation based on measured and indicated resources only.

The Corporation also updated the Expansion PEA on June 24, 2014 (the “**Expansion PEA Update**”) to assess the economics of building a two million tonne per annum (“**tpa**”) processing plant at the outset rather than increasing from one million to two million tpa after three years of operation. The larger process plant was evaluated due to developments in the lithium-ion battery industry but the Corporation does not intend to pursue the development scenario envisioned by the Expansion PEA Update at the present time.

Because of the passage of time since completion of the various technical reports and updates, the Corporation has reviewed the economics of the Phase 1 development scenario in order to evaluate the effect of some modifications to the flow sheet as well as changes in commodity prices, exchange rates, equipment and labor costs, and other project inputs. The Corporation also evaluated the effect of increasing the proposed production rate of 20,000 tonnes of concentrate per annum by at least 20 percent. The results of this analysis were released as a sensitivity analysis on the Expansion PEA and indicate that the Bissett Creek Project still has an attractive net present value (“**NPV**”) and internal rate of return (“**IRR**”) as cost inflation has been offset by very favorable movements in the CDN/US dollar exchange rate and savings from some simplification of the flowsheet.

The Corporation and previous management originally filed a mine closure plan (“**MCP**”) with MENDM in 2004 (the “**2004 MCP**”) and was authorized to begin production based on a dry recovery process but a commercial operation was never established due to technical problems and financial difficulties. In the fourth quarter of 2012, the Corporation filed an amended MCP to increase the size of the potential operation and to use a conventional flotation recovery process as outlined in the FS. On August 26, 2013, the Corporation announced that MENDM had accepted the Corporation’s MCP for filing. Because of operational changes made to improve the economics of the Bissett Creek Project, and to the passage of time, the Company is required to file an amendment to the MCP. A number of operational permits and environmental authorizations are also required prior to the commencement of mining and processing operations. These permits and authorizations are well advanced and the Corporation expects that these permits and authorizations will be obtained in the normal course as needed. Site work for the Bissett Creek Project would include the clearing of internal roads, plant site and tailings basin. Construction of the plant and infrastructure are estimated to take approximately 12 to 18 months from initiation.

The Bissett Creek Project is subject to a royalty of \$20 per ton of graphite concentrate and a 2.5% net smelter return (“**NSR**”) on any other minerals or metals produced, both of which are payable to the families of the original prospectors who identified and staked the Bissett Creek Project. An annual advance royalty of \$27,000 is payable in two equal installments on March 15 and September 15 of each year, which will be credited against future royalties on graphite concentrate produced from the Bissett Creek Project. As at December 31, 2019 the total amount of advance royalties paid was \$486,000.

The Corporation has an employment contract with Gregory Bowes, Chief Executive Officer. The Corporation has no other employees and retains consultants to assist in its operations on an as-needed basis. During January 2018, the Corporation entered into a consulting agreement with John McNeice to provide services as Chief Financial Officer and Corporate Secretary of the Corporation. The Corporation will begin building a team to construct and operate the Bissett Creek Project once the next stage of financing is completed.

GENERAL DEVELOPMENT OF THE BUSINESS

History

Until March 1, 2010, the Corporation was a wholly-owned subsidiary of Mindesta Inc. (“**Mindesta**”), formerly Industrial Minerals, Inc., a corporation incorporated under the laws of Delaware and quoted on the over-the-counter bulletin board in the United States. Mindesta was a reporting issuer in British Columbia pursuant to British Columbia Instrument 51-509 – *Issuers Quoted in the U.S. Over-the-Counter Markets* (“**BCI 51-509**”). Mindesta acquired Ontario mining lease number 106693 and a number of associated mining claims in 2002 and assigned them to the Corporation in 2003.

The Corporation’s 2004 MCP was accepted by MENDM which authorized Northern to proceed with the construction of the mine and processing plant for the Bissett Creek Project. A small processing plant, based on a dry recovery process, was constructed and a very small amount of material was mined. The performance of the dry process was

unsatisfactory, commercial operation was never achieved, and the Bissett Creek Project was put on a care and maintenance basis in 2005.

In May, 2007, Mindesta retained SGS Canada Inc., formerly and then named Systèmes Geostat International Inc. (“**SGS**”), to prepare a NI 43-101 compliant preliminary economic assessment on the Bissett Creek Project. Mindesta received the completed technical report from SGS in December 2007 and intended at that time to proceed with additional exploration drilling, pilot plant testing and preparation of a feasibility study. Due to Mindesta’s lack of financial resources this work was not completed and the report prepared by SGS was not filed with securities regulators.

Between March 2007 and June 2008, Mindesta experienced a number of changes in directors and management as it attempted to develop and execute a strategy for the exploration and development of the Bissett Creek Project. Eventually, these changes resulted in Gregory Bowes joining the Board of Directors of Mindesta on June 23, 2008 as an independent director. Mr. Bowes was also made a director of the Corporation on July 9, 2008.

Faced with the lack of prospects for the exploration and development of the Bissett Creek Project through Mindesta, the management and Board of Directors of Mindesta determined that the best prospects for advancing the Bissett Creek Project would be through the Corporation independently seeking its own financing and pursuing a going public transaction in Canada. Mr. Bowes was appointed President and Chief Executive Officer of the Corporation effective May 1, 2009 with the objective of executing upon this strategy.

In late 2009 and early 2010, the Corporation raised approximately \$2,431,750 in a number of private transactions to finance its activities.

On March 1, 2010, the Corporation changed its name to “Northern Graphite Corporation” and subdivided its outstanding common shares to result in Mindesta then owning 11,750,000 common shares of the Corporation.

In 2010, following the reorganization of the Corporation, SGS updated their 2007 work and produced a technical report (the “**2010 Technical Report**”) entitled “Technical Report Preliminary Economic Assessment on the Bissett Creek Graphite Property of Industrial Minerals, Inc. & Northern Graphite Corporation” dated July 16, 2010 and revised on February 2, 2011. It was prepared by Gilbert Rousseau P.Eng and Claude Duplessis P.Eng of SGS, each of whom is an independent “qualified person” pursuant to NI 43-101.

Following the completion of the 2010 Technical Report, Northern decided to undertake a drilling program, commence a pre-feasibility study and metallurgical testing, and initiate the environmental and mine permitting process for the Bissett Creek Project.

The Corporation commenced the drill program in July 2010 with the objectives of upgrading inferred resources to indicated resources, confirming results of historical drilling, and expanding the resource to demonstrate the potential to significantly increase production in the future if warranted by graphite demand. A total of 51 holes were drilled, totaling 2,927 metres. All 51 holes intersected widespread graphite mineralization and as a result, the deposit was significantly enlarged and remained open to the north and to the east. Following completion of the 2010 Technical Report, and the 2010 drill program, SGS was engaged to complete a pre-feasibility study including undertaking a new set of metallurgical tests to confirm previous results.

The Corporation engaged Knight Piesold Consulting to define and complete all environmental and engineering studies required to file a closure plan amendment for the Bissett Creek Project and to prepare and submit all permit applications required to initiate construction and mining. This process included local community and First Nations consultations.

On February 1, 2011, Don Baxter was appointed as President and Stephen Thompson was appointed as the Chief Financial Officer of the Corporation. Mr. Bowes resigned as President to focus on his role as Chief Executive Officer and a Director.

On April 18, 2011, the Corporation completed an initial public offering consisting of the issuance of 8,000,000 common shares at a price of \$0.50 per share for gross proceeds of \$4,000,000 pursuant to a final prospectus dated April 7, 2011

filed in the provinces of Ontario, Alberta and British Columbia (the “**IPO**”). The common shares of the Corporation commenced trading on the TSX Venture Exchange (the “**TSX-V**”) on April 20, 2011 under the symbol “**NGC**”.

In June, 2011, the Corporation decided to upgrade the pre-feasibility study underway on the Bissett Creek Project to a full bankable feasibility study.

In September 2011, the Corporation announced a significant increase in estimated resources based on the results from the 2010 drilling program. The updated base case mineral resource for the Bissett Creek Project, using a cut off of 0.986% graphitic carbon (“**Cg**”), totalled 25,983,000 tonnes grading 1.81% Cg in the indicated category (470,300 tonnes of contained graphite) while inferred resources totalled 55,038,000 tonnes grading 1.57% Cg (864,100 tonnes of contained graphite). The deposit remained open along strike to the north and south, and down dip to the east. The drilling program and resource estimate confirmed that near surface graphite mineralization comprises an area of over one square kilometer. The deposit is tabular and very shallowly dipping (20%). The waste to ore ratio for this new resource was 0.27:1.

SGS Minerals Services in Lakefield, Ontario (“**SGS Lakefield**”) performed locked cycle tests (“**LCTs**”) on composite material taken from drill core samples across the deposit in 2011. The test produced six final concentrates which showed consistent flake size distribution and carbon grade. The overall concentrate grade averaged 95% Cg. A concentrate which grades 94% Cg and has a flake size distribution of 80% greater than +80 mesh is the industry standard premium product. Almost all Bissett Creek production meets this specification as the final concentrates averaged over 70%, +80 mesh. Approximately 6% of the concentrate was +100 mesh and 12% was +200 mesh, both with high carbon content. Less than 10% was very small, -200 mesh flake and powder with a carbon content in the low 80s.

Most significantly, almost 50% of the graphite concentrate produced was +48 mesh XL flake which averaged 98% Cg with one value as high as 99.2% Cg. The overall carbon recovery in the LCTs was 92.2%.

On December 12, 2011, the Board of Directors of Mindesta declared a pro rata dividend-in-kind, payable January 25, 2012 to its shareholders of record as at January 5, 2012, whereby most of the shares of the Corporation owned by Mindesta would be distributed to Mindesta shareholders. At the close of trading on January 25, 2012, Mindesta completed the distribution to its shareholders of 9,413,581 shares of the Corporation (approximately 25% of the Northern common shares outstanding) on the basis of one common share of Northern for each share of Mindesta common stock held. Mindesta no longer holds any common shares of Northern.

On March 16, 2012, the Corporation completed a non-brokered private placement through the issuance of 6,206,377 common shares at a price of \$1.70 per share for gross proceeds of \$10,550,841. In connection with the private placement, and in accordance with the policies of the TSX-V, the Corporation paid total finder’s fees of \$121,517 and issued 71,480 finder’s warrants, each exercisable to acquire one common share of the Corporation at a price of \$2.00 per share for a period of one year (which have since expired). The net proceeds of the placement were used to finance the completion of the FS and to finance permitting, detailed engineering and design work with respect to the Bissett Creek Project, along with providing working capital and funds for general corporate purposes.

In July 2012, the Corporation completed the FS. The FS was prepared by G Mining Services Inc. and included contributions from SGS Lakefield (metallurgy) and SGS (resource modelling), Knight Piesold Ltd. (environmental, permitting, tailings management and road infrastructure) and Met-Chem Canada Inc. (process engineering). The FS confirmed the technical and financial viability of constructing and operating an open pit mine and 2,300 tpd processing plant on the Bissett Creek Project. The FS is the subject of a NI 43-101 technical report dated August 23, 2012 and prepared by Louis Gignac, ing., Nicolas Ménard, ing., Antoine Champagne, ing., Ahmed Bouajila, ing., Robert Menard, ing., and Robert Marchand, ing., each of whom is an independent “qualified person” under NI 43-101, which has been filed on SEDAR.

On November 8, 2012, the Corporation announced that ongoing metallurgical testing by Hazen Research had succeeded in purifying spherical graphite (the “**SPG**”) from the Bissett Creek Project to 99.99% Cg and large flake graphite to 99.83% Cg. These bench scale tests were the first step in demonstrating that the laboratory purification process developed by Northern can be scaled to commercial levels.

On November 29, 2012, the Corporation was accepted for graduation to Tier 1 of the TSX-V. As a result, all of the securities of Northern that were then remaining in escrow, being an aggregate of 1,734,541 common shares, were released effective November 29, 2012. Northern no longer has any securities remaining in escrow.

On January 8, 2012, the Corporation announced that it had signed a letter of intent with Caterpillar Financial to provide financing for up to US\$17.5 million in Caterpillar mining and power equipment for the Bissett Creek Project. Caterpillar Financial has also preliminarily indicated its additional interest in participating in a project debt facility, subject to receipt of an information memorandum relating thereto and its agreement with the terms and conditions thereof.

On January 18, 2013, the Corporation announced that following a competitive bidding process involving five engineering firms, it had awarded a \$3.5 million contract for the detailed engineering and design of the Bissett Creek Project to PES-BECMA.

On March 7, 2013, the Corporation announced positive results from a 61 hole, 3,425 metre drilling program on the Bissett Creek Project. The Corporation subsequently announced a new resource estimate for the Bissett Creek Project based on results from the drill program which successfully achieved its objective of upgrading a significant portion of inferred resources to measured and indicated resources.

On August 26, 2013, the Corporation announced that the MENDM had accepted the Corporation's MCP for filing and that the Corporation was granted an additional mining lease for the Bissett Creek Project.

On September 23, 2013, the Corporation announced that the FS economics had been updated to incorporate the new and larger resource estimate and therefore a new mine plan, some modifications to the capital and operating cost assumptions, and lower graphite prices. The FS Update was prepared by AGP. The FS Update was not considered a material change and no new technical report under NI 43-101 was filed.

On September 30, 2013, the Corporation announced that its proprietary process for purifying SPG had been tested on concentrates from the Bissett Creek Project and had consistently achieved 99.95%+C purity levels in extensive independent laboratory and bench scale testing. High purity graphite is required for many value added applications including lithium-ion batteries.

On October 23, 2013, the Corporation announced the results of a Preliminary Economic Assessment on an expansion case for the Bissett Creek Project. The Expansion PEA was undertaken to demonstrate the ability to meet expected future growth in graphite demand by substantially increasing production from the deposit based on measured and indicated resources only. A technical report relating to the Expansion PEA prepared in accordance with NI 43-101, being the 2013 Technical Report, was filed on SEDAR on December 6, 2013.

On June 14, 2014, the Corporation announced the results of the Expansion PEA Update which assessed the economics of building a two million tpa processing plant at the outset rather than increasing from one million to two million tpa after three years of operation as contemplated in the Expansion PEA. The larger process plant was evaluated due to developments in the lithium-ion battery industry. The Expansion PEA Update was not considered a material change and no new technical report under NI 43-101 was filed.

On January 22, 2015, the Corporation announced that concentrates from its Bissett Creek Project deposit have been successfully upgraded to the highest nuclear grade classification level using the Corporation's proprietary purification process.

On January 27, 2015, the Corporation announced that it had appointed Endeavour Financial Limited (Cayman) as its exclusive advisor with respect to negotiating and structuring strategic partnerships and offtake agreements, and raising debt financing, for the Bissett Creek Project. This effort was ultimately unsuccessful.

On March 2, 2015, Northern announced that independent testing carried out by NGS Naturgraphit GmbH ("**Naturgraphit**"), which provides a broad range of consulting, research and development and laboratory services to graphite producers, dealers and consumers, had indicated that flake graphite concentrates from the Bissett Creek Project meet or exceed quality requirements for all major end markets and in particular, refractories and expandable

graphite. The analysis and evaluation carried out by Naturgraphit did not detect any limitations on potential uses for Bissett Creek flake graphite. Furthermore, Naturgraphit recommended that Northern create a +32 mesh XXL flake concentrate because of high demand and prices and lack of a reliable source of supply. Microscopic investigation indicated shiny, platy and pristine graphite flakes that are almost free of discoloration and impurities. Samples were deemed suitable for refractory applications due to there being very little or no CaCO₃ or iron sulphides, a high degree of crystallization, a high carbon content achieved by flotation alone, and little volatile matter. In addition, the melting point of the ash is higher than the majority of Chinese flake graphite and is in the range of best flake graphite from Mozambique. The absence of large quartz grains also makes the concentrate suitable for graphite foil, brake pads, lubrication products and carbon brushes in electric motors.

In addition, Naturgraphit concluded the expansion volume of Northern's +80 mesh concentrate was approximately 400cm³/g, which is very good and better than the best Chinese expandable graphite. The expansion volume of Northern's +50 mesh concentrates was similar, although testing by other potential users has achieved values up to 600cm³/g. Expandable graphite is used in thermal management for consumer electronics, fuel cells, seals and gaskets, fire retardants, flow batteries and many other products.

Naturgraphit also concluded that it should be possible for Northern to achieve high purity levels with a simple, inexpensive process due to the absence of large quartz grains, and that the very low content of heavy metals makes the material suitable for the battery market.

On July 8, 2015, the Corporation closed a short form prospectus offering of 2,102,998 units of the Corporation at a price of \$0.60 per unit for gross proceeds of \$1,261,799. Each unit was comprised of one common share and one half of one common share purchase warrant. Each warrant entitled the holder to purchase one common share of the Corporation at an exercise price of \$0.80 per share until July 9, 2017. These warrants expired unexercised. The net proceeds from this offering were used to fund ongoing permitting necessary for the construction and operation of a mine at the Bissett Creek Property, to conduct additional product qualification work to further develop its technologies for purifying graphite and making spherical graphite for use in lithium ion batteries, and for general working capital.

On February 8, 2016, the Corporation announced that a major international engineering company had completed a fatal flaw analysis and scoping study with respect to the Corporation'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, the anode material used in lithium ion batteries. Operating costs to purify spherical graphite 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.

On October 27, 2017 the Corporation, announced that Stephen Thompson, Chief Financial Officer had resigned to pursue another opportunity.

On March 24, 2017 the Corporation closed a non-brokered private placement and issued 8,333,333 units at a price of \$0.30 per unit for gross proceeds of \$2.5 million. Each unit consisted of one common share and one half of one common share purchase warrant, with each whole warrant entitling the holder to purchase one common share at a price of \$0.40 per share until March 24, 2019. During January 2019, the expiry date with respect to these warrants was extended to March 24, 2021.

In April 2017, the Corporation announced the results of additional metallurgical test work designed to optimize the purity of concentrates that will be produced from the Bissett Creek deposit. Testing carried out by SGS Lakefield evaluated new approaches to graphite processing developed since the Corporation completed the FS Update. SGS Lakefield evaluated the effect on the flake size distribution and carbon content of graphite concentrates from using a stirred media mill instead of, or as a compliment to, the polishing mill. The stirred media mill successfully increased the overall purity of an earlier pilot plant concentrate from 93.4 to 97.9% Cg. The increase was mainly attributable to the smaller size fractions which averaged over 97% Cg. The higher purity of the finer materials will further enhance the

price and marketability of the Bissett Creek concentrates.

During 2017, the Corporation contracted three consultants to assist with the development of the Bissett Creek Project.

- Mr. Placido Campos is a Professional Engineer with 32 years of experience in graphite production and processing and has held a number of senior positions with Nacional de Grafite, the largest graphite producer outside of China, including most recently as General Manager of Operations. Mr. Campos was also formerly Graphite Beneficiation Manager with Syrah Resources where he was responsible for the metallurgical process and production.
- Mr. Antonio de Assis has over 30 years of international sales and marketing experience including General Manager of Worldwide Sales and Marketing with Nacional de Grafite and General Manager of Sales and Marketing with Syrah Resources. Mr. Assis has developed a marketing plan for Northern with respect to products, markets, prices and customers.
- Mr. Ivan Cisneros is assisting the Corporation in developing a strategy for upgrading Bissett Creek mine concentrates into value added products. Mr. Cisneros has a B.Sc. in Chemical Engineering and Masters and Ph.D. degrees in PetroChemistry from the University of Poitiers (France) and has many years of experience in the petrochemical and graphite industries. He was General Technical Manager of Nacional de Grafite.

In August 2017, the Corporation announced the results of additional metallurgical test work carried out on ore from Bissett Creek by BGRIMM, a Chinese state-owned metallurgical research and development company. BGRIMM confirmed the high recoveries and high purities used in the Feasibility Study and successfully increased the percentage of high value, +50 mesh XL flake in the final concentrate from 48 to 61 percent.

On November 23, 2017 the Corporation completed a non-brokered private placement and issued 4,582,644 units at a price of \$0.45 per unit for gross proceeds of \$2,062,190. Each unit consisted of one common share and one half of one common share purchase warrant, with each whole warrant entitling the holder to purchase one common share at a price of \$0.60 per share until November 22, 2019. During November 2019, the expiry date with respect to these warrants was extended to November 22, 2021.

In December 2017, the Corporation announced it had signed an exclusive agreement to license certain intellectual property (“IP”) from Hatch Ltd. for use in Northern’s proprietary natural graphite purification process. Hatch’s IP relates to the design, construction and operation of a special fluidized bed reactor that is a key component of Northern’s chlorine based process. Under the agreement, Hatch will provide engineering, design and technical support services, and equipment with respect to the core technology, and will share in any royalties/revenues earned by Northern through licensing the Corporation’s technology to third parties. Northern’s proprietary purification technology will use a specially constructed continuous, fluidized bed reactor designed by Hatch. Northern’s process has been extensively tested in the lab and at a bench scale and the next step is to build a pilot plant to further evaluate its performance and refine capital and operating costs.

In January 2018, the Corporation filed an application to patent its proprietary natural graphite purification technology. The patent is entitled “System and Method for Producing High Purity Particulate Graphite using Carbochlorination in an Electrical Resistance Heated Fluidized Bed Reactor.” The inventors are Dr. Kamal Adham Ph.D. P.Eng, Sabrina Francey M.A.Sc. P.Eng and Darren Kazmaier P.Eng, all of whom are employees of Hatch Inc. (“Hatch”), and Gregory Bowes, B.Sc. MBA P.Geo., Chief Executive Officer of Northern. The patent relates to the use of chlorine in a specially constructed fluidized bed reactor that was designed by Hatch based on its IP.

In January 2018, the Corporation announced the appointment of John McNeice as Chief Financial Officer and Corporate Secretary of the Corporation.

On February 28, 2018, the Corporation announced that Jay Chmelauskas resigned from the board of directors due to the increased demands of his other professional commitments.

In April 2018, the Corporation announced that additional testing had confirmed that lithium ion battery (“LiB”) anode material made from concentrates from its Bissett Creek deposit meets or exceeds current commercial specifications. The test work was carried out by the Beijing General Research Institute of Mining and Metallurgy (“BGRIMM”), a Chinese state owned metallurgical research and development company. Test results indicate that the crystallinity, yield and specific surface area (5.652 m²/g for 16µ material) of the Bissett Creek material were all better than industry

standards. A yield of 50 percent was achieved on a batch basis and can potentially be increased to 70 percent with a continuous, commercial process. The tap density was 1 g/cm³ which is comparable to existing products.

In May 2018, the Corporation announced that continuing metallurgical testing by SGS Lakefield (“SGS”) identified a potential opportunity to simplify the Bissett Creek process plant design that could lead to reduced capital and operating costs for the project.

In June 2018, the Corporation announced it had signed a memorandum of understanding with a European commodity trading company to sell 100 percent of the projected output from the Bissett Creek graphite project in China. The parties intend to enter into a binding agreement when a number of conditions have been met, including the arrangement of project financing. The Corporation’s partner will be identified at that time as per its request.

Customers of the trading company have tested graphite from a number of different sources outside China and have found that Northern's graphite is of the highest quality and fits best with market requirements. Chinese production of extra-large (plus 50 mesh) and extra-extra-large (plus 32 mesh) flake graphite is declining while demand is growing, particularly in the expandable graphite market.

In late June 2018, the Corporation announced the results of its annual general meeting of shareholders held on June 25, 2018. All resolutions were passed by a wide margin with almost 40 percent of the outstanding shares being voted. MNP LLP, Chartered Professional Accountants, was reappointed auditor of the Corporation; the Corporation’s stock option plan was approved; and Gregory Bowes, Donald Christie, Iain Scarr, Sethu Raman and Campbell Birge were appointed directors.

In October 2018, the Corporation announced that SGS Canada Inc. had initiated a comprehensive metallurgical test program on ore from the Bissett Creek project to confirm the results of previous studies which identified a number of promising opportunities to reduce capital and operating costs and further improve project economics. The metallurgical program, which is currently ongoing, will bring previous work up to the standards required in a full feasibility study.

On December 12, 2018 the Corporation announced that G Mining Services Inc. had completed a review of the economics of the Bissett Creek Project in order to evaluate the effect of some modifications to the flow sheet as well as changes in commodity prices, exchange rates, equipment and labor costs, and other project inputs. The review indicates an improvement in the estimated NPV and IRR as cost inflation has been offset by very favorable movements in the CDN/US dollar exchange rate and savings from some simplification of the flowsheet.

In January 2019, the Corporation announced it had filed the final patent application for its proprietary natural graphite purification technology. The Corporation previously filed a provisional patent application in 2018. The patent relates to the use of chlorine in a specially constructed fluidized bed reactor that was designed by Hatch Inc. Northern has signed an exclusive licensing agreement to use Hatch's intellectual property in the design, construction and operation of the reactor, which is a key component of Northern's purification technology.

In February 2019, the Corporation announced that as part of its continuing review of the economics of the Bissett Creek Project, it has completed, through G Mining Services Inc., an analysis which indicates that increasing annual concentrate production by at least 20 percent can be achieved with a relatively modest 6 percent increase in capital costs for the first phase of development. Higher production would also reduce unit operating costs and is expected to have a very positive effect on the project's net present value and internal rate of return. Accordingly, the Corporation intends to integrate an initial production rate of approximately 25,000 tonnes per year into its development plans.

During May 2019, the Company announced that it had engaged Red Cloud Klondike Strike Inc. (“RCKS”) to act as its strategic and financial advisor. RCKS will assist the Company in evaluating and pursuing alternatives to maximize shareholder value including identifying potential sources of financing and/or corporate partners needed to advance the development of the Bissett Creek project. In connection with this engagement, the Company granted RCKS 450,000 stock options exercisable at \$0.20 per share for a 12 month period from the date of grant. While the long term supply/demand picture for graphite is very robust, this effort was not successful as in the short term, there is limited interest in new graphite projects due to ample supply, low prices and the opaque nature of the industry.

During March 2020, the Company announced that it had agreed to sell a one percent gross revenue royalty (“GRR”) on its Bissett Creek Project to Electric Royalties Ltd. (“ERL”) for \$500,000 in cash and two million common shares of ERL (of which half will be subject to a 12 month hold period and half to an 18 month hold period) (the “Consideration Shares”). The transaction is subject to, among other things, regulatory approval, the completion of due diligence by ERL and ERL completing its going public transaction which will involve a financing of not less than \$3.5 million. Under the terms of the agreement, ERL also has a two-year option to acquire an additional half of one percent GRR by paying \$750,000, of which 25 percent can be paid in ERL shares. The Company will have the option to buy back half of one percent of the initial GRR at any time after 12 months by returning the Consideration Shares or paying \$1.5 million in cash.

Bissett Creek is a high margin project and the sale of a small royalty has very little effect on its economics. The proceeds to be received from this transaction will provide a non-dilutive source of liquidity that will enable the Company to continue waiting for a turnaround in graphite prices which it believes will come even if automobile manufacturers are only modestly successful at achieving their stated fleet electrification goals.

Subsequent to year-end, there was a global outbreak of COVID-19 (coronavirus), which has had a significant impact on businesses through the restrictions put in place by the Canadian, provincial and municipal governments regarding travel, business operations and isolation/quarantine orders. At this time, it is unknown the extent of the impact the COVID-19 outbreak may have on the Company as this will depend on future developments that are highly uncertain and that cannot be predicted with confidence. These uncertainties arise from the inability to predict the ultimate geographic spread of the disease, and the duration of the outbreak, including the duration of travel restrictions, business closures or disruptions, and quarantine/isolation measures that are currently, or may be put, in place by Canada and other countries to fight the virus. While the extent of the impact is unknown, this outbreak may hinder the Company’s ability to raise financing to build the Bissett Creek Project due to uncertain capital markets, reduced customer demand, supply chain disruptions, increased government regulations and other unanticipated factors, all of which may also negatively impact the Company’s business and financial condition.

Trends

There are significant uncertainties regarding the price of graphite as well as other minerals and metals and the availability of equity financing for the purposes of mineral exploration and development. For instance, the prices of minerals, including graphite, have fluctuated widely in recent years and it is expected that wide fluctuations will continue. Management of the Corporation is not aware of any trend, commitment, event or uncertainty both presently known or reasonably expected by the Corporation to have a material adverse effect on the Corporation’s business, financial condition or results of operations other than the normal speculative nature of the natural resource industry and the risks disclosed in this Annual Information Form under the heading “Risk Factors”.

THE GRAPHITE INDUSTRY

Graphite is one of only two naturally occurring forms of pure carbon, the other being diamonds. Graphite consists of a two dimensional, planar molecular structure whereas diamonds have a three dimensional crystal structure. Graphite generally occurs as flakes, which are multiple layers of graphene held together by weak bonds. Graphene is a single, one atom thick layer of carbon atoms arranged in a “honeycomb” or “chicken wire” pattern. It has been estimated that there are three million layers of graphene in a one millimetre thickness of graphite. The delamination or exfoliation of graphite flakes is therefore one method of making graphene.

Graphite is formed by the metamorphism of carbon rich materials which leads to the formation of either crystalline flake graphite, fine grained amorphous graphite, or crystalline vein or lump graphite. Graphite is a non-metal but has many properties of metals and is desirable as a light weight, reinforcement material and for its thermal and electrical conductivity, resistance to acids and heat, chemical inertness, and lubricity.

Because of supply concerns relating to the fact that China had produced over 70% of the world’s graphite, and to potential demand growth from new applications such as lithium-ion batteries, the European Union announced that graphite is one of 14 “critical mineral raw materials” considered to be in supply risk. The United States government has also included graphite on a list of mineral resources whose loss could critically impact the public health, economic

security and/or national and homeland security of the United States. There is very little recycling of, or substitution for, graphite.

Graphite Supply

Benchmark Mineral Intelligence (“**Benchmark**”) estimates that worldwide production of natural flake graphite in 2018 was approximately 700,000 tonnes of which China produces approximately 60 percent.

The Chinese mining industry, including graphite, is generally very fragmented and characterized by a large number of small producers and even illegal miners. The country’s natural resource strategy is attempting to address the lack of professional mine planning and natural resource management, as well as poor labor and environmental standards, by closing smaller operations and forcing others to consolidate to create a larger, more professional industry. Generally, this is resulting in the elimination of marginal and polluting producers and lower overall production in Shandong Province. In 2012, China invested US\$150 million to create Southern Graphite Ltd., a state-owned amorphous graphite monopoly. The new company is consolidating 230 mining entities into twenty which will significantly reduce the country’s amorphous graphite production capacity.

Historically, most Chinese flake graphite production came from Shandong province. However, production has declined as mines get older and deeper, costs rise, resources are depleted and environmental regulations have become increasingly strict. The majority of production now comes from Heilongjiang province where deposits are generally higher grade but smaller flake and lower quality. Heilongjiang province has substantial small flake resources and excess production capacity, most of which is targeting the lithium ion battery market.

Resource nationalism and deteriorating trade relationships are also an issue as it appears China does not want to sell scarce resources cheaply to the rest of the world as it has done for years, especially while incurring higher environmental costs. China would prefer to sell valued added products such as batteries or electric cars rather than the raw materials. China removed a 20% export duty on graphite in response to World Trade Organization complaints. Shortly thereafter it announced plans to bring in a pollution tax and to build a stockpile equal to 80% of annual production. Because of the world’s dependence on Chinese graphite supply both the EU and USA have declared graphite a supply critical mineral.

Graphite Demand

The three major markets for flake graphite are the steel industry, lithium-ion batteries and expandable graphite which together account for approximately 80 percent of demand. Graphite is also used in the automobile industry in gaskets, brake linings and clutch parts and has a myriad of other industrial uses including electric motors (carbon brushes), lubricants, pencils and many other products. The “graphite” commonly used in golf clubs, hockey sticks, tennis rackets and composite materials is actually carbon fiber, a synthetic form of graphite made from petroleum coke.

Historically the single biggest use of graphite has been in refractories for the steel industry which accounted for up to 50 percent of demand. These are essentially fire bricks which line and protect blast furnaces. They contain 10-25 percent graphite which acts as a light weight reinforcement that is resistant to heat and corrosion. Some graphite is also added to steel to increase the carbon content. In 2011 and 2012, demand from the Chinese steel industry was strong, graphite prices were at all time highs and shortages of some grades were reported. The slowdown in the Chinese economy in 2012 caused a substantial decline in both refractory demand and graphite prices. Prices have been sideways to down ever since. The steel industry started to recover in 2017 which contributed to a strengthening of flake graphite prices in the second half of that year but overall very slow growth in steel demand has had a depressing effect on graphite prices. The refractories industry mainly uses small, medium, large and some XL flake.

Graphite is the anode material in lithium-ion batteries and there are no substitutes although it can be either synthetic or natural graphite. Natural graphite is less expensive and has a higher capacity whereas synthetic graphite charges faster and has a longer cycle life. Natural graphite based anode material is called spherical graphite or “SPG” and is manufactured from graphite mine concentrate through a process that involves micronization, rounding, purification, high temperature heat treatment and coating. Micronizing and rounding flake graphite concentrate provides a yield of about 40 percent SPG. The rejects have little value.

Almost 100 percent of “uncoated” SPG is made in China because of low costs and lax environmental standards. The key step in the process is purification. The Chinese use a wet chemical approach which is largely based on hydrofluoric acid, an extremely hazardous substance with significant environmental and workplace health and safety issues. Large quantities of fresh water are required to rinse the graphite after purification and production costs are a function of how much neutralization of the waste water actually takes place. There is a question of whether or not this process is environmentally sustainable as SPG production rapidly increases to meet growing EV demand. Coating of SPG for low quality batteries takes place in China using simple, standard industry processes. Coating and blending of natural and synthetic graphite for high end batteries for EV use is mainly done by South Korean or Japanese companies who possess proprietary technologies. The difference in price between the two products is about US\$5,000/tonne.

The Chinese predominantly use small flake (-100 to +150 mesh) to make SPG because it is plentiful and has lower prices. Generally, flake sizes smaller than 150 mesh are not used for SPG as they produce lower yields with a higher purification cost. As LiB demand grows, small flake supplies could tighten and prices could increase, making it economic to use larger flake sizes. Concentrates must also be at least 94 percent carbon otherwise purification can be cost prohibitive. Consequently, only a smaller subset of the 700,000 tonnes of flake graphite produced annually has the size and purity to be used in the LiB market.

Benchmark estimated that demand for flake graphite from the anode material market was approximately 250,000 tonnes in 2019. In a relatively short period of time, LiBs have gone from a very small market to the second largest. LiBs are a \$20 billion business that is growing at over 20 percent per year. The initial growth was largely due to small devices such as cell phones, cameras, laptops, power tools, etc. Hybrid and electric vehicles and grid storage are potentially huge markets that are still in their infancy and provide ample opportunity for continued strong growth in LiB production and therefore the demand for raw materials, including flake graphite.

The mining of natural graphite in China has a large environmental impact on air and water pollution and often poor working conditions. The same is usually true of both downstream processing in China and the production of synthetic graphite which is very energy intensive, requiring large amounts of low cost power. Therefore, the EV industry is currently using products in its batteries (natural and synthetic SPG) that may be deemed to have been produced in an environmentally unfriendly manner.

Expandable graphite is made by treating graphite concentrate, predominantly +50 mesh XL flake, with a dilute acid solution which intercalates between the many layers in each flake. When heated, the solution expands forcing the layers apart and increasing their volume by hundreds of times. The expanded graphite is then pressed into sheets and foils which are used in thermal management in consumer electronics, corrosion and heat resistant seals and gaskets, fire retardants, fuel cells, flow batteries, smart building products and many other applications. Expandable graphite is one of the fastest growing graphite markets along with LiBs and the only one to experience price increases over the last couple years. An industry participant has estimated that the market is currently about 50,000 tonnes per annum in size.

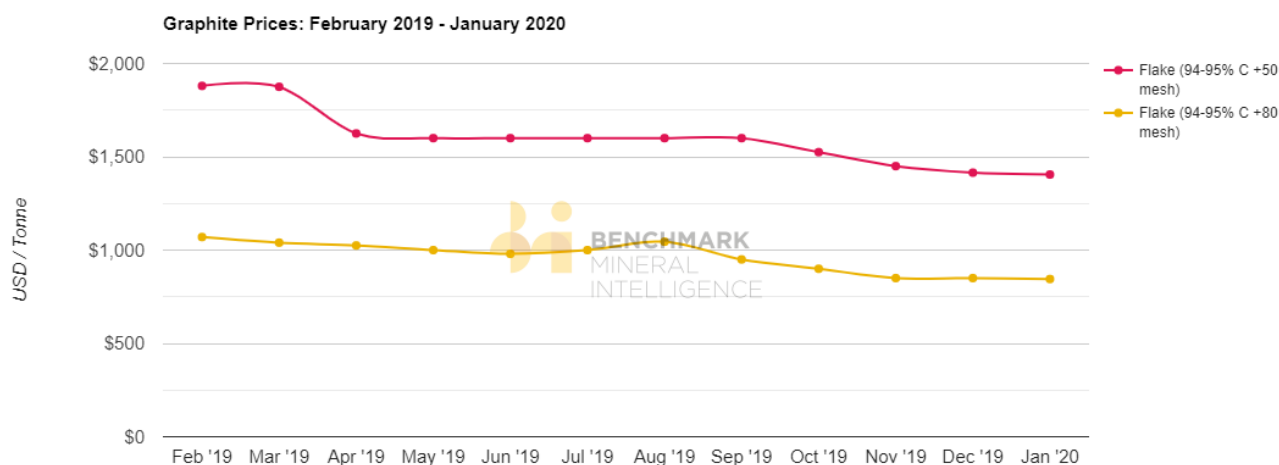
Most mines also produce a substantial amount of “micro” flake and fines (-150 mesh) which are not suitable for the major markets. The fines are sold into smaller, low value, low growth markets such as pencils, lubricants and recarburizers where they compete with amorphous graphite. As the production of SPG increases, so will the amount of rejects which will also compete in the -150 market, further depressing it.

Graphite Prices

There is no posted spot price or futures market for graphite. Sales are negotiated between producers and consumers of which there are many. While they often have long standing relationships, it is almost entirely a spot market and there are no long term contracts. A number of industry sources (including Industrial Minerals magazine and Benchmark) publish prices for the most popular grades and they provide a reliable indication of pricing. Generally, concentrates have to be above 150 mesh in size (which is considered small flake), have a carbon content higher than 94 per cent, and not have any undesirable impurities in order to consistently attract buyers and achieve the best price. Prices increase with flake size and carbon content. The premiums are relatively small going from +150 mesh (small) flake to +100 mesh (medium) and +80 mesh large flake. Prices are much higher for +50 mesh (XL) and +32 mesh (XXL) flake sizes as they are rarer and more valuable. Purity is also a factor but not a big one if the concentrates are above 94 percent carbon. Most mine concentrates, produced by flotation alone, range between 94 and 98 per cent carbon. The difference in pricing is about US\$100 per tonne. Most mines also produce a substantial amount of -150 mesh material, which is micro flake and fines, and it usually has a carbon content less than 94 per cent. This material presents a marketing challenge as it is not suitable for any of the major markets.

Graphite prices peaked in the \$1,300/tonne range for the premium grade (large flake +80 mesh, 94-97%C) in the late 1980s and then declined sharply as Chinese producers entered the market. This caused western mines to close and development projects to be shelved. Prices did not begin to recover until 2005 and peaked in a range of US\$2,500 to \$3,000/tonne in 2012 when some shortages were reported. This was due to the growth in China and the commodity super cycle and the resultant demand from the steel market. The subsequent slowdown in the Chinese economy combined with a lack of growth in the US/Japan/Europe caused prices to fall back approximately 50% from 2012 levels. In the second half of 2017 prices rebounded 30 to 40 percent due to a recovering steel industry, continued strong growth in LiB demand and environmentally related capacity shutdowns in China. Current CIF Europe prices are approximately US\$1,500/t for 94-95%C +50 mesh flake, US\$900/t for 94%C +80 mesh flake and US\$750/t for 94%C +100 mesh medium flake (as adjusted from Benchmark FOB China prices). These grades will account for almost all of Bissett Creek production except that the +50 mesh production will be higher purity and include substantial quantities of +32 mesh flake and therefore will receive a price premium. Industry sources do not quote prices for +32 mesh flake. An industry consultant estimated +32 mesh prices at US\$2,250/t.

Flake Graphite Prices



Note: Prices are FOB China

THE BISSETT CREEK PROJECT

The following description of the Bissett Creek Project is summarized from the technical report dated December 6, 2013 entitled “Northern Graphite Corporation, Bissett Creek Project, Preliminary Economic Assessment” prepared by Marc Leduc, P.Eng. together with Pierre Desautels, P.Geo. and Gordon Zurowski, P.Eng. of AGP (the “**2013 Technical Report**”), and in many cases is a direct extract from such report. Portions of the following information are based on assumptions, qualifications and procedures described in the 2013 Technical Report but which are not fully described herein. Reference should be made to the full text of the 2013 Technical Report, which is incorporated by reference herein. The 2013 Technical Report has been filed with certain Canadian securities regulatory authorities pursuant to NI 43-101 and is available for review under Northern’s SEDAR profile at www.sedar.com.

Project Description and Location

The Corporation holds a 100% interest in the Bissett Creek Project, which is located south of the Trans-Canada Highway (Highway 17) and 53 kilometres east of Mattawa, and west of Deep River, Ontario. The Bissett Creek Project is located in the United Townships of Head, Clara and Maria, in the County of Renfrew, Province of Ontario, approximately 300 km northeast of Toronto.



The Bissett Creek Project consists of Ontario mining lease number 106693 which covers 565 hectares and Ontario mining lease number 109335 covering 1,938 hectares. Ontario mining lease number 109335 expires in June, 2034 and Ontario Mining Lease number 109335 expires on June 30, 2034. Both leases require annual rental payments to the MENDM in an amount prescribed by the *Mining Act* (Ontario) which is approximately \$7,508. The Corporation also held five unpatented mining claims, which have been converted to 52 cells which are contiguous to the Bissett Creek Project, and cover approximately 1,159 hectares. The Bissett Creek Project is centered on UTM coordinates 727170 E and 5112025N (NAD 83) on the topographic map (NTS 31L/01). The Mining Leases cover all of the area that will be encompassed in the proposed mining operation and related infrastructure.

Royalties on the Bissett Creek Project include an annual advance payment of \$27,000 to the families of the original prospectors who discovered the property which will be credited against a royalty of \$20 per ton of concentrate on net sales once the mine is operational, and a 2.5% NSR on any other minerals derived from the property payable to the same parties. As at December 31, 2019, the total amount of advance royalties paid was \$486,000.

Accessibility, Climate, Local Resources, Infrastructure and Physiography

Accessibility

The property is accessible from the Trans-Canada Highway (Highway 17), approximately 53 km east of the town of Mattawa. The Trans-Canada Highway in this area connects the cities of North Bay, Ottawa and Montreal where the nearest port is located. The Bissett Creek road intersects Highway 17 two km east of the village of Bissett Creek. Access from Highway 17 to the property is by way of a well maintained gravel forestry road for a distance of 13 km and then east on a winding gravel road for a distance of 4 km.

Climate

The nearest town to the Bissett Creek Project with the most complete data on climate is Petawawa, which hosts a military base. In Ontario, the climate is generally continental, although modified by the Great Lakes to the south, and precipitation increases from NW to SE. Annual rainfall is from 200 to 600 mm.

Local Resources

All major geological and mining services are available in North Bay, Sudbury or Ottawa, which are situated 115 km and 243 km to the northwest, and 244 km to the southeast, respectively. The nearest towns, Mattawa and Deep River, may also provide workers and minor services, lodging and living support.

Infrastructure

The access road and stripping of the overburden in certain areas were completed between 1987 and 1992. A dry process pilot plant and a couple smaller buildings were completed in 2005 and are kept in good condition. The dry process equipment was removed during 2011.

Sand and gravel are available within the Bissett Creek Project site if additional material should be required.

Presently, there is no electrical power from Ontario Hydro at the site and electrical power at the site is provided by a small power generator. The FS contemplated the Corporation bringing in a natural gas pipeline from the Highway 17 corridor to fuel natural gas generators at the site for future production. In the 2013 Technical Report it is assumed that compressed natural gas (“CNG”) will be transported from the Trans Canada pipeline to the site by truck. Waste heat from power generation will be used to dry the graphite concentrate produced as well as heat the buildings.

Physiography

The Bissett Creek Project is located in rolling hilly terrain. The elevation above sea level ranges from 270 to 320 metres. The property is covered by a mixed forest of conifers and hardwoods. Merchantable red and white pine occurs near the western margin of the property. Soil cover is variable. Rock exposures are found in road cuts and ridge crests. Soil cover is normally sandy, glaciofluvial deposits over ridge areas and glacial lake and stream sediments at lower elevations. Lower lying areas tend to be swampy and covered by moderately thick growth of stunted cedar and swamp grasses. Overburden depth on the property ranges from zero to ten metres thick in the swampy areas.

History

The Bissett Creek Project was first staked by Frank Tagliamonti and associates in 1980. The same year, Donegal Resources Ltd. optioned the Bissett Creek Project but limited work was performed prior to its decision to abandon the property. In 1981, Hartford Resources Inc. (“**Hartford**”) optioned the Bissett Creek Project and staked an additional 24 claims. In 1984, Princeton Resources Corp. (“**Princeton**”) acquired a 100% interest in the Bissett Creek Project through the acquisition of Hartford. Hartford had held the claims since 1981 and had conducted some exploration work including line cutting, surveying, and trenching. During the latter part of 1984 through 1986, Princeton carried out a program of mapping, trenching, surveying, drilling, sampling, and testing with the result that 10 million tonnes of approximately 3% graphite were defined. *This estimate is historic in nature, was not completed in accordance with NI 43-101, and should not be relied upon. A qualified person has not done sufficient work to classify the estimate as current mineral resources or mineral reserves and Northern Graphite is not treating the historical estimate as current mineral resources or mineral reserves.* In 1985, Princeton set up a base camp and constructed a batch testing plant.

In November 1986, North Coast Industries Ltd. (“**North Coast**”) entered into an option agreement with Princeton whereby North Coast would be awarded a 58% interest in the Bissett Creek Project upon the completion of a batch testing plant, bulk sampling and the production of graphite flake for end user tests. North Coast was awarded its 58% interest in June 1987 and subsequently acquired Princeton’s remaining 42% interest in February 1989.

In 1986, North Coast hired KHD Canada Inc. (“**KHD**”) to review the test plant and make process recommendations. In 1987, the results of these recommendations indicated that the Bissett Creek Project graphite deposit could be concentrated into high grade and high value graphite flakes. A full feasibility study was undertaken and completed in 1989 which deemed the Bissett Creek Project to be viable. Kilborn Engineering Ltd., KHD, Bacon Donaldson and Associates Ltd. and Cominco Engineering Services Limited determined that the Bissett Creek Project had a minimum of 20 million tonnes of graphitic material grading higher than 3.18%C. *Historical information is provided for informational purposes only. The feasibility study and resource estimate were not completed in accordance with NI 43-101 and therefore should not be relied upon.* World graphite prices underwent a significant decline in the late 1980’s as China aggressively entered the graphite market, and the Bissett Creek Project was put on hold. North Coast continued to maintain the leases up until 1997 but graphite prices did not recover sufficiently to warrant proceeding with a mine/mill development.

In 2002, Mindesta, through the Corporation, took over the Bissett Creek Project and attempted to develop a dry process for the recovery of the graphite flakes. A poorly engineered and flawed design resulted in very little product being produced and continuous or commercial operation was never achieved. In April 2007, Mindesta, through a new

management group, proceeded to review the past documentation and determined that there was sufficient data to proceed with a preliminary economic assessment. Graphite prices had recovered significantly and SGS was contracted in May 2007 to produce a NI 43-101 compliant technical report on the Bissett Creek Project.

Title to the mining lease and claims was held by Industrial Minerals Canada Inc. which was then a subsidiary of Mindesta and which subsequently changed its name to "Northern Graphite Corporation" in December 2009.

Geological Setting

The Bissett Creek Project lies within the Ontario Gneiss Segment of the Grenville Structural Province of the Canadian Shield. This area is characterized by quartzofeldspathic gneisses which have undergone upper amphibolite facies grade of regional metamorphism with metamorphic temperatures estimated to have reached the 600 to 700 degrees Celsius range. The Ontario Gneiss Segment is distinguished from other areas of the same belt by having northwesterly dominant foliation and structural trends.

Mapping by S.B. Lumbers, 1976, of the Ontario Department of Mines, indicates that the property and surrounding area are underlain by Middle Precambrian metasedimentary rocks. These are coarse and medium grained, biotite-K-feldspar quartz-plagioclase gneisses which are high grade metamorphic equivalents of pure sandstone, arkose and argillite. These highly deformed and recrystallized rocks have been folded into northwest trending, northeast dipping recumbent folds which are refolded by large broad open folds. Greater than 10 % of the rocks are composed of remobilized quartz and feldspar migmatite.

The Bissett Creek Project is predominantly underlain by Middle Precambrian age meta-sedimentary rocks. These are divided into graphite gneiss, transitional graphitic gneiss, and barren gneiss for mapping purposes. The graphitic gneiss is a distinctive recessive weathering unit, commonly exposed along rock cuts, hill tops and occasional cliff faces. It is a calcareous, biotite-amphibole-quartzofeldspathic gneiss (generally red-brown to pale yellow-brown weathering). Graphite, pyrite and pyrrhotite occur throughout. Graphite occurs in concentrations visually estimated to be from 1 to 10 %. Sulphides occur in concentrations from 1 to 5 %.

The deposit may be classified as a sedimentary type in origin. However, metamorphism has transformed the original organic content of the mother sedimentary rock into graphitic carbon flakes. The actual appellation of the deposit is graphitic gneiss which has a moderate 5 to 20 degree dip to the east and the high grade layer dips 20 to 30 degrees to the south on the property. This unit is sandwiched between the upper barren non-calcareous gneiss, which forms the hanging wall of the deposit and a similar lower barren gneiss which forms the footwall. A total thickness of 75m of graphitic gneiss was intersected by drilling. The barren gneiss is a pale to dark grey-green non-calcareous unit. Black biotite, dark green amphiboles and red garnets distinguish the units from the graphite bearing varieties.

Exploration

In 1984, Princeton completed geological mapping, line cutting, surveying, trenching, sampling and diamond drilling. A total of 1,041 ft. (317 m) of BQ diameter core was drilled in seven holes. Forty trench samples were taken along five new trenches. A 15 ton bulk sample was taken from a previously known surface high grade outcrop. In 1985, Princeton completed geological grid mapping, a magnetic survey, diamond drilling and bulk sampling. A pilot test plant was constructed on site. Ninety-nine vertical BQ diamond drill holes were completed for a total footage drilled of 16,836 (3,131 m).

In late 1986, North Coast optioned a 58% interest in the property and became the operator. As part of this agreement, North Coast operated the pilot plant processing some 4,900 tons of ore and producing approximately 36 tons of graphite concentrate.

In 1987, North Coast completed geological mapping and trenching. Sixty-seven percussion holes were drilled to 60 feet, where possible, and a total of 977 feet of N-DBGM diameter core were drilled in six holes. An additional 5,707 feet of BQ diameter core was drilled in 34 holes. North Coast collected a number of smaller bulk samples for bench test work by KHD and a large 60 tonne bulk sample for pilot testing by EKOF Flotation GmbH ("EKOF") and KHD. Further detailed exploration and evaluation work consisted of ore reserve calculations, mine planning, estimates of associated capital

and operating costs, extensive metallurgical evaluation, process design, environmental assessment, graphite flake quality evaluation, flake concentrate end user testing and market analysis. North Coast engaged KHD to review the pilot plant flow sheet and equipment, to make process recommendations, and to perform test work on samples and concentrate from the pilot plant. Based on the positive conclusions of the “Prefeasibility Study for the Bissett Creek Graphite Project” issued in December 1987 by KHD, a full feasibility study was completed by KHD in April 1989 for operation of a graphite beneficiation plant with mining facilities and necessary infrastructure. This work determined that the property had a minimum of 20 million tons of graphitic material grading 3.18%. *This estimate is historic in nature, was not completed in accordance with NI 43-101, and should not be relied upon. A qualified person has not done sufficient work to classify the estimate as current mineral resources or mineral reserves and the Corporation is not treating the historical estimate as current mineral resources or mineral reserves.*

SGS’s geological and mining-metallurgical engineers visited the site on June 6 and 7, 2007 and the geological engineer visited again on August 6 and 7, 2007. No additional work was done on the Bissett Creek Project between the summer of 2007 and the completion of a preliminary economic assessment by SGS Geostat in July, 2010 (subsequently revised in February 2011).

Following completion of the 2010 Technical Report, the Corporation implemented its recommendations and completed a 2,900 m infill and exploration drilling program and initiated a metallurgical testing program, a pre-feasibility study and the environmental and permitting review process, all with the objective of positioning the Corporation to make a construction decision on the Bissett Creek Project in early 2012. Subsequently, the Corporation made the decision to upgrade the pre-feasibility study to a full bankable feasibility study which was completed in the third quarter of 2012, being the FS.

In late 2012 the Corporation completed a 61 hole, 3,425m drill program which was designed to infill a significant portion of inferred resources with the objective of upgrading them to the measured and indicated categories. In addition, extensions to higher grade zones outside of the resource model were tested. On May 7, 2013, the Corporation announced a new resource estimate which included the 2012 drill results. The Corporation revised the existing mine plan and announced updated FS economics based on the revised mine plan and the updated resource, being the FS Update.

Site visits were conducted by the following qualified persons pertaining to the 2013 Technical Report: Pierre Desautels, P.Geo. – AGP Mining Consultants (October 15, 2012), Marc Leduc, P.Eng. (July 10, 2013), and Gordon Zurowski, P. Eng – AGP Mining Consultants (September 23, 2013).

Mineralization

In Ontario, graphite occurs in both the Superior and Grenville structural provinces but the more important graphite deposits have been found historically in the Grenville Province. In the Superior Province it is associated with gold and base metal deposits occurring in carbonaceous sediments and shear zones. In the Grenville Province, graphite occurs within both the Central Gneiss Belt (“**CGB**”) and the Central Metasediment Belt (“**CMB**”). Disseminated flake and “amorphous” graphite occurs in certain marble units in the CGB, within siliceous gneiss units in the CGB and within some of the marble units of the CMB. Prior production from Ontario has come from graphite deposits within the marbles of the CMB which are locally of higher grade. Economic deposits now are being found in the siliceous metasediments of the CGB. The lower grade of deposits in the CGB is offset by their larger size and amenability to open pit mining.

At the Bissett Creek Project, the graphite mineralization is well characterized by homogeneously distributed graphite flakes (about 1 to 5 mm in size and 3 to 10 % of volume) within biotite schists with variable content of amphibole, clinopyroxene, chlorite, carbonate and graphite. Ubiquitous trace minerals included sphene, apatite, garnet and zircon. Sulfides were reported as trace amounts, usually as pyrite and pyrrhotite. On the basis of the graphite content and variation of the gneissic facies, the graphitic gneiss can be divided into biotite rich quartzo-feldspathic and graphitic gneiss, paragneiss, biotite rich quartzo-feldspathic and graphitic gneiss, and, diopside-tremolite-biotite rich quartzo-feldspathic and graphitic gneiss.

Graphite flakes occur disseminated in the graphitic gneiss horizon and are in variable concentration in the transitional gneiss. The diopside-tremolite-biotite-graphite bearing gneiss is mostly located in the upper part of the mineralized graphitic horizon whereas the graphite rich paragneiss (up to 10 % graphite) sub-unit generally confined at the base.

Graphite generally forms slender, oval to sub-rounded planar flakes averaging 0.3-1.5 mm long and 0.03-0.07 mm wide. These commonly occur adjacent to flakes of biotite of similar size or are associated with patches of pyrrhotite. Much less commonly, books of a few flakes are contorted or warped, and minor quartz or less commonly biotite occurs between the individual flakes.

The overall size distribution of the graphite flakes observed in core samples throughout the deposit does not show a direct relationship to the total graphitic carbon of the analysis. Large flakes are generally present independently of the percentage grade of the graphite, making the graphite gneiss horizon prospective along its entire length.

Drilling

A total of 275 diamond drill holes have been drilled on the Bissett Creek Project for a total of 14,371 m. An additional 82 percussion holes and 17 geotechnical holes have also been drilled.

Drilling Summary

	Percussion Holes	Geotech Holes	DDH Holes	Metres
1984			4	187.8
1985			102	5,156.3
1986			6	274.3
1987	82		45	2,154.0
Sub Total	82		157	7,772.4
2007			6	246.4
2010		17	51	2,926.9
2012			61	3425.0
Total	82	17	275	14,370.7

Starting in 1984 and continuing through 1985 Princeton drilling totalled 5,450m in 106 diamond drill holes and 30 unnamed test holes. The majority were drilled on a 64m x 46m spacing. A smaller grid spacing of 23m x 23m was used in one area and one fence of holes was drilled at a 10m spacing to determine the continuity of the graphite horizons.

The 1985 drilling program outlined a total of 3.8 million tonnes ("Mt") of flake graphite bearing gneiss grading an average of 3.05% graphitic carbon ("Cg") using a 2.5% Cg cut-off grade. *This resource estimate is not compliant with the current NI 43-101 regulations and is presented herein as a historical reference only and should not be relied upon.* Most of the tonnage is near surface with close to 3 Mt of the 3.8 Mt within 34m of the bedrock surface. This tonnage occurs in three higher grade horizons dipping gently southeast and contained within an envelope of lower grade graphitic gneiss. Grade and thickness decrease in the southwest, northeast and down dip directions. In cross-section, true thicknesses range from 15 to 30m. Commonly, a second horizon with a thickness ranging from three to six meters occurs in the same section. The larger horizons are traceable over a 350m strike length.

In 1986, six diamond drill holes for a total of 274m were drilled in a tight grid spacing. These holes were probably drilled by North Coast. North Coast's 1987 drill program included 67 percussion holes drilled strictly for assay, using a Gardner-Denver 750 c.f.m. airtrack drill with a vacuum, filter and screen system. Holes were drilled to 60 feet where possible and the whole length was sampled in ten feet lengths. Additionally, a total of 1,207m of N-DBGM diameter core was drilled in 26 holes and 947m of BQ diameter core was drilled in 19 holes. All holes were vertical.

All 1980's drill hole collars were surveyed in 1988 by triangulation using a total station by R. M. Blais & Associates Ltd. for CEC Engineering Ltd. Collar coordinates were reported on maps in a local mine grid system in imperial units and converted to a metric system in UTM NAD27 zone 17 projection system. The conversion (i.e. translation and

rotation) from the local mine grid system to the UTM NAD27 system is unknown. There are no digital records of the information and none of the historical casings could be found in the field for resurveying.

In 2007, SGS was retained by Mindesta to prepare a NI 43-101 compliant technical report on the Bissett Creek Project, including a preliminary economic assessment. An additional six vertical diamond drill holes totalling 247m were completed in the northeast zone to confirm grade and graphite flake size in an area that had been investigated in the 1980's. The diamond drill holes were bored by George Downing Estate Drilling Ltd. between August 1 and August 9, 2007. All six holes of the 2007 drill program intersected mineralized gneiss. There was no overburden at the drill site locations. The graphitic gneiss foliation being sub horizontal, the vertical holes cut mineralized thicknesses from 30m up to 49m. Drilling confirmed that the main graphitic gneiss body at the Bissett Creek Project is made up of various consistently mineralized zones and that graphite flakes were observed in all six holes.

Northern's 2010 drilling program was jointly planned in part with SGS Geostat as a follow up to the 2010 Technical Report recommendations. The objectives of the drilling program were three-fold. First, five historical holes were twinned in order to validate historical drill results where high grade zones had been intersected. Since none of the historical drill hole casings could be located in the field, collars were located on geo-reference historical maps and were assumed to be within five meters of the actual location. Second, an additional eight holes were planned to validate the continuity of mineralized zones between the 50m spaced historical drill hole sections. Third, the drilling was intended to upgrade part of the inferred resources to indicated resources.

In late 2012 the Corporation completed a 61 hole, 3,425 m drill program on its Bissett Creek Project. The drill program was designed to infill a significant portion of inferred resources with the objective of upgrading them to the measured and indicated categories. In addition, extensions to higher grade zones outside of the current resource model were tested. Almost all 61 holes returned widths and grades similar to those used in the FS. On May 7, 2013, the Corporation announced a new resource estimate which included the 2012 drill results.

Sampling and Analysis

Graphite is evaluated and marketed on the following basis:

- Flake size (mesh size);
- Carbon content of cleaned flakes (carbon content of concentrate); and
- Ash content (amount of oxides and carbonates still present in graphite flakes after concentration).

Those evaluation methods are generally accepted and used by industrial graphite users. However, these are all concentrate measurements and one must start with a base line assessment of the mineralization. Flake size is determined with standard sieve tests using standard "tyler" sieve size openings. The "ash content" is determined by qualitative spectrographic analysis on the graphitic flake. The determination of contained carbon in the flake poses a different problem. The industry accepts a variety of determination methods, as described below:

- a) double-loss-on-ignition analysis ("**LOI**");
- b) flotation product produced; loss-on-ignition; and
- c) organic carbon removal; measurement of the inorganic carbon ("**LECO**").

The double-loss-on ignition method was the most accepted in the graphite industry; however, it is very slow and cumbersome for use in drill core and large numbers of geologic samples. Also, the method does not eliminate all the organic carbon in the sample and the industry does not credit the organic portion of a concentrate.

During the course of the project's exploration programs, the Cg content was determined using various methods, including flotation, LOI, and acid-bath with LECO finish. The type and extent of certain volatiles observed in the Bissett Creek Project samples makes quantitative analyses for graphite content problematic. Consequently, it was determined that the acid-bath LECO method produced the most reliable results to use for ore resource estimations. Even though different acid digestion procedures might have been used through time to remove organic carbon prior to the measurement of the inorganic carbon by LECO, all those samples were retained for the current ore resource estimation. The SGS Geostat 2007 drilling program aimed at giving a certain level of confidence with respect to the use of historical data and was able to reproduce similar grades and thicknesses to those intersected by historical holes. Therefore, results are considered reliable for the purposes of the current resource estimation.

1980s' Drilling

Two analytical methods were used during the exploration drilling program. The first method used (Flotation) was to determine if an acceptable flake product could be recovered from the rock and then a determination of the carbon content of the graphite flakes was made. All drill core samples were visually estimated by the site geologists to determine their graphite content. A substantial correction factor was needed to correlate the visual estimates with the chemical assays of the contained graphite. The average reduction factor was estimated to be a little less than four, but it is very apparent that the factor could be as high as eight and as low as two. Some preliminary estimates of grade were made by using the results of the preliminary metallurgical test work, but once the main 1985 drill program was underway Lakefield Research Inc. ("**Lakefield**") carried out more definitive metallurgical testing and assayed some of the then current drill core samples for contained Cg content by chemical means. An initial 90 samples were assayed by Lakefield. Subsequent assaying was carried out by Erana Mines Ltd. ("**Erana**"), who were advised to use similar equipment and procedures to that used by Lakefield. Erana reran an initial 42 samples previously assayed by Lakefield with reasonable correlations. The second method, LECO, allows direct analysis of material without initial separation of the graphitic flake. This technique also eliminates all the organic carbon material and reads only the inorganic carbon content. To provide analytical checks, initially in the program, alternate samples were sent to Lakefield in Lakefield and Porto Metal Mills Ltd. in Sudbury.

The Flotation method entailed taking five kilograms of material, crushing same and by flotation methods producing a graphitic flake concentrate. From this, flake size distributions and ash contents were determined. Carbon contents were determined by LOI and LECO.

The LECO method procedure used is to remove any carbon in carbonates by an acid bath, followed by a short term ignition of the sample at 3000°F. The gas that is given off is then passed through various adsorption tubes to remove all constituents that might interfere with the determination of the amount of carbon dioxide (CO₂) produced and then the carbon dioxide is itself adsorbed. The amount of graphite is calculated from the weight of CO₂ that has been adsorbed.

As the exploration drilling program progressed between 1986 and 1987, the majority of samples were prepared and analyzed at a site facility with regular checks conducted at Lakefield in Lakefield, Ontario (every tenth sample) and KHD facilities in West Germany. The carbon content determination was done using two methods, the double-loss-on-ignition and by LECO.

2007 Program

In 2007, all core samples were prepared at Ortech Laboratory, in Ontario and assayed at Activation Laboratories Ltd for graphitic carbon using double-acid digestion with one in five samples assayed for total carbon (C). The graphitic carbon analytical procedure used a 0.5 g sample digested with hydrochloric and perchloric acids to remove all forms of carbon with the exception of Cg. An Eltra CS-2000 is used for the analysis.

2010 Program

For the 2010 drilling program, core sample preparation and analyses were performed by SGS Minerals Services, Toronto Laboratory in Don Mills, Ontario, and the results certified by laboratory manager for SGS in Vancouver, B.C. SGS's assay method does not measure graphitic carbon directly with the instruments but Cg results are indirectly calculated by subtracting the carbon in the carbonates from the total carbon. This implies determining total carbon by LECO and total CO₂ by coulometry for each sample. This approach assumed that the only other form of carbon in the samples, other than graphitic carbon, is contained within the carbonates and that no organic carbon is present. According to SGS, these methods have been fully validated for the range of samples typically analysed. Method validation includes the use of the certified materials, replicates and blanks to calculate accuracy, precision, linearity, range, and limit of detection, limit of quantification, specificity and measurement uncertainty.

Northern implemented a QA/QC program in 2010 consisting of inserting a) a field duplicate sample in every hole; b) an analytical standard after every 35 or 40 drill core samples, intermittent with the blank sample; and c) a blank sample after 35 or 40 samples, intermittent with the standard sample. The reference material, not certified, was provided by SGS Laboratory in Lakefield, Ontario. The blank sample consisted of barren granitic gneiss sampled from drill hole BC-10-03 between 0.5 and 3.6 m. The reference material was originally prepared from a 150 kg non-oxidized bulk sample originally ordered to initiate metallurgical testing. All products were submitted in triplicate for LECO (C and Cg) and double LOI method at SGS.

2012 Program

All samples from the 2012 drill program were collected and supervised by Mehmet Taner, P.Geo., PhD and a “qualified person” under NI 43-101, and delivered to SGS Mineral Services (Toronto). SGS is an ISO/IEC 17025 accredited analytical laboratory. The samples were ashed at 500° C to remove organic carbon. Carbonate carbon was estimated on one aliquot of the ashed sample using dilute perchloric acid to release CO₂ which was then measured by a Coulometric analyzer. A second aliquot was used to estimate total carbon content. The second aliquot was combusted at 950° C and the carbon was converted to CO₂ and measured by the coulometer. Graphitic carbon was calculated as follows: percentage of graphitic carbon equals the percentage of total carbon in ashed sample minus percentage carbon as carbonate in ashed sample. For QA/QC purposes, the Corporation inserted a total of 40 standards (one every 35th to 40th sample), intermittent with 19 blank samples. A field duplicate sample was generally taken in every hole (1/4 of the core) within well mineralized sections. A total of 29 duplicate samples were taken.

Data Verification

Northern Graphite has made a strong commitment to the geological and assay database and have, as far as is possible, produced a database that is complete, well documented and traceable. Following the site visit and prior to the resource evaluation, AGP carried out an internal validation of the drill holes in the Bissett Creek database.

The historical drill data pre-dating the 2007 drill campaign and the newer 2007 through to 2011 data was originally validated by SGS Canada as part of the FS dated August 23, 2012. As part of this work, the historical database was compiled from various sources and SGS Canada, who are independent of Northern Graphite, believe the actual compilation reflected the original dataset even though neither the original digital data nor lab assay certificates could be found. For this resource update, AGP did not re-compile the entire historical database. Data validation focused on the more recent drill data, especially the 2012 results which were not previously validated by SGS.

Notwithstanding the comment above, AGP did obtain the original database directly from SGS Canada to ensure the assays used in this resource update are the same as what was used in the feasibility resource. Additionally, AGP spot checked the historical drill holes against what was available in the various reports provided by Northern Graphite before accepting the SGS compilation as valid. Assay validation by AGP covers 90% of all received assays for the 2007-2012 drill programs. The data collected by Northern Graphite adequately represents the style of mineralization present on the Bissett Creek deposit. The error rate in the drill database for the data that was validated by AGP was found to be very low. The historical data lacked assay certificates and according to SGS Mineral Services, the documentation shows conflicting results which were interpreted to be originating from a re-sampling campaign. For that reason, AGP regards the sampling, sample preparation, security, and assay procedures reviewed adequate to support the mineral resource with a restriction on resource classification for blocks that were interpolated primarily from historical data.

Drilling was in progress during a site visit by AGP in 2012 and therefore core logging and sampling procedures could be observed. Overall, AGP concluded that the logging, sampling, sample preparation, security, and chain of custody procedures reviewed during the site visit, are to industry standard and adequate to support the resource estimate.

2013 Mineral Resource Estimate

Effective May 7, 2013, AGP estimated the global mineral inventory for the Bissett Creek Project utilizing 268 diamond drill holes totalling 14,361 m of historic and recent drilling. This estimate is an update to the resource model used in the FS prepared by G Mining Services and incorporated 61 new holes drilled by Northern Graphite in late 2012. Under CIM definitions, mineral resources should have a reasonable prospect of economic extraction. In order to meet this requirement, a Lerchs-Grossman optimized shell was generated to constrain the potential open pit material that includes measured, indicated and inferred material. Within this resource constraining shell, at the 1.02% Cg cut-off, the model returned 69.8 million tonnes of Measured and indicated mineralization grading at 1.74% graphitic carbon, containing 1.2 million tonnes of in situ graphite. The Inferred resources amounted to 24.0 million tonnes, grading 1.65% graphitic carbon and containing 0.4 million tonnes of in situ graphite. Base case cut-off grade selected considered results of the FS with adjusted metal prices.

Bissett Creek Project Resource Estimate, May 6, 2013

Cutoff	Measured + Indicated Resources			Inferred Resources		
	Tonnage	Cg%	In Situ Graphite (t)	Tonnage	Cg%	In Situ Graphite (t)
1.02	69,791,000	1.74	1,213,000	24,038,000	1.65	396,000
1.50	37,565,000	2.14	803,000	11,971,000	2.02	242,000
1.75	23,439,000	2.45	574,000	6,274,000	2.39	150,000
2.00	15,902,000	2.73	435,000	3,564,000	2.79	100,000

- Notes:
- Resource shell is based on Measured, Indicated and Inferred material, tonnages rounded to the nearest thousand
 - Graphite price used is US\$1,800 per tonne with an exchange rate of \$1Cdn=\$1 US
 - Dilution and ore loss are considered to be zero
 - Feasibility Study costs and information have been used for Resource Shell generation

Overburden Mining Cost	\$1.85	Per tonne material
Waste Mining Cost	\$3.24	per tonne material
Ore Mining Cost	\$4.15	per tonne ore
Process Cost	\$9.61	per tonne ore
General and Administrative	\$3.41	per tonne ore
Recovery	95%	
Royalty	\$20	per tonne of concentrate
 - No mining restrictions relating to permitting were applied
 - Pit slopes of 45 degrees in rock and 30 degrees in overburden
 - Cutoff of 1.02% Cg

Mineral resources were estimated in conformance with the CIM Mineral Resource definitions referred to in NI 43-101. Pierre Desautels, P.Geo., Principal Resource Geologist, and Gordon Zurowski, P.Eng., Principal Mining Engineer, both of AGP and “qualified persons” under NI 43-101 who are independent of the Corporation, have prepared and authorized the release of the mineral resource estimates presented herein.

Mineral resources that are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues. The quantity and grade of reported inferred mineral resources in this estimation are uncertain in nature and there has been insufficient exploration drilling to define these inferred mineral resources as indicated or measured mineral resources and it is uncertain if further exploration will result in upgrading them to indicated or measured mineral resources.

Notes on 2013 Mineral Resource Estimation Methodology:

- The updated mineral resource is based on 268 diamond drill holes totaling 14,361 m of historic and recent drilling. This includes 117 surface diamond drill holes totaling 6,919 m completed under Northern’s supervision from 2007 to 2012.
- All drill holes are diamond drill core and were sampled and assayed over their entire length in the mineralize section of the core of mostly 1 m sample intervals. A QA/QC program was in place since the 2010 drill program, which included the insertion of standards, duplicates and blanks.
- A total of 263 DL0I assays (out of a total of 4,099) were calculated to derive a “LECO equivalent” assay using a 3rd degree polynomial equation that affected mostly material in the Inferred resource.
- Specific gravities were determined by ALS Minerals for a representative number of rock and mineralization types provided by Northern. 657 determinations exist in the database. The specific gravity was weighted by the lithology count for each of the domains. There was no variation from the average specific gravity of all mineralized domains and a value of 2.72 was applied to the entire block model.
- A detailed review of the geological mapping, geological logs and grade distribution led to the development of three-dimensional (3D) domain models based primarily on grade boundaries and partially on lithological units. The wireframing resulted in two higher grade envelopes based on a natural cut-off grade ranging between 2.5% and 2.8% Cg. These two envelopes reside within a lower grade graphitic gneiss domain averaging 1.4% Cg. A

mostly barren zone exists below these high grade units and forms the bottom footwall contact of the mineralization. Seven minor barren units were also modeled within the mineralized zone to tie the surface mapping with the drilling. These domains were utilized in the variography studies and in grade interpolation constraints. The model prepared for the May 6, 2013 resource estimate was updated based on the new 2012 diamond drilling information.

- For the treatment of outliers each statistical domain was evaluated separately and no top cut was necessary. However, a search restriction imposed on threshold values of 6% Cg was used to restrict the influence of the highest values during the interpolation.
- The composite intervals selected were 3.0 metres.
- A 3D geological block model was generated using GEMS© software. The block model matrix size is 8 m x 8 m x 3 m in consideration of Northern planning to use a 6 metre bench height for drilling and blasting but sampling and mining in 3 metre flitches. Ordinary kriging was used for all domains with inverse distance and nearest neighbour check models. The interpolation was carried out in multiple passes with increasing search ellipsoid dimensions. Classification for all models was based primarily on the pass number, distance to the closest composite and drill density map. The measured classification was downgraded in areas where the interpolation of the grade relied mostly on historical drill holes.
- The reported mineral resources are considered to have reasonable prospects of economic extraction. A Lerchs Grossman optimized constraining shell was generated to constrain the potential open pit material. This shell was designed using design parameters from the FS. The constraining shell extends down to the barren unit at the bottom of the model.
- The rounding of tonnes as required by NI 43-101 reporting guidelines may result in apparent differences between tonnes, grade and contained graphite.

Mineral Reserves

Probable mining reserves for the Bissett Creek Project were established in the FS Update based on measured and indicated resources of 69.8 Mt grading 1.74% graphitic carbon Cg based on a 1.02% Cg cutoff and are included in the 2013 Technical Report for information purposes. The measured and indicated resources are inclusive of the probable reserve. The resource estimate was prepared by AGP who established a breakeven cut-off grade (“COG”) and ran optimized Whittle pits on the measured and indicated resources based on a number of parameters including those outlined in the table below.

2013 Feasibility Parameters	FS Update (base case)
Probable reserves (million tonnes)	28.3Mt
Feed Grade (% graphitic carbon)	2.06%
Waste to ore ratio (excl. low grade stockpile)	0.79
Processing rate (tonnes per day - 92% availability)	2,670
Mine life	28 years
Mill recovery	94.7%
Average annual production	20,800t
Capital cost (\$ millions - including 10% contingency)	\$101.6M
Cash operating costs (\$/tonne of concentrate)	\$795/t
Mining costs (\$/tonne of ore)	\$5.63
Processing costs (\$/tonne of ore)	\$8.44
General and administrative costs (\$/tonne of ore)	\$2.50
CDN/US dollar exchange rate	0.95
Graphite prices (US\$ per tonne)	\$1,800

The final mine plan for 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% Cg 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 will be stockpiled, largely

within the mined out areas of the pit. The total LGS will be 16.5 Mt grading 1.26% Cg and will provide a great deal of flexibility in future operations as it will be available for processing at a later date, either through an expanded facility or at the end of the mine life. It also represents a low cost source of ore that could be processed during periods of depressed prices.

The FS Update mine plan was also designed to supply blasted rock and glacial till for tailings dam construction during pre-production and to allow for sulphide and non-sulphide waste disposal in mined out areas by year five. Sulphide tailings may also be stored in the mined out pit starting in year eight.

Losses and dilution were evaluated with consideration of the size of the mining excavators, deposit geometry, bench height and the visual differentiation between barren and mineral laden material. The contact between mineralized material and barren gneiss material will be possible to differentiate visually. Distinguishing between plant feed material and waste or low grade will require additional assessment with blasthole assaying.

The dilution and mining losses were modelled on a block by block basis. The block model is sized at 8 metres long, 8 metres wide and 3 metres tall. (8x8x3). The block is considered to be internally diluted but contact dilution was also applied to the block. Smaller loaders and backhoes are proposed for mining of the material. The proposed loader has a bucket width of 3.8 metres. The current estimate for the pattern size is spacing at 4.1 metres by 3.6 metres. Splitting the difference in the distance between the holes AGP estimates that use of 1 metre of dilution on any block side would be appropriate. Selectivity with the specified equipment may not be able to clean closer than that without additional sampling or visual cues.

Utilizing the block dimensions, a calculation of the percentage of dilution for each block depending on the number of sides with diluting material was estimated. The dilution estimate varies from 11% on one side to 33% with all four sides being diluted. The script employed to calculate the dilution considered the grade of the diluting block. Blocks that were entirely surrounded by above cutoff material were not diluted. The script was completed with a base milling cutoff of 0.93% Cg to determine what would be diluting material.

The net result of the dilution calculation was a 1% drop in overall grade, even though locally along the footwall the dilution was in excess of 12%. This is a result of the fairly homogenous nature of the deposit with the contacts (except against barren gneiss) being gradational. The dilution percentage is on par with what AGP expected the feed losses to be. For this reason the dilution was assumed to be equal to the feed loss and only a diluting effect on the grade was applicable. AGP believes that for the current mining rate and equipment selection that the mining dilution and recovery are reasonable.

AGP considers that the estimations of Mineral Resources and Mineral Reserves for the Bissett Creek Project in the FS Update conform to industry best practices and meet the requirements of the 2010 CIM Definition Standards for Mineral Resources and Mineral Reserves, incorporated by reference in NI 43-101. Mineral Reserves as of September 23rd, 2013 were 28.3 Mt grading 2.06% Cg, all of which were classified as Probable Reserves. Factors which may affect the estimates include variations in assumed commodity prices and exchange rates.

The Expansion PEA mines the same quantity of mill feed outlined within the FS Update. Low grade Indicated Resource material that was stockpiled in the mined out pit for the FS Update totalled 12.5 million tonnes. This stockpiled material was added to the mill feed to increase the production rate to 2 million tonnes per annum for the Expansion PEA. All but 1.4 million tonnes of low grade resource that had been stored in the pit was included in the Expansion PEA. The remainder was considered mixed with waste material due to a lack of separate space within the mined out pit and losses along the footwall and high walls when it is recovered.

Mineral Processing and Metallurgical Testing

The FS relied on two extensive metallurgical testing programs to develop the processing and recovery schemes for the Bissett Creek Project; testing programs supervised by Cominco Engineering Services Limited (“CESL”), on behalf of a former owner, in the 1990s; and recent testing programs (2010-2012) sponsored by Northern at SGS Lakefield.

Historical Processing and Metallurgical Study

A metallurgical study was carried out in 1990 for North Coast Industries the project owners at the time. Metallurgical development and the direction of testwork were provided by CESL. The testwork was conducted at Ortech International (“Ortech”) and Bacon, Donaldson and Associates Limited (“BDA”) testing laboratories during January-June 1990. Detailed test results and their specific information of the ore samples are documented in a report title “Metallurgical Testing of Bissett Creek Graphite Final Report” by BDA in July 1990. The purpose of the testwork was to confirm and/or improve the metallurgy developed in an earlier study, followed by the demonstration of the flowsheet in a continuous pilot plant operation. Further, the results of the pilot plant tests were used to form the basis of a production scale plant flowsheet development. Metallurgical targets for the testwork were an overall concentrate grade of approximately 92-95%Cg, an overall graphite recovery to concentrates of 93-95%Cg and a high proportion of flakes in the +48 mesh size fraction (50% by weight or greater).

Recent Processing and Metallurgical Testing Program

The recent program was developed by SGS Lakefield based on the previous program outcomes. This program aimed to develop and pilot test a final version of the processing flowsheet. Descriptions and results of this program are presented in the report “An Investigation into the Recovery of Graphite from a Bulk Sample from Bissett Creek – June 21, 2012”. A series of comminution tests were completed to support the sizing of the crushing and grinding equipment and to quantify media wear. The Bissett Creek Project ore is classified as “soft” when compared to the JK Tech database. A lab program was completed in 2010 to 2011 on a master composite originating from the Bissett Creek Project deposit. This lab program generated a flowsheet and reagent conditions that were deemed suitable to produce a graphite concentrate grading at least 95% C and to maximize overall graphite recovery. A series of batch flotation tests were completed to validate the flotation conditions prior to lock cycle testing (“LCT”).

Eight LCTs were performed to optimize the processing flowsheet for the Bissett Creek Project ore and to separate the tailings into a sulphide tailings stream and a low-sulphide tailings stream. Then eight different composites were submitted to LCTs according to the final flowsheets. The composite samples were taken from locations across the ore body to confirm flake consistency. Assuming that the difference in recoveries for the whole range of grades tested is probably within the margin of test error and too small to draw any relationships, it was concluded that the variability tests do not demonstrate any meaningful correlation between head grades and concentrate grades, head grades and recoveries and head grades and +80 mesh (flake) fraction in the concentrate product.

The LCT on composite material taken from drill core samples across the deposit produced six final concentrates which showed consistent flake size distribution and carbon grade. The overall concentrate grade averaged 95% C. A concentrate which grades 94%C and has a flake size distribution of 80% greater than +80 mesh is the industry standard premium product. Almost all Bissett Creek Project production meets this specification as the final concentrates averaged over 70%, +80 mesh. Approximately 6% of the concentrate was +100 mesh and 12% was +200 mesh, both with high carbon content. Less than 10% was very small, -200 mesh flake and powder with a carbon content in the low 80s.

Most significantly, almost 50% of the graphite concentrate produced was jumbo size, +48 mesh flake which averaged 98% C with one value as high as 99.2% C. A pilot plant test was designed to further confirm the flow sheet incorporated into the FS and optimize its operating parameters. The overall carbon recovery in the LCT was 92.2% and the Corporation’s objective is to increase it to a range of 94 to 95 % without degradation of flake size. Selected samples from the locked cycle tests were submitted for a basic environmental analysis to determine the most suitable flowsheet option to produce a large percentage of non-acid generating tailings and only a small tailings stream of acid generating material that requires special tailings handling. The combination of a sulphide rougher and cleaner circuit in combination with a magnetic separator that treats the combined rougher and sulphide 1st cleaner tails produced non-acid generating tailings with the lowest mass recovery into the high-sulphur tailings stream.

Size Fraction Analysis of Graphite Concentrates from LCTs

Composite	Flake Size Distribution - % retained (mesh)						
	+32	+48	+80	+100	+200	-200	>80
LG Pit #3	19.0	32.8	23.2	5.0	10.4	9.5	75.1
LG Pit #4	22.6	32.6	20.1	4.6	9.5	10.5	75.3
MG Pit #2	23.7	34.1	22.1	3.9	8.7	7.5	79.9
MG Pit #4	25.7	32.8	19.9	3.8	9.3	8.4	78.4
HG Pit #1	11.2	31.9	28.1	7.0	12.8	9.0	71.2
HG Pit #2	14.8	32.8	25.9	5.9	12.0	8.6	73.5
HG Pit #3	20.2	35.1	22.7	5.3	9.3	7.4	78.0
HG Pit #4	15.7	32.0	24.4	6.0	11.7	10.2	72.1
Minimum	11.2	31.9	19.9	3.8	8.7	7.4	71.2
Maximum	25.7	35.1	28.1	7.0	12.8	10.5	79.9
Average	19.1	33.0	23.3	5.2	10.5	8.9	75.4
Std. Dev.	4.9	1.1	2.8	1.1	1.5	1.2	3.1
Rel. Std. Dev	25.8	3.3	12.0	21.4	14.3	13.0	4.1

In order to demonstrate the suitability of the proposed flowsheet on a larger scale and continuous operation, pilot scale testing trials were performed on approximately 110 t of a bulk sample. The pilot plant program was also designed to produce concentrate and tailings for downstream testing and to develop engineering data to support the generation of process design criteria and results. The setup of the pilot plant was completed in late October 2011 and the circuit was commissioned during the second week in November. Over the course of the following four weeks, the circuit was operated for 17 shifts until December 8, 2011. The results were communicated to Northern, G Mining, and SGS as they became available. Representatives of the three companies (Ahmed Bouajila, Nicolas Menard and Gilbert Rousseau) were present on site throughout the four weeks of operation.

Due to a series of mechanical and metallurgical challenges, the circuit was only optimized at the end of run PP-14. An extended run commenced on PP-15 and five successful surveys were completed during PP-16 and PP-17, which consisted of multiple cuts of each external and internal stream of the flotation circuit. The direct head assays of each product were then used with data reconciliation software BILMATTM to generate a circuit mass balance. The graphite recoveries into the final concentrate ranged between 90.5% in survey PP-17B and 94.9% in survey PP-16C. The adjusted concentrate grades varied from 93.4% in PP-16C to 95.3 % in PP-16A.

Since the price for graphite concentrate is highly dependent on the flake size distribution and the grade of each size fraction, the final concentrate from each survey was subjected to a size fraction analysis. The results of this analysis reveal that almost 50% of the concentrate mass consisted of +48 mesh flakes, which are considered a premium product. The +48 mesh fraction ranged between 43.1% and 58.5% by mass in the locked cycle variability tests compared to 45.7% to 49.8 % in the pilot plant.

The pilot plant campaign demonstrated the suitability of the proposed flowsheet despite concerns that the bulk sample was partly weathered. Weathered material does not respond as well to flotation as unweathered rock. As a result of this and the lack of operating time to optimize the circuit, the metallurgical performance of the pilot plant was slightly inferior compared to the laboratory program that was completed on a Master composite and eight variability composites. Based on the pilot plant results, the FS used a recovery of 92.7% in the first year, increasing to 94.7% in year three, for mass balance and project economics. The LCTs, which were performed on fresh drill core, were better in terms of recoveries, concentrate grades and flake size distribution which represents potential upside in the project. Recoveries in the eight LCTs averaged 97.2% and ranged from 95.2% to 99.1%. The Expansion PEA assumes recoveries of 94.7% for the entire project.

The Corporation is confident of achieving recoveries of 94 to 95% in the full scale plant for the following reasons:

- operation of a pilot plant does not allow enough time to optimize the process with respect to balancing grinding, retention time and reagents;
- due to its small scale, the pilot plant used mechanical cells for rougher flotation. The full plant will use column flotation which is more efficient for the recovery of coarse graphite flotation products;
- the bulk sample showed some signs of surface oxidation that affected recovery. This will not be a factor in the full scale mining operation; and
- a coarser final flake concentrate is also expected as a rod mill was used for primary grinding in laboratory and pilot plant testing whereas the full scale plant will utilize a SAG Mill which is the best method of grinding to preserve flake size.

Flake graphite is sold based on 80% meeting the required specification. Therefore, smaller flake sizes can be blended into larger as long as the carbon content is maintained. The -100 flake concentrate produced by the Bissett Creek Project is at least 94% Cg and, therefore, is suitable for this purpose. After blending, the Expansion PEA assumes 60% of the Bissett Creek Project production will be +50 mesh and a third of this material is actually +32 mesh, 97-98% Cg. Because of the latter, the price for the +50 mesh concentrates was estimated at US\$2,100/t. Graphite prices used in the Expansion PEA are US\$1,400/t for the 35% of production that will be +80 mesh, 95%+Cg and US\$1,200/t for the 5% that will be +100 mesh, 95-97% Cg. Therefore, the weighted average price that would be realized by the Bissett Creek Project concentrates was estimated at US\$1,800/t as of the date of the Expansion PEA.

The Expansion PEA assumed waste rock and the low grade stockpile will be acid generating and included the cost of a lined pad and additional financial assurance. Subsequent testing has determined that the lined pad is not required.

Pilot plant results have confirmed that the Bissett Creek Project will produce entirely large flake, high carbon concentrates from flotation alone, without chemical or thermal treatment. As a result, the Bissett Creek Project concentrates will potentially yield high average values per tonne which should result in high margins. As a result, the Corporation believes it will have the option of selling them into current high value markets or using them to produce SPG for lithium-ion batteries if it is financially advantageous to do so. The pilot plant also confirmed results from the extensive historical testing, bulk sampling and pilot plant work that was carried out in the past and has validated the performance of the new flow sheet that forms the basis for the FS, FS Update and Expansion PEA.

The design criteria for the Bissett Creek processing plant was based on Northern Graphite's direction and the results obtained from the metallurgical testing performed by SGS Lakefield during 2011 and then subsequently modified to incorporate some improvements to the operating plan. The design criteria for the graphitic carbon processing plant were based on a continuous and homogenous feed of mill feed coming from the pit and the following parameters:

Plant throughput:	1,000,000 Mt/yr (2,975 t/day) then increasing to 2,000,000 Mt/yr (5,950 t/day) in the third year of operation
Plant circuit throughput:	104 t/h
Plant availability:	92%
Plant operating schedule:	365 d/y, 24 h/d
Crushing circuit utilization:	33%
Crushing circuit throughput:	315 t/h
Plant availability:	92%
Crushing ROM feed Size:	90% minus 600 mm
SAG Mill feed size: 8	0% minus 150 mm
Flotation feed size (Flash cell):	80% minus 170 mm

The processing plant in the FS was designed for a yearly throughput of approximately 840,000 tpy. The plant had excess crushing and grinding capacity and with minor modifications to pumps and other equipment, capacity was increased to 1,000,000 tpy in the FS Update. The Expansion PEA was prepared to evaluate the economics of a plant expansion where there is a doubling of the initial throughput to 2,000,000 tpy after three years of operation. This will be accomplished by twinning all of the process flowsheet except the crusher which is capable of handling the increased throughput.

The process flowsheet uses proven methods widely used in the mineral industry. Mill feed from the mine will be crushed by a mobile jaw crusher and conveyed to a stockpile. Crushed mill feed will then be reclaimed to the concentrator building. The mill feed will then go through successive steps of grinding, flotation and screening on progressively finer particles. The objective is to produce a high grade graphite concentrate, but also to preserve as much as possible the large size of the graphite flakes to maximize the value of the concentrates. The graphite concentrate will be thickened to remove excess water, before being filtered and dried. The moisture content of the final product will be below 1%. After the screening into several fractions, the concentrate can be bagged and sold on either a given fraction-basis or on a blended basis.

Anticipated Mining Operations and Production

The Corporation plans to develop the Bissett Creek Project in two phases. Phase 1 consists of the production scenario outlined in the FS and FS Update and represents a conservative approach that consists of building a smaller project with a reasonable capital cost and a realistic production volume relative to the size of the current graphite market. In Phase 2, production will be doubled to meet the expected growth in graphite demand, in part arising from the LiB and electric vehicle markets. The Expansion PEA includes both Phases 1 and 2 with the latter consisting of expanding the plant capacity from one Mtpa to 1.5 Mtpa starting in the third year and achieving the target throughput of 2 Mtpa from Year 4 onwards. Both the Expansion PEA and the FS Update use the same resource/reserve model.

Considering the relatively small tonnage mined yearly and the desire by Northern to limit up front capital requirements, it was decided early in the FS to use contract mining as the basis for mine operations. In order to reduce operating costs, the Expansion PEA (and the FS Update) are based on owner mining. A contractor will handle drilling and blasting operations.

A reduced graphite price (compared to the FS) was used to develop nested shells for pit phasing. The phasing was determined on both contained value and sequencing that would allow backfilling of the pit in the shortest time. The backfill of the pit was important for various reasons:

- Prepare an area for sulphide tailings storage under water;
- Reduce land disturbance for waste stockpile footprints;
- Shorten haulage times;
- Reduce re-sloping required for reclamation purposes; and
- Provide future storage of potentially acid generating material (pit could be flooded upon completion).

With these considerations, nine different phases were identified. Some were standalone pits and some were pushbacks of other phases. In all cases the pit shells adhered to the geotechnical criteria provided. The phase tonnages were sequenced in a manner to maximize the grade of the mill feed material in the initial years to a level of 2.22% Cg or higher, as well as maintaining the feed grade in excess of 2% Cg for the remainder of the mine life. To accomplish this, the tonnages and grades for mill feed were based on two cut-off values, a milling cut-off of 0.96% Cg and a high grade cut-off of 1.5% Cg.

Material between 0.96 and 1.5% Cg was stockpiled for processing at the end of the mine life. Additional mineralization remains towards the creek and to the northeast of the pit that has not been scheduled. This additional resource is approximately 109,000 tonnes grading 3.08% Cg in the Measured category and 27.2 Mt grading 1.61 % Cg in the Indicated category for a total of 27.3 Mt grading 1.62% Cg. These resources could be mined after year 14 rather than processing the low grade stockpile. An additional 22.1 million tonnes of Inferred material also remain within the resource pit shell with an average grade of 1.64% Cg. Inferred resources have not been accounted for in the Expansion PEA study and represent a possible future upside to the project.

Mining equipment was selected based on a desire to minimize dilution and flake breakage in mining of the plant feed. This is to maximize the value of the resulting concentrate. Northern Graphite worked together with Toromont to examine the proper fleet for the given production rates. This fleet was determined to be a combination of two frontend loaders with standard 6.4 m³ rock buckets and four haul trucks with 71 tonne capacity. A Cat 336E backhoe will support the pit operations with water control and also final cleaning along the footwall and barren gneiss contacts to minimize dilution. It would pile the material for loading by the front end loaders rather than trying to direct load the trucks.

Supporting the mining fleet will be two Cat D7E class dozers and a Cat 14M grader. Northern Graphite currently has a grader of equivalent size on site. This would be replaced in year five with a new machine. A sanding truck for winter conditions is also included. Equipment replacement has been scheduled at every five years for the frontend loaders and graders, and seven years for the haul trucks and dozers. The support backhoe is replaced every ten years.

Mining will be done on three metre benches in the mill feed to minimize the dilution. Where possible the benches will be mined at six metres in waste and continuous mill feed sections. Final cleaning of the footwall will be completed under grade control supervision with the frontend loader when the slope will allow it or with the backhoe pulling the material into a windrow for the front end loader to load.

For the operating cost determination, mine haul profiles were developed for each bench and phase to the various stockpile locations. They also included haul profiles for placement of material backfilling the pit. The benefit of backfilling the pit is reduced disturbance to the environment, reduced operating costs and reduced final reclamation as it will be completed concurrent with mining.

Proposed Infrastructure

The Bissett Creek Project will require specific infrastructure to be built in order to support the mining and processing operations. A natural gas-fired power plant of 5MW will be installed on site and compressed natural gas will be transported to the site by truck from a compressor station to be built approximately 15 km east of Bissett Creek Project on the large gas pipeline that parallels the Trans-Canada highway. The power plant will be doubled in size to accommodate the expansion in capacity in the Expansion PEA.

Support buildings and infrastructures will include water pumping stations, water treatment for waste water disposal and for potable use. A dry storage warehouse will be built near the processing plant. Offices and an assay and metallurgical laboratory will be included inside the concentrator building. Services such as change rooms and lunch room will be integrated into the office complex. A diesel storage area will be built in order to store fuel for the owner's mining and support fleet.

The access road will be upgraded to facilitate site access. A haul road will be built to allow haulage of mill feed to the processing facility. Service roads will be built to allow access to the tailings management facilities and to the pumping stations.

The tailings will be stored in two separate storage facilities. The non-deleterious tailings management facility will store the neutral, non-acid generating tailings. The sulphides tailings management facility will store the tailings with acid generating potential. These tailings will be kept under water to avoid chemical reaction with the ambient air.

Environmental and Permitting

Knight Piesold led the environmental studies and permitting process for the FS. Subsequently, Stantec has taken over all permitting and environmental work. Baseline characterization programs were completed between 2010 and 2015 on hydrogeology, hydrology aquatic environment, terrestrial environment, meteorology and geochemistry. The baseline studies were conducted to identify the potential environmental impacts during construction, operation and closure phases of the Bissett Creek Project.

A draft Project Description was sent out to the Canadian Environmental Assessment Agency ("CEAA") and the MNM on March 2, 2012. The Project Description was circulated to the various provincial and federal government agencies for review. Following the review, the Corporation received confirmation that the Bissett Creek Project, as defined in the Project Description, is not subject to the *Environmental Assessment Act* (Ontario) or the Canadian Environmental Assessment Act.

Geochemistry of the mill feed and waste rock were studied and the results showed that the graphitic gneiss had the potential to generate acid drainage. Most of the waste rock samples were classified as non-acid generating. Low grade mill feed and marginal mill feed are currently considered to have acid generating potential and will need to be managed during the life of the project.

Sulphides are associated with the graphite mineralization and testing at SGS Lakefield demonstrated that the sulphides could be concentrated in a sulphide tailings, representing 3% of the total tailings tonnage and characterized as acid generating. This results in 97% of the tailings being neutral and non-acid generating. Each tailings stream would have its own tailings management facility. The sulphides tailings management facility will keep a water cover above the tailings bed to prevent physical contact between the tailings material and air to prevent any oxidation and generation of acid water.

The project will need to meet air quality and noise level standards stipulated by Ontario’s Ministry of the Environment. Due to the Bissett Creek Project’s remote location, it is expected that the processing power plant and operations will meet the standards by using normal control practices.

The Bissett Creek Project is located in several sub-basins of the Grant and Mag Creek watersheds. Hydrometric monitoring was conducted to monitor stream flows. The linkage between surface and groundwater was investigated. Mine dewatering could have an impact on water flows at Mag Creek; with the current data available, it is possible that seepage to the mine pit could minimally reduce Mag Creek flow from 1 to 4%. Samples of surface water were analyzed. Results indicate that the majority of the surface water sites have elevated aluminum and iron concentrations.

The property includes wetlands. An assessment was conducted in July 2011. Consultation with the Ministry of Natural Resources confirmed that the wetlands on site are part of a much larger wetland complex. A wetland Environmental Impact Statement (“EIS”) will be prepared in conjunction with the Ministry of Natural Resources and include mitigation and avoidance strategies as well as outline Best Management Practices.

Investigations performed on the local wildlife concluded that ten species at risk are present within the Bissett Creek Project. Northern will be required to obtain a permit under the *Endangered Species Act* (“ESA”) should any activities results in damage to threatened species habitat.

The employment generated by the Bissett Creek Project is estimated at 88 positions initially and would expand to an estimated 108 after the doubling in production as envisioned in the PEA. Those positions will benefit the nearby communities.

An Environmental Management Plan (“EMP”) will be implemented for the Bissett Creek Project prior to development. It will provide a framework for dealing with environmental risks associated with the development, operation and closure of the Bissett Creek Project.

Even though there are no federal environmental assessments required for the Bissett Creek Project; there are a number of provincial and federal permits, licenses and approvals that need to be obtained prior to mine development. They are listed as follows:

Provincial Permit (Agency)	Act	Regulations
Work Permit (MNRF)	Public Lands Act	O.Reg 453/96
Work Permit (MNRF)	Public Lands Act	O.Reg 973/90
Approval (MNRF)	Lakes and Rivers Improvement Act	N/A
Burning Permit (MNRF)	Forest Fire Prevention Act	O.Reg 207/96
Environmental Compliance Approval (MOE)	EPA Ontario Water Resources Act	O.Reg. 561/94
Permit (CBO)	Ontario Bldg. Code	N/A
Certificate of Approval (MOE)	Safe Drinking Water Act	O.Reg 169/03 O.Reg 170/03
Approval (MOE)	Clean Water Act	O.Reg 287/07

Generator Registration Report (MOE)	EPA	O.Reg 347/90
Permit to Take Water >50,000 L (MOE)	Ontario Water Resources Act	O.Reg 387/04
Verification of amended Closure Plan (MENDM)	Mining Act	O.Reg 240/00
Permit (MNR)	Endangered Species Act	N/A
Federal Permit (Agency)	Act	Regulations
Approval (TC)	Navigable Water Protection Act	Navigable Waters Works Regulations

2012 Revised Mine Closure Plan

In October 2012, the Corporation submitted an amended Mine Closure Plan (the “**2012 MCP**”) for the Bissett Creek Project to the MENDM and in August 2013, it was accepted for filing. The 2012 MCP is an all-encompassing document that describes, in detail, the nature of the operations that will be carried out, the current baseline environmental conditions, and the Corporation's plan for rehabilitating the site and returning it to its natural state at the end of mining operations. The 2012 MCP is a requirement of the *Mining Act* (Ontario) and must be filed prior to commencement of construction and operations. A financial assurance that guarantees the Corporation's rehabilitation obligations under the 2012 MCP must be provided to the MENDM as part of the filing process. The overall required financial assurance was set at \$2.3 million which reflects the relatively benign nature of the operation, neutral tailings and the ability to practice progressive rehabilitation due to the shallow, flat lying nature of the deposit. In addition to the amount initially deposited of \$803,135, \$800,000 will be deposited prior to placing any footings in the ground for construction of structures such as buildings and dams and \$729,088 will be deposited prior to the commencement of commercial production.

The 2012 MCP and underlying baseline information were prepared by Knight Piesold Ltd. The 2012 MCP addresses the questions and concerns of the public, First Nation Communities and other interest groups that were identified during pre-submission consultations. A provincial Class Environmental Assessment is underway and a number of other permits relating to air, noise, water, species at risk, etc. are required prior to the commencement of operations and follow in the normal course after acceptance of the 2012 MCP. Most of these issues are dealt with in the 2012 MCP.

Because of operational changes made to improve the economics of the Bissett Creek Project, and to the passage of time, during the fall of 2019, the MENDM informed the Company that it must file an amendment to the MCP. The Corporation intends to file a notice of material change to the MCP, with MENDM, with respect the changes contemplated in the FS Update. A number of operational permits and environmental authorizations are also required prior to the commencement of mining and processing operations. These permits and authorizations are well advanced and the Corporation expects that these permits and authorizations will be obtained in the normal course as needed. Site work for the Bissett Creek Project would include the clearing of internal roads, plant site and tailings basin. Construction of the plant and infrastructure are estimated to take approximately 12 to 18 months from initiation.

Capital and Operating Costs

Initial Capital Cost

The initial capital cost estimate of \$101,941,500 for the Expansion PEA was developed at ± 30% accuracy. Costs are reported in Canadian Dollars (“**CAD**”). The estimate is based on the FS prepared by G Mining in 2012 and the FS Update completed by AGP. The doubling of the plant capacity from 1,000,000 tonnes per year to 2,000,000 tonnes per year has been estimated by assuming that the process facility will basically be twinned, other than the crusher which has excess capacity, and by doubling the capital component of the process plant in the third year of operation.

Locally available material was used for estimation purposes and prices were sourced from regional suppliers. No escalation was built into the capital cost estimates. The original estimates were received during 1st Quarter 2012 and

some components updated in the third quarter of 2013. Labour rates were developed using hourly rates provided by contractors from the area. Due to the geographical location of the project, travel time and room and board were included in the hourly rates.

Unit costs have been derived from quotations received from contractors and vendors. Cost estimations include materials and labour. Transportation costs are not included in the cost breakdown per area. The costs have been compiled in a separate estimate, provided in the indirects.

Description	Initial Capital
100 – Infrastructures	4,740,697
200 – Electrical Infrastructures	15,654,411
300 – Water Management	6,670,975
400 – Mobile Equipment	1,711,060
500 – Mine Initial Capital	7,164,499
600 – Processing Plant	36,779,806
700 – Construction Indirects	9,663,035
800 – General Services	5,757,568
900 – Pre-production & Commissioning	4,532,040
990 – Contingency (10%)	9,267,409
Total	101,941,500

2013 PEA Expansion Capital

The major purpose of the Expansion PEA was to establish the economics of expanding the process through put from 1,000,000 tonnes per year to 2,000,000 tonnes per year. The primary item in this evaluation was the additional capital that will be needed to expand the process operations. For this estimate it has been assumed that a parallel circuit will be built in the process plant resulting in the process capital being roughly doubled and the plant expanded in the third year of operations. The only component of the process that will not be duplicated in the expansion is the primary crusher as it has sufficient capacity to meet the expanded throughput.

Description	Expansion Capital
100 – Infrastructures	150,000
200 – Electrical Infrastructures	8,064,785
300 – Water Management	751,895
400 – Mobile Equipment	887,333
500 – Mine Initial Capital	Listed in sustaining capital
600 – Processing Plant	26,738,087
700 – Construction Indirects	6,495,911
800 – General Services	2,105,017
900 – Pre-production & Commissioning	N/A
Total	35,339,015

Sustaining Capital

Sustaining capital is mainly required for progressive dam construction at Tailings Management Facilities, on-going dewatering, waste rock stockpile expansion, mine equipment, future disposal of tailings to the pit and processing facilities and mobile fleet allowances.

Description	Sustaining Capital
Waste Piles Preparation	2,250,000
Processing Facilities	3,800,000
Tailings and Water Management	30,665,505
Electrical Infrastructures	244,000
Mobile Equipment	2,000,000
Mining Equipment	19,681,000
Others	32,000

The Corporation is required to deposit a financial assurance of \$2.3 million with the Province of Ontario (\$799,200 of which was initially deposited) to guarantee its obligations with respect to the 2012 MCP. \$800,000 will be paid prior to placing any footings in the ground for construction of structures such as buildings and dams and \$729,088 will be paid prior to the commencement of commercial production. An additional potential provision of \$2.5 million over four years has been included in the Expansion PEA.

Working Capital

The following assumptions were used to estimate project working capital:

Accounts Receivable	Equivalent to one month of net revenues.
Production Inventory	Concentrate inventory (at cost) – 1250 t
Supplies Inventory	Equivalent to one month of processing supplies (reagents, bags, consumables). Mining supplies inventory is carried by contractor
Fuel Inventory	Equivalent to 80% of 30,000 l reservoir at CAD 1/l
Mechanical Spares	Estimated at CAD 990,351
Account Payable	Equivalent to one month of supplies, fourteen days of labour costs and one month of mining contractor costs

Operating Costs

The local delivered price for diesel is linked to the crude oil price. Brent crude oil price for the Base Case is USD 119/bbl. From that basis, the diesel price delivered to site is derived. Mining costs are based on owner mining. The Corporation will own and operate all the mining equipment associated with loading, hauling and auxiliary services (road and dump maintenance) mining. The mine operating costs have been estimated to be in the order of \$4.08/tonne of mill feed.

A drill and blast contractor will be responsible for managing the explosives and the drilling of rock. The Corporation will provide the mine management and technical services, including grade control. All maintenance of the mine equipment will be handled with a maintenance contract. Sampling costs have been included in the mining cost estimate. A contract laboratory will be responsible for the assays required.

Processing costs include the manpower to operate the processing plant, as well as the crusher. They also include electrical power production and the consumption of natural gas. Consumables, reagents, and spare parts are also included in this estimate. Costs are calculated on a throughput of 1,000,000 tpy of mill feed for the first part of production and then after the expansion they are calculated on a process throughput of 2,000,000.

General services include general management, accounting, communications, environmental and social management, human resources, purchasing and procurement, marketing, health and safety and security protection. In most cases,

these services represent fixed costs for the site as a whole. General services costs exclude certain costs such as transport of final products and environmental rehabilitation costs which are treated as separate line items in the financial model.

Total Operating Cost Summary (cost per processed tonne)

Description	CAD\$ / t
Processing Costs	5.10
Power Costs	2.25
G & A Costs	1.45
Mining and Technical Services	4.08
Stockpile Adjustment	-0.03
Total	12.85

Economic Analysis

The financial analysis is based on the net present value (“NPV”) and internal rate of return (“IRR”) of all project cash flows starting with the project approval and development release. The valuation date on which these financial metrics are based is at the commencement of construction. All financial analyses presented are based on unlevered cash flow projections, with no provision made for debt financing.

The financial analysis was performed on both before-tax and after-tax cash flows, estimated on a project basis only. Revenue and expenditure projections associated with the initial development and ongoing operation of the Bissett Creek Project have been prepared using constant, 1Q 2012 Canadian dollars without provision for inflation.

The graphite prices selected are based on recent price history. The graphite market has experienced major changes in recent years which resulted in an important increase in prices over the 2005 to 2012 period followed by a drop in 2012 and 2013. In addition to normal market pricing, the Bissett Creek graphite products include a major proportion of extra large flakes that could command an important premium from clients outside of the quoted products by Industrial Minerals magazine. At this time, Northern Graphite has no specific agreement with clients for the sale of its concentrates. A composite price of \$1,800US has been used for the production and forms the Base Case for the evaluation. The CAD/US exchange rate is used to convert revenue from graphite sales into Canadian dollars in the base case is 1.05 CAD/USD.

Average Graphite Prices Used for Base Case

US\$ per tonne CIF North America						
	BFS*				Current	Weighted
Flake	Concentrate	Blended	Carbon Content		Price	Price
Size	Weighting	Weighting	FS*	LCT**	(US\$/tonne)	(US\$/tonne)
+48	48.4%	59.5%	95.1%	97.0%	\$2,100	\$1,249
+80	28.2%	34.6%	94.5%	95.1%	\$1,400	\$485
+100	4.8%	5.9%	97.3%	94.0%	\$1,200	\$71
-100	18.6%		94.8%			
	100.0%	100.0%	95.0%	96.2%		\$1,804
*Feasibility Study **Locked cycle testing						

The Corporation is subject to several taxation jurisdictions provincially and federally. The Ontario mining tax is levied at a rate of 10% on mining profits in excess of CAD\$500,000 derived from operations located in Ontario. The first CAD\$10M of profit generated by a new mine is exempted from mining tax for a three year period. In Ontario, corporations file a single combined income tax return and pay combined income tax instalments based on a corporate income tax base harmonized with federal definition of corporate taxable income. The provincial tax rate is 10% and the federal tax rate applicable to resources profits is 15%.

Annual mill-feed will start at 1,000,000 tpy and will expand to 2,000,000 in the fourth year of operations. The total graphite concentrate production from the Bissett Creek Project is estimated at 730,027t over a commercial production period of 22 years with an average annual production of 33,183t. Metallurgical recovery is estimated to average 94.7% during the life of production. At a graphite price of US\$1,800/t of concentrate under the Base Case, average annual sales are forecast to be CAD 62.7 M and LOM (23 years) gross sales total CAD 1,379.8 M. After royalty payments of CAD 14.6 M, the LOM net revenues are estimated at CAD 1,365.2 M.

Operating costs will total CAD 507.2 M over the mine life and average CAD 12.94/t of feed or CAD 695/t of graphite concentrate. Based on a graphite price of US \$1,800/t of concentrate, the operating cash flow is estimated at CAD 857.9 M.

Average Production of Graphite Concentrate and Mine Cash Costs of Production

Description	First 5 Years	Mine Life
Yearly Graphite Concentrate:		
Production (t concentrate)	23,690	33,183
Mine Cash Cost:		
(CAD/t Milled)	15.42	12.86
(CAD/t of Concentrate)	687	695

Under the Base Case, the undiscounted cash flow is CAD 650.6 M before tax and CAD 449.8 M after tax. The IRRs are 26.3% before tax and 22.0% after tax respectively. The payback period from the end of the pre-production period is approximately 4.8 years.

CDN\$	-20%	-15%	-10%	-5%	Base	5%	10%	15%	20%
Graphite Price	\$1,440	\$1,530	\$1,620	\$1,710	\$1,800	\$1,890	\$1,980	\$2,070	\$2,160
NPV 0%After Tax	261.4	308.6	355.7	402.7	449.8	496.7	543.8	591.0	638.2
NPV 8%After Tax	62.7	84.7	106.6	128.3	150.0	171.6	193.2	214.7	236.3
IRR	14.3%	16.4%	18.3%	20.2%	22.0%	23.8%	25.4%	27.1%	28.7%

On the basis of all the engineering studies, cost estimates, price scenarios and economic analyses performed as part of the Expansion PEA, the authors of the Expansion PEA believe that the financial returns are sufficiently robust to justify developing the Bissett Creek Project to commercial production. Its production level, when compared to the total market, should enable its successful introduction in the supply of large and extra-large graphite flake products, without impacting the supply-demand relationship and resulting prices. In addition, when well established as a reliable supplier of quality products, Northern Graphite should be in excellent position to pursue a production expansion on the basis of its large resources at Bissett Creek.

2014 Preliminary Economic Assessment Update

On June 24, 2014, the Corporation completed an update of the Expansion PEA in order to assess the economics of building a two Mtpa processing plant at the outset, rather than increasing from one Mtpa to two Mtpa after three years of operation, as contemplated in the Expansion PEA. The larger process plant was evaluated due to developments in the

lithium-ion battery industry but the Corporation does not intend to pursue such a scenario under the Expansion PEA Update at the present time.

For the Expansion PEA Update, Ken Kuchling, P.Eng., Senior Mining Associate of P&E Mining Consultants Inc. (“P&E”) reviewed the Expansion PEA mine plan and modified it to commence production at the expanded 2.0 Mtpa production rate in Year two rather than ramping up in Year three and to more aggressively backfill the open pit with waste. Dan Peldiak, P.Eng. Principal Process Engineer WorleyParsons Canada prepared the revised capital and operating costs for the process plant which represents a portion of the total capital and operating costs for the project. Consistent with industry practice, the estimates have been prepared with an engineering accuracy of +15/- 20%. Andrew Bradfield, P.Eng. of P&E, who is independent of the Corporation, approved and authorized the disclosure of the technical information relating to the Expansion PEA Update. There is no requirement for a new NI 43-101 relating to the Expansion PEA Update and none was filed. A press release was issued and filed on SEDAR and includes detailed cash flows relating to the Expansion PEA Update. Readers should refer to the 2013 Technical Report for further details with respect to the Bissett Creek Project.

Development capital costs in the Expansion PEA Update has been estimated at \$134.1 million (including a 10% contingency) for an operation that will produce an average of approximately 44,200 tonnes of graphite concentrate annually over the first 10 full years of operation.

Both expansion scenarios indicate improved economics over the FS Update for the simple fact that the production capacity was doubled for a capital cost increase of less than 50%. Of these, building the larger plant upfront (the 2014 Expansion PEA Update) is the most robust as it is more efficient.

Summary of Expansion PEA Results vs Expansion PEA Update and FS Update

Study Parameters	2013 FS Update	2013 Expansion PEA	2014 Expansion PEA Update
Reserves/resources (million tonnes)*	28.3*	39.4*	40.5 ¹
Feed Grade (% graphitic carbon)	2.06%*	1.85%*	1.83% ¹
Waste to ore ratio	0.79	0.24	0.25
Processing rate (tonnes per day - 92% availability)	2,670	2,670-5,340	5,480
Mine life (years)	28	22	21
Mill recovery	94.7%	94.7%	94.7%
Average annual production	20,800t	33,183t	44,200 ²
Initial capital cost (\$ millions - including 10% contingency)	\$101.6M	\$101.6M	\$134.1
Expansion capital	NA	\$45.2M	NA
Sustaining capital	\$43.0	\$58.7M	\$55.1
Cash operating costs (\$/tonne of concentrate)	\$795/t	\$695/t	\$736
Mining costs (\$/tonne of ore)	\$5.63	\$4.05	\$3.74
Processing costs (\$/tonne of ore)	\$8.44	\$7.35	\$7.78
General and administrative costs (\$/tonne of ore)	\$2.50	\$1.45	\$1.45
CDN/US dollar exchange rate	0.95	0.95	0.95

*The probable reserve in the FS Update consists of 24 Mt grading 2.20% Cg and 4.0 Mt of low grade stockpile (“LGS”) grading 1.26% Cg. The Expansion PEA and Expansion PEA Update accelerate the processing of the probable reserve and processes an additional 11.1 Mt of measured and indicated resources from the LGS at the end of the mine life. All grades are diluted.

¹ Potentially economically extractable resources based on the 24 Mt probable reserve grading 2.20% Cg (as estimated in the FS Update) being processed first followed by the processing of 16.1 Mt of Measured and Indicated resources grading 1.26 % Cg from a low grade stockpile. All grades are diluted. *Mineral resources that are not mineral reserves do not have demonstrated economic viability.*

² first 10 years

The expansion cases indicate that the Bissett Creek Project has very attractive economics even at or below current depressed graphite price levels. The pre-tax IRR is 26.3% (22.0% after tax) and the pre-tax NPV is \$231.1 million (\$150.0 million after tax) in the Expansion PEA base case which uses an 8% discount rate and a weighted average price of US\$1,800/tonne of concentrate. The Expansion PEA Update has a pre-tax IRR is 31.7% (26.7% after tax) and the pre-tax NPV is \$264.7 million (\$178.9 million after tax) using the same parameters due to the efficiencies inherent in building one large plant at the start rather than building a parallel circuit after three years of operation.

Parameters	2013 FS Update	2013 Expansion PEA			2014 Expansion PEA Update		
		(base case)			(base case)		
Graphite prices (US\$ per tonne)	\$1,800	\$2,100	\$1,800	\$1,500	\$2,100	\$1,800	\$1,500
Pre tax NPV @8% (CDN\$ millions)	\$129.9	\$335.6	\$231.0	\$126.6	\$380.9	\$264.7	\$148.4
Pre tax IRR (%)	19.8%	33.0%	26.3%	18.8%	40.7%	31.7%	22.2%
After tax NPV@8%(CDN\$ millions)	\$89.3	\$221.9	\$150.0	\$77.3	\$257.9	\$178.9	\$99.0
After tax IRR (%)	17.3%	27.7%	22.0%	15.7%	33.9%	26.7%	18.9%

Current Project Economics

During 2018 and into 2019, the Company engaged G Mining Services to carry out a review of the economics of the Bissett Creek Project given the passage of time since the various technical reports and updates were completed. The review evaluated the effect of some modifications to the flow sheet as well as changes in commodity prices, exchange rates, equipment and labor costs, and other project inputs. The review estimated that the capital cost of Phase 1 has increased by approximately five percent. While the cost of some equipment has declined and costs have been reduced through flow sheet modifications, other items such as the power plant have increased and civil, mechanical and electrical costs have all increased due to inflation. Operating costs are expected to be up to 20 percent higher than original estimates.

The following sensitivity analysis quantifies the potential effects of G Mining's review on the Expansion PEA. This sensitivity analysis is based on a five percent increase in capital and a 20 percent increase in operating costs, current exchange rates and commodity prices, and no change in resources or the mine plan.

	Expansion PEA	Sensitivity Analysis
CDN/US dollar exchange rate	1.05	1.30
Graphite price (US\$/t)	\$1,800	\$1,750
Graphite price (CDN\$/t)	\$1,890	\$2,276
Initial capital cost (CDN\$ millions)	\$101.6	\$106.6
Initial capital cost (US\$ millions)	\$96.8	\$82.0
Expansion capital (CDN\$ millions)	\$45.2	\$47.5
Sustaining capital (CDN\$ millions)	\$58.7	\$61.5
Total capital costs (CDN\$ millions)	\$205.5	\$215.6
Average annual production (tonnes)*	38,400	38,400
Total cash operating costs (CDN\$ millions)	\$507.2	\$608.7
Cash operating costs (CDN\$/tonne)	\$695	\$834
Cash operating costs (US\$/tonne)	\$662	\$642
Pre-tax NPV (@8% - CDN\$ millions)	\$231.0	\$304.9
After -tax NPV (@8% - CDN\$ millions)	\$150.0	\$198.2
Pre-tax IRR (%)	26.3%	30.1%
After-tax IRR (%)	22.0%	25.0%
* Average over first 15 years		

This disclosure relating to current project economics is supported only by the sensitivity analysis within the Expansion PEA and does not reflect the Expansion PEA base case economic analysis. The Expansion PEA is based on Measured and Indicated resources only. Mineral resources that are not mineral reserves do not have demonstrated economic viability. The Expansion PEA is preliminary in nature as there is no certainty that the results of a preliminary economic assessment will be realized.

G Mining subsequently completed an analysis which indicated that increasing annual concentrate production by at least 20 percent can be achieved with a relatively modest six percent increase in capital costs for the first phase of development. Higher production would also reduce unit operating costs and is expected to have a very positive effect on the Bissett Creek Project's NPV and IRR. Accordingly, the Company intends to integrate an initial production rate of approximately 25,000 tonnes per year into its development plans.

A comprehensive metallurgical test program is ongoing at SGS Lakefield to confirm graphite recoveries, concentrate purity and flake size yield under the new flow sheet and to bring testing up to feasibility level standards. Once these results are available, the Company will determine if it would be necessary or beneficial to prepare and file a new NI 43-101 report.

Current Status

As the result of work to date, the Bissett Creek Project is well advanced and could be constructed in 12 to 18 months subject to the optimization and confirmation of the final process design, detailed engineering, full project financing and completion of the permitting process. The Corporation will continue to focus on securing a strategic partner and offtake agreement which depend primarily on improved capital markets in the resource sector and further upward movement in graphite prices. Graphite prices are largely affected by demand from the steel industry. Demand from the LiB industry continues to grow and the Corporation is optimistic that improved market conditions will allow financing to be raised for the Project.

The Corporation is also developing a business plan for the production of value added products including micronized, purified and expandable/expanded graphite. It is expected that these products would enhance project returns.

DESCRIPTION OF CAPITAL STRUCTURE

Capital Structure

The authorized share capital of the Corporation consists of an unlimited number of common shares. As at March 25, 2020, 65,112,756 common shares were issued and outstanding as fully paid and non-assessable. In addition, as at March 25, 2020 the Corporation had issued and outstanding:

- 400,000 stock options exercisable at a price of \$0.20 per share until May 9, 2020;
- 150,000 stock options exercisable at a price of \$0.25 per share until January 21, 2024;
- 2,200,000 stock options exercisable at a price of \$0.50 per share until April 27, 2021;
- 200,000 stock options exercisable at a price of \$0.50 per share until November 27, 2022;
- 600,000 stock options exercisable at a price of \$0.50 per share until January 12, 2023;
- 3,909,166 common share purchase warrants exercisable at a price of \$0.40 per share until March 24, 2021; and
- 2,291,321 common share purchase warrants exercisable at a price of \$0.60 per share until November 22, 2021.

Common Shares

Holders of the common shares are entitled to receive notice of and to attend and vote at all meetings of the shareholders of the Corporation and each common share confers the right to one vote in person or by proxy at all meetings of the shareholders of the Corporation. Holders of the common shares, subject to the prior rights, if any, of any other class of shares of the Corporation, are entitled to receive such dividends in any financial year as the Board of Directors of the Corporation may by resolution determine. In the event of the liquidation, dissolution or winding-up of the Corporation, whether voluntary or involuntary, holders of the common shares are entitled to receive, subject to the prior rights, if any, of the holders of any other class of shares of the Corporation, the remaining property and assets of the Corporation. Holders of common shares have no pre-emptive rights, no conversion rights or rights of redemption provisions applicable to the common shares.

PRICE RANGE AND TRADING VOLUME OF SHARES

The Corporation's common shares were listed and posted for trading on the TSX-V under the symbol "NGC" commencing on April 20, 2011 following the completion of the Corporation's initial public offering. The following table sets forth the reported high and low sale prices and the daily average trading volume for the shares on the TSX-V for each of the periods indicated.

	<u>High (\$)</u>	<u>Low (\$)</u>	<u>Daily Average Volume</u>
December 2019	0.12	0.055	52,715
November 2019	0.085	0.055	43,071
October 2019	0.09	0.055	74,986
September 2019	0.11	0.075	32,840
August 2019	0.125	0.07	24,400
July 2019	0.14	0.10	21,823
June 2019	0.16	0.125	18,305
May 2019	0.17	0.135	17,273
April 2019	0.205	0.15	19,495
March 2019	0.24	0.165	21,710
February 2019	0.23	0.175	19,468
January 2019	0.22	0.15	22,286

PRIOR SALES

The Corporation did not issue any securities that were not listed or quoted on a marketplace during the financial year ended December 31, 2019.

ESCROWED SECURITIES

The Corporation has no securities held in escrow as at December 31, 2019.

DIRECTORS AND OFFICERS

Directors and Officers

The names, municipalities of residence and positions held in the Corporation of each of the directors and officers of the Corporation, their current principal occupation other than with the Corporation, the dates of their appointment or election as directors and their holdings of common shares (including those over which they exercise control) are set forth below:

Name, Municipality of Residence and Position with the Corporation	Principal Occupation	Director/Officer Since	Common Shares Beneficially Owned Directly or Indirectly or Controlled
Gregory B. Bowes Carleton Place, Ontario, Canada CEO and Director	Chief Executive Officer, Chief Financial Officer and a Director of the Corporation	July 9, 2008	2,664,594 ⁽⁴⁾
John McNeice Ottawa, Ontario, Canada Chief Financial Officer and Corporate Secretary	Chief Financial Officer of the Corporation, Aura Resources Inc. and Carube Copper Corp.	January 11, 2018	Nil
W. Campbell Birge ^{(1) (3)} Victoria, British Columbia, Canada Director	Consultant to public and private companies	June 25, 2018	500,000
Donald H. Christie, CPA, CA ^{(1) (2)} Toronto, Ontario, Canada Director	President and CEO, Norvista Capital Corporation.	August 17, 2010	210,333
K. Sethu Raman, Ph.D ^{(1) (2) (3)} Toronto, Ontario, Canada Director	Independent mining consultant	September 7, 2010	271,409
Iain Scarr ^{(2) (3)} Greenwood Village, Colorado, United States of America Director	Chief Operating Officer of Millennial Lithium Corporation, Industrial minerals consultant	September 7, 2010	60,000

Notes:

- (1) Member of Audit Committee.
- (2) Member of Compensation and Nomination Committee.
- (3) Member of Corporate Governance Committee.
- (4) 1,823,166 common shares are held by Gregory Bowes, 571,428 common shares are held by Bowes & Company, Management Ltd., which is owned and controlled by Gregory Bowes and his family, and 270,000 common shares are owned by his spouse.

Each director will hold office until the Corporation's next annual meeting or until a successor is elected or appointed.

The following is biographical information relating to the directors and senior officers of the Corporation, including their principal occupations for the past five years:

Gregory B. Bowes, B.Sc. (Geology), MBA, P.Geo. – Chief Executive Officer and Director. Mr. Bowes has over 30 years of experience in the resource and engineering industries. He holds an MBA from Queens University and an Honors B.Sc., (Geology) from the University of Waterloo. Mr. Bowes was Senior Vice President of Orezone Gold Corporation (ORE:TSX) from February 2009 to June 2010, and was Vice President, Corporate Development of its predecessor, Orezone Resources Inc., from January 2004 until September 2005 and was Chief Financial Officer from October 2005 to March 2007, and from April 2008 to February 2009. From December 2006 until April 2008, Mr. Bowes served as President, CEO and a director of San Anton Resource Corporation (SNN:TSX). Mr. Bowes has an employment contract with the Corporation which includes non-disclosure agreements with the Corporation.

John McNeice, CPA, CA – Chief Financial Officer and Corporate Secretary. Mr. McNeice provides financial consulting and chief financial officer services to emerging private and junior public companies in the resource sector. Presently, Mr. McNeice is also CFO of Aura Resources Inc. (AUU:TSX-V) and Carube Copper Corp. (CUC:TSX-V) where he is responsible for financial and regulatory reporting as well as day-to-day financial management. From September 2004 to May 2007, Mr. McNeice was CFO of Ur-Energy Inc. (URE:TSX/URG:NYSE American), a uranium exploration and development company now a US based producer of uranium. He was a key member of the management team directly involved in the initial public offering on the TSX. During Mr. McNeice's tenure, Ur-Energy raised an aggregate of \$150 million in a series of private placements, the IPO and several significant secondary financings. From 1990 to 2003, Mr. McNeice worked in public accounting with PricewaterhouseCoopers LLP where his primary focus was providing audit and regulatory reporting advisory services to Canadian and US publicly listed clients. Mr. McNeice holds an Honours B.Comm. degree from McMaster University and is a Chartered Professional Accountant (Ontario).

W. Campbell Birge, B.A., B.Ed., M.Sc. – Director. Mr. Birge has over 20 years of experience advising public and private companies specializing in the resource, real estate and cannabis industries in Canada, the United States and Mexico. He also has over 20 years of experience in public and private education, including five years as Adjunct Professor of Business and twice elected Head of the Graduate Business Department at United States International University, Mexico City campus. He was the founder of Industrial Minerals Inc., the original owner of the Bisset Creek graphite project, and was responsible for the management change that led to the formation of Northern Graphite Corporation. Mr. Birge previously was the Vice-President of the Trust for Sustainable Development and was instrumental in successfully negotiating the \$3 billion Loreto Bay development project with the Mexican federal government. Mr. Birge is CEO and Director of CTT Pharmaceutical Holdings, Inc. He is a Director of Mojave Jane Brands Inc. In addition, he previously served as CFO of Australis Capital Inc.; CEO, President and Director of Industrial Minerals Inc.; CEO, President and Director of Ammex Gold; and, CFO and Director of Wind Works Power Corp.

Donald H. Christie, CPA, CA – Director. Mr. Christie is the President, CEO and a Director of Norvista Capital Corporation (NVV: TSX-V); a Director of Rockcliff Metals Corporation (RCLF:TSX-V) and the CFO and a Director of Nevada Zinc Corporation (NZN:TSX-V). (GGC:CSE). Mr. Christie is a Chartered Professional Accountant - Chartered Accountant. Mr. Christie formerly held the role of Chief Financial Officer at Rockcliff Copper Corporation as well as Continental Gold Limited (CNL:TSX). Prior to his involvement with Continental Gold Limited, Mr. Christie co-founded Ollerhead Christie & Company Ltd., a privately held Toronto investment banking firm which sourced, structured and syndicated debt private placements and provided financial advisory services to a client base comprised primarily of colleges, universities, school boards and provincial government agencies. Prior to founding Ollerhead Christie & Company Ltd., Mr. Christie served as a Managing Director of Newcourt Credit Group (TSX, NYSE), which subsequently combined with the CIT Group, Inc. While at Newcourt, Mr. Christie was involved in the structuring and syndication of over \$1.5 billion of transactions. Mr. Christie holds an Honours B.Comm. degree from Queen's University.

K. Sethu Raman, Ph.D - Director. Dr. Raman is a serial mine finder and a successful entrepreneur with more than 46 years of international experience in all phases of exploration, mine development, acquisitions and operations as well as experience in related financial and legal areas. He has pioneered many new exploration concepts and strategies which have led to the discovery of eleven significant gold, silver, copper, zinc, phosphate and uranium deposits located near established mining camps, seven of which went on to become producing gold mines in Canada. As President and CEO of

Holmer Gold Mines Ltd. (1985-2004) and Director and Advisor to Lake Shore Gold Corp. (2004-2016), Dr. Raman has been the driving force behind the discovery and development of the Timmins West Gold mine in a previously unknown extension of the Timmins Mine Trend which produced over 70 M ounces of gold. This new trend currently hosts several deposits and profitable mines operated by Lake Shore Gold which accepted a friendly \$945M takeover offer from Tahoe Resources Inc. (THO:TSX) in 2016. Dr. Raman previously spent 13 years with Campbell Chibougamau Mines/Campbell Resources and the Royex Gold Mining Group of companies controlled by Ned Goodman. He joined as a Research Geologist and held various management positions including Vice President from 1980 to 1986. He played a key role in the discovery and development of six gold mines in Quebec, Ontario and the Canadian Arctic increasing the group's market capitalization from \$25M to \$1B. Subsequently, these companies were sold to Home Stake Mining (now Barrick Gold) and Patino Mining Corp. Dr. Raman holds a Ph.D. in Geology from Carleton University, Ottawa and a Post-Graduate Diploma from the University of Vienna, Austria. Dr. Raman is currently a director of 55 North Mining Inc. (formerly SGX Resources Inc.).

Iain Scarr, B.Sc. (Geology), MBA - Director. Mr. Scarr is Chief Operating Officer and Vice President, Development & Exploration for Millennial Lithium Corp. (ML:TSX-V). He is founder and principal of IMEx Consulting, which provides business development, mining and marketing services to the industrial minerals industry. Mr. Scarr previously was Project Director for Enirgi Group at the Rincon lithium project in Argentina and prior to that was Country Manager and General Manager – Development for Galaxy Resources Limited's (GXY:ASX) Sal de Vida lithium and potash brine project. Mr. Scarr spent 30 years with Rio Tinto Exploration and was most recently Commercial Director and VP Exploration, Industrial Minerals Division. He holds a B.Sc. in Earth Sciences from California State Polytechnic University and an MBA from Marshall School of Business at the University of Southern California.

Shareholdings of Directors and Officers

As of the date of this Annual Information Form, the directors and executive officers of the Corporation, as a group, beneficially owned, directly or indirectly, or exercised control or direction over an aggregate of 3,706,336 shares, representing approximately 5.7% of the issued and outstanding shares of the Corporation.

Cease Trade Orders

Except as disclosed below, no director or executive officer of Northern is, as at the date of this Annual Information Form, or has been, within 10 years before the date of this Annual Information Form, a director, chief executive officer or chief financial officer of any company (including Northern) that was subject to a cease trade or similar order or an order that denied the relevant company access to any exemption under securities legislation that was (i) in effect for a period of more than 30 consecutive days, (ii) issued while the director or executive officer was acting in that capacity, or (iii) issued after that person ceased to act in that capacity but which resulted from an event that occurred while that person was acting in that capacity.

Gregory Bowes was a director of Mindesta from June 23, 2008 until September 17, 2014 and was the Chief Executive Officer and Chief Financial Officer of Mindesta from May 10, 2010 to August 20, 2014. On August 18, 2009, Mindesta, which is a Delaware corporation quoted on the over-the-counter bulletin board in the United States, was advised that the BCSC had issued a cease trade order against it for, prior to Mr. Bowes' involvement, failure to file a NI 43-101 compliant technical report in connection with the November 2007 announcement of a mineral resource estimate and the results of a preliminary assessment for the Bissett Creek Project and subsequent similar disclosure. The technical report had been completed and Mindesta's disclosure was consistent with it, but the report was not filed with the BCSC due to the financial difficulties being experienced by Mindesta. The BCSC issued a full revocation of the cease trade order effective March 10, 2011.

Dr. K. Sethu Raman is a director of SGX Resources Inc., an issuer that was subject to cease trade orders, imposed by the Manitoba Securities Commission on May 9, 2016 and the British Columbia Securities Commission on May 16, 2016, for failure to file annual financial statements within the period required by securities legislation. SGX Resources Inc., completed an application for revocation of its cease trade orders effective December 22, 2017.

Bankruptcies

No director or executive officer of Northern or, to the knowledge of Northern, any shareholder holding a sufficient number of securities of Northern to affect materially the control of Northern:

- (a) is, as of the date of this Annual Information Form, or has been within 10 years before the date of this Annual Information Form, a director or executive officer of any company (including Northern) that, while that person was acting in that capacity, or within a year of ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or
- (b) has, within 10 years before the date of this Annual Information Form, become bankrupt or made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold his assets.

Penalties or Sanctions

No director or executive officer of the Corporation or, to the knowledge of the Corporation, shareholder holding a sufficient number of securities of the Corporation to affect materially the control of the Corporation, has been subject to: (a) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or (b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

Conflicts of Interest

As at the date hereof, the Corporation is not aware of any existing or potential material conflicts of interest between the Corporation and any director or officer of the Corporation.

Certain of the directors of the Corporation serve as directors or officers of, or provide consulting services to, other resource companies or may have significant shareholdings in other public or private resource companies which may compete with the Corporation. Situations may arise in connection with potential acquisitions, investments or other transactions where the interests of these directors may actually or potentially conflict with the interests of the Corporation. The Corporation intends to establish procedures and practices to minimize the frequency and extent of conflicts of interest and to resolve or deal with them in a manner which protects the interests of the Corporation and its shareholders, including disclosure of actual or perceived conflicts and having independent directors review and deal with such conflicts. The *Business Corporations Act* (Ontario) requires written disclosure if a director or officer of the Corporation is a party to a material contract or proposed material contract or is a director or officer of, or has a material interest in, any material contract or proposed material contract, with the Corporation and subject to certain exceptions, requires the director to abstain from voting on the matter.

Committees of the Board of Directors

The Board of Directors has established three committees as described below, the Audit Committee, the Compensation and Nomination Committee and the Corporate Governance Committee.

Audit Committee

The Audit Committee is comprised of Messrs. Christie CPA, CA, Birge and Raman. The Audit Committee has been structured to comply with National Instrument 52-110 - *Audit Committees* ("NI 52-110"). Each member of the Audit Committee is financially literate within the meaning of NI 52-110. In addition, each member of the Audit Committee is independent within the meaning of NI 52-110.

The Audit Committee oversees the accounting and financial reporting practices and procedures of the Corporation, and the audits of the Corporation's financial statements. The principal responsibilities of the Audit Committee include: (i) overseeing the quality and integrity of the internal controls and accounting procedures of the Corporation, including reviewing the Corporation's procedures for internal control with the Corporation's auditor and Chief Financial Officer; (ii) reviewing and assessing the quality and integrity of the Corporation's annual and quarterly financial statements and related management's discussion and analysis, as well as all other material continuous disclosure documents, such as the Corporation's annual information form; (iii) monitoring compliance with legal and regulatory requirements related to financial reporting; (iv) reviewing and approving the engagement of the auditor of the Corporation and independent audit fees; (v) reviewing the qualifications, performance and independence of the auditor of the Corporation, considering the auditor's recommendations and managing the relationship with the auditor, including meeting with the auditor as required in connection with the audit services provided by the Corporation; (vi) reviewing the Corporation's risk management procedures; (vii) reviewing any significant transactions outside the Corporation's ordinary course of business and any pending litigation involving the Corporation; and (viii) examining improprieties or suspected improprieties with respect to accounting and other matters that affect financial reporting.

Compensation and Nomination Committee

The Compensation and Nomination Committee is comprised of Messrs. Christie, Raman and Scarr. Each member of the Compensation and Nomination Committee is independent within the meaning of National Policy 58-201 – *Corporate Governance Guidelines* (“NP 58-201”).

The Compensation and Nomination Committee oversees the remuneration, nomination and appointment policies and practices of the Corporation. The principal responsibilities of the Compensation and Nomination Committee include: (i) considering the Corporation's overall remuneration strategy and, where information is available, verifying the appropriateness of existing remuneration levels using external sources for comparison; (ii) comparing the nature and amount of the Corporation's directors' and executive officers' compensation to performance against goals set for the year while considering relevant comparative information, independent expert advice and the financial position of the Corporation; (iii) making recommendations to the Board of Directors in respect of director and executive officer remuneration matters with the overall objective of ensuring maximum shareholder benefit from the retention of high quality board and executive team members; (iv) considering nominees for independent directors of the Corporation; and (v) planning for the succession of directors and executive officers of the Corporation, including appointing, training and monitoring senior management to ensure that the Board of Directors and management have appropriate skill and experience.

Corporate Governance Committee

The Corporate Governance Committee is comprised of Messrs. Birge, Raman and Scarr. Each member of the Corporate Governance Committee is independent within the meaning of NP 58-201.

The Corporate Governance Committee oversees the Corporation's approach to corporate governance matters. The principal responsibilities of the Corporate Governance Committee include: (i) monitoring and overseeing the quality and effectiveness of the corporate governance practices and policies of the Corporation; (ii) adopting and implementing corporate communications policies and ensuring the effectiveness and integrity of communication and reporting to the Corporation's shareholders and the public generally; and (iii) administering the Board of Directors' relationship with the management of the Corporation.

Directors' and Officers' Liability Insurance

The Corporation carries directors' and officers' liability insurance. The Corporation does not maintain any key man insurance.

AUDIT COMMITTEE INFORMATION

Audit Committee Charter

The charter for the Corporation's Audit Committee is attached as Appendix "A" to this Annual Information Form.

Composition of the Audit Committee

The Audit Committee of the Corporation is comprised of Donald Christie CPA, CA, W. Campbell Birge and K. Sethu Raman. Mr. Christie serves as Chairman of the Audit Committee. The Audit Committee has been structured to comply with NI 52-110. Each member of the Audit Committee is financially literate within the meaning of NI 52-110. In addition, each member of the Audit Committee is independent within the meaning of NI 52-110.

Relevant Education and Experience

Each member of the Corporation's Audit Committee has adequate education and experience that is relevant to their performance as an Audit Committee member and, in particular, education and experience that have provided the member with: (a) an understanding of the accounting principles used by the Corporation to prepare its financial statements and the ability to assess the general application of those principles in connection with estimates, accruals and reserves; (b) experience preparing, auditing, analyzing or evaluating financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the Corporation's financial statements or experience actively supervising individuals engaged in such activities; and (c) an understanding of internal controls and procedures for financial reporting. In particular: (i) Mr. Christie is a Chartered Professional Accountant – Chartered Accountant with many years of experience with financial reporting and public companies, and he is currently President and CEO of Norvista Capital Corporation; (ii) Mr. Birge has over 20 years of experience advising public and private companies specializing in the resource, real estate and cannabis industries in Canada, the United States and Mexico. He also has over 20 years of experience in public and private education, including five years as Adjunct Professor of Business and twice elected Head of the Graduate Business Department at United States International University, Mexico City campus; and, (iii) Dr. Raman is an entrepreneur with more than 46 years of international experience in all phases of exploration, mine development, acquisitions and operations as well as experience in related financial and legal areas. In these capacities, they have become familiar with and had experience preparing, analyzing or evaluating financial statements and reporting requirements for public companies or actively supervising individuals engaged in such activities, and have developed an understanding of the accounting principles used by the Corporation to prepare its financial statements and an understanding of internal controls and procedures for financial reporting.

Reliance on Certain Exemptions

At no time since the commencement of the Corporation's most recently completed financial year has the Corporation relied upon any exemptions under NI 52-110.

Audit Committee Oversight

At no time since the commencement of the Corporation's most recently completed financial year was a recommendation of the Audit Committee to nominate or compensate an external auditor not adopted by the Corporation's Board of Directors.

Pre-Approval Policy

The Corporation has not yet adopted any specific policies or procedures for the engagement of non-audit services. Such matters are the subject of review and pre-approval by the Audit Committee.

External Auditor Service Fees

The aggregate fees billed by the Corporation's auditors, MNP LLP, Chartered Professional Accountants, in each of the last two financial years of the Corporation are as follows:

Financial Year Ending	Audit Fees ⁽¹⁾	Audit Related Fees ⁽²⁾	Tax Fees ⁽³⁾	All Other Fees ⁽⁴⁾
December 31, 2019	\$24,200	Nil	\$2,250	Nil
December 31, 2018	\$23,000	Nil	\$2,200	Nil

Notes:

- (1) The aggregate audit fees billed.
- (2) The aggregate fees billed for assurance and related services that are reasonably related to the performance of the audit or review of the Corporation's financial statements which are not included under the heading "Audit Fees".
- (3) The aggregate fees billed for professional services rendered for tax compliance, tax advice and tax planning.
- (4) The aggregate fees billed for products and services other than as set out under the headings "Audit Fees", "Audit Related Fees" and "Tax Fees".

PROMOTERS

Gregory Bowes, CEO of the Corporation, took the initiative to finance and reorganize the affairs of the Corporation and accordingly may be considered to be a promoter of the Corporation within the meaning of applicable securities legislation. Mr. Bowes beneficially owns or controls 2,664,594 common shares of the Corporation representing approximately 4.1% of the issued and outstanding common shares. Mr. Bowes is compensated for the services he provides to the Corporation in his capacity as CEO at a base salary of \$180,000 per year, which was voluntarily reduced from \$250,000 after 2018, in accordance with the provisions of his employment agreement with the Corporation. See "Directors and Officers".

LEGAL PROCEEDINGS AND REGULATORY ACTIONS

The Corporation is not and was not during the financial year ended December 31, 2019 a party or subject to any legal proceedings involving the Corporation or any of its property.

No penalties or sanctions are or were during the financial year ended December 31, 2019 imposed against the Corporation by a court relating to securities legislation or by a securities regulatory authority. No other penalties or sanctions are or were during the financial year ended December 31, 2019 imposed by a court or regulatory body against the Corporation that would likely be considered important to a reasonable investor in making an investment decision. The Corporation has not entered into at present or during the financial year ended December 31, 2019 any settlement agreements before a court relating to securities legislation or with a securities regulatory authority.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Other than as disclosed in this Annual Information Form, no director or executive officer of the Corporation or any person or company that is the direct or indirect beneficial owner of, or who exercise control or direction over, more than 10% of any class or series of the Corporation's outstanding voting securities, or any associate or affiliate of any of such persons or companies, had any material interest, direct or indirect, in any transactions which materially affected or would materially affect the Corporation, occurring during the year ended December 31, 2018.

REGISTRAR AND TRANSFER AGENT

The transfer agent and registrar of the Corporation is TSX Trust Company at its principal office in Toronto, Ontario.

MATERIAL CONTRACTS

The Corporation has no material contracts, other than contracts entered into in the ordinary course of business, that were entered into during the financial year ended December 31, 2019, or that were entered into before the financial year ended December 31, 2019 that are still in effect.

INTERESTS OF EXPERTS

Certain information in this Annual Information Form on the Bissett Creek Project is summarized from the 2013 Technical Report. The 2013 Technical Report was prepared by Marc Leduc, P.Eng., together with Pierre Desautels, P.Geo., Principal Resource Geologist, and Gordon Zurowski, P.Eng., Principal Mining Engineer, both of AGP. Each of Messrs. Leduc, Desautels and Zurowski is a “qualified person” under NI 43-101 and is independent of the Corporation. As of the date hereof, to the Corporation’s knowledge, none of Messrs. Leduc, Desautels or Zurowski, nor any of the directors, officers, principals and associates of AGP, own beneficially, directly or indirectly, or exercise control or direction over, any of the securities or other property of the Corporation.

MNP LLP, Chartered Professional Accountants, of Vancouver, British Columbia, are the Corporation’s auditors and such firm has prepared an opinion with respect to the Corporation’s financial statements as at and for the years ended December 31, 2019 and 2018. MNP LLP, Chartered Professional Accountants are independent of the Corporation in accordance with the Rules of Professional Conduct as outlined by the British Columbia Institute of Chartered Professional Accountants.

RISK FACTORS

An investment in the Corporation is subject to risks and uncertainties. The occurrence of any one or more of these risks or uncertainties could have a material adverse effect on the value of any investment in the Corporation and the business, prospects, financial position, financial condition or operating results of the Corporation. Prospective investors should carefully consider the information presented in this Annual Information Form, including the following risk factors, which are not an exhaustive list of all risk factors associated with an investment in the Corporation or the Corporation’s shares or in connection with the operations of the Corporation:

Exploration Stage Company and Single Asset

The Corporation has a limited history of operations and is in the early stage of development. The Corporation is engaged in the business of exploring and developing a single asset, the Bissett Creek Project, in the hope of ultimately bringing the Bissett Creek Project into production. There can be no assurance that any of the Corporation’s planned development activities on the Bissett Creek Project will ever lead to graphite production from the Bissett Creek Project. The Bissett Creek Project will be the Corporation’s sole asset for the foreseeable future. Although management believes the Bissett Creek Project has sufficient merit to justify focusing all the Corporation’s limited resources upon it, the Corporation will in consequence be exposed to some heightened degree of risk due to the lack of property diversification.

Mineral Exploration and Development

The exploration and development of mineral projects is highly speculative in nature and involves a high degree of financial and other risks over a significant period of time which even a combination of careful evaluation, experience and knowledge may not reduce or eliminate. The Bissett Creek Project, which constitutes the Corporation’s sole asset, is known to host measured, indicated and inferred resources and a probable reserve. However, there are no guarantees that the probable reserve will be profitable to mine, and there are no guarantees that there will ever be a profitable mining operation on the Bissett Creek Project. Development of the Bissett Creek Project will only follow upon completion of species at risk permitting, receipt of operational and environmental authorization permits, completion of detailed engineering work, and receipt of additional financing to construct a mine. There can be no assurance that any of the Corporation’s planned development activities on the Bissett Creek Project will ever lead to graphite production. In addition, the proposed development program on the Bissett Creek Project is subject to a significant degree of risk. Whether a mineral deposit will be commercially viable depends on a number of factors, including the particular attributes of the deposit (i.e. size, grade, access and proximity to infrastructure), financing costs, the cyclical nature of commodity prices and government regulations (including those relating to prices, taxes, currency controls, royalties,

land tenure, land use, importing and exporting of mineral products, and environmental protection). The effect of these factors or a combination thereof cannot be accurately predicted but could have an adverse impact on the Corporation.

Commodity Prices

The price of the Corporation's securities, its financial results and its exploration, development and mining activities have previously been, or may in the future be, significantly adversely affected by declines in the price of graphite. Industrial mineral prices fluctuate widely and are affected by numerous factors beyond the Corporation's control such as the sale or purchase of industrial minerals by various dealers, interest rates, exchange rates, inflation or deflation, currency exchange fluctuation, global and regional supply and demand, production and consumption patterns, speculative activities, increased production due to improved mining and production methods, government regulations relating to prices, taxes, royalties, land tenure, land use, importing and exporting of minerals, environmental protection, the degree to which a dominant producer uses its market strength to bring supply into equilibrium with demand, and international political and economic trends, conditions and events. The prices of industrial minerals have fluctuated widely in recent years, and future price declines could cause continued exploration and development of the Bissett Creek Project to be impracticable.

Further, reserve calculations and life-of-mine plans using significantly lower graphite prices could result in material write-downs of the Corporation's investment in the Bissett Creek Project and increased amortization, reclamation and closure charges.

In addition to adversely affecting reserve estimates and the Corporation's financial condition, declining graphite prices can impact operations by requiring a reassessment of the feasibility of a particular project. Such a reassessment may be the result of a management decision or may be required under financing arrangements related to a particular project. Even if the project is ultimately determined to be economically viable, the need to conduct such a reassessment may cause substantial delays or may interrupt operations until the reassessment can be completed.

No History of Mineral Production

The Corporation has never had an interest in a mineral producing property. There is no assurance that commercial quantities of minerals will be discovered on any future properties, nor is there any assurance that any future exploration and development programs of the Corporation on the Bissett Creek Project or any future properties will yield positive results. Even where commercial quantities of minerals are discovered, there can be no assurance that any property of the Corporation will ever be brought to a stage where mineral reserves can be profitably produced thereon. Factors which may limit the ability of the Corporation to produce mineral resources from its properties include, but are not limited to, the commodity price, the availability of additional capital and financing and the nature of any mineral deposits.

Mining Operations and Insurance

Mining operations generally involve a high degree of risk. The Corporation's operations will be subject to all of the hazards and risks normally encountered in mineral exploration and development. Such risks include unusual and unexpected geological formations, seismic activity, rock bursts, cave-ins, water inflows, fires and other conditions involved in the drilling and removal of material, environmental hazards, industrial accidents, periodic interruptions due to adverse weather conditions, labor disputes, political unrest and theft. The occurrence of any of the foregoing could result in damage to, or destruction of, mineral properties or interests, production facilities, personal injury, damage to life or property, environmental damage, delays or interruption of operations, increases in costs, monetary losses, legal liability and adverse government action. The Corporation does not currently carry insurance against these risks and there is no assurance that such insurance will be available in the future, or if available, at economically feasible premiums or acceptable terms. The potential costs associated with losses or liabilities not covered by insurance coverage may have a material adverse effect upon the Corporation's financial condition.

Cost Overruns, Delays and Construction Risk

The Corporation has not initiated development on the Bissett Creek Project site nor does it currently have the funds to initiate such development. However, subject to securing future mine development financing, the Corporation may encounter risks associated to potential cost overruns, delays and construction.

Limited Operating History and Financial Resources

The Corporation has a limited operating history, has no operating revenues and is unlikely to generate any revenues from operations in the immediate future. Additional funds will be required to bring the Bissett Creek Project to production. The Corporation has limited financial resources and there is no assurance that the Corporation will be able to raise sufficient additional funding to fulfill its obligations or for further exploration and development on acceptable terms or at all. Failure to obtain additional funding on a timely basis could result in delay or indefinite postponement of further exploration and development and could cause the Corporation to reduce or terminate its operations. Additional funds raised by the Corporation from treasury share issuances may result in further dilution to the shareholders of the Corporation or a change of control.

Governmental and Environmental Regulation, Permits and Compliance

The future operations of the Corporation, including exploration and development activities and the commencement and continuation of commercial production, require licenses, permits or other approvals from various federal, provincial and local governmental authorities and such operations are or will be governed by laws and regulations relating to prospecting, development, mining, production, exports, taxes, labor standards, occupational health and safety, waste disposal, toxic substances, land use, water use, environmental protection, land claims of indigenous people and other matters. The Corporation believes that the Bissett Creek Project is in substantial compliance with all material laws and regulations which currently apply to its activities. There can be no assurance, however, that the Corporation will obtain on reasonable terms or at all the permits and approvals, and the renewals thereof, which it may require for the conduct of its future operations or that compliance with applicable laws, regulations, permits and approvals will not have an adverse effect on plans to develop the Bissett Creek Project. Possible future environmental and mineral tax legislation, regulations and actions could cause additional expense, capital expenditures, restrictions and delay on the Corporation's planned exploration and operations, the extent of which cannot be predicted.

Failure to comply with applicable laws, regulations and permitting requirements may result in enforcement actions thereunder, including orders issued by regulatory or judicial authorities causing operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment, or remedial actions. Parties engaged in mining operations may be required to compensate those suffering loss or damage by reason of the mining activities and may have civil or criminal fines or penalties imposed for violations of applicable laws or regulations.

Proprietary Technologies

The Corporation's proprietary technologies and processes (the "**Proprietary Processes**") for producing spherical graphite (purification and coating) will require further validation and testing. It is possible that such testing may determine that they do not achieve desired results or that the Proprietary Processes are not economically scalable to commercial quantities, in which case the Corporation would be restricted to conventional markets.

Intellectual Property Protection

The Corporation does not have patents on the Proprietary Processes and, presently, relies upon trade secrets to maintain the confidentiality and proprietary nature of the Proprietary Processes. The Corporation filed final patent applications during January 2019 and previously had filed a provisional patent application during January 2018.

Results of Prior Exploration Work

In preparing the FS, the FS Update, the Expansion PEA and the Expansion PEA Update, the authors of such studies and assessments relied upon data generated by exploration work carried out by geologists employed by others. There is no guarantee that data generated by prior exploration work is 100% reliable and discrepancies in such data not discovered by the Corporation or such authors may exist. Such errors and/or discrepancies, if they exist, could impact on the accuracy of the FS, the FS Update, the Expansion PEA and the Expansion PEA Update.

Reliance on Management and Experts

The success of the Corporation will be largely dependent upon the performance of its senior management and directors. Due to the relative small size of the Corporation, the loss of these persons or the inability of the Corporation to attract and retain additional highly skilled employees may adversely affect its business and future operations. The Corporation has not purchased any "key-man" insurance nor has it entered into any non-competition or non-disclosure agreements with any of its directors, officers or key employees and has no current plans to do so.

The Corporation has hired and may continue to rely upon consultants and others for geological and technical expertise. The Corporation's current personnel may not include persons with sufficient technical expertise to carry out the future development of the Corporation's properties. There is no assurance that suitably qualified personnel can be retained or will be hired for such development.

Competition

The mineral exploration and mining business is competitive in all of its phases. The Corporation competes with numerous other companies and individuals, including competitors with greater financial, technical and other resources, in the search for and the acquisition of attractive mineral properties. The mining industry is facing a shortage of equipment and skilled personnel and there is intense competition for experienced geologists, field personnel, contractors and management. There is no assurance that the Corporation will be able to compete successfully with others in acquiring such equipment or personnel.

Conflicts of Interest

Certain of the directors and officers of the Corporation also serve as directors and/or officers of other companies involved in natural resource exploration and development and consequently, there exists the possibility for such directors and officers to be in a position of conflict. Any decision made by any of such directors and officers involving the Corporation should be made in accordance with their fiduciary duties and obligations to deal fairly and in good faith with a view to the best interests of the Corporation and its shareholders.

In addition, each of the directors is required to declare and refrain from voting on any matter in which such directors may have a conflict of interest in accordance with the procedures set forth in the *Business Corporations Act* (Ontario) and other applicable laws.

Competitive Conditions

The mineral exploration and mining business is competitive in all phases of exploration, development and production. The Corporation competes with a number of other entities in the search for and acquisition of productive mineral properties. As a result of this competition, the majority of which is with companies with greater financial resources than the Corporation, the Corporation may be unable to acquire attractive properties in the future on terms it considers acceptable. The Corporation also competes for financing with other resources companies, many of whom have greater financial resources and/or more advanced properties. There can be no assurance that additional capital or other types of financing will be available if needed or that, if available, the terms of such financing will be favorable to the Corporation.

Title to Property

The Corporation has carefully examined the historical record of ownership of the registered surface and mineral rights for the claims comprising the Bissett Creek Project, and the leasehold interests comprising the Bissett Creek Project, and has established and confirmed that ownership thereof is valid and secure and that title is properly registered. However, there can be no assurance or guarantee that the Corporation's interests in the Bissett Creek Project may not be challenged. There can be no assurance that the Corporation will be able to secure the grant or the renewal of exploration permits or other tenures on terms satisfactory to it, or that governments having jurisdiction over the Bissett Creek Project will not revoke or significantly alter such permits or other tenures or that such permits and tenures will not be challenged or impugned. It is always possible, though unlikely, that third parties may have valid claims not appearing in the historical record underlying portions of the interests of the Corporation and the permits or tenures may be subject to prior unregistered agreements or transfers or native land claims and title may be affected by undetected defects. If a title defect exists, it is possible that the Corporation may lose all or part of its interest in the properties to which such defects relate.

Aboriginal Land Claims

At the present time, the lands comprising the Bissett Creek Project are the subject of an aboriginal land claim by the Algonquins of Ontario ("AOO"). The Corporation has been in continual consultations with the AOO and has begun the process of negotiating an Impact Benefits Agreement ("IBA"). To date the AOO have expressed support for the Bissett Creek Project and have shown interest in economic development. However, the negotiation of an IBA is subject to many factors beyond the Corporation's control and there is no guarantee or assurance that the Corporation will be successful. The Ministry of Natural Resources and Forestry has also asked the Corporation to consult with the Metis Nation of

Ontario (“MNO”) as part of its Class Environmental Assessment. These consultations could also lead to an IBA with the MNO.

The Corporation is not aware of any other aboriginal land claims having been asserted or any legal actions relating to native issues having been instituted with respect to any of the lands comprising the Bissett Creek Project.

The legal basis of a land claim is a matter of considerable legal complexity and the impact of a land claim settlement and self-government agreements cannot be predicted with certainty. In addition, no assurance can be given that a broad recognition of aboriginal rights by way of a negotiated settlement or judicial pronouncement would not have an adverse effect on the Corporation’s activities. Such impact could be material and, in certain circumstances, could delay or even prevent the Corporation’s mineral exploration and mining activities.

Environmental Risks and Hazards

All phases of the Corporation’s operations will be subject to environmental regulation in the jurisdictions in which it operates. These regulations mandate, among other things, the maintenance of air and water quality standards and land reclamation and provide for restrictions and prohibitions on spills, releases or emissions of various substances produced in association with certain mining industry activities and operations. They also set forth limitations on the generation, transportation, storage and disposal of hazardous waste. A breach of such regulation may result in the imposition of fines and penalties. In addition, certain types of mining operations require the submission and approval of environmental impact assessments. Environmental legislation is evolving in a manner which will require stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their officers, directors and employees. The cost of compliance with changes in governmental regulations has the potential to reduce the viability or profitability of operations of the Corporation. The Bissett Creek Project has, over the course of the past two decades, been subject to several environmental studies. Additional environmental studies will, however, be required as the Corporation’s anticipated exploration and development programs unfold. It is always possible that, as work proceeds, environmental hazards may be identified on the Bissett Creek Project which are at present unknown to the Corporation and which may have the potential to negatively impact on the Corporation’s exploration and development plans for the Bissett Creek Project.

Cost of Land Reclamation

It is difficult to determine the exact amounts which will be required to complete all land reclamation activities on the Bissett Creek Project. Reclamation bonds and other forms of financial assurance represent only a portion of the total amount of money that will be spent on reclamation activities over the life of a mine. Accordingly, it may be necessary to revise planned expenditures and operating plans in order to fund reclamation activities. Such costs may have a material adverse impact upon the financial condition and results of operations of the Corporation.

Infrastructure

Mining, processing, development and exploration activities depend on adequate infrastructure. Reliable roads, bridges, power sources and water supply are important requirements, which affect capital and operating costs. Although the Bissett Creek Project can be accessed by a good quality all-weather road and labor, power, rail lines and water are all readily available, unusual or infrequent weather phenomena, sabotage, government or other interference in the maintenance or provision of such infrastructure could adversely affect the Corporation’s future operations, financial condition and results of operations.

Commodity Prices

The price of the Corporation’s securities, its financial results and its exploration, development and mining activities have previously been, or may in the future be, significantly adversely affected by declines in the price of graphite. Industrial mineral prices fluctuate widely and are affected by numerous factors beyond the Corporation’s control such as the sale or purchase of industrial minerals by various dealers, interest rates, exchange rates, inflation or deflation, currency exchange fluctuation, global and regional supply and demand, production and consumption patterns, speculative activities, increased production due to improved mining and production methods, government regulations relating to prices, taxes, royalties, land tenure, land use, importing and exporting of minerals, environmental protection, the degree to which a dominant producer uses its market strength to bring supply into equilibrium with demand, and international political and economic trends, conditions and events. The prices of industrial minerals have fluctuated

widely in recent years, and future price declines could cause continued exploration and development of the Bissett Creek Project to be impracticable.

Further, reserve calculations and life-of-mine plans using significantly lower graphite prices could result in material write-downs of the Corporation's investment in the Bissett Creek Project and increased amortization, reclamation and closure charges.

In addition to adversely affecting reserve estimates and the Corporation's financial condition, declining graphite prices can impact operations by requiring a reassessment of the feasibility of the Bissett Creek Project. Such a reassessment may be the result of a management decision or may be required under financing arrangements related to the project. Even if the project is ultimately determined to be economically viable, the need to conduct such a reassessment may cause substantial delays or may interrupt operations until the reassessment can be completed.

Price Volatility and Lack of Active Market

In recent years, securities markets in Canada and elsewhere have from time to time experienced high levels of price and volume volatility. Consequently, the market prices of the securities of many public companies have experienced significant fluctuations in price which have not necessarily been related to the operating performance, underlying asset values or prospects of such companies. It may be anticipated that any quoted market for the Corporation's securities will be subject to such market trends and that the value of such securities may be affected accordingly. If an active market does not develop, the liquidity of the investment may be limited and the market price of such securities may decline.

Litigation

From time to time, the Corporation may be involved in lawsuits. The outcomes of any such legal actions may have a material adverse effect on the financial results of the Corporation on an individual or aggregate basis.

Dividends

The Corporation has no earnings or dividend record and does not anticipate paying any dividends on its common shares in the foreseeable future.

Global outbreak of COVID-19

Subsequent to year-end, there was a global outbreak of COVID-19 (coronavirus), which has had a significant impact on businesses through the restrictions put in place by the Canadian, provincial and municipal governments regarding travel, business operations and isolation/quarantine orders. At this time, it is unknown the extent of the impact the COVID-19 outbreak may have on the Company as this will depend on future developments that are highly uncertain and that cannot be predicted with confidence. These uncertainties arise from the inability to predict the ultimate geographic spread of the disease, and the duration of the outbreak, including the duration of travel restrictions, business closures or disruptions, and quarantine/isolation measures that are currently, or may be put, in place by Canada and other countries to fight the virus. While the extent of the impact is unknown, this outbreak may hinder the Company's ability to raise financing to build the Bissett Creek Project due to uncertain capital markets, reduced customer demand, supply chain disruptions, increased government regulations and other unanticipated factors, all of which may also negatively impact the Company's business and financial condition.

ADDITIONAL INFORMATION

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Corporation's securities, and securities authorized for issuance under equity compensation plans, is contained in the Corporation's information circular dated May 10, 2019 for the most recent annual meeting of the Corporation's shareholders held on June 25, 2019. Additional information is provided in the Corporation's audited financial statements and the Corporation's management discussion and analysis for the year ended December 31, 2019. Copies of the foregoing documents may be obtained by shareholders upon request from the Corporate Secretary of the Corporation. These documents, as well as additional information relating to the Corporation, are available on SEDAR under the Corporation's SEDAR profile at www.sedar.com.

SCHEDULE “A”
CHARTER OF THE AUDIT COMMITTEE
NORTHERN GRAPHITE CORPORATION
(the “Corporation”)

I. Purpose

The Audit Committee is a committee of the Board of Directors which assists the Board in overseeing the Corporation’s financial controls and reporting and in fulfilling its legal and fiduciary obligations with respect to matters involving the accounting, auditing, financial reporting, internal control and legal compliance functions of the Corporation. The Audit Committee’s primary duties and responsibilities are to:

- Oversee: (i) the integrity of the Corporation’s financial statements; (ii) the Corporation’s compliance with legal and regulatory requirements with respect to financial controls and reporting; and (iii) the auditors’ qualifications and independence.
- Serve as an independent and objective party to monitor the Corporation’s financial reporting processes and internal control systems.
- Review and appraise the audit activities of the Corporation’s independent auditors.
- Provide open lines of communication among the independent auditors, financial and senior management and the Board of Directors for financial reporting and control matters.

II. Composition

Members of the Audit Committee are appointed and removed by the Board of Directors. The Board shall designate annually the members of the Committee and a Chairman of the Committee. The Committee will be comprised of at least three directors, each of whom qualifies as an independent director, as determined by the Board¹. All members should have skills and/or experience which are relevant to the mandate of the Committee, as determined by the Board. All members of the Committee shall be financially literate at the time of their election to the Committee. “Financial literacy” shall be determined by the Board of Directors in the exercise of its business judgment, and shall include a working familiarity with basic finance and accounting practices and an ability to read and understand financial statements that present a breadth and level of complexity of the issues that can reasonably be expected to be raised by the Corporation’s financial statements. Committee members, if they or the Board of Directors deem it appropriate, may enhance their understanding of finance and accounting by participating in educational programs conducted by the Corporation or an outside consultant or firm.

III. Responsibilities

The responsibilities of the Audit Committee shall generally include, but not be restricted to, undertaking the following:

Selection and Evaluation of Auditors

- (a) Recommending to the Board of Directors the external auditors (subject to shareholder approval) to be engaged to prepare or issue an auditor’s report or performing other audit, review or attest services for the Corporation and the compensation of such external auditors.
- (b) Overseeing the independence of the Corporation’s auditors and taking such actions as it may deem necessary to satisfy it that the Corporation’s auditors are independent within the meaning of applicable securities laws by, among other things: (i) requiring the independent auditors to deliver to the Committee

¹ Determined in accordance with National Instrument 52-110 – *Audit Committees*.

on a periodic basis a formal written statement delineating all relationships between the independent auditors and the Corporation; and (ii) actively engaging in a dialogue with the independent auditors with respect to any disclosed relationships or services that may impact the objectivity and independence of the independent auditors and taking appropriate action to satisfy itself of the auditors' independence.

- (c) Instructing the Corporation's independent auditors that: (i) they are ultimately accountable to the Committee (as representatives of the shareholders of the Corporation); (ii) they must report directly to the Committee; and (iii) the Committee is responsible for the appointment (subject to shareholder approval), compensation, retention, evaluation and oversight of the Corporation's independent auditors.
- (d) Ensuring the respect of legal requirements regarding the rotation of applicable partners of the external auditors, on a regular basis, as required.
- (e) Reviewing and pre-approving all audit and permitted non-audit services or mandates to be provided by the independent auditors to the Corporation or any of its subsidiaries, including tax services, and the proposed basis and amount of the external auditors' fees for such services, and determining which non-audit services the auditors are prohibited from providing (and adopting specific policies and procedures related thereto).
- (f) Reviewing the performance of the Corporation's independent auditors and replacing or terminating the independent auditors (subject to required shareholder approvals) when circumstances warrant.

Oversight of Annual Audit

- (a) Reviewing and accepting, if appropriate, the annual audit plan of the Corporation's independent auditors, including the scope, extent and schedule of audit activities, and monitoring such plan's progress and results during the year.
- (b) Confirming through private discussions with the Corporation's independent auditors and the Corporation's management that no management restrictions are being placed on the scope of the independent auditors' work.
- (c) Reviewing with the external auditors any audit problems or difficulties and management's response thereto and resolving any disagreement between management and the external auditors regarding accounting and financial reporting.
- (d) Reviewing with management and the external auditors the results of the year-end audit of the Corporation, including: (i) the annual financial statements and the audit report, the related management representation letter, the related "Memorandum Regarding Accounting Procedures and Internal Control" or similar memorandum prepared by the Corporation's independent auditors, any other pertinent reports and management's responses concerning such memorandum; and (ii) the qualitative judgments of the independent auditors about the appropriateness and not just the acceptability of accounting principles and financial disclosure practices used or proposed to be adopted by the Corporation including any alternative treatments of financial information that have been discussed with management, the ramification of their use and the independent auditor's preferred treatment as well as any other material communications with management and, particularly, about the degree of aggressiveness or conservatism of its accounting principles and underlying estimates.

Oversight of Financial Reporting Process and Internal Controls

- (a) Reviewing with management and the external auditors the annual financial statements and accompanying notes, the external auditors' report thereon and the related press release, and obtaining explanations from management on all significant variances with comparative periods, before recommending approval by the Board and the release thereof.
- (b) Reviewing with management the quarterly financial statements and any auditors' review thereof before recommending approval by the Board and the release thereof.
- (c) Reviewing and periodically assessing the adequacy of the Corporation's procedures for the Corporation's public disclosure of financial information extracted or derived from the Corporation's financial statements, including reviewing the financial information contained in the annual information form, management proxy circular, management's discussion and analysis and other documents containing similar financial information before their public disclosure or filing with regulatory authorities, including the audit committee's report for inclusion in the Corporation's management information circular in accordance with applicable rules and regulations.
- (d) Periodically reviewing the Corporation's disclosure policy to ensure that it conforms with applicable legal and regulatory requirements.
- (e) Reviewing the adequacy and effectiveness of the Corporation's accounting and internal control policies and procedures through inquiry and discussions with the Corporation's independent auditors and management of the Corporation.
- (f) Monitoring the quality and integrity of the Corporation's disclosure controls and procedures and management information systems through discussions with management and the external auditors.
- (g) Overseeing management's reporting on internal controls and disclosure controls and procedures.
- (h) Reviewing on a regular basis and monitoring the Corporation's policies and guidelines which govern the Corporation's risk assessment and risk management, including the Corporation's major financial risk exposures and the steps management has taken to monitor and control such exposures, including hedging policies through the use of financial derivatives.
- (i) Establishing and maintaining free and open means of communication between and among the Board of Directors, the Committee, the Corporation's independent auditors and management.

Other Matters

- (a) Assisting the Board with oversight of the Corporation's compliance with applicable legal and regulatory requirements, including meeting with general counsel and outside counsel when appropriate to review legal and regulatory matters, including any matters that may have a material impact on the financial statements of the Corporation.
- (b) Reviewing and approving any transactions between the Corporation and members of management and/or the Board as well as policies and procedures with respect to officers' expense accounts and perquisites, including the use of corporate assets. The Committee shall consider the results of any review of these policies and procedures by the Corporation's independent auditors.
- (c) Conducting or authorizing investigations into any matters within the Committee's scope of responsibilities, including retaining outside counsel or other consultants or experts as the Committee determines necessary to carry out its duties and to set and pay the compensation for these advisors.

- (d) Establishing procedures for the receipt, retention and treatment of complaints received by the Corporation regarding accounting, internal accounting controls or auditing matters and the confidential, anonymous submission by employees of the Corporation of concerns regarding questionable accounting or auditing matters.
- (e) Establishing procedures for the review and approval of financial and related information of the Corporation.
- (f) Reviewing and approving the Corporation's hiring policies regarding partners, employees and former partners and employees of the present and former external auditors of the Corporation.
- (g) Performing such additional activities, and considering such other matters, within the scope of its responsibilities, as the Committee or the Board of Directors deems necessary or appropriate.

IV. Meetings and Advisors

The Committee will meet as often as it deems necessary or appropriate to perform its duties and carry out its responsibilities described above in a timely manner, but not less than quarterly. The quorum at any meeting of the Committee shall be a majority of its members. All such meetings shall be held pursuant to the By-Laws of the Corporation with regard to notice and waiver thereof.

The Audit Committee shall meet on a regular basis without management or the external auditors. The Committee, in its discretion, may ask members of management or others to attend its meetings (or portions thereof) and to provide pertinent information as necessary. As part of its purpose to foster open communications, the Committee shall meet at least annually, and more frequently as required, with management and the Corporation's independent auditors in separate executive sessions to discuss any matters that the Committee or each of these groups or persons believe should be discussed privately. The independent auditors will have direct access to the Committee at their own initiative. The Chairman should work with the Chief Financial Officer and management to establish the agenda for Committee meetings.

Written minutes of each meeting of the Committee shall be filed in the Corporation's records. The Chairman of the Committee will report periodically to the Board of Directors.

The Committee shall, in appropriate circumstances and subject to advising the Chairman of the Board, have the authority to engage and obtain advice and assistance from advisors, including independent or outside legal counsel and accountants, as it determines is necessary or appropriate to carry out its duties. The Corporation shall provide for appropriate funding, as determined by the Committee, for payment of any compensation (i) to any independent auditors engaged for the purpose of rendering or issuing an audit report or related work or performing other audit, review or attest services for the Corporation, and (ii) to any independent advisors employed by the Committee.

V. Disclosure of Charter

This charter shall be published in the Corporation's annual information form or information circular as required by applicable securities laws.

While the Committee has the duties and responsibilities set forth in this charter, the Committee is not responsible for planning or conducting the audit or for determining whether the Corporation's financial statements are complete and accurate and are in accordance with generally accepted accounting principles. Similarly, it is not the responsibility of the Committee to ensure that the Corporation complies with all laws and regulations.

Nothing contained in this charter is intended to expand applicable standards of conduct under statutory or regulatory requirements for the directors of the Corporation or the members of the Audit Committee.