NORTHERN GRAPHITE CORPORATION

MANAGEMENT DISCUSSION AND ANALYSIS

For the Three- and Six- Month Periods ended June 30, 2024

(Information as at August 28, 2024 unless otherwise noted)

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The following provides management's discussion and analysis ("**MD&A**") of results of operations and financial condition of Northern Graphite Corporation ("**Northern**" or the "**Company**") for the three- and six-month periods ended June 30, 2024 and 2023. This MD&A was prepared by the Company's management and approved by its Board of Directors on August 28, 2024.

This MD&A should be read in conjunction with the Company's condensed interim consolidated financial statements for the three- and six-month periods ended June 30, 2024 and 2023 which have been prepared in accordance with International Financial Reporting Standards ("IFRS") for interim financial statements and also with the Company's audited annual consolidated financial statements for the years ended December 31, 2023 and 2022 which have been prepared in accordance with IFRS for annual financial statements. All figures are presented in Canadian dollars unless otherwise indicated. This MD&A is prepared in conformity with National Instrument 51-102F1.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

Certain statements and other information included in this MD&A constitute "forward-looking information" or "forward-looking statements" within the meaning of applicable securities legislation, which are collectively referred to herein as "forward-looking statements". Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by the use of forward-looking terminology such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "forecasts, "intends", "anticipates", "believes", or 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, or the negative of any of these terms or similar expressions.

Forward-looking statements in this MD&A may include, but are not limited to statements with respect to the following: the future operating or financial performance of the Company and certain of its projects, including the existing operating mine at LDI; the future price of graphite ; the estimation of Mineral Resources and Mineral Reserves and the realization of such mineral estimates; results of economic and technical studies, including the Okanjande PEA and the Bissett Creek feasibility study, and the realization of such results; the timing and amount of estimated future production and costs of exploration, development, production, operations and capital for certain of the Company's projects; the success, timing and cost of the contemplated resumption of mining operations at the Okanjande Project; the success, timing and cost of exploration and development activities, including at the Mousseau and Bissett Creek Projects; the success and timeline of permitting activities; the Company's mine-to-market downstream processing strategy and its plans with respect to the construction of a BAM processing facility in Baie-Comeau, Québec; requirements relating to additional capital; government regulation of mining and processing operations; environmental risks; reclamation obligations and expenses; market trends including with respect to EV and Li-ion battery markets; and any other information as to the future plans and outlook for the Company.

Forward-looking statements are based on what the Company's management considers to be reasonable assumptions, beliefs, expectations and opinions based on the information currently available to it, as of the date such statements are made. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company 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 speculative nature of mineral exploration and development; the actual results of current production, development and exploration activities; fluctuations in graphite prices; inherent uncertainties in respect of conclusions of economic and technical studies, including the Okanjande PEA and the Bissett Creek feasibility study; the accuracy of the Company's Mineral Resource and Mineral Reserve estimate (including, with respect to size, grade and recoverability) as well as the geological, operational and price assumptions on which they are based; changes in project parameters as plans continue to be refined; changes in labour costs or other costs of production, including risks arising from the current inflationary environment and the impact on operating costs and other financial metrics; possible variations of mineral grade or recovery rates; fluctuations in currency exchange rates; uncertainties and risks inherent to developing and *commissioning new mines into production, including the resumption of activities at the Okanjande Project, which may be subject to unforeseen delays; uncertainties with respect to actual results of current exploration and development activities; uncertainties inherent with conducting business in foreign jurisdictions; accidents, labour disputes and other risks of the mining industry; delays in obtaining governmental approvals or financing or in the completion of development or construction activities; the availability of financing for the Company's development of its projects and other initiatives on reasonable terms; the possibility that the Company may incur additional debt; opposition by social or non-governmental organizations to mining projects and processing operations; unanticipated title disputes or other claims or litigation; increased costs and physical risks, including extreme weather events and resource shortages, related to climate change; cyber-attacks and other cybersecurity risks; failure of plant, equipment or processes to operate as anticipated; accidents, labour 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; regulatory changes; actual results of reclamation activities; risks relating to the Company's business generally and the impact of the COVID-19 global pandemic, resulting in changes to the Company's supply chain, product shortages, delivery and shipping issues, closure and/or failure of plant, equipment or processes to operate as anticipated, employees and contractors becoming infected, low vaccination rates, lost work hours and labour force shortages; the fact that certain of the initiatives described in this MD&A are still in the early stages and may not materialize; as well as those risk factors discussion in the section entitled "Risk Factors" in this MD&A or in any other documents filed by the Company from time to time with applicable Canadian securities regulatory authorities and available under the Company's profile on SEDAR+ at www.sedarplus.ca. This list is not exhaustive of the factors that may affect any of the Company's forward-looking statements.*

Although the Company 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 MD&A and the Company 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.

1. Introduction

Northern is a mineral resource exploration, development and production company engaged in the acquisition, exploration, development and production of graphite and other battery mineral properties. The Company's material mineral projects consist of: (i) the operating Lac-des-Iles graphite mine located in Québec (the "**LDI Project**"); (ii) the Okanjande graphite mine currently on care and maintenance located in Namibia (the "**Okanjande Project**"), which the Company plans to restart in late 2025, subject to financing; and (iii) the Bissett Creek graphite development project located in Ontario (the "**Bissett Creek Project**"), which the Company intends to bring into production in late 2026, subject to financing. The Company also owns the Mousseau graphite exploration project located in Québec in proximity to its LDI Project (the "**Mousseau Project**"), which has the potential to further extend the life of and expand operations at the LDI Project by shipping material there for processing. Northern is the only flake graphite producing company in North America[1]. With the resumption of production at the Okanjande Project, Northern would become one of the world's largest non-Chinese natural graphite producers.[2]

The Company has adopted a mine-to-market strategy of becoming a vertically integrated supplier to traditional downstream customers and to the emerging market for battery anode material ("**BAM**"). The Company is focused on becoming a world leader in producing natural graphite and upgrading it into high value products critical to the green economy, including anode material for lithium-ion batteries ("**LiBs**"), electric vehicles ("**EVs**"), fuel cells and graphene, as well as advanced industrial technologies. The Company's strategy is to expand production at the LDI Project, resume and expand production at the Okanjande Project and advance the Bissett Creek Project and the Mousseau Project towards development, while also developing downstream capacity to produce anode material for use in LiBs and EVs in North America and Europe and to upgrade graphite mine concentrate into value added industrial products. To speed up such downstream development and to leverage the most advanced technologies, Northern is partnering with leading technology companies with the goal of building North America's largest BAM plant. In addition, the Company has recently formed the NGC Battery Materials Group to bridge the gap between the mining sector and the upstream battery market sector with the intent to offer innovative new solutions to meet the growing demands of the battery market and provide tailored solutions to Northern's customers. The NGC Battery Materials Group will specialize in advanced material analytics and electrochemical characterization techniques for carbon and battery materials as well as providing in-depth expertise in the field of high-temperature processing, scale-up, and carbon design. This will enable Northern to provide tailored solutions to EV battery makers and original equipment manufacturers to satisfy their various unique battery requirements.

[1] Source: U.S. Geological Survey, Mineral Commodity Summaries (https://pubs.usgs.gov/periodicals/mcs2024/mcs2024-graphite.pdf)
[2] Source: U.S. Geological Survey, Mineral Commodity Summaries (https://pubs.usgs.gov/periodicals/mcs2024/mcs2024-graphite.pdf) and Investing News Network with respect to the Top 10 Graphite-producing Countries (https://investingnews.com/daily/resource-investing/battery-metals-investing/graphite-investing/top-graphite-producing-countries/#:~:text=Top%2010%20Graphite-producing%20Countries%201%201.%20China%20Mine,Mine%20production%3A%2017%2C000%20MT%20...%206%206.%20Russia.)

2. Highlights for the three- and six-months ended June 30, 2024

Summary of Results for the second quarter of 2024:

- Revenue of $5.5 million based on 2,772 tonnes of graphite concentrate sold at an average realized sales price of $1,972 per tonne (US$1,441 per tonne);
  - Volumes in the second quarter of 2024 remained strong, 38% higher compared to the second quarter of 2023, but 7% lower compared to the first quarter of 2024.
  - The average realized price in the second quarter was 6% higher than the first quarter of 2024, mainly due to a favorable product mix. Revenues in the second quarter were in line with the first quarter ($5.5 million). Total sales revenue for the third quarter of 2024 is expected to be favorable and above the first and second quarters of 2024 due to commercial efforts to sell additional volumes to customers. This includes inventory spot sales for cash management purposes, which will negatively impact average sales prices.
- Cash costs of $1,560 (US$1,140) per tonne of graphite concentrate sold, slightly lower than the first quarter costs of $1,628 per tonne (US$1,207). Production costs have been negatively impacted by the ramp up of operations which created inefficiencies and unexpected breakdowns, as well as training of new staff and shutdowns due to weather conditions**;**
- Income from mine operations was $0.1 million, compared to a loss from mine operations of $0.5 million during the first quarter of 2024, due primarily to improved average realized sales prices;

- General and administrative expenses decreased by 15% during the second quarter compared to the first quarter of 2024, and by 10% compared to the second quarter of 2023, as a result of the implementation of strict overhead cost control measures;
- The LDI plant was in full production during the full second quarter, with production volumes of 4,082 tonnes, increasing by 59% compared to the first quarter of 2024 (2,574 tonnes). Mining operations were restarted at LDI on April 25, 2024;
- The LDI plant operated seven-days-per week in the second quarter of 2024, targeting nameplate capacity of 25,000 tpy to increase operating income and at the same time reduce unit operating costs. However, the plant still experienced difficulties during the second quarter, which are being resolved during the third quarter of 2024;
- An impairment loss (non-cash) of $3.5 million was incurred due to lower anticipate realized prices on confirmed sales of concentrate for the second half of 2024 which consisted of a net realizable value impairment of $0.8 million on its stockpile inventory and $2.7 million on its finished goods inventory;
- Finance costs of $ 3.0 million, of which $2.9 million were non-cash items;
- A net loss of $9.4 million ($0.07 per share) which included significant non-cash charges relating to depletion and depreciation, share-based compensation, capitalized finance expenses, impairment expenses and drawdown of inventories. Cash provided by operating activities was $0.1 million;
- 29,602,050 share purchase warrants expired, leaving 1,680,000 warrants outstanding with an exercise price of $0.75 at April 29, 2024.
- Reclassification of $18.5 million of the senior secured loan and $3.9 million of royalty financing from non-current to current liabilities as a result of the lack of performance by the Company on the following covenants related to these instruments:
    - Senior secured loan - as at June 30, 2024, the Company had not met some of the covenants relating to the amended and restated credit agreement dated November 29, 2023, including:
        - The payment of accrued interest of $1.6 million (US$1.2 million) on the semi-annual cash interest payment date as of June 30, 2024;
        - Maintaining, at all times, on a consolidated basis, positive working capital, and
        - Maintaining, at all times, on a consolidated basis, a minimum cash balance of $750,000.
    - Royalty financing - As at June 30, 2024, the Company had not met one of the covenants related to the amended and restated royalty agreement dated November 29, 2023:
        - the payment of certain royalty amounts due in the second quarter of 2024 for a total of $0.4 million (US$0.3 million).
        - An additional royalty amount with respect to second quarter 2024 sales of $0.8 million (US$0.6 million) was due on July 31, 2024 and is currently unpaid.

  All defaults have been waived by the lender as at June 30, 2024 and as at August 28, 2024, and the Company is currently in discussions with the lender relating to the revision of existing agreements.
- Cash and working capital: positive cash provided by operating activities ($0.1 million), a significant improvement compared to Q1 ($ 1.7 million used in operating activities)
    - Cash and equivalents of $0.7 million as at June 30, 2024, in line with March 31, 2024 ($0.7 million);
    - Accounts receivables were reduced by $1.8 million compared to March 31, 2024, as a result of cash collection efforts, negotiation of more favorable terms and collection of tax receivables in Namibia.
    - The above noted senior debt and royalty reclassifications to current liabilities ($22.4 million), the Company's working capital optimization efforts and inventory impairments ($3.5 million) and drawdowns resulted in a negative working capital of $25.6 million as at June 30, 2024;
    - On June 27, 2024, the Company announced it received a grant from Québec's Ministère des Ressources Naturelles et des Forêts (MRNF) for the Company's drilling program at Lac des Iles in the amount of $0.4 million which will pay 50 percent of eligible expenses for geo-metallurgical and geo-environmental drilling to be carried out this year.
- The Company's Board of Directors has granted RSUs and Stock options as part of its long-term incentive and retention plan to key executives and employees. A total of 1,700,000 Stock options at a price of $0.20 per share were granted to certain employees and a total of 5,100,000 Restricted Share Units, with a vesting period of one quarter after each of years one and two, and one half after year three have been granted with an effective date August 28, 2024.

Summary of Results for the 6 month period ended June 30, 2024:

- Revenue of $11.0 million based on 5,740 tonnes of graphite concentrate sold at an average realized sales price of $1,916 per tonne (US$1,410 per tonne);
- During the first half of 2024, sales volumes increased by 50% compared to the first half of 2023, and revenues increased by 38%.
- Cash costs of $1,595 (US$1,174) per tonne of graphite concentrate sold were negatively impacted by the restart of the LDI plant and several operational inefficiencies which impaired recovery and productivity during the first half of the year:
- Loss from mine operations of $0.4 million, generated during the first six months, mainly due to lower average sales prices and increased cash costs of production as part of the ramp-up to planned higher production levels;
- The LDI plant operated throughout the first half of the year, with total production volumes at 6,656 tonnes during the six months period ended June 30, 2024. Since there was no mining during the first quarter and part of the second quarter, costs incurred of $0.9 million were recorded in the income statement as care and maintenance;
- A net loss of $18.1 million ($0.14 per share) which included significant non-cash charges relating to depletion and depreciation, share-based compensation, capitalized finance expenses, impairment expenses and drawdown of inventories.
- Cash used in operating activities was $1.6 million.

Operational Summary for the six month period ended June 30, 2024:

- **Graphite Market Update**
    - The U.S. Department of Energy has proposed guidance for what constitutes a Foreign Entity of Concern" ("FEOC") under the U.S. Inflation Reduction Act (the "IRA"), which provide up to a $7,500 tax credit for each vehicle sold to consumers. Northern's mines in Canada and Namibia are IRA compliant.
    - In May 2024, the U.S. government provided new U.S. graphite procurement regulations, including a two-year certification requirement for auto and battery makers under the final implementation rules of the IRA Section 30D Clean Vehicle Tax Credit. This regulation aims at having OEMs show meaningful progress toward having a North American supply chain in place before January 2027 in order for their vehicles to continue qualifying for the tax credit. This final rule grants OEMs a two-year window to continue purchasing graphite mined, manufactured, and processed in China, until January 1, 2027, upon demonstrating a meaningful procurement plan to create compliant supply chains by the time the exemption expires.
    - In addition, the Biden Administration and United States Trade Representative decided on May 14, 2025 to place Section 301 tariffs on natural graphite from China. The 25% duty will take effect in 2026.
    - On October 20, 2023, China's Commerce Ministry announced that China would start imposing controls on certain graphite exports for battery making as of December 1, 2023 by requiring export permits for certain graphite products in a move, "conducive to ensuring the security and stability of the global supply chain and industrial chain, and conducive to better safeguarding national security interests." China is the world's largest producer of graphite, a key component of batteries for EVs and also widely used in traditional industrial markets.
    - During the first half of 2024, in line with the trend evidenced during the second half of 2023, volumes and revenues from LDI have increased significantly. During the first half of 2024, sales volumes increased by 50% compared to the first half of 2023, and revenues increased by + 38%. Based on current orders and customer forecasts, higher demand is expected to continue in the second half of the year 2024.
- **Lac-des-Iles**
    - To meet increasing customer demand, plant operations were resumed on October 30, 2023. The plant produced 2,574 tonnes during the first quarter of 2024 and increased to 4,082 during the second quarter. Mining operations restarted on April 25, 2024. The plant is now running with four shifts on a seven days a week basis.
    - Following a 2023 drilling program financed from the proceeds of $2.3 million charity flow-through private placement, the Company announced on January 17, 2024 an updated mineral resource

estimate for the LDI Project. The updated mineral resource estimate creates potential to extend the life of the LDI Project by approximatively eight years, which will be confirmed and quantified through an updated mineral reserve estimate and life-of-mine plan that will be available later in 2024. Indicated Mineral Resources now total approximately 3.29 million tonnes ("**Mt**") at an average grade of 6.4% graphitic carbon ("**Cg**"), containing approximately 213,000 tonnes of Cg. Inferred Mineral Resources total approximately 1.43 Mt at an average grade of 7.4% Cg, containing approximately 106,000 tonnes of Cg. Existing stockpiles at the mine site are not included in the updated mineral resource estimate. The new mineral resource estimate supports the Company's intention to meet rising demand by moving to a seven-days-per week operation in the second quarter of 2024, targeting annual nameplate capacity of 25,000 tonnes per year ("tpy").
    - The Company is finalizing the study of different operating scenarios including opening a new pit by the end of the year 2024. The Company is also planning an additional drilling program in 2024 and beyond to explore opportunities to extend the LDI mine life further and to identify resources with a lower strip ratio.
- **Namibia**
    - The Company continues to evaluate options to fund the Okanjande Project through the use of a royalty/stream/debt structure and equity contributed by a strategic partner without having to go to the market at current share prices. During the third quarter of 2023, Northern placed Okanjande on care and maintenance (except for engineering and activities relating to moving the plant from its site at Okorusu to Okanjande). The timing of the restart is subject to the availability of project financing. A technical report in respect of the PEA prepared in accordance with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("**NI 43-101**") was filed under the Company's profile on SEDAR+ (www.sedarplus.ca) on August 28, 2023.
- **Mine-to-Market Strategy**
    - On January 31, 2024, the Company announced the launch of the NGC Battery Materials Group to spearhead its mine-to-battery strategy, which would make Northern one of the largest integrated developers, producers, and processors of natural graphite outside of China. NGC Battery Materials Group was formed through the acquisition of the assets and R&D team of the battery division of Germany's Heraeus Group, and includes a fully operational, state-of-the-art laboratory in Frankfurt.
    - The Company is pursuing its effort to integrate downstream by further processing its graphite for use in LiBs by adding shaping, purification and coating technologies to produce BAM in Baie Comeau. This is expected to be done in partnership with companies that are industry leaders in these technologies, and in modular phases as demand for BAM increases. A first phase for the BAM plant, expected to cost in the range of $500 million, is targeted for completion in 2027, subject to financing, regulatory approvals and certain other conditions, and is eligible for potential assistance under programs offered by the province of Québec, the Canadian and U.S. governments, as well as other assistance by the Manicouagan region and potential Plan Nord incentives.
    - The Company has been actively involved in discussions and negotiations with technology and original equipment manufacturer ("**OEM**") partners in both the US and Europe who want to collaborate with a quality supplier of graphite that has current production, immediately available inventory and the capacity to support future growth. These discussions center on volume requirements and the timing thereof and plans for downstream conversion facilities in both North America and Europe. Discussions are also being held with various government organizations at both the federal and provincial level to gain support to speed up the development of the battery anode supply chain, with a particular focus on Ontario and Québec.
    - Northern has also licensed intellectual property from Heraeus Group to develop, produce, and sell Porocarb®, a high-performance porous hard carbon material developed over the last 10 years and patented by Heraeus Group to enhance the efficiency and speed of energy storage mechanisms. Since February 2024, Northern has signed non-disclosure agreements with top-tier global battery manufacturers from South Korea, China, and several Western countries who are keen on utilizing Porocarb® as a performance additive in lithium-Ion batteries or as a protective carbon coating for All-Solid-State-Battery ("ASSB") anodes. These developments are opening a whole new potential revenue stream for the Company, separate but complimentary to the BAM sales

The level of production at Lac des Iles (**"LDI"**) since its acquisition has not been sufficient to sustain the Company on a cash flow basis and operational deficits have been financed by external financings and the sale of inventories. In order to address this situation and make the Company self sustaining, LDI's production is being ramped up to nameplate capacity of 25,000 tpy to meet growing demand stimulated by EV sales, Chinese export controls and US tariffs on Chinese graphite. While the expansion will increase operating income, it also requires an additional investment in working capital which is straining the Company's resources, and discussions around the revision of our existing agreements, including in particular the senior debt interests, which were capitalized in 2023. The Company continues to seek support from federal, provincial and US government agencies as well as EV and battery manufacturers but has not yet been successful and financial markets are difficult, especially given the current share price. Accordingly, strict overhead cost control measures have been implemented as demonstrated during the second quarter of 2024 and a number of other strategies are being considered and implemented, including spot inventory sales to sustain the Company until such time as support for the only graphite mine in North America materializes or markets improve.

3. Corporate

On January 11, 2024, the Company announced the appointment of Samantha Espley as a director of the Company. In connection with her appointment, the Company granted Ms. Espley 400,000 stock options under the Company's amended and restated stock option plan, which have an exercise price of $0.55 per share, an exercise period of five years and which vested immediately upon grant.

On March 4, 2024, the Company announced that it had granted a total of 1,011,000 stock options to new employees and an officer of a subsidiary pursuant to the Company's Stock Option Plan. These stock options are exercisable to purchase common shares of the Company at an exercise price of $0.35 per share for a period of five years expiring on February 27, 2029. The stock options granted vest one-third on the first, second and third anniversary dates of the grant.

On March 27, 2024, the Company announced that it had filed a preliminary short form base shelf prospectus. The base shelf prospectus has not yet become final for the purpose of sale of any securities. When final and effective, the base shelf prospectus would allow the Company to offer and issue up to a maximum amount of $100 million of common shares, debt securities, warrants, subscription receipts, units or any combination thereof during the 25-month period over which the base shelf prospectus is effective.

The Company's Annual General Meeting was held on July 11, 2024 in Toronto, Canada. All agenda items presented were approved, including the nomination of directors, the appointment of auditors and the approval of the amended and restated stock option plan. A total of 41,195,741 shares were represented at the meeting, representing a total of 31.6% of the Company's shares.

The Company's Board of Directors has granted RSUs and Stock options as part of its long-term incentive and retention plan for key executives and employees.

On August 28, 2024, the Board of Directors approved a grant of stock options to certain employees to purchase a total of 1,700,000 common shares of the Company at a price of $0.20 per share, vesting one quarter after each of years one and two and one half after year three, and which are exercisable for a period of five years. In addition, the Board of Directors approved a grant of 5,100,000 RSUs to certain officers and employees with a vesting period of one quarter after each of years one and two, and one half after year three.

4. Business Lines and Strategy

The Company plans to become one of the largest producers and processors of natural graphite outside of China. To achieve this goal, Northern has embarked on a three-pronged strategy:

1) **Building capacity to produce BAM:** Following the acquisition of LDI in April 2022, the Company is the only North American flake graphite producing company and expects to become one of the world's largest non-Chinese producers when its Namibian operations restart. The Company has substantial near-term production with the LDI Project and the planned restart of operations in Namibia (approximately 50,000 tpy upon restart), and two large-scale development projects with the Okanjande and Bissett Creek projects. The Mousseau Project has the potential to extend and expand production from LDI. These projects provide the Company with the opportunity to significantly expand production to meet growing demand from the EV/LiB markets. All projects have high quality "battery grade" mineralization and are located close to infrastructure in politically

stable countries. In the fourth quarter of 2023, Northern published results of testing performed by Heraeus Battery Technology which confirmed that LDI graphite is suitable for the production of BAM. These results demonstrated the potential to perform at or above the standards of commercially available reference materials.

2) **Mine-to-market strategy:** With the growth of the EV market, the Company is moving downstream in order to further process its graphite for use in LiBs with shaping, purification and coating technologies. Led by its newly created NGC Battery Materials Group formed in January 2024, this strategy is expected to be implemented in partnership with companies that are industry leaders in these technologies. Northern would provide a secure supply of graphite concentrate and its technology partners would license and/or contribute their technology, plans and expertise for building and operating processing plants. On June 29, 2023, the Company signed the LOI with the city of Baie-Comeau to purchase land for a 200,000 tonne per year BAM plant. The LOI, which is subject to financing and receipt of regulatory approvals, gives Northern the right to purchase a 1.2 million m^2 property of approximately 300 acres in the Baie-Comeau port industrial zone, with access to municipal services and infrastructure, for US$1.2 million. The Baie-Comeau BAM plant will be one of the world's largest such conversion facilities and will process concentrates from Northern's mines as well as from other producers that will be coming online. The plant will have a low CO_2 footprint due to its access to green, hydroelectric power. The Company will cooperate with its different technological partners to develop this project.

3) **Downstream integration in non-BAM applications**: The Company is also pursuing opportunities to move downstream into non-EV applications in the electronics, construction, graphene and hydrogen fuel cell markets. These markets provide the opportunity to increase revenues and profits through further processing of the Company's graphite mine concentrates. The Company had an option under an agreement with Edgewater Capital Partners ("**Edgewater**") to acquire an ownership interest in NeoGraf Solutions, LLC ("**NeoGraf**"), a company based in Cleveland, Ohio. On March 7, 2024, Northern announced that it will not exercise or extend its agreement with Edgewater, and accordingly the option has expired. This decision was made given current market conditions and in the best interests of Company's shareholders. However, both Northern and Neograf have agreed to continue exploring different ways to enhance the partnership between both companies to address evolving supply needs in the downstream market for graphite products.

5. Mining Operations & Projects

a) Lac-des-Iles, Québec, Canada

The LDI graphite mine has been in operation for over 30 years and is the only flake graphite producer in North America. The mine is located approximately two kilometres south of Lac-des-Îles, Québec, approximately 110 km northeast of Ottawa and 180 km northwest of Montréal. LDI consists of an open pit graphite mine and a processing facility that includes crushing, grinding and flotation circuits that produce high quality concentrates of various sizes and purities that are sold directly to end-users for various applications.

The mine is covered by active mining title BM-788, which has an area of approximately 652.6 hectares over 23 contiguous smaller blocks as part of NTS sheet 31J05. The title is fully registered with a current expiration date of January 31, 2029. Agreements have been executed with the surface rights holders of certain lots on the mining lease for use of land for mining purposes. The agreements require that the owners be paid a royalty per metric tonne of ore extracted and processed.

Additional information on LDI can be found in independent technical reports dated December 22, 2021 and March 1, 2024 prepared by SLR (Canada) Ltd. in accordance with NI 43-101 and which have been filed under the Company's profile on SEDAR+. The Company acquired LDI with the belief that opportunities existed to extend the mine life and expand production. The Company subsequently completed an initial exploration program which successfully increased resources and extended the life of the mine. During the fourth quarter of 2022, the Company acquired the Mousseau Project which it believes can provide another source of graphite mineralization to supply the LDI plant. With LDI, the Company has also acquired an established market share and customer base that could be transitioned to supply from Namibia and Bissett Creek.

After being on care and maintenance for seven consecutive months in 2023, the LDI plant restarted on October 30, 2023, but the mine continued on care and maintenance, and restarted on April 25, 2024.

As at June 30, 2024, the Company had produced 6,656 tonnes of graphite concentrate in 2024 and sold 5,740 tonnes of graphite concentrate. The Company realized an average sales price of $1,916 per tonne, cash costs were $1,595 per tonne sold and mine operating loss of $0.4 million was recorded.

The following table presents operational highlights on a quarterly basis and for the year ended December 31, 2023 and the six month period ended June 30, 2024.

	Q1 2023	Q2 2023	Q3 2023	Q4 2023	2023	Q1 2024	Q2 2024	2024 YTD
Mining (tonnes)								
Ore	40,877	-	-	-	40,877	-	18,165	18,165
Waste	224,492	-	-	-	224,492	-	169,580	169,580
Strip Ratio	5.49	-	-	-	5.49	-	9.34	9.34
Processing								
Crusher feed	38,554	-	-	19,930	58,484	44,706	48,162	92,868
Recovery	91.6%	-	-	88.5%	90.6%	84.4%	86.7%	85.8%
Feed grade	6.8%	-	-	6.5%	6.7%	6.6%	6.6%	6.6%
Production								
Tonnes	2,966	-	-	1,295	4,261	2,574	4,082	6,656
Sales								
Tonnes	1,813	2,016	2,587	2,176	8,592	2,968	2,772	5,740
Average realized selling price per tonne	2,202	1,966	1,907	1,935	1,990	1,864	1,972	1,916

Mining

During the three month period ended March 31, 2024 there were no tonnes mined out of Pit 2. Mining restarted on April 25, 2024. During the second quarter of 2024, 18,165 tonnes of ore were mined.

Since there was no mining during the first quarter of 2024 and for part of the second quarter, costs incurred of $0.8 million were recorded in the income statement as Care and Maintenance.

Subsequent to June 30, 2024, in order to preserve cash, the Company temporarily stopped on July 15th its mining operations for a period of approximatively five weeks while continuing to operate the plant on a seven days a week basis, using ore from its existing stockpile.

Processing

During the six month period ended June 30, 2024, the plant processed a total of 92,868 tonnes of ore with an average feed grade of 6.6 % graphite and a recovery of 85.8 % to produce 6,656 tonnes of graphite concentrate.

Recoveries in the second quarter improved compared to the first quarter of 2024, which was negatively impacted by inefficiencies during the restart of the plant. Increased production and improvements made to the processing line impacted positively the recovery at the plant, which is still not at the expected level (>90%).

During the first quarter of 2024, the plant was operating five days a week, 24 hours per day, with one of the down days used for plant maintenance. During the second quarter, the plant operated seven days a week.

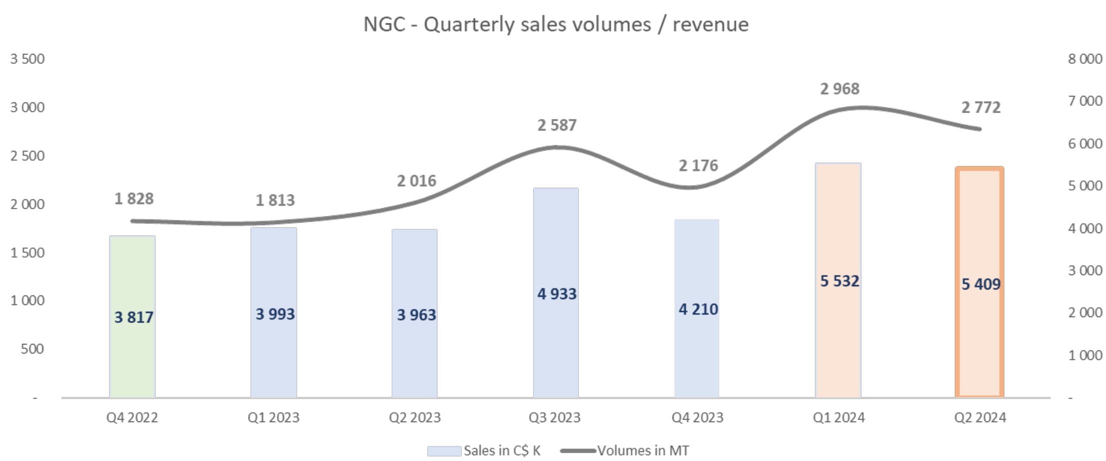
The Company's average processing costs per tonne in the first half of 2024 were negatively impacted by higher maintenance and labour costs during the ramp-up to planned higher production levels.

In order to stabilize its cash position, the Company is implementing strict costs control measures at the plant in order to continue reducing its average cash costs of production while ensuring it continues to serve its customers in a favorable context of increasing market demand.

Sales

During the second quarter of 2024 the Company sold 2,772 tonnes of graphite concentrate, 38% higher than last year, with an average realized sales price of $1,972 per tonne, 3% lower than previous year period.

Revenues of $5.5 million were up 38% compared to last year, as a result of higher customer demand following last year's announcements from China on export controls combined with recent announcements from the Biden administration around US Tariffs and requirements for OEMs to demonstrate efforts to develop a meaningful procurement plan to secure compliant supply chains by the time the exemption expires at the end of 2026. Those events, combined with successful market share gains have driven sales volumes up significantly. Management has been aggressively pursuing new markets/customer opportunities in North America and Europe for 2024 in order to balance liquidity with the amount of working capital tied up in inventories, and to create a market for future expected Namibian production.



The Company now has 5,038 tonnes of graphite concentrate in inventory with a carrying value of $9.4 million which approximates market value. In addition, the Company has 33,074 tonnes of broken ore in stockpile containing approximately 2,030 tonnes of graphite which has a carrying value of $1.4 million which approximates market value.

LDI Exploration

After a detailed review of historical studies, mine plans and the completion of an airborne geophysical survey, the Company launched a new drill program at LDI during the second quarter of 2023 that was designed to explore previously untested areas of the property with the objective of extending the life of the mine. The program consisted of 88 holes for 7,890 meters of drilling and was financed from the proceeds of a $2.25 million charity flow-through private placement. On October 5, 2023, Northern announced the results of this drilling campaign which confirmed the potential to extend the life of the mine.

On January 17, 2024, the Company announced an updated mineral resource estimate for the LDI Project prepared by SLR Consulting (Canada) Ltd. The Company also announced that it intends to meet rising demand by moving to a seven-days-per week operation in the second quarter of 2024, targeting annual nameplate capacity of 25,000 tpy. The updated mineral resource estimate creates potential to extend the life of the LDI Project by approximatively eight years, which will be confirmed and quantified through an updated mineral reserve estimate and life-of-mine plan that will be available later in 2024. Indicated Mineral Resources now total approximately 3.29 million Mt at an average grade of 6.4% Cg, containing approximately 213,000 tonnes of Cg. Inferred Mineral Resources total approximately 1.43 Mt at an average grade of 7.4% Cg, containing approximately 106,000 tonnes of Cg. Existing stockpiles at the mine site are not included in the updated mineral resource estimate. The updated mineral resource estimate is based on drill hole data available as of November 2, 2023, assuming an open pit mining scenario and a long-term average flake graphite concentrate market price of US$1,550 per tonne. Mineral resources are constrained within an optimized pit shell at a cut-off grade of 2.3% Cg. The Company intends to carry out drilling programs in 2024 and beyond to explore other identified targets.

Mousseau

In October 2022, the Company acquired a 100% interest in the Mousseau Project by exercising an option and paying $500,000 in cash and issuing 900,000 common shares of the Company. The project is located approximately 80 kms from, and within economic trucking distance of, the Company's producing LDI graphite mine. Northern also has the right to acquire a 2% net smelter royalty retained by the owners at any time upon the payment of $1 million. Mousseau has the potential to extend the mine life at LDI and increase its production back to nameplate capacity.

Mousseau consists of 12 claims totalling 590.54 hectares in size. It is located approximately 150 kms north of Montreal in the Mont-Laurier area and can be accessed from Highway 117 over 12 kms of good quality logging roads. Over 7,500 meters of drilling has been carried out on the property.

On March 14, 2023 the Company announced an increase in the size of the Mousseau Project by an additional 101.64 hectares to a total of 590.54 hectares. through an automatic procedure under the *Mining Act* (Québec) due to the lapse of certain adjoining claims previously held by an arm's-length third party. In connection with the increase in the area covered by the Company's claims, the Company paid $50,000 and issued 100,000 common shares of the Company to the previous holder of the adjoining claims in order to settle litigation proceedings challenging the Minister's increase in the area of the Company's claims.

On October 12, 2023, the Company announced a mineral resource estimate on Mousseau. The estimate consists of 2,821,041 tonnes of measured and indicated mineral resources with an average grade of 7.908% with 223,079 tonnes of contained graphite. In addition, there are an estimated 331,884 tonnes of inferred mineral resources with an average grade of 9.3% with 30,714 tonnes of contained graphite.

Category	Volume (m^3)	Specific Gravity (t/m^3)	Tonnes	Graphite (%)	Graphite (t)
Measured	283,605	2.85	808,275	7.612	61,525
Indicated	706,234	2.85	2,012,766	8.026	161,554
Measured and Indicated	**989,839**	**2.85**	**2,821,041**	**7.908**	**223,079**
Inferred	116,451	2.85	331,884	9.254	30,714

Notes:

1. *The parameters used to estimate an open pit cut-off grade for the mineral resources are as follows: graphite price of US$1,500/t, exchange rate of US$1.00=CAD$0.78; estimated costs including mining ($2.50), process ($50/t), haulage ($22/t) and G&A ($5/t), process recovery of 90% and a pit slope of 50°. Mineralized material that is not included within the open pit shell is not part of the mineral resource estimate.*
2. *Mineral resources which 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, socio-political, marketing, or other relevant issues.*
3. *The quantity and grade of reported Inferred Resources in this estimation are uncertain in nature and it is uncertain if further exploration work will result in upgrading them to an Indicated or Measured mineral resource category.*
4. *Mineral resources were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines.*

A technical report in respect of the resource estimate prepared in accordance with NI 43-101 was filed under the Company's profile on SEDAR+ on October 12, 2023.

b) Okanjande Project, Namibia

The Company acquired a 100% interest in Northern Graphite Holdings (Namibia) (Pty) Ltd. (“**Holdings**”) from Imerys and its joint venture partner in April 2022. Holdings owns a 100% interest in Northern Graphite Processing (Namibia) (Pty) Ltd. (“**NGP**”) and a 100% interest in Northern Graphite Okanjande Mining (Pty) Ltd. (“**NGOM**”). NGOM holds Mining License (“**ML**”) 196 which covers the Okanjande graphite deposit located approximately 23 km by road to the southwest of the town of Otjiwarongo, 230 km north of Windhoek, the capital city of Namibia, and 388 km east of the port of Walvis Bay. NGOM also holds Exclusive Prospecting License (“**EPL**”) 4717 which surrounds the Mining License.

Namibia is considered one of the most favourable mining jurisdictions on the African continent. Okanjande graphite is of the highest quality and Okanjande is located just five hours over good roads from the deep-water port of Walvis Bay, providing ready access to European and North American markets. These attributes, plus a much shorter time to market, are expected to provide a competitive advantage over other African graphite projects and enable Northern to expand its market share in North America and Europe and reduce the market’s dependence on Chinese supply.

During the third and fourth quarter of the year ended December 31, 2023 and the six month period ended June 30, 2024, Northern put most of Okanjande on care and maintenance (except for engineering and activities relating to moving the plant from its site at Okorusu to Okanjande).

On August 28, 2023, the Company released the results of a new PEA that evaluated moving its processing plant to the Okanjande mine site, compared to the PEA released on July 11, 2022 which was based on processing at Okorusu. The PEA indicates that economics remain attractive under the new plan, with higher capital costs but lower operating costs. In addition, greenhouse gas emissions are reduced, sustainability is improved, and the expansion potential of the project is substantially enhanced.

The new PEA was prepared by CREO Engineering Solutions and confirms the viability of moving milling operations directly to the Okanjande mine site, eliminating the need to truck mineralized material to the Okoruso processing site 70 kilometers away, reducing operating costs and allowing for a more sustainable operation that includes the use of solar power and reduced water consumption.

Key results include an average annual production of 31,315 tonnes of graphite concentrate, production costs of US$666 per tonne, a Post Tax IRR of 36%, a Post Tax NPV of US$70 million and a payback of under four years which were based on a 10-year mine life and a weighted average graphite price of US$1,550/tonne. A technical report in respect of the PEA prepared in accordance with NI 43-101 was filed under the Company’s profile on SEDAR+ on August 28, 2023.

The PEA is based on 5.9 million tonnes of weathered resources grading 4.21% Cg and 1.2 million tonnes of fresh rock resources grading 4.35%, all in the measured and indicated categories. The total fresh rock resource consists of 24,200,000t with 1,287,000t of contained graphite in the measured and indicated categories and 7,200,000t with 359,000t of contained graphite in the inferred category (all based on a 3.1% Cg cut-off grade and a US$1,250/t graphite price).

Summary of PEA Results

	UOM	Updated PEA July 31, 2023 Okanjande
Measured and Indicated Resource - Weathered	Mt, %TGC	2.54Mt @ 5.03% TGC
Measured and Indicated Resource - Fresh	Mt, %TGC	3.56Mt @ 5.44% TGC
Total Measured and Indicated Resources	tonnes	6,096,950
Before Tax / *8% discount rate*		
NPV	USD	$120,396,195
IRR	%	46%
Cashflow	USD	$239,077,435
PayBack Period	years	3
After Tax / *8% discount rate*		
NPV	USD	$70,218,979
IRR	%	36%
Cashflow	USD	$145,674,213
PayBack Period	years	4
Capital Expenditures (excl. Sustaining capital)	USD	$34,620,899
Working Capital Provision	USD	$3,017,888
Average annual concentrate production	tonnes	31,315
C1 production costs	USD/tonne	$666
Average grade	%	5,3%
Average recovery	%	92%
Graphite flake price	USD/t TCG	$1,550
NAD / USD exchange rate	NAD : USD	18.5 : 1

Notes

(1) All tabulated data have been rounded and as a result minor computational errors may occur.

(2) Mineral Resources which are not Mineral Reserves have no demonstrated economic viability.

(3) Inferred Mineral Resources are reported separately from other categories.

(4) The Mineral Resources reported are the total Mineral Resources for the Okanjande Project, regardless of ownership.

(5) Weathered mineral resources : The Mineral Resource is reported for mineralization contained within pit shells above a cut-off grade of 2.6% TGC, which is based on a product price of USD 1,250/t TGC, mining costs of USD 3.75/t RoM, transport cost to plant of USD 6.5/t RoM, processing and treatment costs of 14.9 USD/t (RoM), G&A USD 0.8/t (RoM), transport cost to the market USD 175/t product, 2% royalty, concentrate recovery 92%.

(6) Fresh mineral resources: The Mineral Resource is reported for mineralization contained within a Whittle pit shell above a cut-off grade of 3.1% TGC, which is based on a product price of USD 1,250/t TGC, mining costs of USD 5.11/t RoM, transport cost to plant of USD 6.5/t RoM, processing and treatment costs of 17.88 USD/t (RoM), G&A USD 0.96/t (RoM), transport cost to the market USD 175/t product, 2% royalty, concentrate recovery 92%.

(7) MSA is not aware of any known environmental, permitting, legal, title-related, taxation, socio-political, marketing, or other relevant issue that could materially affect the Mineral Resource Estimate.

(8) The Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

The above description of the Okanjande Project is derived from the technical report dated July 31, 2023 with an effective date of June 30, 2023 titled "*Okanjande Graphite Project Preliminary Economic Assessment Study Update Report*" prepared by Etienne Roux, SME-RM, Robert Barnett, M (Eng), NHDip, BSc Geology (Hons), Pr Sci Nat, FGSSA, Ipelo Gasela, Pr Sci Nat, MGSSA, and Mark Mohring (the "**Okanjande Technical Report**"), which constitutes the current technical report for the Okanjande Project, 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 Okanjande Technical Report but which are not fully described herein. Reference should be made to the full text of the Okanjande Technical Report. The Okanjande Technical Report has been filed under the Company's profile on SEDAR+ and is available for review at www.sedarplus.ca.

The Company is evaluating options to fund the Okanjande project through the use of a royalty/stream/debt structure with equity contributed by a strategic partner without having to go to the market. During that process, the Namibian operations have been downsized to project mode, resulting in the retrenchment of 32 employees while maintaining 15 employees working on the preparation of the project. A full schedule is now in place to be executed within 12 to 14 months once financing is available, with the intent to start production at the end of 2025.

The new available capacity will be used to serve BAM and non-BAM customers in North America and Europe.

c) Bissett Creek, Ontario, Canada

The Company holds a 100% interest in the Bissett Creek Project, which is located approximately 15 km from the Trans-Canada Highway (Highway 17) between the towns of Deep River and Mattawa, Ontario. Bissett Creek 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 and 200 km west of Ottawa.

The Bissett Creek Project consists of Ontario mining lease number 109550 (covering 565 hectares) which expires on August 31, 2035, and Ontario mining lease number 109335 (covering 1,938 hectares) which expires on September 30, 2034 (the "Mining Leases"). The Company also held five unpatented mining claims, contiguous to the Mining Leases, which have been converted into 52 cells covering approximately 1,159 hectares under Ontario's Mining Lands Administration System.

A royalty of $20 per ton of concentrate sold must be paid to the families of the original discoverers of the deposit once the mine is operational plus a 2.5% net smelter royalty ("NSR") on any other minerals derived from the Bissett Creek Project. An annual advance payment of $27,000 must be made and will be credited against future payments when the mine commences production.

On July 15, 2020, the Company sold a 1% gross GRR on the Bissett Creek Project to Electric Royalties Ltd. ("ERL") for $500,000 in cash and 2,000,000 common shares of ERL valued at $440,000 at the time of closing. The Company has the option to buy back 0.5% of the initial GRR at any time by paying $1.5 million in cash. On September 27, 2023, the Company closed the sale of an additional 0.5% GRR on the Bissett Creek Project for $950,000 in cash proceeds.

The Bissett Creek Project is unique among its North American peers in that it has a very high percentage of large/XL flake which is ideally suited for high margin and value-added industrial markets such as micronized graphite, expandable graphite and high purity flake graphite that receive premium prices. The Company also intends to develop the capacity to produce anode material for the LiB market which is growing rapidly (due to EVs) and is dominated by China. Unlike many graphite deposits, essentially all Bissett Creek production will be "battery grade". No value-added products are included in the economics in the FS, Expansion PEA or the updates and sensitivity analyses relating thereto.

As at June 30, 2024, the Company had capitalized $12,834,000 of exploration and evaluation expenditures relating to Bissett Creek, net of the proceeds from the ERL royalties.

The Company filed a revised Mine Closure Plan ("MCP") which was accepted by the Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry ("NDMNRF") in 2013. While the MCP authorizes Northern to build and operate the mine in theory, doing so is still subject to a number of other permitting requirements and First Nation consultations. The MCP requires the Company to deposit $2,329,008 with the Province of Ontario prior to the commencement of commercial production. This represents the estimated amount required to restore the Bissett Creek property to its original environmental state after the mine has been constructed and operations cease. A deposit of $850,000 has been made in the form of a surety bond. Because of operational changes made to improve the economics of the Bissett Creek Project, and to the passage of time, the Company must file an amendment to the MCP which will include a re-estimation of reclamation costs and the amount of the associated deposit.

Over the last number of years, the Company has continued to work on the major permits/authorizations required in addition to the MCP and most are at an advanced stage. Applications/documentation have been submitted with respect to a Permit to Take Water, Environmental Compliance Approval – Industrial Sewage, approval of the Class Environmental Assessment and authorizations required under the Lakes and Rivers Improvement Act (for tailings facilities) and under the Endangered Species Act. These and other permits/authorizations are expected to be received in the normal course prior to the commencement of construction and mining operations. The Company anticipates being in a position to make a construction decision in 2024 subject to arranging the necessary project financing and completing First Nation consultations.

Mineral Resources

Based on a 1.02% Cg cut-off, the Bissett Creek deposit has estimated measured and indicated resources of 69.8 million tonnes grading 1.74% Cg (1.2 million tonnes of in situ graphite) and inferred resources of 24.0 million tonnes grading 1.65% Cg (0.4 million tonnes of in situ graphite) (the "2013 Resource Estimate"). The Bissett Creek deposit has exceptionally high content of high-purity, coarse-flake graphite which are very important factors that must be considered along with tonnage and grade.

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 Mining Consultants and Qualified Persons under NI 43-101 who are independent of the Company, prepared the mineral resource estimate.

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 including changing costs, recoveries and mineral prices.

The quantity and grade of reported inferred mineral resources are uncertain in nature and there has been insufficient exploration drilling to categorize inferred mineral resources as indicated or measured mineral resources and it is uncertain if further exploration will result in them being upgraded to indicated or measured mineral resources.

Bissett Creek Project – Economic Analysis

The Company initially completed a Feasibility Study ("FS") for the Bissett Creek Project in 2012. The FS confirmed the technical and financial viability of constructing and operating an open pit mine and 2,500 tpd processing plant at Bissett Creek which is considered as Phase 1 of the ultimate development plan. In 2013, the Company revised the mine plan in the FS based on the 2013 Resource Estimate and updated the FS economics ("FS Update"). The FS Update also incorporated some modifications to capital and operating cost assumptions and lower graphite prices. The FS Update did not constitute a material change and a new technical report prepared in accordance with NI 43-101 was not filed.

The proposed development of the Bissett Creek graphite deposit consists of a shallow open pit mine and a processing plant with conventional crushing, grinding and flotation circuits followed by concentrate drying and screening. Power for the plant will be generated on site using compressed natural gas ("CNG") that will be delivered by truck from the main Trans Canada line, 15 km away. The processing plant includes a sulphide flotation circuit to remove enough sulphides to make approximately 97% of the tailings benign.

Probable mining reserves for the Bissett Creek deposit were established based on, and are a subset of, the 2013 Resource Estimate. The final mine plan 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 cut-off grade 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 is planned to be 16.5 Mt grading 1.26% Cg and is expected to provide a great deal of flexibility in future operations as it is intended to 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 feed that could be processed during periods of depressed prices.

There are an additional 27.3 million tonnes of Measured and Indicated resources grading 1.62% Cg which are not included in the mine plan and 24 million tonnes of Inferred resources grading 1.65% Cg which are treated as waste. Resource limits have not yet been fully defined and resources may be expanded in the future with additional drilling.

The FS Update assumes 60% of Bissett Creek production will be +50 mesh and a third of this material is actually +32 mesh, 35% of production will be +80 mesh, and 5% will be +100 mesh.

In 2013 the Company completed and filed a technical report prepared in accordance with NI 43-101 with respect to a Preliminary Economic Assessment which includes both the Phase 1 development and a Phase 2 expansion of the Bissett Creek Project (the "Expansion PEA") to demonstrate the ability to double processing capacity (to two Mtpa) after three years of operation based only on Measured and Indicated resources. This is the current technical report with respect to the Bissett Creek Project.

In 2014, the Company updated the Expansion PEA (the "Expansion PEA Update") 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. There was no requirement for a new technical report relating to the Expansion PEA Update under NI 43-101 as the changes were not material. A press release was issued and filed on SEDAR+ and includes detailed cash flows relating to the Expansion PEA Update.

Comparison of the study results

	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	44,200t[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	$695	$736
Mining costs ($/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	1.05	1.05	1.05

*The probable reserve in the FS update consists of 24 million tonnes ("Mt") grading 2.20% Cg and 4.0 Mt of low-grade stockpile ("LGS") grading 1.26% Cg. The PEA accelerates the processing of the probable reserve and processes an additional 11.1 million tonnes of measured and indicated resources from the LGS at the end of the mine life. All grades are diluted.

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

[2] First 10 years

Economic Summaries of the Expansion Scenarios

	2013 FS Update	**2013 Expansion PEA (base case)**			**2014 Expansion PEA Update (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%

During 2018 and into 2019 the Company engaged G Mining Services ("G Mining") to carry out a review of the economics of the Bissett Creek Project given the passage of time since the FS Update and Expansion PEA 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. Operating costs are expected to be up to 20 percent higher than original estimates.

For the purposes of quantifying the potential effects of G Mining's review, the Company released the following sensitivity analysis with respect to the Expansion PEA. The 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.

	NI 43-101 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

The PEA is based on Measured and Indicated resources only. Mineral resources that are not mineral reserves do not have demonstrated economic viability. The PEA is preliminary in nature and there is no certainty that the results of the 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 nine percent increase in capital costs for the first phase of development. Higher production would also be expected to reduce unit operating costs and have a very positive effect on the Bissett Creek Project's NPV and IRR.

6. Downstream Battery Materials Development: Mine-to-Market Strategy

It is the Company's ambition to serve the evolving needs of the EV industry by creating an end-to-end, North American graphite supply chain from the mine to the battery, and Northern is advancing this goal on several fronts. Ongoing testing of graphite from the Company's projects, both internally and by potential partners, continues to demonstrate that it is ideally suited for battery applications in terms of milling, shaping, purification, coating and electrochemical properties.

The Company has been actively involved in discussions and negotiations with technology and OEM partners in both the US and Europe who want to collaborate with a quality supplier of graphite that has current production, immediately available inventory and the capacity to support future growth. These discussions center on volume requirements and the timing thereof, and plans for downstream conversion facilities in both North America and Europe. Discussions are also being held with various government organizations at both the federal and provincial level to gain support to speed up the development of the battery anode supply chain, with a particular focus on Ontario and Québec.

Newly created Battery Materials Group

On January 31, 2024, the Company announced the launch of the NGC Battery Materials Group to spearhead its mine-to-battery strategy, which would make Northern one of the sole integrated developers, producers, and processors of natural graphite outside of China. NGC Battery Materials Group was formed through the acquisition of the assets and R&D team of the battery division of Germany's Heraeus Group, and includes a fully operational, state-of-the-art laboratory in Frankfurt. Northern has also licensed intellectual property from Heraeus Group to develop, produce, and sell Porocarb®, a high-performance porous hard carbon material developed over the last 10 years and patented by Heraeus Group to enhance the efficiency and speed of energy storage mechanisms. NGC Battery Materials Group will be operated by Northern and financed by selling excess production capacity to partners and other material developers. Northern will pay Heraeus Group a 2% royalty on sales of all Porocarb® products. NGC Battery Materials Group will specialize in advanced material analytics and electrochemical characterization techniques for carbon and battery materials as well as providing in-depth expertise in the field of high temperature processing, scale-up and carbon design. This will enable Northern to provide tailored solutions to EV battery makers and OEMs to satisfy their various unique battery requirements.

Baie-Comeau Agreement

In January 2023, the Company announced that it had entered into an agreement with Innovation et Development Manicouagan ("**IDM**") at Baie-Comeau, Québec to evaluate sites for the construction of a planned 200,000 tpy BAM plant in the industrial port zone of Baie-Comeau. The plant would be one of the largest in the world and is intended to convert graphite concentrate from the Company's mines, and potentially that of other producers, into BAM to supply existing and planned LiB manufacturing plants throughout North America. Building a low-cost, large-scale conversion facility is a key component of Northern's strategy to empower the EV industry by creating an end-to-end North American graphite supply chain from the mine to the battery.

On June 29, 2023, the Company announced that it had signed an LOI with the city of Baie-Comeau to purchase land for a 200,000 tonne per year BAM plant as it advances plans to supply anode material to LiB manufacturing plants throughout North America. The LOI, which is subject to financing and receipt of regulatory approvals, gives Northern the right to purchase a 1.2 million m^2 property, approximately 300 acres, in the Baie-Comeau port industrial zone, with access to municipal services and infrastructure, for US$1.2 million. There is effectively no capacity in the West to convert graphite mine concentrates into anode material and the EV manufacturers are depending on project proponents such as Northern to fill the void and supply existing and planned LiB manufacturing plants throughout North America. The Baie-Comeau BAM plant will be one of the world's largest such conversion facilities and will process concentrates from Northern's mines as well as from other producers that will be coming online. The plant will have one of the lowest CO_2 footprints in the industry due to its access to green, hydroelectric power with pricing that is among the most competitive in the world.

Baie-Comeau is located on the shores of the St. Lawrence River, approximately 400 km north-east of Québec City in the Cote-Nord economic region and has direct access to the rest of North America via road, rail and a deep water, all-season port. The BAM plant, the first phase of which the Company expects would cost in the range of $500 million, and which the Company would target for completion in 2027, will be subject to financing, regulatory approvals and certain other conditions, and is eligible for assistance under programs offered by the province of Québec, the Canadian and U.S. governments, as well as other assistance by the Manicouagan region and potential Plan Nord incentives.

Northern is working with a network of global partners to bring to the group extensive expertise/know how and existing capacity to process natural graphite into BAM for North American and European markets. This network of partners is made up of established companies that are actively working in the space and smaller companies with innovative breakthrough technologies that can enhance the performance of Northern's material and processes by leveraging their expertise.

Testing of LDI Graphite for Battery Anode Material Grade

On October 19, 2023 the Company announced that testing of graphite samples from the LDI mine verified that it is suitable for the production of BAM, a key component for Lithium-Ion batteries.

Testing was carried out by Heraeus Battery Technology ("Heraeus"), a Hanau, Germany-based laboratory, which Northern subsequently acquired in January 2024. Heraeus analyzed the electrochemical characteristics of BAM produced from LDI graphite samples and demonstrated its potential to perform at or above the standards of commercially available reference materials.

The Heraeus laboratory results confirmed that anode electrodes produced in the laboratory and electrochemically tested in half-cells for Critical to Quality markers including first cycle efficiency, reversible specific capacity and cycling efficiency, demonstrated that graphite samples from the LDI mine that had been milled, shaped, purified and coated using currently available technologies meet or exceed current industry standards.

The specific capacity of graphite, the active material in the anode of LiBs, is a key indicator of the quality of the graphite and of how much energy can be stored per gram of material. Its value is measured in milliampere-hours per gram of active material ("**mAh/g**"). In second-cycle testing, used to determine the reversible capacity, a key indicator of the energy storage capability, LDI samples showed a specific capacity of 361 mAh/g versus an industry comparative of 358 mAh/g. The theoretical maximum storage capacity of graphite is 372 mAh/g and the goal of processing is to get as close to that figure as possible.

	Initial coulombic efficency (%) [(a)]	Charging (lithiation) capacity (mAh/g) [(b)]	Discharging (delithiation) capacity (mAh/g) [(b)]	Coulombic efficency (%) [(b)]
BAM demonstrator*	92.0	364	361	99.4
Industry standard*	94.0	360	358	99.3
Theoretical value		372	372	100.0

* Values from first cycle (a) and second cycle (b) half-cell measurement using an anode with 96% graphite 1% carbon black and 3% binder (CMC+SBR). The BAM demonstrator is closer to the theoretical values than the measured industry standard (also based on natural graphite) which highlights the potential of Northern's graphite for this application.

7. Other Downstream Development Activities

In addition to the battery materials market, Northern is exploring opportunities to expand its presence in various other downstream segments through its traditional customer base. A particular focus is on graphene applications and the use of graphite to provide enhanced thermal and electrical properties in a variety of high value composite applications. The Company is in ongoing discussions with customers and other companies in this space that are looking for support to develop these markets. As the only flake graphite producer in North America and with expectations of becoming one of the largest outside of China, Northern is well positioned to participate in these new downstream markets and to support their growth.

On February 13, 2023, the Company entered into an agreement with Edgewater providing it with an option to acquire an ownership interest in NeoGraf, a leading provider of specialty, value added products manufactured from natural graphite with a strong intellectual property portfolio and a blue chip customer base. NeoGraf is one of Northern's largest customers. Under the terms of the agreement, Northern had a six month option to acquire an effective 50.1% voting interest and a 33.3% equity interest in NeoGraf and also had an option to increase its interest up to 100% at a later date subject to the terms and conditions of the agreement.

On August 29, 2023, the Company entered into an agreement with Edgewater to extend the Company's option to acquire a stake in NeoGraf for six months ending on February 29, 2024.

On February 29, 2024, the Company's option agreement with Edgewater was allowed to expire. The Company did not exercise the option due to current market conditions as it was no longer in the best interests of the Company's shareholders. Neograf remain one of Northern's main customer and both companies will continue to work closely together in this very important partnership to develop cutting edge graphite applications, inside and outside of the battery industry.

8. Selected Financial Information

a. Selected Financial Information

The following tables contain selected interim financial information as at June 30, 2024 and December 31, 2023.

(Shown in Thousands of Dollars)	**As at June 30, 2024 $**	**As at December 31, 2023 $**
Statement of Financial Position		
Total assets	**82,229**	**91,226**
Total non-current financial liabilities	**829**	**20,126**

b. Results of Operations

The following table contains selected interim financial information for the three months periods ended June 30, 2024 and 2023.

(Shown in Thousands of Dollars)	**Three Months Ended June 30**		**Six Months Ended June 30**	
	2024 $	**2023 $**	**2024 $**	**2023 $**
Revenue	**5,465**	**3,963**	**10,997**	**7,956**
Production costs and royalty	(4,324)	(2,688)	(9,156)	(5,575)
Depletion and depreciation	(1,031)	(662)	(2,251)	(1,316)
Income (loss) from mine operations	**110**	**613**	**(410)**	**1,065**
General and administrative	(1,948)	(2,160)	(4,245)	(4,434)
Operating Loss	**(1,823)**	**(1,915)**	**(4,655)**	**(4,466)**
Finance expense	(3,044)	(1,397)	(6,164)	(2,605)
Foreign exchange gain (loss) on finance instruments	(631)	1,148	(2,063)	1,195
Impairment loss	(3,487)	-	(3,965)	(209)
Care and maintenance expense	(683)	(2,791)	(1,740)	(2,791)
Net loss	**(9,365)**	**(4,633)**	**(18,148)**	**(8,852)**
Loss per share – basic and diluted	**(0.07)**	**(0.04)**	**(0.14)**	**(0.07)**

Three Months Ended June 30, 2024 Compared to the Three Months Ended June 30, 2023

Mine Operations

Revenue for the three-month period ended June 30, 2024 was $5,465,000 based on sales of 2,772 tonnes of graphite concentrate with an average realized sales price of $1,972 per tonne and a cash cost per tonne of graphite concentrate sold of $1,560 compared with the previous year quarter which had revenue of $3,963,000 based on sales of 2,016 tonnes of graphite concentrate with an average realized sales price of $1,966 per tonne and a cash cost per tonne of graphite concentrate sold of $1,333.

Production costs for quarter ended June 30, 2024 were $4,324,000 compared to $2,688,000 for the prior year quarter which consisted of mining and processing costs, mine site general and administrative costs and selling expenses. Production costs were higher in the period mainly due to higher tonnes sold and increased costs related to restarting mining operations, training of new staff and higher maintenance costs. Depletion and depreciation was $1,031,000 and income from operations at LDI was $110,000 for the three months ended June 30, 2024 compared to $662,000 and $613,000 respectively for the prior year quarter.

Other Expenses and Net Loss

Corporate general and administrative costs for the quarter ended June 30, 2024 were $1,948,000 compared with $2,160,000 for the prior year's period and decreased due to the implementation of strict overhead cost control measures.

Finance costs were $3,044,000 during the quarter ended June 30, 2024 (2023 - $1,397,000). They increased due to higher interest rates on the Company's senior debt, higher accretion on the LDI royalty due to management's updated production plan and no capitalization of interest while the Okanjande project is under care and maintenance (2023 - $832,000). Of this amount, $133,000 (2023 – $211,000) was paid in cash.

A foreign exchange loss on financing instruments of $631,000 was recorded for the three months ended June 30, 2024 compared to a gain of $1,148,000 in the previous year which is largely attributable to quarter-end revaluations of US dollar denominated debt as the Canadian dollar finished the period weaker against the US dollar compared to the prior year period.

During the second quarter of 2024, primarily due to lower anticipated prices on confirmed sales of concentrate for the second half of 2024, the Company recorded a net realizable value impairment of $768,000 on its stockpile inventory and $2,719,000 on its finished goods inventory.

The LDI mine and plant were temporarily placed in care and maintenance for the second, third and part of the fourth quarters of 2023 while the Company sold excess inventory which it acquired with LDI. The plant restarted in October 2023. The LDI mine restarted operations on April 25, 2024. Since there was no mining during part of the second quarter of 2024, costs incurred of $172,000 (June 30, 2023 - $2,791,000) were recorded in the interim consolidated statements of loss and other comprehensive loss as care and maintenance expense. Subsequent to June 30, 2024, in order to preserve cash, the Company temporarily stopped its mining operations on July 15 while continuing to operate the plant on a seven days a week basis, from its existing stockpile.

The Okanjande plant was temporarily placed in care and maintenance in the third quarter of 2023. Holding costs of $511,000 incurred in the second quarter of 2024 (June 30, 2023 - $nil) were recorded in the consolidated statements of loss and other comprehensive loss as care and maintenance expense.

For the quarter ended June 30, 2024, the Company recorded a net loss of $9,365,000 or $0.07 per share, compared to a net loss of $4,633,000 or $0.03 per share during the comparative 2023 period. This was primarily due to lower income from mining operations, inventory impairments and increases to finance expense and foreign exchange losses on US dollar denominated debt, partially offset by lower general and administration costs, lower care and maintenance expenses at LDI, other income from cost reimbursement of NGC's BAM lab and lower tax recoveries. A significant portion of the net loss was for non-cash charges including depletion and depreciation, foreign exchange losses, inventory impairments, drawdown of inventory for sales, accretion of debt instruments and share-based compensation.

Six Months Ended June 30, 2024 Compared to the Six Months Ended June 30, 2023

Mine Operations

Revenue for the six-month period ended June 30, 2024 was $10,997,000 based on sales of 5,740 tonnes of graphite concentrate with an average realized sales price of $1,916 per tonne and a cash cost per tonne of graphite concentrate sold of $1,595 compared with the previous period which had revenue of $7,956,000 based on sales of 3,829 tonnes of graphite concentrate with an average realized sales price of $2,078 per tonne and a cash cost per tonne of graphite concentrate sold of $1,456.

Production costs for six months ended June 30, 2024 were $9,156,000 compared to $5,575,000 for the prior year period which consisted of mining and processing costs, mine site general and administrative costs and selling expenses. Production costs were higher in the period mainly due to higher tonnes sold and increased costs related to restarting mining operations, training of new staff and higher maintenance costs. Depletion and depreciation was $2,251,000 and the loss from operations at LDI was $410,000 for the six months ended June 30, 2024 compared to depletion and depreciation of $1,316,000 and income of $1,065,000 for the prior year period.

Other Expenses and Net Loss

Corporate general and administrative costs for the six months ended June 30, 2024 were $4,245,000 compared with $4,434,000 for the prior year's period and decreased due to the implementation of strict overhead cost control measures.

Finance costs were $6,164,000 during first half of 2024 (2023 - $2,605,000). They increased due to higher interest rates on the Company's senior debt, higher accretion on the LDI royalty due to management's updated production plan and no capitalization of interest while the Okanjande project is under care and maintenance (2023 - $1,627,000). Of this amount, $281,000 (2023 – $318,000) was paid in cash.

A foreign exchange loss on financing instruments of $2,063,000 was recorded for the six months ended June 30, 2024 compared to a gain of $1,195,000 in the previous year which is largely attributable to quarter-end revaluations of US dollar denominated debt as the Canadian dollar finished the period weaker against the US dollar compared to the prior year period.

During the first half of 2024, primarily due to lower anticipated prices on confirmed sales of concentrate for the second half of 2024, the Company recorded a net realizable value impairment of $768,000 on its stockpile inventory and $3,197,000 on its finished goods inventory. In the first half of 2023, Northern recorded an impairment of $209,000 as a result of finalizing an agreement with the leaseholder of the Okorusu property.

The LDI mine and plant were temporarily placed in care and maintenance for the second, third and part of the fourth quarters of 2023 while the Company sold excess inventory which it acquired with LDI. The plant restarted in October 2023. The LDI mine restarted operations on April 25, 2024. Since there was no mining during the first and part of the second quarter of 2024, costs incurred of $779,000 (June 30, 2023 - $2,791,000) were recorded in the interim consolidated statements of loss and other comprehensive loss as care and maintenance expense. Subsequent to June 30, 2024, in order to preserve cash, the Company temporarily stopped its mining operations on July 15 while continuing to operate the plant on a seven days a week basis, from its existing stockpile.

The Okanjande plant was temporarily placed in care and maintenance in the third quarter of 2023. Holding costs of $961,000 incurred in the first half of 2024 (June 30, 2023 - $nil) were recorded in the consolidated statements of loss and other comprehensive loss as care and maintenance expense.

For the six months ended June 30, 2024, the Company recorded a net loss of $18,148,000 or $0.14 per share, compared to a net loss of $8,852,000 or $0.07 per share during the comparative 2023 period. This was primarily due to a loss from mining operations, inventory impairments and increases to finance expense and foreign exchange losses on US dollar denominated debt, and care and maintenance expenses at Okanjande, partially offset by lower general and administration costs, lower care and maintenance costs at LDI, other income from cost reimbursement of NGC's BAM lab and lower net tax recoveries. A significant portion of the net loss was for non-cash charges including depletion and depreciation, foreign exchange losses, inventory impairments, drawdown of inventory for sales, accretion of debt instruments and share-based compensation.

Summary of Quarterly Results

The following tables contain selected financial information for the eight most recently completed quarters for the Company ending June 30, 2024.

(Shown in Thousands of Dollars)	June 30 2024 $	March 31 2024 $	December 30 2023 $	September 30 2023 $
Revenue	**5,465**	**5,532**	**4,210**	**4,933**
Net loss	**(9,365)**	**(8,781)**	**(7,964)**	**(6,827)**
Loss per share – basic and diluted	**(0.07)**	**(0.07)**	**(0.06)**	**(0.05)**

Results of Operations

(Shown in Thousands of Dollars)	June 30 2023 $	March 31 2023 $	December 30 2022 $	September 30 2022 $
Revenue	**3,963**	**3,993**	**3,817**	**4,483**
Net loss	**(4,633)**	**(4,219)**	**(4,709)**	**(4,823)**
Loss per share – basic and diluted	**(0.04)**	**(0.03)**	**(0.04)**	**(0.04)**

The LDI mine and plant were temporarily placed in care and maintenance for the second, third and part of the fourth quarters of 2023 while the Company sold excess inventory which it acquired with LDI. The plant restarted on October 30, 2023, but the mine continued on care and maintenance. Relevant costs incurred in these periods were recorded in the condensed interim consolidated statements of loss and other comprehensive loss as care and maintenance expense. The LDI mine restarted operations on April 25, 2024.

The Okanjande plant was temporarily placed in care and maintenance in the third quarter of 2023 and remained so at June 30, 2024. Holding costs incurred in the periods were recorded in the consolidated statements of loss and other comprehensive loss as care and maintenance expense.

c. Liquidity and Capital Resources

As at June 30, 2024 the Company held cash of $0.7 million (December 31, 2023 - $3.1 million), $1.9 million of restricted cash (December 31, 2023 - $1.9 million) and had negative working capital of $25.6 million (December 31, 2023 – positive $10.1 million). Working capital includes $8.9 million (December 31, 2023 - $17.1 million) in inventory consisting of 2,899 tonnes of graphite concentrate (December 31, 2023 – 3,672) and 33,074 tonnes of ore stockpiles (December 31, 2023 – 124,239) as well as materials and supplies. The ore stockpile contains approximately 2,030 tonnes of recoverable graphite (December 31, 2023 – 7,765 tonnes). During the second quarter of 2024, the stockpile and finished goods inventory were written down to their net realizable values. The realizable value of the concentrate inventory is higher than the cash cost and, the Company intends to continue reducing inventories to generate liquidity. The value of finished goods in non-current assets was $3.4 million at June 30, 2024 ($1.9 million at December 31, 2023) representing 1,572 tonnes (December 31,2023 - 745 tonnes).

Working capital as at June 30, 2024 was negatively impacted by the reclassification of $18.5 million of the senior secured loan and $3.9 million of royalty financing from non-current to current liabilities as a result of the lack of performance by the Company on the following covenants related to these instruments:

- Senior Secured Loan - as at June 30, 2024, the Company had not met some of the covenants relating to the amended and restated credit agreement dated November 29, 2023, including:
    - The payment of accrued interest of $1.6 million (US$1.2 million) on the semi-annual interest payment date as of June 30, 2024;
    - Maintaining, at all times, on a consolidated basis, positive working capital, and
    - Maintaining, at all times, on a consolidated basis, a minimum cash balance of $750,000.
- Royalty Financing - As at June 30, 2024, the Company had not met one of the covenants related to the amended and restated royalty agreement dated November 29, 2023, including:
    - the payment of certain royalty amounts due in the second quarter of 2024 for a total of $0.4 million (US$0.3 million).
    - An additional royalty amount with respect to second quarter 2024 sales of $0.8 million (US$0.6 million) was due on July 31, 2024 and is currently unpaid.

All defaults have been waived by the lender as at June 30, 2024 and as at August 28, 2024, and the Company is currently in discussions with the lender relating to the revision of existing agreements.

During the six month period ended June 30, 2024, the Company utilized net cash of $1.6 million with respect to operating activities (June 30, 2023 - $5.2 million) and received net cash of $0.04 million from investment activities from sale of marketable securities which more than offset the $0.3 million spent primarily for property, plant and equipment at LDI, development work at Okanjande and exploration work at LDI (June 30, 2023 - $3.0 million invested).

d. Financings

During the six month period ended June 30, 2024, the Company paid $0.7 million in royalties to Sprott, made $0.2 million of lease payments and received gross proceeds of $100,000 from the exercise of 307,692 stock options in exchange for 307,692 common shares of the Company.

During the six months ended June 30, 2024, the following share purchase warrants expired, leaving the Company with 1,680,000 warrants outstanding with an exercise price of $0.75 at June 30, 2024.

- 1,545,750 warrants with an exercise price of $0.75 expired on February 10, 2024;
- 300,000 warrants with an exercise price of $0.75 expired on April 27, 2024;
- 10,500,000 warrants with an exercise price of $1.01 expired on April 29, 2024, and
- 18,802,050 warrants with an exercise price of $1.10 expired on April 29, 2024.

On September 27, 2023, Northern closed the sale of an additional 0.5% GRR on the Bissett Creek Project for $950,000 in cash proceeds. In connection with this sale, the Company will make a separate fixed royalty payment to ERL in the total amount of $200,000, payable in equal quarterly payments (commencing in the fourth quarter of 2023) of $25,000 for the next two years.

On April 27, 2023, the Company closed a non-brokered private placement financing of 3,000,000 units issued on a charity flow-through basis at a price of $0.75 per unit for proceeds of $2,250,000. 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 an exercise price of $0.75 for a period of two years. In connection with the transaction, the Company issued 180,000 warrants to a finder exercisable at $0.75 per share for a period of two years and has recorded finder's fee payable of $135,000. The Company used the proceeds of the financing to complete a drill program on a number of targets around LDI with the objective of identifying potential new sources of plant feed. In order to meet the terms of the flow through share agreement, the Company is required to spend an additional $1,850 on qualifying expenditures before December 31, 2024.

On November 29, 2023, the Company obtained additional financing of US$3 million from Sprott Resources and Royalties in the form of an increase in the amount of the Senior Secured Loan by US$1 million (from US$12 million to US$13 million), and an increase in the amount of the Royalty Financing by US$2 million (from US$4 million to US$6 million) through an additional 4% graphite sales revenue royalty on LDI reducing to 0.25% once the additional royalty has been paid on 45,000 tonnes of sales.

The Company has a working capital position largely consisting of inventories which represent a substantial source of future liquidity. While additional capital will be required to restart operations in Namibia and advance the LDI exploration, Bissett Creek and Mousseau Projects, as well as for construction of the Baie-Comeau BAM facility, the Company's capital investment programs are discretionary and flexible and will be managed in a manner that minimizes the need to raise financing at current share prices. Numerous, active discussions are ongoing with respect to strategic partnerships and off take agreements and there continue to be many positive developments in the EV/battery/critical minerals space.

The Company has incurred losses since its inception and had an accumulated deficit of $72.5 million as at June 30, 2024 which has been primarily funded by the issuance of shares, a senior secured loan, royalty financing, a deferred revenue agreement and sales of graphite concentrate. The Company's ability to continue as a going concern depends upon its ability to raise adequate financing and to generate profitable operations in the future. The Company has been successful in the past in raising funds for operations by issuing shares and entering into financing arrangements, but there is no assurance that it will be able to continue to do so in the future. As at June 30, 2024, the Company had a negative working capital balance of $25,580,000. There is a material uncertainty related to these conditions that casts significant doubt about the Company's ability to continue as a going concern and therefore it may be unable to realize its assets and discharge its liabilities in the normal course of business.

The Company's consolidated financial statements do not give effect to any adjustments which would be necessary should the Company be unable to continue as a going concern and therefore be required to realize its assets and discharge its liabilities in other than the normal course of business and at amounts different from those reflected in these financial statements. Any such adjustments could be material.

e. Contractual Obligations

At June 30, 2024, the Company had the following contractual obligations outstanding:

(Shown in Thousands of Dollars)	**Within 1 year**	**2-3 years**	**4-5 Years**	**5+ years**	**Total**
Accounts payable and accrued liabilities	$8,430	$ -	$ -	$ -	$8,430
Senior secured loan	5,077	24,754	-	-	29,831
Royalty	4,749	8,007	6,476	15,614	34,846
Deferred revenue	-	8,921	14,389	50,924	74,234
Lease commitments	512	339	284	648	1,783
Reclamation provisions	-	-	-	9,765	9,765
Firm commitments	4,279	-	-	-	4,279
	$23,047	$42,021	$21,149	$76,951	$163,168

f. Subsequent Events

Aside from the item noted below, all material events subsequent to June 30, 2024 have been described elsewhere in this MD&A.

g. Off Balance-Sheet Arrangements

The Company has not entered into any off-balance sheet arrangements such as guarantee contracts, contingent interests in assets transferred to unconsolidated entities, derivative instrument obligations, or any obligations under a variable interest entity arrangement.

h. Transactions with Related Parties and Key Management Compensation

During the three and six month periods ended June 30, 2024, the Company expensed salary and compensation to key management personnel of $573 and $1,137 (three and six months ended June 30, 2023 - $601 and $960) and management fees to a company owned and controlled by key management personnel of $15 and $27 (three and six months ended June 30, 2023 - $11 and $33). During the three and six month periods ended June 30, 2024, the Company expensed directors' fees of $41 and $81 (three and six months ended June 30, 2023 - $50 and $100). During the three and six month periods ended June 30, 2024, the Company expensed share-based payments for stock options granted to key management personnel and directors of $95 and $250 (three and six months ended June 30, 2023 - $197 and $933).

As at June 30, 2024, $455 (December 31, 2023 – $651) was included in accounts payable and accrued liabilities owing to officers and directors relating to management and directors' fees and for reimbursement of expenses.

On January 11, 2024, the Company announced the appointment of Samantha Espley as a director of the Company. In connection with her appointment, the Company granted Ms. Espley a total of 400,000 stock options under the Company's amended and restated stock option plan, which have an exercise price of $0.55 per share, an exercise period of five years and which vested immediately upon grant.

On February 27, 2024, the Board of Directors approved a grant of stock options to certain new officers and employees to purchase a total of 1,011,000 common shares of the Company at a price of $0.35 per share, vesting one third after each of years one, two, and year three, which are exercisable for a period of five years. Of these stock options, 200,000 were to a related party.

On July 5, 2024, 372,500 vested RSUs were exercised by related parties for the issuance of 372,500 common shares of the Company.

The Company's Board of Directors has granted RSUs and Stock options as part of its long-term incentive and retention plan for key executives and employees.

On August 28, 2024**,** the Board of Directors approved a grant of stock options to certain employees to purchase a total of 1,700,000 common shares of the Company at a price of $0.20 per share, vesting one quarter after each of years one and two and one half after year three, and which are exercisable for a period of five years. In addition, the Board of Directors approved a grant of 5,100,000 RSUs to certain officers and employees with a vesting period of one quarter after each of years one and two, and one half after year three. Related parties were granted 4,000,000 of these RSUs and none of the stock options.

i. Proposed Transactions

The Company continually reviews potential merger, acquisition, investment and other joint venture transactions that could enhance shareholder value. At the current time, there are no reportable proposed transactions except as disclosed elsewhere in this MD&A.

j. Critical Accounting Estimates and Judgements

The preparation of the interim condensed consolidated financial statements requires Company management to make estimates, assumptions, and judgements about the future that affect the amounts recorded in the consolidated financial statements. These estimates, assumptions, and judgements are based on the Company's experience and management's expectations about future events that are believed to be reasonable under the circumstances. They are continually being re-evaluated based on new facts and experience. Actual results may differ from estimates, assumptions and judgements. The effect of a change in an accounting estimate is recognized prospectively in the period of change and future periods if the change impacts both periods.

The critical accounting estimates and judgments that have the most significant effect in the preparation of the condensed consolidated interim financial statements are consistent with those disclosed in note 3 of the Company's annual consolidated financial statements for the year ended December 31, 2023.

k. Material Accounting Policies

The Company's interim condensed consolidated financial statements have been prepared in accordance with International Accounting Standard 34, Interim Financial Reporting. Details of the significant accounting policies for significant (or potentially significant) areas that have had an impact (or may have an impact in future periods) on the Company's financial statements are disclosed in note 4 of the Company's annual audited consolidated financial statements for the year ended December 31, 2023. The accounting policies applied in the preparation of the condensed consolidated interim financial statements are consistent with those applied in the Company's annual audited consolidated financial statements for the year ended December 31, 2023.

Amendments to IAS 1 – Presentation of Financial Statements

In October, 2022, the IASB issued amendments to IAS 1, *Presentation of Financial Statements* titled *Non-current Liabilities with Covenants*. These amendments sought to improve the information that an entity provides when its right to defer settlement of a liability is subject to compliance with covenants within 12 months after the reporting period. These amendments to IAS 1 override and incorporate the previous amendments, *Classification of Liabilities as Current or Non-current*, issued in January 2020, which clarified that liabilities are classified as either current or non-current, depending on the rights that exist at the end of the reporting period. Liabilities should be classified as non-current if a company has a substantive right to defer settlement for at least 12 months at the end of the reporting period. The amendments are effective January 1, 2024, with early adoption permitted. Retrospective application is required on adoption. Northern adopted these amendments effective January 1, 2024 with no material impact on these Interim Consolidated Financial Statements.

l. Disclosure of Outstanding Share Data

Information with respect to outstanding common shares, warrants and stock options as at August 29, 2024, June 30, 2024 and December 31, 2023 is as follows:

	August 28, 2024	**June 30, 2024**	**December 31, 2023**
Common shares	131,023,214	130,650,714	130,343,022
Warrants	1,680,000	1,680,000	32,827,800
Stock options	12,141,000	10,748,692	9,810,384
Restricted stock units	6,192,500	1,465,000	1,465,000

m. Non-IFRS Performance Measures

The Company has included certain non-IFRS measures in this MD&A. The Company believes that these measures, in addition to measures prepared in accordance with IFRS, provide investors an improved ability to evaluate the underlying performance of the Company and to compare it to information reported by other companies. The non-IFRS measures are intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS. These measures do not have any standardized meaning prescribed under IFRS, and therefore may not be comparable to other issuers.

Cash Cost Per Tonne of Graphite Concentrate Sold

Cash costs are a common financial performance measure but have no standard meaning. The Company reports cash costs on a per tonne of graphite concentrate sold basis. The Company believes that, in addition to measures prepared in accordance with IFRS, such as revenue, certain investors can use this information to evaluate the Company's performance and ability to generate operating earnings and cash flow from its mining operations. Management uses this metric as an important tool to monitor LDI's operating cost and performance.

The following table reconciles these non-IFRS measures to the most directly comparable IFRS measure disclosed in the financial statements.

(Shown in Thousands of Dollars, Except Tonnes and Per Tonnes Figures)	**Three months Ended June 30, 2024**	**Three months Ended June 30, 2023**	**Six months Ended June 30, 2024**	**Six months Ended June 30, 2023**
Graphite concentrate sold (tonnes)	2,772	2,016	5,740	3,829
Cost of sales	5,355	3,350	11,407	6,891
Less: depletion and depreciation	1,031	662	2,251	1,316
Total cash costs	4,324	2,688	9,156	5,575
Cash cost per tonne of graphite concentrate sold	**1,560**	**1,333**	**1,595**	**1,456**

Average Realized Sales Price Per Tonne of Graphite Concentrate Sold

Average realized sales price per tonne of graphite concentrate sold is used by management and investors to better understand the graphite price realized throughout a period.

(Shown in Thousands of Dollars, Except Tonnes and Per Tonnes Figures)	**Three months Ended June 30, 2024**	**Three months Ended June 30, 2023**	**Six months Ended June 30, 2024**	**Six months Ended June 30, 2023**
Gross revenue	5,465	3,963	10,997	7,956
Graphite concentrate tonnes sold	2,772	2,016	5,740	3,829
Average realized sales price per tonne of graphite concentrate sold	**1,972**	**1,966**	**1,916**	**2,078**

n. Trends

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

Risk Factors

An investment in the Company's common shares is speculative and subject to risks and uncertainties. The operating results and financial condition of the Company are subject to a number of inherent risks and uncertainties associated with its business activities, which include the operation of the LDI mine, the planned resumption of operations at the Okanjande Project and the development of the Bissett Creek and Mousseau Projects. The operating results and financial condition of the Company are also subject to numerous external factors, which include economic, environmental, regulatory, social, legal, tax, market and geopolitical risks impacting, among other things, graphite prices, the availability and cost of capital to fund the capital requirements of the business, inflation, the supply chain related to the business, uncertainty of production and cost estimates and the potential for unexpected costs and expenses, foreign exchange rates, and changes in general economic conditions or conditions in the financial markets. Each of these risks could have a material adverse effect on the Company's future business, results of operations, financial condition and prospects and the value of any investment in the Company, and could cause actual results to differ materially from those described in any forward-looking statements in this MD&A. The Company endeavors to manage these risks and uncertainties in a balanced manner. This includes developing appropriate risk management strategies, policies, processes and systems. There can be no assurance that the Company has been or will be successful in identifying all risks or that any risk-mitigating strategies adopted to reduce or eliminate risk will be successful. For a more comprehensive discussion of these risks, see "Risk Factors" in the Company's most recent annual information form and annual MD&A filed with the Canadian securities regulatory authorities under the Company's profile on SEDAR+ (www.sedarplus.ca).

The risk factors noted below highlight what Northern believes to be the most relevant risks, as at the date of this Management Discussion and Analysis, associated with an investment in the Company's common shares or in connection with the operations of the Company. Readers are cautioned that this is not an exhaustive list of all such risks.

Going Concern and Financial Position

The Company's consolidated financial statements have been prepared on a going concern basis, which assumes that the Company will be able to continue its operations for the foreseeable future and will be able to realize its assets and discharge its liabilities and commitments in the normal course of business. The Company will require additional capital to restart operations in Namibia and advance the Bissett Creek and Mousseau Projects and there is no assurance management will be successful in its endeavors.

During the six month period ended June 30, 2024, the Company reported an operating loss of $4.7 million and cash outflows from operating activities of $1.6 million, and it has yet to generate positive earnings. As at June 30, 2024, the Company had negative working capital of $25.6 million. As noted above, the Company's ability to continue as a going concern depends upon its ability to raise adequate financing and to generate profitable operations in the future. However, the Company's ability to achieve its objectives is dependent upon its ability to generate positive cash flows from operations and the sales of inventories, obtain additional financing and fund the repayment of existing borrowings. The Company has been successful in the past in raising funds for operations by issuing shares and entering into financing arrangements, but there is no assurance that it will be able to continue to do so in the future. There is a material uncertainty related to these conditions that casts significant doubt about the Company's ability to continue as a going concern and therefore it may be unable to realize its assets and discharge its liabilities in the normal course of business.

Financing and Liquidity

The Company relies on the cash flows generated from its mining and processing operations, including provisional payments received from its customers, cash on hand, and its ability to raise equity and debt from the capital markets to fund its operating, investment and liquidity needs. The cyclical nature of the Company's businesses, general economic conditions and the volatility of capital markets are such that conditions could change dramatically, affecting the Company's cash flow generating capability as well as its liquidity, cost of capital and its ability to access additional capital, which could have a material adverse impact on the Company's earnings and cash flows and, in turn, could affect total shareholder returns.

Furthermore, there can be no assurance that the Company's operations will be profitable or that the Company will be able to raise capital on terms that it considers reasonable. Adverse commodity market, general economic conditions and adverse capital market conditions could result in a delay or the indefinite postponement of development or construction projects and could have a material adverse impact on the Company's business, financial condition, results of operations and share price.

o. Qualified Person

Gregory Bowes B.Sc., MBA, P.Geo., is the Company's Qualified Person as that term is defined within NI 43-101 and has reviewed and approved the technical content of this MD&A.

Additional Information relating to the Company is available under the Company's profile on SEDAR+ at www.sedarplus.ca.