GRAPHITE ONE INC.

MANAGEMENT'S DISCUSSION AND ANALYSIS

For the year ended December 31, 2023

As of April 26, 2024

Graphite One

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The Management's Discussion and Analysis ("**MD&A**") of the financial position and results of operations for Graphite One Inc. (the "Company" or "Graphite One") (TSXV: GPH and OTCQX: GPHOF) should be read in conjunction with the Company's consolidated financial statements for the years ended December 31, 2023 and 2022, and the related notes thereto (the "**Annual Financial Statements**"). The Annual Financial Statements are prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board ("**IFRS Accounting Standards**"). For further information on the Company, reference should be made to its public filings on SEDAR+ at www.sedarplus.ca.

This MD&A should also be read in conjunction with the Company's most recently filed annual information form ("**AIF**"). Other than the information set out under the heading 'Risk Factors' in the AIF, which is incorporated by reference herein, the AIF does not constitute part of this MD&A.

This MD&A is prepared by management and approved by the Board of Directors as of April 26, 2024. The information and discussion provided in this MD&A is for the year ended December 31, 2023, and where applicable, the subsequent period up to the date of this MD&A. All dollar amounts in this MD&A are expressed in United States dollars. Reference to "$" in this MD&A is the US dollar and reference to "CA$" is the Canadian dollar.

Cautionary Statement on Forward-Looking Statements

This MD&A contains "forward-looking information" and "forward-looking statements" (collectively, "**forward-looking statements**") within the meaning of the applicable Canadian securities legislation. All statements, other than statements of historical fact, are forward-looking statements and are based on expectations, estimates and projections as at the date of this MD&A. Any statement that involves discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, future events or performance (often but not always using phrases such as "expects", or "does not expect", "is expected", "anticipates" or "does not anticipate", "plans", "budget", "scheduled", "forecasts", "estimates", "believes" or "intends" or variations of such words and phrases or stating that certain actions, events or results "may" or "could", "would", "might" or "will" be taken to occur or be achieved) are not statements of historical fact and may be forward-looking statements. Accordingly, there can be no assurance that forward-looking information will prove to be accurate and forward-looking information is not a guarantee of future performance. Readers are advised not to place undue reliance on forward-looking information.

In this MD&A, forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by the Company at this time, are inherently subject to significant business, economic and competitive uncertainties and contingencies that may cause the Company's actual financial results, performance, or achievements to be materially different from those expressed or implied herein. Some of the material factors or assumptions used to develop forward-looking statements include, without limitation, the uncertainties associated with regulatory and permitting considerations, financing of the Company and other activities, exploration, development and operation of mining properties and the overall impact of misjudgments made in good faith in the course of preparing forward-looking information.

Forward-looking statements are based on certain assumptions that the Company has made in respect thereof as at the date of this MD&A regarding, among other things: economic and operating conditions, including commodity prices, interest rates, exchange rates, and inflation; the changes in market activity and growth will be consistent with industry activity in Canada and the U.S. and growth levels in similar phases of previous economic cycles; the impact of the COVID-19 pandemic (including its variants) and geopolitical events, including government responses related thereto and their impact on global mining pricing, the mining industry exploration and development activity levels and production volumes; the ability of the Company to complete the feasibility study and in the timing as anticipated; anticipated sources of funding being available to the Company on terms favourable to the Company; the success of the Company's operations and growth projects; the Company's competitive position, operating costs remaining substantially unchanged; that counterparties comply with contracts in a timely manner; that the Company will be able to enter into the material agreements that it is currently anticipating with respect to a third party for a technology licensing, consulting and supply agreements for the design and construction of a graphite anode manufacturing plant and with Lab 4 Inc. regarding a battery materials recycling facility; that there are no unforeseen events preventing the performance of contracts; that there are no unforeseen material costs in relation to the Company's operations; that prevailing regulatory, tax and environmental laws and regulations apply or are introduced as expected, and the timing of such introduction; increases to the Company's share price and market capitalization over the long term; the Company's ability to repay debt and return capital to shareholders; the Company's ability to obtain and retain qualified personnel (including those with specialized skills and knowledge), technology and equipment in a timely and cost-efficient manner; the Company's ability to access capital and insurance; operating and borrowing costs, including costs associated with the acquisition and maintenance of equipment and property; an increased focus on ESG, sustainability and environmental considerations in the mining industry; the impacts of climate-change on the Company's business; the current business environment remaining substantially unchanged; future acquisition and maintenance costs; the Company's ability to achieve its ESG and sustainability targets and goals and the costs associated therewith; and other risks and uncertainties described in the AIF and from time to time in filings made by the Company with securities regulatory authorities.

It is important to note that:

- unless otherwise indicated, forward-looking information in this MD&A describes the Company's expectations as of the date of this MD&A;
- readers are cautioned not to place undue reliance on these statements as the Company's actual results, performance or achievements may differ materially from any future results, performance or achievements expressed or implied by such forward-looking statements if known or unknown risks, uncertainties or other facts affect the Company's business, or if the Company's estimates or assumptions prove inaccurate. Therefore, the Company cannot provide any assurance that forward-looking statements will materialize.
- The Company assumes no obligation to update or revise any forward-looking statement, whether as a result of new information, future events or any other reason except as required by law.

Investors are urged to read the Company's filings with the Canadian securities regulatory agencies which unless specifically incorporated herein are not part of this MD&A; these filings can be viewed online at www.sedarplus.ca.

For a description of material factors that could cause the Company's actual results to differ materially from the forward-looking statements in this MD&A, please see "Mining Risks" and "Business Risks."

Nature of Operations

The Company is focused on developing its Graphite One Project (the "**Project**"), aimed at making the Company the dominant American producer of battery anode materials integrated with a graphite resource. The Project is envisioned as a vertically integrated enterprise to mine, process, and manufacture anode materials for the electric vehicle lithium-ion battery market. Management's current plan is for graphite to be mined from the Company's Graphite Creek Property (the "**Proposed Mine**"), situated on the Seward Peninsula about fifty-five (55) kilometers (37 miles) north of Nome, Alaska, to be processed into concentrate at a mineral processing plant located adjacent to the mine. The resulting graphite concentrate would be shipped to the second link in the Company's proposed supply chain solution: a manufacturing plant where anode materials and other value-added graphite products would be manufactured. With the Company's commitment to locate the manufacturing plant in the U.S., the Company would provide a 100% U.S.-based advanced graphite materials supply chain. On October 14, 2022, the Company filed a Preliminary Feasibility Study ("**PFS**") for the Project on SEDAR+ and began work on a feasibility study. The feasibility study is anticipated to be completed in the fourth quarter of 2024, subject to the Company obtaining financing.

Highlights

Warrant Incentive Program

On April 2, 2024, the Company closed its previously announced warrant incentive program (the "**Warrant Incentive Program**") whereby the Company reduced the exercise price of its outstanding warrants to CA$1.00 per common share until March 28, 2024 and added an additional common share purchase warrant with an exercise price of CA$1.00 per common share with a three year expiry, subject to acceleration (the "**Sweetener Warrants**") for those that exercised their outstanding warrants on or prior to March 28, 2024. Through the Warrant Incentive Program, the Company received aggregate gross proceeds of CA$5,130,873 from the exercise of 5,130,873 outstanding warrants and issued a further 5,130,873 Sweetener Warrants. The exercise price on the remaining 6,824,804 Warrants that were not exercised during the Reduced Term reverted to the original terms as they existed prior to the Warrant Incentive Program.

Ohio Land Lease

On March 20, 2024, the Company's wholly owned subsidiary, Graphite One (Alaska) Inc. ("**G1 Alaska**") selected Ohio's "Voltage Valley" as the site of the Company's graphite anode manufacturing plant by entering into a cancelable land lease agreement for a 50-year term, contingent on certain future events, with an option to purchase.

Subject to financing, it is anticipated that the Company's Ohio facility, once built, will initially manufacture synthetic graphite anode active materials. Production of natural graphite anode active materials will be added as soon as feedstock from the Graphite Creek Project near Nome, Alaska is available.

Drill Program Results

On January 8, 2024, the Company received final assay results from the Company's 2023 summer drilling program, which marked the largest exploration program in the Company's history and put Graphite One on track to accelerate the completion of a National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("**NI 43-101**") compliant feasibility study.

On October 23, 2023, the Company completed the 2023 summer drilling program with 57 holes drilled totaling 8,736 meters (28,661 ft), including 5 geotechnical holes, and received the assay results on the initial 13 holes.

Settlement of Debt

On July 19, 2023, the Company entered into an unsecured, $5,000,000 loan agreement ("**Taiga Loan**") with Taiga which carried an annual interest rate of twelve (12%) per annum and matures on July 17, 2024. The settlement of the Taiga Loan and accrued interest was credited against the exploration and evaluation property. The NSR commences on the first day of the month in which the first concentrate is produced from the ore extracted from certain of the mineral claims for a period of twenty (20) years.

On December 27, 2023, the Company settled the outstanding loan and accrued interest of $5,220,000 with Taiga Mining Company, Inc. ("**Taiga**"), a related party, in exchange for a 1% NSR ("**NSR**") which is attached to 133 Alaska state claims owned or leased by Graphite One. On June 21, 2023, the Company had exercised an option to acquire the NSR for approximately $450,000 by issuing to the vendor 456,500 common shares of the Company at a price of CA$1.30 per share. With the settlement of the loan, the Company is debt-free.

Strategic Investment by Bering Straits Native Corporation

On September 14, 2023, the Company closed a strategic investment from Bering Straits Native Corporation ("**BSNC**"), a regional Alaska Native Corporation for the Bering Straits region. BSNC completed an initial investment of 2,802,690 units at a price of $0.71 (CA$0.97) for gross proceeds of $2,000,000 (CA$2,718,609). Each unit consists of one common share and one common share purchase warrant (a "**Warrant**"), with each Warrant entitling the holder to acquire, upon a payment of CA$1.21 to the Company, one common share of the Company and expires on September 14, 2024.

The Company granted BSNC an option to invest a further $6 million in common shares of the Company at any time before September 13, 2024 (the "**Option**"). If and when the Option and the Warrants are exercised, BSNC would have invested a total of $10.4 million in the Company.

Awarding of Government Grants

On September 11, 2023, the Company received a $4.7 million contract from the U.S. Department of Defense's Defense Logistics Agency ("**DLA**") to develop a graphite and graphene-based foam fire suppressant as an alternative to incumbent PFAS fire-suppressant materials, as required by U.S. law. The Company will execute the DLA project with Vorbeck Materials, Corp. of Maryland, under the terms of the Graphite One-Vorbeck teaming agreement which was announced on June 19, 2023.

On July 17, 2023, G1 Alaska was awarded a DoD Technology Investment Agreement ("**TIA Agreement**") grant of up to $37.5 million (the "**Grant**") under Title III of the DPA, funded through the Inflation Reduction Act. The funding objective of the DoD-G1 Alaska Technology Investment Agreement is to perform an accelerated Feasibility Study to modernize and expand domestic production capacity and a domestic supply chain for graphite battery anodes for electric vehicles and alternative energy batteries. The draw down of the Grant is contingent upon the Company's obligation to match an equivalent dollar-for-dollar amount of spending on the feasibility study. The total aggregate amount of up to approximately $75 million is subject to the terms of the TIA Agreement and ends on November 30, 2024. If funds remain available for drawdown pursuant to the Grant, the Company may request an extension to the term end date to complete the Feasibility Study, if required. To date, the Company submitted claims to the DoD totaling approximately $9.9 million for reimbursements under the Grant of which approximately $0.7 million was outstanding as at December 31, 2023. The outstanding balance was settled as at the date of this MD&A.

Graphite Creek Project

The following table summarizes the net Graphite Creek expenditures for the year ended December 31, 2023:

Site Preparation, Drilling and Camp Operations	$	14,682,910
Project Management and Administration		1,934,137
Environmental Studies		1,898,260
Engineering		734,852
Geological Consulting		590,552
Capitalized Depreciation		447,374
Assays and Metallurgy		431,848
Capitalized Share-Based Payments		416,751
Community Consultation and Meetings		168,356
Land management and advanced royalties		613,818
Settlement of debt against NSR		(5,220,274)
Government Grants		(9,878,290)
Graphite Creek expenditures		**6,820,293**
Secondary Treatment Plant Project Costs		730,094
Total Graphite Creek and other capitalized expenditures	**$**	**7,550,387**

Heavy equipment was delivered to site by winter trail in March 2023 and was used to build drill trails for the project. By establishing these drill trails, the program was able to reduce its reliance on helicopters by maximizing the number of drill holes completed using skid mounted rigs instead of flown rigs. This change allowed the Company to more than quadruple the total feet drilled of 28,661 ft compared to the 2022 summer drilling program when only 6,971 ft were drilled.

The 2023 summer drilling program commenced in early June with the opening of the two camps in Nome and Graphite Creek, the hiring of seasonal workers, setting up radio and internet communication at the sites, construction of drill trails, and building the drill pads. The field program ended in mid-October with 57 holes drilled for a total of 28,661 ft (8,736 m), which included 5 geotechnical holes to evaluate construction sites or hydrology conditions. The remaining 52 resource holes all intersected visual graphite mineralization and continue to demonstrate exceptional consistency of a shallow, high-grade graphite deposit that remains open both to the east and west of the existing mineral resource estimate.

On October 23, 2023, the Company received an initial set of assay results.

Select drill holes with significant graphite mineralization include:

- 23GC088 returns ***9.63 m of 13.19% Cg*** from 70.60 m;
- 23GC092 returns ***9.0 m of 14.89% Cg*** from 35.0 m;
- 23GC099 returns ***15.02 m of 10.75% Cg*** from 20.0 m;
- 23GC102 returns ***10.88 m of 11.14% Cg*** from surface AND ***8.03 m of 10.56% Cg*** from 66.14 m further down hole.

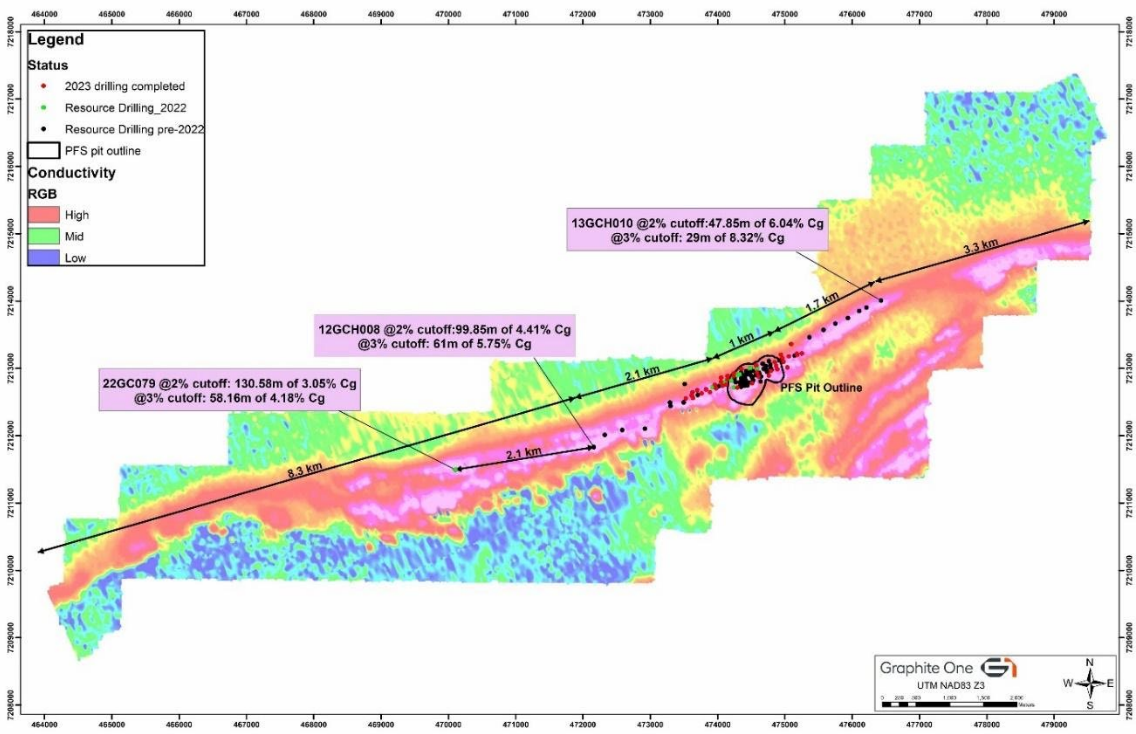

Figure 1: Graphite Creek Geophysical Anomaly with Resource Drilling to Date.

Summary of 2023 Summer Drilling Program Results:

SIGNIFICANT INTERCEPTS REPORT								
Parameters: Lower Cutoff = 6% Min Interval Length= 6 m Max Length of Internal Dilution = 1.5 m								
Hole ID	Project	Intercept	From (m)	To (m)	Length (m)	Length (ft)	C-Graphite (%)	Containing
23GC081	GRAPHITE	1	91.11	101.46	10.35	34.0	8.90	5.39 m @10.36 pct
23GC084	GRAPHITE	1	97.10	103.80	6.70	22.0	7.95	
23GC084	GRAPHITE	2	109.05	120.96	11.91	39.1	10.93	5.33 m @13.36 pct
23GC086	GRAPHITE	1	81.40	88.14	6.74	22.1	6.40	
23GC087	GRAPHITE	1	108.32	126.50	18.18	59.6	9.25	2.00 m @18.40 pct
23GC088	GRAPHITE	1	70.60	80.23	9.63	31.6	13.19	2.98 m @27.37 pct
23GC090	GRAPHITE	1	71.00	79.50	8.50	27.9	8.43	2.60 m @11.37 pct
23GC091	GRAPHITE	1	98.00	107.00	9.00	29.5	9.64	2.00 m @12.45 pct
23GC091	GRAPHITE	2	199.03	208.00	8.97	29.4	8.39	
23GC092	GRAPHITE	1	35.00	44.00	9.00	29.5	14.89	3.50 m @27.74 pct
23GC094	GRAPHITE	1	86.72	95.35	8.63	28.3	9.83	3.90 m @10.83 pct
23GC094	GRAPHITE	2	104.00	113.60	9.60	31.5	9.14	6.60 m @10.45 pct
23GC096	GRAPHITE	1	54.43	71.00	16.57	54.4	9.71	3.12 m @23.62 pct
23GC096	GRAPHITE	2	73.00	83.00	10.00	32.8	7.97	
23GC096	GRAPHITE	3	140.97	149.00	8.03	26.3	12.76	5.00 m @15.18 pct
23GC097	GRAPHITE	1	31.87	39.14	7.27	23.9	8.76	
23GC099	GRAPHITE	1	20.00	35.02	15.02	49.3	10.76	4.02m @13.072pct
23GC102	GRAPHITE	1	0.00	10.88	10.88	35.7	11.14	3.13 m @23.37 pct
23GC102	GRAPHITE	2	66.14	74.17	8.03	26.3	10.56	4.36 m @14.04 pct

Year	Drillhole Count	Meters Drilled	Feet Drilled
2012	18	4,248.84	13,939.8
2013	10	1,023.84	3,359.1
2014	22	2,313.98	7,591.8
2018	6	800.87	2,627.5
2019	3	357.80	1,173.9
2021	19	2,146.54	7,042.5
2022	16	2,124.88	6,971.4
2023	57	8,735.87	28,661.0
Total	**151**	**21,752.62**	**71,366.9**

In 2020, no drilling took place due to COVID restrictions.

On January 8, 2024, the Company received the final set of assay results from the Company's 2023 summer drilling program. Select drill holes with significant graphite mineralization include:

- 23GC110 returned **9.40 m of 13.87% Cg** from 10.36 m
- 23GC127 returned **6.48 m of 19.02% Cg** from 47.4 m and **10.14 m of 12.3% Cg** from 61.56 m
- 23GC115 returned **11.92 m of 7.07% Cg** from 53 m
- 23GC103 returned **9.90 m of 7.7% Cg** from 0.1 m
- 23GC105 returned **6.00 m of 12.54% Cg** from 107 m

Summary of additional 2023 assay results with notable intercepts

Hole ID	Intercept	From (m)	To (m)	Length (m)	Length (ft)	C-Graphite (%)	Containing
23GC101	1	96.47	104.00	7.53	24.7	9.67	2.00 m @ 12.55%
23GC103	1	0.10	10.00	9.90	32.5	7.70	
23GC105	1	62.97	72.00	9.03	29.6	6.64	
23GC105	2	107.00	113.00	6.00	19.7	12.54	3.00 m @ 15.30%
23GC106	1	23.00	29.00	6.00	19.7	7.47	
23GC106	2	84.00	91.00	7.00	23.0	9.53	2.00 m @ 12.15%
23GC109	1	21.64	28.00	6.36	20.9	7.75	
23GC110	1	10.36	19.76	9.40	30.8	13.87	3.51 m @ 25.16%
23GC110	2	52.15	58.97	6.82	22.4	9.69	2.85 m @ 14.45%
23GC114	1	83.82	90.00	6.18	20.3	9.71	
23GC115	1	53.00	64.92	11.92	39.1	7.07	
23GC122	1	84.00	90.00	6.00	19.7	7.67	
23GC127	1	47.40	53.88	6.48	21.3	19.02	3.59 m @ 29.92%
23GC127	2	61.56	71.70	10.14	33.3	12.30	6.95 m @ 13.50%

Parameters: Notable interval defined as > 6% Graphite, Minimum Interval = 6 m, Maximum length of internal dilution = 1.5 m

Community and Indigenous Group Engagement

The Company is dedicated to cultivating and enhancing both existing and new relationships, and creating efficient communication channels in areas impacted by its operations as management works towards achieving the Company's goals in the short and long-term.

Technical Disclosure/Qualified Person

Mr. Rob Retherford, P. Geo with Alaska Earth Sciences, Inc. provided oversight of the 2023 drilling and sampling program. Mr. Retherford is a Qualified Person as defined under NI 43-101 and has reviewed and approved the technical content of this summary.

QA/QC Program Applied

Graphite One maintains a rigorous QA/QC program with respect to the preparation, shipping, analysis and checking of all samples and data from the Property. Quality control for drill programs at the Company's projects covers the complete chain of custody of samples, including verification of drill hole locations (collar surveys and down-hole directional surveys), core handling procedures (logging, sampling, sample shipping) and analytical-related work, including duplicate sampling, "check analyses" at other laboratories and the insertion of standard and blank materials. The QA/QC program also includes data verification procedures.

Overall Performance and Results of Operations

The Company has generated no operating revenue to date. The Company relies on the issuance of common shares and debt to finance exploration on its exploration and evaluation property, and to provide general operating working capital. Most of the Company's expenditures related to the Project are reflected in the Annual Financial Statements as exploration and evaluation property.

Selected Financial Information

The following table summarizes selected financial information as at the years ended December 31, 2023, 2022 and 2021:

	2023	2022	2021
Current assets ($)	2,679,485	905,761	6,528,077
Exploration and evaluation property ($)	57,683,886	50,133,500	34,089,017
Total assets ($)	61,510,652	52,185,240	41,149,698
Current liabilities ($)	2,604,986	4,675,142	7,000,206
Net loss ($)	8,451,967	5,698,534	8,264,771
Basic and diluted loss per share ($)	0.07	0.06	0.12
Weight average number of common shares outstanding	125,780,861	93,058,179	70,368,118
Exploration and evaluation expenditures ($)	14,760,989	12,824,903	13,442,960

Results of Operations

Net loss for the three months ended December 31, 2023 was $2,320,157, an increase of $554,726 compared to a net loss of $1,765,431 for the same period in 2022. The increased net loss was due primarily to a $1,150,413 increase in share based payments from the amortization of unvested 2022 and 2023 equity awards. This was partially offset by a $539,448 decrease in marketing and investor relations expenses, as there were no digital marketing campaigns during the quarter.

Net loss for the year ended December 31, 2023 was $8,451,967, an increase of $2,753,433 compared to a net loss of $5,698,534 for the year ended December 31, 2022. The increased net loss was due primarily to a $3,624,160 increase in share-based payments from the amortization of equity awards granted on January 19, 2023 and December 27, 2022, a $503,431 increase in marketing and investor relations expenses relating to digital marketing campaigns during the first half of 2023, and a $289,964 increase in professional fees, primarily legal fees. The increased expenses in 2023 were partially offset by the absence of a loss on debt settlement, $1,079,139.

Operating Expenses

	Three months ended December 31, 2023	Three months ended December 31, 2022	Net increase (decrease)	Year ended December 31, 2023	Year ended December 31, 2022	Net Increase (decrease)
Expenses						
Management fees and salaries	$ 897,756	$ 992,430	$ (94,674)	$ 1,808,990	$ 1,894,657	$ (85,667)
Marketing and investor relations	67,793	607,241	(539,448)	1,585,664	1,082,233	503,431
Consulting and advisory fees	(67,714)	90,024	(157,738)	234,430	348,159	(113,729)
Office and administration	82,657	227,611	(144,954)	491,801	560,839	(69,038)
Professional fees	113,350	41,830	71,520	399,697	109,733	289,964
Share-based payments	1,061,987	26,400	1,035,587	3,650,560	26,400	3,624,160
	$ 2,155,829	$ 1,985,536	$ 170,293	$ 8,171,142	$ 4,022,021	$ 4,149,121

Management fees and salaries

Management fees and salaries for the three months ended December 31, 2023 decreased $94,674 to $897,756 compared to $992,430 for the same period in 2022. The decrease was due primarily to allocating a portion of salaries to the projects due to increased time spent on the projects in the quarter.

Management fees and salaries for the year ended December 31, 2023 decreased $85,667 to $1,808,990 compared to $1,894,657 in 2022. As explained above, the decrease was due primarily to the allocation of a portion of salaries to the projects due to increased time spent on projects in the year.

Marketing and investor relations

Marketing and investor relations for the three months ended December 31, 2023 decreased $539,448 to $67,793 compared to $607,241 for the same period in 2022. The decrease was due primarily to no digital marketing campaigns during the quarter compared to $570,290 spent on digital marketing campaigns for the same period in 2022.

Marketing and investor relations for the year ended December 31, 2023 increased $503,431 to $1,585,664 compared to $1,082,233 in 2022. The increase was due primarily to $1,298,347 spent on digital marketing initiatives aimed at improving communication with investors and shareholders. Additionally, there was increased spending on conference events and investor meetings compared to $799,839 spent in 2022, which was partially offset by lower consulting and advisory fees.

Office and administration

Office and administration for the three months ended December 31, 2023 decreased $144,954 to $82,657 compared to $227,611 for the same period in 2022. The decrease was primarily due to lower spending on compensation consultants in 2023.

Office and administration for the year ended December 31, 2023 decreased $69,038 to $491,801 compared to $560,839 in 2022. The decrease was primarily due to lower spending on compensation consultants and was partially offset by higher directors and officers liability insurance and ERP system maintenance costs and increased travel.

Professional fees

Professional fees for the three months ended December 31, 2023 increased $71,520 to $113,350 compared to $41,830 for the same period in 2022. The increase was due primarily to higher legal fees on general corporate matters with more cross-border and international review required and to a lesser extent, increased accounting fees related to review engagement on quarterly financial statements, which commenced in the first quarter of 2023, and tax compliance.

Professional fees for the year ended December 31, 2023 increased $289,964 to $399,697 compared to $109,733 in 2022. The increase in professional fees was primarily due to higher legal fees on general corporate matters with more cross-border and international review required and to a lesser extent, increased accounting fees, as explained above.

Share-based payments

Share-based payments for the three months ended December 31, 2023 increased $1,035,587 to $1,061,987 compared to $26,400 for the same period in 2022. The increase was due to amortizing the fair value of the 2022 and 2023 equity-based awards granted to employees, officers, directors and advisors. The Company had adopted a new equity awards program in the last quarter of 2022 whereby the fair value of equity awards is amortized over the vesting period from one-year to three-years compared to past awards under which the equity awards had immediate vesting on the date of grant.

Share based payments for the year ended December 31, 2023 were $3,650,560 compared to $26,400 for the same period in 2022. The increase was due to the same reason, as explained above.

Summary of Quarterly Results

The following table is a summary of quarterly results for the Company for the eight most recently completed quarters:

Quarter ended	Dec 31 2023	Sep 30 2023	June 30 2023	Mar 31 2023
Net loss ($)	2,320,157	1,892,548	2,203,280	2,035,982
Basic and diluted loss per share ($)	0.02	0.01	0.02	0.02

Quarter ended	Dec 31 2022	Sep 30 2022	June 30 2022	Mar 31 2022
Net loss ($)	1,765,431	2,142,604	1,011,753	778,746
Basic and diluted loss per share ($)	0.02	0.02	0.01	0.01

The net loss for the fourth quarter of 2023 increased $427,609 to $2,320,157 compared to a $1,892,548 net loss for the third quarter of 2023. The increased net loss was primarily due to a provision for short-term incentive awards in the fourth quarter.

The net loss for the third quarter of 2023 decreased $310,732 to $1,892,548 compared to a $2,203,280 net loss for the second quarter of 2023. The decrease in the net loss was due primarily to lower digital marketing expenses.

The net loss for the second quarter of 2023 increased $167,296 to $2,203,279 compared to a $2,035,983 net loss for the first quarter of 2023. The increase in the net loss quarter-over-quarter was due primarily to higher digital marketing expenses, legal fees and share-based payments.

The net loss for the first quarter increased $270,552 to $2,035,983 compared to a net loss of $1,765,431 for the fourth quarter of 2022 due primarily to a $738,087 increase in share-based payments as the Company recognized the vesting of both the annual equity-based awards for calendar year 2022 which were granted on December 27, 2022, and the grant of 2023 equity-based awards.

Liquidity, Capital Resources and Going Concern

The Annual Financial Statements have been prepared on a going concern basis which assumes that the Company will be able to realize its assets and discharge its liabilities in the normal course of business for at least twelve months from December 31, 2023.

As at December 31, 2023, the Company had cash and cash equivalents of $1,824,331 (December 31, 2022: $501,704), and a working capital of $74,499 (December 31, 2022: working capital deficit of $3,769,381). The increase in cash and cash equivalents and improved working capital was due to receiving $15,263,251 of proceeds from a private placement, the exercise of common share purchase warrants, and a $5,000,000 Taiga Loan, which was settled on December 27, 2023.

The Company has incurred losses since inception and has not generated any cash inflows from the operations. Cash used in operating activities for the year ended December 31, 2023 increased $195,851 to $3,550,498 compared to $3,250,138 in 2022 due primarily to $236,789 increase from changes in non-cash working capital accounts.

On December 27, 2023, Taiga, a related party, exercised an option to acquire a 1% NSR from the Company by settling the outstanding loan and accrued interest the Company had borrowed from Taiga on July 17, 2023 pursuant to an unsecured $5,000,000 loan agreement. The settlement of the Taiga Loan and accrued interest in exchange for 1% NSR totaled approximately $5,220,000. The Taiga Loan matured on July 17, 2024 and carried a twelve (12) percent annual interest rate.

On December 26, 2023, the Company announced the vesting date of the RSUs granted to employees and directors on December 27, 2022 and January 19, 2023 pursuant to the terms of the Omnibus Plan were being extended, at the election by the employees and directors. For the 729,605 RSUs that were to vest on December 27, 2023 and 659,831 RSUs that were to vest on January 19, 2024, the Company and the grantees have agreed to extend such vesting date to June 14, 2024.

During the year ended December 31, 2023, the Company issued 21,917,598 common shares for proceeds of $15,263,251 (CA$20,580,197) in connection with a private placement with Bering Straits Native Corporation and the exercise of common share purchase warrants at an average exercise price of $0.69 (CA$0.93) per common share. In addition, the Company issued 456,500 common shares at a price of $0.98 (CA$1.30) for total consideration of $446,612 (CA$593,450) in connection with the buy back of a 1% NSR on 133 Alaska state claims owned or leased by the Company.

During the year ended December 31, 2023, the Company submitted claims to the Department of Defense totaling approximately $9.9 million for reimbursements under the terms of a Technology Investment Grant (the "**Grant**") of up to $37.5 million from the Department of Defense of which approximately $0.7 million was outstanding. The outstanding balance was received subsequent to December 31, 2023.

On December 27, 2023, the Company granted 47,250 stock options to an officer of the Company with an exercise price of CA$0.83, which vest one-third on the first, second and third anniversaries from the grant date and expires on December 27, 2028. The Company also granted 906,639 restricted share units to certain other employees and officers of the Company of which one-quarter of the restricted share units will vest on the first anniversary from the grant date, one-quarter vest of the restricted share units will vest on January 19, 2025 and the remaining fifty (50) percent of the restricted share units will vest on January 19, 2026. The Company also granted 768,880 performance share units to its employees and officers which vest from 0% to 100% on January 19, 2026, subject to the achievement of certain corporate performance target.

On January 19, 2023, the Company granted 1,517,743 stock options to certain employees and officers of the Company with an exercise price of CA$1.00, and vest one-third on the first, second and third anniversaries from grant date and expire on January 19, 2028. The Company also granted 2,719,101 restricted share units of which 1,319,101 restricted share units were granted to directors of the Company and one-quarter of the restricted share units will vest one-year from the grant date and one quarter of the restricted share units will vest on each of the following dates – April 6, 2024, July 6, 2024 and October 6, 2024. The remaining 1,400,000 restricted share units were granted to officers of the Company and vest over a three (3) year period.

Going Concern

As at December 31, 2023, the Company had a cash balance of $1,824,331 (December 31, 2022: $501,704), working capital of $74,499 (December 31, 2022: $3,769,381 working capital deficit), and an accumulated deficit of $47,931,655 (December 31, 2022: $39,479,688). The Company has incurred losses since inception and does not generate any cash inflows from operations. For the year ended December 31, 2023, cash used in operating activities totaled $3,550,498 (December 31, 2022: $3,354,647) and $15,030,673 (December 31, 2022: $13,612,647) were spent on project related expenditures. Subsequent to December 31, 2023, the Company issued 5,130,873 common shares for gross proceeds of approximately $3,780,000 (CA$5,130,873) pursuant to the exercise of outstanding common share purchase warrants at an exercise price of $0.74 (CA$1.00) per share (the "**April 2024 Warrant Exercises**").

The Company's ability to continue to meet its obligations and conduct its planned exploration and development activities is uncertain and dependent upon the continued financial support of its shareholders and on securing additional financing. During the year ended December 31, 2023, the Company entered into a loan agreement for $5,000,000 (subsequently settled with a 1% Net Smelter Returns Royalty) and completed a non-brokered private placement. Including the April 2024 Warrant Exercises, the Company has raised gross proceeds of $20,263,251 since January 1, 2023. Based on projected administrative and project expenditures for 2024, the Company will require additional financings to continue to operate. There can be no assurance that the Company will be successful in securing adequate funding through additional financings, which gives rise to material uncertainty that may cast significant doubt regarding the going concern assumption and, accordingly, the ultimate appropriateness of the use of accounting principles applicable to a going concern. The Annual Financial Statements do not reflect the adjustments to the carrying values of assets and liabilities and the reported expenses and statement of financial position classifications that would be necessary if the Company were unable to realize its assets and settle its liabilities as a going concern in the normal course of operations for the foreseeable future. These adjustments could be material.

Related Party Transactions and Balances

Relationships	**Nature of the relationship**
Huston and Huston Holdings Corp.	Huston and Huston Holdings Corp. is a private company controlled by Anthony Huston, an officer and director of the Company which provides director and management services to the Company. The payments relate to management fees.
Rockford Resources LLC	Rockford is a private company controlled by Patrick Smith, a director of the Company which provides Patrick Smith's services as a director to the Company. The payments relate to director fees.
ROTAK LLC	ROTAK is one of the providers to the Company of helicopter support services in Alaska and provided these services to the Company in 2022. One of Taiga's principals is also a manager in the entity that controls ROTAK.
SSP Partners LLC	SSP Partners LLC is a private company controlled by Scott Packman, a director of the Company which provides Scott Packman's services as a director to the Company. The payments relate to director fees.
Taiga Mining Company, Inc.	Taiga is a private mining company that owns more than 20% of the common shares of Graphite One. Taiga's owners are Jerry Birch and Kevin Greenfield and the amount reported in the table below relates to interest on a $5 million loan that was settled in December 2023.

	Twelve months ended December 31,	
	2023	2022
Huston & Huston Holdings Corp.	**$ 877,500**	$ 617,755
Rockford Resources LLC	**30,000**	30,000
ROTAK LLC	**-**	447,496
SSP Partners LLC	**30,000**	16,401
Taiga Mining Company, Inc.	**220,274**	-
	$ 1,157,774	$ 1,111,652

Amounts owing to other related parties are non-interest bearing, unsecured and due on demand, primarily for payroll obligations. As at December 31, 2023, the Company owed $690,000 (December 31, 2022: $25,000) to related parties.

During the year ended December 31, 2023, Taiga completed the following transactions with the Company:

i) April 17, 2023 and June 28, 2023, Taiga exercised 6,059,230 warrants at an average exercise price of $0.99 (CA$1.32) for gross proceeds of $5,977,635 (CA$8,021,550).

ii) on July 19, 2023, G1 Alaska, the Company's wholly owned subsidiary entered into an unsecured loan agreement (the "**Loan**") for advances of up to $5 million, which was to mature on July 17, 2024 and carries an interest rate of twelve (12) percent per annum. In connection with the loan, the Company granted Taiga an option to acquire a 1% NSR on 133 Alaska state claims owned or leased by the Company.

iii) on December 27, 2023, Taiga exercised its option to acquire the 1% NSR from the Company in exchange for the settlement of the $5.0 million loan and approximately $0.2 million of accrued interest. The 1% NSR commences on the first day of the month in which the first concentrate is produced from certain of the mineral claims for a period of twenty (20) years.

Key management compensation

Key management are those personnel having the authority and responsibility for planning, directing and controlling the Company and include the President and Chief Executive Officer, Executive Chair, Chief Financial Officer, three (3) Vice-Presidents and the directors of the Company. During the year ended December 31, 2023, the Company capitalized $0.1 million of key management compensation to the exploration and evaluation property and the fire-fighting foam suppressant project. Compensation paid to key personnel, which include the fees referenced in the above related party transactions table is as follows:

	Years ended December 31,	
	2023	2022
Management fees	**$ 877,500**	$ 617,755
Director fees	**120,000**	91,401
Salaries and benefits	**2,027,277**	1,488,198
Share-based payments	**4,067,310**	24,347
	$ 7,092,087	$ 2,221,701

Financial Risk Management

The Company may be exposed to risks of varying degrees of significance which could affect its ability to achieve its strategic objectives. The main objectives of the Company's risk management processes are to ensure that risks are properly identified and that the capital base is adequate in relation to those risks. The principal risks to which the Company is exposed are described below.

Credit risk

Credit risk is the risk of potential loss to the Company if counterparty to a financial instrument fails to meet its contractual obligations. The Company's credit risk is primarily attributable to its cash and cash equivalents and receivables.

The Company has assessed its exposure to credit risk on its cash and cash equivalents and receivable from the US Government and has determined that such risk is minimal. The majority of the Company's cash are held with a chartered bank in Canada.

Liquidity risk

Liquidity risk is the risk that the Company is not able to meet its financial obligations as they fall due.

As at December 31, 2023, the Company had a working capital balance of $74,499 (December 31, 2022: $3,769,381 working capital deficit). On July 17, 2023, the Company was awarded a Technology Investment Grant (the "**Grant**") of up to $37.5 million from the Department of Defense to accelerate the completion of its Graphite Creek feasibility study and entered into an unsecured, $5.0 million loan with Taiga Mining Company, LLC, a related party, which was subsequently settled on December 27, 2023. The Company submits a monthly drawdown from the DoD for reimbursement of their share of the feasibility study expenditures. The Grant and the proceeds from any debt or equity financings will be used to fund the ongoing operations and the Graphite Creek project. There can be no assurance that the Company can obtain additional financing on terms acceptable to the Company or at all.

Interest rate risk

Interest rate risk is the risk arising from the effect of changes in prevailing interest rates on the Company's financial instruments.

The Company has $1,824,331 in cash and cash equivalents at December 31, 2023 (December 31, 2022: $501,704), on which it earns variable rates of interest, and may therefore be subject to a certain amount of risk, though this risk is considered by management to be immaterial.

Foreign currency risk

Foreign currency risk is the risk that the fair value of, or future cash flows from, the Company's financial instruments will fluctuate because of changes in foreign exchange rates.

As at December 31, 2023, the Company has certain monetary items denominated in United States dollars and British pounds. Based on these net exposures, a 10% appreciation or depreciation of the United States Dollar would result in an increase or decrease in the Company's net loss by $24,594 (December 31, 2022: $18,002).

Fair Values

The carrying values of cash and cash equivalents, amounts receivable, deposits, and trade and other accounts payable approximate their fair values due to their short-term nature or the ability to readily convert to cash.

Critical Accounting Estimates and Judgments in Applying Accounting Policies

Critical accounting estimates and judgment that have the most significant effect on the amounts recognized in the Annual Financial Statements are disclosed in Note 4 of the Annual Financial Statements.

Outlook

The Company's primary focus is to complete the feasibility study on the Graphite One Project which includes the Proposed Mine and primary processing facilities on the Seward Peninsula in Alaska and a graphite anode manufacturing plant in Ohio State. The Company's goal is to become a vertically integrated producer of premium anode materials and other advanced graphite products by creating an integrated American domestic supply chain. The ability of the Company to achieve this is contingent upon its ongoing ability to raise the risk capital necessary to advance its plans.

With the completion of the summer drilling program, the Company started the engineering phase of the feasibility study in the fourth quarter of 2023. The 2024 summer drilling program will include additional geotechnical drilling for mine planning design. The Company expects to complete the feasibility study report in the fourth quarter of 2024.

Negotiations are ongoing to finalize the terms of definitive agreements with:

- A third party for a technology licensing, consulting and supply agreements for the design, construction of a graphite anode manufacturing plant; and

- Lab 4 Inc. on a technology licensing agreement involving the design, construction, and operation of a battery materials recycling facility.

Risk Factors

Readers of this MD&A should give careful consideration to the information included or incorporated by reference in this document and the Annual Financial Statements and related notes for the year ended December 31, 2023. For further details of risk factors, please refer to the most recent AIF filed on SEDAR+ at www.sedarplus.ca, the Annual Financial Statements, and the below discussions.

This section does not describe all risks applicable to the Company, its industry or its business, and is intended only as a summary of certain material risks of significance to this MD&A. If any of the risks or uncertainties set out in the AIF or this MD&A actually occur, the Company's business, financial condition, operating results or share price could be harmed substantially and could differ materially from the plans and other forward-looking statements discussed in this MD&A

Additional risks and uncertainties not presently known to the Company or that the Company currently considers immaterial may also impair its business operations. These risk factors could materially affect the Company's future operating results and could cause actual events to differ materially from those described in forward-looking statements relating to the Company.

Mining Risks

The Company is subject to risks typical in the mining business including uncertainty of success in exploration and development; unusual and unexpected geological formations, possible flooding and other conditions involved in drilling and removal of material, mitigation of possible environmental impacts, and the occurrence of other unexpected hazards. Risks also include the possibility that intended drilling schedules or estimated costs will not be achieved and unexpected fluctuations in the price of materials, supplies and currency exchange rates. The aggregate effect of these factors is impossible to predict with any degree of certainty.

Mineral Processing Risks

The Company is subject to the risks typical in the mineral processing business including uncertainty that intended schedules, timelines, process performance criteria or estimated capital and operating costs will be achieved. There are risks beyond the Company's control, including: currency exchange rates; inflation; levels of interest rates; costs and availability of skilled workers, materials and supplies; global or regional political, economic and banking crises; and transportation and distribution disruptions. The aggregate effect of these factors is impossible to predict with any degree of certainty.

Uninsurable Risks

Mining processing operations involve a high degree of risk. Exploration, development and production operations on mineral properties involve numerous risks, including but not limited to unexpected or unusual geological operating conditions, seismic activity, rock bursts, cave-ins, fires, floods, landslides, earthquakes and other environmental occurrences, and political and social instability, any of which could result in damage to, or destruction of life or property, environmental damage and possible legal liability. Although the Company believes that appropriate precautions to mitigate these risks are being taken, exploration field activities are subject to hazards such as equipment failure or failure of structures, which may result in environmental pollution and consequent liability. It is not always possible to obtain insurance against all such risks and the Company may decide not to insure against certain risks because of high premiums or other reasons. Should such liabilities arise, they could reduce or eliminate the Company's future profitability and result in increasing costs and a decline in the value of the Common Shares.

While the Company may obtain insurance against certain risks in such amounts as it considers adequate, the nature of these risks is such that liabilities could exceed policy limits or be excluded from coverage. The potential costs that could be associated with any liabilities not covered by insurance or in excess of insurance coverage may cause substantial delays and require significant capital outlays, thereby adversely affecting the Company's business and financial condition.

Business Risks

Natural resources exploration, project development, processing, and transportation; and, product development, processing, production, and marketing all involve a number of business risks, some of which are beyond the Company's control. These can be categorized as operational, market, financial and regulatory risks.

- Operational risks include finding and developing reserves economically; processing minerals competitively into successful products; product deliverability uncertainties; changing governmental law and regulation; hiring and retaining skilled employees and contractors; and conducting operations in a cost effective and safe manner. The Company continuously monitors and responds to changes in these factors and adheres to all regulations governing its operations. Insurance may be maintained at levels consistent with prudent industry practices to minimize risks; however, the Company is not fully insured against all risks nor are all such risks insurable.
- Operational risks also include the timing and successful completion of the Feasibility Study, permitting, construction and start-up.
- Market risks include the demand and prices for graphite and graphite products not achieving expectations and disruptions in transportation and distribution. These and other factors are beyond the Company's control, including levels of inflation and interest rates, the demand for commodities, global or regional political, economic, and banking crises and production rates in competitive producing regions.
- Financial risks include the timely availability of capital and changes in commodity prices, interest rates, inflation, wages and salaries, taxation, and foreign exchange rates, all of which are beyond the Company's control.
- Regulatory risks include delays in regulatory approvals for developments and transactions that the Board of Directors believe to be in the best interest of the Company, increased fees for filings, and the introduction of ever more complex reporting requirements, the cost of which the Company must meet in order to maintain its exchange listing.
- Supply chain risk includes the sourcing of graphite concentrate in the open market as feed stock for the secondary treatment plant ("STP") while the Company completes the construction of the Graphite Creek Mine to produce graphite concentrate for the STP.
- Supply chain risk also includes a risk the STP does not produce the quantity and/or quality of the graphite products in the time anticipated.

Negative Operating Cash Flow and Dependence on Third Party Financing

The Company has no source of operating cash flow and there can be no assurance that the Company will ever achieve profitability. Accordingly, the Company is dependent on third party financings to continue exploration activities on the Company's properties, maintain capacity and satisfy contractual obligations. Accordingly, the amount and timing of expenditures depends on the Company's cash reserves and access to third party financings. Failure to obtain such additional financing could result in delay or indefinite postponement of further exploration and development of the Company's Graphite Creek Project or require the Company to sell one or more of its properties (or an interest therein).

Uncertainty of Additional Financing

As stated above, the Company is dependent on third party financings, whether through debt, equity, or other means. Although the Company has been successful in raising funds to date, there is no assurance that the Company will be successful in obtaining the required financing in the future or that such financing will be available on terms acceptable to the Company. The Company's access to third party financing depends on a number of factors including the price of graphite, the results of ongoing exploration, the results of the Feasibility Study and any other economic or other analysis, a claim against the Company, a significant event disrupting the Company's business or graphite industry generally, or other factors may make it difficult or impossible to obtain financing through debt, equity, or other means on favorable terms, or at all. As previously stated, failure to obtain such additional financing could result in delay or indefinite postponement of further exploration and development of the Company's Graphite Creek Project or require the Company to sell one or more of its properties (or an interest therein).

Reliance upon Key Management and Other Personnel

The Company relies on specialized skills of management in the areas of mineral exploration, geology and business negotiations and management. The loss of any of these individuals could have an adverse effect on the Company. The Company does not currently maintain key-man life insurance on any of its key employees. In addition, as the Company's business activity continues to grow, it will require additional key financial, administrative, and qualified technical personnel. Although the Company believes that it will be successful in attracting, retaining, and training qualified personnel, there can be no assurance of such success. If it is not successful in attracting, retaining, and training qualified personnel, the efficiency of the Company's business could be affected, which could have an adverse impact on its future cash flows, earnings, results of operation and financial condition.

Imprecision of PFS and Mineral Resource Estimates

The results of the PFS and the mineral resource figures are estimates, and such estimates are expressions of judgment based on knowledge, mining experience, analysis of drilling results and industry practices. Valid estimates made at a given time may significantly change when new information becomes available. While the Company believes that its mineral resource estimate is well established and reflects management's best estimates, by their nature, mineral resource estimates are imprecise and depend, to a certain extent, upon statistical inferences which may prove unreliable. Should the Company encounter mineralization or formations different from those predicted by past sampling and drilling, resource estimates may have to be adjusted.

These are not the only risks and uncertainties that the Company faces. Additional risks and uncertainties not presently known to the Company or that the Company currently considers immaterial may also impair its business operations. These risk factors could materially affect the Company's future operating results and could cause actual events to differ materially from those described in forward-looking statements relating to the Company.

Outstanding Share Data

The following table summarizes the Company's outstanding share capital as at April 26, 2024:

Common shares issued and outstanding	137,613,342
Restriced share units	8,747,365
Performance share units	1,984,658
Stock options outstanding (weighted average exercise price CA$1.00)	12,430,737
Warrants outstanding (weighted average exercise price CA$1.22)	11,955,677
Broker warrants outstanding (weighted average exercise price CA$1.50)	356,022
Fully diluted	**173,087,801**

Management's Report on Internal Control over Financial Reporting

In connection with National Instrument 52-109 (Certification of Disclosure in Issuer's Annual and Interim Filings) ("**NI 52-109**") adopted in December 2008 by each of the securities commissions across Canada, the Chief Executive Officer and Chief Financial Officer of the Company will file a Venture Issuer Basic Certificate with respect to the financial information contained in the Annual Financial Statements and MD&A.

The Venture Issuer Basic Certification does not include representations relating to the establishment and maintenance of disclosure controls and procedures and internal control over financial reporting, as defined in NI 52-109.

Other Information

Additional information related to the Company is available for viewing on SEDAR+ at www.sedarplus.ca and on the Company's website at www.graphiteoneinc.com.