UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 40-F

☐ Registration statement pursuant to Section 12 of the Securities Exchange Act of 1934

or

☒ Annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934

For the fiscal year ended March 31, 2024 Commission File Number 001-41310

Zentek Ltd.

(Exact name of Registrant as specified in its charter)

N/A

(Translation of Registrant's name into English (if applicable))

Ontario, Canada	**2890**	**N/A**
(Province or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

24 Corporate Ct
Guelph, Ontario N1G 5G5
1-844-730-9822
(Address and telephone number of Registrant's principal executive offices)

Cogency Global Inc.
122 East 42nd Street, 18th Floor
New York, NY 10168
1-800-221-0102
(Name, address (including zip code) and telephone number (including area code) of agent for service in the United States)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Shares, no par value	**ZTEK**	**The Nasdaq Stock Market LLC**

Securities registered pursuant to Section 12(g) of the Act: **None**

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: **None**

For annual reports, indicate by check mark the information filed with this Form:

☒ Annual information form ☒ Audited annual financial statements

Indicate the number of outstanding shares of each of the registrant's classes of capital or common stock as of the close of the period covered by the annual report: 100,819,577 outstanding as of March 31, 2024.

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the preceding 12 months (or for such shorter period that the registrant was required to file such reports); and (2) has been subject to such filing requirements for the past 90 days. ☒ Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). ☒ Yes ☐ No

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 12b-2 of the Exchange Act.

☒ Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act. ☐

† The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included

in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

EXPLANATORY NOTE

Zentek Ltd. (the "Company" or "Zentek") is a "foreign private issuer" as defined in Rule 3b-4 under Securities Exchange Act of 1934, as amended (the "Exchange Act"), and is a Canadian issuer eligible to file its annual report ("Annual Report") pursuant to Section 13 of the Exchange Act on Form 40-F pursuant to the multi-jurisdictional disclosure system (the "MJDS") adopted by the United States Securities and Exchange Commission (the "SEC"). The Company's common shares are listed on the TSX Venture Exchange under the trading symbol "ZEN" and the Nasdaq Capital Market ("NASDAQ") under the trading symbol "ZTEK".

In this Annual Report, references to "we", "our", "us", the "Company", the "Registrant", or "Zentek", mean Zentek Ltd., unless the context suggests otherwise.

FORWARD LOOKING STATEMENTS

The documents incorporated into this Annual Report contain "forward-looking statements" and "forward-looking information" within the meaning of applicable securities laws (forward-looking information and forward-looking statements being collectively hereinafter referred to as "forward-looking statements"). Such forward-looking statements are based on expectations, estimates and projections as at the date of this Annual Report or the dates of the documents incorporated herein, as applicable. Any statements that involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or 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", "should", "might" or "will" be taken, occur or be achieved) are not statements of historical fact and may be forward-looking statements and are intended to identify forward-looking statements. These forward-looking statements include, but are not limited to, statements and information concerning: the intentions, plans and future actions of the Company; statements relating to the business and future activities of the Company after the date of this Annual Report; market position, ability to compete and future financial or operating performance of the Company after the date of this Annual Report; statements based on the audited and unaudited financial statements of the Company; anticipated developments in operations; the timing and amount of funding required to execute the Company's development and business plans; intellectual property expenditures; capital and exploration and development expenditures; the effect on the Company of any changes to existing legislation or policy; government regulation of patent law or mining operations; the length of time required to obtain permits, certifications and approvals; markets for the Company's graphene related products and the ability to supply those markets; the success of exploration, development and mining activities; the geology of mineral properties; environmental risks; the availability of labour; demand and market outlook for precious metals and the prices thereof; progress in development of mineral properties; estimated budgets; currency fluctuations; requirements for additional capital; government regulation; limitations on insurance coverage; the timing and possible outcome of litigation in future periods; the timing and possible outcome of regulatory and permitting matters; goals; strategies; future growth; planned business activities and planned future acquisitions; the adequacy of financial resources; and other events or conditions that may occur in the future.

Forward-looking statements are based on the beliefs of the Company's management, as well as on assumptions, which such management believes to be reasonable based on information currently available at the time such statements were made. However, by their nature, forward-looking statements are based on assumptions and involve known and unknown risks, uncertainties, and other factors that may cause the actual results, performance, or achievements to be materially different from any future results, performance, or achievements expressed or implied by the forward-looking statements. Forward-looking statements are subject to a variety of risks, uncertainties, and other factors that could cause actual events or results to differ from those expressed or implied by the forward-looking statements, including, without limitation those risks outlined under the heading "Risk Factors" on page 22 of the Annual Information Form for the year ended March 31, 2024, attached as Exhibit 99.1 to this Annual Report, and incorporated herein by reference, and under the heading "Risks and Uncertainties" on pages 30-39 of the Registrant's Management's Discussion & Analysis for the year ended March 31, 2024, attached as Exhibit 99.3 to this Annual Report, and incorporated herein by reference, and in other filings that the Registrant has made and may make with applicable securities authorities in the future.

The list of risk factors set out in the Annual Information Form for the year ended March 31, 2024, attached as Exhibit 99.1 to this Annual Report, and as set out in Management's Discussion & Analysis for the year ended March 31, 2024, attached as Exhibit 99.3 to this Annual Report, and both incorporated herein by reference, is not exhaustive of the factors that may affect any forward-looking statements of the Company. Forward-looking statements are statements about the future and are inherently uncertain. Actual results could differ materially from those projected in the forward-looking statements as a result of the matters set out or incorporated by reference in this Annual Report generally and certain economic and business factors, some of which may be beyond the control of the Company, including, among other things, potential direct or indirect operational impacts resulting from infectious diseases or pandemics, such as, and from international or domestic conflicts or political crises, and other factors not currently viewed as material that could cause actual results to differ materially from those described in the forward-looking statements. In addition, recent events in the world economy and global financial and credit markets have resulted in high market and commodity volatility and a contraction in debt and equity markets, which could have a particularly significant, detrimental, and unpredictable effect on forward-looking statements. The Company does not intend and does not assume any obligation, to update any forward-looking statements, other than as required by applicable law. For all of these reasons, the Company's securityholders should not place undue reliance on forward-looking statements.

NOTICE TO UNITED STATES READERS - DIFFERENCES IN UNITED STATES AND CANADIAN REPORTING PRACTICES

The Registrant is permitted, under the MJDS, to prepare this Annual Report in accordance with Canadian disclosure requirements, which are different from those of the United States. The Registrant has historically prepared its consolidated financial statements, which are filed as Exhibit

99.2, and incorporated herein by reference, to this Annual Report on Form 40-F, in accordance with International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board. Financial statements prepared in IFRS may differ from financial statements prepared in United States GAAP ("U.S. GAAP") and from practices prescribed by the SEC. Therefore, the Registrant's financial statements filed with this Annual Report may not be comparable to financial statements of United States companies prepared in accordance with U.S. GAAP.

Unless otherwise indicated, all dollar amounts in this annual report on Form 40-F are in Canadian dollars. The exchange rate of Canadian dollars into U.S. dollars, on June 26, 2024 based upon the closing rate published by the Bank of Canada, was U.S.$1.00=CDN$1.37. Bank of Canada exchange rates are nominal quotations and are not buying or selling rates. These rates are intended for statistical or analytical purposes. Rates available from financial institutions will differ. Rates are expressed in Canadian dollars, converted from U.S. dollars.

PRINCIPAL DOCUMENTS

The following documents have been filed as part of this annual report on Form 40-F:

A. Annual Information Form

The Registrant's Annual Information Form for the fiscal year ended March 31, 2024 is attached as Exhibit 99.1 to this Annual Report on Form 40-F, and is incorporated by reference herein.

B. Audited Annual Financial Statements

The Registrant's consolidated audited annual financial statements, including the report of the independent registered public accounting firm with respect thereto, are attached as Exhibit 99.2 to this Annual Report on Form 40-F, and is incorporated by reference herein.

C. Management's Discussion and Analysis

The Registrant's management's discussion and analysis of financial condition and results of operations for the year ended March 31, 2024 is attached as Exhibit 99.3 to this Annual Report on Form 40-F, and is incorporated by reference herein.

TAX MATTERS

Purchasing, holding or disposing of securities of the Registrant may have tax consequences under the laws of the United States and Canada that are not described in this Annual Report on Form 40-F.

DISCLOSURE CONTROLS AND PROCEDURES

The required disclosure is included under the heading "Disclosure Controls" in the Company's Management's Discussion and Analysis for the year ended March 31, 2024, filed as Exhibit 99.3 to this Annual Report on Form 40-F, and incorporated herein by reference.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The required disclosure is included under the heading "Disclosure Controls" in the Company's Management's Discussion and Analysis for the year ended March 31, 2024, filed as Exhibit 99.3 to this Annual Report on Form 40-F, and incorporated herein by reference.

ATTESTATION REPORT OF THE REGISTERED PUBLIC ACCOUNTING FIRM

This Annual Report does not include an attestation report of the Registrant's registered public accounting firm due to a transition period established by rules of the SEC for newly public companies. Under Section 3 of the Exchange Act, as a result of enactment of the Jumpstart Our Business Startups Act (the "JOBS Act"), "emerging growth companies" are exempt from Section 404(b) of the Sarbanes-Oxley Act of 2002, which generally requires that a public company's registered public accounting firm provide an attestation report relating to management's assessment of internal control over financial reporting. The Registrant qualifies as an "emerging growth company" and therefore has not included in, or incorporated by reference into, this Annual Report such an attestation report as of the end of the period covered by this Annual Report.

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

The required disclosure is included under the headings "Internal Controls over Financial Reporting" and "Changes to Internal Control over Financial Reporting" in the Company's Management's Discussion and Analysis for the year ended March 31, 2024, filed as Exhibit 99.3 to this Annual Report on Form 40-F, and incorporated herein by reference.

NOTICES PURSUANT TO REGULATION BTR

None.

CODE OF CONDUCT

The Registrant has adopted a written "code of ethics" (as defined by the rules and regulations of the SEC), entitled "Code of Business Conduct & Ethics" (the "Code") that applies to all members of the Board of Directors, officers, and employees of the Company and its affiliates and subsidiaries worldwide. Adherence to this code is a condition of employment with or providing services to the Company.

The Code may be obtained upon request from Zentek Ltd.'s head office at 24 Corporate Ct, Guelph, Ontario N1G 5G5, or by viewing the Registrant's web site at https://www.zentek.com/our-story/board-of-directors/governance/.

All amendments to the Code, and all waivers of the Code with respect to any director, executive officer or principal financial and accounting

officers, will be posted on the Registrant's web site within five business days following the date of the amendment or waiver and any amendment will be provided in print to any shareholder upon request.

AUDIT COMMITTEE

Our Board of Directors has established the Audit Committee in accordance with section 3(a)(58)(A) of the Exchange Act and Rule 5605(c) of the NASDAQ Marketplace Rules for the purpose of overseeing our accounting and financial reporting processes and the audits of our annual financial statements.

The Audit Committee is comprised of Eric Wallman (Chair), Ilse Treurnicht, and John Snisarenko. Our Board of Directors has determined that the Audit Committee meets the composition requirements set forth by Section 5605(c)(2) of the NASDAQ Marketplace Rules and are independent members of the Audit Committee as determined under Rule 10A-3 of the Exchange Act and Rule 5605(a)(2) of the NASDAQ Marketplace Rules.

All three members of the Audit Committee are financially literate, meaning they are able to read and understand the Registrant's financial statements and to understand the breadth and level of complexity of the issues that can reasonably be expected to be raised by the Registrant's financial statements.

Our Board of Directors has determined that Eric Wallman qualifies as an "audit committee financial expert" (as defined in paragraph (8)(b) of General Instruction B to Form 40-F).

The SEC has indicated that the designation or identification of a person as an audit committee financial expert does not make such person an "expert" for any purpose, impose any duties, obligations or liability on such person that are greater than those imposed on members of the audit committee and the Board of Directors who do not carry this designation or identification, or affect the duties, obligations or liability of any other member of the audit committee or Board of Directors.

PRINCIPAL ACCOUNTANT FEES AND SERVICES

The required disclosure about fees and services billed by our principal accountant, BDO Canada LLP (PCAOB ID No. 1227) is included under the heading "Audit Committee Information" under the sub-heading "External Auditor Services Fees (By Category)" in the Company's Annual Information Form for the fiscal year ended March 31, 2024, filed as Exhibit 99.1 to this Annual Report on Form 40-F, and incorporated herein by reference.

PRE-APPROVAL OF AUDIT AND NON-AUDIT SERVICES PROVIDED BY INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee Charter sets out responsibilities regarding the provision of non-audit services by the Registrant's external auditors and requires the Audit Committee to pre-approve all permitted non-audit services to be provided by the Registrant's external auditors, in accordance with applicable law.

OFF-BALANCE SHEET ARRANGEMENTS

The Registrant currently has no off-balance sheet arrangements.

TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS

The following table lists, as of March 31, 2024, information with respect to the Registrant's known contractual obligations (in thousands):

	Payments due by period				
Contractual Obligations	**Total**	**Less than 1 year**	**1-3 years**	**3-5 years**	**More than 5 years**
Long-Term Debt Obligations	$ 758	$ 499	$ 259	$ Nil	$ Nil
Capital (Finance) Lease Obligations	$ Nil	$ Nil	$ Nil	$ Nil	$ Nil
Operating Lease Obligations	$ 485	$ 151	$ 172	$ 162	$ Nil
Purchase Obligations	$ Nil	$ Nil	$ Nil	$ Nil	$ Nil
Other	$ Nil	$ Nil	$ Nil	$ Nil	$ Nil
Total	**$** 1,243	**$** 650	**$** 431	$ 162	$ Nil

NASDAQ CORPORATE GOVERNANCE

The Registrant is a foreign private issuer and its common shares are listed on the NASDAQ.

NASDAQ Rule 5615(a)(3) permits a foreign private issuer to follow its home country practice in lieu of the requirements of the Rule 5600 Series, the requirement to distribute annual and interim reports set forth in Rule 5250(d), and the Direct Registration Program requirement set forth in Rules 5210(c) and 5255; provided, however, that such a company shall comply with the Notification of Material Noncompliance requirement (Rule 5625), the Voting Rights requirement (Rule 5640), have an audit committee that satisfies Rule 5605(c)(3), and ensure that such audit committee's members meet the independence requirement in Rule 5605(c)(2)(A)(ii).

The Registrant has reviewed the NASDAQ corporate governance requirements and confirms that except as described below, the Registrant is in compliance with the NASDAQ corporate governance standards in all significant respects:

The Registrant is not currently following Rule 5605(b)(1), which requires the Registrant to have a Board of Directors comprised of a majority of independent directors as required by Rule 5605(a)(2). In lieu of following Rule 5605(b)(1), the Registrant follows the rules of the TSX Venture Exchange, which requires at least two independent directors.

The Registrant does not follow Rule 5605(c)(1), which requires the Registrant to adopt a formal written Audit Committee charter specifying the items enumerated in Rule 5605(c)(1), with the Audit Committee reviewing and assessing the adequacy of the charter on an annual basis. In lieu of following Rule 5605(c)(1), the Registrant follows the rules of the TSX Venture Exchange, and the guidelines of Canadian Securities Administrators' National Instrument 52-110 - Audit Committees.

The Registrant does not follow Rule 5605(e)(1), which requires the Registrant to have independent director involvement in the selection of director nominees, by having a nominations committee comprised solely of independent directors. In lieu of following Rule 5605(e)(1), the Registrant follows the rules of the TSX Venture Exchange.

The Registrant does not follow Rule 5605(e)(2), which requires the Registrant to adopt a formal written charter or board resolution, as applicable, addressing the director nomination process and such related matters as may be required under the federal securities laws. In lieu of following Rule 5605(e)(2), the Registrant follows the rules of the TSX Venture Exchange.

The Registrant does not follow Rule 5605(d)(1), which requires the Registrant to adopt a formal written compensation committee charter specifying the items enumerated in Rule 5605(d)(1), with the compensation committee reviewing and reassessing the adequacy of the charter on an annual basis. In lieu of following Rule 5605(d)(1), the Registrant follows the rules of the TSX Venture Exchange, and guidelines of Canadian Securities Administrators' National Policy 58-201 - Corporate Governance Guidelines.

The Registrant does not follow Rule 5605(d)(2), which requires the Registrant to have, a compensation committee of at least two members, with each member being an "Independent Director", as defined under Rule 5605(a)(2). In lieu of following Rule 5605(d)(2), the Registrant follows the rules of the TSX Venture Exchange, and guidelines of Canadian Securities Administrators' National Policy 58-201 - Corporate Governance Guidelines.

The foregoing is consistent with the laws, customs, and practices in the Province of Ontario and Canada.

Further information about the Registrant's governance practices is included on the Registrant's website.

MINE SAFETY DISCLOSURE

Not applicable.

BOARD DIVERSITY MATRIX

The table below reports self-identified diversity statistics for the Board of Directors of the Registrant as required by NASDAQ Rule 5606.

Board Diversity Matrix - Zentek Ltd.	
Country of Principal Executive Offices	**Canada**
Foreign Private Issuer	**Yes**
Disclosure Prohibited under Home Country Law	**No**

	As of October 11, 2023				**As of August 25, 2022**			
Total Number of Directors	**7**				**6**			
Gender Identity	**Female**	**Male**	**Non-Binary**	**Did Not Disclose Gender**	**Female**	**Male**	**Non-Binary**	**Did Not Disclose Gender**
Directors	2	5	0	0	1	5	0	0
Demographic Background								
Underrepresented Individual in Home Country Jurisdiction	0				0			
LGBTQ+	0				0			
Did Not Disclose Demographic Background	0				0			

UNDERTAKING

The Registrant undertakes to make available, in person or by telephone, representatives to respond to inquiries made by the SEC staff, and to furnish promptly, when requested to do so by the SEC staff, information relating to: the securities registered pursuant to Form 40-F; the securities in relation to which the obligation to file an annual report on Form 40-F arises; or transactions in said securities.

CONSENT TO SERVICE OF PROCESS

The Registrant has previously filed with the SEC a written consent to service of process on Form F-X. Any change to the name or address of the Registrant's agent for service shall be communicated promptly to the SEC by amendment to the Form F-X referencing the file number of the Registrant.

ADDITIONAL INFORMATION

Additional information relating to the Registrant may be found on the System for Electronic Document Analysis and Retrieval (SEDAR) at

www.sedar.com and on the SEC's Electronic Data Gathering, Analysis and Retrieval (EDGAR) system at www.sec.gov.

SIGNATURES

Pursuant to the requirements of the Exchange Act, the Registrant certifies that it meets all of the requirements for filing on Form 40-F and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized.

ZENTEK LTD.

By: */s/ Wendy Ford*
Name: Wendy Ford
Title: Chief Financial Officer

Date: June 26, 2024

EXHIBIT INDEX

EXHIBIT	DESCRIPTION OF EXHIBIT
99.1	The Registrant's Annual Information Form for the fiscal year ended March 31, 2024
99.2	Audited Consolidated Financial Statements for the fiscal year ended March 31, 2024
99.3	Management's Discussion and Analysis for the year ended March 31, 2024
99.4	Certification by the Chief Executive Officer of the Registrant pursuant to Rule 13a-14(a) or 15d-14 of the Exchange Act, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
99.5	Certification by the Chief Financial Officer of the Registrant pursuant to Rule 13a-14(a) or 15d-14 of the Exchange Act, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
99.6	Certification by the Chief Executive Officer of the Registrant pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
99.7	Certification by the Chief Financial Officer of the Registrant pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
99.8	Consent of BDO Canada LLP
101	XBRL Document
101.INS	Inline XBRL Instance Document–the instance document does not appear in the Interactive Data File as its XBRL tags are embedded within the Inline XBRL document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

Annual Information Form

ZENTEK LTD.

For the year ended March 31, 2024

Dated as of June 26, 2024

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PRELIMINARY NOTES

This Annual Information Form ("**AIF**") is prepared in the form prescribed by National Instrument 51-102 - *Continuous Disclosure Obligations* of the Canadian Securities Administrators. All dollar amounts in this AIF are expressed in Canadian dollars unless otherwise indicated. All information in this AIF is as of March 31, 2024, unless otherwise indicated.

FORWARD-LOOKING INFORMATION

This AIF and the documents incorporated into this AIF contain "forward-looking statements" and "forward-looking information" within the meaning of applicable securities laws (forward-looking information and forward-looking statements being collectively hereinafter referred to as "**forward-looking statements**"). Such forward-looking statements are based on expectations, estimates and projections as at the date of this AIF or the dates of the documents incorporated herein, as applicable. Any statements that involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or 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", "should", "might" or "will" be taken, occur or be achieved) are not statements of historical fact and may be forward-looking statements and are intended to identify forward-looking statements. These forward-looking statements include, but are not limited to, statements and information concerning: the intentions, plans and future actions of Zentek Ltd. (the "**Company**"); statements relating to the business and future activities of the Company after the date of this AIF; market position, ability to compete and future financial or operating performance of the Company after the date of this AIF; statements based on the audited and unaudited financial statements of the Company; anticipated developments in operations; the timing and amount of funding required to execute the Company's development and business plans; intellectual property expenditures; capital and exploration and development expenditures; the effect on the Company of any changes to existing legislation or policy; government regulation of patent law or mining operations; the length of time required to obtain permits, certifications and approvals; markets for the Company's graphene related products and the ability to supply those markets; the success of exploration, development and mining activities; the geology of mineral properties; environmental risks; the availability of labour; demand and market outlook for precious metals and the prices thereof; progress in development of mineral properties; estimated budgets; currency fluctuations; requirements for additional capital; government regulation; limitations on insurance coverage; the timing and possible outcome of litigation in future periods; the timing and possible outcome of regulatory and permitting matters; goals; strategies; future growth; planned business activities and planned future acquisitions; the adequacy of financial resources; and other events or conditions that may occur in the future.

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The list of risk factors set out in this AIF is not exhaustive of the factors that may affect any forward-looking statements of the Company. Forward-looking statements are statements about the future and are inherently uncertain. Actual results could differ materially from those projected in the forward-looking statements as a result of the matters set out or incorporated by reference in this AIF generally and certain economic and business factors, some of which may be beyond the control of the Company, including, among other things, potential direct or indirect operational impacts resulting from infectious diseases or pandemics, from international or domestic conflicts or political crises, and other factors not currently viewed as material that could cause actual results to differ materially from those described in the forward-looking statements. In addition, recent unprecedented events in the world economy and global financial and credit markets as a consequence of the COVID-19 outbreak and the above-noted conflicts have resulted in high market and commodity volatility and a contraction in debt and equity markets, which could have a particularly significant, detrimental, and unpredictable effect on forward-looking statements. The Company does not intend and does not assume any obligation, to update any forward-looking statements, other than as required by applicable law. For all of these reasons, the Company's securityholders should not place undue reliance on forward-looking statements.

CORPORATE STRUCTURE

Name, Address, and Incorporation

The Company was incorporated under the *Business Corporations Act* (Ontario) as 1774119 Ontario Limited on July 29, 2008. Pursuant to Articles of Amendment dated November 24, 2009, the Company changed its name to Zenyatta Ventures Ltd. Pursuant to Articles of Amendment dated January 1, 2019, the Company changed its name to ZEN Graphene Solutions Ltd. On October 27, 2021 (effective October 28, 2021), the Company filed Articles of Amendment changing its name from "Zen Graphene Solutions Ltd" to "Zentek Ltd.".

The Company's registered and head office is located at 24 Corporate Court, Guelph, Ontario N1G 5G5.

The Company is a reporting issuer in the Provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador.

The common shares of the Company are listed for trading on the TSX Venture Exchange (" **TSXV**") under the symbol "ZEN" (listed in December 2010) and in the United States on the Nasdaq Capital Market ("**Nasdaq**") under the symbol "ZTEK" (listed in March 2022).

Inter-corporate Relationships

The Company has two material wholly-owned subsidiaries:

(i) Albany Graphite Corp. ("**AGC**"), incorporated under the laws of the Province of British Columbia; and

(ii) Triera Biosciences Ltd. ("**Triera**"), incorporated under the laws of the Province of Ontario.

GENERAL DEVELOPMENT OF THE BUSINESS

Originally, the Company commenced operations as a junior mineral exploration company focused primarily on mineral deposits in Northern Ontario, Canada. The Company was actively engaged in exploring mining projects and held an interest in exploration licenses on properties located north of Lake Superior and west of James Bay in Northern Ontario, Canada in the "Arc of Fire" area in Northern Ontario, Canada. The properties, located north of Lake Superior and southwest of James Bay in northeastern Ontario, Canada, were unpatented, non-contiguous, and consisted of nine claim blocks, including 234 claims comprised of 3,549 claim units over a total of 56,784 ha.

Within such claim blocks, the Company continued to hold a 100% undivided interest in Claim Block 4F, comprised of 521 mining claims (461 single-cell claims and 60 boundary-cell claims), which hosts an igneous-hosted, fluid-derived graphite deposit (the "**Albany Graphite Project**"). The Company did extensive work to determine potential uses for the graphite materials to be extracted from the Albany Graphite Project, including engaging in testing the properties of the graphite material and studies on graphene materials.

In May 2018, the Company began to focus resources on the research and development of graphene and related applications, which was supported by shareholders of the Company who voted in favour of a new Board of Directors (the "**Board**") with an interdisciplinary team to augment key management personnel with expertise in business, science, marketing, and government relations.

In February of 2020, the Company opened a research facility in Guelph, Ontario, to support its university and industrial partners' ongoing research and to scale-up production of graphene products. Subsequently, the COVID-19 pandemic halted research at the Company's collaborators' laboratories. The Company pivoted to focus its resources to develop graphene-based solutions for the fight against COVID-19.

Pursuant to a License Agreement dated September 22, 2020, between the Company and the University of Guelph, the Company holds the exclusive global rights to intellectual property regarding an electrochemical exfoliation ("**ECE**") process to produce graphene oxide ("**GO**").

On September 22, 2020, the Company announced, based on the results from a report to the Company dated September 18, 2020, from the ImPaKT Centre at the University of Western Ontario entitled "*Zen Graphene - Lab Test Report No. Z03-092020*", the development and successful testing of a now patented GO/silver compound that showed to be 99% effective against COVID-19 virus a minimum of 35 days after application of the coating to N95 mask material. On December 22, 2020, the Company announced the successful testing at the Department of Microbiology at Mount Sinai Hospital/University Health Network of the GO/silver compound that showed to be 99.9% effective against both gram-positive and gram-negative aerobic bacteria as well as against fungus/yeast, based on a report to the Company dated December 18, 2020 entitled "*Evaluation of Graphene Oxide with Silver Cations (GO-Ag+) as an Antibacterial Agent against Respiratory Pathogens*", which stated that if the compound could be shown to be safe and effective, it could provide a breakthrough alternative therapy for the practices of family medicine, Otolaryngology, Ophthalmology and intensive care units.

The Company filed patent applications relating to its antimicrobial coating, and on April 13, 2021, announced the brand name ZenGUARD ("**ZenGUARD™**") for such coating.

On October 18, 2021, the TSXV changed the Company's classification from a "mining issuer" to an "industrial, technology, or life sciences issuer", which was approved by the shareholders of the Company on September 27, 2021, in accordance with the rules and policies of the TSXV.

On November 29, 2021, the Company announced that it had been issued a Medical Device Establishment License ("**MDEL**") from Health Canada (license number 18823) for the manufacture and distribution of any Class I medical devices, including any such devices with or without the ZenGUARD™ coating.

On September 27, 2022, the Company announced that its patent application directed to the ZenGUARD ^{TM} technology for use on personal protective equipment ("**PPE**") and heating, ventilation, and air conditioning ("**HVAC**") had been allowed including all 54 claims made in the application, and on December 6, 2022, the patent was granted with a term until September 20, 2041.

The Company is now an intellectual property development and commercialization company focused primarily on commercializing ZenGUARD™, as well as on the development of certain rapid detection technologies and other nanomaterials-based technologies.

On May 23, 2023, the Company completed the transfer of the ownership over the Albany Graphite Project to AGC pursuant to a property purchase agreement dated April 24, 2023 as described in more detail under the heading "*Albany Graphite Project*" below. The Company does not require materials extracted from the Albany Graphite Project for its current business plans, although such materials could hold significant value to the Company in the future.

On June 12, 2023, the Company incorporated Triera which now owns the exclusive, global licensing rights for all aptamer-based technology from the collaboration with McMaster University. The Company and McMaster University entered into a standard license agreement dated June 11, 2021 pursuant to which McMaster agreed to license certain intellectual property. All rights and obligations under this licensing agreement were assigned to Triera subsequent to incorporation.

Three Year History

Current Business

ZenGUARD™ Antimicrobial Compound - Personal Protective Equipment

At the Company's financial year-end, the Company continued to advance toward commercial production of its ZenGUARD™ antimicrobial coating at industrial scale for application to non-woven, spunbond polypropylene material to be used in surgical mask manufacturing and potentially on other materials and products including HVAC filters. Based on reports from GAP EnviroMicrobial Services Ltd. ("**GAP Labs**") dated May 3, 2021, the addition of ZenGUARD™ coating to surgical masks has been shown to increase the bacterial and viral filtration efficiency of masks and acts as an antimicrobial agent providing increased protection when compared to similar uncoated masks.

The sale of *Z*enGUARD™-coated PPE masks received Health Canada authorization on September 22, 2021, under Interim Order No.2 - #329587 - Respecting the Importation and Sale of Medical Devices for Use in Relation to COVID-19. On September 23, 2021, The Company announced that it had delivered and generated revenue from its first shipment of *Z*enGUARD™ antimicrobial coating.

On November 29, 2021, the Company announced that it had been issued a MDEL from Health Canada for the manufacture and distribution of any Class I medical devices, allowing the Company to work with any manufacturers and distributors inside and outside of Canada to bring ZenGUARD™ surgical masks and, potentially, other PPE to the Canadian market. The MDEL also allows the Company to produce and sell its own Class I medical device PPE products.

On April 12, 2022, the Company announced that it entered into a Reciprocal Supply Agreement (the " **EkoMed Agreement**") dated March 31, 2022, with EkoMed Global Inc. ("**EkoMed**"), a globally integrated manufacturer and distributor of PPE, pursuant to which (i) the Company will sell quantities of ZenGUARD™ coating to EkoMed for use initially on EkoMed's surgical masks and potentially other PPE in the future, including N95 and KN95 type masks, and (ii) the Company will purchase surgical masks manufactured by EkoMed, to be treated with ZenGUARD™ coating and resold by the Company. The Company has provided ZenGUARD™ coated material to EkoMed for the manufacture of approximately 2,200,000 masks. These masks were later transferred to Arka BRENSStech Pvt Ltd. in India. At March 31, 2024, these masks had expired and were no longer available for sale but are being used as samples.

On May 13, 2022, the Company announced that Mark's Work Wearhouse had placed an initial order for ZenGUARD™-coated masks to be sold at select stores across Canada, and online. During August 2023, Mark's Work Wearhouse submitted an additional sales order for ZenGUARD™-coated masks. In October 2023, the Company informed Mark's Work Wearhouse that it will no longer be accepting orders through the required customer portal as the cost to maintain the portal exceeded purchases made by Mark's Work Wearhouse since inception.

On September 7, 2022, the Company announced that it had entered into a Manufacturing and Supply Agreement (the " **VMedCare Agreement**") with Viva Healthcare Packaging (Canada) Ltd. ("**VMedCare**") to manufacture and sell surgical masks enhanced with ZenGUARD™ antimicrobial coating, pursuant to which the Company would provide ZenGUARD™-coated spunbond material to VMedCare, which will be responsible for manufacturing and packaging ZenGUARD™ branded surgical masks. As at the date hereof, the Company has provided ZenGUARD™-coated material to VMedCare for the manufacture of approximately 6,000,000 masks. Approximately 500,000 masks have been manufactured as at March 31, 2024, and 395,000 masks are in storage at VMedCare.

On January 19, 2023, the Company announced that it had signed a Distribution Agreement (the " **Southmedic Agreement**") with Southmedic Inc. ("**Southmedic**") for the distribution of the Company's patented ZenGUARD™ surgical masks. Pursuant to the Southmedic Agreement, the parties agreed that Southmedic will be the distributor of ZenGUARD™-enhanced surgical masks to the Canadian hospital, general practitioners, private surgery, long-term care and nursing home markets.

On March 22, 2023, the Company announced that further testing had been completed by SGS Standard Technical Services Co. to determine the extent of the antimicrobial properties and the time required to achieve deactivation of bacteria and virus on ZenGUARD™-coated mask material. Testing showed that ZenGUARD™-coated mask fabric demonstrated over 99.99% antibacterial effectiveness after 1 hour. 260,000 Escherichia Coli (E. Coli) Colony Forming Units ("**CFU**") were reduced to under 100 CFU, while untreated control mask samples saw 120,000 E. Coli CFU grow to 2.5 million CFU in 1 hour and 1.1 billion in 8 hours. Additionally, the ZenGUARD™-coated mask fabric demonstrated 86.7% antiviral effectiveness after 1 hour against H1N1 and 99.7% after 8 hours.

On March 30, 2023, the Company announced that it had signed an agreement with Arka BRENStech Pvt Ltd (" **BRENStech**"), a company incorporated under the laws of the Republic of India (India), pursuant to which BRENStech will act as a local partner to the Company as it seeks to develop business opportunities in India. BRENStech's primary focus will be to establish sales and distribution opportunities for the Company's masks and HVAC filters and potentially other products as they become available. The Company also expects that BRENStech will connect the Company with university research facilities, assist with the navigation of applicable regulatory regimes, and source potential manufacturing partners for the Company's business opportunities in India and globally.

On April 5, 2023, the Company announced that it had filed patent applications for ZenGUARD™ in 8 countries including the United States, Canada, Europe and India.

On August 24, 2023, the Company announced that it had signed a supply agreement with Henry Schein, Inc., for a three-year term in respect of distribution by Henry Schein, Inc. of ZenGUARD™-coated masks to dental practices in Canada and, subject to regulatory approval, potentially in the United States. In September 2023, Henry Schein placed their first order of masks. [

As at March 31, 2024, the Company had an inventory of approximately 419,000 masks and had provided ZenGUARD™-coated material to VMedCare for the manufacture of approximately an additional 5.5 million masks. The Company continues to market its ZenGUARD™ product to be applied to various materials, and has targeted manufacturers including PPE manufacturers and HVAC filter material companies.

On April 3, 2024, the Company announced that it had entered into a definitive distribution agreement with Dallas, Texas-based Medwell Solutions LLC for its ZenGUARD™ enhanced surgical masks in the United States. The agreement was signed on March 18th, 2024 and is for a period of two years from the date of facility establishment registration and issuance of market clearance from the United States Food and Drug Administration, at which point sales of ZenGUARD™ enhanced surgical masks can commence.

The Company continues to market its ZenGUARD™ product to be applied to various materials, and has targeted manufacturers, including PPE manufacturers and HVAC filter material companies. In the Canadian dental market, the Company has attended and exhibited at national and provincial association events to create awareness with dentists, dental hygienists, orthodontists, and others who work in higher risk settings and regularly use surgical masks for protection. Similarly, the company has showcased ZenGUARD™ Surgical Masks at retirement community events to create awareness with employees who also work in higher risk environments and regularly use surgical masks. Additionally in April 2024, the Company filed a 510(k) application with the United States Food and Drug Administration for ZenGUARD™ Surgical Masks. The Company was required to complete additional safety and performance testing for the application to the Food and Drug Administration

ZenGUARD™ Industrial Scale Production and Coating Facility

The Company has installed industrial-scale production equipment to produce the ZenGUARD™ coating formulation at its York Rd., Guelph, Ontario location, which location is permitted for industrial use. The Company has also purchased coating equipment so the process of applying the ZenGUARD™ coating formulation to spunbond polypropylene for use in surgical masks, HVAC filter materials, other PPE equipment, and potentially other uses, can be completed by the Company on-site. The Company spent cumulatively approximately $2.8 million on the construction of the facility with no further additional expenditures required.

The effective construction completion date for the coating line was November 30, 2022. Following completion of installation, a period of training and certification began. The coating line became commercially operational in August 2023. The Company has spent approximately $2.0 million as of December 31, 2023, related to the coating line with no further additional expenditures required.

On May 18, 2023, the Company announced that it had been granted the ISO 13485:2016 Quality Management System certification standard by the British Standards Institution. The Company also received Medical Device Single Audit Program ("**MDSAP**") certificate No. 777967. The ISO and MDSAP are for the Company's Quality Management System and do not include the production facility.

Proposed Construction of Graphene Oxide Production Facility

In addition to the construction of the ZenGUARD™ industrial scale production and coating equipment, as discussed above, the Company intends to construct a plant to produce GO. The Company believes that the ability to produce GO itself, which is the precursor for the ZenGUARD™ compound, rather than relying on third-party suppliers of GO, will be economically favourable to the Company over the long term, as well as reducing supply and shipping risk. The Company believes that there are three primary reasons it would benefit from an ability to produce GO internally: (i) it should eliminate or significantly reduce supply chain risk; (ii) GO is not a homogeneous substance and by producing its own GO the Company could ensure product consistency; and (iii) the Company believes that the demand for GO is increasing and that a domestic production facility could have the potential to generate product for third-party users of the material.

The Company engaged Bantrel Co. to begin engineering work on the proposed GO production plant in January 2021. Potential sites have been investigated. A site has not yet been selected and the permitting process has not yet begun. As of March 31, 2024, the Company has spent $35,000 in preliminary investigations relating to this project and expects that approximately $7,500,000 will be required to complete construction of a GO production facility.

The Company estimates that fifteen to eighteen months will be required to complete the construction of a GO production plant from the time of commencement, which is a management estimate based on the expectation of securing an agreement for the purchase of technology from an existing GO producer.

Risks include, but are not limited to, the inability to reach an acceptable agreement for the purchase of such technology, the inability to adapt existing technology to Canadian regulatory requirements, scaling-up from known existing production capacities could become a requirement, and delays as a result of ongoing material and equipment supply shortages.

Business in Development

ZenGUARD™ and Other Research and Development

The Company continues to seek the most effective, cost-efficient, and scalable process to produce high-quality GO. The production of GO requires a consistent source (or precursor) material for conversion to graphene, which is then applied to various products for enhancement. The Company believes that it has a potential competitive advantage with its interest in AGC and the large and high-quality supply of source material from the Albany Graphite Project, if and when the Company determines it cost-effective to use such material.

Advanced testing on potential new processes for commercial GO production is underway. The Company also continues to work with universities on different processes that could potentially lead to a more efficient and/or lower-cost process for GO production.

On March 17, 2021, the Company announced that testing of the Company's ZenGUARD™ compound against four gram-positive and nine-gram negative bacteria with antimicrobial-resistance, including multidrug-resistant variants like methicillin-resistant staphylococcus aureus, had been completed. Testing demonstrated that the compound was 99.9% effective against bacteria, and fungi at low concentrations. Testing was conducted by Dr. Tony Mazzulli, the Microbiologist-in-chief at Mount Sinai Hospital.

In a news release on April 13, 2021, the Company confirmed that safety testing results received from Nucro Technics indicated that the ZenGUARD™ compound did not lead to skin irritation or sensitivity as required in ISO 10993-10 for its Class I medical device i.e., surgical masks.

On October 6, 2021, the Company announced the filing of an international patent application under the PCT for ZenGUARD™, which patent application was published on March 24, 2022. The Company also saw the transfer from the University of Guelph of the rights, under its PCT application, for the ECE process to produce GO. Pursuant to a License Agreement dated September 22, 2020, between the Company and the University of Guelph, the Company holds the exclusive global rights to this technology.

On February 28, 2022, the Company announced that it had purchased its research and development facility in Guelph, Ontario for $2.3 million. The facility continues to be a dedicated location to conduct ongoing research and development activities in pursuit of developing new intellectual property for GO and other nanomaterials and refining the Company's existing technologies.

The Company continues to conduct testing on its *Z*enGUARD™ compound, which includes viral filtration efficiency and bacterial filtration efficiency test results announced by the Company on September 27, 2021. The results of third-party testing at GAP Labs demonstrated that *Z*enGUARD™-coated masks removed 98.9% more bacteria and 97.8% more virus particles than a typical ASTM level 3, 3-ply uncoated mask and resulted in bacterial and viral filtration efficiency of over 99.99%.

On April 5, 2023, the Company filed patent applications for *Z*enGUARD™ in 47 countries including the United States, Europe and India.

On December 22, 2020, the Company filed a patent application for Graphene Oxide-Cationic Silver (GO-Ag+) Nanocomposites and Their Use as a Broad-Spectrum Antimicrobial Agent in Canada and the United States. The patent was issued by the Canadian Intellectual Property Office on May 21, 2024.

Aptamer-Based Rapid Detection Technology

Pursuant to a license agreement dated June 11, 2021, as amended June 23, 2023, McMaster University has granted to the Company, for a twenty-year term, a worldwide exclusive royalty-bearing license to use and practice all aptamer and DNAzyme uses, including, but not limited to, diagnostics, therapeutics, and as neutralization agents, including, but not limited to SARS-CoV-2. On October 5, 2023, the Company announced that it had transferred to a wholly owned subsidiary the exclusive, global licensing rights for all aptamer-based technology from the collaboration with McMaster University. The technology was developed by a team of researchers under the guidance of Drs. Yingfu Li, John Brennan and Leyla Soleymani, who have expertise in biosensing technologies and applications as point of care diagnostics. This patent-pending technology was validated with clinical samples from patients recruited under the supervision of two clinicians, Drs. Deborah Yamamura and Bruno Salena, who also work at McMaster University. The project was funded by the Canadian Institutes of Health Research. This technology has shown to be accurate (similar to current PCR tests), is saliva-based, affordable and scalable, and provides results in under 10 minutes. A license fee of $100,000, comprised of $50,000 cash and $50,000 in common shares of the Company (19,157 common shares at $2.61 per share) was paid to McMaster University as consideration. Although this technology was initially being developed specifically for COVID-19, this technology platform is designed to be able to detect other diseases by changing the aptamer to match new diseases.

On May 19, 2022, the Company announced that McMaster received two Natural Sciences and Engineering Research Council (" **NSERC**") grants related to the aptamer-based rapid detection technology; the Alliance Missions Grant in the amount of $1,000,000, and an Idea to Innovation (I2I) Grant in the amount of $350,000, of which the Company will make a $140,000 contribution. The Company intends to continue working with Dr. Yingfu Li and the research team at McMaster through in-kind contributions, using these grants towards commercializing the rapid diagnostic platform. The grants will be used to advance commercialization efforts by improving the performance of aptamers, optimizing chip synthesis, and initiating tests for additional pathogens that can be incorporated into its pathogen detection platform. The Company currently expects the cost to reach commercialization to be approximately $2,500,000, which includes enhancements and further development of the technology. StarFish Product Engineering Inc. is to conduct product strategy alignment, usability analysis, device and architecture development, proof of concept and prototyping, and program development.

On June 1, 2022, the Company announced that it had retained Halteres Associates (" **Halteres**"), a consultancy focused on global health, diagnostics, and point-of-care testing, to assist with the commercialization of the aptamer-based rapid detection technology. Market research from the Halteres group will be used to identify the most commercially important pathogens for detection, which will guide the aptamer development program. Halteres evaluated several commercialization opportunities for the aptamer technology, including human diagnostics, agriculture, wastewater, veterinary, and other potential uses in healthcare and the Company is continuing to review those opportunities.

To bring the product to market, the Company will be required to obtain authorization from Health Canada under an interim order, or to obtain a Class IV Medical Device Active License ("**MDAL**"). The process for obtaining an MDAL involves completing certain testing requirements and demonstrating that the product is (i) safe, (ii) effective, and (iii) fit for purpose. Assuming that process is completed, the Company would then start preparing a product technical file, and then seek to complete a Health Canada Class IV application.

On July 20, 2023, the Company announced that the aptamer technology platform was successfully tested as a potential prophylactic or therapeutic for SARS-CoV-2 in pre-clinical animal models. In repeat trials, the aptamers developed by Dr. Yingfu Li demonstrated similar efficacy against SARS-CoV-2 when benchmarked against a commercial monoclonal antibody. The Company further announced the amendment of its license agreement with McMaster University dated June 11, 2021, to broaden the scope of the worldwide exclusive license to apply to all aptamer and DNAzyme uses, including, but not limited to, diagnostics, therapeutics, and as neutralization agents, and not limited to SARS-CoV-2.

On July 27, 2023, the Company announced a new aptamer technology platform with McMaster University that significantly increases the binding affinity of aptamers. The increased binding affinity enhances the limits of detection for aptamer-based diagnostics and could lead to the successful adaptation of these same aptamers for new therapeutic and prophylactic treatments. Provisional patent applications were filed with the United States Patent and Trademark Office which have since resulted in the filing of two international patent applications filed with the World Intellectual Property Office as of September 30, 2023.

On October 10, 2023, the Company announced further pre-clinical testing results of the aptamer-based platform technology by the Dr. Matthew Miller Lab. Further preclinical testing was completed supporting the aptamer as a lead therapeutic target. An in vivo preclinical longevity of protection study was conducted to assess the safety and efficacy of the aptamer-based treatment over a period of 24 hours and demonstrated that the aptamer provided 24 hours of neutralizing protection against SARS-CoV-2. A subsequent study was conducted to determine the minimal effective dose of the aptamer required to protect against a lethal challenge of SARS-CoV-2.

On November 15, 2023, the Company announced the development of a significant upgrade to its aptamer platform improving the binding affinity of the universal COVID-19 aptamer from 300 to over 500 times, compared to the base aptamer. The improved platform also solved key challenges for manufacturing and these High-Binding Affinity ("HBA") aptamers are now produced with approximately a 95% yield. The Company estimates that an additional $1,000,000 will be required to complete the pre-clinical program for the SARS-CoV-2 therapeutic and enter clinical trials.

On November 29, 2023, the Company announced the successful testing of its COVID-19 HBA aptamer against the Omicron XBB 1.5 variant (Omicron) by the Miller Lab at McMaster University in the latest pre-clinical study. The performance of the COVID-19 HBA aptamer was comparable to the performance of monoclonal antibodies, according to the Miller Lab, as it provided clinical protection against infection with the Omicron XBB 1.5 variant. The Company will now begin to explore partnership opportunities in the pharmaceutical space as its aptamer platform may offer a fast, economical, and novel approach to the development of new therapeutics for clinically relevant biological markers.

On December 13, 2023, the Company announced the launch of Triera as a wholly owned subsidiary for its aptamer platform technology. Triera now owns the exclusive, global licensing rights for all aptamer-based technologies from the collaboration with McMaster University.

On January 30, 2024, the Company announced the positive therapeutic results achieved by Triera for C19HBA aptamer as a potential therapeutic. In the most recent trial completed in January 2024 by the Miller lab at McMaster University, C19HBA was tested for its therapeutic potential. The treatment that featured C19HBA demonstrated improved therapeutic benefit over no treatment of the LMA therapeutic. The full results of this preclinical investigation are pending publication in a peer reviewed journal.

On March 25, 2024, the Company announced that Triera completed testing demonstrating that its C19HBA SARS-CoV-2 universal aptamer built on the proprietary high-binding affinity aptamer platform has shown a promising safety and toxicity profile in preclinical testing.

On May 6, 2024, the Company announced that Triera has prioritized the development of a prophylaxis and therapeutic for highly pathogenic avian influenza. The mechanism of neutralizing the H5N1 virus is comparable to the mechanism used by C19HBA against the SARS-CoV-2 virus. More specifically, the aptamer is believed to bind to and neutralize multiple subtypes of the HA surface protein (e.g., H1, H2, H5, etc.), preventing the virus from entering healthy cells and spreading infection.

Diesel Fuel Additive

The Company is working to develop a stable graphene-based diesel fuel additive to improve combustion, increase burn rate, reduce greenhouse gas emissions and to improve fuel economy of diesel fuels. Initial testing has shown an increase in the performance of diesel fuel. The Company is working to improve on these early results through optimization work. The Company has filed a provisional patent application for its graphene-based fuel additive technology.

Primarily overseen by Dr. van der Kuur, the Company's Chief Scientific Officer, the Company is developing a process to functionalize GO to produce a stable dispersion in diesel fuel. The fuel additive was tested by Conestoga College in a Gunt 159 single-cylinder test engine, which yielded an improvement in fuel economy of over 10% under certain rpm.

The Company continues to work with Dr. Sina Kheirkah at the University of British Columbia-Okanagan Campus (" **UBCO**") to test GO-doped fuel as part of an NSERC alliance project for $110,500 cash contribution and a total budget of $311,500 over two years to continue doped fuel research. The project will focus on measuring the combustion of doped fuel in both droplet and spray combustion. The Company has spent approximately $98,900 on this research and development project.

The Company intends to continue spray combustion testing at UBCO to optimize the concentration of the additive and to assess the performance of the burn rate, fuel economy and emission of doped Jet-A and diesel fuels.

Icephobic Coating

The Company is also working to develop a new, patent-pending, carbon-based, nanotechnology-enhanced coating designed to prevent or reduce ice accretion for aviation (including drone) and wind energy applications.

Dr. van der Kuur, the Company's Chief Scientific Officer is the primary overseer of the project, which has involved the use of dispersion technology to homogeneously mix graphene-based materials in an elastomer. The Company has also conducted testing at the National Research Council of Canada's ("**NRC**") Altitude Icing Wind Tunnel in Ottawa and prepared graphene-enhanced elastomer material and coated coupons for testing.

The Company disclosed on February 28, 2022, that the icephobic coatings were undergoing full flight trials on a specially equipped research aircraft under real-world ice-forming weather conditions. On March 14, 2022, the Company announced the results of three rounds of testing of its icephobic coating, including laboratory tests, real-world flights and applications related to drone operations in adverse weather. In real-world testing, the Company reported that video footage of its icephobic coating on test pieces attached to a research aircraft undergoing flight trials targeting adverse weather environments has shown positive results and demonstrated that, under significant icing conditions, the coatings provide an effective de-icing and anti-icing solution. Drone testing showed that propellers coated with the icephobic material can maintain higher thrust, when compared to a non-coated propeller, due to the shedding of ice that forms on the blades that would otherwise degrade the drone's ability to maintain stable flight. Accelerated ageing testing has been completed by exposing samples coated with icephobic elastomer to UV weathering for 1,000 hours, which approximates two years' worth of sun damage in typical Canadian weather. These samples were then tested in an icing wind tunnel under dynamic conditions and demonstrated significant retention of their icephobicity.

On August 2, 2022, the Company filed a full patent application with the World Intellectual Property Office, for Nanomaterial-Enhanced Elastomer for Passive Ice Accretion Prevention. The Company disclosed this on September 19, 2022. The patent application has since been filed by the Company in Canada and Europe.

On September 19, 2022, the Company announced the successful completion of sand erosion testing at the NRC and rain erosion testing at the Anti-icing Materials International Laboratory in Quebec which demonstrated the icephobic material's durability in adverse conditions for both wind turbine and drone industries.

On May 4, 2023, the Company announced successful drone testing, where thrust was maintained under calibrated icing conditions of freezing drizzle and freezing rain in an outdoor, real-world environment. The drone with the Company's icephobic coating applied to the propeller blades hovered under the outdoor icing rig and, on all tests conducted, maintained flight until the end of the battery life of the drone. The same drone with uncoated propeller blades rapidly lost the ability to maintain flight. These tests are expected to satisfy the Transport Canada requirement for anti-icing equipment. The current regulations for civilian drone operations in Canada as per Transport Canada regulations state that no pilot shall operate a remotely piloted aircraft system when icing conditions are observed, are reported to exist or are likely to be encountered along the route of flight unless the aircraft is equipped with de-icing or anti-icing equipment and equipment designed to detect icing.

The Company is currently consulting with Transport Canada to propose the Company's passive ice accretion technology as a potential means of compliance to satisfy the requirements as well as working to find a collaborator that could provide equipment designed to detect icing.

On May 30, 2023, the Company announced a collaboration with Pattern Energy Group LP to optimize, test and validate the Company's icephobic coating for the wind turbine industry. The partnership is being supported financially by both the Natural Sciences and Engineering Research Council of Canada and PRIMA Quebec - Advanced Materials Moving Forward.

The Company continues to consider and seek partners to commercialize this technology, including drone companies and companies specializing in elastomer production. Because the NRC has been testing a variety of coatings, the Company has been able to participate in the NRC testing process thus far at no cost to the Company. However, the Company anticipates additional testing and development to cost approximately $150,000.

Fire-Retardant Additive

The Company announced on March 28, 2022, that it had filed a provisional patent with the United States Patent and Trademark Office for an innovative Graphene Oxide-Metal-Organic Framework ("**GO-MOF**") compound for use in fire retardant products. The provisional patent application has since been filed as an international (PCT) patent application with the World Intellectual Property Office on March 27, 2023. Management of the Company considers the manufacturing of the GO-MOF compound as relatively easily scalable and efficient, due to the patent-pending facile synthesis process. The Company believes the fire-retardant GO-MOF additive could potentially be placed in a variety of coating products, such as latex, epoxies or included in polymers. When integrated into a polymer, it could potentially create a fire-resistant plastic that could be used in electric vehicles, providing a fire-resistant non-metal casing for the batteries. Management currently expects that GO-MOF production could be achieved on the existing ZenGUARD™ industrial scale production facility with minimal additional capital expense.

Dr. van der Kuur, the Company's Chief Scientific Officer, is the primary overseer of the project. The Company has spent approximately $82,800 on this research and development project, and intends to conduct further testing, which it currently estimates will cost approximately $55,000. In the year ended March 31, 2024, optimizations to the formulations were performed at the Company's lab prior to a testing program with a commercial partner. Testing and optimization work remains ongoing as of March 31, 2024.

Battery Technology

The Company has been collaborating with Dr. Michael Pope at the University of Waterloo since 2017, developing battery technology to improve anode performance. One highly studied area for lithium-ion battery development is to improve the anode material. Currently, electric vehicle anodes are composed of graphite, which has a limited theoretical specific capacity of ~372 mAhg-1. Silicon has attracted significant attention as a replacement material, mainly due to its high specific capacity of 4,200 mAhg-1, but also due to its low working potential, low price and availability. However, silicon has an enormous volumetric fluctuation (greater than 300% in all dimensions) when charging and discharging. This feature is the root cause behind the issues of poor cycle lifetime, irreversible capacity loss, and destruction and reformation of the solid electrolyte interface.

Using silicon in the anode material, Dr. Pope has attempted to address these issues and has created a patent-pending graphene-wrapped silicon anode material. On February 18, 2022, the Company announced the filing of a provisional patent with the United States Patent and Trademark Office relating to a graphene-wrapped silicon anode material. Since April, Dr. Pope's team has optimized the anode material, which now has a specific capacity of over 1,000 mAh/g and retains over 80% of its capacity over 320 charge-discharge cycles. The specific capacity of this material is a significant improvement over common graphite anodes; however, the cycle life still requires improvement compared to typical electric vehicle batteries, which lose about 4% capacity over 1,000 charge-discharge cycles. The Company intends to continue to work with Dr. Pope's team to develop this technology with the goal of improving performance to meet industry requirements. The Company filed a patent application under the Patent Cooperation Treaty on May 17, 2022.

On October 28, 2022, the Company announced the commencement of a four-year, $1.6 million research project in collaboration with Professors Mohini Sain and Ning Yan from the University of Toronto and Ford Powertrain Engineering Research and Development Centre. Funding for the project includes $1.2 million from the Mitacs Accelerate program. The project seeks to assess novel concepts for the purpose of inventing multifunctional materials to be used in automotive battery components including anode, cathode, electrolyte, and separator. The Company will be working in tandem with University of Toronto researchers providing and testing advanced graphene materials including the Company's patent-pending anode material developed by Dr. Michael Pope. There are no material updates as at March 31, 2024, on our work with the University of Toronto.

Corrosion Protection

On February 8, 2023, the Company announced the development of ZenARMOR™, a novel corrosion protection technology based on functionalized GO, for potential use in naval and marine infrastructure, bridges, buildings, pipelines, and other industries. ZenARMOR™ could be produced in the ZenGUARD™ facility. Third-party testing on ZenARMOR™ yielded excellent corrosion resistance with no blisters or other signs of corrosion after 1,500 hours of ASTM B-117 Salt Spray Test with ZenARMOR™, and ZenARMOR™ qualified for the Innovative Solutions Canada ("**ISC**") Testing Stream - Military Call for Prototypes. The Company has filed an International (PCT) Patent Application on this corrosion protection technology, as well as a trademark for ZenARMOR™.

On October 4, 2023, the Company announced that it had prepared and shipped the first corrosion paint samples to the NRC for the first round of testing as part of the ISC - Testing Stream - Military Call for Proposals. NRC's Aerospace Research Centre's Aerospace Manufacturing Technologies Centre will be testing the Company's nano pigment in military-grade chromate-free paints for evaluation in its first of three rounds of testing.

Other Use-Cases for ZenGUARD™

HVAC Filtration

ZenGUARD™ is the Company's patented anti-microbial coating technology platform. The Company intends to continue exploring other applications and uses for its ZenGUARD™ compound, including, but not limited to, use in HVAC filters. On September 30, 2020, the Company first announced testing on ZenGUARD™ use for HVAC systems. On January 13, 2021, the Company announced that testing by a major Canadian certification company had confirmed that there was very little effect on air flow and pressure drop with a ZenGUARD™ treated filter compared to an untreated filter. The Company spent approximately $60,000 on testing, including preliminary testing of ZenGUARD™-coated HVAC filter media for pressure drop, and increased challenge bacterial filtration efficiency on uncoated and coated MERV 8 and MERV 13 HVAC filters, overseen primarily by James Jordan, P.Eng., who has since retired from the Company and Dr. van der Kuur, the Company's Chief Scientific Officer.

Further to the press release dated November 30, 2021, the Company announced that it has been awarded a research and development test contract through the ISC Testing Stream Call for Proposals to test ZenGUARD™-coated HVAC filters with interest from three different units within the NRC. The goal of the testing, conducted by CremCo Laboratories with assistance from the Aerospace Research Centre, a department of the NRC was to demonstrate: (i) a net reduction in the airborne viral and bacterial load with ZenGUARD™ coating applied to standard filters; (ii) no modifications required to existing HVAC systems to achieve (i) above; (iii) no reduction in air flow rates, which means air exchange rates in the space will be unchanged; and (iv) no reduction in the air quality as the ZenGUARD™ coating was tested to ensure it does not contribute particles into the air stream.

Phase 1 testing commenced in December 2021 after an extensive design process, calibration and assessment of the testing rig, and involved the test rig being installed inside an aerobiology chamber to push air through HVAC filter material with test organisms to study how these live airborne organisms were reduced by the ZenGUARD™ coating. Testing used multiple samples with repeated tests so that each filter's performance could be compared. It was determined that all Phase 1 targets were met including sufficient reduction in live airborne test organisms, no significant shedding of the ZenGUARD™ coating, and air flow rates that were not impacted by the coating. On April 11, 2022, the Company announced that, after successful completion of Phase 1 testing, it will proceed to Phase 2 testing.

On December 15, 2022, the Company announced the successful completion of Phase 2 HVAC filter testing and that the preliminary report from Phase 2 testing had been received. The final report was received in January 2023, and announced on February 6, 2023. The report notes a significant reduction in live airborne test organisms with ZenGUARD™ coating applied to standard HVAC filters without modification to existing HVAC systems, with no reduction in air flow rates or increasing energy use.

The testing demonstrated a reduction in live airborne bacteriophage surrogate contamination within a modular classroom environment, simulating a real-world environment. The testing was performed at the NRC's purpose-built bioaerosol testing facility, designed and built specifically for testing wet aerosolized droplets, which is the primary mechanism for the spread of disease in an indoor setting.

The Company has also consulted and tested with LMS Technologies (" **LMS**"), a United States-based air media and filter testing company providing testing services and product certification for filter manufacturers. LMS' independent testing of ZenGUARD™ coated MERV 8 filters demonstrated a significant increase in both bacterial and viral filtration efficiency in line with or better than the results from the NRC. The Company currently intends to continue to work to optimize configurations of HVAC filter materials coated with ZenGUARD™ technology at LMS to optimize its product and complete all testing and documentation required for regulatory submissions in Canada and the United States. The Company has engaged Intertek Group plc to conduct a review of regulatory requirements in other geographies of interest.

On September 6, 2023, the Company announced the results of a study comparing the viral filtration efficiency (" **VFE**") of ZenGUARD™-enhanced MERV 9 filters with an uncoated MERV 9 filter. The testing was performed by LMS, which specializes in the testing and certification of filter manufacturers across the world, referring to the new American Society of Heating, Refrigerating and Air-Conditioning Engineers ("**ASHRAE**") standards for aerosolized particles and determining the impact of dust loading on VFE and particle filtration efficiency ("**PFE**") as per ASHRAE 52.2 testing standards. Key findings of the study included: (i) the VFE of ZenGUARD™-enhanced filters started with a significant advantage over equivalent non-coated filters, from 23.7% to 37.7%, a 59% enhancement or a 14% net gain overall, and, the VFE performance consistently increased faster for the ZenGUARD™-enhanced filters compared to the uncoated filters (at six months equivalent dust loading, the VFE of the ZenGUARD™-enhanced filter was 85.6% compared to 55.2% for the uncoated filter, a 28.4% net gain); (ii) the pressure drop remained consistent between ZenGUARD™-enhanced and uncoated filters as dust loading increased, indicating that ZenGUARD™ does not adversely affect airflow or energy efficiency of the HVAC system; and (iii) ZenGUARD™-enhanced filters operated similarly to regular MERV 9 filters when tested for PFE, effectively removing particles across all size ranges.

On September 11, 2023, the Company announced the results of a study conducted by ParticleOne Inc., an RWDI Ventures company. The study evaluated the performance of ZenGUARD™-enhanced filter technology in comparison to a standard MERV 9 filter. The study was conducted to assess the effectiveness of filters in removing infectious particles from the air and to determine the potential return on investment ("**ROI**") of enhanced viral filtration from using ZenGUARD™ technology. The ParticleOne model ROI analysis indicated that the ZenGUARD™- enhanced MERV 9 filter resulted in a substantial reduction in annual absenteeism costs ($15,016.95) compared to a regular MERV 9 filter in an office space of 10,000 square feet with 75 occupants.

On December 8, 2023, the Company announced a distribution agreement entered into with 1Click Heating and Cooling Inc. (" **1Click**"), a private HVAC company focused on the heat pump market, for ZenGUARD™ MERV 9 filters in various sizes and is expected to include other ZenGUARD™ enhanced MERV-rated filters in the future. This agreement will see 1Click utilize ZenGUARD™ filters for its regular customer service maintenance programs, along with making ZenGUARD™ filters available to customers from inventory held in various provinces. The Company's agreement with 1Click has an initial term of 2 years from the date of approval from the Pesticide Management Regulatory Agency and may be extended by mutual agreement of the parties.

On January 22, 2024, the Company announced the completion of a new study highlighting the potential energy, emission and cost savings for commercial buildings adopting ZenGUARD™-enhanced air filters. By using ZenGUARD™-enhanced air filters to control infectious aerosols instead of increasing the percentage of outside air to achieve a similar risk reduction, the Company estimates that a typical office space of 10,000 square feet with 75 occupants can reduce HVAC energy consumption by approximately 62%.

On May 7, 2024, the company announced that it completed a case study based on the City of Toronto highlighting the economic and environmental benefits related to using MERV 9A filters compared to using MERV 13 filters. The study quantifies cost savings and reductions in carbon emission and waste assuming the City of Toronto is currently using MERV 13 filters in all its buildings and switches to MERV 9A filters. The study found potential savings of over $40 million stemming from significantly reduced labour costs due to filters being changed every six months rather than every three months, reduced expenditures on air filters from replacing filters every six months rather than every three months, reduced energy requirements and costs due to improved air flow and lower waste disposal costs from fewer filters being used.

ZenGUARD™-enhanced air filters are currently being assessed by the Health Canada Pest Management Regulatory Agency for registration under the *Pest Control Products Act*. The Company will provide an update as soon as available. The Company is also currently working with consultants to file an application for ZenGUARD™-enhanced air filters with the United States Environmental Protection Agency.

The Company has spent approximately $466,400 on this project during the period January 1, 2022, to March 31, 2024.

Therapeutic and Pharmaceutical Applications

The Company was exploring the potential to use the ZenGUARD™ compound in therapeutic or pharmaceutical applications. In testing by Dr. Tony Mazzulli from Mount Sinai Hospital in Toronto, the active ingredient in ZenGUARD™ showed low minimum inhibitory concentrations against several bacteria. On February 4, 2021, and March 2, 2021, the Company announced results of the Phase 2 cytotoxicity testing by Nucro Technics testing laboratory and included cytotoxicity testing that noted no adverse effects after seven days of repeated dosing. MRSA-related skin infection testing was performed on animals with inconclusive results. Cytotoxicity studies with Nucro-Technics and positive anecdotal results of various human skin infections including acne, warts and toenail fungal infections showed no adverse effects recorded during these anecdotal trials. These human anecdotal cases form part of the Company's patent application filed on December 21, 2021, under the Patent Cooperation Treaty entitled "Graphene-Silver Nanocomposites and Uses for Same as a Broad-Spectrum Antimicrobial" which was published on June 30, 2022. The patent has been issued in Canada.

The Company has spent approximately $93,500 on this project during the period January 1, 2022, to March 31, 2024.

Other

The Company is also working with a number of research institutions developing processes to synthesize graphene, GO and graphene quantum dots, along with other possible applications for graphene-based materials. Potential markets for graphene-based materials include composites (e.g., concrete, rubber, plastic polymers, and ceramics), sensors, water purification and filtration, coatings and solid-state lubricants, silicon-graphene and graphene aerogel anode material for next-generation batteries along with aerospace applications.

The Company has other research projects commenced or contemplated including applications in aluminum alloys, corrosion protection, battery technology, conductive polymers, and others. The Company will report on these if and when it is appropriate to do so.

Albany Graphite Project

The Company owns 100% of the issued and outstanding shares of AGC which owns the Albany Graphite Project in Northern Ontario, Canada. The unusual nature of the formation of graphite in the Albany Graphite Project and its potential chemical and economic significance motivated additional exploration drilling from 2011 to 2013. The current claims require a total of $195,600 worth of assessment work per year to keep them in good standing and the Company has a total credit of approximately $7.1 million in available exploration reserves.

On October 18, 2021, the TSXV changed the Company's classification from a "mining issuer" to an "industrial, technology, or life sciences issuer." The change of classification was approved by the shareholders of the Company on September 27, 2021, in accordance with the rules and policies of the TSXV.

On February 16, 2023, the Company and 1329307 BC Ltd. announced a non-binding letter of intent dated February 13, 2023, pursuant to which the parties agreed to negotiate a transaction involving the transfer of the Albany Graphite Project in Northern Ontario to an entity to be listed on a recognized Canadian stock exchange. AGC was incorporated for this purpose as a wholly owned subsidiary of the Company on February 23, 2023.

On May 19, 2023, the Company transferred to AGC the ownership of the Albany Graphite Project, including the mining claims and all related chattel, drill core, and applicable contracts, in consideration for the issuance by AGC to the Company of 59,999,900 common shares of AGC. The Company announced the appointments of Greg Fenton as Chair of the board of AGC, Brian Bosse as Chief Executive Officer of AGC, and Peter Wood as Vice-President, Development of AGC.

During the year ended March 31, 2024, approximately $272,000 (2023 - $Nil) was spent by AGC on the Albany Graphite Project including professional fees on updating the NI 43-101 report and geologist wages. These costs have been capitalized in accordance with the Company's accounting policy on Exploration and Evaluation Assets.

On July 26, 2023, the Company published an updated mineral resource estimate for the Albany Graphite Project, prepared by SLR Consulting (Canada) Ltd. ("**SLR**"). The updated mineral resource estimate is set out in the report entitled "Technical Report on the Albany Graphite Project, Ontario, Canada - Report for NI 43-101" dated July 31, 2023 (effective date of April 30, 2023), prepared by SLR, and filed on SEDAR+ on September 1, 2023.

The Company had previously announced on April 24, 2023, a non-brokered private placement financing, through the issuance of subscription receipts of AGC at a price of $1.00 per subscription receipt (the "AGC Financing") in connection with a proposed listing on a recognized Canadian stock exchange of the common shares of AGC. On November 21, 2023, the Company announced that due to the deterioration of the public market for battery metals and graphite, management of the Company and AGC determined to await improved market conditions before proceeding with the AGC Financing and AGC's listing on a recognized Canadian stock exchange. Any and all funds that were received from prospective investors and were held in trust pending closing of the AGC Financing were returned to such prospective investors. Furthermore, the Company announced that Brian Bosse had ceased to act as Chief Executive Officer of AGC and Greg Fenton was appointed as the interim Chief Executive Officer in his stead.

More recently, AGC is investigating if Albany graphite has the required characteristics and performance to develop an ideal anode material for the electric vehicle market. Test work has initially focused on the purification of Albany flotation concentrate to produce a consistent high-purity (>99.95%) material and ongoing. Future test work will involve the production of an anode material that will be used in lithium-ion batteries for subsequent cycle testing to characterize their performance.

Corporate Finance and Developments

On April 9, 2021, the Company announced that it closed a non-brokered private placement of 1,735,199 units at a price of $2.50 per unit for gross proceeds of $4,337,998. Each unit was comprised of one common share and one-half of one whole common share purchase warrant. Each whole warrant entitled the holder thereof to acquire one common share at a price of $3.00 per common share until April 8, 2023, provided however that if, at any time after August 9, 2021, the closing price of the Company's common shares on the TSXV (or such other stock exchange on which the common shares may be traded from time to time) is at or above CDN$4.00 per share for a period of ten consecutive trading days (the "**Triggering Event**"), then the Company may, within one hundred days of the Triggering Event, accelerate the expiry date of the warrants by giving notice thereof to the holders of the warrants, by way of news release, and in such case the warrants will expire on the first day that is thirty calendar days after the date on which such notice is given by the Company announcing the Triggering Event. The warrants are subject to the terms and conditions of a warrant indenture dated April 8, 2021, between the Company and Capital Transfer Agency, ULC as agent for the warrants.

On January 4, 2022, the Company announced that it had closed a bought-deal prospectus offering (the " **Prospectus Offering**") for gross proceeds of $23,005,060, and a concurrent non-brokered private placement (the "**Concurrent Private Placement**") for aggregate gross proceeds of $10,009,022. Pursuant to the Prospectus Offering, the Company issued a total of 4,424,050 common shares at a price of $5.20 per common share (the "**Issue Price**"), and pursuant to the Concurrent Private Placement, the Company issued a total of 1,924,812 common shares at the Issue Price.

On April 13, 2023, a total of 50,000 stock options were exercised at $1.76 per option resulting in proceeds of $88,000 to the Company.

On April 14, 2023, the Company announced the grant to directors, officers, and employees of the Company of stock options exercisable for an aggregate of 600,000 common shares of the Company. The options are exercisable at a price of $2.12 per common share for periods of three to five years and subject to certain vesting criteria.

On May 24, 2023, the Company announced that, subject to regulatory approval, it would conduct a normal course issuer bid for up to 4,979,349 common shares over a period of one year, being approximately 5% of the Company's issued and outstanding common shares, with up to 1,991,739 common shares of the Company being purchasable over any 30-day period, being 2% of the Company's issued and outstanding common shares. Regulatory approval was received and during the year ended March 31, 2024, the Company purchased and subsequently cancelled, 245,100 (2023: Nil) of its own common shares at a cost of $408,853.

On June 1, 2023, the Company announced the appointment of Ms. Lisa Sim to the Board as an independent director. The Company further announced that Mr. Frank Klees resigned from the Board. The Company granted 250,000 options exercisable at a price of $2.24 per common share for a period of five (5) years from the date of issuance to a director of the Company.

On July 2, 2023, 1,250,000 stock options were exercised. Of these options, 1,200,000 were exercised using a "cashless" exercise method whereby 289,854 fewer shares were issued than options exercised as compensation for the $600,000 in cash that traditionally would have been received by the Company upon exercise. The remaining 50,000 options were exercised at $0.50 per option resulting in cash proceeds of $25,000 to the Company.

On August 12, 2023, 600,000 stock options were exercised using a "cashless" exercise method whereby 158,209 fewer shares were issued than options exercised as compensation for the $318,000 in cash that traditionally would have been received by the Company upon exercise.

On November 13, 2023, 100,000 stock options were exercised using a "cashless" exercise method whereby 24,242 fewer shares were issued than options exercised as compensation for the $40,000 in cash that traditionally would have been received by the Company upon exercise.

On November 15, 2023, the Company announced the appointment of Mr. John Snisarenko to the Board.

On November 30, 2023, the Company announced the grant to a director and officer of the Company of stock options exercisable for an aggregate of 400,000 common shares of the Company. The options are exercisable at a price of $1.75 per common share for a term of three years for the officer and five years for the director and subject to certain vesting criteria.

On December 14, 2023, the Company issued 195,000 stock options to directors and officers in its newly created Triera Biosciences Ltd. subsidiary exercisable at a price of $5.00 per common share for a period of three years for the officers and five years for the directors. The options have a vesting period of three years for the officers and five years for the directors and subject to certain vesting criteria. In February 2024, the Company repriced the Triera stock options, reducing the exercise price from $5.00 per share to $1.00 per share. All other terms and conditions of these options remained unchanged.

On January 12, 2024, Dr. Francis Dube resigned as Chairman of the Board of the Company in order to appoint an independent director, Mr. Eric Wallman as the Chairman of the Board as per best practices in governance. Dr. Dube will continue to serve the Company as a director, and as the Chief Operating officer of the Company.

Effective May 1, 2024, Dr. Dube resigned as Chief Operating Officer of the Company.

On May 3, 2024, Brian Bosse resigned as a director of the Company and was appointed to the Company's advisory board. The Company granted Mr. Bosse stock options to purchase 40,000 common shares of the Company at a price of $1.42 per common share for a term of three years.

Subsequent Events

On April 3, 2024, the Company announced that it has entered into a definitive distribution agreement with Dallas, Texas-based Medwell Solutions LLC for its ZenGUARD™-enhanced surgical masks in the United States. The agreement was signed on March 18th 2024 and is for a period of two years from the date of facility establishment registration and issuance of market clearance from the United States Food and Drug Administration, at which point sales of ZenGUARD™-enhanced surgical masks can commence.

On May 3, 2024, the Company announced the resignation of Dr. Francis Dube as Chief Operating Officer effective May 1, 2024 and the resignation of Brian Bosse as a director effective May 3, 2024, and his subsequent appointment to the Company's advisory board. In line with Mr. Bosse's appointment to the Company's advisory committee, the Company granted Mr. Bosse stock options to purchase 40,000 common shares of the Company at a price of $1.42 per common share, which shall vest on May 3, 2025, and expire on May 3, 2027.

On May 6, 2024, the Company announced that Triera has prioritized the development of a prophylaxis and therapeutic for highly pathogenic avian influenza. The mechanism of neutralizing the H5N1 virus is comparable to the mechanism used by C19HBA against the SARS-CoV-2 virus. More specifically, the aptamer is believed to bind to and neutralize multiple subtypes of the HA surface protein (e.g., H1, H2, H5, etc.), preventing the virus from entering healthy cells and spreading infection.

On May 7, 2024, the Company announced that it completed a case study based on the City of Toronto highlighting the economic and environmental benefits related to using MERV 9A filters compared to using MERV 13 filters. The study quantifies cost savings and reductions in carbon emission and waste assuming the City of Toronto is currently using MERV 13 filters in all its buildings and switches to MERV 9A filters. The study found potential savings of over $40 million stemming from significantly reduced labour costs due to filters being changed every six months rather than every three months, reduced expenditures on air filters from replacing filters every six months rather than every three months, reduced energy requirements and costs due to improved air flow and lower waste disposal costs from fewer filters being used.

On May 23, 2024, the Company announced that it has entered into a definitive distribution agreement with DCL Supply Ltd., a private Heating, Ventilation and Air Conditioning master product distributor, for a one-year term, effective March 19, 2024, which automatically renews for subsequent one-year terms unless 90 days' notice is given by either party prior to renewal. The initial product to be distributed will be ZenGUARD™ Enhanced Air Filters for the HVAC market, subject to the assessment by the Health Canada Pesticide Management Regulatory Agency for registration under the Pest Control Products Act, which is ongoing. Subject to such registration, this agreement would allow DCL Supply to distribute ZenGUARD™ Enhanced Air Filters through its extensive distributor network serving numerous industrial, commercial and institutional clients within and across Canada.

On May 27, 2027, the Company announced that it had received a second patent by the Canadian Intellectual Property Office titled: Graphene Oxide-Cationic Silver (GO-Ag+) Nanocomposites and Their Use as a Broad-Spectrum Antimicrobial Agent and includes a total of 64 successful claims. The Company also applied for this patent with the United States Patent and Trademark Office. The patent claims the novel GO-Ag+ compound, that is the active ingredient for ZenGUARD^{TM} , as an effective agent against both regular and resistant bacteria, fungi and viruses. The patent claims liquid, powder and ointments that use GO-Ag+ as the active ingredient.

On June 20, 2024, 1,935,000 stock options were issued to a number of directors, officers and employees of the Company. The stock options have an exercise price of $1.52 per common share. The options granted to the directors and officers, will vest one third on the date of grant, one third on the first anniversary of the grant, and one third on the second anniversary of the grant. For employees, the options will vest one quarter on the date of grant, and one quarter on each anniversary thereafter.

Significant Acquisitions

There were no significant acquisitions completed by the Company during its most recently completed financial year for which disclosure would be required under Part 8 of National Instrument 51-102.

DESCRIPTION OF THE BUSINESS

General

Summary

In 2018, the Company began to focus resources on the research and development of graphene and related applications, which was supported by shareholders of the Company who voted in favour of significant Board changes and accordingly the assembly of an interdisciplinary team to augment key management personnel with expertise in business, marketing, and government relations.

Since May 2018, the Company has successfully raised over $40 million, and the Company has received more than $1 million in government grants to accelerate its research and collaborations to build momentum towards commercial and industrial-scale production of its products. In January 2020, the Company changed its name and began focusing its research on three priorities: (i) advanced materials, (ii) clean technology, and (iii) green energy. The name change reflects the Company's decision to refocus its development plans from the Albany Graphite Project and towards graphene nanomaterial intellectual property and product opportunities that may benefit from vertical integration. In February of 2020, the Company opened a research facility in Guelph, Ontario, to support its university and industrial partners' ongoing research and to scale-up production of graphene product. Subsequently, the COVID-19 pandemic halted research at the Company's collaborators' laboratories. The Company rapidly pivoted to focus its resources to develop graphene-based solutions for the fight against COVID-19 and developed a patent-pending GO/silver coating that has shown to effectively inactivate over 99% of the SARS-CoV-2 virus. Additional testing and research have indicated that the Company's compound is also effective against bacteria and fungi. This research and development have resulted in the filing of four patent applications, a patent granted for the Company's ZenGUARD^{TM} technology, the filing of patent applications in 47 countries (see "*Intangible Properties*" below), and the supply agreements with EkoMed and VMedCare, among other achievements described in more detail under "*General Development of the Business*" above.

To meet rapidly growing immediate demand for its proprietary antimicrobial compound, the Company began sourcing GO from third parties and is also testing third party graphite as a potential precursor material to produce graphene-based nanomaterials. Consequently, the Company's continued existence is no longer dependent upon the discovery of economically recoverable ore reserves, the ability of the Company to obtain the necessary financing to explore and develop potential ore reserves, or by way of entering into joint venture arrangements, future profitable production, or alternatively, upon the Company's ability to dispose of its interests on an advantageous basis.

Currently the principal markets targeted by the Company are PPE equipment manufacturers (and HVAC system manufacturers and suppliers (for the use of antimicrobial coated filters, pre and post-filters, high-efficiency particulate air (HEPA), etc.).

The Company is continuing to identify new markets and uses for its graphene-based antimicrobial coating.

The Company is working directly with PPE equipment and HVAC filter manufacturers and intends to ultimately supply the antimicrobial coating product directly to the manufacturers for use in their respective production lines, or as pre-coated materials/products that will be supplied to manufacturers (e.g., coated polypropylene (PP) or polyethylene terathalate (PET) spunbound nonwoven media to be used in the construction of a surgical mask, coated nitrile gloves or pre-coated HVAC filtration media). The Company is also currently discussing with other parties interested in representing the Company and/or distributing its products in other global markets (Europe, India, Australia, Asia, etc.). To date, most of the business opportunities that have been developed have been pursuant to inbound inquiries; however, once the production line to produce the antimicrobial coatings is operational, the Company intends to initiate an outbound marketing program.

Specialized Skill and Knowledge

The Company's research and development, and application/product development work involves Highly Qualified Personnel (PhD researchers, scientists, and engineers) and the Company has a highly skilled management team in place. The Company intends to add to its team and to hire and train additional staff as the Company's business transitions from research and product development to production, to work in the GO and antimicrobial coating production facilities, as may be required.

The Company believes that it has adequate personnel with the specialized skills and knowledge to successfully carry out the Company's business and operations. See "*Risk Factors - Qualified Employees*" for a discussion of the risks of losing such specialized skills and knowledge.

Competitive Conditions

The Company seeks to compete with other graphene and manufacturing companies, in highly competitive markets. The Company plans to provide functionalized graphene products to businesses, institutions, and governments within North America and internationally. This is a rapidly growing industry which has been accelerated during the COVID-19 pandemic. The Company's competitive position is based on its increasing scientific knowledge and know-how, its intellectual property, possession of in-house laboratories, extension of in-house science via university partners, the growing productive capacity to serve large customers, and the optionality of future vertical integration represented by the Albany Graphite Project. The Company's management is not aware of any companies similarly positioned to serve like markets as the Company, although given the rapid progression of the graphene industry, the Company may face significant competition in the future (See "*Risk Factors - Industry Competition*").

New Products

The Company has publicly announced the introduction of ZenARMOR™ a novel corrosion protection technology based on functionalized GO, for potential use in naval and marine infrastructure, bridges, buildings, pipelines, and other industries. Furthermore, as detailed under the heading "*Three Year History*" above, the Company is undertaking multiple research and development initiatives, leveraging the Company's graphene nanotechnology, such as an icephobic coating, fire-retardant additive, and battery technology among others.

Components

The main components to produce the Company's antimicrobial compound are readily available and the Company has taken steps to secure GO from a third party in order to meet demand while the Company sets up its GO production facility, with the intention of using materials from the Albany Graphite Project; however, other graphite materials would be suitable as well.

Intangible Properties

The Company holds intangible property in various forms such as trademarks, pending patent applications, trade secrets and know-how, mining claims (held by AGC), laboratory reports, licensing agreements, scientific agreements, and customer lists. Specifically, the Company holds three active patent applications under the Patent Cooperation Treaty in the Company's name, for (i) graphene-silver nanocomposite uses as an antimicrobial coating agent, (ii) graphene-silver nanocomposite compositions and uses for treatment of infectious diseases, and (iii) the proprietary process for manufacturing ZenGUARD™ nanotechnology at industrial scale.

Additionally, the Company has an exclusive license to make, have made, use, lease, sell, have sold, export, import, or otherwise distribute the subject matter of another provisional patent application relating to the processes for the preparation of expanded graphite and exfoliated GO. Management anticipates that amongst the existing intangible properties the pending patent applications have the most potential value for the Company. (See "*Risk Factors - Unpredictable Sales Cycles*").

Cycles

The sales cycle for graphene-based products may range considerably from one to multiple years from the time a customer begins testing the Company's product until the time that they could be used in a commercial product. Timing of product introduction could vary significantly based on the target market. Additionally, any demand for the Company's products based in whole or in part on global health crises could materially change. (See "*Risk Factors - Unpredictable Sales Cycles*").

Economic Dependence

The Company has entered into a limited number of supply or sales agreements for the sale of its products. Until additional supply agreements are executed by the Company, the Company's revenues will be completely dependent on such agreements. If such agreements are terminated, or if less of the Company's product than anticipated is purchased pursuant to such agreements, this could have a material adverse impact on the Company's business, operations and results.

Pursuant to the EkoMed Agreement, (i) the Company sells quantities of ZenGUARD™ coating to EkoMed for use initially on EkoMed's surgical masks and potentially other PPE in the future, including N95 and KN95 type masks, and (ii) the Company purchases surgical masks manufactured by EkoMed, to be treated with ZenGUARD™ coating and resold by the Company.

Pursuant to the VMedCare Agreement, the Company provides ZenGUARD™-coated spunbond material to VMedCare, which is responsible for manufacturing and packaging ZenGUARD™ branded surgical masks. As at the date hereof, the Company has provided ZenGUARD™-coated material to VMedCare for the manufacture of approximately 6,000,000 masks of which 500,000 have been made and approximately 419,000 remain in inventories at March 31, 2024

Pursuant to the Southmedic Agreement, Southmedic acts as the distributor of ZenGUARD™-enhanced surgical masks to the Canadian hospital, general practitioners, private surgery, long-term care and nursing home markets.

Environmental Protection

The Company is seeking to develop environmentally friendly processes and products and is currently working with its partners to create biodegradable/recyclable/reusable products that have a low carbon footprint. In addition, the Company is currently working with Prof. Aicheng Chen and his team at the University of Guelph to develop a scalable, low-cost, low-energy, and environmentally friendly process (chemically and electrochemically) to produce high-quality, few-layer GO at the Company's Guelph facility.

On September 28, 2020, the University of Guelph filed a provisional patent application directed to an electrochemical exfoliation process to produce GO from Albany Pure™ graphite, to which the Company holds an exclusive license.

AGC's current and future operations with respect to the Albany Graphite Project, including development activities carried out by AGC on its properties or areas in which it has an interest, are subject to laws and regulations governing exploration, development, tenure, productions, taxes, labour standards, occupational health, waste disposal, protection, and remediation of the environment, mine safety, toxic substances, and other matters. Environmental protection requirements did not have a material effect on the capital expenditures, earnings, or competitive position of the Company during its financial year ended March 31, 2024, and are not expected to have a material effect during the Company's financial year ending March 31, 2025.

Employees

As of the date of this AIF, the Company has 25 staff consisting of 24 employees and 1 consultant. Management expects headcount to grow as production volumes, scientific capacity and sales staff grow during upcoming fiscal years.

Foreign Operations

The Company has no meaningful foreign operations.

Other

The Company and its subsidiaries have not been subject to bankruptcies, receiverships, or similar proceedings, nor have there been any material reorganizations of the Company or any of its subsidiaries during the three most recently completed financial years or completed during or proposed for the current financial year. The Company does not have an investment policy, or lending and investment restrictions in place.

RISK FACTORS

The operations of the Company are speculative due to the high-risk nature of its business, which includes the development of certain intellectual property and the manufacturing of graphene related products, and which may include the future acquisition, financing, and development of the Albany Graphite Project. 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 information relating to the Company. Accordingly, any investment in securities of the Company is speculative and investors should not invest in securities of the Company unless they can afford to lose their entire investment.

The Company assesses and attempts to minimize the effects of these risks through careful management and planning of its operations and hiring qualified personnel but is subject to a number of limitations in managing risk resulting from its early stage of development. Below is a non-exhaustive summary of the principal risks and related uncertainties that may impact the Company. Such risk factors, as well as additional risks and uncertainties set out elsewhere in the Company's publicly filed documents, and additional risks and uncertainties not presently known to Company or that the Company currently deems immaterial, could have a material adverse effect on the Company's business, financial condition and results of operations or the trading price of the common shares.

During June 2023, there was a decrease in credit risk as a result of the partial payment of $2.5 million received in respect of the loan receivable.

Negative Operating Cash Flow

During the financial year ended March 31, 2024, the Company had negative operating cash flow because its revenues did not exceed its operating expenses. In addition, as a result of the Company's business plans for the development of its products, the Company expects cash flow from operations to be negative until revenues improve to offset its operating expenditures. The Company's cash flow from operations may be affected in the future by expenditures incurred by the Company to continue to develop its products. To the extent the Company has negative cash flow in any future period, the Company may be required to allocate funds to fund such negative cash flow from operating activities. In order to stay in business, in the absence of cash flow from operations, the Company will have to raise funding through financing activities. However, there is no certainty the Company will be able to raise funds at all or on terms acceptable to the Company in the event it needs to do so. Furthermore, additional funds raised by the Company through the issuance of equity or convertible debt securities would cause the Company's current shareholders to experience dilution. Such securities also may grant rights, preferences, or privileges senior to those of the Company's shareholders.

The Company does not have any contractual restrictions on its ability to incur debt and, accordingly, the Company could incur significant amounts of indebtedness to finance its operations. Any such indebtedness could contain restrictive covenants, which likely would restrict the Company's operations.

Uncertainties Relating to the Company's Business Plans

There is no assurance that broad successful commercial applications may be feasible for the Company. The Company is continuing to explore, develop, and test its current products and new products, and there can be no assurance that new uses of existing products or new products will be fully developed for commercial application, that test results will be successful, if completed at all, that any necessary permits or approvals required in order to market such products will be obtained by the Company, or that existing technology or products will become profitable. Furthermore, there is no assurance that the Company will complete any acquisitions or acquire any know-how or trade secrets to carry out certain of its future objectives. Should the Company fail to achieve any of the foregoing, this could have a material adverse impact on the business and planned business of the Company.

The Company's business is in part dependent on patents, trade secret and other intellectual property laws of Canada, and potentially foreign jurisdictions. The Company may be unable to prevent third parties from using its intellectual property without its authorization. Some of the Company's current or future technologies and trade secrets may not be covered by any patent or patent application, and the Company's issued and pending patents may not provide the Company with any competitive advantage and could be challenged by third parties.

The Company's inability to secure issuance of pending patent applications may limit its ability to protect the intellectual property rights these pending patent applications were intended to cover. The Company's competitors may attempt to design around its patents to avoid liability for infringement and, if successful, could adversely affect the Company's market share. Furthermore, the expiration of the Company's patents may lead to increased competition.

Additionally, the Company plans to construct facilities for some of its operations and business activities. There can be no assurance that locations will be secured on terms favourable to the Company or at all, that engineering plans will be completed or will be satisfactory for the intended business activities of the Company, that any required permitting will be obtained, that construction of such facilities will be completed, or that such facilities will ever become operational. If such facilities are not constructed, or do not become operational, or do not operate at the capacity required or anticipated, there could be a material adverse effect of the Company's planned business and operations.

Economic and Political Conditions

Worldwide financial and economic cycles or conditions are uncertain, and recovery from a business downturn or recession could be very slow and have a significant impact on the Company's business. The Company's business is sensitive to changes in economic and political conditions, including interest rates, currency issues, energy prices, trade issues, international or domestic conflicts or political crises, and epidemics or pandemics.

The credit and financial markets have experienced extreme volatility and disruptions due to the current conflicts in the Middle East and between Ukraine and Russia. The conflict is expected to have further global economic consequences, including but not limited to the possibility of severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in inflation rates and uncertainty about economic and political stability. In addition, the United States and other countries have imposed sanctions on Russia which increases the risk that Russia, as a retaliatory action, may launch cyberattacks against the United States, its government, infrastructure and businesses. Any of the foregoing consequences, including those we cannot yet predict, may cause our business, financial condition, results of operations and the price of our ordinary shares to be adversely affected.

Revenue from Graphene-related Products Sales; Long and Complex Sales Cycle

To date, the Company has recorded minimal revenue from its graphene enhanced products sales. There can be no assurance that significant losses will not occur in the near future or that the Company will be profitable in the future. The Company's operating expenses, and capital expenditures may increase in subsequent years. The Company expects to continue to incur losses unless and until such time as it enters into long-term and large-volume supply agreements and generates sufficient revenues to fund its continuing operations.

Intellectual Property

The Company relies on the patent, trade secret and other intellectual property laws of Canada, and foreign jurisdictions. The Company may be unable to prevent third parties from using its intellectual property without its authorization. The unauthorized use of the Company's intellectual property could reduce any competitive advantage that it has developed, reduce its market share or otherwise harm its business. In the event of unauthorized use of the Company's intellectual property, litigation to protect and enforce the Company's rights could be costly, and the Company may not prevail.

Some of the Company's current or future technologies and trade secrets may not be covered by any patent or patent application, and the Company's issued and pending patents may not provide the Company with any competitive advantage and could be challenged by third parties. The Company's inability to secure issuance of pending patent applications may limit its ability to protect the intellectual property rights these pending patent applications were intended to cover. The Company's competitors may attempt to design around its patents to avoid liability for infringement and, if successful, could adversely affect the Company's market share. Furthermore, the expiration of the Company's patents may lead to increased competition.

In addition, effective patent, trade secret and other intellectual property protection may be unavailable or limited in some foreign countries. In some countries, the Company may not apply for patent or other intellectual property protection. The Company also relies on unpatented technological innovation and other trade secrets to develop and maintain its competitive position. Although the Company generally enters into confidentiality agreements with its employees and third parties to protect its intellectual property, these confidentiality agreements are limited in duration, could be breached and may not provide meaningful protection of its trade secrets. Adequate remedies may not be available if there is an unauthorized use or disclosure of the Company's trade secrets and manufacturing expertise. In addition, others may obtain knowledge about the Company's trade secrets through independent development or by legal means. The failure to protect the Company's processes, technology, trade secrets and proprietary manufacturing expertise, methods and compounds could have a material adverse effect on its business by jeopardizing critical intellectual property.

Where a product formulation or process is kept as a trade secret, third parties may independently develop or invent and patent products or processes identical to such trade secret products or processes. This could have a material adverse effect on the Company's ability to make and sell products or use such processes and could potentially result in costly litigation in which the Company might not prevail. The Company could face intellectual property infringement claims that could result in significant legal costs and damages and impede its ability to produce key products, which could have a material adverse effect on its business, financial condition, and results of operations.

Product Development and Technological Change

There is no assurance that broad successful commercial applications for the Company's products may be feasible. Most, if not all, of the scientific and engineering data related to the Company's products has been generated by the Company's own laboratories or laboratory environments of the Company's partners, such as universities. There can be no assurance that laboratory data translates to or is representative in commercial applications.

Additionally, the industries in which the Company seeks to operate are characterized by rapid technological change and frequent new product introductions. Part of the Company's business strategy is to monitor such changes and take steps to remain technologically current, but there is no assurance that such a strategy will be successful. If the Company is not able to adapt to new advances in materials sciences, or if unforeseen technologies or materials emerge that are not compatible with the Company's or that could replace its products, the Company's revenues and business would likely be adversely affected.

Market Development and Growth

Failure to further develop the Company's key markets and existing geographic markets or to successfully expand its business in the future into new markets could have an adverse impact on sales growth and operating results.

The Company's ability to further penetrate its key markets and the existing geographic markets in which it competes and/or aims to compete, and to successfully expand its business into other countries, is subject to numerous factors, many of which are beyond its control. There can be no assurance that efforts to increase market penetration in the Company's key markets and existing geographic markets will be successful. Failure to achieve these goals may have a material adverse effect on the Company's operating results.

Unpredictable Sales Cycles

The sales cycle for graphene products may range considerably from one to multiple years from the time a customer begins testing the Company's product until the time that they could be used in a commercial product. Timing of product introduction could vary significantly based on the target market. Additionally, any demand for the Company's products based in whole or in part on the coronavirus (COVID-19) pandemic could materially change in the event the pandemic ends or decreases in severity. The Company has demonstrated little track record of success in completing customer development projects, which makes it difficult to evaluate the likelihood of future success.

The sales and development cycles for the Company's products are subject to customer budgetary constraints, internal acceptance procedures, competitive product assessments, scientific and development resource allocations, and other factors beyond the Company's control. If the Company is not able to successfully accommodate these factors to achieve commercial success, the Company may be unable to achieve sufficient sales to reach profitability.

Government Regulation and Import/Export Controls

The Company's future operations, including development, and commencement and continuation of commercial production, require licenses, permits or other approvals from various federal, provincial, local and potentially foreign governmental authorities, and such operations are or will be governed by laws and regulations relating to production, exports, taxes, labor standards, occupational health and safety, waste disposal, toxic substances, prospecting, development, mining, land use, water use, environmental protection, land claims of indigenous people and other matters. Furthermore, in certain foreign jurisdictions, these regulatory requirements may be more stringent than those in Canada. Certain export control laws or economic sanctions laws may include restrictions or prohibitions on the sale or supply of certain products and services to embargoed or sanctioned countries, governments, persons, and entities. In addition, various countries regulate the import of certain technology, including import and export permitting and licensing requirements, and have enacted or could enact laws that could limit the Company's ability to distribute its products. Changes in the Company's products, or future changes in export and import regulations may prevent any potential international customers from utilizing the Company's products globally or, in some cases, prevent the export or import of the Company's products to certain countries, governments, or persons altogether.

Any change in export or import regulations, economic sanctions, or related legislation, or change in the countries, governments, persons, or technologies targeted by such regulations, could result in decreased use of the Company's products in the future by, or in the Company's decreased ability to export or sell its products to, potential international customers. Any limitation on the Company's ability to export or sell its products would likely adversely affect the Company's future business, results of operations, and financial results.

Large volume production of graphene requires permits and approvals from various government authorities, and is subject to extensive federal, provincial, state, and local laws and regulations governing development, production, exports, taxes, labour standards, occupational health and safety, environment, and other matters. As graphene is a new chemical substance, production and sale of graphene may be subject to specific occupational health and safety and environment regulatory approvals in different jurisdictions including, without limitations, under the *Canadian Environmental Protection Act* (Canada), the *Food and Drug Act* (Canada), the *Toxic Substances Control Act* (USA), the *Food Drug and Cosmetic Act* (USA) and the *Registration, Evaluation, Authorization and Restriction of Chemicals* (Europe).

Health Canada also regulates certain markets into which the Company intends to supply products or license its intellectual property. There is no assurance that Health Canada or any other body will grant license for sales into markets it regulates. Each foreign jurisdiction for the Company's products is regulated and no assurance exists that sales of graphene-related products will be permitted. Any inability by the Company to obtain approval from Health Canada and/or international bodies could have a material adverse impact of the business of the Company.

The Company is also subject to consumer protection laws that may impact its sales and marketing efforts. These laws, as well as any changes in these laws, could make it more difficult for the Company to sell and market its products. These laws and regulations are subject to change over time and thus the Company must continue to monitor and dedicate resources to ensure continued compliance. Non-compliance with applicable regulations or requirements could subject the Company to investigations, sanctions, enforcement actions, disgorgement of profits, fines, damages, civil and criminal penalties, or injunctions. If any governmental sanctions are imposed, or if the Company does not prevail in any possible civil or criminal litigation, its business, operating results, and financial condition could be materially adversely affected.

Additionally, in order for the Company to carry out its activities, any required licenses and permits must be obtained and kept current. There can be no assurance, however, that the Company will obtain on reasonable terms or at all the permits and approvals, and the renewals thereof, which it may require for the conduct of its future operations or that compliance with applicable laws, regulations, permits and approvals will not have an adverse effect on the Company's business plans. Possible future environmental and mineral tax legislation, regulations and actions could cause additional expense, capital expenditures, restrictions and delay on the Company's planned exploration and operations, the extent of which cannot be predicted.

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

Industry Competition

The Company seeks to compete with other graphene and manufacturing companies, in highly competitive markets. Some of the Company's competitors have substantially greater financial, marketing, and other resources and higher market share than the Company has in certain products or geographic areas. As the markets for the Company's products expand, additional competition may emerge, and competitors may commit more resources to products which directly compete with the Company's products. There can be no assurance that the Company will be able to compete successfully with existing competitors or be able to develop any market for its products, or that its business will not be adversely affected by increased competition or by new competitors.

There is no assurance that the Company will continue to be able to compete successfully with its competitors in acquiring such properties or prospects and any such inability could have a material adverse effect on the Company's business and financial condition.

Lack of Trading Market for Graphene

Unlike commodity minerals such as copper, gold or silver, industrial minerals such as graphene precursor graphene materials and graphite do not have a metals exchange or an open market upon which to trade and therefore prices are not set in an open market or publicly traded market, and there can be no assurance that certain items can be sold or purchased at any time. As prices are set with private suppliers and private customers, it is difficult to predict what market prices may be at the time of any transaction. There can be no guarantees that the Company will be able to sell its graphene products in a profitable manner, or at all.

Shortages

The Company will be dependent on various supplies, equipment, parts and labour, and the services of contractors to carry out its business objectives. The availability and cost of such supplies, equipment, parts or labour or the services of contractors could have a material adverse effect on the Company's ability to successfully carry out its exploration and development activities.

Liquidity Concerns and Future Financing

The Company's approach to managing liquidity risk is to ensure that it will have sufficient liquidity to meet liabilities when due. As of March 31, 2024, the Company had a cash balance of $3,521,420 (2023 - $10,357,317) to settle current liabilities of $1,819,004 (2023 - $2,419,818). The Company is ultimately dependent on the commercial sales of its products. Any delay in the sales of such products could require additional financing.

There can be no assurance that the Company will be successful in obtaining the required financing as and when needed. Volatile markets may make it difficult or impossible for the Company to obtain debt financing or equity financing on favourable terms, if at all. Failure to obtain additional financing on a timely basis may cause the Company to postpone or slow down its development plans or reduce or terminate some or all of its activities.

Reliance on Key Personnel

The Company's development to date has depended, and in the future, will depend largely on the efforts of key management and other key personnel. Loss of any of these people, particularly to competitors, could have a material adverse effect on the Company's business. Further, with respect to the future development of the Company's projects, it may become necessary to attract both international and local personnel for such development. The marketplace for key skilled personnel is becoming more competitive, which means the cost of hiring, training, and retaining such personnel may increase. Factors outside the Company's control, including competition for human capital and the high-level of technical expertise and experience required to execute this development will affect the Company's ability to employ the specific personnel required.

The failure to retain or attract a sufficient number of key skilled personnel could have a material adverse effect on the Company's business, results of operations, and financial condition. The Company has not taken out and does not intend to take out "key man insurance" in respect of any directors, officer, or other employees.

Qualified Employees

Recruiting and retaining qualified personnel is critical to the Company's success. Especially if it relates to its graphene operations, finding skilled scientists and a sales team familiar with the subject matter is difficult. As the Company grows further, the need for skilled labour will increase. The number of persons skilled in the high-tech manufacturing business is limited and competition for this workforce is intense. This may adversely affect the business of the Company if it is unable to recruit and retain qualified personnel as and when required.

Cybersecurity Threats

The reliability and security of the Company's information technology (" **IT**") systems are important to the Company's business and operations. Although the Company has established and continues to enhance security controls intended to protect the Company's IT systems and infrastructure, there is no guarantee that such security measures will be effective in preventing unauthorized physical access or cyberattacks. A significant breach of the Company's IT systems could, among other things, cause disruptions in the Company's manufacturing operations (such as operational delays from production downtime, inability to manage the supply chain or produce products for customers, disruptions in inventory management), lead to the loss, destruction, corruption or inappropriate use of sensitive data, including employee information or intellectual property, result in lost revenues due to theft of funds or due to a disruption of activities, including remediation costs, or from litigation, fines and liability or higher insurance premiums, the costs of maintaining security and effective IT systems, which could negatively affect results of operations and the potential adverse impact of changing laws and regulations related to cybersecurity or result in theft of the Company's, its customers' or suppliers' intellectual property or confidential information. If any of the foregoing events (or other events related to cybersecurity) occurs, the Company may be subject to a number of consequences, including reputational damage, a diminished competitive advantage and negative impacts on future opportunities which could have a material adverse effect on the Company.

Share Price Fluctuations

The market price of securities of many companies, particularly development stage companies, experience wide fluctuations in price that are not necessarily related to the operating performance, underlying asset values or prospects of such companies. There can be no assurance that fluctuations in the Company's share price will not occur. In particular, the fluctuations may be exaggerated if the trading volume of the Company's common shares is low.

Cost Absorption and Purchase Orders

Especially as it relates to its activities in the transportation industry, and given the current trends in that industry, the Company is under continuing pressure to absorb costs related to product design and development, engineering, program management, prototypes and validation. In particular, OEMs are requesting that suppliers pay for the above costs and recover these costs through the piece price of the applicable component. Contract volumes for customer programs not yet in production are based on the Company's customers' estimates of their own future production levels. However, actual production volumes may vary significantly from these estimates due to a reduction in consumer demand or new product launch delays, often without any compensation to the supplier by its OEM customer. Typical purchase orders issued by customers do not require that they purchase a minimum number of the Company's products. For programs currently under production, the Company is generally unable to request price changes when volumes differ significantly from production estimates used during the quotation stage.

If estimated production volumes are not achieved, the product development, design, engineering, prototype, and validation costs incurred by the Company may not be fully recovered. Similarly, future pricing pressure or volume reductions by the Company's customers may also reduce the amount of amortized costs otherwise recoverable in the piece price of the Company's products. Either of these factors could have an adverse effect on the Company's profitability. While it is generally the case that once the Company receives a purchase order for products of a particular vehicle program it would continue to supply those products until the end of such program, customers could cease to source their production requirements from the Company for a variety of reasons, including the Company's refusal to accept demands for price reductions or other concessions.

Acquisitions

The Company could seek to acquire complementary businesses, assets, technologies, services, or products, at competitive prices. The Company could pursue acquisitions in those product areas which were identified as key to the Company's long-term business strategy. However, as a result of intense competition in these strategic areas, the Company may not be able to acquire the targets needed to achieve its strategic objectives. The completion of such transactions poses additional risks to the Company's business. Acquisitions are subject to a range of inherent risks, including the assumption of incremental regulatory/compliance, pricing, supply chain, commodities, labor relations, litigation, environmental, pensions, warranty, recall, IT, tax or other risks. Although the Company seeks to conduct appropriate levels of due diligence on acquisition targets, these efforts may not always prove to be sufficient in identifying all risks and liabilities related to the acquisition, including as a result of: limited access to information; time constraints for conducting due diligence; inability to access target company facilities and/or personnel; or other limitations in the due diligence process. Additionally, the Company may identify risks and liabilities that cannot be sufficiently mitigated through appropriate contractual or other protections. The realization of any such risks could have a material adverse effect on the Company's operations or profitability. The benefit to the Company of previous and future acquisitions is highly dependent on the Company's ability to integrate the acquired businesses and their technologies, employees and products into the Company, and the Company may incur costs associated with integrating and rationalizing the facilities (some of which may need to be closed in the future). The Company cannot be certain that it will successfully integrate acquired businesses or that acquisitions will ultimately benefit the Company.

Any failure to successfully integrate businesses or failure of the businesses to benefit the Company could have a material adverse effect on its business and results of operations. Such transactions may also result in additional dilution to the Company's shareholders or increased debt. Such transactions may involve partners, and the formula for determining contractual sale provisions may be subject to a variety of factors that may not be easily quantified or estimated until the time of sale (such as market conditions and determining fair market value).

Launch and Operational Costs

The launch of new business, in an existing or new facility, is a complex process, the success of which depends on a wide range of factors, including the production readiness of the Company and its suppliers, as well as factors related to tooling, equipment, employees, initial product quality and other factors. A failure to successfully launch material new or takeover business could have an adverse effect on profitability. The Company's manufacturing processes are vulnerable to operational problems that can impair its ability to manufacture its products in a timely manner, or which may not be performing at expected levels of profitability. The Company's facilities and proposed facilities contain complex and sophisticated equipment that is used in its manufacturing processes. The Company could experience equipment failure in the future due to wear and tear, design error or operator error, among other things, which could have an adverse effect on profitability. From time to time, the Company may have some operating divisions which are not performing at expected levels of profitability. Significant underperformance of one or more operating divisions could have a material adverse effect on the Company's profitability and operations.

Material and Commodity Prices

Prices for key raw materials and commodities used in the production of graphene-based products, as well as energy prices, have proven to be volatile at certain times. To the extent that the Company is unable to fully mitigate its exposure to price change of key raw materials and commodities, particularly through engineering products with reduced content, by passing price increases to customers, or otherwise, such additional costs could have a material adverse effect on profitability. Increased energy prices could also have an impact on production or transportation costs which in turn could affect competitiveness.

Uninsured Risks

The Company maintains insurance to cover normal business risks. In the course of its manufacturing businesses, certain risks and, in particular, unexpected, or unusual catastrophic events including explosions and fire may occur. It is not always possible to fully insure against such risks as a result of high premiums or other reasons. Should such liabilities arise, they could reduce or eliminate any future profitability and result in increasing costs and a decline in the value of the common shares of the Company.

Litigation

The Company has entered into legally binding agreements with various third parties, including supply, license, distribution, non-disclosure, consulting, and partnership agreements. The interpretation of the rights and obligations that arise from such agreements is open to interpretation and the Company may disagree with the position taken by the various other parties resulting in a dispute that could potentially initiate litigation and cause the Company to incur legal costs in the future. Given the speculative and unpredictable nature of litigation, the outcome of any such disputes could have a material adverse effect on the Company's business.

Credit Risk

As at March 31, 2024, the Company's credit risk was primarily attributable to cash, accounts and other receivables and loan receivable. The Company issued a loan receivable during the year ended March 31, 2022, further increasing its exposure to credit risk. In June 2023, a partial payment of $2.5 million was received against the loan receivable, decreasing credit risk. The remaining $0.5 million was due September 29, 2023, but has been subsequently extended to October 31, 2024. The Company performed an analysis of collectivity and based on the collateral against the loan, determined that no provision was required. Financial instruments included in accounts and other receivables consisted of trade receivables generated through sales as well as recoverable Harmonized Sale Tax. The Company's cash is held with reputable financial institutions. Management believes that the credit risk with respect to financial instruments included in accounts and other receivables is remote.

Interest Rate Risk

The Company has cash and cash equivalent balances at federally regulated Canadian banks. The Company periodically monitors the investments it makes, the security of such investments and is satisfied with the credit ratings of its banks. The Company closely monitors interest rates to determine the appropriate course of action to be taken by the Company.

Price Risk

The Company is exposed to price risk with respect to commodity prices. The Company closely monitors commodity prices to determine the appropriate course of action to be taken by the Company.

Financial Capability and Additional Financing

The Company has limited financial resources and there is no assurance that sufficient additional funding will be available to enable it to fulfill its business objectives or obligations, on acceptable terms or at all. Unanticipated expenses and other developments could cause existing funds to be depleted sooner than expected. In the event that its existing cash resources are inadequate to fund operational expenses, and in order to fund the planned business objectives of the Company, the Company will be required to raise additional financing from external sources, such as debt financing, equity financing or joint ventures.

The Company's ability to raise additional equity financing may be affected by numerous factors beyond the Company's control, including, but not limited to, adverse market conditions, commodity price changes and an economic downturn. Failure to obtain additional funding on a timely basis could result in delay or indefinite postponement of the development of the Company's business and could cause the Company to reduce or terminate its operations.

Additional funds raised by the Company from treasury share issuances may result in significant dilution to existing shareholders, a depressive effect on the price of the common shares and/or a change of control.

Permits and Government Regulation

Although the Company believes it has all of the necessary permits to carry out the proposed business programs, the operations of the Company may require licenses and permits from time to time from various governmental authorities to carry out exploration and development at its projects or locations. Obtaining permits can be a complex, time-consuming process. There can be no assurance that the Company will be able to obtain the necessary licenses and permits on acceptable terms, in a timely manner or at all. The costs and delays associated with obtaining permits and complying with these permits and applicable laws and regulations could stop or materially delay or restrict the Company from continuing or proceeding with existing or future operations or projects. Any failure to comply with permits and applicable laws and regulations, even if inadvertent, could result in the interruption or closure of operations or material fines, penalties, or other liabilities. In addition, the requirements applicable to sustain existing permits and licenses may change or become more stringent over time and there is no assurance that the Company will have the resources or expertise to meet its obligations under such licenses and permits.

Fluctuating Prices

The profitability of the Company's operations will be dependent upon the market price of the ZenGUARD™ masks and other products, their global acceptance and demand along with their regulatory approvals in other jurisdictions. The level of interest rates, rate of inflation, production costs, healthcare and consumer demand, and stability of exchange rates can all cause significant fluctuations in revenue. Such external economic factors are in turn influenced by changes in international purchasing patterns, COVID-19 pandemic situation, monetary systems and political developments.

Environmental Regulation

AGC's Albany Graphite Project is subject to environmental laws and regulations which may materially and adversely affect its future operations. These laws and regulations control the exploration and development of the Albany Graphite Project and their effects on the environment, including air and water quality, waste handling and disposal, the protection of different species of plant and animal life, and the preservation of lands. These laws and regulations will require AGC to acquire permits and other authorizations for certain activities. There can be no assurance that AGC will be able to acquire such necessary permits or authorizations on a timely basis, if at all.

Further, environmental legislation is evolving in a manner which will require stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their officers, directors and employees. There is no assurance that future changes in environmental regulation, if any, will not adversely affect AGC's operations.

AGC is not currently insured against most environmental risks. Without such insurance, and if AGC becomes subject to environmental liabilities, the payment of such liabilities would reduce or eliminate its available funds or could exceed the funds AGC has to pay such liabilities and result in bankruptcy.

Economic Dependence on Supply Agreements

Currently, the Company has entered into a limited number of supply or sales agreements for the sale of its products. Until additional supply agreements are executed by the Company, the Company's revenues will be completely dependent on such agreements. If such agreements are terminated, or if less of the Company's product than anticipated is purchased pursuant to such agreements, this could have a material adverse impact on the Company's business, operations and results.

DIVIDENDS AND DISTRIBUTIONS

The Company relies primarily on equity financing to fund its working capital needs. The Company has neither declared nor paid any dividends on its common shares. The Company intends to retain its earnings, if any, to finance growth and expand its operation and does not anticipate paying any dividends on its common shares in the foreseeable future. Any decisions to pay dividends on the common shares will be made by the Board on the basis of its earnings, financial requirements, and other conditions.

DESCRIPTION OF CAPITAL STRUCTURE

Common Shares

The authorized share capital of the Company consists of an unlimited number of common shares, of which 100,819,577 shares were issued and outstanding as fully paid and non-assessable as at March 31, 2024. As at the date hereof, 101,229,977 common shares were issued and outstanding.

Each common share entitles the holder thereof to receive notice of any meetings of the shareholders of the Company, to attend, and to cast one vote per common share at all such meetings. Holders of common shares do not have cumulative voting rights with respect to the election of directors. Accordingly, holders of a majority of the common shares entitled to vote in any election of directors may elect all of the directors standing for election. Holders of common shares are entitled to receive on a pro-rata basis such dividends if any, as and when declared by the Board at its discretion from funds legally available therefore and, upon the liquidation, dissolution, or winding up of the Company, are entitled to receive on a pro-rata basis the net assets of the Company for payment of debts and liabilities. The common shares do not carry any pre-emptive, subscription, redemption, retraction, or conversion rights, nor do they contain any sinking or purchase fund provisions.

Stock Options

On September 29, 2022, shareholders of the Company approved and adopted an Omnibus Long-Term Incentive Plan (" **LTIP**") at the Company's annual and special shareholder meeting. The LTIP was accepted for filing by the TSXV on October 17, 2022.

Any existing options that were granted prior to the effective date of the LTIP pursuant to the Company's previous stock option plan (the " **Legacy Stock Option Plan**"), will continue in accordance with their terms. Upon the effective date of the LTIP, however, options shall no longer be granted pursuant to the Legacy Stock Option Plan and shall only be granted pursuant to the LTIP.

The maximum number of common shares that may be: (i) issued to insiders of the Company within any one-year period; or (ii) issuable to insiders of the Company at any time, in each case, under the LTIP alone, or when combined with all of the Company's other security-based compensation arrangements, including the Legacy Stock Option Plan, cannot exceed 10% of the aggregate number of common shares issued and outstanding from time to time determined on a non-diluted basis.

As at March 31, 2024, a total of 7,293,334 stock options were outstanding with a weighted average exercise price of $2.33. During the financial year ended March 31, 2024, the Company granted an aggregate of 1,445,000 options to certain officers, directors, and employees of the Company. As at the date hereof, the Company had stock options exercisable for an aggregate of 8,548,334 common shares outstanding.

Prior Sales

The following table summarizes details of all issuances of securities of the Company, other than Common Shares, in the year ended March 31, 2024, being the most recently completed financial year of the Company:

Issue Date	Type of Security	Issue Price	Number of Securities
April 14, 2023	Options	$2.12	600,000
June 1, 2023	Options	$2.24	250,000
November 30, 2023	Options	$1.75	400,000
December 14, 2023	Options*	$1.00*	195,000

'* Stock options in its newly created Triera Biosciences Ltd. subsidiary. Initially exercisable at $5.00 per common share and repriced in February 2024, to $1.00 per share.

MARKET FOR SECURITIES

Trading Price and Volume

Common Shares

The common shares are listed for trading on the TSXV under the trading symbol "ZEN". The following table sets out the high and low closing market prices and the volume traded of the common shares on the TSXV for each month since the beginning of the Company's financial year ended March 31, 2024:

2023	HIGH ($)	LOW ($)	VOLUME
April	2.18	2.01	590,840
May	2.27	1.89	879,544
June	2.25	2.07	396,863
July	2.2	2.01	807,949
August	2.17	1.81	900,724
September	1.87	1.61	628,067
October	1.85	1.54	1,081,295
November	1.77	1.44	1,217,896
December	1.71	1.38	1,480,655
2024	**HIGH ($)**	**LOW ($)**	**VOLUME**
January	2.11	1.55	1,199,666
February	1.91	1.6	657,697
March	1.78	1.6	568,022
April	1.65	1.39	1,122,749
May	1.61	1.4	988,155
June 1 to June 25	1.59	1.42	947,127

ESCROWED SECURITIES

As of the date hereof, there are no securities of the Company subject to escrow provisions.

DIRECTORS AND OFFICERS

Name, Occupation, and Security Holdings

The following table sets forth all current directors and executive officers of the Company as at the date hereof, their principal occupations or employment, the period or periods of service, and the approximate number of voting securities of the Company beneficially owned, directly or indirectly, or over which control or direction is exercised as of the date hereof.

The Board currently consists of six (6) directors to be elected annually. The term of office of each director will be from the date of the meeting at which he or she is elected until the next annual meeting, or until his or her successor is elected or appointed.

Name, Province and Country of Residence, Position	Director Since	Number of Common Shares Beneficially Owned[1]	Principal Occupation During Past Five Years
Greg Fenton[2] St. James, Barbados Chief Executive Officer and Director	July 11, 2018	2,885,780 common shares 2,250,000 options	Chief Strategy Officer (September 27, 2019, to December 7, 2020); Chief Executive Officer of the Company (December 8, 2020, to present), President at Fortem Partners International Limited (2016 to present), Corporate Director.
Eric Wallman[3] [4] Manitoba, Canada Director and Non-executive Chairman	May 11, 2018	405,385 common shares 375,000 options	A Chartered Professional Accountant since 1986. Recently retired from private industry where he held executive positions within the dairy processing and manufacturing sectors. Most recent work involved strategic planning and business unit leadership. Also served on several industry related boards.
Lisa Sim[4] Ontario, Canada Director	June 1, 2023	300,000 options	Partner at Miller Thomson LLP and member of their Executive Committee.
Ilse Treurnicht[3] [4] Ontario, Canada Director	July 5, 2022	1,500 common shares 325,000 options	Managing Partner of TwinRiver Capital, General Partner at North South Ventures, chair of the Public Policy Forum, director of the Equality Fund, advisor to governments, technology firms, foundations and international agencies.
John Snisarenko[3] [4] Massachusetts, United States of America Director	October 5, 2023	20,000 common shares 300,000 options	Group Vice-President and Head of Ophthalmology Franchise for Shire/Takeda (June 2017 to July 2019, divested to Novartis Pharmaceuticals Corp);; Chief Commercial Officer of Oyster Point Pharma Inc. (September 2019 to July 2022); Independent director and board member of Alimera Sciences Inc. (July 2019 to present).; Cytophage Technologies Ltd. (May 2024 to present).
Wendy Ford[2] Alberta, Canada Chief Financial Officer	N/A	10,000 common shares 425,000 options	Chief Financial Officer of AirBoss of America Corp (March 2014 to August 2016); VP Finance and Chief Financial Officer of Mancor Canada Inc. (October 2017 to May 2022).
Dr. Colin van der Kuur[2] British Columbia, Canada Chief Science Officer	N/A	483,253 common shares 300,000 options	Head of Research (February 4 to December 7, 2020); VP, Science and Research (December 8, 2020, to present)
Ryan Shacklock[2] Saskatchewan, Canada Senior VP, Strategy and Business Development	N/A	178,200 common shares 450,000 options	VP of the Company since January 2021. Prior thereto, Mr. Shacklock held several positions at Nutrien Ltd. (formerly Potash Corporation of Saskatchewan Inc.)
Nick Hansford Alberta, Canada VP, Strategy and Product Development	N/A	275,000 options	VP of the Company since December 2021. Prior thereto, Mr. Hansford held the position of Senior Manager at PwC Canada Consulting and Deals Finance Transformation from 2019-2021and various positions at EY and PWC from 2014-2017 in their consulting divisions.

Name, Province and Country of Residence, Position	Director Since	Number of Common Shares Beneficially Owned[(1)]	Principal Occupation During Past Five Years
Peter C. Wood Ontario, Canada VP, Development (AGC)	N/A	167,348 common shares 150,000 options	VP Exploration of the Company (2013 to June 21, 2018); Vice President of the Company (June 22 to September 13, 2018); President of the Company (September 14, 2018, to present); President and Geologist, Geodigital Mapping Systems Inc. (1991 to present)

Notes:

(1) The information as to voting securities beneficially owned, controlled, or directed, not being within the knowledge of the Company, has been obtained from the System for Electronic Disclosure by Insiders or furnished by the respective nominees individually. Based on this information, as at the date of this AIF, the directors and executive officers of the Company, as a group, beneficially owned, controlled or directed, directly or indirectly, 4,151,466 common shares, representing approximately 4.11% of the outstanding common shares.
(2) Member of the Disclosure Committee.
(3) Member of the Audit Committee.
(4) Member of the Corporate Governance, Compensation and Nominating Committee.

Cease Trade Orders, Bankruptcies, Penalties or Sanctions

For the purposes of this section "Order" means:

(a) a cease trade order;

(b) an order similar to a cease trade order; or

(c) an order that denied the relevant company access to any exemption under securities legislation;

that was in effect for more than 30 days.

No director or executive officer of the Company, within 10 years before the date of this AIF, has been a director, chief executive officer or chief financial officer of any company that was subject to an Order that was issued:

(a) while the proposed director was acting in the capacity as director, chief executive officer or chief financial officer; or

(b) after the proposed director ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer.

No director or executive officer of the Company, or shareholders holding a sufficient number of securities to materially affect control of the Company has:

(a) as at the date of the AIF, or within 10 years before the date of the AIF, been a director or executive officer of any company that, while the proposed director was acting in that capacity, or within a year of the proposed director ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or

(b) within 10 years before the date of the AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of such person.

No director or executive officer of the Company or a shareholder holding a sufficient number of securities to materially affect control of the company has been subject to:

(a) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or

(b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

PROMOTERS

No person or company has been, within the two most recently completed financial years or during the current financial year, a promoter of the Company.

CONFLICTS OF INTEREST

There are no known existing or potential conflicts of interest among the Company, or any of its subsidiaries, and the directors and officers of the Company as a result of their outside business interests except that certain of the directors and officers may serve as directors, officers, promoters and members of management of other companies and therefore it is possible that a conflict may arise between their duties as a director and officer of the Company and their duties as a director, officer, promoter or member of management of such other companies.

The directors and officers of the Company have been advised of the existence of laws governing accountability of directors and officers regarding corporate opportunity and requiring disclosures by directors of conflicts of interest, and the Company will rely upon such laws in respect of any directors' and officers' conflicts of interest or in respect of any breaches of duty by any of the directors or officers. All such conflicts shall be disclosed by such directors or officers and treated in accordance with the applicable laws of Ontario and the Company's constating documents.

LEGAL PROCEEDINGS AND REGULATORY ACTIONS

Other than as set out below, the Company was not subject to any material legal proceedings during its most recently completed financial year, nor is the Company or any of its properties a party to or the subject of any such proceedings, and no such proceedings are known to be contemplated. The Company may be involved in routine, non-material litigation arising in the ordinary course of business, from time to time.

There were no penalties or sanctions imposed against the Company by a court relating to provincial and territorial securities legislation or by a securities regulatory authority during its most recently completed financial year, nor have there been any other penalties or sanctions imposed by a court or regulatory body against the Company, and the Company has not entered into any settlement agreements before a court relating to provincial and territorial securities legislation or with a securities regulatory authority.

The Company is involved in legal proceedings relating to claims involving a former director and officer of the Company. The claim was commenced in the Ontario Superior Court of Justice on September 26, 2018, by Aubrey Eveleigh and Eveleigh Geological Consulting. Mr. Eveleigh seeks damages in excess of $5,000,000 in connection with an employment dispute. The Company is defending the claim and the proceedings remain ongoing, though the Company believes that the risk of significant loss in respect of the litigation is remote.

The Company subsequently commenced a claim against Mr. Eveleigh and Eveleigh Geological Consulting on March 24, 2020, in the Ontario Superior Court of Justice (Commercial List), in connection with past breaches of Mr. Eveleigh's fiduciary duties. Mr. Eveleigh has defended the claim and the Company submits that it continues to defend the action and maintains that the allegations as set out in the claim are frivolous and without merit.

On November 28, 2022, following the discovery process, the Company amongst other things, amended its claim to: (i) seek an order that Mr. Eveleigh disgorge any benefits obtained as a result of his misconduct; (ii) seek an order cancelling certain common shares of the Company held by Mr. Eveleigh; (iii) seek an order declaring that Mr. Eveleigh has no entitlement to any royalty payments or success fees in connection with the Albany Graphite Project; and (iv) seek an order that declares a constructive trust in favour of the Company over any and all monies received, directly or indirectly. A trial date has been set now to commence on October 21, 2024.

On January 29, 2021, the Company was served with a statement claim issued by Graphene Composites Ltd. and is in the process of defending the action, which it considers frivolous and without merit.

The Company has considered the allegations as set out in the claim and, in light of the facts, the lack of clarity in the claim, and, based on discussions with the Company's litigation counsel, the assessment of the merits of the claim and the defenses available to the Company, and the Company's conclusion is that the risk of the Company suffering loss in respect of the claim is remote, and therefore the Company determined the claim not to be material or constituting "significant litigation" pursuant to the policies of the TSXV. The Company continues to view this claim as frivolous and will continue to vigorously defend itself against these allegations.

INTERESTS OF MANAGEMENT IN MATERIAL TRANSACTIONS

To the knowledge of management of the Company, no director or executive officer of the Company, person or company that beneficially owns, controls or directs, directly or indirectly, more than 10% of the common shares, or any associate or affiliate of any such persons, has or had any material interest, direct or indirect, in any transaction within the Company's three most recently completed financial years which has materially affected or will materially affect the Company or any of its subsidiaries other than as set out herein.

TRANSFER AGENT AND REGISTRAR

Effective as of November 22, 2021, the registrar and transfer agent of the Company is TSX Trust Company, having an address of 100 Adelaide Street West, Suite 301, Toronto, Ontario M5H 1S3.

MATERIAL CONTRACTS

Except as disclosed above with respect to the EkoMed Agreement, the VMedCare Agreement and the Southmedic Agreement under the headings "*Description of the Business - Economic Dependence*" and "*Three Year History - ZenGUARD™ Antimicrobial Compound*", and for contracts entered into in the ordinary course of business, the Company has not entered into any material contracts during the most recently completed financial year or which are still in force and effect, and which may reasonably be regarded as presently material.

EXPERTS AND INTERESTS OF EXPERTS

The auditor of the Company, BDO Canada LLP is independent within the meaning of the rules of Professional conduct of the Chartered Professional Accountants of Ontario and within the meaning of the Securities Acts administered by the Securities and Exchange Commission and the Public Company Accounting Oversight Board.

To the knowledge of the Company, the aforementioned firm, and designated professionals within such firm, held either less than 1% or no securities of the Company or of any associate or affiliate of the Company when they rendered services, or following the rendering of services or preparation of such reports or data, as applicable, during, or relating to the Company's most recently completed financial year, and either did not receive any or received less than 1% direct or indirect interest in any securities of the Company or of any associate or affiliate of the Company in connection with the rendering of such services or preparation of such reports or data.

AUDIT COMMITTEE INFORMATION

The Audit Committee's Charter

The directors of the Company have adopted a charter (the " **Charter**") for the audit committee (the " **Audit Committee**"), which sets out the Audit Committee's mandate, organization, powers and responsibilities. The full text of the Charter is attached hereto as Appendix "A" to this AIF.

Composition of the Audit Committee

The members of the Audit Committee are Eric Wallman CPA, CA (Chair), Ilse Treurnicht and John Snisarenko, each of whom are independent (as defined in National Instrument 52-110 - Audit Committees ("**NI 52-110**") adopted by the Canadian Securities Administrators), and all members are financially literate (as defined in NI 52-110).

Name of Member	Independent(1)	Financially Literate(2)
Eric Wallman CPA, CA (Chair)	Yes	Yes
Ilse Treurnicht	Yes	Yes
John Snisarenko	Yes	Yes

Notes:

(1) To be considered independent, a member of the Audit Committee must not have any direct or indirect "material relationship" with the Company. A "material relationship" is a relationship which could. in the view of the board of directors of the Company. be reasonably expected to interfere with the exercise of a member's independent judgment.

(2) To be considered financially literate. a member of the Committee must have the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by the Company's financial statements.

Relevant Education and Experience

Mr. Wallman is a graduate of the University of Manitoba in 1983 and obtained a full CA designation in 1986. He has held senior accounting and finance positions in the industry since 1991 and has been an active investor in the junior mining market since 1992. Currently, Mr. Wallman is the Senior Vice-President, Finance and Administration with Bothwell Cheese, which is the largest independently owned cheese manufacturer in Canada. His role includes strategic planning for Bothwell Cheese and two related companies.

Ms. Treurnicht holds a DPhil in chemistry from Oxford University in the United Kingdom, which she attended as a Rhodes Scholar. Ms. Treurnicht is the Managing Partner of TwinRiver Capital, an impact investment firm focused on advancing positive environmental and social impact while delivering strong financial returns. Ms. Treurnicht also brings several years of senior Board-level experience to the Company, currently serving as Chair of the Public Policy Forum, and a director of the Equality Fund.

Mr. Snisarenko is a 35 year veteran of the pharmaceutical/biotech industry with specific focus in ophthalmology and eye care, currently serving as an independent director, board member and advisor in the ophthalmology therapeutic area. Mr. Snisarenko is currently an independent board member of Alimera Sciences Inc. Prior thereto, he was Chief Commercial Officer of Oyster Point Pharma Inc. from September 2019 to July 2022. Prior thereto, he served as Group Vice-President and Head of Ophthalmology Franchise for Novartis Pharmaceuticals Corp. from July 2019 to September 2019 and for Takeda Pharmaceuticals U.S.A., Inc. from June 2017 to June 2019.

Reliance on Certain Exemptions

Except as disclosed below, at no time since the commencement of the Company's most recently completed financial year has the Company relied on any of the exemptions contained in the following sections of NI 52-110: section 2.4 (De Minimis Non-audit Services), section 3.2 (Initial Public Offerings), section 3.4 (Events Outside Control of Member), section 3.5 (Death, Disability or Resignation of Audit Committee Member) or an exemption from NI 52-110, in whole or in part, granted under Part 8 (Exemptions) of NI 52-110.

As a result of the resignation of Mr. Frank Klees as a director and member of the Audit Committee, the Company relied on the exemption set out in section 3.5 (Death, Disability or Resignation of Audit Committee Member) of NI 52-110 with the appointment of Ms. Lisa Sim as his replacement up until the appointment of Mr. John Snisarenko on October 5, 2023.

Audit Committee Oversight

At no time during the last financial year have any recommendations by the Audit Committee respecting the appointment and/or compensation of the external auditors of the Company not been adopted by the Board pre-approval policies and procedures.

The Audit Committee has adopted specific policies and procedures for the engagement of non-audit services as described in its Charter.

External Auditor Services Fees (By Category)

The following table discloses the fees billed to the Company by its external auditor during the last two completed financial years:

Financial Year Ending	Audit Fees[(1)]	Audit-Related Fees [(2)]	Tax Fees[(3)]	All Other Fees[(4)]
March 31, 2024	$235,000	$Nil	$Nil	$134,000
March 31, 2023	$275,000	$15,000	$Nil	$109,200

Notes:
(1) The aggregate fees billed for professional services rendered by the auditor for the audit of the Company's annual financial statements.
(2) The aggregate fees billed for assurance and related services that are reasonably related to the performance of the audit or review of the Company's financial statements and are not disclosed in the "Audit Fees" column.
(3) The aggregate fees billed for tax compliance, tax advice. and tax planning services.
(4) Represents fees billed by the auditor in connection with the review of the Company's quarterly statements, review and advisory on regulatory comment letters from OSC and consent and association services in connection with the Company's April 2024 Base Shelf Prospectus.

ADDITIONAL INFORMATION

Additional information relating to the Company may be found through a database search at SEDAR+ at www.sedarplus.ca. Additional information on the Company, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities, and securities authorized for issuance under equity compensation plans, is contained in the Company's management information circular dated August 28, 2023, which may be found on SEDAR+.

Additional financial information regarding the Company is provided in the Company's audited annual financial statements and management's discussion and analysis for the year ended March 31, 2024, which may be found on SEDAR+.

APPENDIX A
AUDIT COMMITTEE CHARTER

Mandate

The Audit Committee ("**Committee**") is a committee of the Board of Directors (the " **Board**"). Its primary function shall be to assist the Board in fulfilling its oversight responsibilities with respect to financial reporting, and disclosure requirements, the overall maintenance of the systems of internal controls that management has established and the overall responsibility for Zentek Ltd.'s (the "**Company**") external and internal audit processes.

The Committee shall have the power to conduct or authorize investigations into any matter within the scope of this Charter. It may request any officer or employee of the Company, its external legal counsel or external auditor to attend a meeting of the Committee or to meet with any member(s) of the Committee.

The Committee shall be accountable to the Board. In the course of fulfilling its specific responsibilities hereunder, the Committee shall maintain an open communication between the Company's outside auditor and the Board.

The responsibilities of a member of the Committee shall be in addition to such member's duties as a member of the Board.

The Committee has the duty to determine whether the Company's financial disclosures are complete, accurate, in accordance with international financial reporting standards and fairly present the financial position and risks of the organization. The Committee should, where it deems appropriate, resolve disagreements, if any, between management and the external auditor, and review compliance with laws and regulations and the Company's own policies.

The Committee will provide the Board with such recommendations and reports with respect to the financial disclosures of the Company as it deems advisable.

The Committee shall have the authority to: (i) engage independent counsel and other advisors as it determines necessary to carry out its duties; (ii) set and pay the compensation for advisors employed by the Committee; and (iii) communicate directly with the internal and external auditors.

Membership and Composition

The Committee shall consist of at least three Directors who shall serve on behalf of the Board all of whom are independent and financially literate.

The members shall be appointed annually by the Board and shall meet the independence, financial literacy, and experience requirements of the TSXV, including National Instrument 52-110 - *Audit Committees*, and other regulatory agencies as required.

An "independent" director is a director who has no direct or indirect material relationship with the Company. A "material relationship" is a relationship which, in the view of the Board, could be reasonably expected to interfere with the exercise of the director's independent judgement, or a relationship deemed to be a material relationship pursuant to Sections 1.4 and 1.5 of National Instrument 52-110 - *Audit Committees*. A "financially literate" director is a director who has the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the accounting issues that can reasonably be expected to be raised in the Company's financial statements.

Each member of the Committee shall sit at the appointment of the Board, and in any event, only so long as he or she shall be independent.

A minimum of two and at least 50% of the members of the Committee present, either in person or by telephone, shall constitute a quorum. If within one hour of the time appointed for a meeting of the Committee, a quorum is not present, the meeting shall stand adjourned to the same hour on the next business day following the date of such meeting at the same place. If at the adjourned meeting a quorum as hereinbefore specified is not present within one hour of the time appointed for such adjourned meeting, such meeting shall stand adjourned to the same hour on the second business day following the date of such meeting at the same place. If at the second adjourned meeting a quorum as hereinbefore specified is not present, the quorum for the adjourned meeting shall consist of the members then present.

If and whenever a vacancy shall exist, the remaining members of the Committee may exercise all of their powers and responsibilities so long as a quorum remains in office.

The Board will appoint one Member to act as the Chairman of the Committee. In his or her absence, the Committee may appoint another person provided a quorum is present. The Chairman will appoint a Secretary of the meeting, who need not be a member of the committee and who will maintain the minutes of the meeting.

Meetings

At the request of the external auditor, the Chief Executive Officer or the Chief Financial Officer of the Company or any member of the Committee, the Chairman will convene a meeting of the Committee. In advance of every meeting of the Committee, the Chairman, with the assistance of the Chief Financial Officer, will ensure that the agenda and meeting materials are distributed in a timely manner and no less than five (5) business days before the meeting.

The Committee shall meet no less than four times per year or more frequently if circumstances or obligations require.

The time and place at which meetings of the Committee shall be held, and procedures at such meetings, shall be determined from time to time by the Committee. A meeting of the Committee may be called by letter, telephone, facsimile, email or other communication equipment by giving at least 48 hours' notice, provided that no notice of a meeting shall be necessary if all of the members are present either in person or by means of conference telephone, or if those absent have waived notice or otherwise signified their consent to the holding of such meeting.

Any member of the Committee may participate in the meeting of the Committee by means of conference telephone or other communication equipment, and the member participating in a meeting pursuant to this paragraph shall be deemed, for purposes hereof, to be present in person at the meeting.

The Committee shall keep minutes of its meetings which shall be submitted to the Board. The Committee may from time to time appoint any person, who need not be a member, to act as a secretary at any meeting.

The Committee may invite such officers, directors and employees of the Company and its subsidiaries as the Committee may see fit, from time to time, to attend meetings of the Committee.

Any matters to be determined by the Committee shall be decided by a majority of votes cast at a meeting of the Committee called for such purpose. Actions of the Committee may be taken by an instrument or instruments in writing signed by all of the members of the Committee, and such actions shall be effective as though they had been decided by a majority of votes cast at a meeting of the Committee called for such purpose. The Committee shall report its determinations to the Board at the next scheduled meeting of the Board, or earlier as the Committee deems necessary. All decisions or recommendations of the Committee shall require the approval of the Board prior to implementation, other than those relating to non-audit services and annual audit fees, which do not require the approval of the Board.

Duties and Responsibilities

The duties and responsibilities of the Committee shall be as follows:

A. Financial Reporting, and Disclosure:

i. Review and discuss with management and the external auditor at the completion of the annual examination:

(a) the Company's audited financial statements and related notes;

(b) the external auditor's audit of the financial statements and their report thereon;

(c) any significant changes required in the external auditor's audit plan;

(d) any serious difficulties or disputes with management encountered during the course of the audit; and

(e) other matters related to the conduct of the audit, which are to be communicated to the Committee under generally accepted auditing standards.

ii. Review and discuss with management and the external auditor at the completion of any review engagement or other examination, the Company's quarterly financial statements.

iii. Review and discuss with management the annual reports, the quarterly reports, the Management Discussion and Analysis, Annual Information Form, prospectus, and other disclosures including press releases and, if thought advisable, recommend the acceptance of such documents to the Board for approval.

iv. Review and discuss with management any guidance being, provided to shareholders on the expected future results and financial performance of the Company and provide their recommendations on such documents to the Board.

v. Inquire of the auditors about the quality and acceptability of the Company's accounting principles, including the clarity of financial disclosure and the degree of conservatism or aggressiveness of the accounting policies and estimates.

vi. Meet independently with the external auditor and management in separate executive sessions, as necessary or appropriate.

vii. Ensure that management has the proper systems in place so that the Company's financial statements, financial reports and other financial information satisfy legal and regulatory requirements. Based upon discussions with the external auditor and the financial statement review, if it deems appropriate, recommend to the Board the filing of the audited annual and unaudited quarterly financial statements.

viii. Oversee and enforce Company's public disclosure practices.

ix. Confirm and be satisfied that adequate procedures are in place for the review of the Company's public disclosure of financial information extracted or derived from the financial statements and periodically assess the adequacy of those procedures.

x. The Committee will, as applicable, establish procedures for:

(a) the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls, or auditing matters; and

(b) the confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting or auditing matters.

B. External Auditor:

i. Recommend to the Board the external auditor to be nominated and review the performance of the auditor, including the lead partner of the external auditor.

ii. Recommend to the Board the compensation of the external auditor.

iii. Oversee the work of external auditors engaged for the purpose of preparing or issuing an auditor's report or performing other audit, review or attest services for the Company, including the resolution of disagreements between management and the external auditor regarding financial reporting.

iv. Pre-approve all non-audit services to be provided by the external auditor.

v. Consider, in consultation with the external auditor, the audit scope and plan of the external auditor.

vi. Confirm with the external auditor and receive written confirmation at least once per year as to disclosure of any investigations or government enquiries, reviews or investigations of the outside auditor.

vii. Take reasonable steps to confirm the independence of the external auditor, which shall include:

(a) ensuring receipt from the external auditor of a formal written statement delineating all relationships between the external auditor and the Company, consistent with generally accepting auditing practices,

(b) considering and discussing with the external auditor any disclosed relationships or services, including non audit services, that may impact the objectivity and independence of the external auditor, and

(c) approve in advance any non audit related services provided by the auditor to the Company with a view to ensuring., independence of the auditor, and in accordance with any applicable regulatory requirements, including the requirements of the TSXV with respect to approval of non audit related serviced performed by the auditor.

C. Internal Controls and Audit:

i. Review and assess the adequacy and effectiveness of the Company's systems of internal and management information systems through discussion with management and the external auditor to ensure that the Company maintains appropriate systems, is able to assess the pertinent risks of the Company and that the risk of a material misstatement in the financial disclosures can be detected.

ii. Assess the requirement for the appointment of an internal auditor for the Company.

iii. Inquire of management and the external auditor about the systems of internal controls that management and the Board have established and the effectiveness of those systems. In addition, inquire of management and the external auditor about significant financial risks or exposures and the steps management has taken to minimize such risks to the Company.

iv. Establish, periodically review, and approve the Company's hiring policies regarding partners, employees and former partners and employees of the present and former External Auditor of the Company, as applicable.

Oversight Function

While the Committee has the responsibilities and powers set forth in this Charter, it is not the duty of the Committee to plan or conduct audits or to determine that the Company's financial statements are complete and accurate or are in accordance with IFRS and applicable rules and regulations. These are the responsibilities of management and the external auditors. The Committee, the Chair, and any members identified as having accounting or related financial expertise, are members of the Board appointed to the Committee to provide broad oversight of the financial, risk and control related activities of the Company, and are specifically not accountable or responsible for the day-to-day operation or performance of such activities.

Although the designation of a member as having accounting or related financial expertise for disclosure purposes is based on that individual's education and experience, which that individual will bring to bear in carrying out his or her duties on the Committee, such designation does not impose on such person any duties, obligations or liability that are greater than the duties, obligations and liability imposed on such person as a member of the Committee and the Board in the absence of such designation. Rather, the role of a Committee member who is identified as having accounting or related financial expertise, like the role of all members, is to oversee the process, not to certify or guarantee the internal or external audit of the Company's financial information or public disclosure.

Independent Advisors

The Committee shall have the authority to retain such independent advisors as it may deem necessary or advisable for its purposes and communicate directly with such advisors. The expenses related to such engagements shall be determined by the Committee and funded by the Company.

Charter Review

The Committee will annually review and reassess the adequacy of this policy and submit any recommended changes to the Board for approval.

Adoption

This Policy was adopted by the Board on June 28, 2023.

ZENTEK LTD.

CONSOLIDATED FINANCIAL STATEMENTS
For the years ended March 31, 2024 and 2023

(Expressed in Canadian Dollars)

Independent Auditor's Report
Report of Independent Registered Public Accounting Firm (PCAOB ID#1227)

Consolidated Statements of Financial Position 1

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Tel: (604) 688-5421
Fax: (604) 688-5132
www.bdo.ca

BDO Canada LLP
1100 Royal Centre
1055 West Georgia Street, P.O. Box 11101
Vancouver, British Columbia
V6E 3P3

Report of Independent Registered Public Accounting Firm

Shareholders and Board of Directors
Zentek Ltd.
Thunder Bay, Ontario

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated statements of financial position of Zentek Ltd. (the "Company") as of March 31, 2024 and 2023, the related consolidated statements of loss and comprehensive loss, changes in equity and cash flows, for each of the years then ended, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at March 31, 2024 and 2023, and the results of its operations and its cash flows for the each of the years then ended in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Substantial Doubt About the Company's Ability to Continue as a Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has suffered recurring losses from operations and has an accumulated deficit that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

BDO Canada LLP, a Canadian limited liability partnership, is a member of BDO International Limited, a UK company limited by guarantee, and forms part of the international BDO network of independent member firms.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to

error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

BDO Canada LLP

Chartered Professional Accountants

We have served as the Company's auditor since 2022.
Vancouver, Canada
June 26, 2024

ZENTEK LTD.
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

(Stated in Canadian Dollars)	**As at March 31, 2024 $**	As at March 31, 2023 $
ASSETS		
Current assets		
Cash and cash equivalents [note 13]	**3,521,420**	10,357,317
Accounts and other receivables - net [note 4]	**296,530**	569,008
Loan receivable [note 5]	**543,263**	2,983,642
Inventories [note 6]	**1,421,982**	2,849,073
Prepaids and deposits [note 6]	**465,758**	1,193,969
Total current assets	**6,248,953**	17,953,009
Non-current assets		
Inventories [note 6]	**1,293,789**	-
Property and equipment - net [note 7]	**7,770,457**	8,335,867
Exploration and evaluation assets [note 8]	**7,271,857**	7,000,000
Total non-current assets	**16,336,103**	15,335,867
Total assets	**22,585,056**	33,288,876
LIABILITIES		
Current liabilities		
Accounts payable and accrued liabilities [note 9]	**1,169,262**	1,292,474
Current portion of lease liability [note 10]	**151,129**	129,264
Current portion of long-term debt [note 11]	**498,613**	998,080
Total current liabilities	**1,819,004**	2,419,818
Non-current liabilities		
Lease liability [note 10]	**333,727**	484,856
Long-term debt [note 11]	**259,114**	-
Total non-current liabilities	**592,841**	484,856
Total liabilities	**2,411,845**	2,904,674
SHAREHOLDERS' EQUITY		
Share capital [note 12(a)]	**86,105,945**	85,754,399
Share-based payment reserve [note 12(c)]	**10,216,329**	10,355,611
Shares to be issued [note 8(a)]	**472,500**	472,500
Deficit	**(76,621,563)**	(66,198,308)
Total shareholders' equity	**20,173,211**	30,384,202
Total shareholders' equity and liabilities	**22,585,056**	33,288,876

Nature of Business and Going Concern [note 1]
Commitments and Contingencies [note 18]
Subsequent Events [note 22]

The accompanying notes are an integral part of these consolidated financial statements

These consolidated financial statements were authorised for issue by the Board of Directors on June 26, 2024.

Approved on behalf of the Board of Directors:

"Greg Fenton" , Director

"Ilse Treurnicht" , Director

ZENTEK LTD.
CONSOLIDATED STATEMENTS OF LOSS AND COMPREHENSIVE LOSS

(Stated in Canadian Dollars) **FOR THE YEARS ENDED MARCH 31**	**2024** **$**	2023 $
REVENUE		
Sales	**29,816**	72,855
EXPENSES		
Depreciation and amortisation [note 7]	**613,714**	539,693
Bad debts	**-**	134,482
Consulting fees	**629,655**	1,036,268
Directors fees [note 14]	**173,125**	140,625
Insurance	**396,657**	358,415
Investor relations and promotion	**199,131**	307,921
Listing and filing fees	**180,495**	147,248
Office expenses	**142,822**	182,039
Professional fees	**1,380,611**	1,904,672
Rent	**359,651**	362,371
Research and development	**1,775,495**	1,646,066
Salaries and benefits [note 14]	**3,819,843**	3,598,241
Share-based compensation [notes 12(c) and 14]	**1,786,453**	3,203,407
Supplies and materials	**331,080**	853,336
Travel	**137,833**	213,540
Other expenses [note 21]	**504,680**	416,289
	12,431,245	15,044,613
Loss before other income (expenses)	**(12,401,429)**	(14,971,758)
Interest income	**405,483**	510,257
Interest expense	**(107,373)**	(120,624)
Loss on disposal of equipment	**(156,531)**	(9,624)
Other income (expense)	**37,863**	(2,015)
Income tax credit received	**99,784**	-
Government grants [note 20]	**418,213**	179,498
Total other income	**697,439**	557,492
Net loss and comprehensive loss for the year	**(11,703,990)**	(14,414,266)
Basic and diluted net loss per share [note 19]	**(0.12)**	(0.14)

The accompanying notes are an integral part of these consolidated financial statements

ZENTEK LTD.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(Stated in Canadian Dollars)	Number of Shares	Share Capital $	Share-Based Payment Warrants $	Reserve $	Shares to be Issued $	Deficit $	Total Shareholders' Equity $
Balance as at March 31, 2022	99,248,058	85,494,266	-	7,761,541	472,500	(52,179,246)	41,549,061
Stock options exercised [note 12(a)]	285,924	260,133	-	(214,133)	-	-	46,000
Stock options expired [note 12(c)]	-	-	-	(395,204)	-	395,204	-
Recognition of share-based compensation [note 12(c)]	-	-	-	3,203,407	-	-	3,203,407
Net loss and comprehensive loss for the year	-	-	-	-	-	(14,414,266)	(14,414,266)
Balance as at March 31, 2023	99,533,982	85,754,399	-	10,355,611	472,500	(66,198,308)	30,384,202
Stock options exercised [note 12(a)]	1,527,696	758,000	-	(645,000)	-	-	113,000
Stock options expired [note 12(c)]	-	-	-	(1,280,735)	-	1,280,735	-
Shares purchased for cancellation [note 12(a)]	(245,100)	(408,853)	-	-	-	-	(408,853)
Shares issued	2,999	2,399	-	-	-	-	2,399
Recognition of share-based compensation [note 12(c)]	-	-	-	1,786,453	-	-	1,786,453
Net loss and comprehensive loss for the year	-	-	-	-	-	(11,703,990)	(11,703,990)
Balance as at March 31, 2024	100,819,577	86,105,945	-	10,216,329	472,500	(76,621,563)	20,173,211

The accompanying notes are an integral part of these consolidated financial statements

ZENTEK LTD.
CONSOLIDATED STATEMENTS OF CASH FLOWS

(Stated in Canadian Dollars) **FOR THE YEARS ENDED MARCH 31**	**2024** **$**	2023 $
OPERATING ACTIVITIES		
Loss for the year	**(11,703,990)**	(14,414,266)
Items not affecting cash		
Depreciation and amortisation [note 7]	**613,714**	539,693
Loan receivable accrued interest	**(22,739)**	-
Loss on disposal of equipment	**156,531**	9,624
Share-based compensation [note 12(c)]	**1,786,453**	3,203,407
Valuation allowance on accounts receivable	**-**	100,000
Valuation allowance on inventory [note 6]	**203,553**	-
Net change in non-cash working capital balances [note 13]	**914,889**	(2,395,328)
Cash flows used in operating activities	**(8,051,589)**	(12,956,870)
INVESTING ACTIVITIES		
Loan receivable advanced	**(36,882)**	(33,642)
Loan receivable repayment	**2,500,000**	-
Mineral exploration and evaluation expenditures capitalised	**(271,857)**	-
Proceeds on sale of property and equipment	**10,000**	-
Purchase of property and equipment [notes 7 and 13]	**(320,099)**	(2,272,934)
Cash flows from (used in) investing activities	**1,881,162**	(2,306,576)
FINANCING ACTIVITIES		
Payments on lease liability [note 10]	**(129,264)**	(149,317)
Payments on long-term debt [note 11]	**(240,353)**	(950,920)
Proceeds from stock options exercised [note 12(a)]	**113,000**	46,000
Shares purchased for cancellation [note 12(a)]	**(408,853)**	-
Cash flows used in financing activities	**(665,470)**	(1,054,237)
Change in cash and cash equivalents during the year	**(6,835,897)**	(16,317,683)
Cash and cash equivalents, beginning of year	**10,357,317**	26,675,000
Cash and cash equivalents, end of year	**3,521,420**	10,357,317
Supplementary disclosures - see note 13		

The accompanying notes are an integral part of these consolidated financial statements

1. NATURE OF BUSINESS AND GOING CONCERN

Zentek Ltd. (the "Company") was incorporated on July 29, 2008 under the laws of the province of Ontario, Canada. The principal business of the Company is to develop opportunities in the graphene and related nano-materials industry based on its intellectual property, patents and Albany graphite. The address of the Company's executive office is 24 Corporate Court, Guelph, Ontario, N1G 5G5, Canada.

On June 12, 2023, the Company incorporated a wholly-owned subsidiary named Triera Biosciences Ltd. that owns the exclusive, global licensing rights for all aptamer-based technology from the collaboration with McMaster University. The Company and McMaster University entered into a standard license agreement dated June 11, 2021 pursuant to which McMaster agreed to license certain intellectual property. All rights and obligations under this licensing agreement were assigned to this subsidiary subsequent to incorporation.

The Company is an emerging high-tech nano-graphite and graphene materials company based in Thunder Bay, Ontario, Canada. The current focus is to bring to market innovative products including surgical masks and HVAC filters with the Company's ZenGUARD^{TM} coating, Rapid Detection Point of Care diagnostics tests and continue to develop potential pharmaceutical products based on its patent-pending graphene-based compound.

These consolidated financial statements of the Company for the year ended March 31, 2024 were approved and authorised for issue by the Board of Directors on June 26, 2024.

The technology industry presents a high degree of risk and there can be no assurance that the Company's research and development will result in profitable operations. The Company's ability to meet its obligations arising from normal business operations, continue its research and development, and generate future profits is dependent upon its ability to obtain necessary financing. While the Company has been successful at raising funds in the past, there can be no assurance that it will be able to do so in the future.

As at March 31, 2024, the Company had not yet achieved profitable operations and had an accumulated deficit of $ 76,621,563 and expects to incur further losses in the development of its business. These events and conditions indicate that a material uncertainty exists that cast substantial doubt on the Company's ability to continue as a going concern. The ability to continue as a going concern is dependent on obtaining continued financial support, obtaining financing, or generating profitable operations in the future. Management is committed to raising additional capital to meet its obligations; however, additional debt and/or equity financing is subject to the global financial markets and economic conditions.

These consolidated financial statements do not reflect the adjustments to the carrying value of assets and liabilities, the reported revenues and expenses, and the statement of financial position classifications that would be necessary if the going concern assumption was not appropriate. Any adjustments necessary to the consolidated financial statements if the Company ceases to be a going concern could be material.

2. MATERIAL ACCOUNTING POLICY INFORMATION

Statement of Compliance

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards and Interpretations ("IFRS") as issued by the International Accounting Standards Board ("IASB").

Basis of Presentation

The consolidated financial statements have been prepared using the measurement bases specified by IFRS for each type of asset, liability, income and expense. The measurement bases are more fully described in the accounting policies below. The consolidated financial statements are prepared on the historical cost basis. In addition, these consolidated financial statements are prepared using the accrual basis of accounting, except for cash flow information.

The preparation of consolidated financial statements in conformity with IFRS requires management to make judgements, estimates, and assumptions that affect the application of policies and reported amounts of assets and liabilities and disclosures of contingent assets and contingent liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the year.

The consolidated financial statements consolidate the accounts of the Company and all of its subsidiaries. The Company has the following wholly owned subsidiaries: Triera Biosciences Ltd., 1000114904 Ontario Inc., Zentek USA Inc. and Albany Graphite Corp.

Foreign Currency Translation

The consolidated financial statements are presented in Canadian dollars, which is the functional currency of the Company and its subsidiaries. In preparing the consolidated financial statements, transactions in currencies other than the entity's functional currency are recognised at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Gains/losses on translation are recorded in profit or loss.

Financial Instruments

Financial assets

Initial recognition and measurement

Non-derivative financial assets within the scope of IFRS 9 are classified and measured as "financial assets at fair value", as either Fair Value Through Profit or Loss ("FVPL") or Fair Value Through Other Comprehensive Income ("FVOCI"), and "financial assets at amortised costs", as appropriate. The Company determines the classification of financial assets at the time of initial recognition based on the Company's business model and the contractual terms of the cash flows.

All financial assets are recognised initially at fair value plus, in the case of financial assets not at FVPL, directly attributable transaction costs on the trade date at which the Company becomes a party to the contractual provisions of the instrument.

Financial assets with embedded derivatives are considered in their entirety when determining their classification at FVPL or at amortised cost. Cash and amounts receivable held for collection of contractual cash flows are measured at amortised cost.

2. MATERIAL ACCOUNTING POLICY INFORMATION (continued)

Subsequent measurement - financial assets at amortised cost
After initial recognition, financial assets measured at amortised cost are subsequently measured at the end of each reporting period at amortised cost using the Effective Interest Rate ("EIR") method. Amortised cost is calculated by taking into account any discount or premium on acquisition and any fees or costs that are an integral part of the EIR. The Company's financial assets measured at amortised cost correspond to cash, accounts and other receivables and loan receivable and their nominal value is similar to their amortised cost.

Subsequent measurement - financial assets at FVPL
Financial assets measured at FVPL include financial assets management intends to sell in the short term and any derivative financial instrument that is not designated as a hedging instrument in a hedge relationship. Financial assets measured at FVPL are carried at fair value in the statements of financial position with changes in fair value recognised in other income or expense in the statements of loss. The Company does not measure any financial assets at FVPL.

Subsequent measurement - financial assets at FVOCI
Financial assets measured at FVOCI are non-derivative financial assets that are not held for trading and the Company has made an irrevocable election at the time of initial recognition to measure the assets at FVOCI. The Company does not measure any financial assets at FVOCI.

After initial measurement, investments measured at FVOCI are subsequently measured at fair value with unrealised gains or losses recognised in other comprehensive income or loss in the statements of comprehensive loss. When the investment is sold, the cumulative gain or loss remains in accumulated other comprehensive income or loss and is not reclassified to profit or loss.

Dividends from such investments are recognised in other income in the statements of loss when the right to receive payments is established.

Derecognition
A financial asset is derecognised when the contractual rights to the cash flows from the asset expire, or the Company no longer retains substantially all the risks and rewards of ownership.

Impairment of financial assets
The Company's only financial assets subject to impairment are accounts and other receivables and loan receivable, which are measured at amortised cost. The Company has elected to apply the simplified approach to impairment as permitted by IFRS 9, which requires the expected lifetime loss to be recognised at the time of initial recognition of the receivable. To measure estimated credit losses, accounts receivable have been grouped based on shared credit risk characteristics, including the number of days past due. An impairment loss is reversed in subsequent periods if the amount of the expected loss decreases and the decrease can be objectively related to an event occurring after the initial impairment was recognised.

Financial liabilities

Initial recognition and measurement
Financial liabilities are measured at amortised cost, unless they are required to be measured at FVPL as is the case for held for trading or derivative instruments, or the Company has opted to measure the financial liability at FVPL. The Company's financial liabilities include accounts payable and accrued liabilities and long-term debt which are measured at amortised cost. All financial liabilities are recognised initially at fair value and in the case of long-term debt, net of directly attributable transaction costs.

2. MATERIAL ACCOUNTING POLICY INFORMATION (continued)

Subsequent measurement - financial liabilities at amortised cost
After initial recognition, financial liabilities measured at amortised cost are subsequently measured at the end of each reporting period at amortised cost using the EIR. Amortised cost is calculated by taking into account any discount or premium on acquisition and any fees or costs that are an integral part of the EIR. The Company's financial liabilities measured at amortised cost correspond to accounts payable, lease liability and long-term debt and their nominal value is similar to their amortised cost.

Derecognition
A financial liability is derecognised when the obligation under the liability is discharged, cancelled or expires with any associated gain or loss recognised in other income or expense in the statements of loss.

Exploration and Evaluation Assets
Exploration and evaluation assets include the costs of acquiring licenses, costs associated with exploration and evaluation activity (e.g. geological, geophysical studies, exploratory drilling and sampling), and the fair value (at acquisition date) of exploration and evaluation assets acquired in a business combination or asset purchase. The Company follows the practice of capitalizing all costs related to the acquisition of, exploration for and evaluation of mineral claims and crediting all revenue, including government assistance, received against the cost of related claims. Costs incurred before the Company has obtained the legal rights to explore an area are recognised as expenses of the Company.

Capitalised costs are only allocated to the extent that these costs can be related directly to operational activities in the relevant area of interest where it is considered likely to be recoverable by future exploitation or sale or where the activities have not reached a stage which permits a reasonable assessment of the existence of reserves.

Exploration and evaluation assets are assessed for impairment at each financial reporting date or when facts and circumstances suggest that the carrying amount exceeds the recoverable amount. The aggregate costs related to abandoned mineral claims are charged to operations at the time of any abandonment or when it has been determined that there is evidence of a permanent impairment.

Once the technical feasibility and commercial viability of the extraction of mineral resources in an area of interest are demonstrable, exploration and evaluation assets attributable to that area of interest are first tested for impairment and then reclassified to mining property and development assets within property, plant and equipment.

Recoverability of the carrying amount of the exploration and evaluation assets is dependent on successful development and commercial exploitation, or alternatively, sale of the respective areas of interest.

2. MATERIAL ACCOUNTING POLICY INFORMATION (continued)

Property and Equipment

Equipment is carried at acquisition cost less subsequent depreciation and impairment losses. Depreciation is recognised on a declining balance basis over the estimated useful lives of the equipment less estimated residual value. The rates applicable are:

Buildings	4%
Equipment	20%
Equipment - Manufacturing	Straight-line over 20 years
Signage	20%
Computers	20%
Computer software	100%
Leasehold improvements	Straight-line over lower of term of lease or economic life
Right of Use Assets	Straight-line over lower of term of lease or economic life

Material residual value estimates and estimates of useful life are updated as required, but at least annually.

Gains or losses arising on the disposal of equipment are determined as the difference between the disposal proceeds and the carrying amount of the assets and are recognised in profit or loss.

Impairment of Non-Financial Assets

At each financial reporting date, the carrying amounts of the Company's non-financial assets are reviewed to determine whether there is any indication that those assets are impaired. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment, if any. The recoverable amount is the higher of fair values less costs to sell, and value in use.

Fair value is determined as the amount that would be obtained from the sale of the asset in an arm's length transaction between knowledgeable and willing parties. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. If the recoverable amount of an asset is estimated to be less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount and the impairment loss is recognised in the profit or loss for the period.

For the purposes of impairment testing, exploration and evaluation assets are allocated to cash-generating units to which the exploration activity relates. For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit to which the asset belongs. When an impairment loss subsequently reverses, the carrying amount of the asset (or cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or cash-generating unit) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss.

Tangible assets that have been impaired in prior periods are tested for possible reversal of impairment whenever events or changes in circumstances indicate that the impairment has reversed. If the impairment has reversed, the carrying amount of the asset is increased to its recoverable amount but not beyond the carrying amount that would have been determined had no impairment loss been recognized for the asset in the prior periods. A reversal of an impairment loss is recognized into earnings immediately.

2. MATERIAL ACCOUNTING POLICY INFORMATION (continued)

Share Capital
Share capital represents the fair value of consideration received, less related costs.

Warrants
Warrants are recorded at their fair value on the date of issue, net of issue costs. The Company uses the Black-Scholes option pricing model to estimate the fair value of warrants issued. On the exercise of warrants, consideration received and the accumulated warrant value attributed to the portion exercised is credited to share capital. For those warrants that expire after vesting, the recorded value is transferred to deficit. The Company has no warrants outstanding as of March 31, 2024

Share-Based Payments
Equity-settled share-based payments to employees and others providing similar services are measured at the fair value of the equity instruments at the grant date. Details regarding the determination of the fair value of equity-settled share-based transactions are set out in the share-based payment note. See note 12(c).

The fair value determined at the grant date of the equity-settled share-based payments is expensed over the period during which the employee becomes unconditionally entitled to equity instruments, based on the Company's estimate of equity instruments that will eventually vest. At the end of each reporting period, the Company revises its estimate of the number of equity instruments expected to vest. The impact of the revision of the original estimates, if any, is recognised in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to the equity-settled employee benefits reserve.

Equity-settled share-based payment transactions with parties other than employees are measured at the fair value of the goods or services received, except where that fair value cannot be estimated reliably, in which case they are measured at the fair value of the equity instruments granted, measured at the date the entity obtains the goods or the counterparty renders the service.

Charges for options that are forfeited before vesting are reversed from share-based payment reserve. For those options that expire after vesting, the recorded value is transferred to deficit.

On the exercise of options, consideration received and the accumulated option value attributed to the portion exercised is credited to share capital.

Cash and Cash Equivalents
The Company's policy is to disclose cash, bank account balances, cashable investment-grade deposit certificates and non-cashable investment-grade deposit certificates that are readily convertible to a known amount of cash and be subject to an insignificant risk of changes in value as cash and cash equivalents. Cash and cash equivalents are held in Canadian chartered banks or financial institutions controlled by a Canadian chartered bank.

2. MATERIAL ACCOUNTING POLICY INFORMATION (continued)

Loss per Share

Basic loss per share is calculated using the weighted average number of shares outstanding. In order to determine diluted loss per share, any proceeds from the exercise of dilutive stock options and warrants would be used to repurchase common shares at the average market price during the period, with the incremental number of shares being included in the denominator of the diluted loss per share calculation. The diluted loss per share calculation excludes any potential conversion of warrants and options that would increase earnings per share or decrease loss per share. The outstanding stock options and warrants to purchase common shares disclosed in note 12 were not included in the computation of the diluted loss per share for the periods presented because the effect would be anti-dilutive.

Income Taxes

Tax expense recognised in profit or loss comprises the sum of deferred tax and current tax not recognised in other comprehensive income or directly in equity. Current income tax assets and/or liabilities comprise those obligations to, or claims from, fiscal authorities relating to the current or prior reporting periods, that are unpaid at the reporting date. Current tax is payable on taxable profit, which differs from profit or loss in the consolidated financial statements. Calculation of current tax is based on tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period, adjusted for amendments to tax payable with regards to previous years.

Deferred income taxes are calculated using the liability method on temporary differences between the carrying amounts of assets and liabilities and their tax bases. However, deferred tax is not provided on the initial recognition of goodwill, or on the initial recognition of an asset or liability unless the related transaction is a business combination or affects tax or accounting profit.

Deferred tax assets and liabilities are calculated, without discounting, at tax rates that are expected to apply to their respective period of realization, provided they are enacted or substantively enacted by the end of the reporting period. Deferred tax liabilities are always provided for in full. Deferred tax assets are recognised to the extent that it is probable that they will be able to be utilised against future taxable income. The Company has not recognised deferred tax assets to the extent that the Company does not consider it probable that a deferred tax asset will be recovered.

Deferred tax assets and liabilities are offset only when the Company has a right and intention to offset current tax assets and liabilities from the same taxation authority.

Changes in deferred tax assets or liabilities are recognised as a component of taxable income or expense in profit or loss, except where they relate to items that are recognised in other comprehensive income or directly in equity, in which case the related deferred tax is also recognised in other comprehensive income or equity, respectively.

2. MATERIAL ACCOUNTING POLICY INFORMATION (continued)

Restoration, Rehabilitation, and Environmental Obligations

An obligation to incur restoration, rehabilitation and environmental costs arises when the Company has a present legal or constructive obligation caused by the exploration, development or ongoing production of a mineral property interest. Such costs arising from the decommissioning of plant and other site preparation work, discounted to their net present value, are provided for and capitalised at the start of each project to the carrying amount of the asset, as soon as the obligation to incur such costs arises. Discount rates using a pre-tax rate that reflect the time value of money are used to calculate the net present value. These costs are charged against profit or loss over the economic life of the related asset, through amortization using either the units-of-production or the straight-line method. The related liability is adjusted for each period for the unwinding of the discount rate and for changes to the current market-based discount rate, amount or timing of the underlying cash flows needed to settle the obligation. Costs for restoration of subsequent site damage which is created on an ongoing basis during production are provided for at their net present values and charged against profits as extraction progresses. The Company had no material restoration, rehabilitation and environmental obligations as at March 31, 2024 or 2023 as the disturbance to date is minimal.

Interest

Interest income and expenses are reported on an accrual basis using the effective interest method.

Leases

The Company assesses at inception of a contract, whether the contract is, or contains a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset for a period of time, the Company assesses whether the customer has the following through the period of use:

- The right to obtain substantially all of the economic benefits from use of the identified asset; and
- The right to direct the use of the identified asset.

At the lease commencement date, the Company recognises a right-of-use asset and a lease liability. The right-of-use asset is initially measured at cost. The cost of the right-of-use asset is comprised of the initial amount of the lease liability, any lease payments made at or before the commencement date less any lease incentives received, initial direct costs incurred by the Company, and an estimate of the costs to be incurred by the Company in dismantling and removing the underlying asset and restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease.

After the commencement date, the Company measures right-of-use assets related to property and equipment by applying the cost model, whereby the right-of-use asset is measured at cost less accumulated depreciation and impairment losses and adjusted for any remeasurement of the lease liability. The right-of-use asset is depreciated using the straight-line method from the commencement date to the end of the lease term or the end of the useful life of the right-of-use asset. The estimated useful life of the right-of-use assets are determined on the same basis as those of property, plant and equipment. The determination of the depreciation period is dependent on whether the Company expects that the ownership of the underlying asset will transfer to the Company by the end of the lease term or if the cost of the right-of-use asset reflects that the Company will exercise a purchase option.

2. MATERIAL ACCOUNTING POLICY INFORMATION (continued)

Leases (continued)

The lease liability is initially measured at the present value of the lease payments not paid at the lease commencement date, discounted using the interest rate implicit in the lease or the Company's incremental borrowing rate, if the interest rate implicit in the lease cannot be readily determined. The lease payments included in the measurement of the lease liability comprise of fixed payments (including in-substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or rate, amounts expected to be payable by the Company under a residual value guarantee, the exercise price of a purchase option that the Company is reasonably certain to exercise, and payment of penalties for terminating the lease if the lease term reflects the Company exercising an option to terminate the lease. After the commencement date, the Company measures the lease liability at amortised cost using the effective interest method.

The Company remeasures the lease liability when there is a change in the lease term, a change in the Company's assessment of an option to purchase the underlying asset, a change in the Company's estimate of amounts expected to be payable under a residual value guarantee, or a change in future lease payments resulting from a change in an index or a rate used to determine those payments. On remeasurement of the lease liability, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

The Company has elected to not recognise right-of-use assets and lease liabilities for short-term leases of property and equipment and low value leases of property and equipment. Short-term leases are leases with a term of twelve months or less. The Company recognises the lease payments associated with these leases as an expense on either a straight-line basis over the lease term or another systematic basis if that basis is more representative of the pattern of the lessee's benefit.

Inventories

Inventories are comprised of raw materials. Inventories are recorded at the lower of cost and net realizable value. Cost is determined on a standard cost basis, and includes the purchase price and other costs, such as import duties, taxes and transportation costs. Inventory cost is determined on a first-in, first-out basis and any trade discounts and rebates are deducted from the purchase price. Raw material costs include the purchase cost of the materials and freight-in.

Where inventory is not expected to be sold within a year of the date of statement of financial position, it is presented as a noncurrent asset.

Government grants

Government grants are recognised in profit or loss on a systematic basis over the periods in which the Company recognises expenses as related costs for which funded expenditures are incurred. Government grants are recognised when there is reasonable assurance that the Company will comply with the terms and conditions associated with the grants and the grants will be received. An unconditional government grant is recognised in profit or loss when the Company is entitled to receive the grant funding.

2. MATERIAL ACCOUNTING POLICY INFORMATION (continued)

Revenue Recognition

The Company's accounting policy for revenue recognition under IFRS 15, Revenue from Contracts with Customers, follows a five-step model to determine the amount and timing of revenue to be recognized:

1. Identifying the contract with a customer;
2. Identifying the performance obligations within the contract;
3. Determining the transaction price;
4. Allocating the transaction price to the performance obligations; and
5. Recognizing revenue when/as performance obligation(s) are satisfied.

The Company enters into sales contracts with its customers that outline the payment, shipping and return policies under these commercial arrangements. The performance obligation within the sales contracts is primarily the delivery of the Company's proprietary graphene oxide solution ("Solution") and / or masks. These products are sold for contractually determined prices that include consideration for the products delivered and variable consideration consisting of royalties for masks sold by the Company's customers that have been coated with the Solution. The transaction price is allocated to the Solution and the masks based on their standalone selling price and is recognized when the control of these products is obtained by the Company's customers which is generally upon delivery. Royalty revenue is recognized when the Company is entitled to these royalties which is when the coated masks are sold by the Company's customers.

Where the consideration payable by the Company's customers includes volume rebates and merchandise discounts, they are considered in determining the transaction price and are estimated and recognised at the time of the sale as a deduction against recognized revenue. To date, these rebates and discounts have been immaterial.

New Standards, Interpretations and Amendments Adopted from April 1, 2023

Certain IFRS pronouncements were issued that were mandatory for accounting periods beginning on or after April 1, 2023. Many have been excluded as management does not expect them to have a material effect. The following amendments are effective for the year beginning April 1, 2023:

IAS 1 - Presentation of Financial Statements ("IAS 1") and IFRS Practice Statement 2 Making Material Judgements. In February 2021, the IASB issued amendments to IAS 1 and IFRS Practice Statement 2. The amendments aim to make accounting policy disclosures more informative by replacing the requirement to disclose 'significant accounting policies' with 'material accounting policy information'. The amendments also provide guidance under what circumstance, the accounting policy information is likely to be considered material and therefore requiring disclosure. These amendments have no effect on the measurement or presentation of any items in the consolidated financial statements of the Company but effect the disclosure of accounting policies of the Company.

IAS 8 - Accounting Policies, Changes in Accounting Estimates and Errors (IAS 8). The amendments to IAS 8, which added the definition of accounting estimates, clarify that the effects of a change in an input or measurement technique are changes in accounting estimates, unless resulting from the correction of prior period errors. These amendments clarify how entities make the distinction between changes in accounting estimate, changes in accounting policy and prior period errors. These amendments had no effect on the consolidated financial statements of the Company.

IAS 12 - Income Taxes ("IAS 12"). In May 2021, the IASB issued amendments to IAS 12, which clarify whether the initial recognition exemption applies to certain transactions that result in both an asset and a liability being recognised simultaneously (e.g. a lease in the scope of IFRS 16). The amendments introduce an additional criterion for the initial recognition exemption, whereby the exemption does not apply to the initial recognition of an asset or liability which at the time of the transaction, gives rise to equal taxable and deductible temporary differences. These amendments had no effect on the consolidated financial statements of the Company.

2. MATERIAL ACCOUNTING POLICY INFORMATION (continued)

New Standards, Interpretations and Amendments not yet Effective

There are a number of standards, amendments to standards, and interpretations which have been issued by the IASB that are effective in future accounting periods that the Company has decided not to adopt early.

The following amendments are effective for the year beginning April 1, 2024:

Liability in a Sale and Leaseback (Amendments to IFRS 16 Leases);
Classification of Liabilities as Current or Non-Current (Amendments to IAS 1 Presentation of Financial Statements);
Non-Current Liabilities with Covenants (Amendments to IAS 1 Presentation of Financial Statements); and
Supplier Finance Arrangements (Amendments to IAS 7 Statement of Cash Flows and IFRS 7 Financial Instruments: Disclosures)

The following amendments are effective for the year beginning April 1, 2025:

Lack of Exchangeability (Amendments to IAS 21 The Effects of Changes in Foreign Exchange Rates)

The Company is currently assessing the impact of these new accounting standards and amendments. The Company does not expect any of the standards issued by the IASB, but are yet to be effective, to have a material impact on the Company.

3. CRITICAL JUDGEMENTS AND ESTIMATION UNCERTAINTIES

The preparation of consolidated financial statements in conformity with IFRS requires the Company's management to make judgements, estimates and assumptions about future events that affect the amounts reported in the consolidated financial statements and related notes. Although these estimates are based on management's best knowledge of the amount, event or actions, actual results may differ from those estimates and these differences could be material.

The areas which require management to make significant judgements, estimates and assumptions in determining carrying values include, but are not limited to:

Inventory
judgement is required in determining whether net realizable value should be evaluated on a product by product basis or if products cannot be evaluated separately from other products in inventory and should be grouped with similar products.

Expected credit loss allowance and provision
The Company determines an expected credit loss allowance for trade receivables based on the estimated expected lifetime credit loss, considering the actual credit loss in prior years and forward-looking estimates of expected collections. This estimate varies depending on the nature of the trade receivables, the majority of which are associated with the health sciences business; however, also includes receivables from government agencies. The loss allowance is reviewed on a quarterly basis and any change in estimate is accounted for prospectively. Collectivity of customer balances classified as trade receivables may vary from the Company's estimation. The Company also assesses the expected credit loss of non-trade financial assets, such as the loan receivable which is secured by property mortgages, to determine if an allowance is required.

3. CRITICAL JUDGEMENTS AND ESTIMATION UNCERTAINTIES (continued)

Impairment (impairment reversal) of exploration and evaluation assets

While assessing whether any indications of impairment or impairment reversal exist for exploration and evaluation assets, consideration is given to both external and internal sources of information. Information the Company considers includes changes in the market, economic and legal environment in which the Company operates that are not within its control that could affect the recoverable amount of exploration and evaluation assets. Internal sources of information include the manner in which exploration and evaluation assets are being used or are expected to be used and indications of expected economic performance of the assets. Estimates include but are not limited to estimates of the discounted future pre-tax cash flows expected to be derived from the Company's mineral exploration properties, costs to sell the properties and the appropriate discount rate. Reductions in metal price forecasts, increases in estimated future costs of production, increases in estimated future capital costs, reductions in the amount of recoverable mineral reserves and mineral resources and/or adverse current economics can result in a write-down of the carrying amounts of the Company's exploration and evaluation assets.

Impairment (impairment reversal) of property and equipment

judgements are required to assess when internal or external indicators of impairment or impairment reversal exist, and impairment testing is required. Management considers internal and external sources of information including forecasted sales, cashflows and expected production volumes. judgement is required to assess these internal and external factors when determining if the carrying amount of an asset is impaired, or in the case of a previously impaired asset, whether the carrying amount of the asset has been restored.

Share-based payments

Management determines costs for share-based payments using market-based valuation techniques. The fair value of the market-based and performance-based share awards are determined at the date of grant using generally accepted valuation techniques. Assumptions are made and judgement used in applying valuation techniques. These assumptions and judgements include estimating the future volatility of the stock price, expected dividend yield, future employee turnover rates and future employee stock option exercise behaviors and corporate performance. Such judgements and assumptions are inherently uncertain. Changes in these assumptions affect the fair value estimates.

Contingencies

By their nature, contingencies will only be resolved when one or more future events transpire. The assessment of contingencies inherently involves estimating the outcomes of future events. The Company has disclosed its disputes and was required to exercise judgement in assessing the recorded amounts.

4. ACCOUNTS AND OTHER RECEIVABLES

	March 31, 2024 $	March 31, 2023 $
Trade receivables	**1,439**	106,458
Other receivables	**27,292**	-
Government grants receivable	**60,850**	151,440
HST recoverable	**174,158**	172,496
Accrued interest receivable on guaranteed investment certificates	**32,791**	238,614
Less: valuation allowance on trade receivables	**-**	(100,000)
Total accounts and other receivables	**296,530**	569,008

5. LOAN RECEIVABLE

In March 2022, a loan was advanced to a third party, who is an insignificant shareholder of the Company and not an insider nor an employee of the Company, earning 6% interest per annum, calculated and payable monthly. The loan was originally secured by mortgages against two properties held by the borrower. The original maturity date was July 1, 2022 and an amended and restated promissory note was completed in 2023 with a revised maturity date of September 29, 2023. As a result of the sale of one property held as security in June 2023, a partial payment of $2,500,000 was applied against the loan receivable. The security against this property was released accordingly.

On November 9, 2023, an amended and restated promissory note for the remaining balance was completed with a new maturity date of March 29, 2024.

Subsequent to year end, the Company entered into an amended and restated promissory note with a revised maturity date of October 31, 2024.

The Company performed an analysis of collectivity and based on the collateral against the loan, determined that no provision was required. A continuity of the loan principal and interest balances is presented below:

	March 31, 2024 $	March 31, 2023 $
Loan balance, beginning of year	**2,983,642**	2,950,000
Loans advanced	**36,882**	33,642
Principal payments received	**(2,500,000)**	-
Interest earned	**72,739**	180,000
Interest payments received	**(50,000)**	(180,000)
Loan balance, end of year	**543,263**	2,983,642

6. INVENTORIES

	March 31, 2024 $	March 31, 2023 $
Raw materials	**2,513,413**	2,418,530
Finished goods	**405,911**	430,543
Allowance for impairment	**(203,553)**	-
Total inventories	**2,715,771**	2,849,073
Less: non-current portion	**(1,293,789)**	-
Total current portion of inventories	**1,421,982**	2,849,073

The cost of inventories recognized as an expense and included in supplies and materials amounted to $ 44,474 (March 31, 2023: $50,067).

An allowance for impairment of inventory in the amount of $ 203,553 (March 31, 2023: $nil) was recognized as an expense and included in supplies and materials.

Included in prepaids and deposits are $ nil (March 31, 2023: $114,725) of prepayments made for inventory to be delivered subsequent to period end. A continuity of prepaid inventory is presented below:

	March 31, 2024 $	March 31, 2023 $
Prepaid inventory, beginning of year	**114,725**	855,415
Inventory received	**(114,725)**	(740,690)
Prepaid inventory, end of year	-	114,725

(Stated in Canadian Dollars)
AS AT AND FOR THE YEARS ENDED MARCH 31, 2024 AND 2023

7. PROPERTY AND EQUIPMENT

	Land and Building	Plant and Equipment	Office furniture and Equipment	Leasehold Improvement	Right of Use	Under Construction	Total
Cost							
Balance at April 1, 2022	2,064,993	1,305,960	321,457	258,831	478,223	2,439,710	6,869,174
Additions	-	689,765	18,019	95,874	481,565	1,574,540	2,859,763
Disposals	-	(36,983)	(95,977)	-	-	-	(132,960)
Transfers	-	2,068,202	-	-	-	(2,068,202)	-
Balance at March 31, 2023	2,064,993	4,026,944	243,499	354,705	959,788	1,946,048	9,595,977
Additions	-	103,651	4,033	-	-	107,151	214,835
Disposals	-	(278,242)	-	-	-	-	(278,242)
Transfers	-	2,000,490	-	-	-	(2,000,490)	-
Balance at March 31, 2024	**2,064,993**	**5,852,843**	**247,532**	**354,705**	**959,788**	**52,709**	**9,532,570**
Accumulated Depreciation							
Balance at April 1, 2022	61,950	334,157	139,131	123,340	185,175	-	843,753
Depreciation for the year	48,574	171,734	37,126	122,852	159,407	-	539,693
Disposals	-	(33,669)	(89,667)	-	-	-	(123,336)
Transfers	-	-	-	-	-	-	-
Balance at March 31, 2023	110,524	472,222	86,590	246,192	344,582	-	1,260,110
Depreciation for the year	44,313	348,822	31,911	28,348	160,320	-	613,714
Disposals	-	(111,711)	-	-	-	-	(111,711)
Transfers	-	-	-	-	-	-	-
Balance at March 31, 2024	**154,837**	**709,333**	**118,501**	**274,540**	**504,902**	**-**	**1,762,113**
Carrying Amounts							
Balance at March 31, 2023	1,954,469	3,554,722	156,909	108,513	615,206	1,946,048	8,335,867
Balance at March 31, 2024	**1,910,156**	**5,143,510**	**129,031**	**80,165**	**454,886**	**52,709**	**7,770,457**

The Company's property and equipment includes an asset under construction in the amount of $ 52,709 (March 31, 2023: $1,946,048) related to costs incurred for a production line at the silver-graphene oxide pilot plant. Depreciation was not recorded on assets under construction until they were put into use. In the year ended March 31, 2024, substantially all the assets under construction were put into use and depreciation on those assets commenced at that time.

The Company's right-of-use asset includes its manufacturing facility located in Guelph, Ontario. It is the Company's policy to depreciate the right-of-use asset using the straight-line method from the lease commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term.

8. EXPLORATION AND EVALUATION PROPERTY

The 100%-owned Albany Graphite Deposit (the "Albany Property") is located in Northern Ontario, Canada. During the year ended March 31, 2013, the Company reached an agreement with the optionor pursuant to the following terms and conditions:

a) The Company will issue to the optionor a total of 1,250,000 common shares. Total shares remaining to be issued are 750,000 common shares valued at $472,500 based on their fair market value on the date of the agreement;

b) The Company granted the optionor a net smelter return royalty of 0.75% on the 4F claim block, of which 0.5% can be purchased at any time for $500,000; and

c) The agreement provides a clawback right that allows the optionor to reduce the Company's interest in the other claims to 30% subsequent to the exercise of the second option by giving notice within 30 days that the optionor intends to commence sole funding up to completion of a feasibility study within 48 months and within 30 days deliver a payment of $27,500,000.

Albany Property

	$
Balance at March 31, 2022	**7,000,000**
Expenditures	-
Impairment	-
Balance at March 31, 2023	**7,000,000**
Expenditures	**271,857**
Impairment	-
Balance at March 31, 2024	**7,271,857**

In February 2023, a new subsidiary corporation, Albany Graphite Corp. ("Albany"), was incorporated for the purpose of holding the Albany Property and on May 23, 2023, the Company transferred to Albany the ownership of the Albany Project.

9. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

	March 31, 2024 $	March 31, 2023 $
Trade payables	**541,311**	911,477
Accrued liabilities	**627,951**	380,997
Total accounts payable and accrued liabilities	**1,169,262**	1,292,474

10. LEASE LIABILITY

During the year ended March 31, 2021, the Company entered into a lease agreement for its manufacturing facility in Guelph, Ontario. The initial term of the lease was for three years commencing on February 1, 2021, subject to a right of extension as described herein. In July 2023, the Company acted upon the renewal option for an additional 36 months, extending to January 31, 2027.

The lease liability relates to the above noted agreement. The lease liability as at March 31, 2024 and March 31, 2023 is as follows:

	March 31, 2024 $	March 31, 2023 $
Lease liability	**484,856**	614,120
Less: current portion	**(151,129)**	(129,264)
Long-term portion	**333,727**	484,856

Interest expense recognised on the lease liability for the year ended March 31, 2024 was $ 65,476 (2023: $43,283).

11. LONG-TERM DEBT

Pursuant to an asset purchase agreement dated February 10, 2022, the Company acquired the land, building and chattels at 24 Corporate Court in Guelph, Ontario for cash consideration of $351,000 and assumed a mortgage of $ 1,949,000. The mortgage was assumed in a vendor-take-back agreement with the seller of the property who is an insignificant shareholder and not an insider of the Company. There are no financial covenants associated with this agreement. On April 1, 2023, the repayment terms were renegotiated to extend the amortisation period by an additional 12 months to March 1, 2025 and reduce the monthly installment from $85,504 to $43,764, including interest at 5% per annum. On October 1, 2023, the repayment terms were amended with payments moving to interest only for the next six months ending March 1, 2024. As a result, the loan repayment was further extended by four months with a new maturity date of October 1, 2025. The Company does not consider this extension to be a substantial modification to the vendor-take-back agreement.

	March 31, 2024 $	March 31, 2023 $
First mortgage payable in monthly installments of $ 43,764 (2023 - $85,504) including interest at 5% per annum, due October 1, 2025, with land and building, having a net book value of $1,910,158 (March 31, 2023: $2,012,414), pledged as collateral	**757,727**	998,080
Less current portion	**(498,613)**	(998,080)
Total long-term debt	**259,114**	-

12. SHARE CAPITAL

(a) Share Capital

The Company is authorised to issue an unlimited number of common shares, with no par value.

During the year ended March 31, 2024, the Company issued 1,527,696 common shares in connection with the exercise of 2,000,000 options (2023: 285,924 common shares on exercise of 348,333 options). The carrying value of the options, being $ 645,000 (2023: $214,133), was removed from share-based payment reserve and added to share capital. Of the 2,000,000 (2023: 348,333) options exercised, 1,900,000 (2023: 233,333) were exercised using a "cashless" exercise method whereby 472,304 (2023: 62,409) fewer shares were issued than exercised as compensation for the $958,000 (2023: $153,666) that would have otherwise been received by the Company upon exercise.

During the year ended March 31, 2024, the Company also purchased, and subsequently cancelled, 245,100 (2023: nil) of its own common shares at a cost of $408,853 (2023: nil).

(b) Share Purchase Warrants

The Company had no share purchase warrants outstanding as of March 31, 2024 and March 31, 2023.

(c) Stock Options and Share-Based Payment Reserve

During the year ended March 31, 2024, the Company issued 1,250,000 stock options to a number of employees and directors at exercise prices ranging from $1.75 to $2.24. The grant date fair value of these stock options was $ 1,545,175. The vesting period for the stock options issued was as follows: 416,667 at the date of issuance; 350,000 after 6 months from the date of issuance; 416,667 after 12 months from the date of issuance; and 66,667 after 24 months from the date of issuance.

In addition, on December 14, 2023, the Company's subsidiary, Triera Biosciences Ltd. ("Triera"), issued 195,000 stock options to a number of directors and officers at an exercise price of $5.00. The grant date fair value of these stock options was determined to be trivial and no stock-based compensation was recorded in relation to these options. The vesting period for the Triera stock options issued was as follows: 65,000 at the date of issuance; 65,000 after 6 months from the date of issuance; and 65,000 after 12 months from the date of issuance. In February 2024, the Company repriced the Triera stock options, reducing the exercise price from $5.00 per share to $1.00 per share. All other terms and conditions of these options remained unchanged. The change in the fair value of the Triera stock option grant was trivial and as such, no amount was recorded upon modification.

During the year ended March 31, 2023, the Company issued 600,000 stock options to a number of consultants, employees and directors at exercise prices ranging from $1.93 to $2.59. The grant date fair value of these stock options was $ 913,000. The vesting period for the stock options issued was as follows: 200,000 at the date of issuance; 83,333 after 6 months from the date of issuance; 200,000 after 12 months from the date of issuance; and 116,667 after 24 months from the date of issuance.

The grant date fair value of the stock options was calculated using the Black-Scholes option pricing model. A summary of the inputs used to value the options issued during the years ended March 31 is presented below:

	Triera		**The Company**	
	Mar 31, 2024	Mar 31, 2023	**Mar 31, 2024**	Mar 31, 2023
Expected dividend yield	**0%**	N/A	**0%**	0%
Expected volatility	**98% to 120%**	N/A	**70% to 90%**	88% to 95%
Expected forfeiture rate	**0%**	N/A	**5%**	0%
Risk-free interest rate	**3.90%**	N/A	**3.6% to 4.5%**	2.5% to 3.9%
Expected life	**3 to 5 years**	N/A	**3 to 5 years**	3 to 5 years

The Company's computation of expected volatility for the years ended March 31, 2024 and 2023 is based on the Company's market close price over a prior period equal to the expected life of the options.

12. SHARE CAPITAL

(c) Stock Options and Share-Based Payment Reserve (continued)

The Company applies the fair value method of accounting for share-based payment awards to directors, officers, employees and non-employees. Accordingly, the following amounts have been recognised as compensation expense and under capital stock as share-based payment reserve:

	Year Ended March 31, 2024	Year Ended March 31, 2023
	$	$
Share-based compensation expense	**1,786,453**	3,203,407

Stock option and share-based payment activity for the years ended March 31, 2024 and March 31, 2023 are summarised as follows:

	Year ended March 31, 2024		Year ended March 31, 2023	
	Number	**Weighted average exercise price**	Number	Weighted average exercise price
		$		$
Balance, beginning of year	**8,673,334**	**2.03**	8,692,334	2.01
Granted	**1,445,000**	**1.89**	600,000	2.36
Exercised	**(2,000,000)**	**0.54**	(348,333)	0.58
Expired	**(825,000)**	**2.72**	(270,667)	3.87
Balance, end of year	**7,293,334**	**2.33**	8,673,334	2.03

At March 31, 2024, outstanding options to acquire common shares of the Company were as follows:

	Options Outstanding			**Options Exercisable**	
Range of exercise Prices CAD$	Number Outstanding as at Mar 31, 2024	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price CAD$	Number Outstanding as at Mar 31, 2024	Weighted Average Exercise Price CAD$
$0.40 - $1.00	2,528,334	1.06	$ 0.55	2,398,334	$ 0.50
$1.01 - $4.00	3,025,000	2.52	$ 2.63	2,316,667	$ 2.81
$4.01 - $5.67	1,740,000	2.04	$ 4.46	1,740,000	$ 4.46
Totals	7,293,334	1.90	$ 2.33	6,455,001	$ 2.40

12. SHARE CAPITAL

(c) Stock Options and Share-Based Payment Reserve (continued)

At March 31, 2023, outstanding options to acquire common shares of the Company were as follows:

	Options Outstanding			Options Exercisable	
Range of exercise Prices CAD$	Number Outstanding as at Mar 31, 2023	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price CAD$	Number Outstanding as at Mar 31, 2023	Weighted Average Exercise Price CAD$
$0.40 - $1.00	4,283,334	1.12	$ 0.49	4,283,334	$ 0.49
$1.01 - $4.00	2,575,000	2.16	$ 2.87	2,116,667	$ 2.95
$4.01 - $5.67	1,815,000	2.98	$ 4.47	1,610,000	$ 4.44
Totals	8,673,334	1.82	$ 2.03	8,010,001	$ 1.93

13. SUPPLEMENTAL DISCLOSURES ON STATEMENTS OF CASH FLOWS

Changes in non-cash working capital balances consist of:

	March 31, 2024 $	March 31, 2023 $
Accounts and other receivables	**272,478**	(12,844)
Inventories	**(70,251)**	(2,183,501)
Prepaids and deposits	**728,211**	(181,606)
Accounts payable and accrued liabilities	**(15,549)**	(17,377)
Total change in non-cash working capital balances	**914,889**	(2,395,328)
Supplementary disclosures:		
Change in accounts payable relating to property and equipment	**$ (105,264)**	105,264

Cash and cash equivalents are comprised of:	**March 31, 2024 $**	March 31, 2023 $
Cash in bank	**521,420**	157,317
Cashable guaranteed investment certificate, variable rate, maturing January 2025	**3,000,000**	10,000,000
Cashable guaranteed investment certificate, variable rate, redeemed December 2023	-	200,000
Total cash and cash equivalents	**3,521,420**	10,357,317

The guaranteed investment certificate of $ 200,000 was held as collateral by the Company's primary financial institution against corporate credit cards and was no longer required and therefore was redeemed on December 22, 2023.

During the year ended March 31, 2024, 1,900,000 (2023: 233,333) stock options were exercised using a "cashless" exercise method whereby 472,304 (2023: 62,409) fewer shares were issued than options exercised as compensation for the $ 958,000 (2023: $153,666) in cash that would have otherwise been received by the Company upon exercise.

14. RELATED PARTY TRANSACTIONS

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Company directly or indirectly, including any directors (executive and non-executive) of the Company.

The Company defines key management personnel as its key executive management and Board of Directors. In addition to their salaries, the Company provides a benefit plan and other allowances to its key management personnel. Key management personnel are also granted stock options at the discretion of the Board of Directors.

The remuneration of key management personnel during the years ended March 31, 2024 and 2023 were as follows:

	2024	2023
	$	$
Directors fees	**173,125**	140,625
Salaries and benefits	**1,441,458**	1,215,625
Share-based compensation	**1,408,778**	1,694,284
Total remuneration of key management personnel	**3,023,361**	3,050,534

15. INCOME TAXES

(a) Provision for Income Taxes

Major items causing the Company's effective income tax rate to differ from the combined Canadian federal and provincial statutory rate of 26.5% (2023 - 26.5%) were as follows:

	2024	2023
	$	$
Loss before income taxes	**(11,703,990)**	(14,414,266)
Expected income tax recovery based on statutory rate	**(3,102,000)**	(3,820,000)
Adjustments to expected income tax benefit:		
Share-based compensation	**473,000**	849,000
Non-deductible expenses and other	**(33,000)**	4,000
Change in benefit of tax assets not recognised	**2,662,000**	2,967,000
Deferred income tax provision (recovery)	**-**	-

15. INCOME TAXES (continued)

b) Deferred Income Tax

The components of deferred tax are summarised below. Deferred tax assets and liabilities have been offset where they relate to income taxes levied by the same taxation authority and the Company has the legal right and intent to offset.

	2024	2023
	$	$
Recognised deferred tax assets and liabilities		
Non-capital losses carry-forwards	**-**	12,000
Interest in exploration and evaluation property	507,635	-
Property and equipment	**(515,160)**	151,000
Right-of-use assets	**(121,000)**	(163,000)
Lease liability	**128,525**	-
Net deferred tax assets	-	-

Deferred income tax assets have not been recognised in respect of the following deductible temporary differences:

	2024	2023
	$	$
Non-capital loss carry-forwards	**29,628,000**	19,444,000
Equipment	**-**	569,000
Interest in exploration and evaluation property	**26,340,000**	28,256,000
Scientific research and development	**580,000**	580,000
Share issue costs	**675,000**	1,033,000
Lease liability	**-**	614,000
Deductible temporary differences	**57,223,000**	50,496,000

Deferred tax assets have not been recognised in respect of these temporary differences because it is not probable that future taxable profits will be available against which the Company can utilise the benefits.

c) Loss Carry-Forwards

The Company has available non-capital losses for Canadian income tax purposes which may be carried forward to reduce taxable income in future years. If not utilised, the non-capital losses of approximately $29,630,000 will expire between the fiscal years ending March 31, 2031 and March 31, 2044.

The Company has approximately $35,530,000 of Canadian development and exploration expenditures as at March 31, 2024 (2023: $35,250,000), which under certain circumstances may be utilised to reduce the taxable income of future years.

16. FINANCIAL INSTRUMENTS AND RELATED RISKS

The Company's operations include the acquisition and commercialization of intellectual property in Canada and foreign jurisdictions. The Company examines the various financial risks to which it is exposed and assesses the impact and likelihood of occurrence. These risks may include credit risk, liquidity risk, currency risk, interest rate risk and other risks. Where material, these risks are reviewed and monitored by the Board of Directors. The Company's counterparty credit risk increased from the prior year as a result of the trade receivables and loan receivable in existence at year end.

a) Credit Risk

Counterparty credit risk is the risk that the financial benefits of contracts with a specific counterparty will be lost if a counterparty defaults on its obligations under the contract. This includes any cash amounts owed to the Company by those counterparties, less any amounts owed to the counterparty by the Company where a legal right of set-off exists and also includes the fair values of contracts with individual counterparties which are recorded in the consolidated financial statements.

i) Accounts receivable, other receivables and loan receivable

As the Company has commenced production and sales, it is exposed to credit risk with respect to its accounts receivable. The Company also issued a loan receivable during the prior year further increasing its exposure to credit risk. The Company manages its credit risk by reviewing and assessing credit exposure prior to facilities being committed to customers. Overall the Company's credit risk has not changed from the prior period. The Company's accounts and other receivables and loan receivable total $839,793 (2023: $3,552,649), representing the maximum exposure to credit risk from those financial assets. The loan receivable is secured by mortgages against properties held by the borrower which lowers the maximum exposure to credit risk.

ii) Cash and Cash Equivalents

In order to manage credit and liquidity risk, the Company's cash is held through a large Canadian Financial Institution and the Company invests only in highly rated investment grade instruments that are cashable or have maturities of three months or less. The investments are readily convertible to a known amount of cash and are subject to an insignificant risk of change in value.

b) Liquidity Risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company manages liquidity risk through the management of its capital structure. Accounts payable and accrued liabilities are due within the current operating period.

The following are the undiscounted amounts and contractual maturities of the Company's long-term debt and anticipated timing of settlements of its other financial liabilities as at March 31, 2024 and 2023:

Balance, as at March 31, 2024	< 1 year	1-2 years	> 2 years
	$	$	$
Accounts payable and accrued liabilities	1,169,262	-	-
Lease liability	151,129	171,990	161,737
Debt	498,613	259,114	-

Balance, as at March 31, 2023	< 1 year	1-2 years	> 2 years
	$	$	$
Accounts payable and accrued liabilities	1,292,474	-	-
Lease liability	129,264	151,129	333,727
Long-term debt	998,080	-	-

16. FINANCIAL INSTRUMENTS AND RELATED RISKS (continued)

c) Interest Rate Risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The risk that the Company will realise a significant loss as a result of a decline in the fair market value of investments or items held within cash and cash equivalents is limited given that the majority have a relatively short maturity. The Company manages its interest rate risk with investments by investing the majority of funds in short-term investments and therefore is not exposed to significant fluctuations in interest rates. The Company believes that its interest rate risk is minimal.

d) Currency Risk

The Company is exposed to the financial risk related to the fluctuation of foreign exchange rates. The functional and reporting currency of the Company is the Canadian dollar. The Company is involved with a number of foreign vendors in the United States of America. Changes in the currency exchange rates between the Canadian dollar relative to the U.S. dollar could have an effect on the Company's results of operations, financial position or cash flows. As a result, the Company is exposed to currency risk on these transactions. A 1% strengthening of the US dollar would affect net loss by approximately $5,000. The Company has not hedged its exposure to currency fluctuations as the exposure has been deemed to be minimal.

e) Fair Value of Financial Instruments

IFRS 13 establishes a fair value hierarchy that prioritizes the input to valuation techniques used to measure fair value as follows:

Level 1 - quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 - inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices); and

Level 3 - inputs for the asset or liability that are not based on observable market data (unobservable inputs).

As at March 31, 2024, the Company does not have any financial instruments recorded at fair value and that require classification within the fair value hierarchy.

The fair values of all of the Company's financial instruments approximate their carrying values.

f) Sensitivity Analysis

Based on management's knowledge and experience in the financial markets, the Company believes the following movements are "reasonably possible" over a twelve month period:

Temporary investments are invested in guaranteed investment certificates. Sensitivity to a plus or minus 1% change in rates, based on the current balance of temporary investments, would affect the net loss by approximately plus or minus $30,000 during a twelve-month period.

17. MANAGEMENT OF CAPITAL

The Company's objective when managing capital is to safeguard the entity's ability to continue as a going concern. In the management of capital, the Company monitors its adjusted capital which comprises all components of shareholders' equity. The Company's capital management objectives, policies and processes have remained unchanged during the years ended March 31, 2024 and 2023.

The Company sets the amount of capital in proportion to risk. The Company manages the capital structure and makes adjustments to it in the light of changes in economic conditions and the risk characteristics of the underlying assets. In order to maintain or adjust the capital structure, the Company may issue common shares through private placements.

18. COMMITMENTS AND CONTINGENCIES

a) Environmental Contingencies

The Company's activities are subject to various laws and regulations governing the protection of the environment. These laws and regulations are continually changing and generally becoming more restrictive. The Company believes its operations are materially in compliance with all applicable laws and regulations.

b) Research Agreements

The Company has entered various agreements with arms' length parties pertaining to ongoing science efforts in pursuit of research and/or development and intellectual property with the objective of profitably bringing products to market. Many of the counterparties to these agreements are Canadian universities and affiliated individuals. These agreements can be generalized as having 'no fault' termination clauses regarding ongoing commitments and future liability when the Company determines that the pursuit becomes ineffective or unlikely to result in a profitable or commercially-viable product.

Under certain of these technology license agreements with Canadian universities, the Company has an obligation to pay royalties on revenues from any subject technologies. No such revenues have been earned to date.

c) Contingent liabilities

In September 2018, the Company received a statement of claim from a former employee. The Company is in the process of defending the claim, but views the claim as unmeritorious. On March 24, 2020, the Company commenced an action claim against the former employee for relief relating to contracts and transactions between that employee and the Company, seeking to set aside those agreements and, where applicable, seeking disgorgement of unspecified amounts relating to benefits obtained under those agreements. Although there can be no assurance that any particular claim will be resolved in the Company's favour, management does not believe that the outcome of any claim or potential claims of which it is currently aware will have a material adverse effect on the Company. A trial date has been set to commence on October 21, 2024.

The Company is currently undergoing a Canada Revenue Agency ("CRA") audit of approximately $4 million flow-through share ("FTS") expenditures made and renounced during the fiscal years ended March 31, 2019 through March 31, 2022. The CRA audit may result in amendments to the FTS expenditures renounced during the foregoing period. Such CRA amendments could result in a Company obligation to indemnify certain of the flow through shareholders as a result of reductions in previously flowed through expenditures. The CRA audit may also result in a Company obligation for penalties and interest related to reductions in prior-year FTS eligible expenditures and flow through.

As the resolution of the CRA audit is subject to many uncertainties, it is not possible to predict the ultimate outcome or to estimate the Company's potential obligation to indemnify flow through shareholders for amended flow through expenditures or for related penalties and interest, if any, which may result.

No provision has been made for this contingent liability and the amount of any future payment, if any, will be recorded in the period in which such a payment is measurable.

19. NET LOSS PER SHARE

Basic net loss per share figures are calculated using the weighted average number of common shares outstanding. The weighted average number of common shares issued and outstanding for the year ended March 31, 2024 is 100,503,442 (2023: 99,436,264). Diluted net loss per share figures are calculated after taking into account all warrants and stock options granted. For the years ended March 31, 2024 and March 31, 2023, all stock options and warrants were excluded from the diluted per share amounts as their effect is anti-dilutive in loss periods.

20. GOVERNMENT GRANTS

The Company has entered into agreements with various government agencies under which the Company is entitled to receive assistance and cost recoveries for specific research and development activities. The Company was successful in securing funding with the National Research Council for the Industrial Research Assistance Program for an HVAC project which included funding to offset both labour and third-party testing costs. The Company has also secured funding for ZENArmor Pigment Synthesis, Substrate Preparation and Coating from Public Works and Government Services Canada. Lastly, the Company has secured funding from Downsview Aerospace Innovation & Research Centre ("DAIR") Green Fund for passive icephobic coating testing.

Government grants received or receivable during the years ended March 31, 2024 and 2023 were as follows:

	2024	2023
	$	$
National Research Council	**46,322**	151,440
Public Works and Government Services Canada	**304,391**	-
DAIR Green Fund	**67,500**	7,500
Innovation, Science and Economic Development Canada	**-**	20,558
Total government grants received	**418,213**	179,498

21. OTHER EXPENSES

	Year Ended March 31, 2024	Year Ended March 31, 2023
	$	$
Automotive	**22,540**	30,339
Bank fees	**4,698**	4,833
Dues and subscriptions	**49,590**	55,799
Freight and delivery	**176,423**	60,446
Meals and entertainment	**49,591**	60,863
Other expenses	**41,826**	41,096
Property taxes	**31,862**	31,666
Repairs and maintenance	**83,795**	76,529
Telephone	**23,507**	19,679
Utilities	**20,848**	35,039
Total other expenses	**504,680**	416,289

22. SUBSEQUENT EVENTS

On May 3, 2024, the Company announced the resignation of Dr. Francis Dube as Chief Operating Officer effective May 1, 2024 and the resignation of Brian Bosse as director effective May 3, 2024. Brian Bosse was appointed to the Company's advisory board effective May 3, 2024 and was granted 40,000 stock options at an exercise price of $1.42 per common share. The options vest on May 3, 2025 and expire on May 3, 2027.

On May 21, 2024, a total of 250,000 stock options were exercised at $0.40 per option resulting in proceeds of $100,000 to the Company.

On June 14, 2024, 300,000 stock options were exercised using a “cashless” exercise method whereby 80,000 fewer shares were issued than options exercised as compensation for the $120,000 in cash that traditionally would have been received by the Company upon exercise.

On June 20, 2024, 1,935,000 stock options were issued to a number of directors, officers and employees of the Company. The stock options have an exercise price of $1.52 per common share. The options granted to the directors and officers, will vest one third on the date of grant, one third on the first anniversary of the grant, and one third on the second anniversary of the grant. For employees, the options will vest one quarter on the date of grant, and one quarter on each anniversary thereafter.

zentek

Management's Discussion and Analysis

For the financial year ended
March 31, 2024

Dated: June 26, 2024

(Expressed in Canadian Dollars)

Introduction

This Management Discussion and Analysis ("MD&A") is dated June 26, 2024, and is in respect of the financial year ended March 31, 2024. The following discussion of the financial condition and results of operations of Zentek Ltd. (the "Company") constitutes management's review of the factors that affected the Company's financial and operating performance for the financial year ended March 31, 2024.

This discussion should be read in conjunction with the Company's consolidated financial statements and corresponding notes to the consolidated financial statements for the year ended March 31, 2024. The Company's consolidated financial statements have been prepared in accordance with International *Financial Reporting Standards* ("IFRS") as issued by the International Accounting Standards Board ("IASB"). Unless otherwise stated, all amounts discussed herein are denominated in Canadian dollars which is the Company's functional and reporting currency.

Additional information relating to the Company can be found under the Company's profile on SEDAR+ at www.sedarplus.ca.

Forward-Looking Statements

This MD&A and the documents incorporated into this MD&A contain "forward-looking statements" and "forward-looking information" within the meaning of applicable securities laws (forward-looking information and forward-looking statements being collectively hereinafter referred to as "forward-looking statements"). Such forward-looking statements are based on expectations, estimates and projections as at the date of this MD&A or the dates of the documents incorporated herein, as applicable. Any statements that involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or 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", "should", "might" or "will" be taken, occur or be achieved) are not statements of historical fact and may be forward-looking statements and are intended to identify forward-looking statements. These forward-looking statements include, but are not limited to, statements and information concerning: the intentions, plans and future actions of the Company; statements relating to the business and future activities of the Company after the date of this MD&A; market position, ability to compete and future financial or operating performance of the Company after the date of this MD&A; statements based on the audited and unaudited financial statements of the Company; anticipated developments in operations; the timing and amount of funding required to execute the Company's development and business plans; intellectual property expenditures; capital and exploration and development expenditures; the effect on the Company of any changes to existing legislation or policy; government regulation of patent law or mining operations; the length of time required to obtain permits, certifications and approvals; markets for the Company's graphene related products and the ability to supply those markets; the success of exploration, development and mining activities; the geology of mineral properties; environmental risks; the availability of labour; demand and market outlook for precious metals and the prices thereof; progress in development of mineral properties; estimated budgets; currency fluctuations; requirements for additional capital; government regulation; limitations on insurance coverage; the timing and possible outcome of litigation in future periods; the timing and possible outcome of regulatory and permitting matters; goals; strategies; future growth; planned business activities and planned future acquisitions; the adequacy of financial resources; and other events or conditions that may occur in the future.

Forward-looking statements are based on the beliefs of the Company's management, as well as on assumptions, which such management believes to be reasonable based on information currently available at the time such statements were made. However, by their nature, forward-looking statements are based on assumptions and involve known and unknown risks, uncertainties, and other factors that may cause the actual results, performance, or achievements to be materially different from any future results, performance, or achievements expressed or implied by the forward-looking statements. Forward-looking statements are subject to a variety of risks, uncertainties, and other factors that could cause actual events or results to differ from those expressed or implied by the forward-looking statements, including, without limitation, those risks outlined under the heading *Risk and Uncertainties* in this MD&A.

The list of risk factors set out in this MD&A is not exhaustive of the factors that may affect any forward-looking statements of the Company. Forward-looking statements are statements about the future and are inherently uncertain. Actual results could differ materially from those projected in the forward-looking statements as a result of the matters set out or incorporated by reference in this MD&A generally and certain economic and business factors, some of which may be beyond the control of the Company, including, among other things, potential direct or indirect operational impacts resulting from infectious diseases or pandemics, from international or domestic conflicts or political crises, and other factors not currently viewed as material that could cause actual results to differ materially from those described in the forward-looking statements. In addition, recent events in the world economy and global financial and credit markets have resulted in high market and commodity volatility and a contraction in debt and equity markets, which could have a particularly significant, detrimental, and unpredictable effect on forward-looking statements. The Company does not intend and does not assume any obligation, to update any forward-looking statements, other than as required by applicable law. For all of these reasons, the Company's securityholders should not place undue reliance on forward-looking statements.

Company Overview and Discussion of Operations

The Company was incorporated in Ontario, Canada as 1774119 Ontario Limited on July 29, 2008. Pursuant to Articles of Amendment dated November 24, 2009, the Company changed its name to "Zenyatta Ventures Ltd." On January 1, 2019, the Company filed Articles of Amendment changing its name from "Zenyatta Ventures Ltd." to "ZEN Graphene Solutions Ltd." On October 27, 2021 (effective October 28, 2021), the Company filed Articles of Amendment changing its name from "ZEN Graphene Solutions Ltd." to "Zentek Ltd." The common shares of the Company trade on the TSX Venture Exchange ("TSXV") under the symbol "ZEN" and in the United States on the Nasdaq Capital Market ("NASDAQ") under the symbol "ZTEK".

The Company commenced operations as a junior mineral exploration company focused primarily on mineral deposits in Northern Ontario, Canada. The Company was actively engaged in exploring mining projects and held an interest in exploration licenses on properties located north of Lake Superior and west of James Bay in Northern Ontario, Canada in the "Arc of Fire" area. The properties, located north of Lake Superior and southwest of James Bay in northeastern Ontario, Canada, were unpatented, non-contiguous, and consisted of nine claim blocks, including 234 claims comprised of 3,549 claim units over a total of 56,784 ha.

Within such claim blocks, the Company continued to hold a 100% undivided interest in Claim Block 4F, comprised of 521 mining claims (461 single-cell claims and 60 boundary-cell claims), which hosts an igneous-hosted, fluid-derived graphite deposit (the "Albany Graphite Project"). The Company did extensive work to determine potential uses for the graphite materials to be extracted from the Albany Graphite Project, including engaging in testing the properties of the graphite material and studies on graphene materials.

In May 2018, the Company began to focus resources on the research and development of graphene and related applications, which was supported by shareholders of the Company who voted in favour of a new Board of Directors with an interdisciplinary team to augment key management personnel with expertise in business, science, marketing, and government relations.

In February of 2020, the Company opened a research facility in Guelph, Ontario, to support its university and industrial partners' ongoing research and to scale-up production of graphene products. Subsequently, the COVID-19 pandemic halted research at the Company's collaborators' laboratories. The Company pivoted to focus its resources to develop graphene-based solutions for the fight against COVID-19.

On September 22, 2020, the Company announced, based on the results from a report to the Company dated September 18, 2020, from the ImPaKT Centre at the University of Western Ontario entitled "*Zen Graphene - Lab Test Report No. Z03-092020* ", the development and successful testing of a now patented GO/silver compound that showed to be 99% effective against COVID-19 virus a minimum of 35 days after application of the coating to N95 mask material. On December 22, 2020, the Company announced the successful testing at the Department of Microbiology at Mount Sinai Hospital/University Health Network of the GO/silver compound that showed to be 99.9% effective against both gram-positive and gram-negative aerobic bacteria as well as against fungus/yeast, based on a report to the Company dated December 18, 2020, entitled "*Evaluation of Graphene Oxide with Silver Cations (GO-Ag+) as an Antibacterial Agent against Respiratory Pathogens* ", which stated that if the compound could be shown to be safe and effective, it could provide a breakthrough alternative therapy for the practices of family medicine, Otolaryngology, Ophthalmology and intensive care units.

The Company filed patent applications relating to its antimicrobial coating, and on April 13, 2021, announced the brand name ZenGUARD ("ZenGUARD™") for such coating. On September 27, 2022, the Company announced that its patent application directed to the ZenGUARD ™ technology for use on personal protective equipment ("PPE") and heating, ventilation, and air conditioning ("HVAC") had been allowed in Canada including all 54 claims made in the application, and on December 6, 2022, the patent was granted with a term until September 20, 2041.

Pursuant to a License Agreement dated September 22, 2020, between the Company and the University of Guelph, the Company holds the exclusive global rights to intellectual property regarding an electrochemical exfoliation ("ECE") process to produce graphene oxide ("GO").

On October 18, 2021, the TSXV changed the Company's classification from a "mining issuer" to an "industrial, technology, or life sciences issuer", which was approved by the shareholders of the Company on September 27, 2021, in accordance with the rules and policies of the TSXV.

On November 29, 2021, the Company announced that it had been issued a Medical Device Establishment License ("MDEL") from Health Canada (license number 18823) for the manufacture and distribution of any Class I medical devices, including any such devices with or without the ZenGUARD™ coating.

The Company is now an intellectual property development and commercialization company focused primarily on commercializing ZenGUARD™, as well as on the development of certain aptamer technologies and other nanomaterials-based technologies.

On May 23, 2023, the Company completed the transfer of the ownership of the Albany Graphite Project to a wholly owned subsidiary of the Company, Albany Graphite Corp. ("AGC") pursuant to a property purchase agreement dated April 24, 2023, as described in more detail under the heading "*Albany Graphite Project*" below. The Company does not require materials extracted from the Albany Graphite Project for its current business plans, although such materials could hold significant value to the Company in the future.

On June 12, 2023, the Company incorporated a wholly-owned subsidiary named Triera Biosciences Ltd. that now owns the exclusive, global licensing rights for all aptamer-based technology from the collaboration with McMaster University. The Company and McMaster University entered into a standard license agreement dated June 11, 2021 pursuant to which McMaster agreed to license certain intellectual property. All rights and obligations under this licensing agreement were assigned to this subsidiary subsequent to incorporation.

Current Business

ZenGUARD™ Antimicrobial Compound - Personal Protective Equipment

During the reporting period, the Company continued to advance toward commercial production of its *Z*enGUARD™ antimicrobial coating at industrial scale for application to non-woven, spunbond polypropylene material to be used in surgical mask manufacturing and potentially on other materials and products including HVAC filters. Based on reports from GAP EnviroMicrobial Services Ltd. ("GAP Labs") dated May 3, 2021, the addition of *Z*enGUARD™ coating to surgical masks has been shown to increase the bacterial and viral filtration efficiency of masks and acts as an antimicrobial agent, providing increased protection when compared to similar uncoated masks.

On November 29, 2021, the Company announced that it had been issued a MDEL from Health Canada for the manufacture and distribution of any Class I medical devices, allowing the Company to work with any manufacturers and distributors inside and outside of Canada to bring ZenGUARD™ surgical masks and, potentially, other PPE to the Canadian market. The MDEL also allows the Company to produce and sell its own Class I medical device PPE products.

On April 12, 2022, the Company announced that it entered into a Reciprocal Supply Agreement dated March 31, 2022, with EkoMed Global Inc. ("EkoMed"), a globally integrated manufacturer and distributor of PPE, pursuant to which (i) the Company will sell quantities of *Z*enGUARD™ coating to EkoMed for use initially on EkoMed's surgical masks, and potentially other PPE in the future, including N95 and KN95 type masks; and (ii) the Company will purchase surgical masks manufactured by EkoMed, to be treated with ZenGUARD™ coating and resold by the Company. The Company has provided ZenGUARD™ coated material to EkoMed for the manufacture of approximately 2,200,000 masks. These masks were later transferred to Arka BRENSStech Pvt Ltd. in India. At March 31, 2024, these masks had expired and were no longer available for sale but are being used as samples.

On May 13, 2022, the Company announced that Mark's Work Wearhouse ("Mark's") had placed an initial sales order for *Z*enGUARD™-coated masks to be sold at select stores across Canada, and online. During August 2023, Mark's submitted an additional sales order for *Z*enGUARD™-coated masks. In October 2023, the Company informed Mark's that it will no longer be accepting orders through the required customer portal as the cost to maintain the portal has exceeded purchases made by Mark's since inception.

On September 7, 2022, the Company announced that it had entered into a Manufacturing and Supply Agreement with Viva Healthcare Packaging (Canada) Ltd. ("VMedCare") to manufacture and sell surgical masks enhanced with ZenGUARD™ antimicrobial coating, pursuant to which the Company would provide ZenGUARD™-coated spunbond material to VMedCare, which will be responsible for manufacturing and packaging ZenGUARD™ branded surgical masks. As at the date hereof, the Company has provided ZenGUARD™-coated material to VMedCare for the manufacture of approximately 6,000,000 masks. Approximately 500,000 masks were manufactured in September 2023 and as at March, 2024, approximately 395,000 masks are in storage at VMedCare.

On January 19, 2023, the Company announced that it had signed a Distribution Agreement with Southmedic Inc. ("Southmedic") for the distribution of the Company's patented ZenGUARD™ surgical masks. Pursuant to the agreement, the parties agreed that Southmedic will be the distributor of ZenGUARD™-enhanced surgical masks to Canadian hospitals, general practitioners, private surgery, long-term care and nursing home markets.

On March 22, 2023, the Company announced that further testing had been completed by SGS Standard Technical Services Co. to determine the extent of the antimicrobial properties and the time required to achieve deactivation of bacteria and virus on ZenGUARD™-coated mask material. Testing showed that ZenGUARD™-coated mask fabric demonstrated over 99.99% antibacterial effectiveness after 1 hour. In the study, 260,000 Escherichia coli (E. coli) Colony Forming Units ("CFU") were reduced to under 100 CFU, while untreated control mask samples saw 120,000 E. coli CFU grow to 2.5 million CFU in 1 hour and 1.1 billion in 8 hours. Additionally, the ZenGUARD™-coated mask fabric demonstrated 86.7% antiviral effectiveness after 1 hour against H1N1 and 99.7% after 8 hours.

On March 30, 2023, the Company announced that it had signed an agreement with Arka BRENStech Pvt Ltd ("BRENStech"), a company incorporated under the laws of the Republic of India (India), pursuant to which BRENStech will act as a local partner to the Company as it seeks to develop business opportunities in India. BRENStech's primary focus will be to establish sales and distribution opportunities for the Company's masks and HVAC filters and potentially other products as they become available. The Company also expects that BRENStech will connect the Company with university research facilities, assist with the navigation of applicable regulatory regimes, and source potential manufacturing partners for the Company's business opportunities in India and globally.

On August 24, 2023, the Company announced that it had signed a supply agreement with Henry Schein, Inc., for a three-year term in respect to the distribution of ZenGUARD™-coated masks to dental practices in Canada and, subject to regulatory approval, potentially in the United States. In September 2023, Henry Schein placed their first order of masks.

As at March 31, 2024, the Company had an inventory of approximately 419,000 masks available for sale and had provided ZenGUARD™-coated material to VMedCare for the manufacture of approximately an additional 5.5 million masks.

On April 3, 2024, the Company announced that it had entered into a definitive distribution agreement with Dallas, Texas-based Medwell Solutions LLC for its ZenGUARD™-enhanced surgical masks in the United States. The agreement was signed on March 18th 2024 and is for a period of two years from the date of facility establishment registration and issuance of market clearance from the United States Food and Drug Administration, at which point sales of ZenGUARD™-enhanced surgical masks can commence.

The Company continues to market its *Z*enGUARD™ product to be applied to various materials, and has targeted manufacturers, including PPE manufacturers and HVAC filter material companies. Additionally in April 2024, the Company filed a 510(k) application with the United States Food and Drug Administration for ZenGUARD™ Surgical Masks. The Company was required to complete additional safety and performance testing for the application to the Food and Drug Administration.

*Z*enGUARD™ *Industrial Scale Production and Coating Facility*

The Company has installed industrial-scale production equipment to produce the ZenGUARD™ coating formulation at its York Rd., Guelph, Ontario location, which location is permitted for industrial use. The Company has also purchased coating equipment so the process of applying the ZenGUARD™ coating formulation to spunbond polypropylene for use in surgical masks, HVAC filter materials, other PPE equipment, and potentially other uses, can be completed by the Company on-site. The Company spent cumulatively approximately $2.8M on this objective with no further additional expenditures required.

The effective construction completion date for the coating line was November 30, 2022. Following completion of installation, a period of training and certification began. The coating line became commercially operational in August 2023. The Company has spent approximately $2.0M as of March 31, 2024, related to the coating line with no further additional expenditures required.

On May 18, 2023, the Company announced that it had been granted the ISO 13485:2016 Quality Management System certification standard by the British Standards Institution. The Company also received Medical Device Single Audit Program ("MDSAP") certificate No. 777967. The ISO and MDSAP are for our Quality Management System and do not include our production facility.

Proposed Construction of Graphene Oxide Production Facility

In addition to the construction of the ZenGUARD™ industrial scale production and coating equipment, as discussed above, the Company intends to construct a plant to produce GO. The Company believes that the ability to produce GO itself, which is the precursor for the ZenGUARD™ compound, rather than relying on third-party suppliers of GO, will be economically favourable to the Company over the long term, as well as reducing supply and shipping risk. The Company believes that there are three primary reasons it would benefit from an ability to produce GO internally: (i) it should eliminate or significantly reduce supply chain risk; (ii) GO is not a homogeneous substance and by producing its own GO the Company could ensure product consistency; and (iii) the Company believes that the demand for GO is increasing and that a domestic production facility could have the potential to generate product for third-party users of the material

The Company engaged Bantrel Co. to begin engineering work on the proposed GO production plant in January 2021. Potential sites have been investigated. A site has not yet been selected and the permitting process has not yet begun. As of March 31, 2024, the Company has spent $35,000 in preliminary investigations relating to this project and expects that approximately $7,500,000 will be required to complete construction of a GO production facility.

The Company estimates that fifteen to eighteen months will be required to complete the construction of a GO production plant from the time of commencement, which is a management estimate based on the expectation of securing an agreement for the purchase of technology from an existing GO producer.

Risks include, but are not limited to, the inability to reach an acceptable agreement for the purchase of such technology, the inability to adapt existing technology to Canadian regulatory requirements, scaling-up from known existing production capacities could become a requirement, and delays as a result of ongoing material and equipment supply shortages.

Business in Development

ZenGUARD™ and Other Research and Development

The Company continues to seek the most effective, cost-efficient, and scalable process to produce high-quality GO. The production of GO requires a consistent source (or precursor) material for conversion to graphene, which is then applied to various products for enhancement. The Company believes that it has a potential competitive advantage with its interest in AGC and the large and high-quality supply of source material from the Albany Graphite Project, if and when the Company determines it is cost effective to use such material.

Advanced testing on potential new processes for commercial GO production is underway. The Company also continues to work with universities on different processes that could potentially lead to a more efficient and/or lower-cost process for GO production.

The following table sets out some of the specific research and development projects that the Company is undertaking:

Initiative	R&D Timing and Stage[1]	Major Components to be Funded	Research Site	Estimated Cost as at December 24, 2021[2]	Update for the period from January 1, 2022, to March 31, 2024
ZenGUARD™-Coated Masks	Advanced stage of development (currently in the market).	Coating of ZenGUARD™ antimicrobial compound on PPE masks (polypropylene fabric) for reduced microbial transmission through aerosols. Continued work of optimizing material and characterization of compound.	Internal	Continued research and development at an estimated cost of $200,000.	Approximately $168,000 has been spent as at March 31, 2024.
ZenGUARD™-Coated Gloves	Intermediate stage of development.	Coating of ZenGUARD™ antimicrobial compound on PPE gloves (Latex, nitrile, etc.) for reduced microbial transmission through touch to develop antimicrobial gloves.	Internal	Continued research and development at an estimated cost of $150,000.	Approximately $Nil has been spent as at March 31, 2024. This research project is currently designated as a lower priority project by the Company, and it does not intend to spend significant funds on this project in the near future.
ZenGUARD™ HVAC	Advanced stage of development.	Coating of ZenGUARD™ antimicrobial compound on HVAC filter systems in buildings, transportation, etc., for deactivation of aerosolized viral particles in enclosed spaces to develop pathogen de-activating HVAC filters.	Internal	Continued research and development at an estimated cost of $200,000.	Approximately $466,400 has been spent as at March 31, 2024.
Aptamer-based rapid test	Intermediate stage of development.	Validation of efficacy of disease detection platform for a broad range of aptamer-based disease detection.	McMaster University	Continued research and development at an estimated cost of $2,500,000.	Approximately $2,089,000 has been spent as at March 31, 2024.[3]

Initiative	R&D Timing and Stage[1]	Major Components to be Funded	Research Site	Estimated Cost as at December 24, 2021[2]	Update for the period from January 1, 2022, to March 31, 2024
GO based fuel additive	Early stage of development.	Development of graphene-based additives to liquid fuels for improved performance metrics, including burn time, burn temperature, droplet size and fuel economy to create a high-efficiency fuel additive.	UBC Okanagan	Continued research and development at an estimated cost of $325,000.	Approximately $98,900 has been spent as at March 31, 2024.
Quantum Dots	Early stage of development.	Development of GO additive nanoscale crystals.	UBC Okanagan	Continued research and development at an estimated cost of $20,000.	Approximately $5,100 has been spent as at March 31, 2024. This research project is currently designated as a lower priority project by the Company, and it does not intend to spend significant funds on this project in the near future.
3D Printing/Shielding	Early stage of development.	Adding GO and nanomaterials into polymers to improve conductivity and to develop complex shapes for E&M shielding for space and other applications to develop conductive 3D printable filaments.	UBC Okanagan	Continued research and development at an estimated cost of $60,000.	Approximately $65,600 has been spent as at March 31, 2024.
Icephobic Coatings	Intermediate stage of development.	GO and/or polymer composite icephobic coating for application in the wind turbine and drone industries to develop icephobic coating for prop-blades, and wind turbine blades.	Internally and externally	Continued research and development at an estimated cost of $150,000.	Approximately $12,400 has been spent as at March 31, 2024.

Initiative	R&D Timing and Stage[1]	Major Components to be Funded	Research Site	Estimated Cost as at December 24, 2021[2]	Update for the period from January 1, 2022, to March 31, 2024
Therapeutic and Pharmaceutical Applications	Early stage of development.	In vivo and in vitro testing of the ZenGUARD™ compound to develop a novel microbial compound for dermatological conditions.	Undetermined	Continued research and development at an estimated cost of $300,000.	Approximately $93,500 has been spent as at March 31, 2024.
Anode and Battery Technologies	Early stage of development.	Development of graphene-enhanced anode material. Mitacs Accelerate project develops new materials for all aspects of an automotive battery including anode, cathode, separator, electrolyte.	University of Waterloo	N/A	Approximately $38,700 has been spent as at March 31, 2024.
Fire Retardant Intumescent Coatings	Early stage of development.	Additives for an intumescent coating to improve the performance of regular formulations.	Internally and externally	N/A	Approximately $82,800 has been spent as at March 31, 2024.
Corrosion Protection	Intermediate stage of development	Nano pigment additives to improve the corrosion protection and mechanical performance of organic coatings.	Internally and externally	N/A	Approximately $91,200 has been spent as at March 31, 2024.
SARS-C0V-2 prophylactic/therapeutic	Early stage (pre-clinical)	An inhalation, delivered universal, aptamer-based, therapeutic and prophylactic.	Externally	N/A	Approximately $92,000 has been spent as at March 31, 2024.
Influenza prophylactic/therapeutic	Early stage	Development of an aptamer-based therapeutic/prophylactic for the treatment of influenza and H5N1 in particular.	Internally and externally	N/A	N/A

Notes:

(1) Timing is based on management's reasonable business judgement and subject to certain assumptions and risk factors that may or may not be foreseeable to the Company. See "*Forward-Looking Statements*" and "*Risk Factors*". Management currently believes that products that are in the advanced stage of development are no more than one year from being marketable, intermediate stage of development are approximately 1-2 years from being marketable, and products that are in the early stage of development are approximately 3-5 years from being marketable.

(2) Estimated cost as at December 24, 2021, the date of the short form prospectus filed by the Company.
(3) Previous disclosure overstated amounts spent by $280,000 as a supplier credit was issued and not taken into consideration in summarizing the spend to date.

Intellectual Property ("IP") Protection Activities

The Company's intellectual property protection activities during the financial year ended March 31, 2024, are summarized below:

The Company has filed patent applications for ZenGUARD™ in 8 countries including the United States, Canada, Europe, and India.

The Company has filed patent applications for Graphene Oxide-Cationic Silver (GO-Ag+) Nanocomposites and Their Use as a Broad-Spectrum Antimicrobial Agent in Canada and the United States. The patent was issued by the Canadian Intellectual Property Office on May 21, 2024.

Aptamer-Based Technology

Pursuant to a license agreement dated June 11, 2021, as amended June 23, 2023, McMaster University has granted to the Company, for a twenty-year term, a worldwide exclusive royalty-bearing license to use and practice all aptamer and DNAzyme uses, including, but not limited to, diagnostics, therapeutics, and as neutralization agents, including, but not limited to SARS-CoV-2. On October 5, 2023, the Company announced the launch of a wholly owned subsidiary that owns the exclusive, global licensing rights for all aptamer-based technology from the collaboration with McMaster University. The technology was developed by a team of researchers under the guidance of Drs. Yingfu Li, John Brennan and Leyla Soleymani, who have expertise in biosensing technologies and applications as point of care diagnostics. This patent-pending technology was validated with clinical samples from patients recruited under the supervision of two clinicians, Drs. Deborah Yamamura and Bruno Salena, who also work at McMaster University. The project was funded by the Canadian Institutes of Health Research. This technology has shown to be accurate (similar to current PCR tests), is saliva-based, affordable and scalable, and provides results in under 10 minutes. A license fee of $100,000, comprised of $50,000 cash and $50,000 in common shares of the Company (19,157 common shares at $2.61 per share) was paid to McMaster University as consideration. Although this technology was initially being developed specifically for COVID-19, this technology platform is designed to be able to detect other diseases by changing the aptamer to match new diseases.

On May 19, 2022, the Company announced that McMaster received two Natural Sciences and Engineering Research Council ("NSERC") grants related to the aptamer-based rapid detection technology; the Alliance Missions Grant in the amount of $1,000,000, and an Idea to Innovation (I2I) Grant in the amount of $350,000, of which the Company will make a $140,000 contribution. The Company intends to continue working with Dr. Yingfu Li and the research team at McMaster through in-kind contributions, using these grants towards commercializing the rapid diagnostic platform. The grants will be used to advance commercialization efforts by improving the performance of aptamers, optimizing chip synthesis, and initiating tests for additional pathogens that can be incorporated into its pathogen detection platform. The Company currently expects the cost to reach commercialization to be approximately $2,500,000, which includes enhancements and further development of the technology. StarFish Product Engineering Inc. is to conduct product strategy alignment, usability analysis, device and architecture development, proof of concept and prototyping, and program development.

On June 1, 2022, the Company announced that it had retained Halteres Associates ("Halteres"), a consultancy focused on global health, diagnostics, and point-of-care testing, to assist with the commercialization of the aptamer-based rapid detection technology. Market research from the Halteres group will be used to identify the most commercially important pathogens for detection, which will guide the aptamer development program. Halteres evaluated several commercialization opportunities for the aptamer technology, including human diagnostics, agriculture, wastewater, veterinary, and other potential uses in healthcare and the Company is continuing to review those opportunities.

To bring the product to market, the Company will be required to obtain authorization from Health Canada under an interim order, or to obtain a Class IV Medical Device Active License ("MDAL"). The process for obtaining an MDAL involves completing certain testing requirements and demonstrating that the product is (i) safe, (ii) effective, and (iii) fit for purpose. Assuming that process is completed, the Company would then start preparing a product technical file, and then seek to complete a Health Canada Class IV application.

On July 20, 2023, the Company announced that the aptamer technology platform was successfully tested as a potential prophylactic or therapeutic for SARS-CoV-2 in pre-clinical animal models. In repeat trials, the aptamers developed by Dr. Yingfu Li demonstrated similar efficacy against SARS-CoV-2 when benchmarked against a commercial monoclonal antibody. The Company further announced the amendment of its license agreement with McMaster University dated June 11, 2021, to broaden the scope of the worldwide exclusive license to apply to all aptamer and DNAzyme uses, including, but not limited to, diagnostics, therapeutics, and as neutralization agents, and not limited to SARS-CoV-2.

On July 27, 2023, the Company announced a new aptamer technology platform with McMaster University that significantly increases the binding affinity of aptamers. The increased binding affinity enhances the limits of detection for aptamer-based diagnostics and could lead to the successful adaptation of these same aptamers for new therapeutic and prophylactic treatments. Provisional patent applications were filed with the United States Patent and Trademark Office which have since resulted in the filing of two international patent applications filed with the World Intellectual Property Office as of September 30, 2023.

On October 10, 2023, the Company announced further pre-clinical testing results of the aptamer-based platform technology by the Dr. Matthew Miller Lab. Further preclinical testing was completed supporting the aptamer as a lead therapeutic target. An in vivo preclinical longevity of protection study was conducted to assess the safety and efficacy of the aptamer-based treatment over a period of 24 hours and demonstrated that the aptamer provided 24 hours of neutralizing protection against SARS-CoV-2. A subsequent study was conducted to determine the minimal effective dose of the aptamer required to protect against a lethal challenge of SARS-CoV-2.

On November 15, 2023, the Company announced the development of a significant upgrade to its aptamer platform improving the binding affinity of the universal COVID-19 aptamer from 300 to over 500 times, compared to the base aptamer. The improved platform also solved key challenges for manufacturing and these High-Binding Affinity ("HBA") aptamers are now produced with approximately a 95% yield. The Company estimates that an additional $1,000,000 will be required to complete the pre-clinical program for the SARS-CoV-2 therapeutic and enter clinical trials.

On November 29, 2023, the Company announced the successful testing of its COVID-19 HBA aptamer against the Omicron XBB 1.5 variant (Omicron) by the Miller Lab at McMaster University in the latest pre-clinical study. The performance of the COVID-19 HBA aptamer was comparable to the performance of monoclonal antibodies, according to the Miller Lab, as it provided clinical protection against infection with the Omicron XBB 1.5 variant. The Company will now begin to explore partnership opportunities in the pharmaceutical space as its aptamer platform may offer a fast, economical, and novel approach to the development of new therapeutics for clinically relevant biological markers.

On December 13, 2023, the Company announced the launch of Triera Biosciences Ltd. ("Triera") as a wholly owned subsidiary for its aptamer platform technology. Triera now owns the exclusive, global licensing rights for all aptamer-based technologies from the collaboration with McMaster University.

On January 30, 2024, the Company announced the positive therapeutic results achieved by Triera Biosciences for C19HBA aptamer as a potential therapeutic. In the most recent trial completed in January 2024 by the Miller lab at McMaster University, C19HBA was tested for its therapeutic potential. The treatment that featured C19HBA demonstrated improved therapeutic benefit over no treatment of the LMA therapeutic. The full results of this preclinical investigation are pending publication in a peer reviewed journal.

On March 25, 2024, the Company announced that Triera completed testing demonstrating that its C19HBA SARS-CoV-2 universal aptamer built on the proprietary high-binding affinity aptamer platform has shown a promising safety and toxicity profile in preclinical testing.

On May 6, 2024, the Company announced that Triera has prioritized the development of a prophylaxis and therapeutic for highly pathogenic avian influenza. The mechanism of neutralizing the H5N1 virus is comparable to the mechanism used by C19HBA against the SARS-CoV-2 virus. More specifically, the aptamer is believed to bind to and neutralize multiple subtypes of the HA surface protein (e.g., H1, H2, H5, etc.), preventing the virus from entering healthy cells and spreading infection.

Diesel Fuel Additive

The Company is working to develop a stable graphene-based diesel fuel additive to improve combustion, increase burn rate, reduce greenhouse gas emissions and to improve fuel economy of diesel fuels. Initial testing has shown an increase in the performance of diesel fuel. The Company is working to improve on these early results through optimization work. The Company has filed a provisional patent application for its graphene-based fuel additive technology.

Primarily overseen by Dr. van der Kuur, the Company's Chief Science Officer, the Company is developing a process to functionalize GO to produce a stable dispersion in diesel fuel. The fuel additive was tested by Conestoga College in a Gunt 159 single-cylinder test engine, which yielded an improvement in fuel economy of over 10% under certain rpm.

The Company continues to work with Dr. Sina Kheirkah at the University of British Columbia-Okanagan Campus ("UBCO") to test GO-doped fuel as part of an NSERC alliance project for $110,500 cash contribution and a total budget of $311,500 over two years to continue doped fuel research. The project will focus on measuring the combustion of doped fuel in both droplet and spray combustion. The Company has spent approximately $98,900 on this research and development project.

The Company intends to continue spray combustion testing at UBCO to optimize the concentration of the additive and to assess the performance of the burn rate, fuel economy and emission of doped Jet-A and diesel fuels.

Icephobic Coating

The Company is also working to develop a new, patent-pending, carbon-based, nanotechnology-enhanced coating designed to prevent or reduce ice accretion for aviation (including drone) and wind energy applications.

Dr. van der Kuur, the Company's Chief Scientific Officer, is the primary overseer of the project, which has involved the use of dispersion technology to homogeneously mix graphene-based materials in an elastomer. The Company has also conducted testing at the National Research Council of Canada's ("NRC") Altitude Icing Wind Tunnel in Ottawa and prepared graphene-enhanced elastomer material and coated coupons for testing.

The Company disclosed on February 28, 2022, that the icephobic coatings were undergoing full flight trials on a specially equipped research aircraft under real-world ice-forming weather conditions. On March 14, 2022, the Company announced the results of three rounds of testing of its icephobic coating, including laboratory tests, real-world flights and applications related to drone operations in adverse weather. In real-world testing, the Company reported that video footage of its icephobic coating on test pieces attached to a research aircraft undergoing flight trials targeting adverse weather environments has shown positive results and demonstrated that, under significant icing conditions, the coatings provide an effective de-icing and anti-icing solution. Drone testing showed that propellers coated with the icephobic material can maintain higher thrust, when compared to a non-coated propeller, due to the shedding of ice that forms on the blades that would otherwise degrade the drone's ability to maintain stable flight. Accelerated ageing testing has been completed by exposing samples coated with icephobic elastomer to UV weathering for 1,000 hours, which approximates two years' worth of sun damage in typical Canadian weather. These samples were then tested in an icing wind tunnel under dynamic conditions and demonstrated significant retention of their icephobicity.

On August 2, 2022, the Company filed a full patent application with the World Intellectual Property Office for Nanomaterial-Enhanced Elastomer for Passive Ice Accretion Prevention. The Company disclosed this on September 19, 2022. The patent application has since been filed by the Company in Canada and Europe.

On September 19, 2022, the Company announced the successful completion of sand erosion testing at the NRC and rain erosion testing at the Anti-icing Materials International Laboratory in Quebec which demonstrated the icephobic material's durability in adverse conditions for both wind turbine and drone industries.

On May 4, 2023, the Company announced successful drone testing, where thrust was maintained under calibrated icing conditions of freezing drizzle and freezing rain in an outdoor, real-world environment. The drone with the Company's icephobic coating applied to the propeller blades hovered under the outdoor icing rig and, on all tests conducted, maintained flight until the end of the battery life of the drone. The same drone with uncoated propeller blades rapidly lost the ability to maintain flight. These tests are expected to satisfy the Transport Canada requirement for anti-icing equipment. The current regulations for civilian drone operations in Canada as per Transport Canada regulations state that no pilot shall operate a remotely piloted aircraft system when icing conditions are observed, are reported to exist or are likely to be encountered along the route of flight unless the aircraft is equipped with de-icing or anti-icing equipment and equipment designed to detect icing.

The Company is currently consulting with Transport Canada to propose the Company's passive ice accretion technology as a potential means of compliance to satisfy the requirements as well as working to find a collaborator that could provide equipment designed to detect icing.

On May 30, 2023, the Company announced a collaboration with Pattern Energy Group LP to optimize, test and validate the Company's icephobic coating for the wind turbine industry. The partnership is being supported financially by both the Natural Sciences and Engineering Research Council of Canada and PRIMA Quebec - Advanced Materials Moving Forward.

The Company continues to consider and seek partners to commercialize this technology, including drone companies and companies specializing in elastomer production. Because the NRC has been testing a variety of coatings, the Company has been able to participate in the NRC testing process thus far at no cost to the Company. However, the Company anticipates additional testing and development to cost approximately $150,000.

Fire-Retardant Additive

The Company announced on March 28, 2022, that it had filed a provisional patent with the United States Patent and Trademark Office for an innovative Graphene Oxide-Metal-Organic Framework ("GO-MOF") compound for use in fire retardant products. The provisional patent application has since been filed as an international (PCT) patent application with the World Intellectual Property Office on March 27, 2023. Management of the Company considers the manufacturing of the GO-MOF compound as relatively easily scalable and efficient, due to the patent-pending facile synthesis process. The Company believes the fire-retardant GO-MOF additive could potentially be placed in a variety of coating products, such as latex, epoxies or included in polymers. When integrated into a polymer, it could potentially create a fire-resistant plastic that could be used in electric vehicles, providing a fire-resistant non-metal casing for the batteries. Management currently expects that GO-MOF production could be achieved on the existing *Z*enGUARD™ industrial scale production facility with minimal additional capital expense.

Dr. van der Kuur, the Company's Chief Scientific Officer, is the primary overseer of the project. The Company has spent approximately $82,800 on this research and development project, and intends to conduct further testing, which it currently estimates will cost approximately $55,000. In the year ended March 31, 2024, optimizations to the formulations were performed at the Company's lab prior to a testing program with a commercial partner. Testing and optimization work remains ongoing as of March 31, 2024.

Battery Technology

The Company has been collaborating with Dr. Michael Pope at the University of Waterloo since 2017, developing battery technology to improve anode performance. One highly studied area for lithium-ion battery development is to improve the anode material. Currently, electric vehicle anodes are composed of graphite, which has a limited theoretical specific capacity of ~372 mAhg-1. Silicon has attracted significant attention as a replacement material, mainly due to its high specific capacity of 4,200 mAhg-1, but also due to its low working potential, low price and availability. However, silicon has an enormous volumetric fluctuation (greater than 300% in all dimensions) when charging and discharging. This feature is the root cause behind the issues of poor cycle lifetime, irreversible capacity loss, and destruction and reformation of the solid electrolyte interface.

Using silicon in the anode material, Dr. Pope has attempted to address these issues and has created a patent-pending graphene-wrapped silicon anode material. On February 18, 2022, the Company announced the filing of a provisional patent with the United States Patent and Trademark Office relating to a graphene-wrapped silicon anode material. Since April, Dr. Pope's team has optimized the anode material, which now has a specific capacity of over 1,000 mAh/g and retains over 80% of its capacity over 320 charge-discharge cycles. The specific capacity of this material is a significant improvement over common graphite anodes; however, the cycle life still requires improvement compared to typical electric vehicle batteries, which lose about 4% capacity over 1,000 charge-discharge cycles. The Company intends to continue to work with Dr. Pope's team to develop this technology with the goal of improving performance to meet industry requirements. The Company filed a patent application under the Patent Cooperation Treaty on May 17, 2022.

On October 28, 2022, the Company announced the commencement of a four-year, $1,600,000 research project in collaboration with Professors Mohini Sain and Ning Yan from the University of Toronto and Ford Powertrain Engineering Research and Development Centre. Funding for the project includes $1,200,000 from the Mitacs Accelerate program. The project seeks to assess novel concepts for the purpose of inventing multifunctional materials to be used in automotive battery components including anode, cathode, electrolyte, and separator. The Company will be working in tandem with University of Toronto researchers providing and testing advanced graphene materials including the Company's patent-pending anode material developed by Dr. Michael Pope. There are no material updates as at March 31, 2024, on our work with the University of Toronto.

Corrosion Protection

On February 8, 2023, the Company announced the development of ZenARMOR™, a novel corrosion protection technology based on functionalized GO, for potential use in naval and marine infrastructure, bridges, buildings, pipelines, and other industries. ZenARMOR™ could be produced in the ZenGUARD™ facility. Third-party testing on ZenARMOR™ yielded excellent corrosion resistance with no blisters or other signs of corrosion after 1,500 hours of ASTM B-117 Salt Spray Test with ZenARMOR™, and ZenARMOR™ qualified for the Innovative Solutions Canada ("ISC") Testing Stream - Military Call for Prototypes. The Company has filed an International (PCT) Patent Application on this corrosion protection technology, as well as a trademark for ZenARMOR™.

On October 4, 2023, the Company announced that it had prepared and shipped the first corrosion paint samples to the NRC for the first round of testing as part of the ISC - Testing Stream - Military Call for Proposals. NRC's Aerospace Research Centre's Aerospace Manufacturing Technologies Centre will be testing the Company's nano pigment in military-grade chromate-free paints for evaluation in its first of three rounds of testing.

Other Use-Cases for ZenGUARD™

HVAC Filtration

ZenGUARD™ is the Company's patented anti-microbial coating technology platform. The Company intends to continue exploring other applications and uses for its *Z*enGUARD™ compound, including, but not limited to, use in HVAC filters. On September 30, 2020, the Company first announced testing on ZenGUARD™ use for HVAC systems. On January 13, 2021, the Company announced that testing by a major Canadian certification company had confirmed that there was very little effect on air flow and pressure drop with a *Z*enGUARD™ treated filter compared to an untreated filter. The Company spent approximately $60,000 on testing, including preliminary testing of *Z*enGUARD™-coated HVAC filter media for pressure drop, and increased challenge bacterial filtration efficiency on uncoated and coated MERV 8 and MERV 13 HVAC filters, overseen primarily by Dr. van der Kuur, the Company's Chief Scientific Officer.

Further to the press release dated November 30, 2021, the Company announced that it has been awarded a research and development test contract through the ISC Testing Stream Call for Proposals to test ZenGUARD™-coated HVAC filters with interest from three different units within the NRC. The goal of the testing, conducted by CremCo Laboratories with assistance from the Aerospace Research Centre, a department of the NRC was to demonstrate: (i) a net reduction in the airborne viral and bacterial load with ZenGUARD™ coating applied to standard filters; (ii) no modifications required to existing HVAC systems to achieve (i) above; (iii) no reduction in air flow rates, which means air exchange rates in the space will be unchanged; and (iv) no reduction in the air quality as the ZenGUARD™ coating was tested to ensure it does not contribute particles into the air stream.

Phase 1 testing commenced in December 2021 after an extensive design process, calibration, and assessment of the testing rig, and involved the test rig being installed inside an aerobiology chamber to push air through HVAC filter material with test organisms to study how these live airborne organisms were reduced by the *Z*enGUARD™ coating. Testing used multiple samples with repeated tests so that each filter's performance could be compared. It was determined that all Phase 1 targets were met including sufficient reduction in live airborne test organisms, no significant shedding of the *Z*enGUARD™ coating, and air flow rates that were not impacted by the coating. On April 11, 2022, the Company announced that, after successful completion of Phase 1 testing, it will proceed to Phase 2 testing.

On December 15, 2022, the Company announced the successful completion of Phase 2 HVAC filter testing and that the preliminary report from Phase 2 testing had been received. The final report was received in January 2023, and announced on February 6, 2023. The report notes a significant reduction in live airborne test organisms with ZenGUARD™ coating applied to standard HVAC filters without modification to existing HVAC systems, with no reduction in air flow rates or increasing energy use.

The testing demonstrated a reduction in live airborne bacteriophage surrogate contamination within a modular classroom environment, simulating a real-world environment. The testing was performed at the NRC's purpose-built bioaerosol testing facility, designed, and built specifically for testing wet aerosolized droplets, which is the primary mechanism for the spread of disease in an indoor setting.

The Company has also consulted and tested with LMS Technologies ("LMS"), a United States-based air media and filter testing company providing testing services and product certification for filter manufacturers. LMS' independent testing of ZenGUARD™ coated MERV 8 filters demonstrated a significant increase in both bacterial and viral filtration efficiency in line with or better than the results from the NRC. The Company currently intends to continue to work to optimize configurations of HVAC filter materials coated with ZenGUARD™ technology at LMS to optimize its product and complete all testing and documentation required for regulatory submissions in Canada and the United States. The Company has engaged Intertek Group plc to conduct a review of regulatory requirements in other geographies of interest.

On September 6, 2023, the Company announced the results of a study comparing the viral filtration efficiency ("VFE") of ZenGUARD™-enhanced MERV 9 filters with an uncoated MERV 9 filter. The testing was performed by LMS, which specializes in the testing and certification of filter manufacturers across the world, referring to the new American Society of Heating, Refrigerating and Air-Conditioning Engineers ("ASHRAE") standards for aerosolized particles and determining the impact of dust loading on VFE and particle filtration efficiency ("PFE") as per ASHRAE 52.2 testing standards. Key findings of the study included: (i) the VFE of ZenGUARD™-enhanced filters started with a significant advantage over equivalent non-coated filters, from 23.7% to 37.7%, a 59% enhancement or a 14% net gain overall, and, the VFE performance consistently increased faster for the ZenGUARD™-enhanced filters compared to the uncoated filters (at six months equivalent dust loading, the VFE of the ZenGUARD™-enhanced filter was 85.6% compared to 55.2% for the uncoated filter, a 28.4% net gain); (ii) the pressure drop remained consistent between ZenGUARD™-enhanced and uncoated filters as dust loading increased, indicating that ZenGUARD™ does not adversely affect airflow or energy efficiency of the HVAC system; and (iii) ZenGUARD™-enhanced filters operated similarly to regular MERV 9 filters when tested for PFE, effectively removing particles across all size ranges.

On September 11, 2023, the Company announced the results of a study conducted by ParticleOne Inc., an RWDI Ventures company. The study evaluated the performance of ZenGUARD™-enhanced filter technology in comparison to a standard MERV 9 filter. The study was conducted to assess the effectiveness of filters in removing infectious particles from the air and to determine the potential return on investment ("ROI") of enhanced viral filtration from using ZenGUARD™ technology. The ParticleOne model ROI analysis indicated that the ZenGUARD™- enhanced MERV 9 filter resulted in a substantial reduction in annual absenteeism costs ($15,016.95) compared to a regular MERV 9 filter in an office space of 10,000 square feet with 75 occupants.

On December 8, 2023, the Company announced a distribution agreement with 1Click Heating and Cooling Inc. ("1Click"), a private HVAC company focused on the heat pump market, for ZenGUARD™ MERV 9 filters in various sizes and is expected to include other ZenGUARD™-enhanced MERV-rated filters in the future. This agreement will see 1Click utilize ZenGUARD™ filters for its regular customer service maintenance programs, along with making ZenGUARD™ filters available to customers from inventory held in various provinces. The Company's agreement with 1Click has an initial term of 2 years from the date of approval from the Pesticide Management Regulatory Agency and may be extended by mutual agreement of the parties.

On January 22, 2024, the Company announced the completion of a new study highlighting the potential energy, emission and cost savings for commercial buildings adopting ZenGUARD™-enhanced air filters. By using ZenGUARD™-enhanced air filters to control infectious aerosols instead of increasing the percentage of outside air to achieve a similar risk reduction, the Company estimates that a typical office space of 10,000 square feet with 75 occupants can reduce HVAC energy consumption by approximately 62%.

On May 7, 2024, the Company announced that it completed a case study based on the City of Toronto highlighting the economic and environmental benefits related to using MERV 9A filters compared to using MERV 13 filters. The study quantifies cost savings and reductions in carbon emission and waste assuming the City of Toronto is currently using MERV 13 filters in all its buildings and switches to MERV 9A filters. The study found potential savings of over $40 million stemming from significantly reduced labour costs due to filters being changed every six months rather than every three months, reduced expenditures on air filters from replacing filters every six months rather than every three months, reduced energy requirements and costs due to improved air flow and lower waste disposal costs from fewer filters being used.

ZenGUARD™-enhanced air filters are currently being assessed by the Health Canada Pest Management Regulatory Agency for registration under the *Pest Control Products Act*. The Company will provide an update as soon as available. The Company is also currently working with consultants to file an application for ZenGUARD™-enhanced air filters with the United States Environmental Protection Agency.

The Company has spent approximately $466,400 on this project during the period January 1, 2022, to March 31, 2024.

Therapeutic and Pharmaceutical Applications

The Company was exploring the potential to use the ZenGUARD™ compound in therapeutic or pharmaceutical applications. In testing by Dr. Tony Mazzulli from Mount Sinai Hospital in Toronto, the active ingredient in *Z*enGUARD™ showed low minimum inhibitory concentrations against several bacteria. On February 4, 2021, and March 2, 2021, the Company announced results of the Phase 2 cytotoxicity testing by Nucro Technics testing laboratory and included cytotoxicity testing that noted no adverse effects after seven days of repeated dosing. MRSA-related skin infection testing was performed on animals with inconclusive results. Cytotoxicity studies with Nucro-Technics and positive anecdotal results of various human skin infections including acne, warts and toenail fungal infections showed no adverse effects recorded during these anecdotal trials. These human anecdotal cases form part of the Company's patent application filed on December 21, 2021, under the Patent Cooperation Treaty entitled "*Graphene-Silver Nanocomposites and Uses for Same as a Broad-Spectrum Antimicrobial* " which was published on June 30, 2022. The patent has been issued in Canada.

The Company has spent approximately $93,500 on this project during the period January 1, 2022, to March 31, 2024.

Other

The Company is also working with a number of research institutions developing processes to synthesize graphene, GO and graphene quantum dots, along with other possible applications for graphene-based materials. Potential markets for graphene-based materials include composites (e.g., concrete, rubber, plastic polymers, and ceramics), sensors, water purification and filtration, coatings and solid-state lubricants, silicon-graphene and graphene aerogel anode material for next-generation batteries along with aerospace applications.

The Company has other research projects commenced or contemplated including applications in aluminum alloys, corrosion protection, battery technology, conductive polymers, and others. The Company will report on these if and when it is appropriate to do so.

Albany Graphite Project

The Company owns 100% of the issued and outstanding shares of AGC which owns the Albany Graphite Project in Northern Ontario, Canada. The unusual nature of the formation of graphite in the Albany Graphite Project and its potential chemical and economic significance motivated additional exploration drilling from 2011 to 2013. The current claims require a total of $195,600 worth of assessment work per year to keep them in good standing and the Company has a total credit of approximately $7.1M in available exploration reserves. On October 18, 2021, the TSXV changed the Company's classification from a "mining issuer" to an "industrial, technology, or life sciences issuer." The change of classification was approved by the shareholders of the Company on September 27, 2021, in accordance with the rules and policies of the TSXV.

On February 16, 2023, the Company and 1329307 BC Ltd. announced a non-binding letter of intent dated February 13, 2023, pursuant to which the parties agreed to negotiate a transaction involving the transfer of the Albany Graphite Project in Northern Ontario to an entity to be listed on a recognized Canadian stock exchange. AGC was incorporated for this purpose as a wholly owned subsidiary of the Company on February 23, 2023.

On May 19, 2023, the Company transferred to AGC the ownership of the Albany Graphite Project, including the mining claims and all related chattel, drill core, and applicable contracts, in consideration for the issuance by AGC to the Company of 59,999,900 common shares of AGC. The Company announced the appointments of Greg Fenton as Chair of the board of AGC, Brian Bosse as Chief Executive Officer of AGC, and Peter Wood as Vice-President, Development of AGC.

During the three-month period ended March 31, 2024, approximately $33,000 (2023 - $Nil) and approximately $272,000 during the financial year ended March 31, 2024 (2023 - $Nil) was spent by AGC on the Albany Graphite Project including professional fees on updating the NI 43-101 report and geologist wages. These costs have been capitalized in accordance with the Company's accounting policy on Exploration and Evaluation Assets.

On July 26, 2023, the Company published an updated mineral resource estimate for the Albany Graphite Project, prepared by SLR Consulting (Canada) Ltd. ("SLR"). The updated mineral resource estimate is set out in the report entitled "Technical Report on the Albany Graphite Project, Ontario, Canada - Report for NI 43-101" dated July 31, 2023 (effective date of April 30, 2023), prepared by SLR, and filed on SEDAR+ on September 1, 2023.

The Company had previously announced a non-brokered private placement financing, through the issuance of subscription receipts of AGC at a price of $1.00 per subscription receipt (the "AGC Financing") in connection with a proposed listing on a recognized Canadian stock exchange of the common shares of AGC. On November 21, 2023, the Company announced that due to the deterioration of the public market for battery metals and graphite, management of the Company and AGC determined to await improved market conditions before proceeding with the AGC Financing and AGC's listing on a recognized Canadian stock exchange. Any and all funds that were received from prospective investors and were held in trust pending closing of the AGC Financing were returned to such prospective investors.

Furthermore, the Company announced that Brian Bosse ceased to act as Chief Executive Officer of AGC and Greg Fenton was appointed as the interim Chief Executive Officer in his stead.

More recently, AGC is investigating if Albany graphite has the required characteristics and performance to develop an ideal anode material for the electric vehicle market. Test work has initially focused on the purification of Albany flotation concentrate to produce a consistent high-purity (>99.95%) material and ongoing. Future test work will involve the production of an anode material that will be used in lithium-ion batteries for subsequent cycle testing to characterize their performance.

Business Objectives and Milestones

As at March 31, 2024, the Company had working capital of $4,429,949 (2023-$15,533,191) defined as current assets less current liabilities.

On January 4, 2022, the Company completed a bought-deal prospectus offering raising gross proceeds of $23,005,060 and a concurrent non-brokered private placement raising additional gross proceeds of $10,009,022, for total gross proceeds of $33,014,082. The Company disclosed in its final prospectus dated December 23, 2021 (the "Prospectus") that it expected the net proceeds of the financing to be (excluding any exercise of the overallotment option) $28,813,158 after deducting the payment of the commission to the underwriters.

The following table sets out the uses that the Company planned for such proceeds over the twenty-four-month period following the financing, as disclosed in the Prospectus, and an update on the actual expenditures using such funds:

Use of Available Funds	Expected Amount as at date of Prospectus ($)	Approximate Actual Amount spent as at March 31, 2024 ($)
General and administrative costs	4,000,000	11,128,000
Acquisition of GO supply [(1)]	1,300,000	2,117,000
Construction of *Z*enGUARD™ production facility [(2)]	1,500,000	2,791,000
Purchase of coating equipment [(2)]	1,900,000	2,000,000
Construction of GO production plant [(3)]	7,500,000	Nil
Potential strategic acquisition	1,500,000	Nil
Development of rapid detection technology [(4)]	2,500,000	2,248,000

Building inventory of rapid detection tests	3,000,000	Nil
Research and development [(5)]	2,000,000	3,609,000
Purchase of research and development facility [(5)]	2,000,000	2,065,000
Estimated offering costs	300,000	292,000
Unallocated funds added to working capital	1,313,158	2,563,158
Total	**28,813,158**	**28,813,158**

Notes:

(1) See "*Current Business - ZenGUARD™ Anti-Microbial Compound*".

(2) See "*Current Business - Construction of ZenGUARD™ Industrial Scale Production and Coating Facility* ".

(3) See "*Current Business - Proposed Construction of Graphene Oxide Production Facility* ".

(4) See "Business in Development - Aptamer-Based Rapid Detection Technology".

(5) See "Current Business - ZenGUARD™ Research and Development".

From January 4, 2022, to March 31, 2024, the Company spent approximately $26,250,000 of the $28,813,158 that was expected to be available. General and administrative costs have been proportionally higher in the approximately twenty-one months since the Prospectus, as the Company hired additional staff including regulatory staff, marketing staff and additional management personnel. Recent general and administrative costs include certain non-recurring expenses such as costs related to the Trebor receivership, costs relating to obtaining a Nasdaq listing and severance payments. The Company expended more than expected for the acquisition of GO, as its supplier experienced delays as a result of global shipping issues, and the Company decided to mitigate the supply chain risk and ordered more than originally planned of GO. Under the purchase terms of physical receipt and quality control, the Company recognizes inventory for the GO acquisition when inventory is shipped, and title passes and/or when credit has been pulled from the Company's prepaid account.

Overall Performance

During the financial year ended March 31, 2024, the Company was mainly involved in scaling the production process of the *Z*enGUARD™ antimicrobial coating formulation along with completing the engineering work for the industrial production facility. The Company also continued its graphene R&D activities which led to two Patent Cooperation Treaty patent filings and one licensed-in provisional patent application during this year. Overall, during the financial year ended March 31, 2024, the Company had cash expenditures of approximately $6,836,000 consisting mainly of mortgage payments, research and development costs, professional and consulting fees and general operating expenses.

Results of Operations

Net loss

The Company recorded a net loss of $2,457,639 with basic and diluted net loss per share of $0.03 for the three-month period ended March 31, 2024 (2023 - loss of $2,731,107 and $0.02). The loss for the financial year ended March 31, 2024, was $11,703,990 with basic and diluted loss per share of $0.12 (2023 - loss of $14,414,266 and $0.14).

Revenue

Revenue generated from operations for the three-month period ended March 31, 2024, was $5,757 (2023 - $9,550). Revenue recognized in the three-month period ended March 31, 2024, was for the sale of *Z*enGUARD™ coated masks. Revenue generated from operations for the financial year ended March 31, 2024, was $29,816 (2023 - $72,855). Revenue recognized in the financial year ended March 31, 2024, and 2023, was for the sale of *Z*enGUARD™ coated masks.

Expenses

Depreciation and amortization expense was $160,602 for the three-month period ended March 31, 2024 (2023 - $127,251) and $613,714 for the financial year ended March 31, 2024 (2023 - $539,693). Amortization is taken on the capitalized cost of the Company's building, computers, equipment, leasehold improvements, and right-of-use assets.

Bad debts expense was $Nil for the three-month period ended March 31, 2024 (2023 - $Nil) and $Nil for the financial year ended March 31, 2024 (2023 - $134,482). In September and December 2022, the collectability of trade receivables was questionable, and an allowance was provided for.

Consulting fees were $199,142 for the three-month period ended March 31, 2024 (2023 - $124,451) and $629,655 for the financial year ended March 31, 2024 (2023 - $1,036,268). The most significant component of the consulting costs incurred was for consultants working on regulatory and government matters.

Directors' fees expense was $63,125 for the three-month period ended March 31, 2024 (2023 - $37,500) and $173,125 for the financial year ended March 31, 2024 (2023 - $140,625). This expense relates to compensation paid to the Company's independent Directors.

Insurance expense was $100,185 for the three-month period ended March 31, 2024 (2023 - $99,589) and $396,657 for the financial year ended March 31, 2024 (2023 - $358,415). These expenses relate to the costs required to adequately insure the Company's assets, operations and directors and officers. Insurance expense increased year-over-year as enhanced policies were taken for additional coverages including enhanced director and officers' coverage and product liability policies.

Investor relations and promotion expenses were $50,293 for the three-month period ended March 31,2024 (2023 - $73,165) and $199,131 for the financial year ended March 31, 2024 (2023 - $307,921). These expenses consist primarily of the costs of consultants, marketing trips and other costs such as attending industry conferences. Year-over-year the Company reduced their spend on consultants and performed the required work internally.

Listing and filing fees were $23,534 for the three-month period ended March 31, 2024 (2032 - $50) and $180,495 for the financial year March 31, 2024 (2023 - $147,248). These expenses consist primarily of the costs of maintaining registered status on various stock listing exchanges.

Office expenses were $33,584 for the three-month period ended March 31, 2024 (2023 - $58,968) and $142,822 for the financial year ended March 31, 2024 (2023 - $182,039). Expenses have levelled off as the hiring of new staff has declined during fiscal 2023.

Professional fees were $204,250 for the three-month period ended March 31, 2024 (2023 - $559,157) and $1,380,611 for the financial year ended March 31, 2024 (2023 - $1,904,672). These fees consist primarily of the amounts charged for services provided by the Company's lawyers, auditors, and accountants.

Rent expense was $72,916 for the three-month period ended March 31, 2024 (2023 - $136,601) and $359,651 for the financial year ended March 31, 2024 (2023 - $362,371). Additional storage was required in October 2022 to store the newly acquired GO shipments and manufactured masks at an additional quarterly cost of approximately $80,000. During May 2023, the GO storage was consolidated and moved to a more economical storage facility resulting in savings of approximately $40,000 per quarter.

Research and development expenses were $367,477 for the three-month period ended March 31, 2024 (2023 - $456,2722) and $1,775,495 for the financial year ended March 31, 2024 (2023 - $1,646,066). These expenses mainly related to continued research and development activities regarding graphene use and development. Additional costs were incurred year-to-date on testing for the PMRA submission for *Z*enGUARD™-coated HVAC filter media and work towards the FDA submission for *Z*enGUARD™-coated masks.

Salaries and benefits expense was $814,566 for the three-month period ended March 31, 2024 (2023 - $1,010,747) and $3,819,843 for the financial year ended March 31, 2024 (2023 - $3,598,241). These expenses relate to staffing costs required to operate the business. Currently, there are 25 employees on payroll versus 29 during the same period of the prior year. Existing staff, not including key-management personnel, were given cost of living increases in August 2023 of approximately 3%. In November 2023 the Company dismissed 6 employees as part of the restructuring of the Quality and Regulatory and Sales teams. This resulted in severance payments of approximately $159,000 with an annual savings of approximately $644,000.

Share-based compensation costs were $200,977 for the three-month period ended March 31, 2024 (2023 - $219,525) and $1,786,453 for the financial year ended March 31, 2024 (2023 - $3,203,407). Share-based compensation was based on the fair value of the options described in Note 11(c) of the audited consolidated financial statements as calculated using the Black-Scholes option pricing model. Share-based compensation is recognized over the vesting period of the underlying options. In November 2023, 400,000 options were issued to a Director and an Officer resulting in additional share-based compensation expense in Q3 2024. 1,100,000 options were issued to Directors and Officers in Q4 2022 which resulted in additional share-based compensation expense in Q1 and Q2 2023. These options were fully vested by March 31, 2023, and therefore, no related expense in fiscal 2024.

Supplies and materials expense was $130,884 for the three-month period ended March 31, 2024 (2023 - $26,235) and $331,080 for the financial year ended March 31, 2024 (2023 - $853,336). These expenses mainly related to supplies and materials purchased to continue graphene development and include the cost of inventories recognized as an expense of $44,474 (2023 - $50,067). Operations were ramping up and various supplies were being acquired to assist with the R&D activities and operations in fiscal 2023, incurring more costs.

Travel expense was $35,008 for the three-month period ended March 31, 2024 (2023 - $57,047) and $137,833 for the financial year ended March 31, 2024 (2023 - $213,540). This decrease reflects less travel by staff compared to the same period a year prior.

Loss on disposal of equipment was $7,189 for the three-month period ended March 31, 2024 (2023 $Nil) and for the financial year ended March 31, 2024 (2023- $9,624) was $156,531. During September 2023 a piece of lab equipment was deemed obsolete, and a provision was recorded to write the asset down to its recoverable value of $10,000. Subsequently the equipment was sold in October 2023 for $10,000.

Other expenses excluding office and travel expenses were $77,587 for the three-month period ended March 31, 2024 (2023 - $83,331) and $504,680 for the financial year ended March 31, 2024 (2023 - $416,289). The following table details the material components of the Company's other expenses for the financial years ended March 31, 2024 and 2023.

	Financial Year Ended March 31, 2024	**Financial Year Ended March 31, 2023**
Automotive	22,540	30,339
Bank fees	4,698	4,833
Dues and subscriptions	49,590	55,799
Freight and delivery	176,423	60,446
Meals and entertainment	49,591	60,683
Other expenses	41,826	41,096
Property taxes	31,862	31,666
Repairs and maintenance	83,795	76,529
Telephone	23,507	19,679
Utilities	20,848	35,039
Total	**504,680**	**416,289**

The increase in freight and delivery was a result of repositioning and consolidating of inventory of GO in storage to a more economical leased facility. These additional costs will be recouped with reduced rental savings. Additional freight and delivery costs were incurred for the movement of international masks from Turkey to India.

The increase in repairs and maintenance is consistent with the acquisition in March 2022 of the Corporate Crt. Location and the completion of the York Rd. manufacturing facility in June 2022.

Interest income for the three-month period ended March 31, 2024, was $59,675 (2023 - $204,185). Interest for the financial year ended March 31, 2024, was $405,483 (2023 - $510,257).

The Company continues to earn interest on cashable guaranteed investment certificates. Interest rates have increased since fiscal 2023; however, $3,000,000 was held in cashable guaranteed investment certificates at March 31, 2024 compared to $10,000,000 held at March 31, 2023 resulting in less interest income during the quarter and year ended March 31, 2024.

The Company completed a Scientific and Research Development ("SRED") audit with the Canada Revenue Agency for their fiscal 2021 claim and was reassessed an Ontario Income Tax credit recoverable of $107,036 including interest of $7,252, which was paid out in January 2024.

The Company recognized $75,000 in government grants for the three-month period ended March 31, 2024 (2023-$158,940). Government grants for the financial year ended March 31, 2024 was $418,213 (2023-$179,498). The Company was successful in securing funding in the financial year ended March 31, 2024, of $46,322 (2023 - $151,440) with the National Research council for the Industrial Research Assistance Program for an HVAC project which included funding to offset both labour and third-party testing costs. The Company has also secured funding for ZENArmor Pigment Synthesis, Substrate Preparation and Coating from Public Works and Government Services Canada in the financial year ended March 31, 2024, of $304,391(2023 - $Nil). Lastly the Company secured funding from Downsview Aerospace Innovation & Research Centre ("DAIR") Green Fund for passive icephobic coating testing in the financial year ended March 31, 2024 of $67,500 (2023 - $20,558).

Cash Flows

During the financial year ended March 31, 2024, cash decreased overall by $6,835,897 (2023 -$16,317,683). Operating activities resulted in a decrease in cash of $8,051,589 (2023 -$12,956,870) due to continued spending on consulting and professional fees, research and development, salaries and benefits and other expenses. Investing activities resulted in an increase in cash of $1,881,162 (2023 - decrease of $2,306,576) with the partial repayment of $2.5M received against the loan receivable in June 2023. Prior period saw a use of cash of approximately $2.3M mainly for property and equipment purchases. Financing activities resulted in a decrease in cash of $665,470 (2023 -$1,054,237) due to repayments of long-term debt, the lease liability and shares repurchased for cancellation, partially offset by proceeds received from the exercise of stock options.

On October 1, 2023, the long-term debit, as disclosed in Note 11 to the Company's notes to the consolidated financial statements for the financial year ended March 31, 2024, was amended with payments moving to interest only for the next six months ending March 1, 2024. As a result, the loan repayment was extended by four months with a new maturity date of October 1, 2025.

Mineral Exploration and Development

Albany Graphite Project

The claims comprising the Albany Graphite Project are presently held in good standing by AGC and there are sufficient assessment credits available to keep all the 4F claims in good standing for approximately 30 years. There are no environmental liability issues related to any previous exploration work on the claims. Neither the Company nor AGC have received from any government authority any communication or notice concerning any actual or alleged breach of any environmental laws, regulations, policies or permits. The claims are located in the traditional territory of the CLFN. In July 2011, the Company and CLFN signed an exploration agreement (assigned to AGC as part of the property transfer of the Albany Graphite Project) for a mutually beneficial and co-operative relationship regarding exploration and pre-feasibility activities on the Albany Graphite Project. Under this agreement, the Company committed to establishing a joint implementation committee and conveying preferential opportunities for employment and contracting as well as contributing to a social fund for the benefit of CLFN children, youth and elders. In 2018, the parties signed a new Memorandum of Understanding under which a project partnership structure will be created in support of the development of the Albany Graphite Project. Subsequent to 2015, most of the Albany Graphite Project work has been focused on metallurgical process development, environmental baseline studies, market studies, and research and development to determine the most attractive market opportunities for the Albany Graphite Project.

As described above under "*Company Overview and Discussion of Operations - Albany Graphite Project* ", the Company transferred the Albany Graphite Project to AGC with the purpose of moving the Albany Graphite Project forward with a separate corporate entity and management team dedicated exclusively to its development. The Company is not dependent on materials extracted from the Albany Graphite Project for its current business plans.

Administration and Capitalization

On April 13, 2023, a total of 50,000 stock options were exercised at $1.76 per option resulting in proceeds of $88,000 to the Company.

On April 14, 2023, the Company announced the grant to directors, officers, and employees of the Company of stock options exercisable for an aggregate of 600,000 common shares of the Company. The options are exercisable at a price of $2.12 per common share for periods of three to five years and subject to certain vesting criteria.

On May 24, 2023, the Company announced that, subject to regulatory approval, it would conduct a normal course issuer bid for up to 4,979,349 common shares over a period of one year, being approximately 5% of the Company's issued and outstanding common shares, with up to 1,991,739 common shares of the Company being purchasable over any 30-day period, being 2% of the Company's issued and outstanding common shares. Regulatory approval was received and subsequently the Company has repurchased 304,700 as of the date of this report.

On June 1, 2023, the Company announced the appointment of Ms. Lisa Sim to the Board. 250,000 stock options were issued to Ms. Sim. The stock options have an exercise price of $2.24 per common share. The options granted to Ms. Sim expire on June 1, 2028, and have a vesting period as follows: 1/3 at June 1, 2023; 1/3 at December 1, 2023; 1/3 at June 1, 2024.

On July 2, 2023, 1,250,000 stock options were exercised. Of these options, 1,200,000 were exercised using a "cashless" exercise method whereby 289,854 fewer shares were issued than options exercised as compensation for the $600,000 in cash that traditionally would have been received by the Company upon exercise. The remaining 50,000 options were exercised at $0.50 per option resulting in cash proceeds of $25,000 to the Company.

On August 12, 2023, 600,000 stock options were exercised using a "cashless" exercise method whereby 158,209 fewer shares were issued than options exercised as compensation for the $318,000 in cash that traditionally would have been received by the Company upon exercise.

On November 13, 2023, 100,000 stock options were exercised using a "cashless" exercise method whereby 24,242 fewer shares were issued than options exercised as compensation for the $40,000 in cash that traditionally would have been received by the Company upon exercise.

On November 15, 2023, the Company announced the appointment of Mr. John Snisarenko to the Board.

On November 30, 2023, the Company announced the grant of 400,000 stock options to a director and an officer of the Company exercisable at a price of $1.75 per common share for a period of three years for the officer and five years for the director. The options have a vesting period as follows: 1/3 on the date of grant; 1/3 six months after the date of grant; and 1/3 12 months after the date of grant.

On December 14, 2023, the Company issued 195,000 stock options to directors and officers in its newly created Triera Biosciences Ltd. subsidiary exercisable at a price of $5.00 per common share for a period of three years for the officers and five years for the directors. The options have a vesting period as follows: 1/3 on the date of grant; 1/3 six months after the date of grant; and 1/3 12 months after the date of grant. In February 2024, the Company repriced the Triera stock options, reducing the exercise price from $5.00 per share to $1.00 per share. All other terms and conditions of these options remained unchanged.

On January 12, 2024, Dr. Francis Dube resigned as Chairman of the Board of the Company in order to appoint an independent director, Mr. Eric Wallman as the Chairman of the Board as per best practices in governance. Dr. Dube will continue to serve the Company as a director, and as the Chief Operating Officer of the Company.

Effective May 1, 2024, Dr. Dube resigned as Chief Operating Officer of the Company.

On May 3, 2024, Brian Bosse resigned as a director of the Company and was appointed to the Company's advisory board. The Company granted Mr. Bosse stock options to purchase 40,000 common shares of the Company at a price of $1.42 per common share for a term of three years.

Subsequent Event

On May 3, 2024, the Company announced the resignation of Dr. Francis Dube as Chief Operating Officer effective May 1, 2024 and the resignation of Brian Bosse as a director effective May 3, 2024, and the subsequent appointment of Brian Bosse to the Company's advisory board. In connection with Mr. Bosse's appointment to the Company's advisory committee, the Company granted Mr. Bosse stock options to purchase 40,000 common shares of the Company at a price of $1.42 per common share, which shall vest on May 3, 2025, and expire on May 3, 2027.

On May 21, 2024, a total of 250,000 stock options were exercised at $0.40 per option resulting in proceeds of $100,000 to the Company.

On June 14, 2024, 300,000 stock options were exercised using a "cashless" exercise method whereby 80,000 fewer shares were issued than options exercised as compensation for the $120,000 in cash that traditionally would have been received by the Company upon exercise.

On June 20, 2024, 1,935,000 stock options were issued to a number of directors, officers and employees of the Company. The stock options have an exercise price of $1.52 per common share. The options granted to the directors and officers, will vest one third on the date of grant, one third on the first anniversary of the grant, and one third on the second anniversary of the grant. For employees, the options will vest one quarter on the date of grant, and one quarter on each anniversary thereafter.

Selected Annual Information

The following table sets forth selected financial information with respect to the Company as at and for the end of the three most recently completed financial years of the Company. The selected financial information has been derived from the audited consolidated financial statements of the Company for the financial years indicated. The following should be read in conjunction with the said consolidated financial statements related notes thereto.

	Year ended March 31,	**Year ended March 31,**	**Year ended March 31,**
	2024	**2023**	**2022 (Restated)[(1)]**
Total Revenue	$29,816	$72,855	$347,183
Total Other Income	$961,343	$689,755	604,329
Net Loss	$(11,703,990)	$(14,414,266)	$(31,694,048)
# Shares Outstanding	100,819,577	99,533,982	99,248,058
Net Loss per Share (Basic)	$(0.12)	$(0.14)	$(0.34)
Net Loss per Share (Diluted)	$(0.12)	$(0.14)	$(0.34)
Total Assets	$22,585,056	$33,288,876	$44,984,520
Total non-current liabilities lliabilitiliabilities	$592,841	$484,856	$1,130,625
Total Equity	$20,173,211	$30,384,202	$41,549,061

Summary of Quarterly Results

The following table sets out selected quarterly information for the eight most recently completed quarters, for which consolidated financial statements are prepared.

	Mar. 31, 2024 ($)	Dec. 31, 2023 ($)	Sep. 30, 2023 ($)	Jun. 30, 2023 ($)	Mar. 31, 2023 ($)	Dec. 31, 2022 restated ($)	Sep. 30, 2022 restated ($)	Jun. 30, 2022 restated ($)
Revenue	5,757	12,418	11,641	-nil	nil	15,200	nil	33,105
Other income	124,601	306,156	288,509	242,077	351,486	170,678	97,878	58,074
Loss from discontinued operations	-	-	-	-	-	-	-	-
Net Loss	2,457,639	2,685,060	3,405,251	3,156,040	2,731,107	3,238,902	3,410,055	5,034,202
Net Loss per Share (basic and diluted)	0.03	0.03	0.03	0.03	0.02	0.03	0.04	0.05

Discussion of Interim Period Results

The Company continued to generate limited revenue during the eight most recently completed quarters.
The quarterly net loss figures have been trending lower since the quarter ended March 31, 2022, mainly as a result of reduced share-based compensation expense. However, the quarter ended September 30, 2023, included some one time costs as additional freight was incurred to reposition and consolidate inventory of GO in storage to a more economical leased facility (costing approximately $100,000) and a decision to not move forward with some research and development programs, resulting in payments to consultants of approximately $300,000.

Liquidity and Capital Resources

As at March 31, 2024, the Company had working capital of $4,429,949 (March 31, 2023 - $15,533,191) and cash and cash equivalents of $3,521,420 (2023 - $10,357,317). As at March 31, 2024, the Company had not yet achieved profitable operations and had an accumulated deficit of $76,621,563 and expects to incur further losses in the development of its business. These events or conditions indicate that a material uncertainty exists that casts substantial doubt on the Company's ability to continue as a going concern. The ability to continue as a going concern is dependent on obtaining continued financial support, obtaining financing, or generating profitable operations in the future. Management is committed to raising additional capital to meet its obligations; however, additional debt and/or equity financing is subject to the global financial markets and economic conditions. Additional financing may not be available on terms favourable to the Company or at all. If the Company does not receive future financing, it may not be possible for the Company to advance its business plans.

On January 4, 2022, the Company completed a financing for aggregate gross proceeds of $33,014,082 but may require additional financing in the future. The availability of equity capital, and the price at which additional equity could be issued, is dependent upon the success of the Company's activities, and upon the state of the capital markets generally.

Transactions with Related Parties

The remuneration of key management personnel during the financial year ended March 31, 2024, and 2023 were as follows:

a) Salaries and benefits - $1,441,458* (2023 - $1,215,625)
b) Share-based compensation - $1,408,778 (2023 - $1,694,284)

* Includes one-time severance payment of $120,000.

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Company directly or indirectly, including any directors (executive and non-executive) of the Company.

Current and Future Changes in Accounting Policy

Statement of Compliance

The audited consolidated financial statements for the year ended March 31, 2024, including comparatives for the financial year ended March 31, 2023, have been prepared, using accounting policies in compliance with IFRS as issued by IASB.

New Standards, Interpretations and Amendments Adopted from April 1, 2023

Certain IFRS pronouncements were issued that were mandatory for accounting periods beginning on or after April 1, 2023, or later periods. Many have been excluded as management does not expect them to have a material effect, however, management is still in the process of evaluating any potential impacts. The following amendments are effective for the year beginning April 1, 2023:

IAS 1 – Presentation of Financial Statements (“IAS 1”) and IFRS Practice Statement 2. In February 2021, the IASB issued amendments to IAS 1 and IFRS Practice Statement 2 Making Materiality Judgements, providing guidance to help entities meet the accounting policy disclosure requirements. The amendments aim to make accounting policy disclosures more informative by replacing the requirement to disclose ‘significant accounting policies’ with ‘material accounting policy information’. The amendments also provide guidance under what circumstance, the accounting policy information is likely to be considered material and therefore requiring disclosure. These amendments have no effect on the measurement or presentation of any items in the consolidated financial statements of the Company but effect the disclosure of accounting policies of the Company.

IAS 8 - Accounting Policies, Changes in Accounting Estimates and Errors (IAS 8). The amendment to IAS 8, which added the definition of accounting estimates, clarifies that the effects of a change in an input or measurement technique are changes in accounting estimates, unless resulting from the correction of prior period errors. These amendments clarify how entities make the distinction between changes in accounting estimate, changes in accounting policy and prior period errors. These amendments clarify how entities make the distinction between changes in accounting estimate, changes in accounting policy and prior period errors. These amendments had no effect on the consolidated financial statements of the Company.

IAS 12 - Income Taxes ("IAS 12"). In May 2021, the IASB issued amendments to IAS 12, which clarify whether the initial recognition exemption applies to certain transactions that result in both an asset and a liability being recognised simultaneously (e.g., a lease in the scope of IFRS 16). The amendments introduce an additional criterion for the initial recognition exemption, whereby the exemption does not apply to the initial recognition of an asset or liability which at the time of the transaction, gives rise to equal taxable and deductible temporary differences. These amendments had no effect on the consolidated financial statements of the Company.

New Standards, Interpretations and Amendments not yet Effective

There are a number of standards, amendments to standards, and interpretations which have been issued by the IASB that are effective in future accounting periods that the Company has decided not to adopt early.

The following amendments are effective for the year beginning April 1, 2023:

Liability in a Sale and Leaseback (Amendments to IFRS 16 Leases);
Classification of Liabilities as Current or Non-Current (Amendments to IAS 1 Presentation of Financial Statements);
Non-Current Liabilities with Covenants (Amendments to IAS 1 Presentation of Financial Statements); and
Supplier Finance Arrangements (Amendments to IAS 7 Statement of Cash Flows and IFRS 7 Financial Instruments: Disclosures)

The following amendments are effective for the year beginning April 1, 2025:

Lack of Exchangeability (Amendments to IAS 21 The Effects of Changes in Foreign Exchange Rates)

The Company is currently assessing the impact of these new accounting standards and amendments. The Company does not expect any of the standards issued by the IASB, but are yet to be effective, to have a material impact on the Company.

Critical Judgments and estimation uncertainties

The areas which require management to make significant judgments, estimates and assumptions in determining carrying values include, but are not limited to:

Inventory

Judgement is required in determining whether net realizable value should be evaluated on a product-by-product basis or if products cannot be evaluated separately from other products in inventory and should be grouped with similar products.

Expected credit loss allowance and provision

The Company determines an expected credit loss allowance for trade receivables based on the estimated expected lifetime credit loss, considering the actual credit loss in prior years and forward-looking estimates of expected collections. This estimate varies depending on the nature of the trade receivables, the majority of which are associated with the health sciences business; however, also includes receivables from government agencies. The loss allowance is reviewed on a quarterly basis and any change in estimate is accounted for prospectively. The Company also assesses the expected credit loss of non-trade financial assets, such as the loan receivable which is secured by property mortgages, to determine if an allowance is required.

Impairment (impairment reversal) of exploration and evaluation assets

While assessing whether any indications of impairment or impairment reversal exist for exploration and evaluation assets, consideration is given to both external and internal sources of information. Information the Company considers includes changes in the market, economic and legal environment in which the Company operates that are not within its control that could affect the recoverable amount of exploration and evaluation assets. Internal sources of information include the manner in which exploration and evaluation assets are being used or are expected to be used and indications of expected economic performance of the assets. Estimates include but are not limited to estimates of the discounted future pre-tax cash flows expected to be derived from the Company's mineral exploration properties, costs to sell the properties and the appropriate discount rate. Reductions in metal price forecasts, increases in estimated future costs of production, increases in estimated future capital costs, reductions in the amount of recoverable mineral reserves and mineral resources and/or adverse current economics can result in a write-down of the carrying amounts of the Company's exploration and evaluation assets.

Impairment (impairment reversal) of property and equipment

Judgements are required to assess when internal or external indicators of impairment or impairment reversal exist, and impairment testing is required. Management considers internal and external sources of information including forecasted sales, cashflows and expected production volumes. Judgement is required to assess these internal and external factors when determining if the carrying amount of an asset is impaired, or in the case of a previously impaired asset, whether the carrying amount of the asset has been restored.

Share-based payments

Management determines costs for share-based payments using market-based valuation techniques. The fair value of the market-based and performance-based share awards are determined at the date of grant using generally accepted valuation techniques. Assumptions are made and judgment used in applying valuation techniques. These assumptions and judgments include estimating the future volatility of the stock price, expected dividend yield, future employee turnover rates and future employee stock option exercise behaviours and corporate performance. Such judgments and assumptions are inherently uncertain. Changes in these assumptions affect the fair value estimates.

Contingencies

By their nature, contingencies will only be resolved when one or more future events transpire. The assessment of contingencies inherently involves estimating the outcomes of future events. The Company has disclosed its disputes and was required to exercise judgement in assessing the recorded amounts.

Financial Instruments and Other Instruments

The Company's financial instruments consist of cash and cash equivalents, accounts and other receivables, loan receivable, accounts payable and accrued liabilities, lease liability and long-term debt. Unless otherwise noted, the Company does not expect to be exposed to significant interest, currency or credit risks arising from these financial instruments. The Company estimates that the fair value of these financial instruments approximates carrying values.

As at March 31, 2024, the Company does not have any financial instruments recorded at fair value and that require classification within the fair value hierarchy.

Fair value estimates are made at the balance sheet date based on relevant market information and information about the financial instrument. These estimates are subjective in nature and involve uncertainties in significant matters of judgment and therefore cannot be determined with precision. Changes in assumptions could significantly affect these estimates.

Disclosure of Outstanding Share Data

The Company is authorized to issue an unlimited number of shares, of which 100,819,577 (2023 - 99,533,982) shares were issued and outstanding as fully paid and non-assessable as at March 31, 2024.

Refer to Note 12(c) to the consolidated financial statements for details regarding stock options issued and exercisable as at March 31, 2024.

As at the date hereof, the Company had 101,229,977 common shares issued and outstanding as fully paid and non-assessable, and stock options exercisable for an aggregate of 8,548,334 common shares outstanding.

Risks and Uncertainties

The operations of the Company are speculative due to the high-risk nature of its business, which includes the development of certain intellectual property and the manufacturing of graphene related products, and which may include the future acquisition, financing, and development of the Albany Graphite Project. 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 information relating to the Company. Accordingly, any investment in securities of the Company is speculative and investors should not invest in securities of the Company unless they can afford to lose their entire investment.

The Company assesses and attempts to minimize the effects of these risks through careful management and planning of its operations and hiring qualified personnel but is subject to a number of limitations in managing risk resulting from its early stage of development. Below is a non-exhaustive summary of the principal risks and related uncertainties that may impact the Company. Such risk factors, as well as additional risks and uncertainties set out elsewhere in the Company's publicly filed documents, and additional risks and uncertainties not presently known to Company or that the Company currently deems immaterial, could have a material adverse effect on the Company's business, financial condition and results of operations or the trading price of the common shares.

During June 2023, there was a decrease in credit risk as a result of the partial payment of $2.5M received in respect of the loan receivable.

Negative Operating Cash Flow

During the financial year ended March 31, 2024, the Company had negative operating cash flow because its revenues did not exceed its operating expenses. In addition, as a result of the Company's business plans for the development of its products, the Company expects cash flow from operations to be negative until revenues improve to offset its operating expenditures. The Company's cash flow from operations may be affected in the future by expenditures incurred by the Company to continue to develop its products. To the extent the Company has negative cash flow in any future period, the Company may be required to allocate funds to fund such negative cash flow from operating activities. In order to stay in business, in the absence of cash flow from operations, the Company will have to raise funding through financing activities. However, there is no certainty the Company will be able to raise funds at all or on terms acceptable to the Company in the event it needs to do so. Furthermore, additional funds raised by the Company through the issuance of equity or convertible debt securities would cause the Company's current shareholders to experience dilution. Such securities also may grant rights, preferences or privileges senior to those of the Company's shareholders. The Company does not have any contractual restrictions on its ability to incur debt and, accordingly, the Company could incur significant amounts of indebtedness to finance its operations. Any such indebtedness could contain restrictive covenants, which likely would restrict the Company's operations.

Uncertainties Relating to the Company's Business Plans

There is no assurance that broad successful commercial applications may be feasible for the Company. The Company is continuing to explore, develop, and test its current products and new products, and there can be no assurance that new uses of existing products or new products will be fully developed for commercial application, that test results will be successful, if completed at all, that any necessary permits or approvals required in order to market such products will be obtained by the Company, or that existing technology or products will become profitable. Furthermore, there is no assurance that the Company will complete any acquisitions or acquire any know-how or trade secrets to carry out certain of its future objectives. Should the Company fail to achieve any of the foregoing, this could have a material adverse impact on the business and planned business of the Company.

The Company's business is in part dependent on patents, trade secret and other intellectual property laws of Canada, and potentially foreign jurisdictions. The Company may be unable to prevent third parties from using its intellectual property without its authorization. Some of the Company's current or future technologies and trade secrets may not be covered by any patent or patent application, and the Company's issued and pending patents may not provide the Company with any competitive advantage and could be challenged by third parties. The Company's inability to secure issuance of pending patent applications may limit its ability to protect the intellectual property rights these pending patent applications were intended to cover. The Company's competitors may attempt to design around its patents to avoid liability for infringement and, if successful, could adversely affect the Company's market share. Furthermore, the expiration of the Company's patents may lead to increased competition.

Additionally, the Company plans to construct facilities for some of its operations and business activities. There can be no assurance that locations will be secured on terms favourable to the Company or at all, that engineering plans will be completed or will be satisfactory for the intended business activities of the Company, that any required permitting will be obtained, that construction of such facilities will be completed, or that such facilities will ever become operational. If such facilities are not constructed, or do not become operational, or do not operate at the capacity required or anticipated, there could be a material adverse effect of the Company's planned business and operations.

Economic and Political Conditions

Worldwide financial and economic cycles or conditions are uncertain, and recovery from a business downturn or recession could be very slow and have a significant impact on the Company's business. The Company's business is sensitive to changes in economic and political conditions, including interest rates, currency issues, energy prices, trade issues, international or domestic conflicts or political crises, and epidemics or pandemics.

The credit and financial markets have experienced extreme volatility and disruptions due to the current conflicts in the Middle East and between Ukraine and Russia. The conflicts are expected to have further global economic consequences, including but not limited to the possibility of severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in inflation rates and uncertainty about economic and political stability. In addition, the United States and other countries have imposed sanctions on Russia which increases the risk that Russia, as a retaliatory action, may launch cyberattacks against the United States, its government, infrastructure and businesses. Any of the foregoing consequences, including those we cannot yet predict, may cause our business, financial condition, results of operations and the price of our ordinary shares to be adversely affected.

Revenue from Graphene-related Products Sales; Long and Complex Sales Cycle

To date, the Company has recorded minimal revenue from its graphene enhanced products sales. There can be no assurance that significant losses will not occur in the near future or that the Company will be profitable in the future. The Company's operating expenses, and capital expenditures may increase in subsequent years. The Company expects to continue to incur losses unless and until such time as it enters into long-term and large-volume supply agreements and generates sufficient revenues to fund its continuing operations.

Intellectual Property

The Company relies on the patent, trade secret and other intellectual property laws of Canada, and foreign jurisdictions. The Company may be unable to prevent third parties from using its intellectual property without its authorization. The unauthorized use of the Company's intellectual property could reduce any competitive advantage that it has developed, reduce its market share or otherwise harm its business. In the event of unauthorized use of the Company's intellectual property, litigation to protect and enforce the Company's rights could be costly, and the Company may not prevail.

Some of the Company's current or future technologies and trade secrets may not be covered by any patent or patent application, and the Company's issued and pending patents may not provide the Company with any competitive advantage and could be challenged by third parties. The Company's inability to secure issuance of pending patent applications may limit its ability to protect the intellectual property rights these pending patent applications were intended to cover.

The Company's competitors may attempt to design around its patents to avoid liability for infringement and, if successful, could adversely affect the Company's market share. Furthermore, the expiration of the Company's patents may lead to increased competition.

In addition, effective patent, trade secret and other intellectual property protection may be unavailable or limited in some foreign countries. In some countries, the Company may not apply for patent or other intellectual property protection. The Company also relies on unpatented technological innovation and other trade secrets to develop and maintain its competitive position. Although the Company generally enters into confidentiality agreements with its employees and third parties to protect its intellectual property, these confidentiality agreements are limited in duration, could be breached and may not provide meaningful protection of its trade secrets. Adequate remedies may not be available if there is an unauthorized use or disclosure of the Company's trade secrets and manufacturing expertise. In addition, others may obtain knowledge about the Company's trade secrets through independent development or by legal means. The failure to protect the Company's processes, technology, trade secrets and proprietary manufacturing expertise, methods and compounds could have a material adverse effect on its business by jeopardizing critical intellectual property.

Where a product formulation or process is kept as a trade secret, third parties may independently develop or invent and patent products or processes identical to such trade secret products or processes. This could have a material adverse effect on the Company's ability to make and sell products or use such processes and could potentially result in costly litigation in which the Company might not prevail. The Company could face intellectual property infringement claims that could result in significant legal costs and damages and impede its ability to produce key products, which could have a material adverse effect on its business, financial condition, and results of operations.

Product Development and Technological Change

There is no assurance that broad successful commercial applications for the Company's products may be feasible. Most, if not all, of the scientific and engineering data related to the Company's products has been generated by the Company's own laboratories or laboratory environments of the Company's partners, such as universities. There can be no assurance that laboratory data translates to or is representative in commercial applications.

Additionally, the industries in which the Company seeks to operate are characterized by rapid technological change and frequent new product introductions. Part of the Company's business strategy is to monitor such changes and take steps to remain technologically current, but there is no assurance that such a strategy will be successful. If the Company is not able to adapt to new advances in materials sciences, or if unforeseen technologies or materials emerge that are not compatible with the Company's or that could replace its products, the Company's revenues and business would likely be adversely affected.

Market Development and Growth

Failure to further develop the Company's key markets and existing geographic markets or to successfully expand its business in the future into new markets could have an adverse impact on sales growth and operating results. The Company's ability to further penetrate its key markets and the existing geographic markets in which it competes and/or aims to compete, and to successfully expand its business into other countries, is subject to numerous factors, many of which are beyond its control. There can be no assurance that efforts to increase market penetration in the Company's key markets and existing geographic markets will be successful. Failure to achieve these goals may have a material adverse effect on the Company's operating results.

Unpredictable Sales Cycles

The sales cycle for graphene products may range considerably from one to multiple years from the time a customer begins testing the Company's product until the time that they could be used in a commercial product. Timing of product introduction could vary significantly based on the target market.

Additionally, any demand for the Company's products based in whole or in part on the coronavirus (COVID-19) pandemic could materially change in the event the pandemic ends or decreases in severity. The Company has demonstrated little track record of success in completing customer development projects, which makes it difficult to evaluate the likelihood of future success. The sales and development cycles for the Company's products are subject to customer budgetary constraints, internal acceptance procedures, competitive product assessments, scientific and development resource allocations, and other factors beyond the Company's control. If the Company is not able to successfully accommodate these factors to achieve commercial success, the Company may be unable to achieve sufficient sales to reach profitability.

Government Regulation and Import/Export Controls

The Company's future operations, including development, and commencement and continuation of commercial production, require licenses, permits or other approvals from various federal, provincial, local and potentially foreign governmental authorities, and such operations are or will be governed by laws and regulations relating to production, exports, taxes, labor standards, occupational health and safety, waste disposal, toxic substances, prospecting, development, mining, land use, water use, environmental protection, land claims of indigenous people and other matters. Furthermore, in certain foreign jurisdictions, these regulatory requirements may be more stringent than those in Canada. Certain export control laws or economic sanctions laws may include restrictions or prohibitions on the sale or supply of certain products and services to embargoed or sanctioned countries, governments, persons and entities. In addition, various countries regulate the import of certain technology, including import and export permitting and licensing requirements, and have enacted or could enact laws that could limit the Company's ability to distribute its products. Changes in the Company's products, or future changes in export and import regulations may prevent any potential international customers from utilizing the Company's products globally or, in some cases, prevent the export or import of the Company's products to certain countries, governments, or persons altogether.

Any change in export or import regulations, economic sanctions, or related legislation, or change in the countries, governments, persons, or technologies targeted by such regulations, could result in decreased use of the Company's products in the future by, or in the Company's decreased ability to export or sell its products to, potential international customers. Any limitation on the Company's ability to export or sell its products would likely adversely affect the Company's future business, results of operations, and financial results.

Large volume production of graphene requires permits and approvals from various government authorities, and is subject to extensive federal, provincial, state, and local laws and regulations governing development, production, exports, taxes, labour standards, occupational health and safety, environment, and other matters. As graphene is a new chemical substance, production and sale of graphene may be subject to specific occupational health and safety and environment regulatory approvals in different jurisdictions including, without limitations, under the *Canadian Environmental Protection Act* (Canada), the *Food and Drug Act* (Canada), the *Toxic Substances Control Act* (USA), the *Food Drug and Cosmetic Act* (USA) and the *Registration, Evaluation, Authorization and Restriction of Chemicals* (Europe).

Health Canada also regulates certain markets into which the Company intends to supply products or license its intellectual property. There is no assurance that Health Canada or any other body will grant license for sales into markets it regulates. Each foreign jurisdiction for the Company's products is regulated and no assurance exists that sales of graphene-related products will be permitted. Any inability by the Company to obtain approval from Health Canada and/or international bodies could have a material adverse impact of the business of the Company.

The Company is also subject to consumer protection laws that may impact its sales and marketing efforts. These laws, as well as any changes in these laws, could make it more difficult for the Company to sell and market its products. These laws and regulations are subject to change over time and thus the Company must continue to monitor and dedicate resources to ensure continued compliance. Non-compliance with applicable regulations or requirements could subject the Company to investigations, sanctions, enforcement actions, disgorgement of profits, fines, damages, civil and criminal penalties, or injunctions. If any governmental sanctions are imposed, or if the Company does not prevail in any possible civil or criminal litigation, its business, operating results, and financial condition could be materially adversely affected.

Additionally, in order for the Company to carry out its activities, any required licenses and permits must be obtained and kept current. There can be no assurance, however, that the Company will obtain on reasonable terms or at all the permits and approvals, and the renewals thereof, which it may require for the conduct of its future operations or that compliance with applicable laws, regulations, permits and approvals will not have an adverse effect on the Company's business plans. Possible future environmental and mineral tax legislation, regulations and actions could cause additional expense, capital expenditures, restrictions and delay on the Company's planned exploration and operations, the extent of which cannot be predicted.

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

Industry Competition

The Company seeks to compete with other graphene and manufacturing companies, in highly competitive markets. Some of the Company's competitors have substantially greater financial, marketing and other resources and higher market share than the Company has in certain products or geographic areas. As the markets for the Company's products expand, additional competition may emerge, and competitors may commit more resources to products which directly compete with the Company's products. There can be no assurance that the Company will be able to compete successfully with existing competitors or be able to develop any market for its products, or that its business will not be adversely affected by increased competition or by new competitors.

There is no assurance that the Company will continue to be able to compete successfully with its competitors in acquiring such properties or prospects and any such inability could have a material adverse effect on the Company's business and financial condition.

Lack of Trading Market for Graphene

Unlike commodity minerals such as copper, gold or silver, industrial minerals such as graphene precursor graphene materials and graphite do not have a metals exchange or an open market upon which to trade and therefore prices are not set in an open market or publicly traded market, and there can be no assurance that certain items can be sold or purchased at any time. As prices are set with private suppliers and private customers, it is difficult to predict what market prices may be at the time of any transaction. There can be no guarantees that the Company will be able to sell its graphene products in a profitable manner, or at all.

Shortages

The Company will be dependent on various supplies, equipment, parts and labour, and the services of contractors to carry out its business objectives. The availability and cost of such supplies, equipment, parts or labour or the services of contractors could have a material adverse effect on the Company's ability to successfully carry out its exploration and development activities.

Liquidity Concerns and Future Financing

The Company's approach to managing liquidity risk is to ensure that it will have sufficient liquidity to meet liabilities when due. As of March 31, 2024, the Company had a cash balance of $3,521,420 (2023 - $10,357,317) to settle current liabilities of $1,819,004 (2023 - $2,419,818). The Company is ultimately dependent on the commercial sales of its products. Any delay in the sales of such products could require additional financing. There can be no assurance that the Company will be successful in obtaining the required financing as and when needed. Volatile markets may make it difficult or impossible for the Company to obtain debt financing or equity financing on favourable terms, if at all. Failure to obtain additional financing on a timely basis may cause the Company to postpone or slow down its development plans or reduce or terminate some or all of its activities.

Reliance on Key Personnel

The Company's development to date has depended, and in the future, will depend largely on the efforts of key management and other key personnel. Loss of any of these people, particularly to competitors, could have a material adverse effect on the Company's business. Further, with respect to the future development of the Company's projects, it may become necessary to attract both international and local personnel for such development. The marketplace for key skilled personnel is becoming more competitive, which means the cost of hiring, training, and retaining such personnel may increase. Factors outside the Company's control, including competition for human capital and the high-level of technical expertise and experience required to execute this development will affect the Company's ability to employ the specific personnel required. The failure to retain or attract a sufficient number of key skilled personnel could have a material adverse effect on the Company's business, results of operations, and financial condition. The Company has not taken out and does not intend to take out "key man insurance" in respect of any directors, officer, or other employees.

Qualified Employees

Recruiting and retaining qualified personnel is critical to the Company's success. Especially if it relates to its graphene operations, finding skilled scientists and a sales team familiar with the subject matter is difficult. As the Company grows further, the need for skilled labour will increase. The number of persons skilled in the high-tech manufacturing business is limited and competition for this workforce is intense. This may adversely affect the business of the Company if it is unable to recruit and retain qualified personnel as and when required.

Cybersecurity Threats

The reliability and security of the Company's information technology ("IT") systems are important to the Company's business and operations. Although the Company has established and continues to enhance security controls intended to protect the Company's IT systems and infrastructure, there is no guarantee that such security measures will be effective in preventing unauthorized physical access or cyberattacks. A significant breach of the Company's IT systems could, among other things, cause disruptions in the Company's manufacturing operations (such as operational delays from production downtime, inability to manage the supply chain or produce products for customers, disruptions in inventory management), lead to the loss, destruction, corruption or inappropriate use of sensitive data, including employee information or intellectual property, result in lost revenues due to theft of funds or due to a disruption of activities, including remediation costs, or from litigation, fines and liability or higher insurance premiums, the costs of maintaining security and effective IT systems, which could negatively affect results of operations and the potential adverse impact of changing laws and regulations related to cybersecurity or result in theft of the Company's, its customers' or suppliers' intellectual property or confidential information. If any of the foregoing events (or other events related to cybersecurity) occurs, the Company may be subject to a number of consequences, including reputational damage, a diminished competitive advantage and negative impacts on future opportunities which could have a material adverse effect on the Company.

Share Price Fluctuations

The market price of securities of many companies, particularly development stage companies, experience wide fluctuations in price that are not necessarily related to the operating performance, underlying asset values or prospects of such companies. There can be no assurance that fluctuations in the Company's share price will not occur. In particular, the fluctuations may be exaggerated if the trading volume of the Company's common shares is low.

Cost Absorption and Purchase Orders

Especially as it relates to its activities in the transportation industry, and given the current trends in that industry, the Company is under continuing pressure to absorb costs related to product design and development, engineering, program management, prototypes and validation. In particular, OEMs are requesting that suppliers pay for the above costs and recover these costs through the piece price of the applicable component. Contract volumes for customer programs not yet in production are based on the Company's customers' estimates of their own future production levels. However, actual production volumes may vary significantly from these estimates due to a reduction in consumer demand or new product launch delays, often without any compensation to the supplier by its OEM customer. Typical purchase orders issued by customers do not require that they purchase a minimum number of the Company's products. For programs currently under production, the Company is generally unable to request price changes when volumes differ significantly from production estimates used during the quotation stage. If estimated production volumes are not achieved, the product development, design, engineering, prototype and validation costs incurred by the Company may not be fully recovered. Similarly, future pricing pressure or volume reductions by the Company's customers may also reduce the amount of amortized costs otherwise recoverable in the piece price of the Company's products. Either of these factors could have an adverse effect on the Company's profitability. While it is generally the case that once the Company receives a purchase order for products of a particular vehicle program it would continue to supply those products until the end of such program, customers could cease to source their production requirements from the Company for a variety of reasons, including the Company's refusal to accept demands for price reductions or other concessions.

Acquisitions

The Company could seek to acquire complementary businesses, assets, technologies, services or products, at competitive prices. The Company could pursue acquisitions in those product areas which were identified as key to the Company's long-term business strategy. However, as a result of intense competition in these strategic areas, the Company may not be able to acquire the targets needed to achieve its strategic objectives. The completion of such transactions poses additional risks to the Company's business.

Acquisitions are subject to a range of inherent risks, including the assumption of incremental regulatory/compliance, pricing, supply chain, commodities, labor relations, litigation, environmental, pensions, warranty, recall, IT, tax or other risks. Although the Company seeks to conduct appropriate levels of due diligence on acquisition targets, these efforts may not always prove to be sufficient in identifying all risks and liabilities related to the acquisition, including as a result of limited access to information; time constraints for conducting due diligence; inability to access target company facilities and/or personnel; or other limitations in the due diligence process. Additionally, the Company may identify risks and liabilities that cannot be sufficiently mitigated through appropriate contractual or other protections. The realization of any such risks could have a material adverse effect on the Company's operations or profitability. The benefit to the Company of previous and future acquisitions is highly dependent on the Company's ability to integrate the acquired businesses and their technologies, employees and products into the Company, and the Company may incur costs associated with integrating and rationalizing the facilities (some of which may need to be closed in the future).

The Company cannot be certain that it will successfully integrate acquired businesses or that acquisitions will ultimately benefit the Company. Any failure to successfully integrate businesses or failure of the businesses to benefit the Company could have a material adverse effect on its business and results of operations. Such transactions may also result in additional dilution to the Company's shareholders or increased debt. Such transactions may involve partners, and the formula for determining contractual sale provisions may be subject to a variety of factors that may not be easily quantified or estimated until the time of sale (such as market conditions and determining fair market value).

Launch and Operational Costs

The launch of new business, in an existing or new facility, is a complex process, the success of which depends on a wide range of factors, including the production readiness of the Company and its suppliers, as well as factors related to tooling, equipment, employees, initial product quality and other factors. A failure to successfully launch material new or takeover business could have an adverse effect on profitability. The Company's manufacturing processes are vulnerable to operational problems that can impair its ability to manufacture its products in a timely manner, or which may not be performing at expected levels of profitability. The Company's facilities and proposed facilities contain complex and sophisticated equipment that is used in its manufacturing processes. The Company could experience equipment failure in the future due to wear and tear, design error or operator error, among other things, which could have an adverse effect on profitability. From time to time, the Company may have some operating divisions which are not performing at expected levels of profitability. Significant underperformance of one or more operating divisions could have a material adverse effect on the Company's profitability and operations.

Material and Commodity Prices

Prices for key raw materials and commodities used in the production of graphene-based products, as well as energy prices, have proven to be volatile at certain times. To the extent that the Company is unable to fully mitigate its exposure to price change of key raw materials and commodities, particularly through engineering products with reduced content, by passing price increases to customers, or otherwise, such additional costs could have a material adverse effect on profitability. Increased energy prices could also have an impact on production or transportation costs which in turn could affect competitiveness.

Uninsured Risks

The Company maintains insurance to cover normal business risks. In the course of its manufacturing businesses, certain risks and, in particular, unexpected or unusual catastrophic events including explosions and fire may occur. It is not always possible to fully insure against such risks as a result of high premiums or other reasons. Should such liabilities arise, they could reduce or eliminate any future profitability and result in increasing costs and a decline in the value of the common shares of the Company.

Litigation

The Company has entered into legally binding agreements with various third parties, including supply, license, distribution, non-disclosure, consulting and partnership agreements. The interpretation of the rights and obligations that arise from such agreements is open to interpretation and the Company may disagree with the position taken by the various other parties resulting in a dispute that could potentially initiate litigation and cause the Company to incur legal costs in the future. Given the speculative and unpredictable nature of litigation, the outcome of any such disputes could have a material adverse effect on the Company's business.

Credit Risk

As at March 31, 2024, the Company's credit risk was primarily attributable to cash, accounts and other receivables and loan receivable. The Company issued a loan receivable during the year ended March 31, 2022, further increasing its exposure to credit risk. In June 2023, a partial payment of $2.5M was received against the loan receivable, decreasing credit risk. The remaining $0.5M was due September 29, 2023, but has been subsequently extended to October 31, 2024. The Company performed an analysis of collectivity and based on the collateral against the loan, determined that no provision was required. Financial instruments included in accounts and other receivables consisted of trade receivables generated through sales as well as recoverable Harmonized Sale Tax. The Company's cash is held with reputable financial institutions. Management believes that the credit risk with respect to financial instruments included in accounts and other receivables is remote.

Interest Rate Risk

The Company has cash and cash equivalent balances at federally regulated Canadian banks. The Company periodically monitors the investments it makes, the security of such investments and is satisfied with the credit ratings of its banks. The Company closely monitors interest rates to determine the appropriate course of action to be taken by the Company.

Price Risk

The Company is exposed to price risk with respect to commodity prices. The Company closely monitors commodity prices to determine the appropriate course of action to be taken by the Company.

Financial Capability and Additional Financing

The Company has limited financial resources and there is no assurance that sufficient additional funding will be available to enable it to fulfill its business objectives or obligations, on acceptable terms or at all. Unanticipated expenses and other developments could cause existing funds to be depleted sooner than expected. In the event that its existing cash resources are inadequate to fund operational expenses, and in order to fund the planned business objectives of the Company, the Company will be required to raise additional financing from external sources, such as debt financing, equity financing or joint ventures. The Company's ability to raise additional equity financing may be affected by numerous factors beyond the Company's control, including, but not limited to, adverse market conditions, commodity price changes and an economic downturn. Failure to obtain additional funding on a timely basis could result in delay or indefinite postponement of the development of the Company's business and could cause the Company to reduce or terminate its operations. Additional funds raised by the Company from treasury share issuances may result in significant dilution to existing shareholders, a depressive effect on the price of the common shares and/or a change of control.

Permits and Government Regulation

Although the Company believes it has all of the necessary permits to carry out the proposed business programs, the operations of the Company may require licenses and permits from time to time from various governmental authorities to carry out exploration and development at its projects or locations. Obtaining permits can be a complex, time-consuming process. There can be no assurance that the Company will be able to obtain the necessary licenses and permits on acceptable terms, in a timely manner or at all. The costs and delays associated with obtaining permits and complying with these permits and applicable laws and regulations could stop or materially delay or restrict the Company from continuing or proceeding with existing or future operations or projects. Any failure to comply with permits and applicable laws and regulations, even if inadvertent, could result in the interruption or closure of operations or material fines, penalties or other liabilities. In addition, the requirements applicable to sustain existing permits and licenses may change or become more stringent over time and there is no assurance that the Company will have the resources or expertise to meet its obligations under such licenses and permits.

Fluctuating Prices

The profitability of the Company's operations will be dependent upon the market price of the ZenGUARD™ masks and other products, their global acceptance and demand along with their regulatory approvals in other jurisdictions. The level of interest rates, rate of inflation, production costs, healthcare and consumer demand, and stability of exchange rates can all cause significant fluctuations in revenue. Such external economic factors are in turn influenced by changes in international purchasing patterns, COVID-19 pandemic situation, monetary systems and political developments.

Environmental Regulation

AGC's Albany Graphite Project is subject to environmental laws and regulations which may materially and adversely affect its future operations. These laws and regulations control the exploration and development of the Albany Graphite Project and their effects on the environment, including air and water quality, waste handling and disposal, the protection of different species of plant and animal life, and the preservation of lands. These laws and regulations will require AGC to acquire permits and other authorizations for certain activities. There can be no assurance that AGC will be able to acquire such necessary permits or authorizations on a timely basis, if at all.

Further, environmental legislation is evolving in a manner which will require stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their officers, directors and employees. There is no assurance that future changes in environmental regulation, if any, will not adversely affect AGC's operations.

AGC is not currently insured against most environmental risks. Without such insurance, and if AGC becomes subject to environmental liabilities, the payment of such liabilities would reduce or eliminate its available funds or could exceed the funds AGC has to pay such liabilities and result in bankruptcy.

Economic Dependence on Supply Agreements

Currently, the Company has entered into a limited number of supply or sales agreements for the sale of its products. Until additional supply agreements are executed by the Company, the Company's revenues will be completely dependent on such agreements. If such agreements are terminated, or if less of the Company's product than anticipated is purchased pursuant to such agreements, this could have a material adverse impact on the Company's business, operations and results.

Legal proceedings and regulatory actions

Other than as set out below, the Company was not subject to any material legal proceedings during its most recently completed financial year, nor is the Company or any of its properties a party to or the subject of any such proceedings, and no such proceedings are known to be contemplated. The Company may be involved in routine, non-material litigation arising in the ordinary course of business, from time to time.

There were no penalties or sanctions imposed against the Company by a court relating to provincial and territorial securities legislation or by a securities regulatory authority during its most recently completed financial year, nor have there been any other penalties or sanctions imposed by a court or regulatory body against the Company, and the Company has not entered into any settlement agreements before a court relating to provincial and territorial securities legislation or with a securities regulatory authority.

The Company is involved in legal proceedings relating to claims involving a former director and officer of the Company. The claim was commenced in the Ontario Superior Court of Justice on September 26, 2018, by Aubrey Eveleigh and Eveleigh Geological Consulting. Mr. Eveleigh seeks damages in excess of $5,000,000 in connection with an employment dispute. The Company is defending the claim and the proceedings remain ongoing, though the Company believes that the risk of significant loss in respect of the litigation is remote.

The Company subsequently commenced a claim against Mr. Eveleigh and Eveleigh Geological Consulting on March 24, 2020, in the Ontario Superior Court of Justice (Commercial List), in connection with past breaches of Mr. Eveleigh's fiduciary duties. Mr. Eveleigh has defended the claim and the Company submits that it continues to defend the action and maintains that the allegations as set out in the claim are frivolous and without merit.

On November 28, 2022, following the discovery process, the Company amongst other things, amended its claim to: (i) seek an order that Mr. Eveleigh disgorge any benefits obtained as a result of his misconduct; (ii) seek an order cancelling certain common shares of the Company held by Mr. Eveleigh; (iii) seek an order declaring that Mr. Eveleigh has no entitlement to any royalty payments or success fees in connection with the Albany Graphite Project; and (iv) seek an order that declares a constructive trust in favour of the Company over any and all monies received, directly or indirectly. A trial date has been set now to commence on October 21, 2024.

On January 29, 2021, the Company was served with a statement claim issued by Graphene Composites Ltd. and is in the process of defending the action, which it considers frivolous and without merit.

The Company has considered the allegations as set out in the claim and, in light of the facts, the lack of clarity in the claim, and, based on discussions with the Company's litigation counsel, the assessment of the merits of the claim and the defenses available to the Company, and the Company's conclusion is that the risk of the Company suffering loss in respect of the claim is remote, and therefore the Company determined the claim not to be material or constituting "significant litigation" pursuant to the policies of the TSXV. The Company continues to view this claim as frivolous and will continue to vigorously defend itself against these allegations.

Proposed Transactions

As is typical of rapidly growing companies, the Company is continually reviewing partnerships, potential merger, acquisition, investment and joint venture transactions and opportunities, which includes opportunities with respect to the Albany Graphite Project.

As described under "*Albany Graphite Project*", the Company transferred to AGC the ownership of the Albany Graphite Project on May 23, 2023. The Company and AGC determined to await improved market conditions before proceeding with the AGC Financing and a proposed listing of AGC's common shares on a recognized Canadian stock exchange.

Employment Agreements

The Company has an employment agreement with its Chief Executive Officer. During the financial year March 31, 2024, the salary level for the individual pursuant to the employment agreement is $325,000 annually.

The Company had an employment agreement with its former Executive Chairman and Chief Operating Officer, which was terminated effective May 1, 2024, upon resignation of the officer. During the financial year March 31, 2024, the salary level for the individual pursuant to the employment agreement is $300,000 annually.

The Company has an employment agreement with its Chief Financial Officer. During the financial year ended March 31, 2024, the salary level for the individual pursuant to the employment agreement is $240,000 annually.

Contingent Liabilities

In September 2018, the Company received a statement of claim from a former employee, Aubrey Eveleigh and Eveleigh Geological Consulting. The Company is in the process of defending the claim but views the claim as unmeritorious. On March 24, 2020, the Company commenced an action claim against the former employee for relief relating to contracts and transactions between that employee and the Company, seeking to set aside those agreements and, where applicable, seeking disgorgement of unspecified amounts relating to benefits obtained under those agreements. Although there can be no assurance that any particular claim will be resolved in the Company's favour, management does not believe that the outcome of any claim or potential claims of which it is currently aware will have a material adverse effect on the Company.

The Company is currently undergoing a Canada Revenue Agency ("CRA") audit of approximately $4 million flow-through share ("FTS") expenditures made and renounced during the fiscal years ended March 31, 2019 through March 31, 2022. The CRA audit may result in amendments to the FTS expenditures renounced during the foregoing period. Such CRA amendments could result in a Company obligation to indemnify certain of the flow through shareholders as a result of reductions in previously flowed through expenditures. The CRA audit may also result in a Company obligation for penalties and interest related to reductions in prior-year FTS eligible expenditures and flow through.

As the resolution of the CRA audit is subject to many uncertainties, it is not possible to predict the ultimate outcome or to estimate the Company's potential obligation to indemnify flow through shareholders for amended flow through expenditures or for related penalties and interest, if any, which may result.

No provision has been made for this contingent liability and the amount of any future payment, if any, will be recorded in the period in which such a payment is measurable.

Significant Accounting Policies

A detailed summary of all of the Company's significant accounting policies is included in Note 2 to the March 31, 2024, audited annual consolidated financial statements.

Internal Controls over Financial Reporting

Management is responsible for the design of internal controls over financial reporting to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the consolidated financial statements in accordance with IFRS. Based on regular reviews of its internal control procedures an evaluation of the effectiveness of the Company's internal control over financial reporting was conducted as of March 31, 2024, based on the criteria described in "*Internal Control - Integrated Framework (2013)"* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, management has determined that its internal controls and procedures are effective in providing reasonable assurance that financial information is recorded, processed, summarized and reported in a timely manner.

Changes to Internal Control over Financial Reporting

The Company is required to disclose herein any change in the Company's internal control over financial reporting that occurred during the quarter and year ended March 31, 2024, that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting. During the period commencing January 1, 2024 and ended March 31, 2024 the Company completed their remediation efforts over the purchase, ownership, shipment and recording of inventory by adopting and implementing a new inventory software solution including training of production and accounting staff.

Disclosure Controls

Management is also responsible for the design and effectiveness of disclosure controls and procedures to provide reasonable assurance that material information related to the Company is made known to the Company's certifying officers. The Company's Chief Executive Officer and Chief Financial Officer have concluded that the disclosure controls and procedures were effective as of March 31, 2024.

EXHIBIT 99.4
CERTIFICATION

I, Greg Fenton, Chief Executive Officer of Zentek Ltd., certify that;

1. I have reviewed this Annual Report on Form 40-F of Zentek Ltd.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this Annual Report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

    a) All significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: June 26, 2024

By: /s/ ***Greg Fenton***
Name: **Greg Fenton**
Title: **Chief Executive Officer**

EXHIBIT 99.5
CERTIFICATION

I, Wendy Ford, Chief Financial Officer of Zentek Ltd., certify that;

1. I have reviewed this Annual Report on Form 40-F of Zentek Ltd.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this Annual Report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

    a) All significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: June 26, 2024

By: /s/ ***Wendy Ford***
Name: **Wendy Ford**
Title: **Chief Financial Officer**

EXHIBIT 99.6

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Greg Fenton, Chief Executive Officer of Zentek Ltd. (the "Company"), hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

a. the Annual Report on Form 40-F of the Company for the fiscal year ended March 31, 2024 (the "Annual Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

b. the information contained in the Annual Report fairly presents in all material respects the financial condition and results of operations of the Company.

Date: June 26, 2024

By:

/s/ Greg Fenton
Name: **Greg Fenton**
Title: **Chief Executive Officer**

EXHIBIT 99.7

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Wendy Ford, Chief Financial Officer of Zentek Ltd. (the "Company"), hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

a. the Annual Report on Form 40-F of the Company for the fiscal year ended March 31, 2024 (the "Annual Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

b. the information contained in the Annual Report fairly presents in all material respects the financial condition and results of operations of the Company.

Date: June 26, 2024

By:

/s/ Wendy Ford
Name: **Wendy Ford**
Title: **Chief Financial Officer**

Tel: (604) 688-5421
Fax: (604) 688-5132
www.bdo.ca

BDO Canada LLP
1100 Royal Centre
1055 West Georgia Street, P.O. Box 11101
Vancouver, British Columbia
V6E 3P3

Consent of Independent Registered Public Accounting Firm

We hereby consent to the use of our report dated June 26, 2024 relating to the consolidated financial statements of Zentek Ltd. appearing in this Annual Report on Form 40-F for the year ended March 31, 2024. Our report contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

/s/ BDO Canada LLP

Vancouver, Canada
June 26, 2024

BDO Canada LLP, a Canadian limited liability partnership, is a member of BDO International Limited, a UK company limited by guarantee, and forms part of the international BDO network of independent member firms