

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 20-F

(Mark One)

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2022

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of event requiring this shell company report

Commission file number: 000-55135

POET TECHNOLOGIES INC.

(Exact name of Registrant as specified in its charter)

Ontario, Canada
(Jurisdiction of incorporation or organization)

1107 – 120 Eglinton Avenue East
Toronto, Ontario, M4P 1E2, Canada
(Address of principal executive offices)

Suresh Venkatesan, CEO

Email: svv@poet-technologies.com
(Name, Telephone, Email and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act: None.

Securities registered or to be registered pursuant to Section 12(g) of the Act: Common Stock, no par value.

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: Not Required.

The number of outstanding shares of common stock, no par value, as of December 31, 2022 was 37,841,950

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes No

Note – Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 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 every Interactive Data File required to be submitted 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 such files).

Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See definition of “large accelerated filer,” “accelerated filer,” and “emerging growth company” in the Exchange Act.

Large accelerated filer

Accelerated filer

Emerging Growth Company

Non-accelerated filer

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)

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S GAAP

International Financial Reporting Standards as issued
by the International Accounting Standards Board

Other

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

POET TECHNOLOGIES INC.
FORM 20-F ANNUAL REPORT
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INTRODUCTION

POET Technologies Inc. is organized under the Business Corporations Act (Ontario). In this Annual Report, the “Company”, “we”, “our”, “POET” and “us” refer to POET Technologies Inc. and its subsidiaries (unless the context otherwise requires). We refer you to the documents attached as exhibits hereto for more complete information than may be contained in this Annual Report. Our principal Canadian corporate offices are located at Suite 1107, 120 Eglinton Avenue East, Toronto, Ontario M4P 1E2, Canada. Our U.S office is located in the U.S. 1605 N. Cedar Crest Boulevard, Allentown, PA, 18104. Our telephone number in Toronto is (416) 368-9411.

We file reports and other information with the Securities and Exchange Commission (“SEC”) located at 100 F Street NE, Washington, D.C. 20549. You may obtain copies of our filings with the SEC by accessing their website located at www.sec.gov. We also file reports under Canadian regulatory requirements on SEDAR; you may access our reports filed on SEDAR by accessing the website www.sedar.com.

This Annual Report (including the consolidated audited financial statements for the years ended December 31, 2022, 2021 and 2020 attached thereto, together with the auditors’ report thereon), and the exhibits thereto shall be deemed to be incorporated by reference as exhibits to the Registration Statement of the Company on Form F- 10, as amended (File No. 333-227873), and to be a part thereof from the date on which this report was filed, to the extent not superseded by documents or reports subsequently filed or furnished.

Business of POET Technologies Inc.

POET designs, develops, manufactures and sells integrated opto-electronic solutions for data communications, telecommunications and artificial intelligence markets. POET has developed and is marketing its proprietary POET Optical Interposer™, a novel platform that allows the seamless integration of electronic and photonic devices onto a single chip using advanced wafer-level semiconductor manufacturing techniques. The semiconductor industry has adopted the term “Wafer-Level Chip-Scale Packaging” (or “WLCSP”) to describe similar approaches within the semiconductor industry. POET’s Optical Interposer eliminates costly components and labor-intensive assembly, alignment, and testing methods employed in conventional photonics. The cost-efficient integration scheme and scalability of the POET Optical Interposer brings value to devices or systems that integrate electronics and photonics, including high-growth areas of communications and computing, such as high-speed networking for cloud service providers and data centers, 5G networks, machine-to-machine communication, sometimes referred to as the “Internet of Things” (IoT), self-contained “edge” computing applications, such as accelerators for Artificial Intelligence – Machine Learning (AI-ML) systems and sensing applications, such as LIDAR systems for autonomous vehicles and point-of-use health care products.

On October 21, 2020, the Company signed a Joint Venture Agreement (“JVA”) establishing a joint venture company, Super Photonics Integrated Circuit Xiamen Co., Ltd (“SPX”) with Xiamen Sanan Integrated Circuit Co. Ltd. (“Sanan IC”) whose purpose is to assemble, test, package and sell cost-effective, high-performance optical engines based on POET’s proprietary Optical Interposer platform technology.

SPX’S capitalization is a combination of committed cash, capital equipment and intellectual property from Sanan IC and intellectual property and know-how from POET, with a combined estimated value of approximately US\$50M. Capitalization is on-going and has not yet been completed. POET’s contribution of certain intellectual property and know-how was valued by an independent appraiser at \$22.5M. Sanan IC will contribute cash of approximately \$25M for capital equipment and operating expenses, with the expectation that the eventual ownership of the JV will be approximately 52% Sanan IC and 48% POET. SPX is an independent company and is operated as a true joint venture, so its financial results are not consolidated into POET’s but are reported as a gain in the value of the contribution to the JV and a gain or loss in the Company’s percentage ownership of the JV.

Sanan IC is a world-class wafer foundry service company with an advanced compound semiconductor technology platform, serving the optical, RF microelectronics and power electronics markets. Sanan IC is a wholly owned subsidiary of Sanan Optoelectronics Co., Ltd. (Shanghai Stock Exchange, SSE: 600703), the leading manufacturer of advanced ultra-high brightness LED epitaxial wafers and chips in the world.

SPX will assemble, test, package and sell 100G, 200G and 400G optical engines with customized lasers and photodiodes from Sanan IC and other suppliers combined with optical interposer platform technology from POET. Optical engines are primary components of optical transceivers that transmit data between switches and servers in data centers and between data centers and metro areas. With assembly and test operations built upon the non-linear, wafer-scale methods of the semiconductor industry, compared to the linear scale of conventional photonics assembly, SPX will be able to offer optical engines at dramatically lower cost and higher performance. Device volumes can scale rapidly with marginal investments in capital equipment and labor compared to conventional methods. This ability to manufacture optical engines at the large-scale volumes as needed, offer the opportunity for SPX and POET to penetrate rapidly the large markets for high-speed data communications applications, including internet data centers and 5G carrier networks.

Net loss for the twelve months ended December 31, 2022 was \$21,036,690. The net loss included \$10,746,743 incurred for research and development activities directly related to the development and commercialization of the POET Optical Interposer and POET Optical Engine products. Research and development included non-cash costs of \$2,054,187 related to stock-based compensation. \$9,516,271 was incurred for selling, marketing and administration expenses which included non-cash costs of \$2,382,417 related to stock-based compensation and \$1,173,743 related to depreciation and amortization.

The Company incurred \$49,738 of interest expense which was entirely non-cash.

During the year ended December 31, 2022, the Company recognized its share of SPX's losses using the equity method. The Company recognized approximately 83.7% or \$3,211,993 of the net operating loss of SPX. The Company's current share of the operating loss is a result of the high value of the Company's initial contribution. The Company's share of the loss will reduce as Sanan IC periodically contributes cash and other assets to SPX. Additionally, the Company recognized a gain of \$1,746,987 related to its contribution of intellectual property to SPX in accordance with IAS 28. The Company only recognizes a gain on the contribution of the intellectual property equivalent to the Sanan IC's interest in SPX, the unrecognized gain of \$18,159,632 will be applied against the investment and periodically realized as the Company's ownership interest in SPX is reduced.

The Company's statement of financial position as of December 31, 2022 reflects assets with a book value of \$15,390,453 compared to \$27,153,977 as of December 31, 2021. Sixty two percent (62%) of the book value at December 31, 2022 was in current assets consisting primarily of cash and cash equivalents of \$9,229,845 compared to eighty percent (80%) of the book value as of December 31, 2021, which consisted primarily of cash, cash equivalents and short-term investments of \$21,308,603.

On February 24, 2022, the Company filed Articles of Amendment to consolidate its common shares on a ten-for-one basis. For further clarity, for every ten (10) pre-consolidated common shares, shareholders received one (1) post-consolidated common share. On February 28, 2022 the Company's common shares began trading on the TSX Venture Exchange on a post consolidation basis. The Company's name and trading symbol remained unchanged. All references to share and per share amounts in these consolidated financial statements and accompanying notes to the consolidated financial statements have been retroactively restated to reflect the ten-for-one share consolidation.

On March 14, 2022, the Company's common shares began trading on Nasdaq Stock Market LLC (the "Nasdaq") under the ticker symbol "POET".

Financial and Other Information

In this Annual Report, unless otherwise specified, all dollar amounts are expressed in United States Dollars (“US\$”, “USD” or “\$”).

Cautionary Statements Regarding Forward-Looking Statements

This Annual Report on Form 20-F and other publicly available documents, including the documents incorporated herein and therein by reference contain forward- looking statements and information within the meaning of U.S. and Canadian securities laws. Forward-looking statements and information can generally be identified by the use of forward- looking terminology or words, such as, “continues”, “with a view to”, “is designed to”, “pending”, “predict”, “potential”, “plans”, “expects”, “anticipates”, “believes”, “intends”, “estimates”, “projects”, and similar expressions or variations thereon, or statements that events, conditions or results “can”, “might”, “will”, “shall”, “may”, “must”, “would”, “could”, or “should” occur or be achieved and similar expressions in connection with any discussion, expectation, or projection of future operating or financial performance, events or trends. Forward- looking statements and information are based on management’s current expectations and assumptions, which are inherently subject to uncertainties, risks and changes in circumstances that are difficult to predict.

Our actual results, performance and achievements may differ materially from those expressed in, or implied by, the forward-looking statements and information in this Annual Report as a result of various risks, uncertainties and other factors, many of which are difficult to predict and generally beyond the control of the Company, including without limitation:

- we have a limited operating history;
- our need for additional financing, which may not be available on acceptable terms or at all;
- the possibility that we will not be able to compete in the highly competitive semiconductor market;
- the risk that our objectives will not be met within the timelines we expect or at all;
- research and development risks;
- the risks associated with successfully protecting patents and trademarks and other intellectual property;
- the need to control costs and the possibility of unanticipated expenses;
- manufacturing and development risks;
- the risk that the price of our common stock will be volatile;
- the risk that geopolitical uncertainties may negatively impact our business venture in China;
- the risk that shareholders’ interests will be diluted through future stock offerings, option and warrant exercises; and
- other risks and uncertainties described in ITEM 3.D. “Risk Factors”.

For all of the reasons set forth above, investors should not place undue reliance on forward-looking statements. Other than any obligation to disclose material information under applicable securities laws or otherwise as maybe required by law, we undertake no obligation to revise or update any forward-looking statements after the date hereof.

Data relevant to estimated market sizes for our technologies under development are presented in this Annual Report. These data have been obtained from a variety of published resources including published scientific literature, websites and information generally available through publicized means. The Company attempts to source reference data from multiple sources whenever possible for confirmatory purposes. However, the Company has not independently verified the accuracy and completeness of this data.

PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS

A. Not Required.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not Required.

ITEM 3. KEY INFORMATION

A. [Reserved]

B. Capitalization and Indebtedness

During 2021, holders of certain convertible debentures converted \$3,571,342 (2020 - \$369,545) worth of convertible debentures into 1,119,750 (2020 – 123,500) units of the Company. On September 19, 2021, \$7,886 of convertible debentures matured and was repaid to the holder of the convertible debenture. As of December 31, 2021 all convertible debentures were either exercised or matured and repaid.

C. Reasons for the Offer and Use of Proceeds

Not Required.

D. Risk Factors

We are subject to various risks, including those described below, which could materially adversely affect our business, financial condition and results of operations and, in turn, the value of our securities. In addition, other risks not presently known to us or that we currently believe to be immaterial may also adversely affect our business, financial condition and results of operations, perhaps materially. The risks discussed below also include forward-looking statements and information within the meaning of U.S. and Canadian securities laws that involve risks and uncertainties. The Company's actual results may differ materially from the results discussed in the forward-looking statements and information Factors that might cause such differences include those discussed. Before making an investment decision with respect to any of our securities, you should carefully consider the following risks and uncertainties described below and elsewhere in this Annual Report. See also "Cautionary Statement Regarding Forward-Looking Statements."

Risks Related to Our Business

We have a history of large operating losses. We may not be able to achieve or sustain profitability in the future and as a result we may not be able to maintain sufficient levels of liquidity.

We have historically incurred losses and negative cash flows from operations since our inception. As of December 31, 2022, we had an accumulated deficit of \$194,023,660.

As of December 31, 2022, we held \$9,229,845 in cash and cash equivalents. We had working capital of \$5,751,101.

We divested our major operating asset, adopted a new “fab-light” strategy, and we plan to focus on the Optical Interposer as our main business. Any or all of these decisions if incorrect may have a material adverse effect on the results of our operations, financial position and cash flows, and pose further risks to the successful operation of our business over the short and long-term.

There are substantial risks associated with our adoption of a “fab-light” strategy, including the loss of revenue associated with the divested operation, the loss of control over an internal development asset, and the loss of key technical knowledge available from personnel who will no longer be employed by the Company, many of whom we may have to replace.

We have some previous experience with managing development without an internal development resource under a similar “fab-light” strategy which was not successful, and there is no guarantee that our new approach to operating a company with our chosen strategy will be successful. Further, our strategy will be solely dependent on the future market acceptance and sale of Optical Interposer-based solutions, which in some cases are neither fully developed nor in qualification stages. Customers are in the initial stages of committing to a production product.

We have taken substantial measures to protect POET’s intellectual property in the Optical Interposer, including development and production with a separate third-party company which engaged no engineering personnel from our former subsidiary company DenseLight. We conducted development of component devices with a segregated team at our DenseLight facility and took measures to protect POET’s intellectual property on those developments as well. However, we cannot guarantee that all our measures to protect our intellectual property on either the POET Optical Interposer or its component devices have been totally effective. In addition, we cannot guarantee that DenseLight or any other third-party that we rely on to perform development, manufacturing, packaging or testing services will perform as expected and produce the devices we will need to grow our Optical Interposer business.

We may not be able to obtain additional capital when desired, on favorable terms or at all.

We operate in a market that makes our prospects difficult to evaluate and, to remain competitive, we will be required to make continued investments in capital equipment, facilities and technology. We expect that substantial capital will be required to continue technology and product development, to expand our contract manufacturing capacity if we need to do so and to fund working capital for anticipated growth. If we do not generate sufficient cash flow from operations or otherwise have the capital resources to meet our future capital needs, we may need additional financing to implement our business strategy.

If we raise additional funds through the issuance of our common stock or convertible securities, the ownership interests of our stockholders could be significantly diluted. These newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. Additional financing may not, however, be available on terms favorable to us, or at all, if and when needed, and our ability to fund our operations, take advantage of unanticipated opportunities, develop or enhance our infrastructure or respond to competitive pressures could be significantly limited. If we cannot raise required capital when needed we may be unable to continue technology and product development, meet the demands of existing and prospective customers, adversely affecting our sales and market opportunities and consequently our business, financial condition and results of operations.

The process of developing new, technologically advanced products in semiconductor manufacturing and photonics products is highly complex and uncertain, and we cannot guarantee a positive result.

The development of new, technologically advanced products is a complex and uncertain process requiring frequent innovation, highly-skilled engineering and development personnel and significant capital, as well as the accurate anticipation of technological and market trends. We cannot assure you that we will be able to identify, develop, manufacture, market or support new or enhanced products successfully or on a timely basis. Further, we cannot assure you that our new products will gain market acceptance or that we will be able to respond effectively to product introductions by competitors, technological changes or emerging industry standards. We also may not be able to develop the underlying core technologies necessary to create new products and enhancements, license these technologies from third parties, or remain competitive in our markets.

The optical data communications industry in which we have chosen to operate is subject to significant risks, including rapid growth and volatility, dependence on rapidly changing underlying technologies, market and political risks and uncertainties and extreme competition. We cannot guarantee that we will be able to anticipate or overcome any or all of these risks and uncertainties, especially as a small company operating in an environment dominated by large, well-capitalized competitors with substantially more resources.

The optical data communications industry is subject to significant operational fluctuations. In order to remain competitive, we incur substantial costs associated with research and development, qualification, prototype production capacity and sales and marketing activities in connection with products that may be purchased, if at all, long after we have incurred such costs. In addition, the rapidly changing industry in which we operate, the length of time between developing and introducing a product to market, frequent changing customer specifications for products, customer cancellations of products and general down cycles in the industry, among other things, make our prospects difficult to evaluate. As a result of these factors, it is possible that we may not (i) generate sufficient positive cash flow from operations; (ii) raise funds through the issuance of equity, equity-linked or convertible debt securities; or (iii) otherwise have sufficient capital resources to meet our future capital or liquidity needs. There are no guarantees we will be able to generate additional financial resources beyond our existing balances.

We have contributed a portion of our intellectual property and exclusive assembly and sales rights for certain key initial products to a joint venture company that we formed in China. Although we believe that the joint venture offers significant opportunities for growth that we might not otherwise have and solves several major known challenges, we also recognize that there are substantial risks and uncertainties associated with executing a major portion of our strategy through a joint venture, regardless of the intentions and capabilities of the parties involved.

On October 21, 2020, the Company signed a Joint Venture Agreement (“JVA”) with Sanan IC to form a joint venture company, Super Photonics Xiamen Co., Ltd. (“SPX”), which will eventually be owned 48% by the Company once SAIC is fully invested. SPX will assemble, test, package and sell certain optical engines on an exclusive basis globally and certain others on an exclusive basis in the territory of Greater China. Optical engines based on the POET Optical Interposer are expected to be a primary component of several types of optical transceivers used in data centers. The joint venture is based on the contribution by the Company of certain assembly and test know-how and other intellectual property and cash to be contributed by Sanan IC in stages, subject to meeting certain milestones, to cover all capital and operating expenses of SPX until it is self-sustaining. We cannot guarantee that SPX will meet each milestone or that Sanan IC will or will not contribute capital on schedule when and if such milestones are met, nor can we guarantee that SPX will be successful in assembling and testing optical engines, nor in the marketing and sales once the optical engines are tested and qualified by potential customers.

Because no party to the joint venture, including the Company has a control position, we are not able to consolidate revenue and expenses directly into the Company’s financial statements. The earnings or loss from the joint venture operations are included as a single line item in the financial statements and the gain or loss on the intellectual property contributed to the joint venture is reported on another. Further, even though the joint venture may appreciate in market value if successful, the Company will not be able to reflect any increase in fair value, other than adding or subtracting on a periodic basis the income or loss experienced by the joint venture in relation to the Company’s percentage ownership at the time.

The Company's investment into "Super Photonics Xiamen" ("SPX") is into an independent company operating as a true joint venture under the laws of the Peoples Republic of China ("PRC"). There are significant governance and operational risks associated with joint ventures and with companies operating in the PRC, in general. We cannot guarantee that we will be able to anticipate or overcome the risks and uncertainties of operating a joint venture company in China.

Although SPX has its own governance structure to which both parties contribute directors, most major decisions must be unanimous, which means that such decisions will require the support of the management of SPX and both of the JV partners. Although the Company has sought the support of well-known and competent legal and other professional advisors and has had a major role in the recruitment of the senior management team of SPX, the Company has no prior experience with either the operation of a joint venture or with the operation of a JV company under the laws of the PRC, so we cannot guarantee that the joint venture will be successfully managed without substantial investment in time and effort by the Company's current management team or at all

If our customers do not qualify our products for use on a timely basis, our results of operations may suffer.

Prior to the sale of new products, our customers typically require us to "qualify" our products for use in their applications. At the successful completion of this qualification process, we refer to the resulting sales opportunity as a "design win." Additionally, new customers often audit our manufacturing facilities and perform other evaluations during this qualification process. The qualification process involves product sampling and reliability testing and collaboration with our product management and engineering teams in the design and manufacturing stages. If we are unable to accurately predict the amount of time required to qualify our products with customers, or are unable to qualify our products with certain customers at all, then our ability to generate revenue could be delayed or our revenue would be lower than expected and we may not be able to recover the costs associated with the qualification process or with our product development efforts, which would have an adverse effect on our results of operations.

We have limited operating history in the data center market, and our business could be harmed if this market does not develop as we expect.

The initial target market for our Optical Interposer-based optical engine is the data center market for data communications within the data center and beyond. We have limited experience in selling products in this market. We may not be successful in developing a product for this market and even if we do, it may never gain widespread acceptance by large data center operators. If our expectations for the growth of the data center / datacom market are not realized, our financial condition or results of operations may be adversely affected.

Customer demand is difficult to forecast accurately and, as a result, we may be unable to match production with customer demand.

We make planning and spending decisions, including determining the levels of business that we will seek and accept, production schedules, component procurement commitments, personnel needs and other resource requirements, based on our estimates of product demand and customer requirements. Our products are typically sold pursuant to individual purchase orders. While our customers may provide us with their demand forecasts, they are typically not contractually committed to buy any quantity of products beyond firm purchase orders. Furthermore, many of our customers may increase, decrease, cancel or delay purchase orders already in place without significant penalty. The short-term nature of commitments by our expected customers and the possibility of unexpected changes in demand for their products reduce our ability to accurately estimate future customer requirements. If any of our customers decrease, stop or delay purchasing our products for any reason, we will likely have excess manufacturing capacity or inventory and our business and results of operations would be harmed.

The markets in which we operate are highly competitive, which could result in lost sales and lower revenues.

The market for optical components and modules is highly competitive and this competition could result in our existing customers moving their orders to our competitors. We are aware of a number of companies that have developed or are developing integrated optical products, including silicon photonics engines, remote light sources, pluggable components, modules and subsystems, photonic integrated circuits, among others, that compete (or may in the future compete) directly with our current and proposed product offerings.

Some of our current competitors, as well as some of our potential competitors, have longer operating histories, greater name recognition, broader customer relationships and industry alliances and substantially greater financial, technical and marketing resources than we do. We may not be able to compete successfully with our competitors and aggressive competition in the market may result in lower prices for our products and/or decreased gross margins. Any such development could have a material adverse effect on our business, financial condition and results of operations.

We depend on a limited number of suppliers and key contract manufacturers who could disrupt our business and technology development activities if they stopped, decreased, delayed or were unable to meet our demand for shipments of their products or manufacturing of our products.

We depend on a limited number of suppliers of epitaxial wafers and contract manufacturers for our Indium Phosphide (“InP”) laser developments and optical interposer production activities. Some of these suppliers are sole source suppliers. We typically have not entered into long-term agreements with our suppliers. As a result, these suppliers generally may stop supplying us materials and other components at any time. Our reliance on a sole supplier or limited number of suppliers could result in delivery problems, reduced control over technology development, product development, pricing and quality, and an inability to identify and qualify another supplier in a timely manner. Some of our suppliers that may be small or under-capitalized may experience financial difficulties that could prevent them from supplying us materials and other components. In addition, our suppliers, including our sole source suppliers, may experience manufacturing delays or shutdowns due to circumstances beyond their control such as pandemics, earthquakes, floods, fires, labor unrest, political unrest or other natural disasters. A change in supplier could require technology transfer that could require multiple iterations of test wafers. This could result in significant delays in resumption of production.

Any supply deficiencies relating to the quality or quantities of materials or equipment we use to manufacture our products could materially and adversely affect our ability to fulfill customer orders and our results of operations. Lead times for the purchase of certain materials and equipment from suppliers have increased and, in some cases, have limited our ability to rapidly respond to increased demand, and may continue to do so in the future. To the extent we introduce additional contract manufacturing partners, introduce new products with new partners and/or move existing internal or external production lines to new partners, we could experience supply disruptions during the transition process. In addition, due to our customers’ requirements relating to the qualification of our suppliers and contract manufacturing facilities and operations, we cannot quickly enter into alternative supplier relationships, which prevent us from being able to respond immediately to adverse events affecting our suppliers.

Our international business and operations expose us to additional risks.

We have significant tangible assets located outside Canada and the United States. Conducting business outside Canada and the United States subjects us to a number of additional risks and challenges, including:

- periodic changes in a specific country’s or region’s economic conditions, such as recession;
- licenses and other trade barriers;

- the provision of services may require export licenses;
- environmental regulations;
- certification requirements;
- fluctuations in foreign currency exchange rates;
- inadequate protection of intellectual property rights in some countries;
- preferences of certain customers for locally produced products;
- potential political, legal and economic instability, foreign conflicts, and the impact of regional and global infectious illnesses in the countries in which we and our customers, suppliers and contract manufacturers are located;
- Canadian and U. S. and foreign anticorruption laws;
- seasonal reductions in business activities in certain countries or regions; and
- fluctuations in freight rates and transportation disruptions.

These factors, individually or in combination, could impair our ability to effectively operate one or more of our foreign facilities or deliver our products, result in unexpected and material expenses, or cause an unexpected decline in the demand for our products in certain countries or regions. Our failure to manage the risks and challenges associated with our international business and operations could have a material adverse effect on our business.

If we fail to attract and retain key personnel, our business could suffer.

Our future success depends, in part, on our ability to attract and retain key personnel, including executive management. Competition for highly skilled technical personnel is extremely intense and we may face difficulty identifying and hiring qualified engineers in many areas of our business. We may not be able to hire and retain such personnel at compensation levels consistent with our existing compensation and salary structure. Our future success also depends on the continued contributions of our executive management team and other key management and technical personnel, each of whom would be difficult to replace. The loss of services of these or other executive officers or key personnel or the inability to continue to attract qualified personnel could have a material adverse effect on our business.

If we fail to protect, or incur significant costs in defending, our intellectual property and other proprietary rights, our business and results of operations could be materially harmed.

Our success depends on our ability to protect our intellectual property and other proprietary rights. We rely on a combination of patent, trademark, copyright, trade secret and unfair competition laws, as well as license agreements and other contractual provisions, to establish and protect our intellectual property and other proprietary rights. We have applied for patent registrations in the U.S. and in foreign countries, some of which have been issued. We cannot guarantee that our pending applications will be approved by the applicable governmental authorities. Moreover, our existing and future patents and trademarks may not be sufficiently broad to protect our proprietary rights or may be held invalid or unenforceable in court. A failure to obtain patents or trademark registrations or a successful challenge to our registrations in the U.S. or foreign countries may limit our ability to protect the intellectual property rights that these applications and registrations intended to cover.

Policing unauthorized use of our technology is difficult and we cannot be certain that the steps we have taken will prevent the misappropriation, unauthorized use or other infringement of our intellectual property rights. Further, we may not be able to effectively protect our intellectual property rights from misappropriation or other infringement in foreign countries where we have not applied for patent protections, and where effective patent, trademark, trade secret and other intellectual property laws may be unavailable or may not protect our proprietary rights as fully as Canadian or U.S. law. We may seek to secure comparable intellectual property protections in other countries. However, the level of protection afforded by patent and other laws in other countries may not be comparable to that afforded in Canada and the U.S.

We also attempt to protect our intellectual property, including our trade secrets and know-how, through the use of trade secret and other intellectual property laws, and contractual provisions. We enter into confidentiality and invention assignment agreements with our employees and independent consultants. We also use non-disclosure agreements with other third parties who may have access to our proprietary technologies and information. Such measures, however, provide only limited protection, and there can be no assurance that our confidentiality and non-disclosure agreements will not be breached, especially after our employees end their employment, and that our trade secrets will not otherwise become known by competitors or that we will have adequate remedies in the event of unauthorized use or disclosure of proprietary information. Unauthorized third parties may try to copy or reverse engineer our products or portions of our products, otherwise obtain and use our intellectual property, or may independently develop similar or equivalent trade secrets or know-how. If we fail to protect our intellectual property and other proprietary rights, or if such intellectual property and proprietary rights are infringed or misappropriated, our business, results of operations or financial condition could be materially harmed.

In the future, we may need to take legal actions to prevent third parties from infringing upon or misappropriating our intellectual property or from otherwise gaining access to our technology. Protecting and enforcing our intellectual property rights and determining their validity and scope could result in significant litigation costs and require significant time and attention from our technical and management personnel, which could significantly harm our business. We may not prevail in such proceedings, and an adverse outcome may adversely impact our competitive advantage or otherwise harm our financial condition and our business.

We may be involved in intellectual property disputes in the future, which could divert management's attention, cause us to incur significant costs and prevent us from selling or using the challenged technology.

Participants in the markets in which we sell our products have experienced frequent litigation regarding patent and other intellectual property rights. There can be no assurance that third parties will not assert infringement claims against us, and we cannot be certain that our products would not be found infringing on the intellectual property rights of others. Regardless of their merit, responding to such claims can be time consuming, divert management's attention and resources and may cause us to incur significant expenses. Intellectual property claims against us could result in a requirement to license technology from others, discontinue manufacturing or selling the infringing products, or pay substantial monetary damages, each of which could result in a substantial reduction in our revenue and could result in losses over an extended period of time.

If we fail to obtain the right to use the intellectual property rights of others that are necessary to operate our business, and to protect their intellectual property, our business and results of operations will be adversely affected.

From time to time, we may choose to or be required to license technology or intellectual property from third parties in connection with the development of our products. We cannot assure you that third party licenses will be available to us on commercially reasonable terms, if at all. Generally, a license, if granted, would include payments of up-front fees, ongoing royalties or both. These payments or other terms could have a significant adverse impact on our results of operations. Our inability to obtain a necessary third-party license required for our product offerings or to develop new products and product enhancements could require us to substitute technology of lower quality or performance standards, or of greater cost, either of which could adversely affect our business. If we are not able to obtain licenses from third parties, if necessary, then we may also be subject to litigation to defend against infringement claims from these third parties. Our competitors may be able to obtain licenses or cross-license their technology on better terms than we can, which could put us at a competitive disadvantage.

Failure to comply with requirements to design, implement and maintain effective internal control over financial reporting could have a materially adverse impact on our financial reporting and our business. We are required to have our internal controls over financial reporting audited under Section 404(b) of the Sarbanes-Oxley Act.

Preparing our consolidated financial statements involves a number of complex manual and automated processes, which are dependent upon individual data input or review and require significant management judgment. One or more of these elements may result in errors that may not be detected and could result in a material misstatement of our consolidated financial statements. The Sarbanes-Oxley Act in the U.S. requires, among other things, that as a publicly traded company we disclose whether our internal control over financial reporting and disclosure controls and procedures are effective. Until December 31, 2021 we qualified as an "emerging growth company" under the JOBS Act, and, as a result, were exempted from certain SEC reporting requirements, including those requiring registrants to include an auditor's report regarding the Company's internal controls as part of such registrant's periodic reports. Our "emerging growth company" status expired on December 31, 2021. The report of our auditors regarding the effectiveness of our internal controls over disclosure and financial reporting as of December 31, 2022 is attached as an exhibit to this annual report.

Our internal control over financial reporting cannot guarantee that no accounting errors exist or that all accounting errors, no matter how immaterial, will be detected because a control system, no matter how well designed and operated, can provide only reasonable, but not absolute assurance that the control system's objectives will be met. If we are unable to implement and maintain effective internal control over financial reporting, our ability to accurately and timely report our financial results could be adversely impacted. This could result in late filings of our annual and quarterly reports under the *Securities Act* (Ontario) and the Securities Exchange Act of 1934 (the "Exchange Act"), restatements of our consolidated financial statements, a decline in our stock price, suspension or delisting of our common stock by the TSX Venture Exchange, or other material adverse effects on our business, reputation, results of operations or financial condition.

The process of designing and implementing effective internal control over financial reporting is a continuous effort that requires us to anticipate and react to changes in our business and the economic and regulatory environments and to expend significant resources to maintain a system of internal control that is adequate to satisfy our reporting obligations as a public company. In addition, we are required, pursuant to Section 404(a) of the Sarbanes-Oxley Act, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting. This assessment must include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. The rules governing the standards that must be met for our management to assess our internal control over financial reporting are complex and require significant documentation, testing and possible remediation. Testing and maintaining our internal control over financial reporting may divert our management's attention from other matters that are important to our business. In connection with the implementation of the necessary procedures and practices related to our internal control over financial reporting, we and/or our independent registered accounting firm may identify material weaknesses and other deficiencies that may require significant effort and expense to remediate. We may encounter problems or delays in completing the remediation of any such weaknesses or other deficiencies.

If there is a change in conditions, or the degree of compliance with policies or procedure deteriorates, internal review of our internal control over financial reporting or the subsequent testing by our independent registered public accounting firm may reveal deficiencies in our internal control over financial reporting that are deemed material weaknesses. If this occurs, our consolidated financial statements or disclosures may contain material misstatements and we could be required to restate our financial results. Additionally, we may not be able to conclude on an ongoing basis that we have effective internal control over financial reporting or our independent registered public accounting firm may not in future issue an unqualified opinion, each of which could lead to investors losing confidence in our reported financial information, which could have a material adverse effect on the trading price of our common stock, and we may be unable to maintain compliance with applicable stock exchange listing requirements.

Our ability to use our net operating losses and certain other tax attributes may be limited.

As of December 31, 2022, we had accumulated net operating losses (“NOLs”), of approximately \$135 million. Varying jurisdictional tax codes have restrictions on the use of NOLs, if a corporation undergoes an “ownership change,” the Company’s ability to use its pre-change NOLs, R&D credits and other pre-change tax attributes to offset its post-change income may be limited. An ownership change is generally defined as a greater than 50% change in equity ownership. Based upon an analysis of our equity ownership, we do not believe that we have experienced such ownership changes and therefore our annual utilization of our NOLs is not limited. However, should we experience additional ownership changes, our NOL carry forwards may be limited.

We are subject to governmental export and import controls that could subject us to liability or impair our ability to compete in international markets. Such controls have recently increased for companies in China under the US government’s “control list”, and may further limit or impair our ability to use certain sub-contractors or to sell directly to companies on the list

We are subject to export and import control laws, trade regulations and other trade requirements that limit which raw materials and technology we can import or export and which products we sell and where and to whom we sell our products. Specifically, the Bureau of Industry and Security of the U.S. Department of Commerce is responsible for regulating the export of most commercial items that are so called dual-use goods that may have both commercial and military applications. A limited number of our products are exported by license under certain classifications. Export Control Classification requirements are dependent upon an item’s technical characteristics, the destination, the end-use, and the end-user, and other activities of the end-user. Should the regulations applicable to our products change, or the restrictions applicable to countries to which we ship our products change, then the export of our products to such countries could be restricted. As a result, our ability to export or sell our products to certain countries could be restricted, which could adversely affect our business, financial condition and results of operations. Changes in our products or any change in export or import regulations or related legislation, shift in approach to the enforcement or scope of existing regulations, or change in the countries, persons or technologies targeted by such regulations, could result in delayed or decreased sales of our products to existing or potential customers. In such event, our business and results of operations could be adversely affected.

Our manufacturing operations are subject to environmental regulation that could limit our growth or impose substantial costs, adversely affecting our financial condition and results of operations.

Our properties, operations and products are subject to the environmental laws and regulations of the jurisdictions in which we operate and sell products. These laws and regulations govern, among other things, air emissions, wastewater discharges, the management and disposal of hazardous materials, the contamination of soil and groundwater, employee health and safety and the content, performance, packaging and disposal of products. Our failure to comply with current and future environmental laws and regulations, or the identification of contamination for which we are liable, could subject us to substantial costs, including fines, cleanup costs, third-party property damages or personal injury claims, and make significant investments to upgrade our facilities or curtail our operations. Identification of presently unidentified environmental conditions, more vigorous enforcement by a governmental authority, enactment of more stringent legal requirements or other unanticipated events could give rise to adverse publicity, restrict our operations, affect the design or marketability of our products or otherwise cause us to incur material environmental costs, adversely affecting our financial condition and results of operations.

We are exposed to risks and increased expenses and business risk as a result of Restriction on Hazardous Substances, or RoHS directives, which have been amended but are still in effect.

Following the lead of the European Union, or EU, various governmental agencies have either already put into place or are planning to introduce regulations that regulate the permissible levels of hazardous substances in products sold in various regions of the world. For example, the RoHS directive for EU took effect on July 1, 2006. The labeling provisions of similar legislation in China went into effect on March 1, 2007 and is still in effect, as amended. Consequently, many suppliers of products sold into the EU have required their suppliers to be compliant with the new directive. We anticipate that our customers may adopt this approach and will require our full compliance, which will require a significant amount of resources and effort in planning and executing our RoHS program, it is possible that some of our products might be incompatible with such regulations. In such events, we could experience the following consequences: loss of revenue, damages reputation, diversion of resources, monetary penalties, and legal action.

Failure to comply with the U.S. Foreign Corrupt Practices Act could subject us to penalties and other adverse consequences.

We are subject to the U.S. Foreign Corrupt Practices Act, which generally prohibits companies operating in the U.S. from engaging in bribery or other prohibited payments to foreign officials for the purpose of obtaining or retaining business. In addition, we are required to maintain records that accurately and fairly represent our transactions and have an adequate system of internal accounting controls. Non-U.S. companies, including some that may compete with us, may not be subject to these prohibitions, and therefore may have a competitive advantage over us. If we are not successful in implementing and maintaining adequate preventative measures, we may be responsible for acts of our employees or other agents engaging in such conduct. We could suffer severe penalties and other consequences that may have a material adverse effect on our financial condition and results of operations.

Natural disasters or other catastrophic events could harm our operations.

Our operations in the U.S., Canada, Singapore and China could be subject to significant risk of natural disasters, including earthquakes, hurricanes, typhoons, flooding and tornadoes, as well as other catastrophic events, such as epidemics, terrorist attacks or wars. For example, our testing facility in Singapore is in an area that is susceptible to hurricanes. Any disruption in our facilities or those of our contractors and suppliers arising from these and other natural disasters or other catastrophic events could cause significant delays in the production or shipment of our products until we are able to arrange for third parties to manufacture our products. We may not be able to obtain alternate capacity on favorable terms or at all. Our property insurance coverage with respect to natural disaster is limited and is subject to deductible and coverage limits. Such coverage may not be adequate or continue to be available at commercially reasonable rates and terms. The occurrence of any of these circumstances may adversely affect our financial condition and results of operation.

We may be subject to disruptions or failures in information technology systems and network infrastructures that could have a material adverse effect on our business and financial condition.

We rely on the efficient and uninterrupted operation of complex information technology systems and network infrastructures to operate our business. A disruption, infiltration or failure of our information technology systems as a result of software or hardware malfunctions, system implementations or upgrades, computer viruses, third-party security breaches, employee error, theft or misuse, malfeasance, power disruptions, natural disasters or accidents could cause a breach of data security, loss of intellectual property and critical data and the release and misappropriation of sensitive competitive information and partner, customer, and employee personal data. Any of these events could harm our competitive position, result in a loss of customer confidence, cause us to incur significant costs to remedy any damages and ultimately materially adversely affect our business and financial condition.

A significant disruption in, or breach in security of, our information technology systems or violations of data protection laws could materially adversely affect our business and reputation.

In the ordinary course of business, we collect and store confidential information, including proprietary business information belonging to us, our customers, suppliers, business partners and other third parties and personally identifiable information of our employees. We rely on information technology systems to protect this information and to keep financial records, process orders, manage inventory, coordinate shipments to customers, and operate other critical functions. Our information technology systems may be susceptible to damage, disruptions or shutdowns due to power outages, hardware failures, telecommunication failures and user errors. If we experience a disruption in our information technology systems, it could result in the loss of sales and customers and significant incremental costs, which could materially adversely affect our business. We may also be subject to security breaches caused by computer viruses, illegal break-ins or hacking, sabotage, or acts of vandalism by disgruntled employees or third parties. The risk of a security breach or disruption, particularly through cyberattack or cyber intrusion, including by computer hackers, foreign governments and cyber terrorists, has increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. Our information technology network and systems have been and, we believe, continue to be under constant attack. Accordingly, despite our security measures or those of our third-party service providers, a security breach may occur, including breaches that we may not be able to detect. Security breaches of our information technology systems could result in the misappropriation or unauthorized disclosure of confidential information. Such breaches could also result in legal action against us by third parties.

The COVID-19 outbreak could delay our development activities and adversely affect our results of operations.

The global outbreak of COVID-19 has resulted in Canada, the United States, Singapore, China and other countries halting or sharply curtailing the movement of people, goods and services. The curtailed activity has negatively affected many businesses, including the Company and other businesses that operate in our sector. The prolonged economic impact of COVID-19 remains uncertain. At this point, we believe the conditions may have a material adverse impact on our business, as our suppliers are experiencing major delays resulting from high backlogs of orders and an inability to operate at full capacity. Such delays have resulted in a four to six months delay or longer in the Company achieving certain development objectives. Given the rapidly changing developments we cannot accurately predict what effects these developments will have on our business going forward, which will depend on, among other factors, the ultimate geographic spread of the virus, governmental limitations, the duration of the outbreak, travel restrictions and business closures.

The Company may experience these factors in the future and these factors may have a material adverse effect on the Company's business, operating results and financial condition.

Risks Related to Our Common Stock

In order to qualify for listing on the Nasdaq, we consolidated our common shares on a 10-for-1 basis, thereby reducing the total number of our common shares which are outstanding on a post-consolidation basis. We cannot guarantee that the reduction in the number of our outstanding common shares as a result of the consolidation will not adversely affect the liquidity of our common shares or decrease the overall value of the Company in the future.

On February 28, 2022, the Company completed a 10-for-1 consolidation of our outstanding common shares, resulting in a total of 36,496,456 common shares of the Company outstanding on a post-consolidation basis. The reduced number of outstanding shares may reduce market liquidity of our common shares and/or affect investor perception of the value of the Company, and as a result shareholders may not be able to sell their shares on a timely basis, or at all.

Our stock price has been and may continue to be volatile.

The trading price for our common stock on the TSX Venture Exchange ("TSXV") has been and is likely to continue to be highly volatile. Although we have registered our stock with the SEC, the U.S. market for our shares has been slow to develop, and if and as such a market develops, prices on that market are also likely to be highly volatile. The market prices for securities of early-stage technology companies have historically been highly volatile.

Factors that could adversely affect our stock price include:

- fluctuations in our operating results and our financial condition;
- announcements of new products, partnerships or technological collaborations and announcements of the results or further actions in respect of any products, partnerships or collaborations, including termination of same;
- innovations by us or our competitors;
- governmental regulation;
- developments in patent or other proprietary rights;
- the results of technology and product development testing by us, our partners or our competitors;
- litigation;
- general stock market and economic conditions;
- number of shares available for trading (float); and
- inclusion in or dropping from stock indexes.

As of March 22, 2023, our 52-week high and low closing market prices for our common stock on the TSXV were CA\$13.65 and CA\$3.26. In the past, following periods of volatility in the market price of a company's securities, securities class-action litigation has often been brought against that company. We may become involved in this type of litigation in the future. Litigation of this type may be expensive to defend and may divert our management's attention and resources from the operation of our business

The listing of our common shares on multiple exchanges may adversely affect the liquidity and value of our common shares.

Currently, our common shares are traded on the TSXV and the Nasdaq. We cannot predict the effect of listing our common shares on multiple exchanges on the market price of our common shares, and listing on multiple exchanges may dilute the liquidity of these securities in one or more markets.

We have historically obtained, and expect to continue to obtain, additional financing primarily by way of sales of equity, which may result in significant dilution to existing shareholders.

We have not earned profits, so the Company's ability to finance operations is chiefly dependent on equity financings. Funds raised through equity public offerings, financing through private placements or the exercise of stock options and warrants and the conversion of convertible debt into common shares in support of the Company's business has resulted in significant shareholder dilution. Further equity financings will also result in dilution to existing shareholders, and such dilution could be significant.

Future sales of common stock, or the prospect of future sales, may depress our stock price. The exercise of share purchase options and warrants will create dilution which could adversely affect the Company's shareholders.

Sales of a substantial number of shares of common stock, or the perception that sales could occur, could adversely affect the market price of our common stock. Additionally, as of March 22, 2023, there were outstanding options to purchase up to 6,730,450 shares of our common stock. As of March 22, 2023, there were outstanding warrants to purchase 1,638,250 shares of our stock. The holders of these options and warrants have an opportunity to profit from a rise in the market price of our common stock with a resulting dilution in the interests of the other shareholders. The existence of these options and warrants may adversely affect the terms on which we may be able to obtain additional financing. The weighted average exercise price of issued and outstanding options is CAD\$4.94, the weighted average exercise price of warrants is CAD\$4.98, which compares to the CAD\$5.43 market price at closing on March 22, 2023. If all of these securities were exercised, an additional 8,368,700 common shares would become issued and outstanding. This represents an increase of 21.50% in the number of shares issued and outstanding and would result in significant dilution to current shareholders.

The rights of our shareholders may differ from the rights typically afforded to shareholders of a U.S. corporation.

We are incorporated under the Business Corporations Act (Ontario) (the "OBCA"). The rights of holders of our common shares are governed by the laws of the Province of Ontario, including the OBCA, by the applicable laws of Canada, and by our Articles of Continuance and all amendments thereto (collectively, the "Articles"), and our by-laws (the "By-laws"). These rights differ in certain respects from the rights of shareholders in typical U.S. corporations. The principal differences include without limitation the following:

Under the OBCA, we have a lien on any common share registered in the name of a shareholder or the shareholder's legal representative for any debt owed by the shareholder to us. Under U.S. state law, corporations generally are not entitled to any such statutory liens in respect of debts owed by shareholders.

With regard to certain matters, we must obtain approval of our shareholders by way of at least 66 2/3% of the votes cast at a meeting of shareholders duly called for such purpose being cast in favor of the proposed matter. Such matters include without limitation: (a) the sale, lease or exchange of all or substantially all of our assets out of the ordinary course of our business; and (b) any amendments to our Articles including, but not limited to, amendments affecting our capital structure such as the creation of new classes of shares, changing any rights, privileges, restrictions or conditions in respect of our shares, or changing the number of issued or authorized shares, as well as amendments changing the minimum or maximum number of directors set forth in the Articles. Under U.S. state law, the sale, lease, exchange or other disposition of all or substantially all of the assets of a corporation generally requires approval by a majority of the outstanding shares, although in some cases approval by a higher percentage of the outstanding shares may be required. In addition, under U.S. state law the vote of a majority of the shares is generally sufficient to amend a company's certificate of incorporation, including amendments affecting capital structure or the number of directors.

Pursuant to our By-laws, two persons present in person or represented by proxy and each entitled to vote thereat shall constitute a quorum for the transaction of business at any meeting of shareholders. Under U.S. state law, a quorum generally requires the presence in person or by proxy of a specified percentage of the shares entitled to vote at a meeting, and such percentage is generally not less than one-third of the number of shares entitled to vote.

Under rules of the Ontario Securities Commission, a meeting of shareholders must be called for consideration and approval of certain transactions between a corporation and any "related party" (as defined in such rules). A "related party" is defined to include, among other parties, directors and senior officers of a corporation, holders of more than 10% of the voting securities of a corporation, persons owning a block of securities that is otherwise sufficient to affect materially the control of the corporation, and other persons that manage or direct, to a substantial degree, the affairs or operations of the corporation. At such shareholders' meeting, votes cast by any related party who holds common shares and has an interest in the transaction may not be counted for the purposes of determining whether the minimum number of required votes have been cast in favor of the transaction. Under U.S. state law, a transaction between a corporation and one or more of its officers or directors can generally be approved either by the shareholders or a by majority of the directors who do not have an interest in the transaction.

Neither Canadian law nor our Articles or By-laws limit the right of a non-resident to hold or vote common shares of the Company, other than as provided in the Investment Canada Act (the "Investment Act"), as amended by the World Trade Organization Agreement Implementation Act (the "WTOA Act"). The Investment Act generally prohibits implementation of a direct reviewable investment by an individual, government or agency thereof, corporation, partnership, trust or joint venture that is not a "Canadian," as defined in the Investment Act (a "non-Canadian"), unless, after review, the minister responsible for the Investment Act is satisfied that the investment is likely to be of net benefit to Canada. An investment in the common shares of the Company by a non-Canadian (other than a "WTO Investor," as defined below) would be reviewable under the Investment Act if it were an investment to acquire direct control of the Company, and the value of the assets of the Company were CA\$5.0 million or more (provided that immediately prior to the implementation of the investment the Company was not controlled by WTO Investors). An investment in common shares of the Company by a WTO Investor (or by a non-Canadian other than a WTO Investor if, immediately prior to the implementation of the investment the Company was controlled by WTO Investors) would be reviewable under the Investment Act if it were an investment to acquire direct control of the Company and the value of the assets of the Company equaled or exceeded certain threshold amounts determined on an annual basis. The threshold for a pre-closing net benefit review depends on whether the purchaser is: (a) controlled by a person or entity from a member of the WTO; (b) a state-owned enterprise (SOE); or (c) from a country considered a "Trade Agreement Investor" under the Investment Act. A different threshold also applies if the Canadian business carries on a cultural business. The 2023 threshold for WTO investors that are SOEs will be CA\$512 million based on the book value of the Canadian business' assets, up from CA\$454 million in 2022. The 2023 thresholds for review for direct acquisitions of control of Canadian businesses by private sector investor WTO investors is \$1.287 billion and private sector trade-agreement investors is \$1.931 billion and are both based on the "enterprise value" of the Canadian business being acquired.

A non-Canadian, whether a WTO Investor or otherwise, would be deemed to acquire control of the Company for purposes of the Investment Act if he or she acquired a majority of the common shares of the Company. The acquisition of less than a majority, but at least one-third of the shares, would be presumed to be an acquisition of control of the Company, unless it could be established that the Company is not controlled in fact by the acquirer through the ownership of the shares. In general, an individual is a WTO Investor if he or she is a "national" of a country (other than Canada) that is a member of the WTO ("WTO Member") or has a right of permanent residence in a WTO Member. A corporation or other entity will be a "WTO Investor" if it is a "WTO Investor-controlled entity," pursuant to detailed rules set out in the Investment Act. The U.S. is a WTO Member. Certain transactions involving our common shares would be exempt from the Investment Act, including:

- an acquisition of our common shares if the acquisition were made in connection with the person's business as a trader or dealer in securities;
- an acquisition of control of the Company in connection with the realization of a security interest granted for a loan or other financial assistance and not for any purpose related to the provisions of the Investment Act; and
- an acquisition of control of the Company by reason of an amalgamation, merger, consolidation or corporate reorganization, following which the ultimate direct or indirect control of the Company, through the ownership of voting interests, remains unchanged. Under U.S. law, except in limited circumstances, restrictions generally are not imposed on the ability of non-residents to hold a controlling interest in a U.S. corporation.

As a "foreign private issuer", the Company is exempt from certain sections of the Exchange Act which results in shareholders having less complete and timely data than if the Company were a domestic U.S. issuer.

As a "foreign private issuer," as defined under the U.S. securities laws, we are exempt from certain sections of the Exchange Act. In particular, we are exempt from Section 14 proxy rules that are applicable to domestic U.S. issuers. The submission of proxy and annual meeting of shareholder information (prepared to Canadian standards) on Form 6-K has typically been more limited than the submissions required of U.S. issuers and results in shareholders having less complete and timely data, including, among others, with respect to disclosure of: (i) personal and corporate relationships and age of directors and officers; (ii) material legal proceedings involving the Company, affiliates of the Company, and directors, officers promoters and control persons; (iii) the identity of principal shareholders and certain significant employees; (iv) related party transactions; (v) audit fees and change of auditors; (vi) voting policies and procedures; (vii) executive compensation; and (viii) composition of the Compensation Committee. In addition, due to the Company's status as a foreign private issuer, the officers, directors and principal shareholders of the Company are exempt from the short-swing insider disclosure and profit recovery provisions of Section 16 of the Exchange Act. The foregoing exemption results in shareholders having less data in this regard than is available with respect to U.S. issuers.

As a foreign private issuer, we are permitted to adopt certain home country practices in relation to corporate governance matters that differ significantly from Nasdaq corporate governance listing standards. These practices may afford less protection to shareholders than they would enjoy if we complied fully with Nasdaq's corporate governance listing standards.

As a foreign private issuer listed on Nasdaq, we are subject to Nasdaq's corporate governance listing standards. However, pursuant to Nasdaq rules, foreign private issuers are permitted to follow the corporate governance practices of their home country in certain instances, provided that disclosure regarding which requirements have not been complied with and confirmation regarding applicable Canadian corporate governance practices which are being followed has been provided. The Company has availed itself of the ability to follow applicable corporate governance standards of its home country in certain instances, and provided such disclosures and confirmations in applicable periodic reports filed with the Securities and Exchange Commission. Certain corporate governance practices in Canada, which is our home country, may differ significantly from Nasdaq corporate governance listing standards. Therefore, our shareholders may be afforded less protection than they otherwise would have in certain instances as a result of following such Canadian corporate governance practices.

The Company may lose its foreign private issuer status, which would then require us to comply with the Exchange Act's domestic reporting regime and cause us to incur significant legal, accounting and other expenses.

We are a foreign private issuer, and therefore, we are not required to comply with all of the periodic disclosure and current reporting requirements of the Exchange Act applicable to U.S. domestic issuers. The determination of foreign private issuer status is made annually on the last business day of an issuer's most recently completed second fiscal quarter, and, accordingly, the next determination will be made with respect to us on June 30, 2023. In order to maintain our current status as a foreign private issuer, either (a) a majority of our common shares must be either directly or indirectly owned of record by non-residents of the United States or (b)(i) a majority of our executive officers or directors cannot be U.S. citizens or residents, (ii) more than 50 percent of our assets must be located outside the United States and (iii) our business must be administered principally outside the United States. If we lose our status as a foreign private issuer, we would be required to comply with the Exchange Act reporting and other requirements applicable to U.S. domestic issuers, including the requirement to prepare our financial statements in accordance with U.S. generally accepted accounting principles, which are more detailed and extensive than the requirements for foreign private issuers. We may also be required to make changes in our corporate governance practices in accordance with various SEC and Nasdaq rules. The regulatory and compliance costs to us under U.S. securities laws if we are required to comply with the reporting requirements applicable to a U.S. domestic issuer may be significantly higher than the cost we would incur as a foreign private issuer. As a result, we expect that a loss of foreign private issuer status would increase our legal and financial compliance costs and would make some activities highly time consuming and costly. If we lose foreign private issuer status and are unable to comply with the reporting requirements applicable to a U.S. domestic issuer by the applicable deadlines, we would not be in compliance with applicable SEC rules or the rules of the Nasdaq, which could cause investors could lose confidence in our public reports and could have a material adverse effect on the trading price of our common shares.

Additionally, we are currently eligible to use the multijurisdictional disclosure system ("MJDS"), which, among other things, allows eligible Canadian issuers to make registered public offerings in the United States using a prospectus prepared and reviewed in Canada that is mainly, although not exclusively, in accordance with Canadian disclosure requirements. If the Company no longer qualifies as a foreign private issuer, it would not be eligible to use the MJDS, or other foreign issuer forms for certain securities offerings. The regulatory and compliance costs under U.S. federal securities laws as a U.S. domestic issuer may be significantly more than the costs incurred as a Canadian foreign private issuer eligible for MJDS.

If the Company is characterized as a passive foreign investment company, our U.S. shareholders may suffer adverse tax consequences.

As more fully described below in ITEM 10.E. "Taxation" — United States Federal Income Tax Considerations — Passive Foreign Investment Company Status", if for any taxable year our passive income, or the value of our assets that produce (or are held for the production of) passive income, exceed specified levels, we may be characterized as a passive foreign investment company ("PFIC") for U.S. federal income tax purposes. This characterization could result in adverse U.S. tax consequences to our U.S. shareholders, including gain on the disposition of our common shares being treated as ordinary income and any resulting U.S. federal income tax being increased by an interest charge. Rules similar to those applicable to dispositions generally will apply to certain "excess distributions" in respect of our common shares.

The actual allocation of proceeds from any financing undertaken may differ from the Company's initial or current intentions.

The Company has discretion in the use of the net proceeds from any offering of equity securities. The Company may elect to allocate proceeds differently from its initial or current intentions. The failure by the Company's management to apply these funds effectively could have a material adverse effect on its business.

Warrants included with financings

Warrants offered with financings are not listed on any exchange. Investors may be unable to sell the warrants at the prices desired or at all. There is no existing trading market for the warrants and there can be no assurance that a liquid market will develop or be maintained for the warrants, or that an investor will be able to sell any of the warrants at a particular time (if at all). The liquidity of the trading market in the warrants, and the market price quoted for the warrants, may be adversely affected by, among other things:

- changes in the overall market for the warrants;
- changes in the Corporation's financial performance or prospects;
- changes or perceived changes in the Corporation's creditworthiness;
- the prospects for companies in the industry generally;
- the number of holders of the warrants;
- the interest of securities dealers in making a market for the warrants; and
- prevailing interest rates.

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of the Company

The legal and commercial name of the Company is POET Technologies Inc. The Company was originally incorporated under the British Columbia Company Act on February 9, 1972 as Tandem Resources Ltd. On November 14, 1985, Tandem Resources Ltd. amalgamated with Stanmar Resources Ltd. and Keezic Resources Ltd., to continue as one company under the name Tandem Resources Ltd. under the British Columbia Company Act. By Articles of Continuance dated January 3, 1997, Tandem Resources Ltd. was continued under the OBCA. By Articles of Amendment dated September 26, 2006, Tandem Resources Ltd. changed its name to OPEL International Inc. By Certificate of Continuance dated January 30, 2007, OPEL International Inc. was continued under the New Brunswick Business Corporations Act. By Articles of Continuance dated November 30, 2010, OPEL International Inc. was continued under the OBCA and changed its name to OPEL Solar International Inc. By Articles of Amendment dated August 25, 2011, OPEL Solar International Inc. changed its name to OPEL Technologies Inc. By Articles of Amendment dated July 23, 2013, OPEL Technologies Inc. changed its name to POET Technologies Inc.

On May 11, 2016, in an all-stock transaction, the Company acquired all the issued and outstanding shares of DenseLight Semiconductor Pte. Ltd., a privately held Singapore company that provides optical solutions. DenseLight designs, manufactures and sells optical light source products. DenseLight was acquired for \$10,500,000 of the Company's stock. The Company issued 1,361,115 common shares to the former shareholders of DenseLight.

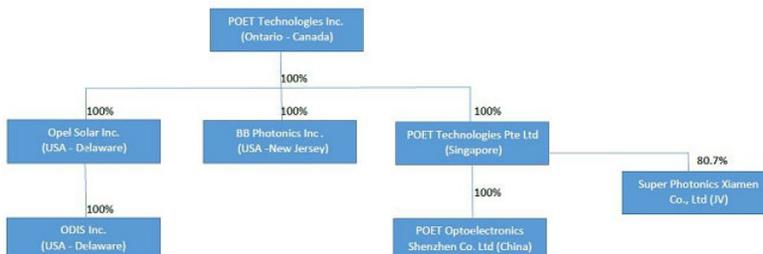
On November 8, 2019, the Company sold 100% of the issued and outstanding shares of DenseLight for \$26,000,000. The Company recognized a gain on the sale of \$8,707,280.

On June 22, 2016, in an all-stock transaction, the Company acquired all the issued and outstanding shares of BB Photonics Inc., a privately held US Company with a wholly owned subsidiary, BB Photonics UK Ltd. Both companies design integrated photonics solutions for the data communications market. BB Photonics and its subsidiary were acquired for consideration of \$1,550,000. The acquisition was settled with the issuance of 199,609 common shares of the Company to the former shareholders of BB Photonics. The Company dissolved BB Photonics UK Ltd. on October 6, 2020.

On May 17, 2019, the Company established POET Technologies Pte. Ltd. (“PTS”), a wholly owned subsidiary in Singapore. On August 4, 2020, PTS established POET Optoelectronics Shenzhen Co., Ltd (“POET SZ”), a wholly owned subsidiary in Shenzhen, China.

On October 22, 2020, the Company signed a Joint Venture Agreement establishing a joint venture company, Super Photonics Xiamen Co., Ltd with Xiamen Sanan Integrated Circuit Co. Ltd. Super Photonics Xiamen Co., Ltd was formed on March 12, 2021.

The following is a graphic description of the Company and its subsidiaries:



OPEL Solar Inc. and ODIS Inc.

OPEL Solar, Inc. (OPEL)

OPEL is a wholly-owned subsidiary of POET Technologies and is the assignee for all patents and patent applications filed by the Company prior to 2019.

ODIS Inc. (“ODIS”)

ODIS is a wholly owned subsidiary of OPEL Solar, Inc. and is the designer of the POET Optical Interposer platform, and developer of optical engines based on the POET Optical Interposer platform.

BB Photonics Inc.

BB Photonics developed photonic integrated components for the datacom and telecom markets utilizing embedded dielectric technology that enabled the partial integration of active and passive devices into photonic integrated circuits. BB Photonics' operation is currently dormant.

POET Technologies Pte Ltd. (“PTS”)

PTS is a wholly owned subsidiary of POET Technologies Inc. Situated in Singapore, PTS designs and tests variations of the POET Optical Interposer for specific applications. PTS also develops the assembly and test methodologies for the production of optical engines designed by ODIS.

POET Optoelectronics Shenzhen Co., Ltd (“POET SZ”)

POET SZ is a wholly owned subsidiary of PTS. Situated in Shenzhen, China, PTSZ validates optical engine designs produced by ODIS and works with customers to incorporate optical engine designs into modules..

Super Photonics Xiamen Co., Ltd, (“SPX”)

SPX is a joint venture, situated in Shenzhen, China. SPX was established with Sanan IC with a sole purpose to assemble, test, package and sell cost-effective, high-performance optical engines based on POET's proprietary Optical Interposer platform technology.

The Company operates geographically in the United States, Canada, Singapore and China.

Capital Expenditures

Our capital expenditures for the last three years, which principally consist of purchases of research and development equipment and instrumentation and patents are as follows:

Period	Capital Expenditure		Purpose
Fiscal 2022	\$	3,074,037	Instruments, equipment and patents
Fiscal 2021	\$	930,882	Instruments, equipment and patents
Fiscal 2020	\$	1,573,863	Instruments, equipment and patents

The Company's registered office is located at Suite 1107, 120 Eglinton Avenue East, Toronto, Ontario, Canada M4P 1E2 and its phone number is (416) 368-9411. The Company has operations at Suite 308, 1605 N. Cedar Crest Boulevard, Allentown, PA, 18104, 21 Changi North Way, #04-06, Singapore, 498774 and Unit 02, 10th Floor, A4 Building, Kexing Science Park, No.15 Keyuan Road, Science Park Middle District, Nanshan District, Shenzhen, 518057

B. Business Overview

Corporate Overview

Overview

The Company is incorporated under the laws of the Province of Ontario. The Company's shares trade under the symbol "POET" on the Nasdaq in the U.S and under the symbol "PTK" on the TSX Venture Exchange in Canada.

POET Technologies is a design and development company offering photonic integrated packaging solutions based on the POET Optical Interposer™, a novel platform that allows the seamless integration of electronic and photonic devices onto a single chip using advanced wafer-level semiconductor manufacturing techniques. The semiconductor industry has adopted the term "Wafer-Level Chip-Scale Packaging" (or "WLCSPP") to describe similar approaches within the semiconductor industry. POET's Optical Interposer eliminates costly components and labor-intensive assembly, alignment, and testing methods employed in conventional photonics. We believe the cost-efficient integration scheme and scalability of the POET Optical Interposer brings value to devices or systems that integrate electronics and photonics, including high-growth areas of communications and computing, such as high-speed networking for cloud service providers and data centers, 5G networks, machine-to-machine communication, sometimes referred to as the "Internet of Things" (IoT), self-contained "Edge" computing applications, such as accelerators for Artificial Intelligence – Machine Learning (AI-ML) systems and sensing applications, such as LIDAR systems for autonomous vehicles and point-of-use health care products.

POET targeted as the first application of the Optical Interposer the development of optical engines for optical transceivers used in internet-based data centers. Optical Engines include all the passive and active components related to the production, manipulation, and detection of light within an Optical Transceiver. Optical Transceivers plug into switches and servers within the data center and allow these network devices to send and receive data over fiber-optic cables. We chose this market because it is large in size, has established standards for device performance, and the unit volumes of devices shipped annually are exceptionally high. It is a market in which our advantages of cost, power consumption and ability to scale rapidly allow us to be competitive with other suppliers.

The second market targeted by POET is the "remote light source" market, comprised of two segments: a) Artificial Intelligence – Machine Learning (AI-ML) accelerator chips; and b) data centers for replacement of lasers powering transceivers. Light-based AI-ML accelerator chips are a nascent market, but one that may exceed the size of the optical transceiver market within a few years. Each AI-ML device needs its own light source with multiple wavelengths, separated or combined, to power the optics. Within datacenters, as transceiver speeds have increased, lasers have required increasing amounts of power to transmit data effectively. Lasers generate more heat at higher power resulting in more frequent laser failures. Data center operators have begun to use "remote light sources" to make the retrofit of lasers in transceiver modules easier to accomplish in the field. In both the AI-ML and remote light source segments, cost and ability to scale to high volumes are vital. We believe that packaged light sources based on the POET Optical Interposer can meet industry need much more readily than conventional optics.

Research & Development

Beginning in 2017, POET began designing lasers for data communications applications and directed DenseLight Semiconductors, Pte. Ltd., a former subsidiary of the Company, to build such lasers to be compatible with the Optical Interposer platform. In 2019, the Company decided to adopt a "fab light" strategy, common among semiconductor companies, and divested its fabrication operations through the sale of DenseLight in November of that year. From 2018 - 2020, virtually all the R&D spending in the Company was dedicated to design & development of the Optical Interposer as a versatile platform technology, replete with features that enhance its utility across a variety of application spaces.

During the second half of 2021, the Company transitioned to product development by investing more than \$2 million in the design & development of 100G and 200G optical engines in several configurations, including customized designs for specific customers and applications. Samples of these optical engines were made available and delivered to customers in 2022. In addition to its 100G and 200G optical engine product developments, the Company invested approximately \$10 million in design, development and engineering programs related to its 400G and 800G optical engine products, packaged light sources, co-packaged optics designs and fabrication techniques. The Company is expected to invest an additional \$10 million in 2023 in ongoing development of these products.

Target Markets

Data Center Market

To support the substantial increase in bandwidth consumption, internet data center operators are increasing the scale of their internet data centers and deploying infrastructure capable of higher data transmission rates. At the present time, much of the industry is moving from 100G to 400G and higher. In recent years, several leading internet companies have adopted more open data center architectures and consequently, these companies are more willing to work with non-traditional equipment and optical device vendors. As transceiver speeds have increased the cost and complexity of assembling optical modules has also increased, with few module makers having the ability to achieve economies of scale with conventional, non-semiconductor-based approaches. This market also includes co-packaged optics (CPO), which merge switch ASICs with photonics in the same package. We believe that products incorporating the Company's unique technology will enable POET to capture a significant share of this large market, especially at the cutting edge of higher speeds, particularly as data centers transition from 400G to 800G and beyond.

LightCounting¹ estimates the value of the total shipments of ethernet transceivers at all speeds at approximately \$5.7B in 2023, growing to \$9.4B in 2027.

¹LightCounting "Ethernet Transceivers Forecast" September 2022.

AI-ML and Remote Light Source Markets

In the AI-ML accelerator market, there are numerous established companies and start-ups addressing the need to lower power consumption of the electronic processors (GPUs), while increasing the speed for highly sought-after artificial intelligence software applications. To achieve lower power, several device makers are beginning to utilize light, instead of electrons to either perform certain computations, or to manage data traveling in and out of the chips. Using light offers significant advantages of speed and lower heat generation than comparable electronic-only GPUs. The AI-ML chip markets are already larger than the transceiver market and are growing at much higher rates.

In Q3 2022, PitchBook² estimated the total market for AI chips to be approximately \$23B growing to almost \$55B by 2025. In an earlier report on the same subject, Pitchbook acknowledged the long-term potential for deployment of photonic processors as replacements for GPUs in data centers, but did not estimate the current or future market size for such chips. Celestial AI, a customer of POET, reported in its announcement of its Series A funding in February 2022 that its accelerator products serve an addressable market that is projected by Omdia to exceed \$70B in 2025³. POET estimates that light source components of the AI-ML chip market will range between 1% and 5% of the light-based portion of the AI chip market.

Other Potential Photonics Markets

Other markets for POET's integrated photonics solutions include 5G interconnect markets, such as PON and GPON, edge computing for machine-to-machine communications, and selected sensing markets, including LIDAR, Optical Coherence Tomography for medical devices, and certain consumer products, such as virtual reality systems.

Manufacturing

To address the challenge of producing devices in the large quantities that are needed by customers in the high-volume data communications industry, POET entered into an agreement in late 2020 with Xiamen Sanan Integrated Circuit Co. Ltd. ("Sanan IC"), a subsidiary of Sanan Optoelectronics Xiamen Co. Ltd. to form a joint venture to assemble, test and sell POET-designed optical engines in high volumes. Sanan is the world's largest manufacturer of compound semiconductor devices, producing over 25 million eight-inch wafers per year across a variety of substrate types and applications. The objective of the joint venture company, which is named "Super Photonics Xiamen" ("SPX") is to assemble, test and sell optical engines based on the POET Optical Interposer, along with devices procured from various suppliers, including Sanan IC, into finished products. Optical engines for 100G and 200G applications will be sold exclusively world-wide by SPX. 400G optical engines will be sold by SPX in the China territory while the Company will sell 400G optical engines to customers in the United States, Europe and elsewhere outside the China territory. Volume production of optical engines and packaged light sources designed for specific customers is expected to begin in 2023, with high volumes expected to ramp later in the year and into 2024.

Our Strategy

Our vision for the Company is to become a global leader in chip-scale photonic solutions by deploying products based on our Optical Interposer technology and optical engine designs over a broad range of vertical market applications. Our Mission for the Company is to establish an industry leadership position based on the full "semiconductorization" of the photonics industry, producing validated, disruptive, IP protected products globally.

² PitchBook Data Inc., "Emerging Tech Research" and "Q1 and Q3 2022 Artificial Intelligence & Machine Learning Reports", Brendan Burke, Senior Analyst.

³ "Celestial AI Raises \$56 Million Series A to Disrupt the Artificial Intelligence Chipset Industry with Novel Photonic-Electronic Technology Platform", February 4, 2022, Businesswire.

We recently refined our strategy to reflect our current thinking about how best to achieve our vision and mission for the Company:

- **Support Super Photonics Xiamen (SPX), a joint venture between POET and Sanan IC, as an independent company to drive growth in optical transceivers and deliver maximum cash flow to partners.** POET's designs for Optical Engines are assembled by SPX into samples that customers can test and are designed-in to modules supplied to end-users, such as network equipment companies and data center operators. POET's shortest path to commercial success and its ability to generate profits over the longer term are directly influenced by the level of support that it can provide to the joint venture. Delivery of samples and subsequent sales of Optical Engines to customers in China, where virtually all optical transceiver module manufacturers are located, demonstrate the technological viability and market acceptance of POET's designs. Sales and production by SPX further demonstrate an ability to rapidly scale volumes to meet customer demand. As SPX builds a revenue base it becomes an asset for generating cash in the form of dividends. Prior to a future planned exit on the Shanghai Exchange, opportunities to sell a portion of POET's equity interest in SPX is also a possibility.
- **Engage with industry leaders and incumbents.** We will continue to promote the potential of the Optical Interposer and POET-designed Optical Engines to solve critical challenges with current approaches to data transfer in data center and telecom applications, both in pluggable transceivers and co-packaged optics. We believe that the size, performance and design flexibility of POET's chiplet approach to integration is an enabling technology that will allow POET to enter markets where relatively few competitors will have the requisite technology to succeed.
- **Transition to making Optical Transceiver Modules for direct sales to end-users.** In addition to adding features to the Optical Interposer, we have added essential electronic components, such as Trans Impedance Amplifiers (TIAs) and laser drivers to the interposer platform, which improves performance and lowers the cost of module assembly. We intend to add the necessary capabilities for design and development optical transceiver modules to our existent capabilities in Optical Interposer and Optical Engine design. Being most familiar with the unique capabilities of our technology, we believe that we are in a position to rapidly extend our expertise to complete optical modules. Doing so has the advantage of avoiding a lengthy sales and qualification cycle (i.e., selling to module makers who then sell to end users) and being able to sell directly to end users, showcasing our own branded products to network equipment suppliers and data center operators.
- **Establish additional fabrication and sales operations for advanced, high-speed transceiver modules and packaged light sources.** Internally, we refer to this our "China plus One" strategy, which is only partially dictated by the current international political climate. We are planning to develop our advanced products as modules and packaged products that we will sell directly to end-users. This which will require additional fabrication, assembly, marketing and sales operations. In addition, we expect that as we approach other vertical market applications outside of optical transceivers and packaged light sources, our strategy may include the formation additional partnerships in those market segments in order to develop appropriate strategies for the fabrication of devices whose functions will be materially different from those of transceivers and with correspondingly different distribution and sales. The form of such partnerships may also be different than what was established for transceivers.
- **Pursue complementary strategic alliance or acquisition opportunities for inorganic growth.** We intend to evaluate and selectively pursue strategic alliances or acquisition opportunities for growth and vertical integration that we believe will accelerate our penetration of specific applications or vertical markets with our technology or products.
- **Explore technology licensing opportunities for growth in non-target sectors.** It is not possible for the Company to pursue all potential applications for the POET Optical Interposer. We will carefully consider opportunities to license our technology to others when and if appropriate.

Our Products

POET Optical Engine Products currently include the following:

- 100G LR4 Tx and Rx
- 200G FR4 Tx and Rx
- 400G FR4 Rx
- 400G/800G FR4 Rx with integrated TIA
- 400G/800G FR4 Tx with integrated Driver
- 1.6T 4xFR4 Rx with integrated TIA
- LightBar: C-Band External Light Source
- LightBar: O-Band External Light Source

Several other Optical Engines are currently under development, including those capable of 200G per channel in both transmit and receive.

Competition

The photonics market is intensely competitive and we expect experience intense competition from a number of manufacturers with alternative technologies. Many of our competitors will be larger than we are and have significantly greater financial, marketing and other resources.

In addition, several of our competitors, especially in the datacom markets, have large market capitalizations or cash reserves and are much better positioned to acquire other companies to gain new technologies or products that may displace our products. Data center equipment providers, who we expect to become our customers, and data center service providers, who are supplied by our customers, may decide to manufacture the optical subsystems that we plan to provide. We may also encounter potential customers that, because of existing relationships, are committed to the products offered by these competitors.

We believe the principal competitive factors in our target markets include the following:

- use of internally manufactured components;
- product breadth and functionality;

- timing and pace of new product development;
- breadth of customer base;
- technological expertise;
- reliability of products;
- product pricing; and
- manufacturing efficiency.

We believe that we can compete favorably with respect to the above factors based on processes, the projected performance, anticipated inherent reliability of our products, our technical expertise in photonic engine design and manufacture and cost.

Intellectual Property

We have 74 issued patents and 17 patent applications pending, including three provisional patent applications. Of the 74 issued patents, 26 are directly related to the Optical Interposer and include fundamental design and process patents. All 17 applications pending are Optical Interposer-related. Multiple additional applications are in various stages of preparation. The patents cover device structures, underlying technology related to the Optical Interposer, applications of the technology, and fabrication processes. We intend to continue to apply for additional patents in the future. We believe these patents provide a significant barrier to entry against competition along with company trade secrets and know-how. Currently, we are working on the design of integrated devices, manufacturing processes, assembly and packaging processes, and products for data communication applications in the data center market.

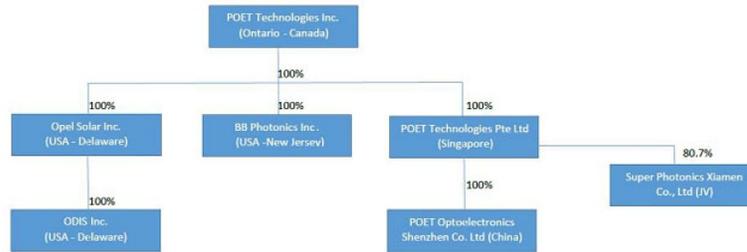
Geographic Distribution of Revenue

Revenue and geographic markets in 2022, 2021 and 2020 were approximately as follows:

Region	2022	2021	2020
Asia – Pacific	\$ -	\$ -	\$ -
Europe	\$ 64,700	\$ -	\$ -
North & South America	\$ 488,048	\$ 209,100	\$ -

C. Organizational Structure

The following graphically displays the organizational structure of the Company:



- (1) There are 28,374,000 Class A Common Shares of OPEL Solar, Inc. issued and outstanding, all of which are held by the Company. There are no other outstanding securities of OPEL Solar, Inc. other than the Class A Common Shares.
- (2) There are 5 Common Shares of ODIS Inc. issued and outstanding, held by OPEL Solar, Inc.
- (3) There is 1 Ordinary share of POET Technologies Pte Ltd. issued and outstanding, held by POET Technologies Inc.
- (4) There are 1,000,000 Preferred Shares and 1,050,100 Common shares of BB Photonics Inc. issued and outstanding, all of which are held by the Company. There are no other outstanding securities of BB Photonics Inc.
- (5) POET Optoelectronics Co, Ltd. is a wholly owned subsidiary of POET Technologies Pte. Ltd with a registered capital of RMB1,168,833.
- (5) Super Photonics Xiamen Co., Ltd is joint venture located in Xiamen, China. The Company currently has an 80.7% interest in the joint venture with Sanan Integrated Circuit Co., Ltd, the other joint venturer, holding the remaining 19.3% interest in the joint venture.

D. Property, Plants and Equipment

The Company's head Canadian office is located in a 400 sq. ft. leased office space in Toronto, Ontario, Canada. The US based operations are in a leased 3,883 sq. ft. space in Allentown, Pennsylvania. Our testing operations are located in a 4,669 sq. ft leased facility in Singapore. Our product development operation is located in a 2,830 sq. ft leased facility in Shenzhen, China.

ITEM 4A. UNRESOLVED STAFF COMMENTS

Not Required.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

The following discussion should be read in conjunction with the audited consolidated financial statements of the Company and the related notes for the years ended December 31, 2022, 2021 and 2020 and the accompanying notes thereto included elsewhere in this Annual Report. This discussion contains forward-looking statements that involve risks and uncertainties. See “Forward-Looking Statements” on page 1 of this Annual Report. Actual results could differ materially from those anticipated by forward-looking information due to factors discussed under “ITEM 3.D. Risk Factors” and “ITEM 4.B. Business Overview.”

A. Operating Results

The information in this section should be read in conjunction with our audited consolidated financial statements for the years ended December 31, 2022, 2021 and 2020 and related notes and the information contained elsewhere in this report.

Critical Accounting Policies

The Company prepares its audited consolidated financial statements in accordance with IFRS as issued by the IASB, which differs from U.S. GAAP. The preparation of financial statements in accordance with IFRS requires the use of certain critical accounting assumptions and estimates. These assumptions are limited by the availability of reliable comparable data and the uncertainty of predictions concerning future events. It also requires management to exercise judgment in applying the Company’s accounting policies. The Company believes that the estimates and assumptions upon which it relies are reasonable based upon information available at the time that these estimates and assumptions are made. Actual results could differ from these estimates. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed below.

Basis of presentation

These consolidated financial statements include the accounts of POET Technologies Inc. and its subsidiaries. All intercompany balances and transactions have been eliminated on consolidation.

The Company’s financial instruments consist of cash and cash equivalents, short-term investments, covid-19 government support loans, contract liabilities and accounts payable and accrued liabilities. Unless otherwise noted, it is management’s opinion that the Company is not exposed to significant interest risk arising from these financial instruments. The Company estimates that carrying value of these instruments approximates fair value due to their short-term nature.

The following table outlines the classification of financial instruments under IFRS 9:

Financial Assets	
Cash and cash equivalents	Amortized cost
Short-term investments	Amortized cost
Accounts receivable	Amortized cost
Financial Liabilities	
Accounts payable and accrued liabilities	Amortized cost
Convertible debentures	Amortized cost
Covid-19 government support loans	Amortized cost
Contract liabilities	Amortized cost

Convertible debentures are accounted for as a compound financial instrument with a debt component and a separate equity component. The debt component of these compound financial instruments is measured at fair value on initial recognition by discounting the stream of future interest and principal payments at the rate of interest prevailing at the date of issue for instruments of similar term and risk. The debt component is subsequently deducted from the total carrying value of the compound instrument to derive the equity component. The debt component is subsequently measured at amortized cost using the effective interest rate method. Interest expense based on the coupon rate of the debenture and the accretion of the liability component to the amount that will be payable on redemption are recognized through profit or loss as a finance cost.

Cash and cash equivalents

Cash and cash equivalents consist of cash in current accounts of \$1,981,765 (2021 - \$4,216,911, 2020 - \$722,894) and funds invested in US and Canadian Term Deposits of \$7,248,080 (2021 - \$10,724,864, 2020 - \$6,150,000) earning interest at rates ranging from 0.20% - 0.25% and maturing in less than 90 days.

Cash and cash equivalents include restricted funds of nil (2021 - nil, 2020 - \$184,569) which serves as a bank guarantee for the purchase of certain equipment. A bank guarantee was discharged in 2020 and a new bank guarantee was put in place. The new bank guarantee was discharged in 2021. The bank guarantee was reduced on a monthly basis by nil (2021 - \$14,197, 2020 - \$14,197) which is the amount paid monthly in settlement of the outstanding balance on the equipment.

Short-term investments

The short-term investments of nil (2021 - \$6,366,828, 2020 - nil) consist of guaranteed investment certificates (GICs) held with one Canadian chartered bank and earned interest at rates ranging from 0.75 to 1.44% in 2021.

Joint Venture

A joint arrangement is an arrangement among two or more parties where the parties are bound by a contractual arrangement and the contractual arrangement gives the parties joint control of the arrangement. A joint venture is a form of joint arrangement where an entity is independently formed and the parties jointly have rights to the net assets of the arrangement and therefore account for their interests under the equity method.

Share Consolidation

On February 24, 2022, the Company filed Articles of Amendment to consolidate its common shares on a ten-for-one basis. For further clarity, for every ten (10) pre-consolidated common shares, shareholders received one (1) post-consolidated common share. On February 28, 2022 the Company's common shares began trading on the TSX Venture Exchange on a post consolidation basis. The Company's name and trading symbol remained unchanged. All references to share and per share amounts in these consolidated financial statements and accompanying notes to the consolidated financial statements have been retroactively restated to reflect the ten-for-one share consolidation.

Property and equipment

Property and equipment are recorded at cost. Depreciation is calculated based on the estimated useful life of the asset using the following method and useful lives:

Machinery and equipment	Straight Line, 5 years
Leasehold improvements	Straight Line, 5 years or life of the lease, whichever is less
Office equipment	Straight Line, 3 - 5 years

Patents and licenses

Patents and licenses are recorded at cost and amortized on a straight-line basis over 12 years. Ongoing maintenance costs are expensed as incurred.

Impairment of long-lived assets

The Company's tangible and intangible assets are reviewed for indications of impairment whenever events or changes in circumstances indicate that the carrying amounts of the assets may not be recoverable. An assessment is made at each reporting date whether there is any indication that an asset may be impaired.

An impairment loss is recognized when the carrying amount of an asset exceeds its recoverable amount. Impairment losses are recognized in profit and loss for the year. The recoverable amount is the greater of the asset's fair value less costs to sell and value in use. 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. For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit ("CGU") to which the asset belongs.

An impairment loss is reversed if there is an indication that there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized. No impairment loss has been reported for the years ended December 31, 2022, 2021 and 2020.

Income taxes

The Company follows the liability method of accounting for income taxes. Under this method, deferred income taxes are provided on differences between the financial reporting and income tax bases of assets and liabilities and on income tax losses available to be carried forward to future years for tax purposes. Deferred income taxes are measured using the substantively enacted tax rates and laws that are expected to be in effect when the differences are expected to reverse. Deferred tax assets are only recognized if the amount is expected to be realized in the future.

Revenue recognition

Revenue is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. The Company recognizes revenue when it transfers control over a product or service to a customer.

Sale of goods

Revenue from the sale of goods is recognized, net of discounts and customer rebates, at the point in time the transfer of control of the related products has taken place as specified in the sales contract and collectability is reasonably assured.

Service revenue

The Company provides contract services, primarily in the form of non-recurring revenue ("NRE") where control is passed to the customer over time. The contracts generally provide agreed upon milestones for customer payment which include but are not limited to the delivery of sample products, design reports and test reports. The customer makes payment when it has approved the delivery of the milestone. The Company must determine if the contract is made up of a series of independent performance obligations or a single performance obligation. Where NRE contracts contain multiple performance obligations for which a standalone transaction price can be assessed, revenue is recognized as each performance obligation is satisfied. Where NRE contracts contain a single performance obligation to be settled over time, revenue is recognized progressively based on the output method.

Other income

Interest income

Interest income on cash is recognized as earned using the effective interest method.

Government Grants

Loans received exclusively from governmental agencies to support the Company throughout the COVID-19 pandemic qualify to be forgiven if certain conditions are met. Forgiveness of COVID-19 related loans will be recognized as other income on the consolidated statements of operations and deficit.

Wage subsidies

Wages subsidies received from the Singaporean government are netted against R&D related wages and benefits on the consolidated statements of operations and deficit.

Intangible assets

Research and development costs

Research costs are expensed in the year incurred. Development costs are also expensed in the year incurred unless the Company believes a development project meets IFRS criteria as set out in IAS 38, *Intangible Assets*, for deferral and amortization. IAS 38 requires all research costs be charged to expense while development costs are capitalised only after technical and commercial feasibility of the asset for sale or use have been established. This means that the entity must intend and be able to complete the intangible asset and either use it or sell it and be able to demonstrate how the asset will generate future economic benefits. Development costs are tested for impairment whenever events or changes indicate that its carrying amount may not be recoverable.

In-Process Research and Development

Under IFRS, in-process research and development ("IPR&D") acquired in a business combination that meets the definition of an intangible asset is capitalized with amortization commencing when the asset is ready for use (i.e., when development is complete). The Company does not capitalize its IPR&D.

Stock-based compensation

Stock options and warrants awarded to non-employees are measured using the fair value of the goods or services received unless that fair value cannot be estimated reliably, in which case measurement is based on the fair value of the stock options. Stock options and warrants awarded to employees are accounted for using the fair value method. The fair value of such stock options and warrants granted is recognized as an expense on a proportionate basis consistent with the vesting features of each tranche of the grant. The fair value is calculated using the Black-Scholes option pricing model with assumptions applicable at the date of grant.

Loss per share

Basic loss per share, net of taxes is calculated by dividing net loss by the weighted average number of common shares outstanding during the year. Diluted loss per share is calculated by dividing net loss by the weighted average number of common shares outstanding during the period after giving effect to potentially dilutive financial instruments. The dilutive effect of stock options and warrants is determined using the treasury stock method.

Selected Annual Data

The selected financial data of the Company for the years ended December 31, 2022, 2021 and 2020 was derived from the audited annual consolidated financial statements of the Company, which have been audited by Marcum LLP, independent registered public accounting firm, as described in their report which is included in this Annual Report.

The information contained in the selected financial data for the 2022, 2021 and 2020 years is qualified in its entirety by reference to the Company's consolidated financial statements and related notes included under the heading ITEM 17. "Financial Statements" and should be read in conjunction with such financial statements and with the information appearing under the heading ITEM 5 "Operating and Financial Review and Prospects". Except where otherwise indicated, all amounts are presented in accordance with IFRS as issued by IASB.

The selected annual information for continuing operations for 2022, 2021 and 2020 can be further analyzed as follows:

Research and development can be analysed as follows:

	2022	2021	2020
Wages and benefits	\$ 4,267,937	\$ 3,270,528	\$ 1,586,900
Subcontract fees	2,946,729	1,516,343	3,802,919
Stock-based compensation	2,054,187	1,769,951	567,859
Supplies	1,477,890	1,608,306	676,639
	<u>\$ 10,746,743</u>	<u>\$ 8,165,128</u>	<u>\$ 6,634,317</u>

Selling, marketing and administration costs can be analysed as follows:

Stock-based compensation	\$ 2,382,417	\$ 2,764,419	\$ 3,045,086
Wages and benefits	2,648,862	2,643,451	2,233,449
Professional fees	1,173,743	1,155,316	800,551
General expenses	1,860,762	1,304,690	1,188,712
Depreciation and amortization	1,293,158	1,100,522	813,103
Management and consulting fees	-	-	-
Rent and facility costs	157,329	87,130	57,097
	<u>\$ 9,516,271</u>	<u>\$ 9,055,528</u>	<u>\$ 8,137,998</u>

Factors Affecting Our Results of Operations

Analysis of Continuing Operations

Year Ended December 31, 2022 compared to Year Ended December 31, 2021

Net loss from for the year was \$21,036,690 compared to a net loss of \$15,669,093 in 2021, an increase of \$5,367,597 (34%). The following discusses the significant variances between the period and 2021.

During the year, NRE revenue increased by \$343,648 (164%) to \$552,748 in the period from \$209,100 in the prior year. The Company provided services under an NRE contract to one customer in 2021. In 2022, the Company is now providing similar services to multiple customers, one of which continued to contract services from last year. The revenue relates to unique projects that are being addressed utilizing the capabilities of the POET Optical Interposer.

Total R&D increased by \$2,581,615 (32%) from \$8,165,128 in 2021 to \$10,746,743 in 2022. For the purposes of the following analysis, non-cash stock-based compensation of \$2,054,187 has been excluded and is included with the analysis of non-cash stock-based compensation below.

R&D, excluding non-cash stock-based compensation, increased by \$2,297,379 (36%) to \$8,692,556 in the year from \$6,395,177 in 2021. The increase in R&D is a result of the new stage of the Company's development where it is transitioning from technology development to product development. As the transition occurs, qualified engineers are needed to fill roles related to new production introduction and quality control. R&D wages increased by \$997,409 (30%) from \$3,270,528 in 2021 to \$4,267,937 in the year. The Company has also engaged with new suppliers, through non-recurring engineering and qualification programs, to ensure that the supply of required products and services will meet the Company's standards and will be available as needed. These programs resulted in an increase in R&D supplies and subcontract fees of \$1,299,970 (42%) from \$3,124,649 in 2021 to \$4,424,619 in the year.

Interest expense was \$49,738 in the year as compared to \$364,619 in 2021, a decrease of \$314,881 (86%). The Company raised \$3,729,921 in convertible debentures between April 2019 and September 2019 with two-year maturities. The Company was required to pay monthly interest on the convertible debentures. As the convertible debentures reached maturity during 2021, interest cost was reduced. All convertible debenture were either converted or matured in 2021. Interest in the year is non-cash.

Depreciation and amortization increased by \$192,636 (18%) to \$1,293,158 in the year from \$1,100,522 in 2021. With the sale of DenseLight, the Company embarked on a "fab-light" strategy with a required test facility situated in Singapore and product development facility in China. The increase in depreciation and amortization was a result of assets acquired for these new facilities.

Impact of joint venture decreased by \$2,910,257 (201%) to a net loss of \$1,465,006 in the year from a net gain of \$1,445,251 in 2021. The impact of joint venture relates to the Company's activity related to its investment in SPX. During the year, the Company recognized its share of SPX's losses using the equity method. On a weighted average basis, the Company's share of the net operating loss was 83.7% or \$3,614,211, however the Company only recognized \$3,211,993 of the net operating loss of SPX for the year ended December 31, 2022 because the investment is now carried at nil (2021 - \$1,445,251) on the consolidated statements of financial position. On a weighted average bases the net operating loss was \$95.3% or \$1,142,249 in 2021. The loss in the year was offset by a recognized gain of \$1,746,987 related to the Company's contribution of intellectual property to SPX in accordance with IAS 28. The Company recognized a gain of \$2,587,500 in 2021.

General expenses and rent increased by \$626,271 (45%) to \$2,018,091 in the year from \$1,391,820 in 2021. The increase was primarily a result of the increase in D&O insurance subsequent to the Company's listing on the Nasdaq. D&O insurance is substantially higher for US listed Companies than for Canadian listed Companies. The Company was only listed on the TSXV in 2021. Additionally, the Company's lease for its Singapore facility was renewed in Q2 2022. The lease term is currently one year, accordingly the accounting rules relating to leases permits the Company to record rent expense. Some lease related costs in 2021 were charged to interest expense and amortization because the lease term exceeded one year. Other drivers for the increase over 2021 were the fees associated with listing on the Nasdaq, costs associated with the new shareholder outreach program and costs related to the Company's presentation at the Optical Fiber Conference. The Company did not have similar costs in 2021.

Other (income), including interest decreased by \$73,511 (28%) to \$188,320 in the year from \$261,831 in 2021. During 2021, the Company received notice from the Small Business Administration of Washington, DC that its Covid-related PPP loan of \$186,747 was forgiven in full. The Company did not have a similar forgiveness in the prior year. Other (income) including interest was all interest income in the year. Interest income in 2021 was \$75,084.

Year Ended December 31, 2021 compared to Year Ended December 31, 2020

Net loss from continuing operations for the period was \$15,669,093 compared to a net loss of \$18,169,070 in 2020, a decrease of \$2,499,977 (14%). The following discusses the significant variances between the period and 2020.

During the year, the Company reported non-recurring revenue of \$209,100. No revenue was reported in 2020. The revenue reported related to a unique project that was addressed utilizing the capabilities of the POET Optical Interposer.

Total R&D increased by \$1,530,811 (23%) from \$6,634,317 in 2020 to \$8,165,128 in 2021. For the purposes of the following analysis, non-cash stock-based compensation of \$1,769,951 has been excluded and is included with the analysis of non-cash stock-based compensation below.

R&D, excluding non-cash stock-based compensation, increased by \$328,719 (6%) to \$6,395,177 in the period from \$6,066,458 in 2020.

Interest expense was \$364,619 in the period as compared to \$937,903 in 2020, a decrease of \$573,284 (61%). The Company raised \$3,729,921 in convertible debentures between April 2019 and September 2019 with two-year maturities. The Company was required to pay monthly interest on the convertible debentures. As the convertible debentures reached maturity during the period, interest cost was reduced. During the period, convertible debenture holders converted \$3,571,342 of convertible debentures that were converted in 1,119,750 units of the Company. The Company's interest obligation related to the convertible debentures has been eliminated as the convertible debentures were converted or matured. The interest incurred, includes non-cash interest cost of \$213,843.

Depreciation and amortization increased by \$287,849 (35%) to \$1,100,522 in the period from \$813,103 in 2020. With the sale of DenseLight, the Company embarked on a "fab-light" strategy with a required test facility situated in Singapore and product development facility in China. The increase in depreciation and amortization was a result of assets acquired for these new facilities.

Wages and benefits increased by \$461,284 (21%) to \$2,643,451 in the period from \$2,182,167 in 2020. The increase was a result of three primary factors during the period; 1) the Company paid a bonus of \$250,000 to certain employees, 2) the Company hired two new senior administrative employees, and 3) the compensation for certain employees was adjusted to be more aligned with the compensation of employees in similar roles in comparatively sized companies within the industry.

Professional fees increased by \$354,765 (44%) to \$1,155,316 in the period from \$800,551 in 2020. The increase in the period is a result of professional fees paid for multiple projects in the period that required professional guidance. These projects included the special meeting held in February 2021, filing of a new base shelf prospectus in April 2021 and the related responses to queries from the various regulatory authorities, the analysis associated with ensuring the Company's compliance to international regulations and standards associated with operating as a multinational corporation and ancillary professional fees related to the private placement financing, warrant and stock option exercises.

General expenses and rent increased by \$146,011 (12%) to \$1,391,820 in the period from \$1,245,809 in 2020. During the period, the Company incurred regulatory and filing fees related to its shelf prospectus filing. Exchange membership fees were also higher than 2020 due to the Company's stock price in 2021. The easing of travel restrictions also allowed certain employees to travel internationally during 2021. There was no international travel in 2020.

Impairment and other loss was nil in the period compared to \$2,500,000 in 2020. Impairment and other loss consisted of a credit loss of \$2,500,000 relating to the receivable from the sale of discontinued operations in 2020. In 2020, after taking into consideration the length of time it took the Buyer of DenseLight to make the required payments and the Company's expectations regarding the likelihood of receiving the balance that was due at the time, the Company determined, and the Buyer accepted, that it was in the Company's best interest to accept partial payments as final payment on the outstanding balance. The Company used the opportunity to restructure its relationship with DenseLight to better accommodate the Company's current supply needs.

Non-cash stock-based compensation increased by \$921,425 (26%) to \$4,534,370 in the period from \$3,612,945 in 2020. The valuation of stock options is driven by a number of factors including the number of options granted, the strike price and the volatility of the Company's stock. The stock option expense is dependent on the timing of the stock option grant and the amortization of the options as they vest. The stock options vest in accordance with the policies determined by the Board of Directors at the time of the grant consistent with the provisions of the Plan.

Impact of joint venture in the period was \$1,445,251 which represents a net gain on the Company's activity related to its investment in SPX. During the period, the Company recognized a partial gain of \$2,587,500 related to its contribution of intellectual property to SPX in accordance with IAS 28. The Company only recognized a gain on the contribution of the intellectual property equivalent to the SAIC's interest in SPX. Additionally, the Company recognized its share of SPX's losses using the equity method. The Company recognized 94.2% or \$1,142,249 of the net operating loss of SPX from March 12, 2021 to December 31, 2021. The Company's current share of the operating loss is a result of the high value of the Company's initial contribution.

Other (income), including interest increased by \$220,683 (536%) to \$261,831 in the period from \$41,148 in 2020. During the period, the Company received notice from the Small Business Administration of Washington, DC that its Covid related PPP loan of \$186,747 was forgiven in full. The Company did not have a similar event in 2020. Additionally, the company had higher investment balances during 2021 invested consist to the Company investment policy and earned higher interest income.

Exchange Rate Risk

The functional currency of each of the entities included in the accompanying consolidated financial statements is the local currency where the entity is domiciled. Functional currencies include the Chinese Yuan, US, Singapore and Canadian dollar. Most transactions within the entities are conducted in functional currencies. As such, none of the entities included in the consolidated financial statements engage in hedging activities. The Company is exposed to a foreign currency risk when its subsidiaries hold current assets or current liabilities in currencies other than its functional currency. A 10% change in foreign currencies held would increase or decrease other comprehensive loss by \$140,421.

Liquidity Risk

The Company currently does not maintain credit facilities. The Company's existing cash and cash resources are considered sufficient to fund operating and investing activities beyond one year from the issuance of these consolidated financial statements. The Company may, however, need to seek additional financing in the future.

B. Liquidity and Capital Resources

The Company had working capital of \$5,751,101 on December 31, 2022 compared to \$19,865,170 on December 31, 2021. The Company's statement of financial position as of December 31, 2022 reflects assets with a book value of \$15,390,453 compared to \$27,153,977 as of December 31, 2021. Sixty two percent (62%) of the book value at December 31, 2022 was in current assets consisting primarily of cash and cash equivalents of \$9,229,845 compared to eighty percent (80%) of the book value as of December 31, 2021, which consisted primarily of cash, cash equivalents and short-term investments of \$21,308,603.

During the year ended December 31, 2022, the Company had negative cash flows from operations of \$12,325,910. The Company has prepared a cash flow forecast which indicates that it does not have sufficient cash to meet its minimum expenditure commitments and therefore needs to raise additional funds to continue as a going concern. As a result, there is substantial doubt about the Company's ability to continue as a going concern for the next twelve months from the date of these audited consolidated financial statements.

To address the future funding requirements, management has undertaken the following initiatives:

1. Raised \$3,184,332 in gross funding from a private placement on December 2, 2022. The financing included the issuance of warrants at an exercise price of C\$4.95. These warrants are currently in-the-money and will be exercisable after April 2, 2023;
2. Extended the exercise date and repriced certain warrants to induce warrant holders to exercise warrants that are in-the-money;
3. Encouraged warrant holders with in-the-money warrants that expire between April 2023 and September 2023 to exercise their warrants prior to the expiry dates.
4. Established a strict budgetary process with a focus on maintaining an appropriate level of corporate overheads in line with the Company's available cash resources.

Between January 23, 2023 and March 22, 2023, the Company received \$5,475,102 (CAD\$7,474,543) from the exercise of 1,758,716 warrants.

Although the Company has been successful in obtaining such financings in the past, there is no assurance that it will be able to do so in the future. The Company does however, have a reasonable expectation that it will be able to manage its finances in order to continue its operations.

The following is a summary of Company's cash flows and working capital:

	2022 \$	2021 \$	2020 \$
Net cash used in operating activities	(12,325,910)	(11,233,293)	(9,437,964)
Net cash from investing activities	3,292,791	(7,297,710)	13,926,137
Net cash from financing activities	3,435,204	26,553,677	1,162,459
Effect of exchange rate changes on cash	(114,015)	46,207	(205,867)
Change in cash	(5,711,930)	8,068,881	5,444,765
Opening cash	14,941,775	6,872,894	1,428,129
Ending cash	9,229,845	14,941,775	6,872,894

Operating Activities

During 2022, the Company had consolidated losses of \$21,036,690 (2021 - \$15,669,093, 2020 - \$18,169,070).

The operating activities of the included the following non-cash items: non-cash stock-based compensation of \$4,436,604 (2021 - \$4,534,370, 2020 - \$3,612,945), depreciation and amortization of \$1,293,158 (2021 - \$1,100,522, 2020 - \$813,103), accretion of debt discount on convertible debentures and non-cash interest of \$49,738 (2021 - \$213,843, 2020 - \$524,095), credit loss on receivable from the sale of discontinued operations of nil (2021 - nil, 2020 - \$2,500,000). Gain on contribution of intellectual property to joint venture was \$1,746,987 (2021 - \$2,587,500, 2020 - nil) while the Company had a share of loss in joint venture of \$3,211,993 (2021 - \$1,142,249, 2020 - nil). Other non-cash operating costs (income) was \$40,029 (2021 - \$(172,933), 2020 - \$1,070,970).

The Company will regularly have high non-cash stock-based compensation as it uses stock options as method of attracting, retaining and motivating directors, employees and consultants of the Company and any of its subsidiaries and to closely align the personal interests of such directors, employees and consultants with those of the shareholders by providing them with the opportunity, through options, to acquire common shares in the capital of the Company while managing compensation through cash.

With the sale of Denselight, the Company embarked on a "fab-light" strategy with a required test facility situated in Singapore and product development facility in China. The increase in depreciation and amortization was a result of assets acquired for these new facilities.

In 2019, the Company raised \$7,729,921 in convertible debentures issued at a discount. The discount on the convertible debentures was accreted over the life of the convertible debentures. The convertible debentures either matured or were converted in 2021, therefore in 2022, non-cash cost of accretion of debt discount on convertible debentures was nil (2021 - \$213,843, 2020 - \$524,095).

During the year, the Company recognized a gain of \$1,746,987 (2021 - \$2,587,500) related to its contribution of intellectual property to SPX in accordance with IAS 28. The Company only recognizes a gain on the contribution of the intellectual property equivalent to SAIC's interest in SPX. Additionally, the Company recognizes its share of SPX's losses using the equity method. On a weighted average basis, the Company's share of the net operating loss was 83.7% or \$3,614,211, however the Company only recognized \$3,211,993 of the net operating loss of SPX for the year ended December 31, 2022 because the investment is now carried at nil (2021 - \$1,445,251) on the consolidated statements of financial position. On a weighted average bases the net operating loss was \$95.3% or \$1,142,249 in 2021.

Consolidated negative cash flow from operations was \$12,325,910 in the year (2021 - \$11,233,293, 2020 - \$9,437,964).

Investing Activities

The Company had consolidated cash flow from investing activities of \$3,292,791 (2021 - \$(7,297,710), 2020 - \$13,926,137). The Company purchased \$6,366,828 of short-term investments in 2021 due to the excess cash it had on hand. These investments matured in 2022. The funds were invested in interest bearing facilities in accordance with the Company's investment policy. \$3,074,037 (2021 - \$930,882, 2020 - \$1,573,863) was used to purchase new equipment and patents.

In 2020, the Company collected \$15,500,000 on its receivable from the sale of DenseLight. After taking into consideration the length of time it had taken the Buyer to make the foregoing payments and the Company's expectations regarding the likelihood of receiving an additional payment, the Company determined that it was in its best interest to accept partial payments as final payment on the Company's receivable. As a result, the Company recognized a credit loss of \$2,500,000 during the year ended December 31, 2020.

Financing Activities

On December 2, 2022, the Company completed a non-brokered private placement offering of 1,126,635 units at a price of \$2.78 (CAD\$3.81) per unit for gross proceeds of \$3,184,332 (CAD\$4,292,479). Each unit consists of one common share and one-half common share purchase warrant. Each whole warrant entitles the holder to purchase one common share of the Company at a price of \$3.61 (CAD\$4.95) per share until December 2, 2025. The Company paid finders' fees aggregating to \$42,090 (CAD\$57,897) to four firms. The Company paid other share issue costs of \$205,802 related to this private placement offering.

One director subscribed for 10,000 units of this private placement offering for gross proceeds of \$27,800 (CAD\$38,100).

On February 11, 2021, the Company completed a brokered private placement offering of 1,764,720 units at a price of \$6.70 (CAD\$8.50) per unit for gross proceeds of \$11,815,595 (CAD\$15,000,120). Each unit consists of one common share and one common share purchase warrant. Each whole warrant entitles the holder to purchase one common share of the Company at a price of \$9.00 (CAD\$11.50) per share until February 11, 2023. At any time after June 12, 2021, the Company reserves the right to accelerate the expiry of the warrants if the Company's average stock price exceeds \$18.10 (CAD\$23.00) for a period of 10 consecutive trading days. The broker was paid a cash commission of \$708,667 (CAD\$900,007) equating to 6% of the gross proceeds and received 1,058,832 broker warrants. Each broker warrant is exercisable into one common share of the Company at a price of \$6.70 (CAD\$8.50) per broker warrant until February 11, 2023. The Company incurred additional share issuance costs of \$434,367 directly related to the private placement and fees to induce certain warrant holders to exercise their warrants.

In addition to funds received from the brokered private placement, the Company received \$16,118,750 from the exercise of stock options and warrants. The Company also improved its liquidity by \$3,571,342 through the conversion of convertible debentures into units of the Company.

During 2020, the Company received \$1,088,450 from the exercise of warrants and stock options (2019 - \$60,028).

In March and April 2020, the Company received a cumulative \$218,151 of covid-19 government support loans from the US and Canadian governments. The loans are repayable based on various criteria in May 2022 and December 2022. During 2021, the Company received notice from the Small Business Administration of Washington, DC that its Covid-related PPP loan of \$186,747 was forgiven in full.

Capital Expenditures

The Company has an approved capital budget of \$811,000 for the 2023 fiscal year related to research and development equipment, manufacturing equipment and patent registration. In 2022, \$3,074,037 (2021 - \$930,882, 2020 - \$1,573,863) was either spent in cash or accrued for acquiring development and manufacturing equipment and new patents.

C. Research and Development

The POET Optical Interposer represents a significant departure from the historic conventional approaches to the integration of photonic and electronic devices. It is essentially an approach to assembling, packaging and testing of all of the components required to produce a photonics device into a single chip, using established semiconductor techniques, all done at wafer-level. The "semiconductorization" of photonics is the only way to enable the scaling up in volume of devices that will be needed for current and future photonics applications, while at the same time reducing the size, unit cost and power consumption of those devices.

Since the invention of the POET Optical Interposer in 2017-18, the Company has devoted virtually all of its R&D expenditures to developing, characterizing and improving the optical interposer platform. Once the basic platform had been established by 2020-21, the Company began developing products to demonstrate the cost and performance advantages of the optical interposer approach, specifically in the area of optical engines for optical transceivers sold to the data center market.

Throughout this entire period, the Company's overall guiding principle for research and development has been that each new feature of or product based on the POET Optical Interposer must be able to be done at wafer-level, producing hundreds or thousands of devices at a time, rather than one at a time. Adhering to this principle is the only way to deliver the benefits to customers of high-volume scalability, reduced cost and increasing energy efficiency.

The Company's first generation of optical engines included the all of the photonics-related components needed for an optical transceiver, both active and passive, including lasers, monitor diodes, detectors, multiplexers, demultiplexers, etc. all integrated onto a single chip. The second generation of optical engines now being produced include the electronic components needed for a transceiver, such as laser drivers and trans impedance amplifiers. These are added to the optical interposer platform to increase performance and simplify assembly into optical transceiver modules.

The Company has adopted the concept of "chiplets", known primarily in the semiconductor industry, to amplify the flexibility of the basic platform by using multiples of its miniature transmit optical engines to be combined to achieve the higher data rates expected in the next 2-3 generations of optical transceivers. Two 400G transmit chiplets, for example, combined to produce an 800G transmit engine; then four 400G transmit chiplets, combined to produce a 1.6T transmit engine, without the need to develop a new platform for each new generation.

In addition to working on the development and productization of optical transceivers, the Company has devoted R&D resources to produce remote light source products. These are needed as field replacements of lasers in standard optical transceivers and more importantly, as light sources for the burgeoning AI-ML market.

Internally generated research costs, including the costs of developing intellectual property and maintaining patents are expensed as incurred. Internal development costs are expensed as incurred unless such costs meet the criteria for capitalization and amortization under IFRS, which to date has not occurred.

We incurred a cumulative \$10,746,743, \$8,165,128 and 6,634,317 of research and development expenses in 2022, 2021 and 2020, which includes non-cash stock-based compensation of \$2,054,187, \$1,769,951 and \$567,859 respectively. Other expenses related to research and development expenditures in the semiconductor business include costs associated with salaries, material costs, license fees, consulting services and third-party contract manufacturing. The expenses in all years presented can be analyzed for continuing and discontinuing operations as follows:

R&D for Continuing Operations

	For the Years Ended December 31,		
	2022	2021	2020
Wages and benefits	\$ 4,267,937	\$ 3,270,528	\$ 1,586,900
Subcontract fees	2,946,729	1,516,343	3,802,919
Stock-based compensation	2,054,187	1,769,951	567,859
Supplies	1,477,890	1,608,306	676,639
	<u>\$ 10,746,743</u>	<u>\$ 8,165,128</u>	<u>\$ 6,634,317</u>

D. Trend Information

Other than as may be disclosed elsewhere in this annual report and specifically in ITEM 4.B. "Business Overview," we are not aware of any trends, uncertainties, demands, commitments or events that are reasonably likely to have a material effect on our net revenues, income from operations, profitability, liquidity or capital resources, or that would cause the disclosed financial information to be not necessarily indicative of future operating results or financial condition.

E. Critical Accounting Estimates

Critical Accounting Estimates

Property and equipment

Property and equipment are recorded at cost. Depreciation is calculated based on the estimated useful life of the asset using the following method and useful lives:

Machinery and equipment	Straight Line, 5 years
Leasehold improvements	Straight Line, 5 years or life of the lease, whichever is less
Office equipment	Straight Line, 3 – 5 years

Patents and licenses

Patents and licenses are recorded at cost and amortized on a straight-line basis over 12 years. Ongoing maintenance costs are expensed as incurred.

Stock-based Compensation

Stock options and warrants awarded to non-employees are accounted for using the fair value of the instrument awarded or service provided, whichever is considered more reliable. Stock options and warrants awarded to employees are accounted for using the fair value method. The fair value of such stock options and warrants granted is recognized as an expense on a proportionate basis consistent with the vesting features of each tranche of the grant. The fair value is calculated using the Black-Scholes option-pricing model with assumptions applicable at the date of grant.

Other stock-based payments

The Company accounts for other stock-based payments based on the fair value of the equity instruments issued or service provided, whichever is more reliable.

Cumulative Translation Adjustment

IFRS requires certain gains and losses such as certain exchange gains and losses arising from the translation of the financial statements of a self-sustaining foreign operation to be included in comprehensive income.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. Directors and Senior Management

The following table sets forth information regarding our Directors and Officers for the most recent financial year.

Name	Positions	Age	Date First Elected or Appointed a Director or Officer
Jean-Louis Malinge (1)	Director	69	September 5, 2017
Peter Charbonneau (1)(3)	Corporate Governance and Nominating Committee Chair and Director	69	March 28, 2018
Dr. Suresh Venkatesan	Chief Executive Officer and Chairman	56	June 11, 2015
Kevin Barnes	VP Finance and Treasurer	51	December 1, 2012
Thomas R. Mika	Chief Financial Officer	71	November 2, 2016
Vivek Rajgarhia	President and General Manager	55	November 4, 2019
Chris Tsiofas (1)(2)	Audit Committee Chair and Director	55	August 21, 2012
Yong Meng (James) Lee	General Manager – POET Technologies Pte Ltd.	51	September 2, 2019
Glen Riley (2)(3)	Compensation Committee Chair and Director	60	December 7, 2020
Mohandas Warrior (4)	Director	62	June 15, 2015
Michal Lipson (3)	Director	52	October 14, 2022
Theresa Ende (2)	Director	66	October 14, 2022
Raju Kankipati	VP Product Line Management	44	May 1, 2022
Dr. Mo Jinyu	Senior VP, GM of Asia	48	January 1, 2022

(1) Member of Audit Committee

(2) Member of Compensation Committee

(3) Member of Corporate Governance and Nominating Committee

(4) Mohandas Warrior did not stand for re-election to the board on October 14, 2022

Dr. Suresh Venkatesan as CEO. Prior to joining POET in 2015 as CEO, Dr. Venkatesan was the Senior Vice President, Technology Development at GlobalFoundries and was responsible for the Company's Technology Research and Development. He joined GlobalFoundries in 2009, where he led the development and ramp of the 28nm node and was instrumental in the technology transfer and qualification of 14nm. In addition, he was responsible for the qualification and ramp up of multiple mainstream value-added technology nodes. Dr. Venkatesan is an industry veteran with over 22 years of experience in semiconductor technology development. Prior to joining GlobalFoundries, he held various leadership positions with Freescale Semiconductor in Austin, Texas. He holds over 25 US patents, and has co-authored over 50 technical papers. He earned a Bachelor of Technology degree in Electrical Engineering from the Indian Institute of Technology and a Master of Science and PhD degrees in Electrical Engineering from Purdue University.

Vivek Rajgarhia serves as President and General Manager. Before joining POET, Mr. Rajgarhia served as Senior Vice President & General Manager of the Lightwave Business Unit of MACOM (NASDAQ: MTSI). Mr. Rajgarhia joined MACOM through the acquisition of Optomai Inc., where he was the Co-Founder and CEO, to start MACOM's first optical business. He was then instrumental in identifying and leading several strategic acquisitions to build an extensive portfolio of optical and photonic businesses, which formed MACOM's Lightwave Business Unit. Mr. Rajgarhia has held several senior management positions during his 30 years in the optical communications industry. He was Director of Sales & Marketing (Asia) for Lucent Technologies' (now Nokia) optical components, where he started Lucent's Asia business; Vice President of Product Marketing and Business Development for OpNext (formerly Hitachi's Fiber Optics Division), now Lumentum, where he was part of the team to spin-off the optical business from Hitachi; Director of Product Management & Marketing for JDS Uniphase (now Lumentum), and VP of Global Sales for GigOptix. Mr. Rajgarhia has been a successful entrepreneur, founding two optical companies, and has held international assignments in Hong Kong, Germany and India. He holds a Bachelor of Engineering (Electrical) degree from Stevens Institute of Technology in New Jersey.

Mr. Thomas Mika serves as EVP & CFO. Prior to joining POET, Mika served for one year as the Executive Chairman of Renova Health, Inc., the successor company to CollabRx and its predecessor, Tegal Corporation, a semiconductor capital equipment company (NASDAQ: T GAL). On the Board of Directors of Tegal since its spin-out from Motorola in 1989, Mika assumed the roles of Chief Financial Officer in 2002, CEO in 2005 and Chairman & CEO in 2006, positions which he held until 2015. In 2015, Tegal merged with Renova Health with Mika retaining the position of Chairman until joining POET in November 2016. In 1980, Mika co-founded IMTEC, a boutique M&A, investment and consulting firm, serving clients in the U.S., Europe and Japan over a period of 20 years, taking on the role of CEO in several ventures. Earlier in his career, Mika was a managing consultant with Cresap, McCormick & Paget and a policy analyst for the National Science Foundation. He holds a Bachelor of Science in Microbiology from the University of Illinois at Urbana-Champaign and a Master of Business Administration from the Harvard Graduate School of Business.

Mr. Kevin Barnes has been serving as Corporate Controller and Treasurer since 2008 and briefly as Chief Financial Officer (2012 – 2016). Mr. Barnes holds a Master of Business Administration and is a member of the Institute of the Certified Management Accountants of Australia and an Accredited Chartered Secretary. Mr. Barnes served as a Corporate Controller and Business Performance Manager for EC English, one of the world's largest language training institutes between 2006 and 2014. Mr. Barnes also serves as Chief Financial Officer of VVC Exploration Corporation, a minerals exploration company since 2006. From 2000 to 2006, he was a reporting manager with Duguay and Ringler Corporate Services, which specializes in financial reporting for publicly traded companies.

Dr. Mo Jinyu is a highly experienced technical and business veteran of the photonics and optoelectronics industries. Her expertise covers optical transmission system, advanced optical modulation format, tunable semiconductor lasers, DFB and FP lasers and PD/APD, optical transceiver modules and high-speed integrated packaging. Dr. Mo has more than 22 years of experience spanning several companies, including MACOM Technology Solutions, Bookham/Oclaro, Huawei, I2R in Singapore and Nexvave Photonics Technology Co., which she founded and served as Chief Technology Officer. Dr. Mo was most recently with MACOM as the Senior Director and Chief Scientist of the Lightwave business unit in Asia and site leader in Shenzhen. Dr. Mo received her PhD degree in Optical Communications from Nanyang Technological University (NTU) Singapore. She is a senior member of IEEE and has been a member of IEEE's Technical Committees for several international conferences. She has over 11 patents and more than 40 papers published in tier one journals and conferences.

Mr. Raju Kankipati brings over 20 years of experience in Optical transceivers, Optical components, Cloud data center and networks to POET. He was a Senior Director of Product Management at MACOM, focused on optical components and photonic solutions. Prior to that, Raju worked at Arista Networks as a Senior Product Manager and Engineering Manager. During this time he collaborated closely with data center customers to bring unique switching products as well as Optical transceivers to market, that helped customers deploy 40G and 100Gbps products for highly scalable and efficient networks. Raju worked as a Product Manager at Cisco prior to joining Arista. Raju started his career as an Optics Engineer at Opnext and later held various roles in sales and marketing at the company. Raju received his MBA degree from UC Berkeley (Haas School of Business) and completed his Bachelor of Engineering in Electronics from BITS, Pilani in India.

Mr. Chris Tsiofas, CA, CPA, earned a Bachelor's of Commerce Degree from the University of Toronto and is a member of the Chartered Professional Accountants of Canada and the Canadian Tax Foundation. He has been on the Board of Directors since August of 2012. He is the president of MTN Chartered Professional Accountant Professional Corporation, a public accountancy firm. He sits on various private company boards. He has also served in a principal capacity in various entrepreneurial ventures resulting in successful divestitures.

Mr. Jean-Louis Malinge recently retired as partner with ARCH Venture Partners, an early-stage venture capital firm with nearly \$2 billion under management. Additionally, he is a board member of EGIDE SA, CAILabs and Aeponyx. EGIDE SA is a public French company which designs, manufactures and sells hermetic packages for the protection and interconnection of several types of electronic and photonic chips. CAILabs is a venture-backed French innovative start-up founded in 2013 which has developed a unique spatial multiplexing platform. Aeponyx is a venture-backed Canadian innovative start-up which develops a platform combining Silicon Nitride waveguides with planar MEMS for photonics components. From 2004 to 2013 Jean-Louis was President and CEO of Kotura, a Silicon Photonics pioneer which was acquired in 2013 by Mellanox Technologies. Prior to Kotura Mr. Malinge was an executive with Corning Inc for 15 years. Jean-Louis hold an Executive M.B.A. from MIT Sloan School in Boston, Massachusetts. He also holds an engineering degree from the Institut National des Sciences Appliquées in Rennes, France.

Mr. Peter Charbonneau was a general partner at Skypoint Capital Corporation for almost 15 years, where he was jointly responsible for the placement of \$100 million of capital in early-stage telecommunications and data communication companies. Mr. Charbonneau currently serves on the board of Surgical Safety Technologies Inc. an early stage start up that uses clinically trained deep learning systems to perform advanced analytics on hospital data. He recently served on the Board of Mitel Networks Corporation, a leading global provider of cloud and on-site business communications until November 2018 when it was sold to a private equity firm. He previously served as Chairman of the Board of Trustees for the CBC Pension Board and a director on the board of the Canadian Broadcasting Corporation as well as many technology and networking companies, including March Networks Corporation, TELUS Corporation, Breconridge Corporation and Dragonwave Incorporated.

Mr. Yong Meng (James) is General Manager of the Company's Singapore subsidiary. Prior to his appointment in 2019, Mr. Lee was Vice President of Logic Technology at IMEC where he was responsible for defining the logic roadmap and developing the technology elements necessary to extend scaling with ultra-scaled FinFET, GAA devices, advanced metallization as well novel materials for emerging devices and quantum computing. Mr. Lee joined IMEC in 2015 where he was instrumental in driving collaborations with the foundries in China and was responsible for bringing in >100M euros of research partnership. Prior to IMEC, Mr. Lee had a 19-year career with GLOBALFOUNDRIES where he held various technical and management positions spanning the US and Singapore focused on developing, qualifying and ramping leading edge CMOS technology in the foundry. He has over 60 patents and holds a Bachelor of Engineering degree from the University of Illinois at Champaign-Urbana.

Mr. Glen Riley has more than 30 years' experience in leadership roles spanning both the semiconductor and optoelectronics industries. He most recently served as General Manager of the Filter Solutions Business Unit at Qorvo, where he was responsible for developing highly integrated RF modules used in flagship smartphones. Prior to the merger of RFMD and TriQuint that formed Qorvo, he held multiple leadership roles at TriQuint, including Managing Director of international headquarters in Singapore, General Manager of the GaAs foundry business, and General Manager of Optoelectronics. Riley was previously the Chief Executive Officer of Opticalis, an early stage optoelectronics company focused on the development of high-density wavelength division multiplexing products. He also held prior roles as Vice President and General Manager of the Optoelectronic business at Agere Systems, and President of Asia-Pacific Sales and Marketing at Lucent Technologies Microelectronics Group. He graduated as valedictorian with a B.S. degree in Electrical Engineering from the School of Engineering at the University of Maine and completed the General Manager Program at Harvard Business School.

Ms. Theresa Ende serves as Chief Procurement Director of Arista Networks. Prior to her appointment as Chief Procurement Director in 2019, Ms. Ende served for 10 years as its Senior Director of Global Supply Chain Management. Prior to Arista, she held senior positions at JDSU Optical Division and Force10 Networks. At Cisco Systems and ROLM Telecommunications, Ms. Ende held various program management and planning management positions over a 20-year period. In 2019, she was honored as one of the “Top 100 Women of Influence” by Silicon Valley Business Journal.

Professor Michal Lipson currently serves as a Eugene Higgins Professor of Electrical Engineering and Professor of Applied Physics at Columbia University. Her research focus is on Nanophotonics and includes the investigation of novel phenomena, as well as the development of novel devices and applications. Professor Lipson pioneered critical building blocks in the field of Silicon Photonics, which today is recognized as one of the most promising directions for solving the major bottlenecks in microelectronics. She is the inventor of over 45 issued patents and has co-authored more than 250 scientific publications. In recognition of her work in silicon photonics, she was elected as a member of the National Academy of Sciences and the American Academy of Arts and Sciences. She was also awarded the NAS Comstock Prize in Physics, the MacArthur Fellowship, the Blavatnik Award, the Optical Society’s R. W. Wood Prize, the IEEE Photonics Award, and has received an honorary degree from Trinity College, University of Dublin. In 2020, she was elected the 2021 Vice President of The Optical Society and will serve as OSA President in 2023. Since 2014, every year, she has been named by Thomson Reuters as a top 1% highly cited researcher in the field of Physics

The Directors, unless otherwise noted above, have served in their respective capacities since their election and/or appointment, and will serve until the next Company’s annual general meeting or until a successor is duly elected, unless the office is vacated in accordance with the Articles of Continuance.

The Board has adopted a written Code of Business Conduct and Ethics to promote a culture of ethical business conduct and relies upon the selection of persons as directors, senior management and employees who they consider to meet the highest ethical standards. The Company’s Code of Business Ethics can be found on the Company’s web site at: www.poet-technologies.com.

There are no family relationships between any of our Directors or senior management. There are no arrangements or understandings with major shareholders, customers, suppliers or others, pursuant to which any person referred to above was selected as a Director or member of senior management.

B. Compensation

Fixed Stock Option Plan

On September 21, 2007, the Directors approved a fixed 20% vesting Stock Option Plan (the “Plan”) to replace the Rolling Stock Option Plan that had been in effect since May 4, 2005. The Plan was approved by the disinterested shareholders of the Company at the Shareholders’ Meeting of June 19, 2008 and accepted for filing by the TSXV. Under the Plan, the maximum number of shares (the “Maximum Number”) which may be issued pursuant to options granted under the Plan or otherwise granted cannot exceed 20% of the issued and outstanding shares. The shareholders fixed the Maximum Number at 1,193,000. Thereafter, the Plan has been amended by the Directors, and such amendments have been approved by the shareholders in 2009, 2011, 2013, 2014, 2015, 2016, 2018, 2020 and 2021. The Maximum Number is currently 7,090,518 shares.

The purpose of the Plan is to assist the Company in attracting, retaining and motivating directors, employees and consultants of the Company and any of its subsidiaries and to closely align the personal interests of such directors, employees and consultants with those of the shareholders by providing them with the opportunity, through options, to acquire common shares in the capital of the Company.

The Plan provides that the number of common shares issuable pursuant to options granted under the Plan and pursuant to other previously granted options is limited to the Maximum Number, currently fixed at 7,090,518. Any subsequent increase in the Maximum Number must be approved by shareholders of the Company and cannot exceed 20% of the issued and outstanding shares of the Company at the time of the shareholders’ approval. There is no other limit to the number of options granted to any individual, except for:

(i) 2% on a yearly basis to any one consultant and (ii) 2% on a yearly basis to any employee providing “Investor Relations Activities.”

The following paragraphs summarize some of the terms of the Plan:

Eligibility. Options may be granted under the Plan to directors, employees, consultants and consultant companies of the Company and any of its subsidiaries. Options may also be granted to individuals referred to as “Management Company Employees” which are employed by a company providing management services to the Company, except for services involving “Investor Relations Activities.”

Plan Administration. The Board of Directors is the plan administrator, subject to the advice and recommendations of our Compensation Committee. The plan administrator will determine the provisions and terms and conditions of each grant.

Exercise Price. The exercise price subject to an option shall be determined by the Board and set forth in the option agreement, but shall be either (i) not less than the last closing price of the Company's common shares as traded on the TSXV, unless discounted by the Board or (ii) such other price agreed by the Board and accepted by the TSXV. Except in certain circumstance, the Company can amend the other terms of a stock option only where prior TSXV acceptance is obtained and where the following requirements are met:

- (i) if the amendment is in respect of an option held by an insider of the Company, but excluding amendments to extend the length of the stock option term, the Company obtains disinterested shareholder approval;
- (ii) if the option exercise price is amended, at least six months have elapsed since the later of the date of commencement of the term, the date the Company's shares commenced trading, or the date the option exercise price was last amended;
- (iii) if the option price is amended to the discounted market price, the exchange hold period is applied from the date of the amendment (and for more certainty where the option price is amended to the market price, the exchange hold period will not apply); and
- (iv) if the length of the stock option term is amended, any extension of the length of the term of the stock option is treated as a grant of a new option, and therefore the amended option must comply with the pricing and other requirements of the policy as if it were a newly granted option. The term of an option cannot be extended so that the effective term of the option exceeds 10 years in total. An option must be outstanding for at least one year before the Company can extend its term.

The TSXV must accept a proposed amendment before the option may be exercised as amended. If the Company cancels a stock option and within one year grants new options to the same individual, the new options will be subject to the requirements in sections (i) to (iv) above.

Option Agreement. Options granted under the plan are evidenced by an option agreement that sets forth the terms, conditions and limitations for each grant.

Term of the Awards. At the meeting of the Board of Directors held on February 25, 2016, based on the report of Compensia, it was determined that stock options should generally have a term of 10 years.

Vesting Schedule. In general, options granted under the Plan vest 25% immediately and 25% every six months from the date of issue, until fully vested. The directors may, at their discretion, specify a different vesting period, provided that options granted to consultants performing "Investor Relations Activities" must vest in stages over 12 months with no more than 25% of the options vesting in any three-month period. At the meeting of the Board of Directors held on February 25, 2016, based on the report of Compensia, it was determined that stock options should vest 25% at the end of one year from the date of issue with the remaining 75% vesting equally on a quarterly basis over the remaining 3 years for a total vesting period of 4 years. At a meeting of the Board of Directors held on March 30, 2017, the board approved a revised one-year vesting schedule for options granted for service on the board to conform to the term for which a director is elected. Such options will vest 25% at the end of each quarter served in office.

Transfer Restrictions. Options granted under the Plan may not be transferred in any manner by the option holder other than by will or the laws of succession and may be exercised during the lifetime of the option holder only by the option holder. Securities that are subject to restrictions may not be transferred during the period of restriction.

Change of Control and Alteration of Capital. The Plan provides that if a Change of Control, as defined herein, occurs, the shares subject to option shall immediately become vested and may thereupon be exercised in whole or in part by the option holder. The Plan also provides for automatic adjustments in the number of optioned shares and/or the exercised price, in the event of an alteration in the share capital of the Company.

Termination of Options. In the event that the award recipient ceases employment with us or ceases to provide services to us, the options will terminate after a period of time following the termination of employment. Our Board of Directors has the authority to amend or terminate the plan subject to shareholder approval with respect to certain amendments. However, no such action may adversely affect in any material way any awards previously granted unless agreed upon by the recipient.

Officer Compensation

Total cash compensation accrued and/or paid (directly and/or indirectly) to all of our Officers during fiscal year 2022 was \$2,010,479 (refer to ITEM 7. "Major Shareholders and Related Party Transactions" for information regarding indirect payments)

In order to assist the Board of Directors in fulfilling its oversight responsibilities with respect to human resources matters, the Board established a Compensation Committee. The Compensation Committee reviews and makes determinations with respect to senior officer compensation on a regular basis with any discretionary compensation used only for extraordinary projects or significant milestone results that advance the Company's growth potential. When determining Executive Officers' compensation, the Compensation Committee receives input and guidance from the Executive Chairman of the Board and the Chief Executive Officer of the Company. In the past, the Compensation Committee has engaged an outside consultant to conduct a peer group review to provide guidance to the Compensation Committee with respect to appropriate comparative terms for executive compensation and stock option grants. The Company also utilizes peer group comparisons from subsidiary locations to assist in its salary review of various positions in those locations. The Compensation Committee utilizes such comparative reviews to assist it in making appropriate recommendations to the Board.

In addition to his or her fixed base salary, each officer may be eligible to receive variable pay compensation or bonus meant to motivate him or her to achieve short-term goals. Currently, the Company does not have in place established procedures for determining variable pay compensation. Stock options are an important element of the variable pay compensation and do not require cash disbursement from the Company. Stock options are also generally awarded to officers, qualifying employees and consultants at the time of hire and are used as a recruitment tool to attract highly qualified and experienced executives, employees and consultants to the Company. Stock options are also granted at other times during the year. As the Company is continuing to develop its Optical Interposer technology, it must conserve its limited financial resources and control costs to ensure that funds are available when needed to complete its scheduled developments. As a result, the Compensation Committee generally considers not only the financial situation of the Company at the time of the determination of the compensation, but also the estimated financial situation in the mid- and long-term. The use of stock options encourages and rewards performance by aligning an increase in each officer's compensation with increases in the Company's performance and in shareholder value.

The following table sets forth all annual and long-term compensation for services in all capacities to the Company for fiscal year 2022 of the Company.

Name and Principal Position	Fiscal Year	Salary (2)	Share-Based Awards (1) (2)	Options Based Awards (1)(2)		Non-Equity Incentive Plan Compensation				Total Comp.
				No. of Options	Value of Options (1) (2)	Annual Incentive Plans	Long-term Incentive Plans	Pension Value	All other Comp.	
Dr. Suresh Venkatesan	2022	462,000	-	200,000	451,333	-	-	-	-	913,333
Kevin Barnes	2022	192,145	-	50,000	112,833	-	-	-	-	304,978
Thomas Mika	2022	330,000	-	100,000	225,666	-	-	-	-	555,666
Vivek Rajgarhia	2022	383,250	-	100,000	225,666	-	-	-	-	608,916
James Lee	2022	204,750	-	55,000	125,694	-	-	-	-	330,444
Mo Jinyu	2022	238,333	-	100,000	228,540	-	-	-	-	466,873
Raju Kankipati	2022	200,000	-	200,000	793,062	-	-	-	-	993,062

(1) The Company used the Black-Scholes model as the methodology to calculate the grant date fair value. The fair value will be recorded as an operating expense as the options vest based on the stock options vesting schedule from the date of grant.

(2) The exchange rate used in these calculations to convert CAD to USD is based on the exchange rate applicable at the date of grant.

The following table sets forth information concerning all awards outstanding under a stock option plan to each of the current officers, as of December 31, 2022:

		Option-based Awards					Share-based Awards					
First Name	Last Name	Number of Securities Underlying Unexercised Options	Option Exercise Price		Option Expiration Date	Value of Unexercised in-the-money Options (1)	USD	Number of Shares or Units of Shares that have not Vested	Market or Payout Value of Shares or Units of Shares that have not Vested	Market or Payout Value of Vested Shares or Units of Shares that have not Paid Out or Distributed	USD	USD
Kevin	Barnes	22,000	\$ 2.80	CAD	13-Jul-2027	\$ 21,815.71	USD	N/A	N/A	N/A	N/A	N/A
Kevin	Barnes	50,000	\$ 3.70	CAD	15-Jan-2030	\$ 14,989.65	USD	N/A	N/A	N/A	N/A	N/A
Kevin	Barnes	50,000	\$ 3.80	CAD	29-May-2029	\$ 11,146.15	USD	N/A	N/A	N/A	N/A	N/A
Kevin	Barnes	50,000	\$ 4.00	CAD	11-Nov-2032	\$ 3,459.15	USD	N/A	N/A	N/A	N/A	N/A
Kevin	Barnes	8,000	\$ 5.20	CAD	28-Mar-2028	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Kevin	Barnes	30,000	\$ 5.30	CAD	11-Jun-2030	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Kevin	Barnes	25,000	\$ 11.90	CAD	06-Apr-2031	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Mo	Jinyu	100,000	\$ 3.54	CAD	11-Nov-2032	\$ 42,278.50	USD	N/A	N/A	N/A	N/A	N/A
Mo	Jinyu	100,000	\$ 8.10	CAD	08-Jan-2031	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Raju	Kankipati	100,000	\$ 3.54	CAD	11-Nov-2032	\$ 42,278.50	USD	N/A	N/A	N/A	N/A	N/A
Raju	Kankipati	100,000	\$ 8.73	CAD	06-Apr-2032	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Yong Meng	Lee	100,000	\$ 3.30	CAD	04-Nov-2029	\$ 60,727.30	USD	N/A	N/A	N/A	N/A	N/A
Yong Meng	Lee	55,000	\$ 3.54	CAD	11-Nov-2032	\$ 23,253.18	USD	N/A	N/A	N/A	N/A	N/A
Yong Meng	Lee	20,000	\$ 5.30	CAD	11-Jun-2030	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Yong Meng	Lee	25,000	\$ 11.90	CAD	06-Apr-2031	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Thomas	Mika	80,000	\$ 2.80	CAD	13-Jul-2027	\$ 79,329.84	USD	N/A	N/A	N/A	N/A	N/A
Thomas	Mika	100,000	\$ 3.80	CAD	29-May-2029	\$ 22,292.30	USD	N/A	N/A	N/A	N/A	N/A
Thomas	Mika	50,000	\$ 3.85	CAD	16-Jan-2027	\$ 9,224.40	USD	N/A	N/A	N/A	N/A	N/A
Thomas	Mika	100,000	\$ 4.00	CAD	11-Nov-2032	\$ 6,918.30	USD	N/A	N/A	N/A	N/A	N/A
Thomas	Mika	95,000	\$ 5.20	CAD	28-Mar-2028	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Thomas	Mika	60,000	\$ 5.30	CAD	11-Jun-2030	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Thomas	Mika	100,000	\$ 6.20	CAD	02-Nov-2026	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Thomas	Mika	45,000	\$ 11.90	CAD	06-Apr-2031	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Vivek	Rajgarhia	315,000	\$ 3.30	CAD	04-Nov-2029	\$ 191,291.00	USD	N/A	N/A	N/A	N/A	N/A
Vivek	Rajgarhia	100,000	\$ 4.00	CAD	11-Nov-2032	\$ 6,918.30	USD	N/A	N/A	N/A	N/A	N/A
Vivek	Rajgarhia	115,000	\$ 5.30	CAD	11-Jun-2030	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Vivek	Rajgarhia	45,000	\$ 11.90	CAD	06-Apr-2031	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Suresh	Venkatesan	280,000	\$ 2.80	CAD	13-Jul-2027	\$ 277,654.44	USD	N/A	N/A	N/A	N/A	N/A
Suresh	Venkatesan	450,000	\$ 3.80	CAD	29-May-2029	\$ 100,315.35	USD	N/A	N/A	N/A	N/A	N/A
Suresh	Venkatesan	200,000	\$ 4.00	CAD	11-Nov-2032	\$ 13,836.60	USD	N/A	N/A	N/A	N/A	N/A
Suresh	Venkatesan	390,000	\$ 5.20	CAD	28-Mar-2028	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Suresh	Venkatesan	250,000	\$ 5.30	CAD	11-Jun-2030	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Suresh	Venkatesan	30,000	\$ 8.60	CAD	07-Jul-2026	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Suresh	Venkatesan	65,000	\$ 11.90	CAD	06-Apr-2031	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A

(1) This amount is calculated based on the difference between the market value of the shares underlying the options as of December 31, 2022, being CAD \$4.09 (US\$3.18), and the exercise or base price of the option. The exchange rate used in these calculations to convert CAD to USD was 0.738, being the closing exchange rate at December 31, 2022.

The value vested or earned during fiscal year 2022 of incentive plan awards granted to NEOs are as follows:

First Name	Last Name	Option-based Awards			Share-based Awards			Non-equity Incentive Plan Compensation - Value Earned During The Year	
		Number of Securities Underlying Options Vested	Value Vested During the Year		Number of Shares or Units of Shares Vested	Value Vested During the Year			
Suresh	Venkatesan	223,749	\$	2,405,483.30	USD	N/A	N/A	N/A	N/A
Thomas	Mika	62,811	\$	537,932.44	USD	N/A	N/A	N/A	N/A
Kevin	Barnes	44,065	\$	293,073.88	USD	N/A	N/A	N/A	N/A
Vivek	Rajgarhia	129,377	\$	258,123.39	USD	N/A	N/A	N/A	N/A
Yong Meng	Lee	39,374	\$	71,508.32	USD	N/A	N/A	N/A	N/A

(1) This amount is the dollar value that would have been realized and is computed by obtaining the difference between the market price of the underlying securities on the vesting date and the exercise or base price of the options under the option-based award. For the named executive officers to realize this value, they would have had to exercise their options and sell the shares on the day of vesting. The exchange rates used in these calculations to convert CAD to USD were the rates applicable on the vesting dates.

Director Compensation

The following table details compensation paid/accrued for fiscal year 2022 for each director who is not also an officer.

Name and Principal Position	Fiscal Year	Salary (2)	Share-Based Awards (1) (2)	Options Based Awards (1)(2)		Non-Equity Incentive Plan Compensation					Total Comp.
				No. of Options	Value of Options (1) (2)	Annual Incentive Plans	Long-term Incentive Plans	Pension Value	All other Comp.		
Chris Tsiofas	2022	40,000	-	45,965	103,881	-	-	-	-	-	143,881
Peter Charbonneau	2022	55,000	-	52,860	119,464	-	-	-	-	-	174,464
Michal Lipson	2022	15,000	-	46,562	105,230	-	-	-	-	-	120,230
Mohandas Warrior ⁽³⁾	2022	30,000	-	-	-	-	-	-	-	-	30,000
Jean-Louis Malinge	2022	30,000	-	41,368	93,492	-	-	-	-	-	123,492
Theresa Ende	2022	15,000	-	46,113	104,215	-	-	-	-	-	119,215
Glen Riley	2022	32,500	-	45,965	103,881	-	-	-	-	-	136,381

(1) The Company used the Black-Scholes model as the methodology to calculate the grant date fair value. The fair value will be recorded as an operating expense as the stock options vest from the date of grant.

(2) The exchange rate used in these calculations to convert CAD to USD was the rate of exchange applicable on the date of grant.

(3) Mohandas Warrior did not stand for re-election to the board on October 14, 2022.

The following table sets forth information concerning all awards outstanding under the stock option plans to each of the current Directors who are not also named executive officers as of December 31, 2022:

First Name	Last Name	Option-based Awards				Share-based Awards					
		Number of Securities Underlying Unexercised Options	Option Exercise Price	Option Expiration Date	Value of Unexercised in-the-money Options	Number of Shares or Units of Shares that have not Vested	Market or Payout Value of Shares or Units of Shares that have not Vested	Market or Payout Value of Vested Shares or Units of Shares that have not Distributed			
Peter	Charbonneau	39,900	\$ 3.30	CAD 21-Jun-2028	\$ 24,230.19	USD	N/A	N/A	N/A	N/A	N/A
Peter	Charbonneau	40,059	\$ 3.80	CAD 29-May-2029	\$ 8,930.07	USD	N/A	N/A	N/A	N/A	N/A
Peter	Charbonneau	52,860	\$ 4.00	CAD 11-Nov-2032	\$ 3,657.01	USD	N/A	N/A	N/A	N/A	N/A
Peter	Charbonneau	3,549	\$ 4.20	CAD 06-Feb-2030	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Peter	Charbonneau	15,473	\$ 5.20	CAD 28-Mar-2028	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Peter	Charbonneau	33,711	\$ 5.30	CAD 11-Jun-2030	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Peter	Charbonneau	14,375	\$ 11.90	CAD 06-Apr-2031	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Theresa	Ende	41,368	\$ 4.00	CAD 11-Nov-2032	\$ 2,861.96	USD	N/A	N/A	N/A	N/A	N/A
Theresa	Ende	4,745	\$ 7.16	CAD 01-Jun-2032	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Michal	Lipson	41,368	\$ 4.00	CAD 11-Nov-2032	\$ 2,861.96	USD	N/A	N/A	N/A	N/A	N/A
Michal	Lipson	5,194	\$ 6.59	CAD 21-Jun-2032	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Jean-Louis	Malinge	52,500	\$ 3.00	CAD 05-Sep-2027	\$ 43,988.86	USD	N/A	N/A	N/A	N/A	N/A
Jean-Louis	Malinge	39,900	\$ 3.30	CAD 21-Jun-2028	\$ 24,230.19	USD	N/A	N/A	N/A	N/A	N/A
Jean-Louis	Malinge	36,053	\$ 3.80	CAD 29-May-2029	\$ 8,037.04	USD	N/A	N/A	N/A	N/A	N/A
Jean-Louis	Malinge	41,368	\$ 4.00	CAD 11-Nov-2032	\$ 2,861.96	USD	N/A	N/A	N/A	N/A	N/A
Jean-Louis	Malinge	26,382	\$ 5.30	CAD 11-Jun-2030	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Jean-Louis	Malinge	11,250	\$ 11.90	CAD 06-Apr-2031	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Glen	Riley	45,965	\$ 4.00	CAD 11-Nov-2032	\$ 3,180.00	USD	N/A	N/A	N/A	N/A	N/A
Glen	Riley	22,460	\$ 5.00	CAD 04-Dec-2030	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Glen	Riley	11,250	\$ 11.90	CAD 06-Apr-2031	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Chris	Tsiofas	68,750	\$ 2.80	CAD 13-Jul-2027	\$ 68,174.08	USD	N/A	N/A	N/A	N/A	N/A
Chris	Tsiofas	48,767	\$ 3.30	CAD 21-Jun-2028	\$ 29,614.88	USD	N/A	N/A	N/A	N/A	N/A
Chris	Tsiofas	44,065	\$ 3.80	CAD 29-May-2029	\$ 9,823.10	USD	N/A	N/A	N/A	N/A	N/A
Chris	Tsiofas	45,965	\$ 4.00	CAD 11-Nov-2032	\$ 3,180.00	USD	N/A	N/A	N/A	N/A	N/A
Chris	Tsiofas	29,314	\$ 5.30	CAD 11-Jun-2030	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Chris	Tsiofas	15,000	\$ 8.60	CAD 07-Jul-2026	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Chris	Tsiofas	12,500	\$ 11.90	CAD 06-Apr-2031	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Mohandas	Warrior	20,000	\$ 2.80	CAD 13-Jul-2027	\$ 19,832.46	USD	N/A	N/A	N/A	N/A	N/A
Mohandas	Warrior	39,900	\$ 3.30	CAD 21-Jun-2028	\$ 24,230.19	USD	N/A	N/A	N/A	N/A	N/A
Mohandas	Warrior	36,053	\$ 3.80	CAD 29-May-2029	\$ 8,037.04	USD	N/A	N/A	N/A	N/A	N/A
Mohandas	Warrior	26,382	\$ 5.30	CAD 11-Jun-2030	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A
Mohandas	Warrior	15,000	\$ 8.60	CAD 07-Jul-2026	\$ 0.00	USD	N/A	N/A	N/A	N/A	N/A

Mohandas	Warrior	11,250	\$	11.90	CAD	06-Apr-2031	\$	0.00	USD	N/A	N/A	N/A	N/A	N/A
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(1) This amount is calculated based on the difference between the market value of the shares underlying the options as of December 31, 2022, being CAD \$4.09 (US\$3.18), and the exercise or base price of the option. The exchange rate used in these calculations to convert CAD to USD was 0.738, being the closing exchange rate at December 31, 2022.

The value vested or earned during fiscal year 2022 of incentive plan awards granted to Directors who are not also named executive officers are as follows:

First Name	Last Name	Option-based Awards		Share-based Awards			Non-equity Incentive Plan Compensation - Value Earned During The Year
		Number of Securities Underlying Options Vested	Value Vested During the Year	Number of Shares or Units of Shares Vested	Value Vested During the Year		
Michal	Lipson	15,536	\$ 142.89 USD	N/A	N/A	N/A	N/A
Peter	Charbonneau	20,402	\$ 0.00 USD	N/A	N/A	N/A	N/A
Theresa	Ende	15,087	\$ 0.00 USD	N/A	N/A	N/A	N/A
Jean-Louis	Malinge	15,966	\$ 0.00 USD	N/A	N/A	N/A	N/A
Glen	Riley	17,115	\$ 0.00 USD	N/A	N/A	N/A	N/A
Chris	Tsiofas	17,741	\$ 0.00 USD	N/A	N/A	N/A	N/A
Mohandas	Warrior	5,624	\$ 0.00 USD	N/A	N/A	N/A	N/A

(1) This amount is the dollar value that would have been realized and is computed by obtaining the difference between the market price of the underlying securities on the vesting date and the exercise or base price of the options under the option-based award.

Termination and Change of Control Benefits

Other than as described in their individual management agreements, the Company has no plans or arrangements in respect of remuneration received or that may be received by the Officers the Company to compensate such Officers, in the event of termination of employment (as a result of resignation, retirement, change of control) or a change of responsibilities following a change of control.

Pension Plan Benefits

The Company does not provide a defined benefit plan to the Officers or any of its employees.

The Company offers a defined contribution plan that is a 401k Plan but does not contribute toward such plan. The Company does not have any deferred compensation plans other than that described above.

The following individuals were executives of the Company in 2022:

Name	Title
Suresh Venkatesan	CEO
Vivek Rajgarhia	President & General Manager
Thomas Mika	Executive Vice President and CFO

C. Board Practices

Our Board of Directors currently consists of seven (7) directors including the CEO, of which, six (6) are independent directors. Each director holds office until the next annual general meeting of the Company or until his successor is elected or appointed, unless his office is earlier vacated in accordance with the Articles of Amalgamation and all amendments thereto (the "Articles"), or with the provisions of the OBCA. The Company's Officers are appointed to serve at the discretion of the Board, subject to the terms of the employment agreements described above.

Lead independent director

Our independent directors have selected Peter Charbonneau to serve as the lead independent director. The lead independent director's primary role is to facilitate the functioning of the board, and to maintain and enhance the quality of our corporate governance practices. The lead independent director presides over the private sessions of our independent directors that take place following each meeting of the board and conveys the results of these meetings to the chair of the board.

The Board and committees of the Board schedule regular meetings over the course of the year.

During fiscal 2022, the Board held 18 regularly scheduled meetings, including committee meetings. If for various reasons, Board members may not be able to attend a Board meeting, all Board members are provided information related to each of the agenda items before each meeting, and, therefore, can provide counsel outside the confines of regularly scheduled meetings.

The Board has adopted standards for determining whether a director is independent from management. The Board reviews, consistent with the Company's corporate governance guidelines, whether a director has any material relationship with the Company that would impair the director's independent judgment. The Board has affirmatively determined, that as of the filing of this Form 20-F, based on its standards, that Messrs. Tsiofas, Malinge, Charbonneau, Listwin, Riley and Warrior are independent.

Directors' Service Contracts

Mr. Venkatesan has an employment contract with the Company.

Audit and Compensation Committees of the Board of Directors

We currently have four board committees; (1) an Audit Committee; (2) a Compensation Committee, (3) a Corporate Governance & Nominating Committee, and (4) an Ad Hoc Strategy Committee. Committee charters for the Audit, Compensation and Corporate Governance & Nominating Committees can be found on the Company's website (poet-technologies.com). The Strategy Committee is an ad-hoc committee and therefore does not have a charter. The names of the members and a summary of the terms of the charter for each the Audit Committee and the Compensation Committee is provided below.

Audit Committee

The Audit Committee is currently comprised of three members: Chris Tsiofas (Chair), Peter Charbonneau and Jean-Louis Malinge. All three members are independent directors of the Company. Mr. Tsiofas was appointed chair of the Audit Committee on August 21, 2012. The Board has determined that Mr. Tsiofas satisfies the criteria of "audit committee financial expert" within the meaning of Item 401(h) of Regulation S-K and is independent in accordance with Rule 4200 of the Nasdaq Marketplace Rules. All members of the audit committee are financially literate, meaning they 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.

The Audit Committee is responsible for reviewing the Company's financial reporting procedures, internal controls and the performance of the Company's external auditors. The Audit Committee is also responsible for reviewing the annual and quarterly financial statements and accompanying Management's Discussion and Analysis prior to their approval by the full Board. The Audit Committee also reviews the Company's financial controls with the auditors of the Company on an annual basis.

The Company's independent auditor is accountable to the Board and to the Audit Committee. The Board, through the Audit Committee, has the ultimate responsibility to evaluate the performance of the independent auditor, and through the shareholders, to appoint, replace and compensate the independent auditor. Any non-audit services must be pre-approved by the Audit Committee.

Compensation Committee

The Compensation Committee is currently comprised of three members: Glen Riley (Chair), Chris Tsiofas and Theresa Ende. Mr. Riley was appointed chair of the Compensation Committee on October 14, 2022. All three members are independent directors. The Board has determined that all members of the Compensation Committee are qualified as members based on the following:

Mr. Riley has more than 30 years' experience in leadership roles spanning both the semiconductor and optoelectronics industries. He most recently served as General Manager of the Filter Solutions Business Unit at Qorvo, where he was responsible for developing highly integrated RF modules used in flagship smartphones. Prior to the merger of RFMD and TriQuint that formed Qorvo, he held multiple leadership roles at TriQuint, including Managing Director of international headquarters in Singapore, General Manager of the GaAs foundry business, and General Manager of Optoelectronics. Riley was previously the Chief Executive Officer of Opticalis, an early stage optoelectronics company focused on the development of high-density wavelength division multiplexing products. He also held prior roles as Vice President and General Manager of the Optoelectronic business at Agere Systems, and President of Asia-Pacific Sales and Marketing at Lucent Technologies Microelectronics Group. He graduated as valedictorian with a B.S. degree in Electrical Engineering from the School of Engineering at the University of Maine and completed the General Manager Program at Harvard Business School.

Mr. Chris Tsiofas, CA, CPA, earned a Bachelor's of Commerce Degree from the University of Toronto and is a member of the Institute of Chartered Accountants of Canada and the Canadian Tax Foundation. He has been on the Board of Directors of the Company since August of 2012. Mr. Tsiofas is the president of MTN Chartered Professional Accountant Professional Corporation, a public accountancy firm. He sits on various private company boards. He has also served in a principal capacity in various entrepreneurial ventures resulting in successful divestitures. Tsiofas formerly served as Chairman of the Company's Compensation Committee and has directed past engagements with the Company's outside executive compensation consultants. Mr. Tsiofas is also the Chairman of the Audit Committee of the Board of Directors. He brings to the Compensation Committee specialized knowledge regarding the tax impact of certain compensation policies and practices on individuals and on the Company.

Ms. Lan Ende serves as Chief Procurement Director of Arista Networks. Prior to her appointment as Chief Procurement Director in 2019, Ms. Ende served for 10 years as its Senior Director of Global Supply Chain Management. Prior to Arista, she held senior positions at JDSU Optical Division and Force10 Networks. At Cisco Systems and ROLM Telecommunications, Ms. Ende held various program management and planning management positions over a 20-year period. In 2019, she was honored as one of the "Top 100 Women of Influence" by Silicon Valley Business Journal.

The Compensation Committee has extensive direct relevant experience in determining executive compensation policies and practices on behalf of the Company. In addition to being supported by outside compensation consultants on a periodic basis for peer group review, the members of the Committee are professional executives familiar with best practices associated with executive compensation, are knowledgeable about the tax implications to the Company and its executive officers of changes in the tax laws pertaining to executive compensation and have direct relevant experience with the incentives used throughout the Company's industry to align the interests of executive management with company and shareholder interests. This gives these individuals strong insight as to the incentive structures and programs appropriate for companies of a comparable size. The seniority, experience and level of achievement of the three current members of the Compensation Committee speak to the independent judgement exercised in making decisions about the suitability of the Company's compensation policies and practices.

The Compensation Committee discusses and makes recommendations to the Board for approval of compensation issues that pertain to the senior executives of the Company, and on issues involving employment company-wide compensation policies and practices. In general, the compensation programs of the Company are designed to reward performance and to be competitive with the compensation agreements of other comparable semiconductor companies. The Compensation Committee is responsible for evaluating the compensation of the senior management of the Company and assuring that they are compensated effectively in a manner consistent with the Company's business, stage of development, financial condition and prospects, and the competitive environment. Specifically, the Compensation Committee is responsible for: (i) reviewing the compensation practices and policies of the Company to ensure that they are competitive and that they provide appropriate motivation for corporate performance and increased shareholder value; (ii) overseeing the administration of the Company's compensation programs, and reviewing and approving the employees who receive compensation and the nature of the compensation provided under such programs, and ensuring that all management compensation programs are linked to meaningful and measurable performance targets; (iii) making recommendations to the Board regarding the adoption, amendment or termination of compensation programs and the approval of the adoption, amendment and termination of compensation programs of the Company, including for greater certainty, ensuring that if any equity-based compensation plan is subject to shareholder approval, and that such approval is sought; (iv) periodically surveying the executive compensation practices of other comparable companies; (v) establishing and ensuring the satisfaction of performance goals for performance-based compensation; (vi) annually reviewing and approving the annual base salary and bonus targets for the senior executives of the Company, other than the Chief Executive Officer (the "CEO"); (vii) reviewing and approving annual corporate goals and objectives for the CEO and evaluating the CEO's performance against such goals and objectives; (viii) annually reviewing and approving, based on the Compensation Committee's evaluation of the CEO, the CEO's annual base salary, the CEO's bonus, and any stock option grants and other awards to the CEO under the Company's compensation programs (in determining the CEO's compensation, the Compensation Committee will consider the Company's performance and relative shareholder return, the compensation of CEOs at other companies, and the CEO's compensation in past years); and (ix) reviewing the annual report on executive compensation required to be prepared under applicable corporate and securities legislation and regulation including the disclosure concerning members of the Compensation Committee and settling the reports required to be made by the Compensation Committee in any document required to be filed with a regulatory authority and/or distributed to shareholders.

Code of Ethics

The Board has adopted a written code of business conduct and ethics. All transgressions of the code of business conduct and ethics are required to be promptly reported to the Chair of the Board or of any committee, who in turn, reports them to the Corporate Governance and Nominating Committee. The Corporate Governance and Nominating Committee is charged with investigating alleged violations of the code of business conduct and ethics. Any findings of the Corporate Governance and Nominating Committee are then reported to the full Board, which will take such action as it deems appropriate. The Company's Code of Ethics may be inspected on the Company's website (poet-technologies.com) and is filed as an Exhibit to this Annual Report.

Nasdaq's Board Diversity Rule

Nasdaq's Board Diversity Rule, which was approved by the SEC on August 6, 2021, is a disclosure standard designed to encourage minimum board diversity for companies and provide stakeholders with consistent, comparable disclosures concerning a company's current board composition. The director diversity matrix required by Nasdaq Marketplace Rule 5606 is available on the Company's website, <https://poet-technologies.com>, in the "Board Diversity Matrix" section under the "Investor Relations" tab.

D. Employees

As of December 31, 2022, the Company had fifty-three (53) full-time employees and five (5) consultants. Sixteen (16) employees and three (3) consultants work at our lab facility either as support staff or are engaged in research and development initiatives; four (4) employees and one (1) consultant are employed at the Canadian office; twenty (20) employees are employed at our fabrication facility in Singapore; eight (8) employees are employed at our product development facility in China; one (1) consultant is located in Italy. None of the Company's employees are covered by collective bargaining agreements.

E. Share Ownership and Other Securities

The following table sets forth certain information regarding the beneficial ownership of our outstanding common shares for: (i) each of our Directors and Officers individually; (ii) all of our Directors and Officers as a group; and (iii) each other person known to us to own beneficially more than 5% of our common shares as of March 22, 2023. Beneficial ownership of shares is determined under rules of the SEC and generally includes any shares over which a person exercises sole or shared voting or investment power. The table also includes the number of shares underlying options that are exercisable within sixty (60) days of March 22, 2023. Ordinary shares subject to these options are deemed to be outstanding for the purpose of computing the ownership percentage of the person holding these options, but are not deemed to be outstanding for the purpose of computing the ownership percentage of any other person.

The shareholders listed below do not have any different voting rights from our other shareholders.

	Number of Shares Beneficially Owned (1)	Percent of Class
Directors and Officers:		
Chris Tsiofas	17,500	0%
Thomas Mika	27,500	0%
Kevin Barnes	11,746	0%
Suresh Venkatesan	47,500	0%
Mohandas Warrrior	43,750	0%
Peter Charbonneau	25,000	0%
Jean-Louis Malinge	17,500	0%
Vivek Rajgarhia	1,500	0%
Glen Riley	18,163	0%
Directors and Officers Subtotal	210,159	0.56%

Major Shareholders:

None that we are aware of.

(1) The number of shares set forth for each Director, Officer and Major Shareholder is determined in accordance with Rule 13d-3 of the General Rules and Regulations under the Exchange Act.

See “ITEM 6.B. Compensation” for the exercise prices of options.

	Number of options exercisable within 60 days	Percent of class
Glen Riley	56,693	1%
James Lee	108,125	2%
Kevin Barnes	144,065	2%
Vivek Rajgarhia	348,128	5%
Peter Charbonneau	173,497	3%
Mo Jinyu	56,250	1%
Jean-Louis Malinge	186,769	3%
Chris Tsiofas	241,379	4%
Thomas Mika	482,187	7%
Raju Kankipati	6,250	0%
Theresa Ende	25,429	0%
Michal Lipson	25,878	0%
Suresh Venkatesan	1,319,062	20%
	<u>3,173,712</u>	<u>47%</u>

	Number of Warrants exercisable within 60 days	Exercise price CA\$	Percent of class
Suresh Venkatesan	13,750	5.00	0%
Kevin Barnes	5,000	5.00	0%
Peter Charbonneau	25,000	5.00	1%
Glen Riley	5,000	5.00	0%
Jean-Louis Malinge	17,500	5.00	0%
Chris Tsiofas	25,000	5.00	1%
	<u>91,250</u>		<u>3%</u>

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. Major Shareholders

Holdings by Major Shareholders

Please refer to ITEM 6.E. “Share Ownership” for details regarding securities held by Directors, Officers and Major Shareholders. The Company’s major shareholders do not have any different or special voting rights.

U.S. Share Ownership

As of March 22, 2023, there were a total of 445 holders of record of our common shares with addresses in the U.S. We believe that the number of U.S beneficial owners is substantially greater than the number of U.S record holders, because a large portion of our common shares are held in broker “street names.” As of March 22, 2023, U.S. holders of record held approximately 0.65% of our outstanding common shares.

Control of Company

The Company is a publicly owned Ontario corporation, the shares of which are owned by Canadian residents, U.S. residents and other foreign residents. The Company is not controlled by any foreign government or other person(s) except as described in ITEM 4.A. “History and Progress of the Company” and ITEM 6.E. “Share Ownership.”

Change of Control of Company Arrangements

None

B. Major Shareholders and Related Party Transactions

No shareholder beneficially owns 5% or more of the Company’s common shares.

Compensation to key management personnel (CEO, CFO, President, GM POET Technologies Pte Ltd, VP Finance and Treasurer, VP Product Line Management, SVP, GM Asia) was as follows:

	2022	2021	2020
Salaries	\$ 2,010,479	\$ 1,782,297	\$ 1,501,058
Share-based payments (1)	1,711,716	2,077,333	2,144,930
Total	\$ 3,722,195	\$ 3,859,630	\$ 3,645,988

(1) Share-based payments are the fair value of options granted to key management personnel and expensed during the various years as calculated using the Black-Scholes model.

C. Interests of Experts and Counsel

Not applicable.

ITEM 8. FINANCIAL INFORMATION

A. Consolidated Statements and Other Financial Information

The Company’s financial statements are stated in U.S. dollars and are prepared in accordance with IFRS as issued by the IASB.

The financial statements as required under “ITEM 17. Financial Statements” are attached hereto and found immediately following the text of this Annual Report. The audit report of Marcum LLP, independent registered public accounting firm, is included herein immediately preceding the consolidated financial statements.

Legal Proceedings

The directors and the senior management of the Company do not know of any material, either active or pending, legal proceedings against them, nor is the Company involved as a plaintiff in any material proceeding or pending litigation.

The directors and the senior management of the Company know of no active or pending proceedings against anyone that might materially adversely affect an interest in the Company.

Dividend Policy

The Company has not paid, and has no current plans to pay, dividends on its common shares. We currently intend to retain future earnings, if any, to finance the development of our business. Any future dividend policy will be determined by the Board, and will depend upon, among other factors, our earnings, if any, financial condition, capital requirements, any contractual restrictions with respect to the payment of dividends, the impact of the distribution of dividends on our financial condition, tax liabilities, and such economic and other conditions as the Board may deem relevant.

B. Significant Changes

On February 24, 2022, the Company filed Articles of Amendment to consolidate its common shares on a ten-for-one basis. For further clarity, for every ten (10) pre-consolidated common shares, shareholders received one (1) post-consolidated common share. On February 28, 2022 the Company’s common shares began trading on the TSX Venture Exchange on a post consolidation basis. The Company’s name and trading symbol remained unchanged. All references to share and per share amounts in these consolidated financial statements and accompanying notes to the consolidated financial statements have been retroactively restated to reflect the ten-for-one share consolidation.

On March 14, 2022 the Company’s common shares began trading on the NASDAQ under the trading symbol “POET”.

ITEM 9. THE OFFER AND LISTING

A. Offer and Listing Details

The Company’s common shares began trading on the TSXV in Toronto, Ontario, Canada, on June 25, 2007. The current Stock symbol is “PTK”. The CUSIP/ISN numbers are 73044W104 / 73044W1041. The Company received new CUSIP/ISN numbers on the consolidation of the common shares on February 24, 2022. The new CUSIP/ISN numbers are 73044W302/73044W3021.

The following table lists the high and low sales price on the TSXV for the Company’s common shares for: the last six months; the last ten fiscal quarters; and the last five fiscal years.

MONTHLY		
13-Mar-23	6.73	5.38
28-Feb-23	6.81	5.90
31-Jan-23	8.31	4.05
31-Dec-22	4.55	3.86
30-Nov-22	4.50	3.37
31-Oct-22	4.15	3.26
QUARTERLY		
28-Feb-23	8.31	3.60
30-Nov-22	5.41	3.26
31-Aug-22	7.39	4.13
31-May-22	13.65	7.04
28-Feb-22	11.25	7.60
30-Nov-21	12.90	7.70
31-Aug-21	15.80	9.80
31-May-21	13.90	8.40
28-Feb-21	1.49	0.46
30-Nov-20	0.64	0.46
YEARLY		
31-Dec-22	13.65	3.26
31-Dec-21	15.80	7.10
31-Dec-20	7.10	2.20
31-Dec-19	4.60	2.70
31-Dec-18	7.90	1.90

B. Plan of Distribution

Not Required.

C. Markets

The Company's common shares trade on (i) the TSXV in Canada under the symbol "PTK" and (ii) the Nasdaq in the United States under the symbol "POET" (since March 14, 2022). Prior to March 14, 2022, the Company's common shares traded in the United States on the OTCQX International Market.

D. Selling Shareholders

Not Required.

E. Dilution

Not Required.

F. Expenses of the Issue

Not Required.

ITEM 10. ADDITIONAL INFORMATION

A. Share Capital

Not Required.

B. Memorandum and articles of association

The Company was originally formed under the British Columbia Company Act on February 9, 1972 as Tandem Resources Ltd. ("Tandem"). The Company took its current form after Tandem amalgamated with Stanmar Resources Ltd. and Keezic Resources Ltd. pursuant to Articles of Amalgamation on November 14, 1985. Tandem moved to Ontario by Articles of Continuance on January 3, 1997. Tandem changed its name to OPEL International Inc. by Articles of Amendment on September 26, 2006. OPEL International Inc. was continued under the New Brunswick Business Corporations Act on January 30, 2007, then back to Ontario by Articles of Continuance on November 30, 2010, changing its name to OPEL Solar International Inc. By Articles of Amendment on August 25, 2011, OPEL Solar International Inc. changed its name to OPEL Technologies, Inc. By Articles of Amendment on July 23, 2013, OPEL Technologies Inc. changed its name to POET Technologies Inc. Today, the Company is an Ontario corporation governed by the OBCA. The following are summaries of material provisions of our Articles of Continuance, as amended from time to time (the "Articles"), in effect as of the date of this Annual Report insofar as they relate to the material terms of our ordinary shares.

Register, Entry Number and Purposes

Our Articles of Continuance became effective on November 30, 2010. Our corporation number in Ontario is 641402. The Articles of Continuance do not contain a statement of the Company's objects and purposes. However, the Articles of Continuance provide that there are no restrictions on business that the Company may carry on or the powers the Company may exercise as permitted under the OBCA.

Board of Directors

Pursuant to our By-laws and the OBCA, a director or officer who is a party to, or who is a director or officer of, or has a material interest in, any person who is a party to, a material contract or proposed material contract with the Company, shall disclose the nature and extent of his interest at the time and in the manner provided by the OBCA. Any such contract or proposed contract shall be referred to the Board or shareholders for approval even if such contract is one that in the ordinary course of the Company's business would not require approval by the Board or shareholders, and a director interested in a contract so referred to the Board shall not vote on any resolution to approve the same unless the contract or transaction: (i) relates primarily to his or her remuneration as a director of the Company or an affiliate; (ii) is for indemnity or insurance of or for the director or officer as permitted by the OBCA; or (iii) is with an affiliate.

Directors shall be paid such remuneration for their services as the Board may determine by resolution from time to time, and will be entitled to reimbursement for traveling and other expenses properly incurred by them in attending meetings of the Board or any committee thereof. Neither the Company's Articles nor By-laws require an independent quorum for voting on director compensation. Directors are not precluded from serving the Company in any other capacity and receiving remuneration therefor. A director is not required to hold shares of the Company. There is no age limit requirement respecting the retirement or non-retirement of directors.

The directors may sign the name and on behalf of the Company, or appoint any officer or officers or any other person or persons on behalf of the Corporation either to sign on behalf of the Company, all instruments in writing and any instruments in writing so signed shall be binding upon the Company without further authorization or formality. The term "instruments in writing" includes contracts, documents, powers of attorney, deeds, mortgages, hypothecs, charges, conveyances, transfers and assignments of property (real or personal, immovable or movable), agreements, tenders, releases, receipts and discharges for the payment of money or other obligations, conveyances, transfers and assignments of shares, stocks, bonds, debentures or other securities, instruments of proxy and all paper writing.

Nothing in the Company's By-laws limits or restricts the borrowing of money by the Company on bills of exchange or promissory notes made, drawn, accepted or endorsed by or on behalf of the Company.

Rights, Preferences and Restrictions Attaching to Common Shares

The holders of common shares are entitled to vote at all meetings of the shareholders, except meetings at which only holders of a specified class of shares are entitled to vote. Each common share carries with it the right to one vote. Subject to the rights, privileges, restrictions and conditions attaching to any other class or series of shares of the Company, the holders of the common shares are entitled to receive any dividends declared and payable by the Company on the common shares. Dividends may be paid in money or property or by issuing fully paid shares of the Company. Subject to the rights, privileges, restrictions and conditions attaching to any other class or series of shares of the Company, the holders of the common shares are entitled to receive the remaining property of the Company upon dissolution.

No shares have been issued subject to call or assessment. There are no pre-emptive or conversion rights and no provisions for redemption or purchase for cancellation, surrender, or sinking or purchase funds. The common shares must be issued as fully-paid and non-assessable, and are not subject to further capital calls by the Company. The common shares are without par value. All of the common shares rank equally as to voting rights, participation in a distribution of the assets of the Company on a liquidation, dissolution or winding-up of the Company and the entitlement to dividends.

The Company does not currently have any preferred shares outstanding.

Ordinary and Special Shareholders' Meetings

The OBCA provides that the directors of a corporation shall call an annual meeting of shareholders not later than 15 months after holding the last preceding annual meeting. The OBCA also provides that, in the case of an offering corporation, the directors shall place before each annual meeting of shareholders, the financial statements required to be filed under the Ontario Securities Act and the regulation thereunder relating to the period that began immediately after the end of the last completed financial year and ended not more than six months before the annual meeting and the immediately preceding financial year, if any.

The Board has the power to call a special meeting of shareholders at any time.

Notice of the date, time and location of each meeting of shareholders must be given not less than 21 days or more than 50 days before the date of each meeting to each director, to the auditor of the Company and to each shareholder who at the close of business on the record date for notice is entered in the securities register as the holder of one or more shares carrying the right to vote at the meeting.

Notice of a meeting of shareholders called for any other purpose other than consideration of the minutes of an earlier meeting, financial statements, reports of the directors or auditor, setting or changing the number of directors, the election of directors and reappointment of the incumbent auditor, must state the general nature of the special business in sufficient detail to permit the shareholder to form a reasoned judgment on such business, must state the text of any special resolution to be submitted to the meeting, and must, if the special business includes considering, approving, ratifying, adopting or authorizing any document or the signing of or giving of effect to any document, have attached to it, a copy of the document or state that a copy of the document will be available for inspection by shareholders at the Company's records office or another accessible location.

The only persons entitled to be present at a meeting of shareholders are those entitled to vote, the directors of the Company and the auditor of the Company. Any other person may be admitted only on the invitation of the chairman of the meeting or with the consent of the meeting. In circumstances where a court orders a meeting of shareholders, the court may direct how the meeting may be held, including who may attend the meeting.

Limitations on Rights to Own Securities

No share may be issued until it is fully paid.

Neither Canadian law nor our Articles or By-laws limit the right of a non-resident to hold or vote common shares of the Company, other than as provided in the Investment Canada Act (the "Investment Act"), as amended by the World Trade Organization Agreement Implementation Act (the "WTOA Act"). The Investment Act generally prohibits implementation of a direct reviewable investment by an individual, government or agency thereof, corporation, partnership, trust or joint venture that is not a "Canadian," as defined in the Investment Act (a "non-Canadian"), unless, after review, the minister responsible for the Investment Act is satisfied that the investment is likely to be of net benefit to Canada. An investment in the common shares of the Company by a non-Canadian (other than a "WTO Investor," as defined below) would be reviewable under the Investment Act if it were an investment to acquire direct control of the Company, and the value of the assets of the Company were CA\$5.0 million or more (provided that immediately prior to the implementation of the investment the Company was not controlled by WTO Investors). An investment in common shares of the Company by a WTO Investor (or by a non-Canadian other than a WTO Investor if, immediately prior to the implementation of the investment the Company was controlled by WTO Investors) would be reviewable under the Investment Act if it were an investment to acquire direct control of the Company and the value of the assets of the Company equaled or exceeded certain threshold amounts determined on an annual basis.

The threshold for a pre-closing net benefit review depends on whether the purchaser is: (a) controlled by a person or entity from a member of the WTO; (b) a state-owned enterprise (SOE); or (c) from a country considered a "Trade Agreement Investor" under the Investment Act. A different threshold also applies if the Canadian business carries on a cultural business. The 2023 threshold for WTO investors that are SOEs will be \$512 million based on the book value of the Canadian business' assets, up from \$454 million in 2022. The 2023 thresholds for review for direct acquisitions of control of Canadian businesses by private sector investor WTO investors is \$1.287 billion and private sector trade-agreement investors is \$1.931 billion and are both based on the "enterprise value" of the Canadian business being acquired.

A non-Canadian, whether a WTO Investor or otherwise, would be deemed to acquire control of the Company for purposes of the Investment Act if he or she acquired a majority of the common shares of the Company. The acquisition of less than a majority, but at least one-third of the shares, would be presumed to be an acquisition of control of the Company, unless it could be established that the Company is not controlled in fact by the acquirer through the ownership of the shares. In general, an individual is a WTO Investor if he or she is a "national" of a country (other than Canada) that is a member of the WTO ("WTO Member") or has a right of permanent residence in a WTO Member. A corporation or other entity will be a "WTO Investor" if it is a "WTO Investor-controlled entity," pursuant to detailed rules set out in the Investment Act. The U.S. is a WTO Member. Certain transactions involving our common shares would be exempt from the Investment Act, including:

- an acquisition of the shares if the acquisition were made in the ordinary course of that person's business as a trader or dealer in securities;
- an acquisition of control of the Company in connection with the realization of a security interest granted for a loan or other financial assistance and not for any purpose related to the provisions of the Investment Act; and
- an acquisition of control of the Company by reason of an amalgamation, merger, consolidation or corporate reorganization, following which the ultimate direct or indirect control in fact of the Company, through the ownership of voting interests, remains unchanged.

Procedures to Change the Rights of Shareholders

In order to change the rights of our shareholders with respect to certain fundamental changes as described in Section 168 of the OBCA, the Company would need to amend our Articles to effect the change. Such an amendment would require the approval of holders of two-thirds of the votes of the Company's common shares, and any other shares carrying the right to vote at any general meeting of the shareholders of the Company, cast at a duly called special meeting. The OBCA also provides that a sale, lease or exchange of all or substantially all of the property of a corporation other than in the ordinary course of business of the corporation likewise requires the approval of the shareholders at a duly called special meeting. For such fundamental changes and sale, lease and exchange, a shareholder is entitled under the OBCA to dissent in respect of such a resolution amending the Articles and, if the resolution is adopted and the Company implements such changes, demand payment of the fair value of the shareholder's common shares.

Impediments to Change of Control

In 2016, the Canadian Securities Administrators (the "CSA") enacted amendments (the "Bid Amendments") to the Take-Over Bid Regime. The Bid Amendments, which are very significant, are contained in National Instrument (NI) 62-104.

The Bid Amendments were intended to enhance the quality and integrity of the take-over bid regime and rebalance the current dynamics among offerors, offeree issuer boards of directors ("Offeree Boards"), and offeree issuer security holders by (i) facilitating the ability of offeree issuer security holders to make voluntary, informed and coordinated tender decisions, and (ii) providing the Offeree Board with additional time and discretion when responding to a take-over bid.

Specifically, the Bid Amendments require that all non-exempt take-over bids

(1) receive tenders of more than 50% of the outstanding securities of the class that are subject to the bid, excluding securities beneficially owned, or over which control or direction is exercised, by the offeror or by any person acting jointly or in concert with the offeror (the Minimum Tender Requirement);

(2) be extended by the offeror for an additional 10 days after the Minimum Tender Requirement has been achieved and all other terms and conditions of the bid have been complied with or waived (the 10 Day Extension Requirement); and

(3) remain open for a minimum deposit period of 105 days (the Minimum 105 Day Bid Period) unless

(a) the offeree board states in a news release a shorter deposit period for the bid of not less than 35 days, in which case all contemporaneous take-over bids must remain open for at least the stated shorter deposit period, or

(b) the issuer issues a news release that it intends to effect, pursuant to an agreement or otherwise, a specified alternative transaction, in which case all contemporaneous take-over bids must remain open for a deposit period of at least 35 days.

The Bid Amendments involved fundamental changes to the bid regime to establish a majority acceptance standard for all non-exempt take-over bids, a mandatory extension period to alleviate offeree security holder coercion concerns, and a 105 day minimum deposit period to address concerns that offeree boards did not have enough time to respond to an unsolicited take-over bid. The CSA determined not to amend National Policy 62-202 Defensive Tactics (NP 62-202) in connection with these amendments. They reminded participants in the capital markets of the continued applicability of NP 62-202, which means that securities regulators will be prepared to examine the actions of offeree boards in specific cases, and in light of the amended bid regime, to determine whether they are abusive of security holder rights.

After canvassing several commentaries concerning the new regime, we have concluded that:

- It will be much more difficult for hostile bidders as a result of target issuers having a much longer period of time to respond, concurrent with the added risk and cost to such bidders.
- There is good reason to expect that, except in unusual circumstances, regulators will not permit SRPs to remain in effect after a 105 day bidding period.
- A significant number of reporting issuers have not sought re-approval of their SRPs since the amendments were introduced and those that have sought to renew their SRPs have been required to amend the plans to comply with the new rules.
- A large part of the traditional rationale for adopting SRPs has now been eliminated.

We believe that the amended take-over bid rules provide adequate protection against hostile bids. Having said that, it has been suggested that the new rules do not protect against creeping take-over bids for control which are exempt from the rules (such as the accumulation of 20% or more of the issuer's shares through market transactions or the acquisition of a control block through private agreements with a few large shareholders). These activities would however be identifiable through the early warning filing requirements. If, prior to making a determination that the Company ought to adopt a "strategic" SRP at an annual or special meeting of shareholders, the Company were faced with a hostile bid that we believed was not in the best interests of the Company and its shareholders, the directors could adopt a "tactical" plan which we could take to the shareholders for approval. Nevertheless, at this point in time, we are of the opinion that such action is not necessary and the shareholders should be the best arbiters of when "the pill must go".

Stockholder Ownership Disclosure Threshold in Bylaws

Neither our Articles nor By-laws contain a provision governing the ownership threshold above which shareholder ownership must be disclosed. Pursuant to securities legislation, an Early Warning Report and an Insider Report must be filed if a shareholder obtains ownership on a partially diluted basis of 10% or greater of the Company.

Special Conditions for Changes in Capital

The conditions imposed by the Company's Articles are not more stringent than required under the OBCA.

C. Material Contracts

In addition to any contracts described in "ITEM 7.B. Related Party Transactions" or "ITEM 4. Business Overview", below is a summary of material contracts, other than those entered into by the Company in the ordinary course of business, to which we are or have been a party during the two years immediately preceding the date of this document. Other than contracts entered into in the ordinary course of business, we have not been a party to any other material contract within such two-year period.

1. On June 30, 2020, the Company announced that it signed a Letter of Intent to establish a joint venture with Xiamen Sanan Integrated Circuit Co. Ltd. ("Sanan IC") to manufacture cost-effective, high-performance optical engines based on POET's proprietary CMOS compatible Optical Interposer platform technology. The definitive joint venture agreement was signed on October 21, 2020.

D. Exchange Controls

Canada has no system of exchange controls. There are no Canadian restrictions on the repatriation of capital or earnings of a Canadian public company to non-resident investors. There are no laws in Canada or exchange restrictions affecting the remittance of dividends, profits, interest, royalties and other payments to non-resident holders of the Company's securities, except as discussed in "ITEM 10.E. Taxation" below.

E. Taxation

The following summary discusses certain material U.S. and Canadian tax considerations related to the holding and disposition of common stock as of the hereof. Prospective purchasers of our common stock are advised to consult their own tax advisers concerning the consequences under the tax laws of the country of which they are resident or in which they are otherwise subject to tax of making an investment in our common stock.

Canadian Federal Income Tax Considerations

The Company believes the following is a brief summary of the material principal Canadian federal income tax consequences to a U.S. Holder (as defined below) of common shares of the Company who deals at arm's length with the Company, holds the shares as capital property and who, for the purposes of the Income Tax Act (Canada) (the "Tax Act") and the Canada — U.S. Income Tax Convention (1980) (the "Treaty"), is at all relevant times resident in the U.S., is not and is not deemed to be resident in Canada and does not use or hold and is not deemed to use or hold the shares in carrying on a business in Canada. Special rules, which are not discussed below, may apply to a U.S. Holder that is an insurer that carries on business in Canada and elsewhere. U.S. Holders are urged to consult their own tax advisors with respect to their particular circumstances.

This summary is based upon the current provisions of the Tax Act, the regulations thereunder in force at the date hereof, all specific proposals to amend such regulations and the Tax Act publicly announced by or on behalf of the Minister of Finance (Canada) prior to the date hereof and the current provisions of the Convention and the current administrative practices of the Canada Revenue Agency published in writing prior to the date hereof. This summary does not otherwise take into account or anticipate any changes in law or administrative practices whether by legislative, governmental or judicial decision or action, nor does it take into account tax laws of any province or territory of Canada or of the U.S. or of any other jurisdiction outside Canada.

For the purposes of the Tax Act, all amounts relating to the acquisition, holding or disposition of the common shares must be converted into Canadian dollars based on the relevant exchange rate applicable thereto.

This summary does not address all aspects of Canadian federal income taxation that may be relevant to any particular U.S. Holder in light of such holder's individual circumstances. Accordingly, U.S. Holders should consult with their own tax advisors for advice with respect to their own particular circumstances.

Under the Tax Act and the Treaty, a U.S. Holder of common shares will generally be subject to a 15% withholding tax on dividends paid or credited or deemed by the Tax Act to have been paid or credited on such shares. The withholding tax rate is 5% where the U.S. Holder is a corporation that beneficially owns at least 10% of the voting shares of the Company and the dividends may be exempt from such withholding in the case of some U.S. Holders such as qualifying pension funds and charities.

A U.S. Holder will generally not be subject to tax under the Tax Act on any capital gain realized on a disposition of common shares, provided that the shares do not constitute "taxable Canadian property" to the U.S. Holder at the time of disposition. Generally, common shares will not constitute taxable Canadian property to a U.S. Holder provided that such shares are listed on a designated stock exchange (which currently includes the TSXV) at the time of the disposition and, during the 60- month period immediately preceding the disposition, the U.S. Holder, persons with whom the U.S. Holder does not deal at arm's length, or the U.S. Holder together with all such persons has not owned 25% or more of the issued shares of any series or class of the Company's capital stock. If the common shares constitute taxable Canadian property to a particular U.S. Holder, any capital gain arising on their disposition may be exempt from Canadian tax under the Convention if at the time of disposition the common shares do not derive their value principally from real property situated in Canada.

U.S. Federal Income Tax Considerations

Subject to the limitations described herein, the following discussion summarizes certain U.S. federal income tax consequences to a U.S. Holder of our common shares. A "U.S. Holder" means a holder of our common shares who is:

- an individual who is a citizen or resident of the U.S. for U.S. federal income tax purposes;
- a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) created or organized in the U.S. or under the laws of the U.S. or any political subdivision thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust (i) if, in general, a court within the U.S. is able to exercise primary supervision over its administration and one or more U.S. persons have the authority to control all of its substantial decisions, or (ii) that has in effect a valid election under applicable U.S. Treasury Regulations to be treated as a U.S. person.

Unless otherwise specifically indicated, this discussion does not consider the U.S. tax consequences to a person that is not a U.S. Holder (a "Non-U.S. Holder"). This discussion considers only U.S. Holders that will own our common shares as capital assets (generally, for investment) and does not purport to be a comprehensive description of all of the tax considerations that may be relevant to each U.S. Holder's decision to purchase our common shares.

This discussion is based on current provisions of the Internal Revenue Code of 1986, as amended (the "Code"), current and proposed Treasury Regulations promulgated thereunder, and administrative and judicial decisions as of the date hereof, all of which are subject to change, possibly on a retroactive basis. This discussion does not address all aspects of U.S. federal income taxation that may be relevant to any particular U.S. Holder in light of such holder's individual circumstances. In particular, this discussion does not address the potential application of the alternative minimum tax or the U.S. federal income tax consequences to U.S. Holders that are subject to special treatment, including U.S. Holders that:

- are broker-dealers or insurance companies;
- have elected market-to-market accounting;
- are tax-exempt organizations or retirement plans;
- are financial institutions or "financial services entities";
- hold our common shares as part of a straddle, "hedge" or "conversion transaction" with other investments;
- acquired our common shares upon the exercise of employee stock options or otherwise as compensation;
- own directly, indirectly or by attribution at least 10% of our voting power;
- have a functional currency that is not the U.S. Dollar;
- are grantor trusts;
- are certain former citizens or long-term residents of the U.S.; or
- are real estate trusts or regulated investment companies.

If a partnership (or any other entity treated as a partnership for U.S. federal income tax purposes) holds our common shares, the tax treatment of the partnership and a partner in such partnership will generally depend on the status of the partner and the activities of the partnership. Such a partner or partnership should consult its own tax advisor as to its tax consequences.

In addition, this discussion does not address any aspect of state, local or non-U.S. laws or the possible application of U.S. federal gift or estate taxes.

Each potential U.S. Holder of our common shares is advised to consult its own tax advisor with respect to the specific tax consequences to it of purchasing, holding or disposing of our common shares, including the applicability and effect of federal, state, local and foreign income tax and other laws to its particular circumstances.

Distributions

Subject to the discussion below under "Passive Foreign Investment Company Status," a U.S. Holder will be required to include in gross income as ordinary dividend income the amount of any distribution paid on our common shares, including any non-U.S. taxes withheld from the amount paid, to the extent the distribution is paid out of our current or accumulated earnings and profits as determined for U.S. federal income tax purposes. Distributions in excess of such earnings and profits will be applied against and will reduce the U.S. Holder's basis in our common shares and, to the extent in excess of such basis, will be treated as gain from the sale or exchange of our common shares. The dividend portion of such distributions generally will not qualify for the dividends received deduction available to corporations. U.S. Holders which are individuals, estates and trusts and whose income exceeds certain thresholds will be required to pay a 3.8% surtax on "net investment income" including, among other things, dividends (if any) and net gain realized from our common shares. U.S. Holders should consult with their own tax advisors regarding the application of this tax.

Subject to the discussion below under "Passive Foreign Investment Company Status," dividends that are received by U.S. Holders that are individuals, estates or trusts may qualify for taxation at the rate applicable to long-term capital gains (a maximum marginal federal income tax rate of 20%), provided that such U.S. Holders satisfy certain holding period requirements and such dividends meet the requirements of "qualified dividend income." For this purpose, dividends paid by a non-U.S. corporation may qualify if the non-U.S. corporation is eligible for benefits of a comprehensive income tax treaty with the U.S., which benefits include an information exchange program and is determined to be satisfactory by the U.S. Secretary of the Treasury. The IRS has determined that the U.S.- Canada Tax Treaty is satisfactory for this purpose. Dividends that fail to meet such requirements, and dividends received by corporate U.S. Holders, are taxed at ordinary income rates.

Distributions of current or accumulated earnings and profits paid in foreign currency to a U.S. Holder (including any non-U.S. taxes withheld therefrom) will be includible in the income of a U.S. Holder in a U.S. Dollar amount calculated by reference to the exchange rate on the day the distribution is received. A U.S. Holder that receives a foreign currency distribution and converts the foreign currency into U.S. dollars subsequent to receipt may have foreign exchange gain or loss based on any appreciation or depreciation in the value of the foreign currency against the U.S. dollar, which will generally be U.S. source ordinary income or loss. A loss might not be deductible due to certain limitations.

U.S. Holders will have the option of claiming the amount of any non-U.S. income taxes withheld at source either as a deduction from gross income or as a dollar-for-dollar credit against their U.S. federal income tax liability. Individuals who do not claim itemized deductions, but instead utilize the standard deduction, may not claim a deduction for the amount of the non-U.S. income taxes withheld, but such amount may be claimed as a credit against the individual's U.S. federal income tax liability. The amount of non-U.S. income taxes which may be claimed as a credit in any taxable year is subject to complex limitations and restrictions, which must be determined on an individual basis by each shareholder. These limitations include, among others, rules that limit foreign tax credits allowable with respect to specific classes of income to the U.S. federal income taxes otherwise payable with respect to each such class of income. A U.S. Holder will be denied a foreign tax credit with respect to non-U.S. income tax withheld from a dividend received on the common shares if such U.S. Holder does not satisfy certain holding period requirements.

Distributions of current or accumulated earnings and profits generally will be foreign source income for U.S. foreign tax credit purposes.

Disposition of Common Shares

Subject to the discussion below under "Passive Foreign Investment Company Status," upon the sale, exchange or other taxable disposition of our common shares, a U.S. Holder will recognize capital gain or loss in an amount equal to the difference between such U.S. Holder's basis in such common shares, which is usually the cost of such shares, and the amount realized on the disposition. Capital gain from the sale, exchange or other disposition of common shares held more than one year is long-term capital gain, and is eligible for a reduced rate of taxation for individuals (currently a maximum marginal federal income tax rate of 20%, plus the 3.8% net investment income tax discussed above, if applicable). Gains recognized by a U.S. Holder on a sale, exchange or other disposition of common shares generally will be treated as U.S. source income for U.S. foreign tax credit purposes. A loss recognized by a U.S. Holder on the sale, exchange or other taxable disposition of common shares generally is allocated to U.S. source income. The deductibility of capital losses recognized on the sale, exchange or other taxable disposition of common shares is subject to limitations. A U.S. Holder that receives foreign currency upon disposition of common shares and converts the foreign currency into U.S. dollars subsequent to the settlement date or trade date (whichever date the taxpayer was required to use to calculate the value of the proceeds of sale) may have foreign exchange gain or loss based on any appreciation or depreciation in the value of the foreign currency against the U.S. Dollar, which will generally be U.S. source ordinary income or loss. Such loss may not be deductible due to certain limitations.

Passive Foreign Investment Company Status

We would be a passive foreign investment company (a "PFIC") if (taking into account certain "look-through" rules with respect to the income and assets of our corporate subsidiaries in which we own 25 percent (by value) of the stock) either (i) 75 percent or more of our gross income for the taxable year was passive income or (ii) the average percentage (by value) of our total assets that are passive assets during the taxable year was at least 50 percent.

If we were a PFIC, each U.S. Holder would (unless it made one of the elections discussed below on a timely basis) be taxable on gains recognized from the disposition of our common shares (including gain deemed recognized if the common shares are used as security for a loan) and upon receipt of certain "excess distributions" (generally, distributions that exceed 125% of the average amount of distributions in respect to such common shares received during the preceding three taxable years or, if shorter, during the U.S. Holder's holding period prior to the distribution year) with respect to our common shares as if such income had been recognized ratably over the U.S. Holder's holding period for the common shares. The U.S. Holder's income for the current taxable year would include (as ordinary income) amounts allocated to the current taxable year and to any taxable year period prior to the first day of the first taxable year for which we were a PFIC. Tax would also be computed at the highest ordinary income tax rate in effect for each other taxable year period to which income is allocated, and an interest charge on the tax as so computed would also apply. Additionally, if we were a PFIC, U.S. Holders who acquire our common shares from decedents (other than non resident aliens) would be denied the normally available step-up in basis for such shares to fair market value at the date of death and, instead, would have a tax basis in such shares equal to the decedent's basis, if lower.

As an alternative to the tax treatment described above, a U.S. Holder could elect to treat us as a "qualified electing fund" (a "QEF"), in which case the U.S. Holder would be taxed currently, for each taxable year that we are a PFIC, on its pro rata share of our ordinary earnings and net capital gain (subject to a separate election to defer payment of taxes, which deferral is subject to an interest charge). Special rules apply if a U.S. Holder makes a QEF election after the first taxable year in its holding period in which we are a PFIC. In the event that we conclude that we will be classified as a PFIC, we will make a determination at such time as to whether we will be able to provide U.S. Holders with the information that is necessary to make a QEF election. Amounts includable in income as a result of a QEF election will be determined without regard to our prior year losses or the amount of cash distributions, if any, received from us. A U.S. Holder's basis in its common shares will increase by any amount included in income and decrease by any amounts not included in income when distributed because such amounts were previously taxed under the QEF rules. So long as a U.S. Holder's QEF election is in effect with respect to the entire holding period for its common shares, any gain or loss realized by such holder on the disposition of its common shares held as a capital asset ordinarily will be capital gain or loss.

As an alternative to making the QEF election, a U.S. Holder of PFIC stock which is regularly traded on a qualified exchange may avoid the negative effects of the PFIC rules by electing to mark the stock to market and recognizing as ordinary income or loss, each taxable year that we are a PFIC, an amount equal to the difference as of the close of the taxable year between the fair market value of the PFIC stock and the U.S. Holder's adjusted tax basis in the PFIC stock. Losses would be allowed only to the extent of net mark-to-market gain previously included by the U.S. Holder under the election for prior taxable years. This election is available for so long as the Company's common shares constitute "marketable stock," which includes stock of a PFIC that is "regularly traded" on a "qualified exchange or other market." Generally, a "qualified exchange or other market" includes a national market system established pursuant to Section 11A of the Exchange Act, or a foreign securities exchange that is regulated or supervised by a governmental authority of the country in which the market is located and that has certain characteristics. A class of stock that is traded on one or more qualified exchanges or other markets is "regularly traded" on an exchange or market for any calendar year during which that class of stock is traded, other than in de minimis quantities, on at least 15 days during each calendar quarter, subject to special rules relating to an initial public offering. It is not entirely clear whether either the OTCBB or TSXV are qualified exchanges or other markets, or whether there will be sufficient trading volume with respect to the Company's common shares, and accordingly, whether the common shares will be "marketable stock" for these purposes. Furthermore, there can be no assurances that the Company's common shares will continue to trade on any of the exchanges listed above.

We believe we were not a PFIC for the year ending December 31, 2022 and do not expect to be classified as a PFIC for the year ending December 31, 2023. However, PFIC status is determined as of the end of each taxable year and is dependent on a number of factors, including the value of our passive assets, the amount and type of our gross income, and our market capitalization. Therefore, there can be no assurance that we will not be classified as a PFIC for the current taxable year or in a future taxable year. We will notify U.S. Holders in the event we conclude that we will be treated as a PFIC for any taxable year.

Information Reporting and Backup Withholding

U.S. Holders (other than exempt recipients, such as corporations) generally are subject to information reporting requirements with respect to dividends paid on, or proceeds from the disposition of, our common shares. U.S. Holders are also generally subject to backup withholding (currently at a rate of 24%) on dividends paid on, or proceeds from the disposition of, our common shares unless the U.S. Holder provides IRS Form W-9 or otherwise establishes an exemption.

The amount of any backup withholding will be allowed as a credit against a U.S. or Non-U.S. Holder's U.S. federal income tax liability and may entitle such holder to a refund, provided that certain required information is furnished to the IRS.

F. Dividends and Paving Agents

Not Required.

G. Statements by Experts

The consolidated financial statements of POET Technologies Inc. as of December 31, 2022, 2021 and 2020 included herein, have been audited by Marcum LLP, our independent registered accounting firm for that period, 555 Long Wharf Drive, 8th Floor, New Haven, CT 06511, USA, as stated in their report appearing herein, and are included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

H. Documents on Display

The Company's documents can be viewed at its Canadian office, located at: Suite 1107, 120 Eglinton Avenue East, Toronto, Ontario M4P 1E2, Canada. Further, we file reports under Canadian regulatory requirements on SEDAR; you may access our reports filed on SEDAR by accessing their website at www.sedar.com. The Company is subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the Exchange Act), and files reports, Annual Reports and other information with the SEC. The SEC maintains a website that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at www.sec.gov. The Company's reports, Annual Reports and other information can be inspected on the SEC's website.

As a foreign private issuer, we are exempt from the rules under the Exchange Act related to the furnishing and content of proxy statements, and our officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, we are not required under the Exchange Act to file annual, and other reports and financial statements with the SEC as frequently or as promptly as United States domestic companies whose securities are registered under the Exchange Act.

We maintain a corporate website at www.poet-technologies.com. Information contained on, or that can be accessed through, our website does not constitute a part of this Annual Report on Form 20-F. We have included our website address in this Annual Report on Form 20-F solely as an inactive textual reference.

I. Subsidiary information

Not Required.

ITEM 11. Quantitative and Qualitative Disclosures About Market Risk

Interest Rate Risk

Short-term investments bear interest at fixed rates, and as such, are subject to interest rate risk resulting from changes in fair value from market fluctuations in interest rates. The Company does not depend on interest from its investments to fund its operations.

Exchange Rate Risk

The functional currency of each of the entities included in the accompanying consolidated financial statements is the local currency where the entity is domiciled. Functional currencies include the Chinese Yuan, US, Singapore and Canadian dollar. Most transactions within the entities are conducted in functional currencies. As such, none of the entities included in the consolidated financial statements engage in hedging activities. The Company is exposed to a foreign currency risk when its subsidiaries hold current assets or current liabilities in currencies other than its functional currency. A 10% change in foreign currencies held would increase or decrease other comprehensive loss by \$160,421

The following table shows exchange rates, from CAD to USD, for the past six months:

Period	High (1)	Low (1)	Average (2)
March 2023	0.7534	0.7247	0.7325
February 2023	0.7526	0.7346	0.7431
January 2023	0.7520	0.7306	0.7452
December 2022	0.7466	0.7285	0.7350
November 2022	0.7561	0.7242	0.7446
October 2022	0.7410	0.7155	0.7292
October 2022 — March 2023	0.8121	0.7727	0.7912

- (1) Bank of Canada monthly average rates
(2) Bank of Canada daily closing average rates

The following table shows exchange rates, from SGD to USD, for the past six months:

Period	High (1)	Low (1)	Average (2)
March 2023	0.7449	0.7382	0.7421
February 2023	0.7648	0.7406	0.7500
January 2023	0.7621	0.7429	0.7548
December 2022	0.7444	0.7343	0.7394
November 2022	0.7348	0.7029	0.7216
October 2022	0.7118	0.6948	0.7021
October 2022 — March 2023	0.7455	0.7288	0.7388

- (1) Bank of Singapore monthly average rates
(2) Bank of Singapore daily closing average rates

The following table shows exchange rates, from CNY to USD, for the past six months:

Period	High (1)	Low (1)	Average (2)
March 2023	0.1455	0.1436	0.1444
February 2023	0.1485	0.1437	0.1461
January 2023	0.1491	0.1447	0.1472
December 2022	0.1451	0.1415	0.1433
November 2022	0.1423	0.1367	0.1394
October 2022	0.1398	0.1377	0.1390
October 2022 — March 2023	0.1585	0.1545	0.1563

- (1) Bank of China monthly average rates
(2) Bank of China daily closing average rates

Market Risk

Market risk arises from the possibility that changes in market prices will affect the value of the financial instruments of the Company. The Company is exposed to fair value fluctuations on its cash equivalents. The Company's other financial instruments (cash and accounts payable and accrued liabilities) are not subject to market risk, due to the short-term nature of these instruments. The Company manages market risk through its investment policy where surplus funds are only invested in a manner that will provide the optimal blend of investment returns and principal protection while meeting its daily cash flow and liquidity demands.

ITEM 12. Description of Securities Other than Equity Securities

A. Debt Securities

Not Required.

B. Warrants and Rights

Not Required.

C. Other Securities

Not Required.

D. American Depositary Shares

Not Required.

PART II

ITEM 13. Defaults, Dividend Arrearages and Delinquencies

Not Required.

ITEM 14. Material Modifications to the Rights of Security Holders and Use of Proceeds

Not Required.

ITEM 15. Controls and Procedures

(a) Disclosure Controls and Procedures

Disclosure controls and procedures are defined by Rules 13a-15(e) and 15d-15(e) under the Exchange Act as controls and other procedures that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified by the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosures.

We carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of December 31, 2022, the Company's disclosure controls and procedures were effective.

(b) Management's Annual Report on Internal Control over Financial Reporting

Our management, under the oversight of our Board of Directors (in particular its audit committee), is responsible for establishing and maintaining adequate internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act and as set forth in Section 404 of SOX). The Company's internal control over financial reporting is designed to provide reasonable assurance to management and the Board of Directors regarding the reliability of financial reporting and the preparation and fair presentation of its published consolidated financial statements. Under the SOX framework, our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board. Our internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of consolidated financial statements in accordance with IFRS, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our consolidated financial statements.

All internal controls over financial reporting, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective may not prevent or detect misstatements and can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2022. In making this assessment, it used the criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on that assessment and those criteria, management concluded our internal controls over financial reporting was effective as of December 31, 2022.

(c) Attestation Report of Registered Public Accounting Firm

Marcum LLP, the independent registered public accounting firm that audited the consolidated financial statements of the Company included in this Annual Report on Form 20-F, and has issued an attestation report on the effectiveness of the Company's internal control over financial reporting as of December 31, 2022. The report, which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2022, is included herein.

(d) Changes in Internal Controls over Financial Reporting

There were no other changes in our internal controls over financial reporting that occurred during the year ended December 31, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 16. [RESERVED]

ITEM 16A. Audit Committee Financial Expert

Our Board of Directors has determined that Chris Tsiotas is an audit committee financial expert. The Board has determined that Mr. Tsiotas satisfies the criteria of "audit committee financial expert" set forth in Item 16A of Form 20-F and is independent in accordance with Rule 4200 of the Nasdaq Marketplace Rules.

ITEM 16B. Code of Ethics

As amended in February 2023, our Board of Directors adopted a Code of Business Conduct and Ethics (the "Code") that applies to all our employees, including without limitation our chief executive officer, chief financial officer and principal accounting officer. Our Code may be viewed on our website at www.poet-technologies.com and is filed as an Exhibit to this Annual Report. A copy of our Code may be obtained, without charge, upon a written request addressed to our office at, 120 Eglinton Avenue East, Suite 1107, Toronto, Ontario M4P 1E2, Canada.

ITEM 16C. Principal Accountant Fees and Services Fees Paid to Independent Registered Public Accounting Firm

The following table sets forth, for each of the years indicated, the fees billed by our independent registered public accounting firm, Marcum LLP.

Services Rendered	Year Ended December 31,	
	2022	2021
Audit Fees (1)	\$ 278,000	\$ 265,000
All Other Fees (2)	17,200	17,200
Total	\$ 295,200	\$ 282,200

(1) Audit fees included fees for the audit of the Company's annual consolidated financial statements, SOX 404(b) audit and services rendered in connection with filing of registration statements.

(2) Tax fees relate to tax compliance services for our US-based entities.

Our Audit Committee, in accordance with its charter, reviews and pre-approves all audit services and permitted non-audit services (including the fees and other terms) to be provided by our independent auditors. All of the services provided by Marcum LLP over the past two years were pre-approved by the Audit Committee.

ITEM 16D. Exemptions from the Listing Standards for Audit Committees

Not Required.

ITEM 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

Not Required.

ITEM 16F. Change in Registrant's Certifying Accountants

Not Required.

ITEM 16G. Corporate Governance

Not Required.

ITEM 16H. Mine Safety Disclosure

Not Required.

ITEM 16I. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not Required

PART III

ITEM 17. Financial Statements

The Company's consolidated financial statements are stated in U.S. dollars and are prepared in accordance with IFRS as issued by the International Accounting Standards Board.

The consolidated financial statements required under ITEM 17 are attached hereto and found immediately following the text of this Annual Report and are incorporated by reference herein. The audit report of Marcum LLP, independent registered public accounting firm, is included herein immediately preceding the audited consolidated financial statements.

- a. Audited Financial Statements— for the years ended December 31, 2022, 2021 and 2020 and as of December 31, 2022, 2021 and 2020

ITEM 18. Financial Statements

The Company has elected to provide financial statements pursuant to ITEM 17.

ITEM 19. Exhibits

1.1	Certificate and Articles of Continuance (1)
1.2	Amended and Restated Bylaws (2)
1.3	Articles of Amendment, dated February 24, 2022 (8)
2.0	Description of Securities (6)
4.1	License Agreement with the University of Connecticut, dated April 28, 2003, as amended April 15, 2014 (1)
4.3	Shareholder Rights Plan Agreement between the Company and TMX Equity Transfer Services, Inc.(2)
4.4	Employment Agreement with Suresh Venkatesan, dated June 10, 2015 (3)
4.5	Employment Agreement with Vivek Rajgarhia, dated November 4, 2019 (6)
4.6	Employment Agreement with Thomas Mika, dated November 2, 2016 (4)
4.7	Definitive agreement with San'an Integrated Circuit Co., Ltd dated October 21, 2020 (7)
4.8	Sale and Purchase Agreement for DenseLight Semiconductors PTE. LTD, dated April 27, 2016 (4)
4.9	Sale and Purchase Agreement for BB Photonics Inc. dated May 16, 2016 (4)
4.10	2021 Stock Option Plan (8)
4.11	Form of Option Agreement(1)
4.12	Form of Warrant for Purchase of Common Shares (1)
4.13	Stock Specimen Certificate (1)
4.15	Share Sale Agreement for DenseLight Semiconductors PTE. Ltd dated August 20, 2019 (6)
4.16	Employment agreement with Vivek Rajgarhia, dated November 4, 2019 (6)
4.18	Warrant Indenture with TSX Trust Company, dated April 3, 2019 (6)
4.20	Warrant Indenture with TSX Trust Company, dated May 3, 2019 (6)
4.22	Warrant Indenture with TSX Trust Company, dated June 3, 2019 (6)
4.24	Warrant Indenture with TSX Trust Company, dated August 2, 2019 (6)
4.26	Warrant Indenture with TSX Trust Company, dated September 19, 2019 (6)
4.27	Warrant indenture with TSX Trust Company, dated February 11, 2021 (7)
4.28	Engagement letter with Cormark Securities Inc. dated January 25, 2021 (7)
4.29	Upsize letter with Cormark Securities Inc. dated January 26, 2021 (7)
4.30	Form of Subscription for Units of Private Placement, February 11, 2021 (7)
4.31	Form of subscription for Units of Private Placement, December 2, 2022 (9)
4.32	Form of warrant certificate, December 2, 2022 (9)
8.1	List of Subsidiaries
11.1	Code of Business Conduct and Ethics (7)
12.1	Certification of Principal Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) under the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (9)
12.2	Certification of Principal Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) under the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (9)
13.1	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (9)
13.2	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (9)
23.1	Consent of Marcum LLP, independent registered accounting firm (9)
101.INS(*)	XBRL Instance Document (9)
101.SCH(*)	XBRL Taxonomy Extension Schema Linkbase Document (9)
101.AL(*)	XBRL Taxonomy Extension Calculation Linkbase Document (9)
101.DEF(*)	XBRL Taxonomy Extension Definition Linkbase Document (9)
101.LAB(*)	XBRL Taxonomy Extension Label Linkbase Document (9)
101.PRE(*)	XBRL Taxonomy Extension Presentation Linkbase Document (9)
104(*)	Cover Page Interactive Data File (embedded within Inline XBRL document) (9)

- (1) Filed as an exhibit to the Company's registration statement under the Securities and Exchange Act on Form 20-F on May 15, 2014 and incorporated herein by reference.
(2) Filed as an exhibit to the Company's annual Form 20-F on April 13, 2015 and incorporated herein by reference.
(3) Filed as an exhibit to the Company's annual Form 20-F on March 18, 2016 and incorporated herein by reference.
(4) Filed as an exhibit to the Company's annual Form 20-F on April 18, 2017 and incorporated herein by reference.
(5) Filed as an exhibit to the Company's annual Form 20-F on April 30, 2019 and incorporated herein by reference.
(6) Filed as an exhibit to the Company's annual Form 20-F on April 29, 2020 and incorporated herein by reference.
(7) Filed as an exhibit to the Company's annual Form 20-F on April 9, 2021 and incorporated herein by reference.
(8) Filed as an exhibit to the Company's annual Form 20-F on April 26, 2022 and incorporated herein by reference.
(9) Filed as an exhibit to this Form 20-F.

(*) In accordance with Rule 402 of Regulation S-T, the information in these exhibits shall not be deemed to be "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and shall not be incorporated by reference into any registration statement or other document filed under the Securities Act, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

We file reports and other information with the Securities and Exchange Commission; you may obtain copies of our filings with the SEC by accessing their website located at www.sec.gov. Further, we file reports under Canadian regulatory requirements on SEDAR; you may access our reports filed on SEDAR by accessing their website at www.sedar.com.

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL INFORMATION

The accompanying consolidated financial statements of the Company and other financial information contained in this Annual Report are the responsibility of management. The consolidated financial statements have been prepared in conformity with IFRS, using management's best estimates and judgments, where appropriate. In the opinion of management, these consolidated financial statements reflect fairly the financial position and the results of operations and cash flows of the Company within reasonable limits of materiality. The financial information contained elsewhere in this Annual Report has been reviewed to ensure consistency with that in the consolidated financial statements.

To assist management in discharging these responsibilities, the Company maintains a system of procedures and internal control which is designed to provide reasonable assurance that its assets are safeguarded against loss from unauthorized use or disposition, that transactions are executed in accordance with management's authorization and that the financial records form a reliable base for the preparation of accurate and reliable financial information.

The Board of Directors endeavors to ensure that management fulfills its responsibilities for the financial reporting and internal control. The Board of Directors exercises this responsibility through its independent Audit Committee comprising a majority of unrelated and outside directors. The Audit Committee meets periodically with management and annually with the external auditors to review audit recommendations and any matters that the auditors believe should be brought to the attention of the Board of Directors. The Audit Committee also reviews the consolidated financial statements and recommends to the Board of Directors that the statements be approved for issuance to the shareholders.

The consolidated financial statements for the years ended December 31, 2022, 2021 and 2020 have been audited by Marcum LLP, independent registered public accounting firm, which has full and unrestricted access to the Audit Committee. Marcum's report on the consolidated financial statements is presented herein.

SIGNATURES

The Registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this Annual Report on its behalf.

POET TECHNOLOGIES INC.

/s/ Suresh Venkatesan

Suresh Venkatesan
Chief Executive Officer

Date: March 31, 2023

PCAOB: 688

Firm Name: Marcum LLP

Location: 555 Long Wharf Drive, 8th Floor, New Haven, CT 06511, USA



REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of
POET Technologies Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of financial position of POET Technologies Inc. (the "Company") as of December 31, 2022, 2021, and 2020, the related consolidated statements of operations and deficit, comprehensive loss, changes in shareholders' equity and cash flows for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2022, based on the criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in 2013 and our report dated March 31, 2023, expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Explanatory Paragraph – Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As more fully described in Note 1, the Company has used a significant amount of cash in its operations, has incurred significant losses and needs to raise additional funds to meet and sustain its obligations. These conditions raise substantial doubt about the Company's 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 financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the 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 audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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 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 financial statements. We believe that our audits provides a reasonable basis for our opinion.

Critical Audit Matters

Critical audit matters are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. We determined that there are no critical audit matters.

/s/ Marcum LLP

Marcum LLP

We have served as the Company's auditor since 2009, such date takes into account the acquisition of a portion of UHY LLP by Marcum LLP in April 2010.

Hartford, CT
March 31, 2023
PCAOB ID 688



**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM ON
INTERNAL CONTROL OVER FINANCIAL REPORTING**

To the Shareholders and Board of Directors of
POET Technologies Inc.

Opinion on Internal Control over Financial Reporting

We have audited POET Technologies Inc.'s (the "Company") internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated statements of financial position as of December 31, 2022, 2021 and 2020 and the related consolidated statements of operations and deficit, comprehensive loss, changes in shareholders' equity, and cash flows and the related notes for each of the three years in the period ended December 31, 2022 of the Company, and our report dated March 31, 2023 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Management Annual Report on Internal Control over Financial Reporting". Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that degree of compliance with the policies or procedures may deteriorate.

/s/ Marcum LLP

Marcum LLP
Hartford, CT
March 31, 2023



INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in the Registration Statement of POET Technologies Inc. on Form F-10 (File Nos. 333-255631, 333-227873 and 333-213422) of our report dated March 31, 2023 which includes an explanatory paragraph as to the Company's ability to continue as a going concern, with respect to our audits of the consolidated financial statements of POET Technologies Inc. as of December 31, 2022, 2021 and 2020 and for the years ended December 31, 2022, 2021 and 2020 and our report dated March 31, 2023 with respect to our audit of internal control over financial reporting of POET Technologies Inc. as of December 31, 2022, which reports are included in this Annual Report on Form 20-F of POET Technologies Inc. for the year ended December 31, 2022.

/s/ Marcum LLP

Marcum LLP
Hartford, CT
March 31, 2023

Marcum LLP ▪ CityPlace I, 185 Asylum Street ▪ 25th Floor ▪ Hartford, CT 06103 ▪ 860.760.0600 ▪ www.marcumllp.com

POET TECHNOLOGIES INC.

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
(Expressed in US Dollars)

December 31,	2022	2021	2020
Assets			
Current			
Cash and cash equivalents (Note 2)	\$ 9,229,845	\$ 14,941,775	\$ 6,872,894
Short-term investments (Note 2)	-	6,366,828	-
Accounts receivable (Notes 3)	62,842	-	-
Prepays and other current assets (Note 4)	275,507	480,523	618,717
	<u>9,568,194</u>	<u>21,789,126</u>	<u>7,491,611</u>
Investment in joint venture (Note 5)	-	1,445,251	-
Property and equipment (Note 6)	5,070,507	3,064,234	3,185,754
Patents and licenses (Note 7)	510,705	528,476	438,677
Right of use asset (Note 8)	241,047	326,890	520,686
	<u>\$ 15,390,453</u>	<u>\$ 27,153,977</u>	<u>\$ 11,636,728</u>
Liabilities			
Current			
Accounts payable and accrued liabilities (Note 9)	\$ 3,362,430	\$ 1,791,222	\$ 1,730,361
Covid-19 government support loans (Note 24)	29,520	31,660	147,841
Lease liability (Note 8)	150,951	101,074	172,949
Convertible debentures (Note 10)	-	-	3,341,246
Contract liabilities (Note 3)	274,192	-	-
	<u>3,817,093</u>	<u>1,923,956</u>	<u>5,392,397</u>
Non-current covid-19 government support (Note 24)	-	-	70,310
Non-current lease liability (Note 8)	128,312	258,274	359,048
	<u>3,945,405</u>	<u>2,182,230</u>	<u>5,821,755</u>
Shareholders' Equity			
Share capital (Note 11(b))	151,206,539	147,729,846	114,586,260
Equity component of convertible debentures (Note 10)	-	-	565,121
Warrants and compensation options (Note 12)	5,905,642	5,328,455	5,557,002
Contributed surplus (Note 13)	51,016,808	46,954,333	44,407,679
Accumulated other comprehensive loss	(2,660,281)	(2,053,917)	(1,983,212)
Deficit	(194,023,660)	(172,986,970)	(157,317,877)
	<u>11,445,048</u>	<u>24,971,747</u>	<u>5,814,973</u>
	<u>\$ 15,390,453</u>	<u>\$ 27,153,977</u>	<u>\$ 11,636,728</u>

Commitments and contingencies (Note 15)

On behalf of the Board of Directors

Director

Director

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

POET TECHNOLOGIES INC.

CONSOLIDATED STATEMENTS OF OPERATIONS AND DEFICIT
(Expressed in US Dollars)

For the Years Ended December 31,	2022	2021	2020
Revenue (Note 22)	\$ 552,748	\$ 209,100	\$ -
Operating expenses			
Selling, marketing and administration (Note 20)	9,516,271	9,055,528	8,137,998
Research and development (Note 20)	10,746,743	8,165,128	6,634,317
Operating expenses	20,263,014	17,220,656	14,772,315
Operating loss before the following	(19,710,266)	(17,011,556)	(14,772,315)
Interest expense (Notes 8 and 10)	(49,738)	(364,619)	(937,903)
Other income, including interest	188,320	75,084	41,148
Forgiveness of Covid-19 government support loans (Note 24)	-	186,747	-
Gain on contribution of intellectual property to joint venture (Note 5)	1,746,987	2,587,500	-
Share of loss in joint venture (Note 5)	(3,211,993)	(1,142,249)	-
Credit loss on receivable from sale of discontinued operation (Note 21)	-	-	(2,500,000)
Net loss	(21,036,690)	(15,669,093)	(18,169,070)
Deficit, beginning of year	(172,986,970)	(157,317,877)	(139,148,807)
Net loss	(21,036,690)	(15,669,093)	(18,169,070)
Deficit, end of year	\$ (194,023,660)	\$ (172,986,970)	\$ (157,317,877)
Basic and diluted net loss per share (Note 14)	\$ (0.57)	\$ (0.45)	\$ (0.62)

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(Expressed in US Dollars)

For the Years Ended December 31,	2022	2021	2020
Net loss	\$ (21,036,690)	\$ (15,669,093)	\$ (18,169,070)
Other comprehensive (loss) - net of income taxes			
Items that may in the future be reclassified to profit (loss):			
Exchange differences on translating foreign operations	(606,364)	(70,705)	(74,497)
Comprehensive loss	\$ (21,643,054)	\$ (15,739,798)	\$ (18,243,567)

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

POET TECHNOLOGIES INC.

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
(Expressed in US Dollars)

For the Years Ended December 31,	2022	2021	2020
Share Capital			
Beginning balance	\$ 147,729,846	\$ 114,586,260	\$ 112,144,172
Funds from the exercise of stock options	418,845	3,124,392	794,808
Fair value of stock options exercised	374,129	2,699,042	768,356
Funds from the exercise of warrants and compensation warrants	284,437	12,994,358	293,642
Fair value of warrants and compensation warrants exercised	79,547	5,351,586	127,964
Conversion of convertible debentures	-	3,571,342	369,545
Fair value of warrants issued on conversion of convertible debentures	-	(1,229,305)	(146,858)
Exercise of warrants issued in conjunction with debt financing	-	-	221,620
Common shares issued to settle accounts payable	40,029	13,814	13,011
Funds from common shares issued on private placement	3,184,332	11,815,595	-
Share issue costs	(247,892)	(1,143,034)	-
Fair value of warrants issued on private placement	(656,734)	(3,766,007)	-
Fair value of broker warrant issued as share issue costs	-	(288,197)	-
December 31,	151,206,539	147,729,846	114,586,260
Equity Component of convertible debentures			
Beginning balance	-	565,121	627,511
Fair value of equity component of convertible debentures	-	(565,121)	(62,390)
December 31,	-	-	565,121
Warrants and Compensation Options			
Beginning balance	5,328,455	5,557,002	8,525,358
Fair value of warrants issued in conjunction with debt financing	-	-	(221,620)
Fair value of warrants and compensation warrants exercised	(79,547)	(5,351,586)	(127,964)
Fair value of expired warrants and compensation options	-	(160,470)	(2,765,630)
Fair value of warrants issued on the exercise of convertible debentures	-	1,229,305	146,858
Fair value of warrants issued on private placement	656,734	3,766,007	-
Fair value of broker warrants issued as share issue costs	-	288,197	-
December 31,	5,905,642	5,328,455	5,557,002
Contributed Surplus			
Beginning balance	46,954,333	44,407,679	38,799,337
Stock-based compensation	4,436,604	4,534,370	3,612,945
Fair value of stock options exercised	(374,129)	(2,699,042)	(768,356)
Fair value of expired warrants and compensation options	-	160,470	2,765,630
Fair value effect of conversion of convertible debentures	-	550,856	(1,877)
December 31,	51,016,808	46,954,333	44,407,679
Accumulated Other Comprehensive Loss			
Beginning balance	(2,053,917)	(1,983,212)	(1,908,715)
Other comprehensive (loss) attributable to common shareholders - translation adjustment	(606,364)	(70,705)	(74,497)
December 31,	(2,660,281)	(2,053,917)	(1,983,212)
Deficit			
Beginning balance	(172,986,970)	(157,317,877)	(139,148,807)
Net loss	(21,036,690)	(15,669,093)	(18,169,070)
December 31,	(194,023,660)	(172,986,970)	(157,317,877)
Total Shareholders' Equity	\$ 11,445,048	\$ 24,971,747	\$ 5,814,973

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

POET TECHNOLOGIES INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(Expressed in US Dollars)

For the Years Ended December 31,	2022	2021	2020
CASH AND CASH EQUIVALENTS (USED IN) PROVIDED BY:			
OPERATING ACTIVITIES			
Net loss	\$ (21,036,690)	\$ (15,669,093)	\$ (18,169,070)
Adjustments for:			
Depreciation of property and equipment (Note 6)	1,054,264	840,366	631,263
Amortization of patents and licenses (Note 7)	80,246	69,560	65,782
Amortization of right of use asset (Note 8)	158,648	190,596	116,057
Accretion of debt discount on convertible debentures and non-cash interest (Notes 8 and 10)	49,738	213,843	524,095
Stock-based compensation (Note 13)	4,436,604	4,534,370	3,612,945
Non-cash settled operating costs (Notes 6 and 11)	40,029	13,814	910,738
Credit loss on receivable from the sale of discontinued operations (Note 21)	-	-	2,500,000
Gain on lease modification (Note 8)	-	-	(786)
Non-cash foreign exchange	-	-	161,000
Gain on contribution of intellectual property to joint venture (Note 5)	(1,746,987)	(2,587,500)	-
Share of loss in joint venture (Note 5)	3,211,993	1,142,249	-
Forgiveness of covid-19 government support loans (Note 24)	-	(186,747)	-
	(13,752,155)	(11,438,542)	(9,647,976)
Net change in non-cash working capital accounts:			
Accounts receivable	(61,099)	-	-
Prepaid and other current assets	(356,199)	134,926	232,522
Accounts payable and accrued liabilities	1,596,690	70,323	(22,510)
Contract liabilities	246,853	-	-
Cash flows from operating activities	(12,325,910)	(11,233,293)	(9,437,964)
INVESTING ACTIVITIES			
Maturity (purchase) of short-term investments (Note 2)	6,366,828	(6,366,828)	-
Proceeds from the sale of discontinued operations (Note 21)	-	-	15,500,000
Purchase of property and equipment (Note 6)	(3,011,562)	(771,523)	(1,521,788)
Purchase of patents and licenses (Note 7)	(62,475)	(159,359)	(52,075)
Cash flows from investing activities	3,292,791	(7,297,710)	13,926,137
FINANCING ACTIVITIES			
Issue of common shares for cash, net of issue costs (Note 11)	3,639,722	26,791,311	1,088,450
Payment of lease liability (Note 8)	(204,518)	(237,634)	(144,142)
Proceeds from covid-19 government support loans (Note 24)	-	-	218,151
Cash flows from financing activities	3,435,204	26,553,677	1,162,459
Effect of exchange rate on cash	(114,015)	46,207	(205,867)
Net change in cash and cash equivalents	(5,711,930)	8,068,881	5,444,765
Cash and cash equivalents, beginning of year	14,941,775	6,872,894	1,428,129
Cash and cash equivalents, end of year	\$ 9,229,845	\$ 14,941,775	\$ 6,872,894

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

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Expressed in US Dollars)

1. DESCRIPTION OF BUSINESS

POET Technologies Inc. is incorporated in the Province of Ontario. POET Technologies Inc. and its subsidiaries (the "Company") design and develop the POET Optical Interposer and Photonic Integrated Circuits for the data center and tele-communications markets. The Company's head office is located at 120 Eglinton Avenue East, Suite 1107, Toronto, Ontario, Canada M4P 1E2. These audited consolidated financial statements of the Company were approved by the Board of Directors of the Company on March 31, 2023.

These financial statements have been prepared on the going concern basis which assumes that the Company will have sufficient cash to pay its debts, as and when they become payable, for a period of at least 12 months from the date the financial report was authorised for issue.

As at December 31, 2022, the Company has accumulated losses of \$(194,023,660) and working capital of \$5,751,101. During the year ended December 31, 2022, the Company had negative cash flows from operations of \$(12,325,910). The Company has prepared a cash flow forecast which indicates that it does not have sufficient cash to meet its minimum expenditure commitments and therefore needs to raise additional funds to continue as a going concern. As a result, there is substantial doubt about the Company's ability to continue as a going concern.

To address the future funding requirements, management has undertaken the following initiatives:

1. Raised \$3,184,332 in gross funding from a private placement on December 2, 2022. The financing included the issuance of warrants at an exercise price of C\$4.95. These warrants are currently in-the-money and will be exercisable after April 2, 2023
2. Extended the exercise date and repriced certain warrants to induce warrant holders to exercise warrants that are in-the-money (See note 25).
3. Encouraged warrant holders with in-the-money warrants that expire between April 2023 and September 2023 to exercise their warrants prior to the expiry dates.
4. Established a strict budgetary process with a focus on maintaining an appropriate level of corporate overheads in line with the Company's available cash resources.

The Company's financial statements do not include any adjustments to the assets' carrying amount, to the expenses presented and to the reclassification of the balance sheets items that could be necessary should the Company be unable to continue its operations.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

These consolidated financial statements of the Company and its subsidiaries were prepared in accordance with International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board ("IASB").

The preparation of financial statements in accordance with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise judgment in applying the Company's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed below:

Basis of presentation

These consolidated financial statements include the accounts of POET Technologies Inc. and its subsidiaries: ODIS Inc. ("ODIS"), Opel Solar Inc. ("OPEL"), BB Photonics Inc. ("BB Photonics"), POET Technologies Pte Ltd. ("PTS") and POET Optoelectronics Shenzhen Co., Ltd ("POET Shenzhen"). All intercompany balances and transactions have been eliminated on consolidation.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Business combinations

Acquisitions of businesses are accounted for using the acquisition method. The acquisition cost is measured at the acquisition date at the fair value of the consideration transferred, including all contingent consideration.

Subsequent changes in contingent consideration are accounted for through the consolidated statements of operations and deficit and consolidated statements of comprehensive loss in accordance with the applicable standards.

Goodwill arising on acquisition is initially measured at cost, being the difference between the fair value of the consideration transferred including the recognized amount of any non-controlling interest in the acquiree and the net recognized amount (generally fair value) of the identifiable assets and liabilities assumed at the acquisition date. If the net of the amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognized immediately in the consolidated statements of operations and deficit as a bargain purchase gain.

Acquisition-related costs, other than those that are associated with the issue of debt or equity securities that the Company incurs in connection with a business combination, are expensed as incurred.

Foreign currency translation

These consolidated financial statements are presented in U.S. dollars ("USD"), which is the Company's presentation currency.

Items included in the financial statements of each of the Company's subsidiaries are measured using the currency of the primary economic environment in which the entity operates (the "functional currency"). Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transaction. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities not denominated in the functional currency of an entity are recognized in the statement of operations and deficit.

Assets and liabilities of entities with functional currencies other than U.S. dollars are translated into the presentation currency at the year end rates of exchange, and the results of their operations are translated at average rates of exchange for the year. The resulting translation adjustments are included in accumulated other comprehensive loss in shareholders' equity. Additionally, foreign exchange gains and losses related to certain intercompany loans that are permanent in nature are included in accumulated other comprehensive loss. Elements of equity are translated at historical rates.

Financial instruments

Financial assets held with an objective to hold assets in order to collect contractual cash flows which arise on specified dates that are solely principal and interest are measured at amortised cost using the effective interest method. Debt investments held with an objective to hold both assets in order to collect contractual cash flows which arise on specified dates that are solely principal and interest as well as selling the asset on the basis of fair value are measured at FVTOCI. All other financial assets are classified and measured at fair value through profit or loss ("FVTPL"). Financial liabilities are classified as either FVTPL or other financial liabilities, and the portion of the change in fair value that relates to the Company's credit risk is presented in other comprehensive income (loss). Instruments classified as FVTPL are measured at fair value with unrealized gains and losses recognized in net income (loss). Other financial liabilities are subsequently measured at amortised cost using the effective interest method.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Expressed in US Dollars)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Transaction costs that are directly attributable to the acquisition or issuance of financial assets and financial liabilities, other than financial assets and financial liabilities classified as FVTPL, are added to or deducted from the fair value on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities classified as FVTPL are recognized immediately in consolidated net income (loss).

Derecognition

Financial assets

The Company derecognizes a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Company neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset. Any interest in transferred financial assets that is created or retained by the Company is recognized as a separate asset or liability.

Financial liabilities

A financial liability is derecognized from the balance sheet when it is extinguished, that is, when the obligation specified in the contract is either discharged, cancelled or expires. Where there has been an exchange between an existing borrower and lender of debt instruments with substantially different terms, or there has been a substantial modification of the terms of an existing financial liability, this transaction is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. A gain or loss from extinguishment of the original financial liability is recognized in profit or loss.

The Company's financial instruments include cash and cash equivalents, short-term investments, accounts receivable, accounts payable and accrued liabilities.

The following table outlines the classification of financial instruments under IFRS 9:

Financial Assets	
Cash and cash equivalents	Amortized cost
Short-term investments	Amortized cost
Accounts receivable	Amortized cost
Financial Liabilities	
Accounts payable and accrued liabilities	Amortized cost
Convertible debentures	Amortized cost
Contract liabilities	Amortized cost
Covid-19 government support loans	Amortized cost

Convertible debentures are accounted for as a compound financial instrument with a debt component and a separate equity component. The debt component of these compound financial instruments is measured at fair value on initial recognition by discounting the stream of future interest and principal payments at the rate of interest prevailing at the date of issue for instruments of similar term and risk. The debt component is subsequently deducted from the total carrying value of the compound instrument to derive the equity component. The debt component is subsequently measured at amortized cost using the effective interest rate method. Interest expense based on the coupon rate of the debenture and the accretion of the liability component to the amount that will be payable on redemption are recognized through profit or loss as a finance cost.

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Expressed in US Dollars)

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Cash and cash equivalents

Cash and cash equivalents consist of cash in current accounts of \$1,981,765 (2021 - \$4,216,911, 2020 - \$722,894) and funds invested in US and Canadian Term Deposits of \$7,248,080 (2021 - \$10,724,864, 2020 - \$6,150,000) earning interest at rates ranging from 0.20% - 0.25% and maturing in less than 90 days.

Cash and cash equivalents include restricted funds of nil (2021 - nil, 2020 - \$184,569) which serves as a bank guarantee for the purchase of certain equipment. A bank guarantee was discharged in 2020 and a new bank guarantee was put in place. The new bank guarantee was discharged in 2021. The bank guarantee was reduced on a monthly basis by nil (2021 - \$14,197, 2020 - \$14,197) which is the amount paid monthly in settlement of the outstanding balance on the equipment.

Short-term investments

The short-term investments of nil (2021 - \$6,366,828, 2020 - nil) consist of guaranteed investment certificates (GICs) held with one Canadian chartered bank and earn interest at rates ranging from 0.75 to 1.44%.

Property and equipment

Property and equipment are recorded at cost. Depreciation is calculated based on the estimated useful life of the asset using the following method and useful lives:

Machinery and equipment	Straight Line, 5 years
Leasehold improvements	Straight Line, 5 years or life of the lease, whichever is less
Office equipment	Straight Line, 3 - 5 years

Patents and licenses

Patents and licenses are recorded at cost and amortized on a straight line basis over 12 years. Ongoing maintenance costs are expensed as incurred.

Impairment of long-lived assets

The Company's tangible and intangible assets are reviewed for indications of impairment whenever events or changes in circumstances indicate that the carrying amounts of the assets may not be recoverable. An assessment is made at each reporting date whether there is any indication that an asset may be impaired.

An impairment loss is recognized when the carrying amount of an asset exceeds its recoverable amount. Impairment losses are recognized in profit and loss for the year. The recoverable amount is the greater of the asset's fair value less costs to sell and value in use. 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. For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit ("CGU") to which the asset belongs.

An impairment loss is reversed if there is an indication that there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized. No impairment loss has been reported for the years ended December 31, 2022, 2021 and 2020.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Income taxes

The Company follows the liability method of accounting for income taxes. Under this method, deferred income taxes are provided on differences between the financial reporting and income tax bases of assets and liabilities and on income tax losses available to be carried forward to future years for tax purposes. Deferred income taxes are measured using the substantively enacted tax rates and laws that are expected to be in effect when the differences are expected to reverse. Deferred tax assets are only recognized if the amount is expected to be realized in the future.

Revenue recognition

Revenue is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. The Company recognizes revenue when it transfers control over a product or service to a customer.

Sale of goods

Revenue from the sale of goods is recognized, net of discounts and customer rebates, at the point in time the transfer of control of the related products has taken place as specified in the sales contract and collectability is reasonably assured.

Service revenue

The Company provides contract services, primarily in the form of non-recurring revenue ("NRE") where control is passed to the customer over time. The contracts generally provide agreed upon milestones for customer payment which include but are not limited to the delivery of sample products, design reports and test reports. The customer makes payment when it has approved the delivery of the milestone. The Company must determine if the contract is made up of a series of independent performance obligations or a single performance obligation. Where NRE contracts contain multiple performance obligations for which a standalone transaction price can be assessed, revenue is recognized as each performance obligation is satisfied. Where NRE contracts contain a single performance obligation to be settled over time, revenue is recognized progressively based on the output method.

Other income

Interest income

Interest income on cash is recognized as earned using the effective interest method.

Wage subsidies

Wages subsidies received from the Singaporean government are netted against R&D related wages and benefits on the consolidated statements of operations and deficit.

Government Grants

Loans received exclusively from governmental agencies to support the Company throughout the COVID-19 pandemic qualify to be forgiven if certain conditions are met. Forgiveness of COVID-19 related loans will be recognized as other income on the consolidated statements of operations and deficit.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Intangible assets

Research and development costs

Research costs are expensed in the year incurred. Development costs are also expensed in the year incurred unless the Company believes a development project meets IFRS criteria as set out in IAS 38, *Intangible Assets*, for deferral and amortization. IAS 38 requires all research costs be charged to expense while development costs are capitalised only after technical and commercial feasibility of the asset for sale or use have been established. This means that the entity must intend and be able to complete the intangible asset and either use it or sell it and be able to demonstrate how the asset will generate future economic benefits. Development costs are tested for impairment whenever events or changes indicate that its carrying amount may not be recoverable.

In-Process Research and Development

Under IFRS, in-process research and development ("IPR&D") acquired in a business combination that meets the definition of an intangible asset is capitalized with amortization commencing when the asset is ready for use (i.e., when development is complete). The Company does not capitalize its IPR&D.

Stock-based compensation

Stock options and warrants awarded to non employees are measured using the fair value of the goods or services received unless that fair value cannot be estimated reliably, in which case measurement is based on the fair value of the stock options. Stock options and warrants awarded to employees are accounted for using the fair value method. The fair value of such stock options and warrants granted is recognized as an expense on a proportionate basis consistent with the vesting features of each tranche of the grant. The fair value is calculated using the Black-Scholes option pricing model with assumptions applicable at the date of grant.

Loss per share

Basic loss per share, net of taxes is calculated by dividing net loss by the weighted average number of common shares outstanding during the year. Diluted loss per share is calculated by dividing net loss by the weighted average number of common shares outstanding during the period after giving effect to potentially dilutive financial instruments. The dilutive effect of stock options and warrants is determined using the treasury stock method.

Joint Venture

A joint arrangement is an arrangement among two or more parties where the parties are bound by a contractual arrangement and the contractual arrangement gives the parties joint control of the arrangement. A joint venture is a form of joint arrangement where an entity is independently formed and the parties jointly have rights to the net assets of the arrangement and therefore account for their interests under the equity method.

Share Consolidation

On February 24, 2022, the Company filed Articles of Amendment to consolidate its common shares on a ten-for-one basis. For further clarity, for every ten (10) pre-consolidated common shares, shareholders received one (1) post-consolidated common share. On February 28, 2022 the Company's common shares began trading on the TSX Venture Exchange on a post consolidation basis. The Company's name and trading symbol remained unchanged. All references to share and per share amounts in these consolidated financial statements and accompanying notes to the consolidated financial statements have been retroactively restated to reflect the ten-for-one share consolidation.

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Expressed in US Dollars)

3. ACCOUNTS RECEIVABLE AND CONTRACT LIABILITIES

Revenue Contract Balances

	Contract	
	Receivables	Liabilities
Opening balance, January 1, 2022	\$ -	\$ -
Customer deposits	-	(779,870)
Changes due to payment, fulfillment of performance obligations or revenues recognized	62,842	489,906
Effect of changes in foreign exchange rates	-	15,772
Balance, December 31, 2022	<u>\$ 62,842</u>	<u>\$ (274,192)</u>

4. PREPAIDS AND OTHER CURRENT ASSETS

The following table reflects the details of prepaids and other current assets at December 31:

	2022	2021	2020
Sales tax recoverable and other current assets	\$ 128,321	\$ 141,568	\$ 122,353
Deposits on equipment	-	288,287	-
Prepaid expenses	<u>147,186</u>	<u>50,668</u>	<u>496,364</u>
	<u>\$ 275,507</u>	<u>\$ 480,523</u>	<u>\$ 618,717</u>

5. JOINT VENTURE

On October 20, 2020, the Company signed a Joint Venture Agreement (“JVA”) establishing a joint venture, Super Photonics Xiamen Co., Ltd (“SPX”) in Xiamen China, with Xiamen Sanan Integrated Circuit Co. Ltd. (“Sanan IC”) whose purpose is to design, develop, manufacture and sell 100G, 200G and 400G optical engines based on POET’s proprietary Optical Interposer platform technology. SPX was registered on March 12, 2021. SPX will be subsequently capitalized through a combination of committed cash, capital equipment and intellectual property from Sanan IC and intellectual property and know-how from the Company.

The Company’s contribution of intellectual property to SPX was independently valued at \$22,500,000 at the time of its contribution. During the year ended December 31, 2022, the Company recognized a gain of \$1,746,987 (2021 - \$2,587,500, 2020 - nil) related to its contribution of intellectual property to SPX in accordance with IAS 28. The Company only recognized a gain on the contribution of the intellectual property equivalent to the Sanan IC’s interest in SPX, the unrecognized gain of \$18,159,632 (2021 - \$19,912,500, 2020 - nil) will be applied against the investment and periodically realized as the Company’s ownership interest in SPX is reduced. As at December 31, 2022, Sanan IC’s and the Company’s ownership interests were approximately 19.3% and 80.7% respectively (2021 - 11.5% and 88.5%, 2020 - nil).

SPX was determined to be a joint venture as both Sanan IC and POET exercise joint control over SPX. All relevant activity of SPX require unanimous consent.

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
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5. JOINT VENTURE (Contained)

The Company's investment in joint venture during the year can be summarized as follows:

Balance, January 1, 2021	\$	-
Contribution of intellectual property		22,500,000
Unrecognized gain on contribution of intellectual property		(19,912,500)
Share of loss in joint venture for the year ended December 31, 2021		(1,142,249)
Investment balance, December 31, 2021		1,445,251
Recognized gain on contribution of intellectual property		1,746,987
Share of loss in joint venture for the year ended December 31, 2022		(3,211,993)
Effect of changes in foreign exchange rates		19,755
Investment balance, December 31, 2022	\$	-

Summarized financial information of the joint venture is as follows:

December 31,	2022	2021	2020
Current assets	\$ 1,951,654	\$ 2,287,252	\$ -
Intangible assets	18,708,065	22,500,000	-
Liabilities	(180,897)	(44,683)	-
Owners Equity	(20,478,822)	(24,742,569)	-
Net loss	\$ 4,319,857	\$ 1,212,417	\$ -

The Company recognizes its share of SPX's profits or losses using the equity method. On a weighted average basis, the Company's share of the net operating loss was 83.7% or \$(3,614,211), however the Company recognized \$(3,211,993) of the net operating loss of SPX for the year ended December 31, 2022 (2021 - \$95.3% or \$(634,666), 2020 - 0% or nil). In accordance with IAS 28, the Company can only account for a loss to the extent that it carries a net investment in the joint venture on the statement of financial position. The Company's current share of the operating loss is a result of the high value of the Company's initial contribution. The Company's share of the loss will reduce as Sanan IC periodically contributes cash and other assets to SPX.

6. PROPERTY AND EQUIPMENT

	Equipment not ready for use	Leasehold improvements	Machinery and equipment	Office equipment	Total
Cost					
Balance, January 1, 2020	\$ 764,342	\$ -	\$ 2,873,255	\$ 85,233	\$ 3,722,830
Additions	888,726	68,961	525,685	38,416	1,521,788
Reclassification	(519,366)	-	516,111	3,255	-
Disposals ⁽¹⁾	(897,727)	-	-	-	(897,727)
Effect of changes in foreign exchange rates	(8,828)	2,967	79,606	1,281	75,026
Balance, December 31, 2020	227,147	71,928	3,994,657	128,185	4,421,917
Additions, net of returns ⁽²⁾	(128,575)	-	842,877	57,221	771,523
Reclassification	(96,334)	47,393	48,941	-	-
Effect of changes in foreign exchange rates	(2,238)	(2,206)	(56,455)	(2,137)	(63,036)
Balance, December 31, 2021	-	117,115	4,830,020	183,269	5,130,404
Additions	1,902,713	-	1,087,414	21,435	3,011,562
Reclassification	(141,702)	-	162,917	(21,215)	-
Effect of changes in foreign exchange rates	54,898	6,544	11,270	(5,586)	67,126
Balance, December 31, 2022	1,815,909	123,659	6,091,621	177,903	8,209,092

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
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6. PROPERTY AND EQUIPMENT (Continued)

Accumulated Depreciation					
Balance, January 1, 2020	-	-	511,806	67,964	579,770
Depreciation for the year	-	10,332	609,803	11,128	631,263
Effect of changes in foreign exchange rates	-	445	24,405	280	25,130
Balance, December 31, 2020	-	10,777	1,146,014	79,372	1,236,163
Depreciation for the year	-	18,891	794,834	26,641	840,366
Effect of changes in foreign exchange rates	-	(142)	(10,122)	(95)	(10,359)
Balance, December 31, 2021	-	29,526	1,930,726	105,918	2,066,170
Depreciation for the year	-	24,079	1,000,085	30,100	1,054,264
Effect of changes in foreign exchange rates	-	2,529	27,727	(12,105)	18,151
Balance, December 31, 2022	-	56,134	2,958,538	123,913	3,138,585
Carrying Amounts					
At December 31, 2020	\$ 227,147	\$ 61,151	\$ 2,848,643	\$ 48,813	\$ 3,185,754
At December 31, 2021	\$ -	\$ 87,589	\$ 2,899,294	\$ 77,351	\$ 3,064,234
At December 31, 2022	\$ 1,815,909	\$ 67,525	\$ 3,133,083	\$ 53,990	\$ 5,070,507

(1) During 2020, the Company settled certain R&D expenses by transferring \$897,727 worth of equipment to the supplier. The equipment was initially installed in the fabrication facility of the supplier who provided discounted R&D services to the Company. The equipment will be used by the supplier for volume production primarily for the benefit of the Company.

(2) During 2021, the Company returned \$196,490 in equipment to a vendor. The equipment was not needed as the Company had alternatives. The equipment was returned without penalty to the Company.

7. PATENTS AND LICENSES

Cost	
Balance, January 1, 2020	\$ 785,027
Additions	52,075
Disposals	-
Balance, December 31, 2020	837,102
Additions	159,359
Balance, December 31, 2021	996,461
Additions	62,475
Balance, December 31, 2022	1,058,936
Accumulated Amortization	
Balance, January 1, 2020	332,643
Amortization	65,782
Balance, December 31, 2020	398,425
Amortization	69,560
Balance, December 31, 2021	467,985
Amortization	80,246
Balance, December 31, 2022	548,231

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
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7. PATENTS AND LICENSES (Continued)

Carrying Amounts

At December 31, 2020	\$	438,677
At December 31, 2021	\$	528,476
At December 31, 2022	\$	510,705

8. RIGHT OF USE ASSET AND LEASE LIABILITY

The Company recognizes a lease liability and right of use asset relating to its commercial leases. The lease liability is measured at the present value of the remaining lease payments, discounted using the Company's incremental borrowing rate of 12%.

Right of use asset	Building	
Cost		
Balance, January 1, 2020	\$	238,200
Additions		465,068
Lease modification		(47,939)
Effect of changes in foreign exchange rates		(2,097)
Balance, December 31, 2020		653,232
Effect of changes in foreign exchange rates		(4,122)
Balance, December 31, 2021		649,110
Lease modification		81,542
Balance, December 31, 2022		730,652
Accumulated Amortization		
Balance, January 1, 2020		15,683
Amortization		116,057
Effect of changes in foreign exchange rates		806
Balance, December 31, 2020		132,546
Amortization		190,596
Effect of changes in foreign exchange rates		(922)
Balance, December 31, 2021		322,220
Amortization		158,648
Effect of changes in foreign exchange rates		8,737
Balance, December 31, 2022		489,605
Carrying Amounts		
At December 31, 2020	\$	520,686
At December 31, 2021	\$	326,890
At December 31, 2022	\$	241,047

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
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8. RIGHT OF USE ASSET AND LEASE LIABILITY (Continued)

Lease liability

Balance, January 1, 2020	\$	223,758
Interest expense		44,655
Lease modification		(48,725)
Additions		452,385
Lease payments		(144,142)
Effect of changes in foreign exchange rates		4,066
Balance, December 31, 2020		531,997
Interest expense		67,675
Lease payments		(237,634)
Effect of changes in foreign exchange rates		(2,690)
Balance, December 31, 2021		359,348
Interest expense		49,738
Lease modification		81,542
Lease payments		(204,518)
Effect of changes in foreign exchange rates		(6,847)
Balance, December 31, 2022	\$	279,263

9. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

Accounts payable and accrued liabilities at December 31 was as follows:

	2022	2021	2020
Trade payables	\$ 2,723,531	\$ 987,498	\$ 1,603,284
Payroll related liabilities	452,751	521,692	60,455
Accrued liabilities	186,148	282,032	66,622
	\$ 3,362,430	\$ 1,791,222	\$ 1,730,361

10. CONVERTIBLE DEBENTURES, LOAN PAYABLE AND PROMISSORY NOTE

On April 1, 2019 the Company announced that it arranged for certain financing required to bridge the Company up to the sale of its DenseLight subsidiary.

Convertible Debentures

In 2019, the Board of Directors approved the issuance of up to \$10.5 million of unsecured convertible debentures (the "Convertible Debentures") of the Company. The Convertible Debentures were sold in multiple tranches, on a brokered private placement basis through the Company's financial advisors, IBK Capital. In 2019, the Company closed five tranches of the private placement of the Convertible Debentures that raised gross proceeds of \$3,729,921 (CAD\$4,988,292). The Convertible Debentures, bear interest at 12% per annum, compounded annually with 1% payable at the beginning of each month and mature two years from the date of issue. The Company paid \$377,072 (CAD\$499,462) in brokerage fees and other costs related to the closing of these five tranches.

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Expressed in US Dollars)

10. CONVERTIBLE DEBENTURES, LOAN PAYABLE AND PROMISSORY NOTE (Continued)

The Convertible Debentures were convertible at the option of the holders thereof into units at any time after October 31, 2019 at a conversion price of CAD\$4.00 per unit for a total 1,245,750 units of the Company. Each unit will consist of one common share and one common share purchase warrant. Each common share purchase warrant will entitle the holder to purchase one common share of the Company at a price of CAD\$5.00 per share for a period of four years from the date upon which the convertible debenture is issued. Upon completing the sale of DenseLight, holders of Convertible Debentures will have the right to cause the Company to repurchase the Convertible Debentures at face value, subject to certain restrictions. The Convertible Debentures were governed by a trust indenture between the Company and TSX Trust Company as trustee.

Insiders of the Company subscribed for 14.3% or \$535,000 (CAD\$710,000) of the Convertible Debentures, including the Company's board of directors and senior management team. Insiders of IBK Capital subscribed for 4% or \$146,000 (CAD\$200,000) of the Convertible Debentures.

IAS 32 *Financial Instruments: Presentation* define these debt securities as compound financial instruments made up of both a liability component and an equity component. The debt component of the Convertible Debentures were fair valued using effective discount rates ranging from 28.74% to 29.71% which the Company determined would be the interest rate of the debts without a conversion feature. The difference between the fair value of the debt component and the loan is allocated to the equity component and is included in shareholders' equity.

Because the Convertible Debentures are denominated in Canadian dollars and the conversion price is also denominated in Canadian dollars, the number of equity instruments that would be issued upon exercise of the convertible debentures are fixed. As a result, the equity component of the convertible debentures will not be periodically remeasured.

During 2021, holders of certain convertible debentures converted \$3,571,342 (2020 - \$369,545) worth of convertible debentures into 1,119,750 (2020 - 123,500) units of the Company. On September 19, 2021, \$7,886 of convertible debentures matured and was repaid to the holder of the convertible debenture. As of December 31, 2021 all convertible debentures were either exercised or matured and repaid.

The following table reflects the details of convertible debentures at December 31, 2020:

Convertible Debentures	Loan	Equity Component	Accretion	Debt Component
Issued April 3, 2020 (net of issue costs)	\$ 1,293,519	\$ (242,004)	\$ 338,988	\$ 1,390,503
Issued May 3, 2020 (net of issue costs)	806,893	(151,842)	218,159	873,210
Issued June 3, 2020 (net of issue costs)	496,995	(93,278)	117,481	521,198
Issued August 2, 2020 (net of issue costs)	290,365	(54,978)	62,683	298,070
Issued September 19, 2020 (net of issue costs)	122,965	(23,019)	22,905	122,851
Effect of foreign exchange rate changes	-	-	-	135,414
Balance December 31, 2020	\$ 3,010,737	\$ (565,121)	\$ 760,216	\$ 3,341,246

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
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11. SHARE CAPITAL

- (a) AUTHORIZED
Unlimited number of common shares
One special voting share
- (b) COMMON SHARES ISSUED

	Number of Shares	Amount
Balance, January 1, 2020	28,836,355	\$ 112,144,172
Funds from the exercise of stock options	330,284	794,808
Fair value of stock options exercised	-	768,356
Funds from the exercise of warrants	74,400	293,642
Fair value of exercised warrants (Notes 10 and 11)	-	127,964
Issued on the conversion of convertible debentures (Note 10)	123,500	369,545
Fair value of warrants issued on conversion of convertible debentures	-	(146,858)
Exercise of warrants issued in conjunction with debt financing	94,245	221,620
Shares issued to settle accounts payable	3,027	13,011
Balance, December 31, 2020	29,461,811	114,586,260
Funds from the exercise of stock options	1,001,519	3,124,392
Fair value of stock options exercised	-	2,699,042
Issued on the conversion of convertible debentures (Note 10)	1,119,750	3,571,342
Fair value of warrants issued upon conversion of convertible debentures	-	(1,229,305)
Funds from the exercise of warrants	3,144,750	12,994,358
Fair value of warrants exercised	-	5,351,586
Funds from Common shares issued on private placement	1,764,720	11,815,595
Fair value of warrants issued on private placement	-	(3,766,007)
Share issue costs	-	(1,143,034)
Fair value of broker warrants issued as share issue costs	-	(288,197)
Shares issued to settle accounts payable	1,678	13,814
Balance, December 31, 2021	36,494,228	147,729,846
Funds from Common shares issued on private placement	1,126,635	3,184,332
Fair value of warrants issued on private placement	-	(656,734)
Share issue costs	-	(247,892)
Shares issued to settle accounts payable	5,422	40,029
Funds from the exercise of stock options	143,437	418,845
Fair value of stock options exercised	-	374,129
Funds from the exercise of warrants and compensation warrants	72,500	284,437
Fair value of warrants and compensation warrants exercised	-	79,547
Adjustment for 10 for 1 share consolidation	(272)	-
Balance, December 31, 2022	37,841,950	\$ 151,206,539

During 2020, holders of certain convertible debentures converted \$369,545 worth of convertible debentures into 123,500 units of the Company. Each unit consists of one common share and one common share purchase warrant. Each common share purchase warrant entitles the holder to purchase one common share of the Company at a price of \$3.80 (CAD\$5.00) per share for a period of four years from the date upon which the convertible debenture was issued.

POET TECHNOLOGIES INC.

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11. SHARE CAPITAL (Continued)

The fair value of the share purchase warrants was estimated using the Black-Scholes option pricing model with the following weighted average assumptions: dividend yield of 0%, risk-free interest rate of 1.32%, volatility of 76.55%, and estimated life of 2 years. The estimated fair value assigned to the warrants was \$146,858.

On February 11, 2021, the Company completed a brokered private placement offering of 1,764,720 units at a price of \$6.70 (CAD\$8.50) per unit for gross proceeds of \$11,815,595 (CAD\$15,000,120). Each unit consists of one common share and one common share purchase warrant. Each whole warrant entitles the holder to purchase one common share of the Company at a price of \$9.00 (CAD\$11.50) per share until February 11, 2023. At any time after June 12, 2021, the Company reserves the right to accelerate the expiry of the warrants if the Company's average stock price exceeds \$18.10 (CAD\$23.00) for a period of 10 consecutive trading days. The broker was paid a cash commission of \$708,667 (CAD\$900,007) equating to 6% of the gross proceeds and received 105,883 broker warrants. Each broker warrant is exercisable into one common share of the Company at a price of \$6.70 (CAD\$8.50) per broker warrant until February 11, 2023. The Company incurred additional share issuance costs of \$434,367 directly related to the private placement and warrant exercises.

The fair value of the share purchase warrants and broker warrants was estimated using the Black-Scholes option pricing model with the following weighted average assumptions: dividend yield of 0%, risk-free interest rate of 0.19%, volatility of 75.26%, and estimated life of 2 years. The estimated fair value assigned to the warrants and broker warrants was \$3,766,007 and \$288,197, respectively.

In 2020, the Company engaged with a firm to assist with its shareholder communications strategy. The terms of the agreement require the Company to issue common shares at certain pre-determined dates in satisfaction of past services rendered. During the year ended December 31, 2022, the Company settled \$40,029 (2021 - \$13,814, 2020 - \$13,011) in accounts payable related to services rendered in 2022 under this agreement by issuing 5,422 (2021 - 1,678, 2020 - 3,027) common shares at a price of \$7.38 (CAD\$9.38) (2021 - \$8.20 (CAD\$10.10), 2020 - \$4.30 (CAD\$5.60)) per share to the firm.

On December 2, 2022, the Company completed a non-brokered private placement offering of 1,126,635 units at a price of \$2.78 (CAD\$3.81) per unit for gross proceeds of \$3,184,332 (CAD\$4,292,479). Each unit consists of one common share and one half common share purchase warrant. Each whole warrant entitles the holder to purchase one common share of the Company at a price of \$3.61 (CAD\$4.95) per share until December 2, 2025. The Company paid finders' fees aggregating to \$42,090 (CAD\$57,897) to four firms. The Company paid other share issue costs of \$205,802 related to this private placement offering.

One director subscribed for 10,000 units of this private placement offering for gross proceeds of \$27,800 (CAD\$38,100).

The fair value of the share purchase warrants and broker warrants was estimated using the Black-Scholes option pricing model with the following weighted average assumptions: dividend yield of 0%, risk-free interest rate of 3.48%, volatility of 69.93%, and estimated life of 3 years. The estimated fair value assigned to the warrants was \$656,734.

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11. SHARE CAPITAL (Continued)

Share Consolidation

On February 24, 2022, the Company filed Articles of Amendment to consolidate its common shares on a ten-for-one basis. For further clarity, for every ten (10) pre-consolidated common shares, shareholders received one (1) post-consolidated common share. On February 28, 2022, the Company's common shares began trading on the TSX Venture Exchange on a post consolidation basis. The Company's name and trading symbol remained unchanged. All references to share and per share amounts in these consolidated financial statements and accompanying notes to the consolidated financial statements have been retroactively restated to reflect the ten-for-one share consolidation.

12. WARRANTS AND COMPENSATION OPTIONS

The following table reflects the continuity of warrants and compensation options:

	Historical Average Exercise Price	Number of Warrants/ Compensation options	Historical Fair value
Balance, January 1, 2020	\$ 4.30	4,953,979	\$ 8,525,358
Fair value of warrants issued on conversion of convertible debentures (Notes 10 and 11)	3.80	123,500	146,858
Fair value of expired compensation options issued to brokers	4.30	(150,544)	(479,204)
Fair value related to the exercise of warrants issued as cost of debt financing ⁽¹⁾	2.70	(328,950)	(221,620)
Fair value of expired warrants issued on public offering	5.80	(1,254,535)	(2,286,426)
Historical fair value assigned to warrants exercised	3.90	(74,400)	(127,964)
Balance, December 31, 2020	3.90	3,269,050	5,557,002
Fair value of warrant issued on private placement (Note 26)	9.00	1,764,720	3,766,007
Fair value of broker warrants issued on private placement	6.70	105,883	288,197
Fair value of warrants issued on conversion of convertible debentures (Notes 10)	3.80	1,119,750	1,229,305
Historical fair value assigned to warrants exercised	3.90	(3,144,750)	(5,351,586)
Fair value of expired warrants	3.90	(93,300)	(160,470)
Balance, December 31, 2021	7.10	3,021,353	5,328,455
Fair value of warrant issued on private placement	1.17	563,318	656,734
Historical fair value assigned to warrants exercised	3.90	(72,500)	(79,547)
Balance, December 31, 2022	\$ 6.15	3,512,171	\$ 5,905,642

(1) These warrants had a cashless exercise feature. The warrant holder utilized the cashless exercise feature to exercise the warrants, which resulted in the Company issuing 94,245 common shares to the warrant holders.

13. STOCK OPTIONS AND CONTRIBUTED SURPLUS

Stock Options

On October 7, 2021, shareholders of the Company approved amendments to the Company's fixed 20% stock option plan (as amended, previously referred to as the "2020 plan", now referred to as the "2021 Plan"). Under the 2021 Plan, the board of directors may grant options to acquire common shares of the Company to qualified directors, officers, employees and consultants. The 2021 Plan provides that the number of common shares issuable pursuant to options granted under the 2021 Plan and pursuant to other previously granted options is limited to 7,090,518 (the "Number Reserved"). Any subsequent increase in the Number Reserved must be approved by shareholders of the Company and cannot, at the time of the increase, exceed 20% of the number of issued and outstanding shares. The stock options vest in accordance with the policies determined by the Board of Directors from time to time consistent with the provisions of the 2021 Plan which grants discretion to the Board of Directors.

POET TECHNOLOGIES INC.

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13. STOCK OPTIONS AND CONTRIBUTED SURPLUS (Continued)

Stock option transactions and the number of stock options outstanding were as follows:

	Number of Options	Historical Weighted Average Exercise Price
Balance, January 1, 2020	5,326,034	\$ 4.30
Expired/cancelled	(828,794)	10.20
Exercised	(330,284)	2.40
Granted	947,493	3.60
Balance, December 31, 2020	5,114,449	3.30
Expired/cancelled	(166,438)	3.40
Exercised	(1,001,519)	3.00
Granted	1,013,125	8.50
Balance, December 31, 2021	4,959,617	4.40
Expired/cancelled	(117,438)	6.02
Exercised	(143,437)	2.85
Granted	2,043,083	3.32
Balance, December 31, 2022	6,741,825	\$ 4.10

During the year ended December 31, 2022, the Company recorded stock-based compensation of \$4,436,604 (2021 - \$4,534,370, 2020 - \$3,612,945) relating to stock options that vested during the year.

The stock options granted were valued using the Black-Scholes option pricing model using the following assumptions:

	2022	2021	2020
Weighted average exercise price	\$ 3.32	\$ 8.50	\$ 3.60
Weighted average risk-free interest rate	1.80% - 3.48%	0.80% - 1.48%	0.52% - 1.52%
Weighted average dividend yield	0%	0%	0%
Weighted average volatility	83.51%	90.68%	94.77%
Weighted average estimated life	10 years	10 years	10 years
Weighted average share price	\$ 3.32	\$ 8.50	\$ 3.60
Share price on the various grant dates:	\$ 2.72 - \$6.71	\$ 6.20 - \$9.50	\$ 2.20 - \$3.90
Weighted average fair value	\$ 2.70	\$ 7.50	\$ 3.00

The underlying expected volatility was determined by reference to the Company's historical share price movements, its dividend policy and dividend yield and past experience relating to the expected life of granted stock options.

The weighted average remaining contractual life and weighted average exercise price of options outstanding and of options exercisable as at December 31, 2022 are as follows:

Options Outstanding				Options Exercisable	
Exercise Range	Number Outstanding	Historical Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (years)	Number Exercisable	Historical Weighted Average Exercise Price
\$0.85 - \$2.00	7,000	\$ 2.00	5.59	7,000	\$ 2.00
\$2.01 - \$2.84	2,197,179	\$ 2.48	7.04	1,314,750	\$ 2.36
\$2.85 - \$9.15	4,537,646	\$ 4.61	7.69	2,510,644	\$ 4.38
	6,741,825	\$ 4.10	7.48	3,832,394	\$ 3.68

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Expressed in US Dollars)

14. LOSS PER SHARE

	2022	2021	2020
Numerator			
Net loss	\$ (21,036,690)	\$ (15,669,093)	\$ (18,169,070)
Denominator			
Weighted average number of common shares outstanding	36,739,857	34,545,752	29,169,653
Weighted average number of common shares outstanding - diluted	36,739,857	34,545,752	29,169,653
Basic and diluted loss per share	\$ (0.57)	\$ (0.45)	\$ (0.62)

The effect of common share purchase options, warrants, compensation warrants and shares to be issued on the net loss in 2022, 2021 and 2020 is not reflected as they are anti-dilutive.

15. COMMITMENTS AND CONTINGENCIES

The Company has operating leases on four facilities; head office located in Toronto, Canada, design and testing operations located in Allentown, Pennsylvania (formerly in San Jose, California) and operating facilities located in Singapore and China. The Company's design and testing operations terminated a lease on January 31, 2021. A new lease was initiated on April 1, 2021 and expires on September 30, 2025. The lease on the Company's operating facilities in Singapore was initiated on November 1, 2019 with an original expiry of April 30, 2022. The lease on the Singapore facility was renewed on May 1, 2022 and expires on May 31, 2023. The lease on the Company's operating facilities in China was initiated in November 19, 2021 and expires on November 18, 2023. As at December 31, 2022, the Company's head office was on a month to month lease term.

Remaining annual lease payments to the lease expiration dates are as follows:

2023	\$ 227,844
2024 and beyond	146,881
	\$ 374,725

16. RELATED PARTY TRANSACTIONS

Compensation to key management personnel were as follows:

	2022	2021	2020
Salaries	\$ 2,010,479	\$ 1,782,297	\$ 1,501,058
Share-based payments ⁽¹⁾	1,711,716	2,077,333	2,144,930
Total	\$ 3,722,195	\$ 3,859,630	\$ 3,645,988

(1) Share-based payments are the fair value of options granted to key management personnel and expensed during the various years as calculated using the Black-Scholes model.

All transactions with related parties have occurred in the normal course of operations and are measured at the exchange amounts, which are the amounts of consideration established and agreed to by the related parties.

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Expressed in US Dollars)

17. SEGMENT INFORMATION

The Company and its subsidiaries operate in a single segment; the design, manufacture and sale of semi-conductor products and services for commercial applications. The Company's operating and reporting segment reflects the management reporting structure of the organization and the manner in which the chief operating decision maker regularly assesses information for decision making purposes, including the allocation of resources. A summary of the Company's operations is below:

OPEL, ODIS, POET Shenzhen and PTS

OPEL, ODIS, POET Shenzhen and PTS are the designers and developers of the POET Optical Interposer platform and optical engines based on the POET Optical Interposer platform.

BB Photonics

BB Photonics developed photonic integrated components for the datacom and telecom markets utilizing embedded dielectric technology that enabled the partial integration of active and passive devices into photonic integrated circuits. BB Photonics' operation is currently dormant.

On a consolidated basis, the Company operates geographically in Singapore, China (collectively "Asia"), the United States and Canada. Geographical information is as follows:

As of December 31,	2022			
	Asia	US	Canada	Consolidated
Current assets	\$ 664,658	\$ 133,501	\$ 8,770,035	\$ 9,568,194
Property and equipment	4,496,734	573,773	-	5,070,507
Patents and licenses	-	510,705	-	510,705
Right of use asset	55,775	185,272	-	241,047
Total Assets	\$ 5,217,167	\$ 1,403,251	\$ 8,770,035	\$ 15,390,453
Year Ended December 31,	Asia	US	Canada	Consolidated
Revenue	\$ 552,748	\$ -	\$ -	\$ 552,748
Selling, marketing and administration	(2,121,596)	(5,885,970)	(1,508,705)	(9,516,271)
Research and development	(6,344,016)	(4,205,177)	(197,550)	(10,746,743)
Gain on contribution of intellectual property to joint venture	1,746,987	-	-	1,746,987
Interest expense	(17,701)	(32,037)	-	(49,738)
Other income, including interest	-	-	188,320	188,320
Share of loss in joint venture	(3,211,993)	-	-	(3,211,993)
Net loss	\$ (9,395,571)	\$ (10,123,184)	\$ (1,517,935)	\$ (21,036,690)
As of December 31,	2021			
	Asia	US	Canada	Consolidated
Current assets	\$ 537,647	\$ 291,772	\$ 20,959,707	\$ 21,789,126
Investment in joint venture	1,445,251	-	-	1,445,251
Property and equipment	2,787,273	276,961	-	3,064,234
Patents and licenses	-	528,476	-	528,476
Right of use asset	150,134	176,756	-	326,890
Total Assets	\$ 4,920,305	\$ 1,273,965	\$ 20,959,707	\$ 27,153,977

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Expressed in US Dollars)

17. SEGMENT INFORMATION (Continued)

The Year Ended December 31,	Asia	US	Canada	Consolidated
Revenue	\$ 209,100	\$ -	\$ -	\$ 209,100
Selling, marketing and administration	(1,563,829)	(5,460,917)	(2,030,784)	(9,055,530)
Research and development	(4,849,553)	(2,679,452)	(636,123)	(8,165,128)
Gain on contribution of intellectual property to joint venture	2,587,500	-	-	2,587,500
Interest expense	(35,043)	(32,632)	(296,944)	(364,619)
Forgiveness of Covid-19 government support loans	-	186,747	-	186,747
Other income, including interest	-	-	75,084	75,084
Share of loss in joint venture	(1,142,249)	-	-	(1,142,249)
Net loss	\$ (4,794,074)	\$ (7,986,254)	\$ (2,888,767)	\$ (15,669,095)
	2020			
As of December 31,	Asia	US	Canada	Consolidated
Current assets	\$ 304,450	\$ 69,874	\$ 7,117,287	\$ 7,491,611
Property and equipment	2,982,496	203,258	-	3,185,754
Patents and licenses	-	438,677	-	438,677
Right of use asset	289,542	231,144	-	520,686
Total Assets	\$ 3,576,488	\$ 942,953	\$ 7,117,287	\$ 11,636,728
The Year Ended December 31,	Asia	US	Canada	Consolidated
Selling, marketing and administration	\$ (1,182,054)	\$ (5,495,161)	\$ (1,460,783)	\$ (8,137,998)
Research and development	(3,269,873)	(1,447,729)	(1,916,715)	(6,634,317)
Impairment of long lived assets	-	-	-	-
Interest expense	(20,181)	(24,474)	(893,248)	(937,903)
Credit loss on receivable from the sale of discontinued operation	-	-	(2,500,000)	(2,500,000)
Other income, including interest	-	-	41,148	41,148
Net loss	\$ (4,472,108)	\$ (6,967,364)	\$ (6,729,598)	\$ (18,169,070)

18. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

The Company's financial instruments consist of cash and cash equivalents, receivable from the sale of discontinued operation, short-term investments, convertible debentures, covid-19 government support loans and accounts payable and accrued liabilities. Unless otherwise noted, it is management's opinion that the Company is not exposed to significant interest risk arising from these financial instruments. The Company estimates that carrying value of these instruments approximates fair value due to their short term nature.

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Expressed in US Dollars)

18. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT (Continued)

The Company has classified financial assets and (liabilities) as follows at December 31:

	2022		2021		2020
Financial assets, measured at amortized cost:					
Cash and cash equivalents	\$ 9,229,845	\$	14,941,775	\$	6,872,894
Short-term investments	\$ -	\$	6,366,828	\$	-
Accounts receivable, measured at amortized cost:					
Accounts receivable	\$ 62,842	\$	-	\$	-
Other liabilities, measured at amortized cost:					
Accounts payable and accrued liabilities	\$ (3,362,430)	\$	(1,791,222)	\$	(1,730,361)
Convertible debentures	\$ -	\$	-	\$	(3,341,246)
Covid-19 government support loans	\$ (29,520)	\$	(31,660)	\$	(218,151)
Contract liabilities	\$ (274,192)	\$	-	\$	-

Exchange Rate Risk

The functional currency of each of the entities included in the accompanying consolidated financial statements is the local currency where the entity is domiciled. Functional currencies include the Chinese Yuan, US, Singapore and Canadian dollar. Most transactions within the entities are conducted in functional currencies. As such, none of the entities included in the consolidated financial statements engage in hedging activities. The Company is exposed to a foreign currency risk when its subsidiaries hold current assets or current liabilities in currencies other than its functional currency. A 10% change in foreign currencies held would increase or decrease other comprehensive loss by \$140,421.

Liquidity Risk

The Company currently does not maintain credit facilities. The Company's existing cash and cash resources are not considered sufficient to fund operating and investing activities beyond one year from the issuance of these consolidated financial statements. The Company may, however, need to seek additional financing in the future.

19. CAPITAL MANAGEMENT

In the management of capital, the Company includes shareholders' equity (excluding accumulated other comprehensive loss and deficit) and cash. The components of capital on December 31, 2022 were:

Cash and cash equivalents	\$ 9,229,845
Shareholders' equity	\$ 208,128,989

The Company's objective in managing capital is to ensure that financial flexibility is present to increase shareholder value through growth and responding to changes in economic and/or market conditions; to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business and to safeguard the Company's ability to obtain financing should the need arise.

In maintaining its capital, the Company has a strict investment policy which includes investing its surplus capital only in highly liquid, highly rated financial instruments.

The Company reviews its capital management approach on an ongoing basis.

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Expressed in US Dollars)

20. EXPENSES

Research and development costs can be analysed as follows:

	2022	2021	2020
Wages and benefits	\$ 4,267,937	\$ 3,270,528	\$ 1,586,900
Subcontract fees	2,946,729	1,516,343	3,802,919
Stock-based compensation	2,054,187	1,769,951	567,859
Supplies	1,477,890	1,608,306	676,639
	<u>\$ 10,746,743</u>	<u>\$ 8,165,128</u>	<u>\$ 6,634,317</u>

Selling, marketing and administration costs can be analysed as follows:

Stock-based compensation	\$ 2,382,417	\$ 2,764,419	\$ 3,045,086
Wages and benefits	2,648,862	2,643,451	2,233,449
Professional fees	1,173,743	1,155,316	800,551
General expenses	1,860,762	1,304,690	1,188,712
Depreciation and amortization	1,293,158	1,100,522	813,103
Rent and facility costs	157,329	87,130	57,097
	<u>\$ 9,516,271</u>	<u>\$ 9,055,528</u>	<u>\$ 8,137,998</u>

21. DISCONTINUED OPERATIONS

On November 8, 2019, the Company sold 100% of the issued and outstanding shares of DenseLight for \$26,000,000. The Company received a total of \$23,500,000 from the Buyer between November 8, 2019 and July 3, 2020. After taking into consideration the length of time it had taken the Buyer to make the payments and the Company's expectations regarding the likelihood of receiving an additional payment, the Company determined that it was in its best interest to accept the total of \$23,500,000 as full payment. As a result, the Company recognized a credit loss of \$2,500,000 during the year ended December 31, 2020.

22. REVENUE

Disaggregated Revenues

The Company disaggregates revenue by timing of revenue recognition, that is, at a point in time and revenue over time. During the year ended December 31, 2022, the Company recognized \$552,748 (2021 - \$209,100, 2020 - nil) from non-recurring engineering services. The revenue is recognized over time.

23. INCOME TAXES

The following table reconciles the expected income tax recovery at the Canadian statutory income tax rate of 26.5% for 2022 (2021 - 26.5%, 2020 - 26.5%) to the amounts recognized in operations.

For the Year Ended December 31,	2022	2021	2020
Net loss before taxes	\$ (21,036,690)	\$ (15,669,093)	\$ (18,169,070)
Expected current income tax recovery	<u>5,574,723</u>	<u>4,152,310</u>	<u>4,814,804</u>

POET TECHNOLOGIES INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Expressed in US Dollars)

23. INCOME TAXES (continued)

Adjustments to income tax recovery:

For the Year Ended December 31,	2022	2021	2020
Amounts not deductible for tax purposes	\$ (1,177,000)	\$ (1,201,600)	\$ (957,400)
Other non-deductible items	(66,000)	(111,000)	(137,000)
Other deductible items	161,000	157,000	115,000
Non-taxable gain (loss)	(388,000)	383,000	-
Non-taxable loan forgiveness	-	49,000	-
Deferred R&D expenses	(627,000)	-	-
Foreign tax differential	(828,000)	(508,000)	(221,000)
Unrecognized tax recovered (losses)	(2,649,723)	(2,920,710)	(3,614,404)
Income tax recovery recognized	\$ -	\$ -	\$ -

The following table reflects future income tax assets at December 31:

	2022	2021	2020
Resource assets	\$ 1,024,271	\$ 1,024,271	\$ 1,024,271
Gross unamortized share issue costs	1,081,250	1,114,604	325,600
Capitalized S.174 expenses	2,368,000	-	-
Canadian non-capital losses	21,955,000	21,404,000	22,969,000
Canadian capital losses	5,156,000	5,565,125	4,432,532
US non-capital losses	93,000,000	86,073,000	78,829,000
Singapore non-capital losses	13,800,000	9,180,000	3,753,000
Unrecognized deferred tax assets	138,384,521	124,361,000	111,333,403
Deferred income tax assets recognized	\$ -	\$ -	\$ -

24. COVID-19 GOVERNMENT SUPPORT LOANS

In March 2020, the United States Congress passed the Paycheck Protection Program ("PPP"), authorizing loans to small businesses for use in paying employees that they continue to employ throughout the COVID-19 pandemic and for rent, utilities and interest on mortgages. Loans obtained through the PPP are eligible to be forgiven as long as the proceeds are used for qualifying purposes and certain other conditions are met. On May 3, 2020, the Company received a loan in the amount of \$186,747 through the PPP. During the year, the Company received notice from the Small Business Administration of Washington, DC that the PPP loan was forgiven in full. The forgiven loan was reclassified to the consolidated statements of operations and deficit and recognized as income for the year ended December 31, 2021.

On April 9, 2020, the Canadian government launched the Canada Emergency Business Account ("CEBA") which is intended to support businesses during COVID-19 by providing interest free financing of up to \$29,520 (CAD\$40,000) until December 31, 2023. If 75% of the loan is repaid by December 31, 2023, the loan recipient will be eligible for a loan forgiveness of the remaining 25% of the amount loaned. On April 15, 2020, the Company received a loan in the amount of \$29,520 through the CEBA. If the loan has not been repaid by December 31, 2023, the outstanding amount will be automatically extended for an additional two years at 5% interest per annum payable monthly and maturing on December 31, 2025. The Company expects to repay 75% of the amount borrowed prior to December 31, 2023.

25. SUBSEQUENT EVENTS

On January 23, 2023, the Company amended the expiry date and price of its February 11, 2023 and CAD\$11.50 warrants to May 11, 2023 and CAD\$4.25.

Between January 23, 2023 and March 22, 2023, the Company received \$5,475,102 (CAD\$7,474,543) from the exercise of 1,758,716 warrants.

POET TECHNOLOGIES INC.
SUBSCRIPTION AGREEMENT
(UNITS)

THE UNITS BEING OFFERED FOR SALE MAY ONLY BE PURCHASED BY CANADIAN RESIDENTS, UNITED STATES RESIDENTS AND OFF-SHORE RESIDENTS, IN EACH CASE PURSUANT TO AVAILABLE EXEMPTIONS UNDER APPLICABLE SECURITIES LEGISLATION.

INSTRUCTIONS

All Subscribers:

1. Carefully review the Subscription Agreement.
2. Complete and sign the section entitled "Subscription and Subscriber Information" on pages 5 to 7 of the Subscription Agreement, including the registration and delivery instructions, and if applicable, complete and sign Schedule "E" (Form 4C – Corporate Placee Registration Form) attached to the Subscription Agreement.

Canadian Subscribers:

3. If you are a Canadian subscriber, complete and sign Schedule "B" attached to the Subscription Agreement (Canadian Subscriber Certificate). If you are relying on paragraph (j), (k) or (l) of the definition of "accredited investor" in Schedule "B", you must also complete and sign Appendix "A" to Schedule "B". **This schedule does not have to be completed by United States or off-shore subscribers.**

United States Subscribers:

4. If you are a United States subscriber, complete and sign Schedule "C" attached to the Subscription Agreement (U.S. Accredited Investor Certificate). **This schedule does not have to be completed by Canadian or off-shore subscribers.**

Off-Shore Subscribers:

5. If you are an off-shore subscriber, complete and sign Schedule "D" attached to the Subscription Agreement (Foreign Purchaser's Certificate). **This schedule does not have to be completed by Canadian or United States subscribers.**
-

Delivery Instructions:

A completed and executed copy of this Subscription Agreement, including all applicable schedules hereto, must be delivered by email as soon as possible, and, in any event, **no later than 5:00 p.m. (Toronto time) on Friday, November 11, 2022** to Bennett Jones LLP:

Attention: Yohanna Laurensia

Email: laurensia@bennettjones.com

Payment Instructions:

Unless other arrangements have been made with the Corporation, payment of the purchase price must be made in same day as described below, and must be received by the Corporation by **no later than 5:00 p.m. (Toronto time) on Friday, November 11, 2022**. Please include a **reference code: 076624.4** on all wire transfers. Payment by wire transfer may be made to Bennett Jones LLP, in trust, at:

Payment in US Dollars:

Beneficiary Name and Address: Bennett Jones LLP, in trust
3400 One First Canadian Place
Toronto, ON M5X 1A4

Beneficiary Bank Name and Address: Royal Bank of Canada
20 King Street West
Toronto, ON M5H 1C4

Bank (Institution) Number: 003
Transit (Branch) Number: 06012
Beneficiary Account Number: 060124007027
[5 digit transit no + 7 digit account no]
SWIFT Code: ROYCCAT2

Payment in Canadian dollars:

Beneficiary Name and Address: Bennett Jones LLP, in trust
3400 One First Canadian Place
Toronto, ON M5X 1A4

Beneficiary Bank Name and Address: Royal Bank of Canada
20 King Street West
Toronto, ON M5H 1C4

Bank (Institution) Number: 003
Transit (Branch) Number: 06012
Beneficiary Account Number: 060121161090
[5 digit transit no + 7 digit account no]
SWIFT Code: ROYCCAT2

When wiring any funds from the United States, please also include the intermediary information:

Intermediary Bank: JP Morgan Chase Bank, New York

SWIFT Code: CHASUS33
ABA Routing Number: 021000021

SUBSCRIPTION AGREEMENT

Non-Brokered Private Placement of Units

TO: POET TECHNOLOGIES INC.

The undersigned (the "**Subscriber**"), on its own behalf, and, if applicable, on behalf of those for whom the undersigned is contracting hereunder, hereby irrevocably subscribes for and agrees to purchase from POET Technologies Inc. (the "**Corporation**") that number of units of the Corporation (the "**Units**") set out on the Subscription and Subscriber Information pages hereof (the "**Purchased Securities**") at a price of US\$2.78 or C\$3.81 per Unit (the "**Purchase Price**"), at the Subscriber's election, subject to the following terms and conditions. Each Unit is comprised of one common share of the Corporation (each, a "**Unit Share**") and one-half of one whole common share purchase warrant of the Corporation (each whole warrant, a "**Unit Warrant**"), with each Unit Warrant entitling the holder thereof to purchase one common share (each, a "**Warrant Share**") at an exercise price of US\$3.61 or C\$4.95 per Warrant Share, at the Subscriber's election, on or before a date that is 3 years from the Closing Date (as defined herein) (the "**Expiry Date**"). This subscription agreement, which for greater certainty includes and incorporates the attached schedules, as applicable, is referred to herein as the "**Subscription Agreement**".

The Subscriber understands that the Purchased Securities form part of a larger sale of a maximum of up to 1,798,561 Units (the "**Offered Securities**") by the Corporation, on a non-brokered private placement basis, for aggregate gross proceeds of a maximum of up to approximately US\$5 million (the "**Offering**"). The Corporation intends to use the net proceeds of the Offering for general corporate purposes.

The terms and size of the Offering are subject to change without notice to the Subscriber. The Corporation reserves the right to close the Offering in multiple tranches, such that one or more closings may occur after the initial closing.

The Unit Shares, the Unit Warrants and the Warrant Shares underlying the Purchased Securities are collectively referred to as the "**Underlying Securities**".

The Subscriber, on its own behalf, and, if applicable, on behalf of each beneficial purchaser for whom it is contracting hereunder, hereby represents, warrants and covenants the following to the Corporation (and acknowledges that the Corporation is relying thereon), which representations, warranties and covenants shall survive the purchase and sale of the Purchased Securities for a period of three years:

1. this Subscription Agreement has been duly authorized, executed and delivered by the Subscriber, and constitutes a legal, valid, binding and enforceable agreement of the Subscriber to acquire the Purchased Securities;
2. the Subscriber has been advised to consult its own legal advisers in connection with any applicable statutory hold or restricted period and any resale restrictions relating to the Purchased Securities and Underlying Securities, and no representation has been made respecting any applicable statutory hold or restricted period or the resale restrictions relating to any such securities;
3. the Subscriber acknowledges that it is solely responsible for compliance with any applicable hold or restricted period and the resale restrictions and the Subscriber will not resell or otherwise transfer or dispose of the Purchased Securities and the Underlying Securities except in accordance with the provisions of applicable securities statutes, rules, regulations, instruments and policy statements;
4. the issue of the Purchased Securities and the Underlying Securities is conditional upon, among other things, such issue being exempt from the prospectus filing requirements and the requirements

for the delivery of an offering memorandum, as defined under applicable securities legislation, relating to such issue or upon the issuance of such rulings, orders, consents or approvals as may be required to permit such issue without the requirement of filing a prospectus or delivering an offering memorandum; and

5. the Subscriber makes the representations, warranties and covenants set out in Schedule "A" and, if applicable, Schedule "B", Schedule "C", Schedule "D" and Schedule "E" to this Subscription Agreement.

The Subscriber acknowledges that the foregoing representations and warranties are made by it with the intent that they may be relied upon in determining its eligibility to purchase the Purchased Securities under relevant securities legislation.

The closing of the transactions contemplated in this Subscription Agreement will take place at the offices of Bennett Jones LLP, Suite 3400, One First Canadian Place, Toronto, Ontario, M5X 1A4 at 8:30 a.m. (Toronto time) (the "**Closing Time**") on or about Friday, November 16, 2022 (the "**Closing Date**"), or such other time, date or place as the Corporation may determine.

The Subscriber acknowledges and agrees that the Corporation will not consider the subscription hereunder for acceptance unless the Subscriber delivers to the Corporation, in accordance with the instructions set forth on the second page hereof, as soon as possible, and, in any event, no later than 5:00 p.m. (Toronto time) on Friday, November 11, 2022, or such later time as the Corporation may in its sole discretion accept:

1. a completed and duly signed copy of this Subscription Agreement, including instructions regarding registration and delivery set forth in the Subscription and Subscriber Information pages hereof and if applicable, Schedule "E";
2. if the Subscriber or, if applicable, the beneficial purchaser for whom the Subscriber is contracting hereunder, is resident in, or otherwise subject to the securities laws of, a jurisdiction of Canada, a completed and duly signed copy of the Canadian Subscriber Certificate attached hereto as Schedule "B" and Appendix "A" to Schedule "B", if the Subscriber or beneficial purchaser, as applicable, is relying on paragraph (j), (k) or (l) of the definition of "accredited investor" in Schedule "B";
3. if the Subscriber or, if applicable, the beneficial purchaser for whom the Subscriber is contracting hereunder, is resident in, or otherwise subject to the securities laws of, the United States of America, its territories and possessions, any State of the United States and the District of Columbia (the "**United States**"), was offered the Purchased Securities in the United States, or placed its order to purchase the Purchased Securities or executed this Subscription Agreement in the United States, a completed and duly signed copy of the U.S. Accredited Investor Certificate attached hereto as Schedule "C";
4. if the Subscriber or, if applicable, the beneficial purchaser for whom the Subscriber is contracting hereunder, is not resident in, or otherwise subject to the securities laws of, a jurisdiction of Canada or the United States, a completed and duly signed copy of the Foreign Purchaser's Certificate attached hereto as Schedule "D"; and
5. a wire transfer or other form of payment acceptable to the Corporation representing the aggregate Purchase Price payable by the Subscriber for the Purchased Securities, made payable to the Corporation or as otherwise instructed by the Corporation.

The obligation of the Corporation to sell the Purchased Securities to the Subscriber is subject to, among other things, the following conditions:

1. the Subscriber having properly completed, signed and returned to the Corporation all documents required by applicable securities laws and the policies of the TSX Venture Exchange (the "TSXV") for delivery by the Corporation on the Subscriber's behalf, including the forms set out in Schedules "B" to "D" attached hereto, as applicable, as the sale of the Purchased Securities by the Corporation to the Subscriber will not be qualified by a prospectus or registration statement;
2. the representations and warranties made herein by the Subscriber and, if applicable, any beneficial purchaser for whom the Subscriber is acting hereunder (including representations and warranties made in any schedule attached hereto, as applicable), being true and correct when made and being true and correct at the Closing Time with the same force and effect as if they had been made on and as of the Closing Time;
3. all covenants, agreements and conditions contained herein to be performed by the Subscriber and, if applicable, any beneficial purchaser for whom the Subscriber is acting hereunder (including the covenants, agreements and conditions contained in any schedule attached hereto, as applicable), on or prior to the Closing Date having been performed or complied with in all material respects; and
4. the Corporation having obtained all necessary regulatory approvals and consents in respect of the Offering, including any required shareholder approval or consent as required by the TSXV and the conditional approval of the TSXV for the listing of the Unit Shares and Warrant Shares issued in connection with this Offering.

If, on the Closing Date, the terms and conditions contained in this Subscription Agreement, including the schedules attached hereto, have been complied with to the satisfaction of the Corporation or waived by the Corporation, the Corporation shall deliver to the Subscriber or make arrangements for the delivery to the Subscriber of the certificate(s) and/or DRS statement(s) representing the Purchased Securities and such other documentation as may be requested by the Subscriber, against payment to the Corporation of the aggregate Purchase Price for the Purchased Securities in freely transferable Canadian funds.

All certificates and/or DRS statements issued to the Subscriber pursuant to this Subscription Agreement shall have such legends inserted thereon as are required by applicable securities legislation, indicating that the resale of such securities is restricted.

The Corporation shall use commercially reasonable efforts to issue the Unit Shares and Unit Warrants comprising the Purchased Securities and to issue and deliver certificates or DRS statements representing such Unit Shares and Unit Warrants in accordance with the directions set forth in the Subscription and Subscriber Information pages hereof.

The Subscriber acknowledges, and, if applicable, any beneficial purchaser for whom the Subscriber is contracting hereunder acknowledges, that the Corporation has the right to close the subscription books at any time without notice and to accept or reject, in whole or in part, any subscription in its sole discretion. If this subscription is rejected in whole, the Subscriber and each beneficial purchaser, if any, understands that any funds delivered by the Subscriber to the Corporation representing the Purchase Price for the Purchased Securities will be promptly returned to the Subscriber without interest. If this subscription is accepted only in part, the Subscriber and each beneficial purchaser understands that a cheque or wire transfer representing any refund of the Purchase Price for that portion of the subscription that is not accepted will be promptly delivered to the Subscriber without interest.

By executing and delivering this Subscription Agreement, the Subscriber, and, if applicable, any beneficial purchaser for whom the Subscriber is contracting hereunder, consents to the filing by the Corporation of all documents and personal information concerning the Subscriber provided in this Subscription Agreement required by applicable securities laws and the policies of the TSXV.

If the Subscriber is not subscribing for the Purchased Securities for its own account and the Subscriber is not a trust company, trust corporation or portfolio manager deemed to be purchasing as principal under

National Instrument 45-106 – *Prospectus Exemptions* of the Canadian Securities Administrators (“**NI 45-106**”), each beneficial purchaser for whom the Subscriber is contracting hereunder must be purchasing the Purchased Securities as principal and (unless the Subscriber is an authorized agent with power to sign on behalf of the beneficial purchaser and such beneficial purchaser is disclosed on page 5 hereof) must execute all documents required by applicable securities laws and the policies of the TSXV with respect to the Purchased Securities being acquired by each such beneficial purchaser as principal. If you are signing this Agreement as agent or pursuant to a power of attorney for the Subscriber, you represent and warrant that you have authority to bind the Subscriber.

The Subscriber agrees, and agrees to cause any beneficial purchaser for whom it is contracting hereunder, to comply with all applicable securities laws and with the policies of the TSXV concerning the purchase of, the holding of and the resale restrictions applicable to the Purchased Securities.

The Subscriber covenants and agrees to deliver to the Corporation forthwith such documents, certificates, assurances and other instruments as may be required to carry out the provisions of this Subscription Agreement.

The Subscriber hereby agrees to indemnify and hold harmless the Corporation and its officers, directors, shareholders, employees, agents and attorneys against any and all losses, claims, demands, liabilities, and expenses (including reasonable legal or other expenses, including reasonable attorneys' fees) incurred by each such person in connection with defending or investigating any such claims or liabilities, whether or not resulting in any liability to such person, to which any such indemnified party may become subject under applicable securities legislation, under any other statutes, at common law or otherwise, insofar as such losses, claims, demands, liabilities and expenses arise out of or are based upon any breach by the Subscriber of any representation, warranty, covenant or agreement made by the Subscriber contained herein.

In the event any parts of this Subscription Agreement are found to be void, the remaining provisions of this Subscription Agreement shall nevertheless be binding with the same effect as though the void parts were deleted.

This Subscription Agreement shall be governed by the laws of the Province of Ontario and the federal laws of Canada applicable therein.

All dollar amounts in this Subscription Agreement are expressed in Canadian dollars, except as otherwise indicated. References to “\$”, “C\$” or “CDN \$” are to Canadian dollars and references to “US\$” are to United States dollars.

This Subscription Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original, and all of which shall together constitute one and the same instrument. Execution and delivery of a copy of this Subscription Agreement by facsimile or by electronic transmission in portable document format (.pdf) shall be of the same effect as execution and delivery of an original executed copy thereof.

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SUBSCRIPTION AND SUBSCRIBER INFORMATION

UNITS

Be sure to complete Part I, Part II and Part III.

Part I: Subscription and Subscriber Information

Subscriber Information and Signature	Subscription Information
	Number of Units: _____ x US\$2.78 or C\$3.81
(Name of Subscriber)	Aggregate Purchase Price: \$ _____ (the "Subscription Amount")
Account Reference (if applicable): _____	Select Settlement Currency: <input type="checkbox"/> C\$ or <input type="checkbox"/> US\$
By: _____ Authorized Signature	
(Official Capacity or Title, if the Subscriber is not an individual)	
(Name of individual whose signature appears above if different than the name of the Subscriber printed above)	Details of Beneficial Purchaser
	If the Subscriber is signing this Subscription Agreement as agent or trustee for a beneficial purchaser and is not purchasing as trustee or agent for accounts fully managed by it, so as to be deemed to be purchasing as principal pursuant to NI 45-106, complete the following:
(Subscriber's Residential Address)	
	(Name of Beneficial Purchaser)
	Account Reference (if applicable): _____
(Subscriber's Telephone Number)	(Beneficial Purchaser's Residential Address)
(Email Address)	(Beneficial Purchaser's Telephone Number)
	(Email Address)

Part II: Registration and Delivery Instructions

The Subscriber hereby provides the following registration and delivery instructions in connection with the settlement of the Purchased Securities being purchased hereunder.

Evidence of Ownership of Purchased Securities
The Subscriber elects to receive (check one box):
<input type="checkbox"/> DRS statement(s) representing the Purchased Securities; or
<input type="checkbox"/> Physical share certificate(s) representing the Purchased Securities.

Delivery Instructions
(Name)
(Account Reference, if applicable)
(Address, including Postal Code)
(Contact Name)
(Telephone Number)

Registration Instructions
(Name)
(Account Reference, if applicable)
(Address, including Postal Code)

Part III: Private Placement Questionnaire

In connection with the proposed purchase of Units, the Subscriber hereby confirms, represents and warrants, on its own behalf and on behalf of any beneficial purchaser for whom it is acting hereunder, the accuracy of the following statements in respect of it and each such beneficial purchaser, if any.

<p>A. Registration Form</p> <p>The Subscriber, <u>if not an individual and (i) is a member of the "Pro Group" (as described below), or (ii) is (or will be after completion of the Offering) an "Insider" (as described below), or (iii) will be a holder of more than 5% of the listed shares after completion of the Offering</u>, either [check appropriate box]:</p> <p><input type="checkbox"/> has previously filed with the TSX Venture Exchange (the "TSXV") a Form 4C – <i>Corporate Placee Registration Form</i>, represents and warrants that there has been no change to any of the information in the Corporate Placee Registration Form previously filed with the TSXV up to the date hereof; or</p> <p><input type="checkbox"/> hereby delivers a completed Form 4C – <i>Corporate Placee Registration Form</i>, in the form attached as Schedule "E" to the Corporation for filing with the TSXV.</p>
<p>B. Present Ownership of Securities</p> <p>The Subscriber either (check appropriate box):</p> <p><input type="checkbox"/> <u>does not own</u> directly or indirectly, or exercise control or direction over, any common shares of the Corporation or securities convertible into common shares of the Corporation; or</p> <p><input type="checkbox"/> <u>owns</u> directly or indirectly, or exercises control or direction over, _____ outstanding common shares of the Corporation and convertible securities entitling the Subscriber to acquire additional common shares of the Corporation which, if converted, in the aggregate would represent _____ common shares of the Corporation.</p>
<p>C. Insider Status</p> <p>The Subscriber either (check appropriate box):</p> <p><input type="checkbox"/> <u>is not</u> an "Insider" of the Corporation (as defined in applicable securities laws); or</p> <p><input type="checkbox"/> <u>is</u> an "Insider" of the Corporation, by virtue of being:</p> <p>(a) a director or officer of the Corporation;</p> <p>(b) a director or officer of a person or company that is itself an insider or subsidiary of the Corporation;</p> <p>(c) a person that beneficially owns or controls, directly or indirectly, securities of the Corporation carrying more than 10% of the voting rights attached to all the Corporation's outstanding voting securities; or</p> <p>(d) the Corporation itself if it holds any of its own securities.</p>

D. Registrant Status
The Subscriber either (check appropriate box) :
<input type="checkbox"/> <u>is not</u> a "Registrant", or
<input type="checkbox"/> <u>is</u> a "Registrant", defined as a person registered or required to be registered under the <i>Securities Act</i> (Ontario), including a dealer, adviser or investment fund manager.

D. Member of "Pro Group"
The Subscriber either (check appropriate box) :
<input type="checkbox"/> is a member of the "Pro Group" as defined in the policies of the TSXV, as follows:
1. subject to subparagraphs (2), (3) and (4), either individually or as a group:
(a) the member (i.e. a member of the TSXV under TSXV requirements);
(b) employees of the member;
(c) partners, officers or directors of the member;
(d) affiliates of the member; and
(e) associates of any parties referred to in subparagraphs (a) through (d);
2. the TSXV may, in its discretion, include a person or party in the Pro Group for the purposes of a particular calculation where the TSXV determines that the person is not acting at arm's length with the member;
3. the TSXV may, in its discretion, exclude a person from the Pro Group for the purposes of a particular calculation where the TSXV determines that the person is acting at arm's length with the member;
4. the member may deem a person who would otherwise be included in the Pro Group pursuant to subparagraph (1) to be excluded from the Pro Group where the member determines that:
(a) the person is an affiliate or associate of the member acting at arm's length of the member;
(b) the associate or affiliate has a separate corporate and reporting structure;
(c) there are sufficient controls on information flowing between the member and the associate or affiliate; and
(d) the member maintains a list of such excluded persons; or
<input type="checkbox"/> is not a member of the Pro Group.

ACCEPTANCE

The above-mentioned subscription is hereby accepted by POET Technologies Inc.

DATED as of the ____ day of _____, 2022.

POET TECHNOLOGIES INC.

Per: _____
Name:
Title:

[Signature Page to Subscription Agreement]

SCHEDULE "A"
ADDITIONAL REPRESENTATIONS, WARRANTIES AND COVENANTS

The Subscriber, on its own behalf, and, if applicable, on behalf of each beneficial purchaser for whom it is contracting hereunder, further represents, warrants, covenants and certifies to and with the Corporation (and acknowledges that the Corporation is relying thereon) that:

- (a) the Subscriber has the legal capacity to enter into and be bound by this Subscription Agreement and, if the Subscriber is not an individual, further certifies that all necessary approvals of directors, shareholders or otherwise have been given and obtained;
- (b) the Subscriber and each beneficial purchaser for whom the Subscriber is contracting hereunder, if any, is at arm's-length (within the meaning of applicable securities laws and the policies of the TSXV) with the Corporation;
- (c) no person has made any written or oral representation to the Subscriber or any beneficial purchaser for whom the subscriber is contracting hereunder:
 - (i) that any person will resell or repurchase the Purchased Securities or the Underlying Securities;
 - (ii) that any person will refund the Purchase Price of the Purchased Securities other than as may be provided in this Subscription Agreement; or
 - (iii) relating to the future price or value of the Purchased Securities or the Underlying Securities;
- (d) the Purchased Securities to be issued hereunder are not being purchased with knowledge of any material fact about the Corporation that has not been generally disclosed;
- (e) the Subscriber and each beneficial purchaser for whom the Subscriber is contracting hereunder, if any, understand that there are risks associated with the purchase of the Purchased Securities and the Subscriber or, if applicable, each beneficial purchaser may lose his, her or its entire investment in the Purchased Securities;
- (f) the Subscriber and, if applicable, each beneficial purchaser for whom the Subscriber is contracting hereunder, acknowledge and agree that the Subscriber has had such opportunity as the Subscriber has deemed adequate to conduct all due diligence investigations regarding the business, financial position, condition and prospects of the Corporation as is necessary to permit the Subscriber to evaluate the merits and risks of the investment in the Purchased Securities;
- (g) the Subscriber acknowledges and agrees that the Subscriber is solely responsible for obtaining such tax, investment, legal and other professional advice as the Subscriber considers appropriate in connection with the execution, delivery and performance by it of this Subscription Agreement and the transactions contemplated hereunder (including the resale and transfer restrictions referred to herein), and, without limiting the generality of the foregoing, neither the Corporation nor the Corporation's counsel has provided any tax advice whatsoever to the Subscriber in connection with the Offering, and the Corporation's counsel is acting solely as counsel to the Corporation and not as counsel to the Subscriber;
- (h) the Subscriber and each beneficial purchaser for whom the Subscriber is contracting hereunder, if any, is capable of assessing the proposed investment in the Purchased Securities as a result of financial or investment experience or as a result of advice received from a registered person other than the Corporation or an affiliate thereof and the Subscriber or, if applicable, each such beneficial purchaser is, as the case may be, able to bear the economic risk of total loss of such investment;

- (i) unless paragraph (k) applies, the Subscriber is acquiring the Purchased Securities as principal for its own account and not for the benefit of any other person;
- (j) the Subscriber is duly authorized to execute and deliver this Subscription Agreement and all other necessary documentation in connection with such subscription and this Subscription Agreement has been duly authorized, executed and delivered by the Subscriber and the entering into of this Subscription Agreement and the completion of the transactions contemplated herein will not result in the violation of any of the terms and provisions of any law applicable to, or if the Subscriber is not an individual, the constating documents of, the Subscriber, or of any agreement, written or oral, to which the Subscriber is a party or by which the Subscriber is bound;
- (k) if the Subscriber is acting as agent or trustee (including, for greater certainty, a portfolio manager or comparable adviser) for a principal, the Subscriber is the duly authorized trustee or agent of such principal with due and proper power and authority to execute and deliver, on behalf of each such principal, each of whom is subscribing as principal for its own account and not for the benefit of any other person, this Subscription Agreement and all other necessary documentation in connection with the purchase of the Purchased Securities, to agree to the terms and conditions herein and therein set out and to make the representations, warranties, acknowledgements and covenants herein and therein contained, all as if each such principal were the Subscriber, and this Subscription Agreement has been duly and validly authorized, executed and delivered by or on behalf of, and, when accepted by the Corporation, will constitute a legal, valid and binding obligation enforceable in accordance with its terms against, each such principal and the Subscriber acknowledges that the Corporation may be required by law to disclose to certain regulatory authorities the identity of each such principal for whom it is acting;
- (l) if the Subscriber or any beneficial purchaser for whom the Subscriber is acting, as applicable, is a resident of a province or territory of Canada and cannot otherwise satisfy any of the requirements set forth in this Schedule "A", the Subscriber or, if applicable, the beneficial purchaser is acquiring the Purchased Securities and the Underlying Securities pursuant to and in compliance with an exemption from the prospectus requirements of the securities laws of the jurisdiction of residence or to which the Subscriber or such beneficial purchaser is otherwise subject and will provide the Corporation, on request, whether before or after the Closing Date, with evidence of such compliance;
- (m) if the Subscriber or any beneficial purchaser for whom the Subscriber is acting, as applicable, is a resident of a jurisdiction other than Canada or the United States, the Subscriber and, if applicable, the beneficial purchaser:
 - (i) have knowledge of, or have been independently advised as to, and will comply with the requirements of all applicable securities laws of the Subscriber's jurisdiction of residence or the residence of such beneficial purchaser, as the case may be;
 - (ii) confirm that the requirements of applicable securities laws in the Subscriber's jurisdiction of residence or the residence of such beneficial purchaser, as the case may be, does not require the Corporation to make any filings or seek any approvals of any kind whatsoever from any securities regulator or other regulatory body of any kind or nature whatsoever, or to prepare and file a prospectus, registration statement or similar document or to register the Purchased Securities, and
 - (iii) will provide such evidence of compliance with all such matters, including but not limited to supporting legal opinions, as the Corporation may request;
- (n) Unless the Subscriber and, if applicable, any beneficial purchaser, is in the United States and has completed, signed and delivered Schedule "C" hereto, in which case the Subscriber makes the representations, warranties and covenants therein, the Subscriber represents and warrants that:

- (i) the Subscriber is not in the United States and is not purchasing the Purchased Securities for the account or benefit of a person in the United States;
 - (ii) the current structure of this transaction and all transactions and activities contemplated hereunder is not a scheme to avoid the registration requirements of the United States *Securities Act of 1933*, as amended (the "**U.S. Securities Act**") or applicable state laws;
 - (iii) the Offered Securities have not been offered to the Subscriber in the United States, and the individuals making the order to purchase the Purchased Securities and executing and delivering this Subscription Agreement on behalf of the Subscriber were not in the United States when the order was placed and this Subscription Agreement was executed and delivered;
 - (iv) the Subscriber is not purchasing the Purchased Securities as a result of any form of "directed selling efforts" (as defined in Regulation S under the U.S. Securities Act and including, but not limited to, any press release made by the Corporation relating to the proposed Offering of the Offered Securities or any report, notification or summary of the same) made in the United States by the Corporation, a distributor, any of their respective affiliates, or any person acting on behalf of any of the foregoing, and the sale of the Purchased Securities was not accompanied by any advertisement, article, notice or other communication published in any newspaper, magazine or similar media or broadcast over radio, television or telecommunications, including electronic display and the Internet, or any seminar or meeting whose attendees have been invited by general solicitation or general advertising; and
 - (v) the Subscriber undertakes and agrees that it will not distribute either directly or indirectly any of the Purchased Securities in the United States, except in compliance with the U.S. Securities Act and any applicable state laws;
- (o) the Subscriber, and, if applicable, each beneficial purchaser for whom the Subscriber is contracting hereunder, have been independently advised as to or are aware of the restrictions with respect to trading in, and the restricted period or statutory hold period applicable to, the Purchased Securities imposed by the securities laws of the jurisdiction in which the Subscriber and, if applicable, each beneficial purchaser resides and by the policies of the TSXV, and that a suitable legend or legends will be placed on the certificates or DRS statements representing the Purchased Securities and Underlying Securities to reflect the applicable restricted period and statutory hold period to which such securities are subject;
- (p) the Subscriber, and, if applicable, each beneficial purchaser for whom the Subscriber is contracting hereunder, have not received or been provided with a prospectus, registration statement, offering memorandum (within the meaning of applicable securities legislation) or any document purporting to describe the business and affairs of the Corporation which has been prepared for review by prospective purchasers to assist in making an investment decision in respect of the Offered Securities, and the Subscriber's decision, or, if applicable, the decision of any beneficial purchaser for whom the Subscriber is acting, to enter into this Subscription Agreement and to purchase the Purchased Securities from the Corporation is based entirely upon publicly available information concerning the Corporation which has been filed under the Corporation's profile on the System for Electronic Document Analysis and Retrieval (SEDAR) at www.sedar.com and the representations and warranties made by the Corporation in this Subscription Agreement, and not upon any other verbal or written representation as to fact or otherwise made by or on behalf of the Corporation;
- (q) as a consequence of the issuance and sale of the Purchased Securities and the Underlying Securities being exempt from the prospectus requirements of applicable securities legislation:
- (i) certain protections, rights and remedies provided by the applicable securities legislation, including statutory rights of rescission and certain statutory remedies against an issuer,

underwriters, auditors, directors and officers that are available to investors who acquire securities offered by a prospectus, will not be available to the Subscriber or, if applicable, others for whom the Subscriber is contracting hereunder;

- (ii) the common law may not provide investors with an adequate remedy in the event that they suffer investment losses in connection with securities acquired in a private placement;
 - (iii) the Subscriber or, if applicable, others for whom the Subscriber is contracting hereunder, may not receive information that would otherwise be required to be given to them under applicable securities legislation; and
 - (iv) the Corporation is relieved from certain obligations that would otherwise apply under the applicable securities legislation, including statutory rights of rescission and certain statutory remedies against an issuer;
- (r) the Subscriber will not sell or otherwise dispose of any of the Purchased Securities or any of the Underlying Securities, except in accordance with applicable securities laws and in accordance with the rules and regulations of any stock exchange on which any of the Underlying Securities may trade from time to time, and shall comply with such other requirements as the Corporation may reasonably require;
- (s) the Subscriber acknowledges and consents to the fact that the Corporation is collecting the Subscriber's personal information (as that term is defined under applicable privacy legislation, including, without limitation, the *Personal Information Protection and Electronic Documents Act* (Canada) and any other applicable similar, replacement or supplemental provincial or federal legislation or laws in effect from time to time), for the purpose of completing this Subscription Agreement and to the use of such information for the purposes set out in Schedule "F" "*Collection of Personal Information*" in this Subscription Agreement. The Subscriber acknowledges and consents to the Corporation retaining such personal information for as long as permitted or required by law or business practices. The Subscriber further acknowledges and consents to the fact that the Corporation may be required by applicable securities laws to provide regulatory authorities with any personal information provided under this Subscription Agreement. The Subscriber represents and warrants, as applicable, that it has the authority to provide the consents and acknowledgements set out in this paragraph and the Subscriber agrees and acknowledges that the Corporation may use and disclose its personal information, as follows:
- (i) for internal use with respect to managing the relationships between and contractual obligations of the Corporation and the Subscriber;
 - (ii) for use and disclosure for income tax related purposes, including without limitation, where required by law, disclosure to the Canada Revenue Agency;
 - (iii) for disclosure to securities regulatory authorities and other regulatory bodies with jurisdiction with respect to reports of trades and similar regulatory filings;
 - (iv) for disclosure to a governmental or other authority to which the disclosure is required by court order or subpoena compelling such disclosure and where there is no reasonable alternative to such disclosure;
 - (v) for disclosure to professional advisers of the Corporation in connection with the performance of their professional services;
 - (vi) for disclosure to any person where such disclosure is necessary for legitimate business reasons and is made with the Subscriber's prior written consent;

- (vii) for disclosure to a court determining the rights of the parties under this Subscription Agreement; or
- (viii) for use and disclosure as otherwise required or permitted by law;
- (t) the Subscriber authorizes the indirect collection of personal information (as defined in the securities laws of the Province of Ontario) by the Canadian securities commissions ("CSA") and confirms that it has been notified by the Corporation:
 - (i) that the Corporation will be delivering such personal information to the CSA;
 - (ii) that such personal information is being collected indirectly by the CSA under the authority granted to them under securities legislation for the purposes of administration and enforcement of the securities legislation of the applicable Canadian province or territory;
 - (iii) that such personal information is being collected for the purpose of the administration and enforcement of the securities laws of the applicable Canadian province or territory; and
 - (iv) that the title, business address and business telephone number of the public official in the such Canadian province or territory who can answer questions about such indirect collection of personal information is set forth on Schedule "G".
- (u) If the Subscriber or any beneficial purchaser for whom the Subscriber is acting, as applicable, is resident in, or otherwise subject to the securities laws of, a province or territory of Canada:
 - (i) the Subscriber is purchasing the Purchased Securities:
 1. as principal for its own account or is deemed to be purchasing as principal pursuant to NI 45-106; or
 2. as agent for a beneficial purchaser disclosed to the Corporation in writing, and such disclosed beneficial purchaser is purchasing the Purchased Securities as principal for its own account or is deemed to be purchasing as principal pursuant to NI 45-106; and
 - (ii) one of the below applies to the Subscriber or any beneficial purchaser for whom the Subscriber is acting:
 1. the Subscriber or any beneficial purchaser for whom the Subscriber is acting is an "accredited investor" within the meaning of NI 45-106; or
 2. the aggregate acquisition cost, payable by the Subscriber in cash, for the Purchased Securities is not less than CDN \$150,000;
- (v) the Subscriber acknowledges that the certificates or DRS statements representing the Purchased Securities and Underlying Securities will bear the following legends:

"UNLESS PERMITTED UNDER SECURITIES LEGISLATION, THE HOLDER OF THIS SECURITY MUST NOT TRADE THE SECURITY BEFORE [the date which is four months and one day after the Closing Date will be inserted]."

and (if applicable under the rules of the TSXV):

"WITHOUT PRIOR WRITTEN APPROVAL OF THE TSX VENTURE EXCHANGE AND COMPLIANCE WITH ALL APPLICABLE SECURITIES LEGISLATION, THE SECURITIES REPRESENTED BY OR UNDERLYING THIS CERTIFICATE

**MAY NOT BE SOLD, TRANSFERRED, HYPOTHECATED OR OTHERWISE
TRADED ON OR THROUGH THE FACILITIES OF THE TSX VENTURE
EXCHANGE OR OTHERWISE IN CANADA OR TO OR FOR THE BENEFIT OF
A CANADIAN RESIDENT UNTIL [the date which is four months and one day
after the Closing Date will be inserted]."**

- (w) the above representations and warranties will be true and correct both as of the execution of this Subscription Agreement and as of the Closing Time and the Subscriber acknowledges that such representations and warranties will survive the completion of the issue of the Purchased Securities; and
- (x) the Subscriber acknowledges that the foregoing representations and warranties are made by it with the intent that they be relied upon in determining the suitability of the Subscriber or any beneficial purchaser for whom the Subscriber is acting, as applicable, as a purchaser of the Purchased Securities and the Subscriber undertakes to immediately notify the Corporation of any change in any statement or other information relating to the Subscriber or any beneficial purchaser for whom the Subscriber is acting, as applicable, set forth herein which takes place prior to the issuance of the Purchased Securities.

The Corporation represents, warrants and certifies to and with the Subscriber (and acknowledges that the Subscriber is relying thereon) that:

- (a) the Corporation is a valid and subsisting corporation incorporated and in good standing under the laws of the jurisdiction in which it was incorporated;
- (b) this Subscription Agreement has been, or will be by the closing of the transactions contemplated hereunder, duly authorized by all necessary corporate action on the part of the Corporation, and the Corporation has or will have by the closing of the transactions contemplated hereunder full corporate power and authority to undertake the sale of the Purchased Securities to the Subscriber;
- (c) the Common Shares are, and will continue to be as of the closing of the transactions contemplated hereunder, listed and posted for trading on the TSXV;
- (d) no order ceasing or suspending trading in the securities of the Corporation or prohibiting sale of its securities has been issued to the Corporation or its directors, officers or promoters;
- (e) the Corporation is a "reporting issuer" in all provinces and territories of Canada and is not included on the list of defaulting issuers issued by the securities regulators in those jurisdictions; and
- (f) upon their issuance in accordance with the terms of this subscription agreement, the Purchased Securities will be validly issued and outstanding as fully-paid and non-assessable Common Shares.

SCHEDULE "B"
CANADIAN SUBSCRIBER CERTIFICATE

CANADIAN SUBSCRIBERS

The categories listed herein contain certain specifically defined terms. If you are unsure as to the meanings of those terms, or are unsure as to the applicability of any category below, please contact your broker and/or legal advisor before completing this certificate.

All capitalized terms not otherwise defined herein have the meanings attributed to them in the Subscription Agreement and in National Instrument 45-106 – Prospectus Exemptions ("NI 45-106").

TO: POET TECHNOLOGIES INC. (the "Corporation")

In connection with the acquisition of the Purchased Securities, the undersigned hereby represents, warrants, covenants and certifies that:

- (i) the undersigned (the undersigned or, if the undersigned is acquiring the Purchased Securities as agent on behalf of a disclosed beneficial purchaser, such beneficial purchaser, being referred to herein as the "Subscriber") is resident in a Province or territory of Canada or is subject to the securities laws of a Province or territory of Canada;
- (ii) the Subscriber is acquiring the Purchased Securities as principal or is deemed under NI 45-106 to be acquiring the Securities as principal;
- (iii) the Subscriber is not a trust company or trust corporation registered under the laws of Prince Edward Island that is not registered or authorized under the *Trust and Loan Companies Act* (Canada) or under comparable legislation in another jurisdiction of Canada; and
- (iv) one of the following clauses (A) or (B) applies (check applicable category):

A. **Accredited Investor** – the Subscriber or the beneficial purchaser, as applicable, be, as of the Closing Date, an "accredited investor", as such term is defined in NI 45-106, by virtue of the fact that the Subscriber or the beneficial purchaser, as applicable, falls within one or more of the following categories **checked below**. A Subscriber checking boxes (j), (k) or (l) must also complete and sign Appendix "A" to this Schedule "B" (Form 45-106F9 – *Form for Individual Accredited Investors*).

(a)	(i) except in Ontario, a Canadian financial institution, or a Schedule III bank; or (ii) in Ontario, a financial institution that is (A) a bank listed in Schedule I, II or III of the Bank Act (Canada); (B) an association to which the Cooperative Credit Associations Act (Canada) applies or a central cooperative credit society for which an order has been made under subsection 473(1) of that Act; or (C) a loan corporation, trust company, trust corporation, insurance company, treasury branch, credit union, caisse populaire, financial services cooperative or credit union league or federation that is authorized by a statute of Canada or Ontario to carry on business in Canada or Ontario, as the case may be;	<input type="checkbox"/>
(b)	the Business Development Bank of Canada incorporated under the <i>Business Development Bank of Canada Act</i> (Canada);	<input type="checkbox"/>
(c)	a subsidiary of any person referred to in paragraphs (a) or (b), if the person owns all of the voting securities of the subsidiary, except the voting securities required by law to be owned by directors of that subsidiary.	<input type="checkbox"/>

(d)	a person or company registered under the securities legislation of a jurisdiction (province or territory) of Canada as an adviser or dealer (or in Ontario, except as otherwise prescribed by the regulations under the <i>Securities Act</i> (Ontario));	<input type="checkbox"/>
(e)	an individual registered under the securities legislation of a jurisdiction of Canada as a representative of a person referred to in paragraph (d);	<input type="checkbox"/>
(e.1)	an individual formerly registered under the securities legislation of a jurisdiction of Canada, other than an individual formerly registered solely as a representative of a limited market dealer under one or both of the <i>Securities Act</i> (Ontario) or the <i>Securities Act</i> (Newfoundland and Labrador);	<input type="checkbox"/>
(f)	the Government of Canada or a jurisdiction of Canada, or any crown corporation, agency or wholly owned entity of the Government of Canada or a jurisdiction of Canada;	<input type="checkbox"/>
(g)	a municipality, public board or commission in Canada and a metropolitan community, school board, the Comité de gestion de la taxe scolaire de l'île de Montréal or an intermunicipal management board in Québec;	<input type="checkbox"/>
(h)	any national, federal, state, provincial, territorial or municipal government of or in any foreign jurisdiction, or any agency of that government;	<input type="checkbox"/>
(i)	a pension fund that is regulated by either the Office of the Superintendent of Financial Institutions (Canada), a pension commission or similar regulatory authority of a jurisdiction of Canada;	<input type="checkbox"/>
(j)	an individual who, either alone or with a spouse, beneficially owns financial assets having an aggregate realizable value that before taxes, but net of any related liabilities, exceeds CDN \$1,000,000;	<input type="checkbox"/>
(j.1)	an individual who beneficially owns financial assets having an aggregate realizable value that, before taxes but net of any related liabilities, exceeds CDN \$5 million;	<input type="checkbox"/>
(k)	an individual whose net income before taxes exceeded CDN \$200,000 in each of the two most recent calendar years or whose net income before taxes combined with that of a spouse exceeded CDN \$300,000 in each of the two most recent calendar years and who, in either case, reasonably expects to exceed that net income level in the current calendar year;	<input type="checkbox"/>
(l)	an individual who, either alone or with a spouse, has net assets of at least CDN \$5 million;	<input type="checkbox"/>
(m)	a person, other than an individual or an investment fund, that has net assets of at least CDN \$5 million as shown on its most recently prepared financial statements;	<input type="checkbox"/>
(n)	an investment fund that distributes or has distributed its securities only to: <ul style="list-style-type: none"> (i) a person that is or was an accredited investor at the time of the distribution; (ii) a person that acquires or acquired securities in the circumstances referred to in sections 2.10 (Minimum amount investment), or 2.19 (Additional investment in investment funds) of NI 45-106; or (iii) a person described in paragraph (i) or (ii) that acquires or acquired securities under section 2.18 (Investment fund reinvestment) of NI 45-106; 	<input type="checkbox"/>
(o)	an investment fund that distributes or has distributed securities under a prospectus in a jurisdiction of Canada for which the regulator or, in Québec, the securities regulatory authority, has issued a receipt;	<input type="checkbox"/>

(p)	a trust company or trust corporation registered or authorized to carry on business under the Trust and Loan Companies Act (Canada) or under comparable legislation in a jurisdiction of Canada or a foreign jurisdiction, acting on behalf of a fully managed account managed by the trust company or trust corporation, as the case may be;	<input type="checkbox"/>
(q)	a person acting on behalf of a fully managed account managed by that person, if that person is registered or authorized to carry on business as an adviser or the equivalent under the securities legislation of a jurisdiction of Canada or a foreign jurisdiction;	<input type="checkbox"/>
(r)	a registered charity under the Income Tax Act (Canada) that, in regard to the trade, has obtained advice from an eligibility adviser or an adviser registered under the securities legislation of the jurisdiction of the registered charity to give advice on the securities being traded;	<input type="checkbox"/>
(s)	an entity organized in a foreign jurisdiction that is analogous to any of the entities referred to in paragraphs (a) to (d) or paragraph (i) in form and function;	<input type="checkbox"/>
(t)	a person in respect of which all of the owners of interests, direct, indirect or beneficial, except the voting securities required by law to be owned by directors, are persons that are accredited investors;	<input type="checkbox"/>
(u)	an investment fund that is advised by a person registered as an adviser or a person that is exempt from registration as an adviser;	<input type="checkbox"/>
(v)	a person that is recognized or designated by the securities regulatory authority or, except in Ontario and Québec, the regulator as an accredited investor, or	<input type="checkbox"/>
(w)	a trust established by an accredited investor for the benefit of the accredited investor's family members of which a majority of the trustees are accredited investors and all of the beneficiaries are the accredited investor's spouse, a former spouse of the accredited investor or a parent, grandparent, brother, sister, child or grandchild of that accredited investor, of that accredited investor's spouse or of that accredited investor's former spouse.	<input type="checkbox"/>
(x)	in Ontario, such other persons or companies as may be prescribed by the regulations under the <i>Securities Act</i> (Ontario). ***If checking this category (x), please provide a description of how this requirement is met.	<input type="checkbox"/>

- B. **Minimum Amount Exemption** – the Subscriber is not an individual, (B) the Subscriber is purchasing the Purchased Securities as principal, (C) the Aggregate Purchase Price of the Purchased Securities purchased by the Subscriber is not less than CDN \$150,000 paid in cash at the time of the distribution, and (D) the Subscriber has not been created or used solely to purchase or hold securities in reliance on this exemption.

The above representations and warranties will be true and correct both as of the execution of this certificate and as of the closing time of the issuance of the Purchased Securities and the undersigned acknowledges that they will survive the completion of the issue of the Purchased Securities.

The undersigned acknowledges that the foregoing representations and warranties are made by the undersigned with the intent that they be relied upon in determining the suitability of the Subscriber as an acquirer of the Purchased Securities and that this certificate is incorporated into and forms part of the subscription agreement and the undersigned undertakes to immediately notify the Corporation of any change in any statement or other information relating to the Subscriber set forth herein which takes place prior to the closing time of the issuance of the Purchased Securities.

Dated: _____, 2022.

(print name of Subscriber or person signing as agent)

By:

(signature)

(title)

(please print name of individual whose signature
appears above, if different from name of
Subscriber or agent printed above)

For the purposes hereof:

- (aa) **"Canadian financial institution"** means
- (i) an association governed by the *Cooperative Credit Associations Act* (Canada) or a central cooperative credit society for which an order has been made under section 473(1) of the *Cooperative Credit Associations Act* (Canada), or
 - (ii) a bank, loan corporation, trust company, trust corporation, insurance company, treasury branch, credit union, caisse populaire, financial services cooperative, or league that, in each case, is authorized by an enactment of Canada or a jurisdiction of Canada to carry on business in Canada or a jurisdiction of Canada;
- (bb) **"control person"** has the meaning ascribed to that term in securities legislation except in Manitoba, Ontario, Quebec, Nova Scotia, Newfoundland and Labrador, Prince Edward Island, the Northwest Territories and Nunavut where **"control person"** means any person that holds or is one of a combination of persons that hold
- (i) a sufficient number of any of the securities of an issuer so as to affect materially the control of the issuer, or
 - (ii) more than 20% of the outstanding voting securities of an issuer except where there is evidence showing that the holding of those securities does not affect materially the control of that issuer,
- (cc) **"eligibility adviser"** means
- (i) a person that is registered as an investment dealer or in an equivalent category of registration under the securities legislation of the jurisdiction of a purchaser and authorized to give advice with respect to the type of security being distributed, and
 - (ii) in Saskatchewan or Manitoba, also means a lawyer who is a practising member in good standing with a law society of a jurisdiction of Canada or a public accountant who is a member in good standing of an institute or association of chartered accountants, certified general accountants or certified management accountants in a jurisdiction of Canada provided that the lawyer or public accountant must not:
 - (A) have a professional, business or personal relationship with the issuer, or any of its directors, executive officers, founders or control persons, and
 - (B) have acted for or been retained personally or otherwise as an employee, executive officer, director, associate or partner of a person that has acted for or been retained by the issuer or any of its directors, executive officers, founders or control persons within the previous 12 months;
- (dd) **"executive officer"** means, for an issuer, an individual who is
- (i) a chair, vice-chair or president,
 - (ii) a vice-president in charge of a principal business unit, division or function including sales, finance or production,
 - (iii) an officer of the issuer or any of its subsidiaries and who performs a policy-making function in respect of the issuer, or
 - (iv) performing a policy-making function in respect of the issuer;

- (ee) **"financial assets"** means (i) cash, (ii) securities or (iii) a contract of insurance, a deposit or an evidence of a deposit that is not a security for the purposes of securities legislation;
- (ff) **"founder"** means, in respect of an issuer, a person who,
 - (i) acting alone, in conjunction or in concert with one or more persons, directly or indirectly, takes the initiative in founding, organizing or substantially reorganizing the business of the issuer, and
 - (ii) at the time of the trade is actively involved in the business of the issuer;
- (gg) **"fully managed account"** means an account of a client for which a person makes the investment decisions if that person has full discretion to trade in securities for the account without requiring the client's express consent to a transaction;
- (hh) **"investment fund"** has the meaning ascribed thereto in National Instrument 81-106 – *Investment Fund Continuous Disclosure*;
- (ii) **"person"** includes
 - (i) an individual,
 - (ii) a corporation,
 - (iii) a partnership, trust, fund and an association, syndicate, organization or other organized group of persons, whether incorporated or not, and
 - (iv) an individual or other person in that person's capacity as a trustee, executor, administrator or personal or other legal representative;
- (jj) **"related liabilities"** means
 - (i) liabilities incurred or assumed for the purpose of financing the acquisition or ownership of financial assets, or
 - (ii) liabilities that are secured by financial assets.
- (kk) **"spouse"** means, an individual who,
 - (i) is married to another individual and is not living separate and apart within the meaning of the *Divorce Act* (Canada), from the other individual,
 - (ii) is living with another individual in a marriage-like relationship, including a marriage-like relationship between individuals of the same gender, or
 - (iii) in Alberta, is an individual referred to in paragraph (i) or (ii) immediately above or is an adult interdependent partner within the meaning of the *Adult Interdependent Relationships Act* (Alberta); and
- (ll) **"subsidiary"** means an issuer that is controlled directly or indirectly by another issuer and includes a subsidiary of that subsidiary.

Affiliated Entities and Control

1. An issuer is considered to be an affiliate of another issuer if one of them is the subsidiary of the other, or if each of them is controlled by the same person.

2. A person (first person) is considered to control another person (second person) if:
- a. the first person, directly or indirectly, beneficially owns or exercises control or direction over securities of the second person carrying votes which, if exercised, would entitle the first person to elect a majority of the directors of the second person, unless that first person holds the voting securities only to secure an obligation,
 - b. the second person is a partnership, other than a limited partnership, and the first person holds more than 50% of the interests in the partnership, or
 - c. the second person is a limited partnership and the general partner of the limited partnership is the first person.

All monetary references are in Canadian Dollars

APPENDIX "A" TO SCHEDULE "B"

Form 45-106F9

Form for Individual Accredited Investors

WARNING!
This investment is risky. Don't invest unless you can afford to lose all the money you pay for this investment.

SECTION 1 TO BE COMPLETED BY THE ISSUER OR SELLING SECURITY HOLDER

1. About your investment

Type of securities: Units	Issuer: POET Technologies Inc.
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Purchased from: Issuer

SECTIONS 2 TO 4 TO BE COMPLETED BY THE PURCHASER

2. Risk acknowledgement

This investment is risky. Initial that you understand that:	Your initials
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Risk of loss – You could lose your entire investment of \$ _____ . <i>[Instruction: Insert the total dollar amount of the investment.]</i>	
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Liquidity risk – You may not be able to sell your investment quickly – or at all.	
--	--

Lack of information – You may receive little or no information about your investment.	
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Lack of advice – You will not receive advice from the salesperson about whether this investment is suitable for you unless the salesperson is registered. The salesperson is the person who meets with, or provides information to, you about making this investment. To check whether the salesperson is registered, go to www.arettheyregistered.ca .	
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3. Accredited investor status

You must meet at least one of the following criteria to be able to make this investment. Initial the statement that applies to you. (You may initial more than one statement.) The person identified in section 5 is responsible for ensuring that you meet the definition of accredited investor. That person, or the salesperson identified in section 5, can help you if you have questions about whether you meet these criteria.	Your initials
--	----------------------

<ul style="list-style-type: none"> • Your net income before taxes was more than \$200,000 in each of the 2 most recent calendar years, and you expect it to be more than \$200,000 in the current calendar year. (You can find your net income before taxes on your personal income tax return.) 	
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<ul style="list-style-type: none"> • Your net income before taxes combined with your spouse's was more than \$300,000 in each of the 2 most recent calendar years, and you expect your combined net income before taxes to be more than \$300,000 in the current calendar year. 	
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<ul style="list-style-type: none"> • Either alone or with your spouse, you own more than \$1 million in cash and securities, after subtracting any debt related to the cash and securities. 	
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<ul style="list-style-type: none"> • Either alone or with your spouse, you have net assets worth more than \$5 million. (Your net assets are your total assets (including real estate) minus your total debt.) 	
4. Your name and signature	
By signing this form, you confirm that you have read this form and you understand the risks of making this investment as identified in this form.	
First and last name (please print):	
Signature:	Date:
SECTION 5 TO BE COMPLETED BY THE SALESPERSON	
5. Salesperson information	
<i>[Instruction: The salesperson is the person who meets with, or provides information to, the purchaser with respect to making this investment. That could include a representative of the issuer or selling security holder, a registrant or a person who is exempt from the registration requirement.]</i>	
First and last name of salesperson (please print):	
Telephone:	Email:
Name of firm (if registered):	
SECTION 6 TO BE COMPLETED BY THE ISSUER OR SELLING SECURITY HOLDER	
6. For more information about this investment	
<p>POET Technologies Inc. 120 Eglinton Avenue East, Suite 1107 Toronto, Ontario M4P 1E2</p> <p>Attention: Kevin Barnes Vice President, Finance & Administration & Corporate Controller</p> <p>Email: kb@poet-technologies.com</p> <p>For more information about prospectus exemptions, contact your local securities regulator. You can find contact information at www.securities-administrators.ca.</p>	

SCHEDULE "C"
U.S. ACCREDITED INVESTOR CERTIFICATE

UNITED STATES SUBSCRIBERS

The categories listed herein contain certain specifically defined terms. If you are unsure as to the meanings of those terms, or are unsure as to the applicability of any category below, please contact your broker and/or legal advisor before completing this certificate.

TO: POET TECHNOLOGIES INC. (the "Corporation")

Initially capitalized terms not specifically defined in this Schedule "C" have the meanings ascribed to them in the Subscription Agreement to which this Schedule "C" is attached.

In connection with the purchase by the undersigned Subscriber of the Purchased Securities, the Subscriber, on its own behalf and on behalf of each Beneficial Purchaser (as defined below) for whom the Subscriber is acting (collectively, the "**Subscriber**"), hereby represents, warrants, covenants and certifies to the Corporation (and acknowledges that the Corporation and its counsel are relying thereon) that:

- (a) It is authorized to consummate the purchase of the Purchased Securities.
- (b) It has such knowledge, skill and experience in financial, investment and business matters as to be capable of evaluating the merits and risks of an investment in the Purchased Securities and it is able to bear the economic risk of loss of its entire investment. To the extent necessary, the Subscriber has retained, at his or her own expense, and relied upon, appropriate professional advice regarding the investment, tax and legal merits and consequences of the Subscription Agreement and owning the Purchased Securities and the Underlying Securities.
- (c) The Corporation has provided to it the opportunity to ask questions and receive answers concerning the terms and conditions of the Offering and it has had access to such information concerning the Corporation as it has considered necessary or appropriate in connection with its investment decision to acquire the Purchased Securities, and that any answers to questions and any request for information have been complied with to the Subscriber's satisfaction.
- (d) It is acquiring the Purchased Securities for its own account, or for the account of one or more persons for whom it is exercising sole investment discretion (a "**Beneficial Purchaser**"), for investment purposes only, and not with a view to any resale, distribution or other disposition of the Purchased Securities or the Underlying Securities in violation of the United States federal or state securities laws.
- (e) The address of the Subscriber set out in the "Subscription and Subscriber Information" section of the Subscription Agreement is the true and correct principal address of the Subscriber and can be relied on by the Corporation for the purposes of state blue-sky laws and the Subscriber has not been formed for the specific purpose of purchasing the Purchased Securities.
- (f) The Subscriber understands and acknowledges that the Purchased Securities and the Underlying Securities have not been and will not be registered under the U.S. Securities Act or the securities laws of any state of the United States, and that the offer and sale of such securities to it are being made in reliance upon the exemptions from the registration requirements of the U.S. Securities Act afforded by Rule 506(b) of Regulation D thereunder and similar exemptions under applicable state securities laws.
- (g) It understands that (i) the Purchased Securities and the Underlying Securities have not been and will not be registered under the U.S. Securities Act, or the securities laws of any state of the United States, and will therefore be "restricted securities", as defined in Rule 144(a)(3) under the U.S. Securities Act and may be offered, sold, pledged or otherwise transferred, directly or indirectly, unless:

- (i) the transfer is to the Corporation, or a subsidiary thereof (though the Corporation or its subsidiaries are under no obligation to purchase any such Purchased Securities or Underlying Securities);
 - (ii) the transfer is made outside the United States in accordance with Regulation S under the U.S. Securities Act and in compliance with applicable local laws;
 - (iii) the transfer is made in compliance with an exemption from registration under the U.S. Securities Act provided by Rule 144 or Rule 144A thereunder, if available, and in accordance with applicable state securities laws;
 - (iv) in another transaction that does not require registration under the U.S. Securities Act or any applicable state securities laws, and the holder of the Purchased Securities or the Underlying Securities has furnished to the Corporation an opinion of counsel of recognized standing in form and substance reasonably satisfactory to the Corporation to such effect; or
 - (v) pursuant to an effective registration statement under the U.S. Securities Act, and
- in each case in compliance with any applicable state securities laws in the United States.

(h) The Subscriber is, and if applicable, each Beneficial Purchaser for whose account it is purchasing the Purchased Securities is a U.S. Accredited Investor by virtue of meeting one of the following criteria (**please write "SUB" for the criteria the Subscriber meets and "BEN" for the criteria the Beneficial Purchaser meets**):

- _____ (i) a bank as defined in section 3(a)(2) of the U.S. Securities Act, or a savings and loan association or other institution as defined in section 3(a)(5)(A) of the U.S. Securities Act whether acting in its individual or fiduciary capacity; a broker or dealer registered pursuant to section 15 of the United States Securities Exchange Act of 1934; an insurance company as defined in section 2(a)(13) of the U.S. Securities Act, an investment company registered under the Investment Company Act of 1940 or a business development company as defined in section 2(a)(48) of that Act, a Small Business Investment Company licensed by the U.S. Small Business Administration under section 301(c) or (d) of the Small Business Investment Act of 1958; a plan established and maintained by a state, its political subdivisions, or any agency or instrumentality of a state or its political subdivisions, for the benefit of its employees, if such plan has total assets in excess of US\$5,000,000; an employee benefit plan within the meaning of the Employee Retirement Income Security Act of 1974 if the investment decision is made by a plan fiduciary, as defined in section 3(21) of such act, which is either a bank, savings and loan association, insurance company, or registered investment adviser, or if the employee benefit plan has total assets in excess of US\$5,000,000 or, if a self-directed plan, with investment decisions made solely by persons that are accredited investors;
- _____ (ii) a private business development company as defined in section 202(a)(22) of the *Investment Advisers Act of 1940*;
- _____ (iii) an organization described in section 501(c)(3) of the Internal Revenue Code, corporation, Massachusetts or similar business trust, partnership, or limited liability company not formed for the specific purpose of acquiring the securities offered, with total assets in excess of US\$5,000,000;
- _____ (iv) a director, executive officer, or general partner of the issuer of the securities being offered or sold, or any director, executive officer, or general partner of a general partner of that issuer;
- _____ (v) a natural person whose individual net worth, or joint net worth with that person's spouse or spousal equivalent, at the time of his purchase, exceeds US\$1,000,000;

Note: For purposes of calculating "net worth" under this paragraph:

- (a) the person's primary residence shall not be included as an asset;

- (b) indebtedness that is secured by the person's primary residence, up to the estimated fair market value of the primary residence at the time of the sale of securities, shall not be included as a liability (except that if the amount of such indebtedness outstanding at the time of the sale of securities exceeds the amount outstanding 60 days before such time, other than as a result of the acquisition of the primary residence, the amount of such excess shall be included as a liability); and
- (c) indebtedness that is secured by the person's primary residence in excess of the estimated fair market value of the primary residence at the time of the sale of securities shall be included as a liability;
- _____ (vi) a natural person who had an individual income in excess of \$200,000 in each of the two most recent years or joint income with that person's spouse or spousal equivalent in excess of \$300,000 in each of those years and has a reasonable expectation of reaching the same income level in the current year;
- _____ (vii) a trust, with total assets in excess of US\$5,000,000, not formed for the specific purpose of acquiring the securities offered, whose purchase is directed by a sophisticated person as described in Rule 506(b)(2)(ii) of the U.S. Securities Act;
- _____ (viii) an entity in which all of the equity owners are U.S. Accredited Investors;
- _____ (ix) a natural person who holds one of the following licenses in good standing: General Securities Representative license (Series 7), the Private Securities Offerings Representative license (Series 82), or the Investment Adviser Representative license (Series 65);
- _____ (x) an investment adviser registered pursuant to section 203 of the *Investment Advisers Act of 1940* or registered pursuant to the applicable laws of a state;
- _____ (xi) an investment adviser relying on the exemption from registering with the SEC under section 203(i) or (m) of the *Investment Advisers Act of 1940*;
- _____ (xii) a Rural Business Investment Company as defined in section 384A of the *Consolidated Farm and Rural Development Act*;
- _____ (xiii) an entity, of a type not listed herein, not formed for the specific purpose of acquiring the securities offered, owning investments in excess of \$5,000,000;
- _____ (xiv) a "family office," as defined in Rule 202(a)(11)(G)-1 under the *Investment Advisers Act of 1940* (17 CFR 275.202(a)(11)(G)-1): (i) with assets under management in excess of \$5,000,000, (ii) that is not formed for the specific purpose of acquiring the securities offered, and (iii) whose prospective investment is directed by a person who has such knowledge and experience in financial and business matters that such family office is capable of evaluating the merits and risks of the prospective investment; or
- _____ (xv) a "family client," as defined in Rule 202(a)(11)(G)-1 under the *Investment Advisers Act of 1940* (17 CFR 275.202(a)(11)(G)-1), of a family office meeting the requirements in paragraph (xiv) above and whose prospective investment in the issuer is directed by such family office pursuant to paragraph (xiv)(iii) above.
- (i) The Subscriber has not purchased the Purchased Securities as a result of any "directed selling efforts" (as defined in Regulation S under the U.S. Securities Act) or any form of "general solicitation" or "general advertising" (as those terms are used in Regulation D of the U.S. Securities Act), including, without limitation, advertisements, articles, notices or other communications published in any newspaper, magazine or similar media or on the internet, or broadcast over radio or television or the internet, or other form of telecommunications, including electronic display, or any seminar or meeting whose attendees have been invited by general solicitation or general advertising.
- (j) The certificates representing the Unit Shares and Warrant Shares, as well as all certificates issued in exchange for or in substitution of the foregoing, until such time as is no longer required under

the applicable requirements of the U.S. Securities Act or applicable state securities laws, will bear, on the face of such certificates, the following legend:

"THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "U.S. SECURITIES ACT") OR UNDER ANY STATE SECURITIES LAWS, AND THE SECURITIES REPRESENTED HEREBY MAY BE OFFERED, SOLD OR OTHERWISE TRANSFERRED ONLY (A) TO POET TECHNOLOGIES INC. (THE "COMPANY"), (B) OUTSIDE THE UNITED STATES IN ACCORDANCE WITH RULE 904 OF REGULATION S UNDER THE U.S. SECURITIES ACT AND IN COMPLIANCE WITH APPLICABLE LOCAL LAWS AND REGULATIONS, (C) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE U.S. SECURITIES ACT PROVIDED BY (i) RULE 144 OR (ii) 144A UNDER THE U.S. SECURITIES ACT, IF AVAILABLE, AND IN COMPLIANCE WITH APPLICABLE U.S. STATE SECURITIES LAWS, (D) IN COMPLIANCE WITH ANOTHER EXEMPTION FROM REGISTRATION UNDER THE U.S. SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS, OR (E) UNDER AN EFFECTIVE REGISTRATION STATEMENT UNDER THE U.S. SECURITIES ACT PROVIDED THAT IN THE CASE OF TRANSFERS PURSUANT TO (C)(i) OR (D) ABOVE, A LEGAL OPINION REASONABLY SATISFACTORY TO THE COMPANY MUST FIRST BE PROVIDED TO THE EFFECT THAT SUCH TRANSFER IS EXEMPT FROM REGISTRATION UNDER THE U.S. SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS. DELIVERY OF THIS CERTIFICATE MAY NOT CONSTITUTE "GOOD DELIVERY" IN SETTLEMENT OF TRANSACTIONS ON STOCK EXCHANGES IN CANADA."

provided that, if any Unit Shares and Warrant Shares are being sold in accordance with Rule 904 of Regulation S under the U.S. Securities Act, the legend may be removed by providing to the transfer agent for the Corporation, (i) a declaration in the form attached as Appendix "I" hereof (or as the Corporation may prescribe from time to time) and (ii) if required by the transfer agent for the Corporation, an opinion of counsel, of recognized standing reasonably satisfactory to the Corporation, or other evidence reasonably satisfactory to the Corporation, that the proposed transfer may be effected without registration under the U.S. Securities Act;

and provided, further, that, if any Unit Shares and Warrant Shares are being sold under Rule 144 under the U.S. Securities Act, the legend may be removed by delivering to the transfer agent for the Corporation, an opinion of counsel of recognized standing reasonably satisfactory to the Corporation, that the legend is no longer required under applicable requirements of the U.S. Securities Act or state securities laws.

- (k) The certificates representing the Unit Warrants, as well as all certificates issued in exchange for or in substitution of the foregoing, until such time as is no longer required under the applicable requirements of the U.S. Securities Act or applicable state securities laws, will bear, on the face of such certificates, the following legend:

"THIS WARRANT AND THE SECURITIES DELIVERABLE UPON EXERCISE HEREOF HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "U.S. SECURITIES ACT") OR UNDER ANY STATE SECURITIES LAWS, AND THIS WARRANT MAY NOT BE EXERCISED IN THE UNITED STATES UNLESS THIS WARRANT AND THE SHARES ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE U.S. SECURITIES ACT AND THE APPLICABLE SECURITIES LEGISLATION OF ANY SUCH STATE OR AN EXEMPTION FROM SUCH REGISTRATION REQUIREMENTS IS AVAILABLE. THIS WARRANT MAY BE OFFERED, SOLD OR OTHERWISE TRANSFERRED ONLY (A) TO POET TECHNOLOGIES INC. (THE "COMPANY"), (B) OUTSIDE THE UNITED STATES IN ACCORDANCE WITH RULE 904 OF REGULATION S UNDER THE U.S. SECURITIES ACT AND IN COMPLIANCE WITH APPLICABLE LOCAL LAWS AND REGULATIONS, (C) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE U.S. SECURITIES ACT PROVIDED BY (i) RULE 144 OR

(ii) 144A UNDER THE U.S. SECURITIES ACT, IF AVAILABLE, AND IN COMPLIANCE WITH APPLICABLE U.S. STATE SECURITIES LAWS, (D) IN COMPLIANCE WITH ANOTHER EXEMPTION FROM REGISTRATION UNDER THE U.S. SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS, OR (E) UNDER AN EFFECTIVE REGISTRATION STATEMENT UNDER THE U.S. SECURITIES ACT PROVIDED THAT IN THE CASE OF TRANSFERS PURSUANT TO (C)(i) OR (D) ABOVE, A LEGAL OPINION REASONABLY SATISFACTORY TO THE COMPANY MUST FIRST BE PROVIDED TO THE EFFECT THAT SUCH TRANSFER IS EXEMPT FROM REGISTRATION UNDER THE U.S. SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS. DELIVERY OF THIS CERTIFICATE MAY NOT CONSTITUTE "GOOD DELIVERY" IN SETTLEMENT OF TRANSACTIONS ON STOCK EXCHANGES IN CANADA."

provided that, if any Unit Warrants are being sold in accordance with Rule 904 of Regulation S under the U.S. Securities Act, the legend may be removed by providing to the transfer agent for the Corporation, (i) a declaration in the form attached as Appendix "T" hereof (or as the Corporation may prescribe from time to time) and (ii) if required by the transfer agent for the Corporation, an opinion of counsel, of recognized standing reasonably satisfactory to the Corporation, or other evidence reasonably satisfactory to the Corporation, that the proposed transfer may be effected without registration under the U.S. Securities Act,

and provided, further, that, if any Unit Warrants are being sold under Rule 144 under the U.S. Securities Act, the legend may be removed by delivering to the transfer agent for the Corporation, an opinion of counsel of recognized standing reasonably satisfactory to the Corporation, that the legend is no longer required under applicable requirements of the U.S. Securities Act or state securities laws.

- (l) The Subscriber understands and agrees that there may be material tax consequences to it of an acquisition, holding, conversion or disposition of the Purchased Securities and any of the Underlying Securities. The Corporation gives no opinion and makes no representation with respect to the tax consequences to the Subscriber under United States, state, local or foreign tax law of its acquisition, holding, conversion or disposition of any of the Purchased Securities and the Underlying Securities and the Subscriber acknowledges that it is solely responsible for determining the tax consequences to it with respect to its investment, including whether the Corporation will at any given time be deemed a "passive foreign investment company" within the meaning of Section 1297 of the United States *Internal Revenue Code of 1986*, as amended.
- (m) The Subscriber is aware that its ability to enforce civil liabilities under the United States federal securities laws may be affected adversely by, among other things: (i) the fact that the Corporation is organized under the laws of Canada, (ii) some or all of the directors and officers may be residents of countries other than the United States, and (iii) all or a substantial portion of the assets of the Corporation and such persons may be located outside the United States. Consequently, it may be difficult to provide service of process on the Corporation and it may be difficult to enforce any judgment against the Corporation.
- (n) It understands that (i) if the Corporation is ever determined to be an issuer that is, or that has been at any time previously, an issuer with no or nominal operations and no or nominal assets other than cash and cash equivalents, Rule 144 under the U.S. Securities Act may not be available for re-sales of the Purchased Securities; and (ii) the Corporation is not obligated to take, and have no present intention of taking, as applicable, any action to make Rule 144 under the U.S. Securities Act (or any other exemption) available for re-sales of any of the Purchased Securities.
- (o) The Subscriber understands and acknowledges that the Corporation is not obligated to remain a "foreign issuer" as defined in Rule 902(e) of Regulation S.
- (p) The Subscriber understands and agrees that the financial statements of the Corporation have been, or will be, prepared in accordance with Canadian generally accepted accounting principles or

International Financial Reporting Standards, as issued by the International Accounting Standards Board, which differ in some respects from United States generally accepted accounting principles, and thus may not be comparable to financial statements of United States companies.

- (q) It consents to the Corporation making a notation on their records or giving instructions to any transfer agent of the Corporation in order to implement the restrictions on transfer set forth and described in this certification and the Subscription Agreement.
- (r) If required by applicable securities legislation, regulatory policy or order or by any securities commission, stock exchange or other regulatory authority, the Subscriber will execute, deliver, file and otherwise assist the Corporation in filing reports, questionnaires, undertakings and other documents with respect to the ownership of the Purchased Securities and the Underlying Securities.
- (s) It understands that the Corporation has no obligation to register, and have no present intention to register, as applicable, the resale of any of the Purchased Securities or any of the Underlying Securities under the U.S. Securities Act. Accordingly, the Subscriber understands that absent registration, under the rules of the U.S. Securities and Exchange Commission, the Subscriber may be required to hold the Purchased Securities and any of the Underlying Securities indefinitely or to transfer the Purchased Securities in transactions which are exempt from registration under the U.S. Securities Act, in which event the transferee may acquire "restricted securities" subject to the same limitations as in the hands of the Subscriber. As a consequence, the Subscriber understands that it must bear the economic risks of the investment in the Purchased Securities for an indefinite period of time.
- (a) The funds representing the aggregate Purchase Price which will be advanced by the Subscriber to the Corporation hereunder will not represent proceeds of crime for the purposes of the *Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act* (the "**PATRIOT Act**") and the Subscriber acknowledges that the Corporation may in the future be required by law to disclose the Subscriber's name and other information relating to the Subscription Agreement and the Subscriber's subscription hereunder, on a confidential basis, pursuant to the PATRIOT Act. No portion of the aggregate Purchase Price to be provided by the Subscriber (i) has been or will be derived from or related to any activity that is deemed criminal under the laws of the United States, or any other jurisdiction, or (ii) is being tendered on behalf of a person or entity who has not been identified to or by the Subscriber, and it shall promptly notify the Corporation if the Subscriber discovers that any of such representations ceases to be true and provide the Corporation with appropriate information in connection therewith.

The foregoing representations and warranties are true and accurate as of the date of this U.S. Accredited Investor Certificate and will be true and accurate as of the Closing Time on the Closing Date. If any such representation or warranty shall not be true and accurate prior to such Closing Time, the Subscriber shall give immediate written notice of such fact to the Corporation.

Dated: _____, 2022.

X _____
Signature of individual (if Subscriber is an individual)

X _____
Authorized signatory (if Subscriber is **not** an individual)

Name of Subscriber (**please print**)

Name of authorized signatory (**please print**)

Official capacity of authorized signatory (**please print**)

APPENDIX "I" TO SCHEDULE "C"

FORM OF DECLARATION FOR REMOVAL OF LEGEND

TO: _____, as registrar and transfer agent

AND TO: POET Technologies Inc. (the "Corporation")

The undersigned (A) acknowledges that the sale of _____ of the Corporation represented by certificate number _____ to which this declaration relates is being made in reliance on Rule 904 of Regulation S under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), and (B) certifies that (1) the undersigned is not (a) an "affiliate" of the Corporation (as that term is defined in Rule 405 under the U.S. Securities Act), (b) a "distributor" as defined in Regulation S or (c) an affiliate of a distributor; (2) the offer of such securities was not made to a person in the United States and either (a) at the time the buy order was originated, the buyer was outside the United States, or the seller and any person acting on its behalf reasonably believed that the buyer was outside the United States, or (b) the transaction was executed on or through the facilities of a designated offshore securities market (such as the TSX Venture Exchange, the Toronto Stock Exchange or the Canadian Securities Exchange) and neither the seller nor any person acting on its behalf knows that the transaction has been prearranged with a buyer in the United States or a U.S. person; (3) neither the seller nor any affiliate of the seller nor any person acting on their behalf has engaged or will engage in any directed selling efforts in the United States in connection with the offer and sale of such securities; (4) the sale is bona fide and not for the purpose of "washing off" the resale restrictions imposed because the securities are "restricted securities" (as that term is defined in Rule 144(a)(3) under the U.S. Securities Act); (5) the seller does not intend to replace securities sold in reliance on Rule 904 of Regulation S with fungible unrestricted securities; and (6) the sale is not a transaction, or part of a series of transactions, which, although in technical compliance with Regulation S, is part of a plan or scheme to evade the registration provisions of the U.S. Securities Act. Terms used herein have the meanings given to them by Regulation S under the U.S. Securities Act.

Dated: _____ X _____
Authorized signatory

Name of Seller (please print)

Name of authorized signatory (please print)

Title of authorized signatory (please print)

Affirmation By Seller's Broker-Dealer (required for sales in accordance with Section (B)(2)(b) above)

We have read the foregoing representations of our customer, _____ (the "Seller") dated _____ with regard to our sale, for such Seller's account, of the securities of the Corporation described therein, and on behalf of ourselves we certify and affirm that (A) we have no knowledge that the transaction had been prearranged with a buyer in the United States, (B) the transaction was executed on or through the facilities of designated offshore securities market, (C) neither we, nor any person acting on our behalf, engaged in any directed selling efforts in connection with the offer and sale of such securities, and (D) no selling concession, fee or other remuneration is being paid to us in connection with this offer and sale other than the usual and customary broker's commission that would be received by a person executing such transaction as agent. Terms used herein have the meanings given to them by Regulation S under the U.S. Securities Act.

Name of Firm
By: _____
Authorized officer
Date: _____

SCHEDULE "D"
FOREIGN PURCHASER'S CERTIFICATE

OFFSHORE SUBSCRIBERS

TO: POET TECHNOLOGIES INC. (the "Corporation")

Capitalized terms not specifically defined in this Schedule "D" have the meanings ascribed to them in the Subscription Agreement to which this Schedule "D" is attached.

The undersigned Subscriber, a resident of a jurisdiction other than Canada or the United States, hereby represents and warrants to the Corporation, and acknowledges as an integral part of the attached Subscription Agreement (the "**Agreement**"), as follows:

1. The Subscriber is, and each beneficial purchaser for whom the Subscriber is purchasing for under the Agreement or for whom the Subscriber may be acting as trustee or agent is, a resident of a country (an "**International Jurisdiction**") other than Canada or the United States and the decision to subscribe for the Purchased Securities was taken in such International Jurisdiction.
2. The delivery of the Agreement, the acceptance of it by the Corporation and the issuance of the Purchased Securities to the Subscriber, or each beneficial purchaser for whom the Subscriber is purchasing for under the Agreement, complies with all laws applicable to the Subscriber and such beneficial purchaser, including the laws of such purchaser's jurisdiction of residence, and all other applicable laws, and will not require the Corporation to register the Offered Securities, nor will it cause the Corporation to become subject to, or require it to comply with, any disclosure, prospectus, filing or reporting requirements under any applicable laws of the International Jurisdiction or seek any approvals of any kind whatsoever from any regulatory authority of any kind whatsoever in the International Jurisdiction.
3. If the undersigned Subscriber, or any other purchaser for whom it is acting hereunder, is resident in or otherwise subject to applicable securities laws of the United Kingdom:
 - (a) the Subscriber is either: (i) purchasing the Purchased Securities as principal for its own account, (ii) acting as agent for a beneficial purchaser who is disclosed on the first Subscription and Subscriber Information page of the Agreement and who is purchasing the Purchased Securities as principal for its own account; or (iii) purchasing the Purchased Securities on behalf of discretionary client(s) in circumstances where section 86(2) of the *Financial Services and Markets Act 2000* ("**FSMA**") applies;
 - (b) the Subscriber (and if the undersigned Subscriber is purchasing as agent for a beneficial purchaser disclosed on the first Subscription and Subscriber Information page of the Agreement, that beneficial purchaser): (i) is a person in the United Kingdom who is a "qualified investor" for the purposes of section 86(7) of the FSMA, (ii) is such a person as is referred to in Article 19 (investment professionals) or Article 49 (high net worth companies, unincorporated associations, etc.) of the *Financial Services and Markets Act 2000 (Financial Promotion) Order 2005* (the "**FPO**"), and (iii) has complied with and undertakes to comply with all applicable provisions of the FSMA and other applicable securities laws with respect to anything done by it in relation to the Purchased Securities in, from or otherwise involving the United Kingdom;
 - (c) the Subscriber acknowledges that the offer detailed in the Agreement is only directed in the United Kingdom at the following persons (such that such offer is not available in the United Kingdom to any other persons and such that no other persons should rely on the contents of this Agreement): (i) (in the case of investment professionals as referred to in Article 19 of the FPO) persons having professional experience in matters relating to

investments; and (ii) (in the case of high net worth companies, etc. as referred to in Article 49 of the FPO) high net worth companies, unincorporated associations or partnerships or trustees of high value trusts which: (A) in the case of a company, has, or is a member of the same group as an undertaking that has, a called up share capital or net assets of not less than £500,000 (for companies with more than 20 members or subsidiary undertakings of an undertaking with more than 20 members) or net assets of not less than £5,000,000 in any other case; or (B) in the case of an unincorporated association or partnership, has net assets of not less than £5,000,000; or (C) in the case of a trustee of a high value trust, has cash and investments forming part of the trust's assets (before the deduction of liabilities) with an aggregate value of not less than £10,000,000 (or which has had an aggregate value of not less than £10,000,000 during the year immediately preceding the date of receipt of the Agreement); and

- (d) it confirms that, to the extent applicable to it, it is aware of, has complied and will comply with its obligations in connection with the *Criminal Justice Act 1993*, the *Proceeds of Crime Act 2002* and Part VIII of the FSMA, it has identified its clients in accordance with the Money Laundering Regulations 2003 (the "**Regulations**") and has complied fully with its obligations pursuant to the Regulations and will, as a condition precedent of any acceptance of this subscription, provide all such information and documents as may be required in relation to it (or any person on whose behalf it is acting as agent) that may be required by the Corporation or any agent or person acting for it in order to discharge any obligations under the Regulations.
4. The Subscriber and each beneficial purchaser for whom the Subscriber is purchasing for under the Agreement, is knowledgeable of, or has been independently advised as to, the application or jurisdiction of the securities laws of the International Jurisdiction which would apply to the transactions contemplated by the Agreement (other than the securities laws of Canada and the United States).
5. The Subscriber and each beneficial purchaser for whom the Subscriber is purchasing for under the Agreement, is purchasing the Purchased Securities pursuant to exemptions from the prospectus and registration requirements (or their equivalent) under the applicable securities laws of that International Jurisdiction or, if such is not applicable, each is permitted to purchase the Purchased Securities under the applicable securities laws of the International Jurisdiction without the need to rely on an exemption.
6. The Subscriber and each beneficial purchaser for whom the Subscriber is purchasing for under the Agreement will not sell, transfer or dispose of the Purchased Securities or any of the Underlying Securities except in accordance with all applicable laws, including applicable securities laws of Canada and the United States, and the Subscriber, and each beneficial purchaser for whom the Subscriber is purchasing for under the Agreement, acknowledges that the Corporation shall have no obligation to register any such purported sale, transfer or disposition which violates applicable Canadian or United States or other securities laws.
7. The foregoing representations and warranties contained in this Schedule "D" are true and accurate as of the date of this Schedule "D" and will be true and accurate as of the Closing Date. If any such representations or warranties shall not be true and accurate prior to the Closing Date, the undersigned shall give immediate written notice of such fact to the Corporation prior to the Closing Date.

References in this Schedule "F" to "£" are to United Kingdom pounds.

[Signature page follows]

DATED _____, 2022.

Signature of Subscriber

Name of Subscriber

If Subscriber is other than an individual, print name and
title of Authorized Signing Officer

Address of Subscriber

SCHEDULE "E"
FORM 4C – CORPORATE PLACEE REGISTRATION FORM

Where subscribers to a Private Placement are not individuals, the following information about the Placée must be provided if such subscribers:

- (a) will hold more than 5% of the Issuer's issued and outstanding Listed Shares upon completion of the Private Placement; or
- (b) are subscribing for more than 25% of the Private Placement.

This Form will remain on file with the Exchange. The corporation, trust, portfolio manager or other entity (the "**Placée**") need only file it on one time basis, and it will be referenced for all subsequent Private Placements in which it participates. If any of the information provided in this Form changes, the Placée must notify the Exchange prior to participating in further placements with Exchange listed Issuers. If as a result of the Private Placement, the Placée becomes an Insider of the Issuer, Insiders of the Placée are reminded that they must file a Personal Information Form (2A) or, if applicable, Declarations, with the Exchange.

Placée Information:

- (a) Name: _____
- (b) Complete Address: _____
- (c) Jurisdiction of Incorporation or Creation: _____
- (d) Is the Placée purchasing securities as a portfolio manager. (Yes/No)? ___
- (e) Is the Placée carrying on business as a portfolio manager outside of Canada:
(Yes/No)? _____

If the answer to (e) above was "**Yes**", the undersigned certifies that:

- (f) It is purchasing securities of an Issuer on behalf of managed accounts for which it is making the investment decision to purchase the securities and has full discretion to purchase or sell securities for such accounts without requiring the client's express consent to a transaction;
- (g) it carries on the business of managing the investment portfolios of clients through discretionary authority granted by those clients (a "**portfolio manager**" business) in _____ [jurisdiction], and it is permitted by law to carry on a portfolio manager business in that jurisdiction;
- (h) it was not created solely or primarily for the purpose of purchasing securities of the Issuer;
- (i) the total asset value of the investment portfolios it manages on behalf of clients is not less than CDN \$20,000,000; and
- (j) it has no reasonable grounds to believe, that any of the directors, senior officers and other insiders of the Issuer, and the persons that carry on investor relations activities for the Issuer has a beneficial interest in any of the managed accounts for which it is purchasing.

If the answer to (d). above was "No", please provide the names and addresses of Control Persons of the Place:

Name *	City	Province or State	Country

* If the Control Person is not an individual, provide the name of the individual that makes the investment decisions on behalf of the Control Person.

The undersigned acknowledges that it is bound by the provisions of applicable Securities Law, including provisions concerning the filing of insider reports and reports of acquisitions.

Dated at _____ on _____

(Authorized Signature)

(Official Capacity - please print)

(Please print name of individual whose signature appears above)

Acknowledgement - Personal Information

"**Personal Information**" means any information about an identifiable individual, and includes information contained in sections 1, 2 and 4, as applicable, of this Form.

The undersigned hereby acknowledges and agrees that it has obtained the express written consent of each individual to:

- (a) the disclosure of Personal Information by the undersigned to the Exchange (as defined in Appendix 6B) pursuant to this Form; and

the collection, use and disclosure of Personal Information by the Exchange for the purposes described in Appendix 6B or as otherwise identified by the Exchange, from time to time.

Dated at _____ on _____

(Name of Purchaser - please print)

(Authorized Signature)

(Official Capacity - please print)

(Please print name of individual whose signature appears above)

THIS IS NOT A PUBLIC DOCUMENT

SCHEDULE "F"
COLLECTION OF PERSONAL INFORMATION

This Subscription Agreement and the schedules hereto require the Subscriber to provide certain personal information (respecting the Subscriber and, if applicable, the beneficial purchaser for whom the Subscriber is contracting) to the Corporation. Personal information includes "personal information" as that term is defined under applicable privacy legislation, including without limitation, the *Personal Information Protection and Electronic Documents Act* (Canada) and any other applicable similar replacement or supplemental provincial or federal legislation or laws and, if applicable, the rules and policies of the TSXV in effect from time to time. Such information is being collected for the purposes of completing the Offering, which includes, without limitation, determining the eligibility of the Subscriber or, if applicable, the beneficial purchaser for whom the Subscriber is contracting, to purchase the Units under applicable Securities Laws, preparing and registering certificates representing the Units to be issued hereunder and completing filings required under applicable Securities Laws or by any stock exchange, the Investment Industry Regulatory Organization of Canada and/or securities regulatory authorities.

In addition, such personal information may be used or disclosed by the Corporation for the purpose of administering the Corporation's relationship with the Subscriber or, if applicable, the beneficial purchaser for whom the Subscriber is contracting. For example, such personal information may be used by the Corporation to communicate with the Subscriber or, if applicable, the beneficial purchaser for whom the Subscriber is contracting (such as by providing annual or quarterly reports), to prepare tax filings and forms or to comply with its obligations under taxation, securities and other laws (such as maintaining a list of holders of shares).

In connection with the foregoing, the personal information of the Subscriber or, if applicable, the beneficial purchaser for whom the Subscriber is contracting, may be disclosed by the Corporation to: (i) any stock exchanges or securities regulatory or taxation authorities; (ii) the Corporation's registrar and transfer agent; and (iii) any of the other parties involved in the Offering, including legal counsel, and may be included in record books prepared in respect of the Offering.

By executing this Subscription Agreement, the Subscriber (on its own behalf and, if applicable, on behalf of the beneficial purchaser for whom the Subscriber is contracting) hereby consents to the collection, use and disclosure of such personal information. The Subscriber (on its own behalf and, if applicable, on behalf of the beneficial purchaser for whom the Subscriber is contracting) also consents to the filing of copies or originals of any of the documents provided to the Corporation by or on behalf of the Subscriber with any stock exchange, securities regulatory authority in relation to the transactions contemplated by this Subscription Agreement.

The Subscriber acknowledges that the Subscriber's personal information and the personal information of any beneficial purchaser may be delivered to the Canadian securities commissions under the authority granted to them under securities legislation for the purposes of administration and enforcement of the securities legislation of the applicable Canadian province or territory. The public official of such Canadian province or territory who can answer questions about such indirect collection of personal information is set forth on Schedule "G".

The Subscriber also acknowledges and consents to the collection, use and disclosure of the Subscriber's personal information by the TSXV and its affiliates, authorized agents, subsidiaries and divisions, including the TSXV for the following purposes: (i) to conduct background checks, (ii) to verify personal information that has been provided about each individual, (iii) to provide disclosure to market participants as to the security holdings of directors, officers, other insiders and promoters of the Corporation or its associates or affiliates, (iv) to conduct enforcement proceedings, and (v) to perform other investigations as required by and to ensure compliance with all applicable rules, policies, rulings and regulations of the TSXV, Securities Laws and other legal and regulatory requirements governing the conduct and protection of the public markets in Canada. As part of this process, the Subscriber further acknowledges that the TSXV also collects additional personal information from other sources, including but not limited to, securities regulatory authorities in Canada or elsewhere, investigative, law enforcement or self-regulatory organizations, regulations services providers and each of their subsidiaries, affiliates, regulators and authorized agents.

to ensure that the purposes set out above can be accomplished. The personal information collected by the TSXV may also be disclosed: (i) to the aforementioned agencies and organizations or as otherwise permitted or required by law and may be used for the purposes described above for their own investigations, and (ii) on the TSXV's website or through printed materials published by or pursuant to the directions of the TSXV. The TSXV may from time to time use third parties to process information and/or provide other administrative services and may share information with such third party services providers.

SCHEDULE "G"
CONTACT INFORMATION FOR CANADIAN SECURITIES COMMISSION

Alberta Securities Commission
Suite 600, 250 – 5th Street SW
Calgary, Alberta T2P 0R4
Telephone: (403) 297-6454
Toll free in Canada: 1-877-355-0585
Facsimile: (403) 297-2082

British Columbia Securities Commission
P.O. Box 10142, Pacific Centre
701 West Georgia Street
Vancouver, British Columbia V7Y 1L2
Inquiries: (604) 899-6854
Toll free in Canada: 1-800-379-6393
Facsimile: (604) 899-6581
Email: inquiries@bcsc.bc.ca

The Manitoba Securities Commission
500 – 400 St. Mary Avenue
Winnipeg, Manitoba R3C 4K5
Telephone: (204) 945-2548
Toll free in Manitoba: 1-800-655-5244
Facsimile: (204) 945-0330

**Financial and Consumer Services Commission
(New Brunswick)**
85 Charlotte Street, Suite 300
Saint John, New Brunswick E2L 2J2
Telephone: (506) 658-3060
Toll free in Canada: 1-866-933-2222
Facsimile: (506) 658-3059
Email: info@fcnbc.ca

**Government of Newfoundland and Labrador
Financial Services Regulation Division**
P.O. Box 8700
Confederation Building
2nd Floor, West Block
Prince Philip Drive
St. John's, Newfoundland and Labrador A1B 4J6
Attention: Director of Securities
Telephone: (709) 729-4189
Facsimile: (709) 729-6187

**Government of the Northwest Territories
Office of the Superintendent of Securities**
P.O. Box 1320
Yellowknife, Northwest Territories X1A 2L9
Attention: Deputy Superintendent, Legal & Enforcement
Telephone: (867) 920-8984
Facsimile: (867) 873-0243

Nova Scotia Securities Commission
Suite 400, 5251 Duke Street, Duke Tower
P.O. Box 458
Halifax, Nova Scotia B3J 2P8
Telephone: (902) 424-7768
Facsimile: (902) 424-4625

**Government of Nunavut
Department of Justice
Legal Registries Division**
P.O. Box 1000, Station 570
1st Floor, Brown Building
Iqaluit, Nunavut X0A 0H0
Telephone: (867) 975-6590
Facsimile: (867) 975-6594

Ontario Securities Commission
20 Queen Street West, 22nd Floor
Toronto, Ontario M5H 3S8
Telephone: (416) 593-8314
Toll free in Canada: 1-877-785-1555
Facsimile: (416) 593-8122
Email: exemptmarketfilings@osc.gov.on.ca
Public official contact regarding indirect collection of
information: Inquiries Officer

Prince Edward Island Securities Office
95 Rochford Street, 4th Floor Shaw Building
P.O. Box 2000
Charlottetown, Prince Edward Island C1A 7N8
Telephone: (902) 368-4589
Facsimile: (902) 368-5283

Autorité des marchés financiers
800, Square Victoria, 22^e étage
C.P. 246, Tour de la Bourse
Montréal, Québec H4Z 1G3
Telephone: (514) 395-0337
or 1-877-525-0337
Facsimile: (514) 873-8155
(For filing purposes only)
Facsimile: (514) 864-6381
(For privacy requests only)
Email: financementdesocietes@lautorite.gc.ca
(For corporate finance issuers);
fonds_investissement@lautorite.gc.ca
(For investment fund issuers)

**Financial and Consumer Affairs Authority of
Saskatchewan**
Suite 601 - 1919 Saskatchewan Drive
Regina, Saskatchewan S4P 4H2
Telephone: (306) 787-5879
Facsimile: (306) 787-5899

**Government of Yukon
Department of Community Services**
Law Centre, 3rd Floor
2130 Second Avenue
Whitehorse, Yukon Y1A 5H6
Telephone: (867) 687-5314
Facsimile: (867) 393-0251

UNLESS PERMITTED UNDER SECURITIES LEGISLATION, THE HOLDER OF THIS SECURITY MUST NOT TRADE THE SECURITY BEFORE [INSERT THE DATE THAT IS 4 MONTHS AND 1 DAY FROM CLOSING].

THIS WARRANT CERTIFICATE IS VOID IF NOT EXERCISED ON OR BEFORE 5:00 P.M., TORONTO TIME, ON [INSERT THE DATE THAT IS THREE YEARS FROM CLOSING].

POET TECHNOLOGIES INC.
(existing under the laws of the Province of Ontario)

SHARE PURCHASE WARRANTS

No. W – 2022 – [CERT NO.]

Right to Purchase
[NUMBER OF WARRANTS] Common Shares

WARRANTS FOR PURCHASE OF [NUMBER OF WARRANTS] COMMON SHARES

THIS IS TO CERTIFY THAT, for value received, [HOLDER] (hereinafter called the “Holder”), being the registered Holder of the common share purchase warrants (“Warrants”) represented by this certificate (“Warrant Certificate”) is entitled to subscribe for and purchase [NUMBER OF WARRANTS] fully paid and non-assessable common shares (“Common Shares”) in the capital of POET Technologies Inc. (hereinafter called the “Company”) at any time prior to 5:00 p.m. (Toronto time) on [●]¹ (the “Expiry Date”) at a price (the “Exercise Price”) of US\$3.61 (or equivalent of C\$4.95) per Common Share until the Expiry Date; subject to the terms and conditions hereinafter set forth.

The rights to acquire Common Shares of the Company granted by this Warrant Certificate may be exercised by the Holder prior to the Expiry Date, subject to the terms and conditions herein, in whole or in part (but not as to a fractional Common Share), by surrender by personal delivery hereof or, if sent by mail or other means of transmission upon actual receipt thereof by the Company of this Warrant Certificate together with a duly completed and executed exercise form in the form attached as Schedule “A” (the “Exercise Form”) at the offices of POET Technologies Inc., 120 Eglinton Avenue East, Suite 1170, Toronto, Ontario M4P 1E2, accompanied by a certified cheque, money order or bank draft payable to or to the order of the Company in payment of the purchase price of the number of Common Shares for which Warrants are then exercised.

In the event of any exercise of the rights represented by this Warrant Certificate, certificates for the Common Shares so purchased shall be issued to the Holder within a reasonable time, not exceeding three business days after the rights represented by this Warrant Certificate shall have been so exercised, and, unless the Warrants have expired, a new Warrant Certificate granting the right to acquire the number of Common Shares, if any, with respect to which the Warrants shall not then have been exercised shall also be issued to the Holder within such time.

The Company covenants and agrees that all Common Shares which may be issued upon the exercise of the rights represented by this Warrant Certificate will, upon issuance, be fully paid and non-assessable and free of all liens, charges and encumbrances. The Company further covenants and agrees that during the period within which the rights represented by this Warrant Certificate may be exercised, the Company will at all times have authorized and reserved a sufficient number of Common Shares to provide for the exercise of the rights represented by this Warrant Certificate.

All share certificates representing the Common Shares issued prior to [●]² shall bear those legends that may be required under applicable securities laws or under applicable polices of the TSXV (or such other stock exchange or quotation system on which the Common Shares are listed), including the following legend:

¹Note: 3 years from the closing date.

²Note: 4 months + 1 day from closing date.

"UNLESS PERMITTED UNDER SECURITIES LEGISLATION, THE HOLDER OF THIS SECURITY MUST NOT TRADE THE SECURITY BEFORE [INSERT THE DATE THAT IS 4 MONTHS AND 1 DAY FROM DATE OF CLOSING]."

and, if required by the policies of the TSXV, the following legend:

"WITHOUT THE PRIOR WRITTEN APPROVAL OF TSX VENTURE EXCHANGE AND COMPLIANCE WITH ALL APPLICABLE SECURITIES LEGISLATION, THE SECURITIES REPRESENTED BY THIS CERTIFICATE MAY NOT BE SOLD, TRANSFERRED, HYPOTHECATED OR OTHERWISE TRADED ON OR THROUGH THE FACILITIES OF TSX VENTURE EXCHANGE OR OTHERWISE IN CANADA OR TO OR FOR THE BENEFIT OF A CANADIAN RESIDENT UNTIL [INSERT THE DATE THAT IS 4 MONTHS AND 1 DAY FROM CLOSING]."

If the Common Shares are issued for the account or benefit of a U.S. Person (as defined herein), such certificates shall bear the following legends in addition to those above:

"THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "U.S. SECURITIES ACT") OR UNDER ANY STATE SECURITIES LAWS, AND THE SECURITIES REPRESENTED HEREBY MAY BE OFFERED, SOLD OR OTHERWISE TRANSFERRED ONLY (A) TO POET TECHNOLOGIES INC. (THE "COMPANY"), (B) OUTSIDE THE UNITED STATES IN ACCORDANCE WITH RULE 904 OF REGULATION S UNDER THE U.S. SECURITIES ACT AND IN COMPLIANCE WITH APPLICABLE LOCAL LAWS AND REGULATIONS, (C) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE U.S. SECURITIES ACT PROVIDED BY (i) RULE 144 OR (ii) 144A UNDER THE U.S. SECURITIES ACT, IF AVAILABLE, AND IN COMPLIANCE WITH APPLICABLE U.S. STATE SECURITIES LAWS, (D) IN COMPLIANCE WITH ANOTHER EXEMPTION FROM REGISTRATION UNDER THE U.S. SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS, OR (E) UNDER AN EFFECTIVE REGISTRATION STATEMENT UNDER THE U.S. SECURITIES ACT PROVIDED THAT IN THE CASE OF TRANSFERS PURSUANT TO (C)(i) OR (D) ABOVE, A LEGAL OPINION REASONABLY SATISFACTORY TO THE COMPANY MUST FIRST BE PROVIDED TO THE EFFECT THAT SUCH TRANSFER IS EXEMPT FROM REGISTRATION UNDER THE U.S. SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS. DELIVERY OF THIS CERTIFICATE MAY NOT CONSTITUTE "GOOD DELIVERY" IN SETTLEMENT OF TRANSACTIONS ON STOCK EXCHANGES IN CANADA."

Any new Warrant Certificates issued prior to [●]³ shall bear those legends that may be required under applicable securities laws or under applicable policies of the TSXV (or such other stock exchange or quotation system on which the Common Shares are listed).

If the Warrants or Common Shares offered for sale by the Company are being sold in accordance with Rule 904 of Regulation S, the legend may be removed by providing to the transfer agent for the Company, (i) a declaration in the form attached as Schedule "B" hereof (or as the Company may prescribe from time to time) and (ii) if required by the transfer agent for the Company, an opinion of counsel, of recognized standing reasonably satisfactory to the Company, or other evidence reasonably satisfactory to the Company, that the proposed transfer may be effected without registration under the U.S. Securities Act.

Further, if the Warrants or Common Shares are being sold under Rule 144 under the U.S. Securities Act, the legend may be removed by delivering to the transfer agent for the Company, an opinion of counsel of recognized standing reasonably satisfactory to the Company, that the legend is no longer required under applicable requirements of the U.S. Securities Act or state securities laws.

³ Note: 4 months + 1 day from closing date.

THE FOLLOWING ARE THE TERMS AND CONDITIONS REFERRED TO IN THIS WARRANT CERTIFICATE:

1. The acquisition rights in effect at any date attaching to this Warrant Certificate shall be subject to adjustment from time to time as follows:

- (a) if and whenever at any time prior to the Expiry Date, the Company shall:
 - (i) subdivide, redivide or change its outstanding common shares into a greater number of shares; or
 - (ii) reduce, combine or consolidate its outstanding common shares into a smaller number of shares(any of such events being referred to herein as a “**Capital Reorganization**”)

the Exercise Price of each Common Share shall be adjusted immediately after the effective date of such Capital Reorganization, by multiplying the Exercise Price then in effect by a fraction of which the numerator shall be the total number of common shares outstanding immediately prior to such date and the denominator shall be the total number of common shares outstanding immediately after such date (including, in the case where securities are exchangeable for or convertible into Common Shares, and are distributed, and the number of Common Shares that would have been outstanding had all such securities been exchanged for or converted into Common Shares on such record date). Such adjustment shall be made successively whenever any event referred to in this subsection shall occur. If and whenever at any time after the date hereof prior to the Expiry Date any of the events set out above shall occur and the occurrence of such event results in an adjustment of the Exercise Price, then the number of Common Shares purchasable pursuant to this Warrant Certificate shall be adjusted contemporaneously with the adjustment of the Exercise Price by multiplying the number of Common Shares then otherwise purchasable on the exercise thereof by a fraction, the numerator of which shall be the Exercise Price in effect immediately prior to the adjustment and the denominator of which shall be the Exercise Price resulting from such adjustment;

- (b) if and whenever at any time prior to the Expiry Date, there is a reclassification of the common shares or a capital reorganization of the Company other than as described in subsection 1(a) or a consolidation, amalgamation or merger of the Company with or into any other body corporate, trust, partnership or other entity, the Holder of this Warrant Certificate if it has not exercised its right of acquisition, as at the effective date of such reclassification, capital reorganization, consolidation, amalgamation or merger, upon the exercise of such right thereafter, shall be entitled to receive and shall accept, in lieu of the number of Common Shares that the Holder of this Warrant Certificate would otherwise be entitled to acquire, the number of shares or other securities or property of the Company or of the body corporate, trust, partnership or other entity resulting from such merger, amalgamation or consolidation, that the Holder of this Warrant Certificate would have been entitled to receive on such reclassification, capital reorganization, consolidation, amalgamation or merger, if, on the record date or the effective date thereof, as the case may be, the Holder of this Warrant Certificate had been the registered holder of the number of Common Shares entitled to be acquired by it. If determined appropriate by the Holder of this Warrant Certificate to give effect to or to evidence the provisions of this subsection 1(b), the Company or its successor, shall, prior to or contemporaneously with any such reclassification, capital reorganization, consolidation, amalgamation or merger, issue new Warrants which shall provide, to the extent possible, for the application of the provisions set forth herein with respect to the rights and interests thereafter of the Holder of this Warrant Certificate to the end that the provisions set forth herein shall thereafter correspondingly be made applicable, as nearly as may reasonably be, with respect to any shares, other securities or property to which the Holder of this Warrant Certificate is entitled on the exercise of its acquisition rights thereafter. Any new Warrants issued by the Company or any successor to the Company shall provide for adjustments which shall be as nearly equivalent as may be practicable to the adjustments provided in this Section 1 and which shall apply to successive reclassification, reorganizations, amalgamations, consolidations or mergers; and

- (c) the adjustments provided for in this Section 1 in the number of Common Shares and classes of securities which are to be received on the exercise of the Warrants are cumulative. After any adjustment pursuant to this Section, the term “**Common Shares**” where used in this Warrant Certificate shall be interpreted to mean securities of any class or classes which, as a result of such adjustment and all prior adjustments pursuant to this Section, the Holder of this Warrant Certificate is entitled to receive upon the exercise of the Warrants, and the number of Common Shares indicated by any exercise made pursuant to a Warrant shall be interpreted to mean the number of Common Shares or other property or securities the Holder of this Warrant Certificate is entitled to receive, as a result of such adjustment and all prior adjustments pursuant to this Section, upon the full exercise of a Warrant.

2. All shares of any class or other securities which the Holder of this Warrant Certificate is at the time in question entitled to receive on the exercise of the Warrants, whether or not as a result of adjustments made pursuant to Section 1 shall, for the purposes of the interpretation hereof, be deemed to be shares which the Holder of this Warrant Certificate is entitled to acquire pursuant to such Warrant Certificate.
 3. Notwithstanding anything in Section 1, no adjustment shall be made in the acquisition rights attached to the Warrants if the issue of Common Shares is being made pursuant to this Warrant Certificate.
 4. As a condition precedent to the taking of any action which would require an adjustment in any of the acquisition rights pursuant to any of the Warrants, including the number of Common Shares which are to be received upon the exercise thereof, the Company shall take any corporate action which may, in the opinion of its counsel, be necessary or desirable in order that the Company or a successor company has unissued and reserved in its authorized capital and may validly and legally issue as fully paid and non-assessable all the shares and other securities which the holders of such Warrants are entitled to receive on the full exercise thereof in accordance with the provisions hereof.
 5. The Company shall from time to time immediately after the occurrence of any event which requires an adjustment or readjustment as provided in Section 1, deliver a certificate of the Company to the Holder of this Warrant Certificate specifying the nature of the event requiring the same and the amount of the adjustment necessitated thereby and setting forth in reasonable detail the method of calculation and the facts upon which such calculation is based.
 6. The Company shall not be required to deliver certificates for the Common Share while the share transfer books of the Company are properly closed prior to any meeting of shareholders, for the payment of dividends or for any other purpose and in the event of the surrender of any Warrant in accordance with the provisions hereof and the making of any subscription and payment for the Common Shares called for thereby during any such period, delivery of certificates for Common Shares may be postponed for not more than five business days after the date of the re-opening of said share transfer books. Any such postponement of delivery of certificates shall be without prejudice to the right of the Holder, if the Holder has surrendered the same and made payment during such period, to receive such certificates for the Common Shares called for after the share transfer books have been re-opened.
 7. So long as this Warrant Certificate shall be outstanding, if any capital reorganization of the Company, reclassification of the capital of the Company, consolidation or merger of the Company with or into another corporation, or voluntary or involuntary dissolution, liquidation or winding up of the Company shall be effected, then in any such case, the Company shall cause to be mailed by certified mail to the Holder, at least 15 days prior the date of such reclassification, reorganization, consolidation, merger, dissolution, liquidation or winding up is to take place, a notice containing a brief description of the proposed action and stating the date of such reclassification, reorganization, consolidation, merger, dissolution, liquidation or winding up is to take place and the date, if any is to be fixed, as of which the holders of common shares or other securities shall receive cash or other property deliverable upon such reclassification, reorganization, consolidation, merger, dissolution, liquidation or winding up.
 8. In accordance with the terms and conditions contained herein this Warrant Certificate, the Company will make adjustments as it considers necessary and equitable acting in good faith, subject to any approvals required by the TSXV. If at any time a dispute arises with respect to adjustments provide for herein, such dispute will be conclusively determined by the auditors of the Company or if they are unable or unwilling to act, by such other firm of independent chartered accountants as may be selected by the directors of the Company and any such determination, absent manifest error, will be binding upon the Company, the Holder and shareholders of the Company. The Company will provide such auditors or accountants with access to all necessary records of the Company and fees payable to such accountants or auditors will be paid by the Company.
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9. This Warrant Certificate will not entitle the Holder hereof to any rights as a shareholder of the Company, including without limitation, voting rights.

10. As provided in the Exercise Form, this Warrant Certificate may not be exercised in the United States or by or for the account or benefit of a U.S. Person ("U.S. Person" and "United States" having the meanings ascribed thereto under the United States *Securities Act of 1933*, as amended (the "1933 Act")) unless the underlying shares are registered under the 1933 Act and applicable securities laws or unless an exemption from such registration is available.

11. Any notice, direction or other instrument required or permitted to be given hereunder to the Company or the Holder must be in writing and may be given by sending the same by facsimile transmission or by e-mail (if an e-mail address has been provided by the recipient), or delivering the same to such party at the following address:

(a) If to the Company:

POET Technologies Inc.
120 Eglinton Avenue East, Suite 1107
Toronto, Ontario M4P 1E2

Attention: Kevin Barnes, Vice President, Finance & Administration & Corporate Controller
Email: kb@poet-technologies.com

(b) If to the Holder, to the name and address or e-mail address (if one has been supplied by the recipient) appearing on the front page of this Warrant Certificate.

Any notice, direction or instrument aforesaid shall:

(c) if by facsimile transmission, be deemed to have been given or made upon the completion of the facsimile transmission; or

(d) if delivered by mail or by hand, be deemed to have been given or made at the time of delivery.

Any party may give written notice of change of address in the same manner, in which event such notice will thereafter be given to it as above provided at such changed address.

12. This Warrant Certificate is exchangeable, upon the surrender hereof by the Holder at the office of the Company, for a new Warrant Certificate of like tenor representing in the aggregate the right to subscribe for and purchase the number of Common Shares which may be subscribed for and purchased hereunder, each such new Warrants to represent the right to subscribe for and purchase such number of Common Shares as shall be designated by such Holder hereof at the time of such surrender.

13. As used herein, the term "Common Shares" shall mean and include the Company's presently authorized common shares without par value and shall also include any other authorized classes of voting shares in the capital of the Company which do not have special rights and restrictions attaching fixed dividends thereto or limiting the participation of holders of such shares of such classes in the distribution of assets upon the voluntary or involuntary liquidation, dissolution or winding up of the Company.

14. The securities which will be issued upon the exercise of the rights represented by this Warrant Certificate have not been and will not be registered under the United States federal or state securities laws and may not be offered for sale, sold or otherwise transferred, on the books of the Company, without registration of such securities under all applicable United States federal and state securities laws or compliance with an applicable exemption therefrom, such compliance, at the option of the Company, to be evidenced by an opinion of the Holder's counsel, in the form acceptable to the Company, that no violation of such registration provisions would result from any proposed transfer or assignment and the holder acknowledges that a legend to that effect will be placed upon all certificates representing any securities issued to any U.S. Person or Persons within the U.S. upon the exercise of the rights represented by this Warrant Certificate.

15. This Warrant Certificate may only be amended by a written instrument signed by both the Holder and the Company.

16. This Warrant Certificate may be signed digitally or by other electronic means, which shall be deemed to be an original and shall be deemed to have the same legal effect and validity as a certificate bearing an original signature. A signed copy of this Warrant Certificate transmitted by facsimile, email or other electronic transmission shall be deemed to have the same legal effect and validity as delivery of an originally executed copy of this Warrant Certificate, provided that if this Warrant Certificate bears a digital or electronic signature as contemplated above and the Company is delivering this Warrant Certificate by electronic transmission pursuant to this Section 16, then the Company represents to the Holder that the electronically transmitted Warrant Certificate is the only executed copy to be issued to the Holder by the Company.

[Remainder of page intentionally left blank. Signature page follows.]

This Warrant Certificate may be exercised only at the offices of POET Technologies Inc., 120 Eglinton Avenue East, Suite 1107, Toronto, Ontario M4P 1E2.

IN WITNESS WHEREOF the Company has caused this Warrant Certificate to be signed by its duly authorized officer as of this _____ day of _____, 2022.

POET TECHNOLOGIES INC.

Per: _____

Authorized Signing Officer

[Signature Page]

SCHEDULE "A"
EXERCISE FORM

TO: POET TECHNOLOGIES INC.
120 EGLINTON AVENUE EAST, SUITE 1107
TORONTO, ONTARIO M4P 1E2

The undersigned hereby exercised the right to purchase and hereby subscribes for _____ Common Shares of POET Technologies Inc. (the "**Company**") according to the terms and conditions referenced in the attached Warrant Certificate, and herewith makes payment by wire transfer, certified cheque, bank draft or money order of the purchase price in full for the said shares. Undefined capitalized terms used herein shall have that meaning ascribed to them in the Warrant Certificate.

(Please check the ONE box applicable):

- A. The undersigned holder (i) at the time of exercise of the Warrants and execution and delivery of this exercise form is not in the United States; (ii) is not a U.S. person; (iii) is not exercising the Warrants for the account or benefit of a U.S. person or person in the United States; and (iv) the delivery of the underlying Common Shares will not be to an address in the United States.
- B. The undersigned holder (a) is the original U.S. purchaser who purchased the Warrants pursuant to the Company's private placement unit offering who delivered the U.S. Accredited Investor Certificate attached as Schedule C to the subscription agreement in connection with its purchase of units (the "**Units**") (b) is exercising the Warrants for its own account or for the account of a disclosed principal that was named in the subscription agreement pursuant to which it purchased the Units, and (c) is, and such disclosed principal, if any, is an "accredited investor" as defined in Rule 501(a) of Regulation D under the United States Securities Act of 1933, as amended (the "**1933 Act**") at the time of exercise of these Warrants and the representations and warranties of the holder made in the original subscription agreement remain true and correct as of the date of exercise of these Warrants in respect to the exercise of the Warrants.
- C. The undersigned holder has delivered to the Company an opinion of counsel of recognized standing in form and substance reasonably satisfactory to the Company to the effect that an exemption is available from the registration requirements of the 1933 Act and applicable securities laws of any state of the United States or other evidence satisfactory to the Company that an exemption is available from the registration requirements of the 1933 Act and applicable securities laws of any state of the United States.
- D. The undersigned holder: (i) is not (and is not exercising the Warrants for the account or benefit of) a U.S. person, as defined in Regulation S of the 1933 Act; (ii) did not execute or deliver this exercise form while within any state, territory or possession of the United States; and (iii) has in all other respects complied with the terms of Regulation S of the 1933 Act, or any successor rule or regulation of the United States Securities and Exchange Commission as presently in effect.

The undersigned hereby further acknowledges and agrees that all share certificates representing the Common Shares, if issued prior to [●], shall bear those legends that may be required under applicable securities laws or under applicable polices of the TSX Venture Exchange (or such other stock exchange or quotation system on which the Common Shares are listed), including the following legends:

"UNLESS PERMITTED UNDER SECURITIES LEGISLATION, THE HOLDER OF THIS SECURITY MUST NOT TRADE THE SECURITY BEFORE [INSERT THE DATE THAT IS 4 MONTHS AND 1 DAY FROM DATE OF CLOSING]"

and, if required by the policies of the TSX Venture Exchange, the following legend:

"WITHOUT THE PRIOR WRITTEN APPROVAL OF TSX VENTURE EXCHANGE AND COMPLIANCE WITH ALL APPLICABLE SECURITIES LEGISLATION, THE SECURITIES REPRESENTED BY THIS CERTIFICATE MAY NOT BE SOLD, TRANSFERRED, HYPOTHECATED OR OTHERWISE TRADED ON OR THROUGH THE FACILITIES OF TSX VENTURE EXCHANGE OR OTHERWISE IN CANADA OR TO OR FOR THE BENEFIT OF A CANADIAN RESIDENT UNTIL [INSERT THE DATE THAT IS 4 MONTHS AND 1 DAY FROM CLOSING]."

If the Common Shares are issued for the account or benefit of a U.S. Person, such certificates shall bear the following legends in addition to those above:

"THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "U.S. SECURITIES ACT") OR UNDER ANY STATE SECURITIES LAWS, AND THE SECURITIES REPRESENTED HEREBY MAY BE OFFERED, SOLD OR OTHERWISE TRANSFERRED ONLY (A) TO POET TECHNOLOGIES INC. (THE "COMPANY"), (B) OUTSIDE THE UNITED STATES IN ACCORDANCE WITH RULE 904 OF REGULATIONS UNDER THE U.S. SECURITIES ACT AND IN COMPLIANCE WITH APPLICABLE LOCAL LAWS AND REGULATIONS, (C) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE U.S. SECURITIES ACT PROVIDED BY (i) RULE 144 OR (ii) 144A UNDER THE U.S. SECURITIES ACT, IF AVAILABLE, AND IN COMPLIANCE WITH APPLICABLE U.S. STATE SECURITIES LAWS, (D) IN COMPLIANCE WITH ANOTHER EXEMPTION FROM REGISTRATION UNDER THE U.S. SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS, OR (E) UNDER AN EFFECTIVE REGISTRATION STATEMENT UNDER THE U.S. SECURITIES ACT PROVIDED THAT IN THE CASE OF TRANSFERS PURSUANT TO (C)(i) OR (D) ABOVE, A LEGAL OPINION REASONABLY SATISFACTORY TO THE COMPANY MUST FIRST BE PROVIDED TO THE EFFECT THAT SUCH TRANSFER IS EXEMPT FROM REGISTRATION UNDER THE U.S. SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS. DELIVERY OF THIS CERTIFICATE MAY NOT CONSTITUTE "GOOD DELIVERY" IN SETTLEMENT OF TRANSACTIONS ON STOCK EXCHANGES IN CANADA."

"U.S. person" and "United States" are used as defined in Regulation S under the 1933 Act.

DATED at _____, _____, this _____ day of _____, 20_____.

Name of Warrant Holder

Authorized Signatory

Address of Warrant Holder

Registration Instructions

Name:

Account Reference, if applicable:

Address:

Delivery Instructions:

Account Reference, if applicable:

Contact Name:

Address:

Telephone Number: ()

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SCHEDULE "B"
FORM OF DECLARATION FOR REMOVAL OF LEGEND

TO: Computershare Trust Company of Canada, as registrar and transfer agent

AND TO: POET Technologies Inc. (the "**Company**")

The undersigned (A) acknowledges that the sale of of the Company represented by certificate number to which this declaration relates is being made in reliance on Rule 904 of Regulation S under the *United States Securities Act of 1933*, as amended (the "**U.S. Securities Act**"), and (B) certifies that (1) the undersigned is not (a) an "affiliate" of the Company (as that term is defined in Rule 405 under the U.S. Securities Act), (b) a "distributor" as defined in Regulation S or (c) an affiliate of a distributor; (2) the offer of such securities was not made to a person in the United States and either (a) at the time the buy order was originated, the buyer was outside the United States, or the seller and any person acting on its behalf reasonably believed that the buyer was outside the United States, or (b) the transaction was executed on or through the facilities of a designated offshore securities market (such as the TSX Venture Exchange, the Toronto Stock Exchange) and neither the seller nor any person acting on its behalf knows that the transaction has been prearranged with a buyer in the United States or a U.S. person; (3) neither the seller nor any affiliate of the seller nor any person acting on their behalf has engaged or will engage in any directed selling efforts in the United States in connection with the offer and sale of such securities; (4) the sale is bona fide and not for the purpose of "washing off" the resale restrictions imposed because the securities are "restricted securities" (as that term is defined in Rule 144(a)(3) under the U.S. Securities Act); (5) the seller does not intend to replace securities sold in reliance on Rule 904 of Regulation S with fungible unrestricted securities; and (6) the sale is not a transaction, or part of a series of transactions, which, although in technical compliance with Regulation S, is part of a plan or scheme to evade the registration provisions of the U.S. Securities Act. Terms used herein have the meanings given to them by Regulation S under the U.S. Securities Act.

Dated: _____ X _____
Authorized Signatory

Name of Seller (please print)

Name of Authorized Signatory (please print)

Title of Authorized Signatory (please print)

Affirmation By Seller's Broker-Dealer (required for sales in accordance with Section (B)(2)(b) above)

We have read the foregoing representations of our customer, _____ (the "Seller") dated _____, with regard to our sale, for such Seller's account, of the securities of the Company described therein, and on behalf of ourselves we certify and affirm that (A) we have no knowledge that the transaction had been prearranged with a buyer in the United States, (B) the transaction was executed on or through the facilities of designated offshore securities market, (C) neither we, nor any person acting on our behalf, engaged in any directed selling efforts in connection with the offer and sale of such securities, and (D) no selling concession, fee or other remuneration is being paid to us in connection with this offer and sale other than the usual and customary broker's commission that would be received by a person executing such transaction as agent. Terms used herein have the meanings given to them by Regulation S under the U.S. Securities Act.

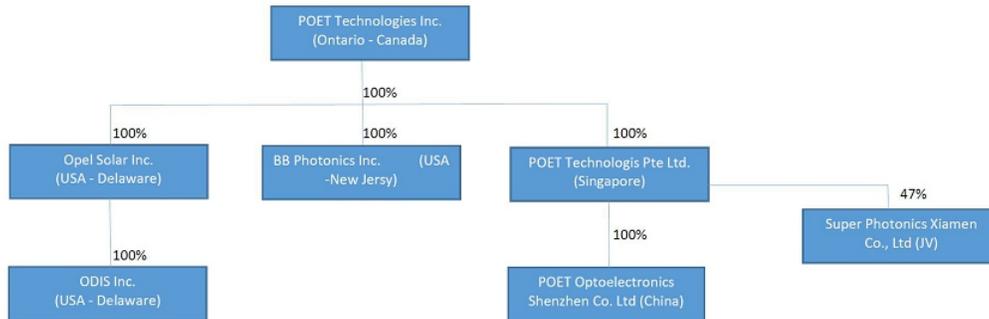
Name of Firm

By: _____
Authorized Officer

Dated: _____

POET Technologies
List of Associated Companies
 2021

All Companies 100% owned except for JV



- POET Technologies Head office, administrative functions, entity to raise capital. 2% of R&D performed out of POET
 - Opel Solar Owns some historic patents that are not involved in the current tech. Was the operating sub in the US when the company had a solar business
 - ODIS Inc Operating sub doing R&D in the US. 30% of R&D is from the US.
 - POET Singapore Singapore sub currently doing bearing lion share of tech development. Currently stands at 68%
 - POET SZ Operating sub in China
 - BB Photonics Dormant entity
 - Super Photonics JV established in March 2021
-

**CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Suresh Venkatesan, certify that:

1. I have reviewed this annual report on Form 20-F of POET Technologies Inc.;
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 report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer 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 company 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 company, 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 company'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 company'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 company's internal control over financial reporting; and
5. The company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company'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 company's internal control over financial reporting.

Date: March 31, 2023

By: /s/ Suresh Venkatesan
Suresh Venkatesan
Chief Executive Officer

**CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Thomas Mika, certify that:

1. I have reviewed this annual report on Form 20-F of POET Technologies Inc.;
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 report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer 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 company 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 company, 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 company'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 company'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 company's internal control over financial reporting; and
5. The company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company'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 company's internal control over financial reporting.

Date: March 31, 2023

By: /s/ Thomas Mika
Thomas Mika
Chief Financial Officer

Certification of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, I, Suresh Venkatesan, the Chief Executive Officer of POET Technologies Inc. (the "Company"), hereby certify, that, to my knowledge:

1. The Annual Report on Form 20-F for the year ended December 31, 2022 (the "Report") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

The foregoing certification is provided solely for purposes of complying with the provisions of Section 906 of the Sarbanes-Oxley Act of 2002 and is not intended to be used or relied upon for any other purpose.

Date: March 31, 2023

/s/ Suresh Venkatesan

Name: Suresh Venkatesan
Title: Chief Executive Officer

Certification of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, I, Thomas Mika, the Chief Financial Officer of POET Technologies Inc. (the "Company"), hereby certify, that, to my knowledge:

1. The Annual Report on Form 20-F for the year ended December 31, 2022 (the "Report") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

The foregoing certification is provided solely for purposes of complying with the provisions of Section 906 of the Sarbanes- Oxley Act of 2002 and is not intended to be used or relied upon for any other purpose.

Date: March 31, 2023

/s/ Thomas Mika

Name: Thomas Mika
Title: Chief Financial Officer
