Consolidated Financial Statements of

# SPECTRA7 MICROSYSTEMS INC.

Years Ended December 31, 2022 and 2021

(Expressed in United States Dollars)

## SPECTRA7 MICROSYSTEMS INC.

Years Ended December 31, 2022 and 2021

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# Independent Auditor's Report

To the Shareholders of Spectra7 Microsystems Inc.:

## Opinion

We have audited the consolidated financial statements of Spectra7 Microsystems Inc. (the "Company"), which comprise the consolidated statements of financial position as at December 31, 2022 and December 31, 2021, and the consolidated statements of loss and comprehensive loss, changes in shareholders' equity (deficiency) and cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the financial position of the Company as at December 31, 2022 and December 31, 2021, and its financial performance and its cash flows for the years then ended in accordance with International Financial Reporting Standards.

## Basis for Opinion

We conducted our audits in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audits of the consolidated financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## Material Uncertainty Related to Going Concern

We draw attention to Note 1 in the consolidated financial statements, which indicates that the Company incurred a net loss and negative cash flows from operating activities during the year ended December 31, 2022 and, as of that date, had an accumulated deficit. As stated in Note 1, these events or conditions, along with other matters as set forth in Note 1, indicate that a material uncertainty exists that may cast significant doubt on the Company's ability to continue as a going concern. Our opinion is not modified in respect of this matter.

## Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

In addition to the matter described in the Material Uncertainty Related to Going Concern section, we have determined the matter described below to be the key audit matters to be communicated in our report.

*Valuation of convertible debentures*

We draw attention to Notes 3 and 10 to the consolidated financial statements.

In the current year, the Company issued new convertible debentures and repaid the existing convertible debentures which matured during the year. The accounting for convertible debt on initial recognition is complex and requires judgment and estimation.

Audit procedures performed to evaluate the reasonableness of the estimates and assumptions used required a high degree of auditor judgment and an increased extent of audit effort, including the involvement of valuations specialists.

We responded to this matter by performing procedures in relation to assessing the accounting for the convertible debentures issued during the year. Our audit work in relation to this included, but was not restricted to, the following:

- Obtained and reviewed convertible debt agreements entered into by the Company.
- Obtained management's assessment of accounting for convertible debenture and assessed for reasonability against our own independent assessment performed, particularly relating to the classification of the convertible feature and the market rate of interest used to discount the debt portion.
- Obtained management's working paper for convertible debt, agree details to the agreement and performed recalculations.
- Engaged internal valuations specialists to assess the discount rate used for the determination of the liability value on initial recognition.

### Other Information

Management is responsible for the other information. The other information comprises Management's Discussion and Analysis.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audits of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audits or otherwise appears to be materially misstated. We obtained Management's Discussion and Analysis prior to the date of this auditor's report. If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

### Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

### Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audits and significant audit findings, including any significant deficiencies in internal control that we identify during our audits.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Brent Wolfe.

Vancouver, British Columbia

MNP LLP

April 25, 2023

Chartered Professional Accountants

## SPECTRA7 MICROSYSTEMS INC.
Consolidated Statements of Loss and Comprehensive Loss
Years Ended December 31, 2022 and 2021
(Expressed in United States Dollars)

| | **2022** | 2021 |
|---|---|---|
| | **$** | $ |
| Revenue | **11,294,239** | 5,460,827 |
| Cost of sales | **5,635,960** | 2,299,773 |
| Gross margin | **5,658,279** | 3,161,054 |
| Expenses (Income): | | |
| Research and development, net of investment tax credits and including amortization of licenses | **4,184,724** | 3,568,093 |
| Sales and marketing | **926,899** | 447,487 |
| General and administrative | **3,317,992** | 2,298,946 |
| Depreciation of right-of-use assets *(Note 4)* | **293,539** | 259,261 |
| Depreciation of property and equipment *(Note 7)* | **46,455** | 152,984 |
| Share-based compensation *(Note 11(b))* | **2,535,479** | 1,864,881 |
| Gain on modification of convertible debt *(Note 10)* | **-** | (379,140) |
| Interest on lease obligation of right-of-use asset *(Note 5)* | **19,446** | 26,290 |
| Accretion and interest expense *(Note 10)* | **1,474,501** | 1,528,830 |
| Foreign exchange (gain) loss | **333,847** | (75,154) |
| Gain on disposal of property and equipment (*Note 7)* | **-** | (6,500) |
| Total Expenses | **13,132,882** | 9,685,978 |
| Grant income *(Note 14)* | **(217,105)** | (739,470) |
| Income tax recovery *(Note 15)* | **(216,056)** | - |
| Net Loss | **(7,041,442)** | (5,785,454) |
| Other comprehensive loss: | | |
| Unrealized foreign currency translation | **686,859** | (397,293) |
| **Total comprehensive loss** | **(6,354,583)** | (6,182,747) |
| **Loss per share** | | |
| Basic and diluted | **(0.21)** | (0.29) |
| **Weighted average number of common shares outstanding** | | |
| Basic and diluted | **33,463,639** | 21,248,369 |

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

# SPECTRA7 MICROSYSTEMS INC.

Consolidated Statements of Changes in Shareholders' Equity (Deficiency)
Years Ended December 31, 2022 and 2021
(Expressed in United States Dollars)

| | Common shares | Share-based payment reserve | Convertible debentures - share conversion option | Warrants | Subscription received for shares not issued | Deficit | Accumulated other comprehensive loss | Total Shareholders' Deficiency |
|---|---|---|---|---|---|---|---|---|
| | $ | $ | $ | $ | $ | $ | $ | $ |
| **Balance, December 31, 2020** | **145,179,094** | **3,868,338** | **1,561,032** | **1,384,160** | **740,161** | **(166,988,726)** | **(20,681)** | **(14,276,622)** |
| Shares issued under Restricted Share Unit plan *(Note 11)* | 1,203,675 | (1,203,675) | - | - | - | - | - | - |
| Subscription received for common shares | | | - | - | (740,161) | - | - | (740,161) |
| Units issued on January 2021 Private Placement *(Note 11(a)(i))* | 2,780,254 | - | - | 776,888 | - | - | - | 3,557,142 |
| Units issued on Spring 2021 Private Placement *(Note 11(a)(ii))* | 3,230,360 | - | - | 1,506,893 | - | - | - | 4,737,253 |
| Units issued on October 2021 Private Placement (Note 11(a)(iii)) | 11,383,731 | - | - | - | - | - | - | 11,383,731 |
| Conversions of convertible debt to shares *(Note 10)* | 3,821,820 | - | (649,758) | - | - | - | - | 3,172,062 |
| Share-based compensation expense *(Note 11(b)(iii))* | - | 1,864,881 | - | - | - | - | - | 1,864,881 |
| Shares issued upon exercise of stock options | 75,337 | (36,038) | - | - | - | - | - | 39,299 |
| Total comprehensive loss | - | - | - | - | - | (5,785,454) | (397,293) | (6,182,747) |
| **Balance, December 31, 2021** | **167,674,271** | **4,493,506** | **911,274** | **3,667,941** | **-** | **(172,774,180)** | **(417,974)** | **3,554,838** |

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

## SPECTRA7 MICROSYSTEMS INC.

Consolidated Statements of Changes in Shareholders' Equity (Deficiency)
Years Ended December 31, 2022 and 2021
(Expressed in United States Dollars)

| | Common shares | Share-based payment reserve | Convertible debentures share conversion option | Warrants | Deficit | Accumulated Other comprehensive gain | Total Shareholders' Equity |
|---|---|---|---|---|---|---|---|
| | $ | $ | $ | $ | $ | $ | $ |
| **Balance, December 31, 2021** | **167,674,271** | **4,493,506** | **911,274** | **3,667,941** | **(172,774,180)** | **(417,974)** | **3,554,838** |
| Shares issued under Restricted Share Unit plan *(Note 11)* | 1,310,859 | (1,310,859) | - | - | - | - | - |
| Equity component of convertible debentures *(Note 10)* | - | - | 602,868 | 234,366 | - | - | 837,234 |
| Repayment of interests on convertible debt in shares *(Note 11)* | 3,975 | - | - | - | - | - | 3,975 |
| Share-based compensation expense *(Note 11(b)(iii))* | - | 2,535,479 | - | - | - | - | 2,535,479 |
| Shares issued upon exercise of stock options | 1,965 | - | - | - | - | - | 1,965 |
| Total comprehensive loss | - | - | - | - | (7,041,442) | 686,859 | (6,354,583) |
| **Balance, December 31, 2022** | **168,991,070** | **5,718,126** | **1,514,142** | **3,902,307** | **(179,815,622)** | **268,885** | **578,908** |

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

## SPECTRA7 MICROSYSTEMS INC.

Consolidated Statements of Financial Position
December 31, 2022 and December 31, 2021
(Expressed in United States Dollars)

| | **December 31, 2022** | December 31, 2021 |
|---|---|---|
| | **$** | $ |
| **Assets** | | |
| Current assets: | | |
| Cash | **772,255** | 5,944,155 |
| Trade and other receivables | **2,526,848** | 2,673,175 |
| Investment tax credits | **5,562** | 7,878 |
| Inventories *(Note 6)* | **3,523,719** | 885,158 |
| Prepaid expenses and other assets | **920,026** | 1,446,716 |
| | **7,748,410** | 10,957,082 |
| Non-current investment tax credits | **7,983** | 3,231 |
| Property and equipment *(Note 7)* | **400,796** | 343,786 |
| Right-of-use assets *(Note 4)* | **80,048** | 320,194 |
| Intangible assets *(Note 8)* | **69,897** | 597,067 |
| | **8,307,134** | 12,221,360 |
| **Liabilities** | | |
| Current liabilities: | | |
| Trade and other payables*(Note 9)* | **1,932,000** | 2,387,457 |
| Deferred revenue | **68,750** | - |
| Convertible debentures *(Note 10)* | **-** | 5,947,307 |
| Lease obligation on right-of-use assets *(Note 5)* | **87,204** | 244,553 |
| | **2,087,954** | 8,579,317 |
| Non-current convertible debentures *(Note 10)* | **5,640,272** | - |
| Non-current lease obligation on right-of-use assets *(Note 5)* | **-** | 87,205 |
| | **7,728,226** | 8,666,522 |
| **Shareholders' Equity** | | |
| Common shares *(Note 11(a))* | **168,991,070** | 167,674,271 |
| Share-based payment reserve | **5,718,126** | 4,493,506 |
| Convertible debentures - share conversion option *(Note 10)* | **1,514,142** | 911,274 |
| Warrants *(Note 11(c))* | **3,902,307** | 3,667,941 |
| Deficit | **(179,815,622)** | (172,774,180) |
| Accumulated other comprehensive income(loss) | **268,885** | (417,974) |
| | **578,908** | 3,554,838 |
| | **8,307,134** | 12,221,360 |

Nature of operations, going concern and continuation of the business *(Note 1)*

Subsequent events *(Note 20)*

Signed on behalf of the Board:

*"Ron Pasek"*
*Director*

*"Raouf Halim"*
*Director*

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

## SPECTRA7 MICROSYSTEMS INC.
Consolidated Statements of Cash Flows
Years Ended December 31, 2022 and 2021
(Expressed in United States Dollars)

| | Year Ended December 31, | |
|---|---|---|
| | **2022** | 2021 |
| | $ | $ |
| **Operating activities:** | | |
| Net Loss | **(7,041,442)** | (5,785,454) |
| Items not involving cash: | | |
| Amortization of licenses *(Note 8)* | **498,824** | 305,643 |
| Depreciation of property and equipment *(Note 7)* | **138,660** | 196,260 |
| Depreciation of right-of-use assets *(Note 4)* | **293,539** | 259,261 |
| Share-based compensation *(Note 11)* | **2,535,479** | 1,864,881 |
| Gain on extinguishment/modification of convertible debt *(Note 10)* | **-** | (379,140) |
| Accretion and interest expense *(Note 10)* | **1,474,501** | 1,528,830 |
| Recognition of government grant *(Note 14)* | **(217,105)** | (739,470) |
| Gain on disposal of property and equipment | **-** | (6,500) |
| | **(2,317,544)** | (2,755,689) |
| Net change in non-cash working capital items | | |
| Trade and other receivables | **146,327** | (2,583,951) |
| Investment tax credits | **(2,436)** | 810 |
| Inventories | **(2,638,561)** | (749,177) |
| Prepaid expenses and other assets | **526,690** | (1,137,154) |
| Trade and other payables | **(508,851)** | (3,281,673) |
| Deferred revenue | **68,750** | (69,183) |
| | **(4,725,625)** | (10,576,017) |
| Grant funds received *(Note 14)* | **217,105** | 739,470 |
| Interest paid *(Note 10)* | **(438,290)** | (493,706) |
| | **(4,946,810)** | (10,330,253) |
| **Financing activities:** | | |
| Proceeds from convertible debt, net of issuance costs | **6,342,810** | - |
| Repayment of convertible debt | **(6,346,555)** | - |
| Proceeds from exercise of stock options (Note 11) | **1,965** | 39,299 |
| Repayment of lease obligation on right-of-use assets *(Note 5)* | **(244,554)** | (259,066) |
| Proceeds from the issuance of shares, net of issuance costs *(Note 7)* | **-** | 17,560,430 |
| | **(246,334)** | 17,340,663 |
| **Investing activities:** | | |
| Acquisition of property and equipment *(Note 7)* | **(195,670)** | (271,735) |
| Proceeds from disposal of property and equipment | **-** | 6,500 |
| Acquisition of licenses *(Note 8)* | **28,346** | (452,710) |
| | **(167,324)** | (717,945) |
| Effect of foreign exchange rate changes on cash | **188,568** | (383,563) |
| (Decrease)/Increase in cash | **(5,171,900)** | 5,908,902 |
| Cash, beginning of year | **5,944,155** | 35,253 |
| Cash, end of year | **772,255** | 5,944,155 |

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

## 1. Nature of operations, going concern and continuation of the business

Spectra7 Microsystems Inc. (the "Company" or "Spectra7"), is a publicly traded company listed on the TSX Venture Exchange (the "TSXV"). The Company delivers high performance analog semiconductors at unmatched bandwidth, speed and resolution to enable disruptive industrial design for leading electronics manufacturers in data centers, Virtual Reality ("VR"), Augmented Reality ("AR") and other connectivity markets.

The Company is domiciled in Canada and its registered office is located at 181 Bay Street, Suite 1800, Toronto, Canada M5J 2T9.

The Company's consolidated financial statements have been prepared on a going concern basis. The going concern basis of presentation assumes that the Company will continue its operations for the foreseeable future and be able to realize the carrying value of its assets and discharge its liabilities in the normal course of operations. The Company incurred a comprehensive loss of $6,354,583 for the year ended December 31, 2022 (December 31, 2021 - $6,182,747) and has an accumulated deficit of $179,815,622 (December 31, 2021 - $172,774,180). To date, the Company has funded operations through debt financings and through private and public equity offerings. These factors represent material uncertainties that may cast significant doubt upon the Company's ability to continue as a going concern. The Company's ability to continue as a going concern is dependent upon its ability to obtain additional financing and/or achieve profitable operations in the future. The consolidated financial statements do not reflect adjustments that would be necessary if the going concern assumption were not appropriate.

On August 13, 2021, the Company completed a consolidation of its common shares on the basis of 50 existing common shares for one new common share (the "Consolidation"). Accordingly, the common share, per common share and basic and diluted earnings per common share are adjusted retrospectively to all periods presented.

The COVID-19 pandemic has negatively impacted the Company and its impact on the data center programs is uncertain. While demand for the Company's new data center products remains strong, Spectra7 continues to experience significant customer disruptions, logistics and supply chain challenges caused by the associated shutdowns due to COVID-19 that are expected to continue to impact overall revenues in the near term. The Company continues to pursue the best available paths to manage operational risk and preserve capital during this time.

## 2. Basis of presentation

a) Statement of compliance

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

The consolidated financial statements were approved for issuance by the Board of Directors on April 25, 2023.

b) Basis of measurement

The consolidated financial statements have been prepared on the historical cost basis except for certain financial instruments measured at fair value through profit or loss. Historical cost is generally based on the fair value of the consideration given in exchange for assets.

These consolidated financial statements are presented in United States dollars. The Company's functional currency is Canadian dollars.

c) Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and its wholly owned subsidiaries and their corresponding functional currencies:

Spectra7 Microsystems Corp., a company incorporated under the laws of Ontario (USD);
Spectra7 Microsystems Ltd., a company incorporated under the laws of Delaware (USD);
Spectra7 Microsystems (Ireland) Limited, a company incorporated under the laws of Ireland (USD); and
Si Bai Ke Te (Dongguan) Electronics Trading Co. Ltd., a China wholly foreign owned enterprise (CNY) .

All intercompany balances and transactions are eliminated in full on consolidation.

d) New Accounting Policies and Accounting Standards

(i) New Accounting Policies and Accounting Standards

The Company adopted the following amendments to accounting standards as at January 1, 2022:

<u>IAS 1: Presentation of Financial Statements</u>

In January 2020, the IASB issued amendments to IAS 1, Presentation of Financial Statements ("IAS 1") to clarify the requirements for classifying liabilities as current or non-current. The amendments are effective for annual periods beginning on or after January 1, 2022.

<u>IFRS 3: Reference to the Conceptual Framework</u>

In May 2020, the IASB issued Amendments to IFRS 3 Business Combinations. The amendments are intended to replace a reference to the Framework for the Preparation and Presentation of Financial Statements, issued in 1989, with a reference to the Conceptual Framework for Financial Reporting issued in March 2018 without significantly changing its requirements. The IASB also added an exception to the recognition principle of IFRS 3 to avoid the issue of potential 'day 2' gains or losses arising for liabilities and contingent liabilities that would be within the scope of IAS 37 or IFRIC 21 Levies, if incurred separately. At the same time, the IASB decided to clarify existing guidance in IFRS 3 for contingent assets that would not be affected by replacing the reference to the Framework for the Preparation and Presentation of Financial Statements. The amendments are effective for annual reporting periods beginning on or after January 1, 2022 and apply prospectively.

<u>IAS 16: Property, Plant and Equipment: Proceeds before Intended Use</u>

In May 2020, the IASB issued Property, Plant and Equipment - Proceeds before Intended Use, which prohibits entities deducting from the cost of an item of property, plant and equipment, any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Instead, an entity recognizes the proceeds from selling such items, and the costs of producing those items, in profit or loss. The amendment is effective for annual reporting periods beginning on or after January 1, 2022 and must be applied retrospectively to items of property, plant and equipment made available for use on or after the beginning of the earliest period presented when the entity first applies the amendment.

The amendments did not have a material impact on the Company.

The following are future accounting standards issued as at January 1, 2022, but not yet effective:

<u>IAS 1: Presentation of Financial Statements</u>

*Disclosure of Accounting Policies* - The IASB issued amendments to IAS 1, Presentation of Financial Statements ("IAS 1") to require entities to disclose material accounting policies, instead of significant accounting policies. The amendments clarify, among other things, that accounting policy information may be material because of its nature, even if the related amounts are immaterial. The effective date is for annual periods beginning on or after January 1, 2023.

*Non-current Liabilities with Covenants* - The IASB issued amendments to IAS 1, Presentation of Financial Statements ("IAS 1") regarding liabilities with a right to defer settlement that is subject to future covenants to clarify that only covenants with which an entity must comply on or before the reporting date will affect a liability's classification as current or non-current. Additional disclosures are required for non-current liabilities arising from loan arrangements that are subject to covenants to be complied with within twelve months after the reporting period. The effective date is for annual periods beginning on or after January 1, 2024, with earlier application permitted.

<u>IAS 12: Deferred Tax Related to Assets and Liabilities Arising from a Single Transaction</u>

The IASB issued amendments to IAS 12, Deferred Tax Related to Assets and Liabilities Arising from a Single Transaction ("IAS 12") to require companies to recognize deferred tax on transactions that, on initial recognition give rise to equal amounts of taxable and deductible temporary differences. The effective date is for annual periods beginning on or after January 1, 2023.

IAS 8: Changes in Accounting Estimates

The IASB issued amendments to IAS 8 - Changes in Accounting Estimates ("IAS 8") where the definition of a change in accounting estimates is replaced with a definition of accounting estimates. Under the new definition, accounting estimates are "monetary amounts in financial statements that are subject to measurement uncertainty". The Board clarified that a change in accounting estimate that results from new information or new developments is not the correction of an error. In addition, the effects of a change in an input or a measurement technique used to develop an accounting estimate are changes in accounting estimates if they do not result from the correction of prior period errors. A change in an accounting estimate may affect only the current period's profit or loss, or the profit or loss of both the current period and future periods. The effect of the change relating to the current period is recognized as income or expense in the current period. The effect, if any, on future periods is recognized as income or expense in those future periods. The effective date is for annual periods beginning on or after January 1, 2023.

IFRS 16: Lease Liability in a Sale and Leaseback

The IFRS issued amendments to IFRS 16 - Lease Liability in a Sale and Leaseback ("IFRS 16") to require, in a sale and leaseback transaction, the seller-lessee to measure the lease liability without recognizing any gain or loss that relates to the right of use it retains. The effective date is for annual periods beginning on or after January 1, 2024, with earlier application permitted.

The amendments are not expected to have a material impact on the Company.

## 3. Summary of significant accounting policies

The accounting policies set out below have been applied consistently to all periods presented in these consolidated financial statements and have been applied consistently throughout the Company.

*Inventories*

Inventories consist of microchip component parts. Raw material inventories, work in process and finished goods are recorded at the lower of cost and net realizable value. Cost is determined on a weighted average basis and includes all costs of purchase, costs of conversion and other costs incurred in bringing the inventory to its present location and condition.

An assessment is made of the net realizable value of inventory at each reporting period. Net realizable value is the estimated selling price less the estimated cost of completion and the estimated costs necessary to make the sale. When circumstances that previously caused inventories to be written down no longer exist or when there is clear evidence of an increase in net realizable value because of changed economic circumstances, the amount of any write down previously recorded is reversed so that the new carrying amount is the lower of the cost and the revised net realizable value. Raw materials are not written down unless the goods in which they are incorporated are expected to be sold for less than cost, in which case, they are written down by reference to replacement cost of the raw materials, as this is the best indicator of net realizable value.

*Financial instruments*

The Company adopted and implemented the following accounting policy on financial instruments:

*Classification*

The Company classifies its financial instruments in the following categories: at fair value through profit or loss ("FVTPL"), at fair value through other comprehensive income ("FVTOCI") or at amortized cost. The Company determines the classification of financial assets at initial recognition. Equity instruments that are held for trading including all equity derivative instruments are classified as FVTPL. For other equity instruments, on the day of acquisition the Company can make an irrevocable election on an instrument-by-instrument basis to designate them as at FVTOCI. Financial liabilities are measured at amortized cost, unless they are required to be measured at FVTPL or the Company has opted to measure them at FVTPL.

| Financial Instrument | Classification |
|---|---|
| ***Financial Assets*** | |
| Cash | Amortized cost |
| Trade and other receivables | Amortized cost |
| ***Financial Liabilities*** | |
| Trade and other payables | Amortized cost |
| Lease obligation on right-of-use assets | Amortized cost |
| Convertible debentures | Amortized cost |

*Measurement*

*Financial assets and liabilities at amortized cost:*

Financial assets and liabilities at amortized cost are initially recognized at fair value, and subsequently carried at amortized cost less any impairment.

*Impairment of financial assets at amortized cost*

The Company recognizes a loss allowance for expected credit losses on financial assets that are measured at amortized cost. At each reporting date, the Company measures the loss allowance for the financial asset at an amount equal to the lifetime expected credit losses if the credit risk on the financial asset has increased significantly since initial recognition. If at the reporting date, the credit risk on the financial asset has not increased significantly since initial recognition, the Company measures the loss allowance for the financial asset at an amount equal to twelve month expected credit losses. Impairment losses on financial assets carried at amortized cost are reversed in subsequent periods if the amount of the loss decreases and the decrease can be objectively related to an event occurring after the impairment was recognized.

*Derecognition*

*Financial assets*

The Company derecognizes financial assets only when the contractual rights to cash flows from the financial assets expire, or when it transfers the financial assets and substantially all the associated risks and rewards of ownership to another entity. Gains and losses on derecognition are generally recognized in the Consolidated Statements of Loss and Comprehensive Loss.

*Financial liabilities*

The Company derecognizes financial liabilities only when its obligations under the financial liabilities are discharged, cancelled or expired. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable, including any non-cash assets transferred or liabilities assumed, is recognized in the Consolidated Statements of Loss and Comprehensive Loss.

*Property and equipment*

Property and equipment are carried at cost, less accumulated depreciation. The cost of an item of property and equipment consists of the purchase price, any costs directly attributable to bringing the asset to the location and condition necessary for its intended use, and an initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Depreciation is recognized based on the cost of an item of property and equipment, less its estimated residual value, using the straight-line method, over its estimated useful life at the following rates:

| | |
|---|---|
| Computer software | 1 year |
| Computer hardware, laboratory and testing equipment | 3 years |
| Masks | Estimated life of the product, not to exceed 5 years |
| Office equipment | 3 to 5 years |
| Leasehold improvements | Term of lease |

An item of property and equipment is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on disposal of the asset, determined as the difference between the net disposal proceeds and the carrying amount of the asset, is recognized in profit or loss in the Consolidated Statements of Loss and Comprehensive Loss. Expenditures incurred to replace a component of an item of property and equipment that is accounted for separately are capitalized and depreciated over their estimated useful life. Repair and maintenance costs are recognized in the Consolidated Statements of Loss and Comprehensive Loss as incurred.

The Company reviews the useful life, depreciation method and carrying value of its property and equipment annually with the effect of any changes in estimate accounted for on a prospective basis. Where the carrying value exceeds the estimated recoverable amount, an impairment is measured and recorded based on the higher of fair value less costs to sell or the asset's value in use.

Assets held under finance leases are depreciated over their expected useful lives on the same basis as owned assets. However, when there is no reasonable certainty that ownership will be obtained by the end of the lease term, assets are depreciated over the shorter of the lease term and their useful life.

*Intangible assets*

Definite life intangible assets acquired in business combinations and pursuant to asset purchases are recorded at their fair values at the date of acquisition. Amortization is recognized on a straight-line basis over their estimated useful lives as follows:

| | |
|---|---|
| Software and technology | Shorter of 2 - 3 years or license term |

The estimated useful life and amortization method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis. The Company has no indefinite life intangibles.

*Licenses*

Licenses to use electronic design automation tools are recorded at the aggregate cost of the payments in the contract less accumulated amortization and accumulated impairment losses. Amortization commences in the year the license is put into use in the development of the microchip and is amortized on a straight-line basis over its remaining license term. The estimated useful life and amortization method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

Liabilities due on license agreements are classified as other financial liabilities and are recognized initially at fair value and subsequently at amortized cost.

*Impairment of tangible and intangible assets*

The Company reviews at each reporting period the carrying amounts of its tangible and intangible assets which all have finite lives, to determine whether there are indicators that the carrying values are not recoverable. If such an indicator exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss, if any.

Where it is not possible to estimate the recoverable amount of an individual asset, the Company estimates the recoverable amount of the cash generating unit to which the asset belongs, the smallest identifiable group of assets that generates cash inflows that are largely independent of cash inflows from other assets. Recoverable amount is the higher of 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 which the estimates of future cash flows have not been adjusted. The Company bases its impairment calculation on the most recent budgets and forecast calculations, which are prepared separately for each of the Company's cash generating units to which the individual assets are allocated. A long-term growth rate is calculated and applied to project future cash flows. Impairment losses of continuing operations are recognized in the Consolidated Statements of Loss and Comprehensive Loss in expense categories consistent with the function of the impaired asset.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognized immediately in profit or loss.

When an impairment loss subsequently reverses, the carrying amount of the asset or a cash generating unit is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset or cash-generating unit in prior years. A reversal of an impairment loss is recognized immediately in profit or loss.

*Government grants and investment tax credits*

Government grants received under incentive programs are accounted for using the cost reduction method; whereby, the grant is netted against the related expense or capital expenditure to which it relates when there is reasonable assurance that the credits will be realized or grant will be received and all attached conditions will be complied with.

Government grants received under reimbursement or funding programs are accounted for using the cost reduction method; whereby, a receivable is set up as the costs are incurred based on the terms of reimbursement or funding program and the expected recoveries are netted against the related expense. When the grant relates to an expense item, it is recognized as income on a systematic basis over the periods that the related costs, for which it is intended to compensate, are expensed. The Company has presented the government grant in the statement of financial position as Government grants and in the statement of loss and comprehensive loss as other income.

The Company is entitled to certain tax incentives for qualified scientific research and experimental development. These incentives are not recognized until there is reasonable assurance that the Company will comply with the conditions attached to them and that the incentives will be received. The investment tax credits are recorded as a reduction of the relevant asset account or of research and development expenses in the period when the expenses occur.

*Convertible debentures*

The liability, equity and other (when applicable) components of convertible notes are presented separately on the statement of financial position, starting from initial recognition. The Company determines the carrying amount of the financial liability by discounting the stream of future payments at the prevailing market rate for a similar liability of comparable credit status and providing substantially the same cash flows. The liability component is then increased by accretion of the discounted amounts to reach the nominal value of the convertible notes at maturity which is recorded in the statement of loss and comprehensive loss as accretion expense.

The carrying amount of other components (when applicable), such as warrants, is determined using the Black-Scholes option pricing model or Monte-Carlo option pricing model. The carrying amount of the equity component is calculated by deducting the carrying amount of the financial liability and the carrying amounts of any other components (when applicable) from the amount of the convertible notes, and is presented in Equity as an equity component of convertible notes. The equity component is not remeasured subsequent to initial recognition, except on conversion or expiry.

The transaction costs are distributed between liability, equity and other (when applicable) components, on a pro-rata basis according to their carrying amounts.

*Borrowing costs*

Borrowing costs comprise interest payable on borrowings calculated using the effective interest rate method, and the ascribed value of warrants, and are expensed when they are incurred unless they are directly attributable to the acquisition, construction or production of a qualifying asset.

Activity relating to various compensation options issued as commissions and fees to agents in relation to equity and debt financing are reflected within the warrants reserve on the Consolidated Statements of Changes in Shareholders' Equity (Deficiency).

*Income taxes*

Tax expense comprises current and deferred tax. Tax is recognized in the statements of comprehensive income except to the extent it relates to items recognized in other comprehensive income or directly in equity.

*Current Tax*

Current tax expense is based on the results for the period as adjusted for items that are not taxable or not deductible. Current tax is calculated using tax rates and laws that are enacted or substantively enacted at the end of the reporting period. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. Provisions are established where appropriate on the basis of amounts expected to be paid to the tax authorities.

*Deferred Tax*

Deferred tax assets and liabilities are recognized for the deferred tax consequences attributable to differences between the financial statement carrying amounts of assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted or substantively enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. In addition, the effect on deferred tax assets and liabilities of a change in tax rates is recognized in the statement of loss and comprehensive loss in the period in which the enactment or substantive enactment takes place. A deferred tax asset is recognized for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable income will be available to utilize such amounts. Deferred tax assets are reviewed at each reporting date and are adjusted to the extent that it is no longer probable that the related tax benefits will be realized.

The Company is subject to income tax assessment in multiple jurisdictions. Significant judgment is required in determining the provision for income taxes. There are many transactions and calculations undertaken in the ordinary course of business for which the ultimate tax determination is uncertain.

The Company recognizes liabilities based on the Company's current understanding of tax laws as applied to the Company's circumstances. Where the final outcome of these matters is different from the amounts that were initially recorded, such differences will impact the current and deferred tax provisions in the period in which such determination is made.

The Company computes an income tax provision in each of the jurisdictions in which it operates. However, actual amounts of income tax expense only become final upon filing and acceptance of the tax return by the relevant authorities, which occurs subsequent to the issuance of these financial statements. Additionally, estimating income taxes includes evaluating the recoverability of deferred tax assets based on an assessment of the ability to use the underlying future tax deductions against future taxable income before such deductions expire. The assessment is based upon existing tax laws and estimates of future taxable income. To the extent estimates differ from the final tax return, earnings would be affected in a subsequent period.

*Foreign currencies*

The consolidated financial statements are presented in United States dollars. The Company's functional currency is Canadian dollars. As such, an amount is recorded in other comprehensive loss for the translation to presentation currency. The functional currency of its subsidiaries is United States dollars given the majority of revenues and expenses are incurred in United States dollars. Transactions in currencies other than the functional currency are recorded at the rates of exchange at the date of the transaction. At each financial position reporting date, monetary assets and liabilities that are denominated in foreign currencies are translated at the rates prevailing at the reporting date. Non-monetary items that are measured in terms of historical cost are translated using historical rates.

Exchange differences are recognized in profit or loss in the period in which they arise.

*Revenue recognition*

The Company's revenue is derived from one performance obligation which is to deliver the Company's product to its customers, being each individual distributor of the Company's product (the "Distributor"). Revenue is recognized when control of the Company's product is transferred to the Distributor and when the Distributor obtains control of the Company's product. The Company considers control to have passed at the point of shipment as all risk of loss or damage to the Company's product passes to the Distributor at this point.

In each period, the Company recognizes revenue, net of any variable consideration, including the right of return. The estimate of expected returns reflects the amount that the Company expects to repay or credit its Distributors, using the expected value method. Revenue includes amounts subject to returns only if it is highly probable that there will be no significant reversal of cumulative revenue if the estimate of expected returns changes.

The Company records an adjustment to cost of sales and inventories representing the Company's right to receive goods back from the Distributor. The adjustment to inventories is initially measured at the carrying amount of the products at the time of sale, less any expected costs to recover the product and any expected reduction in value. In subsequent periods, the Company updates its expected level of returns, adjusting the measurement of the returns liability and inventories.

*Contract Liabilities*

Customer deposits are recorded as deferred revenue on the Consolidated Statements of Financial Position and recognized to revenue when the product is shipped to the customer.

*Leases*

At inception of a contract, the Company assesses whether a contract is, or contains, a lease based on whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The Company recognizes a right-of-use asset and a lease liability at the lease commencement date.

Where a lease has two or more separate lease components the Company has accounted for each lease component within the contract as a lease separately from non-lease components of the contract. The non-lease components are accounted for by applying other applicable standards.

The right-of-use asset is initially measured at cost which comprises of the lease liability, lease payments made at or before the commencement date, initial indirect costs and asset retirement obligations, less any lease incentives. The right-of-use asset is subsequently measured at cost less accumulated depreciation and impairment losses, adjusted for any remeasurement of the lease liability. The assets are depreciated to the earlier of the end of the useful life of the right-of-use asset or the lease term using the straight-line method as this most closely reflects the expected pattern of consumption of the future economic benefits. The lease term includes periods covered by an option to extend if the Company is reasonably certain to exercise that option.

The lease liability is initially measured at the present value of the future lease payments discounted using the interest rate implicit in the lease or if that rate cannot be readily determined, the Company's incremental borrowing rate. Generally, the Company uses its incremental borrowing rate as the discount rate. Subsequently, the lease liability is measured at amortized cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Company's estimate of the amount expected to be payable under a residual value guarantee, or if the Company changes its assessment of whether it will exercise a purchase, extension or termination option.

When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

The Company has elected not to recognize right-of-use assets and lease liabilities for short-term leases that have a lease term of 12 months or less and leases of low-value assets. The lease payments associated with these leases are charged directly to the consolidated statements of loss on a straight-line basis over the lease term. Lease modifications are accounted for as either a new lease with an effective date of the modification or as a change in the accounting for the existing lease.

*Share-based payments*

Share-based payments and costs of equity-settled transactions to employees and others providing similar services are measured at the fair value of the equity instruments at the grant date. Share-based payments to non-employees are measured at the fair value of the goods or services received, except where that fair value cannot be estimated reasonably, in which case they are measured at the fair value of the equity instruments granted.

The Company maintains two share-based compensation plans for the benefit of its directors, officers, employees and consultants. These plans are a restricted share unit plan (the “RSU Plan”) and a stock option plan (the “Stock Option Plan”).

The RSU Plan is described in Note 11(b)(i). The fair-value of restricted share units (“RSUs”) issued without payment (or if payment is less than fair value) to directors, officers, employees and consultants is determined upon the date of grant and (the difference if less than fair value) recognized as compensation expense over the vesting period for directors, officers or employees and over the period of service for consultants with a corresponding increase in equity. RSUs issued at fair value are booked as equity.

The Stock Option Plan is described in Note 11(b)(ii). The fair-value of the stock options issued to directors, officers, employees and consultants is determined using the Black-Scholes option pricing model incorporating assumptions regarding risk-free interest rates, dividend yield, expected volatility of the Company’s stock, and a weighted average expected life of options. For awards with graded vesting, each tranche in an award is considered a separate grant with a different fair value. The fair value of each tranche is recognized over its respective vesting period. For employees, officers and directors, the fair value of each tranche is estimated at the date of grant.

The estimated fair value of the options that are ultimately expected to vest are recorded over the option’s vesting period and charged to profit or loss with a corresponding increase in share-based payment reserve. When determining the number of options that are expected to vest the Company takes into account historical experience and trends in actual option forfeitures. For all stock options issued, if and when the stock options are exercised, the applicable amounts of share-based payment reserve are transferred together with the proceeds to common shares within share capital.

For cash-settled share-based payments, a liability is recognized for the goods or services acquired, measured initially at the fair value of the liability. At the end of each reporting period until the liability is settled, and at the date of settlement, the fair value of the liability is remeasured, with changes in fair value recognized in profit or loss.

If stock options or RSUs are repurchased from directors, officers or employees and consultants, the excess of the consideration paid over the carrying amount of the stock options or RSUs repurchased is charged to share-based payment reserve and or deficit.

*Loss per share*

The Company presents basic and diluted loss per share data for its common shares, calculated by dividing the profit or loss attributable to common shareholders of the Company by the weighted average number of common shares outstanding during the period. Diluted loss per share is determined by adjusting the loss attributable to common shareholders and the weighted average number of common shares outstanding for the effects of all dilutive potential securities, which comprise of stock options, RSUs, warrants and special shares.

*Provisions*

A provision is recognized when the Company has a present legal or constructive obligation as a result of a past event, it is probable that an outflow of economic benefits will be required to settle the obligation, and the amount of the obligation can be reliably estimated. If the effect is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability.

*Measurement uncertainty and judgments*

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses for the periods presented herein. Management bases its judgments and estimates on historical experiences and on other various factors it believes to be reasonable under the circumstances, the results of which form the basis of the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions and conditions. The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and further periods if the review affects both current and future periods.

Significant assumptions about the future that management has made that could result in a material adjustment to the carrying amounts of assets and liabilities, in the event that actual results differ from assumptions made, relate to, but are not limited to, the following:

(Expressed in United States Dollars)

- the recoverability of trade and other receivables and investment tax credits that are included in the Consolidated Statements of Financial Position;
- the estimated variable considerations such as stock rotation, return provision and warranty reserve when determining the transaction price recognized as revenue that are included in the Consolidated Statements of Loss and Comprehensive Loss, and the Consolidated Statements of Financial Position;
- the net realizable value used to determine the carrying value of inventories and potential write-downs or reversals of write-downs to inventories;
- the inputs and assumptions used in the valuation and recording of the convertible debt;
- the incremental borrowing rate used in the valuation of right-to-use liabilities;
- the estimated useful lives and residual value of property and equipment, and licenses which are included in the Consolidated Statements of Financial Position and the related depreciation and amortization included in the Consolidated Statements of Loss and Comprehensive Loss;
- the amount of deferred tax assets only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits to be recovered;
- the inputs and assumptions used in the valuation and recording of share-based payments;
- the inputs and assumptions used in the valuation and recording of warrants;
- the inputs and judgment used in the determination of functional currency; and
- the assessment of Company's ability to continue as going concern

## 4. Right-of-use assets

The following table sets forth the right-of-use assets:

| | **$** |
|---|---|
| **Balance, January 1, 2021** | **99,164** |
| Depreciation | (259,261) |
| Lease Amendment | 480,291 |
| **Balance, December 31, 2021** | **320,194** |
| Depreciation | (293,539) |
| Adjustment | 53,393 |
| **Balance, December 31, 2022** | **80,048** |

In 2021, the Company entered into an amendment to extend the lease for its headquarters through April 2023 and reduced its monthly rent expense for the extended period. The lease amendment was accounted for as a change in the accounting of the existing lease. With the extended lease term, the Company recorded a right-of-use assets and a corresponding lease obligations of $480,291 using an incremental borrowing rate of 8.75%.

## 5. Lease obligations on right-of-use assets

The present value of the remaining minimum lease payments on the obligations for right-of-use assets as at December 31, 2022 and 2021 are as follows:

(Expressed in United States Dollars)

| | $ |
|---|---|
| **Balance, January 1, 2021** | **110,533** |
| Repayments | (285,356) |
| Interest | 26,290 |
| Lease amendment | 480,291 |
| **Balance, December 31, 2021** | **331,758** |
| Repayments | (264,000) |
| Interest | 19,446 |
| **Balance, December 31, 2022** | **87,204** |
| Current | 87,204 |
| Non-current | - |

Set out below is a maturity analysis of lease liabilities as at December 31, 2022:

| | $ |
|---|---|
| Less than one year | 88,800 |
| One to five years | - |
| Total undiscounted lease obligation | 88,800 |

The following are the amounts recognized in the statement of loss and comprehensive loss:

| | **2022** | 2021 |
|---|---|---|
| | $ | $ |
| Depreciation expense of right-of-use assets | **293,539** | 259,261 |
| Interest on lease obligation of right-of-use liabilities | **19,446** | 26,290 |
| **Total amount recognized in profit or loss** | **312,985** | 285,551 |

## 6. Inventories

| | **2022** | 2021 |
|---|---|---|
| | $ | $ |
| Work-in-progress | **3,362,138** | 880,985 |
| Finished goods | **428,712** | 126,395 |
| | **3,585,312** | 1,007,380 |
| Less: provision for obsolescence | **(267,131)** | (122,222) |
| | **3,523,719** | 885,158 |

Inventories recognized as cost of sales for the year ended December 31, 2022 amounted to $5,476,857 ($2,256,499 for the year ended December 31, 2021).

(Expressed in United States Dollars)

**7. Property and equipment**

| | Computer hardware/ software | Laboratory Equipment | Masks and Testing Equipment | Office Equipment | Leasehold Improvements | Total |
|---|---|---|---|---|---|---|
| | $ | $ | $ | $ | $ | $ |
| **Cost, balance** | | | | | | |
| December 31, 2020 | 1,392,808 | 2,076,489 | 2,217,207 | 257,078 | 73,328 | 6,016,910 |
| Additions | - | 32,878 | 238,857 | - | - | 271,735 |
| Disposals | - | (1,314) | - | - | - | (1,314) |
| December 31, 2021 | 1,392,808 | 2,108,053 | 2,456,064 | 257,078 | 73,328 | 6,287,331 |
| Additions | 14,411 | 12,191 | 169,068 | - | - | 195,670 |
| Disposals | - | - | (1,084,500) | - | - | (1,084,500) |
| December 31, 2022 | 1,407,219 | 2,120,244 | 1,540,632 | 257,078 | 73,328 | 5,398,501 |
| **Accumulated depreciation** | | | | | | |
| December 31, 2020 | 1,388,707 | 2,068,132 | 2,002,675 | 224,220 | 64,865 | 5,748,599 |
| Depreciation | 3,294 | 9,546 | 152,635 | 22,322 | 8,463 | 196,260 |
| Disposals | - | (1,314) | | - | - | (1,314) |
| December 31, 2021 | 1,392,001 | 2,076,364 | 2,155,310 | 246,542 | 73,328 | 5,943,545 |
| Depreciation | 4,746 | 13,017 | 110,961 | 9,936 | - | 138,660 |
| Disposals | - | - | (1,084,500) | - | - | (1,084,500) |
| December 31, 2022 | 1,396,747 | 2,089,381 | 1,181,771 | 256,478 | 73,328 | 4,997,705 |
| **Carrying amounts** | | | | | | |
| December 31, 2021 | 807 | 31,689 | 300,754 | 10,536 | - | 343,786 |
| **December 31, 2022** | **10,472** | **30,863** | **358,861** | **600** | **-** | **400,796** |

Of the total depreciation recorded in the current year, $92,205 (2021 - $43,274) was recorded as part of cost of sales. During the year ended December 31, 2022, the Company derecognized $1,084,500 (December 31, 2021 - $nil) in fully depreciated property and equipment no longer in use.

**8. Intangible assets**

| | Licenses |
|---|---|
| | $ |
| **Cost** | |
| Balance, December 31, 2020 | 9,877,914 |
| Additions | 902,710 |
| Balance, December 31, 2021 | 10,780,624 |
| Additions | 146,654 |
| Adjustment | (175,000) |
| Disposal | (9,838,953) |
| Balance, December 31, 2022 | 913,325 |

(Expressed in United States Dollars)

| | |
|---|---|
| **Accumulated amortization** | |
| Balance, December 31, 2020 | 9,877,914 |
| Amortization | 305,643 |
| Balance, December 31, 2021 | 10,183,557 |
| Amortization | 498,824 |
| Disposal | (9,838,953) |
| Balance, December 31, 2022 | 843,428 |
| **Carrying Amounts** | |
| Balance, December 31, 2021 | 597,067 |
| **Balance, December 31, 2022** | **69,897** |

Amounts payable on license agreements were $nil as at December 31, 2022 and $450,000 as at December 31, 2021 which were due within one year and included in Trade and other payables. During the year ended December 31, 2022, the Company derecognized $9,838,953 (December 31, 2021 - $nil) in fully amortized intangible assets no longer in use.

## 9. Trade and Other Payables

Trade and other payables are comprised of the following:

| | **December 31, 2022** | December 31, 2021 |
|---|---|---|
| | **$** | $ |
| Trade payables | **1,117,361** | 1,355,749 |
| Other payables | **814,639** | 1,031,708 |
| Total | **1,932,000** | 2,387,457 |

As at December 31, 2022, the amount of other payables is $814,639 (December 31, 2021 - $1,031,708), which includes $153,901 (December 31, 2021 - $168,264) related to customer return allowance, $393,873 (December 31, 2021 - $142,247) related to accrued payroll and bonus and $112,420 (December 31, 2021 - $nil) related to warranty reserve.

(Expressed in United States Dollars)

**10. Convertible debentures**

| | $ |
|---|---|
| **Balance, January 1, 2022** | **5,947,307** |
| Repayment of principal | (6,346,555) |
| Proceeds from issuance of convertible debt | 6,730,570 |
| Allocation to equity | (602,868) |
| Finder warrants, allocated to transaction costs | (234,366) |
| Transaction costs | (387,761) |
| Accretion and interest expense | 1,474,501 |
| Repayment of interest | (438,290) |
| Repayment of interest in shares | (3,975) |
| Foreign exchange translation adjustment | (498,291) |
| **Balance, December 31, 2022** | **5,640,272** |

| | $ |
|---|---|
| **Balance, January 1, 2021** | **9,827,191** |
| Accretion and interest expense | 1,528,830 |
| Exchange of convertible debentures for private placement units | (1,377,536) |
| Repayment of interest | (493,706) |
| Converted to common shares | (3,172,062) |
| Foreign exchange translation adjustment | 13,730 |
| Gain on modification of convertible debt | (379,140) |
| **Balance, December 31, 2021** | **5,947,307** |

The Company's convertible debentures are subject to certain covenants including restrictions against incurring certain additional indebtedness. As at December 31, 2022, the Company was in compliance with all covenants.

During the year ended December 31, 2022, 4,593 common shares were issued to repay interests due for $3,975. During the year ended December 31, 2021, 1,650,000 common shares were issued upon conversion of $3,240,779 (CDN $4,125,000) in convertible debentures and 242,477 common shares were issued for interest accrued for the remaining term of $326,363 (CDN $419,572). On conversion and together with the release of $649,758 of share conversion option, $3,821,820 was recorded in share capital.

On December 23, 2020, the Company entered into a first supplemental convertible debenture Indenture (the "First Supplemental Indenture") to amend the terms and conditions of the 7% convertible debentures (the "7% Debentures") as follows:

- to extend the maturity date of the 7% Debentures from January 9, 2021 to July 9, 2022;
- to reduce the conversion price of the 7% Debentures from CDN $17.50 per common share to CDN $2.50 per common share until January 9, 2022 and to CDN $5.00 per common share from January 10, 2022 to July 9, 2022;
- to provide for payment of 10% bonus principal on maturity including interest at 7% per annum on the additional principal; and
- to add a make-whole interest payment to the maturity date for the 7% Debentures that are converted prior to maturity.

The First Supplemental Indenture was recorded as a new compound financial instrument with debt component of $9,711,196 determined using the present value of future cash flows and discount rate of 19%. The residual between the fair value of First Supplemental Indenture and amount attributed to debt component was considered conversion feature. Debt component is being amortized using effective interest rate of approximately 20% over its term.

On December 9, 2021, the Company entered into a second supplemental convertible debenture indenture (the "Second Supplemental Indenture") to amend the terms and conditions of the 7% Debentures to reduce the conversion price from CDN $5.00 per common share to CDN $2.50 per common share from January 10, 2022 to July 9, 2022. The Company treated the change as a modification of the existing instrument and recorded a gain of $379,140.

The Second Supplemental Indenture was recorded as a modification of the financial instrument with debt component of $5,947,307, determined using present value of future cash flows including a principal amount of $6,354,099 and a discount rate of 18.0%. Debt component is being amortized using an effective interest rate of approximately 23.6% over its remaining term.

On July 26, 2022, the Company entered into a third supplemental convertible debenture indenture (the "Third Supplemental Indenture") to amend certain terms and conditions of the 7% Debentures. Pursuant to the Third Supplemental Indenture, the maturity date of the 7% Debentures was extended to September 9, 2022. The Company repaid 20% of the outstanding principal amount together with the 10% bonus principal outstanding on the 7% Debentures on August 2, 2022, including accrued and unpaid interest, totaling CDN $2,600,704. The principal outstanding after the payment was CDN $5,422,400. As consideration for the extension, the Company agreed to pay non-convertible extension bonuses at maturity of an aggregate of approximately CDN $199,978. As at September 2, 2022, the Company repaid the remaining balance of the 7% Debentures in full. The total amount repaid was $6,346,555 (CDN $8,067,800) principal amount, $62,637 (CDN $80,802) of accrued and unpaid interest thereon, as well as $157,321 (CDN $199,978) of the extension bonus and $1,115 (CDN $1,438) of associated interest. The 7% Debentures were repaid in full effective September 2, 2022.

On July 26, 2022, the Company announced a non-brokered private placement (the "Offering") of the 14% convertible unsecured debentures (the "14% Debentures") and completed the first tranche of the Offering through the issuance of $2,940,739 (CDN $3,809,000) principal amount of 14% Debentures for gross proceeds of $2,881,924 (CDN $3,732,820). On August 25, 2022, the Company entered into a first supplemental convertible debenture indenture to increase the size of the Offering and completed the second tranche of the Offering through the issuance of $3,927,162 (CDN $5,064,000) principal amount of the 14% Debentures for gross proceeds of $3,848,619 (CDN $4,962,720). In aggregate, the Offering consisted of the issuance of $6,867,901 (CDN $8,873,000) principal amount of 14% Debentures for gross proceeds of $6,730,543 (CDN $8,695,540). Proceeds from the Offering were primarily used to repay the 7% Debentures.

Each CDN $1,000 principal amount of 14% Debentures was sold at a subscription price of CDN $980. The 14% Debentures mature on December 31, 2024 and the principal amount is convertible into common shares at the option of the holder at any time prior to the close of business on the last business day immediately preceding maturity, at a conversion price of CDN $1.02 per common share, subject to adjustment upon certain customary events. Holders converting their 14% Debentures will receive accrued and unpaid interest thereon for the period from and including the date of the latest interest payment date to, and including, the date of conversion. In connection with the Offering, the Company paid $387,761 (CDN $500,968) in finder's fees and issued an aggregate of 401,603 finder's warrants, with each such warrant entitling the holder thereof to purchase one common share at a price of $1.02 for a period of two years from the date of issuance.

The Company determines the carrying amount of the financial liability using the present value of future cash flows with the principal amount of $6,694,367 and a discount rate of 25.8%. Debt component is being amortized using an effective interest rate of approximately 21% over its remaining term. The liability component is then increased by accretion of the discounted amounts to reach the nominal value of the convertible notes at maturity which is recorded in the statement of loss and comprehensive loss as accretion expense. The carrying amount of other components (when applicable), such as warrants, is determined using the Black Scholes option pricing model based on the following assumptions: volatility of 172%, expected term of 2 years, risk free rate of 3.12% and zero dividend. The carrying amount of the equity component is calculated by deducting the carrying amount of the financial liability and the carrying amounts of any other components from the amount of the convertible notes, and is presented in Equity as an equity component of convertible notes.

(Expressed in United States Dollars)

The transaction costs are distributed between liability, equity and other (when applicable) components, on a pro rata basis according to their carrying amounts. Accordingly, the face value of the 14% Debentures, net of issuance costs, were allocated as follows:

| | $ |
|---|---|
| Liability component | 335,758 |
| Conversion feature | 52,003 |
| Transaction costs | **387,761** |

## 11. Shareholders' equity

(a) Common shares

- Authorized share capital consists of an unlimited number of common shares.

On August 13, 2021, the Company completed a consolidation of its common shares on the basis of 50 existing common shares for one new common share. Accordingly, the common share, per common share and basic and diluted earnings per common share amounts are adjusted retrospectively for all periods presented.

The following table summarizes the changes to the issued and outstanding common shares during the year ended December 31, 2022:

| | # | $ |
|---|---|---|
| **Balance, December 31, 2021** | **33,074,937** | **167,674,271** |
| Shares issued under Restricted Share Unit Plan | 607,904 | 1,310,859 |
| Convertible debt interest settlement | 4,593 | 3,975 |
| Shares issued upon exercise of stock options | 2,500 | 1,965 |
| **Balance, December 31, 2022** | **33,689,934** | **168,991,070** |

The following table summarizes the changes to the issued and outstanding common shares during the year ended December 31, 2021:

| | # | $ |
|---|---|---|
| **Balance, December 31, 2020** | **11,854,355** | **145,179,094** |
| Shares issued under Restricted Share Unit plan | **641,904** | 1,203,675 |
| Units issued in January 2021 Private Placement (i) | **3,237,605** | 3,621,372 |
| Units issued in Spring 2021 Private Placement (ii) | **4,223,142** | 5,229,389 |
| Units issued in October 2021 Private Placement (iii) | **11,183,990** | 11,928,625 |
| Share issuance costs | **-** | (1,101,260) |
| Allocation of warrant portion | **-** | (2,283,781) |
| Convertible Debenture Conversions (Note 10) | **1,892,477** | 3,821,820 |
| Shares issued upon exercise of stock options | **41,464** | 75,337 |
| **Balance, December 31, 2021** | **33,074,937** | **167,674,271** |

*i)* January 2021 Private Placement

On January 15, 2021, the Company completed the first tranche of a non-brokered private placement (the “January 2021 Private Placement”) of 2,280,275 units (“January 2021 Units”) at a price of CDN $1.50 per January 2021 Unit for gross proceeds of $2,682,466 (CDN $3,420,413), of which $1,568,784 (CDN $1,995,000) were settled by extinguishment of convertible debt balance by a debenture holder. On February 12, 2021, the Company completed the second tranche of the January 2021 Private Placement, which consisted of the issuance of 759,917 January 2021 Units for gross proceeds of $893,951 (CDN $1,139,876) and the issuance 197,413 January 2021 Units to settled CDN $296,119 owing to an arm's length party. Each January 2021 Unit consists of one common share and one-half common share purchase warrant (each whole warrant, a “January 2021 Warrant”) with each January 2021 Warrant being exercisable into one common share at an exercise price of CDN $2.50 for a period of five years from the date of issuance, subject to adjustment upon certain customary events. The expiry date of the January 2021 Warrants can be accelerated by the Company at any time following the date that is four (4) months and one day after closing of the January 2021 Private Placement and prior to the expiry date of the January 2021 Warrants if the closing price of the common shares on the TSXV is greater than CDN $4.00 for any 10 non-consecutive trading days.

*(ii)* Spring 2021 Private Placement

On May 14, 2021, the Company completed the first tranche of a brokered private placement (the “Spring 2021 Private Placement”) of 3,413,791 units (the "Spring 2021 Units"). The Company also completed a concurrent non-brokered offering of 254,016 Spring 2021 Units. On June 11, 2021, the Company completed the second non-brokered tranche of the Spring 2021 Private Placement, which consisted of the issuance of 555,335 Spring 2021 Units. The price per Spring 2021 Unit for both tranches was CDN $1.50. Together, the Company has issued a total of 4,223,142 Spring 2021 Units in the Spring 2021 Private Placement for gross proceeds of $5,229,389 (CDN $6,334,711). Each Spring 2021 Unit consists of one common share and one common share purchase warrant (each, a "Spring 2021 Warrant") with each Spring 2021 Warrant being exercisable into one common share at an exercise price of CDN $2.50 until May 14, 2026, subject to adjustment upon certain customary events. The expiry date of the Spring 2021 Warrants can be accelerated by the Company to the date that is thirty (30) days following the delivery of the acceleration notice to the holders of the Spring 2021 Warrants if, at any time following the date that is four months and one day following the closing date of the Spring 2021 Private Placement, the closing price of the common shares is greater than CDN $4.00 for a period of 10 non-consecutive trading days on the TSXV.

In connection with the first tranche of the Spring 2021 Private Placement, the Company paid a commission of $280,664 (CDN $340,948) and issued 227,299 broker warrants, with each broker warrant being exercisable into a Spring 2021 Unit at a price of CDN $1.50 for a period of two years. In connection with the second tranche of the Spring 2021 Private Placement, the Company paid finder's fees in cash totaling $26,165 (CDN $31,785) and issued 15,190 finder's warrants (each, a "Finder's Warrant"), with each Finder's Warrant entitling the holder to purchase one Spring 2021 Unit at a price of CDN $1.50 until May 14, 2023.

*(iii)* October 2021 Private Placement

On October 26, 2021, the Company completed a brokered private placement (the “October 2021 Private Placement”) of 11,183,990 common shares at a price of CDN $1.32 per common share for gross proceeds of $11,810,293 (CDN $14,762,866). In connection with the October 2021 Private Placement, the Company paid a commission of $434,046 (CDN $542,558) and issued 411,028 broker warrants. Each broker warrant is exercisable into one common share at an exercise price of CDN $1.32 for a period of two years from the date of issuance, subject to adjustment upon certain customary events. $426,325 were attributed to the warrants with the warrants classified as equity in shareholders’ equity.

Gross proceeds from each private placement were allocated to the common shares and warrants based on their relative fair values, net of issuance costs. The fair value of the warrants was determined using the Monte-Carlo option pricing model with the following assumptions for each private placement and their relative fair value before issuance costs:

(Expressed in United States Dollars)

| Private Placement | Volatility | Risk free rate | Term (years) | Relative Fair Value |
|---|---|---|---|---|
| January 2021 | 109% - 111% | 0.46% - 0.50% | 5 | $ 789,407 |
| Spring 2021 | 112% - 113% | 0.16% - 0.82% | 2 – 5 | $ 1,932,912 |
| October 2021 | 157% | 0.47% | 2 | $ 426,325 |

(b) Share-based compensation

The Company has established the a stock option plan (the “Stock Option Plan”) and a restricted share unit plan (the “RSU Plan”) with the intention of attracting, retaining and motivating employees, officers and directors.

The Company’s Board of Directors determines, among other things, the eligibility of individuals to participate in the RSU Plan and the Stock Option Plan and the term, vesting periods, and the exercise price of options granted under the Stock Option Plan.

At the annual and special meeting of shareholders in June 2022, shareholders approved amendments to both the Stock Option Plan and the RSU Plan to provide that the combined maximum number of common shares reserved for issuance under both the Stock Option Plan and the RSU Plan, inclusive of existing stock options and RSUs, shall not exceed 20% of the then outstanding common shares or 6,710,018 common shares.

*(i) Restricted Share Units (RSU)*

Vesting is determined by the Company’s Board of Directors at the time of grant. Vesting is contingent upon continuous service/employment through the specific vesting date. The fair value as of the grant date is used to determine the value.

The following table summarizes information about the Company’s outstanding RSUs as at December 31, 2022 and 2021:

| | **December 31, 2022** | December 31, 2021 |
|---|---|---|
| | **#** | # |
| **Balance, opening** | **2,907,256** | **541,319** |
| Granted | 2,125,355 | 3,068,964 |
| Forfeited | (96,490) | (64,698) |
| Vested and Shares issued | (607,904) | (638,329) |
| **Balance, ending** | **4,328,217** | **2,907,256** |

During the year ended December 31, 2022, 607,904 RSUs were delivered for $1,310,859, which was transferred to common shares from share-based payment reserve (December 31, 2021 – 638,329 RSUs were delivered for $1,203,675).

*(ii) Stock options*

Vesting is determined by the Company’s Board of Directors at the time of grant. Vesting is contingent upon continuous service/employment through the specific vesting date and have an exercise price as set forth in the option certificate issued in respect of such option and in any event shall not be less than market price of the common shares as of the award date.

The expiry date of an option is fixed by the Board of Directors at the time the particular option is awarded, provided that the expiry date shall be no later than the date that is 10 years following the award date of such option, subject to earlier termination upon the option holder ceasing to be a director, officer, employee or consultant of the Company.

The following table summarizes information about the Company’s outstanding stock options as at December 31, 2022 and 2021:

(Expressed in United States Dollars)

| | **December 31, 2022** | | December 31, 2021 | |
|---|---|---|---|---|
| | Number of Options | Weighted Average Price | Number of Options | Weighted Average Price |
| | # | CDN $ | # | CDN $ |
| **Options outstanding, opening** | **298,274** | **2.43** | 333,355 | 3.30 |
| Granted | **-** | **-** | 180,000 | 1.86 |
| Exercised | **-** | **-** | (48,300) | 1.09 |
| Expired | **(1,804)** | **26.67** | (100,000) | 1.83 |
| Forfeited | **(36,702)** | **4.99** | (66,781) | 7.60 |
| **Options outstanding, ending** | **259,768** | **1.88** | 298,274 | 2.43 |

The following table is a summary of the Company's stock options outstanding as at December 31, 2022:

| | Options Outstanding | | | Options Exercisable | |
|---|---|---|---|---|---|
| Exercise price range | Number outstanding | Weighted average remaining contractual life (years) | Weighted average exercise price | Number exercisable | Weighted average exercise price |
| CDN $ | # | # | CDN $ | # | CDN $ |
| 1.00 – 1.90 | 254,000 | 5.80 | 1.46 | 254,000 | 1.46 |
| 9.50 – 34.00 | 5,768 | 0.71 | 20.30 | 5,768 | 20.30 |
| **Balance, December 31, 2022** | **259,768** | **5.69** | **1.88** | **259,768** | **1.88** |

The following table is a summary of the Company's stock options outstanding as at December 31, 2021:

| | Options Outstanding | | | Options Exercisable | |
|---|---|---|---|---|---|
| **Exercise price range** | **Number outstanding** | **Weighted average remaining contractual life (years)** | **Weighted average exercise price** | **Number exercisable** | **Weighted average exercise price** |
| CDN $ | # | # | CDN $ | # | CDN $ |
| 1.00 – 1.90 | 283,500 | 6.65 | 1.44 | 223,500 | 1.31 |
| 9.50 – 34.00 | 14,774 | 1.64 | 21.35 | 14,296 | 21.74 |
| **Balance, December 31, 2021** | **298,274** | **6.41** | **2.43** | **237,796** | **2.54** |

*(iii)* *Share-based compensation expense*

For its RSU Plan and Stock Option Plan, the Company recognized share-based compensation expense of $2,535,479 for the year ended December 31, 2022 ($1,864,881 for the year ended December 31, 2021) with a corresponding amount recognized as share-based payment reserve.

(Expressed in United States Dollars)

The fair value of the RSUs is determined based upon the Company's stock price on the date of grant. There were no stock options granted during the year ended December 31, 2022. The fair value of stock options granted during the year ended December 31, 2021 was estimated at the date of grant using the Black-Scholes option pricing model with the following weighted average assumptions:

| | **Year Ended December 31,** |
|---|---|
| | 2021 |
| Dividend yield | 0% |
| Expected volatility | 170% |
| Risk free rate of return | 1.08% |
| Forfeiture rate | 0% |
| Expected life | 5 years |

(c) Warrants

The following table summarizes information about the Company's outstanding warrants as at December 31, 2022 and 2021:

| | **December 31, 2022** | | December 31, 2021 | |
|---|---|---|---|---|
| | Number of Warrants | Weighted Average Price | Number of Warrants | Weighted Average Price |
| | # | CDN $ | # | CDN $ |
| **Balance, opening** | **9,398,804** | **3.23** | 3,347,003 | 8.00 |
| Warrants component of January 2021 Private Placement (Note 11(a)) | **-** | **-** | 1,618,803 | 2.50 |
| Warrants component of Spring 2021 Private Placement (Note 11(a)) | **-** | **-** | 4,223,141 | 2.50 |
| Broker Warrants[1] component of Spring 2021 Private Placement | **-** | **-** | 242,489 | 1.50 |
| Broker Warrants[1] component of October 2021 Private Placement | **-** | **-** | 411,028 | 1.32 |
| Broker Warrants[2] component of 14% Debentures (Note 10) | **401,603** | **1.02** | - | - |
| Warrants expired | **(44,100)** | **15.00** | (443,660) | 25.00 |
| Broker warrants expired | **-** | **-** | - | - |
| **Balance, ending** | **9,756,307** | **3.09** | 9,398,804 | 3.23 |

(Expressed in United States Dollars)

The following is a summary of the warrants outstanding by exercise price as at December 31, 2022:

| Number of warrants outstanding | Exercise Price | Expiry Date |
|---|---|---|
| Warrants [(1)] | | |
| 283,363 | CDN $7.875 | July 6, 2023 |
| 324,122 | CDN $11.25 | October 30, 2023 |
| 1,584,316 | CDN $4.00 | August 21, 2024 |
| 210,469 | CDN $2.50 | July 15, 2025 |
| 166,779 | CDN $2.50 | September 25, 2025 |
| 1,140,138 | CDN $2.50 | January 15, 2026 |
| 478,665 | CDN $2.50 | February 12, 2026 |
| 4,223,141 | CDN $2.50 | May 14, 2026 |
| Broker Warrants (Compensation Options) | | |
| 242,489[(2)] | CDN $1.50 | May 14, 2023 |
| 9,943 | CDN $7.875 | July 6, 2023 |
| 411,028 | CDN $1.32 | October 26, 2023 |
| 28,941 | CDN $11.25 | October 30, 2023 |
| 118,055 | CDN $1.02 | July 26, 2024 |
| 251,310 | CDN $2.50 | August 21, 2024 |
| 283,548 | CDN $1.02 | August 25, 2024 |

The following is a summary of the warrants outstanding as at December 31, 2021:

| Number of warrants outstanding | Exercise Price | Expiry Date |
|---|---|---|
| Warrants [(1)] | | |
| 283,363 | CDN $7.875 | July 6, 2023 |
| 324,122 | CDN $11.25 | October 30, 2023 |
| 1,584,316 | CDN $4.00 | August 21, 2024 |
| 210,469 | CDN $2.50 | July 15, 2025 |
| 166,779 | CDN $2.50 | September 25, 2025 |
| 1,140,138 | CDN $2.50 | January 15, 2026 |
| 478,665 | CDN $2.50 | February 12, 2026 |
| 4,223,141 | CDN $2.50 | May 14, 2026 |
| Broker Warrants (Compensation Options) | | |
| 242,489[(2)] | CDN $1.50 | May 14, 2023 |
| 9,943 | CDN $7.875 | July 6, 2023 |
| 411,028 | CDN $1.32 | October 26, 2023 |
| 28,941 | CDN $11.25 | October 30, 2023 |
| 251,310 | CDN $2.50 | August 21, 2024 |
| Waiver Warrants | | |
| 44,100 | CDN $15.00 | February 24, 2022 |

[(1)] Subject to acceleration in certain circumstances.

[(2)] Convertible into Spring 2021 Units. See Note 11(a)(ii).

(Expressed in United States Dollars)

## 12. Related party transactions and balances

The Company transacts with key individuals from management and with its directors who have authority and responsibility to plan, direct and control the activities of the Company. The nature of these dealings was in the form of payments for services rendered in their capacity as employees and as directors of the Company and are recorded at their fair value.

The Company's key management personnel are comprised of the Board of Directors and current and former members of the executive team of the Company.

Key management personnel compensation is comprised of the following:

| | Year Ended December 31, | |
|---|---|---|
| | **2022** | 2021 |
| | **$** | $ |
| Salaries, fees and short-term benefits | **867,614** | 695,372 |
| Share-based compensation | **1,283,048** | 1,691,293 |
| | **2,150,662** | 2,386,665 |

As at December 31, 2022, the amount owing to directors and officers was $182,000 ($185,000 for the year ended December 31, 2021).

## 13. Economic dependence

During the year ended December 31, 2022, the Company derived approximately 98% of its revenue from two customers (December 31, 2021 – 94% from two customers).

## 14. Government Grant

The Company applied for enrollment in the Paycheck Protection Program (“PPP”) formed under the Coronavirus Aid, Relief, and Economic Security Act (“CARES Act”). On April 24, 2020, the Company received $776,085 at an interest rate of 1%. On October 9, 2020, the Company applied for forgiveness of the funds received under the PPP. On March 21, 2021, the Company received notice of forgiveness for the full amount of the first grant from the PPP.

On February 19, 2021, the Company applied for enrollment in the 2nd Paycheck Protection Loan Program (the “Second PPP”) formed under the CARES Act. On March 5, 2021, the Company received a new government grant under the Second PPP in the amount of $739,470. On July 28, 2021, the Company received notice of forgiveness for the full amount of the grant from the Second PPP.

In 2022, the Company applied for the Employee Retention Credit (“ERC”) which is a refundable tax credit for businesses that continued to pay employees while shut down due to the COVID-19 pandemic or had significant declines in gross receipts from March 13, 2020 to Dec. 31, 2021. The Company was eligible and claimed $217,105 of ERC.

(Expressed in United States Dollars)

## 15. Income taxes

A reconciliation between the Company's statutory and effective tax rate is as follows:

| | **2022** | 2021 |
|---|---|---|
| | **$** | $ |
| Net loss before income tax | **(7,257,498)** | (5,785,454) |
| Combined Federal and Provincial income tax rate | **26.50%** | 26.50% |
| Recovery based on statutory tax rate | **(1,923,237)** | (1,533,145) |
| Increase (decrease) in tax expense | | |
| Permanent differences | **976,945** | 513,442 |
| Effect of different tax rates in foreign jurisdictions | **(65,792)** | (59,386) |
| Change in temporary differences not recognized | **663,505** | (823,284) |
| R&D credit | **(64,695)** | (61,396) |
| Adjustment related to prior periods | **-** | 1,585,012 |
| Other | **(1,694)** | (97,944) |
| Debt forgiveness | **-** | 207,541 |
| Deductible equity issuance costs | **-** | (196,332) |
| Foreign exchange translation | **198,913** | 465,492 |
| Income tax expense (recovery) | **(216,056)** | - |
| Net loss | **(7,041,442)** | (5,785,454) |

Deferred tax assets (liabilities) recognized in the Consolidated Statements of Financial Position:

| | **2022** | 2021 |
|---|---|---|
| | **$** | $ |
| Unused tax losses | **305,739** | 172,105 |
| Convertible debentures | **(288,929)** | (104,864) |
| Right-of-use asset | **(16,810)** | (67,241) |
| Deferred tax assets | **-** | - |

Deferred tax assets (liabilities) not recognized in the Consolidated Statements of Financial Position:

| | **2022** | 2021 |
|---|---|---|
| | **$** | $ |
| Unused tax losses | **34,394,895** | 33,984,296 |
| Undeducted SR&ED expenses | **5,961,232** | 5,961,232 |
| Investment tax credits carried forward | **4,897,722** | 4,871,175 |
| Tangible and intangible assets | **704,885** | 636,740 |
| Share issuance costs and financing fees | **255,556** | 367,110 |
| Convertible debentures | **(288,929)** | (104,864) |
| Right-of-use asset | **(16,810)** | (67,241) |
| Provisions | **1,049,686** | 243,540 |
| Other | **246,824** | 111,729 |
| Deferred tax assets | **47,205,061** | 46,003,717 |

(Expressed in United States Dollars)

*Non-capital losses*

As at December 31, 2022, the Company has non-capital losses for carry forward to reduce future years' income for tax purposes which, if unused, expire as follows:

| | Canada | USA |
|---|---|---|
| | $ | $ |
| 2025 | 2,877,000 | - |
| 2026 | 3,757,000 | - |
| 2027 | 4,371,000 | - |
| 2028 | 4,371,000 | - |
| 2029 | 2,715,000 | - |
| 2030 | 5,514,000 | - |
| 2031 | 6,394,000 | - |
| 2032 | 1,549,000 | - |
| 2033 | 8,150,000 | |
| 2034 | 6,720,000 | - |
| 2035 | 10,017,000 | 105,863 |
| 2036 | 10,415,000 | - |
| 2037 | 9,148,000 | 153,048 |
| 2038 | 13,680,000 | - |
| 2039 | 4,336,000 | - |
| 2040 | 1,907,000 | - |
| 2041 | 4,735,000 | - |
| 2042 | 3,435,000 | |
| Indefinitely | - | 2,489,152 |
| | 104,091,000 | 2,748,063 |

The Company has Irish loss carry forwards of $46,419,576 which do not expire. These losses can be carried forward indefinitely for offset against future profits of the same trade.

*Undeducted scientific research and experimental development expenses*

As at December 31, 2022, the Company has unused scientific research and experimental development expenditures ("SR&ED") available in Canada for carry forward to reduce future years' income for tax purposes of $22,495,216 (December 31, 2021 - $22,495,216). These undeducted expenses have no expiry date.

*Available scientific research and experimental development investment tax credits*

The Company has non-refundable scientific research and experimental development investment tax credits in Ireland and Canada that can be applied against income taxes payable in each respective country. The Irish ITC of $2,734,670 (December 31, 2020 - $2,708,120) do not expire.

The unused Canadian ITC of $2,943,000 expire as follows:

| | Canada |
|---|---|
| | $ |
| 2024 | 27,000 |
| 2025 | 274,000 |
| 2026 | 764,000 |
| 2027 | 686,000 |
| 2028 | 346,000 |
| 2029 | 198,000 |
| 2030 | 504,000 |
| 2031 | 108,000 |
| 2032 | 36,000 |
| | 2,943,000 |

**16. Financial instruments**

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

*Fair value*

The fair value of cash, trade and other receivables, trade and other payables, lease obligation on right-of-use assets approximate their carrying values due to their short-term nature. The fair value of convertible debentures as at December 31, 2022 approximates the carrying value as the interest rate approximates current market rates.

| | **December 31, 2022** | | December 31, 2021 | |
|---|---|---|---|---|
| | **Carrying Value** | **Fair Value** | Carrying Value | Fair Value |
| | **$** | **$** | $ | $ |
| Financial assets | | | | |
| Cash | **772,255** | **772,255** | 5,944,155 | 5,944,155 |
| Trade and other receivables | **2,526,848** | **2,526,848** | 2,673,175 | 2,673,175 |
| Financial liabilities | | | | |
| Trade and other payables | **1,932,000** | **1,932,000** | 2,387,457 | 2,387,457 |
| Lease obligation on right-of-use assets | **87,204** | **87,204** | 331,758 | 331,758 |
| Convertible debentures | **5,640,272** | **5,640,272** | 5,947,307 | 5,947,307 |

*Basis of fair values*

Assets and liabilities recorded at fair value on the statement of financial position are classified using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. The fair value hierarchy has the following levels:

Level 1 – quoted prices (unadjusted) observed in active markets for identical assets or liabilities.
Level 2 – inputs other than quoted prices included in level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
Level 3 – inputs for the asset or liability that are not based on observable market data (unobservable inputs)

If the inputs used to measure the fair value of an asset or liability fall into different levels of the fair value hierarchy, then the fair value measurement is categorized in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

The Company recognizes transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred. There have been no significant transfers between levels during the year.

*Foreign currency risk*

The Company may undertake sales and purchases transactions in foreign currencies, and therefore is exposed to gains or losses due to fluctuations in foreign currency exchange rates. Management believes the foreign exchange risk derived from currency conversions is currently low and therefore does not actively hedge its foreign currency risk. There has been no change to the Company's policies and processes with respect to the way it manages foreign currency risk. The balance sheet includes the following amounts expressed in United States dollars with respect to financial assets and liabilities for which cash flows are denominated in the following foreign currencies:

(Expressed in United States Dollars)

| | **December 31, 2022** | December 31, 2021 |
|---|---|---|
| | **$** | $ |
| Cash | | |
| Canadian dollars | **60,475** | 5,467,932 |
| Euro | **6,009** | 527 |
| Chinese Yuan | **5,511** | 3,953 |
| Trade and other receivables | | |
| Canadian dollars | **-** | - |
| Euro | **-** | - |
| Investment tax credits receivable | | |
| Euro | **13,545** | 11,109 |
| Accounts payable and accrued charges | | |
| Canadian dollars | **91,933** | 156,122 |
| Euro | **21,268** | 28,925 |
| British pound | **5,864** | 6,530 |
| Chinese Yuan | **6,896** | 21,646 |
| Taiwan Dollar | **-** | - |

As at December 31, 2022, a change of foreign currency exchange rate on Canadian dollars would have resulted in a gain or loss of $3,145 which is not significant to the Company's operating results. The effect of currency exchange rate for the other currencies was not significant.

*Interest risk*

Interest rate risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate due to changes in market interest rates. Interest rate risk associated with the Company's 14% Debentures arises from fluctuations in interest rates and the degree of volatility of these rates. The 14% Debentures provide for a fixed annual rate of 14% and hence no interest rate risk. The Company does not use derivative financial instruments to reduce its exposure to interest rate risk.

*Credit risk*

Credit risk is the risk of loss associated with a counterparty's inability to fulfill its payment obligations. The Company's credit risk is primarily attributable to trade and other receivables and money held in the Company's bank accounts. The carrying value of these assets represents the maximum credit exposure. The Company mitigates this risk by monitoring the credit worthiness of its customers and only dealing with creditworthy counterparties. At December 31, 2022, three customers represented 100% of the Company's trade and other receivables.

The Company believes that the trade receivables balance is fully collectable except for $359,942 as at December 31, 2022. As of the approval date as it relates to December 31, 2022, $1,401,692 (2021 - $466,913) in trade receivables remains outstanding. The Company applies the simplified approach to providing for expected credit losses as prescribed by IFRS 9, which permits the use of the lifetime expected loss provision for all trade receivables. The loss allowance is based on the Company's historical collection and loss experience and incorporates forward-looking factors, where appropriate. The provision matrix below shows the expected credit loss rate at each aging category of trade receivables.

(Expressed in United States Dollars)

| | Current | 1-30 | 31-60 | 60-90 | >90 | Total |
|---|---|---|---|---|---|---|
| Trade receivables outstanding at December 31, 2022 | $1,224,455 | $184,493 | $7,400 | $- | $1,470,442 | $2,886,790 |
| Expected loss rate | 0% | 0% | 0% | 0% | 24% | 12% |
| Loss allowance provision | $- | $- | $- | $- | $359,942 | $359,942 |

| | Current | 1-30 | 31-60 | 60-90 | >90 | Total |
|---|---|---|---|---|---|---|
| Trade receivables outstanding at December 31, 2021 | $2,516,655 | $- | $- | $156,520 | $- | $2,673,175 |
| Expected loss rate | 0% | 0% | 0% | 0% | 0% | 0% |
| Loss allowance provision | $- | $- | $- | $- | $- | $- |

*Liquidity risk*

The Company's objective is to have sufficient liquidity to meet its liabilities when due. The Company monitors its cash balances and cash flows generated from operations to meet its requirements. There has been no change to the Company's policies and processes with respect to the way it manages liquidity risk.

The following are the contractual maturities of the undiscounted financial liabilities as at December 31, 2022:

| | Total | Less than 1 year | 1-3 years | 4-5 years | After 5 years |
|---|---|---|---|---|---|
| | $ | $ | $ | $ | $ |
| Trade and other payables | 1,932,000 | 1,932,000 | - | - | - |
| Convertible debentures | 8,777,934 | 1,309,520 | 7,468,414 | - | - |
| Lease obligation on right-of-use assets | 87,204 | 87,204 | - | - | - |
| | 10,797,138 | 3,328,724 | 7,468,414 | - | - |

The following are the contractual maturities of the undiscounted financial liabilities as at December 31, 2021:

| | Total | Less than 1 year | 1-3 years | 4-5 years | After 5 years |
|---|---|---|---|---|---|
| | $ | $ | $ | $ | $ |
| Trade and other payables | 2,387,457 | 2,387,457 | - | - | - |
| Convertible debentures | 6,534,099 | 6,534,099 | - | - | - |
| Lease obligation on right-of-use assets | 352,800 | 264,000 | 88,800 | - | - |
| | 9,274,356 | 9,185,556 | 88,800 | - | - |

## 17. Guarantees

In the normal course of business, the Company enters into agreements that meet the definition of a guarantee. The Company's primary guarantees are as follows:

(a) The Company has provided indemnities under its lease agreements for the use of its operating facilities. Under the terms of these agreements, the Company agrees to indemnify the counterparties for various items including, but not limited to, all liabilities, loss, suits, and damages arising during, on or after the term of the agreement. The maximum amount of any potential future payment cannot be reasonably estimated.

(b) Indemnity has been provided to all directors and officers of the Company for various items including, but not limited to, all costs to settle suits or actions due to association with the Company, subject to certain restrictions. The Company has purchased directors' and officers' liability insurance to mitigate the cost of any potential future suits or actions. The term of the indemnification is not explicitly defined, but is limited to the period over which the indemnified party served as a director or officer of the Company. The maximum amount of any potential future payment cannot be reasonably estimated.

(c) In the normal course of business, the Company has entered into agreements that include indemnities in favor of third parties, such as purchase and sale agreements, confidentiality agreements, engagement letters with advisors and consultants, outsourcing agreements, leasing contracts, information technology agreements and service agreements. These indemnities may require the Company to compensate counterparties for losses incurred by the counterparties as a result of breaches in representation and regulations or as a result of litigation claims or statutory sanctions that may be suffered by the counterparty as a consequence of the transaction. The terms of these indemnities are not explicitly defined and the maximum amount of any potential reimbursement cannot be reasonably estimated.

The nature of these indemnities prevents the Company from making a reasonable estimate of the maximum exposure due to the difficulties in assessing the amount of liability which stems from the unpredictability of future events and the unlimited coverage offered to counterparties. Historically, the Company has not made any payments under such or similar indemnities and therefore no amount has been accrued in the Consolidated Statements of Financial Position with respect to these indemnities.

## 18. Capital management

The Company's objectives when managing capital are to: (i) ensure the Company continues to operate as a going concern to maximize the return on investment to shareholders; (ii) ensure sufficient liquidity to meet the Company's financial obligations and to execute its operating and strategic plans; and (iii) minimize the after tax cost of capital while taking into consideration current and future industry, market and economic risks and conditions. The Company's capital structure consists of its equity, loan facility and convertible debentures. Other than covenants disclosed in convertible debentures note (Note 10), there are no externally imposed restrictions on capital.

The Company intends to maintain a flexible capital structure in order to finance its ongoing growth and respond to changes in economic conditions.

## 19. Segment information

*Operating segment*

The Company operates in one operating segment, semiconductors. Management assesses performance and makes decisions about allocating resources based on this one business segment.

*Geographic information*

For the years ended December 31, 2022 and 2021, revenues were derived from customers in Asia.

At December 31, 2022, there were non-current assets, primarily property and equipment, located in the United States of America of $400,796 and at December 31, 2021, $343,785.

**20. Subsequent events**

March 2023 Private Placement

On March 15, 2023, the Company completed a brokered private placement (the "March 2023 Private Placement") of 5,990,000 units (the "March 2023 Units"). The price per March 2023 Unit was CDN $1.00 for gross proceeds of $4,342,750 (CDN $5,990,000). Each March 2023 Unit consists of one common share and one common share purchase warrant (each, a "March 2023 Warrant") with each March 2023 Warrant being exercisable into one common share at an exercise price of CDN $1.18 until March 15, 2028, subject to adjustment upon certain customary events. The expiry date of the March 2023 Warrants can be accelerated by the Company to the date that is thirty (30) days following the delivery of an acceleration notice to the holders of the March 2023 Warrants if, at any time following the closing date of the March 2023 Private Placement, the closing price of the common shares is greater than CDN $4.00 for a period of 10 non-consecutive trading days on the TSXV.

In connection with the March 2023 Private Placement, the Company paid a commission of $291,183 (CDN $401,632) and issued 229,504 broker warrants, with each broker warrant being exercisable into one common share at a price of CDN $1.10 for the period commencing on the date that is six months after the closing date until the fifth anniversary of the closing date.

Operating Lease Extension

In March 2023, the Company entered into another amendment to extend the lease for its headquarters through April 2024 and reduced its monthly rent expense for the extended period.

Restricted Share Unit Grants

On April 20, 2023, the Company granted an aggregate of 880,590 RSUs to certain officers, directors, and employees of the Company pursuant to the RSU Plan.