Consolidated Financial Statements of

Biorem Inc.

December 31, 2018 and 2017

Biorem Inc.

December 31, 2018 and 2017

Table of contents

Independent Auditor's Report

To the Shareholders of Biorem Inc.:

Opinion

We have audited the consolidated financial statements of Biorem Inc. and its subsidiaries (the "Company"), which comprise the consolidated statements of financial position as at December 31, 2018 and December 31, 2017, and the consolidated statements of operations, comprehensive earnings, changes in shareholders' equity 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 consolidated financial position of the Company as at December 31, 2018 and December 31, 2017, and its consolidated financial performance and its consolidated 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.

Other Information

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

Our opinion on the consolidated 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.

The engagement partner on the audit resulting in this independent auditor's report is Sandra Alison Solecki.

MNP LLP

Mississauga, Ontario — Chartered Professional Accountants

March 18, 2019 — Licensed Public Accountants

Biorem Inc.

Consolidated statements of financial position
December 31, 2018 and 2017

In Canadian dollars	Note	2018	2017
		$	$
Assets			
Current assets			
Cash and cash equivalents	**10**	3,950,395	3,568,447
Accounts receivable	**11**	8,610,741	8,010,558
Unbilled revenue	**4**	4,529,964	2,622,411
Inventories	**12**	431,412	705,198
Prepaid expenses and deposits		312,910	674,710
		17,835,422	15,581,324
Non-current assets			
Equipment and leasehold improvements	**13**	262,506	80,459
Deferred tax assets	**8**	2,950,000	-
Total assets		21,047,928	15,661,783
Liabilities and shareholders' equity			
Current liabilities			
Accounts payable		3,816,947	4,012,166
Accrued liabilities		2,152,771	1,345,046
Provisions	**14**	418,222	463,728
Unearned revenue	**4**	1,764,923	2,541,532
		8,152,863	8,362,472
Shareholders' equity			
Common shares	**16**	17,204,855	17,204,855
Contributed surplus		2,059,030	1,950,818
Accumulated other comprehensive income		1,404,591	582,812
Deficit		(7,773,411)	(12,439,174)
Total shareholders' equity		12,895,065	7,299,311
Total liabilities and shareholders' equity		21,047,928	15,661,783
Commitments	**20**		
Contingency	**15**		

See accompanying notes to consolidated financial statements.

Approved on behalf of the Board of Directors of Biorem Inc:

Signed		Signed	
Director	Anthony Ennis	Director	Brian Herner

Biorem Inc.

Consolidated statements of operations
Years ended December 31, 2018 and 2017

In Canadian dollars	Notes	2018	2017
		$	$
Revenue	**4**	24,332,827	22,558,270
Cost of goods sold	**12**	17,954,903	16,287,858
Gross profit		6,377,924	6,270,412
Expenses			
Sales and marketing		2,059,801	2,164,868
Research and development		271,523	393,974
General and administration		2,857,176	2,141,004
Other expense (income)	**6**	(526,339)	42,026
Total operating expenses		4,662,161	4,741,872
Earnings from operations		1,715,763	1,528,540
Finance costs	**7**	-	(1,576)
Net earnings before tax		1,715,763	1,530,116
Income tax recovery	**8**	(2,950,000)	-
Net earnings		4,665,763	1,530,116
Earnings per share, basic	**9**	$ 0.12	$ 0.04
Earnings per share, diluted	**9**	$ 0.12	$ 0.04

See accompanying notes to consolidated financial statements.

Biorem Inc.

Consolidated statements of comprehensive earnings
Years ended December 31, 2018 and 2017

In Canadian dollars	Notes	2018	2017
		$	$
Net earnings		4,665,763	1,530,116
Other comprehensive earnings			
Item that will be not reclassified into profit or loss:			
Foreign currency translation differences on foreign operations		821,779	395,665
Total comprehensive earnings		5,487,542	1,925,781

See accompanying notes to consolidated financial statements.

Biorem Inc.

Consolidated statements of changes in shareholders' equity
Years ended December 31, 2018 and 2017

In Canadian dollars	Notes	Common shares	Share purchase warrants	Contributed surplus	Accumulated other comprehensive income(loss)	Deficit	Total
		$	$	$	$	$	$
Balance, as at December 31, 2016		13,789,081	51,351	2,368,659	187,147	(13,969,290)	2,426,948
Earnings for the year		-	-	-	-	1,530,116	1,530,116
Foreign currency translation differences on foreign operations		-	-	-	395,665	-	395,665
Total comprehensive earnings for the year		-	-	-	395,665	1,530,116	1,925,781
Conversion of debentures	**16**	2,624,142	-	(506,853)	-	-	2,117,289
Warrants exercised	**16**	758,728	(51,351)	-	-	-	707,377
Stock options exercised	**17**	32,904	-	(13,544)	-	-	19,360
Stock-based compensation	**17**	-	-	102,556	-	-	102,556
		3,415,774	(51,351)	(417,841)	-	-	2,946,582
Balance, as at December 31, 2017		17,204,855	-	1,950,818	582,812	(12,439,174)	7,299,311
Earnings for the year		-	-	-	-	4,665,763	4,665,763
Foreign currency translation differences on foreign operations		-	-	-	821,779	-	821,779
Total comprehensive earnings for the year		-	-	-	821,779	4,665,763	5,487,542
Stock-based compensation	**17**	-	-	108,212	-	-	108,212
		-	-	108,212	-	-	108,212
Balance, as at December 31, 2018		17,204,855	-	2,059,030	1,404,591	(7,773,411)	12,895,065

See accompanying notes to the consolidated financial statements

Biorem Inc.

Consolidated statements of cash flows
Years ended December 31, 2018 and 2017

In Canadian dollars	Notes	2018	2017
		$	$
Operating activities			
Net earnings		4,665,763	1,530,116
Items not involving cash:			
Recognition of deferred tax asets	**8**	(2,950,000)	-
Depreciation	**13**	50,698	35,234
Finance (income) costs	**7**	-	(1,576)
Stock based compensation	**17**	108,212	102,556
		1,874,673	1,666,330
Change in non-cash operating working capital			
Restricted cash and cash equivalents		-	528,023
Accounts receivable		(115,171)	(1,016,208)
Unbilled revenue		(1,875,400)	(975,599)
Inventories		303,975	(310,239)
Prepaid expenses and deposits		368,601	(492,951)
Investment tax credits recoverable		-	27,023
Accounts payable		(398,247)	1,183,824
Accrued liabilities		729,006	579,886
Provisions		(45,506)	(40,324)
Unearned revenue		(844,457)	23,486
Cash provided by (used in) operating activities		(2,526)	1,173,251
Investing activities			
Purchase of equipment	**13**	(230,718)	(14,338)
Cash provided by (used in) investing activities		(230,718)	(14,338)
Financing activities			
Proceeds from issuance common shares on exercise of stock options and warrants	**16**	-	726,737
Legal fees related to conversion of convertible debentures		-	(42,640)
Interest (paid) received	**7**	-	1,576
Cash provided by (used in) financing activities		-	685,673
Foreign exchange gain (loss) on foreign denominated cash and cash equivalents		615,192	605,564
Increase in cash and cash equivalents		381,948	2,450,150
Cash and cash equivalents, beginning of year		3,568,447	1,118,297
Cash and cash equivalents, end of year	**10**	3,950,395	3,568,447

See accompanying notes to consolidated financial statements.

1. General information

BIOREM Inc. ("BIOREM") is a company with its head office domiciled in Canada.

The address of BIOREM's registered office is 7496 Wellington Road 34, Puslinch, Ontario. The Company's common shares are listed on the TSX Venture Exchange and trade under the symbol BRM.V. The consolidated financial statements of BIOREM comprise BIOREM and its subsidiaries (together referred to as "the Company"). The Company is primarily involved in the manufacturing of a comprehensive line of high efficiency air pollution control systems that are used to eliminate odorous and harmful contaminants.

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 by the Board of Directors and authorized for issuance on March 18, 2019.

b) Basis of measurement

These consolidated financial statements have been prepared on the historical cost basis of accounting, with the exception of financial instruments classified as fair value through profit and loss, and share based payments, both of which are measured at fair value.

c) Functional and presentation currency

The functional currency of BIOREM and its subsidiaries is the currency of their primary economic environment. These consolidated financial statements are presented in Canadian dollars, which is BIOREM's functional currency. The functional currency of BIOREM's subsidiary located in the United States is the US dollar and the functional currency of BIOREM's subsidiaries located in China is the Chinese renminbi.

d) Use of estimates and judgments

The preparation of the consolidated financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

i) Critical judgments in applying accounting policies

The following are the critical judgments, apart from those involving estimations, that management has made in the process of applying the Company's accounting policies and that have the most significant effects on the amounts recognized in the consolidated financial statements.

Indicators of impairment

IAS 36, *Impairment of assets*, requires management to assess the carrying values of the Company's non-financial assets, excluding inventory, at each reporting period and determine whether indicators of impairment exist. The determination of the existence of indicators of impairment requires judgment. Management also exercises judgment to determine whether there are factors that would indicate a cash generating unit ("CGU") is impaired. Some indicators of impairment that management may consider include changes in the current and expected future use of the asset, external valuations of the asset, and obsolescence or physical damage to the asset.

2. Basis of presentation (continued)

d) Use of estimates and judgements (continued)

ii) *Key sources of estimation uncertainty*

The following are the key sources of estimation uncertainty at the end of the reporting period that have a significant risk of causing a material adjustment to the consolidated financial statements within the next twelve months.

Estimation of contract costs

The Company recognizes revenue on its construction contracts using the percentage-of-completion method, under which contract revenue is recognized in proportion to the contract costs incurred in relation to the total costs estimated to complete the contract, as indicated in note 3(b). The determination of estimated costs to complete contracts requires management to make estimates regarding future material and labour costs. Differences between actual contract costs incurred and estimated contract costs could materially affect the timing of the recognition of contract revenues.

Determination of recoverable amount of equipment and leasehold improvements

Under IAS 36, Impairment of Assets, when indicators of impairment of the Company's non-financial assets, excluding inventory, exist, management is required to estimate the recoverable amount of the asset, as discussed in note 3(i). The determination of the recoverable amount of the asset involves estimates of the future cash flows attributable to the asset, the time-value of money, the life of the asset and/or the fair value of the asset. Differences between the actual amounts of these variables and the estimated amounts could materially affect the consolidated financial statements, both in determining the existence of any impairment and in determining the amount of any impairment.

Determination of useful lives and residual values of long-lived assets

The Company's leasehold improvements and equipment are depreciated or amortized to their residual values over their estimated useful lives as described in note 3(g). On an annual basis, management assesses the estimated useful lives and the residual values of these long-lived assets to determine whether they are still appropriate. In the determination of useful lives, management may consider changes in the current and expected use of the asset, changes to the asset's physical condition, or the acquisition of new assets which render existing assets obsolete. In the determination of residual values, management may consider changes in the asset's physical condition, its anticipated use, and external valuations of the asset. Differences between these estimates and the actual lives and residual values of the Company's long-lived assets could materially affect both the timing and amounts of depreciation and amortization expense.

Provisions

The Company recognizes provisions relating to warranties and termination benefits. As indicated in note 3(k), the determination of the warranty provision is based on historical warranty data, the time-value of money, as well as management's assessment of specific warranty claims, if any. Termination benefits are measured based on management's assessment of the merits of the claim and ultimate estimated settlement cost. Estimates are also made regarding the timing of the cash outflows relating to any termination benefits and warranty claims. Differences between the timing and amount of estimated expenses relating to these claims could differ materially from the actual expenses incurred.

3. Significant accounting policies

The accounting policies set out below have been applied consistently to all periods presented in these consolidated financial statements, unless otherwise indicated. The accounting policies have been consistently applied by the Company's subsidiaries.

a) Basis of consolidation

Subsidiaries are entities controlled by the Company. The financial statements of subsidiaries (which are wholly owned by the Company) are included in the consolidated financial statements from the date that control commences until the date that control ceases. Accordingly, the consolidated financial statements include the accounts of Biorem Technologies Inc., Biorem Environmental Inc., Biorem Hong Kong, Biorem (Beijing) Environmental Technologies Company Limited and Tianjin Biqing Environmental Technology Co., Ltd in addition to those of BIOREM. All significant inter-company transactions and balances have been eliminated.

b) Revenue recognition

The Company generates revenues from the sale of standard products, from construction projects for specialized products and from services for repairs and maintenance.

Revenue is measured at the fair value of the consideration received or receivable, net of returns and trade discounts.

i) Standard products

Revenue for standard products is recognized when persuasive evidence of an arrangement exists, usually in the form of an executed sales agreement, the significant risks and rewards of ownership have been transferred to the buyer, recovery of the consideration is probable, the associated costs and possible return of products can be estimated reliably, there is no continuing management involvement with the products, and the amount of revenue can be measured reliably. The timing of the transfers of risks and rewards of ownership varies depending on the individual terms of the contract of sale but are primarily on the delivery of the product to the end user.

ii) Construction contracts

The Company derives revenue from construction contracts which require performance over a time span which may extend beyond one or more accounting periods. The Company recognizes revenue on construction contracts using the percentage-of-completion method, based on costs incurred relative to the estimated total contract costs.

Contract revenue includes the initial amount agreed in the contract plus any variations in contract estimated reliably, contract revenue is recognized in profit or loss in proportion to the stage of completion of the contract. Contract costs are expensed as incurred. Contract costs include all amounts that relate directly to the specific contract, are attributable to contract activity, and are specifically chargeable to the customer under the terms of the contract.

The stage of completion of a contract is determined by reference to actual costs of work performed and estimates of remaining work to be completed. When the outcome of a construction contract cannot be estimated reliably, contract revenue is recognized only to the extent of contract costs incurred that are likely to be recoverable. An expected loss on a contract is recognized immediately in profit or loss.

On an ongoing basis, the estimated total costs for construction contracts are revised based on the information available at the end of the reporting period. Changes in estimated total costs are reflected in the percentage of completion calculation of applicable projects in the same period as the change in estimate occurs.

Unbilled revenue represents revenue earned in excess of amounts billed on uncompleted contracts.

Unearned revenue represents the excess of amounts billed to customers over revenue earned on uncompleted contracts.

3. Significant accounting policies (continued)

b) Revenue recognition (continued)

iii) Services

Revenue relating to services rendered is recognized in profit or loss when the service is provided.

c) Foreign currency

i) Foreign currency transactions

Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated into Canadian dollars at rates of exchange in effect at that date. Non-monetary assets and liabilities arising from transactions denominated in foreign currencies are translated at the historical exchange rate. Revenues and expenses denominated in a foreign currency are translated at the monthly average exchange rate which approximates the historical exchange rate on the date of the transaction. Adjustments to the Canadian dollar equivalent of foreign denominated monetary assets and liabilities due to the impact of exchange rate changes are recognized in other income in the statement of operations at each reporting period.

ii) Foreign operations

On consolidation, assets and liabilities of BIOREM's subsidiaries are translated into the Canadian dollar at the exchange rate on the reporting date. The income and expenses of foreign operations are translated to Canadian dollars using average exchange rates for the month during which the transactions occurred. Foreign currency differences arising on the translation of foreign operations are recognized and presented in other comprehensive earnings (loss).

d) Financial instruments

The Company aggregates its financial instruments into classes based on their nature and characteristics. The Company has classified its financial instruments as follows:

- Cash and cash equivalents are classified as loans and receivables
- Restricted cash and cash equivalents are classified as loans and receivables
- Accounts receivable are classified as loans and receivables
- Accounts payable, accrued liabilities and provisions are classified as other liabilities
- Long-term and short-term debt are classified as other liabilities

e) Inventories

Inventories are measured at the lower of cost and net realizable value. The cost of inventories is based on the weighted average and includes expenditures incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing condition. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses. When circumstances which previously caused inventories to be written down to its net realizable value no longer exist, the previous impairment is reversed.

f) Equipment and leasehold improvements

Equipment and leasehold improvements are measured at cost less accumulated depreciation, applicable government assistance or investment tax credits, and any recognized impairment loss.

Cost includes expenditures that are directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labour, any other costs directly attributable to bringing the assets to a working condition for their intended use, the costs of dismantling and removing the items and restoring the site on which they are located, and borrowing costs on qualifying assets.

3. Significant accounting policies (continued)

g) Equipment and leasehold improvements (continued)

Purchased software that is integral to the functionality of the related equipment is capitalized as part of that equipment.

Depreciation is recognized so as to write off the cost of assets less their residual values over their useful lives on the following bases:

Asset	Basis	Rate
Research and production equipment	Declining balance	20%
Office equipment	Straight-line or declining balance	3 years or 20%
Leasehold improvements	Straight-line	lesser of term of lease and useful life

Depreciation methods, useful lives and residual values are reviewed at each financial year end and adjusted if appropriate.

The gain or loss arising on the disposal or retirement of an asset is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognized in income at the time of disposal.

h) Impairment of non-financial assets

The carrying amounts of the Company’s non-financial assets, other than inventories, are reviewed at each reporting date to determine if there is any indication of impairment. If such indication exists, then the asset’s recoverable amount is estimated. An impairment loss is recognized if the carrying amount of an asset or its related cash generating unit (“CGU”) exceeds its estimated recoverable amount.

The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. 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 or CGU.

The Company’s corporate assets do not generate separate cash inflows and are utilized by more than one CGU. Corporate assets are allocated to CGUs on a reasonable and consistent basis and tested for impairment as part of the testing of the CGU to which the corporate asset is allocated.

Assets that suffer an impairment are tested for possible reversal of the impairment at each reporting date.

i) Leases

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases are recognized in profit or loss on a straight-line basis over the term of the lease. Lease incentives received are recognized as an integral part of the total lease expense, over the term of the lease.

3. Significant accounting policies (continued)

j) Provisions

Provisions are recognized when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that the Company will be required to settle that obligation and a reliable estimate can be made of the amount of the obligation.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. Provisions are determined by discounting the cash flows estimated to settle the obligation at a pre-tax rate that reflects current market assessment of the time value of money and risks specific to the Company. The unwinding of the discount is recognized as finance cost.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognized as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

A provision for warranties is recognized when the underlying products or services are sold. The provision is based on historical warranty data and a weighting of all possible outcomes against their associated probabilities.

k) Stock options

The grant-date fair value of share-based payment awards granted to employees is recognized as an employee expense, with a corresponding increase in contributed surplus, over the period that the employees unconditionally become entitled to the awards. The amount recognized as an expense is adjusted to reflect the number of awards for which the related service and non-market vesting conditions are expected to be met, such that the amount ultimately recognized as an expense is based on the number of awards that meet the related service and non-market performance conditions at the vesting date.

l) Government grants

Government grants are not recognized until there is reasonable assurance that the Company will comply with the conditions attaching to them and that the grants will be received.

The benefit of a government loan at a below-market rate of interest is treated as a government grant, measured as the difference between proceeds received and the fair value of the loan based on prevailing market interest rates.

Government grants whose primary condition is that the Company should purchase, construct or otherwise acquire non-current assets are treated as a reduction of the plant and equipment costs.

Other government grants are recognized as other income over the periods necessary to correspond with the costs for which they are intended to compensate, on a systematic basis. Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Company with no future related costs are recognized in profit or loss in the period in which they become receivable.

m) Finance costs

Finance costs comprise interest expense on borrowings, accretion of provisions and accretion of warrant and transaction costs netted against the Company’s debenture, that are not directly attributable to the acquisition, construction or production of a qualifying asset, are recognized in profit or loss using the effective interest method.

3. Significant accounting policies (continued)

n) Earnings (loss) per share

The Company presents basic and diluted earnings (loss) per share data for its common shares. Basic earnings (loss) per share is calculated by dividing the earnings (loss) attributable to common shareholders of the Company by the weighted average number of common shares outstanding during the period. Diluted earnings (loss) per share is determined by adjusting the earnings (loss) attributable to common shareholders and the weighted average number of common shares outstanding adjusted for the effects of all dilutive potential common shares, which comprise warrants and stock options granted to employees and convertible debentures. The number of additional shares is calculated by assuming that outstanding warrants, share options and convertible debentures were exercised and that proceeds from such exercises along with the unamortized stock based compensation were used to acquire common shares at the average market price during the reporting period.

o) Income tax

Income tax expense comprises current and deferred tax. Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantially enacted at the reporting date, and any adjustment to tax payable in respect of previous years. Deferred tax is recognized in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the reporting date. 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 profits will be available against which they can be utilized.

p) Operating segments

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief decision maker is responsible for allocating resources and assessing the performance of the operating segments and has been identified as the Senior Leadership Team that makes strategic decisions. The Company operates and reports its results as one operating segment.

q) Cash and cash equivalents

Cash and cash equivalents consist of cash on hand and short-term deposits with original maturities of less than three months.

r) Consolidated Statements of cash flows

Cash paid for interest is presented as a financing activity.

s) Investment tax credits

The Company applies for investment tax credits relating to qualified expenditures under available government incentive programs including the Scientific Research and Experimental Development program. The benefit of investment tax credits is recognized when the applicable eligible expenditures generating the investment tax credits are incurred and are recorded as other income. Investment tax credits related to the acquisition of equipment are deducted from the costs of the related assets.

3. Significant accounting policies (continued)

t) New accounting pronouncements adopted

The International Accounting Standards Board has issued the following Standards, Interpretations and amendments to Standards that were adopted by the Company on January 1, 2018.

Effective January 1, 2018 the Company has adopted IFRS 9 Financial Instruments and applied it on a retrospective basis, replacing existing standards and interpretations, including IAS 39 Financial Instruments: Recognition and Measurement. The application of IFRS 9 has not resulted in any differences between the previous carrying amounts and the carrying amounts at the date of initial application of IFRS 9. The adoption of IFRS 9 resulted in changes in accounting policies which are described below.

Classification

On initial recognition, the Company determines the classification of financial instruments based on the following categories:

1. Measured at amortized cost
2. Measured at fair value through profit or loss (FVTPL)
3. Measured at fair value through other comprehensive income (FVOCI)

The classification under IFRS9 is based on the business model under which a financial asset is managed and on its contractual cash flow characteristics. Assets held for the collection of contractual cash flows and for which those cash flows correspond solely to principal repayments and interest payments are measured at amortized cost. Contracts with embedded derivatives where the host is a financial instrument in the scope of the standard will be assessed as a whole for classification.

A financial asset is measured at amortized cost if both of the following criteria are met:

1. Held within a business model whose objective is to hold assets to collect contractual cash flows; and
2. Contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Equity investments held for trading are classified as FVTPL. For all other equity investments that are not held for trading, the Company may irrevocably elect, on initial recognition, to present subsequent changes in the investment's fair value in other comprehensive income. This election is made on an investment-by-investment basis.

Financial liabilities are measured at amortized cost unless they must be measured at FVTPL (such as derivatives), or if the Company has chosen to evaluate them at FVTPL.

3. Significant accounting policies (continued)

t) New accounting pronouncements adopted (continued)

Management has assessed the classification and measurement of our financial instruments under IFRS 9, with reference to the former classification under IAS39, as follows:

Financial Instrument	Classification under IFRS 9	Classification under IAS 39
Cash and cash equivalents	Amortized cost	Loans and receivables
Restricted cash and cash equivalents	Amortized cost	Loans and receivables
Accounts receivable	Amortized cost	Loans and receivables
Accounts payable	Amortized cost	Other liabilities
Accrued liabilities	Amortized cost	Other liabilities
Provisions	Amortized cost	Other liabilities
Derivative financial instruments	FVTPL	FVTPL

Measurement

Initial recognition – A financial asset or financial liability is initially recorded at its fair value, which is typically the transaction price, plus or minus transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability. In the event that fair value is determined to be different from the transaction price, and that fair value is evidenced by a quoted price in an active market for an identical asset or liability or is based on a valuation technique that uses only data from observable markets, then the difference between fair value and transaction price is recognized as a gain or loss at the time of initial recognition.

Amortized cost – The amount at which a financial asset or financial liability is measured at initial recognition minus the principal repayments, plus or minus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount and, for financial assets, adjusted for any expected credit losses. The effective interest method is a method of calculating the amortized cost of a financial asset or liability and of allocating interest and any transaction costs over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts or payments through the expected life of the financial asset or liability to the net carrying amount on initial recognition.

Fair value through profit or loss – Changes in fair value after initial recognition, whether realized or not, are recognized through the consolidated statements of net loss and comprehensive loss. Income arising in the form of interest, dividends, or similar, is recognized through the consolidated statements of net loss and comprehensive loss when the right to receive payment is established, the economic benefits will flow to the Company, and the amount can be measured reliably.

Fair value through other comprehensive income – Changes in fair value after initial recognition, whether realized or not, are recognized through other comprehensive income. Income arising in the form of interest, dividends, or similar, is recognized through the consolidated statements of net loss and comprehensive loss when the right to receive payment is established, the economic benefits will flow to the Company, and the amount can be measured reliably.

3. Significant accounting policies (continued)

t) New accounting pronouncements adopted (continued)

Impairment

In relation to the impairment of financial assets, IFRS 9 requires an expected credit loss model. The expected credit loss model requires an entity to account for expected credit losses and changes in those expected credit losses at each reporting date to reflect changes in credit risk since initial recognition.

The Company has applied the simplified approach to recognize lifetime expected credit losses for its accounts receivable. In general, the Company anticipates that the application of the expected credit loss model of IFRS 9 results in earlier recognition of credit losses for the respective items.

Derecognition

Financial assets – The Company derecognizes a financial asset when the contractual rights to the cash flows from the financial asset have expired or when contractual rights to the cash flows have been transferred. Gains and losses from the derecognition are recognized in the consolidated statements of net loss and comprehensive loss.

Financial liabilities – The Corporation derecognizes a financial liability when the obligation specified in the contract is discharged, canceled or expired. The difference between the carrying amount of the derecognized financial liability and the consideration paid or payable, including non-cash assets transferred or liabilities assumed, is recognized in the consolidated statements of net loss and comprehensive loss.

Revenue from Contracts with Customers

Effective January 1, 2018 the Company has adopted IFRS 15 Revenue from Contracts with Customers effective January 1, 2018 and applied it on a modified retrospective basis, replacing existing standards and interpretations, including IAS 18, Revenue and IAS 11 Construction Contracts. The application of IFRS 15 has not resulted in any differences between the previous carrying amounts and the carrying amounts at the date of initial application of IFRS 15. The adoption of IFRS 15 resulted in changes in accounting policies which are described below.

The core principle of IFRS 15 is that an entity should recognize revenue based on the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Specifically, IFRS 15 introduces a 5-step approach to revenue recognition:

Step 1: Identify the contract(s) with a customer
Step 2: Identify the performance obligations in the contract
Step 3: Determine the transaction price
Step 4: Allocate the transaction price to the performance obligations in the contract
Step 5: Recognise revenue when (or as) the entity satisfies a performance obligation

Under IFRS 15, an entity recognizes revenue as a performance obligation is satisfied, i.e. when control of the goods or services underlying the particular performance obligation is transferred to the customer.

3. Significant accounting policies (continued)

t) New accounting pronouncements adopted (continued)

Change orders and claims

Change orders and claims, referred to as contract modifications were previously recognized as per guidance provided in IAS 11, Construction Contracts (“IAS 11”). Under such guidance, revenue can be recognized on contract modifications only when certain conditions are met, including the fact that it is probable the customer will approve the modification and the amount of revenue arising from such contract modifications. IFRS 15 also provides guidance on the recognition of revenue from contract modifications. Such guidance is based, among other factors, on the fact that the contract modification is approved and it is highly probable that a significant reversal in the amount of cumulative revenue recognized on such contract modifications will not occur when the uncertainty is subsequently resolved. Given that under IAS 11, the Company had only recognized contract modifications that have been approved by customers the new higher level of probability to be applied under IFRS 15 will had no impact on revenue recognition by the Company.

Measure of anticipated revenues and determination of progress

Under IFRS 15, the amount of anticipated revenue used when determining the amount of revenue to be recognized must be based on contracts with legally enforceable rights and obligations. Previously the Company only recognizes revenue from contracts with legally enforceable rights and obligations so the adoption of IFRS 15 will had no significant impact on retained earnings or the amount of future reported revenues.

IFRS 15 requires that assurance-type warranty costs to be excluded from the measure of progress of projects for which revenue is recognized over time using a cost input method. The Company previously accounted for its assurance-type warranty costs as costs independent and subsequent to project completion and revenue recognition. As a result, the Company carried a provision for such expected warranty costs in accordance with IAS 37, Provisions, Contingent Liabilities and Contingent Assets, based on the advancement of the projects. Consequently, the adoption of IFRS 15 had no significant impact on the way the Company determines warranty provision.

u) New accounting pronouncements not yet adopted

IFRS 16: Leases will replace IAS 17 Leases and requires assets and liabilities arising from all leases, with some exceptions, to be recognized on the balance sheet. The new standard will be effective for annual periods beginning on or after January 1, 2019. The Company currently has no material outstanding leases and does not expect the adoption of this standard to have a material impact on the consolidated financial statements.

4. Revenue

	2018	2017
	$	$
Standard products and services	1,245,841	1,077,902
Construction contracts	23,086,986	21,480,368
	24,332,827	22,558,270

Costs and estimated earnings on uncompleted contracts

	2018	2017
	$	$
Costs incurred on uncompleted contracts	26,142,726	21,631,850
Estimated earnings on uncompleted contracts, net of recognized losses	14,901,267	14,549,697
	41,043,993	36,181,547
Less: billings to date	(38,278,952)	(36,100,668)
	2,765,041	80,879
Unbilled revenue	4,529,964	2,622,411
Unearned revenue	(1,764,923)	(2,541,532)
	2,765,041	80,879

5. Segmented information

The Company attributes revenues to geographical regions based on the domicile of its customers.

Management has determined that the Company operates in one dominant industry segment, which involves the manufacture and sale of high efficiency air pollution control systems.

The Company's revenue and capital assets breaks down geographically as follows:

	Revenue		Capital assets (1)	
	2018	2017	2018	2017
	$	$	$	$
Canada	3,216,100	5,487,767	26,928	38,122
United States	14,447,651	14,168,828	43,462	25,150
China	3,888,932	1,065,988	192,116	17,187
Other international	2,780,144	1,835,687	-	-
Total	24,332,827	22,558,270	262,506	80,459

(1) Includes equipment and leasehold improvements.

In 2018, eight customers accounted for 53% of total revenue (2017 – four customers accounted for 34% of total revenue). Six customers accounted for 63% of accounts receivable at December 31, 2018 (2017 - three customers accounted for 48%).

6. Other expense (income)

	2018	2017
	$	$
Foreign exchange loss (gain)	(496,078)	129,766
Government funding	(16,713)	(31,300)
Investment tax credits	(13,548)	(56,440)
	(526,339)	42,026

Investment tax credits

The Company is eligible for Federal investment tax credits at a rate of 20% of qualifying scientific research and experimental development expenditures conducted in Canada, in addition to investment tax credits or deductions available from provincial jurisdictions. Federal investment tax credits are only available to the Company to be applied against future income taxes payable and, accordingly, no recognition of Federal amounts has been reflected in the consolidated statement of financial position.

Government funding

The Company receives funding from the Natural Sciences and Engineering Research Council (“NSERC”) for the employment of university students in research. The Company recorded $3,375 as other income during the year (2017- $27,000).

In prior years the Company has been approved for funding through the Industrial Research Assistance Program (IRAP). The funding is to support the Company’s research into advanced biological technologies for the control of odour and volatile organic compounds. The Company receives contributions of 50% of the eligible costs. The Company has recorded $13,338 as other income during the year (2017 - $4,300).

7. Finance costs

	2018	2017
	$	$
Short term interest	-	(1,576)
Long-term debt interest	-	-
	-	(1,576)

8. Income taxes

a) Income tax recognized in net earnings

	2018	2017
	$	$
Net earnings before tax	1,715,763	1,530,116
Income tax expense calculated at 26.5% (2017 - 26.5%)	454,677	405,480
Change in tax rates	-	373,023
Effect of tax rate differential in foreign operations	(37,648)	422
Effect of expenses that are not deductible in determining taxable profit	34,025	28,554
Effect of losses (utilized) carried forward	(451,054)	(807,479)
Effect of previously unrecognized tax assets	(2,950,000)	-
Income tax expense recognized in net earnings	(2,950,000)	-

In 2018, given the Company's past four years of profitability and the Company's current order backlog, management revised their estimates of future taxable profits and the Company recognized the tax effect of $238,000 of previously unrecognized tax losses, $590,000 of previously unrecognized scientific research and experimental development expenditures, $610,000 previously unrecognized temporary differences and $1,512,000 of previously unrecognized investment tax credits because management considered it probable that future taxable profits would be available against which such losses, tax credits and expenditures can be used.

b) Deferred tax assets

	2018	2017
	$	$
Tax assets		
Benefit of tax losses to be carried forward	238,000	367,000
Scientific research and experimental development expenditures available in future years	2,038,000	2,363,000
Provisions not yet deducted for tax	488,000	547,000
Capital assets - difference in accounting book value and undepreciated tax capital cost	186,000	180,000
Valuation Allowance	-	(3,457,000)
	2,950,000	-

In 2017 deferred tax assets were not recognized as assets of the Company as at that time it was not determined probable that future taxable profits would be available against which tax losses and unrecognized expenditures and tax credits could be used.

8. Income taxes (continued)

c) Income tax losses

As at December 31, 2018, the Company has income tax losses and undeducted scientific research and experimental development balances available to reduce future years' taxable income, which expire as follows:

	Canada	U.S.	Total
	$	$	$
2038	-	105,000	105,000
Indefinite	2,225,000	-	2,225,000
	2,225,000	105,000	2,330,000

In addition, the Company has Canadian investment tax credits available to be applied against future income taxes payable in the amount of approximately $1,725,000 which expire as follows:

2024	133,000
2025	261,000
2026	148,000
2027	207,000
2028	261,000
2029	161,000
2030	224,000
2031	68,000
2032	61,000
2033	86,000
2034	38,000
2035	39,000
2036	38,000
	1,725,000

9. Earnings per share

	2018	2017
Basic earnings per share	$ 0.12	$ 0.04
Calculated as:		
Net earnings	$ 4,665,763	$ 1,530,116
Weighted average number of shares outstanding	38,661,558	38,035,406
Diluted earnings per share	$ 0.12	$ 0.04
Calculated as:		
Diluted earnings	$ 4,665,763	$ 1,530,116
Reconciliation of weighted average diluted shares outstanding:		
Weighted average common shares outstanding	38,661,558	38,494,374
Share options	322,022	554,418
Weighted average number of shares outstanding used to calculate diluted earnings per share	38,983,580	39,048,792

10. Cash and cash equivalents

	2018	2017
	$	$
Cash and cash equivalents:		
Cash	3,950,395	3,568,447

11. Accounts receivable

The aging of the trade receivables net of expected credit losses as at December 31 was as follows:

	2018		2017	
	$		$	
0-30 days	4,732,545	55%	2,832,330	36%
31-60 days	1,747,693	20%	3,191,818	40%
61-90 days	211,852	3%	592,865	7%
91-120 days	622,144	7%	354,723	4%
Over 120 days	1,296,507	15%	1,038,822	13%
	8,610,741	100%	8,010,558	100%

Accounts receivable in the amount of $894,833 (2017 - $897,887) (net of expected credit losses) relate to holdbacks associated with project completion and commissioning.

The gross amount due from customers for construction contracts at December 31, 2018 is $8,474,259 (2017 - $7,902,369).

Allowance for expected credit losses	2018	2017
	$	$
Balance at beginning of the year	726,914	673,544
Impairment losses recognized	(7,511)	103,370
Amounts written off during the year as uncollectible	(18,795)	(50,000)
Amounts recovered during the year	-	-
	700,608	726,914

The Company provides for expected credit losses based on its assessment of probability of specific losses, estimates of future individual exposures and provisions based on historical experience.

12. Inventories

	2018	2017
	$	$
Raw materials	93,579	70,350
Finished goods	337,833	634,848
	431,412	705,198

The total amount of inventories included in cost of goods sold for the year was $13,332,782 (2017 - $12,430,442).

The cost of inventories recognized as an expense includes $nil (2017 - $nil) in respect of write-downs of inventories to net realizable value.

The Company did not recognize an impairment expense on inventories during the year (2017-nil).

13. Equipment and leasehold improvements

	Research & production equipment	Office equipment	Leasehold improvements	Total
	$	$	$	$
Cost				
At December 31, 2016	1,527,347	710,722	355,515	2,593,584
Additions	14,338	-	-	14,338
Exchange differences	(37,498)	(8,144)	(1,407)	(47,049)
At December 31, 2017	1,504,187	702,578	354,108	2,560,873
Additions	230,718	-	-	230,718
Exchange differences	45,834	9,954	1,720	57,508
At December 31, 2018	1,780,739	712,532	355,828	2,849,099
Accumulated depreciation				
At December 31, 2016	1,489,252	648,931	350,853	2,489,036
Charge for the year	25,253	7,492	2,489	35,234
Exchange differences	(35,132)	(7,317)	(1,407)	(43,856)
At December 31, 2017	1,479,373	649,106	351,935	2,480,414
Charge for the year	29,326	19,478	1,894	50,698
Disposals	-	-	-	-
Exchange differences	44,013	9,748	1,720	55,481
At December 31, 2018	1,552,712	678,332	355,549	2,586,593
Carrying amount				
At December 31, 2017	24,814	53,472	2,173	80,459
At December 31, 2018	228,027	34,200	279	262,506

Depreciation of $17,493 (2017 - $21,412) has been recognized in cost of goods sold, $Nil (2017 - $3,373) has been recognized in research and development expenses and $33,205 (2017 - $10,449) has been recognized in general and administration expenses.

14. Provisions

Warranty	2018	2017
	$	$
Balance, beginning of year	463,728	504,052
Provisions used during the year	(55,012)	(65,999)
Provisions made during the year	9,506	25,675
	418,222	463,728

15. Contingency

In 2016 the Company along with multiple other defendants was subject to a claim for $12 million for damages related to an explosion at a waste water treatment plant in Ontario in 2014. In 2018 the claim was dismissed without costs with the concurrence of the plaintiff and all the defendants.

From time to time, the Company is subject to legal proceedings and claims arising in the ordinary course of business. Management is of the opinion, based upon information presently available, that it is unlikely that any such liability, to the extent not provided for by insurance or otherwise, would have a material adverse effect in relation to the Company's consolidated financial position, liquidity, or results of operations.

16. Issued capital

	2018		2017	
Common shares	#	$	#	$
Balance, beginning of year	38,661,558	17,204,855	15,680,894	13,789,081
Issued:				
Conversion of debentures	-	-	17,203,304	2,624,142
Exercise of options	-	-	67,000	32,904
Exercise of warrants	-	-	5,710,360	758,728
Balance, end of year	38,661,558	17,204,855	38,661,558	17,204,855

Common shares do not have a par value and carry one vote per share. There are an unlimited number of common shares authorized for issuance.

In connection with a May 2012 issue of Series 1 8% convertible secured subordinated debentures, the Company issued 1,850,472 share purchase warrants which entitled the holder to purchase one common share at a price of $0.178 per share.

During 2017 1,165,360 2012 Series 1 share purchase warrants were exercised for common shares.

In July 2012, the Company issued 5,072,220 share purchase warrants in connection with the issue of Series 2 8% convertible secured subordinated debentures. These share purchase warrants entitled the holder to purchase one common share at a price of $0.11 per share.

During 2017 4,545,000 2012 Series 2 share purchase warrants were exercised for common shares.

16. Issued capital (continued)

$659,000 8% convertible debentures Series 1 were issued in May 2012.

During 2017 $510,000 of Series 1 convertible debentures plus accrued interest were converted to common shares.

$1,116,000 8% convertible debentures Series 2 were issued in July 2012.

During 2017 $1,076,000 of Series 2 convertible debentures plus accrued interest were converted to common shares. A total of $506,853 was reclassified from contributed surplus to share capital relating to the value allocated to the conversion feature. The Company incurred legal costs of $42,640 related to the issuance of the common shares on conversion of the debentures.

At December 31, 2017 and 2018 there were no share purchase warrants outstanding.

17. Stock-based compensation

The Company uses an equity settled employee share option plan to attract and retain key employees, senior executives and directors. Under the terms of the plan, which received shareholder approval, the aggregate number of shares reserved for issuance is fixed at 5,300,000. The maximum number of shares reserved for issuance pursuant to options granted to any one person is limited to 5% of the common shares outstanding at the time of the grant. The share option exercise price is the closing market price of the Company's common shares on the day prior to the date of the grant. Options granted under the plan may be exercised during a period not exceeding ten years from the date of the grant, subject to termination upon the option holder ceasing to be a director, senior executive or employee of the Company and have vesting periods of at least three years. Options issued under the plan are non-transferable.

a) Share options granted under the employee share option plan

As at December 31, 2018, executives and employees held options for 3,356,642 common shares (of which 2,187,428 were unvested), in aggregate, which expire over the period from May 13, 2020 to July11, 2028. As at December 31, 2017, executives and employees held options for 3,478,180 common shares, in aggregate, which expire over the period from May 20, 2018 to June 6, 2027. Share options granted under the employee share option plan carry no rights to dividends and no voting rights.

i) *The following table illustrates the significant assumptions underlying the Company's accounting for stock-based compensation:*

	2018	2017
Weighted average fair value of each option	0.24	0.19
Assumptions		
Weighted average share price	0.29	0.29
Weighted average exercise price	0.35	0.35
Expected volatility	60%	60%
Risk free interest rate	1%	1%
Expected life in years	10 years	10 years
Forfeiture rate	50%	50%
Expected dividend yield	0%	0%

Expected volatility was determined based on historical volatility over the expected life of the options.

17. Stock-based compensation (continued)

i) The following table summarizes the continuity of options issued under the plan:

	2018		2017	
	Number of options	Weighted average exercise price	Number of options	Weighted average exercise price
		$		$
Outstanding, beginning of year	3,478,181	0.62	457,001	0.62
Options forfeited	(108,859)	0.35	(26,320)	0.29
Options expired	(142,680)	0.44	(115,500)	1.25
Options exercised	-	-	(67,000)	0.31
Granted	130,000	0.34	3,230,000	0.35
Outstanding, end of year	3,356,642	0.35	3,478,181	0.62

ii) Options outstanding and exercisable at December 31, 2018:

Number outstanding	Exercise price	Remaining life in years	Number exercisable	Average exercise price
	$			$
50,500	0.68	1.4	50,500	0.68
20,000	0.10	3.5	20,000	0.10
15,000	0.30	6.5	15,000	0.30
20,000	0.28	8.1	13,333	0.28
20,000	0.29	7.5	6,667	0.29
3,021,142	0.345	8.1	1,007,047	0.345
80,000	0.38	8.4	26,667	0.38
130,000	0.34	9.5	30,000	0.34
3,356,642	0.35	8.0	1,169,214	0.35

18. Employee benefits

	2018	2017
	$	$
Wages and salaries	3,262,644	3,376,069
Termination benefits	138,515	-
Compulsory social security contributions	181,283	182,001
Contributions to defined contribution plans	212,758	200,225
Stock-based compensation	108,212	102,556
	3,903,412	3,860,851

19. Related party transactions

Compensation of key management personnel

The remuneration of directors and other members of key management, all of which was incurred in the normal course of operations during the year was as follows:

	2018	2017
	$	$
Short-term benefits	688,731	1,176,370
Stock-based compensation	24,000	64,380
Termination benefits	138,515	-
	851,246	1,240,750

The remuneration of directors and key executives is determined by the remuneration committee having regard to the performance of individuals and market trends. Short-term benefits include salaries, and bonuses.

20. Commitments

The Company is a party to operating leases which relate to leases of a building, property and computer equipment with lease terms of between 1 and 5 years. The Company does not have an option to purchase the leased property at the expiry of the lease periods.

i) Payments recognized as an expense

	2018	2017
	$	$
Minimum lease payments	325,273	242,098

ii) Non-cancellable operating lease commitments

	2018	2017
	$	$
Not later than 1 year	217,800	198,886
Later than 1 year and not later than 5 years	44,245	168,121
	262,045	367,007

21. Financial instruments

a) Financial and capital risk management

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

i) Credit risk

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Company. Credit risk arises primarily from the Company’s cash and cash equivalents and trade receivables. The Company has adopted a policy of only dealing with creditworthy counterparties as a means of mitigating the risk of financial loss from defaults. The Company’s exposure is continuously monitored.

The Company’s objective of managing credit risk is to mitigate the credit losses incurred. Credit risk is mitigated by entering into contracts with stable, creditworthy parties. The Company measures credit risk by reviewing the aging of its receivables. Credit reviews are conducted as deemed necessary and take into account the third party’s financial position and past payment experience. The Company minimizes the credit risk of cash and cash equivalents and restricted cash by making deposits with only reputable entities that have high credit ratings assigned by national credit rating agencies. The Company’s credit risk and related risk management practice remain unchanged from the prior year.

The carrying amount of financial assets recorded in the consolidated financial statements represents the Company’s maximum exposure to credit risk. No collateral or credit enhancements are in place.

At December 31, 2018, the Company had $1,023,819 in trade receivables that were past due against which the Company recorded an allowance for expected credit losses of $700,608.

ii) Market risks

Foreign currency risk:

The Company’s functional and reporting currency is the Canadian dollar. Foreign currency risk is primarily related to the Company’s subsidiary in the US. US operations are conducted primarily in US dollars. The Company’s subsidiary in China conducts business in Chinese renminbi. For the Company’s foreign currency transactions, fluctuations in the respective exchange rates relative to the Canadian dollar will create volatility in the Company’s cash flows and the reported amounts of sales, cost of goods sold and general and administrative expenses on a period-to-period basis and compared with operating budgets and forecasts. The Company’s sales are primarily in Canadian and US dollars. The Company’s objective of managing foreign currency risk is to mitigate or eliminate the losses incurred. There have been no changes to the objective or the related risk exposure from the prior year.

At December 31, 2018 and 2017, the Company held no forward exchange contracts.

The carrying amounts of the Company’s foreign currency denominated monetary assets and monetary liabilities at the balance sheet date are as follows:

	Assets		Liabilities	
	2018	2017	2018	2017
	$	$	$	$
United States dollars	9,381,056	8,198,608	5,169,300	4,620,781
Chinese renminbi	3,731,772	1,510,911	887,595	740,856

22. Financial instruments (continued)

a) Financial and capital risk management (continued)

ii) Market risks (continued)

The following table details the Company's sensitivity to a 10% increase and decrease in the Canadian dollar against the United States dollar. The sensitivity analysis includes only outstanding foreign currency denominated monetary items and adjusts their translation at the period end for a 10% change in foreign currency rates. A positive number below indicates an increase in profit and other comprehensive income where the Canadian dollar strengthens 10% against the United States dollar. For a 10% weakening of the Canadian dollar against the United States dollar, there would be an equal and opposite impact on the profit and other comprehensive income, and the balances below would be negative.

	United States dollar impact	
	2018	2017
	$	$
Profit or loss	705,593	434,788
Other comprehensive income	23,873	4,240

iii) Interest rate risk

The Company is not exposed to short-term fluctuations in interest rates as the Company has no short-term borrowings or long-term debt. The Company's objective of managing interest rate risk is to mitigate interest rate fluctuations while securing financing with the most favourable terms possible. Interest rate risk is managed by negotiating the most favourable terms possible with the Company's lenders.

iv) Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. Ultimate responsibility for liquidity risk management rests with the Board of Directors, which has built an appropriate liquidity risk management framework for the management of the Company's short, medium and long-term funding and liquidity management requirements. The Board of Directors reviews and approves the Company's operating and capital budgets, as well as any material transactions out of the ordinary course of business including proposals on major investments. The Company manages liquidity risk by maintaining adequate reserves, banking facilities and reserve borrowing facilities, by continuously monitoring forecasts and actual cash flows and matching the maturity profiles of financial assets and liabilities.

The Company's objectives of managing liquidity risk are to forecast the liquidity position as accurately as possible and to maintain sufficient resources to pursue its growth strategy. There have been no changes to the Company's objectives during the year. The Company's financial liabilities include accounts payable and accrued liabilities, unearned revenue and contract advances as well as debentures.

A maturity analysis as at December 31, 2018 of the Company's financial liabilities based on gross, undiscounted cash flows is presented below. The maturity analysis is based on the earliest date that liabilities may be due although the Company expects some of its liabilities to be paid later than the earliest date on which the Company can be required to pay.

22. Financial instruments (continued)

a) Financial and capital risk management (continued)

iv) Liquidity risk (continued)

	Carrying Amount	Contractual Cash Flow	Less than 1 month	1-3 months	3 months to 1 year	1+ years	Total
	$	$	$	$	$	$	$
2018							
Accounts payable	3,816,947	3,816,947	3,816,947	-	-	-	3,816,947
Accrued liabilities	2,152,771	2,152,771	2,152,771	-	-	-	2,152,771
	5,969,718	5,969,718	5,969,718	-	-	-	5,969,718
2017							
Accounts payable	4,012,166	4,012,166	4,012,166	-	-	-	4,012,166
Accrued liabilities	1,345,046	1,345,046	1,345,046	-	-	-	1,345,046
	5,357,212	5,357,212	5,357,212	-	-	-	5,357,212

v) Capital management risk

The policy of the Board of Directors is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business.

The capital structure is managed by evaluating shareholders’ equity and long-term debt of the Company.

Shareholders’ equity and long-term debt at end of the reporting period was as follows:

	2018	2017
	$	$
Shareholders' equity	13,104,065	7,299,311

22. Financial instruments (continued)

b) Financial instruments

Categories and fair value of financial instruments

	2018		2017	
	Amortized cost	Fair value	Amortized cost	Fair value
	$	$	$	$
Financial assets				
Cash and cash equivalents	3,950,395	3,950,395	3,568,447	3,568,447
Accounts receivable	8,610,741	8,610,741	8,010,558	8,010,558
	12,561,136	12,561,136	11,579,005	11,579,005
Financial liabilities				
Accounts payable and accrued liabilities	5,969,718	5,969,718	5,357,212	5,357,212
	5,969,718	5,969,718	5,357,212	5,357,212

The Company has determined that the fair value of its short-term financial assets and liabilities approximates their respective carrying amounts because of the short-term maturity of those instruments.

.