PyroGenesis Canada Inc.
Financial Statements
December 31, 2017 and 2016

PyroGenesis Canada Inc.

December 31, 2017 and 2016

Contents

Management's Responsibility

To the Shareholders of PyroGenesis Canada Inc.,

Management is responsible for the preparation and presentation of the accompanying financial statements, including responsibility for significant accounting judgments and estimates in accordance with International Financial Reporting Standards. This responsibility includes selecting appropriate accounting principles and methods, and making decisions affecting the measurement of transactions in which objective judgment is required.

The Board of Directors and Audit Committee are composed primarily of Directors who are neither management nor employees of the Company. The Board of Directors is responsible for overseeing management in the performance of its financial reporting responsibilities, and for approving the financial information included in the annual report. The Board fulfils these responsibilities by reviewing the financial information prepared by management and discussing relevant matters with management and the external auditor. The Audit Committee has the responsibility of meeting with management and the external auditors to discuss the internal controls over the financial reporting process, auditing matters and financial reporting issues. The Audit Committee is also responsible for recommending the appointment of the Company's external auditor.

KPMG LLP, an independent firm of Chartered Professional Accountants, is appointed by the shareholders to audit the financial statements and report directly to them; their report follows. The external auditor has full and free access to, and meets periodically and separately with, both the Audit Committee and management to discuss their audit findings.

April 30, 2018

[Signed by P. Peter Pascali]
P. Peter Pascali, Chief Executive Officer

[Signed by Alan Curleigh]
Alan Curleigh, Interim Chief Financial Officer

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INDEPENDENT AUDITORS' REPORT

To the Shareholders of PyroGenesis Canada Inc.

We have audited the accompanying financial statements of PyroGenesis Canada Inc., which comprise the statements of financial position as at December 31, 2017 and December 31, 2016, the statements of comprehensive loss, changes in shareholders' (deficiency) equity and cash flows for the years then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the financial statements 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 entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of PyroGenesis Canada Inc. as at December 31, 2017 and December 31, 2016, and its financial performance and its cash flows for the years then ended in accordance with International Financial Reporting Standards.

Emphasis of Matter

Without modifying our opinion, we draw attention to Note 1(b) in the financial statements which indicates that PyroGenesis Canada Inc. has incurred operating losses and negative cash flows from operations, has an accumulated deficit and that its operations are dependent on obtaining additional financing. These conditions, along with other matters as set forth in Note 1(b) in the financial statements, indicate the existence of a material uncertainty that may cast significant doubt about PyroGenesis Canada Inc.'s ability to continue as a going concern.

KPMG LLP*

April 30, 2018

Montréal, Canada

*CPA auditor, CA, public accountancy permit No. A119245

PyroGenesis Canada Inc.

Statements of Financial Position

	December 31, 2017	December 31, 2016
	$	$
Assets		
Current assets		
Cash	**622,846**	385,257
Accounts receivable *[note 6]*	**437,869**	422,816
Costs and profits in excess of billings on uncompleted contracts *[note 7]*	**115,226**	475,994
Investment tax credits receivable [note 13]	**797,832**	430,491
Prepaid expenses	**401,405**	254,405
Inventories	**123,735**	-
Total current assets	**2,498,913**	1,968,963
Non-current assets		
Deposits and investments [note 8]	**618,530**	436,730
Property and equipment [note 9]	**2,247,494**	843,238
Intangible assets [note 10]	**404,013**	-
Total assets	**5,768,950**	3,248,931
Liabilities		
Current liabilities		
Accounts payable and accrued liabilities *[note 11]*	**5,481,245**	1,446,728
Billings in excess of costs and profits on uncompleted contracts *[note 12]*	**1,846,715**	1,980,822
Term loans [note 13]	**537,400**	188,600
Current portion of long-term debt *[note 14]*	**120,374**	432,166
Convertible debentures [note 15]	**3,916,549**	-
Total current liabilities	**11,902,283**	4,048,316
Non-current liabilities		
Long-term debt *[note 14]*	**10,290**	-
Convertible debentures *[note 15]*	**-**	3,605,897
Total liabilities	**11,912,573**	7,654,213
Shareholders' deficiency [note 16]		
Common shares	**30,240,844**	25,442,906
Warrants reserve	**96,021**	901,211
Contributed surplus	**6,122,794**	5,679,580
Equity portion of convertible debentures *[note 15]*	**572,582**	572,582
Other equity	**24,844**	24,844
Deficit	**(43,200,708)**	(37,026,405)
Total shareholders' deficiency	**(6,143,623)**	(4,405,282)
Total liabilities and shareholders' deficiency	**5,768,950**	3,248,931

Going concern disclosure, related party transactions, commitments, subsequent events *[notes 1, 20, 26, 27]*

Approved on behalf of the Board:

[Signed by P. Peter Pascali] *P. Peter Pascali* *[Signed by Alan Curleigh]* *Alan Curleigh*

PyroGenesis Canada Inc.

Statements of Comprehensive Loss

Years ended December 31,

	2017	2016
	$	$
Revenue	**7,192,861**	5,222,133
Cost of sales and services other than undernoted write-offs *[note 18]*	**4,065,894**	4,448,031
Gross profit before undernoted write-offs	**3,126,967**	774,102
Write-offs of inventories	**-**	994,015
Write-offs of costs and profits in excess of billings on uncompleted contracts	**-**	1,760,423
Gross profit (loss)	**3,126,967**	(1,980,336)
Expenses		
Selling, general and administrative *[note 18]*	**5,153,850**	4,356,862
Research and development	**289,851**	92,179
Settlement of a claim related to the long-term debt *[note 11 and 14]*	**3,215,643**	-
Net finance costs *[note 19]*	**641,926**	522,842
	9,301,270	4,971,883
Net loss and comprehensive loss	**(6,174,303)**	(6,952,219)
Basic and diluted loss per share	**(0.06)**	(0.07)
Weighted average number of common shares - basic and diluted	**106,013,227**	97,212,727

The accompanying notes form an integral part of the financial statements.

PyroGenesis Canada Inc.

Statements of Changes in Shareholders' (Deficiency) Equity

	Number of Class A common shares	Class A common share capital	Warrants reserve	Contributed Surplus	Equity portion of convertible debentures	Other Equity	Deficit	Total
		$	$	$	$	$	$	$
Balance - December 31, 2016	**101,858,434**	**25,442,906**	**901,211**	**5,679,580**	**572,582**	**24,844**	**(37,026,405)**	**(4,405,282)**
Shares issued upon exercise of warrants and units [note 16]	**7,954,647**	**3,785,700**	**(684,531)**	**-**	**-**	**-**	**-**	**3,101,169**
Shares issued upon exercise of stock options [note 16]	**2,885,000**	**1,012,238**	**-**	**(436,458)**	**-**	**-**	**-**	**575,780**
Share purchase warrants expired [note 16]	**-**	**-**	**(120,659)**	**120,659**	**-**	**-**	**-**	**-**
Share-based payments	**-**	**-**	**-**	**759,013**	**-**	**-**	**-**	**759,013**
Net loss and comprehensive loss	**-**	**-**	**-**	**-**	**-**	**-**	**(6,174,303)**	**(6,174,303)**
Balance – December 31, 2017	**112,698,081**	**30,240,844**	**96,021**	**6,122,794**	**572,582**	**24,844**	**(43,200,708)**	**(6,143,623)**
Balance - December 31, 2015	93,666,729	24,044,772	734,004	5,313,555	572,582	24,844	(30,074,186)	615,571
Issuance of common shares (note 16)	6,131,579	1,001,228	163,772	-	-	-	-	1,165,000
Shares issue cost	-	(11,684)	-	-	-	-	-	(11,684)
Broker warrants	-	(3,435)	3,435	-	-	-	-	-
Shares issued for accounts payable and loan (note 16)	2,060,126	412,025	-	-	-	-	-	412,025
Share-based payments	-	-	-	366,025	-	-	-	366,025
Net loss and comprehensive loss	-	-	-	-	-	-	(6,952,219)	(6,952,219)
Balance –December 31, 2016	101,858,434	25,442,906	901,211	5,679,580	572,582	24,844	(37,026,405)	(4,405,282)

The accompanying notes form an integral part of the financial statements.

PyroGenesis Canada Inc.

Statements of Cash Flows
For the years ended December 31, 2017 and 2016

Years ended December 31,

	2017	2016
	$	$
Cash flows provided by (used in)		
Operating activities		
Net loss	**(6,174,303)**	(6,952,219)
Adjustments for:		
Share-based payments	**759,013**	366,025
Depreciation on property plant and equipment [note 9]	**111,937**	127,405
Finance costs	**503,726**	603,542
Change in fair value of investments	**138,200**	(25,540)
Amortization of intangibles [note 10]	**-**	1,396,675
Write-off of inventory	**-**	994,015
Write-off of costs and profits in excess of billing on uncompleted contracts	**-**	1,760,423
Gain on disposal of investments	**-**	(55,160)
Settlement of a claim related to the long-term debt [note 11]	**3,215,643**	-
Other	**14,968**	-
	(1,430,816)	(1,784,834)
Net change in non-cash operating working capital items [note 17]	**19,394**	774,294
Interest paid	**(301,832)**	(362,367)
	(1,713,254)	(1,372,907)
Investing activities		
Purchase of property and equipment [note 9]	**(1,456,378)**	(452,520)
Additions to intangible assets [note 10]	**(303,855)**	-
Purchase of investments	**-**	(13,500)
Proceeds from disposal of investments	**-**	65,000
	(1,760,233)	(401,020)
Financing activities		
Repayment of loans [note 14]	**(200,000)**	(738,400)
Repayment of capital lease obligations [note 14]	**(6,785)**	-
Proceeds from issuance of shares upon exercise of warrants [note 16]	**3,101,169**	-
Proceeds from issuance of shares upon exercise of stock options [note 16]	**479,530**	-
Proceeds from issuance of term loans [note 13]	**277,062**	1,037,000
Proceeds from issuance of shares [note 16]	**60,100**	1,104,900
Share issue costs [note 16]	**-**	(11,684)
	3,711,076	1,391,816
Net increase (decrease) in cash	**237,589**	(382,111)
Cash - beginning of year	**385,257**	767,368
Cash - end of year	**622,846**	385,257

PyroGenesis Canada Inc.

Statements of Cash Flows

For the years ended December 31, 2017 and 2016

Supplemental cash flow disclosure [note 17]

Non-cash transactions:		
Investments received in payment on an uncompleted contract	**320,000**	300,000
Purchase of property and equipment under capital lease obligations	**25,521**	-
Prepaid interest netted in proceeds from issuance of term loans	**56,770**	53,960
Lender's costs on term loans	**14,968**	9,430
Investment tax credits on property and equipment	**154,706**	93,098
Capitalised borrowing costs	**189,000**	36,000
Interest accretion on long-term debt	**41,250**	-
Exercise of stock options by controlling shareholder and CEO applied to repayment of long-term debt	**96,250**	-
Accounts receivable by controlling shareholder and CEO applied to repayment of long-term debt	**65,238**	-
Purchase of intangible assets included in accounts payable	**100,158**	-
Issuance of broker warrants	**-**	3,435
Issuance of common shares for settlement of accounts payable and loan	**-**	412,025
Other receivable in relation to shares issued	**-**	60,100

The accompanying notes form an integral part of the financial statements

1. Nature of operations and going concern disclosure

(a) Nature of operations

PyroGenesis Canada Inc. (the "Company"), incorporated under the laws of the Canada Business Corporations Act, was formed on July 11, 2011. The Company owns patents of advanced waste treatment systems technology and designs, develops, manufactures and commercialises advanced plasma processes and systems. The Company is domiciled at 1744 William Street, Suite 200, Montreal, Quebec. The Company is publicly traded on the TSX Venture Exchange under the Symbol "PYR". During 2015, the Company received approval to trade on the OTCQB in the USA under the symbol "PYRNF".

(b) Going concern

These financial statements have been prepared on the going concern basis, which presumes that the Company will be able to realize its assets and discharge its liabilities in the normal course of business for the foreseeable future.

The Company is subject to a number of risks and uncertainty associated with the successful development of its products and with the financing requirements of its operations. The achievement of profitable operations is dependent upon future events, including successful development and introduction of new products to its family of products and obtaining adequate financing.

The Company has incurred, in the last several years, operating losses and negative cash flow from operations, resulting in an accumulated deficit of $43,200,708 as at December 31, 2017. Furthermore, as at December 31, 2017, the Company's current liabilities and expected level of expenses for the next twelve months exceed cash on hand of $622,846. The Company currently has no committed sources of financing available. The Company has relied upon external financings to fund its operations in the past, primarily through the issuance of equity, debt, and convertible debentures, as well as from investment tax credits.

The Company's business plan is dependent upon raising additional funds to finance operations within and beyond the next twelve months. While the Company has been successful in securing financing in the past, raising additional funds is dependent on a number of factors outside the Company's control, and as such there is no assurance that it will be able to do so in the future. If the Company is unable to obtain sufficient additional financing, it may have to curtail operations and development activities, any of which could harm the business, financial condition and results of operations.

These conditions indicate the existence of a material uncertainty that may cast significant doubt about the Company's ability to continue operating as a going concern and realize its assets and settle its liabilities and commitments in the normal course of business.

The financial statements have been prepared on a going concern basis and do not include any adjustments to the amounts and classifications of the assets and liabilities that might be necessary should the Company be unable to achieve its plan and continue in business. If the going concern assumption were not appropriate for these financial statements then adjustments would be necessary to the carrying value of assets and liabilities, the reported expenses and the statements of financial position classifications used. Such adjustments could be material.

2. Basis of preparation

(a) Statement of compliance:

These financial statements have been prepared in accordance with International Financial Reporting Standard ("IFRS") as issued by the International Accounting Standards Board ("IASB"). These financial statements were approved and authorized for issuance by the Board of Directors on April 30, 2018.

(b) Functional and Presentation Currency

These financial statements are presented in Canadian dollars, which is the Company's functional currency.

(c) Basis of measurement

These financial statements have been prepared on the historical cost basis except for the investments which are accounted for at fair value.

3. Significant accounting policies

(a) Revenue recognition

Revenue is recognized to the extent that it is probable that the economic benefits will flow to the Company and the revenue can be reliably measured. Revenue is measured at the fair value of the consideration received, excluding sales taxes.

Revenues relating to long-term contracts are recognized as the work is performed using the percentage-of-completion method. The degree of completion is assessed based on either the proportion of total costs incurred to date, compared to total costs anticipated to provide the service and other deliverables required under the entire contract or the proportion of total hours incurred to date, compared to total hours anticipated to provide the service under the entire contract. Provisions are made for the entire amount of expected losses, if any, in the period in which they are first determinable. Estimates are required to determine anticipated costs and revenues on long-term contracts. Anticipated revenues on contracts may include future revenues from claims or unapproved change orders, if such additional revenues can be reliably estimated and it is considered probable that they will be recovered.

Revenue related to engineering services, which are not long-term contracts, are recognized as the services are performed.

Revenue from the sale of other property is recognized when the entity has transferred to the buyer the significant risks and rewards of ownership of the property, and the entity retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the property sold.

Revenue from the Company's different agreements is assessed in order to determine whether they contain separately identifiable components. When separation is required, the consideration received, or receivable is allocated amongst the separate components based on the relative fair values of each component. When the fair value of the delivered component is not reliably measurable, then revenue is allocated based on the difference between the total arrangement consideration and the fair value of the undelivered item. The applicable revenue recognition criteria are applied to each of the separate components. Otherwise, the applicable revenue recognition criteria are applied to the combined components as a whole.

3. Significant accounting policies (continued)

(b) Foreign currency translation

Foreign currency balances are translated at year-end exchange rates for monetary items and at historical rates for non-monetary items. Revenues and expenses are translated using average exchange rates prevailing at the time of the transaction. Translation gains or losses are included in the determination of comprehensive loss.

(c) Financial instruments

i) Initial recognition

A financial instrument is any contract that gives rise to a financial asset of one party and a financial liability or equity instrument of another party. Financial assets and financial liabilities are recognized on the statements of financial position when the Company becomes a party to the contractual provisions of the instrument. On initial recognition, all financial instruments must be measured at fair value which is the amount of consideration that would be agreed upon in an arm's length transaction between knowledgeable willing parties who are under no compulsion to act. Subsequent to initial recognition, the measurement of financial instruments is dependent on the purpose for which the financial assets were acquired or issued, their characteristics and the Company's designation of such instruments.

The Company does not recognize a gain or loss on initial recognition of a financial asset or financial liability when the fair value is neither evidenced by a quoted price in an active market for an identical asset or liability nor based on a valuation technique that uses only data from observable markets. The gain or loss at initial recognition is deferred off balance sheet until realized.

ii) Subsequent measurement

Financial assets

Cash and accounts receivable are classified by the Company as loans and receivables and are measured at amortized cost using the effective interest rate method. Interest income calculated using the effective interest rate method is recorded as finance income in the period in which it arises.

Gains and losses are recognized in the statements of comprehensive loss when these assets are impaired or derecognized.

Investments are designated at fair value through profit and loss upon initial recognition and are measured at fair value with all gains and losses included in the net income in the period in which they arise.

Financial liabilities

Accounts payable and accrued liabilities, term loans and convertible debentures, are classified by the Company as other liabilities and are measured at amortized cost using the effective interest method. Interest expense is recorded as finance expense in the statement of comprehensive loss.

3. Significant accounting policies (continued)

(d) Impairment of financial assets

At each reporting date the carrying amounts of financial assets, other than those to be measured at fair value through profit or loss, are assessed to determine whether there is objective, significant evidence of impairment (e.g. a debtor is facing serious financial difficulties, or there is a substantial change in the technological, economic, legal or market environment of the debtor). For equity instruments, a significant or prolonged decline in fair value is objective evidence for a possible impairment. The Company has defined criteria for the significance and duration of a decline in fair value.

The amount of the impairment loss on loans and receivables is measured as the difference between the carrying amount of the asset and the present value of estimated future cash flows (excluding expected future credit losses that have not been incurred), discounted at the original effective interest rate of the financial asset. The amount of the impairment loss is recognized in profit or loss. If, in a subsequent reporting period, the amount of the impairment loss decreases, and the decrease can be related objectively to an event occurring after the impairment was recognized, the previously recognized impairment loss is reversed and recognized in profit or loss. The impairment loss on loans and receivables is recorded using an allowance account. The decision to account for credit risk using an allowance account or by directly reducing the receivable depends on the estimated probability of the loss of receivables. When receivables are assessed as uncollectible, the impaired asset is derecognized.

(e) Inventories

Inventories are composed of raw materials and finished goods. Inventories are valued at the lower of cost and net realizable value. The cost of inventories is based on the first-in, first-out principle. Cost comprises all costs of purchases and costs directly related to the conversion of raw materials to finished goods. Net realizable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and selling costs.

3. Significant accounting policies (continued)

(f) Deferred taxes

i) Current tax

Current tax assets and liabilities for the current and prior years are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted by the statements of financial position date.

ii) Deferred tax

Deferred tax is provided using the liability method, providing for temporary differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements. The temporary difference is not provided for if it arises from the initial recognition of goodwill or the initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. The amount of deferred tax provided is based on the expected manner of realization or settlement of the carrying amount of assets and liabilities, using tax rates enacted or substantively enacted at the financial position reporting date and whose implementation is expected over the period in which the deferred tax is realized or recovered. A deferred tax asset is recognized only to the extent that it is probable that future taxable profits will be available against which the asset can be used.

Deferred tax assets and liabilities are presented as non-current. Assets and liabilities are offset where the entity has a legally enforceable right to offset current tax assets and liabilities or deferred tax assets and liabilities, and the respective assets and liabilities relate to income taxes levied by the same taxation authority on the same taxable entity or different taxable entities which intend to settle the liabilities and assets on a net basis.

(g) Loss per share

The Company presents basic loss per share data for its common shares. Basic loss per share is computed by dividing net loss by the weighted average number of common shares outstanding during the year. Diluted loss per share is computed similarly to basic earnings per share, except that the weighted average number of shares outstanding is increased to include shares from the assumed exercise of stock options and share purchase warrants, if dilutive. The number of additional shares is calculated by assuming that outstanding share options and warrants were exercised and that the proceeds from such exercises were used to acquire common shares at the average market price during the year. For the years ended December 31, 2017 and 2016, potential shares from all outstanding stock options and share purchase warrants have been excluded from the calculation of diluted loss per share as their inclusion is considered anti-dilutive in periods when a loss is incurred.

3. Significant accounting policies (continued)

(h) Property and equipment

Property and equipment are measured at cost less accumulated depreciation and accumulated impairment losses if applicable. Cost includes expenditures that are directly attributable to the acquisition or development of the asset and bringing the asset into operation. Borrowing costs capitalized to asset under development represents the interest expense calculated under the effective interest method and does not include any fair value adjustments of investments designated at fair value through profit and loss. Investment tax credits related to the purchase or development of property and equipment are recorded in reduction of the cost. When major parts of an item of property and equipment have different useful lives, they are accounted for separately. Property and equipment are depreciated from the acquisition date or at the date of substantial completion.

Depreciation is calculated using the following methods and rates:

Computer hardware	Declining balance 45%
Computer software	Declining balance 50%
Machinery and equipment	Declining balance 20%
Automobile	Declining balance 30%
Leasehold improvements	Straight line over the lesser of 5 years or the term of the lease

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

(i) Impairment – non-financial assets

The carrying amounts of the Company's non-financial assets are assessed at each reporting date to determine whether there is an indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated.

The recoverable amount of an asset or cash-generating unit (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. Assets that cannot be tested individually are grouped into the smallest independent group of assets that generate cash inflows from continuing use. For the purposes of testing non-financial assets for impairment, management has identified one CGU since the Company operates as one segment.

An impairment loss is recognized if the carrying amount of an asset or its CGU exceeds its recoverable amount. Impairment losses are recognized in the statement of comprehensive loss. Impairment losses recognized in respect of the CGU are allocated first to reduce the carrying amount of goodwill allocated to the units, and then to reduce the carrying amounts on a pro-rata basis of the other assets in the unit.

Impairment losses recognized in prior periods are assessed at each reporting date as to whether there are any indications that the previously recognized losses may no longer exist or may be decreased. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that

3. Significant accounting policies (continued)

would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years.

(j) Government assistance and investment tax credits

Investment tax credits are comprised of scientific research and experimental development tax credits. Government assistance and investment tax credits are recognized when there is reasonable assurance of their recovery and recorded as a reduction of the related expense or cost of the asset acquired, as applicable. Investment tax credits are subject to the customary approvals by the pertinent tax authorities. Adjustments required, if any, are reflected in the year when such assessments are received.

(k) Intangible assets

Acquired intangible assets are measured at cost on initial recognition. Following initial recognition, intangible assets are carried at cost less any accumulated amortization and any accumulated impairment losses.

Intangible assets with finite lives are amortized over the useful life of the asset and assessed for impairment whenever there is an indication of impairment. Amortization expense on the intangible assets with finite lives is recognized in the statements of comprehensive loss.

Research costs are charged to comprehensive loss in the year they are incurred, net of related investment tax credits. Development costs are charged to comprehensive loss in the year they are incurred net of related investment tax credits unless they meet specific criteria related to technical, market and financial feasibility in order to be recognized as intangible assets which include:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- the Company has the intention to complete and the ability to use or sell the asset;
- the asset will generate future economic benefits;
- the Company has the resources to complete the asset; and
- ability to measure reliably the expenditure during development.

Amortization of the development costs is calculated on a straight-line basis over the remaining useful life of the related patent and begins when development is complete. During the period of development, the asset is tested annually for impairment.

Amortization is calculated on a straight-line basis:

	Useful life
Licenses	5 to 10 years
Patents	5 to 20 years
Development costs	14 years

3. Significant accounting policies (continued)

(l) Compound instruments

The component parts of compound instruments (convertible debentures) issued by the Company are classified separately as financial liabilities and equity, in accordance with the substance of the contractual arrangements and the definitions of a financial liability and equity instrument. The conversion option that will be settled by the exchange of a fixed amount of cash or another financial asset for a fixed number of the Company's own equity instruments is an equity instrument. At the date of issue, the fair value of the liability component is estimated using the prevailing market interest rate for similar non-convertible instruments. This amount is recorded as a liability on an amortized cost basis using the effective interest method until extinguished upon conversion, or at the instrument's maturity date. The conversion option classified as equity is determined by deducting the amount of liability component from the fair value of the compound instrument as a whole. This is recognized and included in equity and is not subsequently remeasured. In addition, the conversion option classified as equity will remain in equity until the conversion option is exercised, in which case, the balance recognized as equity will be transferred to common shares.

When the conversion option remains unexercised at the maturity date of the convertible debentures, the balance recognized in equity will be transferred to contributed surplus. No gain or loss is recognized in profit or loss upon conversion or expiration of the conversion option. Transaction costs that relate to the issue of the convertible debentures are allocated to the liability and equity components in proportion to the allocation of the gross proceeds. Transaction costs relating to the equity component are recognized directly in equity. Transaction costs relating to the liability component are included in the carrying amount of the liability component and are amortized using the effective interest method.

(m) Employee benefits

Share-based payments

The Company applies a fair value-based method of accounting to all share-based payments. Employee and director stock options are measured at their fair value of each tranche on the grant date and recognized in its respective vesting period. Non-employee stock options are measured based on the service provided to the reporting date and at their then-current fair values. The cost of stock options is presented as share-based payment expense when applicable. On the exercise of stock options, share capital is credited for the consideration received and for the fair value amounts previously credited to contributed surplus. The Company uses the Black-Scholes option-pricing model to estimate the fair value of share-based payments.

3. Significant accounting policies (continued)

Deferred profit sharing plan

The Company established a yearly Deferred Profit Sharing Plan ("DPSP") for all eligible employees who have materially and significantly contributed to the prosperity and profits of the Company. The significance of any contribution of any employee to the prosperity and profits of the Company for purposes of eligibility in the DPSP is determined by the Board of Directors of the Company upon such relevant information as the Board, in its sole discretion, may find relevant. All related persons to the Company are excluded from participating in the DPSP.

For all eligible employees, the Company is required to contribute to the DPSP out of the profits of the Company. The amount of the Company's contribution will be such amount which, in the opinion of its Board of Directors, is warranted by the profits and overall financial position of the Company. During the year, the Company contributed $Nil to the DPSP. Obligations for contributions to the DPSP are recognized as an employee benefit expense in the statement of comprehensive loss in the periods during which services are rendered by employees.

Short-term employee benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

A liability is recognised for the amount expected to be paid under the short-term incentive plan if the Company has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee, and the obligation can be estimated reliably.

4. Significant accounting judgments, estimates and assumptions

The preparation of financial statements requires management to make judgments, estimates and assumptions based on currently available information that affect the reported amounts of assets, liabilities and contingent assets and liabilities at the date of the financial statements and reported amounts of revenues and expenses during the reporting period. Estimates and judgments are continuously evaluated and are based on management's experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. However, actual results could differ from those estimated. By their very nature, these estimates are subject to measurement uncertainty and the effect of any changes in estimates on the financial statements of future periods could be material.

In the process of applying the Company's accounting policies, management has made the following judgments, estimates, and assumptions which have the most significant effect on the amounts recognized in the financial statements.

4. Significant accounting judgments, estimates and assumptions (continued)

Going concern

Information about critical judgements in applying accounting policies that have the most significant effect on the amounts recognised in the financial statements relates to the assessment of the Company's ability to continue as a going concern [note 1 (b)].

Assumption and estimates

Information about assumptions and estimation uncertainty with a significant risk of resulting in material adjustments to the carrying amounts of assets and liabilities within the next financial year relate to the following:

Assessment of impairment of property and equipment

At each reporting date, the Company reviews the carrying amounts of its property and equipment to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or cash generating units ("CGUs"). The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. Value in use is based on the estimated future cash flows, 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. An impairment loss is recognised if the carrying amount of an asset or CGU exceeds its recoverable amount. Impairment losses are recognised in profit or loss.

An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

Revenue recognition

The percentage-of-completion method requires the use of estimates to determine the recorded amount of revenues, costs in excess of billings and billings in excess of costs and profits on uncompleted contracts.

The determination of anticipated revenues includes the contractually agreed revenue and may also involve estimates of future revenues from claims and unapproved change orders if such additional revenues can be reliably estimated and it is considered probable that they will be recovered. A change order results from a change to the scope of the work to be performed compared to the original contract that was signed. An example of such contract variation could be a change in the specifications or design of the project, whereby costs related to such variation might be incurred prior to the client's formal contract amendment signature. A claim represents an amount expected to be collected from the client or a third party as reimbursement for costs incurred that are not part of the original contract. In both cases, management's judgments are required in determining the probability that additional revenue will be recovered from these variations and in determining the measurement of the amount to be recovered.

4. Significant accounting judgments, estimates and assumptions (continued)

The determination of anticipated costs for completing a contract is based on estimates that can be affected by a variety of factors, including the cost of materials, labour and sub-contractors, as well as potential claims from customers and subcontractors.

As risks and uncertainties are different for each project, the sources of variations between anticipated costs and actual costs incurred will also vary by project. The determination of estimates is based on the Company's business practices as well as its historical experience. Estimates are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised.

Given this estimation process, it is possible that changes in future conditions could cause a material change in the recognized amount of revenues and costs and profits in excess of billings on uncompleted contracts and accrued expenses.

Agreements that contain multiple deliverables require the use of judgment to determine whether they contain separately identifiable components and to allocate the consideration received to each component.

Stock-based payments

The Company uses the fair value method of valuing compensation expense associated with the Company's stock option plan. Estimating fair value requires determining the most appropriate valuation model for a grant of equity instruments, which is dependent on the terms and conditions of the grant. This also requires determining the most appropriate inputs to the valuation model including the expected life of the option, volatility, expected forfeitures and distribution yield. The assumptions and models are discussed in note 16.

Useful lives of property and equipment

The Company estimates the useful lives of property and equipment based on the period over which the assets are expected to be available for use. The estimated useful lives of property and equipment are reviewed periodically and are updated if expectations differ from previous estimates due to physical wear and tear and legal or other limits on the use of the relevant assets. In addition, the estimation of the useful lives of property and equipment are based on management's experience with similar assets. It is possible, however, that future results of operations could be materially affected by changes in the estimates brought about by changes in factors mentioned above. The amounts and timing of recorded expenses for any period would be affected by changes in these factors and circumstances. Useful lives, depreciation rates and residual values are reviewed at least annually.

Assessment of investment tax credits

The investment tax credits are estimated by management based on quantitative and qualitative analysis and interpretation of various government programmes, related restrictions, limitations, definitions, and eligibility conditions. Management involves its technical staff and external specialists in determining if the expenditures meet the requirements of the different tax credit claims.

4. Significant accounting judgments, estimates and assumptions (continued)

Intangible assets

The recognition of development costs as intangible assets requires management's judgments to determine whether the required criteria for recognition are met including management estimates of future economic benefits.

5. Adopted and future accounting policies

(a) New standards, interpretations and amendments adopted on January 1, 2017

On January 1, 2017, the Company adopted the following new or amended IFRS standards and Interpretations of IFRS ("Interpretations") that are mandatory for application from that date.

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The Company adopted these new amendments for the annual period beginning on January 1, 2017. The adoption of these amendments did not have a material impact on the Company's financial statements.

(b) Recent accounting pronouncements and amendments not yet effective

The Company has not yet applied the following new or amended IFRS standards and interpretations that have been issued as at December 31, 2017 but are not yet effective. The Company does not plan to early adopt any of these new or amended standards and interpretations.

IFRS 15 Revenue from Contracts with Customers

In May 2014 the IASB issued IFRS 15 Revenue from Contracts with Customers. The new standard is effective for annual periods beginning on or after January 1, 2018. Earlier application is permitted. IFRS 15 will replace IAS 11 Construction Contracts, IAS 18 Revenue, IFRIC 13 Customer Loyalty Programmes, IFRIC 15 Agreements for the Construction of Real Estate, IFRIC 18 Transfer of Assets from Customers, and SIC 31 Revenue – Barter Transactions Involving Advertising Services.

The standard contains a single model that applies to contracts with customers and two approaches to recognizing revenue: at a point in time or over time. The model features a contract-based five-step analysis of transactions to determine whether, how much and when revenue is recognized. New estimates and judgmental thresholds have been introduced, which may affect the amount and/or timing of revenue recognized.

The new standard applies to contracts with customers. It does not apply to insurance contracts, financial instruments or lease contracts, which fall in the scope of other IFRSs. The Company intends to adopt IFRS 15 in its financial statements for the annual period beginning on January 1, 2018. The Company is currently completing its assessment of the impact of the adoption of this standard on its financial statements.

The Company will disclose the actual impact of adopting IFRS 15 in its first 2018 quarter financial statements, once it completes its detailed analysis.

5. Adopted and future accounting policies (continued)

(b) Recent accounting pronouncements and amendments not yet effective (continued)

IFRS 9 Financial Instruments

On July 24, 2014 the IASB issued the final version of IFRS 9 (IFRS 9 (2014)).

The mandatory effective date of IFRS 9 is for annual periods beginning on or after January 1, 2018 and must be applied retrospectively with some exemptions. Early adoption is permitted. The restatement of prior periods is not required and is only permitted if information is available without the use of hindsight.

IFRS 9 (2014) introduces new requirements for the classification and measurement of financial assets. Under IFRS 9 (2014), financial assets are classified and measured based on the business model in which they are held and the characteristics of their contractual cash flows. The standard introduces additional changes relating to financial liabilities.

It also amends the impairment model by introducing a new ‘expected credit loss’ model for calculating impairment.

IFRS 9 (2014) also includes a new general hedge accounting standard which aligns hedge accounting more closely with risk management. This new standard does not fundamentally change the types of hedging relationships or the requirement to measure and recognize ineffectiveness, however it will provide more hedging strategies that are used for risk management to qualify for hedge accounting and introduce more judgment to assess the effectiveness of a hedging relationship.

Special transitional requirements have been set for the application of the new general hedging model.

The Company intends to adopt IFRS 9 (2014) in its financial statements for the annual period beginning on January 1, 2018. The Company is currently finalizing the impact of the adoption of this standard on its statements of financial position and income statements. The Company is currently completing its assessment of the impact of the adoption of this standard on its financial statements. The Company will disclose the actual impact of adopting IFRS 9 in its 2018 quarter financial statements, once it completes its detailed analysis.

5. Adopted and future accounting policies (continued)

(b) Recent accounting pronouncements and amendments not yet effective (continued)

IFRS 16 Leases

On January 13, 2016, the IASB issued IFRS 16 Leases.

The new standard is effective for annual periods beginning on or after January 1, 2019. Earlier application is permitted for entities that apply IFRS 15 Revenue from Contracts with Customers at or before the date of initial adoption of IFRS 16. IFRS 16 will replace IAS 17 Leases.

This standard introduces a single lessee accounting model and requires a lessee to recognize assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. A lessee is required to recognize a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments.

This standard substantially carries forward the lessor accounting requirements of IAS 17, while requiring enhanced disclosures to be provided by lessors.

Other areas of the lease accounting model have been impacted, including the definition of a lease. Transitional provisions have been provided.

The Company intends to adopt IFRS 16 in its financial statements for the annual period beginning on January 1, 2019. The extent of the impact of adoption of the standard has not yet been determined.

6. Accounts receivable

Details of accounts receivable were as follows:

	December 31, 2017	December 31, 2016
	$	$
1 – 30 days	**263,005**	324,371
30 – 60 days	**127,086**	38,307
61 – 90 days	**-**	-
Greater than 90 days	**4,101**	-
Total trade accounts receivables	**394,192**	362,678
Other receivables	**43,677**	60,138
	437,869	422,816

There is no allowance for doubtful accounts recorded as at December 31, 2017 and December 31, 2016.

7. Costs and profits in excess of billings on uncompleted contracts

As at December 31, 2017, the Company had seven uncompleted contracts with total billings of $106,097 which were less than total costs incurred and had recognized cumulative revenue of $221,323 since those projects began. This compares with three contracts with total billings of $1,179,034 which were less than total costs incurred and had recognized cumulative revenue of $1,655,028 as at December 31, 2016.

As at December 31, 2016, the Company wrote-off $1,760,423 of costs in excess of billings on an uncompleted contract resulting from a pending resolution of differences that arose in December 2015 between the Company and the customer regarding the technical specifications of this contract since Management did not expect that these costs will be recovered.

8. Deposits and investments

	December 31, 2017	December 31, 2016
	$	$
Deposits	**57,530**	57,530
Investments	**561,000**	379,200
	618,530	436,730

Investments comprise 5,100,000 shares and 3,300,000 warrants in a public company of which 2,500,000 shares and 2,500,000 warrants were received during the year ended December 31, 2017 (2016 – 1,600,000 shares and 800,000 warrants) as progress payments on an uncompleted service contract). At the transaction dates these non-monetary transactions have been measured based on the fair value of the shares and warrants received for a total amount of $320,000 in 2017 (2016 - $300,000). During the year ended December 31, 2017, the Company recorded a loss on the change in fair value of those investments of $138,200 (2016 – gain of $80,700). A gain from initial recognition of the warrants of $62,214 as at December 31, 2017 (2016 - $15,000) has been deferred off balance sheet until realized.

9. Property and equipment

	Computer hardware[1]	Computer software	Machinery and equipment	Automobile	Leasehold improvements	Asset under development[2]	Total
	$	$	$	$	$	$	$
Cost							
Balance at December 31, 2015	203,419	247,125	1,569,578	21,912	83,215	-	2,125,249
Additions	**768**	**-**	**-**	**-**	**-**	**456,104**	**456,872**
Balance at December 31, 2016	204,187	247,125	1,569,578	21,912	83,215	456,104	2,582,121
Additions	**25,521**	**15,000**	**52,321**	**-**	**-**	**1,423,351**	**1,516,193**
Balance at December 31, 2017	**229,708**	**262,125**	**1,621,899**	**21,912**	**83,215**	**1,879,455**	**4,098,314**
Accumulated depreciation							
Balance at December 31, 2015	179,148	223,487	1,154,065	8,874	45,904	-	1,611,478
Depreciation	**10,965**	**11,820**	**84,066**	**3,911**	**16,643**	**-**	**127,405**
Balance at December 31, 2016	190,113	235,307	1,238,131	12,785	62,547	-	1,738,883
Depreciation	**12,075**	**9,660**	**70,821**	**2,738**	**16,643**	**-**	**111,937**
Balance at December 31, 2017	**202,188**	**244,967**	**1,308,952**	**15,523**	**79,190**	**-**	**1,850,820**
Carrying amounts							
Balance at December 31, 2016	14,074	11,818	331,447	9,127	20,668	456,104	843,238
Balance at December 31, 2017	**27,520**	**17,158**	**312,947**	**6,389**	**4,025**	**1,879,455**	**2,247,494**

[1] Includes computer equipment under finance lease of $27,123.

[2] Depreciation of the asset under development will begin when the asset is available or ready for its intended use which is expected in the year ending December 31, 2018. During the year ended December 31, 2017, $189,000 (2016 - $36,000) in borrowing costs were capitalized in asset under development. During the year ended December 31, 2017, investment tax credits of $154,706 (2016-$93,098) were recorded in reduction of the asset under development.

10. Intangible assets

	Licenses	Patents[1]	Development costs[1]	Total
	$	$	$	$
Cost				
Balance at December 31, 2015 and 2016	8,409,051	-	-	8,409,051
Additions	**-**	**160,719**	**243,294**	**404,013**
Balance at December 31, 2017	**8,409,051**	**160,719**	**243,294**	**8,813,064**
Accumulated amortization				
Balance at December 31, 2015	7,012,376	-	-	7,012,376
Amortization	1,396,675	-	-	1,396,675
Balance at December 31, 2016	8,409,051	-	-	8,409,051
Amortization	**-**	**-**	**-**	**-**
Balance at December 31, 2017	**8,409,051**	**-**	**-**	**8,409,051**
Carrying amounts				
Balance at December 31, 2016	-	-	-	-
Balance at December 31, 2017	**-**	**160,719**	**243,294**	**404,013**

[1] Depreciation is expected to commence in the year ending December 31, 2018.

11. Accounts payable and accrued liabilities

	December 31, 2017	December 31, 2016
	$	$
Accounts payable	**747,325**	734,785
Accrued liabilities	**1,295,628**	545,018
Settlement agreement payable to a company under common control of the controlling shareholder and CEO	**3,215,643**	-
Accounts payable to the controlling shareholder	**205,641**	126,237
Accounts payable to a trust beneficially owned by the controlling shareholder	**17,008**	40,688
	5,481,245	1,446,728

The settlement agreement payable to a company under common control of the controlling shareholder and CEO of $3,215,643 relates to the Balance of sale payable to a company under common control of the controlling shareholder and CEO (see notes 14 and 27).

12. Billings in excess of costs and profits on uncompleted contracts

The amount to date of costs incurred and recognized profits less recognized losses for construction projects in progress amounted to $3,657,621 (2016 - $1,006,973).

Payments received on contracts in progress were $5,184,336 and $320,000 of other assets (2016 - $2,637,795 in cash and $350,000 of other assets).

13. Term loans

	December 31, 2017	December 31, 2016
	$	$
2016 SR&ED Tax Credits loan, maturing September 30, 2018 bearing interest rate of 18% (effective interest rate 23%), repaid February 2018 (note 27)	**290,200**	188,600
2017 SR&ED Tax Credits loan, maturing December 7, 2018 bearing interest rate of 16.8% (effective interest rate 21%)	**247,200**	-
Term loans	**537,400**	188,600

Term loans are financing, in the form of loans, with respect to the Company's scientific research and experimental development tax credit ("SR&ED Tax Credits"). The principal of the loans is subject to holdback to be disbursed upon reception of notice of assessment. The principal of the loans is subject to repayment at the earlier of (a) receipt of the SR&ED Tax Credits refund or (b) the maturity date. The SR&ED Tax Credits loans agreement provides for automatic renewal of twelve months if loan is not paid at maturity. Pursuant to the financing, the Company granted the lender a security interest and movable hypothec on all of its assets (inclusive of financial assets of $1,679,245 and inventory of $123,735) not including intellectual property, with a first rank claim on the refundable portion of its SR&ED Tax Credits for each of the fiscal years ended December 31, 2016, of $433,482 and 2017 of $363,990.

As at December 31, 2017, the amount available under the term loan financing agreements totals $598,000 (2016 – $322,800). During 2017, the Company received $277,062, net of lender fees of $14,968 and accrued interest paid in advance of $56,770. (2016 $130,633 net of lender fees of $9,430, accrued interest paid in advance of $33,948 and repayment of 2014 SR&ED loan balance of $14,589).

14. Long-term debt

	December 31, 2017	December 31, 2016
	$	$
Balance of sale – payable to company under common control (i)	**111,928**	432,166
Obligations under finance lease (ii)	**18,736**	-
	130,664	432,166
Instalments due within one year	**120,374**	432,166
Long-term debt	**10,290**	-

(i) The balance of sale payable to a company under common control of the controlling shareholder and CEO ("Balance of sale") arose from the purchase of the intangible assets in March 2011 and was originally payable in monthly installments of $40,000 from April 1, 2011 until December 31, 2040 and does not carry any interest. Various amendments occurred since 2011 to modify the terms and conditions of the amounts due on the Balance of sale. Following the provisions of the latest amendment dated December 31, 2015 the remaining Balance of sale is payable in monthly installments of $100,000. The face value of the Balance of sale at December 31, 2017 is $111,928 (2016-$478,416) and the carrying amount is determined using an effective interest rate of 15%.

Following the amended purchase agreement, in the event of any change within the Company that would be considered material by the holder of the Balance of Sale, such as a significant financial development, any and all amounts outstanding will become immediately due and payable on the date of the material change.

During the year ended December 31, 2017, the Company made payments of $361,488 (2016 - $40,000) on the Balance of sale.

Subsequent to year end, the Company and the company under control of the controlling shareholder and CEO entered into a settlement agreement to resolve a claim in the amount of $5,420,000 made by the company under control of the controlling shareholder and CEO in connection with the share for debt conversion transaction between the parties that that took place in 2014. Under the share for debt conversion, the Company issued 7,500,000 common shares in 2014 to settle $6,000,000 of the carrying value of the Balance of sale payable. The settlement agreement that constitutes also final payment of the Balance of sale, provides for the issuance of units by the Company having a value of $3,327,571 to the company under common control of the controlling shareholder and CEO as follows: (i) on February 9 and March 7, 2018, issuance of 1,899,999 units at a value of $0.70 per unit with each unit consisting of 1 common share of the Company and 1 common share purchase warrant which entitles the holder to purchase 1 common share at a price of $1.25 until August 9th, 2019, and (ii) on April 30, 2018, issuance of 3,385,715 units at an agreed value of $0.70 per unit with each unit consisting of 1 common share of the Company and 1 common share purchase warrant which entitles the holder to purchase 1 common share at a price of $0.85 until April 19, 2020. As the claim related to a dispute that existed at year-end, a liability and related expense of $3,215,643 was recorded as at December 31, 2017. The liability was measured based on the fair value of the units as at their issuance date, which is $0.70 on February 9 and March 7, 2018 and $0.59 on April 30, 2018.

(ii) The obligation under finance lease bears interest at 4% and is repayable in 36 monthly payments of $753.The expected interest payments related to the finance lease for the next 3 years amount to $1,056.

15. Convertible debentures

On March 30, 2015, the Company completed a $4,000,000 unsecured and subordinated convertible debenture issue which matures March 30, 2018 and bears interest at 7.5% per annum, payable quarterly.

The convertible debentures are convertible into common shares of the Company at any time at the option of the holder at a conversion price of $0.80 per common share, and upon giving effect to such conversion, all accrued and unpaid interest will be paid in full within 60 days. The Company may redeem the convertible debentures at any time prior to the maturity date by paying to the holder a redemption price equal to:

(i) the entirety of the principal amount;

(ii) any interest accrued thereon as of the redemption date; and

(iii) any interest to be accrued (but not yet accrued as of the redemption date) thereon up until maturity date.

In the event that the average market price of the common shares over the course of the 20 trading days immediately preceding the date of the redemption notice is equal to or greater than $1.20, then the redemption price shall be calculated as comprising (i) the entirety of the principal amount; and (ii) any interest accrued thereon as of the redemption date only.

15. Convertible debentures (continued)

At the issuance date the convertible debentures were recorded as follows:

	$
Debt component, net of transactions cost of $242,905	3,140,222
Conversion option recognized in equity, net of transaction cost of $44,291	572,582
Net proceeds	**3,712,804**

The debt component is being accreted using the effective interest rate method:

	December 31, 2017	December 31, 2016
	$	$
Balance, beginning of year	**3,605,897**	3,328,722
Effective interest accretion	**310,652**	277,175
Balance, end of year	**3,916,549**	3,605,897

16. Shareholders' deficiency

Common shares and share purchase warrants

Authorized:

The Company is authorized to issue an unlimited number of Class A common shares without par value.

Issuance of shares

On July 26, 2016, the Company completed a private placement (the "Financing") in which 6,131,579 units were issued at a price of $0.19 per unit, for gross proceeds of $1,165,000. Each unit consists of one common share and one-half of one common share purchase warrant ("Warrant"). Each whole Common Share purchase warrant entitles the holder thereof to purchase one common share at a price of $0.35 until January 26, 2018. Each unit is subject to a statutory hold period of four months and one day from the date of closing. The value of the Warrants was measured based on the Black-Scholes option pricing model. An amount of $163,772 was allocated to Warrants and was presented as part of the warrant reserve.

The following assumptions under the Black-Scholes option model were used:

Exercise price ($)	0.35
Weighted-average issuance date market price ($)	0.25
Expected life (years)	1.5
Expected volatility (%)	90.4
Risk-free interest rate (%)	0.58
Dividend yield (%)	0

The expected volatility was determined by reference to historical data of the Company's share price.

In connection with the Financing, the Company also paid finder fees and other related costs of $9,124 and issued 42,000 compensation warrants which entitle the holder to purchase 42,000 common share units at a price of $0.19. The fair value of the 42,000 purchase warrants was estimated at $3,435 using Black-Scholes option pricing model with the same above-noted assumptions.

16. Shareholders' deficiency (continued)

Issuance of shares (continued)

On July 26, 2016, the Company completed a share debt transaction to settle a loan outstanding of $150,000 and accounts payable in the aggregate amount of $262,025 whereby the Company issued 2,060,126 common shares at a price of $0.20 per common share in the aggregate amount of $412,025.Upon this transaction, the Company derecognized the accounts payable outstanding of $262,025 and loan payable outstanding of $150,000 and recorded the common shares issued of $412,025 in equity. The common shares issued were subject to a hold period of four months and one day from the date of issuance. Share issue costs of $2,560 were paid in cash and recorded as a reduction of equity.

Stock option plan

The Company has a stock option plan authorizing the Board of Directors to grant options to directors, officers, employees and consultants to acquire common shares of the Company at a price computed by reference to the closing market price of the shares of the Company on the business day before the Company notifies the stock exchanges of the grant of the option. The number of shares which may be granted to any one person shall not exceed 5% (2% for consultants) of total share capital over a twelve-month period.

As at December 31, 2017, an amount of $434,534 remains to be amortized in future periods (until November 2019) related to the grant of stock options.

The following table sets out the activity in stock options:

	Number of options	**Weighted average exercise price**
		$
Options, December 31, 2015	6,406,000	0.30
Granted	4,530,000	0.18
Expired	(500,000)	(0.80)
Forfeited	**(685,000)**	**(0.30)**
Balance – December 31, 2016	**9,751,000**	**0.22**
Granted	**2,600,000**	**0.58**
Exercised	**(2,885,000)**	**(0.20)**
Forfeited	**(90,000)**	**(0.30)**
Balance, December 31, 2017	**9,376,000**	**0.32**

16. Shareholders' deficiency (continued)

Stock option plan (continued)

In the years ended December 31, 2017 and 2016, the following options were granted:

Date of grant	November 3, 2017	October 26, 2016	October 20, 2016	September 25, 2016
Number of options granted	2,600,000	80,000	100,000	4,350,000
Vesting period from date of grant	3 years(1)	3 years	3 years	1 year
Exercise price ($)	0.58	0.18	0.19	0.18
Fair value of each option under the Black Scholes pricing model ($)	0.358	0.122	0.120	0.122
Assumptions under the Black Scholes model				
Fair value of the market share ($)	0.58	0.18	0.18	0.18
Risk free interest rate (%)	1.62	0.68	0.68	0.59
Expected volatility (%)	75	87	87	87
Expected dividend yield	-	-	-	-
Expected life (number of months)	60	60	60	60
Forfeiture rate (%)	-	-	-	-

(1) A total of 1,220,000 of the stock options granted vested on the day of the grant, 1,240,000 will vest on November 3rd, 2018, 60,000 will vest on November 3rd, 2019 and 80,000 will vest on November 3rd, 2020.

The underlying expected volatility was determined by reference to historical data of the Company's share price. No special features inherent to the stock options granted were incorporated into the measurement of fair value.

During the year ended December 31, 2017, the Company issued 2,885,000 common shares upon exercise of stock options for net proceeds of $575,780. The amounts credited to share capital from the exercise of stock options include an ascribed value from contributed surplus of $436,458. The weighted average share price at the date of exercise of stock options exercised in 2017 was $0.67.

As at December 31, 2017, the outstanding options, as issued under the stock option plan to directors, officers, employees and consultants for the purchases of one common share per option, are as follows:

Issue date	Number of options	Exercise Price	Number of exercisable options (1)	Expiry date
		$		
February 12, 2015	2,470,000	0.30	1,790,000	February 12, 2020
September 25, 2016	4,150,000	0.18	4,150,000	September 25, 2021
October 20, 2016	56,000	0.18	-	October 20, 2021
October 25, 2016	100,000	0.19	30,000	October 25, 2021
November 3, 2017	2,600,000	0.58	1,220,000	November 3, 2022
	9,376,000	0.32	7,190,000	

(1) At December 31, 2017, the weighted average price of the exercisable options was $0.28.

16. Shareholders' deficiency (continued)

Share purchase warrants

The following table reflects the activity in warrants during the year ended December 31, 2017 and the number of issued and outstanding share purchase warrants at December 31, 2017:

	Number of warrants December 31, 2016	Exercised	Expired	Number of warrants December 31, 2017	Price per warrant	Expiry date
					$	
Private placement – November 26, 2014	2,142,857	(2,142,857)	-	-	-	-
Broker warrants – March 30, 2015 [(1)]	270,417	-	(270,417)	-	-	-
Private placement – December 11, 2015	4,417,500	(4,417,500)	-	-	-	-
Broker warrants– December 11, 2015 [(1)]	45,500	-	(45,500)	-	-	-
Private placement – July 26, 2016	3,065,790	(1,268,290)	-	1,797,500	0.35	Jan. 26, 2018
Broker warrants– July 26, 2016	42,000	(42,000)	-	-	-	-
	9,984,064	(7,870,647)	(315,917)	1,797,500	0.35	

(1) The broker share purchase warrants expired unexercised on March 30, 2017 and December 11, 2017. The fair value of the share purchase warrants in the amount of $120,659 which was accounted for as warrants reserve was reclassified to the contributed surplus.

During the year ended December 31, 2017, the Company issued 7,954,647 common shares upon the exercise of share purchase warrants and 84,000 units for net proceeds of $3,101,169. The fair value of the share purchase warrants of $684,531 was reclassified from contributed surplus to capital shares. The weighted average share price at the date of exercise of share purchase warrants exercised in 2017 was $0.57.

17. Supplemental disclosure of cash flow information

Net changes in non-cash components of operating working capital

	2017	2016
	$	$
Decrease (increase) in:		
Accounts receivable	**(140,391)**	218,620
Costs and profits in excess of billings on uncompleted contracts	**40,768**	(403,330)
Investment tax credits receivable	**(212,635)**	209,526
Prepaid expenses	**(129,222)**	64,828
Inventories	**(123,735)**	-
Increase (decrease) in:		
Accounts payable and accrued liabilities	**718,716**	(348,128)
Billings in excess of costs and profits on uncompleted contracts	**(134,107)**	1,032,778
	19,394	774,294

18. Other information

The aggregate amortization of intangible assets expense for the year ended December 31, 2016 was $1,396,675 and was recorded in cost of sales and services.

Depreciation on property and equipment amounted to $111,937 for the year ended December 31, 2017 (2016 - $127,405) and is recorded in selling, general and administrative. Employee benefits totaled $5,002,091 in the year ended December 31, 2017 (2016 - $4,370,638) and included share-based compensation of $759,013 (2016 - $366,025).

19. Net finance costs:

	2017	2016
	$	$
Finance costs		
Interest and fees on convertible debentures	**300,060**	300,000
Interest accretion of convertible debentures	**310,652**	277,175
Interest on term loans	**38,992**	62,367
Interest accretion on long term debt	**41,250**	-
Change in the fair value of investments	**138,200**	(80,700)
Other interest expenses	**1,772**	-
	830,926	558,842
Capitalized borrowing costs	**(189,000)**	(36,000)
Net finance costs	**641,926**	522,842

20. Related party transactions

During the year ended December 31, 2017, the company concluded the following transactions with related parties:

Rent was charged by a trust beneficially owned by the controlling shareholder and CEO of the Company in the amount of $226,120 (2016 - $188,781). A balance due of $17,008 (2016 - $40,688) is included in accounts payable and accrued liabilities.

Interest of $56,685 (2016 - $56,640) was paid on the $755,000 convertible debentures held by company under common control of the controlling shareholder and CEO. Accreted interest related to the convertible debenture held by a company under common control amounted to $58,630 (2016 - $52,300).

A balance due to the controlling shareholder and CEO of the Company amounted to $205,641 (December 31, 2016 - $126,237) and is included in accounts payable and accrued liabilities.

The balance of sale [note 14] due to a company under common control of the controlling shareholder and CEO, was $111,928 (December 31, 2016 - $432,166), and is included in long term debt. Accreted interest related to the balance of sale amounted to $41,250 (2016 - $Nil).

As discussed in notes 11,14 and 27, the Company and a company under common control of the controlling shareholder and CEO entered into a settlement agreement with respect to the balance of sale payable.

The key management personnel of the Company are the members of the Board of Directors and certain executive officers. Total compensation to key management consisted of the following:

	2017	2016
	$	$
Salaries – executive officers	**406,038**	482,475
Pension contributions	**8,121**	8,073
Fees – Board of Directors	**130,000**	123,000
Share based compensation – executive officers	**632,798**	232,253
Share based compensation – Board of Directors	**55,895**	108,535
Other benefits – executive officers	**34,082**	41,391
Total compensation	**1,266,934**	995,727

A balance of $72,617 of key management compensation, of the amounts noted above, is included in accounts payable and accrued liabilities as at December 31, 2017 (December 31, 2016 - $67,080).

21. Financial instruments

As part of its operations, the Company carries a number of financial instruments. It is management's opinion that the Company is not exposed to significant interest, currency or credit risks arising from these financial instruments except as otherwise disclosed. The Company's overall risk management program focuses on the unpredictability of the financial market and seeks to minimize potential adverse effects on the Company's financial performance. The Company does not use derivative financial instruments to hedge these risks.

Foreign currency risk

The Company enters into transactions denominated in US dollars for which the related revenues, expenses, accounts receivable and accounts payable and accrued liabilities balances are subject to exchange rate fluctuations.

As at December 31, 2017, the following items are denominated in foreign currencies:

	US	CDN
	$	$
Cash	**287,269**	**360,379**
Accounts receivable	**294,347**	**369,258**
Accounts payable and accrued liabilities	**(210,230)**	**(263,733)**
Total	**371,386**	**465,904**

As at December 31, 2016, the following items are denominated in foreign currencies:

	US	CDN
	$	$
Cash	61,842	83,035
Accounts receivable	223,292	299,791
Accounts payable and accrued liabilities	(137,135)	(182,649)
Total	147,999	200,177

Foreign currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates.

21. Financial instruments (continued)

Foreign currency risk (continued)

Sensitivity analysis

At December 31, 2017, if the US Dollar changes by 10% against the Canadian dollar with all other variables held constant, the impact on pre-tax gain or loss for the year ended December 31, 2017 would have been $46,000 (December 31, 2016 – $20,000).

Credit risk

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. The maximum credit risk to which the Company is exposed as at December 31, 2017 represents the carrying amount of cash, accounts receivable and deposits.

Credit concentration

During the year ended December 31, 2017, four customers accounted for 85% (December 31, 2016 – three customers for 51%) of revenues from operations.

		2017		2016
	Revenues	**% of total revenues**	**Revenues**	**% of total revenues**
	$	**%**	**$**	**%**
Customer 1	777,858	11	671,108	13
Customer 2	821,697	11	948,047	18
Customer 3	2,231,504	31	1,039,908	20
Customer 4	2,279,397	32	-	-
Total	6,110,456	85	2,659,063	51

Two customers accounted for 89% (December 31, 2016 – four customers for 93%) of trade accounts receivable with amounts owing to the Company of $350,614 (2016 - $335,947), representing the Company's major credit risk exposure. Credit concentration is determined based on customers representing 10% or more of total revenues and/or total accounts receivable. The Company believes that there is no unusual exposure associated with the collection of these receivables. The Company manages its credit risk by performing credit assessments of its customers and provides allowances for potentially uncollectible accounts receivable. The Company does not generally require collateral or other security from customers on accounts receivable.

21. Financial instruments (continued)

Fair value of financial instruments

Financial instruments are comprised of cash, accounts receivable, investments, deposits, accounts payables and accrued liabilities, term loans, long term debt and convertible debentures. There are three levels of fair value that reflect the significance of inputs used in determining fair values of financial instruments:

Level 1 — quoted prices (unadjusted) in active markets for identical assets or liabilities.
Level 2 — inputs other than quoted prices included within 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.

The fair values of cash, accounts receivable, accounts payable and accrued liabilities, loans, convertible debentures and finance lease approximate their carrying amounts due to their short-term maturities. Investments are valued at quoted market prices and classified as Level 1.

Interest rate risk

Interest rate risk is the risk that the value of a financial instrument might be adversely affected by a change in interest rates. Changes in market interest rates may have an effect on the cash flows associated with some financial assets and liabilities, known as cash flow risk, and on the fair value of other financial assets or liabilities, known as price risk, and on the fair value of investments or liabilities, known as price risks. The Company is exposed to a risk of fair value on the term loans and convertible debentures as those financial instruments bear interest at fixed rates.

Price risk

Price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market price (other than those arising from foreign currency risk and interest risk), whether those changes are caused by factors specific to the individual financial instrument or its issuers or factors affecting all similar financial instruments traded in the market. The most significant exposure to other price risk for the Company arises from the investments. If equity prices had increased or decreased by 5% as at December 31, 2017, with all other variables held constant, the Company's investments would have increased or decreased respectively, by approximately $28,000 (December 31, 2016 - $19,000).

Liquidity risk

Liquidity risk is the risk that the Company will encounter difficulty in meeting obligations associated with financial liabilities that are settled by delivery of cash or another financial asset. The Company's ability to continue as a going concern is dependent on management's ability to raise required funding through future equity and / or debt issuances and to generate positive cash flows from operations (see note 1 b). The Company manages its liquidity risk by forecasting cash flows from operations and anticipating any investing and financing activities. Management and the Board of Directors are actively involved in the review, planning and approval of significant expenditures and commitments.

21. Financial instruments (continued)

The following table summarizes the contractual maturities of financial liabilities as at December 31, 2017:

	Total	6 months or less	6 to 12 months	1-3 years
	$	$	$	$
Accounts payable and accrued liabilities	2,265,602	2,265,602	-	-
Capital lease obligations	19,591	4,521	4,521	10,549
Term loans	537,400	188,600	348,800	-
Long-term debt	111,928	111,928	-	-
Convertible debentures[1]	4,075,000	4,075,000	-	-
	7,009,521	6,645,651	353,321	10,549

[1] Including interest to be paid

22. Contingent liability

The Company had received a government grant in prior years of approximately $800,000 to assist with the development of a new system of advanced waste treatment systems technology.

The grant is potentially repayable at the rate of 3% of any consideration received as a result of the project, for which funding has been received, to a maximum of the actual grant received. This will be in effect for 10 years beginning 3 years after the completion date of the new system which was on May 30, 2011.

The Company abandoned the project in fiscal 2011 and accordingly, no amount is expected to be repaid.

23. Capital management

The Company's objectives in managing capital are:

a) To ensure sufficient liquidity to support its current operations and execute its business plan; and

b) To provide adequate return to the shareholders

The Company's primary objectives when managing capital is to ensure the entity continues as a going concern as well as to maintain optimal returns to shareholders and benefits for other stakeholders.

The Company currently funds these requirements from cash flows from operations and with financing arrangements with third parties and shareholders. The Company is not subject to any externally imposed capital requirements.

The management of capital includes common shares, warrants reserve, contributed surplus and equity portion of convertible debentures for a total amount of $37,032,241 (2016 - $32,596,279) and debt of $4,584,613, (2016 - $4,226,663). The Company monitors its working capital in order to meet its financial obligations. As at December 31, 2017, the Company's working capital deficiency was $9,403,370 (2016 – deficiency of $2,079,353).

There were no changes in the Company's approach during fiscal 2017.

24. Income taxes

a) Reconciliation of income taxes

	2017	2016
	$	$
Loss before income taxes	**(6,174,303)**	(6,952,219)
Income tax rates	**26.80%**	26.90%
Income tax recovery at the combined basic Federal and Provincial tax rates	**(1,654,713)**	(1,870,147)
Permanent differences	**1,205,490**	194,171
Tax rate changes	**31,269**	34,514
True-up deferred	**98,065**	-
Unrecognized tax assets	**319,889**	1,641,462
Income tax expense	**-**	-

b) Deferred tax expense

	2017	2016
	$	$
Origination and reversal of temporary differences	**(319,889)**	(1,641,462)
Change in unrecognized deductible temporary differences	**319,889**	1,641,462
Income tax expense	**-**	-

c) The tax effects of significant items comprising the Company's net deferred tax assets and liabilities are as follows:

	2017	2016
	$	$
Investments	**21,124**	-
Financing costs	**68,309**	95,393
Property, plant and equipment	**118,456**	154,317
Intangible assets	**1,141,236**	1,454,180
Research and development expenses	**1,536,058**	1,186,196
Non-capital losses carried forward	**3,916,271**	3,591,479
	6,801,454	6,841,565
Deferred tax assets not recognized	**(6,801,454)**	(6,841,565)
	-	-

24. Income taxes (continued)

d) Tax carry forward

The Company has the following non-capital losses available to reduce future income taxes:

Expiry date	Federal $	Provincial $
2031	**2,313,597**	2,313,597
2032	**3,945,870**	3,945,870
2033	**2,047,643**	2,047,643
2034	**589,007**	589,007
2035	**703,664**	416,827
2036	**3,579,827**	3,440,527
2037	**1,817,375**	1,831,728
	14,996,983	14,585,199

The Company has a total of $2,583,876 of federal income tax credits that can be carried forward for 20 years and expire from 2018 to 2037.

The Company has a total of $6,383,177 of federal pool balance of deductible SR&ED expenditures and $5,726,411 of Quebec R&D expenditures that can be carried forward indefinitely in the future to reduce income taxes.

25. Segment information

The Company operates in one segment, based on financial information that is available and evaluated by the Company's Board of Directors.

The Company's head office is located in Montreal, Quebec. The operation of the Company is located in one geographic area: Canada. The following is a summary of the Company's geographic information:

	2017	2016
	$	$
Revenue from external customers		
Canada	**2,465,644**	1,515,425
United States	**4,360,733**	3,191,654
Europe	**220,168**	75,404
Mexico	**59,906**	41,638
Asia	**85,672**	377,960
Middle East	**738**	20,052
	7,192,861	5,222,133

The following is a summary of the Company's revenue by product line:

	2017	2016
	$	$
Sales of goods under long-term contracts	**2,016,306**	2,226,432
Services	**5,126,555**	1,995,701
Sale of intellectual property	**-**	1,000,000
Other revenues	**50,000**	-
	7,192,861	5,222,133

26. Commitments

The Company has entered into long-term leases for premises and automobile ending in 2022 and 2020 respectively. The minimum lease payments due over the next five years are as follows:

	Premises $	Automobile $
2018	**481,878**	**6,318**
2019	**488,678**	**6,318**
2020	**495,478**	**527**
2021	**502,278**	**-**
2022	**167,280**	**-**
	2,135,592	**13,163**

Included in the above are commitments to a trust beneficially owned by a shareholder of the Company of $255,891 for 2018, $255,891 for 2019, $255,891 for 2020, $255,891 for 2021 and $21,324 for 2022.

27. Subsequent events

On February 9, 2018, the Company received a refund for the 2016 SR&ED Tax Credits claimed of $113,761, net of the 2016 SR&ED loan balance repayment of $290,200.

On February 9, 2018, the Company issued 200,000 stock options to an officer with an exercise price of $0.60 and are exercisable over a period of 48 months. The stock options are granted in accordance with the Company's stock option plan.

On February 9, 2018 and March 7, 2018, the Company issued an amount of 1,899,999 units to a company under common control of the controlling shareholder and CEO under a settlement agreement (see note 14) and 2,971,430 units to an unrelated party at a price of $0.70 per unit, for gross proceeds of $2,080,001. Each unit consists of one common share of the Company and one Common Share purchase warrant. Each warrant entitles the holder thereof to purchase one common share at a price of $1.25 until August 9th, 2019. Each unit will be subject to a statutory hold period of four months and one day from the date of closing. In connection with the private placement, the Company paid finder fees in the amount of $127,750 and issued 88,000 finder's compensation warrants to the agents.

On April 2, 2018, the Company completed a $3,000,000 non-brokered private placement of 9.5% secured convertible debentures. The convertible debentures bear interest at the rate of 9.5% per annum, with interest payable in cash on a quarterly basis, and mature on March 29, 2020. Each Debenture is convertible into common shares of the Company at a conversion price of $0.80 per common share. The convertible debentures and the common shares issuable on conversion of the Debentures will be subject to a statutory hold period of four months and one day from the closing date of the Offering. In connection with the convertible debenture, the Company paid finder fees in the amount of $180,000 to the agent.

On April 2, 2018 the Company redeemed $3,245,000 of the $4,000,000 unsecured convertible debenture. The subordinated unsecured convertible debenture matured on March 30, 2018 and had an interest component of

27. Subsequent events (continued)

7.5% per annum, payable quarterly. The unsecured convertible debenture was convertible into common shares of the Company at any time at the option of the holder at a conversion price of $0.80 per common share.

On April 3, 2018, the Company granted 500,000 stock options to a consultant, to promote the business interests of the Company worldwide. The stock options have an exercise price of $0.70 per Common Share and are exercisable over a period of 18 months. The stock options are granted in accordance with the Company's stock option plan.

On April 19, 2018, the Company issued an amount of 1,258,333 units to a company under common control of the controlling shareholder and CEO to redeem the remaining balance of 755,000 of the $4,000,000 unsecured convertible debenture. The Company also issued 1,850,000 units to an unrelated party at a price of $0.60 per unit, for gross proceeds of $1,110,000. Each unit consists of one common share of the Company and one common share purchase warrant. Each warrant entitles the holder thereof to purchase one common share at a price of $0.85 until April 19th, 2020. Each unit will be subject to a statutory hold period of four months and one day from the date of closing. In connection with the private placement, the Company paid finder fees in the amount of $89,478 to the agents.

On April 30, 2018 the Company issued an amount of 3,385,715 units to a company under common control of the controlling shareholder and CEO under a settlement agreement (see note 14). Each unit consists of one common share of the Company and one common share purchase warrant. Each warrant entitles the holder thereof to purchase one common share at a price of $0.85 until April 19, 2020. Each Unit will be subject to a statutory hold period of four months and one day from the date of closing.

From January 1 to January 26, 2018, the Company received an aggregate amount of $629,215 from the exercise of a series of warrants which were previously issued by the Company in connection with the private placement offering completed on July 26, 2016. As a result of such exercise, the Company issued 1,797,500 Common Shares.

From January 1 to March 12, 2018, the Company received an aggregate amount of $73,500 from the exercise of 245,000 options at an exercise price of $0.30.