Financial Statements of

ORBITE TECHNOLOGIES INC.
(Formerly known as Orbite Aluminae Inc.)
(A development stage company)

Years ended December 31, 2015 and 2014

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INDEPENDENT AUDITORS' REPORT

To the Shareholders of Orbite Technologies Inc.

We have audited the accompanying financial statements of Orbite Technologies Inc., which comprise the statements of financial position as at December 31, 2015 and December 31, 2014, the statements of comprehensive loss, changes in 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.

KPMG LLP is a Canadian limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.
KPMG Canada provides services to KPMG LLP.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of Orbite Technologies Inc. as at December 31, 2015 and December 31, 2014, and its financial performance and its cash flows for the years then ended in accordance with International Financial Reporting Standards.

KPMG LLP*

March 30, 2016

Montréal, Canada

*CPA auditor, CA, public accountancy permit No. A123145

ORBITE TECHNOLOGIES INC.
Financial Statements

Years ended December 31, 2015 and 2014

Independent Auditors' Report

Financial Statements

ORBITE TECHNOLOGIES INC.

Statements of Financial Position

		December 31, 2015		December 31, 2014
Assets				
Current assets:				
Cash and cash equivalents (note 4)	$	1,722,746	$	2,977,929
Short-term investments (note 4)		874,565		376,199
Restricted cash		4,151,942		-
Sales taxes and other receivables		1,462,074		1,346,020
Current income and mining taxes recoverable		1,760,700		1,760,700
Investment tax credits and other governmental assistance receivable		12,837,443		5,197,822
Inventory		244,096		129,579
Prepaid expenses and others		1,599,381		845,187
Derivative financial instruments (note 15)		-		354,000
Total current assets		24,652,947		12,987,436
Non-current assets:				
Restricted cash (note 8)		-		16,354,020
Investment tax credits receivable		-		9,356,591
Property, plant and equipment (note 5)		99,409,695		78,392,193
Patents and others		1,769,673		1,409,146
Exploration and evaluation assets (note 6)		17,044,498		16,975,490
Total non-current assets		118,223,866		122,487,440
Total assets	$	142,876,813	$	135,474,876
Liabilities				
Current liabilities:				
Accounts payable and accrued liabilities	$	8,070,882	$	5,155,262
Short-term loan (note 7)		11,767,784		-
Long-term debt (note 9)		549,619		4,972
Derivative financial instruments (note 15)		108,268		-
Total current liabilities		20,496,553		5,160,234
Non-current liabilities:				
Convertible debentures liability (note 8)		112,573		21,371,538
Long-term debt (note 9)		16,421,712		4,638,799
Deferred income and mining tax liabilities		2,372,460		2,372,460
Derivative financial instruments (note 15)		-		69,604
Total non-current liabilities		18,906,745		28,452,401
Equity				
Share capital and warrants (note 10)		183,537,658		169,152,760
Contributed surplus		17,576,387		14,981,211
Deficit		(97,640,530)		(82,271,730)
Total equity attributable to equity holders of the Company		103,473,515		101,862,241
Commitment (note 18), Subsequent events (note 19), Going concern (note 2)				
Total liabilities and equity	$	142,876,813	$	135,474,876

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

Approved on behalf of the Board

(S) Claude Lamoureux Director

(S) Lionel Leveillé Director

ORBITE TECHNOLOGIES INC.

Statements of Comprehensive Loss

For the Years ended December 31

		2015		2014
Expenses				
Research and development charges, net of investment tax credits and other governmental assistance of $140,828 (2014 - $94,841)	$	1,903,575	$	1,794,035
General and administrative charges		6,026,972		6,681,879
HPA plant operations		4,415,585		3,591,208
Write-off for redesign (note 5)		-		1,782,505
Other expense		-		533,923
Loss before net finance expense (income) and income and mining taxes		12,346,132		14,383,550
Net finance expense (income) (note 11)		3,022,668		(1,984,288)
Loss before income and mining taxes		15,368,800		12,399,262
Income and mining taxes				
Current		-		60,800
Deferred		-		(60,800)
		-		-
Net loss and comprehensive loss	$	15,368,800	$	12,399,262
Basic and diluted net loss per share	$	0.04	$	0.04
Weighted average number of shares outstanding		358,097,017		280,362,729

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

ORBITE TECHNOLOGIES INC.

Statements of Changes in Equity

	Number of shares	Share capital and warrants	Contributed surplus	Deficit	Total
Balance at January 1, 2014	220,005,587	$ 138,150,913	$ 13,876,689	$ (69,753,293)	$ 82,274,309
Share-based payments (note 10)	-	-	1,686,357	-	1,686,357
Broker's warrants issued	-	-	294,718	-	294,718
Exercise of share options (note 10)	3,700,000	1,896,553	(876,553)	-	1,020,000
Exercise of warrants (note 10)	833,250	399,960	-	-	399,960
Share issuance costs	-	-	-	(119,175)	(119,175)
Units issued	35,714,286	10,000,000	-	-	10,000,000
Shares issued for interest	688,189	243,612	-	-	243,612
Issuance of subscription rights	-	4	-	-	4
Convertible debentures conversion (note 8,10 and 15)	59,854,239	18,461,718	-	-	18,461,718
Comprehensive loss	-	-	-	(12,399,262)	(12,399,262)
Balance at December 31, 2014	320,795,551	$ 169,152,760	$ 14,981,211	$ (82,271,730)	$ 101,862,241

	Number of shares	Share capital and warrants	Contributed surplus	Deficit	Total
Balance at January 1, 2015	320,795,551	$ 169,152,760	$ 14,981,211	$ (82,271,730)	$ 101,862,241
Share-based payments (note 10)	-	-	1,371,368	-	1,371,368
Warrants issued (note 8 and 10)	-	-	1,459,129	-	1,459,129
Exercise of share options (note 10)	50,000	31,869	(11,869)	-	20,000
Exercise of warrants (note 10)	3,253,003	1,503,936	(223,452)	-	1,280,484
Shares issued for interest (note 10)	96,737	33,422	-	-	33,422
Convertible debentures conversion (note 8,10 and 15)	61,132,758	12,815,671	-	-	12,815,671
Comprehensive loss	-	-	-	(15,368,800)	(15,368,800)
Balance at December 31, 2015	385,328,049	$ 183,537,658	$ 17,576,387	$ (97,640,530)	$ 103,473,515

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

ORBITE TECHNOLOGIES INC.

Statements of Cash Flows

For the Years ended December 31

	2015	2014
Cash flows used in operating activities:		
Comprehensive loss	$ 15,368,800	$ 12,399,262
Non-cash items:		
Depreciation and write-off of property, plant and equipment	272,868	2,129,231
Depreciation of patents	106,360	12,466
Write-off exploration and evaluation	-	89,643
Share-based payments recognized in comprehensive loss (note 10)	1,057,116	1,599,936
Net finance expense (income)	2,795,861	(2,033,065)
Deferred income taxes	-	(60,800)
	(11,136,595)	(10,661,851)
Changes in non-cash working capital items:		
Sales taxes and other receivables	(116,054)	(1,043,882)
Current income taxes recoverable	-	235,843
Investment tax credits and other governmental assistance receivable	-	538,995
Prepaid expenses and others	(454,194)	(548,860)
Inventory	(114,517)	(52,793)
Accounts payable and accrued liabilities	1,212,156	(1,934,326)
	527,391	(2,805,023)
Interest received	453,341	429,252
Interest paid	(2,083,590)	(2,000,705)
	(12,239,453)	(15,038,327)
Cash flows from financing activities:		
Net proceeds from convertible debentures (note 8)	13,421,525	9,247,240
Repayment of convertible debentures (note 8)	(25,000,000)	-
Net proceeds from short-term loan (note 7)	14,767,839	-
Repayment of short-term debt (note 7)	(3,199,021)	-
Proceeds from long-term debt (note 9)	12,560,744	3,800,000
Repayment of long-term debt (note 9)	(4,972)	(4,777)
Issuance of shares, warrants, rights and exercise of options (note 10)	1,333,905	11,419,960
Share issuance costs	-	(119,175)
	13,880,020	24,343,248
Cash flows used in investing activities:		
Changes in restricted cash	12,371,225	(16,354,020)
Cash receipts from investment tax credits receivable	10,034,590	16,300,000
Additions to patents	(404,860)	(529,911)
Additions to property, plant and equipment	(24,294,130)	(15,857,328)
Additions to exploration and evaluation assets	(104,209)	211,004
Changes in short-term investments	(498,366)	(6,176)
	(2,895,750)	(16,236,431)
Net decrease in cash and cash equivalents	(1,255,183)	(6,931,510)
Cash and cash equivalents, beginning of year	2,977,929	9,909,439
Cash and cash equivalents, end of year	$ 1,722,746	$ 2,977,929

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

1. Nature of operations

Orbite Technologies Inc. (the “Company” or “Orbite”) was incorporated on June 17, 1983 under the Canada Business Corporations Act. On June 12, 2015, the Company amended its articles to change its name to “Orbite Technologies Inc.” (formerly known as Orbite Aluminae Inc.). Its share capital is comprised of one Class of common shares, i.e. the Class A shares (the “Common Shares” or the “Class A Shares”), which are the only shares that are currently issued and outstanding. On June 17, 2015, the Company’s securities began trading under the “Industrial-Technology” listing category of the Toronto Stock Exchange instead of the “Mining” category. Orbite is a development stage corporation involved in the extraction of different ores, namely alumina, using environmentally friendly extraction processes. The Company’s activities are located in Québec, Canada and its shares are listed on the Toronto Stock Exchange ‘’TSX’’ under the stock symbol “ORT” and since September 10, 2012, on the OTCQX International under the symbol “EORBF.” The Company’s 2015 convertible debentures are also listed on the TSX under the symbols ‘’ORT.DB.B’’ and “ORT.DB.C”.

The Company's headquarters are located at 6505 TransCanada Highway, Suite 610, Saint-Laurent, Québec, Canada.

The Company owns the intellectual property rights to patented and patent-pending proprietary processes and technologies, which are expected to enable the environmentally sustainable and cost effective production of high value products such as high purity alumina, silica, hematite, magnesium oxide, titanium oxide, smelter grade alumina as well as rare earth oxides and rare metal oxides from a variety of potential feedstocks which could include red mud, fly ash, aluminous clay, mine tailings, bauxite and kaolin clay, without generating red mud waste or tailings. Orbite owns 100% of the mining rights of several properties in the province of Québec and an option to acquire claims in the province of Nova Scotia. The majority of the claims are located in Grande-Vallée and between Rimouski and Cap-Chat, all in the Gaspé region. Most of the exploration and evaluation activities undertaken are in relation to its 41 km^2 Grande-Vallée property, the site of an aluminous clay deposit located 32 km northeast of Murdochville, Québec. The Company has a 20-year renewable mining lease on its Grande-Vallée property, granted by Québec’s Ministry of Natural Resources and Wildlife, that would be sufficient to operate the future open pit operation to supply a smelter-grade alumina (“SGA”) plant and the high-purity alumina (“HPA”) plant operations.

Orbite is currently in the process of finalizing the construction of its HPA production facility located in Cap-Chat, on the Gaspé Peninsula in the Province of Québec. On March 8, 2012, the Company ceased operations of its alumina pilot plant and commenced the first phase of construction in June 2012, with the intention to convert the facility into a full-scale, 3 tpd, high-purity alumina production plant, designed to produce alumina at 99.99% (“4N”) and greater purities. Even though the plant is not currently operational commercially, it is operated on an intermittent basis in order to produce samples for customer qualification programs.

The Company published a revised preliminary economic assessment in regards to the SGA project in May 2012.

The potential for recovery of costs incurred on exploration and evaluation activities and the investment in the HPA plant depends on various factors including the existence of sufficient quantities of reserves, the ability to obtain all required permits, the ability to obtain appropriate financing to put mining properties into production, construct production facilities, and bring those into operation, the efficiency and commercial viability of its processes, and the ability to realize a profitable return for the Company.

2. Basis of presentation and measurement

Statement of compliance

The financial statements have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”).

The Board of Directors approved the financial statements for the year ended December 31, 2015, and authorized their publication on March 30, 2016.

Basis of measurement

The financial statements have been prepared on a historical cost basis except for derivative financial instruments and the Company’s 2013 convertible debentures, measured at fair value through profit or loss.

Going Concern

The financial statements have been prepared on a going concern basis, meaning on the basis that the Company will be able to realize its assets and discharge its liabilities in the normal course of operations.

The application of the going concern concept is dependent upon the Company’s ability to satisfy its liabilities as they become due and to obtain the necessary financing to complete the construction of its HPA plant, the exploration and development of its mineral property interests, the attainment of profitable operations or the receipt of proceeds from the disposition of its mineral property interests. The Company is a development stage corporation and has not generated revenue or cash flows from its HPA plant which is currently under construction. The Company’s sources of funding to this point has been the issuance of equity securities, debt and government grants. There can be no assurance that the HPA plant will operate successfully or economically, that the estimated capital costs will be sufficient to achieve the design capacity or the product purities and characteristics, or that the plant will provide a return on investment or become profitable.

In order to finance ongoing construction and subsequent commissioning of its HPA plant, the Company closed a $10 million bought deal on April 6, 2015 and an additional $5 million on May 6, 2015 (see note 8). On November 5, 2015, the Company completed secured debt financings (the “Facility”) totalling up to $22 million (US$ 16.95 million) in the aggregate, and increased the amount of its second secured bridge loan with Investissement Québec to $7.6 million from $5 million (See note 7 and 9). Subsequent to year end, the Company completed a $8.5 million bought deal financing on February 3, 2016 and an additional $1 million on February 23, 2016. An additional 5,458 units, or $5.5 million, remains outstanding under the Underwriter's Option that can be exercised until April 15, 2016 (see note 19).

The Company has no other committed sources of future financing as of the date of these financial statements other than the one mentioned above. As at the date of these financial statements, the Company has postponed certain activities necessary to complete the construction of the HPA plant in order to manage its working capital and limit construction costs. Management expects to start commercial production in the second quarter of 2016 and will need to raise new financing in order to complete the HPA plant and, in addition, requires funds for its monthly burn rate. If additional delays in reaching commercial production or in achieving positive cash flows from sales were to occur, the Company’s working capital may be insufficient to meet its obligations. The Company currently does not have any executed sales orders pending achieving commercial production. The Company has certain potential alternative sources of financing including leveraging its investment tax credits, obtaining additional funding from an existing shareholder and the exercise of additional units under the Underwriter's Option. In addition, under its Facility, the Company has restrictive covenants to be met early in the second half of 2016 for which compliance will depend on the timing of completion of the HPA plant, timing and quantum of sales, and achieving positive cash flows from commercial production. If the Company does not comply with such covenant, management will need to obtain a waiver from its lender to avoid the consequences of the event of default.

If the going concern assumption were not appropriate for these financial statements, adjustments to the carrying value of assets and liabilities, reported expenses and statement of financial position classifications would be necessary. Such adjustments could be material and may occur in the near term.

Principles of consolidation

The financial statements previously included the accounts of the Company and its wholly-owned subsidiary company that was incorporated in 2012 and was subsequently dissolved on October 5, 2015. The wholly-owned subsidiary had no assets, liabilities, revenues nor expenses and as such, the dissolution had no impact on the Company's financial statements.

Functional and presentation currency

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

3. Significant accounting policies

These financial statements have been prepared in accordance with accounting policies which are consistent with those of the previous financial year.

a) Adoption of new accounting standards, amendments and interpretations during the year

There were no new standards, interpretations, amendments or improvements issued by the IASB effective January 1, 2015 requiring mandatory adoption that were relevant to the Company.

b) Standards, amendments and interpretations not yet in effect

The Company intends to early adopt the following standard issued by the IASB:

IFRS 15 Revenue from Contracts with Customers ("IFRS 15")

IFRS 15 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 is effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Company intends to early adopt IFRS 15 in its financial statements for the annual period beginning on January 1, 2016. The adoption of the standard will have no impact on the Company's financial statements.

The following standards issued by the IASB have not been early adopted and have been assessed as having a possible effect on the Company in the future. The Company is currently assessing the impact of these standards on its financial statements.

IFRS 9 Financial Instruments ("IFRS 9")

IFRS 9 addresses the classification and measurement of financial assets. The new standard defines two instead of four measurement categories for financial assets, with classification to be based partly on the Company's business model and partly on the characteristics of the contractual cash flows from the respective financial asset. 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.

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 Company intends to adopt IFRS 9 in its financial statements for the annual period beginning on January 1, 2018.

IFRS 16 Leases ("IFRS 16")

IFRS 16 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.

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 at or before the date of initial adoption of IFRS 16. The Company intends to adopt IFRS 16 in its financial statements for the annual period beginning on January 1, 2019.

c) Use of estimates and judgments

The preparation of the 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. Management's best estimates concerning the future are based on the facts and circumstances available at the time estimates are made. Management uses historical experience, general economic conditions and trends, as well as assumptions regarding probable future outcome as the basis for determining estimates. 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 period affected.

Judgments, assumptions, and estimation uncertainties that are critical to the determination of the carrying value of assets and liabilities are as follows:

Going concern

Determining whether there exists material uncertainty that casts significant doubt about the Company's ability to continue as a going concern requires Management to exercise its judgement in particular about its ability to obtain future financing and projected future cash flows.

Assessment of refundable tax credits related to resources, credits on mining duties and investment tax credits

The various government tax credits are estimated by Management based on quantitative and qualitative analysis and interpretation of various government programs, 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. The unavailability of the tax credits in obtaining a refund of tax credits could have a significant effect on the anticipated net costs for its HPA Plant.

Fair value estimates of financial assets and liabilities

The determination of the fair value of the liability component of the convertible debt, and the convertible debentures holders' conversion option (an embedded derivative) requires management to make estimates regarding the fair value of the conversion option including a market participant's assessment of the volatility of the share price over the life of the conversion option, and the interest rate that the Company would have obtained for a similar secured loan without a conversion feature. Management takes into consideration the valuation of both components, historical data regarding issuances of warrants and the proceeds received upon issuance of the convertible debt to determine the inputs used in the valuation models and the resulting fair value for each instrument.

Estimate of the fair value of share-based payments including the estimate of the life of the stock options and the volatility of the shares

The fair value of each option granted is estimated at the grant date using the Black-Scholes option pricing model. The estimated life of the stock options at grant date is based on the legal life of the stock options and the historical exercise pattern of option holders. The expected volatility used to calculate the grant date fair value estimated taking into account the historical volatility of the Corporation's share price over the expected term of the options granted. Historical volatility is revised whenever facts and circumstances indicate that the historical volatility is no longer appropriate. Such facts and circumstances include but are not limited to the Company entering a new phase of mining activity, the development of new technologies, changes to the financial position of the Company, and when the spread between market participants volatility data, derived from the calculation of the fair value of financial instruments and equity instrument issued by the Company, is significant. If management estimates that historical volatility requires an adjustment, the Company also takes into consideration the historical volatility of comparable companies at similar stages of development as the Company as well as the volatility estimates derived from the fair value calculation of financial instruments and equity instruments in periods when this information is available.

Capitalization of borrowing cost

The Company must apply its judgment when determining if a constructed asset, such as a manufacturing plant, is considered a qualifying asset under IAS 23, Borrowing costs. Management must consider whether the Company has incurred significant borrowing costs that are attributable to the construction of the HPA Plant. Judgment is also required in determining which borrowing costs are eligible for capitalization. Based on its assessment, the Company determined that borrowing costs attributable to the HPA Plant should be capitalized commencing in the first quarter of 2013.

Management must also apply its judgment in determining on an ongoing basis if capitalization should continue, for example, if the Company reduces or suspends during an extended period, the activities necessary to prepare an asset for its intended use. This requires an evaluation of the level of substantial technical and administrative activities being carried out during a given period. Based on its assessment of the facts at each reporting period, borrowing costs will either be capitalized or expensed during a given period. The Company has continued to capitalize borrowing costs since the first quarter of 2013.

Accounting for research and development activities relating to mining activities

The Company must apply its judgment in determining which activities relating to extraction methods and treatment processes should be accounted for as research and development under IAS 38 *Intangible Assets* ("IAS 38") or as exploration and evaluation assets under IFRS 6 *Exploration for and Evaluation of Mineral Resources* ("IFRS 6"). Because there existed no economically feasible method for extracting alumina from aluminous clay, the mineral resource of the Grande-Vallée property, the Company conducts a combination of research activities to develop an extraction process. The Company decided that these activities as well as others described below are within the scope of IAS 38 as they involve a high level of risk and uncertainty in regards to the development of technology for extracting various ores.

The Company's research and development activities comprise amongst others:

- activities pursued with the prospect of gaining new scientific or technical knowledge and understanding;
- the search for new applications; and
- the development of prototypes including the operating of a pilot plant that is not of a scale economically feasible for commercial production.

The Company applies the criteria listed in IAS 38 to determine if research and development costs should be capitalized or expensed. Historically, the Company's research and development activities have been expensed.

When the level of risk and uncertainty in regards to a technology is reduced following technical advances and the technical feasibility has been demonstrated in a laboratory or a pilot plant environment, the activities relating to a particular extraction method or treatment process are considered as evaluation activities going forward. Evaluation activities involve determining the technical feasibility and commercial viability of extracting a mineral resource and are capitalized in accordance with IFRS 6. Exploration and evaluation assets are assessed for impairment when facts and circumstances suggest that the carrying amount of an exploration and evaluation asset may exceed its recoverable amount. In such circumstances, the impairment loss is recognized as an expense in accordance with IFRS 6.

Assessment of impairment of the HPA plant

The Company must apply its judgment to determine if there is an indication that the carrying amount of the HPA plant may not be recoverable thereby triggering the need for an impairment test during the fiscal year of 2015. Management determined that no triggering event occurred throughout the year ended December 31, 2015. During the fourth quarter of 2014, Management determined that an event requiring an impairment test occurred. There is estimation uncertainty in establishing the recoverable amount of the HPA plant cash generating units for which the key assumptions include the timing of completion of construction, commissioning and start-up production activities of the HPA plant, estimated sales volumes, selling prices, input costs and the discount rates (see note 5).

d) Foreign currency transactions

Transactions in foreign currencies are translated to the functional currency of the Company at exchange rates at the dates of the transactions. At the end of the reporting period, monetary assets and liabilities denominated in foreign currencies are retranslated to the functional currency at the exchange rate at that date.

Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are translated to the functional currency at the exchange rate at the date the fair value was determined.

Foreign currency differences arising on translation are recognized in profit or loss. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction.

e) Financial instruments

Financial assets

Financial assets in the scope of IAS 39 *Financial Instruments: Recognition and Measurement ("IAS 39")* are classified as financial assets at fair value through profit or loss, loans and receivables, held-to-maturity investments, available-for-sale financial assets, or derivatives. The Company determines the classification of its financial assets at initial recognition.

All financial assets are recognized initially at fair value plus directly attributable transaction costs, except in the case of financial assets recorded at fair value through profit or loss which do not include transaction costs.

The subsequent measurement of financial assets depends on their classification. The Company classifies its cash and cash equivalents, short-term investments, deposits and restricted cash as loans and receivables.

The restricted cash presented in the statement of financial position as at December 31, 2015 as a current asset, represents an amount of US$3 million that is being kept in a segregated account of the Corporation and may not be used until the Corporation has produced at least one ton of 99.999% high purity alumina ("5N+ HPA") for any three consecutive days, and completed its first sale and delivery of 5N+ HPA that is not a sample sale. Whereas, the restricted cash as at December 31, 2014, represents a portion of the refundable 2012 and 2013 investment tax credits, deposited in a segregated account which served as security for the 2012 convertible debentures. These funds were released to the Company according to the terms of the trust indenture agreement in October 2015.

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Subsequent to initial recognition, loans and receivables are measured at amortized cost using the effective interest method, less any impairment losses. The effective interest rate accretion is included in finance income in profit or loss. The losses arising from impairment are recognized in profit or loss in finance costs for loans and operating expenses for receivables.

Financial liabilities

Financial liabilities in the scope of IAS 39 are classified as financial liabilities at fair value through profit or loss, loans and borrowings, or as derivatives. The Company determines the classification of its financial liabilities at initial recognition.

All financial liabilities are recognized initially at fair value and, in the case of loans and borrowings, net of directly attributable transaction costs. Transaction costs relating to derivatives and financial liabilities designated at fair value through profit and loss are expensed in the period the instrument is issued.

The measurement of financial liabilities depends on their classification. Derivatives are classified as fair value through profit and loss whereas the Company classifies its trade accounts payable and accrued liabilities, short-term loan and long-term debt as loans and borrowings.

Loans and borrowings

After initial recognition, loans and borrowings are subsequently measured at amortized cost using the effective interest rate method. Gains and losses are recognized in profit or loss when the liabilities are derecognized, as well as through the effective interest rate accretion process. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The effective interest rate accretion is included as finance costs in profit or loss.

Convertible debentures

2012, 2015 and Series X Convertible Debentures

Convertible debts are hybrid instruments composed of a non-derivative host contract and a conversion option. Depending on the terms of the agreements, the conversion option will be presented either as an equity component or a derivative financial instrument. In addition the hybrid instrument may comprise other features such as embedded derivatives in the form of early payment options or change in control premiums, and performance obligation that may require distinct accounting treatments. The non-derivative host contract and bifurcated embedded derivatives are initially recognized at fair value. The value of the equity component of the convertible debentures is obtained using the residual method.

The 2012 convertible debentures are hybrid instruments composed of a debt component and embedded derivatives in the form of the convertible debentures holders' conversion option, the Company's early repayment option and a change of control premium. Up to the date of redemption, the 2012 convertible debentures were measured at their amortized cost using the effective interest rate method.

The 2015 and Series X convertible debentures are hybrid instruments composed of a debt component and embedded derivatives in the form of the convertible debentures holders' conversion option. Upon conversion, the holder is also entitled to shares equal to the additional interest such holder would have received if it had held the debenture until maturity (Make-Whole Amount). The conversion option including the Make-Whole-Amount is recorded as a derivative financial liability at fair value with all subsequent changes in fair value recorded in net finance income (expense), and the debt portion is accounted for at amortized cost using the effective interest rate method.

2013 Convertible Debentures

The 2013 convertible debentures, designated as financial liabilities at fair value through profit or loss, are subsequently measured at fair value with changes recognized in net finance expense (income). The

Company had elected to account for the 2013 convertible debentures using the Fair Value Option. The convertible debt, including the conversion option, was measured at market value using the listed price of the debentures on the Toronto Stock Exchange ('TSX') at each reporting period. On the date of conversion by the holder, the fair value of the debenture is transferred to share capital and warrants.

f) Exploration and evaluation assets

All pre-exploration costs, i.e. costs incurred prior to obtaining the legal right to undertake exploration and evaluation activities on an area of interest, are expensed as incurred.

Once the legal right to explore has been acquired, exploration and evaluation expenditures are capitalized with respect to each identifiable area of interest until the technical feasibility and commercial viability of extracting a mineral resource are demonstrable.

Expenses related to exploration and evaluation include topographical, geological, geochemical, and geophysical studies, exploration drilling, trenching, sampling, engineering studies and other costs including appropriate technical and administrative overhead related to the evaluation of the technical feasibility and commercial viability of extracting a mineral resource. Exploration and evaluation assets also comprise the costs to acquired interests in mining exploration permits/claims which include the rights to explore for, mine, extract, and sell all minerals from such claims and options to acquire such claims.

The various costs are capitalized on a property-by-property basis pending determination of the technical feasibility and commercial viability of extracting a mineral resource. Once reaching development phase, they are recognized as intangible assets and are carried at cost less any accumulated impairment losses. No depreciation expense is recognized for these assets during the exploration and evaluation phase.

When technical feasibility and commercial viability of extracting a mineral resource are demonstrable for an area of interest, the Company stops capitalizing exploration and evaluation costs for that area, tests recognized exploration and evaluation assets for impairment and reclassifies any unimpaired exploration and evaluation assets either as tangible or intangible mine development assets according to the nature of the assets.

g) Property, plant and equipment

Initial recognition

Items of property, plant and equipment are measured at cost less accumulated depreciation and accumulated impairment losses. The initial cost of an asset comprises its purchase price or construction cost, any costs that are directly attributable to the acquisition of the asset and to bringing the asset into operation and the initial estimate of the rehabilitation obligation. For constructed assets and equipment, acquisition and construction costs including external and internal engineering, commissioning expenses, and borrowing cost, if appropriate, are capitalized until the asset is ready for its intended use. Borrowing costs capitalized to property, plant and equipment represents the interest expense calculated under the effective interest method and does not include any mark-to-market adjustment relating to change in fair value of its derivative financial instruments. Government grants or investment tax credits related to the purchase or construction of property, plant and equipment are recorded in reduction of the cost. The costs of the day-to-day servicing of equipment are recognized in profit or loss as incurred.

Depreciation

Depreciation is calculated over the depreciable amount, which is the cost of an asset, or other amount substituted for cost, less its residual value. Property, plant and equipment are amortized on a straight-line basis over their estimated useful life as follows:

Buildings	25 years
Computer equipment	3 years
Leasehold improvements	Over the terms of the leases
Machinery and equipment including vehicles	5 to 25 years
Furniture and fixtures	5 to 15 years

An item of property, plant and equipment is derecognized upon disposal or when no future economic benefits are expected from its use. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in profit or loss when the asset is derecognized.

Depreciation methods, useful lives, and residual values are reviewed annually and adjusted prospectively, if appropriate.

h) Patents

Patents are intangible assets carried at historical cost less accumulated depreciation and any impairment losses recognized, if any. Cost generally consists of patent application costs.

Depreciation, calculated using the straight-line method, is based on the estimated useful life of a patent which does not exceed twenty years from its date of issuance. The amortization period and the amortization method are reviewed annually and adjusted prospectively, if appropriate.

i) Impairment

Financial assets

Financial assets are assessed at each reporting date to determine whether there is objective evidence that they are impaired. A financial asset is impaired if objective evidence indicates that a loss event has occurred after the initial recognition of the asset, and that the loss event had a negative effect on the estimated future cash flows of that asset that can be estimated reliably.

An impairment loss in respect of a financial asset measured at amortized cost is calculated as the difference between its carrying amount and the present value of the estimated future cash flows discounted at the asset’s original effective interest rate. Losses are recognized in profit or loss and reflected in an allowance account against receivables. Interest on the impaired asset continues to be recognized through the unwinding of the discount. When a subsequent event causes the amount of impairment loss to decrease, the decrease in impairment loss is reversed through profit or loss.

Non-financial assets

The carrying amounts of property, plant and equipment are reviewed at each reporting date to determine whether there is any indication of impairment.

The carrying amounts of exploration and evaluation assets are assessed for impairment only when indicators of impairment exist, typically when one of the following circumstances apply:

- Exploration rights have or will expire in the near future;
- No future substantive exploration expenditures are budgeted;
- No commercially viable quantities are discovered and exploration and evaluation activities will be discontinued;
- Exploration and evaluation assets are unlikely to be fully recovered from successful development or sale.

If any such indication exists, then the asset's recoverable amount is estimated.

Exploration and evaluation assets are also assessed for impairment upon the transfer of exploration and evaluation assets to development assets regardless of whether facts and circumstances indicate that the carrying amount of the exploration and evaluation assets is in excess of their recoverable amount. The level identified for the purposes of testing exploration and evaluation assets for impairment corresponds to each mining property.

The recoverable amount of an asset or cash-generating unit 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.

For the purpose of impairment testing, assets that cannot be tested individually 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 groups of assets (the "cash-generating unit", or "CGU"). An impairment loss is recognized if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognized in profit or loss. Impairment losses recognized with respect to CGUs are allocated to the assets in the unit (group of units) on a pro rata basis.

Changes in the assumptions and estimates may affect the Company's determination of the recoverable amount and may lead to an outcome where impairment charges would be required in a future period. In addition, actual results may vary from the Company's cash flow projections, and such variations may be material and unfavorable, thereby triggering the need for future impairment tests where the Company's conclusions may differ.

Impairment losses recognized in prior periods are assessed at each reporting date for any indication that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

j) Provisions

A provision is recognized if, as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation.

k) Share capital and warrants

Common shares and warrants

Common shares and warrants are classified as equity instruments of the Company. Warrants are derivatives over the Company's own equity that will be settled only by the Company exchanging a fixed amount of cash for a fixed number of the Company's own equity instruments.

Flow-through shares

Canadian tax legislation permits an entity to issue securities to investors whereby the deductions for tax purposes relating to exploration expenditures may be claimed by the investors and not by the entity. These securities are referred to as flow-through shares. The Company finances a portion of its exploration programs with flow-through share issuances.

At the time of the share issuance, the Company allocates the proceeds between share capital and an obligation to deliver the tax deductions, which is recorded as a flow-through shares premium liability. The Company estimates the fair value of the obligation using the residual method, i.e. by comparing the price of the flow-through share to the quoted price of common share at the date of the financing announcement.

An entity may renounce the deductions for tax purposes under either what is referred to as the "general" method or the "look-back" method.

When tax deductions are renounced under the general method, and the Company has the expectation of renouncing and has capitalized the expenditures during the current year, then the entity records a deferred tax liability with the corresponding charge to deferred income tax expense. The obligation is reduced to zero, with a corresponding income recorded.

When tax deductions are renounced under the look-back method, the Company records a deferred tax liability with a corresponding charge to deferred income tax expense when expenditures are made and capitalized. At that time, the flow through shares premium liability would be reduced to zero, with a corresponding income recorded.

l) Share-based payments

The grant date fair value of share-based payment awards granted to employees and directors is recognized as an employee expense, with a corresponding increase in contributed surplus, over the period during which 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 do meet the related service and non-market performance conditions at the vesting date.

The cost of share-based payment awards granted to service providers is based on the fair value of the services received. The accounting treatment is dependent on the services received and the offsetting credit will be recognized in contributed surplus.

Grant of equity instruments which are cancelled during a vesting period are accounted for as an acceleration of vesting. The amount that would otherwise have been recognized for services received over the remainder of the vesting period is therefore recognized immediately.

m) Leases

Leases in which a significant portion of the risks and rewards of ownership are not assumed by the Company 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.

Leases of property, plant and equipment where the Company has substantially all of the risks and rewards of ownership are classified as finance leases. Finance leases are capitalized at the lease's commencement at the lower of the fair value of the leased property and the present value of the minimum lease payments. The property, plant and equipment acquired under finance leases are depreciated over the shorter of the useful life of the asset and the lease term.

All leases are classified as operating leases and as such the leased assets are not recognized in the Company's statement of financial position.

n) Finance income and finance expense

Interests received and interests paid are classified under operating activities in the statement of cash flows.

o) Income tax

Income tax expense comprises current and deferred tax. Current tax and deferred tax are recognized in profit or loss, except to the extent that it relates to a business combination, or items recognized directly in equity or in other comprehensive income.

Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable with respect to previous years.

Deferred tax is recognized with respect to temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognized for the following temporary differences: the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss, and differences relating to investments in subsidiaries and jointly controlled entities to the extent that it is probable that they will not reverse in the foreseeable future.

Deferred taxes are recognized as income or expense in profit or loss, except to the extent that tax arises from business combinations and transactions recognized in equity. Therefore, when deferred taxes relate to equity items, a backward tracing is necessary to determine the adjustment to taxes (e.g. change in tax rates and change in recognized deferred tax assets) that should be recorded in equity. For this purpose, the accounting policy of the Company is to allocate changes in the recognition of deferred tax assets based on their expected maturity date.

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. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realized simultaneously.

A deferred tax asset is recognized for unused tax losses and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which they can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

p) Refundable credit on mining duties and refundable tax credit related to resources

The Company is eligible for a refundable credit on mining duties under the Quebec *Mining Duties Act*. This refundable credit on mining duties is equal to 8% of exploration expenses and 16% of development expenses incurred for mining activities in Quebec. The accounting treatment for refundable credit on mining duties depends on management's intention to go into production in the future, or rather to sell its mining properties to another mining producer once the technical feasibility and the economic viability of the properties have been demonstrated. This assessment is made at the level of each mining property. In the first case, the credit on mining duties is recorded as an income tax recovery under IAS 12, *Income Taxes*, which generates at the same time a deferred tax liability and deferred tax expense since the exploration and evaluation assets have no tax basis following the Company's election to claim the refundable credit. In the second case, it is expected that no mining duties will be paid in the future and, accordingly, the credit on mining duties is recorded as a government grant under IAS 20, *Accounting for Government Grants and Disclosure of Government Assistance*, which is recorded against exploration and evaluation assets. The Company records the credit as an income tax recovery since it intends to go into mining production.

The Company is also eligible for a refundable tax credit related to resources for mining industry companies in relation to eligible expenses incurred ("resources tax credit"). The resource tax credit represents up to 28% of the amount of eligible expenses incurred and is recorded as a government grant against exploration and evaluation assets and will be recognized in profit or loss on a systematic basis over the useful life of the related assets.

Credits related to resources and credits for mining duties are recorded at fair value when there is reasonable assurance that they will be received and the Company will comply with the conditions associated with the credits.

q) Investment tax credits

The Company acquires property used primarily in the course of manufacturing and processing including ore smelting, refining or hydrometallurgy activities extracted from a mineral resource located in Canada, and as such qualifies for the investment tax credit ("ITC") available on the cost of purchase of new equipment. The applicable ITC for a corporate taxpayer may be up to 40% of the purchase cost (the basic rate is up to 5%). Whether the ITC is refundable or not for a given taxation year is determined on the basis of the paid-up capital of the Company calculated on an associated group basis and the cumulative cap of $75 million in eligible expenses.

Investment tax credits are accrued when qualifying capital expenditures are incurred and there is reasonable assurance that the credits will be realized.

Investment tax credits associated with capital expenditures are reflected as reductions in the carrying amounts of property plant and equipment.

r) Research and development and related tax credits

Research and development charges are expensed as they are incurred. Research and development tax credits are accounted for as a reduction of the research and development charges during the year in which the costs are incurred, provided that the Company is reasonably assured that the credits will be received.

s) Earnings per share

The Company presents basic and diluted earnings per share (“EPS”) data for its common shares. Basic EPS is calculated by dividing the profit or loss attributable to common shareholders of the Company by the weighted average number of common shares outstanding during the period. Diluted EPS is determined by adjusting the profit or loss attributable to common shareholders and the weighted average number of common shares outstanding, adjusted for own shares held, for the effects of all dilutive potential common shares, which comprise warrants, stock options, and convertible debentures. For the years ending on December 31, 2015 and 2014, all warrants, stock options, and convertible debentures were anti-dilutive since the Company reported net losses.

t) Segment reporting

The Company determined that it had only one operating segment, i.e. the HPA plant.

4. Cash, cash equivalents and short-term investments

Cash and cash equivalents consist of bank deposits. Short-term investments consist of term deposits and investment certificates with an initial maturity over three months. Cash and cash equivalents and short term investments are invested with Canadian chartered banks, are cashable any time without penalty, bear interest varying from 1.5% to 1.65% and mature at various dates up to July 2017 and the short-term investment of $874,565 serve as an additional collateral for the Investissement Québec loan (see note 7).

5. Property, plant and equipment

	Land and improvements	Buildings and improvements	Machinery, equipment, furniture and fixtures	Assets under construction	Total
Cost					
Balance at January 1, 2015	$ 263,830	$ 8,937,790	$ 1,938,537	$ 68,162,969	$ 79,303,126
Additions	-	113,569	356,551	29,281,870	29,751,990
Investment tax credits	-	-	-	(8,461,620)	(8,461,620)
Balance at December 31, 2015	$ 263,830	$ 9,051,359	$ 2,295,088	$ 88,983,219	$ 100,593,496
Accumulated depreciation					
Balance at January 1, 2015	$ -	$ 184,755	$ 726,178	$ -	$ 910,933
Depreciation	-	51,984	220,884	-	272,868
Balance at December 31, 2015	$ -	$ 236,739	$ 947,062	$ -	$ 1,183,801

	Land and improvements	Buildings and improvements	Machinery, equipment, furniture and fixtures	Assets under construction	Total
Cost					
Balance at January 1, 2014	$ 263,830	$ 8,922,548	$ 1,324,928	$ 54,938,955	$ 65,450,261
Additions	-	15,242	613,609	21,451,536	22,080,387
Reclassifications	-	-	30,800	(34,766)	(3,966)
Investment tax credits	-	-	-	(4,343,409)	(4,343,409)
Government grants	-	-	-	(2,066,842)	(2,066,842)
Write-off for redesign	-	-	-	(1,782,505)	(1,782,505)
Disposals	-	-	(30,800)	-	(30,800)
Balance at December 31, 2014	$ 263,830	$ 8,937,790	$ 1,938,537	$ 68,162,969	$ 79,303,126
Accumulated depreciation					
Balance at January 1, 2014	$ -	$ 130,160	$ 434,047	$ -	$ 564,207
Depreciation	-	54,595	292,131	-	346,726
Balance at December 31, 2014	$ -	$ 184,755	$ 726,178	$ -	$ 910,933
Carrying amounts					
As at December 31, 2015	$ 263,830	$ 8,814,620	$ 1,348,026	$ 88,983,219	$ 99,409,695
As at December 31, 2014	$ 263,830	$ 8,753,035	$ 1,212,359	$ 68,162,969	$ 78,392,193

A Company that acquires a property used primarily in the course of manufacturing and processing including ore smelting, refining or hydrometallurgy activities extracted from a mineral resource located in Canada, may qualify for the investment tax credit ("ITC"), available on the cost of purchase of new equipment. The applicable ITC for a corporate taxpayer may be up to 40% of the purchase cost (the basic rate is 5%). Whether the ITC is refundable or not for a given taxation year is determined on the basis of the paid-up capital of the Company calculated on an associated group basis and the cumulative cap of $75 million in eligible expenses.

Most of the equipment purchased and constructed in relation to the HPA commercial plant is eligible for a 40% (before July 1, 2015), and 32% (after July 1, 2015) investment tax credit. The tax credit receivable is recorded in the same period as the eligible addition and is credited against property, plant and equipment. During the year ended December 31, 2015, $9.7 million (December 31, 2014 – $16.3 million) of ITC were received from the Québec Revenue Agency in relation with its 2012 and 2013 ITC claims. Orbite is currently under audit by the Québec Revenue Agency with regards to its 2014 ITC claim. Orbite is not aware of any actual or threatened contest by the tax authorities, however there can be no assurance that these tax credits will be available and, if available, that the amount will be refunded by the Government of Québec in a timely manner. In the event of a cost not being eligible for ITC purposes, the Company would reclassify the amount from ITC receivable to property, plant and equipment.

During the year ended December 31, 2015, $3.6 million (December 31, 2014 – $3.6 million) in borrowing costs were capitalized in assets under construction.

Impairment of the HPA Plant

As described in Note 3, the carrying amount of the HPA plant is assessed at each reporting period to determine whether there is any indication of impairment. An engineering review, conducted throughout 2014, had shown that the original design of the 2012 HPA plant was inadequate to deliver at three tonnes per day capacity. Consequently, the facility was redesigned, and certain installed equipment and piping needed to be replaced to meet capacity and longevity specifications. Orbite wrote-off an amount of $1.8 million to earnings during the fourth quarter of 2014 to avoid duplication of capital costs related to engineering and equipment.

In 2014, the Company determined that a trigger was present and an impairement test was performed. The Company determined the estimated recoverable amount of the HPA plant, which exceeded the carrying value of the property, plant and equipment as at December 31, 2014. As a result, there was no impairement identified.The Company determined the recoverable amount of the HPA plant based on a value in use calculation. The value in use calculation was assessed using cash flow projections, which takes into account financial budgets and forecasts approved by senior management covering a five-year period with a terminal value calculated by discounting the final year in perpetuity. The key assumptions for the value in use calculation include the timing of the completion of construction, commissioning and start-up production activities of the HPA plant, estimated sales volumes, selling prices and input costs, as well as discount rates which are based on estimates of the risks associated with the projected cash flows based on the best information available as of the date of the impairment test.

6. Exploration and evaluation assets

Changes in exploration and evaluation assets by property are as follows:

	January 1, 2015	Additions / Deductions	Ressources tax credit	Write-off	December 31, 2015
Grande-Vallée	$ 15,726,245	$ 62,826	$ -	-	$ 15,789,071
Chaswood	759,743	2,536	-	-	762,279
Rimouski – Cap-Chat	197,433	3,646	-	-	201,079
Le Tac	223,031	-	-	-	223,031
Others	69,038	-	-	-	69,038
	$ 16,975,490	$ 69,008	$ -	$ -	$ 17,044,498

	January 1, 2014	Additions / (Deductions)	Ressources tax credit	Write-off	December 31, 2014
Grande-Vallée	$ 16,043,160	$ (306,241)	$ (10,674)	-	$ 15,726,245
Chaswood	741,909	17,834	-	-	759,743
Rimouski – Cap-Chat	284,381	2,695	-	(89,643)	197,433
Le Tac	223,031	-	-	-	223,031
Others	69,038	-	-	-	69,038
	$ 17,361,519	$ (285,712)	$ (10,674)	$ (89,643)	$ 16,975,490

During the year, the Company has carried out limited activities on its various properties as it focused on the construction activities of its HPA plant. The HPA plant is a path forward for its smelter-grade alumina projects as the HPA plant, once converted to the chloride technology, will serve as a commercial scale demonstration of the same process used to process the aluminous clay and other feedstock from its different properties.

During 2014, the Company received a refund in the amount of $0.38 million from a consultant in connection with the Grande-Vallée property, which was recorded as a deduction to the cost of that property.

IFRS 6 requires that the exploration and evaluation assets be assessed for impairment when indicators of impairment exist. If any such indication exists, then the asset's recoverable amount is estimated. During the year ended December 31, 2015 and 2014, the Company has not identified any indicators of impairment on the exploration and evaluation assets that would require an impairment test to be performed.

Rights and obligations under contractual agreements

Grande-Vallée property

The Grande-Vallée property is located 32 km north-east of Murdochville in Gaspésie Peninsula in Quebec. It comprises 74 claims. The Company has agreed to pay a royalty of 3% of NPI (net profits before amortization and income taxes) resulting from production. One-hundred percent of the royalty can be bought back for an amount of $0.5 million after a five-year production period.

Chaswood property

In November 2012, the Company entered into an agreement with a private company pursuant to which the Company was granted an exclusive option for a period of three years to acquire a 100% undivided interest in the mineral claims and exploration rights of the Chaswood kaolin clay and sand property located in Halifax County, Nova Scotia, Canada. The property consists of 163 claims encompassing 2,608 hectares (approximately 26.1 km^2) in central Nova Scotia.

In order to acquire a 100% undivided interest in the property, the Company is required to: (1) incur aggregate exploration expenditures on the property of $1 million by December 31, 2013 including costs related to an NI 43-101 technical report, (2) deliver an NI 43-101 technical report by December 31, 2014, and if the Company decides to exercise the Option, (3) issue 2,400,000 class A shares by January 1, 2016, vesting in tranches of 10% every six months following the date of issuance. Additionally, the Company made an initial payment of $0.15 million upon the conclusion of the agreement. If the interest in the property is acquired, the Company will pay a royalty of $0.25 per metric tonne of clay and silica extracted from the property and delivered to the Company facility. As of December 31, 2015, the Company is in the process of negotiating an extension to the agreement.

Other properties

Certain of the Company's other properties are subject to royalties varying from 1.5% to 2% of any production sold from these claims.

Flow-through shares

The Company issued in December 2012 flow-through shares and subsequently renounced the deductions for tax purposes. As the Company incurs the qualifying exploration expenditures, the portion of the proceeds recorded as a flow-through shares premium liability upon issuance is reduced and recognized in other income. A deferred tax liability is also recognized regarding the expenditures which no longer have a tax basis for the Company.

As at December 31, 2013, the Company did not incur the required $2.83 million in qualifying Canadian mineral exploration expenses as originally contemplated in 2012 flow-through private placement. As a result, the Company recorded an expense of $1.667 million during the year ended December 31, 2013 to reflect the indemnification penalty that the Company will incur to compensate adverse tax consequences incurred by purchasers of such flow-through securities. In addition, the Company reversed the remaining flow-through shares premium liability of $566,138 (December 31, 2012 - $751,400). The net amount was recorded in other expense. During the year ended December 31 2014, the Company recorded an additional expense of $261,426 to reflect adjustments to the indemnification penalty.

7. Short-term loans

Transactions affecting the short-term loans were as follows:

	Investissement Quebec	Revolving credit Facility	Term loan A	Other short-term loans	Total
Balance - beginning of year	$ -	$ -	$ -	$ -	-
Proceeds	10,625,000	3,407,422	594,000	193,288	14,819,710
Transaction cost	-	-	(51,871)	-	(51,871)
Effective interest accretion	-	-	6,104	3,807	9,911
Repayments	(3,025,000)	(174,021)	-	-	(3,199,021)
Effect of changes in foreign exchange rates		162,706	26,349	-	189,055
Balance at end of year	$ 7,600,000	$ 3,396,107	$ 574,582	$ 197,095	$ 11,767,784

Investissement Québec

On January 13, 2015 and June 19, 2015 Orbite entered into a loan agreement for up to $3.025 million and $5 million respectively, from Investissement Québec (“IQ”). On November 5, 2015 IQ agreed to increase the amount of its second secured bridge loan, in the amount of $5 million, to $7.6 million. The Company also used a portion of proceeds of the Term Loan B (see note 9), namely $3.025 million to repay in full the bridge loan contracted with IQ in January 2015. The security granted to IQ on the Company’s 2014 ITC was subsequently discharged.

The loan of $7.6 million is collateralized against the Company's ITC receivables for the 2015 and subsequent financial years, and is repayable upon receipt by the Company of ITC payments for the 2015 financial year from tax authorities, but in no event later than June 30, 2017.

It carries an interest rate of 3.5% over the prevailing prime lending rate, which at December 31, 2015 was standing at 2.70%. Interest is payable monthly and during the year ended December 31, 2015 the interest expense amounted to $294,885. The loan is subject to certain reporting and financial customary terms and conditions including maintaining a minimum working capital ratio until repayment of the loan.

Revolving credit facility and Term Loan A

On November 5, 2015, the Company completed a secured debt financing totalling up to $22 million (US$16.95 million) in the aggregate (the “Facility”). The Facility is comprised of a $8.5 million (US$6.5 million) Revolving credit facility, a Term Loan A of $0.6 million (US$0.45 million) and Term Loan B of $13.0 million (US$10.0 million) (see note 9). The Revolving credit facility and term loans bear interest at the London Interbank Offered Rate (or Libor) rate, which shall be no less than 0.5% (0.275% as of December 31, 2015), plus 6.5%.

On initial recognition the transaction costs were prorated between the Revolving credit facility and the term loans. The Facility is subject to certain reporting, financial and other conditions including maintaining a minimum fixed charge coverage ratio beginning in the second half of 2016. The Facility is secured by a 1st ranking hypothec on the universality of the Company’s present and future movable and immovable assets, excluding the ITC receivables for the 2015 financial year, which are currently being financed by IQ. The Facility shall expire on November 5, 2019.

A portion of the Revolving credit facility and Term Loan A will be repayable as the ITC payments for the 2014 financial year are received by the Company. Given the expected short-term repayment dates, these loans were classified as current liabilities.

Term Loan A was recorded at its fair value of $0.5 million (US$ 0.4 million) net of transaction costs using an effective annual interest rate of 14.48% and is being accreted until maturity over a 20 month period. The Revolving credit facility was recorded at fair value for its initial proceeds of $3.4 million (US$2.6 million) and transaction costs of $749,243 (US$567,608) will be amortized on a straight-line basis for a period of 4 years and are included in prepaid expenses and other. The balance of the Revolving credit facility will be used to finance the Company's eligible receivables.

8. Convertible debentures

	2012 Convertible debentures	2013 Convertible debentures	Series X Convertible debentures	2015 Convertible debentures	Total
Balance at January 1, 2014	$ 19,586,770	$ 11,799,410	$ -	$ -	$ 31,386,180
Issuances	-	-	4,422,407	-	4,422,407
Effective interest accretion	3,080,743	-	299,721	-	3,380,464
Interest payments	(2,000,000)	-	(168,904)	-	(2,168,904)
Conversion into common shares	-	(11,619,104)	(4,553,224)	-	(16,172,328)
Net fair value change	-	523,719	-	-	523,719
Balance at December 31, 2014	$ 20,667,513	$ 704,025	$ -	$ -	$ 21,371,538
Issuances	-	-	-	8,613,642	8,613,642
Effective interest accretion	2,482,088	-	-	132,039	2,614,127
Early redemption	(25,000,000)	-	-	-	(25,000,000)
Interest payments	(1,500,000)	-	-	-	(1,500,000)
Loss on early redemption	3,350,399	-	-	-	3,350,399
Conversion into common shares	-	(576,100)	-	(8,560,187)	(9,136,287)
Interest paid in shares upon conversion	-	-	-	(72,921)	(72,921)
Net fair value change	-	(127,925)	-	-	(127,925)
Balance at December 31, 2015	$ -	$ -	$ -	$ 112,573	$ 112,573

2012 Convertible debentures

On December 13, 2012 the Company completed a private placement of convertible debentures in the aggregate principal amount of $25 million.

The 2012 convertible debentures bear interest at a rate of 8% per annum to be paid quarterly in arrears, and have a maturity date of December 13, 2017. Furthermore, the convertible debentures are convertible, in whole at the option of the holders at any time prior to the maturity date, into Class A shares of the Company at a conversion price of $3.50 per Class A share. After 24 months following the date of issuance of the debentures, the Company has the option to pre-pay all or any portion of the outstanding convertible debentures in the amount of the principal amount thereof plus accrued and unpaid interest.

The convertible debentures were secured against the HPA plant buildings as well as the Company's 2012 and 2013 refundable ITC resulting from the purchase of manufacturing equipment related to the Company's HPA facility and restricted cash.

On October 16, 2015, the Company redeemed all of the outstanding 2012 debentures in the aggregate principal amount of $25 million plus accrued interests. As per the terms of the Trust Indenture, for each $1,000 principal amount of debentures redeemed, the Company issued 285.714 class A share purchase warrants exercisable until December 13, 2017 at a price of $3.50. Accordingly, all of the security granted by the Company to secure the 2012 debentures were released and discharged.

During the year ended December 31, 2015 the Company received installments totaling $9.7 million (December 31, 2014 – 16.3 million) from the tax authorities in consideration of investment tax credits on the equipment purchased for manufacturing and processing in the Gaspé region. The total payments of $25,069,900 (including interest), which related to the 2012 and 2013 fiscal years were deposited in a segregated account and served for redemption of the 2012 convertible debentures on October 16, 2015. The redemption payment was allocated between the carrying amount of the debt component and the fair value of the derivative liability component at the redemption date. The difference of $3.3 million between the redemption payment and the carrying amount of the liability components was recognized as a loss in net finance expense (income) (see note 11).

2013 Convertible debentures

On December 10, 2013 the Company completed a public offering of convertible debentures in the aggregate principal amount of $16 million.

The 2013 convertible debentures consist of 16,000 units at $1,000 principal amount. The convertible debentures bear interest at a rate of 7.5% per annum to be paid semi-annually in arrears on May 31 and November 30 of each year. Each unit consists of (i) unsecured unsubordinated debentures convertible at the option of the holders at any time prior to the close of business on the tenth business day immediately preceding the maturity date, into Class A shares of the Company at a price of $0.40 per share and (ii) 875 share warrants, each exercisable into one Class A share of the Company at a price of $0.48 for a period of 36 months following issuance. Holders who convert their debentures will receive accrued and unpaid interest to the date of conversion in addition to a make-whole interest payment equal to the interest amount that such holder would have received if such holder had held the debentures until the maturity date (the “make-whole amount”). Such make-whole amount shall be reduced by 1% for each 1% that the five (5) day Volume Weighted Average Price (“VWAP”) of the Common Shares on the Toronto Stock Exchange at time of conversion exceeds the conversion price. The interest may be paid, at the sole option of the Company, in cash or in Common Shares whereas the make-whole interest (if any) will be paid in Common Shares.

The broker agent of the Offering received a commission of 6% of gross proceeds raised in addition to 2,400,000 broker warrants; each such warrant is convertible into one Class A share of the Company at a price of $0.48 for a period of 36 months following issuance. The fair value of the warrants was valued using the Black and Scholes option pricing model and classified as transaction cost under net finance expense (income). The assumptions used in the pricing model included a risk-free rate of 1.4%, an expected volatility of 75% and no expected dividend.

The 2013 convertible debentures holders’ conversion option meets the definition of a derivative financial liability. As a result, at the date of issuance, the Company has elected to use the Fair Value Option (“FVO”) for the convertible debentures with future changes in fair value recognized in net finance expense (income). As a result of electing the FVO, the transaction costs are included in the net finance expense (income).

The issuance of the 2013 convertible debentures was initially recorded at $16.32 million based on its quoted price on the TSX and the subscription commitment derivative asset was recorded at $0.32 million based on level 3 measurement model. See note 15 for level 3 inputs to determine the fair value of the Subscription Commitment derivative.

During the year ended December 31, 2015, all 2013 convertible debentures were converted.

Subscription rights

In connection with the issuance of the 2013 convertible debentures, on December 10, 2013, the Company also secured a binding commitment by a U.S.-based institutional investor providing for the future subscription of $40 million in additional units by way of private placement (“the Subscription Commitment”) having identical terms to those of the Units issued pursuant to the above, with the exception that the conversion price shall be based on the 5-day volume weighted average price (“VWAP”) of the Company’s shares on the last trading day prior to the date on which the subscription rights in respect of which the units are issued first become exercisable, and the Warrants granted shall be equivalent to 45% of the number of Common Shares into which the Debentures are convertible, exercisable at a 20% premium over such conversion price.

Under the terms of the Subscription Commitment, the investor undertook to subscribe on the date that is three months from the Closing Date to two series of subscription rights (the “Series X Subscription Rights” and the “Series Y Subscription Rights” and collectively the “Subscription Rights”). The Subscription Rights can be exercisable by the investor and by the Company. Upon exercise, the Subscription Rights will require the investor to purchase additional units in the total subscription amount of up to $40 million, as follows:

- The subscription rights were issued on March 10, 2014 and the Series X subscription rights were exercised on July 11, 2014 and,
- Series Y Subscription Rights, requiring the investor upon exercise to purchase additional units in the amount of up to $30 million based on aggregate trading value benchmarks on the Common Shares, exercisable beginning ten months following December 10, 2013 and which expire on December 10, 2015 if unexercised.

The Subscription Rights are subject to the Company’s compliance with the formalities, covenants and certain conditions including obtaining certain regulatory approvals, including TSX approval, and shareholder approval if certain dilution thresholds are exceeded, and the absence of a material adverse effect affecting the Company between the time the Series Y Subscription Rights were first issued and the issuance date of the underlying debentures and warrants, and creditworthiness of the investor for this unsecured obligation.

The above Subscription Commitment met the definition of a derivative from the date of issuance and is recorded as a “Subscription Commitment derivative”. The fair value of the derivative was not significant at inception and as at December 31, 2013. The Company allocated the proceeds of the issuance to the convertible debenture liability and Subscription Commitment derivative. The Company did not allocate any of the proceeds of the issuance to the equity classified warrants since the proceeds exceeded the initial fair value of the convertible debentures per the TSX listing and the Subscription commitment fair value and thus, all proceeds were allocated to the convertible debentures and the subscription commitment derivative.

Series Y Subscription Rights

On November 10, 2014, the Company announced amendments to the terms of its Series Y Subscription Rights issued on March 10, 2014 to Crede. On April 13, 2015, Orbite and Crede Capital mutually agreed to terminate the Series Y Subscription Rights.

Series X Convertible debentures

On July 11, 2014, the Company completed an offering of $10 million in the form of unsecured convertible debentures and warrants, pursuant to the exercise of the Series X Subscription Rights as issued on March 10, 2014.

The Series X convertible debentures consist of 10,000 units at $1000 principal amount and 13,000,000 warrants of the Company. The Debentures will mature five years from issuance, namely July 11, 2019 and will bear interest at a rate of 7.5% per annum. Each Debenture is convertible, at the option of the holder, at any time prior to the maturity date, into class A shares of the Company at a conversion price of $0.50 per Share, representing the 5-day VWAP at time of the conditional exercise of the Series X subscription rights. Upon conversion, the holder shall also be entitled to Shares equal to the additional interest such holder would have received if it had held the Debenture until maturity (make-whole amount) divided by the then 5-day VWAP of the common shares two (2) days prior to the date of conversion. The maximum number of Shares issuable upon conversion of the Debentures on account of the principal amount and the make-whole amount not exceed the principal amount of the Debentures converted, divided by the Conversion Price less 25%, in addition to accrued and unpaid Interest, in cash or in Shares at the Company's discretion. Each Warrant shall entitle the holder to purchase one Share for a period of three years from its issuance at a price of $0.60 per share (equivalent to the Conversion Price plus a 20% premium).

The convertible debentures holders' conversion option, which includes the Make Whole Amount, is recorded as a derivative financial liability at fair value with all subsequent changes in fair value to be recorded in net finance expense (income), and the debt portion is accounted for using the effective interest rate method. The accounting policy for the Series X convertible debentures is consistent with the accounting policy used for the 2012 convertible debentures.

In connection with the placement, the Company paid a fee of 6% of the amount of the investment and issued a total of 1,200,000 finder warrants. Each finder warrant entitles the holder to purchase one Share for a price of $0.60 per share for a period of three years and is non-transferable. The fair value of the warrants were valued using the Black and Scholes option pricing model and classified on a pro-rata basis between transaction cost under net finance expense (income) and the liability component. The assumptions used in the pricing model included a risk-free rate of 1.16%, an expected volatility of 75%, a two-year expected life and no expected dividend. During the year ended December 31, 2014, all of the outstanding Series X convertible debentures were converted into common shares.

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

Debt component net of transaction cost of $479,914	$	4,422,407
Recognition of the conversion option derivative financial liability on issuance of convertible debentures		5,797,680
Series X subscription right derivative value at time of exercise		(700,000)
Non-cash transaction costs related to broker's warrants recognized as contributed surplus		294,718
Transaction costs recognized as finance expenses		(567,565)
Net proceeds	$	9,247,240

2015 Convertible debentures

On April 6, 2015, Orbite completed the first portion of the public offering of units in the amount of $10 million under the short form base shelf prospectus and prospectus supplement dated March 18 and March 30, 2015 respectively (the "Offering").

On May 6, 2015, Orbite concluded the issuance of 5,000 additional units for gross proceeds of $5 million as a result of the exercise of the over-allotment by the underwriter under the public offering, of its financing option, bringing the aggregate gross proceeds for the public offering to $15 million.

Each unit consists of $1,000 principal amount of 5% convertible unsecured unsubordinated debentures (the "Debentures") and 1,077 share purchase warrants (each a "Warrant") of the Company. The Debentures mature on April 6, 2020 (the "Maturity Date") and bear interest at a rate of 5% per annum payable semi-annually.

Each Debenture is convertible, at the option of the holder at any time prior to the Maturity Date, into the number of shares computed on the basis of (i) the principal amount of the Debentures divided by the conversion price of $0.325 per share (the "Conversion Price"), and (ii) an amount equal to the additional interest amount that such holder would have received if it had held the Debenture until the Maturity Date (the "Make-Whole Amount") divided by the then 5 day volume weighted average trading price of the shares on the TSX (the "Current Market Price"). The Make-Whole Amount shall be reduced by 1% for each 1% that the Current Market Price at time of conversion exceeds the Conversion Price. Each Warrant will be exercisable into one share for a period of 36 months from their issue date at a price of $0.39 per share.

For its services, Euro Pacific Canada Inc. received a cash commission of $0.9 million (equal to 6% of the gross proceeds raised) and 2,769,230 non-transferable broker warrants (equal to 6% of the shares into which the principal of the Debentures sold are convertible). Each broker warrant is exercisable into one share for a period of 36 months at a price of $0.39 per share.

The aggregate number of shares to be issued upon conversion of the Debentures and for any payment of the Make-Whole Amount shall not exceed the number of shares equal to the principal amount of the Debentures divided by $0.325 less the 25% maximum discount allowable by the Toronto Stock Exchange.

The convertible debentures holders' conversion option, which includes the Make Whole Amount is recorded as a derivative financial liability at fair value with all subsequent changes in fair value to be recorded in net finance expense (income), the debt portion is initially recorded at its fair value and subsequently accounted for using the effective interest rate method at a rate of 19%, and the warrants are equity classified with no future remeasurement and represent the residual value of the proceeds from the issuance. The accounting policy for 2015 convertible debentures is consistent with the accounting policy used for the Series X convertible debentures and the 2012 convertible debentures.

At the issuance date the 2015 convertible debentures were recorded as follows:

Debt component net of transaction cost of $1,315,729	$	8,613,642
Recognition of the conversion option derivative financial liability on issuance of convertible debentures		3,785,402
Warrants issued net of transaction cost of $128,868[a)]		1,156,360
Non-cash transaction costs related to broker's warrants recognized as contributed surplus		302,769
Transaction costs recognized as finance expenses		(436,648)
Net proceeds	$	13,421,525

[a)] Recognized in contributed surplus as these warrants were part of a hybrid instrument with a debt component

9. Long-term debt

		December 31, 2015		December 31, 2014
Government loans	$	3,734,526	$	4,628,696
Term Loan B		13,226,703		-
Other loans		10,102		15,075
Total		16,971,331		4,643,771
Presented as:				
Current		549,619		4,972
Non-current		16,421,712		4,638,799

The government loans were used to finance the HPA plant and its related equipment. The fair value of the loans was recorded using a weighted average effective annual interest rate of 8% for loans obtained prior to 2014 and 14.5% for a loan obtained in 2014. The difference between the fair value of the loan and the proceeds received was recorded as a government grant in reduction of property, plant and equipment. As of December 31, 2015, the debt balance is comprised of:

(a) Non-interest bearing loan of $658,444 from the government of Canada, repayable in 10 equal semi-annual instalments beginning on April 1, 2016.

(b) Non-interest bearing loan of $1,915,968 from the government of Canada, repayable in 10 equal semi-annual instalments beginning on February 1, 2020.

(c) Non-interest bearing loan of $1,160,114 from the government of Quebec repayable in annual instalments based on future cash flows beginning on January 15, 2020 with any remaining balance due on January 2024.

(d) Term Loan B, bearing interest at the London Interbank Offered Rate (or Libor) rate, which shall be no less than 0.5% plus 6.5%, repayable in 36 equal monthly instalments of $384,445 (US$ 277,778) starting on December 1, 2016. The net carrying value of the Term Loan B as of December 31, 2015 was $13,226,703 (US$9,556,866). Refer to note 7 for other details of the Facility.

(e) Term loan, bearing interest at 4%, repayable in equal monthly instalments of capital and interest of $456, secured by a vehicle having a net carrying value of $10,102 as of December 31, 2015.

Transactions affecting the long-term debt were as follows:

		December 31, 2015		December 31, 2014
Balance - beginning of year	$	4,643,771	$	2,643,284
Net proceeds		12,560,744		3,800,000
Gain on debt extinguishment		(1,263,041)		-
Government grant allocated to property, plant and equipment		-		(2,066,842)
Effective interest accretion		424,912		272,812
Repayments		(4,972)		(5,483)
Effect of changes in foreign exchange rates		609,917		-
Balance at end of year	$	16,971,331	$	4,643,771

In 2010 and 2011, the Company received unsecured loans totalling $0.8 million from CED, repayable in 10 equal semi-annual instalments beginning on April 1, 2016.

On February 3, 2014, the Company signed an agreement with Canada Economic Development for Quebec Regions ("CED") for a financial contribution comprised of a non-interest bearing secured loan in the amount of $4 million (the Loan) pursuant to CED's Quebec economic development program. Based on the agreement, in March 2014, the Company received $3.8 million. The remaining $0.2 million is expected to be received in 2016. The Loan was discounted at a rate of 14.5% and was initially recorded at $1,811,070, reflecting its fair value given its non-interest bearing nature. The difference between the proceeds received and the initial carrying amount of $1,988,930 is considered a grant and credited to property, plant and equipment.

On October 20, 2015, the Company entered into amendments to its contribution agreements with Canada Economic Development for the $0.8 million and the $4.0 million of non-interest bearing secured loans contracted on September 4, 2009 and February 5, 2014, respectively. The amendments provide that the $4 million loan payable in 10 semi-annual installments which were to begin in April 2017, have now been deferred to January 2020. The loans were initially secured by a first ranking movable hypothec against the Company's equipment located at the Company's high purity alumina production facility in Cap-Chat, Quebec, which was replaced by a second ranking hypothec against the (i) Company's equipment located at its HPA production facility in Cap-Chat, Quebec and its Development Technology Center in Laval, and (ii) the immovable comprised of the Company's HPA production facility in Cap-Chat, Quebec.

As the terms were considered to have been substantially modified, the $3.8 million loan was derecognized and a new loan was recognized at fair value. A gain on debt extinguishment of $393,547 was recorded in net finance expense (finance). The fair value of $1,875,064 was estimated using discounted future cash flows of the instrument with a discount rate of 11%. The carrying value of the loan as at December 31, 2015 was $1,915,967 and is being accreted to $3.8 million over its remaining contractual term.

On October 6, 2015, the Company entered into a revised agreement with the government of Quebec regarding its $2 million non-interest bearing loan contracted on March 24, 2010, whereby the first principal payment date, based on future cash flows, is deferred to January 2020 (previously May 15, 2013) and the remaining balance due is deferred to January 2024 (previously May 2018).

As the terms were considered to have been substantially modified, the $2 million loan was derecognized and a new loan was recognized at fair value. A gain on debt extinguishment of $869,494 was recorded in net finance income (expense). The fair value was estimated using discounted future cash flows of the instrument with a discount rate of 11%. The carrying value of the loan as at December 31, 2015 was $1,160,114 and is being accreted to $2 million over the timing of the estimated cash repayments.

The conditions of the original $3.8 million and $2 million loans in relation to capital expenditures have been fulfilled by the Company and there were no additional conditions in the amended agreements.

Term Loan B which is part of the $22 million Facility completed on November 5, 2015 (see note 7) was recorded at its fair value of $12.6 million (US$ 9.5 million) net of transaction costs of $784,285 and is being accreted until maturity using an effective annual interest rate of 10.08%. The interest paid during the year ended December 31, 2015 on the Term Loan B amounted to $150,932 (2014 – nil).

10. Share capital, warrants, and share-based payments

Share capital

The Company is authorized to issue an unlimited number of Class A shares, without par value, voting, participating, entitled to dividends as declared by the Board of Directors.

a) On May 27, 2014, the Company completed a private placement with Ressources Quebec (RQ), a subsidiary of Investissement Quebec, which resulted in the issuance of 35,714,286 units at a price of $0.28 per unit for gross proceeds of $10 million. Each unit is comprised of one Class A share and one half (1/2) of one Class A share purchase warrant. Each full warrant entitles RQ to purchase one Class A share of the Company at a price of $0.33 for 36 months from the date of closing. An amount of $119,175 was recorded as share issuance cost.

b) During the year ended December 31, 2014 the Company issued an aggregate 688,189 Class A shares at an average price of $0.354 in settlement of the interest due on the 2013 Convertible debentures and the Series X Convertible debentures, representing a total amount of $243,612. The settlement is a non-cash transaction and is excluded from the cash flow statement.

c) During the year ended December 31, 2014, 33,187,572 common shares were issued as a result of the exercise of the conversion option by the 2013 debenture holders. During the year, 9,477 units of debentures were converted at a weighted average price of $0.29 per common share. The common shares issued included the accrued and unpaid interest to the date of conversion as well as the Make-Whole-Amount. Consequently, an amount of $11,619,104 representing the fair value of the converted units immediately before conversion was transferred from Convertible debenture liability to share capital. The conversion is a non-cash transaction and thus excluded from the cash flow statement.

d) During the year ended December 31, 2014, 26,666,667 common shares were issued as a result of the exercise of the conversion option by the Series X holder. During the year, 10,000 units of debentures were converted at a weighted average price of $0.375 per common share. The common shares issued included the accrued and unpaid interest to the date of conversion. Consequently, an amount of $6,842,614 (excluding the accrued interest paid in shares of $168,904) was transferred to share capital representing the fair value of the derivative financial liability and the carrying amount of the debt of the converted units immediately before conversion as well as the accrued and unpaid interest to the date of conversion. The conversion is a non-cash transaction and thus excluded from the cash flow statement.

e) During the year ended December 31, 2015, 1,671,101 common shares were issued as a result of the exercise of the conversion option by the 2013 debenture holders. During the year, 521.5 units of debentures were converted at a weighted average price of $0.312, per common share. The common shares issued included the accrued and unpaid interest to the date of conversion as well as the Make-Whole Amount. Consequently, an amount of $576,100, representing the fair value of the converted units immediately before conversion was transferred from convertible debenture liability to share capital. The conversion is a non-cash transaction and thus excluded from the cash flow statement.

f) During the year ended December 31, 2015, 59,461,658 common shares were issued as a result of the exercise of the conversion option by the 2015 debenture holders. During the year, 14,821 units of debentures were converted at a weighted average price of $0.249, per common share. The common shares issued included the accrued and unpaid interest to the date of conversion as well as the Make-Whole Amount. Consequently, an amount of $12,239,571 representing the fair value of the converted units immediately before conversion was transferred from convertible debenture liability to share capital. The conversion is a non-cash transaction and thus excluded from the cash flow statement.

g) During the year ended December 31, 2015, the Company issued an aggregate 96,737 Class A shares at an average price of $0.40 in settlement of the interest due on the 2013 Convertible debentures and the 2015 Convertible debentures, representing a total amount of $33,422. The settlement is a non-cash transaction and is excluded from the cash flow statement.

Subscription Rights

In accordance with the subscription agreement dated November 7, 2013 and amended on December 6, 2013, on March 10, 2014 the Company issued 10,000 Series X Subscription Rights and 30,000 Series Y Subscription Rights for a cash consideration of $1 and $3 respectively. The 10,000 Series X subscription rights were exercised on July 11, 2014 and the 30,000 Series Y Subscription Rights were cancelled on April 27, 2015 (see note 8).

Warrants

Changes in the number of warrants issued and outstanding entitling their holders to purchase Class A shares during the year were as follows:

		December 31, 2015			December 31, 2014
	Number of warrants		Weighted average exercise price	Number of warrants	Weighted average exercise price
Balance - beginning of year	47,623,893	$	0.46	16,449,020 $	0.49
Issued	26,067,080		1.24	32,057,143	0.45
Exercised	(3,253,003)		0.39	(833,250)	0.48
Expired	-		-	(49,020)	2.60
Balance - end of year	70,437,970	$	0.75	47,623,893 $	0.46

The numbers of warrants issued and outstanding at December 31, 2015 by exercise price are as follows:

Exercise price		Expiry date	Number of warrants
$	0.33	May 2017	17,857,143
$	0.39	April 2018	15,802,477
$	0.48	December 2016	15,435,500
$	0.60	July 2017	14,200,000
$	3.50	December 2017	7,142,850
			70,437,970

As part of the debentures issued in December 2013 (see note 8), the Company issued 14,000,000 warrants to the debenture holders at a weighted average exercise price of $0.48 per share for a period of 36 months. These equity classified warrants were not allocated any proceeds. In addition, as part of the offering, the Company issued 2,400,000 warrants to the brokers at an exercise price of $0.48 per share for a period of

36 months. The fair value of these broker warrants were recorded as transaction cost and included in net finance expense. During the year ended December 31, 2015, 131,250 (December 31, 2014 - 833,250) of these warrants were exercised resulting in cash proceeds of $63,000 (December 31, 2014 - $399,960).

As part of the Series X convertible debentures issued in July 2014 (see note 8), the Company issued 13,000,000 warrants to the debenture holders at a weighted average exercise price of $0.60 per share for a period of 36 months. These equity classified warrants were not allocated any proceeds. In addition, as part of the offering, the Company issued 1,200,000 warrants to the brokers at an exercise price of $0.60 per share for a period of 36 months. The fair value of the warrants was valued using the Black and Scholes option pricing model and classified on a pro-rata basis between transaction costs under net finance expense (income) and the liability component.

As part of the debentures issued in April 2015 (see note 8), the Company issued 16,155,000 warrants to the debenture holders at a weighted average exercise price of $0.39 per share for a period of 36 months. These equity classified warrants were not allocated any proceeds. In addition, as part of the offering, the Company issued 2,769,230 warrants to the brokers at an exercise price of $0.39 per share for a period of 36 months. The fair value of the warrants was valued using the Black and Scholes option pricing model and classified on a pro-rata basis between transaction costs under net finance expense and the liability component. During the year ended December 31, 2015, 3,121,753 of these warrants were exercised resulting in cash proceeds of $1,217,484 and a transfer of $223,452 from contributed surplus to share capital.

On October 16, 2015, in conjunction with the 2012 convertible debentures redemption, the Company issued 7,142,850 warrants to the debentures holders exercisable until December 13, 2017 at an exercise price of $3.50 in accordance with the terms of the Trust Indenture dated December 13, 2012 governing the 2012 8% convertible secured debentures. These equity classified warrants were not allocated any value.

Share-based compensation

Restricted share unit awards (“RSU”)

RSUs may be granted at the discretion of the Board of Directors (“Board”) or the Corporate Governance & Human Resources Committee (the “Committee”) to full-time employees, officers and eligible contractors of the Company or an affiliate in a calendar year as compensation for services rendered. The number RSUs awarded will be credited to the participant’s account effective on the grant date of the RSUs. The Committee shall establish criteria for the grant of RSUs to eligible participants from time to time.

These awards will be settled in shares or in cash equivalent to the share price at the discretion of the Committee. The Committee also have the discretion to credit a participant with additional RSUs when cash dividends are paid on the Company’s shares.

Deferred share unit (“DSU”)

DSUs may be granted at the discretion of the Board or the Committee to non-executive directors and employees in satisfaction of their annual compensation. Each DSU is equivalent to one class A share. DSUs must be retained until the participant leaves the Company, at which time the DSUs will be paid out in common shares or cash, at the discretion of the Board. In the event dividends are declared and paid, additional DSUs would be credited to reflect dividends paid on the common shares.

Stock options

The Company also maintains an incentive stock option plan (the “Plan”), whereby the Board or the Committee may from time to time grant to employees, officers, directors, and consultants, options to acquire class A shares with terms and quantities determined by the Board.

The stock options may be exercised over a period up to 10 years after the date of grant. The vesting period of currently outstanding stock options vary from immediate vesting to vesting over a period not exceeding 3 years. The vesting conditions and the option exercise price, which may not be lower than the market price of the class A shares at the time of the grant, are established by the Board on the grant date.

The RSUs, DSUs and stock option plan provides that the maximum number of class A shares that can collectively be issued is equal to 10% of class A shares (38,532,804 in 2015; 32,079,555 in 2014) issued and that the maximum number of class A shares, which may be reserved for issuance of stock option to any individual, may not exceed 5% of the class A shares outstanding at the time of grant.

As at December 31, 2015, the Company had not granted any RSUs nor DSUs. Changes in the Company’s Class A stock purchase options issued and outstanding are as follows:

		December 31, 2015		December 31, 2014
	Number of options	Weighted average exercise price	Number of options	Weighted average exercise price
Balance - beginning of year	15,792,500	$ 0.94	15,083,489	$ 1.25
Granted	8,659,000	0.37	6,527,500	0.40
Exercised	(50,000)	0.40	(3,700,000)	0.28
Expired	(4,943,750)	0.98	(1,594,996)	2.71
Cancelled	(62,500)	0.40	(523,493)	2.56
Balance - end of year	19,395,250	$ 0.68	15,792,500	$ 0.94
Options exercisable - end of year	12,290,580	$ 0.85	10,571,664	$ 1.12

During the year ended December 31, 2015, the Company issued 5,459,000 (December 31, 2014 - 6,527,500) stock options to employees at a weighted average exercise price of $0.30 (December 31, 2014 - $0.40) and having a weighted average grant date fair value of $0.17 (December 31, 2014 - $0.24) per option.

On December 16, 2015 the Company issued 3,200,000 stock options at an exercise price of $0.50 having a grant date fair value of $0.14 per option in compensation for advisory services of $0.45 million rendered by a consultant. The options expire 30 months from the date of grant. The risk-free interest rate, expected volatility and expected life in years used to determine the fair value of the options were 0.81%, 80% and 30 months respectively.

During the year ended December 31, 2015, 50,000 (2014 – 3,700,00) stock options were exercised resulting in cash proceeds of $20,000 (2014 - $1,020,000) and a transfer from contributed surplus to share capital of $11,870 (2014 - $ 876,553). The weighted average share price at the date of exercise for stock options exercised in the year ended December 31, 2015 was $0.44 (December 31, 2014- $0.43).

During the year ended December 31, 2015 the Company cancelled 62,500 (2014 – 523,493) stock options. The exercise price of those options ranged from $0.30 to $0.40 (2014 – from $1.70 to $2.98) per share.

The assumptions used to determine the fair value of the options granted to employees and officers are as follows:

	December 31, 2015	December 31, 2014
Exercise price	$ 0.30	$ 0.40
Risk-free interest rate	0.81%	1.72%
Expected volatility	80%	75%
Expected life in years	4.96	5.69
Expected dividend	Nil	Nil
Expected forfeiture rate	9.65%	8.64%

Stock options issued and outstanding by range of exercise price are as follows:

		December 31, 2015
Exercise price	Number	Weighted average remaining contractual life
$0.30 - 0.40	12,049,000	8.5
$0.41 - 0.67	3,220,000	2.5
$0.68 - 1.69	2,025,000	7.4
$1.70 - 2.53	435,000	4.4
$2.54 - 2.97	1,566,250	5.7
$2.98 - 3.47	50,000	0.6
$3.48 - 4.47	50,000	0.3
	19,395,250	7.0

The share-based payment expense was recognized as follows:

	2015	2014
Research and development	$ 90,472	$ 133,682
General and administration	869,668	1,444,265
HPA plant operations	96,976	21,989
Recognized in comprehensive loss	1,057,116	1,599,936
Prepaid expenses and others	300,000	-
Capitalized in patents and others	-	7,500
Capitalized in property, plant and equipment	14,252	78,921
	$ 1,371,368	$ 1,686,357

11. Net finance expense (income)

Net finance expense (income) is composed as follows:

		2015		2014
Finance income				
Interest income	$	461,903	$	409,499
Finance expense				
Interest on convertible debentures and on short-term loan		3,214,245		3,380,464
Interest on long-term debt		430,982		272,107
Transaction costs and other interest		775,339		552,593
		4,420,566		4,205,164
Other financial losses (gains)				
Effect of changes in fair value of				
derivative financial instruments		203,577		(2,177,768)
Effect of changes in foreign exchange rates		489,655		50,387
Loss (gain) on deregognition of current and non-current financial liabilities		1,996,678		-
		2,689,910		(2,127,381)
Capitalized interest on qualifying assets		3,625,905		3,652,572
Net finance expense (income)	$	3,022,668	$	(1,984,288)

12. Income and mining taxes

The Company's effective income tax rate differs from the combined federal and provincial income tax rate in Canada. The difference results from the following:

		2015		2014
Loss before income and mining taxes	$	15,368,800	$	12,399,262
Income taxes at combined federal and provincial income tax rate of 26.9%		(4,134,208)		(3,335,402)
Non-deductible share-based payments		264,189		430,383
Deductible deferred mining tax liability		-		16,355
Non-deductible expenses and other		40,958		320,370
Change in unrecognised tax assets		3,829,061		2,568,294
Income and mining taxes	$	-	$	-

The income and mining tax expense is made up of the following components:

		2015		2014
Current tax expense:				
Current tax expense	$	-	$	60,800
Adjustment for prior years		-		-
		-		60,800
Deferred tax expense:				
Origination and reversal of temporary differences		-		(60,800)
Income and mining taxes	$	-	$	-

Deferred income and mining tax assets and liabilities recognized are attributable to the following:

	Assets		**Liabilities**		**Net**	
	December 31, 2015	December 31, 2014	December 31, 2015	December 31, 2014	December 31, 2015	December 31, 2014
Deferred tax assets (liabilities)						
Property, plant and equipment	$ -	$ -	$ (2,584,000)	$ (1,763,000)	$ (2,584,000)	$ (1,763,000)
Non capital losses	797,000	647,000		-	797,000	647,000
Research and development expenses	3,431,000	2,974,000		-	3,431,000	2,974,000
Deferred mining taxes	-	-	(2,372,460)	(2,372,460)	(2,372,460)	(2,372,460)
Convertible debentures	-	-	(804,000)	(1,328,000)	(804,000)	(1,328,000)
Other	-	-	(840,000)	(530,000)	(840,000)	(530,000)
Deferred tax assets (liabilities)	4,228,000	3,621,000	(6,600,460)	(5,993,460)	(2,372,460)	(2,372,460)
Set off of tax	(4,228,000)	(3,621,000)	4,228,000	3,621,000	-	-
Net deferred liabilities	$ -	$ -	$ (2,372,460)	$ (2,372,460)	$ (2,372,460)	$ (2,372,460)

The movement in deferred tax balances are as follows:

	January 1, 2015	in profit or loss	directly in equity	December 31, 2015
Property, plant and equipment	$ (1,763,000)	$ (821,000)	$ -	$ (2,584,000)
Non capital losses	647,000	150,000	-	797,000
Research and development expenses	2,974,000	457,000	-	3,431,000
Deferred mining taxes	(2,372,460)	-	-	(2,372,460)
Convertible debentures	(1,328,000)	524,000	-	(804,000)
Other	(530,000)	(310,000)	-	(840,000)
	$ (2,372,460)	$ -	$ -	$ (2,372,460)

	January 1, 2014	Recognised in profit or loss	Recognised directly in equity	Balance December 31, 2014
Property, plant and equipment	$ (1,690,000)	$ (73,000)	$ -	$ (1,763,000)
Non capital losses	-	647,000	-	647,000
Research and development expenses	2,652,000	322,000	-	2,974,000
Exploration and evaluation assets	4,000	(4,000)	-	-
Deferred mining taxes	(2,433,260)	60,800	-	(2,372,460)
Convertible debentures	(919,000)	(409,000)	-	(1,328,000)
Other	(47,000)	(483,000)	-	(530,000)
	$ (2,433,260)	$ 60,800	$ -	$ (2,372,460)

The unrecognized deferred tax assets are as follows:

	2015	2014
Non capital losses carryforwards	$ 16,420,000	$ 12,926,000
Exploration and evaluation assets	90,000	90,000
Financing cost	730,000	813,000
Unrealized capital losses	107,000	-
	$ 17,347,000	$ 13,829,000

Deferred tax assets have not been recognized in respect to the net operating losses and other deferred tax assets as significant uncertainty exists surrounding the recoverability of these deferred tax assets. The Company has undeducted research and development expenses that can be carried forward indefinitely. The deductions for share and convertible debt issuance costs expire between 2033 and 2036.

As at December 31, 2015, the Company has non-capital losses carried forward that expire as follows:

	Federal	Provincial
2016	250,084	214,035
2027	475,678	473,935
2028	637,111	635,458
2029	628,214	626,466
2030	1,377,008	1,231,849
2031	5,204,610	3,997,791
2032	11,632,963	11,598,272
2033	15,871,374	15,508,071
	$ 36,077,042	$ 34,285,877

The benefit of these losses has not been recognized in the financial statements.

13. Related party transactions

The Company has no ultimate parent.

The compensation paid to the Company's key management personnel in exchange of services rendered to the Company is as follows:

	2015	2014
Short-term employee salaries and directors compensation	$ 1,990,962	$ 2,018,196
Share-based payments	713,834	1,333,497
	$ 2,704,796	$ 3,351,693

Other related party transactions

During the year ended December 31, 2015, the Company incurred $377,104 (December 31, 2014 - $273,043) from a legal firm in which a director of the Company is an equity partner. These transactions took place in the normal course of operations and were measured at the exchange amount, which is the amount established and accepted by the parties.

14. Earnings per share

For the year ended December 31, 2015 and 2014, all outstanding warrants, stock options and convertible debentures were anti-dilutive since the Company reported net losses.

15. Financial instruments

a) Financial risk management objectives and policies

The Company is exposed to various financial risks resulting from both its operations and its investments activities. The Company's management manages financial risks.

The Company does not enter into financial instrument agreements including derivative financial instruments for speculative purposes.

b) Financial risks

The Company's main financial risk exposure and its financial risk management policies are as follows:

Liquidity risk

Management's objective is to maintain sufficient cash to ensure that the Company has at its disposal sufficient sources of financing. The Company also establishes budgets and liquidity forecasts designed to ensure that it has at its disposal sufficient funds to meet its financial obligations, as they become due. Refer to note 2 Going concern.

The following table presents the contractual maturities of the financial liabilities, operating leases and purchase obligations as of December 31, 2015:

	Carrying Amount	Contractual Cash flows	Payable within 1 year	Payable during Years 2 and 3	Years 4 and 5	Payable After year 5
Accounts payable and accrued liabilities	$ 8,070,882	$ 8,070,882	$ 8,070,882	$ -	$ -	$ -
Short-term loan	11,767,784	12,538,954	4,938,954	7,600,000	-	-
Derivative financial instrument [a)]	108,268	-	-	-	-	-
Convertible debentures 2015 [b)]	112,573	223,750	8,950	17,900	196,900	-
Long-term debt	16,421,712	21,192,044	1,451,451	9,551,701	5,668,892	4,520,000
Operating leases	-	375,307	375,307	-	-	-
Purchase obligations	-	1,990,113	1,990,113	-	-	-
	$ 36,481,219	$ 44,391,050	$ 16,835,657	$ 17,169,601	$ 5,865,792	$ 4,520,000

a) The embedded derivative has no outflows since it is included in the 2015 convertible debentures.

b) Includes interest outflows at 5%.

Interest rate risk

Convertible debentures bear interest at a fixed rate and the Company is, therefore, exposed to the risk of changes in fair value resulting from interest rate fluctuations. The IQ loans bears interest at 3.5% over the prevailing prime lending rate, which at December 31, 2015 was standing at 2.70%. The Facility bears interest at the greater of 0.5% or the Libor rate plus an additional 6.5% fixed rate. Therefore, the Corporation is, mainly exposed to the risk of changes in fair value resulting from interest rate fluctuations and cash flow risk on variation of prime lending rate and the Libor rate. An increase of 25 basis point (0.25%) would not have a significant impact on the Company's results.

Credit risk

Credit risk is the risk that one party to a financial instrument will fail to discharge an obligation and cause the other party to incur a financial loss. Generally, the maximum credit risk is equivalent to the carrying value of financial assets exposed to credit risk, less any impairment. The Company is subject to credit risk primarily through cash, cash equivalents, short-term investments and restricted cash. The Company reduces its credit risk by maintaining its cash, its restricted cash and its investments in financial instruments guaranteed by and held by a Canadian chartered bank having a good credit rating but the Company is subject to concentration of credit risk.

Currency Risk

The corporation is exposed to currency risk to the extent that there is a mismatch between the currencies in which certain assets and purchases are denominated and the respective functional currency of the Company, the Canadian Dollar. The currencies in which these transactions are primarily denominated at are the U.S dollar and the Euro. An increase or decrease of 10 percent of the US dollar at the balance sheet date would have the effect, assuming that all other variables, in particular interest rates, remain constant, to reduce or increase equity and reduce or increase net loss by $1.3 million (2014- not significant).

c) Fair value of financial instruments

The fair values of financial assets and liabilities, together with the carrying amounts included in the statement of financial position, are as follows:

	December 31, 2015		December 31, 2014	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Cash and cash equivalents	$ 1,722,746	$ 1,722,746	$ 2,977,929	$ 2,977,929
Short-term investments	874,565	874,565	376,199	376,199
Derivative financial instruments (current assets)	-	-	354,000	354,000
Restricted cash	4,151,942	4,151,942	16,354,020	16,354,020
Financial liabilities				
Accounts payable and accrued liabilities	8,070,882	8,070,882	5,155,262	5,155,262
Short-term loan	11,767,784	11,767,784	-	-
Derivative financial instrument (current liabilities)	108,268	108,268	-	-
Derivative financial instrument (non-current liabilities)	-	-	69,604	69,604
Convertible debentures 2012 liability	-	-	20,667,513	23,500,000
Convertible debentures 2013 liability	-	-	704,025	704,025
Convertible debentures 2015 liability	112,573	189,740	-	-
Long-term debt (including current portion)	16,971,331	16,620,979	4,643,771	3,755,766

Basis for determining fair values

The fair value of cash and cash equivalents, short-term investments, restricted cash, accounts payables, and accrued liabilities and short-term loan approximates its carrying value given their short-term maturity date.

The fair value of the long-term debt at December 31, 2015 was determined based on discounted cash flows using discount rates at a range of 10% to 11% (December 31, 2014 – 14.5%), rates for similar loans at the balance sheet date based on a level 3 fair value measurement.

At December 31, 2014 the fair value of the convertible debentures holders' conversion option of the 2012 convertible debentures was determined using a Black Scholes option pricing model and the following assumptions on the early redemption date: an 75% expected volatility rate, a 0% expected dividend rate and a risk-free rate of 1.06% for the remaining contractual life of the conversion option.

The fair value of the 2012 convertible debentures, comprising the convertible debenture liability and the derivative financial liability components, was $nil at December 31, 2015 (December 31, 2014 - $23.5 million) and until early redemption was determined based on its quoted price on the TSX.

The fair value of the 2013 convertible debenture liability including the embedded conversion option was $nil at December 31, 2015 (December 31, 2014 - $704,025) and was determined based on its quoted price on the TSX.

The fair value of the 2015 convertible debentures conversion option derivative financial liability of $108,268 was determined using a Black Scholes option pricing model and the following assumptions at December 31, 2015: an 80% expected volatility rate, a 0% expected dividend rate and a risk-free rate of 0.49% for the remaining contractual life of the conversion option.

The fair value of the 2015 convertible debentures, comprising the convertible debenture liability and the conversion option derivative financial liability components, was $189,740 at December 31, 2015 and was determined based on its quoted price on the TSX.

Fair value hierarchy

The Company defines the fair value hierarchy for financial instruments carried at fair value as follows:

- Level 1 fair value measurements are those derived from unadjusted quoted prices in active markets for identical assets or liabilities.

- Level 2 fair value measurements includes inputs other than quoted prices included in level 1 that are observable for the assets or liability, either directly or indirectly.

- Level 3 valuations use unobservable inputs that are supported by little or no market activity and that are financial instruments whose values are determined using pricing models, discounted cash flow methodologies, or similar techniques, as well as instrument for which the determination of fair value requires significant judgment or estimation.

If the inputs used to measure the financial assets and liabilities fall within more than one level described above, the categorization is based on the lowest level input that is significant to the fair valued measurement of the instrument.

2012 Convertible debentures

The embedded early payment option was classified as a level 2 fair value measurement whereas the control premium and the convertible debentures holders' conversion option were classified as level 3 measurements. The variation in its fair value during the year is recorded under net finance expense (income) (see note 11).

The reconciliation of changes in level 3 fair value measurements of the 2012 convertible debenture conversion option for the year ended December 31, 2015 is presented in the following table:

		December 31, 2015		December 31, 2014
Balance - beginning of year	$	69,604	$	3,510
Loss recognized in net finance expense (income)		21,077		66,094
Gain at redemption		(90,681)		-
Balance - end of year	$	-	$	69,604

2013 Convertible debentures

The 2013 convertible debentures including the conversion option was classified as level 1 fair value measurements since the debenture was listed on the TSX exchange. The changes in fair value at the issuance date as well as subsequently are recognized in net finance expense (income). At the issuance date, the transaction costs were included also in the net finance expense (income).

Subscription rights

The Subscription rights were classified as a level 3 fair value measurement due to the unobservable inputs used in determining the fair value. The Company used a discounted cash flow model to determine the fair value of the derivative. The significant inputs in the model include the effective interest rate, the market interest rate as well as the probability weighted percentage of exercising the Subscription rights. At December 31, 2015, the fair value of the Series Y subscription rights derivative was $nil (December 31, 2014 - $0.354 million). From the date of issuance of the Series Y Subscription Rights until their cancellation, the only change in the account relates to the fair value remeasurement.

Series X Convertible debentures

The convertible debentures holders' conversion option has been classified as a level 3 measurement.

The reconciliation of changes in level 3 fair value measurements of the Series X conversion option derivative for the year ended December 31, 2014 is presented in the following table:

		December 31, 2014
Balance - beginning of year	$	-
Recognition of the conversion option derivative financial liability on issuance of convertible debentures		5,797,680
Conversion into common shares		(2,289,391)
Loss (gain) recognized in net finance expense		(3,508,289)
Balance - end of year	$	-

2015 Convertible debentures

The 2015 convertible debentures conversion option derivative financial liability was classified as a level 3 measurement. The variation in its fair value during the year is recorded under net finance expense (income) (note 11).

The reconciliation of changes in level 3 fair value measurements of the 2015 convertible debenture conversion option for the year ended December 31, 2015 is presented in the following table:

		December 31, 2015
Balance - beginning of year	$	-
Recognition of the conversion option derivative financial liability on issuance of convertible debentures		3,785,402
Conversion into common shares		(3,606,463)
Gain recognized in net finance expense (income)		(70,671)
Balance - end of year	$	108,268

The effect of a change in the volatility assumption as of December 31, 2015, which is the significant unobservable input in the fair value estimate, of 5% would have no significant impact on the derivative financial liability.

16. Capital management

Capital is defined as shareholders' equity, convertible debentures, and long-term debt. The Company's objectives, when managing capital, are to safeguard its ability to continue as a going concern and to maximize shareholder value.

The Company's activities have been funded so far through equity financing, convertible debentures and long-term debt.

The Company seeks financing typically through the issuance of shares, warrants, convertible debentures and by way of government grants and loans. In addition, the Company has Facility of $22 million (or US$16.95 million) (see note 7 and note 2 Going concern).

The Company manages its capital structure and determines its capital requirements in light of the changing economic conditions and the risk characteristics of its assets. To reach its objectives, the Company may have to maintain or adjust its capital structure by issuing new share capital or new debt.

At this stage of its development, the Company's policy is to preserve cash to fund its operations and not to pay dividends. The Company is not subject to any externally imposed capital requirements.

17. Supplemental information

The following charges have been recognized in the statement of comprehensive loss:

		2015		2014
Employee salaries	$	5,818,091	$	5,182,576
Operating lease expenses		595,612		868,157

18. Commitment

As at December 31, 2015, the total purchase commitment for capital expenditures at the HPA project relating to equipment amounts to approximately $2.0 million.

19. Subsequent events

a) On January 28, 2016, the Company entered into an underwriting agreement with Euro Pacific Canada Inc. (the "Underwriter") under which the Underwriter agreed to buy on a firm underwriting (bought deal) basis by way of prospectus supplement, 4,000 units of the Company (each, a "Unit") at a price of $1,000 per Unit for gross proceeds of $4 million (the "Offering"). In addition to the Units distributed pursuant to the Bought Offering, the Company has entered into agreements with several of its key suppliers who have agreed to receive an aggregate of 2,938 Units as consideration for outstanding invoices in the aggregate amount of $2.938 million (the "Units-for-Debt Offering"). The Company also granted the underwriter an option (the "Underwriter's Option"), exercisable in whole or in part, at one or more additional closings to purchase up to an additional 6,000 Units for additional gross proceeds of up to $6 million, resulting in aggregate gross proceeds of up to $12.938 million (inclusive of the Units-for-Debt Offering).

Each Unit consists of $1,000 principal amount of convertible unsecured unsubordinated debentures (the "Debentures") and 2,500 share purchase warrants, each such warrant exercisable into one share for a period of 36 months at a price of $0.40 per share. The Debentures will mature 5 years from their issue date (the "Maturity Date") and will bear interest at a rate of 5% per annum. Each Debenture will be convertible at any time prior to the Maturity Date, into the number of shares computed on the basis of (i) the principal amount of the Debentures divided by the conversion price of $0.40 per share (the "Conversion Price"), and (ii) an amount equal to the additional interest amount that such holder would have received if it had held the Debenture until the Maturity Date (the "Make-Whole Amount") divided by the then 5 day volume weighted average trading price of the Common Shares on the TSX two (2) days prior to conversion (the "Current Market Price"). The Make-Whole Amount shall be reduced by 1% for each 1% that the Current Market Price at time of conversion exceeds the Conversion Price. The aggregate number of shares to be issued upon conversion of the Debentures and for any payment of the Make-Whole Amount in Common Shares shall not exceed the number of Common Shares equal to the principal amount of the Debentures divided by $0.40 less the 25% maximum discount allowable in accordance with the rules of the Toronto Stock Exchange.

b) On February 3, 2016 the Company has completed the first portion of the public offering of units in the amount of $8.482 million under the short form base shelf prospectus and prospectus supplement dated March 18, 2015 and January 28, 2016 respectively.

The gross proceeds are comprised of $4 million raised on a bought deal basis, $1.544 million raised pursuant to the partial exercise by the Underwriter of its Underwriter's Option together with $2.938 million in outstanding supplier invoices which have been converted into 2,938 units.

On February 23, 2016, the Underwriter exercised a portion of its Underwriter’s Option to purchase an additional 1,060 units for gross proceeds of $1.1 million.

On March 4, 2016, the Company revised the terms of the Underwriter’s Option, whereby the number of additional units that the underwriter may purchase for resale is increased by 1,762 units to a total of 7,762 units. In addition to the foregoing amendment, the Underwriter’s Option, which was set to expire March 5, 2016, is extended and may now be exercised until April 15, 2016.

For its services, the Underwriter received a cash commission of $579,800 (equal to 7% of the gross proceeds raised under the Bought Deal and Underwriter's Option and 4% on the value of the Debt Conversion) and 1,155,700 non-transferable broker warrants (equal to 7% of the shares into which the principal of the Debentures sold under the Bought Deal and Underwriter's Option are convertible). Each broker warrant is exercisable into one share for a period of 36 months at a price of $0.40 per share.