TREVALI MINING CORPORATION

CONSOLIDATED FINANCIAL STATEMENTS

Year ended December 31, 2019 and 2018

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MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING

The accompanying consolidated financial statements of Trevali Mining Corporation have been prepared by management in accordance with International Financial Reporting Standards and reflect management's best estimates and judgments based on information currently available. The financial information contained elsewhere in this report has been reviewed to ensure consistency with the consolidated financial statements.

Management maintains systems of internal control designed to provide reasonable assurance that the assets are safeguarded. All transactions are authorized and duly recorded, and financial records are properly maintained to facilitate financial statements in a timely manner. The Board of Directors is responsible for ensuring that management fulfills its responsibilities for financial reporting and is ultimately responsible for reviewing and approving the consolidated financial statements. The Board carries out this responsibility principally through its Audit Committee.

The Audit Committee of the Board of Directors has reviewed the consolidated financial statements with management and the external auditors. PricewaterhouseCoopers LLP, an independent firm of Chartered Professional Accountants, appointed as external auditors by the shareholders, have audited the consolidated financial statements and their report is included herein.

/s/ Ricus Grimbeek

Ricus Grimbeek
President and Chief Executive Officer

/s/ Gerbrand van Heerden

Gerbrand van Heerden
Chief Financial Officer

Vancouver, British Columbia, Canada
February 20, 2020

Independent auditor's report

To the Shareholders of Trevali Mining Corporation

Our opinion

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the financial position of Trevali Mining Corporation and its subsidiaries (together, the Company) as at December 31, 2019 and 2018, and its financial performance and its cash flows for the years then ended in accordance with International Financial Reporting Standards (IFRS).

What we have audited
The Company's consolidated financial statements comprise:

- the consolidated statements of financial position as at December 31, 2019 and 2018;
- the consolidated statements of operations and comprehensive loss for the years then ended;
- the consolidated statements of cash flows for the years then ended;
- the consolidated statements of changes in shareholders' equity for the years then ended; and
- the notes to the consolidated financial statements, which include a summary of significant accounting policies.

Basis for opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report.

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

Independence
We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Canada. We have fulfilled our other ethical responsibilities in accordance with these requirements.

Other information

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

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"PwC" refers to PricewaterhouseCoopers LLP, an Ontario limited liability partnership.

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

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of management and those charged with governance for the consolidated financial statements

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

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

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

Auditor's responsibilities for the audit of the consolidated financial statements

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

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

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from

error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

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

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

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

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

(Signed) "PricewaterhouseCoopers LLP"

Chartered Professional Accountants

Vancouver, British Columbia
February 20, 2020

TREVALI MINING CORPORATION
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
(Expressed in thousands of United States Dollars)

	Notes	December 31, 2019	December 31, 2018
ASSETS			
Current			
Cash and cash equivalents		$ 24,468	$ 65,462
Restricted cash		85	1,217
Settlement and other receivables	**6**	55,866	73,016
Prepaids		3,837	6,242
Inventories	**7**	44,460	63,161
		128,716	209,098
Reclamation bonds and other		8,640	8,471
VAT receivables		11,373	12,387
Investment and advances	**8**	158	3,129
Exploration and evaluation assets	**9**	123,325	118,755
Property, plant and equipment	**10**	472,358	473,900
		$ 744,570	$ 825,740
LIABILITIES AND SHAREHOLDERS' EQUITY			
Liabilities			
Current			
Accounts payable and accrued liabilities	**11**	$ 67,002	$ 58,541
Due to related parties	**16**	73	1,539
Debt	**12**	11,850	132,167
		78,925	192,247
Debt	**12**	66,758	257
Reclamation and rehabilitation provision	**13**	48,133	46,727
Other provisions		2,965	2,956
Deferred income taxes	**19**	99,340	96,309
		296,121	338,496
Shareholders' equity			
Share capital	**14**	748,731	763,596
Other reserves	**15**	18,158	17,935
Deficit		(264,315)	(242,551)
Accumulated other comprehensive loss		(47,147)	(46,766)
		455,427	492,214
Non-controlling interests	**23**	(6,978)	(4,970)
		448,449	487,244
		$ 744,570	$ 825,740

Commitments and contingencies (Note 20)

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

Signed on behalf of the Board,

/s/ Mr. Russell Ball
Mr. Russell Ball, Director

/s/ Mr. Dan Isserow
Mr. Dan Isserow, Director

TREVALI MINING CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(Expressed in thousands of United States Dollars except for share and per share amounts)
Years Ended December 31, 2019 and 2018

	Notes	2019	2018 (restated)*
REVENUES	**17**	$ 386,110	$ 464,347
MINE OPERATING EXPENSES			
Production		232,770	215,726
Distribution		28,235	29,965
Royalties		9,580	11,609
Depreciation, depletion and amortization		84,808	67,562
		355,393	324,862
GROSS PROFIT		30,717	139,485
General and administrative		8,661	8,240
Operating profit		22,056	131,245
OTHER			
Settlement mark-to-market		23,485	61,758
Loss on foreign exchange		2,458	1,684
Interest expense	**18**	8,280	14,408
Restructuring expenses		7,550	–
Impairments	**5**	3,662	311,828
Other (income) expense, net		(2,078)	106
Loss before taxes		(21,301)	(258,539)
Current income tax expense	**19**	11,079	13,159
Deferred income tax recovery	**19**	3,031	(41,103)
NET LOSS		$ (35,411)	$ (230,595)
Other comprehensive loss			
Unrealized loss on investments in equity securities		$ (381)	$ (266)
Total comprehensive loss		$ (35,792)	$ (230,861)
Net loss attributable to:			
Owners of Trevali		$ (33,403)	$ (222,225)
Non-controlling interests	**23**	(2,008)	(8,370)
		$ (35,411)	$ (230,595)
Total comprehensive loss attributable to:			
Owners of Trevali		$ (33,784)	$ (222,491)
Non-controlling interests		(2,008)	(8,370)
		$ (35,792)	$ (230,861)
Loss per share			
Basic		$ (0.04)	$ (0.27)
Diluted		$ (0.04)	$ (0.27)
Weighted average number of shares outstanding (000's)			
Basic		812,958	830,120
Diluted		812,958	830,120

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

*The comparative information has been restated as a result of the change in accounting policy for revenue as discussed in note 3.

TREVALI MINING CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Expressed in thousands of United States Dollars)
Years Ended December 31, 2019 and 2018

	Notes	2019	2018
OPERATING ACTIVITIES			
Net loss for the year		$ (35,411)	$ (230,595)
Items not affecting cash:			
Depreciation, depletion and amortization		84,808	67,562
Share-based payments		565	1,302
Unrealized loss (gain) on foreign exchange		143	(5,874)
Accrued interest, accretion and other non-cash items	**22**	7,193	14,867
Loss from write off of property plant and equipment		–	3,025
Deferred income tax		3,031	(41,103)
Impairment		3,662	311,828
Cash generated by operating activities before working capital changes		$ 63,991	$ 121,012
Changes in non-cash working capital items:			
Restricted cash		1,132	1,911
Settlement and other receivables		24,402	15,312
Prepaids		2,405	(760)
Inventories		11,867	3,376
Accounts payable and accrued liabilities		14,486	(18,727)
Due to related parties		(1,465)	(6,089)
Value added taxes receivable		(4,899)	2,990
Net cash provided by operating activities		$ 111,919	$ 119,025
INVESTING ACTIVITIES			
Tingo sale receivable		–	3,800
Decrease (increase) in reclamation bonds		85	(4,382)
Investment in Puma	**8**	–	(3,129)
Purchase of property, plant and equipment		(67,233)	(67,041)
Exploration and evaluation asset expenditure		(10,300)	(12,837)
Net cash used in investing activities		$ (77,448)	$ (83,589)
FINANCING ACTIVITIES			
Share units settled in cash		(342)	(82)
Stock options and warrants exercised		–	1,404
Repayment of debt	**12**	(69,500)	(165,000)
Drawdown on new Revolving Credit Facility		–	149,500
Proceeds from VAT factoring facility	**12**	7,822	–
Interest payments		(4,938)	(7,218)
Lease payments		(5,251)	(12,057)
Rosh Pinah share buy-back	**23**	–	(23,101)
Dividends paid to non-controlling interest	**23**	–	(2,991)
Normal Course Issuer Bid	**14**	(3,224)	(3,490)
Net cash used in financing activities		$ (75,433)	$ (63,035)
Effect of foreign exchange on cash		(32)	(1,074)
Decrease in cash and cash equivalents for the year		$ (40,994)	$ (28,673)
Cash and cash equivalents, beginning of year		65,462	94,135
Cash and cash equivalents, end of year		$ 24,468	$ 65,462

Supplemental Cash Flows Information (Note 22)

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

TREVALI MINING CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
(Expressed in thousands of United States Dollars except for share amounts)
Years Ended December 31, 2019 and 2018

	Notes	Number of shares	Share capital	Other reserves	Deficit	Accumulated other comprehensive loss	Non-controlling interests	Total equity
December 31, 2018		818,496,085	$ 763,596	$ 17,935	$ (242,551)	$ (46,766)	$ (4,970)	$ 487,244
Net loss		–	–	–	(33,403)	–	(2,008)	(35,411)
Unrealized loss on investment		–	–	–	–	(381)	–	(381)
Total comprehensive loss		–	–	–	(33,403)	(381)	(2,008)	(35,792)
Share-based payments		–	–	565	–	–	–	565
Share units settled in cash		–	–	(342)	–	–	–	(342)
Share buy-back	14	(15,934,500)	(14,865)	–	11,639	–	–	(3,226)
December 31, 2019		802,561,585	$ 748,731	$ 18,158	$ (264,315)	$ (47,147)	$ (6,978)	$ 448,449

	Notes	Number of shares	Share capital	Other reserves	Deficit	Accumulated other comprehensive loss	Non-controlling interests	Total equity
December 31, 2017		825,725,260	$ 770,129	$ 20,626	$ (37,114)	$ (46,500)	$ 37,922	$ 745,063
Net loss		–	–	–	(222,225)	–	(8,370)	(230,595)
Unrealized loss on investment		–	–	–	–	(266)	–	(266)
Total comprehensive income		–	–	–	(222,225)	(266)	(8,370)	(230,861)
Share-based payments		–	–	1,302	–	–	–	1,302
Share units settled in cash		–	–	(82)	–	–	–	(82)
Share buy-back	14	(12,700,000)	(11,848)	–	8,358	–	–	(3,490)
Share units issued		2,249,426	2,826	(2,826)	–	–	–	–
Exercise of options and warrants		3,221,399	1,404	–	–	–	–	1,404
Reallocation of share-based payments on exercise of options and warrants		–	1,085	(1,085)	–	–	–	–
Dividends paid		–	–	–	–	–	(2,991)	(2,991)
Change in ownership interest in Rosh Pinah		–	–	–	8,430	–	(31,531)	(23,101)
December 31, 2018		818,496,085	$ 763,596	$ 17,935	$ (242,551)	$ (46,766)	$ (4,970)	$ 487,244

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

1. DESCRIPTION OF BUSINESS

Trevali Mining Corporation ("Trevali" or the "Company") is a publicly listed company incorporated under the laws of British Columbia, Canada. The Company's common shares are listed under the symbol (i) "TV" on both the Toronto Stock Exchange ("TSX") and Bolsa de Valores de Lima in Peru, (ii) "TREVF" on the OTCQX International Quotation System in the United States, and (iii) "4T1" on the Frankfurt Stock Exchange. The Company's registered office is located at 1900 – 999 West Hastings Street, Vancouver, B.C., V6E 3T5, Canada.

The Company is a natural resource company engaged in the acquisition, exploration, development of, and production from, mineral properties. The Company produces zinc concentrate from the Perkoa mine in Burkina Faso, and zinc and lead-silver concentrates from the Rosh Pinah mine in Namibia, the Caribou mine in New Brunswick, Canada and the Santander mine in Peru. In addition, the Company owns the Halfmile project and Restigouche polymetallic deposits in New Brunswick, Canada, the Ruttan deposit in northern Manitoba, Canada, an effective 44% interest in the Gergarub project in Namibia and an option to acquire a majority position in the Heath Steele deposit located in New Brunswick, Canada.

The Company's principal subsidiaries and geographic locations are as follows:

Legal name	Country	Ownership 2019	Ownership 2018	Main activity
Nantou Mining Burkina Faso S.A.	Burkina Faso	90.0%	90.0%	Zinc production
Rosh Pinah Zinc Corporation (Proprietary) Ltd.	Namibia	90.0%	90.0%	Zinc, lead-silver production
Trevali Mining (New Brunswick) Ltd.	Canada	100.0%	100.0%	Zinc, lead-silver production
Trevali (Peru) S.A.C.	Peru	100.0%	100.0%	Zinc, lead-silver production
Trevali Mining (Maritimes) Ltd.	Canada	100.0%	100.0%	Exploration

2. BASIS OF PREPARATION

Statement of compliance

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS").

These consolidated financial statements were reviewed by the Audit Committee, and approved by the Board of Directors for issue on February 20, 2020.

Basis of measurement

These consolidated financial statements have been prepared on a historical cost basis, except for those assets and liabilities that are measured at revalued amounts or fair values at the end of each reporting period.

The accounting policies set out in Note 3 have been applied consistently by the Company and its subsidiaries in preparing the consolidated financial statements for the years ended December 31, 2019 and 2018, with the exception of newly adopted accounting policies.

Use of accounting estimates and judgments

The preparation of financial statements in accordance with IFRS requires management to make judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, the accompanying disclosures and the disclosure of contingent liabilities at the date of the consolidated financial statements.

Management reviews and updates these estimates and assumptions on an ongoing basis, based on experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of assets or liabilities. Revisions to accounting estimates are recognized in the period in which the estimate is revised and in any future period affected.

Management has identified a number of areas where significant judgments, estimates and assumptions are required. Further information on each of these areas is described below.

Critical accounting estimates and judgments

Significant assumptions and judgments about the future and other sources of estimation uncertainty that management has made at the end of the reporting year, which could result in a material adjustment to the carrying amounts of assets and liabilities within the next twelve months, in the event that actual results differ from assumptions made, relate to the following significant areas:

a) Review of asset carrying values and impairment assessment

Impairment assessments require the use of estimates and assumptions such as future zinc, lead and silver metal prices (considering current and historical prices, price trends and related factors), operating and capital costs, discount rates, foreign exchange rates, closure and rehabilitation costs, exploration potential, mineral reserves and resources, operating performance (which includes production and sales volumes) and estimated life-of-mines. These estimates and assumptions are subject to risk and uncertainty. Therefore, there is a possibility that changes in circumstances will impact these projections, which may impact the recoverable amount of assets and/or cost generating units ("CGUs"). In such circumstances, some or all of the carrying amount of the assets/CGUs may give rise to an impairment or a reversal of previous impairments with the impact recognized in the statement of operations.

b) Income taxes

Judgment is required to determine which arrangements are considered to be a tax on income as opposed to an operating cost. Judgment is also required to determine whether deferred tax assets are recognized in the statement of financial position. Deferred tax assets, including those arising from unutilized tax losses, require the Company to assess the likelihood that it will generate sufficient taxable earnings in future periods, in order to utilize recognized deferred tax assets. Judgment is also required in respect of the application of existing tax laws in each jurisdiction.

Assumptions about the generation of future taxable profits depend on management's estimates of future cash flows. These estimates of future taxable income are based on forecast cash flows from operations (which are impacted by production and sales volumes, commodity prices, reserves, operating costs, closure and rehabilitation costs, capital expenditure, and other capital management transactions). To the extent that future cash flows and taxable income differ significantly from estimates, the Company may have the ability to realize the net deferred tax assets not recorded at the reporting date.

c) Reclamation and rehabilitation provision

The ultimate costs for reclamation and rehabilitation are uncertain, and cost estimates can vary in response to many factors, including estimates of the nature, extent and timing of rehabilitation activities, technological changes, regulatory changes, cost increases as compared to inflation rates, the risk-free interest rate for discounting future cash flows, foreign exchange rates, and estimates of the underlying currencies in which the provisions will ultimately be settled. The Company estimates its costs based on studies using current restoration standards and techniques, and the provision at the reporting date represents management's best estimate of the present value of the future rehabilitation costs required.

d) Useful lives of mineral properties, plant and equipment

Estimated mineral resources are used in determining the depreciation of certain assets. This results in depreciation expense proportional to the depletion of the anticipated remaining life-of-mine production. The estimate of the remaining lives of the Company's producing mineral properties is based on a combination of quantitative and qualitative factors including historical production and financial results, mineral resources reported under National Instrument 43-101 ("NI 43-101"), estimates of ore mineral feed production from areas not included in the NI 43-101 reports, and management's intent to operate the property. The estimated remaining lives of the producing mineral properties are used to calculate amortization and depletion expense, assess impairment charges and the carrying values of assets, and for forecasting the timing of the payment of reclamation and remediation costs.

There are numerous uncertainties inherent in the estimation of the remaining lives of the producing mineral properties, and assumptions that are valid at the time of estimation may change significantly when new information becomes available. Changes in the forecast prices of commodities, exchange rates, or production costs may change the economic status of the resources, estimates of production from areas not included in the NI 43-101 reports, and management's intent to operate the property, and may ultimately have a material impact on the estimated remaining lives of the properties.

e) Exploration and evaluation assets and expenditure

Judgment is required in evaluating whether expenditures meet the criteria to be capitalized, including the probability that future economic benefits will be generated. Determination of probable future economic benefit is based on management's evaluation of the technical feasibility and commercial viability of the geological properties of a given ore body based on information obtained through evaluation activities, including metallurgical testing, resource and reserve estimates and the economic assessment of whether the ore body can be mined economically.

3. SIGNIFICANT ACCOUNTING POLICIES

CHANGES IN ACCOUNTING POLICY

Revenue and settlement receivables

Revenue consists of zinc and lead-silver concentrate sales. The Company's performance obligations relate primarily to the delivery of these products to its customer, Glencore (a related party), with each separate delivery or shipment representing a separate performance obligation.

Revenue is recognized when control of the goods or services is transferred to the customer. In most instances, revenue is recognized when the product is delivered to the destination specified by the customer, which is typically the vessel on which it is shipped or the customer's premises.

Revenue is recorded at the date of sale based on the estimated final consideration to be received, being the estimate of the price expected to be received at the end of the relevant quotational period ("QP") stipulated in the off-take agreement, i.e., the forward price. At the same time, a corresponding settlement receivable is recognized.

Adjustments to the sales price based on movements in quoted market prices between the date of revenue recognition and the end of the QP are referred to as settlement mark-to-market and are made to settlement receivables in subsequent periods up to the date of final pricing. As the adjustment mechanism is an embedded derivative, the changes in fair value of the settlement receivables are disclosed separately from revenue from contracts with customers. Previously, these changes in fair value were recognized as an adjustment to revenue, however, in order to enhance the relevance, comparability and understandability of disclosures, the Company has revised its accounting policy to record settlement mark-to-market in other items.

EXTRACT FROM CONSOLIDATED STATEMENTS OF OPERATIONS Year ended December 31, 2018		As originally presented	Change in accounting policy	Restated
Revenues	$	402,589	61,758	464,347
Settlement mark-to-market		–	61,758	61,758
Loss before taxes	$	(258,539)	–	(258,539)
Net loss	**$**	**(230,595)**	**–**	**(230,595)**

Settlement receivables are reported as settlement and other receivables and are classified as fair value through profit or loss and are recorded at fair value at each reporting period based on published price assessments or quoted commodity prices up to the date of final pricing.

NEWLY ADOPTED ACCOUNTING POLICY

The impact of the adoption of IFRS 16: Leases ("IFRS 16") on the Company's financial statements and the new accounting policies that have been applied from January 1, 2019 is described below.

Several other amendments and interpretations applied for the first time in 2019, but did not have an impact on the consolidated financial statements of the Company and have therefore not been disclosed. The Company has not early adopted any standards, interpretations or amendments that have been issued but are not yet effective.

Leases

The Company has adopted IFRS 16 prospectively from January 1, 2019 and has not restated comparatives for the 2018 reporting period, as permitted under the specific transitional provisions in the standard.

The reclassifications and adjustments arising from the new leasing rules are therefore recognized in the opening statement of financial position on January 1, 2019.

Nature of leasing activities and accounting policy

The Company leases certain buildings, including offices and warehouses and various items of equipment. Rental contracts are typically made for fixed periods of 2 to 6 years but may have extension options as described below. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose any covenants, but leased assets may not be used as security for borrowing purposes.

Until the 2018 financial year, leases of property, plant and equipment were classified as either finance or operating leases. Payments made under operating leases were charged to the consolidated statement of operations on a straight-line basis over the period of the lease.

From January 1, 2019, leases are recognized as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Company. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to the consolidated statement of operations over the lease period to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable;
- variable lease payment that is based on an index or a rate;
- amounts expected to be payable by the lessee under residual value guarantees;
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option; and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of the lease liability;
- any lease payments made at or before the commencement date less any lease incentives received;
- any initial direct costs; and
- restoration costs.

Payments associated with short-term leases and leases of low-value assets are recognized on a straight-line basis as an expense in the consolidated statement of operations. Short-term leases are leases with a lease term of 12 months or less. Low-value assets are comprised primarily of IT-equipment.

Extension and termination options are included in several leases across the Company. These terms are used to maximize operational flexibility in terms of managing contracts.

In determining the lease term, management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not. Extension options (or periods after termination options) are only included in the lease term if the lease is reasonably certain to be extended (or not terminated). The assessment is reviewed if a significant event or a significant change in circumstances occurs which affects this assessment and that is within the control of the lessee. During the current financial period, no lease terms have been revised.

Impact on adoption of IFRS 16

On adoption of IFRS 16, the Company recognized lease liabilities in relation to leases which had previously been classified as ‘operating leases’ under the principles of IAS 17: Leases (“IAS 17”). These liabilities were measured at the present value of the remaining lease payments, discounted using the lessee’s incremental borrowing rate as of January 1, 2019. The weighted average lessee’s incremental borrowing rate applied to the lease payments was 9.64%.

For leases previously classified as finance leases the Company recognized the carrying amount of the lease asset and lease liability immediately before transition as the carrying amount of the right-of-use asset and the lease liability at the date of initial application. The measurement principles of IFRS 16 are only applied after that date.

Equipment held under finance lease arrangements continue to be presented within property, plant and equipment as right-of-use-assets. There has been no change in the amount recognized.

In applying IFRS 16 for the first time, the Company has used the following practical expedients permitted by the standard:

- the use of a single discount rate to a portfolio of leases with reasonably similar characteristics;
- the accounting for operating leases with a remaining lease term of less than 12 months as at January 1, 2019 as short-term leases; and
- the exclusion of initial direct costs for the measurement of the right-of-use asset at the date of initial application.

The Company has also elected not to reassess whether a contract is, or contains a lease at the date of initial application. Instead, for contracts entered into before the transition date the Company relied on its assessment made applying IAS 17 and IFRIC 4: Determining Whether an Arrangement Contains a Lease.

The off-balance sheet lease obligations as of December 31, 2018 are reconciled as follows to the recognized lease liabilities as of January 1, 2019:

Operating lease commitments disclosed as at December 31, 2018	$	12,055
Discounted using the lessee’s incremental borrowing rate at the date of initial application		11,204
Add: finance lease liabilities recognized as at December 31, 2018		420
Less: short-term leases recognized on a straight-line basis as expense		(418)
Less: low-value leases recognized on a straight-line basis as expense		(939)
Lease liabilities recognized as at January 1, 2019	$	10,267
Current lease liabilities	$	5,012
Non-current lease liabilities	$	5,255

Accounting Policies

Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company and its subsidiaries.

Control is achieved when the Company is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, the Company controls an investee if, and only if, the Company has all of the following:

- power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee);
- exposure, or rights, to variable returns from its involvement with the investee; and
- the ability to use its power over the investee to affect its returns.

When the Company has less than a majority of the voting rights of an investee or similar rights of an investee, it considers all relevant facts and circumstances in assessing whether it has power over the investee including:

- the size of the Company's holding of voting rights relative to the size and dispersion of holdings of the other vote holders;
- potential voting rights held by the Company, other vote holders or other parties;
- rights arising from other contractual arrangements; and
- any additional facts and circumstances that indicate that the Company has, or does not have, the current ability to direct the relevant activities at the time that decisions need to be made, including voting patterns at previous shareholders' meetings.

The Company reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above. Consolidation of a subsidiary begins when the Company obtains control over the subsidiary and ceases when the Company loses control of the subsidiary. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of operations and comprehensive loss from the date the Company gains control until the date when the Company ceases to control the subsidiary.

Profit or loss and each component of other comprehensive income or loss are attributed to the owners of the Company and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

Changes in the Company's interests in subsidiaries that do not result in a loss of control are accounted for as equity transactions with any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received being recognized directly in equity and attributed to equity holders of Trevali.

Business combinations

Acquisitions of subsidiaries and businesses are accounted for using the acquisition method of accounting. The cost of the acquisition is measured at fair value, which is calculated as the sum of the acquisition date fair values of the assets transferred, liabilities incurred to the former owners of the acquiree and the equity interests issued in exchange for control of the acquiree. The identifiable assets, liabilities and contingent liabilities ("identifiable net assets") are recognized at their fair value at the date of acquisition. Acquisition related costs are recognized in the consolidated statement of operations as incurred.

Where a business combination is achieved in stages, the Company's previously held interests in the acquired entity are remeasured to fair value at the acquisition date (i.e. the date Company attains control) and the resulting gain or loss, if any, is recognized in the consolidated statement of operations.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Company reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted for additional information obtained during the "measurement period" (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognized at that date.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured either at fair value or at the non-controlling interests' proportionate share of the recognized amounts of the acquiree's identifiable net assets. The choice of measurement basis is made on a transaction-by-transaction basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another IFRS.

Cash and cash equivalents

Cash and cash equivalents include cash on account and short-term deposits with an original maturity of three months or less, but exclude any restricted cash. Restricted cash is not available for use by the Company and therefore is not considered highly liquid.

Investments

Investments are classified, at the Company's election, as subsequently measured at fair value through other comprehensive income or loss. Investment transactions are recognized on the trade date with transaction costs included in the underlying balance. Fair values are determined by reference to quoted market prices at the statement of financial position date.

When investments are disposed of, the cumulative gains and losses recognized in other comprehensive loss are not recorded through profit and loss but rather remain within equity. Dividends are recognized in the statement of operations and these investments are not assessed for impairment.

Foreign currency translation

In preparing the financial statements of the individual entities, transactions in currencies other than the entity's functional currency are recorded at the rates of exchange prevailing at the dates of the transactions. At each statement of financial position date, monetary assets and liabilities are translated using the period end foreign exchange rate. Non-monetary assets and liabilities are translated using the historical rate on the date of the transaction. Non-monetary assets and liabilities that are stated at fair value are translated using the historical rate on the date that the fair value was determined. All gains and losses on translation of foreign currency transactions within entities are included in profit or loss.

Inventories

Stockpile inventories represent mineralized material that has been mined and hauled to the surface from the underground mines. Cost is determined using the weighted average method and comprises material costs, labour costs and allocated production related overhead costs. This inventoried stockpile is ready for processing and is expected to be processed within twelve months. Concentrate inventory includes mineralized material that went through the milling process. Stockpile and concentrate inventories are carried at the lower of cost or net realizable value.

Net realizable value is the estimated selling price net of any estimated selling costs in the ordinary course of business. Write-downs of mineralized stockpiled inventories and concentrate, resulting from net realizable value impairments, are reported as an expense within cost of sales in the period of write-down or capitalized during the pre-production phase.

Supplies inventories are valued at the lower of average cost and net realizable value. Replacement cost is used as the best available measure of net realizable value.

Exploration and evaluation

Exploration and evaluation expenditure relates to costs incurred in the search for mineral resources, the determination of technical feasibility, and the assessment of commercial viability of an identified resource.

The Company capitalizes exploration and evaluation acquisition costs and expenditures. Acquisition costs include the costs of acquiring licenses, costs associated with exploration and evaluation activity, and the acquisition date fair value of exploration and evaluation assets acquired in a business combination. Expenditures include exploration and production licences, researching and analyzing historical exploration data, exploratory drilling, trenching, sampling and the costs of pre-feasibility studies.

As the capitalized exploration and evaluation expenditure asset is not available for use, it is not depreciated. All exploration and evaluation assets are monitored for indications of impairment. Where a potential impairment is indicated, an assessment is performed for each area of interest or at the CGU level. To the extent that capitalized expenditure is not expected to be recovered it is charged to the consolidated statement of operations. Administration costs that are not directly attributable to a specific exploration area are charged to the consolidated statement of operations. Licence costs paid in connection with a right to explore in an existing exploration area are capitalized and amortized over the term of the permit.

Exploration and evaluation assets are evaluated for impairment and transferred to property, plant and equipment once the Company determines that probable future economic benefits will be generated as a result of the expenditures. At that time, the property is considered to enter the development phase, and subsequent evaluation costs are capitalized.

Property, plant and equipment

Property, plant and equipment are stated at cost, being the fair value of the consideration given to acquire or construct the asset, including directly attributable costs required to bring the asset to the location or to a condition necessary for operation and the direct cost of dismantling and removing the asset, less accumulated depreciation and any accumulated impairment losses.

Property, plant and equipment are depreciated to their estimated residual value over the estimated useful life of the specific asset concerned, or the estimated remaining life of the associated mine (“LOM”) or lease. When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Depreciation commences when the asset is available for use. The major categories of property, plant and equipment are depreciated/amortized on a units of production (“UOP”), straight-line and/or declining balance basis as follows:

Buildings and infrastructure	10 – 25 years
Mine development	UOP
Equipment and other	10% – 30% declining balance / 1 – 10 years

When reserves have been determined to be technically feasible and commercially viable and the decision to proceed with development has been approved, the expenditures related to development and construction are capitalized as mine development costs and classified as a component of property, plant and equipment. Costs associated with the commissioning of new assets incurred in the period before their intended use are capitalized. Development expenditure is net of the proceeds of the sale of metals from mineralized stockpiles extracted during the development phase.

Expenditures on major maintenance or repairs includes the cost of replacement parts of assets and overhaul costs. Where an asset or part of an asset is replaced, and it is probable that further future economic benefit will flow to the Company, the expenditure is capitalized. Similarly, overhaul costs associated with major maintenance are capitalized when it is probable that future economic benefit will flow to the Company and any remaining costs of previous overhauls relating to the same asset are derecognized. All other expenditures are expensed as incurred.

Impairment or impairment reversals

The Company conducts, at least annually, an internal review of asset values which is used as a source of information to assess for any indications of impairment or impairment reversal. Formal impairment tests are carried out for CGUs and for all other non-current assets when events or changes in circumstances indicate the carrying value may not be recoverable.

A formal impairment test involves determining an asset's recoverable amount and comparing it to the asset's carrying amount. An asset's recoverable amount is determined as the higher of its fair value less costs of disposal and its value in use. Such reviews are undertaken on an asset-by-asset basis, except where assets do not generate cash flows independent of other assets, in which case the review is undertaken at the CGU level.

If the carrying amount of an asset exceeds its recoverable amount, an impairment loss is recorded in the consolidated statement of operations to reflect the asset at the lower amount.

For those assets which were impaired in prior periods, if their recoverable amount exceeds their carrying amount, an impairment reversal is recorded in the consolidated statement of operations to reflect the asset at the higher amount to the extent the increased carrying amount does not exceed the carrying value of the asset that would have been determined had no impairment been recognized.

If the recoverable amount of the CGU is less than the carrying amount of the unit, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit on a pro-rata basis of the carrying amount of each asset in the unit. Any impairment loss for goodwill is recognized directly in the consolidated statement of operations. An impairment loss recognized for goodwill cannot be reversed in subsequent periods.

Trade payables

Trade payables, presented in accounts payable and accrued liabilities, are non-interest bearing if paid when due and are recognized at face amount, except when fair value is materially different. Trade payables are subsequently measured at amortized cost.

Debt

Debt is initially recorded at fair value, less transaction costs and is subsequently measured at amortized cost, calculated using the effective interest rate method.

Reclamation and rehabilitation provision

Reclamation and rehabilitation costs arising from the installation of plant and other site preparation work, discounted using a risk free rate specific to the liability and the currency in which they are denominated to their net present value, are provided for and capitalised at the time such an obligation arises. The costs are charged to the consolidated statement of operations over the life of the operation through depreciation of the asset and the unwinding of the discount on the provision.

Costs for restoration of actual site disturbance, which is created on an ongoing basis during production, are provided for at their net present values and charged to the consolidated statement of operations as extraction progresses.

Changes in the estimated timing of the rehabilitation or changes to the estimated future costs are accounted for prospectively by recognizing an adjustment to the rehabilitation liability and a corresponding adjustment to the asset to which it relates, provided a reduction, if any, in the provision is not greater than the depreciated capitalised cost of the related asset, in which case the capitalised cost is reduced to Nil and the remaining adjustment recognized in the consolidated statement of operations.

Financial instruments

Financial assets

On initial recognition, financial assets are recognized at fair value and are subsequently classified and measured at: (i) amortized cost; (ii) fair value through other comprehensive income ("FVOCI"); or (iii) fair value through profit or loss ("FVTPL"). The classification of financial assets is generally based on the business model in which a financial asset is managed and its contractual cash flow characteristics. A financial asset is measured at fair value net of transaction costs that are directly attributable to its acquisition except for financial assets at FVTPL where transaction costs are expensed. All financial assets not classified and measured at amortized cost or FVOCI are measured at FVTPL. On initial recognition of an equity instrument that is not held for trading, the Company may irrevocably elect to present subsequent changes in the investment's fair value in other comprehensive income or loss. The classification determines the method by which the financial assets are carried on the balance sheet subsequent to inception and how changes in value are recorded. Cash and cash equivalents are measure at amortized cost. Restricted cash and settlement and other receivables are measured at FVTPL with subsequent impairments recognized in profit or loss.

Impairment

An 'expected credit loss' impairment model applies which requires a loss allowance to be recognized based on expected credit losses. The estimated present value of future cash flows associated with the asset is determined and an impairment loss is recognized for the difference between this amount and the carrying amount as follows: the carrying amount of the asset is reduced to the estimated present value of the future cash flows associated with the asset, discounted at the financial asset's original effective interest rate, either directly or through the use of an allowance account and the resulting loss is recognized in profit or loss for the period.

Financial liabilities

Financial liabilities are classified as either: (i) fair value through profit or loss; or (ii) other financial liabilities. All financial liabilities are classified and subsequently measured at amortized cost except for financial liabilities at FVTPL. The classification determines the method by which the financial liabilities are carried on the balance sheet subsequent to inception and how changes in value are recorded. Accounts payable are classified as other financial liabilities and carried on the balance sheet at amortized cost.

Borrowing costs

Borrowing costs are expensed as incurred except where they relate to the financing of construction or development of qualifying assets in which case they are capitalized up to the date when the qualifying asset is ready for its intended use.

Income taxes

Income taxes consist of current and deferred income taxes. Current taxes represent income taxes expected to be payable based on enacted or substantively enacted tax rates at the period end on expected current taxable income, and any adjustment to tax payable in respect of previous years. Deferred taxes are recognized for temporary differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable income, using enacted or substantively enacted income tax rates which are expected to be effective at the time of reversal of the underlying temporary difference. Deferred tax assets are only recognized to the extent that their recoverability is probable. Deferred tax assets are reviewed at reporting period end and amended to the extent that it is no longer probable that the related benefit will be realized. To the extent that a deferred tax asset not previously recognized subsequently fulfils the criteria for recognition, an asset is then recognized.

Deferred tax assets and liabilities are offset when they relate to income taxes levied by the same authority and the Company has both the right and the intention to settle its current tax assets and liabilities on a net or simultaneous basis. The tax effect of certain temporary differences is not recognized principally with respect to the initial recognition of an asset or liability (other than those arising in a business combination or in a manner that initially impacted accounting or taxable profit) and it is probable the temporary difference will not reverse in the foreseeable future. Deferred tax is provided in respect of fair value adjustments on acquisitions. These adjustments may relate to assets such as extraction rights that, in general, are not eligible for income tax allowances.

Current and deferred tax are recognized as an expense or income in the consolidated statement of operations, except when they relate to items that are recognized outside the consolidated statement of operations (whether in other comprehensive income or loss or directly in equity) or where they arise from the initial accounting for a business combination.

Royalties, extraction taxes and other levies/taxes are treated as taxation arrangements when they have the characteristics of an income tax including being imposed and determined in accordance with regulations established by the respective government's taxation authority and the amount payable is based on taxable income – rather than physical quantities produced or as a percentage of revenues – after adjustment for temporary differences. For such arrangements, current and deferred tax is provided on the same basis as described above for other forms of taxation. Obligations arising from royalty arrangements that do not satisfy these criteria are recognized as current provisions and included in cost of goods sold.

The Company assesses its liabilities and contingencies for all tax years open to audit based upon the latest information available. Inherent uncertainties exist in estimates of tax contingencies due to complexities of interpretation and changes in tax laws. For those matters where it is probable that an adjustment will be made, the Company records its best estimate of these tax liabilities, including related interest charges.

Share capital

The proceeds from the exercise of stock options and warrants are recorded as share capital in the amount for which the option and warrant enabled the holder to purchase a share in the Company. Commissions paid to underwriters, and other related share issue costs, such as legal and auditing, on the issue of the Company's shares are charged directly to capital stock. Common shares issued for consideration other than cash are valued based on their market value at the date the shares are issued.

Valuation of equity units issued in private placements

The Company has adopted the relative fair value method with respect to the measurement of shares and warrants issued as private placement units. The Company allocates the net proceeds, based on the relative fair values, to each component.

Bonus shares, restricted share units, deferred share units and performance share units

The fair value method of accounting is used for share-based payment transactions. Under this method, the cost of bonus shares and other equity-settled share-based payment arrangements, such as restricted share units ("RSUs"), deferred share units ("DSUs") and performance share units ("PSUs"), are recorded based on the estimated fair value at the grant date, including an estimate of the forfeiture rate, and the expense is recognized over the vesting period. For employees eligible for normal retirement prior to vesting, the expense is recognized over the period from the grant date to the date they are eligible for retirement.

Share-based payment expense relating to cash-settled awards, including deferred and restricted share units, is accrued over the vesting period of the units based on the quoted market value of the Company's shares. As these awards will be settled in cash, the expense and liability are adjusted each reporting period for changes in the underlying share price.

Earnings (loss) per share

Basic earnings (loss) per share is calculated using the weighted average number of common shares outstanding during the period. The Company uses the treasury stock method to compute the dilutive effect of options, warrants and similar instruments. Under this method, the dilutive effect on earnings per share is calculated presuming the exercise of outstanding options, warrants and similar instruments. It assumes that the proceeds of such exercise would be used to repurchase common shares at the average market price during the period. However, the calculation of diluted loss per share excludes the effects of various conversions and exercise of options and warrants that would be anti-dilutive.

4. IMPAIRMENTS

At December 31, 2019, the carrying amount of the Company's net assets exceeded the market capitalization, which is considered to be an impairment indicator of all the CGUs as of December 31, 2019. Accordingly, the recoverable value was estimated and compared against the carrying value for each the CGUs. With the exception of exploration and evaluation assets relating to the Murray Brook option agreement (see Notes 8 and 9), no impairments or impairment reversals were identified during 2019.

The recoverable amounts of the CGUs are based primarily on their future after-tax cash flows expected to be derived from the Company's mining properties and represent each CGU's FVLCD. The projected cash flows used in impairment testing are significantly affected by changes in assumptions for LME zinc prices, changes to production volumes, operating costs, capital expenditures and discount rates. The determination of FVLCD uses Level 3 inputs.

The Company's impairment testing incorporated the following key assumptions:

a) *Zinc price*

Forecast LME zinc prices are based on management's estimates and are derived from long-term views of global supply and demand, building on experience of the industry and consistent with external sources.

	December 31, 2019			December 31, 2018		
	2020	2021	Long term (2022+)	2019	2020	Long term (2021+)
Zinc ($ per lb)	1.15	1.15	1.14	1.24	1.24	1.15

b) *Production volumes*

Estimated production volumes are based on life-of-mine plans and internal management forecasts and consider development plans for the mines agreed as part of the long-term planning process. Production volumes are dependent on several variables, including the amount of recoverable resources, production and other cost estimates, future capital expenditures and exploration potential.

As each producing mine has specific resource characteristics and economic circumstances and the cash flows of the mines are calculated using individual economic models. The production profiles used the most recent reserve and resource estimates and resource conversion rates based on historical conversion and future expectations determined by mineralogy specific to each of the mines.

c) *Operating costs and capital expenditure*

Operating cost and capital expenditures are based on the most recent approved financial budgets, current operating costs and the nature and location of each operation. Operating cost and capital expenditure assumptions are continuously subjected to review.

d) *Weighted average cost of capital*

Projected cash flows were discounted using real post-tax discount rates ranging from 8% to 10% (2018: 8% to 10%). This discount rate is derived from the Company's weighted average cost of capital, with appropriate adjustments made to reflect the risks specific to the CGU.

Sensitivity analysis and additional CGU-specific considerations:

As part of the calculation of the recoverable amounts of its CGUs, a sensitivity analysis was completed to identify the impact of changes to key variables relative to assumptions which would cause a CGU's carrying amount to exceed its recoverable amount.

Perkoa, Rosh Pinah and Caribou

As at December 31, 2019, the recoverable amount of the Perkoa, Rosh Pinah and Caribou CGUs exceeded their carrying amount. It is estimated that a reduction of $0.05 per pound in the long-term price of zinc assumption (keeping all other assumptions constant) would cause the recoverable amount of these CGUs to decrease to amounts that approximate their carrying amounts.

Santander

As at December 31, 2019, the estimated post-tax recoverable amount of $37.8 million approximated the carrying value of Santander and as a result, any adverse change to the assumptions would result in an impairment being recognized. The recoverable amount is most sensitive to changes in the price of zinc and production volumes impacted by operating cost and resource conversion assumptions.

The impairments recorded during the years ended December 31, 2019 and 2018 are comprised of the following:

	2019	2018
Property, plant and equipment		
Perkoa	$ –	$ 40,877
Caribou	–	69,229
Santander	–	88,373
Goodwill	–	61,835
Exploration and evaluation assets (Note 9)	917	51,514
Investments (Note 8)	2,745	–
Impairment	$ 3,662	$ 311,828
Deferred income tax recovery (Note 19)	–	(48,788)
Impairment, net	$ 3,662	$ 263,040

2018 Impairments

Along with CGU specific factors, observed decreases in near and mid-term period consensus metal prices referenced in the Company's life of mine cash flow models led management to conclude that there was an indication of impairment to certain assets in the fourth quarter of 2018. Based on the Company's estimation of the recoverable amounts of its mineral properties as at December 31, 2018 determined on a fair value less costs to sell basis, the Company concluded that impairment charges were required on the Perkoa, Caribou and Santander mines. Based on the annual goodwill impairment test, the carrying amount of goodwill allocated to the Rosh Pinah segment exceeded its recoverable amount.

Perkoa

Lower zinc price assumptions together with marginally decreasing grades, recoveries at depth and mining sequencing shifting to the hanging wall, resulted in a net $36.4 million impairment of the Perkoa Mine ($40.9 million property, plant and equipment write-down net of a $4.5 million deferred income tax recovery), to its estimated recoverable amount of $156.9 million.

Caribou

Lower zinc price assumptions together with geotechnical operational challenges encountered in late 2018, reduced mining rate and increased operating cost base, resulted in a net $54.4 million impairment of the Caribou Mine ($69.2 million property, plant and equipment write-down net of a $14.8 million deferred income tax recovery), to its estimated recoverable amount of $52.9 million.

Santander

Lower zinc price assumptions together with increased operating and capital expenditures, resulted in a net $69.8 million impairment of the Santander Mine ($88.4 million property, plant and equipment write-down net of a $18.5 million deferred income tax recovery), to its estimated recoverable amount of $52.6 million.

Rosh Pinah and goodwill

Lower zinc price assumptions together with increased projected operating costs, resulted in a write off of the entire $61.8 million goodwill balance allocated to the Rosh Pinah mine that arose on acquisition in 2017.

5. RISK MANAGEMENT AND FINANCIAL INSTRUMENTS

The Company's financial assets and liabilities consist of cash and cash equivalents, restricted cash, settlement receivables, reclamation bonds, accounts payable and accrued liabilities, due to related parties and debt.

Fair value of financial instruments

Fair value represents the price at which a financial instrument could be exchanged in an active market, in an arm's length transaction between knowledgeable and willing parties who are under no compulsion to act.

Trade receivables from provisionally priced concentrate sales are referred to as settlement receivables and are included in Level 2 of the fair value hierarchy as the basis of valuation uses quoted commodity prices. The fair values for short-term financial assets and liabilities, which include cash and cash equivalents, restricted cash, accounts payable and accrued liabilities, due to related parties and debt, approximate carrying values due to the immediate or short-term maturities of these financial instruments.

The reclamation bonds are interest bearing and the carrying values represent fair values.

Capital risk management

The Company's capital risk management objectives include continuing to operate as a going concern while maximizing the return to shareholders. The main risks that could adversely affect the Company's financial assets, liabilities or future cash flows are market risks comprising commodity price risk, cash flow interest rate risk and foreign currency risk; liquidity risk; and credit risk. The Company manages its exposure to key financial risks in accordance with its financial risk management policy. The capital structure of the Company includes shareholders' equity and debt.

Credit risk

As at December 31, 2019, the Company's maximum exposure to credit risk was the book value of cash and cash equivalents, restricted cash, accounts receivable and an investment available-for-sale. The Company limits its credit exposure on cash and cash equivalents and restricted cash by holding its deposits mainly with institutions with strong investment-grade ratings by a primary ratings agency. All the Company's trade accounts receivables are with Glencore – a related party (Note 16).

Liquidity risk

Liquidity risk is the risk that the Company will encounter difficulty in satisfying financial obligations as they fall due. The Company manages its liquidity risk through its budgeting and forecasting process. Budgets are prepared annually, and forecasts are prepared and reviewed on a regular basis, to help determine the funding requirements to support the Company's current operations and expansion and development plans and by managing its capital structure as described above.

At December 31, 2019, the Company had cash and cash equivalents totaling $24.4 million (2018: $65.5 million) and working capital of $49.8 million (2018: $16.9 million). For the year ended December 31, 2019, cash generated by operating activities totalled $111.9 million. In addition, the Company had $198.8 million of the Facility available for draw-down (Note 12).

As at December 31, 2019, the Company's significant commitments include the $67.0 million Facility (Note 12), the environmental reclamation and rehabilitation obligations (Note 13) and current accounts payable and accrued liabilities (Note 11).

Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in market prices. Market risk comprises three types of risk: commodity price risk, interest rate risk, and foreign currency risk.

a) Commodity price risk

The Company is exposed to commodity price risk arising from changes to the market prices for zinc, lead and silver between the time of the provisional invoicing of concentrates to the time of final price settlement. The Company is exposed to this risk during the quotational periods ranging from one to six months, depending on the terms and conditions of the various concentrate off-take contracts. Management estimates that a 5% decrease in the market prices for zinc, lead and silver would reduce the provisionally priced mark-to-market revenues and related accounts receivable by $7.0 million as of December 31, 2019.

b) Interest rate risk

Interest rate risk consists of the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in market interest rates.

The Company's cash consists primarily of cash held in bank accounts and short-term deposits. Due to the short-term nature of these financial instruments, fluctuations in market rates do not have a significant impact on estimated fair values as of December 31, 2019.

The Company is exposed to interest rate cash flow risk on certain debt amounts as the payments will fluctuate during their term with changes in the interest rate. Based on the amount owing at December 31, 2019, and assuming that all other variables remain constant, a 1% change in the LIBOR rate would result in an increase/decrease of $0.9 million in the interest expense accrued by the Company per annum.

c) Foreign currency risk

The Company is exposed to foreign currency risk to the extent expenditures incurred or funds received and balances maintained by the Company are denominated in currencies other than the United States dollar including the Western African franc, Namibian dollar, Canadian dollar and the Peruvian soles. The Company's net monetary assets and liabilities are summarized below by currency with a sensitivity analysis for the impact on net income of a change in the absolute rate of exchange for each currency of 10%.

	Net monetary assets/ (liabilities)	Currency change of +/- 10%
West African franc	$ 11,691	$ (1,063)
Namibian dollars	(4,176)	380
Canadian dollars	(7,737)	703
Peruvian soles	(9,092)	827
	$ (9,314)	$ 847

6. SETTLEMENT AND OTHER RECEIVABLES

		December 31, 2019		December 31, 2018
Settlement receivables	$	32,472	$	56,091
Sales tax and income taxes		21,964		15,281
Other		1,430		1,644
	$	55,866	$	73,016

Sales tax and income taxes include approximately $9.8 million of VAT receivables in Burkina Faso that are subject to a factoring arrangement. The Company has transferred the relevant VAT receivables to the factor in exchange for cash and is prevented from pledging the receivables. However, as the Company has retained the risk of late payment and recoverability the Company continues to recognize the transferred VAT receivables in their entirety. The amount repayable under the factoring arrangement is presented as VAT factoring facility (Note 12).

7. INVENTORIES

		December 31, 2019		December 31, 2018
Mineralized stockpiles	$	5,358	$	3,687
Concentrates				
Site		3,409		23,683
In-transit		4,234		4,483
Port		1,536		5,565
Materials and supplies		29,923		25,743
	$	44,460	$	63,161

8. INVESTMENT AND ADVANCES

During April 2018, the Company entered into an option agreement with Puma Exploration Inc. ("Puma") pursuant to which the Company had an option to acquire an interest in the Murray Brook Deposit and formed a strategic exploration alliance in New Brunswick. During the first quarter of 2019, the Company declined to exercise the option to acquire the 75% interest in the Murray Brook Deposit described above and, consequently, recognized an impairment of $3.6 million ($2.7 million of advances and $0.9 million of exploration and evaluation assets).

9. EXPLORATION AND EVALUATION ASSETS

		Perkoa Mine, Burkina Faso		Gergarub and other, Namibia		Halfmile, Stratmat and other, Canada		Santander, Peru		Total
January 1, 2018	$	219	$	37,213	$	24,736	$	–	$	62,168
Additions		2,068		1,706		3,493		5,570		12,837
Reclassification		–		–		89,756		5,508		95,264
Impairment		–		–		(51,514)		–		(51,514)
December 31, 2018	$	2,287	$	38,919	$	66,471	$	11,078	$	118,755
Additions		3,581		2,152		960		3,669		10,362
Reclassification		1,700		–		–		(6,575)		(4,875)
Impairment (Note 8)		–		–		(917)		–		(917)
December 31, 2019	$	7,568	$	41,071	$	66,514	$	8,172	$	123,325

The Company has an indirect effective 44% (2018: 44%) interest in the Gergarub project (Namibia) and a 100% interest in the Heath Steele Option (Canada) and various exploration properties in Burkina Faso.

During 2018, the Company reclassified the $89.8 million carrying value of Halfmile from property, plant and equipment (Mine development). Subsequently, a net impairment of $30.9 million ($41.9 million exploration and evaluation assets and $11.0 million deferred income tax recovery) was recorded relating to Halfmile following a valuation review following the decline in commodity prices. In addition, the Company wrote off the full $9.6 million carrying value of Stratmat which was no longer considered commercially viable.

10. PROPERTY, PLANT AND EQUIPMENT

	Buildings and infrastructure	Mine development	Equipment and other	Total
Net book value				
January 1, 2019	$ 162,211	$ 229,826	$ 81,863	$ 473,900
IFRS 16 adoption (Note 3)	1,871	–	7,976	9,847
January 1, 2019 – restated	164,082	229,826	89,839	483,747
Additions	7,207	36,770	18,775	62,752
Disposals	(286)	–	(710)	(996)
Depreciation	(30,835)	(27,624)	(20,355)	(78,814)
Reclassification	(15,898)	32,890	(11,277)	5,715
Change in reclamation and rehabilitation provision	–	(46)	–	(46)
December 31, 2019	$ 124,270	$ 271,816	$ 76,272	$ 472,358
Gross carrying value	$ 228,587	$ 601,241	$ 118,308	$ 948,136
Accumulated depreciation and impairment	$ (104,317)	$ (329,425)	$ (42,036)	$ (475,778)

Equipment and other includes expenditure for construction in progress of $7.3 million (2018: $13.0 million).

	Buildings and infrastructure	Mine development	Equipment and other	Total
Net book value				
January 1, 2018	$ 198,059	$ 492,076	$ 70,611	$ 760,746
Additions	3,015	50,573	23,134	76,722
Disposals	–	(1,473)	(1,550)	(3,023)
Depreciation	(26,815)	(31,605)	(9,142)	(67,562)
Impairment (Note 5)	(12,110)	(182,784)	(3,585)	(198,479)
Reclassification	62	(97,721)	2,395	(95,264)
Change in reclamation and rehabilitation provision	–	760	–	760
December 31, 2018	$ 162,211	$ 229,826	$ 81,863	$ 473,900
Gross carrying value	$ 235,693	$ 531,581	$ 103,544	$ 870,818
Accumulated depreciation and impairment	$ (73,482)	$ (301,755)	$ (21,681)	$ (396,918)

Upon initial adoption of IFRS 16, right-of use assets were measured at an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognized on the consolidated statement of financial position as at December 31, 2018.

Property, plant and equipment includes the following related to right-of-use assets at December 31, 2019:

	Buildings and infrastructure	Equipment and other	Total
Net book value			
January 1, 2019	$ –	$ 599	$ 599
IFRS 16 adoption (Note 3)	1,871	7,976	9,847
January 1, 2019 – restated	1,871	8,575	10,446
Additions	1,237	–	1,237
Disposals	(269)	–	(269)
Depreciation	(432)	(2,306)	(2,738)
December 31, 2019	$ 2,407	$ 6,269	$ 8,676
Gross carrying value	$ 2,839	$ 8,575	$ 11,414
Accumulated depreciation and impairment	$ (432)	$ (2,306)	$ (2,738)

11. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

	December 31, 2019	**December 31, 2018**
Trade payables	$ 43,835	$ 32,318
Accrued payroll and other	15,636	18,097
Corporate income taxes	871	785
Burkina Faso royalty payable	1,718	2,666
Burkina Faso community payable	4,887	3,760
Other	55	915
	$ 67,002	$ 58,541

12. DEBT

		December 31, 2019		December 31, 2018
Credit Facilities				
Revolving Credit Facility, net of fees	$	63,730	$	132,004
VAT factoring facility		7,822		–
		71,552		132,004
Leases		7,056		420
Total debt	$	78,608	$	132,424
Current		11,850		132,167
Non-current	$	66,758	$	257

The Company entered into a factoring facility arrangement secured against refund applications for recoverable VAT receivables in Burkina Faso. The facility bears interest at approximately 5.5% per annum and the outstanding balance under the facility is repayable in December 2020.

Credit Facilities

During 2018, the Company entered into an amended and restated credit agreement with a syndicate of lenders for the $275.0 million Facility. This Facility replaced the August 2017 $160.0 million Term Facility and $30.0 million Revolving Facility.

The Facility bears interest on a sliding scale: (i) at a rate of LIBOR plus between 2.0% to 3.0%; or (ii) at a base rate plus between 1.0% to 2.0%, based on the Company's consolidated leverage ratio. Commitment fees for the undrawn portion of the Facility are also on a sliding scale between 0.45% to 0.68%. The Facility matures on September 18, 2022.

The Company has letters of credit, issued under the Facility, totaling $9.2 million to support $6.2 million in various reclamation bonding requirements with its Caribou Mine and $3.0 million of financial security toward power transmission payments related to the Santander mine. The Company has also arranged a $12.5 million financial guarantee to support reclamation bonding requirements with its Santander mine.

The Company must maintain certain financial covenants including tangible net worth, interest coverage and leverage ratios. As at December 31, 2019, the Company was in compliance with all covenants.

Lease liabilities

Contractual undiscounted cash flows		December 31, 2019		December 31, 2018
Less than one year	$	4,697	$	167
One to four years		2,789		440
More than four years		–		–
Total undiscounted lease liabilities	$	7,486	$	607
Lease liabilities included in the statement of financial position				
Current	$	4,028	$	163
Non-current		3,028		257
	$	7,056	$	420

The Company recorded interest expense related to lease liabilities of $0.8 million (2018: $0.8 million) in the statement of operations.

13. RECLAMATION AND REHABILITATION

The Company's provision for environmental reclamation and rehabilitation consists of costs accrued based on the best estimate of mine closure and reclamation and rehabilitation activities that will be required at its sites upon completion of mining and related activities. These activities include costs for earthworks, including land re-contouring and re-vegetation, water treatment and demolition. The Company's provision for future site closure and reclamation costs is based on the level of known disturbance at the statement of financial position date, known legal requirements and estimates prepared by internal and third-party specialists.

The assumptions used in the estimation of the provision are as follows:

	Undiscounted liability for closure	Remaining LOM (Years)	Pre-tax discount rate	Inflation factor	Present value of cash flow required on closure
Perkoa	$ 8,311	7	2.20%	2.10%	$ 8,274
Rosh Pinah	5,280	12	10.01%	5.50%	3,194
Caribou	24,877	7	1.70%	1.40%	24,689
Santander	11,626	6	2.30%	2.20%	11,444
Halfmile	534	N/A	1.70%	1.40%	531
	$ 50,628				$ 48,132

The following is a continuity schedule of the Company's estimated provisions:

	Year ended December 31,	
	2019	**2018**
Beginning of the year	$ 46,727	$ 47,690
Accretion	1,455	4,046
Change in discount rate	(88)	(1,584)
Change in estimates	(935)	(714)
Change in foreign exchange rates	974	(2,711)
End of the year	$ 48,133	$ 46,727

14. SHARE CAPITAL

Authorized: Unlimited number of common shares without par value.

During 2019, the Company purchased and cancelled 15,934,500 common shares for total consideration of $3.2 million under the normal course issuer bid ("NCIB") announced in November 2018 to purchase and cancel up to 40,000,000 common shares. As at December 31, 2019, the Company has purchased and cancelled a cumulative total of 28,634,500 common shares for total consideration of $6.7 million since November 2018.

During November 2019, the Company announced its renewal of the NCIB to purchase and cancel up to a total of an additional 50,000,000 common shares representing approximately 8.5% of the Company's public float of common shares, as calculated in accordance with the rules of the TSX, over a twelve month period commencing on December 3, 2019 and expiring no later than December 2, 2020. As at December 31, 2019, no shares have been repurchased and/or cancelled under the renewed NCIB.

15. OTHER RESERVES

Share-based payments reserve

Stock options

As at December 31, 2019 and 2018, the Company had outstanding stock options enabling the holders to acquire common shares as follows:

	December 31, 2019			December 31, 2018		
Expiry date	Exercise price (C$)	Number of options	Exercisable	Exercise price (C$)	Number of options	Exercisable
June 24, 2019	–	–	–	$1.01	886,200	886,200
August 15, 2019	–	–	–	$1.29	188,500	188,500
January 30, 2020	$1.03	1,892,630	1,892,630	$1.03	2,584,794	2,584,794
June 1, 2021	$0.45	2,316,000	2,316,000	$0.45	2,740,500	2,740,500
January 20, 2022	$1.21	910,500	910,500	$1.21	1,277,100	1,277,100
August 31, 2022	$1.59	475,970	317,313	$1.59	553,540	184,513
January 23, 2023	$1.52	1,174,800	391,599	$1.52	1,585,600	–
January 23, 2023	$0.90	200,300	66,767	$0.90	200,300	–
April 10, 2024	$0.47	2,844,900	–	–	–	–
	$0.83	9,815,100	5,894,809	$1.00	10,016,534	7,861,607

At December 31, 2019, the weighted average remaining contractual life of the stock options was 2.3 years (December 31, 2018: 2.3 years).

Stock option movements are as follows:

	December 31, 2019		December 31, 2018	
	Number of options	Weighted average exercise price (C$)	Number of options	Weighted average exercise price (C$)
Opening balance	10,016,534	$1.00	9,908,901	$0.79
Granted	3,475,800	$0.47	1,785,900	$1.45
Exercised	–	–	(1,649,367)	$0.75
Forfeited	(753,616)	$0.69	(28,900)	$1.21
Expired/ cancelled	(2,923,618)	$1.03	–	–
Ending balance	9,815,100	$0.83	10,016,534	$1.00

No options were exercised during the year ended December 31, 2019. The weighted average market price on the exercise of options for the year ended December 31, 2018 was C$1.30.

During the year ended December 31, 2019, the Company granted 3,475,800 stock options with an exercise price of C$0.47 per share exercisable for a period of five years with a three-year vesting period on April 10, 2019. The aggregate of the estimated fair values of the options granted is $0.6 million. In 2018, options were granted on January 23, 2018. The aggregate of the estimated fair values of the options granted is $1.1 million.

The fair value of stock options granted was estimated using the Black-Scholes option pricing model with the following weighted average calculations for the years ended December 31, 2019 and 2018:

	December 31, 2019	December 31, 2018
Risk-free interest rate	1.59%	2.03%
Expected life of options	5 years	5 years
Annualized volatility	66.74%	63.79%
Dividend rate	Nil	Nil
Forfeiture rate	4.92%	5.27%

The Company recorded $0.5 million (2018: $0.7 million) in total share-based payment expense related to its stock option plan.

Warrants

Warrants movements are summarized as follows:

	December 31, 2019		**December 31, 2018**	
	Number of warrants	Weighted average exercise price (C$)	Number of warrants	Weighted average exercise price (C$)
Opening balance	714,560	$0.35	2,286,592	$0.35
Exercised	–	–	(1,572,032)	$0.35
Ending balance	714,560	$0.35	714,560	$0.35

No warrants were exercised during the year ended December 31, 2019. The weighted average market price on the exercise of warrants for the year ended December 31, 2018 was C$1.23. All warrants expire on December 31, 2020.

Bonus Shares, PSUs, RSUs and DSUs

On May 8, 2019, the Company granted PSUs to the President and Chief Executive Officer. Defined performance-based criteria determine the vesting number of PSUs, with 50% of the PSUs eligible to vest on April 23, 2022. The remaining 50% eligible to vest on April 23, 2024 were cancelled in accordance with changes to the terms of the incentive plan.

The Company recorded $0.1 million (2018: $0.6 million) in share-based payment expense related to the incentive plan for the grant of RSUs, DSUs and PSUs.

Bonus share, RSU, DSU and PSU movements are summarized as follows:

	Bonus shares	
	Number of units	Weighted average fair value (C$)
January 1, 2018	2,249,426	$0.74
Redeemed	(2,249,426)	$0.74
December 31, 2018 and December 31, 2019	–	–

	PSUs		**RSUs**		**DSUs**	
	Number of units	Weighted average fair value (C$)	Number of units	Weighted average fair value (C$)	Number of units	Weighted average fair value (C$)
January 1, 2018	–	–	298,090	$1.56	605,893	$0.86
Granted	–	–	1,068,100	$1.31	269,800	$1.52
Forfeited	–	–	(128,300)	$1.52	–	–
Redeemed	–	–	(99,362)	$0.76	(156,433)	$1.39
December 31, 2018	–	–	1,138,528	$1.40	719,260	$1.00
Granted	1,428,572	$0.35	1,925,963	$0.47	1,300,325	$0.43
Forfeited/Cancelled	(714,286)	$0.35	(459,905)	$0.71	–	–
Redeemed	–	–	(466,182)	$0.33	(1,179,360)	$0.73
December 31, 2019	714,286	$0.35	2,138,404	$0.94	840,225	$0.50

16. RELATED PARTY TRANSACTIONS AND BALANCES

Glencore

As of December 31, 2019, Glencore owned 210,835,925 the Company's common shares representing approximately 26.3% of the total issued and outstanding common shares.

Glencore purchases the Company's concentrate production under separate off-take agreements with each of its mines which were entered into before Glencore was a related party.

In addition, pursuant to a Services Agreement dated August 31, 2017 between the Company and Glencore, Glencore provides certain technical, financial and other advisory services to the Company, which services are provided on a cost-recovery basis.

The Company entered into the following transactions during the years ended December 31, 2019 and 2018:

	Year ended December 31,	
	2019	**2018**
Net revenue on concentrate sales	$ 386,110	$ 464,347
Settlement mark-to-market on concentrate sales	(23,485)	(61,758)
Production costs	–	17,294
Mine development[1]	–	10,303
Professional services	250	–
Interest expense on concentrate sales advances	$ –	$ 387
	December 31, 2019	**December 31, 2018**
Settlement receivable from Glencore (Note 6)	$ 32,472	$ 56,091
Payable	$ 73	$ 1,539

[1]Capitalised to property, plant and equipment.

P.E. Minerals Namibia (Proprietary) Limited

P.E. Minerals Namibia (Proprietary) Limited is a minority shareholder of Rosh Pinah and owns the right to use the Rosh Pinah Mine Grant Number ML39 with the Company paying a market rate lease. This mining licence expires during 2020 and a licence renewal application has been submitted to the Ministry of Mines and Energy in Namibia. Management does not foresee any reason for the application to be denied.

Key management compensation

The compensation for key management, which includes our directors and chief officers, recognized in the statement of operations is summarized in the table below.

	Year ended December 31,	
	2019	**2018**
Short-term employee benefits	$ 3,514	$ 2,969
Share-based payments	933	930
Termination benefits	7,548	–
Other short term benefits	140	51
	$ 12,135	$ 3,950

17. REVENUES

The following disclosures have been represented to reflect the change in accounting policy as described in Note 3. Settlement mark-to-market on concentrate sales are presented as Other Items.

	Zinc	Lead-Silver	Total
Year ended December 31, 2019			
Concentrate sales	$ 497,160	$ 70,339	$ 567,499
Smelting and refining costs	(166,334)	(15,055)	(181,389)
Revenues	$ 330,826	$ 55,284	$ 386,110
Year ended December 31, 2018			
Concentrate sales	$ 526,177	$ 62,309	$ 588,486
Smelting and refining costs	(111,355)	(12,784)	(124,139)
Revenues	$ 414,822	$ 49,525	$ 464,347

18. INTEREST EXPENSE

	Note	Year ended December 31,	
		2019	2018
Debt	12	$ 5,967	$ 8,689
Trade payable and receivable		79	486
Related party		–	387
Leases		804	803
Accretion on reclamation and rehabilitation provision	13	1,430	4,043
		$ 8,280	$ 14,408

19. INCOME TAXES

Income tax expense differs from the amount that would result from applying the Canadian federal and provincial income tax rates to earnings before income taxes. These differences result from the following items:

	December 31, 2019	December 31, 2018
Loss before income tax	$ (21,301)	$ (258,539)
Canadian statutory rate	27%	27%
Expected income tax recovery	(5,751)	(69,806)
Increase (decrease) due to:		
Non-deductible expenses	4,234	5,779
Impairments and losses for which no tax benefit has been recorded	8,914	25,454
New Brunswick Mining Tax (current and deferred)	784	(2,333)
Amounts under provided for in prior years	74	251
Differences between foreign and Canadian tax rates	2,676	(2,913)
Foreign exchange on translation	911	(2,628)
Changes in Canadian provincial tax rates	(350)	(2,087)
Non-deductible goodwill write-down	–	23,194
Withholding tax	3,044	946
Use of previously unrecognized tax assets	(426)	(3,801)
Income tax expense (recovery)	$ 14,110	$ (27,944)

Income tax expense consists of the following:

	December 31, 2019	December 31, 2018
Current income tax	$ 11,079	$ 13,159
Deferred income tax expense (recovery)	3,031	(41,103)
	$ 14,110	$ (27,944)

The components of recognized net deferred tax liabilities as at December 31, 2019 and 2018, are as follows:

		December 31, 2019		December 31, 2018
Non-capital losses carried forward	$	7,807	$	9,017
Reclamation and rehabilitation provision		502		2,508
Book value in excess of tax value of property, plant and equipment		(108,983)		(107,809)
Current assets and liabilities		1,334		(25)
Net deferred tax liabilities	$	(99,340)	$	(96,309)

The deferred tax assets and liabilities as at December 31, 2019 and 2018, are presented as follows:

		December 31, 2019		December 31, 2018
Deferred income tax assets	$	–	$	–
Deferred income tax liabilities		(99,340)		(96,309)
	$	(99,340)	$	(96,309)

The components of unrecognized deferred tax assets are as follows:

		December 31, 2019		December 31, 2018
Non-capital losses	$	22,614	$	16,951
Capital losses and other		698		607
Share and debt issue costs		1,463		1,803
Reclamation and rehabilitation provision		15,402		12,546
Current assets		701		5,591
Unrealized foreign exchange losses		4,162		5,376
Property plant and equipment expenditures		7,287		448
	$	52,327	$	43,322

At December 31, 2019, the Company had $106.9 million of Canadian non-capital losses available for carry forward (2018: $80.4 million) which may be applied to reduce future years' taxable income. These losses, if not utilized, will expire on various dates between 2023 and 2039. In addition, we have $3.1 million of foreign non-capital losses available for carry forward (2018: $15.1 million).

20. COMMITMENTS AND CONTINGENCIES

Commitments

In the normal course of business, the Company enters into contracts that give rise to commitments for future minimum payments. The following table summarizes the approximate timing of payment of the remaining maturities of the Company's commitments at December 31, 2019 in undiscounted cashflows:

		2020		2021		2022		2023		Beyond 2023		Total
Purchase and related commitments	$	33,383	$	34,940	$	33,048	$	11,326	$	1,899	$	114,596
Reclamation and rehabilitation		–		–		–		–		50,628		50,628
	$	33,383	$	34,940	$	33,048	$	11,326	$	52,527	$	165,224

The Company enters into commitments for capital expenditures in advance of the expenditures being incurred. Approvals are obtained prior to expenditure being incurred in line with the Company's capital budget.

Contingencies

The Company operates in Burkina Faso, Namibia, Canada and Peru and accordingly is subject to various tax and environmental laws and regulations. The Company and its subsidiaries are subject to routine legal proceedings and tax audits. Although the Company cannot predict the result of any legal proceeding or tax filing, the Company believes that the likelihood of any liability arising from any such claim is remote and that the liability, if any, arising from any litigation or tax filing assessment, individually or in aggregate, will not have a significant effect on the financial position or profitability of the Company and its subsidiaries.

21. SEGMENTED INFORMATION

The Company's executive management team manages its business, including the allocation of resources, on a project by project basis, except where the Company's projects are substantially connected and share resources and administrative functions. The Company has four operating segments: Perkoa Mine, Burkina Faso; Rosh Pinah Mine, Namibia; Caribou Mine, Canada and Santander Mine, Peru and a Corporate and other segment including the Company's head office, general corporate administration and activity, group eliminations and the Canadian evaluation and exploration program.

	Year ended December 31, 2019					
	Perkoa Mine	Rosh Pinah Mine	Caribou Mine	Santander Mine	Corporate and other	Total
Revenues	$ 151,980	$ 89,440	$ 75,219	$ 69,471	$ –	$ 386,110
Mine operating expenses	105,011	53,288	68,520	43,766	–	270,585
General and administration	–	–	–	–	8,661	8,661
Adjusted EBITDA	46,969	36,152	6,699	25,705	(8,661)	106,864
Depreciation, depletion and amortization	35,702	24,502	12,940	10,738	926	84,808
Adjusted EBIT	11,267	11,650	(6,241)	14,967	(9,587)	22,056
Settlement mark-to-market						23,485
Loss on foreign exchange						2,458
Interest expense						8,280
Restructuring expenses						7,550
Impairment						3,662
Other expense, net						(2,078)
Income tax expense						14,110
Net loss						(35,411)
Capital expenditures	6,456	23,499	10,943	16,282	1,638	58,818
Exploration expenditures	–	–	–	–	–	10,300
Assets	313,561	300,377	106,442	81,732	(57,542)	744,570
Liabilities	(156,646)	(165,190)	(129,857)	(49,655)	205,227	(296,121)
Net assets (liabilities)	$ 156,915	$ 135,187	$ (23,415)	$ 32,077	$ 147,685	$ 448,449

	Year ended December 31, 2018					
	Perkoa Mine	Rosh Pinah Mine	Caribou Mine	Santander Mine	Corporate and other	Total
Revenues	$ 193,340	$ 102,936	$ 97,384	$ 70,687	$ –	$ 464,347
Mine operating expenses	108,402	50,233	60,802	37,863	–	257,300
General and administration	–	–	–	–	8,240	8,240
Adjusted EBITDA	84,938	52,703	36,582	32,824	(8,240)	198,807
Depreciation, depletion and amortization	27,904	17,991	10,751	10,916	–	67,562
Adjusted EBIT	57,034	34,712	25,831	21,908	(8,240)	131,245
Settlement mark-to-market						61,758
Loss on foreign exchange						1,684
Interest expense						14,408
Impairment						311,828
Other expense, net						106
Income tax expense						(27,944)
Net loss						(230,595)
Capital expenditures	20,894	19,533	20,898	14,169	1,228	76,722
Exploration expenditures	–	–	–	–	–	12,837
Assets	362,380	294,872	114,761	84,779	(31,052)	825,740
Liabilities	(445,361)	(164,289)	(121,223)	(60,132)	452,509	(338,496)
Net assets (liabilities)	$ (82,981)	$ 130,583	$ (6,462)	$ 24,647	$ 421,457	$ 487,244

22. SUPPLEMENTAL CASH FLOWS INFORMATION

Accrued interest, accretion and other non-cash items consist of the following:

	December 31, 2019	December 31, 2018
Accrued interest and accretion on leases	$ 804	$ 803
Accretion of reclamation and rehabilitation provision	1,430	4,046
Accrued interest and accretion on debt	5,967	6,340
Accrued interest on reclamation bond	(138)	3,678
Decrease in reclamation and rehabilitation provision	(870)	–
	$ 7,193	$ 14,867

Non-cash investing and financing transactions:

	December 31, 2019	December 31, 2018
Due to related parties included in property, plant and equipment	$ –	$ (566)
Accounts payable and accrued liabilities included in property, plant and equipment	$ 6,549	$ 14,876

23. NON-CONTROLLING INTERESTS

	Perkoa Mine	Rosh Pinah Mine	Total
January 1, 2019	$ (23,103)	$ 18,133	$ (4,970)
Net (loss) income attributable to non-controlling interests	(2,592)	584	(2,008)
December 31, 2019	$ (25,695)	$ 18,717	$ (6,978)
January 1, 2018	$ (20,166)	$ 58,088	$ 37,922
Net loss attributable to non-controlling interests	(2,937)	(5,433)	(8,370)
Dividends paid to non-controlling interests	–	(2,991)	(2,991)
Share buy-back	–	(31,531)	(31,531)
December 31, 2018	$ (23,103)	$ 18,133	$ (4,970)

The Mining Convention between Nantou Mining and the Government of Burkina Faso, signed by the Minister of Mines of Burkina Faso on August 27, 2008, sets out the fiscal and legal terms with respect to the operation of the Perkoa Exploitation Permit, including taxation rates applicable to the project, per the 2003 Mining Code. The Convention is valid for 20 years commencing on the date of the grant and may be renewed for subsequent periods of five years. The Government of Burkina Faso holds a 10% interest in accordance with the Mining Code.

The payments of the 10% earnings to the Government of Burkina Faso shall only start once all investments have been recovered by the majority shareholder. As of December 31, 2019, no earnings are due to the Government of Burkina Faso.

On May 31, 2018, the Company's majority-owned operating subsidiary Rosh Pinah Zinc Corporation (Proprietary) Limited ("Rosh Pinah") in Namibia completed a partial share buy-back of issued Rosh Pinah shares under agreements with its Namibian shareholders for an aggregate amount of $23.1 million (net of transaction fees). The tendered shares were subsequently cancelled increasing the Company's effective beneficial ownership in Rosh Pinah from 80.1% to 90.0%.