TREVALI MINING CORPORATION

CONSOLIDATED FINANCIAL STATEMENTS

Year ended December 31, 2020 and 2019

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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, 2020 and 2019, 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, 2020 and 2019;
- 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 significant accounting policies and other explanatory information.

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.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the year ended December 31, 2020. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter	How our audit addressed the key audit matter
Impairment assessment of mine property, plant and equipment (PP&E) for the Caribou and Santander cash generating units (CGUs) *Refer to note 2 - Basis of preparation, note 3 - Significant accounting policies, note 5 - Impairments, and note 9 - Property, plant and equipment to the consolidated financial statements.* As at December 31, 2020, the total net book value of PP&E amounted to $382.3 million. When events or changes in circumstances indicate the carrying value of PP&E may not be recoverable, an impairment assessment is conducted at the level of the CGU (a group of assets that generate independent cash inflows). An impairment loss is recorded if the carrying amount of a CGU exceeds its recoverable amount. During the year, management identified impairment indicators for the Caribou and Santander CGUs. As a result, management performed an impairment assessment on the Caribou and Santander CGUs. The recoverable amounts of the CGUs were based on a fair value less cost of disposal method using projected after-tax cash flow models. The determination of the recoverable amounts included the following significant assumptions: zinc price, production volumes, operating costs, capital expenditures, and discount rates. Management's estimates of production volumes are based on information compiled by qualified persons (management's experts). During the year ended December 31, 2020, management recorded an impairment charge on PP&E amounting to $34.6 million related to the Caribou CGU and $59.1 million related to the Santander CGU.	Our approach to addressing the matter included the following procedures, among others: • Tested how management determined the recoverable amounts of PP&E related to the Caribou and Santander CGUs, which included the following: – Tested the appropriateness of the methods used by management. – Tested underlying data used in the discounted cash flow models. – Evaluated the reasonableness of significant assumptions by (i) comparing zinc prices with external market and industry data; (ii) comparing operating costs and capital expenditures to recent actual operating and capital expenditures incurred; and (iii) assessing whether these assumptions were consistent with evidence obtained in other areas of the audit. – The work of management's experts was used in performing the procedures to evaluate the reasonableness of the estimates associated with the production volumes. As a basis for using this work, the management's experts' competence, capability and objectivity were evaluated, their work performed was understood and the appropriateness of the experts' work as audit evidence was evaluated by considering the relevance and reasonableness of the assumptions and methods and findings. The procedures performed also included tests of relevant data used by management's experts. – Professionals with specialized skill and knowledge in the field of valuation assisted us in assessing the reasonableness of the discount rates used within the models.

Key audit matter	How our audit addressed the key audit matter
We considered this a key audit matter due to the significant audit effort and subjectivity in applying audit procedures to test significant assumptions used by management in determining the recoverable amounts, which involved significant judgment from management. We were also assisted by professionals with specialized skill and knowledge in the field of valuation.	• Tested the disclosures, including the sensitivity analysis, made in the consolidated financial statements with regard to the impairment assessment of PP&E for the Caribou and Santander CGUs.
Impairment assessment of exploration and evaluation (E&E) assets *Refer to note 2 – Basis of preparation, note 3 – Significant accounting policies, note 5 - Impairments, and note 8 – Exploration and evaluation assets to the consolidated financial statements.* As at December 31, 2020, the value of E&E assets amounted to $28.6 million. When impairment indicators for E&E assets exist, an impairment assessment is conducted for the asset. An impairment loss is recognized if the carrying amount of the asset exceeds its recoverable amount. During the year, management identified impairment indicators for the near mine E&E assets for Caribou and Santander, as well as for the Halfmile, Restigouche, Heath Steele and Gergarub assets. As a result, management performed an impairment assessment on these assets, writing off the near mine E&E assets for Caribou and Santander in full, and writing off the Restigouche and Heath Steele assets in full as these assets were no longer considered commercially viable. The recoverable amounts for the Halfmile and Gergarub assets were based on a fair value less cost of disposal method, using a price per pound of zinc equivalent resources observed for publicly traded zinc exploration and development companies. The determination of the recoverable amounts included the following significant assumptions: zinc price,	Our approach to addressing the matter included the following procedures, among others: • Tested how management determined the recoverable amounts of E&E assets, which included the following: – Tested the appropriateness of the methods used by management. – Tested underlying data used in the models. – Evaluated the reasonableness of significant assumptions by (i) comparing future metal prices with external market and industry data; and (ii) comparing zinc exploration and development company data used by management to publicly available information. – The work of management's experts was used in performing the procedures to evaluate the reasonableness of the estimates associated with the quantity and grade of recoverable reserves and resources. As a basis for using this work, the management's experts' competence, capability and objectivity were evaluated, their work performed understood and the appropriateness of the experts' work as audit evidence was evaluated by considering the relevance and reasonableness of the assumptions and methods and findings. The procedures performed also included tests of relevant data used by management's experts.

Key audit matter	How our audit addressed the key audit matter
quantity and grade of recoverable reserves and resources, market capitalization for a selection of publicly traded zinc exploration and development companies, and quantity and grade of recoverable reserves and resources for a selection of publicly traded zinc exploration and development companies. Management's estimates of the quantity and grade of recoverable resources are based on information compiled by qualified persons (management's experts). During the year ended December 31, 2020, management recorded an impairment charge on E&E assets amounting to $3.9 million related to Caribou, $7.7 million related to Santander, $41.8 million related to Halfmile, $14.2 million related to Restigouche and Heath Steele, and $31.5 million related to Gergarub. We considered this a key audit matter due to the significant audit effort and subjectivity in applying audit procedures to test significant assumptions used by management in determining the recoverable amounts, which involved significant judgment from management.	• Tested the disclosures made in the consolidated financial statements with regard to the impairment assessment of E&E.

Other information

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

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

In connection with our 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.

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

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

/s/PricewaterhouseCoopers LLP

Chartered Professional Accountants

Vancouver, British Columbia
February 24, 2021

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

	Notes		December 31, 2020		December 31, 2019
ASSETS					
Current					
Cash and cash equivalents		$	33,500	$	24,468
Restricted cash			170		85
Settlement and other receivables	**6**		63,231		55,866
Prepaids			3,322		3,837
Inventories	**7**		41,529		44,460
			141,752		128,716
Reclamation bonds and other			9,433		8,640
Value-added taxes receivable			9,966		11,373
Investment and advances			–		158
Exploration and evaluation assets	**8**		28,579		123,325
Property, plant and equipment	**9**		382,294		472,358
		$	572,024	$	744,570
LIABILITIES AND SHAREHOLDERS' EQUITY					
Liabilities					
Current					
Accounts payable and accrued liabilities	**10**	$	51,866	$	67,075
Warrant liability	**11**		4,395		–
Debt	**12**		16,840		11,850
			73,101		78,925
Debt	**12**		121,692		66,758
Reclamation and rehabilitation provisions	**13**		62,886		48,133
Other provisions			3,136		2,965
Deferred income taxes	**19**		85,046		99,340
			345,861		296,121
Shareholders' equity					
Share capital	**14**		771,470		748,731
Other reserves	**15**		18,739		18,158
Deficit			(503,642)		(264,315)
Accumulated other comprehensive loss			(47,147)		(47,147)
			239,420		455,427
Non-controlling interests	**16**		(13,257)		(6,978)
			226,163		448,449
		$	572,024	$	744,570

Commitments and contingencies (Note 24)
Subsequent events (Note 25)

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, 2020 and 2019

	Notes	2020	2019
REVENUES	**17**	$ 212,884	$ 386,110
MINE OPERATING EXPENSES			
Production		152,265	232,770
Distribution		18,482	28,235
Royalties		5,835	9,580
Care and maintenance		7,351	–
Depreciation, depletion and amortization		49,886	84,808
		233,819	355,393
GROSS (LOSS) PROFIT		**(20,935)**	**30,717**
General and administrative		7,790	8,096
Share-based payments	**15**	2,201	565
Operating (loss) profit		**(30,926)**	**22,056**
OTHER			
Settlement mark-to-market loss		1,534	23,485
Mark-to-market loss on financial instruments		7,318	–
Loss on foreign exchange		2,470	2,458
Interest expense	**18**	10,262	8,280
Restructuring expense		5,428	7,550
Impairments	**5**	197,008	3,662
Other expense (income)		3,866	(2,078)
Loss before taxes		**(258,812)**	**(21,301)**
Current income taxes expense	**19**	1,088	11,079
Deferred income taxes (recovery) expense	**19**	(14,294)	3,031
NET LOSS		**$ (245,606)**	**$ (35,411)**
Other comprehensive loss			
Unrealized loss on investments in equity securities		–	(381)
TOTAL COMPREHENSIVE LOSS		**(245,606)**	**(35,792)**
Owners of Trevali		$ (239,327)	$ (33,403)
Non-controlling interests	**16**	(6,279)	(2,008)
		$ (245,606)	**$ (35,411)**
Loss per share			
Basic and diluted		$ (0.30)	$ (0.04)
Weighted average number of shares outstanding	**(000's)**		
Basic and diluted		817,341	812,958

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

TREVALI MINING CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Expressed in thousands of United States Dollars)
Years Ended December 31, 2020 and 2019

	Notes	2020	2019
OPERATING ACTIVITIES			
Net loss		$ (245,606)	$ (35,411)
Items not affecting cash:			
Depreciation, depletion and amortization		49,886	84,808
Share-based payments		2,335	565
Unrealized mark-to-market loss on financial instruments		4,402	–
Unrealized loss on foreign exchange		4,684	143
Accrued interest, accretion and other non-cash items	**21**	11,615	7,193
Deferred income tax (recovery) expense		(14,294)	3,031
Impairments		197,008	3,662
Loss on disposal of plant and equipment		467	–
Operating cash flows before working capital changes		10,497	63,991
Restricted cash		(85)	1,132
Settlement and other receivables		(17,244)	24,402
Prepaids		515	2,405
Inventories		750	11,867
Accounts payable and accrued liabilities		(22,200)	13,021
Value-added taxes receivable		11,322	(4,899)
Net cash (used in) from operating activities		(16,494)	111,919
INVESTING ACTIVITIES			
(Increase) decrease in reclamation bonds		(180)	85
Proceeds on disposal of plant and equipment		521	–
Purchase of plant and equipment		(43,840)	(67,233)
Exploration and evaluation asset expenditures		(4,278)	(10,300)
Net cash used in investing activities		(47,777)	(77,448)
FINANCING ACTIVITIES			
Share units settled in cash		(106)	(342)
Net drawdown (repayment) on revolving credit facility		38,900	(69,500)
Drawdown on Glencore facility		13,001	–
Net drawdown on other facilities		7,768	7,822
Interest payments		(6,249)	(4,938)
Lease payments		(4,755)	(5,251)
Equity financing, net of transaction costs		25,119	–
Normal Course Issuer Bid		–	(3,224)
Net cash from (used in) financing activities		73,678	(75,433)
Effect of foreign exchange on cash		(375)	(32)
Increase (decrease) in cash and cash equivalents		9,032	(40,994)
Cash and cash equivalents, beginning of the year		24,468	65,462
Cash and cash equivalents, end of the year		$ 33,500	$ 24,468

Supplemental Cash Flow Information (Note 21)

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)

	Notes	Number of shares	Share capital	Other reserves	Deficit	Accumulated other comprehensive loss	Non-controlling interests	Total equity
December 31, 2019		802,561,585	$ 748,731	$ 18,158	$ (264,315)	$ (47,147)	$ (6,978)	$ 448,449
Net loss and total comprehensive loss		–	–	–	(239,327)	–	(6,279)	(245,606)
Share-based payments	15	–	–	687	–	–	–	687
Shares issued in equity financing	14	186,530,000	22,739	–	–	–	–	22,739
Shares issued on exercise of warrants	11	1,000	–	–	–	–	–	–
Share units settled in cash		–	–	(106)	–	–	–	(106)
December 31, 2020		**989,092,585**	**$ 771,470**	**$ 18,739**	**$ (503,642)**	**$ (47,147)**	**$ (13,257)**	**$ 226,163**
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		(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**

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

(Expressed in thousands of United States Dollars except for share and per share amounts)

1. DESCRIPTION OF BUSINESS AND NATURE OF OPERATIONS

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., V6C 2W2, 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 and the Santander mine in Peru. Operations at the Caribou mine in New Brunswick, Canada were suspended and the mine was placed on care and maintenance effective March 26, 2020; on January 15, 2021, the Company announced that the operations were being restarted with first payable zinc production expected by the end of March 31, 2021. In addition, Trevali owns the Halfmile project and Restigouche polymetallic deposit 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:

		Ownership		
Legal name	**Country**	**2020**	**2019**	**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 24, 2021.

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, 2020 and 2019.

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 prices (considering current and historical prices, price trends and related factors), operating and capital costs, discount rates, foreign exchange rates, closure and rehabilitation costs, estimated life-of-mines, mineral reserves and resources including exploration potential and operating performance (which includes production and sales volumes). 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"). Such circumstances 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 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, forecast the timing of the payment of reclamation and remediation costs and perform impairment or impairment reversal testing to review the carrying values of assets and/or CGUs.

There are numerous uncertainties inherent in estimating 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

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, 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.

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.

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 the consolidated statement of operations.

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.

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") and/or straight-line basis as follows:

Buildings and infrastructure	10 – 25 years
Mine development	UOP
Equipment and other	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.

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. Expenditures on major maintenance or repairs includes the cost of replacement parts of assets and overhaul costs. 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 to the assets of the unit pro-rata relative to the carrying amount of each asset in the unit.

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.

Leases

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.

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 and how changes in value are recorded. Cash and cash equivalents are measured 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 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.

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 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 mine operating expenses.

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.

Share-based payments

Performance share units, deferred share units and restricted share units

Share-based payment expense relating to cash-settled awards, including deferred share units (“DSUs”) and performance share units (“PSUs”), is accrued over the vesting period of the units. As these awards will be settled in cash, the expense and liability are remeasured to fair value at each reporting period until settlement.

Stock options

The cost of equity-settled share-based payment arrangements, such as stock options, 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.

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.

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.

Settlement receivables 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.

4. COVID-19 ESTIMATION UNCERTAINTY

In March 2020, the World Health Organization declared a global pandemic related to COVID-19. To date there has been significant volatility in commodity and foreign exchange markets, restrictions on the conduct of business in many jurisdictions and disruption in stock markets while the global movement of people and some goods has become restricted.

Operational uncertainty and depressed commodity prices were key factors in the impairments of property, plant and equipment and exploration and evaluation assets recorded as at March 31, 2020. The temporary suspension of operations at Santander for a period of time during 2020 as a direct result of COVID-19 cases and restrictions on the movement of people resulted in inefficiencies and affected financial results.

There is significant ongoing uncertainty surrounding COVID-19 and the extent and duration of the impacts that it may have on the demand and the price of zinc and lead, suppliers, employees and on global financial markets. The Company continues to follow published guidance from governments and public health authorities to protect the safety and health of our employees, contractors and the communities in which we operate, while closely monitoring any potential impact on the Company's operations that may include the operating plans and production, supply chain or maintenance activities.

(Expressed in thousands of United States Dollars except for share and per share amounts)

5. IMPAIRMENTS

The Company reviewed its plant and equipment and exploration and evaluation assets at the cash-generating unit ("CGU") level to determine whether there is any indication that these assets are impaired.

The following factors were considered impairment indicators as of March 31, 2020:

- The operational plan for Caribou changed significantly when it was placed on care and maintenance on March 26, 2020; and
- The deterioration in the near-term zinc price outlook resulted in an adverse change to Santander's economics, whose carrying value approximated the estimated recoverable amount as at December 31, 2019.

The following factor was considered an impairment indicator as of December 31, 2020:

- Following the completion of studies in December 2020, the life-of-mine plan for Santander was revised with mining operations at the Magistral deposit scheduled to complete at the end of 2021 and the economic feasibility of the Santander Pipe was re-evaluated. The Santander operation is expected to transition into an exploration phase to focus on the discovery and definition of new mineralization to complement existing mineral resources.

As a result of the impairment indicators identified above, the recoverable amounts of the Caribou and Santander CGUs were estimated and compared against their respective carrying values.

In addition, the carrying values of exploration and evaluation assets that would be dependent on processing ore at the Caribou mill and the Company's interest in the Gergarub project have also been reviewed for impairment (Notes 8 and 9).

No impairment reversal indicators were identified during the year ended December 31, 2020.

The following impairment charges related to the year ended December 31, 2020 were recognized to record the CGUs and exploration and evaluation assets at their estimated recoverable amounts.

	Year ended December 31,	
	2020	**2019**
Property, plant and equipment (Note 9)		
Caribou	34,641	–
Santander	59,134	–
Exploration and evaluation assets (Note 8)	99,112	917
Inventory	4,000	–
Investments	121	2,745
Impairment	$ 197,008	$ 3,662
Deferred income tax recovery	(15,984)	–
Impairment, net	$ 181,024	$ 3,662

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

(Expressed in thousands of United States Dollars except for share and per share amounts)

Caribou

On March 26, 2020, the Company announced that the Caribou mine would suspend operations and commence a care and maintenance program, effective immediately. The change to the operational mine plan resulted in a total $42.5 million impairment (comprised of $34.6 million in property, plant and equipment, $4.0 million of inventory and $3.9 million of near-mine exploration and evaluation assets) to its estimated recoverable amount of $12.6 million. The valuation remains sensitive to the key assumptions used and a further appreciation/ deterioration in the pricing outlook, increases/ decreases to reserves and resources or changes to assumptions about when operations could restart, may result in additional impairment/ impairment reversal. It is estimated that a change of $0.05 per pound in the long-term price of zinc assumption (keeping all other assumptions constant) would result in an additional impairment or impairment reversal of $12.6 million.

Santander

During Q1 2020, the Company's near-term zinc price assumptions were revised as a direct result of the decline in the zinc price caused by COVID-19. Additionally, cash preservation initiatives resulted in feasibility activities related to the Santander Pipe being deferred and as such a delay in production from this potential source of ore has been incorporated into the estimate of recoverable amount. These changes resulted in a net $19.0 million impairment ($15.5 million property, plant and equipment write-down and $7.7 million near-mine exploration and evaluation assets net of a $4.2 million deferred income tax recovery) to its estimated recoverable amount of $17.3 million.

Following the completion of studies in December 2020, the life-of-mine plan for Santander was revised with mining operations at the Magistral deposit scheduled to complete at the end of 2021 and the economic feasibility of the Santander Pipe was re-evaluated because of updated capital and operating expenditure estimates and the possible development timeline. The Santander operation is expected to transition into an exploration phase to focus on the discovery and definition of new mineralization to complement existing mineral resources. As a result, a total impairment of $43.6 million to property, plant and equipment was recognized to its estimated recoverable amount of negative $10.2 million (the recoverable value of the Santander CGU is negative because the outflows associated with closure costs is included in the cash flow projection).

The valuation remains sensitive to the key assumptions used and further appreciation/ deterioration in the pricing outlook, increases/ decreases to reserves and resources or changes to the economic feasibility of the Santander Pipe may result in additional impairment/ impairment reversal. It is estimated that a change of $0.05 per pound in the zinc price assumption for 2021 (keeping all other assumptions constant) would result in an additional impairment or impairment reversal of $2.5 million.

The Company's impairment testing of property, plant and equipment and near-mine exploration and evaluation assets incorporated the following key assumptions:

a) *Zinc price*

Forecast 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, consistent with external sources.

	December 31, 2020		**March 31, 2020**			**December 31, 2019**		
	2021	**Long term (2022+)**	**2020**	**2021**	**Long term (2022+)**	**2020**	**2021**	**Long term (2022+)**
Zinc ($ per lb)	1.15	1.10	0.98	1.13	1.14	1.15	1.15	1.14

b) *Production volumes*

Estimated production volumes and timing are based on life-of-mine plans and internal management forecasts and consider the long-term development plans and expectations for the mines. 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 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 costs (include care and maintenance costs) 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 for the Caribou and Santander CGUs were discounted using real post-tax discount rates of 8% (2019: 8%). 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.

Halfmile, Restigouche and the Heath Steele Option

The Company performed a valuation review of its interests in exploration and evaluation assets in the Bathurst Mining Camp following the decision to place Caribou under care and maintenance. As a result, the following impairments were recognized against exploration and evaluation assets in addition to the impairment of near mine exploration and evaluation assets described above:

- $41.8 million relating to Halfmile following a valuation review. The FVLCD is based on a price per pound of zinc equivalent resources observed for publicly traded zinc exploration and development companies and its determination uses Level 3 inputs.
- $14.2 million representing the full carrying value of its option over the Heath Steele property and its interest in the Restigouche project which are no longer considered commercially viable.

Gergarub

The Company performed a valuation review of its interest in the Gergarub project following the suspension of operations at the nearby Skorpion Zinc mine, holder of a 51% interest in the Gergarub project, and the adverse change to the business environment caused by COVID-19. As a result, a net $19.7 million impairment ($31.5 million exploration and evaluation assets and $11.8 million deferred income tax recovery) to its estimated recoverable amount of $5.7 million was recognized. The FVLCD is based on a price per pound of zinc equivalent resources observed for publicly traded zinc exploration and development companies and its determination uses Level 3 inputs.

The impairment testing of the Halfmile property and Gergarub project incorporated the following key assumptions:

a) *Contained resources related to the Halfmile property and Gergarub project and for comparable publicly traded zinc exploration and development companies*

Contained zinc equivalent resources have been based on the most recent NI 43-101 compliant resource estimates disclosed for the Halfmile property and historic resources for Gergarub.

(Expressed in thousands of United States Dollars except for share and per share amounts)

b) *Comparable publicly traded zinc exploration and development companies, their related market capitalization and contained resources*

A peer group of publicly traded zinc exploration and development companies was identified based on owning exploration and/or development properties with meaningful zinc resources that are similar to the Halfmile property and Gergarub project. The selected zinc equivalent resources dollar per pound multiple was based on the average of the peer group's trading multiple, calculated as market capitalization divided by the zinc equivalent resources. The average was selected to account for differences in anticipated time to production, resource certainty, grades, size and proximity to operating mines and their associated infrastructure.

6. SETTLEMENT AND OTHER RECEIVABLES

		December 31, 2020		December 31, 2019
Settlement receivables	$	51,311	$	32,472
Sales tax and income taxes		11,601		21,964
Other		319		1,430
	$	63,231	$	55,866

Settlement receivables and sales tax and income taxes include $15.5 million (2019 – $nil) and $nil (2019 – $9.8 million), respectively, of settlement receivables and value-added taxes ("VAT") receivable in Burkina Faso that are subject to factoring arrangements.

The Company has transferred the relevant receivables in exchange for cash and is prevented from pledging the receivables. However, since the Company has retained the risk of late payment and recoverability, the Company continues to recognize the transferred accounts receivables in their entirety. The amounts repayable under each of the factoring arrangements are recorded as debt and disclosed in Note 12.

7. INVENTORIES

		December 31, 2020		December 31, 2019
Mineralized stockpiles	$	7,647	$	5,358
Concentrates				
Site		2,169		3,409
In-transit		2,386		4,234
Port		5,329		1,536
Materials and supplies		23,998		29,923
	$	41,529	$	44,460

8. EXPLORATION AND EVALUATION ASSETS

		Perkoa Mine, Burkina Faso		Gergarub and other, Namibia		Halfmile, Stratmat and other, Canada		Santander, Peru		Total
January 1, 2019	$	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 5)		–		–		(917)		–		(917)
January 1, 2020	$	7,568	$	41,071	$	66,514	$	8,172	$	123,325
Additions		1,336		645		336		1,961		4,278
Change in reclamation and rehabilitation provision		–		–		88		–		88
Impairment (Note 5)		–		(31,524)		(59,931)		(7,657)		(99,112)
December 31, 2020	$	8,904	$	10,192	$	7,007	$	2,476	$	28,579

(Expressed in thousands of United States Dollars except for share and per share amounts)

9. PROPERTY, PLANT AND EQUIPMENT

	Buildings and infrastructure	Mine development	Equipment and other	Total
Net book value				
January 1, 2020	$ 124,270	$ 271,816	$ 76,272	$ 472,358
Additions	7,107	19,605	16,081	42,793
Disposals	–	–	(988)	(988)
Depreciation	(20,675)	(18,163)	(12,868)	(51,706)
Impairment (Note 5)	(18,189)	(55,300)	(20,286)	(93,775)
Reclassifications	11,601	(4,654)	(6,575)	372
Change in reclamation and rehabilitation provision	–	13,240	–	13,240
December 31, 2020	$ 104,114	$ 226,544	$ 51,636	$ 382,294
Gross carrying value	$ 247,295	$ 629,432	$ 126,826	$ 1,003,553
Accumulated depreciation and impairment	$ (143,181)	$ (402,888)	$ (75,190)	$ (621,259)

Equipment and other includes expenditure for construction in progress of $11.8 million.

	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	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)

The net book value of right-of-use assets included in property, plant and equipment relates to the following types of assets:

	December 31, 2020	**December 31, 2019**
Buildings and infrastructure	$ 1,830	$ 2,407
Equipment and other	5,662	6,269
Total right-of-use assets	$ 7,492	$ 8,676

10. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

	December 31, 2020	**December 31, 2019**
Trade payables	$ 31,508	$ 43,835
Accrued payroll and other	12,002	15,636
Forward swaps and put options	4,084	–
DSU and PSU liability	1,648	–
Corporate income taxes	668	871
Burkina Faso royalty payable	936	1,718
Burkina Faso community payable	857	4,887
Due to related parties	23	73
Other	140	55
	$ 51,866	$ 67,075

(Expressed in thousands of United States Dollars except for share and per share amounts)

11. WARRANT LIABILITY

On December 2, 2020, the Company closed a unit offering (the "Offering") whose units included 93,265,000 common share purchase warrants (the "Warrants"), each with an exercise price of C$0.23 and expiry date of June 2, 2022 (Note 14).

The Warrants are classified as a warrant liability under the principles of IFRS 9 – *Financial instruments*, as the Warrants are considered a derivative financial instrument given that their exercise price is fixed in Canadian dollars while the functional currency of the Company is the US dollar. Accordingly, the outstanding Warrants are remeasured to fair value at each reporting date with changes in the fair value recorded to mark-to-market loss on financial instruments in the statement of operations.

The warrant liability was initially valued at $2.5 million, determined by the TSX-listed trading price on December 2, 2020. For the year ended December 31, 2020, the Company recognized a $1.9 million loss on revaluation of the warrant liability.

Warrant transactions are as follows:

	Number of Warrants
Granted – December 2, 2020	93,265,000
Exercised	(1,000)
December 31, 2020	93,264,000

12. DEBT

		December 31, 2020		December 31, 2019
Revolving credit facility, net of fees	$	104,287	$	63,730
Glencore facility, net of fees		12,707		–
Other loans		3,810		–
VAT factoring facility (Note 6)		–		7,822
Receivables factoring facility (Note 6)		12,650		–
		133,454		71,552
Leases		5,078		7,056
Total debt	$	138,532	$	78,608
Current		16,840		11,850
Non-current	$	121,692	$	66,758

Revolving credit facility

The Company has a credit agreement with a syndicate of lenders for a revolving credit facility (the "Facility") bore 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 with commitment fees for the undrawn portion of the Facility also on a sliding scale between 0.45% to 0.68% until a series of financial covenant waivers were obtained beginning on March 31, 2020. From April 1, 2020 until August 6, 2020, the amount available under the Facility was temporarily decreased from $275.0 million to $125.0 million, the Facility bore interest at a rate of LIBOR plus 4.0% with commitment fees for the undrawn portion of the Facility of 0.9%.

On August 6, 2020, certain terms of the Facility were amended, including an increase of the amount available under the Facility from $125.0 million to $135.0 million, a permanent reduction in the size of the Facility from $275.0 million to $150.0 million, an increase in the interest rate and commitment fees payable to LIBOR plus 5.5% and 1.3% respectively, the elimination of the minimum liquidity covenant and an additional requirement to make debt repayments based on excess cash generated. Maturity for the Facility remains unchanged as September 18, 2022. These amendments to the Facility constituted a substantial modification of the Facility and resulted in the de-recognition of the original Facility. The new Facility was recorded at fair value and consequently a non-cash loss on extinguishment of $2.5 million and was recorded to other expense.

(Expressed in thousands of United States Dollars except for share and per share amounts)

The Company has letters of credit, issued under the Facility, totaling $5.0 million to support $2.5 million in various reclamation bonding requirements for the Caribou mine and to provide $2.5 million of financial security toward power transmission payments related to the Santander mine.

The amount available to the Company under the Facility as of December 31, 2020 was $24.1 million.

Glencore facility

On August 6, 2020, the Company entered into a second lien secured facility agreement with Glencore up to a maximum of $20.0 million (the “Glencore Facility”). Under the terms of the agreement, Glencore would advance to the Company amounts equal to the volume of dry metric tonnes of zinc concentrate delivered to Glencore in a given month, up to December 2020, multiplied by the difference between the annual benchmark treatment charge (“TC”) and the average monthly spot TC.

Advances under the Glencore Facility were applicable to deliveries of zinc concentrate between June 2020 and December 2020. Amounts outstanding under the Glencore Facility bear interest at the same rate as the Facility. The Glencore Facility ranks subordinate to the Facility and has a maturity date of September 18, 2022.

The Glencore Facility was reduced by $7.0 million as part of Glencore’s contribution to the Offering on December 2, 2020, including a resulting repayment of $1.8 million on the facility. The amount available to the Company under the Glencore Facility as of December 31, 2020 was nil as the full $13.0 million limit under the agreement has been drawn.

Other loans

In June 2020, the Company received a $2.9 million loan for working capital requirements under the Peruvian government-backed liquidity program launched in response to the COVID-19 pandemic. The loan bears interest at 1.15% and is repayable over a 24-month period beginning in June 2021. In addition, Santander has drawn down $1.0 million on a 90-day revolving loan with a local financial institution in August 2020 that was renewed subsequently.

Financial guarantee

In addition to the guarantees linked to the Facility, Trevali has also arranged a $11.5 million financial guarantee to support reclamation bonding requirements with its Santander mine and a $5.2 million surety bond to support reclamation bonding requirements with its Caribou mine.

Lease liabilities

		December 31, 2020		**December 31, 2019**
Contractual undiscounted cash flows				
Less than one year	$	2,974	$	4,697
One to four years		2,842		2,789
Total undiscounted lease liabilities	$	5,816	$	7,486
Lease liabilities included in the statement of financial position				
Current	$	2,455	$	4,028
Non-current		2,623		3,028
	$	5,078	$	7,056

During the year ended December 31, 2020, the Company recorded interest expense related to lease liabilities of $0.6 million (2019: $0.8 million) in the statement of operations.

(Expressed in thousands of United States Dollars except for share and per share amounts)

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 provisions are as follows:

	Undiscounted liability for closure	Pre-tax discount rate	Inflation factor	Present value of cash flow required on closure
Perkoa	$ 15,017	6.5%	1.8%	$ 13,116
Rosh Pinah	5,848	8.8%	4.5%	3,455
Caribou	27,861	0.7%	1.5%	30,734
Santander	14,309	0.4%	1.7%	14,980
Halfmile	570	1.2%	1.5%	601
	$ 63,605			$ 62,886

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

	Year ended December 31, 2020	Year ended December 31, 2019
Beginning of the year	$ 48,133	$ 46,727
Accretion	1,152	1,455
Change in discount rate	3,552	(88)
Change in estimates	9,668	(935)
Change in foreign exchange rates	381	974
End of the year	$ 62,886	$ 48,133

14. SHARE CAPITAL

Authorized: Unlimited number of common shares without par value.

On December 2, 2020, the Company closed the Offering of 186,530,000 units (each, a "Unit") at a price of C$0.185 per Unit for aggregate gross proceeds of $26.6 million (C$34.5 million), which includes the exercise of the full over-allotment option of 24,330,000 Units. Each Unit is comprised of one common share (each, a "Common Share") and one-half of one Warrant, with each Warrant entitling the holder thereof to acquire one Common Share at a price of C$0.23 until June 2, 2022. Glencore plc ("Glencore") exercised its pre-emptive participation rights in the Offering to purchase 49,000,000 Units.

The Warrants were recognized at fair value with the remaining consideration allocated to the Common Shares on a residual basis. Transaction costs incurred in the Offering have been allocated to each component in the same proportion as the consideration was allocated. As conversion of the Warrants will happen in a currency other than the functional currency of the Company, the conversion amount is variable and considered a derivative liability not eligible for equity classification (Note 11).

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.

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. On March 26, 2020, the Company announced that the NCIB program had been cancelled with no shares having been repurchased and/or cancelled under the renewed NCIB.

(Expressed in thousands of United States Dollars except for share and per share amounts)

15. OTHER RESERVES

Share-based payment reserve

Stock options

As at December 31, 2020 and December 31, 2019, the Company had outstanding stock options enabling the holders to acquire common shares as follows:

	December 31, 2020			**December 31, 2019**		
Expiry date	Exercise price (C$)	Number of options	Vested and exercisable	Exercise price (C$)	Number of options	Vested and exercisable
January 30, 2020	–	–	–	$1.03	1,892,630	1,892,630
June 1, 2021	$0.45	1,576,600	1,576,600	$0.45	2,316,000	2,316,000
January 20, 2022	$1.21	625,100	625,100	$1.21	910,500	910,500
August 31, 2022	$1.59	427,890	427,890	$1.59	475,970	317,313
January 23, 2023	$1.52	798,400	532,264	$1.52	1,174,800	391,599
January 23, 2023	$0.90	200,300	133,533	$0.90	200,300	66,767
April 10, 2024	$0.47	1,984,400	661,461	$0.47	2,844,900	–
March 10, 2025	$0.17	21,067,017	-	–	–	–
	$0.30	26,679,707	3,956,848	$0.83	9,815,100	5,894,809

At December 31, 2020, the weighted average remaining contractual life of the stock options was 3.7 years (December 31, 2019 – 2.3 years).

Stock option transactions are as follows:

	2020		**2019**	
	Number of options	Weighted average exercise price (C$)	Number of options	Weighted average exercise price (C$)
January 1	9,815,100	$0.83	10,016,534	$1.00
Granted	25,982,632	$0.17	3,475,800	$0.47
Forfeited	(5,306,242)	$0.20	(753,616)	$0.69
Expired	(3,811,783)	$0.90	(2,923,618)	$1.03
December 31	26,679,707	$0.30	9,815,100	$0.83

On March 10, 2020, the Company granted 25,649,115 stock options with an exercise price of C$0.17 per share. On May 15, 2020, the Company granted a further 333,517 stock options with an exercise price of C$0.17 per share. All stock options granted are exercisable for a period of five years with a three-year vesting period and the aggregate of the estimated fair value of the stock options at the time of grant was $1.7 million.

During the year ended December 31, 2020, the Company recorded $0.7 million in share-based payment expense (2019 – $0.5 million) related to stock options.

The fair value of stock options granted was estimated using the Black-Scholes option pricing model with the following weighted average calculations:

	December 31, 2020	**December 31, 2019**
Risk-free interest rate	1.29%	1.59%
Expected life of options	5 years	5 years
Annualized volatility	70.05%	66.74%
Dividend rate	Nil	Nil
Forfeiture rate	7.45%	4.92%

Warrants

There were 714,560 warrants outstanding during 2019 and 2020 with an exercise price of C$0.35 which expired, unexercised, on December 31, 2020.

(Expressed in thousands of United States Dollars except for share and per share amounts)

Performance share units ("PSUs"), deferred share units ("DSUs") and restricted share units ("RSUs")

During the year ending December 31, 2020, Trevali recorded $1.5 million in share-based payment expense (2019 – $0.1 million) related to the incentive plan for the grant of PSUs, RSUs and DSUs.

During the year ended December 31, 2020, the Company granted PSUs to selected employees. Defined performance-based criteria determine the vesting number of PSUs which vest as follows:

- 12,836,989 PSUs vest March 10, 2022 (the second anniversary of the grant date, with a performance period that covers the period from January 1, 2019 to December 31, 2021); and
- 17,018,732 PSUs vest March 10, 2023 (the third anniversary of the grant date, with a performance period that covers the period from January 1, 2020 to December 31, 2022).

Performance of the PSUs is measured as the total shareholder return of the Company in relation to a defined group of peer companies. An adjustment factor is determined based on this relative performance and resulting market position at the vesting date. A resulting cash settlement is paid, calculated with reference to both the share price at vesting and the adjustment factor.

PSU, DSU and RSU transactions are summarized as follows:

	PSUs		**DSUs**		**RSUs**	
	Number of units	Fair value (C$)	Number of units	Fair value (C$)	Number of units	Fair value (C$)
January 1, 2019	–	–	719,260	$1.00	1,138,528	$1.40
Granted	1,428,572	$0.35	1,300,325	$0.43	1,925,963	$0.47
Forfeited	(714,286)	$0.35	–	–	(459,905)	$0.71
Redeemed	–	–	(1,179,360)	$0.73	(466,182)	$0.33
December 31, 2019	714,286	$0.35	840,225	$0.50	2,138,404	$0.94
Granted	29,855,721	$0.04	6,186,278	$0.11	–	–
Forfeited/ cancelled	(2,597,418)	$0.04	–	–	(244,965)	$0.13
Redeemed	(18,494)	$0.04	–	–	(990,756)	$0.15
December 31, 2020	27,954,095	$0.11	7,026,503	$0.20	902,683	$0.20

16. NON-CONTROLLING INTERESTS

		Perkoa	**Rosh Pinah**	**Total**
January 1, 2020	$	(25,695)	18,717	(6,978)
Net loss attributable to non-controlling interests		(4,329)	(1,950)	(6,279)
December 31, 2020		(30,024)	16,767	(13,257)

The Mining Convention between Nantou Mining and the Government of Burkina Faso (the "Convention"), 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, 2020, no earnings are due to the Government of Burkina Faso.

(Expressed in thousands of United States Dollars except for share and per share amounts)

17. REVENUES

		Zinc		Lead–Silver		Total
Year ended December 31, 2020						
Concentrate sales	$	316,217	$	34,799	$	351,016
Smelting and refining costs		(129,359)		(8,773)		(138,132)
Revenues	$	186,858	$	26,026	$	212,884
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

A fixed zinc pricing arrangement was entered into in November 2019 for 70% of the zinc concentrate produced at Caribou and Santander for the six-month period covering December 2019 to May 2020 at a price of $1.10 per pound. Caribou was placed on a care and maintenance program on March 26, 2020, which resulted in zinc concentrate not being delivered into the above fixed-pricing arrangement for April and May 2020 and the arrangement was financially settled resulting in a $2.3 million benefit that has been recorded to other income. Additionally, as a direct result of COVID-19 and suspension of milling and transportation at Santander in April, less zinc concentrate was produced at Santander during April and May 2020 than was agreed to be delivered as part of the fixed-pricing arrangement, resulting in the financial settlement of a $0.8 million benefit that has been recorded to other income.

18. INTEREST EXPENSE

	Note	Year ended December 31,			
			2020		2019
Debt	12	$	7,602	$	5,967
Factoring facilities			927		79
Leases			581		804
Accretion on reclamation and rehabilitation provision	13		1,152		1,430
		$	10,262	$	8,280

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, 2020		December 31, 2019
Loss before income tax	$	(258,812)	$	(21,301)
Canadian statutory rate		27%		27%
Expected income tax recovery		(69,880)		(5,751)
Increase (decrease) due to:				
Non-deductible expenses		6,339		4,234
Impairments and losses for which no tax benefit has been recorded		54,856		8,914
New Brunswick Mining Tax (current and deferred)		28		784
Amounts (over) under provided for in prior years		(497)		74
Differences between foreign and Canadian tax rates		(5,726)		2,676
Foreign exchange on translation		5,270		911
Changes in Canadian provincial tax rates		(2,483)		(350)
Withholding tax		485		3,044
Use of previously unrecognized tax assets		(1,598)		(426)
Income tax (recovery) expense	$	(13,206)	$	14,110

(Expressed in thousands of United States Dollars except for share and per share amounts)

Income tax (recovery) expense consists of the following:

	December 31, 2020	December 31, 2019
Current income tax	$ 1,088	$ 11,079
Deferred income tax (recovery) expense	(14,294)	3,031
	$ (13,206)	$ 14,110

The components of recognized net deferred tax liabilities as at December 31, 2020 and 2019, are as follows:

	December 31, 2020	December 31, 2019
Non-capital losses carried forward	$ 569	$ 7,807
Reclamation and rehabilitation provision	572	502
Book value in excess of tax value of property, plant and equipment	(82,433)	(108,983)
Other current assets and liabilities	(3,754)	1,334
Net deferred tax liabilities	$ (85,046)	$ (99,340)

The deferred tax assets and liabilities as at December 31, 2020 and 2019, are presented as follows:

	December 31, 2020	December 31, 2019
Deferred income tax assets	$ –	$ –
Deferred income tax liabilities	(85,046)	(99,340)
	$ (85,046)	$ (99,340)

The components of unrecognized deferred tax assets are as follows:

	December 31, 2020	December 31, 2019
Non-capital losses	$ 55,038	$ 22,614
Capital losses and other	678	698
Share and debt issue costs	1,329	1,463
Reclamation and rehabilitation provision	20,067	15,402
Current assets	347	701
Unrealized foreign exchange losses	–	4,162
Property plant and equipment expenditures	32,904	7,287
	$ 110,363	$ 52,327

At December 31, 2020, the Company had $171.9 million of Canadian non-capital losses available for carry forward (2019: $106.9 million) which may be applied to reduce future years' taxable income. These losses, if not utilized, will expire on various dates between 2023 and 2040. In addition, the Company has $34.6 million of foreign non-capital losses available for carry forward (2019: $3.1 million).

(Expressed in thousands of United States Dollars except for share and per share amounts)

20. 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. Corporate and other includes the Company's head office, general corporate administration and activity, group eliminations and the Halfmile-Stratmat project and Heath Steele option in Canada.

Year ended December 31, 2020	Perkoa Mine	Rosh Pinah mine	Caribou mine	Santander mine	Corporate and other	Total
Revenues	$ 91,635	$ 59,036	$ 11,884	$ 50,329	$ –	$ 212,884
Mine operating expenses	82,190	36,759	23,837	41,105	42	183,933
General and administration	–	–	–	–	7,790	7,790
Share-based payments	–	–	–	–	2,201	2,201
Adjusted EBITDA	9,445	22,277	(11,953)	9,224	(10,033)	18,960
Depreciation, depletion and amortization	22,248	18,396	2,764	5,568	910	49,886
Adjusted EBIT	(12,803)	3,881	(14,717)	3,656	(10,943)	(30,926)
Mark-to-market loss on financial instruments						7,318
Settlement mark-to-market						1,534
Loss on foreign exchange						2,470
Interest expense						10,262
Restructuring expense						5,428
Impairment						197,008
Other expense, net						3,866
Income tax recovery						(13,206)
Net loss						(245,606)
Capital expenditures	13,697	18,817	4,215	4,900	1,164	42,793
Exploration expenditures						4,278
Assets	310,462	271,949	49,748	27,573	(87,708)	572,024
Liabilities	(175,716)	(154,046)	(155,091)	(59,189)	198,181	(345,861)
Net assets (liabilities)	$ 134,746	$ 117,903	$ (105,343)	$ (31,616)	$ 110,473	$ 226,163

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	–	–	–	–	8,096	8,096
Share-based payments	–	–	–	–	565	565
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 income, 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

(Expressed in thousands of United States Dollars except for share and per share amounts)

21. SUPPLEMENTAL CASH FLOW INFORMATION

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

		December 31, 2020		December 31, 2019
Accrued interest on leases	$	581	$	804
Accretion of reclamation and rehabilitation provision		1,152		1,430
Accrued interest and accretion on debt		7,602		5,967
Loss on extinguishment of debt		2,463		–
Accrued interest on reclamation bond		(105)		(138)
Decrease in reclamation and rehabilitation provision		(78)		(870)
	$	11,615	$	7,193

Non-cash investing transactions:

		December 31, 2020		December 31, 2019
Additions to property, plant and equipment included in accounts payable and accrued liabilities	$	3,789	$	6,549

22. 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, warrant liability 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 value of cash and cash equivalents and restricted cash approximate carrying values due to the immediate or short-term maturities of these financial instruments. The fair values of the Facility and the Glencore Facilities approximate their carrying values as these are floating rate instruments and no significant changes in the Company's credit and liquidity risk have occurred between the recognition of the debt on August 6, 2020 and December 31, 2020.

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, 2020, the Company’s maximum exposure to credit risk was the book value of cash and cash equivalents, restricted cash, settlement receivable and accounts receivable. 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 settlement receivables are with Glencore – a related party (Note 23).

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.

As at December 31, 2020, the Company was in full compliance with all covenant obligations and had $57.7 million of available liquidity, comprised of cash and cash equivalents of $33.5 million and $24.2 million of available liquidity from the Facility (Note 12). The Company had working capital of $70.6 million and expects to fund its current liabilities from cash flows generated by operating activities. For the year ended December 31, 2020, cash used in operating activities totalled $15.9 million.

As at December 31, 2020, the Company’s significant commitments include the $105.9 million Facility, the $13.0 million Glencore Facility (Note 12), the environmental reclamation and rehabilitation obligations (Note 13) and current accounts payable and accrued liabilities (Note 10).

When evaluating the Company’s current financial position, operating plan, current forecast for key assumptions and hedging transactions that impact 2021, the Company believes that it has sufficient liquidity to meet its minimum obligations and satisfy the covenant requirements related to the Facility and the Glencore Facility for a period of at least 12 months from the balance sheet date.

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 $2.2 million as of December 31, 2020.

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, 2020.

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, 2020, and assuming that all other variables remain constant, a 1% change in the LIBOR rate would result in an increase/decrease of $1.2 million in the interest expense accrued by the Company per annum.

(Expressed in thousands of United States Dollars except for share and per share amounts)

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	$	(9,549)	$	868
Namibian dollars		(4,358)		396
Canadian dollars		(92)		8
Peruvian soles		(8,417)		623
	$	(22,416)	$	1,895

23. RELATED PARTY TRANSACTIONS AND BALANCES

Glencore

As of December 31, 2020, Glencore owned 259,835,925 Trevali common shares representing approximately 26.3% of the total issued and outstanding common shares.

Glencore purchases all of the Company's concentrate production under separate off-take agreements with each of its mines which were entered into before Glencore became a related party of the Company. Trevali entered into the following transactions during the year ending December 31, 2020 and 2019:

		Year ended December 31,		
		2020		**2019**
Net revenue on concentrate sales	$	212,884	$	386,110
Settlement mark-to-market on concentrate sales loss		1,534		23,485
Other income[1]		3,075		–
Professional services		–		250
Interest expense on Glencore Facility	$	252	$	–
		December 31, 2020		**December 31, 2019**
Settlement receivable from Glencore (Note 6)	$	51,311	$	32,472
Payable to Glencore		48		73
Glencore Facility (Note 12)[2]	$	13,001	$	–

1 Relates to the settlement of the fixed-pricing arrangement for the Caribou and Santander mines (Note 17).
2 Balance excludes capitalized transaction fees.

P.E. Minerals Namibia (Proprietary) Limited

P.E. Minerals Namibia (Proprietary) Limited is a minority shareholder of Rosh Pinah and is the holder of the mining licence for the Rosh Pinah mine, with the Company paying a market rate lease. The Ministry of Mines and Energy in Namibia approved the application for a 15-year extension of the mining licence on December 2, 2020.

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,		
		2020		**2019**
Short-term employee benefits	$	3,266	$	3,514
Share-based payments		1,825		933
Termination benefits		2,967		7,548
Other short-term benefits		279		140
	$	8,337	$	12,135

(Expressed in thousands of United States Dollars except for share and per share amounts)

24. 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, 2020 in undiscounted cashflows:

	2021	2022	2023	2024	Beyond 2024	Total
Purchase and related commitments	$ 40,495	$ 38,222	$ 23,726	$ 11,066	$ 1,532	$ 115,041

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.

25. SUBSEQUENT EVENTS

In January 2021, the Company announced the planned restart of operations at its Caribou mine near Bathurst, New Brunswick with first payable zinc production expected by the end of March 2021. The mine has been on a care and maintenance program since March 2020.

The initial two-year plan includes a 21-month fixed-pricing arrangement for 115 million pounds of payable zinc production from Caribou, at an average price of $1.25 per pound.