



PERPETUAL
ENERGY

2019

CONSOLIDATED FINANCIAL STATEMENTS

MANAGEMENT'S REPORT

The consolidated financial statements of Perpetual Energy Inc. ("the Company") are the responsibility of Management and have been approved by the Board of Directors of the Company. These consolidated financial statements have been prepared by Management in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and the Interpretations of the IFRS Interpretations Committee.

The consolidated financial statements are audited and have been prepared using accounting policies in accordance with IFRS. The preparation of Management's Discussion and Analysis is based on the Company's financial results which have been prepared in accordance with IFRS. It compares the Company's financial performance in 2019 to 2018 and should be read in conjunction with the consolidated financial statements and accompanying notes.

Management is responsible for establishing and maintaining adequate internal control over the Company's financial reporting. Management believes that the system of internal controls that have been designed and maintained at the Company provide reasonable assurance that financial records are reliable and form a proper basis for preparation of financial statements. The internal accounting control process includes Management's communication to employees of policies which govern ethical business conduct.

Internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The Board of Directors has appointed an Audit Committee consisting of unrelated, non-management directors which meets at least four times during the year with Management and independently with the external auditors and as a group to review any significant accounting, internal control and auditing matters in accordance with the terms of the charter of the Audit Committee as set out in the Annual Information Form. The Audit Committee reviews the consolidated financial statements and Management's Discussion and Analysis before the consolidated financial statements are submitted to the Board of Directors for approval. The external auditors have free access to the Audit Committee without obtaining prior Management approval.

With respect to the external auditors, the Audit Committee approves the terms of engagement and reviews the annual audit plan, the Auditors' Report and results of the audit. It also recommends to the Board of Directors the firm of external auditors to be appointed by the shareholders.

The independent external auditors, KPMG LLP, have been appointed by the Board of Directors on behalf of the shareholders to express an opinion as to whether the consolidated financial statements present fairly, in all material respects, the Company's financial position, financial performance and cash flows in accordance with IFRS. The report of KPMG LLP outlines the scope of their examination and their opinion on the consolidated financial statements.

/s/ Susan L. Riddell Rose

Susan L. Riddell Rose
President &
Chief Executive Officer

/s/ W. Mark Schweitzer

W. Mark Schweitzer
Vice President, Finance &
Chief Financial Officer

March 18, 2020

INDEPENDENT AUDITORS' REPORT

To the Shareholders of Perpetual Energy Inc.

Opinion

We have audited the consolidated financial statements of Perpetual Energy Inc. (the "Company"), which comprise:

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

Hereinafter referred to as the "financial statements".

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

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 "Auditors' Responsibilities for the Audit of the Financial Statements" section of our auditors' report.

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

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

Material Uncertainty Related to Going Concern

We draw attention to note 1 in the financial statements, which indicates that there are upcoming maturities of the Company's reserve-based credit facility on November 30, 2020 and term loan on March 14, 2021. As stated in note 1 in the financial statements, these events or conditions, along with other matters as set forth in note 1 in the financial statements impacting the Company's ability to address these maturities, indicate that a material uncertainty exists that may cast significant doubt on the Company's ability to continue as a going concern.

Our opinion is not modified in respect of this matter.

Other Information

Management is responsible for the other information. Other information comprises:

- the information included in Management's Discussion and Analysis filed with the relevant Canadian Securities Commissions.
- the information, other than the financial statements and the auditors' report thereon, included in a document likely to be entitled "2019 Annual Results".

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

In connection with our audit of the 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 financial statements or our knowledge obtained in the audit and remain alert for indications that the other information appears to be materially misstated.

We obtained the information included in Management's Discussion and Analysis filed with the relevant Canadian Securities Commissions as at the date of this auditors' report. If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact in the auditors' report.

We have nothing to report in this regard.

The information, other than the financial statements and the auditors' report thereon, included in a document likely to be entitled "2019 Annual Results" is expected to be made available to us after the date of this auditors' report. If, based on the work we will perform on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact to those charged with governance.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

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

In preparing the 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.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' 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 the 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 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 auditors' report to the related disclosures in the 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 auditors' 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 financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- 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.
- Provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

The engagement partner on the audit resulting in this auditors' report is Gregory Ronald Caldwell.

Chartered Professional Accountants

Calgary, Canada

March 18, 2020

PERPETUAL ENERGY INC.
Consolidated Statements of Financial Position

As at	December 31, 2019	December 31, 2018
<i>(Cdn\$ thousands)</i>		
Assets		
Current assets		
Accounts receivable (note 22)	\$ 5,056	\$ 8,931
Tourmaline Oil Corp. ("TOU") share investment (note 4)	15,220	28,132
Prepaid expenses and deposits	1,154	1,138
Fair value of derivatives (note 22)	–	7,012
	21,430	45,213
Fair value of derivatives (note 22)	–	3,906
Property, plant and equipment (note 5)	194,634	260,091
Exploration and evaluation (note 6)	23,609	25,879
Right-of-use assets (note 7)	1,475	–
Total assets	\$ 241,148	\$ 335,089
Liabilities		
Current liabilities		
Accounts payable and accrued liabilities	\$ 13,278	\$ 16,612
TOU share margin demand loan (note 9)	100	14,109
Revolving bank debt (note 10)	47,552	42,561
Senior notes (note 12)	–	14,536
Fair value of derivatives (note 22)	10,542	1,405
Gas over bitumen royalty financing (note 13)	582	680
Lease liabilities (note 14)	633	–
Provisions (note 15)	2,382	1,933
	75,069	91,836
Fair value of derivatives (note 22)	2,732	894
Term loan (note 11)	44,274	43,729
Senior notes (note 12)	32,255	17,344
Gas over bitumen royalty financing (note 13)	289	472
Lease liabilities (note 14)	2,052	–
Provisions (note 15)	36,459	39,431
Total liabilities	193,130	193,706
Equity		
Share capital (note 17)	96,876	1,338,369
Warrants (note 17c)	923	923
Contributed surplus	44,234	44,433
Deficit	(94,015)	(1,242,342)
Total equity	48,018	141,383
Total liabilities and equity	\$ 241,148	\$ 335,089
Future operations (note 1)		
Contingencies (note 8)		
Contractual obligations (note 16)		

See accompanying notes to the consolidated financial statements.

/s/ Robert A. Maitland

Robert A. Maitland

Director

/s/ Geoffrey C. Merritt

Geoffrey C. Merritt

Director

PERPETUAL ENERGY INC.
Consolidated Statements of Loss and Comprehensive Loss

For the year ended <i>(Cdn\$ thousands, except per share amounts)</i>	December 31, 2019	December 31, 2018
Revenue		
Oil and natural gas (note 19)	\$ 74,361	\$ 86,128
Royalties	(11,260)	(10,594)
	63,101	75,534
Change in fair value of derivatives (note 22)	(22,682)	8,818
Gas over bitumen royalty credit	852	1,046
	41,271	85,398
Expenses		
Production and operating	18,332	19,229
Transportation	6,258	6,068
Exploration and evaluation (note 6)	1,797	2,212
General and administrative	11,660	13,630
Share-based payments (note 18)	2,295	2,573
Depletion and depreciation (note 5 and 7)	31,188	34,946
Loss on dispositions (note 5a)	-	223
Impairment (note 5b and 6)	47,052	7,200
Net loss from operating activities	(77,311)	(683)
Finance expense (note 20)	(11,951)	(10,122)
Change in fair value of TOU share investment (note 4)	(3,207)	(9,575)
Restructuring costs (note 15b)	(1,546)	-
Net loss and comprehensive loss	(94,015)	(20,380)
Loss per share (note 17d)		
Basic and diluted	\$ (1.56)	\$ (0.34)

See accompanying notes to the consolidated financial statements.

PERPETUAL ENERGY INC.
Consolidated Statements of Changes in Equity

	Share capital		Warrants	Contributed surplus	Deficit	Total equity
	(thousands)	(\$thousands)				
<i>(Cdn\$ thousands, except share amounts)</i>						
Balance at December 31, 2018	60,240	\$ 1,338,369	\$ 923	\$ 44,433	\$ (1,242,342)	\$ 141,383
Net loss	-	-	-	-	(94,015)	(94,015)
Common shares issued (note 17)	412	690	-	(690)	-	-
Change in shares held in trust (note 17)	(139)	159	-	(359)	-	(200)
Share-based payments (note 18)	-	-	-	850	-	850
Elimination of deficit (note 17)	-	(1,242,342)	-	-	1,242,342	-
Balance at December 31, 2019	60,513	\$ 96,876	\$ 923	\$ 44,234	\$ (94,015)	\$ 48,018

	Share capital		Warrants	Contributed surplus	Deficit	Total equity
	(thousands)	(\$thousands)				
<i>(Cdn\$ thousands, except share amounts)</i>						
Balance at December 31, 2017	59,263	\$ 1,336,838	\$ 923	\$ 44,152	\$ (1,221,962)	\$ 159,951
Net loss	-	-	-	-	(20,380)	(20,380)
Common shares issued (note 17)	1,191	1,200	-	(1,192)	-	8
Change in shares held in trust (note 17)	(214)	331	-	(656)	-	(325)
Share-based payments (note 18)	-	-	-	2,129	-	2,129
Balance at December 31, 2018	60,240	\$1,338,369	\$ 923	\$ 44,433	\$ (1,242,342)	\$ 141,383

See accompanying notes to the consolidated financial statements.

PERPETUAL ENERGY INC.
Consolidated Statements of Cash Flows

For the year ended (Cdn\$ thousands)	December 31, 2019	December 31, 2018
Cash flows from (used in) operating activities		
Net loss	\$ (94,015)	\$ (20,380)
Adjustments to add (deduct) non-cash items:		
Depletion and depreciation (note 5 and 7)	31,188	34,946
Exploration and evaluation (note 6)	1,599	1,485
Share-based payments (note 18)	406	2,573
Unrealized change in fair value of derivatives (note 22)	21,893	(5,747)
Change in fair value of TOU share investment (note 4)	3,207	9,575
Loss on dispositions (note 5a)	–	223
Restructuring costs (note 15b)	1,546	–
Finance expense (note 20)	2,671	1,415
Impairment (note 5b and 6)	47,052	7,200
Decommissioning obligations settled (note 15a)	(1,733)	(1,969)
Payments of restructuring costs (note 15b)	(610)	(337)
Change in non-cash working capital (note 21)	4,602	2,541
Net cash flows from (used in) operating activities	17,806	31,525
Cash flows from (used in) financing activities		
Change in revolving bank debt, net of issue costs (note 10)	4,792	10,778
Change in TOU share margin demand loan, net of issue costs (note 9)	(14,044)	(4,425)
Change in senior notes, net of issue costs (note 12)	(33)	–
Payments of lease liabilities (note 14)	(441)	–
Payments of gas over bitumen royalty financing (note 13)	(1,013)	(1,135)
Common shares issued (note 17)	–	8
Shares purchased and held in trust (note 17)	(200)	(325)
Net cash flows from (used in) financing activities	(10,939)	4,901
Cash flows from (used in) investing activities		
Capital expenditures	(12,939)	(26,888)
Acquisitions (note 5 and note 6)	–	(1,871)
Net proceeds on dispositions (note 5a)	–	4,901
Proceeds on sale of TOU share investment (note 4)	9,705	278
Change in non-cash working capital (note 21)	(3,633)	(12,846)
Net cash flows from (used in) investing activities	(6,867)	(36,426)
Change in cash and cash equivalents	–	–
Cash and cash equivalents, beginning of year	–	–
Cash and cash equivalents, end of year	\$ –	\$ –

See accompanying notes to the consolidated financial statements.

PERPETUAL ENERGY INC.
Notes to the Consolidated Financial Statements
For the years ended December 31, 2019 and 2018
(All tabular amounts are in Cdn\$ thousands, except where otherwise noted)

1. REPORTING ENTITY

Perpetual Energy Inc. ("Perpetual" or the "Company") is a Canadian corporation engaged in the exploration, development and marketing of oil and natural gas based energy in Alberta, Canada. The Company operates a diversified asset portfolio that includes liquids-rich natural gas, shallow natural gas and conventional heavy oil producing properties, as well as undeveloped bitumen resource properties.

The address of the Company's registered office is 3200, 605 – 5 Avenue S.W., Calgary, Alberta, T2P 3H5.

The consolidated financial statements of the Company are comprised of the accounts of Perpetual Energy Inc. and its wholly owned subsidiaries: Perpetual Operating Corp. and Perpetual Operating Trust, which are incorporated in Canada.

Future operations

Perpetual has a first lien, reserve-based credit facility (the "Credit Facility") (note 10). On December 24, 2019, Perpetual's syndicate of lenders completed their semi-annual borrowing base redetermination, reducing the Credit Facility borrowing limit (the "Borrowing Limit") from \$55 million to \$45 million effective January 22, 2020. In January 2020, the Company sold its remaining 1,000,000 TOU shares for net cash proceeds of \$14.3 million (the "TOU Share Proceeds"). Net proceeds were used to repay the TOU share margin demand loan with the balance used to repay a portion of the Credit Facility. The next Borrowing Limit redetermination is scheduled on or prior to March 31, 2020. If the Credit Facility repayment term is not extended at the next redetermination, all outstanding advances will become payable on November 30, 2020. The extension of the Credit Facility repayment term is dependent on the Company's ability to repay or extend the term of the \$45 million second lien term loan that matures and requires repayment on March 14, 2021 (note 11). The Company also has \$33.6 million of unsecured senior notes that mature on January 23, 2022 (note 12).

Although the TOU Share Proceeds have reduced the Company's revolving bank debt borrowed under its Credit Facility, the Company remains dependent on the support of its lenders to the Credit Facility which has a current maturity of November 30, 2020. Further, the recent significant decline in natural gas and liquids prices has contributed to the Company projecting a significant reduction in cash flow from operating activities in 2020. The Company will require additional financing or will need to refinance the upcoming Credit Facility and term loan maturities as the available liquidity and operating cash flows are not anticipated to be sufficient. Perpetual is considering options including the sale or monetization of additional assets, the extension of existing debt maturity dates, or alternative financing.

However, due to the facts and circumstances detailed above, coupled with considerable economic instability and uncertainty in the oil and gas markets which negatively impacts operating cash flows and lender and investor sentiment, there remains considerable risk around the Company's ability to address its liquidity shortfalls and upcoming maturities. In addition, there continues to be some uncertainty regarding the Statement of Claim (note 8) which may restrict management's ability to manage its capital structure. As a result, there is a material uncertainty surrounding the Company's ability to continue as a going concern that creates significant doubt as to the ability of the Company to meet its obligations as they come due and, therefore, it may be unable to realize its assets and discharge its liabilities in the normal course of business.

These financial statements have been prepared in accordance with generally accepted accounting principles applicable to a going concern, which assumes that the Corporation will be able to realize its assets and discharge its liabilities in the normal course of business. These financial statements do not reflect adjustments that would be necessary if the going concern assumption were not appropriate. If the going concern basis were not appropriate for these financial statements, then adjustments would be necessary in the carrying value of the assets and liabilities, the reported revenues and expenses, and the balance sheet classifications used. These adjustments could be material.

2. BASIS OF PREPARATION

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

The consolidated financial statements of the Company were approved and authorized for issue by the Board of Directors on March 18, 2020.

These financial statements have been prepared in accordance with generally accepted accounting principles applicable to a going concern, which assumes that the Company will be able to realize its assets and discharge its liabilities in the normal course of business. They have been prepared on a historical cost basis except for the TOU share investment (note 4), gas over bitumen royalty financing (note 13) and derivative financial instruments (note 22) that have been measured at fair value. The consolidated financial statements are presented in Canadian dollars which is the functional currency of the Company and its subsidiaries.

a) Critical accounting judgments and significant estimates

The preparation of the consolidated financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and reported amounts of assets, liabilities, revenue and expenses. These judgments, estimates, and assumptions are continuously evaluated and are based on management's experience and all relevant information available to the Company at the time of financial statement preparation. As the effect of future events cannot be determined with certainty, the actual results may differ from estimates. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Information about the critical judgments and significant estimates made by management are described below and in the relevant notes to the financial statements.

b) Critical accounting judgments:

The following are the critical judgments that management has made in the process of applying the Company's accounting policies. These judgments have the most significant effect on the amounts reported in the consolidated financial statements.

i) Cash-generating units ("CGUs")

The Company allocates its oil and natural gas properties to CGUs, identified as the smallest group of assets that generate cash inflows independent of the cash inflows of other assets or groups of assets. Determination of the CGUs is subject to management's judgement and is based on geographical proximity, shared infrastructure, and similar exposure to market risk.

ii) Identification of impairment indicators

Judgment is required to assess when indicators of impairment or reversals exist and whether calculation of the recoverable amount of an asset is necessary. Management considers internal and external sources of information including oil and natural gas prices, expected production volumes, anticipated recoverable quantities of proved and probable reserves and rates used to discount future cash flow estimates. Judgement is required to assess these factors when determining if the carrying amount of an asset is impaired, or in the case of a previously impaired asset, whether the carrying amount of the asset has been restored.

iii) Componentization

For the purposes of depletion, the Company allocates its oil and natural assets to components with similar useful lives and depletion methods. The grouping of assets is subject to management's judgment and is performed on the basis of geographical proximity and similar reserve life. The Company's oil and gas assets are depleted on a unit-of-production basis.

iv) Exploration and evaluation expenditures

Costs associated with acquiring oil and natural gas licenses and exploratory drilling are accumulated as exploration and evaluation ("E&E") assets pending determination of technical feasibility and commercial viability. Establishment of technical feasibility and commercial viability is subject to judgment and involves management's review of project economics, resource quantities, expected production techniques, production costs and required capital expenditures to develop and extract the underlying resources. Management uses the establishment of commercial reserves within the exploration area as the basis for determining technical feasibility and commercial viability. Upon determination of commercial reserves, E&E assets attributable to those reserves are tested for impairment and reclassified from E&E assets to a separate category within property, plant and equipment referred to as oil and natural gas properties.

v) Joint arrangements

Judgment is required to determine when the Company has joint control over an arrangement. In establishing joint control, the Company considers whether unanimous consent is required to direct the activities that significantly affect the returns of the arrangement, such as the capital and operating activities of the arrangement.

Once joint control has been established, judgment is also required to classify a joint arrangement. The type of joint arrangement is determined through analysis of the rights and obligations arising from the arrangement by considering its structure, legal form, and terms agreed upon by the parties sharing control. An arrangement where the controlling parties have rights to the assets and revenues, and obligations for the liabilities and expenses, is classified as a joint operation. Arrangements where the controlling parties have rights to the net assets of the arrangement are classified as joint ventures.

vi) Deferred taxes

Deferred tax assets (if any) are recognized only to the extent it is considered probable that those assets will be recoverable. This involves an assessment of when those deferred tax assets are likely to reverse and judgment as to whether there will be sufficient taxable profits available to offset the tax assets when they do reverse. This requires assumptions regarding future profitability and is therefore inherently uncertain. To the extent assumptions regarding future profitability change, there can be an increase or decrease in the amounts recognized in respect of deferred tax assets as well as the amounts recognized in profit or loss in the period in which the change occurs.

vii) Revenue – principal versus agent

When determining if the Company acted as a principal or as an agent in transactions, management determines if the Company obtains control of the product. As part of this assessment, management considered if the Company obtained control of the goods or services more than momentarily, in advance of transferring those goods or services to the customer. In this assessment, the Company considered indicators that it controlled the goods or services, including whether the Company was primarily responsible for the goods and services, whether the Company had inventory risk and whether the Company had discretion in establishing prices for the goods or services. Where control was indicated, the Company has been determined to be the principal. In other cases, the Company has been determined to be the agent.

c) Significant estimates:

The following assumptions represent the key sources of estimation uncertainty at the end of the reporting period. As future confirming events occur, the actual results may differ from estimated amounts.

i) Reserves

The Company uses estimates of natural gas, oil, and natural gas liquids ("NGL" or "liquids") reserves in the calculation of depletion and also for value in use ("VIU") and fair value less costs of disposal ("FVLCD") calculations of non-financial assets. Estimates of economically recoverable natural gas, oil, and NGL reserves and their future net cash flows are based upon a number of variable factors and assumptions, such as geological, geophysical, and engineering assessments of hydrocarbons in place on the Company's lands, historical production from the properties, production rates, future commodity prices, ultimate reserve recovery, timing and amount of capital expenditures, marketability of oil and natural gas, royalty rates, the assumed effects of regulation by government agencies and future operating costs. The geological, economic and technical factors used to estimate reserves may change from period to period. Changes in the reported reserves could have a material impact on the carrying values of the Company's oil and natural gas properties, the calculation of depletion and depreciation and the timing of decommissioning expenditures.

Reserve engineers are engaged at least annually to independently evaluate or review the recoverable quantities and estimated future cash flows from the Company's interest in oil and natural gas properties. This evaluation of proved and proved plus probable reserves is prepared in accordance with the reserve definitions contained in National Instrument 51-101 and the COGE Handbook.

ii) Provisions for decommissioning obligations

Decommissioning, abandonment, and site reclamation expenditures for production facilities, wells, and pipelines are expected to be incurred by the Company over many years into the future. Amounts recorded for decommissioning obligations and the associated accretion are calculated based on estimates of the extent and timing of decommissioning activities, future site remediation regulations and technologies, inflation, liability specific discount rates and related cash flows. The provision represents management's best estimate of the present value of the future abandonment and reclamation costs required. Actual abandonment and reclamation costs could be materially different from estimated amounts.

iii) Derivative financial instruments

Derivatives are measured at fair value on each reporting date. Fair value is the price that would be received or paid to exit the position as of the measurement date. The Company uses estimated external forward market price curves available at period end and the contracted volumes over the contracted term to determine the fair value of each contract. Changes in market pricing between period end and settlement of the derivative contracts could have a material impact on financial results related to the derivatives.

iv) Gas over bitumen royalty financing

The gas over bitumen royalty financing is measured at fair value on each reporting date. Fair value is the price that would be paid to exit the position as of the measurement date.

The fair value of the gas over bitumen royalty financing is estimated by discounting future cash payments based on the forecasted Alberta gas reference price multiplied by the remaining contracted deemed volume. Changes in market pricing between period end and settlement could have a material impact on financial results related to the gas over bitumen royalty financing.

v) Share-based payments

Share options, deferred share options, and long term incentive awards issued by the Company are recorded at fair value using the Black Scholes option pricing model. In assessing the fair value of share options and deferred share options, estimates have to be made regarding the expected volatility in share price, option life, dividend yield, risk-free rate and estimated forfeitures at the initial grant date.

3. SIGNIFICANT ACCOUNTING POLICIES

The accounting policies set out below have been applied consistently to all periods presented in these annual consolidated financial statements and have been applied consistently by the Company and its subsidiaries, with the exception of IFRS 16 "Leases" noted below.

a) Basis of consolidation

i) Subsidiaries

Subsidiaries are entities controlled by the Company. Control exists when the Company has the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. In assessing control, potential voting rights that are currently exercisable are considered. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

ii) Business combinations

The acquisition method of accounting is used to account for acquisitions of subsidiaries and assets that meet the definition of a business under IFRS. The cost of an acquisition is measured as the fair value of the assets given, equity instruments issued, and liabilities incurred

or assumed at the date of acquisition of control. Identifiable assets acquired, and liabilities assumed in a business combination are measured at their recognized amounts (generally fair value) at the acquisition date. The excess of the cost of acquisition over the recognized amounts of the identifiable assets acquired and liabilities assumed is recorded as goodwill. If the cost of acquisition is less than the recognized amount of the net assets acquired, the difference is recognized as a bargain purchase gain in net loss.

iii) Jointly owned assets

Many of the Company's oil and natural gas activities involve jointly owned assets which are not conducted through a separate entity. The consolidated financial statements include the Company's proportionate share of these jointly owned assets, liabilities, revenues and expenses.

iv) Transactions eliminated on consolidation

Intercompany balances and transactions, and any unrealized income and expenses arising from intercompany transactions, are eliminated in preparing the consolidated financial statements.

b) Accounting pronouncements adopted

IFRS 16 "Leases"

Effective January 1, 2019, the Company adopted IFRS 16, "Leases", which replaced IAS 17, "Leases" and IFRIC 4, "Determining Whether an Arrangement Contains a Lease". The Company applied the new standard using the modified retrospective approach and, in accordance with the transitional provisions, the comparative information has not been restated.

i) Right-of-use assets (note 7)

The Company recognizes right-of-use assets and lease liabilities at the lease commencement date. The assets are initially measured at cost, which comprises the initial amount of the lease liabilities adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use assets are depreciated to the earlier of the end of the useful life of the asset or the lease term using the straight-line method as this most closely reflects the expected pattern of consumption of the future economic benefits. Perpetual presents right-of-use assets as its own line item on the consolidated statement of financial position. The lease term includes periods covered by an option to extend if the Company is reasonably certain to exercise that option. In addition, the right-of-use assets are periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liabilities. The depreciation term of the right-of-use assets is between 2 and 5 years.

ii) Lease liabilities (note 14)

The lease liabilities are initially measured at the present value of the future lease payments, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Company's incremental borrowing rate. Generally, the Company uses its incremental borrowing rate as the discount rate.

The lease liabilities are measured at amortised cost using the effective interest rate method. They are remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Company's estimate of the amount expected to be payable under a residual value guarantee, or if the Company changes its assessment of whether it will exercise a purchase, extension or termination option. When the lease liabilities are remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use assets, or is recorded in profit or loss if the carrying amount of the right-of-use assets has been reduced to zero. Lease payments are applied against the lease liabilities, with a portion allocated as cash finance expense using the effective interest rate method. Perpetual presents lease liabilities as their own line item on the consolidated statement of financial position.

iii) Critical accounting judgements and estimate uncertainty

The preparation of the consolidated financial statements in accordance with IFRS requires management to make judgments, estimates, and assumptions that affect the reported amount of the right-of-use assets and lease liabilities, and the resulting interest and depreciation expense. Actual results could differ significantly as a result of these estimates. Key areas where management has made judgments, estimates, and assumptions related to the application of IFRS 16 include:

- *Incremental borrowing rate:* The rates used to present value future lease payments are based on judgments about the economic environment in which the Company operates and theoretical analyses about the security provided by the underlying leased asset, the amount of funds required to be borrowed in order to meet the future lease payments associated with the leased asset, and the term for which these funds would be borrowed; and
- *Lease term:* In determining the period which the Company has the right to use an underlying asset, management considers the non-cancellable period along with all facts and circumstances that create an economic incentive to exercise an extension option, or not to exercise a termination option.

iv) Transition impact

Perpetual has elected to use the modified retrospective approach upon adoption and therefore, the comparative information has not been restated. The effect of initially applying the standard was a \$3.1 million increase to right-of-use assets and lease liabilities, with no impact on deficit. The previously recorded lease inducement recognized under IAS 37 was incorporated into the recorded lease liabilities. As this lease inducement represented a liability over fair market value of the head office lease, the right-of-use asset was correspondingly reduced by the same amount (\$1.3 million). The weighted average incremental borrowing rate used to determine the right-of-use assets and lease liabilities on adoption was approximately 6.4%. Leases recognized under IFRS 16 largely relate to the Company's head office lease in Calgary.

Upon transition, the Company used the following practical expedients when applying IFRS 16 to leases previously classified as operating leases under IAS 17:

- right-of-use assets and lease liabilities for leases with less than 12 months of lease term were not recognized;
- right-of-use assets and lease liabilities for leases of low-value assets were not recognized;
- applied a single discount rate to a portfolio of leases with similar characteristics;
- excluded initial direct costs from measuring right-of-use assets at the date of initial application; and
- adjusted the right-of-use assets by the amount of an IAS 37 lease inducement provision immediately before the date of initial application, as an alternative to an impairment review.

The following table provides a reconciliation of the lease commitments disclosed as at December 31, 2018 to the Company's lease liabilities as at January 1, 2019:

	Total
Lease commitments	
Office leases	6,489
Vehicle leases	220
Other leases	133
Lease commitments, December 31, 2018	6,842
Non-lease components and variable payments	(4,310)
Lease inducement recognized under IAS 37 (note 15b)	1,267
	3,799
Impact of discounting	(673)
Lease liabilities recognized, January 1, 2019 (note 14)	3,126

The adoption of IFRS 16 had the following impact on the Company's financial results for the year ended December 31, 2019, compared to what would have occurred had the new accounting policy not been adopted:

<i>(\$ thousands)</i>	Decrease (increase) in net loss	Impact on net cash flows from (used in) operating activities	Impact on net cash flows from (used in) financing activities
Production and operating expense	93	93	-
General and administrative expense	335	335	-
Depletion and depreciation expense	(384)	-	-
Cash interest on lease liabilities	(189)	(189)	-
Payments of lease liabilities	-	-	(441)
Net IFRS 16 implementation impact	(145)	239	(441)

c) Financial instruments

Financial instruments comprise accounts receivable, TOU share investment, fair value of derivative assets and liabilities, TOU share margin demand loan, accounts payable and accrued liabilities, revolving bank debt, term loan, gas over bitumen royalty financing, and senior notes. These financial instruments are recognized initially at fair value, net of any directly attributable transaction costs.

i) Classification and measurement of financial assets

A financial asset is measured at amortized cost if it meets both of the following conditions and is not designated at fair value through profit or loss ("FVTPL"):

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

A debt investment is measured at fair value through other comprehensive income ("FVOCI") if it meets both of the following conditions and is not designated at FVTPL:

- it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and

- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

On initial recognition of an equity investment 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 ("OCI"). This election is made on an investment-by-investment basis.

All financial assets not classified as measured at amortized cost or FVOCI as described above are measured at FVTPL. On initial recognition, the Company may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortized cost or at FVOCI at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

A financial asset (unless it is a trade receivable without a significant financing component that is initially measured at the transaction price) is initially measured at fair value plus, for an item not at FVTPL, transaction costs that are directly attributable to its acquisition.

The following accounting policies apply to the subsequent measurement of financial assets:

a) Financial assets at FVTPL

These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognized in profit or loss.

b) Financial assets at amortized cost

These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognized in profit or loss. Any gain or loss on derecognition is recognized in profit or loss.

c) Debt investments at FVOCI

These assets are subsequently measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses and impairment are recognized in profit or loss. Other net gains and losses are recognized in OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.

ii) Classification and measurement of financial liabilities

Financial liabilities are classified and measured at amortized cost or FVTPL. A financial liability is classified at FVTPL if it is a derivative or it is designated as such on initial recognition. Financial liabilities at FVTPL are measured at fair value and net gains and losses, including any interest expense, are recognized in profit or loss. Other financial liabilities are subsequently measured at amortized cost using the effective interest method. Interest expense and foreign exchange gains and losses are recognized in profit or loss. Any gain or loss on derecognition is also recognized in profit or loss.

The Company has classified accounts receivable, TOU share margin demand loan, accounts payable and accrued liabilities, revolving bank debt, term loan and senior notes as amortized cost. The TOU share investment and gas over bitumen royalty financing have been classified as FVTPL.

iii) Derivative assets and liabilities

The Company has entered into certain financial derivative contracts to manage the exposure to market risks from fluctuations in commodity prices and currency rates. The Company has not designated its financial derivative contracts as effective accounting hedges, and thus has not applied hedge accounting, even though the Company considers all commodity and currency contracts to be economic hedges. As a result, all financial derivative contracts are designated as FVTPL and recorded as derivatives on the statement of financial position at fair value. Changes in the fair value of the commodity price and currency rate derivatives are recognized in net loss.

The Company has accounted for its forward physical delivery fixed-price sales contracts as derivative financial instruments. Accordingly, such forward physical delivery fixed-price sales contracts are designated as FVTPL and recorded as derivatives on the statement of financial position at fair value.

Transaction costs on derivatives are recognized in net loss when incurred.

Embedded derivatives are separated from the host contract and accounted for separately if the economic characteristics and risks of the host contract and the embedded derivative are not closely related, a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative, and the combined instrument is not measured at fair value through profit or loss. Changes in the fair value of separable embedded derivatives are recognized immediately in net loss.

iv) Share capital and warrants

Incremental costs directly attributable to the issue of common shares, warrants and share options are recognized as a deduction from equity, net of any tax effects.

d) Property, plant and equipment

i) Production and development costs

Items of property, plant and equipment, which include oil and natural gas development and production assets, are measured at cost less accumulated depletion and depreciation and accumulated impairment losses. The initial cost of property, plant and equipment includes the purchase price or construction costs, costs that are directly attributable to bringing the asset into commercial operations, the initial estimate of decommissioning costs, and borrowing costs for qualifying assets.

Significant parts of an item of property, plant and equipment, including oil and natural gas properties, that have different useful lives from the life of the area or facility in general, are accounted for as separate items.

Gains and losses on disposition of an item of property, plant and equipment, including oil and natural gas properties, are determined by comparing the proceeds from disposition with the carrying amount of property, plant and equipment and are recognized in net loss. The carrying amount of any replaced or disposed item of property, plant and equipment is derecognized.

ii) Subsequent costs

Costs incurred after the determination of technical feasibility and commercial viability and the costs of replacing parts of property, plant and equipment are recognized as property, plant and equipment only when they increase the future economic benefits embodied in the specific asset to which they relate. Such capitalized property, plant and equipment generally represent costs incurred in developing proved and/or probable reserves and bringing on or enhancing production from such reserves, and are accumulated on a field or geotechnical area basis. All other expenditures including the costs of the day-to-day servicing of property, plant and equipment are recognized as production and operating expense in net loss as incurred.

iii) Depletion and depreciation

The net carrying amount of development or production assets is depleted using the unit-of-production method by reference to the ratio of production in the period to the related proved and probable reserves, considering estimated future development costs necessary to bring those reserves into production and future decommissioning costs. The future development cost estimates are reviewed by independent reserve engineers at least annually.

Costs associated with office furniture, information technology, and leasehold improvements are carried at cost and are depreciated on a straight-line basis over a period ranging from one to three years.

Depreciation methods, useful lives and residual values are reviewed at each period end date for all classes of property, plant, and equipment.

e) Exploration and evaluation ("E&E") expenditures

Pre-license costs, geological and geophysical costs and lease rentals of undeveloped properties are recognized in net loss as incurred.

E&E costs, consisting of the costs of acquiring oil and natural gas licenses, are capitalized initially as E&E assets according to the nature of the assets acquired. Costs associated with drilling exploratory wells in an undeveloped area are capitalized as E&E costs. The costs are accumulated in cost centers by well, field or exploration area pending determination of technical feasibility and commercial viability. When technical feasibility and commercial viability are determined, the relevant expenditure is transferred to property, plant and equipment as oil and natural gas properties, after impairment is assessed and any applicable impairment loss is recognized in net loss.

The Company's E&E assets consist of undeveloped land, exploratory drilling assets, and bitumen evaluation assets. Gains and losses on disposition of E&E assets are determined by comparing the proceeds from disposition with the carrying amount and are recognized in net loss.

f) Assets held for sale

Non-current assets, or disposal groups consisting of assets and liabilities ("disposal groups"), are classified as held for sale if their carrying amounts will be recovered principally through a sale transaction rather than through continuing use. Assets and liabilities qualifying as held for sale must be available for immediate sale in their present condition subject to normal terms and conditions, and their sale must be highly probable.

Non-current assets, or disposal groups, are measured at the lower of the carrying amount and FVLCD, with impairments recognized in net loss. Non-current assets or disposal groups held for sale are presented in current assets and liabilities within the statement of financial position. Assets held for sale are not subject to depletion and depreciation.

g) Impairment

i) Financial assets

The Company has elected to measure loss allowances for trade receivables and contract assets at an amount equal to lifetime expected credit losses ("ECLs"). The maximum period considered when estimating ECLs is the maximum contractual period over which the Company is exposed to credit risk.

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Company expects to receive). ECLs are discounted at the effective interest rate of the financial asset.

Loss allowances for financial assets are deducted from the gross carrying amount of the assets. Impairment losses on financial assets are presented under "other expenses" in the statement of loss and comprehensive loss.

ii) Non-financial assets

The carrying amounts of the Company's non-financial assets, other than E&E assets, are reviewed at each period end date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. E&E assets are assessed for impairment when they are reclassified to property, plant and equipment, as oil and natural gas properties, and if facts and circumstances suggest that the carrying amount exceeds the recoverable amount.

For the purpose of impairment testing, assets are grouped together at a CGU level. The recoverable amount of an asset or a CGU is determined based on the higher of its FVLCD and its VIU. FVLCD is determined as the amount that would be obtained from the sale of a CGU in an arm's length transaction between knowledgeable and willing parties. The FVLCD of oil and gas properties is generally determined as the net present value of estimated future cash flows expected to arise from the continued use of the CGU and its eventual disposition, using assumptions that an independent market participant may take into account. These cash flows are discounted by an appropriate discount rate which would be applied by such a market participant to arrive at a net present value of the CGU. In determining VIU, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. VIU is generally determined by reference to the present value of the future cash flows expected to be derived from production of proved and probable reserves.

E&E assets are assessed for impairment both at the time of any triggering facts and circumstances as well as upon their eventual reclassification to oil and natural gas properties in property, plant and equipment. If a test is required as a result of triggering facts and circumstances, the Company considers whether the combined recoverable amount of oil and natural gas properties and E&E assets at the total company level is sufficient to cover the combined carrying value of E&E and oil and natural gas assets.

An impairment is recognized if the carrying value of a CGU exceeds the recoverable amount for that CGU. The Company determines the recoverable amount by using the greater of FVLCD and the VIU. VIU is generally the future cash flows expected to be derived from production of proved and probable reserves estimated by the Company's third-party reserve evaluators. Impairment losses recognized in respect of CGUs are allocated to reduce the carrying amount of assets in the unit (group of units) on a pro rata basis. Impairment losses are recognized in net income or loss.

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

h) Share-based payments

Fixed equity awards granted under the equity-settled share-based payment plans and agreements are measured at grant-date fair value. Fair values are determined by means of an option pricing model using the exercise price of the equity instrument granted, the share price at the grant date, the expected life of the grant based on the vesting date and expiry date, estimates of share price volatility, and interest rates over the expected contractual life of the equity award. A forfeiture rate is estimated on the grant date and is subsequently adjusted to reflect the actual number of options that vest.

The costs of the equity-settled share-based payments are recognized within general and administrative expense, production and operating expense or property, plant and equipment to the extent they are directly attributable, with a corresponding increase in contributed surplus over the vesting period. Upon exercise or settlement of an equity-based instrument, consideration received, and associated amounts previously recorded in contributed surplus are recorded to share capital.

Certain awards granted under the performance share rights plan may be settled in cash, in common shares of the Company, or a combination thereof at the discretion of the Company's Board of Directors. Fixed value, equity-settled awards are accounted for as cash-settled share-based payment transactions and are expensed into profit and loss over the unit vesting period with an associated accumulation in liabilities, as a variable number of equity units will be required to settle the liability.

i) Shares held in trust

The Company has share-based payment plans whereby employees may be entitled to receive shares of the Company purchased on the open market by a trustee controlled by the Company. Shares acquired and held by the trustee for the benefit of employees that have not yet been issued to employees, are a separate category of equity that are presented net of common shares outstanding in share capital on the statement

of financial position (note 17b). The balance of shares held in trust represents the cumulative cost of shares held by the trustee. Upon the issuance of shares to the employee, the amount attributable to an employee is deducted from the balance of shares held in trust and removed from contributed surplus.

j) Provisions

Provisions are recognized when the Company has a current legal or constructive obligation as a result of a past event, which can be reliably estimated, and will require the outflow of economic resources to settle the obligation. A non-current provision is determined using the estimated future cash flows discounted at a rate that reflects current market conditions and liability specific risks.

i) Decommissioning obligations

The Company's activities give rise to dismantling, decommissioning, and site disturbance remediation activities. A provision is recorded for the estimated cost of site restoration and capitalized in the relevant asset category.

Decommissioning obligations are measured at the present value of management's estimate of the extent and timing of expenditures required to settle the obligation at the statement of financial position date, using a risk-free interest rate not adjusted for credit risk. Subsequent to the initial measurement, the obligation is adjusted at the end of each period to reflect the passage of time, changes in the timing and estimate of future cash flows underlying the obligation, and changes in the risk-free rate. The accretion of the provision due to the passage of time is recognized in net loss whereas changes in the provision arising from changes in estimated cash flows or changes in the risk-free rate are capitalized. Actual costs incurred upon settlement of the decommissioning obligations are charged against the provision to the extent the provision was established.

ii) Restructuring provisions

Restructuring provisions are recognized when the Company has developed a detailed formal plan for restructuring and has announced the plan's main features to those affected by it. The measurement of a restructuring provision includes only the direct expenditures arising from the restructuring, which are those amounts that are not associated with the ongoing activities of the Company.

A provision for employee downsizing costs is recognized when the Company has announced the restructuring plan to those affected by it, and can no longer withdraw the offer of those benefits. The provision is measured on initial recognition at the Company's best estimate of the expenditure required to settle the obligation.

k) Revenue

Revenue from the sale of crude oil, natural gas and NGL is recognized based on the consideration specified in contracts with customers. The Company recognizes revenue when control of the product transfers to the buyer and collection is reasonably assured. This is generally at the point in time when the customer obtains legal title to the product which is when it is physically transferred to the pipelines or other transportation method agreed upon.

Revenues from processing activities are recognized over time as processing occurs and are generally billed monthly.

Royalty income is recognized monthly as it accrues in accordance with the terms of the royalty agreements.

When allocating the transaction price realized in contracts with multiple performance obligations, management is required to make estimates of the prices at which the Company would sell the product separately to customers. The Company does not currently have any contracts with multiple performance obligations.

The Company's entitlement to gas over bitumen royalty adjustments under the Natural Gas Royalty Regulation (2004) with respect to foregone production (deemed production) from natural gas wells shut-in for the benefit of bitumen producers in the Athabasca oil sands area, is recognized as gas over bitumen royalty credit revenue in the period that deemed production occurs, to the extent that the revenue is expected to be recovered through gas Crown royalties otherwise payable.

l) Income tax

Income tax expense comprises current and deferred components. Income tax expense is recognized in net loss except to the extent that it relates to items recognized directly in equity, in which case it is recognized in equity.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the period end date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognized in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognized on the initial recognition of assets or liabilities in a transaction that is not a business combination. In addition, deferred tax is not recognized for taxable temporary differences arising on the initial recognition of goodwill. Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the period end date. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realized simultaneously.

A deferred tax asset is recognized to the extent that it is probable that future taxable profits will be available against which the temporary difference can be utilized. Deferred tax assets are reviewed at each period end date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

m) Loss per share amounts

Basic income or loss per share is calculated by dividing the net loss by the weighted average number of common shares outstanding during the period. For the dilutive net income per share calculation, the weighted average number of shares outstanding is adjusted for the potential number of shares which may have a dilutive effect on net income.

Diluted income per share is calculated giving effect to the potential dilution that would occur if outstanding warrants, share options, restricted rights, performance share units, or deferred compensation awards were exercised or converted into common shares. The weighted average number of diluted shares is calculated in accordance with the treasury stock method for warrants, share options, restricted rights, deferred shares, deferred options, and performance share units. The treasury stock method assumes that the proceeds received from the exercise of all potentially dilutive instruments are used to repurchase common shares at the average market price.

4. TOURMALINE OIL CORP. ("TOU") SHARE INVESTMENT

	December 31, 2019		December 31, 2018	
	Shares (thousands)	Amount (\$thousands)	Shares (thousands)	Amount (\$thousands)
Balance, beginning of year	1,656	\$ 28,132	1,667	\$ 37,985
Sold	(656)	(9,705)	(11)	(278)
Unrealized change in fair value	–	(3,207)	–	(9,575)
Balance, end of year	1,000	\$ 15,220	1,656	\$ 28,132

TOU is engaged in the acquisition, exploration, development and production of oil and natural gas properties situated in western Canada. TOU shares are listed on the Toronto Stock Exchange under the trading symbol "TOU".

In December of 2019, the Company sold 656,773 TOU shares at a weighted average price of \$14.78 per share, for net cash proceeds of \$9.7 million. Proceeds from the sale of TOU shares were used to pay down the balance of the TOU share margin demand loan by \$9.1 million. The remaining proceeds were used to repay Credit Facility borrowings.

At December 31, 2019, the Company held 1.0 million (December 31, 2018 – 1.66 million) TOU shares with a fair market value of \$15.2 million (December 31, 2018 – \$28.1 million) based on a December 31, 2019 closing price of \$15.22 per share (December 31, 2018 – \$16.98) and were pledged as security for the TOU share margin demand loan (note 9). Net loss for the year ended December 31, 2019 includes an unrealized loss of \$3.2 million (2018 – unrealized loss of \$9.6 million) representing the change in fair value of TOU shares held during the year.

Subsequent to December 31, 2019, the Company sold the remaining 1,000,000 TOU shares at a weighted average price of \$14.32 per share for net cash proceeds of \$14.3 million. Proceeds were used to repay the \$0.1 million TOU share margin demand loan in full (note 9) and to pay down a portion of the revolving bank debt (note 10).

5. PROPERTY, PLANT AND EQUIPMENT ("PP&E")

	Oil and Gas Properties	Corporate Assets	Total
Cost			
December 31, 2017	\$ 687,301	\$ 7,261	\$ 694,562
Additions	26,073	353	26,426
Acquisitions	1,261	–	1,261
Change in decommissioning obligations related to PP&E (note 15a)	4,644	–	4,644
Transfers from exploration and evaluation (note 6)	770	–	770
Dispositions	(848)	–	(848)
December 31, 2018	\$ 719,201	\$ 7,614	\$ 726,815
Additions	12,201	74	12,275
Change in decommissioning obligations related to PP&E (note 15a)	(1,211)	–	(1,211)
Transfers from exploration and evaluation (note 6)	1,335	–	1,335
December 31, 2019	\$ 731,526	\$ 7,688	\$ 739,214
Accumulated depletion, depreciation and impairment			
December 31, 2017	\$ (424,665)	\$ (7,113)	\$ (431,778)
Depletion and depreciation	(34,804)	(142)	(34,946)
December 31, 2018	\$ (459,469)	\$ (7,255)	\$ (466,724)
Depletion and depreciation	(30,628)	(176)	(30,804)
Impairment (note 5b)	(47,052)	–	(47,052)
December 31, 2019	\$ (537,149)	\$ (7,431)	\$ (544,580)
Carrying amount			
December 31, 2018	\$ 259,732	\$ 359	\$ 260,091
December 31, 2019	\$ 194,377	\$ 257	\$ 194,634

At December 31, 2019, property, plant and equipment included \$1.9 million (December 31, 2018 – \$1.9 million) of costs currently not subject to depletion.

For the year ended December 31, 2019, \$0.4 million (December 31, 2018 – \$0.7 million) of direct general and administrative expenses were capitalized. Future development costs for the year ended December 31, 2019 of \$358.8 million (December 31, 2018 – \$346.0 million) were included in the depletion calculation.

a) Dispositions

Proceeds (payments) on dispositions

	December 31, 2019	December 31, 2018
Proceeds on dispositions of oil and gas properties	\$ –	\$ 13,441
Payments on retained shallow gas marketing arrangements	–	(8,540)
Net proceeds on dispositions	\$ –	\$ 4,901

Gain (loss) on dispositions

	December 31, 2019	December 31, 2018
Proceeds on dispositions of oil and gas properties	\$ –	\$ 13,441
Carrying amount of PP&E disposed (note 5)	–	(848)
Carrying amount of E&E disposed (note 6)	–	(12,442)
Carrying amount of decommissioning obligations disposed (note 15a)	–	500
Gain on disposition of oil and gas properties	–	651
Realized loss on retained shallow gas marketing arrangements	–	(874)
Loss on dispositions	\$ –	\$ (223)

Dispositions during the year ended December 31, 2018 included the sale of non-core royalty interests and exploration and evaluation properties for gross proceeds of \$13.4 million, resulting in a net gain on oil and gas properties of \$0.7 million. Included in the gain was \$0.5 million in decommissioning obligations associated with the non-core properties that were sold. There were no dispositions in 2019.

b) Impairment of cash-generating units

During the fourth quarter of 2019, the Company decommissioned its Panny natural gas properties due to an excessive property tax burden and determined that the associated \$0.7 million carrying value was no longer recoverable. Accordingly, a \$0.7 million impairment charge was included in net loss.

For the quarter ended December 31, 2019, the Company conducted an assessment of impairment indicators for the Company's CGUs. In performing the review, management determined that the considerable economic instability and uncertainty in the oil and natural gas markets which negatively impacts operating cash flows, coupled with the Company's available liquidity at December 31, 2019, justified calculation of the recoverable amount of the liquids-rich natural gas assets which comprise the West Central CGU. The recoverable amount of the West Central CGU was determined using value-in-use ("VIU") based on the net present value of cash flows from oil, natural gas, and NGL reserves using estimates of total proved plus probable reserves evaluated or reviewed by the Company's independent reserves evaluators, along with commodity price estimates based on an average of three independent reserve evaluators, and an estimate of market discount rates between 10% and 22% to consider risks specific to the asset.

At December 31, 2019, the Company determined that the carrying amount of the West Central CGU exceeded the recoverable amount of \$130.8 million and accordingly, an impairment charge of \$23.8 million was included in net loss.

Commodity price estimates based on an average of three independent reserve evaluators were used in the VIU calculations as at December 31, 2019:

Year	WTI Crude Oil (US\$/bbl)	USD/CDN exchange rate (US\$/Cdn\$)	Alberta Heavy Crude Oil (Cdn\$/bbl)	AECO Gas (Cdn\$/MMBtu)	NYMEX Gas (Cdn\$/MMBtu)
2020	61.00	0.760	51.23	2.04	3.45
2021	63.75	0.770	56.11	2.32	3.73
2022	66.18	0.785	57.72	2.62	3.90
2023	67.91	0.785	59.45	2.71	4.04
2024	69.48	0.785	61.09	2.81	4.13
2025	71.07	0.785	62.75	2.89	4.23
2026	72.68	0.785	64.43	2.96	4.32
2027	74.24	0.785	66.04	3.03	4.39
2028	75.73	0.785	67.55	3.09	4.50
2029	77.24	0.785	69.08	3.16	4.59
2030	78.79	0.785	70.46	3.23	4.68
2031	80.36	0.785	71.87	3.29	4.76
2032	81.97	0.785	73.31	3.36	4.87
2033	83.61	0.785	74.78	3.43	4.96
2034 ⁽¹⁾	85.28	0.785	76.27	3.49	5.06

⁽¹⁾ Commodity price estimates escalate 2.0% per year thereafter.

As at December 31, 2019, if discount rates used in the calculation of impairment changed by 1% with all other variables held constant, the impairment loss for the period would change by approximately \$7.0 million. As at December 31, 2019, if commodity price estimates changed by 5% with all other variables held constant, the impairment loss for the period would change by approximately \$19.0 million.

For the quarter ended June 30, 2019, the Company conducted an assessment of impairment indicators for the Company's CGUs. In performing the review, management determined that the decrease in natural gas prices in the forward market justified calculation of the recoverable amount of the liquids-rich natural gas assets which comprise the West Central CGU. The recoverable amount of the West Central CGU was determined using VIU based on the net present value of cash flows from oil, natural gas, and NGL reserves using estimates of total proved plus probable reserves evaluated or reviewed by the Company's independent reserves evaluators, along with commodity price estimates based on an average of three independent reserve evaluators, and an estimate of market discount rates between 10% and 20% to consider risks specific to the asset.

At June 30, 2019, the Company determined that the carrying amount of the West Central CGU exceeded the recoverable amount of \$165.0 million and accordingly, an impairment charge of \$22.6 million was included in net loss.

6. EXPLORATION AND EVALUATION ("E&E")

	December 31, 2019	December 31, 2018
Balance, beginning of year	\$ 25,879	\$ 46,704
Additions	664	462
Acquisitions	—	610
Dispositions	—	(12,442)
Impairments	—	(7,200)
Non-cash exploration and evaluation expense	(1,599)	(1,485)
Transfers to property, plant and equipment	(1,335)	(770)
Balance, end of year	\$ 23,609	\$ 25,879

During the year ended December 31, 2019, \$0.2 million (2018 – \$0.7 million) in costs were charged directly to E&E expense in net loss.

Impairment of E&E assets

E&E assets are tested for impairment when there is an indication that a particular E&E project may be impaired. Examples of indicators of impairment include the decision to no longer pursue exploration and development of undeveloped lands, an expiry of the rights to explore in an area, or failure to receive regulatory approval. In addition, E&E assets are assessed for impairment upon their reclassification to producing assets (oil and natural gas properties in PP&E). In assessing the impairment of E&E assets, the carrying value of the assets are compared to their estimated recoverable amount and the impairment of E&E assets is recognized in net loss.

In the third quarter of 2018, Perpetual determined that no additional capital would be spent to hold existing leases on its Waskahigan Duvernay prospect. As a result, the carrying value of the Waskahigan area was written down to its estimated recoverable amount of \$1.3 million, resulting in an impairment charge of \$7.2 million on E&E assets. On November 1, 2018, Perpetual sold its Waskahigan area interests to a third party for cash consideration of \$1.3 million and retained a 1% gross overriding royalty on undeveloped land sold to maintain exposure to future drilling conducted by the purchaser.

7. RIGHT-OF-USE ASSETS

The Company leases several assets including office space, vehicles, and miscellaneous other assets. Information about leases for which the Company is a lessee is presented below:

	Head office	Vehicles	Other leases	Total
Cost				
January 1, 2019	\$ 1,498	\$ 200	\$ 161	\$ 1,859
Additions	—	—	—	—
December 31, 2019	\$ 1,498	\$ 200	\$ 161	\$ 1,859
Accumulated depreciation				
January 1, 2019	\$ —	\$ —	\$ —	\$ —
Depreciation	(240)	(80)	(64)	(384)
December 31, 2019	\$ (240)	\$ (80)	\$ (64)	\$ (384)
Carrying amount				
January 1, 2019	\$ 1,498	\$ 200	\$ 161	\$ 1,859
December 31, 2019	\$ 1,258	\$ 120	\$ 97	\$ 1,475

8. CONTINGENCIES

On August 3, 2018, the Company received a Statement of Claim that was filed by PricewaterhouseCoopers Inc. LIT ("PwC"), in its capacity as trustee in bankruptcy of Sequoia Resources Corp. ("Sequoia"), with the Alberta Court of Queen's Bench (the "Court"), against Perpetual (the "Sequoia Litigation"). The claim relates to an over two-year-old transaction when, on October 1, 2016, Perpetual closed the Shallow Gas Disposition to an arm's length third party at fair market value at the time after an extensive and lengthy marketing, due diligence and negotiation process. This transaction was one of several completed by Sequoia. Sequoia assigned itself into bankruptcy on March 23, 2018. PwC is seeking an order from the Court to either set this transaction aside or declare it void, or damages of approximately \$217 million. On August 27, 2018, Perpetual filed a Statement of Defence and Application for Summary Dismissal with the Court in response to the Statement of Claim. All allegations made by PwC have been denied and an application to the Court to dismiss all claims has been made on the basis that there is no merit to any of them.

Perpetual's Application for Summary Dismissal was heard during the fourth quarter of 2018. On August 15, 2019 the Court issued its oral decision and on January 13, 2020 the Court issued its written decision which dismissed and struck all but one of the claims filed by PwC against Perpetual. Consistent with the position advanced from the outset by the Company, the Court ruled in favour of Perpetual and struck PwC's oppression claim and claim for relief on the grounds of public policy, statutory illegality and equitable rescission.

Despite referring several times to this transaction as one of "arm's length" in the decision, the Court did not find that the test for summary dismissal relating to whether the transaction was an arm's length transfer for purposes of section 96(1) of the Bankruptcy and Insolvency Act (the "BIA") was met, on the balance of probabilities. Accordingly, the BIA claim was not dismissed or struck and only that part of the claim can continue against Perpetual. On August 23, 2019, PwC filed a notice of appeal with the Court of Appeal of Alberta, contesting the entire August 15, 2019 oral decision. On August 26, 2019, Perpetual filed a notice of appeal with the Court of Appeal of Alberta, contesting the BIA claim portion of the oral decision. The appeal proceedings are scheduled to be heard in December of 2020. On November 18, 2019, Perpetual's application to require PwC to post security for costs of the appeal was heard. On January 28, 2020 the Court of Appeal issued its decision requiring PwC to post security with the court in the amount of \$240,000 prior to proceeding with its appeal. Applications have been filed by the Trustee to appeal the security for costs decision and alter the reasons for the decision. The Court of Appeal is scheduled to hear these applications in June 2020. On February 25, 2020, Perpetual filed a new application to strike and summarily dismiss the BIA claim on the basis that there was no transfer at undervalue, and Sequoia was not insolvent at the time of the transaction nor caused to be insolvent by the transaction. The Court is scheduled to hear this application in June 2020.

Management expects that the Company is more likely than not to be completely successful in defending this outstanding part of the claim such that no damages will be awarded against it, and therefore, no amounts have been accrued as a liability in these financial statements.

9. TOU SHARE MARGIN DEMAND LOAN

At December 31, 2019, Perpetual had a \$0.1 million (December 31, 2018 – \$14.1 million) non-revolving TOU share margin demand loan secured by 1.0 million TOU shares. Interest rates are based on 90-day Banker's Acceptance rates plus 1.25%. Perpetual may repay a portion or the entirety of the loan at any time. Any repayment is a permanent reduction to the loan. The TOU share margin demand loan is designated as a financial liability for accounting purposes and measured at amortized cost.

Total loan repayments of \$14.0 million were made during 2019. Subsequent to December 31, 2019, the Company sold the remaining TOU shares and repaid the TOU share margin demand loan in full (note 4).

10. REVOLVING BANK DEBT

As at December 31, 2019, the Company's Credit Facility had a Borrowing Limit of \$55.0 million (December 31, 2018 – \$55.0 million) under which \$47.6 million was drawn (December 31, 2018 – \$42.6 million) and \$2.3 million of letters of credit had been issued (December 31, 2018 – \$3.7 million). Borrowings under the Credit Facility bear interest at its lenders' prime rate or Banker's Acceptance rates, plus applicable margins and standby fees. The applicable Banker's Acceptance rate borrowing margins range between 3.0% and 5.5%.

On December 24, 2019, Perpetual's syndicate of Credit Facility lenders completed their semi-annual borrowing base redetermination, reducing the Borrowing Limit from \$55 million to \$45 million on January 22, 2020, with the maturity date remaining at November 30, 2020. Previously, on March 27, 2019, the Company's lenders confirmed the \$55 million Borrowing Limit and the maturity was extended to November 30, 2020. As a result, revolving bank debt has been presented as a current liability on the consolidated statements of financial position as at December 31, 2019.

The next Borrowing Limit redetermination is scheduled on or prior to March 31, 2020. The Credit Facility will revolve until March 31, 2020 and may be extended for a period of up to 364-days subject to approval by the Company's lenders. If not extended, the Credit Facility will cease to revolve, and all outstanding advances will be repayable on November 30, 2020.

The Credit Facility is secured by general, first lien security agreements covering present and future property of the Company and its subsidiaries, with the exception of certain lands pledged to the gas over bitumen royalty financing counterparty (note 13). The Credit Facility also contains provisions which restrict the Company's ability to repay second lien and unsecured debt, and to pay dividends on or repurchase its common shares.

The effective interest rate on the Credit Facility at December 31, 2019 was 7.5%. For the year ended December 31, 2019, if interest rates changed by 1% with all other variables held constant, the annual impact on interest expense and net loss would be \$0.5 million.

At December 31, 2019, the Credit Facility was not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

11. TERM LOAN

	Maturity date	Interest rate	December 31, 2019		December 31, 2018	
			Principal	Carrying Amount	Principal	Carrying amount
Term loan	March 14, 2021	8.1%	\$ 45,000	\$ 44,274	\$ 45,000	\$ 43,729

The term loan bears a fixed interest rate of 8.1% with semi-annual interest payments due June 30 and December 31 of each year. Amounts borrowed under the term loan that are repaid are not available for re-borrowing. The Company may repay the term loan at any time without penalty.

The term loan has a cross-default provision with the revolving bank debt and contains substantially similar covenants as the revolving bank debt (note 10). The term loan is secured by a general security agreement over all present and future property of the Company and its subsidiaries on a second priority basis, subordinate only to liens securing loans under the revolving bank debt and certain lands pledged to the gas over bitumen royalty financing counterparty.

At December 31, 2019 the term loan is presented net of \$0.7 million in issue costs which are amortized over the remaining term of the loan using a weighted average effective interest rate of 9.5%.

At December 31, 2019, the term loan was not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

12. SENIOR NOTES

	Maturity date	Interest rate	December 31, 2019		December 31, 2018	
			Principal	Carrying Amount	Principal	Carrying amount
2019 senior notes	July 23, 2019	8.75%	\$ –	\$ –	\$ 14,572	\$ 14,536
2022 senior notes	January 23, 2022	8.75%	33,580	32,255	17,918	17,344
Total senior notes			\$ 33,580	\$ 32,255	\$ 32,490	\$ 31,880

On May 7, 2019, Perpetual announced the early redemption of all of the \$14.6 million aggregate principal amount of 8.75% senior notes maturing July 23, 2019 (the "2019 Senior Notes") effective June 11, 2019 (the "Redemption Date"). Pursuant to the early redemption, holders of the 2019 Senior Notes would receive CDN \$1,000 for each \$1,000 principal amount of 2019 Senior Notes (the "Cash Consideration"); or, at the election of the holder, \$1,075 principal amount of 8.75% senior notes due January 23, 2022 (the "2022 Senior Notes") for each \$1,000

principal amount of 2019 Senior Notes (the "2022 Senior Notes Consideration") plus cash in the amount of \$33.32 per \$1,000 principal amount of 2019 Senior Notes, representing all accrued and unpaid interest at the Redemption Date.

On June 11, 2019, the Company completed the early redemption of the \$14.6 million 2019 Senior Notes. Pursuant to the early redemption, the Company issued \$15.7 million of 2022 Senior Notes to fully redeem the 2019 Senior Notes, of which \$15.6 million 2022 Senior Notes were issued to entities controlled by or associated with the Company's President and Chief Executive Officer ("CEO"). There was no gain or loss on the exchange. After giving effect to this senior note refinancing, there are \$33.6 million 2022 Senior Notes outstanding comprised of \$17.9 million 2022 Senior Notes previously outstanding, and the \$15.7 million 2022 Senior Notes issued as consideration to redeem the 2019 Senior Notes. Entities controlled by the Company's CEO hold \$13.4 million of the 2022 Senior Notes now outstanding. An entity that is associated with the Company's CEO holds an additional \$9.1 million of the 2022 Senior Notes now outstanding.

The 2022 Senior Notes bear a fixed interest rate of 8.75% with semi-annual interest payments due January 23 and July 23 of each year. The senior notes are direct senior unsecured obligations of the Company, ranking pari passu with all other present and future unsecured and unsubordinated indebtedness of the Company. Prior to January 23, 2021, the Company may redeem up to 100% of the senior notes at 103.3% of the principal amount. Subsequent to January 23, 2021, the Company may redeem up to 100% of the senior notes at the principal amount.

At December 31, 2019, the 2022 Senior Notes are recorded at the present value of future cash flows, net of \$1.3 million in issue and principal discount costs which are amortized over the remaining term using a weighted average effective interest rate of 10.9%.

The senior notes have a cross-default provision with the Company's Credit Facility (note 10). In addition, the senior notes indenture contains restrictions on certain payments including dividends, retirement of subordinated debt and stock repurchases.

At December 31, 2019, other than the restricted payment covenants noted above, the senior notes were not subject to any financial covenants and the Company was in compliance with all customary non-financial covenants.

13. GAS OVER BITUMEN ROYALTY FINANCING

	December 31, 2019	December 31, 2018
Balance, beginning of year	\$ 1,152	\$ 2,739
Payments	(1,013)	(1,135)
Change in fair value (note 20)	732	(452)
Balance, end of year	\$ 871	\$ 1,152
Gas over bitumen royalty financing – current	\$ 582	\$ 680
Gas over bitumen royalty financing – non-current	289	472
Total gas over bitumen royalty financing	\$ 871	\$ 1,152

In 2014, the Company entered into an agreement whereby the Company received cash proceeds of \$21.3 million in exchange for an obligation to make a monthly cash payment equivalent to a portion of the Company's monthly gas over bitumen royalty adjustment entitlements until June 2021 when the entitlements expire. Security for the gas over bitumen royalty financing is provided by an interest in certain lands of the Company and by the Company's entitlement to future gas over bitumen royalty adjustments.

The gas over bitumen royalty financing is a hybrid financial instrument comprised of a debt host with an embedded derivative related to indexation of the future cash payments to changes in the future Alberta gas reference price. The Company has designated the gas over bitumen royalty financing as a financial liability which is measured at fair value through profit and loss. For the year ended December 31, 2019, an unrealized loss of \$0.7 million (December 31, 2018 – unrealized gain of \$0.5 million) is included in non-cash finance expense related to the change in fair value of the gas over bitumen royalty financing.

As at December 31, 2019, if future natural gas prices changed by \$0.25 per GJ with all other variables held constant, the fair value of the gas over bitumen royalty financing and after tax net loss for the period would change by \$0.2 million (December 31, 2018 – \$0.4 million).

14. LEASE LIABILITIES

	Total
January 1, 2019, lease liabilities recognized on adoption of IFRS 16 (note 3b(iv))	3,126
Additions	–
Interest on lease liabilities (note 20)	189
Payments	(630)
December 31, 2019	2,685
Current	633
Non-current	2,052
December 31, 2019	2,685

Lease terms are negotiated on an individual basis and contain a wide range of terms and conditions. Incremental borrowing rates used to measure the present value of the future lease payments were between 4.3% and 6.6%. During the year, the Company recognized \$0.2 million of short-term, low value, and variable lease costs directly in net loss.

15. PROVISIONS

The components of provisions are as follows:

	December 31, 2019	December 31, 2018
Decommissioning obligations (a)	\$ 37,905	\$ 40,097
Restructuring costs (b)	936	1,267
Total provisions	\$ 38,841	\$ 41,364
Provisions – current	\$ 2,382	\$ 1,933
Provisions – non-current	36,459	39,431
Total provisions	\$ 38,841	\$ 41,364

a) Decommissioning obligations

The following significant assumptions were used to estimate decommissioning obligations:

	December 31, 2019	December 31, 2018
Obligations incurred, including acquisitions	\$ 327	\$ 632
Change in risk free interest rate	(1,900)	(287)
Change in estimates	362	4,299
Change in decommissioning obligations related to PP&E (note 5)	(1,211)	4,644
Obligations settled	(1,733)	(1,969)
Obligations disposed (note 5a)	–	(500)
Accretion (note 20)	752	841
Change in decommissioning obligations	(2,192)	3,016
Balance, beginning of year	40,097	37,081
Balance, end of year	\$ 37,905	\$ 40,097
Decommissioning obligations – current	\$ 1,446	\$ 1,731
Decommissioning obligations – non-current	36,459	38,366
Total decommissioning obligations	\$ 37,905	\$ 40,097

Total future decommissioning obligations are estimated based on the Company's net ownership interest in all wells and facilities, estimated costs to reclaim and abandon these wells and facilities, and the estimated timing of the costs to be incurred in future periods.

The Company adjusts the decommissioning obligations at each period end date for changes in the risk-free interest rate. Accretion is calculated on the adjusted balance after considering additions and dispositions to property, plant, and equipment. Decommissioning obligations are also adjusted for revisions to future cost estimates and the estimated timing of costs to be incurred in future years.

The following significant assumptions were used to estimate the Company's decommissioning obligations:

	December 31, 2019	December 31, 2018
Undiscounted obligations	\$ 40,304	\$ 41,171
Average risk-free rate	1.8%	2.2%
Inflation rate	1.3%	2.0%
Expected timing of settling obligations	1 to 25 years	1 to 25 years

b) Restructuring costs

	Onerous office contract	Employee downsizing costs	Lease inducement	Total
December 31, 2017	\$ 134	\$ –	\$ 1,470	\$ 1,604
Payments	(134)	–	(203)	(337)
December 31, 2018	–	–	1,267	1,267
Lease inducement transferred to lease liability (note 3b)	–	–	(1,267)	(1,267)
Initial recognition	–	1,546	–	1,546
Payments	–	(610)	–	(610)
December 31, 2019	–	936	–	936
Current	–	936	–	936
Non-current	–	–	–	–
Balance, end of year	\$ –	\$ 936	\$ –	\$ 936

In response to the decrease in forward commodity prices, the Company implemented a restructuring plan in the third quarter of 2019, which resulted in the reduction of approximately 25% of its corporate employee head count. Restructuring costs of \$1.5 million were expensed into net loss and are anticipated to be fully paid by the end of 2020. Payments made in 2019 with respect to restructuring costs were \$0.6 million.

16. CONTRACTUAL OBLIGATIONS

The Company's minimum contractual obligations and lease commitments over the next five years and thereafter excluding estimated interest payments, at December 31, 2019 are as follows:

	2020	2021	2022	2023	2024 and thereafter	Total
Contractual obligations						
Accounts payable and accrued liabilities	13,278	–	–	–	–	13,278
Fair value of derivative liabilities	10,542	2,732	–	–	–	13,274
TOU share margin demand loan, principal amount	100	–	–	–	–	100
Revolving bank debt	47,552	–	–	–	–	47,552
Term loan, principal amount	–	45,000	–	–	–	45,000
Senior notes, principal amount	–	–	33,580	–	–	33,580
Gas over bitumen royalty financing	582	289	–	–	–	871
Lease liabilities	633	567	492	460	533	2,685
Pipeline transportation commitments	3,030	1,870	945	945	945	7,735
Total	75,717	50,458	35,017	1,405	1,478	164,075

17. SHARE CAPITAL

	December 31, 2019		December 31, 2018	
	Shares (thousands)	Amount (\$thousands)	Shares (thousands)	Amount (\$thousands)
Balance, beginning of year	60,240	\$ 1,338,369	59,263	\$ 1,336,838
Issued pursuant to share-based payment plans	412	690	1,191	1,200
Shares held in trust purchases (b)	(756)	(200)	(633)	(325)
Shares held in trust issued (b)	617	359	419	656
Elimination of deficit	–	(1,242,342)	–	–
Balance, end of year	60,513	\$ 96,876	60,240	\$ 1,338,369

At the Company's annual general meeting on May 15, 2019, shareholders approved a resolution to reduce share capital for accounting purposes, without the payment of or a reduction to stated or paid-up capital, by the amount of the deficit on December 31, 2018 of \$1,242.3 million.

a) Authorized

Authorized capital consists of an unlimited number of common shares.

b) Shares held in trust

The Company has compensation agreements in place with employees whereby they may be entitled to receive shares of the Company purchased on the open market by a trustee (note 18d). Share capital is presented net of the number and cumulative purchase cost of shares held by the trustee that have not yet been issued to employees. As at December 31, 2019, 0.8 million shares were held in trust (December 31, 2018 – 0.7 million).

c) Warrants

The following table summarizes the warrants issued:

	Warrants (thousands)	Amount (\$thousands)
Balance, December 31, 2017	6,480	\$ 923
Warrants exercised for common shares	–	–
Balance, December 31, 2018	6,480	\$ 923
Warrants exercised for common shares	–	–
Balance, December 31, 2019	6,480	\$ 923

Each warrant entitles the holder to acquire common shares on a one for one basis at an exercise price of \$2.34 per share prior to March 14, 2020. On March 14, 2020, the warrants expired and were not exercised.

d) Per share information

For the year ended (<i>thousands, except per share amounts</i>)	December 31, 2019	December 31, 2018
Net loss – basic	\$ (94,015)	\$ (20,380)
Effect of dilutive securities	–	–
Net loss – diluted	\$ (94,015)	\$ (20,380)
Weighted average shares		
Issued common shares	61,107	60,496
Effect of shares held in trust	(849)	(457)
Weighted average common shares outstanding – basic and diluted	60,258	60,039
Net loss per share – basic and diluted	\$ (1.56)	\$ (0.34)

In computing per share amounts for the year ended December 31, 2019, 18.7 million potentially issuable common shares through the share-based compensation plans and warrants (2018 – 18.8 million) were excluded as the Corporation had a net loss.

18. SHARE-BASED PAYMENTS

The components of share-based payment expense are as follows:

	December 31, 2019	December 31, 2018
Share options (note 18a)	\$ 452	\$ 779
Performance share rights (note 18c)	1,478	933
Deferred compensation awards (note 18d)	365	861
Share-based payment expense	\$ 2,295	\$ 2,573

a) Share option plan

Perpetual's share option plan provides a long-term incentive to employees and directors associated with the Company's long-term performance. The Board of Directors administers the share option plan and determines participants, number of share options and terms of vesting. The exercise price of the share options granted shall not be less than the value of the weighted average trading price for the Company's common shares for the five trading days immediately preceding the date of grant. Share options granted vest evenly over four years, with expiry occurring five years after issuance.

The following tables summarize information about share options outstanding:

	December 31, 2019		December 31, 2018	
	Average exercise price (<i>\$/share</i>)	Share options (<i>thousands</i>)	Average exercise price (<i>\$/share</i>)	Share options (<i>thousands</i>)
Balance, beginning of year	1.33	4,724	1.67	3,987
Granted	–	–	0.25	903
Cancelled/forfeited	1.16	(120)	1.66	(83)
Expired	–	–	5.97	(83)
Balance, end of year	1.33	4,604	1.33	4,724

Range of exercise prices	Number of share options (<i>thousands</i>)	Options outstanding		Options exercisable	
		Average contractual life (<i>years</i>)	Weighted average exercise price (<i>\$/share</i>)	Number of share options (<i>thousands</i>)	Weighted average exercise price (<i>\$/share</i>)
\$0.25 to \$1.13	864	3.9	0.25	216	0.25
\$1.14 to \$1.57	1,765	1.5	1.41	1,332	1.42
\$1.58 to \$2.00	1,975	2.3	1.73	1,065	1.74
Total	4,604	2.3	1.33	2,613	1.45

The Company used the Black Scholes pricing model to calculate the estimated fair value of the outstanding share options and deferred options (note 18d) at the date of grant. During the year ended December 31, 2019, the Company did not grant any additional share options.

	2019	2018
Dividend yield (%)	—	0.0
Forfeiture rate (%)	—	5.0-10.0
Expected volatility (%)	—	60.0
Risk-free interest rate (%)	—	2.2
Expected life (years)	—	2.6-3.2
Vesting period (years)	—	4.0
Contractual life (years)	—	5.0
Weighted average grant date fair value	—	\$ 0.10

b) Restricted rights plan

The Company has a restricted rights plan for certain officers, employees and consultants. Restricted rights granted under the restricted rights plan may be exercised during a period (the "Exercise Period") not exceeding five years from the date upon which the restricted rights were granted. The restricted rights typically vest on a graded basis over two years. At the expiration of the Exercise Period, any restricted rights which have not been exercised shall expire. Upon vesting, the plan participant is entitled to receive one common share for each right held at a cost of \$0.01 per share.

The fair value of an award granted under the restricted rights plan is assessed on the grant date by factoring in the weighted average common share trading price for the five days preceding the grant date. This fair value is recognized as share-based payment expense over the vesting period with a corresponding increase to contributed surplus. During the year ended December 31, 2019, the Company did not grant any restricted rights to employees, other than to settle performance share rights and deferred shares.

Restricted rights granted upon the exercise of performance share rights (note 18c) vest on the grant date and have a 90-day exercise period. Restricted rights granted upon the exercise of deferred compensation awards (note 18d) vest on the grant date and have a 30-day exercise period. No value is assigned to restricted rights issued pursuant to those plans as the value and expense have been previously recognized over the vesting period of the underlying performance share rights and deferred compensation awards.

The following table shows changes in the restricted rights outstanding under the restricted rights plan:

<i>(thousands)</i>	December 31, 2019	December 31, 2018
Balance, beginning of year	—	—
Granted pursuant to exercise of performance share rights (c)	215	1,008
Granted pursuant to exercise of deferred shares (d)	208	196
Exercised for common shares ⁽¹⁾	(423)	(1,204)
Balance, end of year	—	—

⁽¹⁾ May not agree to common shares issued pursuant to share-based payment plans (note 17) due to cashless exercises.

c) Performance share rights plan

The Company has an equity-settled performance share rights plan for the Company's executive officers. Performance rights granted under the performance share rights plan vest two years after the date upon which the performance rights were granted. The performance rights that vest and become redeemable are a multiple of the performance rights granted, dependent upon the achievement of certain performance metrics over the vesting period. Vested performance rights can be settled in cash or restricted rights (note 18b), at the discretion of the Board of Directors. Performance rights are forfeited if participants of the performance share rights plan leave the organization other than through retirement or termination without cause prior to the vesting date.

The fair value of a performance share rights award is determined at the date of grant by using the closing price of common shares multiplied by the estimated performance multiplier. As at December 31, 2019, performance multipliers of 0.5 have been assumed for those unvested awards granted in 2018 and 2019. Fluctuations in share-based payments may occur due to changes in estimates of performance outcomes. The amount of share-based payment expense is reduced by an estimated forfeiture rate of 5% (2018 – 5%) for outstanding awards. The estimated weighted average fair value of performance share rights granted during the year ended December 31, 2019 was \$0.19 per award (2018 – \$0.64).

The following table shows changes in the performance share rights outstanding under the performance share rights plan:

<i>(thousands)</i>	December 31, 2019	December 31, 2018
Balance, beginning of year	1,465	1,060
Granted	1,710	1,035
Performance adjustment ⁽¹⁾	(215)	—
Exercised in exchange for restricted rights ⁽¹⁾	(215)	(630)
Cancelled/forfeited	—	—
Balance, end of year	2,745	1,465

⁽¹⁾ In 2019, vested performance share rights were exercised in exchange for restricted rights based on a performance multiplier of 0.5 (2018 – 1.6).

In 2018, the Company introduced a performance-based long-term incentive awards plan (the "PLTI" plan) for the executive officers. The awards granted pursuant to the plan are tied to specific individual-based performance metrics established by the Board which can be based on "total shareholder return" or other metrics specifically designed to align with value creation for shareholders and to incentivize and retain key executive officers. The awards vest evenly over four years, with expiry occurring five years after issuance. Upon vesting, award holders may be entitled to receive, at the discretion of the Board of Directors, cash, a grant of restricted rights (note 18b), or a combination of cash and restricted rights. Awards granted pursuant to the PLTI plan are included in the table below (note 18d).

Certain awards granted under the PLTI plan contain monetary awards that may be settled in cash, in common shares of the Company, or a combination thereof at the discretion of the Board of Directors, equal to the monetary amount at the time of vesting. These awards are accounted for as cash-settled share-based compensation in which the fair value of the amounts payable under the plan are recognized incrementally as an expense over the vesting period, with a corresponding change in liabilities. Upon exercise of these awards in exchange for cash, the liability is reduced. Upon exercise of these awards in exchange for a variable number of shares, the value in liabilities pertaining to the exercise is recorded as share capital. As at December 31, 2019, \$0.4 million had been accrued pursuant to cash-settled share-based compensation awards (December 31, 2018 – \$0.4 million).

d) Deferred compensation awards

Deferred options

The Company has deferred option agreements in place with certain employees whereby they may be entitled to receive shares of the Company purchased on the open market by an independent trustee if they remain employees of the Company during such time and exercise their options. Deferred options generally vest evenly over four years, with expiry occurring five years after issuance. The shares purchased by the independent trustee are reported as shares held in trust (note 17b).

The following tables summarize information about the deferred options and performance-based long-term incentive awards:

	December 31, 2019		December 31, 2018	
	Average exercise price (\$/share)	Deferred options (thousands)	Average exercise price (\$/share)	Deferred options (thousands)
Balance, beginning of year	0.84	4,165	1.68	2,268
Granted	—	—	0.11	2,159
Cancelled/forfeited	1.18	(577)	1.68	(220)
Expired	3.16	(1)	4.73	(42)
Balance, end of year	0.78	3,587	0.84	4,165

Range of exercise prices	Deferred options outstanding			Deferred options exercisable	
	Number of deferred options (thousands)	Average contractual life (years)	Weighted average exercise price (\$/share)	Number of deferred options (thousands)	Weighted average exercise price (\$/share)
\$0.01 to \$0.24	1,188	3.9	—	297	—
\$0.25 to \$1.13	786	3.9	0.25	209	0.25
\$1.14 to \$1.57	603	1.4	1.42	463	1.42
\$1.58 to \$2.81	1,010	2.3	1.73	545	1.74
Total	3,587	3.0	0.78	1,514	1.09

During the year ended December 31, 2019, the Company did not grant any additional deferred options.

Deferred shares

The Company also has deferred share agreements in place with directors and certain employees whereby, in the case of directors, upon retirement from the Board of Directors, or in the case of employees, over a period of two years if they remain employees of the Company during such time, may be entitled to receive at the discretion of the Board of Directors, cash, a grant of restricted rights (note 18b) or shares of the Company purchased on the open market by an independent trustee. The shares purchased by the independent trustee are reported as shares held in trust (note 17b).

The fair value of these agreements is assessed on the grant date by factoring in the weighted average common share trading price for the five days preceding the grant date and is reduced by an estimated forfeiture rate of 5% (2018 – 5%). The fair value is recognized as share-based payment expense over the vesting period with a corresponding increase to contributed surplus. Upon exercise of these agreements in exchange for restricted rights, the value in contributed surplus pertaining to the exercise is recorded as share capital. Upon exercise of these agreements in exchange for shares held in trust, the shares held in trust account is reduced by the number of shares issued using the average cost base of purchased shares and offset to contributed surplus. The estimated weighted average fair value of these awards granted during the year ended December 31, 2019 was \$0.20 per award (2018 – \$0.23).

The following table shows changes to these awards:

<i>(thousands)</i>	December 31, 2019	December 31, 2018
Balance, beginning of year	1,947	1,857
Granted	253	784
Exercised in exchange for shares held in trust (note 17)	(617)	(419)
Exercised in exchange for restricted rights	(208)	(196)
Cancelled/forfeited	(99)	(79)
Balance, end of year	1,276	1,947

19. REVENUE

The Company sells its production pursuant to fixed or variable price contracts. The transaction price for variable priced contracts is based on the commodity price, adjusted for quality, location or other factors, whereby each component of the pricing formula can be either fixed or variable, depending on the contract terms. Under the contracts, the Company is required to deliver fixed or variable volumes of natural gas, crude oil or NGL as may be applicable to the contract counterparty. Revenue is recognized when a unit of production is delivered to the contract counterparty. The amount of revenue recognized is based on the agreed transaction price, whereby any variability in revenue relates specifically to the Company's efforts to transfer production, and therefore the resulting revenue is allocated to the production delivered in the period during which the variability occurs. As a result, none of the variable revenue is considered constrained.

Natural gas, crude oil and NGL production is mainly sold under contracts of varying price and volume terms of up to one year. Revenues are typically collected on the 25th day of the month following production.

For the year ended December 31, 2019, the Company had sales to three customers which exceeded ten percent of oil and natural gas revenue. The largest customer represented 41% and \$30.8 million (2018 – 57% and \$49.4 million) of oil and natural gas revenue, and included \$28.0 million (2018 – \$42.4 million) related to the market diversification contract below. The second largest customer represented 15% and \$11.2 million (2018 – 18% and \$15.4 million) of oil and natural gas revenue. The third largest customer represented 13% and \$9.3 million (2018 – 0% and nil).

Natural gas volumes sold pursuant to the Company's market diversification contract are sold at fixed volume obligations of 40,000 MMBtu/d and priced at daily index prices at each of the market price points, less transportation costs from AECO to each market price point as detailed below.

In the third quarter of 2019, Perpetual extended the term of its market diversification contract by two years. From November 1, 2022 to October 31, 2024, Perpetual will deliver 40,000 MMBtu/d at AECO and receive Malin, Dawn, and Emerson daily index prices less US\$0.0775/MMBtu and transportation costs from AECO to the market price point.

In late September 2019, the Company modified its market diversification contract to forgo its right to receive pricing at five North American natural gas hub pricing points for the period commencing December 1, 2019 and ending on October 31, 2020 in consideration for receipt of payment of \$2.7 million. The amount has been recognized in revenue as a realized gain on derivatives.

Market/Pricing Point	November 1, 2020 to October 31, 2022 Daily sales volume (MMBtu/d)	November 1, 2022 to October 31, 2024 Daily sales volume (MMBtu/d)
Chicago	12,200	–
Malin	10,800	15,000
Dawn	8,000	15,000
Michcon	5,200	–
Empress	3,800	–
Emerson	–	10,000
Total natural gas sales volume obligation	40,000	40,000

The following table presents the Company's oil and natural gas sales disaggregated by revenue source:

	December 31, 2019	December 31, 2018
Oil and natural gas revenue		
Natural gas ⁽¹⁾	\$ 39,318	\$ 54,769
Oil	23,958	16,390
NGL	11,085	14,969
Total oil and natural gas revenue	\$ 74,361	\$ 86,128

⁽¹⁾ Includes revenues related to the market diversification contract of \$28.0 million for the year ended December 31, 2019 (2018 – \$42.4 million) and \$0.7 million related to physical forward sales contracts which settled during the period (2018 - \$3.3 million).

Included in accounts receivable at December 31, 2019 is \$4.5 million of accrued oil and natural gas sales related to December 2019 production (December 31, 2018 – \$7.9 million related to December 2018 production).

20. FINANCE EXPENSE

The components of finance expense are as follows:

	December 31, 2019	December 31, 2018
Cash finance expense		
Interest on revolving bank debt	\$ 2,880	\$ 2,226
Interest on TOU share margin demand loan	407	570
Interest on term loan	3,645	3,665
Interest on senior notes	2,921	2,864
Interest on lease liabilities	189	–
Dividend income from TOU share investment	(762)	(618)
Total cash finance expense	\$ 9,280	\$ 8,707
Non-cash finance expense		
Amortization of debt issue costs	1,187	1,026
Accretion on decommissioning obligations (note 15a)	752	841
Change in fair value of gas over bitumen royalty financing (note 13)	732	(452)
Total non-cash finance expense	\$ 2,671	\$ 1,415
Finance expenses recognized in net loss	\$ 11,951	\$ 10,122

21. CHANGES IN NON-CASH WORKING CAPITAL INFORMATION

For the year ended	December 31, 2019	December 31, 2018
Accounts receivable	\$ 3,875	\$ 5,138
Prepaid expenses and deposits	(16)	(201)
Accounts payable and accrued liabilities ⁽¹⁾	(2,890)	(15,242)
Change in non-cash working capital	\$ 969	\$ (10,305)

⁽¹⁾ Includes \$0.4 million (December 31, 2018 – \$0.4 million) of cash-settled share-based payment awards (note 18c).

The change in non-cash working capital has been allocated to the following activities:

For the year ended	December 31, 2019	December 31, 2018
Operating	\$ 4,602	\$ 2,541
Financing	–	–
Investing	(3,633)	(12,846)
Change in non-cash working capital	\$ 969	\$ (10,305)

22. FINANCIAL RISK MANAGEMENT

The Board of Directors has overall responsibility for the establishment and oversight of the Company's risk management framework and has implemented and monitors compliance with risk management policies.

The Company's risk management policies are established to identify and analyze the risks faced by the Company, to set appropriate risk limits and controls, and to monitor risks and adherence to market conditions and the Company's activities.

a) Credit risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Company's receivables from joint venture partners, oil and natural gas marketers and derivative contract counterparties.

Receivables from oil and natural gas marketers are normally collected on the 25th day of the month following sales. The Company's policy to mitigate credit risk associated with these balances is to establish marketing relationships with large, well established purchasers. The Company historically has not experienced any significant collection issues with its oil and natural gas marketing receivables. Joint venture receivables are typically collected within one to three months of the joint venture bill being issued to the partner. The Company attempts to mitigate the risk from joint venture receivables by obtaining partner approval of significant capital expenditures prior to expenditure. However, the receivables are generally from participants in the oil and natural gas sector, and collection of the outstanding balances is dependent on industry factors such as commodity price fluctuations, escalating costs, the risk of unsuccessful drilling and oil and gas production; in addition, further risk exists with joint venture partners as disagreements occasionally arise that increase the potential for non-collection. The Company does not typically obtain collateral from oil and natural gas marketers or joint venture partners, however, the Company does have the ability in some cases to withhold production or amounts payable to joint venture partners in the event of non-payment.

The Company manages the credit exposure related to derivatives by engaging in risk management transactions with credit worthy counterparties, and periodically monitoring counterparty credit assessments.

The combined carrying amount of accounts receivable and fair value of derivative assets as at December 31, 2019 was \$5.1 million (December 31, 2018 – \$19.8 million), representing the Company's maximum credit exposure. The Company's credit provisions are represented by its loss allowance based on lifetime expected credit losses as at December 31, 2019 of \$0.9 million (December 31, 2018 – \$1.1 million). The amount of the loss allowance was determined based on historical credit loss experience, adjusted for forward-looking factors specific to the debtors and

the economic environment. The total amount of accounts receivables 90 days past due amounted to \$0.8 million as at December 31, 2019 (December 31, 2018 – \$1.1 million).

b) Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they become due. The Company's approach to managing liquidity is to ensure, as far as possible, that it will have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking harm to the Company's reputation (note 1).

c) Market risk

Market risk is the risk that changes in market prices such as foreign exchange rates, commodity prices and interest rates will affect the Company's net loss or the value of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable limits, while maximizing returns.

The Company utilizes both financial derivatives and fixed price physical delivery sales contracts to manage market risks related to commodity prices, and foreign currency rates. All such transactions are conducted in accordance with the Company's Risk Management Policy, which has been approved by the Board of Directors.

i) Commodity price risk

Commodity price risk is the risk that the fair value or future cash flow will fluctuate as a result of changes in commodity prices. Commodity prices for oil and natural gas are impacted not only by the relationship between the Canadian and United States dollar, but also by world economic events that dictate the levels of supply and demand. The Company manages commodity price risk using various financial derivatives and fixed price physical delivery sales contracts.

As at December 31, 2019, the Company has variable priced physical natural gas sales contracts based on future market prices. These contracts are not classified as non-financial derivatives since the settlement price corresponds directly with fluctuations in natural gas prices.

Natural gas contracts

At December 31, 2019, the Company had entered into the following basis differential contracts between AECO and NYMEX:

Term	Settlement	Sold/bought	Volumes (MMBtu/d)	AECO-NYMEX differential (US\$/MMBtu)	Fair Value (\$ thousands)
January 2020 – December 2020	Physical	Sold	12,500	(1.41)	(3,562)
January 2020 – December 2020	Financial	Sold	15,000	(1.41)	(4,302)
January 2021 – December 2021	Physical	Sold	15,000	(1.31)	(2,732)

Natural gas contracts - sensitivity analysis

As at December 31, 2019, if future AECO-NYMEX differential prices changed by US\$0.15/MMBtu with all other variables held constant, the fair value of derivatives and net loss for the period would change by \$2.8 million. Fair value sensitivity was based on published forward AECO and NYMEX prices.

Oil contracts

At December 31, 2019, the Company had entered into the following financial fixed price oil sales arrangements which settle in Cdn\$:

Term	Volumes (bbls/d)	WTI (Cdn\$/bbl)	Fair Value (\$ thousands)
January 2020 – December 2020	250	50.00	(141)

At December 31, 2019, the Company had entered into the following financial fixed price oil sales arrangements which settle in US\$:

Term	Volumes (bbls/d)	WTI (US\$/bbl)	Fair Value (\$ thousands)
January 2020 – October 2020	1,000	54.28	(1,944)

At December 31, 2019, the Company had entered into the following financial oil basis differential arrangements between WTI and WCS:

Term	Volumes (bbls/d)	WTI-WCS differential (US\$/bbl)	Fair Value (\$ thousands)
January 2020 – December 2020	750	(18.75)	(168)

Oil contracts - sensitivity analysis

As at December 31, 2019, if future oil prices or WTI-WCS differentials changed by US\$5.00 per boe with all other variables held constant, the fair value of derivatives and net loss for the period would change by \$4.1 million. Fair value sensitivity was based on published forward WTI and WCS prices.

NGL contracts

At December 31, 2019, the Company had entered into the following financial NGL basis differential arrangements between WTI and Edmonton condensate pricing:

Term	Volumes (bbls/d)	WTI-Edmonton condensate differential (US\$/bbl)	Fair Value (\$ thousands)
January 2020 – June 2020	350	(6.15)	(351)

NGL contracts - sensitivity analysis

As at December 31, 2019, if future WTI-Edmonton condensate differential prices changed by US\$0.50/bbl per boe with all other variables held constant, the fair value of derivatives and net loss for the period would change by a nominal amount. Fair value sensitivity was based on published forward WTI and Edmonton condensate prices.

Foreign exchange contracts

At December 31, 2019, the Company had entered into the following US\$ forward sales arrangements to manage the Company's exposure to US\$ denominated crude oil sales:

Term	Notional (US\$ thousands/month)	Strike rate (US\$/Cdn\$)	Fair Value (\$ thousands)
January 2020 – March 2020	2,000	1.29	(74)

Foreign exchange contracts - sensitivity analysis

As at December 31, 2019, if future exchange rates changed by \$0.10 US\$/Cdn\$ with all other variables held constant, the fair value of foreign exchange derivatives and net loss for the period would change by \$0.6 million. Fair value sensitivity was based on published forward US\$/Cdn\$ rates.

The following table is a summary of the fair value of the Company's derivative contracts by type:

	December 31, 2019	December 31, 2018
Physical natural gas contracts	\$ (6,294)	\$ 5,293
Financial natural gas contracts	(4,302)	4,336
Financial oil contracts	(2,253)	1,289
Financial NGL contracts	(351)	–
Financial foreign exchange contracts	(74)	(2,299)
Fair value of derivatives	\$ (13,274)	\$ 8,619
Derivative assets – current	–	7,012
Derivative assets – non-current	–	3,906
Derivative liabilities – current	(10,542)	(1,405)
Derivative liabilities – non-current	(2,732)	(894)
Fair value of derivatives	\$ (13,274)	\$ 8,619

The following table details the Company's changes in fair value of derivatives:

	December 31, 2019	December 31, 2018
Unrealized gain (loss) on physical natural gas contracts	(11,587)	4,084
Unrealized gain (loss) on financial natural gas contracts	(8,638)	2,830
Unrealized gain (loss) on financial oil contracts	(3,542)	1,132
Unrealized gain (loss) on financial NGL contracts	(351)	–
Unrealized gain (loss) on forward foreign exchange contracts	2,225	(2,299)
Unrealized change in fair value of derivatives	(21,893)	5,747
Realized gain (loss) on financial natural gas contracts ⁽¹⁾	3,917	4,141
Realized gain (loss) on financial oil contracts	(3,818)	(820)
Realized gain (loss) on financial NGL contracts	(328)	–
Realized gain (loss) on forward foreign exchange contracts	(560)	(250)
Change in fair value of derivatives	(22,682)	8,818

⁽¹⁾ Includes early settlement of \$2.7 million related to the market diversification contract (note 19).

Fair value of financial assets and liabilities

The Company's fair value measurements are classified as one of the following levels of the fair value hierarchy:

Level 1 – inputs represent unadjusted quoted prices in active markets for identical assets and liabilities. An active market is characterized by a high volume of transactions that provides pricing information on an ongoing basis.

Level 2 – inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. These valuations are based on inputs that can be observed or corroborated in the marketplace, such as market interest rates or forward prices for commodities.

Level 3 – inputs for the asset or liability are not based on observable market data.

The Company aims to maximize the use of observable inputs when preparing calculations of fair value. Classification of each measurement into the fair value hierarchy is based on the lowest level of input that is significant to the fair value calculation.

The fair value of cash and cash equivalents, accounts receivable, and accounts payable and accrued liabilities approximate their carrying amounts due to their short terms to maturity. Revolving bank debt and the TOU share margin demand loan bear interest at a floating market rate, and accordingly, the fair market value approximates the carrying amount.

The fair value of the gas over bitumen royalty financing is estimated by discounting future cash payments based on the forecasted Alberta gas reference price multiplied by the contracted deemed volume. This fair value measurement is classified as level 3 as significant unobservable inputs, including the discount rate and forecasted Alberta gas reference prices, are used in determination of the carrying amount. The discount rate of 12.2% was determined on inception of the agreement based on the characteristics of the instrument. The forecasted Alberta gas reference prices for the remaining term are based on AECO forward market pricing with adjustments for historical differences between the Alberta reference price and market prices.

The fair value of financial assets and liabilities, excluding working capital, is attributable to the following fair value hierarchy levels:

As at December 31, 2019	Gross	Netting ⁽¹⁾	Carrying Amount	Fair value		
				Level 1	Level 2	Level 3
Financial assets						
Fair value through profit and loss						
TOU share investment	15,220	–	15,220	15,220	–	–
Fair value of derivatives	159	(159)	–	–	–	–
Financial liabilities						
Financial liabilities at amortized cost						
TOU share margin demand loan	(100)	–	(100)	(100)	–	–
Revolving bank debt	(47,552)	–	(47,552)	(47,734)	–	–
Senior notes	(32,255)	–	(32,255)	–	(31,691)	–
Term loan	(44,274)	–	(44,274)	–	–	(45,000)
Fair value through profit and loss						
Fair value of derivatives	(13,433)	159	(13,274)	–	(13,274)	–
Gas over bitumen royalty financing	(871)	–	(871)	–	–	(871)

⁽¹⁾ Derivative assets and liabilities presented in the statement of financial position are shown net of offsetting assets or liabilities where the arrangement provides for the legal right and intention for net settlement exists.

As at December 31, 2018	Gross	Netting ⁽¹⁾	Carrying Amount	Fair value		
				Level 1	Level 2	Level 3
Financial assets						
Fair value through profit and loss						
TOU share investment	28,132	–	28,132	28,132	–	–
Fair value of derivatives	14,092	(3,174)	10,918	–	10,918	–
Financial liabilities						
Financial liabilities at amortized cost						
TOU share margin demand loan	(14,109)	–	(14,109)	(14,144)	–	–
Revolving bank debt	(42,561)	–	(42,561)	(42,689)	–	–
Senior notes	(31,880)	–	(31,880)	–	(30,126)	–
Term loan	(43,729)	–	(43,729)	–	–	(45,000)
Fair value through profit and loss						
Fair value of derivatives	(5,473)	3,174	(2,299)	–	(2,299)	–
Gas over bitumen royalty financing	(1,152)	–	(1,152)	–	–	(1,152)

⁽¹⁾ Derivative assets and liabilities presented in the statement of financial position are shown net of offsetting assets or liabilities where the arrangement provides for the legal right and intention for net settlement exists.

23. DEFERRED INCOME TAXES

The provision for income taxes in the consolidated financial statements differs from the result that would have been obtained by applying the combined federal and provincial tax rate to the Company's loss before income tax. This difference results from the following items:

	December 31, 2019	December 31, 2018
Net loss before income tax	\$ (94,015)	\$ (20,380)
Combined federal and provincial tax rate	26.5%	27.0%
Computed income tax expense (recovery)	(24,914)	(5,503)
Increase (decrease) in income taxes resulting from:		
Non-deductible expenses	124	695
Non-taxable capital loss	425	1,293
Other	891	729
Change in unrecognized tax asset	23,474	2,786
Deferred income tax expense	\$ –	\$ –

The following table summarizes the deferred income tax liabilities of the Company and its subsidiaries, which are offset against certain deferred income tax assets:

For the years ended	December 31, 2019	December 31, 2018
Liabilities:		
Senior notes	\$ 351	\$ 164
Term loan	192	353
Fair value of derivatives	–	2,948
Right-of-use-assets	391	–
Total deferred income tax liabilities	934	3,465
Assets:		
Decommissioning obligations	\$ (934)	\$ (3,465)

The unused tax losses and deductible temporary differences included in the Company's unrecognized deferred income tax assets are as follows:

For the years ended	December 31, 2019	December 31, 2018
Non-capital losses	\$ 201,739	\$ 179,021
Capital losses	151,553	142,552
Property, plant and equipment	83,396	33,189
Decommissioning obligations	34,379	27,300
Fair value of derivatives	13,275	2,300
TOU share investment	13,261	19,055
Share and debt issue costs	2,813	2,742
Lease liabilities	2,686	–
Other	1,807	2,383
	\$ 504,909	\$ 408,542

At December 31, 2019, the unused non-capital losses expire between 2024 and 2039, and unused capital losses have no expiry date. The deductible temporary differences do not expire under current tax legislation. The oil and natural gas properties and facilities owned by the Company and its subsidiaries have an approximate tax basis of \$302 million (December 31, 2018 – \$319 million) available for future use as deductions from taxable income.

Deferred income tax assets have not been recognized in respect of these unused tax losses and temporary differences because it is not probable that future taxable profit will be available against which the Company can utilize the benefits.

24. KEY MANAGEMENT PERSONNEL

The Company has defined key management personnel as executive officers, as well as the Board of Directors, as they have the collective authority and responsibility for planning, directing and controlling the activities of the Company. The following table outlines the total compensation expense for key management personnel:

For the years ended	December 31, 2019	December 31, 2018
Short-term compensation	\$ 2,434	\$ 2,593
Share-based payments	1,987	1,717
	\$ 4,421	\$ 4,310

25. SUPPLEMENTAL DISCLOSURE

The Company's consolidated statements of loss and comprehensive loss are prepared primarily by nature of expense, except for employee compensation costs which are included in both production and operating and general and administrative expenses.

The following table details the amount of total employee compensation costs included in production and operating and general and administrative expenses in the consolidated statements of loss and comprehensive loss.

For the years ended	December 31, 2019	December 31, 2018
Production and operating	\$ 2,009	\$ 2,006
General and administrative	8,234	8,685
Share-based payments	2,295	2,573
Restructuring costs	1,546	—
	\$ 14,084	\$ 13,264