

## **MANAGEMENT'S DISCUSSION AND ANALYSIS**

*The following is management's discussion and analysis ("MD&A") of Perpetual Energy Inc.'s ("Perpetual", the "Company" or the "Corporation") operating and financial results for the three months ended March 31, 2017 as well as information and estimates concerning the Corporation's future outlook based on currently available information. This discussion should be read in conjunction with the Corporation's condensed interim consolidated financial statements and accompanying notes for the three months ended March 31, 2017 as well as audited consolidated financial statements and accompanying notes for the years ended December 31, 2016 and 2015. The MD&A should be read in conjunction with the Corporation's MD&A for the year ended December 31, 2016 as disclosure which is unchanged from the December 31, 2016 MD&A has not been duplicated herein. The Corporation's consolidated financial statements are prepared in accordance with Canadian generally accepted accounting principles ("GAAP") which require publicly accountable enterprises to prepare their financial statements using International Financial Reporting Standards ("IFRS"). Readers are referred to the advisories for additional information regarding forecasts, assumptions and other forward-looking information contained in the "Forward Looking Information and Statements" section of this MD&A. The date of this MD&A is May 8, 2017.*

*Certain financial measures referred to in this MD&A are not prescribed by IFRS. See "Non-GAAP Financial Measures" for information regarding the following non-GAAP financial measures used in this MD&A: "adjusted funds flow", "operating netback", "realized revenue", "gas over bitumen net of payments", "adjusted working capital deficiency (surplus)", "net debt", "net bank debt" and "total capitalization".*

**NATURE OF BUSINESS:** Perpetual is an oil and natural gas exploration, production and marketing company headquartered in Calgary, Alberta. Perpetual operates a diversified asset portfolio, including liquids-rich natural gas assets in the deep basin of west central Alberta, heavy oil and shallow natural gas in eastern Alberta, with longer term opportunities through undeveloped oil sands leases in northern Alberta. Additional information on Perpetual, including the most recently filed Annual Information Form ("AIF"), can be accessed at [www.sedar.com](http://www.sedar.com) or from the Corporation's website at [www.perpetualenergyinc.com](http://www.perpetualenergyinc.com).

### **FIRST QUARTER 2017 HIGHLIGHTS**

Perpetual focused on four key strategic priorities during the first quarter of 2017:

- Grow the value of Greater Edson liquids-rich gas;
- Optimize the value potential of Eastern Alberta assets;
- Advance high impact opportunities; and
- Optimize the balance sheet for growth.

Perpetual completed a number of financing transactions during the first quarter which collectively increased the Company's liquidity by \$68 million, significantly improving its debt repayment profile and providing funding for its growth-oriented capital program. Subsequent to the end of the quarter, on April 17, 2017, Perpetual completed the early repayment at par of \$27.1 million 8.75% senior notes that were scheduled to mature on March 15, 2018 (the "2018 Senior Notes") and the remaining \$0.5 million outstanding were exchanged for new 8.75% senior notes maturing on January 23, 2022. (the "2022 Senior Notes"). Refer to the "Liquidity and Capital Resources" section of this MD&A for details of financing transactions completed. After giving effect to the early repayment of the 2018 Senior Notes, approximately 50% of Perpetual's debt outstanding matures in 2021 or later and available liquidity comprised of cash on hand along with undrawn amounts available under the \$20 million reserve based, revolving credit facility (the "Credit Facility") and the \$45 million senior secured term loan facility (the "Term Loan") was approximately \$37 million.

During the first quarter of 2017, capital spending ramped up following a period of minimal investment due to low commodity prices in 2016, reaching \$24.6 million, a five-fold increase over the prior year period. Drilling and completion activity was focused at East Edson, comprising 75% of capital expenditures. Five Wilrich horizontal wells were drilled. Three wells were completed, tied in and on production prior to spring break-up, including one well that was drilled in the fourth quarter of 2016. The remaining three wells will be completed and brought on production later in the second quarter after spring break-up. Two well pads were built and associated pipelines were installed during the first quarter when construction costs are typically lower which will reduce the time required to bring new wells on production as they are drilled and completed later in 2017. Drilling costs in the first quarter were reduced by 30% per well from the same period in 2016 as a result of successful well design changes.

Capital spending in eastern Alberta comprised the remaining 25% of capital spending in the first quarter, and included the successful drilling, completion, equip and tie-in of four horizontal heavy oil wells in the Mannville area, three of which were exploratory. The development well is on-stream and producing banked oil as expected from waterflood operations. The three exploratory wells are equipped with two currently producing. Mechanical cleanouts are planned in May for two of the wells with suspected sand issues. The commercial viability of the future development of the newly discovered pools will be evaluated through the second quarter. First quarter 2017 capital program also included expenditures for high return conventional shallow gas workovers and recompletions as well as waterflood operations. In addition, two horizontal pilot wells were drilled during the fourth quarter of 2016 and the first quarter of 2017 to evaluate drilling and completion well designs and reservoir performance to advance the understanding of the Company's Viking and Colorado shallow shale gas plays. Completion and evaluation operations are ongoing with more definitive results expected later in the third quarter of 2017.

First quarter production averaging 8,143 boe/d, was flat compared to the fourth quarter of 2016 as natural declines were offset by increased production due to the ramp up of capital investment subsequent to the completed sale of high liability shallow gas assets on October 1, 2016 (the "Shallow Gas Disposition"). Compared to the first quarter of 2016, total production was down 10,235 boe/d or 56% primarily driven by the sale of 6,507 boe/d related to producing assets included in the Shallow Gas Disposition which represented 64% of the period over period variance. The remaining first quarter variance was due to natural production declines as capital spending was constrained throughout 2016 due to low commodity prices.

Despite flat production compared to the fourth quarter of 2016 and the 56% decline from the first quarter of 2016, adjusted funds flow grew to \$5.1 million in the first quarter of 2017, compared to \$3.3 million in the previous quarter and a nominal amount for the first quarter in 2016. Improved performance compared to both prior periods reflected higher netbacks related to increased average realized prices and lower costs in all aspects of the business. Operating costs during the first quarter of 2017 on a unit-of-production basis were reduced by 27% compared to the same period in 2016 demonstrating the Company's positive results over the past 12 months to affect a sustainable cost structure to increase operating netbacks per boe.

## OUTLOOK

Success in advancing the Company's strategic priorities has established a foundation for strong growth in production and adjusted funds flow in 2017. Financing transactions closed during the first quarter of 2017 established sufficient liquidity to execute the planned growth-oriented capital program and manage debt maturities into 2019 at current commodity prices. The Company will continue its diligent focus on capital efficiency improvements and reductions in operating, financing and administrative costs to improve upon the sustainable cost structure established through strategic decisions implemented over the past two years.

Based on the total capital spending plan in 2017 of \$65 to \$70 million, Perpetual expects to exit 2017 at a production rate of 13,000 to 13,500 boe/d. Weather-related drilling and completion delays have reduced second quarter production forecasts and, depending on timing to resume field operations, full year 2017 production is expected to average 10,000 to 11,000 boe/d (85% natural gas). This represents growth in exit rate based on average December production of approximately 60% compared to the prior year.

Subject to resumption of activity following spring break-up, the Company is planning to frac three standing horizontal Wilrich wells at East Edson in late May or early June. Plans are in place to recommence drilling after break-up to grow production at East Edson, with the drilling, completion and tie-in of up to eight additional wells during the remainder of 2017. The one rig drilling program in East Edson is expected to re-establish throughput using Company-owned infrastructure approaching the capacity of 60 to 65 MMcf/d plus associated liquids by year-end 2017. Cleanout operations are also planned at Mannville on the two new heavy oil exploration wells as soon as field conditions allow. Pending results from the two exploratory wells, up to four additional heavy oil wells are planned for the fourth quarter of 2017 in Mannville.

Capital spending during the remainder of 2017 will be funded through a combination of adjusted funds flow, proceeds from the financing transactions closed on March 14, 2017 and asset sales, including the potential sale of TOU shares, as required.

In order to protect a base level of adjusted funds flow, Perpetual has commodity price contracts in place in 2017 on an estimated 45% of forecast production for the remainder of the year. These include a combination of forward month physical and financial natural gas contracts at AECO hub on 27,500 GJ/d to October 2017 at an average price of \$3.15/GJ and 32,500 GJ/d for November and December 2017 at an average price of \$3.07/GJ. Perpetual also has oil sales arrangements on 750 bbl/d protecting a WTI floor price of \$USD50.00/bbl. See "Commodity Price Risk Management" section of this MD&A for further details.

Based on these assumptions and the current forward market for oil and natural gas prices, Perpetual forecasts 2017 adjusted funds flow of approximately \$33 to \$40 million. Incorporating the current market value of 1.67 million Tourmaline Oil Corp. shares (TSX – "TOU") of approximately \$28 per share, the Company estimates year-end 2017 total net debt of approximately \$85 to \$90 million, with a corresponding estimated net debt to trailing twelve months adjusted funds flow ratio of approximately 2.5 at year end 2017.

## FIRST QUARTER FINANCIAL AND OPERATING RESULTS

### Capital expenditures

(\$ thousands)	Three months ended March 31,	
	2017	2016
Exploration and development	24,563	4,794
Other	27	20
Capital expenditures	24,590	4,814
Geological and geophysical costs <sup>(1)</sup>	–	15
Dispositions, net of acquisitions <sup>(2)</sup>	(228)	(6,466)
<b>Total</b>	<b>24,362</b>	<b>(1,637)</b>

<sup>(1)</sup> Geological and geophysical expenditures and dry hole costs are expensed directly in the Corporation's statement of income (loss); they are considered by Perpetual to be more closely related to investing activities than operating activities, and therefore are included with capital expenditures for the purposes of this MD&A.

<sup>(2)</sup> Excludes cash flows from retained shallow gas marketing arrangements.

### Exploration and development spending by area

(\$ thousands)	Three months ended March 31,	
	2017	2016
West Central	18,525	4,636
Eastern Alberta	6,038	158
<b>Total</b>	<b>24,563</b>	<b>4,794</b>

### Wells drilled by area

(gross/net)	Three months ended March 31,	
	2017	2016
West Central	5/5.0	1/1.0
Eastern Alberta	5/4.3	–
<b>Total</b>	<b>10/9.3</b>	<b>1/1.0</b>

Perpetual's exploration and development spending in the first quarter of 2017 totaled \$24.6 million. Capital expenditures included drilling ten (9.3 net) wells, with five (5.0 net) horizontal natural gas wells at Edson, as well as four (3.3 net) horizontal heavy oil wells and one (1.0 net) shallow horizontal natural gas well at Mannville.

Spending at East Edson, represented 75% of total exploration and development expenditures in the first quarter. East Edson capital activity included the drilling of five (5.0 net) Wilrich horizontal wells, frac and tie-in operations of three wells, including one drilled in the fourth quarter of 2016, as well as lease construction and tie-in of pad locations in preparation for drilling in the remainder of 2017. An early spring break-up, delayed planned frac operations which will now be completed during the second quarter of 2017. The three wells waiting on completion are all on the same pad site which is already tied-in, therefore sales through the plant will be established immediately following a short post-frac clean-up period. The Company plans to recommence drilling after break up to continue to grow production at East Edson, with the drilling of up to an additional eight wells. The one rig drilling program in East Edson is expected to re-establish throughput using Company-owned infrastructure approaching the capacity of 60 to 65 MMcf/d plus associated liquids by year-end 2017. Drilling costs in the first quarter were reduced by 30% per well from the same period in 2016 as a result of successful well design changes.

Spending in Eastern Alberta consisted of a four well (3.3 net) horizontal drilling program in the Company's Mannville heavy oil property and one well (1.0 net) targeting the Viking/Colorado shallow shale gas play. The drilling program resulted in two new oil pool discoveries for the Company. Contingent upon production performance from the two exploratory wells into one of these new pools, up to four development wells may be drilled in the second half of 2017. The two horizontal wells drilled during the fourth quarter of 2016 and the first quarter of 2017 to advance the evaluation of the shallow shale gas play in the Viking and Colorado formations, are on production at low rates and are being evaluated. The Viking gas well has not yet been fully fracture stimulated with those operations being planned for the second quarter of 2017.

### ***Expenditures on decommissioning obligations***

During the three months ended March 31, 2017, Perpetual spent \$0.6 million (Q1 2016 - \$1.1 million) on abandonment and reclamation projects. Plans are in place to execute an internally-managed asset-retirement program at Mannville in the second half of 2017 targeting well abandonments, pipeline discontinuations and abandonments as well as reclamation work to reduce mineral and surface lease rental payments, maintenance costs and high municipal taxes associated with the linear property in the Mannville area.

### **Net income (loss)**

Net loss for the first quarter of 2017 was \$14.2 million, compared to net income of \$32.8 million in the comparative period. Net loss in the first quarter of 2017 was primarily driven by a recorded loss of \$11.2 million on its TOU share investment (Q1 2016 - gain of \$34.0 million) combined with lower gains on derivative commodity hedging contracts of \$4.0 million (Q1 2016 - gains of \$19.0 million). The net loss during the first quarter also included an unrealized loss of \$3.2 million on marketing arrangements retained in relation to the Shallow Gas Disposition.

Offsetting the difference in mark-to-market adjustments to the fair value of TOU shares and commodity derivatives, were improvements to period-over-period operational performance reflected by a 32% increase in realized prices and a 27% reduction in unit operating costs that was partially offset by lower production. Cash general and administrative costs decreased \$2.8 million (48%) due to head count and office space reductions following the closing of the Shallow Gas Disposition. Interest costs decreased by \$5.0 million compared to the first quarter of 2016, due mainly to the redemption of \$214.4 million principal amount of 8.75% senior notes in exchange for TOU shares that was completed in the second quarter of 2016.

### **Cash flow from operating activities**

Net cash flow used in operating activities for the first quarter ended March 31, 2017 was \$2.3 million, compared to cash flow used in operating activities of \$6.8 million in the prior year period, as increased realized commodity prices and lower costs detailed above, more than offset lower revenue from decreased production volumes.

### **Adjusted funds flow**

Management uses adjusted funds flow and adjusted funds flow per share to analyze operating performance and borrowing capacity. Adjusted funds flow is cash flow from operating activities before changes in non-cash working capital, settlement of decommissioning obligations and certain exploration and evaluation costs, but after payments on the gas over bitumen royalty financing and payments on restructuring costs. Adjusted funds flow is not intended to represent cash flow from operating activities, net earnings or other measures of financial performance calculated in accordance with IFRS.

Below is a table to reconcile cash flow from operating activities to adjusted funds flow:

(\$ thousands, except per share amounts)	Three months ended March 31,	
	2017	2016
Net cash flow from (used in) operating activities	(2,289)	(6,770)
Changes in non-cash working capital	6,308	6,359
Payments on gas over bitumen royalty financing <sup>(1)</sup>	(816)	(650)
Payments on restructuring costs <sup>(2)</sup>	1,344	–
Expenditures on decommissioning obligations	563	1,094
Exploration and evaluation costs <sup>(3)</sup>	–	15
Adjusted funds flow	5,110	48
<b>Adjusted funds flow per share<sup>(4)</sup></b>	<b>0.09</b>	<b>0.00</b>

(1) These payments are indexed to gas over bitumen revenue and are recorded as a reduction to the Corporation's gas over bitumen royalty financing obligation in accordance with IFRS. To present gas over bitumen revenue net of these payments, the Corporation has reclassified these payments from financing to operating activities in the calculation of adjusted funds flow.

(2) Restructuring cost payments include employee downsizing costs and surplus office lease obligations associated with the Shallow Gas Disposition which the Company considers to not be related to cash flow from operating activities.

(3) The Corporation expenses exploratory dry hole costs, geological and geophysical costs, lease rentals on undeveloped properties and the cost of expired leases in the period incurred. To make reported adjusted funds flow in this MD&A more comparable to industry practice, dry hole costs and geological and geophysical costs are reclassified from operating to investing activities in the adjusted funds flow reconciliation.

(4) Based on basic weighted average shares outstanding for the period.

For the first quarter ended March 31, 2017, adjusted funds flow was \$5.1 million compared to nominal adjusted funds flow in the prior year period. Improved adjusted cash flow performance was due to the same factors detailed above that contributed to improved cash flow from operations.

### Reconciliation of adjusted funds flow to net income

	2017		2016	
	(\$ thousands)	(\$/boe)	(\$ thousands)	(\$/boe)
Realized revenue <sup>(1)</sup>	18,905	25.80	32,697	19.55
Royalties <sup>(2)</sup>	(3,102)	(4.23)	(2,277)	(1.36)
Production and operating expenses	(4,601)	(6.28)	(14,369)	(8.59)
Transportation costs	(1,015)	(1.38)	(2,499)	(1.49)
Operating netback <sup>(1)</sup>	10,187	13.91	13,552	8.11
Gas over bitumen revenue net of payments	109	0.15	(120)	(0.07)
Exploration and evaluation – lease rentals <sup>(3)</sup>	(188)	(0.26)	(508)	(0.30)
Cash G&A	(3,101)	(4.23)	(5,943)	(3.55)
Interest <sup>(3)</sup>	(1,897)	(2.59)	(6,933)	(4.15)
Adjusted funds flow <sup>(1)</sup>	5,110	6.98	48	0.03
Unrealized gains (losses) on derivatives	3,246	4.43	11,013	6.59
Payments on gas over bitumen royalty financing	816	1.11	650	0.39
Exploration and evaluation <sup>(4)</sup>	(1,313)	(1.79)	(857)	(0.51)
Share based compensation expense, non-cash	(1,532)	(2.09)	(400)	(0.24)
Gain (loss) on dispositions	(2,191)	(2.99)	7,073	4.23
Depletion and depreciation	(7,125)	(9.72)	(17,547)	(10.49)
Finance expense, non-cash	33	0.05	(1,643)	(0.98)
Change in fair value of TOU share investment	(11,216)	(15.30)	33,954	20.30
Net income and dividends from gas storage investment	–	–	473	0.28
Net income (loss)	(14,172)	(19.32)	32,764	19.60

(1) See "Non-GAAP measures" in this MD&A.

(2) Includes \$2.0 million in gross overriding royalty payments at East Edson for the three months ended March 31, 2017 (Q1 2016- \$1.3 million).

(3) Excludes non-cash items.

(4) Includes non-cash exploration and evaluation expense from expired leases and geological and geophysical costs.

Perpetual's operating netback of \$13.90/boe (\$10.2 million) in the first quarter of 2017 increased 71% from \$8.11/boe (\$13.6 million) in the comparative period of 2016. This increase was due to the 32% increase in realized prices and the 27% reduction in unit production and operating expenses. Improved operating cost performance reflected the impact of the Shallow Gas Disposition combined with improved cost performance on retained properties.

## Production

	Three months ended March 31,	
	2017	2016
Natural gas ( <i>MMcf/d</i> )		
Eastern Alberta	6.5	45.4
West Central	34.2	52.8
Total natural gas	40.7	98.2
Crude oil ( <i>bb/d</i> )		
Eastern Alberta <sup>(1)</sup>	859	1,168
West Central	18	6
Total crude oil	877	1,174
Total NGL ( <i>bb/d</i> ) <sup>(2)</sup>	479	836
<b>Total production (<i>boe/d</i>)</b>	<b>8,143</b>	<b>18,378</b>

<sup>(1)</sup> Primarily Mannville heavy oil.

<sup>(2)</sup> Primarily West Central liquids-rich gas.

First quarter production averaged 8,143 boe/d, down 10,235 boe/d or 56% from the prior year period production of 18,378 boe/d, due to the sale of 6,507 boe/d related to producing assets included in the Shallow Gas Disposition which represented 64% of the period over period variance. The remaining variance was due to natural production declines as capital spending was constrained in 2016 due to low commodity prices.

The residual impacts of minimal capital spending throughout 2016 were evident at East Edson as natural production declines were stabilized with the startup of new wells later in the first quarter of 2017. Natural gas production at East Edson decreased by 35% from the prior year period level but remained flat compared to the fourth quarter of 2016. Drilling at East Edson began ramping up in late 2016 with three wells coming on stream during the first quarter of 2017, however, the full impact of those wells were not seen in the quarter as wells came online in mid-February and late March. The completion of the remaining three drilled wells and continuation of the drilling program to the end of 2017 is anticipated to re-establish production levels to the capacity of the Company-owned infrastructure approaching 60 to 65 MMcf/d plus associated liquids by year-end 2017. Lower crude oil production in Eastern Alberta reflected similar declines at Mannville as production increases from wells drilled in the first quarter were not impactful on the quarter as wells came on in late March. April oil production is over 1,000 bbl/d oil as the positive impacts of the new wells and two waterflood injector conversions are starting to be seen.

## Commodity Prices

	Three months ended March 31,	
	2017	2016
<b>Reference prices</b>		
AECO Monthly Index ( <i>\$/GJ</i> )	2.79	2.00
AECO Monthly Index ( <i>\$/Mcf</i> ) <sup>(1)</sup>	2.94	2.12
AECO Daily Index ( <i>\$/GJ</i> )	2.55	1.74
AECO Daily Index ( <i>\$/Mcf</i> ) <sup>(1)</sup>	2.69	1.84
Alberta Gas Reference Price ( <i>\$/GJ</i> ) <sup>(2)</sup>	2.46	1.78
West Texas Intermediate ("WTI") light oil ( <i>US\$/bbl</i> )	51.92	33.45
Western Canadian Select ("WCS") differential ( <i>US\$/bbl</i> )	(14.57)	(14.24)
WTI and WCS combined fixed price ( <i>\$/CAD/bbl</i> ) <sup>(3)</sup>	49.41	26.41
<b>Average Perpetual prices</b>		
Natural gas		
Before derivatives ( <i>\$/Mcf</i> ) <sup>(4)</sup>	3.43	2.25
Percent of AECO Monthly Index	119	100
Including derivatives ( <i>\$/Mcf</i> )	5.04	3.15
Percent of AECO Monthly Index	175	139
Oil		
Before derivatives ( <i>\$/bbl</i> )	43.72	22.08
Including derivatives ( <i>\$/bbl</i> )	31.39	33.90
Natural gas liquids ("NGL") ( <i>\$/bbl</i> )	49.70	29.33

<sup>(1)</sup> Converted from *\$/GJ* using a standard conversion rate of 1.06 GJ:1 Mcf.

<sup>(2)</sup> Alberta Gas Reference Price is the price used to calculate Alberta Crown royalties.

<sup>(3)</sup> Derived internally using the Bank of Canada average US\$ to \$CAD foreign exchange rate of 1.32 for the three months ended March 31, 2017 (Q1 2016 - 1.37).

<sup>(4)</sup> Natural gas price before derivatives includes physical forward sales contracts for which delivery was made during the reporting period but excludes realized gains and losses on financial derivatives.

Increases in benchmark prices on all commodities resulted in a positive effect to first quarter 2017 realized pricing compared to the prior year period. Average AECO Monthly Index pricing of \$2.79/GJ in the first quarter of 2017 was 40% higher than \$2.00/GJ for the same period in 2016, reflecting the year-on-year reduction of natural gas in storage in Alberta and generally in North America. The reduction of natural gas storage levels was a result of higher heating demand despite warm winter weather, increases in baseload natural gas demand in the United States from LNG exports, additional power generation, and increased Mexican exports.

WTI oil prices rallied from the lows of US\$33.45/bbl during the first quarter of 2016 to average US\$51.92/bbl for the quarter ended March 31, 2017, as the supply-demand imbalance dissipated somewhat as a result of declines in light oil production in the United States, OPEC's November 30, 2016 announcement to cut 1.2 million barrels per day of production, along with an additional cut from select non-OPEC producers of up to 0.6 million barrels per day, that began in January 2017.

Increased AECO Monthly Index prices were reflected in Perpetual's natural gas price before derivatives of \$3.43/Mcf for the end of the first quarter of 2017, up 52% from \$2.25/Mcf for the same period in 2016 and 17% higher than the AECO Monthly Index price of \$2.94/Mcf. Price optimization strategies applied to prompt month physical settlements contributed to improved realized prices over the AECO Monthly Index price.

Perpetual's average realized gas price, including derivatives, increased 60% to \$5.04/Mcf for the first quarter ended March 31, 2017 from \$3.15/Mcf in the first quarter of 2016. The Corporation's first quarter 2017 realized natural gas price includes \$4.9 million of gains realized on crystallizations of contracts before maturity, \$0.2 million of realized gains on other natural gas fixed price contracts and \$0.8 million of revenue realized through management of third party physical gas volumes related to marketing arrangements entered into during prompt months. During the first quarter of 2017, the average conversion ratio for Perpetual's natural gas production was 1.16 GJ:1 Mcf compared to 1.13 GJ:1 Mcf in the comparative first quarter of 2016. This increase reflects the larger percentage of total gas production from East Edson, which yields higher heat content gas compared to Perpetual's other production areas.

Perpetual's 2017 first quarter oil price, before derivatives, of \$43.72/bbl increased 98% compared to the same period in 2016, due primarily to the 87% increase in WCS pricing. The increase in the average WCS price was primarily driven by higher benchmark WTI prices offset by changes in currency as differentials remained relatively flat over the comparative period. Included in Perpetual's average oil price before derivatives are deductions for quality adjustments, loss allowance, terminal fees, and diluent blending fees. In the first quarter of 2017 these deductions averaged \$6.44/bbl (2016 - \$6.05/bbl).

Perpetual's realized oil price of \$31.39/bbl, including derivatives, was lower than the price before derivatives due to losses of \$0.1 million recorded on financial crude oil derivative contracts and \$0.9 million of losses realized on crystallizations of contracts before maturity.

Perpetual's realized average NGL price for the first quarter of 2017 reached \$49.70/bbl, up 69% from the first quarter of 2016, reflecting an increase in all NGL component prices as excess North American inventory levels began to stabilize due to increasing exports from the United States to Asia and Europe. Perpetual's average NGL sales composition for the first quarter ended March 31, 2017 consisted of 67% condensate, a slight decrease from the prior year period (2016 - 71%).

## Revenue

<i>(\$ thousands, except as noted)</i>	Three months ended March 31,	
	2017	2016
Petroleum and natural gas revenue		
Natural gas <sup>(1)</sup>	12,563	20,105
Oil <sup>(1)</sup>	3,451	2,358
NGL	2,144	2,231
Total petroleum and natural gas revenue	18,158	24,694
Realized gains (losses) on derivatives	747	8,003
Realized revenue	18,905	32,697
Unrealized gains (losses) on derivatives	3,246	11,013
Total revenue	22,151	43,710
Realized revenue <i>(\$/boe)</i>	25.80	19.55
Total revenue <i>(\$/boe)</i>	30.23	26.14

<sup>(1)</sup> Includes revenues related to physical forward sales contracts which settled during the period.

Perpetual's petroleum and natural gas ("P&NG") revenue, before derivatives, for the three months ended March 31, 2017 of \$18.2 million decreased 26% from 2016, due to a 56% decrease in average daily production, partially offset by a 32% increase in prices.

Natural gas revenue, before derivatives, of \$12.6 million in the first quarter of 2017 decreased 38% from \$20.1 million in 2016 reflecting the impact of lower production volumes attributable to the Shallow Gas Disposition partially offset by an improvement in natural gas prices.

First quarter 2017 oil revenues of \$3.5 million were 46% higher than the same period in 2016 (\$2.4 million) due to higher crude oil prices despite lower overall oil production as a result of natural declines and limited spending allocated to Perpetual's crude oil drilling programs in 2016.

NGL revenue for the first quarter of 2017 of \$2.1 million was slightly lower than the comparative period due to lower production offset by higher prices.

Realized gains on derivatives totaled \$0.7 million for the first quarter of 2017 compared to gains of \$8.0 million in 2016. Total gains in the current period were comprised of \$5.9 million on natural gas derivatives offset by losses of \$1.0 million from oil derivatives and \$4.2 million of losses on forward foreign exchange contracts.

Perpetual recorded unrealized gains on derivatives of \$3.2 million during the first three months of 2017 compared to unrealized gains of \$11.0 million for the same period in 2016. Unrealized gains and losses represent the change in mark-to-market value of derivative contracts as forward commodity prices and foreign exchange rates change. Unrealized gains and losses on derivatives are excluded from the Corporation's calculation of cash flow from operating activities as they are non-cash. Derivative gains and losses vary depending on the nature and extent of derivative contracts in place. Commodity price management contracts are actively managed in accordance with the Corporation's assessment of commodity price risk, committed capital spending and other factors.

## Royalties

(\$ thousands, except as noted)	Three months ended March 31,	
	2017	2016
Crown	478	302
Freehold and overriding <sup>(1)</sup>	2,624	1,975
Total	3,102	2,277
Crown (% of P&NG revenue)	2.6	1.2
Freehold and overriding (% of P&NG revenue)	14.5	8.0
Total (% of P&NG revenue)	17.1	9.2
\$/boe	4.23	1.36

<sup>(1)</sup> Includes \$2.0 million in gross overriding royalty payments at East Edson for the three months ended March 31, 2017 (Q1 2016 - \$1.3 million).

Royalty expenses for the quarter ended March 31, 2017 were \$3.1 million, representing an increase in the effective combined average royalty rate on P&NG revenue to 17.1% from 9.2% in the first quarter of 2016. Average crown royalty rates increased to 2.6% in 2017 compared to 1.2% in the first quarter of 2016, as a result of the disposition of lower net royalty assets sold as part of the Shallow Gas Disposition combined with higher Alberta natural gas reference prices and higher oil prices.

Freehold and overriding royalty rates increased from 8.0% in the first quarter of 2016 to 14.5% in the 2017 period, reflecting an increase in natural gas prices and the larger percentage of total production sourced from East Edson wells in the first quarter of 2017. Pursuant to Perpetual's East Edson agreements, the partner is entitled to a gross overriding royalty equivalent to a maximum of 5.6 MMcf/d of natural gas from the East Edson property plus oil and associated NGLs on a monthly basis. The East Edson royalty is calculated based on the daily index natural gas price. Excluding royalty payments of \$2.0 million under the East Edson overriding royalty arrangement (Q1 2016 - \$1.3 million), the effective freehold and overriding royalty rate for the three months ended March 31, 2017 was 6.3% compared to 3.9% for the prior year period.

## Production and operating expenses

(\$ thousands, except as noted)	Three months ended March 31,	
	2017	2016
Production and operating expenses	4,601	14,369
\$/boe	6.28	8.59

Total production and operating expenses decreased 68% to \$4.6 million during the first quarter of 2017 compared to \$14.4 million recorded during the same period in 2016. This decrease reflected the impact of the Shallow Gas Disposition, continued efficiencies realized through the Company-owned and operated gas plant at East Edson and company-wide cost saving initiatives. Production and operating expenses on a unit-of-production basis were \$6.28/boe, a decrease of 27% from the prior period, and are expected to decrease through the remainder of 2017 as natural production grows through capital investment at East Edson. The first quarter saw higher than average well servicing requirements in the Mannville heavy oil assets which increased operating costs as well as negatively affecting volumes. These costs are expected to trend lower through the remainder of 2017.

## Transportation costs

(\$ thousands, except as noted)	Three months ended March 31,	
	2017	2016
Transportation costs	1,015	2,499
\$/boe	1.38	1.49

Transportation costs include clean oil trucking and NGL transportation as well as costs to transport natural gas from the plant gate to commercial sales points. Consistent with the decrease in period-over-period production, transportation costs decreased 59% to \$1.0 million from \$2.5 million for the same period in 2016, reflecting lower oil and gas sales volumes combined with lower rates on clean oil trucking. The reduction in transportation costs per unit is largely the result of Perpetual's higher percentage of total gas production from East Edson properties, where costs to transport gas averaged \$0.21/Mcf compared to an average cost of \$0.35/Mcf for the properties related to the Shallow Gas Disposition.

## Gas over bitumen

(\$ thousands, except as noted)	Three months ended March 31,	
	2017	2016
Gas over bitumen royalty credit	925	530
Payments on gas over bitumen royalty financing <sup>(1)</sup>	(816)	(650)
Gas over bitumen, net of payments	109	(120)
\$/boe	0.15	(0.07)

<sup>(1)</sup> At March 31, 2017, the fair value of the gas over bitumen royalty financing was estimated to be \$6.3 million (December 31, 2016 - \$8.3 million).

Perpetual records revenue in relation to gas over bitumen royalty credits received under the Natural Gas Royalty Regulation for natural gas wells which have been shut-in pursuant to shut-in orders issued by the Government of Alberta. During the three months ended March 31, 2017, Perpetual recorded \$0.9 million in gas over bitumen revenue; an increase of \$0.4 million from the same period in 2016 attributable to the higher Alberta gas reference prices, offset by the annual 10% decline in deemed production.

Gas over bitumen royalty credits earned in the first quarter of 2017 funded payments of \$0.8 million (Q1 2016 – \$0.7 million) in relation to the 2014 monetization of Perpetual's future gas over bitumen royalty credits. As part of the arrangement, Perpetual makes monthly payments to the purchaser, which from time to time will vary from the actual gas over bitumen credit received in the period due to timing differences. The monthly payment commitment expires concurrent with the gas over bitumen credit, with final expiries expected to occur in June 2021.

Under IFRS, the monetization of future gas over bitumen royalty credits was recorded as a financial obligation ("Gas over bitumen royalty financing"); however, entitlement to future revenue from gas over bitumen royalty adjustments are not recorded as an asset but as revenue with the passage of time as it is earned. As such, gas over bitumen revenue will continue to be recognized separately as revenue in accordance with Perpetual's accounting policies with the monthly payments recognized separately as a reduction to the gas over bitumen royalty financing obligation. For purposes of this MD&A, the monthly payments have been included as a reduction to gas over bitumen revenue to reflect the substantive monetization of the future gas over bitumen royalty adjustments. During the first quarter of 2017, the gas over bitumen royalty financing obligation was reduced by \$2.0 million, comprised of payments of \$0.8 million and an unrealized gain of \$1.2 million. The gain has been included in non-cash finance expense and represents a decrease in the fair value of the gas over bitumen royalty financing obligation as a result of lower forecasted natural gas reference prices.

### Exploration and evaluation

(\$ thousands)	Three months ended March 31,	
	2017	2016
Lease rentals	188	508
Geological and geophysical costs <sup>(1)</sup>	–	15
Lease expiries	1,313	842
Total exploration and evaluation	1,501	1,365

<sup>(1)</sup> Geological and geophysical expenditures and dry hole costs are expensed directly in the Corporation's statement of income (loss); they are considered by Perpetual to be more closely related to investing activities than operating activities, and therefore are included with capital expenditures for the purposes of this MD&A.

Exploration and evaluation ("E&E") costs include lease rentals on undeveloped acreage, geological and geophysical costs and the write down of carrying costs related to lease expiries. E&E costs of \$1.5 million during the three months ended March 31, 2017 were 10% higher than the same period in 2016 due to non-cash write-downs associated with lease expiries combined with certain leases deemed to no longer be part of Perpetual's future development plans. This increase was partially offset by decreased lease rental costs, largely due to the impact of the Shallow Gas Disposition.

### General and administrative expenses

(\$ thousands, except as noted)	Three months ended March 31,	
	2017	2016
Cash general and administrative expense	3,101	5,943
Share based compensation expense (non-cash)	1,532	400
Total general and administrative expense	4,633	6,343
Cash general and administrative expense (\$/boe)	4.23	3.55
Share based compensation expense (non-cash) (\$/boe)	2.09	0.24

Cash G&A expense decreased 48% to \$3.1 million in 2017 from \$5.9 million in the comparative period. This decrease reflected reductions in staffing levels pursuant to the Shallow Gas Disposition along with savings related to reduced consulting fees and on-going cost saving initiatives implemented by the Corporation in response to the depressed commodity price environment.

Non-cash compensation expenses for the three months ended March 31, 2017 increased \$1.1 million compared to the same period in 2016. This increase was the result of performance multiplier adjustments related to performance share rights issued and outstanding in addition to the beneficial modification of share based compensation plans following the consolidation of outstanding common shares of the Company on the basis of 20 common shares to one common share on March 24, 2016.

### Dispositions

#### Proceeds on dispositions

(\$ thousands)	Three months ended March 31,	
	2017	2016
Proceeds on dispositions of oil and gas properties	436	6,466
Proceeds on retained shallow gas marketing arrangements	538	–
Payments on fixed portion of retained shallow gas marketing arrangements	(929)	–
Net proceeds on dispositions	45	6,466

#### Loss (gain) on dispositions

(\$ thousands)	Three months ended March 31,	
	2017	2016
Realized gain on retained shallow gas marketing arrangements	(538)	–
Unrealized loss on retained shallow gas marketing arrangements	3,157	–
	2,619	–
Gains on oil and gas property dispositions	(428)	(7,073)
Loss (gain) on dispositions	2,191	(7,073)

Dispositions during the first quarter of 2017 consisted of gains of \$0.4 million related to the sale of certain gross overriding royalties and non-core undeveloped land for proceeds of \$0.4 million. During the first quarter of 2016, Perpetual disposed of certain undeveloped oil sands leases and surplus production equipment for cash proceeds of \$6.5 million with net gains totaling \$7.1 million included in net income. Included in the gain were \$0.6 million in liabilities related to decommissioning obligations in excess of the carrying value of the assets disposed.

The Shallow Gas Disposition which closed during the fourth quarter of 2016 included retained marketing arrangements whereby the Company provided floor price protection at \$2.58/GJ to the purchaser and retained price participation to the extent average monthly AECO prices exceed \$2.81/GJ on 33,611 GJ/d through to August 31, 2018. The Company entered into marketing arrangements prior to closing to fix the cost of the floor price protection through to March 31, 2018. Realized and unrealized gains and losses on these marketing arrangements are recognized as adjustments to gains/losses on dispositions and included as cash flows from investing activities on the consolidated statement of cash flows.

During the three months ended March 31, 2017, Perpetual recorded losses of \$2.6 million consisting of unrealized losses of \$3.2 million which was due to mark-to-market adjustments on the contracts resulting from declining forward AECO monthly prices which were partially offset by realized gains of \$0.5 million reflecting cash proceeds received for the months during the first quarter of 2017 where AECO monthly prices exceeded \$2.81/GJ on 33,611 GJ/d. During the three months ended March 31, 2017, payments of \$0.9 million were recorded as a reduction to this liability. The liability is settled monthly through physical marketing contracts at a rate equal to \$0.295 GJ/d on 35,000 GJ/d.

As at March 31, 2017, the net retained shallow gas marketing arrangements have been summarized as follows:

<b>Term</b>	<b>Volumes at AECO (GJ/d)</b>	<b>Floor price (\$/GJ)</b>	<b>Ceiling price (\$/GJ)</b>	<b>Fair value (\$ thousands)</b>
April 2017 – August 2018	33,611	–	2.81	2,203
April 2018 – August 2018	33,611	2.58	–	(1,551)

### Depletion and depreciation

Three months ended March 31,

(\$ thousands, except as noted)

	<b>2017</b>	<b>2016</b>
Depletion and depreciation	<b>7,125</b>	17,547
\$/boe	<b>9.72</b>	10.49

Perpetual recorded \$7.1 million of depletion and depreciation expense for the three months ended March 31, 2017 (Q1 2016 - \$17.5 million). The reduction is primarily due to lower production following the Shallow Gas Disposition. On a per boe basis, first quarter 2017 depletion and depreciation expense of \$9.72/boe was 7% lower than the comparative period, mainly due to a reduction in estimated future development costs.

### Finance expenses

Three months ended March 31,

(\$ thousands)

	<b>2017</b>	<b>2016</b>
Cash interest		
Interest on bank indebtedness	<b>180</b>	218
Interest on TOU share margin loans	<b>214</b>	700
Interest on Term loan	<b>145</b>	–
Interest on senior notes	<b>1,358</b>	6,015
Total cash interest	<b>1,897</b>	6,933
Non-cash finance expense		
Amortization of debt issue costs	<b>94</b>	263
Accretion on decommissioning obligations	<b>191</b>	917
Change in fair value of gas over bitumen royalty financing	<b>(1,239)</b>	(1,578)
Change in fair value of TOU share margin loans	<b>921</b>	2,041
Other finance expenses	<b>(33)</b>	1,643
<b>Finance expenses recognized in net income (loss)</b>	<b>1,864</b>	8,576

Total cash interest expense of \$1.9 million for the three months ended March 31, 2017 was 73% lower than the prior year period (\$6.9 million). Decreased cash interest on the senior notes is due to the reduction of \$214.4 million principal amount of senior notes that were swapped in exchange for 4.4 million TOU shares during the second quarter of 2016, resulting in a significant reduction in cash interest expense and non-cash debt issue cost amortization. This was offset by a modest increase in cash interest on the \$17.4 million principal amount of new 2022 Senior Notes outstanding which receive an increased 1% interest to 9.75% through to January 23, 2018. Additional decreases from the prior year resulted from the reduction and restructuring of TOU share margin loans to include put option floor prices resulting in lower floating interest charges.

Other finance expenses for the three months ended March 31, 2017 included accretion on decommissioning obligations of \$0.2 million (2016 - \$0.9 million), a gain of \$1.2 million on the change in fair value of the gas over bitumen royalty financing (2016 – gain of \$1.6 million) and a loss of \$0.9 million on the change in fair value of the TOU share margin loans (2016 – loss of \$2.0 million). Accretion on decommissioning obligations was \$0.7 million lower than in the prior year period due to the \$128.0 million reduction in decommissioning obligations associated with the Shallow Gas Disposition.

## Change in fair value of TOU share investment

During the three months ended March 31, 2017, Perpetual recorded a loss of \$11.2 million driven primarily by the change in fair value of TOU share investment. This change was due to the 17% decline in the TOU share price over the first quarter. During the first quarter, 180,000 TOU shares were sold at \$31.63 per TOU share for net cash proceeds of \$5.7 million. At March 31, 2017, the Company owned 1.7 million TOU shares (March 31, 2016 – 6.25 million shares). In the first quarter of 2016, a gain of \$34.0 million was recorded reflecting a 23% increase in the TOU share price during the period.

## LIQUIDITY AND CAPITAL RESOURCES

Perpetual's strategy includes maintaining a strong capital base so as to retain investor, creditor and market confidence to support the execution of its business plans. The Company manages its capital structure and makes adjustments in light of changes in economic conditions and the risk characteristics of its underlying oil and natural gas assets. The Company considers its capital structure to include share capital, bank indebtedness, TOU share margin loans, Term Loan, senior notes and adjusted working capital, with value and liquidity enhanced through the current ownership of TOU shares. In order to manage its capital structure, the Corporation may from time to time issue equity or debt securities, enter into business transactions including the sale of its TOU shares or other assets and adjust its capital spending to manage current and projected debt levels.

Perpetual completed the following financing transactions during the first quarter which collectively increased the Company's liquidity by \$68 million, significantly improving its debt repayment profile and providing funding for its growth-oriented capital program:

- Partial repayment and refinancing of its existing TOU share put option margin loan previously maturing in March 2017, reducing the loan amount outstanding by \$5.7 million to \$18.9 million, extending the maturity to August 1, 2017;
- Exchange of \$17.4 million aggregate principal amount of its existing senior notes maturing in 2018 and 2019 for new 2022 Senior Notes;
- Establishment of the Term Loan bearing annual interest at 8.1% and maturing March 14, 2021. The initial draw on the Term Loan was \$35 million with the remaining \$10 million to be drawn prior to November 30, 2017. In addition, for no additional consideration, 5.4 million warrants were issued and valued at \$0.8 million which entitle the lender to acquire common shares on a one for one basis for a period of up to three years, at an exercise price of \$2.34 per share;
- Issuance of 5.1 million common shares and 1.1 million additional warrants at \$1.75 per Equity Unit for aggregate gross proceeds of \$9 million;
- Extension of the Company's Credit Facility to October 31, 2017, while providing for a \$14 million increase in total borrowing capacity to \$20 million. Restricted cash of \$2.0 million was released by Perpetual's lender pursuant to this extension.

On April 17, 2017, Perpetual completed the early redemption of all \$27.6 million 2018 Senior Notes with repayment of \$27.1 million in cash and \$0.5 million through an exchange for new 2022 Senior Notes. After giving effect to the early repayment of the 2018 Senior Notes, approximately 50% of Perpetual's debt outstanding now matures in 2021 or later and available liquidity comprised of cash on hand along with undrawn amounts available under the Credit Facility and the Term Loan was approximately \$37 million.

These financing transactions, combined with a continued focus on costs savings, provide the Company with enhanced optionality and flexibility to manage near term obligations while at the same time, creating opportunities to resume development opportunities to re-establish a self-sustaining cost structure. The Company will continue to regularly assess changes to its capital structure and repayment alternatives, with considerations for both short term liquidity and longer term financial sustainability.

## Capital Management

<i>(\$ thousands, except as noted)</i>	<b>March 31, 2017</b>	December 31, 2016
Term loan, measured at principal amount	<b>35,000</b>	–
Carrying amount of TOU share margin loans	<b>35,039</b>	39,953
Senior notes, measured at principal amount	<b>60,573</b>	60,573
Carrying amount of TOU share investment <sup>(1)</sup>	<b>(49,440)</b>	(66,343)
Adjusted working capital deficiency (surplus) <sup>(2)</sup>	<b>(16,714)</b>	3,917
Net debt <sup>(2)</sup>	<b>64,458</b>	38,100
Shares outstanding at end of period ( <i>thousands</i> )	<b>58,991</b>	53,681
Market price at end of period ( <i>\$/share</i> )	<b>1.70</b>	2.35
Market value of shares	<b>100,285</b>	126,150
Total capitalization <sup>(2)</sup>	<b>164,743</b>	164,250
Net debt as a percentage of total capitalization	<b>39</b>	23
Trailing twelve months adjusted funds flow <sup>(2)</sup>	<b>5,991</b>	920

<sup>(1)</sup> The carrying amount of the TOU share investment is based on the March 31, 2017 closing price per the Toronto Stock Exchange (\$29.65 per share) and 1.67 million TOU shares held (December 31, 2016 – 1.85 million TOU shares held with a closing price of \$35.91 per share).

<sup>(2)</sup> See "Non-GAAP measures" in this MD&A.

At March 31, 2017, Perpetual had total net debt of \$64.5 million, up \$26.4 million from December 31, 2016. The increase reflects the ramp up in capital investment during the quarter funded by the new \$35.0 million Term Loan combined with a decrease of \$16.9 million in the carrying value of TOU shares. This is partially offset by a \$20.6 million increase in adjusted working capital mainly driven by cash proceeds received through the Term Loan and equity private placement transactions.

## Reserve Based Credit Facility

As at March 31, 2017, the Company's Credit Facility had a borrowing limit (the "Borrowing Limit") of \$20.0 million (December 31, 2016 - \$6.0 million) under which \$4.0 million in letters of credit had been utilized (December 31, 2016 - \$4.0 million). The Credit Facility matures on October 31, 2017 with the next Borrowing Limit redetermination occurring on or before May 31, 2017.

Borrowings under the Credit Facility bear interest at its lender's prime rate or Banker's Acceptance rates, plus applicable margins and standby fees. The applicable margins range between 1.25% and 4.75%. Borrowings are secured by general security agreements covering all of the Company's assets with the exception of TOU shares pledged as security for the TOU share margin loans and certain lands pledged to the gas over bitumen royalty financing counterparty.

For the periods ended March 31, 2017 and 2016, if interest rates changed by 1% with all other variables held constant, the impact on interest expense and net income (loss) would be nominal, as the Company's bank indebtedness, subject to floating interest rates, was minimal.

The Credit Facility is subject to a working capital covenant which requires the Company to maintain net working capital plus outstanding letters of credit not exceeding the Borrowing Limit. Net working capital includes the sum of cash and cash equivalents, restricted cash, accounts receivable, prepaid expenses and unpledged TOU shares less accounts payable and accrued liabilities, accrued interest on senior notes and accrued interest on the Term Loan up to the Credit Facility maturity date. The Company was in compliance with all Credit Facility covenants at March 31, 2017.

The Credit Facility also contains provisions which restrict the Company's ability to pay dividends on or repurchase its common shares.

## Term Loan

On March 14, 2017, Perpetual entered into the Term Loan which included the issuance of 5.4 million warrants to purchase common shares.

	<b>March 31, 2017</b>
Balance, beginning of period	\$ -
Principal amount of Term Loan issued	<b>35,000</b>
Value allocated to Warrants	<b>(769)</b>
Issue costs	<b>(1,272)</b>
Amortization of issue costs	<b>29</b>
Balance, end of period	<b>\$ 32,988</b>

The Term Loan matures on March 14, 2021 and bears interest at 8.1% per annum with semi-annual interest payments due June 30 and December 31 of each year. The Term Loan contains certain restrictions that limit the Company's ability to incur additional indebtedness, make restricted payments and dispose of certain assets.

The Term Loan is made available by way of two draws consisting of an initial draw of \$35 million completed upon closing with the remaining \$10 million to be drawn prior to November 30, 2017. Amounts borrowed under the Term Loan that are repaid or prepaid are not available for re-borrowing. The Company may not prepay the Term Loan prior to the second anniversary thereof, except with payment of a make whole premium.

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 Credit Facility and TOU shares secured in favor of the TOU share margin loan lenders.

The Term Loan is subject to the same working capital covenant as the Credit Facility excluding adjustments for interest on the Term Loan up to the Credit Facility maturity date. The Company was in compliance with all Term Loan covenants at March 31, 2017.

## TOU share margin loans

At March 31, 2017, \$18.5 million TOU share put option margin loans mature in August 2017 and \$16.5 million mature in November 2017. For the August 2017 maturity, 0.9 million TOU shares have been pledged as collateral with a put option floor price of \$21.14 per TOU share. For the November 2017 maturity, 0.65 million TOU shares have been pledged as collateral with a put option floor price of \$27.38 per TOU share.

The TOU share put option margin loans are hybrid financial instruments comprising a debt host with an embedded TOU put option derivative related to indexation of the future settlement amount to changes in the market price of TOU shares pledged as collateral. The Company has designated the TOU share put option margin loans as financial liabilities which are measured at fair value through profit and loss. For the three months ended March 31, 2017, an unrealized loss of \$0.9 million is included in finance expense, representing the change in fair value of the TOU put options during the year.

## Senior notes

	Maturity date	Interest rate	March 31, 2017		December 31, 2016	
			Principal	Carrying Amount	Principal	Carrying amount
2018 Senior Notes	March 15, 2018	8.75%	\$ 27,617	\$ 27,531	\$ 36,013	\$ 35,847
2019 Senior Notes	July 23, 2019	8.75%	15,572	15,425	24,560	24,273
2022 Senior Notes	January 23, 2022	8.75% <sup>(1)</sup>	17,384	16,885	-	-
			<b>\$ 60,573</b>	<b>\$ 59,841</b>	<b>\$ 60,573</b>	<b>\$ 60,120</b>

<sup>(1)</sup> Annual interest rate through to January 23, 2018 is 9.75% and 8.75% thereafter.

On January 23, 2017, the Company exchanged \$8.4 million and \$9.0 million aggregate principal amount of 2018 Senior Notes and 2019 Senior Notes respectively for \$17.4 million new 2022 Senior Notes. Included in the exchange were \$3.7 million 2018 Senior Notes and \$4.3 million 2019 Senior Notes held by directors and officers of the Company or entities controlled by them. The 2022 Senior Notes bear a fixed rate of 9.75% for the first year of issuance and 8.75% thereafter, and have identical covenants and rights as the existing 2018 and 2019 Senior Notes.

On April 17, 2017, Perpetual completed the early redemption of \$27.1 million aggregate outstanding principal amount of its 8.75% senior notes maturing March 15, 2018 and exchanged \$0.5 million for an equal amount of 2022 Senior Notes. After giving effect to the early redemption and exchange, outstanding senior notes are as follows:

	<b>Maturity date</b>	<b>Interest rate</b>	<b>Interest payment dates</b>	<b>Principal</b>
2019 Senior Notes	July 23, 2019	8.75%	January 23 & July 23	15,572
2022 Senior Notes	January 23, 2022	8.75% <sup>(1)</sup>	January 23 & July 23	17,918
				<b>\$ 33,490</b>

<sup>(1)</sup> Annual interest rate through to January 23, 2018 is 9.75% and 8.75% thereafter.

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. At any time prior to three years before the senior note maturity date, the Company can redeem up to 35% of the principal amount of the senior notes at a premium to face value. Within three years of maturity, the Company may redeem up to 100% of the senior notes at a premium to face value. Within one year of maturity, the Company may redeem up to 100% of the senior notes at the principal amount.

The senior notes have a cross-default provision with the Company's Credit Facility. In addition, the senior notes indenture contains restrictions on certain payments including dividends, retirement of subordinated debt and stock repurchases. The permitted amount of any restricted payment is limited to:

- i) To the extent the Company's Consolidated Debt (defined as the sum of the period end balance of bank indebtedness, Term Loan, TOU share margin loans and gas over bitumen royalty financing) to trailing twelve months income before interest, taxes, depletion and depreciation and non-cash items ("TTM EBITDA") is less than 3.0 to 1.0, (the "Consolidated Debt Ratio") the sum of 50% of TTM EBITDA from January 1, 2011 to the end of the most recently completed fiscal quarter plus 100% of the fair market value of any equity contributions made to the Company during that period less the sum of all restricted payments during that period; and
- ii) To the extent the Company's Consolidated Debt Ratio is greater than or equal to 3.0 to 1.0 pro forma for the proposed restricted payment, \$50 million plus 100% of the fair market value of any equity contributions made to the Company.

The Company was in compliance with all covenants at March 31, 2017.

At March 31, 2017 the senior notes are presented net of \$0.7 million in issue costs which are amortized using a weighted average effective interest rate of 9.2%.

## Equity

At March 31, 2017 there were 59.0 million common shares outstanding which is net of 0.3 million shares held in trust for employee compensation programs. Basic and diluted weighted average shares outstanding for the three months ended March 31, 2017 were 54.5 million. (March 31, 2016 – 45.6 million basic, 47.0 million diluted).

On March 14, 2017, in conjunction with the funding of the Term Loan, the lender received, for no additional consideration, warrants to purchase common shares of Perpetual at a ratio of 120 warrants for every \$1,000 committed under the Term Loan, resulting in the issuance of 5.4 million warrants. Each warrant entitles the holder to acquire Common Shares on a one for one basis, at an exercise price equal to a \$2.34 per share at any time prior to March 14, 2020. Provided the volume weighted average trading price of the common shares is greater than the exercise price for 60 consecutive calendar days (subject to certain restrictions), Perpetual will have the option to require the warrant holder to exercise all or any portion of the warrants at any time thereafter

Further, as part of the equity private placement concurrent with the issuance of the Term Loan, 5.1 million common shares and 1.1 million additional warrants were issued for proceeds of \$9.0 million, of which \$8.9 million has been allocated to share capital and \$0.1 million to warrants. Directors and officers of Perpetual or entities controlled by them purchased 1.6 million common shares and 0.4 million warrants for proceeds of \$2.9 million.

At May 8, 2017 there were 59.0 million common shares outstanding which is net of 0.3 million shares held in trust for employee compensation programs.

## SUMMARY OF QUARTERLY RESULTS

<i>(\$ thousands, except where noted)</i>	Q1 2017	Q4 2016	Q3 2016	Q2 2016
<b>Financial</b>				
Oil and natural gas revenues	<b>18,158</b>	17,940	22,268	16,501
Cash flow from (used in) operating activities	<b>(2,289)</b>	4,740	(1,710)	(3,396)
Adjusted funds flow <sup>(1)</sup>	<b>5,110</b>	3,326	(602)	(1,852)
Per share – basic	<b>0.09</b>	0.06	(0.01)	(0.04)
Net income (loss)	<b>(14,172)</b>	20,379	(10,919)	64,925
Per share – basic	<b>(0.26)</b>	0.39	(0.21)	1.25
– diluted	<b>(0.26)</b>	0.37	(0.21)	1.23
Net Capital expenditures				
Exploration and development and other	<b>24,590</b>	7,069	1,411	1,286
Geological and geophysical	–	(3)	–	11
Dispositions, net of acquisitions	<b>(228)</b>	1,248	(942)	(20,052)
Net capital expenditures	<b>24,362</b>	8,314	469	(18,755)
<b>Common shares (thousands)</b>				
Weighted average – basic	<b>54,468</b>	52,924	52,253	52,140
Weighted average – diluted	<b>54,468</b>	54,678	52,253	52,904
<b>Operating</b>				
Daily average production				
Natural gas (MMcf/d)	<b>40.7</b>	40.3	75.5	85.2
Oil (bbl/d)	<b>877</b>	936	1,052	1,073
NGL (bbl/d)	<b>479</b>	467	476	682
Total (boe/d)	<b>8,143</b>	8,118	14,123	15,959
Average prices				
Natural gas – before derivatives (\$/Mcf)	<b>3.43</b>	3.31	2.44	1.37
Natural gas – including derivatives (\$/Mcf)	<b>5.04</b>	2.41	2.12	1.85
Oil – before derivatives (\$/bbl)	<b>43.72</b>	42.35	38.93	38.47
Oil – including derivatives (\$/bbl)	<b>31.39</b>	38.95	38.90	39.17
NGL (\$/bbl)	<b>49.70</b>	46.99	35.80	34.71

<sup>(1)</sup> See "Non-GAAP measures" in this MD&A.

<i>(\$ thousands, except where noted)</i>	Q1 2016	Q4 2015	Q3 2015	Q2 2015
<b>Financial</b>				
Oil and natural gas revenues	24,694	33,044	35,460	32,129
Cash flow from (used in) operating activities	(6,770)	11,980	(2,803)	6,674
Adjusted funds flow <sup>(1)</sup>	48	362	(2,514)	2,635
Per share – basic	0.00	0.05	(0.33)	0.35
Net income (loss)	32,764	(93,539)	(67,139)	104,121
Per share – basic	0.72	(12.34)	(8.89)	13.94
– diluted	0.70	(12.34)	(8.89)	13.29
Net capital expenditures				
Exploration and development and other	4,814	831	15,254	13,349
Geological and geophysical	15	(93)	16	105
Dispositions, net of acquisitions	(6,466)	3	(2,630)	(21,097)
Net capital expenditures	(1,637)	741	12,640	(7,643)
<b>Common shares (thousands)<sup>(2)</sup></b>				
Weighted average – basic	45,573	7,582	7,549	7,468
Weighted average – diluted	47,022	7,582	7,549	7,879
<b>Operating</b>				
Daily average production				
Natural gas (MMcf/d)	98.2	105.1	105.5	86.0
Oil (bbl/d)	1,174	1,278	1,426	1,766
NGL (bbl/d)	836	866	741	522
Total (boe/d)	18,378	19,661	19,758	16,621
Average prices				
Natural gas – before derivatives (\$/Mcf)	2.25	2.74	2.91	2.80
Natural gas – including derivatives (\$/Mcf)	3.15	2.92	2.86	3.10
Oil – before derivatives (\$/bbl)	22.08	33.04	40.58	52.35
Oil – including derivatives (\$/bbl)	33.90	39.81	41.40	74.33
NGL (\$/bbl)	29.33	33.68	28.07	38.64

<sup>(1)</sup> See “Non-GAAP measures” in this MD&A.

<sup>(2)</sup> Common shares and per share amounts have been retroactively adjusted to reflect the consolidation of outstanding common shares on the basis of 20 common shares to one common share on March 24, 2016. All common shares are net of shares held in trust.

### Commodity price risk management

Perpetual’s commodity price risk management strategy is focused on managing downside risk and increasing certainty in adjusted funds flow by mitigating the effect of commodity price volatility. Physical forward sales and financial derivatives are used to manage the balance sheet, to lock in economics on capital programs and acquisitions, and to take advantage of perceived anomalies in commodity markets. Perpetual also utilizes foreign exchange swaps and physical or financial swaps related to the differential between natural gas prices at the AECO and NYMEX trading hubs and oil basis differentials between WTI and WCS in order to mitigate the effects of fluctuations in foreign exchange rates and basis differentials on the Corporation’s realized revenue.

The following tables provide a summary of commodity price management contracts outstanding at May 8, 2017.

#### Natural Gas

The Company has in place open physical natural gas arrangements at AECO as summarized in the table below. Settlements on these physical sales contracts are recognized in oil and natural gas revenue.

Term	Volumes sold (bought) at AECO (GJ/d)	Average price (\$/GJ) <sup>(1)</sup>	Market prices (\$/GJ) <sup>(2)</sup>	Type of contract
April 2017	35,000	2.66	2.46	Physical
May 2017	26,400	2.78	2.62	Physical
June 2017	35,000	2.94	2.73	Physical
July 2017 – October 2017	20,000	3.14	2.77	Physical
November 2017 – December 2017	32,500	3.07	3.01	Physical

<sup>(1)</sup> Average price calculated using weighted average price for net open contracts.

<sup>(2)</sup> Market prices for April and May 2017 are based on settled AECO Monthly Index prices. Market prices for subsequent months are based on forward AECO Monthly Index prices as of market close on May 8, 2017.

The Corporation had entered into financial natural gas sales arrangements at AECO as follows:

<b>Term</b>	<b>Volumes sold (bought) at AECO (GJ/d)</b>	<b>Average price (\$/GJ)<sup>(1)</sup></b>	<b>Market prices (\$/GJ)<sup>(2)</sup></b>	<b>Type of contract</b>
April 2017	15,000	2.43	2.46	Financial
May 2017	7,500	3.16	2.62	Financial
June 2017 – December 2017	7,500	3.16	2.83	Financial

<sup>(1)</sup> Average price calculated using weighted average price for net open contracts.

<sup>(2)</sup> Market prices for April and May 2017 are based on settled AECO Monthly Index prices. Market prices for subsequent months are based on forward AECO Monthly Index prices as of market close on May 8, 2017.

### Crude Oil

The Corporation had entered into financial oil sales arrangements in \$USD as follows:

<b>Term</b>	<b>Volumes (bbl/d)</b>	<b>Floor price (\$/USD/bbl)</b>	<b>Ceiling price (\$/USD/bbl)</b>	<b>Market prices (\$/USD/bbl)<sup>(1)</sup></b>	<b>Type of contract</b>
April 2017	250	50.00	61.50	51.12	Financial
April 2017	500	50.00	59.40	51.12	Financial
May 2017 – December 2017	250	50.00	61.50	47.66	Financial
May 2017 – December 2017	500	50.00	59.40	47.66	Financial

<sup>(1)</sup> Market prices for April are based on settled WTI oil prices. Market prices for subsequent months are based on forward WTI oil prices as of market close on May 8, 2017.

The following table provides a summary of basis differential contracts between WTI and WCS trading:

<b>Term</b>	<b>Volumes (bbl/d)</b>	<b>WTI-WCS differential (\$/USD/bbl)<sup>(1)</sup></b>	<b>Market prices (\$/USD/bbl)<sup>(2)</sup></b>	<b>Type of contract</b>
April 2017	500	(15.40)	(14.28)	Financial
April 2017	250	(14.85)	(14.28)	Financial
May 2017	500	(15.40)	(9.70)	Financial
May 2017	250	(14.85)	(9.70)	Financial
June 2017 – December 2017	500	(15.40)	(13.98)	Financial
June 2017 – December 2017	250	(14.85)	(13.98)	Financial

<sup>(1)</sup> Average price calculated using weighted average price for net open contracts; contracts settle at WTI index less a fixed basis amount.

<sup>(2)</sup> Market prices for April and May 2017 are based on settled WTI-WCS differential prices. Market prices for subsequent months are based on forward WTI-WCS differential prices as of market close on May 8, 2017.

## OFF BALANCE SHEET ARRANGEMENTS

Perpetual has no off balance sheet arrangements.

## FUTURE ACCOUNTING PRONOUNCEMENTS

The International Accounting Standards Board (IASB) and the IFRS Interpretations Committee regularly issue new and revised accounting pronouncements which have future effective dates and therefore are not reflected in Perpetual's financial statements. Once adopted, these new and amended pronouncements may have an impact on Perpetual's consolidated financial statements. Perpetual's analysis of recent accounting pronouncements is included in the notes to the consolidated financial statements at December 31, 2016.

## CORPORATE GOVERNANCE

The Corporation is committed to maintaining high standards of corporate governance. Each regulatory body, including the Toronto Stock Exchange and the Canadian provincial securities commissions, has a different set of rules pertaining to corporate governance. The Corporation fully conforms to the rules of the governing bodies under which it operates.

## INTERNAL CONTROLS AND PROCEDURES

### Evaluation of disclosure controls and procedures

There were no changes in the Corporation's internal control over financial reporting during the period beginning on January 1, 2017 and ended March 31, 2017 that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

## ADVISORIES

**NON-GAAP MEASURES:** This document contains the following non-GAAP financial measures which do not have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other issuers. Non-GAAP measures presented in this document should not be viewed as alternatives to measures of financial performance calculated in accordance with GAAP.

**Adjusted funds flow:** Management uses adjusted funds flow and adjusted funds flow per share to analyze operating performance and leverage. Adjusted funds flow is cash flow from operating activities before changes in non-cash working capital, settlement of decommissioning obligations and certain E&E costs, but after payments on the gas over bitumen royalty financing and payments on restructuring costs. Adjusted funds flow is not intended to represent cash flow from operating activities, net earnings or other measures of financial performance calculated in accordance with IFRS. The Corporation previously referred to adjusted funds flow as "funds flow".

**Operating netback:** Perpetual considers operating netback an important performance measure as it demonstrates its profitability relative to current commodity prices. Operating netback is calculated by deducting royalties, operating costs, and transportation from realized revenue. Operating netback is also calculated on a per boe basis using average boe production for the period. Operating netback on a per boe basis can vary significantly for each of the Company's operating areas.

**Realized revenue:** Realized revenue includes oil and natural gas revenue, realized gains (losses) on financial natural gas, crude oil and foreign exchange contracts but excludes any realized gains (losses) resulting from contracts related to the Shallow Gas Disposition. Realized revenue, excluding foreign exchange contracts is used by management to calculate the Corporation's net realized commodity prices taking into account monthly settlements on financial crude oil and natural gas forward sales, collars and basis differentials. These contracts are put in place to protect Perpetual's adjusted funds flow from potential volatility in commodity prices, and as such, any related realized gains or losses are considered part of the Corporation's realized price.

**Gas over bitumen revenue, net of payments:** Gas over bitumen revenue, net of payments, includes gas over bitumen revenue less monthly payments on the gas over bitumen royalty financing. This is used by management to calculate the Corporation's net realized gas over bitumen revenue to reflect the substantive monetization of the future gas over bitumen royalty credits.

**Adjusted working capital deficiency (surplus):** Adjusted working capital deficiency (surplus) includes total current assets and current liabilities excluding short-term derivative assets and liabilities related to the Corporation's risk management activities, current portion of gas over bitumen royalty financing, TOU (described below) share investment, current portion of the TOU share margin loans and current portion of provisions.

**Net debt:** Net debt includes adjusted working capital deficiency (surplus), the TOU share margin loans and the principal amount of the Term Loan and senior notes reduced for the mark-to-market value of TOU shares held. Net debt is used by management to analyze borrowing capacity.

**Total capitalization:** Total capitalization is equal to net debt plus market value of issued equity and is used by management to analyze leverage. Total capitalization is not intended to represent the total funds from equity and debt received by the Corporation upon issuance.

**VOLUME CONVERSIONS:** Barrel of oil equivalent ("boe") may be misleading, particularly if used in isolation. In accordance with National Instrument 51-101 ("NI 51-101"), a conversion ratio for natural gas of 6 Mcf:1 bbl has been used, which is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. In addition, utilizing a conversion on a 6 Mcf:1 bbl basis may be misleading as an indicator of value as the value ratio between natural gas and crude oil, based on the current prices of natural gas and crude oil, differ significantly from the energy equivalency of 6 Mcf:1 bbl.

**FORWARD-LOOKING INFORMATION AND STATEMENTS:** Certain information and statements contained in this MD&A including management's assessment of future plans and operations and including the information contained under the heading "Outlook" may constitute forward-looking information and statements within the meaning of applicable securities laws. This information and these statements relate to future events or to future performance. All statements other than statements of historical fact may be forward-looking information and statements. The use of any of the words "anticipate", "continue", "estimate", "expect", "may", "will", "project", "should", "believe", "outlook", "guidance", "objective", "plans", "intends", "targeting", "could", "potential", "strategy" and any similar expressions are intended to identify forward-looking information and statements.

In particular, but without limiting the foregoing, this MD&A contains forward-looking information and statements pertaining to the following: the quantity and recoverability of Perpetual's reserves; the timing and amount of future production; future prices as well as supply and demand for natural gas, natural gas liquids ("NGL") and oil; the existence, operations and strategy of the commodity price risk management program; the approximate amount of forward sales and financial contracts to be employed, and the value of financial forward natural gas, oil and other risk management contracts; net income and adjusted funds flow sensitivities to commodity price, production, foreign exchange and interest rate changes; operating, general and administrative ("G&A"), and other expenses; the expected impact of the disposition of shallow gas assets on future cash flows, the expected impact of cost-saving initiatives on operating and G&A expenses, expected interest savings from Security Swap, expected net debt balance after Security Swap, the costs and timing of future abandonment and reclamation, asset retirement and environmental obligations; the use of exploration and development activity, prudent asset management, and acquisitions to sustain, replace or add to reserves and production or expand the Corporation's asset base; the Corporation's acquisition and disposition strategy and the existence of acquisition and disposition opportunities, the criteria to be considered in connection therewith and the benefits to be derived therefrom; Perpetual's ability to benefit from the combination of growth opportunities and the ability to grow through the capital expenditure program; expected compliance with credit facility and term loan covenants in 2017 and 2018; the retention of, and benefits to be received from holding the TOU shares (as defined above); expected book value and related tax value of the Corporation's assets and prospect inventory and estimates of net asset value; adjusted funds flow; ability to fund exploration and development; the corporate strategy; expectations regarding Perpetual's access to capital to fund its acquisition, exploration and development activities; the effect of future accounting pronouncements and their impact on the Corporation's financial results; future income tax and its effect on adjusted funds flow; intentions with respect to preservation of tax pools and taxes payable by the Corporation; funding of and anticipated results from capital

expenditure programs; renewal of and borrowing costs associated with the credit facility; future debt levels, financial capacity, liquidity and capital resources; future contractual commitments; drilling, completion, facilities, construction and waterflood plans, and the effect thereof; the impact of Canadian federal and provincial governmental regulation on the Corporation relative to other issuers; Crown royalty rates; Perpetual's treatment under governmental regulatory regimes; business strategies and plans of management including future changes in the structure of business operations and debt reduction initiatives; and the reliance on third parties in the industry to develop and expand Perpetual's assets and operations.

The forward-looking information and statements contained in this MD&A reflect several material factors, expectations and assumptions of the Corporation including, without limitation, that Perpetual will conduct its operations in a manner consistent with its expectations and, where applicable, consistent with past practice; the general continuance of current or, where applicable, assumed industry conditions; the continuance of existing, and in certain circumstances, the implementation of proposed tax, royalty and regulatory regimes; the ability of Perpetual to obtain equipment, services, and supplies in a timely manner to carry out its activities; the accuracy of the estimates of Perpetual's reserve and resource volumes; the timely receipt of required regulatory approvals; certain commodity price and other cost assumptions; the timing and costs of storage facility and pipeline construction and expansion and the ability to secure adequate product transportation; the continued availability of adequate debt and/or equity financing and adjusted funds flow to fund the Corporation's capital and operating requirements as needed; and the extent of Perpetual's liabilities.

The Corporation believes the material factors, expectations and assumptions reflected in the forward-looking information and statements are reasonable but no assurance can be given that these factors, expectations and assumptions will prove to be correct. The forward-looking information and statements included in this MD&A are not guarantees of future performance and should not be unduly relied upon. Such information and statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking information or statements including, without limitation: volatility in market prices for oil and natural gas products; supply and demand regarding Perpetual's products; risks inherent in Perpetual's operations, such as production declines, unexpected results, geological, technical, or drilling and process problems; unanticipated operating events that can reduce production or cause production to be shut-in or delayed; changes in exploration or development plans by Perpetual or by third party operators of Perpetual's properties; reliance on industry partners; uncertainties or inaccuracies associated with estimating reserves volumes; competition for, among other things; capital, acquisitions of reserves, undeveloped lands, skilled personnel, equipment for drilling, completions, facilities and pipeline construction and maintenance; increased costs; incorrect assessments of the value of acquisitions; increased debt levels or debt service requirements; industry conditions including fluctuations in the price of natural gas and related commodities; royalties payable in respect of Perpetual's production; governmental regulation of the oil and gas industry, including environmental regulation; fluctuation in foreign exchange or interest rates; the need to obtain required approvals from regulatory authorities; changes in laws applicable to the Corporation, royalty rates, or other regulatory matters; general economic conditions in Canada, the United States and globally; stock market volatility and market valuations; limited, unfavorable, or a lack of access to capital markets, and certain other risks detailed from time to time in Perpetual's public disclosure documents. The foregoing list of risk factors should not be considered exhaustive.

The forward-looking information and statements contained in this MD&A speak only as of the date of this MD&A, and neither the Corporation nor any of its subsidiaries assumes any obligation to publicly update or revise them to reflect new events or circumstances, unless expressly required to do so by applicable securities laws.