

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### GENERAL

This Management's Discussion and Analysis ("**MD&A**") for Birchcliff Energy Ltd. ("**Birchcliff**" or the "**Corporation**") is dated March 13, 2019. This MD&A with respect to the three and twelve months ended December 31, 2018 (the "**Reporting Periods**") as compared to the three and twelve months ended December 31, 2017 (the "**Comparable Prior Periods**") has been prepared by management and approved by the Corporation's Audit Committee and Board of Directors. This MD&A should be read in conjunction with the audited financial statements of the Corporation and the related notes for the year ended December 31, 2018. Birchcliff's audited financial statements and the related notes for the year ended December 31, 2018 have been prepared in accordance with GAAP. All dollar amounts are expressed in Canadian currency, unless otherwise stated.

This MD&A uses "adjusted funds flow", "adjusted funds flow per common share", "operating netback", "free funds flow", "total cash costs", "adjusted working capital deficit" and "total debt", which do not have standardized meanings prescribed by GAAP and therefore may not be comparable to similar measures presented by other companies where similar terminology is used. For further information, see "*Non-GAAP Measures*" in this MD&A.

This MD&A contains forward-looking statements and information (collectively, "**forward-looking statements**") within the meaning of applicable Canadian securities laws. Such forward-looking statements are based upon certain expectations and assumptions and actual results may differ materially from those expressed or implied by such forward-looking statements. For further information regarding the forward-looking statements contained herein, see "*Advisories – Forward-Looking Statements*" in this MD&A.

All boe amounts have been calculated by using the conversion ratio of 6 Mcf of natural gas to 1 bbl of oil and all Mcfe amounts have been calculated by using the conversion ratio of 1 bbl of oil to 6 Mcf of natural gas. For further information, see "*Advisories – Boe and Mcfe Conversions*" in this MD&A.

### ABOUT BIRCHCLIFF

Birchcliff is a Calgary, Alberta based intermediate oil and natural gas company with operations concentrated within its one core area, the Peace River Arch of Alberta. Birchcliff's common shares and cumulative redeemable preferred shares, Series A and Series C, are listed for trading on the Toronto Stock Exchange (the "**TSX**") under the symbols "BIR", "BIR.PR.A" and "BIR.PR.C", respectively. Additional information relating to the Corporation, including its Annual Information Form for the financial year ended December 31, 2018, is available on the SEDAR website at [www.sedar.com](http://www.sedar.com) and on the Corporation's website at [www.birchcliffenergy.com](http://www.birchcliffenergy.com).

### 2018 FINANCIAL AND OPERATIONAL HIGHLIGHTS

#### 2018 Year-End Highlights

- Production averaged 77,096 boe/d (20% oil and NGLs), a 13% increase from the twelve month Comparable Prior Period.
- Cash flow from operating activities of \$324.4 million, a 13% increase from the twelve month Comparable Prior Period.
- Adjusted funds flow of \$312.9 million, or \$1.18 per basic common share, a 1% decrease and a 2% decrease, respectively, from the twelve month Comparable Prior Period.
- Net income to common shareholders of \$98.0 million, or \$0.37 per basic common share, as compared to the net loss to common shareholders of \$51.0 million and \$0.19 per basic common share in the twelve month Comparable Prior Period.
- Operating expense of \$3.52/boe, a 21% decrease from the twelve month Comparable Prior Period.
- Total cash costs of \$10.42/boe, a 3% decrease from the twelve month Comparable Prior Period.
- Operating netback of \$13.52/boe, a 3% decrease from the twelve month Comparable Prior Period.

- Total capital expenditures of \$298.0 million. During 2018, Birchcliff drilled 36 (36.0 net) wells and brought 28 (28.0 net) wells on production.
- As at December 31, 2018, Birchcliff's long-term bank debt was \$605.3 million and its total debt was \$626.5 million, a 3% increase and a 5% increase, respectively, from its long-term and total debt as at December 31, 2017.

#### Fourth Quarter 2018 Highlights

- Production averaged 76,408 boe/d (21% oil and NGLs), a 5% decrease from the three month Comparable Prior Period.
- Cash flow from operating activities of \$92.2 million, a 4% increase from the three month Comparable Prior Period.
- Adjusted funds flow of \$81.5 million, or \$0.31 per basic common share, a 16% decrease and a 14% decrease, respectively, from the three month Comparable Prior Period.
- Net income to common shareholders of \$70.9 million, or \$0.27 per basic common share, a 186% increase and a 200% increase, respectively, from the three month Comparable Prior Period.
- Operating expense of \$3.51/boe, a 9% decrease from the three month Comparable Prior Period.
- Total cash costs of \$10.68/boe, a 2% decrease from the three month Comparable Prior Period.
- Operating netback of \$13.47/boe, a 3% decrease from the three month Comparable Prior Period.
- Total capital expenditures of \$52.9 million. During the quarter, Birchcliff drilled 9 (9.0 net) wells.

See *"Cash Flow from Operating Activities and Adjusted Funds Flow"*, *"Net Income (Loss) to Common Shareholders"*, *"Discussion of Operations"*, *"Capital Expenditures"* and *"Capital Resources and Liquidity"* in this MD&A for further information regarding the financial and operational results for the Reporting Periods.

#### 2019 OUTLOOK

Birchcliff's disciplined 2019 capital program of \$204 million (the **"2019 Capital Program"**) is focused on its high-value oil assets in Gordondale and its condensate-rich assets in Pouce Coupe. Approximately \$122 million has been allocated for drilling and development in Pouce Coupe and Gordondale, \$33.9 million for facilities and infrastructure and \$47.9 million for maintenance and optimization and other capital projects on the Montney/Doig Resource Play. The 2019 Capital Program contemplates the drilling of a total of 17 (17.0 net) wells and the bringing on production of a total of 26 (26.0 net) wells during 2019.

The 2019 Capital Program targets an annual average production rate of 76,000 to 78,000 boe/d which is expected to generate approximately \$330 million of adjusted funds flow, based on the assumptions set forth herein. Total F&D capital expenditures are estimated to be \$204 million, which are significantly less than Birchcliff's estimated 2019 adjusted funds flow.

Based on the assumptions set forth in the table below, Birchcliff currently expects that it will be well positioned to generate significant free funds flow in 2019 as supported by its natural gas diversification and financial risk management contracts and mix of long-life and low decline assets which provide it with a stable base of production. Any free funds flow will be allocated based on what Birchcliff believes will provide the most value to its shareholders, with alternatives that may include debt reduction, production growth and purchasing common shares under its normal course issuer bid. Any free funds flow will also be allocated by Birchcliff to pay dividends on its common and preferred shares (including an increased dividend on the common shares) and to pay for the recent acquisition in Pouce Coupe for total cash consideration of \$39 million, which closed on January 3, 2019 (the **"Acquisition"**). See *"Subsequent Event"* in this MD&A.

During 2019, the Corporation expects that approximately 65% of its natural gas will be effectively sold at prices that are not based on AECO. In addition, effectively 87% of Birchcliff's total revenue in 2019 is expected to be based on non-AECO benchmark prices after taking into account Birchcliff's commodity risk management contracts and

expected sales from oil and NGLs and based on the commodity price assumptions set forth in the table below. This natural gas market diversification together with Birchcliff's financial risk management contracts will help to further strengthen Birchcliff's balance sheet and protect its cash flow and project economics.

The following table sets forth Birchcliff's guidance and commodity price assumptions for 2019, as well as its 2018 actual results for comparative purposes:

	2019 Guidance and Assumptions <sup>(1)</sup>	2018 Actual Results
<b>Production</b>		
Annual average production (boe/d)	76,000 – 78,000	77,096
% Natural gas	79%	80%
% Light oil	7%	6%
% Condensate	6%	6%
% Other NGLs	8%	8%
<b>Average Expenses (\$/boe)</b>		
Royalty	1.30 – 1.50	1.36
Operating	3.15 – 3.35	3.52
Transportation and other	4.65 – 4.85 <sup>(2)</sup>	3.68 <sup>(3)</sup>
<b>Adjusted Funds Flow (MM\$)</b>	330 <sup>(4)</sup>	312.9
<b>F&amp;D Capital Expenditures (MM\$)</b>	204 <sup>(5)</sup>	299.7
<b>Free Funds Flow (MM\$)<sup>(6)</sup></b>	126	13.2
<b>Acquisition Purchase Price (MM\$)</b>	39 <sup>(7)</sup>	N/A
<b>Total Capital Expenditures (MM\$)</b>	245 <sup>(5)</sup>	298.0
<b>Natural Gas Market Exposure<sup>(8)</sup></b>		
AECO exposure as a % of total natural gas production	35%	61%
Dawn exposure as a % of total natural gas production	39%	31%
NYMEX HH exposure as a % of total natural gas production	25%	N/A
Alliance pipeline exposure as a % of total natural gas production	1%	8%
<b>Commodity Prices</b>		
Average WTI price (US\$/bbl)	56.00	64.77
Average WTI-MSW differential (CDN\$/bbl)	10.00	14.85
Average AECO price (CDN\$/GJ)	1.65	1.42
Average Dawn price (CDN\$/GJ)	3.40	3.84
Average NYMEX HH price (US\$/MMBtu) <sup>(9)</sup>	3.00	3.07
Exchange rate (CDN\$ to US\$1)	1.32	1.2961

(1) See "Advisories – Forward-Looking Statements". Birchcliff's guidance for its commodity mix, average expenses, funds flow, capital expenditures and natural gas market exposure in 2019 is based on an annual average production rate of 77,000 boe/d during 2019, which is the mid-point of Birchcliff's annual average production guidance for 2019.

(2) Includes transportation tolls for 150,000 GJ/d of natural gas sold at the Dawn price from January 1, 2019 to October 31, 2019 and 175,000 GJ/d from November 1, 2019 to December 31, 2019. Also includes any new unused firm transportation costs associated with Birchcliff's commitments on the NGTL system, which is available for future production growth.

(3) Includes transportation tolls for 120,000 GJ/d of natural gas sold at the Dawn price from January 1, 2018 to October 31, 2018 and 150,000 GJ/d from November 1, 2018 to December 31, 2018.

(4) Birchcliff's estimate of adjusted funds flow takes into account the settlement of financial and physical commodity risk management contracts outstanding as at March 13, 2019. See "Commodity Price Risk Management".

(5) Birchcliff's estimate of F&D capital expenditures corresponds to Birchcliff's 2019 capital budget of \$204 million. This estimate excludes the purchase price for the Acquisition and any other net potential acquisitions and dispositions. Birchcliff's estimate of total capital expenditures includes the purchase price for the Acquisition; however, this estimate does not take into account any other potential acquisitions or dispositions as these amounts are unbudgeted. The estimate of total capital expenditures also includes minor administrative assets. See "Advisories – Capital Expenditures".

(6) Free funds flow is calculated as adjusted funds flow less F&D capital expenditures and is prior to administrative assets, acquisitions, dispositions, dividend payments and abandonment and reclamation obligations. See "Non-GAAP Measures". Free funds flow may be used by Birchcliff to reduce debt, pursue additional growth, pay dividends and/or to fund share buybacks under its normal course issuer bid. Any prolonged or significant decrease in commodity prices may leave insufficient free funds flow for debt reduction or the other foregoing purposes.

(7) Represents the purchase price for the Acquisition of \$39 million.

- (8) Birchcliff's guidance regarding its natural gas market exposure in 2019 assumes: (i) 150,000 GJ/d being sold at the Dawn index price from January 1, 2019 to October 31, 2019 and 175,000 GJ/d from November 1, 2019 to December 31, 2019; (ii) 5 MMcf/d being sold at Alliance's Trading Pool daily index price; and (iii) 100,000 MMBtu/d being hedged at a fixed basis differential between the AECO price and the NYMEX HH price.
- (9) \$1.00 per MMBtu equals \$1.00 per Mcf based on a standard heat value of 37.4 MJ/m<sup>3</sup> or a heat uplift of 1.055 when converting from \$/GJ.

Birchcliff's 2018 financial and operational results were generally in line with, or better than, guidance. Birchcliff's 2018 production results were within guidance of 76,000 boe/d to 78,000 boe/d. Royalty expense on a per boe basis in 2018 was 15% lower than the low end of Birchcliff's guidance of \$1.60/boe to \$1.80/boe. The variance was primarily a result of decreased averaged realized oil sales prices in the three month Reporting Period. Operating expense on a per boe basis was in line with Birchcliff's guidance of \$3.40/boe to \$3.60/boe. Birchcliff's transportation and other expense on a per boe basis was 3% lower than the low end of Birchcliff's guidance of \$3.80/boe to \$4.10/boe due to unbudgeted mitigation of excess transportation capacity.

## SELECTED ANNUAL INFORMATION

	2018	2017	2016
Average daily production (boe)	77,096	67,963	49,236
Petroleum and natural gas revenue (\$000s) <sup>(1)</sup>	621,421	556,942	337,586
Average sales price (CDN\$) <sup>(1)</sup>			
Light oil (per bbl)	68.66	61.42	51.40
Natural gas (per Mcf)	2.45	2.72	2.41
NGLs (per bbl)	44.66	33.39	31.23
Total (per boe)	22.08	22.44	18.73
Cash flow from operating activities (\$000s)	324,434	287,660	140,514
Adjusted funds flow (\$000s)	312,922	317,680	147,443
Per common share – basic (\$)	1.18	1.20	0.74
Per common share – diluted (\$)	1.17	1.19	0.73
Net income (loss) (\$000s)	102,212	(46,980)	(24,335)
Net income (loss) to common shareholders (\$000s)	98,025	(51,027)	(28,335)
Per common share – basic (\$)	0.37	(0.19)	(0.14)
Per common share – diluted (\$)	0.37	(0.19)	(0.14)
Total capital expenditures (\$000s) <sup>(2)</sup>	298,018	276,125	762,030
Operating expense (\$ per boe)	3.52	4.45	4.18
Total assets (\$000s)	2,762,920	2,627,108	2,710,457
Capital securities (\$000s)	49,535	49,225	48,916
Revolving term credit facilities (\$000s)	605,267	587,126	572,517
Adjusted working capital deficit (\$000s)	21,187	11,067	27,495
Total debt (\$000s)	626,454	598,193	600,012
Common shares outstanding (000s):			
End of period – basic	265,911	265,797	264,042
End of period – diluted	284,699	282,895	279,881
Weighted average common shares for period – basic	265,852	265,182	199,581
Weighted average common shares for period – diluted	267,323	265,182	199,581
Common shares – dividend distribution (\$000s)	26,586	26,522	-
Per common share (\$)	0.10	0.10	-
Series A preferred shares outstanding – end of period (000s)	2,000	2,000	2,000
Series A – dividend distribution (\$000s)	4,187	4,047	4,000
Per Series A preferred share (\$)	2.0935	2.0234	2.0000
Series C preferred shares outstanding – end of period (000s)	2,000	2,000	2,000
Series C – dividend distribution (\$000s)	3,500	3,500	3,500
Per Series C preferred share (\$)	1.7500	1.7500	1.7500

(1) Excludes the effects of financial derivatives but includes the effects of physical delivery contracts.

(2) Birchcliff previously referred to total capital expenditures as “net capital expenditure” or “capital expenditures, net”. See “Advisories – Capital Expenditures”.

Annual average production in 2018 was 77,096 boe/d, up 13% from 2017 and up 57% from 2016. The increase in annual average production from 2016 was primarily due to incremental production additions from new horizontal oil and natural gas wells brought on production in Pouce Coupe and Gordondale in connection with Birchcliff's successful 2017 and 2018 capital programs and production volumes acquired pursuant to an asset acquisition in Gordondale in July 2016 (the “**Gordondale Acquisition**”), partially offset by the disposition of the Corporation's assets in the Worsley area (the “**Worsley Assets**”) in August 2017 (the “**Worsley Disposition**”).

Birchcliff generated lower adjusted funds flow in 2018 as compared to 2017 and higher adjusted funds flow as compared to 2016. The decrease in adjusted funds flow from 2017 was primarily due to a lower corporate average realized sales price, partially offset by an increase in annual average production volumes in 2018. Adjusted funds flow in 2018 was also negatively impacted by lower oil production as a result of the Worsley Disposition and a realized loss on financial instruments in 2018, as compared to a realized gain on financial instruments in 2017. The increase in adjusted funds flow from 2016 was largely due to a higher average realized sales price and an increase in annual average production volumes as a result of the Gordondale Acquisition.

Birchcliff recorded net income to common shareholders of \$98.0 million (\$0.37 per basic common share) in 2018, as compared to the net loss to common shareholders of \$51.0 million (\$0.19 per basic common share) in 2017 and \$28.3 million (\$0.14 per basic common share) in 2016. The change from a net loss to a net income position from the prior two years was primarily due to changes in adjusted funds flow (as explained above), a \$64.2 million unrealized mark-to-market gain on financial instruments recorded in 2018 and a \$132.3 million after-tax loss in connection with the Worsley Disposition, partially offset by higher depletion and income tax expenses.

Total capital expenditures in 2018 were significantly lower as compared to 2016, and comparable to total capital expenditures in 2017. Total capital expenditures in 2016 included the \$613.5 million Gordondale Acquisition. Excluding the Gordondale Acquisition, capital expenditures in the last three years were largely directed towards the Montney/Doig Resource Play which included: (i) the drilling and completion of new horizontal oil and natural gas wells brought on production in Pouce Coupe and Gordondale; and (ii) the Phase V and Phase VI expansion of the 100% owned and operated Pouce Coupe natural gas processing plant located in Pouce Coupe (“**Pouce Coupe Gas Plant**”) (including related wells and infrastructure), which increased the licensed natural gas processing capacity from 180 MMcf/d to a licensed processing capacity of 340 MMcf/d.

Operating expense on a per boe basis in 2018 was lower as compared to the prior two years primarily due to an incremental increase in natural gas production processed at the Pouce Coupe Gas Plant and the reduced processing fees at AltaGas’ deep-cut sour gas processing facility located in Gordondale (the “**Gordondale Gas Plant**”), as well as the disposition of the higher-cost Worsley Assets in August 2017. During 2018, Birchcliff entered into a new long-term natural gas processing arrangement effective January 1, 2018 (the “**Gordondale Processing Arrangement**”) which significantly reduced its processing fees at the Gordondale Gas Plant.

#### CASH FLOW FROM OPERATING ACTIVITIES AND ADJUSTED FUNDS FLOW

The following table sets forth the Corporation’s cash flow from operating activities and adjusted funds flow for the Reporting Periods and the Comparable Prior Periods:

(\$000s)	Three months ended December 31,		Twelve months ended December 31,	
	2018	2017	2018	2017
Cash flow from operating activities	92,200	88,995	324,434	287,660
<b>Adjusted funds flow</b>	<b>81,517</b>	<b>97,008</b>	<b>312,922</b>	<b>317,680</b>
Per common share – basic (\$)	0.31	0.36	1.18	1.20
Per common share – diluted (\$)	0.30	0.36	1.17	1.19

Adjusted funds flow in the three and twelve month Reporting Periods decreased by 16% and 1%, respectively, from the Comparable Prior Periods. For the three month Reporting period, the decrease was primarily due to lower corporate production, lower average realized oil and NGLs sales prices, higher interest and transportation and other expenses and lower realized gains on financial instruments, partially offset by a higher average realized natural gas sales price. For the twelve month Reporting Period, the decrease was primarily due to a realized loss on financial instruments as compared to a realized gain on financial instruments in the twelve month Comparable Prior Period, as well as an increase in transportation and other expense as a result of the Corporation increasing its Dawn and AECO firm service. The decrease was partially offset by significantly higher revenues received by the Corporation due to higher natural gas and NGLs production in the twelve month Reporting Period, notwithstanding the decrease in oil production as a result of Worsley Disposition.

Cash flow from operating activities for the three and twelve month Reporting Periods increased by 4% and 13%, respectively, from the Comparable Prior Periods. The reason for the changes in cash flow from operating activities

from the Comparable Prior Periods is consistent with the explanation for adjusted funds flows as noted above, and additionally by an increase in non-cash operating working capital, partially offset by higher decommissioning expenditures in the Reporting Periods as compared to the Comparable Prior Periods.

The following table sets forth a breakdown of the Corporation's total cash costs on a per unit basis and the percentage change period-over-period for the Reporting Periods and the Comparable Prior Periods:

(\$/boe)	Three months ended December 31,			Twelve months ended December 31,		
	2018	2017	Change	2018	2017	Change
Royalty expense	0.96	1.26	24%	1.36	1.16	17%
Operating expense	3.51	3.86	(9)%	3.52	4.45	(21)%
Transportation and other expense	4.07	3.52	16%	3.68	2.87	28%
G&A expense, net	1.08	1.28	(16)%	0.87	1.07	(19)%
Interest expense	1.06	0.97	9%	0.99	1.14	(13)%
<b>Total cash costs</b>	<b>10.68</b>	<b>10.89</b>	<b>(2)%</b>	<b>10.42</b>	<b>10.69</b>	<b>(3)%</b>

See "Discussion of Operations" in this MD&A for further details regarding the period-over-period movement in total cash cost inputs.

### NET INCOME (LOSS) TO COMMON SHAREHOLDERS

The following table sets forth the Corporation's net income (loss) and net income (loss) to common shareholders for the Reporting Periods and the Comparable Prior Periods:

(\$000s)	Three months ended December 31,		Twelve months ended December 31,	
	2018	2017	2018	2017
Net income (loss)	71,947	25,820	102,212	(46,980)
<b>Net income (loss) to common shareholders<sup>(1)</sup></b>	<b>70,900</b>	<b>24,773</b>	<b>98,025</b>	<b>(51,027)</b>
Per common share – basic (\$)	0.27	0.09	0.37	(0.19)
Per common share – diluted (\$)	0.27	0.09	0.37	(0.19)

(1) Net income (loss) to common shareholders is calculated by adjusting net income (loss) for the dividends paid on the Series A Preferred Shares during the period. Per common share amounts are calculated by dividing net income (loss) to common shareholders by the weighted average number of basic or diluted common shares outstanding for the period.

During the three and twelve month Reporting Periods, Birchcliff reported net income to common shareholders of \$70.9 million and \$98.0 million, respectively, compared to net income to common shareholders of \$24.8 million in the three month Comparable Prior Period and a net loss to common shareholder of \$51.0 million in the twelve month Comparable Prior Period. The increase in net income to common shareholders from the three month Comparable Prior Period was primarily due to a \$77.5 million (\$56.6 million, net of tax) unrealized mark-to-market gain on financial instruments, partially offset by lower adjusted funds flow and higher income tax expenses. The change from a net loss to a net income position from the twelve month Comparable Prior Period was primarily due to a \$64.2 million (\$46.9 million, net of tax) unrealized mark-to-market gain on financial instruments recorded in the twelve month Reporting Period and a \$181.3 million (\$132.3 million, net of tax) loss from the sale of the Worsley Assets in the twelve month Comparable Prior Period, partially offset by higher depletion and income tax expenses.

### POUCE COUPE GAS PLANT NETBACKS

During the twelve month Reporting Period, Birchcliff processed approximately 67% of its total corporate natural gas production and 57% of its total corporate production through the Pouce Coupe Gas Plant as compared to 60% and 49%, respectively, during the twelve month Comparable Prior Period. These increases were primarily due to the incremental production from horizontal natural gas wells brought on production in Pouce Coupe. The average plant and field operating expense for production processed through the Pouce Coupe Gas Plant was \$0.34/Mcfe (\$2.02/boe) and the operating netback at the Pouce Coupe Gas Plant was \$2.04/Mcfe (\$12.24/boe), resulting in an operating margin of 68% in the twelve month Reporting Period.

During the Reporting Periods, Birchcliff specifically targeted condensate-rich natural gas wells in Pouce Coupe. This materially increased the amount of condensate being produced at the Pouce Coupe Gas Plant to 2,431 bbls/d in twelve month Reporting Period from 1,292 bbls/d in the twelve month Comparable Prior Period, an 88% increase.



This resulted in a 53% increase in the liquids-to-gas ratio from the twelve month Comparable Prior Period from 6.8 bbls/MMcf to 10.4 bbls/MMcf.

The following table sets forth Birchcliff's average daily production and operating netback for wells producing to the Pouce Coupe Gas Plant for the twelve month Reporting Period and the twelve month Comparable Prior Period:

	Twelve months ended December 31, 2018		Twelve months ended December 31, 2017	
<i>Average production:</i>				
Natural gas (Mcf/d)	250,011		193,417	
NGLs (bbls/d) <sup>(1)</sup>	2,609		1,316	
<b>Total (boe/d)</b>	<b>44,278</b>		<b>33,552</b>	
<b>Liquids<sup>(1)</sup>-to-gas ratio (bbls/MMcf)</b>	<b>10.4</b>		<b>6.8</b>	
<i>Netback and cost:</i>				
Petroleum and natural gas revenue <sup>(2)</sup>	\$/Mcfe	\$/boe	\$/Mcfe	\$/boe
	3.02	18.11	3.04	18.24
Royalty expense	(0.05)	(0.29)	(0.07)	(0.44)
Operating expense <sup>(3)</sup>	(0.34)	(2.02)	(0.34)	(2.07)
Transportation and other expense <sup>(4)</sup>	(0.59)	(3.56)	(0.44)	(2.61)
<b>Operating netback</b>	<b>\$2.04</b>	<b>\$12.24</b>	<b>\$2.19</b>	<b>\$13.12</b>
<b>Operating margin<sup>(5)</sup></b>	<b>68%</b>	<b>68%</b>	<b>72%</b>	<b>72%</b>

(1) Primarily condensate.

(2) Excludes the effects of financial derivatives but includes the effects of physical delivery contracts. See "Commodity Price Risk Management".

(3) Represents plant and field operating expense.

(4) The increase in transportation and other expense was primarily due to transportation tolls for natural gas sold at the Dawn price during the twelve month Reporting Period. Birchcliff began selling natural gas at the Dawn price on November 1, 2017.

(5) Operating margin is calculated by dividing the operating netback for the period by the petroleum and natural gas revenue for the period.

## DISCUSSION OF OPERATIONS

### Petroleum and Natural Gas Revenues

The following table sets forth Birchcliff's P&NG revenues by product category for the Corporation's Pouce Coupe operating assets in the Montney/Doig Resource Play (the "Pouce Coupe assets"), the Corporation's Gordondale operating assets in the Montney/Doig Resource Play (the "Gordondale assets") and on a corporate basis for the Reporting Periods and the Comparable Prior Periods:

	Three months ended December 31, 2018			Three months ended December 31, 2017		
	Pouce Coupe assets	Gordondale assets	Total corporate <sup>(2)</sup>	Pouce Coupe assets	Gordondale assets	Total corporate <sup>(3)</sup>
<i>(\$000s)</i>						
Light oil <sup>(1)</sup>	20	18,208	18,233	27	33,186	33,332
Natural gas <sup>(1)</sup>	75,020	26,226	101,249	68,800	24,450	93,647
NGLs <sup>(1)</sup>	17,282	17,902	35,210	13,741	25,350	39,114
Total P&NG sales	92,322	62,336	154,692	82,568	82,986	166,093
Royalty revenue	4	23	28	5	45	56
<b>Total P&amp;NG revenues</b>	<b>92,326</b>	<b>62,359</b>	<b>154,720</b>	<b>82,573</b>	<b>83,031</b>	<b>166,149</b>
<b>% of corporate revenues</b>	<b>60%</b>	<b>40%</b>		<b>50%</b>	<b>50%</b>	
	Twelve months ended December 31, 2018			Twelve months ended December 31, 2017		
	Pouce Coupe assets	Gordondale assets	Total corporate <sup>(2)</sup>	Pouce Coupe assets	Gordondale assets	Total corporate <sup>(3)</sup>
<i>(\$000s)</i>						
Light oil <sup>(1)</sup>	225	121,622	122,118	163	108,593	134,597
Natural gas <sup>(1)</sup>	247,793	84,629	332,979	224,402	88,373	318,790
NGLs <sup>(1)</sup>	77,419	88,798	166,194	38,170	64,189	103,244
Total P&NG sales	325,437	295,049	621,291	262,735	261,155	556,631
Royalty revenue	18	107	130	14	260	311
<b>Total P&amp;NG revenues</b>	<b>325,455</b>	<b>295,156</b>	<b>621,421</b>	<b>262,749</b>	<b>261,415</b>	<b>556,942</b>
<b>% of corporate revenues</b>	<b>52%</b>	<b>47%</b>		<b>47%</b>	<b>47%</b>	

(1) Excludes the effects of financial derivatives but includes the effects of physical delivery contracts.

(2) Includes revenue from Birchcliff's other minor oil and natural gas properties which were not individually significant during the Reporting Periods.

(3) Includes revenues from other minor oil and natural gas properties which were not individually significant during the Comparable Prior Periods, and for the twelve month Comparable Prior Period, also includes revenues from the Corporation's oil-weighted Worsley Assets which were sold in August 2017.

Corporate P&NG revenues decreased 7% from the three month Comparable Prior Period largely due to lower production from the Pouce Coupe and Gordondale assets and a lower corporate average realized sales price.

Corporate P&NG revenues increased 12% from the twelve month Comparable Prior Period largely due to higher production from the Pouce Coupe and Gordondale assets, partially offset by a lower corporate average realized sales price and the Worsley Disposition.

### Production

The following table sets forth Birchcliff's production by product category for the Pouce Coupe assets, the Gordondale assets and on a corporate basis for the Reporting Periods and the Comparable Prior Periods:

	Three months ended December 31, 2018			Three months ended December 31, 2017		
	Pouce Coupe assets	Gordondale assets	Total corporate <sup>(1)</sup>	Pouce Coupe assets	Gordondale assets	Total corporate <sup>(2)</sup>
Light oil (bbls/d)	7	4,777	4,788	5	5,257	5,283
Natural gas (Mcf/d)	266,774	96,818	363,596	282,084	101,385	385,280
NGLs (bbls/d)	3,484	7,533	11,021	2,119	8,484	10,607
<b>Total production (boe/d)</b>	<b>47,953</b>	<b>28,446</b>	<b>76,408</b>	<b>49,138</b>	<b>30,639</b>	<b>80,103</b>
<b>Liquids<sup>(3)</sup>-to-gas ratio (bbls/MMcf)</b>	<b>13.1</b>	<b>127.1</b>	<b>43.5</b>	<b>7.5</b>	<b>135.5</b>	<b>41.2</b>
<b>% of corporate production</b>	<b>63%</b>	<b>37%</b>		<b>61%</b>	<b>38%</b>	
	Twelve months ended December 31, 2018			Twelve months ended December 31, 2017		
	Pouce Coupe assets	Gordondale assets	Total corporate <sup>(1)</sup>	Pouce Coupe assets	Gordondale assets	Total corporate <sup>(2)</sup>
Light oil (bbls/d)	9	4,852	4,873	8	4,747	6,004
Natural gas (Mcf/d)	276,004	95,508	372,170	224,561	90,599	320,927
NGLs (bbls/d)	2,933	7,258	10,195	1,657	6,761	8,471
<b>Total production (boe/d)</b>	<b>48,943</b>	<b>28,028</b>	<b>77,096</b>	<b>39,092</b>	<b>26,608</b>	<b>67,963</b>
<b>Liquids<sup>(3)</sup>-to-gas ratio (bbls/MMcf)</b>	<b>10.7</b>	<b>126.8</b>	<b>40.5</b>	<b>7.4</b>	<b>127.0</b>	<b>45.1</b>
<b>% of corporate production</b>	<b>63%</b>	<b>36%</b>		<b>58%</b>	<b>39%</b>	

(1) Includes production from Birchcliff's other minor oil and natural gas properties which were not individually significant during the Reporting Periods.

(2) Includes production from other minor oil and natural gas properties which were not individually significant during the Comparable Prior Periods and, for the twelve month Comparable Prior Period, also includes production from the Corporation's oil-weighted Worsley Assets which were sold in August 2017.

(3) Liquids is comprised of oil and NGLs (ethane, propane, butane and pentanes plus).

Corporate production averaged 76,408 boe/d in the three month Reporting Period and 77,096 boe/d in the twelve month Reporting Period, a 5% decrease and 13% increase from the Comparable Prior Periods.

The decrease in corporate production from the three month Comparable Prior Period was primarily attributable to production curtailments due to temporary restrictions in pipeline and compressor station capacity on the Alberta NGTL system and natural production declines, partially offset by incremental production from new horizontal natural gas wells brought on production in Pouce Coupe and new horizontal oil wells brought on production in Gordondale.

The increase in corporate production from the twelve month Comparable Prior Period was primarily attributable to the success of Birchcliff's capital programs, which resulted in incremental production from new horizontal natural gas wells brought on production in Pouce Coupe and new horizontal oil wells brought on production in Gordondale. This increase was partially offset by the Worsley Disposition in the twelve month Comparable Prior Period, production curtailments due to temporary restrictions in pipeline and compressor station capacity on the Alberta NGTL system and natural production declines.

During the three month Reporting Period, Birchcliff produced a total of 15,809 bbls/d of oil and NGLs (collectively, "liquids") on a corporate basis, which represented 21% of the Corporation's total production and an average liquids-to-gas ratio of 43.5 bbls/MMcf. Birchcliff's liquids-to-gas ratio for the three month Reporting Period was 13.1 bbls/MMcf for the Pouce Coupe assets (of which 83% were higher-value oil and pentanes plus ("condensate")) and 127.1 bbls/MMcf for the Gordondale assets (of which 50% were higher-value oil and condensate). Birchcliff's



corporate NGLs production mix consisted of approximately 23% ethane, 23% propane, 15% butane and 39% condensate in the three month Reporting Period as compared to 28% ethane, 24% propane, 14% butane and 34% condensate in the three month Comparable Prior Period.

During the twelve month Reporting Period, Birchcliff produced a total of 15,068 bbls/d of liquids on a corporate basis, which represented 20% of the Corporation's total production and an average liquids-to-gas ratio of 40.5 bbls/MMcf. During the twelve month Reporting Period, Birchcliff's liquids-to-gas ratio was 10.7 bbls/MMcf for the Pouce Coupe assets (of which 93% were higher-value oil and condensate) and 126.8 bbls/MMcf for the Gordondale assets (of which 51% were higher-value oil and condensate). Birchcliff's corporate NGLs production mix consisted of approximately 24% ethane, 22% propane, 14% butane and 40% condensate in the twelve month Reporting Period as compared to 25% ethane, 26% propane, 16% butane and 33% condensate in the twelve month Comparable Prior Period.

The following table sets forth Birchcliff's production weighting by product category for its Pouce Coupe and Gordondale assets and on a corporate basis for the Reporting Periods and the Comparable Prior Periods:

	Three months ended December 31, 2018			Three months ended December 31, 2017		
	Pouce Coupe assets	Gordondale assets	Total corporate <sup>(1)</sup>	Pouce Coupe assets	Gordondale assets	Total corporate <sup>(2)</sup>
% Light oil production	-	17%	6%	-	17%	7%
% Natural gas production	93%	57%	79%	96%	55%	80%
% NGLs production	7%	26%	15%	4%	28%	13%
	Twelve months ended December 31, 2018			Twelve months ended December 31, 2017		
	Pouce Coupe assets	Gordondale assets	Total corporate <sup>(1)</sup>	Pouce Coupe assets	Gordondale assets	Total corporate <sup>(2)</sup>
% Light oil production	-	17%	6%	-	18%	9%
% Natural gas production	94%	57%	80%	96%	57%	79%
% NGLs production	6%	26%	14%	4%	25%	12%

(1) Includes production weighting from Birchcliff's other minor oil and natural gas properties which were not individually significant during the Reporting Periods.

(2) Includes production weighting from other minor oil and natural gas properties which were not individually significant during the Comparable Prior Periods and, for the twelve month Comparable Prior Period, also includes production weighting from the Corporation's oil-weighted Worsley Assets which were sold in August 2017.

Corporate oil production as a percentage of total production decreased from the twelve Comparable Prior Period largely due to the Worsley Disposition.

Corporate NGLs production as a percentage of total production increased from the Comparable Prior Periods primarily due to the addition of condensate-rich natural gas wells drilled in Pouce Coupe.

## Commodity Prices

The following table sets forth the average benchmark index prices and exchange rate for the Reporting Periods and the Comparable Prior Periods:

	Three months ended December 31,		Twelve months ended December 31,	
	2018	2017	2018	2017
Light oil – WTI Cushing (US\$/bbl)	58.81	55.40	64.77	50.95
Light oil – WTI Cushing (CDN\$/bbl)	77.56	70.47	83.89	66.11
Light oil – MSW (Mixed Sweet) (CDN\$/bbl) <sup>(1)</sup>	42.42	68.62	69.04	62.52
Natural gas – NYMEX HH (US\$/MMBtu) <sup>(2)</sup>	3.76	2.92	3.07	3.02
Natural gas – AECO 5A (CDN\$/GJ)	1.48	1.60	1.42	2.04
Natural gas – AECO 5A (US\$/MMBtu) <sup>(2)</sup>	1.18	1.33	1.16	1.66
Natural gas – Dawn Day Ahead (CDN\$/GJ)	4.75	3.53	3.84	3.74
Natural gas – Dawn Day Ahead (US\$/MMBtu) <sup>(2)</sup>	3.79	2.93	3.12	3.04
Natural gas – ATP 5A Day Ahead (CDN\$/GJ)	2.57	1.16	2.07	2.02
Natural gas – Chicago City Gate (US\$/MMBtu) <sup>(2)</sup>	3.69	2.88	3.02	2.90
Exchange rate (CDN\$ to US\$1)	1.3215	1.2717	1.2961	1.2979

(1) Previously referred to as the “Edmonton Par price”.

(2) \$1.00/MMBtu = \$1.00/Mcf based on a standard heat value Mcf. See “Advisories – MMBtu Pricing Conversions”.

Birchcliff sold substantially all of its light crude oil based on the MSW price during the Reporting Periods and Comparable Prior Periods. Birchcliff sold substantially all of its natural gas production for prices based on the AECO and Dawn benchmark prices during the Reporting Periods and sold substantially all of its natural gas production at the AECO benchmark price during the first 10 months of 2017. Effective November 1, 2017, Birchcliff began selling a portion of its natural gas at the Dawn benchmark price (see “Natural Gas Sales, Production and Average Realized Sales Price” for further details). Birchcliff has also financially diversified a portion of its AECO production to NYMEX-based pricing (see “Commodity Price Risk Management”). The average realized sales prices the Corporation receives for its light crude oil and natural gas production depends on a number of factors, including the average benchmark prices for crude oil and natural gas, the US to Canadian dollar exchange rate, transportation and product quality differentials and the heat premium on its natural gas production.

The benchmark prices for crude oil are impacted by global and regional events that dictate the level of supply and demand for crude oil. The principal benchmark trading exchanges that Birchcliff compares its oil price to are the WTI oil price and the MSW price. The differential between the WTI oil price and the MSW price can widen due to a number of factors, including, but not limited to, downtime in North American refineries, rising domestic production, high inventory levels in North America and a lack of pipeline infrastructure connecting to key consuming oil markets. The improved WTI benchmark crude oil prices in the Reporting Periods was partially offset by the widening differential between WTI and MSW prices, which averaged CDN\$35.14/bbl and CDN\$14.85/bbl in the three and twelve month Reporting Periods, respectively, compared to CDN\$1.85/bbl and CDN\$3.59/bbl in the Comparable Prior Periods.

Canadian natural gas prices are mainly influenced by North American supply and demand fundamentals which can be impacted by a number of factors, including, but not limited to, weather-related conditions in key consuming natural gas markets, changing demographics, economic growth, underground storage levels, net import and export markets, pipeline takeaway capacity, maintenance on key natural gas infrastructure, cost of competing renewable and non-renewable energy alternatives, drilling and completion rates and efficiencies in extracting natural gas from North American natural gas basins. AECO natural gas spot prices during the three month Reporting Period continued to receive a significant discount to the Dawn and NYMEX HH prices primarily due to the high natural gas supplies in Western Canada relative to the limited economic transportation and egress solutions out of Western Canadian natural gas basins. During the three month Reporting Period, AECO natural gas spot prices were additionally challenged due to temporary restrictions in pipeline egress and compressor station capacity on the Alberta NGTL system.

The following table sets forth Birchcliff's average realized oil, natural gas and NGLs sales prices for the Reporting Periods and the Comparable Prior Periods:

	Three months ended December 31,			Twelve months ended December 31,		
	2018	2017	Change	2018	2017	Change
Light oil (\$/bbl)	41.39	68.58	(40)%	68.66	61.42	12%
Natural gas (\$/Mcf)	3.03	2.64	15%	2.45	2.72	(10)%
NGLs (\$/bbl)	34.73	40.08	(13)%	44.66	33.39	34%
<b>Average realized sales price (\$/boe)<sup>(1)</sup></b>	<b>22.01</b>	<b>22.54</b>	<b>(2)%</b>	<b>22.08</b>	<b>22.44</b>	<b>(2)%</b>

(1) Excludes the effects of financial derivatives but includes the effects of physical delivery contracts.

The changes in the average realized sales prices from the Comparable Prior Periods were primarily the result of the movement in the average benchmark index price for each respective commodity.

The average realized sales price for the Pouce Coupe assets was \$20.93/boe in the three month Reporting Period and \$18.22/boe in the twelve month Reporting Period, a 15% increase and a 1% decrease, respectively, from the Comparable Prior Periods. The average realized sales price for the Gordondale assets was \$23.82/boe in the three month Reporting Period and \$28.84/boe in the twelve month Reporting Period, a 19% decrease and a 7% increase, respectively, from the Comparable Prior Periods. The Gordondale assets received a higher average realized sales price compared to the Pouce Coupe assets, largely as a result of higher volume weighting of liquids produced in the Gordondale area, which received a higher value on a per unit basis than Birchcliff's natural gas sales. The higher weighting of liquids in the total corporate production mix generally improves Birchcliff's overall average realized sales price.

For further production and average realized pricing details for Birchcliff's Pouce Coupe assets and Gordondale assets, see "Discussion of Operations – Operating Netbacks" in this MD&A.

### Natural Gas Sales, Production and Average Realized Sales Price

The following table sets forth Birchcliff's natural gas sales, production and average realized sales price by natural gas market for the Reporting Periods and the Comparable Prior Periods:

	Three months ended December 31, 2018					Three months ended December 31, 2017				
	Natural gas sales		Natural gas production		Average realized natural gas price	Natural gas sales		Natural gas production		Average realized natural gas price
	(\$000s) <sup>(1)</sup>	(%)	(Mcf/d)	(%)	(\$/Mcf) <sup>(1)(2)</sup>	(\$000s) <sup>(1)</sup>	(%)	(Mcf/d)	(%)	(\$/Mcf) <sup>(1)(2)</sup>
AECO	33,788	33	223,261	61	1.67	57,778	62	266,437	69	2.34
Dawn <sup>(3)</sup>	64,969	64	127,211	35	5.55	26,531	28	73,222	19	3.94
Alliance <sup>(4)</sup>	2,492	3	13,124	4	2.06	9,338	10	45,621	12	2.22
<b>Total</b>	<b>101,249</b>	<b>100</b>	<b>363,596</b>	<b>100</b>	<b>3.03</b>	<b>93,647</b>	<b>100</b>	<b>385,280</b>	<b>100</b>	<b>2.64</b>
	Twelve months ended December 31, 2018					Twelve months ended December 31, 2017				
	Natural gas sales		Natural gas production		Average realized natural gas price	Natural gas sales		Natural gas production		Average realized natural gas price
	(\$000s) <sup>(1)</sup>	(%)	(Mcf/d)	(%)	(\$/Mcf) <sup>(1)(2)</sup>	(\$000s) <sup>(1)</sup>	(%)	(Mcf/d)	(%)	(\$/Mcf) <sup>(1)(2)</sup>
AECO	132,342	40	229,225	61	1.59	280,274	88	285,977	89	2.67
Dawn <sup>(3)</sup>	182,385	55	114,110	31	4.38	26,531	8	18,456	6	3.94
Alliance <sup>(4)</sup>	18,252	5	28,835	8	1.73	11,985	4	16,494	5	1.99
<b>Total</b>	<b>332,979</b>	<b>100</b>	<b>372,170</b>	<b>100</b>	<b>2.45</b>	<b>318,790</b>	<b>100</b>	<b>320,927</b>	<b>100</b>	<b>2.72</b>

- (1) Excludes the effects of financial derivatives but includes the effects of physical delivery contracts.
- (2) Reflects the average realized natural gas wellhead price after adjusting for fuel to transport natural gas from the field receipt point to the delivery sales trading hub.
- (3) The Corporation has in place firm service transportation for an aggregate of 175,000 GJ/d of natural gas on TCPL's Canadian Mainline for a 10-year term, whereby natural gas is transported to the Dawn trading hub. The first 120,000 GJ/d tranche of service became available to Birchcliff on November 1, 2017 and the second tranche of 30,000 GJ/d became available on November 1, 2018, with an additional 25,000 GJ/d becoming available on November 1, 2019. During the three month Reporting Period, Birchcliff entered into physical delivery sales contracts at Dawn for 50,000 MMBtu/d at an average contract price of US\$5.05/MMBtu for the period from December 1, 2018 to March 31, 2019.
- (4) Birchcliff has in place various natural gas delivery arrangements with third party marketers to deliver and sell natural gas on the Alliance pipeline system. Alliance sales are recorded net of transportation tolls.

### Commodity Price Risk Management

Birchcliff maintains an ongoing commodity price risk management program in part to reduce volatility in its financial results. As a part of this program, Birchcliff utilizes various financial derivative and physical delivery sales contracts. Subject to compliance with the Corporation's credit facilities, the Board has authorized the Corporation to execute a risk management strategy whereby Birchcliff is authorized to enter into agreements and financial or physical transactions with one or more counterparties from time to time that are intended to protect the Corporation from volatility in future commodity prices, foreign exchange rates and/or interest rates.

#### Financial Derivative Contracts

Birchcliff has not designated its financial derivative contracts as effective accounting hedges, even though the Corporation considers all commodity price contracts to be effective economic hedges. As a result, all such financial derivative contracts are recorded on the statement of financial position on a mark-to-market fair value basis at December 31, 2018, with the changes in fair value being recognized as a non-cash unrealized gain or loss in profit or loss. These contracts are not entered into for trading or speculative purposes.

As at December 31, 2018, Birchcliff had the following financial derivative contracts in place in order to manage commodity price risk:

Product	Type of Contract	Notional Quantity	Term <sup>(1)</sup>	Contract Price
Natural gas	AECO 7A basis swap <sup>(2)</sup>	30,000 MMBtu/d	Jan. 1, 2019 – Dec. 31, 2023	NYMEX HH less US\$1.298/MMBtu
Natural gas	AECO 7A basis swap <sup>(2)</sup>	10,000 MMBtu/d	Jan. 1, 2019 – Dec. 31, 2023	NYMEX HH less US\$1.32/MMBtu
Natural gas	AECO 7A basis swap <sup>(2)</sup>	30,000 MMBtu/d	Jan. 1, 2019 – Dec. 31, 2023	NYMEX HH less US\$1.33/MMBtu
Natural gas	AECO 7A basis swap <sup>(2)</sup>	15,000 MMBtu/d	Jan. 1, 2019 – Dec. 31, 2024	NYMEX HH less US\$1.185/MMBtu
Natural gas	AECO 7A basis swap <sup>(2)</sup>	5,000 MMBtu/d	Jan. 1, 2019 – Dec. 31, 2024	NYMEX HH less US\$1.20/MMBtu
Natural gas	AECO 7A basis swap <sup>(2)</sup>	5,000 MMBtu/d	Jan. 1, 2019 – Dec. 31, 2024	NYMEX HH less US\$1.20/MMBtu
Natural gas	AECO 7A basis swap <sup>(3)</sup>	10,000 MMBtu/d	Jan. 1, 2019 – Mar. 31, 2019	NYMEX HH less US\$3.10/MMBtu
Natural gas	AECO 7A basis swap <sup>(3)</sup>	10,000 MMBtu/d	Jan. 1, 2019 – Mar. 31, 2019	NYMEX HH less US\$3.15/MMBtu
Natural gas	AECO 7A basis swap <sup>(3)</sup>	30,000 MMBtu/d	Jan. 1, 2019 – Mar. 31, 2019	NYMEX HH less US\$3.16/MMBtu

(1) Transactions with common terms and the same counterparty have been aggregated and presented at the weighted average price.

(2) Birchcliff sold AECO basis swap.

(3) Birchcliff bought AECO basis swap.

The following table provides a summary of the realized and unrealized gains (losses) on financial derivative contracts for the Reporting Periods and the Comparable Prior Periods:

	Three months ended December 31,				Twelve months ended December 31,			
	2018		2017		2018		2017	
	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)
Realized gain (loss) on derivatives	1,658	0.24	10,787	1.46	(15,771)	(0.56)	25,785	1.03
Unrealized gain (loss) on derivatives	77,443	11.02	(13,712)	(1.86)	64,222	2.28	5,387	0.22

Birchcliff realized a cash loss on financial commodity price risk management contracts of \$15.8 million in the twelve month Reporting Period as compared to a realized cash gain of \$25.8 million in the Comparable Prior Period. The realized loss was due to the settlement of WTI fixed price financial contracts with an average contract price that was below the average benchmark commodity index price in that period. This loss was partially offset by a realized gain of \$4.0 million recorded in the three month Reporting Period due to the monetization of Birchcliff's outstanding 2019 WTI fixed price financial contracts.

Birchcliff recorded a \$64.2 million unrealized mark-to-market gain on financial commodity price risk management contracts in the twelve month Reporting Period as compared to a \$5.4 million unrealized gain in the Comparable Prior Period. The unrealized gain was due to an increase in the fair value of Birchcliff's financial contracts to an asset position of \$60.2 million at December 31, 2018, as compared to a liability position of \$4.0 million at December 31, 2017. The increase in the fair value of Birchcliff's financial contracts was primarily attributable to the addition of the multi-year AECO/NYMEX basis swap contracts entered into during the twelve month Reporting Period and the settlement of the WTI fixed price financial contracts during the Reporting Periods. Any changes in the forward commodity price assumptions period-over-period will also be reflected in the unrealized gain or loss for unsettled financial risk management contracts. The fair value of the asset or liability is the estimated value to settle the outstanding contracts at a point in time. As such, unrealized financial gains or losses do not impact adjusted funds flow and the actual gains or losses realized on eventual cash settlement can vary materially due to subsequent fluctuations in commodity prices as compared to the valuation assumptions.

The following financial derivative contracts were entered into subsequent to December 31, 2018:

Product	Type of Contract	Notional Quantity	Term <sup>(1)</sup>	Contract Price
Natural gas	AECO 7A basis swap <sup>(2)</sup>	10,000 MMBtu/d	Jan. 1, 2025 – Dec. 31, 2025	NYMEX HH less US\$1.020/MMBtu
Natural gas	AECO 7A basis swap <sup>(2)</sup>	20,000 MMBtu/d	Jan. 1, 2024 – Dec. 31, 2025	NYMEX HH less US\$1.119/MMBtu
Natural gas	AECO 7A basis swap <sup>(2)</sup>	25,000 MMBtu/d	Jan. 1, 2024 – Dec. 31, 2025	NYMEX HH less US\$1.135/MMBtu
Natural gas	AECO 7A basis swap <sup>(2)</sup>	5,000 MMBtu/d	Jan. 1, 2021 – Dec. 31, 2025	NYMEX HH less US\$1.178/MMBtu
Natural gas	AECO 7A basis swap <sup>(2)</sup>	10,000 MMBtu/d	Jan. 1, 2021 – Dec. 31, 2025	NYMEX HH less US\$1.175/MMBtu
Natural gas	AECO 7A basis swap <sup>(2)</sup>	5,000 MMBtu/d	Jan. 1, 2021 – Dec. 31, 2025	NYMEX HH less US\$1.190/MMBtu

(1) Transactions with common terms and the same counterparty have been aggregated and presented at the weighted average price.

(2) Birchcliff sold AECO basis swap.

### Physical Delivery Sales Contracts

Birchcliff also enters into physical delivery sales contracts to manage commodity price risk. These contracts are considered normal executory sales contracts and are not recorded at fair value through profit or loss. At December 31, 2018, the Corporation had the following physical delivery sales contract in place:

Product	Type of Contract	Quantity	Term <sup>(1)</sup>	Contract Price
Natural gas	AECO 7A basis swap <sup>(2)</sup>	5,000 MMBtu/d	Jan. 1, 2019 – Dec. 31, 2023	NYMEX HH less US\$1.205/MMBtu
Natural gas	Dawn fixed price <sup>(3)</sup>	5,000 MMBtu/d	Jan. 1, 2019 – Mar. 31, 2019	US\$5.100/MMBtu
Natural gas	Dawn fixed price <sup>(3)</sup>	10,000 MMBtu/d	Jan. 1, 2019 – Mar. 31, 2019	US\$5.000/MMBtu
Natural gas	Dawn fixed price <sup>(3)</sup>	10,000 MMBtu/d	Jan. 1, 2019 – Mar. 31, 2019	US\$5.005/MMBtu
Natural gas	Dawn fixed price <sup>(3)</sup>	10,000 MMBtu/d	Jan. 1, 2019 – Mar. 31, 2019	US\$5.020/MMBtu
Natural gas	Dawn fixed price <sup>(3)</sup>	15,000 MMBtu/d	Jan. 1, 2019 – Mar. 31, 2019	US\$5.103/MMBtu

(1) Transactions with common terms and the same counterparty have been aggregated and presented at the weighted average price.

(2) Birchcliff sold AECO basis swap.

(3) Birchcliff entered into a 4-month fixed price physical natural gas Dawn sales arrangement commencing December 1, 2018.

There were no long-term physical delivery sales contracts entered into subsequent to December 31, 2018.

### Royalties

The following table sets forth Birchcliff's royalty expense for the Reporting Periods and the Comparable Prior Periods:

	Three months ended December 31,		Twelve months ended December 31,	
	2018	2017	2018	2017
Royalty expense (\$000s) <sup>(1)</sup>	6,763	9,271	38,306	28,727
Royalty expense (\$/boe)	0.96	1.26	1.36	1.16
Effective royalty rate (%) <sup>(2)</sup>	4%	6%	6%	5%

(1) Royalties are paid primarily to the Government of Alberta.

(2) The effective royalty rate is calculated by dividing the aggregate royalties into petroleum and natural gas sales for the period.

During the three month Reporting Period, Birchcliff's aggregate and per unit royalties decreased from the Comparable Prior Period primarily due to a decrease in the average realized oil and NGLs sales prices and the effect these lower prices have on the sliding scale royalty calculation, partially offset by an increase in the average realized natural gas sales price.

During the twelve month Reporting Period, Birchcliff's aggregate and per unit royalties increased from the Comparable Prior Period primarily due to an increase in the average realized oil and NGLs sales prices and the effect these higher prices have on the sliding scale royalty calculation, partially offset by a decrease in the average realized natural gas sales price.

See "Discussion of Operations – Operating Netbacks" in this MD&A for details on royalties for the Corporation's Pouce Coupe and Gordondale assets.



## Operating Expense

The following table sets forth a breakdown of Birchcliff's operating expense for the Reporting Periods and the Comparable Prior Periods:

	Three months ended December 31,				Twelve months ended December 31,			
	2018		2017		2018		2017	
	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)
Field operating expense	25,705	3.66	28,901	3.92	102,099	3.63	112,287	4.53
Recoveries	(1,028)	(0.15)	(523)	(0.07)	(2,995)	(0.11)	(1,917)	(0.08)
Field operating expense, net	24,677	3.51	28,378	3.85	99,104	3.52	110,370	4.45
Expensed workovers and other	-	-	82	0.01	-	-	116	-
<b>Operating expense</b>	<b>24,677</b>	<b>3.51</b>	<b>28,460</b>	<b>3.86</b>	<b>99,104</b>	<b>3.52</b>	<b>110,486</b>	<b>4.45</b>

On an aggregate and per unit basis, operating expense decreased in the Reporting Periods as compared to the Comparable Prior Periods primarily due to: (i) an incremental increase in natural gas production processed at the Pouce Coupe Gas Plant; (ii) a reduction in third-party natural gas processing fees at the Gordondale Gas Plant as a result of the Gordondale Processing Arrangement; and (iii) the sale of the higher-cost Worsley Assets in August 2017.

See "Discussion of Operations – Operating Netbacks" in this MD&A for details on operating expense for the Pouce Coupe assets and Gordondale assets.

## Transportation and Other Expense

The following table sets forth Birchcliff's transportation and other expense for the Reporting Periods and the Comparable Prior Periods:

	Three months ended December 31,				Twelve months ended December 31,			
	2018		2017		2018		2017	
	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)
Transportation	28,014	3.99	25,852	3.52	99,889	3.55	71,098	2.87
Fractionation	521	0.08	-	-	3,533	0.13	-	-
Other	32	-	31	-	125	-	126	-
<b>Transportation and other expense<sup>(1)</sup></b>	<b>28,567</b>	<b>4.07</b>	<b>25,883</b>	<b>3.52</b>	<b>103,547</b>	<b>3.68</b>	<b>71,224</b>	<b>2.87</b>

(1) Previously referred to as "transportation and marketing expense" in the Comparable Prior Periods.

The increase in the aggregate and per unit transportation and other expense from the Comparable Prior Periods was largely due to firm service pipeline transportation tolls for natural gas transported to Dawn which commenced November 1, 2017 and new unused firm transportation costs associated with Birchcliff's commitments on the NGTL system, which is available for future production growth. Additionally, fractionation fees associated with NGLs production processed at third-party facilities were reclassified from NGLs revenue for the Reporting Periods as a result of Birchcliff's transition to IFRS 15: *Revenue from Contracts with Customers* ("IFRS 15") effective January 1, 2018. See "Changes in Accounting Policies" in this MD&A for further details.

See "Discussion of Operations – Operating Netbacks" in this MD&A for details on transportation and other expense for the Pouce Coupe assets and Gordondale assets.

## Operating Netback

The following table sets forth Birchcliff's net production and operating netback for the Corporation's assets in Pouce Coupe and Gordondale on the Montney/Doig Resource Play and on a corporate basis for the Reporting Periods and the Comparable Prior Periods:

	Three months ended December 31,		Twelve months ended December 31,	
	2018	2017	2018	2017
<b>Pouce Coupe Montney/Doig Resource Play:</b>				
<i>Average production:</i>				
Light oil (bbls/d)	7	4	9	7
Natural gas (Mcf/d)	266,774	282,084	276,004	224,561
NGLs (bbls/d)	3,484	2,120	2,933	1,658
Total (boe/d)	47,953	49,138	48,943	39,092
% of corporate production	63%	61%	63%	58%
Liquids <sup>(1)</sup> -to-gas ratio (bbls/MMcf)	13.1	7.5	10.7	7.4
<i>Netback and cost (\$/boe):</i>				
Petroleum and natural gas revenue <sup>(2)</sup>	20.93	18.27	18.22	18.41
Royalty expense	(0.33)	(0.50)	(0.29)	(0.40)
Operating expense	(2.29)	(2.37)	(2.28)	(2.66)
Transportation and other expense	(4.16)	(3.69)	(3.59)	(2.68)
Operating netback	14.15	11.71	12.06	12.67
<b>Gordondale Montney/Doig Resource Play:</b>				
<i>Average production:</i>				
Light oil (bbls/d)	4,777	5,257	4,852	4,747
Natural gas (Mcf/d)	96,818	101,385	95,508	90,599
NGLs (bbls/d)	7,533	8,484	7,258	6,761
Total (boe/d)	28,446	30,639	28,028	26,608
% of corporate production	37%	38%	36%	39%
Liquids <sup>(3)</sup> -to-gas ratio (bbls/MMcf)	127.1	135.5	126.8	127.0
<i>Netback and cost (\$/boe):</i>				
Petroleum and natural gas revenue <sup>(2)</sup>	23.83	29.46	28.85	26.92
Royalty expense	(2.04)	(2.50)	(3.23)	(2.07)
Operating expense	(5.55)	(6.15)	(5.63)	(6.32)
Transportation and other expense	(3.91)	(3.27)	(3.84)	(2.93)
Operating netback	12.33	17.54	16.15	15.60
<b>Total Corporate:</b>				
<i>Average production:</i>				
Light oil (bbls/d)	4,788	5,283	4,873	6,004
Natural gas (Mcf/d)	363,596	385,280	372,170	320,927
NGLs (bbls/d)	11,021	10,607	10,195	8,471
Total (boe/d) <sup>(4)</sup>	76,408	80,103	77,096	67,963
Liquids <sup>(3)</sup> -to-gas ratio (bbls/MMcf)	43.5	41.2	40.5	45.1
<i>Netback and cost (\$/boe):</i>				
Petroleum and natural gas revenue <sup>(2)</sup>	22.01	22.55	22.08	22.45
Royalty expense	(0.96)	(1.26)	(1.36)	(1.16)
Operating expense	(3.51)	(3.86)	(3.52)	(4.45)
Transportation and other expense	(4.07)	(3.52)	(3.68)	(2.87)
Operating netback	13.47	13.91	13.52	13.97

(1) Primarily condensate.

(2) Excludes the effects of financial derivatives but includes the effects of physical delivery contracts.

(3) Liquids is comprised of oil and NGLs (ethane, propane, butane and condensate).

(4) Includes production from Birchcliff's other minor oil and natural gas properties which were not individually significant and, for the twelve month Comparable Prior Period, also includes production from the Corporation's oil-weighted Worsley Assets which were sold in August 2017.

### *Pouce Coupe Montney/Doig Resource Play*

Birchcliff's average production from its Pouce Coupe assets was 47,953 boe/d in the three month Reporting Period and 48,943 boe/d in the twelve month Reporting Period, a 2% decrease and 25% increase, respectively, from the Comparable Prior Periods. The decrease in the three month Reporting Period was primarily attributable to production curtailments due to temporary restrictions in pipeline and compressor station capacity on the Alberta NGTL system and natural production declines, partially offset by incremental production from new horizontal natural gas wells being brought on production. The increase in the twelve month Reporting Period was primarily attributable to the success of Birchcliff's capital programs which resulted in incremental production from new horizontal natural gas wells being brought on production in connection with the start-up of Phase V and Phase VI of the Pouce Coupe Gas Plant, partially offset by production curtailments due to temporary restrictions in pipeline and compressor station capacity on the Alberta NGTL system and natural production declines in the Reporting Period.

Birchcliff's liquids-to-gas ratio for the Pouce Coupe assets was 13.1 bbls/MMcf in the three month Reporting Period and 10.7 bbls/MMcf in the twelve month Reporting Period as compared to 7.5 bbls/MMcf and 7.4 bbls/MMcf, respectively, in the Comparable Prior Periods. During the Reporting Periods, Birchcliff specifically targeted condensate-rich natural gas wells in Pouce Coupe which resulted in the increase in liquids-to-gas ratio from the Comparable Prior Periods. During the three month Reporting Period, approximately 83% of the liquids produced in the Pouce Coupe area were comprised of higher-value condensate which received an average price of \$58.03/bbl. During the twelve month Reporting Period, approximately 93% of the liquids produced in the Pouce Coupe area were comprised of higher-value condensate which received an average price of \$75.16/bbl.

Operating expense for the Pouce Coupe assets was \$2.29/boe in the three month Reporting Period and \$2.28/boe in the twelve month Reporting Period, a 3% and 14% decrease, respectively, from the Comparable Prior Periods. Operating expense per boe decreased largely due to an incremental increase in natural gas production processed through the Pouce Coupe Gas Plant during the Reporting Periods.

Transportation and other expense for the Pouce Coupe assets was \$4.16/boe in the three month Reporting Period and \$3.59/boe in the twelve month Reporting Period, a 13% and 34% increase, respectively, from the Comparable Prior Periods. Transportation and other expense per boe increased mainly due to firm service pipeline transportation tolls for natural gas transported to Dawn which commenced November 1, 2017 and new unused firm transportation costs associated with Birchcliff's commitments on the NGTL system, which is available for future production growth.

Birchcliff's operating netback for the Pouce Coupe assets was \$14.15/boe in the three month Reporting Period and \$12.06/boe in the twelve month Reporting Period, a 21% increase and 5% decrease, respectively, from the Comparable Prior Periods. The increase in the three month Reporting Period was largely due to a higher average realized sales price received for Birchcliff's Pouce Coupe production and lower per boe royalty and operating expenses, partially offset by higher per boe transportation and other expense. The decrease in the twelve month Reporting Period was largely due to a lower average realized sales price received for Birchcliff's Pouce Coupe production and higher per boe transportation and other expense, partially offset by lower per boe royalty and operating expenses during the Reporting Period.

### *Gordondale Montney/Doig Resource Play*

Birchcliff's average production from the Gordondale assets was 28,446 boe/d in the three month Reporting Period and 28,028 boe/d in the twelve month Reporting Period, a 7% decrease and 5% increase, respectively, from the Comparable Prior Periods. The decrease in the three month Reporting Period was primarily attributable to production curtailments due to temporary restrictions in pipeline and compressor station capacity on the Alberta NGTL system and natural production declines, partially offset by incremental production from new horizontal oil wells being brought on production. The increase in production in the twelve month Reporting Period was primarily attributable to the success of Birchcliff's capital programs which resulted in incremental production from new horizontal oil wells being brought on production, partially offset by production curtailments due to temporary restrictions in pipeline and compressor station capacity on the Alberta NGTL system and natural production declines in the Reporting Period.

Birchcliff's liquids-to-gas ratio for the Gordondale assets was 127.1 bbls/MMcf in the three month Reporting Period and 126.8 bbls/MMcf in the twelve month Reporting Period as compared to 135.5 bbls/MMcf and 127.0 bbls/MMcf,

respectively, in the Comparable Prior Periods. During the three month Reporting Period, approximately 50% of the liquids produced in Gordondale were comprised of higher-value oil and condensate which received an average price of \$43.58/bbl. Birchcliff's Gordondale NGLs production mix consisted of approximately 34% ethane, 31% propane, 18% butane and 17% condensate in the three month Reporting Period. During the twelve month Reporting Period, approximately 51% of the liquids produced in Gordondale were comprised of higher-value oil and condensate which received an average price of \$71.57/bbl. Birchcliff's Gordondale NGLs production mix consisted of approximately 33% ethane, 30% propane, 18% butane and 19% condensate in the twelve month Reporting Period.

Operating expense for the Gordondale assets was \$5.55/boe in the three month Reporting Period and \$5.63/boe in the twelve month Reporting Period, a 10% and 11% decrease, respectively, from the Comparable Prior Periods. The decrease in operating expense for the Reporting Periods was primarily attributable to the reduction in third-party natural gas processing fees at the Gordondale Gas Plant as a result of the Gordondale Processing Arrangement.

Transportation and other expense for the Gordondale assets was \$3.91/boe in the three month Reporting Period and \$3.84/boe in the twelve month Reporting Period, a 20% and 31% increase respectively, from the Comparable Prior Periods. Transportation and other expense per boe increased mainly due to firm service pipeline transportation tolls for natural gas transported to Dawn which commenced November 1, 2017 and new unused firm transportation costs associated with Birchcliff's commitments on the NGTL system, which is available for future production growth.

Birchcliff's operating netback for the Gordondale assets was \$12.33/boe in the three month Reporting Period and \$16.15/boe in the twelve month Reporting Period, a 30% decrease and 4% increase, respectively, from the Comparable Prior Periods. The decrease in the three month Reporting Period was largely due a lower average realized sales price received for Birchcliff's Gordondale liquids production and higher per boe transportation and other expense, partially offset by lower per boe royalty and operating expenses. The increase in the twelve month Reporting Period was largely due to a higher average realized sales price received for Birchcliff's Gordondale production and lower per boe operating expense, partially offset by higher per boe royalty expense and transportation and other expense.

### Administrative Expense

The following table sets forth the components of Birchcliff's net administrative expense for the Reporting Periods and the Comparable Prior Periods:

	Three months ended				Twelve months ended			
	December 31,				December 31,			
	2018		2017		2018		2017	
	(\$000s)	(%)	(\$000s)	(%)	(\$000s)	(%)	(\$000s)	(%)
<i>Cash:</i>								
Salaries and benefits <sup>(1)</sup>	11,131	75	13,451	83	28,618	68	31,437	70
Other <sup>(2)</sup>	3,683	25	2,832	17	13,329	32	13,498	30
	14,814	100	16,283	100	41,947	100	44,935	100
Operating overhead recoveries	(33)	(1)	(52)	(1)	(150)	(1)	(202)	(1)
Capitalized overhead <sup>(3)</sup>	(7,163)	(48)	(6,781)	(41)	(17,195)	(40)	(18,229)	(40)
G&A expense, net	7,618	51	9,450	58	24,602	59	26,504	59
G&A expense, net per boe	\$1.08		\$1.28		\$0.87		\$1.07	
<i>Non-cash:</i>								
Other compensation <sup>(4)</sup>	9,668	100	2,370	100	14,758	100	9,945	100
Capitalized compensation <sup>(3)</sup>	(4,175)	(43)	(1,376)	(58)	(7,061)	(48)	(5,886)	(59)
Other compensation, net	5,493	57	994	42	7,697	52	4,059	41
Other compensation, net per boe	\$0.78		\$0.13		\$0.27		\$0.16	
<b>Administrative expense, net</b>	<b>13,111</b>		<b>10,444</b>		<b>32,299</b>		<b>30,563</b>	
<b>Administrative expense, net per boe</b>	<b>\$1.86</b>		<b>\$1.41</b>		<b>\$1.14</b>		<b>\$1.23</b>	

(1) Includes salaries, benefits and bonuses paid to officers and employees of the Corporation and retainer fees, meeting fees and benefits paid to directors of the Corporation.

(2) Includes costs such as rent, legal, tax, insurance, minor computer hardware and software and other business expenses incurred by the Corporation.

(3) Includes a portion of gross general and administrative expenses and other compensation directly attributable to the exploration and development activities of the Corporation, which have been capitalized.

(4) Birchcliff recorded a post-employment benefit expense of \$7.8 million in the Reporting Periods (2017 - \$nil).

On an aggregate basis, administrative expense for the three and twelve month Reporting Periods increased 26% and 6%, respectively, from the Comparable Prior Periods. The increases were primarily due to the establishment of a post-employment benefit plan for eligible employees, which provides for post-employment benefits based upon the age at retirement and their period of service with Birchcliff. During the Reporting Periods, Birchcliff recorded a post-employment benefit expense of \$7.8 million (2017 - \$nil). The increases were partially offset by lower net stock-based compensation expense in the Reporting Periods, which reflects stock options with a lower fair value being expensed in the Reporting Periods as compared to the Comparable Prior Periods. Birchcliff uses the fair-value method for the determination of non-cash related share-based payments expense.

The following table sets forth the Corporation's outstanding stock options for the Reporting Periods and the Comparable Prior Periods:

	Three months ended December 31, 2018		Three months ended December 31, 2017	
	Number	Exercise Price (\$) <sup>(2)</sup>	Number	Exercise Price (\$) <sup>(2)</sup>
Outstanding, beginning of period	16,000,070	5.78	14,378,009	6.90
Granted <sup>(1)</sup>	140,500	4.59	137,000	4.96
Exercised	(26,000)	(3.35)	(8,000)	(3.35)
Forfeited	(10,000)	(5.03)	(148,734)	(6.73)
Expired	(257,000)	(7.46)	(200,168)	(7.75)
<b>Outstanding, end of period</b>	<b>15,847,570</b>	<b>5.74</b>	<b>14,158,107</b>	<b>6.88</b>

(1) Each stock option granted entitles the holder to purchase one common share at the exercise price.

(2) Exercise price is calculated on a weighted average basis.

	Twelve months ended December 31, 2018		Twelve months ended December 31, 2017	
	Number	Exercise Price (\$) <sup>(2)</sup>	Number	Exercise Price (\$) <sup>(2)</sup>
Outstanding, beginning of period	14,158,107	6.88	12,899,775	6.45
Granted <sup>(1)</sup>	4,734,900	3.23	4,867,400	7.67
Exercised	(114,664)	(3.35)	(1,754,796)	(5.33)
Forfeited	(483,405)	(5.59)	(1,606,437)	(7.49)
Expired	(2,447,368)	(7.57)	(247,835)	(7.55)
<b>Outstanding, end of period</b>	<b>15,847,570</b>	<b>5.74</b>	<b>14,158,107</b>	<b>6.88</b>

(1) Each stock option granted entitles the holder to purchase one common share at the exercise price.

(2) Exercise price is calculated on a weighted average basis.

At December 31, 2018, there were also 2,939,732 performance warrants outstanding with an exercise price of \$3.00 which expire on January 31, 2020.

### Depletion and Depreciation Expense

Depletion and depreciation ("D&D") expense is a function of the estimated proved plus probable reserve additions, the finding and development costs attributable to those reserves, the associated future development costs required to recover those reserves and the actual production in the relevant period. The Corporation determines its D&D expense on a field area basis.

The following table sets forth Birchcliff's D&D expense for the Reporting Periods and the Comparable Prior Periods:

	Three months ended December 31,				Twelve months ended December 31,			
	2018		2017		2018		2017	
	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)
Depletion and depreciation expense	51,274	7.29	57,920	7.86	208,868	7.42	185,666	7.48

D&D expense on an aggregate basis for the three month Reporting Period was lower as compared to the Comparable Prior Period mainly due to a decrease in production. D&D expense on an aggregate basis for the twelve month Reporting Period was higher as compared to the Comparable Prior Period mainly due to an increase in production.

Included in the depletion calculation at December 31, 2018 were 1,002,070 Mboe of proved plus probable reserves and \$4.3 billion of future development costs required to recover those reserves as estimated by the Corporation's independent qualified reserves evaluators.

#### Asset Impairment Assessment

The Corporation reviews its petroleum and natural gas assets for impairment in accordance with International Accounting Standards ("IAS") 36 under IFRS. Birchcliff's assets are grouped into cash generating units ("CGU") for the purpose of determining impairment. A CGU represents the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets. In determining the Corporation's CGUs, the Corporation takes into consideration all available information, including, but not limited to: geographical proximity; geological similarities (i.e. reservoir characteristics and production profiles); degree of shared infrastructure; independent versus interdependent cash flows; operating structure; the regulatory environment; management decision-making; and overall business strategy.

The Corporation's CGUs are reviewed at each reporting date for both internal and external indicators of potential impairment. Potential CGU impairment indicators include, but are not limited to: changes to Birchcliff's business plan; deterioration in commodity prices; negative changes in the technological, economic, legal, capital or operating environment; adverse changes to the physical condition of a CGU; current expectations that a material CGU (or a significant component thereof) is more likely than not to be sold or otherwise disposed of before the end of its previously estimated useful life; non-compliance with the agreements governing the Corporation's bank credit facilities; deterioration in the financial and operational performance of a CGU; net assets exceeding market capitalization; and significant downward revisions of estimated proved plus probable reserves of a CGU. If impairment indicators exist, an impairment test is performed by comparing a CGU's carrying value to its recoverable amount.

In light of industry conditions, Birchcliff determined there were impairment indicators present at December 31, 2018 and December 31, 2017. Birchcliff performed an impairment assessment on a CGU basis and determined that the carrying value of its P&NG properties and equipment was recoverable. Birchcliff's P&NG properties and equipment were not impaired at December 31, 2018 and December 31, 2017.

Management has determined that the calculation of the recoverable amount is most sensitive to key assumptions regarding discount rates, commodity prices and estimated quantities of proved plus probable reserves and the future production profile of those reserves. Each of these underlying key assumptions is reviewed by management and corroborated independently to assess for reasonableness. The P&NG future prices are based on period-end commodity price forecast assumptions determined by the Corporation's independent reserves evaluator.

#### Finance Expense

The following table sets forth the components of the Corporation's finance expense for the Reporting Periods and the Comparable Prior Periods:

	Three months ended				Twelve months ended			
	2018		2017		2018		2017	
	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)
<i>Cash:</i>								
Interest expense on credit facilities <sup>(1)</sup>	7,437	1.06	7,131	0.97	27,969	0.99	28,374	1.14
<i>Non-cash:</i>								
Accretion <sup>(2)</sup>	811	0.12	595	0.08	3,208	0.11	3,055	0.12
Amortization of deferred financing fees	374	0.05	400	0.05	1,534	0.05	1,510	0.06
<b>Finance expense</b>	<b>8,622</b>	<b>1.23</b>	<b>8,126</b>	<b>1.10</b>	<b>32,711</b>	<b>1.15</b>	<b>32,939</b>	<b>1.32</b>

(1) At December 31, 2018, the Corporation's credit facilities consisted of extendible revolving credit facilities in the aggregate principal amount of \$950 million with maturity dates of May 11, 2021 (the "Credit Facilities"). At December 31, 2018, the Credit Facilities were comprised of: (i) an extendible revolving syndicated term credit facility (the "Syndicated Credit Facility") of \$850 million; and (ii) an extendible revolving working capital facility (the "Working Capital Facility") of \$100 million.

(2) Includes accretion on decommissioning obligations and post-employment benefits.

Birchcliff's interest expense is primarily impacted by the average effective interest rate and the average outstanding drawn balance under its Syndicated Credit Facility in the period. Birchcliff draws on its Syndicated Credit Facility



using Canadian dollar denominated bankers' acceptances and US dollar denominated LIBOR loans. The average effective interest rate under the Syndicated Credit Facility is determined based on: (i) the market interest rate of its drawn bankers' acceptances and LIBOR loans; and (ii) Birchcliff's stamping fee.

Birchcliff's stamping fees are calculated using a pricing margin grid and will change as a result of the ratio of outstanding indebtedness to the trailing four quarter EBITDA as calculated in accordance with the Corporation's agreement governing the Credit Facilities. EBITDA is defined as earnings before interest and non-cash items, including (if any) income taxes, stock-based compensation, gains and losses on sale of assets, unrealized gains and losses on financial instruments and depletion, depreciation and amortization.

The following table sets forth the Corporation's effective interest rates under its Credit Facilities for the Reporting Periods and the Comparable Prior Periods:

	Three months ended December 31,		Twelve months ended December 31,	
	2018	2017	2018	2017
Revolving working capital facility	5.2%	5.0%	5.2%	5.0%
Revolving syndicated credit facility	4.7%	4.9%	4.7%	4.8%

Birchcliff's average outstanding total credit facilities balance was approximately \$620 million and \$605 million in the three and twelve month Reporting Periods, respectively, as compared to \$586 million and \$588 million in the Comparable Prior Periods, calculated as the simple average of the month-end amounts.

The Corporation reviews its market interest rate risk exposure and may enter into interest rate swaps when market conditions are favourable in order to reduce volatility in its financial results. Subsequent to December 31, 2018, Birchcliff entered into a financial one-month bankers' acceptance CDOR (Canadian Dollar Offered Rate) fixed interest rate swap on \$350 million at 2.215% for the period from March 1, 2019 to March 1, 2024. The interest rate swap effectively fixes only the market interest rate component of Birchcliff's Syndicated Credit Facility.

### Gain (Loss) on Sale of Assets

The following table details Birchcliff's gain (loss) on sale of assets in the Reporting Periods and Comparable Prior Periods:

	Three months ended December 31,				Twelve months ended December 31,			
	2018		2017		2018		2017	
	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)
Gain (loss) on sale of assets	(1,831)	(0.26)	13,705	1.86	(10,192)	(0.36)	(186,143)	(7.50)

During the twelve month Reporting Period, Birchcliff completed the dispositions of certain non-core miscellaneous P&NG properties and related assets and interests. The total cash consideration was \$5.3 million, before customary closing adjustments. As a result of the dispositions, Birchcliff recorded a loss on sale of assets of approximately \$10.2 million (\$7.4 million, net of tax) in the twelve month Reporting Period. These dispositions are considered non-core as they represented less than 1% of both Birchcliff's production during the Reporting Periods and proved plus probable reserves at December 31, 2018 and therefore were not significant to the Corporation's financial results or operational performance.

In October 2017, Birchcliff completed the sale of the Progress Charlie Lake assets for cash consideration of \$31.7 million, before closing adjustments. As a result of the disposition, Birchcliff recorded a gain on the sale of assets of approximately \$13.7 million (\$10.0 million, net of tax) in the Comparable Prior Periods.

In August 2017, Birchcliff completed the Worsley Disposition for total consideration of \$100 million, before closing adjustments. As a result of the disposition, Birchcliff recorded a loss on the sale of assets of approximately \$181.3 million (\$132.3 million, net of tax) in the Comparable Prior Periods.

## Income Taxes

The components of the Corporation's income taxes for the Reporting Periods and the Comparable Prior Periods are set forth in the table below:

(\$000s)	Three months ended December 31,		Twelve months ended December 31,	
	2018	2017	2018	2017
Deferred income tax expense (recovery)	25,585	9,631	36,858	(16,906)
Dividend income tax expense on preferred shares	769	767	3,075	3,020
<b>Income tax expense (recovery)</b>	<b>26,354</b>	<b>10,398</b>	<b>39,933</b>	<b>(13,886)</b>
<b>Income tax expense (recovery) per boe</b>	<b>\$3.77</b>	<b>\$1.42</b>	<b>\$1.44</b>	<b>(\$0.54)</b>

Birchcliff had an income tax expense in the Reporting Periods resulting from net income before tax recorded in the respective periods. Birchcliff had an income tax expense in the three month Comparable Prior Period resulting from net income before tax recorded in that period and an income tax recovery in the twelve month Comparable Prior Period largely resulting from the accounting loss on the Worsley Disposition.

The Corporation's estimated income tax pools were \$2.1 billion at December 31, 2018. Management expects that future taxable income will be available to utilize the accumulated tax pools. The components of the Corporation's estimated income tax pools are set forth in the table below:

(\$000s)	Tax pools as at December 31, 2018
Canadian oil and gas property expense	415,609
Canadian development expense	358,212
Canadian exploration expense	284,401
Undepreciated capital costs	341,590
Non-capital losses and investment tax credits	643,116
SR&ED <sup>(1)</sup> & Investment tax credits	23,940
Financing costs and other	13,331
<b>Estimated income tax pools<sup>(2)</sup></b>	<b>2,080,199</b>

(1) Scientific research and experimental development ("SR&ED") tax pools.

(2) Excludes Veracel tax pools of \$39.3 million which were reassessed by the Canada Revenue Agency (the "CRA").

### Veracel Tax Pools

Birchcliff's 2006 income tax filings were reassessed by the CRA in 2011 (the "Reassessment"). The Reassessment was based on the CRA's position that the tax pools available to Veracel Inc. ("Veracel"), prior to its amalgamation with Birchcliff, ceased to be available to Veracel after Birchcliff and Veracel amalgamated on May 31, 2005. The Veracel tax pools in dispute totalled \$39.3 million. Birchcliff appealed the Reassessment to the Tax Court of Canada (the "Trial Court") and the trial of that appeal occurred in November 2013. On October 1, 2015, the Trial Court issued its decision (the "Trial Decision") and dismissed Birchcliff's appeal on the basis of the general anti-avoidance rule contained in the *Income Tax Act* (Canada). The Trial Decision was rendered by a judge based on the written record and not by the judge who conducted the trial. As a result of the Trial Decision, Birchcliff recorded a non-cash deferred income tax expense in the amount of \$10.2 million in the fourth quarter of 2015.

Birchcliff appealed the Trial Decision to the Federal Court of Appeal (the "FCA"), which appeal was heard in January 2017. In April 2017, the FCA issued its decision and allowed the appeal and set aside the Trial Decision, based on the lack of jurisdiction by the judge who rendered the Trial Decision. In setting aside the Trial Decision, the FCA referred the matter back to the judge of the Trial Court who initially conducted the trial in 2013 to render a judgment. The judge of the Trial Court rendered a decision in November 2017 and dismissed the Corporation's appeal. The Corporation appealed that decision to the FCA, which appeal was heard on December 10, 2018 with judgment reserved.

## CAPITAL EXPENDITURES

The following table sets forth a summary of the Corporation's capital expenditures for the Reporting Periods and the Comparable Prior Periods:

(\$000s)	Three months ended December 31,		Twelve months ended December 31,	
	2018	2017	2018	2017
Land	390	286	2,226	1,700
Seismic	332	515	1,310	1,435
Workovers	1,804	3,328	6,281	10,279
Drilling and completions	37,888	35,457	200,782	269,142
Well equipment and facilities	11,907	9,734	89,055	132,429
Finding and development capital	52,321	49,320	299,654	414,985
Acquisitions	-	58	1,524	999
Dispositions	(9)	(31,159)	(5,184)	(141,690)
Finding, development and acquisition capital	52,312	18,219	295,994	274,294
Administrative assets	574	450	2,024	1,831
<b>Total capital expenditures<sup>(1)</sup></b>	<b>52,886</b>	<b>18,669</b>	<b>298,018</b>	<b>276,125</b>

(1) Birchcliff previously referred to total capital expenditures as "net capital expenditure" or "capital expenditures, net". See "Advisories – Capital Expenditures".

During the three month Reporting Period, Birchcliff had total capital expenditures of \$52.9 million which included approximately \$18.5 million (35%) on the drilling and completion of Montney/Doig horizontal wells in Pouce Coupe, \$19.3 million (37%) on the drilling and completion of Montney horizontal wells in Gordondale and \$2.2 million (4%) on the Phase VI expansion of the Pouce Coupe Gas Plant which was brought on-stream in August 2018.

During the twelve month Reporting Period, Birchcliff had total capital expenditures of \$298.0 million which included approximately \$108.6 million (36%) on the drilling and completion of Montney/Doig horizontal wells in Pouce Coupe, \$92.1 million (31%) on the drilling and completion of Montney horizontal wells in Gordondale and \$22.1 million (7%) on the Phase VI expansion of the Pouce Coupe Gas Plant.

The remaining capital during the Reporting Periods was primarily attributed to land, seismic and infrastructure expansion projects in the Montney/Doig Resource Play and on other oil and gas exploration and development projects in the Peace River Arch.

During the twelve month Reporting Period, Birchcliff brought on production a total of 28 (28.0 net) wells, consisting of 13 (13.0 net) Montney horizontal oil wells in Gordondale and 15 (15.0 net) Montney/Doig horizontal natural gas wells in Pouce Coupe. During the three month Reporting Period, Birchcliff drilled an additional 9 (9.0 net) horizontal wells, which were originally targeted for 2019, in order to help to ensure the efficient execution of the 2019 Capital Program. During 2019, the Corporation has targeted its F&D capital expenditures to be less than its estimate of adjusted funds flow.

## CAPITAL RESOURCES AND LIQUIDITY

### Liquidity and Capital Resources

The Corporation generally relies on its adjusted funds flow and available credit under its existing credit facilities to fund its capital requirements, including its dividend payments. In addition, the Corporation may from time to time seek additional capital in the form of debt and/or equity or dispose of non-core properties to fund its ongoing capital expenditure programs and protect its statements of financial position.

The following table sets forth a summary of the Corporation's capital resources for the Reporting Periods and the Comparable Prior Periods:

(\$000s)	Three months ended December 31,		Twelve months ended December 31,	
	2018	2017	2018	2017
Adjusted funds flow	81,517	97,008	312,922	317,680
Changes in non-cash working capital from operations	10,838	(7,920)	12,591	(29,226)
Decommissioning expenditures	(155)	(93)	(1,079)	(794)
Exercise of stock options	87	27	384	9,350
Financing fees paid on credit facilities	-	-	(950)	(2,375)
Dividends paid on common shares	(6,648)	(6,644)	(26,586)	(26,522)
Dividends paid on preferred shares	(1,922)	(1,922)	(7,687)	(7,547)
Net change in revolving term credit facilities	(30,149)	1,479	17,868	15,783
Deposit on acquisition	(3,900)	-	(3,900)	-
Changes in non-cash working capital from investing	3,218	(63,225)	(5,540)	9,780
<b>Capital resources</b>	<b>52,886</b>	<b>18,710</b>	<b>298,023</b>	<b>286,129</b>

Birchcliff's adjusted funds flow depends on a number of factors, including, but not limited to, commodity prices, production and sales volumes, royalties, operating and transportation expenses and foreign exchange rates. The Corporation closely monitors commodity prices and its capital spending and has taken proactive measures to ensure liquidity and financial flexibility in the current environment.

Birchcliff's market diversification initiatives have helped to reduce its exposure to volatility in commodity prices, including AECO prices. The benchmark spot prices at Dawn outperformed AECO spot prices during the Reporting Periods. Birchcliff has agreements for the firm service transportation of an aggregate of 175,000 GJ/d of natural gas on TCPL's Canadian Mainline for a 10-year term, whereby natural gas is transported to the Dawn trading hub in Southern Ontario. The first tranche of this service (120,000 GJ/d) became available on November 1, 2017 and the second tranche (30,000 GJ/d) became available on November 1, 2018. The last tranche of service (25,000 GJ/d) will become available on November 1, 2019. See "Discussion of Operations – Petroleum and Natural Gas Revenues" in this MD&A. Birchcliff also has various financial and physical derivative contracts outstanding to help protect its adjusted funds flow and capital expenditure programs. See "Discussion of Operations – Commodity Price Risk Management" in this MD&A.

In addition to its adjusted funds flow, the Corporation's other main source of liquidity is its Credit Facilities in the aggregate principal amount of \$950 million, of which \$324.0 million remains available at December 31, 2018. The Corporation may each year, at its option, request an extension to the maturity date of the Syndicated Credit Facility and the Working Capital Facility, or either of them, for an additional period of up to three years from May 11 of the year in which the extension request is made. In the second quarter of 2018, Birchcliff's syndicate of lenders completed its semi-annual review of Birchcliff's borrowing base limit under its Credit Facilities. In connection with such review, Birchcliff and its syndicate of lenders agreed to: (i) an extension of the maturity dates of each of the Syndicated Credit Facility and the Working Capital Facility from May 11, 2020 to May 11, 2021; (ii) the borrowing base remaining unchanged at \$950 million; and (iii) increasing the Working Capital Facility to \$100 million (from \$50 million) with a corresponding reduction in the Syndicated Credit Facility to \$850 million (from \$900 million). See also "Discussion of Operations – Finance Expense" and "Capital Resources and Liquidity – Bank Debt" in this MD&A for further details.

Management believes that its adjusted funds flow will be sufficient to fund the Corporation's ongoing 2019 Capital Program. Should commodity prices deteriorate materially below Birchcliff's assumptions, Birchcliff may adjust its ongoing capital program, draw down on its Credit Facilities, seek additional equity financing and/or consider the potential sale of additional non-core assets to fund planned growth. The 2019 Capital Program is designed with financial and operational flexibility with the potential to accelerate or decelerate capital expenditures throughout the year, depending on commodity prices and industry conditions. See "Advisories – Forward-Looking Statements".

## Working Capital

The Corporation's adjusted working capital deficit increased to \$21.2 million at December 31, 2018 from an \$11.1 million deficit at December 31, 2017. The deficit at December 31, 2018 was largely comprised of costs incurred from the drilling and completion of new wells in Pouce Coupe and Gordondale.

At December 31, 2018, the major component of Birchcliff's current assets was revenue to be received from its marketers in respect of December 2018 production (54%), which was subsequently received in January 2019. In contrast, current liabilities largely consisted of trade payables (60%) and accrued capital and operating expense (27%). Birchcliff monitors the financial strength of its marketers. At this time, Birchcliff expects that such counterparties will be able to meet their financial obligations.

Adjusted working capital includes items expected for normal operations, including trade receivables and payables, accruals, deposits and prepaid expenses, and excludes the fair value of financial instruments. The Corporation's adjusted working capital varies from quarter to quarter primarily due to the timing of such items, as well as due to the size and timing of the Corporation's capital expenditures, volatility in commodity prices and changes in revenue, among other things. Birchcliff manages any adjusted working capital deficit using adjusted funds flow and advances under its Credit Facilities. Any adjusted working capital deficit position will not reduce the amount available under the Credit Facilities.

## Bank Debt

Management of debt levels continues to be a priority for Birchcliff given its long-term growth plans and the current volatility in the commodity price environment.

Total debt, including the adjusted working capital deficit, was \$626.5 million at December 31, 2018 as compared to \$598.2 million at December 31, 2017. Total debt increased from December 31, 2017 primarily due to capital expenditures incurred on the drilling and completion of new horizontal wells in Pouce Coupe and Gordondale, the Phase VI expansion of the Pouce Coupe Gas Plant and the payment of common share and preferred share dividends, partially offset by an increase to adjusted funds flow in the twelve month Reporting Period.

The following table sets forth the Corporation's unused Credit Facilities as at December 31, 2018 and December 31, 2017:

<i>As at, (\$000s)</i>	<b>December 31, 2018</b>	<b>December 31, 2017</b>
<i>Maximum borrowing base limit<sup>(1)</sup>:</i>		
Revolving term credit facilities	950,000	950,000
<i>Principal amount utilized:</i>		
Drawn revolving term credit facilities	(608,821)	(594,823)
Outstanding letters of credit <sup>(2)</sup>	(17,205)	(12,184)
	<b>(626,026)</b>	<b>(607,007)</b>
<b>Unused credit</b>	<b>323,974</b>	<b>342,993</b>
<b>% unused credit</b>	<b>34%</b>	<b>36%</b>

(1) The Credit Facilities are subject to a semi-annual review of the borrowing base limit, which is directly impacted by the value of Birchcliff's P&NG reserves.

(2) Letters of credit are issued to various service providers. The letters of credit reduce the amount available under the Working Capital Facility.

## Contractual Obligations & Commitments

The Corporation enters into various contractual obligations and commitments in the normal course of operations. The following table lists Birchcliff's estimated material contractual obligations and commitments at December 31, 2018:

(\$000s)	2019	2020	2021-2023	Thereafter
Accounts payable and accrued liabilities	76,567	-	-	-
Drawn revolving term credit facilities	-	-	608,821	-
Operating leases <sup>(1)</sup>	4,408	4,408	13,707	19,667
Firm transportation and fractionation <sup>(2)</sup>	107,678	116,574	364,742	348,079
Natural gas processing <sup>(3)</sup>	17,155	17,702	51,465	154,536
<b>Estimated contractual obligations<sup>(4)</sup></b>	<b>205,808</b>	<b>138,684</b>	<b>1,038,735</b>	<b>522,282</b>

- (1) On December 2, 2015, the Corporation entered into an operating lease commitment relating to a new office premises beginning February 1, 2018 and expiring on January 31, 2028. The commitment amount under the new 10 year office lease is estimated to be \$42.2 million, which includes costs allocated to base rent, parking and building operating expenses. The office lease commitment amounts disclosed in the above table have not been reduced for any rents receivable by the Corporation.
- (2) Includes firm transportation service arrangements with various terms on TCPL's Alberta NGTL System and on TCPL's Canadian Mainline to the AECO and Dawn trading hubs and fractionation commitments associated with NGLs production processed at third-party facilities.
- (3) Includes natural gas processing commitments at third-party facilities.
- (4) Contractual obligations and commitments that are not material to Birchcliff are excluded from the above table. The Corporation's decommissioning obligations are excluded from the table as these obligations arose from a regulatory requirement rather than from a contractual arrangement. Birchcliff estimates the total undiscounted cash flow to settle its decommissioning obligations on its wells and facilities at December 31, 2018 to be approximately \$272 million and are estimated to be incurred as follows: 2019 - \$2.7 million, 2020 - \$0.6 million and \$268.7 million thereafter. The estimate for determining the undiscounted decommissioning obligations requires significant assumptions on both the abandonment cost and timing of the decommissioning and therefore the actual obligation may differ materially.

Birchcliff's Series C Preferred Shares, which are redeemable by their holders after December 31, 2020, have not been included in this table as they are not contractual obligations of the Corporation at the end of the reporting period. Upon receipt of a notice of redemption, the Corporation has an obligation to redeem the Series C Preferred Shares, at its option, for cash or common shares.

## OFF-BALANCE SHEET TRANSACTIONS

The Corporation has certain lease arrangements, all of which are reflected in the contractual obligations and commitments table above, which were entered into in the normal course of operations. All leases have been treated as operating leases whereby the lease payments are included in operating expense or general and administrative expense depending on the nature of the lease. Other than the foregoing, Birchcliff was not involved in any off-balance sheet transactions during the Reporting Periods and the Comparable Prior Periods.

## OUTSTANDING SHARE INFORMATION

At March 13, 2019, Birchcliff had common shares, Series A Preferred Shares and Series C Preferred Shares that were outstanding. Birchcliff's common shares are listed on the TSX under the symbol "BIR" and are included in the S&P/TSX Composite Index. Birchcliff's Series A Preferred Shares and Series C Preferred Shares are individually listed on the TSX under the symbols "BIR.PR.A" and "BIR.PR.C", respectively.

The following table sets forth the common shares issued by the Corporation:

	Common Shares
Balance at December 31, 2017	265,796,698
Exercise of options	114,664
Balance at December 31, 2018	265,911,362
Exercise of options	10,000
<b>Balance at March 12, 2019</b>	<b>265,921,362</b>

At March 12, 2019, the Corporation had the following securities outstanding: 265,921,362 common shares; 2,000,000 Series A Preferred Shares; 2,000,000 Series C Preferred Shares; 18,728,436 stock options to purchase an equivalent number of common shares; and 2,939,732 performance warrants to purchase an equivalent number of common shares.



## Dividends

The following table sets forth the dividend distributions by the Corporation for each class of shares for the Reporting Periods and the Comparable Prior Periods:

	Three months ended December 31,		Twelve months ended December 31,	
	2018	2017	2018	2017
<i>Common shares:</i>				
Dividend distribution (\$000s)	6,648	6,644	26,586	26,522
Per common share (\$)	0.0250	0.0250	0.1000	0.1000
<i>Preferred shares - Series A:</i>				
Series A dividend distribution (\$000s)	1,047	1,047	4,187	4,047
Per Series A preferred share (\$)	0.5234	0.5234	2.0935	2.0234
<i>Preferred shares - Series C:</i>				
Series C dividend distribution (\$000s)	875	875	3,500	3,500
Per Series C preferred share (\$)	0.4375	0.4375	1.7500	1.7500

All dividends have been designated as “eligible dividends” for the purposes of the *Income Tax Act* (Canada).

### Normal Course Issuer Bid

On November 20, 2018, Birchcliff announced that the TSX had accepted the Corporation’s notice of intention to make a normal course issuer bid (the “NCIB”). Pursuant to the NCIB, Birchcliff may purchase up to 18,767,520 of its outstanding common shares. The total number of common shares that Birchcliff is permitted to purchase is subject to a daily purchase limit of 320,520 common shares; provided, however, that the Corporation may make one block purchase per calendar week which exceeds the daily purchase restriction. The NCIB commenced on November 23, 2018 and will terminate on November 22, 2019, or such earlier time as the NCIB is completed or is terminated at the option of Birchcliff. Purchases under the NCIB will be effected through the facilities of the TSX and/or Canadian alternative trading systems at the prevailing market price at the time of such transaction. All common shares purchased under the NCIB will be cancelled. As at the date of this MD&A, Birchcliff has not purchased any common shares pursuant to the NCIB.

A security holder of the Corporation may obtain, for no charge, a copy of the notice in respect of the NCIB filed with the TSX by contacting the Corporation at 403-261-6401.

## SUMMARY OF QUARTERLY RESULTS

The following table sets forth a summary of the Corporation's quarterly results for the eight most recently completed quarters:

Quarter ending,	Dec. 31, 2018	Sep. 30, 2018	Jun. 30, 2018	Mar. 31, 2018	Dec. 31, 2017	Sep. 30, 2017	Jun. 30, 2017	Mar. 31, 2017
Average production (boe/d)	76,408	79,331	76,296	76,323	80,103	65,276	64,636	61,662
Realized natural gas sales price (\$/Mcf) <sup>(1)</sup>	3.03	2.06	2.01	2.72	2.64	2.11	3.13	3.06
Realized oil sales price (\$/bbl) <sup>(1)</sup>	41.39	80.16	79.55	71.92	68.58	55.62	60.38	62.59
Realized NGLs sales price (\$/bbl) <sup>(1)</sup>	34.73	49.17	47.81	48.09	40.08	27.67	31.10	32.09
Average realized sales price (\$/boe)	22.01	21.45	21.68	23.22	22.54	18.55	24.90	23.90
Total revenues (\$000s) <sup>(1)</sup>	154,720	156,609	150,561	159,531	166,149	111,488	146,597	132,708
Operating expense (\$/boe)	3.51	3.45	3.36	3.78	3.86	4.27	4.67	5.22
Total capital expenditures (\$000s)	52,886	45,524	66,464	133,144	18,669	12,136	120,782	124,538
Cash flow from operating activities (\$000s)	92,200	68,556	71,825	91,853	88,995	70,584	57,467	70,614
Adjusted funds flow (\$000s)	81,517	75,378	72,369	83,658	97,008	64,430	88,612	67,630
Per common share – basic (\$)	0.31	0.28	0.27	0.31	0.36	0.24	0.33	0.26
Per common share – diluted (\$)	0.30	0.28	0.27	0.31	0.36	0.24	0.33	0.25
Net income (loss) (\$000s)	71,947	7,703	7,437	15,125	25,820	(120,743)	18,015	29,928
Net income (loss) to common shareholders (\$000s) <sup>(2)</sup>	70,900	6,657	6,390	14,078	24,773	(121,743)	17,015	28,928
Per common share – basic (\$)	0.27	0.03	0.02	0.05	0.09	(0.46)	0.06	0.11
Per common share – diluted (\$)	0.27	0.02	0.02	0.05	0.09	(0.46)	0.06	0.11
Total assets (\$ million)	2,763	2,707	2,715	2,697	2,627	2,615	2,871	2,797
Long-term bank debt (\$000s)	605,267	635,120	617,291	573,935	587,126	585,323	628,401	578,954
Total debt (\$000s)	626,454	641,484	661,409	657,732	598,193	666,808	700,484	664,352
Dividends on common shares (\$000s)	6,648	6,647	6,646	6,645	6,644	6,635	6,635	6,604
Dividends on pref. shares – Series A (\$000s)	1,047	1,046	1,047	1,047	1,047	1,000	1,000	1,000
Dividends on pref. shares – Series C (\$000s)	875	875	875	875	875	875	875	875
Pref. shares outstanding – Series A (000s)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Pref. shares outstanding – Series C (000s)	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Common shares outstanding (000s)								
Basic	265,911	265,885	265,845	265,805	265,797	265,789	265,417	264,442
Diluted	284,699	285,825	285,253	285,692	282,895	283,106	284,461	284,160
Wtd. avg. common shares outstanding (000s)								
Basic	265,910	265,877	265,820	265,797	265,792	265,490	265,326	264,099
Diluted	267,288	268,605	267,773	266,179	267,619	267,988	268,203	268,077

(1) Excludes the effects of financial derivatives but includes the effects of physical delivery contracts.

(2) Reduced for the Series A Preferred Share dividends paid in the period.

Average daily production volumes from the third quarter of 2017 to the fourth quarter of 2017 increased largely due to production volumes from new horizontal natural gas wells being brought on production in Pouce Coupe in connection with the start-up of Phase V of the Pouce Coupe Gas Plant and new horizontal oil wells being brought on production in Gordondale, partially offset by the Worsley Disposition in August 2017 and natural production declines. Average daily production volumes for the four quarters of 2018 decreased compared to the fourth quarter of 2017 primarily attributable to production curtailments due to temporary restrictions in pipeline and compressor station capacity on the Alberta NGTL system and natural production declines, partially offset by new horizontal wells brought on production in Pouce Coupe and Gordondale during the Reporting Periods.

Quarterly variances in revenues, adjusted funds flow and net income (loss) are primarily due to fluctuations in commodity prices and production volumes. Oil and gas revenues and adjusted funds flow in the last eight quarters were largely impacted by incremental production additions in Pouce Coupe and Gordondale and the average realized sales price received for Birchcliff's production. Birchcliff recorded a net loss in the third quarter of 2017 primarily as a result of the after-tax book loss of \$132.3 million in connection with the Worsley Disposition. Birchcliff's net income in the fourth quarter of 2018 included a \$77.5 million unrealized mark-to-market gain on financial instruments. Net income or loss in the last eight quarters was also impacted by certain non-cash adjustments, including depletion expense, unrealized gains and losses on financial instruments and gains and losses on the sale of non-core assets recognized in those periods.

The Corporation's capital expenditures program fluctuates based on the outlook in commodity prices and market conditions, as well as the timing of acquisitions and dispositions. Quarterly variances in long-term debt and total debt are primarily due to fluctuations in adjusted funds flow and the amount and timing of capital expenditures (including acquisitions and dispositions).

## SUBSEQUENT EVENT

On November 14, 2018, Birchcliff announced that it had entered into a definitive purchase and sale agreement for the Acquisition. Pursuant to the Acquisition, the Corporation acquired 18 gross (15.1 net) contiguous sections of Montney land located between the Corporation's existing Pouce Coupe and Gordondale properties, as well as various other non-Montney lands and other assets, for total cash consideration of \$39 million. Closing of the Acquisition occurred on January 3, 2019 and further consolidated Birchcliff's land position in the area.

## POTENTIAL TRANSACTIONS

Within its focus area, the Corporation is continually reviewing potential asset acquisitions and dispositions and corporate mergers and acquisitions for the purpose of determining whether any such potential transaction is of interest to the Corporation, as well as the terms on which such a potential transaction would be available. As a result, the Corporation may from time to time be involved in discussions or negotiations with other parties or their agents in respect of potential asset acquisitions and dispositions and corporate merger and acquisition opportunities.

## INTERNAL CONTROL OVER FINANCIAL REPORTING

### Disclosure Controls and Procedures

The Corporation's Chief Executive Officer and Chief Financial Officer (the "**Certifying Officers**") have designed, or caused to be designed under their supervision, disclosure controls and procedures ("**DC&P**"), as defined in National Instrument 52-109 – *Certification of Disclosure in Issuer's Annual and Interim Filings* ("**NI 52-109**"), to provide reasonable assurance that: (i) material information relating to the Corporation is made known to the Certifying Officers by others, particularly during the period in which the annual filings are being prepared; and (ii) information required to be disclosed by the Corporation in its annual filings, interim filings or other reports filed or submitted by the Corporation under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation. The Certifying Officers have evaluated, or caused to be evaluated under their supervision, the effectiveness of the Corporation's DC&P at December 31, 2018 and have concluded that the Corporation's DC&P were effective at December 31, 2018.

While the Certifying Officers believe that the Corporation's DC&P provide a reasonable level of assurance and are effective, they do not expect that the DC&P will prevent all errors and fraud. A control system, no matter how well conceived, maintained and operated, can provide only reasonable, but not absolute, assurance that the objectives of the control system will be met.

### Internal Control over Financial Reporting

The Certifying Officers have designed, or caused to be designed under their supervision, internal control over financial reporting ("**ICFR**"), as defined in NI 52-109, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the generally accepted accounting principles applicable to the Corporation. The control framework the Certifying Officers used to design the Corporation's ICFR is "*Internal Control – Integrated Framework (May 2013)*" published by The Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Certifying Officers have evaluated, or caused to be evaluated under their supervision, the effectiveness of the Corporation's ICFR at December 31, 2018 and have concluded that the Corporation's ICFR was effective at December 31, 2018. There were no changes in the Corporation's ICFR that occurred during the period beginning on October 1, 2018 and ended on December 31, 2018 that have materially affected, or are reasonably likely to materially affect, the Corporation's ICFR.

While the Certifying Officers believe that the Corporation's ICFR provides a reasonable level of assurance and is effective, they do not expect that the ICFR will prevent all errors and fraud. A control system, no matter how well conceived, maintained and operated, can provide only reasonable, but not absolute, assurance that the objectives of the control system will be met.

## CRITICAL ACCOUNTING ESTIMATES

The preparation of the financial statements requires management to make judgments, estimates and assumptions that affect the application of IFRS accounting policies, reported amounts of assets and liabilities and income and

expenses. Accordingly, actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

#### **Critical Judgments in Applying Accounting Policies:**

The following are the critical judgments that management has made in the process of applying the Corporation's accounting policies and that have the most significant effect on the amounts recognized in these financial statements:

##### *Identification of Cash-Generating Units*

Birchcliff's assets are required to be aggregated into CGUs for the purpose of calculating impairment based on their ability to generate largely independent cash inflows. CGUs have been determined based on similar geological structure, shared infrastructure, geographical proximity, operating structure, commodity type and similar exposures to market risks. By their nature, these assumptions are subject to management's judgment and may impact the carrying value of the Corporation's assets in future periods.

##### *Identification of Impairment Indicators*

IFRS requires Birchcliff to assess, at each reporting date, whether there are any indicators that its petroleum and natural gas assets may be impaired. Birchcliff is required to consider information from both external sources (such as negative downturn in commodity prices, significant adverse changes in the technological, market, economic or legal environment in which the entity operates) and internal sources (such as downward revisions in reserves, significant adverse effects on the financial and operational performance of a CGU, evidence of obsolescence or physical damage to the asset). By their nature, these assumptions are subject to management's judgment.

##### *Tax Uncertainties*

IFRS requires Birchcliff, at each reporting date, to make certain judgments on uncertain tax positions by relevant tax authorities. Judgments include determining whether the Corporation will "more likely than not" be successful in defending its tax positions by considering information from relevant tax interpretations and tax laws in Canada. As such, this recognition threshold is subject to management's judgment and may impact the carrying value of the Corporation's deferred tax assets and liabilities at the end of the reporting period.

#### **Key Sources of Estimation Uncertainty:**

The following are the key assumptions concerning the sources of estimation uncertainty at the end of the reporting period that have a significant risk of causing adjustments to the carrying amounts of assets and liabilities within the next financial year:

##### *Reserves*

Reported recoverable quantities of proved and probable reserves requires estimation regarding production profile, commodity prices, exchange rates, remediation costs, timing and amount of future development costs, and production, transportation and marketing costs for future cash flows. It also requires interpretation of geological and geophysical models in order to make an assessment of the size, shape, depth and quality of reservoirs, and their anticipated recoveries. The economical, geological and technical factors used to estimate reserves may change from period to period. Changes in reported reserves can impact the carrying values of the Corporation's petroleum and natural gas properties and equipment, the calculation of depletion and depreciation, the provision for decommissioning obligations, and the recognition of deferred tax assets due to changes in expected future cash flows. The recoverable quantities of reserves and estimated cash flows from Birchcliff's petroleum and natural gas interests are independently evaluated by reserve engineers at least annually.

The Corporation's petroleum and natural gas reserves represent the estimated quantities of petroleum, natural gas and NGLs which geological, geophysical and engineering data demonstrate with a specified degree of certainty to be economically recoverable in future years from known reservoirs and which are considered commercially producible. Such reserves may be considered commercially producible if management has the intention of developing and producing them and such intention is based upon (i) a reasonable assessment of the future

economics of such production; (ii) a reasonable expectation that there is a market for all or substantially all the expected petroleum and natural gas production; and (iii) evidence that the necessary production, transmission and transportation facilities are available or can be made available. Reserves may only be considered proved and probable if producibility is supported by either production or conclusive formation tests. Birchcliff's oil and gas reserves are determined in accordance with the standards contained in National Instrument 51-101 – *Standards of Disclosure for Oil and Gas Activities* (“**NI 51-101**”) and the *Canadian Oil and Gas Evaluation Handbook* (“**COGE**”).

#### *Share-based payments*

All equity-settled, share-based awards issued by the Corporation are fair valued using the Black-Scholes option-pricing model. In assessing the fair value of equity-based compensation, 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.

#### *Decommissioning obligations*

The Corporation estimates future remediation costs of production facilities, wells and pipelines at different stages of development and construction of assets or facilities. In most instances, removal of assets occurs many years into the future. This requires an estimate regarding abandonment date, future environmental and regulatory legislation, the extent of reclamation activities, the engineering methodology for estimating cost, future removal technologies in determining the removal cost and liability-specific discount rates to determine the present value of these cash flows.

#### *Post-employment benefit obligation*

The Corporation estimates the post-employment benefit obligation at the end of each reporting period. In most instances, the obligation occurs many years into the future. The Corporation uses estimates related to the initial measurement of the obligation for eligible employees including expected age of employee retirement, employee turnover, probability of early retirement, discount rate and inflation rate on salary and benefits. From time to time, these estimates may change causing the obligation recorded by the Corporation to change.

#### *Impairment of non-financial assets*

For the purposes of determining the extent of any impairment or its reversal, estimates must be made regarding future cash flows taking into account key assumptions including future petroleum and natural gas prices, expected forecasted production volumes and anticipated recoverable quantities of proved and probable reserves. These assumptions are subject to change as new information becomes available. Changes in economic conditions can also affect the rate used to discount future cash flow estimates. Changes in the aforementioned assumptions could affect the carrying amount of the Corporation's assets, and impairment charges and reversal will affect profit or loss.

#### *Income taxes*

Birchcliff files corporate income tax, goods and service tax and other tax returns with various provincial and federal taxation authorities in Canada. There can be differing interpretations of applicable tax laws and regulations. The resolution of these tax positions through negotiations or litigation with tax authorities can take several years to complete. The Corporation does not anticipate that there will be any material impact upon the results of its operations, financial position or liquidity.

Tax provisions are based on enacted or substantively enacted laws. Changes in those laws could affect amounts recognized in profit or loss both in the period of change, which would include any impact on cumulative provisions, and in future periods.

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 a judgment as to whether or not 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. Estimates of future taxable income are based on forecasted cash flows from operations. To the extent that any interpretation of tax law is

challenged by the tax authorities or future cash flows and taxable income differ significantly from estimates, the ability of Birchcliff to realize the deferred tax assets recorded at the statement of financial position date could be impacted.

## CHANGES IN ACCOUNTING POLICIES

### Accounting Pronouncements Adopted

On January 1, 2018, Birchcliff adopted IFRS 15 using the cumulative effect method. Under this method, the comparative periods have not been restated and the cumulative effect on net earnings and the change in opening retained earnings as a result of the application of IFRS 15 to revenue contracts in progress at January 1, 2018 is nil. The Corporation reviewed its revenue streams and major contracts with customers using the IFRS 15 five step model and there were no changes to net earnings or timing of petroleum and natural gas sales recognized. It should be noted, however, that certain profit and loss line item reclassifications were made.

On January 1, 2018, Birchcliff adopted IFRS 9: *Financial Instruments* (“IFRS 9”) to replace IAS 39: *Financial Instruments: Recognition and Measurement* (“IAS 39”). IFRS 9 contains three principal classification categories for financial assets: measured at amortized cost, fair value through other comprehensive income and fair value through profit or loss. The previous IAS 39 categories of held to maturity, loans and receivables and available for sale are eliminated. IFRS 9 bases the classification of financial assets on the contractual cash flow characteristics and the Corporation’s business model for managing the financial asset. Additionally, embedded derivatives are not separated if the host contract is a financial asset within the scope of IFRS 9. Instead, the entire hybrid contract is assessed for classification and measurement. IFRS 9 largely retains the existing requirements in IAS 39 for the classification of financial liabilities. The adoption of IFRS 9 has resulted in changes to the Corporation’s investment in securities which, upon adoption of IFRS 9, are measured at fair value through profit or loss. Under the previous IAS 39 standard, Birchcliff’s investment in securities were categorized as available for sale which required the securities to be fair valued with any gains or losses recognized in other comprehensive income. There were no changes to the treatment of distributions declared on the investment in securities which are recorded to profit or loss. The adoption of IFRS 9 had no impact on the amounts recorded in the financial statements as at January 1, 2018 or on the comparative periods.

### Future Accounting Pronouncements

In January 2016, the IASB issued IFRS 16: *Leases* (“IFRS 16”) which sets out the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract, i.e. the customer (“lessee”) and the supplier (“lessor”) and replaces the previous lease standards, IAS 17: *Leases* and IFRIC 4: *Determining whether an Arrangement contains a Lease*. IFRS 16 requires the recognition of a right-of-use asset and lease liability on the statement of financial position for most leases, where Birchcliff is acting as a lessee. For lessees applying IFRS 16, the dual classification model of leases as either operating leases or finance leases no longer exists, effectively treating all leases as finance leases. IFRS 16 is effective for annual reporting periods beginning on or after January 1, 2019. The standard is required to be adopted either retrospectively or using a modified retrospective approach. The Corporation will adopt IFRS 16 using the modified retrospective approach, which does not require restatement of prior period financial information and applies the standard prospectively.

IFRS 16 is expected to increase Birchcliff’s total assets and liabilities at January 1, 2019. Future net income will be impacted as the finance charges and depreciation charges associated with lease contracts are not expected to correspond in any one period to the amount of related cash flows. Cash flows associated with lease repayments will be allocated between operating and financing activities based on their interest repayment and principal repayment portions. The actual impact of applying IFRS 16 on the financial statements in the period of initial application will depend on multiple factors and conditions, including but not limited to, the Corporation’s borrowing rate at January 1, 2019, the composition of the Corporation’s lease portfolio at that date, the Corporation’s latest assessment of whether it will exercise any lease renewal options, and the extent to which the Corporation chooses to use practical

expedients and recognition exemptions. On initial adoption, Birchcliff will have the following optional practical expedients available under IFRS 16:

- Certain short-term leases and leases of low value assets that have been identified for recognition at January 1, 2019 can be excluded from recognition on the statements of financial position. Payments for these leases will be disclosed in the notes to the financial statements.
- Certain classes of lease arrangements that transfer a separate good or service under the same contract that have been identified for recognition at January 1, 2019 can be recognized as a single lease component rather than separating between their lease and non-lease components.
- For leases having similar characteristics, a portfolio approach can be used by applying a single discount rate.

The Corporation continues to review all existing contracts in detail. The full extent of the impact has not yet been determined. At minimum, Birchcliff expects to record a right-of-use asset and corresponding lease liability on the statement of financial position for the Corporation's head office lease. The Corporation will disclose the financial impact of IFRS 16 in its unaudited financial statements for the first quarter 2019 and continue to develop and implement changes to its internal controls, information systems and business and accounting processes throughout 2019.

## RISK FACTORS AND RISK MANAGEMENT

**Investors should carefully consider the risk factors set out below and consider all other information contained herein and in the Corporation's other public filings before making an investment decision. The risks set out below are not an exhaustive list and should not be taken as a complete summary or description of all the risks associated with the Corporation's business and the oil and natural gas business generally. If any of the risks set out below materialize, the Corporation's business, financial condition, results of operations, prospects, cash flows and reputation may be adversely affected, which may, in turn, reduce or restrict the Corporation's ability to pay dividends and may materially affect the market price of the Corporation's securities.**

### Financial Risks and Risks Relating to Economic Conditions

#### *Prices, Markets and Marketing*

Numerous factors beyond the Corporation's control do, and will continue to, affect the marketability and price of oil and natural gas acquired, produced or discovered by the Corporation. The Corporation's revenues, operating results and financial condition depend substantially on prevailing prices for oil and natural gas and the Corporation's ability to successfully market its oil and natural gas production from its properties.

The Corporation's ability to market its oil and natural gas may depend upon its ability to acquire capacity on pipelines that deliver natural gas, crude oil and NGLs to commercial markets or contract for the delivery of crude oil by rail (see "*Risk Factors and Risk Management – Financial Risks and Risks Relating to Economic Conditions – Weakness in the Oil and Gas Industry*" and "*Risk Factors and Risk Management – Business and Operational Risks – Gathering and Processing Facilities, Pipeline Systems and Rail*"). Deliverability uncertainties include the distance the Corporation's reserves are from pipelines, railway lines, processing and storage facilities and operational problems affecting pipelines, railway lines and facilities.

Prices for oil and natural gas are subject to large fluctuations in response to relatively minor changes in the supply of and demand for oil and natural gas, market uncertainty and a variety of additional factors that are beyond the Corporation's control. These factors include, but are not limited to, the following:

- global energy supply and demand;
- the actions taken by OPEC and other oil and gas exporting nations;
- political conditions, instability and hostilities;
- domestic and foreign supplies of crude oil, NGLs and natural gas;
- the level of consumer demand, including demand for different qualities and types of crude oil and NGLs;



- the production and storage levels of North American natural gas and crude oil and the supply and price of imported oil;
- the ability to export oil, LNG and NGLs from North America;
- the availability, proximity and capacity of gathering, transportation, processing and/or refining facilities in regional or localized areas that may affect the realized prices for oil and natural gas;
- weather conditions;
- government regulations, including existing and proposed changes to such regulations;
- the effect of world-wide environmental regulations and energy conservation and GHG reduction measures;
- the price and availability of alternative energy supplies; and
- global and domestic economic conditions, including currency fluctuations.

Oil and natural gas prices are expected to remain volatile for the near future because of market uncertainties over the supply and demand of these commodities due to the current state of the world economy, increased growth of shale oil production in the United States and other concerns of over-supply, OPEC actions, sanctions imposed on certain oil producing nations by other countries, political uncertainties and ongoing credit and liquidity concerns. Volatile oil and natural gas prices make it difficult to estimate the value of producing properties for acquisitions and often cause disruption in the market for oil and natural gas producing properties, as buyers and sellers have difficulty agreeing on such value. Price volatility also makes it difficult to budget for and project the return on acquisitions and development and exploitation projects.

A material decline in oil and natural gas prices could result in a reduction of the Corporation's net production revenue. The economics of producing from some wells may change because of lower prices, which could result in reduced production of oil or natural gas. The Corporation might also elect not to produce from certain wells at lower prices. In addition, any prolonged period of low crude oil or natural gas prices could result in a decision by the Corporation to suspend or slow exploration and development activities or the construction or expansion of new or existing facilities or reduce its production levels. Any substantial and prolonged decline in the price of oil and natural gas would have an adverse effect on the carrying value of the Corporation's assets, borrowing capacity, revenues, profitability and cash flows from operations and may have a material adverse effect on the Corporation's business, financial condition, results of operations, prospects, its ability to pay dividends and ultimately on the market prices of the Corporation's securities.

Lower commodity prices may also affect the volume and value of the Corporation's reserves, rendering certain reserves uneconomic for development. The Corporation's reserves at December 31, 2018 are estimated using forecast prices and costs. If oil and natural gas prices stay at current levels or decrease, the Corporation's reserves may be substantially reduced as economic limits of developed reserves are reached earlier and undeveloped reserves become uneconomic at such prices. Even if some reserves remain economic at lower price levels, sustained low prices may compel the Corporation to re-evaluate its development plans and reduce or eliminate various projects with marginal economics. Any decrease in the value of the Corporation's reserves may reduce the borrowing base under the Credit Facilities, which, depending on the level of the Corporation's indebtedness, could result in the Corporation having to repay a portion of its indebtedness. See *"Risk Factors and Risk Management – Financial Risks and Risks Relating to Economic Conditions – Credit Facilities"*.

In addition, lower commodity prices restrict the Corporation's cash flow resulting in less funds from operations being available to fund the Corporation's capital expenditure programs. The Corporation's capital expenditure plans are impacted by the Corporation's cash flow. Consequently, the Corporation may not be able to replace its production with additional reserves and both the Corporation's production and reserves could be reduced on a year-over-year basis.

In addition to possibly resulting in a decrease in the value of the Corporation's economically recoverable reserves, lower commodity prices may also result in a decrease in the value of the Corporation's infrastructure and facilities, all of which could also have the effect of requiring a write down of the carrying value of its oil and natural gas assets on its balance sheet and the recognition of an impairment charge on its income statement.

### ***Weakness in the Oil and Natural Gas Industry***

Recent market events and conditions, including global excess oil and natural gas supply, actions taken by OPEC, slowing growth in China and emerging economies, market volatility and disruptions in Asia, weakening global relationships, isolationist trade policies, increased shale production in the United States, sovereign debt levels and political upheavals in various countries have caused significant weakness and volatility in commodity prices. These events and conditions have caused a significant decrease in the valuation of oil and natural gas companies and a decrease in the confidence in the oil and natural gas industry. These difficulties have been exacerbated in Canada by political and other actions resulting in uncertainty surrounding regulatory, tax, royalty changes and environmental regulation. In addition, the inability to get the necessary approvals to build pipelines, LNG plants and other facilities to provide better access to markets for the oil and natural gas industry in Western Canada has led to additional downward price pressure on oil and natural gas produced in Western Canada and uncertainty and reduced confidence in the oil and natural gas industry in Western Canada.

### ***Substantial Capital and Additional Funding Requirements***

The Corporation anticipates that it will make substantial capital expenditures for the acquisition, exploration, development and production of oil and natural gas reserves and resources in the future. As future capital expenditures are expected to be financed out of cash generated from operations, borrowings and possible future equity sales, the Corporation's ability to do so is dependent on, among other factors:

- the overall state of the capital markets;
- the Corporation's credit rating (if applicable);
- commodity prices;
- interest rates;
- royalty rates;
- tax burden due to current and future tax laws; and
- investor appetite for investments in the energy industry and the Corporation's securities in particular.

The Corporation's cash flow from its properties may not be sufficient to fund its ongoing activities at all times and from time to time the Corporation may require additional financing. The inability of the Corporation to access sufficient capital for its operations and activities could have a material adverse effect on the Corporation's financial condition, results of operations and prospects.

Due to the conditions in the oil and natural gas industry and/or global economic and political volatility, the Corporation may from time to time have restricted access to capital and increased borrowing costs. The conditions in or affecting the oil and natural gas industry have negatively impacted the ability of oil and natural gas companies to access additional financing. Failure to obtain financing on a timely basis could cause the Corporation to forfeit its interest in certain properties, miss certain acquisition opportunities and reduce or terminate its operations.

There can be no assurance that debt or equity financing or cash generated by operations will be available or sufficient to meet the Corporation's requirements or, if debt or equity financing is available, that it will be on terms acceptable to the Corporation. To the extent that external sources of capital become limited, unavailable or available on onerous terms, the Corporation's ability to make capital investments and maintain existing assets may be impaired, and its assets, liabilities, business, financial condition and results of operations may be affected materially and adversely as a result. In addition, the future development of the Corporation's petroleum properties may require additional financing and there are no assurances that such financing will be available or, if available, will be available upon acceptable terms. The Corporation may be required to seek additional equity financing on terms that are highly dilutive to existing shareholders. Moreover, future activities may require the Corporation to alter its capitalization significantly.

## **Credit Facilities**

The amount authorized under the Credit Facilities is dependent on the borrowing base determined by the Corporation's lenders. The Credit Facilities are subject to a semi-annual review of the borrowing base limit by Birchcliff's syndicate of lenders, which limit is directly impacted by the value of Birchcliff's oil and natural gas reserves. The Corporation's lenders use the Corporation's reserves, commodity prices and other factors to determine the Corporation's borrowing base. Commodity prices continue to be depressed and have fallen dramatically since 2014. Continued depressed commodity prices or further declines in commodity prices could result in a reduction in the Corporation's borrowing base, thereby reducing the funds available to the Corporation under the Credit Facilities. As the borrowing base is determined based on the lender's interpretation of the Corporation's reserves and future commodity prices, there can be no assurance as to the amount of the borrowing base determined at each review. In addition, a majority of lenders have the right once per year to redetermine the borrowing base in between scheduled redeterminations and the borrowing base may also be reduced in connection with asset dispositions. If, at the time of a borrowing base redetermination, the outstanding borrowings under the Credit Facilities were to exceed the borrowing base as a result of any such redetermination, the Corporation would be required to make principal repayments or otherwise eliminate the borrowing base shortfall. If the Corporation is forced to repay a portion of its indebtedness under the Credit Facilities, it may not have sufficient funds to make such repayments. If it does not have sufficient funds and is otherwise unable to negotiate renewals of its borrowings or arrange new financing, it may have to sell significant assets. Any such sale could have a material adverse effect on the Corporation's business and financial results.

The maturity date of the Credit Facilities is currently May 11, 2021. The Corporation may each year, at its option, request an extension to the maturity date of the Syndicated Credit Facility and the Working Capital Facility, or either of them, for an additional period of up to three years from May 11 of the year in which the extension request is made. In the event that either of the Credit Facilities is not extended before the maturity date, all outstanding indebtedness under such Credit Facility will be repayable at the maturity date. There is also a risk that the Credit Facilities will not be renewed for the same principal amount or on the same terms. Any of these events could adversely affect the Corporation's ability to fund its ongoing operations and to pay dividends.

The Corporation is required to comply with covenants under the Credit Facilities. In the event that the Corporation does not comply with these covenants, the Corporation's access to capital could be restricted or repayment could be required. Events beyond the Corporation's control may contribute to the failure of the Corporation to comply with such covenants. A failure to comply with covenants could result in an event of default under the Credit Facilities, which could result in the Corporation being required to repay amounts owing thereunder and may prevent the payment of dividends to shareholders. The acceleration of the Corporation's indebtedness under one agreement may permit acceleration of indebtedness under other agreements that contain cross-default or cross-acceleration provisions. In addition, the Credit Facilities impose certain restrictions on the Corporation, including, but not limited to, restrictions on the payment of dividends, incurring of additional indebtedness, dispositions of properties and the entering into of amalgamations, mergers, plans of arrangements, reorganizations or consolidations with any person. The Credit Facilities do not currently contain any financial maintenance covenants; however, there is no assurance that the Corporation's lenders will not impose any such covenants on the Corporation in the future. Any such covenants may either affect the availability or price of additional funding.

The impact of the Supreme Court of Canada's decision in *Redwater Energy Corporation (Re)* ("**Redwater**") on lending practices in the oil and natural gas sector and actions taken by secured creditors and receivers/trustees of insolvent borrowers has not yet been determined but could affect lending practices.

If the Corporation's lenders require repayment of all or portion of the amounts outstanding under the Credit Facilities for any reason, including for a default of a covenant, there is no certainty that the Corporation would be in a position to make such repayment. Even if the Corporation is able to obtain new financing in order to make any required repayment under the Credit Facilities, it may not be on commercially reasonable terms or terms that are acceptable to the Corporation. If the Corporation is unable to repay amounts owing under the Credit Facilities, the lenders under the Credit Facilities could proceed to foreclose or otherwise realize upon the collateral granted to them to secure the indebtedness.

## **Dividends**

The declaration and payment of dividends (and the amount thereof) is subject to the discretion of the Board and may vary depending on a variety of factors and conditions existing from time to time, including fluctuations in commodity prices, the financial condition of Birchcliff, production levels, results of operations, capital expenditure requirements, working capital requirements, debt service requirements, operating costs, royalty burdens, foreign exchange rates, interest rates, contractual restrictions, Birchcliff's hedging activities or programs, available investment opportunities, Birchcliff's business plan, strategies and objectives, the satisfaction of the solvency and liquidity tests imposed by the *Business Corporations Act* (Alberta) (the "**ABCA**") for the declaration and payment of dividends and other factors that the Board may deem relevant. Depending on these and various other factors, many of which are beyond the control of Birchcliff, the dividend policy of the Corporation may vary from time to time and, as a result, future cash dividends could be reduced or suspended entirely.

Pursuant to the ABCA, the Corporation may not declare or pay a dividend if there are reasonable grounds for believing that: (i) the Corporation is, or would after the payment be, unable to pay its liabilities as they become due; or (ii) the realizable value of its assets would thereby be less than the aggregate of its liabilities and stated capital of its outstanding shares. Additionally, pursuant to the agreement governing the Credit Facilities, the Corporation is not permitted to make any distribution (which includes dividends) at any time when an event of default exists or would reasonably be expected to exist upon making such distribution, unless such event of default arose subsequent to the ordinary course declaration of the applicable distribution.

Dividends may be reduced or suspended during periods of lower cash flows from operations. The timing and amount of Birchcliff's capital expenditures, and the ability of the Corporation to repay or refinance existing debt as it becomes due, directly affects the amount of cash dividends that may be declared by the Board. Future acquisitions, expansions of Birchcliff's assets, and other capital expenditures and the repayment or refinancing of existing debt as it becomes due may be financed from sources such as cash flows from operations, the issuance of additional shares or other securities of Birchcliff, and borrowings. Dividends may be reduced, or even eliminated, at times when significant capital or other expenditures are made. There can be no assurance that sufficient capital will be available on terms acceptable to Birchcliff, or at all, to make additional investments, fund future expansions or make other required capital expenditures. To the extent that external sources of capital, including the issuance of additional shares or other securities or the availability of additional credit facilities, become limited or unavailable on favourable terms or at all due to credit market conditions or otherwise, the ability of the Corporation to make the necessary capital investments to maintain or expand its operations, to repay outstanding debt and to invest in assets, as the case may be, may be impaired. To the extent Birchcliff is required to use cash flows from operations to finance capital expenditures or acquisitions or to repay existing debt as it becomes due, the cash available for dividends may be reduced and the level of dividends declared may be reduced.

The market value of the Corporation's securities may deteriorate if dividends are reduced or suspended. Furthermore, the future treatment of dividends for tax purposes will be subject to the nature and composition of dividends paid by Birchcliff and potential legislative and regulatory changes.

## **Hedging**

The Corporation may enter into agreements to receive fixed prices on its oil and natural gas production to offset the risk of revenue losses if commodity prices decline. Similarly, the Corporation may enter into agreements to fix the differential or discount pricing gap which exists and may fluctuate between different grades of oil, NGLs and natural gas and the various market prices received for such products. However, to the extent that the Corporation engages in price risk management activities to protect itself from commodity price declines, it may also be prevented from realizing the full benefits of price increases above the levels of the derivative instruments used to manage price risk. In addition, if the Corporation enters into hedging arrangements it may be exposed to the risk of financial loss in certain circumstances, including instances in which:

- production falls short of the hedged volumes or prices fall significantly lower than projected;
- there is a widening of price-basis differentials between delivery points for production and the delivery point assumed in the hedge arrangement;

- the counterparties to the hedging arrangements or other price risk management contracts fail to perform under those arrangements; and/or
- a sudden unexpected material event impacts crude oil and natural gas prices.

Similarly, the Corporation may enter into agreements to fix the exchange rate of Canadian dollars to United States dollars or other currencies in order to offset the risk of revenue losses if the Canadian dollar increases in value compared to the other currencies. However, if the Canadian dollar declines in value compared to such fixed currencies, the Corporation will not benefit from the fluctuating exchange rate.

Further, the Corporation may enter into hedging arrangements to fix interest rates applicable to the Corporation's debt. However, if interest rates decrease as compared to the interest rate fixed by the Corporation, the Corporation will not benefit from the lower interest rate.

### ***Issuance of Debt***

From time to time, the Corporation may finance its activities (including asset acquisitions) in whole or in part with debt, which may increase the Corporation's debt levels above industry standards for peers of similar size. Depending on future exploration and development plans, the Corporation may require additional debt financing that may not be available or, if available, may not be available on favourable terms. Neither the Corporation's articles nor its by-laws limit the amount of indebtedness that the Corporation may incur. The level of the Corporation's indebtedness from time to time could impair the Corporation's ability to obtain additional financing on a timely basis to take advantage of business opportunities that may arise.

### ***Credit Risk***

The Corporation may be exposed to third-party credit risk through its contractual arrangements with joint venture partners, marketers of its petroleum and natural gas production and other parties. In addition, the Corporation may be exposed to third-party credit risk from operators of properties in which the Corporation has a working or royalty interest. In the event such entities fail to meet their contractual obligations to the Corporation, such failures may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects. In addition, poor credit conditions in the industry generally and of joint venture partners may affect a joint venture partner's willingness to participate in the Corporation's ongoing capital program, potentially delaying the program and the results of such program until the Corporation finds a suitable alternative partner. To the extent that any of such third parties go bankrupt, become insolvent or make a proposal or institute any proceedings relating to bankruptcy or insolvency, it could result in the Corporation being unable to collect all or a portion of any money owing from such parties. Any of these factors could materially adversely affect the Corporation's financial and operational results.

Conversely, the Corporation's counterparties may deem the Corporation to be at risk of defaulting on its contractual obligations. These counterparties may require that the Corporation provide additional credit assurance by prepaying anticipated expenses or posting letters of credit, which would decrease the Corporation's available liquidity.

### ***Variations in Foreign Exchange Rates and Interest Rates***

World oil and natural gas prices are quoted in United States dollars. The Canadian/United States dollar exchange rate, which fluctuates over time, consequently affects the price received by Canadian producers of oil and natural gas. Material increases in the value of the Canadian dollar relative to the United States dollar may negatively affect the Corporation's production revenues. Accordingly, Canadian/United States exchange rates could impact the future value of the Corporation's reserves as determined by independent evaluators. Although a low value of the Canadian dollar relative to the United States dollar may positively affect the price the Corporation receives for its oil and natural gas production, it could also result in an increase in the price for certain goods used for the Corporation's operations, which may have a negative impact on the Corporation's financial results.

To the extent that the Corporation engages in risk management activities related to foreign exchange rates, there is credit risk associated with the counterparties with whom the Corporation may contract. See *"Risk Factors and Risk Management – Financial Risks and Risks Relating to Economic Conditions – Hedging"*.

An increase in interest rates could result in a significant increase in the amount the Corporation pays to service debt, resulting in a reduced amount available to fund its exploration and development activities and the cash available for dividends and could negatively impact the market prices of the Corporation's securities.

## **Business and Operational Risks**

### ***Exploration, Development and Production Risks***

Oil and natural gas operations involve many risks that even a combination of experience, knowledge and careful evaluation may not be able to overcome. The long-term commercial success of the Corporation depends on its ability to find, acquire, develop and commercially produce oil and natural gas reserves. Without the continual addition of new reserves, any existing reserves the Corporation may have at a particular point in time and the production therefrom, will decline over time as such existing reserves are produced. A future increase in the Corporation's reserves will depend on both the ability of the Corporation to explore and develop its existing properties and its ability to select and acquire suitable producing properties or prospects. There is no assurance that the Corporation will be able to continue to find satisfactory properties to acquire or participate in. Moreover, management of the Corporation may determine that current markets, terms of acquisition, participation or pricing conditions make potential acquisitions or participation uneconomic. There is also no assurance that the Corporation will discover or acquire further commercial quantities of oil and natural gas. The success of the Corporation's business is highly dependent on its ability to acquire or discover new reserves in a cost efficient manner as substantially all of the Corporation's cash flow is derived from the sale of the petroleum and natural gas reserves that it accumulates and develops. In order to remain financially viable, the Corporation must be able to replace reserves over time at a lesser cost on a per unit basis than its cash flow on a per unit basis.

Future oil and natural gas exploration may involve unprofitable efforts from dry wells or wells that are productive but do not produce sufficient petroleum substances to return a profit after drilling, completing (including hydraulic fracturing), operating and other costs. Completion of a well does not ensure a profit on the investment or recovery of drilling, completion and operating costs.

Drilling hazards, environmental damage and various field operating conditions could greatly increase the cost of operations and adversely affect the production from successful wells. Field operating conditions include, but are not limited to, delays in obtaining governmental approvals or consents, the shutting-in of wells resulting from extreme weather conditions, insufficient storage or transportation capacity or geological and mechanical conditions. While diligent well supervision, effective maintenance operations and the development and utilization of enhanced recovery technologies can contribute to maximizing production rates over time, it is not possible to eliminate production delays and declines from normal field operating conditions, which can negatively affect revenue and cash flow levels to varying degrees.

Oil and natural gas exploration, development and production operations are subject to all the risks and hazards typically associated with such operations, including, but not limited to, fire, explosion, blowouts, cratering, sour gas releases, spills and other environmental hazards. These typical risks and hazards could result in substantial damage to oil and natural gas wells, production facilities, other property or the environment and cause personal injury or threaten wildlife. Particularly, the Corporation may explore for and produce sour natural gas in certain areas. An unintentional leak of sour natural gas could result in personal injury, loss of life or damage to property and may necessitate an evacuation of populated areas, all of which could result in liability to the Corporation.

Oil and natural gas production operations are also subject to geologic and seismic risks, including encountering unexpected formations or pressures, premature decline of reservoirs and the invasion of water into producing formations. Losses resulting from the occurrence of any of these risks may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects.

As is standard industry practice, the Corporation is not fully insured against all risks, nor are all risks insurable. Although the Corporation maintains liability and business interruption insurance in amounts that it considers consistent with industry practice, liabilities associated with certain risks could exceed policy limits or not be covered. In either event, the Corporation could incur significant costs. See *"Risk Factors and Risk Management – Other Risks – Insurance"*.



### ***Gathering and Processing Facilities, Pipeline Systems and Rail***

The Corporation delivers its products through gathering and processing facilities, pipeline systems and, in certain circumstances, by rail. The amount of oil and natural gas that the Corporation can produce and sell is subject to the accessibility, availability, proximity and capacity of these gathering and processing facilities, pipeline systems and railway lines. Notwithstanding recent actions taken by the Government of Alberta, the ongoing lack of availability of capacity in any of the gathering and processing facilities, pipeline systems and railway lines could result in the Corporation's inability to realize the full economic potential of its production or in a reduction of the price offered for the Corporation's production. The lack of firm pipeline capacity continues to affect the oil and natural gas industry and limits the ability to transport produced oil and natural gas to market. In addition, the pro-rationing of capacity on inter-provincial pipeline systems continues to affect the ability to export oil and natural gas. Unexpected shut-downs or curtailment of capacity of pipelines for maintenance or integrity work or because of actions taken by regulators could also affect the Corporation's production, operations and financial results. As a result, producers are increasingly turning to rail as an alternative means of transportation. In recent years, the volume of crude oil shipped by rail in North America has increased dramatically. Any significant change in market factors or other conditions affecting these infrastructure systems and facilities, as well as any delays or uncertainties in constructing new infrastructure systems and facilities, could harm the Corporation's business and, in turn, the Corporation's financial condition, results of operations and cash flows. Announcements and actions taken by the Federal Government of Canada and the provincial governments of British Columbia, Alberta and Quebec relating to the approval of infrastructure projects may continue to intensify, leading to increased challenges to interprovincial and international infrastructure projects moving forward. In addition, while the Federal Government has introduced Bill C-69 to overhaul the existing environmental assessment process and replace the National Energy Board with a new regulatory agency, the impact of the new proposed regulatory scheme on proponents and the timing of receipt of approvals of major projects remains unclear.

Following major accidents in Lac-Mégantic, Quebec and North Dakota, the Transportation Safety Board of Canada and the U.S. National Transportation Board recommended additional regulations for railway tank cars carrying crude oil. In June 2015, as a result of these recommendations, the Government of Canada passed the *Safe and Accountable Rail Act* which increased insurance obligations on the shipment of crude oil by rail and imposed a per tonne levy of \$1.65 on crude oil shipped by rail to compensate victims and for environmental cleanup in the event of a railway accident. In addition to this legislation, new regulations have implemented the TC-117 standard for all rail tank cars carrying flammable liquids which formalized the commitment to retrofit, and phase out DOT-111 tank cars carrying crude oil. The increased regulation of rail transportation may reduce the ability of railway transportation to alleviate pipeline constraints and adds additional costs to the transportation of crude oil by rail. On July 13, 2016, the Minister of Transport (Canada) issued Protective Direction No. 38, which directed that the shipping of crude oil on DOT-111 tank cars end by November 1, 2016. Tank cars entering Canada from the United States will be monitored to ensure they are compliant with Protective Direction No. 38.

The Corporation's production passes through Birchcliff owned or third-party infrastructure prior to it being ready for sale. There is a risk that should this infrastructure fail and cause a significant portion of the Corporation's production to be shut-in and unable to be sold, this could have a material adverse effect on the Corporation's available cash flow. With respect to facilities owned by third parties and over which the Corporation has no control, these facilities may discontinue or decrease operations either as a result of normal servicing requirements or as a result of unexpected events. A discontinuation or decrease of operations could have a material adverse effect on the Corporation's ability to process its production and deliver the same to market. Midstream and pipeline companies may take actions to maximize their return on investment which may in turn adversely affect producers and shippers, especially when combined with a regulatory framework that may not always align with the interests of particular shippers.

Further, the Corporation has certain long-term take-or-pay commitments to deliver products through third-party owned infrastructure which creates a financial liability and there can be no assurance that future volume commitments will be met which may adversely affect the Corporation's financial condition and cash flows from operations.



### ***Project Risks***

The Corporation manages a variety of small and large projects in the conduct of its business. Project delays and interruptions may delay expected revenues from operations. Significant project cost overruns could make a project uneconomic. The Corporation's ability to execute projects and successfully market its oil and natural gas depends upon numerous factors beyond the Corporation's control, including:

- the availability and proximity of processing and pipeline capacity;
- the availability of storage capacity;
- the availability of, and the ability to acquire, water supplies needed for drilling and hydraulic fracturing and the Corporation's ability to dispose of water used or removed from strata at a reasonable cost and in accordance with applicable environmental regulations;
- the effects of inclement weather;
- the availability of drilling and related equipment;
- unexpected cost increases;
- accidental events;
- currency fluctuations;
- regulatory changes;
- the availability and productivity of skilled labour; and
- the regulation of the oil and natural gas industry by various levels of government and governmental agencies.

Because of these factors, the Corporation could be unable to execute projects on time, on budget, or at all, and may be unable to effectively market the oil and natural gas that it produces.

### ***Uncertainty of Reserves Estimates***

There are numerous uncertainties inherent in estimating oil, natural gas and NGLs reserves and the future net revenue attributed to such reserves. In general, estimates of economically recoverable oil, natural gas and NGLs reserves and the future net revenue therefrom are based upon a number of variable factors and assumptions, such as historical production from the properties, production rates, ultimate reserves recovery, the timing and amount of capital expenditures, marketability of oil, natural gas and NGLs, royalty rates, the assumed effects of regulation by governmental agencies and future operating costs, all of which may vary materially from actual results. For these reasons, estimates of the economically recoverable oil, natural gas and NGLs reserves attributable to any particular group of properties, the classification of such reserves based on risk of recovery and estimates of future net revenue associated with reserves prepared by different engineers, or by the same engineer at different times, may vary. The Corporation's actual production, revenues, taxes and development and operating expenditures with respect to its reserves will vary from estimates thereof and such variations could be material.

The estimation of proved reserves that may be developed and produced in the future is often based upon volumetric calculations and upon analogy to similar types of reserves rather than actual production history. Recovery factors and drainage areas are often estimated by experience and analogy to similar producing pools. Estimates based on these methods are generally less reliable than those based on actual production history. Subsequent evaluation of the same reserves based upon production history and production practices will result in variations in the estimated reserves and such variations could be material.

In accordance with applicable securities laws in Canada, the Corporation's independent qualified reserves evaluators have used forecast prices and costs in estimating the reserves and future net revenue. Actual future net revenue will be affected by other factors such as actual production levels, supply and demand for oil and natural gas, curtailments or increases in consumption by oil and natural gas purchasers, changes in governmental regulations or taxation and the impact of inflation on costs.

Actual production and cash flows derived from the Corporation's reserves will vary from the estimates contained in the Corporation's independent reserves evaluations and such variations could be material. The independent reserves evaluations are based in part on the assumed success of activities the Corporation intends to take in future years. The reserves and estimated future net revenue to be derived therefrom and contained in the Corporation's independent reserves evaluations will be reduced to the extent that such activities do not achieve the level of success assumed in the evaluations.

#### ***Availability and Cost of Equipment and Services***

Oil and natural gas exploration, development and operating activities are dependent on the availability and cost of specialized equipment and other materials (typically leased from third parties) and skilled personnel trained to use such equipment in the areas where such activities will be conducted. The availability of such equipment, materials and personnel is limited. An increase in demand or cost, or a decrease in the availability of, such equipment, materials or personnel may impede the Corporation's exploration, development and operating activities, which, in turn, could materially adversely affect the Corporation's business and financial condition.

#### ***Potential Future Drilling Locations***

The Corporation's identified potential future drilling locations represent a significant part of the Corporation's future growth. The Corporation's ability to drill and develop these locations and the drilling locations on which it actually drills wells depends on a number of uncertainties and factors, including, but not limited to, the availability of capital, equipment and personnel, oil and natural gas prices, costs, inclement weather, seasonal restrictions, drilling results, additional geological, geophysical and reservoir information that is obtained, production rate recovery, gathering system and transportation constraints, the net price received for commodities produced, regulatory approvals and regulatory changes. As a result of these uncertainties, there can be no assurance that the potential future drilling locations that Birchcliff has identified will ever be drilled and, if drilled, that such locations will result in additional oil, NGLs or natural gas production and, in the case of unbooked locations, additional reserves. As such, the Corporation's actual drilling activities may differ materially from those presently identified, which could adversely affect the Corporation's business.

#### ***Seasonality and Extreme Weather Conditions***

The level of activity in the Canadian oil and natural gas industry is influenced by seasonal weather patterns. Wet weather and spring thaw may make the ground unstable. Consequently, municipalities and provincial transportation departments may enforce road bans that restrict the movement of rigs and other heavy equipment, thereby reducing activity levels. Road bans and other restrictions generally result in a reduction of drilling and exploratory activities and may also result in the shut-in of some of the Corporation's production if not otherwise tied-in. In addition, certain oil and natural gas producing properties are located in areas that are inaccessible other than during the winter months because the ground surrounding the sites in these areas consists of swampy terrain. Further, extreme cold weather, heavy snowfall and heavy rainfall may restrict the Corporation's ability to access its properties and cause operational difficulties including damage to machinery or contribute to personnel injury because of dangerous working conditions. Seasonal factors and unexpected weather patterns may lead to declines in exploration and production activity and also to volatility in commodity prices as the demand for natural gas typically fluctuates during cold winter months and hot summer months.

#### ***Competition***

The oil and natural gas industry is highly competitive in all of its phases. The Corporation competes with numerous other entities in the exploration, development, production and marketing of oil and natural gas, including land, acquisitions of reserves, access to drilling and service rigs and other equipment, access to transportation and skilled technical and operating personnel. The Corporation's competitors include oil and natural gas companies that have substantially greater financial resources, staff and facilities than those of the Corporation. Some of these companies not only explore for, develop and produce oil and natural gas, but also carry on refining operations and market oil and natural gas on an international basis. As a result of these complementary activities, some of these competitors may have greater and more diverse competitive resources to draw on than the Corporation. The Corporation's ability to increase its reserves in the future will depend not only on its ability to explore and develop its present properties, but also on its ability to select and acquire other suitable producing properties or prospects for exploratory drilling.

### ***Hydraulic Fracturing***

Hydraulic fracturing involves the injection of water, sand and small amounts of additives under pressure into rock formations to stimulate the production of oil and natural gas. Specifically, hydraulic fracturing enables the production of commercial quantities of oil and natural gas from reservoirs that were previously unproductive. While hydraulic fracturing has been in use for many years, there has been increased focus on the environmental aspects of hydraulic fracturing practices in recent years. Increased regulation and attention given to the hydraulic fracturing process could lead to greater opposition (including litigation) to oil and natural gas production activities using hydraulic fracturing techniques. Any new laws, regulations or permitting requirements regarding hydraulic fracturing could lead to operational delays, increased operating costs, third-party or governmental claims and could increase the Corporation's costs of compliance and doing business, as well as delay the development of oil and natural gas resources from certain formations which are not commercial without the use of hydraulic fracturing. Restrictions on hydraulic fracturing could also reduce the amount of oil and natural gas that the Corporation is ultimately able to produce from its reserves and, therefore, could adversely affect the Corporation's business, financial condition, results of operations and prospects.

### ***All Assets in One Area***

All of the Corporation's producing properties are geographically concentrated in the Peace River Arch area of Alberta. As a result of this concentration, the Corporation may be disproportionately exposed to the impact of delays or interruptions of production from that area caused by transportation capacity constraints, curtailment of production, natural disasters, availability of equipment, facilities or services, adverse weather conditions or other events which impact that area. Due to the concentrated nature of the Corporation's portfolio of properties, a number of the Corporation's properties could experience any of the same conditions at the same time, resulting in a relatively greater impact on the Corporation's results of operations than they might have on other companies that have a more diversified portfolio of properties. Such delays or interruptions could have a material adverse effect on the Corporation's financial condition and results of operations.

### ***Operational Dependence***

Other companies operate some of the assets in which the Corporation has an interest. The Corporation has limited ability to exercise influence over the operation of those assets or their associated costs, which could adversely affect the Corporation's business, financial condition, results of operations and prospects. The Corporation's return on assets operated by others depends upon a number of factors that may be outside of the Corporation's control, including, but not limited to, the timing and amount of capital expenditures, the operator's expertise and financial resources, the approval of other participants, the selection of technology and risk management practices.

In addition, due to the current low and volatile commodity price environment, many companies, including companies that may operate some of the assets in which the Corporation has an interest, may be in financial difficulty, which could impact their ability to fund and pursue capital expenditures, carry out their operations in a safe and effective manner and satisfy regulatory requirements with respect to abandonment and reclamation obligations. If companies that operate some of the assets in which the Corporation has an interest fail to satisfy regulatory requirements with respect to abandonment and reclamation obligations, the Corporation may be required to satisfy such obligations and to seek recourse from such companies. To the extent that any of such companies go bankrupt, become insolvent or make a proposal or institute any proceedings relating to bankruptcy or insolvency, it could result in such assets being shut-in, the Corporation potentially becoming subject to additional liabilities relating to such assets and the Corporation having difficulty collecting revenue due to it from such operators or recovering amounts owing to the Corporation from such operators for their share of abandonment and reclamation obligations. Any of these factors could have a material adverse effect on the Corporation's financial and operational results.

### ***Expiration of Licences and Leases***

The Corporation's properties are held in the form of licences and leases and working interests in licences and leases held by others. If the Corporation or the holder of the licence or lease fails to meet the specific requirements of a licence or lease, the licence or lease may terminate or expire. There can be no assurance that any of the obligations required to maintain each licence or lease will be met. The termination or expiration of the Corporation's licences

or leases or the working interests relating to a licence or lease may have a material adverse effect on the business, financial condition, results of operations and prospects of the Corporation.

### ***Cost of New Technologies***

The oil and natural gas industry is characterized by rapid and significant technological advancements and introductions of new products and services utilizing new technologies. Other oil and natural gas companies may have greater financial, technical and personnel resources that allow them to implement and benefit from new technologies before the Corporation. There can be no assurance that the Corporation will be able to respond to such competitive pressures and implement such technologies on a timely basis or at an acceptable cost. If the Corporation implements such technologies, there is no assurance that the Corporation will do so successfully. One or more of the technologies currently utilized by the Corporation or implemented in the future may become obsolete. In such case, the Corporation's business, financial condition, results of operations and prospects could be affected adversely and materially. If the Corporation is unable to utilize the most advanced commercially available technology or is unsuccessful in implementing certain technologies, its business, financial condition, results of operations and prospects could also be adversely affected in a material way.

### ***Alternatives to and Changing Demand for Petroleum Products***

Fuel conservation measures, alternative fuel requirements, increasing consumer demand for alternatives to oil and natural gas and technological advances in fuel economy and renewable energy generation devices could reduce the demand for oil, natural gas and liquid hydrocarbons. Recently, certain jurisdictions have implemented policies or incentives to decrease the use of fossil fuels and encourage the use of renewable fuel alternatives, which may lessen the demand for petroleum products and put downward pressure on commodity prices. In addition, advancements in energy efficient products have a similar effect on the demand for oil and natural gas products. The Corporation cannot predict the impact of the changing demand for oil and natural gas products and any major changes may have a material adverse effect on the Corporation's business, financial condition, results of operations and cash flows by decreasing the Corporation's profitability, increasing its costs, limiting its access to capital or decreasing the value of its assets.

### ***Expansion into New Activities***

The operations and expertise of the Corporation's management are currently focused primarily on oil and natural gas production, exploration and development in the Peace River Arch area of Alberta. In the future, the Corporation may acquire or move into new industry-related activities or new geographical areas or may acquire different energy-related assets, and as a result, the Corporation may face unexpected risks or alternatively, the Corporation's exposure to one or more existing risk factors may be significantly increased, which may in turn result in the Corporation's future operational and financial condition being adversely affected.

## **Regulatory, Political and Environmental Risks**

### ***Regulatory***

Various levels of governments impose extensive controls and regulations on oil and natural gas operations (including exploration, development, production, pricing, marketing, transportation and infrastructure). Governments may regulate or intervene with respect to exploration and production activities, prices, taxes, royalties, the exportation of oil and natural gas and infrastructure projects. Amendments to these controls and regulations may occur from time to time in response to economic or political conditions. The implementation of new regulations or the modification to existing regulations affecting the oil and natural gas industry could reduce the demand for crude oil and natural gas and increase the Corporation's costs or make certain projects uneconomic, which may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects.

Although the current Federal Government has introduced Bill C-69 to overhaul the existing environmental assessment process and replace the National Energy Board with a new regulatory agency, the impact of the new proposed regulatory scheme on proponents and the timing of receipt of approvals of major projects remains unclear.

Even when projects are approved at a federal level, such projects often face further delays due to interference by provincial and municipal governments, as well as court challenges related to issues such as indigenous title, the

government's duty to consult and accommodate indigenous peoples and the sufficiency of the relevant environmental review processes. In addition, export pipelines from Canada to the United States face additional uncertainty as such pipelines require approvals of several levels of government in the United States. The ongoing third-party challenges to regulatory decisions or orders has reduced the efficiency of the regulatory regime, as the implementation of the decisions and orders has been delayed resulting in uncertainty and interruption to business of the oil and natural gas industry.

Recently, the Federal Government and certain provincial governments have taken steps to initiate protocols and regulations to limit the release of methane from oil and natural gas operations. Such draft regulations and protocols may require additional expenditures or otherwise negatively impact the Corporation's operations and may affect the Corporation's revenues and financial condition.

Further, in response to widening pricing differentials, the Government of Alberta implemented production curtailment. The Corporation is not currently subject to a curtailment order; however, no assurance can be given that the Government of Alberta will not in the future enact rules which would require the Corporation to curtail its production.

In order to conduct oil and natural gas operations, the Corporation requires regulatory permits, licences, registrations, approvals and authorizations from various governmental authorities. There can be no assurance that the Corporation will be able to obtain all of the permits, licences, registrations, approvals and authorizations that may be required to conduct operations that it may wish to undertake. In addition, the Corporation may have to comply with the requirements of certain federal legislation such as the *Competition Act* (Canada) and the *Investment Canada Act* (Canada), which may adversely affect its business and financial condition and the market value of its securities or assets, particularly when undertaking, or attempting to undertake, an acquisition or disposition.

### ***Political Uncertainty***

In the last several years, the United States and certain European countries have experienced significant political events that have cast uncertainty on global financial and economic markets.

Since the 2016 U.S. presidential election, the current United States administration has begun taking steps to implement certain of its promises made during the campaign. The administration has withdrawn the United States from the Trans-Pacific Partnership and Congress has passed sweeping tax reform, which, among other things, significantly reduces U.S. corporate tax rates. This may affect competitiveness of other jurisdictions, including Canada. In addition, the North American Free Trade Agreement ("**NAFTA**") was renegotiated and on November 30, 2018, Canada, the U.S. and Mexico signed the United States-Mexico-Canada Agreement which will replace NAFTA once ratified by the three signatory countries. The administration has also taken action with respect to reducing regulation which may also affect the relative competitiveness of other jurisdictions. It is unclear exactly what other actions the United States administration will implement, and if implemented, how these actions may impact Canada and in particular the oil and natural gas industry. Any actions taken by the current United States administration may have a negative impact on the Canadian economy and on the businesses, financial condition, results of operations, prospects and the valuation of Canadian oil and natural gas companies, including the Corporation.

In addition to the political disruption in the United States, the citizens of the United Kingdom voted to withdraw from the European Union and the Government of the United Kingdom has taken steps to implement such withdrawal. The terms of the United Kingdom's exit from the European Union and whether it will occur at all remain to be determined. Some European countries have also experienced the rise of anti-establishment political parties and public protests held against open-door immigration policies, trade and globalization. To the extent that certain political actions taken in North America, Europe and elsewhere in the world result in a marked decrease in free trade, access to personnel and freedom of movement, it could have an adverse effect on the Corporation's ability to market its products internationally, increase costs for goods and services required for the Corporation's operations, reduce access to skilled labour and negatively impact the Corporation's business, operations, financial condition and the market value of its securities.

A change in federal, provincial or municipal governments in Canada may have an impact on the directions taken by such governments on matters that may impact the oil and natural gas industry, including the balance between economic development and environmental policy such as the potential impact of the recent change of government

in British Columbia and announcements and actions by the Government of British Columbia that may impact the completion of the Trans-Mountain Pipeline project, LNG facilities and other infrastructure projects.

### ***Geopolitical Risks***

Political changes in North America and political instability in the Middle East and elsewhere may cause disruptions in the supply of oil that affects the marketability and price of crude oil and natural gas. Conflicts, or conversely peaceful developments, arising outside of Canada, including changes in political regimes or parties in power, may have a significant impact on the price of oil and natural gas. Any particular event could result in a material decline in prices and result in a reduction of the Corporation's revenue.

### ***Environmental***

All phases of the oil and natural gas business present environmental risks and hazards and are subject to environmental regulation pursuant to a variety of federal, provincial and local laws and regulations. Environmental legislation provides for, among other things, restrictions and prohibitions on the spill, release or emission of various substances produced in association with oil and natural gas industry operations. In addition, such legislation sets out the requirements with respect to oilfield waste handling and storage, habitat protection and the satisfactory operation, maintenance, abandonment and reclamation of well and facility sites.

Compliance with environmental legislation can require significant expenditures and a breach of applicable environmental legislation may result in the imposition of fines and penalties, some of which may be material. Environmental legislation is evolving in a manner expected to result in stricter standards and enforcement, larger fines and liability and potentially increased capital expenditures and operating costs. The discharge of oil, natural gas or other pollutants into the air, soil or water may give rise to liabilities to governments and third parties and may require the Corporation to incur costs to remedy such discharge. Although the Corporation believes that it is in material compliance with current applicable environmental legislation, no assurance can be given that environmental compliance requirements will not result in a curtailment of production or a material increase in the costs of production, development or exploration activities or otherwise have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects.

In addition, political and economic events may significantly affect the scope and timing of climate change measures that are put in place. The implementation of new environmental regulations or the modification of existing environmental regulations affecting the oil and natural gas industry generally could reduce demand for oil and natural gas and increase costs. See *"Risk Factors and Risk Management – Regulatory, Political and Environmental Risks – Climate Change"*.

### ***Climate Change***

The Corporation's exploration and production facilities and other operations and activities emit GHGs which requires the Corporation to comply with applicable GHG emissions legislation. Climate change policy is evolving at regional, national and international levels and political and economic events may significantly affect the scope and timing of climate change measures that are ultimately put in place. As a signatory to the United Nations Framework Convention on Climate Change and the Paris Agreement, the Government of Canada pledged to cut its GHG emissions by 30% from 2005 levels by 2030. One of the pertinent policies announced to date by the Government of Canada to reduce GHG emissions is the planned implementation of a nation-wide price on carbon emissions. The federal carbon levy goes into effect April 1, 2019 and will affect those provinces that have not implemented their own carbon taxes, cap-and-trade systems or other plans for carbon pricing, namely Ontario, Manitoba, Saskatchewan and New Brunswick. The federal carbon levy will be at an initial rate of \$20 per tonne. Provincially, the Government of Alberta has already implemented a carbon levy on almost all sources of GHG emissions, now at a rate of \$30 per tonne. The implementation of the federal carbon levy is currently subject to constitutional challenges by the Provinces of Saskatchewan and Ontario, which are supported by the Province of New Brunswick.

Concerns about climate change have resulted in a number of environmental activists and members of the public opposing the continued exploitation and development of fossil fuels. Historically, political and legal opposition to the fossil fuel industry focused on public opinion and the regulatory process. More recently, however, there has been a movement to more directly hold governments and oil and natural gas companies responsible for climate



change through climate litigation. In November 2018, ENvironment JEUnesse, a Quebec advocacy group, applied to the Quebec Superior Court to certify a class action against the Government of Canada for climate related matters. In January 2019, the City of Victoria became the first municipality in Canada to endorse exploring the initiation of a class action lawsuit against oil and natural gas producers for climate-related harms. See *“Risk Factors and Risk Management – Non-Governmental Organizations and Eco-Terrorism Risks”* and *“Risk Factors – Public Opinion and Reputational Risk”*.

In addition, there has been public discussion that climate change may be associated with extreme weather conditions and increased volatility in seasonal temperatures. Extreme weather could interfere with the Corporation’s production and increase the Corporation’s costs. At this time, the Corporation is unable to determine the extent to which climate change may lead to increased storm or weather hazards affecting its operations.

The direct or indirect costs of compliance with GHG-related legislation may have a material adverse effect on the Corporation’s business, financial condition, results of operations and prospects. Adverse impacts to the Corporation’s business as a result of GHG legislation may include, but are not limited to, increased compliance costs, permitting delays, increased operating costs and capital expenditures and reduced demand for the oil, natural gas and NGLs that the Corporation produces. In addition, the Pouce Coupe Gas Plant is subject to the *Carbon Competitiveness Incentive Regulation* (Alberta) and some of the Corporation’s other significant facilities may ultimately become subject to future regional, provincial and/or federal climate change regulations to manage GHG emissions. Given the evolving nature of the debate related to climate change and the control of GHG and resulting requirements, it is expected that current and future climate change regulations will have the effect of increasing the Corporation’s operating expenses and in the long-term reducing the demand for oil and natural gas production resulting in a decrease in the Corporation’s profitability and a reduction in the value of its assets or asset write-offs.

#### ***Carbon Pricing Risk***

The majority of countries across the globe have agreed to reduce their carbon emissions in accordance with the Paris Agreement. In Canada, the Federal Government and certain provincial governments have implemented legislation aimed at incentivizing the use of alternative fuels and in turn reducing carbon emissions. The taxes placed on carbon emissions may have the effect of decreasing the demand for oil and natural gas products and at the same time, increasing the Corporation’s operating expenses, each of which may have a material adverse effect on the Corporation’s profitability and financial condition. Further, the imposition of carbon taxes puts the Corporation at a disadvantage with its counterparts who operate in jurisdictions where there are less costly carbon regulations.

#### ***Liability Management Programs***

Alberta has developed a licensee Liability Management Rating Program (the **“AB LMR Program”**) which is designed to prevent taxpayers from incurring costs associated with the suspension, abandonment, remediation and reclamation of wells, facilities and pipelines in the event that a licensee or permit holder is unable to satisfy its regulatory obligations. This program involves an assessment of the ratio of a licensee’s deemed assets to deemed liabilities. If a licensee’s deemed liabilities exceed its deemed assets, a security deposit is generally required. Changes to the required ratio of the Corporation’s deemed assets to deemed liabilities or other changes to the requirements of the AB LMR Program may result in the requirement for security to be posted in the future and may result in significant increases to the Corporation’s compliance obligations. In addition, the AB LMR Program may prevent or interfere with the Corporation’s ability to acquire or dispose of assets as both the vendor and the purchaser of oil and natural gas assets must be in compliance with the AB LMR Program (both before and after the transfer of the assets) for the applicable regulatory agency to allow for the transfer of such assets.

The impact and consequences of the Supreme Court of Canada’s decision in the Redwater case on the AER’s rules and policies, lending practices in the crude oil and natural gas sector and on the nature and determination of secured lenders to take enforcement proceedings will no doubt evolve as the consequences of the decision are evaluated and considered by regulators, lenders and receivers/trustees.

#### ***Royalty Regimes***

There can be no assurance that the Government of Alberta will not adopt a new royalty regime or modify the existing royalty regime, which may have an impact on the economics of the Corporation’s projects. An increase in royalties



would reduce the Corporation's earnings and could make future capital investments, or the Corporation's operations, less economic or uneconomic. On January 29, 2016, the Government of Alberta adopted a new royalty regime which took effect on January 1, 2017.

#### ***Disposal of Fluids Used in Operations***

The safe disposal of the hydraulic fracturing fluids (including the additives) and water recovered from oil and natural gas wells is subject to ongoing regulatory review by the federal and provincial governments, including its effect on fresh water supplies and the ability of such water to be recycled, amongst other things. While it is difficult to predict the impact of any regulations that may be enacted in response to such review, the implementation of stricter regulations may increase the Corporation's costs of compliance which may impact the economics of certain projects and, in turn, impact activity levels and new capital spending on the Corporation's oil and natural gas properties.

#### **Other Risks**

##### ***Market Prices of the Corporation's Securities***

The market price of the Corporation's securities may be volatile, which may affect the ability of holders to sell such securities at an advantageous price. The trading price of securities of oil and natural gas issuers is subject to substantial volatility often based on factors related and unrelated to the financial performance or prospects of the issuers involved. Factors unrelated to the Corporation's performance could include macroeconomic developments nationally, within North America or globally, domestic and global commodity prices or current perceptions of the oil and natural gas market. In recent years, the volatility of commodities has increased due to, in part, the implementation of computerized trading and the decrease of discretionary commodity trading. In addition, in certain jurisdictions, institutions, including government-sponsored entities, have determined to decrease their ownership in oil and natural gas entities which may impact the liquidity of certain securities and may put downward pressure on the trading price of those securities. Similarly, the market prices of the Corporation's securities could be subject to significant fluctuations in response to variations in the Corporation's operating results, financial condition, liquidity and other internal factors. In addition, market price fluctuations in the Corporation's securities may also be due to the Corporation's results failing to meet the expectations of securities analysts or investors in any quarter, downward revision in securities analysts' estimates and material public announcements by the Corporation, along with a variety of additional factors, including, without limitation, those set forth under "*Advisories – Forward-Looking Statements*". Accordingly, the prices at which the Corporation's securities will trade cannot be accurately predicted.

##### ***Reliance on Key Personnel***

The Corporation's success depends, in large measure, on certain key personnel. The loss of the services of such key personnel could have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects. The Corporation does not have any key personnel insurance in effect. The contributions of the existing management team to the immediate and near-term operations of the Corporation are likely to be of central importance. In addition, the competition for qualified personnel in the oil and natural gas industry is intense and there can be no assurance that the Corporation will be able to continue to attract and retain all of the personnel necessary for the development and operation of its business. Investors must rely upon the ability, expertise, judgment, discretion, integrity and good faith of the Corporation's management.

##### ***Skilled Workforce***

An inability to recruit and retain a skilled workforce may negatively impact the Corporation. The operations and management of the Corporation require the recruitment and retention of a skilled workforce, including engineers, technical personnel and other professionals. The loss of key members of such workforce, or a substantial portion of the workforce as a whole, could result in the failure to implement the Corporation's business plans. The Corporation competes with other companies in the oil and natural gas industry as well as other industries for this skilled workforce. A decline in market conditions has led to increasing numbers of skilled personnel to seek employment in other industries. In addition, certain of the Corporation's current employees are senior and have significant institutional knowledge that must be transferred to other employees prior to their departure from the workforce. If the Corporation is unable to retain current employees, successfully complete effective knowledge transfers and/or

recruit new employees with comparable knowledge and experience, the Corporation could be negatively impacted. In addition, the Corporation could experience increased costs to retain and recruit these professionals.

### ***Public Opinion and Reputational Risk***

The Corporation's business, financial condition, operations or prospects may be negatively impacted as a result of any negative public opinion towards the Corporation or as a result of any negative sentiment towards, or in respect of, the Corporation's reputation with stakeholders, special interest groups, political leadership, the media or other entities. Public opinion may be influenced by certain media and special interest groups' negative portrayal of the industry in which the Corporation operates, as well as their opposition to certain oil and natural gas projects. Potential impacts of negative public opinion or reputational issues may include delays or interruptions in operations, legal or regulatory actions or challenges, blockades, increased regulatory oversight, reduced support for, delays in, challenges to, or the revocation of regulatory approvals, permits and/or licences and increased costs and/or cost overruns.

Any environmental damage, loss of life, injury or damage to property caused by the Corporation's operations could damage its reputation. Negative sentiment towards the Corporation could result in a lack of willingness of municipal authorities to grant the necessary licenses or permits for the Corporation to operate its business. In addition, negative sentiment towards the Corporation could result in the residents of the areas where the Corporation is doing business opposing further operations in the area by the Corporation. If the Corporation develops a reputation of having an unsafe work site, this may impact its ability to attract and retain the necessary skilled employees and consultants to operate its business. Further, the Corporation's reputation could be affected by actions and activities of other corporations operating in the oil and natural gas industry, particularly other producers, over which the Corporation has no control. Further, opposition from special interest groups opposed to oil and natural gas development and the possibility of climate related litigation against governments and fossil fuel companies may impact the Corporation's reputation. See *"Risk Factors and Risk Management – Regulatory, Political and Environmental Risks – Climate Change"*.

Reputational risk cannot be managed in isolation from other forms of risk. Credit, market, operational, insurance, regulatory and legal risks, among others, must all be managed effectively to safeguard the Corporation's reputation. Damage to the Corporation's reputation could result in negative investor sentiment towards the Corporation, which may result in limiting the Corporation's access to capital, increasing the cost of capital and decreasing the price and liquidity of the Corporation's securities.

### ***Changing Investor Sentiment***

A number of factors, including the concerns of the effects of the use of fossil fuels on climate change, concerns of the impact of oil and natural gas operations on the environment, concerns of environmental damage relating to spills of petroleum products during transportation and concerns of indigenous rights, have affected certain investors' sentiments towards investing in the oil and natural gas industry. As a result of these concerns, some institutional, retail and public investors have announced that they no longer are willing to fund or invest in oil and natural gas properties or companies or are reducing the amount thereof over time. In addition, certain institutional investors are requesting that issuers develop and implement more robust social, environmental and governance policies and practices. Developing and implementing such policies and practices can involve significant costs and require a significant time commitment from the Corporation's Board, management and employees. Failing to implement the policies and practices as requested by institutional investors may result in such investors reducing their investment in the Corporation or not investing in the Corporation at all. Any reduction in the investor base interested or willing to invest in the oil and natural gas industry and more specifically, in the Corporation, may result in limiting Birchcliff's access to capital, increasing the cost of capital and decreasing the price and liquidity of the Corporation's securities, even if the Corporation's operating results, underlying asset value or prospects have not changed. Additionally, these factors, as well as other related factors, may cause a decrease in the value of the Corporation's assets which may result in an impairment charge.

### ***Non-Governmental Organizations and Eco-Terrorism Risks***

The crude oil and natural gas industry may, at times, be subject to public opposition. Such public opposition could expose the Corporation to the risk of higher costs, delays or even project cancellations due to increased pressure on

governments and regulators by special interest groups including Aboriginal groups, landowners, environmental interest groups (including those opposed to oil and gas production operations) and other non-governmental organizations. Potential impacts of such pressure and opposition include blockades, legal or regulatory actions or challenges, increased regulatory oversight, reduced support of the federal, provincial or municipal governments, and delays in, challenges to, or the revocation of regulatory approvals, permits and/or licences. There is no guarantee that the Corporation will be able to satisfy the concerns of the special interest groups and non-governmental organizations and attempting to address such concerns may require significant and unanticipated capital and operating expenditures which may negatively impact the Corporation's business, financial condition, results of operations and prospects.

In addition, the Corporation's oil and natural gas properties, wells and facilities or the third-party facilities and pipelines utilized by the Corporation could be the subject of a terrorist attack. If any of such properties, wells or facilities are the subject of terrorist attack, it may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects.

### ***Management of Growth and Integration***

The Corporation may be subject to both integration and growth-related risks, including capacity constraints and pressure on its internal systems and controls. The ability of the Corporation to effectively manage growth and the integration of additional assets will require it to continue to implement and improve its operational and financial systems and to expand, train and manage its employee base. The inability of the Corporation to effectively deal with this integration and growth could have a material adverse impact on its business, financial condition, results of operations and prospects.

### ***Risks Associated with Acquisitions and Dispositions***

The Corporation considers acquisitions and dispositions of assets in the ordinary course of business. Typically, once an acquisition opportunity is identified, a review of available information relating to the assets is conducted. There is a risk that even a detailed review of records and assets may not necessarily reveal every existing or potential problem, nor will it permit the Corporation to become sufficiently familiar with the assets to fully assess their deficiencies and potential. There is no guarantee that defects in the chain of title will not arise to defeat the Corporation's title to certain assets or that environmental defects, liabilities or deficiencies do not exist or are greater than anticipated. Inspections may not always be performed on every well, and environmental problems, such as ground water contamination, are not necessarily observable even when an inspection is undertaken. Even when problems are identified, the Corporation may assume certain environmental and other risk liabilities in connection with acquired assets.

In addition, acquisitions of oil and natural gas properties or companies are based in large part on engineering, environmental and economic assessments. These assessments include a series of assumptions regarding such factors as recoverability and marketability of oil and natural gas, environmental restrictions and prohibitions regarding releases and emissions of various substances, future prices of oil and natural gas, future operating costs, future capital expenditures and royalties and other government levies which will be imposed over the producing life of the reserves. Many of these factors are subject to change and are beyond the control of the Corporation. All such assessments involve a measure of geologic, engineering, environmental and regulatory uncertainty that could result in lower production and reserves or higher operating or capital expenditures than anticipated.

Achieving the benefits of acquisitions depends on successfully consolidating functions and integrating operations and procedures in a timely and efficient manner and the Corporation's ability to realize the anticipated growth opportunities and synergies from combining the acquired businesses and operations with those of the Corporation. The integration of acquired businesses and assets may require substantial management effort, time and resources, diverting management's focus away from other strategic opportunities and operational matters.

Management continually assesses the value and contribution of the various assets within its portfolio. In this regard, certain assets may be periodically disposed of so the Corporation can focus its efforts and resources more efficiently. Depending on the state of the market for such assets, there is a risk that certain assets of the Corporation could realize less on disposition than what the market may expect for such disposition or realize less than their carrying value on the Corporation's financial statements.

### ***Information Technology Systems and Cyber-Security***

The Corporation has become increasingly dependent upon the availability, capacity, reliability and security of its information technology infrastructure and its ability to expand and continually update this infrastructure to conduct daily operations. The Corporation depends on various information technology systems to estimate reserves, process and record financial data, manage its financial resources and land base, analyze seismic information, administer its contracts with its operators and lessees and communicate with employees and third-party partners.

In the event the Corporation is unable to regularly deploy software and hardware, effectively upgrade systems and network infrastructure and take other steps to maintain or improve the efficiency and efficacy of its information technology systems, the operation of such systems could be interrupted or result in the loss, corruption or release of data. Further, the Corporation is subject to a variety of information technology and system risks as a part of its normal course operations, including potential breakdown, invasion, virus, cyber-attack, cyber-fraud, security breach, and destruction or interruption of the Corporation's information technology systems by third parties or insiders. Unauthorized access to these systems by employees or third parties could lead to corruption or exposure of confidential, fiduciary or proprietary information, interruption to communications or operations or disruption to its business activities or its competitive position. In addition, cyber-phishing attempts, in which a malicious party attempts to obtain sensitive information such as usernames, passwords, and credit card details (and money) by disguising as a trustworthy entity in an electronic communication, have become more widespread and sophisticated in recent years. If the Corporation becomes a victim to a cyber-phishing attack it could result in a loss or theft of the Corporation's financial resources or critical data and information or could result in a loss of control of the Corporation's technological infrastructure or financial resources. The Corporation's employees are often the targets of such cyber-phishing attacks, as they are and will continue to be targeted by parties using fraudulent "spoof" emails to misappropriate information or to introduce viruses or other malware through "trojan horse" programs to the Corporation's computers. These emails appear to be legitimate emails, but direct recipients to fake websites operated by the sender of the email or request recipients to send a password or other confidential information through email or to download malware.

In addition to the oversight provided by the Corporation's Information Technology Committee, there is further reporting on the Corporation's information technology and cyber-security risks to the Board. Further, the Corporation maintains policies and procedures that address and implement employee protocols with respect to electronic communications and electronic devices and the Corporation periodically conducts cyber-security risk assessments. The Corporation also employs encryption protection for some of its confidential information. Despite the Corporation's efforts to mitigate such phishing attacks through education and training, phishing activities remain a serious problem that may damage its information technology infrastructure. The Corporation applies technical and process controls in line with industry-accepted standards to protect its information assets and systems, including a written incident response plan for responding to a cyber-security incident. However, these controls may not adequately prevent cyber-security breaches. Disruption of critical information technology services, or breaches of information security, could have a negative effect on the Corporation's performance and earnings, as well as on its reputation, and any damages sustained may not be adequately covered by the Corporation's current insurance coverage, or at all. The significance of any such event is difficult to quantify, but may in certain circumstances be material and could have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects.

To date, the Corporation has not been subject to a cyber-security attack or other breach that has had a material impact on its business or operations or resulted in material losses to the Corporation; however, there is no assurance that the measures the Corporation takes to protect its business systems and operational control systems will be effective in protecting against a breach in the future and that the Corporation will not incur such losses in the future.

### ***Insurance***

Although the Corporation maintains insurance in accordance with industry standards to address certain risks, such insurance has limitations on liability and may not be sufficient to cover the full extent of liabilities. In addition, certain risks are not, in all circumstances, insurable or, in certain circumstances, the Corporation may elect not to obtain insurance to deal with specific risks due to the high premiums associated with such insurance or other reasons. The payment of any uninsured liabilities would reduce the funds available to the Corporation. The occurrence of a

significant event that the Corporation is not fully insured against, or the insolvency of the insurer of such event, could have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects.

### ***Litigation***

In the normal course of the Corporation's operations, it may become involved in, be named as a party to or be the subject of, various legal proceedings, including regulatory proceedings, tax proceedings and legal actions. Such proceedings may develop in relation to personal injury (including claims resulting from exposure to hazardous substances), property damage, property taxes, land and access rights, royalty rights, the environment (including claims relating to contamination) and lease and contractual disputes. The outcome of outstanding, pending or future proceedings cannot be predicted with certainty and may be determined adversely to the Corporation and, as a result, could have a material adverse effect on the Corporation's assets, liabilities, business, financial condition and results of operations. Even if the Corporation prevails in any such legal proceedings, the proceedings could be costly and time-consuming and may divert the attention of management and key personnel from the Corporation's business operations, which may adversely affect the Corporation.

Due to the rapid development of oil and natural gas technology, the Corporation may become involved in, be named as a party to or be the subject of, various legal proceedings in which it is alleged that the Corporation has infringed the intellectual property rights of others or conversely, the Corporation may commence lawsuits against others who the Corporation believes are infringing upon its intellectual property rights. The Corporation's involvement in intellectual property litigation could result in significant expense, adversely affecting the development of its assets or intellectual property or diverting the efforts of its technical and management personnel, whether or not such litigation is resolved in the Corporation's favour. In the event of an adverse outcome as a defendant in any such litigation, the Corporation may, among other things, be required to: (i) pay substantial damages; (ii) cease the use of infringing intellectual property; (iii) expend significant resources to develop or acquire non-infringing intellectual property; (iv) discontinue processes incorporating infringing technology; or (v) obtain licences to the infringing intellectual property. However, the Corporation may not be successful in such development or acquisition or such licences may not be available on reasonable terms. Any such development, acquisition or licence could require the expenditure of substantial time and other resources and could have a material adverse effect on the Corporation's business and financial results.

### ***Aboriginal Claims***

Aboriginal peoples have claimed aboriginal title and rights in portions of Western Canada. The Corporation is not aware that any claims have been made in respect of its properties or assets; however, the legal basis of an aboriginal land claim and aboriginal rights is a matter of considerable legal complexity and the impact of the assertion of such a claim, or the possible effect of a settlement of such claim, upon the Corporation cannot be predicted with any degree of certainty at this time. In addition, no assurance can be given that any recognition of aboriginal rights or claims whether by way of a negotiated settlement or by judicial pronouncement (or through the grant of an injunction prohibiting exploration or development activities pending resolution of any such claim) would not delay or even prevent the Corporation's exploration and development activities. If a claim arose and was successful, such claim may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects. In addition, the process of addressing such claims, regardless of the outcome, is expensive and time consuming and could result in delays which could have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects.

### ***Internal Controls***

Effective internal controls are necessary for the Corporation to provide reliable financial reports and to help prevent fraud. Although the Corporation undertakes a number of procedures in order to help ensure the reliability of its financial reports, including those imposed on it under Canadian securities laws, the Corporation cannot be certain that such measures will ensure that the Corporation will maintain adequate control over financial processes and reporting. Failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm the Corporation's results of operations or cause it to fail to meet its reporting obligations. If the Corporation or its independent auditors discover a material weakness, the disclosure of that fact,

even if quickly remedied, could reduce the market's confidence in the Corporation's financial statements and harm the trading prices of the Corporation's securities.

#### ***Title to Assets***

The Corporation's actual title to and interest in its properties, and its right to produce and sell the oil and natural gas therefrom, may vary from the Corporation's records. In addition, there may be valid legal challenges or legislative changes that affect the Corporation's title to and right to produce from its oil and natural gas properties, which could impair the Corporation's activities on them and result in a reduction of the revenue received by the Corporation.

If a defect exists in the chain of title or in the Corporation's right to produce, or a legal challenge or legislative change arises, it is possible that the Corporation may lose all or a portion of the properties to which the title defect relates and/or its right to produce from such properties. This may have a material adverse effect on the Corporation's business, financial condition, results of operations and prospects.

#### ***Breaches of Confidentiality***

While discussing potential business relationships or other transactions with third parties, the Corporation may disclose confidential information relating to the business, operations or affairs of the Corporation. Although confidentiality agreements are generally signed by third parties prior to the disclosure of any confidential information, a breach could put the Corporation at competitive risk and may cause significant damage to its business. The harm to the Corporation's business from a breach of confidentiality cannot presently be quantified, but may be material and may not be compensable in damages. There is no assurance that, in the event of a breach of confidentiality, the Corporation will be able to obtain equitable remedies, such as injunctive relief, from a court of competent jurisdiction in a timely manner, if at all, in order to prevent or mitigate any damage to its business that such a breach of confidentiality may cause.

#### ***Income Taxes***

The Corporation files all required income tax returns and believes that it is in full compliance with the provisions of the *Income Tax Act* (Canada) and all other applicable provincial tax legislation. However, such returns are subject to reassessment by the applicable taxation authority. In the event of a successful reassessment of the Corporation, such reassessment may have an impact on current and future taxes payable.

Income tax laws relating to the oil and natural gas industry, such as the treatment of resource taxation or dividends, may in the future be changed or interpreted in a manner that adversely affects the Corporation. Furthermore, tax authorities having jurisdiction over the Corporation may disagree with how the Corporation calculates its income for tax purposes or could change administrative practices to the Corporation's detriment.

#### ***Negative Impact of Additional Sales or Issuances of Securities***

The Corporation may issue an unlimited number of Common Shares without any vote or action by the shareholders, subject to the rules of any stock exchange on which the Corporation's securities may be listed. The Corporation may make future acquisitions or enter into financings or other transactions involving the issuance of securities of the Corporation which may be dilutive. If the Corporation issues additional securities, the percentage ownership of existing shareholders will be reduced and diluted and the price of the Corporation's securities could decrease.

#### ***Additional Taxation Applicable to Non-Residents***

Tax legislation in Canada may impose withholding or other taxes on the cash dividends, stock dividends or other property transferred by the Corporation to non-resident shareholders. These taxes may be reduced pursuant to tax treaties between Canada and the non-resident shareholder's jurisdiction of residence. Evidence of eligibility for a reduced withholding rate must be filed by the non-resident shareholder in prescribed form with their broker (or in the case of registered shareholders, with the transfer agent). In addition, the country in which the non-resident shareholder is resident may impose additional taxes on such dividends. Any of these taxes may change from time to time.

***Foreign Exchange Risk for Non-Resident Shareholders***

The Corporation's cash dividends are declared in Canadian dollars and may be converted in certain instances to foreign denominated currencies at the spot exchange rate at the time of payment. As a consequence, non-resident shareholders and shareholders who calculate their return in currencies other than the Canadian dollar are subject to foreign exchange risk. To the extent that the Canadian dollar strengthens with respect to their currency, the amount of any dividend will be reduced when converted to their home currency.

***Conflicts of Interest***

Certain directors or officers of the Corporation may also be directors or officers of other oil and natural gas companies and as such may, in certain circumstances, have a conflict of interest. Conflicts of interest, if any, will be subject to and governed by procedures prescribed by the ABCA which require a director or officer of a Corporation who is a party to, or is a director or an officer of, or has a material interest in any person who is a party to, a material contract or proposed material contract with the Corporation to disclose his or her interest and, in the case of directors, to refrain from voting on any matter in respect of such contract unless otherwise permitted under the ABCA.

***Forward-Looking Information May Prove Inaccurate***

Shareholders and prospective investors are cautioned not to place undue reliance on the Corporation's forward-looking statements. By their nature, forward-looking statements involve numerous assumptions and known and unknown risks and uncertainties, of both a general and specific nature, that could cause actual results to differ materially from those suggested by the forward-looking statements or contribute to the possibility that predictions, forecasts or projections will prove to be materially inaccurate. Additional information on the risks, assumptions and uncertainties relating to forward-looking statements is found under the heading "*Advisories – Forward-Looking Statements*".



## ABBREVIATIONS

AECO	benchmark price for natural gas determined at the AECO 'C' hub in southeast Alberta
bbl	barrel
bbls	barrels
bbls/d	barrels per day
boe	barrel of oil equivalent
boe/d	barrel of oil equivalent per day
F&D	finding and development
G&A	general and administrative
GAAP	generally accepted accounting principles for Canadian public companies which are currently IFRS
GHG	greenhouse gas
GJ	gigajoule
GJ/d	gigajoules per day
HH	Henry Hub
IFRS	International Financial Reporting Standards as issued by the International Accounting Standards Board
LNG	liquefied natural gas
m <sup>3</sup>	cubic metres
Mboe	thousand barrels of oil equivalent
Mcf	thousand cubic feet
Mcf/d	thousand cubic feet per day
Mcfe	thousand cubic feet of gas equivalent
MJ	megajoule
MM\$	millions of dollars
MMBtu	million British thermal units
MMBtu/d	million British thermal units per day
MMcf	million cubic feet
MMcf/d	million cubic feet per day
MSW	price for mixed sweet crude oil at Edmonton, Alberta
NGLs	natural gas liquids
NGTL	NOVA Gas Transmission Ltd.
NYMEX	New York Mercantile Exchange
P&NG	petroleum and natural gas
TCPL	TransCanada PipeLines Limited
WTI	West Texas Intermediate, the reference price paid in U.S. dollars at Cushing, Oklahoma, for crude oil of standard grade
000s	thousands
\$000s	thousands of dollars

## NON-GAAP MEASURES

This MD&A uses “adjusted funds flow”, “adjusted funds flow per common share”, “free funds flow”, “operating netback”, “total cash costs”, “adjusted working capital deficit” and “total debt”. These measures do not have standardized meanings prescribed by GAAP and therefore may not be comparable to similar measures presented by other companies where similar terminology is used. Management believes that these non-GAAP measures assist management and investors in assessing Birchcliff’s profitability, efficiency, liquidity and overall performance. Each of these measures is discussed in further detail below.

“Adjusted funds flow” denotes cash flow from operating activities before the effects of decommissioning expenditures and changes in non-cash working capital and “adjusted funds flow per common share” denotes adjusted funds flow divided by the basic or diluted weighted average number of common shares outstanding for the period. Birchcliff eliminates changes in non-cash working capital and settlements of decommissioning expenditures from cash flow from operating activities as the amounts can be discretionary and may vary from period-to-period depending on its capital programs and the maturity of its operating areas. The settlement of decommissioning expenditures are managed with Birchcliff’s capital budgeting process which considers available adjusted funds flow. Management believes that adjusted funds flow and adjusted funds flow per common share assist management and investors in assessing Birchcliff’s profitability, as well as its ability to generate the cash necessary to fund future growth through capital investments, decommission its assets, pay dividends and repay debt. Investors are cautioned that adjusted funds flow should not be construed as an alternative to or more meaningful than cash flow from operating activities or net income or loss as determined in accordance with GAAP as an indicator of Birchcliff’s performance. Birchcliff previously referred to adjusted funds flow as “funds flow from operations”.

The following table provides a reconciliation of cash flow from operating activities, as determined in accordance with GAAP, to adjusted funds flow for the Reporting Periods and Comparable Prior Periods:

(\$000s)	Three months ended December 31,		Twelve months ended December 31,	
	2018	2017	2018	2017
Cash flow from operating activities	92,200	88,995	324,434	287,660
Adjustments:				
Change in non-cash working capital	(10,838)	7,920	(12,591)	29,226
Funds flow	81,362	96,915	311,843	316,886
Adjustments:				
Decommissioning expenditures	155	93	1,079	794
<b>Adjusted funds flow</b>	<b>81,517</b>	<b>97,008</b>	<b>312,922</b>	<b>317,680</b>

“Free funds flow” denotes adjusted funds flow less F&D capital expenditures. Management believes that free funds flow assists management and investors in assessing Birchcliff’s ability to generate the cash necessary to repay debt, pay dividends, fund a portion of its future growth investments and/or fund share buybacks.

“Operating netback” denotes petroleum and natural gas revenue less royalties, less operating expense and less transportation and other expense. All netbacks are calculated on a per unit basis, unless otherwise indicated. Management believes that operating netback assists management and investors in assessing Birchcliff’s profitability and its operating results on a per unit basis to better analyze its performance against prior periods on a comparable basis. The following table provides a breakdown of Birchcliff’s operating netback for the Reporting Periods and Comparable Prior Periods:

	Three months ended December 31,				Twelve months ended December 31,			
	2018		2017		2018		2017	
	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)	(\$000s)	(\$/boe)
Petroleum and natural gas revenue	154,720	22.01	166,149	22.55	621,421	22.08	556,942	22.45
Royalty expense	(6,763)	(0.96)	(9,271)	(1.26)	(38,306)	(1.36)	(28,727)	(1.16)
Operating expense	(24,677)	(3.51)	(28,460)	(3.86)	(99,104)	(3.52)	(110,486)	(4.45)
Transportation and other expense	(28,567)	(4.07)	(25,883)	(3.52)	(103,547)	(3.68)	(71,224)	(2.87)
<b>Operating netback<sup>(1)</sup></b>	<b>94,713</b>	<b>13.47</b>	<b>102,535</b>	<b>13.91</b>	<b>380,464</b>	<b>13.52</b>	<b>346,505</b>	<b>13.97</b>

(1) All per boe amounts are calculated by dividing each aggregate financial amount by the production (boe) in the respective period.

“Total cash costs” are comprised of royalty, operating, transportation and other, general and administrative and interest expenses. Total cash costs are calculated on a per unit basis. Management believes that total cash costs assists management and investors in assessing Birchcliff’s efficiency and overall cash cost structure.

“Adjusted working capital deficit” is calculated as current assets minus current liabilities excluding the effects of any financial instruments. Management believes that adjusted working capital deficit assists management and investors in assessing Birchcliff’s liquidity. The following table reconciles working capital deficit (current assets minus current liabilities), as determined in accordance with GAAP, to adjusted working capital deficit:

As at, (\$000s)	December 31, 2018	December 31, 2017
Working capital deficit (surplus)	(15,611)	15,113
Financial instrument – asset	36,798	-
Financial instrument – liability	-	(4,046)
<b>Adjusted working capital deficit</b>	<b>21,187</b>	<b>11,067</b>

“Total debt” is calculated as the revolving term credit facilities plus adjusted working capital deficit. Management believes that total debt assists management and investors in assessing Birchcliff’s liquidity. The following table provides a reconciliation of the revolving term credit facilities, as determined in accordance with GAAP, to total debt:

As at, (\$000s)	December 31, 2018	December 31, 2017
Revolving term credit facilities	605,267	587,126
Adjusted working capital deficit	21,187	11,067
<b>Total debt</b>	<b>626,454</b>	<b>598,193</b>

## ADVISORIES

### Boe and Mcfe Conversions

Boe amounts have been calculated by using the conversion ratio of 6 Mcf of natural gas to 1 bbl of oil and Mcfe amounts have been calculated by using the conversion ratio of 1 bbl of oil to 6 Mcf of natural gas. Boe and Mcfe amounts may be misleading, particularly if used in isolation. A boe conversion ratio of 6 Mcf: 1 bbl and an Mcfe conversion ratio of 1 bbl: 6 Mcf is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. Given that the value ratio based on the current price of crude oil as compared to natural gas is significantly different from the energy equivalency of 6:1, utilizing a conversion on a 6:1 basis may be misleading as an indication of value.

### MMBtu Pricing Conversions

\$1.00 per MMBtu equals \$1.00 per Mcf based on a standard heat value Mcf.

### Oil and Gas Metrics

This MD&A contains metrics commonly used in the oil and natural gas industry, including operating netback. These oil and gas metrics do not have any standardized meanings or standard methods of calculation and therefore may not be comparable to similar measures presented by other companies where similar terminology is used. As such, they should not be used to make comparisons. Management uses these oil and gas metrics for its own performance measurements and to provide shareholders with measures to compare Birchcliff’s performance over time; however, such measures are not reliable indicators of Birchcliff’s future performance, which performance may not compare to Birchcliff’s performance in previous periods, and therefore should not be unduly relied upon. For further information regarding netbacks, see “Non-GAAP Measures”.

### Capital Expenditures

Unless otherwise stated, any references in this MD&A to: (i) “F&D capital” denotes capital for land, seismic, workovers, drilling and completions and well equipment and facilities; and (ii) “total capital expenditures” denotes F&D capital plus acquisitions, less any dispositions, plus administrative assets. Birchcliff previously referred to total capital expenditures as “net capital expenditures” or “capital expenditures, net”.

### Reserves

Birchcliff retained two independent qualified reserves evaluators, Deloitte LLP and McDaniel & Associates Consultants Ltd., to evaluate and prepare reports on 100% of Birchcliff’s light crude oil and medium crude oil (combined), conventional natural gas, shale gas and NGLs reserves effective December 31, 2018. Such evaluations were prepared in accordance with the standards contained in the COGE Handbook and NI 51-101. Further information regarding the Corporation’s reserves can be found in the Corporation’s Annual Information Form for the financial year ended December 31, 2018.

Certain terms used herein are defined in NI 51-101 or the COGE Handbook and, unless the context otherwise requires, shall have the same meanings in this MD&A as in NI 51-101 or the COGE Handbook, as the case may be.

### Forward-Looking Statements

Certain statements contained in this MD&A constitute forward-looking statements within the meaning of applicable Canadian securities laws. The forward-looking statements contained in this MD&A relate to future events or Birchcliff’s future plans, operations or performance and are based on Birchcliff’s current expectations, estimates,

projections, beliefs and assumptions. Such forward-looking statements have been made by Birchcliff in light of the information available to it at the time the statements were made and reflect its experience and perception of historical trends. All statements and information other than historical fact may be forward-looking statements. Such forward-looking statements are often, but not always, identified by the use of words such as “seek”, “plan”, “expect”, “project”, “intend”, “believe”, “anticipate”, “estimate”, “forecast”, “potential”, “proposed”, “predict”, “budget”, “continue”, “targeting”, “may”, “will”, “could”, “might”, “should” and other similar words and expressions.

By their nature, forward-looking 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 statements. Accordingly, readers are cautioned not to place undue reliance on such forward-looking statements. Although Birchcliff believes that the expectations reflected in the forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct and Birchcliff makes no representation that actual results achieved will be the same in whole or in part as those set out in the forward-looking statements.

In particular, this MD&A contains forward-looking statements relating to the following: Birchcliff’s plans and other aspects of its anticipated future financial performance, operations, focus, objectives, strategies, opportunities, priorities and goals; the information set forth under the heading “2019 Outlook” as it relates to Birchcliff’s 2019 guidance (including: Birchcliff’s estimates of annual average production, commodity mix, average expenses, adjusted and free funds flow, capital expenditures and natural gas market exposure in 2019; Birchcliff’s expectation that during 2019 65% of its natural gas production will be sold at prices that are not based on AECO; Birchcliff’s expectation that 87% of its total revenue in 2019 is expected to be based on non-AECO benchmark prices; Birchcliff’s expectation that it will be well positioned to generate significant free funds flow in 2019; that any free funds flow will be allocated based on what Birchcliff believes will provide the most value to its shareholders, with alternatives that may include debt reduction, production growth and purchasing common shares under its normal course issuer bid; that any free funds flow will also be allocated by Birchcliff to pay dividends and to pay for the Acquisition; and Birchcliff’s expectation that its natural gas market diversification and financial risk management contracts will help to further strengthen its statements of financial position and protect its cash flow and project economics); Birchcliff’s guidance regarding its 2019 Capital Program and its proposed exploration and development activities and the timing thereof (including: that the program targets an annual average production rate of 76,000 to 78,000 boe/d which is expected to generate approximately \$330 million of adjusted funds flow; that total F&D capital expenditures are estimated to be \$204 million, which are significantly less than Birchcliff’s estimated 2019 adjusted funds flow; the number and types of wells to be drilled, completed and brought on production and the timing thereof; estimates of capital expenditures and capital allocation; the focus of, the objectives of and the anticipated results from the program; that Birchcliff has the ability to expand its drilling program and increase its natural gas production given the available capacity at the Pouce Coupe Gas Plant; the financial and operational flexibility of the 2019 Capital Program and that Birchcliff has the ability to expand its drilling program should commodity prices and/or economic conditions improve during 2019); Birchcliff’s marketing and transportation arrangements (including that an additional tranche of service will become available later in 2019 and the aggregate level of firm service on the Canadian Mainline that will become available on November 1, 2019); Birchcliff’s market diversification and hedging activities, risk management strategy and use of risk management techniques (including statements that Birchcliff maintains an ongoing commodity price risk management program; and that Birchcliff’s current strategy is to hedge up to 50% of its estimated forecast annual average production using a combination of financial derivatives and physical sales contracts); the Corporation’s estimated income tax pools and management’s expectation that future taxable income will be available to utilize the accumulated tax pools; the Corporation’s liquidity (including: the Corporation’s financial flexibility; the sources of funding for the Corporation’s activities and capital requirements; that the Corporation generally relies on its adjusted funds flow and available credit under its existing credit facilities to fund its capital requirements; statements that the Corporation may from time to time seek additional capital in the form of debt and/or equity or dispose of non-core properties to fund its ongoing capital expenditure programs and protect its statements of financial position; management’s belief that its adjusted funds flow will be sufficient to fund the 2019 Capital Program; statements that Birchcliff may adjust its ongoing capital program, draw down on its Credit Facilities, seek additional equity financing and/or consider the potential sale of additional non-core assets to fund planned growth should commodity prices deteriorate materially; and the Corporation’s expectation that counterparties will be able to meet their financial obligations); statements that management of debt levels continues

to be a priority for Birchcliff; estimates of Birchcliff's material contractual obligations and commitments and decommissioning obligations; statements relating to the Corporation's normal course issuer bid (including potential purchases under the bid and the cancellation of common shares under the bid); and statements regarding future accounting pronouncements (including the timing for adoption by the Corporation and the impact on the Corporation's financial statements). Statements relating to reserves are forward-looking as they involve the implied assessment, based on certain estimates and assumptions, that the reserves exist in the quantities predicted or estimated and that the reserves can be profitably produced in the future.

With respect to the forward-looking statements contained in this MD&A, assumptions have been made regarding, among other things: prevailing and future commodity prices and differentials, currency exchange rates, interest rates, inflation rates, royalty rates and tax rates; the state of the economy, financial markets and the exploration, development and production business; the political environment in which Birchcliff operates; the regulatory framework regarding royalties, taxes and environmental laws; the Corporation's ability to comply with existing and future environmental, climate change and other laws; future cash flow, debt and dividend levels; future operating, transportation, marketing, G&A and other expenses; Birchcliff's ability to access capital and obtain financing on acceptable terms; the timing and amount of capital expenditures and the sources of funding for capital expenditures and other activities; the sufficiency of budgeted capital expenditures to carry out planned operations; the successful and timely implementation of capital projects; results of future operations; Birchcliff's ability to continue to develop its assets and obtain the anticipated benefits therefrom; the performance of existing and future wells, well production rates and well decline rates; success rates for future drilling; reserves and resource volumes and Birchcliff's ability to replace and expand reserves through acquisition, development or exploration; the impact of competition on Birchcliff; the availability of, demand for and cost of labour, services and materials; the ability to obtain any necessary regulatory or other approvals in a timely manner; the satisfaction by third parties of their obligations to Birchcliff; the ability of Birchcliff to secure adequate processing and transportation for its products; Birchcliff's ability to market oil and gas; the availability of hedges on terms acceptable to Birchcliff; and natural gas market exposure. In addition to the foregoing assumptions, Birchcliff has made the following assumptions with respect to certain forward-looking statements contained in this MD&A:

- Birchcliff's 2019 guidance assumes the following commodity prices during 2019: an average WTI price of US\$56.00/bbl; an average WTI-MSW differential of \$10.00/bbl; an average AECO price of \$1.65/GJ; an average Dawn price of \$3.40/GJ; an average NYMEX HH price of US\$3.00/MMBtu; and an exchange rate (CDN\$ to US\$1) of 1.32.
- With respect to estimates of 2019 capital expenditures, statements that total F&D capital expenditures are expected to be significantly less than adjusted funds flow and Birchcliff's spending plans for 2019, such estimates, statements and plans are based on the following:
  - Estimates of capital expenditures and any allocation thereof assume that the 2019 Capital Program will be carried out as currently contemplated.
  - Statements that Birchcliff's total F&D capital expenditures are expected to be significantly less than adjusted funds flow assume that: the 2019 Capital Program will be carried out as currently contemplated; and the production targets, commodity mix, natural gas market exposure and commodity price assumptions set forth herein are met.
  - Birchcliff makes acquisitions and dispositions in the ordinary course of business. Any acquisitions and dispositions completed could have an impact on Birchcliff's capital expenditures, production, adjusted funds flow, free funds flow, costs and total debt, which impact could be material.
  - The amount and allocation of capital expenditures for exploration and development activities by area and the number and types of wells to be drilled is dependent upon results achieved and is subject to review and modification by management on an ongoing basis throughout the year. Actual spending may vary due to a variety of factors, including commodity prices, economic conditions, results of operations and costs of labour, services and materials. Birchcliff will monitor economic conditions and commodity prices and,

where deemed prudent, will adjust its capital programs to respond to changes in commodity prices and other material changes in the assumptions underlying such programs.

- With respect to Birchcliff's production guidance for 2019, such guidance assumes that: the 2019 Capital Program will be carried out as currently contemplated; no unexpected outages occur in the infrastructure that Birchcliff relies on to produce its wells and that any transportation service curtailments or unplanned outages that occur will be short in duration or otherwise insignificant; the construction of new infrastructure meets timing and operational expectations; existing wells continue to meet production expectations; and future wells scheduled to come on production meet timing, production and capital expenditure expectations. Birchcliff's production guidance may be affected by acquisition and disposition activity and acquisitions and dispositions could occur that may impact expected production.
- With respect to Birchcliff's estimates of adjusted and free funds flow for 2019 and statements that Birchcliff expects to generate significant free funds flow during 2019, such estimates and statements assume that: the 2019 Capital Program will be carried out as currently contemplated and the level of capital spending for 2019 set forth herein will be achieved; and the production targets, commodity mix, natural gas market exposure and commodity price assumptions set forth herein are met. In addition, Birchcliff's estimate of adjusted funds flow takes into account the settlement of financial and commodity risk management contracts outstanding as at March 13, 2019.
- With respect to statements of future wells to be drilled and brought on production, the key assumptions are: the continuing validity of the geological and other technical interpretations performed by Birchcliff's technical staff, which indicate that commercially economic volumes can be recovered from Birchcliff's lands as a result of drilling future wells; and that commodity prices and general economic conditions will warrant proceeding with the drilling of such wells.
- With respect to estimates of reserves, the key assumption is the validity of the data used by Deloitte and McDaniel in their independent reserves evaluations.

Birchcliff's actual results, performance or achievements could differ materially from those anticipated in the forward-looking statements as a result of both known and unknown risks and uncertainties including, but not limited to: general economic, market and business conditions which will, among other things, impact the demand for and market prices of Birchcliff's products and Birchcliff's access to capital; volatility of crude oil and natural gas prices; fluctuations in currency and interest rates; stock market volatility; loss of market demand; an inability to access sufficient capital from internal and external sources; fluctuations in the costs of borrowing; operational risks and liabilities inherent in oil and natural gas operations; the occurrence of unexpected events such as fires, equipment failures and other similar events affecting Birchcliff or other parties whose operations or assets directly or indirectly affect Birchcliff; uncertainty that development activities in connection with its assets will be economical; uncertainties associated with estimating oil and natural gas reserves and resources; the accuracy of oil and natural gas reserves estimates and estimated production levels; geological, technical, drilling, construction and processing problems; uncertainty of geological and technical data; horizontal drilling and completions techniques and the failure of drilling results to meet expectations for reserves or production; uncertainties related to Birchcliff's future potential drilling locations; potential delays or changes in plans with respect to exploration or development projects or capital expenditures, including delays in the completion of gas plants and other facilities; the accuracy of cost estimates and variances in Birchcliff's actual costs and economic returns from those anticipated; incorrect assessments of the value of acquisitions (including the Acquisition) and exploration and development programs; changes in tax laws, Crown royalty rates, environmental laws, carbon tax regimes, incentive programs and other regulations that affect the oil and natural gas industry and other actions by government authorities; an inability of the Corporation to comply with existing and future environmental, climate change and other laws; the cost of compliance with current and future environmental laws; political uncertainty and uncertainty associated with government policy changes; uncertainties and risks associated with pipeline restrictions and outages to third-party infrastructure that could cause disruptions to production; the lack of available pipeline capacity and an inability to secure adequate processing and transportation for Birchcliff's products; the inability to satisfy obligations under Birchcliff's firm marketing and transportation arrangements or other agreements; shortages in equipment and skilled personnel; the absence or loss of key employees; competition for, among other things, capital, acquisitions



of reserves, undeveloped lands, equipment and skilled personnel; management of Birchcliff's growth; environmental risks, claims and liabilities; uncertainties associated with the outcome of litigation or other proceedings involving Birchcliff; unforeseen title defects; uncertainties associated with credit facilities and counterparty credit risk; non-performance or default by counterparties; risks associated with Birchcliff's risk management program and the risk that hedges on terms acceptable to Birchcliff may not be available; risks associated with the declaration and payment of dividends, including the discretion of Birchcliff's board of directors to declare dividends and change the Corporation's dividend policy; the failure to obtain any required approvals in a timely manner or at all; the failure to realize the anticipated benefits of acquisitions (including the Acquisition) and dispositions and the risk of unforeseen difficulties in integrating acquired assets into Birchcliff's operations; negative public perception of the oil and natural gas industry, including transportation, hydraulic fracturing and fossil fuels; the Corporation's reliance on hydraulic fracturing; the availability of insurance and the risk that certain losses may not be insured; and breaches or failure of information systems and security (including risks associated with cyber-attacks).

Readers are cautioned that the foregoing lists of factors are not exhaustive. Additional information on these and other risk factors that could affect results of operations, financial performance or financial results are included in Birchcliff's most recent Annual Information Form and in other reports filed with Canadian securities regulatory authorities.

This MD&A contains information that may constitute future-orientated financial information or financial outlook information (collectively, "FOFI") about Birchcliff's prospective results of operations including, without limitation, adjusted funds flow and free funds flow, all of which is subject to the same assumptions, risk factors, limitations and qualifications as set forth above. Readers are cautioned that the assumptions used in the preparation of such information, although considered reasonable at the time of preparation, may prove to be imprecise or inaccurate and, as such, undue reliance should not be placed on FOFI. Birchcliff's actual results, performance and achievements could differ materially from those expressed in, or implied by, the FOFI. Birchcliff has included the FOFI in order to provide readers with a more complete perspective on Birchcliff's future operations and Birchcliff's current expectations relating to its future performance. Such information may not be appropriate for other purposes and readers are cautioned that any FOFI contained herein should not be used for purposes other than those for which it has been disclosed herein. FOFI contained herein was made as of the date of this MD&A. Unless required by applicable laws, Birchcliff does not undertake any obligation to publicly update or revise any FOFI statements, whether as a result of new information, future events or otherwise.

Management has included the above summary of assumptions and risks related to forward-looking statements provided in this MD&A in order to provide readers with a more complete perspective on Birchcliff's future operations. Readers are cautioned that this information may not be appropriate for other purposes.

The forward-looking statements contained in this MD&A are expressly qualified by the foregoing cautionary statements. The forward-looking statements contained herein are made as of the date of this MD&A. Unless required by applicable laws, Birchcliff does not undertake any obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.