

January 28, 2016 Intraday

## **Birchcliff Energy Ltd. (BIREF) Protection and Growth**

Symbol	BIREF	Ebitda Next Twelve Months ending 12/31/16 (US\$mm)	125	
Rating	Buy	North American Natural Gas/Ebitda (%)	74	
Price (US\$/sh)	3.35	Natural Gas and Oil Production/Ebitda (%)	100	
Pricing Date	1/28/16	Adjusted Reserves/Production NTM	12.6	
Shares (mm)	154	EV/Ebitda	8.4	
Market Capitalization (US\$mm)	520	PV/Ebitda	17.9	
Debt (US\$mm)	530	Undeveloped Reserves (%)	68	
Enterprise Value (EV) (US\$mm)	1,050	Natural Gas and Oil Ebitda (\$/boe)	10.50	
Present Value (PV) (US\$mm)	2,230	Present Value Proven Reserves(\$/boe)	9.90	
Net Present Value (US\$/share)	11	Oil and Gas Ebitda Margin (%)	59	
Debt/Present Value	0.24	Earnings Next Twelve Months (US\$/sh)	-0.03	
McDep Ratio - EV/PV	0.47	Price/Earnings Next Twelve Months	-118	
Dividend Yield (%/year)	0.0	Indicated Annual Dividend (US\$/sh)	0.00	
Note: Estimated cash flow and ea	rnings tied to one	-year futures prices for oil and natural gas.		
Reported results may vary	widely from estin	nates. Estimated present value per share revised only infreque	ently.	
Estimated present value pre	esumes a long-ter	m price for oil of US\$70 a barrel and natural gas, \$4.00 a mil	lion btu.	
For historical analysis of Birchcliff since 2008 see www.mcdep.com/5bir.htm				

#### **Summary and Recommendation**

Like a balanced portfolio, Canadian natural gas producer **Birchcliff Energy** (**BIREF**) appears built for protection when fear mongers sow panic among investors and for growth when economic conditions are more positive. The 2016 Budget released last week aims to preserve current financial strength and future appreciation potential. Our upside is Net Present Value of US\$11 a share. Demonstrating the resilience to price of low cost operations, estimated cash flow margin of 59% for 2016 implies that oil and gas price could drop an unlikely 59% before matching unchanged costs (see table Operating and Financial Estimates on page 2). Only about \$100 million of reinvested 2016 cash flow would be required to keep production flat. Another \$40 million would be spent to position Facilities & Infrastructure for reacceleration of growth in 2017, depending on natural gas price (see table 2016 Capital Program on page 3). Since cash flow would exceed spending there would be no need for further borrowing on a bank credit facility that requires no repayment for three years (see slide Credit Facility on page 3). Looking ahead, we take encouragement from the U.S. Energy Information Administration forecast for natural gas price to recover sharply from a weather induced low similar to the low in 2012 (see chart EIA on page 4). EIA expects slowing supply growth and continuing demand growth enhanced by increased use for fertilizer and chemicals as well as liquefaction for ocean borne export. In that case, Birchcliff would be positioned for a return to rapid growth in 2017 (see slide Production History on page 4).

Kurt H. Wulff, CFA



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				cliff Energy						
Next Twelve Months Operating and Financial Estimates (Canadian Dollars)										
			(Cal	iadian Dona	rs)					Next
										Twelve
	04	Year	Q3	O4E	Year	Q1E	Q2E	O3E	O4E	Months
	12/31/14	2014	9/30/15	12/31/15	2015E	3/31/16	6/30/16	9/30/16	12/31/16	12/31/16
Volume (before royalty)										
Natural Gas (bcf)	17.7	62.0	18.4	19.5	73.6	19.1	19.3	19.5	19.5	77.4
Natural Gas (mmcfd)	193	170	200	212	202	212	212	212	212	212
Days	92	365	92	92	365	90	91	92	92	365
Oil (mmb)	0.52	1.98	0.47	0.47	1.95	0.46	0.47	0.47	0.47	1.88
Oil (mbd)	5.6	5.4	5.1	5.1	5.4	5.1	5.1	5.1	5.1	5.1
Total (mmboe)	3.47	12.3	3.54	3.72	14.2	3.64	3.68	3.72	3.72	14.8
Total (mboed)	37.7	33.7	38.4	40.5	39.0	40.5	40.5	40.5	40.5	40.5
Price										
Henry Hub (US\$/mmbtu)	4.02	4.43	2.76	2.28	2.67	2.22	2.29	2.43	2.58	2.38
Currency (US\$/C\$)	0.88	0.91	0.77	0.72	0.78	0.71	0.71	0.71	0.71	0.71
Henry Hub (C\$/mmbtu)	4.56	4.89	3.59	3.16	3.43	3.11	3.21	3.41	3.62	3.34
Differential (C\$/mmbtu)	0.65	0.15	0.47	0.41	0.51	0.41	0.42	0.44	0.47	0.43
Company (C\$/mcf)	3.91	4.74	3.12	2.75	2.92	2.71	2.79	2.96	3.15	2.90
WTI Cushing (US\$/bbl)	73.18	93.04	46.39	42.21	48.79	32.05	34.61	37.02	38.41	35.52
WTI Cushing (C\$/bbl)	83.16	102.69	60.25	58.63	62.65	44.95	48.54	51.92	53.88	49.82
Differential (C\$/bbl)	13.00	12.27	8.42	8.19	9.49	6.28	6.78	7.25	7.53	6.94
Company (C\$/bbl)	70.16	90.42	51.83	50.44	53.16	38.67	41.76	44.67	46.35	42.89
Total (\$/bbl)	30.42	38.39	23.15	20.81	22.44	19.09	19.92	21.19	22.37	20.65
Revenue (\$mm)										
Natural Gas	69	294	57	54	215	52	54	58	61	225
Oil	36	179	25	24	104	18	20	21	22	80
Royalties	(8)	(38)	(3)	(3)	(11)	(2)	(2)	(3)	(3)	(10
Total	98	435	79	75	308	67	71	76	80	295
Expense	33	116	28	29	119	30	30	30	30	120
Ebitda (\$mm)	65	319	51	46	189	37	41	46	50	175
Deprec., Deplet., & Amort.	40	137	35	37	149	37	37	37	37	147
Other non-cash	(2)	7	3	1	7	2	2	2	2	8
Interest	5	22	7	7	26	7	7	7	7	28
Ebt	22	152	6	1	7	(9)	(5)	0	5	(9
Income tax	7	42	3	0	13	(3)	(2)	0	1	(3
Net Income (\$mm)	16	111	3	0	(6)	(6)	(4)	0	3	(6)
Per share (\$)	0.10	0.73	0.02	0.00	(0.04)	(0.04)	(0.02)	0.00	0.02	(0.04
Shares (millions)	155	152	154	154	155	154	154	154	154	154
Ebitda margin (after royalty)	66%	73%	64%	61%	61%	55%	58%	61%	63%	59%
Tax rate	30%	27%	49%	30%		30%	30%	30%	30%	30%



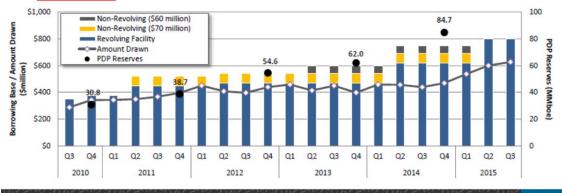
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2016 Capital Program			
	Gross Wells	Net Wells	Capital (\$millions)
Drilling & Development			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Montney D1 Horizontal Gas Wells	8.0	8.0	34.1
Basal Doig/Upper Montney Horizontal Gas Wells	4.0	4.0	17.0
Montney D4 Horizontal Gas Wells	2.0	2.0	8.1
Charlie Lake Horizontal Light Oil Wells	1.0	1.0	2.5
2015 Carry Forward Capital (1)	-		5.2
Total Drilling & Development <sup>(2)</sup>	15.0	15.0	66.9
Facilities & Infrastructure <sup>(3)</sup>			39.5
Production Optimization			13.5
Land & Seismic			5.5
Other			14.6
Total Capital			\$140.0 million

Source: Birchcliff Press Release, January 21, 2016

### **CREDIT FACILITY SUMMARY**

- On May 11, 2015 credit capacity was increased to \$800 million based on year end 2014 reserves which included PDP reserves of 84.7 MMboe.
- Birchcliff expects too see a material increase in PDP reserves volumes at year end 2015 allowing for an expected increase in credit facilities.
- Borrowing base revolving facility with a <u>three year term and no financial</u> covenants.



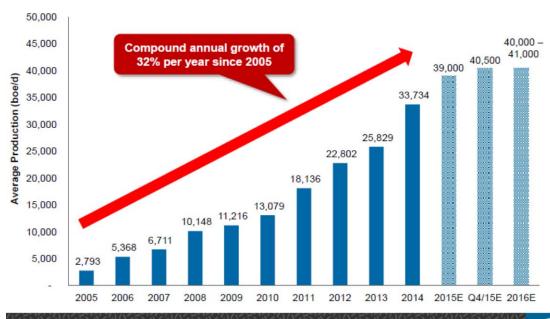


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#### Monthly average spot price at the Henry Hub (2012–17)



### **PRODUCTION HISTORY**





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Birchcliff Energy Ltd.									
Functional Cash Flow and Present Value									
	NTM Ebitda	Adjusted <u>R/P</u>	PV/ Ebitda	Present <u>Value</u>					
North American Natural Gas	92	12.7	16.5	1,520	68%				
Oil	33	12.2	21.2	700	32%				
	125	12.6	17.8	2,220	100%				
Debt					530				
Net Present Value (US\$mm)					1,690				
Shares					154				
Net Present Value - Standard Estimate (US\$/sh)					11				
NPV Approximation by Cash Flow Multiple Depending on Reserve Life (US\$/sh)									

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