

# Birchcliff Energy Ltd. (BIR-T)

# Don't Call It A Comeback...I've Been Here For Years

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Borrowing somewhat from LL Cool J's popular song, "Mama Said Knock You Out", we believe Birchcliff has been neglected, but not for good reason, and should be back on investors radar as a name that is punching back with very strong full-cycle returns, in a market where few others are.

The company is an intermediate-sized oil and gas producer exploring Montney natural gas as well as light oil at its Worsley property. Birchclift's land base is highly focused and it retains ownership of regional infrastructure in areas where it will be deploying capital. Stewardship is also strongly aligned with investors as management owns 6% of basic shares, as well has access to capital with one very supportive, 26% shareholder.

#### Compelling arguments are:

- Birchcliff scores very highly on at least three of our four key questions, but also fares very strongly on a number of metrics much of the Street neglects. We believe therein lies the investing opportunity for the somewhat contrarian-biased investor.
- On our preferred PDP finding efficiency, the company has consistently improved yoy and now leads many of its peers on said metric. Secondly, we contend Birchcliff still makes a full-cycle profit when one accounts for PDP finding cost and cash-lifting costs few others can claim the same right now.

  Birchclift (Volume (1))
- Thirdly, PDP NAV/sh has also grown consecutively and the stock trades below its historical range, which helps underpin our valuation argument. Birchcliff trades at a discount to its peers at only 1.3x
- At \$50/bbl oil and \$3.00/mcf gas we estimate a payout of 2.7 years for its core Montney/Doig play. We provide detailed sensitivities herein but suggest even at a notional trough in the natural gas price cycle, Birchcliff is swiftly recycling its capital on a full-cycle basis.
- We are initiating coverage of Birchcliff with a BUY recommendation and a 12-month price target of \$11.50. Our target is based on a sum-of-the-parts valuation.

Initiating	Coverage
RIIV	\$11.50

BUY ŞII	.50	
Previous Close		\$7.74
12-month Target Price		\$11.50
Potential Return		49%
52 Week Price Range	\$5.9	99 - \$14.97
FYE		Dec 31
Assumptions	2015E	2016E
WTI (US\$/bbl)	\$50.89	\$60.00
AECO (CDN\$/mcf)	\$2.94	\$3.50
US\$/CDN\$	\$0.81	\$0.81
Production		
Crude oil & Liquids (bbl/d)	5,859	5,993
Natural Gas (mmcf/d)	199.3	203.9
Total Production (boe/d)	39,074	39,972
Oil & Liquids Weighting	15%	15%
Financial (\$MM, except Per Share item)		
Cash Flow	\$182.9	\$248.1
CAPEX	\$266.5	\$296.0
Net Debt	\$632.0	\$679.83
Net Debt/CF	3.5x	2.7x
CFPS - Fully Diluted	\$1.16	\$1.57
EPS - Fully Diluted	\$0.09	\$0.35
Valuation		
P/CF	6.7x	4.9x
EV/DACF	9.2x	7.1x
EV/BOEPD	\$46,338	\$46,495
Stock Data		
Shares Outstanding, Basic (MM)		152.3
Shares Outstanding, Diluted (MM)		173.2
Insider Holdings, Basic		6%
Market Capitalization (MM)		\$1,178.7
Enterprise value (MM)		\$1,788.8

Ownership of Birchcliff Energy shares leverages investors to a Montney-focused, growth-orientated company with high WI and regional control of infrastructure

About the Company

### All prices in C\$ unless otherwise stated





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# **Investment Rationale**

We are initiating coverage of Birchcliff Energy Ltd. (BIR-T) with a Buy rating on the shares and a 12-month target price of \$11.50 per share. Birchcliff is a growth-oriented, natural gas-weighted, intermediate producer with key producing assets in NW Alberta. The growth profile of the company has been consistent and profitable, of which its peers can often claim one of the above, but seldom both. We believe more is yet to come as the company continues to develop its extensive inventory of short time-to-payout wells. Although the business model makes a strong full-cycle return at the 'bottom of the cycle', we also contend the company gives the investors full leverage to the commodity upside being unhedged in 2015/2016.

# **Company Overview**

### Birchcliff Energy Ltd.

Birchcliff is an intermediate sized oil and gas producer exploring natural gas and light oil deposits primarily in the Peace River Arch area of Alberta. The company retains ownership of regional infrastructure in areas where it will be deploying capital, very strong insider ownership and has an experienced technical team with proven success in prior iterations.

### What we like about Birchcliff;

### **Neglected But Not For Good Cause**

Birchcliff scores very highly on at least three of our four key questions, but also fares very strongly on a number of metrics much of the S treet neglects. We believe therein lies the investing opportunity for the somewhat contrarian-biased investor. On our preferred PDP finding efficiency, the company has consistently improved yoy and now leads many of its peers on said metric. Secondly, we contend Birchcliff still makes a full-cycle profit when one accounts for PDP finding cost and cash-lifting costs – few others can claim the same right now. Thirdly, PDP NAV/sh has also grown consecutively and the stock trades below its historical range, which helps underpin our valuation argument. Birchcliff not only trades at a discount to its peers at 1.3x



EV/PDP (peer average 2.8x EV/PDP) but also below its historical trading range  $\sim$ 2.0x (more detail discussed below).

### In LNG Game Theory, A Strong Contender

With a longer term view, we contend Birchcliff's competitive posture in an LNG takeout scenario remains quite strong. The company is one of the few to have most, if not all of the key necessary components a super-major would be looking for; owns and controls significant gas processing infrastructure, retains a concentrated and contiguous land base with high WI% and multi-layer potential, as well as strong management ownership/alignment (with key investor support). The company has a five year organic growth plan, so we don't suggest another 'strategic process' is around the corner but when North American LNG export interest perks up, Birchcliff's name should be part of that discussion.

### Fire Up the ATM

By virtue of Birchcliff's corporate strategy to non-dilutively self-finance key infrastructure, we contend the company has massive operational and financial leverage. As the PCS plant has largely been paid for with cost savings (detailed below), the challenge now becomes running more volumes through a fixed cost base. As the amount of capital required to keep the PCS plant full declines over time, that free cash flow can then be used for growth or debt-repayment. Therein lies the financial leverage. The company can either eliminate debt entirely in ~15 years (@\$2.50/GJ AECO) or in two-thirds that time (~10 years) at just \$3.50/GJ AECO. This can, and likely will, be achieved entirely sans equity dilution, which we view as massive torque for the current investor.

### **Cautionary Considerations**;

The pervasive push-back on Birchcliff tends to be its debt levels, or more specifically the ratios commonly cited by the Street which show an over-levered business model. We believe some of this is merited, while some is not. In a sustained and prolonged depressed commodity price environment, a 2x D/CF can move to 3x, and quickly to 4x etc. Interest coverage payments can engulf operating cash flow and spiral the equity account downward. This does remain a risk for Birchcliff, but we also argue the company has other mechanisms at its disposal to rebut this concern. Specifically, the company could monetize part or all of the Worsley project (low case ~\$318MM, 20.5 mmboe 1P at \$15.50/boe PDP NPV to high case ~\$623MM 2P), consider JV opportunities for carried interest in the Montney, or even a



lease-back sale on its 100% owned and operated 180 mmcf/d PCS gas plant. We state these as options, not requisites (as management's strong bias is to not joint venture an already outstanding project). It's also worth pointing out the company has not meaningfully raised equity since 2Q12, and prior to that 2Q09. We believe the market would be there for Birchcliff in an equity raise, but management firmly believes the stock is undervalued at these levels.

# **Overview**

Today, Birchcliff is producing ~39,000 boepd (85% natural gas) and holds corporate reserves of 465.0 mmboe. As is typical for all companies under coverage, we focus our analysis only on the key assets that will see capitalization within a two-year time frame.

# **Our Key Questions**

### 1. What is the time-to-payout of the company's core project(s)?

At prices of \$50/bbl and \$3/mcf, we model Birchcliff's Montney project as having a payout of 2.7 years. This is in the range of some of the most expeditious TTP projects we have seen in the basin currently. As Birchcliff's Montney project primarily produces dry gas (<10 bbl/mmcf), it's worth noting that it is the company's very low controlled cost structure which makes the play so robust. Even at a notional bottom in the natural gas price cycle, we estimate Birchcliff only requires \$1.80/mcf to cover its cash costs.

With such low operating costs, we frankly don't see a big delta coming on the lifting cost side – higher revenue per boe will likely have to be the accelerant or a change in capital costs, (from \$5.8MM per well to closer to \$5MM per well) which is quite possible given the systemic downturn in industry activity.

### 2. How much of that inventory does it have?

Birchcliff has both a regionally expansive footprint in the Western Canadian Sedimentary Basin (WCSB) and one with multi-layer depth. The company has been actively acquiring land and developing the Montney play since 2007 and now has 876 net sections of land with 170 wells drilled; most of which in two layers of the play (Basal/Doig and Montney D1, with another 4 layers prospective but underdeveloped). In aggregate, the company estimates an inventory of >3,300 locations, which in its most active year (2014 – 41 Hz Montney/Doig wells drilled) provides an inventory that could span many decades. This simple math suggests basically 4 wells per section,



in one layer of each of the company's net sections, but we would point out again the potential for >8 wells per section with development of other uphole/downhole horizons.

# 3. How much of it is unbooked or unspoken for in the third-party engineering report?

Were it not for Birchcliff's very low PDP finding costs (which indicate to us value creation yoy) we would be more critical of the company's reserve booking strategy on this front. With 432 locations booked as PUD/probables, or \$3.2B in future development capital (\$2.7B for Montney), it seems aggressively booked at first blush (independent of the total inventory otherwise unbooked). In its most active year, it would take Birchcliff ~10 years to consume said PUD locations, but in 2015 drilling 25 wells that extends to 17 years. As a standalone organic growth story this would be of concern to us, as the proverbial reservebooking-treadmill appears to be running too fast. However, Birchcliff (as is the case for other larger Montney producers) is in some context posturing for an acquisition from a much larger producer (presumably a super-major) with intents to vertically integrate upstream and LNG export opportunities. In such a case, a show of significant resource capture is critically important in game theory. In Birchcliff's case, the company's third party engineer approximates Best-Estimate-Contingent-Resource of 7.9 Tcfe as at 2014 (6.5 Tcfe as at 2013), versus 2.5 Tcfe currently booked as 2P reserves. Put another way, if a supermajor with a lower cost of capital were to accelerate development of the Montney project and produce 500 mmcf/d annually, the entity could do so for 13 years just using currently booked Montney reserves, and produce for >40 years relative to Best-Estimate-Contingent-Resource. More importantly, this also assumes no further increases in finding/resource capture. To us, this is significant and better distills the company's competitive posture relative to other Montney-focused producers.

### 4. What is the company's ability to capitalize that inventory?

Birchcliff's debt position, or its ability to self-finance growth is another point of contention for some, but one we think is a market red herring. Debt-to-trailing cash flow sits at 1.8x which is not unreasonably high relative to its peers, but perhaps more telling is the debt-to-forward cash flow at 3.0x which reflects the capitulation in commodity prices. This simple metric concerns some investors, but for us, and the company's lending syndicate it is not telling of the true story and merits some scrutiny.



In mid-2009, Birchcliff (at a production level of ~14,000 boepd) announced its intent to build its own 100% operated PCS gas plant. The plant was completed in 1H10, and since then has been expanded from its initial 30 mmcf/d capacity to a current 180 mmcf/d capacity (with plans of a Phase V expansion to 260 mmcf/d). We mention this because we view it as a strategic milestone whereby the producer chose to vertically integrate a portion of its cost structure with funds from equity, debt and cash flow. Since 2009, Birchcliff has spent \$420MM or 28% of its total capital outlay to date on well-equipping and facilities. This strategy no doubt shows up in the total net debt account which sits at \$610MM (\$800MM bank line), but one must also take into account the cost savings which took corporate operating costs from \$10.02/boe to \$5.33/boe, or net savings of \$214MM. This means in 5 years this strategic decision has arguably paid for the entire PCS gas plant or half of all corporate equip/tie-in/facility expenditures across all plays. This of course also neglects the resale or book value which could approach \$180MM (~\$1MM per 1 mmcf/d). Furthermore, the option of a lease-back sale could also provide near term liquidity. As plant and pipes are non-declining assets, banks are usually more comfortable lending against them (non-coincidentally why mid-streamers have lower costs of capital). Had Birchcliff assembled such a debt encumbrance on the back of a longer-timeto-payout E&P asset then we, the lenders, and the market would for good reason have concern. But, in fact the company's lenders have not only kept the bank line constant in the face of the commodity downturn but have increased the line \$50MM and moved to a reserve-based covenant system which places more credence on the value of PDP/Proved reserves and lessor so on conventional D/CF metrics.

As we've also stated, the company retains the Worsley Charlie Lake light oil asset which produces ~5,000 boepd and ~\$30MM in CF in 2015, while holding 1P reserves of 20.5 mmboe. As a non-core asset, we believe the company would and/or could monetize this asset for between \$250-\$350MM currently (in a low case scenario).

At a historical E&D efficiency of ~\$17,000/boepd, we would argue Birchcliff is spending enough to offset production declines and show modest exit-to-exit growth yoy. However, on a reserve basis, and because of the company's low finding costs, only half its slated 2015 capital spend will be required to keep PDP reserves flat, with the rest providing growth. We think this is key to point out as many investors will focus on headline production growth, but PDP reserves (that which



supplies production growth at a moment in time) will actually grow much more than most expect.

# **Asset Overview**

As we've alluded to, Birchcliff has two core projects, the Montney play and Charlie Lake light oil play, both located along the Peace River Arch closely abutting the AB-BC border. Birchcliff has been in the area for over a decade and its regional foot print and control of infrastructure is not new to the story. The Worsley Charlie Lake project was purchased in 2007, and now only sees a small fraction of total corporate spending but generates free cash flow well above its maintenance capital, ergo it is still contributes to the overall value premise. The much larger driver of value has and will continue to be the Montney/Doig natural gas play. Birchcliff was one of the industry's first to horizontally drill and artificially stimulate the play back in 2009. Since then, 170 wells have been drilled and it contributes 88% of total corporate production and 91% of corporate 2P reserves. For this reason, our analysis is chiefly focused on Montney growth and efficiency.

Person Description Description

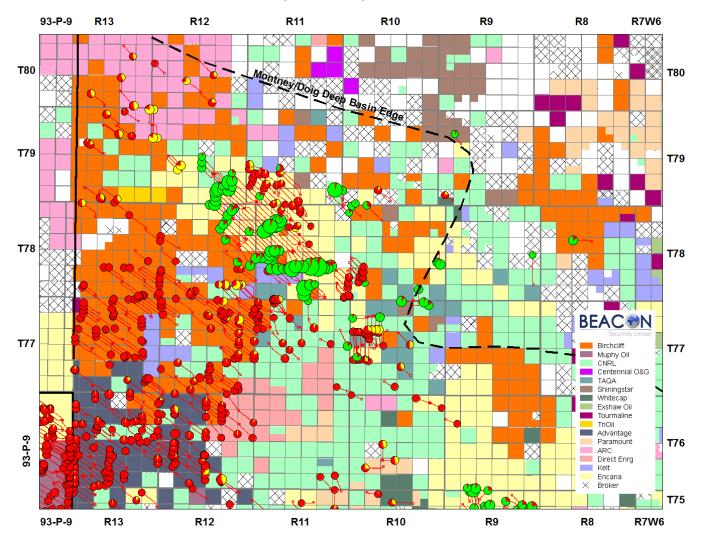
**Exhibit 1. Birchcliff Project Overview** 

Source; Company Reports



Along the greater Montney trend, Birchcliff controls 876 net sections of land wherein the Pouce Coupe strike area has been the key area of focus. Below we map first six-month recovery bubbles for all Montney wells. Two observations can be made; firstly, the relative homogeneity of Birchcliff's results as well as other industry wells, and secondly the low liquids content in this area of the basin.

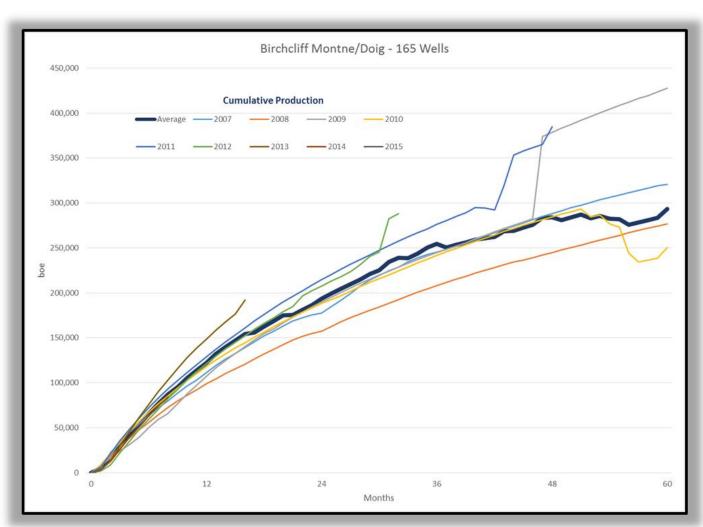
**Exhibit 2. Pouce Coupe Montney Overview** 





For visual comparison, we have compiled Birchcliff's history of 165 horizontal Montney/Doig wells into the play since 2007. For simplicity, we have segregated the curves by year noting 2007-2010 vintage generally trend below the average curve while newer vintage wells produce above the same average curve. This displays progression in Birchcliff's understanding and application of drilling and completion technology along the play. We also note the bold blue curve suggests cumulative production of 300,000 boe (1.8 Bcfe) in five years, relative to current bookings of ~833,333 boe/well (5 Bcfe/well).

Exhibit 3a. Birchcliff Cumulative Production Curves





The daily production curve is less telling in terms of overall recovery per well but does give the investor some indication of IP30 improvement or degradation over time as well as the general decline over the first five years. In the case of Birchcliff, we still see a steady improvement in IP's over time while a first year decline of ~60% also implies growth at the corporate level can be better managed (versus tight oil plays for example at >75% first year decline).

Birchcliff Montney/Doig - 145 Wells 900 800 **Daily Production** 700 \_\_\_\_2007 \_\_\_2008 Average -2009 \_\_\_\_2010 -2011 2012 -2014 600 500 400 300 200 100 12 24 36 48 60 Months

Exhibit 3b. Birchcliff Producing-Day Daily Production Curves



# **Growth and Efficiency**

We believe one of the strongest tenets around the investment premise for Birchcliff is the consistency and full-cycle profitability of the company. We discuss the latter in more detail later, but we believe Exhibit 4 accurately describes the former – the company's consistent and efficient growth in the Montney/Doig play since its early days. The purple line denotes project capital efficiency, with some aberrations in the early days but gradually refining its craft to a much narrower band in 2014/2015.

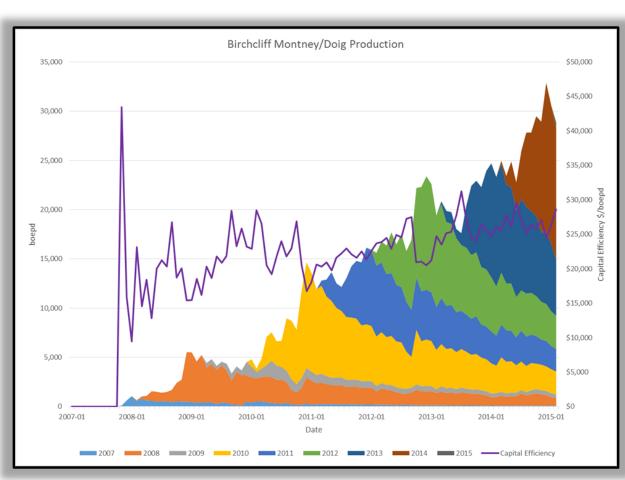


Exhibit 4. A Glimpse at Historical Efficiency



Using the data from Exhibits 3a/3b, and placing much more value on recent data, we have developed a Montney/Doig type curve which utilizes an IP30 of 900 boepd and contemplates a drill/case/complete cost of \$5,800,000 per well. Below, graphically we show our base case as well as a curve 25% higher and a curve 25% lower – each with payout and estimated reserves to reach payout also displayed. Our commodity price assumptions are \$50/bbl oil and \$3/mcf natural gas (realized well-head prices). We would point out that recent costs have been as low as \$5.2MM per well, partly driven by lower service costs, and in part also due to refinements in drilling/completions techniques. We intentionally bias our type curve modelling to be conservative, therefore the investment premise is predicated on future success/cost synergies, rather outside of our modelling but left as upside for the investor.

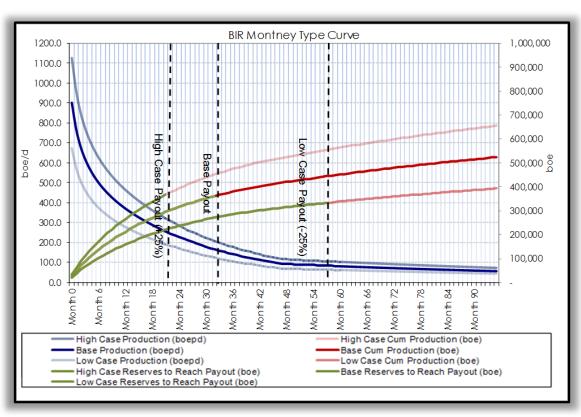


Exhibit 5. Montney/Doig Type Curve



Below we highlight an IP30 sensitivity, with our base case producing an NPV of \$2.2MM, a 27% IRR and time-to-payout of 2.7 years. Our internal modeling suggests Birchcliff's wells are still economic down to \$2.02/mcf (well head price).

Exhibit 6. Montney/Doig Type Curve Sensitivity

NPV	(\$mm)			bbl/mmcf		
		0	5	10	15	20
ll	700	-\$0.1	\$0.2	\$0.5	\$0.8	\$1.0
D D	800	\$0.6	\$1.0	\$1.3	\$1.6	\$1.9
IP30 boepd	900	\$1.4	\$1.8	\$2.2	\$2.6	\$2.9
8	1,000	\$2.2	\$2.6	\$3.0	\$3.4	\$3.8
≅	1,100	\$2.9	\$3.4	\$3.9	\$4.3	\$4.8
	IRR			bbl/mmcf		
		0	5	10	15	20
გ	700	9%	11%	13%	15%	17%
e e	800	14%	17%	20%	23%	25%
poq	900	20%	24%	27%	32%	35%
Total boepd	1,000	27%	32%	37%	41%	46%
2	1,100	34%	40%	47%	53%	59%
	TTP			bbl/mmcf		
		0	5	10	15	20
ਰ	700	6.6	5.7	5.0	4.4	4.0
e D	800	4.7	4.1	3.5	3.1	2.8
ရိ	900	3.5	3.0	2.7	2.4	2.2
Total boepd	1,000	2.7	2.4	2.1	2.0	1.8
10	1,100	2.2	2.0	1.8	1.6	1.5



With the current depressed nature of crude oil, we also provide price and cost sensitivities. With 85% of production coming from natural gas, Birchcliff is highly levered to the gas/NGL complex. We would note that just a \$0.50/mcf move in realized natural gas price adds ~\$1.0MM to well NPV's and reduces the payout by over 6 months. An inverse and downward move on gas is however more elastic and a retrenchment to \$2.00/mcf over doubles the time to payout. As previously noted, as rig activity drops across the basin due to poor economics, we also expect energy service costs to decrease by 10-20% for most producers. In the case of Birchcliff for example, a \$500,000 reduction in well D/C/C costs (all other variables held constant) provides virtually the same benefit to NPV's (increasing \$500,000 per well) while reducing payout ~6 months in our base case.

**Exhibit 7. Natural Gas Price Sensitivities** 

	NPV (\$m	m)		We	II Cost	_		_	
ø,		\$4,800,000	\$ 5,300,000	\$	5,800,000	\$	6,300,000	\$	6,800,000
Pric	\$4.00	\$5.3	\$4.8		\$4.3		\$3.8		\$3.3
Sps	\$3.50	\$4.2	\$3.7		\$3.2		\$2.7		\$2.2
Realized Gas Price (\$/mcf)	\$3.00	\$3.1	\$2.6		\$2.1		\$1.6		\$1.1
Realized (\$/mcf)	\$2.50	\$1.9	\$1.4		\$0.9		\$0.4		-\$0.1
Re (\$/	\$2.00	\$0.8	\$0.3		-\$0.2		-\$0.7		-\$1.2
l									
	IRR			We	II Cost				
o o	IK K	\$4,800,000	\$ 5,300,000	s	5,800,000	s	6,300,000	s	6,800,000
Realized Gas Price (\$/mcf)	\$4.00	88%	68%	Ė	53%	Ť	42%	Ė	34%
S	\$3.50	64%	49%		38%		31%		25%
g G	\$3.00	45%	34%		26%		21%		17%
Realize (\$/mcf)	\$2.50	29%	22%		17%		13%		10%
Rec (\$/ı	\$2.00	17%	12%		9%	6%		4%	
	TTP	C 4 000 000	¢ 5 200 000		II Cost	·	/ 200 000	٠	
<u>0</u>		\$4,800,000	\$ 5,300,000	\$	5,800,000	\$	6,300,000	\$	
s Pr	\$4.00	1.2	1.4		1.6		1.9		2.2
Realized Gas Price (\$/mcf)	\$3.50	1.5	1.7		2.1		2.4		2.9
e d	\$3.00	1.9	2.3		2.7		3.4		4.2
Realize (\$/mcf)	\$2.50	2.5	3.2		4.2		5.2		6.3
Re (\$/	\$2.00	4.1	5.3		6.8		8.6		10.8



Exhibit 8. Oil and Natural Gas Price Sensitivities

	NPV (\$mm)			Realized Oil	Price (\$/bbl)	
l		\$60	\$55	\$50	\$45	\$40
Realized Gas Price (\$/mcf)	\$4.00	\$4.5	\$4.4	\$4.3	\$4.2	\$4.1
gos	\$3.50	\$3.4	\$3.3	\$3.2	\$3.1	\$3.0
P C	\$3.00	\$2.3	\$2.2	\$2.1	\$1.9	\$1.8
Realized (\$/mcf)	\$2.50	\$1.2	\$1.0	\$0.9	\$0.8	\$0.7
Rec (\$/	\$2.00	\$0.0	-\$0.1	-\$0.2	-\$0.3	-\$0.4
l						
ا	IR R			Realized Oil	Price (\$/bbl)	
ø,		\$60	\$55	\$50	\$45	\$40
Realized Gas Price (\$/mcf)	\$4.00	56%	55%	53%	51%	50%
Sas	\$3.50	41%	40%	38%	37%	36%
p c	\$3.00	29%	28%	26%	25%	24%
Realized (\$/mcf)	\$2.50	18%	18%	17%	16%	15%
Re (S/	\$2.00	10%	9%	9%	8%	7%
l						
	TTP			Realized Oil	Price (\$/bbl)	
ψ		\$60	\$55	\$50	\$45	\$40
Realized Gas Price (\$/mcf)	\$4.00	1.6	1.6	1.6	1.7	1.7
s d	\$3.50	2.0	2.0	2.1	2.1	2.2
o p e	\$3.00	2.6	2.6	2.7	2.8	2.9
Realize (\$/mcf)	\$2.50	3.8	4.0	4.2	4.4	4.6
(\$/	\$2.00	6.1	6.4	6.8	7.2	7.6



As we have shown, project economics for Birchcliff at these levels still enable the company to recycle its cash flow within an <3 year window. This is a material slowdown from what the company is able to do at \$3.50-4.00/mcf, but we would argue is still on track with the better plays in the basin.

Many companies show robust economics on a well-by-well basis, but few are able to post similar efficiency metrics at the corporate level. Many factors can play into this, and sell-side analysts often perpetuate the problem by neglecting the important impacts of non-E&D spending (i.e. seismic, land, facilities) and/or expenses such as G&A, interest and cash taxes. This dissonance between 'real world' and 'perfect world' project economics can lead to ambiguity and more questions than answers. In our analysis below, we give the company no place to hide and include all capital spending in a given period compared to its respective cash flow per boe in the same period. This is truly a cash-in versus cash-out analysis. As one can see, Birchcliff has consistently brought on production at a corporate cost of ~\$20,000-25,000/boepd since late 2011. Compare this to its CF/boe and we can deduce the corporate-time-to-payout which has similarly plateaued at ~4.5 years since Q4/FY11. We will closely monitor this ratio for all companies under coverage but would venture to say Birchcliff's efficiencies are top decile and are a primary reason for the share price strength.

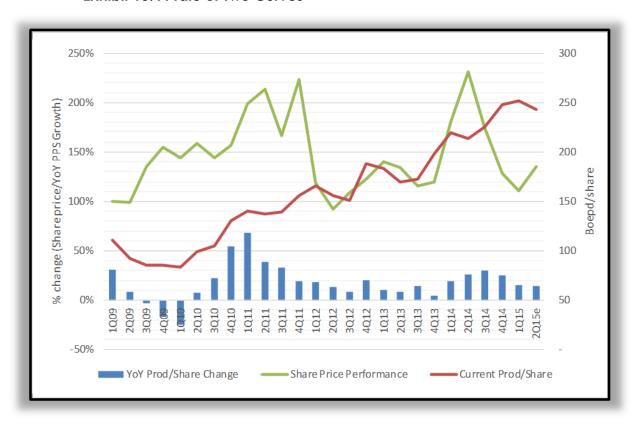
\$140,000 \$120.000 Slight deceleration in TTP in 1Q15, but should \$100.000 normalize <5 years in 15.0 2H15 \$80,000 \$60,000 10.0 \$40,000 5.0 \$20,000 1012 Capital Efficiency Corporate Time to Payout

Exhibit 9. Consistency is the Name of the Game



The high correlation between production-per-share growth and share price growth for E&P companies is hardly new to most investors, but one we would point out nonetheless as Birchcliff has consistently improved production per share, with the recent change year-over-year being a function of commodity price (recall part of Birchcliff's corporate strategy is to give the investor full leverage to the commodity price). The current disconnect between share price performance and per-share growth also underpins part of our valuation argument for the company (alongside PDP value-discussed later).

**Exhibit 10. A Tale of Two Curves** 



Source: Company Reports, Beacon Securities Ltd. Estimates

Two of our four 'key questions' unambiguously speak to the strength of a given company's reserve report. Therefore, we provide our tabular analysis of metrics we believe drive equity value creation year-over-year. This Analyst has written extensively about the perils of looking at 2P (proved plus probable) reserves without acknowledging the incumbent FDC (future development capital) and embedded future dilution/increased leverage which goes along with converting those bookings to PDP (proved developed producing) wells. Therefore, it



goes without saying, we contend true value creation occurs in the PDP account, both on a per share basis and relative to an entity's cash margin profitability. Below, one can see Birchcliff was successful in growing PDP reserves per share 29% year-over-year, which also corresponded to a 40% increase in PDP NAV per share. A 2.2x CF/PDP recycle ratio in 2014 is also worthy of mention as only a handful of companies have achieved ratios above 2x (only one other in this Analyst's universe).

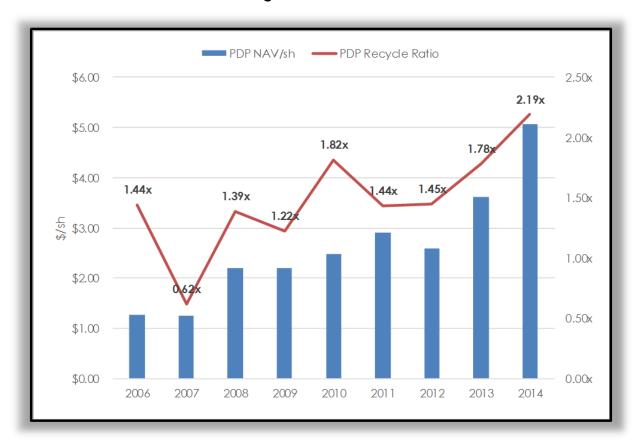
Exhibit 11a. Reserve Strength

Reserves	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	yoy 5
PDP mmboe	8.7	8.9	15.2	19.1	20.6	30.8	38.7	54.6	62.0	84.7	379
Proved mmboe	13.2	14.1	34.3		90.0	114.0	156.2	185.9	220.1	282.3	289
2P mmboe	20.8	28.3	56.6	98.5	157.3	201.1	275.4	317.8	370.0	465.0	269
PDP/sh	0.15	0.14	0.16	0.17	0.17	0.25	0.31	0.39	0.43	0.56	299
Proved/sh	0.23	0.22	0.36	0.50	0.73	0.91	1.23	1.31	1.53	1.85	21
2P/sh	0.36	0.44	0.60	0.88	1.27	1.61	2.17	2.24	2.58	3.06	19
NPV10											
PDP \$mm	234	208	395	497	495	647	806	830	972	1,316	35
Proved \$mm	324	265	702	1,019	1,446	1,600	1,989	1,655	2,092	2,631	26
2P \$mm	464	458	1,031	1,639	2,291	2,568	3,320	2,611	3,198	3,794	19
Net Debt \$mm	60	88	278	250	222	337	437	462	454	546	20
S/O (basic)	58.1	64.1	94.6	112.4	123.8	125.1	126.7	141.6	143.7	152.2	6
NAV/sh											
PDP/sh	\$2.99	\$1.27	\$1.24	\$2.20	\$2.21	\$2.47	\$2.91	\$2.60	\$3.61	\$5.06	40
Proved/sh	\$4.54	\$1.87	\$4.49	\$6.84	\$9.89	\$10.09	\$12.25	\$8.42	\$11.40	\$13.70	20
2P/sh	\$6.95	\$3.91	\$7.97	\$12.36	\$16.72	\$17.83	\$22.75	\$15.18	\$19.10	\$21.34	12
Adj. Capex	304	26	339	193	76	173	200	241	174	392	125
Full Capex Smm	307	30	350	237	102		237	299	216	451	109
Production mboe	1.020	0.852	2.450		4.094		6.620	8.346	9.427	12.313	31
Change in FDC											
Proved \$mm	n/a	38.0	141.3	274.7	173.0	100.8	420.7	117.4	136.7	423.5	210
2P \$mm	n/a	93.8	155.8	405.3	236.5	187.2	759.5	287.5	316.7	671.9	112
FD&A											
PDP \$/boe	n/a	\$24.61	\$38.39	\$25.56	\$13.46	\$11.58	\$13.76	\$9.95	\$10.38	\$11.18	3
Proved \$/boe	n/a	\$37.83	\$21.72	\$20.43	\$7.14	\$11.17	\$13.49	\$10.92	\$8.10	\$11.73	45
2P \$/boe	n/a	\$14.74	\$16.46	\$14.09	\$5.38	\$8.37	\$12.32	\$11.57	\$8.63	\$10.46	21
Op Netback \$/boe	n/a	\$42.03	\$29.16	\$40.09	\$21.77	\$25.96	\$26.14	\$19.58	\$22.97	\$27.86	21
CF Netback \$/boe	n/a	\$35.49	\$23.83	\$35.48	\$16.48	\$21.02	\$19.76	\$14.41	\$18.50	\$24.47	32
CF Recycle Ratio											
PDP	n/a	1.44x	0.62x	1.39x	1.22x	1.82x	1.44x	1.45x	1.78x	2.19x	23
Proved	n/a	0.94x	1.10x	1.74x	2.31x	1.88x	1.47x	1.32x	2.28x	2.09x	-9
2P	n/a	2.41x	1.45x	2.52x	3.06x	2.51x	1.60x	1.24x	2.14x	2.34x	9



In Exhibit 11b, we visually display two of the same metrics presented above, but arguably the effect is better seen graphically as Birchcliff has improved PDP NAV/sh virtually every year while concurrently optimizing its recycle ratio (cost improvements and commodity variations being a couple of the biggest drivers).

Exhibit 11b. Reserve Strength





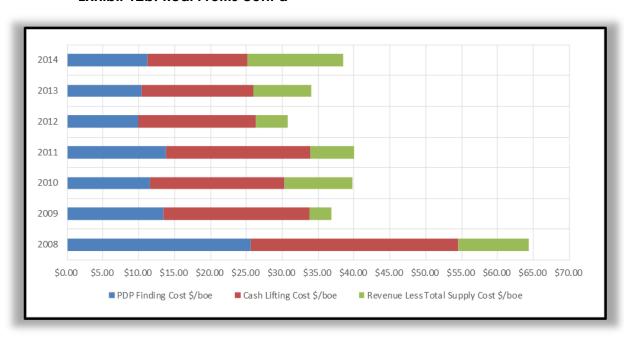
Many producers post strong operating netbacks (the stronger models within that group also posting cash flow netbacks), and some emphasize low finding costs (the stronger models within that group highlighting PDP/boe costs) but very few can impress on both metrics, simultaneously. In a depressed commodity price environment, we argue, this is what separates the best oil and gas business models that can generate full-cycle profits, versus those dependent on price deck to 'make' a play.

Exhibit 12a. Real Profits

	2006	2007	2008	2009	2010	2011	2012	2013	2014	yoy %
Revenue \$/boe	\$67.18	\$47.88	\$64.40	\$36.80	\$39.80	\$39.97	\$30.82	\$34.03	\$38.50	13%
PDP Finding Cost \$/boe	\$24.61	\$38.39	\$25.56	\$13.46	\$11.58	\$13.76	\$9.95	\$10.38	\$11.18	8%
Cash Lifting Cost \$/boe	\$31.69	\$24.05	\$28.92	\$20.32	\$18.78	\$20.21	\$16.41	\$15.53	\$14.02	-10%
Revenue Less Total Supply Cost \$/boe	\$10.88	(\$14.56)	\$9.92	\$3.02	\$9.44	\$6.00	\$4.45	\$8.12	\$13.29	64%

Source: Company Reports, Beacon Securities Ltd. Estimates

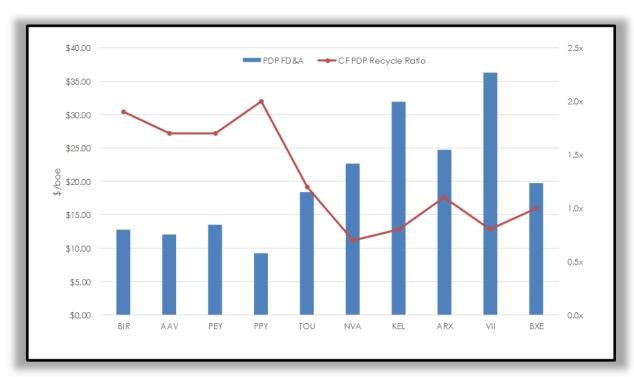
Exhibit 12b. Real Profits cont'd





Comparing Birchcliff to its peers, we see the company is a top-tier producer on PDP metrics, while also being quite profitable on the lifting cost side (reflected in CF recycle ratio). The four high quality names to the left all fare strongly on this comparison, but also differ slightly on insider ownership, ownership/control of regional infrastructure and hedging strategy. In many respects, this becomes a subtle predilection for each investor, of which our preference is Birchcliff in this case.

Exhibit 12c. Peer Comparison



Source: Company Reports, Beacon Securities Ltd. Estimates (all-in costs used for PDP calculation)

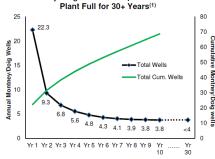


As we noted at the front end of the report, Birchcliff retains massive operational and financial leverage, which we see as a huge benefit to the current investor. Below we highlight part of the operational leverage inherent with the company owning 100% WI in a 180 mmcf/d plant. With \$190MM the company can effectively expand capacity 60 mmcf/d while drilling 23 wells in year one, roughly four per year thereafter to keep it full and still generate positive free cash flow. Said free cash flow can either be used for organic growth or debt repayment (fully repaid in ~15 years in a bear case scenario) all without issuing any more shares.

Exhibit 13. Operational And Financial Torque

	Year 1 (no prod.)	Year 2	Year 3	Year 4	Avg. Years 5 to 30	IRR
Capex (Facilities & DCCET)(1)(2)	\$189.4 million	\$54.0 million	\$39.6 million	\$32.3 million	\$22.1 million	
Cash flow @ \$2.50/GJ(3)	-	\$60.4million	\$60.4 million	\$60.4million	\$60.4 million	
FCF @ AECO \$2.50/GJ	(\$189.4 million)	\$6.3 million	\$20.7 million	\$28.1 million	\$38.3 million	16%
Cash flow @ \$3.00/GJ(3)	-	\$70.4 million	\$70.4 million	\$70.4 million	\$70.4 million	
FCF @ AECO \$3.00/GJ	(\$189.4 million)	\$16.4 million	\$30.8 million	\$38.1 million	\$48.3 million	20%
Cash flow @ \$3.50/GJ(3)	-	\$80.5 million	\$80.5 million	\$80.5 million	\$80.5 million	
FCF @ AECO \$3.50/GJ	(\$189.4 million)	\$26.4 million	\$40.8 million	\$48.2 million	\$58.4 million	25%
Cash flow @ \$4.00/GJ <sup>(3)</sup>	-	\$90.5 million	\$90.5 million	\$90.5 million	\$90.5 million	
FCF @ AECO \$4.00/GJ	(\$189.4 million)	\$36.5 million	\$50.9 million	\$58.2 million	\$68.4 million	29%

<sup>(1)</sup> Estimated well costs at \$5.8 million per well to drill, case, complete, equipment, and tie in a Montney/Doig horizontal natural gas well (DCCET).
(2) Estimated facility costs at \$1.0 million per 1MMcl/d of processing capacity.
(3) Estimated cash flows based on WTI USD \$7000bb, exchange rate of 1.20 USD/CAD, liquids rate of 8 bbis/MMcl and a royalty rate of 8%.



Montney/Doig Wells to keep 60 MMcf/d Gas

(1) Assumes average of Birchcliffs Type Curves on a 2P reserve basis. Birchcliff has data compiled from 159 gross (158.9 net) Montney/Doig horizontal natural gas wells drilled to date as of December 31, 2014.



# Management

Name and Residence	Position with Birchcliff	Principal Occupation During the Past Five Years
A. Jeffery Tonken, Alberta, Canada	President, Chief Executive Officer & Director	Mr. Tonken is a Director and the President and Chief Executive Officer of Birchcliff. He has more than 34 years of experience in the oil and gas industry and is one of the Corporation's founders. Prior to creating Birchcliff, Mr. Tonken founded and served as President and Chief Executive Officer of Case Resources Inc., Big Bear Exploration Ltd. and Stampeder Exploration Ltd. Mr. Tonken was previously a Partner of the law firm Howard, Mackie (now Borden Ladner Gervais LLP). Mr. Tonken is a Governor of the Canadian Association of Petroleum Producers (CAPP). Mr. Tonken received his Bachelor of Commerce degree from the University of Alberta and his Bachelor of Laws degree from the University of Wales.
Larry A. Shaw, Alberta, Canada	Director and Chairman	Mr. Shaw is a Director of Birchcliff and has more than 27 years of experience in the oil and gas industry and is one of the Corporation's founders. Prior to joining Birchcliff, Mr. Shaw served as Chairman of the Board of Case Resources Inc., Big Bear Exploration Ltd. and Stampeder Exploration Ltd. He was President of Shaw Automotive Group Ltd. and Shaw G.M.C. Pontiac Buick Hummer Ltd. Mr. Shaw received his Honors Degree in Business Administration from the University of Western Ontario.
Kenneth N. Cullen, Alberta, Canada	Director	Mr. Cullen is a Director of Birchcliff and has more than 33 years of experience working with companies in the oil and gas industry as a partner at Deloitte & Touche LLP in the Assurance and Advisory (Audit) group prior to his retirement in 2006. Mr. Cullen currently serves as a director of Southern Pacific Resource Corp. Mr. Cullen received his Chartered Accountant Designation from the Institute of Chartered Accountants of British Columbia.
Dennis Dawson, Alberta, Canada	Director	Mr. Dawson was formerly the Vice-President General Counsel and Corporate Secretary of AltaGas. Mr. Dawson joined AltaGas as Associate General Counsel in August 1997, after consulting with AltaGas Services Inc. from July 1996. Effective July 1996, he became AltaGas' General Counsel and Corporate Secretary and effective December 1998, Mr. Dawson became Vice-President General Counsel and Corporate Secretary. Mr. Dawson has over 25 years of oil and natural gas experience including nine years as General Counsel for Pan-Alberta Gas Ltd., a major Canadian natural gas marketing company. Mr. Dawson received his Bachelor of Arts degree from the University of Lethbridge and his Bachelor of Laws degree from the University of Alberta.
Myles R. Bosman, Alberta, Canada	Vice-President, Exploration and Chief Operating Officer	Mr. Bosman is the Vice-President, Exploration and Chief Operating Officer of Birchcliff and is a Professional Geologist. He has more than 24 years of experience in the oil and gas industry and is one of the Corporation's founders. Prior to joining Birchcliff, Mr. Bosman served as Vice-President, Exploration and Chief Operating Officer of Case Resources Inc.; Exploration Manager of Summit Resources Ltd.; and as an Exploration Geologist with both Numac Energy Inc. and Canadian Hunter Exploration. Mr. Bosman received his Bachelor of Science degree in Geology from the University of Calgary and his Resource Engineering diploma from the Northern Alberta Institute of Technology.
Bruno P. Geremia, Alberta, Canada	Vice-President and Chief Financial Officer	Mr. Geremia is the Vice-President and Chief Financial Officer of Birchcliff and is a Charlered Accountant. He has more than 23 years of experience in the oil and gas industry and is one of the Corporation's founders. Prior to joining Birchcliff, Mr. Geremia served as Vice-President and Chief Financial Officer of both Case Resources Inc. and Big Bear Exploration Ltd.; as Director, Commercial of Gulf Canada Resources; and as Manager, Special Projects of Stampeder Exploration Ltd. Mr. Geremia was previously a Chartered Accountant with Deloitte & Touche LLP. Mr. Geremia received his Bachelor of Commerce degree from the University of Calgary.
Christopher A. Carlsen, Alberta, Canada	Vice-President, Engineering	Mr. Carlsen was appointed Vice-President, Engineering on July 22, 2013. He previously served as Asset Team Lead and Senior Exploitation Engineer with Birchcliff. Mr. Carlsen is a Professional Engineer with more than 14 years of experience in the oil and gas industry. Prior to joining Birchcliff in 2008, he was the Senior Engineer at Greenfield Resources Ltd. and held various engineering positions at both EnCana Corporation and PanCanadian Petroleum Ltd. Mr. Carlsen received his Bachelor of Science in Chemical Engineering from the University of Saskatchewan.
David M. Humphreys, Alberta, Canada	Vice-President, Operations	Mr. Humphreys is the Vice-President, Operations of Birchcliff. He has more than 28 years of experience in the oil and gas industry. Prior to joining Birchcliff in 2009, he served as Vice-President, Operations of Highpine Oil & Gas Ltd., White Fire Energy Ltd., and Virtus Energy Ltd.; Production Manager of both Husky Oil Operations Ltd. and Ionic Energy; and as a Senior Production Engineer with Northrock Resources Ltd. Mr. Humphreys received his Hydrocarbon Engineering Technology diploma from the Northern Alberta Institute of Technology.
James W. Surbey , Alberta, Canada	Vice-President, Corporate Development	Mr. Surbey is the Vice-President, Corporate Development of Birchcliff and is a member of the Law Society of Alberta. He has more than 37 years of experience in the oil and gas industry and is one of the Corporation's founders. Prior to joining Birchcliff, he served as Vice-President, Corporate Development of Case Resources Inc.; Serior Vice-President, Corporate Development of Big Bear Exploration Ltd.; and Vice-President, Corporate Development of Stampeder Exploration Ltd. Mr. Surbey was previously a Serior Partner of the law firm Howard, Mackie (now Borden Ladner Gervais LLP). Mr. Surbey received his Bachelor of Engineering degree and Bachelor of Laws degree from McGill University.



# **Risks**

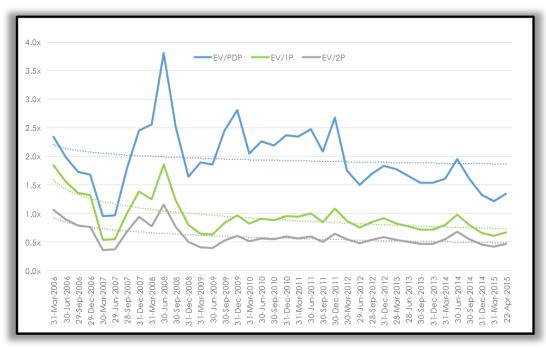
Birchcliff faces all the risks that are typical to the industry, including commodity price risk and the risk of changing fiscal regimes. In addition, Birchcliff faces reserve forecast risks (like its peers) in which unexpected substantial negative revisions could have material implications to the expected value of the business. We are not aware of any current operational issues that raise the prospect of this risk in the near term, and recent production growth performance would further support the notion that asset performance is in line with (or ahead of) expectations. Birchcliff also actively mitigates the inherent risks of the business through the strength of its balance sheet, which provides better-than-average protection against the commodity price volatility that is inherent to its business. Finally, we consider the marginal economics of Birchcliff's core projects to be particularly robust and well positioned to tolerate a low-to-moderate commodity price environment, if necessary.

# **Valuation**

This analyst places marginal credence on cash flow multiples as a means of stock picking as it omits many key factors about reserve booking strategies and corporate profitability. No single metric is perfect in this regard but there are some that better cut through the 'market noise' in our opinion. Our investor recycle ratio (discussed later) and EV/PDP NAV have become two we champion as they fundamentally tell the investor more about the underlying value premise. In the case of Birchcliff, it's enterprise value relative to PDP NAV has vacillated greatly (coincident with natural gas prices, remember 100% unhedged) but this range has also narrowed as the company matures into the intermediate group. More recently, the increasing debt load (and concurrent market cap discount) have left the stock trading below its 9-year average – we believe this valuation gap will narrow on account of cash flow growing into the debt load, organically, and without dilution. On its own, we argue a return to the mean is inevitable, but also against its peers, the company trades at 1.3x, which is less than half the peer group average.



Exhibit 14. A Glance At Reserve Ratios



Source: Company reports, Factset

In Exhibit 16 below, we compare key metrics for some of our larger names under coverage. Birchcliff is the largest name under coverage, and also the most gas-weighted – part of this is evident in the CF/boe, while its total cap, despite being the largest entity, is the lowest per boe, indicating part of the valuation gap we see. If one divides these two metrics, we derive our investor recycle ratio, which currently stands at 1.2x (wherein higher the better, and anything over 1x merits serious attention from the investor). Next we note Birchcliff's corporate time-to-payout at 3.5 years across the last 24 months – we believe anything below 5 years is noteworthy as it reflects expedient full-cycle returns on capital.

Exhibit 16. Beacon Comp Sheet





As shown in Exhibit 17, we have used our standard sum-of-the-parts valuation for Birchcliff. The foundation of our target enterprise value and target price is a function of forecast reserves as of the end of 2016. Unlike other P/NAV models, we only give the company credit for reserves which can be financed within cash flow and available bank line capacity. Our expectation of market value of reserves is derived from the cost base of the Birchcliff business model.

Exhibit 17. Sum-of-the-Parts Valuation

2014 Reserve Value	
2014 Reserves (mmboe)	465.0
Quality Adjustment	0%
Adjusted 2015 Reserves (mmboe)	465.0
Cash Flow Factor (\$/boe)	\$18.00
Reserve Value Factor \$/boe (1.5:1)	\$12.00
Current 2014 Reserve Value	\$5,581.2
2014 Exit Net Debt (\$MM)	(\$545.7)
Future Capital (\$MM)	(\$3,176.5)
Dilution Proceeds (\$MM)	\$97.4
Current Value of 2014 Assets (\$MM)	\$1,956.4
Fully Diluted Shares (MM)	171.4
Per Share (FD) Value	\$11.41

2015E Value Add	
2015 Gross Capex (\$MM)	\$267.2
Less: Land, Seismic & Facilities (\$MM)	(\$85.2)
Drilling Spending (\$MM)	\$182.0
Average Cost per Well (\$MM)	\$5.80
Forecast 2015 Net Wells	31.4
Success Factor	95%
Forecast Successful Wells	29.8
Average Reserves/Well (boe)	833,333
2015 Forecast Depletion (mmboe)	14.3
Wells to Offset Depletion	17.1
Net Growth Wells	12.7
Net Reserve Growth (mmboe)	10.6
Forecast Revisions (mmboe)	0.0
Acquired Reserves (Net of Depr., mmboe)	0.0
Forecast Net Reserves Growth (mmboe)	10.6
Cash Flow Factor (\$/boe)	\$18.00
Reserve Value Factor \$/boe (1.5:1)	\$12.00
Value Add (\$MM)	\$127.0
Change in Net Debt (\$MM)	(\$86.2)
2015 Value Add (\$MM)	\$40.8
2015 Net Risk Adj. Equity Value Add (\$MM, 90%)	\$36.7
Fully Diluted Shares (MM)	171.4
Per Share (FD) Value	\$0.21

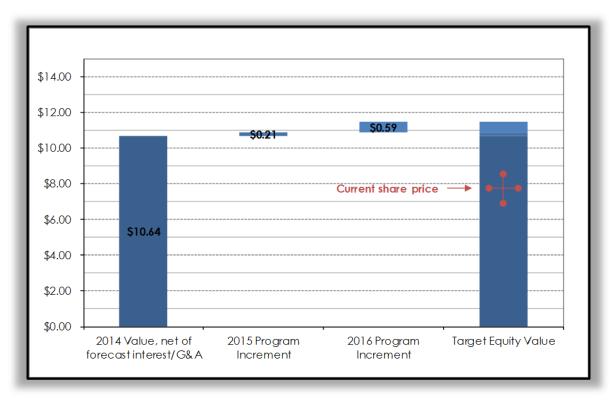
2016E Value Add	
2016 Gross Capex (\$MM)	\$296.0
Less: Land, Seismic & Facilities (\$MM)	(\$78.0)
Drilling Spending (\$MM)	\$218.0
Average Cost per Well (\$MM)	\$5.80
Forecast 2013 Net Wells	37.6
Success Factor	95%
Forecast Successful Wells	35.7
Average Reserves/Well (boe)	833,333
2016 Forecast Depletion (mmboe)	14.6
Wells to Offset Depletion	17.5
Net Growth Wells	18.2
Net Reserve Growth (mmboe)	15.2
Forecast Revisions (mmboe)	0.0
Acquired Reserves (Net of Depr., mmboe)	0.0
Forecast Net Reserves Growth (mmboe)	15.2
Cash Flow Factor (\$/boe)	\$18.00
Reserve Value Factor \$/boe (1.5:1)	\$12.00
Value Add (\$MM)	\$182.0
Change in Net Debt (\$MM)	(\$47.9)
2016 Value Add (\$MM)	\$134.2
2016 Net Risk Adj. Equity Value Add (\$MM, 75%)	\$100.6
Fully Diluted Shares (MM)	171.4
Per Share (FD) Value	\$0.59

Sum of the Parts Value		
	\$MM	Per Share
2014 Reserve Value	\$1,956.4	\$11.41
Interest/G&A Expense	(\$131.8)	(\$0.77)
2015E Value Add	\$36.7	\$0.21
2016E Value Add	\$100.6	\$0.59
Fair Value Estimate	\$1,961.9	\$11.45



Based on our sum-of-the-parts valuation, we derive a 12-month target price of \$11.50 for the company.

Exhibit 18. Sum-of-the-Parts Valuation – Waterfall Chart





# Conclusion

Birchcliff's growth profile has been consistent and profitable, of which its peers can often claim one of the above, but seldom both. We believe more is yet to come as the company continues to develop its extensive inventory of short time-to-payout wells. Although the business model makes a strong full-cycle return a the 'bottom of the cycle', we also argue the company gives the investors full leverage to the commodity upside being unhedged in 2015/2016.

We are initiating coverage of Birchcliff Energy Ltd. (BIR-T) with a Buy rating on the shares and a 12-month target price of \$11.50 per share.



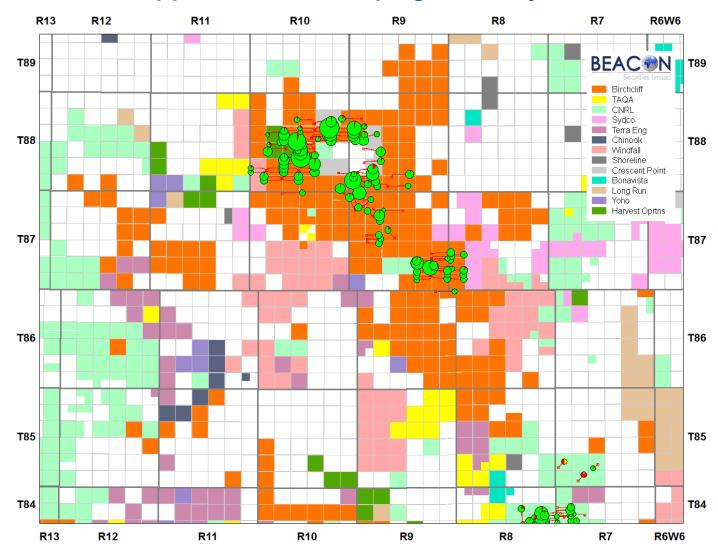
# **Appendix I**

#### Birchcliff Energy Ltd. 20-May-15

			2014					2015E					2016E		
	1Q	2Q	3Q	4Q	2014	1Q	2QE	3QE	4QE	2015E	1QE	2QE	3QE	4QE	2016E
DAILY PRODUCTION															
Liquids (B/d)	5,339	5,282	5,456	5,621	5,425	5,760	5,899	5,970	5,805	5,859	5,864	5,919	5,970	6,217	5,993
Natural gas (MMcf/d)	158.5	155.4	172.7	192.5	169.9	195.9	200.7	203.1	197.5	199.3	199.5	201.3	203.1	211.5	203.9
BOE production per day (6:1)	31,748	31,178	34,235	37,704	33,734	38,416	39,342	39,815	38,713	39,074	39,110	39,477	39,816	41,463	39,972
Commodity price assumptions															
Exchange rate (C\$/US\$)	\$0.91	\$0.92	\$0.92	\$0.88	\$98.24	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81	\$0.81
WTI (US\$/BbI) Natural Gas (US\$/mmbtu)	\$107.96 \$4.72	109.84 \$4.58	102.14 \$3.95	73.02 \$3.83	\$90.76 \$4.46	\$48.57 \$2.87	50.00 \$3.25	50.00 \$3.50	55.00 \$3.75	\$50.89 \$3.34	\$55.00 \$4.00	60.00 \$3.75	60.00 \$4.00	65.00 \$4.25	\$60.00 \$4.00
Company average liquids price (C\$/Bbl)	\$96.80	\$102.53	\$93.59	\$70.16	\$90.42	\$47.29	\$58.73	\$58.73	\$64.90	\$57.50	\$64.90	\$71.07	\$71.07	\$77.25	\$71.20
Company average gas price (C\$/Mcf)	\$6.10	\$4.81	\$4.37	\$3.91	\$79.24	\$2.98	\$2.99	\$3.24	\$3.49	\$3.17	\$3.75	\$3.50	\$3.75	\$4.00	\$3.75
UNIT VALUES (\$/BOE)	\$0.10	ş4.01	φ4.3 <i>1</i>	φ3.91	\$15.24	\$2.56	φ2.99	<b>\$3.24</b>	<b>\$3.43</b>	φ3.17	\$3.73	<b>\$3.50</b>	<b>\$3.73</b>	ş4.00	<b>43.13</b>
Total sales	46.63	41.24	36.86	31.04	38.50	22.28	24.05	25.32	27.52	24.81	28.86	28.51	29.78	31.98	29.82
Royalties (incl ARTC)	(4.43)	(3.35)	(2.63)	(1.84)	38.50 (2.99)	(0.83)	(0.96)	(1.52)	(1.65)	(1.25)	(2.02)	(2.00)	(2.08)	(2.24)	(2.09)
Transportation	(2.48)	(2.46)	(2.42)	(2.40)	(2.99)	(2.58)	(2.50)	(2.50)	(2.50)	(2.52)	(2.50)	(2.50)	(2.50)	(2.50)	(2.50)
Operating expense	(5.21)	(5.25)	(5.06)	(5.33)	(5.22)	(5.11)	(5.10)	(5.10)	(5.10)	(5.10)	(5.10)	(5.10)	(5.10)	(5.10)	(5.10)
Operating netback	34.52	30.17	26.76	21.47	27.86	13.75	15.48	16.20	18.27	15.94	19.24	18.91	20.10	22.15	20.13
G & A expense	(1.89)	(1.91)	(1.44)	(2.02)	(1.81)	(1.70)	(1.68)	(1.64)	(1.68)	(1.67)	(1.70)	(1.67)	(1.64)	(1.57)	(1.64)
Interest expense	(1.70)	(1.70)	(1.50)	(1.42)	(1.57)	(1.70)	(1.43)	(1.44)	(1.48)	(1.45)	(1.70)	(1.50)	(1.49)	(1.45)	(1.48)
Current tax	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other (cash expenses)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					24.47					12.83	16.04			19.12	17.01
Cash flow netback (\$/BOE)	30.93	26.57	23.82	18.04		10.62	12.38	13.13	15.11			15.75	16.97		
Total cash costs (\$/BOE)	(8.80)	(8.86)	(8.00)	(8.77)	(8.60)	(8.24)	(8.21)	(8.17)	(8.26)	(8.22)	(8.30)	(8.27)	(8.22)	(8.12)	(8.23)
Earnings (\$/BOE)	13.82	9.90	9.42	5.16	9.35	(1.01)	0.79	1.46	3.25	1.14	3.40	3.19	4.11	5.72	4.13
Total revenue (\$MM)	133.098	116.963	116.505	107.846	474.412	77.026	86.087	92.749	98.020	353.882	101.575	102.411	109.097	122.006	435.090
Cash flow (\$MM)	88.369	75.382	75.030	62.570	301.351	36.720	44.311	48.082	53.807	182.920	56.450	56.570	62.176	72.939	248.136
Net income (\$MM)	39.499	28.087	29.665	17.907	115.158	(3.479)	2.825	5.362	11.564	16.272	11.979	11.443	15.039	21.803	60.264
Net capital spending (\$MM)	161.403	75.484	104.363	109.682	450.932	98.539	66.000	61.000	41.000	266.539	69.000	69.000	69.000	89.000	296.000
Net debt (\$MM)	524.720	514.637	495.307	545.745	545.745	610.170	631.859	644.777	631.970	631.970	644.519	656.949	663.773	679.834	679.834
D/CF- trailing	1.5x	1.7x	1.7x	2.2x	1.8x	4.2x	3.6x	3.4x	2.9x	3.5x	2.9x	2.9x	2.7x	2.3x	2.75
Weighted average shares outstanding	144.026	145.145	149.594	152.183	147.764	152.243	152.284	152.284	152.284	152.274	152.284	152.284	152.284	152.284	152.284
Weighted average shares fully diluted	147.090	152.623	154.800	155.304	152.483	154.215	158.464	158.464	158.464	157.417	158.464	158.464	158.464	158.464	158.464
EPS basic	\$0.27	\$0.19	\$0.20	\$0.12	\$0.78	(\$0.02)	\$0.02	\$0.04	\$0.08	\$0.11	\$0.08	\$0.08	\$0.10	\$0.14	\$0.40
Diluted EPS	\$0.24	\$0.17	\$0.17	\$0.10	\$0.68	(\$0.02)	\$0.02	\$0.03	\$0.07	\$0.09	\$0.07	\$0.07	\$0.09	\$0.13	\$0.35
CFPS basic	\$0.61	\$0.52	\$0.50	\$0.41	\$2.04	\$0.24	\$0.29	\$0.32	\$0.35	\$1.20	\$0.37	\$0.37	\$0.41	\$0.48	\$1.63
Diluted CFPS	\$0.60	\$0.49	\$0.48	\$0.40	\$1.98	\$0.24	\$0.28	\$0.30	\$0.34	\$1.16	\$0.36	\$0.36	\$0.39	\$0.46	\$1.57



# **Appendix II – Worsley Light Oil Project**



Source: geoScout, Company reports



#### **Disclosure Requirements**

Does Beacon, or its affiliates or analysts collectively, beneficially own 1% or more of any class of the issuer's equity securities? 🗌 Yes 🛛 No
Does the analyst who prepared this research report have a position, either long or short, in any of the issuer's securities? 🗌 Yes 🛛 No
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Was the analyst who prepared this research report compensated from revenues generated solely by the Beacon Securities Investment Banking Department? $\square$ Yes $\boxtimes$ No
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Are there any material conflicts of interest with Beacon Securities or the analyst who prepared the report and the issuer? 🗌 Yes 🔯 No
ls Beacon Securities a market maker in the equity of the issuer? 🗌 Yes 🛮 No
Has the analyst visited the head office of the issuer and viewed its operations in a limited context? 🛛 Yes 🔲 No (Calgary office)
Did the issuer pay for or reimburse the analyst for the travel expenses? $\square$ Yes $\ igotimes$ No
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As at April 30, 2015	#\$tocks	Distribution	
Виу	44	65.7%	Buy
Speculative Buy	14	20.9%	Speculative Buy
Hold	3	4.5%	Hold
Sell	0	0.0%	Sell
Under Review	6	9.0%	Under Review
Total	67	100.0%	

Total 12-month return expected to be > 15%

Potential 12-month return is high (>15%) but given elevated risk, investment could result in a material loss

Total 12-month return is expected to be between 0% and 15%

Total 12-month return is expected to be negative

Currently undergoing a change of analyst coverage

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