

MCDEP Income and Small Cap Weekly

Analysis of Oil & Gas Stocks February 15, 2013

Birchcliff Energy Ltd. (BIREF - Buy) Production Up 26% in 2012

Symbol	BIREF	Ebitda Next Twelve Months ending 12/31/13 (US\$mm)	200
Rating	Buy	North American Natural Gas/Ebitda (%)	45
Price (US\$/sh)	7.51	Natural Gas and Oil Production/Ebitda (%)	100
Pricing Date	2/13/13	Adjusted Reserves/Production NTM	19.4
Shares (mm)	157	EV/Ebitda	8.5
Market Capitalization (US\$mm)	1,180	PV/Ebitda	12.0
Debt (US\$mm)	510	Undeveloped Reserves (%)	71
Enterprise Value (EV) (US\$mm)	1,690	Natural Gas and Oil Ebitda (\$/boe)	25.30
Present Value (PV) (US\$mm)	2,400	Present Value Proven Reserves(\$/boe)	16.10
Net Present Value (US\$/share)	12	Oil and Gas Ebitda Margin (%)	60
Debt/Present Value	0.21	Earnings Next Twelve Months (US\$/sh)	0.26
McDep Ratio - EV/PV	0.71	Price/Earnings Next Twelve Months	29
Dividend Yield (%/year)	0.0	Indicated Annual Dividend (US\$/sh)	0.00
Note: Estimated cash flow and e	arnings 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	ntly.
Estimated present value pr	esumes a long-ter	m price for oil of US\$100 a barrel and natural gas, \$6 a millio	n btu.
For historical analysis of I	Birchcliff see www	w.mcdep.com/5bir.htm	

Summary and Recommendation

Buy-recommended Birchcliff Energy (BIREF) produced 26% more natural gas and oil in 2012, beating our recently raised expectations for volume, price and cash flow margin (see table Operating and Financial Estimates on page 2 compared to Stock Idea Birchcliff, November 15, 2012). Reported on February 1, the favorable progress adds credibility to our estimate of Net Present Value (NPV) of \$12 a share (see table Present Value on page 3). Most of NPV is justified by multiple of cash flow related to proven reserves. Yet, proven reserves for a resource company like Birchcliff are just the tip of the iceberg that includes probable reserves, contingent resources and prospective resources (see chart Resource Promotion on page 3). The company has advanced from the land rush stage, during which it accumulated acreage with prospective resources in the Alberta Montney trend, to a drilling and development stage where it is "promoting" prospective resources to contingent resources to possible reserves to proven reserves. Most notably last year, proven producing reserves increased 41% and contingent resources more than doubled. Contingent resources are the plum that attracts a large corporate buyer who can add value merely by accelerating drilling financed by its deeper pockets. Meanwhile, Birchcliff's financial pockets were deep enough for the company to survive the tough test of low natural gas price in the second quarter last year as a result of a record warm winter. After demonstrating resistance to the downside, the company continues to grow in the current environment while offering extra upside as an attractive acquisition target. Finally, Birchcliff's McDep Ratio is low at 0.71, Debt/Present Value is moderate at 0.21, unlevered cash flow multiple (EV/Ebitda) is low at 8.5 compared to adjusted reserve life of 19 years and stock price has favorable momentum (see Tables 1-4 on pages 4-7).

Kurt H. Wulff, CFA



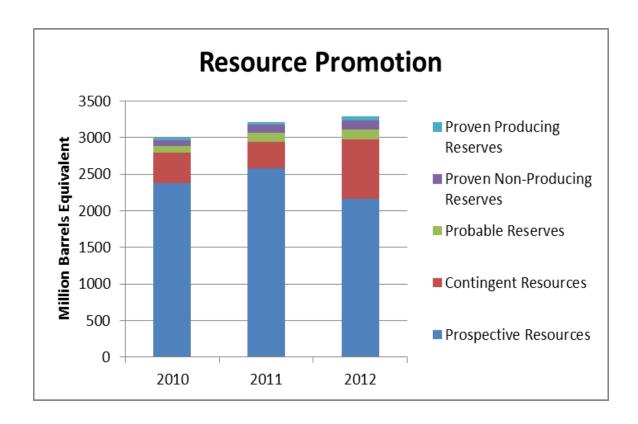
MCDEP Income and Small Cap Weekly Analysis of Oil & Gas Stocks

		В	irchcliff Er	ergy Ltd					
	Next Two	elve Mont	hs Operatir	g and Fi	nancial Es	timates			
			(Canadian I	Dollars)					
									Next
									Twelve
	Q4	Q3	Q4	Year	Q1E	Q2E	Q3E	Q4E	Months
	12/31/11	9/30/12	12/31/12	2012	3/31/13	6/30/13	9/30/13	12/31/13	12/31/13
Volume (before royalty)									
Natural Gas (mmcfd)	90	100	131	107	127	127	127	139	130
Days	92	92	92	366	90	91	92	92	365
Oil (mmb)	0.44	0.44	0.44	1.83	0.42	0.43	0.43	0.44	1.72
Oil (mbd)	4.8	4.7	4.8	5.0	4.7	4.7	4.7	4.8	4.7
Total (mmboe)	1.82	1.97	2.45	8.3	2.33	2.35	2.38	2.57	9.6
Total (mboed)	19.8	21.4	26.7	22.8	25.9	25.9	25.9	28.0	26.4
Price									
Henry Hub (US\$/mmbtu)	3.55	2.80	3.40	2.79	3.29	3.42	3.55	3.75	3.50
Currency (US\$/C\$)	0.98	1.00	1.01	1.00	1.00	1.00	1.00	1.00	1.00
Henry Hub (C\$/mmbtu)	3.63	2.79	3.37	2.78	3.29	3.42	3.56	3.75	3.51
Differential (C\$/mmbtu)	0.23	0.32	(0.06)	0.15	(0.06)	(0.06)	(0.06)	(0.06)	(0.07)
Company (C\$/mcf)	3.40	2.47	3.43	2.63	3.35	3.48	3.62	3.82	3.57
WTI Cushing (US\$/bbl)	94.06	92.22	88.18	94.16	96.29	98.02	98.85	98.33	97.87
WTI Cushing (C\$/bbl)	96.20	91.79	87.41	94.01	96.44	98.16	99.00	98.47	98.02
Differential (C\$/bbl)	0.79	9.73	4.53	9.66	4.99	5.08	5.13	5.10	5.07
Company (C\$/bbl)	95.41	82.07	82.88	84.35	91.44	93.08	93.87	93.37	92.95
Total (\$/bbl)	38.57	29.72	31.80	30.81	33.05	33.99	34.83	35.00	34.24
Revenue (\$mm)									
Natural Gas	28	23	41	103	38	40	42	49	170
Oil	42	36	37	154	39	40	41	41	160
Royalties	(7)	(5)	(6)	(24)	(7)	(8)	(8)	(9)	(31)
Total	63	54	72	233	70	72	75	82	299
Expense	28	20	26	92	28	29	30	33	119
Ebitda (\$mm)	35	33	46	140	42	43	45	49	179
Deprec., Deplet., & Amort.	22	22	29	96	29	29	29	26	114
Other non-cash	2	1	2	2	2	1	1	1	5
Interest	5	6	6	22	6	6	6	6	24
Ebt	6	5	9	20	5	7	9	16	37
Income tax	2	2	3	8	1	2	3	5	11
Net Income (\$mm)	4	3	6	13	3	5	6	11	26
Per share (\$)	0.03	0.02	0.04	0.09	0.02	0.03	0.04	0.07	0.16
Shares (millions)	132	144	144	140	163	163	163	163	163
Ebitda margin (after royalty)	55%	62%	64%	60%	60%	60%	60%	60%	60%
Tax rate	37%	41%	35%	38%	30%	30%	30%	30%	30%



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Birch	cliff Energy	Ltd.			
Functional Cash	h Flow and	Present Valu	ıe		
	NTM Ebitda	Adjusted R/P	PV/ Ebitda	Present Value	
North American Natural Cos	02	12.9	19.2		690/
North American Natural Gas Oil	92 87	10.5	18.2 9.2	1,670 800	68% 32%
Debt	179	12.5	13.8	2,470	100% 510
Net Present Value (US\$mm)					1,960
Shares					163
Net Present Value - Standard Estimate (US\$/sh)					12
NPV Approximation by Cash Flow Multiple Dependent	ding on Reso	erve Life (US	\$/sh)		10





MCDEP Income and Small Cap Weekly Analysis of Oil & Gas Stocks

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	_				Cap Ene						
Debt, S	egmei	ıts	, Cash I	Flow, I	ncome a	nd M	cDe	p Katio)		
			Price								
Sym	bol/Rati	ng	(US\$/sh)	EV/	Enterprise	PV(%)	EV/	Dist.	Dist.	
5,	B = I			Market	Value	Nat	, 0,	Ebitda	NTM	Yield	McDe
СВ	(see belo			Cap	(\$mm)	Gas	Oil	NTM	(\$/un)	(%)	Ratio
		Ĺ		,	()				(. /	ì	
Small Cap Independent Producer	rs										
PDC Energy	PDCE		44.05	1.59	2,120	44	56	12.6	-	-	1.06
Range Resources	RRC	В	71.73	1.30	14,910	72	28	18.0	0.16	0.2	1.02
Peyto Exploration and Developmen	PEYUF		24.30	1.21	4,230	76	24	10.9	0.72	3.0	0.92
Continental Resources (32%)	CLR	В	85.40	1.19	5,960	24	76	7.7	-	-	0.87
Halcón Resources	HK		7.47	1.58	4,000	15	85	5.6	-	-	0.82
Denbury Resources Inc.	DNR		18.92	1.44	10,620	4	96	6.9	-	-	0.75
Berry Petroleum Company	BRY		40.66	1.78	4,010	12	88	5.8	-	-	0.71
Birchcliff Energy Ltd.	BIREF	В	7.31	1.43	1,700	68	32	9.5	-	-	0.69
Cimarex Energy Company	XEC	В	67.25	1.24	7,230	41	59	5.4	0.48	0.7	0.66
Whiting Petroleum Corporation	WLL	В	50.67	1.35	8,160	9	91	4.8	-	-	0.65
Total or Median				1.39	62,900	33	67	7.3			0.79
Leveraged Cash Payers											
Linn Energy, LLC	LINE		37.33	1.67	14,490	43	57	12.2	2.90	7.8	1.13
Vanguard Natural Resources, LLC	VNR		28.31	1.61	2,420	33	67	11.4	2.40	8.5	1.08
Legacy Reserves L.P.	LGCY		26.51	1.46	1,840	25	75	9.1	2.26	8.5	0.92
Enerplus Corporation	ERF	CB		1.68	4,400	31	69	5.9	1.08	8.2	0.74
Total or Median				1.64	23,200	32	68	10.2		8.3	1.00
RTF Cash Payers											
Freehold Royalties Ltd.	FRHLF		23.06	TL	1,580	16	84	10.8	1.68	7.3	1.09
Dorchester Minerals, L.P.	DMLP		23.60	TL	720	61	39	12.6	1.82	7.7	0.87
Enduro Royalty Trust (40%)	NDRO		16.70	BL	220	48	52	7.9	1.88	11.2	0.79
San Juan Basin Royalty Trust	SJT	В	16.32	BL	760	100	-	11.5	0.99	6.0	0.78
Sabine Royalty Trust	SBR	_	48.22	TL	700	51	49	12.2	3.94	8.2	0.74
Permian Basin RT	PBT		14.32	TL	670	33	67	9.1	0.87	6.1	0.72
Cross Timbers Royalty Trust	CRT		29.72	TL	180	70	30	9.3	3.10	10.4	0.67
Hugoton RoyaltyTrust	HGT		8.45	BL	340	88	13	7.3	0.56	6.6	0.60
Mesa RoyaltyTrust	MTR		23.04	BL	43	75	25	9.0	2.05	8.9	0.58
Total or Median					5,200	61	39	9.3		7.7	0.74
CD. Controller D. Cto al D.			January 1		4= 200 de						
CB=Contrarian Buy, Stock Price ap McDep Ratio = Market cap and De											
Present Value (PV) presumes long-								r natural d	rac		
Dist. = Income distribution. NTM:											. 15.17



MCDEP Income and Small Cap Weekly Analysis of Oil & Gas Stocks

		Tab	le ISC-2					
McDep Inc	ome an	d Sı	mall Ca	p Ener	gy Port	folio		
Net P	resent `	Valu	e and I	McDep	Ratio			
				_				
			Price			Net		
			(\$/sh)		Market	Present	Debt/	
	Symbol/		14-Feb	Shares	Cap	Value	Present	McDep
	Ra	ting	2013	(mm)	(\$mm)	(\$/un)	Value	Ratio
Small Cap Independent Producers								
PDC Energy	PDCE		44.05	30.2	1,330	40.00	0.39	1.06
Range Resources	RRC	В	71.73	160.0	11,480	70.00	0.23	1.02
Peyto Exploration and Development Co			24.30	144.0	3,500	27.00	0.16	0.92
Continental Resources (32%)	CLR	В	85.40	58.6	5,000	100.00	0.14	0.87
Halcón Resources	HK		7.47	339.0	2,530	10.00	0.30	0.82
Denbury Resources Inc.	DNR		18.92	391.0	7,400	28.00	0.23	0.75
Berry Petroleum Company	BRY		40.66	55.3	2,250	70.00	0.31	0.71
Birchcliff Energy Ltd.	BIREF	В	7.31	163.0	1,190	12.00	0.21	0.69
Cimarex Energy Company	XEC	В	67.25	86.9	5,840	110.00	0.13	0.66
Whiting Petroleum Corporation	WLL	В	50.67	119.0	6,030	88.00	0.17	0.65
Total or Median					46,550		0.22	0.79
Leveraged Cash Payers								
Linn Energy, LLC	LINE		37.33	233.0	8,700	30.00	0.45	1.13
Vanguard Natural Resources, LLC	VNR		28.31	53.1	1,500	25.00	0.43	1.08
Legacy Reserves L.P.	LGCY		26.51	47.5	1,260	30.00	0.41	0.92
Enerplus Corporation	ERF	СВ	13.19	196.0	2,590	21.00	0.30	0.74
Total or Median	Litti	СВ	13.17	170.0	14,050	21.00	0.35	1.00
RTF Cash Payers								
Freehold Royalties Ltd.	FRHLF		23.06	65.7	1,520	21.00	0.04	1.09
Dorchester Minerals, L.P.	DMLP	В	23.60	30.7	720	27.00	-	0.87
Enduro Royalty Trust (40%)	NDRO		16.70	13.2	220	21.00	-	0.79
San Juan Basin Royalty Trust	SJT	В	16.32	46.6	760	21.00	-	0.78
Sabine Royalty Trust	SBR		48.22	14.6	700	65.00	-	0.74
Permian Basin RT	PBT		14.32	46.6	670	20.00	-	0.72
Cross Timbers Royalty Trust	CRT		29.72	6.0	180	44.00	-	0.67
Hugoton RoyaltyTrust	HGT		8.45	40.0	340	14.00	-	0.60
Mesa RoyaltyTrust	MTR		23.04	1.9	43	40.00	-	0.58
Total or Median					5,150			0.74
B=Buy; CB=Contrarian Buy, Stock Pric	e apparent	ly in d	lowntrend	compared	to 200-day	average.		
McDep Ratio = Market cap and Debt to								
Present Value presumes long-term price							gas.	



MCDEP Income and Small Cap Weekly Analysis of Oil & Gas Stocks

		Tab	le ISC-3	3				
McDep Inco				_				
Value	Multip	les	- Rank	by EV/	Ebitda			
	_							
			Price			Adjstd		
				Revenue	Dist/	Resrvs/	PV/	EV/
	Symbol/		14-Feb	Royalty	Equity	Prod	Ebitda	Ebitda
	Ra	ting	2013	(%)	Ebitda	NTM	NTM	NTM
Small Cap Independent Producers								
Range Resources	RRC	В	71.73		_	15.0	17.6	18.0
PDC Energy	PDCE		44.05		_	15.0	11.9	12.6
Peyto Exploration and Development Corp			24.30		0.32	9.2	11.9	10.9
Birchcliff Energy Ltd.	BIREF	В	7.31		-	19.9	13.8	9.5
Continental Resources (32%)	CLR	В	85.40		-	11.8	8.8	7.7
Denbury Resources Inc.	DNR		18.92		-	14.2	9.2	6.9
Berry Petroleum Company	BRY		40.66		-	12.1	8.2	5.8
Halcón Resources	HK		7.47		-	5.5	6.8	5.6
Cimarex Energy Company	XEC	В	67.25		-	7.4	8.2	5.4
Whiting Petroleum Corporation	WLL	В	50.67		-	9.1	7.4	4.8
Median						12.0	9.0	7.3
Leveraged Cash Payers								
Linn Energy, LLC	LINE		37.33		1.04	14.0	10.7	12.2
Vanguard Natural Resources, LLC	VNR		28.31		1.02	13.2	10.7	11.4
Legacy Reserves L.P.	LGCY		26.51		0.74	11.0	9.9	9.1
Enerplus Corporation	ERF	СВ	13.19		0.74	6.3	7.9	5.9
Median	LKI	СБ	13.17		0.41	12.1	10.2	10.2
RTF Cash Payers		-						
Dorchester Minerals, L.P.	DMLP	В	23.60	77	0.97	6.7	14.4	12.6
Sabine Royalty Trust	SBR	-	48.22	100	1.00	8.1	16.5	12.2
San Juan Basin Royalty Trust	SJT	В	16.32		0.69	9.1	14.8	11.5
Freehold Royalties Ltd.	FRHLF		23.06	80	0.79	5.1	9.9	10.8
Cross Timbers Royalty Trust	CRT		29.72	78	0.97	14.2	13.8	9.3
Permian Basin RT	PBT		14.32	52	0.55	9.9	12.7	9.1
Mesa RoyaltyTrust	MTR		23.04		0.80	7.7	15.6	9.0
Enduro Royalty Trust (40%)	NDRO		16.70		0.89	6.4	9.9	7.9
Hugoton RoyaltyTrust	HGT		8.45		0.48	12.9	12.1	7.3
Median						8.1	13.8	9.3
B=Buy; CB=Contrarian Buy, Stock Price	apparentl	v in c	lowntrend	compared	to 200-da	v average.		
EV = Enterprise Value = Market Cap and							n	
and amortization; NTM = Next Twelve M								
Earnings; PV = Present Value of oil and g				, , , , , ,	2.50			
Top Line Cash Payers defined as those ha				ee fifth co	lumn from	right).		



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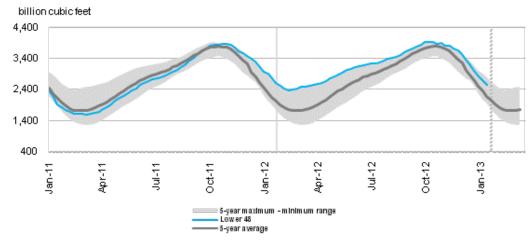
			Table I	SC-4					
McDep	Incom	e ar	id Sma	II Cap 1	Energy	Portfol	io		
Total R	eturn a	and	Enter	orise Va	lue M	omentur	n		
			-						
			Price	Equity					
			(\$/sh)	Total		Enterpris	e Value/		
	Symbol/		14-Feb	Return	52Wk	52Wk		200 Day	McDep
		ting	2013	YTD (%)	High	Low	Avg.	Avg.	Ratio
Small Cap Independent Producers									
PDC Energy	PDCE		44.05	33	0.99	1.55	1.12	1.25	1.06
Continental Resources (32%)	CLR	В	85.40	16	0.90	1.31	1.07	1.12	0.87
Denbury Resources Inc.	DNR		18.92	17	0.92	1.27	1.07	1.12	0.75
Cimarex Energy Company	XEC	В	67.25	17	0.80	1.34	1.08	1.11	0.66
Peyto Exploration and Development C	PEYUF		24.30	5	0.93	1.50	1.03	1.10	0.92
Whiting Petroleum Corporation	WLL	В	50.67	17	0.84	1.28	1.08	1.09	0.65
Range Resources	RRC	В	71.73	14	0.98	1.25	1.07	1.08	1.02
Berry Petroleum Company	BRY		40.66	21	0.81	1.17	1.09	1.05	0.71
Birchcliff Energy Ltd.	BIREF	В	7.31	(3)	0.65	1.29	0.99	1.03	0.69
Halcón Resources	HK		7.47	8	0.67		1.01	0.97	0.82
Median				16	0.87	1.29	1.07	1.10	0.79
Leveraged Cash Payers									
Vanguard Natural Resources, LLC	VNR		28.31	10	0.96	1.14	1.02	1.02	1.08
Legacy Reserves L.P.	LGCY		26.51	14	0.92	1.12	1.05	1.00	0.92
Linn Energy, LLC	LINE		37.33	7	0.92	1.05	1.00	0.98	1.13
Enerplus Corporation	ERF	СВ	13.19	3	0.66	1.09	1.00	0.95	0.74
Enduro Royalty Trust (40%)	NDRO		16.70	0	0.76	1.11	0.99	0.94	0.79
Median				7	0.92	1.11	1.00	0.98	0.92
RTF Cash Payers									
Freehold Royalties Ltd.	FRHLF		23.06	4	0.95	1.36	1.02	1.14	1.09
San Juan Basin Royalty Trust	SJT	В	16.32	22	0.79	1.35	1.13	1.11	0.78
Hugoton RoyaltyTrust	HGT		8.45	16	0.54	1.48	1.06	1.08	0.60
Dorchester Minerals, L.P.	DMLP	В	23.60	18	0.89	1.19	1.10	1.07	0.87
Sabine Royalty Trust	SBR		48.22	22	0.73	1.24	1.08	0.97	0.74
Cross Timbers Royalty Trust	CRT		29.72	12	0.60	1.26	1.05	0.91	0.67
Permian Basin RT	PBT		14.32	17	0.62	1.19	1.08	0.90	0.72
Mesa RoyaltyTrust	MTR		23.04	20	0.53	1.23	1.05	0.88	0.58
Median				18	0.67	1.25	1.07	1.02	0.73
CB=Contrarian Buy, Stock Price appar	ently in do	owntr	end comp	ared to 20	0-day aver	age.			



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Working gas in underground storage compared with the 5-year maximum and minimum



cia Source: U.S. Energy Information Administration

Disclaimer: This analysis was prepared by Kurt Wulff, Manager of McDep LLC. The firm used sources and data believed to be reliable, but makes no representation as to their accuracy or completeness. This analysis is intended for informational purposes and is not a solicitation to buy or sell a security. Past performance is no guarantee of future results.

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