

MCDEP Income and Small Cap Weekly

Analysis of Oil & Gas Stocks February 23, 2012

Birchcliff Energy (BIREF – Buy) Reserves Up 37% in 2011

Symbol	BIREF	Ebitda Next Twelve Months ending 12/31/12 (US\$mm)	173
Rating	Buy	North American Natural Gas/Ebitda (%)	36
Price (US\$/sh)	12.14	Natural Gas and Oil Production/Ebitda (%)	100
Pricing Date	2/22/12	Adjusted Reserves/Production NTM	24.0
Shares (mm)	131	EV/Ebitda	11.6
Market Capitalization (US\$mm)	1,590	PV/Ebitda	14.5
Debt (US\$mm)	410	Probable Reserves (%)	43
Enterprise Value (EV) (US\$mm)	2,000	Natural Gas and Oil Ebitda (US\$/mcfe)	17.27
Present Value (PV) (US\$mm)	2,510	Present Value Proven and Probable Reserves(US\$/boe)	11.39
Net Present Value (US\$/share)	16	Oil and Gas Ebitda Margin (%)	65
Debt/Present Value	0.17	Earnings Next Twelve Months (US\$/sh)	0.43
McDep Ratio - EV/PV	0.80	Price/Earnings Next Twelve Months	28
Dividend Yield (%/year)	0.0	Indicated Annual Dividend (US\$/sh)	0.00
Note: Estimated cash flow and	earnings tied	to one-year futures prices for oil and natural gas.	
Reported results may vary	widely from	estimates. Estimated present value per share revised only infreque	ently.
Estimated present value p	resumes a loi	ng-term price for oil of US\$100 a barrel and natural gas, \$6 a million	on btu.
For historical analysis of	Birchcliff se	e www.mcdep.com/5bir.htm	

Summary and Recommendation

Buy-recommended Birchcliff Energy (BIREF) disclosed a 37% increase in proven and probable reserves and a 29% increase in Present Value (PV10) to \$3.3 billion, discounted at 10% a year (see table Net Present Value of Future Net Revenue on page 2). The independent engineer's estimate translates to Net Present Value per share (NPV) of \$22 compared to our estimate of \$16 (see table Functional Cash Flow and Present Value on page 2). The engineer has complete access to Birchcliff's confidential information while we have constrained our estimate as a multiple of current cash flow. The confidential information has also been disclosed to one or more buyers with whom Birchcliff is in negotiations to sell the whole company. Buyers from each of the major Asian consuming countries, China, Japan and Korea have been actively completing deals with Canadian producers. Most recently last week, Mitsubishi and Encana announced a \$2.9 billion transaction involving resources adjacent to Birchcliff lands. Meanwhile, management today confirms fourth quarter production ahead of our expectations. Moreover, February production to date of 21.1 thousand barrels equivalent daily is ahead of the 20.9 mboed in our estimate (see table Next Twelve Months Operating and Financial Results on page 3). Full results for 2011 will be disclosed on March 14. Lately, Birchcliff stock has fallen back to a McDep Ratio of 0.80 along with a decline in natural gas price. We think the timing looks good for an energy consuming buyer to act in today's uncertain environment to lock in large scale long-term resources in a stable political jurisdiction. The engineer's fresh estimate provides ample justification for a price higher than our NPV.

Kurt H. Wulff, CFA



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NET PRESENT VALUE OF FUTURE NET REVENUE⁽¹⁾ Before Income Taxes Discounted at % per year

			(Forecast Pric	es And Costs)		
	0%	5%	8%	10%	15%	20%
	(MM\$)	(MM\$)	(MM\$)	(MM\$)	(MM\$)	(MM\$)
PROVED		-	-	-	-	-
Developed Producing	1,291.1	992.1	871.1	806.1	681.1	592.0
Developed Non-Producing	178.3	139.2	122.3	113.0	94.5	80.9
Undeveloped	2,764.2	1,697.6	1,284.9	1,070.2	677.4	418.9
TOTAL PROVED	4,233.6	2,828.9	2,278.3	1,989.3	1,453.0	1,091.8
PROBABLE	4,187.1	2,252.1	1,627.7	1,330.8	838.7	552.9
PROVED PLUS PROBABLE	8,420.7	5,081.0	3,906.0	3,320.2	2,291.7	1,644.7

⁽¹⁾ National Instrument 51-101 requires the inclusion of the following statement: Estimates of future net revenues whether discounted or not do not represent fair market value

Birchcliff Energy Ltd.												
Functional Cash Flow and Present Value												
	NTM Adjusted PV/ Present											
	NTM	Adjusted	PV/	Present								
	<u>Ebitda</u>	<u>R/P</u>	<u>Ebitda</u>	<u>Value</u>								
North American Natural Gas	62	26.4	22.7	1,410	56%							
Oil	111	15.7	9.9	1,100	44%							
	173	24.0	14.5	2,510	100%							
Debt					410							
Net Present Value (US\$mm)					2,100							
Shares					131							
Net Present Value - Standard Estimate (US\$/sh)					16							



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	NI 4 FF		irchcliff E						
	Next Two	elve Mont	hs Operatii (Canadian l		nancial Es	timates			
			(Canadian)	Donars)					Next
									Twelve
	Q4	<i>Q3</i>	Q4E	Year	Q1E	Q2E	Q3E	Q4E	Months
	12/31/10	9/30/11	12/31/11	2011E	3/31/12	6/30/12	9/30/12	12/31/12	12/31/12
Volume (before royalty)	12/31/10	2/30/11	12/31/11	ZUIIL	3/31/12	0/30/12)/30/12	12/31/12	12/31/12
Natural Gas (mmcfd)	74	79	89	82	95	100	105	105	101
Oil (mbd)	4.0	4.5	5.0	4.5	5.0	5.0	5.0	4.9	5.0
Total (mboed)	16.4	17.6	19.8	18.1	20.9	21.7	22.5	22.4	21.9
Price	10.1	17.0	17.0	1011	20.7	21.7	22.0	22.1	210
Henry Hub (US\$/mmbtu)	3.80	4.19	3.55	4.04	2.79	2.87	3.06	3.34	3.01
Currency (US\$/C\$)	0.99	1.02	1.00	1.02	1.00	1.00	1.00	1.00	1.00
Henry Hub (C\$/mmbtu)	3.85	4.11	3.54	3.97	2.78	2.86	3.05	3.33	3.01
Differential (C\$/mmbtu)	(0.09)	0.19	0.16	0.12	0.13	0.13	0.14	0.15	0.13
Company (C\$/mcf)	3.94	3.92	3.38	3.85	2.66	2.73	2.91	3.18	2.88
WTI Cushing (US\$/bbl)	85.10	89.76	94.06	95.12	102.64	106.76	107.58	107.55	106.13
WTI Cushing (C\$/bbl)	86.13	87.94	93.88	93.40	102.45	106.76	107.37	107.35	105.93
Differential (C\$/bbl)	5.03	1.75	1.87	2.64	2.04	2.12	2.14	2.14	2.11
Company (C\$/bbl)	81.10	86.19	92.01	90.76	100.41	104.44	105.24	105.21	103.82
Total (\$/bbl)	37.83	39.44	38.50	39.93	36.30	36.79	37.07	37.92	37.04
Revenue (\$mm)	37.03	37.111	30.30	07170	50.50	30.77	37.07	37.52	27101
Natural Gas	27	28	28	115	23	25	28	31	107
Oil	30	36	43	149	46	48	49	47	190
Royalties	(5)	(7)	(7)	(29)	(8)	(8)	(8)	(9)	(33
Total	52	57	63	235	61	65	68	70	264
Expense	19	20	22	80	21	22	24	24	91
Ebitda (\$mm)	33	38	41	155	40	42	45	45	173
Deprec., Deplet., & Amort.	22	18	18	68	18	18	18	18	71
Other non-cash	4	(1)	(1)	3	(1)	(1)	(1)	(1)	(4
Interest	4	5	5	20	5	5	5	5	18
Ebt	3	16	20	64	19	21	23	24	87
Income tax	2	5	7	20	7	7	8	8	31
Net Income (\$mm)	1	12	13	44	12	14	15	16	57
Per share (\$)	0.01	0.09	0.10	0.34	0.09	0.10	0.12	0.12	0.43
Shares (millions)	126	131	131	131	131	131	131	131	131
Ebitda margin (after royalty)	64%	66%	65%	66%	65%	65%	65%	65%	65%
Tax rate	60%	28%	35%	31%	35%	35%	35%	35%	35%



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			,	Table IS	C-1						
Mcl	Dep In	co	me and	l Small	Cap Ene	rgy I	Porti	folio			
Debt, S	egmei	nts	, Cash	Flow, I	ncome ai	nd M	cDe	p Ratio	0		
			Price								
Syn	ibol/Rati	ing	(US\$/sh)	EV/	Enterprise	PV(%)	EV/	Dist.	Dist.	
by	B = 1			Market	Value	Nat	/ 0 /	Ebitda	NTM	Yield	McDep
СВ	(see belo			Сар	(\$mm)	Gas	Oil	NTM	(\$/un)	(%)	Ratio
Small Cap Independent Produce	nc.										
Range Resources	RRC	В	66.10	1.24	13,080	64	36	15.6	0.16	0.2	0.95
PDC Energy	PETD	-	35.80	1.44	1,220	55	45	7.0	0.10	- 0.2	0.92
Peyto Exploration and Developmer		7	18.99	1.22	3,080	75	25	10.0	0.72	3.8	0.82
Berry Petroleum Company	BRY		51.90	1.51	4,280	17	83	6.3	0.72	0.6	0.81
Birchcliff Energy Ltd.	BIREF	В	12.14	1.26	2,000	56	44	11.6	0.52	-	0.80
Cimarex Energy Company	XEC	В	83.73	1.13	8,130	43	57	6.3	0.48	0.6	0.78
Denbury Resources Inc.	DNR	-	19.64	1.32	10,400	4	96	6.1	- 0.40	-	0.76
Whiting Petroleum Corporation	WLL	В	56.56	1.24	8,340	9	91	4.8	_		0.69
Total or Median	WLL	ь	30.30	1.24	50,500	7	71	6.6			0.81
Top Line Cash Payers											
Permian Basin RT	PBT		22.34	1.00	1,040	37	63		1.56	7.0	1.12
Cross Timbers Royalty Trust	CRT		48.30	1.00	290	70	30		2.67	5.5	1.10
Sabine Royalty Trust	SBR		66.37	1.00	970	55	45		4.12	6.2	1.02
Freehold Royalties Ltd.	FRHLF	7	20.55	1.06	1,280	14	86		1.68	8.2	0.98
Dorchester Minerals, L.P.	DMLP	CE	23.36	1.00	720	57	43		1.84	7.9	0.87
Total or Median					4,300					7.0	1.02
Bottom Line Cash Payers											
Linn Energy, LLC	LINE		36.98	1.46	9,470	29	71	12.9	2.76	7.5	1.15
Vanguard Natural Resources, LLC	VNR		27.38	1.54	2,060	26	74	9.6	2.31	8.4	1.06
Enduro Royalty Trust (40%)	NDRO		21.51	1.00	280	45	55	7.4	1.78	8.3	1.02
Legacy Reserves L.P.	LGCY		29.45	1.34	1,880	18	82	8.5	2.20	7.5	0.99
Hugoton RoyaltyTrust	HGT		15.38	1.00	620	87	13	14.9	0.89	5.8	0.90
San Juan Basin Royalty Trust	SJT	CE	18.55	1.00	870	100	-	13.8	1.01	5.4	0.88
Mesa RoyaltyTrust	MTR		42.60	1.00	79	75	25	12.5	2.96	6.9	0.88
Enerplus Corporation	ERF	CE	24.41	1.20	5,800	26	74	6.5	2.16	8.9	0.75
Total or Median		Ĺ			21,100			11.1		7.5	0.95
Composite											
Enterprise Value Weighting					75,900	35	65				0.85
Enterprise value weighting Equal Weighting					73,900	46	54				0.83
						40	58				0.92
Equal Weighted Buys						42	20				0.82
CB=Contrarian Buy, Stock Price ap											
McDep Ratio = Market cap and De											
Present Value (PV) presumes long-	term pri	ces	of \$100 a	barrel for	oil and \$6 a i	million	btu fo	r natural g	gas.		



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		Tab	le ISC-2					
McDep Inc	ome an	d Sı	mall Ca	p Ener	gy Port	folio		
Net P	resent `	Valu	e and l	McDep	Ratio			
			Price			Net		
			(\$/sh)		Market	Present	Debt/	
	Symbol/		22-Feb	Shares	Cap	Value	Present	McDep
	Ra	ting	2012	(mm)	(\$mm)	(\$/un)	Value	Ratio
Small Cap Independent Producers								
Range Resources	RRC	В	66.10	160.0	10,580	70.00	0.18	0.95
PDC Energy	PETD	В	35.80	23.8	850	40.00	0.18	0.93
Peyto Exploration and Development Con			18.99	133.1	2,530	24.00	0.15	0.82
Berry Petroleum Company	BRY		51.90	54.7	2,840	70.00	0.27	0.81
Birchcliff Energy Ltd.	BIREF	В	12.14	131.0	1,590	16.00	0.17	0.80
Cimarex Energy Company	XEC	В	83.73	86.2	7,220	110.00	0.09	0.78
Denbury Resources Inc.	DNR		19.64	403.0	7,910	28.00	0.18	0.76
Whiting Petroleum Corporation	WLL	В	56.56	119.0	6,730	88.00	0.13	0.69
Total or Median					40,250		0.17	0.81
Top Line Cash Payers								
Permian Basin RT	PBT		22.34	46.6	1,040	20.00	-	1.12
Cross Timbers Royalty Trust	CRT		48.30	6.0	290	44.00	-	1.10
Sabine Royalty Trust	SBR		66.37	14.6	970	65.00	-	1.02
Freehold Royalties Ltd.	FRHLF		20.55	58.8	1,210	21.00	0.05	0.98
Dorchester Minerals, L.P.	DMLP	CB	23.36	30.7	720	27.00	-	0.87
Total or Median					4,230			1.02
Bottom Line Cash Payers								
Linn Energy, LLC	LINE		36.98	176.0	6,510	30.00	0.36	1.15
Vanguard Natural Resources, LLC	VNR		27.38	48.8	1,340	25.00	0.37	1.06
Enduro Royalty Trust (40%)	NDRO		21.51	13.2	280	21.00	-	1.02
Legacy Reserves L.P.	LGCY		29.45	47.5	1,400	30.00	0.25	0.99
Hugoton RoyaltyTrust	HGT		15.38	40.0	620	17.00	-	0.90
San Juan Basin Royalty Trust	SJT	СВ	18.55	46.6	870	21.00	-	0.88
Mesa RoyaltyTrust	MTR		42.60	1.9	79	48.00	-	0.88
Enerplus Corporation	ERF	CB	24.41	196.0	4,780	34.00	0.13	0.75
Total or Median					15,880			0.95
			1		. 200 1			
B=Buy; CB=Contrarian Buy, Stock Price McDep Ratio = M arket c ap and De bt to								
Present Value presumes long-term price								



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		Tab	ole ISC-3	3				
McDep Inco	ome an	d S	mall C	ap Enei	gy Por	tfolio		
Value	Multip	les	- Rank	by EV/	Ebitda			
, unu			2144222		Zowau			
			Price			Adjstd		
			(\$/sh)	Revenue	Dist/	Resrvs/	PV/	EV/
	Symbol/		22-Feb	Royalty	Equity	Prod	Ebitda	Ebitda
	Rai	ting	2012	(%)	Ebitda	NTM	NTM	NTM
Small Cap Independent Producers								
Range Resources	RRC	В	66.10		-	15.9	16.4	15.6
Birchcliff Energy Ltd.	BIREF	В	12.14		_	24.0	14.5	11.6
Peyto Exploration and Development Corp		-	18.99		0.37	16.1	12.2	10.0
PDC Energy	PETD		35.80		-	8.2	7.5	7.0
Berry Petroleum Company	BRY		51.90		_	11.4	7.7	6.3
Cimarex Energy Company	XEC	В	83.73		_	8.2	8.0	6.3
Denbury Resources Inc.	DNR		19.64		_	13.5	8.1	6.1
Whiting Petroleum Corporation	WLL	В	56.56		-	10.2	7.0	4.8
Median	WEL	Б	30.30			12.4	8.1	6.6
Top Line Cash Payers								
Cross Timbers Royalty Trust	CRT		48.30	80	0.96	14.4	15.9	17.4
Sabine Royalty Trust	SBR		66.37	100	1.00	7.3	15.8	16.1
Permian Basin RT	PBT		22.34	32	0.98	17.2	12.6	14.1
Dorchester Minerals, L.P.	DMLP	CB	23.36	77	0.84	6.1	12.3	10.7
Freehold Royalties Ltd.	FRHLF		20.55	71	0.81	6.7	10.1	9.9
Median						7.3	12.6	14.1
Bottom Line Cash Payers								
Hugoton RoyaltyTrust	HGT		15.38		0.87	14.2	16.5	14.9
San Juan Basin Royalty Trust	SJT	CB	18.55		0.75	8.5	15.6	13.8
Linn Energy, LLC	LINE		36.98		1.03	16.2	11.2	12.9
Mesa RoyaltyTrust	MTR		42.60		0.87	13.9	14.2	12.5
Vanguard Natural Resources, LLC	VNR		27.38		0.84	8.7	9.0	9.6
Legacy Reserves L.P.	LGCY		29.45		0.63	11.7	8.6	8.5
Enduro Royalty Trust (40%)	NDRO		21.51		0.61	5.7	7.2	7.4
Enerplus Corporation	ERF	СВ	24.41		0.55	8.1	8.6	6.5
Median						10.2	10.1	11.1
B=Buy; CB=Contrarian Buy, Stock Price	annarantl	v in c	lowntrand	compared	to 200-da	v average		
EV = Enterprise Value = Market Cap and							'n	
and amortization; NTM = Next Twelve M							711	
				51, 2012; F	/E - Stoc	K FIICE 10		
Earnings; PV = Present Value of oil and g Top Line Cash Payers defined as those ha				00 fiftle - 1	l f	ui abt)		



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Disclosure: A large shareholder and an officer of Birchcliff are research clients of McDep.

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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Research Methodology/Ratings Description: McDep LLC is an independent research originator focused on oil and gas stocks exclusively. The firm applies the forty years of experience of its analyst to estimate a present value of the oil and gas resources and other businesses of covered companies. That value is compared with a company's stock market capitalization and debt. Stocks with low market cap and debt relative to present value tend to outperform stocks with high market cap and debt relative to present value. Buy recommendations are expected to deliver a total return better than 7% per year above inflation. Hold recommendations assume the attributes of the underlying business are reflected in the current price of the stock. Sell recommendations are expected to deliver a total return less than inflation.