

Analysis of Oil & Gas Stocks May 4, 2012

#### Whiting Petroleum (WLL – Buy) Oil Price Discount Narrows

Symbol	WLL	Ebitda Next Twelve Months ending 3/31/13 (US\$mm)	1,768
Rating	Buy	North American Natural Gas/Ebitda (%)	4
Price (\$/sh)	53.28	Natural Gas and Oil Production/Ebitda (%)	100
Pricing Date	5/3/12	Adjusted Reserves/Production NTM	9.7
Shares (mm)	119	EV/Ebitda	4.6
Market Capitalization (\$mm)	6,340	PV/Ebitda	7.0
Debt (\$mm)	1,870	Undeveloped Reserves (%)	31
Enterprise Value (EV) (\$mm)	8,210	Natural Gas and Oil Ebitda (\$/boe)	58.50
Present Value (PV) (\$mm)	12,340	Present Value Proven Reserves(\$/boe)	35.70
Net Present Value (\$/share)	88	Oil and Gas Ebitda Margin (%)	71
Debt/Present Value	0.15	Earnings Next Twelve Months (US\$/sh)	5.24
McDep Ratio - EV/PV	0.67	Price/Earnings Next Twelve Months	10
Dividend Yield (%/year)	0.0	Indicated Annual Dividend (US\$/sh)	0.00
Note: Estimated cash flow	and earnings tied to one	e-year futures prices for oil and natural gas.	
Reported results may	vary widely from estin	nates. Estimated present value per share revised only infrequ	ently.
Estimated present val	ue presumes a long-ter	m price for oil of US\$100 a barrel and natural gas, \$6 a mill	ion btu.

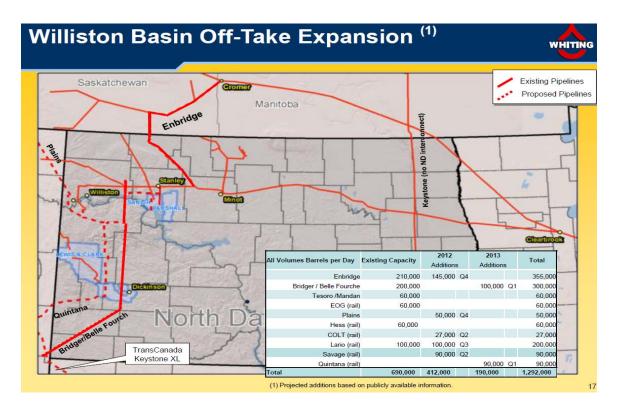
#### **Summary and Recommendation**

Buy-recommended Whiting Petroleum (WLL) may have overcome a steep oil price distortion induced in part by President Obama's blocking of the Keystone oil pipeline. After having dropped to a surprising 20% discount in February, light crude oil from North Dakota (USCRUHC1) and Canada (USCRSYNC) are again quoted at a premium to West Texas Intermediate crude oil priced in Oklahoma (USCRWTIC) (see graph from Bloomberg on page 2). Still to come, the North American oils eventually ought to reclaim their quality premium to the European Brent oil benchmark (EUCRBREN). Political obstruction has spurred the industry to come up with numerous alternatives. Whiting management, on its April 26 quarterly earnings call, highlighted the combined impact of two pipeline and three rail projects that would expand capacity to move North Dakota oil by two thirds in 2012 (see slide Williston Basin Off-Take Expansion on page 2). Whiting would also benefit indirectly from creative Canadian efforts to move oil from the land-locked interior of North America to the coast (see slide Market Access on page 3). Meanwhile, Whiting's 16% boost in oil production in the first quarter over the fourth supports estimated Net Present Value (NPV) of \$88 a share (see tables Functional Cash Flow and Present Value on page 3 and Next Twelve Months Operating and Financial Estimates on page 4). Looking ahead, we think further gains are likely for a leading company in the Bakken shale and related tight formation oil that has vaulted North Dakota past California as the third largest oil producing state. Within months dynamic, low-tax North Dakota may overtake decaying, high-tax Alaska for number two rank in crude oil production.

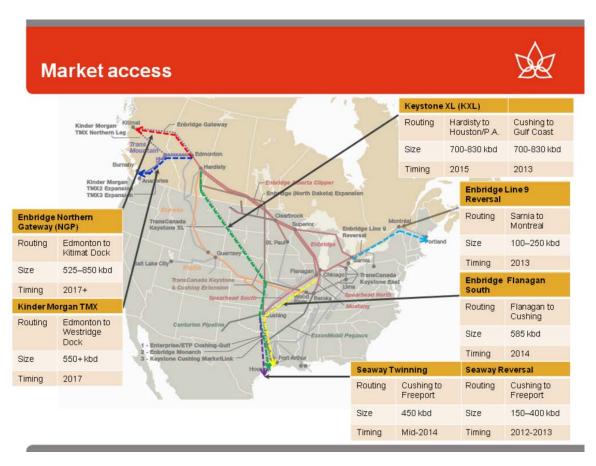
Kurt H. Wulff, CFA











Whiting P	etroleum Co	orporation			
Functional Ca	sh Flow and	Present Va	lue		
				Present	
I .	VTM Ebitda	Adjusted	PV/	Value	
	(US\$mm)	<u>R/P</u>	<u>Ebitda</u>	(US\$mm)	
North American Natural Gas	64	9.4	15.6	1,000	8%
Oil	1,704	9.7	6.7	11,340	92%
	1,768	9.7	7.0	12,340	100%
Debt (US\$mm)					1,870
Net Present Value (US\$mm)					10,470
Shares (mm)					119
Net Present Value - Standard Estimate (US\$/sh)					88
NPV Approximation by Cash Flow Multiple Depe	ending on Res	serve Life (U	JS\$/sh)		86



				um Corp					
	Next Tw	elve Month	ıs Operat	ing and F	inancial l	Estimates			
									Next
									Twelve
	Q1	Q4	Year	Q1	Q2E	Q3E	Year	Q1E	Months
	3/31/11	12/31/11	2011	3/31/12	6/30/12	9/30/12	2012E	3/31/13	3/31/13
Volume									
Natural Gas (mmcfd)	78	69	72	73	73	73	73	73	73
Days	90	92	365	91	91	92	366	90	365
Oil (mmb)	4.8	5.5	20	6.2	6.2	6.4	26	6.6	26
Oil (mbd)	53	59	56	69	69	70	70	73	71
Total (mb)	5.9	6.5	24.8	7.3	7.3	7.6	29.9	7.6	30
Total (mbd)	66	71	68	81	81	82	82	85	83
Price									
Henry Hub (\$/mmbtu)	4.11	3.55	4.04	2.73	2.25	2.46	2.58	3.34	2.73
Differential (\$/mmbtu)	(0.89)	(1.17)	(0.88)	(0.70)	(0.58)	(0.63)	(0.66)	(0.86)	(0.70
Company (\$/mcf)	5.00	4.72	4.92	3.43	2.83	3.08	3.24	4.19	3.43
WTI Cushing (\$/bbl)	94.10	94.06	95.12	102.93	104.32	105.45	104.62	105.77	105.33
Differential	12.26	9.20	10.20	17.13	12.00	12.13	13.31	12.17	12.11
Company (\$/bbl)	81.84	84.86	84.92	85.80	92.32	93.32	91.31	93.60	93.22
Total (\$/bbl)	71.65	75.67	75.07	76.03	81.03	82.30	80.68	83.85	82.61
Revenue (\$mm)									
Natural Gas	35	30	130	23	19	21	86	27	91
Oil	390	462	1,731	536	577	601	2,329	614	2,407
Total	425	492	1,861	559	595	622	2,415	641	2,497
Expense									
Lease operating	72	83	307	95					
Production taxes	32	39	140	45					
General and administrative	18	23	85	34					
Total	122	145	532	174	174	182	716	187	729
Ebitda	303	347	1,329	385	422	440	1,699	454	1,768
Exploration	22	23	84	28	28	28	112	28	112
Deprec., Deplet., & Amort.	108	127	468	156	156	156	624	156	624
Other	7	(12)	9	(6)			(6)		-
Ebit	166	209	767	207	238	256	969	270	1,032
Interest	14	17	62	18	18	18	72	18	72
Ebt	152	192	705	189	220	238	897	252	960
Income Tax	53	67	247	66	77	83	314	88	336
Net Income (\$mm)	99	125	459	123	143	155	583	164	624
Per Share (\$)	0.84	1.05	3.86	1.03	1.20	1.30	4.90	1.38	5.24
Shares (millions)	118	119	119	119	119	119	119	119	119
Ebitda Margin	71%	71%	71%	69%	71%	71%	70%	71%	71%
Tax rate	35%	35%	35%	35%	35%	35%	35%	35%	35%



				Table IS							
McI	Dep In	co	me and	Small	Cap Ene	rgy I	Portf	olio			
Debt, S	egmei	ıts	, Cash l	Flow, I	ncome ai	nd M	cDe	p Ratio	0		
			Price								
Syn	ibol/Rati	ing	(US\$/sh)	EV/	Enterprise	PV(	%)	EV/	Dist.	Dist.	
~,	B = 1		3-May	Market	Value	Nat		Ebitda	NTM	Yield	McDep
СВ	(see belo		2012	Сар	(\$mm)	Gas	Oil	NTM	(\$/un)	(%)	Ratio
Small Cap Independent Produce	•••										
Range Resources	RRC	В	64.67	1.26	13,040	70	30	15.9	0.16	0.2	0.94
PDC Energy	PETD	ь	32.58	1.63	1,250	54	46	7.2	0.10	- 0.2	0.94
Peyto Exploration and Developmen			17.24	1.03	2,790	75	25	9.5	0.73	4.2	0.88
Berry Petroleum Company	BRY		44.20	1.65	3,980	14	86	5.7	0.73	0.7	0.76
Denbury Resources Inc.	DNR		17.92	1.65	9,780	6	94	5.5	0.32	0.7	0.74
Whiting Petroleum Corporation	WLL	В	53.28	1.40	8,210	8	94	4.6		-	0.71
Cimarex Energy Company	XEC	CB		1.19	6,610	41	59	5.3	0.48	0.7	0.67
Birchcliff Energy Ltd.	BIREF			1.19	1,380	60	40	9.0	0.46	0.7	0.63
Total or Median	DIKEF	СБ	0.64	1.57	47,000	00	40	6.4	-	-	0.31
Total of Median					47,000			0.4			0.73
Top Line Cash Payers											
Permian Basin RT	PBT		20.13	1.00	940	37	63		1.43	7.1	1.01
Cross Timbers Royalty Trust	CRT		40.20	1.00	240	70	30		2.55	6.4	0.91
Freehold Royalties Ltd.	FRHLF		19.09	1.04	1,280	16	84		1.69	8.9	0.91
Dorchester Minerals, L.P.	DMLP	CB	23.60	1.00	720	57	43		1.95	8.3	0.87
Sabine Royalty Trust	SBR		56.80	1.00	830	55	45		3.77	6.6	0.87
Total or Median					4,000					7.1	0.91
Bottom Line Cash Payers											
Linn Energy, LLC	LINE		39.95	1.61	12,430	40	60	11.6	2.90	7.3	1.18
Vanguard Natural Resources, LLC	VNR		28.40	1.46	2,180	27	74	9.7	2.37	8.3	1.09
Enduro Royalty Trust (40%)	NDRO		20.21	1.00	270	42	58	7.3	1.75	8.7	0.96
Legacy Reserves L.P.	LGCY		28.45	1.36	1,840	23	77	7.9	2.22	7.8	0.96
Mesa RoyaltyTrust	MTR		34.60	1.00	64	75	25	11.4	2.58	7.5	0.86
San Juan Basin Royalty Trust	SJT	СВ		1.00	800	100		15.8	0.69	4.0	0.82
Hugoton RoyaltyTrust	HGT	CD	13.57	1.00	540	88	12	16.6	0.68	5.0	0.80
Enerplus Corporation	ERF	СВ		1.41	5,000	28	72	5.8	2.18	12.0	0.77
Total or Median		02	10.17	1	23,100			10.6	2.10	7.6	0.91
Composito											
Composite  Enterprise Value Weighting					74,200	37	63				0.81
					74,200						
Equal Weighting						47	53				0.85
Equal Weighted Buys						44	56				0.74
CB=Contrarian Buy, Stock Price ap	parently	in c	lowntrend	compared	to 200-day a	verage.					
McDep Ratio = $\mathbf{M}$ arket $\mathbf{c}$ ap and $\mathbf{D}\mathbf{e}$	bt to <b>p</b> re	sent	value of o	il and gas	and other bus	sinesses	s.				
Present Value (PV) presumes long-								r natural d	190		



		Tabl	le ISC-2					
McDep Inc	ome an	d Sr	nall Ca	p Ener	gy Port	folio		
Net P	resent `	Valu	e and l	McDep	Ratio			
			Price			Net		
			(\$/sh)		Market	Present	Debt/	
	Symbol/		3-May	Shares	Cap	Value	Present	McDep
	Ra	ting	2012	(mm)	(\$mm)	(\$/un)	Value	Ratio
Small Cap Independent Producers								
Range Resources	RRC	В	64.67	160.0	10,350	70.00	0.19	0.94
PDC Energy	PETD		32.58	23.6	770	40.00	0.34	0.88
Peyto Exploration and Development Con			17.24	133.9	2,310	24.00	0.13	0.76
Berry Petroleum Company	BRY		44.20	54.7	2,420	70.00	0.29	0.74
Denbury Resources Inc.	DNR		17.92	391.0	7,010	28.00	0.20	0.71
Whiting Petroleum Corporation	WLL	В	53.28	119.0	6,340	88.00	0.15	0.67
Cimarex Energy Company	XEC	СВ	64.73	86.1	5,570	110.00	0.10	0.63
Birchcliff Energy Ltd.	BIREF	СВ	6.84	147.0	1,010	16.00	0.14	0.51
Total or Median					35,780		0.17	0.73
T. C. I.D.								
Top Line Cash Payers	DDT		20.12	16.6	0.40	20.00		1.01
Permian Basin RT	PBT		20.13	46.6	940	20.00	-	1.01
Cross Timbers Royalty Trust	CRT		40.20	6.0	240	44.00	- 0.02	0.91
Freehold Royalties Ltd.	FRHLF	CD	19.09	64.8	1,240	21.00	0.03	0.91
Dorchester Minerals, L.P.	DMLP	CB	23.60	30.7	720	27.00	-	0.87
Sabine Royalty Trust	SBR		56.80	14.6	830	65.00	-	0.87
Total or Median					3,970			0.91
<b>Bottom Line Cash Payers</b>								
Linn Energy, LLC	LINE		39.95	193.0	7,710	30.00	0.45	1.18
Vanguard Natural Resources, LLC	VNR		28.40	52.5	1,490	25.00	0.34	1.09
Enduro Royalty Trust (40%)	NDRO		20.21	13.2	270	21.00	-	0.96
Legacy Reserves L.P.	LGCY		28.45	47.5	1,350	30.00	0.26	0.96
Mesa RoyaltyTrust	MTR		34.60	1.9	64	40.00	-	0.86
San Juan Basin Royalty Trust	SJT	CB	17.18	46.6	800	21.00	-	0.82
Hugoton RoyaltyTrust	HGT		13.57	40.0	540	17.00	-	0.80
Enerplus Corporation	ERF	CB	18.17	196.0	3,560	26.00	0.22	0.77
Total or Median					15,780			0.91
B=Buy; CB=Contrarian Buy, Stock Price	annarenti	ly in d	owntrend	compared	to 200-das	/ average		
McDep Ratio = $\mathbf{M}$ arket $\mathbf{c}$ ap and $\mathbf{D}$ ebt to								
Present Value presumes long-term price							gas	



		Tab	le ISC-3	3				
McDep Inco	ome an	d S	mall C	ap Enei	gy Por	tfolio		
Value	Multip	les ·	Rank	by EV/	Ebitda			
			Price			Adjstd		
			(\$/sh)	Revenue	Dist/	Resrvs/	PV/	EV/
	Symbol/		3-Мау	Royalty	Equity	Prod	Ebitda	Ebitda
	Ra	ting	2012	(%)	Ebitda	NTM	NTM	NTM
Small Cap Independent Producers								
Range Resources	RRC	В	64.67		-	14.5	16.9	15.9
Peyto Exploration and Development Corp			17.24		0.38	109.9	12.6	9.5
Birchcliff Energy Ltd.	BIREF	СВ	6.84		-	23.7	17.7	9.0
PDC Energy	PETD		32.58		-	8.1	8.2	7.2
Berry Petroleum Company	BRY		44.20		-	12.2	7.7	5.7
Denbury Resources Inc.	DNR		17.92		-	13.3	7.7	5.5
Cimarex Energy Company	XEC	СВ	64.73		-	8.2	8.4	5.3
Whiting Petroleum Corporation	WLL	В	53.28		_	9.7	7.0	4.6
Median	,,,		00.20			12.7	8.3	6.4
Top Line Cash Payers								
Cross Timbers Royalty Trust	CRT		40.20	78	0.96	16.3	16.6	15.1
Sabine Royalty Trust	SBR		56.80	100	1.00	8.2	17.3	15.1
Permian Basin RT	PBT		20.13	32	0.92	9.7	12.8	12.9
Dorchester Minerals, L.P.	DMLP	СВ	23.60	77	1.00	6.1	13.8	12.1
Freehold Royalties Ltd.	FRHLF	СБ	19.09	71	0.75	5.9	9.2	8.4
Median	TRILL		17.07	/1	0.75	8.2	13.8	12.9
Bottom Line Cash Payers								
Hugoton RoyaltyTrust	HGT		13.57		0.83	13.2	20.7	16.6
San Juan Basin Royalty Trust	SJT	СВ	17.18		0.63	8.8	19.3	15.8
Linn Energy, LLC	LINE	СВ	39.95		0.95	14.5	9.8	11.6
Mesa RoyaltyTrust	MTR		34.60		0.86	7.5	13.3	11.4
Vanguard Natural Resources, LLC	VNR		28.40		0.85	13.6	8.9	9.7
Legacy Reserves L.P.	LGCY		28.45		0.63	11.3	8.2	7.9
Enduro Royalty Trust (40%)	NDRO		20.21		0.63	5.2	7.5	7.3
Enerplus Corporation	ERF	СВ	18.17		0.63	6.5	7.5	5.8
Median	LICI	CD	10.17		0.03	10.1	9.4	10.6
B=Buy; CB=Contrarian Buy, Stock Price								
EV = Enterprise Value = Market Cap and							n	
and amortization; $NTM = Next Twelve M$				2013; P/E =	Stock Pr	rice to		
Earnings; PV = Present Value of oil and g								
Top Line Cash Payers defined as those ha	ving Reve	nue F	Royalty (s	ee fifth co	lumn fron	n right).		

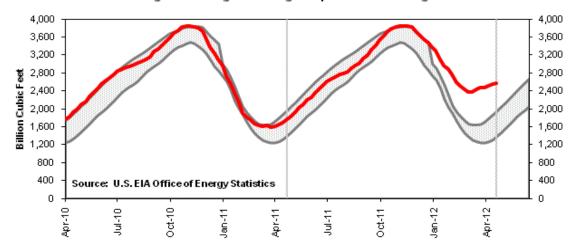


		Tal	ole ISC-4	1				
Oil and	Gas Inc	ome	e and S	Small C	Cap Stoc	ks		
Rank by E	Cnterpri	ise V	Value t	o 200 I	Day Ave	rage		
•	_							
			Price					
			(\$/sh)		Enterpris	e Value/		
	Symbol/		3-Мау	52Wk	52Wk	50 Day	200 Day	McDep
	Ra	ting	2012	High	Low	Avg.	Avg.	Ratio
Small Cap Independent Producers								
Whiting Petroleum Corporation	WLL	В	53.28	0.81	1.55	0.96	1.06	0.67
Denbury Resources Inc.	DNR		17.92	0.85	1.45	0.96	1.05	0.71
PDC Energy	PETD		32.58	0.87	1.49	0.95	1.03	0.88
Range Resources	RRC	В	64.67	0.87	1.21	1.05	1.02	0.94
Berry Petroleum Company	BRY		44.20	0.81	1.23	0.94	0.98	0.74
Cimarex Energy Company	XEC	CB	64.73	0.64	1.22	0.88	0.96	0.63
Peyto Exploration and Development C	PEYUF		17.24	0.71	1.15	1.01	0.86	0.76
Birchcliff Energy Ltd.	BIREF	CB	6.84	0.52	1.13	0.85	0.65	0.51
Median				0.81	1.23	0.96	1.00	0.73
Top Line Cash Payers								
Freehold Royalties Ltd.	FRHLF		19.09	0.82	1.38	0.97	1.00	0.91
Dorchester Minerals, L.P.	DMLP	CB	23.60	0.82	1.13	0.96	0.98	0.87
Permian Basin RT	PBT		20.13	0.86	1.12	0.91	0.95	1.01
Sabine Royalty Trust	SBR		56.80	0.82	1.20	0.93	0.90	0.87
Cross Timbers Royalty Trust	CRT		40.20	0.79	1.11	0.93	0.88	0.91
Median				0.82	1.13	0.93	0.95	0.91
<b>Bottom Line Cash Payers</b>								
Linn Energy, LLC	LINE		39.95	0.98	1.16	1.02	1.04	1.18
Vanguard Natural Resources, LLC	VNR		28.40	0.90	1.19	1.01	1.02	1.09
Legacy Reserves L.P.	LGCY		28.45	0.91	1.20	0.99	1.01	0.96
Mesa RoyaltyTrust	MTR		34.60	0.69	1.17	0.88	0.81	0.86
San Juan Basin Royalty Trust	SJT	CB	17.18	0.67	1.09	0.93	0.79	0.82
Enerplus Corporation	ERF	CB	18.17	0.64	1.03	0.88	0.79	0.77
Hugoton RoyaltyTrust	HGT		13.57	0.57	1.10	0.95	0.72	0.80
Median				0.69	1.16	0.95	0.81	0.86
CB=Contrarian Buy, Stock Price appar	antly in de	Numte:	and comp	ored to 20	O day ayara	ge		



Analysis of Oil & Gas Stocks May 4, 2012

#### Working Gas in Underground Storage Compared with 5-Year Range



**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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