

June 7, 2016

Whiting Petroleum (WLL) Looking Up Again

Symbol	WLL	Ebitda Next Twelve Months ending /30/17 (US\$mm)	951
Rating	Buy	North American Natural Gas/Ebitda (%)	4
Price (\$/sh)	13.83	Natural Gas and Oil Production/Ebitda (%)	100
Pricing Date	6/6/16	Adjusted Reserves/Production NTM	13.5
Shares (mm)	271	EV/Ebitda	8.4
Market Capitalization (\$mm)	3,750	PV/Ebitda	13.0
Debt (\$mm)	4,200	Undeveloped Reserves (%)	51
Enterprise Value (EV) (\$mm)	7,900	Natural Gas and Oil Ebitda (\$/boe)	20.90
Present Value (PV) (\$mm)	12,300	Present Value Proven Reserves(\$/boe)	15.00
Net Present Value (\$/share)	30	Oil and Gas Ebitda Margin (%)	57
Debt/Present Value	0.34	Earnings Next Twelve Months (US\$/sh)	-0.44
McDep Ratio - EV/PV	0.64	Price/Earnings Next Twelve Months	-31
Dividend Yield (%/year)	0.0	Indicated Annual Dividend (US\$/sh)	0.00
Note: Estimated cash flow	and earnings tied to or	ne-year futures prices for oil and natural gas.	
Reported results may	vary widely from est	imates. Estimated present value per share revised only infred	uently.
Estimated present va	lue presumes a long-te	erm price for oil of US\$70 a barrel and natural gas, \$4.00 a n	nillion bt
For historical analys	is of Whiting since 20	09 see www.mcdep.com/4wll.htm	

Summary and Recommendation

Buy-recommended Whiting Petroleum (WLL) survived the Oil Price Panic of 2015 while retaining upside worth multiples of current stock price potentially. Unlevered cash flow (Ebitda) dropped to just \$100 million in the first quarter of 2016 reported on April 27, barely covering interest of \$80 (see table Operating and Financial Estimates on page 2). To reduce financial risk, the company exchanged a half billion dollars of fixed debt for convertible debt and brought in a partner to finance a portion of capital spending on a promoted basis among other moves. The new debt was converted to common shares on May 18, the day of the annual meeting when shareholders voted an increase in the number of shares that could be issued. As a result, the ratio of debt to present value drops to a manageable 0.34 from a threatening 0.47. Meanwhile, oil price gains indicate that Ebitda would double in the second quarter. Rising Ebitda (unlevered cash flow) and adjusted reserve life readily support Net Present Value (NPV) of \$30 a share. (see table Present Value on page 2). From a high near \$92 a share in mid-2014, WLL stock dropped to a low near \$4 in early 2016 and has come back so far to almost \$14. Whiting bonds trading near 40 cents on the dollar a few months ago are now trading above 80 cents, we understand. Production volume is declining this year in the necessary adjustment to restore oil price. The company is ready to increase fracking activity in the North Dakota Bakken when price delivers the signal. We like WLL for the diversified portfolio we advocate that includes representation from each our five oil and gas producer groups (see Tables 1-4 on pages 3-6). Finally, the chart pattern looks strong, we think, as WLL stock price approaches the positive sign of the golden cross when the 50 day average crosses above the 200-day average (see chart on page 7).

Kurt H. Wulff, CFA



		V	Whiting P	etroleum	Corporat	tion				
	Nex	t Twelve	Months (Operating	and Fina	ncial Estin	nates			
										Next
										Twelve
	Q2	Year	Q1	Q2E	Q3E	Q4E	Year	Q1E	Q2E	Months
	6/30/15	2015	3/31/16	6/30/16	9/30/16	12/31/16	2016E	3/31/17	6/30/17	6/30/17
Volume										
Natural Gas (mmcfd)	117	113	115	108	103	97	106	97	97	99
Oil (mbd)	151	144	127	118	112	106	116	106	106	108
Total (mb)	15.5	59.6	13.2	12.5	11.9	11.3	48.9	11.0	11.3	46
Total (mbd)	170	163	147	136	129	123	134	123	123	124
Price										
Henry Hub (\$/mmbtu)	2.66	2.67	2.09	1.95	2.46	2.80	2.33	3.13	2.89	2.82
Differential (\$/mmbtu)	0.74	0.47	1.04	0.95	0.95	0.95	0.99	0.95	0.95	0.96
Company (\$/mcf)	1.92	2.20	1.05	1.00	1.51	1.85	1.34	2.18	1.94	1.86
WTI Cushing (\$/bbl)	57.94	48.79	33.47	45.57	49.09	50.20	44.58	50.82	51.12	50.31
Differential	12.03	10.81	9.45	9.45	9.45	9.45	9.81	9.45	9.45	9.47
Company (\$/bbl)	45.91	37.98	24.02	36.12	39.64	40.75	34.77	41.37	41.67	40.84
Total (\$/bbl)	41.99	35.13	21.69	32.13	35.60	36.82	31.24	37.63	37.69	36.91
Revenue (\$mm)										
Natural Gas	20	90	11	10	14	17	52	19	17	67
Oil	630	2,002	276	392	409	399	1,476	397	408	1,613
Total	651	2,093	286	402	423	416	1,527	416	426	1,680
Expense		,					,			
Lease operating	143	555	114	114	112	110	449	102	103	426
Production taxes	57	183	26	37	39	38	140	38	39	155
General and administrative	45	173	45	40	38	38	161	36	36	149
Total	245	911	185	191	189	186	751	176	178	729
Ebitda	406	1,182	101	211	234	230	777	239	248	951
Exploration	58	213	35	35	35	35	140	30	30	130
Deprec., Deplet., & Amort.	322	1,243	312	300	297	282	1,192	282	271	1,133
Other	(76)	(374)	(61)			(100)	(361)		(100)	(400)
Ebit	102	99	(185)	(24)		12	(194)	27	47	88
Interest	89	334	82	75	71	68	296	66	68	273
Ebt	13	(235)	(267)	(99)		(55)	(490)	(39)	(21)	(185)
Income Tax	4	(82)	(93)	(35)	~ /	(19)	(172)	(14)	~ /	(65)
Net Income (\$mm)	8	(153)	(173)	(64)	. ,	(36)	(319)	(26)	(14)	(120)
Per Share (\$)	0.04	(0.79)	(0.85)	(0.24)		(0.13)	(1.39)	(0.09)	(0.05)	(0.44)
Shares (millions)	204	193	204	271	271	271	230	271	271	271
Ebitda Margin	62%	56%	35%	53%	55%	55%	51%	58%	58%	57%
Tax rate	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%

Whiting P	etroleum Co	orporation							
Functional Ca	sh Flow and	Present Va	alue						
				Present					
1	NTM Ebitda	Adjusted	<i>PV</i> /	Value					
	<u>(US\$mm)</u>	<u>R/P</u>	<u>Ebitda</u>	<u>(US\$mm)</u>					
North American Natural Gas	38	13.4	21.0	800	7%				
Oil	913	13.5	12.6	11,500	93%				
	951	13.5	12.9	12,300	100%				
Debt (US\$mm)					4,200				
Net Present Value (US\$mm)					8,100				
Shares (mm)					271				
Net Present Value - Standard Estimate (US\$/sh)					30				
VPV Approximation by Cash Flow Multiple Depending on Reserve Life (US\$/sh)									



					ble 1						
			Mcl	Dep En	ergy Stoc	cks					
Er	terpris	e '	Value, S	Segmen	ts, Yield a	and Mo	Dep R	atio			
						Duana	4 Value h				
			Price			North	it Value by	v segmer	11 (70)	Dist.	
			(US\$/sh)	EV/	Enterprise	Amer.	Rest of World			Yield	
C.	h. a 1/D a 4		1 · · ·					0:1	Davan		MaDam
3)	mbol/Rati	ng	6-Jun	Market	Value		Natural		Down-	NTM	McDep Deti
Clabel Intermeted			2016	Сар	(\$ <i>mm</i>)	Gas	Gas	Prod'n	stream	(%)	Ratio
Global Integrated Exxon Mobil Corporation	XOM		89.34	1.05	468,000	5	13	63	20	3.4	0.91
•	CVX		89.34	1.25	,	2	13	68	20	4.2	0.91
Chevron Corporation		р		1.35	255,000		11				
Royal Dutch Shell	RDS-A	B		1.72	316,000	1		44	37	7.6	0.74
Total S.A.	TOT	В	48.09	1.53	173,000		22	55	23	5.6	0.64
Total or Median				1.44	1,212,000			59	21	4.9	0.77
Large Independent	DIAL		07.54	1 (1	20.000	25			0	0.6	1.00
Devon Energy Corporation	DVN		37.56	1.61	29,800	25	-	65	9	0.6	1.08
EOG Resources, Inc.	EOG		81.27	1.16	51,700	10	2	88	10	0.8	1.07
Occidental Petroleum Corp.	OXY	_	75.41	1.17	67,100	3	2	85	10	4.0	1.00
Marathon Oil Corporation	MRO	B		1.58	18,600	9	2	89		1.4	0.79
ConocoPhillips	COP	В	45.52	1.70	96,000	11	15	74		2.2	0.76
Total or Median				1.58	263,000	10		85		1.4	1.00
Small Independent											
Cimarex Energy Company	XEC		117.53	1.11	12,200	32		68		0.3	1.27
Range Resources	RRC		45.04	1.40	10,600	70		30		0.2	1.05
California Resources	CRC		15.90	12.31	7,500	10		90		-	0.85
Continental Resources (32%)	CLR	В		1.46	7,300	20		80		-	0.82
Whiting Petroleum Corporation	WLL	В	13.83	2.12	8,000	7		93		-	0.64
Total or Median				1.46	46,000	20		80		-	0.85
Income											
San Juan Basin Royalty Trust	SJT		7.40	1.00	350	100		-		4.7	0.93
Permian Basin RT	PBT		7.31	1.00	340	23		77		7.7	0.67
Dorchester Minerals, L.P.	DMLP	В	13.96	1.00	430	28		72		8.2	0.58
Cross Timbers Royalty Trust	CRT		16.69	1.00	100	57		43		7.9	0.57
Sabine Royalty Trust	SBR	В	34.20	1.00	500	38		62		7.2	0.57
Total or Median				1.00	1,700	38		62		7.7	0.58
Canada											
EnCana Corporation	ECA		8.38	2.14	15,200	44		56		0.7	1.15
Imperial Oil Limited (30%)	IMO		32.78	1.33	11,100	1		70	29	1.3	0.89
Suncor Energy	SU		27.94	1.40	61,800	-		84	16	3.2	0.85
Cenovus Energy Inc.	CVE		15.50	1.30	16,600	10		82	8	1.0	0.82
Birchcliff Energy Ltd.	BIREF	В		1.79	1,400	74		26		-	0.60
Total or Median				1.40	106,000			70		1.0	0.85
Estimated present value presume						l natural ga	as, \$4.00 a	million	btu.		
Estimated present value capped by	,			· ·	,						
McDep Ratio = Market cap and \mathbf{I}	Debt to pre	sen	t value of o	oil and gas	and other bus	inesses					
For historical research see www.	mcdep.con	n									



			Table 2					
	Mc	Dep	Energy	Stocks				
Net	Preser	it Va	lue and	McDep	Ratio			
				-				
			Price			Net		
			(US\$/sh)		Market	Present	Debt/	
	Symbol/R	ating	6-Jun	Shares	Cap	Value	Present	McDe
	B	= Buy	2016	(mm)	(US\$mm)	(US\$/sh)	Value	Rati
Global Integrated								
Exxon Mobil Corporation	XOM		89.34	4,178	373,000	100.00	0.18	0.91
Chevron Corporation	CVX		101.17	1,870	189,000	135.00	0.21	0.80
Royal Dutch Shell	RDS-A	В	49.76	3,701	184,000	80.00	0.31	0.74
Total S.A.	TOT	В	48.09	2,350	113,000	90.00	0.22	0.64
Total or Median				,	859,000		0.21	0.77
Large Independent								
Devon Energy Corporation	DVN		37.56	492	18,500	33.00	0.41	1.08
EOG Resources, Inc.	EOG		81.27	547	44,500	75.00	0.15	1.07
Occidental Petroleum Corp.	OXY		75.41	763	57,500	75.00	0.14	1.00
Marathon Oil Corporation	MRO	В	13.96	845	11,800	20.00	0.29	0.79
ConocoPhillips	COP	B	45.52	1,245	57,000	70.00	0.31	0.76
Total or Median	COI	D	43.32	1,275	189,300	70.00	0.29	1.00
Small Independent					107,500		0.27	1.00
Cimarex Energy Company	XEC		117.53	93	10,900	90.00	0.13	1.27
Range Resources	RRC		45.04	167	7,500	42.00	0.13	1.05
California Resources	CRC		15.90	38	600	50.00	0.78	0.85
Continental Resources (32%)	CLR	В	42.04	118	5,000	56.00	0.78	0.83
	WLL	B		271	,		0.20	0.82
Whiting Petroleum Corporation	WLL	в	13.83	271	3,800	30.00		
Total or Median					28,000		0.30	0.85
Income	C ITT		7.40	47	250	0.00		0.02
San Juan Basin Royalty Trust	SJT		7.40	47	350	8.00	-	0.93
Permian Basin RT	PBT	D	7.31	47	340	11.00	-	0.67
Dorchester Minerals, L.P.	DMLP	В	13.96	31	430	24.00	-	0.58
Cross Timbers Royalty Trust	CRT		16.69	6	100	29.00	-	0.57
Sabine Royalty Trust	SBR	В	34.20	15	500	60.00	-	0.57
Total or Median					1,700		-	0.58
Canada								
EnCana Corporation	ECA		8.38	850	7,100	6.00	0.61	1.15
Imperial Oil Limited (30%)	IMO		32.78	255	8,400	38.00	0.22	0.89
Suncor Energy	SU		27.94	1,583	44,200	35.00	0.24	0.85
Cenovus Energy Inc.	CVE		15.50	825	12,800	20.00	0.19	0.82
Birchcliff Energy Ltd.	BIREF	В	5.00	153	800	11.00	0.27	0.60
Total or Median					73,000		0.24	0.85
Estimated present value presumes a long-t	erm price	for oil	of US\$70 a	barrel and	natural gas. \$4	4.00 a millio	on btu.	
Estimated present value capped by unlever	ed cash flo	ow mul	tiple (EV/E	bitda)	<u>.</u> , .			
McDep Ratio = \mathbf{M} arket \mathbf{c} ap and $\mathbf{D}\mathbf{e}$ bt to \mathbf{p} r								



June 7, 2016

	1.4	n	Table 3					
		-	Energy		_			
			iples and		ıd			
	Ra	nked	l by EV/I	Ebitda				
			Price	Adjustd	DIV	TT 7 /		D · · 1
			(US\$/sh)	Resrvs/	<i>PV/</i>	EV/		Dividen
S	ymbol/Ra	0	6-Jun	Prod	Ebitda	Ebitda	<i>P/E</i>	NTN
	B =	Buy	2016	NTM	NTM	NTM	NTM	(\$/sh
Global Integrated	VOM		00.04	10.5	12.0	11.0	26	2.00
Exxon Mobil Corporation	XOM		89.34	13.7	12.0	11.0	26	3.00
Chevron Corporation	CVX	_	101.17	9.3	11.1	8.9	30	4.28
Total S.A.	TOT	B	48.09	9.8	10.1	6.4	12	2.71
Royal Dutch Shell	RDS-A	В	49.76	8.9	8.4	6.2	13	3.76
Median				9.6	10.6	7.6	20	
Large Independent								
Devon Energy Corporation	DVN		37.56	9.2	15.1	16.4		0.24
EOG Resources, Inc.	EOG		81.27	8.1	13.9	14.9		0.67
Occidental Petroleum Corp.	OXY		75.41	8.2	12.9	13.0		3.00
Marathon Oil Corporation	MRO	B	13.96	13.2	14.6	11.5		0.20
ConocoPhillips	COP	В	45.52	11.4	14.2	10.8		1.00
Median				9.2	14.2	13.0		
Small Independent								
Range Resources	RRC		45.04	14.4	23.6	24.8		0.08
Cimarex Energy Company	XEC		117.53	7.4	13.8	17.5		0.32
Continental Resources (32%)	CLR	В	42.04	11.4	17.2	14.1		-
California Resources	CRC		15.90	11.4	12.1	10.3		-
Whiting Petroleum Corporation	WLL	В	13.83	13.5	13.0	8.4		-
Median				11.4	13.8	14.1		
Income								
San Juan Basin Royalty Trust	SJT		7.40	9.9	20.6	19.0	21	0.35
Sabine Royalty Trust	SBR	В	34.20	10.2	24.4	13.9	14	2.45
Permian Basin RT	PBT		7.31	8.6	16.9	11.3	13	0.57
Dorchester Minerals, L.P.	DMLP	В	13.96	6.8	18.6	10.8	15	1.15
Cross Timbers Royalty Trust	CRT		16.69	6.0	17.2	9.9	13	1.32
Median				8.6	18.6	11.3	14	
Canada								
EnCana Corporation	ECA		8.38	5.7	12.5	14.4		0.06
Birchcliff Energy Ltd.	BIREF	В	5.00	15.5	19.0	11.4		-
Suncor Energy	SU		27.94	22.1	12.1	10.2		0.89
Cenovus Energy Inc.	CVE		15.50	16.9	12.3	10.2		0.15
Imperial Oil Limited (30%)	IMO		32.78	27.7	10.9	9.7		0.43
Median			52.70	16.9	12.3	10.2		0.45
				11	1.4	1.1		
Grand Median				11	14	11		
EV = Enterprise Value = Market Cap and I	Debt; Ebitd	a = Ea	rnings befor	e interest, ta	ax, depreciat	ion		
and amortization; $NTM = Next$ Twelve Mo								

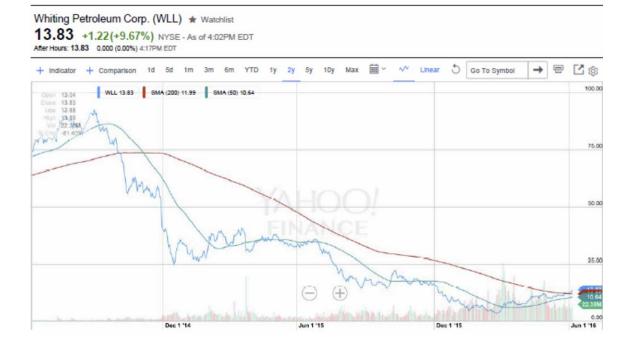
Earnings; PV = Present Value of oil and gas and other businesses For historical research see www.mcdep.com



			Tab	le 4						
		Mc	Dep Ene	ergy Sto	ocks					
			turn Ye	0.		16				
			y Unleve							
			5							
			Price	Price			Equity	Un	levered	
			(\$/sh)	(\$/sh)	Price	Cash	Total		Total	
	Symbol/	Rat	6-Jun	31-Dec	Change	Distrib.	Return	Debt	Return	McDep
			2016	2015	(%)	(%)	(%)	(\$/sh)	(%)	Ratio
Global Integrated										
Exxon Mobil Corporation	XOM		89.34	77.95	15	1	16	23	12	0.91
Chevron Corporation	CVX		101.17	89.96	12	1	14	35	10	0.80
Royal Dutch Shell	RDS-A	В	49.76	45.79	9	2	11	36	6	0.74
Total S.A.	TOT	В	48.09	44.95	7	2	9	26	5	0.64
Median					11		12		8	0.77
Large Independent										
EOG Resources, Inc.	EOG		81.27	70.79	15	0	15	13	13	1.07
Occidental Petroleum Corp.	OXY		75.41	67.61	12	1	13	13	11	1.00
Devon Energy Corporation	DVN		37.56	32.00	17	1	18	23	11	1.08
Marathon Oil Corporation	MRO	В	13.96	12.58	11	0	11	8	7	0.79
ConocoPhillips	COP	В	45.52	46.69	(3)	1	(2)	32	(1)	0.76
Median					12		13		11	1.00
Small Independent										
Range Resources	RRC		45.04	24.62	83	0	83	18	48	1.05
Continental Resources (32%)	CLR	В	42.04	22.98	83	-	83	19	45	0.82
Cimarex Energy Company	XEC		117.53	89.38	31	0	32	13	27	1.27
Whiting Petroleum Corporation	WLL	В	13.83	9.44	47	-	47	15	18	0.64
California Resources	CRC		15.90	23.30	(32)	-	(32)	181	(4)	0.85
Median	ente		10.00	20.00	47		47	101	27	0.85
Income					.,		.,		/	0.00
San Juan Basin Royalty Trust	SJT		7.40	4.14	79	2	81	-	81	0.93
Permian Basin RT	PBT		7.31	5.06	44	1	46	-	46	0.67
Dorchester Minerals, L.P.	DMLP	В	13.96	9.89	41	4	45	-	45	0.58
Sabine Royalty Trust	SBR	B	34.20	26.26	30	2	32	-	32	0.57
Cross Timbers Royalty Trust	CRT	D	16.69	13.01	28	4	32	_	32	0.57
Median	CKI		10.09	15.01	41		45	-	45	0.57
Canada					71		75		75	0.50
Birchcliff Energy Ltd.	BIREF	В	5.00	2.93	71	-	71	4	30	0.60
EnCana Corporation	ECA	D	8.38	5.09	65	1	66	9	23	1.15
Cenovus Energy Inc.	CVE		15.50	12.62	23	1	24	5	17	0.82
Suncor Energy	SU		27.94	25.80	8	1	9	11	6	0.82
Imperial Oil Limited (30%)	IMO		32.78	32.52	0	0	9	11	1	0.85
Median	INIO		32.70	32.32	23	0	24	11	17	0.89
Mealan					23		24		1/	0.05
Grand Median					20		21		15	0.82
Natural Gas (\$/mmbtu)			2 16	2.33	6		21		15	0.02
Oil -West Texas Intermediate (\$/bbl)	-	++	2.46		34					
S&P 500			49.74	37.06	34					
5&r 500			2,109	2,044	3					



June 7, 2016



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.

McDep or its employees may take positions in stocks the firm covers for research purposes. No trades in a subject stock shall be made within a week before or after a change in recommendation.

Certification: I, Kurt H. Wulff, certify that the views expressed in this research analysis accurately reflect my personal views about the subject securities and issuers. No part of my compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in this research analysis.

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 are expected to deliver a total return less than inflation.