

Lower Long-Term Oil to \$70 from \$90

Summary and Recommendation

We reduce our expected long-term oil price for calculating McDep Ratios to \$70 a barrel from \$90 to bring estimates closer to a recent price of \$52 for the West Texas futures benchmark. At the same time, we lower long-term North American natural gas to \$4.50 a million btu from \$6.00 to be closer to \$2.86 for the futures benchmark. As a result, estimates of Present Value (PV) of oil and gas properties are lower by 25%. Lower energy and feedstock costs increase Present Value for downstream refining and chemicals properties by an estimated 25%. At new PV and latest stock prices, median McDep Ratio of 0.77 makes the 24 oil and gas stocks in our coverage appear attractive for long-term investment. Yet stock price momentum has been downward while the oil and gas price outlook remains uncertain as always. Nonetheless, it makes sense, we believe, to aim for a significant weighting of oil and gas in a diversified portfolio. The McDep Portfolio is about a third in the broader stock market for growth, a third in oil and gold for inflation and a third in cash for deflation. Our buy recommendations are the two lowest McDep Ratio stocks in each group, specifically; Chevron (CVX), Total (TOT), ConocoPhillips (COP), Marathon (MRO), Continental Resources (CLR), Whiting Petroleum (WLL), Permian Basin Royalty Trust (PBT), Cross Timbers Royalty Trust (CRT), Canadian Oil Sands (COSWF) and Birchcliff Energy (BIREF) (see Tables 1-4 on pages 2-5). Finally, oil and gas stocks are down, the broader stock market is near its highs and there is plenty of cash around waiting to be invested. The downside is covered and we are optimistic about the upside for oil and gas.

Kurt H. Wulff, CFA



				Ta	ble 1						
			Mc	Dep Ei	nergy Stoo	eks					
E	nterpris	e '	Value, S	Segmei	nts, Yield a	and Mo	cDep R	atio			
						Duccor	t Value b	Saamar	+ (9/)		
			Price			North	Rest of	segmen	(70)	Dist.	
			(US\$/sh)	EV/	Enterprise	Amer.	World			Yield	
S	mbol/Rati		13-Jul	Market	Value		Natural	Oil	Down-	NTM	McDer
	moon nam	"8	2015	Cap	(\$mm)	Gas		Prod'n		(%)	Ratio
Global Integrated			2010	eup	(¢)	Ous	Ous	1.00.11	streetint	(70)	10000
Exxon Mobil Corporation	XOM		82.42	1.24	429,000	8	12	60	20	3.5	0.91
Royal Dutch Shell (BG pro forn	RDS-A		56.79	1.56	345,000					6.6	0.89
Chevron Corporation	CVX	В	94.60	1.32	234,000	3	8	68	21	4.5	0.88
Total S.A.	TOT	В	48.96	1.50	168,000		14	61	25	5.5	0.77
Total or Median				1.41	1,176,000			61	21	5.0	0.89
Large Independent											
EOG Resources, Inc.	EOG		84.21	1.14	52,200	16	2	82		0.8	1.05
Occidental Petroleum Corp.	OXY		73.45	1.12	63,500	5	1	79	15	4.1	0.93
Devon Energy Corporation	DVN		55.40	1.78	40,400	32		55	14	1.7	0.91
ConocoPhillips	COP	В	58.93	1.50	110,000	16	11	74		5.0	0.91
Marathon Oil Corporation	MRO	В	24.73	1.53	25,500	9	1	90		3.4	0.80
Total or Median				1.50	292,000	16		79		3.4	0.91
Small Independent											
Cimarex Energy Company	XEC		106.31	1.18	11,000	41		59		0.6	0.99
California Resources	CRC		5.39	4.35	9,000	14		86		0.7	0.78
Range Resources	RRC		46.12	1.52	11,700	75		25		0.3	0.75
Continental Resources (32%)	CLR	В		1.52	6,700	20		80		-	0.74
Whiting Petroleum Corporation	WLL	В	29.49	1.55	10,800	6		94		-	0.67
Total or Median				1.52	49,000	20		80		0.3	0.75
Income											
San Juan Basin Royalty Trust	SJT		10.80	1.00	500	100		-		4.5	0.72
Dorchester Minerals, L.P.	DMLP		19.65	1.00	600	37		63		6.3	0.70
Sabine Royalty Trust	SBR	-	38.40	1.00	560	43		58		6.9	0.70
Permian Basin RT	PBT	B		1.00	360	23		77		6.3	0.63
Cross Timbers Royalty Trust	CRT	В	15.51	1.00	90	56		44 58		6.8 6.3	0.50
Total or Median Canada				1.00	2,100	43		38		0.3	0.70
Canada Imperial Oil Limited (30%)	IMO		36.86	1.29	12,100	1		67	32	1.1	0.94
EnCana Corporation	ECA		30.80 9.61	2.06	12,100	55		45	32	2.9	0.94
Cenovus Energy Inc.	CVE		14.31	2.06	13,900	10		45	11	5.8	0.86
Canadian Oil Sands Limited	COSWF	В		1.18	6,100	10		100	11	2.2	0.66
Birchcliff Energy Ltd.	BIREF	B	5.29	1.69	1,400	77		23		- 2.2	0.58
Total or Median	DIKEF	ъ	5.29	1.69	50,000	11		67		2.2	0.57
10iai or median				1.09	50,000			07		2.2	0.00
Estimated present value presum	a a lana ta		muios for	all of US	70 - 1 1	1			1.4		



			Table 2					
	Mc	Dep	Energy	Stocks				
Net	Presen	t Va	lue and	McDep	Ratio			
			Price			Net		
			(US\$/sh)		Market	Present	Debt/	
	Symbol/Re		13-Jul	Shares	Cap	Value	Present	McDe
	B =	= Buy	2015	(mm)	(US\$mm)	(US\$/sh)	Value	Ratie
Global Integrated								
Exxon Mobil Corporation	XOM		82.42	4,211	347,000	92.00	0.18	0.91
Royal Dutch Shell (BG pro forma)	RDS-A		56.79	3,900	222,000	68.00	0.32	0.89
Chevron Corporation	CVX	В	94.60	1,876	178,000	111.00	0.21	0.88
Total S.A.	TOT	В	48.96	2,285	112,000	71.00	0.26	0.77
Total or Median					859,000		0.23	0.89
Large Independent								
EOG Resources, Inc.	EOG		84.21	545	45,900	80.00	0.13	1.05
Occidental Petroleum Corp.	OXY		73.45	770	56,600	80.00	0.10	0.93
Devon Energy Corporation	DVN		55.40	410	22,700	65.00	0.40	0.91
ConocoPhillips	COP	В	58.93	1,246	73,000	68.00	0.30	0.91
Marathon Oil Corporation	MRO	В	24.73	675	16,690	34.00	0.28	0.80
Total or Median					214,900		0.28	0.91
Small Independent								
Cimarex Energy Company	XEC		106.31	88	9,300	108.00	0.15	0.99
California Resources	CRC		5.39	382	2,100	12.00	0.60	0.78
Range Resources	RRC		46.12	166	7,700	69.00	0.26	0.75
Continental Resources (32%)	CLR	В	37.54	118	4.400	58.00	0.25	0.74
Whiting Petroleum Corporation	WLL	B	29.49	237	7,000	52.00	0.24	0.67
Total or Median					31,000		0.25	0.75
Income					51,000		0.20	0.75
San Juan Basin Royalty Trust	SJT		10.80	47	500	15.00	-	0.72
Dorchester Minerals, L.P.	DMLP		19.65	31	600	28.00	-	0.70
Sabine Royalty Trust	SBR		38.40	15	560	55.00	-	0.70
Permian Basin RT	PBT	В	7.61	47	360	12.00	-	0.63
Cross Timbers Royalty Trust	CRT	B	15.51	6	90	31.00	-	0.50
Total or Median	CIVI	D	13.51	0	2,100	51.00	-	0.70
Canada					2,100			0.70
Imperial Oil Limited (30%)	IMO		36.86	255	9,400	40.00	0.21	0.94
EnCana Corporation	ECA		9.61	839	8,100	13.00	0.21	0.86
Cenovus Energy Inc.	CVE		14.31	839	11,800	23.00	0.44	0.80
Canadian Oil Sands Limited	COSWF	В	6.96	485	3,400	16.00	0.10	0.00
Birchcliff Energy Ltd.	BIREF	B	5.29	154	3,400 800	12.00	0.20	0.58
Total or Median	DIKEF	D	5.29	134	34,000	12.00	0.23	0.57
101ul or Median					54,000		0.23	0.00
Estimated present value presumes a long-t	erm price f	for oil	of US\$70 a	harrel and	natural cas ¢	4 50 a milli	on htu	

McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses



			Table 3					
	McI	Dep	Energy S	Stocks				
	Value N	Iult	iples and	Dividen	d			
			l by EV/I					
			Price	Adjustd				
			(US\$/sh)	Resrvs/	PV/	EV/		Dividend
S	ymbol/Rat	ino	13-Jul	Prod	Ebitda	Ebitda	P/E	NTM
	B =		2015	NTM	NTM	NTM	NTM	(\$/sh)
Global Integrated	D -	Duy	2015	11111				(\$) 511)
Exxon Mobil Corporation	XOM		82.42	14.2	9.6	8.7	18	2.92
Chevron Corporation	CVX	В	94.60	8.9	8.6	7.6	25	4.28
Total S.A.	TOT	В	48.96	9.7	8.0	6.2	14	2.69
Royal Dutch Shell (BG pro forma)	RDS-A		56.79					3.76
Median				9.7	8.6	7.6	18	
Large Independent								
EOG Resources, Inc.	EOG		84.21	9.3	12.6	13.2	29	0.67
Devon Energy Corporation	DVN		55.40	10.1	11.9	10.9	80	0.96
ConocoPhillips	COP	В	58.93	11.3	11.7	10.6		2.92
Occidental Petroleum Corp.	OXY	_	73.45	9.1	10.8	10.0	43	3.00
Marathon Oil Corporation	MRO	В	24.73	12.8	11.8	9.4		0.84
Median				10.1	11.8	10.6	43	
Small Independent							-	
Range Resources	RRC		46.12	14.9	21.2	16.0	74	0.16
Cimarex Energy Company	XEC		106.31	8.2	13.6	13.4		0.64
California Resources	CRC		5.39	12.1	16.5	12.9		0.04
Continental Resources (32%)	CLR	В	37.54	11.4	14.8	10.9	143	-
Whiting Petroleum Corporation	WLL	В	29.49	10.5	12.6	8.4	_	-
Median				11.4	14.8	12.9	108	
Income								
San Juan Basin Royalty Trust	SJT		10.80	8.3	23.2	16.7	22	0.49
Sabine Royalty Trust	SBR		38.40	9.4	20.6	14.4	14	2.66
Dorchester Minerals, L.P.	DMLP		19.65	7.7	17.8	12.5	26	1.23
Cross Timbers Royalty Trust	CRT	В	15.51	12.6	19.9	10.0	15	1.06
Permian Basin RT	PBT	B	7.61	9.9	15.7	9.9	16	0.48
Median		_		9.4	19.9	12.5	16	
Canada								
Imperial Oil Limited (30%)	IMO		36.86	27.4	12.0	11.3	16	0.41
EnCana Corporation	ECA		9.61	6.7	12.1	10.3	98	0.28
Cenovus Energy Inc.	CVE		14.31	15.5	13.1	8.7		0.83
Birchcliff Energy Ltd.	BIREF	В	5.29	12.6	15.0	8.6		-
Canadian Oil Sands Limited	COSWF	B	6.96	17.5	13.8	8.0	42	0.16
Median			0.70	15.5	13.1	8.7	42	0.10
Grand Median				11	13	10		



			Tab							
	Ν	Ac]	Dep Ene	ergy St	ocks					
			turn Ye			15				
I			y Unleve							
						uin				
			Price	Price			Equity	Un	levered	
			(\$/sh)	(\$/sh)	Price	Cash	Total		Total	
	Symbol/	Rat	13-Jul	29-Dec	Change	Distrib.	Return	Debt	Return	McDep
			2015	2014	(%)	(%)	(%)	(\$/sh)	(%)	Ratic
Global Integrated										
Total S.A.	TOT	В	48.96	52.74	(7)	1	(6)	25	(3)	0.77
Exxon Mobil Corporation	XOM		82.42	93.07	(11)	1	(11)	20	(8)	0.91
Royal Dutch Shell (BG pro forma)	RDS-A		56.79	68.31	(17)	1	(15)	32	(10)	0.89
Chevron Corporation	CVX	В	94.60	113.32	(17)	1	(16)	30	(12)	0.88
Median					(14)		(13)		(9)	0.89
Large Independent										
Devon Energy Corporation	DVN		55.40	61.15	(9)	0	(9)	43	(5)	0.91
Occidental Petroleum Corp.	OXY		73.45	81.71	(10)	1	(9)	9	(7)	0.93
Marathon Oil Corporation	MRO	В	24.73	28.58	(13)	1	(13)	13	(8)	0.80
EOG Resources, Inc.	EOG		84.21	94.33	(11)	0	(11)	12	(9)	1.05
ConocoPhillips	COP	В	58.93	70.11	(16)	1	(15)	30	(10)	0.91
Median					(11)		(11)		(8)	0.91
Small Independent										
Continental Resources (32%)	CLR	В	37.54	38.26	(2)	-	(2)	19	(1)	0.74
California Resources	CRC		5.39	5.77	(7)	0	(6)	18	(2)	0.78
Cimarex Energy Company	XEC		106.31	110.27	(4)	0	(3)	20	(3)	0.99
Whiting Petroleum Corporation	WLL	В	29.49	34.09	(13)	-	(13)	16	(9)	0.67
Range Resources	RRC		46.12	56.00	(18)	0	(18)	24	(12)	0.75
Median					(7)		(6)		(3)	0.75
Income										
Sabine Royalty Trust	SBR		38.40	36.68	5	3	7	-	9	0.70
Cross Timbers Royalty Trust	CRT	В	15.51	18.07	(14)	2	(12)	-	(10)	0.50
Permian Basin RT	PBT	В	7.61	9.12	(17)	1	(16)	-	(15)	0.63
Dorchester Minerals, L.P.	DMLP		19.65	25.16	(22)	2	(20)	-	(19)	0.70
San Juan Basin Royalty Trust	SJT		10.80	13.97	(23)	1	(22)	-	(21)	0.72
Median					(17)		(16)		(15)	0.70
Canada										
Imperial Oil Limited (30%)	IMO		36.86	43.49	(15)	0	(15)	11	(12)	0.94
Birchcliff Energy Ltd.	BIREF	В	5.29	6.75	(22)	-	(22)	4	(14)	0.57
Canadian Oil Sands Limited	COSWF	B	6.96	9.20	(24)	0	(24)	6	(15)	0.58
EnCana Corporation	ECA		9.61	13.94	(31)	1	(31)	10	(17)	0.86
Cenovus Energy Inc.	CVE		14.31	20.95	(32)	1	(31)	3	(26)	0.66
Median					(24)		(24)		(15)	0.66
Grand Median		$\left \cdot \right $			(15)		(14)		(10)	0.77
Natural Gas (\$/mmbtu)		\square	2.86	3.19	(13)		(14)		(10)	0.77
(. ,		\vdash			(10)					
Oil -West Texas Intermediate (\$/bbl)			52.20	53.69	(3)					



		Index	of Recent Research
Stock 1	ldeas		
Date	Symbol	<u>Subject</u>	<u>Theme</u>
7-Jul	PBT	Permian Basin Royalty Trust	Buy Underestimated Future Oil & Gas Production
12-May	MRO	Marathon Oil	New Buy on Independent Shale Oil (Meter Reader)
1-May		CVX, XOM, RDS, TOT	Raise NPV for XOM and TOT on Cash Flow Margin
30-Apr	SJT	San Juan Basin Royalty Trust	New Buy on Depressed Natural Gas
29-Apr	CVE	Cenovus Energy	New Buy on Operating Leverage
28-Apr	TOT	Total	Operating Strength Reinforces New Buy
14-Apr	RDSA	Royal Dutch Shell plc	Shell to Acquire BG - Catalyst for Confidence (MR)
9-Mar	XOM	Exxon Mobil	Safe at Any Likely Oil Price
27-Feb	EOG	EOG Resources	Top Value Creator
30-Jan	COSWF	Canadian Oil Sands Ltd.	Syncrude Lowers Breakeven to \$US32 a Barrel
23-Dec	RRC	Range Resources	Record Appalachian Well (Meter Reader)
9-Dec	WLL	Whiting Petroleum	Kodiak Acquisition Completed (Meter Reader)
25-Nov	COP	ConocoPhillips	Strong 4% Dividend Independent Producer
13-Nov	BIREF	Birchcliff Energy	Raise NPV to US\$16 on Alberta Natural Gas
4-Nov	CRC	California Resources Corporation	Pure Play Largest California Producer (Meter Reader)
21-Oct	XEC	Cimarex Energy	Strong Independent Producer (Meter Reader)
14-Oct	DVN	Devon Energy	Rebalance Candidate (Meter Reader)
7-Oct	ECA	Encana Corporation	Suttles' Stamp (Meter Reader)
23-Sep	CLR	Continental Resources	Raise NPV to \$85 on 29% Growth (Meter Reader)
8-Aug	DMLP	Dorchester Minerals, L.P.	Robust Bakken and Permian Oil Growth
10-Jun	OXY	Occidental Petroleum	Raise NPV to \$120, Spinoff Filed (Meter Reader)
	For histori	cal research by stock, go to mcdep.c	om, click on <u>Stock Ideas</u> , click on stock by name.
Meter	Reader		
16-Jun		RDS, MRO, EOG, CLR, DMLP	Oil and Gas Strengthen U.S. Security
12-May	MRO	Marathon Oil	New Buy on Independent Shale Oil
14-Apr	RDS	Royal Dutch Shell plc	Shell to Acquire BG - Catalyst for Confidence
10-Mar		DMLP, SBR, CRT, SJT	RTF Income Tracks Oil Price
10-Feb		CRT, CRC,COP, CVX	Oil Price Cycle Advances
13-Jan		SBR, XEC, COSWF, DVN, XOM	Oil and Gas Stocks on Sale
30-Dec		Book Review	The Moral Case for Fossil Fuels by Alex Epstein
23-Dec	RRC	Range Resources	Record Appalachian Well
16-Dec			Oil and Gas Stocks for 2015 - For Contrarians and Rebalancers
9-Dec	WLL	Whiting Petroleum	Kodiak Acquisition Completed (Meter Reader)
2-Dec			Rebuild Oil and Gas Positions
25-Nov	COP	ConocoPhillips	Strong 4% Dividend Independent Producer
18-Nov	DMLP, SJT	RTF (Royalty Trust Fund)	DMLP, SJT and the RTF - High Income without Debt
	COSWF	Canadian Oil Sands Ltd.	Record Monthly Production
4-Nov	CRC	California Resources Corporation	
28-Oct	CVE	Cenovus Energy	Same Stock Price, Twice the Production
21-Oct	XEC	Cimarex Energy	Strong Independent Producer
14-Oct		Devon Energy	Rebalance Candidate
7-Oct	ECA	Encana Corporation	Suttles' Stamp
	For earlier	editions, go to mcdep.com, click or	Meter Reader.
Inducti	v Ideas		
	ry Ideas	DMID SED COT SIT DOT	Understated Decerves, June Distributions Un
22-Jun		DMLP, SBR, CRT, SJT, PBT	Understated Reserves, June Distributions Up
Industi 22-Jun 28-May 1-Apr		DMLP, SBR, CRT, SJT, PBT DMLP, SBR, CRT, SJT, PBT	Understated Reserves, June Distributions Up Distributions Rise on Roll Forward Recommitting to Oil and Gas Stocks



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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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.