

# Thrive and Survive in Oil and Gas Investments

# **Summary and Recommendation**

In the face of an uncertain future, we like oil and gas investments for the combination of growth with inflation protection and deflation resistance. Portfolios with those characteristics can thrive in good times and survive in bad times. After a good 2000s for oil, the 2010s still look good if not as great for oil, better from here for natural gas, surprisingly better for U.S. refining, great for North American consumers of natural gas and positive for North American oil security. Solid European companies are likely to continue to make money in global markets. Producers in developing countries may share the stronger growth prospects of less mature, lower debt economies. Buy recommendations tap into all those trends to some degree while priced at low McDep Ratios ranging from 0.42 to 0.89 (see <u>Table 1</u> on page 2).

# **McDep Ratios Illustrate Investment Growth Potential**

Stocks priced at a McDep Ratio below 1.00 offer better than a 7% a year unlevered return above inflation by our estimates. Stocks priced at McDep Ratios above 1.00 offer less than a 7% a year unlevered return above inflation. The quantitative analysis concentrates on prospects related to proven reserves independent of quality of management. Qualitative considerations of unusual volume growth potential or unusual management quality need to be weighed in addition to McDep Ratio in deciding to invest.

The ability to withstand surprise deflation of economic conditions is greater for companies with lower ratios of Debt to Present Value (see <u>Table 2</u> on page 3). In addition, energy meets basic needs that consumers try to satisfy even if times are too difficult to buy a new house, car or appliance.

## Oil is a "Hard Asset"

Real assets like oil reserves, refineries and manufacturing facilities that companies own get priced higher and higher in monetary terms to offset inflation when there is a continuing need for those assets. During the 2000s, oil, measured by the average of future prices for the next six years, increased more than four-fold to the recent quote of \$92 a barrel (see chart (Oil Six-Year Futures Strip on page 6). The price may soon cross above the 40-week average of \$92 to restart an uptrend (see chart Six-Year Commodity Price Meter on page 6). During the 2000s natural gas peaked and then continued to decline with the unexpected bounty of shale gas (see chart Natural Gas Futures on page 7). In a hopeful sign, one-year natural gas futures have been trading above the 40-week average for 11 weeks (see chart Natural Gas One-Year Futures Strip on page 7).

Kurt H. Wulff, CFA



				Table	_					
	$\mathbf{M}$	[cL	ep Lar	ge Cap	Energy S	Stocks				
	Geogra	ph	ic Dom	icile an	d Busines	s Segm	ents			
						Prese	nt Value by	Soomer	nt (%)	
			Price			North	Rest	beginer	1 (20)	
			(US\$/sh)	EV/	Enterprise	Amer.				
Si	mbol/Rat	inσ	10-Sep	Market	Value	Natural	Natural	Oil	Down-	McDer
B = Buy, C		-	2012	Сар	(\$mm)	Gas	Gas	Prod'n		Ratio
U.S. and Europe Integrated	D (See ser	011)	2012	Сир	(Dining)	Gus	Gus	170471	Bir cum	70000
BG Group	BRGYY		20.38	1.24	86,000		24	42	34	0.98
Exxon Mobil Corporation	XOM	R	89.48	1.17	486,000	7	20	56	16	0.84
Royal Dutch Shell plc	RDS-A		70.98	1.26	281,000	3	22	56	19	0.74
Chevron Corporation	CVX		113.96	1.12	251,000	3	11	76	10	0.70
Statoil ASA (33%)	STO		25.69	1.49	40,200		34	66	-	0.68
BP plc	BP	_	42.04	1.64	222,000	4	8	63	25	0.62
Total S.A.	TOT	В	51.37	1.37	160,000		22	64	14	0.59
Total or Median	101		51.57	1.57	1,526,000			63	1.1	0.70
Brazil/Russia/Australia/Chin	9				1,520,000			05		0.70
Woodside Petroleum Ltd.	WOPEY		36.27	1.25	37,000		68	32	_	0.84
CNOOC Limited (36%)	CEO		183.40	1.01	30,000		9	91	_	0.74
PetroChina Company Ltd (14%)		CB		1.39	42,700		15	77	9	0.65
Petrobras	PBR			1.54	218,000		5	81	14	0.59
Gazprom (50%)	OGZPY			1.28	75,000		11	13	76	0.43
Lukoil Oil Company	LUKOY		60.41	1.06	50,000		- 11	71	29	0.43
Total or Median	Lokoi		00.41	1.00	453,000			74	27	0.62
U.S. Independent					455,000			/ 7		0.02
EOG Resources, Inc.	EOG	R	112.40	1.19	36,200	32	4	64	_	0.88
Chesapeake Energy Corp.	CHK		19.57	2.41	35,400	56	-	44	_	0.86
Southwestern Energy Company	SWN		32.50	1.16	13,100	100			_	0.83
Anadarko Petroleum Corp.	APC		70.40	1.48	52,000	34		63	3	0.78
Occidental Petroleum Corp.	OXY	CB		1.13	79,000	8	1	81	10	0.74
ConocoPhillips	COP		56.18	1.56	108,000	13	13	74	-	0.69
Devon Energy Corporation	DVN			1.35	32,400	46	15	54	_	0.65
Marathon Oil Corporation	MRO			1.44	29,100	7	3	90	_	0.62
Total or Median	MICO	CD	20.47	1.77	385,000	/	, ,	64	_	0.76
Canada					303,000			04		0.70
Penn West Exploration	PWE		15.01	1.62	11,500	18		82	_	0.83
Imperial Oil Limited (30%)	IMO	P	48.13	1.02	14,400	2		84	14	0.80
Cenovus Energy Inc.	CVE		34.71	1.17	33,700	11		73	16	0.80
EnCana Corporation	ECA		22.59	1.51	25,000	86		14	- 10	0.77
Suncor Energy	SU		33.26	1.28	66,100	2		80	18	0.70
Canadian Oil Sands Limited	COSWF		21.96	1.22	13,000			100	- 10	0.54
Total or Median	COSWF	ם	21.90	1.44	164,000			81	_	0.74
C					2 520 000					0.00
Composite					2,528,000	8	14	63	16	0.69



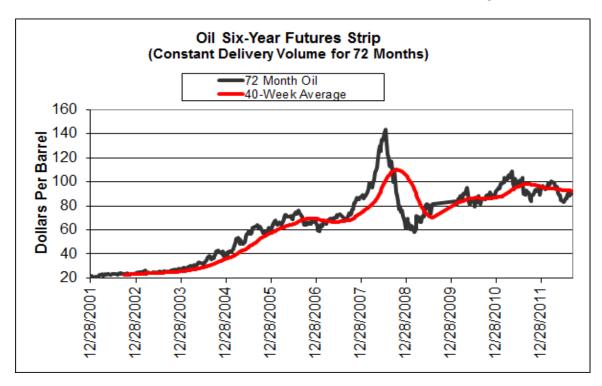
	McDer	I at	Table 2		Stocks			
	_		rge Cap					
N	et Pres	ent	Value ai	ia Mich	ep Ratio			
			Price			Net		
			(US\$/sh)		Market	Present	Debt/	
	Symbol/R	ativa	10-Sep	Shares	Сар	Value	Present	McDep
B = Buv	CB (see b		2012	(mm)	(US\$mm)	(US\$/sh)	Value	Ratio
,	(555)	,		(	(======================================	(0.00,0.0)	7	
U.S. and Europe Integrated								
BG Group plc	BRGYY		20.38	3,415	69,600	21.00	0.19	0.98
Exxon Mobil Corporation	XOM	В	89.48	4,657	417,000	110.00	0.12	0.84
Royal Dutch Shell plc	RDS-A	В	70.98	3,133	222,000	102.00	0.15	0.74
Chevron Corporation	CVX	В	113.96	1,968	224,000	170.00	0.07	0.70
Statoil ASA (33%)	STO	В	25.69	1,050	27,000	44.00	0.22	0.68
BP plc	BP		42.04	3,214	135,000	84.00	0.24	0.62
Total S.A.	TOT	В	51.37	2,264	116,000	100.00	0.16	0.59
Total or Median				-,	1,211,000		0.16	0.70
Brazil/Russia/Australia/China					_,,			
Woodside Petroleum Ltd.	WOPEY		36.27	808	29,300	45.00	0.17	0.84
CNOOC Limited (36%)	CEO		183.40	161	29,600	250.00	0.01	0.74
PetroChina Company Ltd (14%)	PTR	СВ	119.67	256	30,700	210.00	0.18	0.65
Petrobras	PBR	CB	21.74	6,522	141,800	45.00	0.21	0.59
Gazprom (50%)	OGZPY	CB	10.27	5,735	58,900	28.00	0.09	0.43
Lukoil Oil Company	LUKOY	В	60.41	780	47,100	150.00	0.02	0.42
Total or Median	LUKUI		00.41	700	337,000	150.00	0.13	0.62
U.S. Independent					557,000		0.15	0.02
EOG Resources, Inc.	EOG	В	112.40	270	30,400	130.00	0.14	0.88
Chesapeake Energy Corp.	CHK	ь	19.57	751	14,700	27.00	0.14	0.86
Southwestern Energy Company	SWN		32.50	348	11,300	40.00	0.11	0.83
	APC		70.40	500		100.00	0.11	0.83
Anadarko Petroleum Corp.  Occidental Petroleum Corp.	OXY	СВ	86.32	811	35,200	120.00	0.23	0.74
	COP	В			70,000			0.74
ConocoPhillips		CB	56.18	1,230 405	69,000	96.00	0.25	0.65
Devon Energy Corporation	DVN		59.37		24,000	102.00	0.17	
Marathon Oil Corporation	MRO	CB	28.47	709	20,190	54.00	0.19	0.62
Total or Median					274,800		0.18	0.70
Canada	DMZ		15.01	454	<b>5</b> 100	20.00	0.22	0.00
Penn West Exploration	PWE	_	15.01	474	7,100	20.00	0.32	0.83
Imperial Oil Limited (30%)	IMO	В	48.13	256	12,300	62.00	0.12	0.80
Cenovus Energy Inc.	CVE	В	34.71	758	26,300	48.00	0.17	0.77
EnCana Corporation	ECA	В	22.59	736	16,600	37.00	0.24	0.70
Suncor Energy	SU	В	33.26	1,558	51,800	64.00	0.13	0.58
Canadian Oil Sands Limited	COSWF	В	21.96	485	10,700	45.00	0.10	0.54
Total or Median					125,000		0.15	0.74
CB=Contrarian Buy, Stock Price ma	v in down	rend c	ompared to	200-day a	verage			
McDep Ratio = Market cap and Deb								

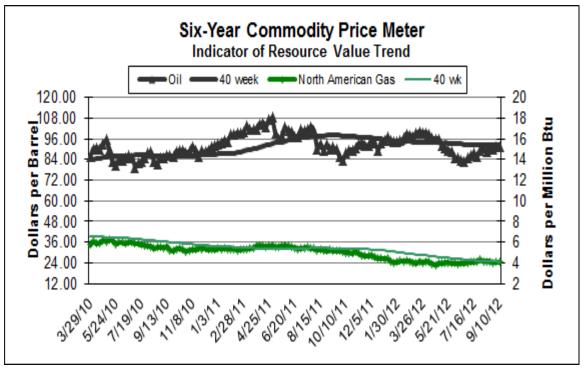


Table 3								
$\mathbf{M}$	lcDep L	arg	ge Cap I	Energy S	tocks			
Va	lue Mu	ltip	les and	Dividend	l Yield			
			Price	4 -1:				
			(US\$/sh)	Adjustd Resrvs/	PV/	EV/		Dividend
	Combal/Da	timer			Ebitda	Ebitda	P/E	NTM
	Symbol/Ra	_	10-Sep 2012	Prod NTM	NTM	NTM		
B = Buy,	CB (see be	iow)	2012	NIM	NIM	NIM	NTM	(%)
U.S. and Europe Integrated								
BG Group plc	BRGYY		20.38	8.6	7.5	7.3	13	1.2
Exxon Mobil Corporation	XOM	В	89.48	13.1	7.7	6.5	11	2.5
Royal Dutch Shell plc	RDS-A	В	70.98	10.1	6.9	5.2	10	4.8
BP plc	BP		42.04	11.4	8.2	5.1	7	4.6
Chevron Corporation	CVX	В	113.96	9.2	7.1	4.9	10	3.2
Total S.A.	TOT	В	51.37	10.2	7.7	4.6	8	5.9
Statoil ASA (33%)	STO	В	25.69	6.3	6.2	4.2	8	4.2
Media	n			10.1	7.5	5.1	10	4.2
Brazil/Russia/Australia/China								
Woodside Petroleum Ltd.	WOPEY		36.27	12.7	8.7	7.3	11	3.6
Petrobras	PBR	СВ	21.74	13.1	8.0	4.7	7	4.8
PetroChina Company Ltd (14%)	PTR	CB	119.67	13.0	6.8	4.4	8	4.2
CNOOC Limited (36%)	CEO		183.40	6.6	5.2	3.9	7	3.0
Lukoil Oil Company	LUKOY	В	60.41	16.5	6.0	2.5	5	3.9
Gazprom (50%)	OGZPY	CB	10.27	31.2	5.5	2.3	3	5.5
Media	n			13.0	6.4	4.1	7	4.1
U.S. Independent								
Southwestern Energy Company	SWN		32.50	7.2	14.8	12.4	27	_
Chesapeake Energy Corp.	CHK		19.57	10.0	11.6	10.0	29	1.8
EOG Resources, Inc.	EOG	В	112.40	9.3	7.3	6.5	24	0.6
Anadarko Petroleum Corp.	APC		70.40	8.3	7.7	6.0	19	0.5
ConocoPhillips	COP	В	56.18	12.7	8.2	5.6	10	4.7
Occidental Petroleum Corp.	OXY	CB	86.32	10.0	7.5	5.6	11	2.5
Devon Energy Corporation	DVN	СВ	59.37	9.7	8.3	5.4	16	1.3
Marathon Oil Corporation	MRO	CB	28.47	9.7	6.6	4.1	8	2.4
Media	n			9.7	7.9	5.8	18	1.6
Canada								
EnCana Corporation	ECA	В	22.59	8.4	14.2	10.0		3.5
Imperial Oil Limited (30%)	IMO	В	48.13	19.3	10.8	8.7	11	1.0
Penn West Exploration	PWE		15.01	7.5	9.1	7.5	13	7.4
Cenovus Energy Inc.	CVE	В	34.71	12.8	8.7	6.7	16	2.6
Canadian Oil Sands Limited	COSWF	В	21.96	19.0	10.8	5.8	9	6.5
Suncor Energy	SU	В	33.26	17.1	9.3	5.4	14	1.6
Media				15.0	10.0	7.1	13	3.1
			•					
EV = Enterprise Value = Market Cap an	d Debt; Ebi	tda =	Earnings b	efore intere	est, tax, depre	eciation		
and amortization; NTM = Next Twelve 1	Months End	led S	eptember 3	0, 2013; P/I	E = Stock Pr	ice to		
CB=Contrarian Buy, Stock Price may b EV = Enterprise Value = Market Cap an and amortization; NTM = Next Twelve I Earnings; PV = Present Value of oil and	d Debt; Ebi Months End	tda = led S	Earnings b eptember 3	efore intere	st, tax, depre			

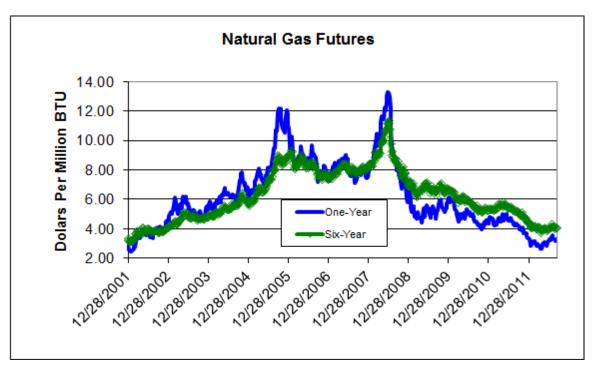


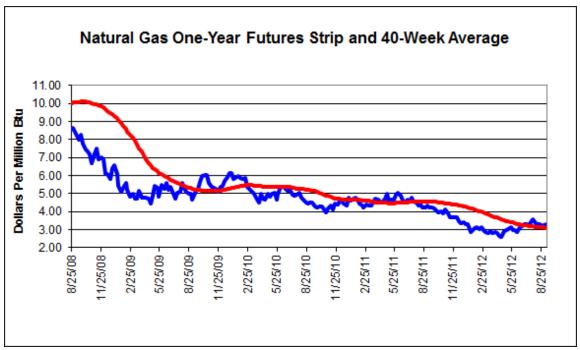
			Table 4						
	McD	ep La	rge Cap	Energy	Stocks				
Rank by Enterprise Value to 200 Day Average									
1441	i oj bi	П	ise varae	10 200	Duj II.CI	ugu			
			Price						
			(\$/sh)		Enterprise	Value/			
	Symbol		10-Sep	52Wk	52Wk	50 Day	200 Day	McDep	
		Rating	2012	High	Low	Avg.	Avg.	Ratio	
U.S. and Europe Integrated		Ŭ							
Chevron Corporation	CVX	В	113.96	1.00	1.27	1.04	1.07	0.70	
Exxon Mobil Corporation	XOM	В	89.48	1.00	1.26	1.03	1.05	0.84	
Total S.A.	TOT	В	51.37	0.93	1.19	1.07	1.03	0.59	
Royal Dutch Shell plc	RDS-A	В	70.98	0.96	1.17	1.02	1.02	0.74	
Statoil ASA (33%)	STO	В	25.69	0.92	1.16	1.03	1.01	0.68	
BP plc	BP		42.04	0.92	1.14	1.01	0.99	0.62	
BG Group plc	BRGYY		20.38	0.85	1.13	1.00	0.96	0.98	
Median				0.93	1.17	1.03	1.02	0.70	
Brazil/Russia/Australia/China									
Lukoil Oil Company	LUKOY	В	60.41	0.92	1.28	1.05	1.05	0.42	
Woodside Petroleum Ltd.	WOPEY		36.27	0.91	1.19	1.04	1.04	0.84	
Gazprom (50%)	OGZPY	СВ	10.27	0.80	1.15	1.06	0.96	0.43	
Petrobras	PBR	СВ	21.74	0.75	1.15	1.04	0.93	0.59	
CNOOC Limited (36%)	CEO		183.40	0.79	1.29	0.93	0.92	0.74	
PetroChina Company Ltd (14%)	PTR	СВ	119.67	0.83	1.05	0.98	0.92	0.65	
Median				0.81	1.17	1.04	0.95	0.62	
U.S. Independent									
EOG Resources, Inc.	EOG	В	112.40	0.95	1.52	1.09	1.07	0.88	
Southwestern Energy Company	SWN		32.50	0.76	1.22	1.02	1.02	0.83	
Marathon Oil Corporation	MRO	CB	28.47	0.85	1.30	1.05	1.00	0.62	
Chesapeake Energy Corp.	CHK		19.57	0.79	1.15	1.01	0.98	0.86	
Anadarko Petroleum Corp.	APC		70.40	0.85	1.16	1.01	0.97	0.78	
Occidental Petroleum Corp.	OXY	СВ	86.32	0.83	1.26	0.99	0.95	0.74	
Devon Energy Corporation	DVN	СВ	59.37	0.82	1.12	1.01	0.95	0.65	
ConocoPhillips	COP	В	56.18					0.69	
Median				0.83	1.22	1.01	0.98	0.76	
Canada									
EnCana Corporation	ECA	В	22.59	0.96	1.19	1.04	1.08	0.70	
Imperial Oil Limited (30%)	IMO	В	48.13	0.98	1.40	1.08	1.07	0.80	
Suncor Energy	SU	В	33.26	0.91	1.34	1.06	1.06	0.58	
Canadian Oil Sands Limited	COSWF	В	22.00	0.89	1.22	1.06	1.03	0.54	
Cenovus Energy Inc.	CVE	В	34.71	0.90	1.20	1.05	1.02	0.77	
Penn West Exploration	PWE		15.01	0.77	1.13	1.05	0.92	0.83	
Median	- · · · D		15.01	0.90	1.21	1.06	1.04	0.74	







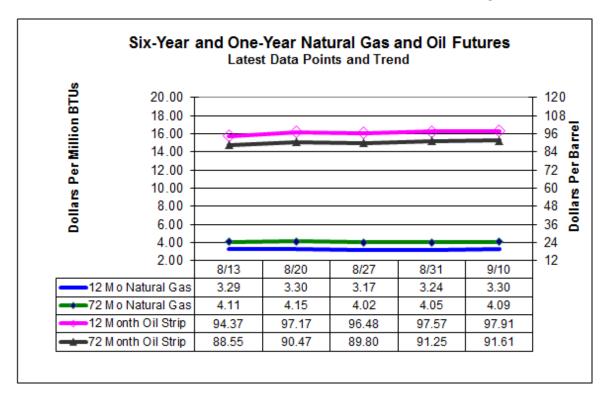






		Index of Rec	cent Research
C. 1			
Stock 1			
<u>Date</u>	<u>Symbol</u>	Subject	<u>Theme</u>
7-Sep	PEYUF		Canada Deep Basin Fracker (Income and Small Cap Weekly)
-	LUKOY	Lukoil	Proven Competitor, Uncommon Value (Meter Reader)
28-Aug		PetroChina	Pent-Up Profits (Meter Reader)
24-Aug		Hugoton Royalty Trust	Highest Return for the Next Year (Income and Small Cap Weekly)
21-Aug		Total	Buy \$100 NPV for \$50 Stock Price (Meter Reader)
17-Aug		Halcón Resources	Billion Barrel Resource Potential (Income and Small Cap Weekly
14-Aug		Anadarko Petroleum	Raise NPV to \$100 as Growth Trumps Legal Issues (Meter Reader
10-Aug		Continental Resources	Bakken Billions (ISCW)
	SU	Suncor Energy	New CEO, New Focus on Shareholder Return (Meter Reader)
	XEC	Cimarex Energy	West Texas Wolfcamp Shale Oil (ISCW)
31-Jul		Occidental Petroleum	California Oil Growth Accelerates (Meter Reader)
	COSWF	Canadian Oil Sands Limited	Robust Volume Outlook
	RRC	Range Resources	Oil-Enhanced Natural Gas Growth (ISCW)
	CEO	CNOOC Ltd.	60% Premium in \$21 Billion Deal (Meter Reader)
	BRY	Berry Petroleum	Momentum Resuming (Income and Small Cap Weekly)
	XOM	Exxon Mobil	Low U.S. Energy Price Outperformer (Meter Reader)
10-Jul	MRO	Marathon Oil	Shale Growth, Dollar Hedge (Meter Reader)
3-Jul	OGZPY	Gazprom	Dividend Double Approved (Meter Reader)
26-Jun	STO	Statoil	Financially Strong Norse Explorers (Meter Reader)
19-Jun	CVE	Cenovus	Deep Oil Sands Growth at Lower Price (Meter Reader)
12-Jun	PBR	Petrobras	Deep Water Oil Growth, Lower NPVto \$45 (Meter Reader)
12-Jun	BRGYY	BG Group	Lower NPVto \$21 (6/12/12 Meter Reader, page 2)
13-Jun	ERF	Enerplus Corporation	Dividend Reduced by Half
8-Jun	SJT	San Juan Basin Royalty Trust	Price Decline Action in SJT and Royalty Trusts (ISCW)
5-Jun	WOPEY	Woodside Petroleum Ltd.	Pluto LNG Delivering (Meter Reader)
25-May	HGT	Hugoton RoyaltyTrust	HGT Bargain (Income and Small Cap Weekly)
18-May	BIREF	Birchcliff Energy	Contrarian Buy at Lower NPV (Income and Small Cap Weekly)
15-May	EOG	EOG Resources	Raise NPV to \$130 a Share on Oil Volume (Meter Reader)
11-May	DMLP	Dorchester Minerals, L.P.	Rising Oil Production (Income and Small Cap Wkly)
8-May	ECA	Encana	Long-Term Natural Gas Appeal (Meter Reader)
4-May	WLL	Whiting Petroleum	Oil Price Discount Narrows (Income and Small Cap Weekly)
1-May	RDS	Royal Dutch Shell	LNG and GTL Profit Gains (Meter Reader)
17-Apr	COP	ConocoPhillips	Largest North American Independent Producer Debut (MR)
10-Apr	DVN	Devon Energy	Shale Oil Excitement at a Favorite Value Stock (Meter Reader)
	For historical re	esearch by stock, go to mcdep.com, cli	ck on <u>Stock Ideas</u> , click on stock by name.
Meter	Reader		
	LUKOY	Lukoil	Proven Competitor, Uncommon Value
28-Aug		PetroChina	Pent-Up Profits
21-Aug		Total	Buy \$100 NPV for \$50 Stock Price
14-Aug		Anadarko Petroleum	Raise NPV to \$100 as Growth Trumps Legal Issues
14-Aug		ions, go to mcdep.com, click on Meter	
Income	e and Small Caj	n Waakly	
7-Sep	PEYUF	Peyto Exploration and Developmen	Canada Deen Basin Fracker
31-Aug	LEIGE	2 cyto Exploration and Developmen	Royalty Trust McDep Opportunities
24-Aug	HGT	Hugoton Royalty Trust	Highest Return for the Next Year
17-Aug		Halcón Resources	Billion Barrel Resource Potential
1/-Aug		ions, go to mcdep.com, click on Energy	





**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. 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.