A Weekly Analysis of Energy Stocks Using the McDep Ratio November 1, 2005

Quarterly Results and the Correlation

Summary and Recommendation

During this cycle of quarterly earnings disclosures, we have referred to a correlation in our quick analyses for most rated stocks. Specifically, we correlate present value with projected cash flow and adjusted reserve life for each of four main businesses of some thirty companies in our coverage. The correlation helps us decide if the denominator of the McDep Ratio is realistic and in turn whether the company is on track. Among buy recommendations that reported recently, the correlation points to McDep Ratios potentially lower (stronger) than the low measures we already see for **Anadarko (APC)** and **ConocoPhillips (COP)**.

Degrees of Buy and Degrees of McDep Ratio

McDep Ratios point to degrees of buy continuously while buy, sell and hold ratings change only occasionally. Though McDep Ratios hinted at a weakening case for buy in late September, we did not change any buys to hold or sell. Now after the October declines lower McDep Ratios make buy recommendations timelier as the uptrend in commodity price and stock price continues.

We refer to a correlation which points to degrees of McDep Ratio. In analyses immediately following disclosure of quarterly results for most rated stocks we emphasized not only the present value estimate that is part of the McDep Ratio, but also the comparison with a correlation of 30 stocks. The correlation helps us to analyze quarterly results rapidly, but it can be sensitive to interpretations that might be refined on more detailed consideration of latest information. Quarterly results mostly reported just last week provide company specific volume, price and cost information for estimating the present value that is the denominator of the McDep Ratio.

Commodity Price and Present Value Support Investment

Crude oil quotes are well above the \$50 a barrel used in estimating present value, the denominator of the McDep Ratio (see table <u>Oil and Gas Commodity and Stock Price</u>). One-year natural gas is above our long-term estimate while six-year natural gas commodity price has extra appreciation potential. Refining margin is 20% above our long-term estimate.

The McDep Ratio compares present value calculated from commodity price with enterprise value as determined in the stock market. A stock with a McDep Ratio of 1.0 presumably offers a 7% per year unlevered real return on constant real prices for oil of \$50 a barrel, natural gas of \$10 a million btu and refining crack of \$10 a barrel. Four of the five groups have median McDep Ratios below 1.0.

Thus while current commodity prices suggest our estimates of present value could be higher, current stock prices are less than the values we calculate. As a result, thriving commodity prices and low McDep Ratios make a positive case for investing in buy-recommended stocks.

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Oil and Gas Commodity and Stock Price Monday, October 31, 2005

	Future.	McDep Ratio	
<u>Units</u>	<u>Six-Year</u>	<u>One-Year</u>	<u>Denominator</u>
\$/barrel	57.99	60.98	50
\$/million btu	8.46	11.08	10
\$/barrel		11.97	10
Independent - I	Large		Median <u>McDep Ratio</u> 0.77 0.83 0.78 0.74 1.04
	\$/barrel \$/million btu \$/barrel Stocks Mega Cap Producer/Refin Independent - I	Six-Year S/barrel S/million btu S/barrel Stocks Mega Cap Producer/Refiner Independent - Large Independent - Small	\$/barrel 57.99 60.98 \$/million btu 8.46 11.08 \$/barrel 11.97 Stocks Mega Cap Producer/Refiner Independent - Large Independent - Small

Source: McDep Associates, Bloomberg, New York Mercantile Exchange, Yahoo and company disclosures

Select Stocks on Valuation and Strategic Considerations

Stocks are ranked in descending order of McDep Ratio to suggest "buy low and sell high" (see table Rank by McDep Ratio). We recommend representation in each of the five groups from Mega Cap to Income with emphasis on low McDep Ratio stocks.

Next Twelve Months Cash Flow, Ebitda, changes continuously with futures prices for natural gas and oil (see table <u>Rank by EV/Ebitda</u>). We regularly check the correlation of present value with cash flow multiple by business and expected life of production.

Investors can diversify political risk by owning stocks of companies headquartered in other countries (see table <u>Home Country and Business Segments</u>). Russian stocks offer potential resource value beyond that reflected in the McDep Ratio.

Finally, we recommend balance among business segments. Investors should be sure to be represented in the stocks of companies with strong natural gas concentration. Nor should that be at the expense of reasonable downstream exposure in other stocks.

Timely analyses are available on all recommended stocks (see table <u>Index of Recent Research</u>).

Kurt H. Wulff, CFA

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Oil and Gas Producers Rank by McDep Ratio: Market Cap and Debt to Present Value

			Price			Net		
			(\$/sh)		Market	Present	Debt/	
	Symbol/		31-Oct	Shares	Cap	Value	Present	McDep
	, F	Rating	2005	(mm)	(\$mm)	(\$/sh)	Value	Ratio
Mega Cap		C						
BP plc	BP	В	66.40	3,501	233,000	77.00	0.11	0.88
Total S.A.	TOT	В	126.02	1,182	149,000	160.00	0.12	0.81
Exxon Mobil Corporation	XOM	В	56.14	6,303	354,000	74.00	0.04	0.77
Royal Dutch Shell plc	RDS-A	В	62.04	3,352	208,000	84.00	0.10	0.77
Chevron Corporation	CVX	В	57.07	2,256	129,000	85.00	0.13	0.71
Total or Median					1,073,000		0.11	0.77
Producer/Refiners - Large Cap and	Mid Cap							
Kinder Morgan, Inc.	KMI	S2	90.77	123	11,160	20.00	0.76	1.86
Imperial Oil Limited (30%)	IMO	В	87.83	102	8,970	84.00	0.10	1.04
Marathon Oil Corporation	MRO	В	60.16	368	22,150	65.00	0.27	0.95
Petro-Canada	PCZ	В	34.75	525	18,260	42.00	0.19	0.86
Lukoil Oil Company	LUKOY	В	55.00	830	46,000	65.00	0.03	0.85
Suncor Energy	SU	В	53.63	461	24,730	68.00	0.11	0.81
Norsk Hydro ASA	NHY	В	99.32	251	24,920	130.00	0.12	0.79
ConocoPhillips	COP	В	65.38	1,418	92,700	100.00	0.15	0.71
Gazprom (50%)	OGZPF	В	59.10	1,022	60,400	90.00	0.03	0.67
PetroChina Company Ltd (10%)	PTR	В	76.73	176	13,490	120.00	0.01	0.64
Total or Median					323,000		0.11	0.83
Independent Natural Gas and Oil -	Large Ca	p and N	Aid Cap					
XTO Energy Inc.	XTO	В	43.46	370	16,080	48.00	0.20	0.92
Encana Corporation	ECA	В	45.91	876	40,200	51.00	0.20	0.92
Burlington Resources	BR	В	72.20	381	27,500	86.00	0.09	0.85
CNOOC Limited (29%)	CEO	В	65.70	119	7,840	84.00	0.01	0.78
Devon Energy Corporation	DVN	В	60.38	471	28,400	86.00	0.15	0.75
Occidental Petroleum Corp.	OXY	В	78.88	404	31,900	120.00	0.11	0.70
Anadarko Petroleum Corp.	APC	В	90.71	238	21,600	140.00	0.12	0.69
Total or Median					174,000		0.12	0.78
Independent Natural Gas and Oil -	Small Cap)						
Berry Petroleum Company	BRY	В	59.69	23	1,340	65.00	0.10	0.92
Encore Acquisition Company	EAC	В	34.30	50	1,700	50.00	0.21	0.75
Energy Partners Ltd.	EPL	В	25.37	41	1,030	38.00	0.17	0.73
Cimarex Energy Company	XEC	В	39.25	85	3,340	64.00	0.12	0.66
Total or Median					7,400		0.15	0.74
Income								
Kinder Morgan Energy Partners, L.P.	KMP	S3	52.08	159	8,290	15.00	0.55	2.11
Kinder Morgan Management, LLC	KMR	S3	48.23	57	2,730	15.00	0.55	1.99
Pengrowth Energy Trust PGH			21.75	157	3,410	20.00	0.17	1.07
San Juan Basin Royalty Trust SJT			41.60	47	1,940	40.00	-	1.04
Enerplus Resources Fund	erplus Resources Fund ERF		42.00	105	4,410	42.00	0.13	1.00
Penn West Energy Trust PWTFF		В	26.57	174	4,620	28.00	0.16	0.96
Canadian Oil Sands Trust (US\$)	COSWF	В	93.97	93	8,720	136.00	0.11	0.73
Total or Median					34,100		0.16	1.04

B = Buy, S2 = Short half unlevered position, S3 = Short quarter unlevered position McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses

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Oil and Gas Producers Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

			Price (\$/sh)	Adjstd Resrvs/	PV/	EV/		Divd or Distrib
	Symbol/		31-Oct	Prod	Ebitda	Ebitda	P/E	NTM
	•	ating	2005	NTM	NTM	NTM	NTM	(%)
Mega Cap								
BP plc	BP	В	66.40	9.4	6.2	5.5	9	3.2
Exxon Mobil Corporation	XOM	В	56.14	11.7	6.8	5.2	9	2.1
Total S.A.	TOT	В	126.02	9.2	6.1	5.0	8	2.6
Royal Dutch Shell plc	RDS-A	В	62.04	7.5	5.6	4.3	8	3.6
Chevron Corporation	CVX	В	57.07	9.6	5.9	4.2	7	3.2
Median				9.4	6.1	5.0	8	3.2
Producer/Refiners - Large Cap and M	-	63	00.77		7.5	14.0	10	2.2
Kinder Morgan, Inc. Gazprom (50%)	KMI OGZPF	S2 B	90.77 59.10	22.0	7.5 12.9	14.0 8.6	19 17	3.3 0.6
Suncor Energy	SU	В	53.63	17.9	9.3	7.5	16	0.0
Imperial Oil Limited (30%)	IMO	В	87.83	11.5	6.7	7.0	12	0.4
Marathon Oil Corporation	MRO	В	60.16	7.4	5.0	4.7	7	2.2
Petro-Canada	PCZ	В	34.75	5.7	5.0	4.7	7	0.8
Norsk Hydro ASA	NHY	В	99.32	8.1	5.2	4.1	8	3.1
Lukoil Oil Company	LUKOY	В	55.00	19.8	4.7	4.0	7	1.8
ConocoPhillips	COP	В	65.38	11.2	5.6	3.9	6	1.9
PetroChina Company Ltd (10%)	PTR	В	76.73	13.9	6.0	3.9	8	4.9
Median		D	70.75	11.5	5.8	4.5	8	1.8
Independent Natural Gas and Oil - La		nd Mi	d Cap	11.0	2.0	7.0	· ·	1.0
XTO Energy Inc.	XTO	В	43.46	10.8	5.6	5.2	9	0.5
Encana Corporation	ECA	В	45.91	7.1	4.8	4.4	8	0.7
Occidental Petroleum Corp.	OXY	В	78.88	11.0	6.2	4.3	7	1.8
CNOOC Limited (29%)	CEO	В	65.70	9.4	5.3	4.1	7	3.5
Anadarko Petroleum Corp.	APC	В	90.71	12.5	5.9	4.1	7	0.8
Burlington Resources	BR	В	72.20	10.0	4.6	3.9	8	0.6
Devon Energy Corporation	DVN	В	60.38	7.3	3.9	2.9	5	0.5
Median	ı			10.0	5.3	4.1	7	0.7
Independent Natural Gas and Oil - Sn	nall Cap							
Berry Petroleum Company	BRY	В	59.69	11.0	5.5	5.1	13	1.0
Encore Acquisition Company	EAC	В	34.30	14.3	6.0	4.5	9	-
Cimarex Energy Company	XEC	В	39.25	7.7	4.0	2.7	5	-
Energy Partners Ltd.	EPL	В	25.37	5.1	3.1	2.3	5	-
Media	1			9.3	4.8	3.6	7	-
Income	173 fb	G2	53 00		7 0	16.6	2.4	
Kinder Morgan Energy Partners, L.P.	KMP	S3	52.08		7.9	16.6	24	6.1
Kinder Morgan Management, LLC	KMR	S3	48.23	12.2	7.9	15.7	22	6.6
San Juan Basin Royalty Trust	SJT	D	41.60	12.2	8.0	8.4	9 9	11.1
Canadian Oil Sands Trust (US\$)	COSWF	В	93.97	20.0	10.7	7.8		3.6
Pengrowth Energy Trust Enerplus Resources Fund	PGH ERF		21.75 42.00	7.6 9.8	5.3 5.3	5.7 5.3	8 7	10.8 10.2
Penn West Energy Trust	EKF PWTFF	В	42.00 26.57	9.8 8.0	5.3 4.2	5.3 4.0	6	10.2 11.9
Median		ь	20.37	8.0 9.8	7.9	7.8	9	10.2
Mediai	ı			9.0	1.9	7.0	9	10.2

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended September 30, 2006; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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Oil and Gas Producers Home Country and Business Segments

				North	Rest			
			3.7	Amer.	of World	0.1	Б	Total
	~ 1 1/		Non-	Natural	Natural	Oil	Down-	Present
	Symbol/		U.S.	Gas	Gas	Prod'n	stream	Value
W. G	Ra	ting	Domicile	(%)	(%)	(%)	(%)	(US\$mm)
Mega Cap	WOM.	ъ		1.0	10	20	22	407.000
Exxon Mobil Corporation	XOM	В	1.117	10	19	38	33	487,000
BP plc	BP	В	UK	10	12	42	36	302,000
Royal Dutch Shell plc	RDS-A	В	UK	4	19	33	45	313,000
Chevron Corporation	CVX	В	Г	9	9	52	29	221,000
Total S.A.	TOT	В	France	-	27	38	35	215,000
Total or Media				9	19	38	35	1,538,000
Producer/Refiners - Large Cap and M	_	D	Cl.:		9	71	20	212.000
PetroChina Company Ltd.	PTR	В	China	-		71	20	213,000
Gazprom	OGZPF	В	Russia	12	100	4.5	2.5	190,000
ConocoPhillips	COP	В	ъ.	13	7	45	35	166,800
Lukoil Oil Company	LUKOY	В	Russia	-	- 27	62	38	55,700
Norsk Hydro ASA	NHY	В	Norway	-	27	38	35	36,900
Suncor Energy	SU	В	Canada	5	-	89	7	35,200
Marathon Oil Corporation	MRO	В	0 1	14	8	33	46	32,900
Imperial Oil Limited	IMO	В	Canada	13	-	62	25	31,800
Petro-Canada	PCZ	В	Canada	23	4	53	20	27,100
Media			:1 0	9	7	58	30	789,000
Independent Natural Gas and Oil - L	arge Cap ai OXY	na M B	ia Cap	15	1	73	11	54 700
Occidental Petroleum Corp.			C 1-					54,700
Encana Corporation	ECA	В	Canada	83	-	17	-	55,600
Devon Energy Corporation	DVN APC	B B		62	-	38 40	-	47,500
Anadarko Petroleum Corp.	_			60	-		-	37,700
Burlington Resources	BR	В	Chi	69	5	26	-	36,000
CNOOC Limited	CEO	B B	China	83	12	88	-	34,800
XTO Energy Inc.	XTO	В				17	-	22,100
Media				62	-	38	-	288,000
Independent Natural Gas and Oil - St		D		70		20		(140
Cimarex Energy Company	XEC EAC	B B		70 25	-	30 75	-	6,140
Encore Acquisition Company		_			-		-	3,150
Berry Petroleum Company	BRY EPL	B B		16 56	-	84 44	-	1,920
Energy Partners Ltd. Media		В		36 41	-	59	-	1,860 <i>13,070</i>
Income	n			41	-	39	-	13,070
	COCWE	В	Canada		_	100	_	14 200
Canadian Oil Sands Trust (US\$)	COSWF PWTFF	В	Canada	43	-	100 57	-	14,300 5,800
Penn West Energy Trust	ERF	В	Canada	61		39		
Enerplus Resources Fund	PGH		Canada Canada	43	-	39 57	-	5,080
Pengrowth Energy Trust	PGH SJT		Canada		-	5/	-	3,720
San Juan Basin Royalty Trust Media				100 43		- 57	-	1,860 <i>30,800</i>
Media	n			43	-	3/	-	30,800

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Index of Recent Research

Stock 1	ldeas
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Stock Iu	Cus			
<u>Date</u>		<u>Symbol</u>	<u>Stock</u>	<u>Theme</u>
31-Oct		CVX	Chevron Corporation	Lower Net Present Value to \$85 a Share
31-Oct		APC	Anadarko Petroleum Corporation	Long Life for Free
31-Oct		BR	Burlington Resources, Inc.	Natural Gas Beneficiary
28-Oct		XOM	Exxon Mobil Corporation	Momentum Challenge
28-Oct		RDSA	Royal Dutch Shell plc	Downstream Gains
28-Oct		SU	Suncor Energy Inc.	Up and Running Again
28-Oct		MRO	Marathon Oil Corporation	Downstream Gains
28-Oct		PCZ	Petro-Canada	Oil Sands Producer
27-Oct		COP	ConocoPhillips	Emerging Mega Cap
27-Oct		ECA	EnCana Corporation	Natural Gas Leader
27-Oct		EAC	Encore Acquisition Company	Long Life Oil Value
26-Oct		BP	BP p.l.c.	Lower Net Present Value to \$77 a Share
26-Oct		NHY	Norsk Hydro ASA	Record Results
26-Oct		COSWF	Canadian Oil Sands Trust	Distribution Doubled and Unit Split Proposed
21-Oct		IMO	Imperial Oil Limited	The Unpromoters
21-Oct		XTO	XTO Energy Inc.	Ready for Winter
20-Oct		KMx	Kinder Morgan	Wheel and Deal
14-Oct		OXY	Occidental Petroleum Corporation	Buy Despite Momentum Signal
13-Oct		APC BR	DVN OXY XTO	Edge of Panic
7-Oct		ECA IMO	O PCZ SU	Exaggerated Stock Price Change
26-Sep	*	LUKOY	Lukoil Oil Company	Adapting to New Russia
15-Sep	*	OGZPF	Gazprom	The Ultimate Natural Gas Stock
7-Sep	*	EPL	Energy Partners, Ltd.	Katrina Survivor
30-Aug	*	CEO	CNOOC Ltd	Independent Producer with Income
28-Aug	*	PTR	PetroChina Company Limited	Income Stock
21-Aug	*	PTR	PetroChina Company Limited	Understated Natural Gas Resources
18-Aug	*	SJT	San Juan Basin Royalty Trust	Sharp Stock Price Drop
15-Aug	*	XEC	Cimarex Energy Company	\$Billion Cash Flow for Small Cap NG Producer
11-Aug	*	PWTFF	Penn West Energy Trust	Undiscovered by U.S. Investors
8-Aug	*	TOT	Total S.A.	Oil Sands Oui!
3-Aug	*	DVN	Devon Energy Corporation	Raise Net Present Value to \$86 a Share
2-Aug	*		26 Stocks - Single Issue Statistics	Raise Net Present Value to \$xx a Share

Meter Reader - A Weekly Analysis

24-Oct		Back Up the Truck
17-Oct	*	Winter Rally
11-Oct	*	Oil, Natural Gas and the U.S. Economy
6-Oct	*	Flash: Industry Outlook Stable

Natural Gas and Oil Royalty Trusts - A Weekly Analysis

28-Oct		Winter Payoff
21-Oct	*	Third Week in October
14-Oct	*	Fraud on the Street
7-Oct	*	October Jitters

^{*} Archived on www.mcdep.com