

## **Optimal Cyclical Timing**

### **Recommendation**

There are just a few days remaining to build a full energy position in a diversified portfolio at optimal cyclical timing with the convergence of low points in the bear market, presidential, seasonal and monthly stock market cycles. Energy price trends look good, too, as six-year and one-year natural gas and oil futures are above the 29-week average. Even one-year refining margin futures are above the moving average. Investors acting on our recommendations can pursue four themes, North American natural gas, international, integrated oil and energy infrastructure. Among natural gas stocks, for example, we recommend purchase of **Encana (ECA)**, **Burlington Resources (BR)**, **XTO Energy (XTO)** and **San Juan Basin Royalty Trust (SJT)**. Some high McDep Ratio infrastructure stocks seem unattractive including sell recommendation **El Paso Energy Partners (EPN)** that is losing options to raise the money to fund the illusion of growth. We rank 82 energy stocks on valuation measures (see Tables L-1, L-2, M-1, M-2, S-1, S-2).

### **Stock Market Cycles Coincide, Stars Align**

October 1974 and October 1932 were the approximate low points of the steep initial decline phase of long bear markets. The period leading up to October 2002 seems similar in length and severity. In each case the recovery from the bear market lows was sharp though the final end of the secular bear was still years away.

Stocks have often suffered around mid-term elections such as are scheduled next month. Then annual performance is usually strongest in the third year of a presidential term. If there is one source we should credit for calling our attention to calendar patterns it ought to be the writings of Yale Hirsch.

Another powerful pattern appears to be for the market to show its best gains in the seasonal period from November through April. Finally, the monthly pattern seems to be for strength in the last few days of the old month carrying over to the first few days of the new month. Combine that with a mild weekly pattern and the optimal day of several decades may be Monday, October 28, 2002.

### **Energy Price Trends All Positive**

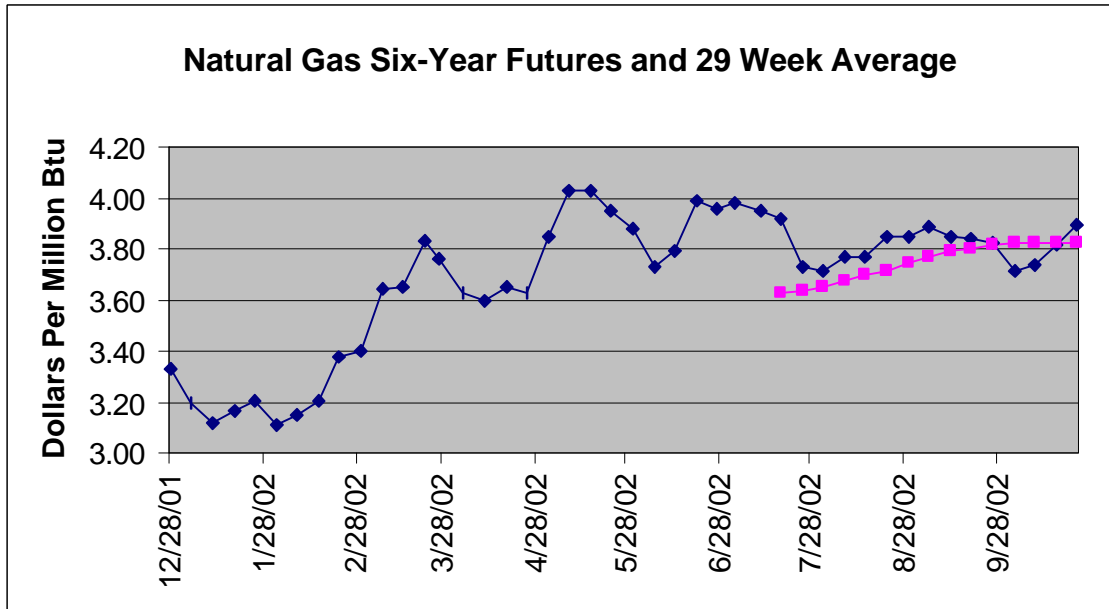
The yellow caution flag can be taken down and put away for six-year natural gas futures as the weekly reading shoots above the 29-week average thereby renewing an upward  
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trend (see Chart). Oil six-year futures are holding their upward trend. Refining crack one-year futures have widened their margin above the 29-week average.



### Early Cold is the Best Cold for Natural Gas

Mother Nature blessed natural gas producers with an early cold front covering much of the natural gas heating areas of the U.S. Current pricing is exceptionally strong considering that seasonal storage has been near overflowing. A cold spell early in the season is better than one late in the season because the early depletion of storage may lend a more lasting favorable bias to price than the late depletion of storage.

Thus timing factors seem to be falling into place to help make investment in energy rewarding over the next six months or year. Even if short-term gains do not materialize, we believe that energy stocks have long-term attraction for their potential to deliver moderate growth in capital value with inflation protection and deflation resistance.

### Add Encana to U.S. Portfolios

Hearing an investment advisor recently tell how his taxable client's energy holdings were concentrated on low cost-basis stocks, we suggested that he buy Encana as a top quality natural gas enhancement to a traditional emphasis on major oils. Checking our latest tables we see that the stock ranks in the middle of the Large Cap Natural Gas and Oil Group (Table L-1). The ratio of Debt/Present Value is moderate at 0.28. Knowing that **Devon Energy (DVN)**, **Anadarko (APC)**, Burlington and Encana are the leading independent natural gas producers on that list, we can also see that Encana has the largest

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market cap of the four. We like Encana's outlook primarily because of its historical concentration in Canada where the prospects are less developed and for its remarkable record of adding reserves not only in Western Canada, but also off Nova Scotia (a new source for Boston), the North Sea and in the U.S. Rockies, surprisingly. As it trades in decent volume on the New York Stock Exchange, we expect it to become increasingly a favorite of U.S. investors.

### **El Paso Energy Partners Unravels**

To read the headline on sell recommended EPN's latest quarter one would think the partnership is scoring dramatic growth. Actually the growth has an artificial cast as a result of asset shuffles among related parties, EPN and El Paso Corporation (EP). In fact an examination of the numbers indicates that cash flow was actually down from the second quarter of 2002 even though it was up from a year earlier prior to the latest deals.

More ominously, EPN management apparently conceded that the market had rejected the \$600 million offering of institutional shares that EPN had been promoting for the past few months. That implies another downgrade in the rating of EPN debt that is already junk quality, in our opinion. Moreover, in the face of its financing failure, management suggests that it may unwind its latest "acquisition".

Meanwhile EPN's stock price holds up reasonably well considering the collapse in EP stock price. Apparently the backers of EPN would have investors believe the entity is completely separate from EP. That seems far-fetched when the two entities swap assets more or less at will.

We recommend that investors sell units of EPN on the basis of high valuation, high debt and a business model that is reaching diminishing returns. General partner compensation near 30% of cash distributed currently and 50% incrementally is too high to allow for an attractive long-term return for limited partners, in our opinion, even if financial failure does not occur sooner.

Finally we offer a parting shot on the implications for EP. Our main concern with EP is that management that sponsors a high-greed partnership like EPN cannot be trusted. That management untrustworthiness appears to have cost the stockholders of large cap EP more than the entire value of small cap EPN. Our suggestion is to stop the deception of EPN now and give EP a better chance to restore viability and regain market value.

Kurt H. Wulff, CFA

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**Table L-1**  
**Mega Cap and Large Cap Energy Companies**  
**Rank by McDep Ratio: Market Cap and Debt to Present Value**

	<i>Symbol/ Rating</i>	<i>Price (\$/sh) 24-Oct 2002</i>	<i>Shares (mm)</i>	<i>Market Cap (\$mm)</i>	<i>Net Present Value (\$/sh)</i>	<i>Debt/ Present Value</i>	<i>McDep Ratio</i>	
<b>Mega Cap</b>								
Exxon Mobil Corporation	XOM	34.67	6,858	238,000	36.00	0.09	0.97	
BP plc	BP	39.79	3,738	149,000	50.00	0.15	0.83	
TotalFinaElf S.A.	TOT	66.49	1,346	89,500	90.00	0.14	0.78	
Royal Dutch/Shell	RD	B	42.26	3,498	148,000	60.00	0.15	0.75
ChevronTexaco Corporation	CVX	B	73.35	1,062	77,900	110.00	0.16	0.72
	<i>Total or Median</i>			<i>702,000</i>		<i>0.15</i>	<i>0.78</i>	
<b>Energy Infrastructure</b>								
Southern Company	SO	29.51	701	20,700	23.90	0.47	1.13	
American Electric Power Co. Inc.	AEP	N	21.87	326	7,100	27.40	0.74	0.95
Enel S.p.a. (32%)	EN	24.82	388	9,600	32.70	0.39	0.85	
Exelon Corporation	EXC	N	48.15	323	15,600	70.80	0.45	0.82
Duke Energy Corporation	DUK	19.08	792	15,100	30.40	0.48	0.81	
El Paso Corporation	EP	N	7.60	590	4,500	20.00	0.66	0.79
Dominion Resources	D	45.18	269	12,200	76.20	0.45	0.78	
	<i>Total or Median</i>			<i>64,000</i>		<i>0.47</i>	<i>0.82</i>	
<b>Natural Gas and Oil</b>								
Devon Energy	DVN	51.10	165	8,400	55.00	0.48	0.96	
Occidental Petroleum Corp.	OXY	29.28	376	11,000	32.00	0.38	0.95	
OAO Lukoil	LUKOY	64.75	299	19,400	70.00	0.08	0.93	
Encana Corporation	ECA	B	28.07	470	13,200	35.00	0.28	0.86
Anadarko Petroleum Corp.	APC	44.36	266	11,800	56.00	0.26	0.85	
ENI S.p.A.	E	67.46	776	52,300	85.00	0.18	0.83	
Burlington Resources	BR	B	41.00	202	8,300	57.00	0.28	0.80
Unocal Corporation	UCL	28.92	245	7,100	45.00	0.33	0.76	
ConocoPhillips	COP	B	47.21	680	32,100	80.00	0.32	0.72
Marathon Oil Corporation	MRO	B	20.84	310	6,500	40.00	0.37	0.70
Petroleo Brasileiro S. A.	PBR	N	12.58	1,086	13,700	30.00	0.27	0.58
	<i>Total or Median</i>			<i>175,000</i>		<i>0.28</i>	<i>0.82</i>	
<b>Service</b>								
Baker Hughes Inc.	BHI	29.33	339	9,900	25.00	0.09	1.15	
Schlumberger Ltd.	SLB	41.17	581	23,900	44.00	0.22	0.95	
Halliburton Company	HAL	15.12	432	6,500	20.00	0.21	0.80	

Buy/Sell rating after symbol: B - Buy, N - Neutral, S - Sell

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

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### A Weekly Analysis of Energy Stocks Using the McDep Ratio

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**Table L-2**  
**Mega Cap and Large Cap Energy Companies**  
**Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.**

	Symbol/ Rating	Price (\$/sh) 24-Oct 2002	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	Dividend or Distribution NTM (%)	PV/ Ebitda NTM	
<b>Mega Cap</b>								
Exxon Mobil Corporation	XOM	34.67	1.5	9.8	21	2.7	10.1	
BP plc	BP	39.79	1.0	7.6	16	3.6	9.1	
TotalFinaElf S.A.	TOT	66.49	1.1	7.0	14	3.8	9.0	
Royal Dutch/Shell	RD	B	42.26	1.0	6.7	13	4.0	8.9
ChevronTexaco Corporation	CVX	B	73.35	1.1	6.7	13	3.8	9.2
	<i>Median</i>		<i>1.1</i>	<i>7.0</i>	<i>14</i>	<i>3.8</i>	<i>9.1</i>	
<b>Energy Infrastructure</b>								
Southern Company	SO		29.51	3.5	10.1	17	4.5	9.0
American Electric Power Co. Inc.	AEP	N	21.87	0.5	8.5	7	11.0	9.0
Enel S.p.a. (32%)	EN		24.82	2.1	7.7	30	6.5	9.0
Exelon Corporation	EXC	N	48.15	2.2	7.4	11	3.7	9.0
Duke Energy Corporation	DUK		19.08	0.7	7.3	7	5.8	9.0
Dominion Resources	D		45.18	2.9	7.0	9	5.7	9.0
El Paso Corporation	EP	N	7.60	2.3	6.2	5	11.4	7.9
	<i>Median</i>			<i>2.2</i>	<i>7.4</i>	<i>9</i>	<i>5.8</i>	<i>9.0</i>
<b>Natural Gas and Oil</b>								
Devon Energy	DVN		51.10	3.2	7.1	51	0.4	7.4
Anadarko Petroleum Corp.	APC		44.36	2.7	6.8	14	0.7	8.1
ConocoPhillips	COP	B	47.21	0.8	6.1	11	3.4	8.5
ENI S.p.A.	E		67.46	1.5	6.1	13	5.0	7.3
Occidental Petroleum Corp.	OXY		29.28	1.4	5.7	10	3.4	6.0
Burlington Resources	BR	B	41.00	4.3	5.5	10	1.3	6.9
Encana Corporation	ECA	B	28.07	2.4	5.2	10	0.9	6.1
Unocal Corporation	UCL		28.92	2.1	4.7	10	2.8	6.2
OAo Lukoil	LUKOY		64.75	1.7	4.5	9	1.7	4.9
Marathon Oil Corporation	MRO	B	20.84	0.4	4.4	7	4.4	6.3
Petroleo Brasileiro S. A.	PBR	N	12.58	1.2	2.9	3	10.7	5.0
	<i>Median</i>			<i>1.7</i>	<i>5.5</i>	<i>10</i>	<i>2.8</i>	<i>6.3</i>
<b>Service</b>								
Baker Hughes Inc.	BHI		29.33	2.1	12.4	35	1.6	10.8
Schlumberger Ltd.	SLB		41.17	2.3	8.5	30	1.8	8.9
Halliburton Company	HAL		15.12	0.7	7.9	21	3.3	9.8

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended September 30, 2003; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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**Table M-1**  
**Mid Cap Energy Companies**  
**Rank by McDep Ratio: Market Cap and Debt to Present Value**

	<i>Symbol/ Rating</i>		<i>Price (\$/sh) 24-Oct 2002</i>	<i>Shares (mm)</i>	<i>Market Cap (\$mm)</i>	<i>Net Present Value (\$/sh)</i>	<i>Debt/ Present Value</i>	<i>McDep Ratio</i>
<b>Energy Infrastructure</b>								
Kinder Morgan Energy Partners, L.P.	KMP	S	32.73	135	4,400	14.00	0.47	1.70
Kinder Morgan Management, LLC	KMR	S	29.46	40	1,200	14.00	0.47	1.58
Enterprise Products Part.	EPD		18.65	175	3,300	9.50	0.43	1.55
Kinder Morgan, Inc.	KMI	S	35.90	123	4,400	8.10	0.87	1.43
Constellation Energy Group	CEG		24.45	164	4,000	20.00	0.69	1.07
Calpine Corporation	CPN	N	2.19	375	800	1.00	0.97	1.03
Williams Companies	WMB		1.47	521	800	1.00	0.97	1.01
AES Corporation	AES		1.28	543	700	1.00	0.98	1.01
Dynegy Inc.	DYN		0.92	418	400	1.00	0.94	0.99
CMS Energy Corporation	CMS		7.40	137	1,000	8.70	0.90	0.99
Sempra Energy	SRE		20.60	207	4,300	24.30	0.64	0.95
Valero Energy Corporation	VLO		31.89	115	3,700	40.00	0.60	0.92
Mirant Corporation	MIR		1.69	413	700	4.00	0.86	0.92
<i>Total or Median</i>					<i>29,700</i>		<i>0.86</i>	<i>1.01</i>
<b>Natural Gas and Oil</b>								
Murphy Oil Corporation	MUR		87.25	46	4,000	82.00	0.18	1.05
Ocean Energy, Inc.	OEI		18.86	178	3,400	20.00	0.30	0.96
Petro-Canada	PCZ		29.10	262	7,600	31.00	0.11	0.95
Imperial Oil Limited (30%)	IMO		27.66	114	3,100	30.00	0.14	0.93
XTO Energy Inc.	XTO	B	22.85	124	2,800	26.00	0.25	0.91
Suncor Energy	SU		14.45	454	6,600	17.00	0.25	0.89
Norsk Hydro ASA (49%)	NHY		37.60	126	4,700	54.00	0.18	0.75
CNOOC Limited (19%)	CEO	B	24.65	78	1,900	33.00	-	0.75
PetroChina Company Ltd (10%)	PTR	B	19.06	176	3,400	30.00	0.17	0.70
<i>Total or Median</i>					<i>37,500</i>		<i>0.18</i>	<i>0.91</i>
<b>Coal Producers (Small Cap)</b>								
Penn Virginia Res. Part, L.P.	PVR		20.20	15	300	17.00	-	1.19
Consol Energy Inc.	CNX		12.60	79	1,000	5.00	0.88	1.18
Peabody Energy	BTU		25.08	55	1,400	18.00	0.75	1.10
Arch Coal	ACI		17.60	48	800	18.00	0.61	0.99
Fording Coal (US\$)	FDG		20.86	52	1,100	23.00	0.04	0.91
Alliance Res. Part, L.P.	ARLP		23.25	16	400	29.00	0.36	0.87
Massey Energy	MEE		5.62	75	400	18.00	0.37	0.57
					<i>5,400</i>		<i>0.37</i>	<i>0.99</i>

Buy/Sell rating after symbol: B - Buy, N - Neutral, S - Sell

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

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**Table M-2**  
**Mid Cap Energy Companies**  
**Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.**

	<i>Symbol/ Rating</i>	<i>Price (\$/sh) 24-Oct 2002</i>	<i>EV/ Sales NTM</i>	<i>EV/ Ebitda NTM</i>	<i>P/E NTM</i>	<i>Dividend or Distribution NTM (%)</i>	<i>PV/ Ebitda NTM</i>
<b>Energy Infrastructure</b>							
Enterprise Products Part.	EPD	18.65	1.7	17.0	40	6.7	11.0
Kinder Morgan Energy Partners, L.P.	KMP S	32.73	3.2	14.4	16	7.5	8.4
Kinder Morgan Management, LLC	KMR S	29.46	2.9	13.3	15	8.3	8.4
Kinder Morgan, Inc.	KMI S	35.90	3.4	12.6	14	0.6	8.8
Calpine Corporation	CPN N	2.19	1.8	10.6			10.2
Constellation Energy Group	CEG	24.45	2.8	9.8	9	3.9	9.2
Williams Companies	WMB	1.47	1.8	9.1		-	9.0
AES Corporation	AES	1.28	2.7	9.1			9.0
Dynegy Inc.	DYN	0.92	0.2	9.0		-	9.0
CMS Energy Corporation	CMS	7.40	1.3	8.9	4	9.7	9.0
Sempra Energy	SRE	20.60	2.4	8.5	8	4.9	9.0
Mirant Corporation	MIR	1.69	0.4	8.2	1	-	9.0
Valero Energy Corporation	VLO	31.89	0.4	7.2	8	1.3	7.8
	<i>Median</i>		<i>1.8</i>	<i>9.1</i>	<i>9</i>	<i>3.9</i>	<i>9.0</i>
<b>Natural Gas and Oil</b>							
Suncor Energy	SU	14.45	3.2	9.6	20	1.5	10.8
Imperial Oil Limited (30%)	IMO	27.66	1.3	9.6	22	1.9	10.3
Murphy Oil Corporation	MUR	87.25	1.0	8.4	41	1.7	8.0
Ocean Energy, Inc.	OEI	18.86	4.5	7.5	32	0.8	7.8
Petro-Canada	PCZ	29.10	1.8	7.0	18	0.9	7.4
XTO Energy Inc.	XTO B	22.85	4.3	6.0	11	0.2	6.6
CNOOC Limited (19%)	CEO B	24.65	3.7	4.8	10	2.6	6.4
Norsk Hydro ASA (49%)	NHY	37.60	0.7	3.6	10	2.8	4.8
PetroChina Company Ltd (10%)	PTR B	19.06	1.5	3.5	7	6.7	5.1
	<i>Median</i>		<i>1.8</i>	<i>7.0</i>	<i>18</i>	<i>1.7</i>	<i>7.4</i>
<b>Coal Producers (Small Cap)</b>							
Penn Virginia Res. Part, L.P.	PVR	20.20	9.5	13.1	15	9.9	11.0
Consol Energy Inc.	CNX	12.60	1.9	11.5	29	4.4	9.7
Peabody Energy	BTU	25.08	1.5	9.8	21	1.6	9.0
Arch Coal	ACI	17.60	1.5	9.0	99	1.3	9.0
Fording Coal (US\$)	FDG	20.86	1.9	8.1	19	1.8	9.0
Alliance Res. Part, L.P.	ARLP	23.25	1.2	5.3	7	8.6	6.0
Massey Energy	MEE	5.62	0.9	5.1	141	2.8	8.9
			<i>1.5</i>	<i>9.0</i>	<i>21</i>	<i>2.8</i>	<i>9.0</i>

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended September 30, 2003; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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**Small Cap Energy Companies**  
**Rank by McDep Ratio: Market Cap and Debt to Present Value**

	Symbol/ Rating	Price (\$/sh) 24-Oct 2002	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio	
<b>Energy Infrastructure</b>								
El Paso Energy Partners	EPN	S	30.55	44.1	1,350	10.20	0.60	1.81
Enbridge Energy Partners,	EEP		39.70	31.0	1,230	16.60	0.58	1.58
Plains All Amer. Pipeline	PAA		24.14	41.6	1,000	14.90	0.39	1.38
Northern Border Partners	NBP		35.85	42.0	1,510	20.10	0.57	1.34
TEPPCO Partners, L.P.	TPP		29.78	50.0	1,490	17.70	0.56	1.30
AmeriGas Partners, L.P.	APU		23.78	49.0	1,170	23.50	0.47	1.01
Western Gas Resources	WGR		33.48	33.8	1,130	37.60	0.28	0.92
		<i>Total or Median</i>			8,900	0.56	1.34	
<b>Natural Gas and Oil</b>								
Provident Energy Trust	PVX		6.81	36.0	250	5.00	0.46	1.20
Dorchester Hugoton, Ltd.	DHULZ		13.06	10.7	140	11.60	(0.17)	1.14
Quicksilver Resources Inc.	KWK		22.31	19.4	430	19.00	0.44	1.10
Pogo Producing Company	PPP		37.00	64.5	2,390	35.00	0.23	1.04
Newfield Exploration Company	NFX		35.58	48.9	1,740	35.00	0.24	1.01
Enerplus Resources Fund	ERF		17.89	69.6	1,250	20.00	0.19	0.91
Unit Corporation	UNT		19.09	36.2	690	21.00	0.03	0.91
Penn Virginia Corporation	PVA		32.44	9.0	290	38.00	0.09	0.87
Encore Acquisition Corp. (25%)	EAC		16.95	7.0	119	21.00	0.20	0.85
Stone Energy Company	SGY		32.75	26.4	870	42.00	0.29	0.84
Forest Oil Corporation	FST	N	26.07	46.8	1,220	35.00	0.30	0.82
Southwestern Energy Company	SWN		11.50	25.6	290	17.00	0.44	0.82
Spinnaker Exploration Company	SKE		25.31	34.2	870	33.00	-	0.77
Magnum Hunter Resources, Inc.	MHR		4.97	71.5	360	11.00	0.46	0.70
Canadian Oil Sands Trust (US\$)	COS_u.TO	B	23.56	57.2	1,350	40.00	0.12	0.64
Swift Energy Company	SFY		6.90	24.8	170	22.00	0.32	0.53
		<i>Total or Median</i>			12,400	0.23	0.86	
<b>Natural Gas Royalty Trusts</b>								
Cross Timbers Royalty Trust	CRT		17.72	6.0	106	19.70	-	0.90
San Juan Basin Royalty Trust	SJT	B	12.54	46.6	580	16.20	-	0.77
Hugoton RoyaltyTrust (46%)	HGT		11.15	18.4	210	15.60	-	0.71
<b>Micro Cap</b>								
Abraxas Petroleum Corporation	ABP		0.68	27.0	18	2.00	0.84	0.89
Energy Partners Ltd.(30%)	EPL	B	8.00	8.2	66	10.00	0.38	0.88
Purcell Energy, Ltd. (US\$)	PEL.TO	N	1.54	27.3	42	3.00	0.22	0.62

Buy/Sell rating after symbol: B - Buy, N - Neutral, S - Sell

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

Analyses are prepared from original sources and data believed to be reliable, but no representation is made as to their accuracy or completeness. Independent energy investment analysis by Kurt Wulff doing business as McDep Associates is posted at [www.mcdep.com](http://www.mcdep.com). Mr. Wulff is not paid by covered companies. He and his spouse do not sell short nor act contrary to a buy or sell rating except for tax loss purposes. 8



## Meter Reader

### A Weekly Analysis of Energy Stocks Using the McDep Ratio

October 28, 2002

**Table S-2**  
**Small Cap Energy Companies**  
**Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.**

	Symbol/ Rating	Price (\$/sh) 24-Oct 2002	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	Dividend or Distribution NTM (%)	PV/ Ebitda NTM	
<b>Energy Infrastructure</b>								
El Paso Energy Partners	EPN	S	30.55	8.9	16.8	36	8.8	9.3
Enbridge Energy Partners,	EEP		39.70	6.4	14.3	76	8.8	9.0
Plains All Amer. Pipeline	PAA		24.14	0.2	12.4	18	8.5	9.0
Northern Border Partners	NBP		35.85	7.6	12.1	16	8.9	9.0
TEPPCO Partners, L.P.	TPP		29.78	1.0	11.7	16	8.1	9.0
AmeriGas Partners, L.P.	APU		23.78	1.6	9.1	13	9.3	9.0
Western Gas Resources	WGR		33.48	0.7	8.3	19	0.6	9.0
	<i>Median</i>			<i>1.6</i>	<i>12.1</i>	<i>18</i>	<i>8.8</i>	<i>9.0</i>
<b>Natural Gas and Oil</b>								
Dorchester Hugoton, Ltd.	DHULZ		13.06	6.2	9.3	13	9.3	8.1
Quicksilver Resources Inc.	KWK		22.31	4.9	9.1	24	-	8.3
Provident Energy Trust	PVX		6.81	3.6	7.3	88	16.3	6.1
Enerplus Resources Fund	ERF		17.89	4.7	6.7	16	12.2	7.4
Forest Oil Corporation	FST	N	26.07	3.8	6.4	21	-	7.8
Unit Corporation	UNT		19.09	3.3	6.1	13	-	6.6
Magnum Hunter Resources, Inc.	MHR		4.97	2.8	5.8	14	-	8.3
Pogo Producing Company	PPP		37.00	3.6	5.7	19	0.3	5.5
Canadian Oil Sands Trust (US\$)	COS_u.TO	B	23.56	3.3	5.7	6	5.3	8.8
Encore Acquisition Corp. (25%)	EAC		16.95	3.8	5.5	11	-	6.5
Southwestern Energy Company	SWN		11.50	2.2	5.2	11	-	6.3
Penn Virginia Corporation	PVA		32.44	3.1	5.0	21	2.8	5.8
Newfield Exploration Company	NFX		35.58	3.1	4.4	15	-	4.4
Swift Energy Company	SFY		6.90	2.9	4.3	14	-	8.1
Spinnaker Exploration Company	SKE		25.31	3.6	4.3	15	-	5.5
Stone Energy Company	SGY		32.75	3.2	4.3	10	-	5.0
	<i>Median</i>			<i>3.4</i>	<i>5.7</i>	<i>15</i>	<i>-</i>	<i>6.6</i>
<b>Natural Gas Royalty Trusts</b>								
Cross Timbers Royalty Trust	CRT		17.72	6.1	8.6	9	10.8	9.6
San Juan Basin Royalty Trust	SJT	B	12.54	5.1	6.5	9	11.7	8.4
Hugoton RoyaltyTrust (46%)	HGT		11.15	4.4	6.4	9	11.5	8.9
<b>Micro Cap</b>								
Abraxas Petroleum Corporation	ABP		0.68	4.3	6.2		-	6.9
Purcell Energy, Ltd. (US\$)	PEL.TO	N	1.54	3.5	5.3	12	-	8.5
Energy Partners Ltd.(30%)	EPL	B	8.00	2.3	4.2		-	4.8

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended September 30, 2003; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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