

Meter Reader

A Weekly Analysis of Energy Stocks Using the McDep Ratio

April 29, 2002

IPAA Ideas

Summary and Recommendation

Three days immersion in the largest industry sponsored U.S. oil and gas investment meeting reinforces our understanding of opportunities and our confidence in buy recommendations **Forest Oil (FST)**, **XTO Energy (XTO)**, and **Marathon Oil (MRO)**. The size of FST's discovery in Alaska is growing. XTO has reached new prominence in size and concentration on natural gas. MRO is one of the newest "independents". At the gathering of the Independent Petroleum Association of America (IPAA) in New York we gathered new insight in additional companies in our research coverage including **Penn Virginia (PVA, PVR)** and **Quicksilver (KWK)**. PVA and PVR succeed with an innovative horizontal drilling approach to coal seam gas. KWK is in the early stages of production buildup in Canadian coal seam gas. Finally we add **Provident Energy Trust (PVX)** to our research coverage as it represents an efficient alternative to high Greed Gauge partnerships. Our comments on the stocks put in the framework of our valuation ranking of 74 stocks are intended to help investors make money in a diversified energy portfolio (see Tables L-1, L-2, M-1, M-2, S-1 and S-2).

Forest Oil's Alaskan Discovery May Be Worth A Billion Dollars

Forest Oil stock is currently valued at the median enterprise value of about \$1.30 per mcf (\$7.80 per barrel) for small cap producers. The denominator of the ratio includes about 50 million barrels for the company's oil discovery in the Cook Inlet of Alaska. Estimates of reserves commonly increase with additional information about a new discovery. The full limits of oil accumulation at Redoubt Shoal have not yet been determined and a new natural gas zone has been discovered above the oil zone. The ultimate size of the field may be 150 million barrels net to Forest. The increment would be worth more than \$10 a share even before full development.

The company's new chief operating officer, recently arrived from Apache Corporation, makes a strong impression as an energetic, profit oriented, technically capable manager. In addition to Alaska, Craig Clark highlights Forest's exposure in the Fort Liard area of Canada where two separate exploratory wells are planned soon. Mr. Clark is eager for Forest to bid on new lands in the Northwest Territories as soon as the indigenous peoples are ready to deal.

XTO Energy A Leader In U.S. Natural Gas Reserves

XTO Energy has grown impressively in the ten years since the company was formed as Cross Timbers Oil Company. Management points out that XTO now ranks fourth among

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independents in ownership of U.S. natural gas reserves behind **Anadarko, Burlington Resources** and **Devon Energy**.

Management tells its story well and may even appear over confident from time to time. Investors had good reason to be concerned when debt reached \$0.56 per thousand cubic feet equivalent (mcf) in 1998. Fortunately since then the properties bought with that debt have proven to be valuable. Debt is now down to \$0.32 per mcf by management's calculation, or to 0.21 by our calculation of the ratio of debt to present value.

A recent transaction covered in a press release on April 11 attests to creative deal making. In a three-way arrangement, XTO and Marathon exchanged properties and **CMS Energy** received cash. XTO increased its concentration in natural gas in East Texas, now the dominant source of the company's unexploited potential.

Marathon Encounters a Surprise Offshore Nova Scotia

Drilling a deep exploratory well in the Atlantic Ocean, Marathon encountered a natural gas zone above the target structure. Reported in a press release on April 8 as a "well control event", a surprise influx of methane apparently caused drilling to be suspended. Rather than undertake an expensive remedial operation, Marathon started a new well adjacent to the old one. Operated by MRO with 30%, the well is shared with **Encana** (26%), **Norsk Hydro** (25%) and **Murphy** (19%). Optimists would like to think that the natural gas in the surprise zone stems from a source that has filled the deeper structure. Realists know the odds favor a dry hole. Marathon stock has no expectation built into it for exploration success, in our opinion.

Marathon was a surprise participant in a conference for independent producers. The venue appropriately connotes the company's new status unaffiliated with the steel company that acquired the predecessor MRO in 1980.

Penn Virginia Scores With Horizontal Drilling in Coal

The traditional vertical well is starting to appear primitive compared to the pinnate spiders drilled by Penn Virginia. The coal and natural gas producer has a joint venture with a service company to apply new technology to degasify coal seams. The original aim was to remove methane from coal seams to be mined by the long wall technique. James Dearlove and Baird Whitehead of Penn Virginia backed an alternative application with the primary objective of producing natural gas from coal seams. As Mr. Whitehead explained, coal seams draped over an anticlinal structure may be fractured in such a way that makes them more suitable for natural gas production (and perhaps less suitable for mining). Penn Virginia has had surprising success trying the technique on its Mingo, WV property acquired in 2000.

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The spider, or pinnate, pattern of well may involve three horizontal laterals from the vertical hole. Then each of the main laterals may have a half dozen further laterals, or branches. Thus a single well “trunk” ends up with many “limbs and branches” that expose many times as much perforated pipe surface to a coal seam as does a single vertical well. The initial well produces at 2.3 million cubic feet daily. Instead of being produced over 30 years from a vertical well, the reserves in the area of the well may be produced in just three years.

It may be too soon to put a number on the economic value of the technique. Considering that Penn Virginia through Penn Virginia Resource Partners controls nearly a half billion tons of economic coal reserves, the potential appears intriguing.

Both PVA and PVR stocks have done well recently, aided perhaps by accumulation by two parties who have filed with the Securities and Exchange Commission. We know one of the principals, but have had no contact with the person for several years.

Perhaps Mr. Dearlove’s most important innovation has been to create PVR, a limited partnership to hold the company’s coal reserves. We have a problem with the general partner tax, but the lucrative (onerous) provisions have not begun to bite. We suspect, but have no concrete indication of such, that the hidden appeal in PVA is the potential value of the general partnership to one who wants to exploit it aggressively.

Quicksilver Progressing on Coal Bed Methane with Encana

So far, Mr. Glenn Darden is a lucky man, or maybe he is smart. Mr. Darden is the chief executive of a highly levered company that invested in high cost natural gas and at the same time has a surprisingly favorable deal to develop coal bed methane in Canada. Leverage has been working in Mr. Darden’s favor with the rising long-term price of natural gas. As recently as the beginning of March, KWK had a high McDep Ratio of 1.40 and a prohibitive, in our view, ratio of debt of 0.60. Now the McDep Ratio is well under our maximum of 1.20 for holding a stock and the ratio of debt is down to a high, but permissible, 0.43. And those measures do not include any recognition for the company’s promising coal bed methane program.

Recall that KWK has the rights to develop CBM on legacy lands of PanCanadian Energy, now Encana Corporation. Most of the activity has been on the Palliser Block east of Calgary where there is well-developed infrastructure serving 10,000 conventional natural gas wells. Another favorable cost factor is that testing of about a hundred CBM wells so far has yielded low water production rates in contrast to most CBM projects.

To gauge how rapidly the opportunity may develop for KWK consider that the company may be credited with about 6 million cubic feet daily to its interests in the fourth quarter of 2002 from about 250 wells. Thereafter a reasonably rapid development might be a

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thousand wells a year. Thus KWK's Canadian CBM production might be 30 mmcf at the end of 2003, 54 at the end of 2004 and so on. Net proven reserves might be 20 bcf, 100 bcf, 180 bcf etc. Present value per share might be \$1, \$5, and \$9.

Provident Energy Trust Provides Income Without Excessive Manager Greed

We ran into an increasing number of our Canadian friends at the IPAA meeting. Contrast that to a few years ago when the IPAA railed against unfair competition from Canadian natural gas producers. One point we made in conversation was that the Canadian royalty trusts seemed to be far more investor friendly than the U.S. master limited partnerships with their general partner tax. That point was greeted with some skepticism because royalty trusts can sometimes be at the high end of the fee scale in Canada. Thus the Canadian royalty trusts seem to have an opportunity to expand their market in the U.S. at the expense of high Greed Gauge partnerships just as Canadian natural gas producers have increasingly marketed to their neighbors to the south.

We add Provident Energy Trust (PVX) to our coverage in our Small Cap Natural Gas and Oil group at a McDep Ratio of 1.19 and a ratio of debt to property of 0.46. That looks a little expensive compared to Canadian producer, Purcell Energy, for example. It is a lot lower than its U.S. counterparts among income securities where the McDep Ratio ranges as high as 2.00 for Kinder Morgan.

Canadian royalty trusts are treated like master limited partnerships by U.S. taxpayers. That fits because Canadian royalty trusts are active businesses whereas U.S. royalty trusts are passive holders of fixed interests. There is no general partner tax at PVX. There is what could be legitimately, not just euphemistically, called incentive. The managers, who must be rehired every three years, can earn 6% of investors' total return above 8% per year. Contrast that to Kinder Morgan where new investors pay the general partner tax on income and principal of 39% (50% incremental) whether they make money or lose money on their investment.

Apparently Canadian royalty trusts are generally valued at a premium to producers. One might say that investors are keenly interested in cash returns and wary about taking exploration risk. Recognizing this, the managers of PVX deliberately converted their producing company to a royalty trust. Now PVX offers high income to investors and to producers an opportunity to cash in proven reserves for capital to be used to create new proven reserves.

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) 25-Apr 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>
Mega Cap								
Exxon Mobil Corporation	XOM		40.54	6,924	281,000	36.00	0.09	1.11
BP plc	BP		49.90	3,738	187,000	47.00	0.16	1.05
Royal Dutch/Shell	RD	3	52.52	3,520	185,000	55.00	0.04	0.96
TotalFinaElf S.A.	TOT		74.90	1,352	101,000	85.00	0.15	0.90
ChevronTexaco Corporation	CVX	2	85.90	1,062	91,300	110.00	0.16	0.82
	<i>Total or Median</i>				845,000		0.15	0.96
Energy Infrastructure								
American Electric Power Co. Inc.	AEP	3	46.30	322	14,900	42.10	0.64	1.04
Duke Energy Corporation	DUK		38.00	781	29,700	36.30	0.44	1.03
Southern Company	SO		27.77	683	19,000	27.40	0.42	1.01
Williams Companies	WMB		21.45	521	11,200	22.70	0.58	0.98
El Paso Corporation	EP		42.60	529	22,500	46.30	0.49	0.96
Dominion Resources	D		66.10	247	16,300	79.40	0.45	0.91
Exelon Corporation	EXC	2	53.89	323	17,400	84.00	0.40	0.79
	<i>Total or Median</i>				116,000		0.44	0.97
Natural Gas and Oil								
ENI S.p.A.	E		75.73	789	59,700	75.00	0.19	1.01
OAO Lukoil	LUKOY		68.95	299	20,600	70.00	0.08	0.99
Occidental Petroleum Corp.	OXY		28.52	372	10,600	30.00	0.48	0.97
Anadarko Petroleum Corp.	APC		53.42	266	14,200	56.00	0.26	0.97
Devon Energy	DVN		49.60	165	8,200	55.00	0.48	0.95
Burlington Resources	BR	1	44.25	201	8,900	48.00	0.33	0.95
Encana Corporation	ECA	2	31.31	490	15,300	35.00	0.19	0.91
Unocal Corporation	UCL		37.47	245	9,200	45.00	0.33	0.89
ConocoPhillips	P	2	60.67	680	41,300	80.00	0.32	0.84
Marathon Oil Corporation	MRO	1	29.22	310	9,100	42.00	0.35	0.80
	<i>Total or Median</i>				137,000		0.33	0.95
Service								
Baker Hughes Inc.	BHI		37.69	338	12,700	24.50	0.13	1.46
Schlumberger Ltd.	SLB		55.90	581	32,500	44.00	0.12	1.24
Halliburton Company	HAL		17.73	430	7,600	25.00	0.14	0.75

Buy/Sell rating after symbol: 1-Strong Buy, 2-Buy, 3-Neutral, 4-Sell, 5-Strong Sell

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

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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.

	<i>Symbol/ Rating</i>	<i>Price (\$/sh) 25-Apr 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>	
Mega Cap								
Exxon Mobil Corporation	XOM	40.54	1.5	11.3	24	2.3	10.1	
BP plc	BP	49.90	1.3	9.5	16	2.6	9.0	
Royal Dutch/Shell	RD	3	52.52	1.1	8.4	19	2.7	8.7
TotalFinaElf S.A.	TOT	74.90	1.3	8.0	16	2.8	8.9	
ChevronTexaco Corporation	CVX	2	85.90	1.3	7.1	17	3.3	8.7
	<i>Median</i>		<i>1.3</i>	<i>8.4</i>	<i>17</i>	<i>2.7</i>	<i>8.9</i>	
Energy Infrastructure								
American Electric Power Co. Inc.	AEP	3	46.30	0.7	10.4	16	5.2	10.0
Williams Companies	WMB	21.45	2.4	9.8	14	3.7	10.0	
Duke Energy Corporation	DUK	38.00	0.9	9.2	14	2.9	9.0	
Southern Company	SO	27.77	3.0	9.1	17	4.8	9.0	
El Paso Corporation	EP	42.60	0.9	8.6	13	2.1	9.0	
Dominion Resources	D	66.10	3.6	8.2	15	3.9	9.0	
Exelon Corporation	EXC	2	53.89	2.3	7.1	11	3.1	9.0
	<i>Median</i>		<i>2.3</i>	<i>9.1</i>	<i>14</i>	<i>3.7</i>	<i>9.0</i>	
Natural Gas and Oil								
Occidental Petroleum Corp.	OXY	28.52	1.5	7.9	13	3.5	8.1	
Anadarko Petroleum Corp.	APC	53.42	3.1	7.8	17	0.6	8.1	
Devon Energy	DVN	49.60	3.1	7.0	50	0.4	7.4	
Burlington Resources	BR	1	44.25	4.5	6.9	21	1.2	7.3
ENI S.p.A.	E	75.73	1.7	6.9	14	2.4	6.9	
Encana Corporation	ECA	2	31.31	1.9	6.9	18	0.8	7.5
ConocoPhillips	P	2	60.67	0.9	5.8	11	2.4	6.9
Unocal Corporation	UCL	37.47	2.5	5.6	14	2.1	6.3	
Marathon Oil Corporation	MRO	1	29.22	0.5	5.3	10	3.1	6.7
OAO Lukoil	LUKOY	68.95	1.8	4.8	10	1.6	4.9	
	<i>Median</i>		<i>1.8</i>	<i>6.9</i>	<i>14</i>	<i>1.9</i>	<i>7.1</i>	
Service								
Baker Hughes Inc.	BHI	37.69	2.4	11.7	27	1.2	9.0	
Schlumberger Ltd.	SLB	55.90	2.9	9.9	28	1.3	9.0	
Halliburton Company	HAL	17.73	0.7	6.1	13	2.8	8.2	

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended March 31, 2003; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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Energy Infrastructure								
Kinder Morgan Energy Partners, L.P.	KMP	5	36.05	136	4,900	12.40	0.48	2.00
Kinder Morgan Management, LLC	KMR	5	36.00	30	1,100	12.40	0.48	2.00
Kinder Morgan, Inc.	KMI	5	49.01	125	6,100	16.00	0.78	1.46
Enterprise Products Part.	EPD		47.50	87	4,100	31.70	0.23	1.38
AES Corporation	AES		7.91	543	4,300	8.80	0.83	0.98
Dynegy Inc.	DYN		19.21	339	6,500	20.60	0.57	0.97
Calpine Corporation	CPN	3	10.91	377	4,100	12.50	0.66	0.96
Mirant Corporation	MIR		12.40	353	4,400	18.60	0.65	0.88
Valero Energy Corporation	VLO		46.15	104	4,800	60.00	0.46	0.88
Consol Energy Inc.	CNX		25.01	79	2,000	35.90	0.51	0.85
Sempra Energy	SRE		25.41	203	5,200	41.70	0.50	0.81
CMS Energy Corporation	CMS		20.40	128	2,600	43.80	0.62	0.80
Constellation Energy Group	CEG		30.60	152	4,700	56.50	0.35	0.70
	<i>Total or Median</i>				<i>50,100</i>		<i>0.54</i>	<i>0.96</i>
Natural Gas and Oil								
Murphy Oil Corporation	MUR		96.63	46	4,400	82.00	0.18	1.15
Ocean Energy, Inc.	OEI		21.04	178	3,700	20.00	0.30	1.04
Imperial Oil Limited (30%)	IMO		29.70	119	3,600	30.00	0.11	0.99
Norsk Hydro ASA (49%)	NHY		49.30	126	6,200	54.00	0.18	0.93
Petro-Canada	PCZ		27.06	262	7,100	31.00	0.11	0.89
PetroChina Company Ltd (10%)	PTR	2	20.62	176	3,600	28.00	0.16	0.78
	<i>Total or Median</i>				<i>28,600</i>		<i>0.17</i>	<i>0.96</i>

Buy/Sell rating after symbol: 1 - Strong Buy, 2 - Buy, 3 - Neutral, 5 - Strong Sell

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

			Price (\$/sh)	EV/ Sales	EV/ Ebitda	P/E	Dividend or Distribution	PV/ Ebitda
	Symbol/ Rating		25-Apr 2002	Sales NTM	Ebitda NTM	NTM	NTM (%)	NTM
Energy Infrastructure								
Kinder Morgan Energy Partners, L.P.	KMP	5	36.05	4.6	17.9	25	6.5	9.0
Kinder Morgan Management, LLC	KMR	5	36.00	4.6	17.9	25	6.6	9.0
Enterprise Products Part.	EPD		47.50	1.7	12.5	14	5.3	9.0
Kinder Morgan, Inc.	KMI	5	49.01	4.1	12.3	17	0.4	8.4
AES Corporation	AES		7.91	3.1	8.9	6	-	9.0
Dynegy Inc.	DYN		19.21	0.4	8.7	9	1.6	9.0
Calpine Corporation	CPN	3	10.91	1.7	8.6	7	-	9.0
Mirant Corporation	MIR		12.40	0.5	7.9	6	-	9.0
Consol Energy Inc.	CNX		25.01	2.1	7.7	8	4.5	9.0
Sempra Energy	SRE		25.41	1.1	7.2	10	3.9	9.0
CMS Energy Corporation	CMS		20.40	0.8	7.2	10	7.2	9.0
Constellation Energy Group	CEG		30.60	1.8	6.3	10	1.6	9.0
Valero Energy Corporation	VLO		46.15	0.3	5.9	9	0.9	6.8
	<i>Median</i>			<i>1.7</i>	<i>8.6</i>	<i>10</i>	<i>1.6</i>	<i>9.0</i>
Natural Gas and Oil								
Imperial Oil Limited (30%)	IMO		29.70	1.2	11.0	28	1.8	11.1
Murphy Oil Corporation	MUR		96.63	1.1	9.2	46	1.6	8.0
Ocean Energy, Inc.	OEI		21.04	4.8	8.1	36	0.8	7.8
Petro-Canada	PCZ		27.06	1.7	6.5	17	0.9	7.4
Norsk Hydro ASA (49%)	NHY		49.30	0.9	4.4	13	2.1	4.8
PetroChina Company Ltd (10%)	PTR	2	20.62	1.7	3.4	7	8.9	4.3
	<i>Median</i>			<i>1.4</i>	<i>7.3</i>	<i>22</i>	<i>1.7</i>	<i>7.6</i>

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended March 31, 2003; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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Energy Infrastructure								
El Paso Energy Partners	EPN	5	37.93	40.0	1,520	11.70	0.57	1.96
Enbridge Energy Partners,	EEP		45.30	31.0	1,400	16.60	0.58	1.72
TEPPCO Partners, L.P.	TPP		32.28	46	1,500	12.90	0.61	1.59
Plains All Amer. Pipeline	PAA		26.38	41.6	1,100	14.90	0.39	1.48
Northern Border Partners	NBP		41.18	42.0	1,730	20.10	0.57	1.45
Penn Virginia Res. Part, L.P.(48%)	PVR		23.70	7.7	180	17.90	0.12	1.28
Penn Virginia Corporation	PVA		38.60	9.0	350	35.00	0.10	1.09
AmeriGas Partners, L.P.	APU		22.54	44.0	990	19.50	0.54	1.07
	<i>Total or Median</i>				8,800		0.55	1.47
Natural Gas and Oil								
Dorchester Hugoton, Ltd.	DHULZ		14.00	10.7	150	11.60	(0.17)	1.24
Spinnaker Exploration Company	SKE		43.28	28.5	1,230	35.00	0.03	1.23
Provident Energy Trust (US\$)	PVX		6.77	36.0	240	5.00	0.46	1.19
Quicksilver Resources Inc.	KWK		24.10	19.4	470	20.00	0.43	1.12
Newfield Exploration Company	NFX		37.62	48.6	1,830	33.00	0.25	1.10
Stone Energy Company	SGY		41.55	26.4	1,100	42.00	0.29	0.99
Forest Oil Corporation	FST	2	31.41	46.7	1,470	35.00	0.29	0.93
Unit Corporation	UNT		19.34	36.2	700	21.00	0.03	0.92
Southwestern Energy Company	SWN		14.10	25.6	360	17.00	0.44	0.91
Swift Energy Company	SFY		18.39	24.8	460	22.00	0.32	0.89
CNOOC Limited (19%)	CEO	2	25.74	78	2,010	30.00	-	0.86
Encore Acquisition Corp. (25%)	EAC		16.46	7.5	124	20.00	0.18	0.86
Pogo Producing Company	PPP		25.76	60.5	1,560	32.00	0.27	0.86
XTO Energy Inc.	XTO	2	20.37	124.0	2,530	26.00	0.21	0.83
Magnum Hunter Resources, Inc.	MHR		7.20	71.5	520	11.00	0.46	0.81
	<i>Total or Median</i>				14,800		0.27	0.92
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		18.81	6.0	113	18.90	-	1.00
San Juan Basin Royalty Trust	SJT	2	11.92	46.6	560	15.50	-	0.77
Hugoton RoyaltyTrust (46%)	HGT		11.13	18.4	210	15.50	-	0.72
Micro Cap								
Torch Energy Royalty Trust	TRU		6.07	8.6	52	5.50	-	1.10
Abraxas Petroleum Corporation	ABP		1.05	27.0	28	2.00	0.84	0.92
Energy Partners Ltd.(30%)	EPL	2	8.49	8.1	69	10.00	0.34	0.90
Purcell Energy, Ltd. (US\$)	PEL.TO	2	1.80	25.7	46	3.00	0.19	0.67

Buy/Sell rating after symbol: 1 - Strong Buy, 2 - Buy, 3 - Neutral, 4 - Sell, 5 - Strong 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. Mr. Wulff is not paid by covered companies. Owning shares in energy stocks, neither Mr. Wulff nor his spouse act contrary to a buy or sell rating.

Meter Reader

A Weekly Analysis of Energy Stocks Using the McDep Ratio

April 29, 2002

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

	<i>Symbol/ Rating</i>		<i>Price (\$/sh 25-Apr 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>
Energy Infrastructure								
	EPN	5	37.93	12.9	17.6	33	6.9	9.0
	EEP		45.30	6.9	15.5	87	7.7	9.0
	TEPPCO Partners, L.P.		32.28	1.1	14.3	21	7.1	9.0
	Plains All Amer. Pipeline		26.38	0.2	13.3	19	7.8	9.0
	Northern Border Partners		41.18	8.2	13.1	18	7.8	9.0
	Penn Virginia Res. Part, L.P.(48%)		23.70	8.6	11.5	13	8.4	9.0
	AmeriGas Partners, L.P.		22.54	1.4	9.6	19	9.8	9.0
	Penn Virginia Corporation		38.60	3.4	5.3	13	2.3	4.8
	<i>Median</i>			<i>5.2</i>	<i>13.2</i>	<i>19</i>	<i>7.7</i>	<i>9.0</i>
Natural Gas and Oil								
	Dorchester Hugoton, Ltd.		14.00	6.8	10.1	14	8.6	8.2
	Quicksilver Resources Inc.		24.10	5.0	8.9	22	-	8.0
	Forest Oil Corporation	2	31.41	3.9	7.4	74	-	8.0
	Provident Energy Trust (US\$)		6.77	3.6	7.3	88	16.4	6.1
	Swift Energy Company		18.39	4.9	7.2	38	-	8.1
	Magnum Hunter Resources, Inc.		7.20	3.3	6.7	20	-	8.3
	XTO Energy Inc.	2	20.37	3.5	6.7	14	0.2	8.1
	Encore Acquisition Corp. (25%)		16.46	4.2	6.3	14	-	7.4
	Pogo Producing Company		25.76	3.7	6.2	36	0.5	7.3
	Unit Corporation		19.34	3.3	6.1	13	-	6.6
	Spinnaker Exploration Company		43.28	5.1	6.0	18	-	4.8
	CNOOC Limited (19%)	2	25.74	4.4	5.7	11	0.9	6.7
	Southwestern Energy Company		14.10	2.4	5.7	14	-	6.3
	Newfield Exploration Company		37.62	3.7	5.2	21	-	4.7
	Stone Energy Company		41.55	3.8	5.0	12	-	5.0
	<i>Median</i>			<i>3.8</i>	<i>6.3</i>	<i>18</i>	<i>-</i>	<i>7.3</i>
Natural Gas Royalty Trusts								
	Cross Timbers Royalty Trust		18.81	7.2	10.2	11	9.0	10.3
	San Juan Basin Royalty Trust	2	11.92	6.0	7.7	11	9.3	10.1
	Hugoton RoyaltyTrust (46%)		11.13	4.5	6.7	9	10.9	9.3
Micro Cap								
	Abraxas Petroleum Corporation		1.05	4.4	6.4		-	6.9
	Torch Energy Royalty Trust		6.07	4.3	5.1	6	17.1	4.6
	Energy Partners Ltd.(30%)	2	8.49	2.2	4.1	54	-	4.5
	Purcell Energy, Ltd. (US\$)	2	1.80	2.8	3.7	7	-	5.5

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended March 31, 2003; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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