

Meter Reader

A Weekly Analysis of Energy Stocks Using the McDep Ratio

March 6, 2003

Buy a Small Cap Natural Gas and Oil Producer

Summary and Recommendation

Among 24 small cap natural gas and oil producers, recommended **Canadian Oil Sands Trust (COS_u.TO)** and **San Juan Basin Royalty Trust (SJT)** offer low McDep Ratios, low or no debt, efficient operations and long life. Recommended **Energy Partners (EPL)** offers reasonable value, medium debt and participation in the rewards and risks of reinvestment. McDep Ratios are lower this week for the small cap producers as we raise our estimate of present value by about 10%. The type of fundamental analysis we detail does not shine the same favorable light on high greed partnerships like sell recommended **El Paso Energy Partners (EPN)**. Because we see the high greed partnerships as financially engineered derivatives rather than stocks, we italicize the issues and their sponsors in the valuation tables. In that way we flag the high risk we see in deceptive schemes compared to normal securities. With that modification, buy and sell recommendations are ranked in our regular format (see Table 1-1, 1-2, 2-1, 2-2, 3-1, 3-2).

The Bond Market and the Energy Thesis

Subject to continuing analysis, we see the bond market pointing the way for investments. First, the Ten-Year Treasury Inflation Protected Security (TIPS) is setting new lows for real yield almost daily implying an increasingly stagnant economic outlook. Will the stagnation be deflationary as in the 1930s? Or will it be inflationary as in the 1970s? It may be both. Second, the Ten-Year Treasury Note (TN) is approaching the October low in yield. That implies deflation of debt that occurs when over leveraged owners of assets are not able to grow out of the burden of their fixed obligations. Third, a faster decline in the real yield on TIPS than the nominal yield on TN implies rising inflation expectations.

Our approach to taking advantage of that possible scenario is to emphasize valuation with the McDep Ratio to help us find investments at prices low enough to promise a real return. We resist the ravages of deflation by avoiding high debt issues. Finally, energy investments are particularly effective at protecting against inflation. In short, buy low McDep Ratio, low debt, energy stocks.

Upgrade Values of Small Cap Energy Producers

Making weekly calculations of valuation estimates, we have been keeping a close eye on natural gas royalty trusts. Comparing the progression of weekly advances with estimates

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for 21 additional small cap producers we raise present value for the remaining issues to bring them in line with the improving energy investment outlook.

SJT offers competitive value in the group and we like the low risk characteristics of long life reserves and no debt. Further we like the basic honesty of low fees. COS seems to offer even better value if one can accurately compare the natural gas value of SJT with the oil value of COS. Life is exceedingly long, debt is low and fees are also low. SJT and COS also offer high NTM distributions estimated at 13.7% and 5.6% respectively.

Most of the remaining producers have higher resource risk as they reinvest almost all of their cash flow as active explorers and developers. Recommended EPL is representative of producers that are active in the Gulf of Mexico where resource life is short.

If we were to look beyond our recommended stocks we might turn first to **Encore Acquisition Corporation (EAC)** whose chairman has a long record of making money for oil and gas investors. In fact, Mr. Brumley formed SJT, and founded the company that formed **Hugoton Royalty Trust (HGT)** and **Cross Timbers Royalty Trust (CRT)**.

One might pick some additional stocks by looking for McDep Ratio below 1.0, ratio of debt to present value less than 0.35, reserve life of 7.0 years or higher and no high greed taint. Besides the recommended issues SJT, COS, and EPL, small cap producers that meet those criteria are EAC, HGT, **Purcell Energy (PEL.TO)**, **Forest Oil (FST)**, **Western Gas Resources (WGR)**, **Southwestern Energy (SWN)**, **Pengrowth Energy Trust (PGH)** and **Enerplus Resources Fund (ERF)**.

Step by Step to McDep

Two weeks ago we described in qualitative terms how we might estimate Present Value, PV, as the product of Ebitda and the multiple of PV/Ebitda (see *Meter Reader*, February 20, 2003). Now we elaborate in quantitative terms for small cap producers. Though valuation may be boring, we think it is essential to have a confident sense of it in order to put any management presentation or investment recommendation in context. Investors who have a better understanding of what an investment might be worth will make better buy and sell decisions, we believe.

To help in the explanation we create a separate table of Cash Flow Life and Reserve Life (see table on next page). Cash flow life is another term for cash flow multiple, EV/Ebitda or PV/Ebitda. We like the connotation that cash flow life and reserve life should be related. It is simple logic, that the longer reserves last, the longer cash flow lasts. A long reserve life should justify a long cash flow life. Long cash flow life can be translated back as high cash flow multiple.

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Small Cap Natural Gas and Oil Producers Cash Flow Life and Reserve Life

	Symbol/ Rating	Price (\$/sh) 5-Mar 2003	EV/ Ebitda NTM	Adjusted Reserves/ Production NTM	NA Gas/ Ebitda (%)	PV/ Ebitda NTM	McDep Ratio
Canadian Oil Sands Trust (US\$)	COS_u.TO B	24.05	4.5	20.0	-	7.4	0.60
Abraxas Petroleum Corporation	ABP	0.80	6.2	16.3	73	7.5	0.83
Quicksilver Resources Inc.	KWK	23.35	5.6	14.7	86	5.8	0.96
Hugoton RoyaltyTrust (46%)	HGT	15.17	5.3	13.3	94	6.3	0.85
Encore Acquisition Corp. (25%)	EAC	18.35	4.6	12.7	19	5.7	0.81
San Juan Basin Royalty Trust	SJT B	15.87	6.1	12.1	99	6.9	0.88
Swift Energy Company	SFY	9.00	4.6	12.0	37	6.1	0.75
Cross Timbers Royalty Trust	CRT	21.40	7.8	11.3	62	7.7	1.02
Enerplus Resources Fund	ERF	19.81	5.6	11.1	53	5.7	0.99
Magnum Hunter Resources, Inc.	MHR	5.78	4.2	11.0	71	5.6	0.74
Unit Corporation	UNT	21.00	8.1	10.7	67	7.0	1.16
<i>Penn Virginia Corporation</i>	<i>PVA</i>	<i>37.05</i>	<i>4.3</i>	<i>10.6</i>	<i>74</i>	<i>5.2</i>	<i>0.83</i>
Forest Oil Corporation	FST N	22.42	4.7	9.6	80	6.2	0.76
Purcell Energy, Ltd. (US\$)	PEL.TO N	2.18	4.5	9.1	71	5.4	0.84
Southwestern Energy Company	SWN	12.34	4.3	9.1	82	5.3	0.81
Pengrowth Energy Trust	PGH	10.14	5.0	8.9	39	5.4	0.93
Dorchester Minerals, L.P.	DMLP	14.96	7.5	8.2	85	6.5	1.15
Western Gas Resources	WGR	33.10	6.6	8.0	44	7.1	0.92
Energy Partners Ltd.(30%)	EPL B	10.90	4.1	7.0	60	4.3	0.94
Stone Energy Company	SGY	34.60	3.1	6.4	67	3.8	0.82
Provident Energy Trust	PVX	7.74	4.5	5.9	61	3.7	1.22
Pogo Producing Company	PPP	39.67	4.7	5.8	39	4.5	1.03
Spinnaker Exploration Company	SKE	18.63	2.4	3.8	85	3.3	0.75
Newfield Exploration Company	NFX	34.43	3.0	3.8	80	3.3	0.90

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended March 31, 2004

PV = Present Value of oil and gas and other businesses

Italicized issues are subject to, or sponsor, deceptive compensation arrangements that threaten value and financial viability, in our opinion.

The first cash flow multiple in the table, EV/Ebitda, is the multiple as measured in the market before we attempt to say what it should be. The numerator is the market cap and debt as in the McDep Ratio. The denominator is projected cash flow for the Next Twelve Months, NTM, ended March 31, 2004.

As a base for projections, actual results for the most recently completed quarter have been reported by most entities. Some of the Canadian managements, not COS, are a bit slow in disclosing latest results.

While projections have to be subjective, we try to keep volumes and costs close to those most recently reported. The most volatile variable is price that we take from the futures market. We update our cash flow estimates for the royalty trusts weekly and for the current discussion we have also updated cash flow estimates for each of the 24 producers.

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Reserve information for the end of 2002 has been reported in sketchy format where it has been reported, but not in detail yet for more than a few producers. We use what we have to calculate the ratio to NTM production that we call reserve life. In addition we make an adjustment that weights undeveloped reserves at half of developed reserves. In some cases we have to make further adjustments for consistency. For COS whose production would last indefinitely, we arbitrarily assess reserve life at 20 years. We rank the 24 producers by reserve life in descending order.

Long cash flow life and long reserve life do tend to go together. Statistically, the correlation coefficient is 0.37, implying that reserve life explains 37% of the variation in EV/Ebitda.

The correlation of PV/Ebitda with reserve life is 79%. For current Ebitda estimates, PV/Ebitda can be approximated as 3.03 plus 0.26 times reserve life. Then by applying that multiple to Ebitda, one can estimate PV, the denominator of the McDep Ratio. Finally the estimate can be refined by considering additional factors and/or modifying any of the elements. In our experience, the resulting McDep Ratio can be used to improve the odds for making money in energy stocks and to help avoid losing money in energy stocks.

Spinnaker is an interesting valuation example. A year ago a high McDep Ratio put Spinnaker near the top of the ranking. Today the same stock is about half the price and near the bottom of the ranking.

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

	Symbol/ Rating	Price (\$/sh) 5-Mar 2003	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Mega Cap							
Exxon Mobil Corporation	XOM	34.92	6,787	237,000	37.00	0.09	0.95
BP plc	BP	39.27	3,735	147,000	52.00	0.14	0.79
TotalFinaElf S.A.	TOT	66.45	1,317	87,500	90.00	0.15	0.78
Royal Dutch/Shell	RD B	40.23	3,473	140,000	60.00	0.18	0.73
ChevronTexaco Corporation	CVX B	65.95	1,062	70,100	101.00	0.17	0.71
	<i>Total or Median</i>			682,000		0.15	0.78
Energy Infrastructure							
Southern Company	SO	28.58	701	20,000	23.90	0.47	1.10
Duke Energy Corporation	DUK	13.20	822	10,900	15.00	0.73	0.97
American Electric Power Co. Inc.	AEP N	21.95	326	7,200	27.40	0.74	0.95
Enel S.p.a. (32%)	EN	29.25	388	11,400	32.70	0.39	0.94
Dominion Resources	D	54.79	269	14,700	76.20	0.45	0.85
Exelon Corporation	EXC N	49.12	323	15,900	70.80	0.45	0.83
El Paso Corporation	EP N	4.96	590	2,900	20.00	0.66	0.74
	<i>Total or Median</i>			63,000		0.56	0.89
Natural Gas and Oil							
Occidental Petroleum Corp.	OXY	30.12	380	11,500	35.00	0.36	0.91
Encana Corporation	ECA B	33.12	470	15,600	38.00	0.27	0.91
AO LUKOIL	LUKOY	62.00	299	18,600	70.00	0.08	0.90
Devon Energy	DVN	49.50	163	8,100	65.00	0.42	0.86
ENI S.p.A.	E	73.95	776	57,400	90.00	0.17	0.85
Burlington Resources	BR B	46.55	202	9,400	60.00	0.26	0.83
Anadarko Petroleum Corp.	APC	46.25	258	11,900	60.00	0.25	0.83
ConocoPhillips	COP B	51.38	680	35,000	75.00	0.36	0.80
Unocal Corporation	UCL	26.40	245	6,500	40.00	0.37	0.79
Marathon Oil Corporation	MRO B	23.38	310	7,300	40.00	0.37	0.74
Petroleo Brasileiro S. A.	PBR N	13.00	1,086	14,100	30.00	0.27	0.59
	<i>Total or Median</i>			184,000		0.27	0.83
Service							
Baker Hughes Inc.	BHI	30.33	339	10,300	25.00	0.09	1.20
Halliburton Company	HAL	20.00	434	8,700	22.00	0.25	0.93
Schlumberger Ltd.	SLB	40.17	581	23,300	44.00	0.22	0.93

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 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) 5-Mar 2003	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	Dividend or Distribution NTM (%)	PV/ Ebitda NTM	
Mega Cap								
Exxon Mobil Corporation	XOM	34.92	1.2	8.4	17	2.6	8.9	
BP plc	BP	39.27	0.9	6.8	14	3.7	8.6	
ChevronTexaco Corporation	CVX	B	65.95	0.9	5.9	12	4.2	8.2
Royal Dutch/Shell	RD	B	40.23	0.9	5.7	11	4.6	7.8
TotalFinaElf S.A.	TOT		66.45	1.0	5.7	12	4.5	7.3
	<i>Median</i>			0.9	5.9	12	4.2	8.2
Energy Infrastructure								
Southern Company	SO		28.58	3.4	9.9	17	4.7	9.0
Duke Energy Corporation	DUK		13.20	2.3	9.3	9	8.3	9.6
American Electric Power Co. Inc.	AEP	N	21.95	0.5	8.5	7	10.9	9.0
Enel S.p.a. (32%)	EN		29.25	2.3	8.4	35	5.5	9.0
Dominion Resources	D		54.79	3.2	7.6	11	4.7	9.0
Exelon Corporation	EXC	N	49.12	2.3	7.5	11	3.6	9.0
El Paso Corporation	EP	N	4.96	2.1	5.7	3	17.5	7.7
	<i>Median</i>			2.3	8.4	11	5.5	9.0
Natural Gas and Oil								
ConocoPhillips	COP	B	51.38	0.7	6.0	9	3.1	7.4
ENI S.p.A.	E		73.95	1.5	5.7	11	5.0	6.7
Encana Corporation	ECA	B	33.12	2.2	5.1	10	0.8	5.7
Anadarko Petroleum Corp.	APC		46.25	3.5	5.0	9	0.9	6.0
Burlington Resources	BR	B	46.55	3.6	4.9	10	1.2	5.8
Occidental Petroleum Corp.	OXY		30.12	2.2	4.7	7	3.5	5.1
Marathon Oil Corporation	MRO	B	23.38	0.4	4.4	7	3.9	6.0
Unocal Corporation	UCL		26.40	2.0	4.2	8	3.0	5.4
Devon Energy	DVN		49.50	2.8	4.1	6	-	4.8
OAo Lukoil	LUKOY		62.00	1.6	3.7	7	1.7	4.1
Petroleo Brasileiro S. A.	PBR	N	13.00	1.2	2.9	3	10.4	4.9
	<i>Median</i>			2.0	4.7	8	3.0	5.7
Service								
Baker Hughes Inc.	BHI		30.33	2.1	12.9	36	1.5	10.8
Halliburton Company	HAL		20.00	1.0	8.4	18	2.5	9.0
Schlumberger Ltd.	SLB		40.17	2.2	8.3	30	1.9	8.9

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended March 31, 2004; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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

	Symbol/ Rating	Price (\$/sh) 5-Mar 2003	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Energy Infrastructure							
Kinder Morgan Energy Partners, L.P.	KMP S	36.41	141	5,100	14.00	0.47	1.84
Kinder Morgan Management, LLC	KMR S	32.04	40	1,300	14.00	0.47	1.68
Kinder Morgan, Inc.	KMI S	44.65	123	5,500	14.00	0.80	1.43
Constellation Energy Group	CEG	26.50	164	4,400	20.00	0.69	1.10
Williams Companies	WMB	3.90	521	2,000	1.00	0.97	1.08
Dynegy Inc.	DYN	1.98	418	800	1.00	0.94	1.06
AES Corporation	AES	3.30	543	1,800	1.00	0.98	1.05
Calpine Corporation	CPN N	2.75	375	1,000	1.00	0.97	1.05
Valero Energy Corporation	VLO	40.70	115	4,700	40.00	0.60	1.01
Sempra Energy	SRE	22.50	207	4,700	24.30	0.64	0.97
CMS Energy Corporation	CMS	4.35	137	600	8.70	0.90	0.95
Mirant Corporation	MIR	1.42	413	600	4.00	0.86	0.91
<i>Total or Median</i>				32,500		0.83	1.06
Natural Gas and Oil							
Petro-Canada	PCZ	35.80	262	9,400	31.00	0.11	1.14
Murphy Oil Corporation	MUR	43.90	92	4,100	41.00	0.24	1.05
Suncor Energy	SU	17.75	454	8,100	17.00	0.25	1.03
Ocean Energy, Inc.	OEI	20.90	178	3,700	20.00	0.30	1.03
Imperial Oil Limited (30%)	IMO	31.94	114	3,600	33.00	0.13	0.97
XTO Energy Inc.	XTO B	24.89	125	3,100	26.00	0.25	0.97
CNOOC Limited (19%)	CEO B	27.88	78	2,180	33.00	-	0.85
Norsk Hydro ASA (49%)	NHY	39.12	126	4,900	54.00	0.18	0.77
PetroChina Company Ltd (10%)	PTR B	20.93	176	3,700	30.00	0.17	0.75
<i>Total or Median</i>				42,800		0.18	0.97
Coal Producers (Small Cap)							
Penn Virginia Res. Part, L.P.	PVR	23.40	15	400	18.00	-	1.31
Consol Energy Inc.	CNX	17.75	79	1,400	5.00	0.88	1.30
Peabody Energy	BTU	28.14	55	1,600	18.00	0.75	1.14
Alliance Res. Part, L.P.	ARLP	22.63	16	400	20.00	0.45	1.07
Arch Coal	ACI	19.73	48	900	18.00	0.61	1.04
Massey Energy	MEE	9.20	75	700	18.00	0.37	0.69
				5,400		0.53	1.11

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

			Price (\$/sh)	EV/ Sales	EV/ Ebitda	P/E	Dividend or Distribution NTM (%)	PV/ Ebitda NTM
	Symbol/ Rating	5-Mar 2003	5-Mar 2003	Sales NTM	Ebitda NTM	NTM	NTM (%)	NTM
Energy Infrastructure								
Kinder Morgan Energy Partners, L.P.	KMP	S	36.41	3.3	16.0	19	6.9	8.7
Kinder Morgan Management, LLC	KMR	S	32.04	3.0	14.6	16	7.8	8.7
Kinder Morgan, Inc.	KMI	S	44.65	3.2	12.0	14	1.3	8.4
Calpine Corporation	CPN	N	2.75	1.8	10.7			10.2
Constellation Energy Group	CEG		26.50	2.8	10.1	10	3.6	9.2
Williams Companies	WMB		3.90	2.0	9.7		-	9.0
Dynegy Inc.	DYN		1.98	0.2	9.5		-	9.0
AES Corporation	AES		3.30	2.8	9.5			9.0
Sempra Energy	SRE		22.50	2.5	8.8	8	4.4	9.0
CMS Energy Corporation	CMS		4.35	1.2	8.6	2	16.6	9.0
Mirant Corporation	MIR		1.42	0.4	8.2	1	-	9.0
Valero Energy Corporation	VLO		40.70	0.4	7.9	10	1.0	7.8
	<i>Median</i>			2.2	9.6	10	2.5	9.0
Natural Gas and Oil								
Suncor Energy	SU		17.75	3.7	11.2	25	1.2	10.8
Petro-Canada	PCZ		35.80	2.1	8.4	22	0.7	7.4
Ocean Energy, Inc.	OEI		20.90	4.8	8.1	36	0.8	7.8
Imperial Oil Limited (30%)	IMO		31.94	1.2	7.9	15	1.7	8.1
Murphy Oil Corporation	MUR		43.90	1.1	7.1	20	1.8	6.7
XTO Energy Inc.	XTO	B	24.89	4.2	5.6	10	0.2	5.8
CNOOC Limited (19%)	CEO	B	27.88	3.8	4.8	10	2.3	5.7
PetroChina Company Ltd (10%)	PTR	B	20.93	1.7	3.8	7	6.1	5.1
Norsk Hydro ASA (49%)	NHY		39.12	0.7	3.7	11	2.7	4.8
	<i>Median</i>			2.1	7.1	15	1.7	6.7
Coal Producers (Small Cap)								
Consol Energy Inc.	CNX		17.75	2.0	12.6	40	3.2	9.7
Penn Virginia Res. Part, L.P.	PVR		23.40	8.7	11.2	13	8.5	8.6
Peabody Energy	BTU		28.14	1.6	10.2	24	1.4	9.0
Arch Coal	ACI		19.73	1.5	9.4	111	1.2	9.0
Alliance Res. Part, L.P.	ARLP		22.63	1.2	7.5	19	8.8	7.0
Massey Energy	MEE		9.20	1.1	6.2	230	1.7	8.9
				1.6	9.8	32	2.4	8.9

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended March 31, 2004; 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	S	31.40	57.0	1,790	10.60	0.60	1.80
Enterprise Products Part (16%)	EPD		20.15	28.5	570	6.70	0.63	1.72
Enbridge Energy Partners, L.P.	EEP	S	44.41	35.0	1,550	14.90	0.64	1.72
Enbridge Energy Management, L.L.C	EEQ	S	39.05	9.0	350	14.90	0.64	1.59
Plains All Amer. Pipeline	PAA		24.80	50.0	1,240	11.60	0.49	1.58
Northern Border Partners	NBP		37.80	44.0	1,660	20.40	0.62	1.32
TEPPCO Partners, L.P.	TPP		30.49	50.0	1,520	17.70	0.56	1.31
AmeriGas Partners, L.P.	APU		24.21	49.4	1,200	18.30	0.51	1.16
Western Gas Resources	WGR		33.10	33.7	1,120	37.60	0.29	0.92
<i>Total or Median</i>					11,000		0.60	1.58
Natural Gas and Oil								
Provident Energy Trust	PVX		7.74	63.5	490	6.00	0.22	1.22
Unit Corporation	UNT		21.00	43.6	920	18.00	0.04	1.16
Dorchester Minerals, L.P.	DMLP		14.96	27.0	404	13.00	-	1.15
Pogo Producing Company	PPP		39.67	64.5	2,560	38.00	0.22	1.03
Enerplus Resources Fund	ERF		19.81	75.0	1,490	20.00	0.15	0.99
Quicksilver Resources Inc.	KWK		23.35	20.4	480	25.00	0.35	0.96
Pengrowth Energy Trust	PGH		10.14	110.0	1,120	11.00	0.16	0.93
Newfield Exploration Company	NFX		34.43	51.7	1,780	40.00	0.31	0.90
Penn Virginia Corporation	PVA		37.05	9.0	330	45.00	0.06	0.83
Stone Energy Company	SGY		34.60	26.5	920	46.00	0.27	0.82
Southwestern Energy Company	SWN		12.34	36.0	440	17.00	0.30	0.81
Encore Acquisition Corp. (25%)	EAC		18.35	7.0	128	24.00	0.19	0.81
Forest Oil Corporation	FST	N	22.42	48.2	1,080	35.00	0.33	0.76
Swift Energy Company	SFY		9.00	27.2	250	16.00	0.43	0.75
Spinnaker Exploration Company	SKE		18.63	33.8	630	25.00	-	0.75
Magnum Hunter Resources, Inc.	MHR		5.78	69.0	400	11.00	0.45	0.74
Canadian Oil Sands Trust (US\$)	COS_u.TO	B	24.05	76.8	1,850	45.00	0.15	0.60
<i>Total or Median</i>					15,300		0.22	0.83
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		21.40	6.0	128	20.90	-	1.02
San Juan Basin Royalty Trust	SJT	B	15.87	46.6	740	18.00	-	0.88
Hugoton RoyaltyTrust (46%)	HGT		15.17	18.4	280	17.80	-	0.85
Micro Cap								
Energy Partners Ltd.(30%)	EPL	B	10.90	8.3	90	12.00	0.34	0.94
Purcell Energy, Ltd. (US\$)	PEL.TO	N	2.18	26.6	58	2.80	0.28	0.84
Abraxas Petroleum Corporation	ABP		0.80	30.0	24	2.00	0.72	0.83

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

Italicized issues are subject to, or sponsor, deceptive compensation arrangements that threaten value and financial viability, in our opinion.

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. He and his spouse do not sell short nor act contrary to a buy or sell rating except for tax loss purposes. 9

Meter Reader

A Weekly Analysis of Energy Stocks Using the McDep Ratio

March 6, 2003

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

	Symbol/ Rating	Price (\$/sh) 5-Mar 2003	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	Dividend or Distribution NTM (%)	PV/ Ebitda NTM	
Energy Infrastructure								
El Paso Energy Partners	EPN	S	31.40	8.9	16.2	39	8.6	9.0
Enterprise Products Part (16%)	EPD		20.15	1.7	15.5	27	6.8	9.0
Enbridge Energy Partners, L.P.	EEP	S	44.41	2.0	15.5	33	8.1	9.0
Enbridge Energy Management, L.L.C	EEQ	S	39.05	1.9	14.3	29	9.2	9.0
Plains All Amer. Pipeline	PAA		24.80	0.2	14.2	20	8.7	9.0
Northern Border Partners	NBP		37.80	6.8	11.9	14	8.5	9.0
TEPPCO Partners, L.P.	TPP		30.49	1.0	11.8	16	7.9	9.0
AmeriGas Partners, L.P.	APU		24.21	1.7	10.4	24	9.1	9.0
Western Gas Resources	WGR		33.10	0.6	6.6	13	-	7.1
	<i>Median</i>			1.7	14.2	24	8.5	9.0
Natural Gas and Oil								
Unit Corporation	UNT		21.00	3.7	8.1	19	-	7.0
Dorchester Minerals, L.P.	DMLP		14.96	6.1	7.5	9	12.0	6.5
Enerplus Resources Fund	ERF		19.81	4.4	5.6	8	13.8	5.7
Quicksilver Resources Inc.	KWK		23.35	4.0	5.6	9	-	5.8
Pengrowth Energy Trust	PGH		10.14	3.5	5.0	9	18.6	5.4
Forest Oil Corporation	FST	N	22.42	3.0	4.7	11	-	6.2
Pogo Producing Company	PPP		39.67	3.1	4.7	11	0.3	4.5
Encore Acquisition Corp. (25%)	EAC		18.35	3.1	4.6	10	-	5.7
Swift Energy Company	SFY		9.00	3.1	4.6	9	-	6.1
Provident Energy Trust	PVX		7.74	3.3	4.5	8	18.6	3.7
Canadian Oil Sands Trust (US\$)	COS_u.TO	B	24.05	2.8	4.5	4	5.6	7.4
Penn Virginia Corporation	PVA		37.05	2.3	4.3	10	2.4	5.2
Southwestern Energy Company	SWN		12.34	2.2	4.3	7	-	5.3
Magnum Hunter Resources, Inc.	MHR		5.78	2.5	4.2	6	-	5.6
Stone Energy Company	SGY		34.60	2.4	3.1	6	-	3.8
Newfield Exploration Company	NFX		34.43	2.3	3.0	5	-	3.3
Spinnaker Exploration Company	SKE		18.63	2.2	2.4	8	-	3.3
	<i>Median</i>			3.1	4.6	9	-	5.6
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		21.40	5.8	7.8	8	12.1	7.7
San Juan Basin Royalty Trust	SJT	B	15.87	5.0	6.1	7	13.7	6.9
Hugoton RoyaltyTrust (46%)	HGT		15.17	4.1	5.3	7	14.0	6.3
Micro Cap								
Abraxas Petroleum Corporation	ABP		0.80	4.6	6.2		-	7.5
Purcell Energy, Ltd. (US\$)	PEL.TO	N	2.18	3.4	4.5	9	-	5.4
Energy Partners Ltd.(30%)	EPL	B	10.90	2.6	4.1		-	4.3

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

Italicized issues are subject to, or sponsor, deceptive compensation arrangements that threaten value and financial viability, in our opinion.

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. He and his spouse do not sell short nor act contrary to a buy or sell rating except for tax loss purposes.