A Weekly Analysis of Energy Stocks Using the McDep Ratio December 24, 2001

Richer Kinder, Poorer Partners

Summary and Recommendation

In the spirit of the season, the limited partners of **Kinder Morgan Energy Partners**, **L.P.** (**KMP**) would give the general partner half of the value of a \$750 million acquisition announced December 17. Presuming such rare generosity cannot continue indefinitely, we strongly recommend the sale of the securities of KMP and related stocks **Kinder Morgan, Inc.** (**KMI**), and **Kinder Morgan Management**, **LLC** (**KMR**). The KM entities stand out in a renamed Energy Infrastructure group that includes pipelines, refiner/marketers and power companies. We add seven limited partnerships to our energy infrastructure coverage for more valuation perspective. In another industry group, natural gas producers, the declaration of no monthly distribution for recommended **San Juan Basin Royalty Trust (SJT**) was within the range of expectation. The sale of less gas at a temporarily low price and continued high development spending are long-term positives offset by the short-term negative of reduced expectations for the next monthly declaration. For ideas to build a diversified energy portfolio see our valuation ranking of 70 stocks now subdivided in three sets by size (Tables L-1, L-2, M-1, M-2, S-1 and S-2).

Kinder Morgan Deal Accretive in Distribution, Dilutive in Value

Upon announcing the acquisition of intrastate natural gas pipeline, Tejas Gas, Kinder Morgan declares its intention to increase the distribution of KMP to an annual rate of \$2.30 per share from \$2.20. Moreover Mr. Rich Kinder expects the distribution to reach the annual rate of \$2.50 at the end of 2002. Investors are implicitly encouraged (not by us) to capitalize the distribution at about 6%. That implies the stock price should be about \$38 on the expected \$2.30 distribution, up from about \$37 on the recently announced \$2.20 distribution. Indeed that is what seemed to happen in the past week. Thus the deal seems accretive, meaning that a valuation measure is improved and stock price rises accordingly.

By our valuation measure, the McDep Ratio, the deal is dilutive by about 5%. Debt to finance the acquisition, at least temporarily, increases the numerator of the McDep Ratio, Market Cap and Debt, or Enterprise Value, by more than 10%. Because half the value of acquired properties accrues to the general partner, the denominator of the ratio increases by only a little more than 5%. As a result, the McDep Ratio viewed from the standpoint of the limited partners increases, or is diluted by about 5% because of the deal.

Present value of equity is diluted even more. The limited partners give up \$1.30 per share, or 10% of estimated present value of \$12.80 per unit. Also, the ratio of debt to present value increases disproportionately for the unitholders (see Table).

A Weekly Analysis of Energy Stocks Using the McDep Ratio December 24, 2001

Kinder Morgan Energy Partners, L.P. Value Implications of Tejas Acquisition

		Pre-Tejas	Tejas	Post-Tejas
Ebitda, 2002	\$millions	773	83	856
PV/Ebitda		9.0	9.0	9.0
Present Value	\$millions	6960	750	7710
Debt	\$millions	2960	750	3710
Net PV Before GP Burden	\$millions	4000	0	4000
General Partner Burden	\$millions	480	360	840
Net PV After GP Burden	\$millions	3520	-360	3160
Units	millions	274	274	274
Net PV Per Unit	\$	12.80	-1.30	11.50
Units Incl. GP Burden Equivalent	millions	311		347
Debt/PV Before GP		0.43		0.48
Debt/PV After GP		0.46		0.54

Institutional Investment in KMR Sought to Restore Dilution

Dilution in value can be at least partially restored by selling new units at a price above present value of equity. Mr. Kinder apparently intends to market new shares of KMR early next year to finance 60% of the acquisition. An offering that nets \$450 million for new shares priced at three times net present value would restore \$300 million of value dilution. Essentially, most of the money from new investors goes to pay off existing investors.

Kinder Morgan Management, LLC is a creative means to tap the deep well of institutional funds. Besides sparing institutions the tax complications they would normally face in a limited partnership investment, KMR has its price linked to the price of KMP by an exchange feature. In effect, KMR is a derivative financial instrument that provides a vehicle for institutions to bet on whether individuals will continue to be willing to accord such a high price to KMR units.

Some institutions may find it especially desirable to participate in the KMR financing. KMR supports KMP. In turn, KMP supports the price of KMI stock, an issue that is heavily institutionally owned.

A Weekly Analysis of Energy Stocks Using the McDep Ratio December 24, 2001

KMP's and KMR's Loss is KMI's Gain

The General Partner Burden is our term for what the General Partner calls Incentive. It seems to us that the provisions go well beyond a reasonable incentive. Disclosure such as it is, does not equate to general acceptance. Enron's partnerships were "disclosed" and "approved", yet a public outcry ultimately erupted.

Here is what the Tejas acquisition does for Kinder Morgan, Inc. By our valuation measure, the McDep Ratio, the deal is accretive by about 5%. KMI's share of Debt to finance the acquisition increases the numerator of the McDep Ratio, Market Cap and Debt, or Enterprise Value, by about 2%. Bolstered by half the value of acquired properties that accrues to the general partner, the denominator of the ratio increases by about 7%. As a result, the McDep Ratio declines, or is improved by about 5% because of the deal.

Present value of equity is improved even more. The net gain of \$1.80 per share boosts estimated present value by 20% to \$10.90 per share. The ratio of debt to present value decreases slightly, but remains at an extraordinarily high level of about 0.86 (see Table).

Kinder Morgan, Inc. Value Implications of Tejas Acquisition

			Tejas	Tejas	
		Pre-Tejas	Unit Interest	GP Burden	Post-Tejas
Ebitda, 2002	\$millions	1048	33		1081
PV/Ebitda		9.0	9.0		9.0
Present Value	\$millions	9430	300	360	10090
Debt	\$millions	8330	300		8630
Net PV Before GP Burden	\$millions	1100	0	360	1460
General Partner Burden			-144		-144
Net PV After GP Burden		1100	-144	360	1316
Shares	millions	121	121	121	121
Net PV Per Unit	\$	9.10	-1.20	3.00	10.90
Debt/PV		0.88	1.00	0.00	0.86

Deal Stirs Common Sense Reservations

Why Pay a 50% Commission to Anyone?

It is a free country. If investors admire Rich Kinder enough to pay his 21% owned company half the value of future acquisitions, should they not be able to do so?

A Weekly Analysis of Energy Stocks Using the McDep Ratio December 24, 2001

But the GP only gets 50% on the margin, not on everything. That is true. One could invest with Mr. Kinder in the beginning and not worry about the high fee. Mr. Kinder through his ownership in KMI has been collecting the 50% only on recent deals.

Now that the distribution has reached the level where the 50% fee kicks in, the general partner has a huge incentive to keep it going as long as possible. An overpriced stock provides cheap capital to do deals. Interest charges are almost always less than cash flow, so debt is likely to be maximized. Shorter life deals pay more cash flow relative to purchase price. Expect shorter life deals.

But Rich Kinder Is Not Just Anyone

When we knew Mr. Kinder as president of Enron he was always upbeat, enthusiastic, energetic, positive, and friendly. Listening to his presentations would leave one breathless.

Mr. Kinder can add value to acquired businesses. We would say that superior management might be worth a McDep Ratio of 1.2 on a long-term basis. Truly superior management could be worth a lot more, but it is nearly impossible to identify in advance. Too often what looks to be superior management turns out to be luck or hype.

Investors have made a lot of money with Mr. Kinder. Yet, past success is no guarantee of future success. On the contrary, past success may breed complacency. Investors do love to extrapolate. One can point to the trend in stock price and imagine a steep continuation. Unfortunately, the more overpriced a stock becomes, the harder and faster may be its eventual fall. Investors who have made good money with Mr. Kinder should be especially sensitive to the opportunity to keep those profits by selling their stock.

Why Pay 15 Times Ebitda for a Business Worth 9 Times Ebitda?

Though little detail has been disclosed, we figure the Tejas deal went for 9 times Ebitda, because that is the median for energy infrastructure companies in the stock market. KMR and KMP are valued at 16 times and KMI at 14 times. Perhaps Mr. Kinder can extract more Ebitda so that the deal he bought at 9 times was really worth 11 times a base that could be expanded. It seems highly unlikely that Tejas is really worth 15 times. Therefore it seems that stock prices at 15 times are out of line with a business that is worth 9 times.

Are Business Risks Really Low?

Yes, the KM entities own long life assets that generate steady income. Though the assets have relatively low business risks, that source of comfort is more than offset by high financial risk as measured by KMI's ratio of debt to property at near the highest of any of the 70 stocks in our research coverage.

A Weekly Analysis of Energy Stocks Using the McDep Ratio December 24, 2001

Nor might the business risk be as low as it seems. Tejas (Spanish for Texas) reminds us of its namesake, Texas Oil and Gas, a similar intrastate pipeline that was acquired by U.S. Steel for about \$4 billion in the 1980s. After the combined company became known as USX, the parts of the acquired pipeline and liquids businesses were sold for half or less than their acquisition price. That deal was also dilutive on a value basis.

Fundamentally, an intrastate pipeline like Tejas has higher geographic risk than interstate pipelines that dominate KM's current property mix. Cash flow is also more sensitive to natural gas price than may appear on the surface. The Tejas line runs through producing areas that would experience high rates of volume decline if drilling activity were to be curtailed. We actually are optimistic on natural gas price, but skeptical that KM is a low risk investment.

Renouncing Egregious Compensation Would Be The Right Action

In our opinion, Mr. Kinder is headed down the same path as his former colleagues at Enron. Mr. Lay ultimately saw the wisdom of renouncing his \$60 million severance package, but by then it was too late.

In our opinion, excessive compensation to the promoters of partnerships is an abuse of investor trust. In our opinion, the Kinder Morgan entities are a subtler version of the failed energy partnerships of the past. The failures often had in common a charismatic leader driven by excessive compensation, or greed.

A drop in Mr. Kinder's net worth might accompany renouncing the GP Burden, but it would still be in the hundreds of millions. From a more solid base he could build a positive legacy rather than risking collapse.

Unusual Opportunity in San Juan Basin Royalty Trust

One of our favorite stocks, on which we do weekly calculations, was down sharply on high volume on December 21. At midday on December 20, the trustee disclosed that there would be no distribution for the month instead of a usual positive number. We are not surprised as we expected \$0.01 with a possibility of \$0.00 as detailed in Meter Reader. Nonetheless volumes were also low and development expenditures high. Low volume when price is low is a long-term positive as is high development spending. On the short term negative side there may be no distribution declared next month, as a deficit must be repaid before distributions are made. We are confident in our Buy recommendation of the stock. The risk is that the slide in natural gas prices in recent months translates to sharply lower futures prices. Were that to happen, other stocks would also be affected adversely. Updated present value as well as quarterly and monthly projections are detailed in Meter Reader Tables.

Kurt H. Wulff, CFA

A Weekly Analysis of Energy Stocks Using the McDep Ratio December 24, 2001

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

			Price		Net			
			(\$/sh)		Market	Present	Debt/	
	Symbol/		21-Dec	Shares	Cap	Value	Present	McDep
	Rati	ng	2001	(mm)	(\$mm)	(\$/sh)	Value	Ratio
Mega Cap								
Exxon Mobil Corporation	XOM		38.50	6,924	267,000	36.00	0.09	1.06
BP plc	BP		45.40	3,738	170,000	47.00	0.16	0.97
TotalFinaElf S.A.	TOT		68.50	1,382	95,000	80.00	0.15	0.88
Royal Dutch/Shell	RD	3	47.66	3,520	168,000	55.00	0.04	0.87
ChevronTexaco Corporation	CVX		88.60	1,062	94,100	110.00	0.14	0.83
Total or Median					794,000		0.14	0.88
Energy Infrastructure								
Kinder Morgan Energy Partners, L.P.	KMP	5	37.65	135	5,100	11.50	0.54	2.04
Kinder Morgan Management, LLC	KMR	5	37.40	30	1,100	11.50	0.54	2.03
Kinder Morgan, Inc.	KMI	5	55.00	121	6,700	10.90	0.87	1.54
AES Corporation	AES		14.25	543	7,700	8.80	0.83	1.11
Dynegy Inc.	DYN		24.71	338	8,300	20.30	0.58	1.09
Calpine Corporation	CPN	3	15.01	377	5,700	12.50	0.66	1.07
Duke Energy Corporation	DUK		37.90	773	29,300	35.80	0.43	1.03
American Electric Power Co. Inc.	AEP	2	42.27	322	13,600	43.40	0.63	0.99
El Paso Corporation	EPG		43.60	532	23,200	44.80	0.49	0.99
Southern Company	SO		24.52	683	16,700	27.40	0.42	0.94
Mirant Corporation	MIR		14.30	353	5,000	18.60	0.65	0.92
Williams Companies	WMB		23.69	515	12,200	32.30	0.47	0.86
Dominion Resources	D		58.05	247	14,300	79.40	0.45	0.85
Exelon Corporation	EXC	2	46.30	323	15,000	84.00	0.40	0.73
Total or Median					158,000		0.53	0.99
Natural Gas and Oil								
Occidental Petroleum Corp.	OXY		26.15	372	9,700	28.50	0.50	0.96
Unocal Corporation	UCL		34.76	257	8,900	38.90	0.35	0.93
ENI S.p.A.	E		61.25	789	48,300	71.40	0.19	0.89
ConocoPhillips	P		58.65	680	39,900	71.20	0.34	0.88
Anadarko Petroleum Corp.	APC		53.60	250	13,400	64.10	0.24	0.88
Devon Energy (incl MND,AXN)	DVN		36.21	165	6,000	54.60	0.48	0.83
Burlington Resources (incl HTR)	BR	1	36.72	205	7,500	53.00	0.30	0.78
Marathon Oil Corporation	MRO	1	28.85	310	8,900	42.00	0.27	0.77
OAO Lukoil	LUKOY		46.75	299	14,000	69.10	0.09	0.70
Total or Median					147,000		0.28	0.85
Service								
Baker Hughes Inc.	BHI		35.34	338	11,900	24.50	0.13	1.38
Schlumberger Ltd.	SLB		52.26	581	30,400	44.00	0.12	1.17
Halliburton Company	HAL		13.00	429	5,600	24.90	0.12	0.58

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

A Weekly Analysis of Energy Stocks Using the McDep Ratio December 24, 2001

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

			Price			Div	idend or	
			(\$/sh)	EV/	EV/	Dis	tribution	PV/
	Symbol/	2	21-Dec	Sales	Ebitda	P/E	NTM	Ebitda
	Rating	•	2001	2001E	NTM	NTM	(%)	NTM
Mega Cap								
Exxon Mobil Corporation	XOM		38.50	1.4	11.8	27	2.4	11.1
BP plc	BP		45.40	1.2	10.5	19	2.9	10.8
TotalFinaElf S.A.	TOT		68.50	1.3	9.6	20	2.7	10.9
Royal Dutch/Shell	RD 3	3	47.66	1.1	9.5	24	3.0	10.9
ChevronTexaco Corporation	CVX		88.60	1.3	9.1	21	3.2	11.0
Median				1.3	9.6	21	2.9	10.9
Energy Infrastructure								
Kinder Morgan Energy Partners, L.P.		5	37.65	5.2	16.4	27	5.8	8.0
Kinder Morgan Management, LLC	KMR 5	5	37.40	5.1	16.3	27	5.9	8.0
Kinder Morgan, Inc.	KMI 5	5	55.00	7.3	14.2	29	0.4	9.2
AES Corporation	AES		14.25	3.5	9.9	11	-	9.0
Dynegy Inc.	DYN		24.71	0.5	9.8	12	1.2	9.0
Calpine Corporation	CPN 3	3	15.01	2.0	9.6	9	-	9.0
Duke Energy Corporation	DUK		37.90	0.8	9.3	14	2.9	9.0
American Electric Power Co. Inc.	AEP 2	2	42.27	0.5	8.9	11	5.7	9.0
El Paso Corporation	EPG		43.60	0.9	8.9	13	1.9	9.0
Southern Company	SO		24.52	2.8	8.4	15	5.5	9.0
Mirant Corporation	MIR		14.30	0.5	8.2	7	-	9.0
Williams Companies	WMB		23.69	2.4	7.7	10	3.4	9.0
Dominion Resources	D		58.05	3.4	7.7	13	4.4	9.0
Exelon Corporation	EXC 2	2	46.30	2.1	6.6	10	3.7	9.0
Median				2.3	9.1	12	3.1	9.0
Natural Gas and Oil								
Occidental Petroleum Corp.	OXY		26.15	1.5	9.6	23	3.8	10.0
Anadarko Petroleum Corp.	APC		53.60	2.9	8.3	25	0.6	9.5
Unocal Corporation	UCL		17.11	2.6	7.9	64	2.3	8.5
ConocoPhillips	P		58.65	0.8	7.5	20	2.5	8.5
ENI S.p.A.	E		61.25	1.5	7.1	16	3.0	8.0
Burlington Resources (incl HTR)	BR 1	1	36.72	4.2	6.4	29	1.5	8.1
Devon Energy (incl MND,AXN)	DVN		36.21	3.1	5.8	17	0.6	7.0
Marathon Oil Corporation	MRO	1	28.85	0.4	5.0	11	3.2	6.5
OAO Lukoil	LUKOY		46.75	1.2	4.2	9	2.3	6.0
Median				1.5	7.1	20	2.3	8.1
Service								
Baker Hughes Inc.	BHI		35.34	2.2	11.0	25	1.3	9.0
Schlumberger Ltd.	SLB		52.26	2.7	9.3	26	1.4	9.0
Halliburton Company	HAL		13.00	0.5	4.6	10	3.8	9.0

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended December 31, 2002; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

A Weekly Analysis of Energy Stocks Using the McDep Ratio December 24, 2001

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

		Price (\$/sh)		Market	Net Present	Debt/	
	Symbol/ Rating	21-Dec 2001	Shares (mm)	<i>Cap</i> (\$mm)	Value (\$/sh)	Present Value	McDep Ratio
Enougy Infrastrustions	0		,	,	(, ,		
Energy Infrastructure	EDD	46.40	07	4.000	21.70	0.22	1.26
Enterprise Products Part.	EPD	46.40	87	4,000	31.70	0.23	1.36
Consol Energy Inc.	CNX	23.56	79	1,900	35.90	0.51	0.83
CMS Energy Corporation	CMS	23.99	128	3,100	48.30	0.62	0.81
Sempra Energy	SRE	24.08	203	4,900	41.70	0.50	0.79
Valero Energy Corp.(with UDS)	VLO	36.77	110	4,100	60.00	0.47	0.79
Constellation Energy Group	CEG	25.53	152	3,900	56.50	0.35	0.64
Total or Median				18,000		0.50	0.81
Natural Gas and Oil							
Murphy Oil Corporation	MUR	82.20	46	3,800	82.00	0.18	1.00
Ocean Energy, Inc.	OEI	18.50	178	3,300	20.00	0.30	0.95
Imperial Oil Limited (30%)	IMO	27.14	119	3,200	30.00	0.11	0.91
Norsk Hydro ASA (49%)	NHY	41.35	127	5,300	54.00	0.18	0.81
PanCanadian Energy	PCX 2	25.52	256	6,540	33.00	0.14	0.81
Petro-Canada	PCZ	23.85	267	6,400	33.00	0.08	0.75
PetroChina Company Ltd (10%)	PTR 2	17.67	176	3,100	28.00	0.16	0.69
Total or Median				31,600		0.16	0.81

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

McDep Ratio = Market cap and **De**bt to **p**resent value of oil and gas and other businesses

A Weekly Analysis of Energy Stocks Using the McDep Ratio December 24, 2001

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

		Price			1		
		(\$/sh)	EV/	EV/	I	Distribution	PV/
	Symbol/	21-Dec	Sales	Ebitda	P/E	NTM	Ebitda
	Ratin	g 2001	2001E	NTM	NTM	(%)	NTM
Energy Infrastructure							
Enterprise Products Part.	EPD	46.40	1.7	12.2	14	5.4	9.0
Consol Energy Inc.	CNX	23.56	2.0	7.5	8	4.8	9.0
CMS Energy Corporation	CMS	23.99	0.9	7.3	9	6.1	9.0
Sempra Energy	SRE	24.08	1.1	7.1	9	4.2	9.0
Constellation Energy Group	CEG	25.53	1.7	5.8	8	1.9	9.0
Valero Energy Corp.(with UDS)	VLO	36.77	0.3	5.3	6	1.1	6.7
Median			1.4	7.2	8	4.5	9.0
Natural Gas and Oil							
Imperial Oil Limited (30%)	IMO	27.14	1.1	10.1	26	2.0	11.1
Murphy Oil Corporation	MUR	82.20	0.9	8.0	39	1.8	8.0
Ocean Energy, Inc.	OEI	18.50	4.4	7.4	32	0.9	7.8
PanCanadian Energy	PCX	2 25.52	1.3	6.7	17	1.0	8.4
Petro-Canada	PCZ	23.85	1.3	5.2	12	1.1	6.9
Norsk Hydro ASA (49%)	NHY	41.35	0.8	4.9	15	2.5	6.0
PetroChina Company Ltd (10%)	PTR	2 17.67	1.7	3.7	9	10.4	5.4
Median			1.3	6.7	17	1.8	7.8

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended December 31, 2002; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

A Weekly Analysis of Energy Stocks Using the McDep Ratio December 24, 2001

Table S-1
Small Cap Energy Companies
Rank by McDep Ratio: Market Cap and Debt to Present Value

			Price		M. L.	Net	D 1./	
	G 1 1/		(\$/sh)	GI.	Market	Present	Debt/	14 D
	Symbol/		21-Dec	Shares	Cap	Value	Present	McDep
	Rati	ng	2001	(mm)	(\$mm)	(\$/sh)	Value	Ratio
Energy Infrastucture								
El Paso Energy Partners	EPN		36.76	34.0	1,250	6.40	0.71	2.36
Penn Virginia Res. Part, L.P.(48%)	PVR		25.10	7.5	190	15.10	-	1.67
Enbridge Energy Partners,	EEP		40.40	31.0	1,250	16.60	0.58	1.60
Plains All Amer. Pipeline	PAA		25.15	38.0	960	14.30	0.47	1.41
TEPPCO Partners, L.P.	TPP		29.98	39	1,160	15.60	0.69	1.28
Northern Border Partners	NBP		37.79	42.0	1,590	30.00	0.41	1.16
AmeriGas Partners, L.P.	APU		21.54	44.0	950	19.50	0.54	1.05
Penn Virginia Corporation	PVA		32.40	9.0	290	35.00	0.10	0.93
Total or Median					7,600		0.50	1.35
Natural Gas and Oil								
Quicksilver Resources Inc.	KWK		18.20	19.3	350	10.00	0.60	1.32
Dorchester Hugoton, Ltd.	DHULZ		14.05	10.7	151	11.30	-	1.24
Spinnaker Exploration Company	SKE		39.51	28.3	1,120	40.00	-	0.99
Stone Energy Company	SGY		37.96	26.4	1,000	42.00	0.11	0.91
XTO Energy Inc.	XTO		16.48	124.0	2,040	19.00	0.28	0.90
Newfield Exploration Company	NFX		33.40	49.3	1,650	39.00	0.21	0.89
Southwestern Energy Company	SWN		10.79	25.6	280	15.00	0.47	0.85
Encore Acquisition Corp. (25%)	EAC		12.96	7.5	97	16.00	0.22	0.85
Swift Energy Company	SFY		19.30	24.8	480	25.00	0.29	0.84
Forest Oil Corporation	FST	2	27.52	48.5	1,340	37.00	0.28	0.81
Magnum Hunter Resources, Inc.	MHR		7.58	36.8	280	11.00	0.35	0.80
CNOOC Limited (19%)	CEO	2	18.24	78	1,420	30.00	-	0.61
Total or Median					10,200		0.25	0.87
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		17.75	6.0	107	18.10	-	0.99
Hugoton RoyaltyTrust	HGT		10.29	40.0	410	15.00	-	0.69
San Juan Basin Royalty Trust	SJT	2	9.44	46.6	440	14.50	-	0.65
Micro Cap								
Abraxas Petroleum Corporation	ABP		1.20	23.6	28	0.50	0.96	1.05
Energy Partners Ltd.(30%)	EPL	2	6.30	8.1	51	10.00	0.16	0.69
Purcell Energy, Ltd. (US\$)	PEL.TO	2	2.00	27.4	55	3.50	0.10	0.61
==								

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

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

A Weekly Analysis of Energy Stocks Using the McDep Ratio December 24, 2001

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

	Price		Price			Di		
			(\$/sh)	EV/	EV/	Distribution		PV/
	Symbol/		21-Dec	Sales	Ebitda	P/E	NTM	Ebitda
	Rat	ing	2001	2001E	NTM	NTM	(%)	NTM
Energy Infrastucture								
El Paso Energy Partners	EPN		36.76	10.4	21.3	102	6.7	9.0
Penn Virginia Res. Part, L.P.(48%)PVR		25.10	11.2	15.0	17	8.0	9.0
Enbridge Energy Partners,	EEP		40.40	6.5	14.4	78	8.7	9.0
Plains All Amer. Pipeline	PAA		25.15	0.2	12.7	17	8.2	9.0
TEPPCO Partners, L.P.	TPP		29.98	0.7	11.6	14	7.7	9.0
Northern Border Partners	NBP		37.79	7.1	11.0	15	8.1	9.0
AmeriGas Partners, L.P.	APU		21.54	1.4	9.4	18	10.2	9.0
Penn Virginia Corporation	PVA		32.40	4.4	8.2	38	2.8	8.8
Median				5.4	12.1	18	8.0	9.0
Natural Gas and Oil								
Quicksilver Resources Inc.	KWK		18.20	6.1	16.8		-	12.7
Dorchester Hugoton, Ltd.	DHULZ		14.05	9.5	14.6	19	20.5	11.7
XTO Energy Inc.	XTO		16.48	5.8	8.9	27	0.2	9.9
Encore Acquisition Corp. (25%)	EAC		12.96	4.7	8.8	33	-	10.3
Spinnaker Exploration Company	SKE		39.51	7.0	8.3	38	-	8.4
Swift Energy Company	SFY		19.30	5.4	7.9	35	-	9.4
Forest Oil Corporation	FST	2	27.52	2.9	6.8	250	-	8.4
Southwestern Energy Company	SWN		10.79	2.7	6.2	22	-	7.3
Magnum Hunter Resources, Inc.	MHR		7.58	3.6	6.2		-	7.8
Stone Energy Company	SGY		37.96	4.1	5.5	27	-	6.0
CNOOC Limited (19%)	CEO	2	18.24	3.5	4.8	10	1.3	7.9
Newfield Exploration Company	NFX		33.40	3.6	4.6	15	-	5.2
Median				4.4	7.4	27	-	8.4
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		17.75	7.0	12.6	14	7.4	12.8
Hugoton RoyaltyTrust	HGT		10.29	4.9	7.6	12	8.6	11.1
San Juan Basin Royalty Trust	SJT	2	9.44	5.7	7.5	11	8.7	11.6
Micro Cap								
Abraxas Petroleum Corporation	ABP		1.20	6.5	12.4		-	11.8
Energy Partners Ltd.(30%)	EPL	2	6.30	2.2	4.9		-	7.1
Purcell Energy, Ltd. (US\$)	PEL.TO	2	2.00	3.1	4.5	13	-	7.3

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended December 31, 2002; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses