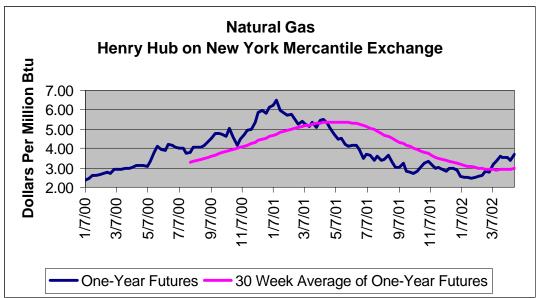
Momentum Works Until It Doesn't

Summary and Recommendation

Positive price momentum for natural gas, crude oil and refining margin supports current interest in our energy buy recommendations. Futures market expectations for the next twelve months are above the 30-week average thereby conforming to a rising trend by one definition (see charts). Yet because momentum can change quickly without warning, we stress that our recommendations are justified by more fundamental considerations. Natural gas sensitive recommendations include **Encana Corporation (ECA)** and **XTO Energy (XTO)**. Crude oil sensitive recommendations include **PetroChina (PTR)** and **CNOOC Limited (CEO)**. Refining sensitive recommendations include **ChevronTexaco (CVX)** and **ConocoPhillips (COC/P)**. For further perspective on sell and buy ideas in energy, see our valuation ranking of 73 stocks (Tables L-1, L-2, M-1, M-2, S-1 and S-2).

Price Charts Signal Natural Gas Buy

Natural gas price history for the past three years seems to fit a classic buy/sell pattern described by the moving average technique. When one-year futures broke the moving average on the downside a year ago it was indeed an indicator of a change in trend. Recently it looked like natural gas was going to break the moving average on the upside. That has indeed happened. Does that mean one-year natural gas futures will gradually reach \$6.00 in a year? No one can say. We do believe that \$6.00 is possible, even likely at some point in the next several years. The upside looks greater than the downside and momentum is with us for now.



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 <u>www.mcdep.com</u>. 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. 1

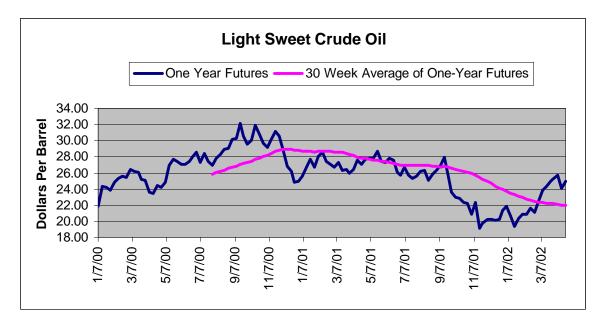
A Weekly Analysis of Energy Stocks Using the McDep Ratio April 22, 2002

Referred to in industry jargon as the "12 month strip", one-year futures represent the average of monthly quotes. The current period of quotes covers May 2002 through April 2003. We track closing prices on a day late in each week and compare the latest quotes to the average of the latest 30 weeks. The period conforms roughly to widely plotted 200-day averages of stock prices. Using one-year futures instead of daily cash prices reduces the distortion of seasonal factors. For example, natural gas tends to be higherpriced in winter and refining margins tend to be higher in the spring.

One-year futures can indicate the direction of stock prices, but are more volatile. Sixyear futures may more closely approximate stock prices by volatility. Higher volume of trading in one-year futures may make them representative of a wider body of opinion than six-year futures. The weekly plot of one-year and six-year futures for natural gas and oil that we have been running in Meter Reader in 2002 now appears in Natural Gas Royalty Trusts – A Weekly Analysis.

Price Charts Support Oil Buy

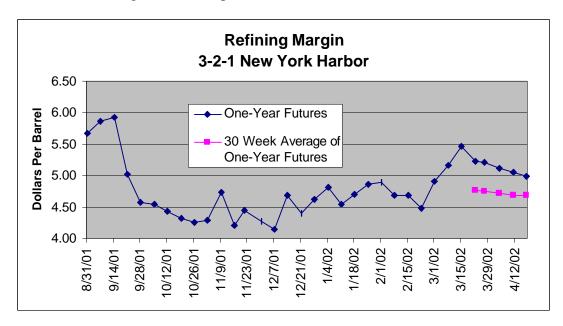
The drop in oil price did not become decisive until September last year. Yet oil, too, turned positive in recent weeks. An up trend has resumed.



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Refining Margin Also a Buy

In some respects, this is the best time for the U.S. refining business in forty years. While the refiners did reasonably well during the high-energy growth 1960s, the downstream business had a tough time with higher oil price in the 1970s. It has been a long comeback in the 1980s and 1990s compounded by complex environmental regulations. Now capacity is tight and consolidation has put that capacity in stronger hands. Thus we are optimistic that higher margin days are here for a while. The crack spread calculated by subtracting futures prices for three barrels of crude oil from two barrels of gasoline and one barrel of heating oil is in an up trend on the chart.



Favorable Futures Price Trend Favorable for Energy Company Profits

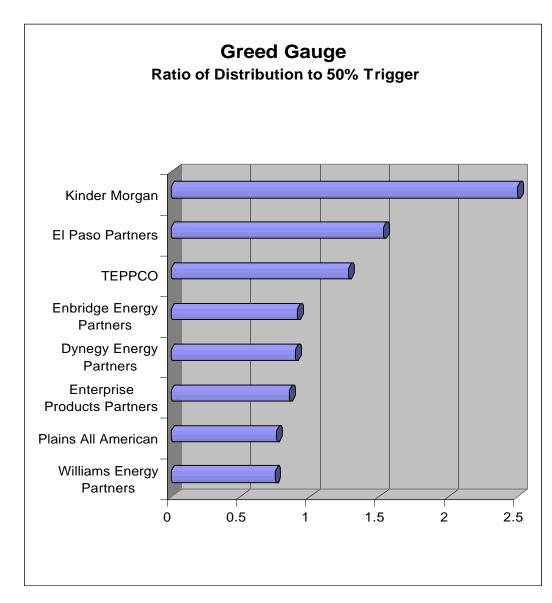
The preceding charts capture the improving outlook for our positive recommendations. Even if the charts were to turn negative to surprise us, our recommended companies are strong enough to get through any temporary difficulty. With the recent addition of ConocoPhillips and ChevronTexaco as buy recommendations we have a diverse set of energy ideas from which some could be suitable for almost any investor.

At the same time our independent status allows us to take a decidedly negative outlook for our Strong Sells on the combined basis of extraordinarily high valuation, extreme ratios of debt and misleading accounting that disguises an onerous general partner tax. As energy stocks are doing well this is an especially good time to unload unattractive investments.

Meter Reader A Weekly Analysis of Energy Stocks Using the McDep Ratio April 22, 2002

Kinder Morgan Advances on Greed Gauge

Reporting a quarter that looked favorable superficially, but does little to justify extraordinarily high valuation, a pyramid of debt and misleading accounting, Kinder Morgan announced an increase in payout for KMP and KMR to an annual rate of \$2.36 a share. That qualifies the general partner for 39% of all cash flow distributed up from 38% a few months ago. The new payout rate is 2.5 times the level that triggers a 50% marginal general partner tax rate on incremental cash flow. As a result Kinder Morgan's leading position on the Greed Gauge is strengthened.



Kurt H. Wulff, CFA

A Weekly Analysis of Energy Stocks Using the McDep Ratio April 22, 2002

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/		18-Apr	Shares	Cap	Value	Present	McDep
	Ra	ting	2002	(mm)	(\$mm)	(\$/sh)	Value	Ratio
Mega Cap								
Exxon Mobil Corporation	XOM		42.55	6,924	295,000	36.00	0.09	1.17
BP plc	BP		51.79	3,738	194,000	47.00	0.16	1.09
Royal Dutch/Shell	RD	3	54.21	3,520	191,000	55.00	0.04	0.99
TotalFinaElf S.A.	TOT		76.56	1,352	104,000	85.00	0.15	0.91
ChevronTexaco Corporation	CVX	2	87.30	1,062	92,800	110.00	0.16	0.83
Total or Media	n				877,000		0.15	0.99
Energy Infrastructure								
American Electric Power Co. Inc.	AEP	3	47.90	322	15,400	42.10	0.64	1.05
Duke Energy Corporation	DUK		38.00	781	29,700	36.30	0.44	1.03
Williams Companies	WMB		23.27	521	12,100	22.70	0.58	1.01
Southern Company	SO		27.70	683	18,900	27.40	0.42	1.00
El Paso Corporation	EP		44.94	529	23,800	46.30	0.49	0.99
Dominion Resources	D		66.55	247	16,400	79.40	0.45	0.91
Exelon Corporation	EXC	2	52.61	323	17,000	84.00	0.40	0.78
Total or Media	n				118,000		0.44	1.00
Natural Gas and Oil								
ENI S.p.A.	E		74.23	789	58,500	75.00	0.19	0.99
Occidental Petroleum Corp.	OXY		29.29	372	10,900	30.00	0.48	0.99
Anadarko Petroleum Corp.	APC		54.99	266	14,600	56.00	0.26	0.99
OAO Lukoil	LUKOY		66.50	299	19,900	70.00	0.08	0.95
Devon Energy	DVN		49.00	165	8,100	55.00	0.48	0.94
Burlington Resources	BR	1	42.30	201	8,500	48.00	0.33	0.92
Unocal Corporation	UCL		38.12	245	9,300	45.00	0.33	0.89
Encana Corporation	ECA	2	30.41	490	14,900	35.00	0.19	0.89
ConocoPhillips	Р	2	60.69	680	41,300	80.00	0.32	0.84
Marathon Oil Corporation	MRO	1	29.60	310	9,200	42.00	0.35	0.81
Total or Media	n				137,000		0.33	0.92
Service								
Baker Hughes Inc.	BHI		37.23	338	12,600	24.50	0.13	1.45
Schlumberger Ltd.	SLB		56.13	581	32,600	44.00	0.12	1.24
Halliburton Company	HAL		17.71	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

A Weekly Analysis of Energy Stocks Using the McDep Ratio April 22, 2002

Table L-2

Mega Cap and Large Cap Energy Companies

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

			Price (\$/sh)	EV/	EV/		vidend or tribution	PV/
	Symbol/		(\$/3n) 18-Apr	Sales	Ebitda	P/E	NTM	Ebitda
		iting	2002	NTM	NTM	NTM	(%)	NTM
Mega Cap							()	
Exxon Mobil Corporation	XOM		42.55	1.6	11.8	26	2.2	10.1
BP plc	BP		51.79	1.3	9.8	17	2.5	9.0
Royal Dutch/Shell	RD	3	54.21	1.2	8.6	19	2.6	8.7
TotalFinaElf S.A.	TOT		76.56	1.3	8.1	16	2.7	8.9
ChevronTexaco Corporation	CVX	2	87.30	1.3	7.2	17	3.2	8.7
Media	ın			1.3	8.6	17	2.6	8.9
Energy Infrastructure								
American Electric Power Co. Inc.	AEP	3	47.90	0.7	10.5	17	5.0	10.0
Williams Companies	WMB		23.27	2.5	10.1	15	3.4	10.0
Duke Energy Corporation	DUK		38.00	0.9	9.2	14	2.9	9.0
Southern Company	SO		27.70	3.0	9.0	17	4.8	9.0
El Paso Corporation	EP		44.94	1.0	8.9	13	2.0	9.0
Dominion Resources	D		66.55	3.6	8.2	15	3.9	9.0
Exelon Corporation	EXC	2	52.61	2.3	7.0	11	3.2	9.0
Medic	ın			2.3	9.0	15	3.4	9.0
Natural Gas and Oil								
Occidental Petroleum Corp.	OXY		29.29	1.5	8.0	14	3.4	8.1
Anadarko Petroleum Corp.	APC		54.99	3.1	8.0	18	0.5	8.1
Devon Energy	DVN		49.00	3.1	7.0	49	0.4	7.4
ENI S.p.A.	E		74.23	1.7	6.8	14	2.4	6.9
Burlington Resources	BR	1	42.30	4.4	6.7	20	1.3	7.3
Encana Corporation	ECA	2	30.41	1.9	6.7	17	0.8	7.5
ConocoPhillips	Р	2	60.69	0.9	5.8	11	2.4	6.9
Unocal Corporation	UCL		38.12	2.5	5.6	14	2.1	6.3
Marathon Oil Corporation	MRO	1	29.60	0.5	5.4	10	3.1	6.7
OAO Lukoil	LUKOY		66.50	1.7	4.7	10	1.6	4.9
Media	ın			1.8	6.7	14	1.9	7.1
Service								
Baker Hughes Inc.	BHI		37.23	2.3	11.6	26	1.2	9.0
Schlumberger Ltd.	SLB		56.13	2.9	9.9	28	1.3	9.0
Halliburton Company	HAL		17.71	0.7	6.1	13	2.8	8.2

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

A Weekly Analysis of Energy Stocks Using the McDep Ratio April 22, 2002

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

	Symbol/ K	Rating	Price (\$/sh) 18-Apr 2002	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Energy Infrastructure								
Kinder Morgan Management, LLC	KMR	5	34.51	30	1,000	12.40	0.48	1.94
Kinder Morgan Energy Partners, L.P.	KMP	5	34.55	136	4,700	12.40	0.48	1.94
Kinder Morgan, Inc.	KMI	5	51.10	125	6,400	16.00	0.78	1.49
Enterprise Products Part.	EPD		46.17	87	4,000	31.70	0.23	1.35
Dynegy Inc.	DYN		28.88	339	9,800	20.60	0.57	1.17
Calpine Corporation	CPN	3	12.06	377	4,600	12.50	0.66	0.99
AES Corporation	AES		7.85	543	4,300	8.80	0.83	0.98
Mirant Corporation	MIR		13.96	353	4,900	18.60	0.65	0.91
Valero Energy Corporation	VLO		48.57	104	5,100	60.00	0.46	0.90
Consol Energy Inc.	CNX		26.09	79	2,100	35.90	0.51	0.86
Sempra Energy	SRE		25.98	203	5,300	41.70	0.50	0.81
CMS Energy Corporation	CMS		21.73	128	2,800	43.80	0.62	0.81
Constellation Energy Group	CEG		31.00	152	4,700	56.50	0.35	0.71
Total or Median	ı				55,000		0.54	0.99
Natural Gas and Oil								
Murphy Oil Corporation	MUR		98.20	46	4,500	82.00	0.18	1.16
Ocean Energy, Inc.	OEI		20.67	178	3,700	20.00	0.30	1.02
Imperial Oil Limited (30%)	IMO		29.50	119	3,500	30.00	0.11	0.98
Norsk Hydro ASA (49%)	NHY		50.44	126	6,400	54.00	0.18	0.95
Petro-Canada	PCZ		26.37	262	6,900	31.00	0.11	0.87
PetroChina Company Ltd (10%)	PTR	2	20.62	176	3,600	28.00	0.16	0.78
Total or Median	ı				28,600		0.17	0.97

Buy/Sell rating after symbol: 1 - Strong Buy, 2 - Buy, 3 - Neutral, 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 April 22, 2002

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

	Symbol/ 1	/ Rating	Price (\$/sh) 18-Apr 2002	EV/ Sales NTM	EV/ Ebitda NTM		vidend or stribution NTM (%)	PV/ Ebitda NTM
Energy Infrastructure								
Kinder Morgan Management, LLC	KMR	5	34.51	4.5	17.4	24	6.8	9.0
Kinder Morgan Energy Partners, L.P.	KMP	5	34.55	4.5	17.3	24	6.8	9.0
Kinder Morgan, Inc.	KMI	5	51.10	4.1	12.6	18	0.4	8.4
Enterprise Products Part.	EPD		46.17	1.7	12.2	14	5.4	9.0
Dynegy Inc.	DYN		28.88	0.5	10.6	14	1.0	9.0
Calpine Corporation	CPN	3	12.06	1.8	8.9	7	-	9.0
AES Corporation	AES		7.85	3.1	8.8	6	-	9.0
Mirant Corporation	MIR		13.96	0.5	8.2	6	-	9.0
Consol Energy Inc.	CNX		26.09	2.1	7.8	9	4.3	9.0
Sempra Energy	SRE		25.98	1.2	7.3	10	3.8	9.0
CMS Energy Corporation	CMS		21.73	0.8	7.3	11	6.7	9.0
Constellation Energy Group	CEG		31.00	1.8	6.4	10	1.5	9.0
Valero Energy Corporation	VLO		48.57	0.3	6.1	9	0.8	6.8
Mediar	ı			1.8	8.8	10	1.5	9.0
Natural Gas and Oil								
Imperial Oil Limited (30%)	IMO		29.50	1.1	10.9	28	1.8	11.1
Murphy Oil Corporation	MUR		98.20	1.1	9.3	46	1.5	8.0
Ocean Energy, Inc.	OEI		20.67	4.8	8.0	35	0.8	7.8
Petro-Canada	PCZ		26.37	1.6	6.4	16	1.0	7.4
Norsk Hydro ASA (49%)	NHY		50.44	0.9	4.5	14	2.1	4.8
PetroChina Company Ltd (10%)	PTR	2	20.62	1.7	3.4	7	8.9	4.3
Median				1.4	7.2	22	1.7	7.6

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

A Weekly Analysis of Energy Stocks Using the McDep Ratio April 22, 2002

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

	Symbol/ Ra	nting	Price (\$/sh) 18-Apr 2002	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Energy Infrastucture								
El Paso Energy Partners	EPN	5	37.59	40.0	1,500	11.70	0.57	1.94
Plains All Amer. Pipeline	PAA		26.47	41.6	1,100	11.40	0.46	1.72
Enbridge Energy Partners,	EEP		44.92	31.0	1,390	16.60	0.58	1.72
TEPPCO Partners, L.P.	TPP		32.00	46	1,490	12.90	0.61	1.58
Northern Border Partners	NBP		41.10	42.0	1,730	20.10	0.57	1.45
Penn Virginia Res. Part, L.P.(48%)	PVR		23.79	7.7	180	16.50	0.13	1.39
Penn Virginia Corporation	PVA		38.07	9.0	340	35.00	0.10	1.08
AmeriGas Partners, L.P.	APU		22.24	44.0	980	19.50	0.54	1.07
Total or Median					8,700		0.55	1.52
Natural Gas and Oil					ŕ			
Dorchester Hugoton, Ltd.	DHULZ		13.80	10.7	148	11.60	(0.17)	1.22
Spinnaker Exploration Company	SKE		42.30	28.5	1,210	35.00	0.03	1.20
Quicksilver Resources Inc.	KWK		24.05	19.4	470	20.00	0.43	1.12
Newfield Exploration Company	NFX		36.88	48.6	1,790	33.00	0.25	1.09
Stone Energy Company	SGY		40.16	26.4	1,060	42.00	0.29	0.97
Unit Corporation	UNT		19.30	36.2	700	21.00	0.03	0.92
Forest Oil Corporation	FST	2	30.55	46.7	1,430	35.00	0.29	0.91
Swift Energy Company	SFY		19.00	24.8	470	22.00	0.32	0.91
Southwestern Energy Company	SWN		13.90	25.6	360	17.00	0.44	0.90
Pogo Producing Company	PPP		25.76	60.5	1,560	32.00	0.27	0.86
CNOOC Limited (19%)	CEO	2	25.43	78	1,980	30.00	-	0.85
XTO Energy Inc.	XTO	2	20.49	124.0	2,540	26.00	0.21	0.83
Encore Acquisition Corp. (25%)	EAC		15.90	7.5	119	20.00	0.18	0.83
Magnum Hunter Resources, Inc.	MHR		7.53	71.5	540	11.00	0.43	0.82
Total or Median					14,400		0.26	0.91
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		18.10	6.0	109	18.70	-	0.97
San Juan Basin Royalty Trust	SJT	2	11.92	46.6	560	15.10	-	0.79
Hugoton RoyaltyTrust (46%)	HGT		11.64	18.4	210	15.50	-	0.75
Micro Cap								
Torch Energy Royalty Trust	TRU		6.83	8.6	59	5.50	-	1.25
Abraxas Petroleum Corporation	ABP		1.08	26.8	29	0.50	0.96	1.05
Energy Partners Ltd.(30%)	EPL	2	7.90	8.1	64	10.00	0.34	0.86
Purcell Energy, Ltd. (US\$)	PEL.TO	2	1.83	25.7	47	3.00	0.19	0.68

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 April 22, 2002

Table S-2

Small Cap Energy Companies

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

			Price (\$/sh)	EV/	EV/	Di Di	PV/	
	Symbol/		(\$,517) 18-Apr	Sales	Ebitda	P/E	NTM	Ebitda
		ting	2002	NTM	NTM	NTM	(%)	NTM
Energy Infrastucture								
El Paso Energy Partners	EPN	5	37.59	12.8	17.5	33	6.9	9.0
Plains All Amer. Pipeline	PAA		26.47	0.2	15.5	27	7.7	9.0
Enbridge Energy Partners,	EEP		44.92	6.9	15.4	86	7.8	9.0
TEPPCO Partners, L.P.	TPP		32.00	1.1	14.2	20	7.2	9.0
Northern Border Partners	NBP		41.10	8.2	13.1	18	7.8	9.0
Penn Virginia Res. Part, L.P.(48%)	PVR		23.79	9.1	12.5	14	8.4	9.0
AmeriGas Partners, L.P.	APU		22.24	1.4	9.6	19	9.9	9.0
Penn Virginia Corporation	PVA		38.07	4.3	7.4	24	2.4	6.9
Median				5.6	13.7	22	7.8	9.0
Natural Gas and Oil								
Dorchester Hugoton, Ltd.	DHULZ		13.80	6.7	10.0	14	8.7	8.2
Quicksilver Resources Inc.	KWK		24.05	5.0	9.1	23	-	8.2
Swift Energy Company	SFY		19.00	5.0	7.4	39	-	8.1
Forest Oil Corporation	FST	2	30.55	3.8	7.3	72	-	8.0
XTO Energy Inc.	XTO	2	20.49	3.5	6.8	14	0.2	8.2
Magnum Hunter Resources, Inc.	MHR		7.53	3.2	6.6	23	-	8.0
Pogo Producing Company	PPP		25.76	3.7	6.2	36	0.5	7.3
Unit Corporation	UNT		19.30	3.3	6.1	13	-	6.6
Encore Acquisition Corp. (25%)	EAC		15.90	4.1	6.1	13	-	7.4
Spinnaker Exploration Company	SKE		42.30	5.1	5.9	19	-	4.9
Southwestern Energy Company	SWN		13.90	2.4	5.8	14	-	6.4
CNOOC Limited (19%)	CEO	2	25.43	4.3	5.6	11	0.9	6.7
Newfield Exploration Company	NFX		36.88	3.6	5.1	21	-	4.7
Stone Energy Company	SGY		40.16	3.7	4.9	12	-	5.0
Median				3.8	6.2	17	-	7.3
Natural Gas Royalty Trusts								
Cross Timbers Royalty Trust	CRT		18.10	6.9	9.8	11	9.4	10.1
San Juan Basin Royalty Trust	SJT	2	11.92	5.8	7.4	10	10.0	9.4
Hugoton RoyaltyTrust (46%)	HGT		11.64	4.6	6.7	9	10.9	8.9
Micro Cap								
Abraxas Petroleum Corporation	ABP		1.08	4.7	7.0		-	6.7
Torch Energy Royalty Trust	TRU		6.83	4.8	5.7	7	15.2	4.6
Energy Partners Ltd.(30%)	EPL	2	7.90	2.1	3.9	50	-	4.5
Purcell Energy, Ltd. (US\$)	PEL.TO	2	1.83	2.8	3.8	8	-	5.5

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